MIXERS
300R
400R
500R

OPERATORS HANDBOOK
&
PARTS

Manual V601319 *September 2021*

WINGET

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THE HANDBOOK

The contents of this Handbook, although correct at the time of publication may be subject to alteration by the Manufacturers without notice.
Winget Limited operate a policy of continuous product development. Therefore, some illustrations or text within this publication may differ from your machine.

WARNING

The operator must read all the Handbook and fully understand its contents before attempting to operate the machine.

THE HANDBOOK MUST NOT BE REMOVED FROM THE MACHINE.

The Handbook must be kept clean and in good condition. Additional copies of the Handbook can be obtained from your Distributor.

The contents of this Operator's Handbook are designed as a guide to the machine's controls, operation, working capacities and maintenance. It is ***not*** a training manual.

Only trained operators should use this machine. Contact the C.I.T.B. or equivalent body for advice on training.

In this Handbook are **WARNING** notes. They are preceded by this symbol:

WARNING

These notes are used to indicate that the procedure being described in the Handbook must be followed to avoid serious injury or death to yourself or to others; or damage to the machine.
The warnings are also used to protect the machine from unsafe servicing practices.

Pay particular attention to the warnings given in the Handbook. If you have any doubts about any aspect of the machine's capability or servicing procedures, you must consult the manufacturer.

IMPORTANT Engine change

From mid 2004 the Lister-Petter TS2 and TS3 engines were replaced by the Lister-Petter TR2 and TR3 engines. The TR range of engines is completely interchangeable with the TS range and consumable items such as filter elements are identical. There are some internal component differences and when ordering spares it is important to state whether it is a TS or TR engine.

Starting and maintenance instructions found throughout this Handbook which refer to TS engines are also applicable to the TR engine.

WARRANTY TERMS & CONDITIONS

The Manufacturer assures you that if any part of the machine becomes defective due to faulty manufacture or materials within 12 months from the date of purchase, the part will be repaired or replaced under warranty free of charge by any authorised Winget Distributor. Warranty repairs ***must*** be carried out by Winget Distributors.
This Warranty is given to the first owner and may be transferred to subsequent owners for the balance of the Warranty period.

The Manufacturer's liability only extends to the costs of repair or replacement of the faulty parts and necessary labour charges involved in the repairs. The Company accepts no liability for any consequential loss, damage or injury, resulting directly or indirectly from any defect in the goods.

Items not covered by Warranty and considered to be the customer's responsibility include normal maintenance services; replacement of service items and consumables; replacement required due to abuse, accident, misuse or improper operation; replacement of wearable items e.g. pins, bushes, brake linings, clutch linings etc.
The Warranty will not apply where the equipment is modified, converted, or used for purposes other than those for which it was designed, unless clearance for the modifications etc. have been granted by the Manufacturer, in writing.
The Pre-Delivery Inspection and Warranty Registration Document must be completed correctly and returned to the Manufacturer within 7 days of sale date. Failure to do so may result in the claim being subsequently rejected.

Tyres and tubes are not covered by Warranty, but are covered by the tyre manufacturer's own warranty system which provides against defects in material or workmanship.
Engines are covered separately by the engine manufacturers, and engine warranty repairs must be handled by the relevant engine manufacturers' distributors.
No claim will be considered if other than genuine Winget Limited parts, which must be obtained from Winget Limited via an authorised Distributor, are used to effect a repair, or if lubricants other than those recommended by Winget Limited are used.
The equipment must be serviced in accordance with the service schedules laid down by Winget Limited. Evidence that these have been complied with may be required before Warranty Claims are reimbursed.

The Manufacturer's policy is one of continuous improvement. Winget Limited reserve the right to change specifications without notice. No responsibility will be accepted for discrepancies which may occur between specification of machines and the descriptions contained in publications.

Safety is the responsibility of the persons working with this machine. Think “safety” at all times. ***Read and remember the contents of this Handbook.***

MACHINE MODIFICATION

WARNING

Any modifications to the machine will affect its working parameters and safety factors. Refer to the Manufacturers before fitting any non-standard equipment or parts.

The manufacturers accept no responsibility for any modifications made after the machine has left the factory, unless previously agreed by the Manufacturers in writing. The Manufacturers will accept no liability for damage to property, personnel or the machine if failure is brought about due to such modifications, or fitment of spurious parts.

OPERATION

WARNING

Only trained operators should use this machine.

Always be aware of local and national regulations governing the use of the machine.

Always ensure that all guards are in position and correctly fitted.

Electrically driven mixers*:* Always ensure that the power supply has been correctly connected by a qualified electrician.

Electrical cables must be of a suitably armoured type. Ensure that they are protected from damage and not liable to be tripped over.

Use only with an RCD protected supply. Only connect via special feeding point (e.g. power distribution panel on building site with fault-current-breaker).

Only authorised persons should be allowed to operate the mixer, or be in the immediate area.

Do not allow unauthorised persons to climb on or have any part in the operation of the machine.

Do not climb on the machine yourself unless absolutely necessary and then only use the steps and platforms provided.

In the case of mixers fitted with a loading hopper, do not allow any person to walk, stand or lean under the hopper when raised. It is recommended that the area around the hopper is guarded to prevent persons standing or walking under the hopper when the machine is in operation

When mixers are fitted with drag feeders, do not allow the rope to become snagged around an obstruction or person. Replace ropes as soon as badly frayed.

Never add fuel, hydraulic oil or lubricant to the machine while it is running.

Keep the area around the machine clear of obstructions which could cause persons to fall onto moving parts.

Keep the body and clothing clear of all moving and hot parts.

Always ensure that during operation the mixer is standing on stable and level ground and that the jack legs are securely in place.

Keep the engine/motor housing lid closed when the engine or electric motor are running.

Towing speeds are not to exceed 5 m.p.h. (8 k.p.h.) Always tow on ground that is level and stable.

ENGINE

WARNING

Starting any diesel engine can be dangerous in the hands of inexperienced people. Operators must be instructed in the correct procedures before attempting to start any engine.

Always obtain advice before mixing oils; some oils are not compatible. If in doubt, drain and refill.

The materials used in the manufacture and treatment of some filters and elements may cause irritation or discomfort if they come into contact with the eyes or mouth and they may give off toxic gases if they are burnt.

Engine lifting eyes must not be used to lift the complete machine.

Ether based cold start aids in aerosol cans must not be used under any circumstances.

EXHAUST GASES CONTAIN CARBON MONOXIDE WHICH IS A COLOURLESS, ODOURLESS AND POISONOUS GAS THAT CAN CAUSE UNCONSCIOUSNESS AND DEATH.

ELECTRICAL SYSTEMS

WARNING

Starting engines that are fitted with charge windings which have been disconnected from the battery will cause irreparable damage unless the stator leads from the rectifier/regulator have been removed.

The following points must be strictly observed when charge windings are fitted otherwise serious damage can be done.

Never remove any electrical cable while the battery is connected in the circuit.

Only disconnect the battery with the engine stopped and all switches in the OFF position.

Always ensure that cables are fitted to their correct terminals. A short circuit or reversal of polarity will ruin diodes and transistors.

Never connect a battery into the system without checking that the voltage and polarity are correct.

Never flash any connection to check the current flow.

Never experiment with any adjustments or repairs to the system.

The battery and charge windings must be disconnected before commencing any electric welding when a pole strap is directly or indirectly connected to the engine.

BATTERIES CONTAIN SULPHURIC ACID WHICH CAN CAUSE SEVERE BURNS AND PRODUCE EXPLOSIVE GASES. If the acid has been splashed on the skin, eyes or clothes flush with copious amounts of fresh water and seek immediate medical aid.

SERVICING & MAINTENANCE

WARNING

Never allow unqualified personnel to attempt to remove or replace any part of the machine, or anyone to remove large or heavy components without adequate lifting equipment.

Before maintenance work is begun, ensure that the engine is stopped, or that the electric motor is switched off, and isolated from the mains. Display a warning notice.

If working out of sight under the machine or in the drum, try to have another trained person standing by.

Do not work under a raised loading hopper unless it is securely chained or propped.

Always conform to service schedules except when an emergency calls for immediate action, or adverse conditions necessitate more frequent servicing.

Always report any defect at once, before an accident or consequential damage can occur.

On completion of maintenance, check that the machine functions correctly, that all guards are correctly fitted and that all control levers are in neutral position.

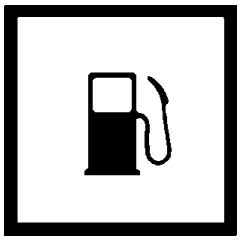
Disposal of waste oil. Dispose of waste oil into waste oil storage tanks. If storage tanks are not available, consult your Distributor or local authority for addresses of local designated disposal points. It is illegal to dispose of waste oil into drains or water courses, or to bury it.

DECALS

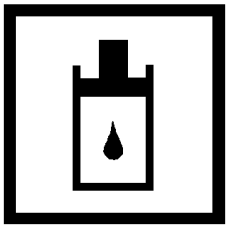
Ensure that all warning decals fitted to the mixer are legible. If any should become detached, they must be replaced immediately.

Descriptions of the pictorial decals are as follows:

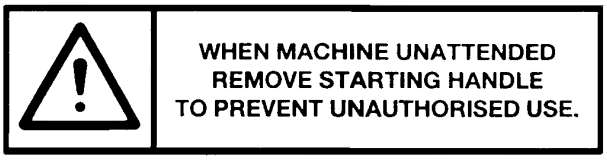
Fuel tank filling point.



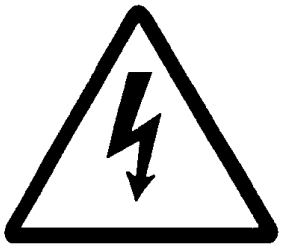
Hydraulic oil tank filler point.



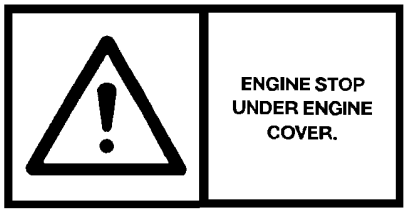
Remove starting handle.



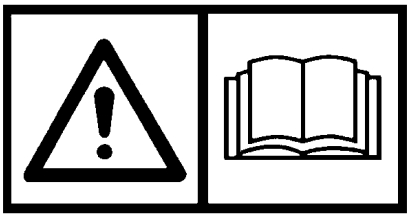
Beware of electrical hazards.



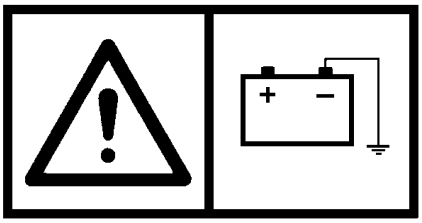
Engine stop.



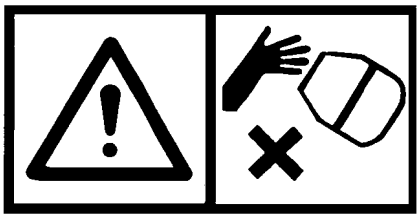
Read Operators Handbook, or Operators Handbook storage place.



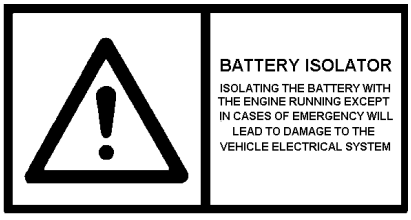
Battery negative terminal connected to earth



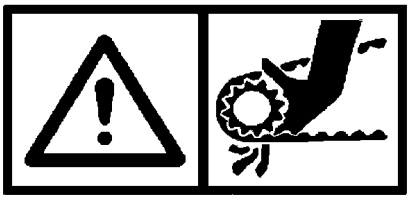
Keep hands clear of drum.



Battery isolator.



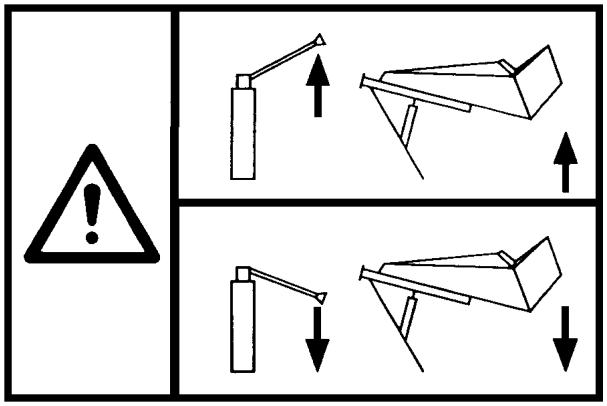
Keep clear of chain drives.



These surfaces may be hot.

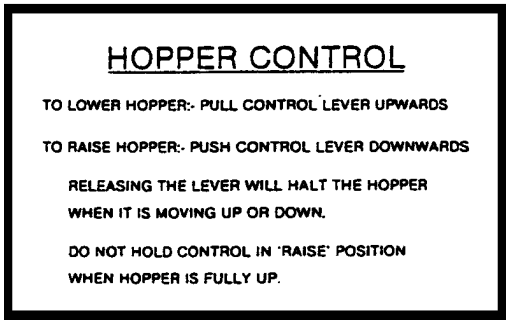
Attach lifting hooks to this eye.

Hopper control lever,
Raise/Lower.



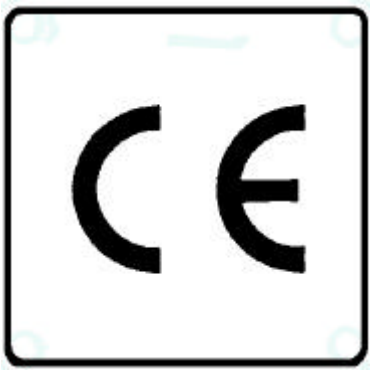
Hopper control lever,
Raise/Lower.

CAUTION: *This control lever action on earlier machines is the reverse of the decal above*



Wear ear protection.

CE (EEC machines only).



Wear eye protection.

ISO 8999 safety symbols used with Lister/Petter engines

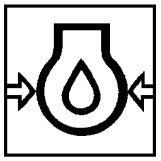
Read the handbook

Stop control (on engine)

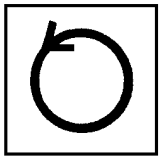
Diesel fuel fill

Engine oil fill

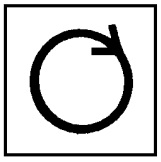
Engine oil level



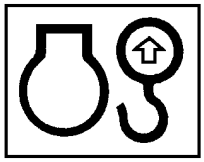
Engine oil pressure



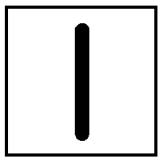
Anti-clockwise rotation



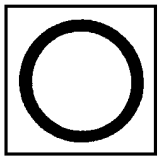
Clockwise rotation



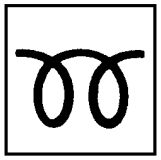
Lifting eye - engine only



On



Off

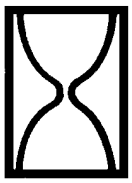


Pre-heat

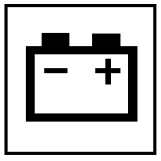
Rotational speed control

Linear speed control

Tachometer

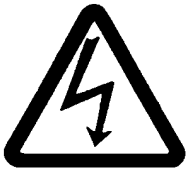


Elapsed hours



Battery charging

Engine cranking



Electrical hazards

General hot surface warning

Re-assembly of the mixer
(when packed for shipping)

Unpacking

Remove the hopper which is inverted on the hopper cradle. The contents of the hopper can then be removed, i.e.

a Four pneumatic tyred wheels.

b One discharge drum mouth.

c One anti-bounce bracket & tie bar.

d One hydraulic jack.

Remove the water tank from the rear of the machine.

Remove from the pallet the remaining items i.e.

a Four stub axle assemblies.

b Four jacking leg assemblies.

c One set of water tank controls.

d One set of drum and gearbox controls.

e One set of nuts, bolts and various fixings.

f Dragline winch assembly.

Remove the towbar from the control side of the machine.

Re-assembly

a Release the mixer from the base of the packing and raise up high enough to fit the stub axles, wheels, anti-bounce equipment and jacking legs.

b Bolt the hopper in the correct position on the hopper cradle.

c Fit the water tank to the top of the dragline and water tank supports above the drum housing.

d Secure and link up the water tank controls, and the drum and gearbox controls.

e Check drum clutch adjustment.

f Bolt the discharge drum mouth onto the drum.

g Fix the towbar with the two drop end pins.

h If a dragline is fitted, some of the smaller items of the assembly will be found packed on the pallet.

i If weigher equipment is fitted it should be carefully checked and set up as shown in the Service section of this manual. Its accuracy should be verified by using a known weight.

j If removed for shipping, refit the dragline assembly and winch motor.

To assist with re-assembly, refer to the parts illustrations at the rear of this handbook.

Transportation of the mixer

Welded to the mixer are lifting points. These are provided to assist with loading or unloading the mixer and for transportation across site.

WARNING *For mixer weights, see "Specifications"*

Never carry mixers by their lifting points on public roads.

Do not tow mixers across uneven ground.

Do not tow mixers at speeds in excess of 5 mph (8kph).

The ground on which the mixer stands must be level and stable.

To aid transportation, it may be necessary to reduce the overall height of the mixer.

By removing the water tank the overall height of the mixer becomes 2.67 metres.

Removal of water tank

Slacken the hose clip **(1)** on the feed hose **(2).** Remove the feed hose from the strainer **(3).**

Disconnect the control rod **(4)** at the tank by removing the split pin **(5)** and washer **(6).**

Slide control rod **(4)** down and out through the bracket **(7).**

Support the discharge pipe **(8)** and remove the two fixing screws **(9)**. Remove discharge pipe.

Unscrew the four bolts **(10)** retaining the water tank **(11).**

Lift water tank clear of the mixer.

Installation of water tank

Installation of the water tank is the reverse procedure to removal.

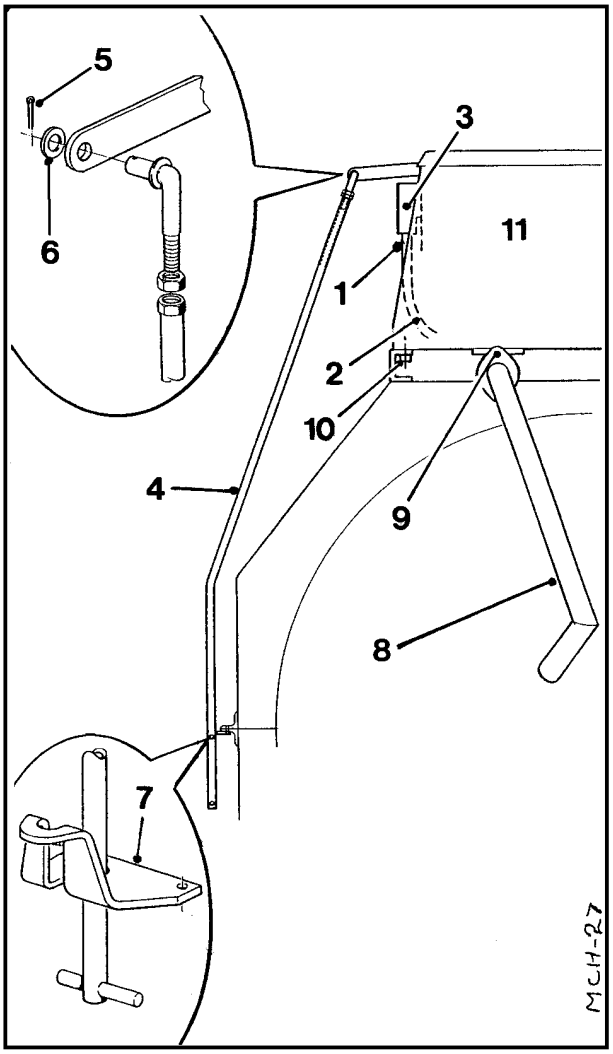
After installation, check for correct lever operation and water leaks. Ensure that the tank is not filled under excessive pressure.

Anti-bounce gear

Anti-bounce bracket and tie bar are supplied to be used when towing a mixer fitted with pneumatic wheels where local regulations allow.

The anti-bounce bracket is bolted to the hopper cradle by means of two hex head bolts, nuts and spring washers, and locked in position to the two jacking tubes welded to the mainframe, thus preventing the hopper bouncing when in transit.

A tie bar is also supplied to prevent movement of the dragline jib. The bar is fixed in position at one end with hex head bolt, nut and locking nut, using existing hole in guard and upper stop bracket. The other end is located in a lug attached to dragline jib and tightened down securely using a special locking nut.



Tyre pressure

If pneumatic wheels are fitted, check pressures regularly. *See "Technical Information" section for correct pressure.*

Installing the mixer on site

See that the mixer is standing level in both directions with the wheels in line.

Check, using spirit level along and across weighing links. This is necessary if accurate weighing is to be achieved.

Remove anti-bounce bracket and tie bar (if fitted).

Lower jack legs as follows:

Ensure that the hydraulic jack is placed on a firm level base. Securely chock the mixer to prevent it from moving whilst being jacked up.

Remove the locking pins and fully lower the jack legs. Do not replace the locking pins at this point.

Place the hydraulic jack below the front axle as close to the jack leg support as possible.

Unscrew the threaded extension of the jack to its full height and ensure that the valve at the base is closed. Insert the jack handle and operate the pump to raise the jack and lift the mixer. Do not raise the mixer beyond the point at which the the jack leg locking pin can be re-inserted into the upper of the three holes.

When the locking pin is fully in place, open the valve at the base of the jack and lower the mixer so that the weight is taken by the jack leg.

Remove the hydraulic jack and reposition it as close as possible to the opposite front axle jack leg, and repeat the operation until the locking pin can be fully re-inserted.

Lower and remove the jack and repeat the operation at each end of the rear axle.

Lower the sprags to lock the front axle, remove the towbar and wheels/stub axles.

IMPORTANT: Never use the jack to raise more than one wheel off the ground at the same time.

If a batch weigher is fitted, make certain that there are at least 50mm (2 inches) clearance between the ground and the base of the hopper when the loadcell striker is resting on the loadcell striker guide.

If a dragline feeder is fitted, erect the electric cable support mast.

Remove the hopper safety chain. This is done by turning the engine by hand, with the hopper control lever held in the RAISE position. When the hopper is fully up, release the chain and lower the hopper.

Check level of the hydraulic oil in the hydraulic tank with the hopper down. Oil should be visible, but not more than 12mm (l/2") up from the bottom of the filler.

Connect the water supply to the water tank inlet. The minimum water supply is 45 litres (10 galls) per minute if continuous operation of the mixer is required. Do not use excessive water pressure as this may damage the inlet valve.

If feeding from an elevated static tank, the minimum head of water necessary above the centre of the inlet valve is 1830mm (6ft).

To ensure continuous operation, the bore of the supply hose must be 25mm (1”) minimum and of as short a run as possible.

Assemble the portable feed apron, if one is to be used, placing it squarely in front of the mixer so that the hopper does not foul it when being raised or lowered.

The horizontal rubber flap prevents materials from failing between the hopper and ramp.

Finally, stake the apron securely in position, using the four picketing lugs on the sides.

Extend the centre position of the ramp to separate the aggregate by fitting boards.

Pre-start check

Before starting the mixer, make the following checks:

a Check that all guards are in position and fitted correctly. The covers on the machine provide adequate ventilation for the engine, so keep them in position.

b Check that all control levers are in neutral.

c Check that no persons are in or on the machine.

d **Electrically driven mixers:**
Always ensure that the power supply is correctly connected or disconnected by a qualified electrician.

Electrical cables must be of a suitably armoured type. Ensure that they are protected from damage and are not liable to be tripped over.

Use only with an RCD protected supply. Only connect via special feeding point (e.g. power distribution panel on building site with fault-current-breaker).

WARNING *Before starting the power unit, the drum control lever* **must** *be midway between the MIX and DISCHARGE positions.*

Electric motor operation

Where an electric drive is used, the motor must be connected to run in an anti-clockwise direction when viewed from the control side of the mixer.

Engine operation

Before starting the engine:

Check the amount of fuel in the tank.

Check that the lubricating oil level is correct. The sump must be filled to the 'full' mark on the dipstick; do not overfill.

Machines before 1988

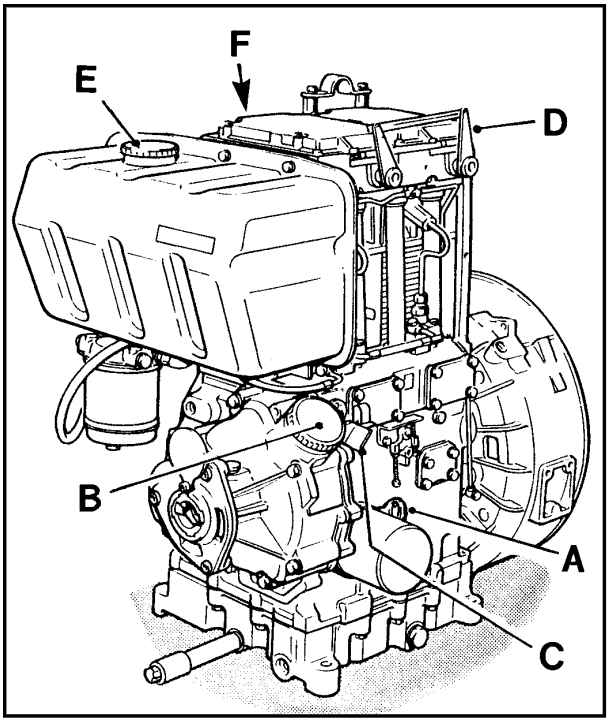
Not fitted with TS engines: Read carefully the relevant *Engine Operator's Handbook* supplied with the mixer before any attempt is made to use the machine.

Machines from 1988

TS2 engines.

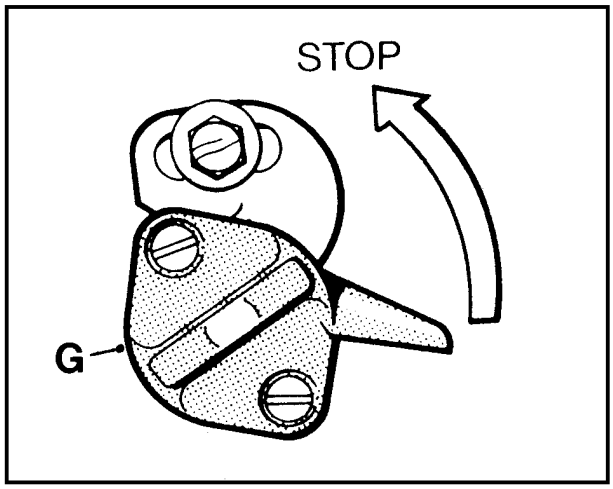
Description

A Dipstick
B Lubricating oil filler
C Engine control
D Decompressor levers
E Fuel tank
F Cold start oil cups



Automatic Excess Fuel Device

The engine is fitted with an automatic excess fuel device which becomes operative, ready for the next start, when the engine is stopped. If the engine stops other than by the operation of the engine control, the control **(G)** must be turned anti-clockwise to the 'STOP' position and released before the device can operate. As the engine runs up to speed the excess fuel device will automatically reset to the normal running position.



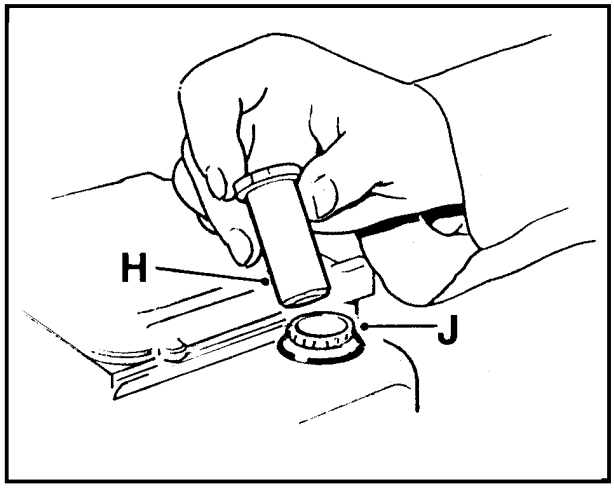
Cold Start, Below -10 deg.C (14 deg.F)

A cup and plunger is fitted to each combustion air intake port.

With the fuel turned on, turn the engine for up to 20 revolutions to prime the fuel and lubrication systems.

Withdraw the plunger **(H)** and fill one third of the cup **(J)** with the same type of lubricating oil as used in the engine.

Replace the plunger and inject the oil just before starting the engine.



WARNING

The device must not be used more than three times in succession during the same attempt to start the engine.

Hand starting TS engines

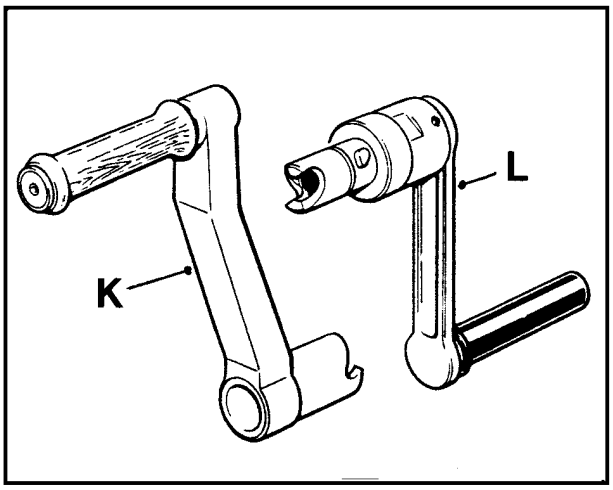
A non-limited kick-back handle (K) or limited kick-back handle (L) system may be fitted to the engine.

The two handles are not interchangeable and care must be taken to ensure the correct type is retained with the engine.

Always use the correct starting handle which has been designed for the engine.

Ensure there are no burrs on the handle.

Before attempting to use the handle, clean and lightly oil that part of it which fits onto the engine.



WARNING

Do *not attempt to use a handle if it is damaged in any way.*

Turn the engine control lever anti-clockwise to the "STOP" position **(L)** and release it.

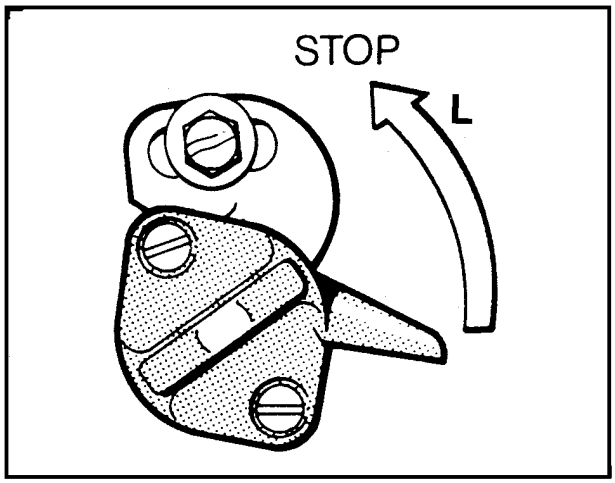
Move the decompressor levers towards the flywheel **(M).**

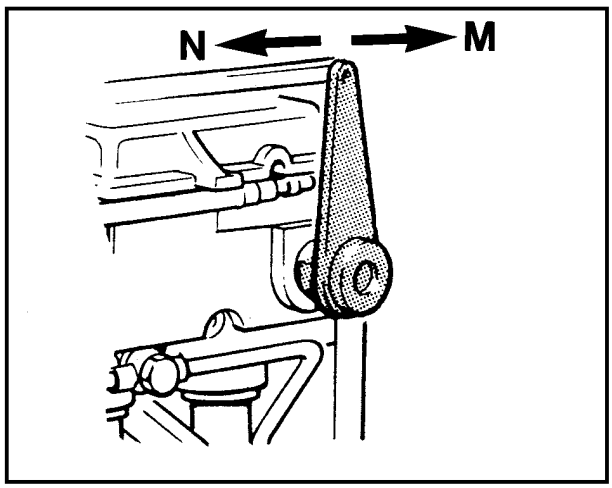
Insert the handle into the starting housing.

Turn the engine slowly for up to 20 turns to prime the combustion chamber and lubricating oil system.

Maintaining a firm grip on the starting handle, crank the engine really fast and when sufficient speed is obtained move the decompressor levers away from the fly wheel **(N)** and continue to crank until the engine fires.

Retain a firm grip on the handle and remove it from the engine.





Key Starting TS engines

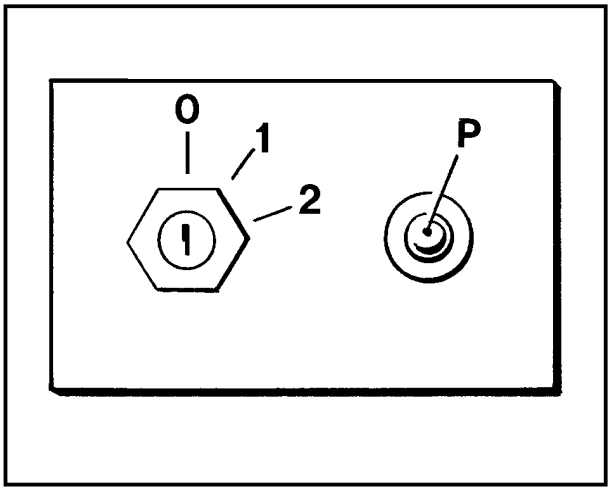
Check that the decompressor levers are away from the flywheel **(N).**

Turn the engine control lever anti-clockwise to the "STOP" position **(L)** and release it.

Turn the key to position **(1).** The battery charging light **(P)** will illuminate.

Turn the start key clockwise and hold at the "START" position **(2)** until the engine fires and then release it immediately.

If the engine fails to start within 30 seconds, release the key and attempt to restart after allowing sufficient time for all moving parts to stop.



Stopping the engine

WARNING

Never stop the engine by operating the decompressor lever or valve damage may occur.
Do not stop the engine with a load in the drum.

Key start engines: *Turning the starter key to the "OFF"* ***(0)*** *position will not stop the engine.*

Turn the engine control anti-clockwise to the "STOP" position **(L)** and hold it there until the engine comes to rest.

Key start engines: After the engine has stopped, turn the starter key to the "OFF" **(0)** position.

Electric motor driven machines

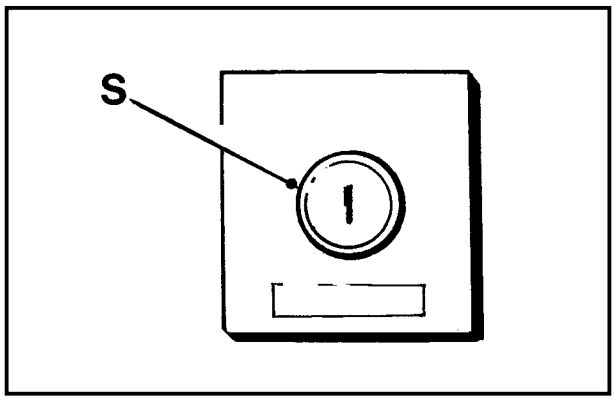
Insert key into knob **(S).** Turn the key clockwise to release the knob.

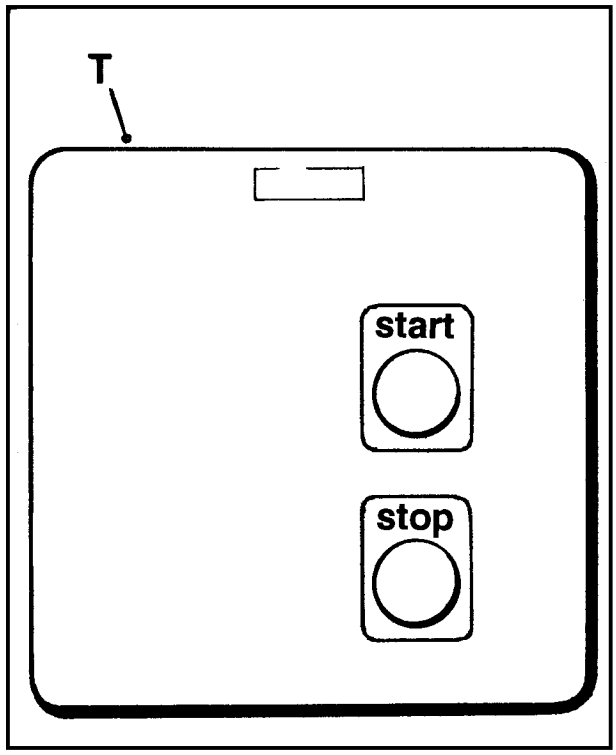
Panel **(T)** is now operative.

The machine is normally operated using the Start/Stop buttons on panel **(T).**

WARNING *In an emergency pressing knob **(S**) will stop the motor.*

To render the machine inoperative: Depress knob **(S)** and remove the key.





Water tank

300R & 400R (and 500R from serial number 0266)

Capacities:

300R/400R: 10 to 75 litres (2 to 16 galls)

500R: 10 to 110 litres (2 to 25 galls)

The tank is designed to automatically shut off the flow of incoming water once the desired measured quantity is achieved.

Mounted on the front of the tank body are a graduated scale and carrier Passing through the carrier is a pointer and pivot pin. Once the pointer is set to the required amount on the scale, the pointer and scale carrier are locked together with a wing nut and coach bolt.

Note: Always release and then re-tighten the wing nut each time the pointer is moved.

Both the scale carrier and pointer pivot pin pass into the interior of the tank where the scale carrier terminates in a cam. The pointer pivot pin carries the float arm and plastic float assembly and terminates at the operating lever.

Moving the pointer along the graduated scale effectively raises and lowers the height of the float assembly in the tank.

Mounted on the outer L/H side of the tank, adjacent to the scale carrier, is the water inlet containing the water strainer. Attached to the water inlet, on the inner face of the tank, is the water inlet valve assembly.

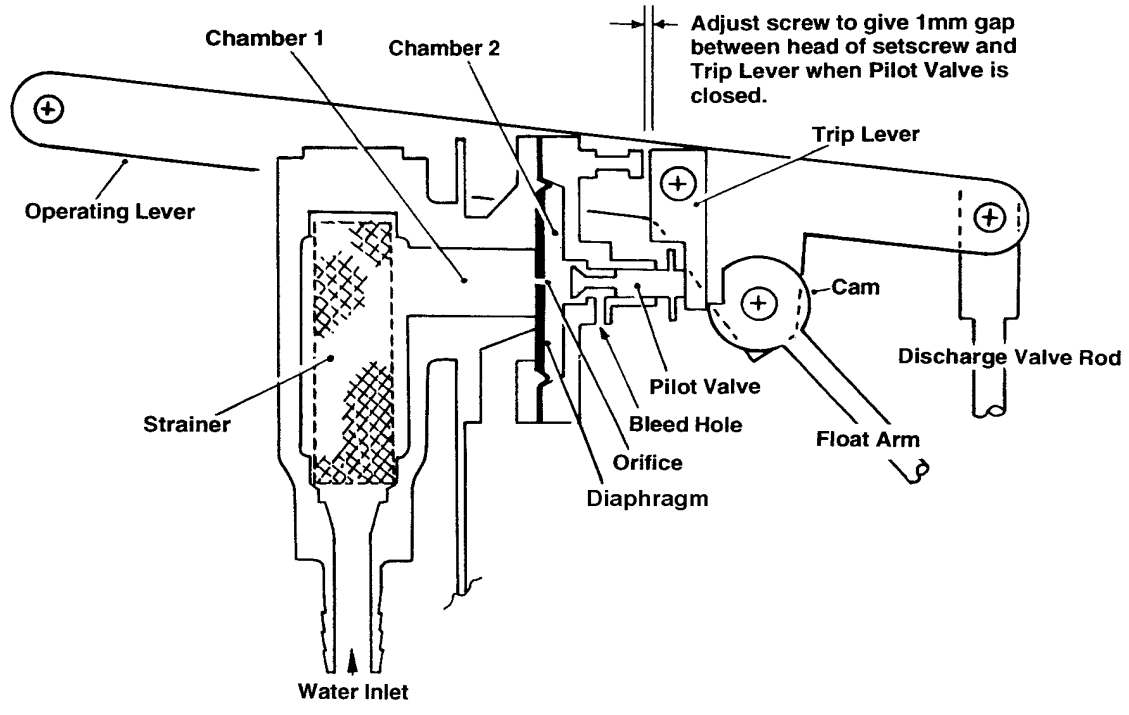
The water inlet valve *(see illustration below)* consists of a body and cover sandwiching a brass and rubber diaphragm. The cover is machined to carry the sprung pilot valve.

Water enters the valve body through the strainer filling the chamber acting on the rear rubber face of the diaphragm, causing the diaphragm to stretch and lift off the seat allowing water to enter the tank.

There is a "pin hold' orifice in the centre of the diaphragm allowing water to pass through into a second chamber in the valve cover where the pilot valve is located.

The pilot valve is held off its seat, against spring pressure, by trip lever allowing the water to bypass the pilot valve and bleed

Water Inlet Valve, 300R & 400R (and 500R from serial number 0266)



into the tank via a drilling in the cover, thereby preventing water pressure building up in the second chamber. The trip lever is operated by the cam on the end of the scale carrier.

Water entering the tank through the inlet valve very quickly reaches the level of the float set by the pointer, which is locked to the scale carrier and cam. The rising water level lifts the float/pointer/scale carrier and cam assembly causing the trip lever to "trip", allowing the pilot valve to close preventing water bleeding out of the second chamber.

Incoming water is still passing through the orifice because it can no longer escape past the pilot valve. Water pressure in the second chamber increases equaling the pressure in the first chamber allowing the stretched diaphragm to return to its original position, closing off the incoming water.

A seal is maintained by the diaphragm against the first chamber due to the differential areas in the two chambers, i.e. the second chamber now has a greater effective surface area than the first chamber.

Pulling down on the operating lever opens the discharge valve in the base of the tank discharging water into the drum.

Pushing up on the operating lever closes the discharge valve, resets the trip lever and opens the pilot valve allowing water to enter the tank once again.

The most common symptoms of water tank failures and their causes are:

1 *Reduced water flow*- blocked water strainer or insufficient head of water or lack of water pressure.

2 *Water leaking from the discharge pipe* - worn or perished discharge valve rubber seat or corroded valve.

3 *Float failing to lift* - punctured float.

4 *Water flow failing to stop when pilot valve closed* - ruptured diaphragm, worn or perished pilot valve "0" ring, worn pilot valve, weak pilot valve spring, blocked orifice, or excessive water pressure.

Draining the tank

During periods of frosty weather, to avoid damage, it is advisable to drain the tank at the end of each day's work.

To do this, disconnect the water supply and pull the control rod into the discharge position.

Note: The quality of water varies considerably throughout the world and in some geographical regions may cause the rapid onset of corrosion, considerably shortening the life of components immersed in water.

The following simple precautions as part of regular preventative maintenance will assist in delaying the onset of corrosion.

1 Drain the water tank when not in use.

2 If the mixer is not to be used for some time remove the tank cover to prevent the formation of condensation, dry out the tank and periodically apply a corrosion inhibitor to the various components and internal surfaces of the tank.

Water tank

500R up to serial number 0265

Capacity: 10 to 110 litres (2 to 25 galls)

The water tank automatically measures the required quantity of water, set by the pointer on the graduated scale at side of tank.

The pointer is locked in the desired position by means of a wing nut.

Remember to release and re-tighten each time the pointer is moved.

The operation of the tank is simple. With the water control lever set in the up position, the tank will automatically fill.

Filling

Water enters the upper compartment **'A'** through the inlet valve and strainer unit **'B',** runs down the syphon cylinder **'C'**, thus flooding the lower compartment '**D'** until the float lifts, cutting off the mains supply.

As soon as the indicator float in the sight glass tube 'F' begins to rise, sufficient water is available for a measured amount of water to be discharged.

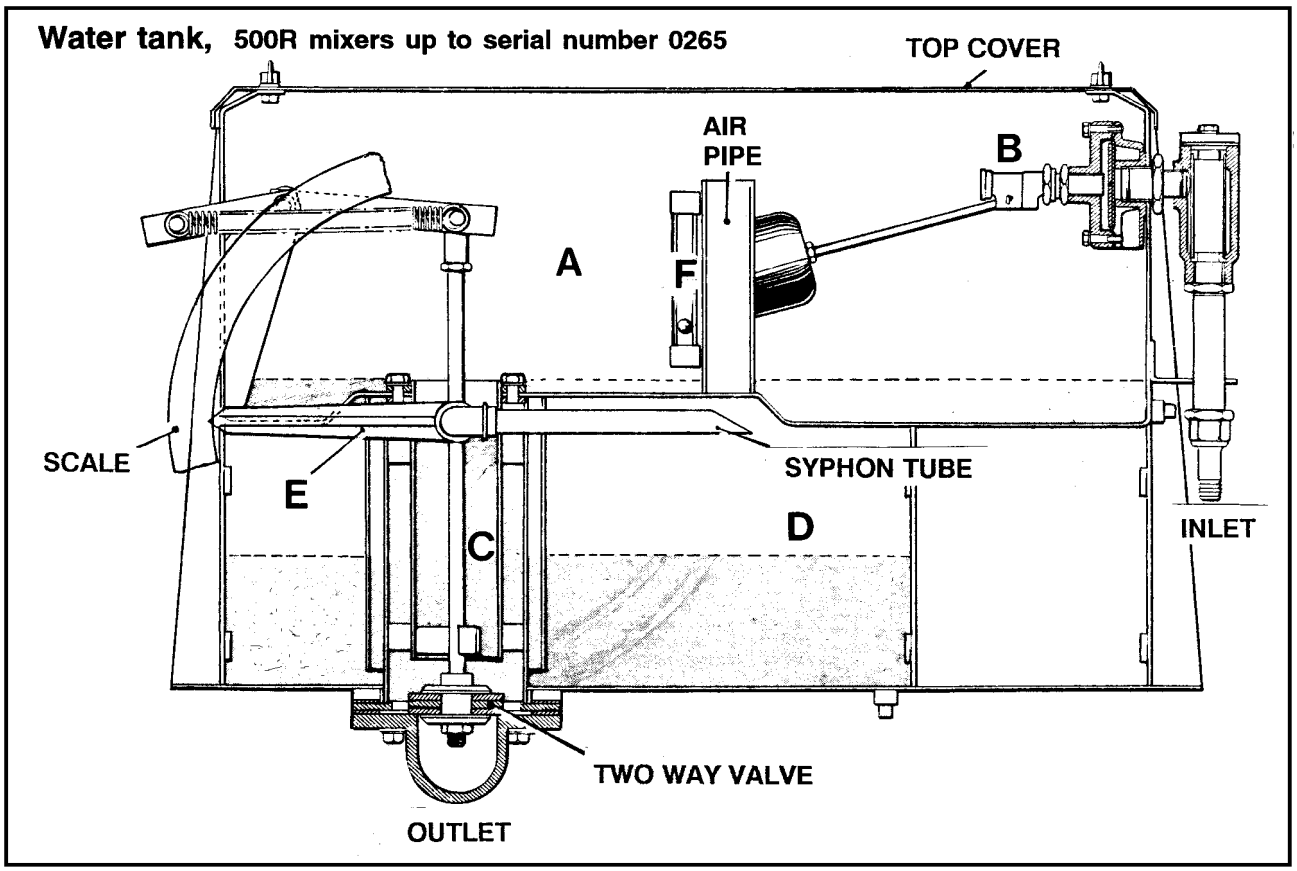
Discharging

Lower the water control lever which, in turn, lifts the two way valve from its lower seat to stop any further supply of water entering the lower compartment and, at the same time, the required amount of water will be discharged into the mixing drum. After discharging, reset lever.

Draining the tank

During periods of frosty weather, to avoid damage to the water tank, it is advisable to drain the tank at the end of each day's work.

To do this, set the pointer at the maximum discharge amount. Drain by disconnecting the mains water supply and operating the water control lever several times, and also open the drain tap in the bottom of the tank. Close it again when the tank is completely empty.



Water pump

Where a water pump is fitted, it should NEVER be allowed to run dry or the seal may be damaged.

Mixer controls

The hydraulic control valve for operating the hopper is located on the left hand side of the mixer, looking from the hopper end.

To raise the hopper, move the control lever upwards as far as it will go and hold it there until the hopper is fully up.

The loaded hopper must not be dropped onto the loadcell, as this will cause damage to the weighing mechanism.

DO NOT hold control in the 'raise' position with the hopper up for more than a few seconds, or overheating and loss of efficiency will result.

To lower the hopper, push the control lever downwards. Releasing the lever will check the descent of the hopper as necessary.

WARNING *Do not walk, stand or lean under a raised hopper unless it is securely chained.*

Drum operation

The control lever must be positioned midway between MIX and DISCHARGE positions for engine starting.

The lever locks itself in the two extreme positions, being moved fully upwards towards the loading and discharge ends of the mixer for MIX and DISCHARGE respectively. These two positions are clearly marked on the mixer.

Batch weigher

The weigher gauge is mounted over the controls on the left-hand side of the machine when facing hopper, and is connected by hydraulic piping to the loadcell mounted at the front/centre of the mainframe.

IMPORTANT This hydraulic circuit is primed and sealed on leaving the works and ***on no account*** should it be tampered with.

The gauge is callibrated as follows;

300R: 0- 680kg (0-1500lb)

400R: 0-1000kg (0-2200lb)

500R: 0-1200kg (0-2600lb)

This gives accurate indication of batch weights.

The adjustable coloured pointers mounted on the rim of the gauge can be set by the

operator, to the aggregate proportion required.

A protective cover is provided for the gauge box to prevent damage when not in use.

It is important that the mixer is standing firm and level and that there is at least 50mm (2") clearance between the ground and the base of the hopper at all times.

If aggregate is allowed to build up around the hopper and weigh gear links, an inaccurate gauge reading will be obtained.

Normal operation

Set the pointers on the gauge to the aggregate proportions you require.

With the engine running, lower the hopper slowly onto the loadcell.

Hold the hopper control lever fully down for a few seconds until the gauge needle begins to move up to ZERO, then release. The hopper is then ready to load.

If you cannot get a ZERO reading, adjust the gauge as follows.

To 'ZERO' weighing gauge

With the engine running, proceed as follows:

Lower the hopper slowly onto the loadcell.

Check that the hopper is clear of the ground.

Taking care not to stand on any part of the hopper or weigh gear links, adjust knurled knob on side of gauge to set the pointer to ZERO.

Repeat lowering the hopper three or four times to check that you obtain a consistent ZERO reading.

If checking or resetting weigh gear, refer to the Service section of this manual.

Dragline feeder

The winch, mounted on the upper frame, is hydraulically driven. The winch is energised via a hydraulic solenoid valve, by a push button switch mounted on the shovel handle.

A car type dynamo, or alternator, driven from the engine, supplies power to energise the solenoid valve.

Operating the dragline feeder

Rig the mixer as described in "Installing the mixer on site" and, with the engine running, pull the shovel back over the aggregate away from the mixer.

Pressing the push-switch on the shovel handle will energise the winch and start to drag the shovel towards the mixer.

To stop the loaded shovel when it has reached the hopper, simply release the push-switch and tip the contents of the shovel into the hopper.

After rigging the electric control cable, a trial run of the shovel may show that the slack of the electric cable is not taken up by the bottom free pulley as the shovel moves into the mixer. To prevent this, increase the size of the weight on the bottom free pulley. If the pulley then becomes too close to the ground, wind a couple of turns of cable onto the stowage arm on the shovel.

Hopper loading arrangements

It is advisable to use a portable feeding apron, or to erect a barrier of boards, so that materials may be conveniently tipped into the hopper. This is particularly important when using a mixer fitted with a batch weigher, to avoid a build-up of aggregate underneath the hopper.

Pre-start checks

Check the level of fuel in the tank and the level of lubricating oil in the engine sump.

The covers on this machine provide ample ventilation, so keep them closed.

With the hopper down, check the level of the hydraulic oil in the header tank.

Check the water supply connection to the water tank inlet.

Check that the drum control lever is set midway between the MIX and DISCHARGE positions.

Charging the drum

Set the drum control lever in MIX position and the water tank pointer to the amount of water required before attempting to put the batch into the mixing drum.

Material should be loaded onto hopper in the following order: gravel, cement and sand.

Raise the hopper and at the same time place the water control rod into the DISCHARGE position so the materials all enter the drum at the same time.

When the water has stopped flowing, return the control lever to the OFF position.

With all the materials in the drum, lower hopper and load for next batch.

NEVER allow the machine to be overloaded.

Discharging the drum

After allowing at least one and a half minutes from the instant at which dry materials first enter the drum to commencement of discharge, the contents of the drum may be discharged by moving the drum control lever smoothly from CHARGE to DISCHARGE position.

Cleaning operations

Empty and clean out mixing drum with plenty of water.

Clean out hopper.
Drain water tank if frost is likely.

Raise hopper and fix safety chain. Stop engine or electric motor. Wash down outside of mixer.

Grease up machine for next day's work. Keep the mixer clean.

Hose Failure Valve

Machines bearing the "CE" mark indicating compliance with the EC Machinery Safety Directive have a Hose Failure Valve fitted to the ram inletl/outlet port in addition to the restrictor.

In service it is not unusual for violent operation of the control valve (in order to shake material free from the hopper when the ram is at the full extent of its stroke) to blow off the relief valve activating the Hose Failure Valve, which then prevents closing of the ram and lowering of the hopper.

Should this occur, slowly lift the hopper slightly by extending the ram without blowing off the relief valve, then slowly close the ram lowering the hopper. Once the hopper has lowered by approximately 300mm normal operation can be resumed.

If a new hose failure valve is to be fitted the valve should first be unscrewed from the body, and the gap between the valve baffles adjusted to 2mm by means of the small capscrew and nut. Following adjustment, the valve should be screwed fully home into the body and operation of the machine checked when it is fitted.

Hopper Ram

The hydraulic cylinder/ram is single acting and certain climatic conditions can cause the formation of condensation in the cylinder bore when the hopper is left lowered when the mixer is not working.

This will lead to corrosion which will damage the ram, seals and bore surface.

If the ambient temperature is expected to fluctuate considerably or the mixer is not to be used for sometime fully raise the hopper, attach the safety chain leaving the hopper in the raised position. As the cylinder is full of oil this will help prevent the formation of condensation.

When lowering the hopper; first fully raise the hopper, unhook the safety chain and slowly lower the hopper.

Over long periods oil will leak back into the tank and it is prudent to raise/lower/raise the hopper to re-charge the cylinder with oil.

Over long periods carry out the above procedure on a weekly basis to ensure the internal surfaces are coated with oil.

NOTE: From April 2000, the annulus side of the hopper ram is connected to a header tank to ensure that the ram cylinder is always full of oil. This will prevent condensation from forming within the cylinder.
(See Parts page E-1E.)

2.14 OPERATION

Installation of Water Tank, Dragline Winch & Cable Mast

General

Care should be taken when lifting the assemblies to ensure that any lifting slings or chains are in good condition and free from any cuts or abrasion damage. When standing on the mixer to tighten the tank, winch and mast retaining bolts and screws it is recommended that the access steps and platform are used, ensure these are clean and free from loose materials before climbing or standing on them. Bear in mind the requirements of any local or national Working at Heights or Lifting Equipment legislation.

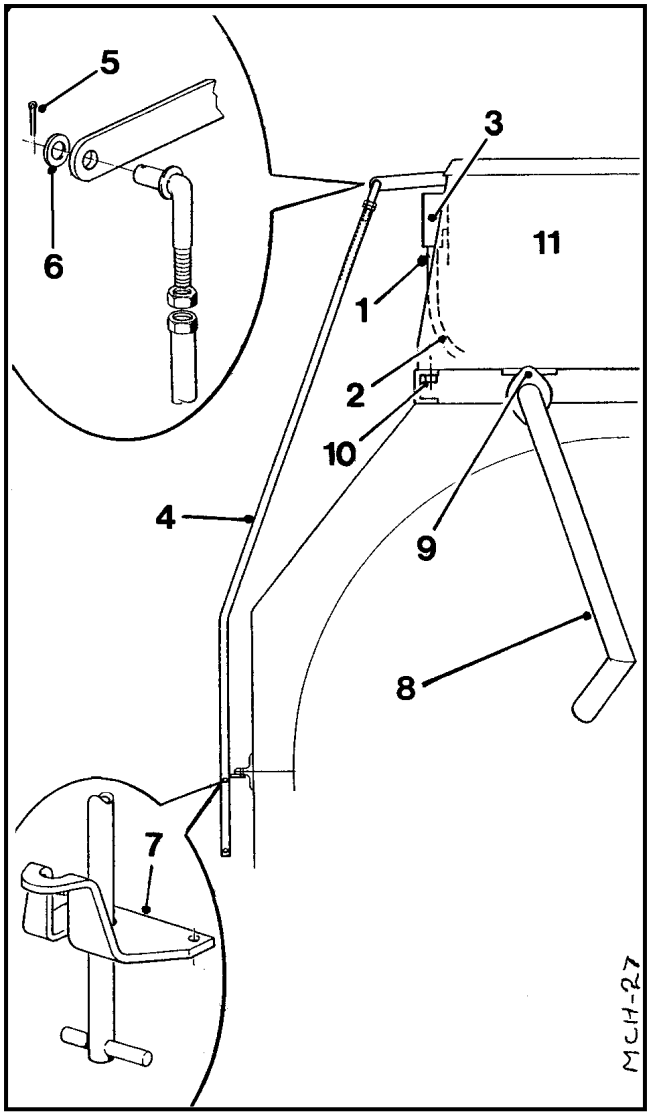
Water Tank Assembly

Using suitable lifting equipment lift the tank assembly (11) and lower on to the water tank supports above the drum top guard. Align the four holes in the tank base with the slots in each tank support and insert the four set screws provided (10) finger tighten the retaining nuts. Slide the tank towards the hopper until the setscrews reach the end of the slots, fully tighten the screws.

Attach the discharge pipe (8) using the two setscrews provided (9) sandwiching the rubber joint between the tank outlet and discharge pipe. When tightening the two setscrews ensure the discharge pipe does not foul on the drum mouth and will also miss the hopper when it is raised.

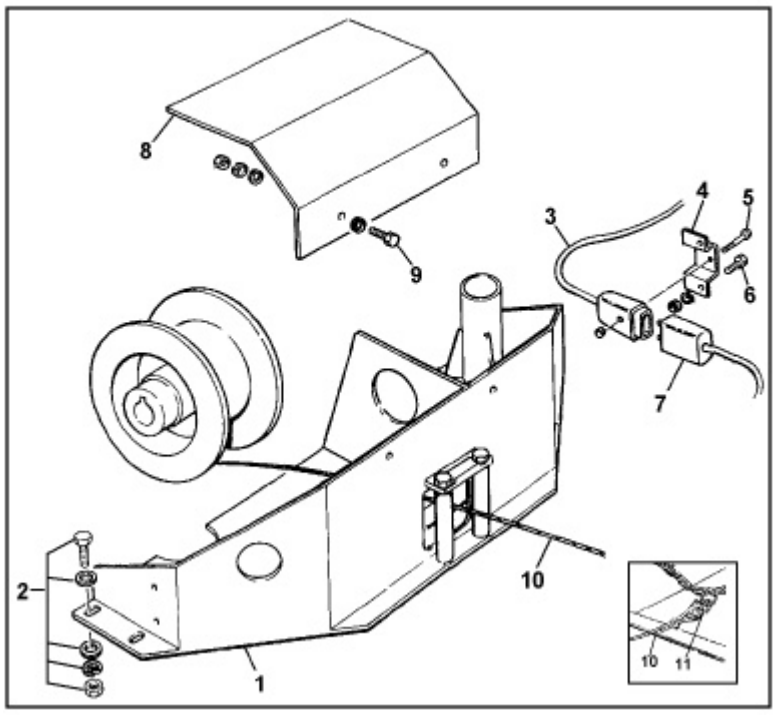
Pass the control rod (4) through the support bracket (7) and attach to the tank using the split pin and washer (5 & 6)

Attach a water supply (1) to the water inlet strainer (3) using a suitable hose clip, turn on the water and check for correct operation and leaks.



Dragline Winch Assembly

Using suitable lifting equipment lift the winch bracket assembly (1) onto the water tank supports in front of the water tank, take care not to damage the water tank scale in the process. Align the four slots in the base of the bracket with the slots in the water tank supports and insert the four setscrews provided (2). Finger tighten the nuts, check that the winch assembly does not foul the discharge pipe or tank and fully tighten the setscrews.



Secure the end of the cable (3), which exits below the water tank support to the side of the winch bracket using the “top hat bracket” (4) and the setscrews (5 & 6). Unwind sufficient cable (7) from the shovel handles and join the two cable sections together.

Remove the cover (8), clean the area around the hose connections on top of the winch motor and the ends of the two hydraulic hoses (not illustrated) carefully remove the hose and motor blanking plugs and attach the hoses to the motor. Note: the hose ends and motor connections are colour coded to aid correct connection. Refit the cover (8) using the setscrews (9).

In the event that the colour coding is missing from the hose ends and motor connections the hoses should be connected as follows. The LH hose from the control block, which exits the mixer frame above the engine is connected to the motor connection nearest the hopper, (LH when viewed from the body end of the winch motor) see page E-2B of the Parts & Operators Handbook. The RH hose is connected to the motor connection nearest the water tank

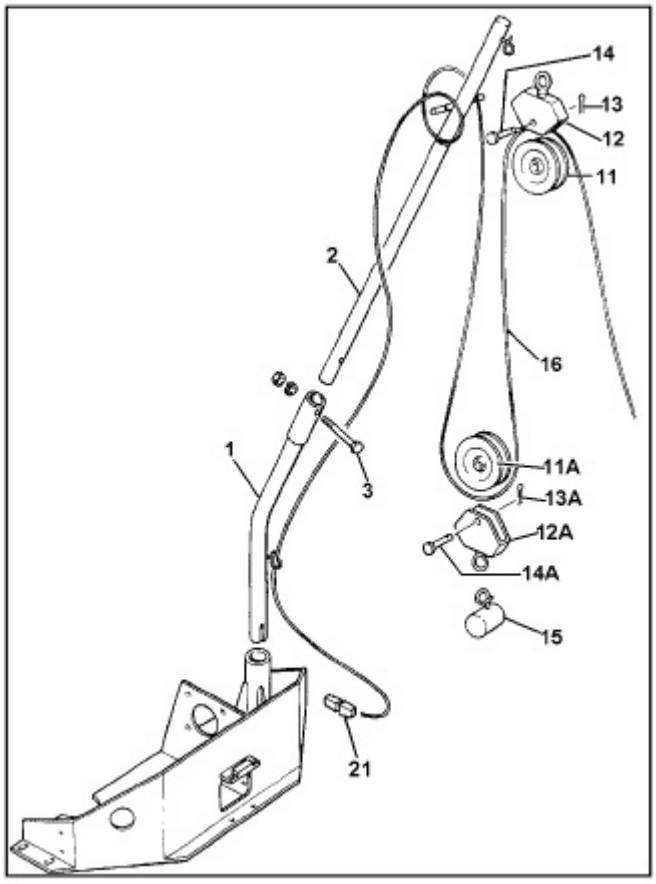
Unclip the end of the wire rope (10) from the roller on the winch bracket and wearing suitable hand protection pull out the rope unwinding it from the rope drum as the drum rotates, unwind sufficient rope and connect to the dragline shovel using the “U” bolt (11).

Cable Mast Assembly

Insert the upper cable mast (2) into the lower cable mast (3) align the bolt holes and insert and tighten the bolt (3). Note that the “pig tail” hook on the upper cable mast should be on the underside when correctly assembled. Using suitable lifting equipment raise the cable mast and insert into the retaining tube on the winch bracket, the slot cut into the lower cable mast should drop over the cross piece welded inside the tube.

The cable section (21) from the shovel should be passed through the hook on the lower mast section then up and around cross shaft welded to the upper section before dropping back down to ground level.

At ground level withdraw the split pin (13A) from the one of the two pulley assemblies, remove the pin (14A) and place the pulley (11A) over the cable as illustrated. Refit the block (12A) over the pulley (11A) and hook the sheave weight (15) onto the lower pulley.



Repeat the operation on what will be the upper fixed pulley (11-14) and using the lifting equipment hook the upper pulley assembly securely onto the upper mast “pig tail hook”.

Pull the shovel back a short distance from the hopper and wind any excess cable around the handles of the shovel in the process raising the lower pulley and weight assembly clear of the ground. Continue to pull back the shovel to the extent of the working radius making sure the lower pulley & weight does not foul the upper fixed pulley.

With the engine running operate the switch on the dragline shovel and guide the shovel up to the hopper. Make sure that the lower pulley & weight does not touch the ground. In the event that they do reduce the working radius and increase or decrease the amount of cable wound around the shovel handles.

SERVICE SCHEDULE

The engine will require additional services or adjustments in addition to those listed below (See the appropriate Engine Operator's handbook or Workshop Manual).

Every (8 hours)

Before work	
Grease points	Lubricate.
Engine	Check fuel and lubricating oil levels. Check for oil and fuel leaks. Clean/replace air cleaner element under very dusty conditions.
(see also the relevant Engine handbook/workshop manual.)	
After work	
Mixer	Wash down machine.
Drum and Hopper	Thoroughly clean out the drum with water and gravel.
Water tank	Drain if frost is expected.

Every week (40 hours). The above and the following

Dragline wire rope	Check for wear and damage.
Drive chain	Check tension, adjust if necessary.
Drive chain case	Check oil level, top-up if necessary.
With the hopper down and the engine stopped: Hydraulic oil	Check level, top-up if necessary.
Dragline dynamo	Check belt tension, adjust if necessary.
Controls & pivots	Lubricate all levers, rods, pivots and pins.
Battery	Check terminals.

Every month (100 hours). The above and the following

Hydraulic tank	Check oil tank, filler and breather, clean if necessary.
Battery	Check electrolyte level.
Drum drive	Inspect and lubricate the drum track ring, gear, idler rollers and edge rollers.

Every 3 months (300 hours). The above and the following

Engine	Change air filter element. Change lubrication oil and oil filter. Change fuel filter.
(see also the relevant Engine handbook/workshop manual)	

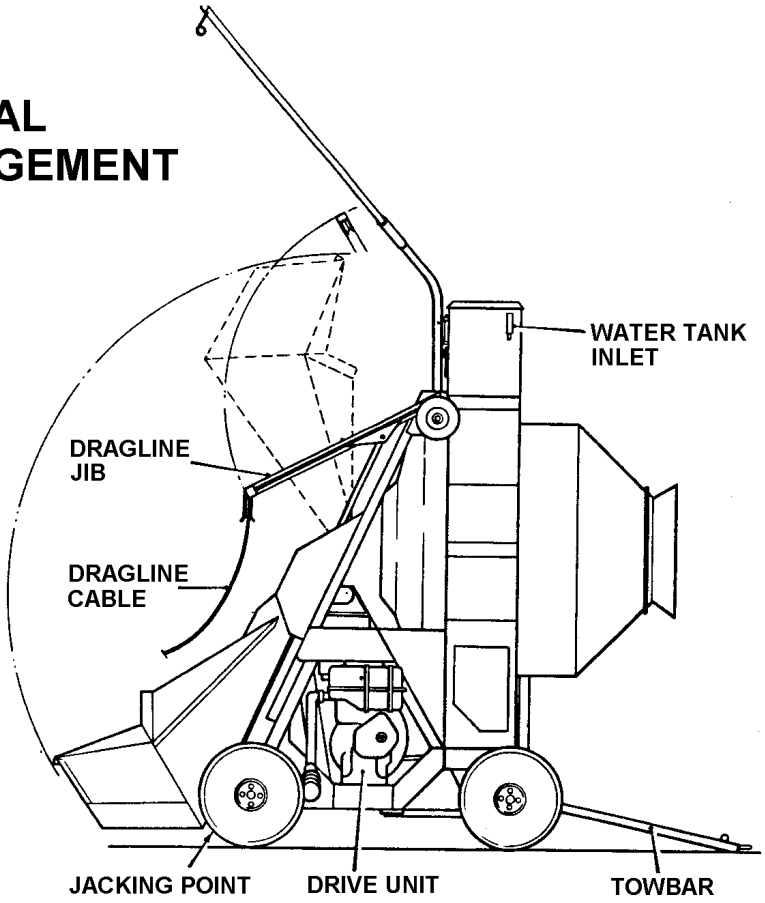
Every 6 months (600 hours). The above and the following

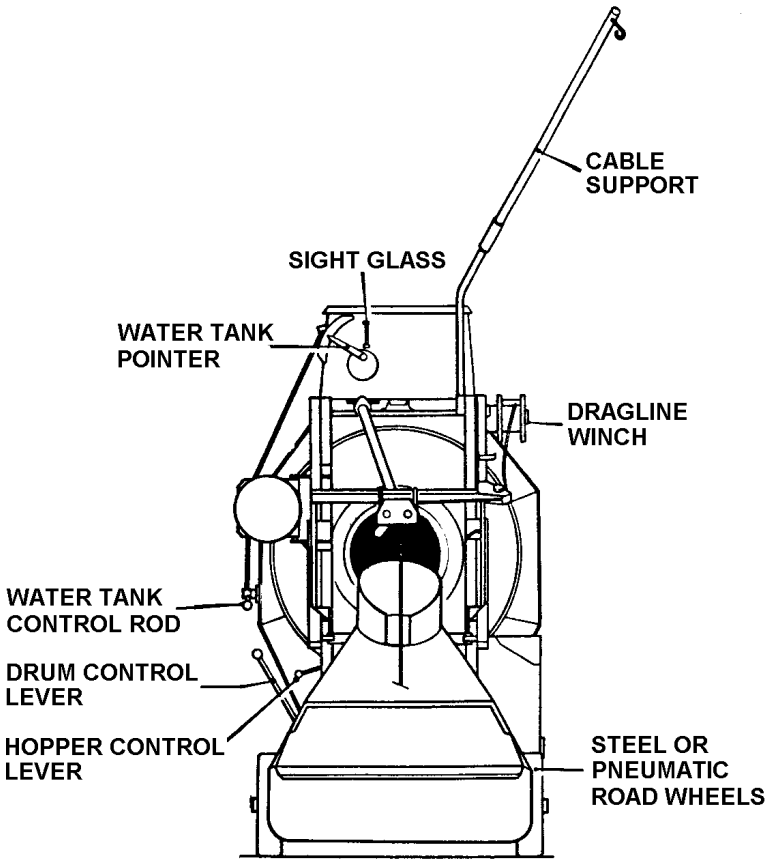
Gearbox	Drain oil and refill.
Drive chain Case	Drain oil and refill.

Every 12 months (1200 hours or earlier if conditions dictate).
The above and the following

Hydraulics	Drain and clean out tank and suction strainer. Refill with new hydraulic oil.

GENERAL ARRANGEMENT





HYDRAULIC SYSTEM

Working pressures

30OR & 40OR: 138bar (2000psi)

50OR: 165.5bar (2400psi)

Hydraulic tank

Ensure that the hopper is fully down and the engine stopped.

Top-up as required with oil of the recommended grade. Do not mix different grades of oil.

Clean around filler cap before removal.

This is located inside the mainframe on the side of the mixer opposite to the engine.

Once a week check that the oil level in the tank is visible but no more than 12mm (l/2") from the bottom of the filler.

Filling filter breather, removal and cleaning

The tank is provided with a cylindrical filter which filters the hydraulic oil when filling or topping-up the system.

This filter is combined with a breather unit which is incorporated in the filler cap.

The cap can be removed by unhooking the retaining chain.

The breather in the cap should be washed in petrol every month and air dried throughly before refitting.

Provided the breather unit and the area round the cap are kept clean and only clean receptacles are used to top up the oil, the cylindrical filter should only require cleaning once every 12 months or 1200 hours.

Remove the filter as follows:

Clean the top of the tank and remove the filter cap/breather unit.

Unscrew the self tapping screws or remove the rivets securing the filter to the tank.

Remove filter.

Cover the opening with a clean rag while filter is removed.

Thorougly clean the filter in petrol and air dry well before replacing.

Remove rag and replace filter, self tapping screws or renew rivets.

Top-up with oil and replace cap/breather unit.

Cleaning suction filter

The suction filter is fitted to the pipe welded to the tank lid.

This should be removed and cleaned every 12 months or 1200 hours.

Dismantling hydraulic system

Do not remove or expose any part of the internal hydraulic gear in the event of a breakdown, unless instructed to do so.

If you do, this may lead to further complications in correcting the fault.

If necessary, contact your Distributor for advice.

Recommended oils

The capacity of the hydraulic system is approximately 22 litres (5 gallons).

(See the "Technical Information" section for the correct oil to be used.)

TRANSMISSION

Keep the oil level in the gearbox up to the level hole in the side of gearbox.

The level of the oil in the chain case must be kept up to the level of filler plug on the side of the case.

Clean around these points before removing plugs.

(See the "Technical Information" section for the correct oil to be used.)

Lubricators are fitted to the propeller shaft and should be greased regularly.

DRUM CLUTCH ADJUSTMENT

When the drum clutch shows a tendency to slip, adjust as follows:

Set drum control lever in MIX position and rotate nut to allow 3mm (1/8") of sliding gland (short) to protrude beyond the end of the clevis pin assembly, then lock in position with the locking nut provided.

Repeat this operation with drum control lever set in the DISCHARGE position but rotate nut to allow 3mm (1/8") of sliding gland (long) to protrude beyond the end of the clevis pin assembly. Lock in position with locking nut provided.

DRIVE CHAIN ADJUSTMENT

On no account must the chain be over-tightened; undue tension causes excessive strain, vibration and considerable wear.

The chain is adjusted by slackening the nuts holding the adjustable bearing bracket and moving the bracket by means of the adjusting screw.

Permissible chain deflection is 8mm to 12mm, halfway between chain gears.

Access is obtained by removing cover.

Re-tighten bracket bolts and lock adjusting screw with locking nut provided.

The chain tension can be checked through the inspection aperture in the chain cover, but first remove inspection cover plate.

DRAGLINE FEEDER

Check dynamo brushes periodically.

The regulator cut-outs should be maintained at 12.5 to 13 volts.

If the electric cable to the shovel needs repairing, it should not be shortened to less than 19.8 metres (65 feet).

WATER TANK AND WATER PUMP

Every month:

Remove top cover.

Clean and grease valve mechanism.

WARNING

If a water pump is fitted, ensure water supply has been turned on before starting engine.

Water pumps must never be run dry.

BATCH WEIGHER

To ensure maximum efficiency, keep the weighing mechanism as clean as possible.

Avoid build-up of material around link pivots.

Do not allow aggregate to accumulate on the ground under the hopper.

Do not drop loaded hopper onto loadcell, as unnecessary damage will occur to the sealing rings and gauge pointer.

Also, do not leave a loaded hopper resting on the loadcell as again damage to the sealing rings will occur.

Note: On no account must the loadcell be disconnected from the weighing dial. No responsibility will be taken if the lead seals which are attached to the pipe unions are broken.

DRUM EDGE ROLLER ADJUSTMENT

These should be set to allow up to 1.5mm (1/16”) total clearance from the drum track.

It is essential that the rollers should not be set tight, as this would result in the overloading of the bearings.

Fixing screws must be wire locked after fitting.

DRIVE ALIGNMENT

Alignment of motor drive shaft and reversing box must be within 1mm (0.40”).

DYNAMO BELT ADJUSTMENT

Slacken the two bolts on the dynamo adjusting link and the two bolts securing the dynamo to its mounting bracket.

Pivot the dynamo until the drive belt is correctly tensioned. The permissible belt deflection halfway between the pulleys is 12mm. Retighten bolts securely.

BOLT TORQUES

Every week for the first month, then every three months:

Check the tightness of all bolts, nuts, and keys etc. Pay particular attention to engine mounting bolts.

GREASE AND LUBRICATION POINTS

Every day: All shafts and bearings needing daily attention are lubricated through drilled shafts and special greaseways by fitting grease nipples.

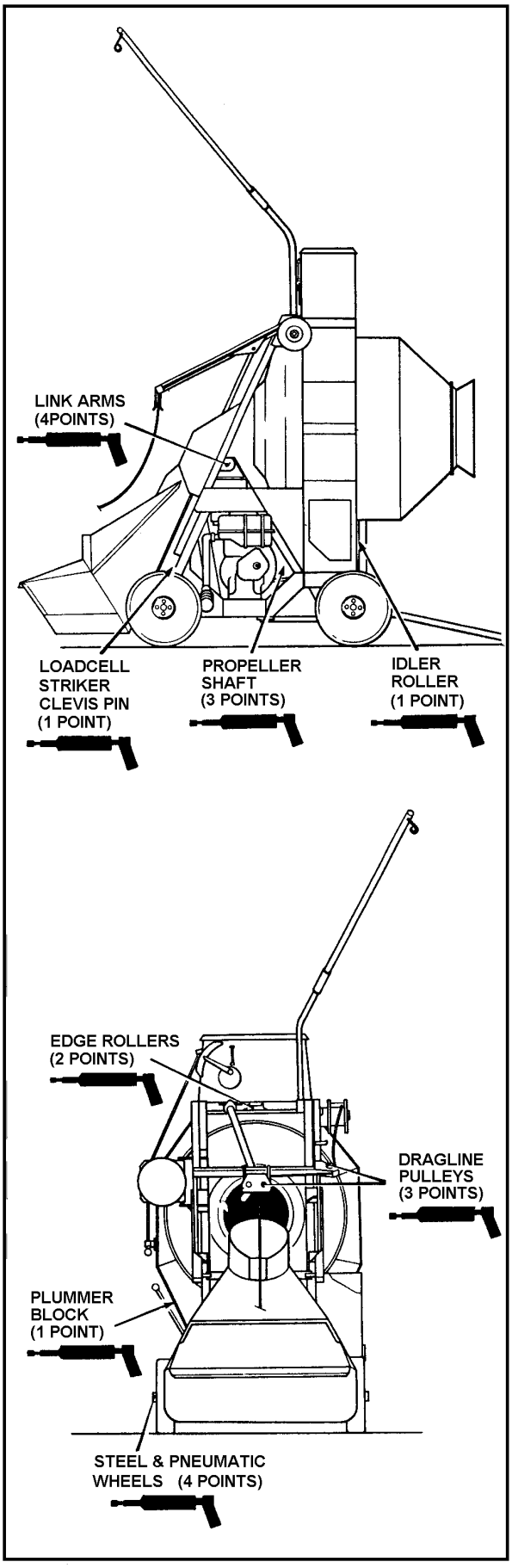
The lubrication diagram will give you the location of these grease nipples, which should be greased daily, using a grease gun charged with a good quality medium grease.

It is essential that operators do not allow grease or oil used for servicing to become contaminated with sand or cement dust.

Every week: A little engine oil should be applied to pin joints on clutch lever linkage, and low level dragline pivots, etc.

Every month (or 100 hours): Lubricate gear ring and roller track.

Use only recommended lubricants. *(see "Technical Information" section)*



LOADCELL AND WEIGH GAUGE

IMPORTANT: Factory reconditioning the loadcell and gauge

If the load-cell and gauge are damaged in any way it is recommended that the unit is returned to the factory for reconditioning.

The following instructions are provided for those users who are competent and have the necessary facilities to repair the unit.

***Winget Limited cannot accept any responsibility should users attempt to carry out repairs**.*

Repairing the loadcell and gauge

General

The loadcell and gauge is a hydraulic method of recording pressure exerted on the loadcell button by the batch in the weigh hopper.

The weigh gauge is mounted in a box on the side of the mixer and connected by a hydraulic pipe to the loadcell situated under the weigh hopper.

The gauge calibration differs according to the model of machine to which it is fitted.

The adjustable coloured pointers mounted on the rim of the gauge can be set by the operator to the aggregate proportions required.

A protective lid is provided for the gauge box to prevent damage when not in use.

The loadcells are of the 64.5 sq.cm. (10 sq.in. type and a load/pressure ratio of 10:1.

The loadcell and gauge is a closed circuit and any leakage from anywhere in the system will cause incorrect reading.

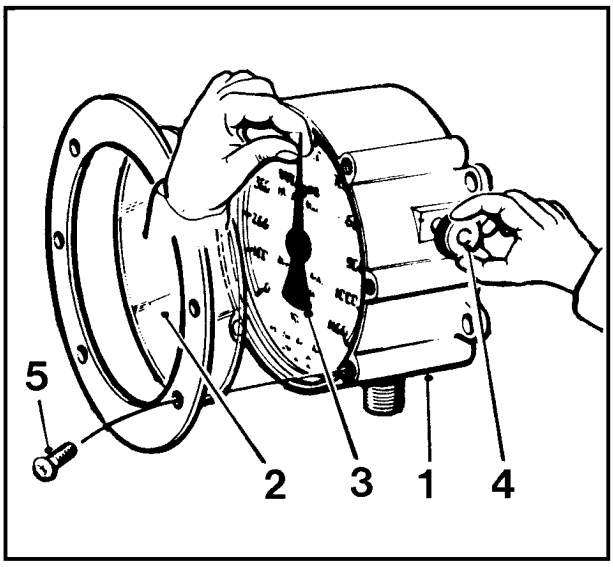
A screw is provided for zeroing the weigh gauge needle to take into account temperatures and variations in the weight of the hopper due to build-up of materials. Ensure that at all times there is a minimum of 50mm (2") clearance between the hopper bottom and the ground.

Weigh gauge

If by any chance a loaded hopper is dropped onto the loadcell by accident, causing undue shock to the gauge, this could loosen the pointer needle which is soldered onto its spindle.

If this happens, remove the gauge **(1)** from the loadcell pipe and release the front glass **(2)** by removing the six alien screws **(5).**
Rotate the needle pointer **(3)** gently to check if the solder connection has become loose. If so, re-solder carefully.

To ensure correct position for re-soldering pointer, screw the zeroing knob **(4)** hard home.

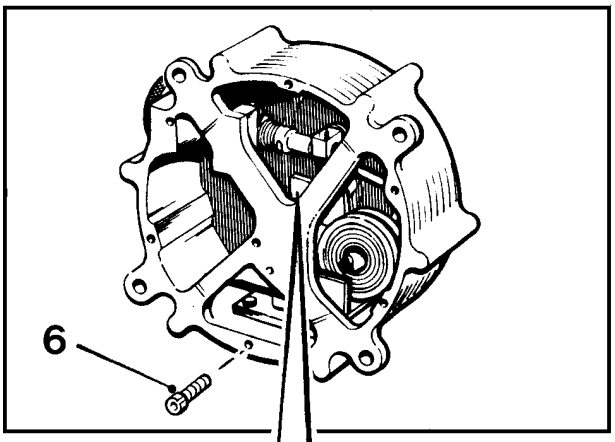


Then solder the pointer **(3),** using a good quality flux, in a position equal to 50 Ibs below the zero.

Open up hole in pointer to 7/64" diameter prior to soldering.

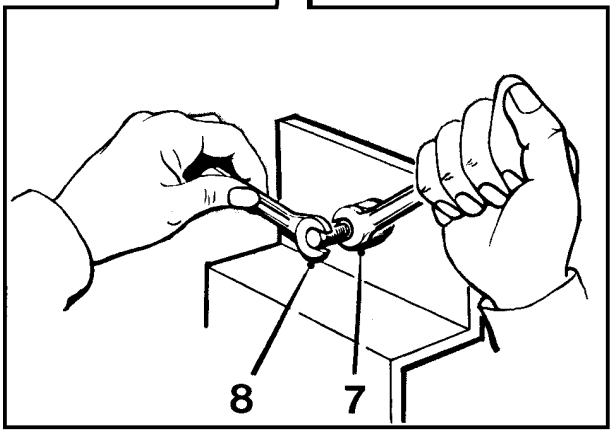
Make sure that surplus solder does not run into small bearing behind the needle pointer.

If the gauge needle pointer **(3)** should oscillate unduly, first remove the back plate by removing the six allen screws **(6).** For identification purposes, the only parts requiring adjustment for oscillation are painted blue.



Loosen the blue locking nut **(7)**, and turn the hexagon-headed screw **(8)** in a clockwise direction until the pointer oscillation is reduced to a minimum.

At the same time avoid excessive tightening of the hexagon-headed screw **(8).**
A known weight should now be added to ensure that application of the damper has not affected weight reading.



If the reading has been affected, this will indicate that the hexagon-headed screw **(8)** has been tightened down too far, so it should be released slightly until the reading becomes accurate.

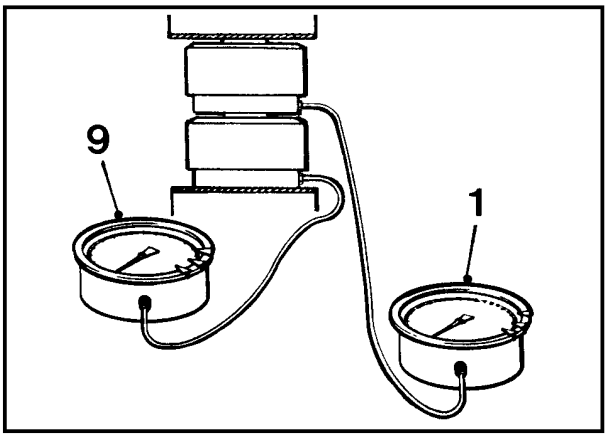
Remove the weights and check that the pointer **(3)** returns to zero.

Retighten the blue locking nut **(7)** and refit back plate.

Note: The damper must not be applied too tightly. This may cause movement wear and affect the calibration of the pointer.

Calibration

If the calibration is found to be inaccurate, the pointer should be adjusted against a master gauge **(9).** Test calibration of gauge by placing two loadcells into a press, one loadcell being connected to a master gauge **(9),** the other to the gauge to be calibrated **(1).**

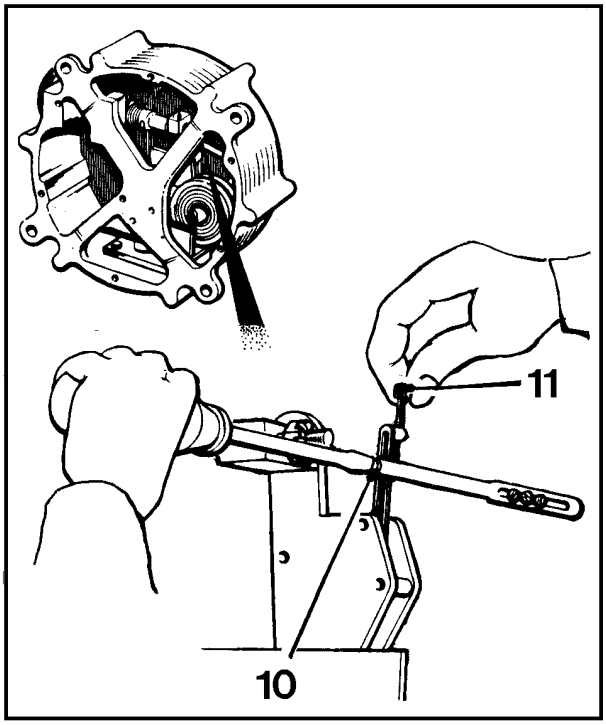


For identification purposes, the only parts requiring adjustment are painted red and green.

First slightly unscrew link screw **(10),** painted green, then adjust knurled toggle screw **(11),** painted red, by hand. Turn clockwise to accelerate the reading and anti-clockwise to decrease reading.

This should be done on a gauge test rig or equivalent.

After correct adjustment has been made, retighten link screw **(10).** Other screws must not be interfered with.



Loadcell repair

The loadcell itself can be made inoperative if a loaded hopper is dropped by accident onto it, or if aggregate were tipped from a dumper directly into the hopper.

Both could cause the top half to turn over at an angle.

This means that at least one '0' ring has been damaged. When this happens, the loadcell must be disconnected from the gauge and removed from the machine and the damaged rings replaced.

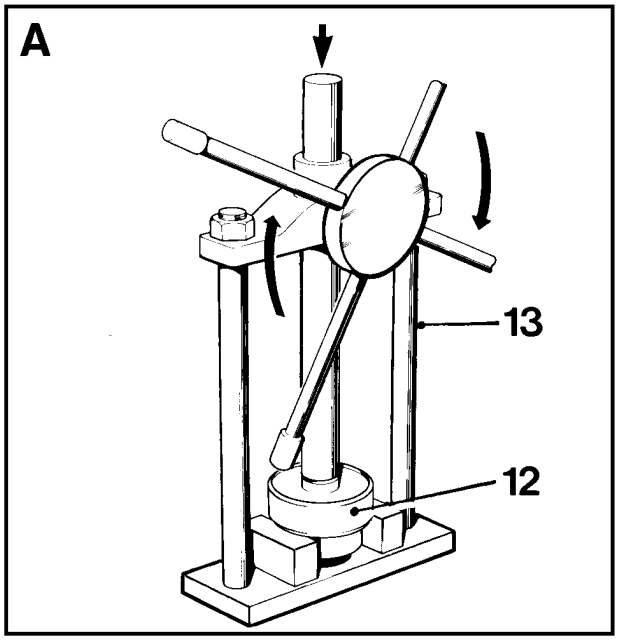
There are two methods used for opening the loadcell, as follows:

A By a press

Block up the loadcell **(12)** on the base of the press **(13)** using packing under the floating sleeve. This is to ensure that the body will move downwards, thus breaking the seals when pressure is applied to the loadcell button.

When parting the loadcell in the press, it is necessary to ensure that the floating sleeve has been packed sufficiently to move downwards when pressure is applied to the loadcell button, thus breaking the seals.

By using a steel bar, gradually roll the rims of the floating sleeve, thus resealing the loadcell.

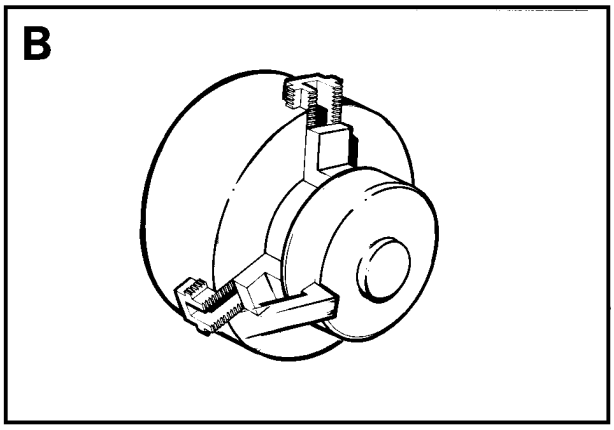


B By a lathe

The diameter of the floating sleeve can be turned down on a lathe so as to reduce the thickness to approx. 0.25mm (0.010"), at which stage the rims of the floating sleeve may be broken away, releasing the sealing rings and inner parts.

Renew sealing rings and floating sleeve, then reassemble, clamp the body of the loadcell in the lathe and rotate at slow speed.

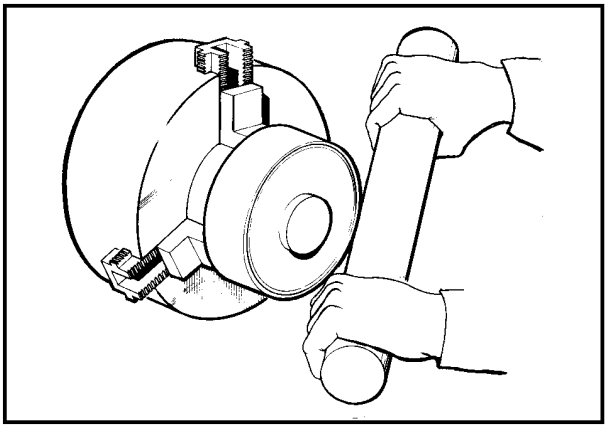
The floating sleeve can be turned off in the lathe. First clamp the body of the loadcell in the chuck and by taking light cuts reduce the diameter by 2.5mm (O.1”). At this stage it should be possible to split the outer skin, releasing the inner parts.



Resealing the loadcell

With all parts assembled in position, apply a coating of Goodyear Pliobond around the outside edge of sealing rings.

Clamp the loadcell body in the chuck and gradually roll both edges of the floating sleeve, thus locking the inner parts in position.



Refilling the loadcell

The most efficient way of filling a loadcell and gauge is by using a vacuum pump unit. This is normal practice.

However, where this special equipment is not available, the operation can in some instances be carried out by hand, if care is taken and the following procedure adopted:

Place the loadcell **(20)** in the vice **(21)** with the button **(14)** on one jaw, and the inlet for oil **(15)** upwards.

Fill the loadcell with Brake and Clutch Fluid, and at the same time slightly compress the vice not more than 1.6mm (1/16"), and let it return.

Repeat the procedure several times. This will remove air bubbles.

It must be remembered that when the loadcell is in use on the machine, the total amount of compression is less than 1.6mm (l/16"). Therefore, when compressing this in a vice, it must be remembered that under no circumstances exceed 1.6mm (1/16"), otherwise damage to the '0' ring seals may occur.

Before completely filling the loadcell **(20),** remove it from the vice **(21),** hold it in your hand with the button **(14)** downwards, and give a series of taps on the base of the loadcell with the other hand. This will remove all remaining air locks.

Replace the loadcell **(20)** in the vice **(21)** and compress a few more times. Continue filling to the point of overflow.

Remove from the vice and place to one side with the oil filling end upwards.

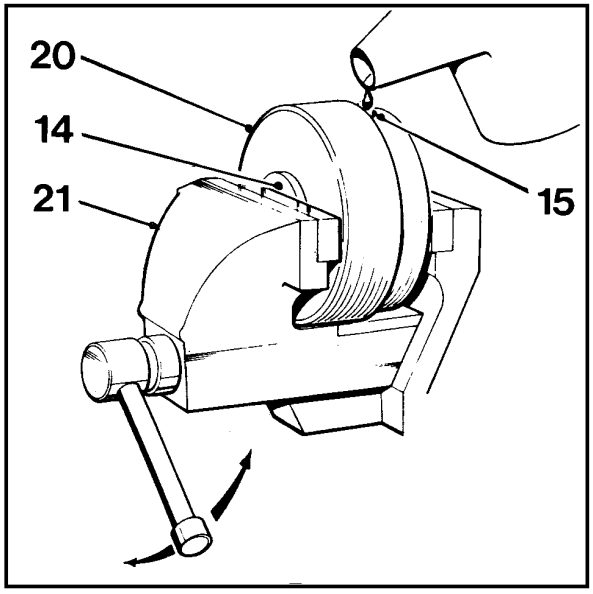
Air bubbles may still be present in fluid.

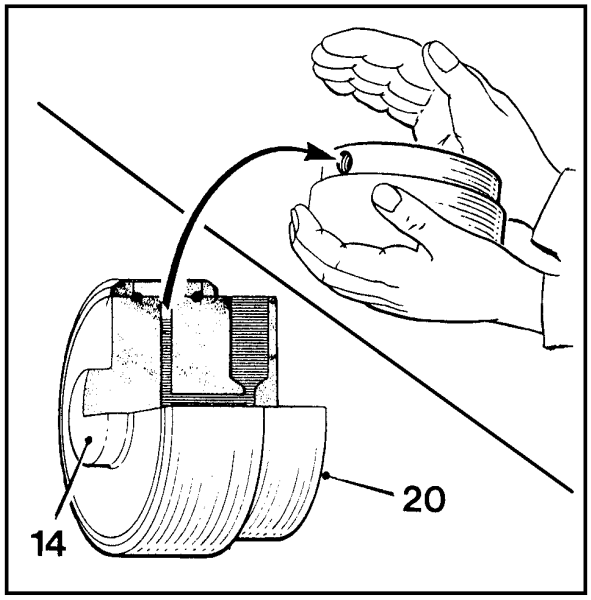
To remove, secure loadcell **(20)** in vice **(21)** with union hole **(15)** upwards.

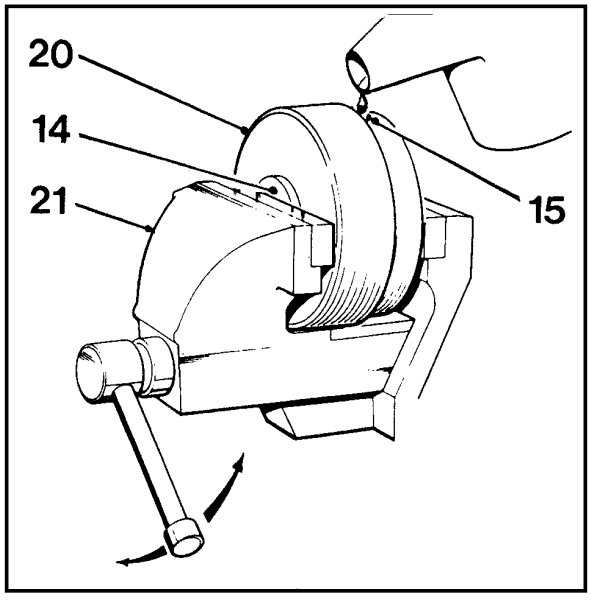
Fill with oil.

Move vice handle, compressing loadcell not more than 1.6mm (1/16"), then release.

Repeat this process several times.





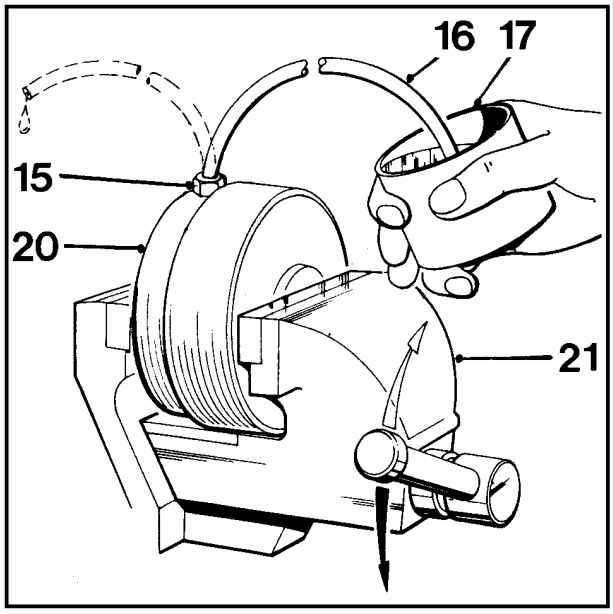


During the loadcell filling operation, an airlock usually occurs in the fluid chamber. This will cause inaccurate weigh dial readings if allowed to remain. To release airlock place loadcell in hand and give a series of light taps with the other hand.

Once again it is important to remove all air from pipe **(16).**

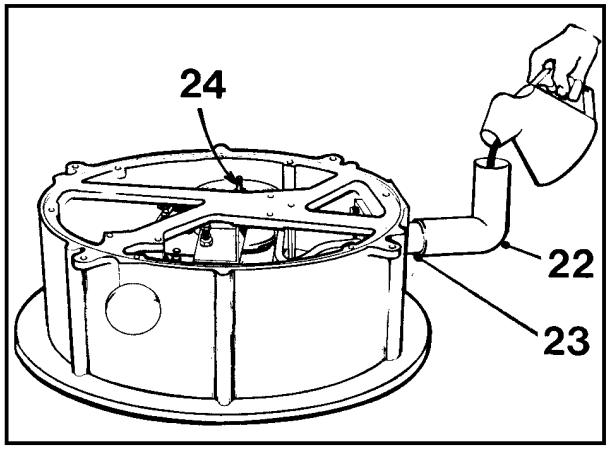
Screw the vice up until fluid protrudes from end of pipe.

Place the pipe end in an improvised cup **(17)** filled with fluid, release pressure on loadcell **(20)** and the fluid will be drawn up the tube **(16).** Ensure that the tube is kept upright until fitted to gauge, so that fluid will not run out.



Refilling weigh gauge

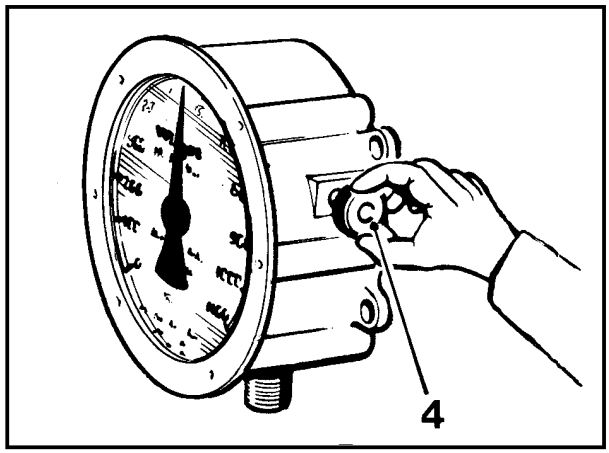
Due to a vacuum, the gauge will invariably hold its quota of oil, but in any case, lay the gauge on its face and fix a right-angle adaptor **(22)** to the oil inlet **(23)** and fill with Brake and Clutch Fluid. Open the bleed screw **(24)** situated on the middle coil of the Bowden tube. The weight of the fluid will expel any trace of air. Care should be taken to avoid oil dripping onto the back of the dial face. Ensure that the bleed screw is correctly tightened.



Refitting weigh gauge

When the filling operation is complete, check the calibration of the gauge. If this is satisfactory, the gauge and loadcell may be refitted to the machine and tested with known weights. Provided the adjusting screws in the gauge which control calibration have not been moved, the gauge should register correctly.

A zeroing knob **(4)** is provided on the side of the gauge. This should be adjusted with the hopper empty and down on the loadcell. Check that there is a clearance between the hopper and the ground before zeroing.

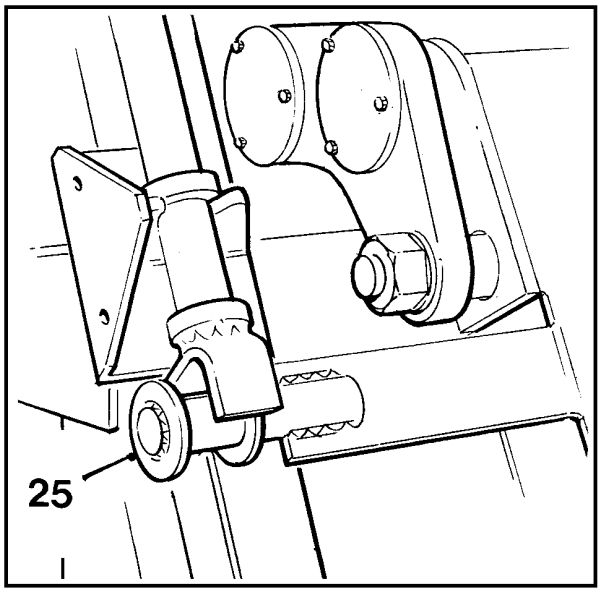


Setting up weigh mechanism

Assuming the loadcell and gauge are completely accurate, the following checks should now be made.

Obvious faults such as grout and fine aggregates around mechanism and base of hopper should already have been checked before investigating the finer points.

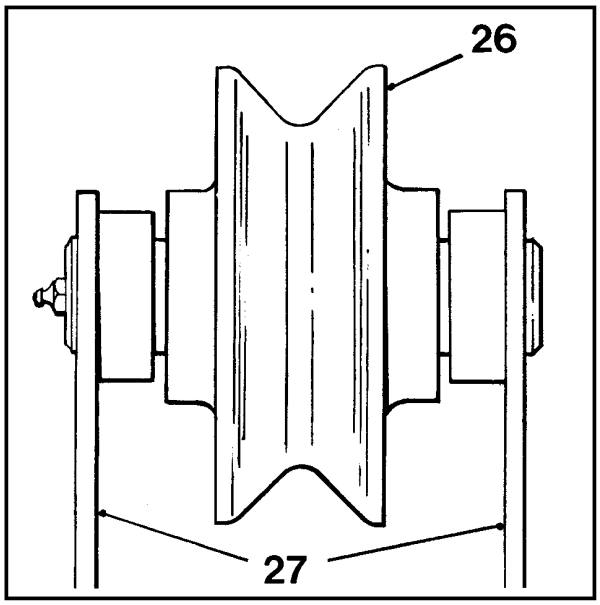
Check that when hopper is in the down position, the jib struts are clear of the horizontal hopper bars on either side and do not foul the welded washers **(25).**



When the loadcell striker is resting on the loadcell, check that the loadcell striker guide **(26)** does not touch either side of its housing **(27).** Look from inside of engine compartment to check this.

If it does, slacken off hex nuts at either end of the link shaft and correct by moving hopper over away from offending side.

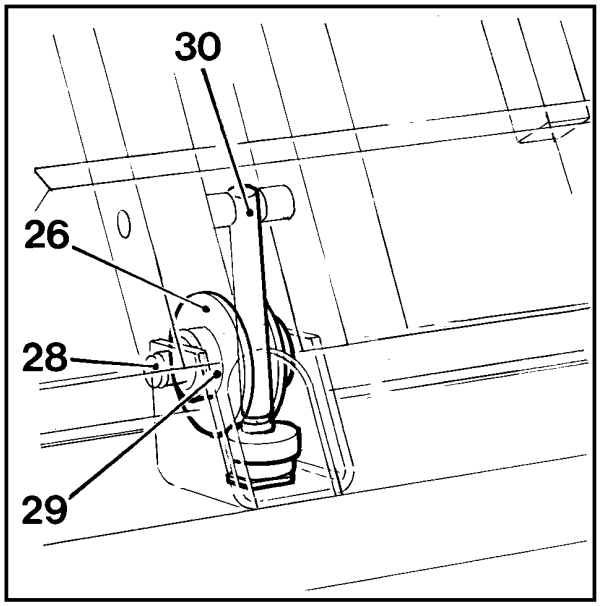
Retighten hex nuts and check clearance again after raising and lowering hopper several times.



Check that loadcell striker guide **(26)** rotates freely. If it does not, it may be simply due to lack of lubrication. If so, lubricate loadcell striker guide pin **(28)** through grease nipple provided.

If loadcell striker guide **(26)** still does not rotate freely, inspect needle roller bearings **(29)** and seals, and replace if necessary.

Check loadcell striker **(30)** has not developed flat spots where it hits the loadcell striker guide **(26),** as this may cause inaccurate batch weighing. If this has happened, turn loadcell striker **(30)** around 180 degrees and use on undamaged side or replace.



An incorrect amount of packing under the loadcell will cause inaccurate batch weighing. The following checks must be made:

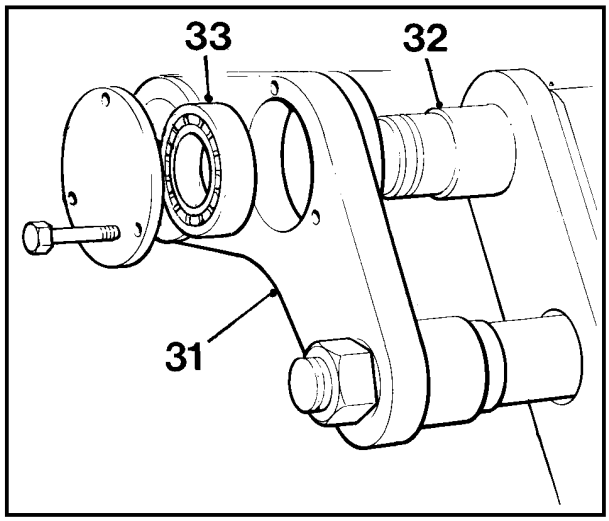
Check top edge of both link arms **(31)** are horizontal within 2mm (1/16"). If not, adjust loadcell packing.

Check link shaft **(32)** is clear of holes in hopper cradle either end. Inspect from both inside and outside engine compartment. Correct by adjusting loadcell packing.

Check link arm needle roller bearings **(33)** for excessive wear. These may need replacing to ensure complete accuracy of weigh mechanism.

When lowering hopper, loadcell striker **(30)** must make contact with loadcell striker guide **(26)** before coming to rest on the loadcell. If it does not, reduce packing under loadcell and recheck level of link arms **(31).**

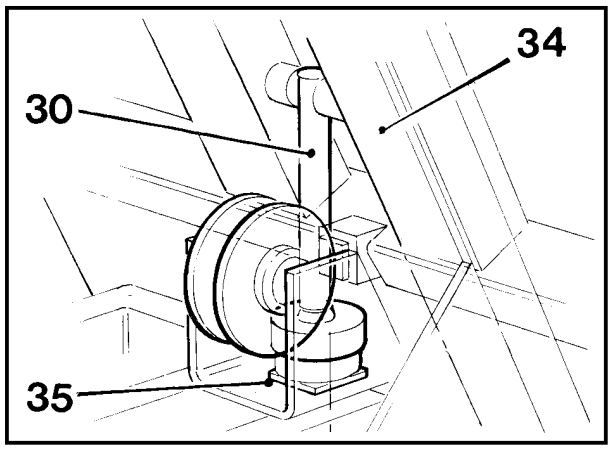
To increase gauge reading at low loads, increase packing under loadcell.



When all these checks have been made, use known weights evenly distributed in hopper to check correct gauge reading progressively through its range.

Check loadcell striker **(30)** is at the correct angle of 25 degrees to hopper cradle **(34).** Adjustment can be made by altering loadcell striker packing **(35)** until correct angle is obtained.

To increase gauge reading at high loads, increase loadcell striker packing **(35).**



TS ENGINES

WARNING *Before sevicing the engine, read the warnings in the "Safe Working" section of this Handbook.*

Air Filter

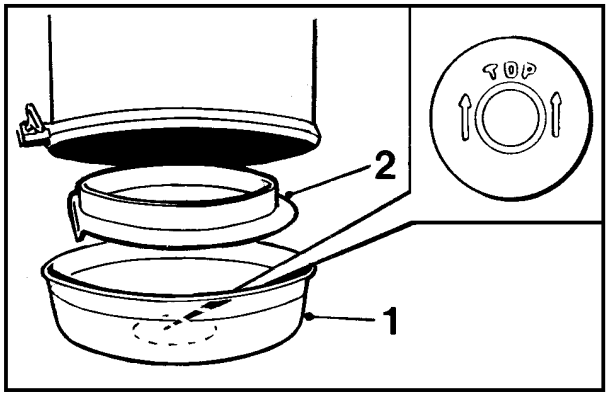
The Air Filter is located beside the engine.

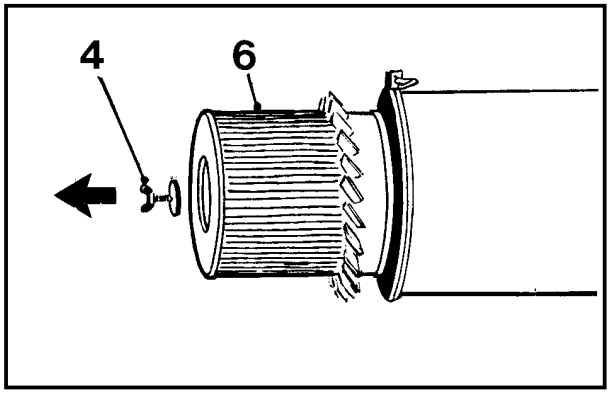
During operation dust collects in the base cup **(1)** which also contains the baffle **(2).** The element **(6)** is held in the main body by a wing nut **(4).**

At the end of each shift or working day in dusty conditions, the element, base cup and baffle should be removed, inspected and emptied of dust .

Releasing the wing nut or clamp at the base of the air filter allows removal of the base cup assembly and gives access to the filter element.

The air filter element should be replaced every 300 operating hours or every three months.





0il filter

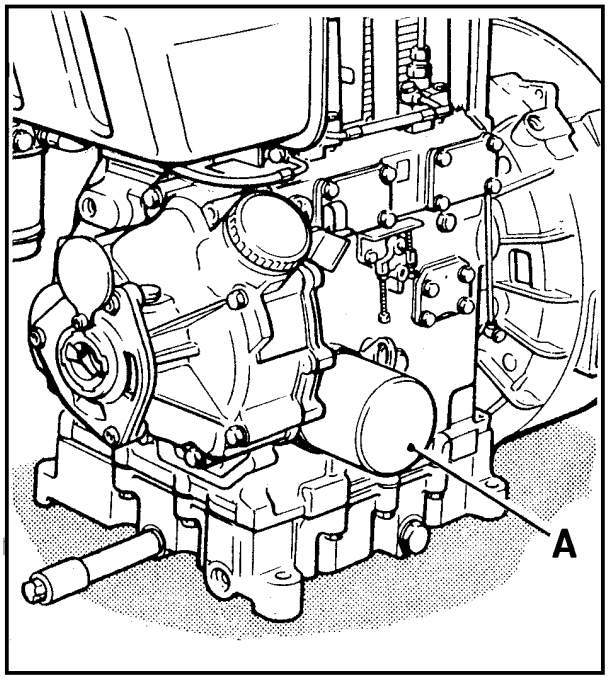
Every 300 hours:

Change oil filter element as follows:

WARNING *The materials used in the manufacture and treatment of some filters and elements may cause irritation or discomfort if they come into contact with the eyes or mouth and they may give off toxic gases if they are bumt.*

Using a suitable strap wrench, unscrew and remove the old filter **(A).**

Do not attempt to clean the old filter! Dispose of it safely.



Thoroughly clean the crankcase filter housing face.

Apply a small amount of clean engine oil to the filter sealing joint.

Do not use a strap wrench to fit the new element.

Screw on the new filter by hand, until the sealing joint is just touching the crankcase and then tighten a further half turn.

Run the engine and check for any oil leaks.

Stop the engine, allow the oil to settle and check the level on the dipstick **(B).**

Add more oil if necessary.

Engine lubrication oil

Every day:

Check lubrication oil level with the dipstick **(B).** Top up through filler **(C)** if necessary**.**

Every 300 hours:

Drain and refill the oil sump as follows:

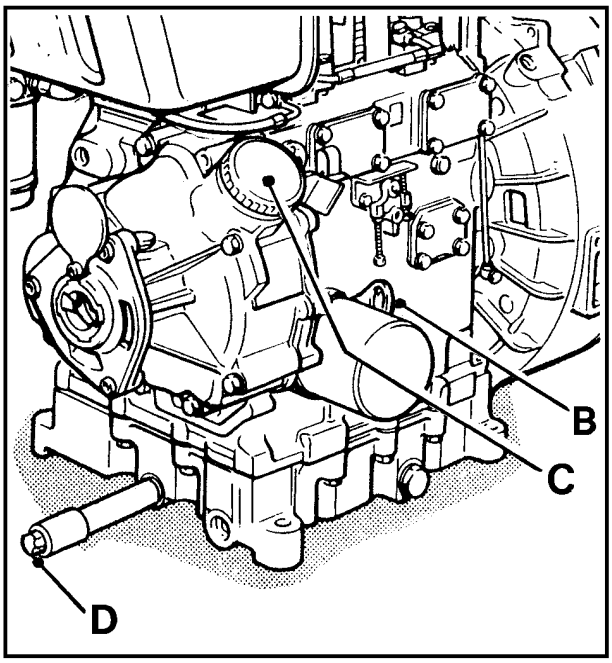
WARNING

Disposal of waste oil.
Dispose of waste oil into waste oil storage tanks. If storage tanks are not available, consult your Distributor or local authority for addresses of local designated disposal points. It is illegal to dispose of waste oil into drains or water courses, or to bury it.

Oils and fuels can cause skin irritation. Wear suitable protective clothing to prevent skin contact.

If possible run the engine immediately before draining the oil.

Place a suitable container under the drain plug. Remove the drain plug **(D)** and drain oil.



Clean and coat the threads of the drain plug with an appropriate sealant.

Replace the drain plug **(D)** taking care not to overtighten it.

Fill the sump through the oil filler **(C)** to the top mark on the dipstick **(B).**

Start the engine, run it for a few minutes and check the drain plug does not leak**.**

Stop the engine, allow the oil to settle and check the level on the dipstick.

Add more oil if necessary.

Fuel filter

Every 300 hours:

Change fuel filter element as follows: Remove the retaining bolt or plug **(E).**

Remove the old element **(F)** and the joints **(G).**

Fit new element and new joints.

Replace and tighten the retaining bolt or plug **(E)**.

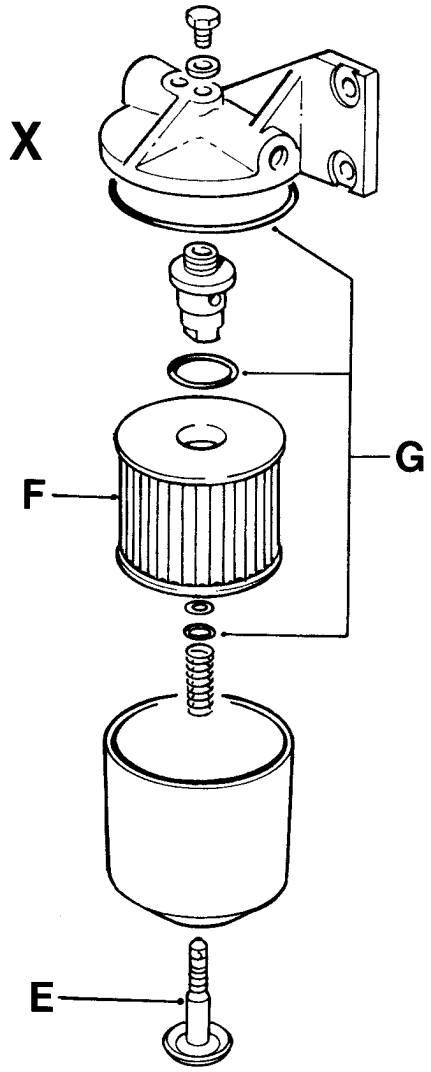
Prime the fuel system.

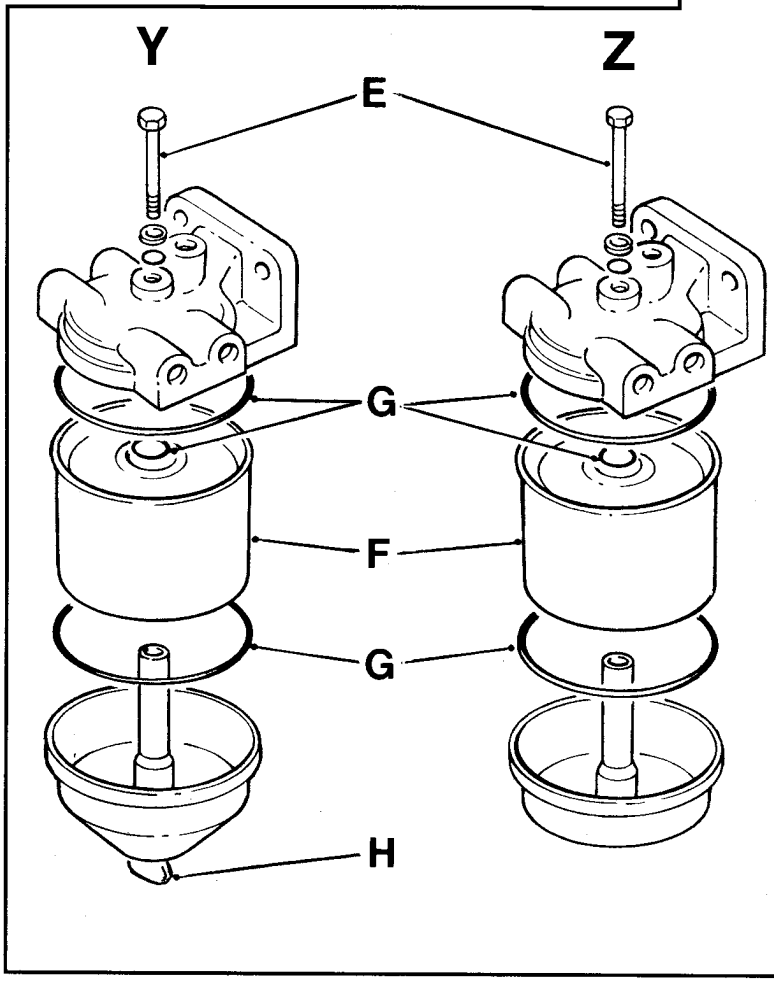
Note: Water is drained from the agglomerator by unscrewing the wing nut **(H).**

X Fuel tank external filter

Y Filter/Agglomeraor

Z Filter





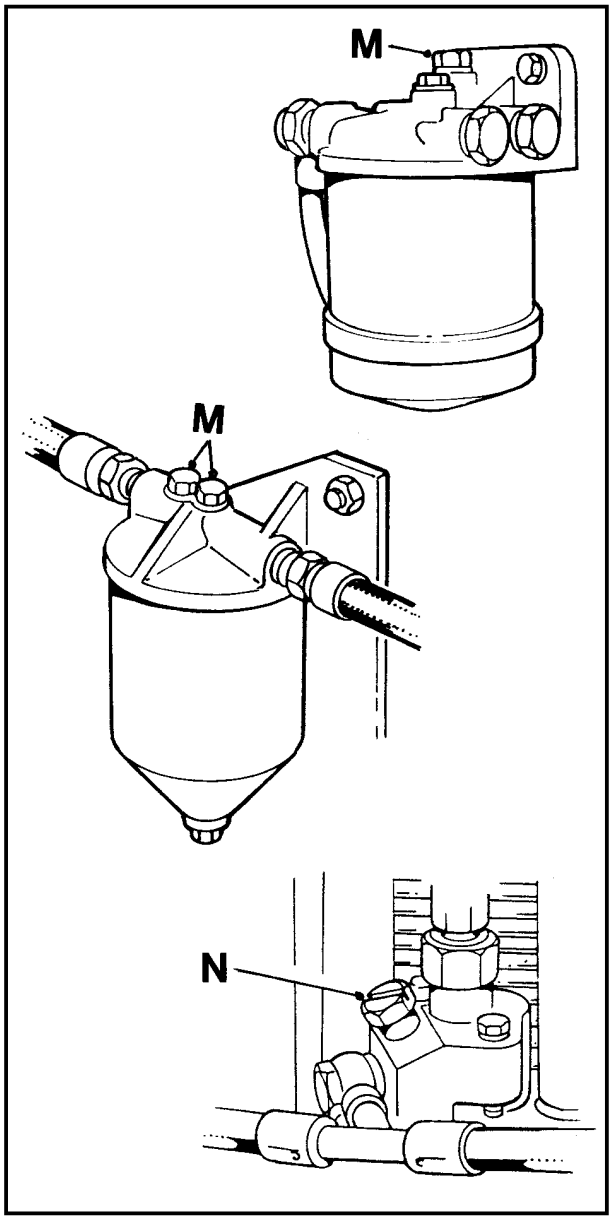
Priming the fuel system.

Fill the fuel tank.

Move the engine control lever to the run position.

Vent the fuel filter through the bleed screw **(M)** until a full air free flow of fuel is obtained.

Vent fuel at each pump, in turn, through the bleed screw **(N)** until a full air free flow of fuel is obtained.



BATTERY

WARNING *BATTERIES CONTAIN SULPHURIC ACID WHICH CAN CAUSE SEVERE BURNS AND PRODUCE EXPLOSIVE GASES.*

If the acid has been splashed on the skin, eyes or clothes flush with copious amounts of fresh water and seek immediate medical aid.

Check the battery as follows:

Wear protective gloves and goggles.

Clean the top of the battery filler plug area.

Remove the filler plugs and check that the electrolyte level is 6.0-9.0mm (0.25-0.37in) above the tops of the separators.

If necessary top up with distilled water.

In cold weather distilled water should only be added immediately before running the engine.

Replace and tighten the filler plugs.

Check that the terminal connections are tight; petroleum jelly will help to protect them from corrosion.

TS ENGINES (ELECTRIC START)

Electrical fault finding

When an electric start engine is fitted the charging system built into the engine provides the electrical power to operate the dragline solenoid valve.

Power is taken from terminal 2 on the ignition switch, through two core cable via a plug and socket through the shovel mounted operating button/switch, back through the plug and socket down to the dragline solenoid valve *(see wiring diagram below).*

The most common causes of electrical failure are:

1 Break in the two core cable between the shovel mounted button/switch and the socket and plug mounted below the winch motor. (If the cable is shortened do not reduce the length to less than 19.8 metres, 65 feet.)

2 Ignition Switch in the "Off" position.

3 Dirty or loose electrical connections at the plug and socket, the solenoid valve, ignition switch or battery.

4 Flat battery.

5 Charging system failure *(See Engine Workshop Manual).*

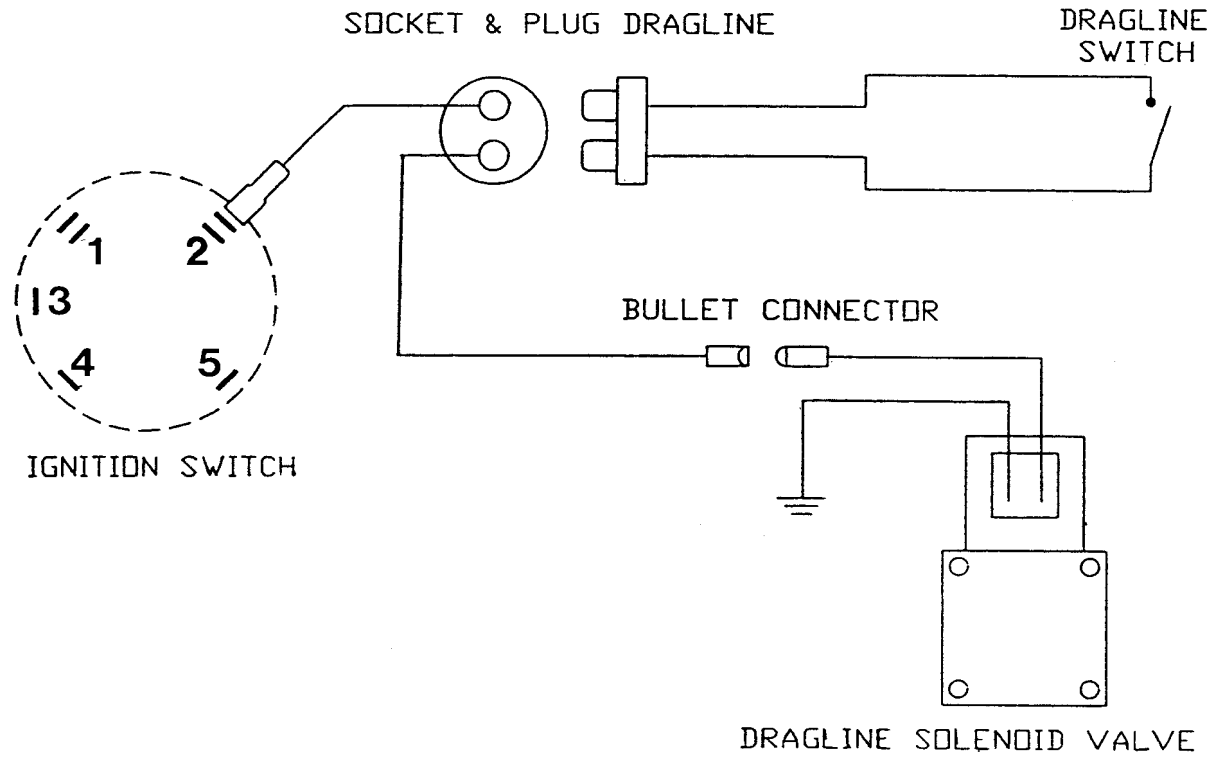
6 Bad Earth Connections.

Voltage Setting Instructions

It is not possible to adjust the voltage setting but the voltage can be measured at the terminal block on the solenoid valve.

Remove the terminal block, connect a D.C.. voltmeter to the terminal block and start the engine. Depress the shovel mounted button/switch and note the voltage reading. It should not exceed 14.5 volts. If the voltmeter indicates a negative reading or reads in the reverse direction interchange the voltmeter leads.

Electric start TS engines - dragline wiring



DRAGLINE ELECTRICAL SYSTEM

Hand start engines and 415 volt electric motor driven mixers:

Up to serial numbers:
0842 for 300R & 400R,
0312 for 500R

Voltage setting instructions

Set the voltage as follows:

(to be read in conjunction with the illustration on the following page)

Start the machine.

Plug in loading shovel to machine. Remove solenoid valve cover and regulator adjusting screw rubber plug.

Connect a D.C. voltmeter to the two way terminal block inside the valve body. With the aid of a second person to operate the loading shovel, by depressing the shovel control unit push button, note the reading on the voltmeter.

The correct figure should be 12 volts. If the voltmeter reads in the reverse direction, interchange the voltmeter leads.

If voltage is incorrect, then with the meter still connected and the loading shovel working, turn voltage regulator adjusting screw **(8)** (situated above connection point '**A**') with a small short screwdriver, either clockwise or anticlockwise until meter reads 12 volts constantly.

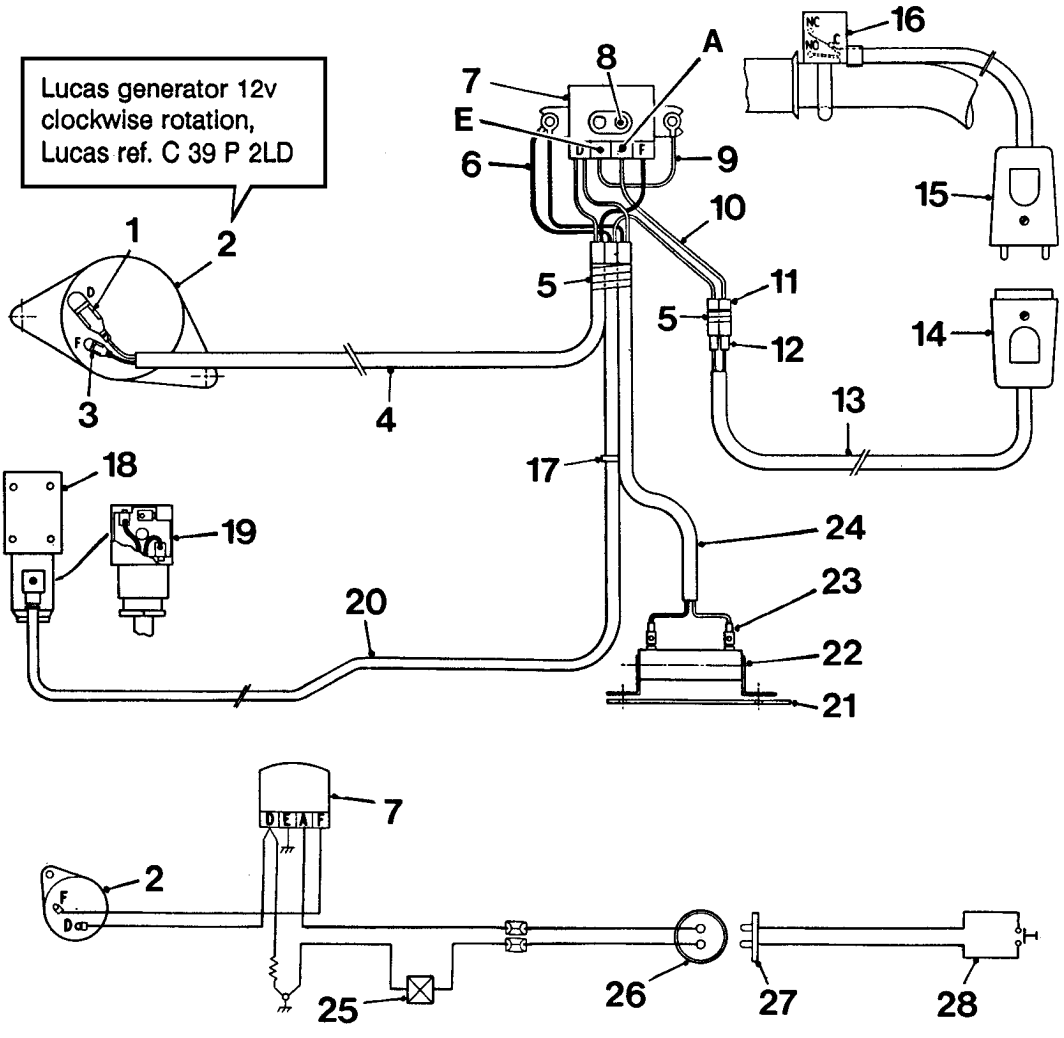
After adjustment, replace valve cover and regulator plug.

Note: Do not interfere with adjusting screw above connection point **'E'.**

ELECTRICAL WIRING LAYOUT

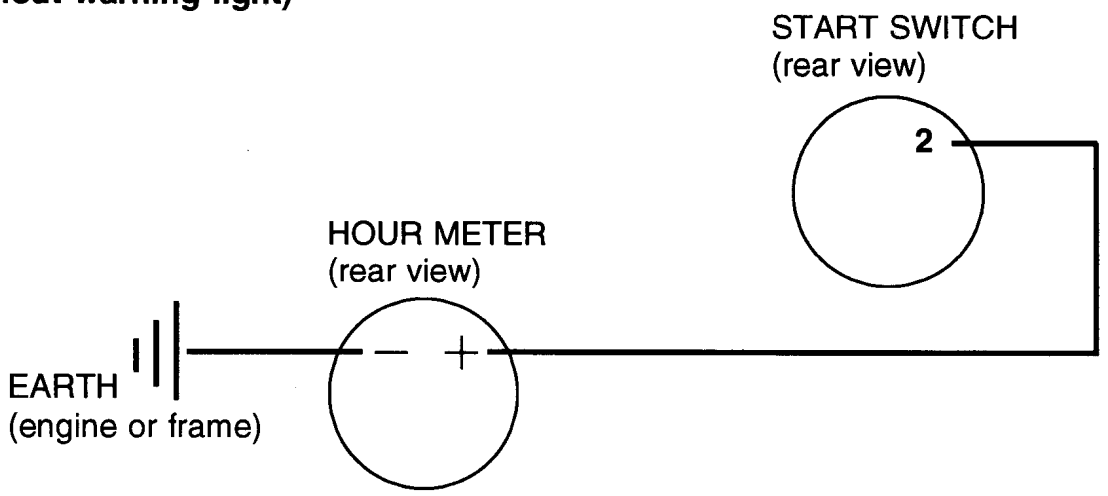
1 Terminal with insulator
2 Generator - clockwise rotation
3 Terminal with insulator
4 Cable, twin core brown & blue
5 Tape
6 Cable, blue
7 Regulator
8 Screw, voltage adjusting
9 Cable, green
10 Cable, red
11 Connector
12 Nipples
13 Cable, twin core, brown & blue
14 Socket, shovel unit
15 Plug, shovel unit
16 Control, shovel unit
17 Clips, brass
18 Solenoid valve
19 Connect cable to solenoid valve plug as shown, so that the cable falls away from the valve, not over it.
20 Cable, twin core, brown & blue
21 Board, insulating
22 Resistor
23 Connector
24 Cable, twin core, brown & blue
25 Dragline solenoid valve
26 Socket, dragline
27 Plug, dragline
28 Button, dragline operating

Hand start & electric motor driven mixers

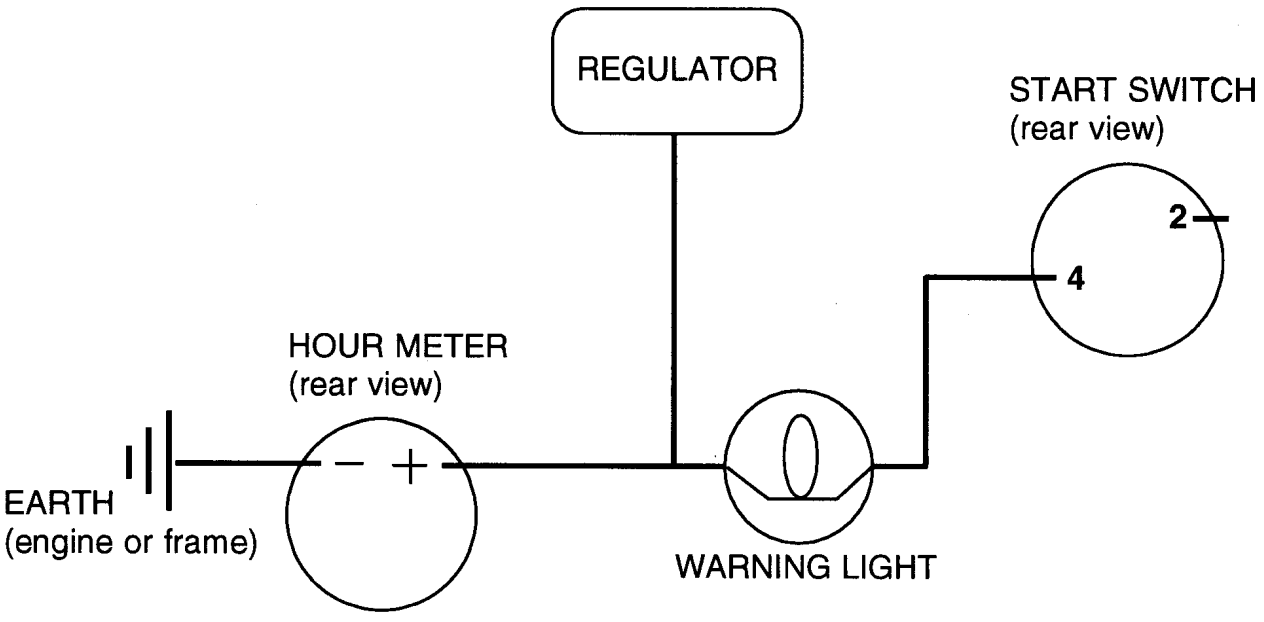


HOUR METER WIRING

Hour Meter
(without warning light)



Hour Meter
(with warning light)



DRAGLINE ELECTRICAL SYSTEM

Hand start engines and 415 volt electric motor driven mixers:

From serial numbers:

0843 for 300R & 400R
0313 for 500R

Power for the dragline on later machines is provided by a 12 volt automotive alternator and battery. The charging state is indicated by a warning light. An isolator switch is fitted to turn the system ON or OFF.

WARNING

Do not start the engine or motor unless the battery is connected and the isolator switch is turned ON.

Power is drawn from the alternator and battery through the shovel mounted operating switch, back through the plug and solenoid valve. *(See wiring diagram below.)*

The most common causes of electrical failure are:

1 Break in the two core cable between the shovel mounted button/switch and the socket and plug mounted below the winch motor. (If the cable is shortened do not reduce the length to less than 19.8 metres, 65 feet.)

2 Isolator switch is in the OFF position.

3 Dirty or loose electrical connections at the plug and socket, the solenoid valve, isolator switch or battery.

4 Flat battery.

5 Incorrectly adjusted drive belt.

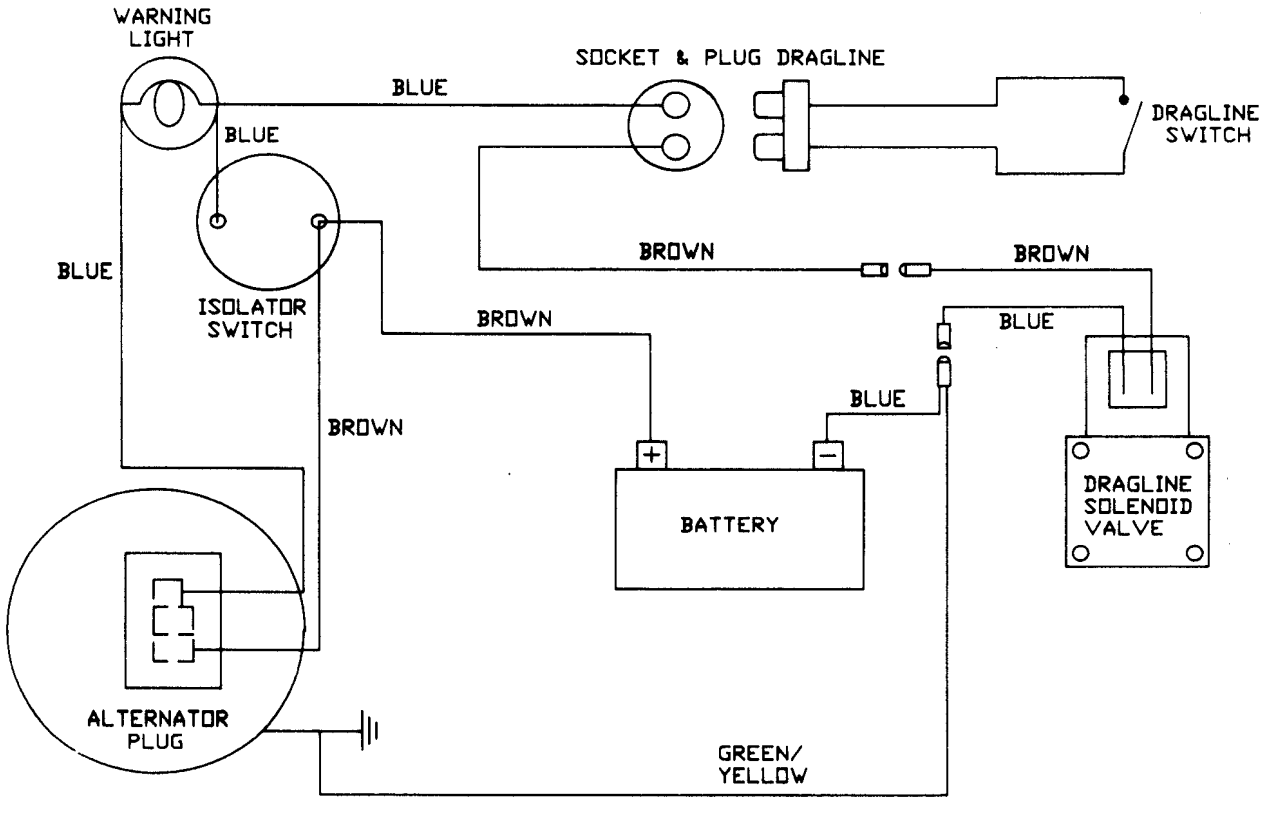
6 Bad Earth connection.

7 Warning Light has blown.

Voltage Setting Instructions

It is not possible to adjust the voltage setting but the voltage can be measured

Dragline alternator and battery circuit

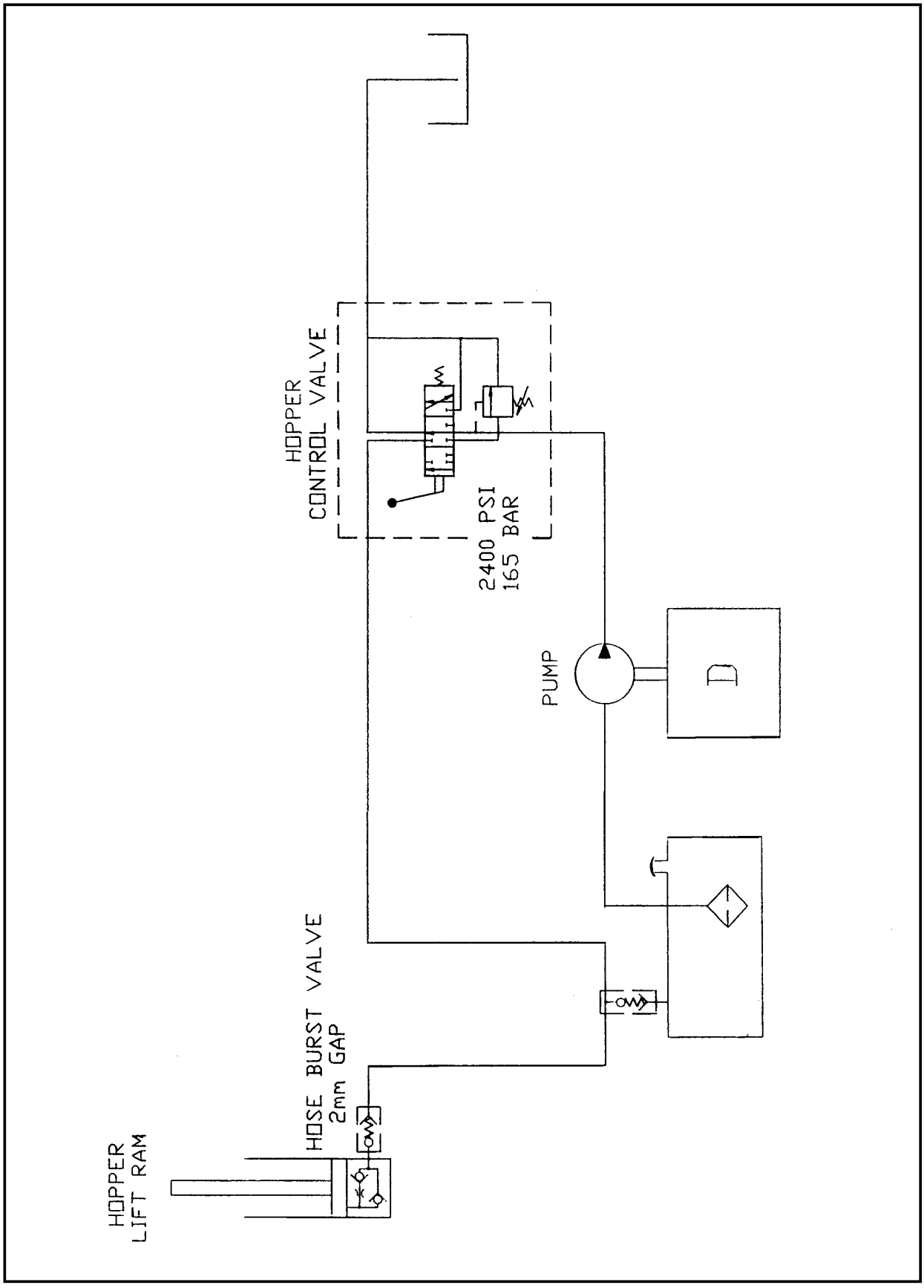


at the terminal block on the solenoid valve.

Remove the terminal block, connect a D.C. Voltmeter to the terminal block and start the engine. Depress the shovel mounted button/switch and note the voltage reading. It should not exceed 14.5 volts. If the voltmeter indicates a negative reading or reads in the reverse direction interchange the voltmeter leads.

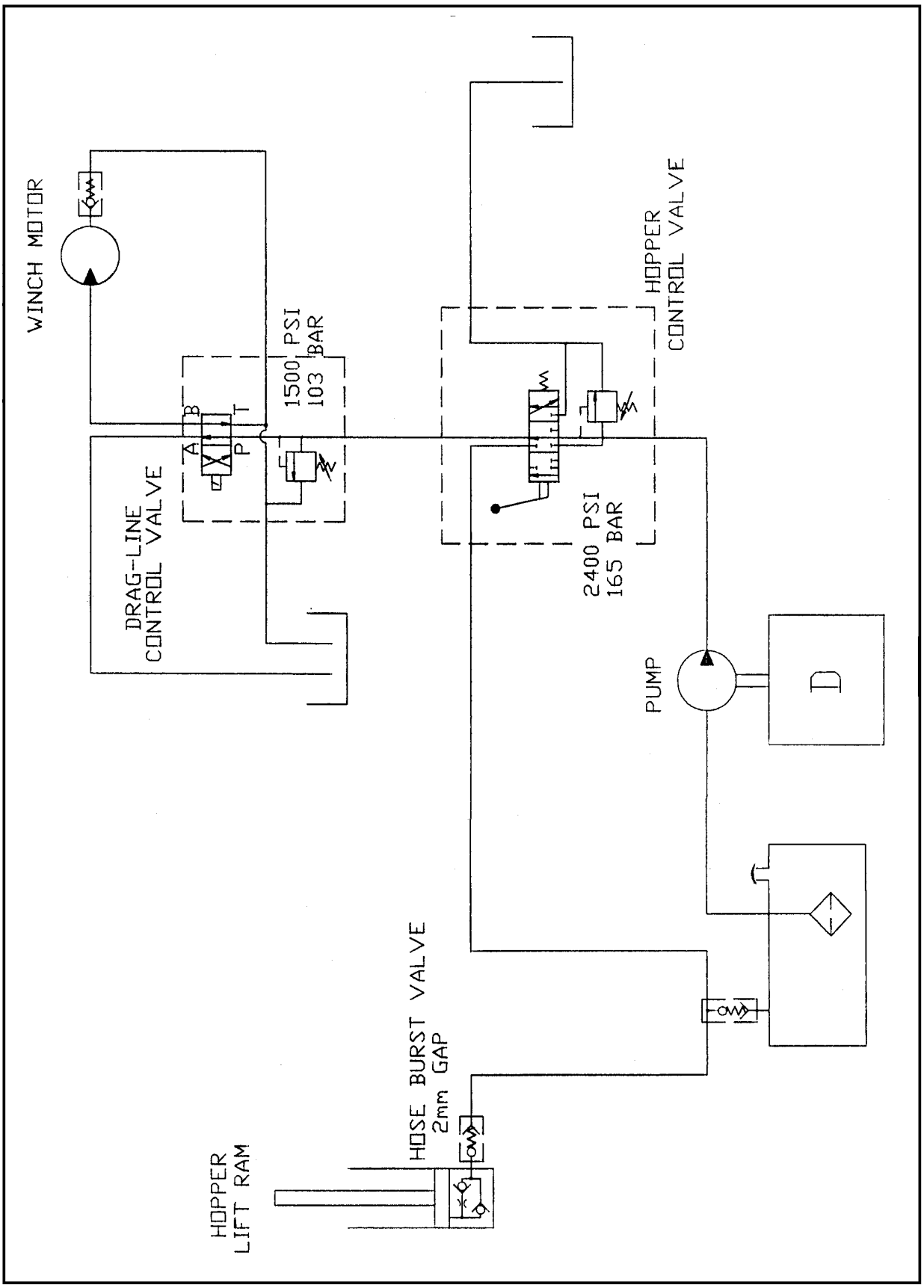
HYDRAULIC CIRCUIT, BASIC MIXER

300R & 400R up to serial number 0836
500R up to serial number 0306



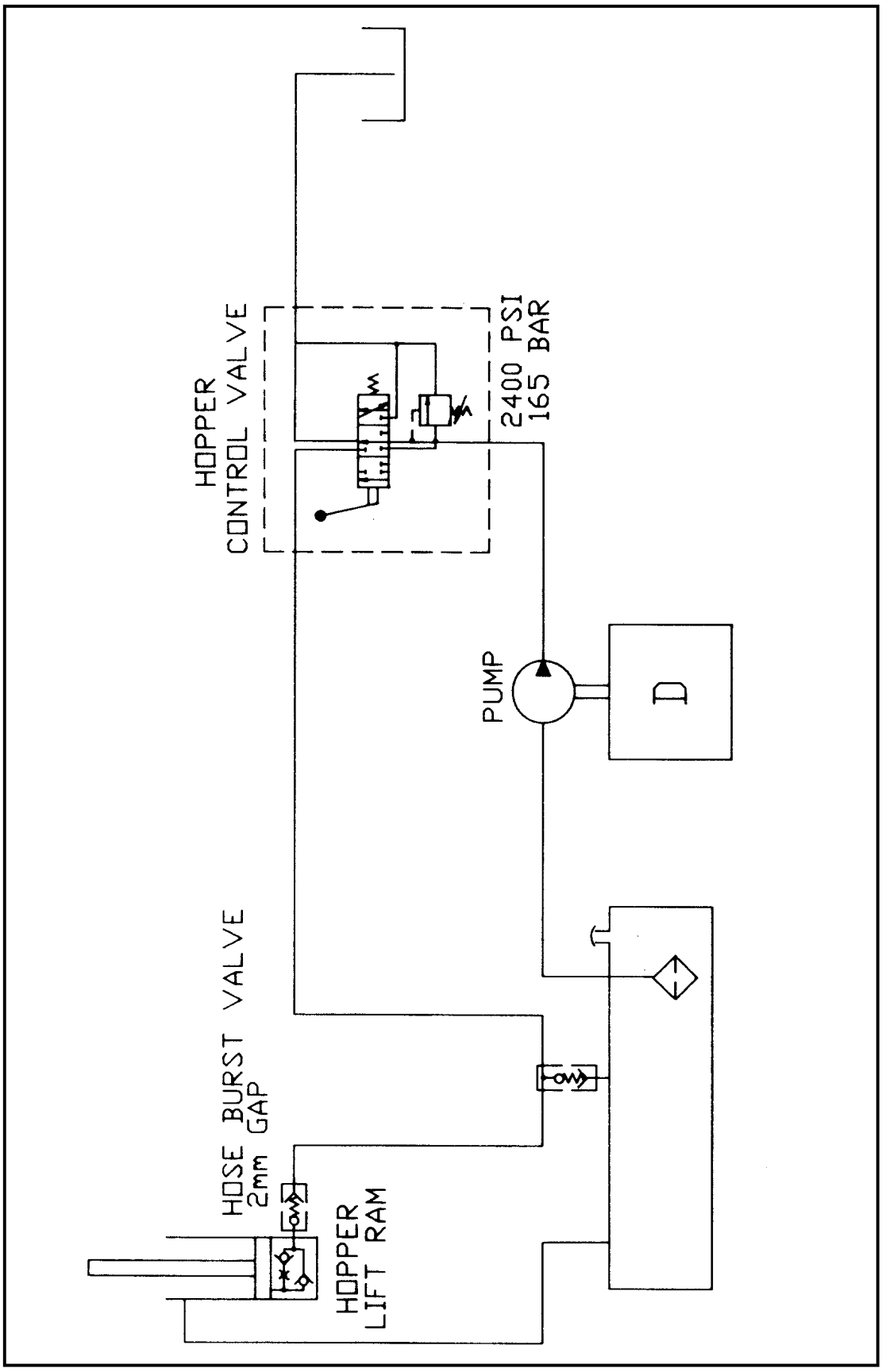
HYDRAULIC CIRCUIT, MIXER & DRAGLINE

300R & 400R up to serial number 0836
500R up to serial number 0306



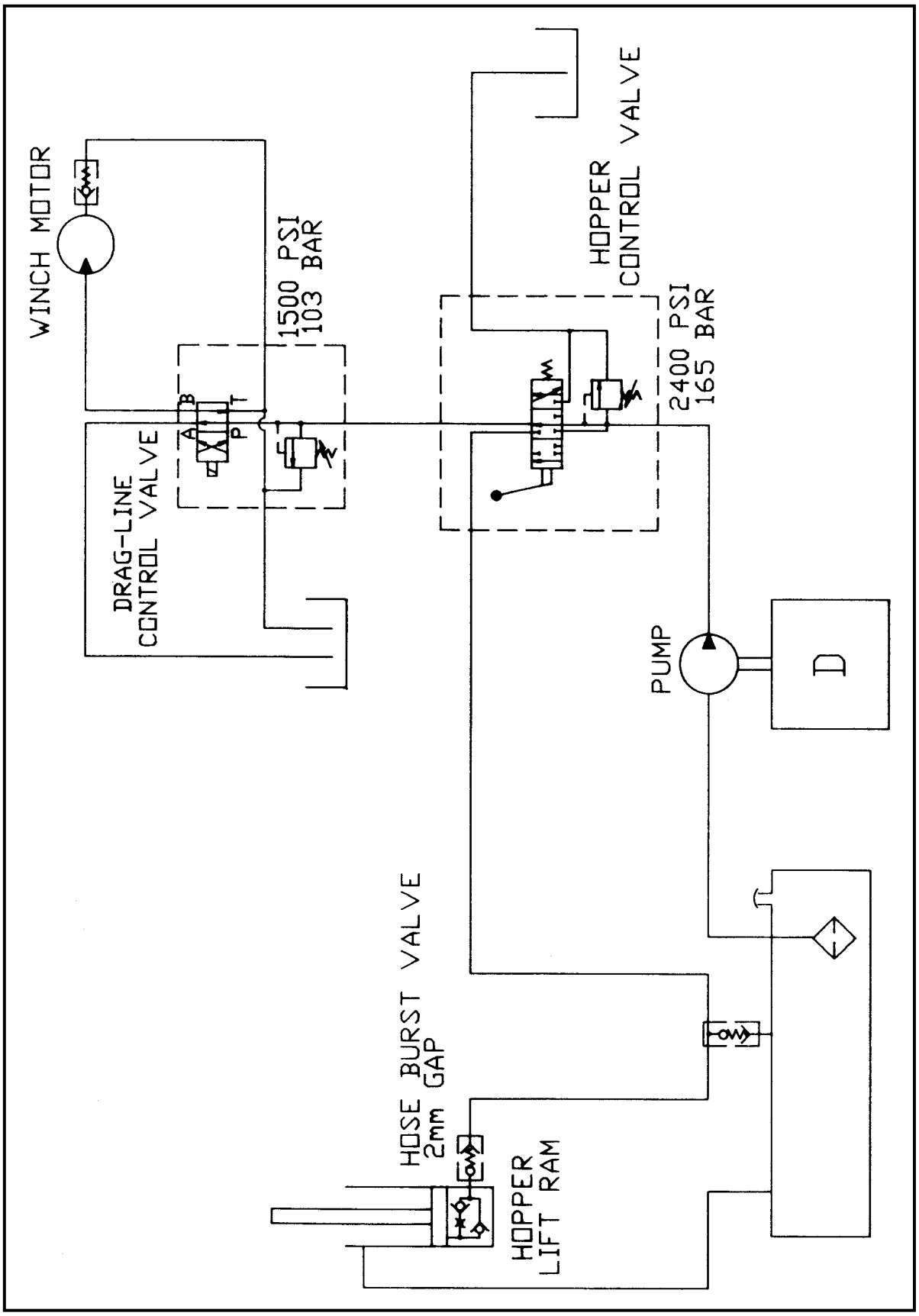
HYDRAULIC CIRCUIT, BASIC MIXER

300R & 400R from serial number 0837
500R from serial number 0307



HYDRAULIC CIRCUIT, MIXER & DRAGLINE

300R & 400R from serial number 0837
500R from serial number 0307



Lubricants

Mixers are factory filled with the following TOTAL oils

Engine lubrication *Refer to Engine Handbook for cold weather oils*	Rubia B 10W/30
Gearbox	Rubia B 20W/30
Enclosed chain drive	Rubia B 20W/30
Open gears and roller track	Open gear lubricant
Hydraulic system	Azzolla ZS46
Grease points	Multis EP2

Noise levels

Noise tests were carried out in accordance with EC Directive79/113 on a ten metre hemisphere with the drum empty and rotating.
Operator's ear tests were carried out at a distance one metre from the drum and hydraulic control levers at a height of one metre from the ground.

Lister TS2-08 Standard build

10 Metre	LWA 111
1 Metre (Operator's ear)	LPA 98

Lister TS2-63 Low noise build with cladding kit fitted to mainframe/engine housing

10 Metre	LWA 110
1 Metre (Operator's ear)	LPA 97

415 Volt Electric Motor

10 Metre	LWA 109
1 Metre	LPA ----

Fluid capacities

Engine lubrication oil:	TS2	4 litres
	TS3	6 litres
Fuel tank, TS2 & TS3:		13.4 litres
Reversing gearbox lubrication oil:		2.5 litres

Speeds

Mixing drum:	14 rpm
Engines, TS2 & TS3:	1800 rpm
Electric motor:	1500 rpm

Tyres

Pressure	50 psi

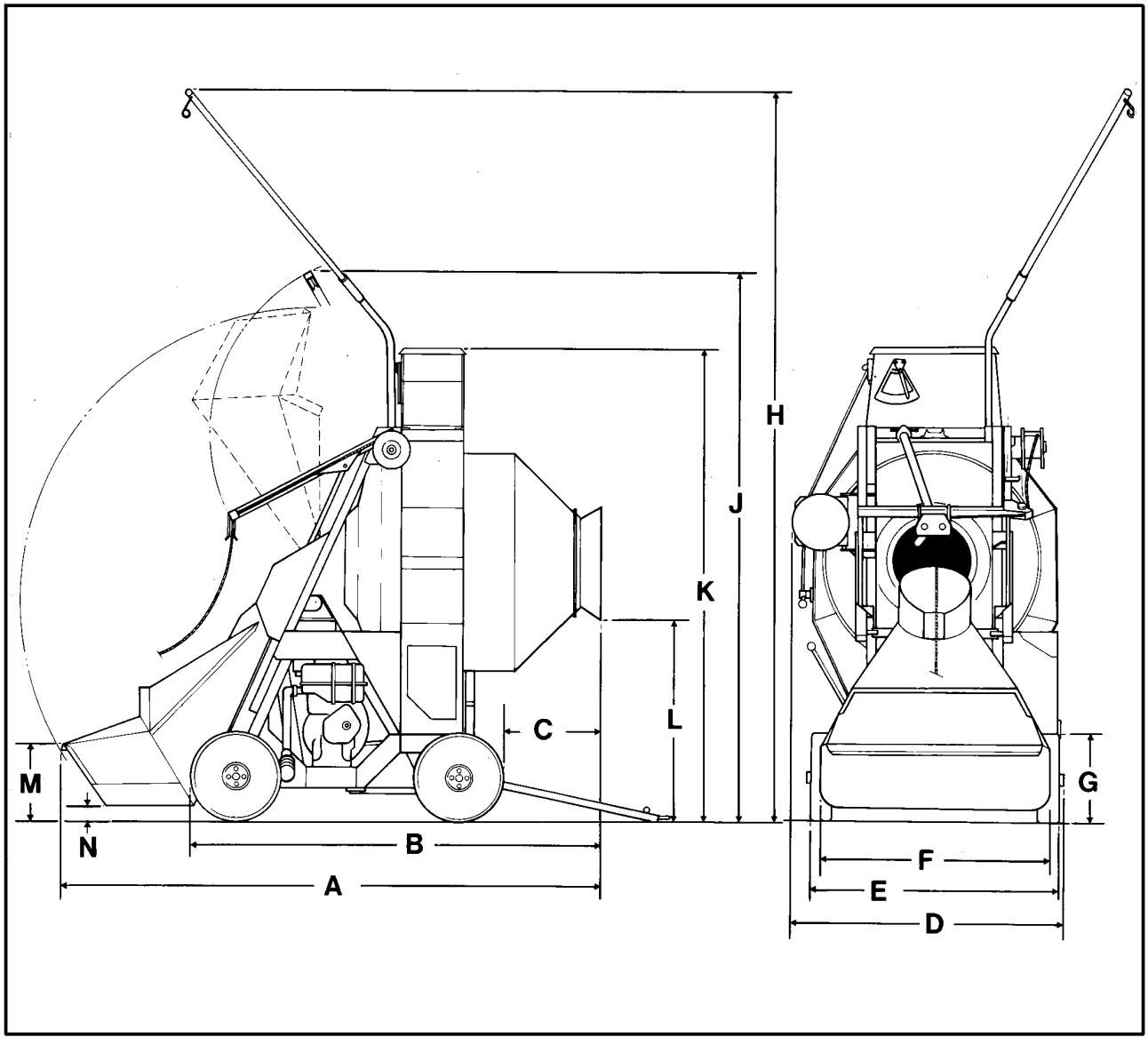
Weights of mixers (Approximately)

300R	2325 kg	(5127 lbs)
400R	2420 kg	(5336 lbs)
500R	2610 kg	(5755 lbs)

4.2 TECHNICAL INFORMATION

Dimensions

	300R	400R	500R
A	3.33m (10’ 11”)	3.71m (12’ 2”)	4.14m (13’ 7”)
B	2.50m (8’ 3”)	2.81m (9’ 3”)	3.05m (10’ 0”)
C	0.36m (1’ 2”)	0.66m (2’ 2”)	0.66m (2’ 2”)
D	1.80m (5’ 11”)	1.80m (5’ 11”)	1.80m (5’ 11”)
E	1.65m (5’ 5”)	1.65m (5’ 5”)	1.65m (5’ 5”)
F	1.52m (5’ 0”)	1.52m (5’ 0”)	1.52m (5’ 0”)
G	0.61m (2’ 0”)	0.61m (2’ 0”)	0.61m (2’ 0”)
H	4.88m (16’ 0”)	4.88m (16’ 0”)	4.88m (16’ 0”)
J	3.77m (12’ 5”)	3.77m (12’ 5”)	3.96m (13’ 0”)
K	3.14m (10’ 3”)	3.14m (10’ 3”)	3.23m (10’ 7”)
L	1.37m (4’ 6”)	1.37m (4’ 6”)	1.37m (4’ 6”)
M	0.52m (1’ 8”)	0.52m (1’ 8”)	0.52m (1’ 8”)
N	0.10m (4”)	0.10m (4”)	0.10m (4”)



300R & 400R
Mixer Parts

500R
Mixer Parts

(Back to the front of the book)

MIXERS
300R
400R

IMPORTANT: *For 400R mixers, serial numbers 0505 to 0535 inclusive, refer direct to Winget Limited for parts. These machines are NOT covered by this parts manual.*

300R & 400R Mixer Parts

Contents

A Mainframe & Portability

B Drum & Drive

C Transmission & Engines

D Hopper

E Hydraulics

F Water System

G Dragline

H Electrics

J Hoist

K Decals

Numerical Index

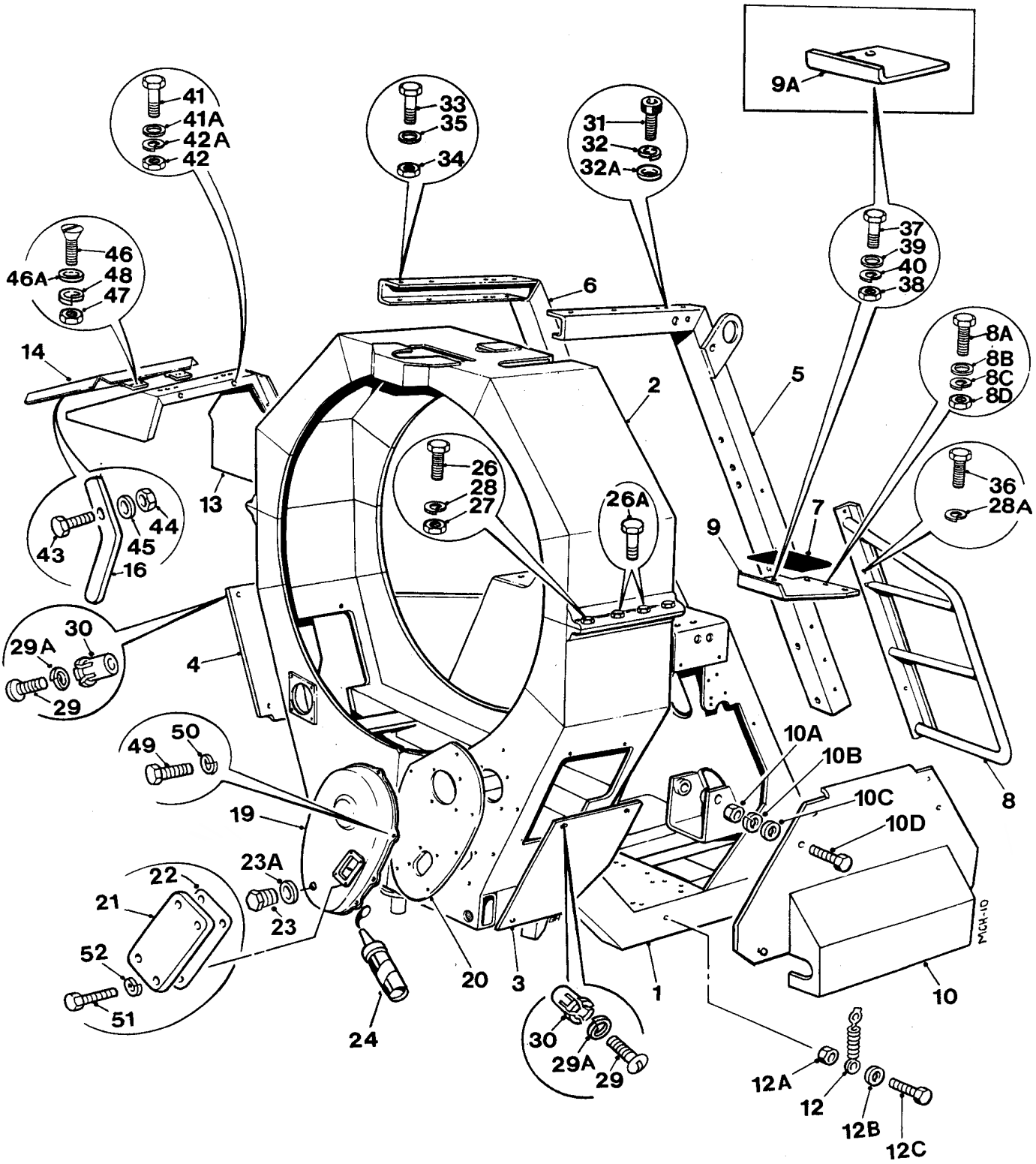
MIXERS
300R
400R

Mainframe & Portability

MAINFRAME, TANK SUPPORTS & COVERS	A - 1
TOWBAR, AXLES & JACKS	A - 3
WHEELS (up to serial no. 0846)	A - 3A
STEEL WHEELS & AXLES (from serial no. 0847)	A - 3AA
PNEUMATIC WHEELS & AXLES (from serial no. 0847)	A - 3AB
BATTERY TRAY & INSULATION KIT	A - 3B
ANTI-BOUNCE GEAR	A - 4
GUARDS	A - 5
GUARDS, MESH	A - 6

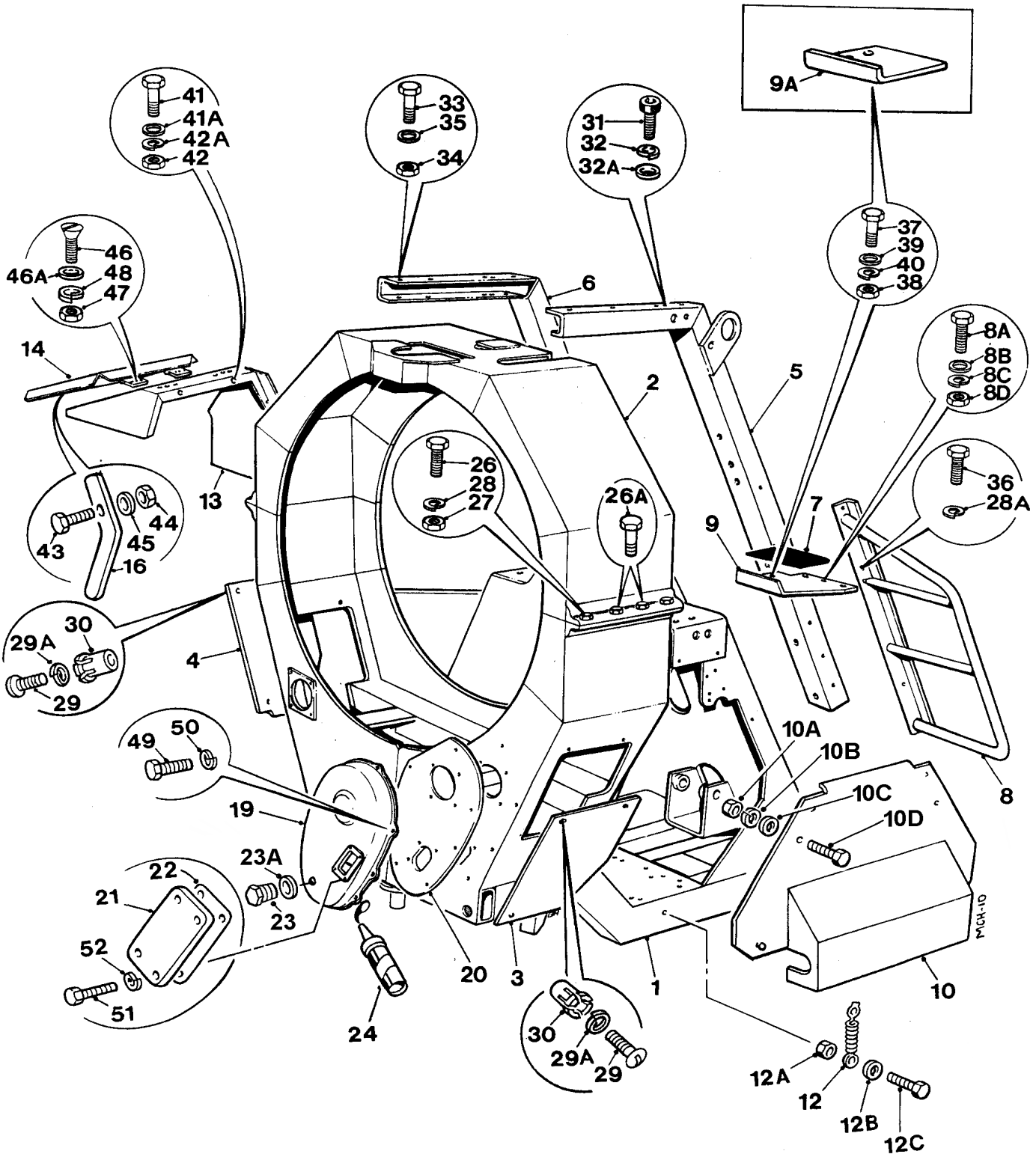
A - 1

Reversing Drum Mixers, Models 300R & 400R



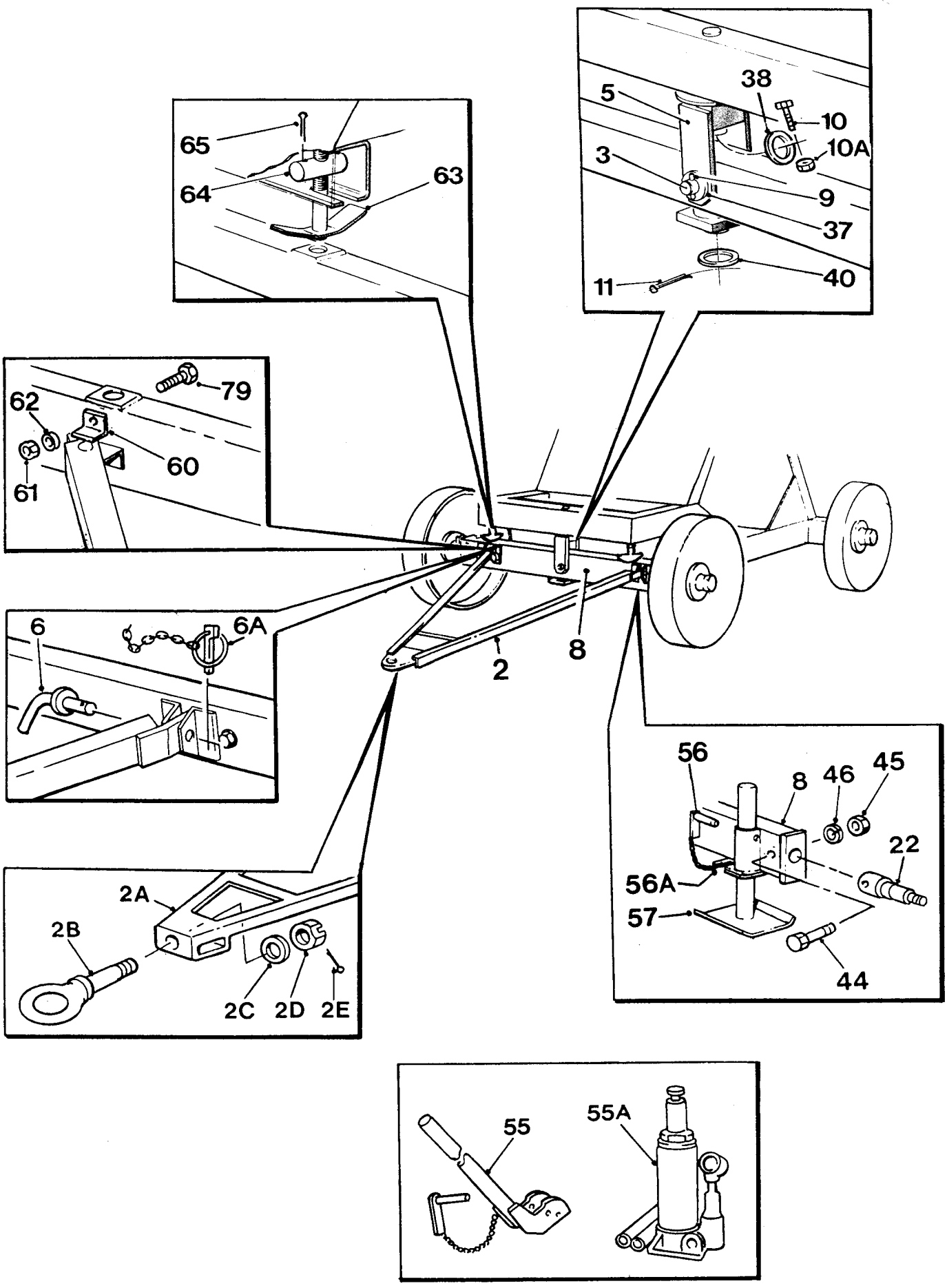
Item	Part no	Serial no	Description	Qty
1	555272300		MAINFRAME *(includes item 20)*	1
2	555130600		GUARD, drum, upper	1
3	555264802	/1765	# GUARD, lower plate, L.H.	1
4	555264801	/1765	# GUARD, lower plate, R.H.	1
4A	555225300	1766/	GUARD, lower plate, L.H. & R.H.	2
5	555145700		# SUPPORT, water tank, L.H.	1
6	555145600		# SUPPORT, water tank, R.H.	1
			# *Views taken from hopper end*	
7	V2003183		SAFETY WALK	1
8	555189900		GUARD/FENCE *(UK/Europe)*	1
8A	28S03E		SCREW *(used with item 8)*	3
8B	10S03		WASHER flat *(used with item 8)*	3
8C	41S05		WASHER, spring *(used with item 8)*	3
8D	9S03		NUT *(used with item 8)*	3
9	555190400		STEP *(used with item 8)*	1
9A	555163500		STEP *(NOT used with item 8)*	1
10	555131500		COVER, control side	1
10A	7S03	1034 /	NUT	2
10B	17S04	1034 /	WASHER, spring	2
10C	267S05	1034 /	WASHER, flat	2
10D	11S03C	1034 /	SCREW, set	2
12	221101000		CATCH, spring	1
12A	192S01		NUT, "Binx", self-locking	1
12B	10S02		WASHER, flat	1
12C	66S02A		SCREW, set	1
13	555193100		SHROUD, fuel tank	1
14	555193200		COVER, hinged, fuel tank	1
16	555193400		LATCH	1
19	555263900		COVER, chain	1
20	555257800		PLATE, chain case *(part of item 1)*	1
21	555114700		COVER, chain inspection	1
22	555168100		GASKET, chain inspection cover	1
23	241703000	/ 0861	PLUG, taper thread	1
23	127S03	0862 /	PLUG, parallel thread	1
23A	100S03	0862 /	SEAL, bonded	1
24	V2000772		SEALANT	tube 1

A - 1 Reversing Drum Mixers, Models 300R & 400R



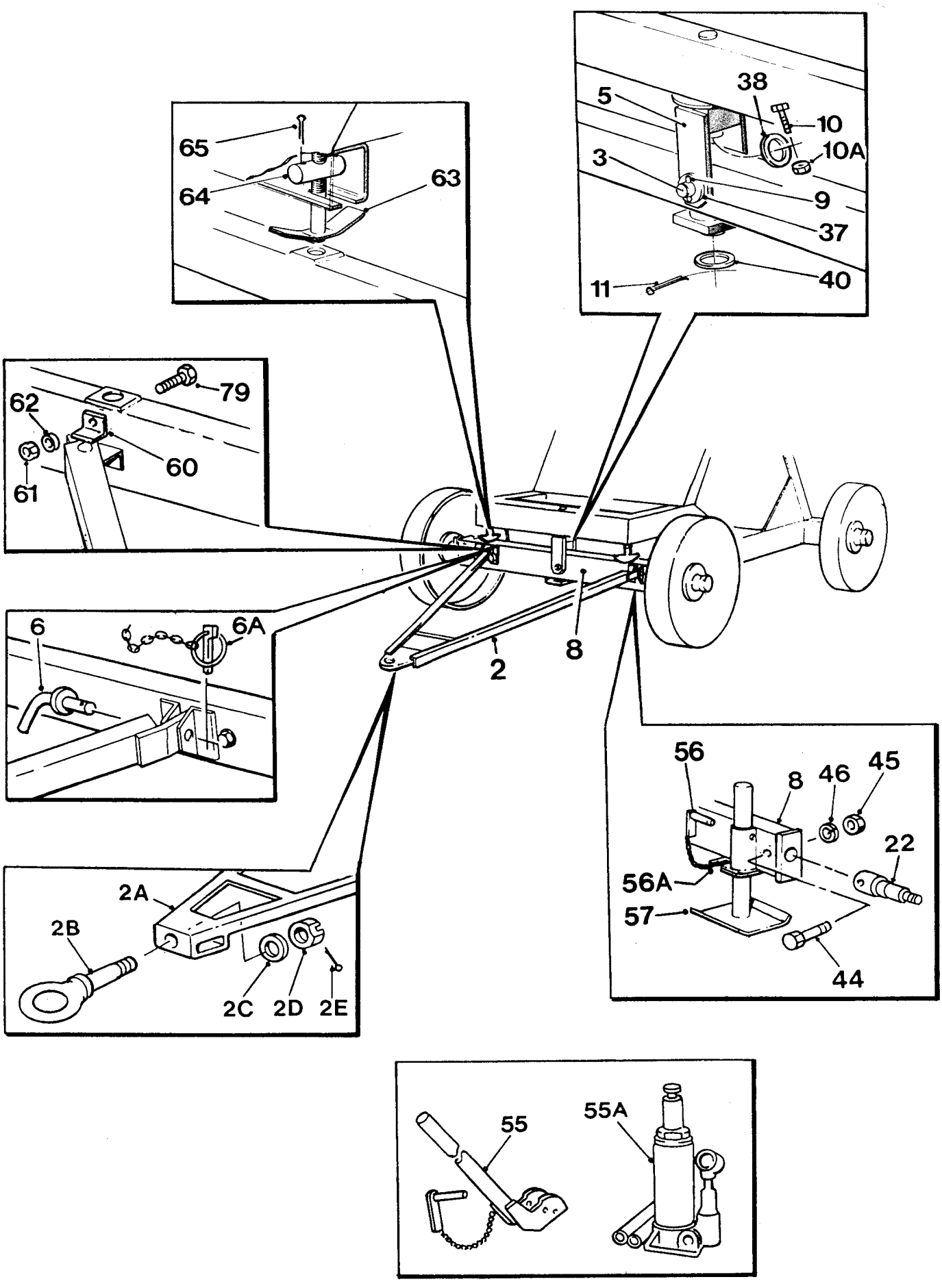
Item	Part no	Serial no	Description	Qty
26	28S03E		SCREW, set	6
26A	6S03B		BOLT, *(water tank rod bracket)*	2
27	87S03		NUT, "Binx", self-socking	8
28	10S03		WASHER, flat	8
28A	17S05		WASHER, spring *(used with item 8)*	4
29	16S07C	/1765	SCREW, slotted pan head	4
29A	17S03	/1765	WASHER, spring	4
30	236S04	/1765	NUT, blind, nylon	4
29	11S02B	1766/	SCREW, set	8
29A	17S03	1766/	WASHER, spring	8
29B	267S04	1766/	WASHER, flat	8
30	326S04	1766/	NUT, rivet M6	8
31	90S06H		SCREW, socket head cap	6
32	41S07		WASHER, spring	6
32A	10S04		WASHER, flat	6
33	6S05Z		SCREW, set *(water tank)*	4
34	87S05		NUT, self locking	4
35	10S04		WASHER, flat	4
36	11S04C		SCREW, set *(used with item 8)*	4
37	28S05G		SCREW	2
38	9S04		NUT	2
39	10S04		WASHER, flat	2
40	41S07		WASHER, spring	2
41	28S03E		SCREW	3
41A	10S03		WASHER, flat	3
42	9S03		NUT	3
42A	41S05		WASHER, spring	3
43	66S01CC		SCREW, set	1
44	192S01		NUT "Binx"	1
45	10S01		WASHER, flat	1
46	233S03F		SCREW, countersunk	6
46A	267S03		WASHER, flat	6
47	7S01		NUT	6
48	17S02		WASHER, spring	6
49	11S03B		SCREW, set	7
50	17S04		WASHER, spring	7
51	66S01BB		SCREW, set	4
52	41S03		WASHER, spring	4

Reversing Drum Mixers, Models 300R & 400R



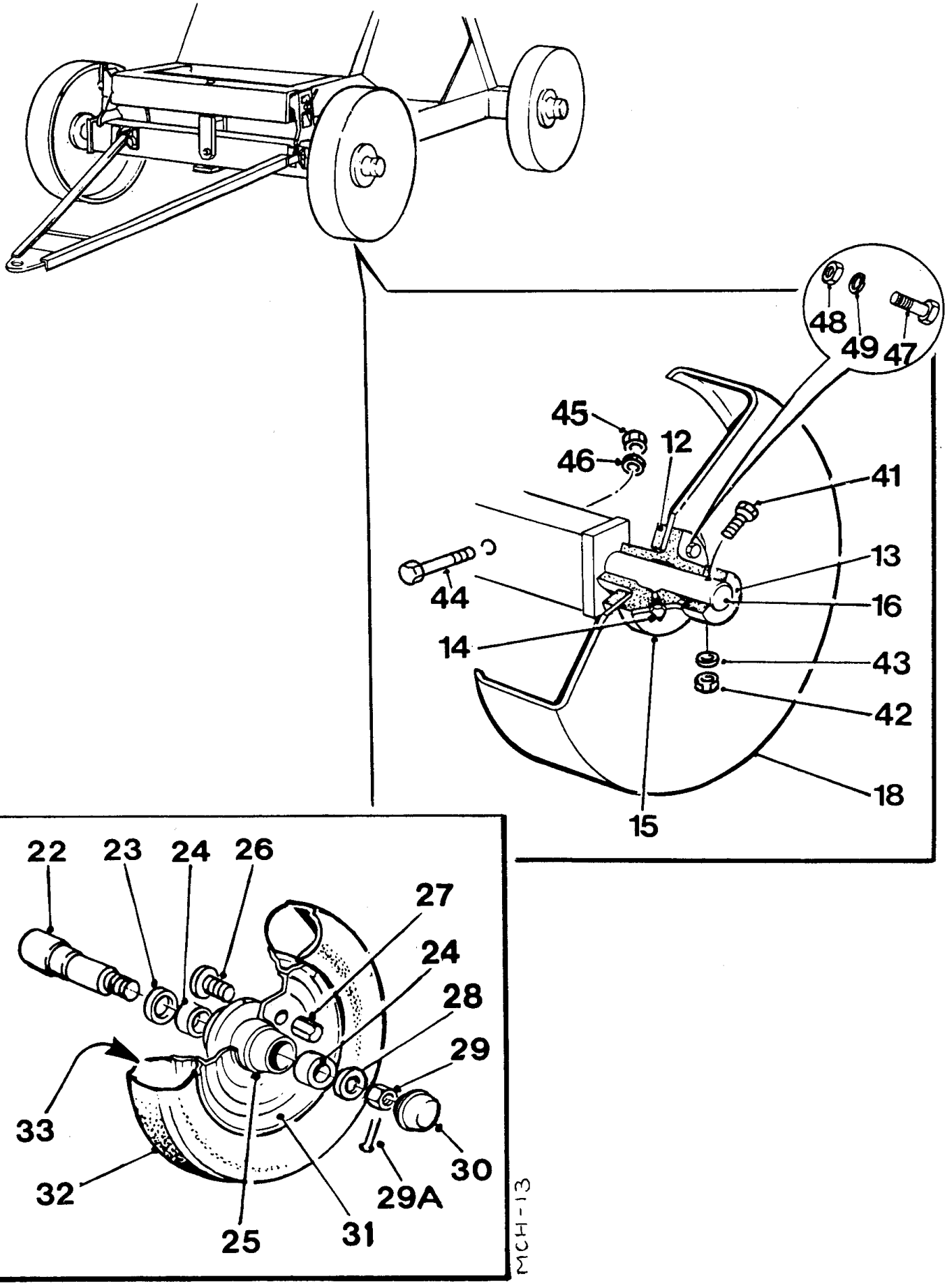
Item	Part no	Serial no	Description	Qty
2	555257400	/ 0846	TOWBAR, standard	1
2	555101200	0847 /	TOWBAR, standard	1
2A	555283300		TOWBAR, "NATO" **400R**	1
2B	555283600		EYE, "NATO", towing	1
2C	150S15		WASHER, flat	1
2D	92S15		NUT, castle	1
2E	44S18N		PIN, split	1
3	555101400		PIN, pivot, axle	1
5	555101900		PIVOT, axle	1
6	555102100	/ 0822	PIN "NATO" **(OBSOLETE)**	2
6	513354800	0823 /	PIN, towbar retaining	2
6A	902S02	0823 /	LYNCH PIN & CHAIN	2
8	555256300		AXLE front standard	1
8	555283400	/ 0846	AXLE, front, "NATO / MOD"	1
8	555287300	0847 /	AXLE, front, standard/"NATO/MOD"	1
9	44S17K		PIN,split	2
10	8S03E		BOLT	1
10A	61S03		NUT, self locking *(not illustrated)*	1
11	44S17K		PIN, split	2
17	555258400	/ 0846	TIE BAR, axle	1
17	555225700	0847 /	TIE BAR, axle	1
22	----------		STUB AXLE, pneumatic wheel *(see page A-3A)*	
37	10S20		WASHER, flat	2
38	10S43		WASHER, flat	1
40	10S65		WASHER, flat	2
44	6S05M	/ 0846	BOLT	4
45	9S04	/ 0846	NUT	4
46	41S07	/ 0846	WASHER, spring	4
55	555102800		JACK, manual, **"OBSOLETE"**	1
55A	555285600		JACK, hydraulic	1
56	555267800		PIN, locking	4
56A	124108001		BUCKLE	1
57	555190500		SUPPORT, foot	4

Reversing Drum Mixers, Models 300R & 400R



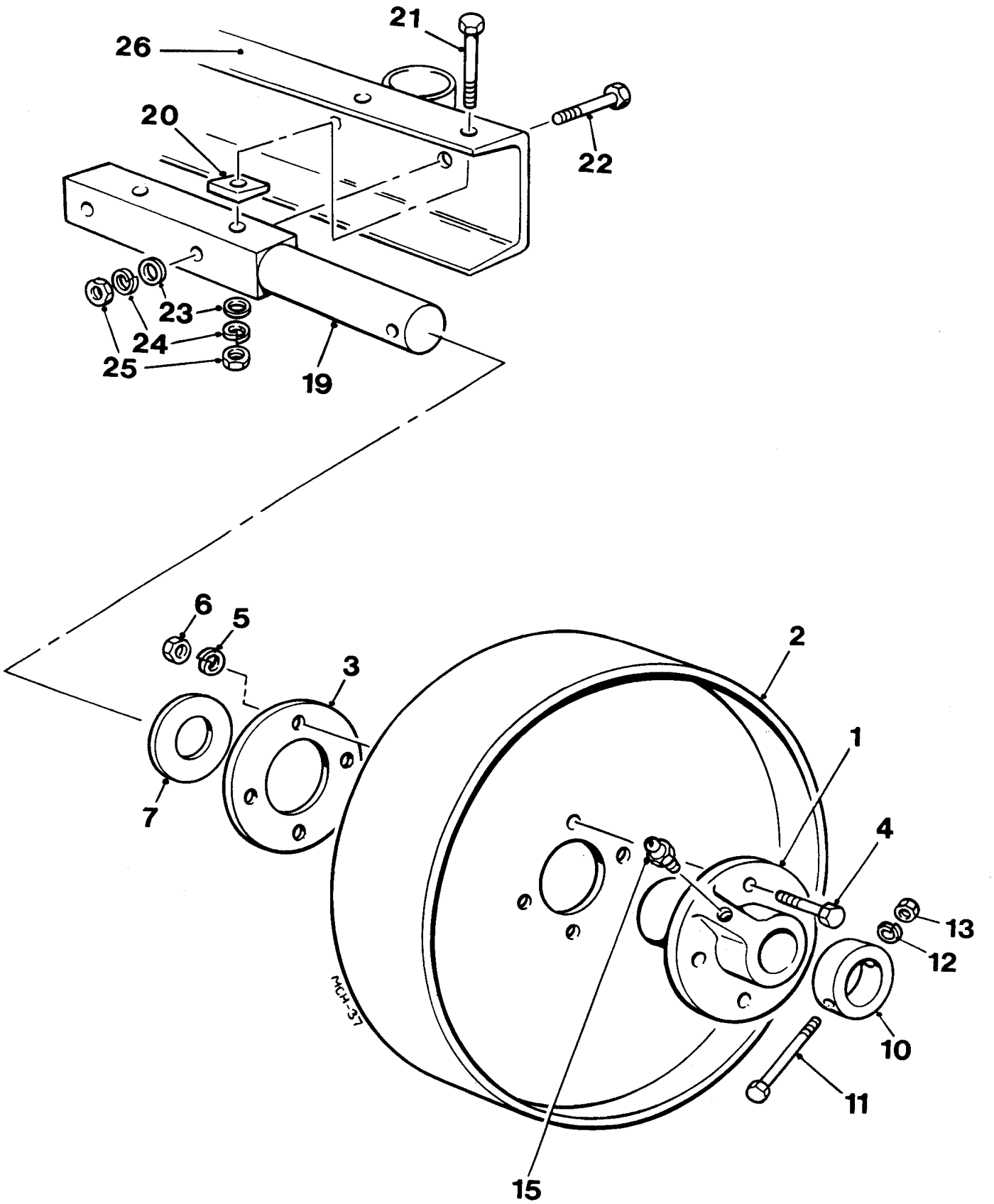
Item	Part no	Serial no	Description	Qty
60	555257300	/ 0846	RETAINER, tow bar	2
61	61S04	/ 0846	NUT, self locking	2
62	267S06	/ 0846	WASHER, flat	2
63	555256200		SCREW, sprag	2
64	555255900		PIN, sprag	2
65	44S05H		PIN, split	4
79	8S04N	/ 0846	BOLT	1

Reversing Drum Mixers, Models 300R & 400R



Item	Part no	Serial no	Description	Qty
			Steel wheels	
.....	555100900	/ 0846	WHEEL, steel, assembly	4
12	511165400	/ 0846	PLATE, backing	1
13	555277900	/ 0846	COLLAR	1
14	333104020	/ 0846	NIPPLE, grease	1
15	511146800	/ 0846	HUB, steel wheel	1
16	555257100	/ 0846	STUB AXLE, steel wheel	1
18	511146700	/ 0499	WHEEL, steel, pressed, **300R**	1
18	511146701	0500 / 0846	WHEEL, steel, fabricated, **300R**	1
18	511146700	/ 0535	WHEEL, steel, pressed, **400R**	1
18	511146701	0536 / 0846	WHEEL, steel, fabricated, **400R**	1
			Pneumatic wheels	
22	555257200	/ 0846	STUB AXLE, pneumatic wheels	4
-	475310000	/ 0846	HUB, assembly	4
23	475310001	/ 0846	SEAL, oil	1
24	475310002	/ 0846	BEARING	2
25	475310003	/ 0846	HUB	1
26	475310004	/ 0846	STUD, wheel	5
27	V600157	/ 0846	NUT, wheel	5
28	10S30	/ 0846	WASHER, flat	1
29	475310007	/ 0846	NIUT, axle	1
29A	44S06F	/ 0846	PIN, split	1
30	475310009	/ 0846	GREASE CAP	1
-	475600016	/ 0846	WHEEL, assembly	1
31	30033A01	/ 0846	RIM, wheel	1
32	475600017	/ 0846	TYRE, 6.00 x 16.00 RK3	1
33	475600018	/ 0846	TUBE, 6.00 x 16.00 RK3	1
41	6S07M	/ 0846	BOLT	4
42	9S03	/ 0846	NUT	4
43	41S05	/ 0846	WASHER, spring	4
44	6S05M	/ 0846	BOLT	4
45	9S04	/ 0846	NUT	4
46	41S07	/ 0846	WASHER, spring	4
47	6S06F	/ 0846	BOLT	16
48	9S05	/ 0846	NUT	16
49	41S09	/ 0846	WASHER, spring	16

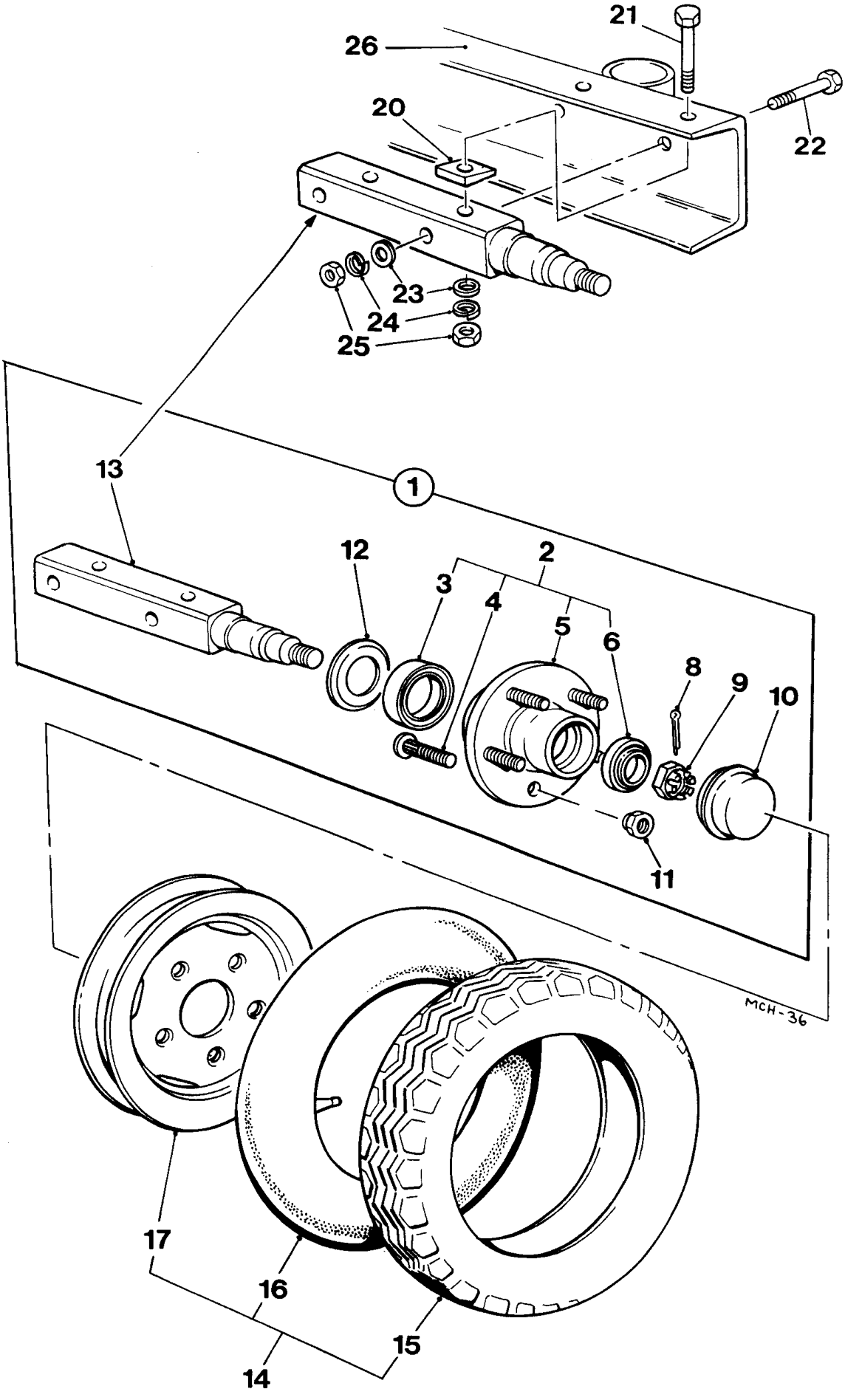
Reversing Drum Mixers, Models 300R & 400R



Item	Part no	Serial no	Description	Qty
1	511146800	0847 /	HUB, (casting)	4
2	511146701		WHEEL, steel, (fabricated)	4
3	511165400		PLATE, backing	4
4	6S06F		BOLT	16
5	41S09		WASHER, spring	16
6	9S05		NUT	16
7	150S15		WASHER, flat	4
10	555277900		COLLAR	4
11	6S03M		BOLT	4
12	41S05		WASHER, spring	4
13	9S03		NUT	4
15	333104020		NIPPLE, grease	4
19	555288500		STUB AXLE	4
20	105S05		WASHER, tapered	8
21	8S05M		BOLT	8
22	8S05K		BOLT	8
23	267S07		WASHER, flat	16
24	17S06		WASHER, spring	16
25	7S05		NUT	16
26	.....		*"CHASSIS FRAME"*	

A - 3AB

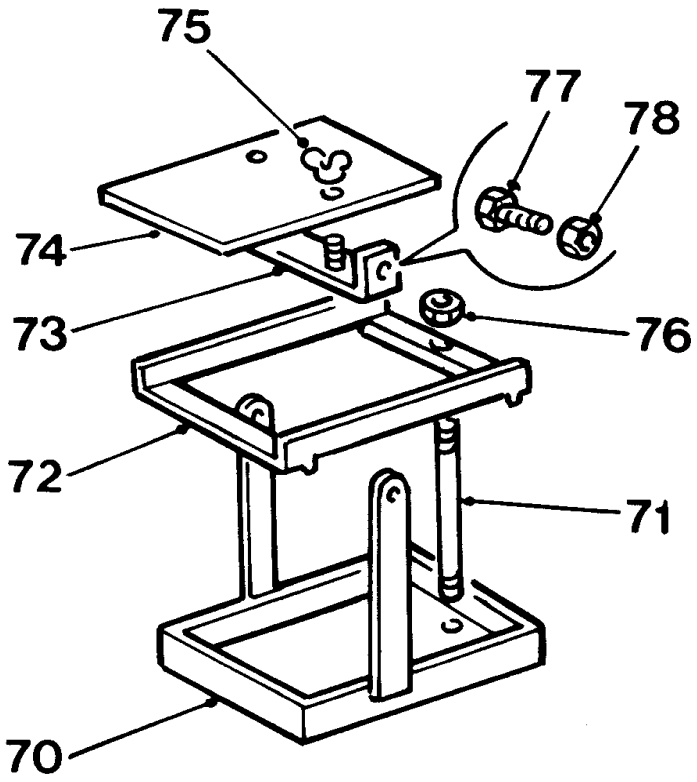
Reversing Drum Mixers, Models 300R & 400R

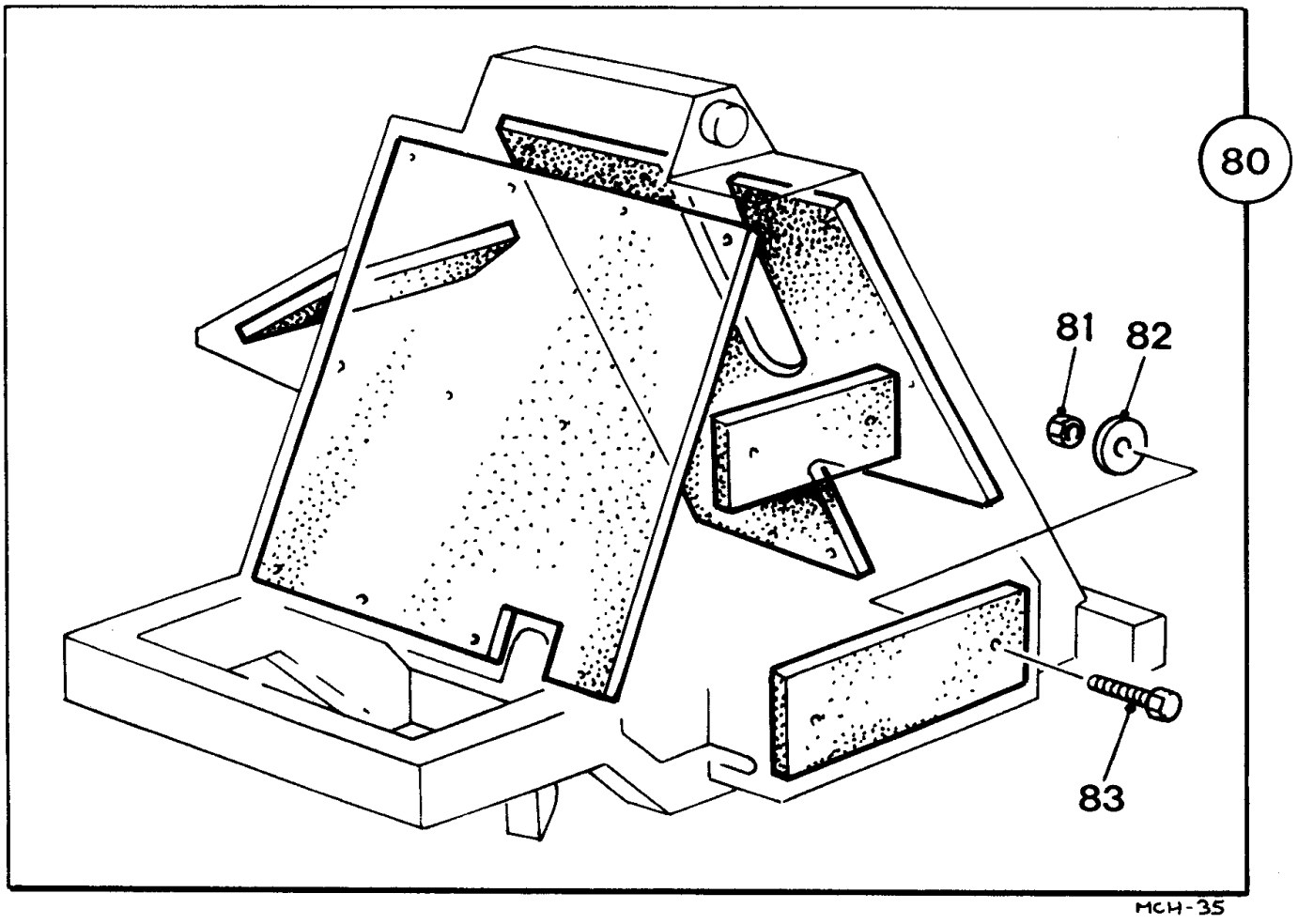


Item	Part no	Serial no	Description	Qty
1	555287600	0847/	HUB & STUB AXLE, assy	4
2	V602679		HUB, assy	1
3	V602667		BEARING, inner	1
4	V602677		STUD, wheel fixing	5
5	----------		HUB, order (V602679 Hub assy)	1
6	V602666		BEARING, outer	1
8	44S04E		PIN, split	1
9	V602669		NUT, slotted, 36mm across flats	1
9A	V603755		NUT, slotted, 40mm across flats	1
10	V602676		CAP, hub, knock in	1
11	V602678		NUT, wheel	5
12	V602668		SEAL, GREASE, hub rear	1
13	V602706		STUB AXLE, obsolete, *use items 9A & 13A*	1
13A	V603754		STUB AXLE, use with item 9A	1
14	475600019		WHEEL, assembly, 6.00 x 16	4
15	475600017		TYRE, 6.00 x 16	1
16	475600018		TUBE, inner	1
17	V602680		RIM, 16"	1
20	105S05		WASHER, tapered	8
21	8S05M		BOLT	8
22	8S05K		BOLT	8
23	267S07		WASHER, flat	16
24	17S06		WASHER, spring	16
25	7S05		NUT	16
26	-------		*"CHASSIS FRAME"*	

From machine serial no 400UD1392 through to serial no 400UG1417 the 6.00 x 16 wheel assemblies were temporarily replaced with tubeless 185R15 assemblies due to a shortage of suitable 6.00 x 16 rims and tyres. When ordering replacement wheel assemblies, tyres or rims for machines falling within this serial no range please quote tyre and rim size:- tyre 185R15C 8ply tubeless, rim 5JX15H2.

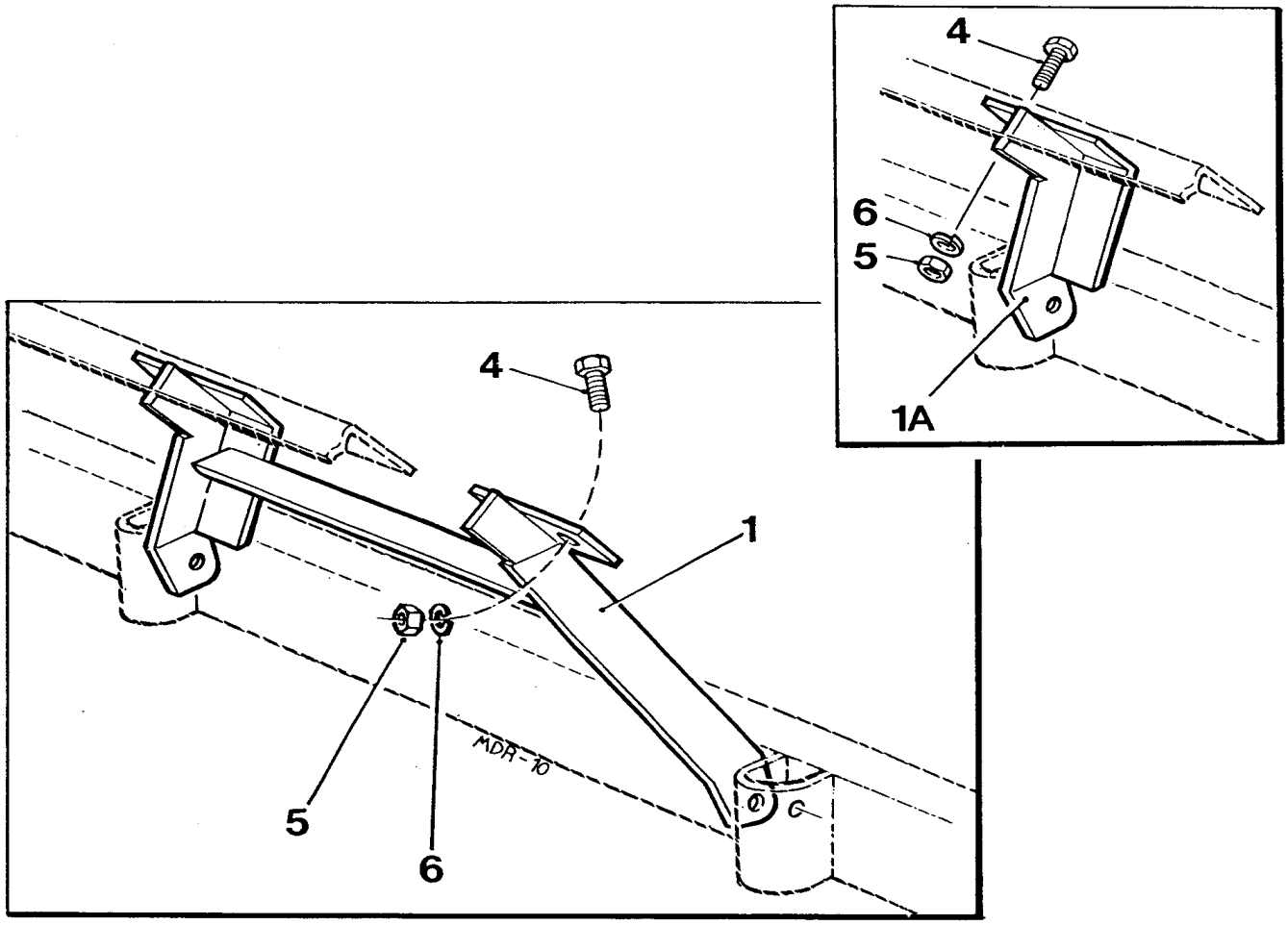
Reversing Drum Mixers, Models 300R & 400R

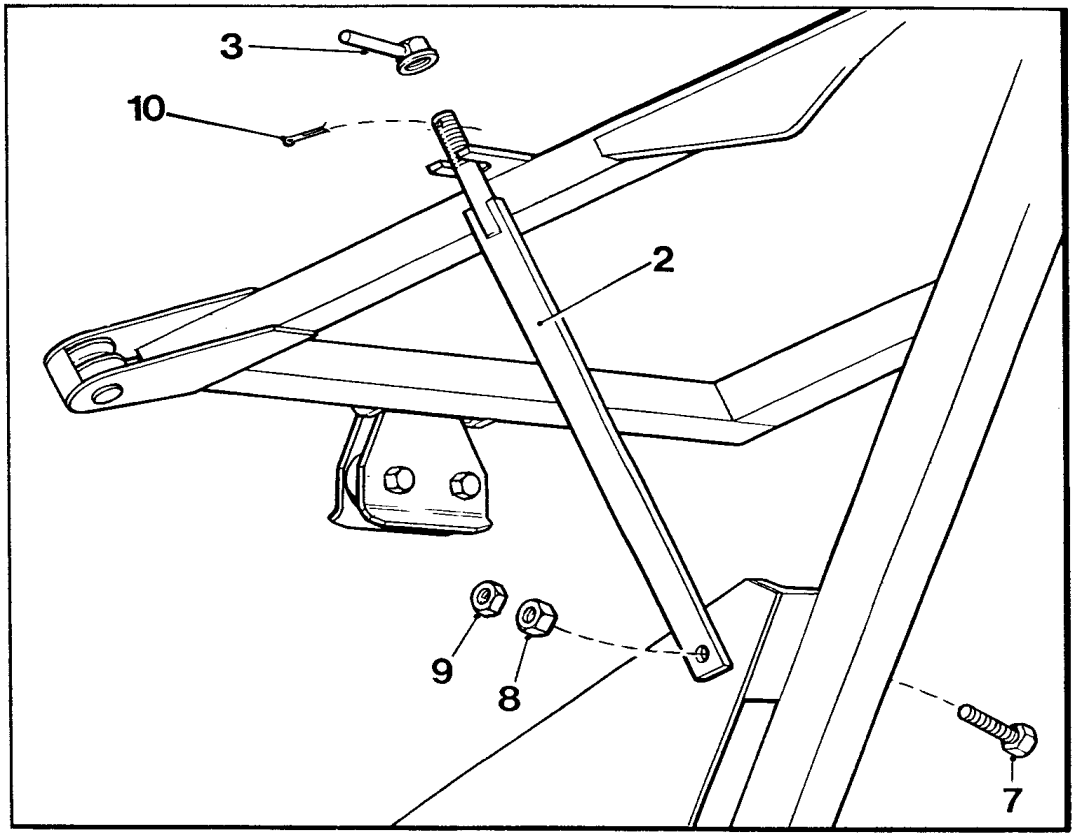




Item	Part no	Serial no	Description	Qty
			BATTERY TRAY	
70	30080A03		TRAY, battery	1
71	40SA17		ROD	2
72	10559A01		CLAMP	1
73	30080A0303		BAR, battery retaining	1
74	10742A05		COVER	1
75	177S03		NUT, wing	2
76	9S01		NUT	8
77	11S04C		SCREW, set	2
78	59S03		NUT	2
.....	.....		BATTERY (see page H - 2)	
			INSULATION KIT	
80	555286500		KIT, insulation	(Kit) 1
81	61S02		NUT, self-locking	30
82	10S56		WASHER, large o/d	30
83	11S02C		SCREW, set	30

Reversing Drum Mixers, Models 300R & 400R

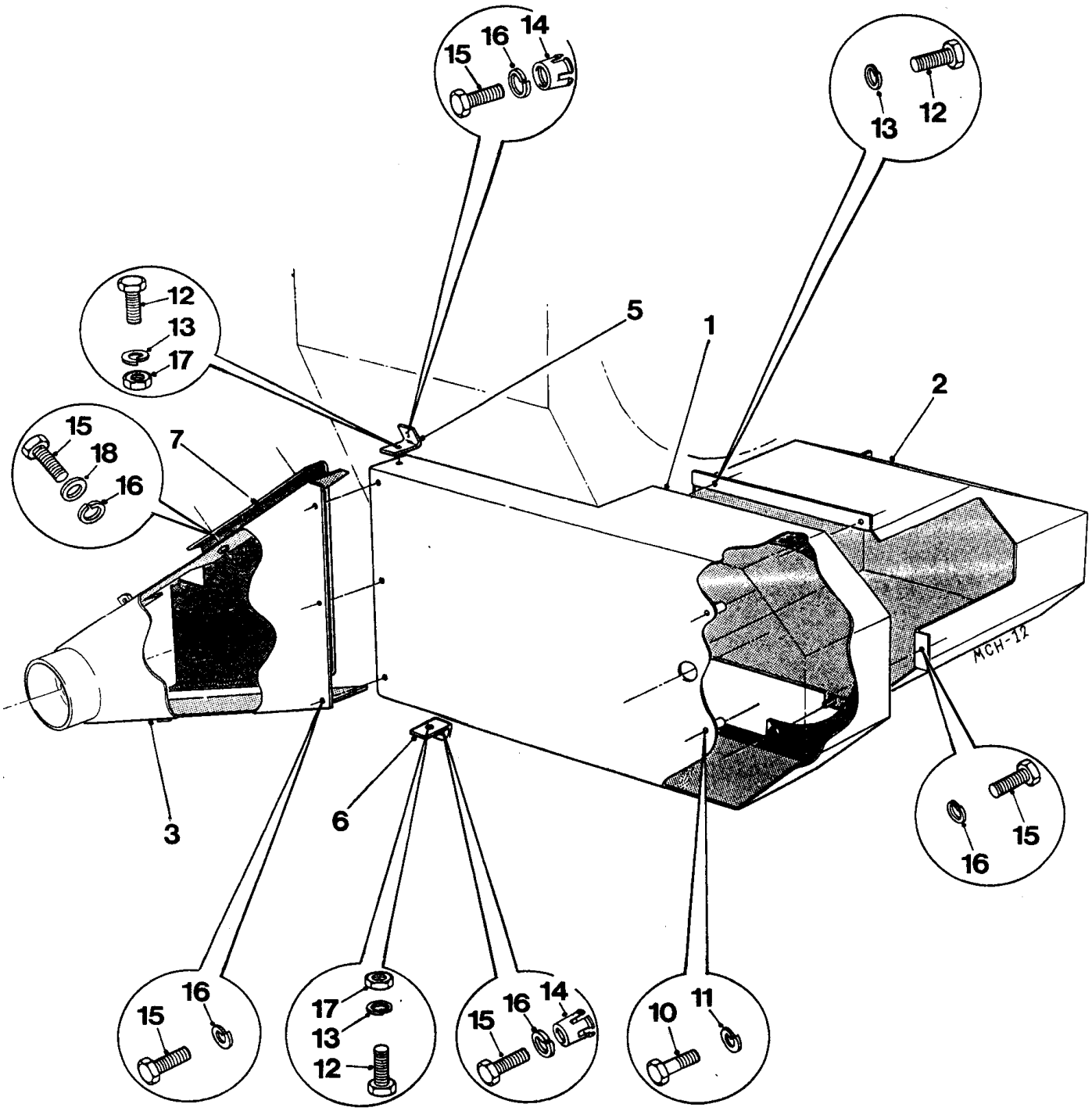




ANTI-BOUNCE GEAR (used only with pneumatic tyres) A - 4

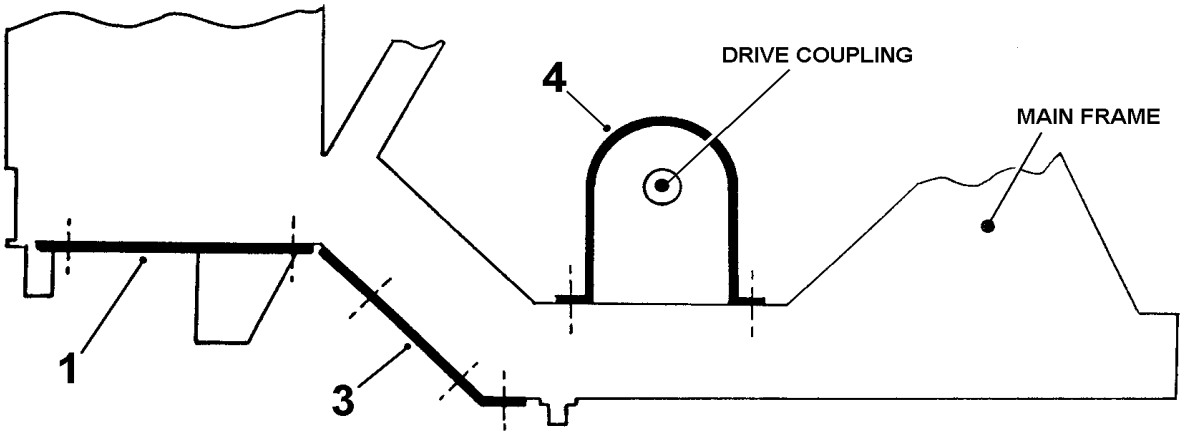
Item	Part no	Serial no	Description	Qty
1	555128000	/ 0846	BRACKET, anti-bounce, *dual strut*	1
1A	555288600	0847 /	BRACKET, anti-bounce, *single strut*	1
2	555128100	/ 0836	TIE BAR	1
3	555128200	/ 0836	NUT, locking	1
4	66S06D	/ 0846	SCREW, set	2
4	66S06D	0847 /	SCREW, set	1
5	104S06	/ 0846	NUT	2
5	104S06	0847 /	NUT	1
6	41S09	/ 0846	WASHER, spring	2
6	41S09	0847 /	WASHER, spring	1
7	6S03E	/ 0836	BOLT	1
8	41S05	/ 0836	WASHER, spring	1
9	9S03	/ 0836	NUT	1
10	44S02B	/ 0836	PIN, split	1

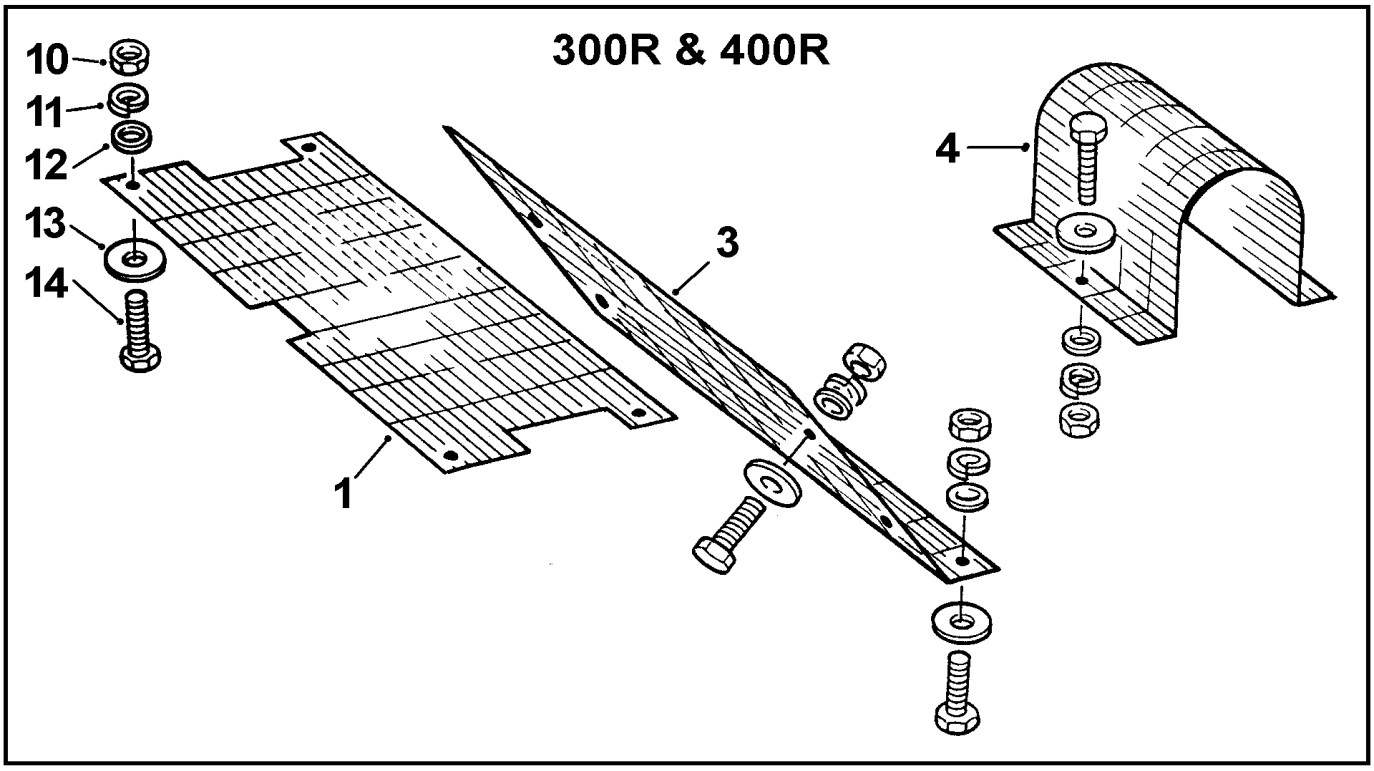
Reversing Drum Mixers, Models 300R & 400R



Item	Part no	Serial no	Description	Qty
1	555270800	/ May-86	GUARD, main drum	1
2	555218800		GUARD, winch	1
3	555271100		GUARD, primary chain, **Petter**	1
3	555271000		GUARD, primary chain, **Lister**	1
5	555219100		CLEAT, main guard, top	1
6	555270700		CLEAT, main guard, bottom	1
7	555223200		BACK PLATE, primary guard, **Lister**	1
7	555227900		BACK PLATE, primary guard, **Petter**	1
10	8S04D		BOLT	2
11	17S05		WASHER, spring	2
12	11S02C		SCREW	4
13	17S03		WASHER, spring	4
14	236S04		NUT, blind	2
15	11S03A		SCREW, set	13
16	17S04		WASHER, spring	13
17	7S02		NUT	1
18	267S05		WASHER, flat	3

Reversing Drum Mixers, Models 300R & 400R





'CE' marked mixers only

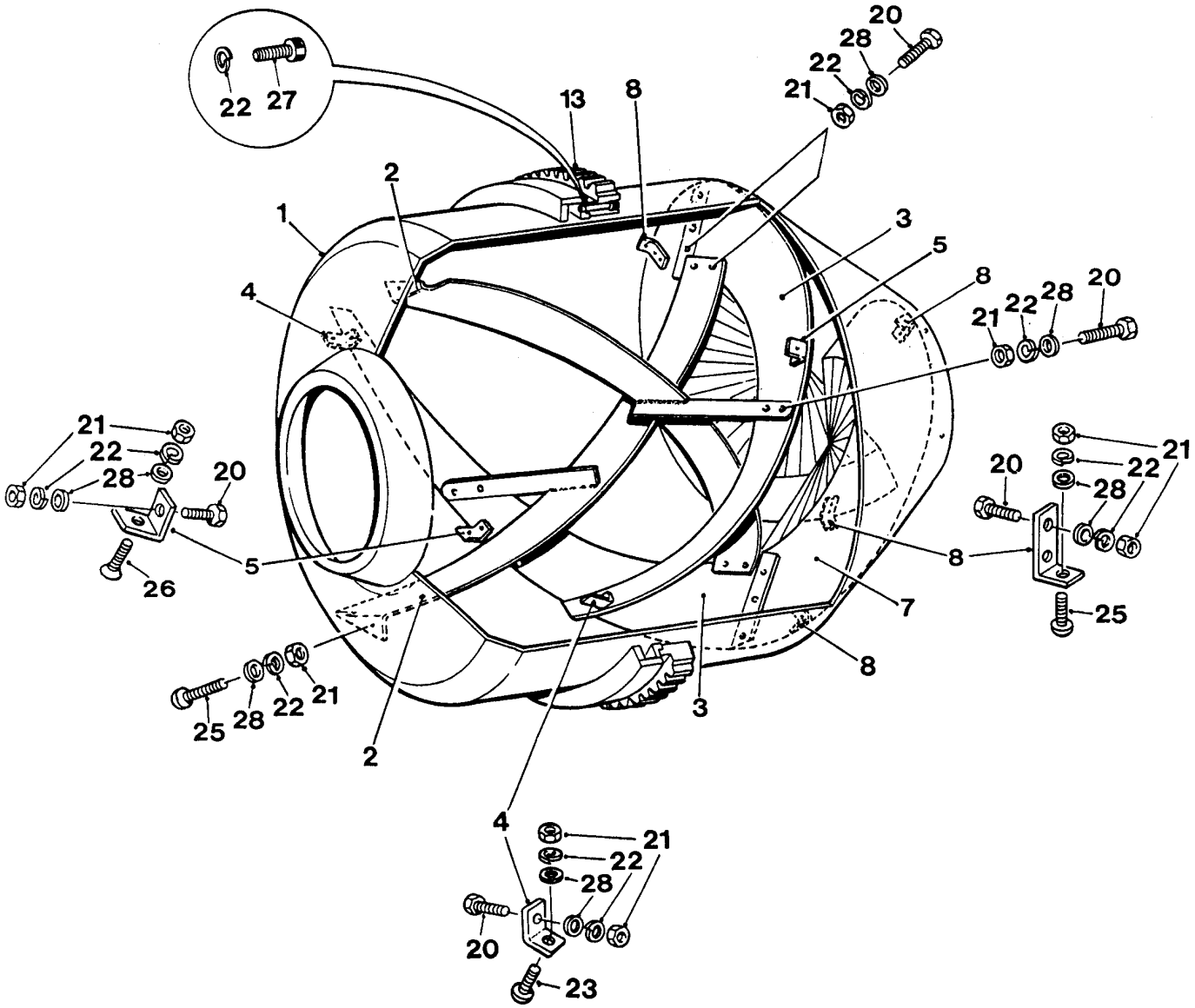
Item	Part no	Serial no	Description	Qty
1	555290700	1034 /	GUARD, horizontal	1
3	555290800		GUARD, angled	1
4	555290900		GUARD, electric motor	1
4	555291000		GUARD, Lister TS2 engine	1
10	7S03		NUT	12
11	17S04		WASHER, spring	12
12	267S05		WASHER, flat	12
13	V2004220		WASHER, 'Special'	12
14	11S03C		SCREW, set	12

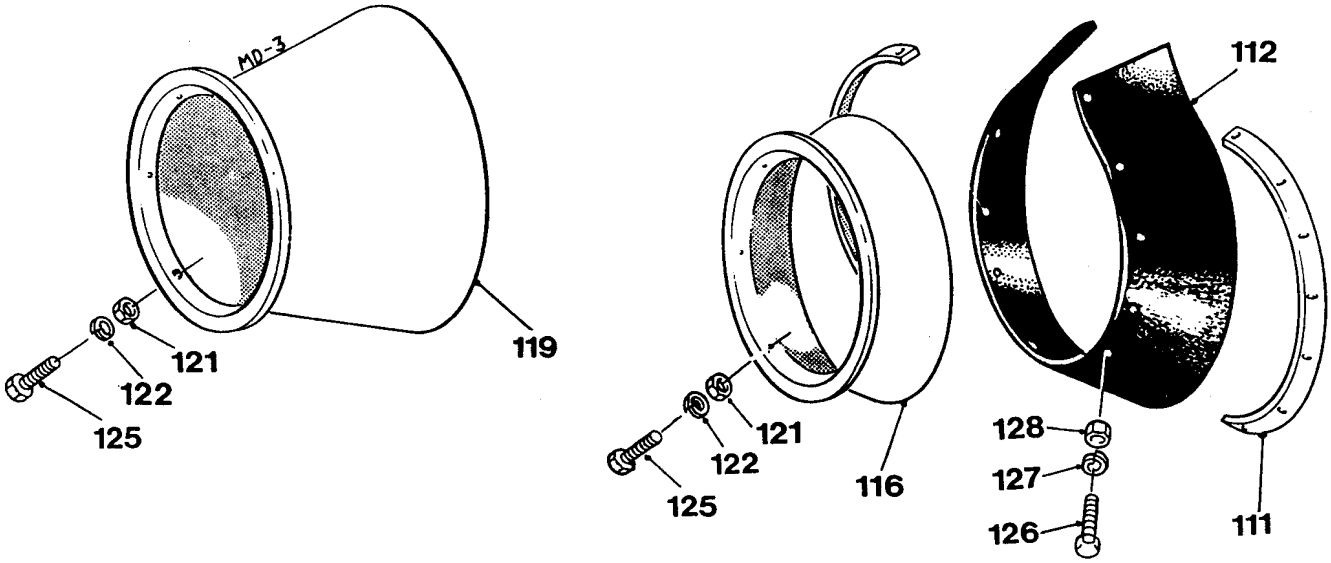
MIXERS
300R
400R

Drum & Drive

MIXER DRUM	B - 1
FINAL DRUM DRIVE upto Serial No 1636	B - 2
FINAL DRUM DRIVE from Serial No 1637	B - 2A
DRUM EDGE ROLLER	B - 3
IDLER ROLLER & SHAFT	B - 5

Reversing Drum Mixers, models 300R & 400R



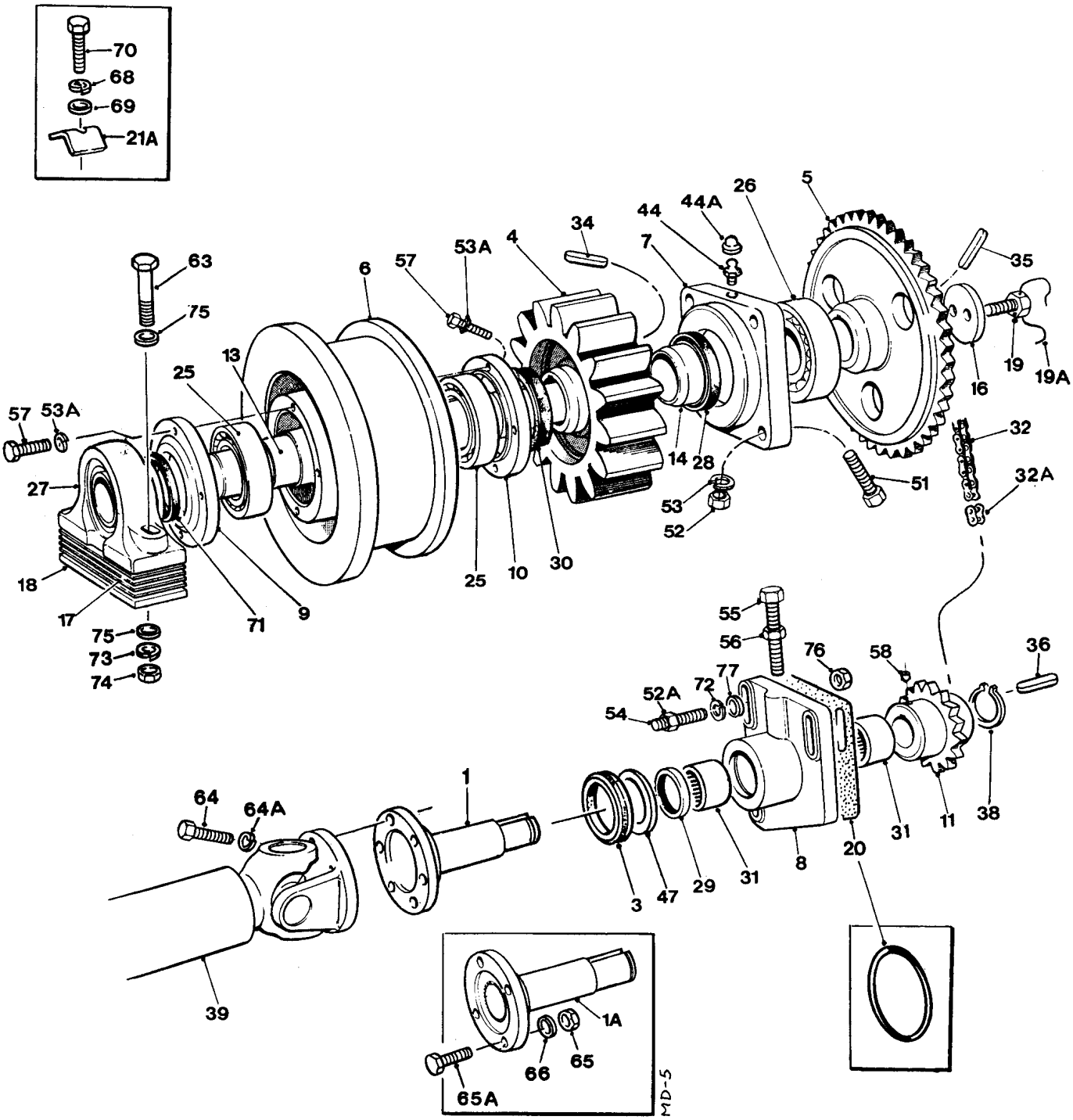


Item	Part no	Serial no	Description	Qty
1	555280600		DRUM, c/w blades **(300R)**	1
1	555280700		DRUM, c/w blades **(400R)**	1
2	555127000		BLADE, mixing **(300R)**	2
2	555126200		BLADE, mixing **(400R)**	2
3	555127100		BLADE,discharge **(300R)**	2
3	555126300		BLADE, discharge **(400R)**	2
4	555127200		CLEAT, mixing/discharge blade, narrow end **(300R**)	2
4	555126400		CLEAT, mixing/discharge blade, narrow end **(400R**)	2
5	555125800		CLEAT, mixing/discharge blade, wide end **(300R**)	2
5	555127200		CLEAT, mixing/discharge blade, wide end **(400R)**	2
7	555125700		BLADE, discharge	2
8	555125800		CLEAT, discharge spiral	6
13	555112700		GEAR RING	1
20	66S05D		SCREW, set	26
21	104S05		NUT	36
22	41S07		WASHER, spring	44
23	200S05K		SCREW, round headed socket	2
25	200S05K		SCREW,round headed socket	6
26	208S05G		SCREW, counter sunk head	2
27	90S06R		SCREW, cap socket head	8
28	10S04		WASHER, flat	36
111	515143000		STRAP, discharge cone, (set of 4)	1
112	515142900		CONE, discharge, rubber *(optional)*	1
116	555126000		MOUTH, discharge drum, standard	1
116	555127800		MOUTH, discharge drum *(used with optional rubber cone)*	1
119	555127700		EXTENSION, discharge drum mouth	1
121	104S05		NUT	6
122	41S07		WASHER, spring	6
125	200S05G		SCREW, round headed socket	6
126	206S05C		SCREW, counter sunk head	14
127	41S07		WASHER, spring	14
128	104S05		NUT	14
129	10S04		WASHER, flat (not illustrated)	14

B - 2

Reversing Drum Mixers, models 300R & 400R

Up to Serial No 1636

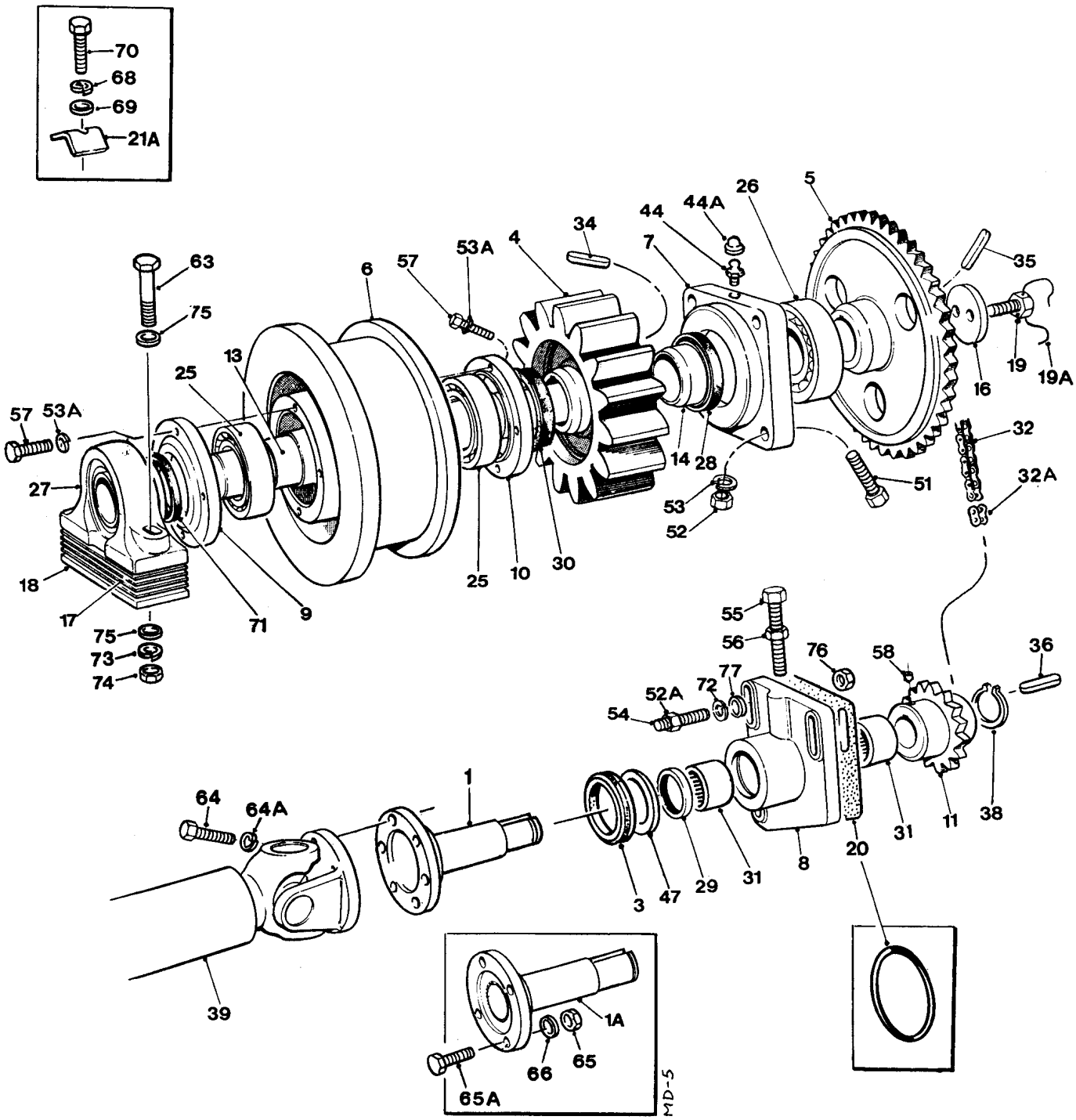


Item	Part no	Serial no	Description	Qty
1A	555112600		DRIVE SHAFT 4 bolt flange	1
1	555257700	/1636	DRIVE SHAFT, 6 bolt flange	1
3	417772000	/1636	SEAL, "V" ring	1
4	555113300		PINION, drum drive	1
5	555113200		CHAINWHEEL	1
6	555113400		ROLLER, idler	1
7	555113100		CARRIER, bearing	1
8	555112900	/1636	BRACKET, bearing, adjustable	1
9	555113500		CARRIER, idler bearing, outer	1
10	555114600		CARRIER, idler bearing, inner	1
11	555114100		DRIVE SPROCKET, ***diesel engine***	1
11	555114000		DRIVE SPROCKET, ***electric motor***	1
13	555113600		SHAFT, drum drive	1
14	555114300		SPACER, long	1
16	555114400		END CAP, drive shaft	1
17	555114900		PACKING, plummer block	set 1
18	555224900		PACKER	1
19	555115000		BOLT	2
19A	477356000		WIRE, locking	1
20	555173500	/ 0585	SEAL "O" ring	1
20	555284900	0586/	GASKET	1
.....	V2000772	0586/	SEALANT	tube 1
21A	555272400		STOP BAR	1
22	555225100		SHIMS	set 1
25	88S41D		BEARING	2
26	111452000		BEARING	1
27	351931000		BLOCK, plummer	1
28	417774000		SEAL, oil	1
29	417302000	/1636	SEAL, oil	1
30	417773000		SEAL, "V" ring	1
31	113149000	/1636	BEARING	2
32	134911062		CHAIN, roller, ***diesel engine***	1
32	134911064		CHAIN, roller, ***electric motor***	1
32A	134911001		LINK, chain	1
34	304213200		KEY, parallel	1
35	305108160		KEY, parallel	1

Continued >

Reversing Drum Mixers, models 300R & 400R

Up to Serial No 1636

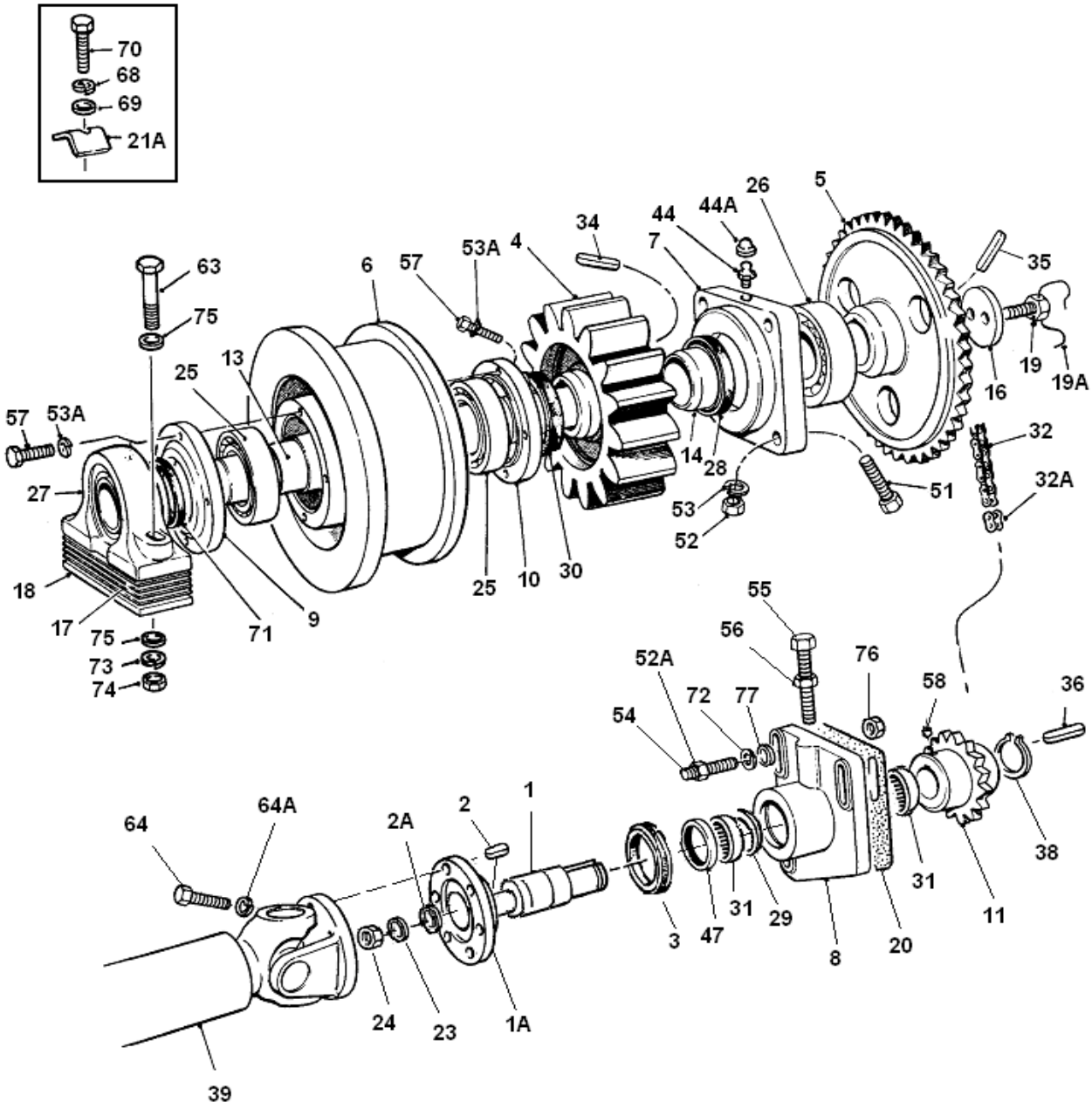


Item	Part no	Serial no	Description	Qty
36	304106230		KEY, parallel	1
38	142330000		CIRCLIP, external	1
39	.....		PROPSHAFT, *(4 holed flange)* ***OBSOLETE**, use propshaft kit 412810000*	
.....	412810000		KIT, propshaft	1
39	412818400		PROPSHAFT *(6 holed flange)*	1
.....	412818401		REPAIR KIT, U.J.	1
44	333601010		NIPPLE, grease, 135 deg.	1
44A	176S01		CAP, grease nipple	1
47	463935240	/1636	WASHER, thrust	1
51	6S05E		BOLT	4
52	9S04		NUT	4
52A	7S05		NUT	3
53	41S07		WASHER, spring	4
53A	41S04		WASHER, spring	8
54	V601338		STUD	3
55	28S05N		SCREW	1
56	95S05		NUT, locking	1
57	66S02A		SCREW	8
58	188S03C2		SCREW, socket head	1
63	6S05H		BOLT	2
64	11S03B		SCREW, set *(6 holed prop flange)*	12
64A	17S04		WASHER, spring	12
65	87S04		NUT, *(4 holed propshaft flange)*	8
65A	555177200		SCREW, set *(4 holed prop flange)*	8
66	10S48		WASHER, flat, *(4 holed prop flange)*	8
68	17S05		WASHER, spring	1
69	267S06		WASHER, flat	1
70	11S04E		SCREW, set *(4 holed prop flange)*	1
71	417732440		SEAL	1
72	17S06		WASHER, spring	3
73	41S07		WASHER, spring	2
74	9S04		NUT,	2
75	10S04		WASHER, flat	4
76	61S05		NUT, self locking	3
77	267S07		WASHER, flat	3

B - 2A

Reversing Drum Mixers, models 300R & 400R

from Serial No 1637



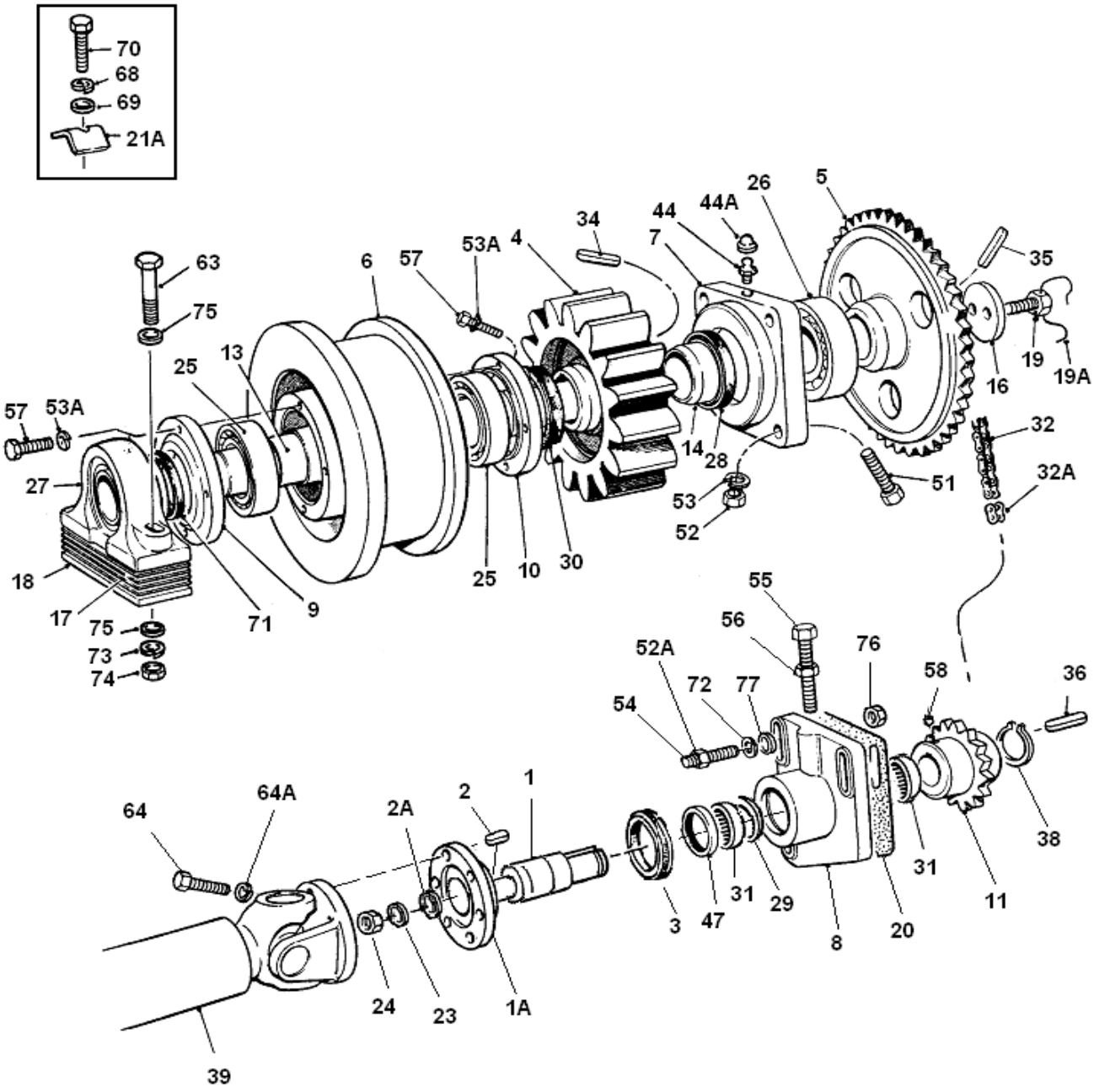
Taper Roller Bearings, item 31 to be preloaded to 0.00 - 0.02"
using shims 555225000

Item	Part no	Serial no	Description	Qty
1	555292600	1637/	DRIVE SHAFT	1
1A	555292500	1637/	FLANGE, drive	1
2	304106080	1637/	KEY, parallel	1
2A	555225000	1637/	SHIM, set	1
3	555224300	1637/	COVER, seal protector	1
4	555113300		PINION, drum drive	1
5	555113200		CHAINWHEEL	1
6	555113400		ROLLER, idler	1
7	555113100		CARRIER, bearing	1
8	555292400	1637/	BRACKET, bearing, adjustable	1
9	555113500		CARRIER, idler bearing, outer	1
10	555114600		CARRIER, idler bearing, inner	1
11	555114100		DRIVE SPROCKET, ***diesel engine***	1
11	555114000		DRIVE SPROCKET, ***electric motor***	1
13	555113600		SHAFT, drum drive	1
14	555114300		SPACER, long	1
16	555114400		END CAP, drive shaft	1
17	555114900		PACKING, plummer block	set 1
18	555224900		PACKER	1
19	555115000		BOLT, special	2
19A	477356000		WIRE, locking	1
20	555284900		GASKET	1
.....	V2000772		SEALANT, silicone	tube 1
21A	555272400		STOP BAR	1
22	555225100		SHIMS	set 1
23	555107200	1637/	WASHER, retaining	1
24	61S06	1637/	NUT, binx	1
25	88S41D		BEARING, roller	2
26	111452000		BEARING	1
27	351931000		BLOCK, plummer	1
28	417774000		SEAL, oil	1
29	132365000	1637/	CIRCLIP, internal	1
30	417773000		SEAL, "V" ring	1
31	119325000	1637/	BEARING, taper roller (see note)	2
32	134911062		CHAIN, roller, ***diesel engine***	1
32	134911064		CHAIN, roller, ***electric motor***	1
32A	134911001		LINK, chain	1
34	304213200		KEY, parallel	1

B - 2A

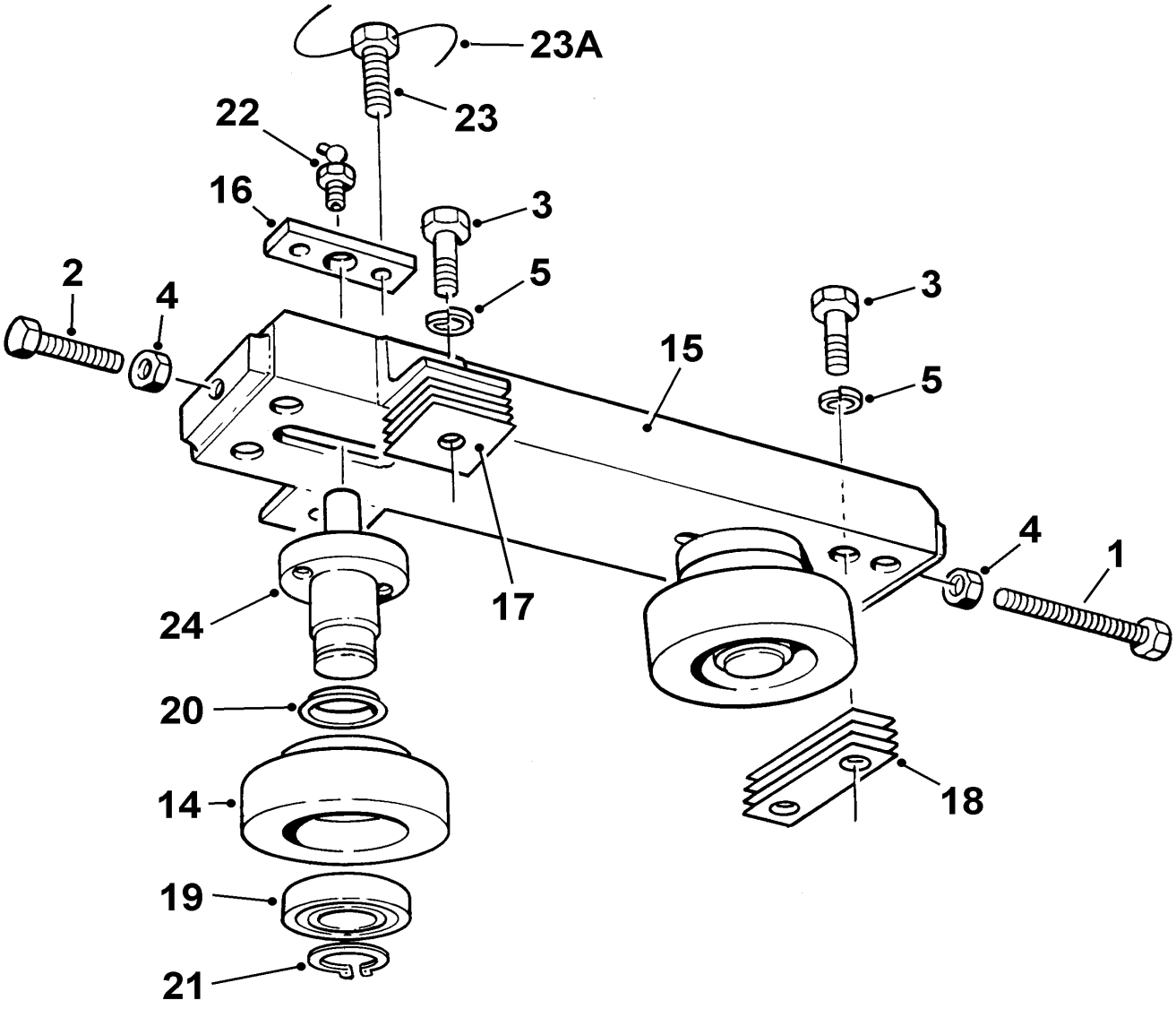
Reversing Drum Mixers, models 300R & 400R

from Serial No 1637



Taper Roller Bearings, item 31 to be preloaded to 0.00 - 0.002"
using shims 555225000

Item	Part no	Serial no	Description	Qty
35	305108160		KEY, parallel	1
36	304106230		KEY, parallel	1
38	142330000		CIRCLIP, external	1
39	412818400		PROPSHAFT *(6 holed flange)*	1
.....	412818401		REPAIR KIT, U.J.	1
44	333601010		NIPPLE, grease, 135 deg.	1
44A	176S01		CAP, grease nipple	1
47	417732440		SEAL, oil	1
51	6S05E		BOLT	4
52	9S04		NUT	4
52A	7S05		NUT	3
53	41S07		WASHER, spring	4
53A	41S04		WASHER, spring	8
54	V601338		STUD	3
55	28S05N		SCREW	1
56	95S05		NUT, locking	1
57	66S02A		SCREW	8
58	188S03C2		SCREW, socket head	1
63	6S05H		BOLT	2
64	11S03B		SCREW, set	12
64A	17S04		WASHER, spring	12
68	17S05		WASHER, spring	1
69	267S06		WASHER, flat	1
71	417732440		SEAL	
72	17S06		WASHER, spring	3
73	41S07		WASHER, spring	2
74	9S04		NUT,	2
75	10S04		WASHER, flat	4
76	61S05		NUT, self locking	3
77	267S07		WASHER, flat	3


23A
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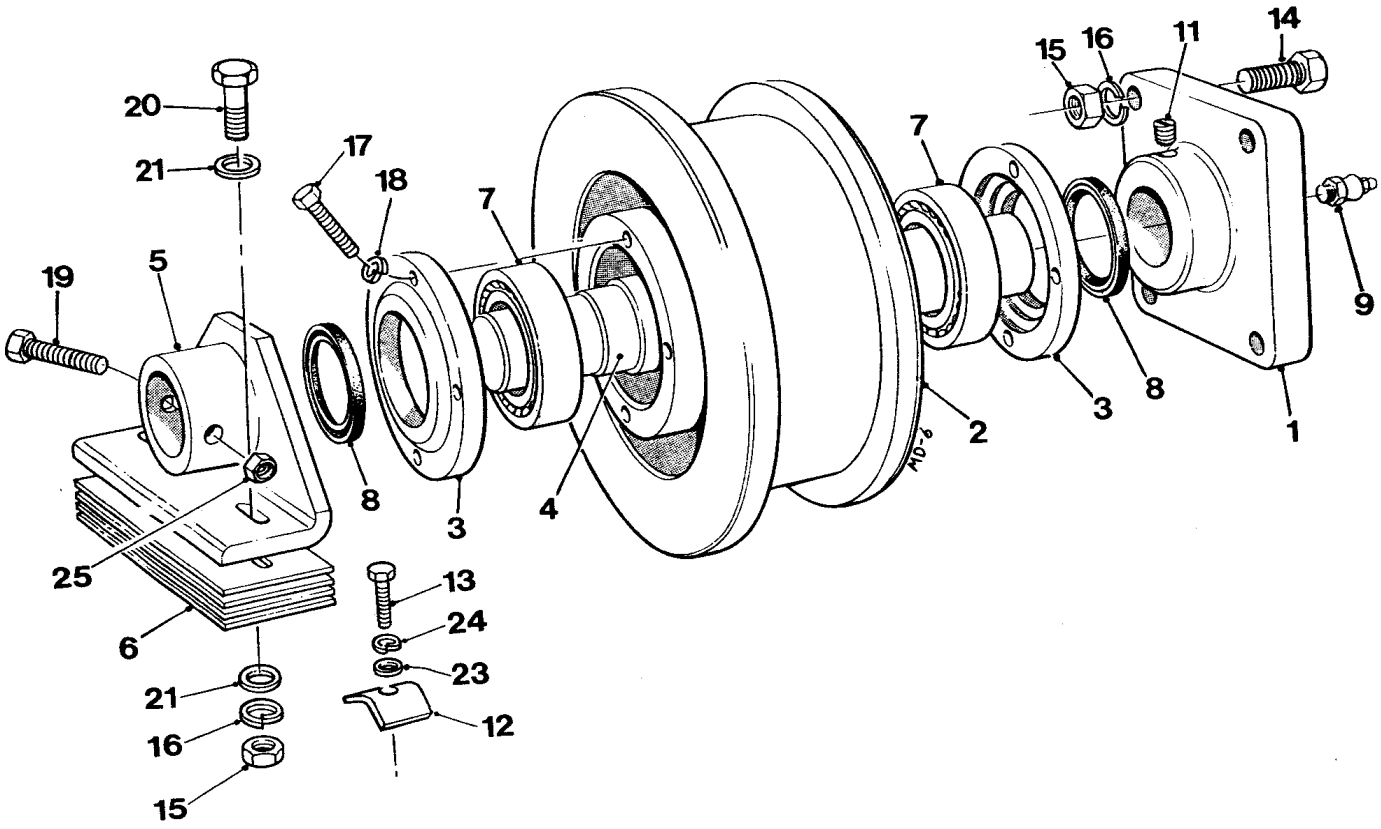
Item	Part no	Serial no	Description	Qty
1	28S05U	/1659	SCREW, set, UNF	1
1	11S05T	1660/	SCREW, set, Metric	1
2	28S05K	/1659	SCREW, set, UNF	1
2	11S05H	1660/	SCREW, set, Metric	1
3	6S05E		SCREW, set	4
4	95S05	/1659	NUT, locking, UNF	2
4	7S05	1660/	NUT, locking, Metric	2
5	41S07		WASHER, spring	4
14	555111700		ROLLER, edge	2
15	555111800		CARRIER, edge roller	1
	If ordering a replacement carrier for a machine prior to serial no 1660 order replacement metric set screws and nuts items 1,2 & 4			
16	555112000		PLATE, locking, edge roller	2
17	555112100		PACKER, (small)	8
18	555112200		PACKER, (large)	4
19	88S05D		BEARING, ball	2
20	417771000		SEAL,' V' ring	2
21	142321000		CIRCLIP, external	2
23	555167500		SCREW, edge roller locking	4
.....	477356000		WIRE, locking *(not illustrated) Used with screw 555167500, (item 23)*	2
24	555111900	/ FEB 90	SHAFT, edge roller *(**OBSOLETE** use 555283700)*	
24	555283700	FEB 90 /	SHAFT, edge roller	2

Reversing Drum Mixers, models 300R & 400R



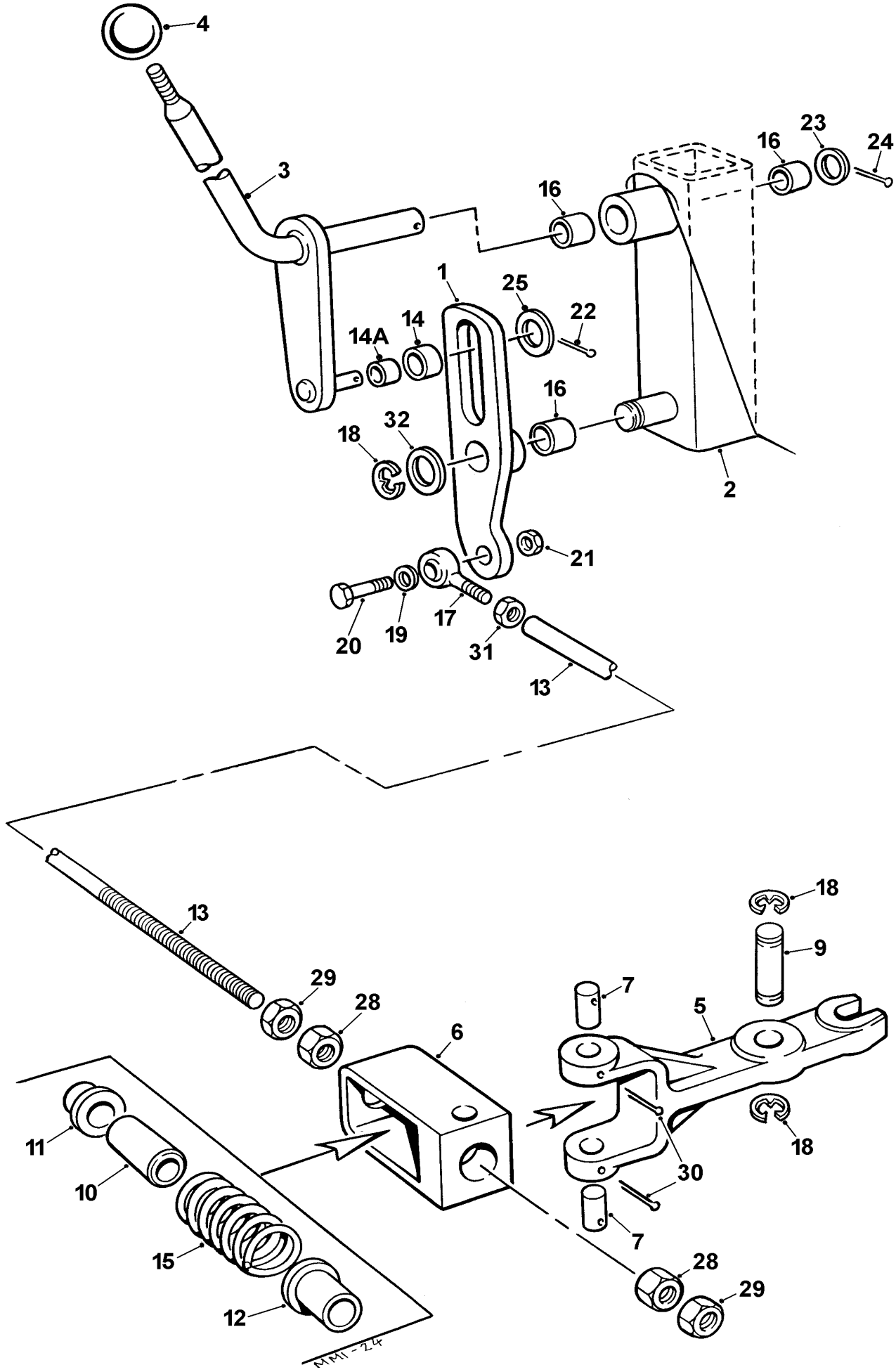
Item	Part no	Serial no	Description	Qty
1	555113000		CARRIER, idler shaft	1
2	555113400		ROLLER, idler	1
3	555113500		COVER	2
4	555113700		SHAFT, idler roller	1
5	555263700		BRACKET, securing	1
6	555114900		PACKER	set 1
7	88S41D		BEARING, ball	2
8	417732440		SEAL, oil	2
9	131S01	/ 0556	NIPPLE, grease, straight	1
11	188S06D1		SCREW, socket head	1
12	555272400		STOP BAR	1
13	11S04E		SCREW, set	1
14	6S05E		BOLT	4
15	9S04		NUT	6
16	41S07		WASHER, spring	6
17	66S02A		SCREW, set	8
18	41S04		WASHER, spring	8
19	6S05M		BOLT	1
20	6S05E		BOLT	2
21	10S04		WASHER, flat	4
23	267S06		WASHER, flat	1
24	17S05		WASHER, spring	1
25	87S05		NUT, "Binx", self-locking	1

MIXERS
300R
400R

Transmission & Engines

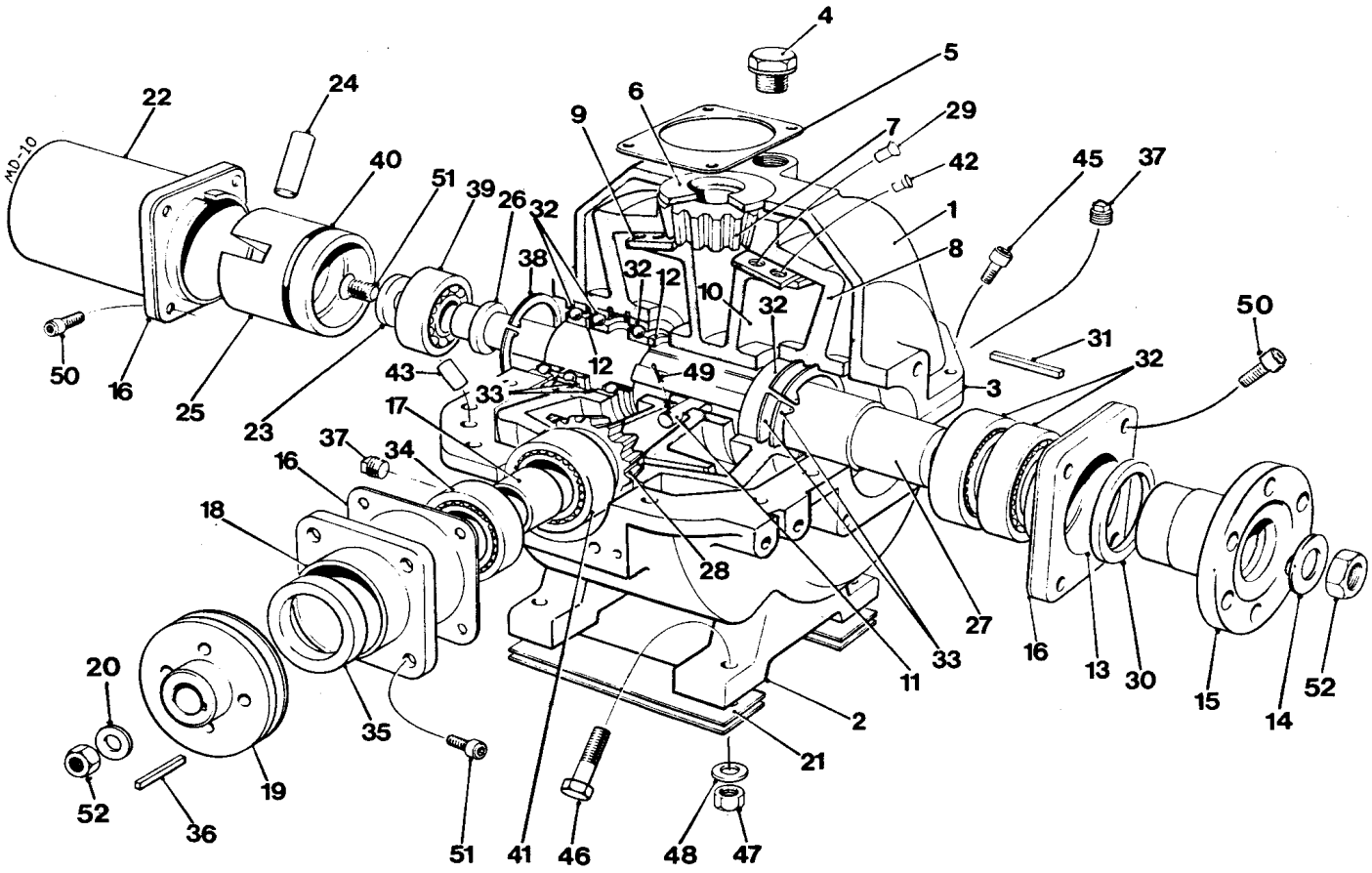
DRUM & GEARBOX CONTROL	C - 1
REVERSING GEARBOX	C - 2
COMPRESSOR DRIVE	C - 3
ENGINE, Lister ST2	C - 4
ENGINES, Lister TS2 and TR2	C - 5
SILENCER, Lister TS2/TR2 *(from July 2000)*	C - 5A
AIR CLEANER, Lister-Petter TS2 &TS/TR2 *(from serial no. 0838 to 1452)*	C - 6
AIR CLEANER, Lister-Petter TS2 &TS/TR2 *(from serial no. 1453)*	C - 6A
ENGINE, Petter PH2	C - 8
ENGINE, Petter PJ1	C - 9
MOTOR, electric drive (7.5kW)	C - 11
STARTER & STOP SWITCH (7.5kW)	C - 11A
MOTOR, electric drive (11kW)	C - 12
STARTER & STOP SWITCH (11kW)	C - 12A
DRIVE CHAIN, diesel engine	C - 13
ENGINE STOP CABLE Lister Petter TS/TR2	C - 14

C - 1 Reversing Drum Mixer, models 300R & 400R



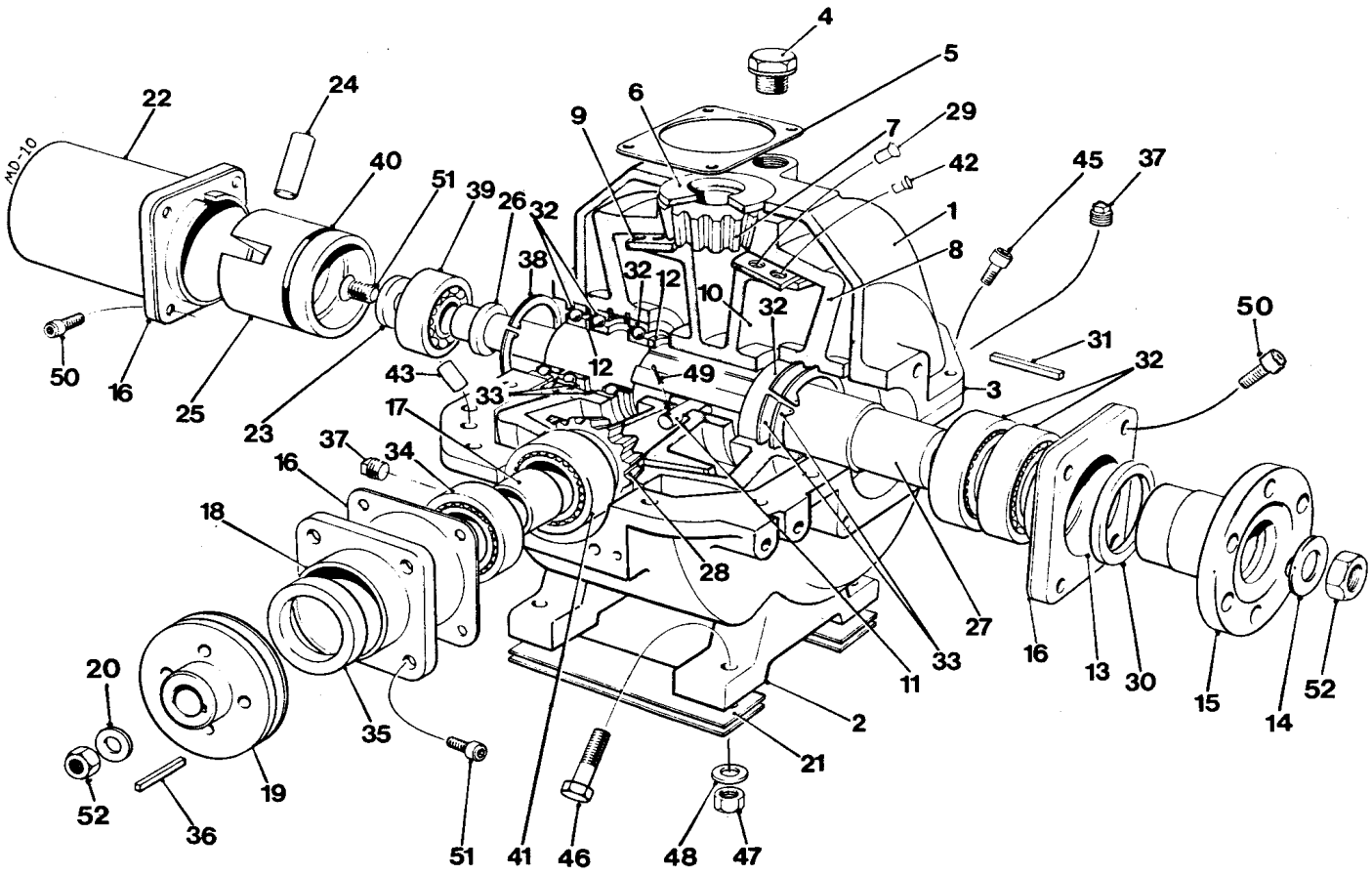
Item	Part no	Serial no	Description	Qty
1	555110100		LINK, slotted	1
2	555110200		BLOCK, mounting *(welded)*	1
3	555110300	1588/	LEVER, 1/2" UNC thread	1
3A	555292100	/1589	LEVER, M12 thread	1
4	307120000	1588/	KNOB, 1/2" UNC thread	1
4A	307126000	/1589	KNOB, M12 thread	1
5	555110400		LEVER	1
6	555110500		BLOCK, clevis pin	1
7	555110600		PIN, clevis	2
9	555110800		PIN, pivot	1
10	555110900		SLEEVE	1
11	555111000		GLAND, sliding, short	1
12	555111100		GLAND, sliding, long	1
13	555111200		ROD, connecting	1
14	555111300		ROLLER c/w bush assembly	1
14A	112805800		BUSH	1
15	555111400		SPRING, compression	1
16	112800200		BUSH	3
17	383251000		ROD END	1
18	132412010		CIRCLIP	3
19	10S04		WASHER, flat	1
20	6S05E		BOLT	1
21	87S05		NUT, self-locking	1
22	44S02E		PIN, split	1
23	10S18		WASHER, flat	2
24	44S05D		PIN, split	1
25	10S04		WASHER, flat	1
28	9S06		NUT	2
29	95S07		NUT, locking	2
30	44S03F		PIN, split	2
31	95S05		NUT, locking	1
32	10S18		WASHER, flat	1

Reversing Drum Mixer, models 300R & 400R

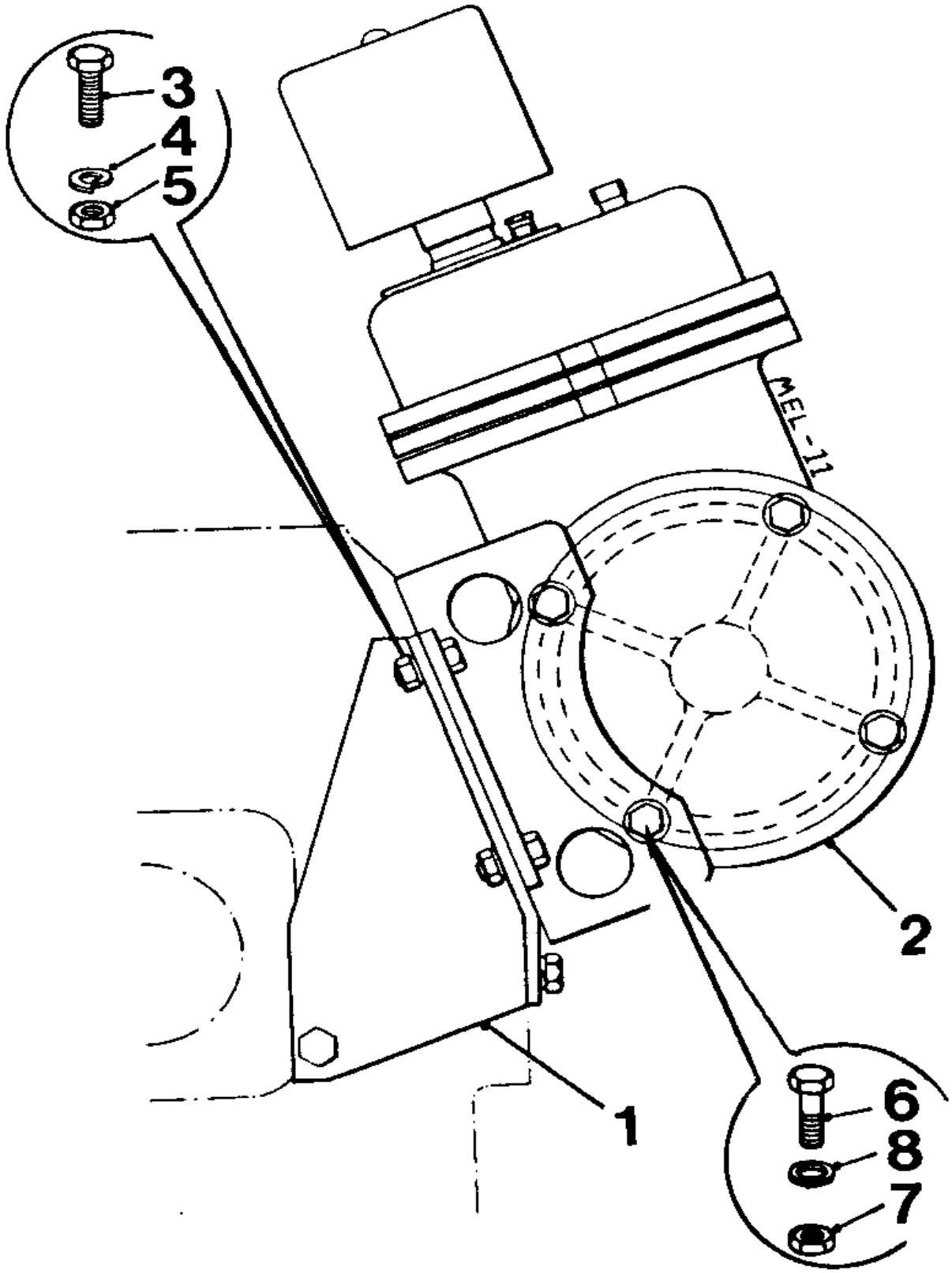


Item	Part no	Date		Description	Qty
.....	555268100			REVERSING BOX, assembly	1
1	555105300			CASE, upper	1
2	555205600			CASE, lower	1
3	555107500			GASKET	1
4	511100900			PLUG, filler	1
5	555107700			SHIMS	set 1
6	555107000			RING, locating	1
7	555106100			PINION, pump drive	1
8	555105400			BEVEL GEAR	2
9	515101000			LINING, clutch	2
10	555105500			CONE, clutch	1
11	555106700			PIN, operating	1
12	555107100			WASHER, thrust	set 1
13	555105900			RETAINER, bearing	1
14	555107200			WASHER, retainer	1
15	555257600			FLANGE, output	1
16	555107600			SHIMS	set 1
17	555106900			SPACER, bearing	1
18	555105800			HOUSING, bearing	1
19	555181600			FLANGE, drive	1
20	555107300			WASHER, retainer	1
21	555107400			PACKER, reversing box	sets 2
22	555105600			GUIDE, plunger	1
23	555106800			PLATE, securing	1
24	555111500			PIN, plunger	1
25	555106400			PLUNGER, operating	1
26	555106500			SHAFT, operating	1
27	555106000			SHAFT, clutch	1
28	555106200			BEVEL PINION	1
29	380205120			RIVET, semi tubular	20
30	417732440			SEAL, oil	1
31	304106140			KEY, parallel	1
32	121250000	/ 1989	#	BEARING, thrust ball *(Bearing Marked 7209)*	6
32	V600845	1989 /	#	BEARING, taper roller *(Bearing marked 30209)*	6
			#	*Quote marking when ordering*	
33	132385100			CIRCLIP	4
34	88S16			BEARING, ball	1
35	417743000			SEAL, oil	1

C - 2 Reversing Drum Mixer, models 300R & 400R



Item	Part no	Date	Description	Qty
36	304404100		KEY,parallel	1
37	241704000		PLUG	2
38	132362000		CIRCLIP	1
39	111305000		BEARING, ball	1
40	391205000		SEAL,'O' ring	1
41	88S06		BEARING, ball	1
42	380210500		RIVET, semi tubular	20
43	353206080		DOWEL	2
45	103S04AC		SCREW, socket head cap	13
46	6S05F		BOLT	4
47	87S05		NUT, self locking	4
48	10S04		WASHER, flat	4
49	353303080		PIN, split	2
50	103S04C		SCREW, socket head cap	8
51	183S05F		SCREW, socket head cap	5
52	192S07		NUT, self locking	2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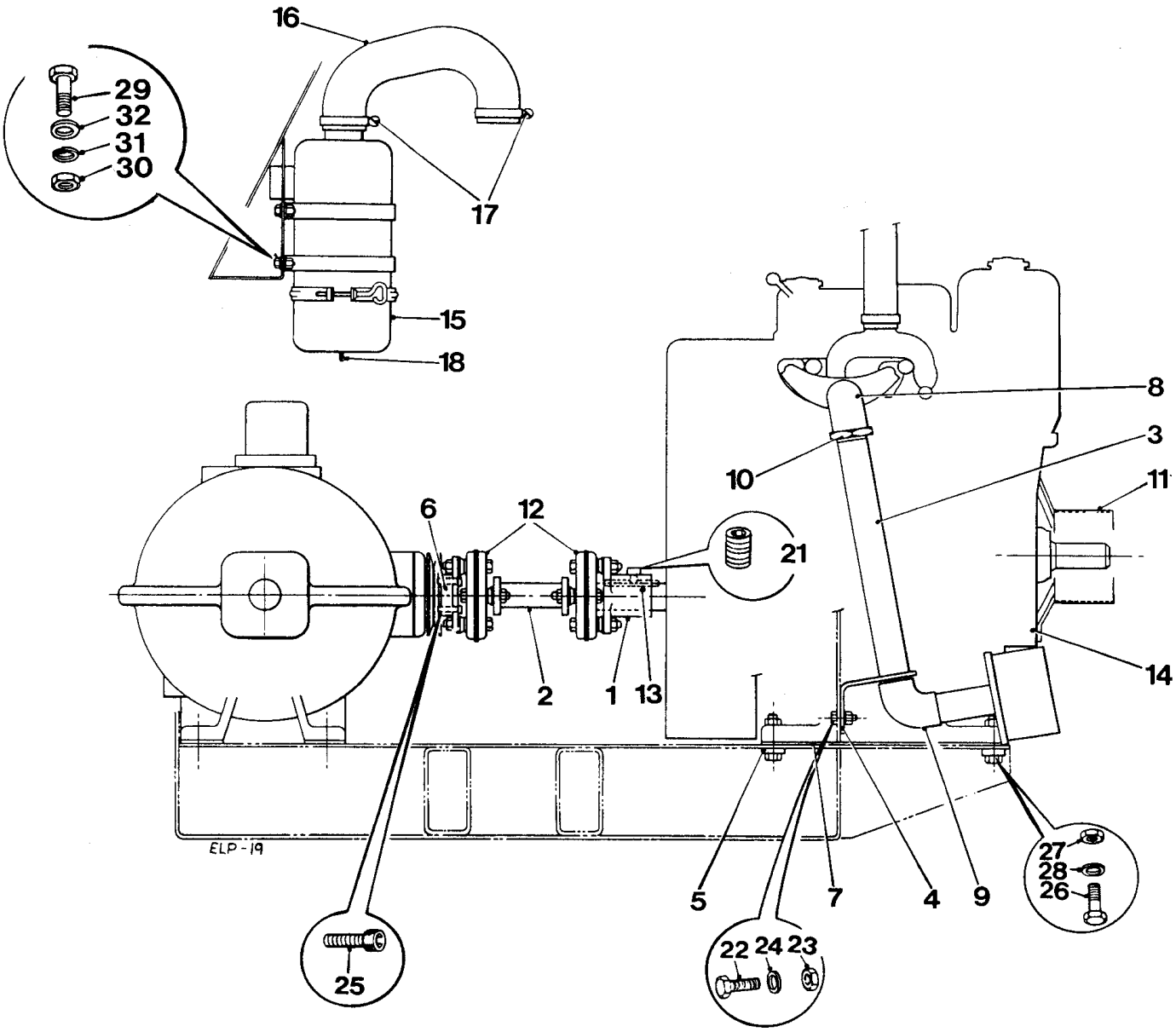
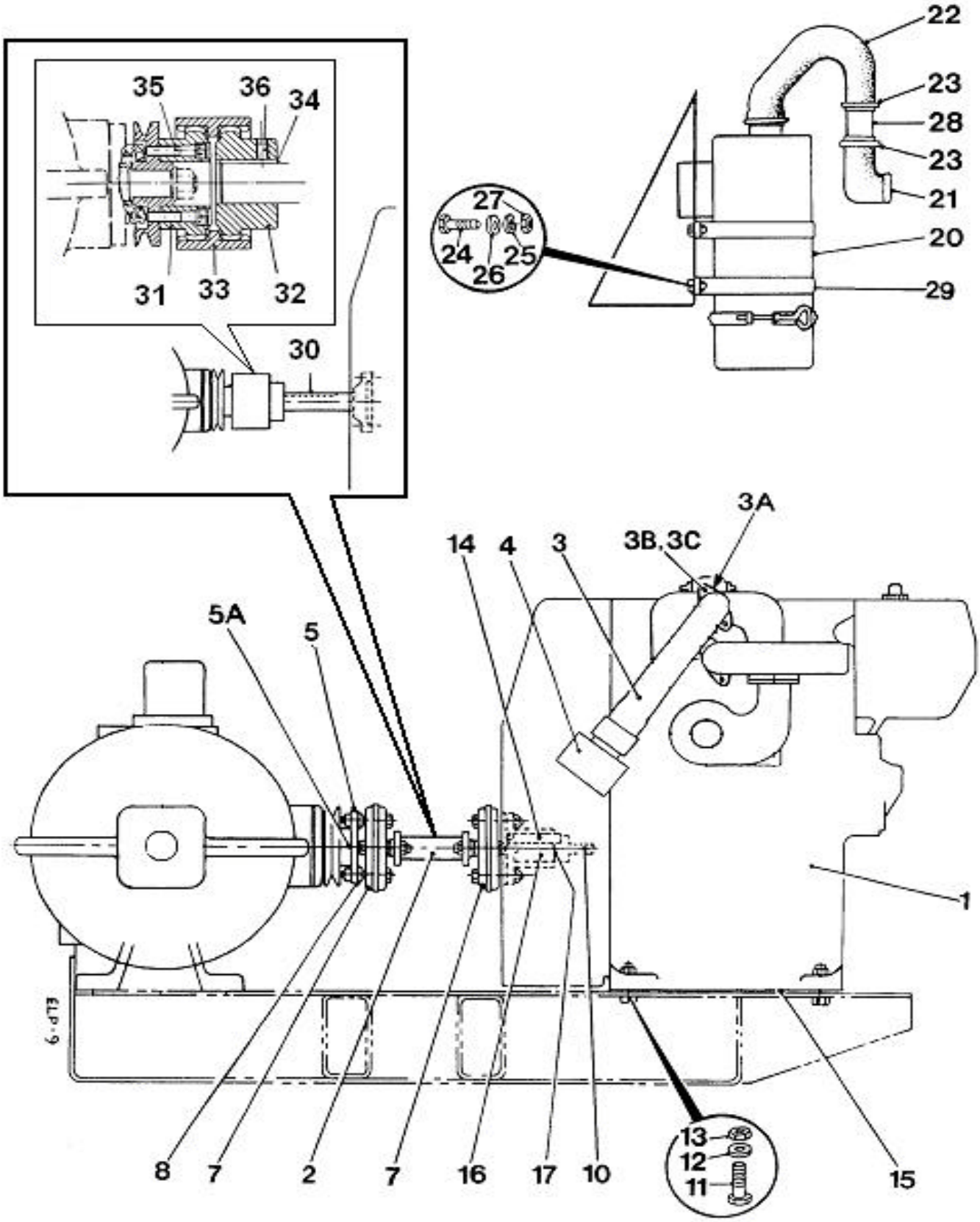
Item	Part no	Date	Description	Qty
1	555133300	/ 84	BRACKET, compressor mounting	1
2	136252000		COMPRESSOR	1
-	397242000		BELT, drive *(not illustrated)*	1
3	66S03CC		SCREW, set	2
4	464306000		WASHER, spring	2
5	9S03		NUT	2
6	66S03CC		BOLT	4
7	87S02		NUT, self locking	4
8	10S02		WASHER, flat	4

Reversing Drum Mixer, models 300R & 400R



Item	Part no	Date	Description	Qty
1	555143100	/ May-86	DRIVE FLANGE	1
2	555142600		SHAFT, connecting	1
3	555142400		PIPE, exhaust	1
4	555142700		CLIP, exhaust pipe	1
5	555140500		BAR, engine bolt retaining	2
6	555258100		ADAPTOR, drive	1
7	555186600		PACKERS, engine	set 1
8	240710000		ELBOW, male/ female	1
9	241110000		ELBOW, 90 degree	1
10	72S07		NUT, backing	1
11	504694700		GUARD, camshaft	1
12	130955000		COUPLING	2
13	304107200		KEY, parallel	1
14	354071800		ENGINE, diesel, **Lister ST2**	1
15	220229000		AIR CLEANER	1
.....	220229001		ELEMENT, air cleaner	1
16	555188800		PIPE, inlet, moulded rubber	1
17	132120020		CLIP	2
18	353304080		PIN, split	1
21	195S0305		SCREW, socket head	1
22	28S03E		SCREW, set	2
23	87S03		NUT, self locking	2
24	463360600		WASHER, flat	2
25	90S04H		SCREW, socket head cap	4
26	6S05K		BOLT	4
27	87S05		NUT, self locking	4
28	10S04		WASHER, flat	4
29	66S02BB		BOLT	4
30	104S02		NUT	4
31	41S04		WASHER, spring	4
32	10S02		WASHER, flat	4

C - 5 Reversing Drum Mixer, models 300R & 400R



Item	Part no	Serial no	Description	Qty

IMPORTANT Engine change

From mixer serial number 1116 (mid 2004) the Lister-Petter TS2 engine was replaced by the Lister-Petter TR2 engine.

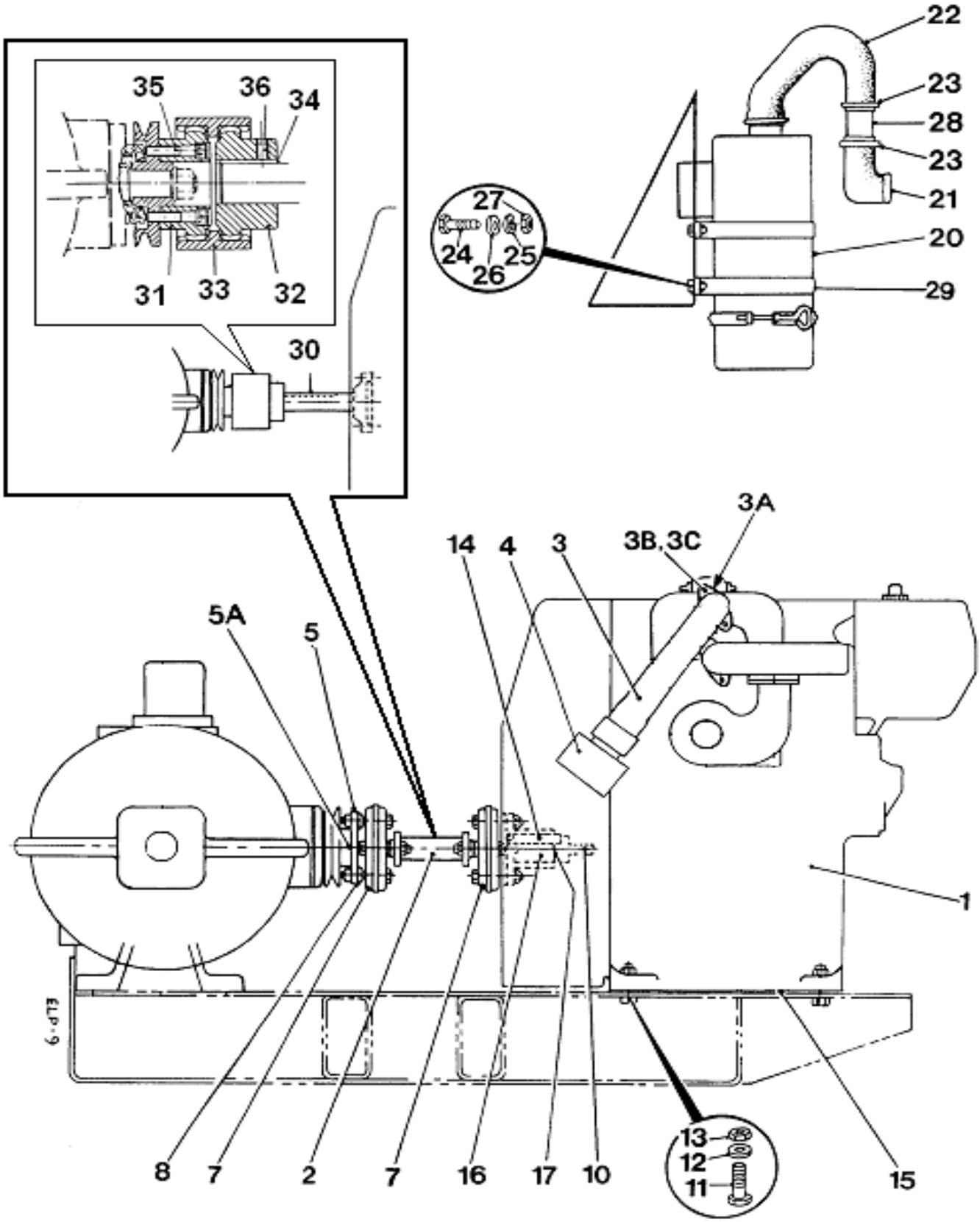
The TR2 engine is completely interchangeable with the TS2 engine and consumable items such as filter elements are identical. There are some internal component differences and when ordering spares it is important to state whether it is a TS2 or TR2 engine.

As the engines are interchangeable, part numbers will not change.

1	20350A03	June-86 /	ENGINE, TS/TR hand start, export	1
1	20350A06		ENGINE, TS/TR electric start, export	1
1	20350A07		ENGINE, TS/TR hand start, UK/EEC	1
1	20350A08		ENGINE, TS/TR electric start, UK/EEC	1
2	555280400	/1485	SHAFT, connecting	1
3	555142300	June-86 / July-00	PIPE, exhaust	1
3A	10293A03	June-86 / July-00	GASKET, exhaust	1
3B	11S04C	June-86 / July-00	SCREW,set	2
3C	17S05	June-86 / July-00	WASHER, spring	2
4	V2001674	June-86 / July-00	SILENCER, "pepperpot"	1
5	555258100	/1485	ADAPTOR, drive	1
5A	90S04H	/1485	SCREW, skt hd, cone point, 1" long	4
7	130972000	/1485	COUPLING, "Layrub"	2
8	10S04	/1485	WASHER, flat (used as shims)	8
10	555280100	/1485	SHAFT, extension, SHORT	1
11	6S05K		BOLT, engine retaining	4
12	10S04		WASHER, flat	4
13	87S05		NUT, "Binx", self locking	4
14	304712863	/1485	KEY, parallel	1
15	555280300		PACKER, engine	2
16	555280500	/1485	DRIVE FLANGE	1
17	195S03C2	/1485	SCREW, skt hd, cone point	1

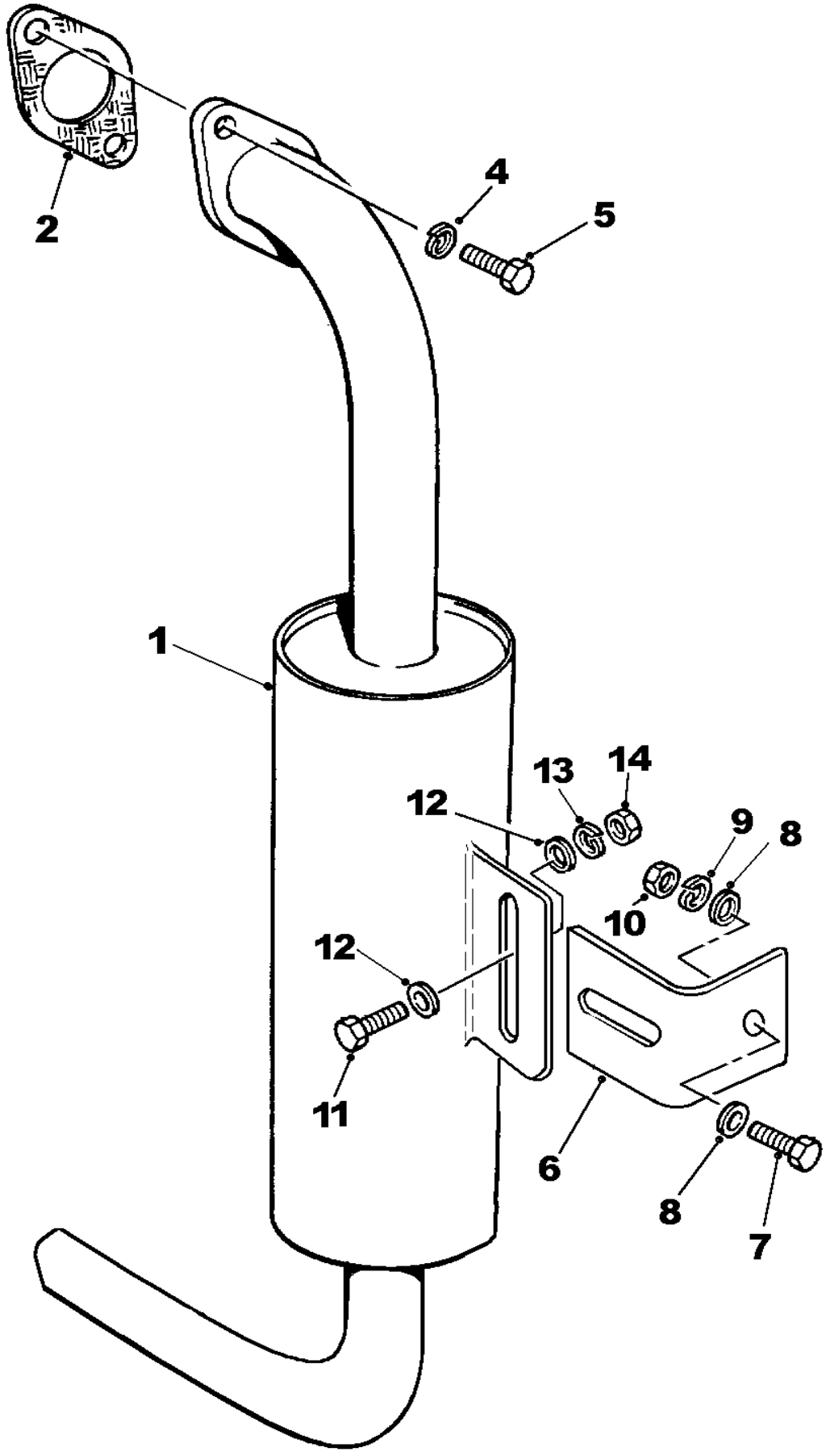
Continued >>

Reversing Drum Mixer, models 300R & 400R



Item	Part no	Serial no	Description	Qty
20	10532A02	/ 0837	AIR CLEANER, assembly	1
.....	10532A0101	/ 0837	ELEMENT, air cleaner	1
21	V600187	/ 0837	PIPE, inlet, rubber	1
22	55188700	/ 0837	PIPE, inlet, rubber	1
23	97S12	/ 0837	CLIP, hose	4
24	66S02BB	/ 0837	BOLT	4
25	41S04	/ 0837	WASHER, spring	4
27	104S02	/ 0837	NUT	4
28	555280000	/ 0837	CONNECTOR, male	1
29	10533A02	/ 0837	CLAMP, band	2
30	EL20235271	1486/	SHAFT, extension, LONG	1
31	555248601	1486/ 1611	COUPLING, gearbox	1
32	555280900	1486/ 1611	COUPLING, engine	1
33	147320001	1486/ 1611	SLEEVE, coupling	1
34	304712863	1486/	KEY, parallel	1
35	90S04L	1486/	SCREW, socket head cap	4
36	188S04E1	1486/ 1611	SCREW, grub	1
	555292200	1612/	COUPLING, assembly, (KTR/BOWEX)	1
	replaces items 31, 32, 33 & 36 above, comprises of items marked # below			
31	V603759#	1612/	COUPLING, gearbox (KTR/BOWEX)	1
32	V603760#	1612/	COUPLING, engine (KTRBOWEX)	1
33	V603761#	1612/	SLEEVE, coupling (KTR/BOWEX)	1
34	304712863	1486/	KEY, parallel	1
35	90S04L	1486/	SCREW, socket head cap	4
36	57S06G1#	1612/	SCREW, grub (KTR/BOWEX)	1

Reversing Drum Mixer, models 300R & 400R



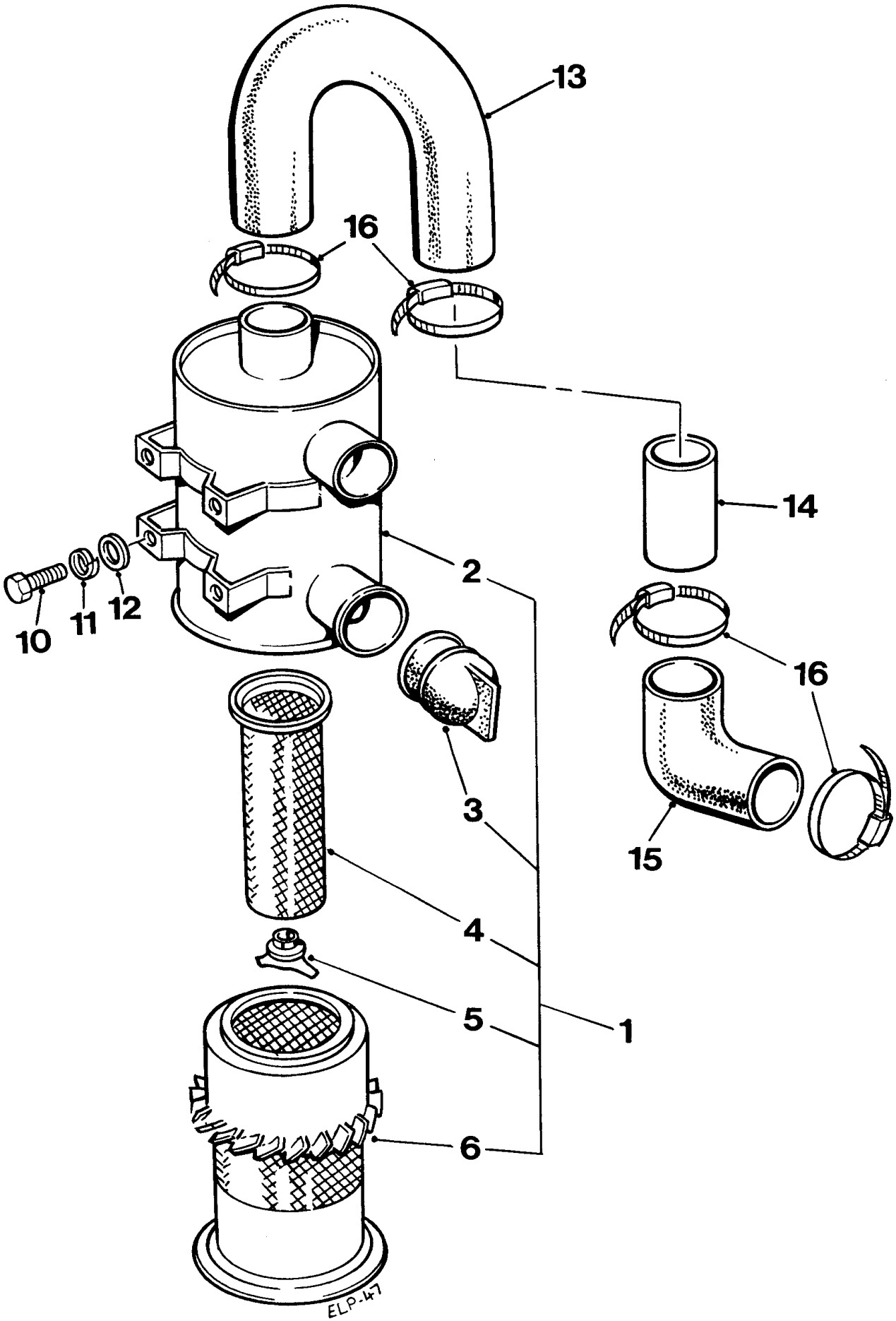
SILENCER, *(from July 2000)*

C - 5A

Lister-Petter TS2 & TR2 engines

Item	Part no	Date	Description	Qty
1	555288900	July-00 /	SILENCER, acoustic exhaust	1
2	10293A03		GASKET	1
4	17S05		WASHER, spring	2
5	11S04C		SCREW, set	2
6	555289000		BRACKET, silencer support	1
7	11S04F		SCREW, set	1
8	267S06		WASHER, flat	2
9	17S05		WASHER, spring	1
10	7S04		NUT	1
11	11S04C		SCREW, set	1
12	267S06		WASHER, flat	2
13	17S05		WASHER, spring	1
14	7S04		NUT	1

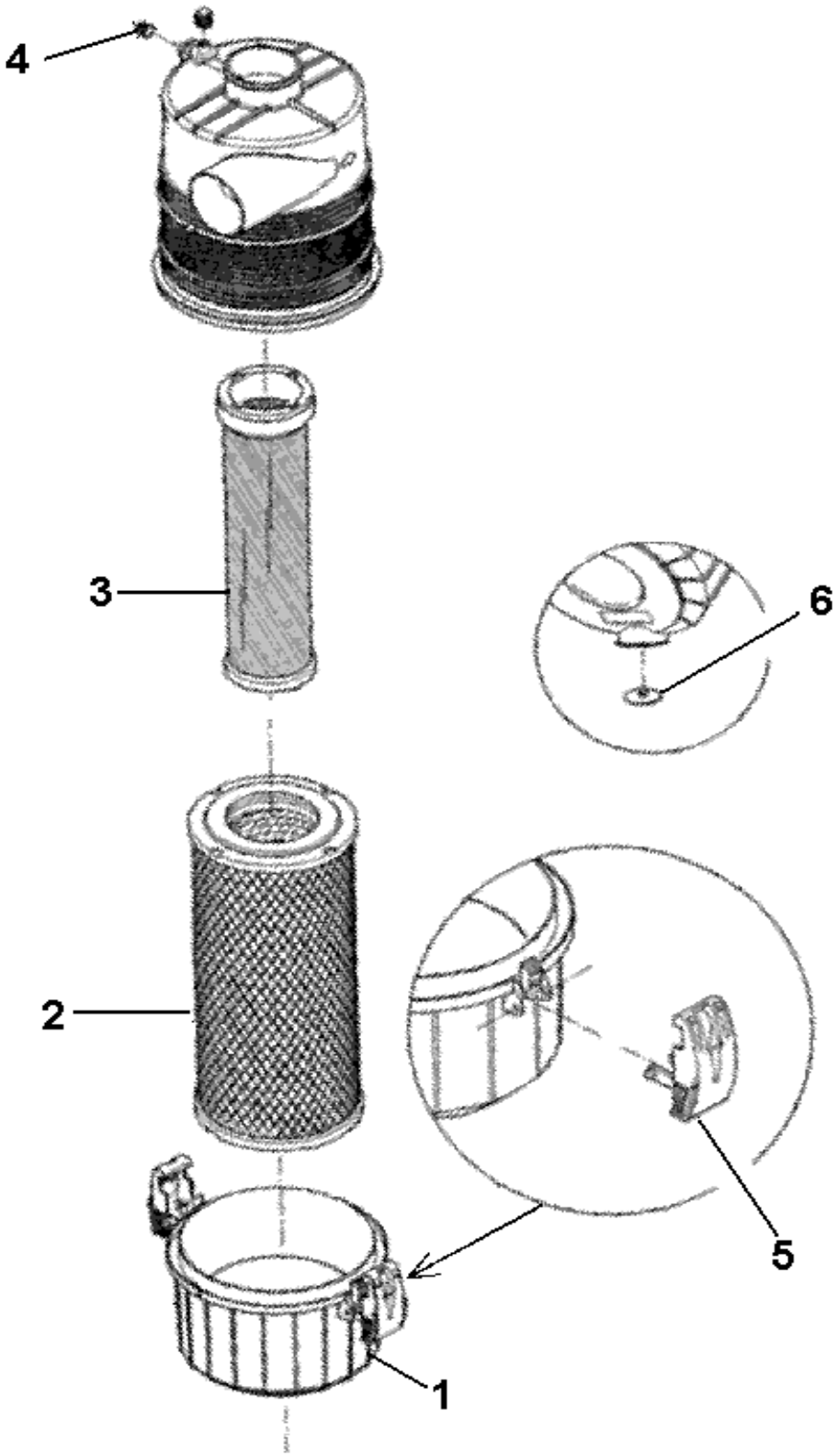
Reversing Drum Mixer, models 300R & 400R



AIR CLEANER
Lister-Petter TS2 & TR2 engines

Item	Part no	Serial no	Description	Qty
1	V2004797	0838 /1452	AIR CLEANER, assembly	1
2	----------		BODY, *(order assembly)*	1
3	V602688		DUST COLLECTOR	1
4	V602705		ELEMENT, inner	1
5	V602687		NUT, wing	1
6	V602704		ELEMENT, outer	1
10	11S03B		SCREW, set	4
11	17S04		WASHER, spring	4
12	267S05		WASHER, flat	4
13	555188700		PIPE, inlet	1
14	555280000		TUBE, metal	1
15	V600187		HOSE, rubber elbow	1
16	97S13		CLIP, hose	4

Reversing Drum Mixer, models 300R & 400R

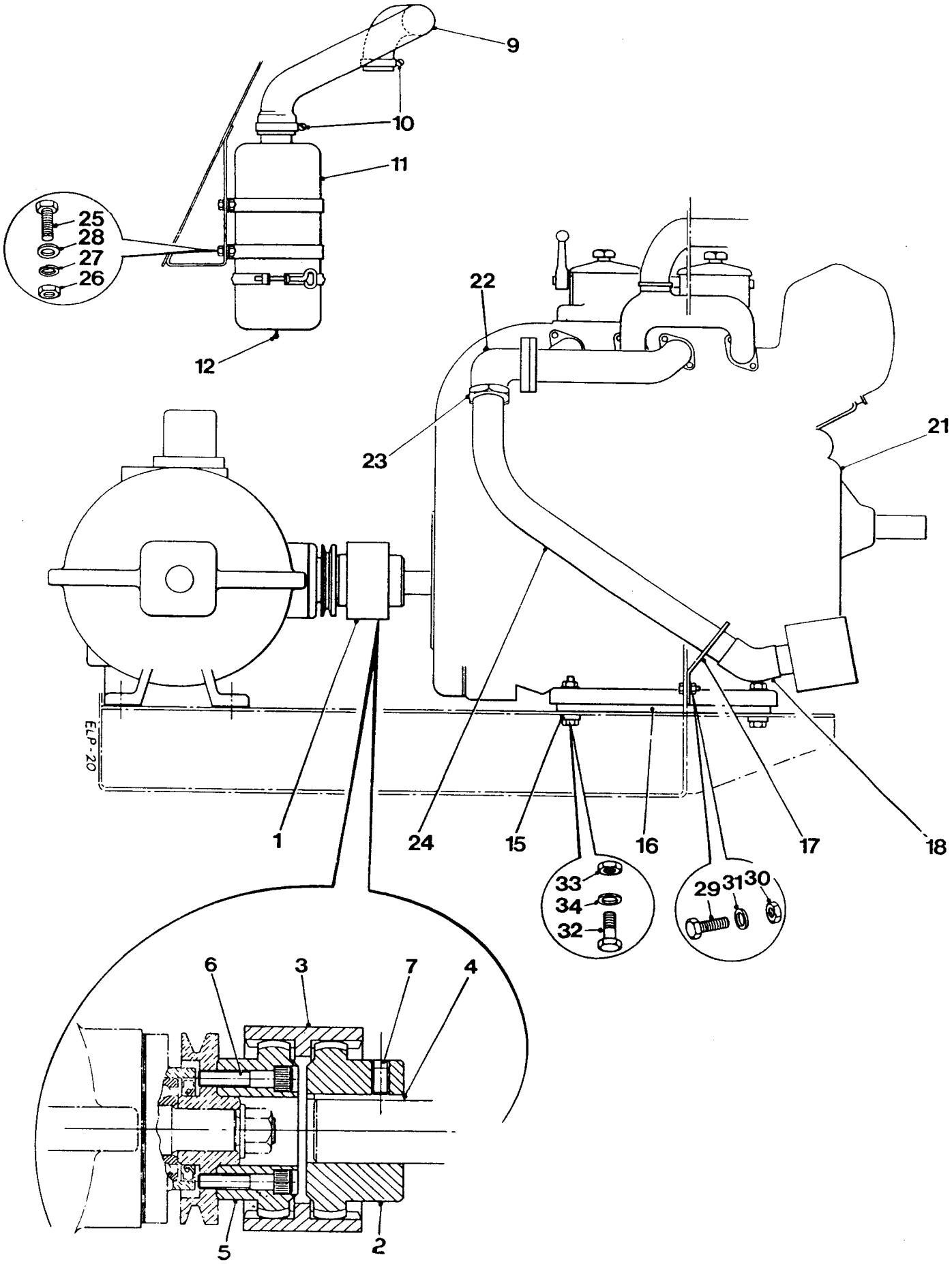


AIR CLEANER
Lister-Petter TS2 & TR2 engines

Item	Part no	Serial no	Description	Qty
1	V2005807	1453 /	AIR CLEANER, assembly	1
1A	V603712		BAND, mounting *(not illustrated)*	1
1B	11S03D		SCREW, set	2
1C	267S05		WASHER, flat	4
1D	61S03		NUT, self locking	2
2	V603710		ELEMENT, main outer	1
3	V603711		ELEMENT, safety inner	1
4	V603714		CAP, blanking	2
5	V603715		CATCH	2
6	V603713		DUST VALVE, internal	1

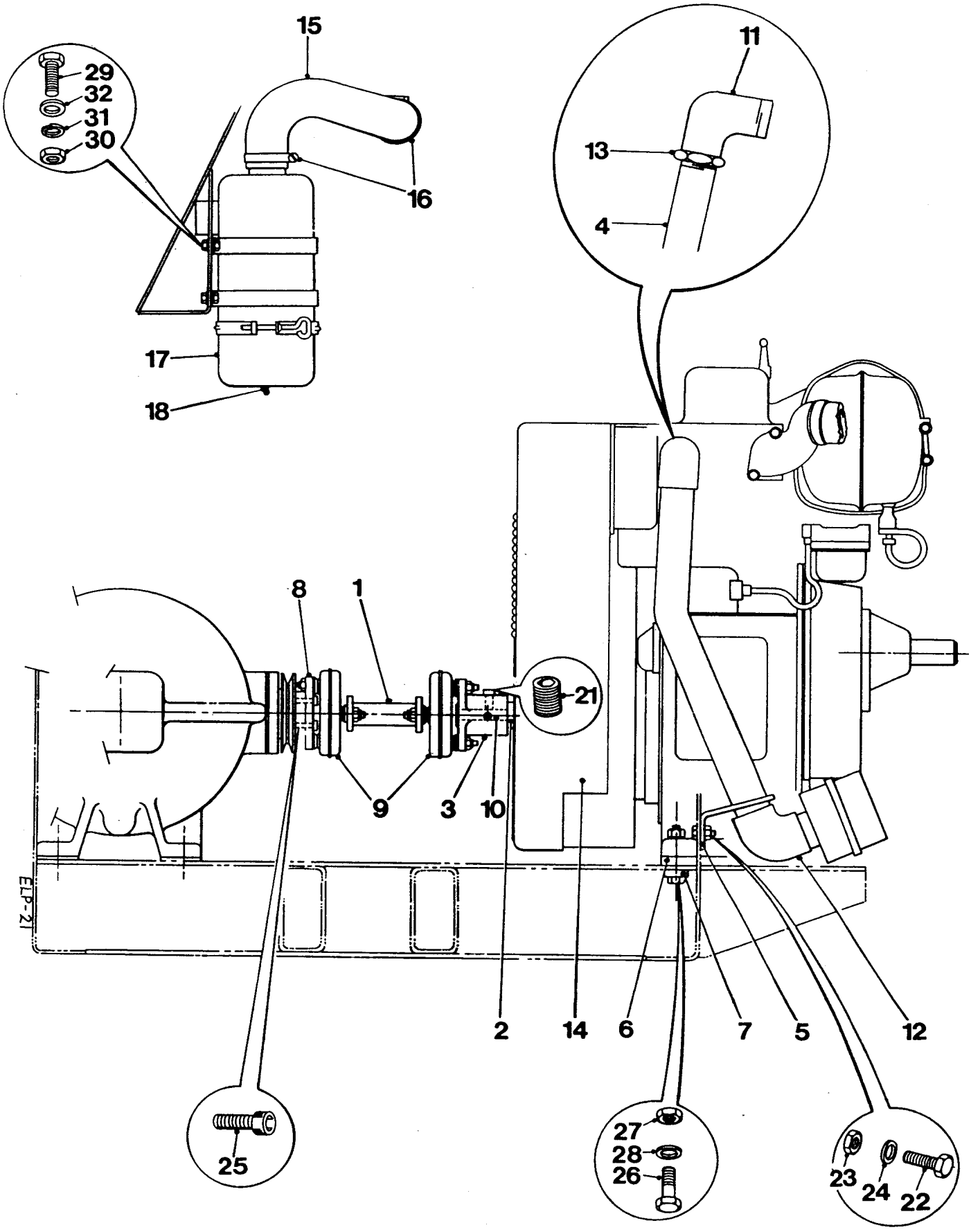
Refer to Page C-6 for hose clips, inlet pipes and elbows

Reversing Drum Mixer, model 400R



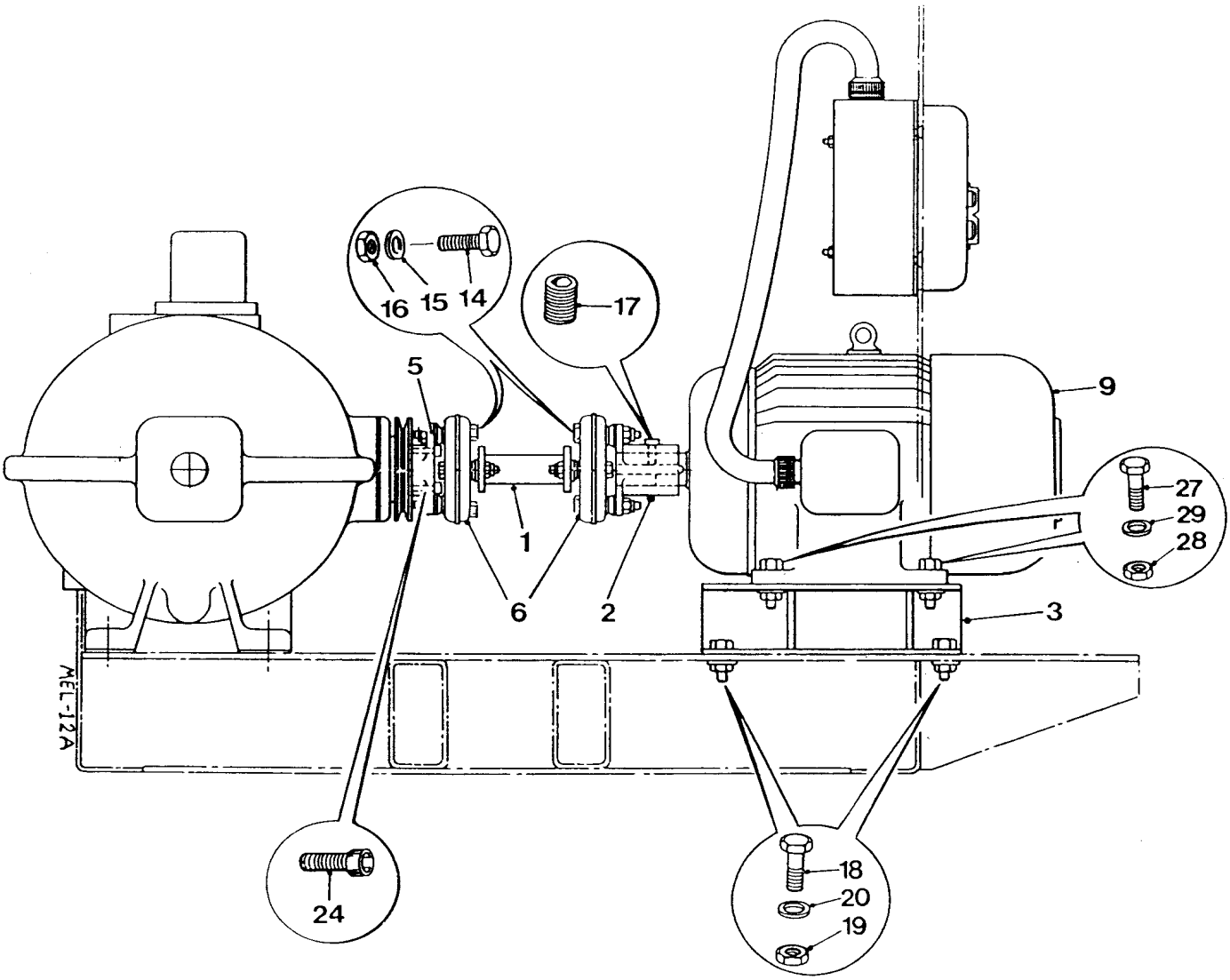
Item	Part no	Date	Description	Qty
1	555250800	/ 84	COUPLING, assembly	1
2	555248602		COUPLING, engine end	1
3	147320001		SLEEVE, nylon	1
4	304106200		KEY, parallel	1
5	555248601		COUPLING, gearbox end	1
6	90S04L		SCREW, socket head cap	4
7	188S04E1		SCREW, set, socket head	1
9	555189200		PIPE, inlet, moulded rubber	1
10	132122000		CLIP, hose	2
11	10532A02		AIR CLEANER, assembly	1
.....	10532A0101		ELEMENT, air cleaner	1
12	353304080		PIN, split	1
15	555143000		BAR, engine, bolt retaining	2
16	555144100		PACKER, engine	2
17	555144000		CLIP, exhaust pipe	1
18	241112000		ELBOW	1
21	354071400		ENGINE, PH2 (mixer *without* hoist)	1
21	354071500		ENGINE, PH2 (mixer *with* hoist)	1
22	240712000		ELBOW male/female	1
23	72S05		NUT backing	1
24	555143900		PIPE exhaust	1
25	66S02BB		SCREW, set	4
26	104S02		NUT	4
27	41S04		WASHER, spring	4
28	10S02		WASHER, flat	4
29	28S03E		SCREW, set	2
30	230360600		NUT, self locking	2
31	10S03		WASHER, flat	2
32	6S05K		BOLT	4
33	87S05		NUT, self locking	4
34	10S04		WASHER, flat	2
.....	555140700		HOOK, starting handle *(not illustrated)*	1
.....	66S03A		SCREW, set	2
.....	104S02		NUT	2
.....	41S04		WASHER, spring	2

Reversing Drum Mixer, model 300R



Item		Date	Description	
1	555142600	84/ May-86	SHAFT, connecting	1
2	555143600		SHAFT,engine	1
3	555143100		FLANGE, drive	1
4	555168000		PIPE, exhaust	1
5	555142900		CLIP, exhaust pipe	1
6	555143400		PACKER, engine	2
7	555143000		BAR, engine bolt retaining	2
8	555258100		ADAPTOR, drive	1
9	130955000		COUPLING	2
10	304106160		KEY, parallel	1
11	240712000		ELBOW, male/female	1
12	241112000		ELBOW, 90 degree	1
13	240102400		NUT, backing	1
14	354071300		ENGINE, diesel, **Petter PJ1**	1
15	555188900		HOSE, INLET, moulded rubber	1
16	132120020		CLIP	2
17	220229000		AIR CLEANER	1
--	220229001		ELEMENT, air cleaner	1
18	353304080		PIN, split	1
21	195S0305		SCREW, socket head	1
22	28S03E		SCREW, set	2
23	87S03		NUT, self locking	2
24	463360600		WASHER, flat	2
25	90S04H		SCREW, socket head cap	4
26	6S05K		BOLT	4
27	87S05		NUT, self locking	4
28	10S04		WASHER, flat	4
29	66S02BB		SCREW, set	4
30	104S02		NUT	4
31	41S04		WASHER, spring	4
32	10S02		WASHER, flat	4
.....	555140700		HOOK, starting handle	1
.....	66S03A		SCREW, set	2
.....	104S02		NUT	2
.....	41S04		WASHER spring	2

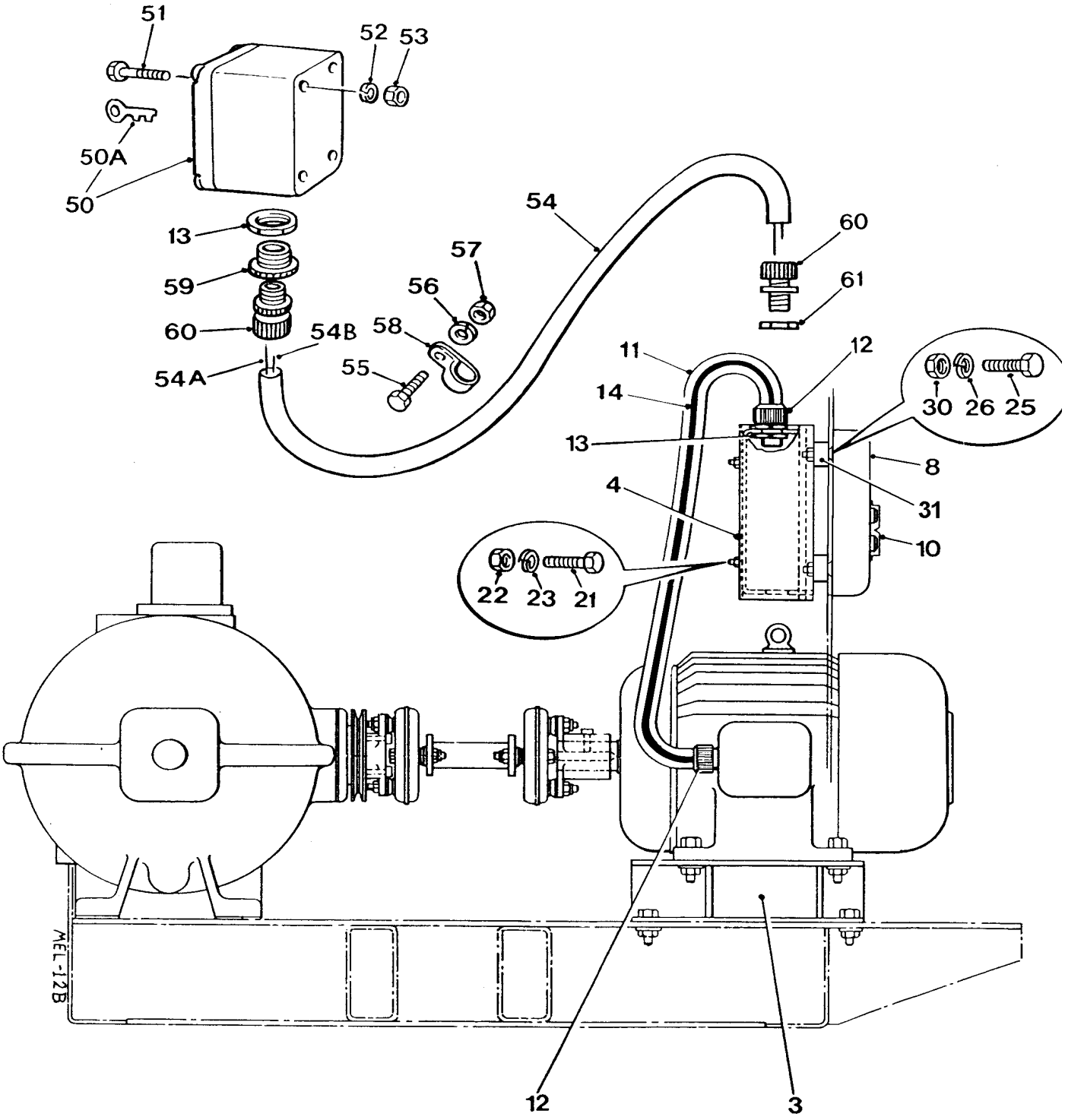
Reversing Drum Mixer, model 300R



Item	Part no	Serial no	Description	Qty
1	555142600		SHAFT, connecting	1
2	555145300		FLANGE, drive	1
3	555145200		MOUNTING, electric motor	2
5	555258100		ADAPTOR, drive	1
6	130972000		COUPLING, "Layrub" *(items 14,15 & 16 are supplied with coupling)*	2
9	202461000		MOTOR, electric, 7.5kw (10hp)	1
14	8S05H		BOLT	8
15	267S07		WASHER, flat	8
16	61S05		NUT, "Binx" self-locking	8
17	195S03C2		SCREW, socket head	1
18	28S05G		SCREW, set	4
19	87S05		NUT, self-locking	4
20	10S04		WASHER, flat	4
24	90S04H		SCREW, cap	1
27	6S05E		BOLT	4
28	87S05		NUT, "Binx" self locking	4
29	10S04		WASHER, flat	4

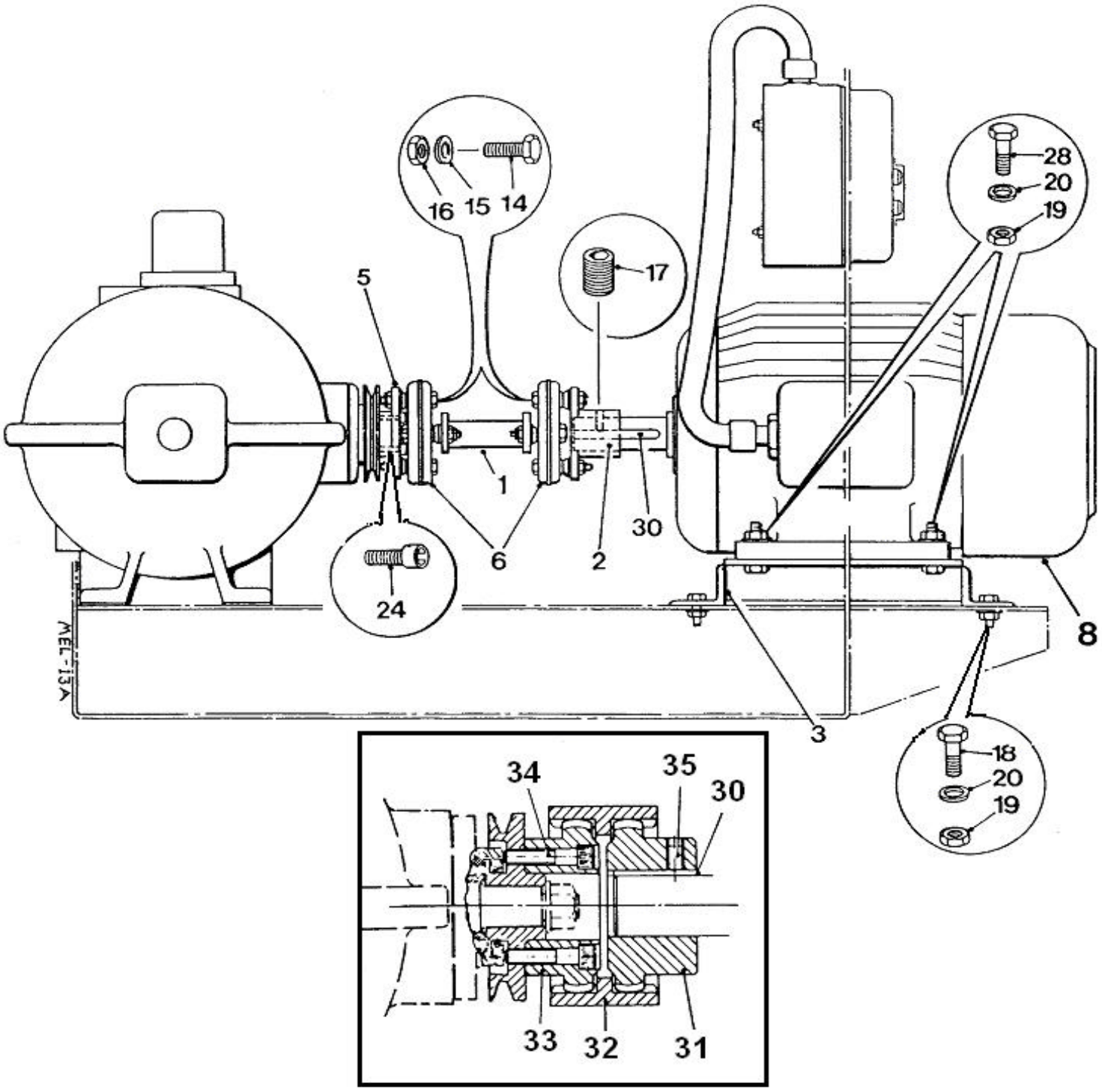
C - 11A

Reversing Drum Mixer, model 300R



Item	Part no	Serial no	Description	Qty
4	555144200		BRACKET, starter mounting	1
8	208304102	/ Oct-86	STARTER, complete	1
8A	208304103	Nov-86 /	CONTACTOR/ENCLOSURE, starter	1
8B	208304104	Nov-86 /	OVERLOAD RELAY (14A-21A), starter	1
10	205617000		CAP protective	1
11	131736000		CONDUIT, pliable	1
12	131272000		COUPLING	2
13	133275050		NUT, locking	2
14	030788102		CABLE, red, 11m long	1
14	030788103		CABLE, green, 1.5m long	1
21	11S02A		SCREW, set	4
22	7S02		NUT	4
23	17S03		WASHER, spring	4
25	6S03B		BOLT (through spacer)	4
26	41S05		WASHER, spring	4
30	9S03		NUT	4
31	CSE182	1028 /	SPACER	
50	208870000		SWITCH, stop, c/w keys	1
50A	V602651		KEY	1
50	208870000	/ Oct 04	SWITCH, stop, c/w keys	1
50A	V602651	/ Oct 04	KEY	1
50	208880000	Oct-04 /	SWITCH, stop, assembly c/w keys	
.....	208880000A	Oct-04 /	MUSHROOM, reset c/w keys	1
50A	V603623	Oct-04 /	KEY	2
.....	208880000B	Oct-04 /	CONTACTOR	1
.....	208880000C	Oct-04 /	ENCLOSURE	1
51	103S02D	/ Oct 04	SCREW, skt cap	2
51	11S01D	Oct-04 /	SCREW, set	2
52	41S03	/ Oct 04	WASHER, spring	2
52	17S02	Oct-04 /	WASHER, spring	2
.....	267S03	Oct-04 /	WASHER, flat *(not illustrated)*	2
53	104S01	/ Oct 04	NUT	2
53	7S01	Oct-04 /	NUT	2
54	131770010		CONDUIT, (1.5metres)	1
54A	144700200		WIRE, green/yellow (2 metres)	1
54B	144700100		WIRE, red (4 metres)	1
55	11S02C		SCREW, set	2
56	17S03		WASHER, spring	2
57	7S02		NUT	2
58	V2004640		CLIP "P"	2
59	131575020		REDUCER	1
60	131271000		COUPLING	2
61	133272000		NUT, locking, thin	1

Reversing Drum Mixer, model 400R

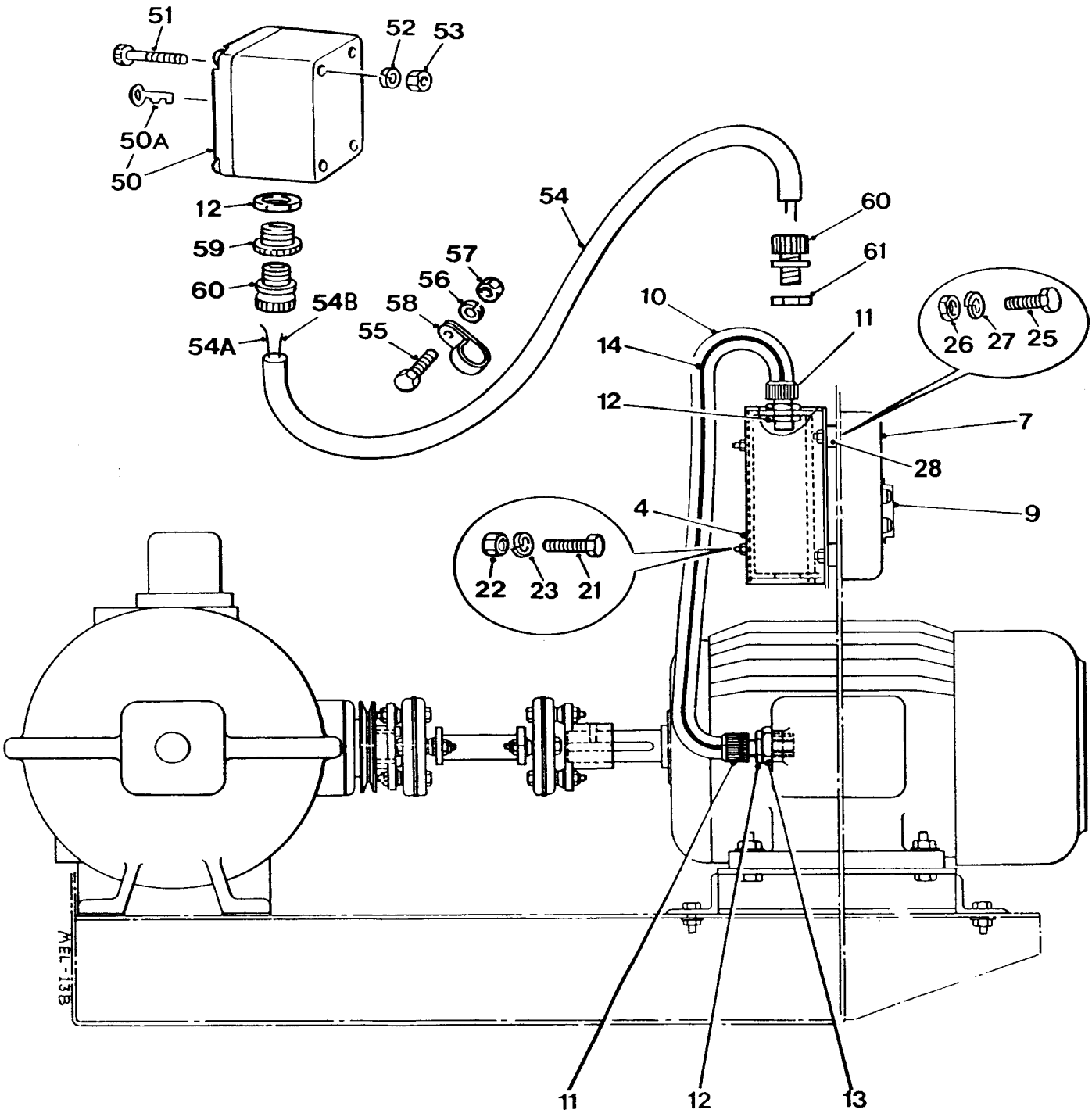


ELECTRIC DRIVE, 11Kw Motor, mount and coupling

Item	Part no	Date	Description	Qty
1	555142600	1571/	SHAFT, connecting	1
2	555145500	1571/	FLANGE, drive	1
3	555145400		MOUNTING, electric motor	1
5	555258100	1571/	ADAPTOR, drive	1
6	130972000	1571/	COUPLING, “Layrub” *(Items 14, 15 & 16 are supplied with coupling)*	2
8	202424000		MOTOR, electric (11Kw, 14hp)	1
14	8S05H	1571/	BOLT	8
15	267S07	1571/	WASHER, flat	8
16	61S05	1571/	NUT, “Binx” self-locking	8
17	195S03C2	1571/	SCREW, grub	1
18	28S05G		SCREW, set	4
19	87S05		NUT, “Binx” self-locking	8
20	10S04		WASHER, flat	8
24	90S04H	1571/	SCREW, skt. hd. cap	4
28	6S05E		SCREW, set	4
30	304712863		KEY	1
31	555291700	/1572	COUPLING, motor	1
32	147320001	/1572	SLEEVE, nylon toothed	1
33	555248601	/1572	COUPLING, gearbox	1
34	90S04L	/1572	SCREW, skt. hd. cap	4
35	188S04E1	/1572	SCREW, grub	1

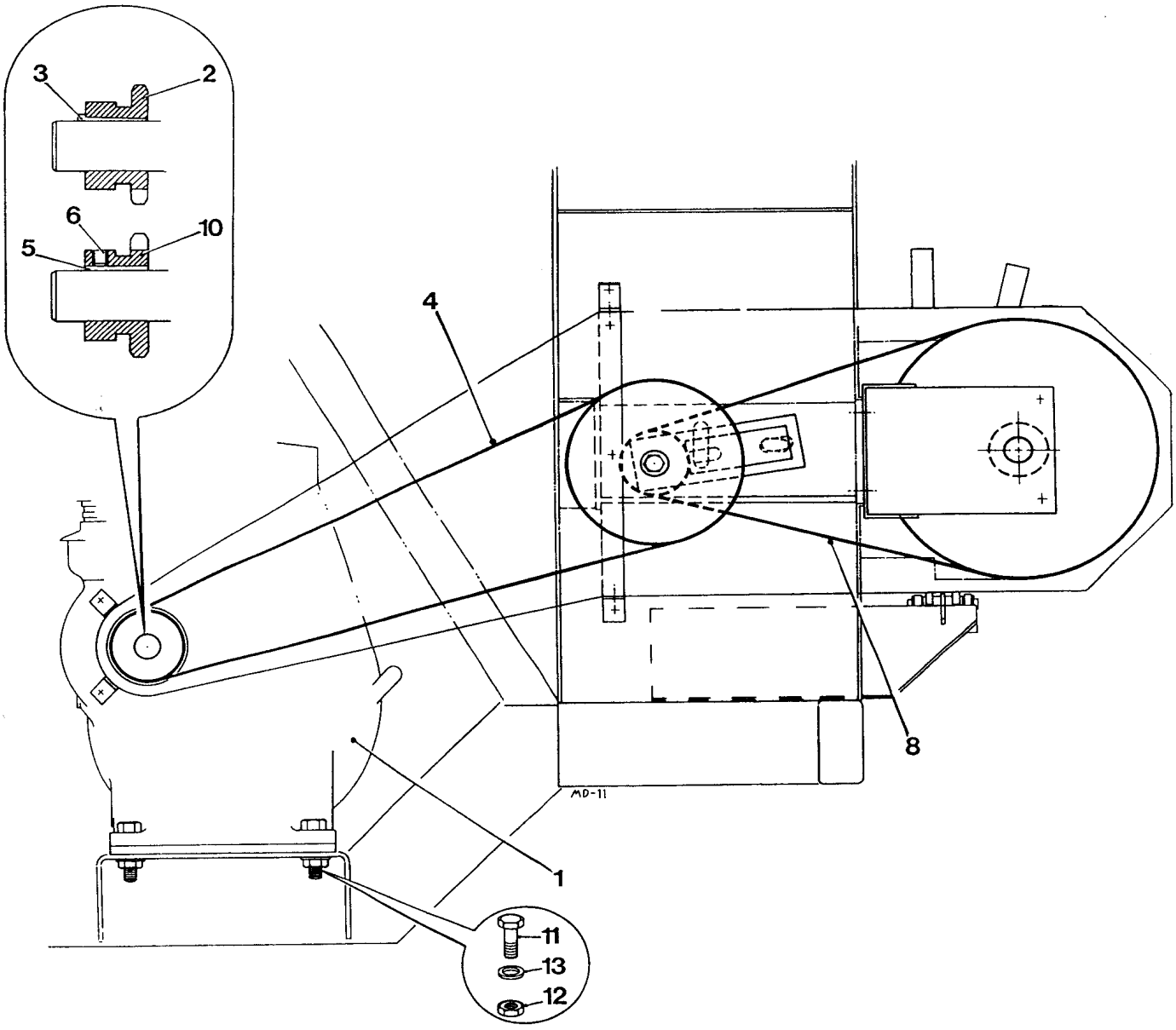
C - 12A

Reversing Drum Mixer, model 400R



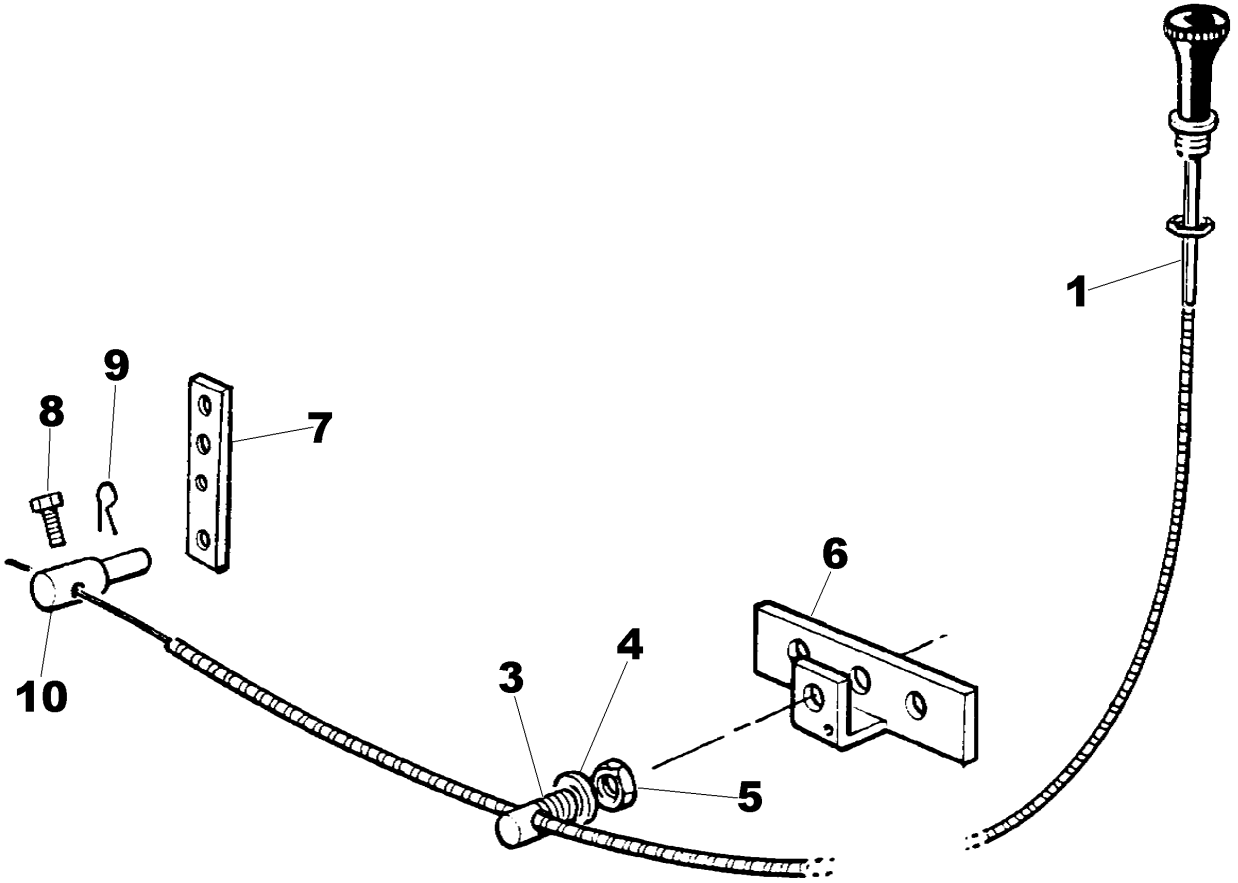
Item	Part no	Serial no	Description	Qty
4	555144200		BRACKET, starter mounting	1
7	208304102	/ Oct-86	STARTER, complete	1
-	208304103	Nov-86 /	SWITCH, starter	1
-	208304104	Nov-86 /	RELAY-OVERLOAD, 14A - 21A	1
9	205617000		CAP, protective	1
10	131736000		CONDUIT, pliable (1 metre)	1
11	131272000		COUPLING	2
12	133275050		NUT, locking	2
13	131592025		SOCKET, reducing	1
14	030788102		WIRE, red, (6 metres)	1
14	030788103		WIRE, green/yellow, (1 metre)	1
21	11S02A		SCREW, set	4
22	7S02		NUT	4
23	17S03		WASHER, spring	4
25	6S03B		BOLT (through spacer)	4
26	9S03		NUT	4
27	41S05		WASHER, spring	4
28	CSE182	1028 /	SPACER	4
50	208870000	/ Oct 04	SWITCH, stop, c/w keys	1
50A	V602651	/ Oct 04	KEY	1
50	208880000	Oct-04 /	SWITCH, stop, assembly c/w keys	
……	208880000A	Oct-04 /	MUSHROOM, reset c/w keys	1
50A	V603623	Oct-04 /	KEY	2
……	208880000B	Oct-04 /	CONTACTOR	1
……	208880000C	Oct-04 /	ENCLOSURE	1
51	103S02D	/ Oct 04	SCREW, skt cap	2
51	11S01D	Oct-04 /	SCREW, set	2
52	41S03	/ Oct 04	WASHER, spring	2
52	17S02	Oct-04 /	WASHER, spring	2
……	267S03	Oct-04 /	WASHER, flat *(not illustrated)*	2
53	104S01	/ Oct 04	NUT	2
53	7S01	Oct-04 /	NUT	2
54	131770010		CONDUIT (1.5 metres)	1
54A	144700200		WIRE, green/yellow (2 metres)	1
54B	144700100		WIRE, red (4 metres)	1
55	11S02C		SCREW, set	2
56	17S03		WASHER, spring	2
57	7S02		NUT	2
58	V2004640		CLIP “P”	2
59	131575020		REDUCER	1
60	131271000		COUPLING	2
61	133272000		NUT, locking, thin	1

Reversing Drum Mixer, models 300R & 400R



Item	Part no	Date	Description	Qty
1	----------	/ 88	ENGINE, diesel *(see Section Index)*	1
2	555217500		SPROCKET, engine **(Petter)**	1
3	301106220		KEY, gib head **(Petter)**	1
4	134911108		CHAIN, roller **(Petter)**	1
4	134911092		CHAIN, roller **(Lister)**	1
5	304107180		KEY, parallel **(Lister)**	1
6	57S06D2		SCREW, set, socket head	1
8	134911120		CHAIN, roller **(Lister & Petter)**	1
10	555217600		SPROCKET, engine **(Lister)**	1
11	6S05K		BOLT	4
12	87S05		NUT, self locking	4
13	10S04		WASHER, flat	4

Reversing Drum Mixer, models 300R & 400R

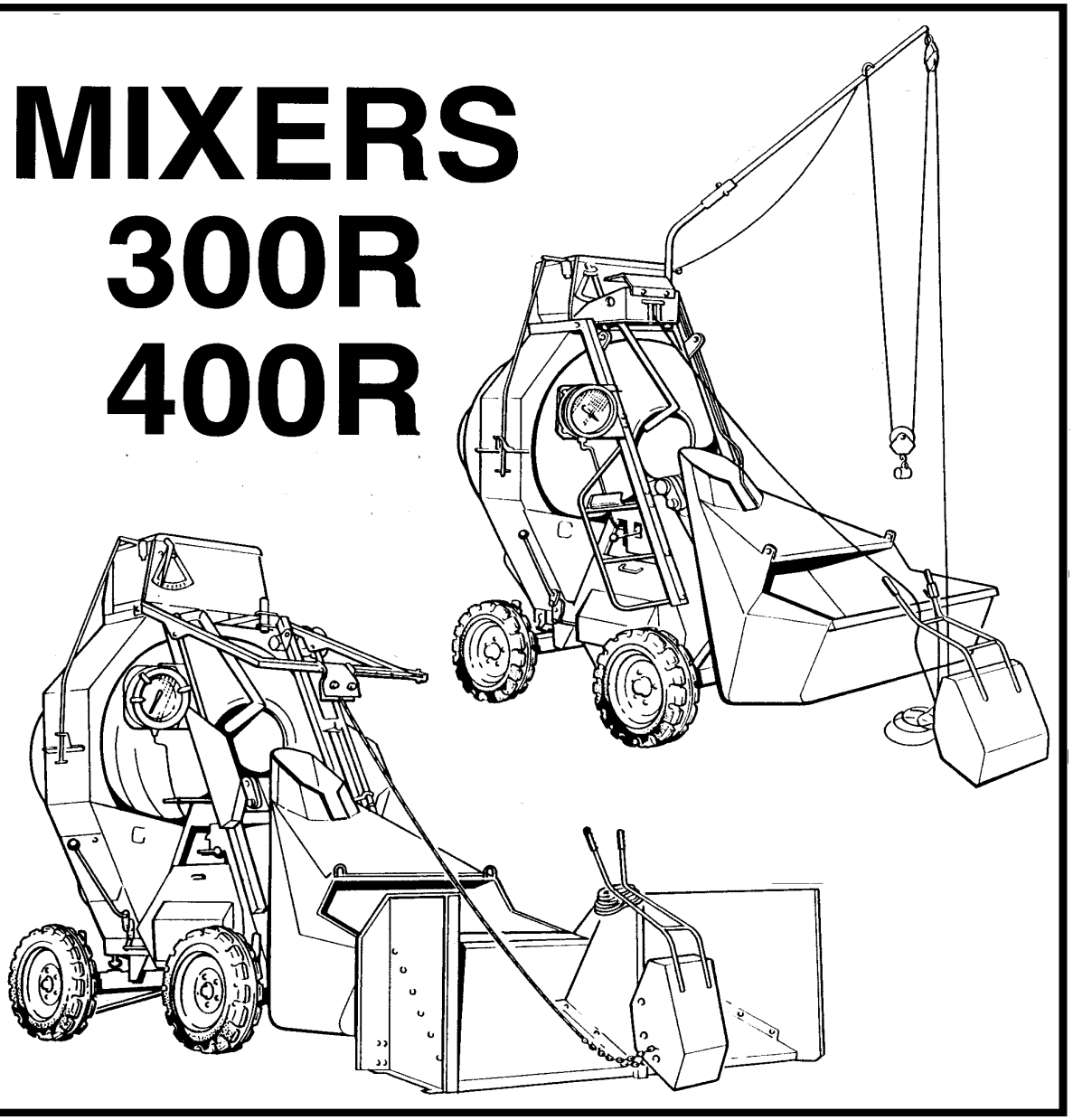


ENGINE STOP CABLE

Lister-Petter TS2 & TR2 engines

Item	Part no	Serial no	Description	Qty
1	460239		CABLE, stop	1
3	460242		CLAMP, outer cable	1
4	67S04		WASHER, shakeproof	1
5	87S03		NUT, binx	1
6	11029A01		BRACKET, cable retaining	1
7	11030A01		LEVER, engine stop	1
8	V600192		SCREW, set	1
9	V600193		CLIP "R"	1
10	V600194		FITTING, swivel, inner cable retaining	1
	Following Parts are not Illustrated			
11	555292300		BRACKET, cable stop	1
12	11S02A		SCREW, set	2
13	267S04		WASHER, flat	4
14	61S02		NUT, binx	2
15	143200900		CLIP, nylon	1
16	16S05B		SCREW, set	1
17	267S02		WASHER, flat	1
18	17S10		WASHER, spring	1
19	7S09		NUT	1

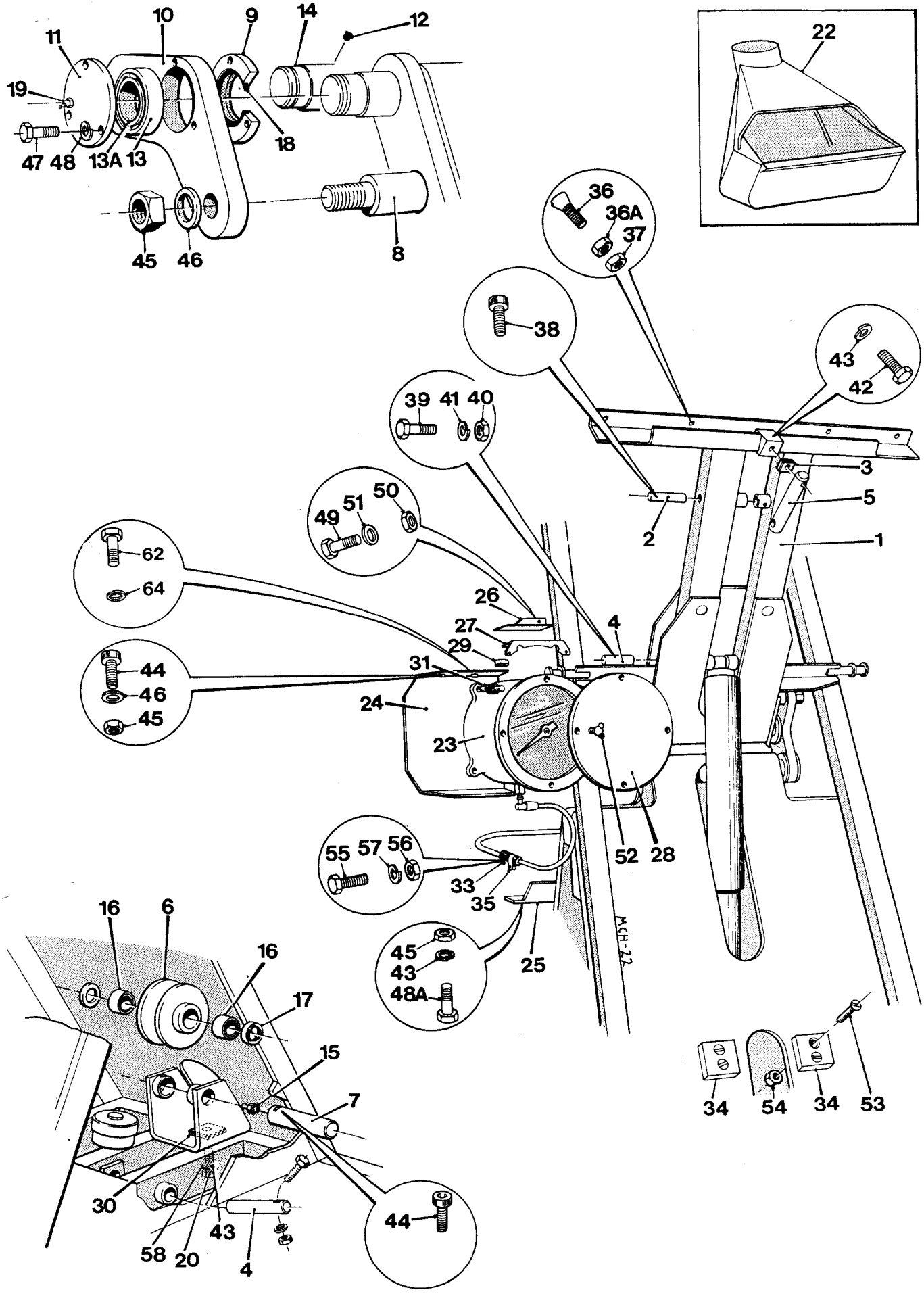
MIXERS
300R
400R



Hopper

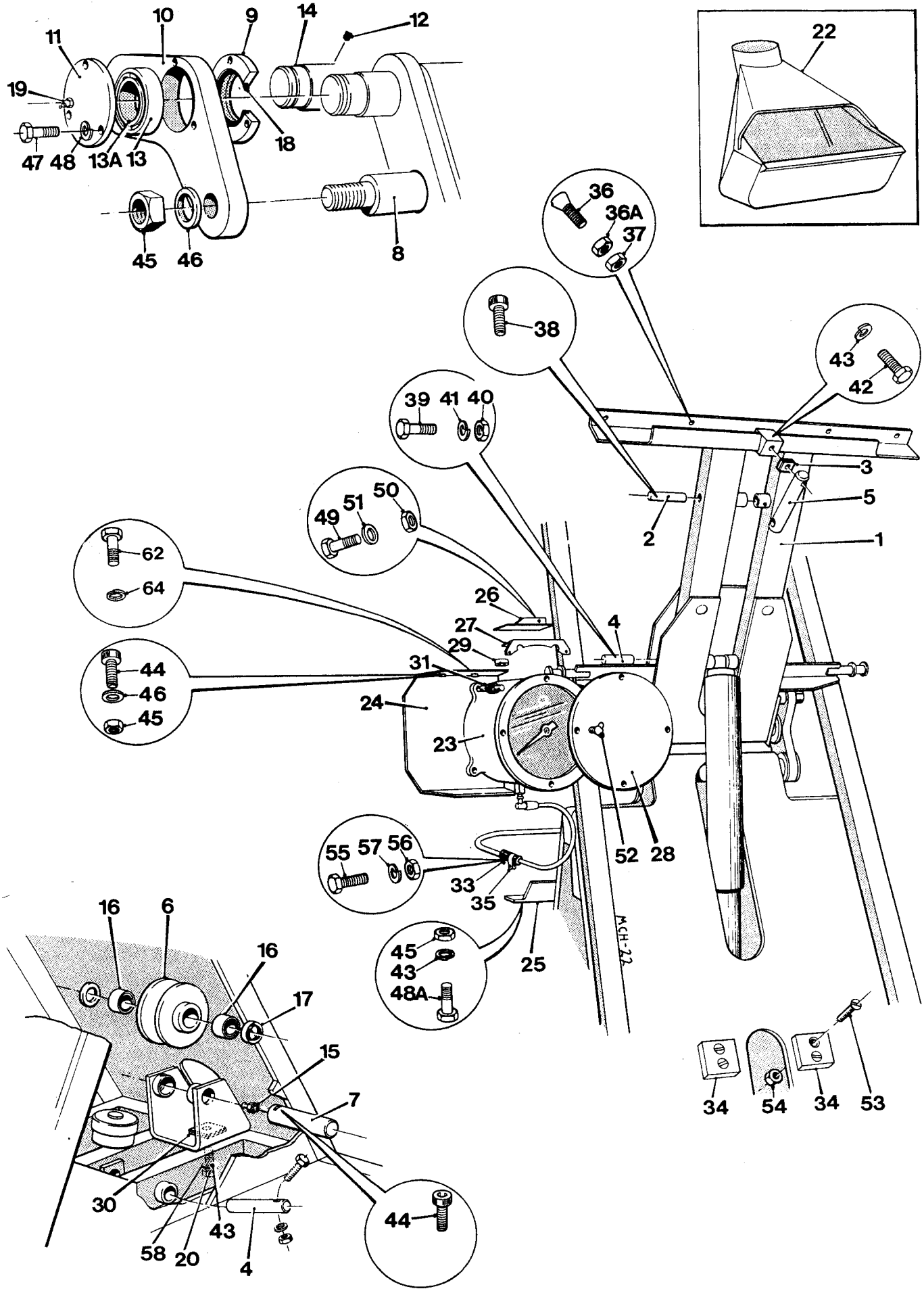
HOPPER CRADLE & WEIGHING GEAR D - 1

D - 1 Reversing Drum Mixer, models 300R & 400R



Item	Part no	Serial no	Description	Qty
			# Items required only when weighing gear is fitted	
			$ Items not required when weighing gear is fitted	
1	555269600		CRADLE, hopper *(less dragline)*	1
1	555273200	/ 0842	CRADLE, hopper *(with dragline)*	1
2	555109300		# PIN, hopper cradle	1
3	555109200		# PACKER, loadcell striker	set 1
4	555108500		PIN, hopper ram *(see hopper ram page)*	2
5	555109100		# STRIKER, loadcell	1
6	555108900		# GUIDE, loadcell striker	1
7	555109000		# PIN, guide	1
8	555255100		SHAFT, link	1
9	555255300		HOUSING, pivot seal	4
10	555255000		ARM, link	pair 1
11	555255400		CAP, pivot bearing	4
12	195S04E2		SCREW, set, socket head	2
13	113179200		BEARING, assembly	4
13A	113179201		BEARING, inner	4
14	555255200		SHAFT, pivot	1
15	333506000		# NIPPLE, grease, straight	1
16	113149000		# BEARING, needle roller	2
17	422702000		# SEAL	2
18	391299000		'O' RING	4
19	131S01		NIPPLE, grease, straight	4
20	11S05E		SCREW, set	1
22	555265403		HOPPER, **300R**	1
22	555265404		HOPPER, **400R**	
23	.....		# WEIGH gauge *(see page E - 3)*	1
24	555192700		# PLATE, weigh gauge mounting	1
25	555192800		# SUPPORT, lower, weigh gauge	1
26	555192900		# SUPPORT, upper, weigh gauge	1
27	555124900		# PLATE, weigh gauge mounting, upper	1
28	555125000		# COVER, dial	1
29	555125100		# SPACER	2
.....	6S05C		BOLT *(not illustrated)*	2
.....	87S05		NUT *(not illustrated)*	2
30	512118300		# PACKER, loadcell	set 1

D - 1 Reversing Drum Mixer, models 300R & 400R



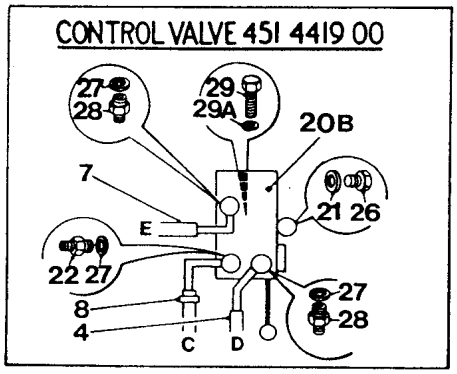
Item	Part no	Serial no	Description	Qty
31	013203000		# MOUNTING, flexible	4
33	555170100		# GUARD, hose	1
34	555109600		$ STOP, cradle	2
35	143200900		# CLIP, hose	2
35A	143200300		# CLIP, hose (1/2" dia capillary hose)	2
36	208S06J		SCREW, countersunk	8
36A	104S06		NUT	8
37	203S06		NUT, locking	8
38	195S03C2		# SCREW, socket head	2
39	6S03G		BOLT	2
40	9S03		NUT	2
41	41S05		WASHER, spring	2
42	6S05E		# SCREW, set	1
43	41S07		# WASHER, spring	5
44	195S04D3		# SCREW, socket head	1
45	9S11		NUT	2
46	10S31		WASHER, flat	2
47	8S03E		BOLT	12
48	17S04		WASHER, spring	12
48A	6S05BB		BOLT	5
49	6S03L		BOLT	1
50	9S03		NUT	1
51	41S05		WASHER, flat	1
52	261S02M		THUMBSCREW, shouldered	4
53	206S05C		$ SCREW, countersunk	4
54	192S05		$ NUT,self locking	4
55	16S05B		# SCREW SLT	9
56	7S09		# NUT	9
57	17S10		# WASHER, spring	9
58	17S06		WASHER, spring	1
62	28S03D		SCREW	2
·····	41S05		WASHER, spring *(not illustrated)*	2
·····	10S03		WASHER, flat *(not illustrated)*	2
·····	9S03		NUT *(not illustrated)*	2
			Hopper safety chain *(not illustrated)*	
·····	555269800		CHAIN, safety	1
·····	11S05D		SCREW, set	1
·····	267S07		WASHER, flat	1
·····	61S05		NUT, self locking	1

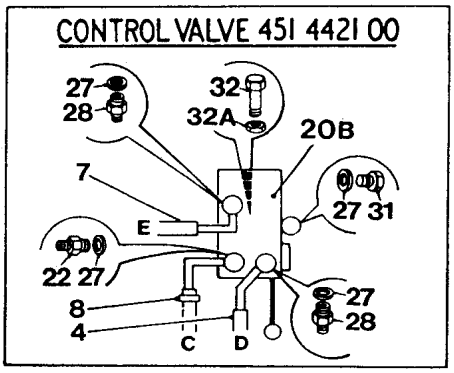
MIXERS
300R
400R

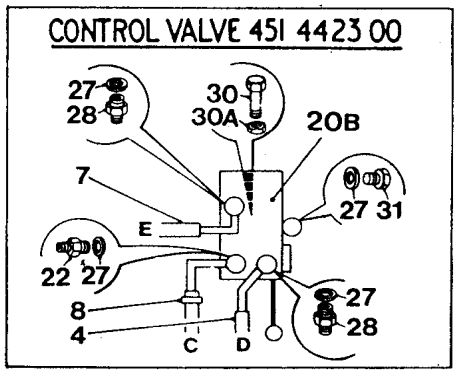
Hydraulics

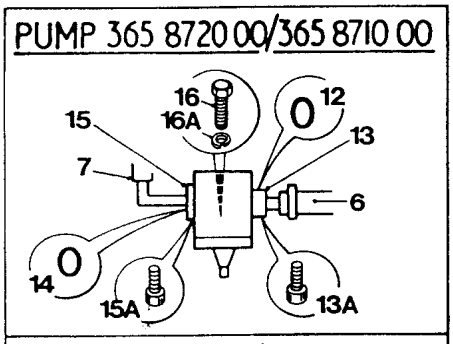
HYDRAULIC CIRCUIT, without dragline *(up to serial no. 0492)*	**E - 1**
CONTROL VALVE *(up to January 1988)*	**E - 1AA**
CONTROL VALVE *(from February 1988 to serial no. 0781)*	**E - 1A**
SECTION & LEVER, control valve *(from February 1988 to serial no. 0781)*	**E - 1B**
CONTROL VALVE *(from serial no. 0782)*	**E - 1BA**
HYDRAULIC CIRCUIT, without dragline *(from serial no. 0492 to 0836)*	**E - 1C**
BASIC HYDRAULICS, without dragline *(from serial no.0837)*	**E - 1D**
HEADER TANK, hopper ram	**E - 1E**
HYDRAULIC CIRCUIT, with dragline *(up to serial no. 0492)*	**E - 2**
HYDRAULIC CIRCUIT, with dragline *(from serial no. 0492 to 0842)*	**E - 2A**
DRAGLINE, hydraulic circuit *(from serial no. 0843)*	**E - 2B**
LOADCELL & GAUGE	**E - 3**
WEIGH GAUGE	**E - 3A**
HYDRAULIC TANK	**E - 4**
HYDRAULIC MOTOR	**E - 5**
RAM, hopper *(up to serial no. 0836)*	**E - 6**
HOPPER RAM, pins & fittings	**E - 8**
RAM, hopper *(from serial no. 0837)*	**E - 9**

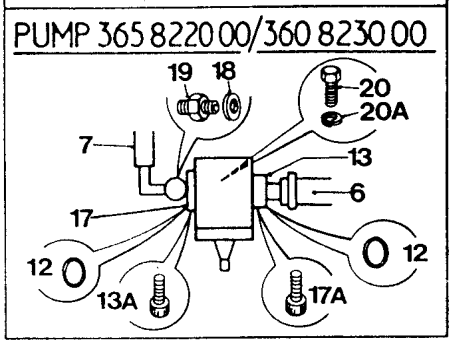
Reversing Drum Mixers, models 300R & 400R

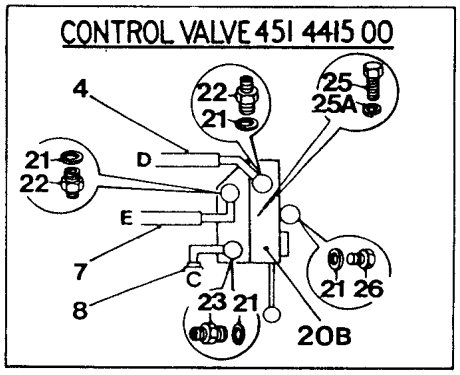


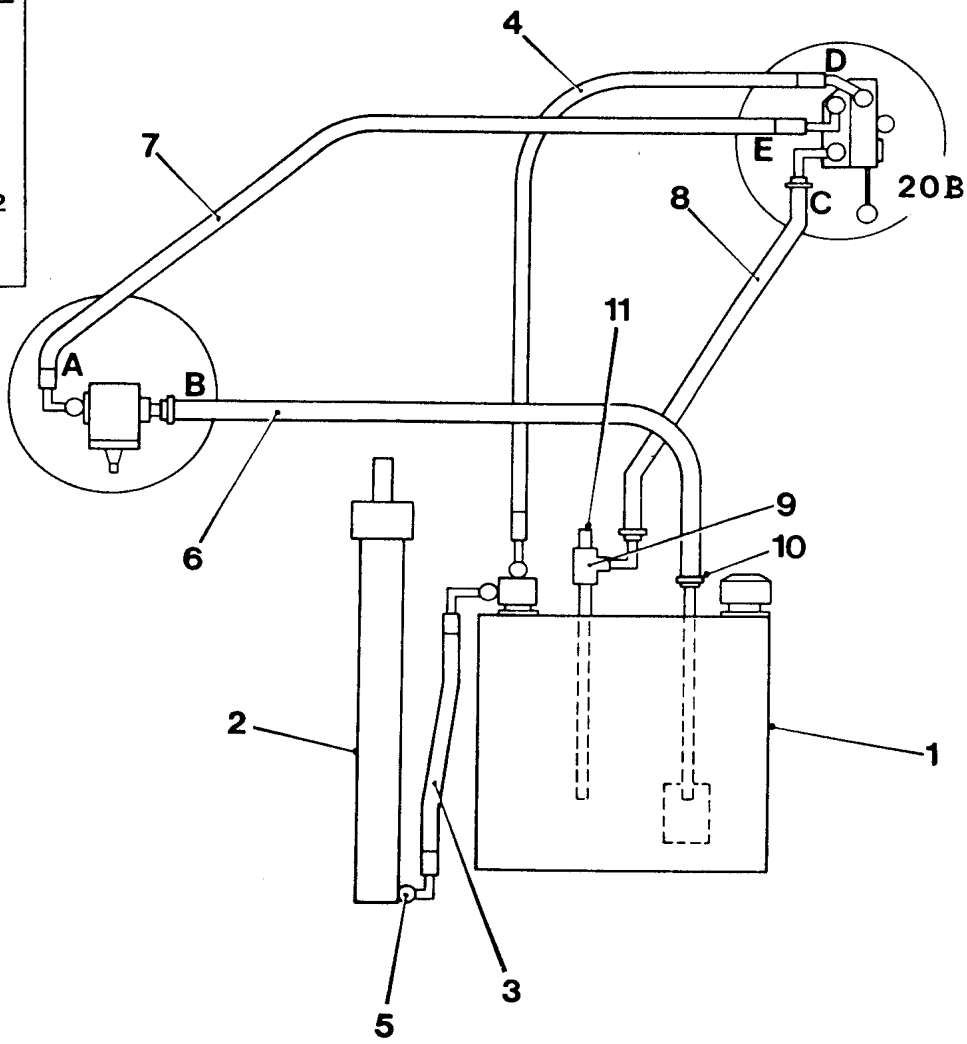








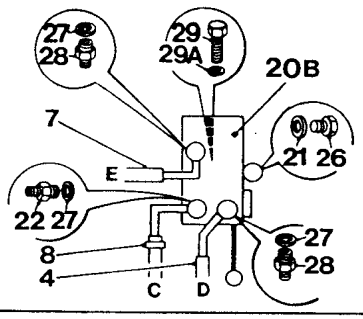




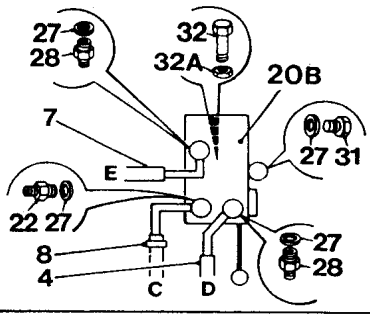
Item	Part no	Serial no	Description	Qty
	For machines from serial no. 0492, See page E - 1C			
1	.....	/ 0492	TANK, hydraulic *(see page E - 4)*	1
2	.....	/ 0492	RAM, hopper *(see page E - 6)*	1
3	555204300	/ 0492	HOSE, hopper ram	1
4	555231000	/ 0492	HOSE, control valve to bleed valve	1
5	555246900	/ 0492	RESTRICTOR, ram *(see page E - 6)*	1
6	555258300	/ 0492	HOSE, suction	1
7	555189500	/ 0492	HOSE, pump to control valve	1
8	555268600	/ 0492	HOSE, drain, control valve to tank tee	1
9	446311000	/ 0492	FITTING, tee, equal	1
10	97S09	/ 0492	CLIP	2
11	555136800	/ 0492	BAR, blanking	1
.....	365872000	/ 0492	PUMP, hydraulic, electric drive	1
.....	365871000	/ 0492	PUMP, hydraulic, diesel engine	1
.....	10190A01	/ 0492	KIT, seals, *"Dowty or Ultra"*	1
.....	11046A01	/ 0492	KIT, seals, *"Sundstrand"*	1
.....	V602632	/ 0492	KIT, seals, *"Bosch"*	1
12	391832000	/ 0492	SEAL, 'O' ring	1
13	555136900	/ 0492	CONNECTOR, pump inlet	1
13A	103S03BE	/ 0492	SCREW, socket head cap	2
14	391109000	/ 0492	SEAL, 'O' ring	1
15	555199900	/ 0492	CONNECTOR, pump outlet	1
15A	103S02B	/ 0492	SCREW, socket head cap	2
16	66S01C	/ 0492	SCREW	4
16A	41S03	/ 0492	WASHER, spring	4
.....	365822000	/ Jun-87	PUMP, hydraulic, electric drive	1
.....	365823000	/ Jun-87	PUMP, hydraulic, diesel engine	1
.....	10190A01	/ Jun-87	KIT, seals, *"Dowty or Ultra"*	1
.....	11046A01	/ Jun-87	KIT, seals, *"Sundstrand"*	1
.....	V602632	/ Jun-87	KIT, seals, *"Bosch"*	1
12	391832000	/ Jun-87	SEAL, 'O' ring	1
13	555136900	/ Jun-87	CONNECTOR, pump inlet	1
13A	103S03BC	/ Jun-87	SCREW, socket head cap	2
17	555136400	/ Jun-87	CONNECTOR, pump outlet	1
17A	103S03C	/ Jun-87	SCREW, socket head cap	2
18	100S03	/ Jun-87	SEAL, bonded	1
19	122S03	/ Jun-87	FITTING, adaptor, male, stud	1
20	66S01C	/ Jun-87	SCREW	4
20A	41S03	/ Jun-87	WASHER, spring	4

E - 1 Reversing Drum Mixers, models 300R & 400R

CONTROL VALVE 451 4419 00



CONTROL VALVE 451 4421 00



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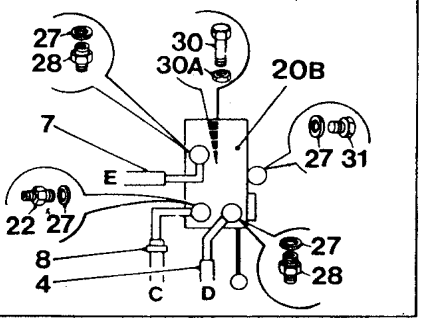
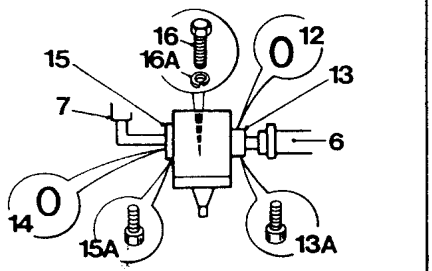
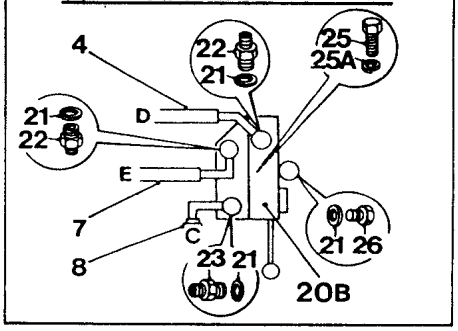


PUMP 365 8720 00/365 8710 00



CONTROL VALVE 451 4415 00



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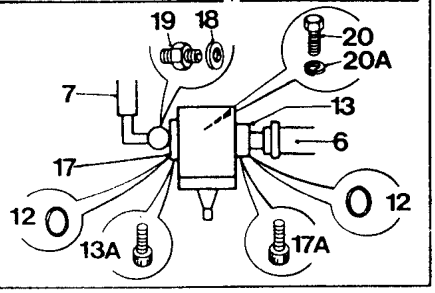
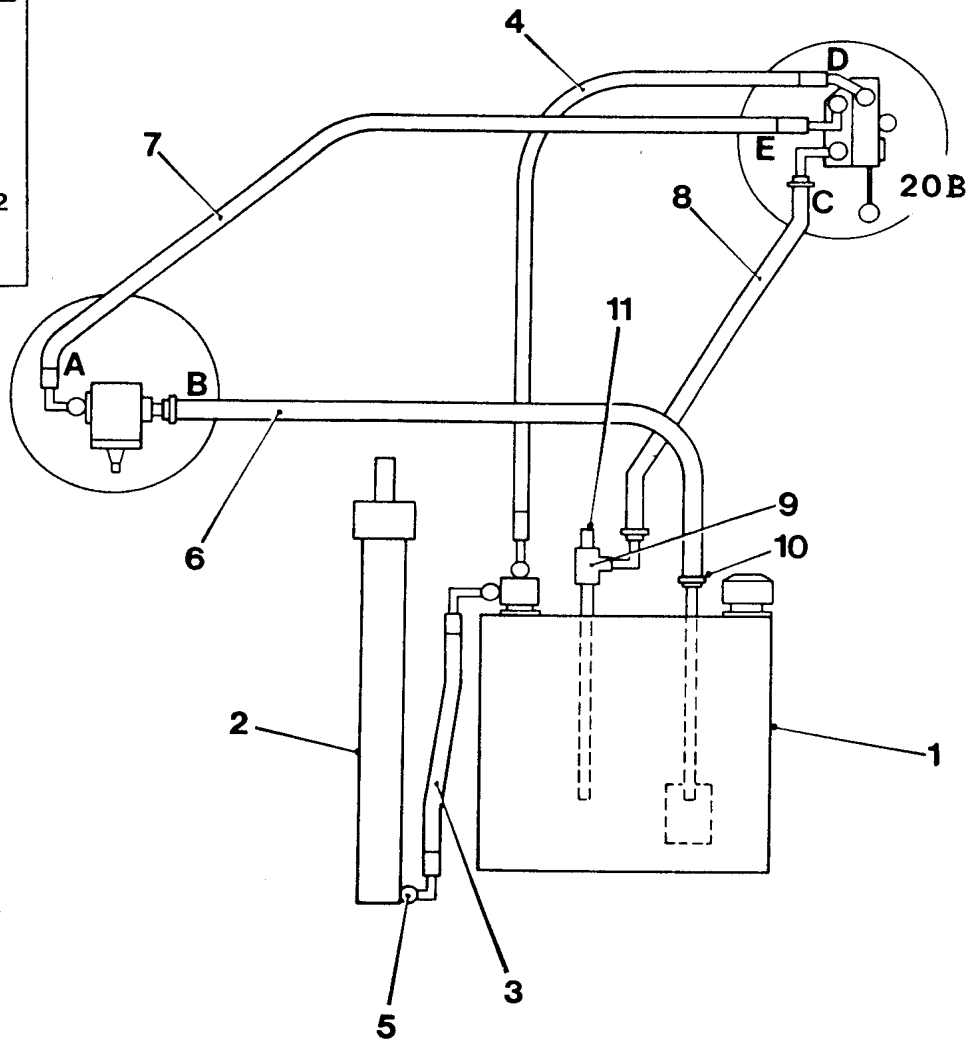
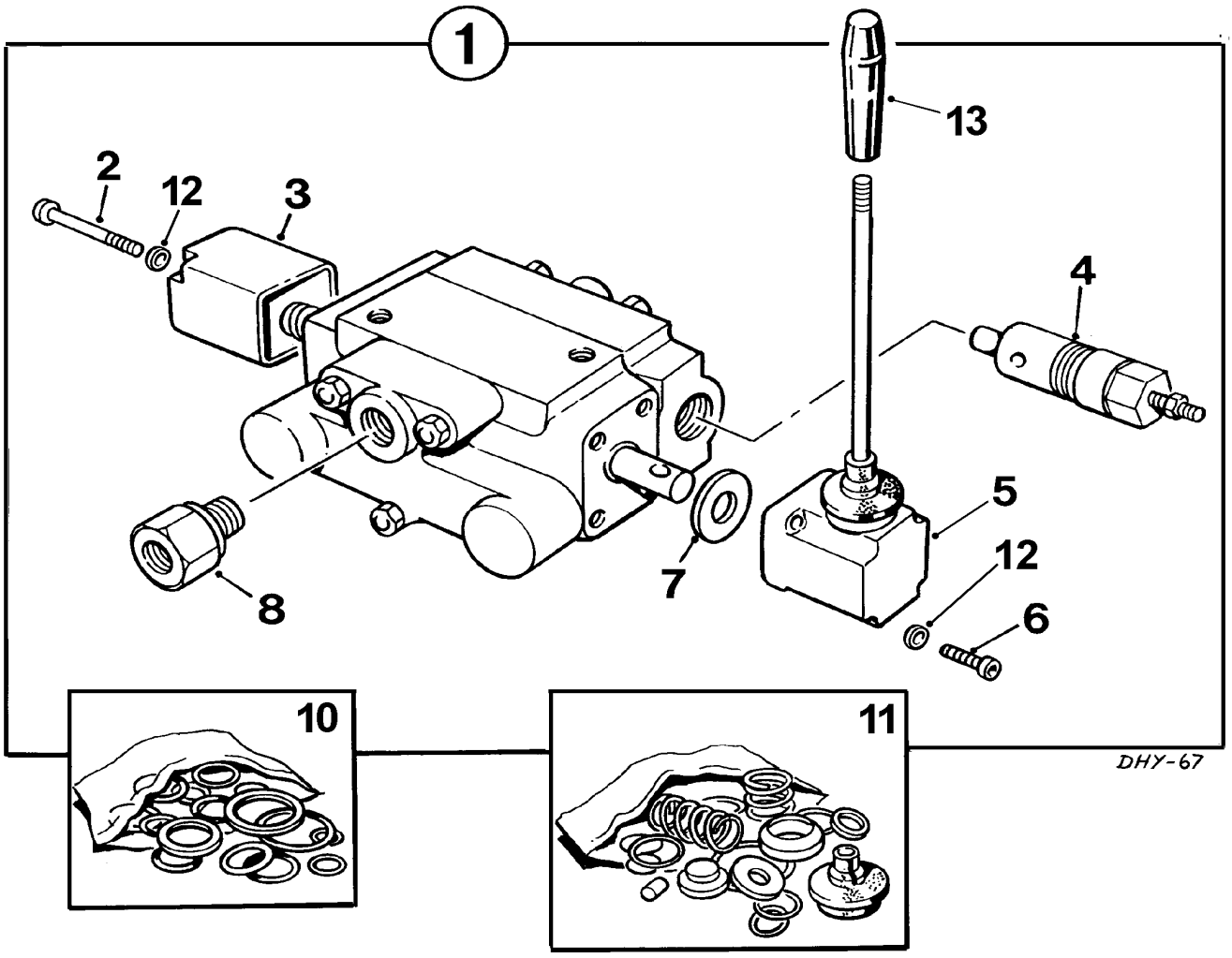




HYDRAULIC CIRCUIT (Without dragline)

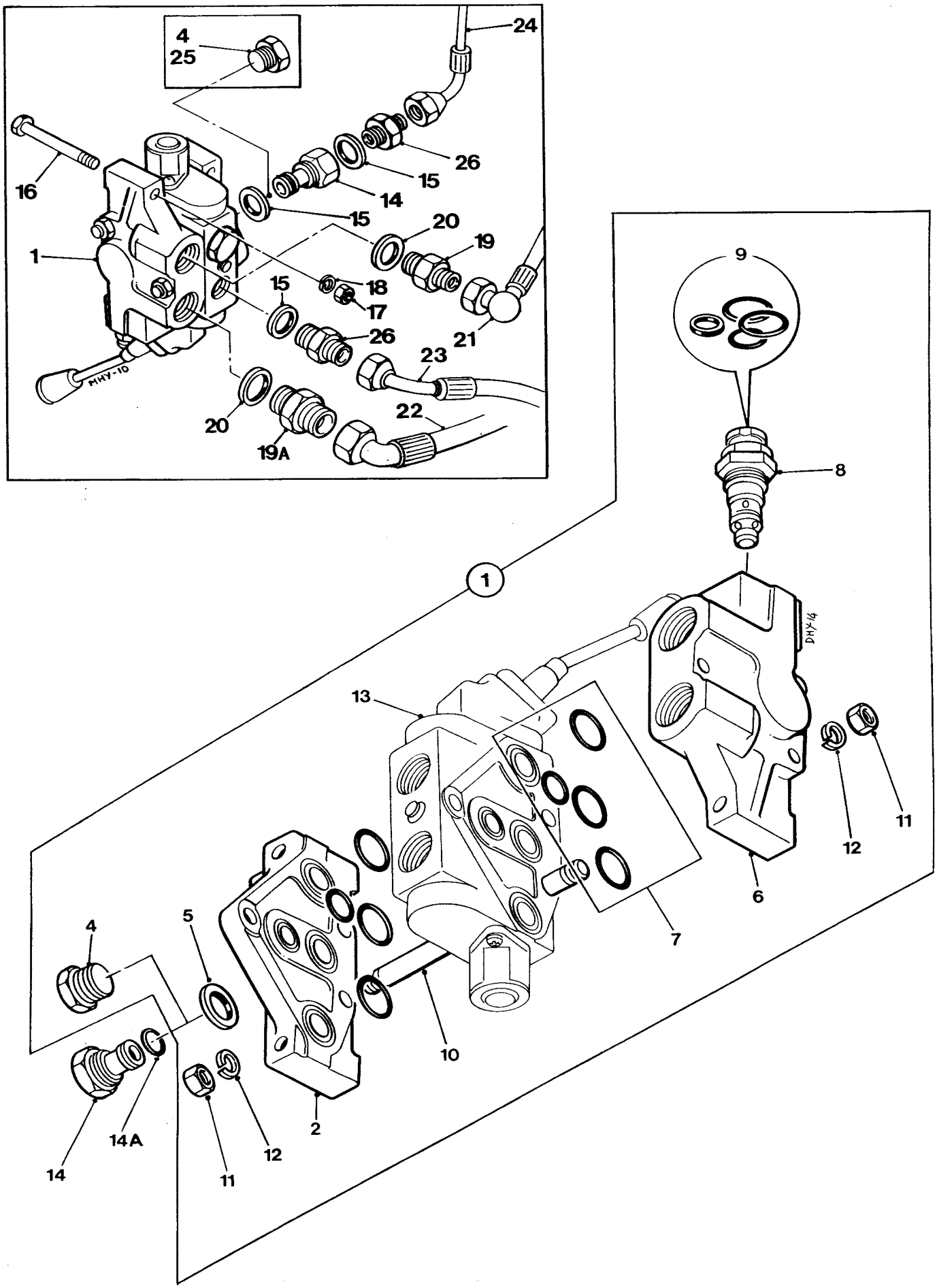
Item	Part no	Date	Description	Qty
20B	451441900	/ 84	CONTROL VALVE	1
.....	451441902	/ 84	KIT, seals	1
21	100S04	/ 84	SEAL, bonded	1
22	446614000	/ 84	ADAPTOR, male stud	1
26	127S04	/ 84	PLUG, collared	1
27	100S03	/ 84	SEAL, bonded	3
28	122S03	/ 84	FITTING, adaptor, male, stud	2
29	405008015	/ 84	SCREW	3
29A	17S04	/ 84	WASHER, spring	3
20B	451442300	/ 84	CONTROL VALVE	1
22	446614000	/ 84	FITTING, adaptor, male, stud	1
27	100S03	/ 84	SEAL, bonded	4
28	122S03	/ 84	FITTING, adaptor, male, stud	2
30	8S03G	/ 84	BOLT	3
30A	61S03	/ 84	NUT, self locking	3
31	360400300	/ 84	PLUG, collared	1
20B	451442100	/ 84	CONTROL VALVE	1
22	446614000	/ 84	FITTING, adaptor, male, stud	1
27	100S03	/ 84	SEAL, bonded	2
28	122S03	/ 84	FITTING, adaptor, male, stud	2
31	360400300	/ 84	PLUG, collared	1
32	8S03H	/ 84	BOLT	2
32A	61S03	/ 84	NUT, self locking	2
20B	451441600	/ Jan 88	CONTROL VALVE *(see page E-1AA)*	1
21	100S04	/ Jan 88	SEAL, bonded	4
22	446614000	/ Jan 88	FITTING, adaptor, male, stud	2
23	122S04	/ Jan 88	FITTING, adaptor, male, stud	1
24	555251500	/ Jan 88	PACKER, control valve	1
25	11S03C	/ Jan 88	SCREW, set	2
25A	17S04	/ Jan 88	WASHER, spring	2
26	127S04	/ Jan 88	PLUG, collared	1
20B	.....	Feb 88 /	CONTROL VALVE *(see Page E-1A)*	1

Reversing Drum Mixers, models 300R & 400R



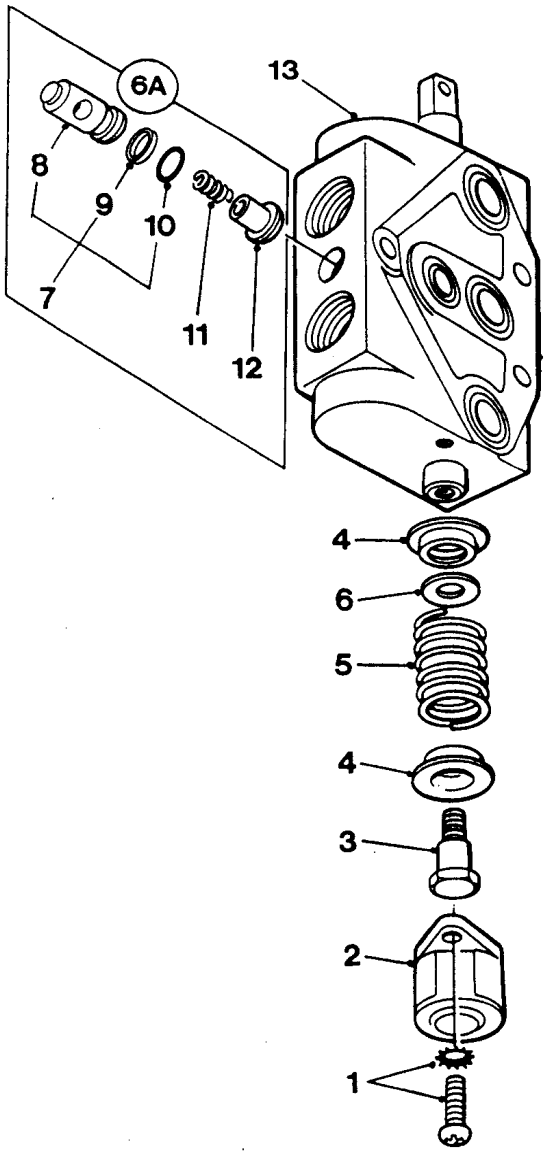
Item	Part no	Date	Description	Qty
1	451441600	/ Jan-88	CONTROL VALVE	1
2	30322A0502		SCREW, socket cap head	2
3	30322A0204		CAP, end	1
4	30322A0102		VALVE, relief	1
5	30322A0503		HANDLE, assembly	1
6	68S02B		SCREW, socket cap head	4
7	10S05		SPACER, washer	1
8	451441501		ADAPTOR	1
10	451441502		KIT, seals	1
11	30322A0203		KIT, repair	1
12	13S01		WASHER	8
13	30322A0505		KNOB	1

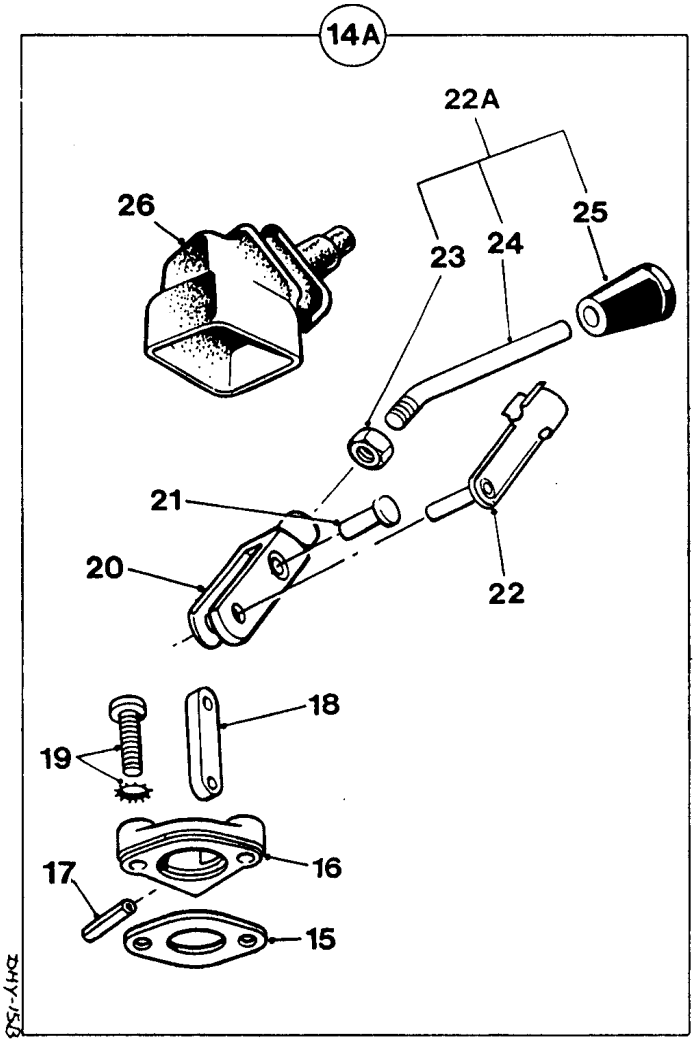
E - 1A Reversing Drum Mixers, models 300R & 400R

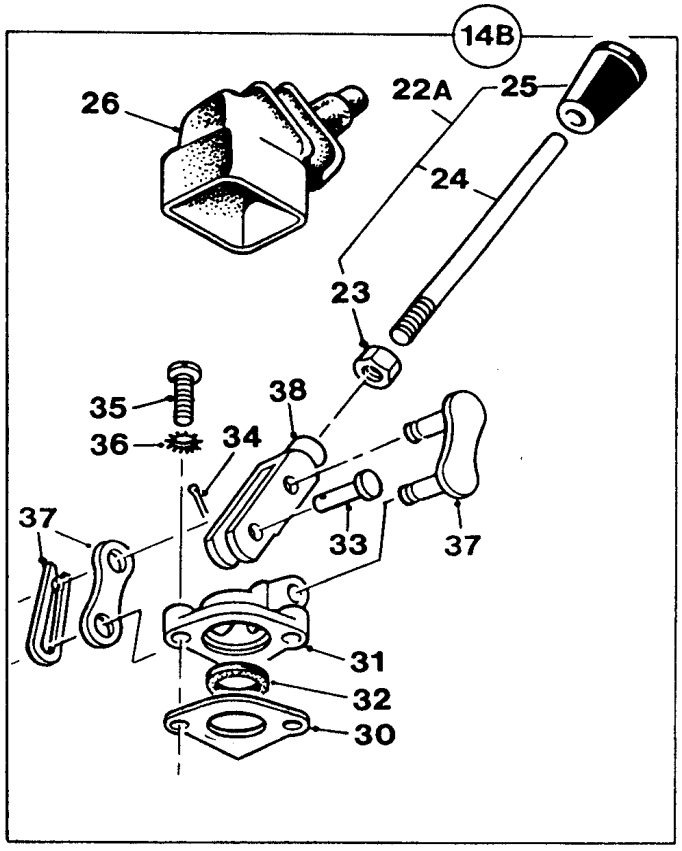


Item	Part no	Serial no	Description	Qty
1	V2000399	Feb-88 / 0781	CONTROL VALVE, assembly,	1
2	V600017		COVER, inlet	1
4	127S04		PLUG	1
5	100S06		SEAL, bonded	1
6	V2003124		COVER, end	1
7	V600178		KIT, seals	1
8	V600184		VALVE, relief, 2000 psi	1
9	V600023		KIT, seals	1
10	V600024		STUD	3
11	9S03		NUT	3
12	41S05		WASHER, spring	3
13	.....		SECTION, control v. *(see page E - 1B)*	
14	451431029		ADAPTOR, carryover, assembly	1
14A	451431005		Seal "O"ring *(included in item 7)*	1
15	100S04		SEAL, bonded	3
16	8S04K		BOLT	3
17	7S04		NUT	3
18	17S05		WASHER, spring	3
19	119S10		FITTING, adaptor	1
19A	119S13		FITTING, adaptor	1
20	100S06		SEAL, bonded	2
21	555189500		HOSE, pump to control valve	1
22	555268600		HOSE, control valve to tank tee	1
23	555231000		HOSE, control valve to bleed valve	1
24	555268700		HOSE, control valve to solenoid valve	1
25	127S04		PLUG	1
26	119S08		FITTING, adaptor	2
.....	V602619	0782 /	# KIT, valve conversion # *This kit contains valve V2004605 (see page E-1BA) and all fittings needed to replace valve V2000399 (on this page)*	1

Reversing Drum Mixers, models 300R & 400R

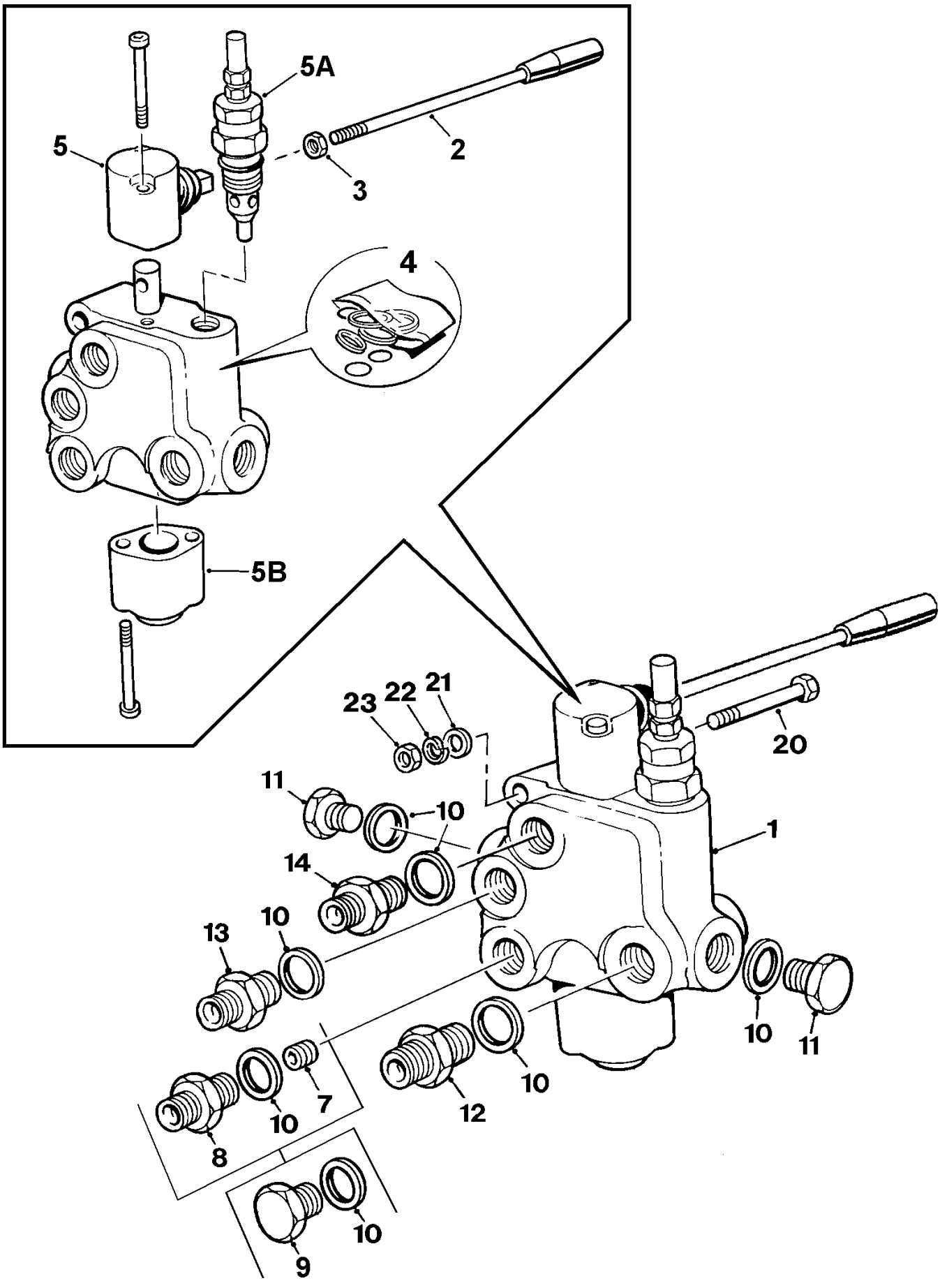






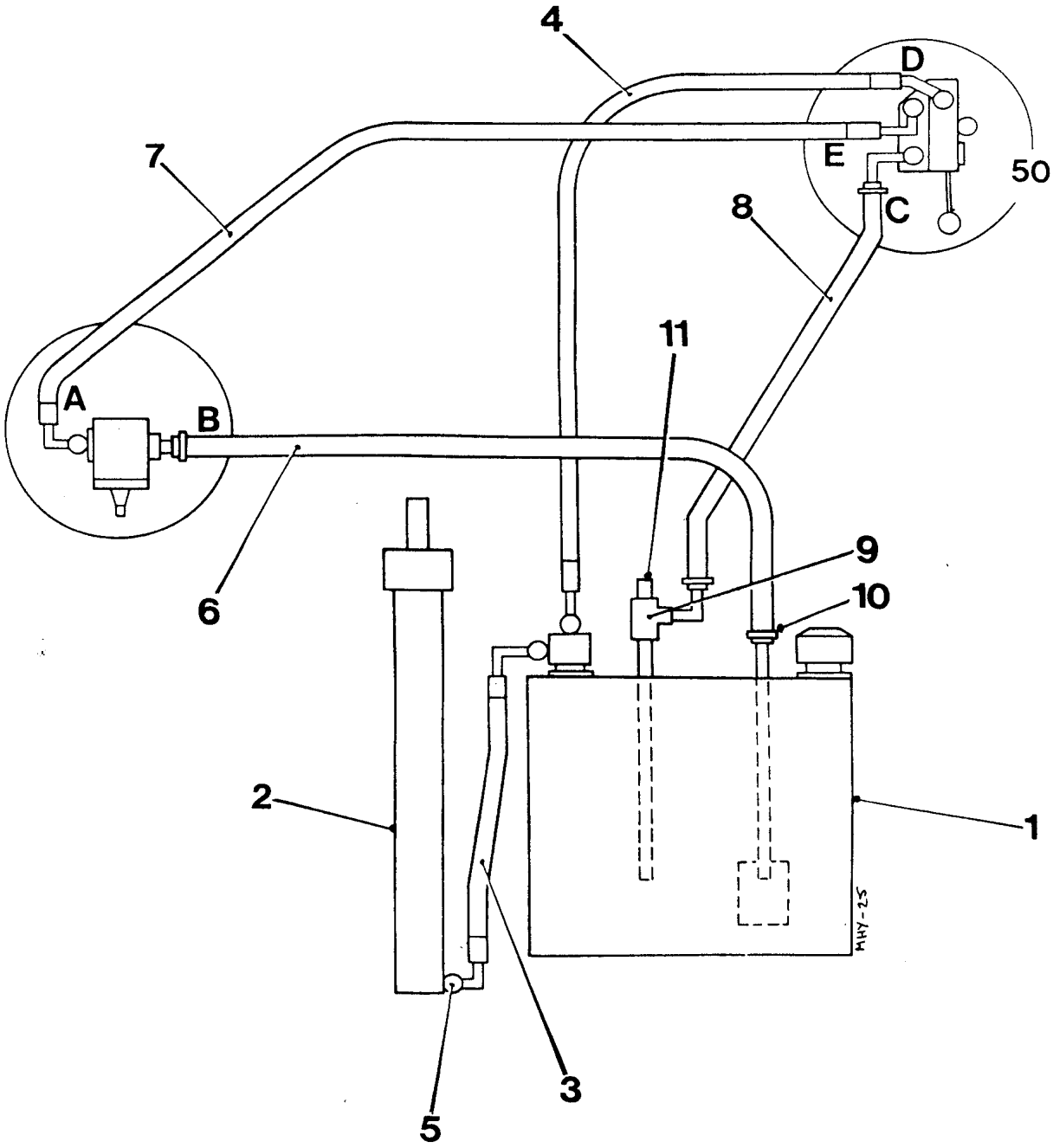
Item	Part no	Date	Description	Qty
1	V600026	Feb-88 / 0781	SCREW, c/w washer	2
2	V2003116		CAP, end	1
3	V2003115		SCREW, shoulder	1
4	V2003117		SEAT, spring	2
5	V2003114		SPRING	1
6	V600179		SPACER	1
6A	V600180		CHECK VALVE, assembly	1
7	V600181		KIT, repair	1
8	V2003118		GUIDE, check valve	1
9	V600182		RING, back up	1
10	V600183		SEAL, ‘O’ ring	1
11	V2003119		SPRING	1
12	V2003120		POPPET	1
13	V600185		BODY, c/w spool	1
14	V2003113		SEAL, ‘O’ ring	2
14A	V600057	Jan-88 / Oct-93	LEVER, control valve, assembly	1
14B	V602166	Oct-93 /	LEVER, control valve, assembly	1
15	V2003122	Jan-88 / Oct-93	SEAL, wiper	1
16	V600059	Jan-88 / Oct-93	BRACKET, handle	1
17	V600060	Jan-88 / Oct-93	PIN, roll	1
18	V600061	Jan-88 / Oct-93	LINK	1
19	V600062	Jan-88 / Oct-93	SCREW, c/w washer	2
20	V600063	Jan-88 / Oct-93	CLEVIS	1
21	V600064	Jan-88 / Oct-93	PIN	1
22	V600065	Jan-88 / Oct-93	PIN, clip	1
22A	V600159		LEVER, assembly	1
23	V600066		NUT	1
24	V602478		HANDLE	1
25	V600068		KNOB	1
26	V600069		GAITER	1
30	V602448	Oct-93 /	PLATE, seal	1
31	V602449	Oct-93 /	BRACKET	1
32	V2003122	Oct-93 /	SEAL, wiper	1
33	V602476	Oct-93 /	PIN, clevis	1
34	V602475	Oct-93 /	PIN, split	1
35	V602447	Oct-93 /	SCREW	2
36	V602446	Oct-93 /	WASHER	2
37	81S02	Oct-93 /	LINK	1
38	V602477	Oct-93 /	CLEVIS	1

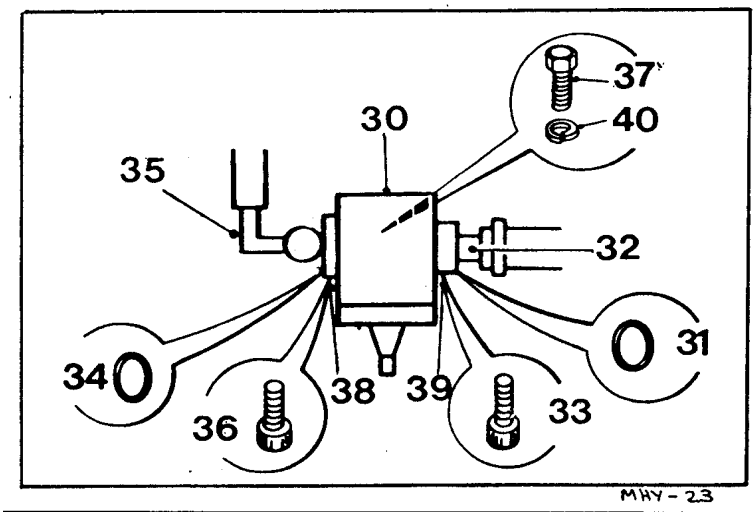
Reversing Drum Mixers, models 300R & 400R



Item	Part no	Serial no	Description	Qty
1	V2004605	0782 /	VALVE, control, assembly	1
2	V602630		LEVER	1
3	7S04		NUT	1
4	V602629		REPAIR KIT, seals	AR
5	V603565		END CAP, lever	1
5A	V603605		VALVE, relief	1
5B	V603606		END CAP, spring base	1
7	V2004607		**#** SCREW, socket head, H.P.C. *(fitted inside valve)*	1
8	122S03		**#** ADAPTOR, m/m **# *High pressure carryover to dragline***	1
9	127S03		**$** PLUG, male **$ *When no dragline is fitted***	1
10	100S03		SEAL, bonded	6
11	127S03		PLUG, male	1
12	122S03		ADAPTOR, m/m, *inlet from pump*	1
13	119S08		ADAPTOR, m/m, *return to tank*	1
14	122S03		ADAPTOR, m/m, *to hopper ram*	1
20	8S03H		BOLT	2
21	267S05		WASHER, flat	2
22	17S04		WASHER, spring	2
23	7S03		NUT	2

Reversing Drum Mixers, models 300R & 400R

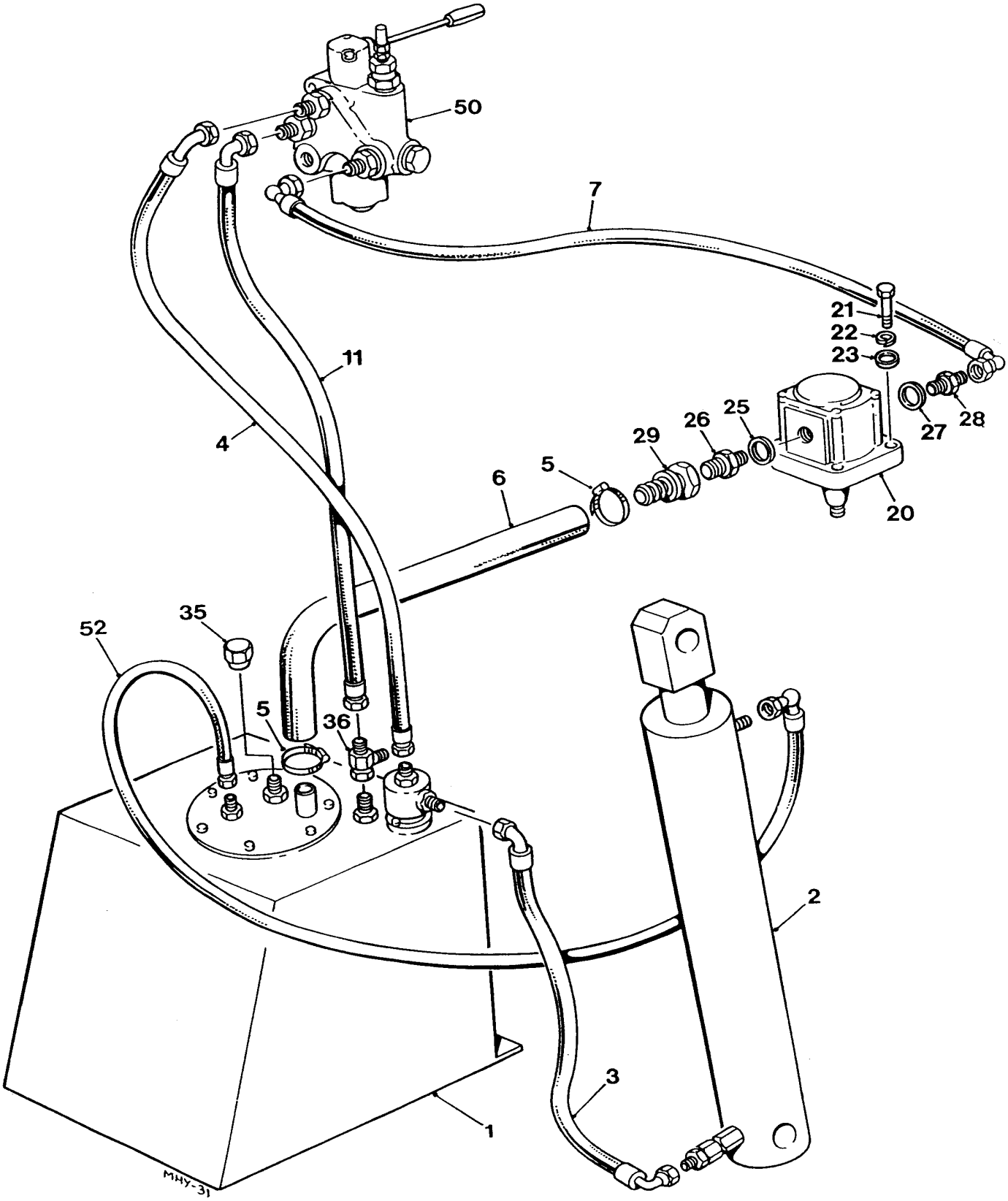




Item	Part no	Serial no	Description	Qty
	For machines before serial number 0492, *See page E - 1.*			
1	----------	0492 / 0836	TANK, hydraulic *(see page E - 4)*	1
2	----------		RAM, hopper *(see page E - 6)*	1
3	555204300		HOSE, hopper ram	1
4	555231000		HOSE, control valve to bleed valve	1
5	----------		RESTRICTOR, ram *(see page E - 6)*	1
6	555258300		HOSE, suction	1
7	555189500		HOSE, pump to control valve	1
8	555268600		HOSE, drain, control valve to tank tee	1
9	446311000		FITTING, tee, equal	1
10	97S09		CLIP	2
11	555136800		BAR, blanking	1
30	365872000		PUMP, hydraulic, electric drive	1
30	365824000	/ 0585	PUMP, hydraulic, diesel drive	1
30	365825000	0586 /	PUMP, hydraulic, diesel drive	1
.....	10190A01		KIT, seals, *"Dowty or Ultra"*	1
.....	11046A01		KIT, seals, *"Sundstrand"*	1
.....	V602632		KIT, seals, *"Bosch"*	1
31	49S09		SEAL, 'O' ring	1
32	555136900		CONNECTOR, pump inlet	1
33	103S03BE		SCREW, socket head cap	4
34	49S12		SEAL, 'O' ring	1
35	555199900		CONNECTOR, pump outlet	1
36	103S02B		SCREW, socket head cap	2
37	66S01C		SCREW, pump to gearbox	4
38	41S03		WASHER, spring	2
39	41S04		WASHER, spring	4
40	41S03		WASHER, spring	3
50	V2000399	Feb-88 /	CONTROL VALVE *(see page E - 1A)*	1

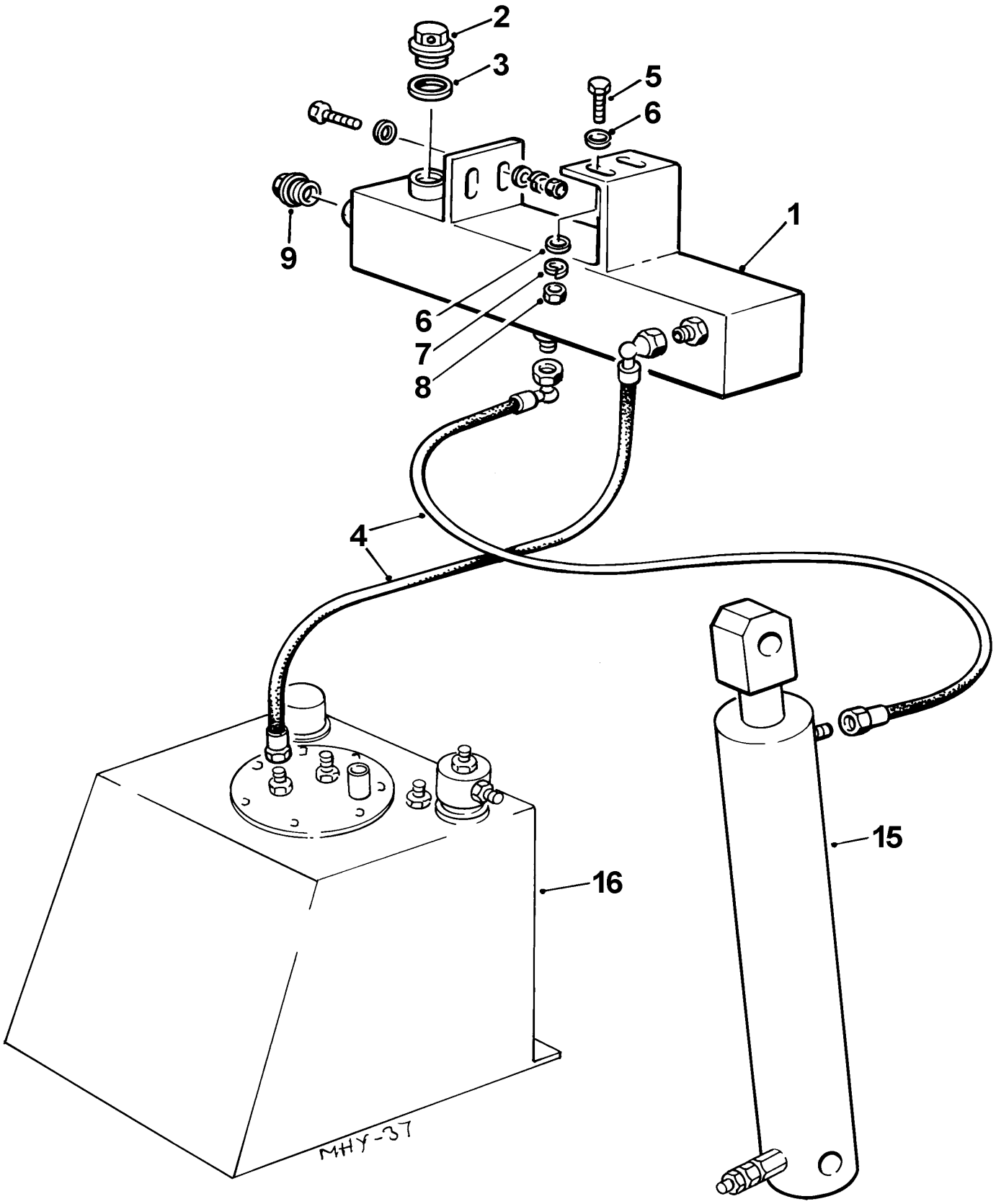
E - 1D

Reversing Drum Mixers, models 300R & 400R



Item	Part no	Serial no	Description	Qty
	For machines before serial no 0837, *See page E-1C*			
1	----------	0837 /	TANK, hydraulic *(See page E -4)*	1
2	----------		RAM, *(See page E - 8 & E - 9)*	1
3	555204300		HOSE, bleed valve to ram	1
4	555231000		HOSE, control valve to bleed valve	1
5	97S09		CLIP, hose	2
6	555258300		HOSE, tank to pump	1
7	555189500		HOSE, pump to control valve	1
11	73S03B		HOSE, control valve to tank tee	1
20	365825000		PUMP, *(diesel driven)* "Ultra or Bosch"	1
--	10190A01		KIT, seals, *"Ultra"*	1
--	V602632		KIT, seals, *"Bosch"*	1
20	10539A02		PUMP, *(electric motor driven) "Ultra"*	1
--	10190A01		KIT, seals, *"Ultra"*	1
21	66S01C		BOLT	4
22	41S03		WASHER, spring	4
23	10S01		WASHER, flat	4
25	100S06		SEAL, bonded	1
26	119S15		ADAPTOR, male	1
27	100S04		SEAL, bonded, *(diesel driven)*	1
27	100S06		SEAL, bonded, *(electric motor driven)*	1
28	119S08		ADAPTOR, male, *(diesel driven)*	1
28	119S10		ADAPTOR, male, *(electric motor driven)*	1
29	110S07G		FITTING, nozzle	1
35	120S03		CAP *(Not used when dragline fitted)*	1
36	----------		FITTING, tee *(use only when dragline is fitted, See page E-2C)*	1
50	V2004605		CONTROL VALVE, *(See page E - 1BA)*	
52	32S01C		HOSE, ram, return to tank	1

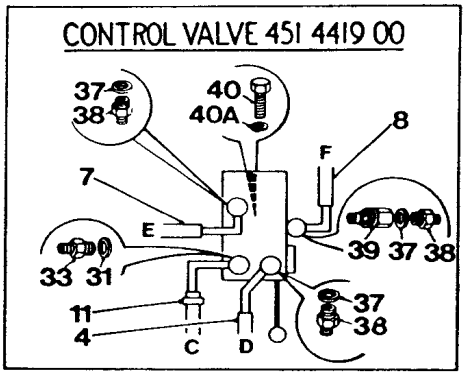
Reversing Drum Mixers, models 300R & 400R



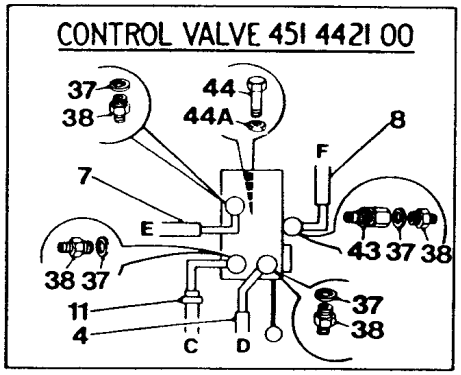
Item	Part no	Date	Description	Qty
1	555288700	Apr-00 /	TANK, header	1
2	511100900		FILLER/BREATHER	1
3	100S06		SEAL, bonded	1
4	32S01C		HOSE	2
5	11S03C		SCREW, set	4
6	267S05		WASHER, flat	8
7	17S04		WASHER, spring	4
8	7S03		NUT	4
9	V2005114		SIGHT GLASS	1
15	.....		TANK, main *(see page E-4)*	
16	.....		RAM, hopper lift *(see pages E6 & 8)*	

Reversing Drum Mixers, models 300R & 400R

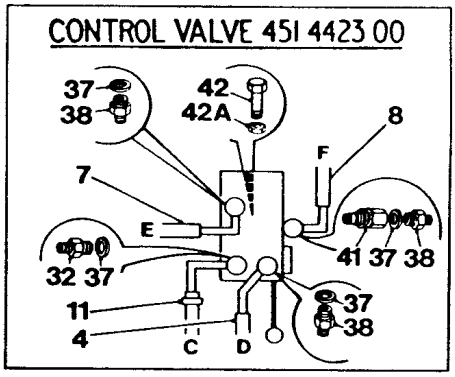
CONTROL VALVE 451 4419 00



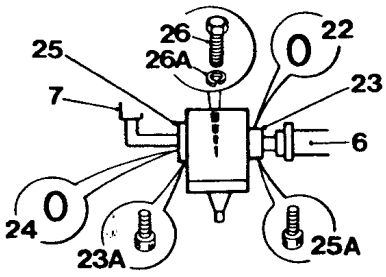
CONTROL VALVE 451 4421 00



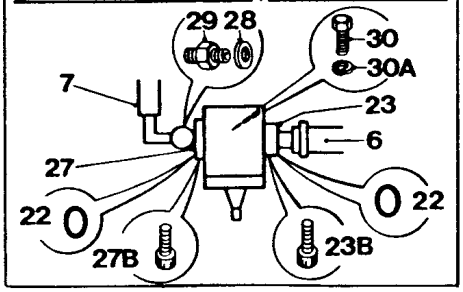
CONTROL VALVE 451 4423 00



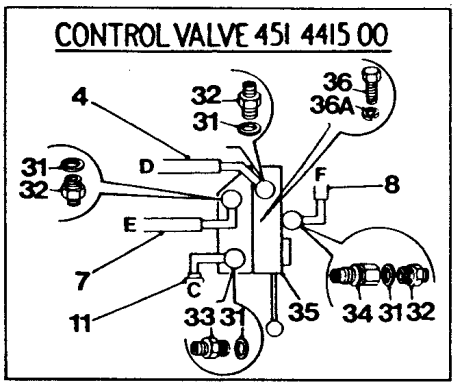
PUMP 365 8720 00/365 8710 00

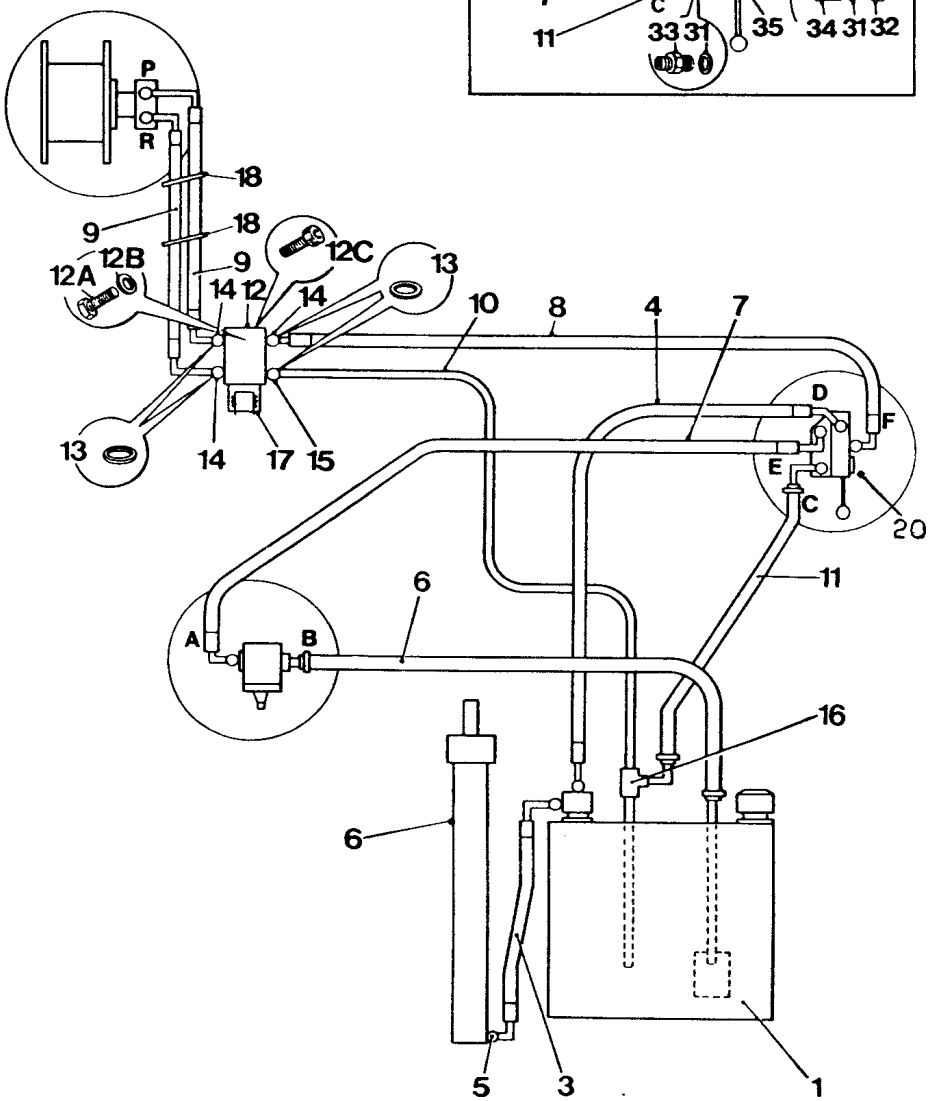


PUMP 365 8220 00/360 8230 00

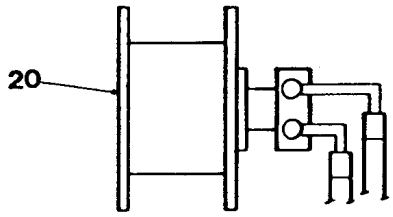


CONTROL VALVE 451 4415 00

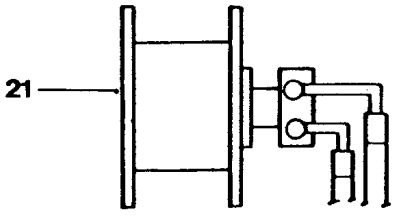




WINCH 555 2665 00

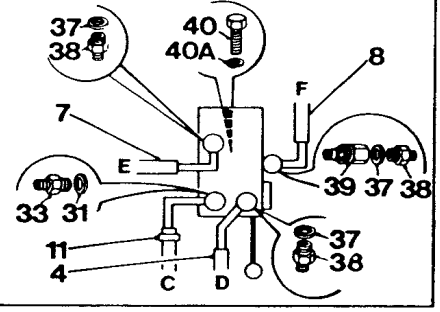


WINCH 555 2697 00

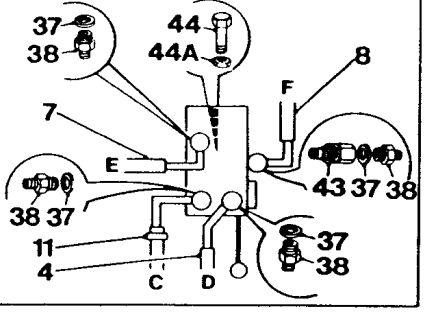


Item	Part no	Serial no	Description	Qty
		For machines from 0492, *see page E - 2A.*		
1	----------	/ O492	TANK, hydraulic *(see page E - 4)*	1
2	----------	/ O492	RAM, hopper *(see page E - 6)*	1
3	555204300	/ 0492	HOSE, hopper ram	1
4	555231000	/ 0492	HOSE, control valve to bleed valve	1
5	----------	/ 0492	RESTRICTOR, ram *(see page E - 6)*	1
6	555258300	/ 0492	HOSE, suction	1
7	555189500	/ 0492	HOSE, pump to control valve	1
8	555268700	/ 0492	HOSE, control valve to solenoid valve	1
9	555268800	/ 0492	HOSE, dragline winch	2
10	555268500	/ 0492	PIPE, drain, solenoid to tank	1
11	555268600	/ 0492	HOSE, control valve to tank tee	1
12	555556000	/ 0492	CONTROL BLOCK, dragline	1
12A	66S01BB	/ 0492	SCREW	4
12B	41S03	/ 0492	WASHER, spring	4
12C	103S02H	/ 0492	SCREW, socket head cap	4
13	100S03	/ 0492	SEAL, bonded	4
14	122S03	/ 0492	FITTING, adaptor, male, stud	3
15	446321000	/ 0492	COUPLING, male, stud	1
16	446311000	/ 0492	FITTING, tee, equal	1
17	211158000	/ 0492	VALVE, solenoid	1
18	124108120	/ 0492	FIXING, strap & buckle	2
19	97S09	/ 0492	CLIP	2
20	555266500	/ 0492	WINCH *(for machines using hydraulic motor* 267112000 *(see page G - 1)*	1
21	555269700	/ 0492	WINCH *(for machines using hydraulic motor* 267113000 *(see page G - 1)*	1
.....	365822000	/ Jun-87	PUMP, hydraulic, electric drive	1
.....	365823000	/ Jun-87	PUMP, hydraulic, diesel engine	1
.....	10190A01	/ Jun-87	KIT, seals, *"Dowty or Ultra"*	1
.....	11046A01	/ Jun-87	KIT, seals, *"Sundstrand"*	1
.....	V602632	/ Jun-87	KIT, seals, *"Bosch"*	1
22	391832000	/ Jun-87	SEAL, 'O' ring	2
23	555136900	/ Jun-87	CONNECTOR, pump inlet	1
23B	103S03C	/ Jun-87	SCREW, socket head cap	2
27	555136400	/ Jun-87	CONNECTOR, pump outlet	1

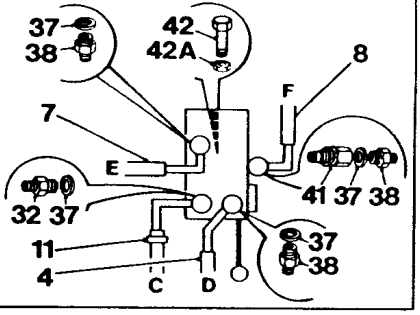
CONTROL VALVE 451 4419 00



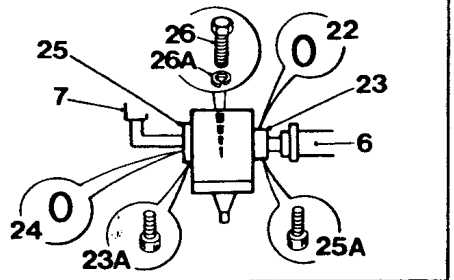
CONTROL VALVE 451 4421 00



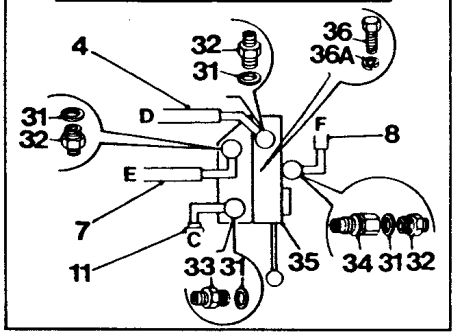
CONTROL VALVE 451 4423 00



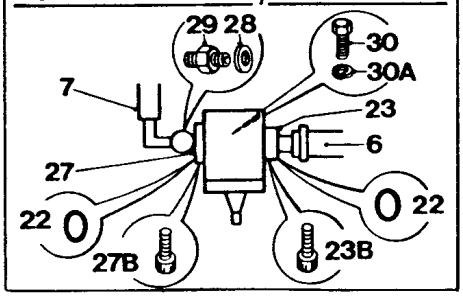
PUMP 365 8720 00/365 8710 00

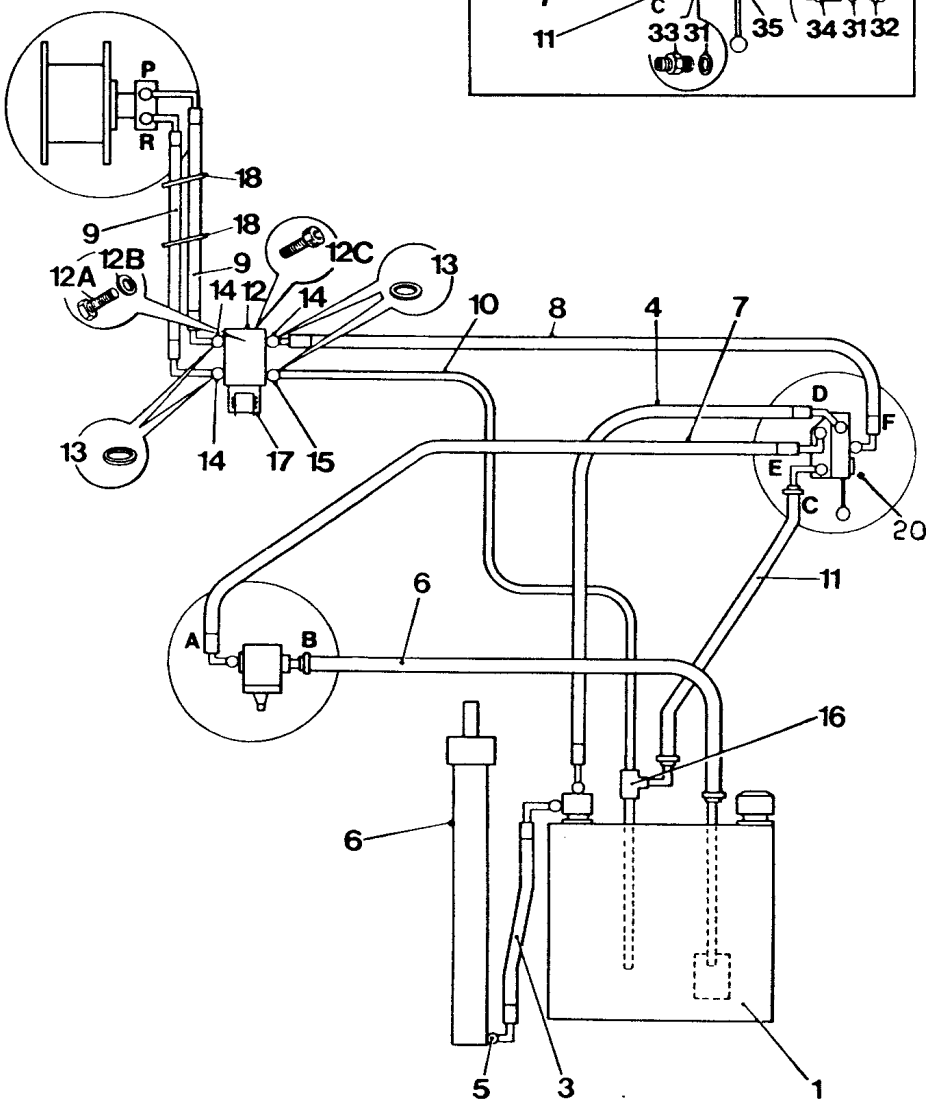


CONTROL VALVE 451 4415 00

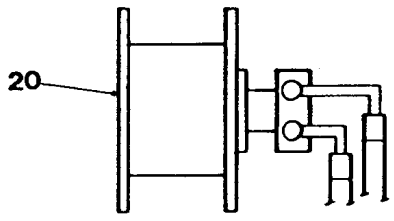


PUMP 365 8220 00/360 8230 00

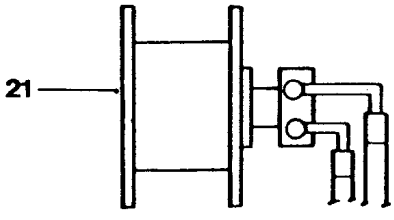




WINCH 555 2665 00

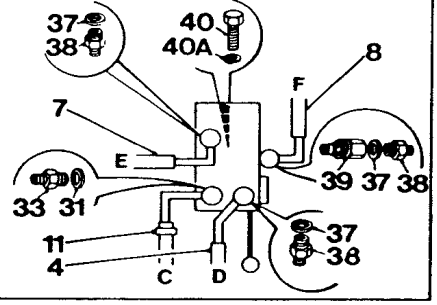


WINCH 555 2697 00

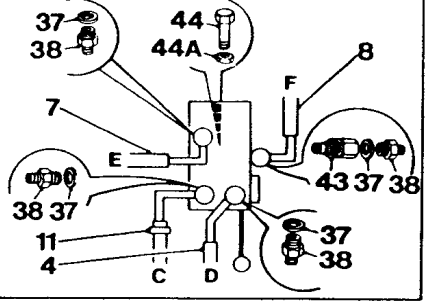


Item	Part no	Serial no	Description	Qty
27B	103S03C	/ Jun-87	SCREW, socket head cap	2
28	100S03	/ Jun-87	SEAL, bonded	1
29	122S03	/ Jun-87	FITTING, adaptor, male, stud	1
30	66S01C	/ Jun-87	SCREW, set	4
30A	41S03	/ Jun-87	WASHER, spring	4
·····	365872000	/ 0492	PUMP, hydraulic, electric drive	1
·····	365871000	/ 0492	PUMP, hydraulic, diesel engine	1
·····	10190A01	/ 0492	KIT, seals, *"Dowty or Ultra"*	1
·····	11046A01	/ 0492	KIT, seals, *"Sundstrand"*	1
·····	V602632	/ 0492	KIT, seals, *"Bosch"*	1
22	391832000	/ 0492	SEAL, 'O' ring	1
23	555136900	/ 0492	CONNECTOR, pump inlet	1
23A	103S03BE	/ 0492	SCREW, socket head cap	2
24	391109000	/ 0492	SEAL, 'O' ring	1
25	555199900	/ 0492	CONNECTOR, outlet	1
25A	103S02B	/ 0492	SCREW, socket head cap	2
26	66S01C	/ 0492	SCREW, set	4
26A	41S03	/ 0492	WASHER, spring	4
20B	451442000	/ 84	CONTROL VALVE	1
·····	451441902	/ 84	KIT, seals	1
32	446614000	/ 84	FITTING, adaptor, male, stud	1
37	100S03	/ 84	SEAL, bonded	4
38	122S03	/ 84	FITTING, adaptor, male, stud	3
39	451441901	/ 84	FITTING, adaptor, carry over	1
40	405008015	/ 84	SCREW, hex head	3
40A	17S04	/ 84	WASHER, spring	3
20B	451442300	/ 84	CONTROL VALVE	1
32	446614000	/ 84	FITTING, adaptor, male, stud	1
37	100S03	/ 84	SEAL, bonded	4
38	122S03	/ 84	FITTING, adaptor, male, stud	3
41	451442301	/ 84	FITTING, adaptor, carry over	1
42	8S03G	/ 84	BOLT	3
42A	61S03	/ 84	NUT, self locking	3

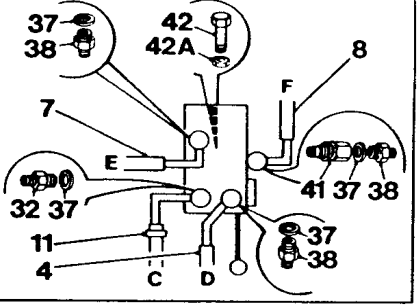
CONTROL VALVE 451 4419 00



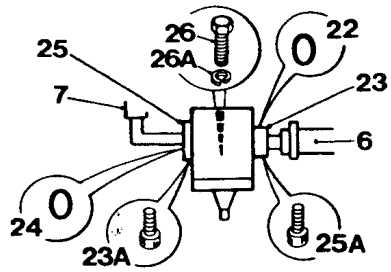
CONTROL VALVE 451 4421 00



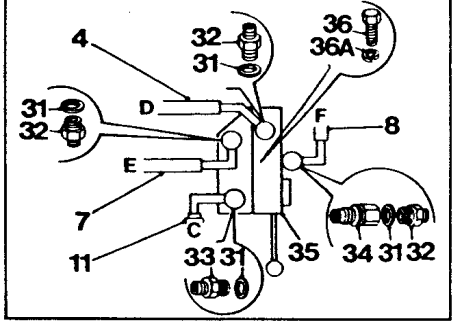
CONTROL VALVE 451 4423 00



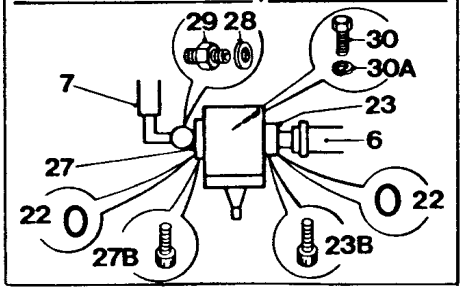
PUMP 365 8720 00/365 8710 00

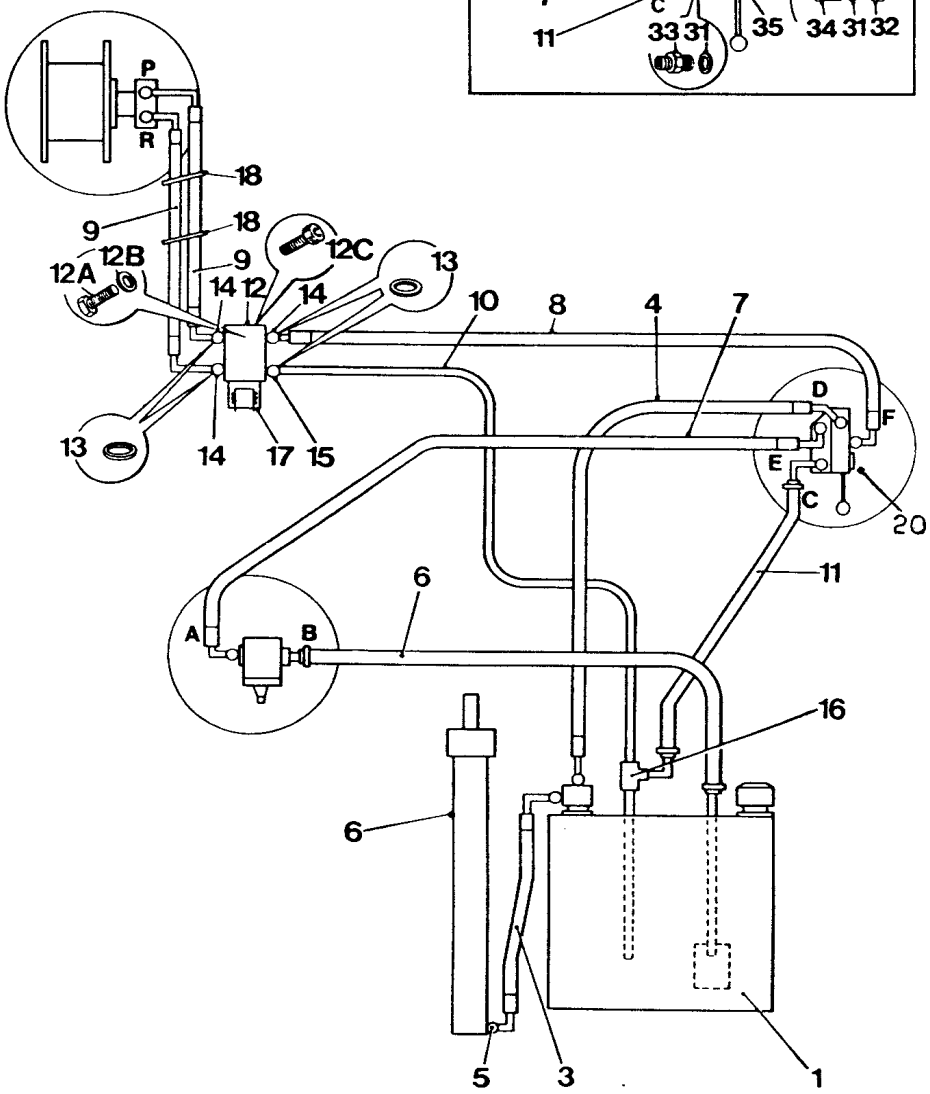


CONTROL VALVE 451 4415 00

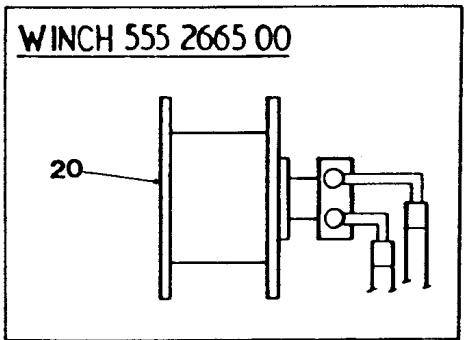


PUMP 365 8220 00/360 8230 00

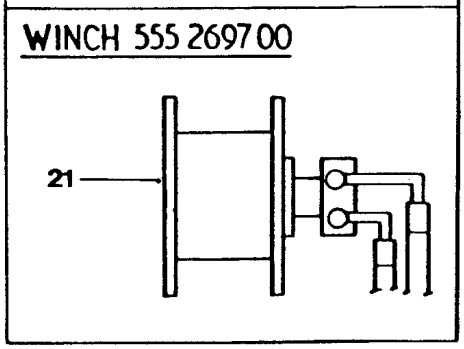




WINCH 555 2665 00



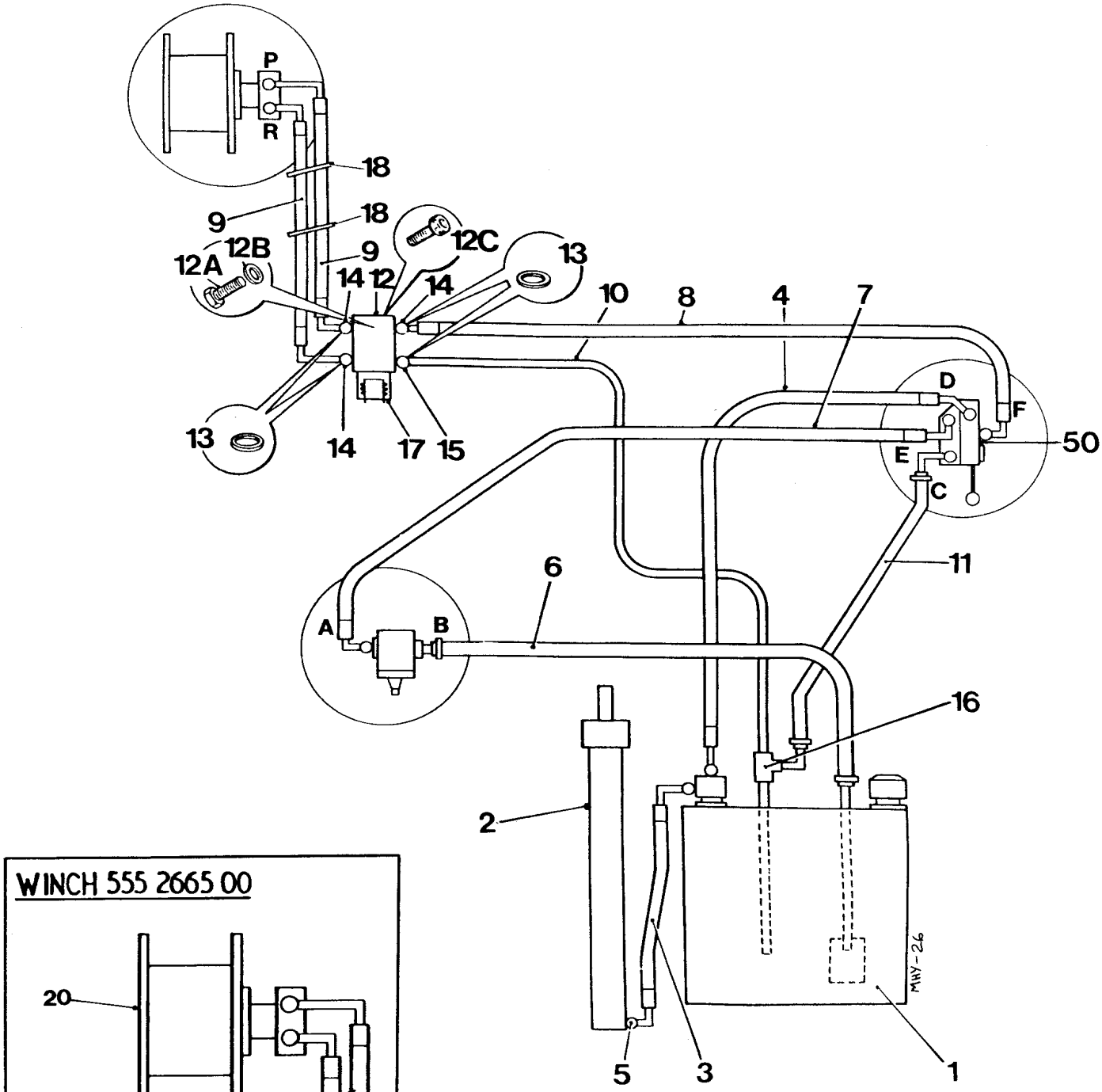
WINCH 555 2697 00

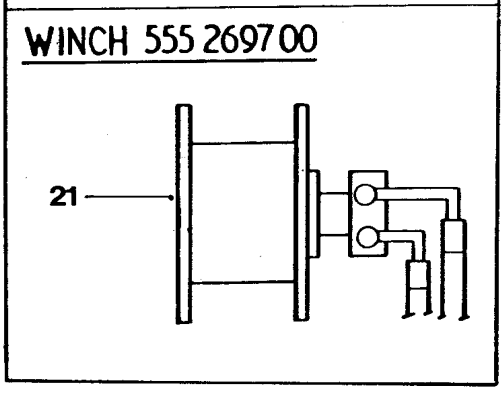


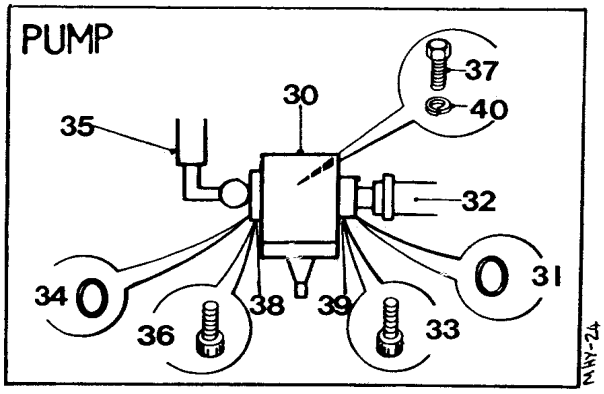
Item	Part no	Date	Description	Qty
20B	451441600	/ 84	CONTROL VALVE	1
32	446614000	/ 84	FITTING, adaptor, male, stud	1
37	100S03	/ 84	SEAL, bonded	4
38	122S03	/ 84	FITTING, adaptor, male, stud	3
43	451442101	/ 84	FITTING, adaptor, carry over	1
44	8S03H	/ 84	BOLT	2
44A	61S03	/ 84	NUT, self locking	2
20B	451441500	/ Jan-88	CONTROL VALVE **(400R)**	1
-	451441502	/ Jan-88	KIT, seals	1
31	100S04	/ Jan-88	SEAL, bonded	4
32	446614000	/ Jan-88	FITTING, adaptor, male, stud	3
33	122S04	/ Jan-88	FITTING, adaptor, male, stud	1
34	451441501	/ Jan-88	FITTING, adaptor, carry over	1
35	555251500	/ Jan-88	PACKER, control valve	1
36	11S03C	/ Jan-88	SCREW, set	2
36A	17S04	/ Jan-88	WASHER, spring	2
20B	----------	Feb-88 /	CONTROL VALVE *(see page E - 1A)*	1

E - 2A

Reversing Drum Mixers, models 300R & 400R



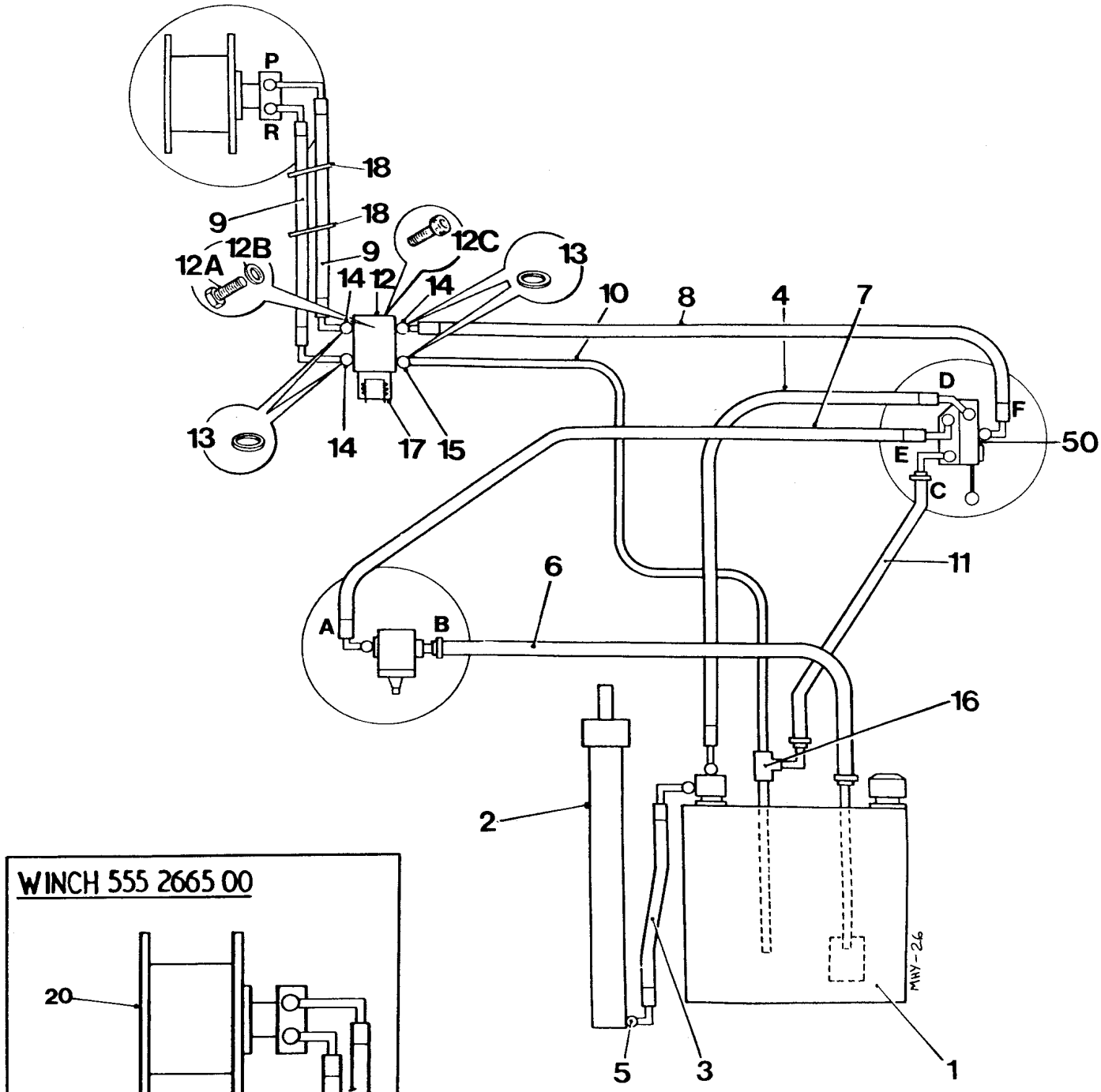


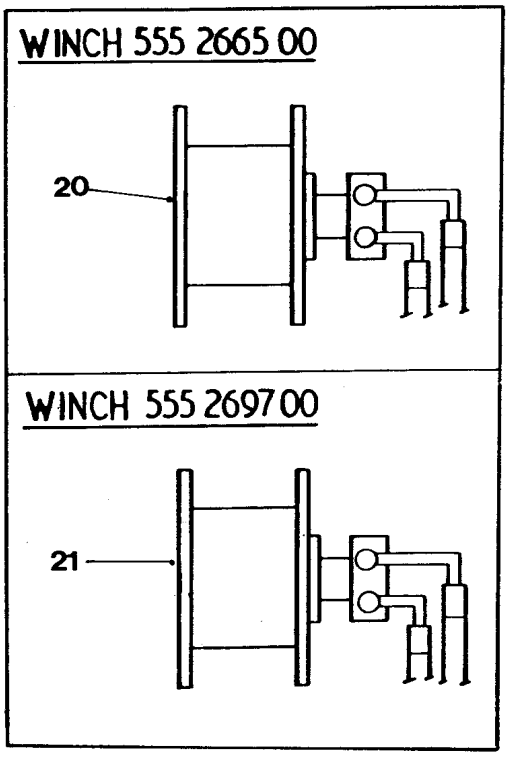


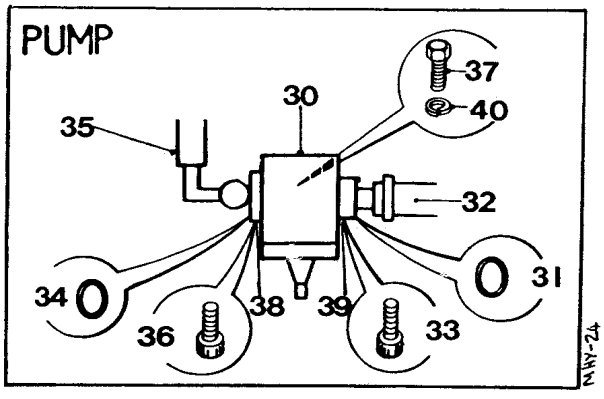
Item	Part no	Serial no	Description	Qty
			For machines before 0492, *see page E - 2.*	
1	----------	0492 / 0842	TANK, hydraulic *(see page E - 4)*	1
2	----------		RAM, hopper *(see page E - 6)*	1
3	555204300		HOSE, hopper ram	1
4	555231000		HOSE, control valve to bleed valve	1
5	----------		RESTRICTOR, ram *(see page E - 6)*	1
6	555258300		HOSE, suction	1
7	555189500		HOSE, pump to control valve	1
8	555268700		HOSE, control valve to solenoid valve	1
9	555268800		HOSE, dragline winch	2
10	555268500		PIPE, drain, solenoid to tank	1
11	555268600		HOSE, control valve to tank tee	1
12	----------		CONTROL BLOCK *(See page G - 2)*	1
12A	66S01BB		SCREW	4
12B	41S03		WASHER, spring	4
12C	103S02H		SCREW, socket head cap	4
13	100S03		SEAL, bonded	4
14	122S03		FITTING, adaptor, male, stud	3
15	446321000		COUPLING, male, stud	1
16	446311000		FITTING, tee, equal	1
17	211158000		VALVE, solenoid	1
18	124108120		FIXING, strap & buckle	2
19	97S09		CLIP	2
20	555266500		WINCH *(for hydraulic motor 267112000 (see page G - 1)*	1
21	555269700		WINCH *(for hydraulic motor 267113000 (see page G - 1)*	1
30	365872000		PUMP, hydraulic, electric drive	1
30	365824000	/ 0585	PUMP, hydraulic, diesel drive	1
30	365825000	0586 /	PUMP, hydraulic, diesel drive	1
.....	10190A01		KIT, seals, *"Dowty or Ultra"*	1
.....	11046A01		KIT, seals, *"Sundstrand"*	1
.....	V602632		KIT, seals, *"Bosch"*	1

continued >

E - 2A Reversing Drum Mixers, models 300R & 400R

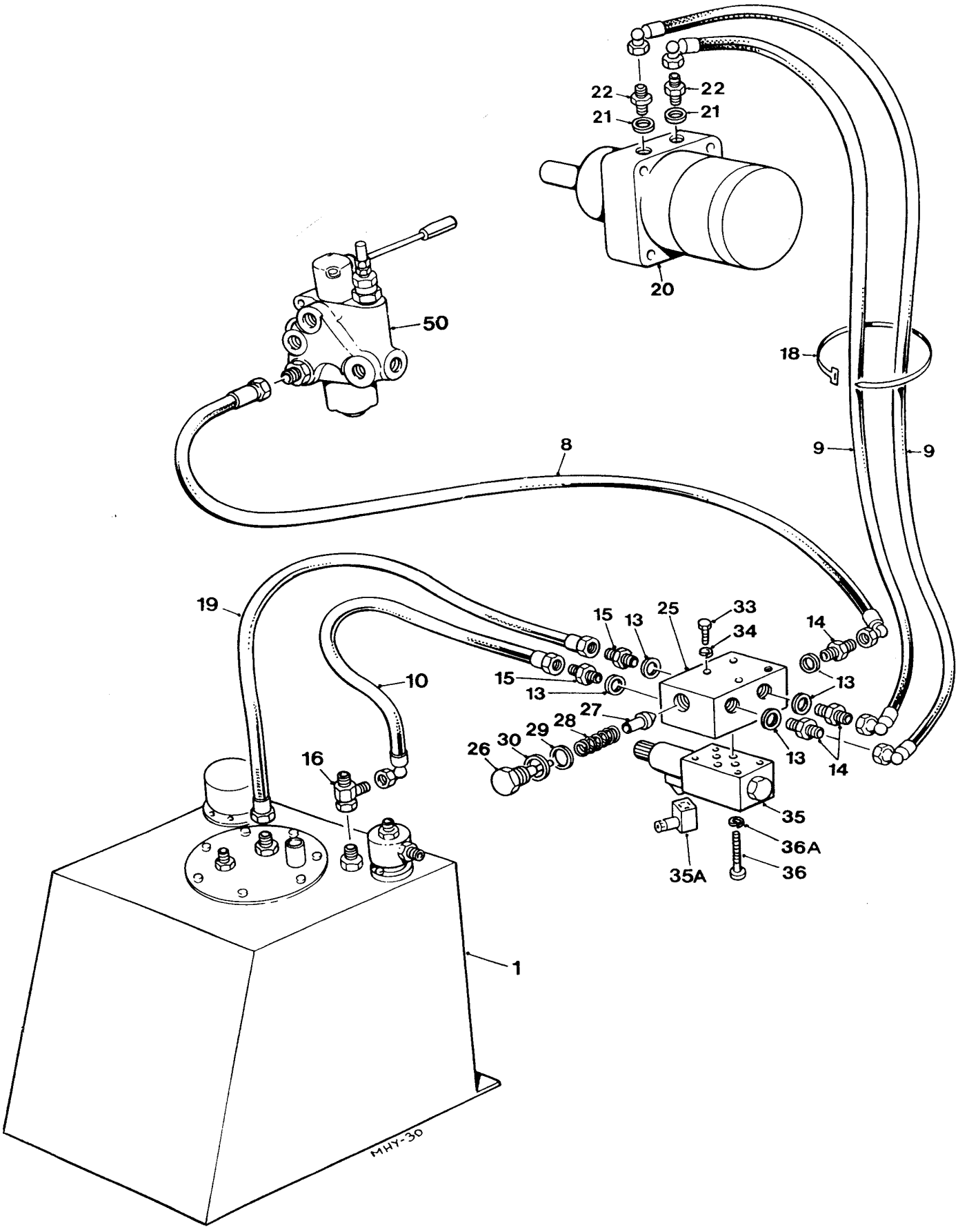






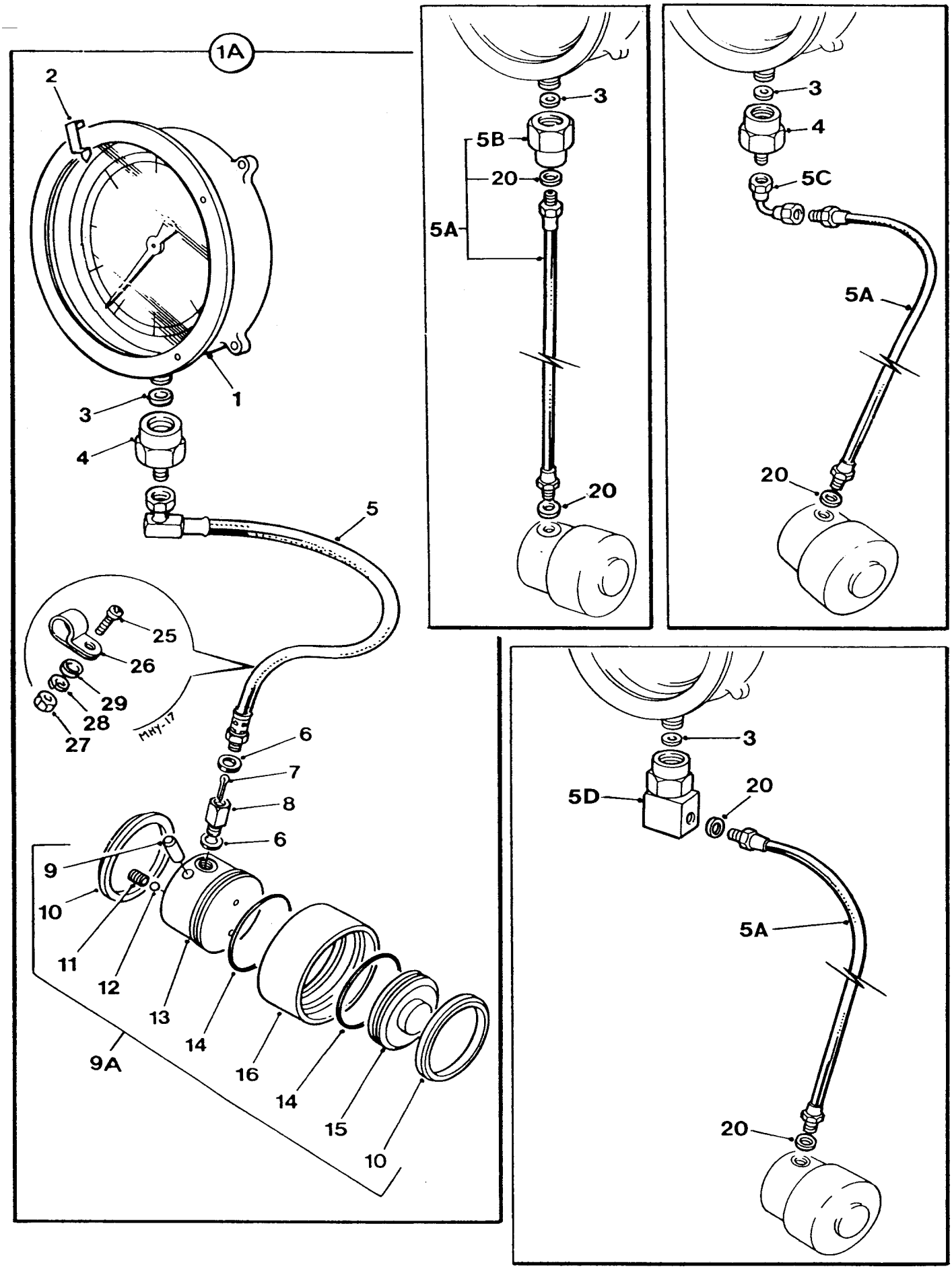
Item	Part no	Serial no	Description	Qty
31	49S09		SEAL, 'O' ring	1
32	555136900		CONNECTOR, pump inlet	1
33	103S03BE		SCREW, socket head cap	4
34	49S12		SEAL, 'O' ring	1
35	555199900		CONNECTOR, pump outlet	1
36	103S02B		SCREW, socket head cap	2
37	66S01C		SCREW, pump to gearbox	4
38	41S03		WASHER, spring	2
39	41S04		WASHER, spring	4
40	41S03		WASHER, spring	3
50	V2000399	Feb-88 /	CONTROL VALVE, *(see page E - 1A)*	

E - 2B Reversing Drum Mixers, models 300R & 400R



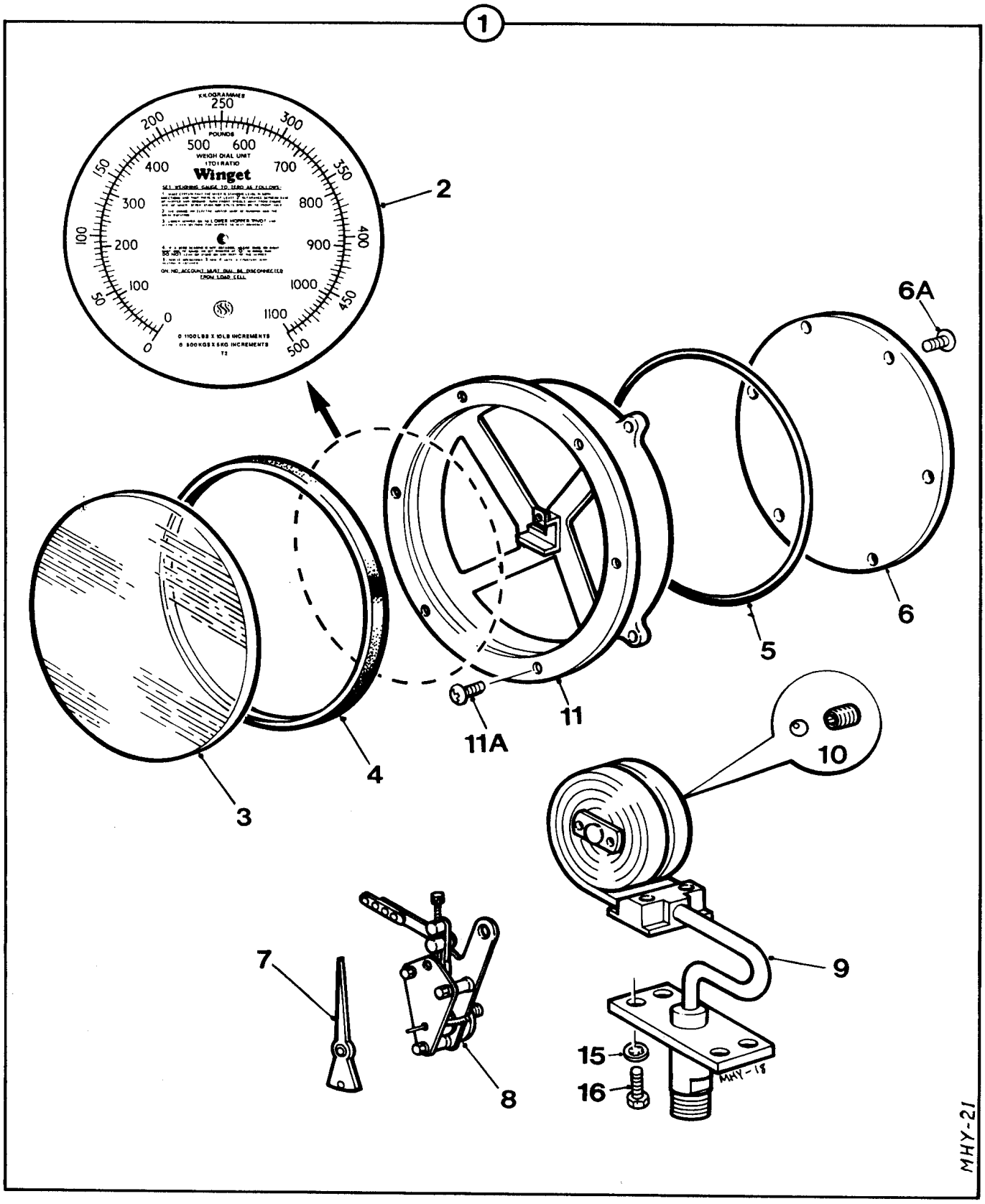
Item	Part no	Serial no	Description	Qty
			For machines before serial no 0843 - See page E-2A	
			For BASIC HYDRAULIC CIRCUIT, See page E-1D	
1	----------	0843	TANK, hydraulic *(see page E - 4)*	1
8	555268700		HOSE, control valve to solenoid valve	1
9	63S02F		HOSE, solenoid valve to winch	2
10	73S03C		HOSE, return, solenoid to tank tee	1
13	100S03		SEAL, bonded	5
14	122S03		ADAPTOR, male	3
15	119S08		ADAPTOR, male	2
16	154S03		FITTING, tee	1
18	V2003253		TIE, cable, nylon	2
19	35S03AK		HOSE, return, control block to tank	1
20	----------		MOTOR, hydraulic *(see page E-5)* *(For pulley & fixings, see page G-5A)*	1
21	391111000		'O' RING	2
22	126S09		ADAPTOR, male	2
25	555287500		BLOCK, dragline control	1
26	555138200		GUIDE, valve	1
27	555138300		VALVE, relief	1
28	555556100		SPRING	1
29	100S04		SEAL, washer	1
30	10S02		WASHER, flat	AR
33	11S03A		SCREW	4
34	17S04		WASHER, spring	4
35	V2004676		VALVE, solenoid	1
35A	V601234		PLUG, solenoid valve	1
36	68S02E		SCREW, socket cap head	4
36A	17S02		WASHER, spring	4
50	V2004605		CONTROL VALVE, *(see page E - 1BA)*	

Reversing Drum Mixers, models 300R & 400R



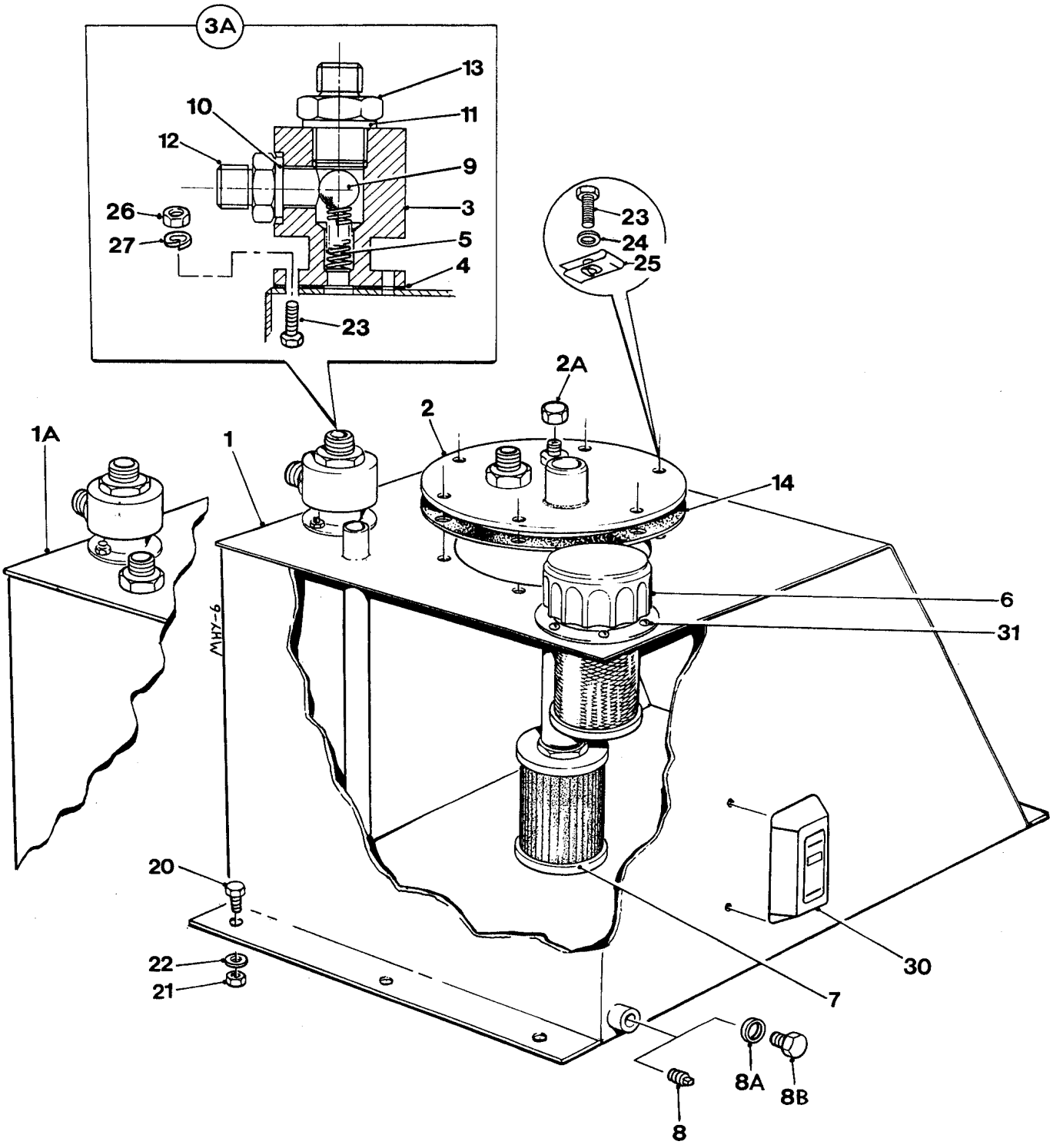
Item	Part no	Serial no	Description	Qty
1A	555242410		LOADCELL & GAUGE, assy. **(300R)**	1
1A	555242414		LOADCELL & GAUGE, assy. **(400R)**	1
1	----------		GAUGE *(See page E - 3A)*	
2	253817055		POINTERS, complete	1
3	V601534		WASHER, copper, “Special”	1
4	555182800		ADAPTOR, gauge	1
5	260301088		HOSE, straight / 90deg. **OBSOLETE** *(Order hose kit 555194500 plus appropriate adaptor)*	1
5A	555194500		KIT, hose c/w adaptors items 5B & 5C *(Discard items not relevant to your mixer)*	
5B	V602712		ADAPTOR, female	1
5C	128S08		ADAPTOR, female, 90 deg. swivel	1
5D	V601532		ADAPTOR & BLOCK	1
6	100S02		**#** SEAL, bonded	2
7	353304070		**#** PIN, split	1
8	555182700		**#** ADAPTOR, loadcell	1
			# *Not fitted from circa 1990*	
9A	513265200		LOADCELL, assembly	1
9	513265700		PIN, locking	1
10	513265500		RING, sealing	2
11	57S04D2		SCREW, set socket head	1
12	101104011		BALL, steel	1
13	511137200		BODY, loadcell	1
14	391350340		SEAL "O" ring	2
15	513265400		PLATEN	1
16	513265600		SLEEVE, floating	1
20	116S06		WASHER, copper	AR
25	16S05B		SCREW, pan head	1
26	143200900		CLIP, nylon	1
27	7S09		NUT	1
28	17S10		WASHER, spring	1
29	267S02		WASHER, flat	1

Reversing Drum Mixers, models 300R & 400R



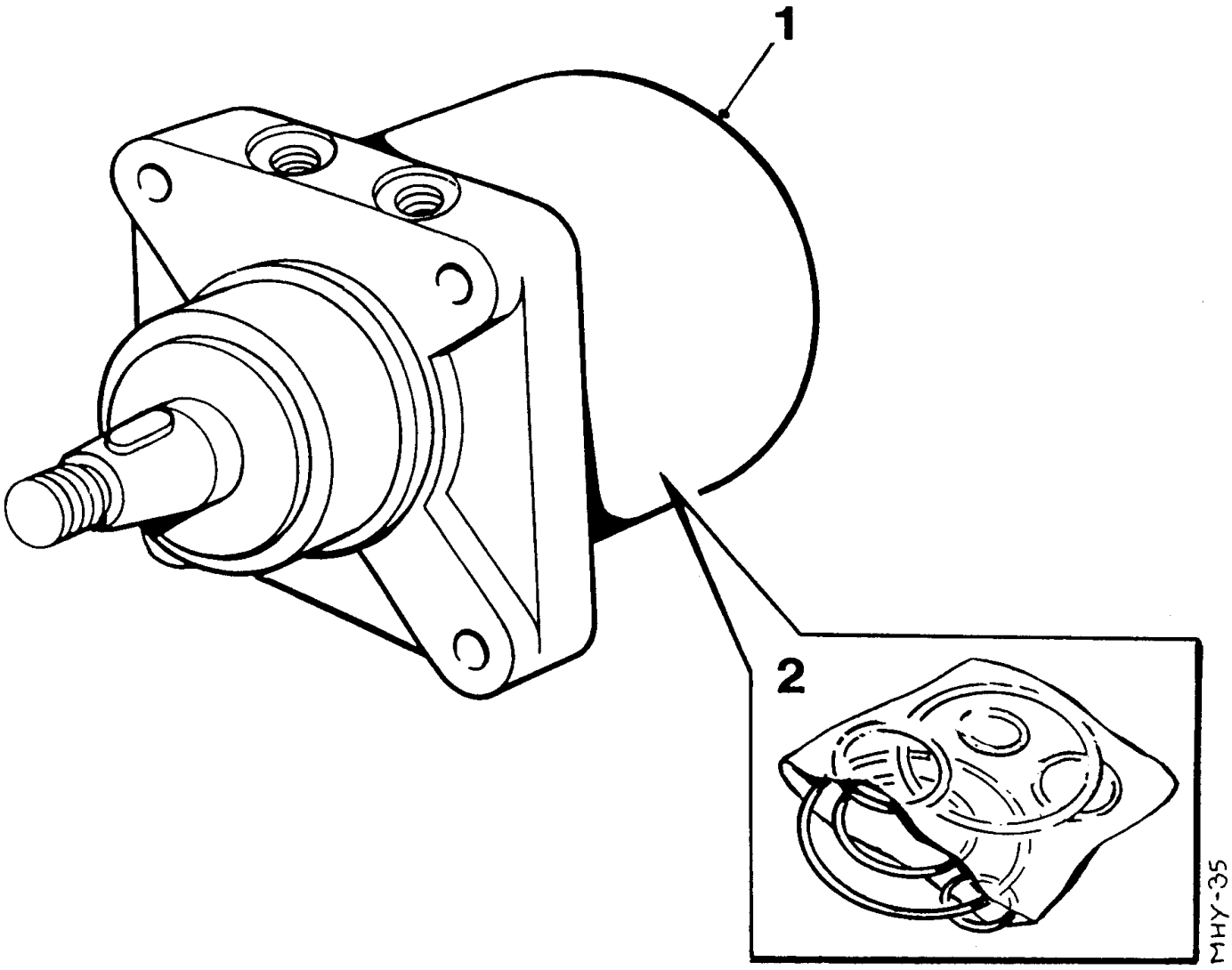
Item	Part no	Serial no		Description	Qty
1	253823000			GAUGE, assembly **(300R)**	1
1	253821000			GAUGE, assembly **(300R)**	1
2	253818011			DIAL **(300R)** 12" 1500 lbs	1
2	253818009			DIAL **(400R)** 12" 2000 lbs	1
3	253818005			GLASS	1
4	253818006			SEAL, glass	1
5	417735000			SEAL, backplate	1
6	253818002			BACKPLATE	1
6A	253818004	/July 05		SCREW, round head, UNC	6
6A	301S03B	July 05/		SCREW round head, metric	6
7	253818000			INDICATOR	1
8	253817001			MOVEMENT	1
9	253823001			TUBE-COIL **(300R)**	1
9	253821001			TUBE-COIL **(400R)**	
10	253817005		#	BLEED SCREW & BALL 1/8" dia.	1
10	253817006		#	BLEED SCREW & BALL 2.5mm dia.	1
			#	*Check size of ball before ordering. They are not interchangeable.*	
11	----------			BODY c/w front plate *(order assy.)*	1
11A	253818001	/July 05		SCREW, round head, UNC	6
11A	301S04E	July 05/		SCREW round head, metric	6
--	----------			NUT, gauge zeroing *(order assy.)*	1
15	67S01			WASHER, shake-proof	4
16	253817045			SCREW, set	4

Reversing Drum Mixers, models 300R & 400R



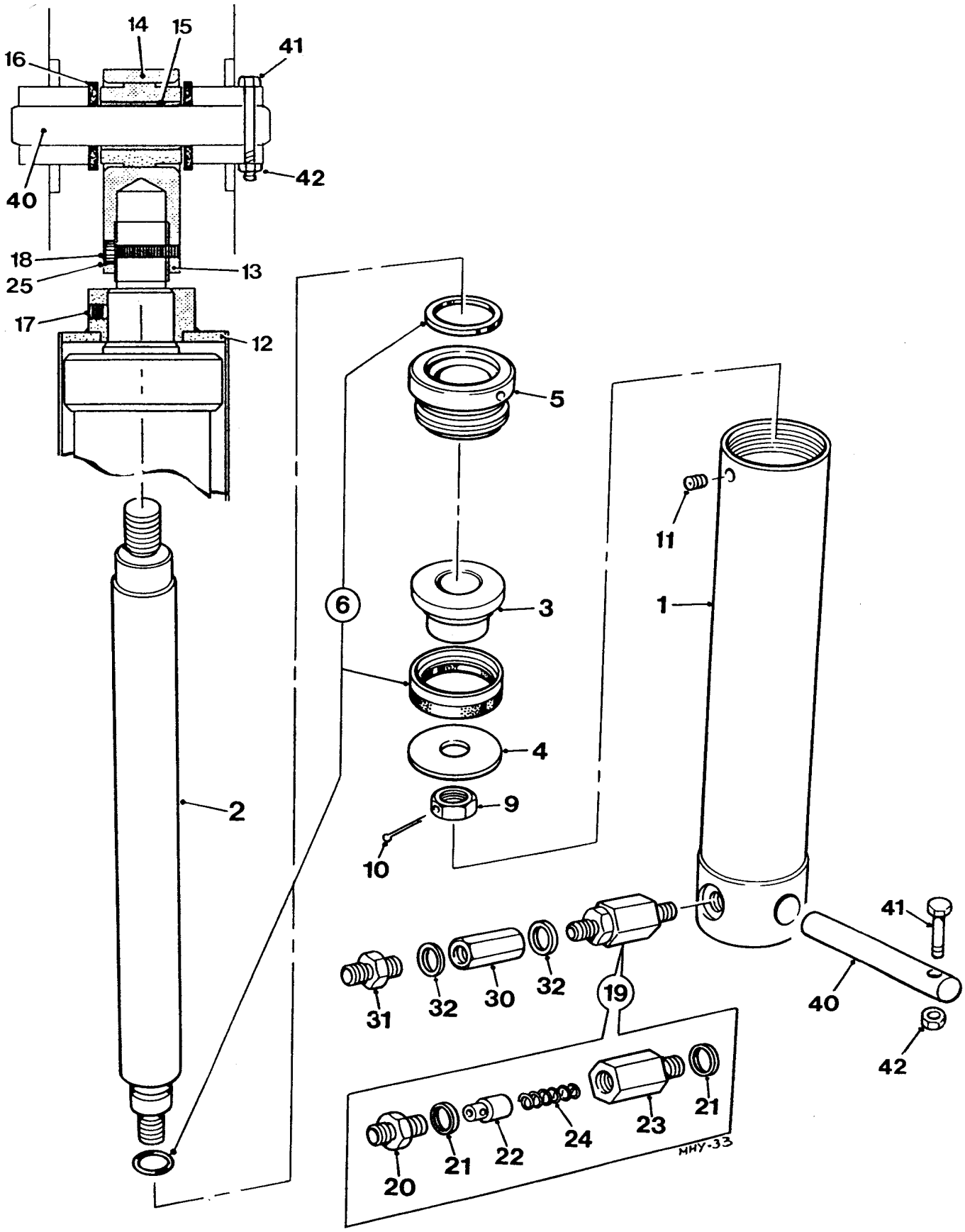
Item	Part no	Serial no		Description	Qty
1	555257900	/ 0836		TANK hydraulic	1
1A	555257900	0837 /		TANK, hydraulic	1
2	555258200			COVER, (**OBSOLETE**: Use 555284800 *with blanking plug shown on E-1D)*	1
2	555284800			COVER	1
2A	120S01	0837 /		CAP, (For mixers prior to 0837: To be *used when there is no breather hose* fitted to the top of the hopper ram)	1
3A	V602658		#	BLEED VALVE, assembly *(items marked #)*	1
3	555255600		#	BODY, bleed valve	1
4	555264000		#	GASKET, bleed valve	1
5	555267100		#	SPRING, bleed valve	1
6	10565A01			BREATHER, filler	1
7	220591000			STRAINER	1
8	241702000	/ Jun-98		PLUG, taper, tank drain	1
8A	100S02	Jun-98 /		SEAL, bonded	1
8B	127S02	Jun-98 /		PLUG, tank drain	1
9	101120000		#	BALL, steel	1
10	100S03		#	SEAL, bonded	1
11	100S04		#	SEAL, bonded	1
12	122S03		#	FITTING, adaptor, male, stud	1
13	119S08		#	FITTING, adaptor, male, stud	1
14	417735000			GASKET, tank cover	1
20	11S04C			SCREW, set	3
21	7S04			NUT	3
22	17S05			WASHER, flat	3
23	11S02A			SCREW, set	8
24	17S03			WASHER, spring	6
25	332719000			NUT, captive	6
26	7S02			NUT	2
27	17S03			WASHER, spring	2
30	253705000			GAUGE, fluid level	1
31	101S07E			RIVET	6

Reversing Drum Mixers, models 300R & 400R



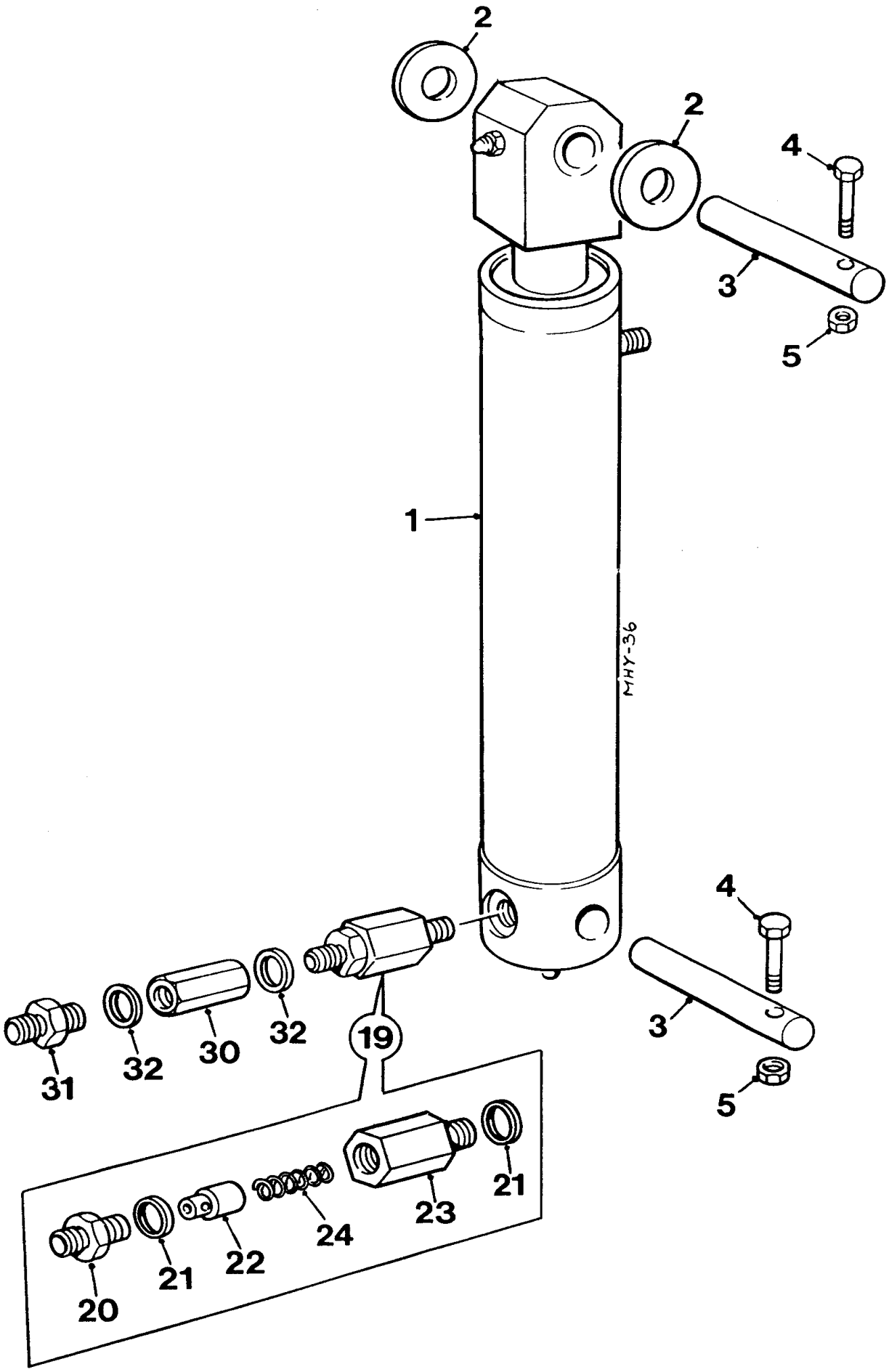
Item	Part no	Serial no	Description	Qty
1	267113000	/ 0673	MOTOR, hydraulic, *"MAB 710"*	1
2	267112001	/ 0673	KIT, motor repair	1
1	267116000	0674 / 0842	MOTOR, hydraulic, *"Torqmotor MB"*	1
2	267116001	0674 / 0842	KIT, motor repair	1
1	267117000	0843 /	MOTOR, hydraulic, *"Whites"*	1
2	267117001	0843 /	KIT, motor repair	1

Reversing Drum Mixers, models 300R & 400R



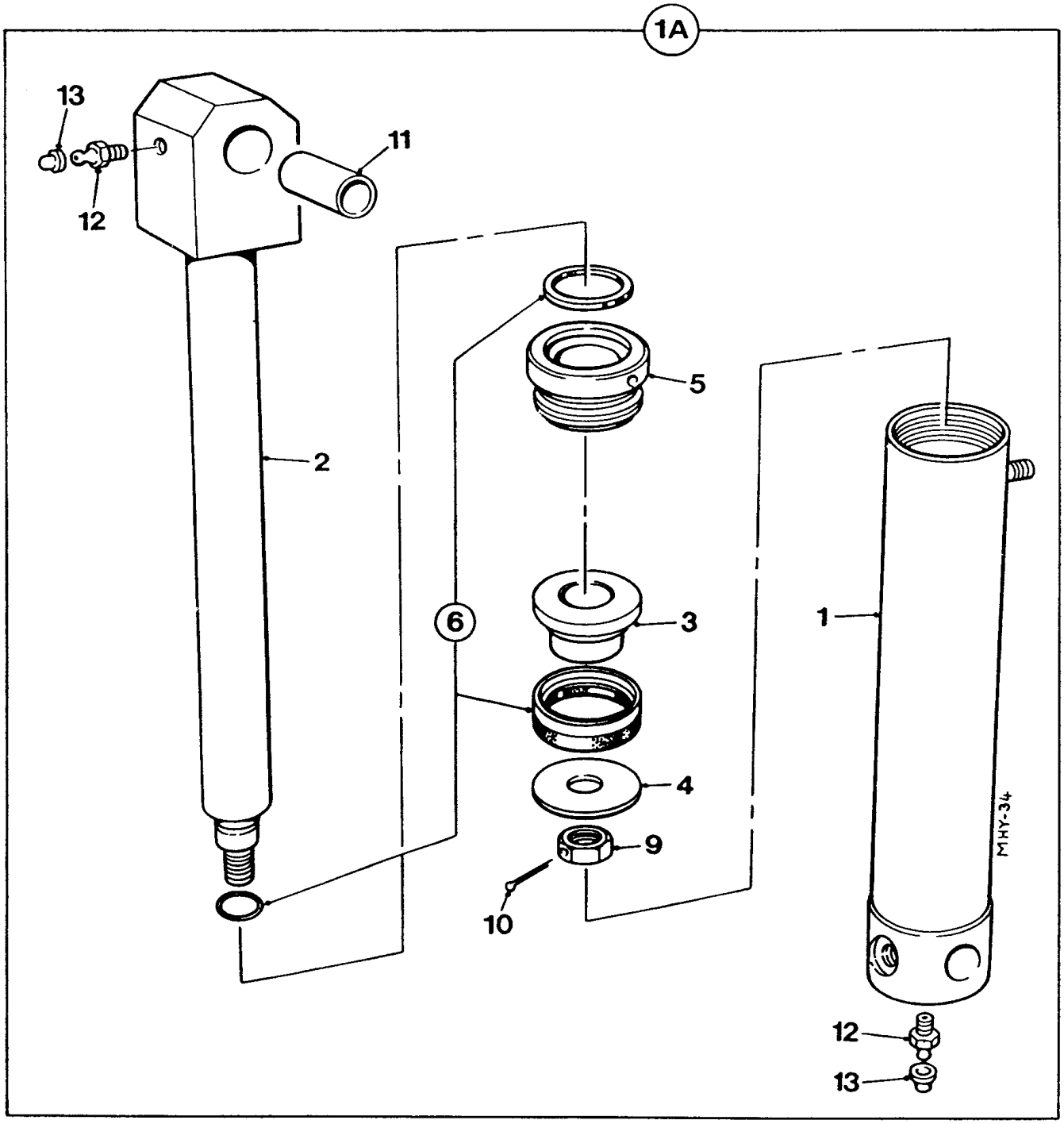
Item	Part no	Serial no	Description	Qty
.....	272140000	/ 0836	RAM, hopper, assembly	1
1	272140001		CYLINDER, ram	1
2	272140002		ROD, piston	1
3	272127003		PISTON, front	1
4	272127004		PLATE, piston backup	1
5	272140003		CAP, screwed	1
6	272127017		KIT, seals	1
9	2S09		NUT	1
10	44S03G		PIN, split	1
11	272140004		SCREW, grub	1
12	555136700		SHROUD, ram	1
13	555136600		END PIECE	1
14	555136500		INSERT	1
15	112801001		BUSH	2
16	555167900		WASHER, ram pin	2
17	195S04C3		SCREW, set, socket head	1
18	90S04K		SCREW, socket head cap	2
19	555246900		RESTRICTOR, ram, assambly	1
20	119S08		FITTING, adaptor, male/male	1
21	100S04		SEAL, bonded	2
22	555247000		POPPET	1
23	555247100		FITTING, adaptor, restrictor	1
24	424210500		SPRING, compression	1
25	17S04		WASHER, spring	2
30	V2004171		VALVE, hose failure	1
31	122S03		ADAPTOR, male/male	1
32	100S03		SEAL, bonded	2
40	555108500		PIN	2
41	6S03G		BOLT	2
42	87S03		NUT, "Binx" self-locking	2

Reversing Drum Mixers, models 300R & 400R



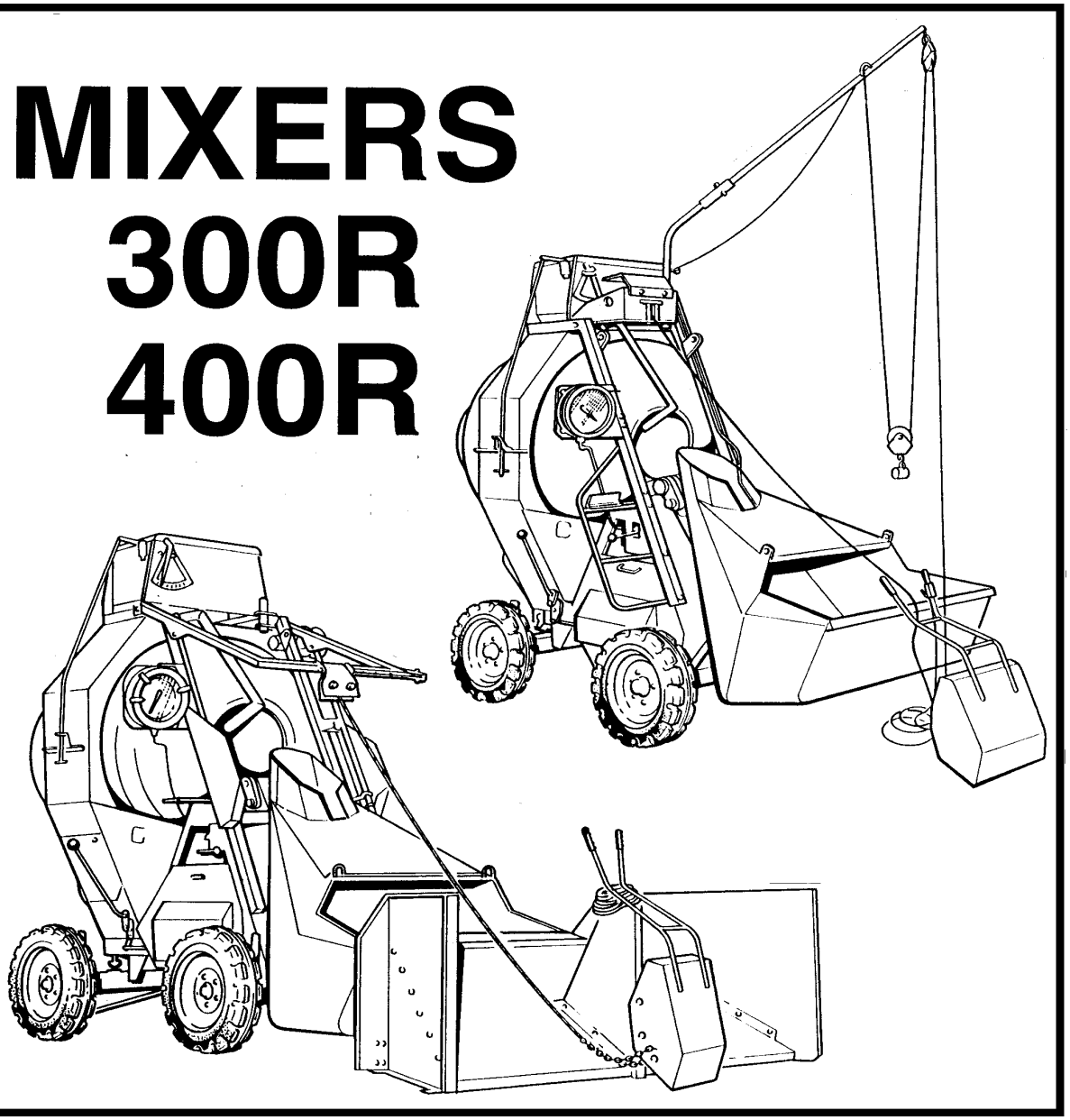
Item	Part no	Serial no	Description	Qty
1	----------	0837/	RAM, hopper *(See page E-9)*	1
2	555167900		WASHER	2
3	555108500		PIN	2
4	6S03G		BOLT	2
5	87S03		NUT, “Binx”, self-locking	2
19	555246900		RESTRICTOR, ram, assembly	1
20	119S08		FITTING, adaptor, male/male	1
21	100S04		SEAL, bonded	2
22	555247000		POPPET	1
23	555247100		FITTING, adaptor, restrictor	1
24	424210500		SPRING, compression	1
30	V2004171		VALVE, hose failure	1
31	122S03		ADAPTOR, male/male	1
32	100S03		SEAL, bonded	2

Reversing Drum Mixers, models 300R & 400R



Item	Part no	Serial no	Description	Qty
1A	272150000	0837 /	RAM, hopper, assembly	1
1	272150005		CYLINDER, ram	1
2	272150008		ROD, piston	1
3	272127003		PISTON, front	1
4	272127004		PLATE, piston backup	1
5	272150003		CAP, screwed	1
6	272127017		KIT, seals	1
9	2S09		NUT, 1" BSF	1
			or alternatively	
9A	59S07		NUT, nyloc M24	1
10	44S03G		PIN, split, use with item 9	1
11	272150009		BUSH	1
12	131S01		NIPPLE, grease	1
13	176S01		CAP, grease nipple	1

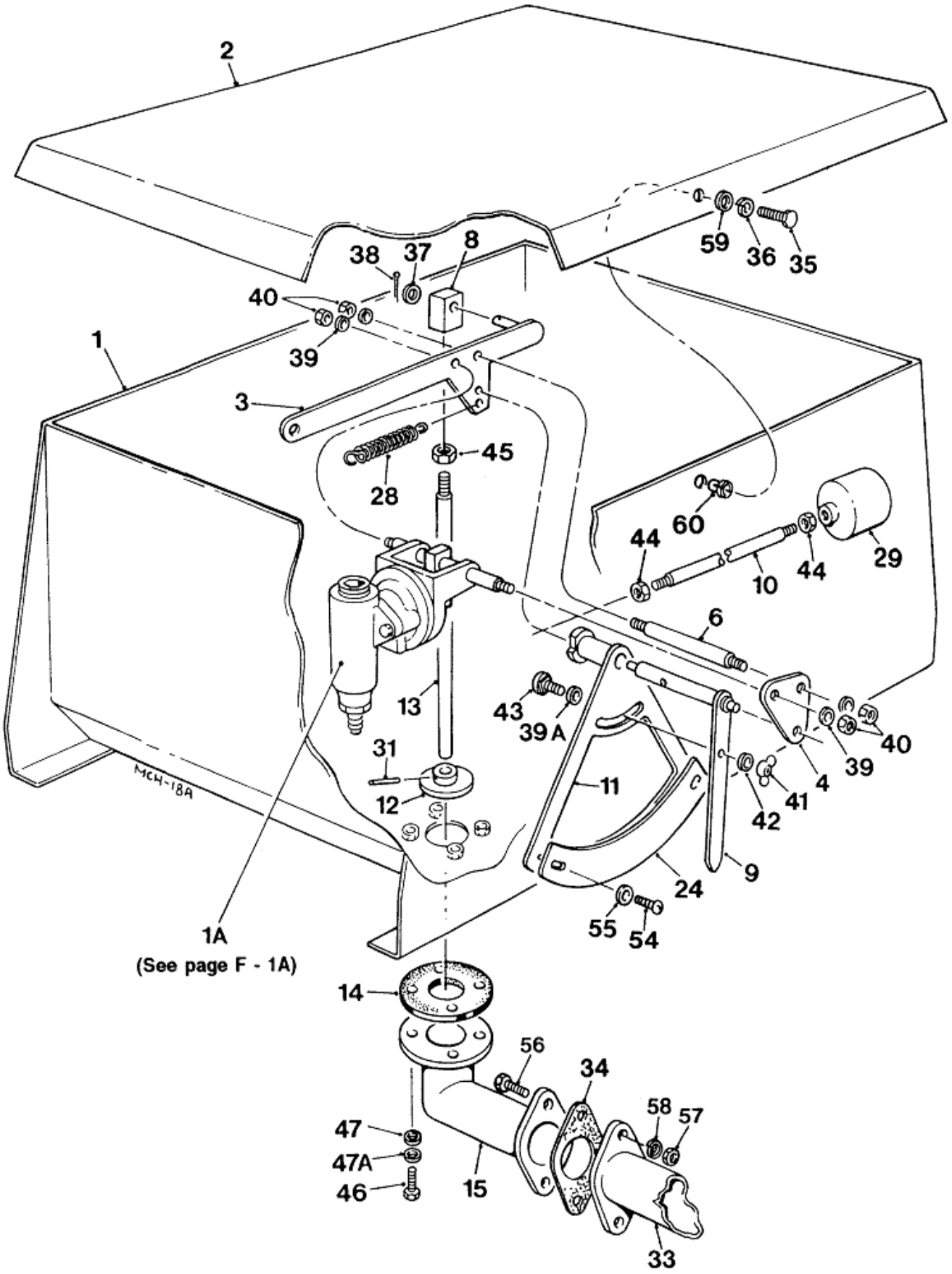
MIXERS
300R
400R



Water System

WATER TANK	**F - 1**
VALVE & FILTER, for water tank	**F - 1A**
CONTROLS, tank	**F - 4**
WATER PUMP	**F - 5**
WATER SYSTEM, *(up to May 1986)*	**F - 6**
PUMP & FLOWMETER, *(up to May 1986)*	**F - 7**
FLOWMETER, *(from April 2000)*	**F - 7A**
WATER SYSTEMS, cement batchers only	**F - 8**

Reversing Drum Mixers, models 300R & 400R

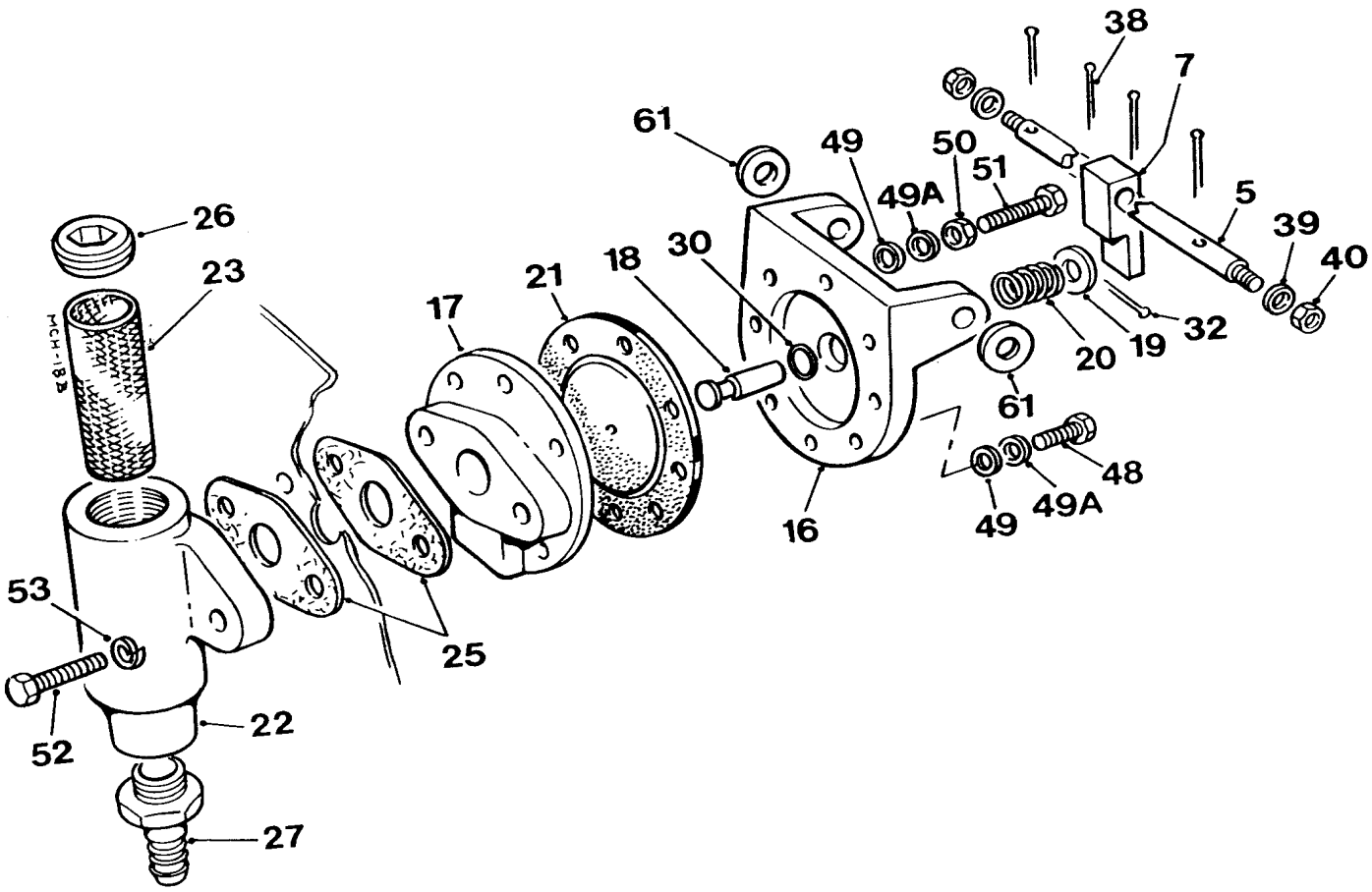


WATER TANK with float & valve

Item	Part no	Serial no	Description	Qty
.....	555266600		WATER TANK, assembly	1
1A	————--		VALVE *(see page F - 1A)*	1
1	555260700		BODY, tank	1
2	555261500		LID, tank	1
3	555263300		LEVER, operating	1
4	555263200		LINK, outer	1
6	555263100		ROD, spacer	1
8	555262800		CONNECTOR, valve rod	1
9	555262100		INDICATOR	1
10	555262300		ARM, float	1
11	555261900		CARRIER, scale	1
12	555262400		VALVE, discharge	1
13	555262500		ROD, discharge valve	1
14	555262600		SEAT, rubber valve	1
15	555261600		OUTLET, tank	1
24	555263400		SCALE	1
28	425434000		SPRING, tension	1
29	220302000		FLOAT, plastic	1
31	353830426		PIN	1
33	555119300		PIPE, water discharge	1
34	555119200		GASKET, discharge pipe	1
35	11S02C		SCREW, set	1
36	17S03		WASHER, spring	1
37	267S06		WASHER, flat	1
38	44S03C		PIN, split	1
39	267S05		WASHER, flat	2
39A	267S07		WASHER, flat	1
40	61S03		NUT, self locking	2
41	177S04		NUT, wing	1
42	17S04		WASHER, spring	1
43	172S03A		BOLT, round head, cup square	1
44	104S02		NUT, locking	2
45	56S04		NUT, locking	1
46	11S03D		SCREW, set	4
47	V601330		WASHER, nylon	4
47A	267S05		WASHER, flat	4
54	70S04D		SCREW, round head	2
55	267S03		WASHER, flat	2
56	11S05F		SCREW, set	2
57	7S05		NUT	2
58	17S06		WASHER, spring	2
59	267S04		WASHER, flat	1
60	236S04		NUT, blind	1

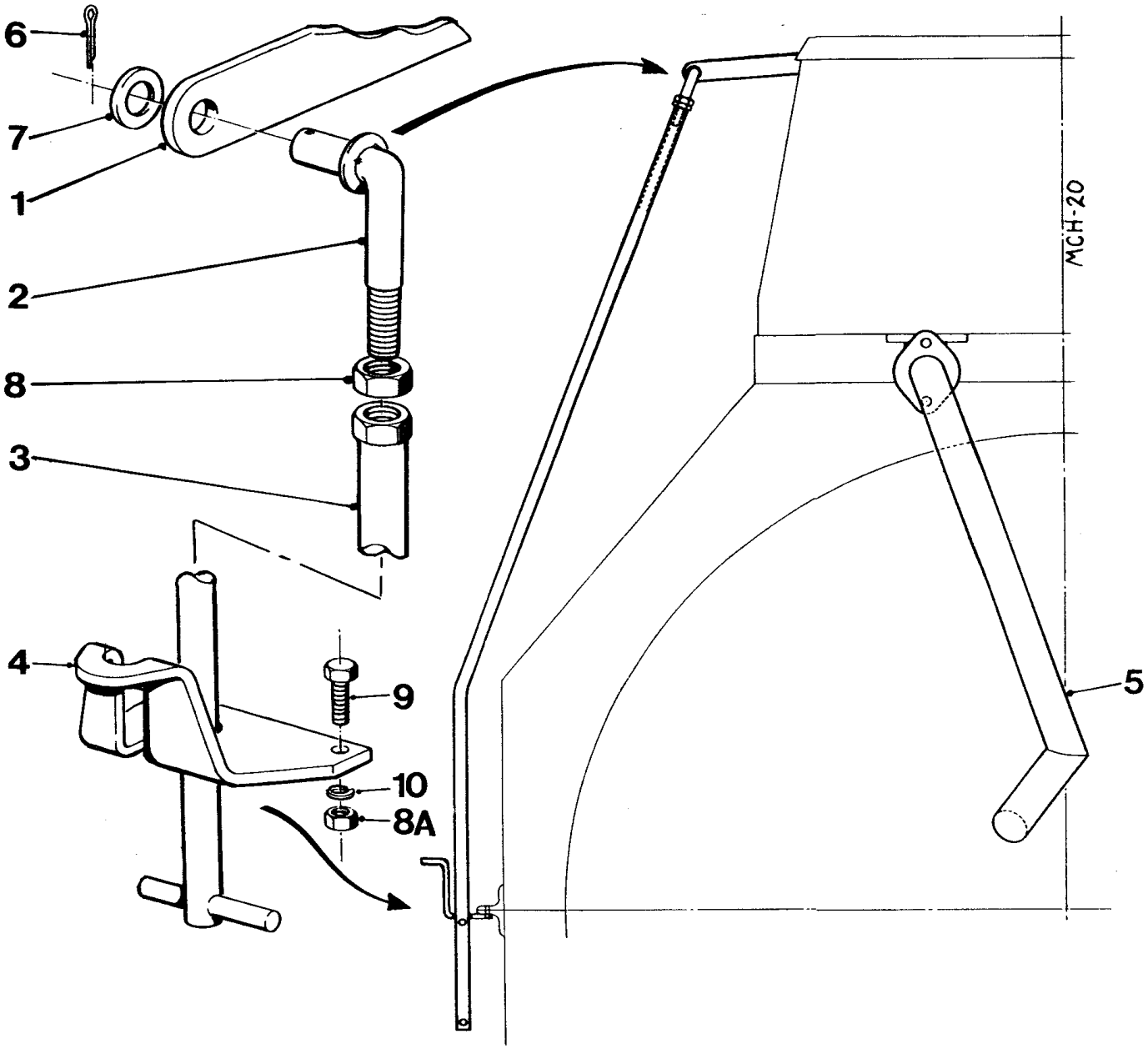
F - 1A

Reversing Drum Mixers, models 300R & 400R

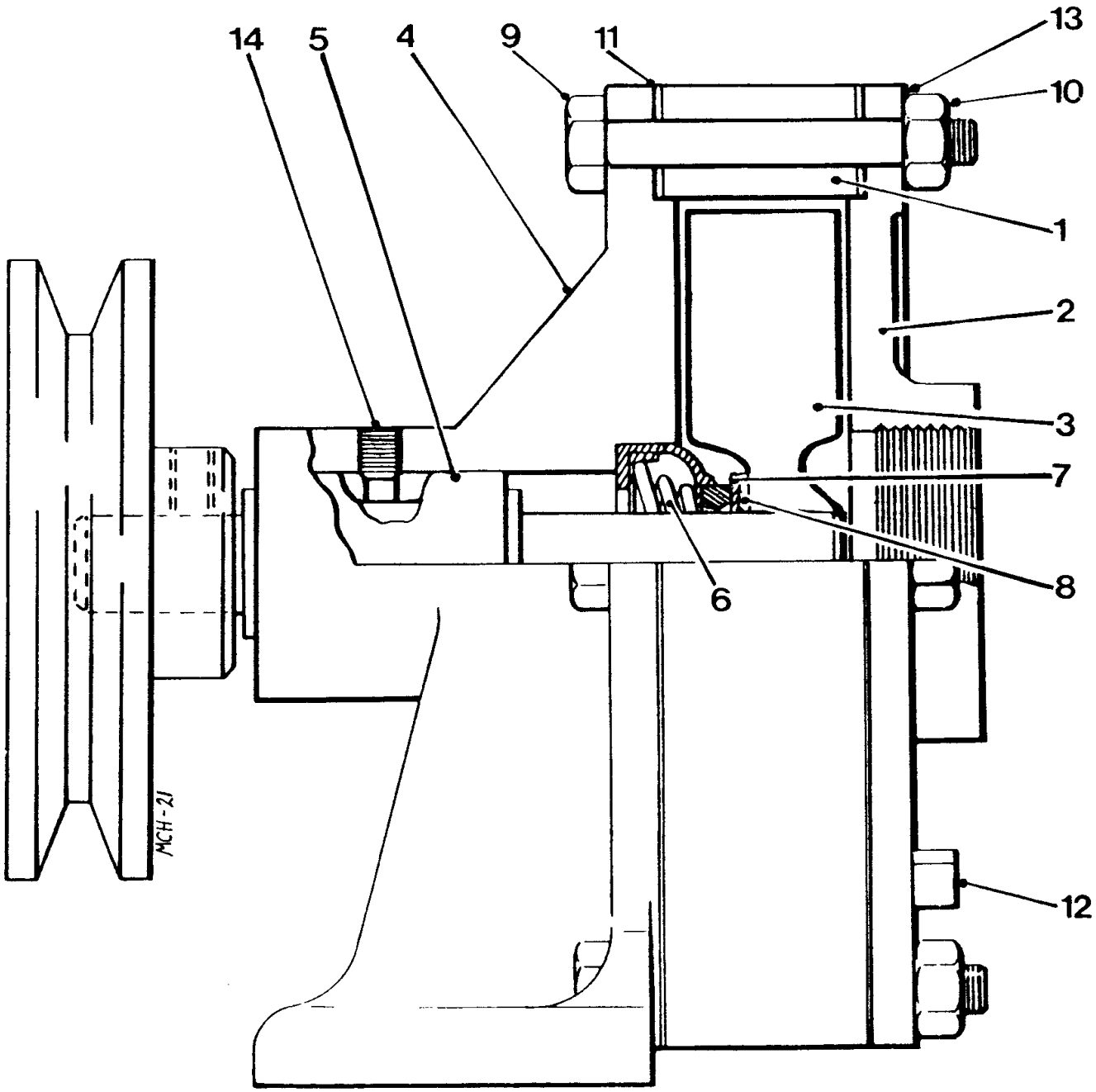


Item	Part no	Serial no	Description	Qty
5	555263000		PIN, pivot	1
7	555262900		LEVER, trip	1
16	555263500		COVER, float valve	1
17	555263600		BODY, float valve	1
18	555262700		VALVE, pilot	1
19	513114600		WASHER, pilot valve	1
20	513115200		SPRING, pilot valve	1
21	513122000		DIAPHRAGM	1
22	555198300		BODY, strainer	1
23	555198400		ELEMENT, strainer	1
25	555198800		GASKET, float valve	2
26	241708000		PLUG, tapered	1
27	130354000		CONNECTOR, hose	1
30	49S39		SEAL, ‘O’ ring	1
32	44S02B		PIN, split	1
38	44S03C		PIN, split	4
39	267S05		WASHER, flat	2
40	61S03		NUT, self locking	2
48	11S02C		SCREW, set	7
49	293S02		WASHER, fibre	8
49A	267S04		WASHER, flat	8
50	7S02		NUT	1
51	11S02F		SCREW, set	1
52	11S03C		SCREW, set	2
53	17S04		WASHER, spring	2
61	267S07		WASHER, flat	A/R

Reversing Drum Mixers, models 300R & 400R



Item	Part no	Serial no	Description	Qty
1	555263300		LEVER, operating	1
2	555265100		END, control rod	1
3	555255500		ROD, control	1
4	555255700		BRACKET, control rod	1
5	555119300		PIPE, water discharge	1
6	353320320		PIN, split	1
7	267S06		WASHER, flat	1
8	56S04		NUT	1
8A	87S03		NUT	2
9	6S03B		BOLT	2
10	10S03		WASHER, flat	2


14
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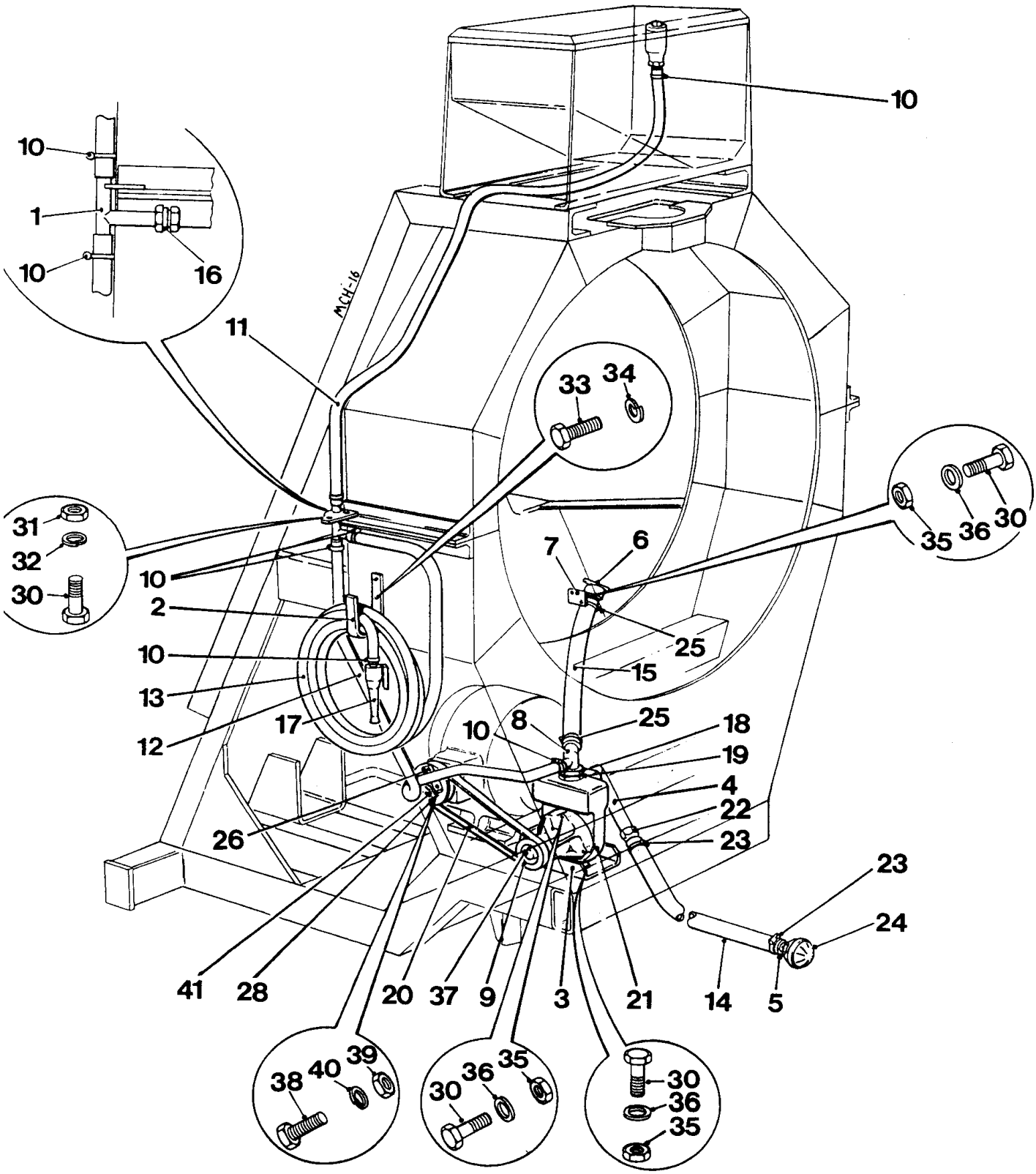
MCH-21

Item	Part no	Date	Description	Qty
	640479700	/ June-84	PUMP, water, assembly	1
	365237000	July- 84 / 89	PUMP, water, assembly	1
1	640479701	/ June-84	BODY, pump	1
1	365237001	July- 84 / 89	BODY, pump	1
2	640479702	/ June-84	COVER, front	1
2	365237002	July- 84 / 89	COVER, front	1
3	640479703	/ June-84	IMPELLER	1
3	365237003	July- 84 / 89	IMPELLER	1
4	640479704	/ June-84	PEDESTAL, bearing	1
4	365237004	July- 84 / 89	PEDESTAL, bearing	1
5	640479705	/ June-84	SPINDLE	1
5	365237005	July- 84 / 89	SPINDLE	1
6	640479706	/ June-84	SEAL	1
6	365237006	July- 84 / 89	SEAL	1
7	640479707	/ June-84	SEAL, seating	1
7	365237007	July- 84 / 89	SEAL, seating	1
8	640479708	/ June-84	SEAL, rubber	1
8	365237008	July- 84 / 89	SEAL, rubber	1
9	640479709	/ 89	BOLT	4
10	640479710	/ 89	NUT	4
11	640479717	/ June-84	GASKET	2
11	365237017	July- 84 / 89	GASKET	2
12	640479713	/ 89	PLUG	2
13	640479718	/ 89	WASHER, locking	4
14	640479712	/ 89	SCREW, socket head, set	1

Reversing Drum Mixers, models 300R & 400R

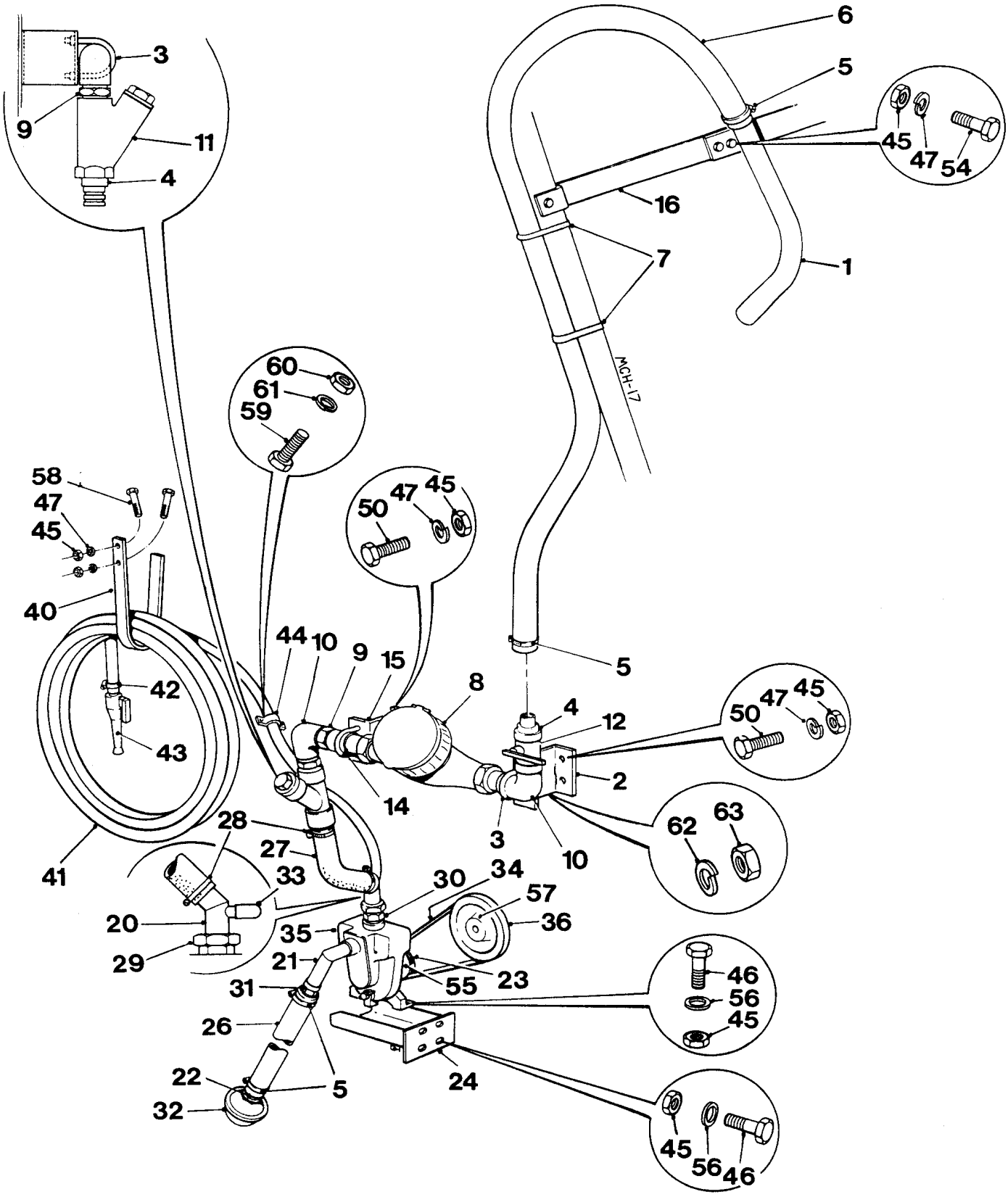


Item	Part no	Serial no		Description	Qty
1	555177700	/MAY 86		PIPE, hose adaptor	1
2	555175800		#	SUPPORT, washdown hose	1
3	555247900			BRACKET, pump	1
4	555248000			CONNECTOR, inlet	1
5	555179600			CONNECTOR, hose	1
6	514406800			CAP, filler	1
7	555248100			CONNECTOR, priming	1
8	555248200			ADAPTOR, pump outlet	1
9	555248300			PULLEY, pump	1
10	132856000			CLIP, *(machines with washdown)*	6
10	132856000			CLIP, *(machines without washdown)*	4
11	260906108			HOSE	1
12	260906072			HOSE	1
13	260906240		#	HOSE	1
14	260912120			HOSE	1
15	260978001			HOSE	1
16	44655060		$	END, blank	1
17	130352000		#	NOZZLE, control	1
18	72S07			NUT, back	1
19	240512100			BUSH, reducing	1
20	397244000			"V" BELT	1
21				PUMP, water *(see page F-5)*	1
22	130320200			CONNECTOR hose	1
23	143158000			CLIP	2
24	409256000			FOOT VALVE & STRAINER	1
25	132808000			CLIP	2
26	133908800			CLIP, pipe	1
28	555248400			PULLEY, pump drive *(Petter PJ1, Lister ST2 or electric drive)*	1
28	555248500			PULLEY, pump drive *(Petter PH2)*	1
30	6S03B			BOLT	11
31	87S03			NUT	1
32	41S05			WASHER, spring	1
33	418250605			SCREW	2
34	41S05			WASHER, spring	2
35	87S03			NUT, self locking	8
36	10S03			WASHER, flat	8
37	57S04D2			SCREW, socket head set	1
38	245S04B			SCREW	2
39	239S04			NUT	2
40	464202000			WASHER, spring	2
41	90S04H			SCREW, socket head cap *(used with pulley 555248400)*	4
41	90S04M			SCREW, socket head cap *(used with pulley 555248500)*	4

$ Item required when washdown not fitted.

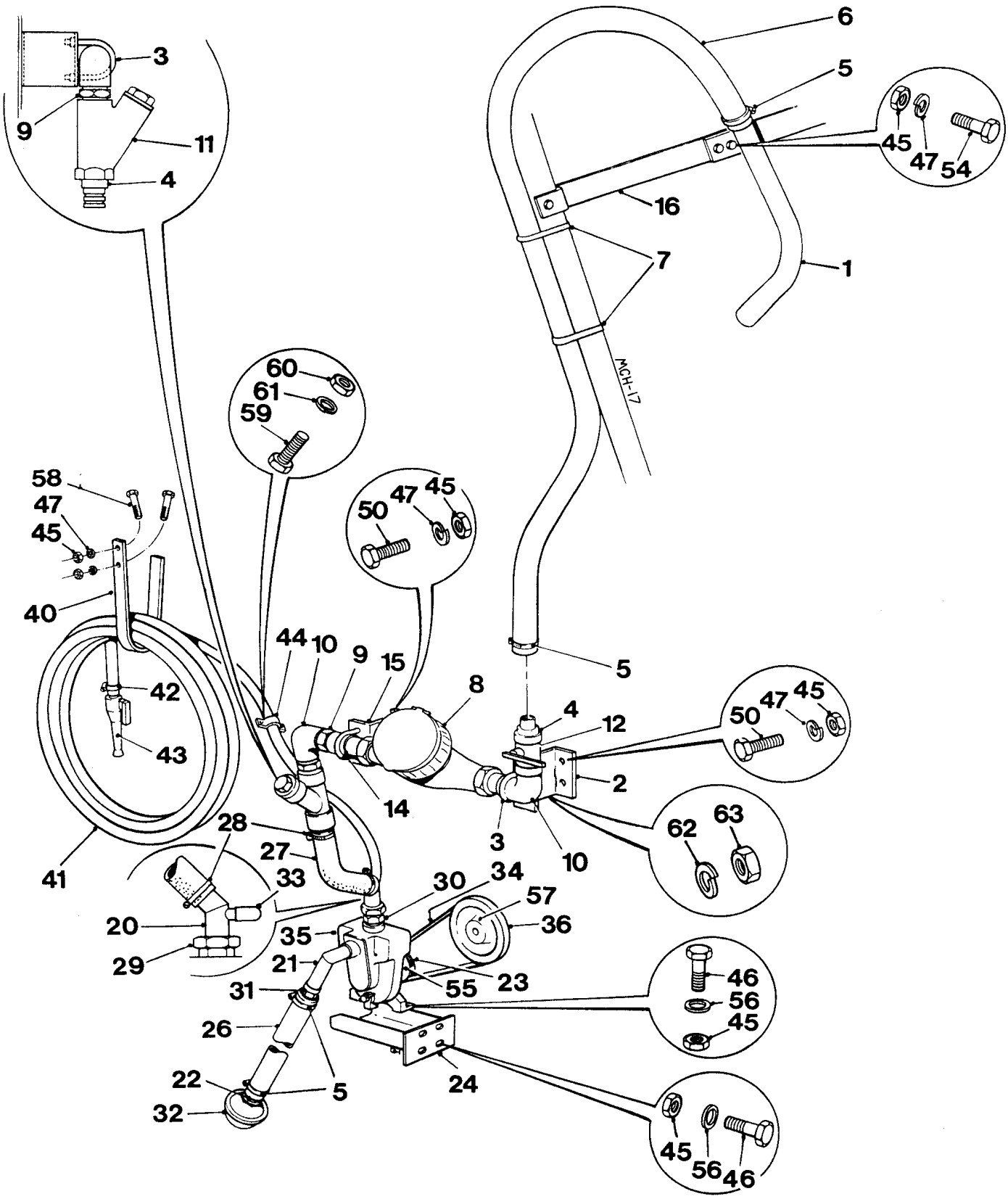
Items required only when washdown fitted.

Reversing Drum Mixers, models 300R & 400R



Item	Part no	Date	Description	Qty
			Items required for main feed only	
1	555182100	/ May-86	PIPE, water	1
2	555240701		BRACKET, flowmeter mounting, R.H	1
3	555176500		'U' BOLT	2
4	555176400		INSERT, valve	2
5	143158000		CLIP(machines without pump feed)	2
5	143158000		CLIP(machines with pump feed)	4
6	260912066		HOSE	1
7	124108160		STRAP & BUCKLE	2
8	202319000		FLOWMETER	1
9	243912000		NIPPLE, hex	2
10	241112000		ELBOW, equal	2
11	409255000		STRAINER	1
12	450151100		VALVE, ball	1
14	241912000		SOCKET, equal	1
15	555240702		BRACKET, flowmeter mounting, L.H.	1
16	555174500		SUPPORT, cement chute, lower	1
			Machines fitted with pump feed require all the above, plus the following additions.	
20	555248200		ADAPTOR, pump outlet	1
21	555248000		CONNECTOR, inlet	1
22	555179600		CONNECTOER, hose	1
23	555248300		PULLEY, pump	1
24	555247900		BRACKET, pump	1
26	260912120		HOSE	1
27	260978001		HOSE	1
28	132808000		CLIP	2
29	72S07		NUT, back	1
30	240512100		BUSH, reducing	1
31	130320200		BUSH, reducing	1
32	400256000		FOOT VALVE & STRAINER	1
33	240604000		CAP, iron	1
34	397344000		V' BELT	1
35			PUMP, *(see page F-5)*	1
36	555248400		PULLEY pump drive *(machines fitted with Petter PJ1, Lister ST2 or electric drive)*	1
36	555248500		PULLEY, pump drive *(machines fitted Petter PH2 drive)*	1
			Machines fitted with washdown require all of the above items, except item 33, plus the following additions.	
40	555175800		SUPPORT, washdown hose	1
41	260906240		HOSE	1
42	132856000		CLIP	2

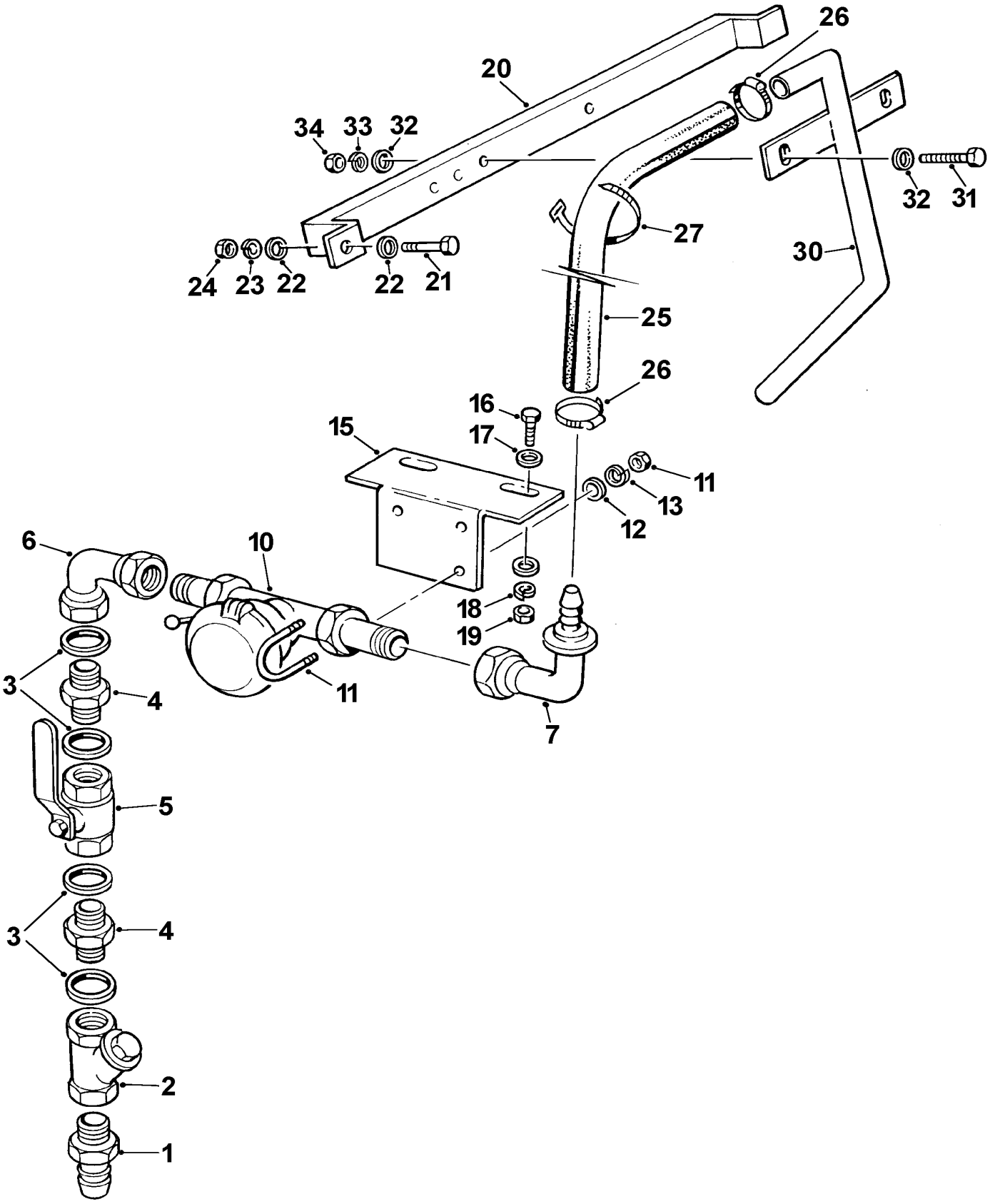
Reversing Drum Mixers, models 300R & 400R



Item	Part no	Serial no	Description	Qty
43	130352000		NOZZLE, control	1
44	133908800		CLIP,conduit pipe	1
45	9S03		NUT	22
46	6S03C		BOLT	8
47	41S05		WASHER, spring	14
50	28S03E		SCREW, set	4
54	6S03L		BOLT	2
55	57S04D2		SCREW, socket head set	1
56	10S03		WASHER, flat	6
57	90S04H		SCREW, socket head cap *(used with Petter PJ1, Lister ST2, TS2 or electric drive)*	4
57	90S04M		SCREW, socket head cap *(used with Petter PH2)*	4
58	418250605		SCREW, set	2
59	245S04B		SCREW	2
60	239S04		NUT	2
61	464202000		WASHER, spring	2
62	41S04		WASHER, spring	4
63	9S03		NUT	4

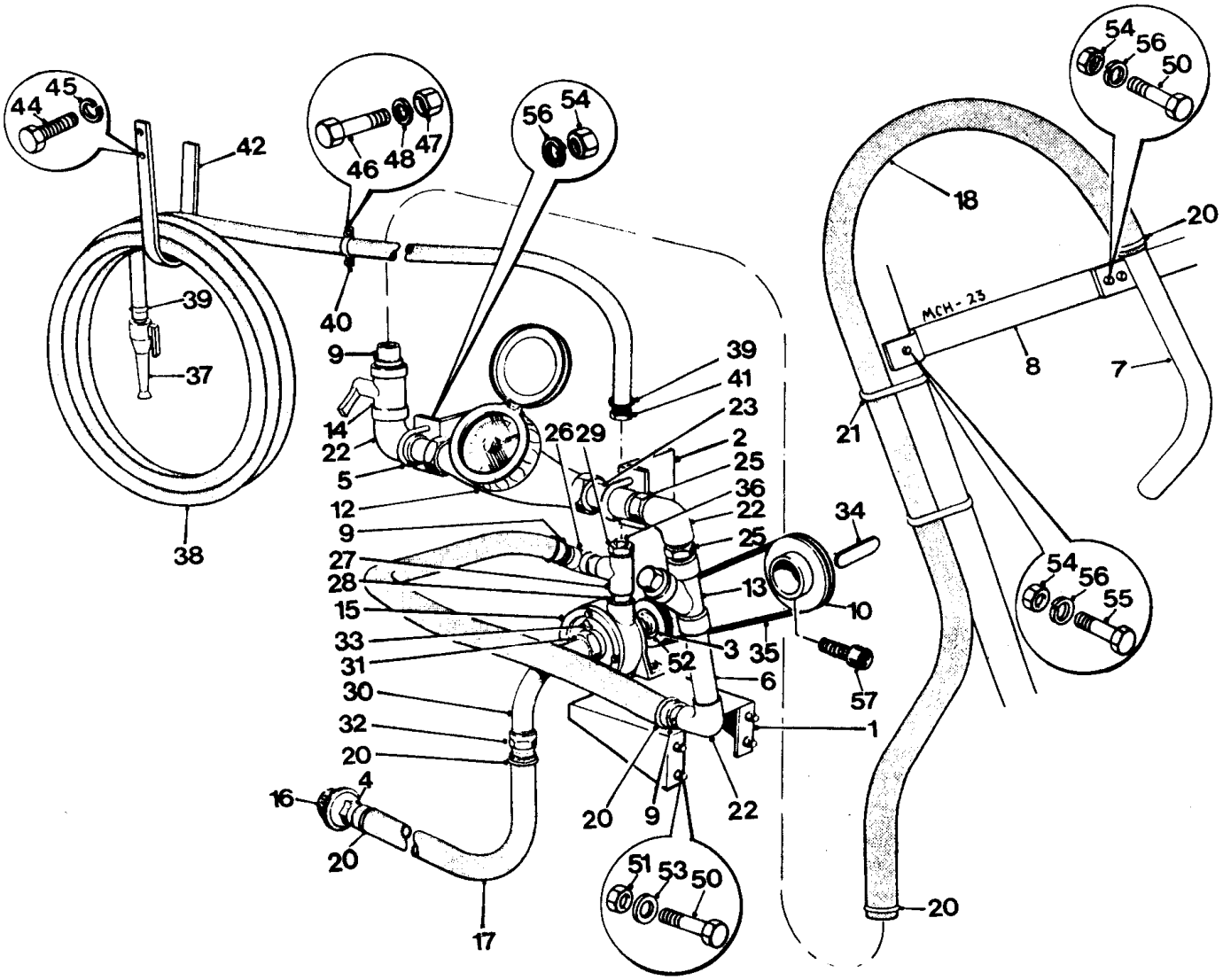
F - 7A

Reversing Drum Mixers, models 300R & 400R



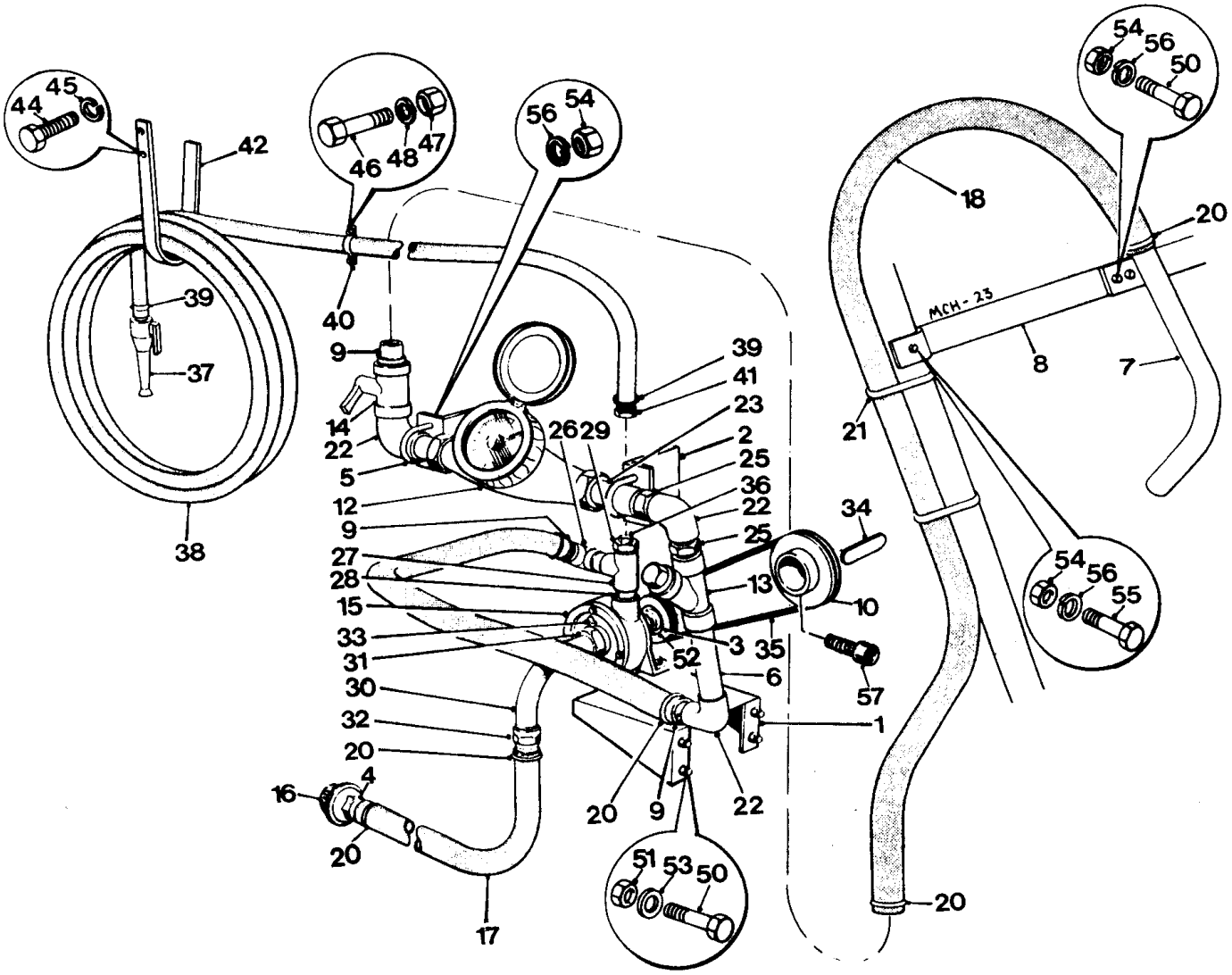
Item	Part no	Serial no	Description	Qty
From April 2000				
1	555176400	Apr-00 /	NOZZLE, straight	1
2	409255000		FILTER/STRAINER	1
3	100S10		SEAL, bonded	4
4	122S09		ADAPTOR, male/male	2
5	450151100		VALVE, ball	1
6	128S14		FITTING, female/female, 90 deg.	1
7	129S07G		NOZZLE, 90 deg. elbow	1
10	202325000		GAUGE, flowmeter	1
11	153S09		CLAMP	2
12	267S05		WASHER, flat	4
13	17S04		WASHER, spring	4
15	555176800		BRACKET, flowmeter support	1
16	6S03B		SCREW, set	2
17	10S03		WASHER, flat	2
18	41S05		WASHER, spring	2
19	87S03		NUT, self-locking	2
20	555174500		SUPPORT, lower	1
21	6S03L		BOLT	2
22	10S03		WASHER, flat	4
23	41S05		WASHER, spring	2
24	9S03		NUT	2
25	37S04CB		HOSE	1
26	97S10		CLIP, hose	2
27	V2003253		STRAP, nylon	1
30	555288800		PIPE, water inlet	1
31	11S04C		SCREW, set	2
32	267S06		WASHER, flat	4
33	17S05		WASHER, spring	2
34	7S04		NUT	2

Reversing Drum Mixers, models 300R & 400R



Item	Part no	Date	Description	Qty
1	555236600	/ May-86	BRACKET, water pump support	1
2	555176800		BRACKET, flowmeter mounting	2
3	555176200		PULLEY, water pump	1
4	555179600		CONNECTOR, hose	1
5	555176500		'U' BOLT, flowmeter	2
6	555176000		PIPE, connecting	1
7	555182100		PIPE, water	1
8	555174500		SUPPORT, cement chute, lower	1
9	555176400		INSERT, valve	3
10	555236700		PULLEY, drive, diesel engine	1
10	555236800		PULLEY, drive, electric motor	1
12	202319000		FLOWMETER	1
13	409255000		STRAINER	1
14	450151100		VALVE	1
15	.....		WATER PUMP *(see page F - 4)*	1
16	409256000		FOOT VALVE & STRAINER	1
17	260912180		HOSE, 10' long	1
18	260912180		HOSE, 6' long	1
19	260912180		HOSE, 4' long	1
20	132812000		CLIP, hose	6
21	121082000		BUCKLE & STRAP	2
22	241112000		ELBOW	3
23	241912000		SOCKET	1
25	243912000		NIPPLE, hex	2
26	241212802		ELBOW, reducing	1
27	242208000		FITTING, adaptor, tee, equal	1
28	245308000		NIPPLE, barrel	2
29	131508060		BUSH, threaded	1
30	240210000		ELBOW	1
31	72S07		NUT, backing	1
32	130320200		CONNECTOR, hose	1
33	440101010		TAP, drain	1
34	304107360		KEY, parallel *(Lister)*	1
34	304106360		KEY, parallel *(Petter)*	1
34	304712114		KEY, parallel *(electric)*	1
35	397238000		'V' BELT	1
			Machine with pump feed only	
36	241704000		PLUG, threaded bush	1

Reversing Drum Mixers, models 300R & 400R



Item	Part no	Serial no	Description	Qty
			Machines with pump feed and washdown	
37	130352000		NOZZLE, control	1
38	260906240		HOSE, 20' long	1
39	132856000		CLIP, hose	2
40	133908800		CLIP, pipe	2
41	130306000		CONNECTOR, hose	1
42	555175800		SUPPORT, washdown hose	1
44	418250605		SCREW	2
45	41S05		WASHER, spring	2
46	245S04B		BOLT	4
47	239S04		NUT	4
48	41S05		WASHER, spring	4
			All Machines	
50	6S03C		BOLT	8
51	87S03		NUT, self locking	6
52	403550406		SCREW, socket head	1
53	10S03		WASHER, flat	6
54	9S03		NUT, self locking	8
55	6S03M		BOLT	2
56	41S05		WASHER, spring	8
57	40376808		SCREW, socket head	1

MIXERS
300R
400R

Dragline

DRAGLINE WINCH
(up to serial no. 0836) **G - 1**

DRAGLINE CONTROL BLOCK
(up to serial no. 0836) **G - 2**

DRAGLINE PORT BLOCK
(up to 1984) **G - 3**

WINCH MOTOR ADAPTOR
(up to serial no. 0836) **G - 4**

DRAGLINE JIB
(up to serial no. 0842) **G - 5**

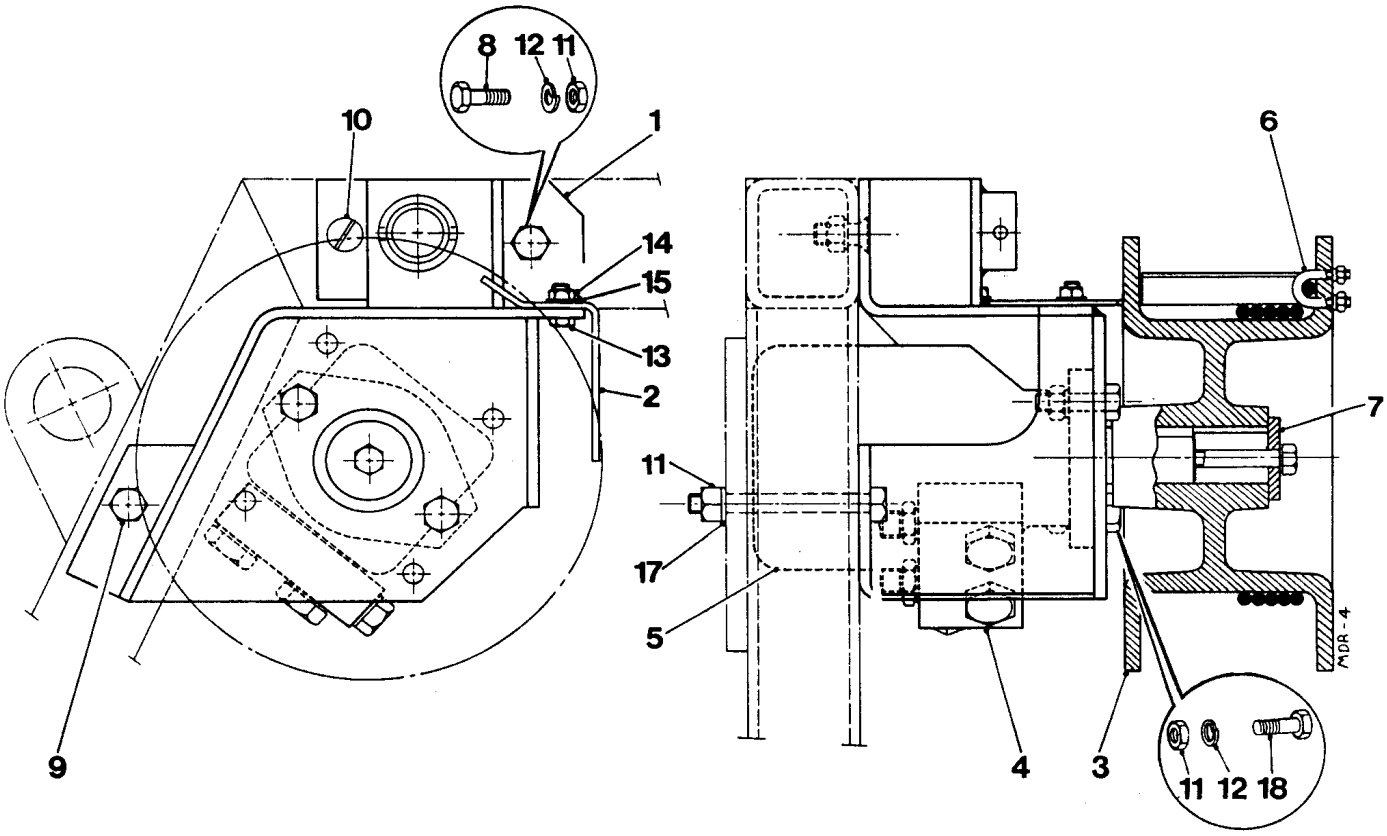
WINCH & MOUNTING BRACKET
(from serial no. 0843) **G - 5A**

CABLE MAST
(from serial no. 0843) **G - 5B**

LOADING SHOVEL **G - 6**

LOADING RAMP **G - 7**

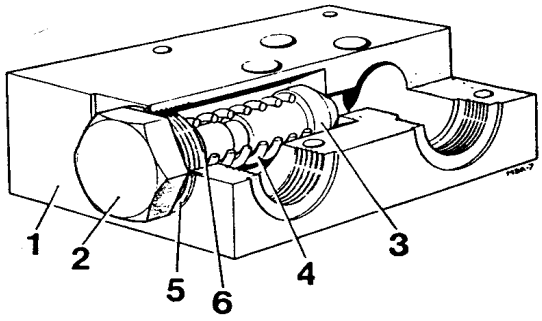
Reversing Drum Mixers, models 300R & 400R

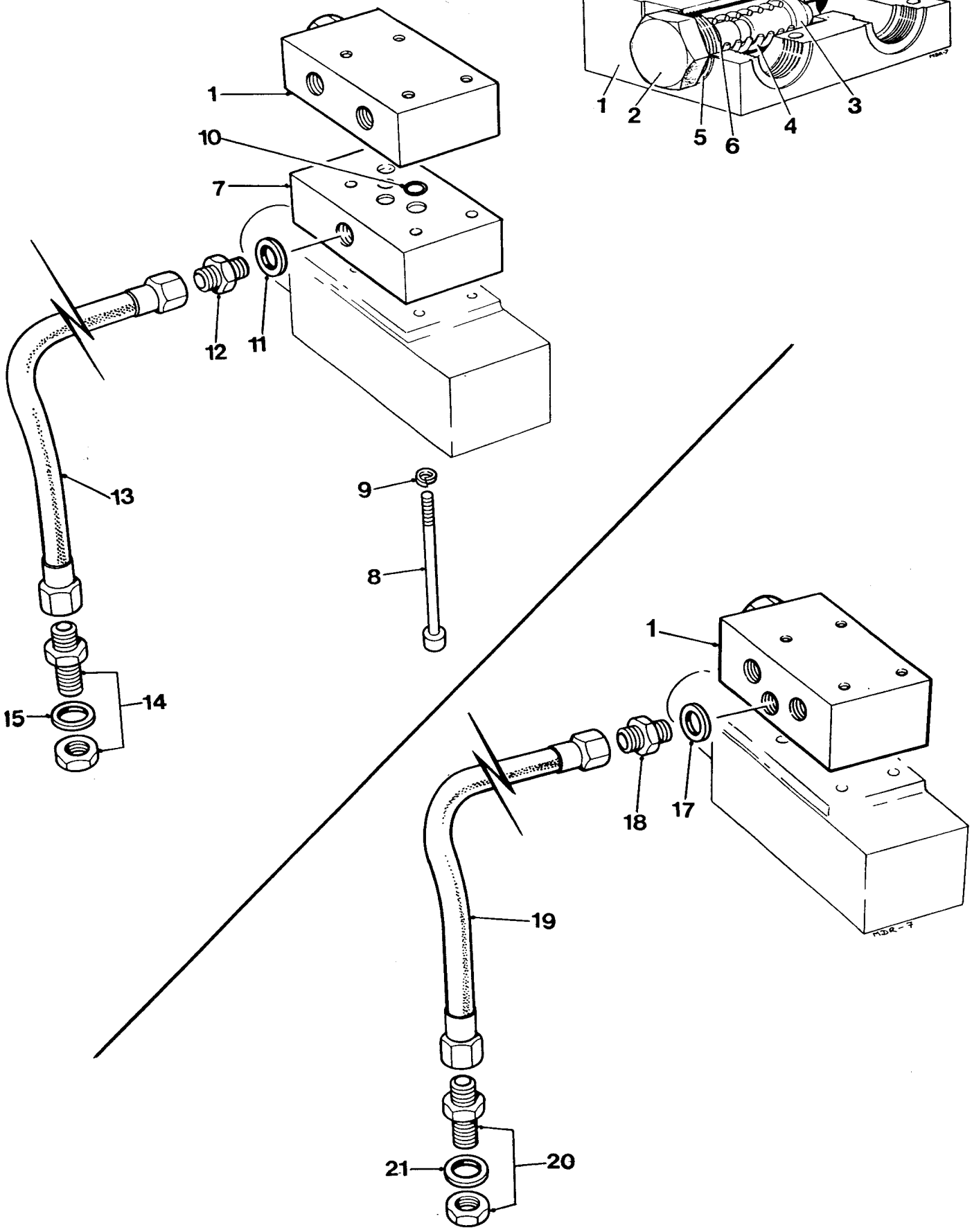


Item	Part no	Serial no	Description	Qty
1	555266000	/ 0836	BRACKET, dragline winch	1
2	555266100		GUARD, dragline winch rope	1
3	555257500	/ 0575	DRUM, winding	1
3	513330100	0576 /	DRUM, winding	1
4	.....		WINCH PORT BLOCK *(see page G-3)*	1
5	.....		MOTOR, hydraulic *(see page E-5)*	1
6	132204000		BULLDOG GRIP	1
7	555266200		WASHER, winch drum clamp *(Sperry Vickers)*	1
7	555266300		WASHER, winch drum clamp *(TRW)*	1
8	28S05G		SCREW	1
9	6S05N		BOLT	1
10	207S05C		SCREW, countersunk	1
11	9S04		NUT	5
12	41S07		WASHER, spring *(Sperry Vickers)*	5
12	41S07		WASHER, spring *(TRW)*	3
.....	41S09		WASHER, spring *(TRW)(not illustrated)*	2
13	66S02A		SCREW, set	2
14	104S02		NUT	2
15	10S02		WASHER, flat	2
17	17S05		WASHER, spring *(Sperry Vickers)*	4
17	41S07		WASHER, spring *(TRW)*	4
18	8S04J		BOLT *(Sperry Vickers)*	4
18	6S05H		BOLT *(TRW)*	4

Note: Kit 555266500 DRAGLINE WINCH consists of all of the above items

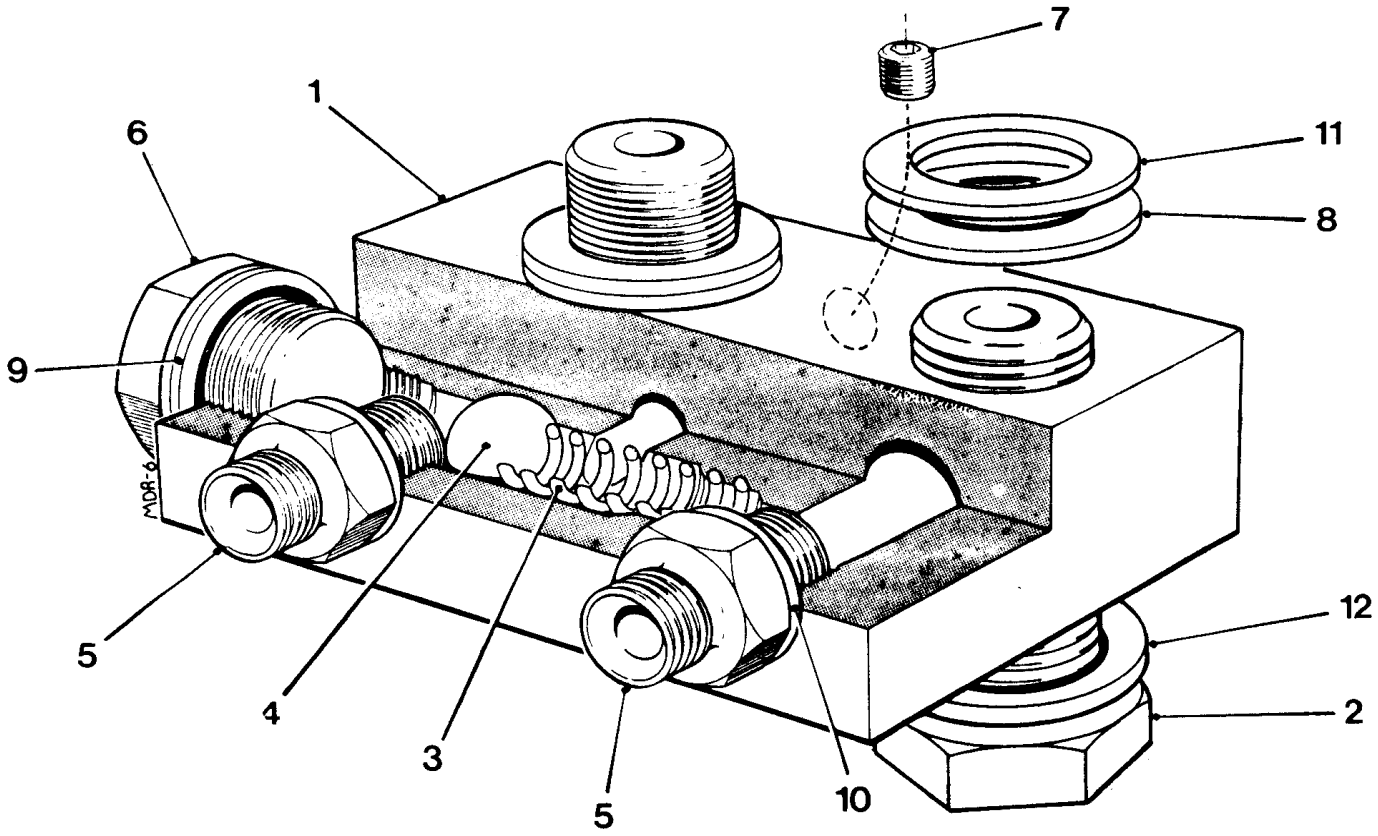
Reversing Drum Mixers, models 300R & 400R





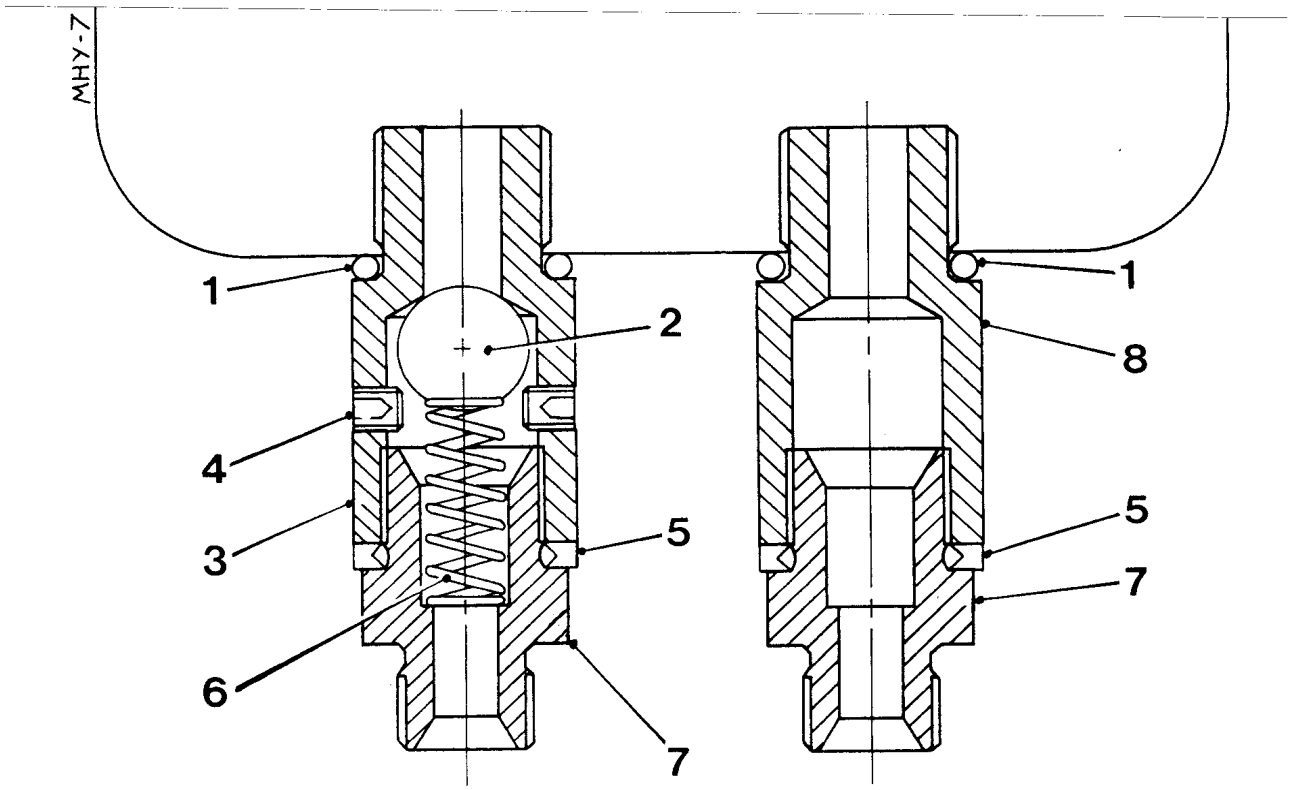
Item	Part no	Serial no	Description	Qty
	Before ordering parts for the dragline control block, refer to Service Bulletin SB8, May 1992 ' Improvement to Dragline Performance'			
·····	555556000	/ 0536	DRAGLINE CONTROL BLOCK, assy	1
1	555137900	/ 0536	CONTROL BLOCK	1
2	555138200	/ 0536	GUIDE, valve	1
3	555138300	/ 0536	VALVE, relief	1
4	555556100	/ 0536	SPRING, compression	1
5	100S04	/ 0536	SEAL, bonded	1
6	10S02	/ 0536	WASHER, flat	AR
	Machines fitted with 'sandwich' block			
·····	555556000	0537 / 0836	DRAGLINE CONTROL BLOCK, assy	1
1	555137900	0537 / 0836	CONTROL BLOCK	1
2	555138200	0537 / 0836	GUIDE, valve	1
3	555138300	0537 / 0836	VALVE, relief	1
4	555556100	0537 / 0836	SPRING, compression	1
5	100S04	0537 / 0836	SEAL, bonded	1
6	10S02	0537 / 0836	WASHER, flat	AR
7	555284500	0537 / 0836	BLOCK	1
8	103S02M	0537 / 0836	SCREW	4
9	41S03	0537 / 0836	WASHER, spring	4
10	49S32	0537 / 0836	SEAL, 'O' ring	1
11	100S03	0537 / 0836	SEAL, bonded	1
12	119S08	0537 / 0836	FITTING, adaptor	1
13	35S03AK	0537 / 0836	HOSE, hydraulic	1
14	93S02	0537 / 0836	FITTING, adaptor, bulkhead	1
15	100S04	0537 / 0836	SEAL, bonded	1
	Machines fitted with integral block			
·····	555284700	0537 / 0836	DRAGLINE CONTROL BLOCK, assy.	1
1	555284600	0537 / 0836	CONTROL BLOCK	1
2	555138200	0537 / 0836	GUIDE, valve	1
3	555138300	0537 / 0836	VALVE, relief	1
4	555556100	0537 / 0836	SPRING, compression	1
5	100S04	0537 / 0836	SEAL, bonded	1
6	10S02	0537 / 0836	WASHER, flat	AR
17	100S03	0537 / 0836	SEAL, bonded	1
18	119S08	0537 / 0836	FITTING, adaptor	1
19	35S03AK	0537 / 0836	HOSE, hydraulic	1
20	93S02	0537 / 0836	FITTING, adaptor, bulkhead	1
21	100S04	0537 / 0836	SEAL, bonded	1

Reversing Drum Mixers, models 300R & 400R



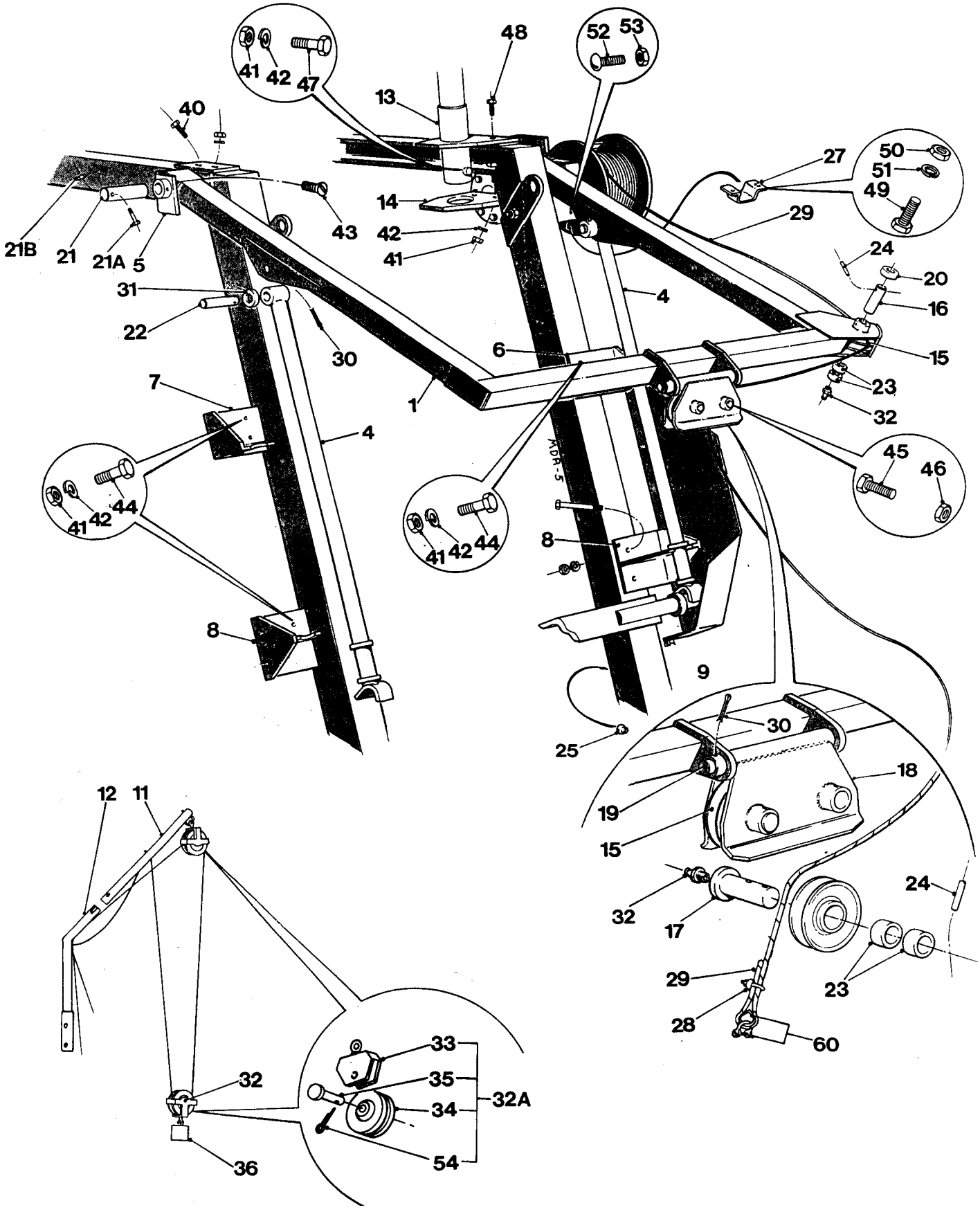
Item	Part no	Serial no	Description	Qty
			NOTE: Either the Port Block assembly, or the Winch Motor Adaptor assembly *(see page G-4)* will be fitted to the winch hydraulic motor, but not both.	
.....	555267600	/ 84	WINCH PORT BLOCK, assembly	1
1	555267400		PORT BLOCK	1
2	555267500		BOLT, banjo	2
3	555267100		SPRING, bleed valve	1
4	101120000		BALL, steel	1
5	446611000		ADAPTOR, male, stud	2
6	360400400		PLUG, shouldered	1
7	404900606		SCREW, set, socket head	1
8	555270600		WASHER, copper	2
9	100S04		SEAL, bonded	1
10	100S03		SEAL, bonded	2
11	555270600		WASHER, copper *(Used only when necessary to obtain sufficient clearance.)*	2
12	100S05		SEAL, bonded	2

Reversing Drum Mixers, models 300R & 400R



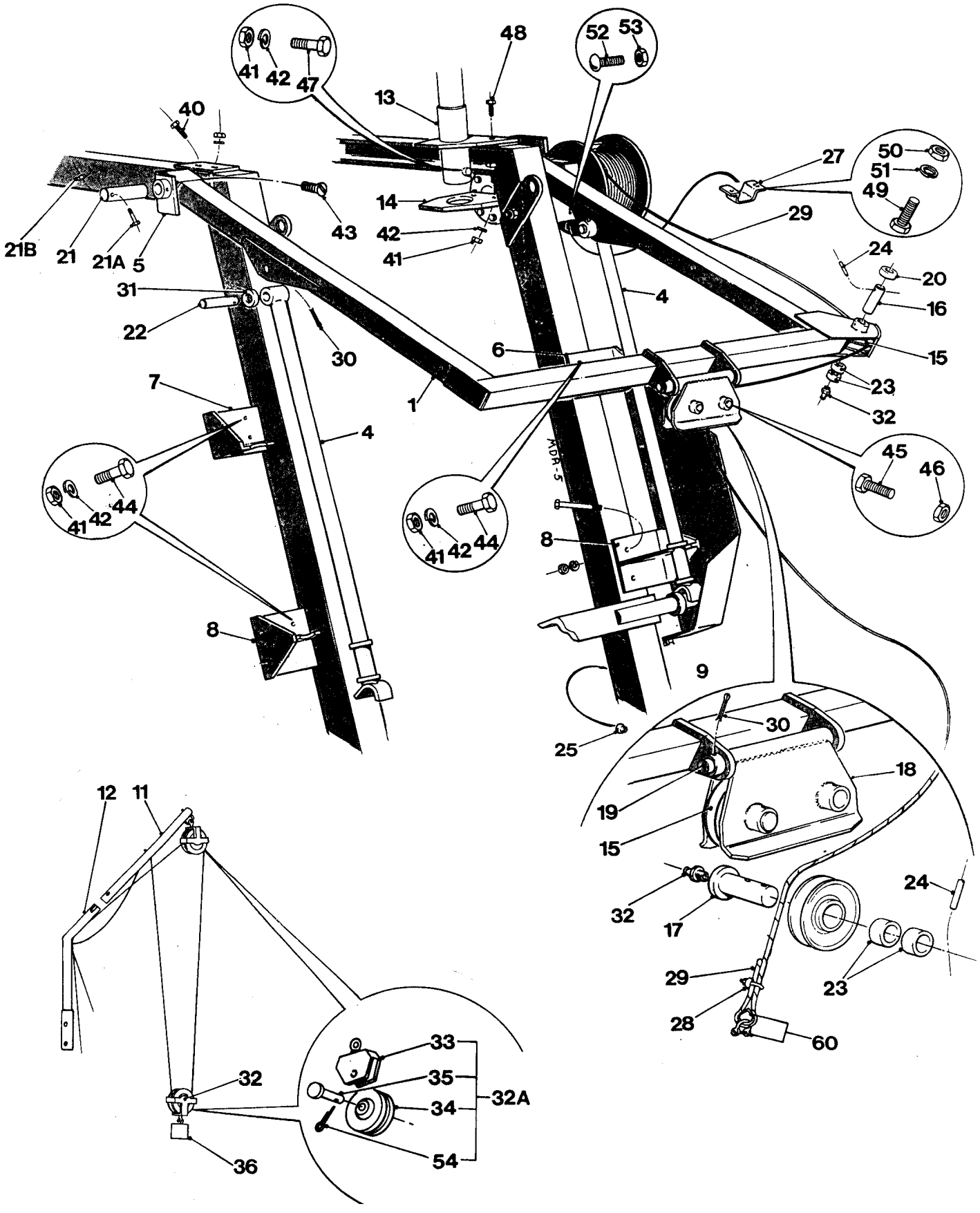
Item	Part no	Serial no	Description	Qty
	NOTE:		**Either the Winch Motor Adaptor assembly, or the Port Block assembly *(see page G-3)* will be fitted to the winch hydraulic motor, but not both.**	
1	391111000	/ 0836	SEAL, 'O' ring	2
2	101120000		BALL, steel	1
3	257S04B1		SCREW, set, socket head	2
4	555276700		FITTING, adaptor, return	1
5	100S04		SEAL, bonded	2
6	555267100		SPRING, bleed valve	1
7	142515000		FITTING, adaptor, male/male	2
8	555276600		FITTING, adaptor, pressure	1

Reversing Drum Mixers, models 300R & 400R



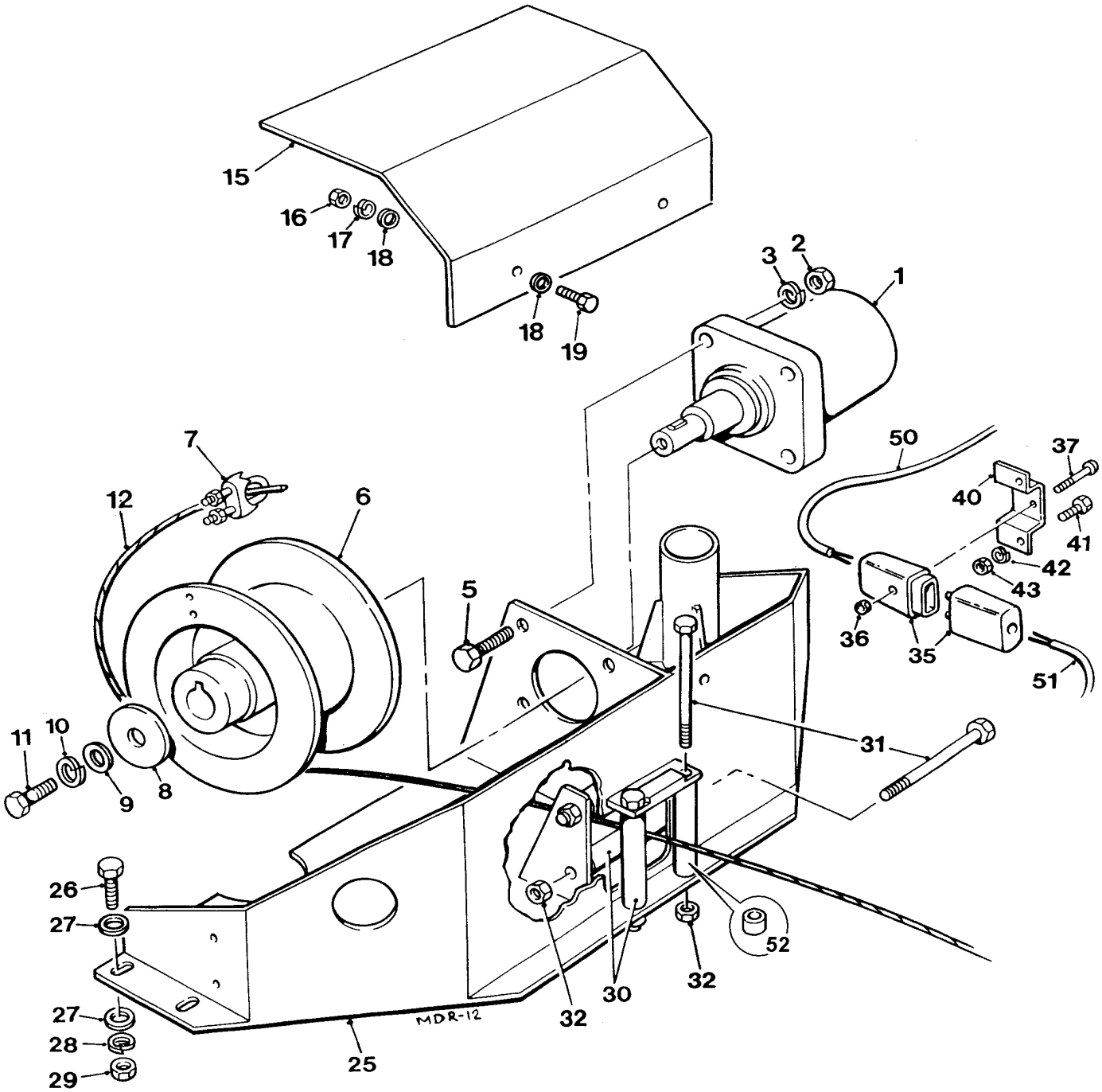
Item	Part no	Serial no	Description	Qty
1	555120700	/ 0842	DRAGLINE JIB	1
4	555121100		STRUT, jib	2
5	555121300		BRACKET, jib pivot	1
6	555120901		BRACKET, stop, upper, R.H.	1
7	555120902		BRACKET, stop, upper, L.H.	1
8	555121000		BRACKET, stop, lower	2
9	555120801		GUARD R.H. *(illustrated)*	1
.....	555120802		GUARD L.H. *(not illustrated)*	1
11	515134400		SUPPORT, cable, top	1
12	555121500		SUPPORT, cable, mast	1
13	555187600		BRACKET, cable, mast support	1
14	555121800		BRACKET, steady	1
15	555265200		PULLEY, rope *(includes item 23)*	3
16	555264900		PIN, side pulley	1
17	555265000		PIN, pulley	2
18	555228100		BRACKET, pulley	1
19	555122000		PIN pivot, pulley bracket	1
20	555189600		SPACER, dragline pulley	1
21	555123100		PIN, jib pivot	2
21A	6S01F		BOLT	2
21B	87S01		NUT self locking	2
22	555122100		PIN, jib strut	2
23	112805300		BUSH, *(part of iterm 15)*	6
24	44S17K		PIN, split	3
25	V2003252		GROMMET, rubber	1
27	555253800		CLAMP, cable socket	1
28	132204000		GRIP, bulldog	1
29	477502000		ROPE, wire	1
30	44S17K		PIN, split	3
31	10S08		WASHER, flat	2
32	131S01		NIPPLE, grease, straight	3
32A	555208500		PULLEY, block assembly *(includes item 54)*	2
33	555208400		BLOCK pulley,control cable	2
34	555208100		PULLEY, control cable	2
35	555208300		PIN, pulley	2
36	555204800		SHEAVE WEIGHT	1

Reversing Drum Mixers, models 300R & 400R



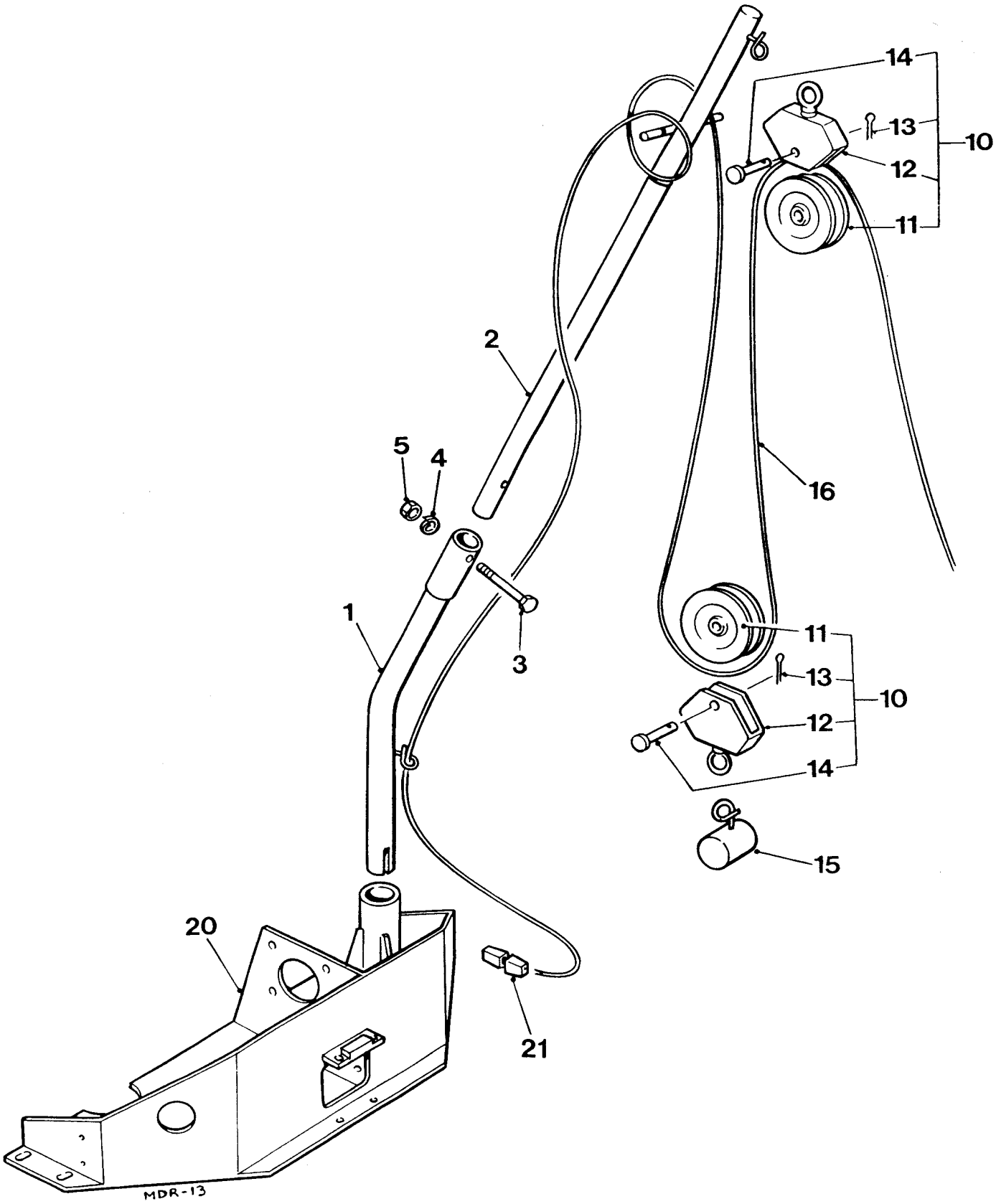
Item	Part no	Serial no	Description	Qty
40	28S05G	/ 0842	SCREW, set	2
41	9S04		NUT	18
42	41S07		WASHER, spring	18
43	207S05C		SCREW, countersunk	1
44	6S05M		BOLT	6
45	28S03D		SCREW, set *(for side cover item 9)*	4
.....	6S03E		BOLT, *(not illustrated)*	1
.....	41S05		WASHER, spring *(not illustrated)*	8
46	9S03		NUT	8
47	6S05K		BOLT	1
48	28S05G		SCREW, set	3
49	11S01A		SCREW, set	2
50	7S01		NUT	2
51	17S02		WASHER, spring	2
52	82S07F		SCREW, round head	1
53	83S07		NUT	1
54	44S03C		PIN, split, *(part of item 32A)*	2
60	.....		SHACKLE, *(see page G-6)*	

Reversing Drum Mixers, models 300R & 400R



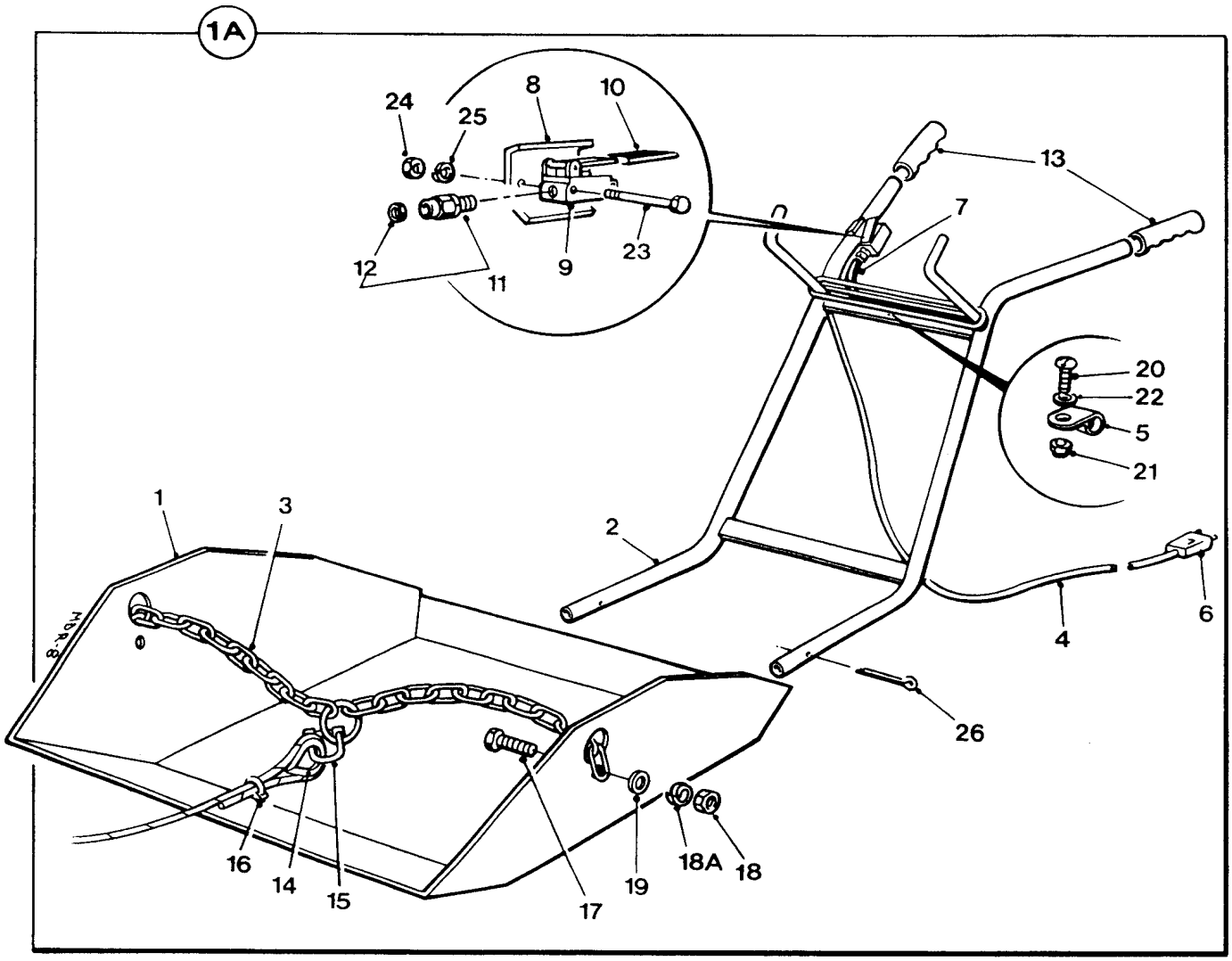
Item	Part no	Serial no	Description	Qty
1	----------	0843/	MOTOR, hydraulic *(See page E-2B)*	1
2	7S05		NUT	4
3	17S06		WASHER, spring	4
5	11S05K		SCREW, set	4
6	513330100		PULLEY	1
7	132204000		CLIP, bulldog	1
8	555266300		WASHER, 'Special'	1
9	----------		WASHER *(Not used)*	
10	41S09		WASHER, spring	1
11	6S06H		SCREW, set	1
12	477502000		ROPE, wire	*1*
15	555287800		COVER, winch drum	*1*
16	7S04		NUT	2
17	17S05		WASHER, spring	2
18	267S06		WASHER, flat	4
19	11S04C		SCREW, set	2
25	555287700		BRACKET, winch	1
26	11S05D		SCREW, set	4
27	267S07		WASHER, flat	8
28	17S06		WASHER, spring	4
29	7S05		NUT	4
30	555287900	/ 1027	ROLLER, not to be fitted with bush	4
30	555287900	1028 /	ROLLER, to be fitted with bush (item 52	4
31	8S05U		BOLT	4
32	61S05		NUT, 'Binx' self-locking	4
35	205304600		SOCKET, electrical, male/female	1
36	83S07		NUT	1
37	82S07F		SCREW, round head	1
40	555253800		CLAMP, socket holder	1
41	11S01A		SCREW, set	2
42	17S02		WASHER, spring	2
43	7S01		NUT	2
50	144734000		CABLE, electrical *(To solenoid valve)*	1
51	----------		CABLE *(To loading shovel. Page G-6)*	1
52	V2005386	1028 /	BUSH, winch cable rollers	8

Reversing Drum Mixers, models 300R & 400R



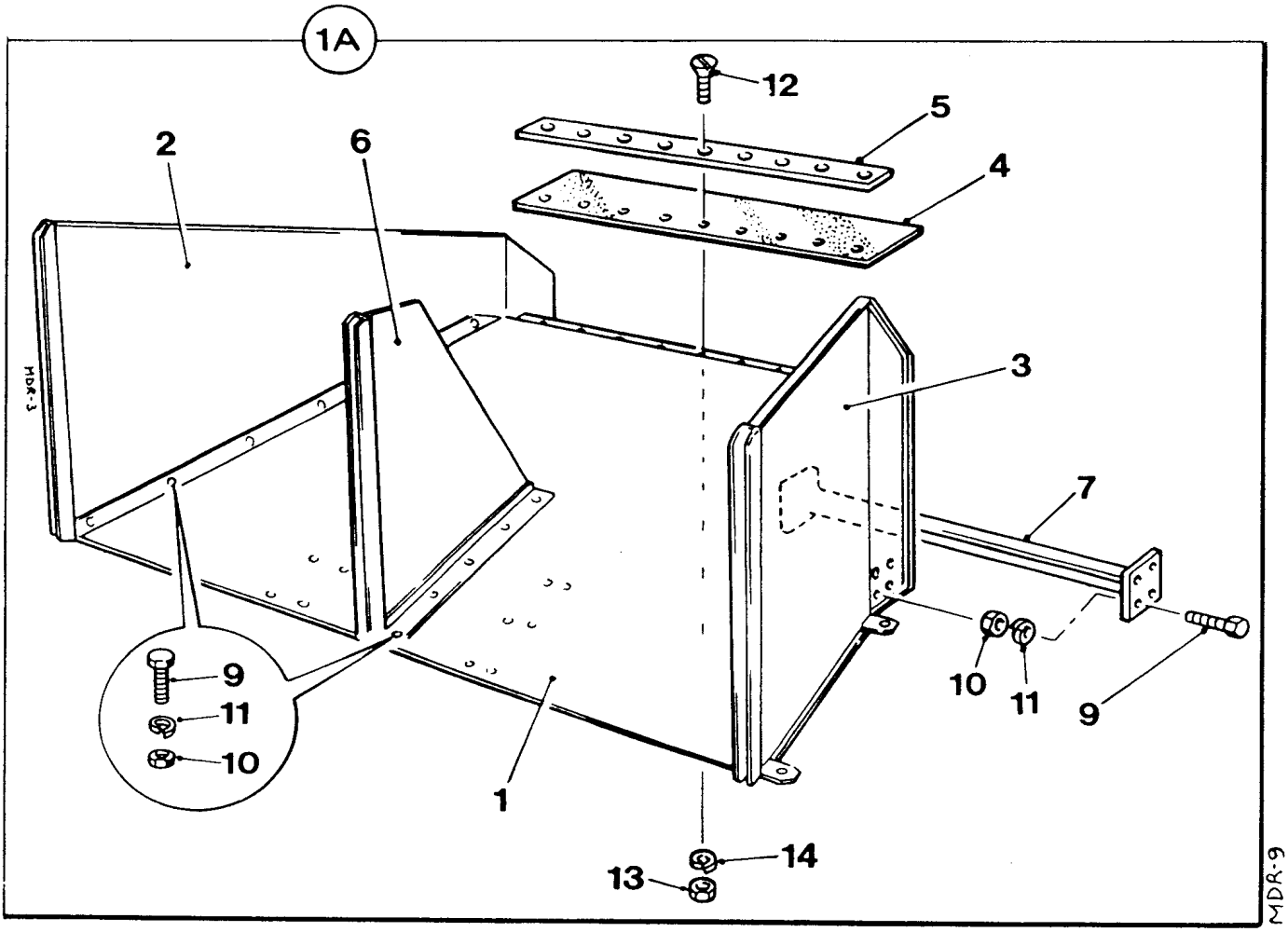
Item	Part no	Serial no	Description	Qty
1	555121500	0843 /	MAST, lower	1
2	515134400		MAST, upper	1
3	8S05L		BOLT	1
4	17S06		WASHER, spring	1
5	7S05		NUT	1
10	555208500		PULLEY, assembly	2
11	555208100		PULLEY	1
12	555208400		BLOCK, pulley	1
13	44S03C		PIN, split	1
14	555208300		PIN pulley	1
15	555204800		WEIGHT	1
16	144734000		CABLE, electrical, *(To loading shovel)*	1
20	----------		BRACKET, winch *(see page G-5A)*	
21	----------		SOCKET, electrical *(see page G-5A)*	

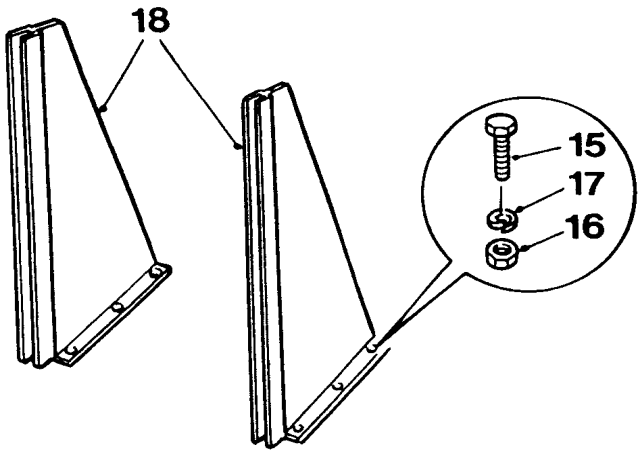
Reversing Drum Mixers, models 300R & 400R



Item	Part no	Serial no	Description	Qty
1A	V601814		LOADING SHOVEL, assembly	1
1	555210400		BODY, shovel	1
2	555209100		HANDLE, shovel	1
3	135905000		RING AND CHAIN	set 1
4	144734000		CABLE, electric	1
5	143200300		CLIP, cable	1
6	205304600		PLUG	1
7	369200000		TUBE, rubber	1
8	555214800		CLAMP, switch	1
9	208561000		SWITCH	1
10	208143000		SLEEVING, black	1
11	250166010		GLAND, cable assembly	1
12	463504000		WASHER, special	1
13	264705000		GRIP, handle	2
14	443105010		THIMBLE	1
15	412606000		D' SHACKLE	1
16	132204000		GRIP, bulldog	1
17	11S05D		SCREW, set	2
18	7S05		NUT	2
18A	17S06		WASHER, spring	2
19	267S07		WASHER, flat	2
20	16S05B		SCREW, slotted pan head	1
21	7S09		NUT	1
22	267S02		WASHER, flat	1
23	8S01H		BOLT	2
24	7S01		NUT	2
25	17S02		WASHER, spring	2
26	44S17K		PIN, split	2

Reversing Drum Mixers, models 300R & 400R





Item	Part no	Serial no	Description	Qty
1A	555196300		LOADING RAMP, assembly	1
1	555196301		PLATE, bottom	1
2	555196302		PLATE, side L.H.	1
3	555196303		PLATE, side R.H.	1
4	394413001		FLAP, rubber	1
5	555196315		STRAP, retaining	1
6	555196307		PARTITION centre, 2 compartments	1
7	555196308		SUPPORT, centre	1
9	28S05E		SCREW, set	30
10	9S04		NUT	30
11	41S07		WASHER, spring	30
12	208S03H		SCREW, countersunk	10
13	104S03		NUT	10
14	41S05		WASHER, spring	10
	Option extra fittings required to install the pair of partitions (item 18) to give three loading compartments			
15	28S05E		SCREW, set	2
16	9S04		NUT	2
17	41S07		WASHER, spring	2
18	555104800		PARTITIONS, 3 compartments	1 pair

MIXERS
300R
400R

Electrics

DYNAMO DRIVE
(up to serial no. 0842) **H - 1**

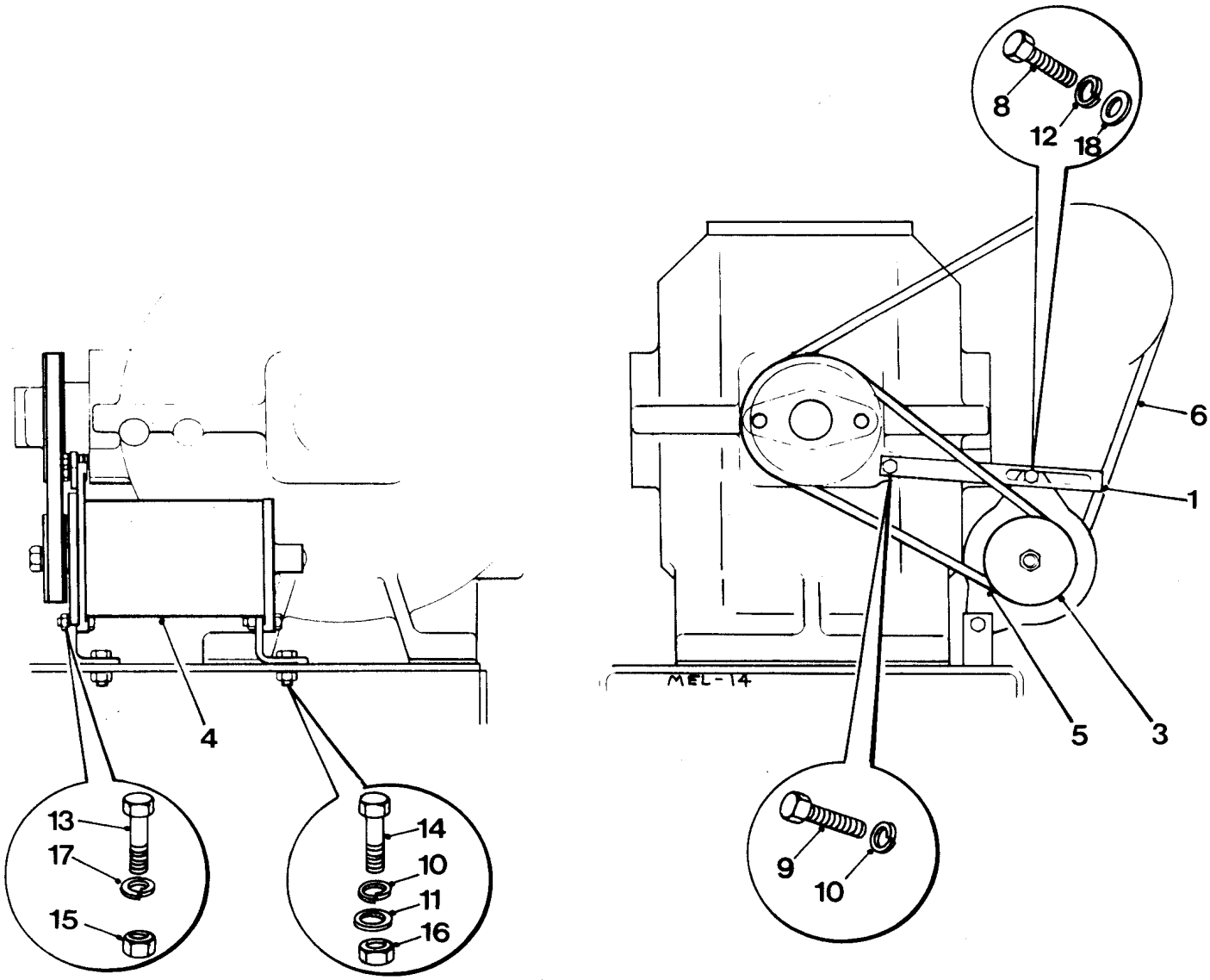
INSTRUMENT PANEL & BATTERY **H - 2**

ELECTRICAL CIRCUIT
(up to serial no. 0842) **H - 2A**

ALTERNATOR CIRCUIT
(from serial no. 0843) **H - 3**

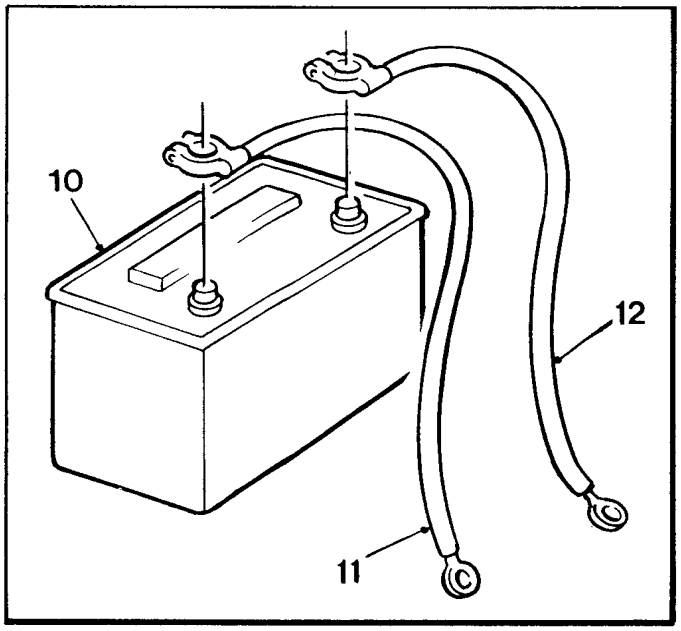
BATTERY TRAY & ALTERNATOR FITTINGS
(from serial no. 0843) **H - 4**

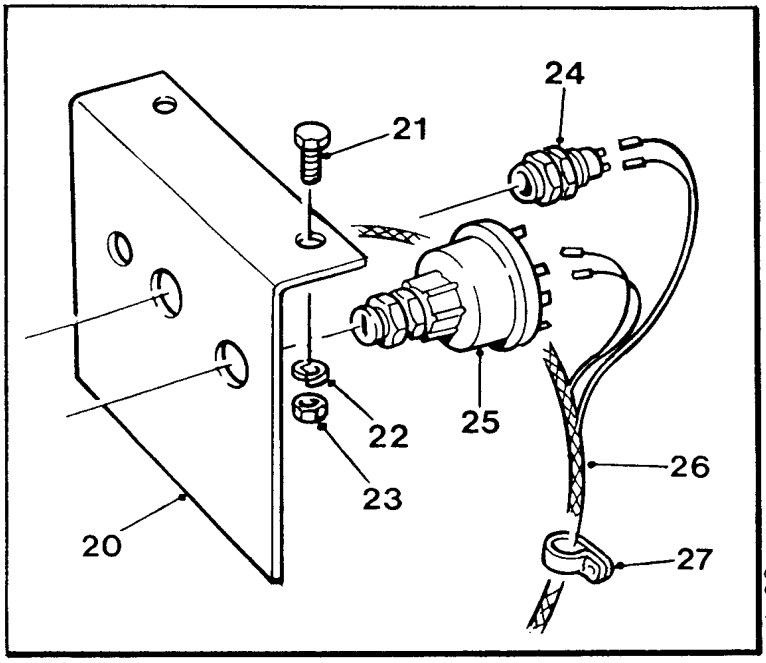
Reversing Drum Mixers, models 300R & 400R

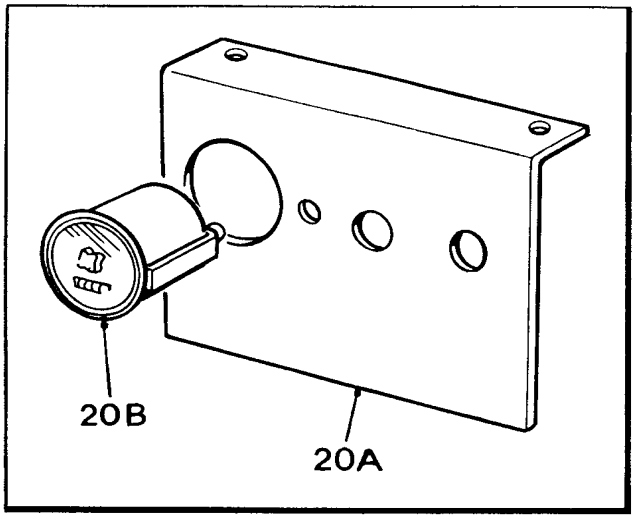


Item	Part no	Serial no	Description	Qty
1	555132300	/ 0842	LUG, dynamo adjusting	1
2	555132400		LUG, dynamo	2
3	555132200		PULLEY, dynamo	1
4	205501000		DYNAMO, 12v	1
.....	205501001		BRUSHES, dynamo	set 1
5	397227000		VEE BELT (dynamo only fitted)	1
6	397242000		VEE BELT (dynamo & compressor fitted)	
8	66S02A		SCREW, set	1
9	66S03A		SCREW, set	1
10	41S05		WASHER, spring	3
11	10S02		WASHER, flat	2
12	41S04		WASHER, spring	1
13	66S02A		BOLT	2
14	28S03E		BOLT	2
15	192S02		NUT	2
16	87S03		NUT, self locking	2
17	41S04		WASHER, spring	2
18	10S02		WASHER, flat	1

Reversing Drum Mixers, models 300R & 400R



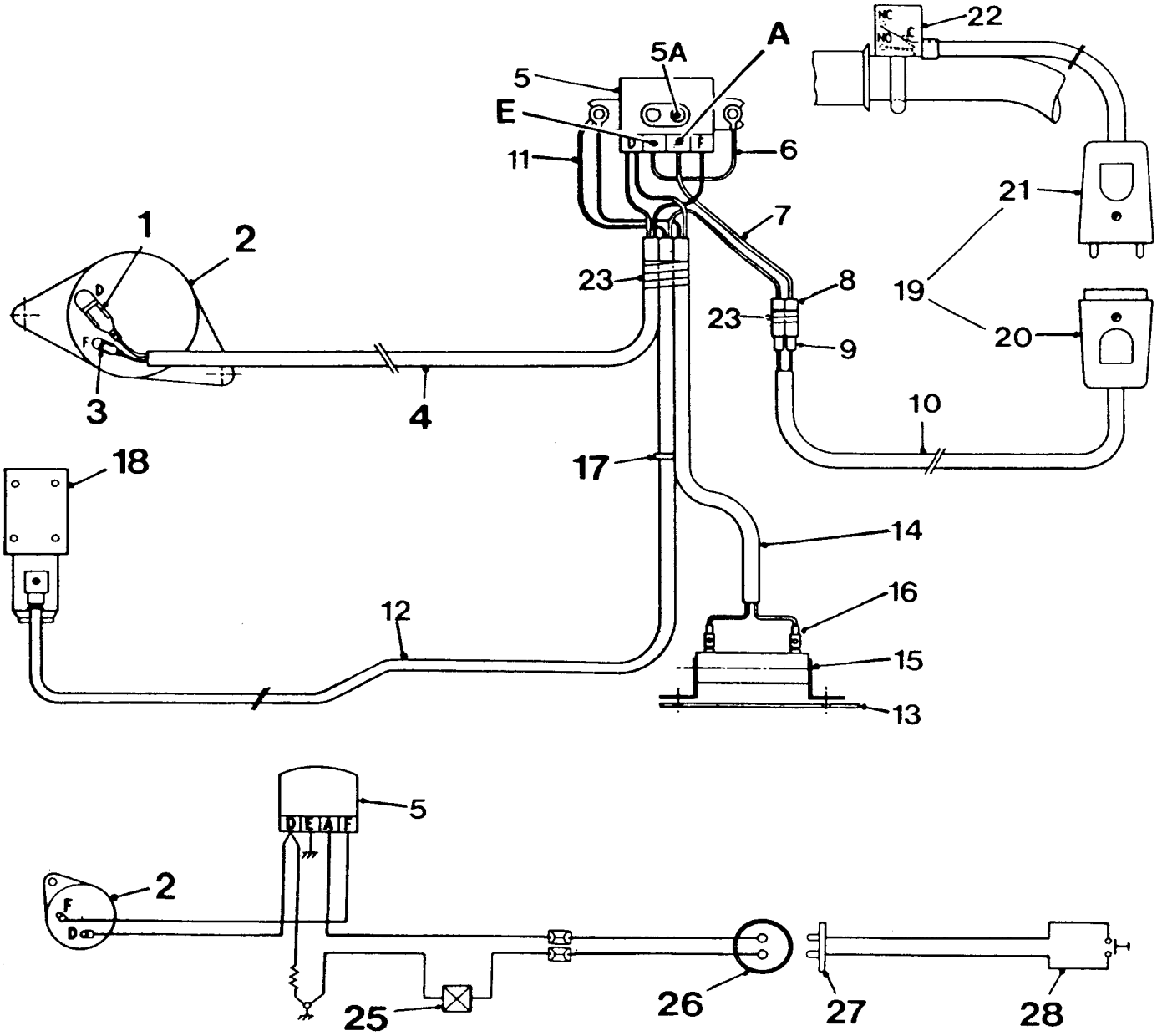




Item	Part no	Serial no	Description	Qty
10	109S08		BATTERY	1
11	10989A06		CABLE, battery, positive	1
12	10990A02		CABLE, battery, negative	1
20	20313A05		PANEL, instruments, (standard)	1
20A	20313A09		PANEL, instruments, (for hour meter)	1
20B	V2003123		METER, hour	1
21	28S03D		SCREW, set	2
22	41S05		WASHER, spring	2
23	9S03		NUT	2
24	V602634		LIGHT, warning	1
25	V2004189		SWITCH, start	1
26	30231A11		LOOM, wiring	1
27	V2003377		CLIP, loom	1

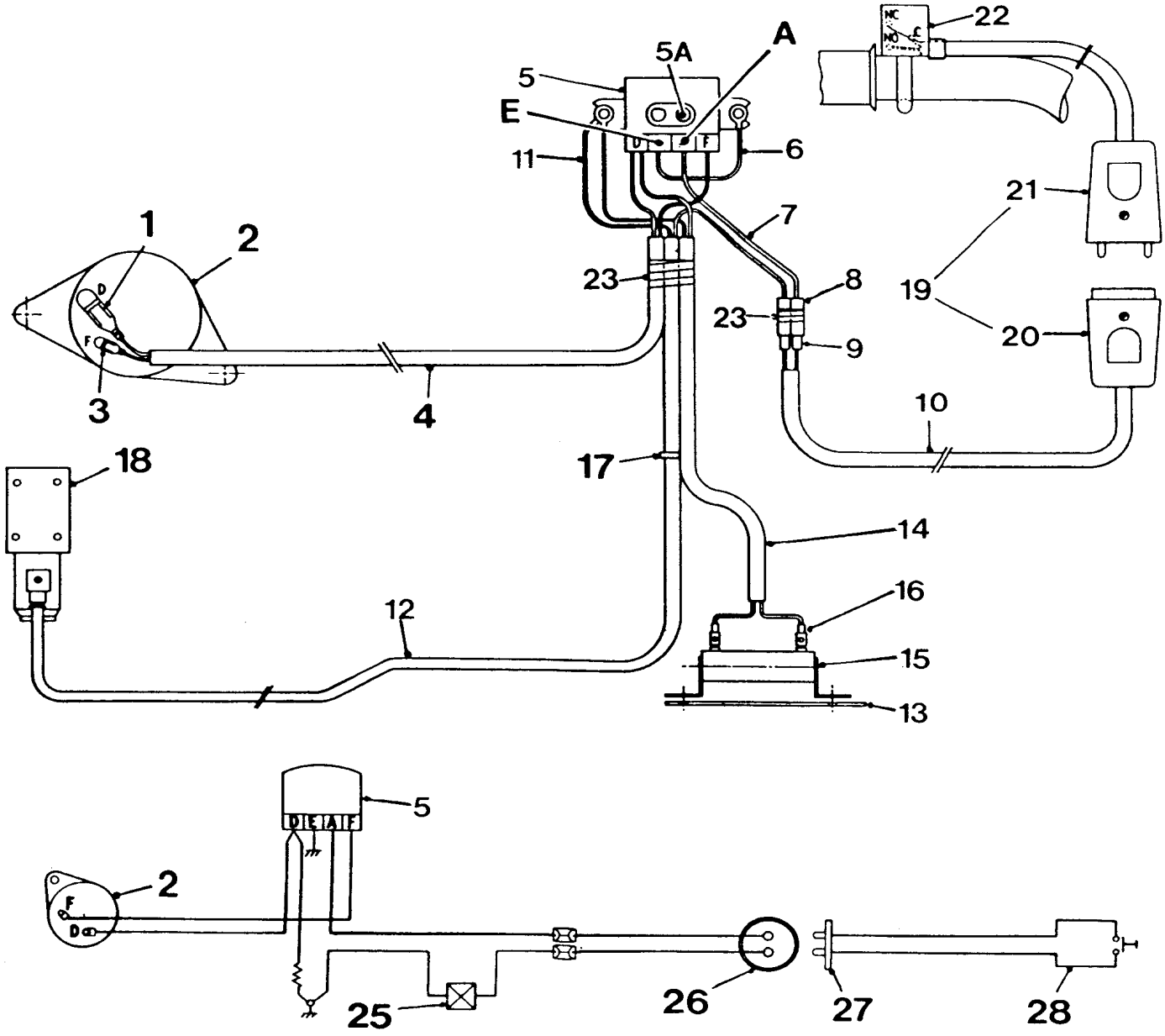
H - 2A

Reversing Drum Mixers, models 300R & 400R



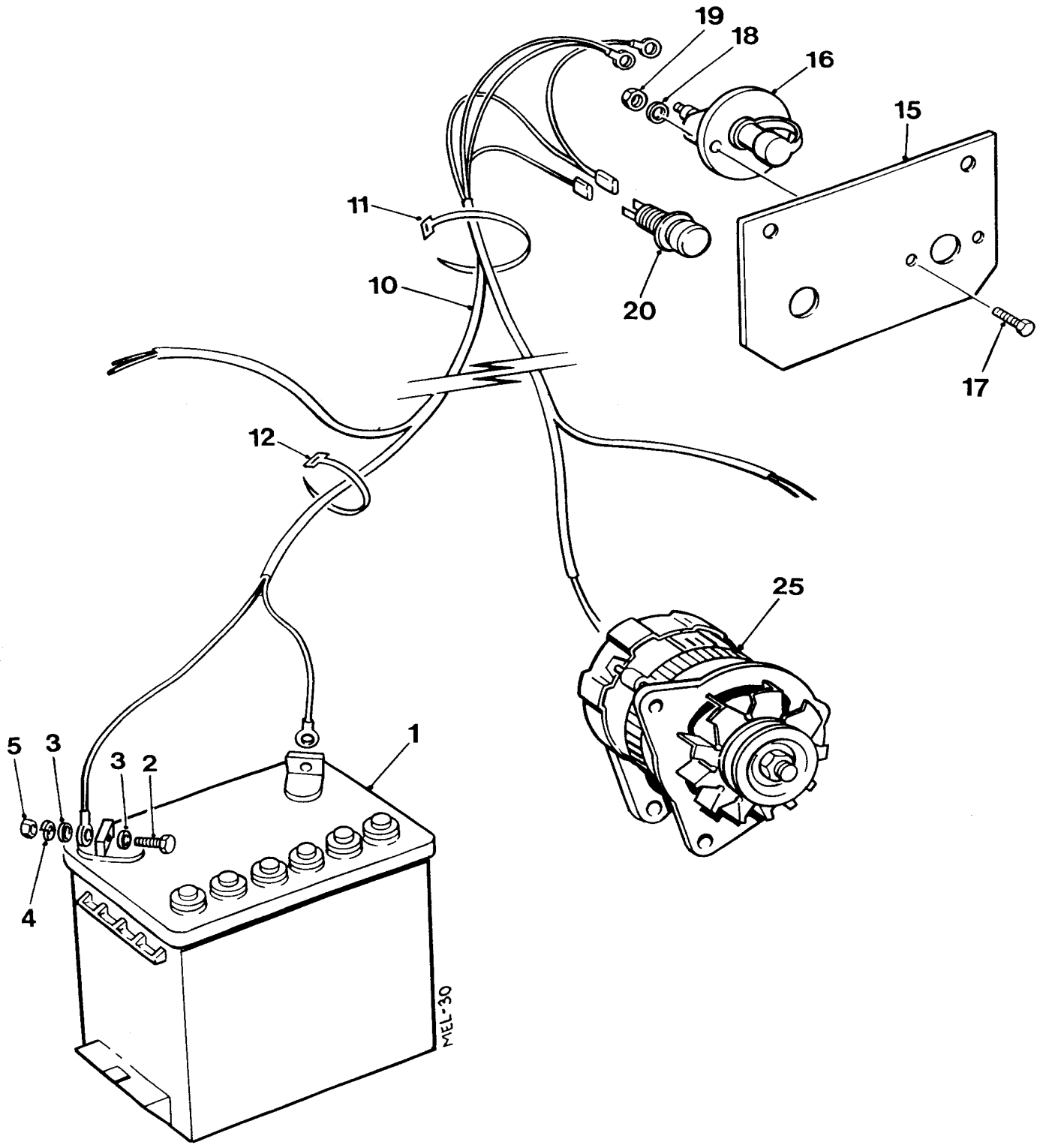
Item	Part no	Serial no	Description	Qty
1	191911000	/ 0842	TERMINAL, with insulator	1
2	205501000		GENERATOR	1
3	191918000		TERMINAL, with insulator	1
.....	555201800		KIT, harness, dragline	1
4	776401		CABLE, twin core, brown & blue *(order by metre)*	2.9m
5	020203000		REGULATOR, assembly	1
5A	.....		SCREW, voltage adjusting *(order assembly)*	1
6	144749000		CABLE, green *(order by metre)*	0.127m
7	144748000		CABLE, red *(order by metre)*	0.127m
8	V2003173		CONNECTOR	2
9	.....		NIPPLES	2
10	776401		CABLE, twin core, brown & blue *(order by meter)*	2.13m
11	.....		CABLE, blue *(order by metre)*	
12	776401		CABLE, twin core, brown & blue *(order by metre)*	1.5m
13	555213700		BOARD, insulating	1
14	776401		CABLE, twin core, brown & blue *(order by metre)*	3.5m
15	207652000		RESISTOR	1
16	.....		CONNECTOR	2
17	143200900		CLIP, cable	AR
18	211158000		VALVE, solenoid	1
19	205304600		PLUG, assembly, to shovel unit	1
20	.....		SOCKET *(order assembly)*	1
21	.....		PLUG *(order assembly)*	1
22	.....		CONTROL, shovel unit (see page G-6)	1
23	.....		TAPE, insulation	AR
25	211158000		VALVE, solenoid, dragline	1
26	.....		SOCKET, dragline	1
27	205304600		PLUG, dragline	1
28	208561000		BUTTON, dragline operation	1

H - 2A Reversing Drum Mixers, models 300R & 400R



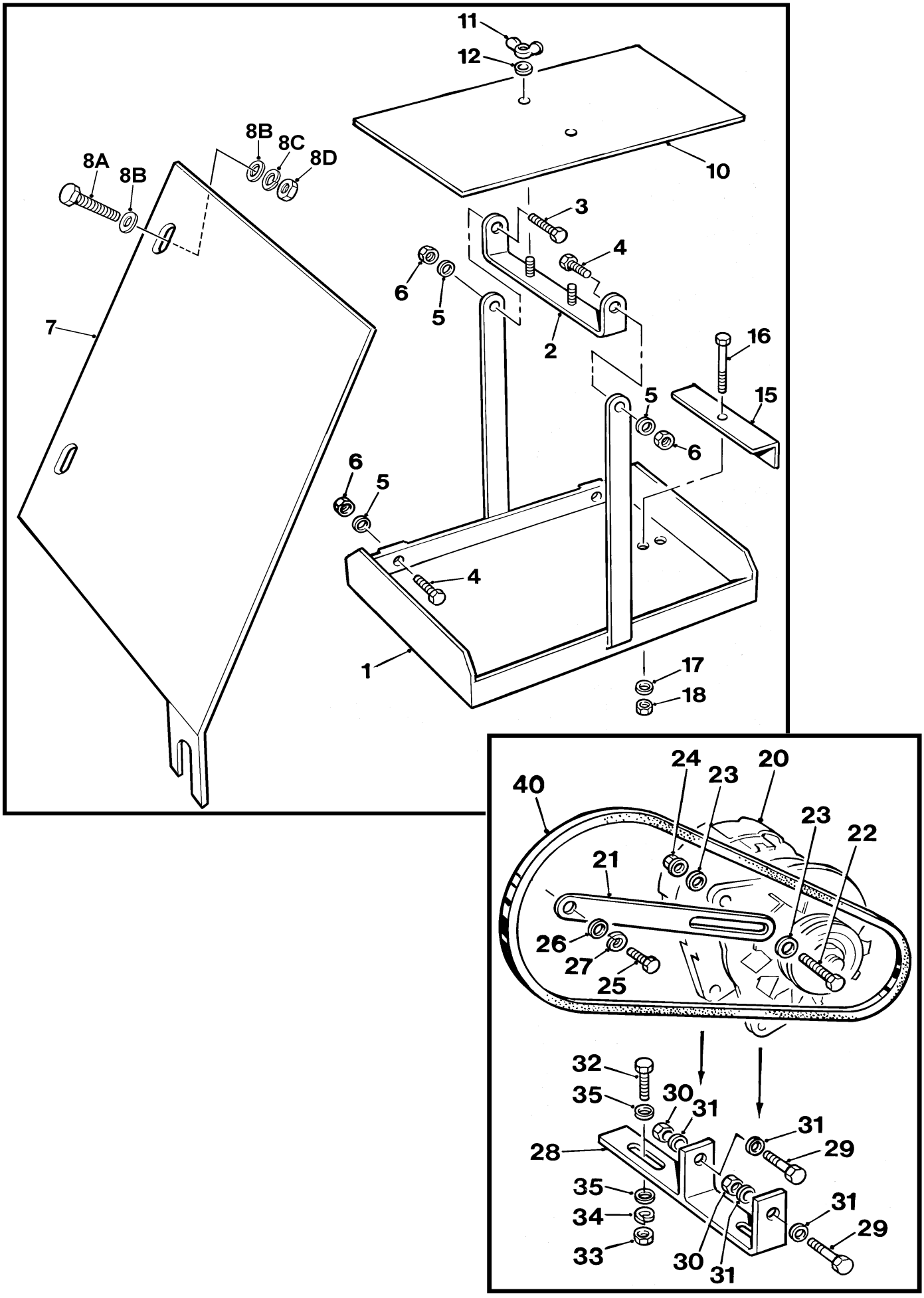
Item	Part no	Serial no	Description	Qty
	Fixings for regulator *(item 5)*			
.....	66S01C		SCREW, set	2
.....	41S03		WASHER, spring	2
.....	104S01		NUT	2
	Fixings for resistor *(item 15)* and insulating board *(item 13)*			
.....	11S01A		SCREW, set	2
.....	17S02		WASHER, spring	2
.....	267S03		WASHER, flat	2
.....	7S01		NUT	2
	Fixings for dragline solenoid valve *(item 25)*			
.....	66S01B		SCREW, set, to chassis	4
.....	41S03		WASHER, spring	4

Reversing Drum Mixers, models 300R & 400R



Item	Part no	Serial no	Description	Qty
1	109S10	0843 /	BATTERY	1
2	11S02B		SCREW, set	2
3	267S04		WASHER, flat	4
4	17S03		WASHER,spring	2
5	7S02		NUT	2
10	555288400		LOOM	1
11	V2003253		CABLE TIE	6
12	V2003111		CABLE TIE	6
15	555288100		PANEL	1
16	V2004794		SWITCH, battery isolator	1
17	11S02B		SCREW, set	2
18	267S04		WASHER, flat	2
19	61S02		NUT, self-locking ‘Binx’	2
20	V2000326		LIGHT, warning	1
25	V2004793		ALTERNATOR, assembly	1
--	V602713		PULLEY	1
--	V602715		FAN	1
--	V603595		BRUSHES SET	1

Reversing Drum Mixers, models 300R & 400R



Item	Part no	Serial no	Description	Qty
1	30080A03	0843 /	TRAY, battery	1
2	30080A0303		BAR, battery retaining	1
3	11S04E		SCREW, set	3
4	11S04C		SCREW, set	1
5	267S06		WASHER, set	4
6	61S04		NUT, self-locking, Binx	4
7	555290500	1010 /	GUARD, battery	1
8A	11S03C	1010 /	SCREW, set	2
8B	267S05	1010 /	WASHER,flat	4
8C	17S04	1010 /	WASHER, spring	2
8D	7S03	1010 /	NUT	2
10	10742A05		COVER, battery	1
11	177S03		NUT, wing	2
12	267S04		WASHER, flat	2
15	555288200		CLAMP, battery	2
16	8S02F		BOLT	2
17	267S04		WASHER, flat	4
18	61S02		NUT, self-locking, ‘Binx’	2
20	--------		ALTERNATOR *(See page H - 3)*	1
21	513347400		ADJUSTER, alternator	1
22	11S03C		SCREW, set	1
23	267S05		WASHER, flat	2
24	61S03		NUT, self-locking, ‘Binx’	1
25	66S03A		SCREW, set	1
26	10S03		WASHER, flat	1
27	41S05		WASHER, spring	1
28	555288300		BRACKET, alternator	1
29	8S03C		BOLT	2
30	61S03		NUT, self-locking, ‘Binx’	2
31	267S05		WASHER, flat	4
32	11S04C		SCREW, set	2
33	7S04		NUT	2
34	17S05		WASHER, spring	2
35	267S06		WASHER, flat	4
40	397227000		VEE BELT	1

MIXERS
300R
400R

Hoist & Miscellaneous

AERATION EQUIPMENT, for machines with cement batcher J - 1

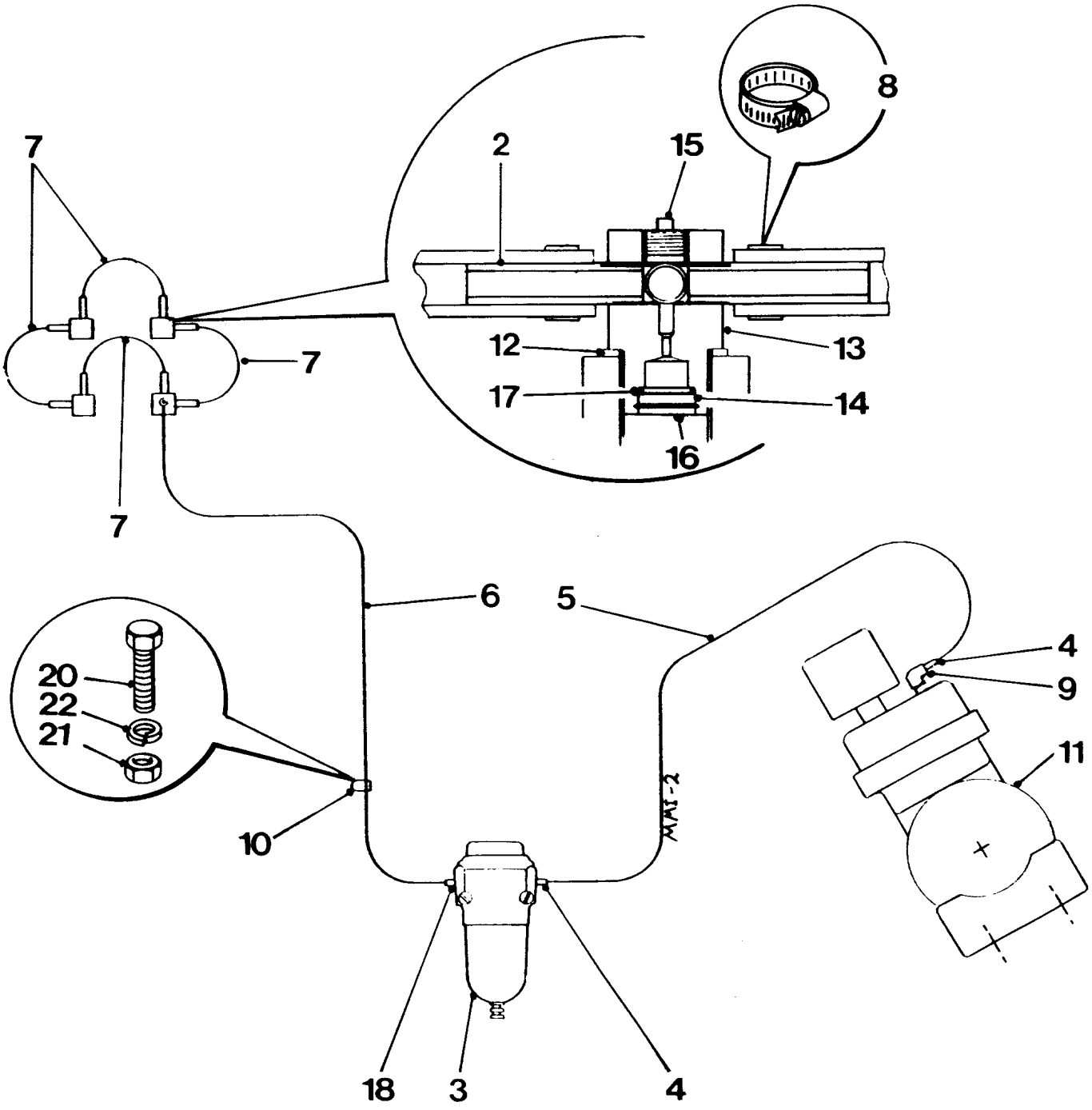
PORTASILO J - 2

HOIST WINCH J - 3

HOIST CONTROLS J - 4

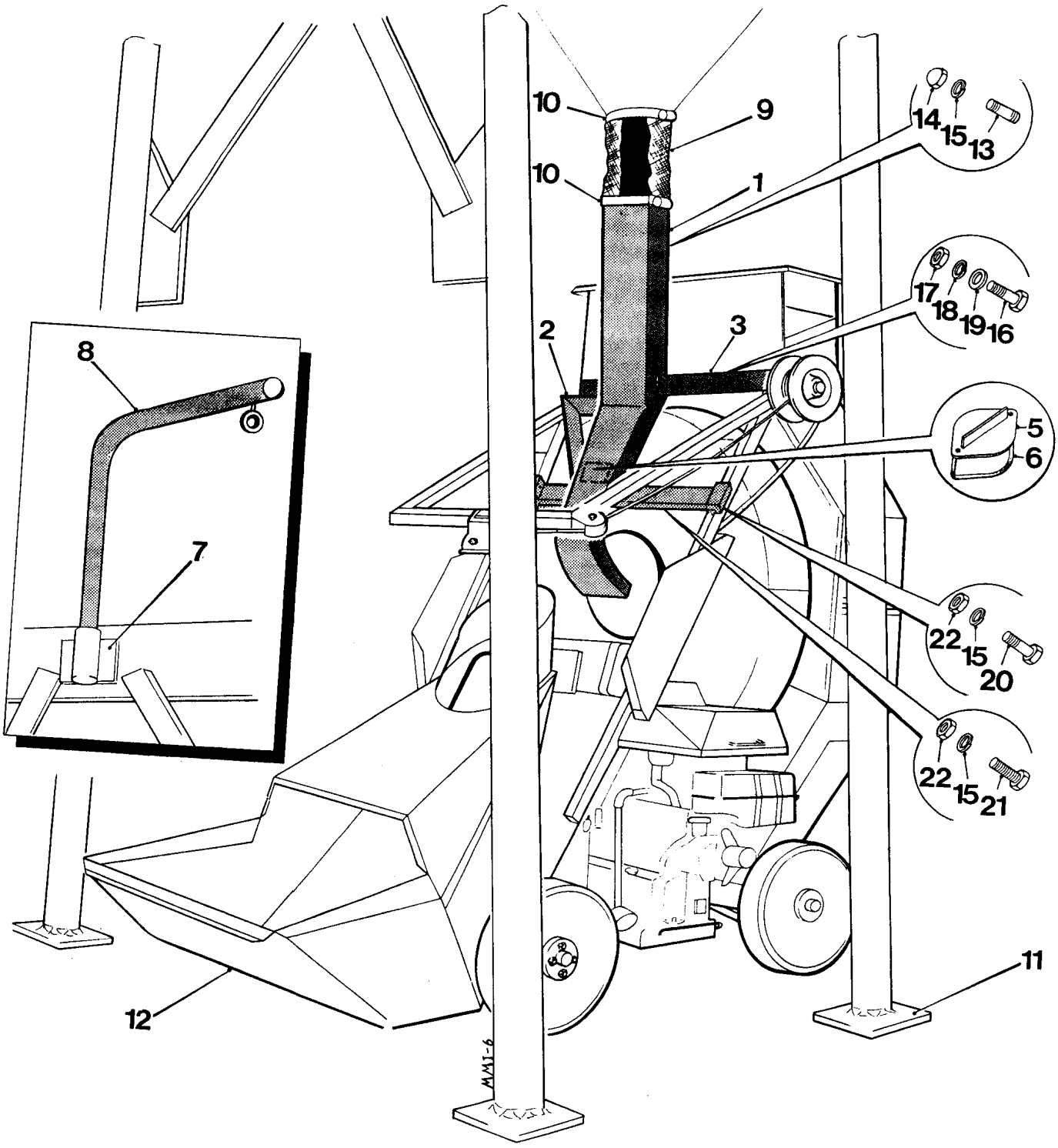
HOIST INTERMEDIATE CHAINWHEEL & IDLER BRACKET J - 5

Reversing Drum Mixers, models 300R & 400R



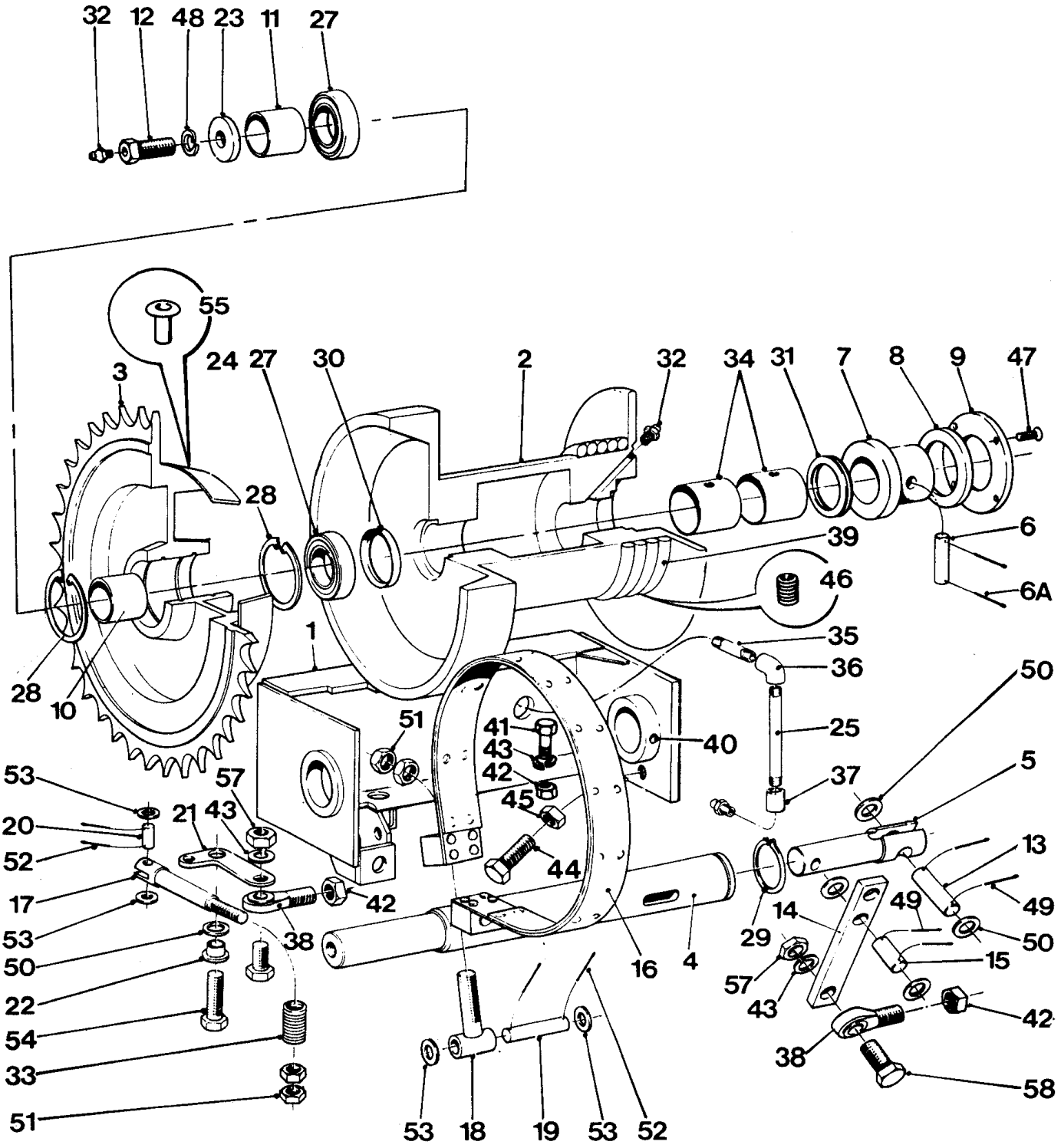
Item	Part no	Date	Description	Qty
.....	504796500	/ 84	NOZZLE, aeration	4
2	500960300		TUBE, nozzle connection	10
3	220210200		FILTER, air	1
4	130304600		ADAPTOR, hose	3
5	110958020		TUBE, compressor to filter, 120mm	1
6	110958020		TUBE, filter to aeration nozzle 3700mm long	1
7	110958020		TUBE, aerator nozzle, 250mm	4
8	132110000		CLIP, jubilee	12
9	241102000		FITTING,elbow,female, equal	1
10	143269000		CLIP, cable	1
11	.....		COMPRESSOR, *(see page C-3)*	1
12	446319000		WASHER, aluminium	4
13	504796400		BODY, aeration nozzle	4
14	500315700		PLUG, sintered	4
15	241701000		PLUG	11
16	142341000		CIRCLIP	4
17	391105000		SEAL, 'O' ring	4
18	240702000		FITTING,elbow, equal,male/female	1
20	405604020		SCREW	1
21	7S02		NUT	1
22	464354000		WASHER, spring	1

Reversing Drum Mixers, models 300R & 400R



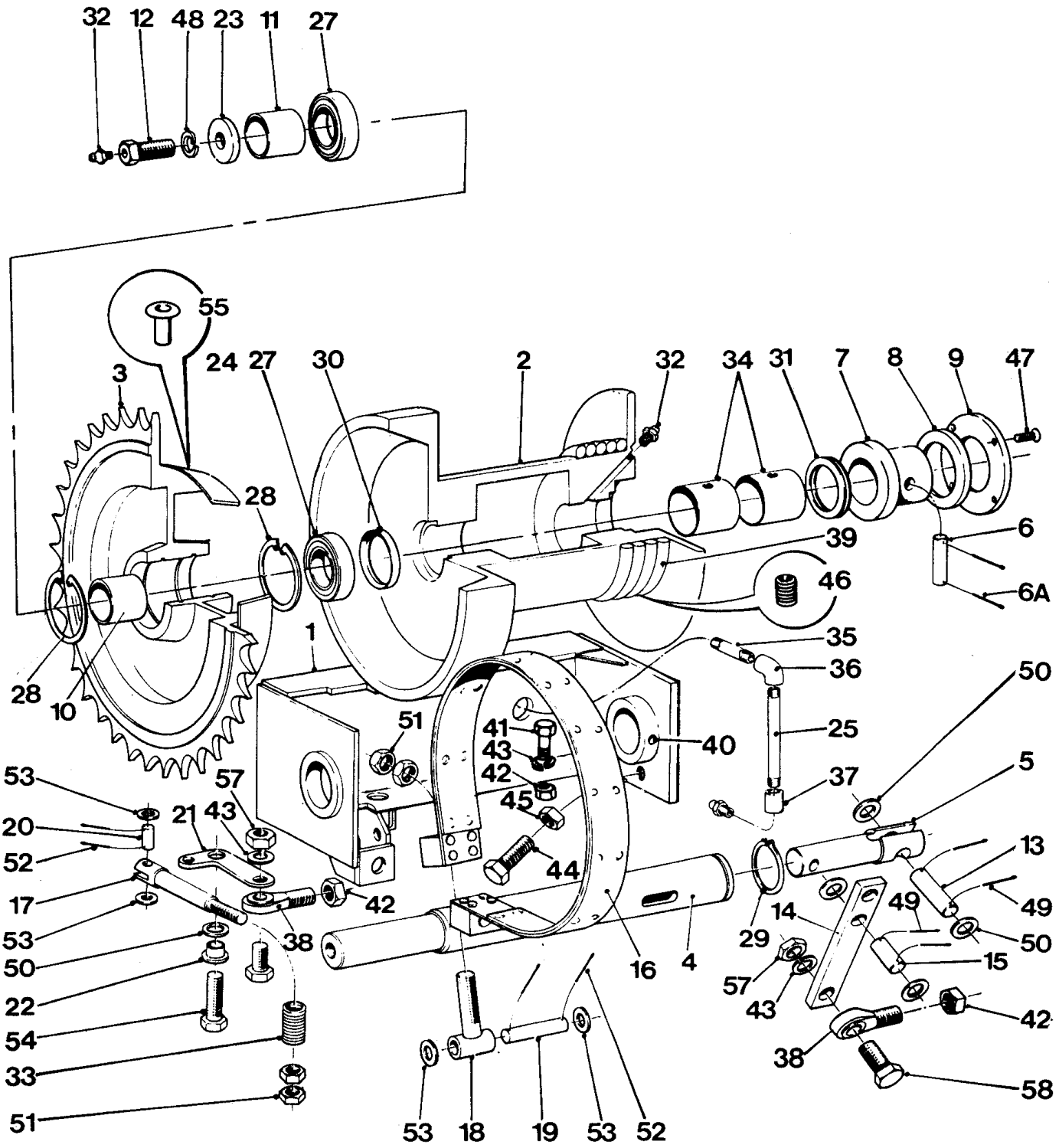
Item	Part no	Date	Description	Qty
1	555174000	/ 84	CHUTE, cement	1
2	555174200		PIPE, water discharge	1
3	555174400		SUPPORT, cement chute, upper	1
4	555174500		SUPPORT, cement chute, lower	1
5	515204300		PLATE, cover	1
6	254911000		GASKET, rubber	1
7	504425700		BRACKET, cable support	1
8	504425900		SUPPORT, cable	1
9	515204900		SOCK, silo batcher	2
10	132130000		CLIP	2
12	555174300		HOPPER	1

Reversing Drum Mixers, models 300R & 400R



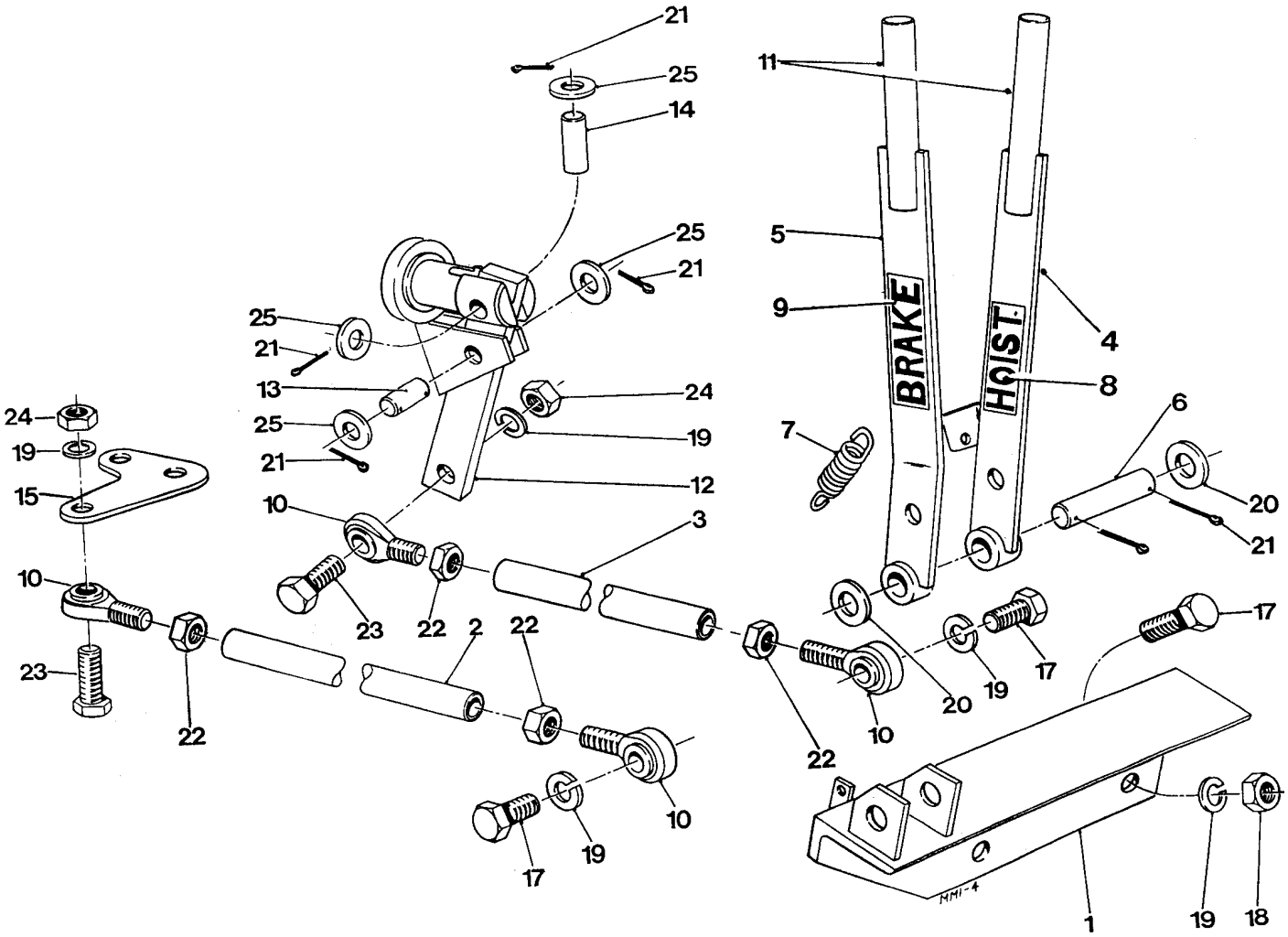
Item	Part no	Date	Description	Qty
1	555215800	/ June-86	BRACKET, winch	**1**
2	513232700		DRUM, winding	1
3	513232800		CHAINWHEEL & CLUTCH CONE	1
4	513232900		MAINSHAFT	1
5	513233300		SHAFT , operating	1
6	513235300		PIN, operating	1
6A	353323200		PIN, split	1
7	513234000		COLLAR, thrust	1
8	513235400		PAD, thrust	1
9	513234100		PLATE, thrust	1
10	513233900		SPACER, bearing	1
11	513233800		BUSH, locating	1
12	512233600		SCREW, special	1
13	513234700		PIN, operating shaft	1
14	513233200		LEVER, clutch	1
15	513234800		PIN, clutch lever	1
16	555216100		BAND, brake	1
17	555216300		ROD, brake operating	1
18	513241900		ADJUSTER, brake	1
19	513234900		PIN, brake fixing	1
20	513235100		PIN, fork end	1
21	555216000		LEVER, brake release	1
22	513234500		DISTANCE PIECE	1
23	513233700		WASHER, retaining	1
24	515101000		LINING, clutch	1
25	555215900		PIPE, grease	1
27	88S18		BEARING, ball	2
28	142319000		CIRCLIP	2
29	142329000		CIRCLIP	1
30	417184000		SEAL, oil	1
31	113164000		CAGE, thrust, needle bearing	1
32	131S01		NIPPLE, grease	2
33	420427000		SPRING, disc	24
34	112802900		BUSH, locating	2
35	245301000		NIPPLE,barrel	1
36	241101000		ELBOW, female	1
37	241901000		SOCKET	1

Reversing Drum Mixers, models 300R & 400R



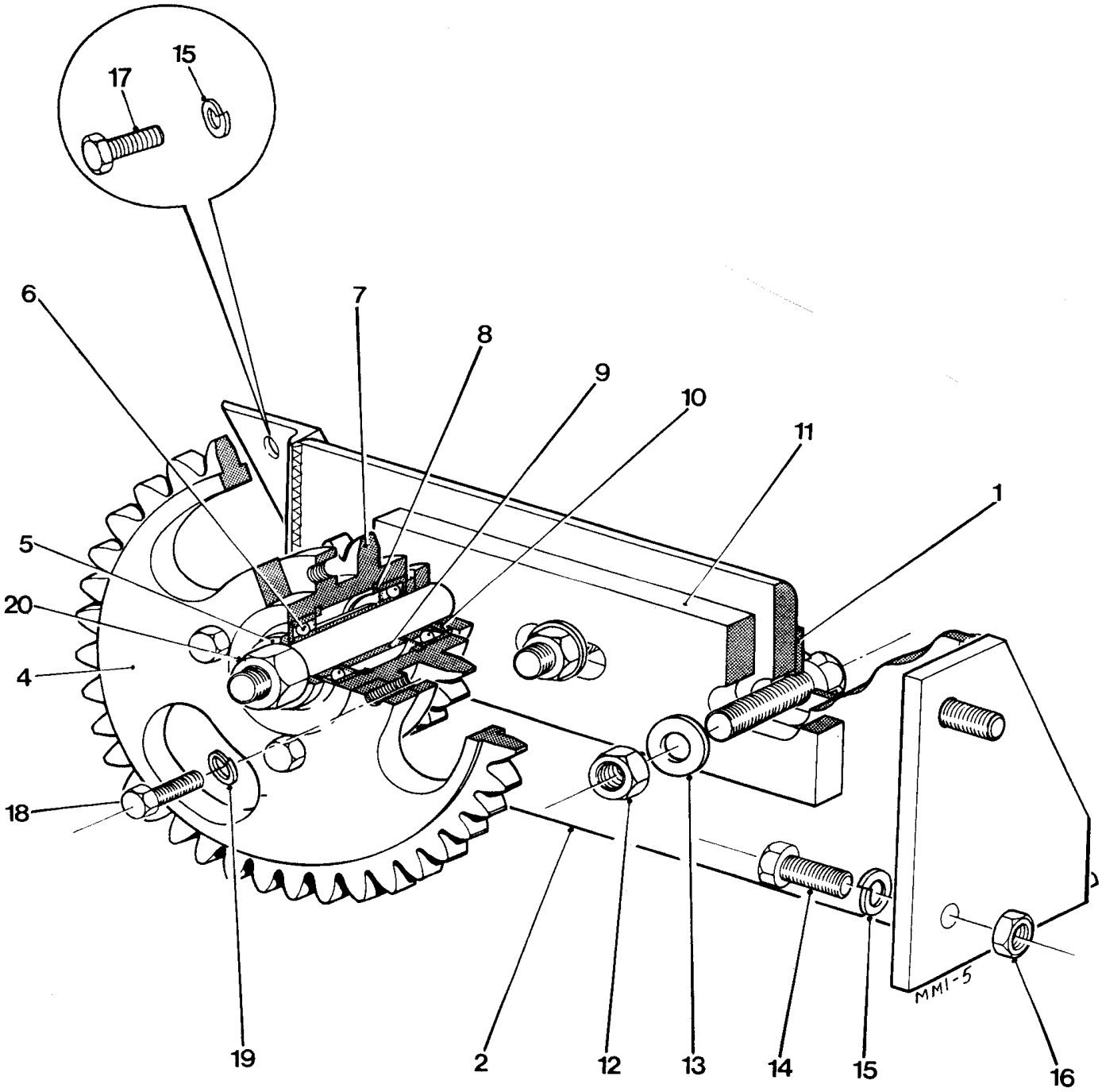
Item	Part no	Serial no	Description	Qty
38	383251000		END, rod	2
39	447559000		ROPE, wir***e***	1
40	57S06E		SCREW, set	1
41	8S05H		BOLT	4
42	7S05		NUT	6
43	17S06		WASHER, spring	6
44	11S04K		SCREW, set	1
45	56S04		NUT, locking	1
46	57S05E2		SCREW, set, socket head	2
47	52S02C		SCREW, socket head,countersunk	4
48	17S08		WASHER, spring	1
49	353324025		PIN, split	4
50	267S09		WASHER, flat	5
51	56S05		NUT, locking	4
52	353323220		PIN, split	4
53	267S07		WASHER, flat	4
54	11S05E		SCREW, set	1
55	380205120		RIVET	10
56	380210500		RIVET	10
57	203S05		NUT, locking	2
58	8S05E		BOLT	2

Reversing Drum Mixers, models 300R & 400R



Item	Part no	Date	Description	Qty
1	555217700	/ June-86	BRACKET, control lever	1
2	555218500		ROD, brake	1
3	555218600		ROD, clutch	1
4	555218000		LEVER, hoist control	1
5	555217900		LEVER, brake control	1
6	555217800		PIN, hand lever	1
7	555234000		SPRING, clutch lever	1
8	513251600		DECAL, "hoist"	1
9	513251700		DECAL, "brake"	1
10	383251000		ROD END	4
11	264708000		HANDGRIP	2
12	513233200		LEVER, clutch	1
13	513234800		PIN, clutch lever	1
14	513234700		PIN, operating shaft	1
15	555216000		LEVER, brake release	1
17	11S05D		SCREW, set	6
18	7S05		NUT	4
19	17S06		WASHER, spring	8
20	267S06		WASHER, flat	2
21	353324025		PIN, split	6
22	203S05		NUT, locking	4
23	8S05E		BOLT	2
24	7S05		NUT	2
25	12S26		WASHER, flat	4

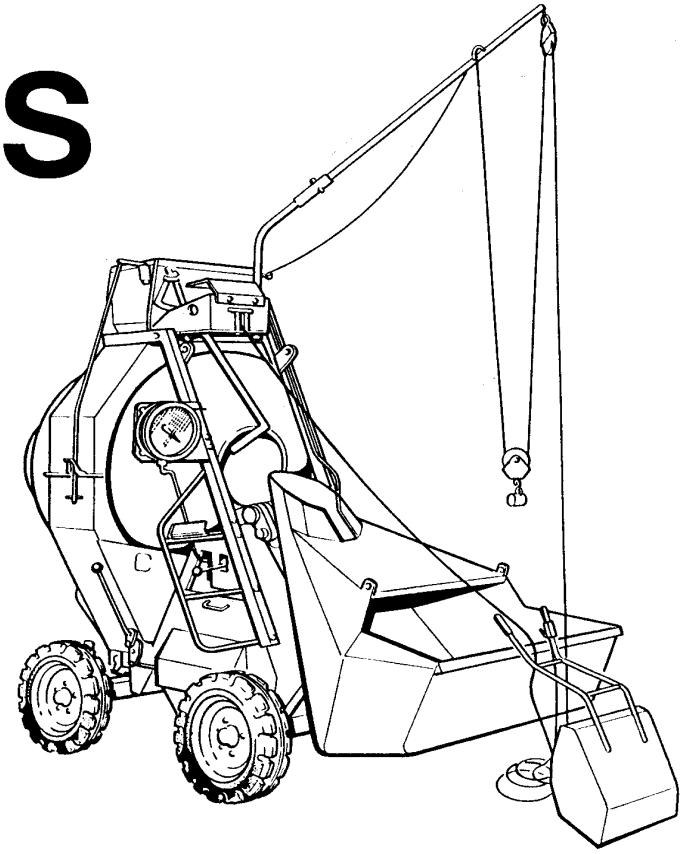
Reversing Drum Mixers, models 300R & 400R

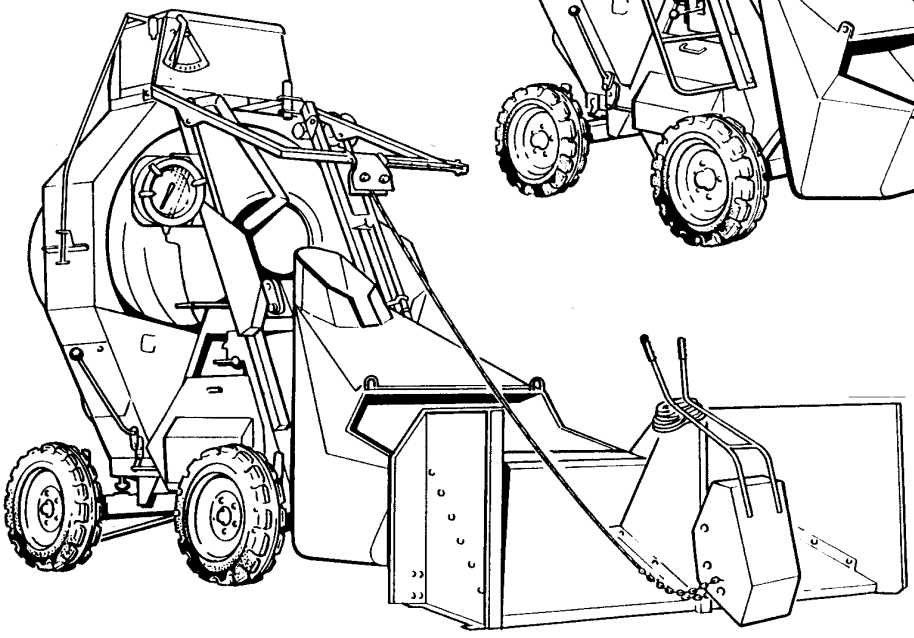


HOIST INTERMEDIATE CHAINWHEEL & IDLER BRACKET J - 5

Item	Part no	Date	Description	Qty
1	555216700	/ June-86	PLATE, clamp	1
2	555246900		BRACKET, hoist steady	1
4	555217000		CHAINWHEEL, intermediate	1
5	555107200		WASHER, output flange retaining	1
6	88S15D		BEARING, ball	2
7	555217100		SPROCKET, hoist	1
8	142322000		CIRCLIP	2
9	555216200		SPACER	1
10	555216800		PACKER, idler shaft	1
11	555216600		IDLER SHAFT & BRACKET	1
12	61S06		NUT, self locking	2
13	267S09		WASHER, flat	2
14	11S05E		SCREW, set	2
15	17S06		WASHER, spring	4
16	7S05		NUT	2
17	11S05D		SCREW, set	2
18	11S04C		SCREW, set	4
19	17S05		WASHER, spring	4
20	61S06		NUT, self locking	1

MIXERS
300R
400R





Decals & plates

DECALS & PLATES K - 1 to K - 3

K - 1 Reversing Drum Mixer, models 300R & 400R

1 **300 R**

2 **400 R**

4 **WINGET**

5

6

SAFETY WARNING

1 Before starting this machine, the operator should be familiar with the operating instructions issued by the manufacturer.

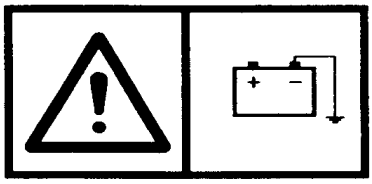
2 The manufacturer's rated capacity must never be exceeded.

3 Before carrying out any maintenance, servicing, or greasing, always ensure that the engine has been switched off. Never work on a machine while it is running.

7

DANGER

KEEP ENGINE HOUSING LID CLOSED WHEN ENGINE IS RUNNING

8 

9

- WATER SYPHON TANK -

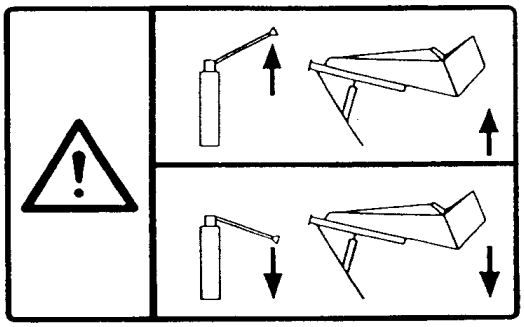
SET POINTER ON TANK TO AMOUNT OF WATER REQUIRED – LOCK IN POSITION.

TO DISCHARGE:– PULL LEVER SHARTLY DOWN AND HOLD IN POSITION UNTIL WATER HAS STOPPED FLOWING, THEN RETURN LEVER TO UPPER POSITION.

10

DANGER

DO NOT WALK, STAND OR LEAN UNDER RAISED HOPPER UNLESS IT IS SECURELY CHAINED

11 

11A

HOPPER CONTROL

TO LOWER HOPPER:- PULL CONTROL LEVER UPWARDS

TO RAISE HOPPER:- PUSH CONTROL LEVER DOWNWARDS

RELEASING THE LEVER WILL HALT THE HOPPER WHEN IT IS MOVING UP OR DOWN.

DO NOT HOLD CONTROL IN 'RAISE' POSITION WHEN HOPPER IS FULLY UP.

12

- DRUM CONTROLS -

DISCHARGE – NEUTRAL – CHARGE

NEVER SET LEVER IN 'NEUTRAL' WHILE THE DRUM HAS ANY MATERIALS IN IT.

TO DISCHARGE CONTENTS OF DRUM, MOVE LEVER S-M-O-O-T-H-L-Y FROM 'CHARGE' TO 'DISCHARGE'

13

14

15

WARNING

DO NOT TAMPER WITH THE PIPE CONNECTION ON THE LOAD CELL OR GAUGE.
THIS IS A SEALED CIRCUIT AND MUST NOT BE INTERFERED WITH.

16

WINGET WINGET LIMITED

Model

Serial No.

Engine No.

Capacity | Mass (kg)

SRO No. | Power (kW)

Year Of Manuf. | Eng. (rpm) | Drum (rpm)

A Sheldon Group Company

Item	Part no	Serial no	Description	Qty
			Decal kits contain all decals required for one machine	
.....	V601241		KIT, decals, **300R**	
.....	V601239		KIT, decals, **400R**	
1	V2003125		"300R"	2
2	V2003126		"400R"	2
4	V2003039		WINGET, logo	3
5	V2003038		STRIPE, vinyl, 2 colour	4
6	504694600		SAFETY WARNING	2
7	504600900		ENGINE HOUSING	2
8	V2004235		NEGATIVE EARTH	1
9	555153500		WATER TANK	1
10	555184900		SECURELY CHAINED HOPPER	2
11	V2004259		HOPPER CONTROL	1
11A	555283500		HOPPER CONTROL	1
12	555153700		DRUM CONTROL	1
13	V2003101		DIESEL FUEL	1
14	V2003100		HYDRAULIC OIL	1
15	515175000		LOAD CELL, (plate)	1
16	V2003037		SERIAL PLATE	1

1

2

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4

50 p.s.i.

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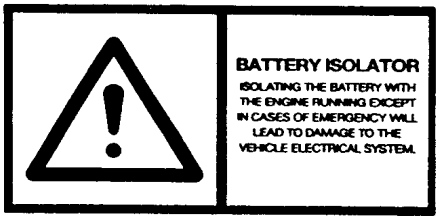

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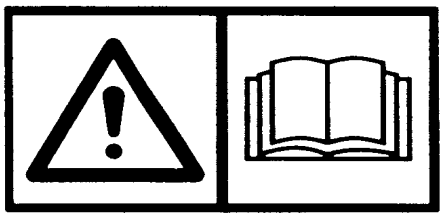

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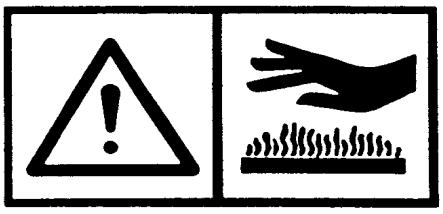

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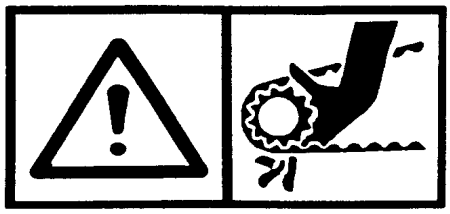

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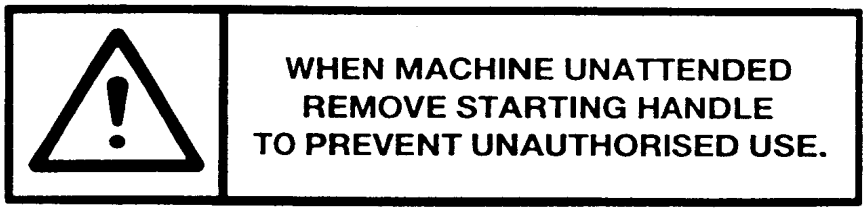

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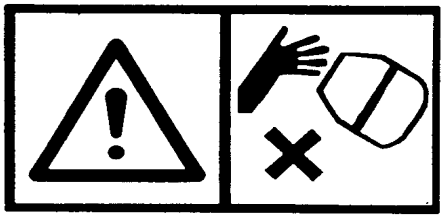

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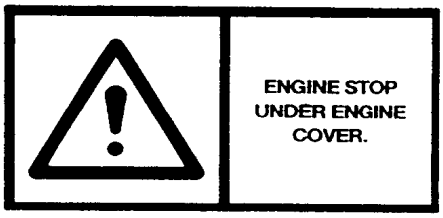

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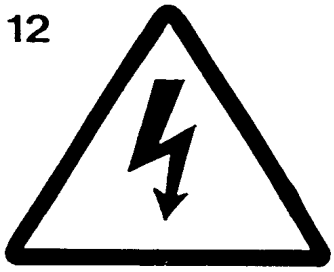

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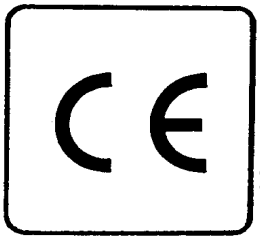

Item	Part no	Serial no	Description	Qty
1	V2004137		EAR PROTECTION	1
2	V2003665		SLING POINT	2
3	V2003598		”BRITISH MADE“	1
4	10166A02		TYRE PRESURE	4
5	V2004227		BATTERY ISOLATOR	1
6	V2004229		OPERATORS HANDBOOK	1
7	V2004282		HOT SURFACE	1
8	V2004281		ENTRAPMENT	1
9	V2004288		STARTING HANDLE	1
10	V2004289		HANDS CLEAR	2
11	V2004302		ENGINE STOP	1
12	V2004307		ELECTRICAL HAZARD	3
13	V2004223		”CE” MARK	1

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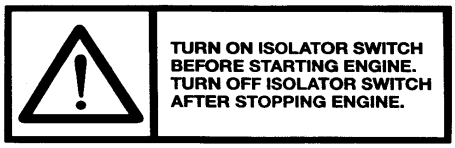

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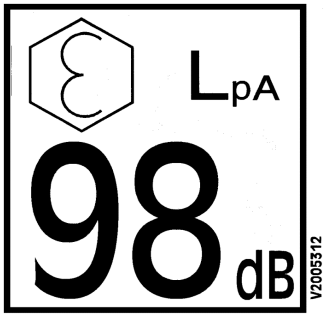

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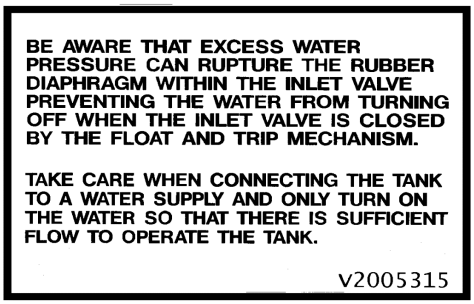

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10

Item	Part no	Serial no	Description	Qty
1	V2004796		ALTERNATOR	1
2	V2004744		EYE PROTECTION	2
3	V2004795		ISOLATOR SWITCH	1
4	V2005122		OIL LEVEL	1
5	V2005312		NOISE LEVEL, 98 LpA	1
6	V2005319		NOISE LEVEL, 115 LWA	1
7	V2005315		EXCESS WATER PRESSURE	1
8	V2006402		"UKCA" MARK	1
9	V2006403		"UKNI" MARK	1
10	513371100		EMERGENCY STOP *electric mixers only*	1

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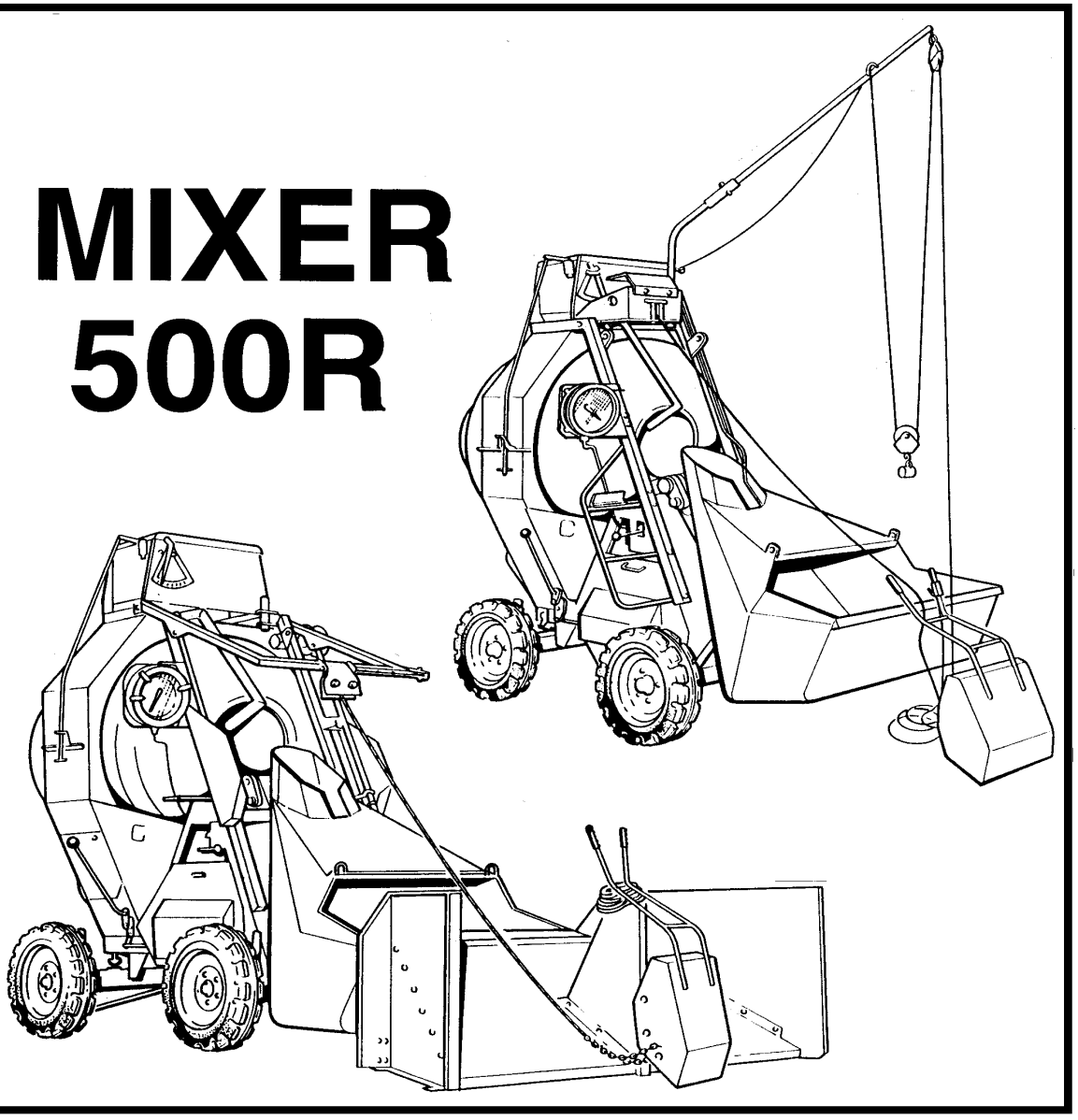
MIXER 500R



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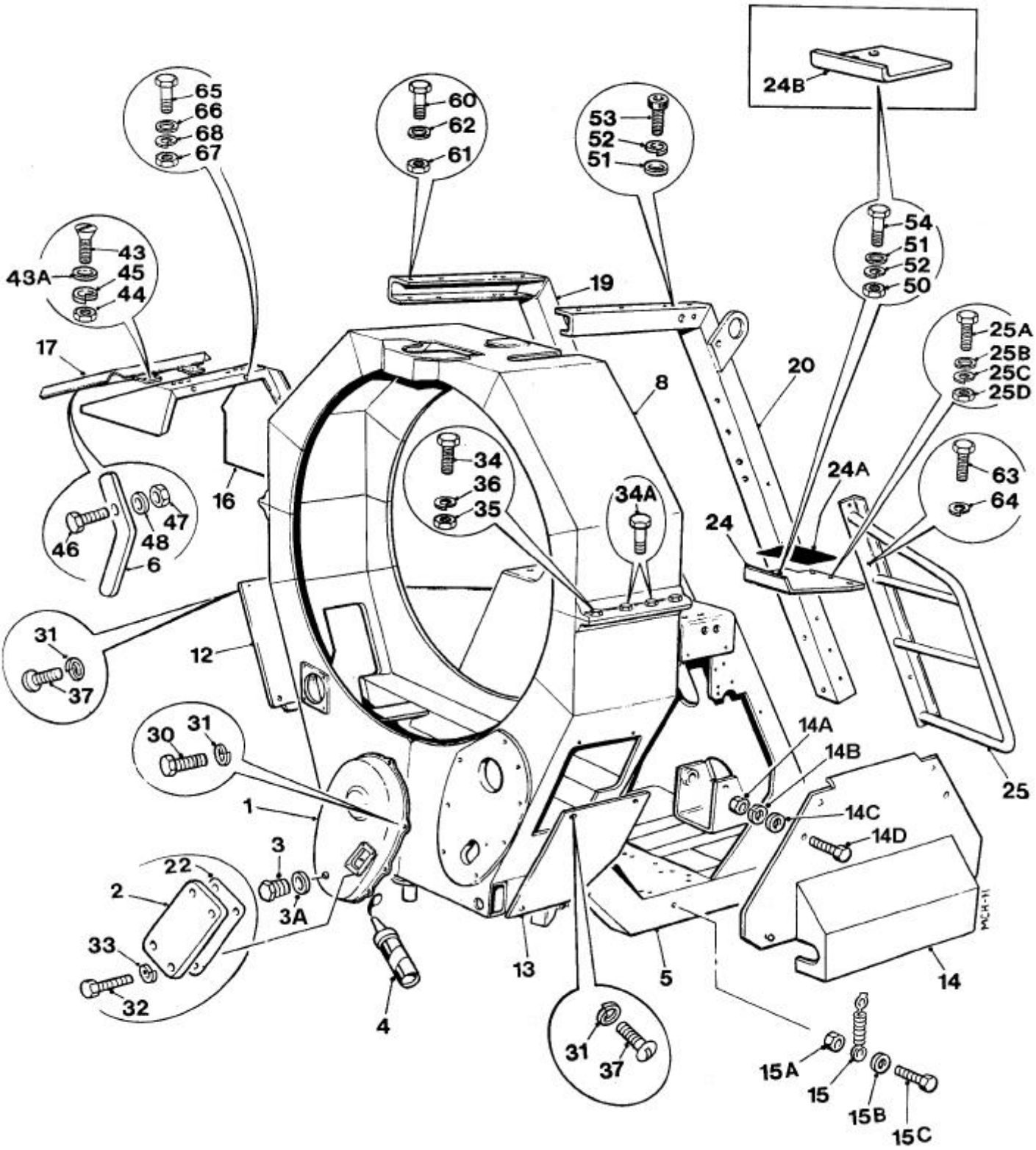
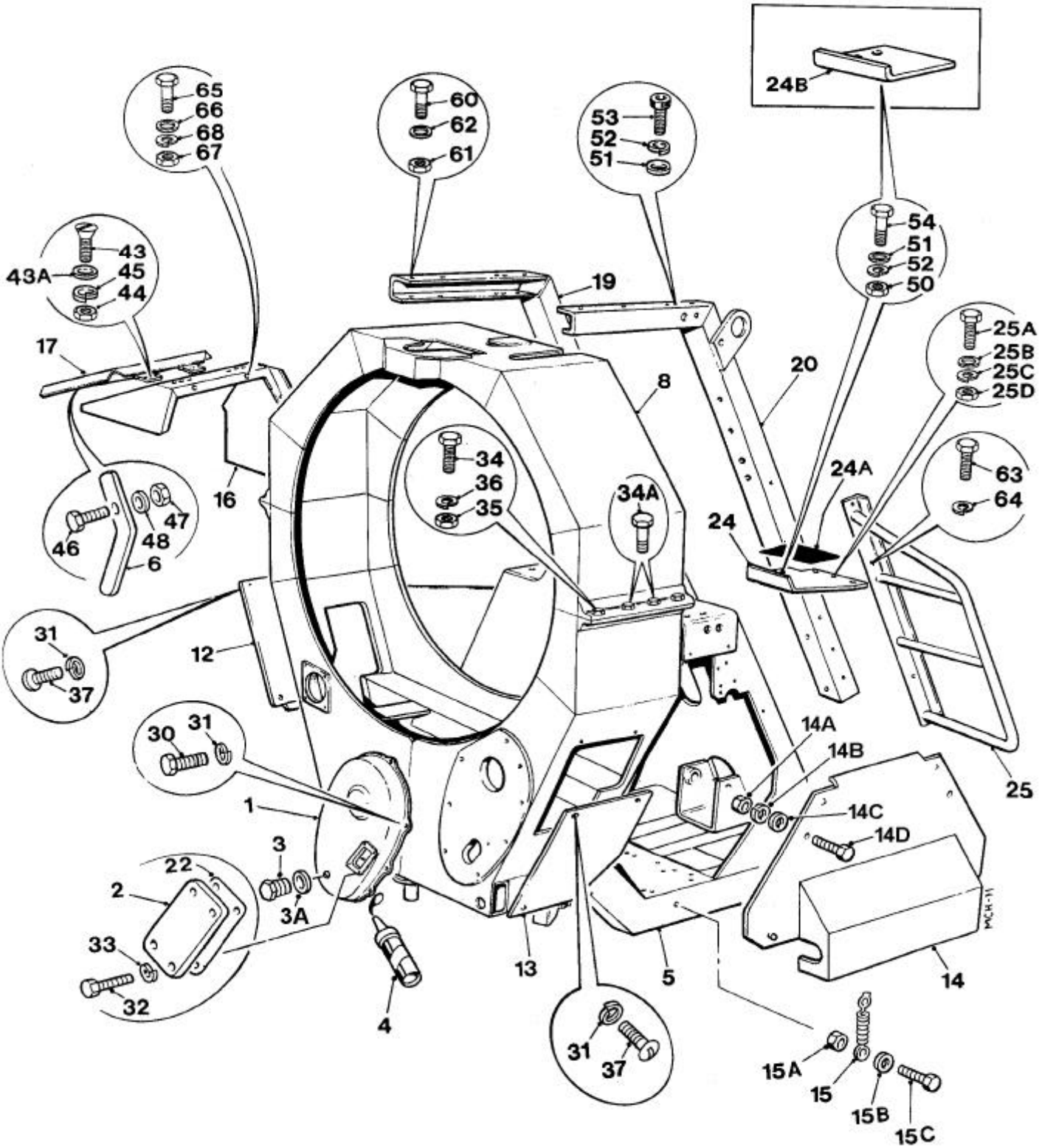
Reversing Drum Mixers, Model 500R



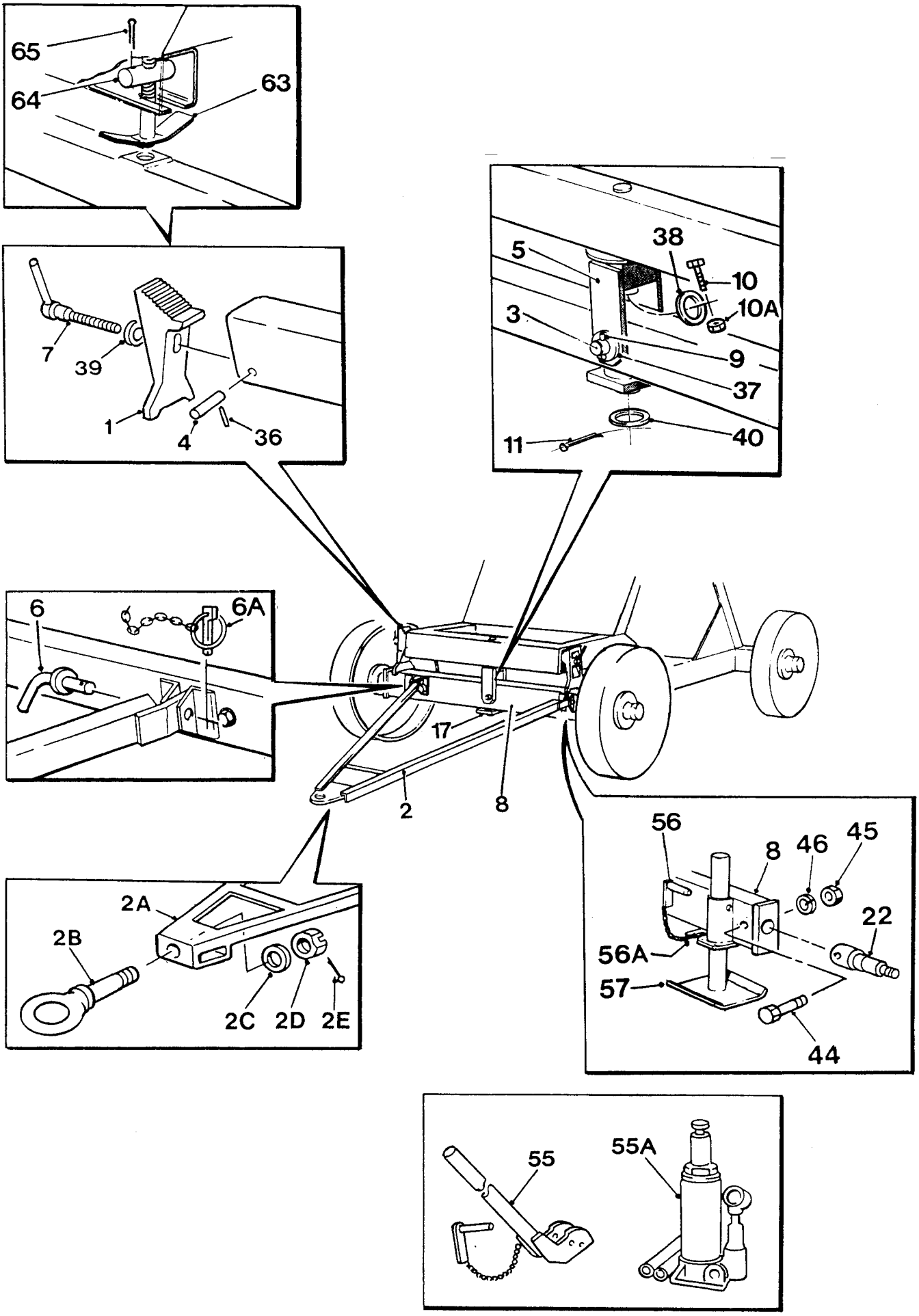
Item	Part no	Serial no	Description	Qty
1	555112800		COVER, chain case	1
2	555114700		COVER, chain inspection	1
3	241703000	/ 0318	PLUG, *tapered* thread	1
3	127S03	0319 /	PLUG, *parallel* thread	1
3A	100S03	0319 /	SEAL, bonded	1
4	V2000772		SEALANT	tube 1
5	555226500		MAINFRAME	1
6	555193400		LATCH	1
8	555225400		GUARD, drum, upper	1
12	555225300		PLATE, drum housing, lower, L.H.	1
13	555225300		PLATE, drum housing, lower, R.H.	1
14	555131500		COVER, side, control	1
14A	7S03	0370 /	NUT	2
14B	17S04	0370 /	WASHER, spring	2
14C	267S05	0370 /	WASHER, flat	2
14D	11S03C	0370 /	SCREW, set	2
15	221101000		CATCH, spring	2
15A	192S02		NUT, 'Biinx' self locking	2
15B	10S02		WASHER, flat	2
15C	66S02B		SCREW, set	2
16	555193100		SHROUD, fuel tank	1
17	555193200		COVER, hinged, fuel tank	1
19	555225800		# SUPPORT, dragline & tank, R.H.	1
20	555225900		# SUPPORT, dragline & tank, L.H.	1
			# *Views taken from hopper end.*	
22	555168100		GASKET, inspection cover	1
24	555190400		STEP *(UK/Europe: used with item 25)*	1
24A	V2003183		SAFETY WALK	1
24B	555163500		STEP *(Export: NOT used with item 25*)	1
25	555189900		GUARD/FENCE *(UK/Europe)*	1
25A	28S03E		SCREW *(used with item 25)*	3
25B	10S03		WASHER, flat *(used with Item 25)*	3
25C	41S05		WASHER, spring *(used with item 25)*	3
25D	9S03		NUT *(used with item 25)*	3
30	6S02J		BOLT	6
31	41S04		WASHER, spring	14
32	66S01BB		SCREW, set	4
33	41S03		WASHER, spring	4

Reversing Drum Mixers, model 500R



Item	Part no	Serial no	Description	Qty
34	28S03E		BOLT	9
34A	6S03B		BOLT (tank operated rod bracket)	2
35	87S03		NUT, “Binx”, self locking	11
36	10S03		WASHER, flat	11
37	66S02BB		SCREW, set	8
43	233S03F		SCREW, countersunk	6
43A	267S03		WASHER, flat	6
44	7S01		NUT	6
45	17S02		WASHER, spring	6
46	66S01CC		SCREW, set	1
47	192S01		NUT, binx	1
48	10S01		WASHER, flat	1
50	9S04		NUT	2
51	10S04		WASHER, flat	10
52	41S07		WASHER, spring	10
53	90S06J		SCREW, socket head cap	8
54	28S05G		SCREW set	2
60	6S05Z		BOLT	8
61	87S05		NUT "Binx" self-locking	8
62	10S04		WASHER flat	8
63	11S04C		SCREW set	4
64	17S05		WASHER spring	4
65	28S03E		SCREW set	3
66	10S03		WASHER FLAT	3
67	9S03		NUT	3
68	41S05		WASHER spring	3

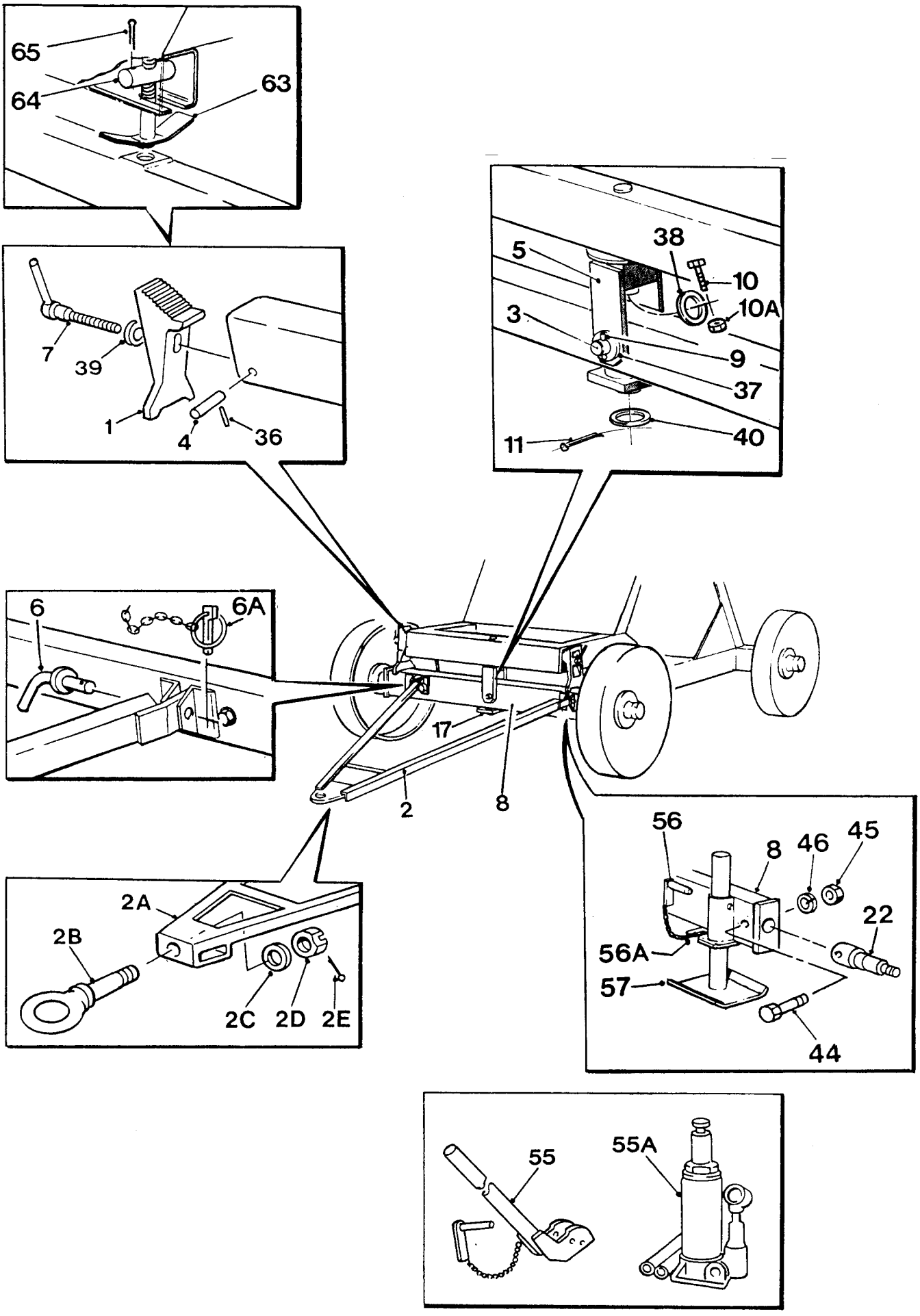
Reversing Drum Mixers, model 500R



Item	Part no	Serial no	Description	Qty
1	555101100	/ 0287	SPRAG, axle	2
2	555101200		TOWBAR, standard	1
2A	555283300		TOWBAR, “NATO” / “MOD”	1
2B	555283600		EYE, “NATO”/ ”MOD“	1
2C	150S15		WASHER, flat	1
2D	92S15		NUT, castle	1
2E	44S018N		PIN, split	1
3	555101400		PIN, pivot, axle	1
4	555101700	/ 0287	PIN	1
5	555101900		PIVOT, axle	1
6	555102100	/ 0302	PIN, towbar retainer, “OBSOLETE”	2
6	513354800	0303 /	PIN, towbar retainer	2
6A	902S02	0303 /	LYNCH PIN & CHAIN	2
7	555101800	/ 0287	RETAINER, sprag	2
8	555102700	/ 0312	AXLE, front	1
8	555287300	0313 /	AXLE, front, standard & “NATO”/”MOD”	1
9	44S17K		PIN, split	2
10	8S03E		BOLT	1
10A	61S03		NUT, self locking	1
11	44S17K		PIN, split	2
17	555225700		TIE BAR, axle	1
22	———-	/ 0312	STUB AXLE,pneumatic wheel *(see page A-3A)*	
36	44S03F	/ 0287	PIN, split	4
37	10S20		WASHER, flat	2
38	10S43		WASHER, flat	1
39	10S05	/ 0287	WASHER, flat	2
40	10S65		WASHER, flat	2
44	6S05N	/ 0312	BOLT	4
45	9S04	/ 0312	NUT	4
46	41S07	/ 0312	WASHER, spring	4

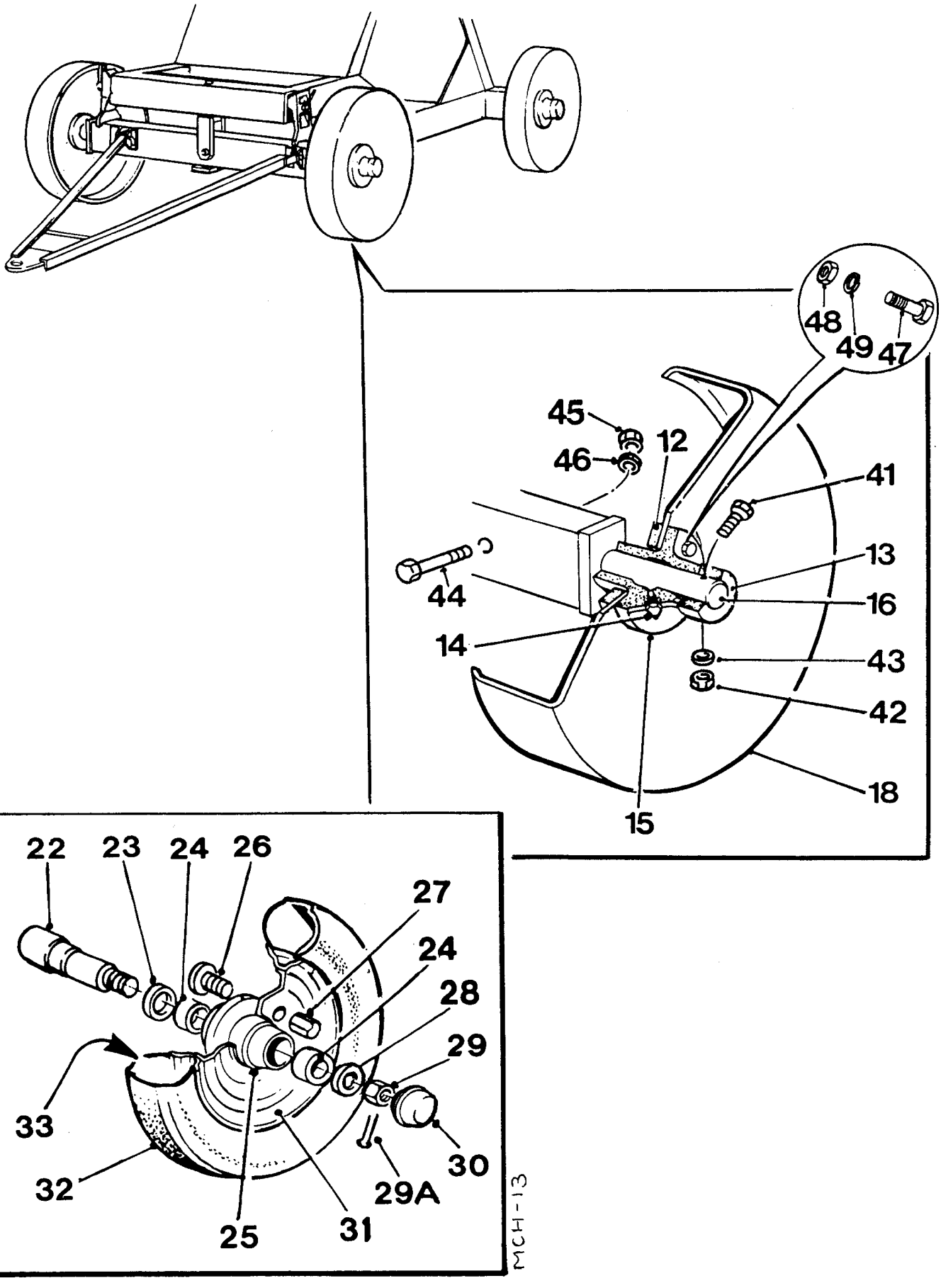
Continued >

Reversing Drum Mixers, model 500R



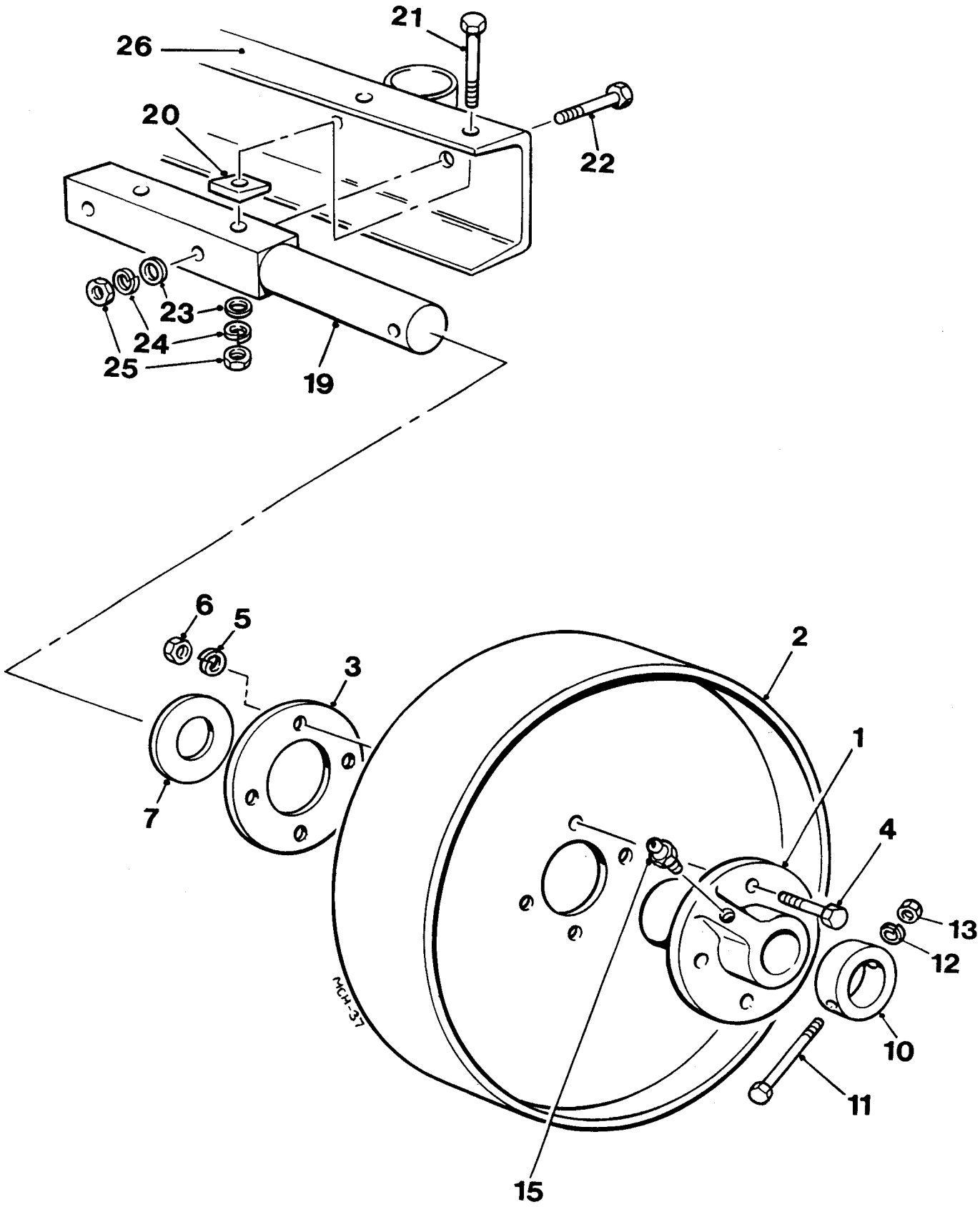
Item	Part no	Serial no	Description	Qty
55	555102800		JACK, manual "OBSOLETE"	1
55A	555285600		JACK, hydraulic	1
56	555103000	/ 0302	PIN, jack locking	4
56	555267800	0303 /	PIN, jack locking	4
56A	124108000	0303 /	BUCKLE	1
57	555190500		FOOT, jack	4
63	555256200	0303 /	SCREW, sprag	2
64	555255900	0303 /	PIN, sprag	2
65	44S05H	0303 /	PIN, split	4

Reversing Drum Mixers, model 500R



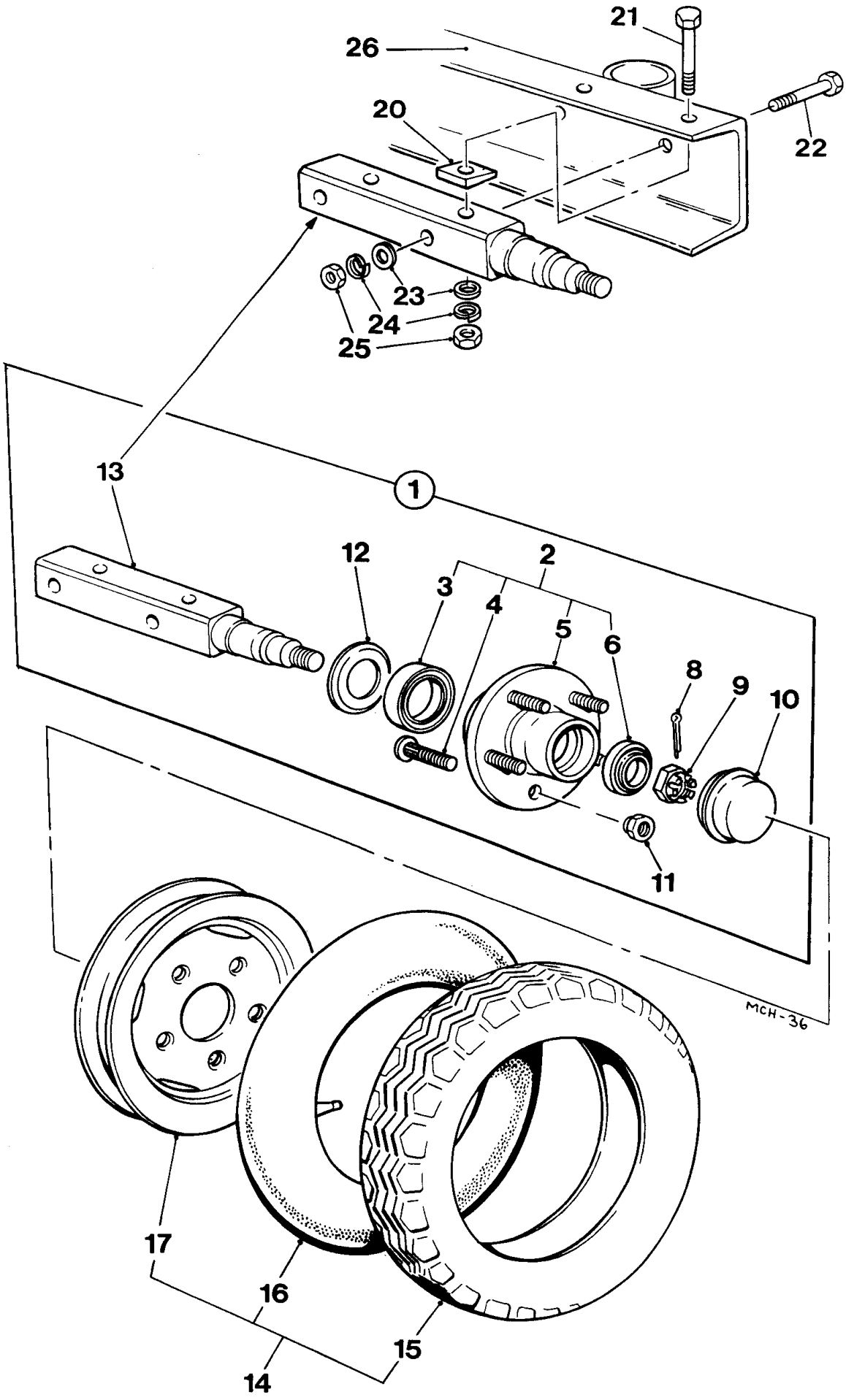
Item	Part no	Serial no	Description	Qty
			Steel wheels	
.....	555100900	/ 0312	WHEEL, steel, assembly	4
12	511165400	/ 0312	PLATE, backing	1
13	555277900	/ 0312	COLLAR	1
14	333104020	/ 0312	NIPPLE, grease	1
15	511146800	/ 0312	HUB, steel wheel	1
16	555102300	/ 0312	STUB AXLE, steel wheel	1
18	511146700	/ 0209	WHEEL, pressed steel"OBSOLETE" (Use 511146701)	1
18	511146701	0210 / 0312	WHEEL, fabricated steel	1
			Pneumatic wheels	
22	555202900	/ 0312	STUB AXLE, pneumatic wheels	4
.....	475310000	/ 0312	HUB, assembly	4
23	475310001	/ 0312	SEAL, oil	1
24	475310002	/ 0312	BEARING	2
25	475310003	/ 0312	HUB	1
26	475310004	/ 0312	STUD, wheel	5
27	V600157	/ 0312	NUT, wheel	5
28	10S30	/ 0312	WASHER, flat	1
29	475310007	/ 0312	NUT, axle	1
29A	44S06F	/ 0312	PIN, split	1
30	475310009	/ 0312	GREASE CAP	1
.....	475600016		WHEEL, assembly	1
31	30033A01	/ 0312	RIM, wheel	1
32	475600017	/ 0312	TYRE, 6.00 x 16.00 RK3	1
33	475600018	/ 0312	TUBE, 6.00 x 16.00 RK3	1
41	6S07M	/ 0312	BOLT	4
42	9S03	/ 0312	NUT	4
43	41S05	/ 0312	WASHER, spring	4
44	6S05M	/ 0312	BOLT	4
45	9S04	/ 0312	NUT	4
46	41S07	/ 0312	WASHER, spring	4
47	6S06F	/ 0312	BOLT	16
48	9S05	/ 0312	NUT	16
49	41S09	/ 0312	WASHER, spring	16

Reversing Drum Mixers, model 500R



Item	Part no	Serial no	Description	Qty
1	511146800	0313 /	HUB, (casting)	4
2	511146701		WHEEL, steel, (fabricated)	4
3	511165400		PLATE, backing	4
4	6S06F		BOLT	16
5	41S09		WASHER, spring	16
6	9S05		NUT	16
7	150S15		WASHER, flat	4
10	555277900		COLLAR	4
11	6S03M		BOLT	4
12	41S05		WASHER, spring	4
13	9S03		NUT	4
15	333104020		NIPPLE, grease	4
19	555288500		STUB AXLE	4
20	105S05		WASHER, tapered	8
21	8S05M		BOLT	8
22	8S05K		BOLT	8
23	267S07		WASHER, flat	16
24	17S06		WASHER, spring	16
25	7S05		NUT	16
26	.....		*"CHASSIS FRAME"*	

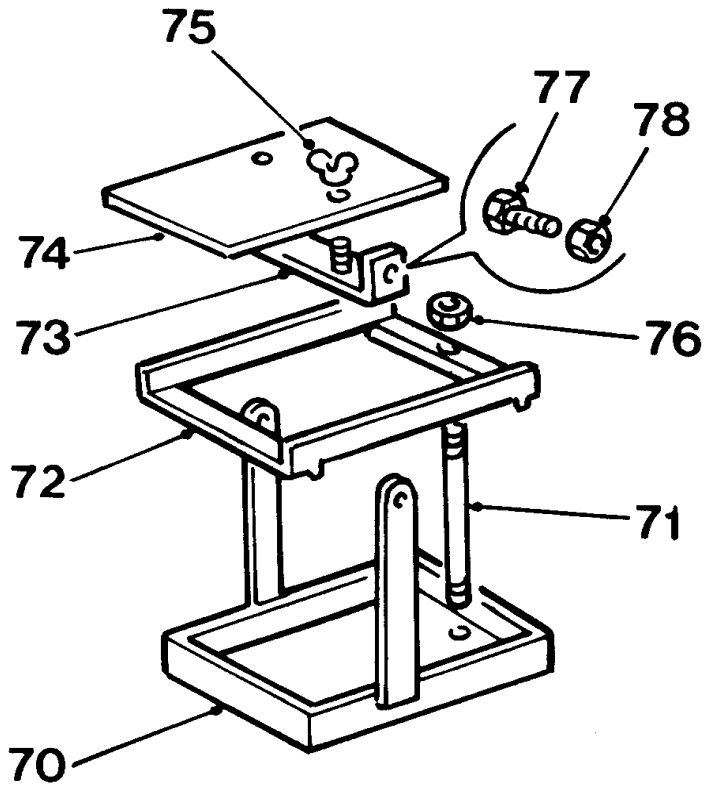
Reversing Drum Mixers, model 500R

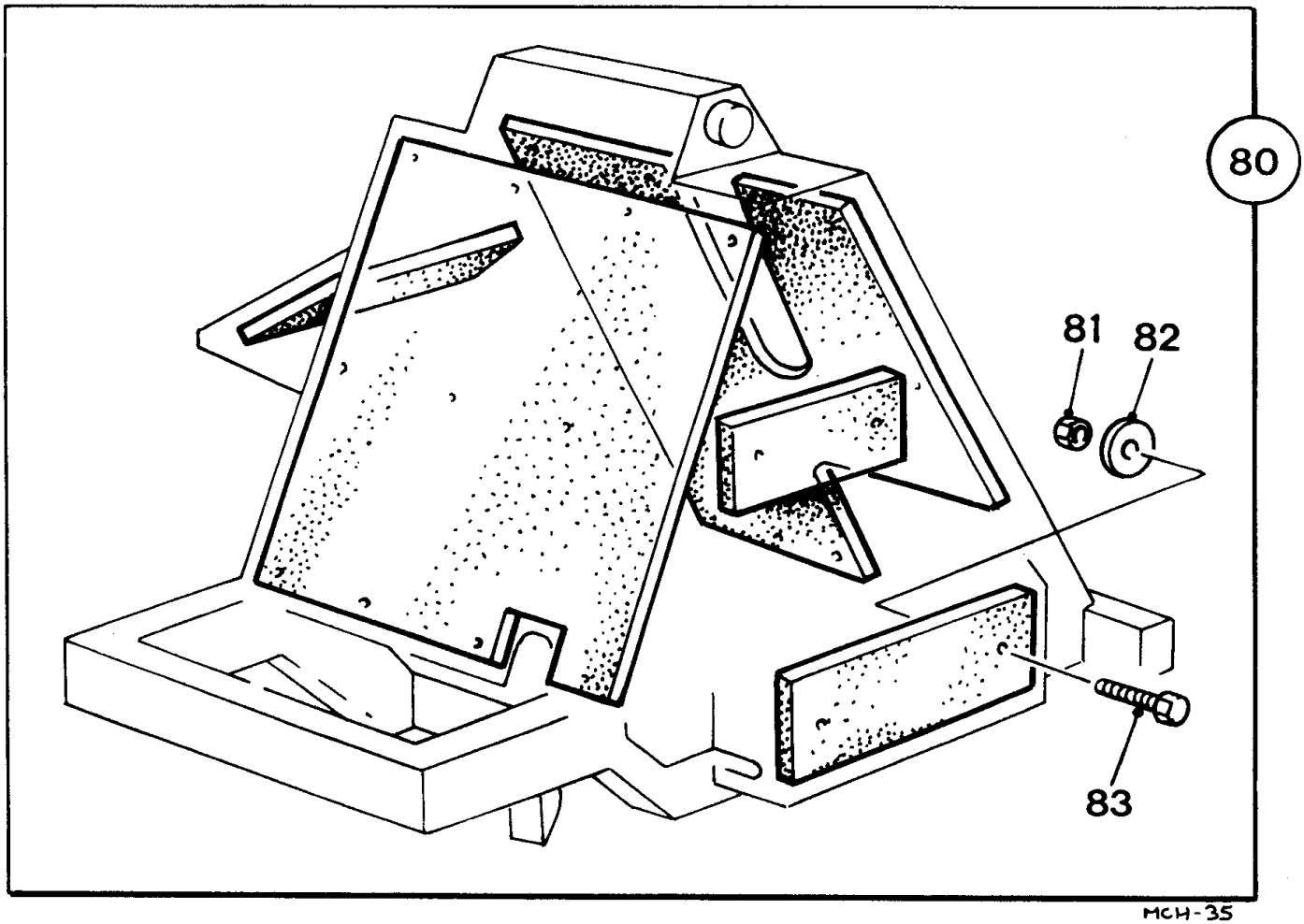


Item	Part no	Serial no	Description	Qty
1	555287600	0313 /	HUB & STUB AXLE assy	4
2	V602679		HUB, assembly	1
3	V602667		BEARING, inner	1
4	V602677		STUD, wheel fixing	5
5	----------		HUB (order V602679 assy.)	1
6	V602666		Bearing, outer	1
8	44S04E		PIN, split	1
9	V602669		NUT, slotted, 36mm across flats	1
9A	V603755		NUT, slotted, 40mm across flats	1
10	V602676		CAP, hub, knock in	1
11	V602678		NUT, wheel	5
12	V602668		SEAL, GREASE, hub rear	1
13	V602706		STUB AXLE, obsolete *use items 9A & 13A*	1
13A	V603754		STUB AXLE, use with item 9A	1
14	475600019		WHEEL assembly, 6.00 x 16	4
15	475600017		TYRE, 6.00 x 16	1
16	475600018		TUBE, inner	1
17	V602680		RIM, 16"	1
20	105S05		WASHER, tapered	8
21	8S05M		BOLT	8
22	8S05K		BOLT	8
23	267S07		WASHER, flat	16
24	17S06		WASHER, spring	16
25	7S05		NUT	16
26	-------		*"CHASSIS FRAME"*	

From machine serial no 500UD0530 through to serial no 500UG0539 the 6.00 x 16 wheel assemblies were temporarily replaced with tubeless 185R15 assemblies due to a shortage of suitable 6.00 x 16 rims and tyres. When ordering replacement wheel assemblies, tyres or rims for machines falling within this serial no range please quote tyre and rim size:- tyre 185R15C 8ply tubeless, rim 5JX15H2.

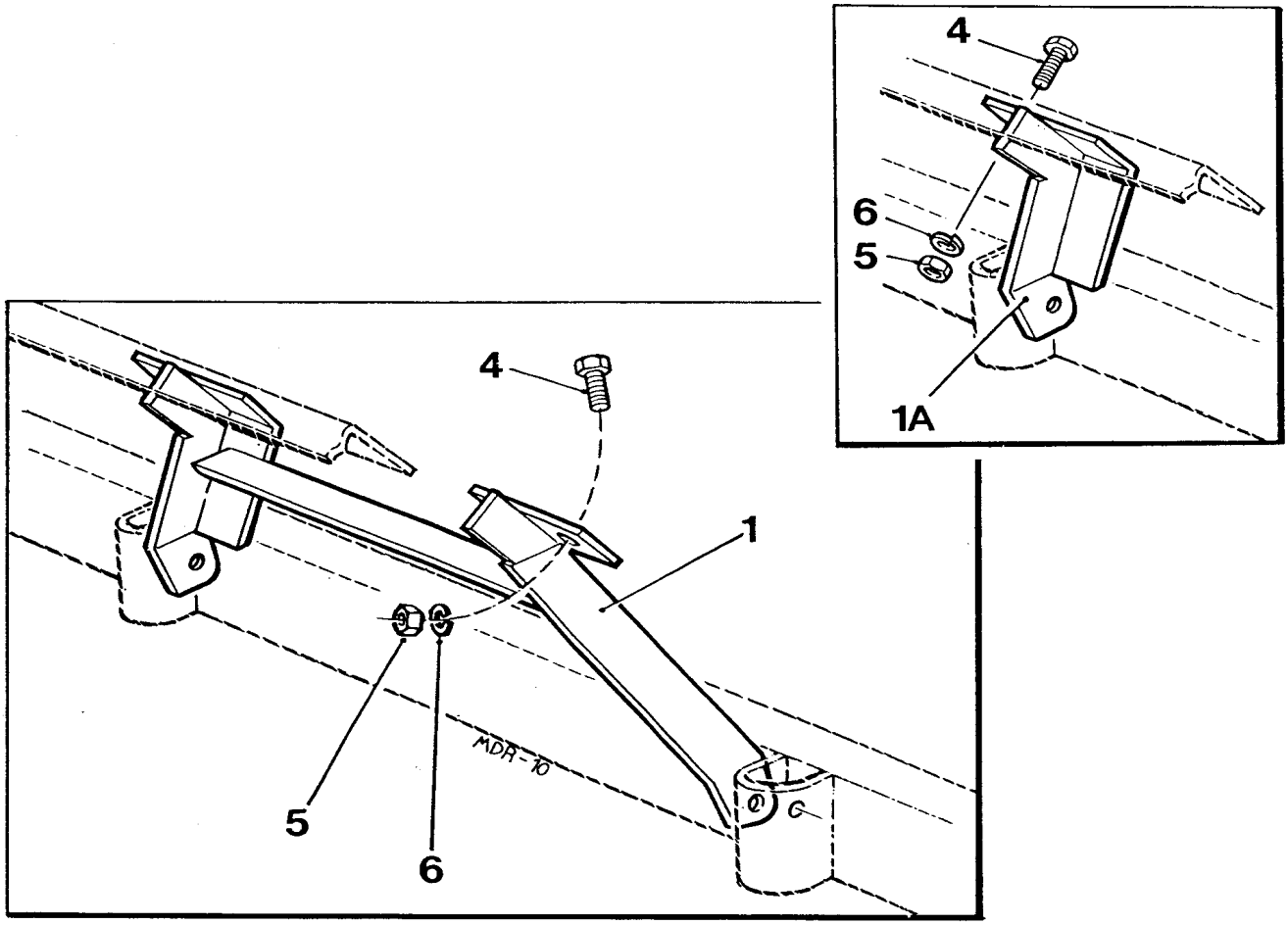
Reversing Drum Mixers, model 500R

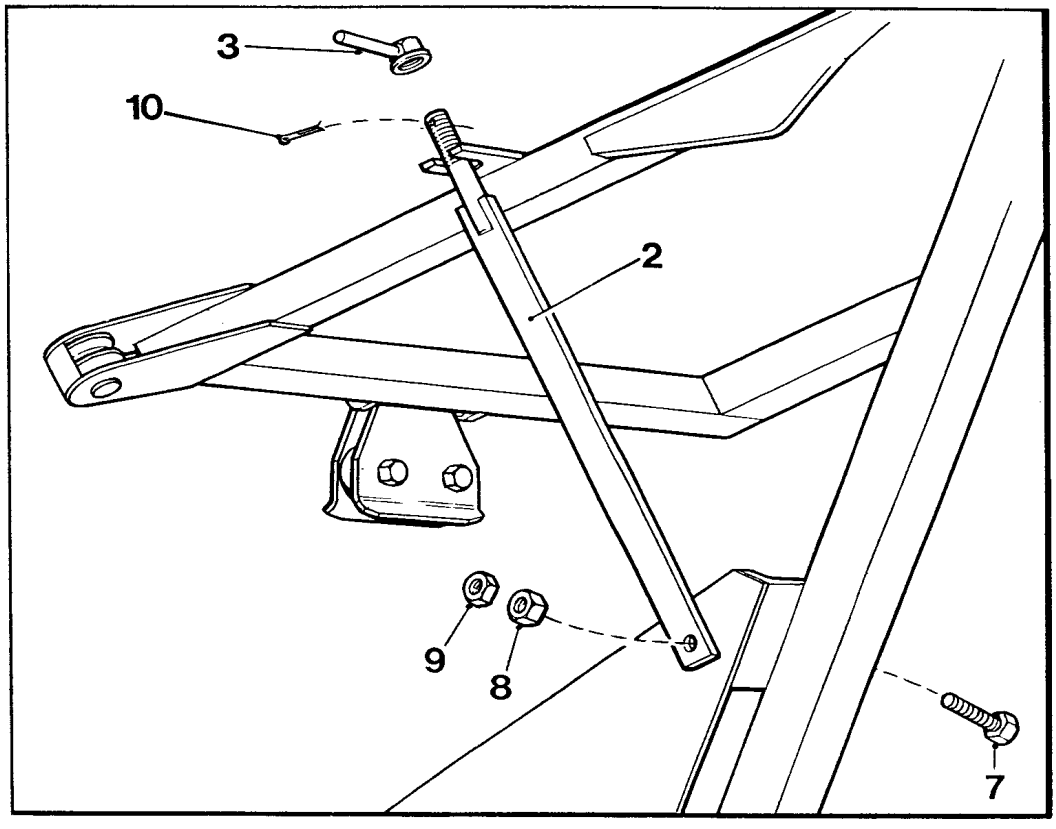




Item	Part no	Serial no	Description	Qty
			BATTERY TRAY	
70	30080A03		TRAY, battery	1
71	40SA17		ROD	2
72	10559A01		CLAMP	1
73	30080A0303		BAR, battery retaining	1
74	10742A05		COVER	1
75	177S03		NUT, wing	2
76	9S01		NUT	8
77	11S04C		SCREW, set	2
78	59S03		NUT	2
.....	.....		BATTERY *(see page H - 2)*	
			INSULATION KIT	
80	555286500		KIT, insulation	1 kit
81	61S02		NUT, self-locking	30
82	10S56		WASHER, large o/d	30
83	11S02C		SCREW, set	30

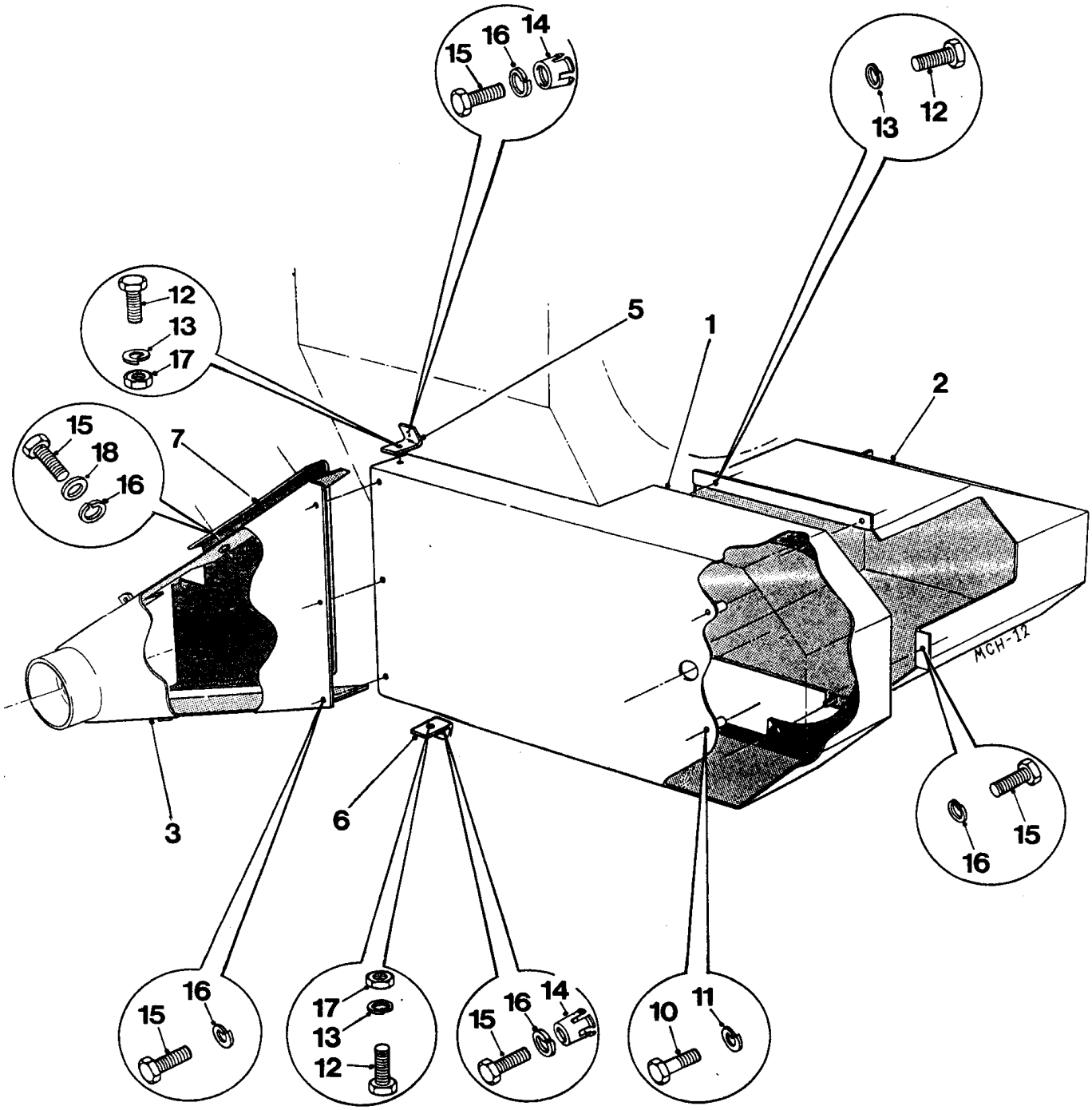
Reversing Drum Mixers, model 500R





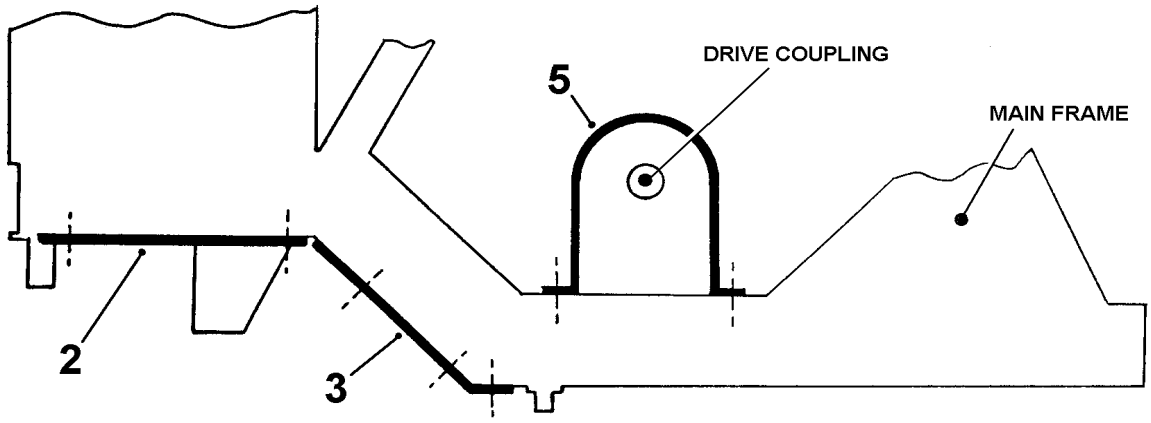
Item	Part no	Serial no	Description	Qty
1	555128000	/ 0312	BRACKET, anti-bounce, dual strut	1
1A	555288600	0313 /	BRACKET, anti-bounce, single strut	
2	555231300	/ 0306	TIE BAR	1
3	555128200	/ 0306	NUT, locking	1
4	66S06D	/ 0312	SCREW, set	2
4	66S06D	0313 /	SCREW, set	1
5	104S06	/ 0312	NUT	2
5	104S06	0313 /	NUT	1
6	41S09	/ 0312	WASHER, spring	2
6	41S09	0313 /	WASHER, spring	1
7	6S03E	/ 0306	BOLT	1
8	41S05	/ 0306	WASHER, spring	1
9	9S03	/ 0306	NUT	1
10	44S02B	/ 0306	PIN, split	1

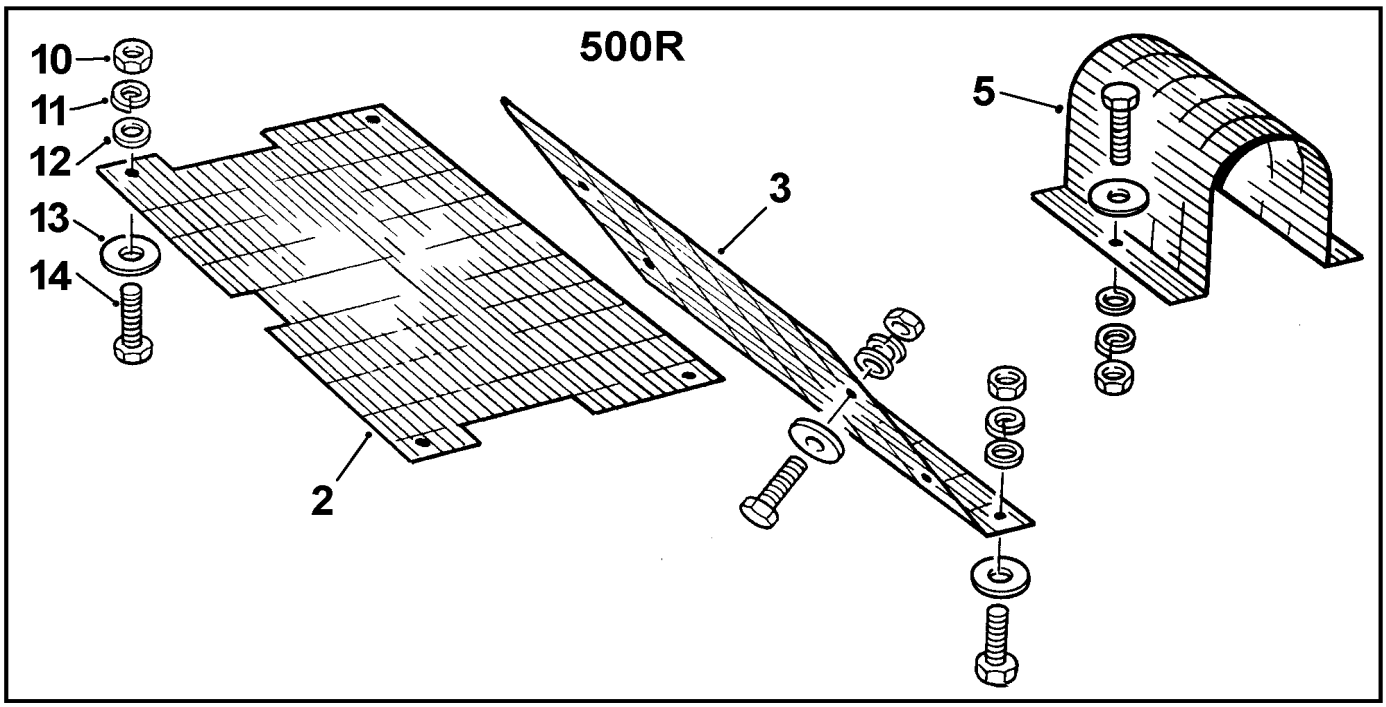
Reversing Drum Mixers, model 500R



Item	Part no	Serial no	Description	Qty
1	555270800	/ May-86	GUARD, main drum	1
2	555218800		GUARD, winch	1
3	555271100		GUARD, primary chain, **Petter**	1
3	555271000		GUARD, primary chain, **Lister**	1
5	555219100		CLEAT, main guard, top	1
6	555270700		CLEAT, main guard, bottom	1
7	555223200		BACK PLATE, primary guard, **Lister**	1
7	555227900		BACK PLATE, primary guard, **Petter**	1
10	8S04D		BOLT	2
11	17S05		WASHER, spring	2
12	11S02C		SCREW	4
13	17S03		WASHER, spring	4
14	236S04		NUT, blind	2
15	11S03A		SCREW, set	13
16	17S04		WASHER, spring	13
17	7S02		NUT	1
18	267S05		WASHER, flat	3

Reversing Drum Mixers, model 500R





GUARDS, MESH From serial no. 0370 (April 2003) A - 6

'CE' marked mixers only

Item	Part no	Serial no	Description	Qty
2	555291100	0370 /	GUARD, horizontal	1
3	555290800		GUARD, angled	1
5	555290900		GUARD, electric motor	1
5	555291200		GUARD, Lister TS3 engine	1
10	7S03		NUT	12
11	17S04		WASHER, spring	12
12	267S05		WASHER, flat	12
13	V2004220		WASHER, 'Special'	12
14	11S03C		SCREW, set	12

MIXER 500R

Drum & Drive

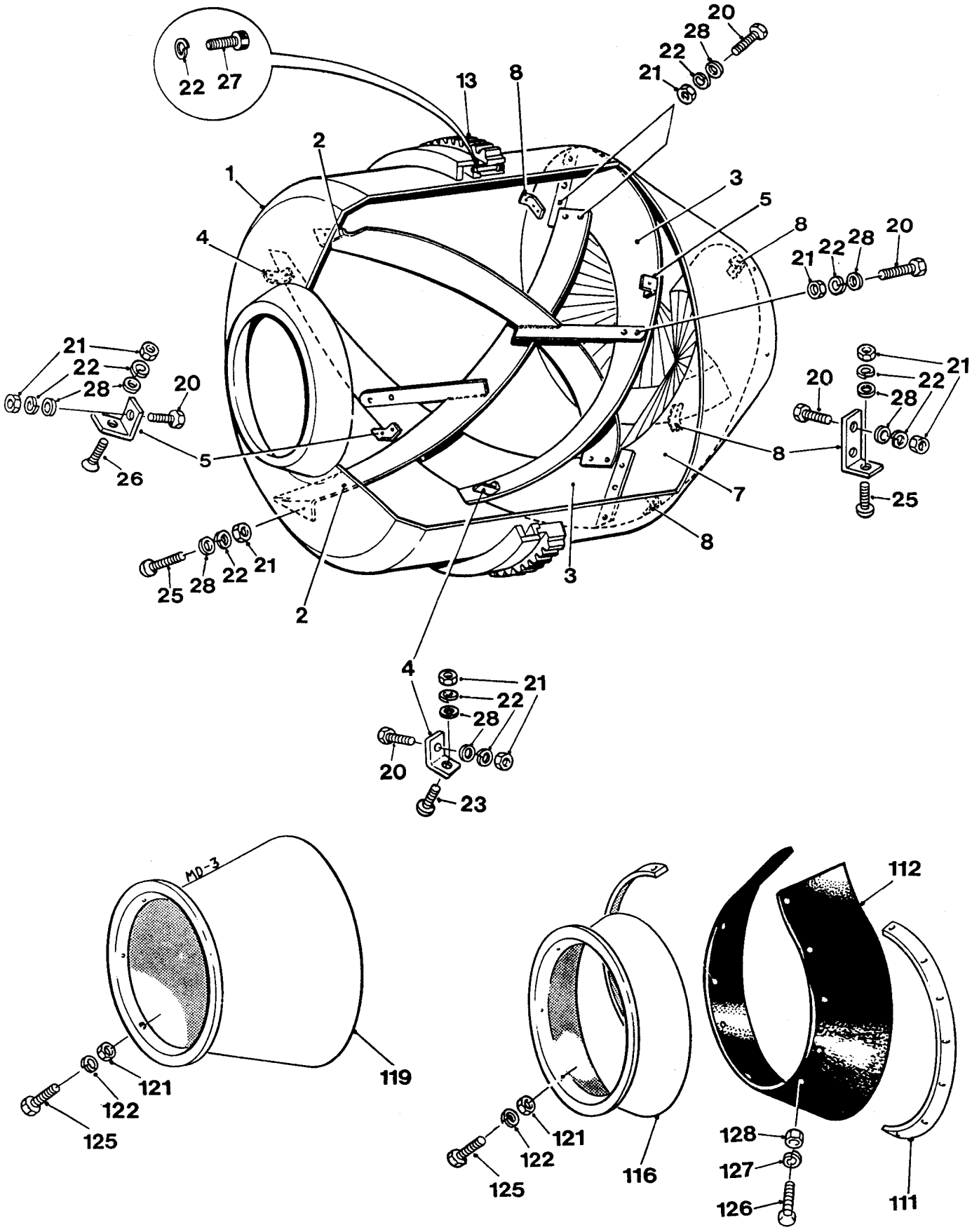
MIXER DRUM B - 1

FINAL DRUM DRIVE B - 2

DRUM EDGE ROLLER B - 4

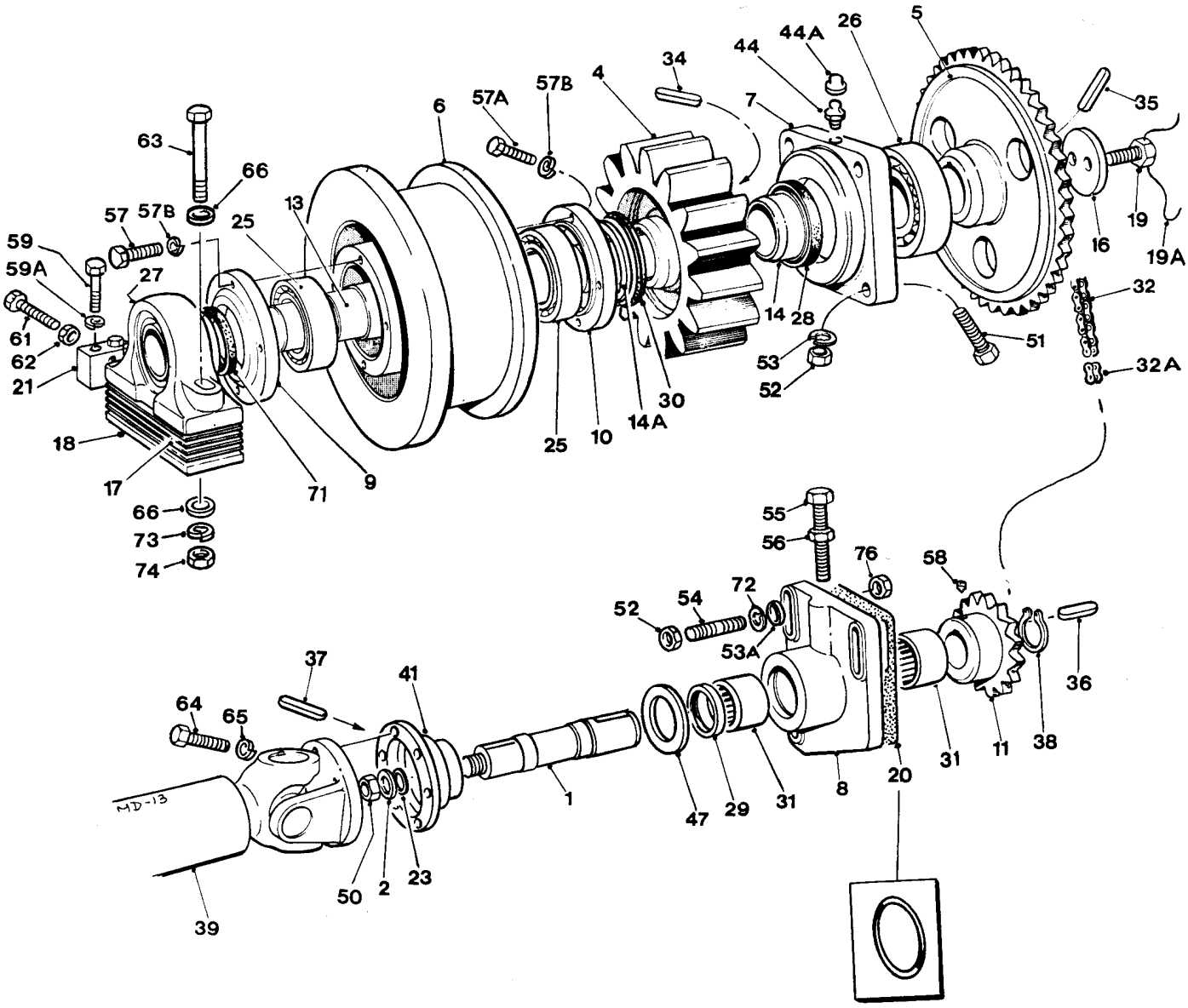
IDLER ROLLER & SHAFT B - 6

Reversing Drum Mixers, model 500R



Item	Part no	Serial no	Description	Qty
1	555280800		DRUM, c/w blades	1
2	555227700		BLADE, mixing	1
3	555227800		BLADE, discharge	2
4	555126400		CLEAT, mix/discharge blade narrow end	2
5	555284300		CLEAT, mix/discharge blade wide end	2
7	555125700		BLADE, discharge	2
8	555125800		CLEAT, discharge spiral	6
13	555112700		GEAR RING	1
20	66S05D		SCREW, set	26
21	104S05		NUT	36
22	41S07		WASHER, spring	44
23	200S05K		SCREW, round headed socket	2
25	200S05K		SCREW, round headed socket	6
26	208S05G		SCREW, counter sunk head	2
27	90S06R		SCREW, cap socket head	8
28	10S04		WASHER, flat	36
111	515143000		STRAP, discharge cone, (set of 4)	1
112	515142900		CONE, discharge, rubber *(optional)*	1
116	555126000		MOUTH, discharge drum, standard	1
116	555127800		MOUTH, discharge drum *(used with optional rubber cone)*	1
119	555127700		EXTENSION, discharge drum mouth	1
121	104S05		NUT	6
122	41S07		WASHER, spring	6
125	200S05G		SCREW, round headed socket	6
126	206S05C		SCREW, counter sunk head	14
127	41S07		WASHER, spring	14
128	104S05		NUT	14
129	10S04		WASHER, flat, (not illustrated)	14

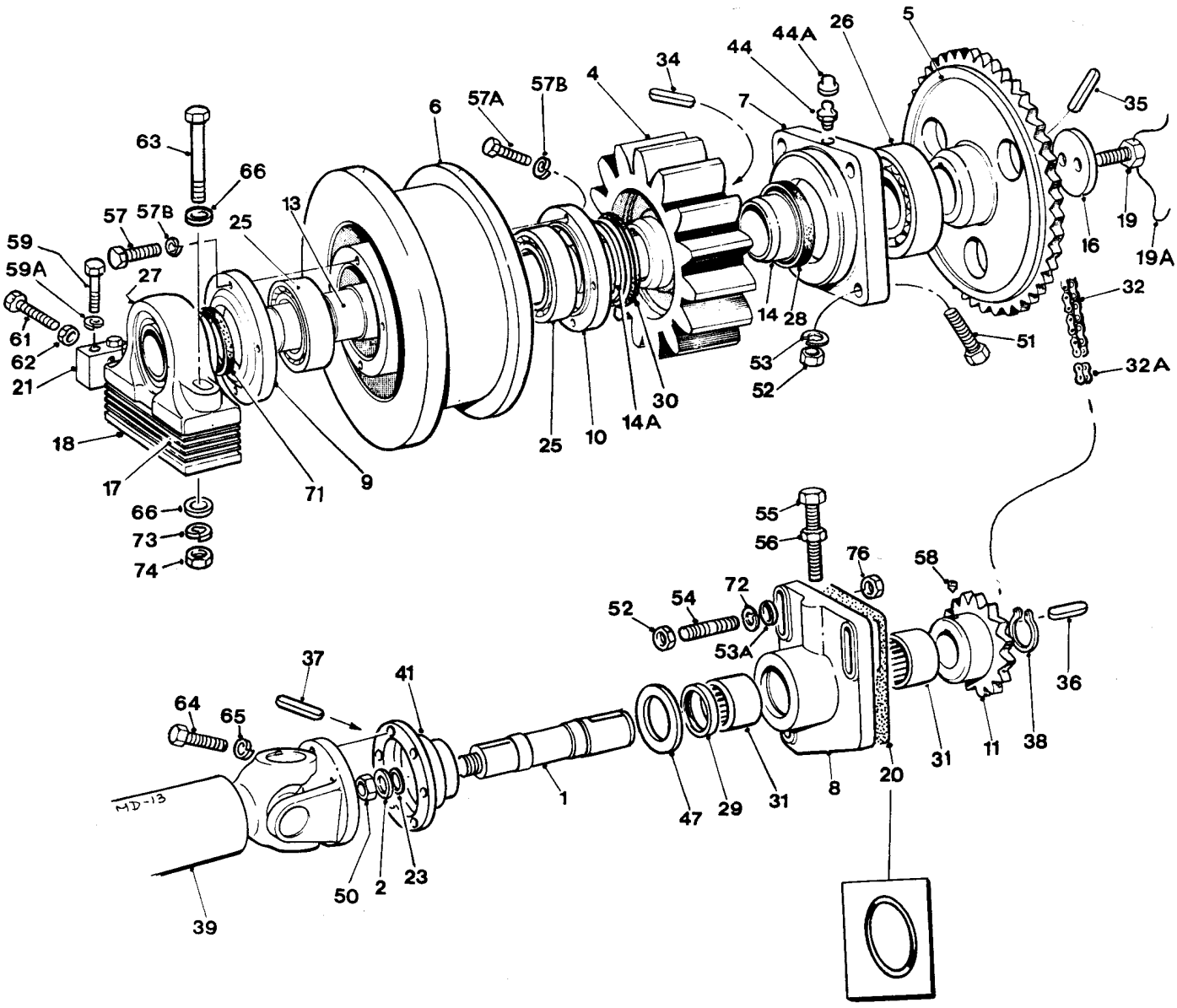
Reversing Drum Mixers, model 500R



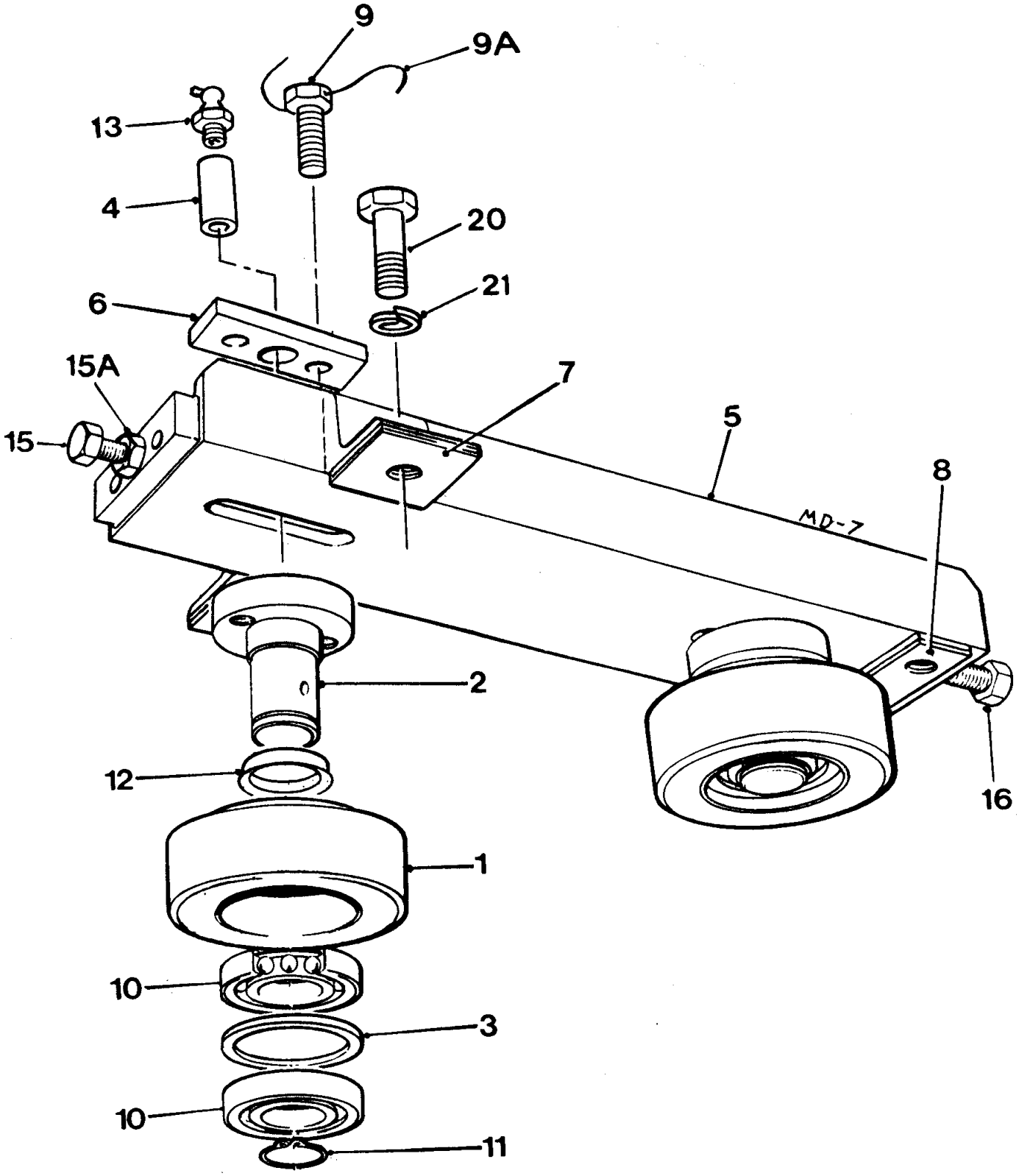
Item	Part no	Serial no	Description	Qty
1	555223800		DRIVE SHAFT, lower	1
2	555107200		WASHER, retaining	1
4	555113300		PINION, drum drive	1
5	555223300		CHAINWHEEL	1
6	555223700		ROLLER, idler	1
-	131S01		NIPPLE, grease *(Fitted in idler roller)*	
7	555113100		CARRIER, bearing	1
8	555223400		BRACKET, bearing, adjustable	1
9	555223600		CARRIER, idler bearing, outer	1
-	555225100		SHIM PACK *(for items 9 &10)*	set 1
10	555223500		CARRIER, idler bearing, inner	1
11	555224200		DRIVE SPROCKET, diesel engine	1
11	555229100		DRIVE SPROCKET, electric motor	1
13	555224000		SHAFT, drum drive	1
14	555114300		SPACER, long	1
14A	555224100		SPACER, short	1
16	555114400		END CAP, drive shaft	1
17	555114900		SHIMS, plummer block	set 1
18	555224900		PACKER, plummer block	1
19	285S07G		BOLT, “Special”	2
19A	477356000		WIRE, locking	1
20	555173500	/ 0518	SEAL, ‘O’ ring	1
20	555284900	0519 /	GASKET	1
-	V2000772	0519 /	SEALANT	tube 1
21	555228600		BRACKET, stop	1
23	555225000		SHIMS	set 1
25	V600186		BEARING, taper roller	2
26	111452000		BEARING	1
27	351931000		BLOCK, plummer	1
28	417774000		SEAL, oil	1
29	417732440		SEAL, oil	1
30	417773000		SEAL, ‘V’ ring	1
31	119325000		BEARING	2
32	134108046		CHAIN, roller, diesel engine	1
32	134108047		CHAIN, roller, electric motor	1
32A	81S01		LINK, chain connecting	1
34	304213200		KEY, parallel	1

Continued >>

Reversing Drum Mixers, model 500R



Item	Part no	Serial no	Description	Qty
35	304714950		KEY, parallel	1
36	304712845		KEY, parallel	1
37	304106140		KEY, parallel	1
38	142326000		CIRCLIP, external	1
39	412817000		PROPSHAFT 92mm UJ's	1
-	10313A03		REPAIR KIT, U.J.92mm	AR
39	412818600		PROPSHAFT 83mm UJ's	1
-	10568A01		REPAIR KIT, U.J.83mm	AR
41	555257600		FLANGE, drive	1
44	333601010		NIPPLE, grease, 135 deg	1
44A	176S01		CAP, grease nipple	1
47	555224300		COVER, seal	1
50	61S06		NUT, “Binx” self-locking	1
51	6S05G		BOLT	4
52	9S04		NUT	7
53	41S07		WASHER, spring	4
53A	10S04		WASHER, flat	3
54	411350816		STUD	3
55	28S05N		SCREW	1
56	95S05		NUT, locking	1
57	8S03C		BOLT	4
57A	8S03B		BOLT	4
57B	17S04		WASHER, spring	8
58	57S06D2		SCREW, grub	1
59	8S04G		BOLT	2
59A	17S05		WASHER, spring	2
61	11S03H		SCREW, set	1
62	56S03		NUT, locking, thin	1
63	6S05M		BOLT	2
64	11S03B		SCREW, set	12
65	17S04		WASHER, spring	12
66	10S04		WASHER, flat	4
71	417732440		SEAL, oil	1
72	41S07		WASHER, spring	3
73	41S07		WASHER, spring	2
74	9S04		NUT	2
76	61S05		NUT *(where used)*	3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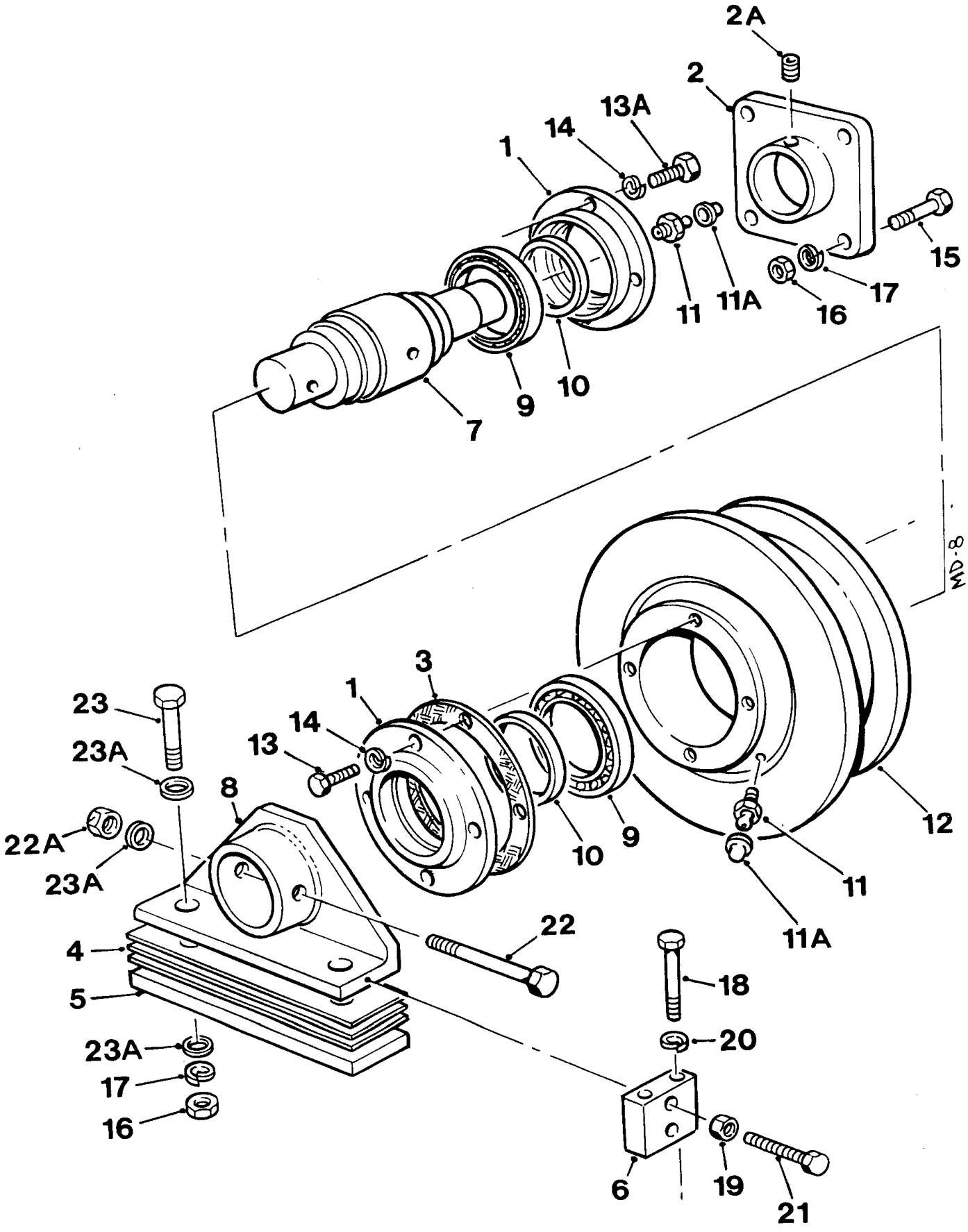
Item	Part no	Serial no	Description	Qty
1	555224600		ROLLER, drum edge	2
2	555224500	/ Feb-90	SHAFT, edge roller (OBSOLETE: use 555283800)	
2	555283800	Feb- 90 /	SHAFT, edge roller	2
3	555224700		SPACER, bearing	2
4	555224800		ADAPTOR, grease nipple *(OBSOLETE)*	2
5	555111800		CARRIER, edge roller	1
	If ordering a replacement carrier for a machine prior to serial no 0660 order replacement metric set screws and nuts, items 15, 15A & 16			
6	555112000		PLATE, locking	2
7	555112100		PACKER (short)	12
8	555112200		PACKER (long)	6
9	555167500		SCREW, “Special”	4
9A	477356000		WIRE, locking	2
10	88S05D		BEARING, ball	2
11	142321000		CIRCLIP, external	2
12	417771000		SEAL, ‘V’ ring	2
13	333702020		NIPPLE, grease *(OBSOLETE)*	2
15	28S05K	/0659	SCREW set, adjusting, UNF	1
15	11S05H	0660/	SCREW set, adjusting, Metric	1
15A	95S05	/0659	NUT, locking, UNF	2
15A	7S05	0660/	NUT, locking, Metric	2
16	28S05U	/0659	SCREW set, adjusting, UNF	1
16	11S05T	0660/	SCREW set, adjusting, Metric	1
20	6S05E		BOLT	4
21	41S07		WASHER, spring	4

Reversing Drum Mixers, model 500R



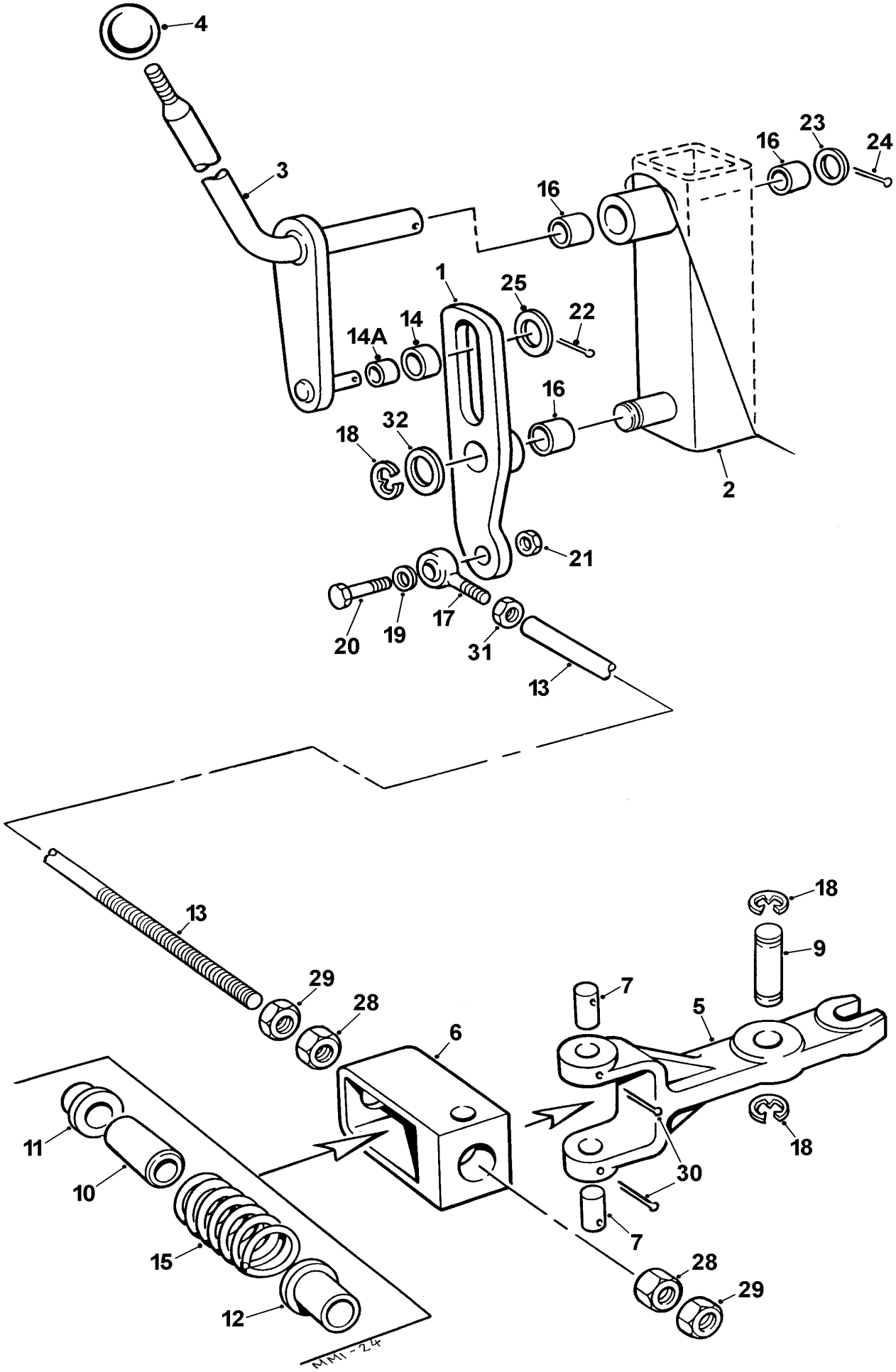
Item	Part no	Serial no	Description	Qty
1	555223600		CARRIER, bearing	1
2	555113000		CARRIER, idler shaft	1
2A	188S06D1		SCREW, grub	1
3	555225100		SHIM, bearing carrier	set 1
4	555114900		SHIM, support bracket	set 1
5	555224900		PACKER, support bracket	1
6	555228600		BRACKET, stop	1
7	555223900		SHAFT, idler roller	1
8	555113800		BRACKET, support	1
9	V600186		BEARING, taper roller	2
10	417732440		SEAL, oil	2
11	131S01		NIPPLE, grease, straight	2
11A	176S01		COVER, grease nipple	2
12	555223700		ROLLER, idler	1
13	8S03C		BOLT	4
13A	8S03C		BOLT	4
14	17S04		WASHER, spring	8
15	6S05F		BOLT	4
16	9S04		NUT	6
17	41S07		WASHER, spring	6
18	8S04G		BOLT	2
19	56S03		NUT, lock, thin	1
20	17S05		WASHER, spring	2
21	11S03H		SCREW, set	1
22	6S05M		BOLT	1
22A	87S05		NUT, “Binx”, locking	1
23	6S05K		BOLT	2
23A	10S04		WASHER, flat	3

MIXER 500R

Transmission & Engines

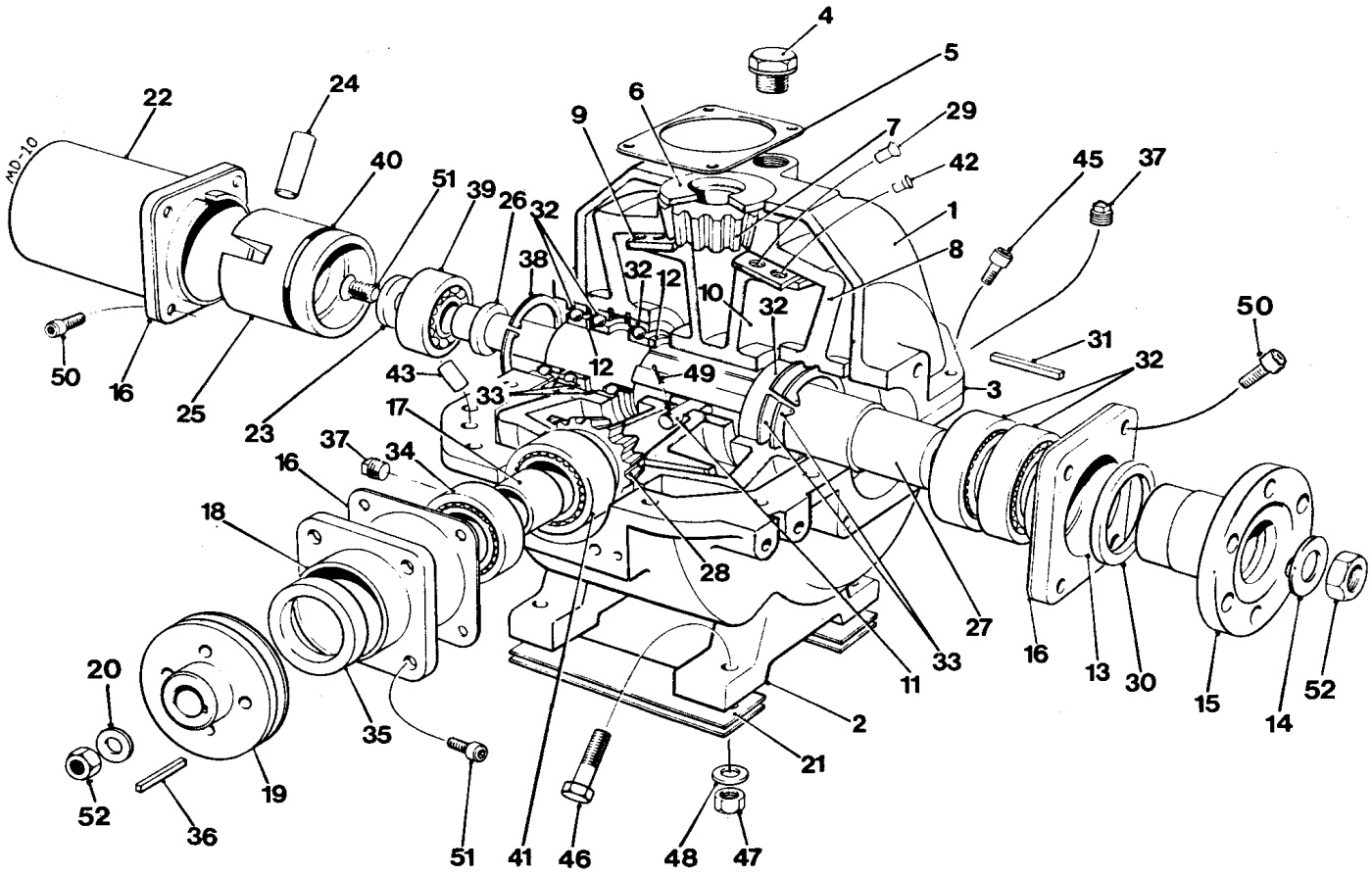
DRUM & GEARBOX CONTROL	**C - 1**
REVERSING GEARBOX	**C - 2**
COMPRESSOR DRIVE *(up to 1984)*	**C - 3**
ENGINE, Lister ST3	**C - 6**
ENGINES, Lister TS3 & TR3	**C - 7**
SILENCER, Lister TS3 *(from July 2000)*	**C - 7A**
AIR CLEANER, Lister-Petter TS/TR3 *(from serial no. 0311 to 0559)*	**C - 8**
AIR CLEANER, Lister-Petter TS/TR3 *(from serial no. 0560)*	**C-8A**
ENGINE, Petter PJ2	**C - 10**
MOTOR, electric drive (15kW)	**C - 12**
STARTER & STOP SWITCH, electric drive	**C - 12A**
DRIVE CHAIN, diesel engine	**C - 13**

Reversing Drum Mixer, model 500R



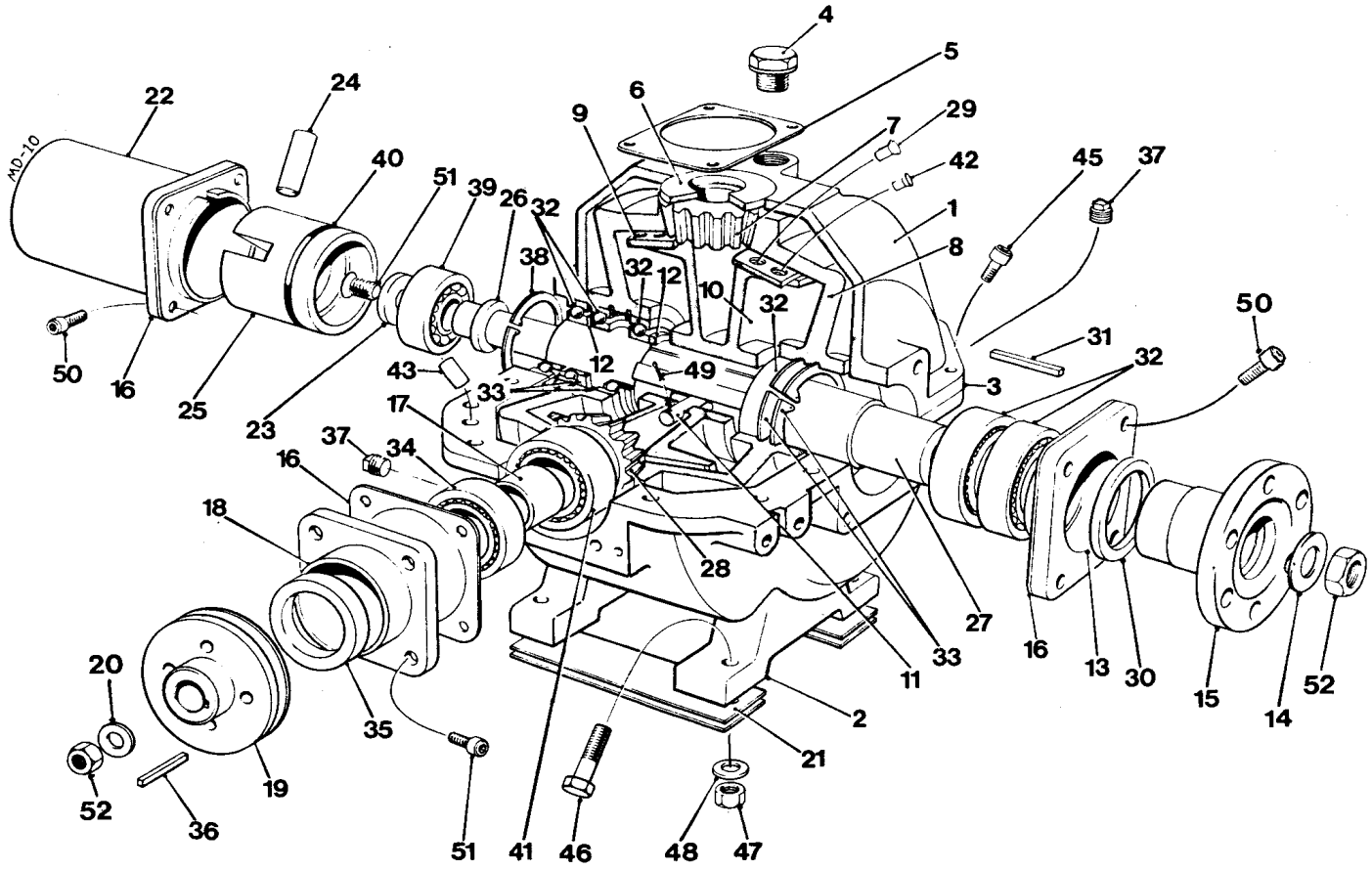
Item	Part no	Serial no	Description	Qty
1	555110100		LINK, slotted	1
2	555110200		BLOCK, mounting *(welded to frame)*	1
3	555110300	0632/	LEVER, 1/2" UNC thread	1
3A	555292100	/0633	LEVER, M12 thread	1
4	307120000	0632/	KNOB, 1/2" UNC thread	1
4A	307126000	/0633	KNOB, M12 thread	1
5	555110400		LEVER	1
6	555110500		BLOCK, clevis pin	1
7	555110600		PIN, clevis	2
9	555110800		PIN, pivot	1
10	555110900		SLEEVE	1
11	555516700		GLAND, sliding, short	1
12	555516600		GLAND, sliding, long	1
13	555111200		ROD, connecting	1
14	555111300		ROLLER c/w bush assembly	1
14A	112805800		BUSH	1
15	555111400		SPRING, compression	1
16	112800200		BUSH	3
17	383251000		ROD END	1
18	132412010		CIRCLIP	3
19	10S04		WASHER, flat	
20	6S05E		BOLT	1
21	87S05		NUT, self locking	1
22	44S02E		PIN, split	1
23	10S18		WASHER, flat	2
24	44S05D		PIN, split	1
25	10S04		WASHER, flat	1
28	9S06		NUT	2
29	95S07		NUT, locking	2
30	44S03F		PIN, split	2
31	95S05		NUT, locking	1
32	10S18		WASHER, flat	1

Reversing Drum Mixer, model 500R

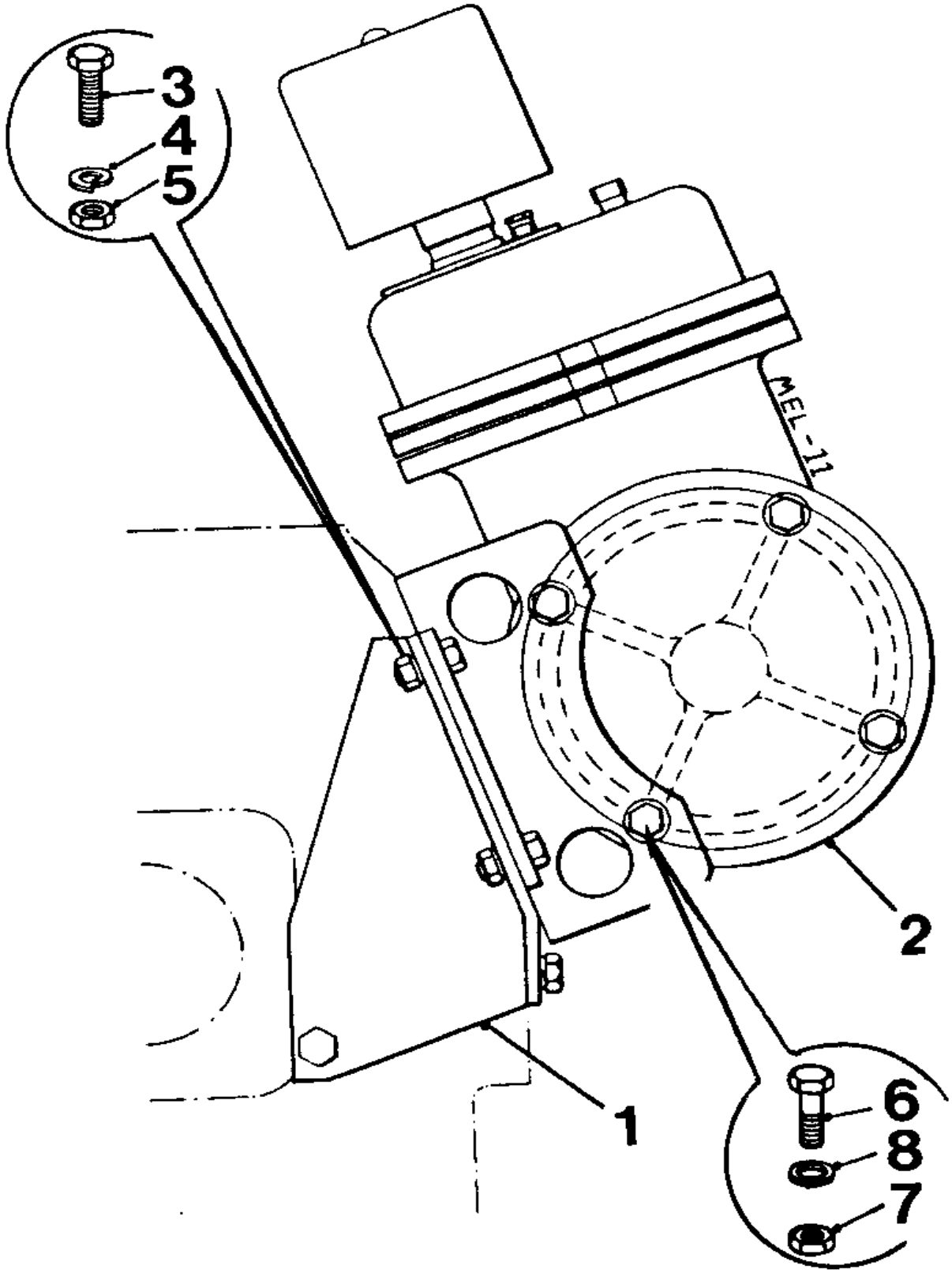


Item	Part no	Date		Description	Qty
-	555268100			REVERSING BOX, assembly	1
1	555105300			CASE, upper	1
2	555205600			CASE, lower	1
3	555107500			GASKET	1
4	511100900			PLUG, filler	1
5	555107700			SHIMS	set 1
6	555107000			RING, locating	1
7	555106100			PINION, pump drive	1
8	555105400			BEVEL GEAR	2
9	515101000			LINING, clutch	2
10	555105500			CONE, clutch	1
11	555106700			PIN, operating	1
12	555107100			WASHER, thrust	set 1
13	555105900			RETAINER, bearing	1
14	555107200			WASHER, retainer	1
15	555257600			FLANGE, output	1
16	555107600			SHIMS	set 1
17	555106900			SPACER, bearing	1
18	555105800			HOUSING, bearing	1
19	555181600			FLANGE, drive	1
20	555107300			WASHER, retainer	1
21	555107400			PACKER, reversing box	2 sets
22	555105600			GUIDE, plunger	1
23	555106800			PLATE, securing	1
24	555111500			PIN, plunger	1
25	555106400			PLUNGER, operating	1
26	555106500			SHAFT, operating	1
27	555106000			SHAFT, clutch	1
28	555106200			BEVEL PINION	1
29	380205120			RIVET, semi tubular	20
30	417732440			SEAL, oil	1
31	304106140			KEY, parallel	1
32	121250000	/ 1989	#	BEARING, thrust ball *(Bearing Marked 7209)*	6
32	V600845	1989 /	#	BEARING, taper roller *(Bearing marked 30209)*	6
			#	*Quote marking when ordering*	

Reversing Drum Mixer, model 500R



Item	Part no	Date	Description	Qty
33	132385100		CIRCLIP	4
34	88S16		BEARING, ball	1
35	417743000		SEAL, oil	1
36	304404100		KEY,parallel	1
37	241704000		PLUG	2
38	132362000		CIRCLIP	1
39	111305000		BEARING, ball	1
40	391205000		SEAL,'O' ring	1
41	88S06		BEARING, ball	1
42	380210500		RIVET, semi tubular	20
43	353206080		DOWEL	2
45	103S04AC		SCREW, socket head cap	13
46	6S05F		BOLT	4
47	87S05		NUT, self locking	4
48	10S04		WASHER, flat	4
49	353303080		PIN, split	2
50	103S04C		SCREW, socket head cap	8
51	183S05F		SCREW, socket head cap	5
52	192S07		NUT, self locking	2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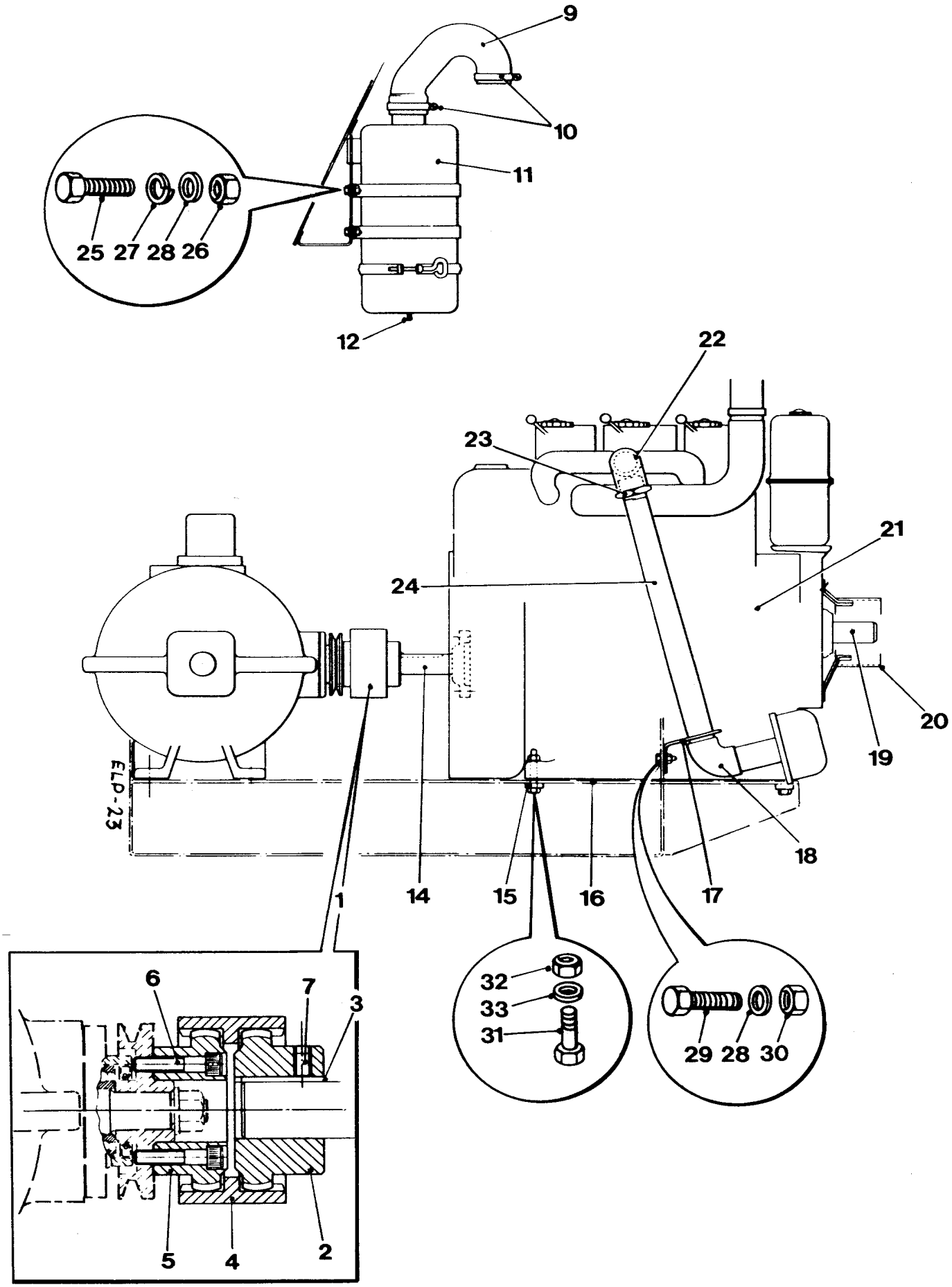
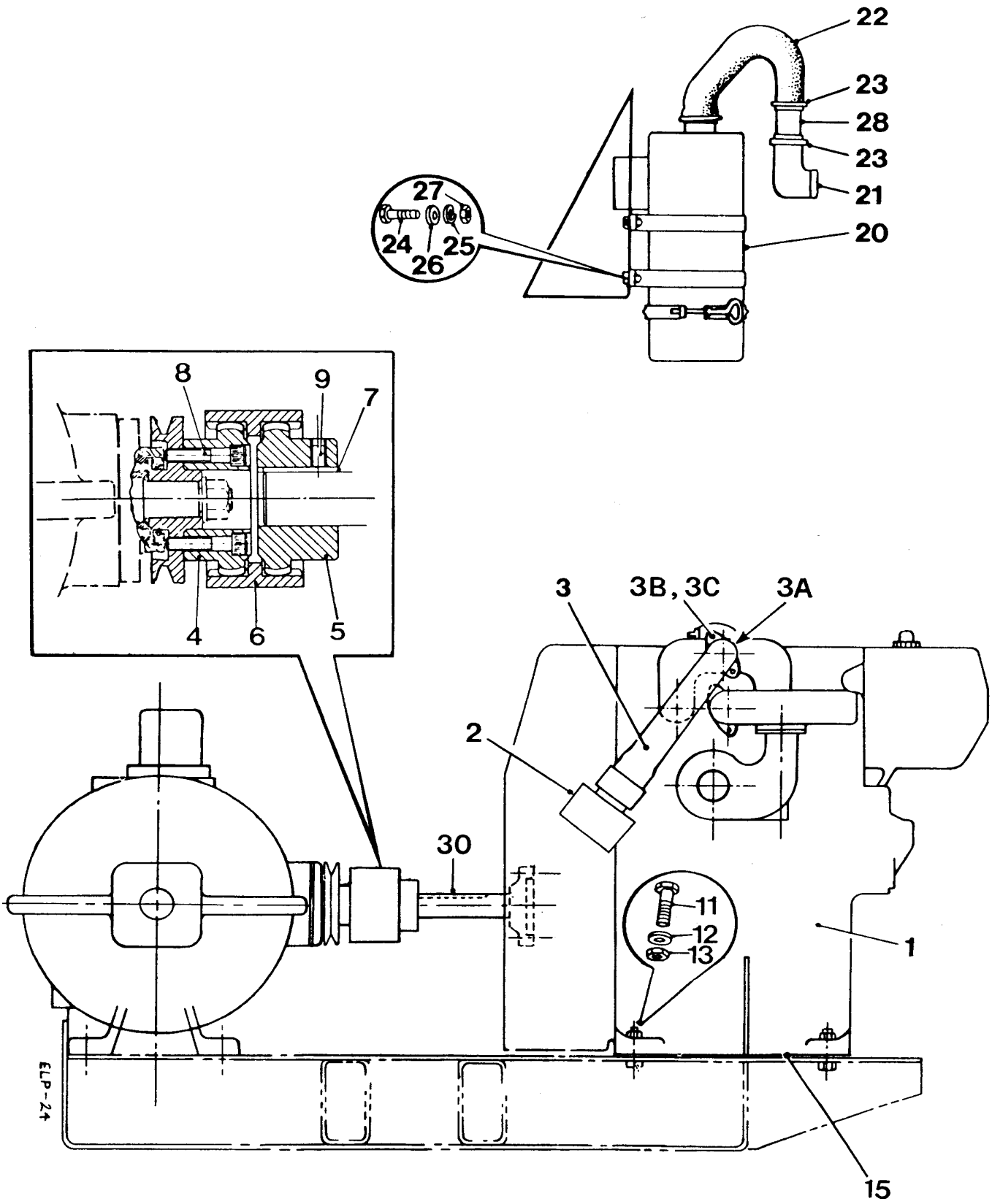
Item	Part no	Date	Description	Qty
1	555133300	/ 84	BRACKET, compressor mounting	1
2	136252000		COMPRESSOR	1
-	397242000		BELT, drive *(not illustrated)*	1
3	66S03CC		SCREW, set	2
4	464306000		WASHER, spring	2
5	9S03		NUT	2
6	66S03CC		BOLT	4
7	87S02		NUT, self locking	4
8	10S02		WASHER, flat	4

Reversing Drum Mixer, model 500R



Item	Part no	Date	Description	Qty
1	555250800	/ May-86	COUPLING, assembly	1
2	555248602		COUPLING, engine end	1
3	304712863		KEY. Parallel	1
4	147320001		SLEEVE, nylon	1
5	555248601		COUPLING, gearbox end	1
6	90S04L		SCREW, socket head cap	4
7	188S04E1		SCREW, set socket head	1
9	555188700		PIPE, inlet, moulded rubber	1
10	97S13		CLIP	2
11	220237000		AIR CLEANER	1
·····	10532A0301		ELEMENT, air cleaner	1
12	353304080		PIN split	1
14	555232700		CRANKSHAFT	1
15	555140500		BAR engine bolt retaining	2
16	555186600		PACKER engine (set)	1set
17	555142900		CLIP exhaust pipe	1
18	24111200		ELBOW	1
19	555231900		CAMSHAFT	1
20	504694700		GUARD camshaft	1
21	354071900		ENGINE diesel, **Lister ST3**	1
22	240712000		ELBOW male/female	1
23	72S05		NUT locking	1
24	555142800		PIPE exhaust	1
25	66S03CC		SCREW set	4
26	104S03		NUT	4
27	41S05		WASHER spring	4
28	10S03		WASHER flat	6
29	28S03E		SCREW set	2
30	87S03		NUT self locking	2
31	6S05K		BOLT	4
32	87S03		NUT self locking	4
33	10S04		WASHER flat	4
·····	55140700		HOOK, starting handle (not illostrated)	1
·····	66S03A		SCREW set *(not illostrated)*	2
·····	104S02		NUT	2
·····	41S04		WASHER spring	2

Reversing Drum Mixer, model 500R



Item	Part no	Date	Description	Qty

IMPORTANT Engine change

From mixer serial number 0403 (mid 2004) the Lister-Petter TS3 engine was replaced by the Lister-Petter TR3 engine.

The TR3 engine is completely interchangeable with the TS3 engine and consumable items such as filter elements are identical. There are some internal component differences and when ordering spares it is important to state whether it is a TS3 or TR3 engine.

As the engines are interchangeable, part numbers will not change.

1	20351A02	June-86 /	ENGINE, hand start, (export)	1
1	V2003680		ENGINE, electric start, (export)	1
1	20351A03		ENGINE, hand start, (UK/EEC)	1
1	20351A04		ENGINE, electric start, (UK/EEC)	1
2	V2001674	June-86 / July-00	SILENCER, “pepperpot”	1
3	555142300	June-86 / July-00	PIPE, exhaust	1
3A	10293A03		GASKET, exhaust	1
3B	11S04C		SCREW, set	2
3C	17S05		WASHER, spring	2
4	555248601	/0639	COUPLING, gearbox end	1
5	555280900	/0639	COUPLING, engine end	1
6	147320001	/0639	SLEEVE, coupling, nylon	1
7	304712863		KEY, parallel	1
8	90S04L		SCREW, skt hd.cap	4
9	188S04E1	/0639	SCREW, grub, UNC	1
	555292200	0640/	COUPLING, assembly, (KTR/BOWEX)	1
	replaces items 4, 5, 6 & 9 above, comprises of items marked # below			
4	V603759#	0640/	COUPLING, gearbox (KTRBOWEX)	1
5	V603760#	0640/	COUPLING, engine (KTR/BOWEX)	1
6	V603761#	0640/	SLEEVE, coupling, nylon (KTR/BOWEX)	1
7	304712863		KEY, parallel	1
8	90S04L		SCREW, skt hd.cap	4
9	57S06G1#	0640/	Screw, grub, M10	1
11	6S05K		BOLT	4
12	10S04		WASHER, flat	4
13	87S05		NUT, “Binx”, self-locking	4
15	555281200		PACKER, engine	2

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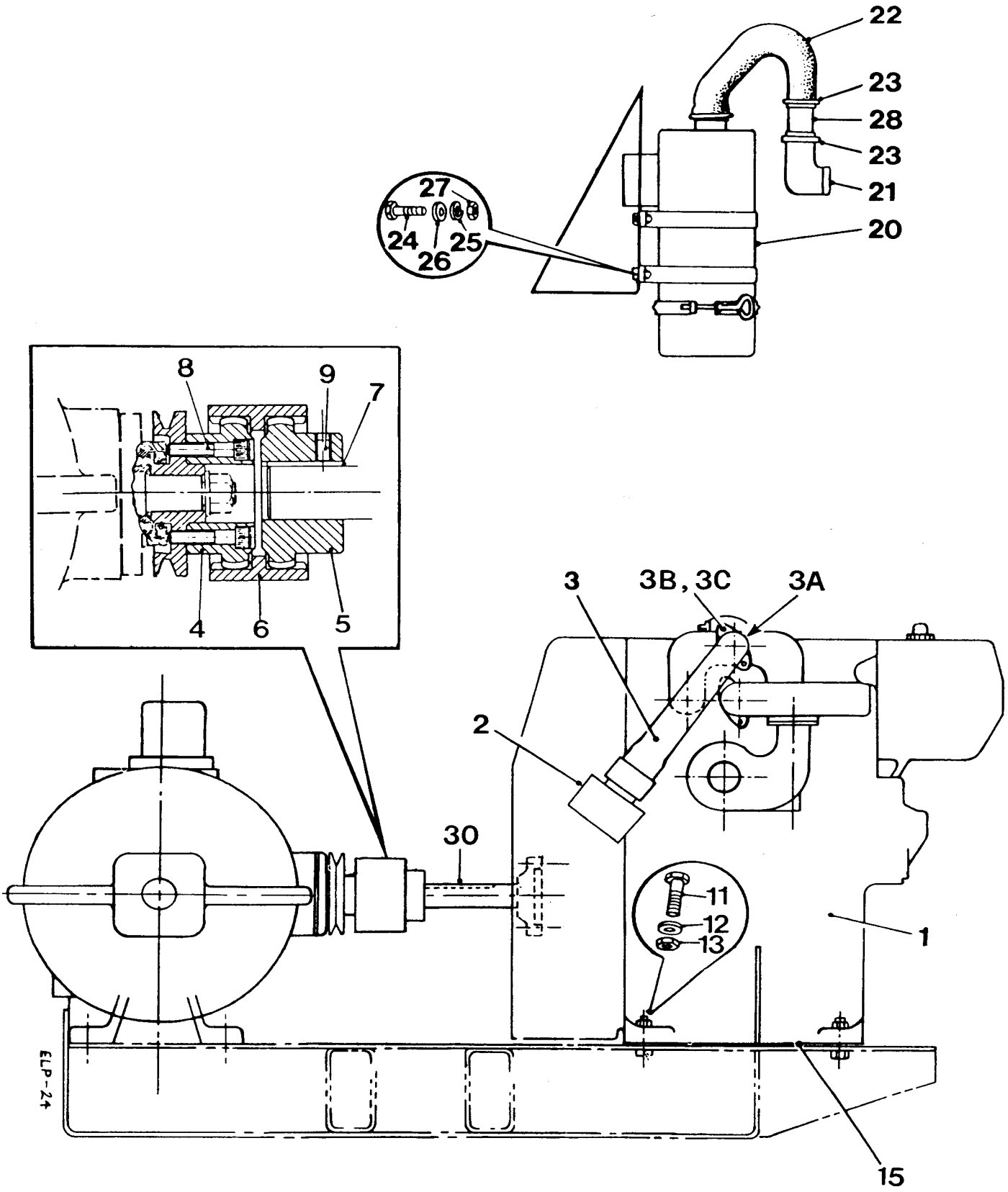
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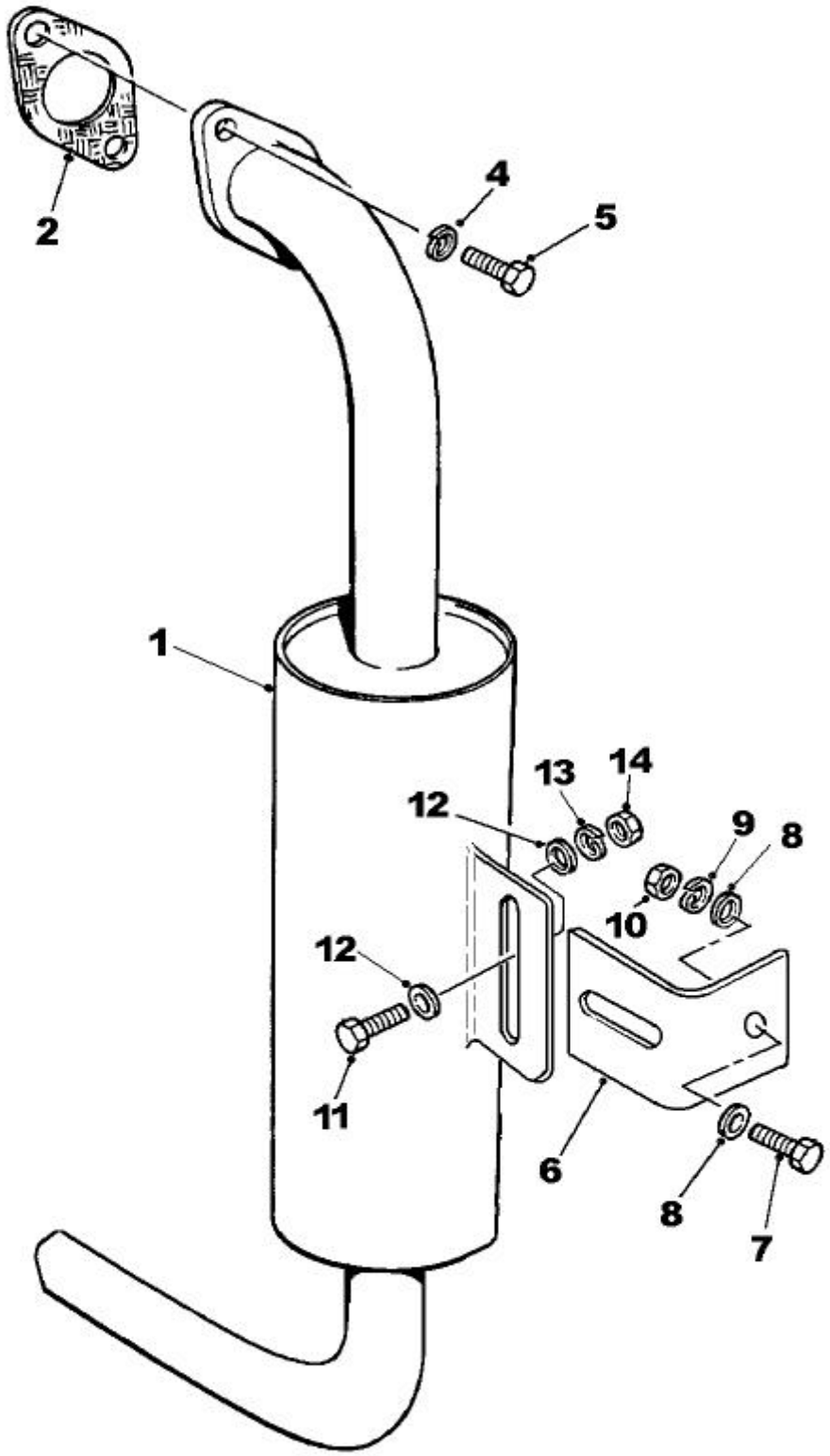
ELP-24

Item	Part no	Serial no	Description	Qty
20	10532A02	/ 0310	AIR CLEANER	1
-	10532A0101	/ 0310	ELEMENT, air cleaner	1
21	V600187	/ 0310	PIPE, inlet, rubber	1
22	555188700	/ 0310	PIPE, inlet, rubber	1
23	97S13	/ 0310	CLIP, hose	4
24	69S02A	/ 0310	BOLT	4
25	41S04	/ 0310	WASHER, spring	4
26	10S02	/ 0310	WASHER, flat	4
27	104S02	/ 0310	NUT	4
28	555280000	/ 0310	CONNECTOR, tube, air cleaner	1
30	555280100		SHAFT, extenion, SHORT	1
30	EL20235271		SHAFT, extension, LONG	1

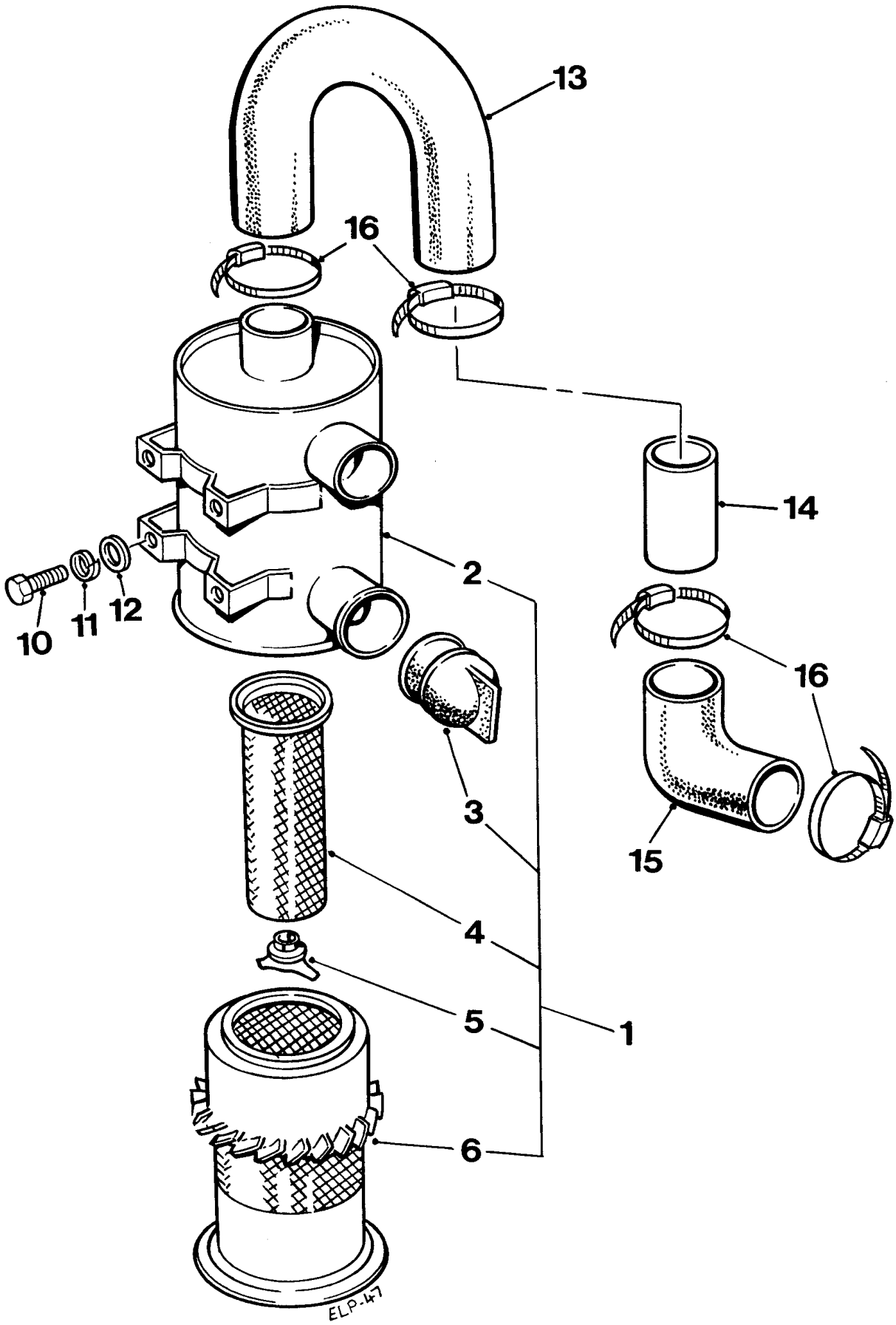
Reversing Drum Mixer, model 500R



SILENCER, *(from July 2000)* C - 7A

Lister-Petter TS3 & TR3 engines

Item	Part no	Date	Description	Qty
1	555288900	Jul-00 /	SILENCER acoustic exhaust	1
2	10293A03		GASKET	1
4	17S05		WASHER spring	2
5	11S04C		SCREW set	2
6	555289000		BRACKET silencer support	1
7	11S04F		SCREW set	1
8	267S06		WASHER flat	2
9	17S05		WASHER spring	1
10	7S04		NUT	1
11	11S04C		SCREW set	1
12	267S06		WASHER flat	2
13	17S05		WASHER spring	1
14	7S04		NUT	1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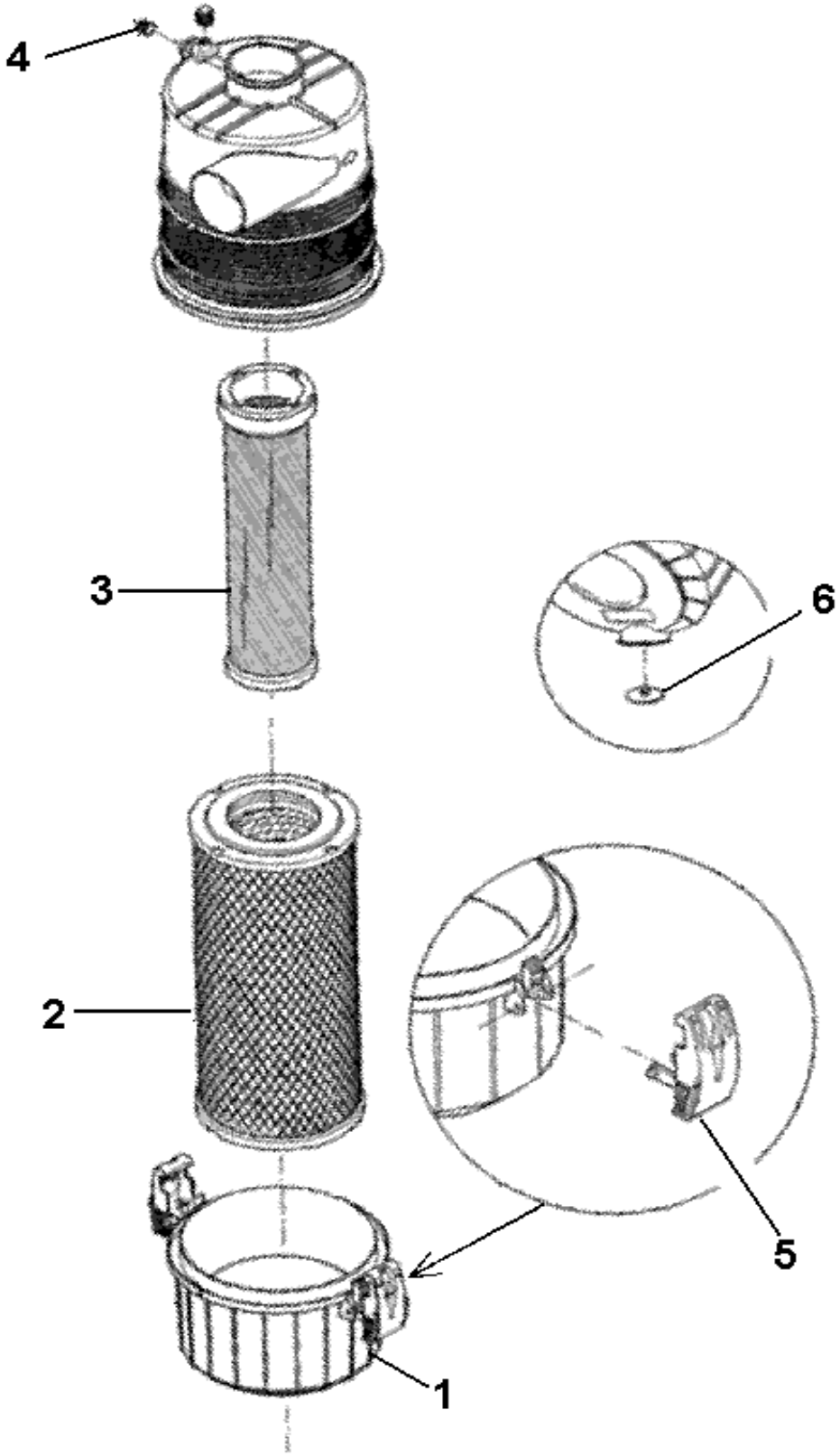
ELP-47

AIR CLEANER
Lister-Petter TS3 & TR3 engines

Item	Part no	Serial no	Description	Qty
1	V2004797	0311/0559	AIR CLEANER, assembly	1
2	----------		BODY, *(order assembly)*	1
3	V602688		DUST COLLECTOR	1
4	V602705		ELEMENT, inner	1
5	V602687		NUT, wing	1
6	V602704		ELEMENT, outer	1
10	11S03B		SCREW, set	4
11	17S04		WASHER, spring	4
12	267S05		WASHER, flat	4
13	555188700		PIPE, inlet	1
14	555280000		TUBE, metal	1
15	V600187		HOSE, rubber elbow	1
16	97S13		CLIP, hose	4

Reversing Drum Mixer, model 500R

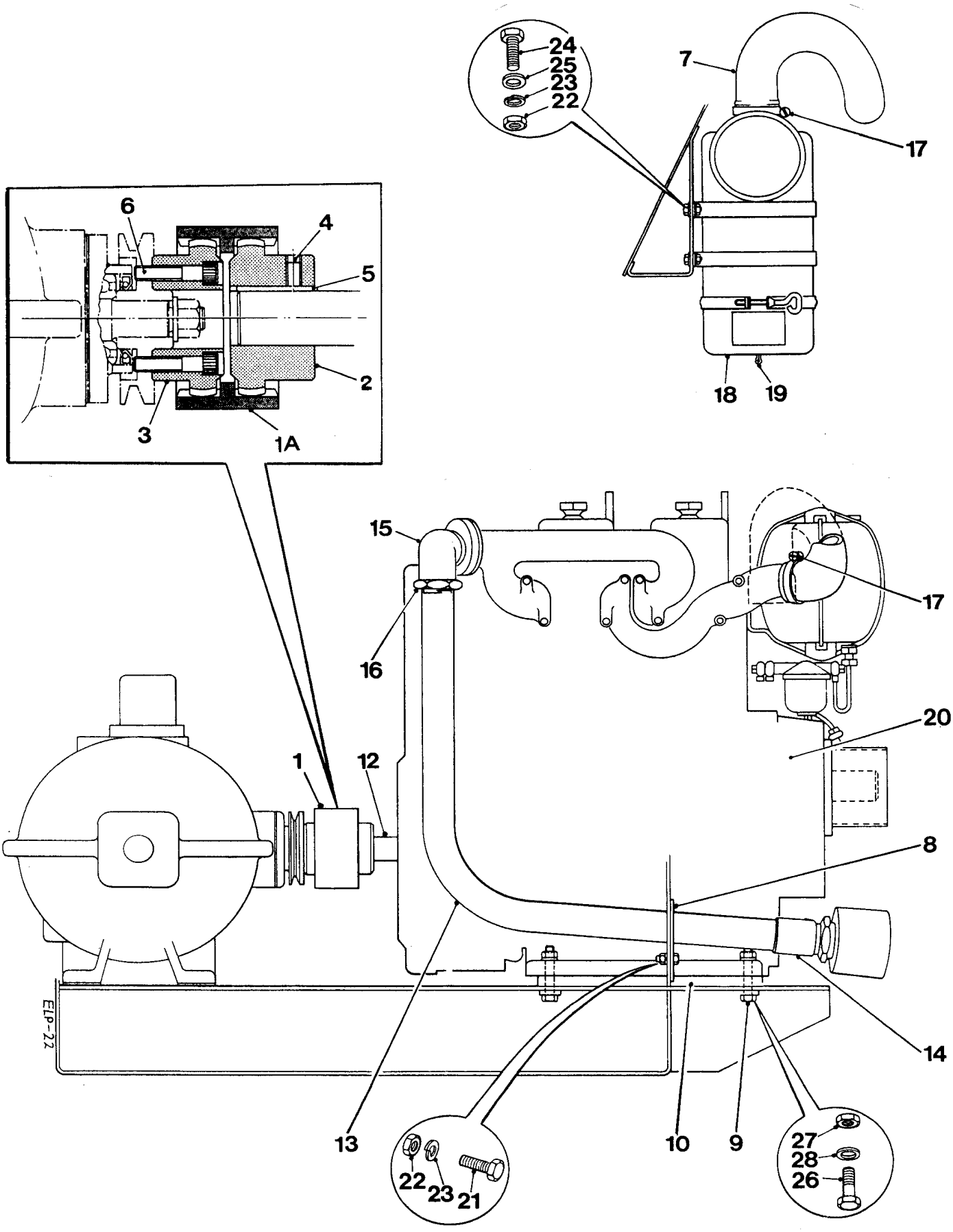


AIR CLEANER
Lister-Petter TS3 & TR3 engines

Item	Part no	Serial no	Description	Qty
1	V2005807	0560 /	AIR CLEANER, assembly	1
1A	V603712		BAND, mounting (not illustrated)	1
1B	11S03D		SCREW, set	2
1C	267S05		WASHER, flat	4
1D	61S03		NUT, self locking	2
2	V603710		ELEMENT, main outer	1
3	V603711		ELEMENT, safety inner	1
4	V603714		CAP, blanking	2
5	V603715		CATCH	2
6	V603713		DUST VALVE, internal	1

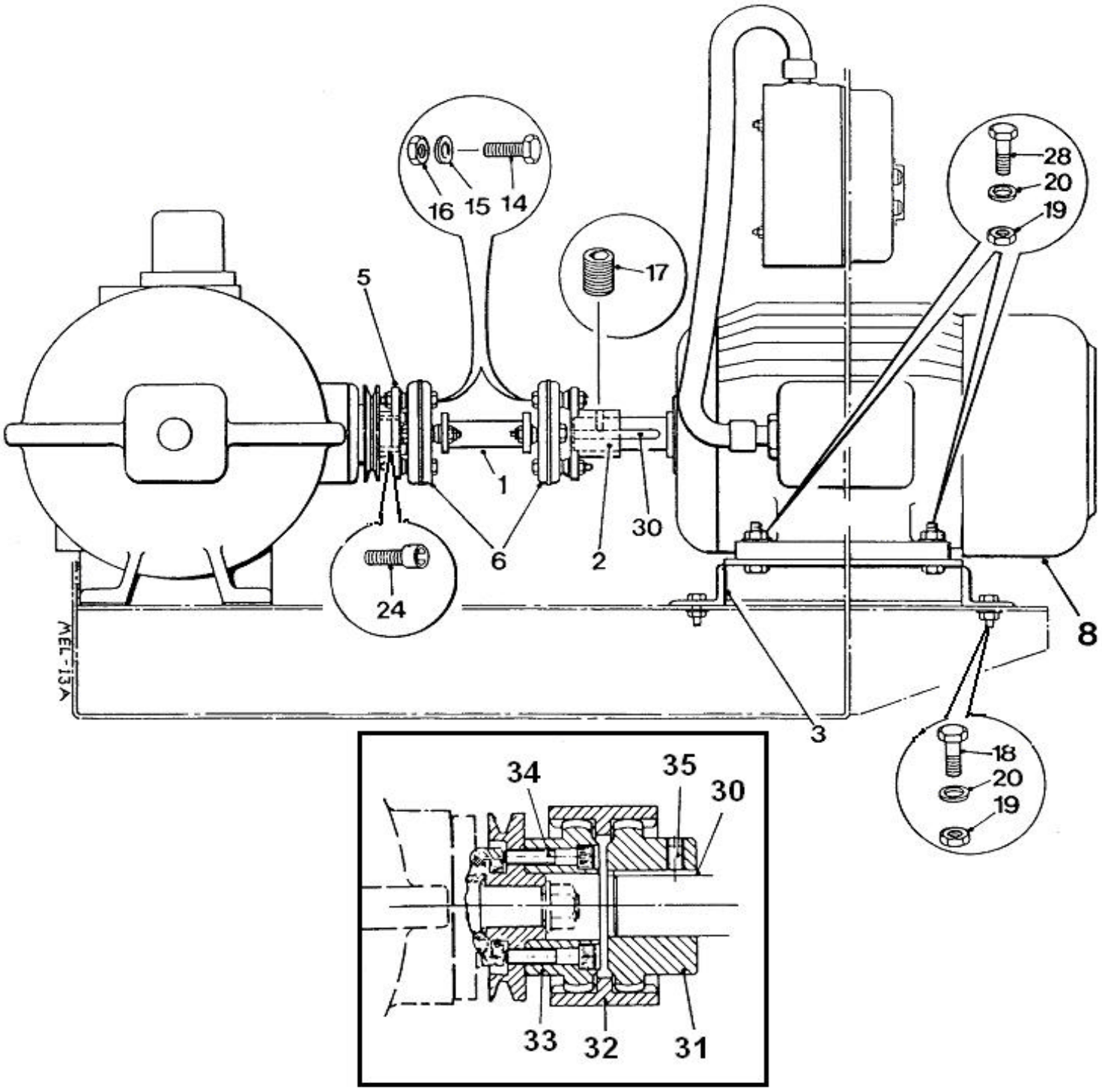
Refer to Page C-8 for hose clips, inlet pipes and elbows

Reversing Drum Mixer, model 500R



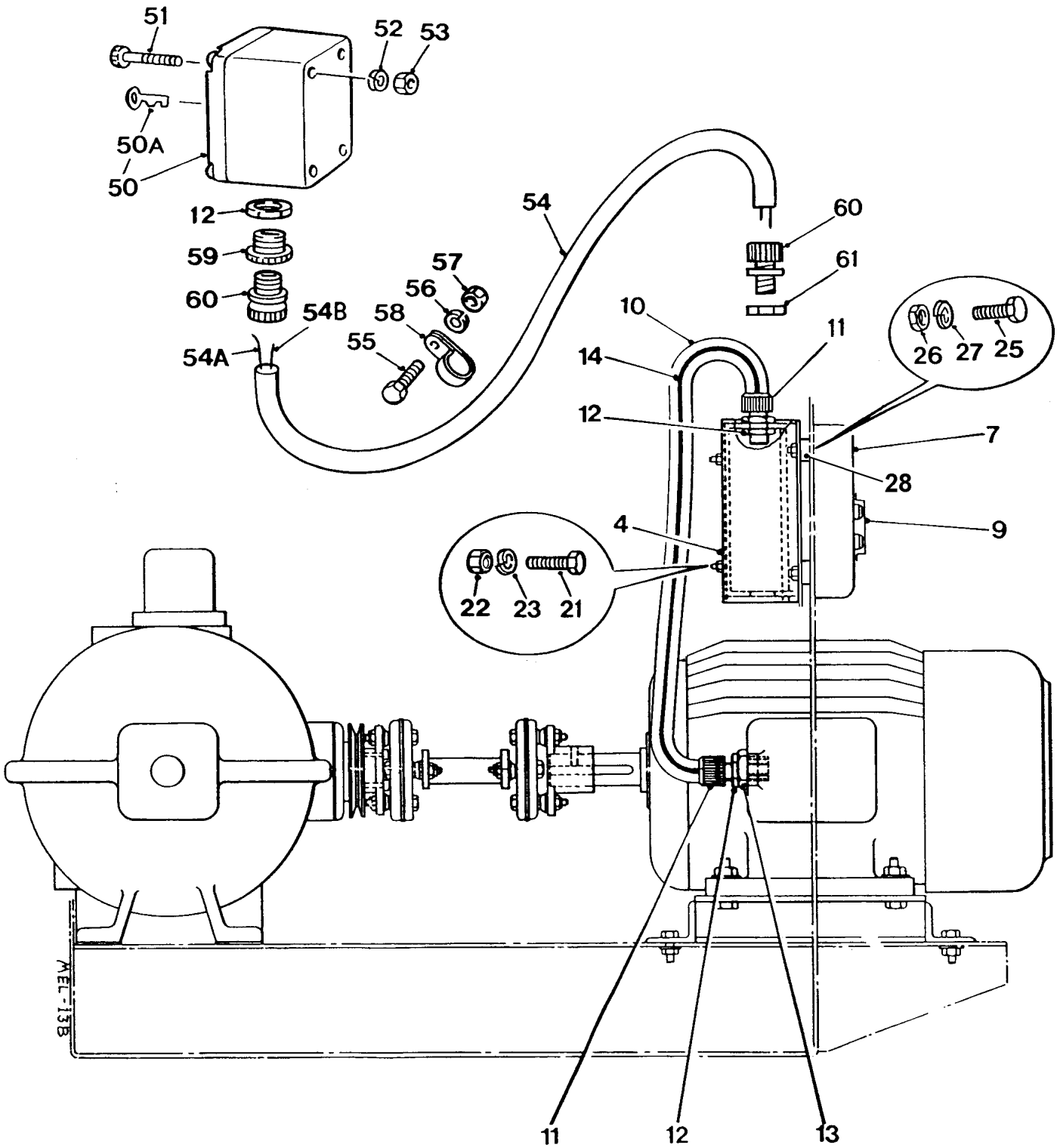
Item	Part no	Date	Description	Qty
1	555251100	84 / June-86	COUPLING assembly	1
1a	147320001		SLEEVE nylon	1
2	555248602		COUPLING engine end	1
3	555248600		COUPLING gearbox end	1
4	403550610		SCREW set socket head	1
5	304106200		KEY parallel	1
6	90S04L		SCREW socket head cap	4
7	555243700		PIPE inlet	1
8	555245200		CLAMP exhaust pipe	1
9	555143000		BAR engine bolt retaining	2
10	555144100		PACKER engine	2
12	555143600		SHAFT engine	1
13	555529900		PIPE exhaust	1
14	241912000		SOCKET	1
15	240712000		ELBOW male/female	1
16	72S05		NUT backing	1
17	97S31		CLIP	2
18	220237000		AIR CLEANER	1
19	353323225		PIN split	1
20	354071600		ENGINE diesel, **Petter PJ2**	1
21	11S04C		SCREW set	1
22	7S04		NUT	5
23	17S05		WASHER spring	5
24	11S04B		SCREW set	4
25	267S06		WASHER flat	4
26	8S05M		BOLT	4
27	61S05		NUT binx	4
28	267S07		WASHER flat	4

Reversing Drum Mixer, model 500R



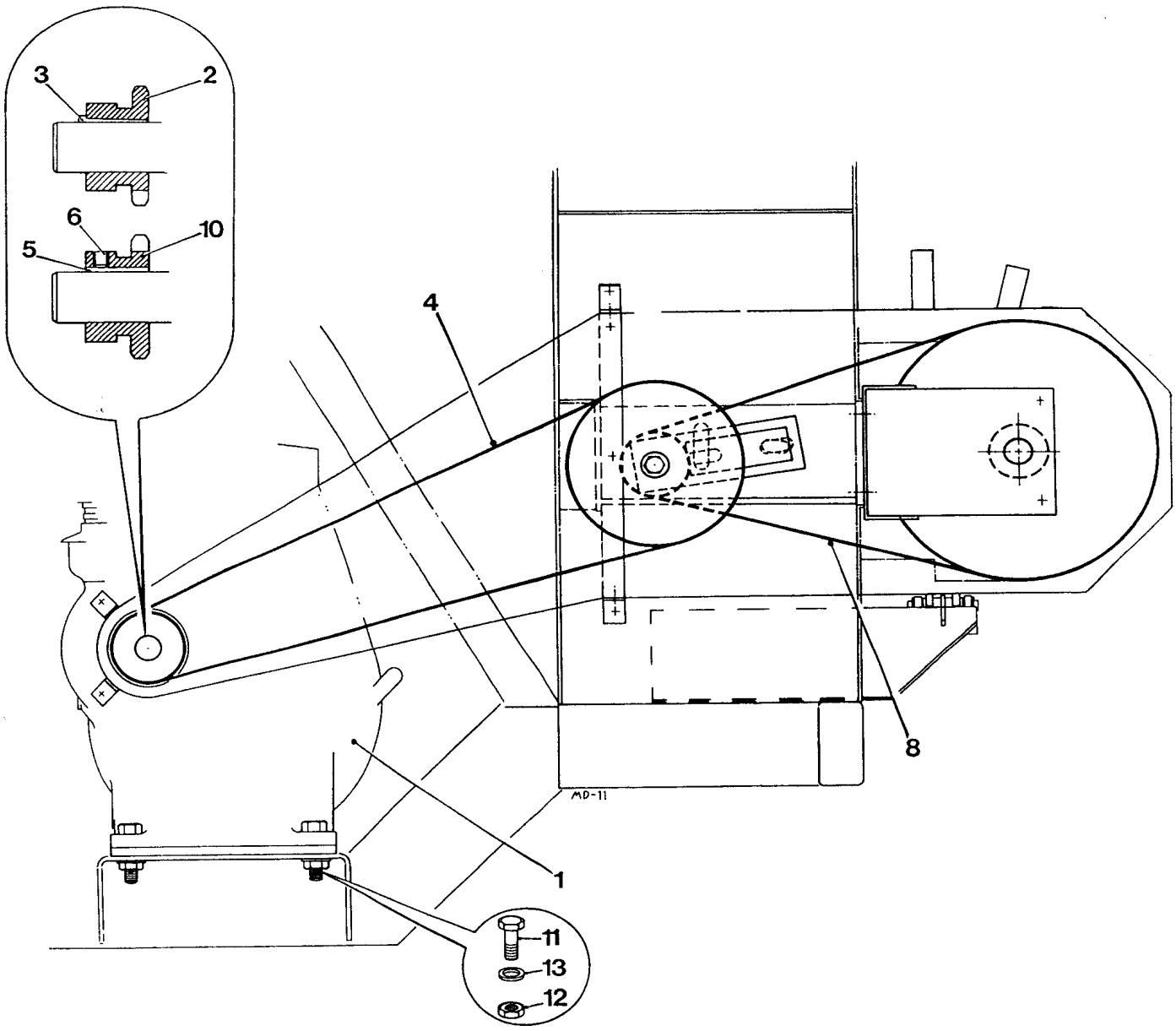
Item	Part no	Date	Description	Qty
1	555142600	0595/	SHAFT, connecting	1
2	555145500	0595/	FLANGE, drive	1
3	555145400		MOUNTING, electric motor	1
5	555258100	0595/	ADAPTOR, drive	1
6	130972000	0595/	COUPLING, “Layrub” *(Items 14, 15 & 16 are supplied with coupling)*	2
8	202426000		MOTOR, electric (15Kw, 20hp)	1
14	8S05H	0595/	BOLT	8
15	267S07	0595/	WASHER, flat	8
16	61S05	0595/	NUT, “Binx” self-locking	8
17	195S03C2	0595/	SCREW, grub	1
18	28S05G		SCREW, set	4
19	87S05		NUT, “Binx” self-locking	8
20	10S04		WASHER, flat	8
24	90S04H	0595/	SCREW, skt. hd. cap	4
28	6S05E		SCREW, set	4
30	304712863		KEY	1
31	555291700	/0596	COUPLING, motor	1
32	147320001	/0596	SLEEVE, nylon toothed	1
33	555248601	/0596	COUPLING, gearbox	1
34	90S04L	/0596	SCREW, skt. hd. cap	4
35	188S04E1	/0596	SCREW, grub	1

Reversing Drum Mixer, model 500R



Item	Part no	Date	Description	Qty
4	555144200		BRACKET, starter mounting	1
7	208304102	/ Oct-86	STARTER, complete	1
.....	208304103	Nov-86 /	SWITCH, starter	1
.....	208304105	Nov-86 /	RELAY-OVERLOAD, 28A-31A	1
9	205617000		CAP, protective	1
10	131736000		CONDUIT, pliable (1 meter)	1
11	131272000		COUPLING	2
12	133275050		NUT, locking	2
13	131592025		SOCKET, reducing	1
14	030788102		WIRE, red, (6 meters)	1
14	030788103		WIRE, green/yellow, (1 meter)	1
21	11S02A		SCREW, set	4
22	7S02		NUT	4
23	17S03		WASHER, spring	4
25	6S03B		BOLT (through spacer)	4
26	9S03		NUT	4
27	41S05		WASHER, spring	4
28	CSE182	0366 /	SPACER	4
50	208870000	/ Oct 04	SWITCH, stop, c/w keys	1
50A	V602651	/ Oct 04	KEY	1
50	208880000	Oct-04 /	SWITCH, stop, assembly c/w keys	
.....	208880000A	Oct-04 /	MUSHROOM, reset c/w keys	1
50A	V603623	Oct-04 /	KEY	2
.....	208880000B	Oct-04 /	CONTACTOR	1
.....	208880000C	Oct-04 /	ENCLOSURE	1
51	103S02D	/ Oct 04	SCREW, skt cap	2
51	11S01D	Oct-04 /	SCREW, set	2
52	41S03	/ Oct 04	WASHER, spring	2
52	17S02	Oct-04 /	WASHER, spring	2
.....	267S03	Oct-04 /	WASHER, flat *(not illustrated)*	2
53	104S01	/ Oct 04	NUT	2
53	7S01	Oct-04 /	NUT	2
54	131770010		CONDUIT (1.5 metres)	1
54A	144700200		WIRE, green/yellow (2 metres)	1
54B	144700100		WIRE, red (4 metres)	1
55	11S02C		SCREW, set	2
56	17S03		WASHER, spring	2
57	7S02		NUT	2
58	V2004640		CLIP “P”	2
59	131575020		REDUCER	1
60	131271000		COUPLING	2
61	133272000		NUT, locking, thin	1

Reversing Drum Mixer, model 500R



Item	Part no	Date	Description	Qty
1	-	/ 88	ENGINE, diesel *(see Section Index)*	1
2	555217500		SPROCKET, engine **(Petter)**	1
3	301106220		KEY, gib head **(Petter)**	1
4	134911108		CHAIN, roller **(Petter)**	1
4	134911092		CHAIN, roller **(Lister)**	1
5	304107180		KEY, parallel **(Lister)**	1
6	57S06D2		SCREW, set, socket head	1
8	134911120		CHAIN, roller **(Lister & Petter)**	1
10	555217600		SPROCKET, engine **(Lister)**	1
11	6S05K		BOLT	4
12	87S05		NUT, self locking	4
13	10S04		WASHER, flat	4

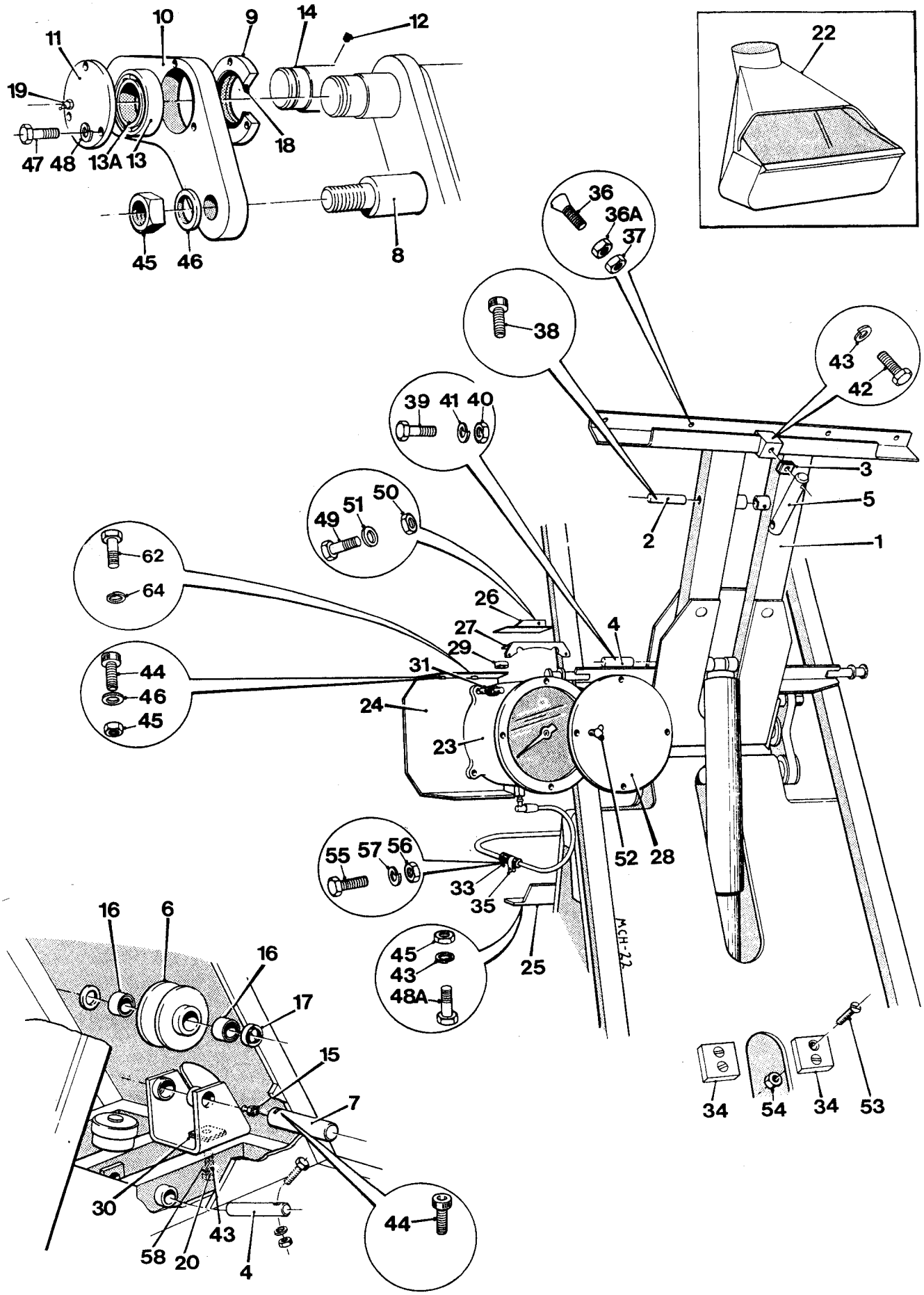
MIXER 500R

Hopper

HOPPER CRADLE & WEIGH GEAR D - 1

D - 1

Reversing Drum Mixer, model 500R

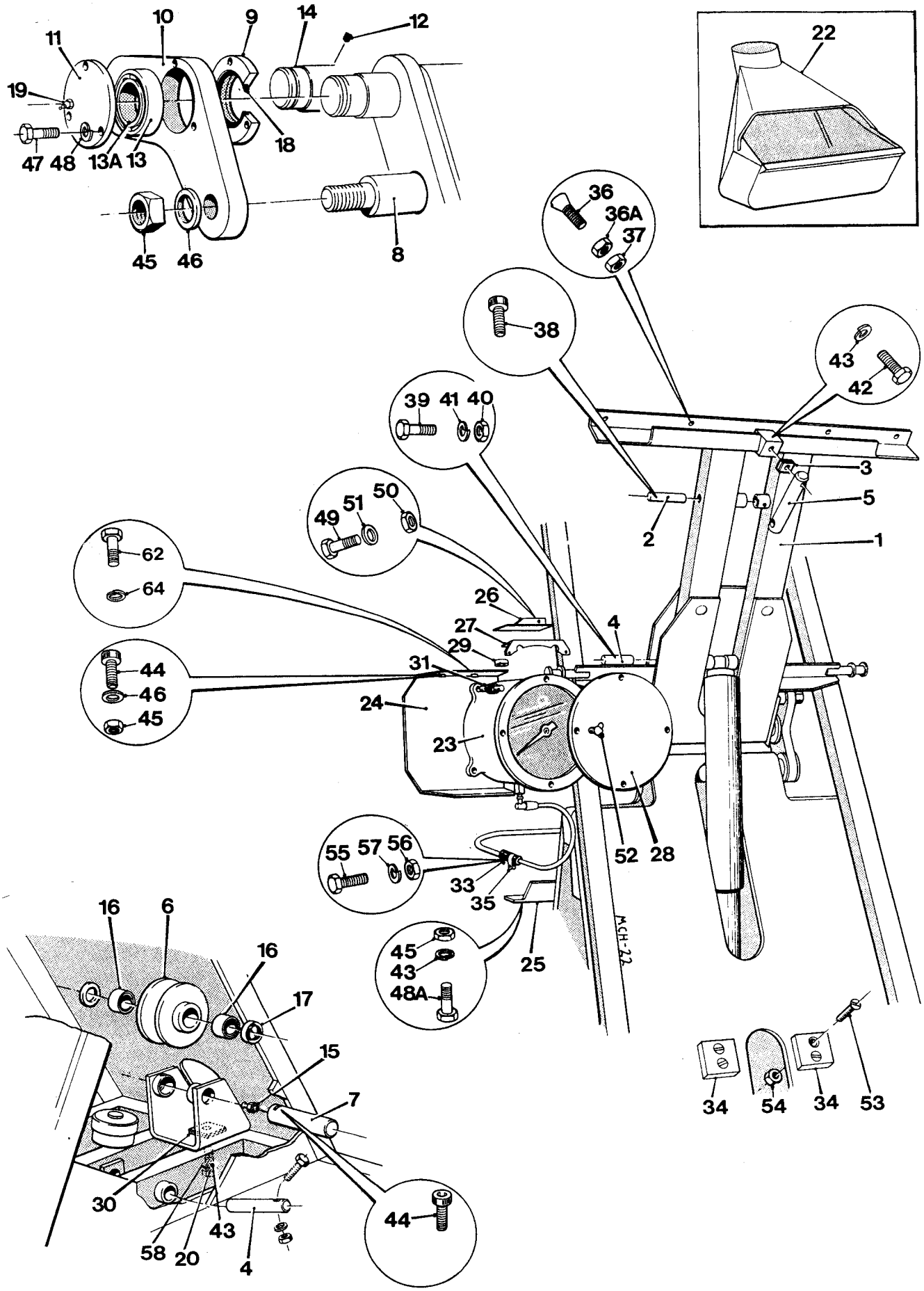


Item	Part no	Serial no	Description	Qty
			# Items required only when weighing gear is fitted	
			$ Items not required when weighing gear is fitted	
1	555269600		CRADLE, hopper *(less dragline)*	1
1	555273200	/ 0312	CRADLE, hopper *(with dragline)*	1
2	555109300		# PIN, hopper cradle	1
3	555109200		# PACKER, loadcell striker	set 1
4	555108500		PIN, hopper ram	2
5	555109100		# STRIKER, loadcell	1
6	555108900		# GUIDE, loadcell striker	1
7	555109000		# PIN, guide	1
8	555255100		SHAFT, link	1
9	555255300		HOUSING, pivot seal	4
10	555255000		ARM, link	pair 1
11	555255400		CAP, pivot bearing	4
12	195S04E2		SCREW, set, socket head	2
13	113179200		BEARING, assembly	4
13A	113179201		BEARING, inner	4
14	555255200		SHAFT, pivot	1
15	333506000		# NIPPLE, grease, straight	1
16	113149000		# BEARING, needle roller	2
17	422702000		# SEAL	2
18	391299000		'O' RING	4
19	131S01		NIPPLE, grease, straight	4
20	11S05E		SCREW, set	1
22	555265405		HOPPER	1
23	.....		# WEIGH gauge *(see page E - 3)*	1
24	555192700		# PLATE, weigh gauge mounting	1
25	555192800		# SUPPORT, lower, weigh gauge	1
26	555192900		# SUPPORT, upper, weigh gauge	1
27	555124900		# PLATE, weigh gauge mounting, upper	1
28	555125000		# COVER, dial	1
29	555125100		# SPACER	2
.....	6S05C		BOLT (not illustrated)	2
.....	87S05		NUT (not illustrated)	2
30	512118300		# PACKER, loadcell	set 1
31	013203000		# MOUNTING, flexible	4
33	555170100		# GUARD, hose	1

continued>

D - 1

Reversing Drum Mixer, model 500R



Item	Part no	Serial no	Description	Qty
34	555109600		$ STOP, cradle	2
35	143200900		# CLIP, hose	2
35A	143200300		# CLIP, hose (1/2" dia capillary hose)	2
36	208S06J		SCREW, countersunk	8
36A	104S06		NUT	8
37	203S06		NUT, locking	8
38	195S03C2		# SCREW, socket head	2
39	6S03G		BOLT	2
40	9S03		NUT	2
41	41S05		WASHER, spring	2
42	6S05E		# SCREW, set	1
43	41S07		# WASHER, spring	5
44	195S04D3		# SCREW, socket head	1
45	9S11		NUT	2
46	10S31		WASHER, flat	2
47	8S03E		BOLT	12
48	17S04		WASHER, SPRING	12
48A	6S05BB		BOLT	5
49	6S03L		BOLT	1
50	9S03		NUT	1
51	41S05		WASHER, flat	1
52	261S02M		THUMBSCREW, shouldered	4
53	206S05C		$ SCREW, countersunk	4
54	192S05		$ NUT,self locking	4
55	16S05B		# SCREW SLT	9
56	7S09		# NUT	9
57	17S10		# WASHER, spring	9
58	17S06		WASHER, spring	1
62	28S03D		SCREW	2
·····	41S05		WASHER, spring *(not illustrated)*	2
·····	10S03		WASHER, flat *(not illustrated)*	2
·····	9S03		NUT *(not illustrated)*	2
			Hopper safety chain (not illustrated)	
·····	555269800		CHAIN, safety	1
·····	11S05D		SCREW, set	1
·····	267S07		WASHER, flat	1
·····	61S05		NUT, self locking	1

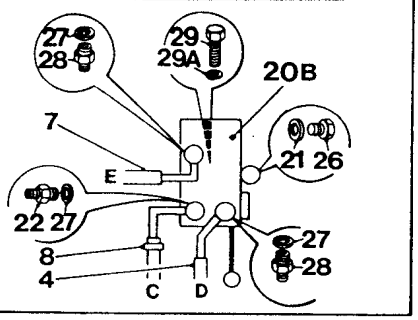
MIXER 500R

Hydraulics

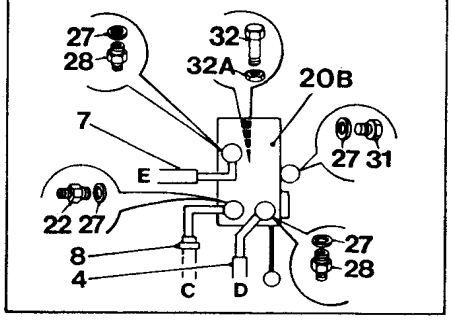
HYDRAULIC CIRCUIT, without dragline *(up to serial no. 0306)*	**E - 1**
CONTROL VALVE *(up to January 1988)*	**E - 1AA**
CONTROL VALVE *(from February 1988 to serial no. 0268)*	**E - 1A**
SECTION & LEVER, control valve *(from February 1988 to serial no. 0268)*	**E - 1B**
CONTROL VALVE *(from serial no. 0269)*	**E - 1BA**
BASIC HYDRAULICS, without dragline *(from serial no.0307)*	**E - 1D**
HEADER TANK, hopper ram	**E - 1E**
HYDRAULIC CIRCUIT, with dragline *(up to serial no. 0212)*	**E - 2**
HYDRAULIC CIRCUIT, with dragline *(from serial no. 0213 to 0312)*	**E - 2A**
DRAGLINE, hydraulic circuit *(from serial no. 0313)*	**E - 2B**
LOADCELL & GAUGE	**E - 3**
WEIGH GAUGE	**E - 3A**
HYDRAULIC TANK	**E - 4**
HYDRAULIC MOTOR	**E - 5**
RAM, hopper *(up to serial no. 0306)*	**E - 6**
HOPPER RAM, pins & fittings *(from serial no. 0307)*	**E - 8**
RAM, hopper *(from serial no. 0307)*	**E - 9**

Reversing Drum Mixers, model 500R

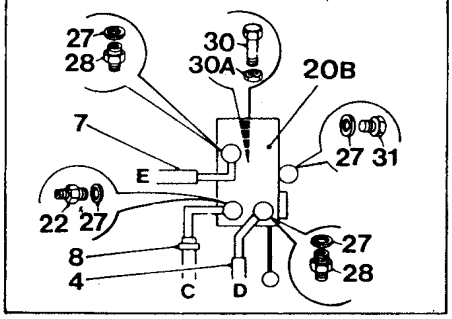
CONTROL VALVE 451 4419 00



CONTROL VALVE 451 4421 00



CONTROL VALVE 451 4423 00



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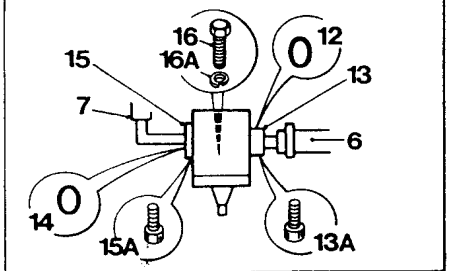
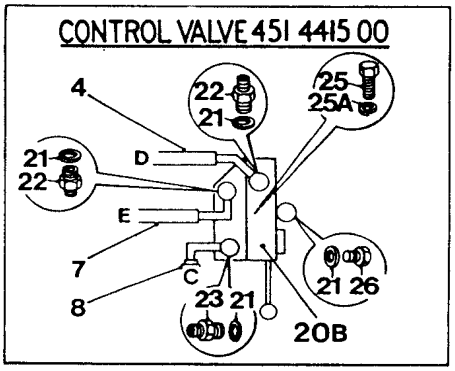
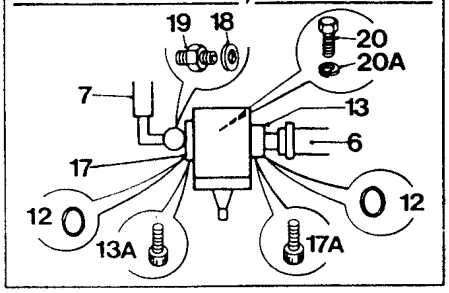
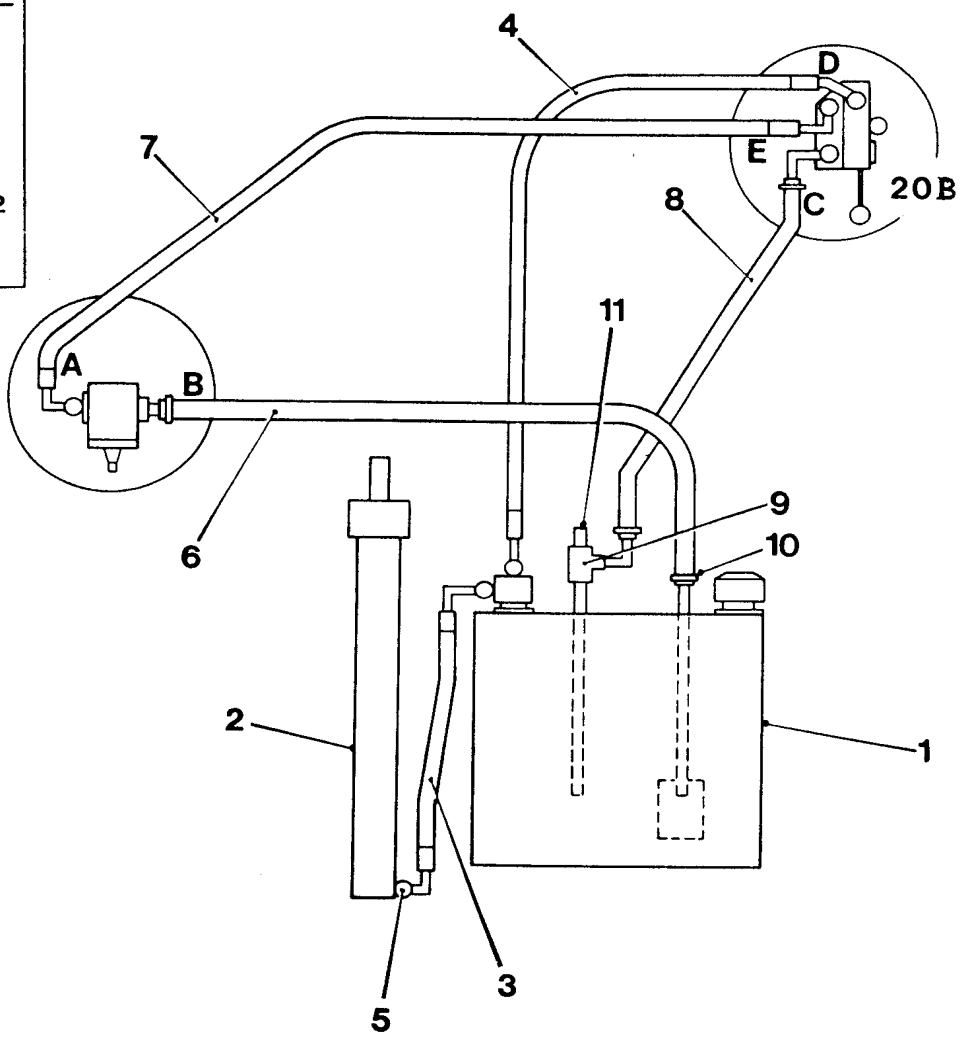


CONTROL VALVE 451 4415 00



PUMP 365 8220 00/360 8230 00

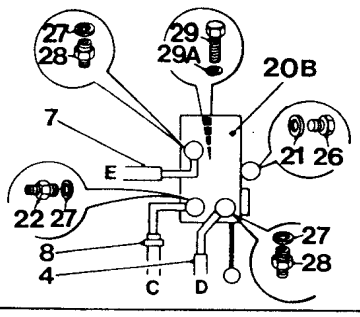




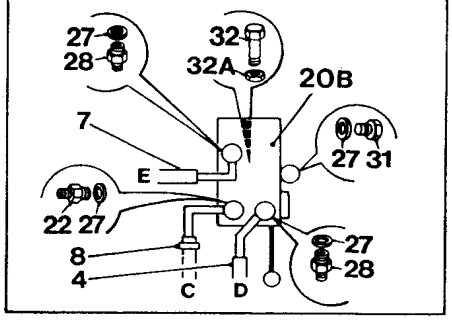
Item	Part no	Serial no	Description	Qty
	For machines from serial number 0307, See page E - 1D			
1	.....	/ 0306	TANK, hydraulic *(see page E - 4)*	1
2	.....	/ 0306	RAM, hopper *(see page E - 6)*	1
3	555204300	/ 0306	HOSE, hopper ram	1
4	555231000	/ 0306	HOSE, control valve to bleed valve	1
5	555246900	/ 0306	RESTRICTOR, ram *(see page E - 6)*	1
6	555258300	/ 0306	HOSE, suction	1
7	555189500	/ 0306	HOSE, pump to control valve	1
8	555268600	/ 0306	HOSE, drain, control valve to tank tee	1
9	446311000	/ 0306	FITTING, tee, equal	1
10	97S09	/ 0306	CLIP	2
11	555136800	/ 0306	BAR, blanking	1
.....	365872000	/ 0306	PUMP, hydraulic, electric drive	1
.....	365871000	/ 0306	PUMP, hydraulic, diesel engine	1
.....	10190A01	/ 0306	KIT, seals, *"Dowty or Ultra"*	1
.....	11046A01	/ 0306	KIT, seals, *"Sundstrand"*	1
.....	V602632	/ 0306	KIT, seals, *"Bosch"*	1
12	391832000	/ 0306	SEAL, 'O' ring	1
13	555136900	/ 0306	CONNECTOR, pump inlet	1
13A	103S03BE	/ 0306	SCREW, socket head cap	2
14	391109000	/ 0306	SEAL, 'O' ring	1
15	555199900	/ 0306	CONNECTOR, pump outlet	1
15A	103S02B	/ 0306	SCREW, socket head cap	2
16	66S01C	/ 0306	SCREW	4
16A	41S03	/ 0306	WASHER, spring	4
.....	365822000	/ Jun-87	PUMP, hydraulic, electric drive	1
.....	365823000	/ Jun-87	PUMP, hydraulic, diesel engine	1
.....	10190A01	/ Jun-87	KIT, seals, "Dowty or Ultra"	1
.....	11046A01	/ Jun-87	KIT, seals, "Sundstrand"	1
.....	V602632	/ Jun-87	KIT, seals, "Bosch"	1
12	391832000	/ Jun-87	SEAL, 'O' ring	1
13	555136900	/ Jun-87	CONNECTOR, pump inlet	1
13A	103S03BC	/ Jun-87	SCREW, socket head cap	2
17	555136400	/ Jun-87	CONNECTOR, pump outlet	1
17A	103S03C	/ Jun-87	SCREW, socket head cap	2
18	100S03	/ Jun-87	SEAL, bonded	1
19	122S03	/ Jun-87	FITTING, adaptor, male, stud	1
20	66S01C	/ Jun-87	SCREW	4
20A	41S03	/ Jun-87	WASHER, spring	4

Reversing Drum Mixers, model 500R

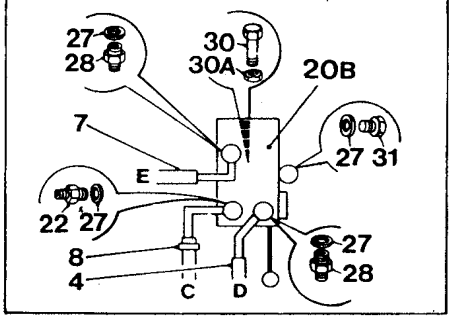
CONTROL VALVE 451 4419 00



CONTROL VALVE 451 4421 00



CONTROL VALVE 451 4423 00



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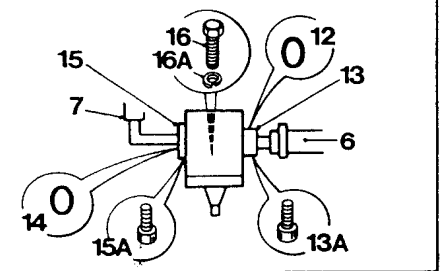
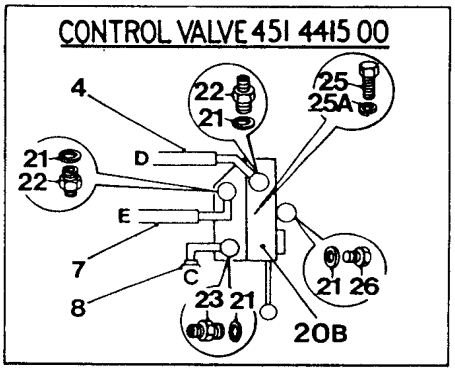


CONTROL VALVE 451 4415 00



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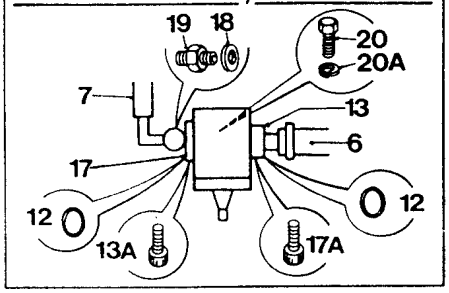
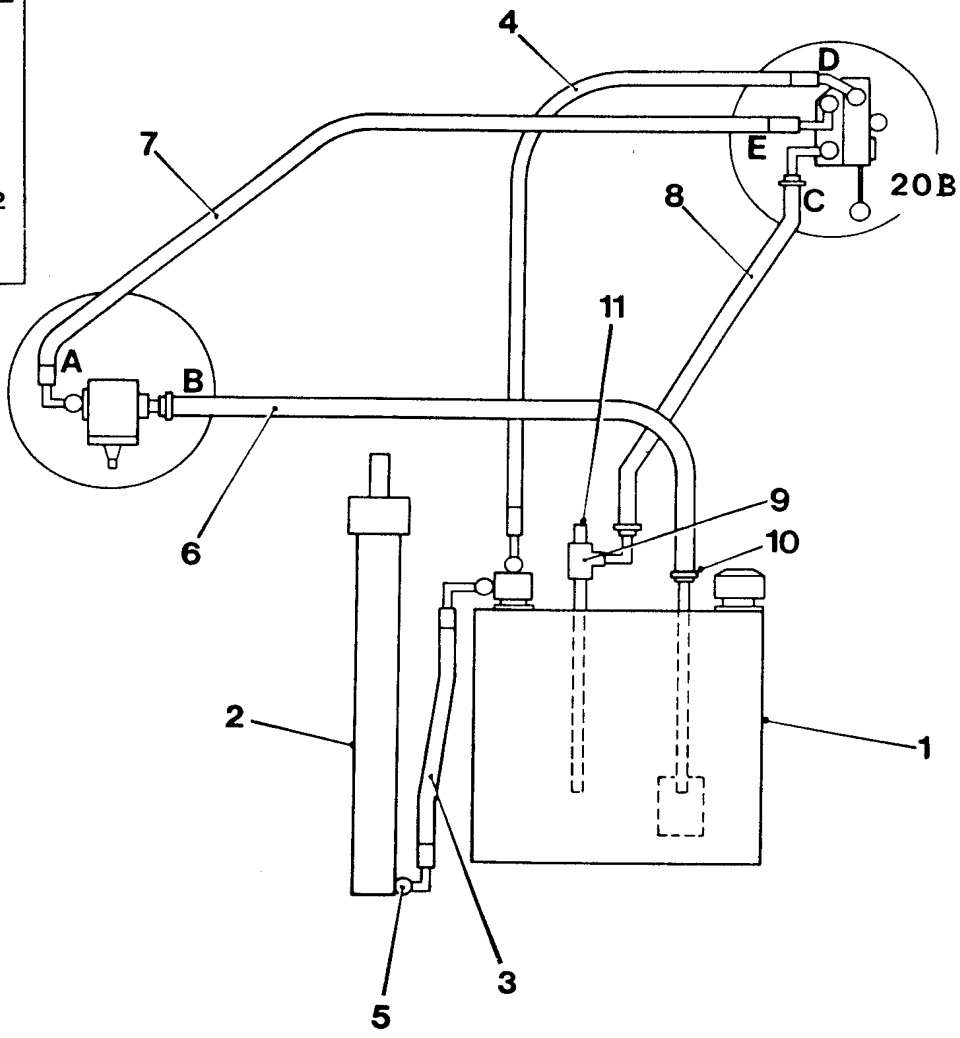
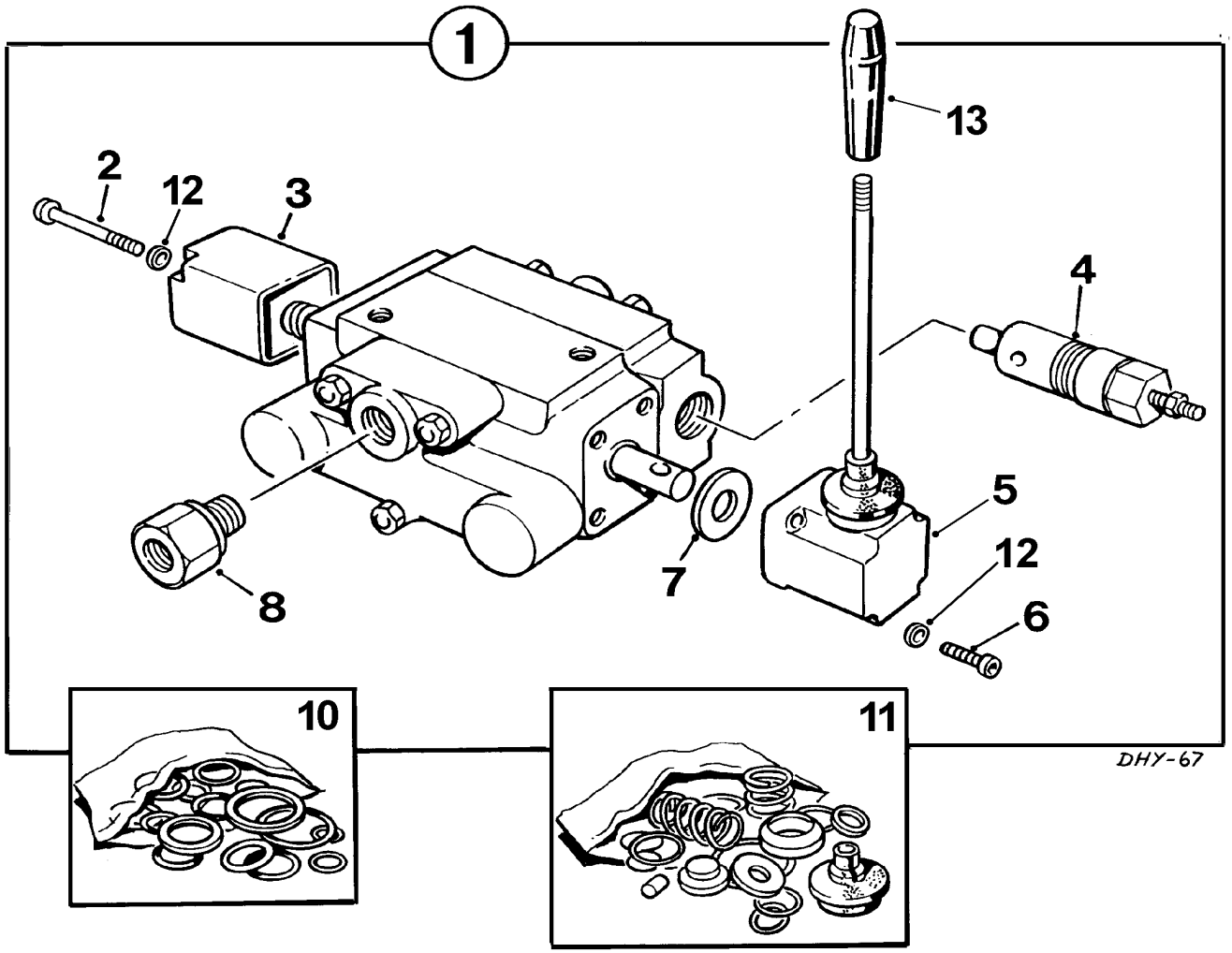




HYDRAULIC CIRCUIT (Without dragline)

Item	Part no	Serial no	Description	Qty
20B	451442000	/ 84	CONTROL VALVE	1
-	451441902	/ 84	KIT, seals	1
21	100S04	/ 84	SEAL, bonded	1
22	446614000	/ 84	ADAPTOR, male stud	1
26	127S04	/ 84	PLUG, collared	1
27	100S03	/ 84	SEAL, bonded	3
28	122S03	/ 84	FITTING, adaptor, male, stud	2
29	405008015	/ 84	SCREW	3
29A	17S04	/ 84	WASHER, spring	3
20B	451442400	/ 84	CONTROL VALVE	1
22	446614000	/ 84	FITTING, adaptor, male, stud	1
27	100S03	/ 84	SEAL, bonded	4
28	122S03	/ 84	FITTING, adaptor, male, stud	2
30	8S03G	/ 84	BOLT	3
30A	61S03	/ 84	NUT, self locking	3
31	360400300	/ 84	PLUG, collared	1
20B	451442200	/ 84	CONTROL VALVE	1
22	446614000	/ 84	FITTING, adaptor, male, stud	1
27	100S03	/ 84	SEAL, bonded	2
28	122S03	/ 84	FITTING, adaptor, male, stud	2
31	360400300	/ 84	PLUG, collared	1
32	8S03H	/ 84	BOLT	2
32A	61S03	/ 84	NUT, self locking	2
20B	451441600	/ Jan-88	CONTROL VALVE	1
21	100S04	/ Jan-88	SEAL, bonded	4
22	446614000	/ Jan-88	FITTING, adaptor, male, stud	2
23	122S04	/ Jan-88	FITTING, adaptor, male, stud	1
24	555251500	/ Jan-88	PACKER, control valve	1
25	11S03C	/ Jan-88	SCREW, set	2
25A	17S04	/ Jan-88	WASHER, spring	2
26	127S04	/ Jan-88	PLUG, collared	1
20B	V2000400	Feb-88 /	CONTROL VALVE *(see page E - 1A)*	1

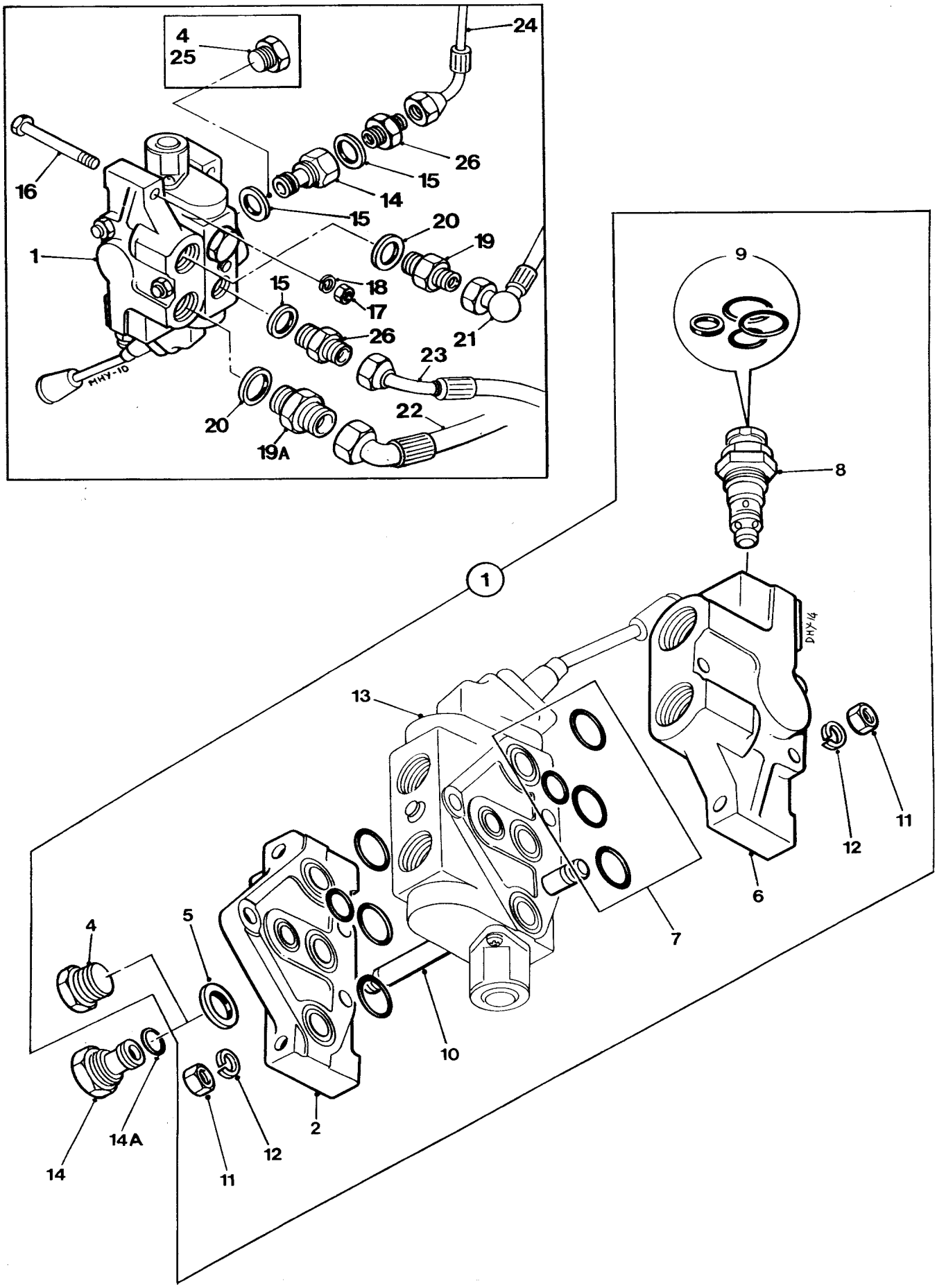
Reversing Drum Mixers, model 500R



CONTROL VALVE *(up to January 1988)* E - 1AA

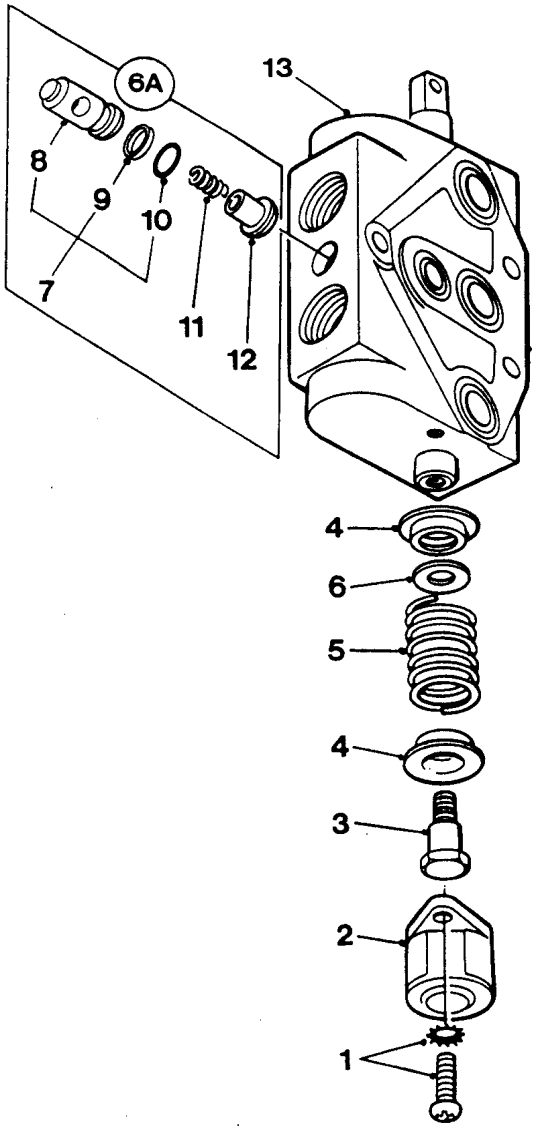
Item	Part no	Date	Description	Qty
1	451441600	/ Jan-88	CONTROL VALVE	1
2	30322A0502		SCREW, socket cap head	2
3	30322A0204		CAP, end	1
4	30322A0102		VALVE, relief	1
5	30322A0503		HANDLE assembly	1
6	68S02B		SCREW, socket cap head	4
7	10S05		SPACER, washer	1
8	451441501		ADAPTOR	1
10	451441502		KIT, seals	1
11	30322A0203		KIT, repair	1
12	13S01		WASHER	8
13	30322A0505		KNOB	1

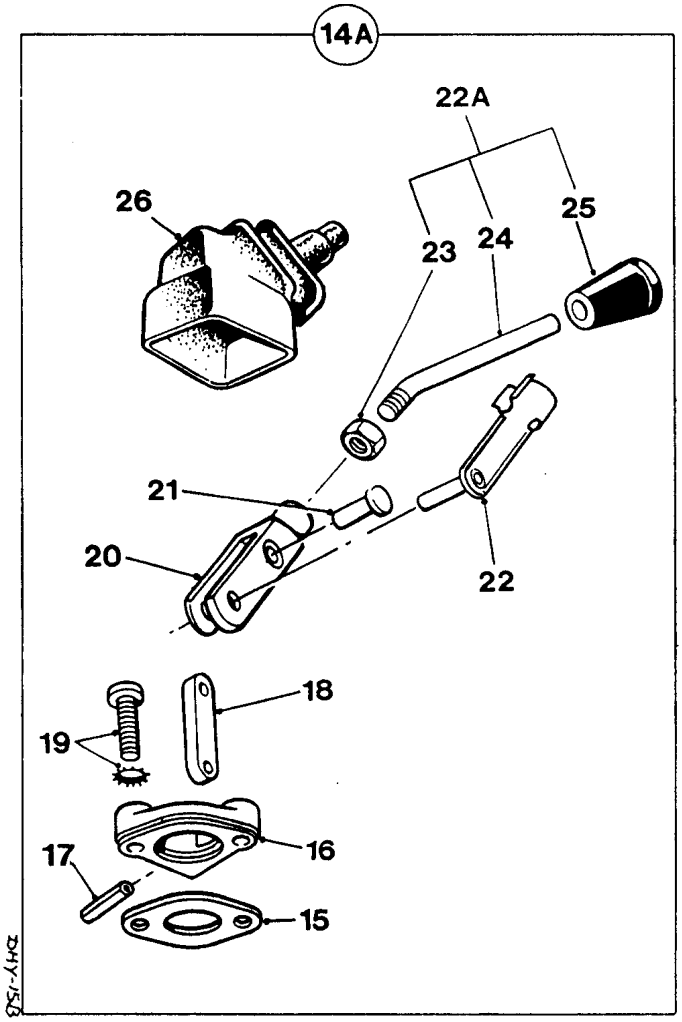
Reversing Drum Mixers, model 500R

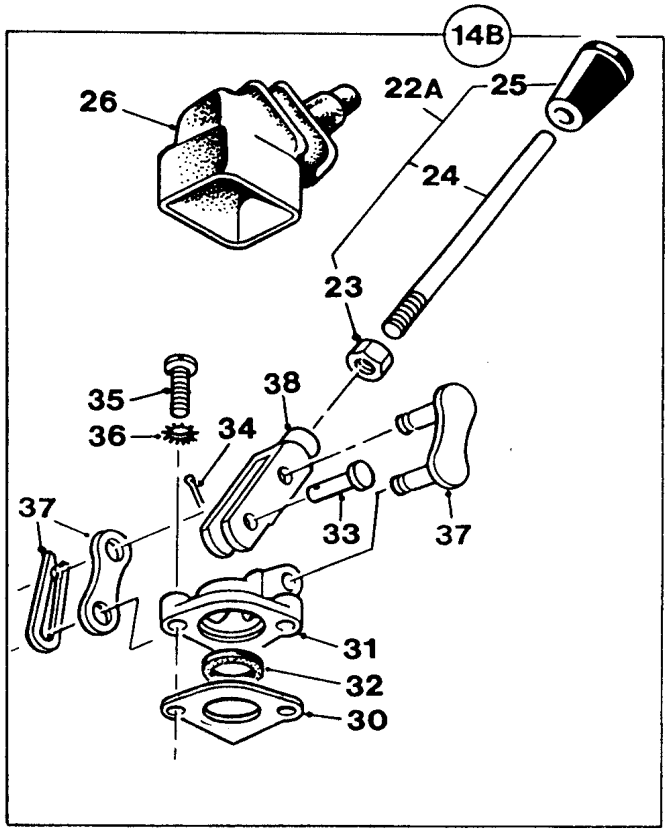


Item	Part no	Serial no	Description	Qty
1	V2000400	Feb-88 / 0268	CONTROL VALVE, assembly,	1
2	V600017		COVER, inlet	1
4	127S04		PLUG	1
5	100S06		SEAL, bonded	1
6	V2003124		COVER, end	1
7	V600178		KIT, seals	1
8	V600189		VALVE, relief, 2400psi *(500R)*	1
9	V600023		KIT, seals	1
10	V600024		STUD	3
11	9S03		NUT	3
12	41S05		WASHER, spring	3
13	.....		SECTION, control v. *(see page E - 1B)*	
14	451431029		ADAPTOR, carryover, assembly	1
14A	451431005		SEAL, 'O' ring *(part of kit item 7)*	1
15	100S04		SEAL, bonded	3
16	8S04K		BOLT	3
17	7S04		NUT	3
18	17S05		WASHER, spring	3
19	119S10		FITTING, adaptor	1
19A	119S13		FITTING, adaptor	1
20	100S06		SEAL, bonded	2
21	555189500		HOSE, pump to control valve	1
22	555268600		HOSE, control valve to tank tee	1
23	555231000		HOSE, control valve to bleed valve	1
24	555268700		HOSE, control valve to solenoid valve	1
25	127S04		PLUG	1
26	119S08		FITTING, adaptor	2
.....	V602619	0268 /	# KIT, valve conversion # *This kit contains valve V2004605 (see page E-1BA) and all fittings needed to replace valve V2000400 (on this page)*	1

Reversing Drum Mixers, model 500R

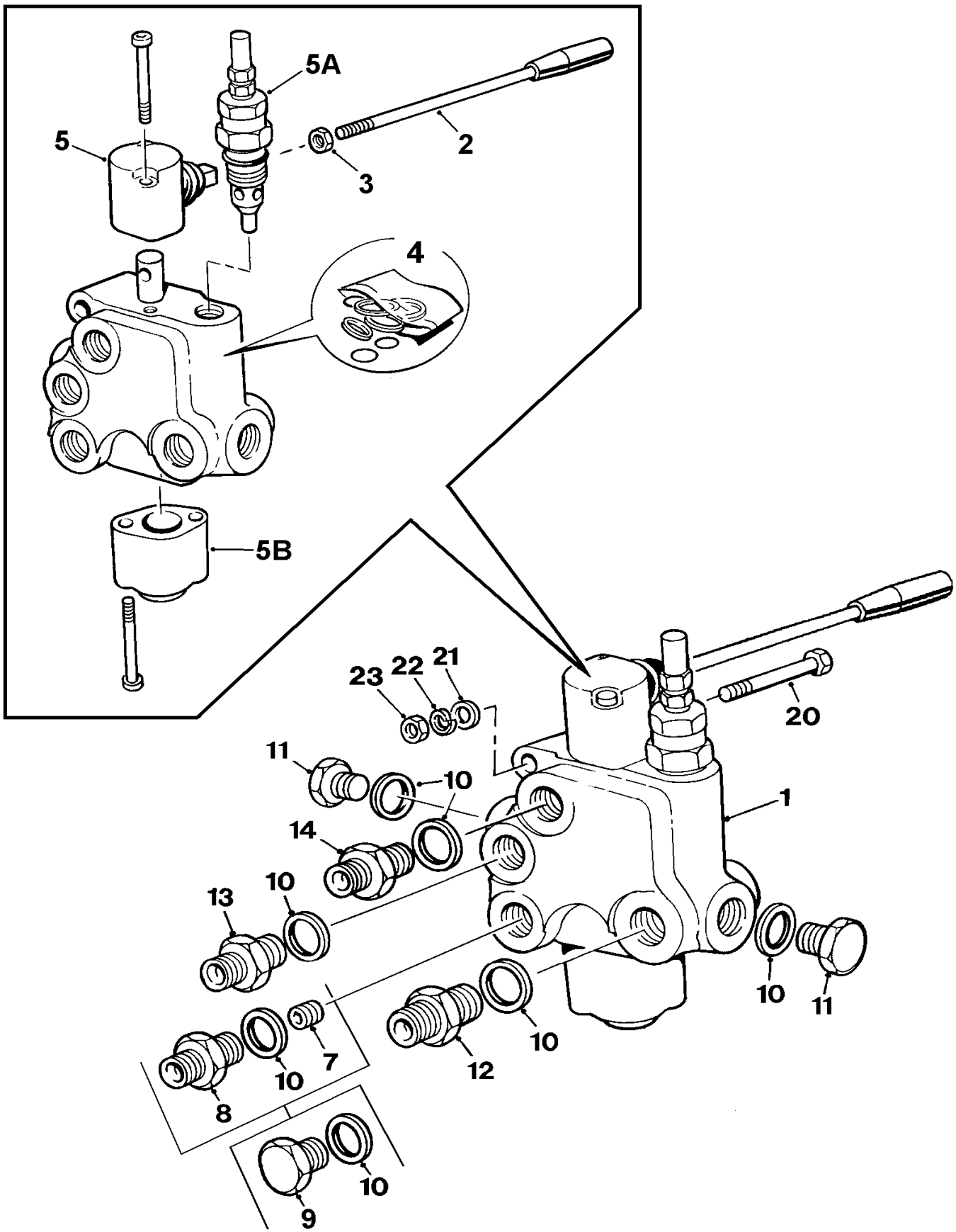






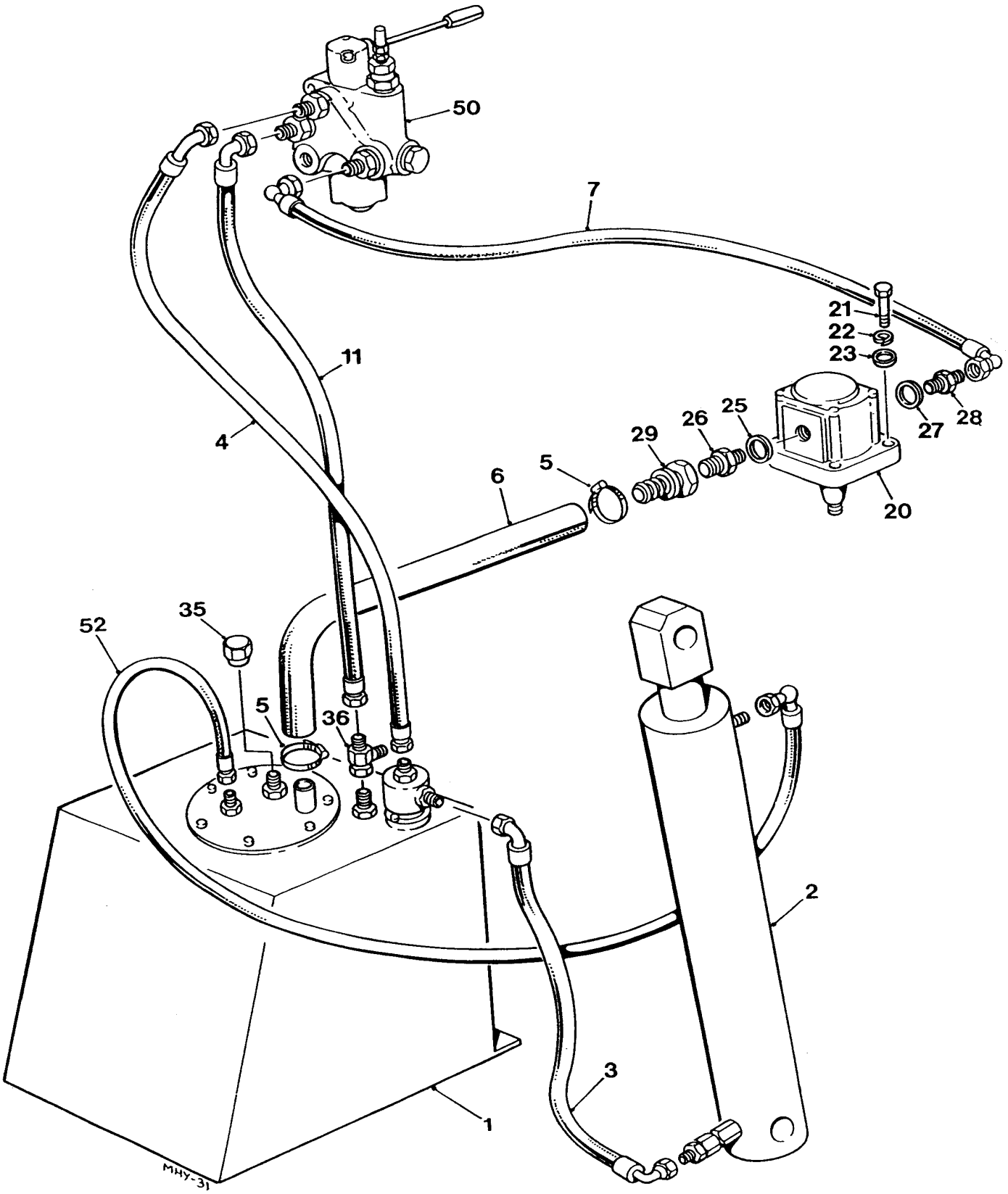
Item	Part no	Date	Description	Qty
1	V600026	Feb-88 / 0268	SCREW, c/w washer	2
2	V2003116		CAP, end	1
3	V2003115		SCREW, shoulder	1
4	V2003117		SEAT, spring	2
5	V2003114		SPRING	1
6	V600179		SPACER	1
6A	V600180		CHECK VALVE, assembly	1
7	V600181		KIT, repair	1
8	V2003118		GUIDE, check valve	1
9	V600182		RING, back up	1
10	V600183		SEAL, ‘O’ ring	1
11	V2003119		SPRING	1
12	V2003120		POPPET	1
13	V600185		BODY, c/w spool	1
14	V2003113		SEAL, ‘O’ ring	2
14A	V600057	Jan-88 / Oct-93	LEVER, control valve, assembly	1
14B	V602166	Oct-93 /	LEVER, control valve, assembly	1
15	V2003122	Jan-88 / Oct-93	SEAL, wiper	1
16	V600059	Jan-88 / Oct-93	BRACKET, handle	1
17	V600060	Jan-88 / Oct-93	PIN, roll	1
18	V600061	Jan-88 / Oct-93	LINK	1
19	V600062	Jan-88 / Oct-93	SCREW, c/w washer	2
20	V600063	Jan-88 / Oct-93	CLEVIS	1
21	V600064	Jan-88 / Oct-93	PIN	1
22	V600065	Jan-88 / Oct-93	PIN, clip	1
22A	V600159		LEVER, assembly	1
23	V600066		NUT	1
24	V602478		HANDLE	1
25	V600068		KNOB	1
26	V600069		GAITER	1
30	V602448	Oct-93 /	PLATE, seal	1
31	V602449	Oct-93 /	BRACKET	1
32	V2003122	Oct-93 /	SEAL, wiper	1
33	V602476	Oct-93 /	PIN, clevis	1
34	V602475	Oct-93 /	PIN, split	1
35	V602447	Oct-93 /	SCREW	2
36	V602446	Oct-93 /	WASHER	2
37	81S02	Oct-93 /	LINK	1
38	V602477	Oct-93 /	CLEVIS	1

Reversing Drum Mixers, model 500R



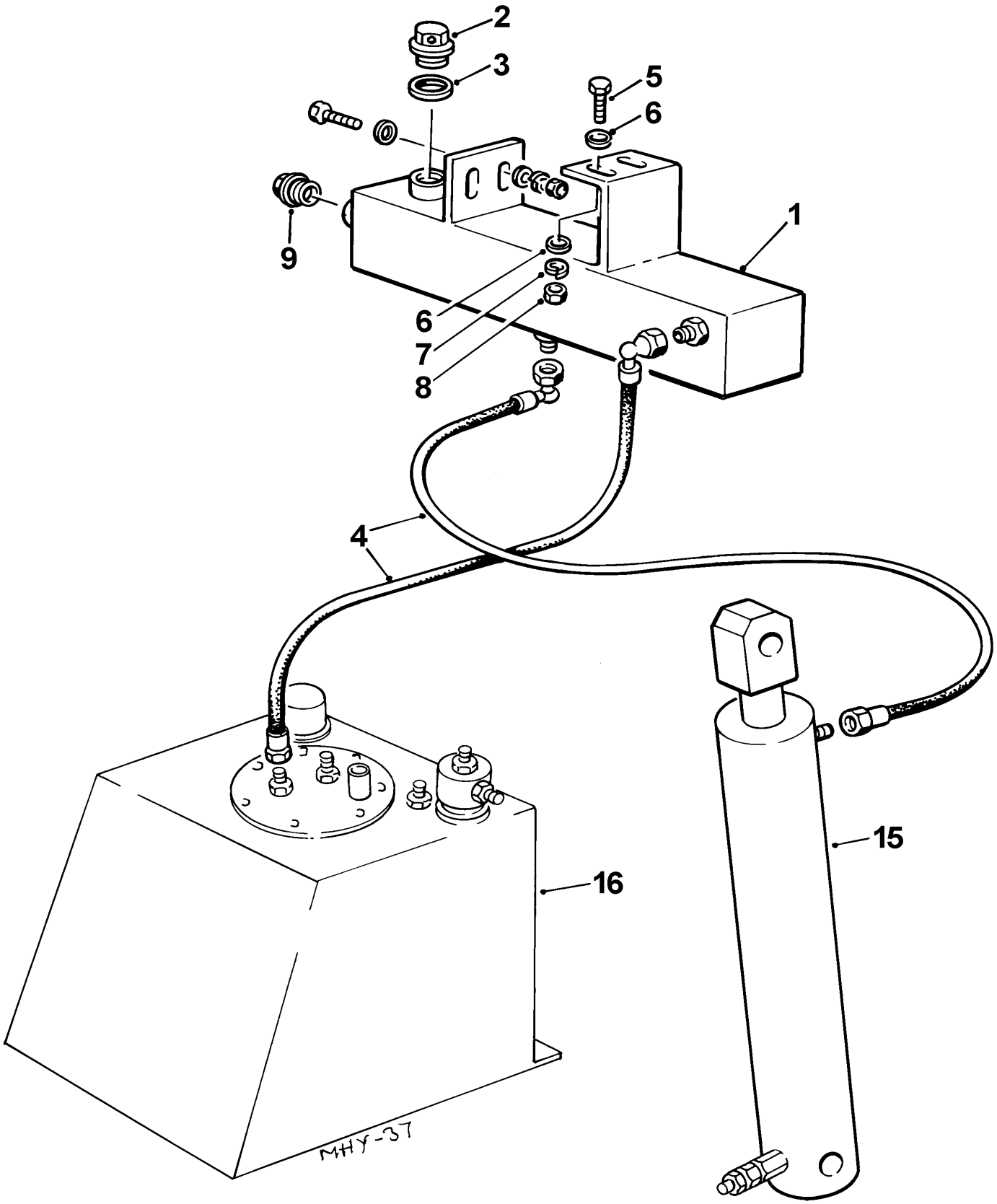
Item	Part no	Serial no	Description	Qty
1	V2004605	0269 /	VALVE, control, assembly	1
2	V602630		HANDLE	1
3	7S04		NUT	1
4	V602629		REPAIR KIT, seals	AR
5	V603565		END CAP, lever	1
5A	V603605		VALVE, relief	1
5B	V603606		END CAP, spring base	1
7	V2004607		**#** SCREW, socket head, H.P.C. *(fitted inside valve)*	1
8	122S03		**#** ADAPTOR, m/m **# *High pressure carryover to dragline***	1
9	127S03		**$** PLUG, male **$ *When no dragline is fitted***	1
10	100S03		SEAL, bonded	6
11	127S03		PLUG, male	1
12	122S03		ADAPTOR, m/m, inlet from pump	1
13	119S08		ADAPTOR, m/m, return to tank	1
14	122S03		ADAPTOR, m/m, to hopper ram	1
20	8S03H		BOLT	2
21	267S05		WASHER, flat	2
22	17S04		WASHER, spring	2
23	7S03		NUT	2

Reversing Drum Mixers, model 500R



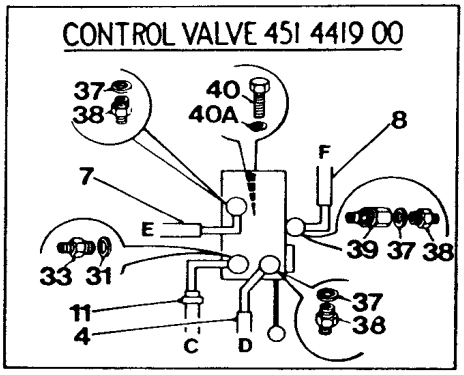
Item	Part no	Serial no	Description	Qty
	For machines before serial number 0307, See page E - 1			
1	----------	0307 /	TANK, hydraulic *(See page E -4)*	1
2	----------		RAM, *(See page E - 8 & E- 9)*	1
3	555204300		HOSE, bleed valve to ram	1
4	555231000		HOSE, control valve to bleed valve	1
5	97S09		CLIP, hose	2
6	555258300		HOSE, tank to pump	1
7	555189500		HOSE, pump to control valve	1
11	73S03B		HOSE, control valve to tank tee	1
20	365825000		PUMP, *(diesel driven)* "Ultra or Bosch"	1
--	10190A01		KIT, seals, *"Ultra"*	1
--	V602632		KIT, seals, *"Bosch"*	1
20	10539A02		PUMP, *(electric motor driven) "Ultra"*	1
--	10190A01		KIT, seals, *"Ultra"*	1
21	66S01C		BOLT	4
22	41S03		WASHER, spring	4
23	10S01		WASHER, flat	4
25	100S06		SEAL, bonded	1
26	119S15		ADAPTOR, male	1
27	100S04		SEAL, bonded, *(diesel driven)*	1
27	100S06		SEAL, bonded, *(electric motor driven)*	1
28	119S08		ADAPTOR, male, *(diesel driven)*	1
28	119S10		ADAPTOR, male, *(electric motor driven)1*	
29	110S07G		FITTING, nozzle	1
35	120S03		CAP *(Not used when dragline fitted)*	1
36	----------		FITTING, see *(use only when dragline is fitted, See page E-2B)*	1
50	V2004605		CONTROL VALVE, *(See page E - 1BA)*	
52	32S01C		HOSE, ram, return to tank	1

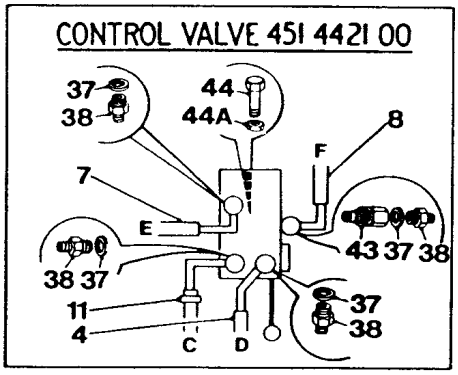
Reversing Drum Mixers, model 500R

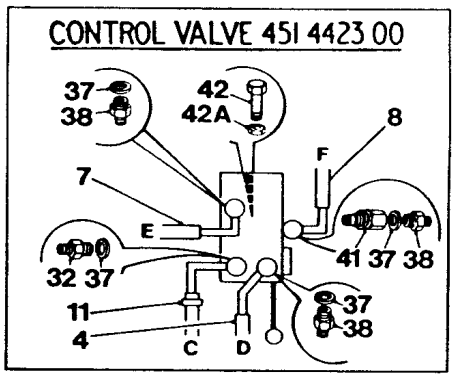


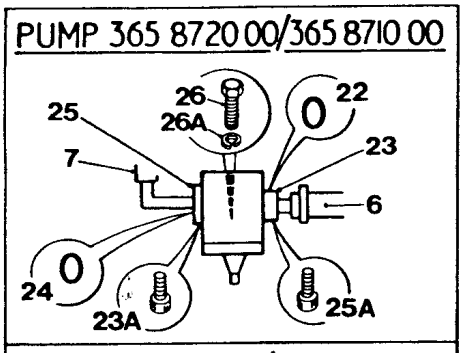
Item	Part no	Serial no	Description	Qty
	From April 2000			
1	555288700	Apr-00 /	TANK, header	1
2	511100900		FILLER/BREATHER	1
3	100S06		SEAL, bonded	1
4	32S01C		HOSE	2
5	11S03C		SCREW,set	4
6	267S05		WASHER, flat	8
7	17S04		WASHER, spring	4
8	7S03		NUT	4
9	V2005114		SIGHT GLASS	1
15	.....		TANK, main *(see page E-4)*	1
16	.....		RAM, hopper lift *(see pages E-6 & 8)*	1

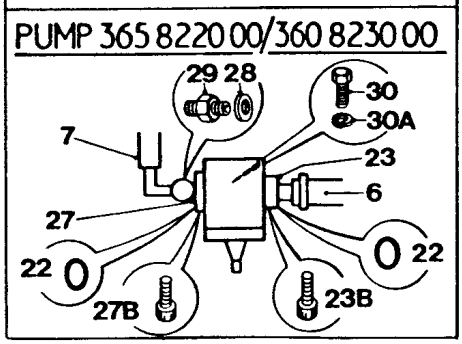
Reversing Drum Mixers, model 500R

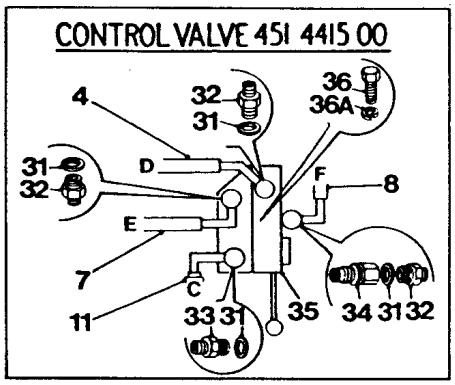


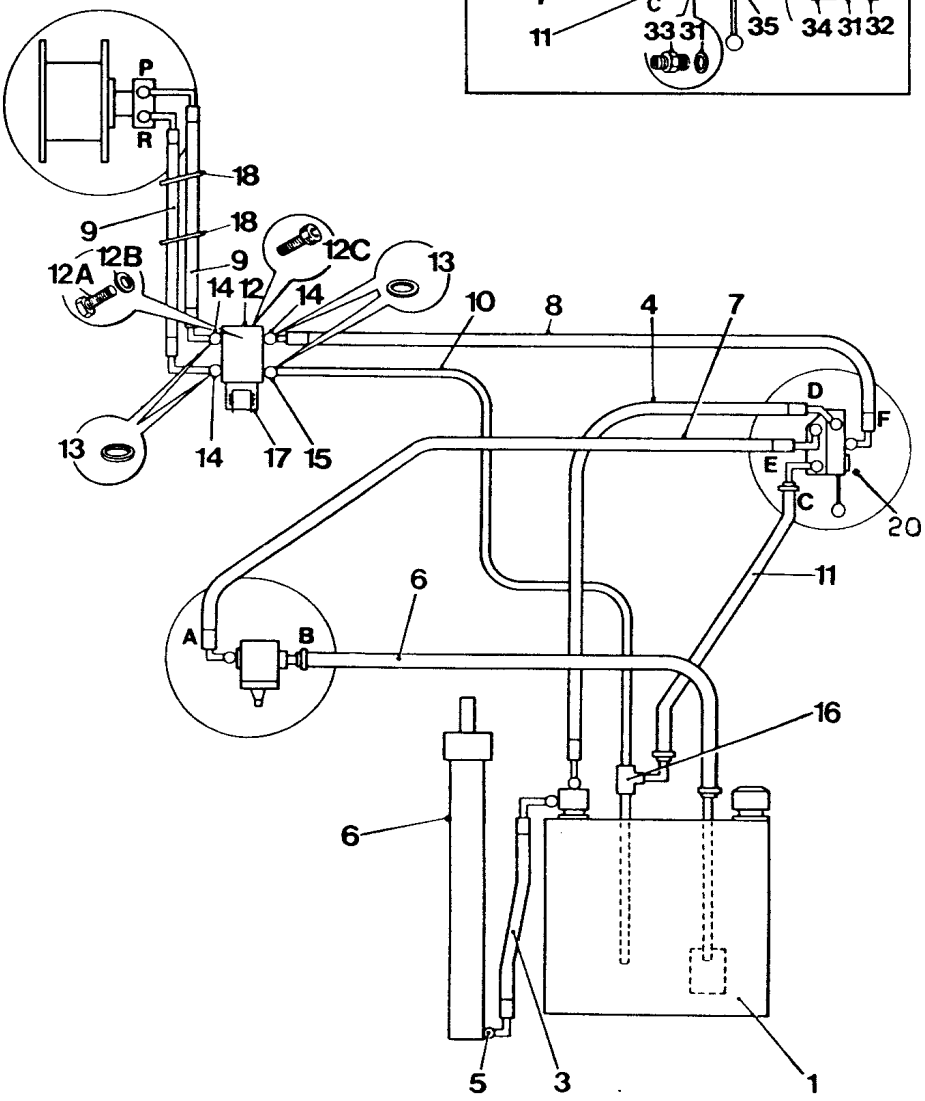


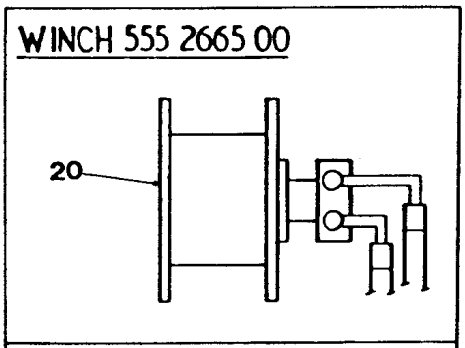


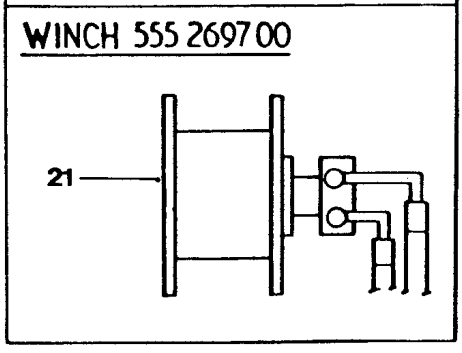






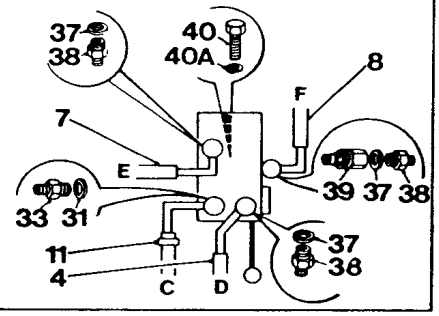




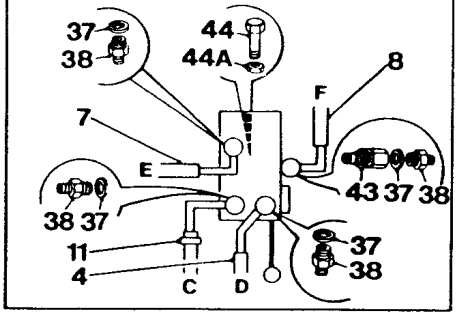


Item	Part no	Serial no	Description	Qty
	For machines from 0213, see page E - 2A.			
1	----------	/ O212	TANK, hydraulic *(see page E - 4)*	1
2	----------	/ O212	RAM, hopper *(see page E - 6)*	1
3	555204300	/ 0212	HOSE, hopper ram	1
4	555231000	/ 0212	HOSE, control valve to bleed valve	1
5	----------	/ 0212	RESTRICTOR, ram *(see page E - 6)*	1
6	555258300	/ 0212	HOSE, suction	1
7	555189500	/ 0212	HOSE, pump to control valve	1
8	555268700	/ 0212	HOSE, control valve to solenoid valve	1
9	555268800	/ 0212	HOSE, dragline winch	2
10	555268500	/ 0212	PIPE, drain, solenoid to tank	1
11	555268600	/ 0212	HOSE, control valve to tank tee	1
12	555556000	/ 0212	CONTROL BLOCK, dragline	1
12A	66S01BB	/ 0212	SCREW	4
12B	41S03	/ 0212	WASHER, spring	4
12C	103S02H	/ 0212	SCREW, socket head cap	4
13	100S03	/ 0212	SEAL, bonded	4
14	122S03	/ 0212	FITTING, adaptor, male, stud	3
15	446321000	/ 0212	COUPLING, male, stud	1
16	446311000	/ 0212	FITTING, tee, equal	1
17	211158000	/ 0212	VALVE, solenoid	1
18	124108120	/ 0212	FIXING, strap & buckle	2
19	97S09	/ 0212	CLIP	2
20	555266500	/ 0212	WINCH *(for machines using hydraulic motor* 267112000 *(see page G - 1)*	1
21	555269700	/ 0212	WINCH *(for machines using hydraulic motor* 267113000 *(see page G - 1)*	1
.....	365822000	/ Jun-87	PUMP, hydraulic, electric drive	1
.....	365823000	/ Jun-87	PUMP, hydraulic, diesel engine	1
.....	10190A01	/ Jun-87	KIT, seals, “Dowty or Ultra”	1
.....	11046A01	/ Jun-87	KIT, seals, “Sundstrand”	1
.....	V602632	/ Jun-87	KIT, seals, “Bosch”	1
22	391832000	/ Jun-87	SEAL, ‘O’ ring	2
23	555136900	/ Jun-87	CONNECTOR, pump inlet	1
23B	103S03C	/ Jun-87	SCREW, socket head cap	2
27	555136400	/ Jun-87	CONNECTOR, pump outlet	1

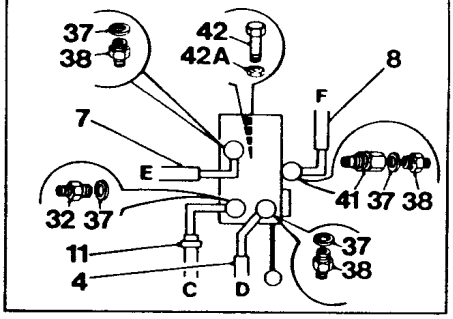
CONTROL VALVE 451 4419 00



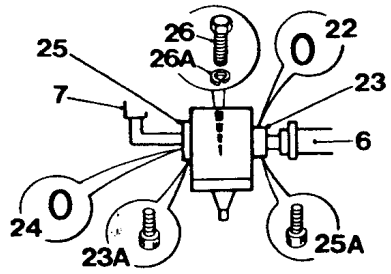
CONTROL VALVE 451 4421 00



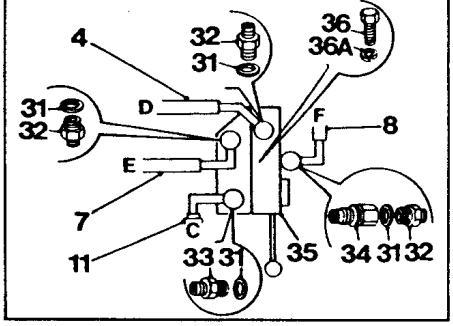
CONTROL VALVE 451 4423 00



PUMP 365 8720 00/365 8710 00



CONTROL VALVE 451 4415 00



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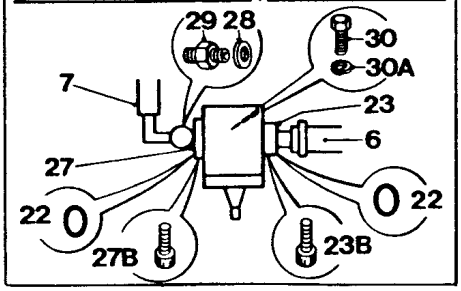
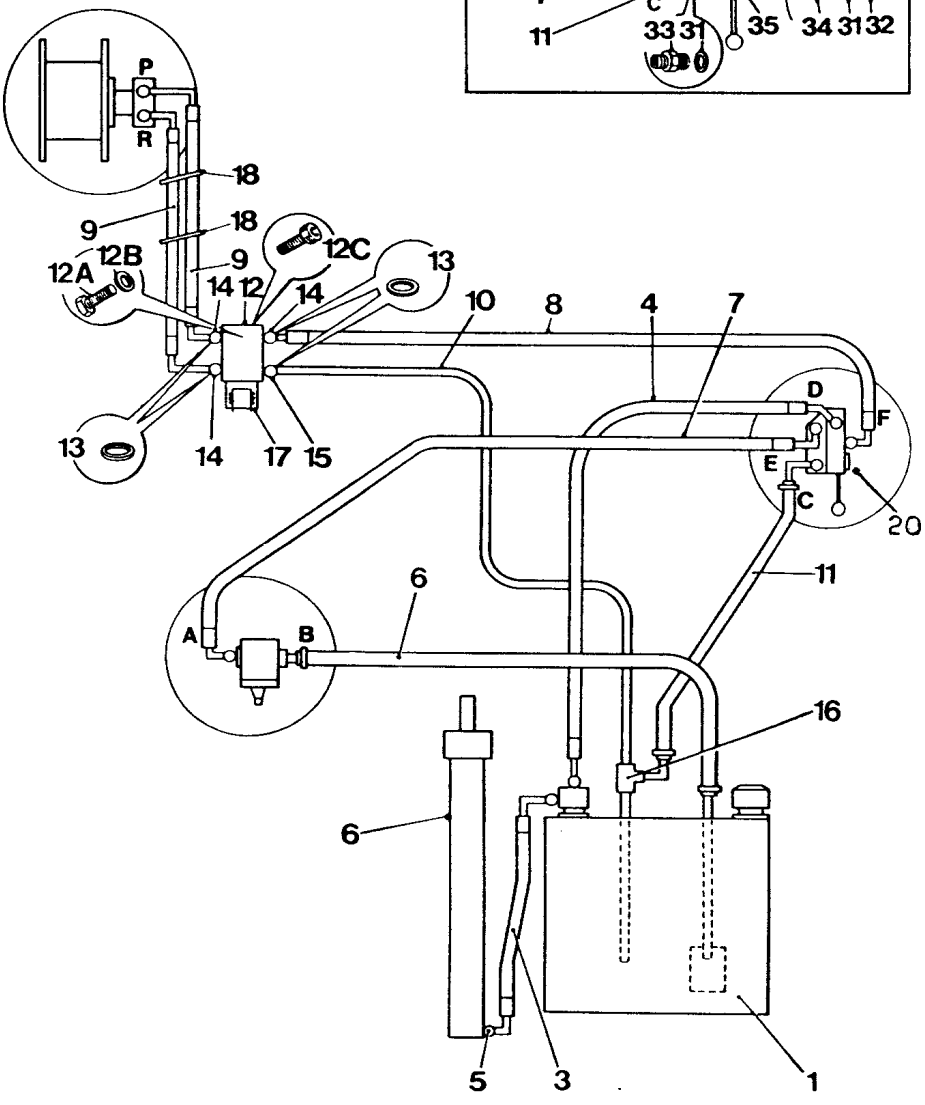
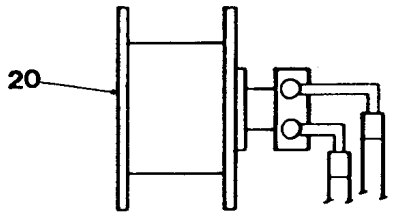
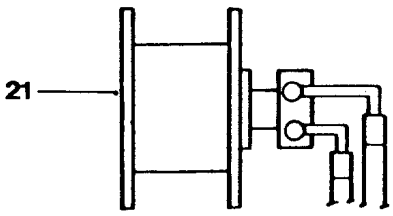




WINCH 555 2665 00

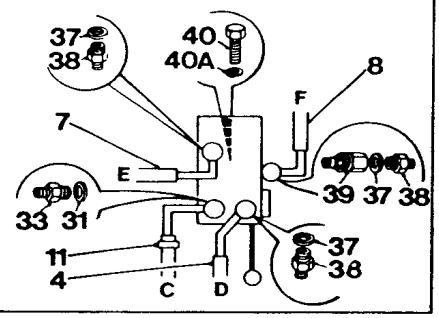


WINCH 555 2697 00

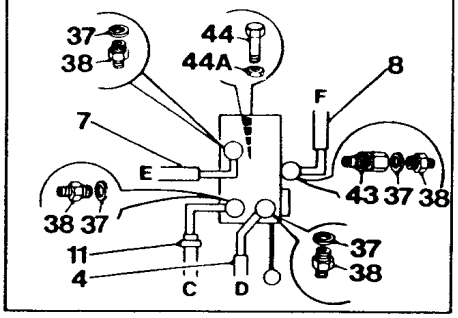


Item	Part no	Serial no	Description	Qty
27B	103S03C	/ Jun-87	SCREW, socket head cap	2
28	100S03	/ Jun-87	SEAL, bonded	1
29	122S03	/ Jun-87	FITTING, adaptor, male, stud	1
30	66S01C	/ Jun-87	SCREW, set	4
30A	41S03	/ Jun-87	WASHER, spring	4
·····	365872000	/ 0492	PUMP, hydraulic, electric drive	1
·····	365871000	/ 0492	PUMP, hydraulic, diesel engine	1
·····	10190A01	/ 0492	KIT, seals, *"Dowty or Ultra"*	1
·····	11046A01	/ 0492	KIT, seals, *"Sundstrand"*	1
·····	V602632	/ 0492	KIT, seals, *"Bosch"*	1
22	391832000	/ 0492	SEAL, 'O' ring	1
23	555136900	/ 0492	CONNECTOR, pump inlet	1
23A	103S03BE	/ 0492	SCREW, socket head cap	2
24	391109000	/ 0492	SEAL, 'O' ring	1
25	555199900	/ 0492	CONNECTOR, outlet	1
25A	103S02B	/ 0492	SCREW, socket head cap	2
26	66S01C	/ 0492	SCREW, set	4
26A	41S03	/ 0492	WASHER, spring	4
20B	451442000	/ 84	CONTROL VALVE	1
·····	451441902	/ 84	KIT, seals	1
32	446614000	/ 84	FITTING, adaptor, male, stud	1
37	100S03	/ 84	SEAL, bonded	4
38	122S03	/ 84	FITTING, adaptor, male, stud	3
39	451441901	/ 84	FITTING, adaptor, carry over	1
40	405008015	/ 84	SCREW, hex head	3
40A	17S04	/ 84	WASHER, spring	3
20B	451442400	/ 84	CONTROL VALVE	1
32	446614000	/ 84	FITTING, adaptor, male, stud	1
37	100S03	/ 84	SEAL, bonded	4
38	122S03	/ 84	FITTING, adaptor, male, stud	3
41	451442301	/ 84	FITTING, adaptor, carry over	1
42	8S03G	/ 84	BOLT	3
42A	61S03	/ 84	NUT, self locking	3

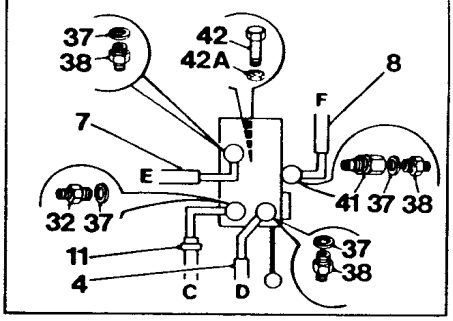
CONTROL VALVE 451 4419 00



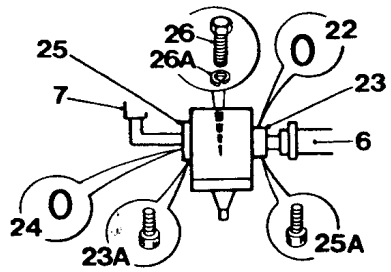
CONTROL VALVE 451 4421 00



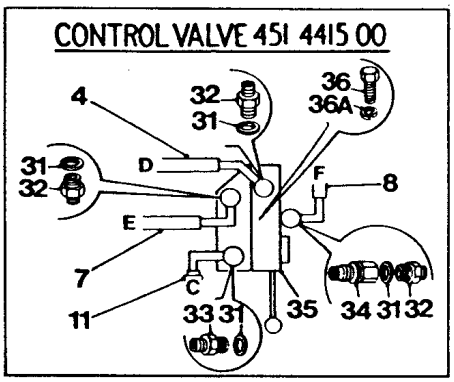
CONTROL VALVE 451 4423 00



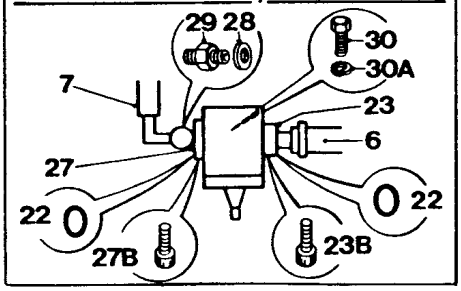
PUMP 365 8720 00/365 8710 00

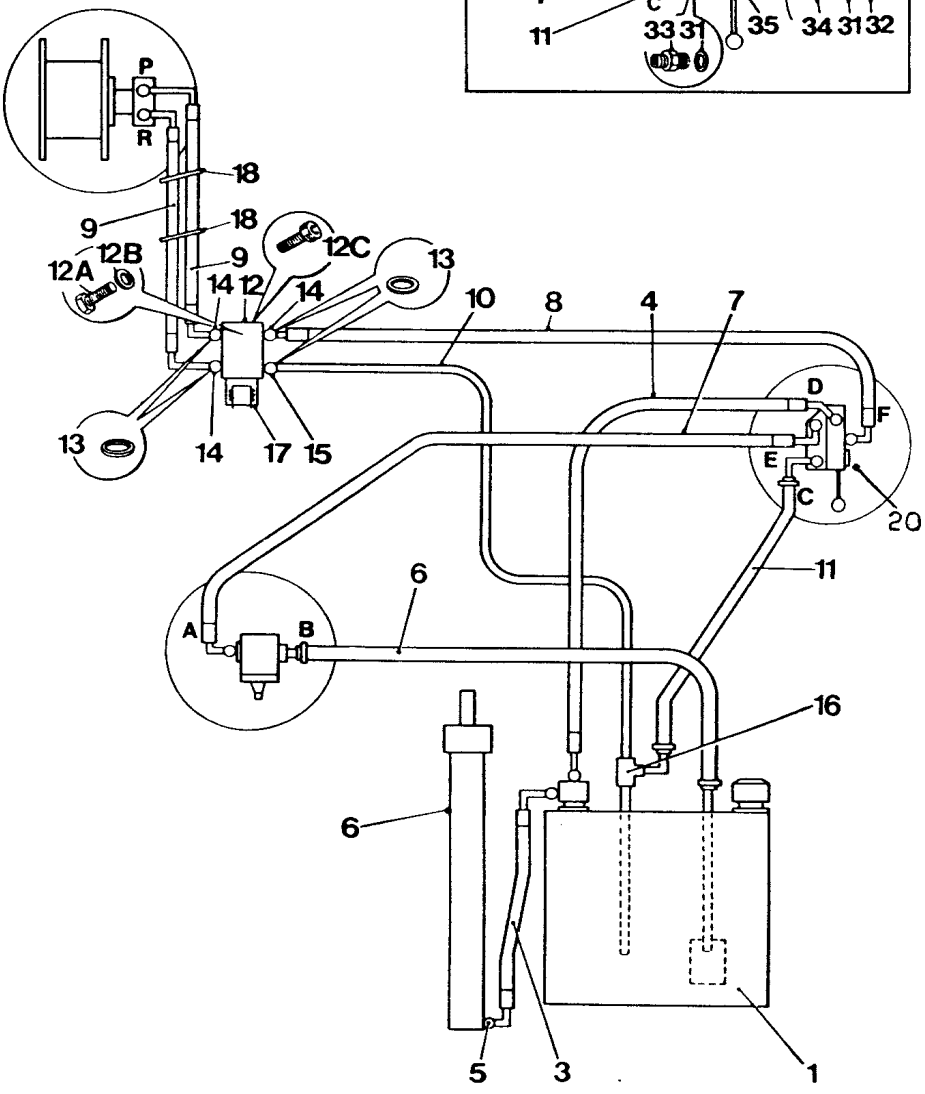


CONTROL VALVE 451 4415 00

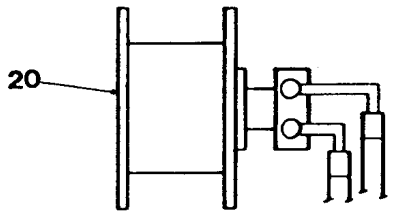


PUMP 365 8220 00/360 8230 00

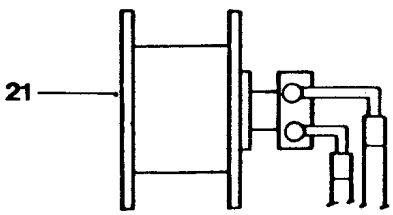




WINCH 555 2665 00

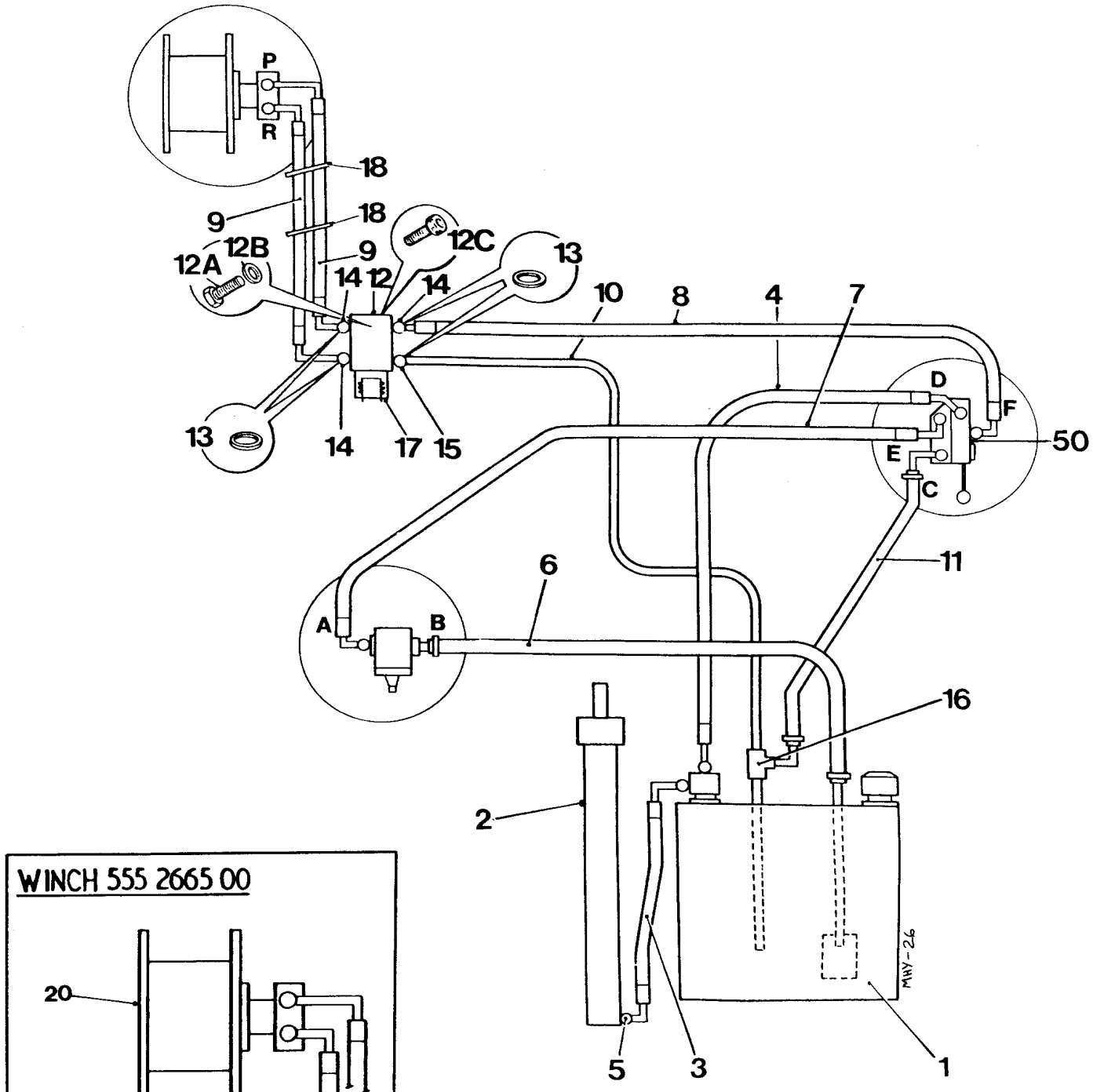


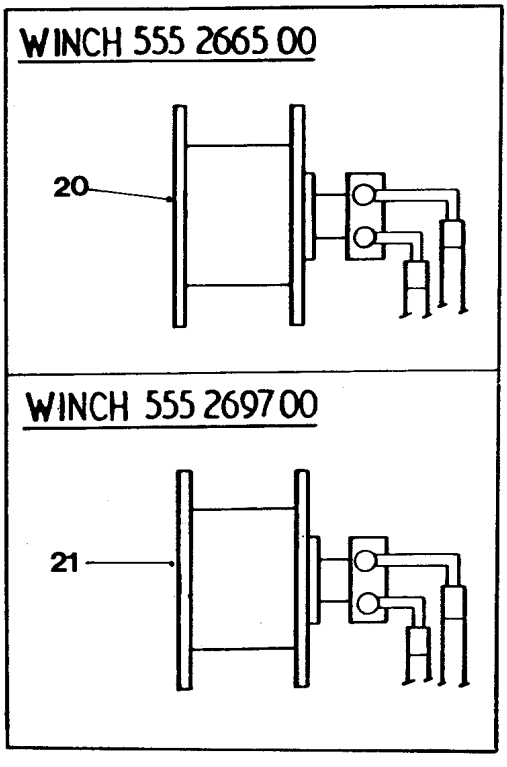
WINCH 555 2697 00

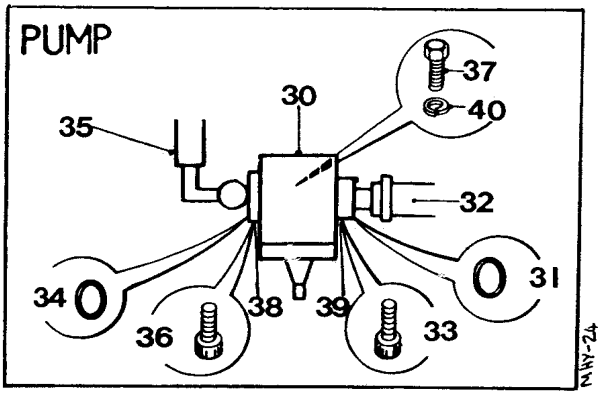


Item	Part no	Serial no	Description	Qty
20B	451442200	/ 84	CONTROL VALVE	1
32	446614000	/ 84	FITTING, adaptor, male, stud	1
37	100S03	/ 84	SEAL, bonded	4
38	122S03	/ 84	FITTING, adaptor, male, stud	3
43	451442101	/ 84	FITTING, adaptor, carry over	1
44	8S03H	/ 84	BOLT	2
44A	61S03	/ 84	NUT, self locking	2
20B	451441600	/ Jan-88	CONTROL VALVE	1
-	451441502	/ Jan-88	KIT, seals	1
31	100S04	/ Jan-88	SEAL, bonded	4
32	446614000	/ Jan-88	FITTING, adaptor, male, stud	3
33	122S04	/ Jan-88	FITTING, adaptor, male, stud	1
34	451441501	/ Jan-88	FITTING, adaptor, carry over	1
35	555251500	/ Jan-88	PACKER, control valve	1
36	11S03C	/ Jan-88	SCREW, set	2
36A	17S04	/ Jan-88	WASHER, spring	2
20B	----------	Feb-88 /	CONTROL VALVE *(see page E - 1A)*	1

Reversing Drum Mixers, model 500R



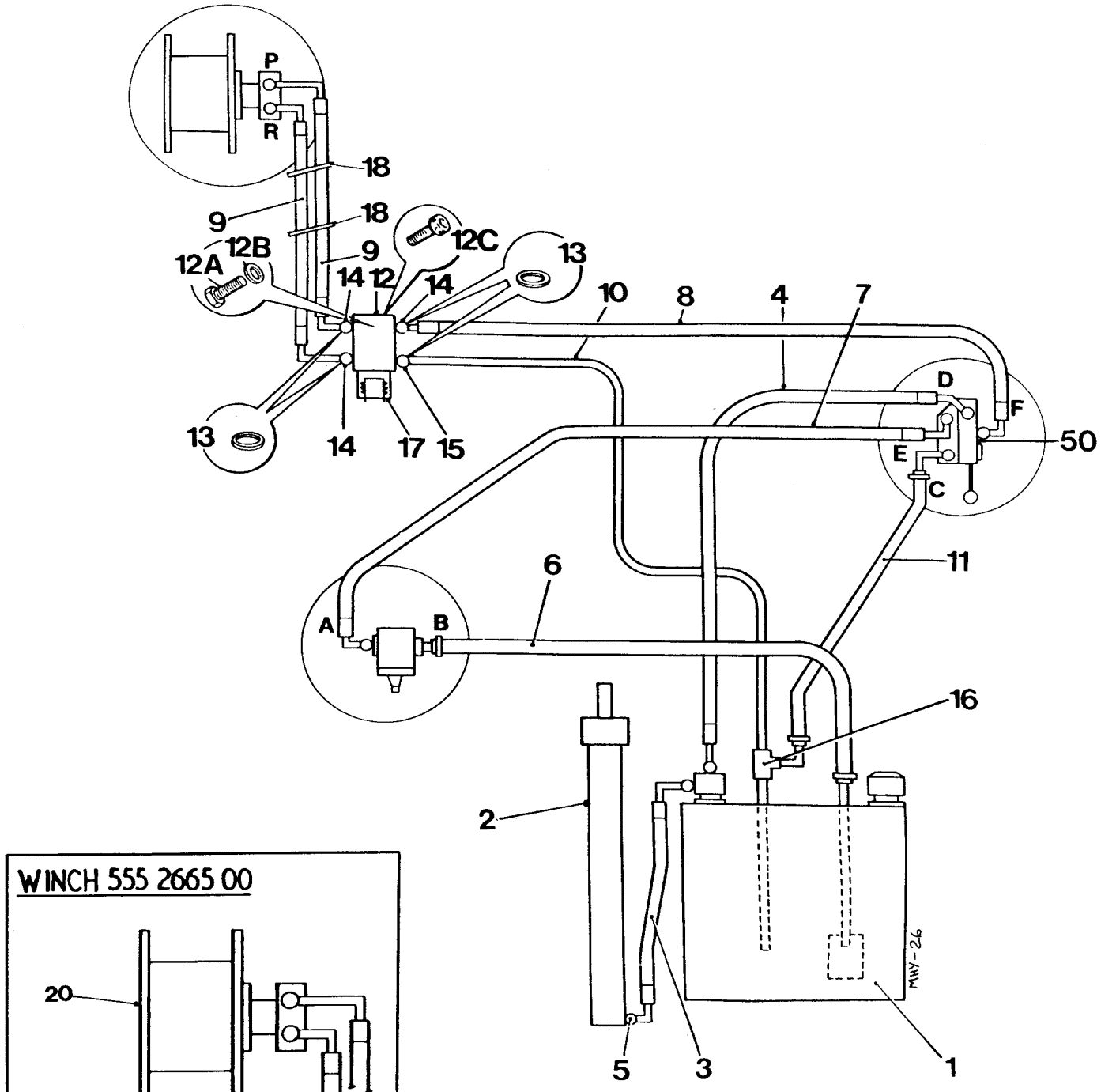


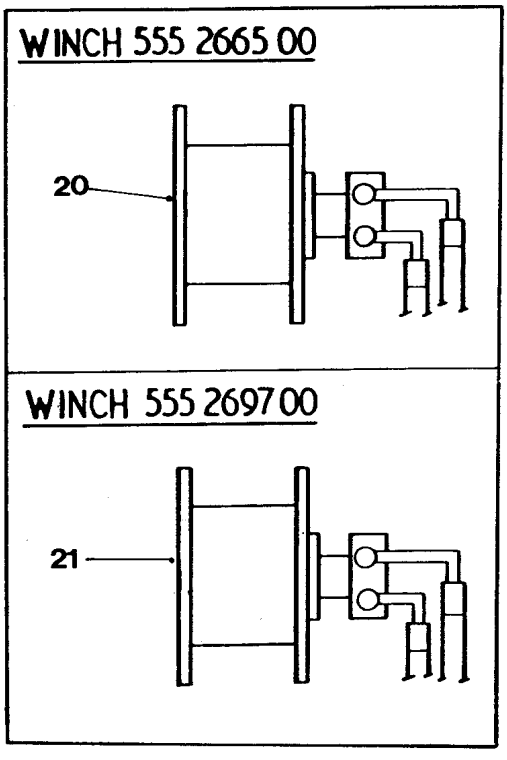


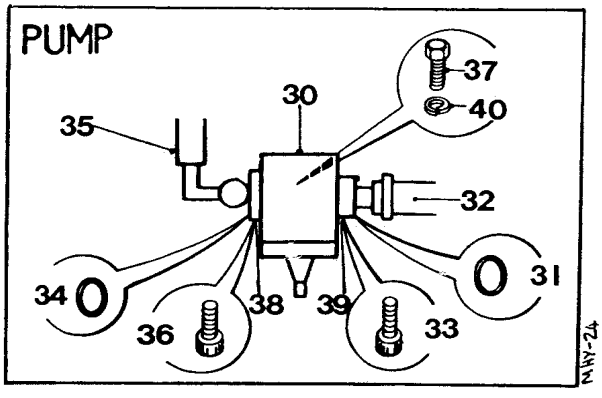
Item	Part no	Serial no	Description	Qty
	For machines before 0213, see page E - 2.			
1	----------	0213 / 0312	TANK, hydraulic (see page E - 4)	1
2	----------		RAM, hopper (see page E - 6)	1
3	555204300		HOSE, hopper ram	1
4	555231000		HOSE, control valve to bleed valve	1
5	----------		RESTRICTOR, ram (see page E - 6)	1
6	555258300		HOSE, suction	1
7	555189500		HOSE, pump to control valve	1
8	555268700		HOSE, control valve to solenoid valve	1
9	555268800		HOSE, dragline winch	2
10	555268500		PIPE, drain, solenoid to tank	1
11	555268600		HOSE, control valve to tank tee	1
12	----------		CONTROL BLOCK (See page G - 2)	1
12A	66S01BB		SCREW	4
12B	41S03		WASHER, spring	4
12C	103S02H		SCREW, socket head cap	4
13	100S03		SEAL, bonded	4
14	122S03		FITTING, adaptor, male, stud	3
15	446321000		COUPLING, male, stud	1
16	446311000		FITTING, tee, equal	1
17	211158000		VALVE, solenoid	1
18	124108120		FIXING, strap & buckle	2
19	97S09		CLIP	2
20	555266500		WINCH *(for hydraulic motor* 267112000 *(see page G - 1)*	1
21	555269700		WINCH *(for hydraulic motor* 267113000 *(see page G - 1)*	1
30	365872000		PUMP, hydraulic, electric drive	1
30	365824000	/ 0585	PUMP, hydraulic, diesel driven	1
30	365825000	0586 /	PUMP, hydraulic, diesel driven	1
·····	10190A01		KIT, seals, *"Dowty or Ultra"*	1
·····	11046A01		KIT, seals, *"Sundstrand"*	1
·····	V602632		KIT, seals, *"Bosch"*	1
31	49S09		SEAL, 'O' ring	1
32	555136900		CONNECTOR, pump inlet	1
33	103S03BE		SCREW, socket head cap	4
34	49S12		SEAL, 'O' ring	1
35	555199900		CONNECTOR, pump outlet	1
36	103S02B		SCREW, socket head cap	2

continued >

Reversing Drum Mixers, model 500R

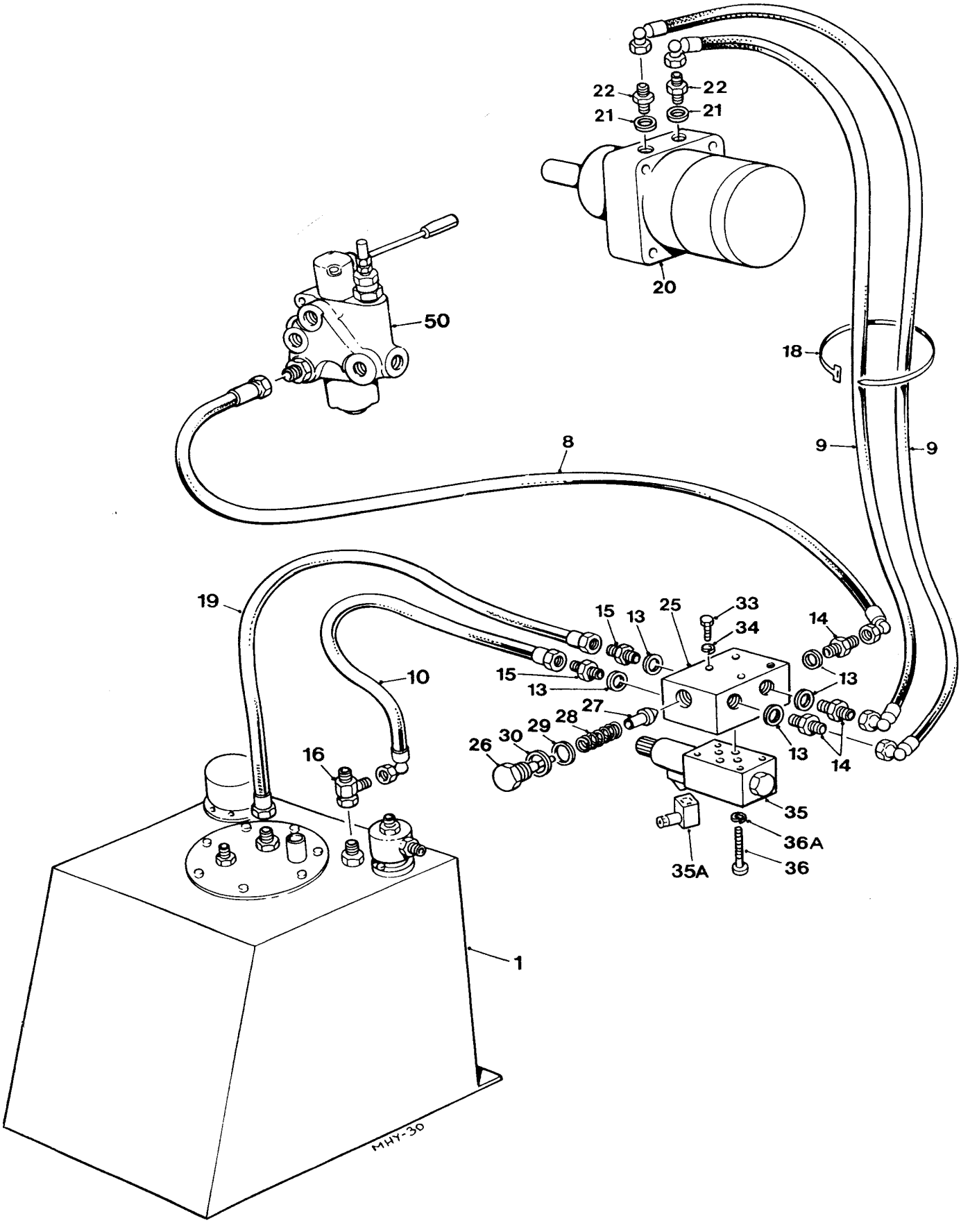






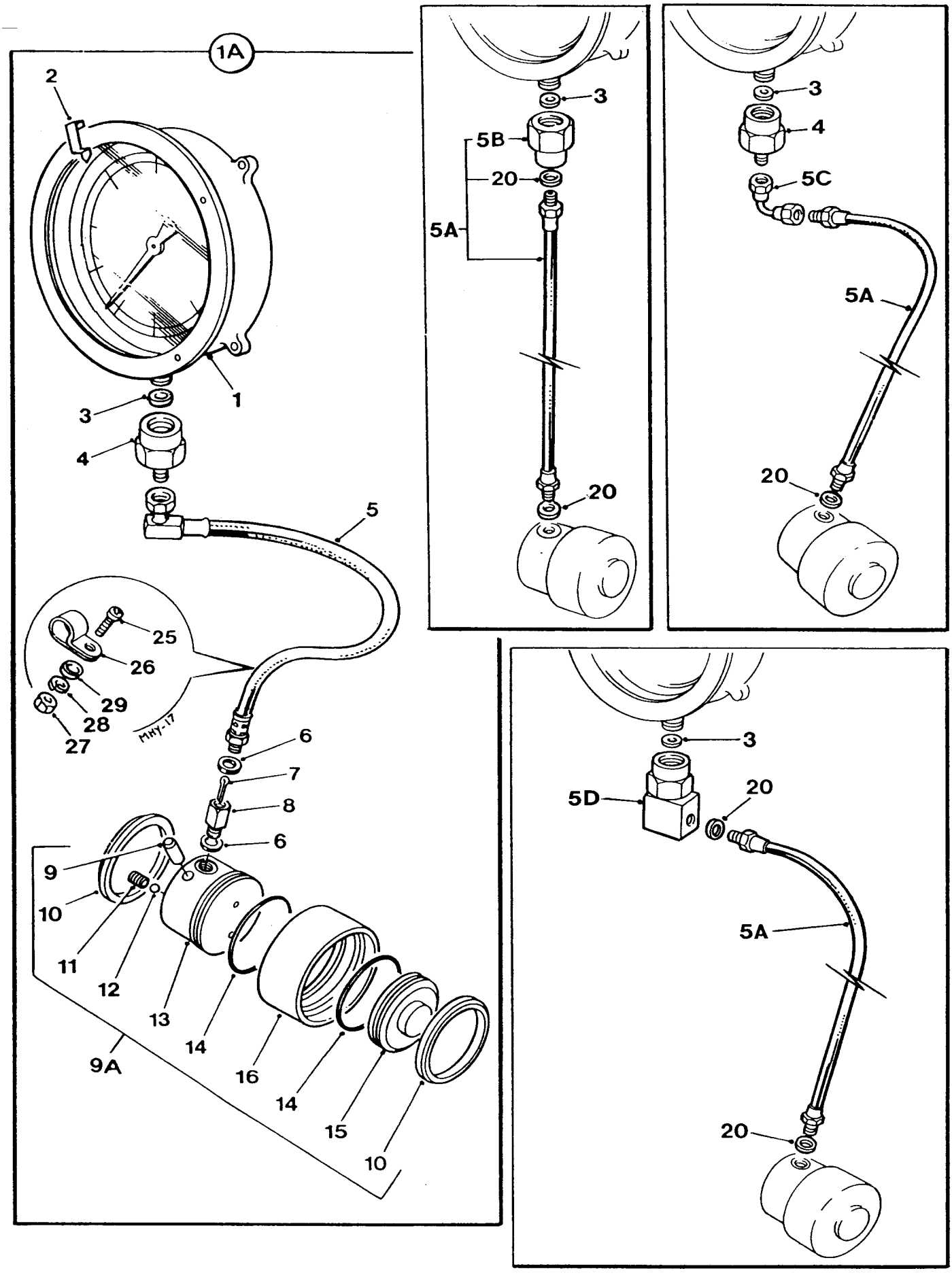
Item	Part no	Serial no	Description	Qty
37	66S01C		SCREW, pump to gearbox	4
38	41S03		WASHER, spring	2
39	41S04		WASHER, spring	4
40	41S03		WASHER, spring	3
50	V2000400	Feb-88 /	CONTROL VALVE, *(see page E - 1A)*	

Reversing Drum Mixers, model 500R



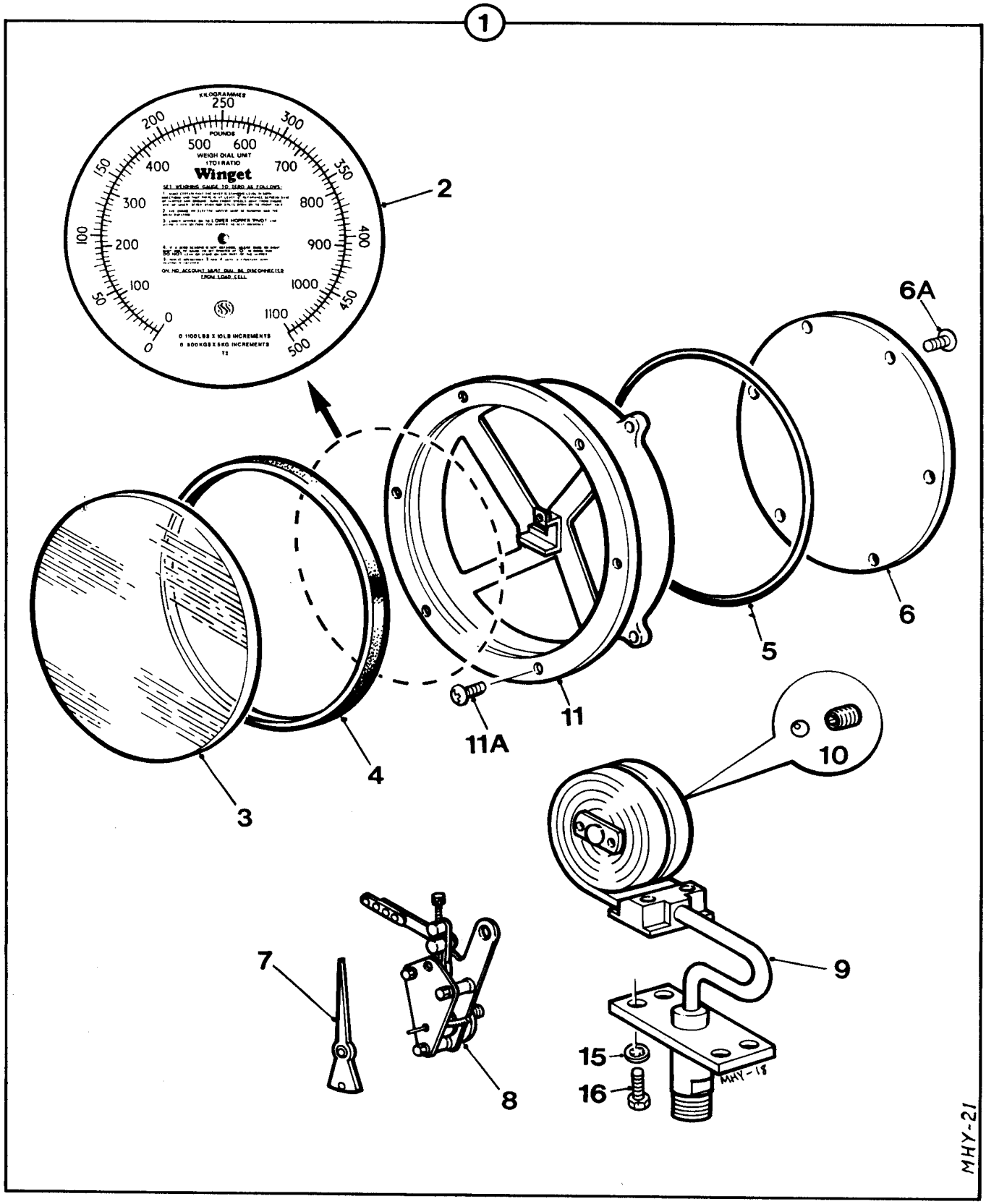
Item	Part no	Serial no	Description	Qty
	For machines before 0313 see page E - 2 or E - 2A.			
	For BASIC HYDRAULIC CIRCUIT, see page E - 1D.			
1	----------	0313 /	TANK, hydraulic *(see page E - 4)*	1
8	555268700		HOSE, control valve to solenoid valve	1
9	63S02F		HOSE, solenoid valve to winch	2
10	73S03C		HOSE, return, solenoid to tank tee	1
11	73S03B		HOSE, control valve to tank tee	1
13	100S03		SEAL, bonded	5
14	122S03		ADAPTOR, male	3
15	119S08		ADAPTOR, male	2
16	154S03		FITTING, tee	1
18	V2003253		TIE, cable, nylon	2
19	35S03AK		HOSE, return, control block to tank	1
20	----------		MOTOR, hydraulic, *(see page E-5)* *(For pulley & fixings, see page G-5A)*	1
21	391111000		'O' RING	2
22	126S09		ADAPTOR, male	2
25	555287500		BLOCK, dragline control	1
26	555138200		GUIDE, valve	1
27	555138300		VALVE, relief	1
28	555556100		SPRING	1
29	100S04		SEAL, washer	1
30	10S02		WASHER, flat	AR
33	11S03A		SCREW	4
34	17S04		WASHER, spring	4
35	V2004676		VALVE, solenoid	1
35A	V601234		PLUG, solenoid valve	1
36	68S02E		SCREW, socket cap head	4
36A	17S02		WASHER, spring	4
50	V2004605		CONTROL VALVE, *(see page E - 1BA)*	

Reversing Drum Mixers, model 500R



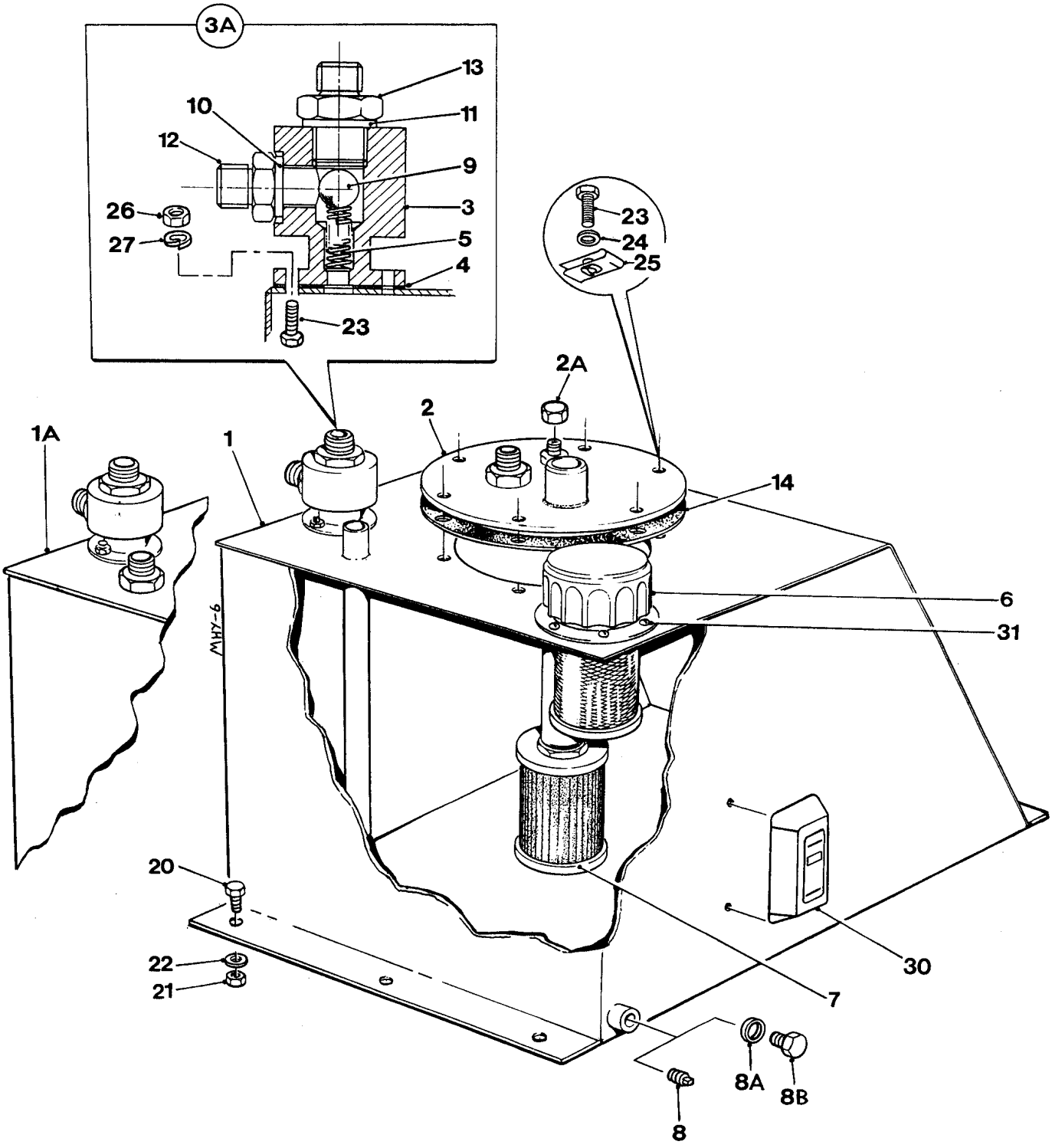
Item	Part no	Serial no	Description	Qty
1A	555242418		LOADCELL & GAUGE, assembly	
1	----------		GAUGE (See page E - 3A)	
2	253817055		POINTERS, complete	1
3	V601534		WASHER, copper, “Special”	1
4	555182800		*ADAPTOR, gauge fitted to the top of the hopper ram)*	1
5	260301088		HOSE, straight/90O, OBSOLETE *(Order hose kit 555194500 plus appropriate adaptor)*	1
5A	555194500		KIT, hose c/w adaptors items 5B & 5C *(Discard items not relevant to your mixer)*	
5B	V602712		ADAPTOR, female	1
5C	128S08		ADAPTOR, female, 90 deg. swivel	1
5D	V601532		ADAPTOR & BLOCK	1
6	100S02		**#** SEAL, bonded	2
7	353304070		**#** PIN, split	1
8	555182700		**#** ADAPTOR, loadcell	1
			# *Not fitted from circa 1990*	
9A	513265200		LOADCELL, assembly	1
9	513265700		PIN, locking	1
10	513265500		RING,sealing	2
11	57S04D2		SCREW, set, socket head	1
12	101104011		BALL, steel	1
13	511137200		BODY, loadcell	1
14	391350340		SEAL, ‘O’ ring	2
15	513265400		PLATEN	1
16	513265600		SLEEVE, floating	1
20	116S06			AR
25	16S05B			1
26	143200900			1
27	7S09			1
28	17S10			1
29	267S02			1

Reversing Drum Mixers, model 500R

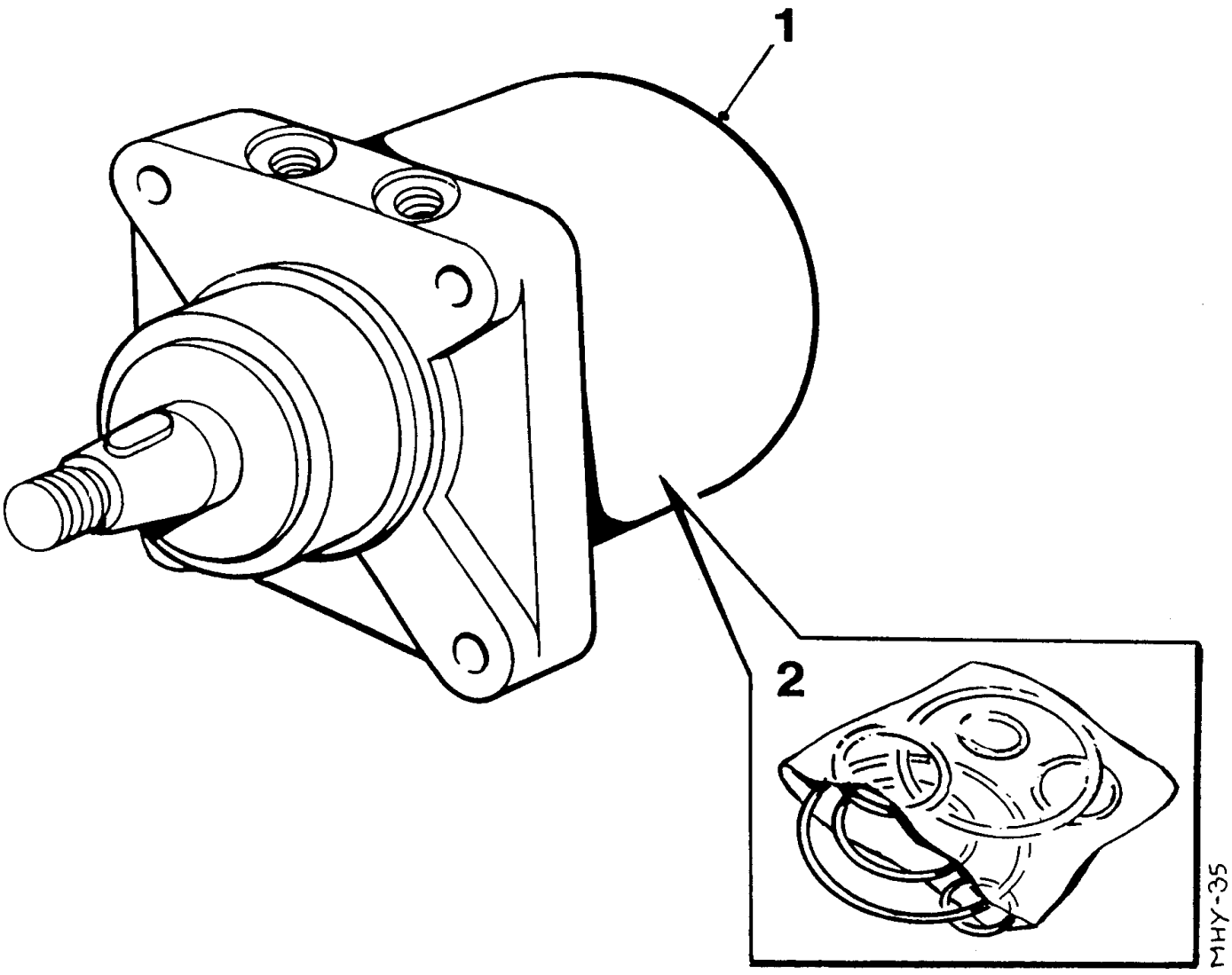


Item	Part no	Serial no	Description	Qty
1	253820000		GAUGE, assembly	1
2	253819008		DIAL, 12", 2600 lbs	1
3	253818005		GLASS	1
4	253818006		SEAL, glass	1
5	417735000		SEAL, backplate	1
6	253818002		BACKPLATE	1
6A	253818004	/July 05	SCREW, round head, UNC	6
6A	301S03B	July 05/	SCREW, round head, metric	6
7	253818000		INDICATOR	1
8	253817001		MOVEMENT	1
9	253820001		TUBE-COIL	1
10	253817005		# BLEED SCREW & BALL 1/8" dia.	1
10	253817006		# BLEED SCREW & BALL 2.5mm dia.	1
			# *Check size of ball before ordering. They are not interchangeable.*	
11	----------		BODY c/w front plate *(order assembly)*	1
11A	253818001	/July 05	SCREW, round head, UNC	6
11A	301S04E	July 05/	SCREW, round head, metric	6
--	----------		NUT, gauge zeroing *(order assembly)*	1
15	67S01		WASHER, shake-proof	4
16	253817045		SCREW, set	4

Reversing Drum Mixers, model 500R

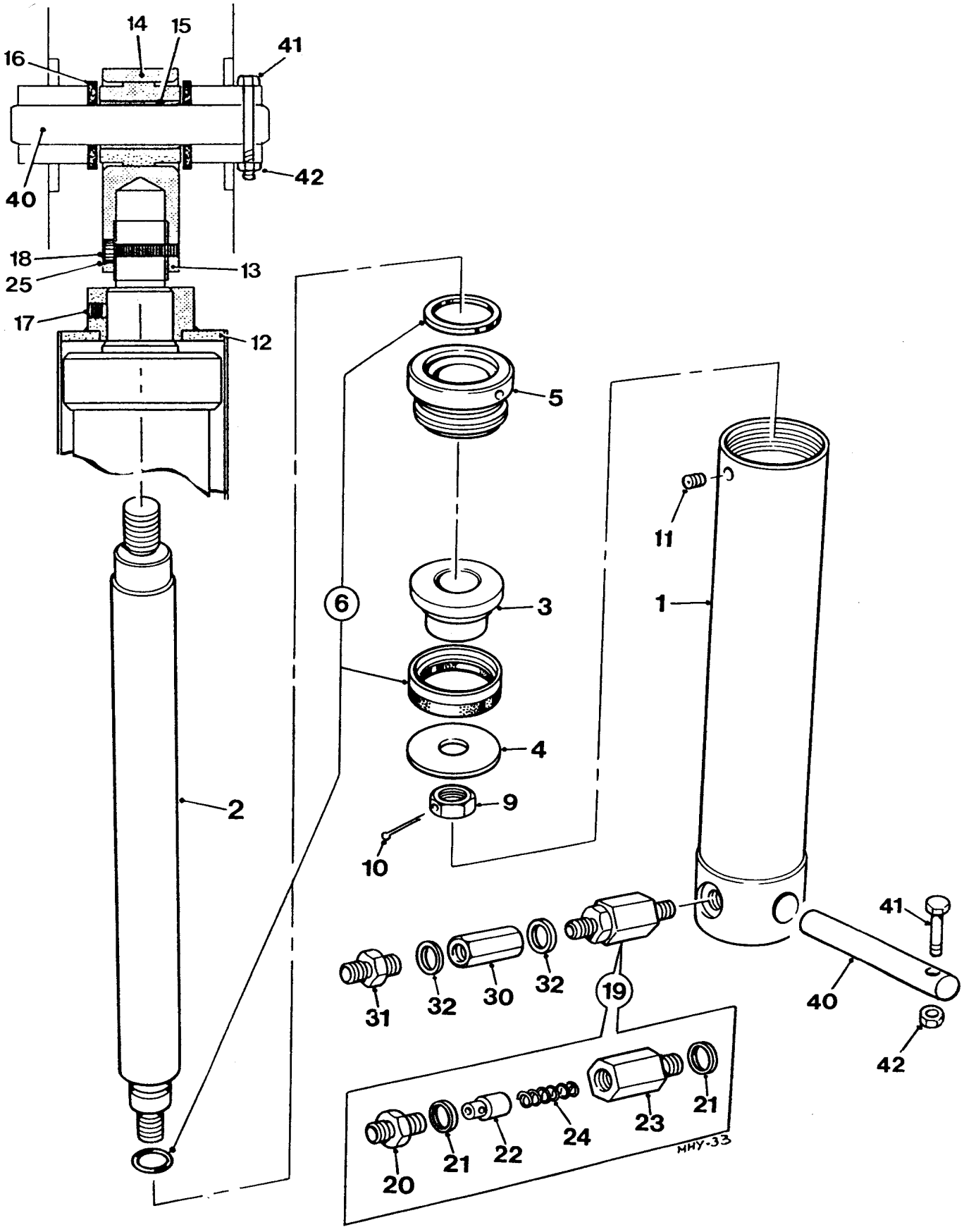


Item	Part no	Serial no		Description	Qty
1	555257900	/ 0307		TANK hydraulic	1
1A	555257900	0307 /		TANK hydraulic	1
2	555258200			COVER *(OBSOLETE: Use 555284800 with blanking plug shown on page E-1D)*	
2	555284800			COVER	1
2A	120S01	0307 /		CAP *(For mixers prior to 0307 To be used when there is no breather hose fitted to the top of the hopper ram)*	1
3A	V602658		#	BLEED VALVE assembly *(items marked #)*	1
3	555255600		#	BODY bleed valve	1
4	555264000		#	GASKET bleed valve	1
5	555267100		#	SPRING bleed valve	1
6	10565A01			BREATHER filler	1
7	220591000			STRAINER	1
8	241702000	/ June-98		PLUS taper, tank drain	1
8A	100S02	June-98 /		SEAL bonded	1
8B	127S02	June-98 /		PLUG tank drain	1
9	101120000		#	BALL steel	1
10	100S03		#	SEAL bonded	1
11	100S04		#	SEAL bonded	1
12	122S03		#	FITTING adaptor, male, stud	1
13	11908		#	FITTED adaptor, male, stud	1
14	417735000			GASKET tank cover	1
20	11S04C			SCREW set	3
21	7S04			NUT	3
22	17S05			WASHER flat	3
23	11S02A			SCREW set	8
24	17S03			WASHER spring	6
25	332719000			NUT captive	6
26	7S02			NUT	2
27	17S03			WASHER spring	2
30	253705000			GAUGE fluid level	1
31	101S07E			RIVET	6

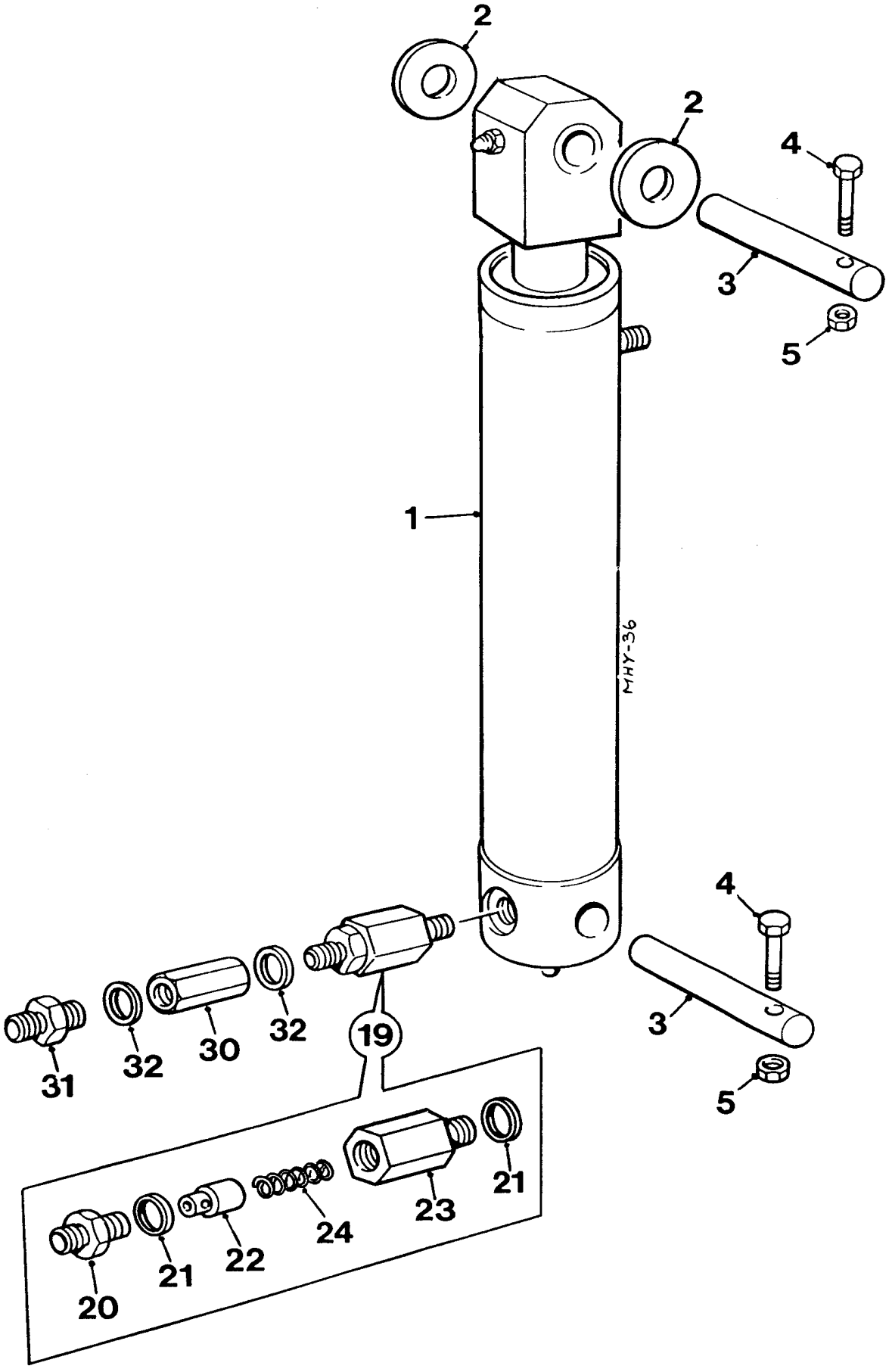

1
2
MHY-35

Item	Part no	Serial no	Description	Qty
1	267113000		MOTOR, hydraulic, *"MAB 710"*	1
2	267112001		KIT, motor repair	1
1	267116000	/ 0312	MOTOR, hydraulic, *"Torqmotor MB"*	1
2	267116001	/ 0312	KIT, motor repair	1
1	267117000	0313 /	MOTOR, hydraulic, *"Whites"*	1
2	267117001	0313 /	KIT, motor repair	1

Reversing Drum Mixers, model 500R



Item	Part no	Serial no	Description	Qty
.....	272140000	/ 0306	RAM, hopper, assembly	1
1	272140000		CYLINDER, ram	1
2	272140002		ROD, piston	1
3	272127003		PISTON, front	1
4	272127004		PLATE, piston backup	1
5	272140003		CAP, screwed	1
6	272127017		KIT, seals	1
9	2S09		*fitt* NUT	1
10	44S03G		PIN, split	1
11	272140004		SCREW, grub	1
12	555136700		SHROUD, ram	1
13	555136600		END PIECE	1
14	555136500		INSERT	1
15	112801001		BUSH	2
16	555167900		WASHER, ram pin	2
17	195S04C3		SCREW, set, socket head	1
18	90S04K		SCREW, socket head cap	2
19	555246900		RESTRICTOR, ram, assembly	1
20	119S08		FITTING, adaptor, male/male	1
21	100S04		SEAL, bonded	2
22	555247000		POPPET	1
23	555247100		FITTING, adaptor, restrictor	1
24	424210500		SPRING, compression	1
25	17S04		WASHER, spring	2
30	V2004171			1
31	122S03			1
32	100S03			2
40	555108500			2
41	6S03G			2
42	87S03			2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MHY-36
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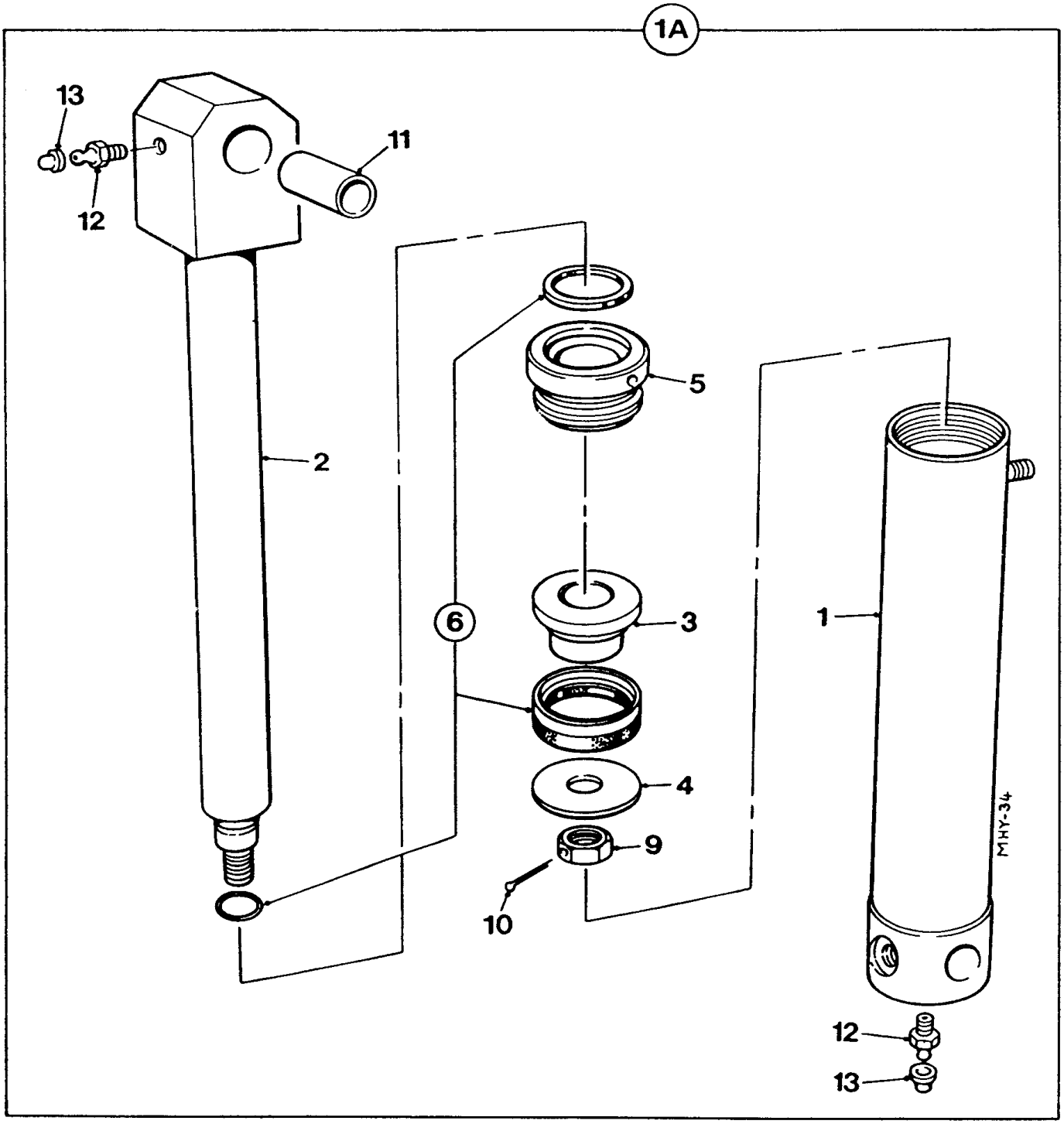
21

Item	Part no	Serial no	Description	Qty
1	----------	0307 /	RAM, hopper *(See page E-9)*	1
2	555167900		WASHER	2
3	555108500		PIN	2
4	6S03G		BOLT	2
5	87S03		NUT, “Binx”, self-locking	2
19	555246900		RESTRICTOR, ram, assembly	1
20	119S08		FITTING, adaptor, male/male	1
21	100S04		SEAL, bonded	2
22	555247000		POPPET	1
23	555247100		FITTING, adaptor, restrictor	1
24	424210500		SPRING, compression	1
30	V2004171		VALVE, hose failure	1
31	122S03		ADAPTOR, male/male	1
32	100S03		SEAL, bonded	2

Reversing Drum Mixers, model 500R



Item	Part no	Serial no	Description	Qty
1A	272150000	0307 /	RAM assembly, hopper, assembly	1
1	272150005		CYLINDER, ram	1
2	272150008		ROD, piston	1
3	272127003		PISTON, front	1
4	272127004		PLATE, piston backup	1
5	272150003		CAP, screwed	1
6	272127017		KIT, seals	1
9	2S09		NUT, 1" BSP	1
			or alternatively	
9A	59S07		NUT, nyloc M24	1
10	44S03G		PIN, split, use with item 9	1
11	272150009		BUSH	1
12	131S01		NIPPLE, grease	1
13	176S01		CAP, grease nipple	1

MIXER 500R

Water Systems

WATER TANK ***(up to serial number 0265)*** **F - 2**

SYPHON MECHANISM, water tank
(up to serial number 0265) **F - 3**

WATER TANK with float & valve
(from serial number 0266) **F - 3A**

VALVE & FILTER for water tank
(from serial number 0266) **F - 3B**

CONTROLS, water tank **F - 4**

WATER PUMP **F - 5**

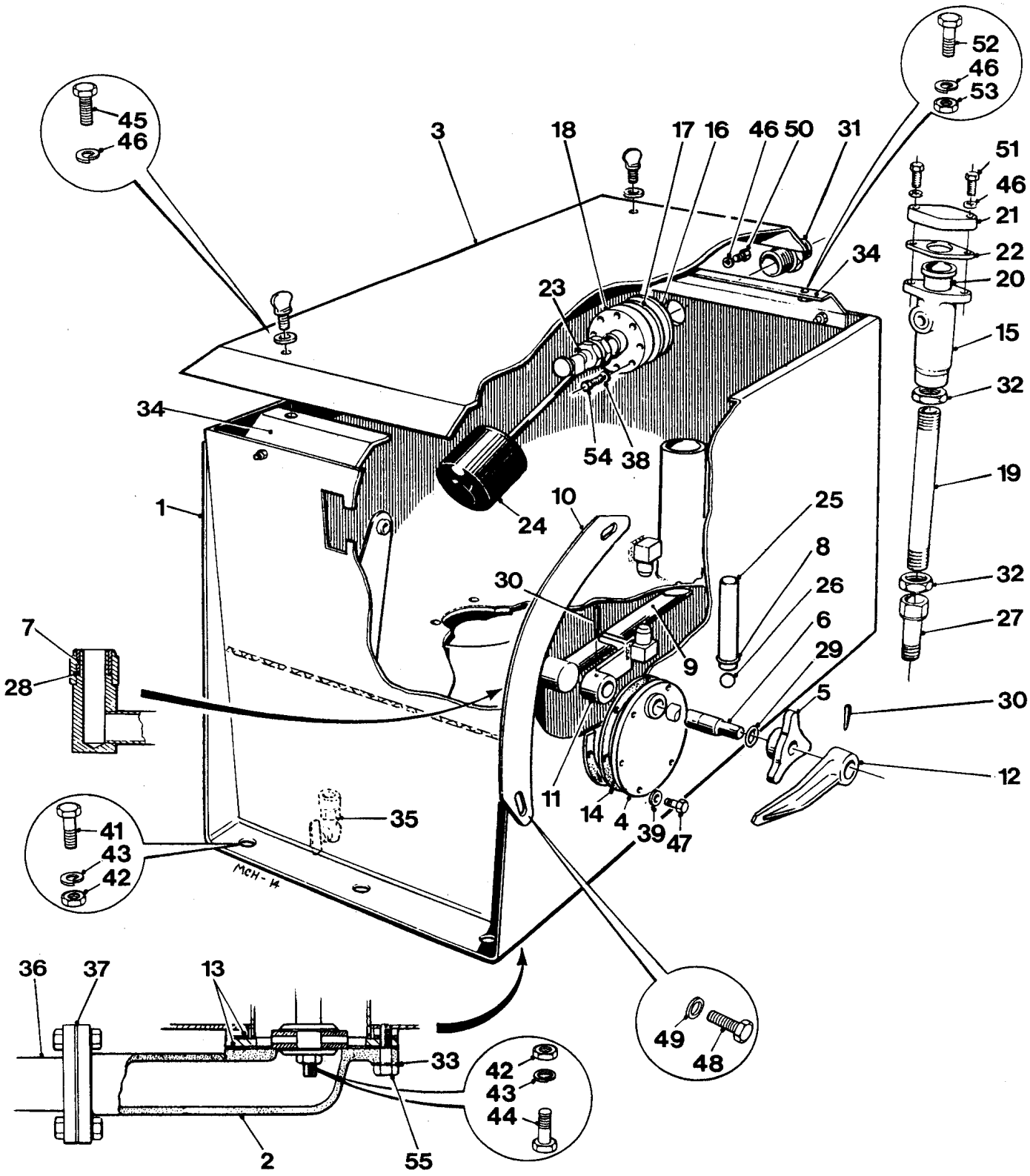
WATER SYSTEM machines with pump & water tank
(up to May 1986) **F - 6**

WATER SYSTEM machines with pump & flowmeter
(up to May 1986) **F - 7**

FLOWMETER ***(from April 2000)*** **F - 7A**

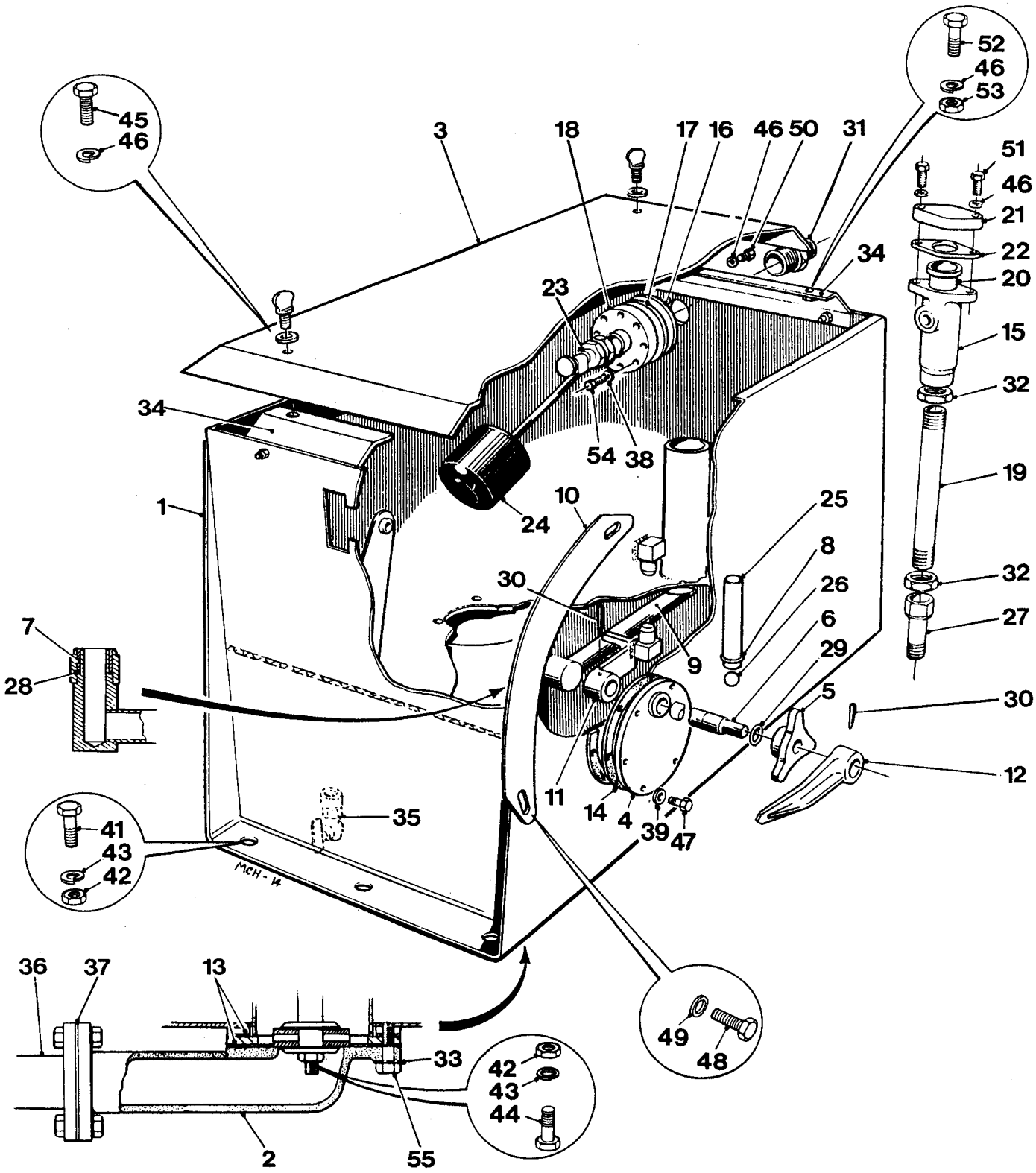
WATER SYSTEM
machines with cement batcher only **F - 8**

Reversing Drum Mixers, model 500R



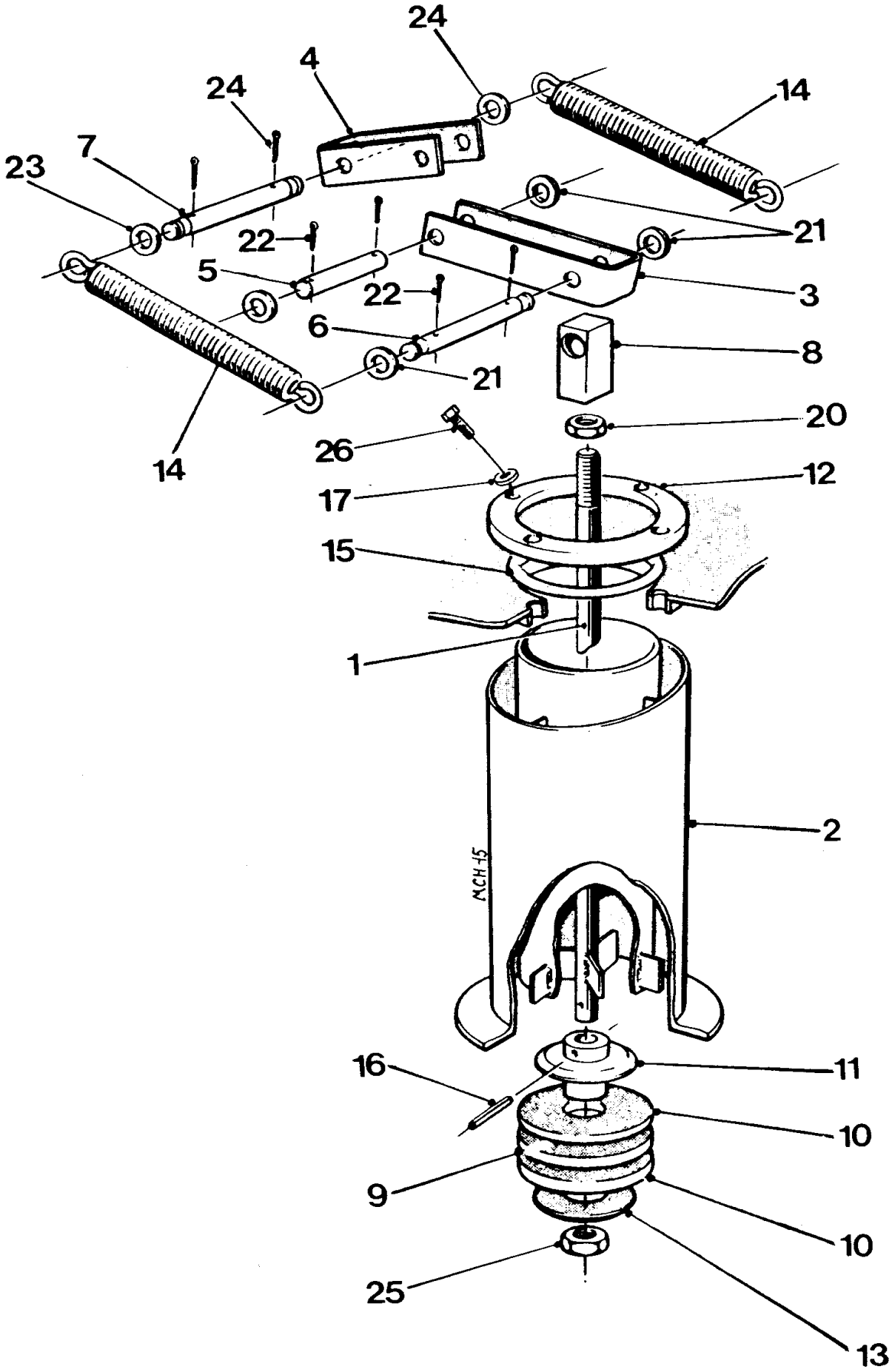
Item	Part no	Serial no	Description	Qty
	V2000631	/ 0265	WATER TANK assembly	1
1	55522610		BODY water tank	1
2	555119100		OUTLET water tank	1
3	555226200		LID water tank	1
4	555115500		HOUSING pivot	1
5	555115800		HANDLE	1
6	555117100		SHAFT pitot	1
7	555118100		BUSH brass	1
8	143106000		CLAMP hose	1
9	555115300		TUBE syphon break	1
10	555226400		SCALE tank	1
11	555115600		LEVER pivot	1
12	555115700		POINTER	1
13	555118500		JOINT rubber	1
14	555118600		GASKET tank	1
15	502917200		STRAINER	1
16	614127300		BODY water tank	1
17	614126600		DIAPHRAGM	1
18	614127800		COVER float valve	1
19	502858300		PIPEwater supply	1
20	502917400		ELEMENT strainer	1
21	502917500		CAP srainer body	1
22	502917700		GASKET strainer cap	1
23	451108100		VALVE ball float	1
24	220302000		FLOAT polythene	1
25	430904000		TUBE clear	1
26	101256000		BALL	1
27	130306000		CONNECTOR hose	1
28	391828000		SEAL 'O' ring	1
29	391825000		SEAL 'O' ring	1
30	352108140		PIN taper *(OBSOLETE use 353810612)*	1 1
30	353810612		PIN split	1 1
30	66S01BB		SCREW set	1
31	245408060		NIPPLE reducing	1
32	194S07		NUT back	2
33	464809000		WASHER	4

Reversing Drum Mixers, model 500R



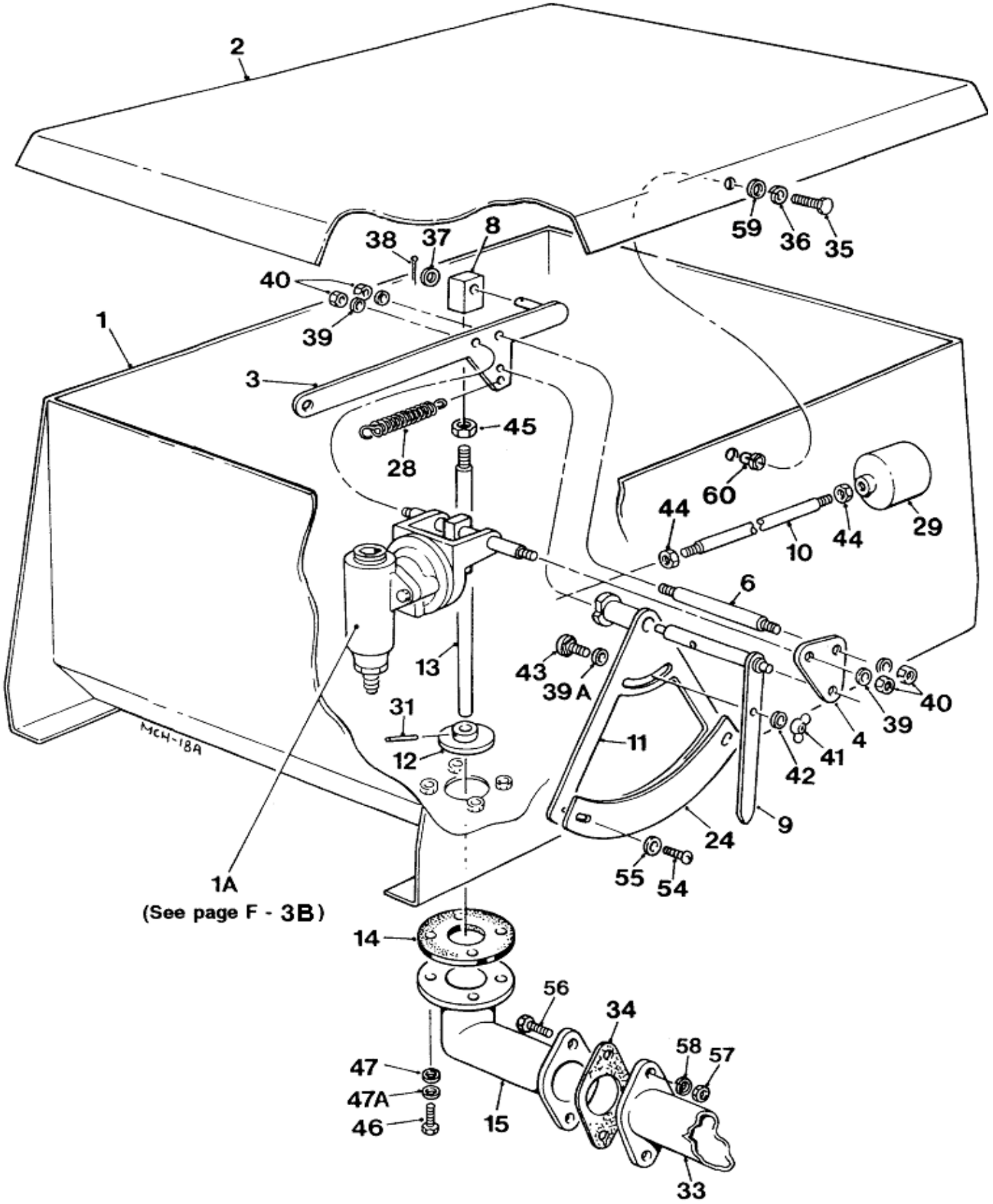
Item	Part no	Serial no	Description	Qty
34	555226300	/ 0265	BRACKET water tank lid	2
35	140102000		COCK drain	1
36	555119300		PIPE water discharge	1
37	555119200		GASKET	1
38	464804000		WASHER	8
39	464807000		WASHER	6
41	6S05Z		BOLT	10
42	9S04		NUT	10
23	41S07		WASHER spring	10
44	6S05E		BOLT	2
45	66S02CC		SCREW set	4
46	41S04		WASHER, spring	14
47	6S02Z		BOLT	6
48	8S03D		SCREW, set	2
49	10S18		WASHER, flat	2
50	66S02AA		SCREW	2
51	66S02A		SCREW	2
52	460505005		BOLT	6
53	104S02		NUT	6
54	66S01C		BOLT	8
55	66S04F		SCREW, set	4

Reversing Drum Mixers, model 500R



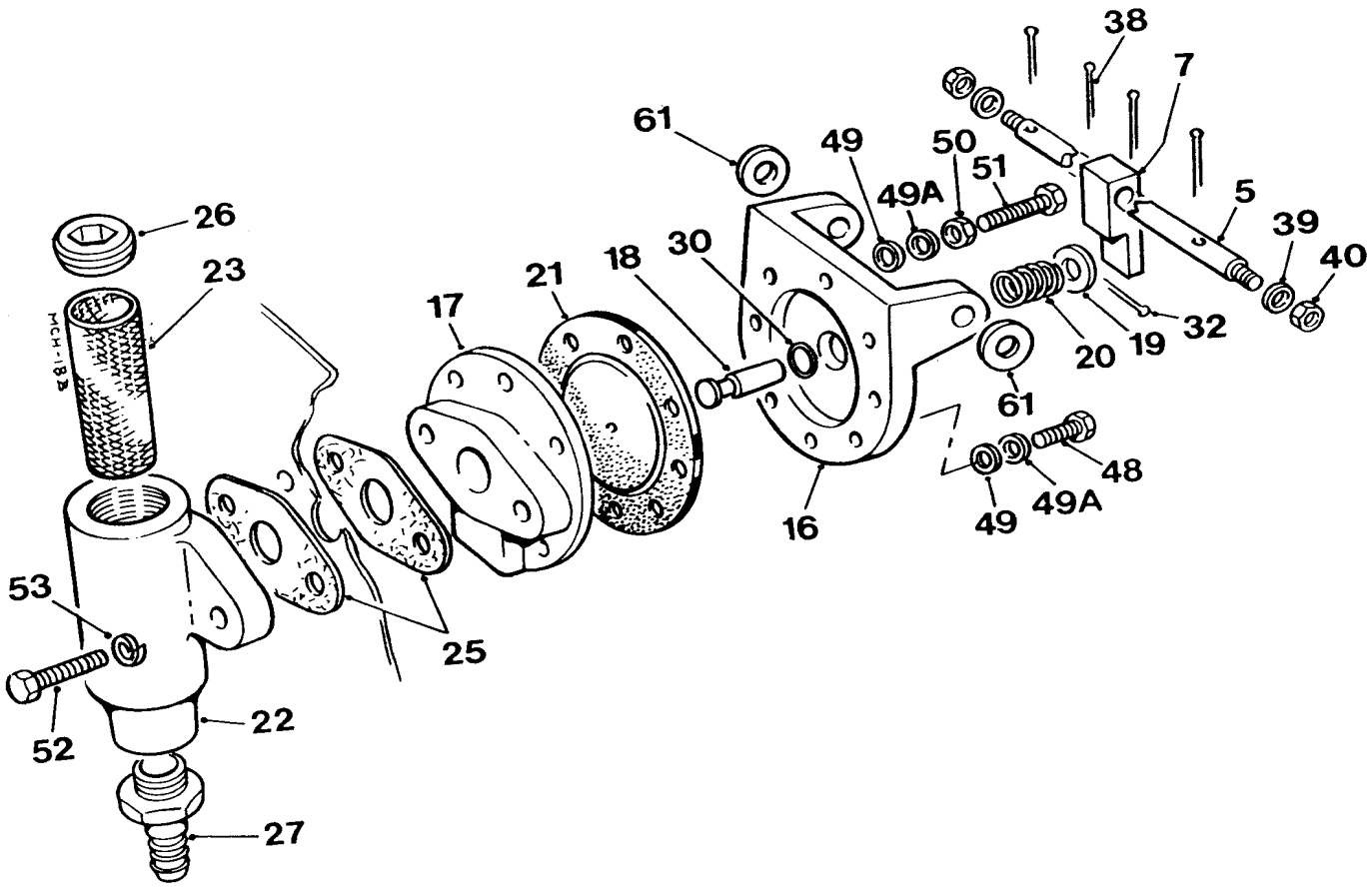
Item	Part no	Serial no	Description	Qty
1	555116000	/ O265	ROD valve control	1
2	555116100		CYLINDER syphon	1
3	555117900		LINK valve	1
4	555117800		LINK ram	1
5	555117400		PIN connecting	1
6	555117300		PIVOT valve	1
7	555117200		PIVOT ram	1
8	555117500		BOSS valve rod	1
9	555116500		PLATE centre	1
10	555118400		SEAL valve	2
11	555117700		PLATE centre	1
12	555116400		FLANGE 'O' ring	1
13	555116600		WASHER valve	1
14	425430460		SPRING tension	2
15	391350000		SEAL	1
16	353810612		PIN spirol	1
17	464809000		WASHER selon	4
20	302508000		UT locking	1
21	10S04		WASHER flat	4
22	353306010		PIN split	4
23	10S50		WAHSER flat	2
24	353304012		PIN split	2
25	192S05		NUT self locking	1
26	66S03CC		SCREW	4

Reversing Drum Mixers, model 500R



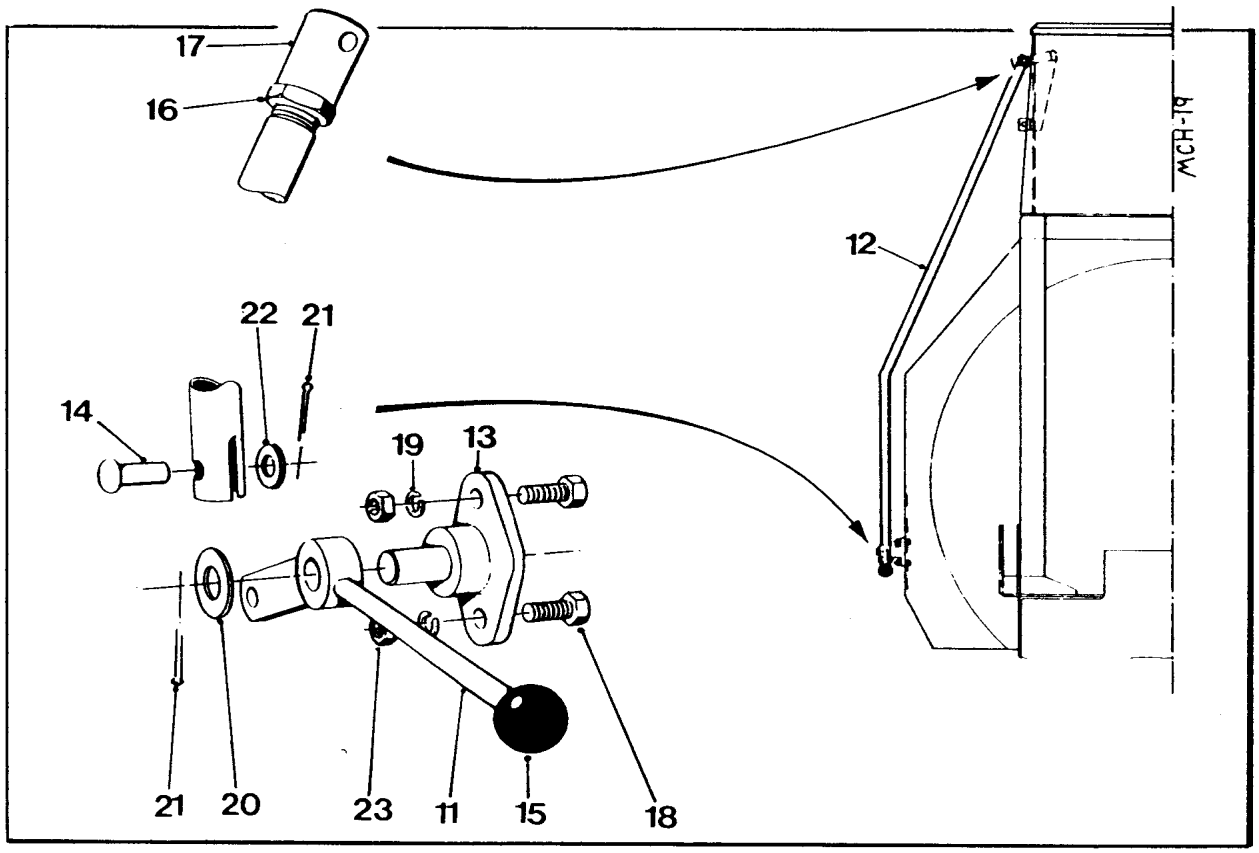
Item	Part no	Serial no	Description	Qty
.....	V2004613	0266 /	WATER TANK, assembly	1
1A	————-		VALVE *(see page F - 1A)*	
1	555286000		BODY, tank	1
2	555286100		LID, tank	1
3	555263300		LEVER, operating	1
4	555263200		LINK, outer	1
6	555263100		ROD, spacer	1
8	555262800		CONNECTOR, valve rod	1
9	555262100		INDICATOR	1
10	555262300		ARM, float	1
11	555261900		CARRIER, scale	1
12	555262400		VALVE, discharge	1
13	555262500		ROD, discharge valve	1
14	555262600		SEAT, rubber valve	1
15	555261600		OUTLET, tank	1
24	555286200		SCALE	1
28	425434000		SPRING, tension	1
29	220302000		FLOAT, plastic	1
31	353830426		PIN	1
33	555119300		PIPE, water discharge	1
34	555119200		GASKET, discharge pipe	1
35	11S02C		SCREW, set	1
36	17S03		WASHER, spring	1
37	267S06		WASHER, flat	1
38	44S03C		PIN, split	1
39	267S05		WASHER, flat	2
39A	267S07		WASHER, flat	1
40	61S03		NUT, self locking	2
41	177S04		NUT, wing	1
42	17S04		WASHER, spring	1
43	172S03A		BOLT, round head, cup square	1
44	104S02		NUT, locking	2
45	56S04		NUT, locking	1
46	11S03D		SCREW, set	4
47	V601330		WASHER, nylon	4
47A	267S05		WASHER, flat	4
54	70S04D		SCREW, round head	2
55	267S03		WASHER, flat	2
56	11S05F		SCREW, set	2
57	7S05		NUT	2
58	17S06		WASHER, spring	2
59	267S04		WASHER, flat	1
60	236S04		NUT, blind	1

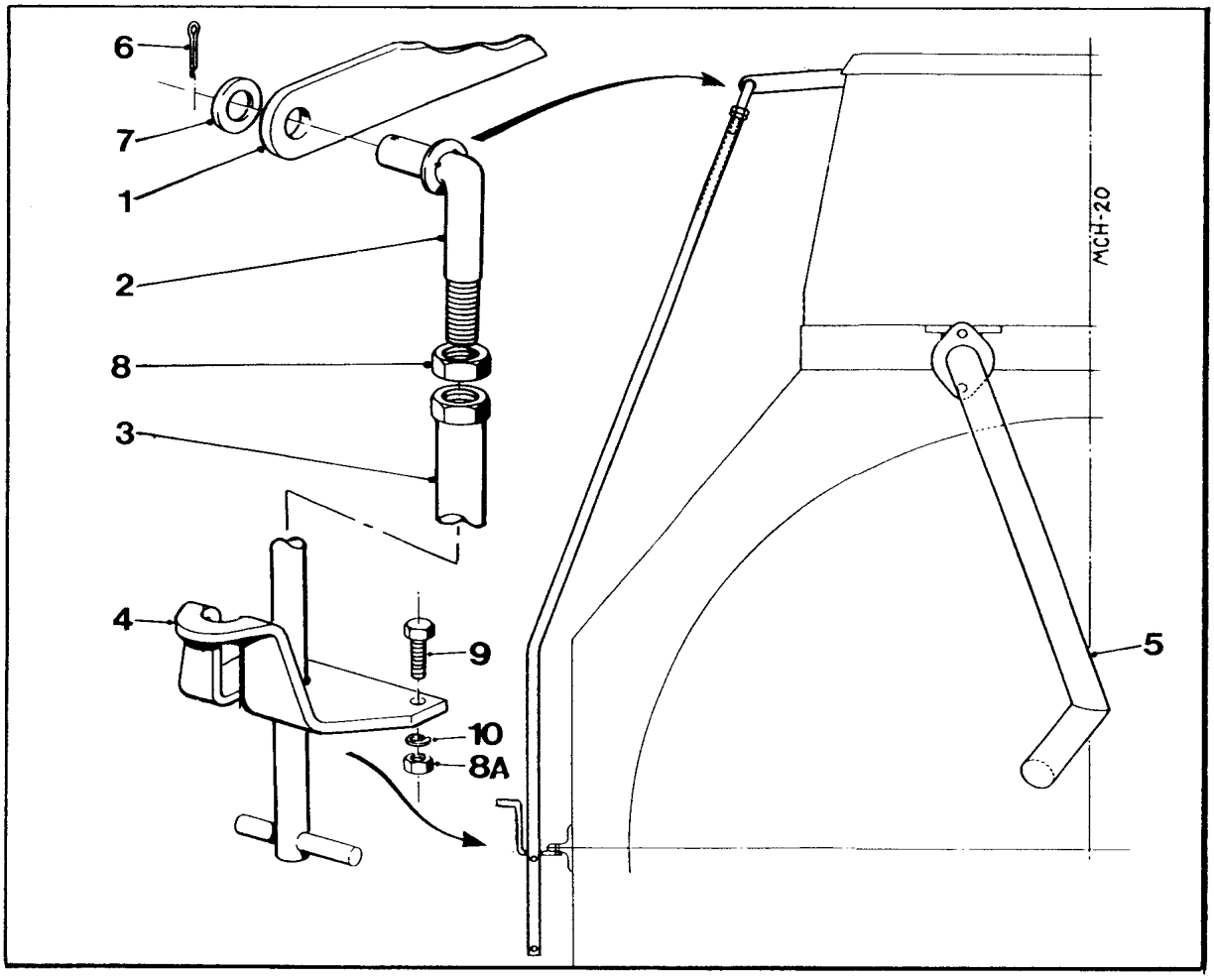
Reversing Drum Mixers, model 500R



Item	Part no	Serial no	Description	Qty
5	555263000	0266 /	PIN, pivot	1
7	555262900		LEVER, trip	1
16	555263500		COVER, float valve	1
17	555263600		BODY, float valve	1
18	555262700		VALVE, pilot	1
19	513114600		WASHER, pilot valve	1
20	513115200		SPRING, pilot valve	1
21	513122000		DIAPHRAGM	1
22	555198300		BODY, strainer	1
23	555198400		ELEMENT, strainer	1
25	555198800		GASKET, float valve	2
26	241708000		PLUG, tapered	1
27	130354000		CONNECTOR, hose	1
30	49S39		SEAL, ‘O’ ring	1
32	44S02B		PIN, split	1
38	44S03C		PIN, split	4
39	267S05		WASHER, flat	2
40	61S03		NUT, self locking	2
48	11S02B		SCREW, set	7
49	293S02		WASHER, fibre	8
49A	267S04		WASHER, flat	8
50	7S02		NUT	1
51	11S02F		SCREW, set	1
52	11S03C		SCREW, set	2
53	17S04		WASHER, spring	2
61	267S07		WASHER, flat	A/R

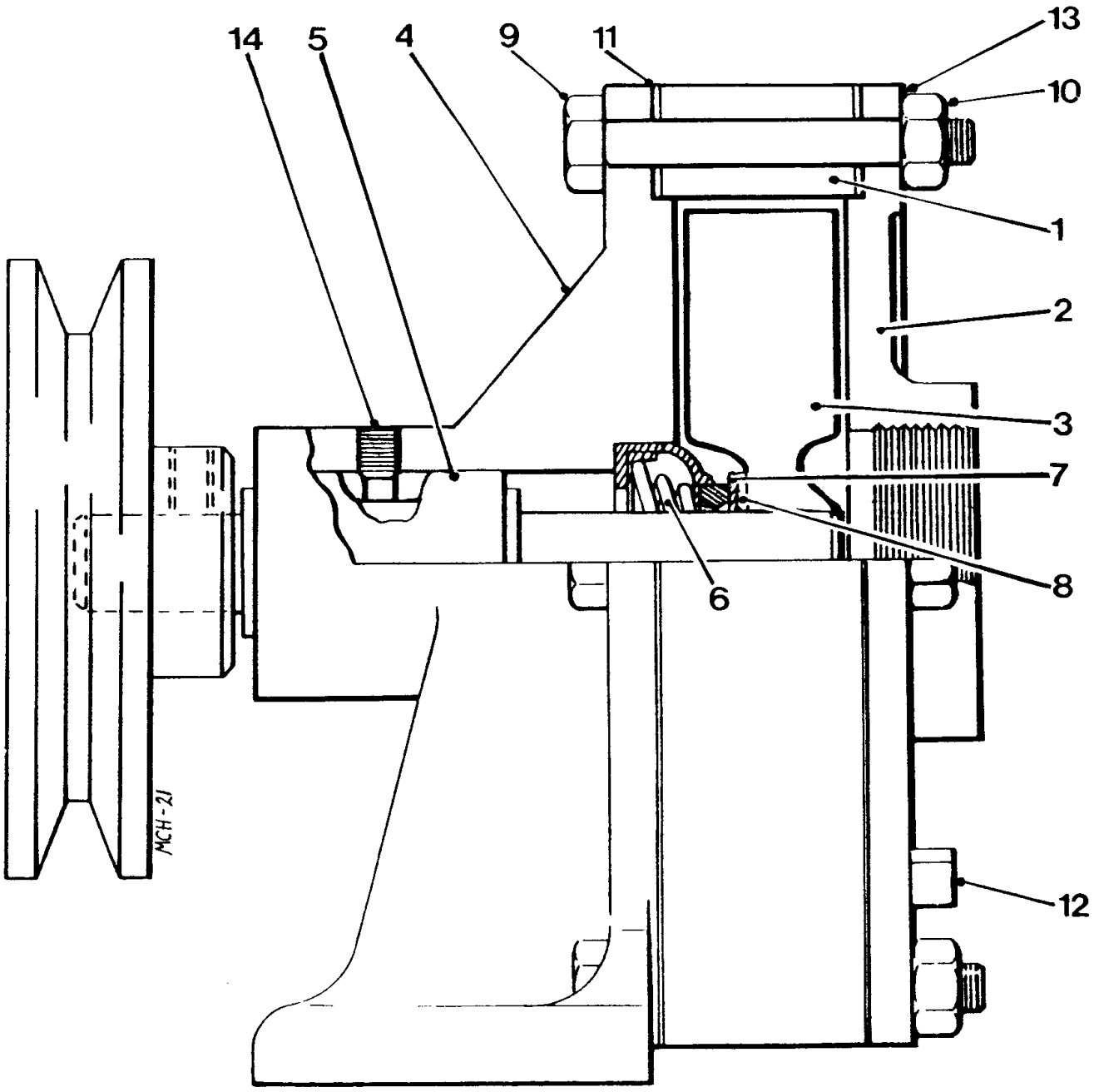
Reversing Drum Mixers, model 500R





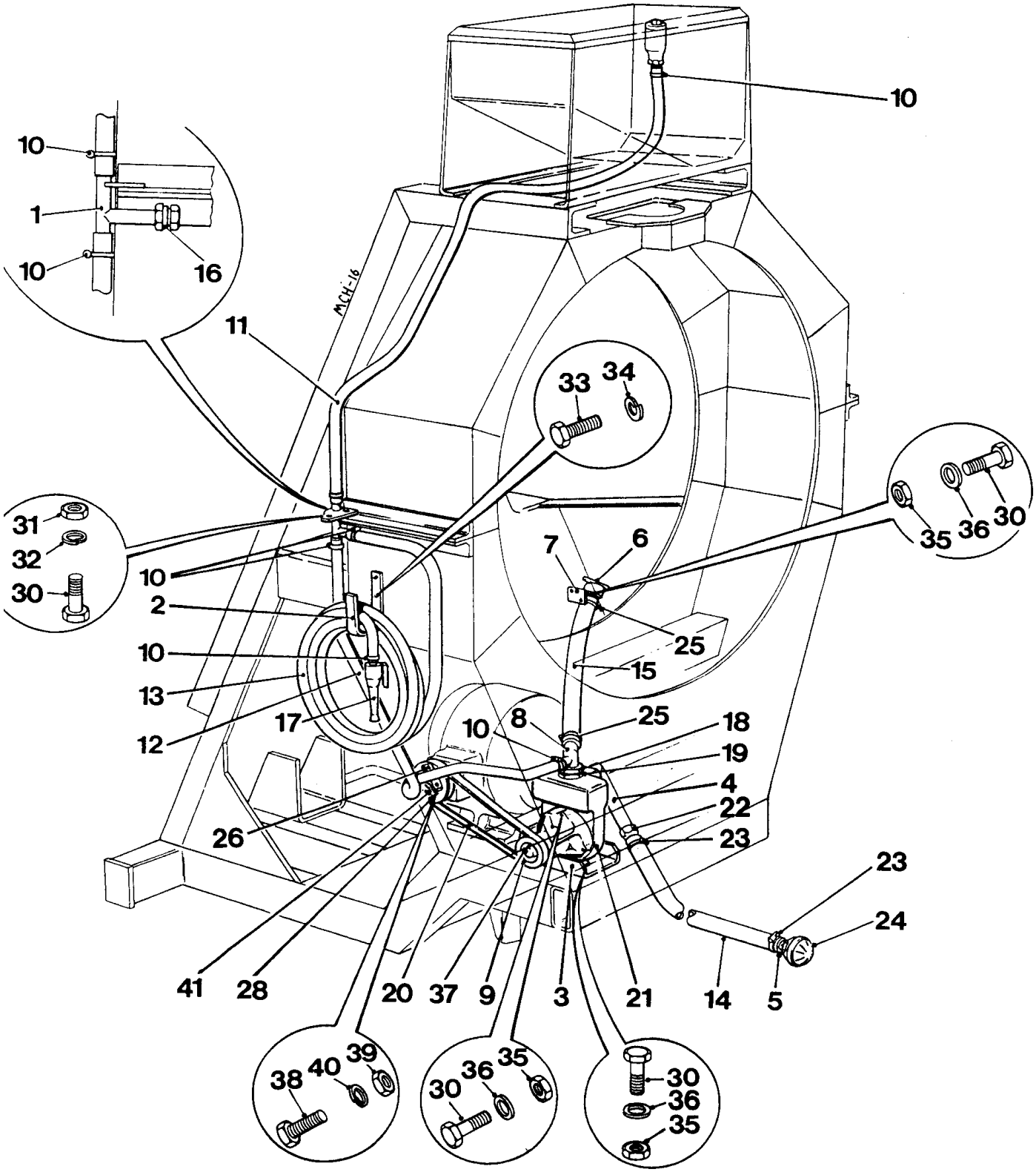
Item	Part no	Serial no	Description	Qty
11	555120000	/ 0265	LEVER, operating	1
12	555170300	/ 0265	ROD, tank operating	1
13	555119900	/ 0265	PIVOT, operating lever	1
14	555120200	/ 0265	PIN, lever rod connecting	1
15	307120000	/ 0265	KNOB, lever	1
16	72S02	/ 0265	NUT,	1
17	555170200	/ 0265	END PIECE, operating rod	1
18	6S03C	/ 0265	BOLT	2
19	41S05	/ 0265	WASHER, spring	2
20	10S06	/ 0265	WASHER, flat	1
21	353304012	/ 0265	PIN, split	2
22	10S02	/ 0265	WASHER, flat	1
1	----------	0266 /	LEVER, operating, *(see water tank)*	1
2	555265100	0266 /	COUPLING, rod end	1
3	555255500	0266 /	ROD, operating	1
4	555255700	0266 /	BRACKET	1
5	----------	0266 /	PIPE, water discharge *(see water tank)*	1
6	44S03C	0266 /	PIN, split	1
7	267S06	0266 /	WASHER, flat	1
8	56S04	0266 /	NUT, thin	1
8A	87S03	0266 /	NUT, “Binx” self-locking	2
9	6S03B	0266 /	BOLT	2
10	10S03	0266 /	WASHER, flat	2

Reversing Drum Mixers, model 500R



Item	Part no	Serial no	Description	Qty
.....	640479700	/ Jun-84	PUMP, water, assembly	1
.....	365237000	Jul-84 / 89	PUMP, water, assembly	1
1	640479701	/ Jun-84	BODY, pump	1
1	365237001	Jul-84 / 89	BODY, pump	1
2	640479702	/ Jun-84	COVER, front	1
2	365237002	Jul-84 / 89	COVER, front	1
3	640479703	/ Jun-84	IMPELLER	1
3	365237003	Jul-84 / 89	IMPELLER	1
4	640479704	/ Jun-84	PEDESTAL, bearing	1
4	365237004	Jul-84 / 89	PEDESTAL, bearing	1
5	640479705	/ Jun-84	SPINDLE	1
5	365237005	Jul-84 / 89	SPINDLE	1
6	640479706	/ Jun-84	SEAL	1
6	365237006	Jul-84 / 89	SEAL	1
7	640479707	/ Jun-84	SEAL, seating	1
7	365237007	Jul-84 / 89	SEAL, seating	1
8	640479708	/ Jun-84	SEAL, rubber	1
8	365237008	Jul-84 / 89	SEAL, rubber	1
9	640479709	/ 89	BOLT	4
10	640479710	/ 89	NUT	4
11	640479717	/ Jun-84	GASKET	2
11	365237017	Jul-84 / 89	GASKET	2
12	640479713	/ 89	PLUG	2
13	640479718	/ 89	WASHER, locking	4
14	640479712	/ 89	SCREW, socket head, set	1

Reversing Drum Mixers, model 500R

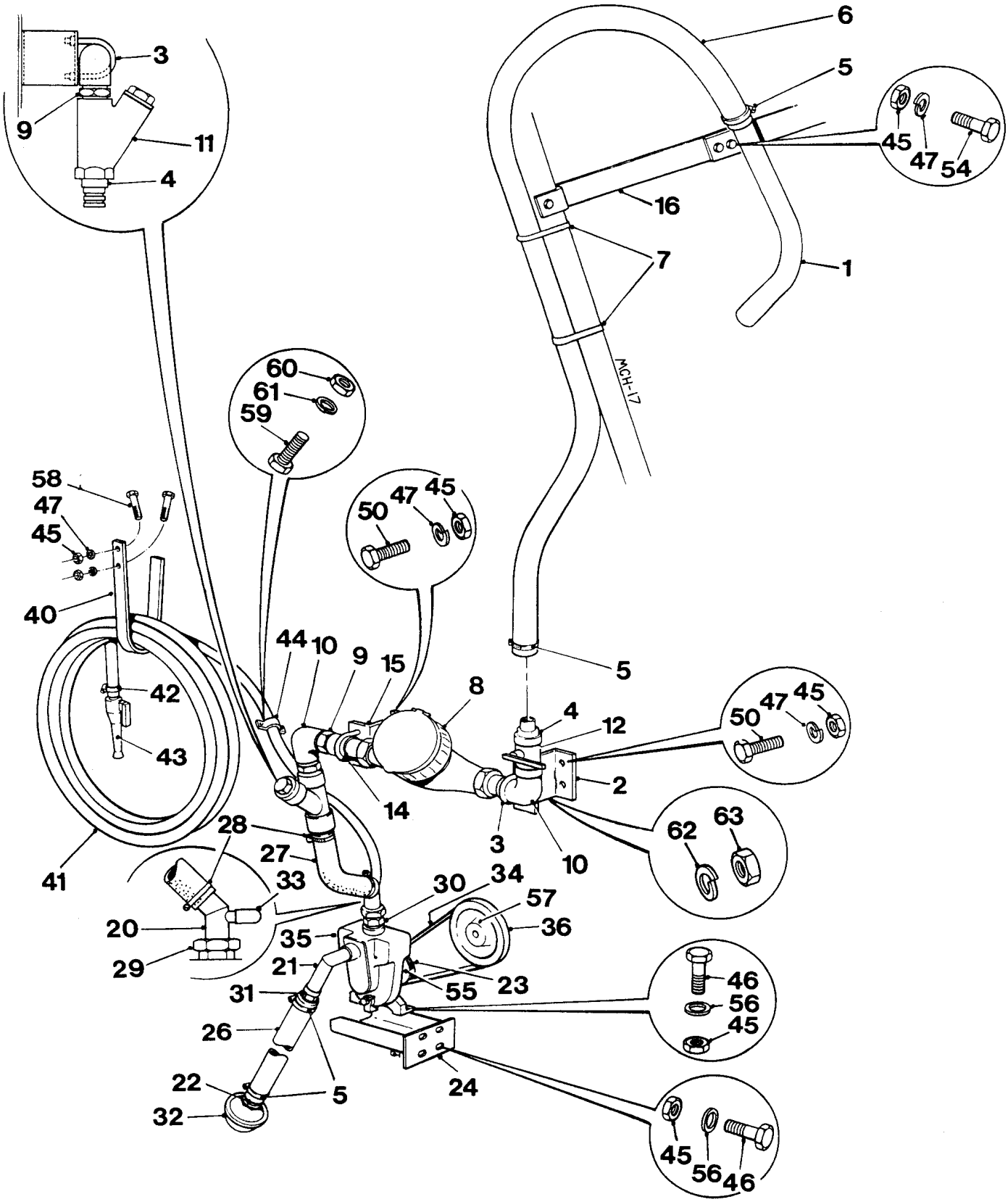


Item	Part no	Serial no		Description	Qty
1	555177700	/ May-86		PIPE, hose adaptor	1
2	555175800		#	SUPPORT, washdown hose	1
3	555247900			BRACKET, pump	1
4	555248000			CONNECTOR, inlet	1
5	555179600			CONNECTOR, hose	1
6	514406800			CAP, filler	1
7	555248100			CONNECTOR, priming	1
8	555248200			ADAPTOR, pump outlet	1
9	555248300			PULLEY, pump	1
10	132856000			CLIP *(machines with washdown)*	6
10	132856000			CLIP *(machines without washdown)*	4
11	260906108			HOSE	1
12	260906072			HOSE	1
13	260906240		#	HOSE	1
14	260912120			HOSE	1
15	260978001			HOSE	1
16	446655060		+	END, blank	1
17	130352000		#	NOZZLE, control	1
18	72S07			NUT, back	1
19	240512100			BUSH, reducing	1
20	397244000			'V' BELT	1
21	-			PUMP, water *(see page F - 5)*	1
22	130320200			CONNECTOR, hose	1
23	143158000			CLIP	2
24	409256000			FOOT VALVE & STRAINER	1
25	132808000			CLIP	2
26	133908800			CLIP, pipe	1
28	555248400			PULLEY, pump drive *(machines with electric drive)*	1
28	555248500			PULLEY, pump drive ***(Lister ST3)***	1
30	6S03B			BOLT	11
31	87S03			NUT	1
32	41S05			WASHER, spring	1
33	418250605			SCREW	2
34	41S05			WASHER, spring	2
35	87S03			NUT, self locking	8
36	10S03			WASHER, flat	8
37	57S04D2			SCREW, socket head set	1
38	245S04B			SCREW	2
39	239S04			NUT	
40	464202000			WASHER, spring	2
41	90S04H			SCREW, socket head cap *(used with pulley 555248400)*	4
41	90S04M			SCREW, socket head cap *(used with pulley 555248500)*	4

*Items required only when washdown fitted.*

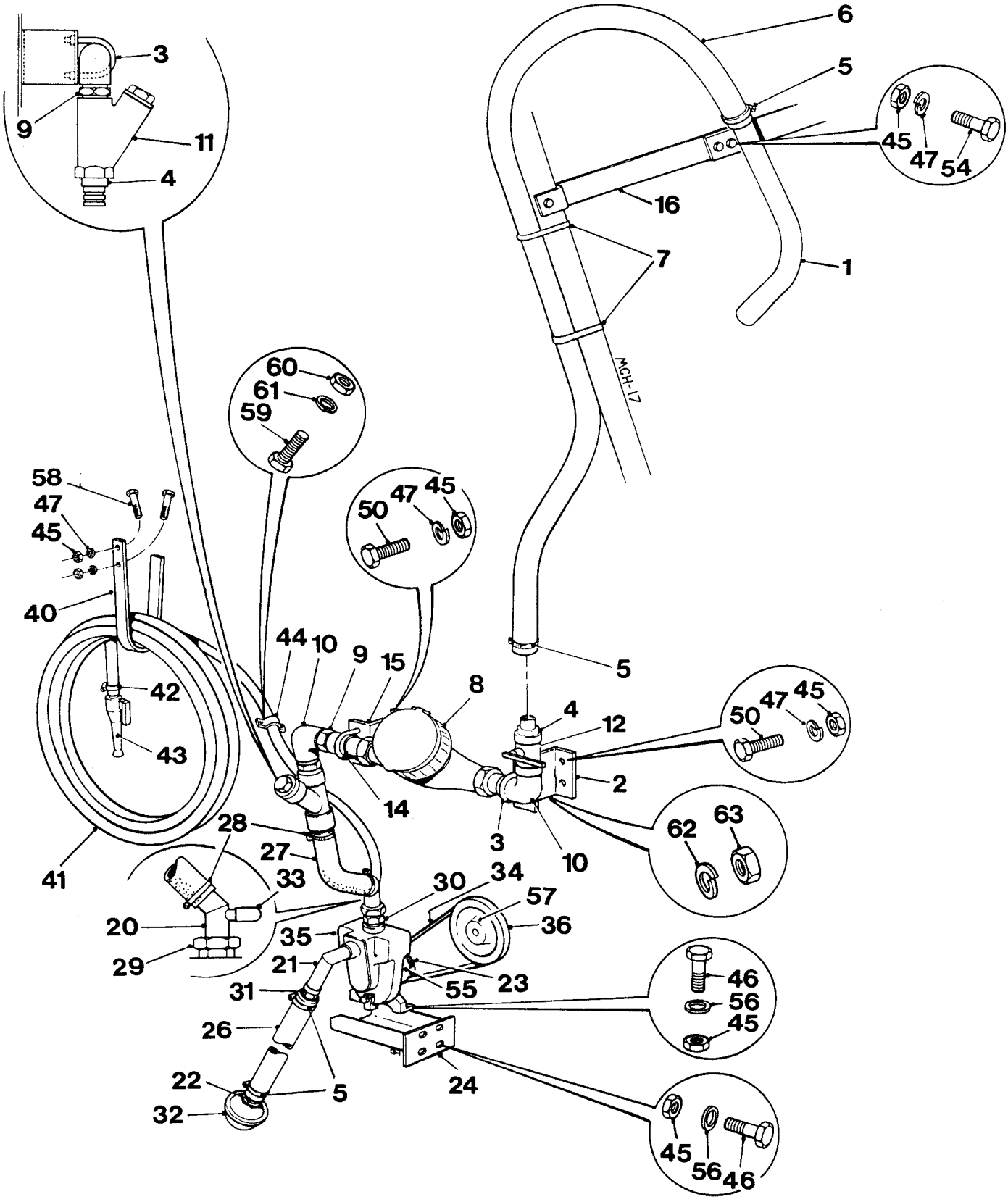
+ *Items not required when washdown fitted.*

Reversing Drum Mixers, model 500R



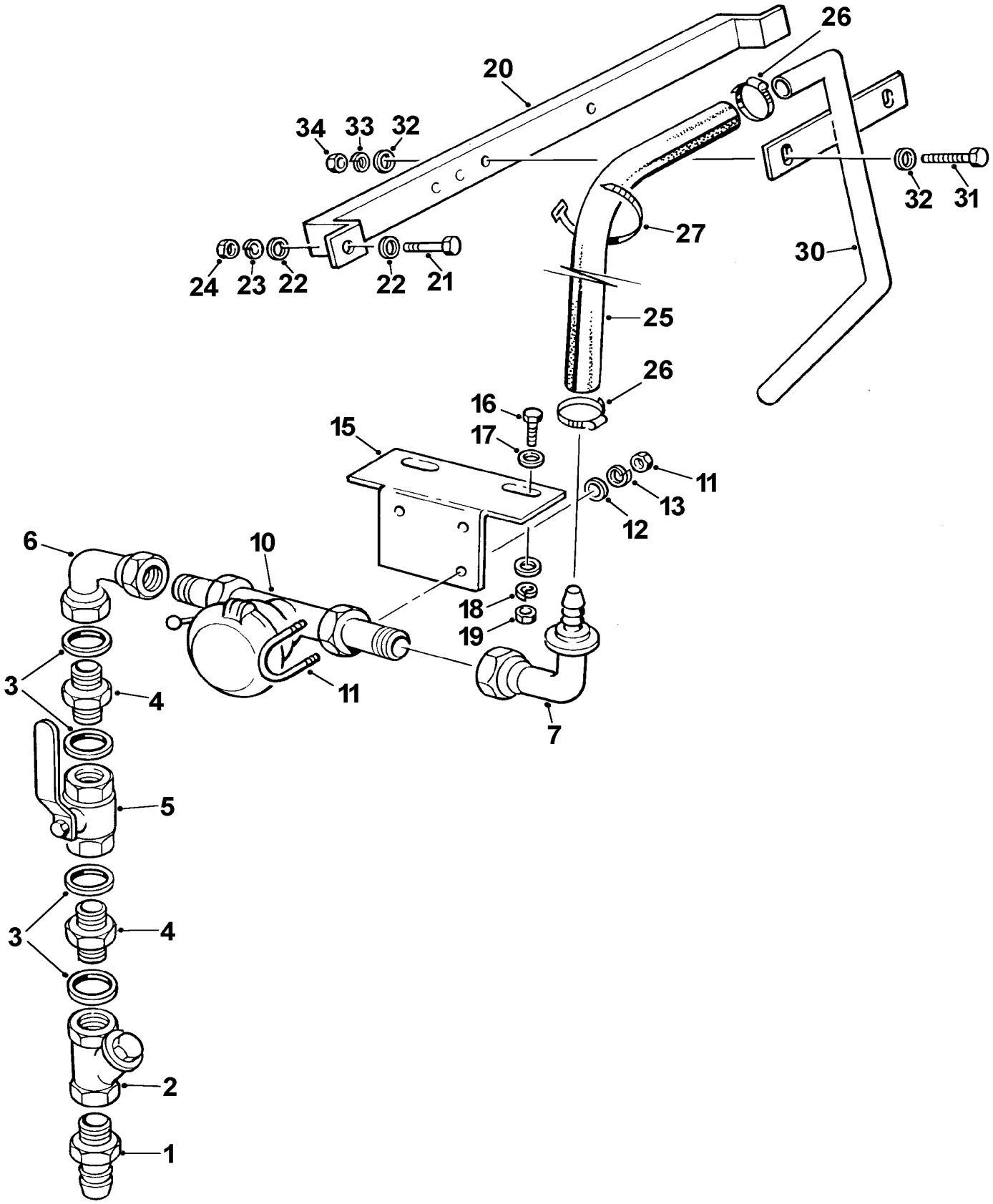
Item	Part no	Serial no	Description	Qty
			Items required for main feed only	
1	555182100	/ May-86	PIPE, water	1
2	555240701		BRACKET, flowmeter mounting, R.H.	1
3	555176500		'U' BOLT	2
4	555176400		INSERT, valve	2
5	143158000		CLIP (machines without pump feed)	2
5	143158000		CLIP (machines with pump feed)	4
6	260912066		HOSE	1
7	124108160		STRAP & BUCKLE	2
8	202319000		FLOWMETER	1
9	243912000		NIPPLE, hex	2
10	241112000		ELBOW, equal	2
11	409255000		STRAINER	1
12	450151100		VALVE, ball	1
14	241912000		SOCKET, equal	1
15	555240702		BRACKET, flowmeter mounting, L.H.	1
16	555174500		SUPPORT, cement chute, lower	1
			Machines fitted with pump feed require the above items, plus the following additions.	
20	555248200		ADAPTOR, pump outlet	1
21	555248000		CONNECTOR, inlet	1
22	555179600		CONNECTOR, hose	1
23	555248300		PULLEY, pump	1
24	555247900		BRACKET, pump	1
26	260912120		HOSE	1
27	260978001		HOSE	1
28	132808000		CLIP	2
29	72S07		NUT, back	1
30	240512100		BUSH, reducing	1
31	130320200		CONNECTOR, hose, brass	1
32	400256000		FOOT VALVE & STRAINER	1
33	240604000		CAP, iron	1
34	397344000		'V' BELT	1
35	-		PUMP *(see page F - 5)*	1
36	555248400		PULLEY, pump drive *(machines fitted with electric drive)*	1
36	555248500		PULLEY, pump drive *(machines fitted with Lister ST3 drive)*	1

Reversing Drum Mixers, model 500R



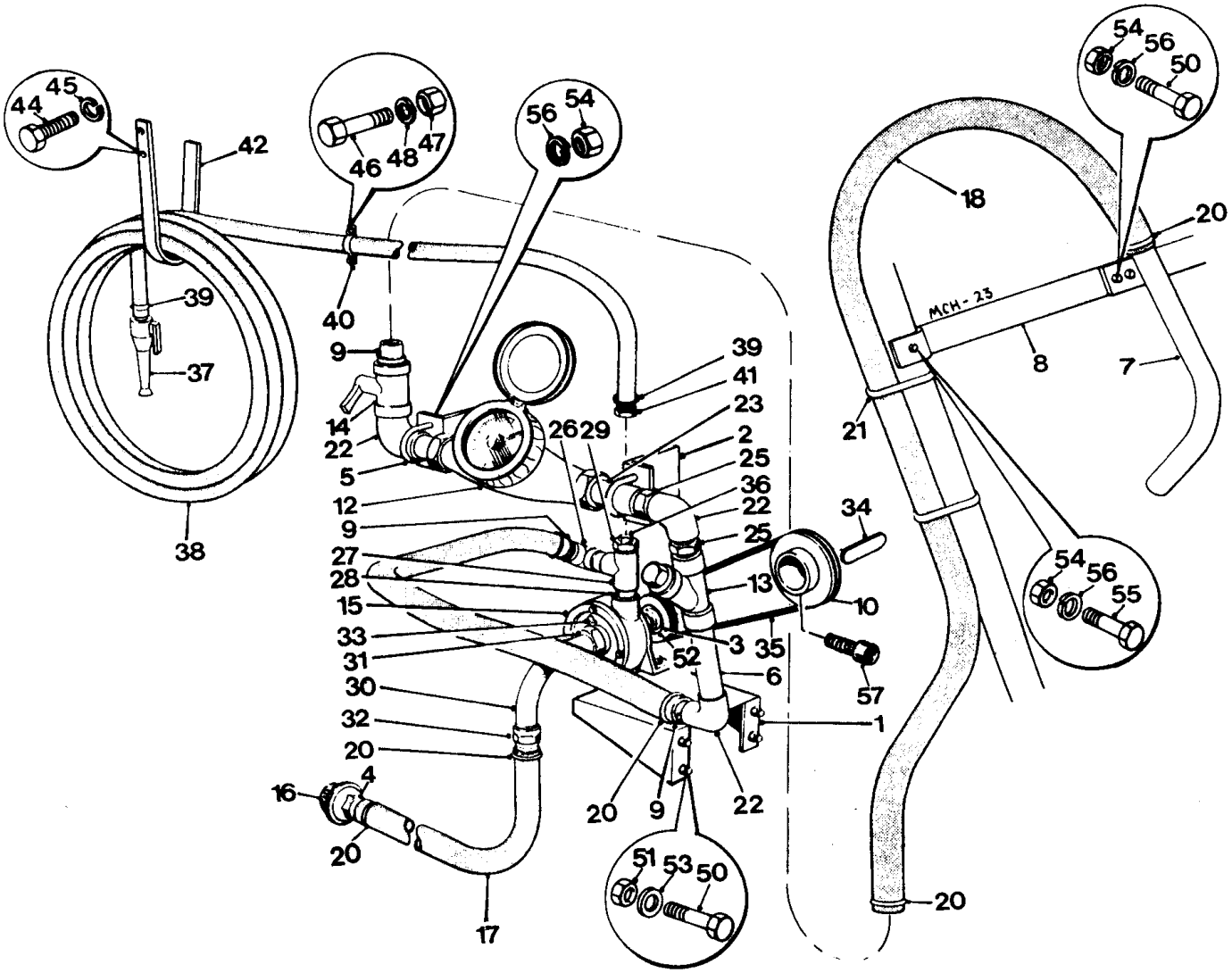
Item	Part no	Serial no	Description	Qty
			Machines fitted with washdown require all the above items, except item 33, plus the following additions	
40	555175800		SUPPORT, washdown hose	1
41	260906240		HOSE	1
42	132856000		CLIP	2
43	130352000		NOZZLE, control	1
44	133908800		CLIP, conduit pipe	1
45	9S03		NUT	22
46	6S03C		BOLT	8
47	41S05		WASHER, spring	14
50	28S03E		SCREW, set	4
54	6S03L		BOLT	2
55	57S04D2		SCREW, socket head set	1
56	10S03		WASHER, flat	6
57	90S04H		SCREW socket hd, cap *(used with electric drive)*	4
57	90S04M		SCREW, socket head cap *(used with Lister ST3, TS3)*	4
58	418250605		SCREW, set	2
59	245S04B		SCREW	2
60	239S04		NUT	2
61	464202000		WASHER, spring	2
62	41S04		WASHER, spring	4
63	9S03		NUT	4

Reversing Drum Mixers, model 500R



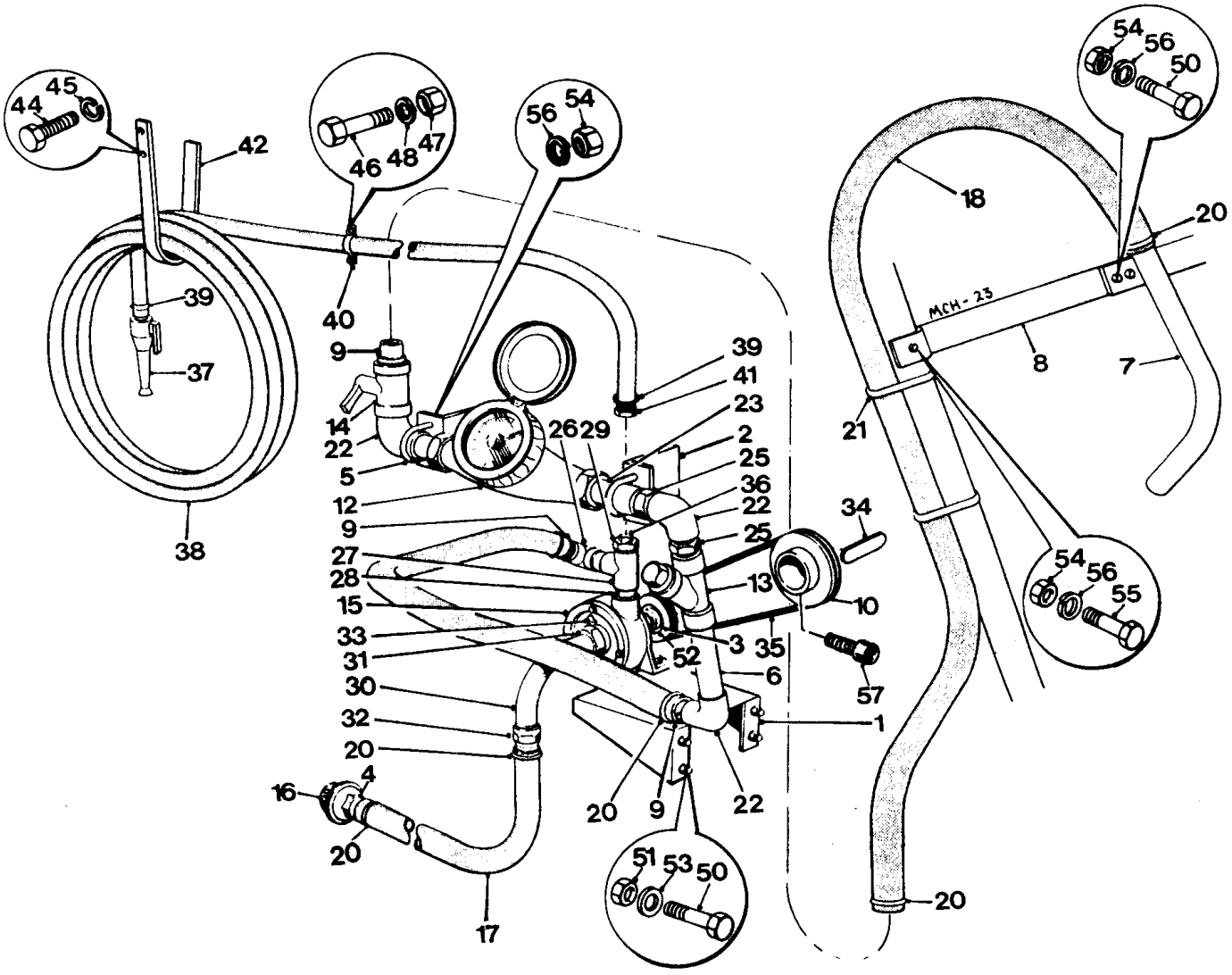
Item	Part no	Serial no	Description	Qty
1	555176400	Apr-00 /	NOZZLE, straight	1
2	409255000		FILTER/STRAINER	1
3	100S10		SEAL, bonded	4
4	122S09		ADAPTOR, male/male	2
5	450151100		VALVE, ball	1
6	128S14		FITTING, female/female, 90^{O}	1
7	129S07G		NOZZLE, 90^{O} elbow	1
10	202325000		GAUGE, flowmeter	1
11	153S09		CLAMP	2
12	267S05		WASHER, flat	4
13	17S04		WASHER, spring	4
15	555176800		BRACKET, flowmeter support	1
16	6S03B		SCREW, set	2
17	10S03		WASHER, flat	2
18	41S05		WASHER, spring	2
19	87S03		NUT, self-locking	2
20	555174500		SUPPORT, lower	1
21	6S03L		BOLT	2
22	10S03		WASHER, flat	4
23	41S05		WASHER, spring	2
24	9S03		NUT	2
25	37S04CB		HOSE	1
26	97S10		CLIP, hose	2
27	V2003253		STRAP, nylon	1
30	555288800		PIPE, water inlet	1
31	11S04C		SCREW, set	2
32	267S06		WASHER, flat	4
33	17S05		WASHER, spring	2
34	7S04		NUT	2

Reversing Drum Mixers, model 500R



Item	Part no	Serial no	Description	Qty
1	555236600		BRACKET, water pump support	1
2	555176800		BRACKET, flowmeter mounting	2
3	555176200		PULLEY, water pump	1
4	555179600		CONNECTOR, hose	1
5	555176500		'U' BOLT, flowmeter	2
6	555176000		PIPE, connecting	1
7	555182100		PIPE, water	1
8	555174500		SUPPORT, cement chute, lower	1
9	555176400		INSERT, valve	3
10	555236700		PULLEY, drive, diesel engine	1
10	555236800		PULLEY, drive, electric motor	1
12	202319000		FLOWMETER	1
13	409255000		STRAINER	1
14	450151100		VALVE	1
15	-		WATER PUMP (see page F - 4)	1
16	409256000		FOOT VALVE & STRAINER	1
17	260912180		HOSE, 10' long	1
18	260912180		HOSE, 6' long	1
19	260912180		HOSE, 4' long	1
20	132812000		CLIP, hose	6
21	121082000		BUCKLE & STRAP	2
22	241112000		ELBOW	3
23	241912000		SOCKET	1
25	243912000		NIPPLE, hex	2
26	241212802		ELBOW, reducing	1
27	242208000		FITTING, adaptor, tee, equal	1
28	245308000		NIPPLE, barrel	2
29	131508060		BUSH, threaded	1
30	240210000		ELBOW	1
31	72S07		NUT, backing	1
32	130320200		CONNECTOR, hose	1
33	440101010		TAP, drain	1
34	304107360		KEY, parallel (Lister)	1
34	304106360		KEY, parallel (Petter)	1
34	304712114		KEY, parallel (electric)	1
35	397238000		'V' BELT	1
			Machines with pump feed only	
36	241704000		PLUG, threaded bush	1

Reversing Drum Mixers, model 500R



Item	Part no	Serial no	Description	Qty
			Machines with pump feed and washdown	
37	130352000		NOZZLE, control	1
38	260906240		HOSE, 20’ long	1
39	132856000		CLIP, hose	2
40	133908800		CLIP, pipe	2
41	130306000		CONNECTOR, hose	1
42	555175800		SUPPORT, washdown hose	1
44	418250605		SCREW	2
45	41S05		WASHER, spring	2
46	245S04B		BOLT	4
47	239S04		NUT	4
48	41S05		WASHER, spring	4
			All machines	
50	6S03C		BOLT	8
51	87S03		NUT, self locking	6
52	403550406		SCREW, socket head	1
53	10S03		WASHER, flat	6
54	9S03		NUT	8
55	6S03M		BOLT	2
56	41S05		WASHER, spring	8
57	403760808		SCREW, socket head	1

MIXER 500R

Dragline

DRAGLINE WINCH
(up to serial number 0306) **G - 1**

DRAGLINE CONTROL BLOCK
(up to serial number 0306) **G - 2**

DRAGLINE PORT BLOCK ***(up to 1984)*** **G - 3**

WINCH MOTOR ADAPTOR
(up to serial no 0306) **G - 4**

DRAGLINE JIB ***(up to serial no 0312)*** **G - 5**

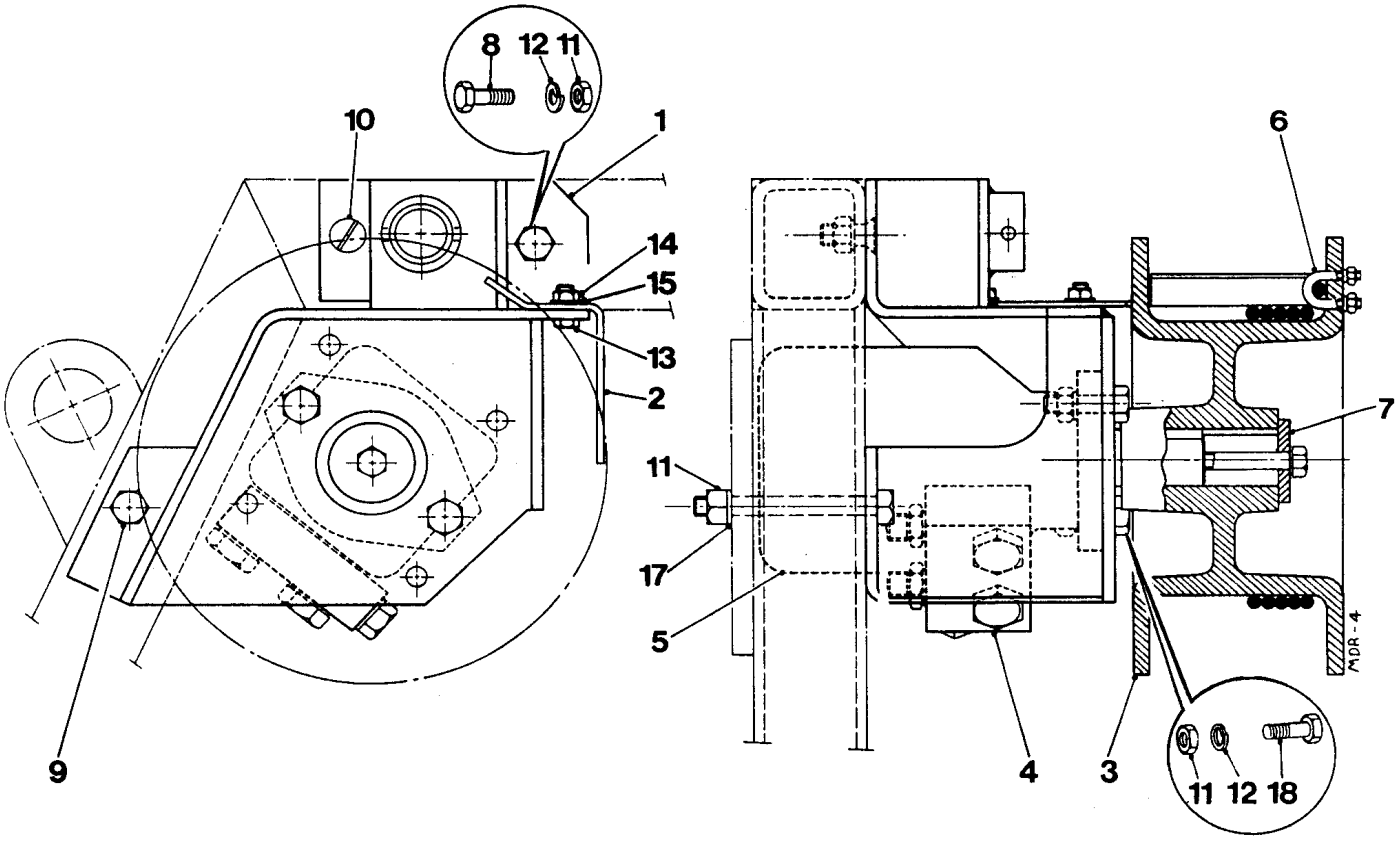
WINCH & MOUNTING BRACKET
(from serial no 0313) **G - 5A**

CABLE MAST
(from serial no 0313) **G - 5B**

LOADING SHOVEL **G - 6**

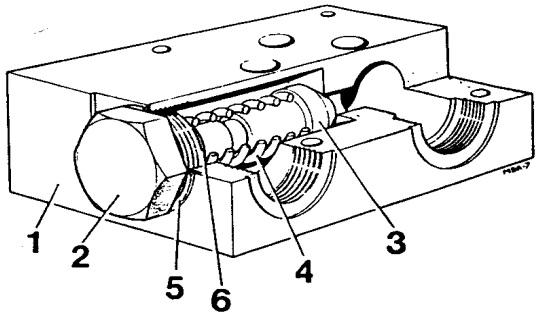
LOADING RAMP **G - 7**

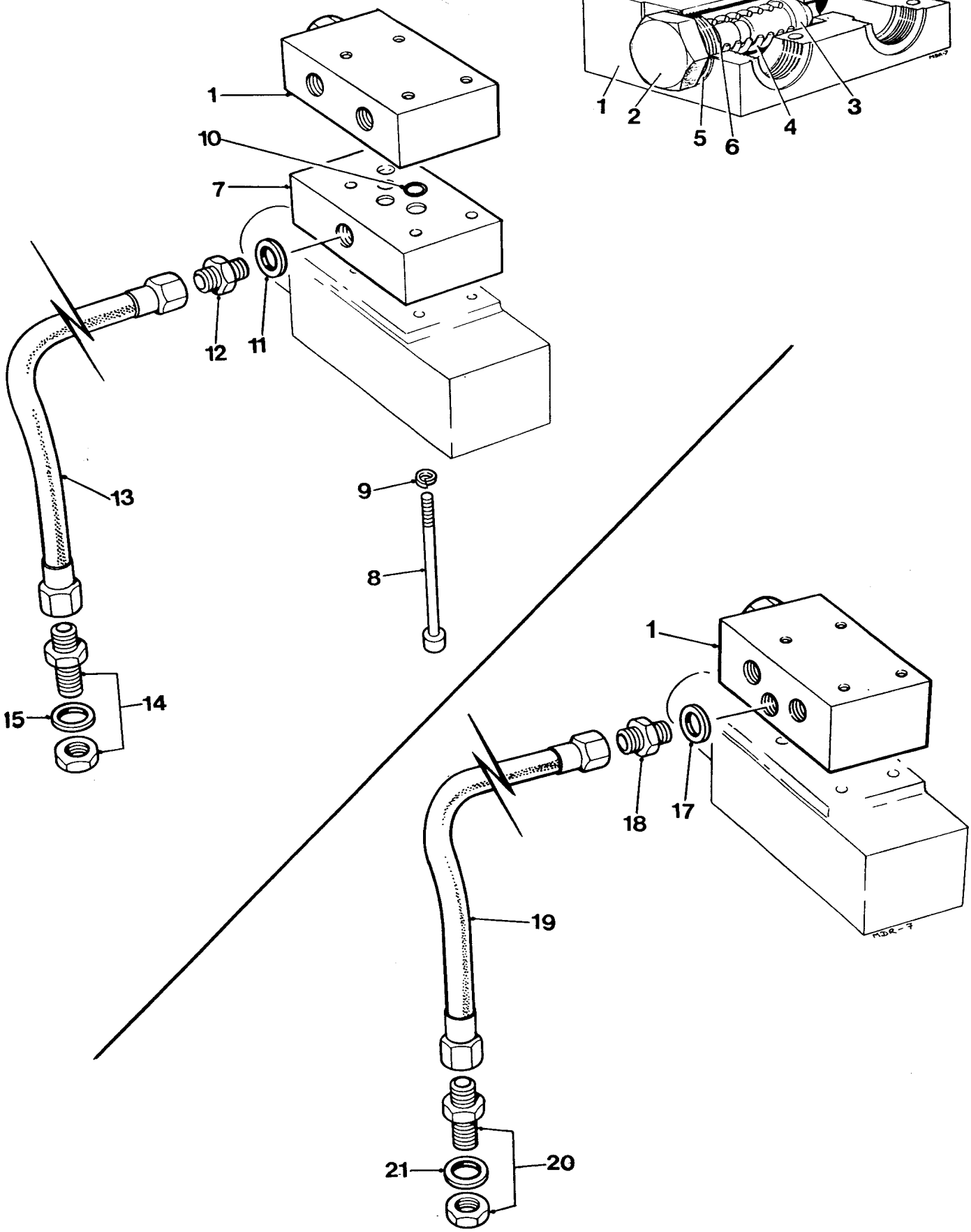
Reversing Drum Mixers, model 500R



Item	Part no	Serial no	Description	Qty
		/ 03O6		
.....	555266500		KIT, dragline winch *(kit consists of all the following items)*	
1	555266000		BRACKET dragline winch	1
2	555266100		GUARD dragline winch rope	1
3	513330100		DRUM winding	1
4	.....		WINCH PORT BLOCK *(see page G - 3)*	1
5	.....		MOTOR hydraulic *(see page E-5)*	1
6	132204000		BULL DOG GRIP	1
7	555266200		WASHER winch drum clamp *(Sperry Vickers)*	1
7	555266300		WASHER winch drum clamp *(TRW)*	1
8	28S05G		SCREW	1
9	6S05N		BOLT	1
10	207S05C		SCREW countersunk	1
11	9S04		NUT	5
12	41S07		WASHER spring *(Sperry Vickers)*	5
12	41S07		WASHER spring *(TRW)*	3
.....	41S09		WASHER spring *(TRW)* not illustrated	2
13	66S02A		SCREW set	2
14	104S02		NUT	2
15	10S02		WASHER flat	2
17	17S05		WASHER spring *(Sperry Vickers)*	4
17	41S07		WASHER spring *(TRW)*	4
18	8S04J		BOLT *(Sperry Vickers)*	4
18	6S05H		BOLT *(TRW)*	4

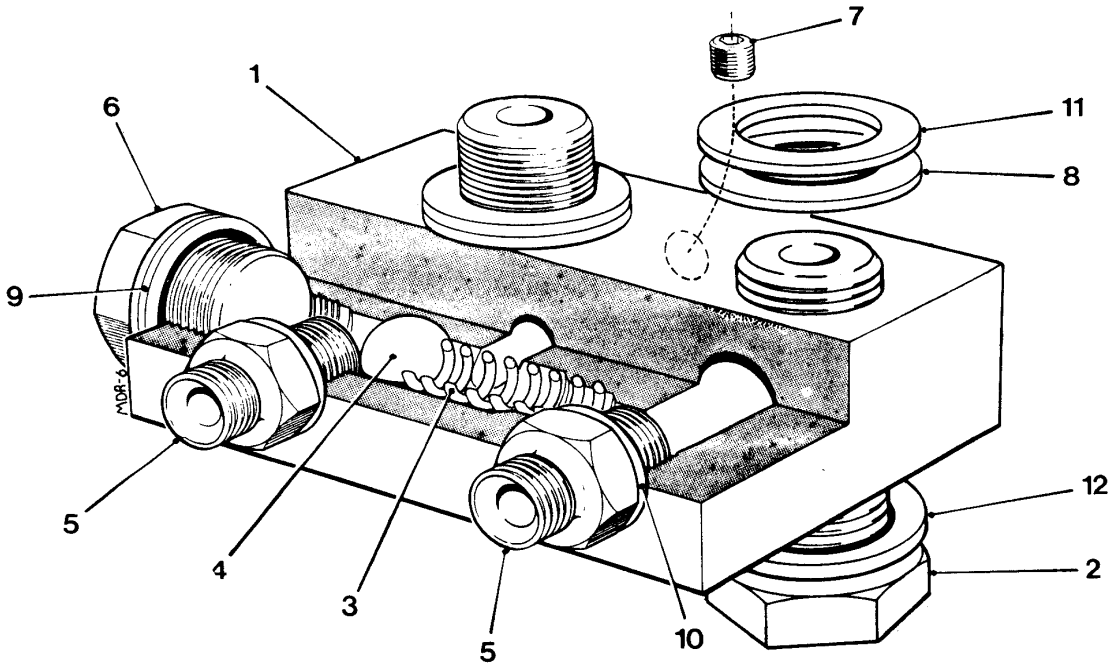
Reversing Drum Mixers, model 500R



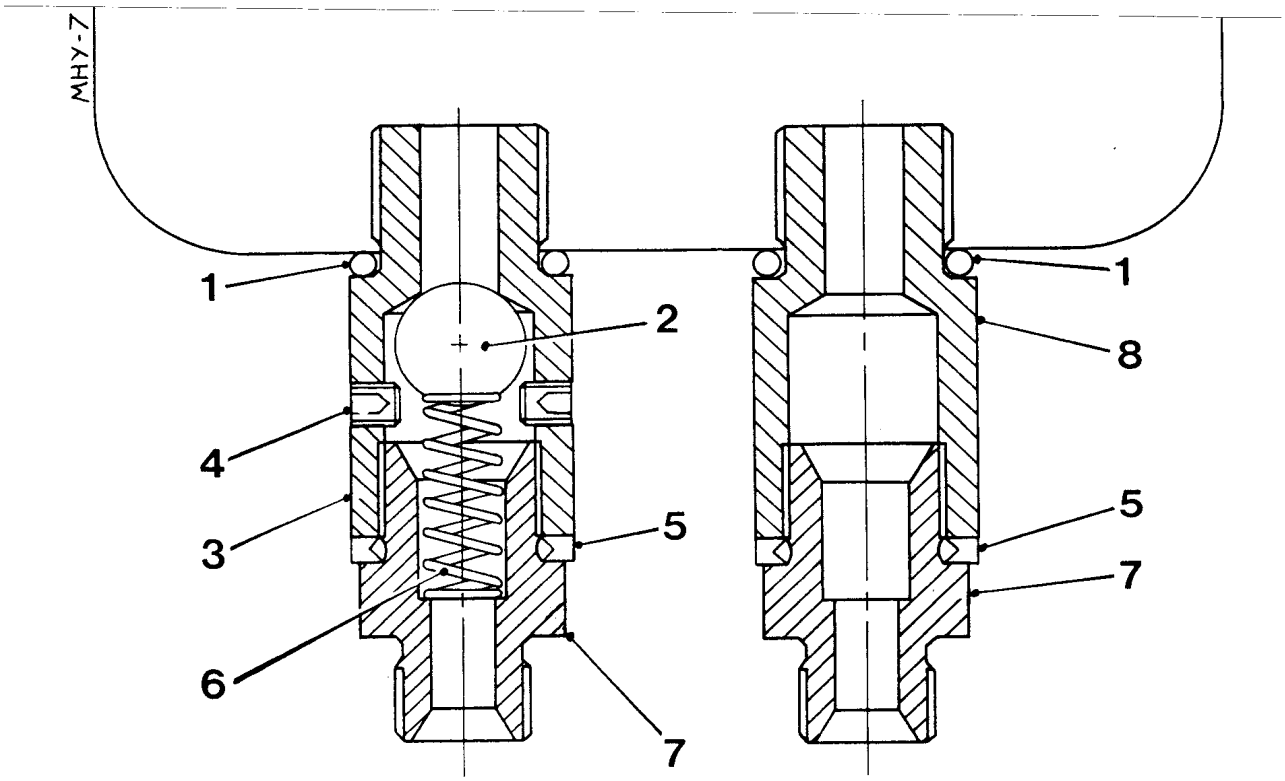


Item	Part no	Serial no	Description	Qty
	Before ordering parts for the dragline control block, refer to Service Bulletin SB8, May 1992 ' Improvement to Dragline Performance'			
			Machines before serial no 0213	
·····	555556000	/ 0212	DRAGLINE CONTROL BLOCK, assy	1
1	555137900	/ 0212	CONTROL BLOCK	1
2	555138200	/ 0212	GUIDE valve	1
3	555138300	/ 0212	VALVE relief	1
4	555556100	/ 0212	SPRING compression	1
5	100S04	/ 0212	SEAL bonded	1
6	10S02	/ 0212	WASHER flat	AR
			Machines from serial no 0213, fitted with 'sandwich' block arrangement	
·····	555556000	0213 / 0306	DRAGLINE CONTROL BLOCK, assy	1
1	555137900	0213 / 0306	CONTROL BLOCK	1
2	555138200	0213 / 0306	GUIDE valve	1
3	555138300	0213 / 0306	VALVErelief	1
4	555556100	0213 / 0306	SPRING compression	1
5	100S04	0213 / 0306	SEAL bonded	1
6	10S02	0213 / 0306	WASHER flat	AR
7	555284500	0213 / 0306	BLOCK	1
8	103S02M	0213 / 0306	SCREW	4
9	41S03	0213 / 0306	WASHER spring	4
10	49S32	0213 / 0306	SEAL 'O' ring	1
11	100S03	0213 / 0306	SEAL bonded	1
12	119S08	0213 / 0306	FITTING adaptor	1
13	35S03AK	0213 / 0306	HOSE hydraulic	1
14	93S02	0213 / 0306	FITTING adaptor, bulkhead	1
15	100S04	0213 / 0306	SEAL bonded	1
			Machines from serial no 0213, fitted with integral improved block	
·····	555284700	0213 / 0306	DRAGLINE CONTROL BLOCK, assy.	1
1	555284600	0213 / 0306	CONTROL BLOCK	1
2	555138200	0213 / 0306	GUIDE valve	1
3	555138300	0213 / 0306	VALVErelief	1
4	555556100	0213 / 0306	SPRING compression	1
5	100S04	0213 / 0306	SEALbonded	1
6	10S02	0213 / 0306	WASHER flat	AR
17	100S03	0213 / 0306	SEAL bc FITTING adaptor	1
18	119S08	0213 / 0306	FITTING adaptor	1
19	35S03AK	0213 / 0306	HOSE hydraulic	1
20	93S02	0213 / 0306	FITTING adaptor, bulkhead	1
21	100S04	0213 / 0306	SEAL bonded	1

Reversing Drum Mixers, model 500R

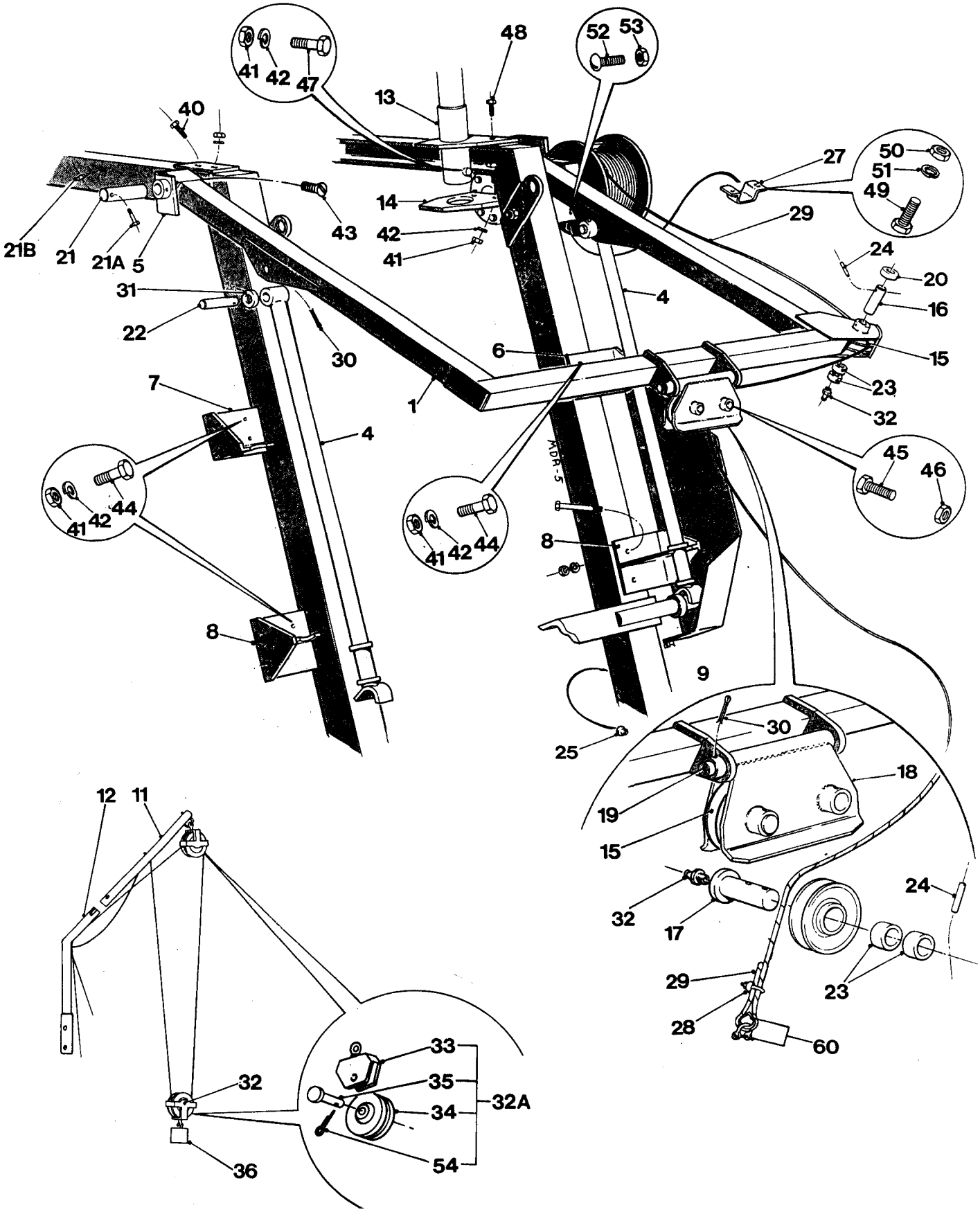


Item	Part no	Serial no	Description	Qty
	NOTE: Either the Port Block assembly, or the Winch Motor Adaptor assembly *(see page G-4),* will be fitted to the winch hydraulic motor but not both.			
·····	555267600	/ 84	WINCH PORT BLOCK, assembly	1
1	555267400		PORT BLOCK	1
2	555267500		BOLT banjo	2
3	555267100		SPRING bleed valve	1
4	101120000		BAL steel	1
5	446611000		ADAPTOR male stud	2
6	360400400		PLUG shouldered	1
7	404900606		SCREW set socket head	1
8	555270600		WASHER copper	2
9	100S04		SEAL bonded	1
10	100S03		SEAL bonded	2
11	555270600		$ WASHER copper	2
12	100S05		SEAL bonded	2
			$ Used only when necessary to obtain sufficient clearance.	


MHY-7
1
2
4
3
5
6
7
1
8
5
7

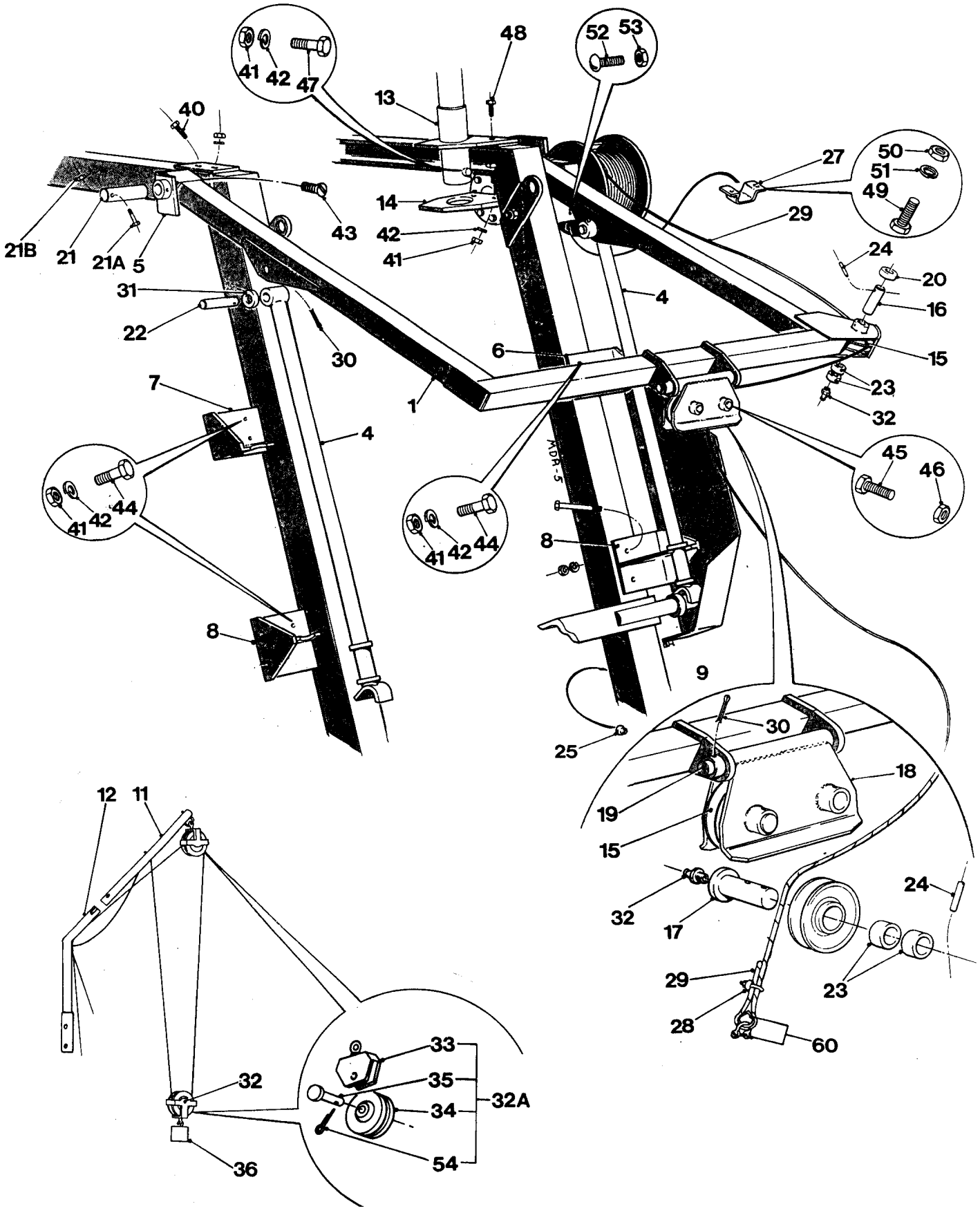
Item	Part no	Serial no	Description	Qty
	NOTE: Either the Winch Motor Adaptor assembly or the Port Block assembly *(see page G-3),* will be fitted to the winch hydraulic motor but not both.			
1	391111000	/ 0306	SEAL 'O' ring	2
2	101120000		BALL seel	1
3	257S04B1		SCREW set socket head	2
4	555276700		FITTING adaptor, return	1
5	100S04		SEAL bonded	2
6	555267100		SPRING bleed valve	1
7	142515000		FITTING adaptor male/male	2
8	555276600		FITTING, adaptor, pressure	1

Reversing Drum Mixers, model 500R



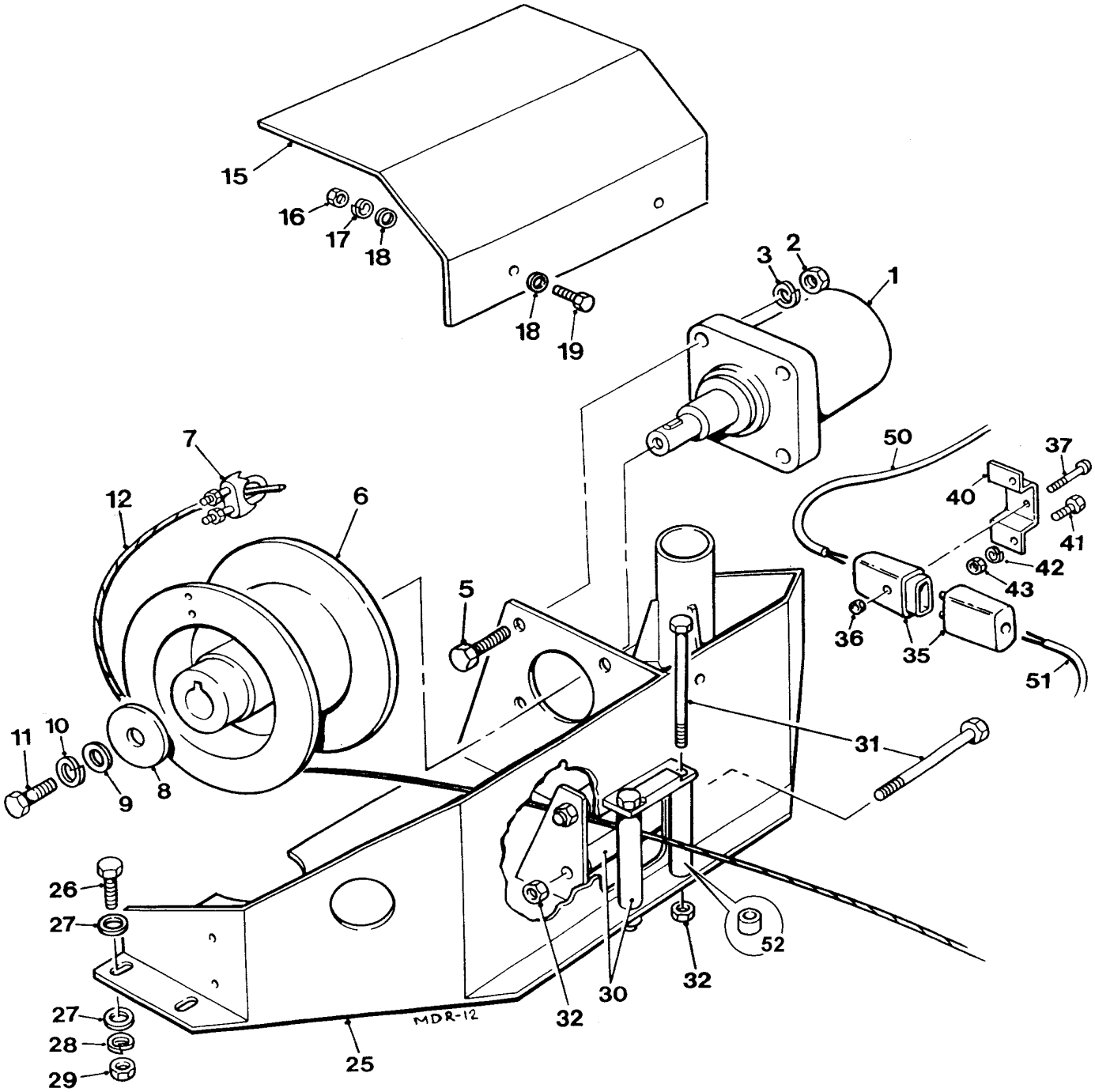
Item	Part no	Serial no	Description	Qty
1	555226000	/ 0312	DRAGLINE JIB	1
4	555121100		STRUT, jib	2
5	555121300		BRACKET, jib pivot	1
6	555120901		BRACKET, stop, upper, RH	1
7	555120902		BRACKET, stop, upper, LH	1
8	555121000		BRACKET, stop, lower	2
9	555120801		GUARD R.H. *(illustrated)*	1
.....	555120802		GUARD L.H. *(not illustrated)*	1
11	515134400		SUPPORT, cable top	1
12	555121500		SUPPORT, cable mst	1
13	555187600		BRACKET, cable mast support	1
14	555121800		BRACKET, steady	1
15	555265200		PULLEY, rope *(includes item 23)*	3
16	555264900		PIN, side pulley	1
17	555265000		PIN, pulley	2
18	555228100		BRACKET, pulley	1
19	555122000		PIN, pivot, pulley bracket	1
20	555189600		SPACER, dragline pulley	1
21	555123100		PIN, jib pivot	2
21A	6S01F		BOLT	2
21B	87S01		NUT, self locking	2
22	555122100		PIN, jib strut	2
23	112805300		BUSH *(part of item 15)*	6
24	44S17K		PIN, split	3
25	V2003252		GROMMET, rubber	1
27	555253800		CLAMP, cable socket	1
28	132204000		GRIP, bulldog	1
29	477502000		ROPE, wire	1
30	44S17K		PIN, split	3
31	10S08		WASHER, flat	2
32	131S01		NIPPLE, grease straight	3
32A	555208500		PULLEY, block, assembly *(includes item 54)*	2

Reversing Drum Mixers, models 500R



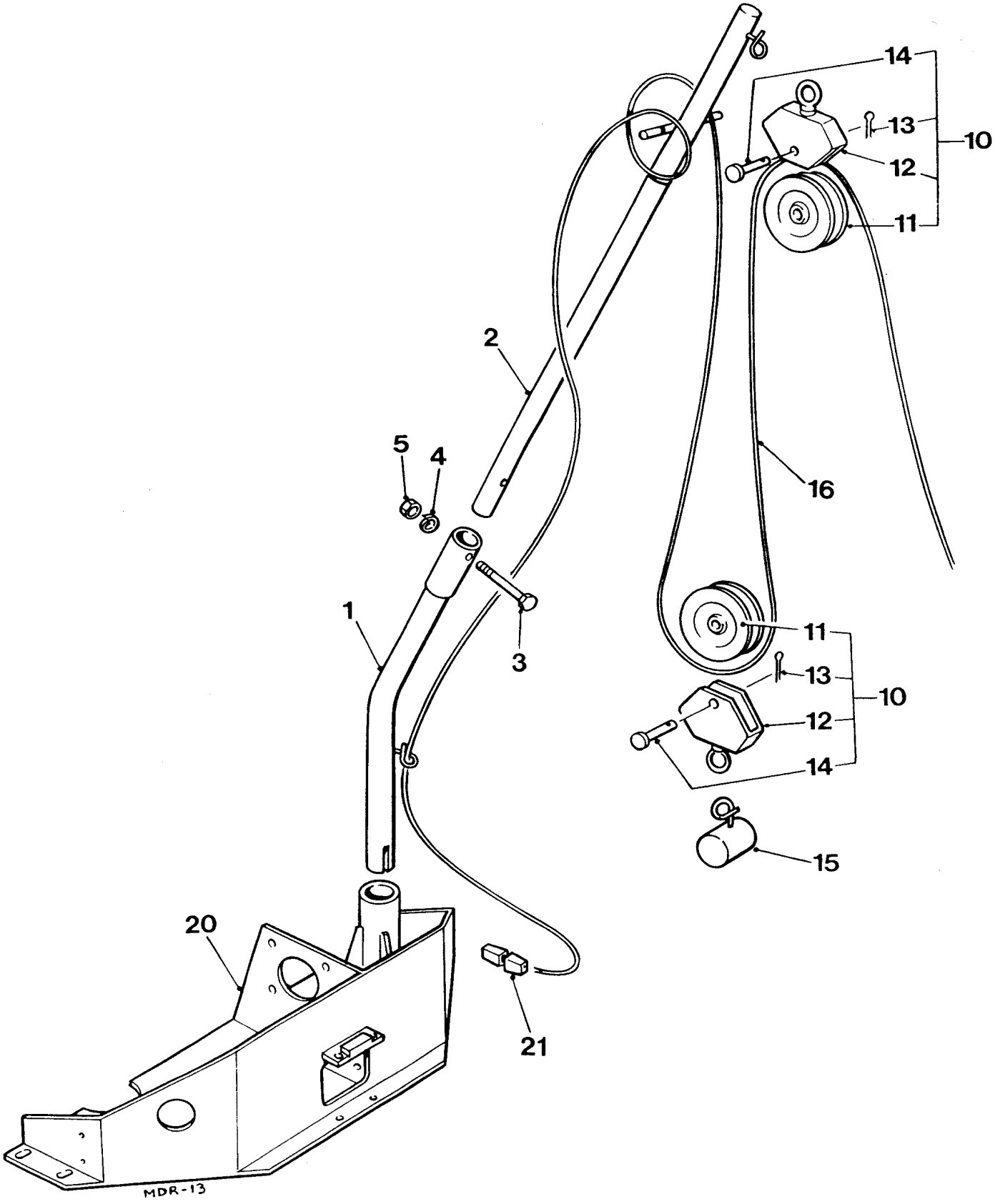
Item	Part no	Serial no	Description	Qty
33	555208400	/ 0312	BLOCK pulley,control cable	2
34	555208100		PULLEY, control cable	2
35	555208300		PIN , pulley	2
36	555204800		SHEAVE WEIGHT	1
40	28S05G		SCREW set	2
41	9S04		NUT	18
42	41S07		WASHER spring	18
43	207S05C		SCREW countersunk	1
44	6S05M		BOLT	6
45	28S03D		SCREW, set *(for side cover, item 9)*	4
.....	6S03E		BOLT *(not illustrated)*	1
.....	41S05		WASHER, spring *(not illustrated)*	8
46	9S03		NUT	8
47	6S05K		BOLT	1
48	28S05G		SCREW set	3
49	11S01A		SCREW set	2
50	7S01		NUT	2
51	17S02		WASHER spring	2
52	82S07F		SCREW round head	1
53	83S07		NUT	1
54	44S03C		PIN split *(part of item 32A)*	2
60	.....		SHACKLE *(see page G-6)*	1

Reversing Drum Mixers, models 500R



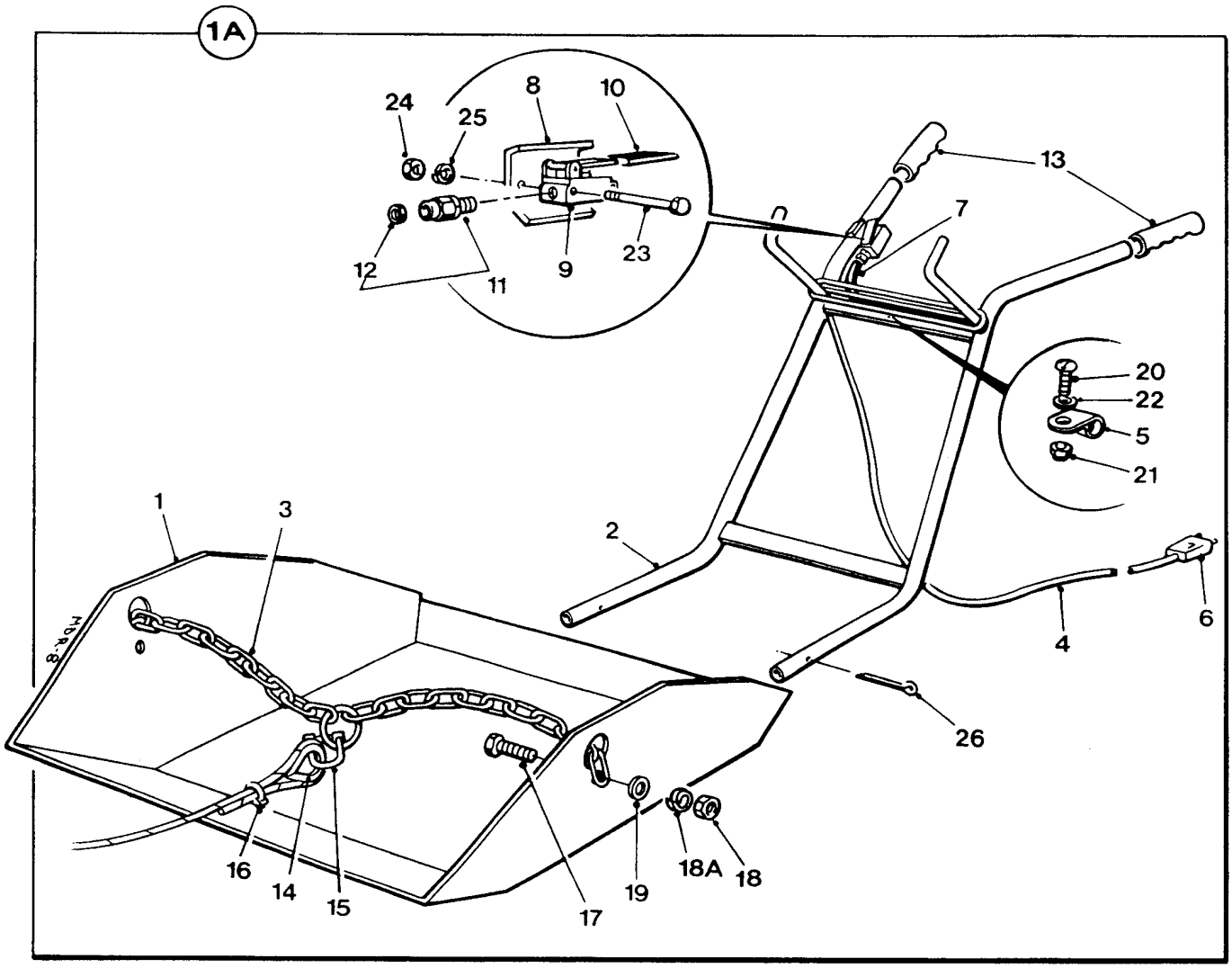
Item	Part no	Serial no	Description	Qty
1	----------	0313 /	MOTOR, hydraulic (See page E-2B)	1
2	7S05		NUT	4
3	17S06		WASHER, spring	4
5	11S05K		SCREW, set	4
6	513330100		PULLEY	1
7	132204000		CLIP, bulldog	1
8	555266300		WASHER, 'Special'	1
9	----------		WASHER (Not used)	
10	41S09		WASHER, spring	1
11	6S06H		SCREW, set	1
12	477502000		ROPE, wire	*1*
15	555287800		COVER, winch drum	*1*
16	7S04		NUT	2
17	17S05		WASHER, spring	2
18	267S06		WASHER, flat	4
19	11S04C		SCREW, set	2
25	555287700		BRACKET, winch	1
26	11S05D		SCREW, set	4
27	267S07		WASHER, flat	8
28	17S06		WASHER, spring	4
29	7S05		NUT	4
30	555287900	/ 0365	ROLLER, not to be fitted with bush	4
30	555287900	0366 /	ROLLER, to be fitted with bush (item 52	4
31	8S05U		BOLT	4
32	61S05		NUT, 'Binx' self-locking	4
35	205304600		SOCKET, electrical, male/female	1
36	83S07		NUT	1
37	82S07F		SCREW, round head	1
40	555253800		CLAMP, socket holder	1
41	11S01A		SCREW, set	2
42	17S02		WASHER, spring	2
43	7S01		NUT	2
50	144734000		CABLE, electrical (To solenoid valve)	1
51	----------		CABLE (To loading shovel. Page G-6)	1
52	V2005386	0366 /	BUSH, winch cable rollers	8

Reversing Drum Mixers, models 500R



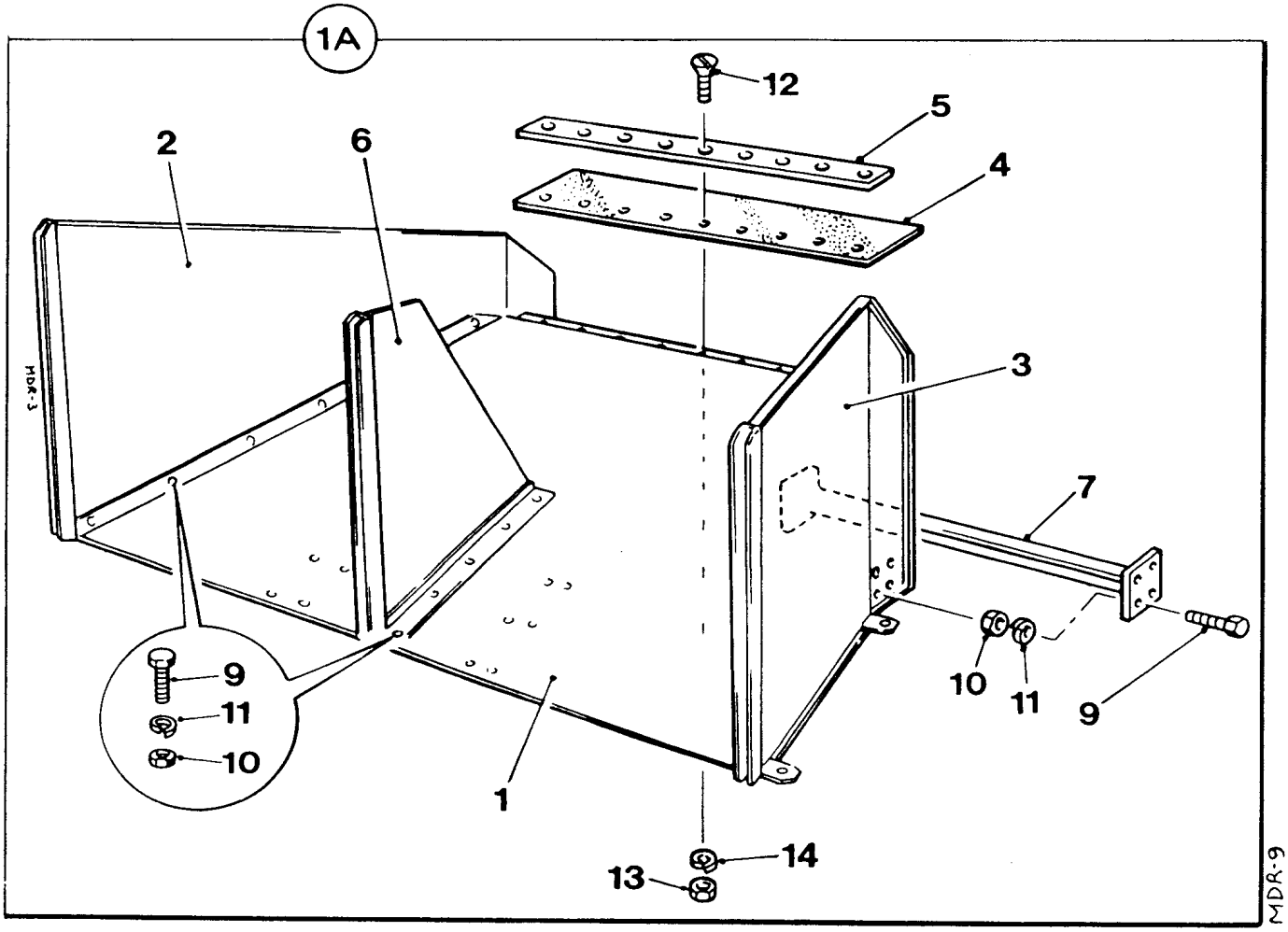
Item	Part no	Serial no	Description	Qty
1	555121500	0313 /	MAST, lower	1
2	515134400		MAST, upper	1
3	8S05L		BOLT	1
4	17S06		WASHER, spring	1
5	7S05		NUT	1
10	555208500		PULLEY, assembly	2
11	555208100		PULLEY	1
12	555208400		BLOCK, pulley	1
13	44S03C		PIN, split	1
14	555208300		PIN pulley	1
15	555204800		WEIGHT	1
16	144734000		CABLE, electrical, *(to loading shovel)*	1
20	----------		BRACKET, winch *(see page G-5A)*	
21	----------		SOCKET, electrical *(see page G-5A)*	

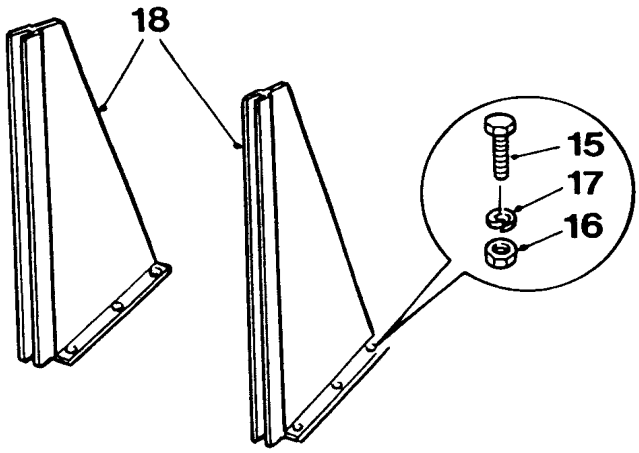
Reversing Drum Mixers, models 500R



Item	Part no	Serial no	Description	Qty
1A	V601814		LOADING SHOVEL, assembly	1
1	555210400		BODY shovel	1
2	555209100		HANDLE shovel	1
3	135905000		RING AND CHAIN	1 set
4	144734000		CABLE electic	1
5	143200300		CLIP	1
6	205304600		PLUG	1
7	369200000		TUBE rubber	1
8	555214800		CLAMP switch	1
9	208561000		SWITCH	1
10	208143000		SLEEVING black	1
11	250166010		GLAND Cable assembly	1
12	463504000		WASHER special	1
13	264705000		GRIP handle	2
14	443105010		THIMBLE	1
15	412606000		D' SHACKLE	1
16	132204000		GRIP bulldog	1
17	11S05D		SCREW set	2
18	7S05		NUT	2
18A	17S06		WASHER spring	2
19	267S07		WASHER flat	2
20	16S05B		SCREW slotted pan head	1
21	7S09		NUT	1
22	267S02		WASHER flat	1
23	8S01H		BOLT	2
24	7S01		NUT	2
25	17S02		WASHER spring	2
26	44S17K		PIN split	2

Reversing Drum Mixers, model 500R





Item	Part no	Serial no	Description	Qty
1A	555196300		LOADING RAMP, assembly	1
1	555196301		PLATE, bottom	1
2	555196302		PLATE, side, LH	1
3	555196303		PLATE, side, RH	1
4	394413001		FLAP, rubber	1
5	555196315		STRAP, retaining	1
6	555196307		PARTITION, *(2 compartments)*	1
7	555196308		SUPPORT, centre	1
9	28S05E		SCREW, set	30
10	9S04		NUT	30
11	41S07		WASHER, spring	30
12	208S03H		SCREW, countersunk	10
13	104S03		NUT	10
14	41S05		WASHER, spring	10
		Below are option extra fittings required to install the partitions (item 18) to give three loading compartments.		
15	28S05E		SCREW, set	2
16	9S04		NUT	2
17	41S07		WASHER, spring	2
18	555104800		PARTITIONS *(3 compartments)*	1 pair

MIXER 500R

Electrics

DYNAMO DRIVE ***(up to serial no 0312)*** **H - 1**

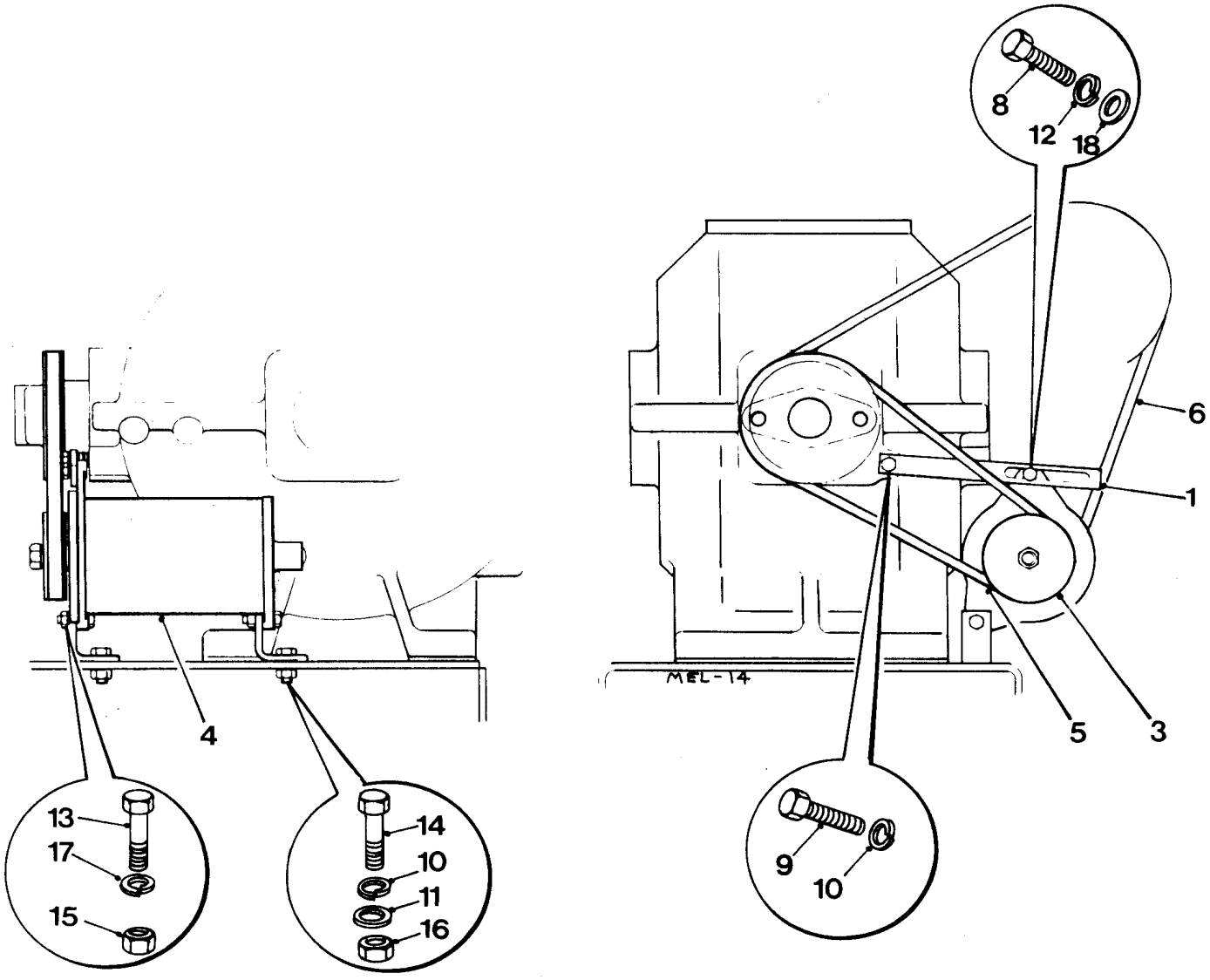
INSTRUMENT PANEL & BATTERY **H - 2**

ELECTRICS ***(up to serial number 0312)*** **H - 2A**

ALTERNATOR DRIVE, with loom, battery & switch panel ***(from serial number 0313)*** **H - 3**

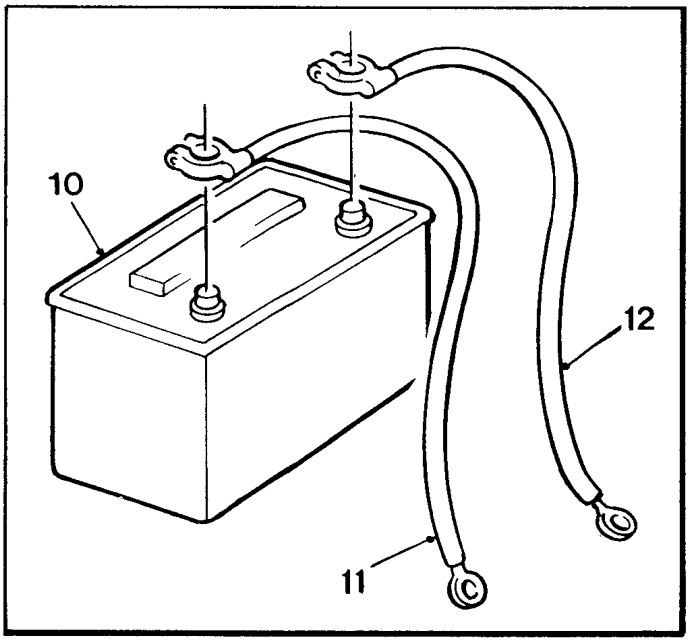
BATTERY TRAY & ALTERNATOR FITTINGS ***(from serial number 0313)*** **H - 4**

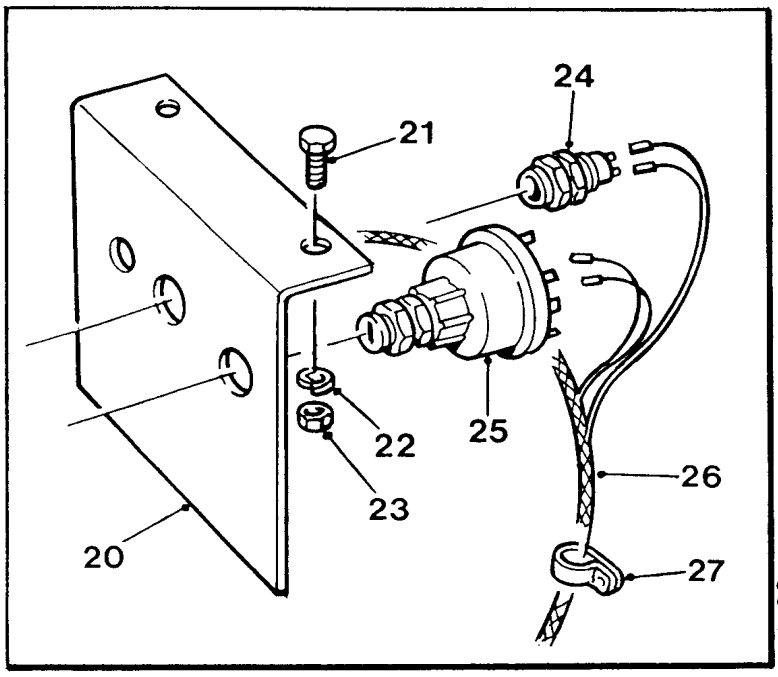
Reversing Drum Mixers, model 500R

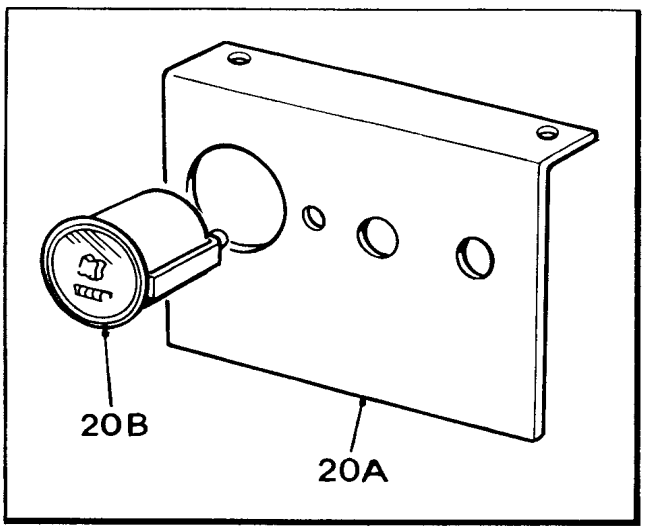


Item	Part no	Serial no	Description	Qty
1	555132300	/ 0312	LUG, dynamo adjusting	1
.....	555132400		LUG, dynamo	2
3	555132200		PULLEY, dynamo	1
4	205501000		DYNAMO, 12v	1
.....	205501001		BRUSHES, dynamo	1 set
5	397227000		VEE BELT *(dynamo only fitted)*	1
6	397242000		VEE BELT *(dynamo & Compressor fitte*	1
8	66S02A		SCREW, set	1
9	66S03A		SCREW, set	1
10	41S05		WASHER, spring	3
11	10S02		WASHER, flat	2
12	41S04		WASHER, spring	1
13	66S02A		BOLT	2
14	28S03E		BOLT	2
15	192S02		NUT	2
16	87S03		NUT, self locking	2
17	41S04		WASHER, spring	2
18	10S02		WASHER, flat	1

Reversing Drum Mixers, model 500R

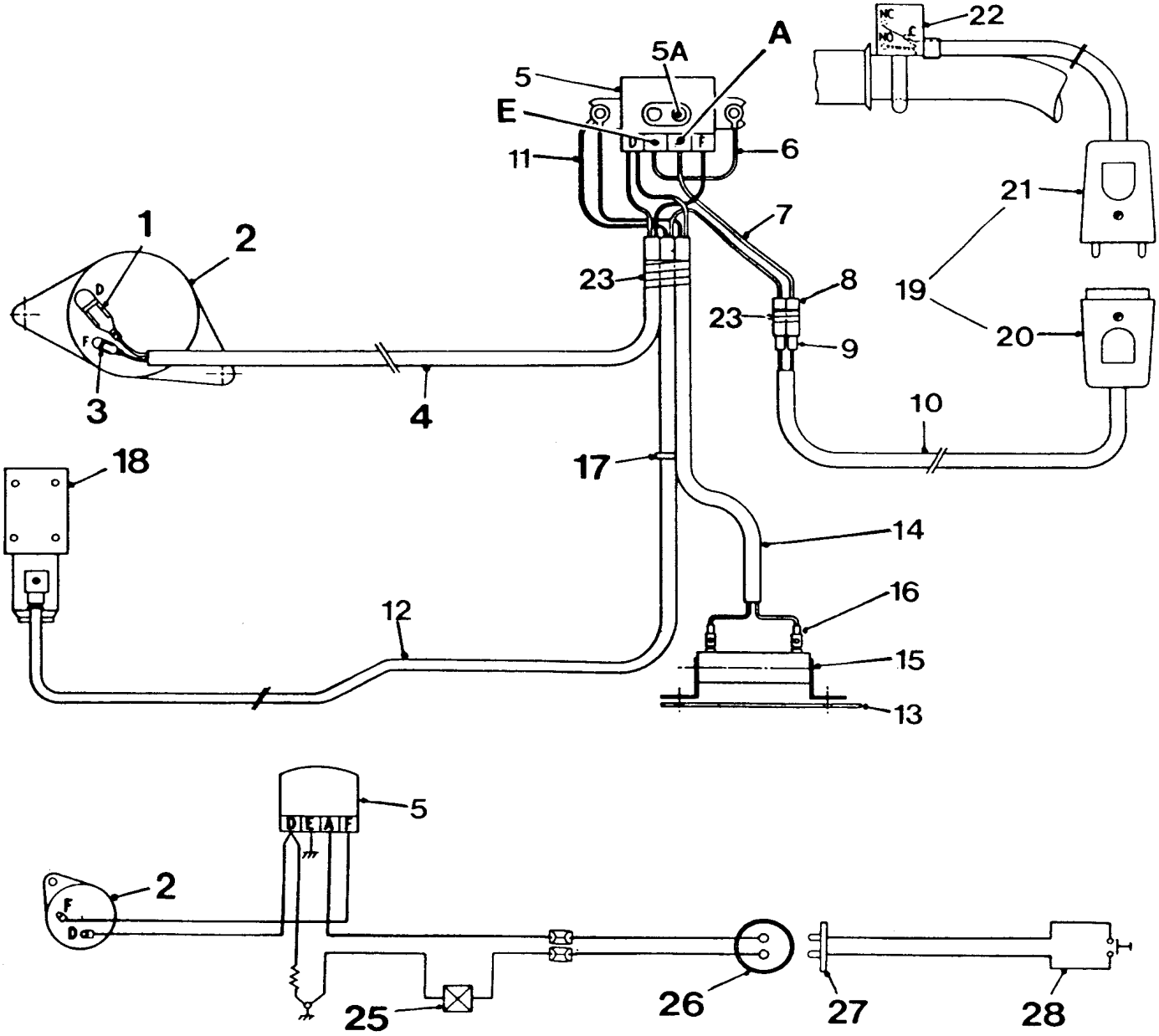






Item	Part no	Serial no	Description	Qty
10	109S08		BATTERY	1
11	10989A06		CABLE, battery, positive	1
12	10990A02		CABLE, battery, negative	1
20	20313A05		PANEL, instruments, *(standard)*	1
20A	20313A09		PANEL, instruments, *(for hour meter)*	1
20B	V2003123		METER, hour	1
21	28S03D		SCREW, set	2
22	41S05		WASHER, spring	2
23	9S03		NUT	2
24	V602634		LIGHT, warning	1
25	V2004189		SWITCH, start	1
26	30231A11		LOOM, wiring	1
27	V2003377		CLIP, loom	1

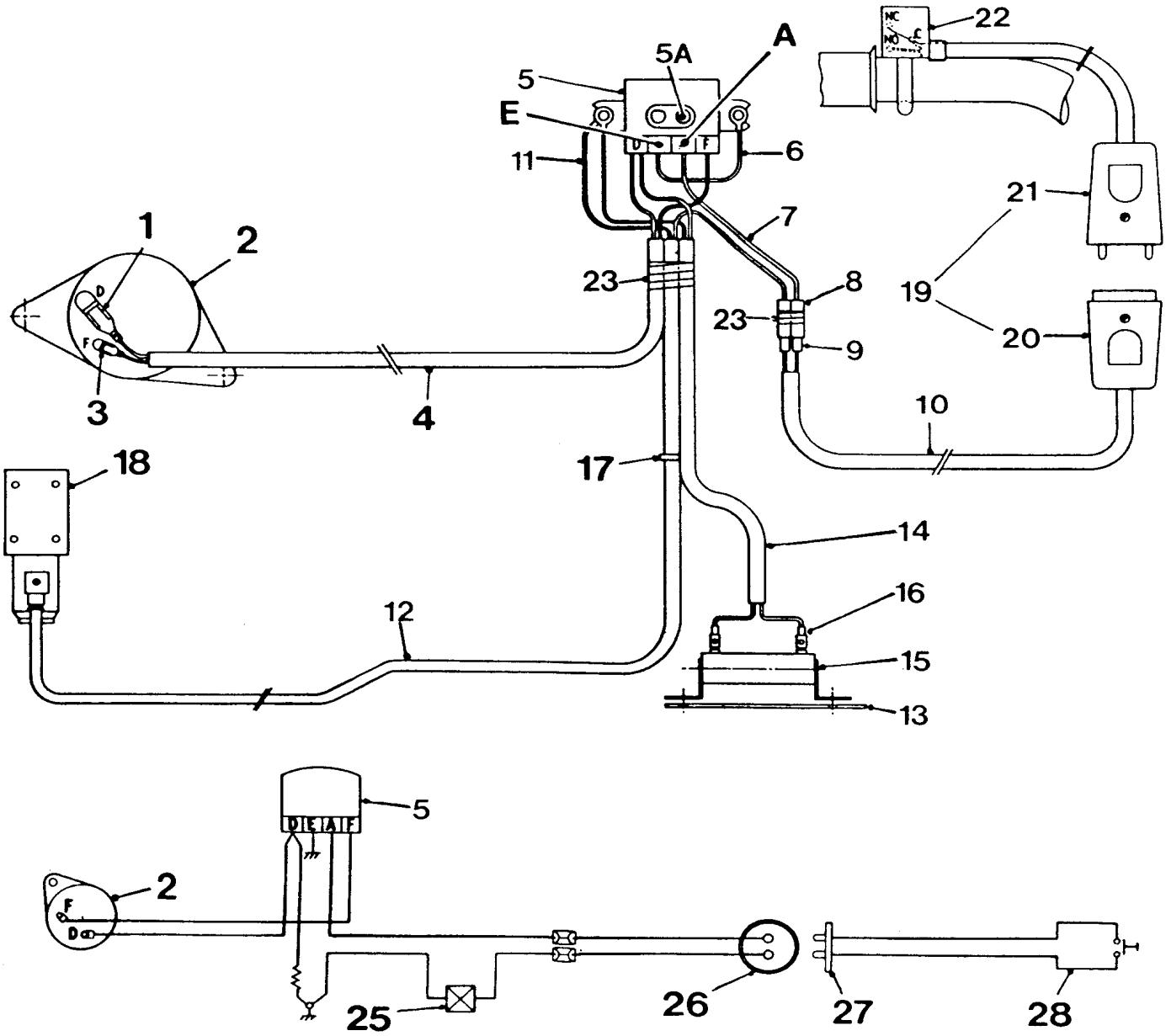
Reversing Drum Mixers, model 500R



Item	Part no	Serial no	Description	Qty
1	191911000	/ 0312	TERMINAL, with insulator	1
2	205501000		GENERATOR	1
3	191918000		TERMINAL, with insulator	1
.....	555201800		KIT, harness, dragline	1
4	776401		CABLE, twin core, brown & blue *(order by metre)*	2.9m
5	020203000		REGULATOR, assembly	1
5A	.....		SCREW, voltage adjusting (order assy	
6	144749000		CABLE, green *(order by metre)*	0.127m
7	144748000		CABLE, red *(order by metre)*	0.127m
8	V2003173		CONNECTOR	2
9			NIPPLES	2
10	77641		CABLE, twin core, brown & blue *(order by metre)*	2.13m
11	.....		CABLE, blue *(order by metre)*	
12	776401		CABLE, twin core, brown & blue *(order by metre)*	1.5m
13	555213700		BOARD, insulating	1
14	776401		CABLE, twin core, brown & blue *(order by metre)*	3.5m
15	207652000		RESISTOR	1
16	.....		CONNECTOR	2
17	143200900		CLIP, cable	AR
18	211158000		VALVE, solenoid	1
19	205304600		PLUG assembly, to shovel unit	1
20	.....		SOCKET *(order assembly)*	1
21	.....		PLUG *(order assembly)*	1
22	.....		CONTROL, shovel unit *(see page G-6)*	
23	.....		TAPE, insulation	AR

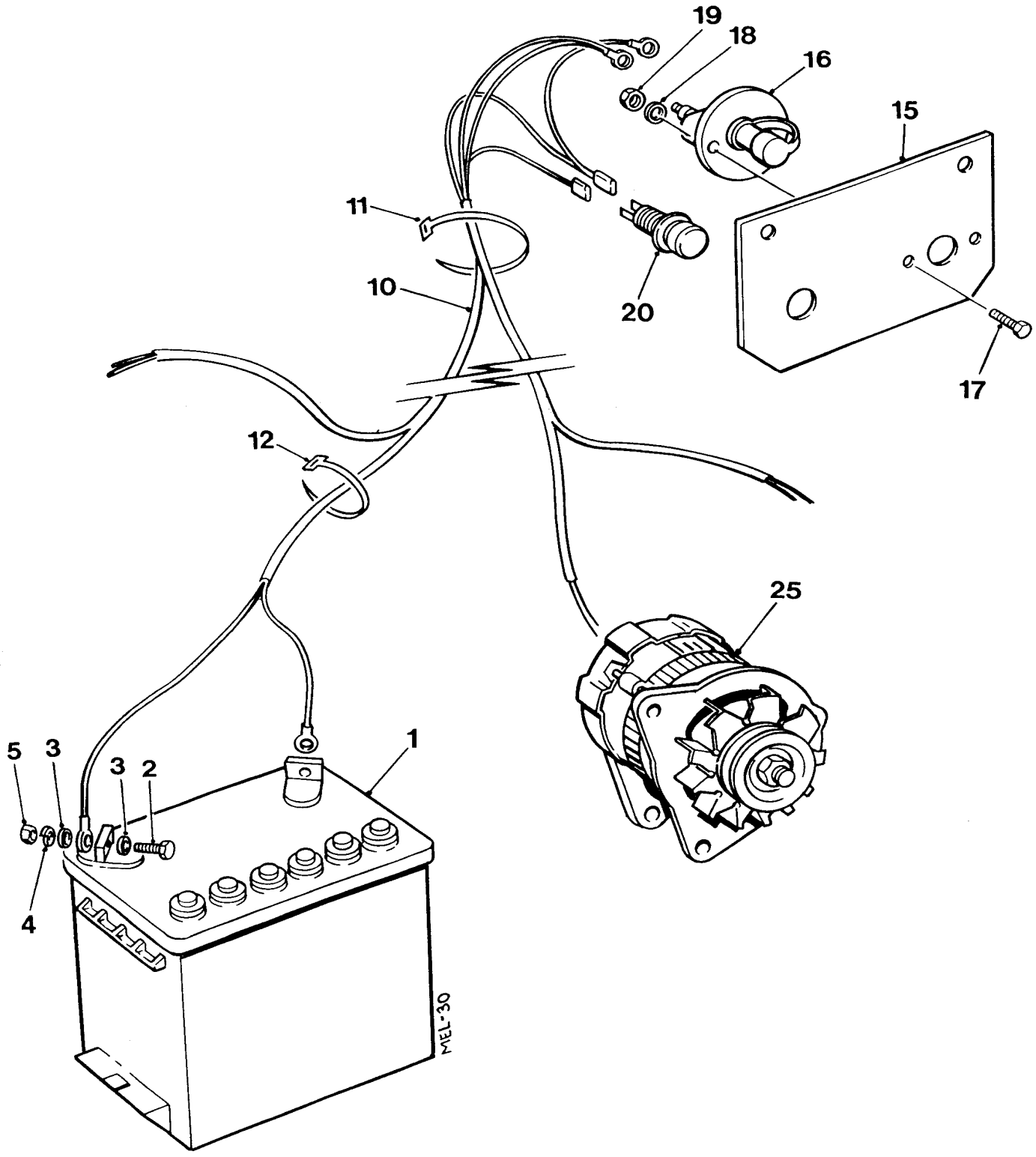
H - 2A

Reversing Drum Mixers, model 500R



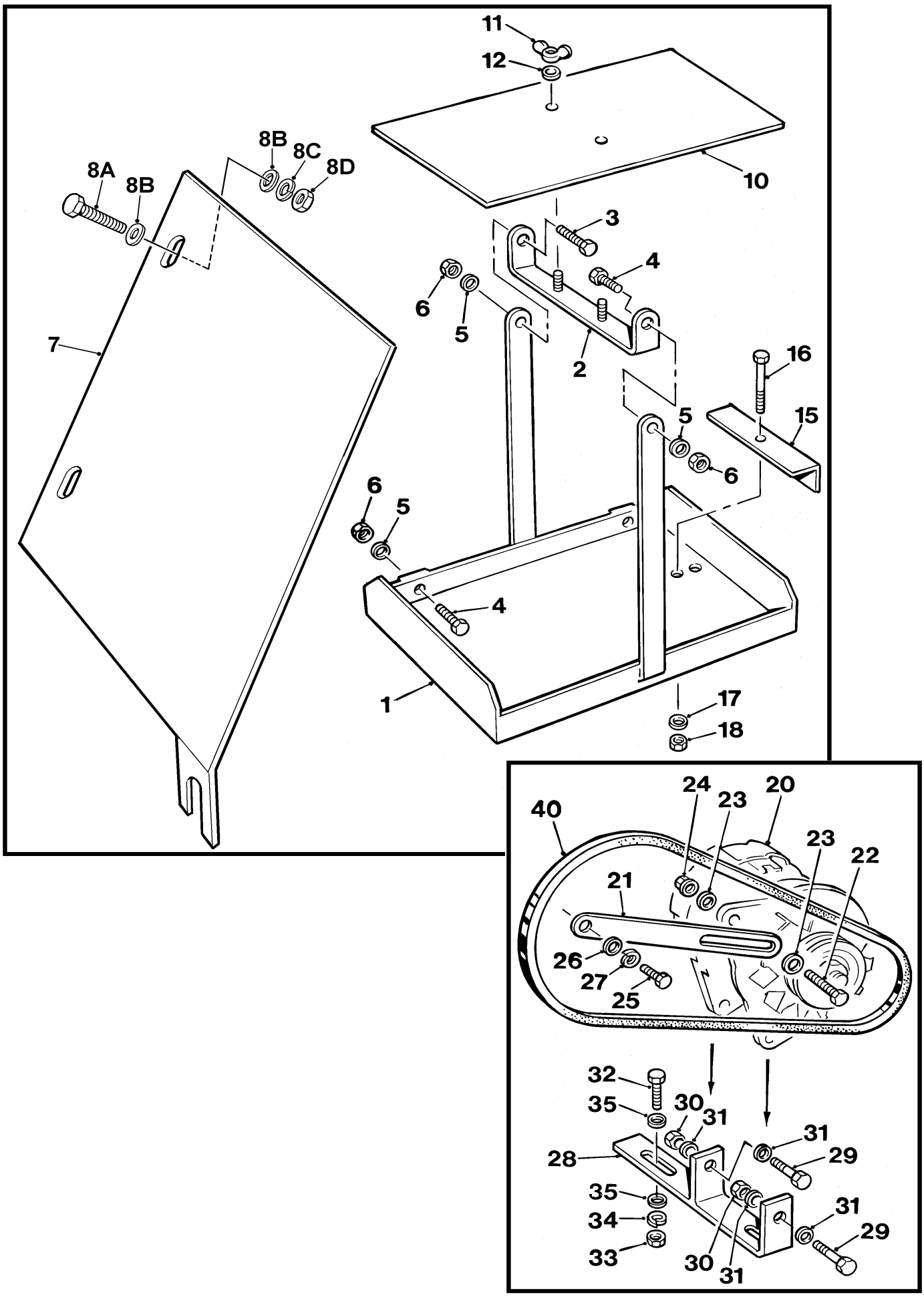
Item	Part no	Serial no	Description	Qty
25	211158000		VALVE, solenoid, dragline	1
26	.....		SOCKET, dragline	1
27	205304600		PLUG, dragline	1
28	208561000		BUTTON, dragline operating	1
		Fixings for regulator (5)		
.....	66S01CC		SCREW, set	2
.....	41S03		WASHER, spring	2
.....	104S01		NUT	2
		Fixings for resistor (15) and insulating board (13)		
.....	11S01A		SCREW, set	
.....	17S02		WASHER, spring	
.....	267S03		WASHER, flat	
.....	7S01		NUT	
		Fixings for dragline solenoid valve (25)		
.....	66S01B		SCREW, set to chassis	
.....	41S03		WASHER, spring	

Reversing Drum Mixers, model 500R



Item	Part no	Serial no	Description	Qty
1	109S10	0313 /	BATTERY	1
2	11S02B		SCREW, set	2
3	267S04		WASHER, flat	4
4	17S03		WASHER,spring	2
5	7S02		NUT	2
10	555288400		LOOM	1
11	V2003253		CABLE TIE	6
12	V2003111		CABLE TIE	6
15	555288100		PANEL	1
16	V2004794		SWITCH, battery isolator	1
17	11S02B		SCREW, set	2
18	267S04		WASHER, flat	2
19	61S02		NUT, self-locking ‘Binx’	2
20	V2000326		LIGHT, warning	1
25	V2004793		ALTERNATOR, assembly	1
--	V602713		PULLEY	1
--	V602715		FAN	1
--	V603595		BRUSHES SET	1

Reversing Drum Mixers, model 500R



BATTERY TRAY & ALTERNATOR FITTINGS

Item	Part no	Serial no	Description	Qty
1	30080A03	0313 /	TRAY, battery	1
2	30080A0303		BAR, battery retaining	1
3	11S04E		SCREW, set	3
4	11S04C		SCREW, set	1
5	267S06		WASHER, set	4
6	61S04		NUT, self-locking, Binx	4
7	555290500	0366 /	GUARD, battery	1
8A	11S03C	0366 /	SCREW, set	2
8B	267S05	0366 /	WASHER,flat	4
8C	17S04	0366 /	WASHER, spring	2
8D	7S03	0366 /	NUT	2
10	10742A05		COVER, battery	1
11	177S03		NUT, wing	2
12	267S04		WASHER, flat	2
15	555288200		CLAMP, battery	2
16	8S02F		BOLT	2
17	267S04		WASHER, flat	4
18	61S02		NUT, self-locking, ‘Binx’	2
20	--------		ALTERNATOR *(See page H - 3)*	1
21	513347400		ADJUSTER, alternator	1
22	11S03C		SCREW, set	1
23	267S05		WASHER, flat	2
24	61S03		NUT, self-locking, ‘Binx’	1
25	66S03A		SCREW, set	1
26	10S03		WASHER, flat	1
27	41S05		WASHER, spring	1
28	555288300		BRACKET, alternator	1
29	8S03C		BOLT	2
30	61S03		NUT, self-locking, ‘Binx’	2
31	267S05		WASHER, flat	4
32	11S04C		SCREW, set	2
33	7S04		NUT	2
34	17S05		WASHER, spring	2
35	267S06		WASHER, flat	4
40	397227000		VEE BELT	1

MIXER 500R

Hoist & Miscellaneous

AERATION EQUIPMENT, for machines with cement batcher J - 1

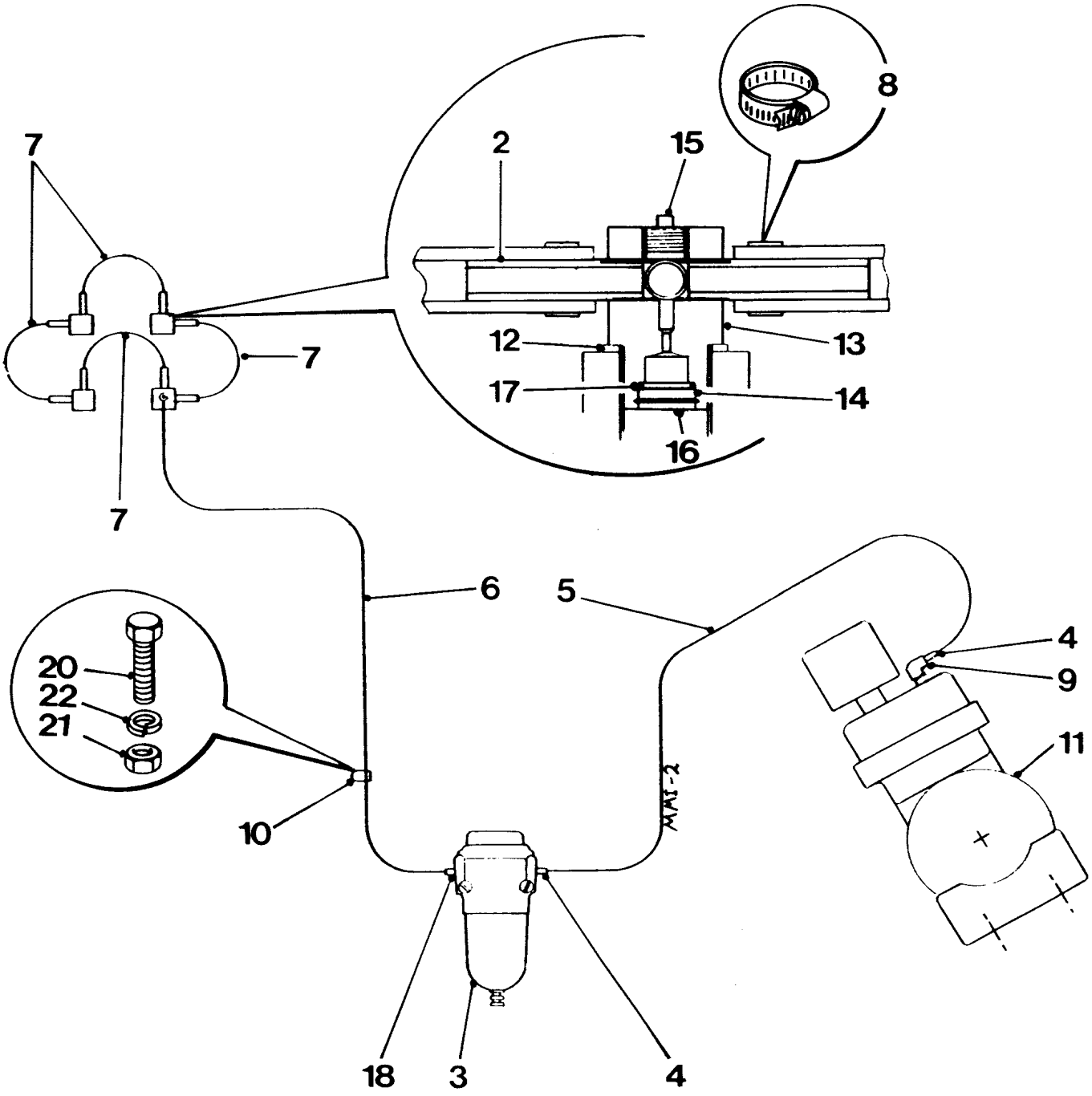
PORTASILO J - 2

HOIST WINCH J - 3

HOIST CONTROLS J - 4

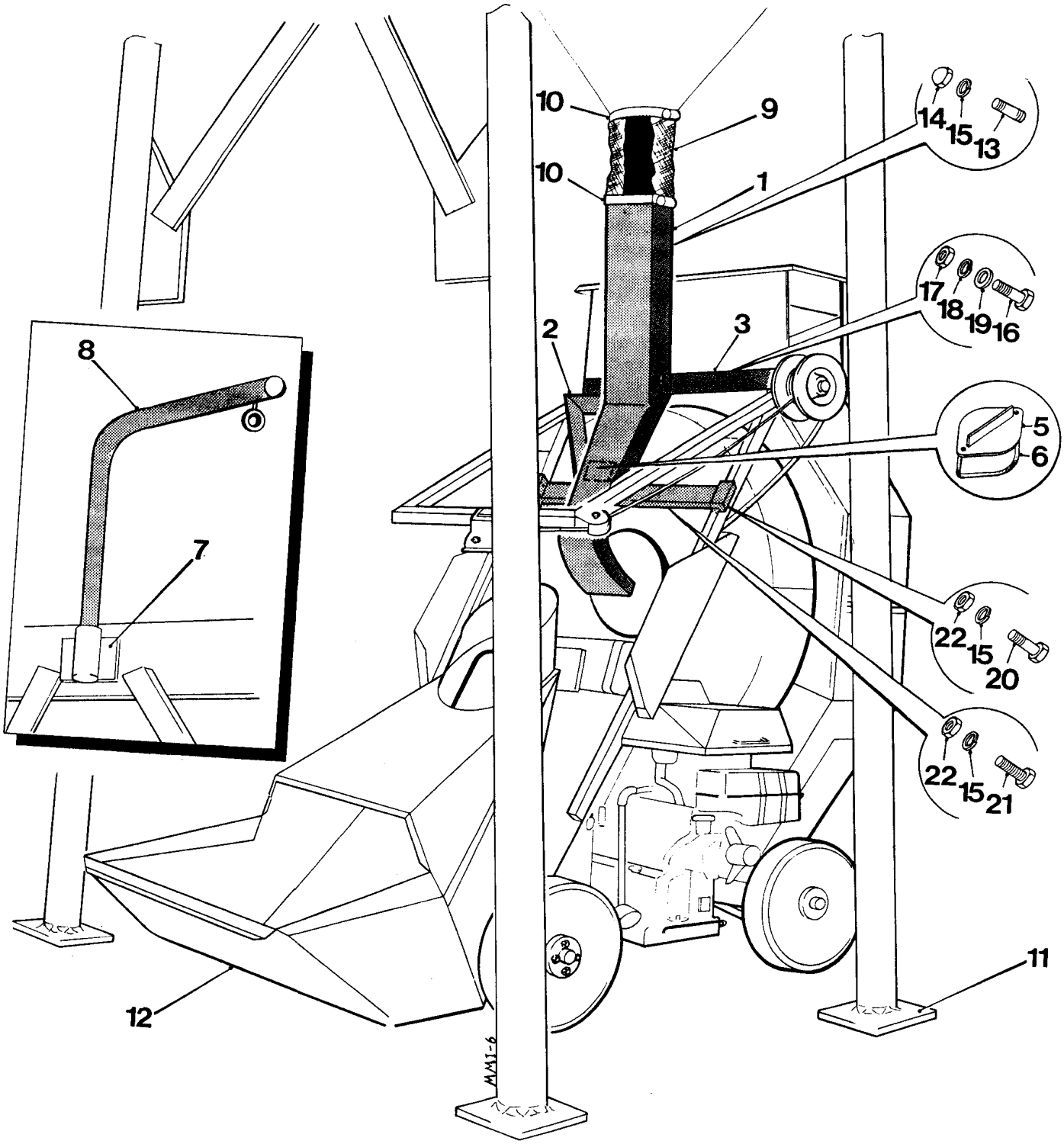
HOIST INTERMEDIATE CHAINWHEEL & IDLER BRACKET J - 5

Reversing Drum Mixers, model 500R



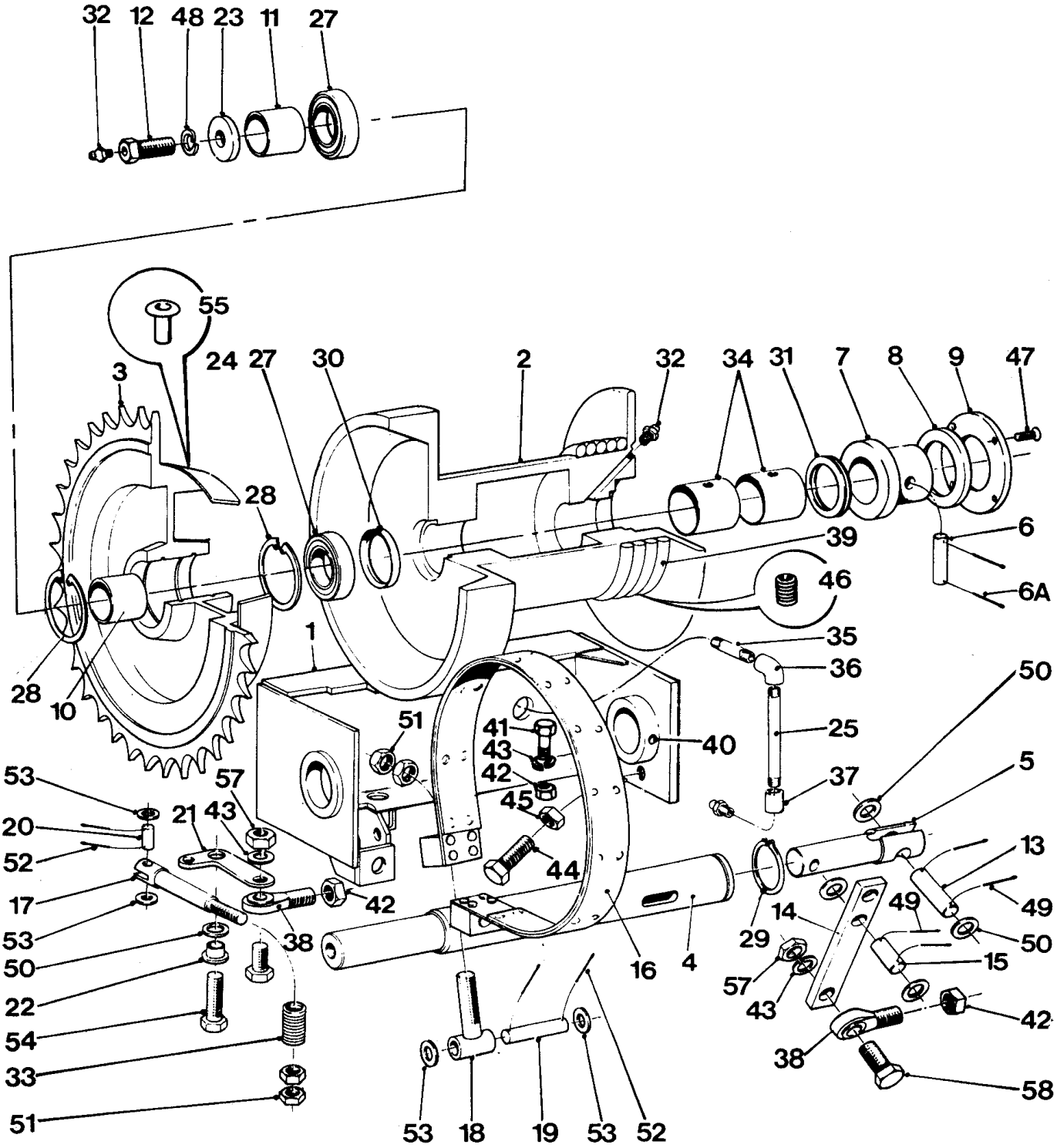
Item	Part no	Date	Description	Qty
.....	504796500	/ 84	NOZZLE, aeration	4
2	500960300		TUBE, nozzle connection	10
3	220210200		FILTER, air	1
4	130304600		ADAPTOR, hose	3
5	110958020		TUBE, comp. to filter, 120mm	1
6	110958020		TUBE, filter to nozzle, 3700mm	1
7	110958020		TUBE, aerator nozzle, 250mm	4
8	132110000		CLIP, jubilee	12
9	241102000		FITTING,elbow,female, equal	1
10	143269000		CLIP, cable	1
11	.....		COMPRESSOR, *(see page C-3)*	1
12	446319000		WASHER, aluminium	4
13	504796400		BODY, aeration nozzle	4
14	500315700		PLUG, sintered	4
15	241701000		PLUG	11
16	142341000		CIRCLIP	4
17	391105000		SEAL, 'O' ring	4
18	240702000		FITTING,elbow, equal,male/female	1
20	405604020		SCREW	1
21	7S02		NUT	1
22	464354000		WASHER, spring	1

Reversing Drum Mixers, model 500R

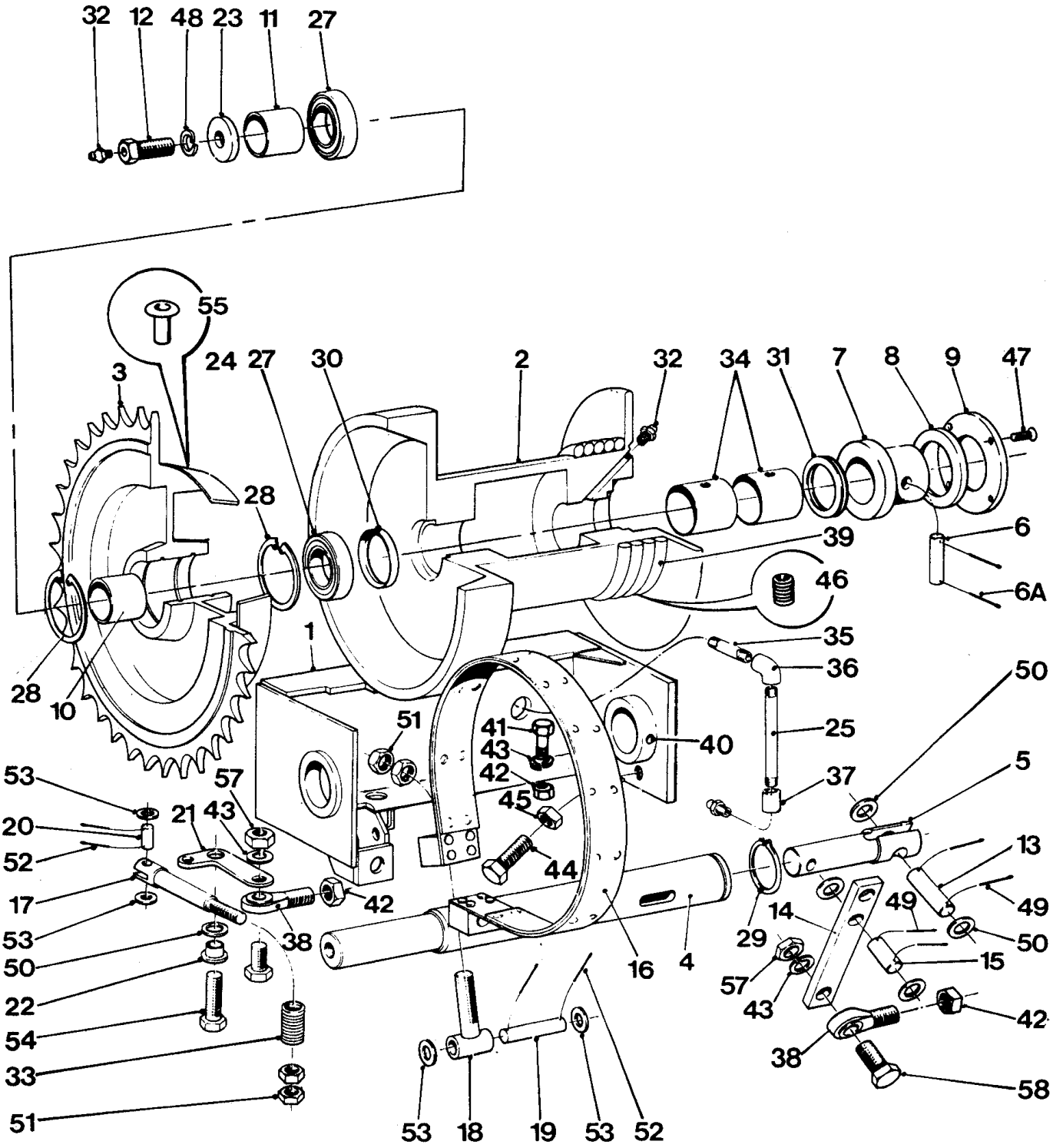


Item	Part no	Date	Description	Qty
1	555174000	/ 84	CHUTE, cement	1
2	555174200		PIPE, water discharge	1
3	555174400		SUPPORT, cement chute, upper	1
4	555174500		SUPPORT, cement chute, lower	1
5	515204300		PLATE, cover	1
6	254911000		GASKET, rubber	1
7	504425700		BRACKET, cable support	1
8	504425900		SUPPORT, cable	1
9	515204900		SOCK, silo batcher	2
10	132130000		CLIP	2
12	555174300		HOPPER	1

Reversing Drum Mixers, model 500R



Item	Part no	Date	Description	Qty
1	555215800	/ June-86	BRACKET, winch	**1**
2	513232700		DRUM, winding	1
3	513232800		CHAINWHEEL & CLUTCH CONE	1
4	513232900		MAINSHAFT	1
5	513233300		SHAFT, operating	1
6	513235300		PIN, operating	
6A	353323200		PIN,split	1
7	513234000		COLLAR, thrust	1
8	513235400		PAD, thrust	1
9	513234100		PLATE,thrust	1
10	513233900		SPACER, bearing	1
11	513233800		BUSH, locating	1
12	512233600		SCREW, special	1
13	513234700		PIN, operating shaft	1
14	513233200		LEVER, clutch	1
15	513234800		PIN, clutch lever	1
16	555216100		BAND, brake	1
17	555216300		ROD, brake operating	1
18	513241900		ADJUSTER, brake	1
19	513234900		PIN, brake fixing	1
20	513235100		PIN, fork end	1
21	555216000		LEVER, brake release	1
22	513234500		DISTANCE PIECE	1
23	513233700		WASHER, retaining	1
24	515101000		LINING, clutch	1
25	555215900		PIPE, grease	1
27	88S18		BEARING, ball	2
28	142319000		CIRCLIP	2
29	142329000		CIRCLIP	1
30	417184000		SEAL, oil	1
31	113164000		CAGE, thrust, needle bearing	1
32	131S01		NIPPLE, grease	2
33	420427000		SPRING, disc	24
34	112802900		BUSH	2
35	245301000		NIPPLE, barrel	1
36	241101000		ELBOW, female	1
37	241901000		SOCKET	1
38	383251000		END, rod	2
39	447559000		ROPE, wir***e***	1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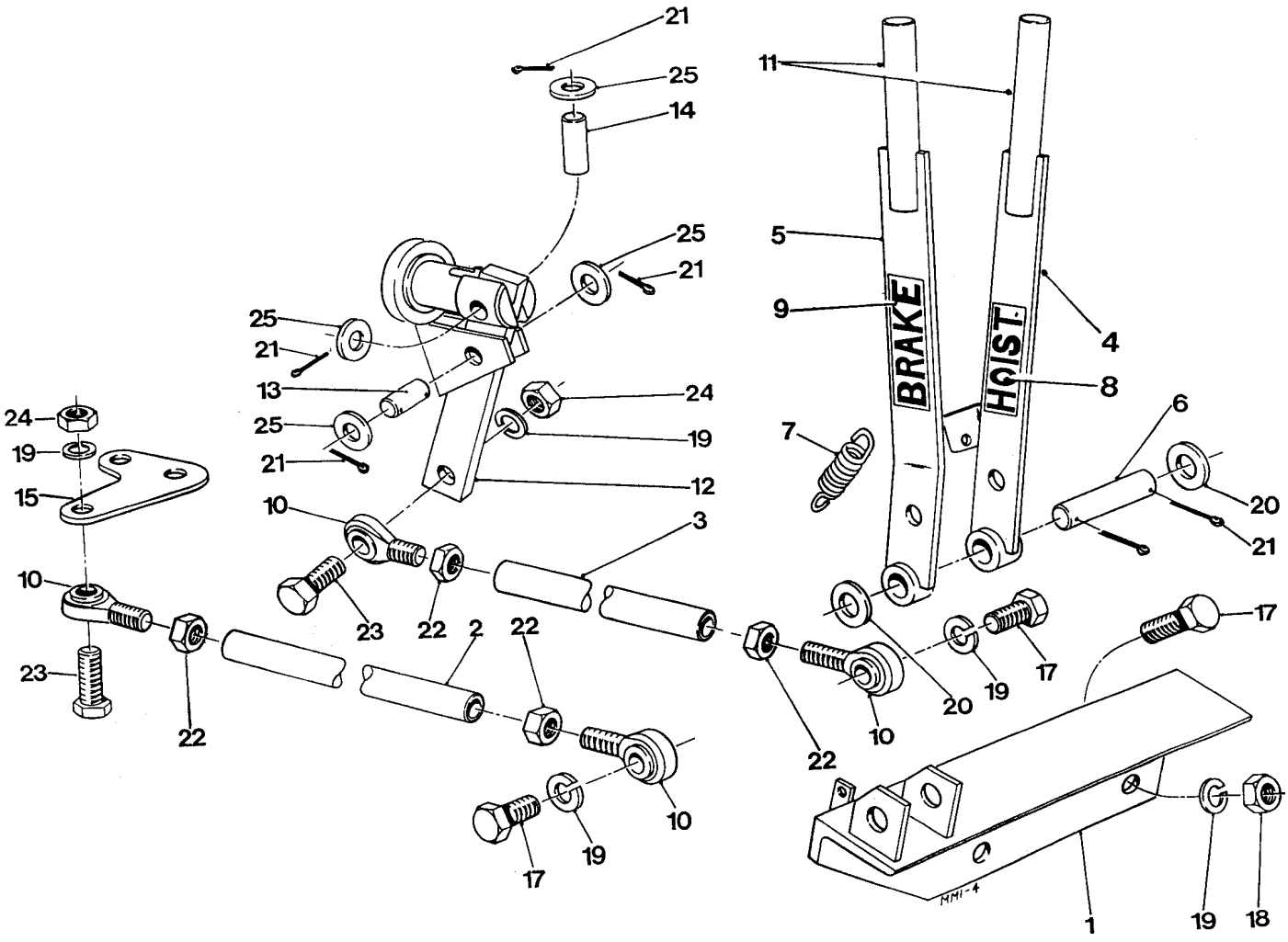
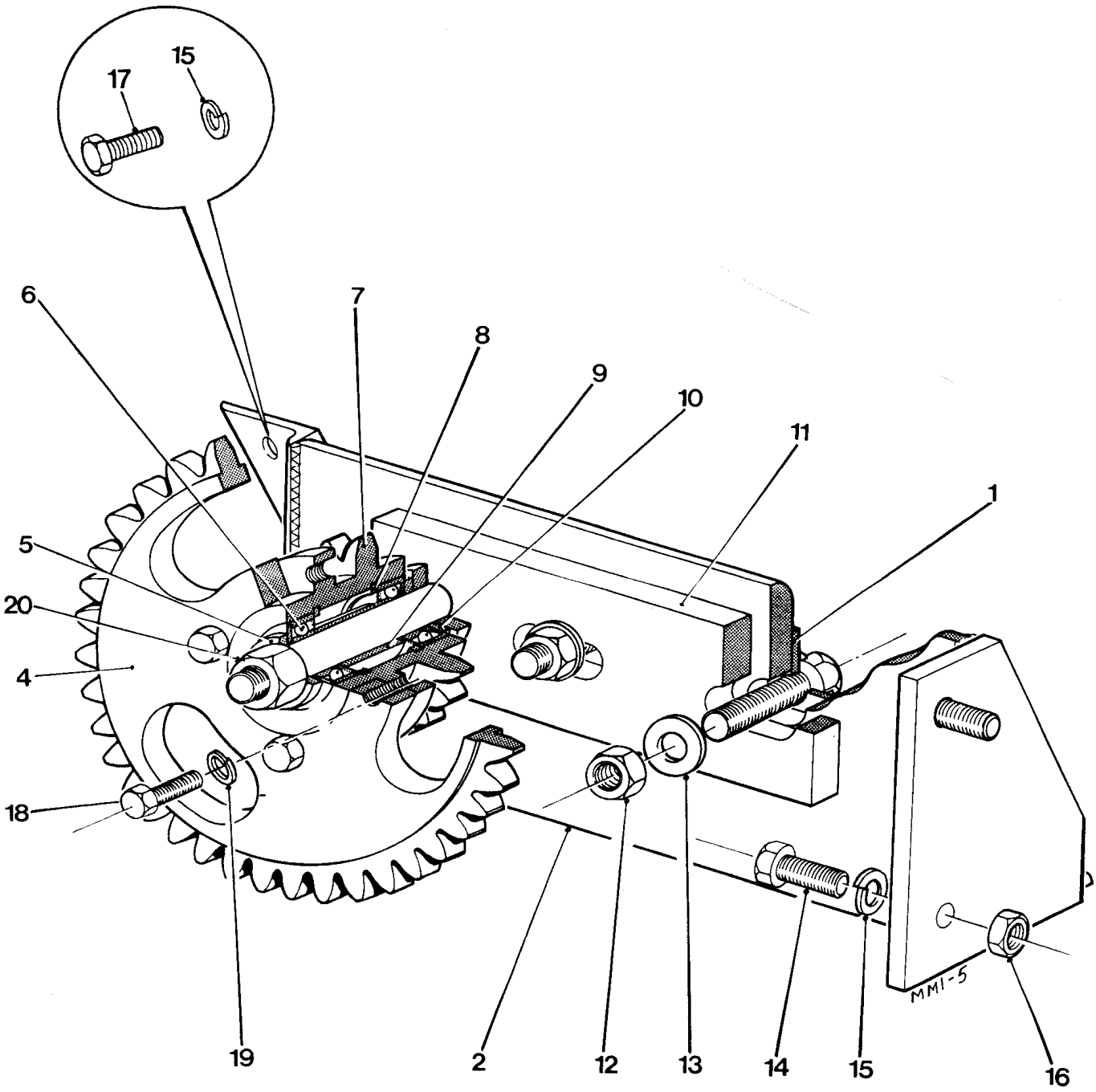
Item	Part no	Date	Description	Qty
40	57S06E		SCREW, set	1
41	8S05H		BOLT	4
42	7S05		NUT	6
43	17S06		WASHER, spring	6
44	11S04K		SCREW, set	1
45	56S04		NUT, locking	1
46	57S05E2		SCREW, socket head	2
47	52S02C		SCREW, socket head, countersunk	4
48	17S08		WASHER, spring	1
49	353324025		PIN, split	4
50	267S09		WASHER,flat	5
51	56S05		NUT, locking	4
52	353323220		PIN. Split	4
53	267S07		WASHER, flat	4
54	11S05E		SCREW, set	1
55	380205120		RIVET	10
56	380210500		RIVET	10
57	203S05		NUT, locking	2
58	8S05E		BOLT	2

Reversing Drum Mixers, model 500R



Item	Part no	Date	Description	Qty
1	555217700	/ June-86	BRACKET, control lever	1
2	555218500		ROD, brake	1
3	555218600		ROD, clutch	1
4	555218000		LEVER, hoist control	1
5	555217900		LEVER, brake control	1
6	555217800		PIN, hand lever	1
7	555234000		SPRING, clutch lever	1
8	513251600		DECAL, "hoist"	1
9	513251700		DECAL, "brake"	1
10	383251000		ROD END	4
11	264708000		HANDGRIP	2
12	513233200		LEVER, clutch	1
13	513234800		PIN, clutch lever	1
14	513234700		PIN, operating shaft	1
15	555216000		LEVER, brake release	1
17	11S05D		SCREW, set	6
18	7S05		NUT	4
19	17S06		WASHER, spring	8
20	267S06		WASHER, flat	2
21	353324025		PIN, split	6
22	203S05		NUT, locking	4
23	8S05E		BOLT	2
24	7S05		NUT	2
25	12S26		WASHER, flat	4

Reversing Drum Mixers, model 500R



HOIST INTERMEDIATE CHAINWHEEL & IDLER BRACKET J - 5

Item	Part no	Date	Description	Qty
1	555216700	/ June-86	PLATE, clamp	1
2	555246900		BRACKET, hoist steady	1
4	555217000		CHAINWHEEL,intermediate	1
5	555107200		WAHSER, output flange retaining	1
6	88S15D		BEARING,ball	2
7	555217100		SPROCKET, hoist	1
8	142322000		CIRCLIP	2
9	555216200		SPACER	1
10	555216800		PACKER, idler shaft	1
11	555216600		IDLER SHAFT & BRACKET	1
12	61S06		NUT, self locking	2
13	267S09		WASHER, flat	2
14	11S05E		SCREW, set	2
15	17S06		WASHER, spring	4
16	7S05		NUT	2
17	11S05D		SCREW, Sset	2
18	11S04C		SCREW, set	4
19	17S05		WASHER, spring	4
20	61S06		NUT, self locking	1

MIXER 500R

Decals & Plates

DECALS & PLATES K - 1 to K - 3

K - 1

Reversing Drum Mixer, model 500R

3

500 R

4

WINGET

5

6

SAFETY WARNING

1 Before starting this machine, the operator should be familiar with the operating instructions issued by the manufacturer

2 The manufacturer's rated capacity must never be exceeded

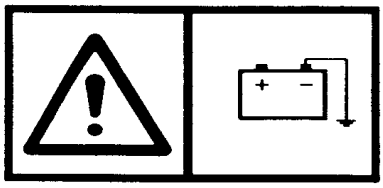
3 Before carrying out any maintenance, servicing, or greasing, always ensure that the engine has been switched off. Never work on a machine while it is running.

7

DANGER

KEEP ENGINE HOUSING LID CLOSED WHEN ENGINE IS RUNNING

8



9

-WATER SYPHON TANK-

SET POINTER ON TANK TO AMOUNT OF WATER REQUIRED – LOCK IN POSITION.

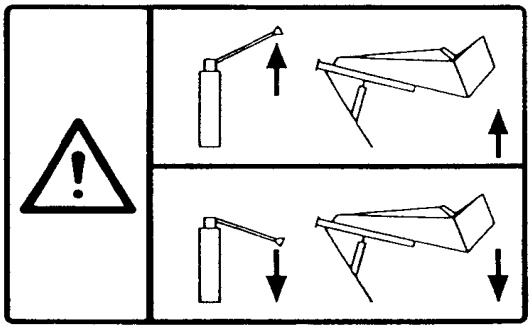
TO DISCHARGE:– PULL LEVER SHARTLY DOWN AND HOLD IN POSITION UNTIL WATER HAS STOPPED FLOWING, THEN RETURN LEVER TO UPPER POSITION.

10

DANGER

DO NOT WALK, STAND OR LEAN UNDER RAISED HOPPER UNLESS IT IS SECURELY CHAINED

11



11A

HOPPER CONTROL

TO LOWER HOPPER:- PULL CONTROL LEVER UPWARDS

TO RAISE HOPPER:- PUSH CONTROL LEVER DOWNWARDS

RELEASING THE LEVER WILL HALT THE HOPPER WHEN IT IS MOVING UP OR DOWN.

DO NOT HOLD CONTROL IN 'RAISE' POSITION WHEN HOPPER IS FULLY UP.

12

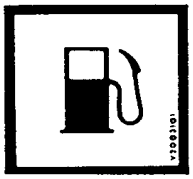
- DRUM CONTROLS -

DISCHARGE – NEUTRAL – CHARGE

NEVER SET LEVER IN 'NEUTRAL' WHILE THE DRUM HAS ANY MATERIALS IN IT.

TO DISCHARGE CONTENTS OF DRUM, MOVE LEVER S-M-O-O-T-H-L-Y FROM 'CHARGE' TO 'DISCHARGE'

13



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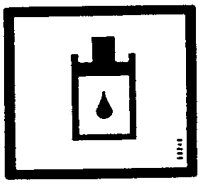
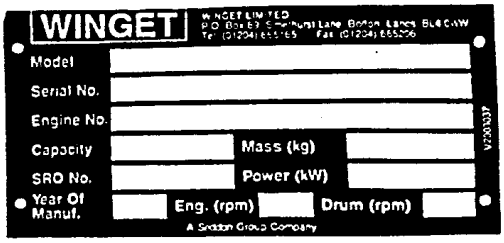


15

WARNING

DO NOT TAMPER WITH THE PIPE CONNECTION ON THE LOAD CELL OR GAUGE. THIS IS A SEALED CIRCUIT AND MUST NOT BE INTERFERED WITH.

16



Item	Part no	Serial no	Description	Qty
--	V601240		KIT, decals, 500R *Decal kit contain all decals required for one machine*	1
3	V2003127		”500R“	2
4	V2003039		WINGET, logo	3
5	V2003038		STRIPE, vinyl, 2 colour	4
6	504694600		SAFETY WARNING	2
7	504600900		ENGINE HOUSING	2
8	V2004235		NEGATIVE EARTH	1
9	555153500		WATER TANK	1
10	555184900		SECURELY CHAINED HOPPER	2
11	V2004259		HOPPER CONTROL	1
11A	555283500		HOPPER CONTROL	1
12	555153700		DRUM CONTROL	1
13	V2003101		DIESEL FUEL	1
14	V2003100		HYDRAULIC OIL	1
15	515175000		LOAD CELL, (plate)	1
16	V2003037		SERIAL PLATE	1

1

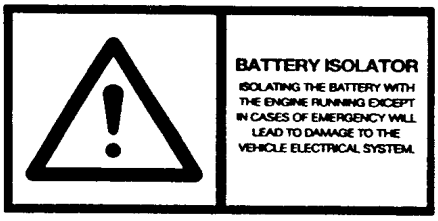
2

3

4

50 p.s.i.

5



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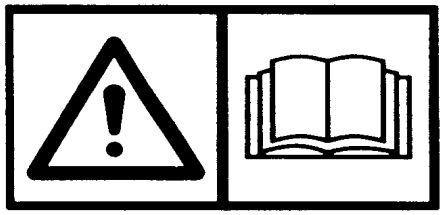

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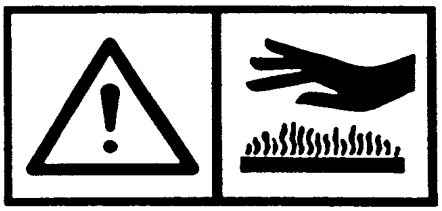

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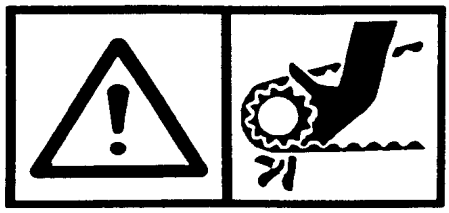

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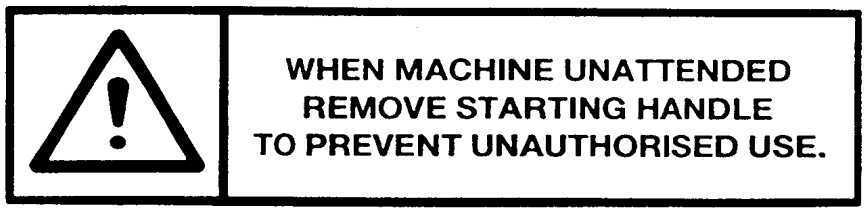

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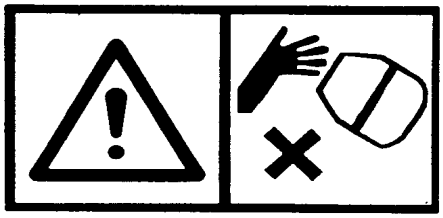

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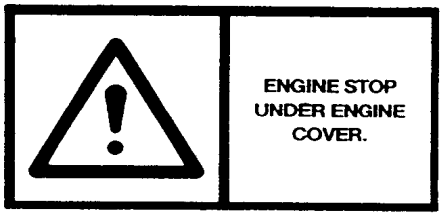

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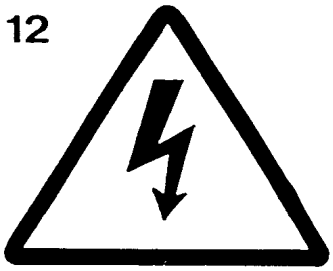

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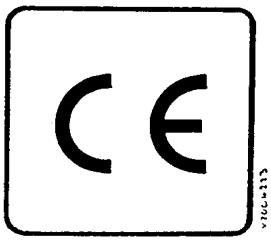

Item	Part no	Serial no	Description	Qty
1	V2004137		EAR PROTECTION	1
2	V2003665		SLING POINT	2
3	V2003598		”BRITISH MADE“	1
4	10166A02		TYRE PRESURE	4
5	V2004227		BATTERY ISOLATOR	1
6	V2004229		OPERATORS HANDBOOK	1
7	V2004282		HOT SURFACE	1
8	V2004281		ENTRAPMENT	1
9	V2004288		STARTING HANDLE	1
10	V2004289		HANDS CLEAR	2
11	V2004302		ENGINE STOP	1
12	V2004307		ELECTRICAL HAZARD	3
13	V2004223		”CE” MARK	1

Reversing Drum Mixer, model 500R

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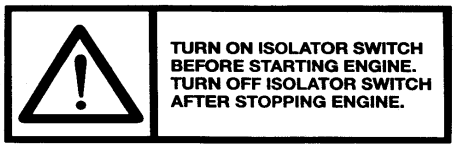

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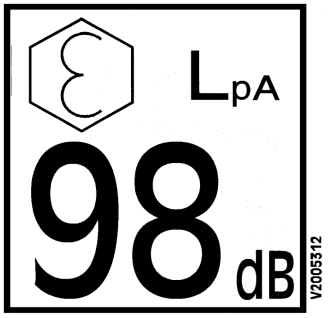

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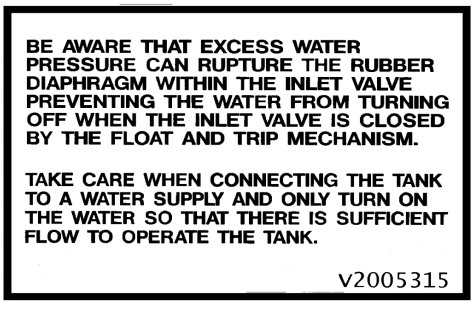

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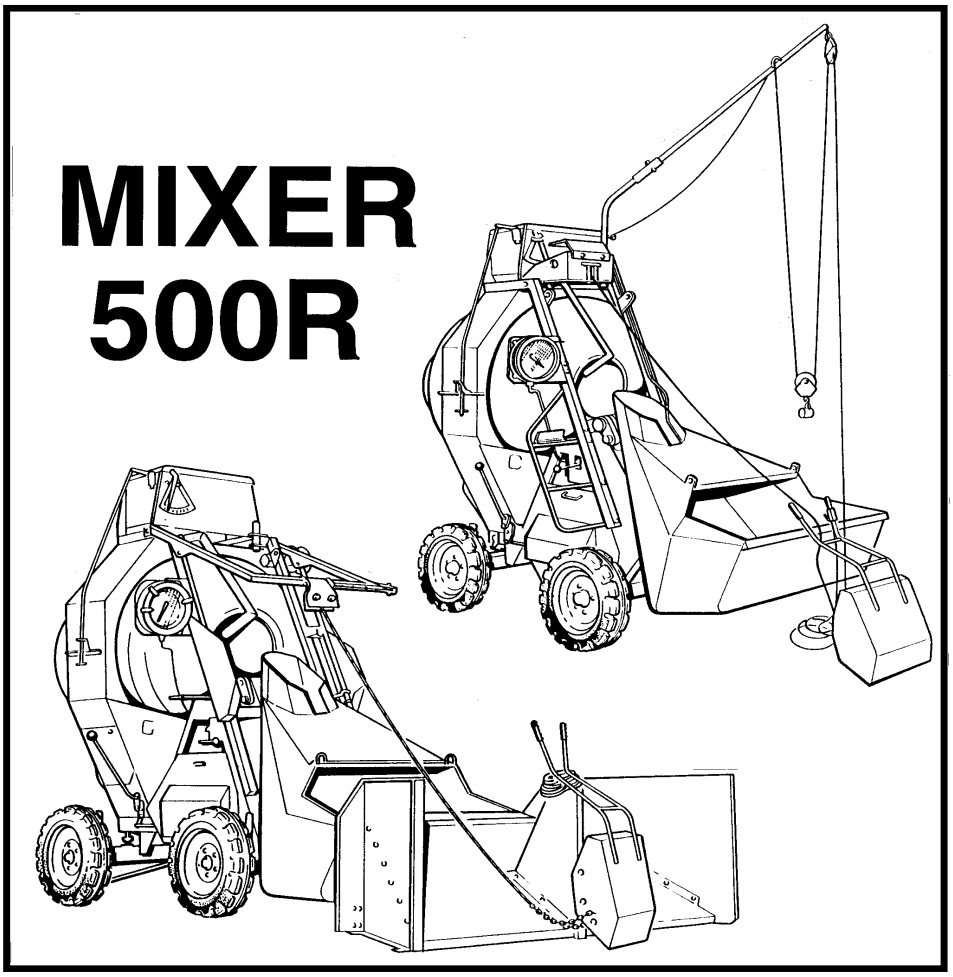
Item	Part no	Serial no	Description	Qty
1	V2004796		ALTERNATOR	1
2	V2004744		EYE PROTECTION	2
3	V2004795		ISOLATOR SWITCH	1
4	V2005122		OIL LEVEL	1
5	V2005312		NOISE LEVEL, 98 LpA	1
6	V2005319		NOISE LEVEL, 115 LWA	1
7	V2005315		EXCESS WATER PRESSURE	1
8	V2006402		"UKCA" MARK	1
9	V2006403		"UKNI" MARK	1
10	513371100		EMERGENCY STOP *electric mixers only*	1



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44S02B	F - 3B
44S02E	C - 1
44S03C	F - 3A
44S03C	F - 3B
44S03C	F - 4
44S03C	G - 5
44S03C	G - 5B
44S03F	A - 3
44S03F	C - 1
44S03G	E - 6
44S03G	E - 9
44S04E	A - 3AB
44S05D	C - 1
44S05H	A - 3
44S06F	A - 3A
44S17K	A - 3
44S17K	G - 5
44S17K	G - 6
44S18N	A - 3
49S09	E - 1C
49S09	E - 2A
49S12	E - 1C
49S12	E - 2A
49S32	G - 2
49S39	F - 3B
52S02C	J - 3
56S03	B - 2
56S03	B - 6
56S04	F - 3A
56S04	F - 4
56S04	J - 3
56S05	J - 3
56S07	C - 12A
57S04D2	E - 3
57S04D2	F - 6
57S04D2	F - 7
57S05E2	J - 3
57S06D2	B - 2
57S06D2	C - 13
57S06E	J - 3
59S03	A - 3B
61S02	A - 3B
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61S04	H - 4
61S05	B - 2
61S05	C - 10
61S05	C - 12
61S05	D - 1
61S05	G - 5A
61S06	B - 2
61S06	J - 5
63S02F	E - 2B
66S01B	H - 2A
66S01BB	A - 2
66S01BB	E - 2
66S01BB	E - 2A
66S01BB	F - 2
66S01C	E - 1
66S01C	E - 1C
66S01C	E - 1D
66S01C	E - 2
66S01C	E - 2A
66S01C	F - 2
66S01CC	A - 2
66S01CC	H - 2A
66S02A	F - 2
66S02A	G - 1
66S02A	H - 1
66S02A	H - 1
66S02AA	F - 2

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66S03A	H - 4
66S03CC	C - 3
66S03CC	C - 6
66S03CC	F - 3
66S04F	F - 2
66S05C	B - 1
66S06D	A - 4
67S01	E - 3A
68S02B	E - 1AA
68S02E	E - 2B
69S02A	C - 7
6S01F	G - 5
6S02J	A - 2
6S02Z	F - 2
6S03B	A - 2
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6S03G	D - 1
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6S05F	C - 2
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6S05H	G - 1
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6S05K	C - 6
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6S05K	C - 13
6S05K	G - 5
6S05M	A - 3A
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6S05M	B - 6
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6S05N	A - 3
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73S03B	E - 1D
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7S01	G - 5
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7S02	A - 5
7S02	C - 12A
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7S02	J - 1
7S03	A - 2
7S03	E - 1BA
7S03	E - 1E
7S03	H - 4
7S04	C - 7A
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7S04	F - 7A
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81S02	E - 1B
82S07F	G - 5
82S07F	G - 5A
83S07	G - 5
83S07	G - 5A
87S01	G - 5
87S02	C - 3
87S03	A - 2
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87S03	F - 7A
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8S03C	H - 4
8S03D	F - 2
8S03E	A - 3
8S03E	D - 1
8S03G	E - 1
8S03G	E - 2
8S03H	E - 1
8S03H	E - 1BA
8S03H	E - 2
8S04D	A - 5
8S04G	B - 2
8S04G	B - 6
8S04J	G - 1
8S04K	E - 1A
8S05E	J - 3
8S05E	J - 4
8S05H	C - 12
8S05H	J - 3
8S05K	A - 3AA
8S05K	A - 3AB
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8S05M	A - 3AA
8S05M	A - 3AB
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90S04L	C - 6
90S04L	C - 7
90S04L	C - 10
90S04M	F - 6
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92S15	A - 3
93S02	G - 2
95S05	B - 2
95S05	B - 4
95S05	C - 1
95S07	C - 1
97S09	E - 1
97S09	E - 1C
97S09	E - 1D
97S09	E - 2
97S09	E - 2A
97S10	F - 7A
97S13	C - 6
97S13	C - 7
97S13	C - 8
97S13	C - 10
9S01	A - 3B
9S03	A - 2
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9S03	A - 4
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9S04	A - 2
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9S04	A - 3A
9S04	B - 2
9S04	B - 6
9S04	F - 2
9S04	G - 1
9S04	G - 5
9S04	G - 7
9S04	G - 7
9S05	A - 3A
9S05	A - 3AA
9S06	C - 1
9S11	D - 1
CSE182	C - 12A
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V2000400	E - 1
V2000400	E - 1A
V2000400	E - 1C
V2000400	E - 2A
V2000631	F - 2
V2000772	A - 2
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V2003116	E - 1B
V2003117	E - 1B
V2003118	E - 1B
V2003119	E - 1B
V2003120	E - 1B
V2003122	E - 1B
V2003122	E - 1B
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V2003124	E - 1A
V2003127	K - 1
V2003138	A - 2
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V2004289	K - 2
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V2004307	K - 2
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V2004607	E - 1BA
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V2004676	E - 2B
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V2004793	H - 3
V2004794	H - 3
V2004795	K - 3
V2004796	K - 3
V2004797	C - 8
V2005114	E - 1E
V2005122	K - 3
V2005312	K - 3
V2005315	K - 3
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V600023	E - 1A
V600024	E - 1A
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V600061	E - 1B
V600062	E - 1B
V600063	E - 1B
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V600159	E - 1B
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V600179	E - 1B
V600180	E - 1B
V600181	E - 1B
V600182	E - 1B
V600183	E - 1B
V600185	E - 1B
V600186	B - 2
V600186	B - 6
V600187	C - 7
V600187	C - 8
V600189	E - 1A
V600845	C - 2
V601234	E - 2B
V601240	K - 1
V601330	F - 3A
V601532	E - 3
V601534	E - 3
V601814	G - 6
V602166	E - 1B
V602446	E - 1B
V602447	E - 1B
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V602449	E - 1B
V602475	E - 1B
V602476	E - 1B
V602477	E - 1B
V602478	E - 1B
V602619	E - 1A
V602629	E - 1BA
V602630	E - 1BA
V602632	E - 1
V602632	E - 1
V602632	E - 1C
V602632	E - 1D
V602632	E - 2
V602632	E - 2A
V602634	H - 2
V602651	C - 12A
V602658	E - 4
V602666	A - 3AB
V602667	A - 3AB
V602668	A - 3AB
V602669	A - 3AB
V602676	A - 3AB
V602677	A - 3AB
V602678	A - 3AB
V602679	A - 3AB
V602680	A - 3AB
V602687	C - 8
V602688	C - 8
V602704	C - 8
V602705	C - 8
V602706	A - 3AB
V602711	E - 5
V602712	E - 3
V602713	H - 3
V602715	H - 3

CALIFORNIA

Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.