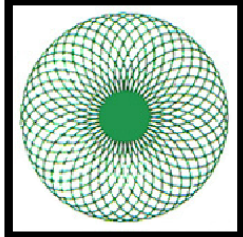


# **WINGET**



# **Croker**

## **CUMFLOW RP100XD MK2 ROTATING PAN MIXER**

# **PARTS & OPERATION MANUAL**

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# **INDEX**

## **SECTION 1      GENERAL INFORMATION**

- 1.1.      Company Details
- 1.2.      Important Notice
- 1.3.      Mixer Operational and Safety Requirements
- 1.4.      Installation Drawing

## **SECTION 2      INSTALLATION AND OPERATING INSTRUCTIONS**

- 2.1.      Pre Installation Notes
- 2.2.      Installation Instructions
- 2.3.      Operating Instructions

## **SECTION 3      TECHNICAL SPECIFICATION AND MAINTENANCE**

- 3.1.      Technical Specification
- 3.2.      Shutdown Procedure and Maintenance
- 3.3.      Lubrication
- 3.4.      Gear Unit Maintenance

## **SECTION 4      MIXER SPARE PARTS**

- 4.1.      Mixing Pan & Drive
- 4.2.      Mixing Star & Drive
- 4.3.      Mixing Star Assembly
- 4.4.      Mixing Star Lifting Arrangements
- 4.5.      Layout of Guards
- 4.6.      Micro Switch Cam & Proximity Switch
- 4.7.      Electrical Switch Gear
- 4.8.      Decals & Logos

## **SECTION 5      ANCILLIARY EQUIPMENT SPARE PARTS**

- 5.1      Pan Trolley Four Wheels
- 5.2      MoD Additional Parts

## 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**  
**RP100XD 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  
Bolton  
Lancs  
BL4 OLR

|               |  |
|---------------|--|
| Telephone No: | ++ 44 (0) 1204 854650  |
| Facsimile No: | ++ 44 (0) 1204 854663  |
| 'E Mail'      | <a href="mailto:crokersales@winget.co.uk">crokersales@winget.co.uk</a><br><a href="mailto:parts@winget.co.uk">parts@winget.co.uk</a><br><a href="mailto:service@winget.co.uk">service@winget.co.uk</a> |

## **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 RP100XD 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 RESPONSIBILITY 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.**

**RP100XD 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 competent 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 Health 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)**

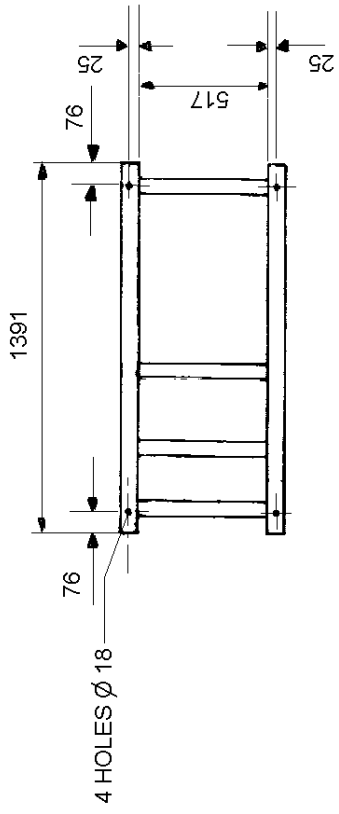
|     |         |      |          |      |
|-----|---------|------|----------|------|
| 9.1 | RP50XD  | 788  | RP1250XD | 4840 |
|     | RP100XD | 900  | RP1500XD | 4980 |
|     | RP200XD | 1400 | RP3000XD | 7112 |
|     | RP400XD | 2000 | FP1000   | 4040 |
|     | RP550XD | 2150 | FP1500   | 4065 |
|     | 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

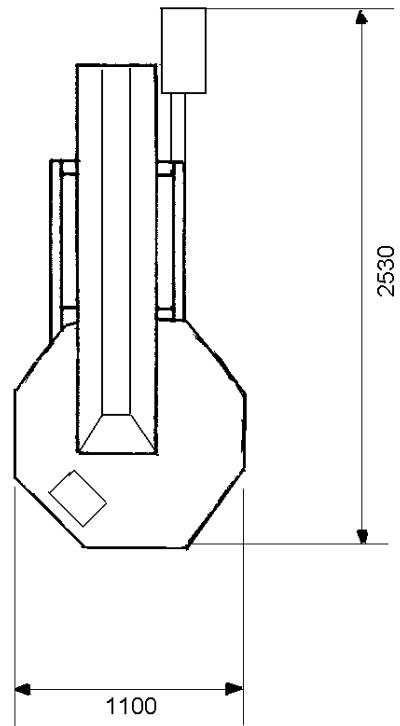
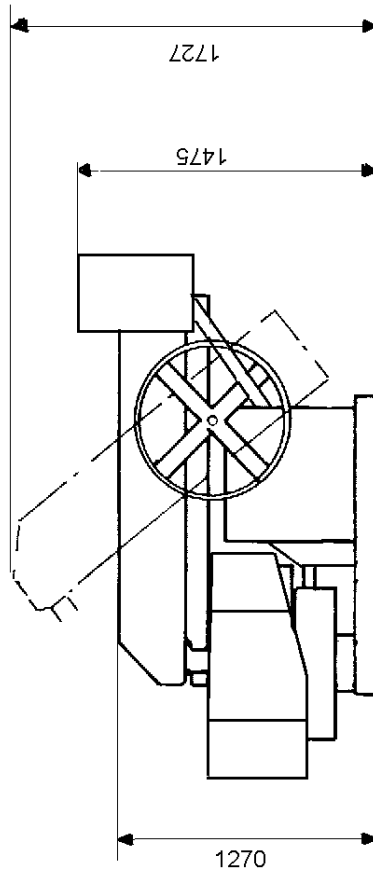


## NOTES

STAR DRIVE MOTOR 2.2Kw (BROWN GROUP BH302)

PAN DRIVE MOTOR 1.1Kw (BROWN GROUP BH202)

MACHINE WEIGHT RP100XD MK2 900KG 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.

**Note:- 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) Ensure 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**





**WEIGHTS (UNLADEN)**

900kg (approx)

Weight of additional pan

89kg (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**

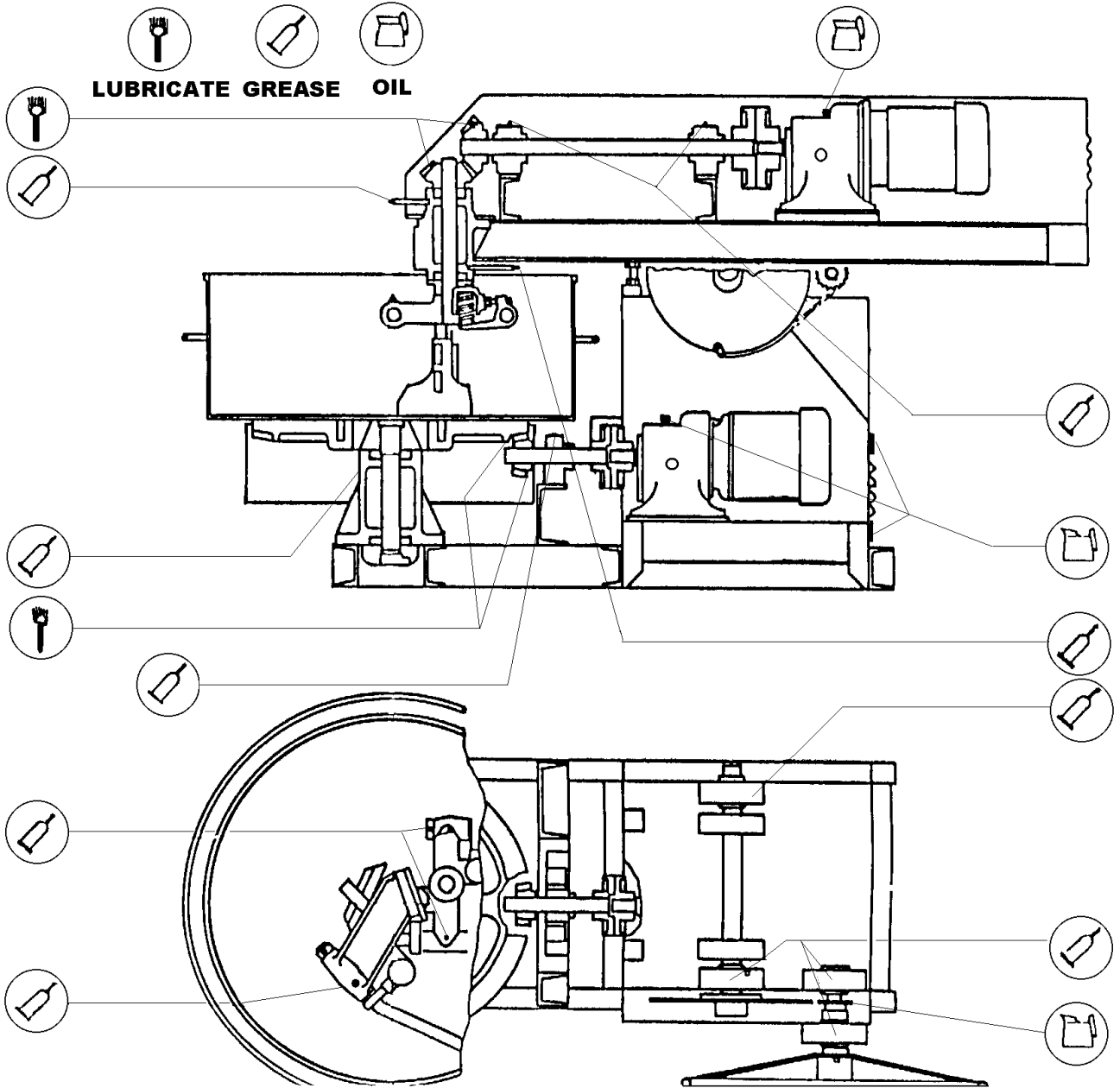
### **MAINTENANCE OF THE MOTORS**

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



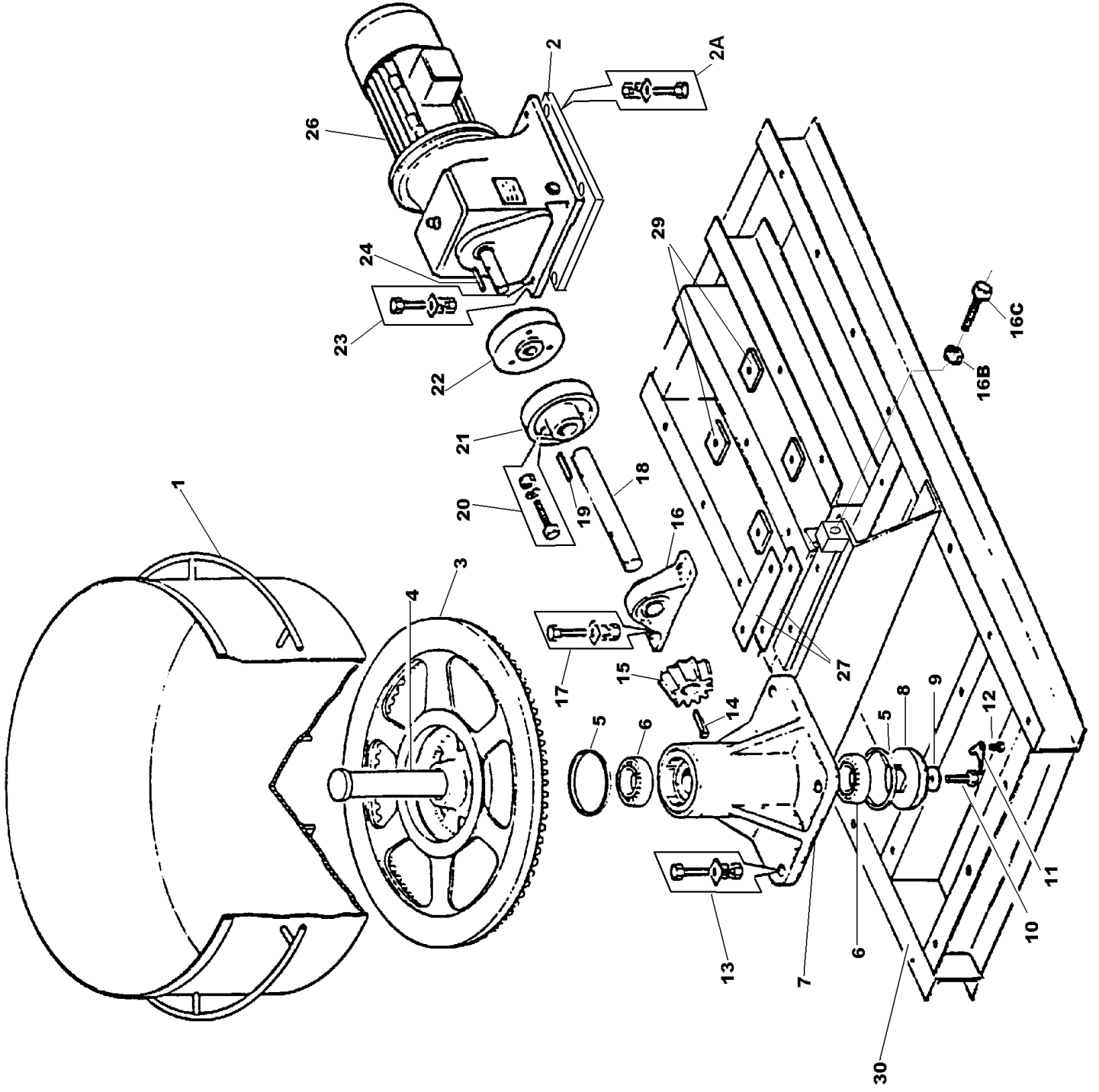


**OPERATING  
AND  
MAINTENANCE MANUAL**

**SECTION 4  
MIXER SPARE PARTS**



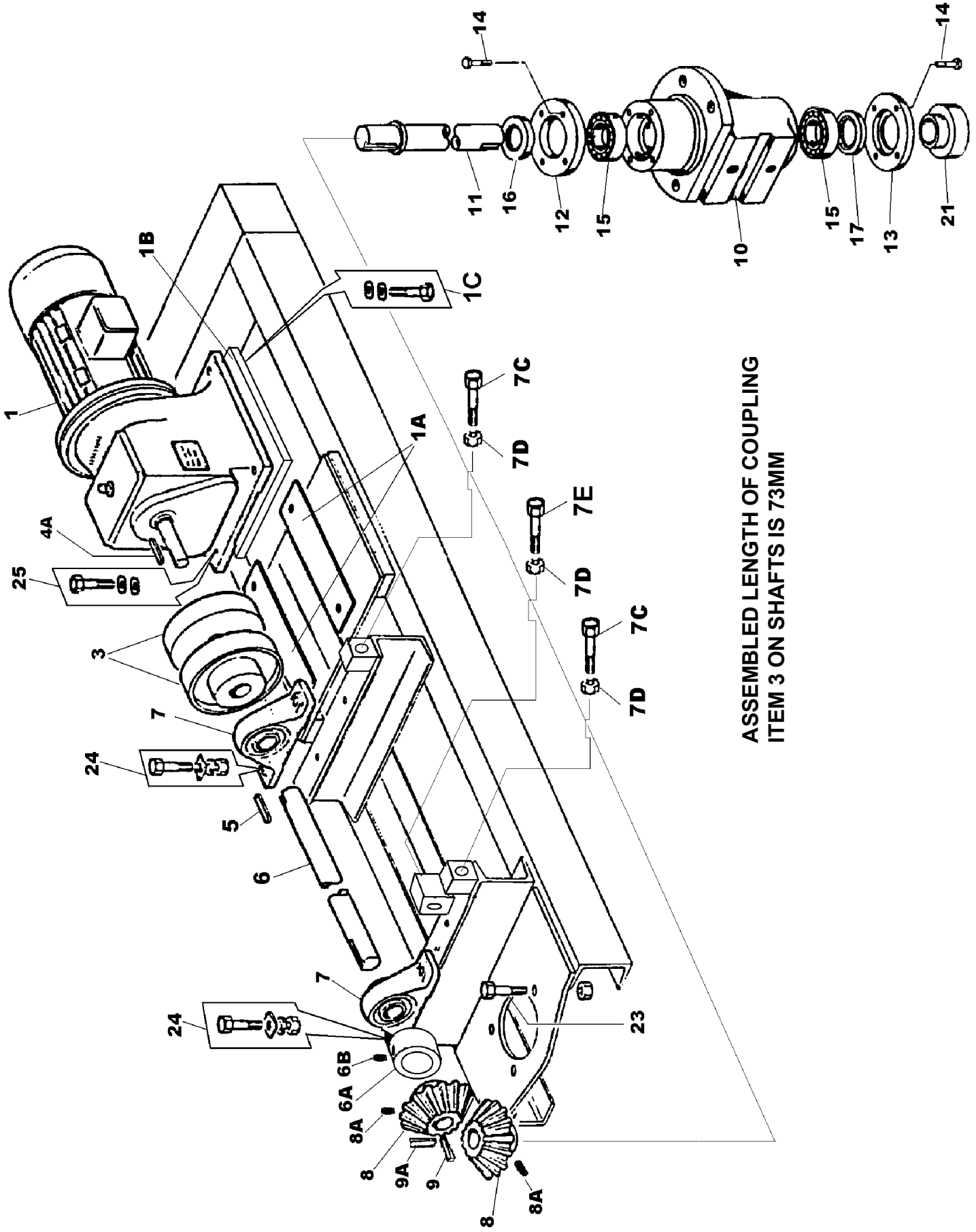
# RP100XD MK2 MIXING PAN & DRIVE



# RP100XD MK2 MIXING PAN & DRIVE

|     |            |  |     |
|-----|------------|--|-----|
| 1   | CR540381   | 4 CU FT (0.11 CUBIC METRES CAP PAN) RP100          | 1   |
| 2   | CR53100864 | PLATE ADAPTOR MOUNTING                             | 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   |
| 13C | 105S07     | WASHER TAPER 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   |
| 17C | 105S05     | WASHER TAPER M12                                   | 2   |
| 18  | CR52100896 | BEVEL PINION SHAFT                                 | 1   |
| 19  | CR329015   | COUPLING, DRIVEN HALF FEATHER KEY                  | 1   |
| 20  | 8S05F      | 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 55                            | 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  | 555114904  | SHIM SET, GEARED MOTOR UNIT                        | A/R |
| 30  | CR26100866 | CHASSIS FRAME                                      | 1   |

# RP100XD MK2 STAR DRIVE ASSEMBLY



ASSEMBLED LENGTH OF COUPLING  
ITEM 3 ON SHAFTS IS 73MM

# RP100XD 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                               | A/R |
| 1B                           | CR53100865 | PLATE ADAPTOR GEAR MOTOR UNIT (BH302)              | 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   |
| <b>Consists of Following</b> |            |  |     |
| 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                          | 1   |
| 5                            | CR329013   | KEY DRIVEN HALFCOUPLING                            | 1   |
| 6                            | CR52100871 | SHAFT TOP  | 1   |
| 6A                           | CR52100872 | 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   |

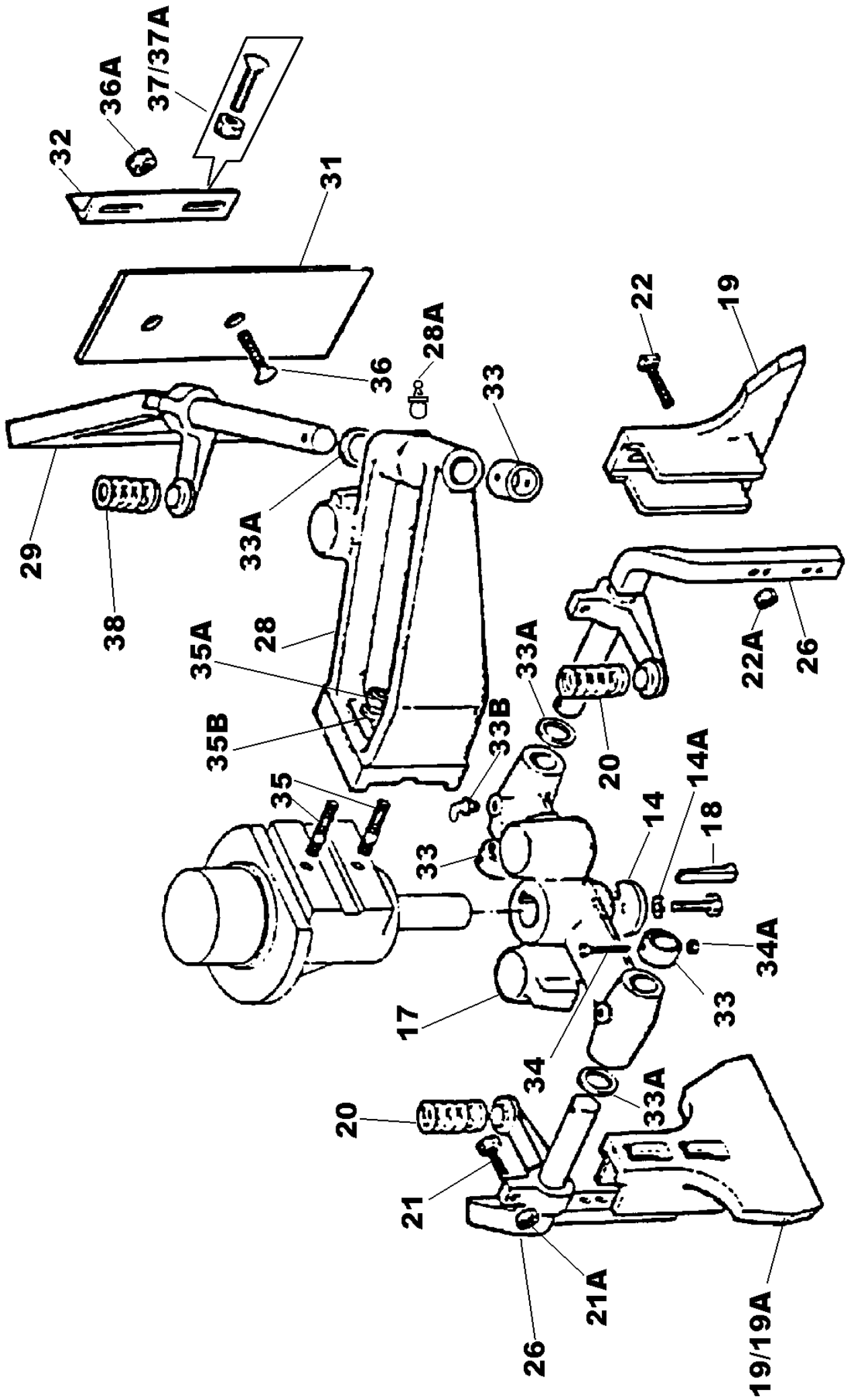


# RP100XD MK2 STAR DRIVE ASSEMBLY

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|     |            |                                    |   |
|-----|------------|------------------------------------|---|
| 24A | 267S07     | WASHER FLAT M12                    | 4 |
| 24B | 105S05     | WASHER TAPER M12                   | 4 |
| 24C | 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 |

# RP100XD MK2 MIXING STAR ASSEMBLY

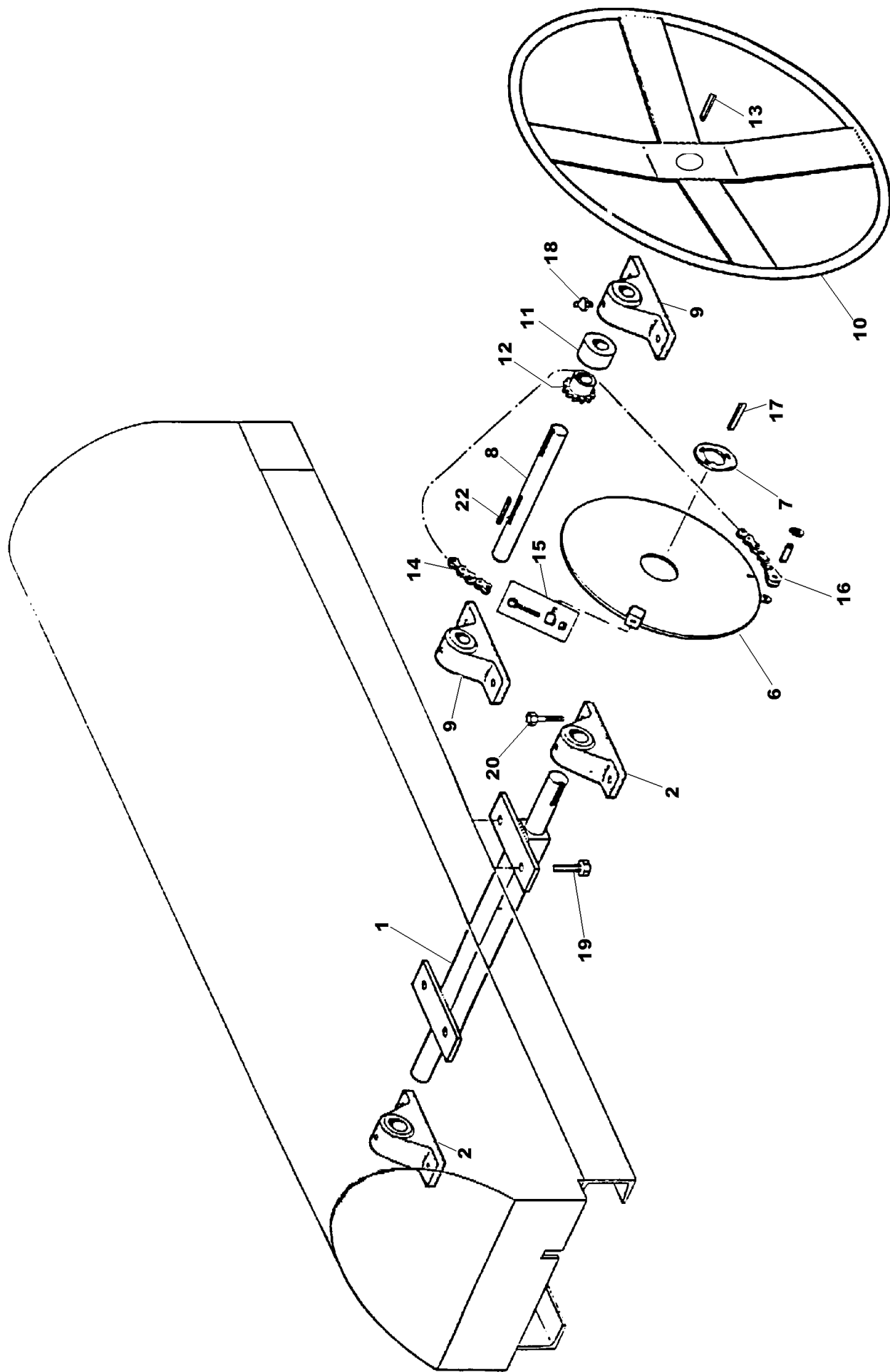


# RP100XD MK2 MIXING STAR ASSEMBLY

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|     |            |  |    |
|-----|------------|--|----|
| 14  | CR529020   | KEY CAP  | 1  |
| 14A | 11S05B     | SCREW SET M12 X 20                               | 1  |
| 14B | 17S06      | WASHER SPRING M12                                | 1  |
| 17  | CR210140   | STAR MIXING                                      | 1  |
| 18  | CR329053   | KEY FEATHER MIXING STAR                          | 1  |
| 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  | CR260390   | FINGER STAR BLADE 4 CU FT PAN-RP100              | 2  |
| 28  | CR210142   | BRACKET FIXED BLADE                              | 1  |
| 28A | 333104020  | NIPPLE GREASE 1/4 BSP STRAIGHT                   | 1  |
| 28B | 176S01     | COVER NIPPLE GREASE                              | 1  |
| 29  | CR260415   | FINGER FIXED BLADE 4 CU FT PAN-RP100             | 1  |
| 31  | CR53100880 | BLADE FIXED, 4 CU FT PAN-RP100XD MK2             | 1  |
| 32  | CR53100881 | ANGLE FIXED BLADE MOUNTING RP100XD MK2           | 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    | 4  |
| 37A | 17S05      | WASHER, SPRING M10                               | 4  |
| 37B | 7S04       | NUT M10  | 4  |
| 38  | CR330022   | SPRING FIXED BLADE                               | 1  |

# RP100XD MK2 MIXING STAR LIFTING ARRANGEMENT

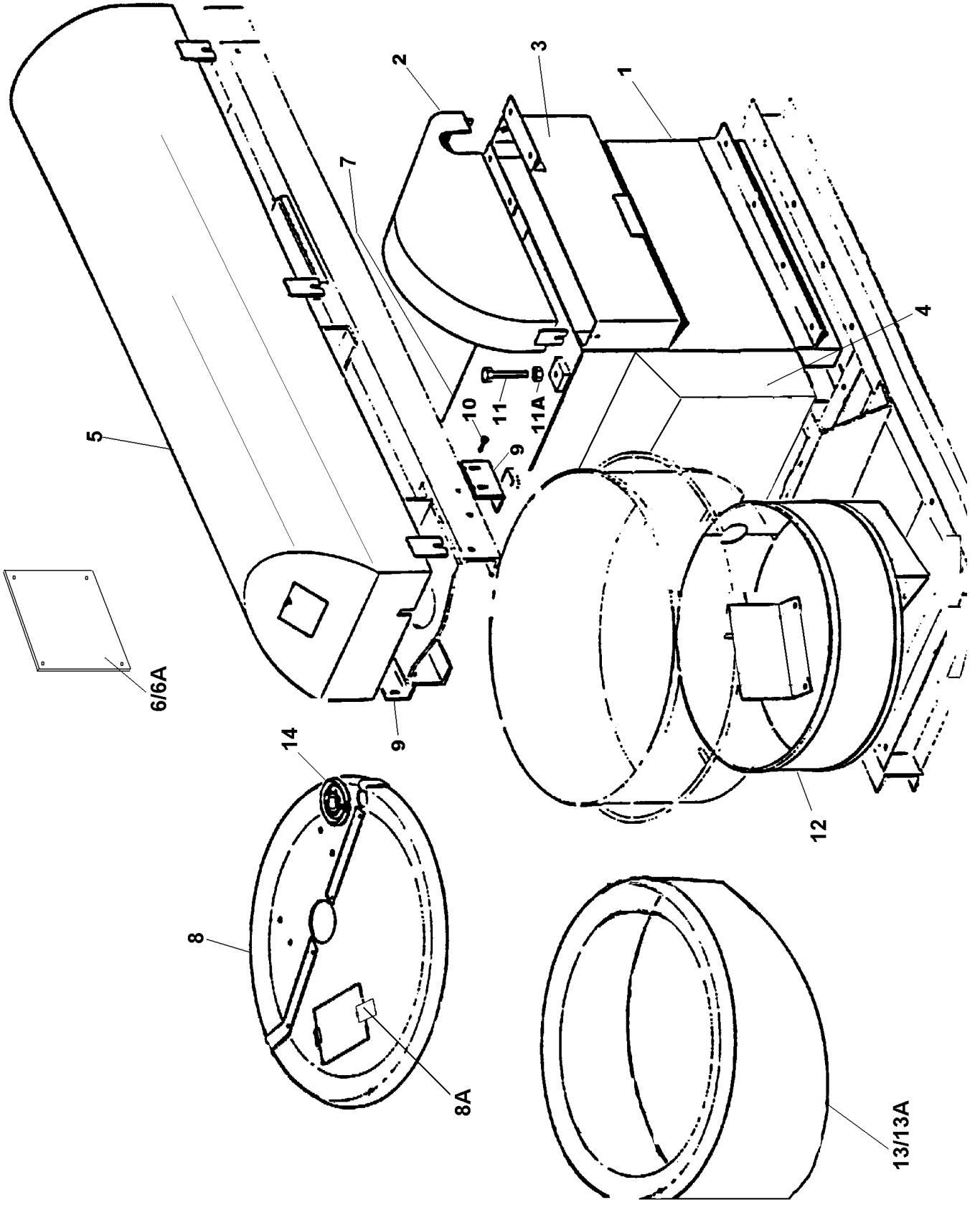


# RP100XD MK2 MIXING STAR LIFTING ARRANGEMENT

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|     |            |  |    |
|-----|------------|--|----|
| 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                                | 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 | 267S08     | WASHER FLAT M16                                    | 4  |
| 19C | 61S06      | NUT BINX M16                                       | 4  |
| 19D | 105S07     | WASHER TAPERED M16                                 | 4  |
| 20  | 8S05E      | BOLT, BEARINGS M12 X 45                            | 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                 | 4  |
| 21C | 267S04     | WASHER FLAT M6                                     | 4  |
| 21D | 17S03      | WASHER SPRING M6                                   | 4  |
| 22  | 304708035  | KEY PARALLEL, SPROCKET BUSH                        | 1  |

# RP100XD MK2 COVERS & GUARDS



# RP100XD 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                             | 6 |
| 3B  | 267S07     | WASHER FLAT M12                                | 6 |
| 3C  | 61S05      | NUT BINX M12                                   | 6 |
| 4   | CR54100862 | GUARD PAN DRIVE SHAFT                          | 1 |
| 4A  | 11S03B     | SCREW SET M8X 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  | 7S03       | 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, 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, 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, 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   | CR54100825 | 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 |

## RP100XD MK2 COVERS & GUARDS

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|     |            |   |    |
|-----|------------|---|----|
| 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  | CR54100826 | GUARD, PAN COVER SIDE, RH                     | 1  |
| 13A | CR54100827 | GUARD, PAN COVER SIDE, LH                     | 1  |
| 13B | CR54100828 | 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 | 8S03B      | BOLT M8                                       | 2  |
| 15B | 267S05     | WASHER FLAT M8                                | 4  |
| 15C | 61S03      | NUT BINX SELF LOCKING                         | 2  |



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# RP100XD MK2 PROXIMITY SWITCHES & CAM

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## PARTS NOT ILLUSTRATED

|    |            |   |     |
|----|------------|---|-----|
| 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   |

# RP100XD 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 | 11S01C     | SCREW SET M5 X 25                                 | 6   |
| 1G | 267S03     | WASHER FLAT M5                                    | 6   |
| 1H | 17S02      | WASHER SPRING M5                                  | 6   |
| IJ | 7S01       | NUT M5  | 6   |
| 2  | CR229109   | SP20 CONDUIT                                      | 4MT |
| 3  | CR229110   | SP20/M20/TYP E B FITTINGS                         | 12  |
| 4  | 191902200  | TERMINAL RING 'CRIMP ON TYPE' BLUE                | 8   |
| 5  | 144799000  | CABLE 1.5MM SQ G/Y (6491X H07)                    | 4MT |
| 6  | 144700100  | CABLE 1.5MM SQ RED (6491X H07)                    | 4MT |
| 7  | 144798000  | CABLE 1.5MM SQ BLACK (6491X H07)                  | 4MT |
| 8  | CR229103   | CABLE 2.5MM SQ RED (6491X H07)                    | 3MT |
| 9  | CR229104   | CABLE 2.5MM SQ YELLOW (6491X H07)                 | 3MT |
| 10 | CR229105   | CABLE 2.5MM SQ BLUE (6491X H07)                   | 3MT |
| 11 | CR229097   | TERMINAL RING 'CRIMP ON TYPE'                     | 2   |
| 12 | CR229114   | LOCK RINGS 20MM                                   | 3   |
| 13 | CR22100879 | CONVERTER PG16-M20                                | 2   |
| 14 | 513340800  | BOSS  | 4   |
| 15 | 143200300  | CLIP 'P'  | 2   |
| 16 | 11S02B     | SCREW SET M6 X 20                                 | 2   |
| 17 | 267S04     | WASHER FLAT M6                                    | 4   |
| 18 | 17S03      | WASHER SPRING M6                                  | 2   |
| 19 | 7S02       | NUT M6  | 2   |
| 20 | CR22100886 | SWITCH PROXIMTY, MIXING STAR LIFTING PROTECTION   | 1   |
| 21 | CR22100878 | SWITCH PROXIMTY, PAN DRIVE PROTECTION             | 2   |

# RP100XD MK2 DECALS AND LOGOS

## 1 CROKER CUMFLOW RP100XD

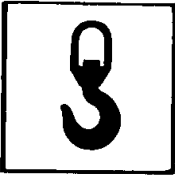
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|  |            |            |       |
|--|------------|------------|-------|
| <b>WINGET</b> WINGET LIMITED<br>P.O. Box 89, Shepperton, Bucks, Bucks, MK45 0WV<br>Tel: 01849 870000 Fax: 01849 870001 |            |            |       |
| Model  | _____      |            |       |
| Serial No.   | _____      |            |       |
| Engine No.   | _____      |            |       |
| Capacity   | Mass (kg)  | _____      |       |
| SRO No.  | Power (kW) | _____      |       |
| Year Of Manuf.   | Eng. (rpm) | Drum (rpm) | _____ |
| <small>A Gossard Group Company</small>   |            |            |       |

4

**WINGET**

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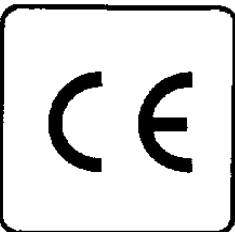
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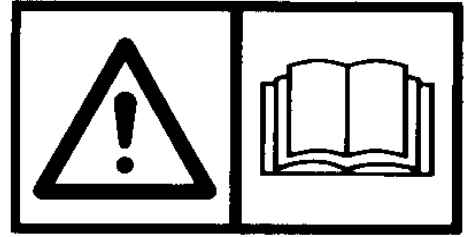
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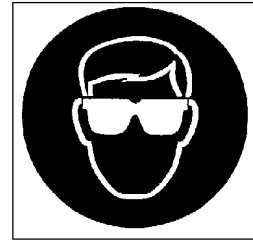
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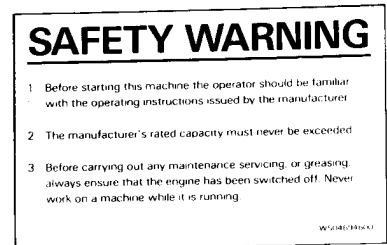
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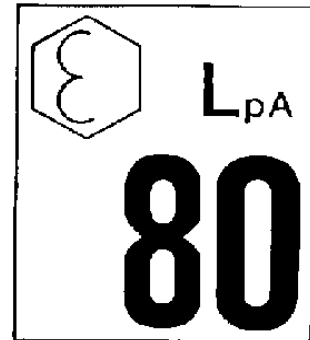
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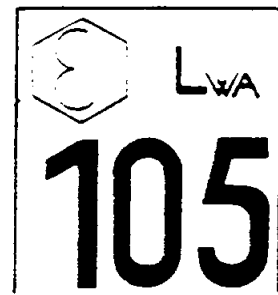
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# RP100XD MK2 DECALS AND LOGOS

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|    |            |                          |   |
|----|------------|--------------------------|---|
| 1  | CR85100763 | DECAL RP100XD            | 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          | 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 |



**OPERATING  
AND  
MAINTENANCE MANUAL**

**SECTION 5**

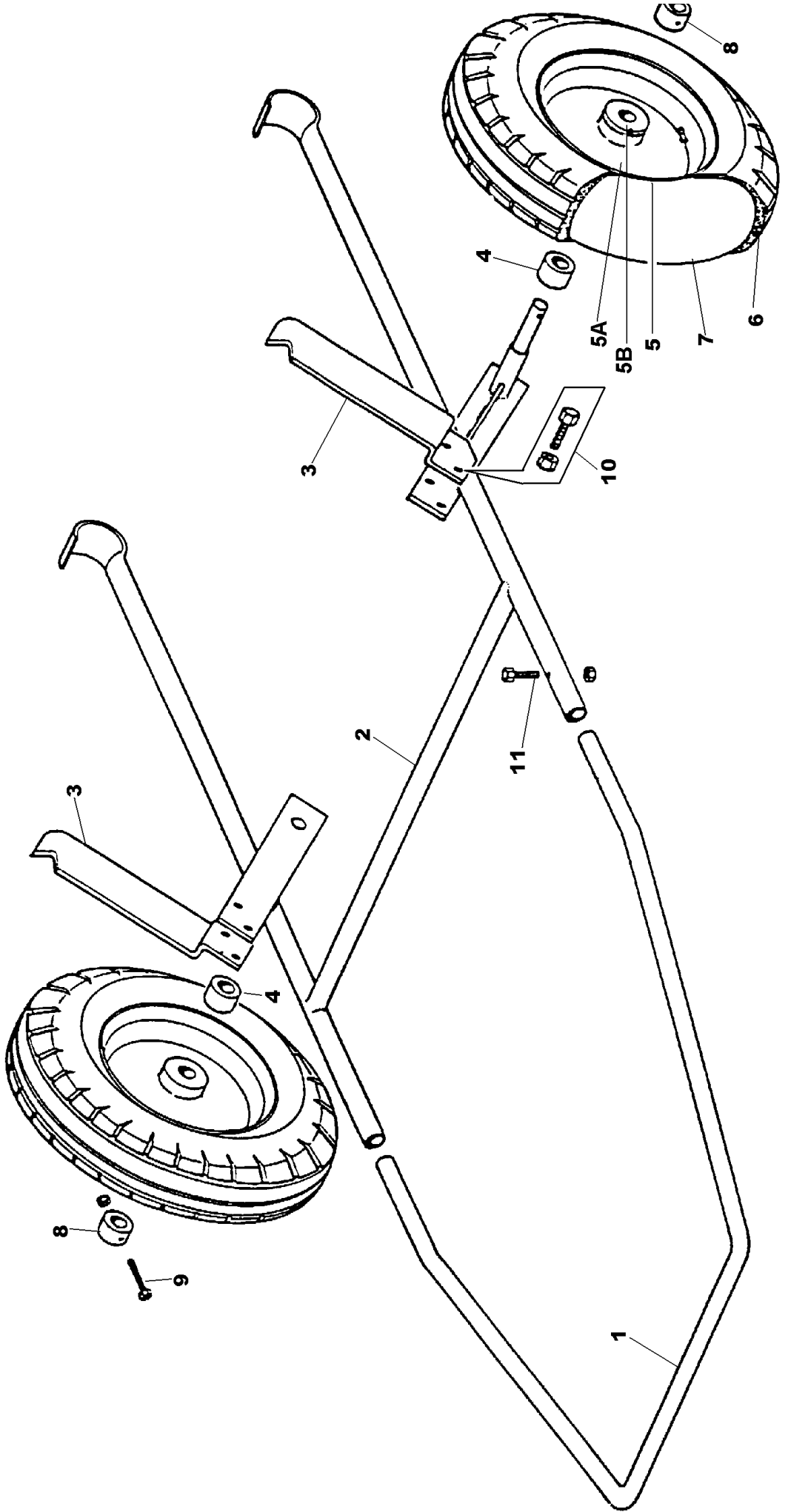
**ANCILLARY EQUIPMENT  
SPARE PARTS**





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# RP100XD PAN TROLLEY

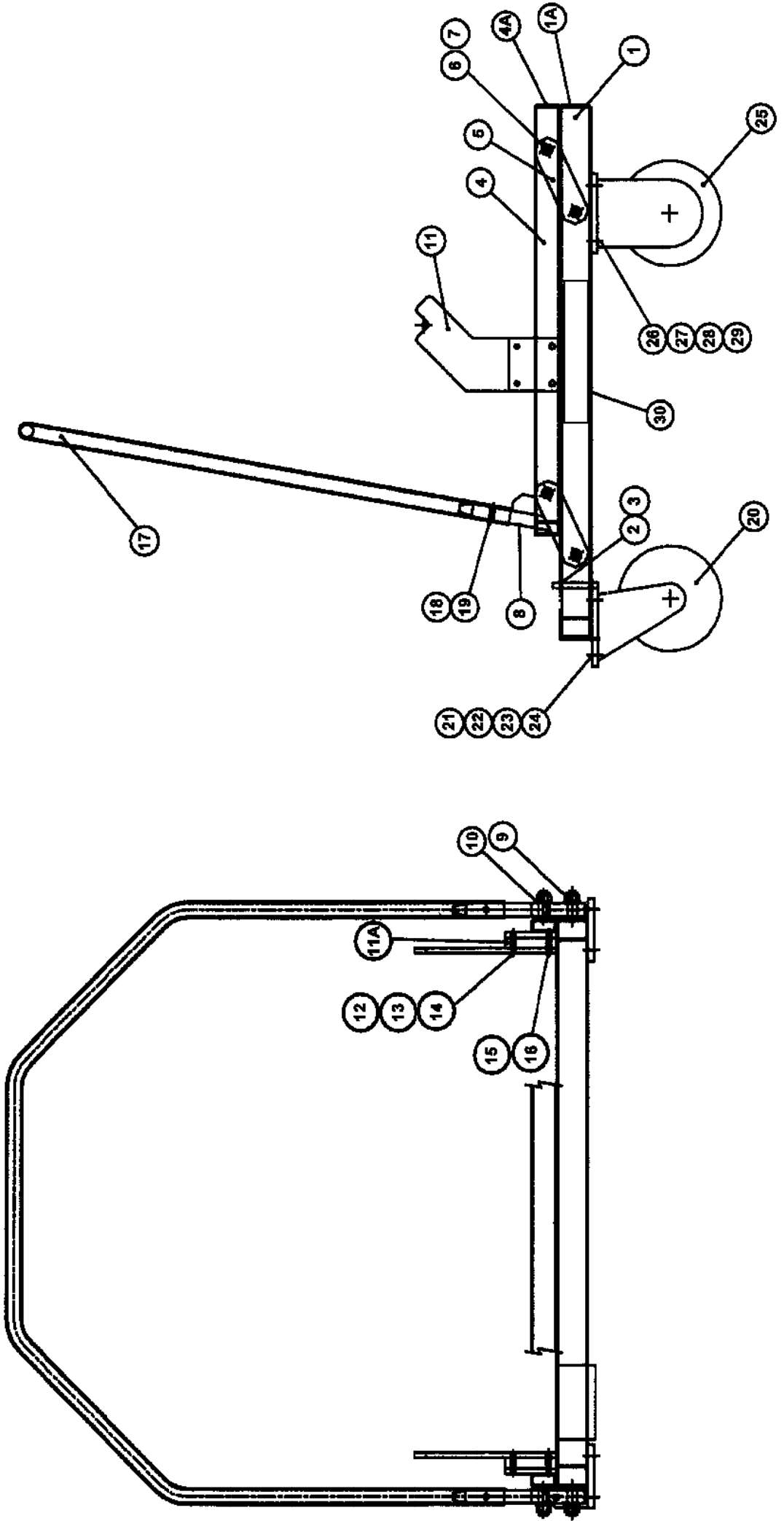


# RP100XD PAN TROLLEY

---

|     |          |                                     |     |
|-----|----------|-------------------------------------|-----|
| 1   | CR260392 | HANDLE, TROLLEY                     | 1   |
| 2   | CR260391 | CHASSIS TROLLEY                     | 1   |
| 3   | CR530485 | SUPPORT PAN (IN PAIRS)              | 1PR |
| 4   | 10S65    | SPACER WASHER, AXLE (WHEN REQUIRED) | 4   |
| 5   | CR440151 | WHEEL ASSEMBLY INC ITEMS 5,6 & 7    | 2   |
| 5A  | CR440122 | WHEEL RIM                           | 2   |
| 5B  | CR440125 | BEARING ROLLER                      | 2   |
| 6   | CR440123 | TYRE                                | 2   |
| 7   | CR440124 | TUBE                                | 2   |
| 8   | CR630105 | BOSS, WHEEL RETAINER                | 2   |
| 9   | 69S03G   | BOLT 3/8" UNF                       | 2   |
| 9A  | 107S14   | NUT NYLOC 3/8" UNF                  | 2   |
| 10  | 11S06F   | SCREW SET                           | 4   |
| 10A | 267S09   | WASHER FLAT                         | 8   |
| 10B | 61S06    | NUT BINX                            | 4   |
| 11  | 69S03G   | BOLT 3/8" UNF                       | 2   |
| 11A | 107S14   | NUT NYLOC 3/8" UNF                  | 2   |

# RP100XD FOUR WHEEL PAN TROLLEY



# RP100XD 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  | CR26100850 | PIVOT BAR FRONT                    | 2 |
| 6  | 59S11      | NUT NYLOC M16                      | 4 |
| 7  | 267S09     | WASHER FLAT M16                    | 4 |
| 8  | CR53100849 | 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  | CR53100853 | PLATE SPACER                       | 2 |
| 12   | 8S03E      | BOLT UPPER M8 x 45                 | 4 |
| 13   | 17S04      | WASHER SPRING M8                   | 4 |
| 14   | 267S05     | WASHER FLAT M8                     | 4 |
| 15   | 8S03D      | BOLT LOWER M8 x 40                 | 4 |
| 16   | 17S04      | WASHER SPRING 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 |
| <b>INDIVIDUAL WHEEL ITEMS AVAILABLE AS FOLLOWS</b> |            |                                    |   |
| 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 |
| <b>INDIVIDUAL WHEEL ITEMS AVAILABLE AS FOLLOWS</b> |            |                                    |   |
| 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 |

# RP100XD 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 |

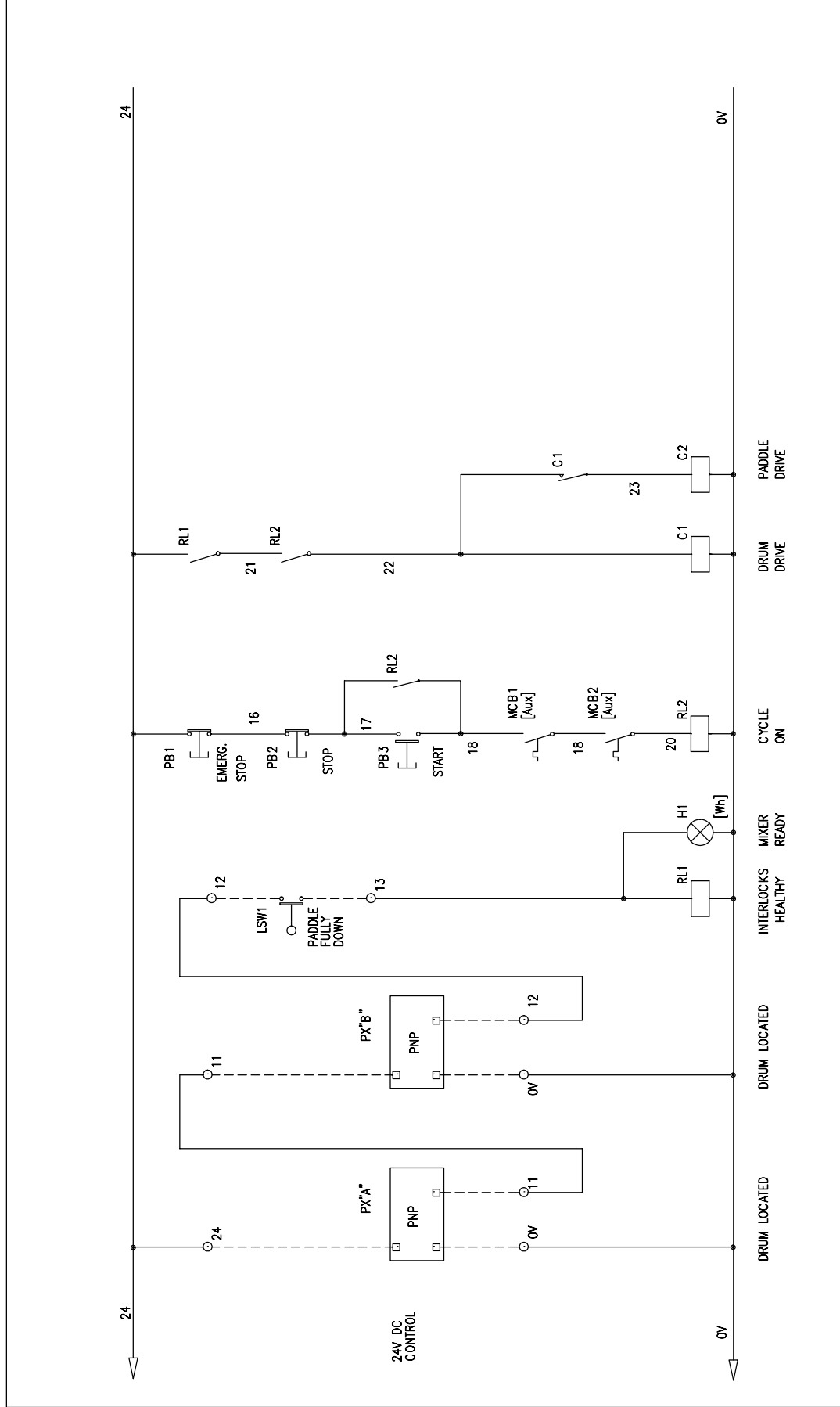


**OPERATING  
AND  
MAINTENANCE MANUAL**

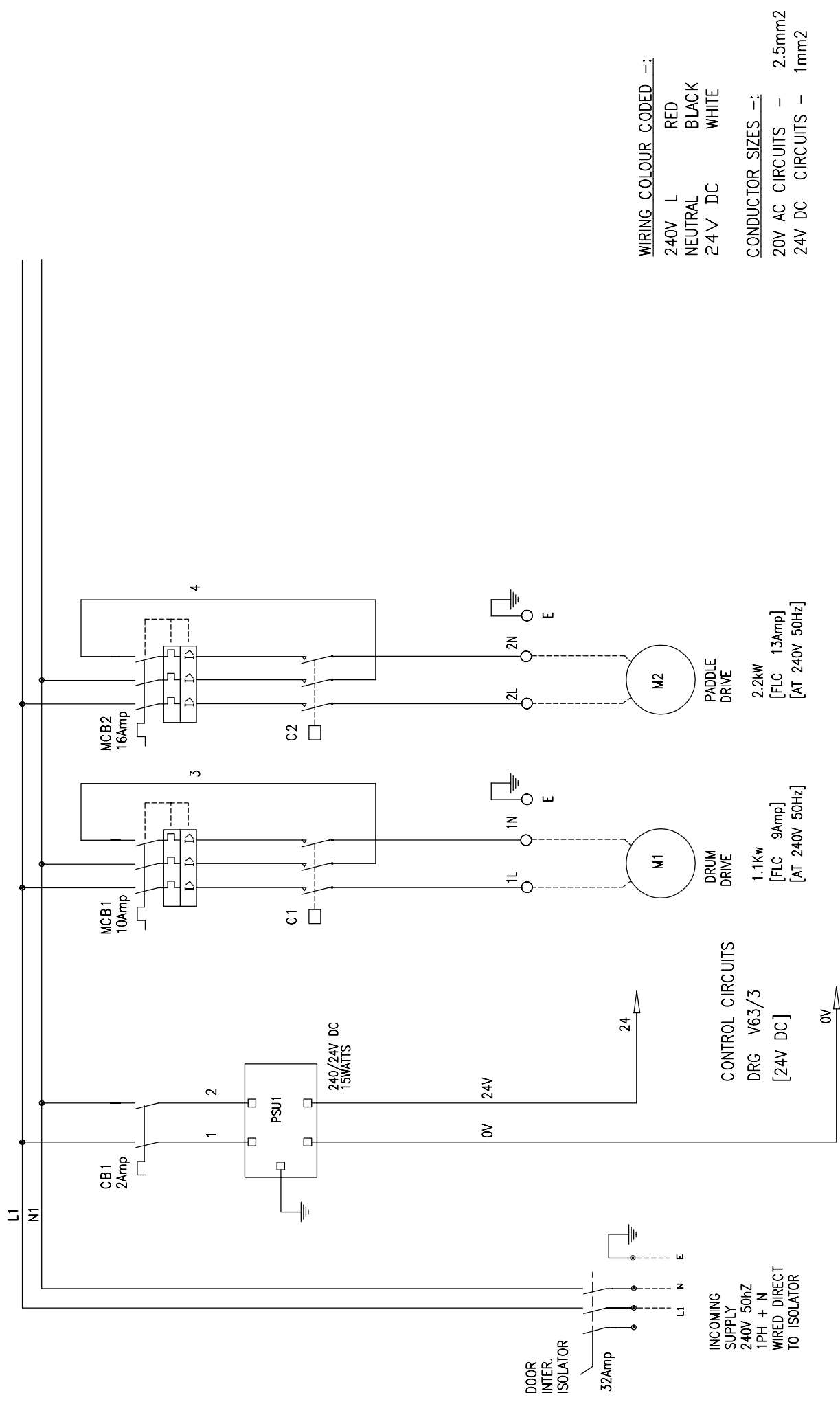
**SECTION 6  
ELECTRICAL SYSTEM**







|       |  |   |                  |             |
|-------|--|---|------------------|-------------|
| ISSUE | ISSUE B                                    | TITLE   | DRAWN T.E.STONES | DRAWING No. |
|       | CONTROL MODE CHANGED<br>CIRCUIT REDESIGNED |   |                  |             |
|       | 29/06/01                                   | HORWICH ELECTRONIC LABORATORIES Ltd, LONGWORTH RD, HORWICH, BOLTON<br>LANCS. BL6 7BN TEL: 01204 693311 FAX 01204 690023 | CHECKED          |             |
|       |  |   | APPROVED         | ISSUE B     |



WIRING COLOUR CODED -:  
 240V L RED  
 NEUTRAL BLACK  
 24V DC WHITE

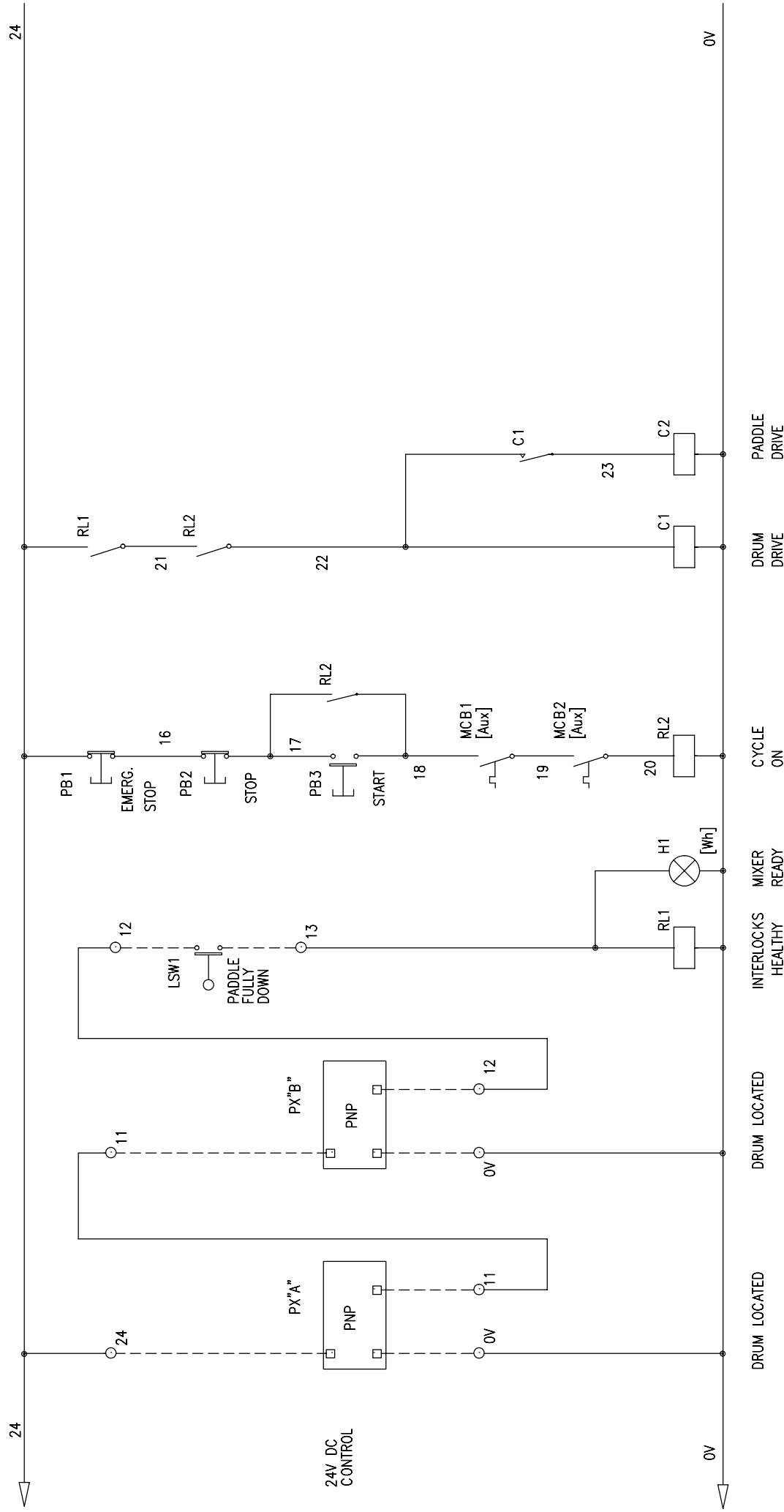
CONDUCTOR SIZES -:  
 20V AC CIRCUITS - 2.5mm<sup>2</sup>  
 24V DC CIRCUITS - 1mm<sup>2</sup>

|          |               |
|----------|---------------|
| DRAWN    | T.E.STONES    |
|          | DATE 29/10/02 |
|          | CHECKED       |
| APPROVED | ISSUE A       |

|       |   |
|-------|---|
| TITLE | ELECTRICAL POWER CIRCUITS   |
|       | PADDLE / DRUM MIXER STARTER PANEL                                   |
|       | WINGET Ltd  |
| ISSUE | HORWICH ELECTRONIC LABORATORIES L.td. LONGWORTH RD. HORWICH, BOLTON |
|       | LANCS. BL6 7BN TEL. 01204 693311 FAX 01204 690023                   |
|       |   |

|       |                   |
|-------|-------------------|
| ISSUE | DRAWING No. V63/2 |
|-------|-------------------|





ISSUE

ISSUE

TITLE

ELECTRICAL CONTROL CIRCUITS  
 PADDLE / DRUM MIXER STARTER PANEL  
 WINGET L td

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

DRAWN T.E.STONES

DATE 29/10/02

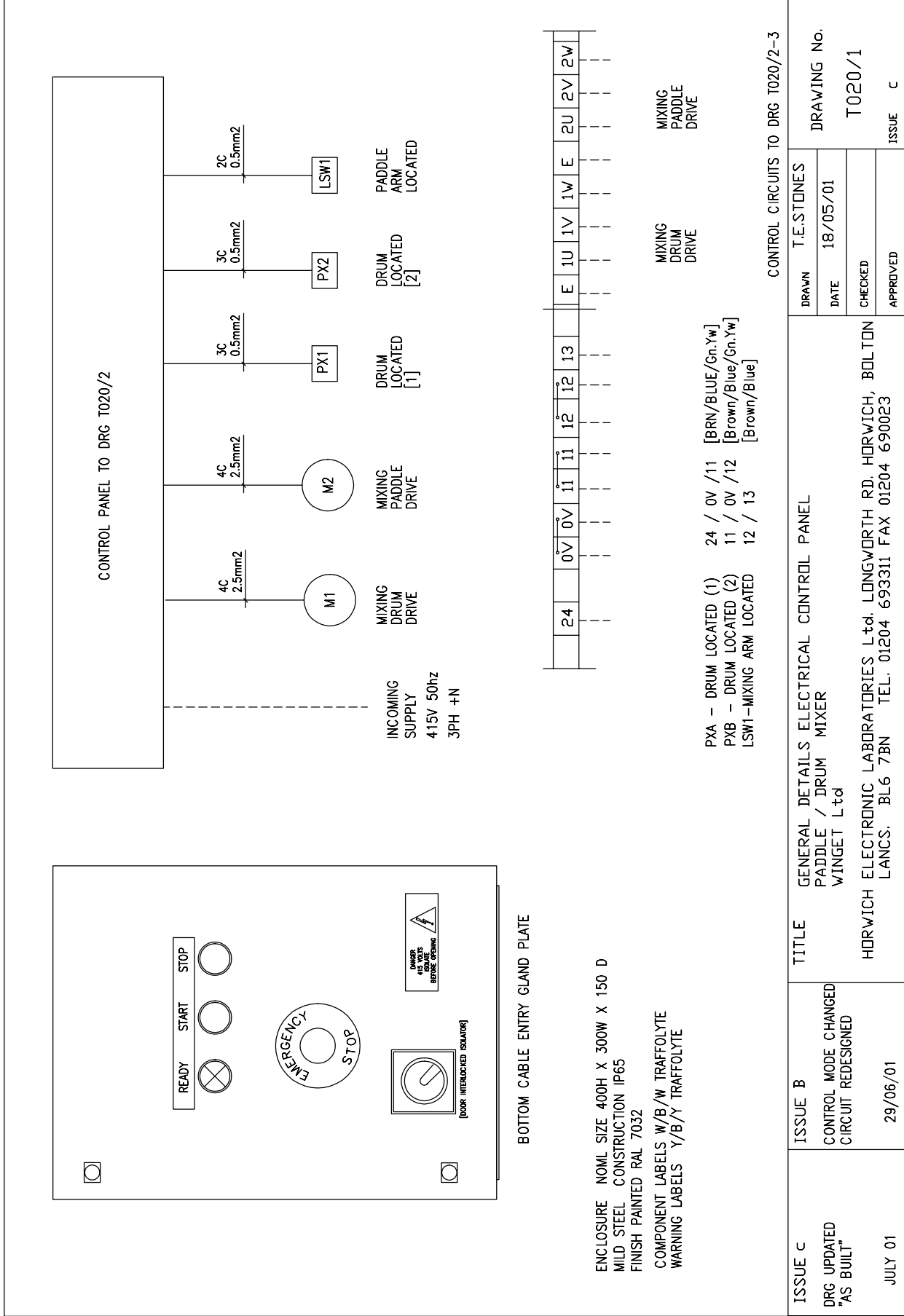
CHECKED

APPROVED

DRAWING No.

V63/3

ISSUE A



CONTROL PANEL TO DRG T020/2

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

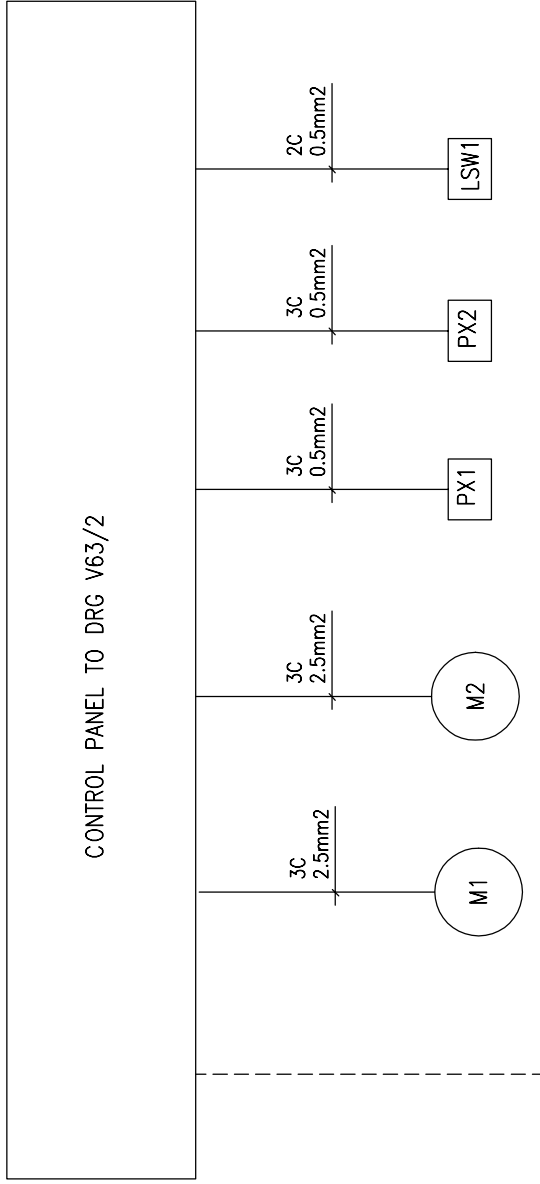
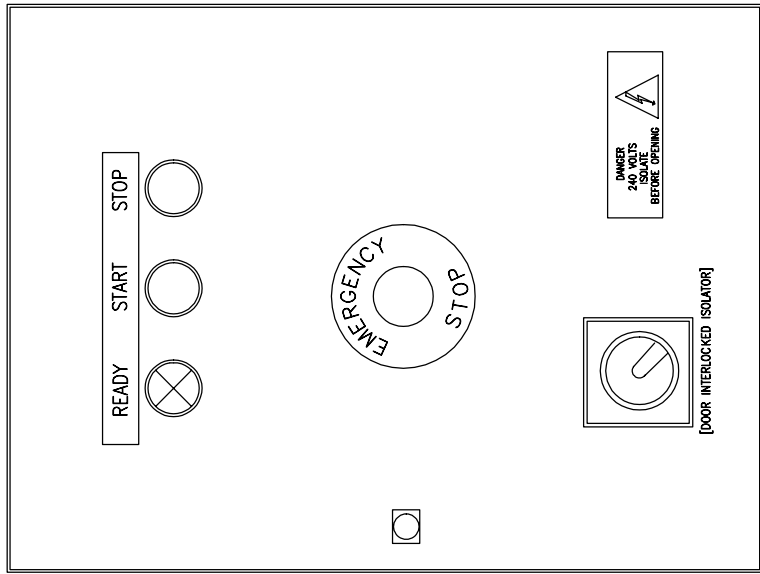
BOTTOM CABLE ENTRY GLAND PLATE

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]

MIXING DRUM DRIVE  
 MIXING PADDLE DRIVE

CONTROL CIRCUITS TO DRG T020/2-3

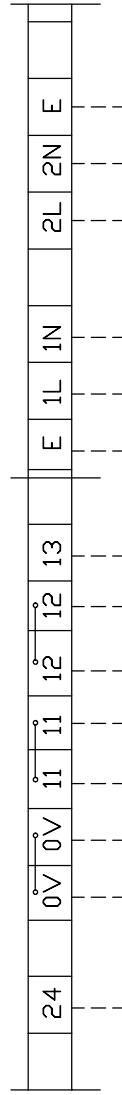
|                                      |   |  |                  |                       |
|--------------------------------------|---|--|------------------|-----------------------|
| ISSUE C<br>DRG UPDATED<br>"AS BUILT" | ISSUE B<br>CONTROL MODE CHANGED<br>CIRCUIT REDESIGNED | TITLE<br>GENERAL DETAILS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



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]

MIXING DRUM DRIVE  
 MIXING PADDLE DRIVE

CONTROL CIRCUITS TO DRG V63/2-3

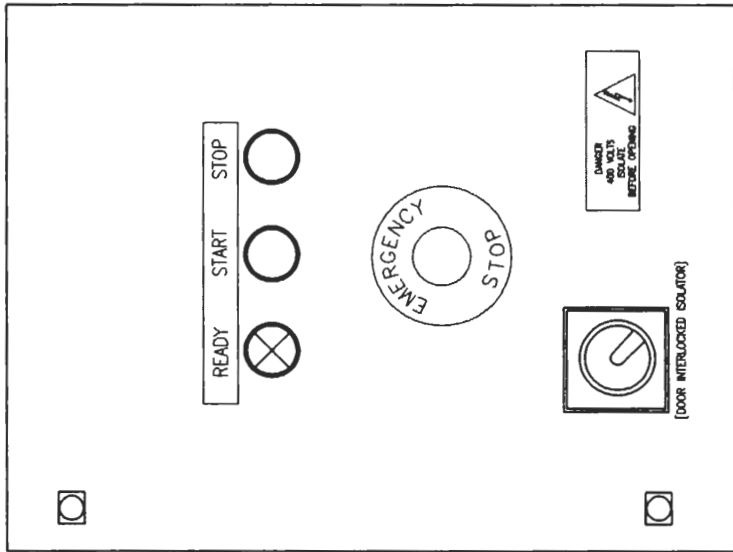
|       |            |  |          |
|-------|------------|--|----------|
| ISSUE | TITLE      | GENERAL DETAILS ELECTRICAL CONTROL PANEL |          |
|       |            | PADDLE / DRUM MIXER WINGET L td          |          |
| ISSUE | T.E.STONES | DRAWN                                    | DATE  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

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







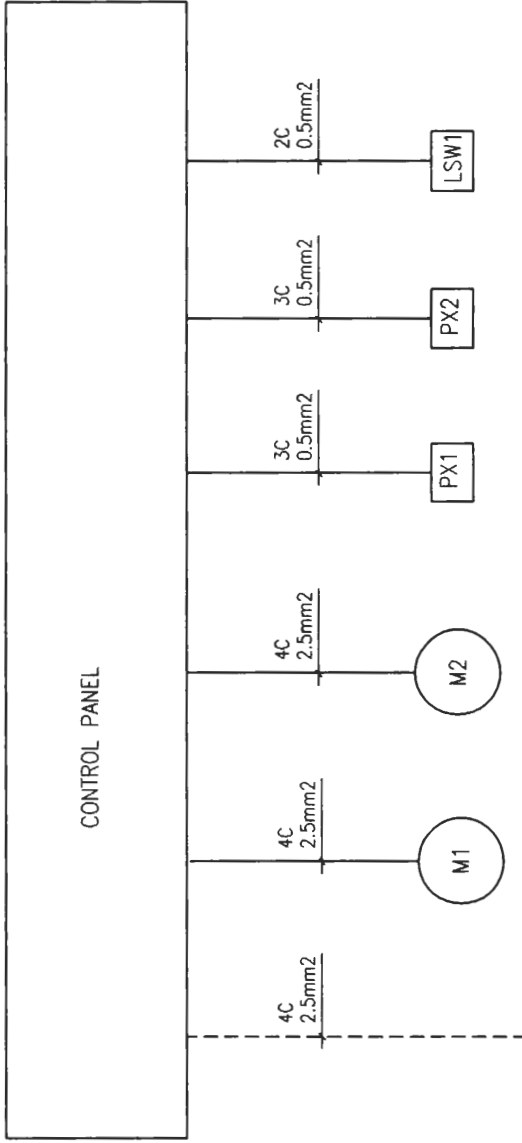


BOTTOM CABLE ENTRY GLAND PLATE

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

*FROM SERIAL NO 6115*



INCOMING SUPPLY  
 415V 50hz  
 3PH +N

MIXING DRUM DRIVE 4KW

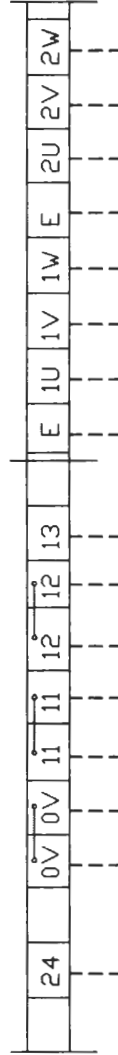
MIXING PADDLE DRIVE 4KW

DRUM LOCATED [1]

DRUM LOCATED [2]

PADDLE ARM LOCATED

SUPPLY & CABLE CONNECTIONS TO MIXER BY CLIENT



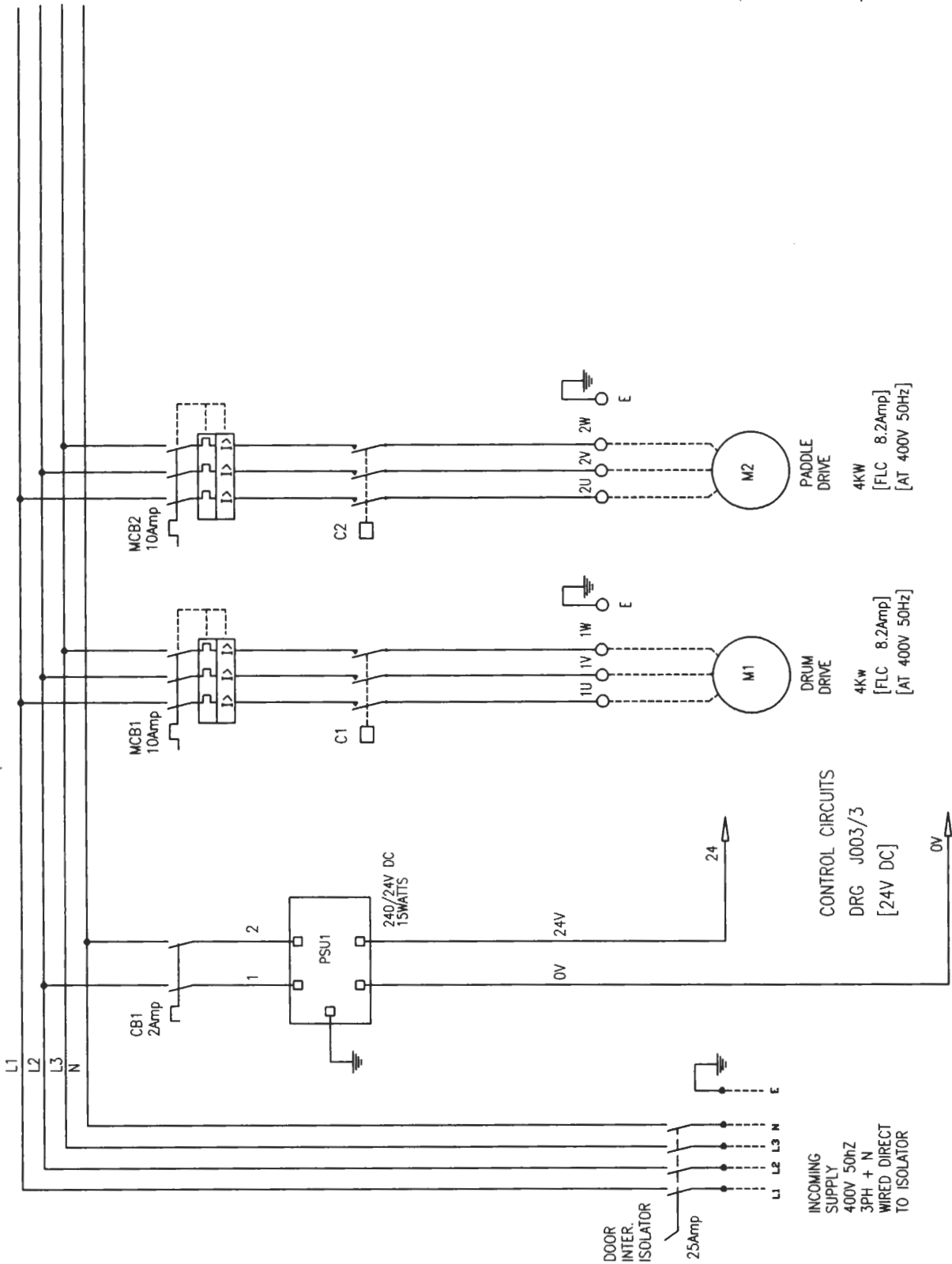
MIXING DRUM DRIVE

MIXING PADDLE DRIVE

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

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



**WIRING COLOUR CODED -:**

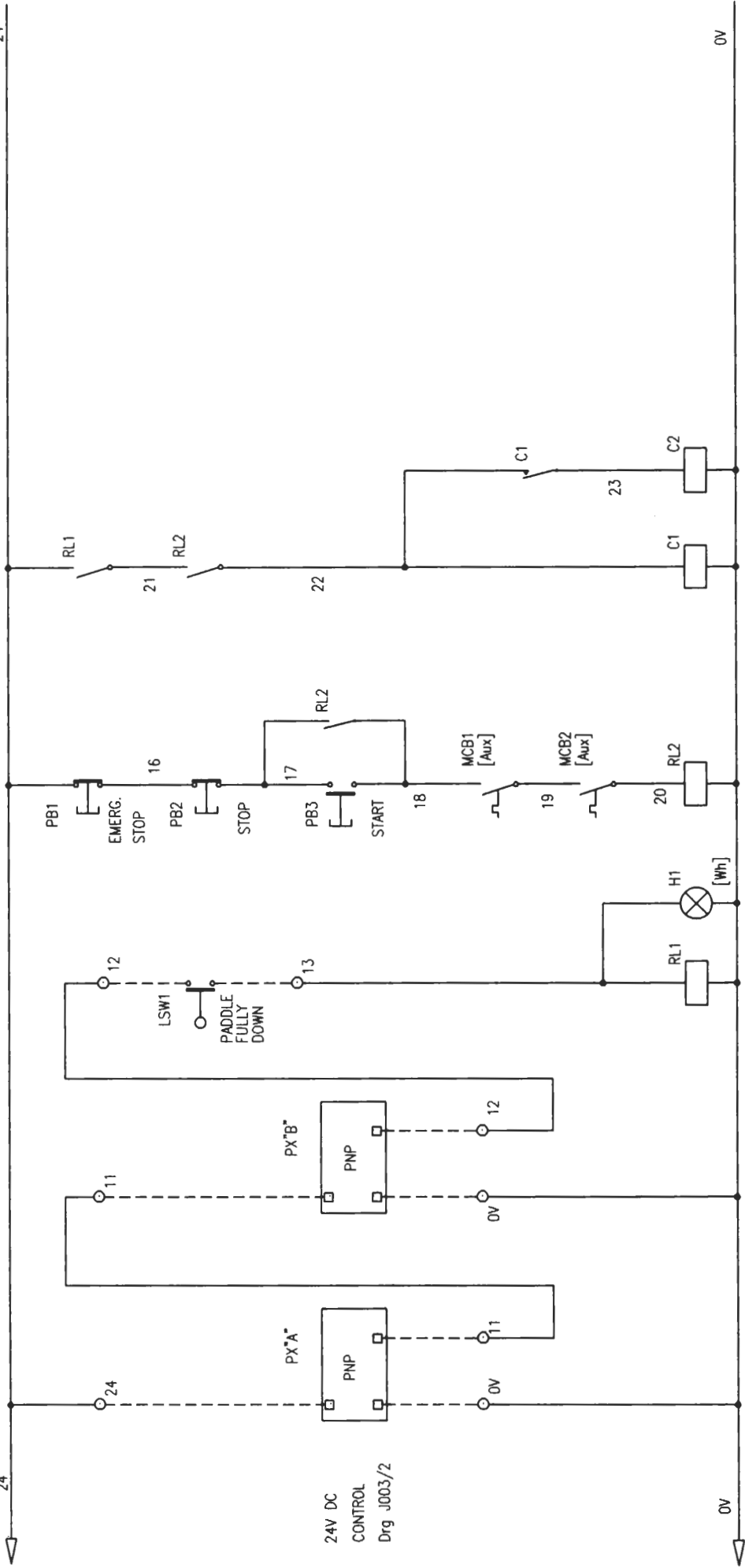
- 400V 3PH: BROWN/BLACK/GREY
- NEUTRAL: BLUE
- 24V DC: WHITE

**CONDUCTOR SIZES -:**

- L1,L2,L3+N - 2.5mm<sup>2</sup>
- 1U1,1U2,1U3 etc - 1.5mm<sup>2</sup>
- 24V DC - 1mm<sup>2</sup>

FROM SERIAL No 6115

|       |   |                  |
|-------|---|------------------|
| ISSUE | TITLE   | DRAWING No.      |
| ISSUE | POWER CIRCUITS - ELECTRICAL STARTER PANEL<br>PADDLE / DRUM MIXER RP100XD MK2 (400V 50Hz)<br>WINGET Ltd <b>3 PH, N + E</b> | J003/2           |
| ISSUE | HORWICH ELECTRONIC LABORATORIES Ltd. BANKFIELD STREET BOLTON<br>LANCS. BL3 5NP TEL. 01204 650555 FAX 01204 61797          | ISSUE 01         |
| ISSUE | CONTROL CIRCUITS<br>DRG J003/3<br>[24V DC]  | APPROVED         |
| ISSUE | INCOMING SUPPLY<br>400V 50Hz<br>3PH + N<br>WIRED DIRECT TO ISOLATOR   | CHECKED          |
| ISSUE | DOOR INTER ISOLATOR<br>25Amp  | DATE 24/07/14    |
| ISSUE | DRUM DRIVE<br>M1<br>4KW [FLC 8.2Amp]<br>[AT 400V 50Hz]  | DRAWN T.E.STONES |
| ISSUE | PADDLE DRIVE<br>M2<br>4KW [FLC 8.2Amp]<br>[AT 400V 50Hz]  |                  |



24V DC  
CONTROL  
Drg J003/2

DRUM LOCATED      DRUM LOCATED      INTERLOCKS HEALTHY      MIXER READY      CYCLE ON      DRUM DRIVE      PADDLE DRIVE

FROM SERIAL No 6115

|  |   |                  |             |
|--|---|------------------|-------------|
| ISSUE  | TITLE                                       | DRAWN T.E.STONES | DRAWING No. |
|  | CONTROL CIRCUITS - ELECTRICAL STARTER PANEL | DATE 24/07/14    | J003/3      |
|  | PADDLE / DRUM MIXER RP100XD Mk2             | CHECKED          |             |
|  | WINGET Ltd <i>30th. N + E</i>               | APPROVED         | ISSUE 01    |
| HORWICH ELECTRONIC LABORATORIES Ltd. BANKFIELD STREET BOLTON<br>LANCs. BL3 5NP TEL. 01204 650555 FAX 01204 61797 |   |                  |             |

MATERIAL PARTS LISTS

SHT NO. 1 OF 1

FROM SERIAL NO 6115

| QTY   | CIRCUIT REFERENCES            | DESCRIPTION                 | TYPE /CODE ND.           | 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 32N/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-PKZO              | 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 | TITLE   | DRAWN    | T.E.STONES | DRAWING No. |
|       | MATERIAL PARTS LISTS - ELECTRICAL STARTER PANEL             |          |            | J003/PL1    |
|       | PADDLE / DRUM MIXER RP100XD MK2                             | DATE     | 24/07/14   |             |
|       | WINGET Ltd  | CHECKED  |            |             |
|       | 3 PH, 1 + E   | APPROVED |            | ISSUE 01    |
|       | HORWICH ELECTRONIC LABORATORIES LTD BANKFIELD STREET BOLTON |          |            |             |
|       | LANCS. BL3 5NP TEL: 01204 550555 FAX: 01204 61797           |          |            |             |

# Motoranschluss

für Drehstrommotoren  
Elektrischer Anschluss



# Motor connection

for A. C. motors  
Electrical connection



Nr.: 441599.02

Seite 1 von 2



**STÖBER ANTRIEBSTECHNIK**

Kieselbronner Straße 12 • 75177 Pforzheim  
Postfach 910103 • 75091 Pforzheim  
Phone +49 (0) 7231 582-0 • Fax +49 (0) 7231 582-1000  
eMail: mail@stoerber.de • Internet: http://www.stoerber.de

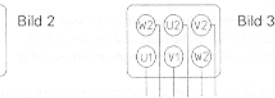
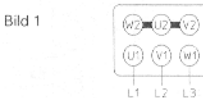
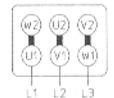
## Schaltbild Drehstrommotor / Connection diagram Three-Phase A.C. motor

Motor motor VDE 0530 / DIN EN 60034

| Ausführung design | $\Delta$              | Y             |
|-------------------|-----------------------|---------------|
| Betrieb running   | -> Bild 1             | -> Bild 2     |
| Anlauf starting   | direkt direct         | direkt direct |
|                   | Y- $\Delta$ -> 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



## TEMPERATURWÄCHTER\*) THERMAL PROTECTOR \*)

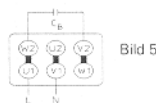
- > Kaltleiter (=KALT.) PTC-resistor
- > Bimetallschalter (= BIMET) bimetallic switch
- siehe Leistungsschild see rating-plate

Bild 4

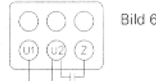
## DREHSTROMFREMDBELÜFTUNG \*) / THREE PHASE A.C. SEPARATE VENTILATION \*)

siehe Abschnitt "Motor" see paragraph "motor"

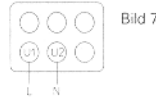
Einphasenfremdbelüftung in Steinmetzschaltung mit Betriebskondensator  $C_B$  \*) -> Bild 5  
single-phase separate ventilation according to "Steinmetz" with capacitor  $C_B$  \*) -> Bild 5



Einphasenfremdbelüftung mit Betriebskondensator  $C_B$  \*) -> Bild 6  
single-phase separate ventilation with capacitor  $C_B$  \*) -> Bild 6



Einphasenfremdbelüftung \*) -> Bild 7  
single-phase separate ventilation \*) -> 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        | $\pm 0V$                | 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.

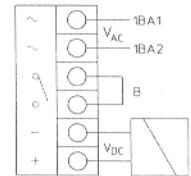
## BREMSE \*) BRAKE \*)

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



-> mit Gleichrichter und externer Versorgung  $V_{AC}$  -> Bild 9  
with rectifier and external power supply  $V_{AC}$  -> Bild 9  
Anschlussspannung  $V_{AC}$  siehe Leistungsschild  
supply voltage  $V_{AC}$  see rating-plate

Bild 9



- Wechselstromseitiges Schalten (mit Brücke B) A.C.-side connection (with jumper B)
- Gleichstromseitiges Schalten (schnelles Eintallen 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

-> mit Gleichrichter und externer Versorgung  $V_{AC}$  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.

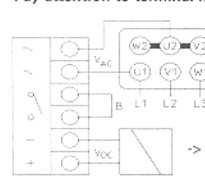
If the voltages differ, the connection of the brake to the motor terminals is not possible.

Nur bei Direktanlauf am Netz zulässig. Only permissible if direct online starting.

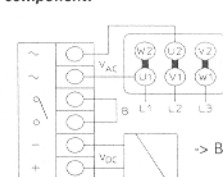
-> mit Powerbox-Gleichrichter with power rectifier

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 attachments, in case of existence, see separate connection diagram  
\*) 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!

## Multitum Absolutwertgeber / Multitum 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!

# Motoranschluss

für Drehstrommotoren  
Elektrischer Anschluss polumschaltbar

(D)

# Motor connection

for A. C. motors  
Electrical connection pole-changing

(GB)

Nr.: 441599.02

Seite 2 von 2



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eMail: mail@stoerber.de • Internet: http://www.stoerber.de

## Schaltbild für polumschaltbaren Drehstrommotor mit 2 Drehzahlen Connection diagram 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 Leistungsschild)  
Dahlander winding, connection Δ / YY or Y / YY (see rating-plate)

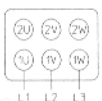


Bild 1

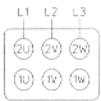


Bild 2

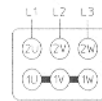


Bild 3

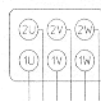


Bild 4

-> mit 6 Anschlussklemmen (direktes Einschalten)  
with 6 connection terminals (direct online starting)

• ohne Polumschalter (Schaltung am Klemmbrett)  
without pole-changing switch (terminal board connection)  
niedrige 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 Anlaspolschalter (Schaltung am Klemmbrett)  
without pole-changing starting switch (terminal board connection)

Anlauf niedrige Drehzahl starting low speed -> Bild 5

Betrieb niedrige Drehzahl running low speed -> Bild 6

Betrieb hohe Drehzahl running high speed -> Bild 7

• mit Anlaspolschalter with pole-changing starting switch -> Bild 8

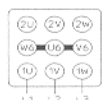


Bild 5

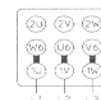


Bild 6

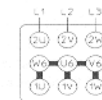


Bild 7

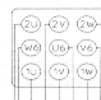


Bild 8

## 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  
Bremsen)  
D.C.-side connection (rapid break in of brake)  
Brücke B in -> Bild 10 entfernen und durch Schalt-  
kontakt ersetzen und zusätzlich wechsellstromseitig  
schalten  
remove jumper B in -> Bild 10 and connect with a switch  
and switch A.C.- side connections additionally

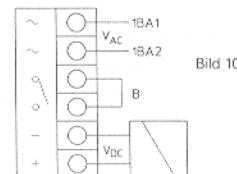


Bild 10

-> 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!

## DREHSTROMFREMBELÜFTUNG \*) THREE PHASE A.C. SEPARATE VENTILATION \*)

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

Einphasenfrembelüftung in  
Steinmetzschiene mit Betriebskondensator  $C_B$  \*) -> Bild 13  
single-phase separate ventilation according to "Steinmetz" with capacitor  $C_B$  \*) -> Bild 13

Einphasenfrembelüftung mit Betriebskondensator  $C_B$  \*) -> Bild 14  
single-phase separate ventilation with capacitor  $C_B$  \*) -> Bild 14

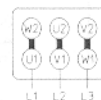


Bild 11

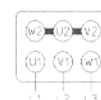


Bild 12

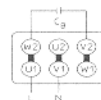


Bild 13

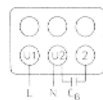


Bild 14

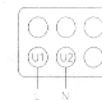


Bild 15

## TEMPERATURWÄCHTER \*) THERMAL PROTECTOR \*) -> Bild 16

-> Kaltleiter (KALT.) PTC-resistor  
-> 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 diagram  
(\*) falls vorhanden in case of existence (\*\*) siehe Leistungsschild 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<br>signal/supply | Aderfarbe<br>color of wire   | Kontakt / contact<br>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 /<br>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!





# Ersatzteilliste

für Stirnradgetriebe - Fußausführung

# Spare Parts List

for helical gear units -  
foot mounting

Nr.: 440813.02

Seite 2 von 2



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eMail: mail@stoerber.de • Internet: http://www.stoerber.de

| 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<br>(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