CUMFLOW RP50XD MK2

ROTATING PAN MIXER

PARTS

&

OPERATION MANUAL

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INDEX

SECTION 6 ELECTRICAL SYSTEM

6.1 Electrical Instructions
6.2 Wiring Diagrams

SECTION 7 MISCELLEANEOUS

7.1 Noise Details

The contents of this handbook although correct at the time of publication, may be subject to alteration by the manufacturers without notice and Winget Limited can accept no responsibility for any errors or omissions contained within the following pages. Nor can we accept any liability whatsoever arising from the use of this manual howsoever caused.

Winget Limited operate a policy of continuous product development. Therefore, some illustrations or text within this publication may differ from your machine

Winget Limited can accept no responsibility for incorrectly supplied parts unless the machine serial number, part number and a full description of the items required is given when the order is placed.

NOTE

Imperial fixings (bolts, setscrews, nuts, washers etc) have been progressively changed to Metric. If in doubt as to whether you have a Metric or Imperial fixing please order the metric items listed, i.e. bolt or setscrew and associated or flat and spring washers to replace the existing items

NOTE

Electrical cables particularly those with copper conductors suffer from a condition known as ‘relaxation’ which may cause wiring to work loose over a period of time, it is recommended that the tightness of wiring connections and terminals are checked following the first month in service.

OPERATING

AND

MAINTENANCE MANUAL

SECTION 1

GENERAL INFORMATION

RP50XD MK2

COMPANY DETAILS AND GENERAL INFORMATION

For any spares or service work, please contact:-

Winget Limited
P.O. Box 41
Edgefold Industrial Estate
Plodder Lane
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BL4 0LR

Telephone No: ++ 44 (0) 1204 854650

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parts@winget.co.uk
service@winget.co.uk

ORDERING SPARES

To help us to complete your order promptly and correctly we need:-

- Machine type and serial number
- Description and quantity of parts required
- The full address to which the parts are to be sent

Winget Limited can accept no responsibility for incorrectly supplied parts unless the machine serial number, part number and a full description of the items required is given when the order is placed.

IMPORTANT NOTICE

The CUMFLOW RP50XD MK2 is a high performance mixer

The following precautions are necessary to obtain the best results and to avoid damage to the MIXING STAR and PAN DRIVE

AGGREGATES

Strict control of graded aggregates must be maintained
Maximum size 19mm

Oversize lumps of aggregate or rogue materials must be prevented from entering the Pan

MIXING STAR BLADES

They are to a special shape and material to prolong wear life. They should not be modified in any way and only replaced with GENUINE '**CROKER**' spares obtained from **WINGET LIMITED.**

A daily check is advisable to ensure that the Blades/Wearing parts are secure and undamaged.

MAXIMUM BATCH LOADS

UNDER NO CIRCUMSTANCES should the Maximum Batch Loads quoted be exceeded nor should the mixer be stopped or re-started when there is a mix in Pan

MIXING PAN

Ensure that the Mixing Pan is rotating concentrically and that the pan base is Horizontal.

WARNING

THE MANUFACTURER ACCEPTS NO RESPOSIBILITY FOR ANY DAMAGE OR FAILURE RESULTING FROM OPERATIONAL MISUSE OR MALPRACTICE. 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 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 THE FITMENT OF SPURIOUS PARTS.

RP50XD MK2
OPERATIONAL AND SAFETY REQUIREMENTS

PRE-DELIVERY

1.1 Drive coupling alignments, pan and star meshing of pan rack and drive gear.

1.2 Operating clearances star blade to pan. Fixed blade to pan wall.

1.3 Correct oil level in gearboxes. All grease points charged. Gear teeth greased.

1.4 No load test. Correct rotations.

PRE INSTALLATION

2.1 Check consignment.

2.2 Offload equipment using certified lifting gear of suitable capacity, by a competent person (see separate chart for nett weight).

INSTALLATION

3.1 Refer to contract arrangement and site instructions.

3.2 Mixer to be mounted on supports of adequate strength and rigidity to prevent undue vibration when mixing and securely bolted.

3.3 Mixer frame to be level on structure, add packers as required.

3.4 Check that pan is correctly seated and that pan rack and drive gear are in correct mesh.

ELECTRICAL SERVICES

4.1 Refer to wiring diagram in Ops Manual. All wiring to be undertaken by competant electrician, it is recommended that the mains electrical supply is provided via an earth leakage circuit breaker. **NOTE:** electrical cables particularly those with copper conductors suffer from a condition known as ‘relaxation’ which may cause wiring to work loose over a period of time, it is recommended that the tightness of wiring connections and terminals are checked following the first month in service.

OPERATION

5.1 Correct oil level in the gearboxes.

5.2 Check the Mixing pan clear of loose nuts and bolts to prevent damage to fingers and blades.

5.3 Check correct rotation – mixing star – anti clockwise; mixing pan – anti clockwise. All when viewed from the top.

5.4 Blade operating clearances adjust in line with maintenance instructions.

5.5 Never exceed manufacturer's maximum capacity as detailed in specification.

SHUTDOWN

6.1 Prior to any work being carried out mixer to be isolated and physically locked off

6.2 Follow the procedures detailed in your companies Heath and Safety Policy at all times.

6.3 Ensure all storage bins containing materials to be mixed are isolated.

MAINTENANCE

7.1 Ensure that all maintenance is carried out in accordance with the Parts and Operating manuals and proprietary manufacturer's specific instruction.

7.2 Isolate electrical and other services to the mixer as section 6 above.

7.3 Service at recommended intervals.

7.4 Use **Croker** manufactured replacement parts available from **WINGET LIMITED**.

7.5 Ensure all safety guards and interlocks are reinstated prior to operating mixer.

GENERAL

8.1 Under on circumstances should the Maximum Batch Loads be exceeded by either weight and volume as stated in Technical Specification.

8.2 Mixer star blades to be checked daily for damage.

8.3 Pan rim and base wearing plates must be replaced before excessive wear causes distortion.

8.4 Ensure mixing pan is rotating concentrically and pan base is rotating in horizontal plane.

8.5 Mixer must not be stopped and started when there is mix in the pan.

8.6 Refer to the Contract Drawing for scope of supply and the Site instruction notes outlining weights etc.

8.7 Refer to Method Statement when installation and commissioning is responsibility of Croker.

Nett Weights Max (kgs)

9.1

RP50XD	800	RP1250XD	4840
RP100XD	900	RP1500XD	4980
RP200XD	1400	RP3000XD	7112
RP400XD	2000	FP1000	4040
RP550XD	2150	FP1500	4065
RP850XD	2600	FP2000	4100

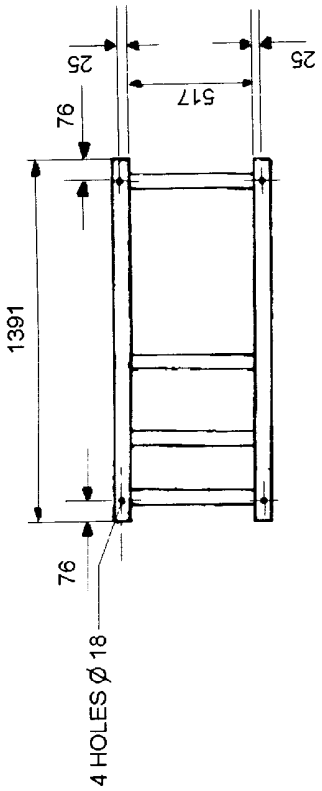
9.2 Refer to technical specification for nett weights of ancillary equipment.

9.3 Refer to contract drawing for nett weights of ancillary equipment.

Miscellaneous

10.1 Noise. Measured in accordance with Article V of Directive 2000/14/EC
Noise Emission in the Environment by Equipment for Use Outdoors:- 105Lwa

INSTALLATION DRAWING

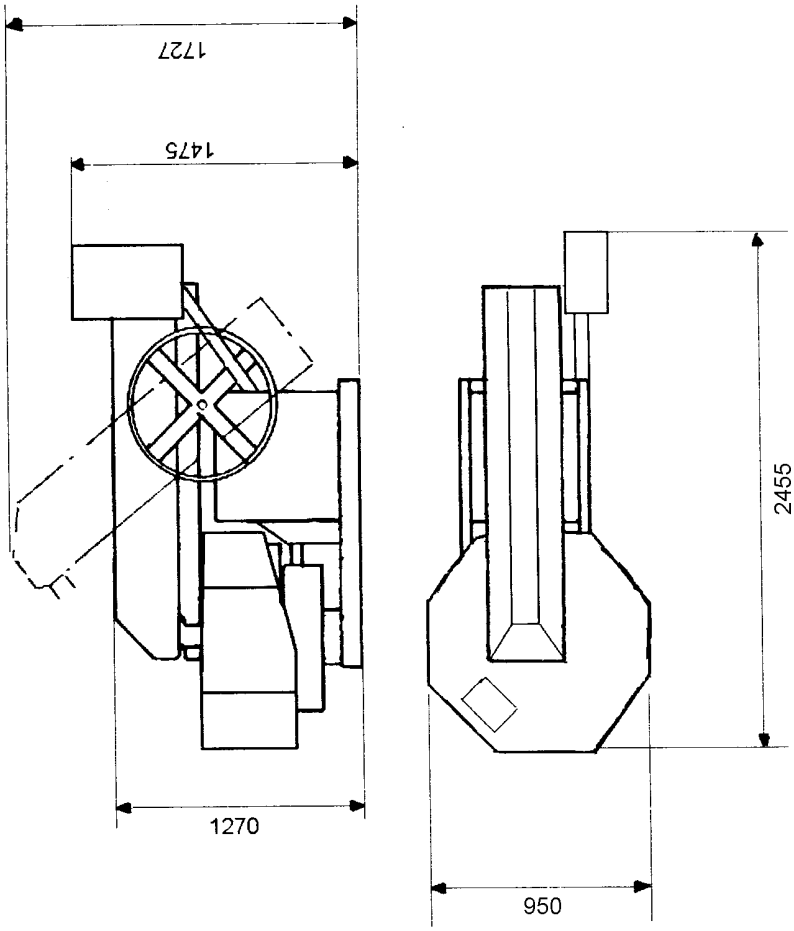


NOTES

STAR DRIVE MOTOR 2.2Kw (BROWN GROUP BH302)

PAN DRIVE MOTOR 1.1Kw (BROWN GROUP BH202)

MACHINE WEIGHT RP50XD MK2 800KG APPROX



OPERATING

AND

MAINTENANCE MANUAL

SECTION 2

INSTALLATION AND OPERATING INSTRUCTIONS

PRE-INSTALLATION

On arrival of the equipment it is advisable to check that all packages listed on the consignment note have been received.

The equipment must be offloaded using certified lifting gear of suitable capacity, by a competent person.

An outline drawing and bolt hold plan is normally sent prior to the despatch of the machine and will enable preparations to be made for the installation. With the `picture` of what the machine will look like when it is assembled, the ancillary equipment dismantled for transport can easily be identified.

INSTALLATION

Please refer to the contract arrangement and site instructions as applicable.

It is recommended that a concrete foundation (to take foundation bolts – not supplied) should be provided for the machine to be mounted on

Before completing the installation, check that the main mixer frame is level with a spirit level. Packings should be inserted as required under the main frame. Check that the pan is seated and that the pan rack and drive gear are in mesh.. Also check that all the blade clearances are in line with the maintenance instructions.

On connecting to the power supply, the wiring diagram must be referred to. N**ote:- it is recommended that the mains electrical supply is taken via an earth leakage circuit breaker.**

The wiring is correctly connected to the motors when the pan and star drive rotate as follows:-

- The mixing pan and mixing star rotate anti-clockwise when looking from the top.

NOTE:- the proximity sensors below the pan and star drive lifting mechanism are fitted with small LED's which light up when the sensors are operating correctly.

OPERATING THE MIXER

Prior to start up, the following points should be checked:-

1) That there is oil in a) the pan drive gearbox
b) the star drive gearbox

2) The mixing pan should be clear of loose nuts, bolts, spanners, etc as these will damage the fingers and blades.

3) Check that the blade clearances are correct and if necessary adjust, in line with the maintenance instructions.

5) To raise the mixing star out of the mixing pan, turn the hand wheel in a clockwise direction until the arm is at 45'

6) To lower, turn the hand wheel anti-clockwise and lower gently. The mixer will automatically start if the mixing pan is in position. When the mixing pan is removed the mixer cannot be operated as the proximity switches need to sense the pan in position to complete the electrical circuit

7) On completion of the mixing cycle the raising of the mixing star operates a limit switch which automatically stops all moving parts

8) The pan can then be removed by hand or with the special lifting trolley available as an option

IMPORTANT:

After each mix the contents of the pan must be completely discharged.
At the end of each period of operation the mixing pan, mixing blades, and fingers, must be washed down to prevent product setting on them and so impairing the efficiency of the machine. **NOTE:- isolate the electrical supply before washing down the mixer and do not aim the water jet directly at the electrical control panel or related switch gear or sensors**

OPERATING THE MIXER

SAFETY NOTES

Never operate the mixer unless you have read and fully understand the contents of the Operators Manual

Never operate the mixer whilst wearing loose fitting clothing

Never reach inside the Pan whilst it is rotating

Never operate any equipment unless you have received adequate training

Cement, certain other minerals and organic compounds can cause skin irritation leading to Dermatitis. Always use Personal Protective Equipment i.e. gloves etc to protect the skin from direct contact. If in any doubt about the materials being used consult your employers COSHH manual

Wear Eye protection to protect your eyes from dust and liquid splashes

Do not attempt to remove the pan single handedly, obtain assistance, use the Pan Trolley (if provided) or use suitable lifting equipment

Do not operate the mixer with any of the guards removed, safety devices or interlocks disconnected. They are there to offer you some protection, ensure they are correctly maintained

Carry out the daily maintenance before operating the mixer and report defects to your supervisors

Oils, Greases and Lubricants are skin irritants and prolonged direct skin contact can cause skin cancer. PPE or barrier creams should be used when carrying out maintenance work, wash your hands on completion

Always dispose of waste oils and lubricants in a proper manner, it is illegal to pour it down drains or bury it. Contact your local authority for a list of authorised disposal sites

Always disconnect the power supply at the mains before carrying out any maintenance work or cleaning the equipment down. Do not turn on the power until everything has dried out

Do not allow waste from the wash down process to enter the public drainage system unless it has been properly filtered

Decals and Instruction Plates are attached to the equipment to warn against hazards and assist in the safe operation of the equipment, if they become damaged or defaced they must be replaced.

OPERATING INSTRUCTIONS FOUR WHEEL PAN TROLLEY

The Four-Wheel Pan Trolley is designed to allow the safe and speedy removal and transportation of the pan and mixed materials to wherever they may be required within the plant. The following instructions should be followed to ensure the Four Trolley is used safely and correctly.

1) It is recommended that the Trolley be used only on firm level ground.

2) On no account should the laden Trolley be left unattended on anything other than a level surface unless the castors are securely chocked.

3) The area around the mixer should be kept free from any build up of waste material.

4) Ensue the Pan Lifting Lugs and Hoop attached to the pan are in good condition, secure and free from any build up of waste material.

5) Position the Trolley in front of the mixer so that the wheels are equally spaced to each side of the mainframe/chassis.

6) Fully raise the Mixing Star by means of the handwheel and allow the pan to come to a complete stop. Manually rotate the pan until two of the Pan Lifting Lugs are at right angles to the mainframe/chassis. This will allow the Trolley, when correctly positioned below the pan to cleanly lift the pan clear of the rack.

7) Push the Trolley under the pan until the ‘V’ support arms on the Trolley are aligned below the Pan Lifting Lugs, brace the Trolley by placing a foot in the rear centre of lower fixed frame and pull back on the handle until the ‘V’ supports are engaged with the Pan Lifting Lugs, continue pulling back on the handle until it abuts the stops, at which point the pan will be clear of the rack. Manoeuvre both pan and Trolley clear of the mixer. The Trolley complete with the pan can now be carefully pushed or pulled to wherever the mixed material is required. Be aware of the increased inertia inherent in the combined weight of the Trolley, Pan and Material.

8) Before tipping the pan to discharge the material it is recommended that the handle is moved fully forward to lower the upper moving frame of the Trolley

firmly onto the lower fixed frame. When the material has been discharged the trolley can be braced as described above, the handle pulled backwards against the stops and the pan transported back to mixer where the pan can be easily and quickly positioned over the rack and lowered into place.

9) On no account must attempts be made to engage the trolley with the mixer mainframe/chassis unless the Star Drive is raised and the rack stationary.

10) Do not ‘swing’ on the Trolley Handles, doing so may cause the Trolley to become unstable and it may tip backwards especially if the pan is empty causing injury to either yourself or nearby persons.

START PROCEDURE CROKER RP50XD, RP100XD & RP150XD RANGE MIXERS

1) Raise the mixing star assembly by way of the large hand wheel, rotate the wheel in a clockwise direction to raise the star assembly

2) Ensure the mixing pan is in place on the pan rack (gear) and correctly seated down.

3) Turn the power on at the red isolator switch on the control panel

4) Ensure the red emergency stop plunger on the front of the control panel is not depressed.

5) Press the green start button.

6) With both hands on the hand wheel, rotate the hand wheel anti-clockwise and lower the mixing star slowly and gently down into the mixing pan. The motors driving the pan and star should start automatically as the star enters the pan.

Note: do not allow the mixing star assembly to drop in an uncontrolled manner into the mixing pan, lower it slowly with both hands on the hand wheel.

OPERATING

AND

MAINTENANCE MANUAL

SECTION 3

TECHNICAL SPECIFICATION AND MAINTENANCE

RP50XD MK2 USA/CANADA SPECIFICATION 480V 60Hz

The Star and Pan Drive Motors and Control Panel fitted to USA/Canada Specification mixers are intended for operation with a supply voltage of 480V 3 Ph 60Hz and not 415V 3 Ph 50Hz as listed overleaf. When ordering spares for the motors, gearbox or control panel it is important that this is state

Star Drive Gearmotor Unit Specification USA/Canada

C302N0250D100K4, 68 RPM Output Shaft, Motor Speed 1692 RPM, 2.2Kw, 480V 60Hz

Pan Drive Gearmotor Unit Specification USA/Canada

C202N0155D90S4, 111 RPM Output Shaft, Motor Speed 1692 RPM, 1.1Kw, 480V 60Hz

TECHNICAL SPECIFICATION OF CUMFLOW RP50XD MK2

CAPACITIES: Maximum Batch Capacity by Weight 82 kgs
by Volume 56.5 litres

Batch capacity and outputs will vary with material densities.

FEED MATERIAL: Maximum Size 19 mm

MIXER FRAME: Strongly constructed from welded Steel Channel

MIXING PAN: Steel Base Pan removed by hand, forklift or with the aid of a special optional pan lifting trolley.

MIXING STAR: Two spring mounted mixing star blades and fixed scraper blade

MIXING STAR CONTROLS 762mm(30'') diameter handwheel raises mixing star clear of the pan

POWER UNITS (415V): Mixing pan drive 1.1kw totally enclosed geared electric motor to suit 3 phase, 50 cycles, 380/420 volts a/c supply. Mixing star drive 2.2kw totally enclosed geared electric motor to suit 3 phase, 50 cycles, 380/420 volts a/c supply.

POWER UNITS (240V): Mixing pan drive 1.1kw totally enclosed geared electric motor to suit 1 phase, 50 cycles, 240 volts a/c supply. Mixing star drive 2.2kw totally enclosed geared electric motor to suit 1 phase, 50 cycles, 240 volts a/c supply.

ELECTRICAL CONTROLS Direct on line starter controls both motors. Automatic safety control switch operates when mixing star is raised out of the pan with proximity switch to sense pan position

GUARDING All gears are guarded to comply with the relevant PUWER and Supply of Machinery Safety Regulations

SPEEDS Speed of Pan 16 rpm
Speed of Star 74 rpm

WEIGHTS (UNLADEN)	800kg (approx)
Weight of additional pan	64kg (approx)
PAN LIFTING TROLLEY	RHS steel frame mounted on four industrial castors with tubular section handle

MAINTENANCE OF MIXER

IMPORTANT NOTE:

Ensure that all maintenance is carried out in accordance with the Parts and Operating Manual and Proprietary Manufacturer's specific instruction.

PROCEDURE

1 ISOLATE ELECTRICAL AND OTHER SERVICES TO THE MIXER (see separate section).

2 Service at recommended intervals.

3 Use **Croker** manufactured replacement parts available from **WINGET LIMITED**.

4 Ensure all safety guards and interlocks are reinstated prior to operating the mixer.

5 Main items of wear (see Section 4).

A) Star Blades
B) Fixed Blade

Access to mixing pan internals is via the safety interlocks. Each of the above are bolted components and are replaced by simple method and usually achieved in situ without dismantling other components.

C) Other items prone to less wear are star blade fingers and mixing star. Each can be replaced again in situ but pan covers may require removal to provide the necessary access.

MAINTENANCE AND LUBRICATION

NOTE:

ALWAYS ENSURE APPARATUS IS ISOLATED FROM MAINS SUPPLY BEFORE COMMENCING MAINTENANCE. IF NECESSARY A 'PERMIT TO WORK' SHOULD BE OBTAINED

DAILY:

Charge the grease points using Total EP2 Grease 2 (or equivalent)

WEEKLY

Lubricate

Racks	Apply Open Gear Lubricant (or equivalent)
Pinions	Apply Open Gear Lubricant (or equivalent)

Inspect and top-up if necessary.

1. Star Gear Box (Brown Group BH302) Use Total Carter SP220 1.2 litres cap
2. Pan Drive Gear Box (Brown Group BH202) Use Total Carter SP220 0.80 litres cap

NOTE:- Total Carter SP220 is a synthetic oil and should not be mixed with mineral oils such as Mobil Mobilgear 630, unless the gearbox is thoroughly flushed out after draining.

INSPECT AND ADJUST-MONTHLY

1. Pan Gear and Pinion, grease Open Gear Lubricant (or equivalent), as required.

2. Adjust Star Blades, Fixed Blades and Discharge Blade to the following settings, also make sure that Blade Fingers are free in their bearings and that the springs are clear of obstruction.

3. Star Drive Bevel Pinions, remove cover and grease pinions with Open Gear Lubricant or equivalent as required. Check retaining grub screws and keys are tight.

MIXING BLADE 3mm clear of pan base. Adjust by moving the blade up or down its finger.

FIXED BLADES 6mm clear of pan base with the leading edge just touching the pan side. Adjust by moving the blade up or down its finger.

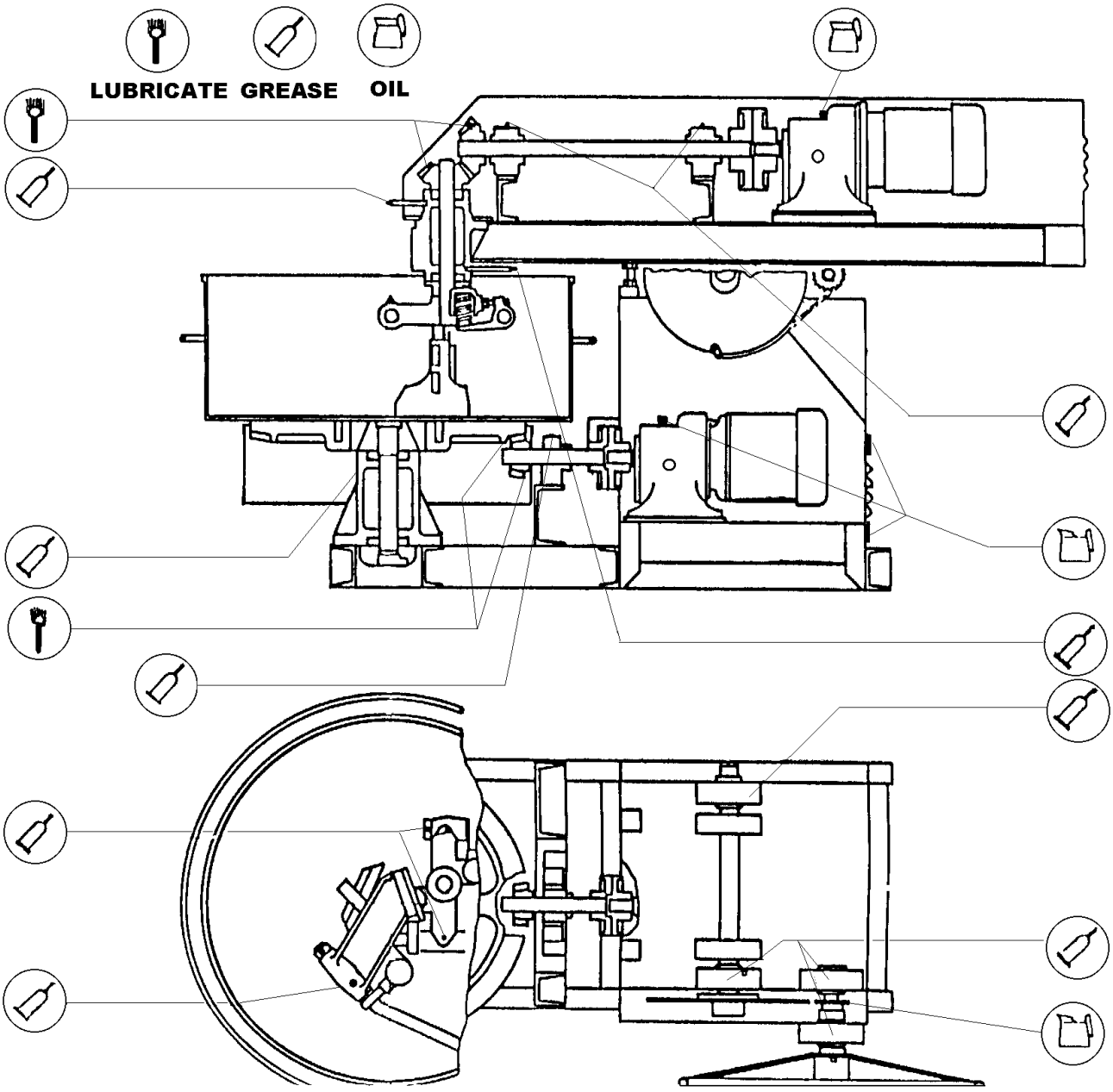
MAINTENANCE FOR GEAR UNITS

MAINTENANCE OF THE MOTORS

The surface of the housing as well as the cover lattice of the fan bonnet should be kept clean in order not to endanger the cooling of the motor with dust and dirt.

Although the bearings of the motor have life time lubrication, the oil in the gearbox of a new unit should be drained after the first **500** hours of operation and the case thoroughly flushed with a light flushing oil before refilling with fresh oil to the correct specification

LUBRICATION CHART



OPERATING

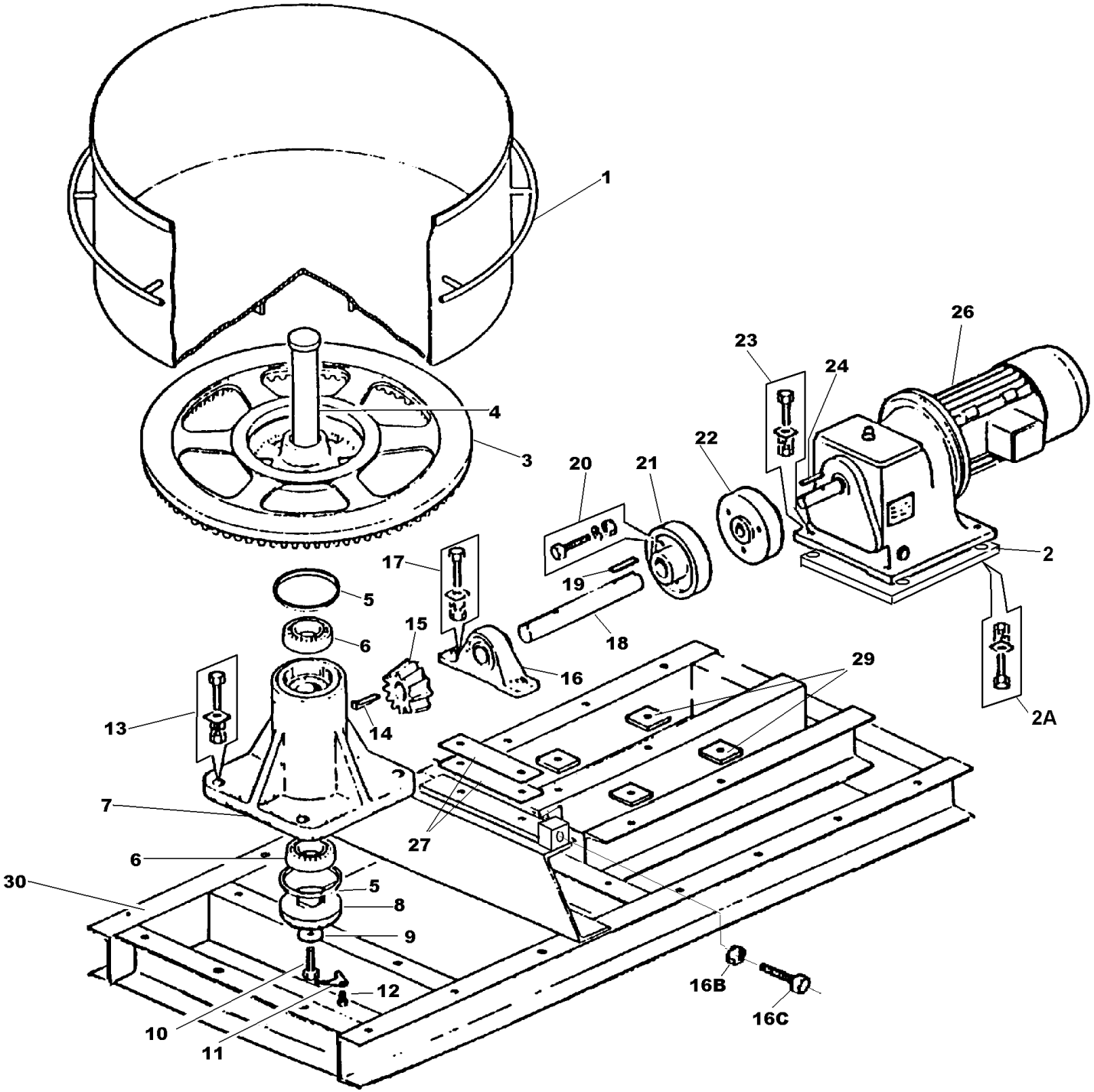
AND

MAINTENANCE MANUAL

SECTION 4

MIXER SPARE PARTS

RP50XD MK2 MIXING PAN & DRIVE



RP50XD MK2 USA/CANADA SPECIFICATION 480V 60Hz

The Star and Pan Drive Motors and Control Panel fitted to USA/Canada Specification mixers are intended for operation with a supply voltage of 480V 3 Ph 60Hz and not 415V 3 Ph 50Hz as listed overleaf. When ordering spares for the motors, gearbox or control panel it is important that this is state

Star Drive Gearmotor Unit Specification USA/Canada

C302N0250D100K4, 68 RPM Output Shaft, Motor Speed 1692 RPM, 2.2Kw, 480V 60Hz

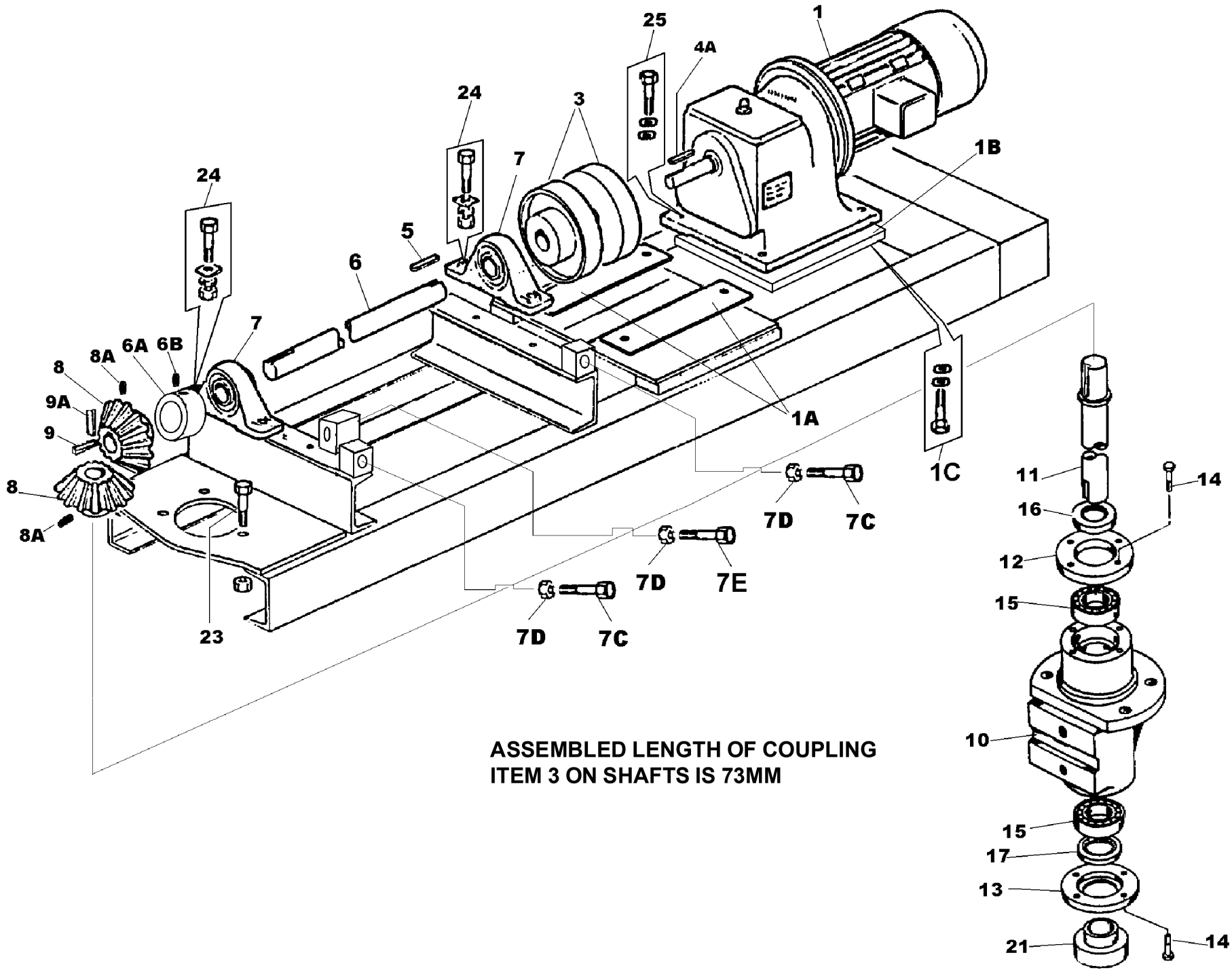
Pan Drive Gearmotor Unit Specification USA/Canada

C202N0155D90S4, 111 RPM Output Shaft, Motor Speed 1692 RPM, 1.1Kw, 480V 60Hz

RP50XD MK2 MIXING PAN & DRIVE

1	CR540382	MIXING PAN 750MM DIA RP50	1
2	CR53100864	PLATE ADAPTOR MOUNTING, WELDED	1
2A	8S05D	BOLT M12 X 40	4
2B	17S06	WASHER SPRING M12	4
2C	267S07	WASHER FLAT M12	4
3	CR210136	PAN RACK	1
4	CR520179	CONICAL SHAFT	1
5	CR560006	FELT SEAL	2
6	CR150153	CONICAL SHAFT BEARING	2
7	CR210137	PAN CONICAL SUPPORT	1
7A	333104020	NIPPLE GREASE 1/4 BSP STRAIGHT	1
7B	176S01	COVER NIPPLE GREASE	1
8	CR210092	CONICAL END CAP	1
9	CR630047	KEY CAP WASHER	1
10	11S06F	KEY CAP BOLT M16 X 40	1
11	CR530477	KEY CAP LOCKING PLATE	1
12	68S05C	LOCKING PLATE CAPSCREW M10 X 20	1
12A	17S05	WASHER SPRING M10	1
13	8S06H	CONICAL BOLT M16 X 60	4
13A	61S06	NUT BINX M16	4
13B	267S09	WASHER FLAT M16	4
14	CR320021	BEVEL PINION KEY, GIB HEAD 1/2 X 3/8 X4	1
14A	CR320023	ALTERNATIVE 1/2 X 7/16 X6 CUT TO SIZE	1
15	CR460022	BEVEL PINION	1
16	CR150925	BEVEL PINION SHAFT BEARING	1
16A	176S01	COVER NIPPLE GREASE	1
16B	7S06	NUT M16	2
16C	11S06P	SCREW SET M16 X 80	2
17	8S05J	BOLT BEARING M12 X 65	2
17A	61S05	NUT BINX M12	2
17B	267S07	WASHER FLAT M12	2
18	CR52100896	BEVEL PINION SHAFT	1
19	CR329015	COUPLING, DRIVEN HALF FEATHER KEY	1
20	8S05H	BOLT, RIGID COUPLING M12 X 50	3
20A	7S05	NUT, RIGID COUPLING M12	3
21	CR23100869	ASSEMBLY RIGID COUPLING	1
21A	57S04E2	SCREW GRUB M6 COUPLING DRIVING HALF	1
21B	57S05D2	SCREW GRUB M8 COUPLING DRIVEN HALF	1
23	8S04F	BOLT GEAR UNIT M10 X 50	4
23A	17S05	WASHER SPRING M10	4
23B	267S06	WASHER FLAT M10	4
24	CR329047	COUPLING, DRIVING HALF FEATHER KEY	1
26	CR22100905	GEAR MOTOR UNIT, PAN DRIVE, 240V 1PH 1.1KW (BH202)	1
26	CR22100868	GEAR MOTOR UNIT, PAN DRIVE, 415V 3PH 1.1KW (BH202)	1
27	CR549006	SHIM PACK BEARING (4 SHIMS PER SET)	1
29	555112100	SHIM PACKER, GEARED MOTOR UNIT	A/R
30	CR26100866	CHASSIS FRAME	1

RP50XD MK2 STAR DRIVE ASSEMBLY



ASSEMBLED LENGTH OF COUPLING
ITEM 3 ON SHAFTS IS 73MM

RP50XD MK2 USA/CANADA SPECIFICATION 480V 60Hz

The Star and Pan Drive Motors and Control Panel fitted to USA/Canada Specification mixers are intended for operation with a supply voltage of 480V 3 Ph 60Hz and not 415V 3 Ph 50Hz as listed overleaf. When ordering spares for the motors, gearbox or control panel it is important that this is state

Star Drive Gearmotor Unit Specification USA/Canada

C302N0250D100K4, 68 RPM Output Shaft, Motor Speed 1692 RPM, 2.2Kw, 480V 60Hz

Pan Drive Gearmotor Unit Specification USA/Canada

C202N0155D90S4, 111 RPM Output Shaft, Motor Speed 1692 RPM, 1.1Kw, 480V 60Hz

RP50XD MK2 STAR DRIVE ASSEMBLY

1	CR22100906	MOTOR GEAR UNIT STAR DRIVE 2.2KW 240V 1PH (BH202)	1
1	CR22100835	MOTOR GEAR UNIT STAR DRIVE 2.2KW 415V 3 PH (BH302)	1
1A	555114900	SHIM GEAR MOTOR UNIT, ALTERNATIVELY USE:-	A/R
		555109202, 555109203 SHIM PACKERS	A/R
1B	CR53100865	PLATE ADAPTOR GEAR MOTOR UNIT (BH302) PLAIN	1
1C	11S05C	SCREW SET M12 X 25	4
1D	17S06	WASHER SPRING M12	4
1E	267S07	WASHER FLAT M12	4
3	CR23100890	COUPLING ASSEMBLY. FLEXIBLE, FENNER HRC TYPE F	1
Consists of Following			
3A	CR23100908	COUPLING HALF FENNER HRC TYPE F	2
3B	CR23100891	INSERT, FLEXIBLE, FENNER HRC180	1
3C	CR66100892	BUSH TAPERLOCK DRIVING/MOTOR HALF 30MM DIA	1
3D	CR66100893	BUSH TAPERLOCK DRIVEN HALF 1 1/2" DIA	1
4A	CR329047	KEY DRIVING HALF COUPLING, SUPPLIED WITH GEARMOTOR	1
5	CR329013	KEY DRIVEN HALF COUPLING	1
6	CR52100871	SHAFT TOP	1
6A	CR630209	SPACER BEVEL PINION	1
6B	57S05D2	SCREW GRUB	2
7	CR159006	BEARING ASSEMBLY TOP SHAFT	2
7A	176S01	COVER GREASE NIPPLE	2
7B	CR549006	SHIM PACK BEARINGS (4 SHIMS PER SET)	A/R
7C	11S06M	SCREW SET M16 X 70	4
7D	7S06	NUT M16	6
7E	11S06K	SCREW SET M16 X 60	2
8	CR460024	GEAR BEVEL	2
8A	57S05D2	GRUB SCREW M8	6
8B	555116600	PLATE GEAR RETAINING	2
8C	11S04D	SCREW SET M10 X 30	2
8D	17S05	WASHER SPRING M10	2
8E	267S06	WASHER FLAT M10	2
9	CR329046	KEY FEATHER BEVEL GEAR HORIZONTAL 1/2X5/16X2"	1
9A	CR329093	KEY FEATHER BEVEL GEAR VERTICAL 1/2X5/16X3/4"	1
10	CR210139	SUPPORT CONICAL STAR	1
10A	333104020	NIPPLE GREASE 1/4 BSP STRAIGHT	2
10B	176S01	COVER NIPPLE GREASE	2
11	CR529011	SHAFT STAR	1
12	CR529012	UPPER LIP SEAL CARRIER	1
13	CR529013	LOWER LIP SEAL CARRIER	1
14	8S02B	BOLTS CARRIER M6 X 30 (UPPER SEAL CARRIER)	4
14	8S02C	BOLTS CARRIER M6 X 35 (LOWER SEAL CARRIER)	4
14A	17S03	WASHER SPRING M6	8
15	CR150149	BEARINGS STAR SHAFT	2
16	CR569008	SEAL LIP UPPER	1
17	CR569007	SEAL LIP LOWER	1
21	CR529014	SPACER COLLAR STAR	1
23	8S06G	BOLTS STAR CONICAL M16 X 55	4
23A	267S09	WASHER FLAT M16	8
23B	17S08	WASHER SPRING M16	4
23C	7S06	NUT PLAIN M16	4
24	8S05M	BOLTS TOP SHAFT BEARINGS M12 X 80	4

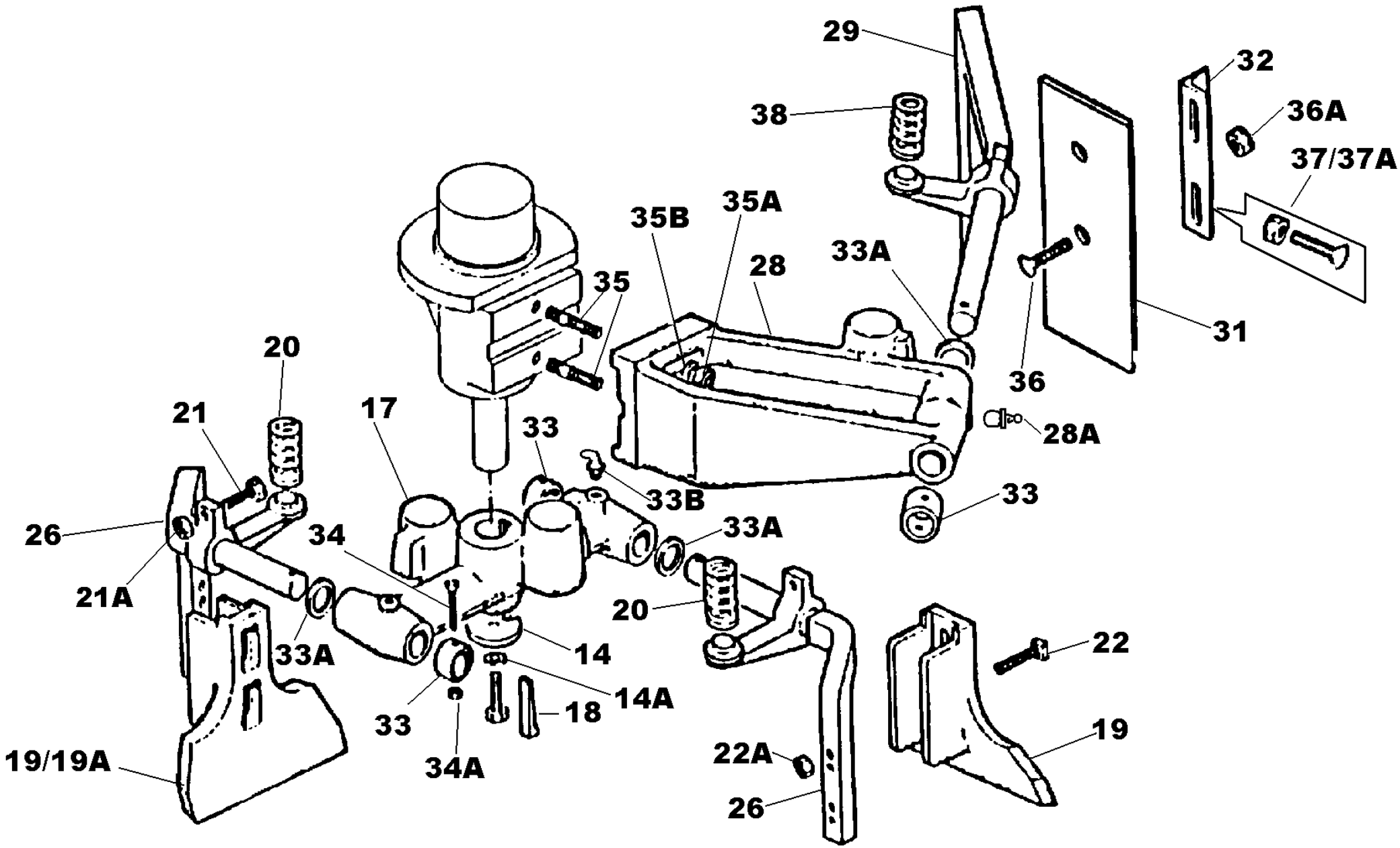
RP50XD MK2 STAR DRIVE ASSEMBLY

24A	267S07	WASHER FLAT M12	4
24B	61S05	NUT BINX M12	4
25	11S04G	SCREW SET GEAR MOTOR UNIT M10 X 45	4
25A	17S05	WASHER SPRING M10	4
25B	267S06	WASHER FLAT M10	4
26	CR26100867	STAR ARM CHASSIS/FRAME	1

RP50XD MK2 STAR DRIVE ASSEMBLY

24A	267S07	WASHER FLAT M12	4
24B	61S05	NUT BINX M12	4
25	11S04G	SCREW SET GEAR MOTOR UNIT M10 X 45	4
25A	17S05	WASHER SPRING M10	4
25B	267S06	WASHER FLAT M10	4
26	CR26100867	STAR ARM CHASSIS/FRAME	1

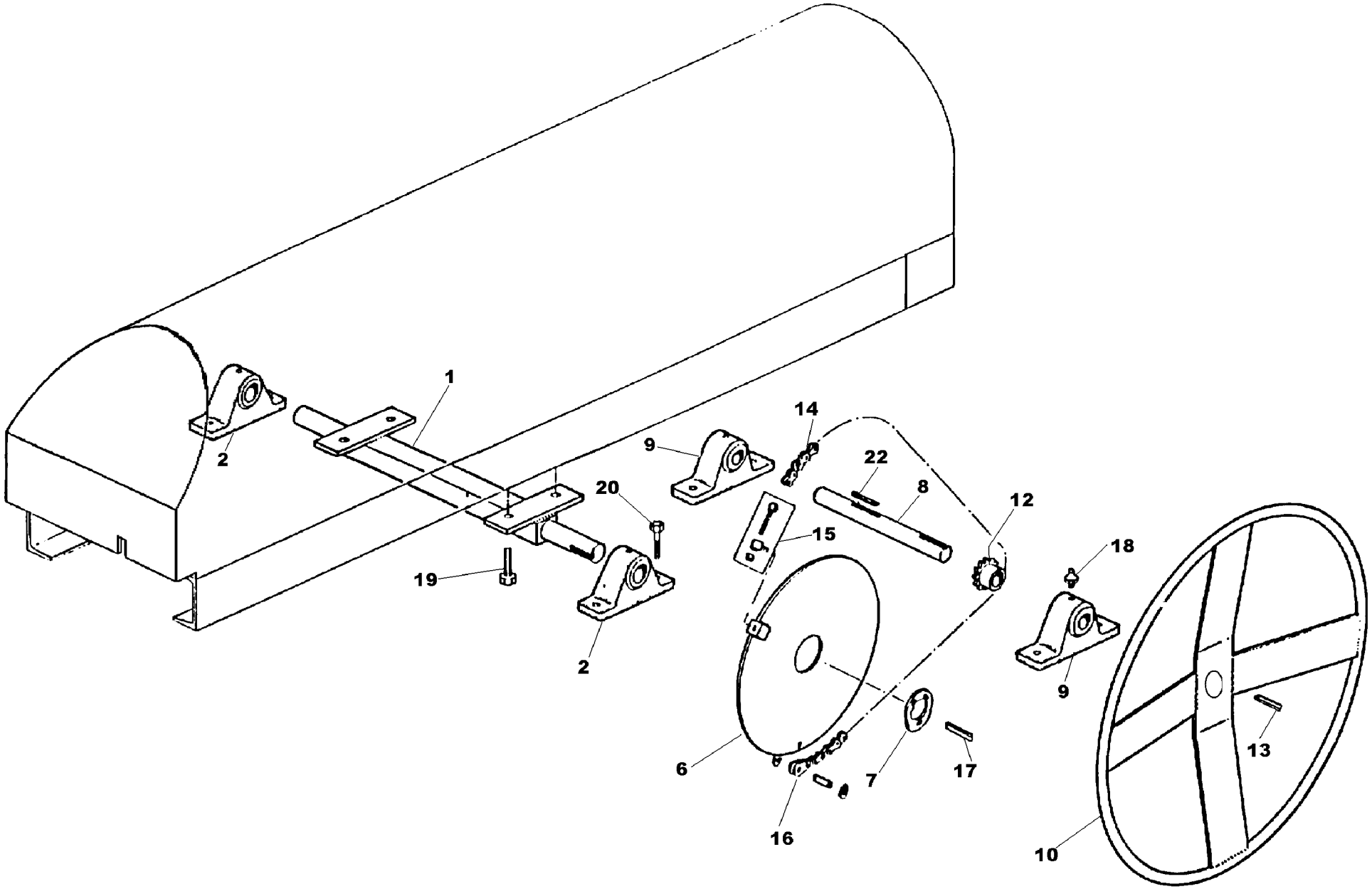
RP50XD MK2 MIXING STAR ASSEMBLY



RP50XD MK2 MIXING STAR ASSEMBLY

14	CR529020	KEY CAP	1
14A	11S05D	SCREW SET M12 X 30	1
14B	17S06	WASHER SPRING M12	1
17	CR210140	STAR MIXING	1
18	CR329053	KEY FEATHER MIXING STAR	1
19	CR757244	BLADE STAR CAST, OBSOLETE USE ITEM 19 BELOW	
19	CR219009C	BLADE STAR CAST, RIBBED	2
19A	CR219009P	BLADE STAR POLYUREATHANE, RIBBED	2
19B	CR219009SS	BLADE STAR STAINLESS STEEL, RIBBED	2
19C	CR219009SP	BLADE STAR POLYUREATHANE, NO RIBS, SMOOTH FINISH	2
19D	CR219009SC	BLADE STAR CAST, NO RIBS, SMOOTH FINISH	2
20	CR330061	SPRING COMPRESSION STAR BLADE	2
21	11S05K	BOLT ADJUSTING BLADE FINGER M12 X 70	3
21A	7S05	NUT M12	4
22	8S05J	BOLT STAR BLADE M12 X 65	4
22A	267S07	WASHER FLAT M12	8
22B	17S06	WASHER SPRING M12	4
22C	7S05	NUT M12	4
26	CR260388	FINGER STAR BLADE	2
28	CR210142	BRACKET FIXED BLADE	1
28A	333104020	NIPPLE GREASE 1/4 BSP STRAIGHT	1
28B	176S01	COVER NIPPLE GREASE	1
29	CR260416	FINGER FIXED BLADE	1
31	CR531745	BLADE FIXED	1
32	CR531750	ANGLE BRACKET	1
33	CR639004	COLLAR SPACER	3
33A	10S31	WASHER FLAT	AR
33B	CR289002	GREASE NIPPLE 1/4 BSP 90' ANGLED	2
34	8S04J	BOLT, COLLAR M10 X 65	3
34A	61S04	NUT BINX M10	3
35	8S06F	BOLT M16 X 50	2
35A	17S08	WASHER, SPRING M16	2
35B	267S09	WASHER FLAT M16	2
36	52S05H	BOLT SHORT, FIXED BLADE M12 X 40	2
36A	267S07	WASHER FLAT M12	4
36B	17S06	WASHER SPRING M12	4
36C	7S05	NUT M12	4
37	52S04K	BOLT LONG, FIXED BLADE ANGLE BRACKET M10 X 50	2
37A	17S05	WASHER, SPRING M10	2
37B	7S04	NUT M10	2
38	CR330022	SPRING FIXED BLADE	1

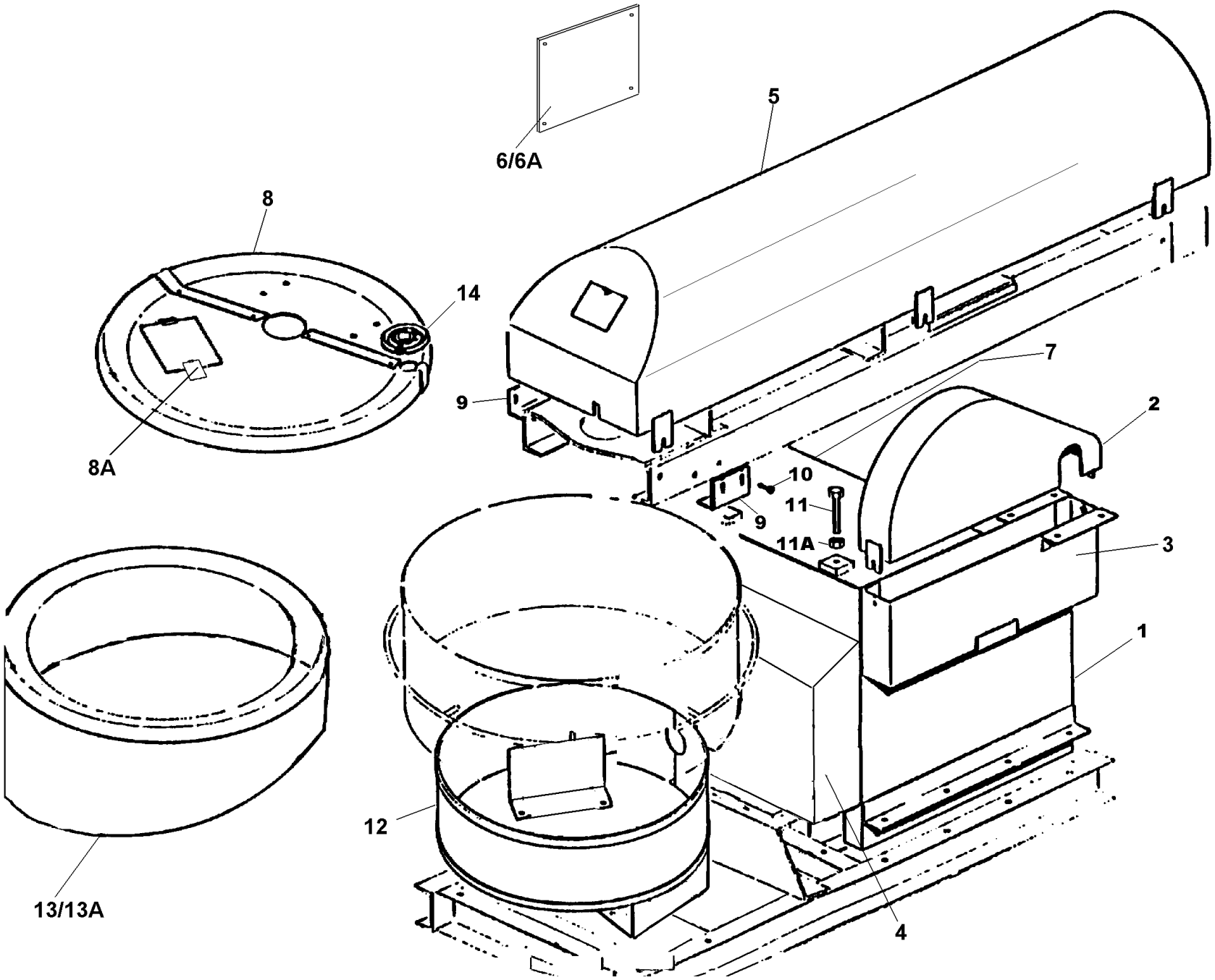
RP50XD MK2 MIXING STAR LIFTING ARRANGEMENT



RP50XD MK2 MIXING STAR LIFTING ARRANGEMENT

1	CR52100823	PIVOT SHAFT	1
2	CR15100819	PIVOT SHAFT BEARING 40MM BORE	2
2A	176S01	COVER NIPPLE GREASE	2
6	CR26100816	PLATE, WHEEL, TAPERLOCK FITTING	1
6A	CR66100895	BUSH TAPERLOCK PLATE WHEEL	1
7	CR54100821	CAM, PROXIMITY SWITCH (SEE CAM & PROXIMITY SWITCH)	1
8	CR52100824	SHAFT, HANDWHEEL	1
9	CR15100818	BEARING, HANDWHEEL SHAFT	2
10	CR36100815	HANDWHEEL, TAPERLOCK FITTING	1
10A	CR66100832	BUSH TAPERLOCK HANDWHEEL	1
12	CR34100817	SPROCKET, CHAIN TAPERLOCK FITTING	1
12A	CR66100916	BUSH TAPERLOCK SPROCKET	1
13	304710825	KEY, HANDWHEEL BUSH, MAKE FROM 304708035	1
14	CR20100874	CHAIN, TILTING	1
14A	134104002	LINK SPLIT CHAIN	1
15	CR200134	BOLT & BLOCK, DRAW CHAIN	1
16	CR200072	LINK ATTACHMENT, CHAIN END	1
17	304712863	KEY, PLATE WHEEL BUSH, M12 X 8 X 63	1
18A	176S01	COVER NIPPLE GREASE	2
19	8S06H	BOLTS, PIVOT SHAFT M16 X 60	4
19A	267S09	WASHER FLAT M16	8
19C	61S06	NUT BINX M16	4
20	8S05F	BOLT, BEARINGS M12 X 50	8
20A	267S07	WASHER FLAT M12	16
20B	61S05	NUT BINX M12	8
21	CR22100886	SWITCH PROXIMITY, NOT ILLUSTRATED	1
21A	CR53100887	ANGLE BRACKET SWITCH MOUNTING, NOT ILLUSTRATED	1
21B	11S02A	SCREW SET M6 X 16, NOT ILLUSTRATED	2
21C	267S04	WASHER FLAT M6	2
21D	17S03	WASHER SPRING M6	2
22	304708035	KEY PARALLEL, SPROCKET BUSH	1

RP50XD MK2 COVERS & GUARDS



RP50XD MK2 COVERS & GUARDS

1	CR53100833	HOUSING ASSEMBLY PAN DRIVE MOTOR	1
1A	11S05D	SCREW SET M12 X 30	8
1B	267S07	WASHER FLAT M12	8
1D	61S05	NUT BINX M12	8
2	CR54100820	GUARD, CHAIN UPPER	1
2A	7S04	NUT M10	2
2B	17S05	WASHER SPRING M10	2
2C	267S06	WASHER FLAT M10	2
3	CR53100814	COVER CHAIN LOWER	1
3A	11S05D	SCREW SET M12 X 30	8
3B	267S07	WASHER FLAT M12	16
3C	61S05	NUT BINX M12	8
4	CR54100862	GUARD PAN DRIVE SHAFT	1
4A	11S03B	SCREW SET M8 X 20	6
4B	267S05	WASHER FLAT M8	6
4C	17S04	WASHER SPRING M8	6
5	CR54100822	GUARD STAR DRIVE	1
5A	V2003215	DOOR PULL, NOT ILLUSTRATED	2
5B	11S02A	SCREW SET M6 X 20	4
5C	267S04	WASHER FLAT M6	4
5D	17S03	WASHER SPRING M6	4
5E	7S02	NUT M6	4
5F	11S05D	SCREW SET M12 X 30	6
5G	17S05	WASHER SPRING M12	6
5H	267S07	WASHER FLAT M12	6
6	CR53100897	COVER INSPECTION, HOUSING SIDE, R/H LARGE, NOT ILLUS	1
6A	11S03B	SCREW SET M8 X 20	4
6B	17S04	WASHER SPRING M8	4
6C	267S05	WASHER FLAT M8	4
6D	CR53100909	COVER INSPECTION, HOUSING SIDE, L/H SMALL, NOT ILLUS	1
6E	11S03B	SCREW SET M8 X 20	4
6F	17S04	WASHER SPRING M8	4
6G	267S05	WASHER FLAT M8	4
7	CR53100875	COVER FRONT LOUVERED, HOUSING, NOT ILLUSTRATED	1
7A	11S03B	SCREW SET M8 X 20	4
7B	17S04	WASHER SPRING M8	4
7C	267S05	WASHER FLAT M8	4
8	CR54100910	COVER DUST ASSEMBLY	1
8A	CR249505	CATCH INSPECTION HATCH	1
8B	11S03C	SCREW SET M8 X 25	5
8C	17S04	WASHER SPRING M8	5
8D	267S05	WASHER FLAT M8	5
9	CR540442	CLEAT, DUST COVER TO FRAME	2
9A	11S04C	SCREW SET M10 X 25 CLEAT TO DUST COVER	4
9B	267S06	WASHER FLAT M10	8
9C	17S05	WASHER SPRING M10	4
9D	7S04	NUT PLAIN M10	4
10	11S05D	SCREW SET M12 X 30 CLEAT TO FRAME	4
10A	267S07	WASHER FLAT M12	8
10B	17S06	WASHER SPRING M12	4
10C	7S05	NUT PLAIN M12	4
11	11S07T	SCREW SET STAR FRAME STOP M20 X 100	2

RP50XD MK2 COVERS & GUARDS

11A	7S07	NUT PLAIN M20	2
12	CR54100839	GUARD PAN DRIVE GEAR/PAN RIM	1
12A	11S04D	SCREW SET M10 X 30	4
12B	267S06	WASHER FLAT M10	8
12C	17S05	WASHER SPRING M10	4
12D	7S04	NUT M10	4
13	CR54100911	GUARD, PAN COVER SIDE, RH	1
13A	CR54100912	GUARD, PAN COVER SIDE, LH	1
13B	CR54100913	GUARD PAN COVER REAR, NOT ILLUSTRATED	1
13C	11S03B	SCREW SET M8 X 20	21
13D	17S04	WASHER SPRING M8	21
13E	267S05	WASHER FLAT M8	21
13F	7S03	NUT M8	9
14	CR570019	SEAL RUBBER	1
15	CR53100926	STOP ANGLE, STAR ARM CHASSIS, NOT ILLUSTRATED	1
15A	8S03C	BOLT	2
15B	267S05	WASHER FLAT	4
15C	61S03	NUT BINX SELF LOCKING M8	2
16	V2003199	TRIM EDGING, NOT ILLUSTRATED	A/R

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RP50XD MK2 PROXIMITY SWITCHES & CAM

PARTS NOT ILUSTRATED

1	CR22100878	SWITCH PROXIMITY, PAN	2
2	CR22100886	SWITCH PROXIMITY, STAR LIFTING	1
3	CR53100887	ANGLE BRACKET, SWITCH MOUNTING STAR LIFTING	1
4	11S02C	SCREW SET M6 X 25	2
5	17S03	WASHER SPRING M6	2
6	267S04	WASHER FLAT M6	2
7	7S02	NUT M6	2
8	CR54100821	CAM, SWITCH OPERATING, STAR LIFTING	1
9	11S02C	SCREW SET M6 X 25	2
10	17S03	WASHER SPRING M6	2
11	267S04	WASHER FLAT M6	2
12	CR54100863	BRACKET, PROXIMITY SWITCH PAN	2
13	11S03C	SCREW SET M8 X 25	4
14	267S05	WASHER FLAT M8	4
15	17S04	WASHER SPRING M8	2
16	7S03	NUT M8	2
17	7000410	COVER SPIRAL GUARD	6MT
18	143200300	CLIP 'P'	2
19	11S02B	SCREW SET M6 X 20	2
20	267S04	WASHER FLAT M6	2
21	17S03	WASHER SPRING M6	2
22	7S02	NUT M6	2
23	V2003252	GROMMET OPEN	2

RP50XD MK2 USA/CANADA SPECIFICATION 480V 60Hz

The Star and Pan Drive Motors and Control Panel fitted to USA/Canada Specification mixers are intended for operation with a supply voltage of 480V 3 Ph 60Hz and not 415V 3 Ph 50Hz as listed overleaf. When ordering spares for the motors, gearbox or control panel it is important that this is state

Star Drive Gearmotor Unit Specification USA/Canada

C302N0250D100K4, 68 RPM Output Shaft, Motor Speed 1692 RPM, 2.2Kw, 480V 60Hz

Pan Drive Gearmotor Unit Specification USA/Canada

C202N0155D90S4, 111 RPM Output Shaft, Motor Speed 1692 RPM, 1.1Kw, 480V 60Hz

RP50XD MK2 ELECTRICAL SWITCH GEAR

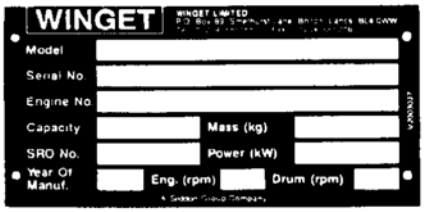
PARTS NOT ILLUSTRATED

1	CR22100907	CONTROL PANEL ASSEM, HIGH LEVEL MOUNTING 240V 1PH	1
1	CR22100901	CONTROL PANEL ASSEM, HIGH LEVEL MOUNTING 415V 3PH	1
1A	CR53100873	BRACKET SUPPORT CONTROL PANEL MOUNTING	1
1B	11S03C	SCREW SET M8 X 30	4
1C	267S05	WASHER FLAT M8	8
1D	17S04	WASHER SPRING M8	4
1E	61S03	NUT BINX M8	4
1F	11S02C	SCREW SET M6 X 25	8
1G	267S04	WASHER FLAT M6	16
1H	17S03	WASHER SPRING M6	8
IJ	7S02	NUT M6	8
2	CR229109	SP20 CONDUIT	6MT
3	CR229110	SP20/M20/TYPE B FITTINGS	7
4	191902200	TERMINAL RING 'CRIMP ON TYPE' BLUE	8
5	144700200	CABLE 1.5MM SQ G/Y (6491X H07)	8MT
6	7000410	COVER FLEXIBLE SPIRALGUARD	A/R
7	CR229112	COUPLER 20MM FEMALE GALVANISED	1
8	CR229103	CABLE 2.5MM SQ RED (6491X H07)	8MT
9	CR229104	CABLE 2.5MM SQ YELLOW (6491X H07)	8MT
10	CR229105	CABLE 2.5MM SQ BLUE (6491X H07)	8MT
11	CR229097	TERMINAL RING 'CRIMP ON TYPE'	2
12	CR229114	LOCK RINGS 20MM	2
13	CR22100879	CONVERTER PG16-M20	A/R
14			
15	143200300	CLIP 'P'	10
16	11S02C	SCREW SET M6 X 25	10
17	267S04	WASHER FLAT M6	10
18	17S03	WASHER SPRING M6	10
19	7S02	NUT M6	10
20	CR22100886	SWITCH PROXIMTY, MIXING STAR LIFTING PROTECTION	1
21	CR22100878	SWITCH PROXIMTY, PAN DRIVE PROTECTION	2

RP50XD MK2 DECALS AND LOGOS

1 **CROKER CUMFLOW RP50XD**

2



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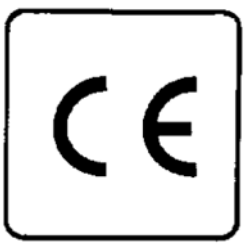

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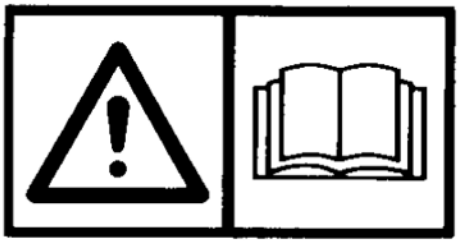

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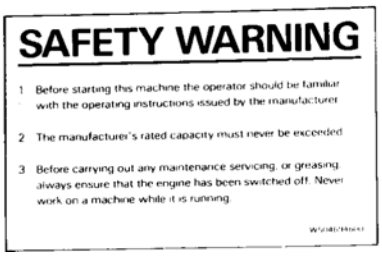

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RP50XD MK2 DECALS AND LOGOS

1	CR85100762	DECAL RP50XD	2
2	V2003037	PLATE SERIAL NUMBER	1
3	101S05D	RIVET POP	4
4	V2003039	DECAL 'WINGET' MEDIUM	2
5	V2003665	DECAL SLING POINT	4
6	V2003598	DECAL BRITISH MADE	2
7	V2004307	DECAL ELECTRICAL HAZARD	2
8	V2004223	DECAL 'CE' MARK (EU & NI ONLY)	1
9	V2004229	DECAL OPERATORS HANDBOOK	2
10	V2004744	DECAL EYE PROTECTION	2
11	504694600	DECAL SAFETY	1
12	V2004130	DECAL NOISE 80 LPA	1
13	V2003575	DECAL NOISE 105 LWA	1
14	V2006402	DECAL UKCA (GB ONLY)	1
15	V2006403	DECAL UKNI (NI USE ONLY)	1

OPERATING

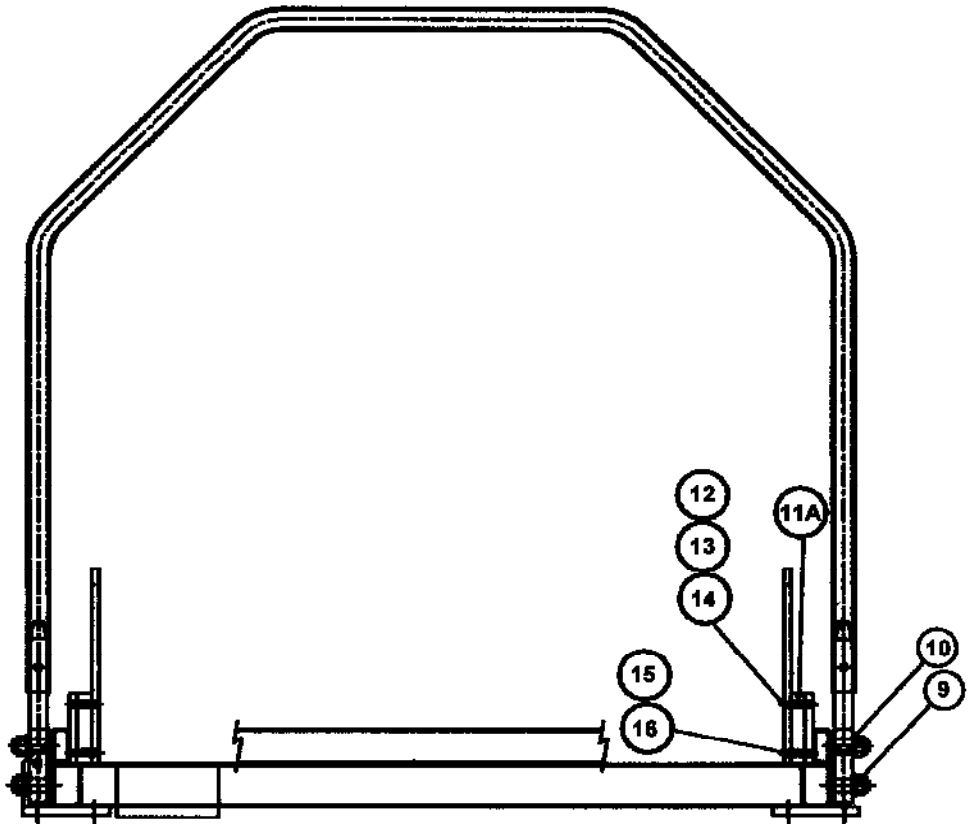
AND

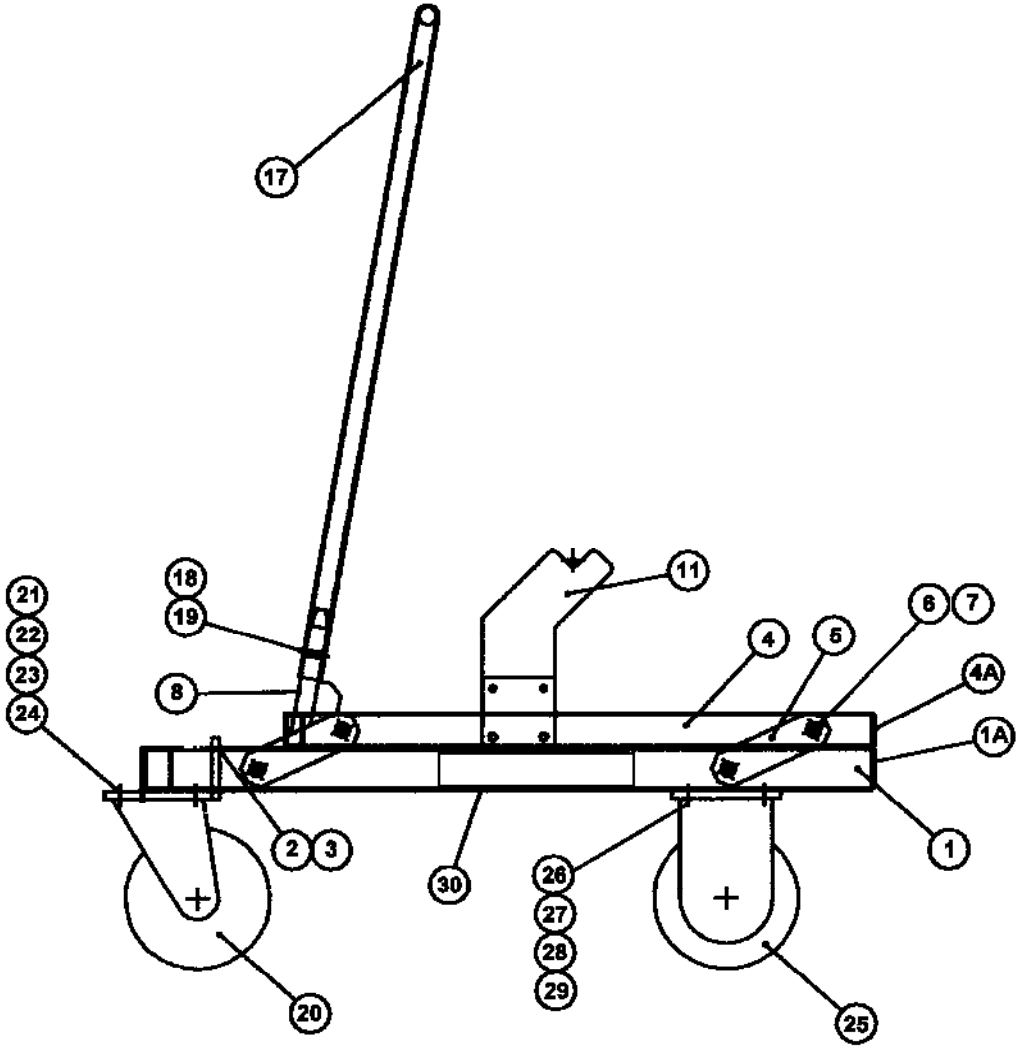
MAINTENANCE MANUAL

SECTION 5

ANCILLARY EQUIPMENT
SPARE PARTS

RP50XD MK2 FOUR WHEEL PAN TROLLEY





RP50XD MK2 FOUR WHEEL PAN TROLLEY

FROM MARCH 2001 ONWARDS

1	CR26100858	FRAME LOWER	1
1A	CR47100860	INSERT BLANKING 60 X 40	2
2	11S04G	STOP SCREWS M10 X 45	2
3	7S04	NUT M10	4
4	CR26100857	FRAME UPPER	1
4A	CR47100861	INSERT BLANKING 50 X 25	2
5	CR53100849	PIVOT BAR FRONT	2
6	59S11	NUT NYLOC M16	4
7	267S09	WASHER FLAT M16	4
8	CR26100850	PIVOT BAR REAR C/W HANDLE CARRIERS	2
9	59S11	NUT NYLOC M16	4
10	267S09	WASHER FLAT M16	4
11	CR53100852	PLATE PICKUP, PAN SUPPORT	2
11A	CR53100921	BRACKET SPACER	2
12	11S03B	SCREW SET M8 x 20	4
12A	11S03D	SCREW SET M8 x 30	4
12C	61S03	NUT BINX M8	4
13	17S04	WASHER SPRING M8	4
14	267S05	WASHER FLAT M8	12
15	11S03B	SCREW SET M8 x 20	4
15A	11S03D	SCREW SET M8 x 30	4
16	267S05	WASHER FLAT M8	12
16A	17S04	WASHER SPRING M8	4
16B	61S03	NUT BINX M8	4
17	CR53100846	HANDLE TROLLEY	1
18	8S03E	BOLT HANDLE RETAINING M8 x 45	2
19	61S03	NUT BINX M8	2
20	CR449001	CASTOR SWIVEL REAR ASSEMBLY	2
INDIVIDUAL WHEEL ITEMS AVAILABLE AS FOLLOWS			
20A	CR449002	WHEEL ASSEMBLY C/W BEARING	1
20B	CR449005	WHEEL CENTRE BUSH/SPACER	1
20C	11S05P	BOLT M12 x 80	1
20D	61S05	NUT BINX M12	1
21	11S04D	BOLT CASTOR RETAINING M10 x 30	8
22	267S06	WASHER FLAT M10	8
23	17S05	WASHER SPRING M10	8
24	7S04	NUT M10	8
25	CR449000	CASTOR FIXED FRONT ASSEMBLY	2
INDIVIDUAL WHEEL ITEMS AVAILABLE AS FOLLOWS			
25A	CR449002	WHEEL ASSEMBLY C/W BEARING	1
25B	CR449005	WHEEL CENTRE BUSH/SPACER	1
25C	11S05P	BOLT M12 x 80	1
25D	61S05	NUT BINX M12	1
26	11S04D	BOLT CASTOR RETAINING M10 x 30	8
27	267S06	WASHER FLAT M10	8
28	17S05	WASHER SPRING M10	8
29	7S04	NUT M10	8
30	V2004636	DECAL WINGET SMALL	2

RP50XD MK2 ADDITIONAL PARTS REQUIREMENT MoD

ADDITIONAL PARTS LISTED BELOW ARE NOT ILLUSTRATED

1	V2005120	PLATE - NOMENCLATURE/INSCRIPTION	1
2	101S05D	RIVET POP	4
3	V2005132	TOOL KIT	1
4	CR54100774	TOOL BOX	1
5	11S04B	SCREW SET M10	2
6	17S05	WASHER SPRING M10	2
7	7S04	NUT M10	2

OPERATING

AND

MAINTENANCE MANUAL

SECTION 6

ELECTRICAL SYSTEM

RP50XD MK2 USA/CANADA SPECIFICATION 480V 60Hz

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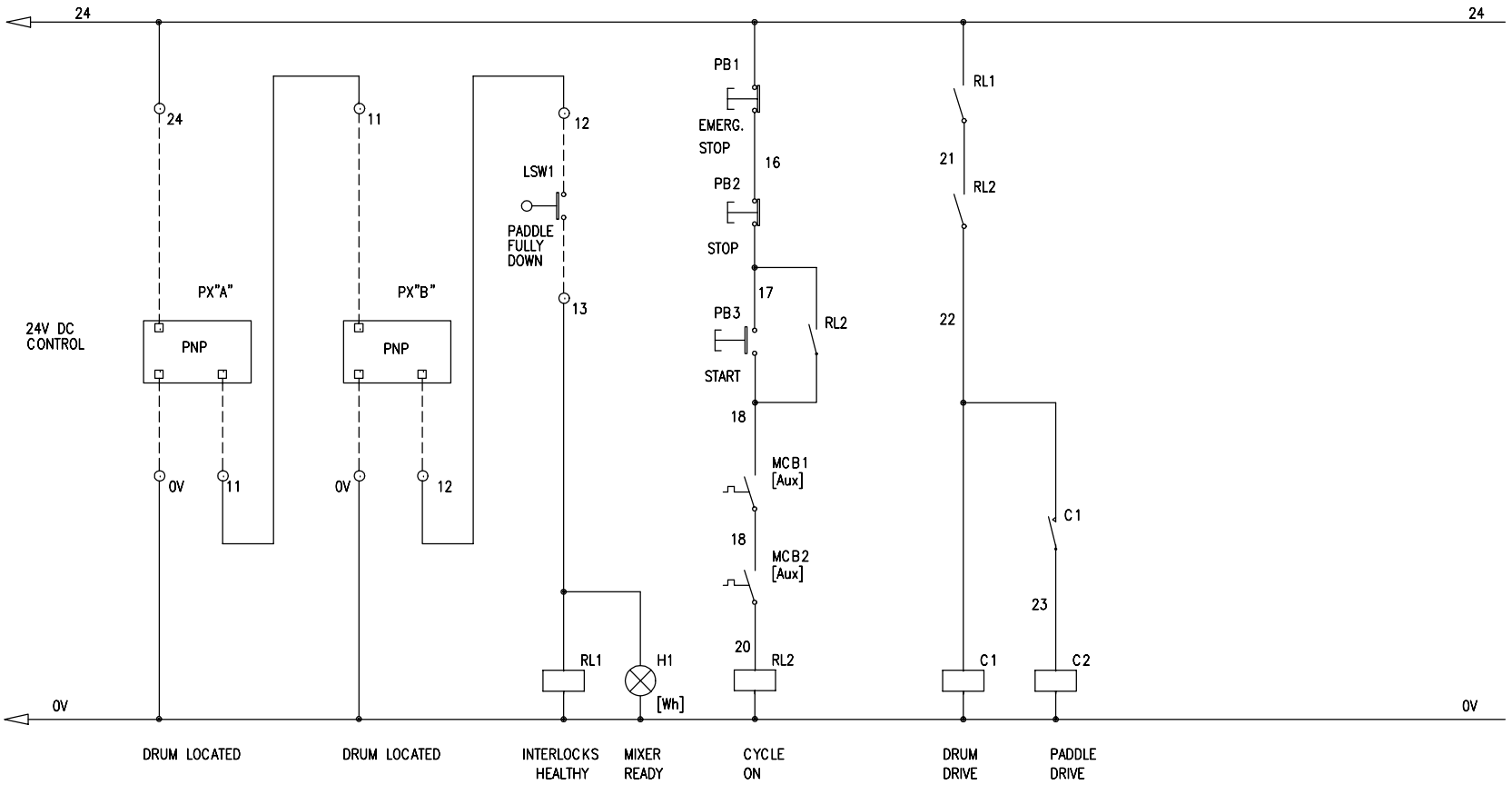
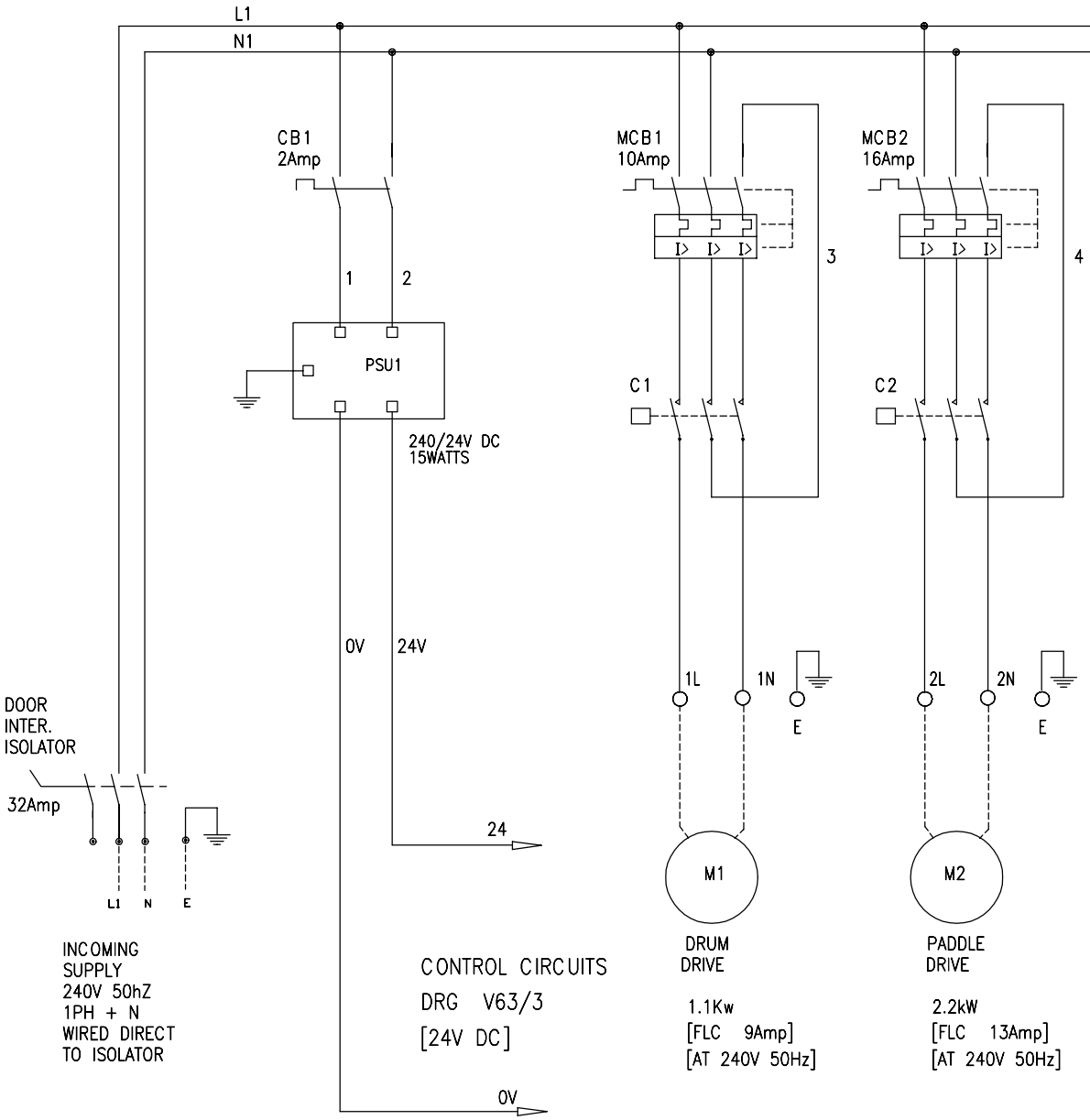
Pan Drive Gearmotor Unit Specification USA/Canada

C202N0155D90S4, 111 RPM Output Shaft, Motor Speed 1692 RPM, 1.1Kw, 480V 60Hz

Electrical Control Circuits.dwg 11/03/02 10:55:09 Scaled to fit



ISSUE	ISSUE B CONTROL MODE CHANGED CIRCUIT REDESIGNED 29/06/01	TITLE ELECTRICAL CONTROL CIRCUITS PADDLE / DRUM MIXER STARTER PANEL WINGET Ltd HORWICH ELECTRONIC LABORATORIES Ltd. LONGWORTH RD. HORWICH, BOLTON LANCS. BL6 7BN TEL. 01204 693311 FAX 01204 690023	DRAWN T.E.STONES DATE 17/05/01 CHECKED APPROVED	DRAWING No. T020/3 ISSUE B



WIRING COLOUR CODED –:

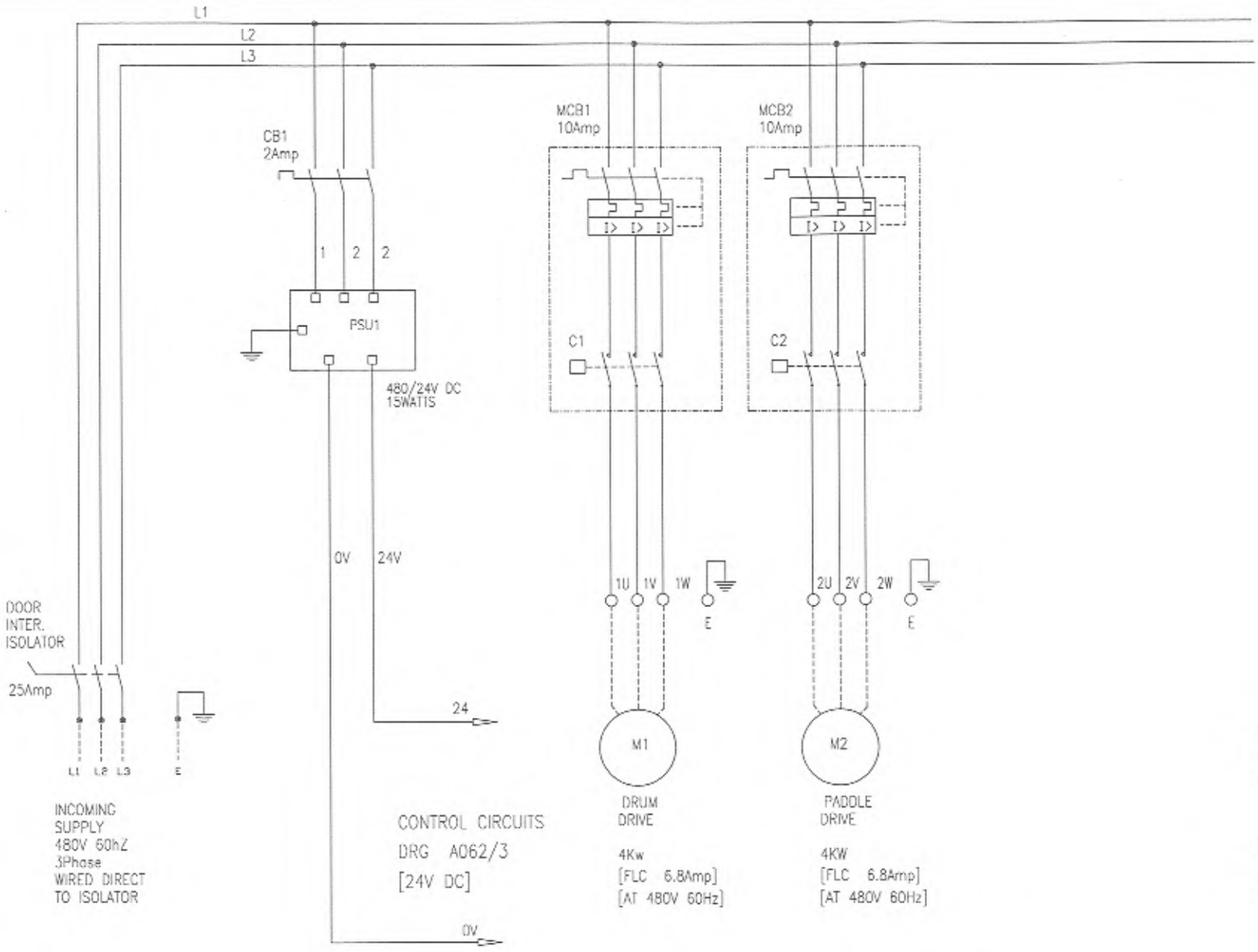
240V L	RED
NEUTRAL	BLACK
24V DC	WHITE

CONDUCTOR SIZES –:

20V AC CIRCUITS – 2.5mm2
24V DC CIRCUITS – 1mm2

ISSUE	ISSUE	TITLE		
		ELECTRICAL POWER CIRCUITS PADDLE / DRUM MIXER STARTER PANEL WINGET Ltd	DRAWN T.E.STONES DATE 29/10/02 CHECKED APPROVED	DRAWING No. V63/2 ISSUE A

HORWICH ELECTRONIC LABORATORIES Ltd. LONGWORTH RD. HORWICH, BOLTON
LANCS. BL6 7BN TEL. 01204 693311 FAX 01204 690023



WIRING COLOUR CODED –:

480V 3PH.	BLACK/ BLACK /BLACK
24V DC	BLUE

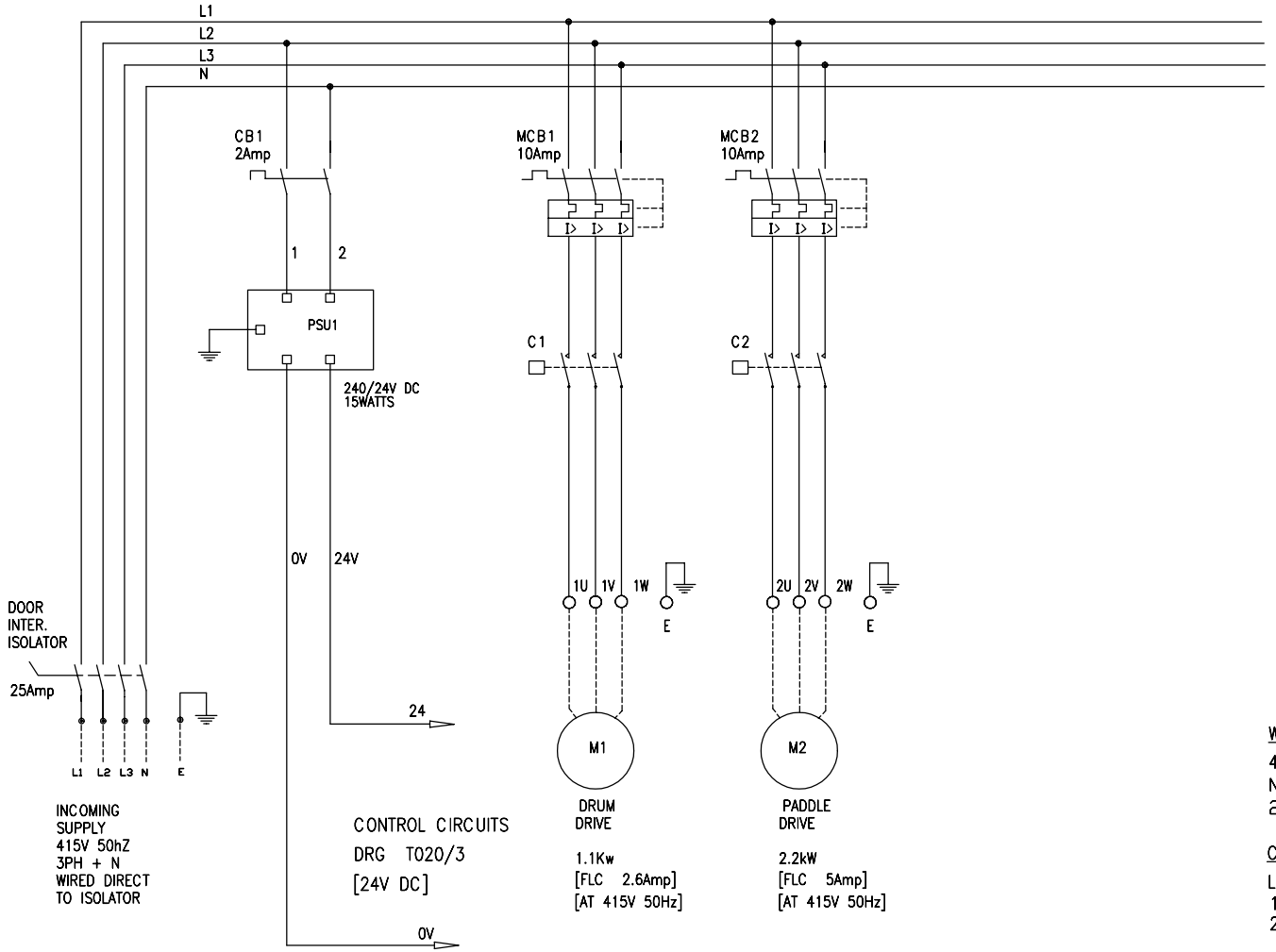
CONDUCTOR SIZES –:

480V 3 PHASE	– 2.5mm2
24V DC	– 1mm2

ISSUE	ISSUE	TITLE	DRAWN	T.E.STONES	DRAWING No.
		POWER CIRCUITS -ELECTRICAL STARTER PANEL PADDLE / DRUM MIXER RP100XD Mk2 (480V 60Hz) WINGET Ltd	DATE	05/01/07	A062/2
			CHECKED		
			APPROVED		ISSUE A

HORWICH ELECTRONIC LABORATORIES Ltd. BANKFIELD STREET BOLTON
LANCS. BL3 5NP TEL. 01204 650555 FAX 01204 61797

Electrical Power Circuits.dwg 11/03/02 10:58:17 Scaled to fit



WIRING COLOUR CODED –:

415V 3PH.	RED/YELLOW/BLUE
NEUTRAL	BLACK
24V DC	WHITE

CONDUCTOR SIZES –:

L1,L2,L3+N	– 2.5mm2
1U1,1U2,1U3 etc	– 1.5mm2
24V DC	– 1mm2

ISSUE	ISSUE	TITLE	DRAWN	DRAWING No.
		ELECTRICAL POWER CIRCUITS PADDLE / DRUM MIXER STARTER PANEL WINGET Ltd	T.E.STONES	
			DATE 17/05/01	T020/2
			CHECKED	
			APPROVED	ISSUE A

HORWICH ELECTRONIC LABORATORIES Ltd. LONGWORTH RD. HORWICH, BOLTON
LANCS. BL6 7BN TEL. 01204 693311 FAX 01204 690023

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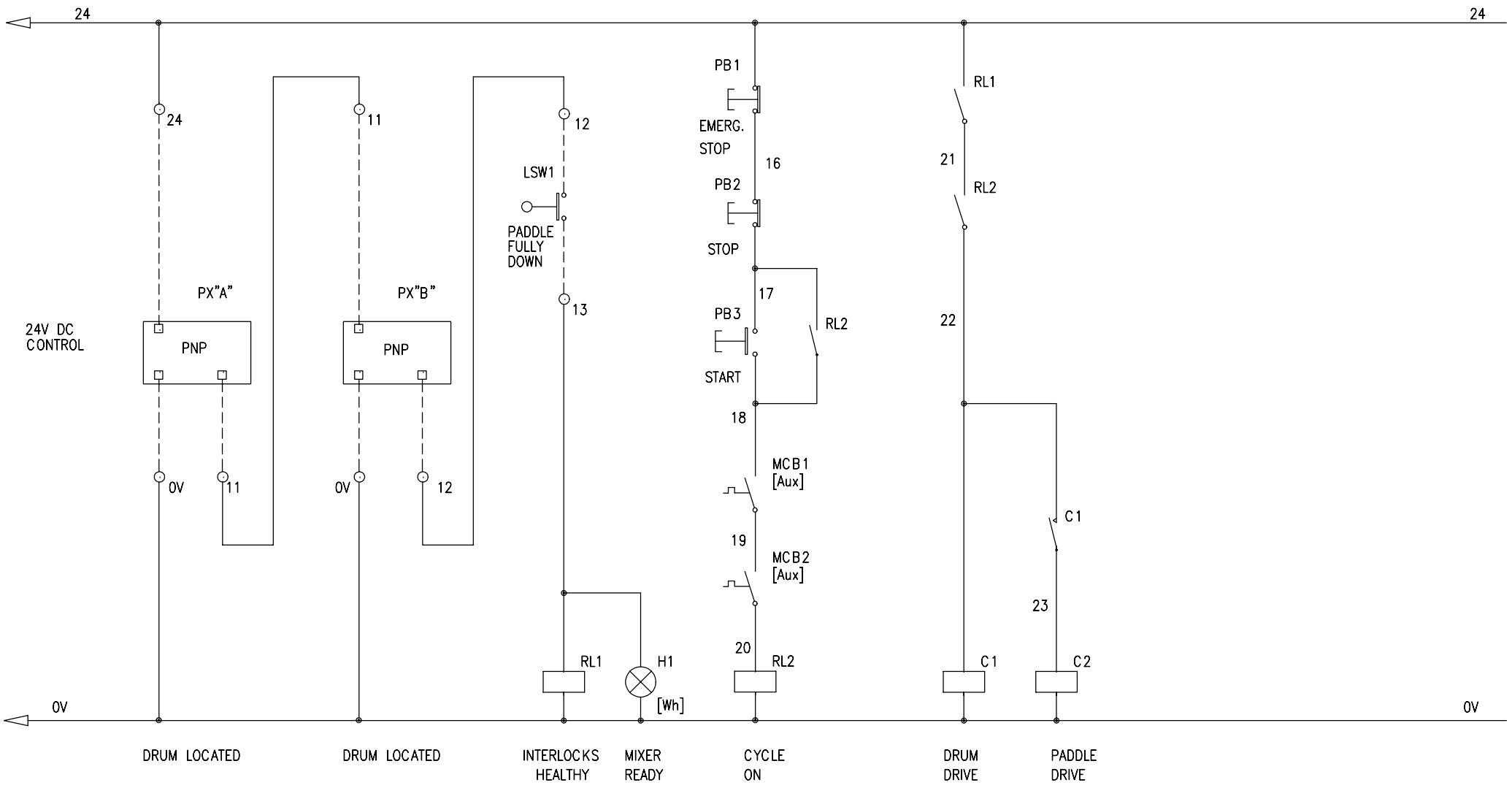
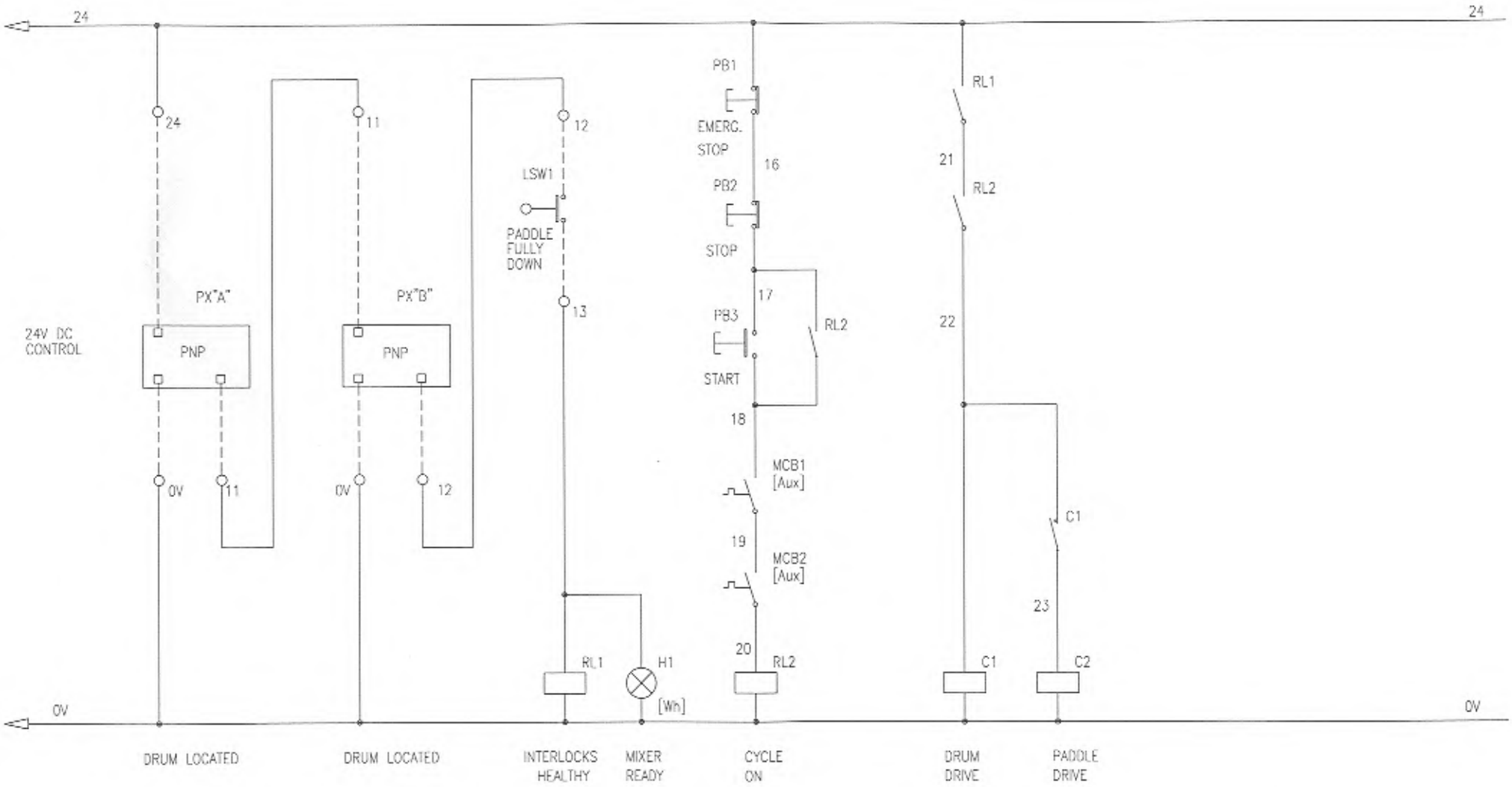


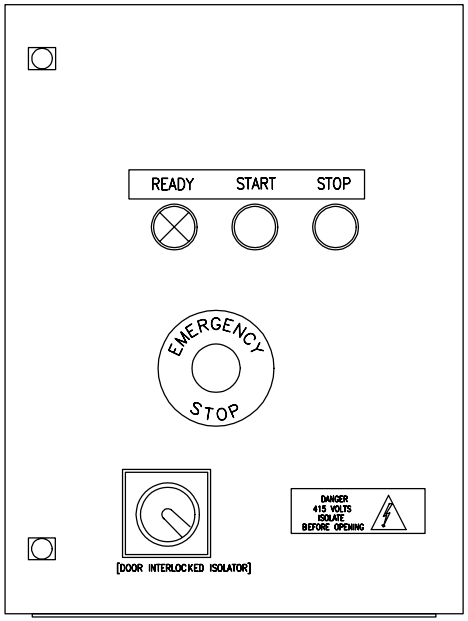
ISSUE	ISSUE	TITLE		
		ELECTRICAL CONTROL CIRCUITS PADDLE / DRUM MIXER STARTER PANEL WINGET Ltd	DRAWN T.E.STONES DATE 29/10/02 CHECKED APPROVED	DRAWING No. V63/3 ISSUE A

HORWICH ELECTRONIC LABORATORIES Ltd. LONGWORTH RD. HORWICH, BOLTON
LANCS. BL6 7BN TEL. 01204 693311 FAX 01204 690023

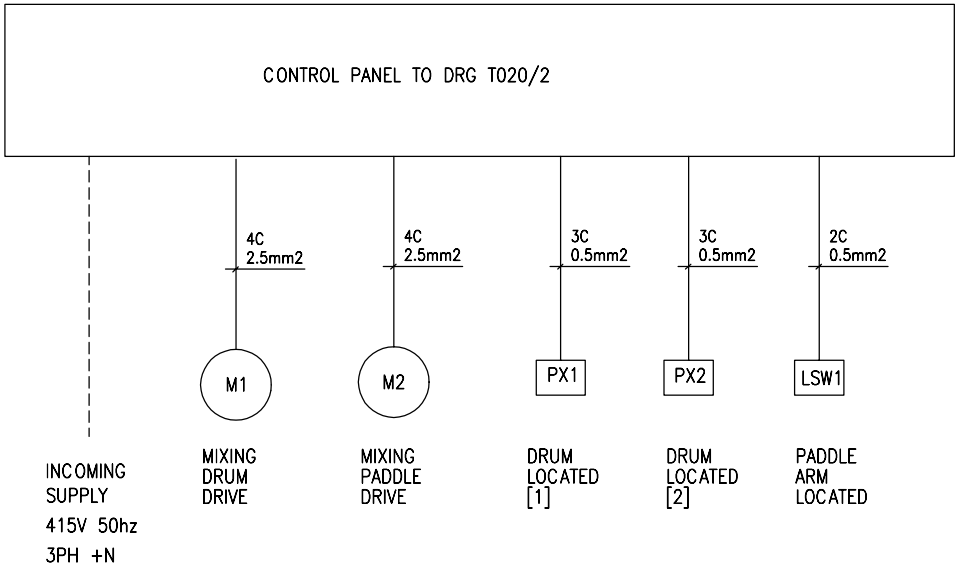


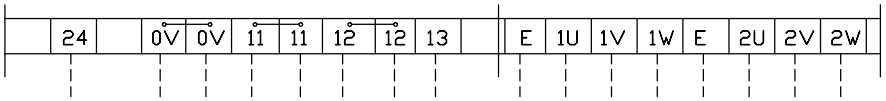
ISSUE	ISSUE	TITLE	DRAWN T.E.STONES	DRAWING No.
		CONTROL CIRCUITS -ELECTRICAL STARTER PANEL PADDLE / DRUM MIXER RP100XD Mk2 480V 60Hz WINGET Ltd	DATE 05/01/07	A062/3
			CHECKED	
			APPROVED	ISSUE A

HORWICH ELECTRONIC LABORATORIES Ltd. BANKFIELD STREET BOLTON
LANCS. BL3 5NP TEL. 01204 650555 FAX 01204 61797



BOTTOM CABLE ENTRY GLAND PLATE





MIXING DRUM DRIVE

MIXING PADDLE DRIVE

ENCLOSURE NOML SIZE 400H X 300W X 150 D
MILD STEEL CONSTRUCTION IP65
FINISH PAINTED RAL 7032

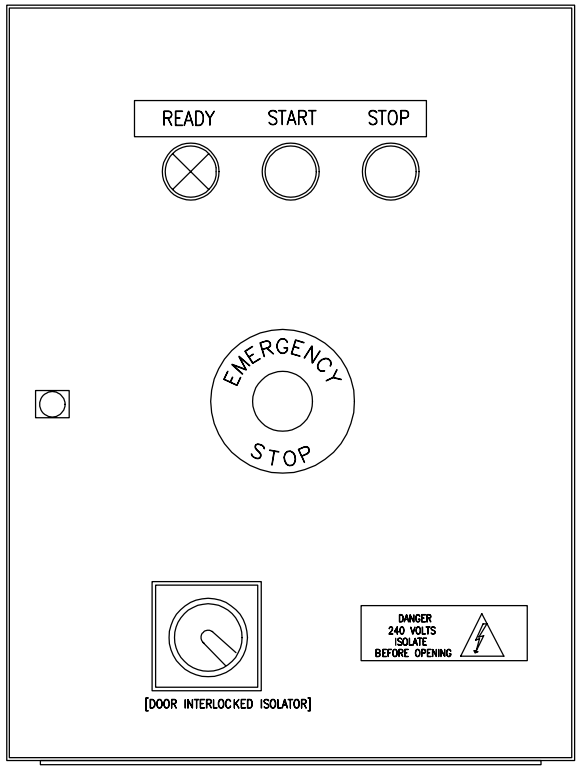
COMPONENT LABELS W/B/W TRAFFOLYTE
WARNING LABELS Y/B/Y TRAFFOLYTE

PXA – DRUM LOCATED (1)	24 / 0V /11	[BRN/BLUE/Gn.Yw]
PXB – DRUM LOCATED (2)	11 / 0V /12	[Brown/Blue/Gn.Yw]
LSW1–MIXING ARM LOCATED	12 / 13	[Brown/Blue]

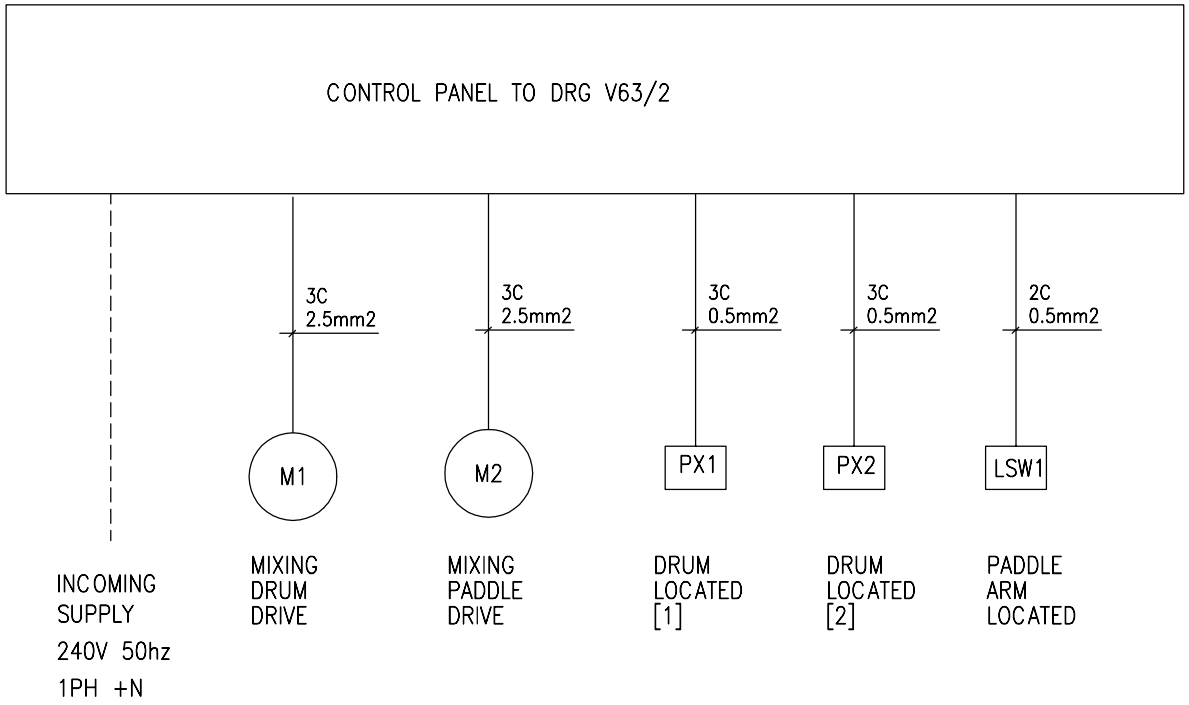
CONTROL CIRCUITS TO DRG T020/2-3

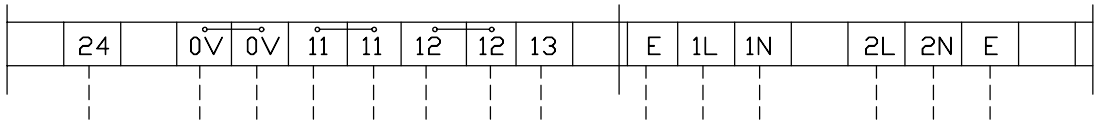
ISSUE c DRG UPDATED "AS BUILT" JULY 01	ISSUE B CONTROL MODE CHANGED CIRCUIT REDESIGNED 29/06/01	TITLE GENERAL DETAILS ELECTRICAL CONTROL PANEL PADDLE / DRUM MIXER WINGET Ltd HORWICH ELECTRONIC LABORATORIES Ltd. LONGWORTH RD. HORWICH, BOLTON LANCS. BL6 7BN TEL. 01204 693311 FAX 01204 690023	DRAWN T.E.STONES DATE 18/05/01 CHECKED APPROVED	DRAWING No. T020/1 ISSUE C

V06301.dwg 11/12/02 07:02:37 Scaled to fit



BOTTOM CABLE ENTRY GLAND PLATE





ENCLOSURE NOML SIZE 400H X 300W X 150 D
MILD STEEL CONSTRUCTION IP65
FINISH PAINTED RAL 7032

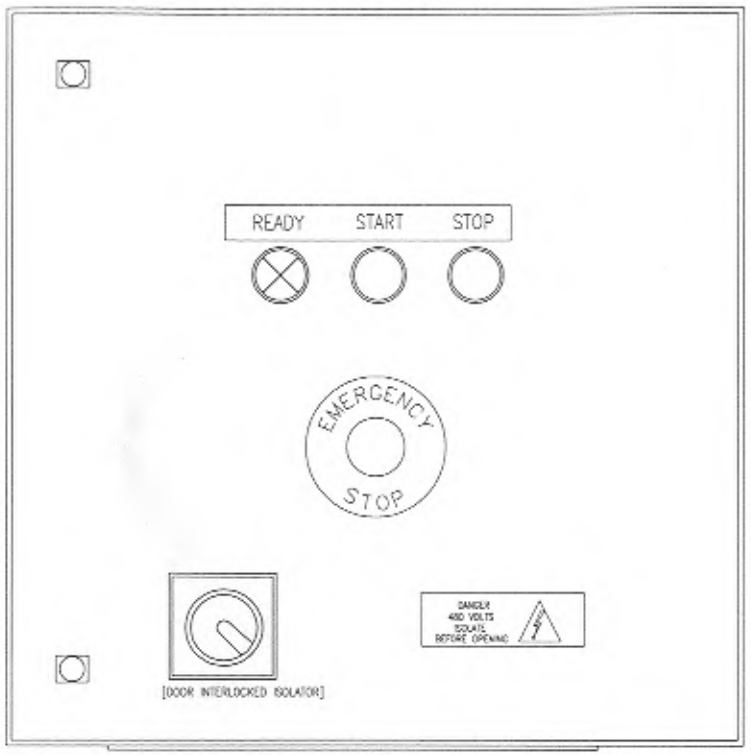
COMPONENT LABELS W/B/W TRAFFOLYTE
WARNING LABELS Y/B/Y TRAFFOLYTE

PXA – DRUM LOCATED (1)	24 / 0V /11	[BRN/BLUE/Gn.Yw]
PXB – DRUM LOCATED (2)	11 / 0V /12	[Brown/Blue/Gn.Yw]
LSW1–MIXING ARM LOCATED	12 / 13	[Brown/Blue]

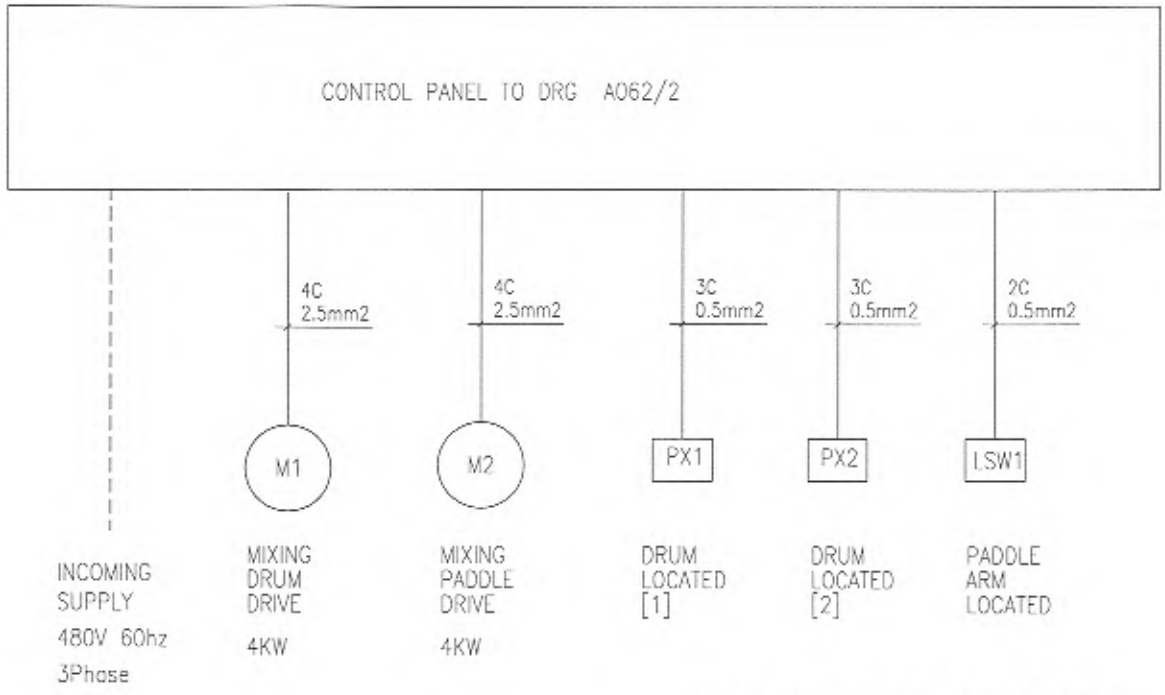
CONTROL CIRCUITS TO DRG V63/2-3

ISSUE	ISSUE	TITLE	DRAWN	DRAWING No.
		GENERAL DETAILS ELECTRICAL CONTROL PANEL PADDLE / DRUM MIXER WINGET Ltd	T.E.STONES	
			DATE 29/10/02	V63/1
			CHECKED	
			APPROVED	ISSUE A

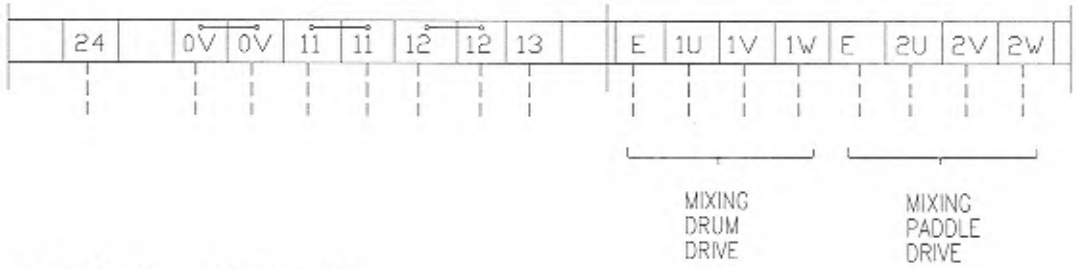
HORWICH ELECTRONIC LABORATORIES Ltd. LONGWORTH RD. HORWICH, BOLTON LANCS. BL6 7BN TEL. 01204 693311 FAX 01204 690023



BOTTOM CABLE ENTRY GLAND PLATE



CABLE CONNECTIONSTO MIXER BY CLIENT



ENCLOSURE NOML SIZE 400H X 400W X 200 D
MILD STEEL CONSTRUCTION IP65
FINISH PAINTED RAL 7032

COMPONENT LABELS W/B/W TRAFFOLYTE
WARNING LABELS Y/B/Y TRAFFOLYTE

PXA – DRUM LOCATED (1) 24 / 0V /11
PXB – DRUM LOCATED (2) 11 / 0V /12
LSW1–MIXING ARM LOCATED 12 / 13

CONTROL CIRCUITS TO DRG A062/2-3

ISSUE	ISSUE	TITLE	DRAWN	DRAWING No.
		GENERAL LAYOUT -ELECTRICAL STARTER PANEL PADDLE / DRUM MIXER RP100XD Mk2 (480V SUPPLY) WINGET Ltd	T.E.STONES	
			DATE 05/01/07	A062/1
			CHECKED	
			APPROVED	ISSUE A

HORWICH ELECTRONIC LABORATORIES Ltd. BANKFIELD STREET BOLTON
LANCS. BL3 5NP TEL. 01204 650555 FAX 01204 61797

MATERIAL PARTS LISTS

QTY	CIRCUIT REFERENCES	DESCRIPTION	TYPE /CODE NO.	MANUFACTURER	REMARKS
	CONTROL PANEL TO DRG T20/1 -3				
1	-	MILD STEEL ENCLOSURE	300 x 400 X 200 ST3 -415	ETA	
1	ISOL	DOOR INTERLOCKED ISOLATOR	P1 25/V/SVB + N1-P2	KLOCKNER MOELLER	
1	CB1	CIRCUIT BREAKER 2Amp	S272-K2	ABB	
1	MCB1	MOTOR CIRCUIT BREAKER	PKZM0-4 +NHi-11	KLOCKNER MOELLER	
1	MCB2	MOTOR CIRCUIT BREAKER	PKZM0-6.3 +NHi-11	KLOCKNER MOELLER	
2	MCB1/C1, MCB2/C2	COMBINED MOUNTING PLATE	C-PKZM	KLOCKNER MOELLER	
2	C1,C2	CONTACTOR	SE00-11-PKZ0	KLOCKNER MOELLER	
1	PSU1	POWER SUPPLY 240/24VDC/50W	PS5R-B-24V	IDEC	
2	RL1-2inc	CONTROL RELAY 24V DC 4 POLE	111.A4.24VDC	KHUNKE	
2	RL1-2inc	RELAY BASE 14 PIN	Z392.04	KHUNKE	
1 SET	-	TERMINALS	SAK 2,5	KLIPPON	
	PANEL DOOR COMPONENTS				
1	PB1	EMERGENCY STOP BUTTON	RPV+BE3+EK01	KLOCKNER MOELLER	
1	PB2	PUSHBUTTON RED	RDH -RT10 +BE3 +EK01	KLOCKNER MOELLER	
1	PB3	PUSHBUTTON GREEN	RD-11 +BE3 +EK10	KLOCKNER MOELLER	
1	H1	INDICATOR LAMP WHITE	RLF-WS+BE3+EF	KLOCKNER MOELLER	
1	H1	FILAMENT BULB 28V	193-4976	R.S.COMPONENTS	
1	-	COMPONENT LABEL	W/B/W TRAFFOLYTE	HEL	
1	-	WARNING LABEL [415V]	Y/B/Y TRAFFOLYTE	HEL	
1	-	EM STOP LABEL	1AK-299	KLOCKNER MOELLER	

ISSUE	ISSUE	TITLE		DRAWING No.
		MATERIAL PARTS LISTS -ELECTRICAL CONTROL PADDLE / DRUM MIXER STARTER PANEL WINGET Ltd	DRAWN T.E.STONES DATE 17/05/01 CHECKED APPROVED	T020PL1
		HORWICH ELECTRONIC LABORATORIES Ltd. LONGWORTH RD. HORWICH, BOLTON LANCS. BL6 7BN TEL. 01204 693311 FAX 01204 690023		ISSUE A

MATERIAL PARTS LISTS

QTY	CIRCUIT REFERENCES	DESCRIPTION	TYPE /CODE NO.	MANUFACTURER	REMARKS
	CONTROL PANEL TO DRG V63/1 -3				
1	-	MILD STEEL ENCLOSURE	300 x 400 X 200 ST3 -415	ETA	
1	ISOL	DOOR INTERLOCKED ISOLATOR	P1 32/V/SVB	KLOCKNER MOELLER	
1	CB1	CIRCUIT BREAKER 2Amp	S272-K2	ABB	
1	MCB1	MOTOR CIRCUIT BREAKER	PKZM0-10 +NHi-11	KLOCKNER MOELLER	
1	MCB2	MOTOR CIRCUIT BREAKER	PKZM0-16 +NHi-11	KLOCKNER MOELLER	
2	MCB1/C1, MCB2/C2	COMBINED MOUNTING PLATE	C-PKZM	KLOCKNER MOELLER	
2	C1,C2	CONTACTOR	SE00-11-PKZ0-24V DC	KLOCKNER MOELLER	
1	PSU1	POWER SUPPLY 240/24VDC/15W	PS5R-B-24V	IDEC	
2	RL1-2inc	CONTROL RELAY 24V DC 4 POLE	111.A4.24VDC	KHUNKE	
2	RL1-2inc	RELAY BASE 14 PIN	Z392.04	KHUNKE	
1 SET	-	TERMINALS	SAK 2,5	KLIPPON	
	PANEL DOOR COMPONENTS				
1	PB1	EMERGENCY STOP BUTTON	M22-PV-K01	KLOCKNER MOELLER	
1	PB2	PUSHBUTTON RED	M22-D-R+M22-K01	KLOCKNER MOELLER	
1	PB3	PUSHBUTTON GREEN	M22-D-G+M22-K10	KLOCKNER MOELLER	
1	H1	INDICATOR LAMP WHITE	M22-L-W+M22-LED230-W	KLOCKNER MOELLER	
1	-	COMPONENT LABEL	W/B/W TRAFFOLYTE	HEL	
1	-	WARNING LABEL [415V]	Y/B/Y TRAFFOLYTE	HEL	
1	-	EM STOP LABEL	M22-XBK1	KLOCKNER MOELLER	

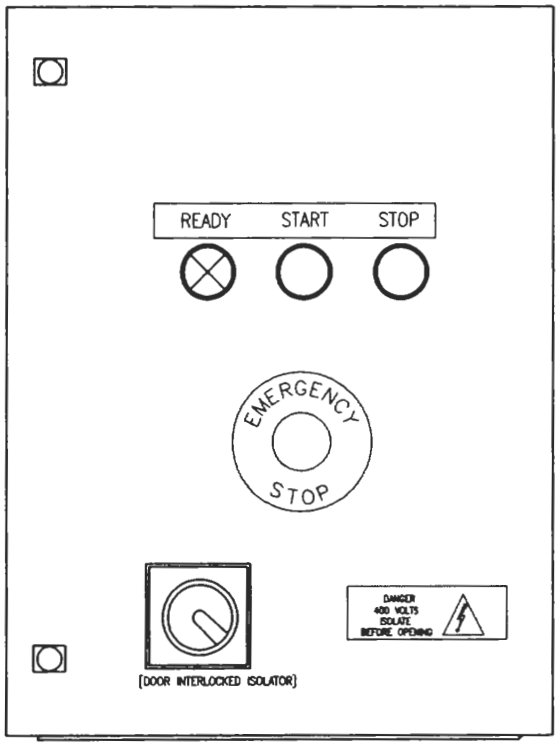
ISSUE	ISSUE	TITLE		DRAWING No.
		MATERIAL PARTS LISTS -ELECTRICAL CONTROL PADDLE / DRUM MIXER STARTER PANEL WINGET Ltd	DRAWN T.E.STONES DATE 29/10/02 CHECKED APPROVED	V63PL1
		HORWICH ELECTRONIC LABORATORIES Ltd. LONGWORTH RD. HORWICH, BOLTON LANCS. BL6 7BN TEL. 01204 693311 FAX 01204 690023		ISSUE A

MATERIAL PARTS LISTS

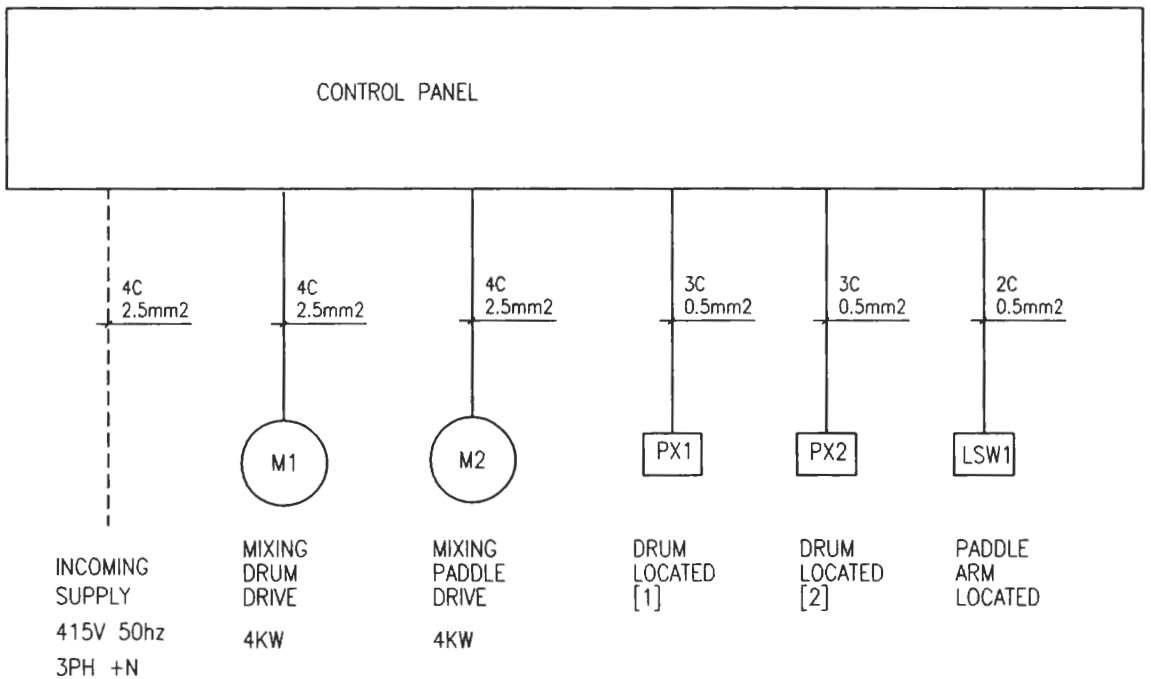
QTY	CIRCUIT REFERENCES	DESCRIPTION	TYPE /CODE NO.	MANUFACTURER	REMARKS
	CONTROL PANEL TO DRG A062/1				
1	–	MILD STEEL ENCLOSURE	400 x 400 X 200 ST4 –420	ETA	
1	ISOL	DOOR INTERLOCKED ISOLATOR	P1 25/V/SVB + N1–P2	KLOCKNER MOELLER	
1	CB1	CIRCUIT BREAKER 3P 2Amp	S203–K2	ABB	
1	MCB1	MOTOR CIRCUIT BREAKER	PKZM0–10 +NHi–11	KLOCKNER MOELLER	
1	MCB2	MOTOR CIRCUIT BREAKER	PKZM0–10 +NHi–11	KLOCKNER MOELLER	
2	MCB1/C1, MCB2/C2	COMBINED MOUNTING PLATE	C–PKZM	KLOCKNER MOELLER	
2	C1,C2	CONTACTOR	SE00–11–PKZ0	KLOCKNER MOELLER	
1	PSU1	POWER SUPPLY 500/24VDC/100W	454–2160	RS COMPONENTS	
2	RL1–2inc	CONTROL RELAY 24V DC 4 POLE	111.A4.24VDC	KHUNKE	
2	RL1–2inc	RELAY BASE 14 PIN	Z392.04	KHUNKE	
1 SET	–	TERMINALS	SAK 2,5	KLIPPON	
	PANEL DOOR COMPONENTS				
1	PB1	EMERGENCY STOP BUTTON	M22–PV–K01	KLOCKNER MOELLER	
1	PB2	PUSHBUTTON RED	M22–D–R+M22–K01	KLOCKNER MOELLER	
1	PB3	PUSHBUTTON GREEN	M22–D–G+M22–K10	KLOCKNER MOELLER	
1	H1	INDICATOR LAMP WHITE 24V	M22–L–W+M22–LED–W	KLOCKNER MOELLER	
1	–	COMPONENT LABEL	W/B/W TRAFFOLYTE	HEL	
1	–	WARNING LABEL [480V]	Y/B/Y TRAFFOLYTE	HEL	
1	–	EM STOP LABEL	M22–XBK1	KLOCKNER MOELLER	

ISSUE	ISSUE	TITLE	DRAWN	DRAWING No.
		MATERIAL PARTS LISTS – ELECTRICAL STARTER PANEL PADDLE / DRUM MIXER RP100XD Mk2 480V 60Hz WINGET Ltd	T.E.STONES	
			DATE 05/01/07	A062PL1
			CHECKED	
			APPROVED	ISSUE A

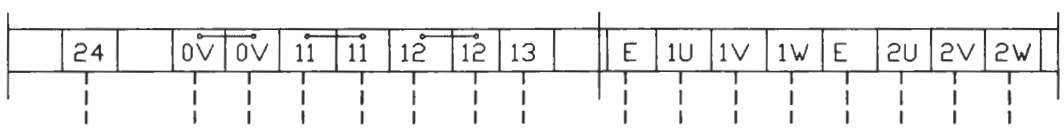
HORWICH ELECTRONIC LABORATORIES Ltd. BANKFIELD STREET BOLTON
LANCS. BL3 5NP TEL. 01204 650555 FAX 01204 61797



BOTTOM CABLE ENTRY GLAND PLATE



SUPPLY & CABLE CONNECTIONS TO MIXER BY CLIENT



ENCLOSURE NOML SIZE 400H X 300W X 150 D
MILD STEEL CONSTRUCTION IP65
FINISH PAINTED RAL 7032

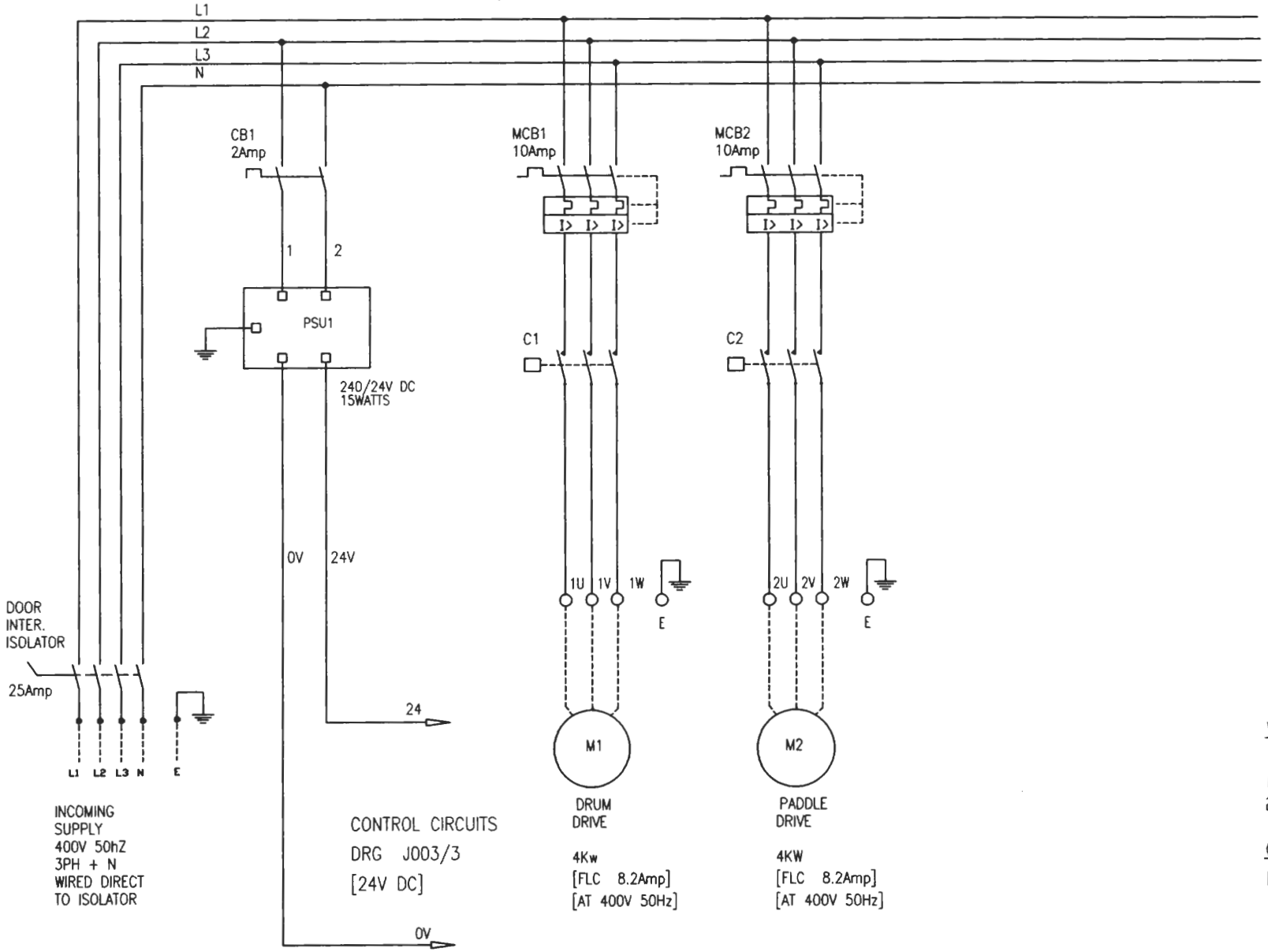
COMPONENT LABELS W/B/W TRAFFOLYTE
WARNING LABELS Y/B/Y TRAFFOLYTE

PXA – DRUM LOCATED (1)	24 / 0V /11	[Brown/Blue/Gn.Yw]
PXB – DRUM LOCATED (2)	11 / 0V /12	[Brown/Blue/Gn.Yw]
LSW1–MIXING ARM LOCATED	12 / 13	[Brown/Blue]

CONTROL CIRCUITS TO DRG J003/2-3

FROM SERIAL No 6115

ISSUE	ISSUE	TITLE		
		GENERAL LAYOUT -ELECTRICAL STARTER PANEL PADDLE / DRUM MIXER RP100XD Mk2 (415V SUPPLY) WINGET Ltd 3PH, N + E HORWICH ELECTRONIC LABORATORIES Ltd. BANKFIELD STREET BOLTON LANCS. BL3 5NP TEL. 01204 650555 FAX 01204 61797	DRAWN T.E.STONES DATE 24/07/14 CHECKED APPROVED	DRAWING No. J003/1 ISSUE 01



WIRING COLOUR CODED –:

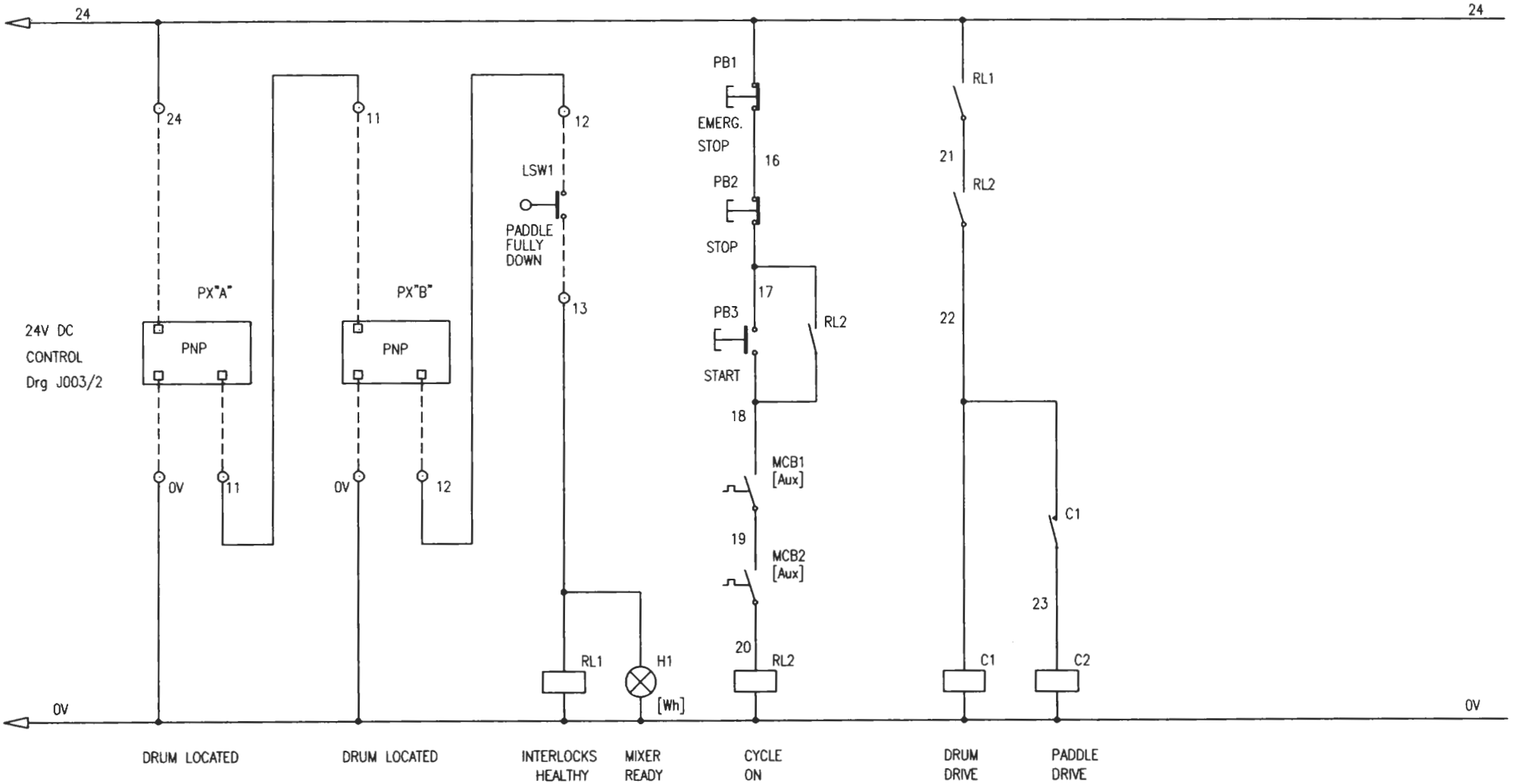
400V 3PH.	BROWN/BLACK/GREY
NEUTRAL	BLUE
24V DC	WHITE

CONDUCTOR SIZES –:

L1,L2,L3+N – 2.5mm2
1U1,1U2,1U3 etc – 1.5mm2
24V DC – 1mm2

FROM SERIAL No 6115

ISSUE	ISSUE	TITLE		
		POWER CIRCUITS -ELECTRICAL STARTER PANEL PADDLE / DRUM MIXER RP100XD Mk2 (400V 50Hz) WINGET Ltd 3PH, N+E HORWICH ELECTRONIC LABORATORIES Ltd. BANKFIELD STREET BOLTON LANCS. BL3 5NP TEL. 01204 650555 FAX 01204 61797	DRAWN T.E.STONES DATE 24/07/14 CHECKED APPROVED	DRAWING No. J003/2 ISSUE 01



FROM SERIAL NO 6115

ISSUE	ISSUE	TITLE	DRAWN T.E.STONES	DRAWING No.
		CONTROL CIRCUITS -ELECTRICAL STARTER PANEL PADDLE / DRUM MIXER RP100XD Mk2 WINGET Ltd 3PH. N + E	DATE 24/07/14	J003/3
			CHECKED	
			APPROVED	ISSUE 01

HORWICH ELECTRONIC LABORATORIES Ltd. BANKFIELD STREET BOLTON
LANCS. BL3 5NP TEL. 01204 650555 FAX 01204 61797

FROM SERIAL Nº 6115

MATERIAL PARTS LISTS

SHT NO. 1 OF 1

QTY	CIRCUIT REFERENCES	DESCRIPTION	TYPE /CODE NO.	MANUFACTURER	REMARKS
	CONTROL PANEL TO DRG J003/1-4				
1	–	MILD STEEL ENCLOSURE	300 x 400 X 200 ST3 -415	ETA	
1	ISOL	DOOR INTERLOCKED ISOLATOR	P1 32/V/SVB	KLOCKNER MOELLER	
1	ISOL	ISOLATOR 4TH POLE	N-PI Z	KLOCKNER MOELLER	
2	ISOL	ISOLATOR SHROUDS	HP1	KLOCKNER MOELLER	
1	CB1	CIRCUIT BREAKER 2Amp	S202M-C2	ABB	
	MOTOR STARTER ASSY				
2	MCB 1,2	MOTOR CIRCUIT BREAKER	PKZM0-10	KLOCKNER MOELLER	
2	MCB 1,2	MCB AUX CONTACTS	NHi-11-PKZ0	KLOCKNER MOELLER	
2	C1,C2	CONTACTOR	DILM12-10 24V DC	KLOCKNER MOELLER	
2	MCB1/C1, MCB2/C2	MOUNTING KIT	PKZM0-XDM12	KLOCKNER MOELLER	
1	PSU1	POWER SUPPLY 240/24VDC/30W	428-455	RS COMPONENTS	
2	RL1-2inc	CONTROL RELAY 24V DC 4 POLE	111-A4-24V DC	KHUNKE	
2	RL1-2inc	RELAY BASE 14 PIN	Z392-4	KHUNKE	
1 SET	–	TERMINALS	SAK 2,5	KLIPPON	
	PANEL DOOR COMPONENTS				
1	PB1	EMERGENCY STOP BUTTON	M22-PVT-K01	KLOCKNER MOELLER	
1	PB2	PUSHBUTTON RED	M22-D-R+M22-K01	KLOCKNER MOELLER	
1	PB3	PUSHBUTTON GREEN	M22-D-G+M22-K10	KLOCKNER MOELLER	
1	H1	INDICATOR LAMP WHITE	M22-L-W+M22-LED24-W	KLOCKNER MOELLER	
1	–	COMPONENT LABEL	W/B/W TRAFFOLYTE	HEL	Drg J003/4
1	–	WARNING LABEL [400V]	Y/B/Y TRAFFOLYTE	HEL	
1	–	EM STOP LABEL	M22-XAK1	KLOCKNER MOELLER	

ISSUE	ISSUE	TITLE	DRAWN T.ESTONES	DRAWING No.
		MATERIAL PARTS LISTS - ELECTRICAL STARTER PANEL PADDLE / DRUM MIXER RP100XD Mk2 WINGET Ltd 3 PH, N + E	DATE 24/07/14	J003/PL1
			CHECKED	
			APPROVED	ISSUE 01

HORWICH ELECTRONIC LABORATORIES Ltd. BANKFIELD STREET BOLTON
LANCS. BL3 5NP TEL. 01204 655555 FAX 01204 61797

Motoranschluss

für Drehstrommotoren
Elektrischer Anschluss

(D)

Motor connection

for A. C. motors
Electrical connection

(GB)

Nr.: 441599.02

STÖBER ANTRIEBSTECHNIK
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eMail: mail@stoeber.de • Internet: http://www.stoeber.de

Schaltbild Drehstrommotor / *Connection diagrammThree-Phase A.C. motor*

Motor *motor* VDE 0530 / DIN EN 60034

Ausführung *design*	Δ	Y
Betrieb *running*	-> Bild 1	-> Bild 2
Anlauf *starting*	direkt *direct*	direkt *direct*
	Y-Δ–> Bild 3	

Anmerkung / *Note*
- Drehrichtungsänderung durch Vertauschen von 2 Zuleitungen
- *for reversing the sense of rotation change two supply lines*
- Schaltungsart und Anschlussspannung siehe Leistungsschild
- *connection and supply voltage see rating plate*

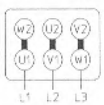


Bild 1

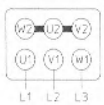


Bild 2

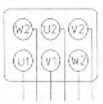


Bild 3

TEMPERATURWÄCHTER*) *THERMAL PROTECTOR *)* Bild 4
->Kaltleiter (=>KALTL.) *PTC-resistor*
->Bimmetallschalter (=> BIMET) *bimetallic switch*
siehe Leistungsschild *see rating-plate*

DREHSTROMFREMDBELÜFTUNG *) /
THREE PHASE A.C. SEPARATE VENTILATION *)
siehe Abschnitt "Motor" *see paragraph "motor"*

Einphasenfremdbelüftung in Steinmetzschaltung mit Betriebskondensator C_B *) ->Bild 5
*single-phase separate ventilation according to "Steinmetz" with capacitor C_B *) >Bild 5*

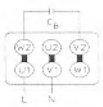


Bild 5

Einphasenfremdbelüftung mit Betriebskondensator C_B *) >Bild6
*single-phase separate ventilation with capacitor C_B *) ->Bild6*

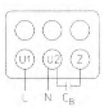


Bild 6

Einphasenfremdbelüftung *) ->Bild 7
*single-phase separate ventilation *) -> Bild 7*

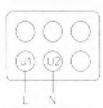


Bild 7

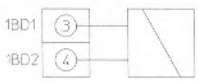
INKREMENTALGEBER *) *INCREMENTAL ENCODER **)
Typ**) type ITD 40 A4; ITD 61 A4; DG 60 B; DG60 BS
Stiftbelegung in Anschlussdose *pin assignment in the socket*

Signal *signal*	Stift *pin*	Signal *signal*	Stift *pin*
A	5	A invertiert / *inverted*	6
B	8	B invertiert / *inverted*	1
N	3	N invertiert / *inverted*	4
+ UB **)	12	± 0V	10/11
+ U sensor	2		

Ab 05/2006 wird PIN 9 nicht mehr im Geber kontaktiert.
Since 05/2006 PIN 9 has not anymore contact with the encoder.

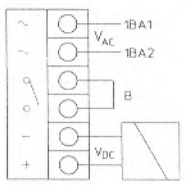
BREMSE *) *BRAKE**)
-> **ohne Gleichrichter** *without rectifier* -> Bild 8
Anschlussspannung V_{DC} siehe Leistungsschild
supply voltage V_{DC} see rating-plate

Bild 8



-> **mit Gleichrichter und externer Versorgung VAC** -> Bild 9
with rectifier and external power supply V_{AC} -> Bild 9
Anschlussspannung VAC siehe Leistungsschild
supply voltage V_{AC} see rating-plate
- Wechselstromseitiges Schalten (mit Brücke B)
  A.C. -side connection (with jumper B)
- Gleichstromseitiges Schalten (schnelles Einfallen der Bremse)
  D.C.-side connection (rapid break in of brake)
  Brücke B in –> Bild 9 entfernen und durch Schaltkontakt ersetzen und zusätzlich wechselstromseitig schalten
  remove jumper B in –> Bild 9 and connect with a switch and switch A.C.- side connections additionally

Bild 9



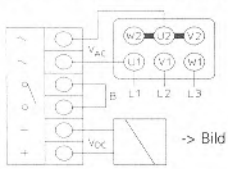
-> **mit Gleichrichter und externer Versorgung VAC von den Motorklemmen**
with rectifier power supply V_{AC} directly from motor terminals
Die beigelegten Verbindungsbrücken gemäß -> Bild 10 bzw. -> Bild 11 einbauen
installation of the enclosed studs according to -> Bild 10 respectively to -> Bild 11

Achtung / *take care:*
Für die Anschlussspannung der Bremse (V_{AC}) gemäß Leistungsschild und Netzspannung (U_L) gilt:
for power supply of brake (V_{AC}) according to rating plate and main voltage (U_L):

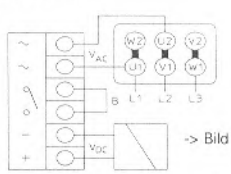
$V_{AC} = U_L \times 0{,}58$ -> Bild 10 $V_{AC} = U_L$ -> Bild 11

Anschließen der Bremse an Motorklemmen nur möglich, wenn Spannungen übereinstimmen.
If the voltages differ , the connection of the brake to the motor terminals is not possible.
Nur bei Direktanlauf am Netz zulässig. *Only permissible if direct online starting.*

-> **mit Powerbox-Gleichrichter** *with power rectifier*
Anschlussspannung 220-277 V_{AC} */ Supply voltage* 220-277 V_{AC}
Spulenspannung 115 (oder 127) V_{DC} */Coil voltage 115 (oder 127) V_{DC}*
Achtung: Anschlussbezeichnung auf Bauteil beachten!
Pay attention to terminal marking fo component!



-> Bild 10



-> Bild 11

Andere Ausführungen oder andere Anbauteile, falls vorhanden, siehe separates Schaltbild
other designs or other attachements, in case of existence, see separate connection diagramm
*) falls vorhanden *in case of existence*
**) siehe Leistungsschild *see rating-plate*

Motoranschluss darf nur unter Beachtung und Einhaltung der beiliegenden Sicherheitshinweise erfolgen. Anschlussbezeichnung beachten!
Motorconnection may only occur, if the enclosed general safety instructions will be observed and kept. Pay attention to terminal marking!

Multiturn Absolutwertgeber / *Multiturn absolute encoder*

Signal/Versorgung ***signal/supply***	**Aderfarbe** ***color of wire***	**Kontakt /*contact 12pol***
0V (UN)	weißgrün / *white-green*	10
+V (UP)	braungrün / *brown-green*	12
Daten	grau / *grey*	6
Daten	rosa / *pink*	5
Takt	violett / *violet*	1
Takt	gelb / *yellow*	8
frei		2, 3, 4, 7, 9, 11
frei	rot, schwarz, grün, blau, weiß, braun / *red, black, green, blue, white, brown*	

ACHTUNG !
Anschlussfehler können zu Beschädigungen der Komponenten führen. Im Zweifelsfall nach Anschlussbilder der STÖBER-Antriebe anschließen oder unsere Verkaufsbüros konsultieren. Bitte beachten Sie die Sicherheitshinweise, Impr.-Nr. 441598!
Attention!
Connection mistakes may cause damages for the components. In case of doubt, please connect in reference of the wiring-pictures of the STÖBER drives or please contact our sales office. Please observe the safety regulations No. 441598!

Ausgabe: 10.01.2006

Motoranschluss

für Drehstrommotoren

Elektrischer Anschluss polumschaltbar

(D)

Motor connection

for A. C. motors

Electrical connection pole-changing

(GB)

Nr.: 441599.02

STÖBER ANTRIEBSTECHNIK
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eMail: mail@stoeber.de • Internet: http://www.stoeber.de

Schaltbild für polumschaltbaren Drehstrommotor mit 2 Drehzahlen
Connection diagramm for pole-changing motor with 2 speeds

Motor / motor VDE 0530 / DIN EN 60034
Getrennte Wicklungen, Schaltung Y / Y (siehe Leistungsschild)
2 separate windings, connection Y/Y (see rating-plate)
- niedrige Drehzahl / *low speed* -> Bild 1
- hohe Drehzahl / *high speed* -> Bild 2

Dahlanderwicklung, Schaltung Δ/YY oder Y/YY (siehe Leistungschild)
Dahlander winding, connection Δ/YY or Y/YY (see rating-plate)

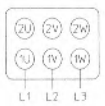

Bild 1

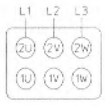

Bild 2

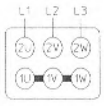

Bild 3

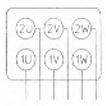

Bild 4

--> **mit 6 Anschlussklemmen (direktes Einschalten)**
with 6 connection terminals (direct online starting)
- ohne Polumschalter (Schaltung am Klemmbrett)
without pole-changing switch (terminal board connection)
niedere Drehzahl / *low speed* -> Bild 1
Schaltung Δ / *connection Δ*
hohe Drehzahl / high speed -> Bild 3
Schaltung YY /*connection YY*
- mit Polumschalter / *with pole changing switch* -> Bild 4

--> mit 9 Anschlussklemmen / *with 9 connection terminals*
(Y-Δ-Anlauf in niedriger Drehzahl ist nur bei Δ/YY möglich)
(Y-Δ- starting in the lower speed is possible, only if Δ/YY)
- ohne Anlasspolumschalter (Schaltung am Klemmbrett)
without pole-changing starting switch (terminal board connection)
Anlauf niedere Drehzahl *starting low speed* -> Bild 5
Betrieb niedere Drehzahl *running low speed* -> Bild 6
Betrieb hohe Drehzahl *running high speed* -> Bild 7
- mit Anlasspolumschalter *with pole-changing starting switch* -> Bild 8

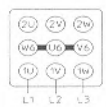

Bild 5

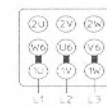

Bild 6

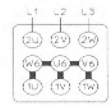

Bild 7

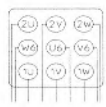

Bild 8

INKREMENTALGEBER *) *INCREMENTAL ENCODER *)*
Typ**) type ITD 40 A4; ITD 61 A4; DG 60 B; DG60 BS
Stiftbelegung in Anschlussdose *pin assignment in the socket*

Signal *signal*	Stift *pin*	Signal *signal*	Stift *pin*
A	5	A invertiert / *inverted*	6
B	8	B invertiert / *inverted*	1
N	3	N invertiert / *inverted*	4
+ UB **)	12	± 0V	10/11
+ U sensor	2		

Ab 05/2006 wird PIN 9 nicht mehr im Geber kontaktiert.
Since 05/2006 PIN 9 has not anymore contact with the encoder.

BREMSE *) *BRAKE *)*

--> **ohne Gleichrichter *without rectifier*** - *Bild 9*
Anschlussspannung V_{DC} siehe Leistungsschild
supply voltage V_{DC} see rating-plate

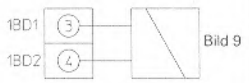

Bild 9

--> **mit Gleichrichter und externer Versorgung V_{AC}**
with rectifier and external power supply V_{AC}
Anschlussspannung V_{AC} siehe Leistungsschild
supply voltage V_{AC} see rating-plate
- Wechselstromseitiges Schalten (mit Brücke B)
A.C. -side connection (with jumper B)
- Gleichstromseitiges Schalten (schnelles Einfallen der Bremse)
D.C.-side connection (rapid break in of brake)
Brücke B in --> Bild 10 entfernen und durch Schaltkontakt ersetzen und zusätzlich wechselstromseitig schalten
remove jumper B in --> Bild 10 and connect with a switch and switch A.C.- side connections additionally

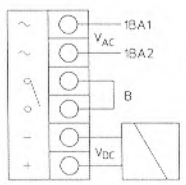

Bild 10

--> **mit Powerbox-Gleichrichter *with Powerbox-rectifier***
Anschlussspannung 220-277 V_{AC} Spulenspannung 115 (oder 127) V_{DC}
Supply voltage *220-277 V_{AC} Coil voltage 115 (or 127) V_{DC}*

Achtung: Anschlussbezeichnung auf Bauteil beachten!
Pay attention to terminal marking of component!

DREHSTROMFREMDBELÜFTUNG *) *THREE PHASE A.C. SEPARATE VENTILATION *)*

Ausführung	Δ	Y
Betrieb *running*	--> Bild 11	--> Bild 12

Einphasenfremdbelüftung in Steinmetzschaltung mit Betriebskondensator C_B *) --> Bild 13
*single-phase separate ventilation according to "Steinmetz" with capacitor C_B *) --> Bild 13*

Einphasenfremdbelüftung mit Betriebskondensator C_B *) --> Bild 14
*single-phase separate ventilation with capacitor C_B *)* --> Bild 14

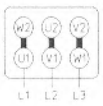

Bild 11

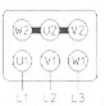

Bild 12

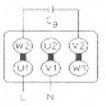

Bild 13

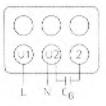

Bild 14

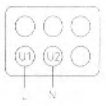

Bild 15

TEMPERATURWÄCHTER *) *THERMAL PROTECTOR *)*->Bild 16
--> Kaltleiter (KALTL.) *PTC-resitor*
--> Bimetallschalter (BIMET.) *bimetallic switch*
siehe Leistungsschild *see rating-plate*

Bild 16

Andere Ausführungen oder andere Anbauteile, falls vorhanden, siehe separates Schaltbild.
Other designs or other attachments, in case of existence, see separate connection diagramm
*) falls vorhanden *in case of existence* **) siehe Leistungschild *see rating-plate*

Motoranschluss darf nur unter Beachtung und Einhaltung der beiliegenden Sicherheitshinweise erfolgen. Anschlussbezeichnung beachten!
Motor connection may only occur, if the enclosed general safety instructions will be observed and kept. Pay attention to terminal marking!

Multiturn Absolutwertgeber / *Multiturn absolute encoder*

Signal/Versorgung ***signal/supply***	**Aderfarbe** ***color of wire***	**Kontakt /*contact 12pol***
0V (UN)	weißgrün / *white-green*	10
+V (UP)	braungrün / *brown-green*	12
Daten	grau / *grey*	6
Daten	rosa / *pink*	5
Takt	violett / *violet*	1
Takt	gelb / *yellow*	8
frei		2, 3, 4, 7, 9, 11
frei	rot, schwarz, grün, blau, weiß, braun / *red, black, green, blue, white, brown*	

ACHTUNG !
Anschlussfehler können zu Beschädigungen der Komponenten führen. Im Zweifelsfall nach Anschlussbilder der STÖBER-Antriebe anschließen oder unsere Verkaufsbüros konsultieren. Bitte beachten Sie die Sicherheitshinweise, Impr.-Nr. 441598!
Attention!
Connection mistakes may cause damages for the components. In case of doubt, please connect in reference of the wiring-pictures of the STÖBER drives or please contact our sales office. Please observe the safety regulations No. 441598!

Ausgabe: 04.04.2003

Ersatzteilliste — *Spare Parts List* — Nr.: 440813.02

für Stirnradgetriebe - Fußausführung — *for helical gear units - foot mounting*

STÖBER ANTRIEBSTECHNIK
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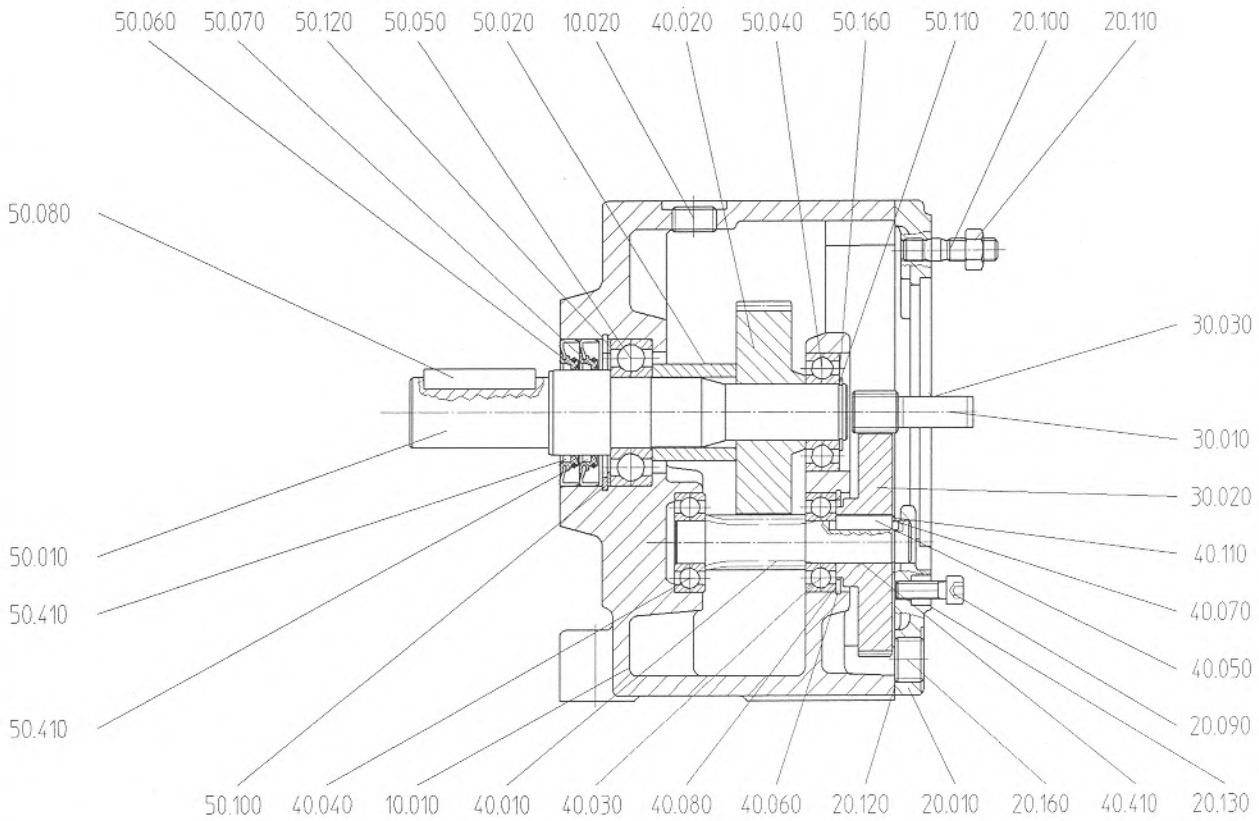
C002N - C502N



Pos. Nr.	Bezeichnung
10.010	Getriebegehäuse
10.020	Verschlussschraube
20.010	Motoranschlussflansch
20.090	Zylinderschraube
20.100	Stiftschraube
20.110	Mutter
20.120	Dichtmasse (bei C0 Flachdichtung)
20.130	Flachdichtung
20.160	Verschlussschraube
30.010	Einsteckritzel
30.020	Zahnrad
30.030	Klebstoff
40.010	Vorgelegewelle
40.020	Zahnrad
40.030	Rillenkugellager
40.040	Rillenkugellager
40.050	Passfeder
40.060	Sicherungsring
40.070	Sicherungsring
40.080	Passscheibe
40.110	Passscheibe
40.410	Klebstoff
50.010	Endwelle
50.020	Distanzbuchse
50.040	Rillenkugellager
50.050	Rillenkugellager
50.060	Wellendichtring
50.070	Wellendichtring
50.080	Passfeder
50.100	Sicherungsring
50.110	Sicherungsring
50.120	Passscheibe
50.160	Passscheibe
50.410	Montagefett

Für die Bestellung von Ersatzteilen muss angegeben werden:
- **Positions-Nr. des Teiles nach Abbildung**
- **Typenbezeichnung nach Typschild am Getriebegehäuse**
- **Fabrikations-Nr. nach Typschild am Getriebegehäuse**

For ordering of spare parts the following is to be indicated:
- ***Item No. acc. to illustration***
- ***Type designation acc. to type plate at the gearbox housing***
- ***Serial No. acc. to type plate at the gearbox housing***

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Item No.	Description
10.010	Gearbox housing
10.020	Screw plug
20.010	Motor connection flange
20.090	Cheese-head screw
20.100	Locking screw stud
20.110	Nut
20.120	Sealing compound (CO with flat gasket)
20.130	Flat gasket
20.160	Screw plug
30.010	Shank pinion
30.020	Gear wheel
30.030	Adhesive
40.010	Intermediate shaft
40.020	Gear wheel
40.030	Deep-grooved ball bearing
40.040	Deep-grooved ball bearing
40.050	Feather key
40.060	Circlip
40.070	Circlip
40.080	Shim
40.110	Shim
40.410	Adhesive
50.010	Solid shaft
50.020	Spacer sleeve
50.040	Deep-grooved ball bearing
50.050	Deep-grooved ball bearing
50.060	Oil seal
50.070	Oil seal
50.080	Feather key
50.100	Circlip
50.110	Circlip
50.120	Shim
50.160	Shim
50.410	Assembly grease

OPERATING

AND

MAINTENANCE MANUAL

SECTION 7

MISCELLANEOUS

7.1 NOISE DETAILS

Measured in accordance with Article V of Directive 2000/14/EC
Noise Emission in the Environment by Equipment for Use Outdoors the noise levels should not exceed 105Lwa