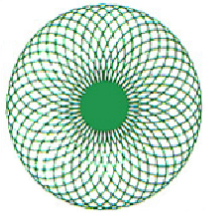


# **WINGET**



# **Croker**

## **CUMFLOW RP50XD ROTATING PAN MIXER**

# **PARTS & OPERATION MANUAL**

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

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

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

### **NOTE**

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

### **NOTE**

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

**OPERATING  
AND  
MAINTENANCE MANUAL**

**SECTION 1**

**GENERAL INFORMATION**

**RP50XD**

## **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 OLS

Telephone No:            ++ 44 (0)1204 854650  
Facsimile No:            ++ 44 (0)1204 854663  
'E Mail'                    [crokersales@winget.co.uk](mailto:crokersales@winget.co.uk)  
                                  [parts@winget.co.uk](mailto:parts@winget.co.uk)

## **ORDERING SPARES**

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

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

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

## **IMPORTANT NOTICE**

The CUMFLOW RP50XD 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.**

**RP50XD**  
**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)**

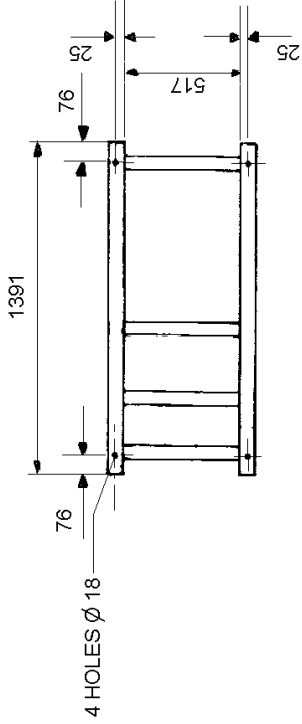
9.1	RP50XD	788	RP1250XD	4840
	RP100XD	814	RP1500XD	4980
	RP200XD	1400	RP3000XD	7112
	RP400XD	2000	FP1000	4040
	RP550XD	2150	FP1500	4065
	RP850XD	2600	FP2000	4100

- 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**

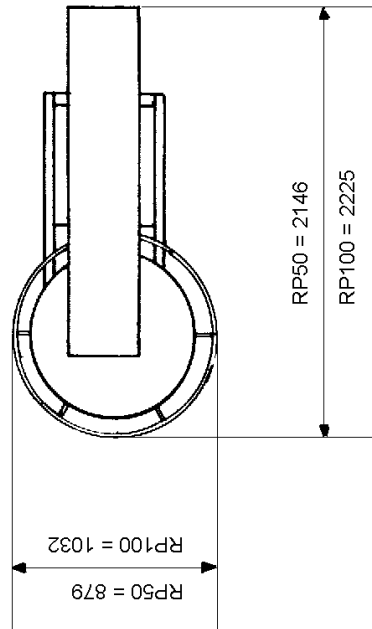
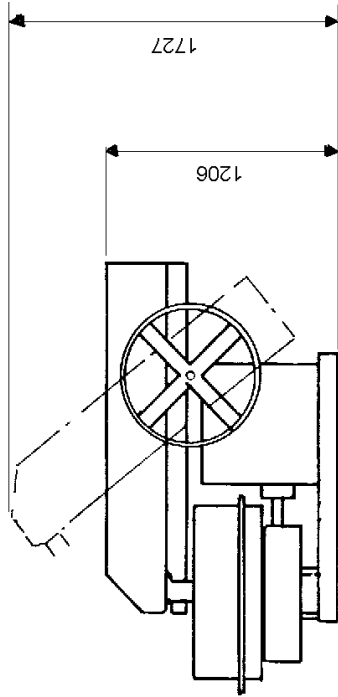
- 10.1 Noise. Measured in accordance with Directive 2000/14 EC:- The noise levels did not exceed 104dB(a)LWA

# INSTALLATION DRAWING



## NOTES

- STAR DRIVE MOTOR 1.8Kw
- PAN DRIVE MOTOR 1.1Kw
- MACHINE WEIGHT 100XD 814Kg  
50XD 788Kg



**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.

## 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.

**OPERATING  
AND  
MAINTENANCE MANUAL**

**SECTION 3**

**TECHNICAL SPECIFICATION  
AND MAINTENANCE**

## **TECHNICAL SPECIFICATION OF CUMFLOW RP50XD**

<b><u>CAPACITIES:</u></b>	Maximum Batch Capacity	by Weight 82 kgs by Volume 56.5 litres
	Batch capacity and outputs will vary with material densities.	
<b><u>FEED MATERIAL:</u></b>	Maximum Size	19 mm
<b><u>MIXER FRAME:</u></b>	Strongly constructed from welded Steel Channel	
<b><u>MIXING PAN:</u></b>	Steel Base Pan removed by hand or with the aid of a special trolley.	
<b><u>MIXING STAR:</u></b>	Two spring mounted mixing star blades and fixed scraper blade	
<b><u>MIXING STAR CONTROLS</u></b>	762mm(30") diameter handwheel raises mixing star clear of the pan	
<b><u>POWER UNITS:</u></b>	Mixing pan drive 1.1kw totally enclosed geared electric motor to suit 3 phase, 50 cycles, 380/420 volts a/c supply. Mixing star drive 2.2kw totally enclosed geared electric motor to suit 3 phase, 50 cycles, 380/420 volts a/c supply	
<b><u>ELECTRICAL CONTROLS</u></b>	Direct on line starter controls both motors. Automatic safety control switch operates when mixing star is raised out of the pan with proximity switch to sense pan position	
<b><u>GUARDING</u></b>	All gears are guarded to comply with the relevant PUWER and Supply of Machinery Safety Regulations	
<b><u>SPEEDS</u></b>	Speed of Pan	16 rpm
	Speed of Star	74 rpm

**WEIGHTS (UNLADEN)**

788 kg

Weight of additional pan

63.5kg

Weight of optional trolley

37kg

**CONVERSION KIT**

To change the RP100 INTO A RP50 and vice-versa

**PAN LIFTING**

**TROLLEY**

Tubular steel frame mounted on two 406 x 120 mm (16 x 4)  
4 ply pneumatic industrial wheels

## **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 Use Total Carter EP460 3.5 litres cap
2. Pan Drive Gear Box Use Total Carter EP460 3.5 litres cap

## 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.

<b><u>MIXING BLADE</u></b>	3mm clear of pan base. Adjust by moving the blade up or down its finger.
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<b><u>FIXED BLADES</u></b>	6mm clear of pan base with the leading edge just touching the pan side. Adjust by moving the blade up or down its finger.
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# **MAINTENANCE FOR GEAR UNITS**

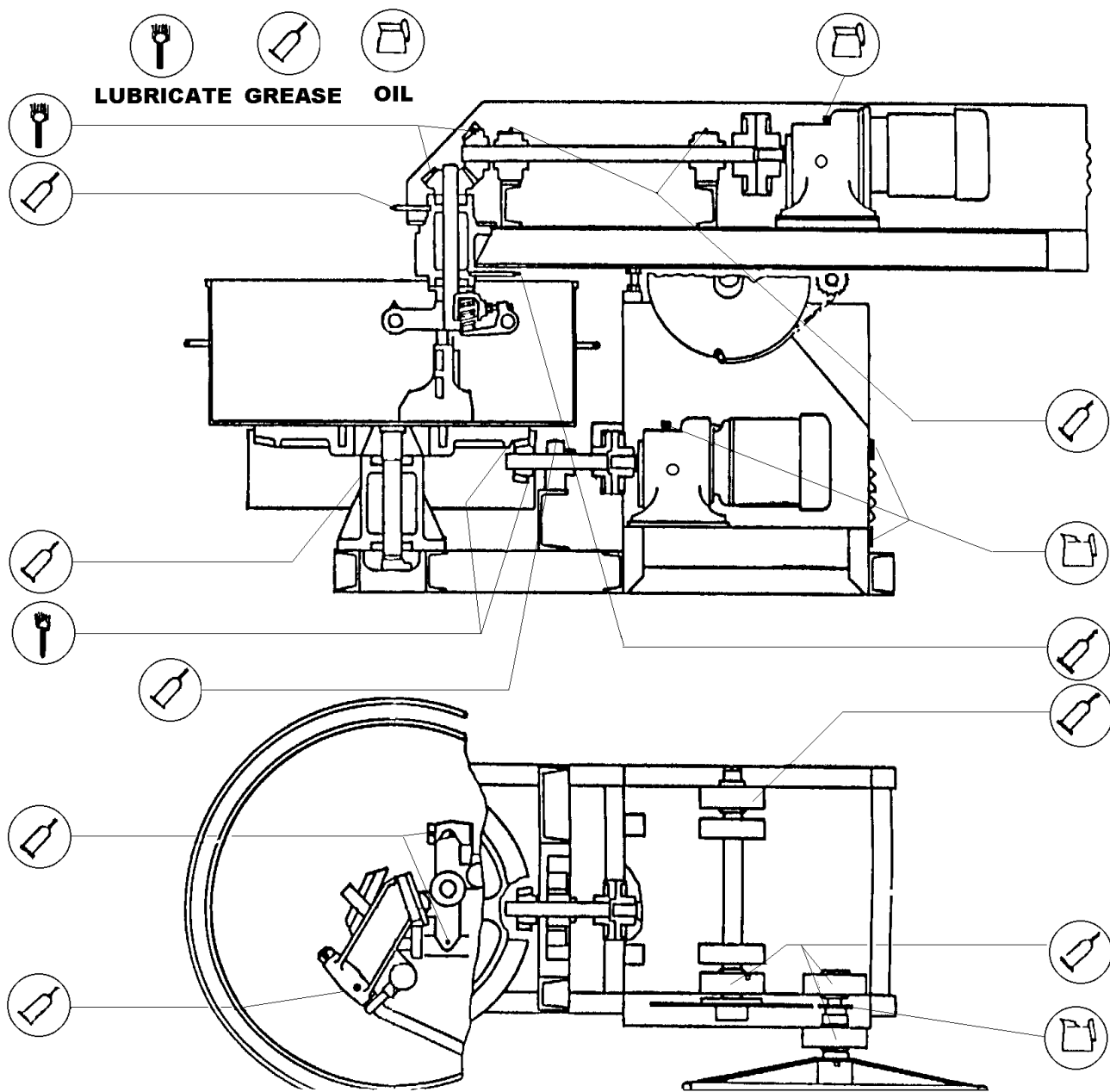
## **MAINTENANCE OF THE MOTORS**

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

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



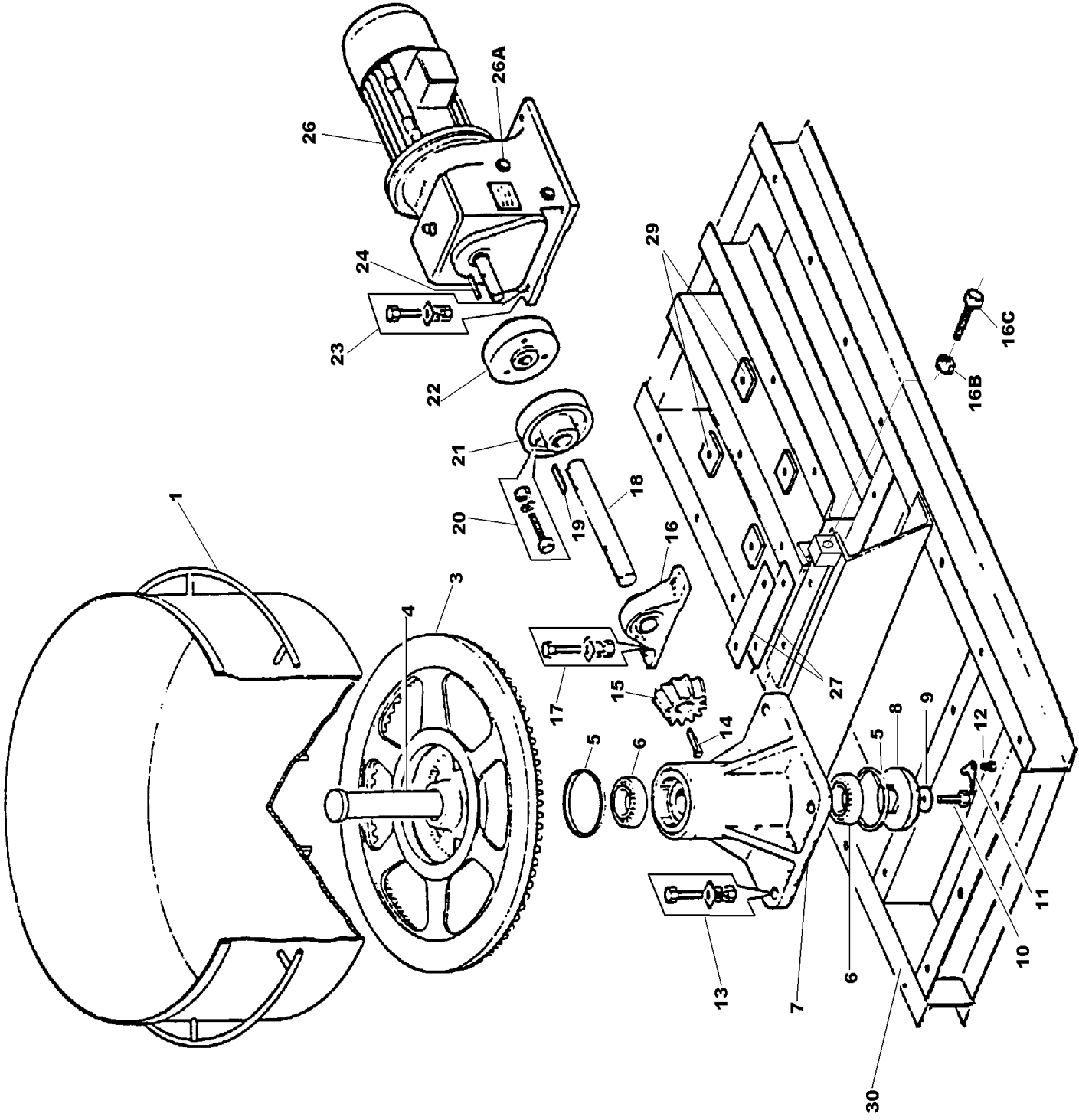
# LUBRICATION CHART



**OPERATING  
AND  
MAINTENANCE MANUAL**

**SECTION 4  
MIXER SPARE PARTS**

# RP50XD MIXING PAN & DRIVE



# RP50XD MIXING PAN & DRIVE

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1	CR540382	PAN	1
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	CR520177	BEVEL PINION SHAFT	1
19	CR329015	COUPLING, DRIVEN HALF FEATHER KEY	1
20	79S05F	BOLT, RIGID COUPLING 1/2 BSW X 2"	3
20A	253S05	NUT, RIGID COUPLING 1/2" BSW	3
21	CR230041	ASSEMBLY RIGID COUPLING	1
23	8S05G	BOLT GEAR UNIT M12 X 55	4
23A	61S05	NUT BINX M12	4
23B	267S07	WASHER FLAT M12	4
23C	105S05	WASHER TAPER M12	4
24	CR329047	COUPLING, DRIVING HALF FEATHER KEY	1
26	CR220154	GEAR MOTOR UNIT, PAN DRIVE	1
26A	V2005114	PLUG OIL LEVEL CLEAR	1
27	CR549006	SHIM PACK BEARING (4 SHIMS PER SET)	1
29	555114904	SHIM SET, GEARED MOTOR UNIT	A/R
30	CR260371	CHASSIS FRAME	1
32	CR26100661	BEAM LIFTING (NOT ILLUSTRATED)	1
32A	8S06F	BOLT M16 X 50	2
32B	267S09	WASHER FLAT M16	2
32C	105S07	WASHER TAPER M16	2
32D	61S06	NUT BINX M16	2

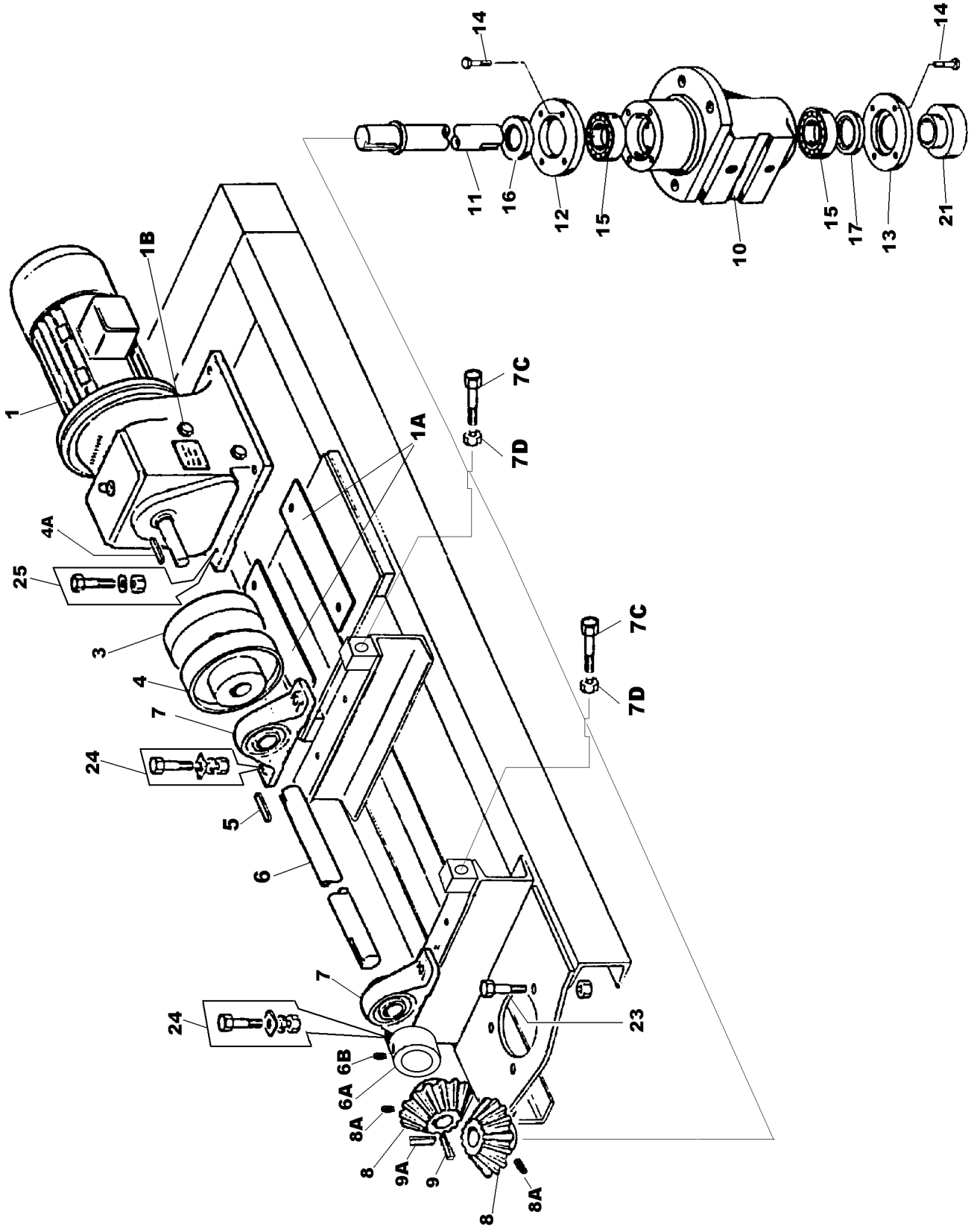
# RP50XD MIXING PAN & DRIVE

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(2)

33	CR640003	EYE LIFTING	4
33A	10S05	WASHER FLAT 1/2"	4
33B	CR241587	NUT 5/8" BSW NYLOC	4

# RP50XD STAR DRIVE ASSEMBLY

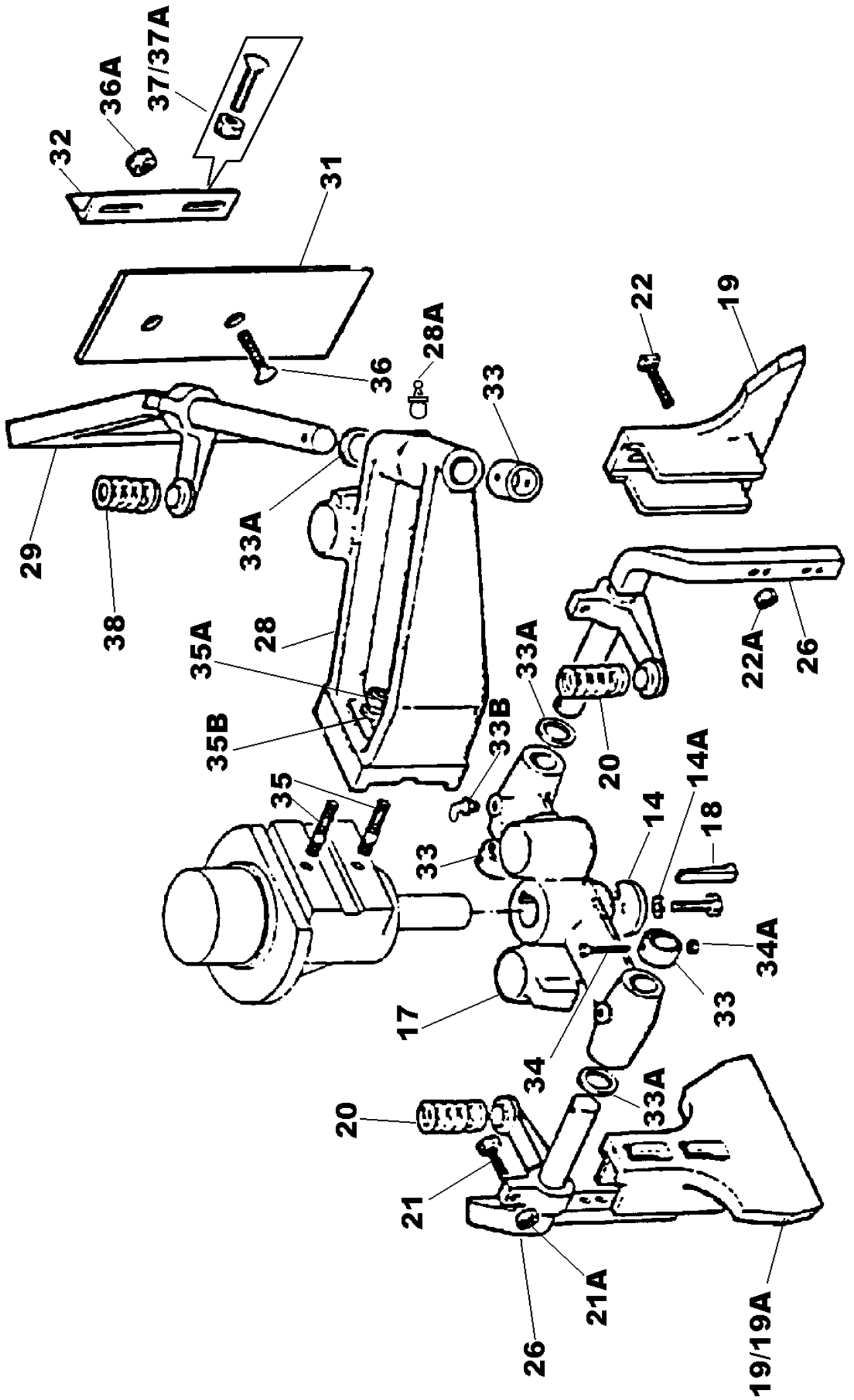


# RP50XD STAR DRIVE ASSEMBLY

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1	CR220155	MOTOR GEAR UNIT STAR DRIVE	1
1A	555114904	SHIM GEAR MOTOR UNIT	A/R
1B	V2005114	PLUG OIL LEVEL CLEAR	1
3	CR230043	COUPLING FLEXIBLE DRIVING HALF	1
3A	CR239030	BOLTS & NUTS FOR FLEXIBLE COUPLING	6
3B	CR239028	RUBBER BUSH FOR FLEXIBLE COUPLING	6
3C	CR230047	BOLT, NUT & BUSH ASSEMBLY FOR FLEXIBLE COUPLING	6
4	CR230044	COUPLING FLEXIBLE DRIVEN HALF	1
4A	57S05J1	SCREW GRUB COUPLING M8 X 30 CUP POINT	1
4B	CR329047	KEY FLEXIBLE COUPLING	1
5	CR329046	KEY DRIVEN HALFCOUPLING	1
6	CR520113	SHAFT TOP	1
6A	CR529015	BEVEL PINION LOCKING COLLAR	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)	2
7C	11S06P	SCREW SET M16 X 80	4
7D	7S06	NUT M16	4
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	8S02C	BOLTS CARRIER M6 X 35	8
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
24A	267S07	WASHER FLAT M12	4
24B	105S05	WASHER TAPER M12	4
24C	61S05	NUT BINX M12	4
25	8S05D	BOLTS GEAR MOTOR UNIT M12 X 40	4
25A	61S05	NUT BINX M12	4
25B	267S07	WASHER FLAT M12	4
25C	105S05	WASHER TAPER M12	4
26	CR260564	STAR ARM CHASSIS/FRAME	1

# RP50XD MIXING STAR ASSEMBLY



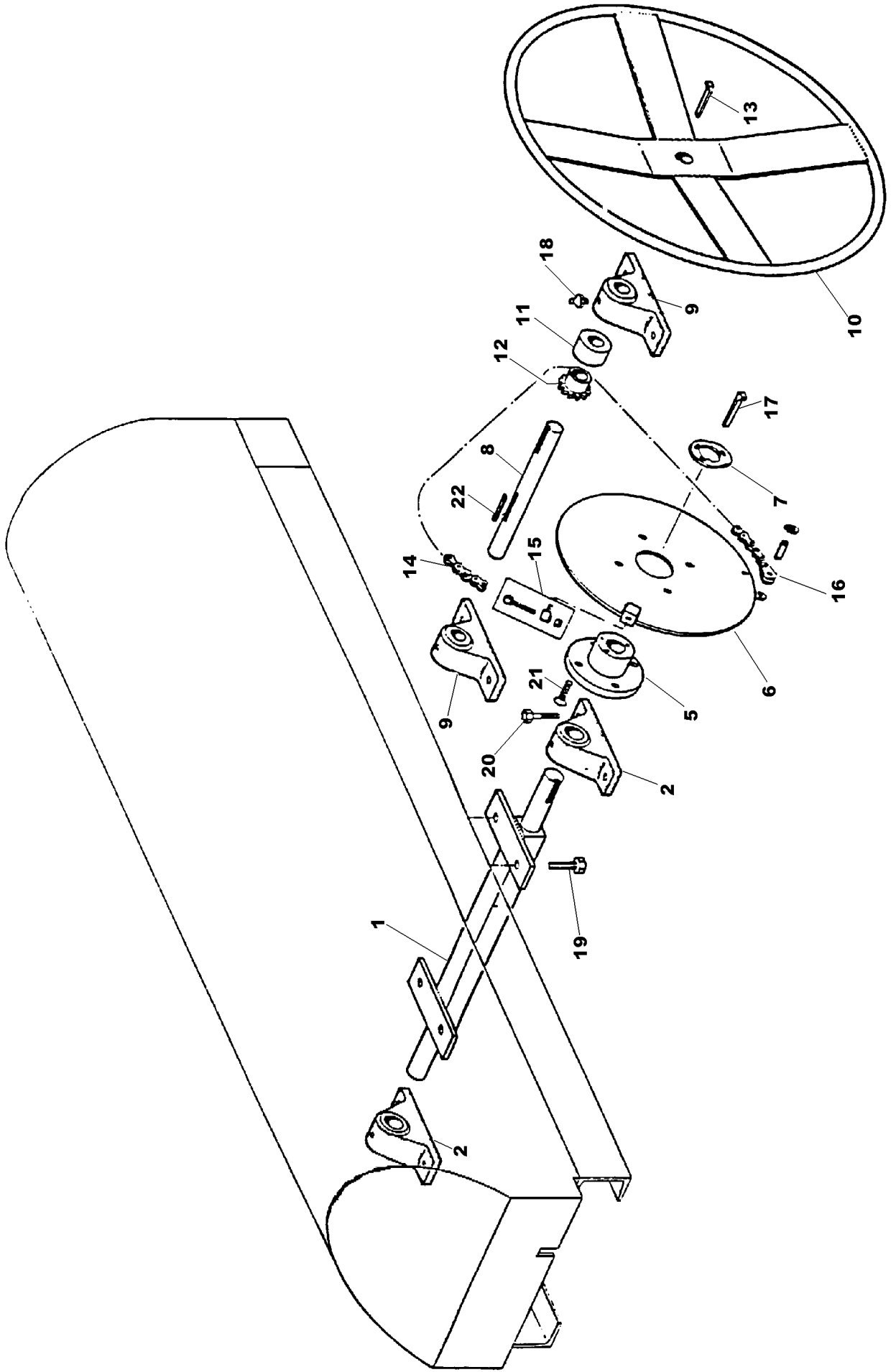


# RP50XD MIXING STAR ASSEMBLY

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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	CR757244	BLADE STAR CAST, OBSOLETE USE ITEM 19 BELOW	
19	CR219009C	BLADE STAR CAST, RIBBED	2
19A	CR219009P	BLADE STAR POLYUREATHANE, RIBBED	2
19B	CR219009SS	BLADE STAR STAINLESS STEEL, RIBBED	2
19C	CR219009SP	BLADE STAR POLYUREATHANE, NO RIBS, SMOOTH FINISH	2
19D	CR219009SC	BLADE STAR CAST, NO RIBS, SMOOTH FINISH	2
20	CR330061	SPRING COMPRESSION STAR BLADE	2
21	11S05K	BOLT ADJUSTING BLADE FINGER M12 X 70	2
21A	7S05	NUT M12	4
22	8S05J	BOLT STAR BLADE M12 X 65	4
22A	267S07	WASHER FLAT M12	8
22B	17S06	WASHER SPRING M12	4
22C	7S05	NUT M12	4
26	CR260388	FINGER STAR BLADE	2
28	CR210142	BRACKET FIXED BLADE	1
28A	333104020	NIPPLE GREASE 1/4 BSP STRAIGHT	1
28B	176S01	COVER NIPPLE GREASE	1
29	CR260416	FINGER FIXED BLADE	1
31	CR531745	BLADE FIXED	1
32	CR531750	ANGLE BRACKET	1
33	CR639004	COLLAR SPACER	3
33A	10S31	WASHER FLAT	AR
33B	CR289002	GREASE NIPPLE 1/4 BSP 90' ANGLED	2
34	8S04J	BOLT, COLLAR M10 X 65	3
34A	61S04	NUT BINX M10	3
35	8S06L	BOLT M16 X 65	2
35A	17S08	WASHER, SPRING M16	2
35B	267S08	WASHER FLAT M16	2
36	52S05H	BOLT SHORT, FIXED BLADE M12 X 40	2
36A	267S07	WASHER FLAT M12	4
36B	17S06	WASHER SPRING M12	4
36C	7S05	NUT M12	4
37	52S04K	BOLT LONG, FIXED BLADE ANGLE BRACKET M10 X 50	2
37A	17S05	WASHER, SPRING M10	2
37B	7S04	NUT M10	2
38	CR330022	SPRING FIXED BLADE	1

# RP50XD MIXING STAR LIFTING ARRANGEMENT

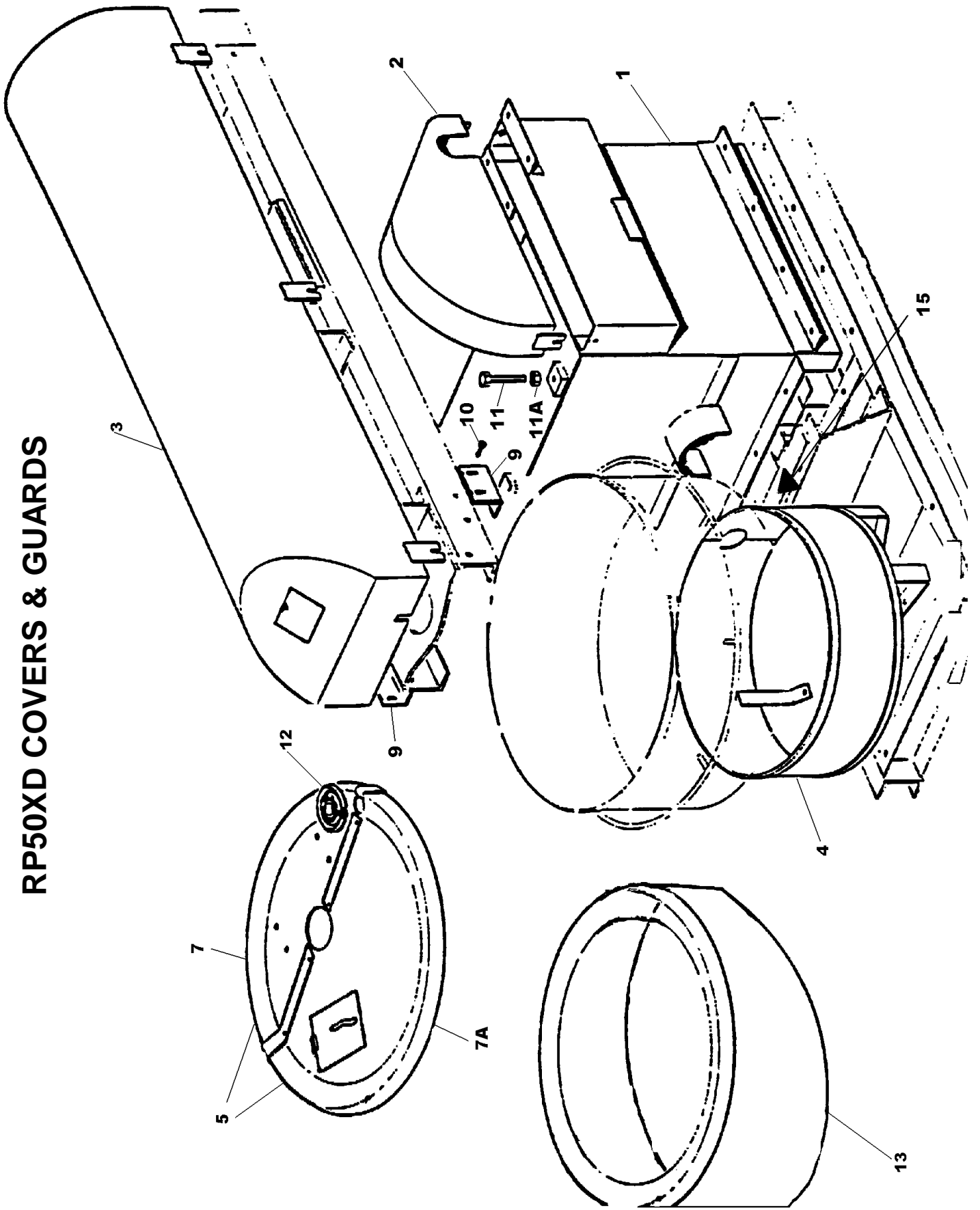


# RP50XD MIXING STAR LIFTING ARRANGEMENT

---

1	CR520175	PIVOT SHAFT	1
2	CR190017	PIVOT SHAFT BEARING	2
2A	333104020	NIPPLE GREASE 1/4 BSP STRAIGHT	2
2B	176S01	COVER NIPPLE GREASE	2
5	CR630383	BOSS, PLATE WHEEL	1
5A	CR249098	GRUB SCREW M10	1
6	CR260394	PLATE, WHEEL	1
7	CR549009	CAM, MICROSWITCH (SEE CAM & MICROSWITCH)	1
8	CR520176	SHAFT, HANDWHEEL	1
9	CR190046	BEARING, HANDWHEEL SHAFT	2
10	CR360007	HANDWHEEL	1
10A	57S05D2	SCREW GRUB (NOT ILLUSTRATED)	2
11	CR639000	COLLAR, HANDWHEEL SHAFT	1
11A	CR249000	GRUB SCREW M6	1
12	CR349005	PINION, CHAIN	1
12A	CR249000	GRUB SCREW M6	1
13	CR329050	KEY, HANDWHEEL	1
14	CR200131	CHAIN	1
14A	134104002	LINK SPLIT CHAIN	1
15	CR200134	BOLT & BLOCK, DRAW CHAIN	1
16	CR200072	LINK ATTACHMENT, CHAIN END	1
17	CR329046	KEY, BOSS PLATE WHEEL	1
18	CR289003	NIPPLE GREASE 1/4 BSP STRAIGHT	2
18A	176S01	COVER NIPPLE GREASE	2
19	11S06G	BOLTS, PIVOT SHAFT M16 X 45	4
19A	267S08	WASHER FLAT M16	4
19C	61S06	NUT BINX M16	4
20	8S05E	BOLT, BEARINGS M12 X 45	8
20A	267S07	WASHER FLAT M12	16
20B	61S05	NUT BINX M12	8
21	52S05G	BOLT, PLATEWHEEL M12 X 35	4
21A	17S06	WASHER SPRING M12	4
21B	7S05	NUT PLAIN M12	4
21C	CR220505	MICROSWITCH (NOT ILLUSTRATED)	1
22	CR329047	KEY PARALLEL, CHAIN PINION	1

# RP50XD COVERS & GUARDS



# RP50XD COVERS & GUARDS

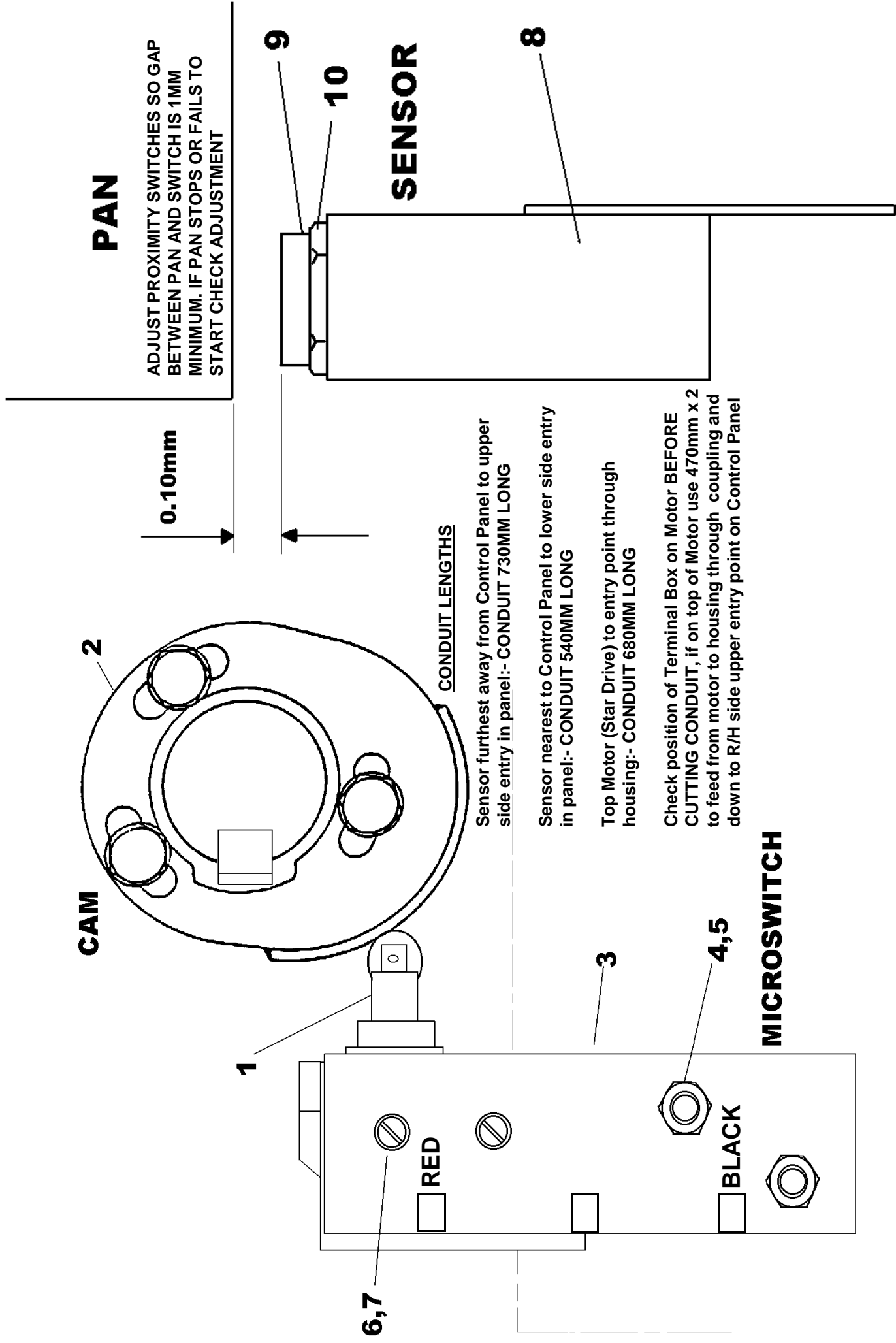
1	CR53100636	HOUSING ASSEMBLY PAN DRIVE MOTOR	1
1	CR53100805	HOUSING ASSEMBLY PAN DRIVE MOTOR OPP HAND	1
1A	11S05D	SCREW SET M12 X 30	26
1B	267S07	WASHER FLAT M12	26
1D	61S05	NUT BINX M12	26
1E	CR249505	CATCH ASSEMBLY, DOOR HOUSING	1
1F	11S01AA	SCREW SET M5 X 16	2
1G	11S01A	SCREW SET M5 X 20	2
1H	267S03	WASHER FLAT M5	8
1J	17S02	WASHER SPRING M5	4
1K	7S01	NUT PLAIN M5	4
1L	11S04B	SCREW SET M10 X 20	24
1N	267S06	WASHER FLAT M10	24
1P	61S04	NUT BINX M10	5
2	CR540448	GUARD, CHAIN GEAR	1
2	CR549188	GUARD CHAIN GEAR, OPPOSITE HAND	1
2A	11S04C	SCREW SET M10 X 25	2
2B	17S05	WASHER SPRING M10	2
2C	267S06	WASHER FLAT M10	2
3	CR540441	GUARD STAR DRIVE	1
3A	11S05D	SCREW SET M12 X 30	6
3B	17S06	WASHER SPRING M12	6
3C	267S07	WASHER FLAT M12	6
4	CR540447	GUARD, PAN RIM	1
4A	11S04C	SCREW SET M10 X 25	4
4B	267S06	WASHER FLAT M10	8
4C	17S05	WASHER SPRING M10	4
4D	7S04	NUT PLAIN M10	4
5	CR540417	DUST COVER ASSY, FRONT & REAR	1
5A	267S06	WASHER FLAT M10	10
5B	17S05	WASHER SPRING M10	10
5C	7S04	NUT PLAIN M10	10
6A	11S02A	SCREW SET M6 X 20	4
6B	267S04	WASHER FLAT M6	4
6C	17S03	WASHER SPRING M6	4
6D	7S02	NUT PLAIN M6	4
7	CR540417B	COVER, DUST REAR	1
7A	CR540417A	COVER, DUST FRONT	1
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	11S06M	SCREW SET STAR FRAME STOP M16 X 70	2
11A	7S06	NUT PLAIN M16	2
12	CR570019	SEAL RUBBER, FIXED BLADE ARM	1
13	CR2600647	GUARD, PAN	1
13A	11S04B	SCREW SET M10 X 20	7

## RP50XD COVERS & GUARDS

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13B	267S06	WASHER FLAT M10	7
13C	17S05	WASHER SPRING M10	7
13D	11S02AA	SCREW SET M6 X 12	2
15	CR549146	GUARD PINION SHAFT (NOT ILLUS) UP TO S/No 6019	1
15A	11S03C	SCREW SET M8 X 25 UP TO S/No 6019	4
15B	267S05	WASHER FLAT M8 UP TO S/No 6019	4
15C	17S04	WASHER SPRING M8 UP TO S/No 6019	4
15D	7S03	NUT PLAIN M8 UP TO S/No 6019	4

# RP50D MICROSWITCH, CAM & SENSOR ARRANGEMENT



# RP50XD MICROSWITCH, CAM & PROXIMITY SENSOR

---

1	CR220505	MICROSWITCH	1
2	CR549009	CAM	1
2A	11S02C	SCREW SET M6 X 25	2
2B	17S03	WASHER SPRING M6	2
2C	267S04	WASHER FLAT M6	2
3	CR531793	SUPPORT, MICROSWITCH	1
4	11S02C	SCREW SET M6 X 25	3
4A	267S04	WASHER FLAT M6	6
4B	17S03	WASHER SPRING M6	3
6	CR243129	SCREW, CHEESE HEAD 4BA X 1.5"	2
7	CR241632	NUT, BRASS 4BA	2
8	CR269146	BRACKET, PROXIMITY SENSOR	2
8A	52S05F	SCREW CSK 12 X 30	4
8B	267S07	WASHER FLAT M12	4
8C	17S06	WASHER SPRING M12	4
8D	7S05	NUT M12	4
9	CR229098	SENSOR PROXIMITY	2
10	CR229090	CAP THREADED SENSOR RETAINING	2



# RP50XD ELECTRICAL SWITCH GEAR

---

1	CR229116	CONTROL PANEL ASSEMBLY C/W KEYS	1
1A	11S03C	SCREW SET M8 X 30	4
1B	267S05	WASHER FLAT M8	8
1C	17S04	WASHER SPRING M8	4
1D	7S03	NUT M8	4
2	CR229109	SP20 CONDUIT	4MT
3	CR229110	SP20/M20/TYPE B FITTINGS	12
4	191902200	TERMINAL RING 'CRIMP ON TYPE'	2
5	144799000	CABLE 1.5MM SQ G/Y (6491X H07)	3MT
6	144700100	CABLE 1.5MM SQ RED (6491X H07)	3MT
7	144798000	CABLE 1.5MM SQ BLACK (6491X H07)	3MT
8	CR229103	CABLE 2.5MM SQ RED (6491X H07)	2MT
9	CR229104	CABLE 2.5MM SQ YELLOW (6491X H07)	2MT
10	CR229105	CABLE 2.5MM SQ BLUE (6491X H07)	2MT
11	191902200	TERMINAL RING 'CRIMP ON TYPE' BLUE	6
12	CR229114	LOCK RINGS 20MM	3
13	CR229115	REDUCER 25MM MALE/20MM FEMALE	2
14	CR229111	GALVANISED COUPLER 25MM	1

# RP50XD DECALS AND LOGOS

1 CROKER CUMFLOW RP100XD

1A CROKER CUMFLOW RP50XD

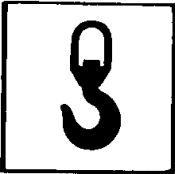
2

<b>WINGET</b> WINGET LIMITED 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 177, 179, 181, 183, 185, 187, 189, 191, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239, 241, 243, 245, 247, 249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 273, 275, 277, 279, 281, 283, 285, 287, 289, 291, 293, 295, 297, 299, 301, 303, 305, 307, 309, 311, 313, 315, 317, 319, 321, 323, 325, 327, 329, 331, 333, 335, 337, 339, 341, 343, 345, 347, 349, 351, 353, 355, 357, 359, 361, 363, 365, 367, 369, 371, 373, 375, 377, 379, 381, 383, 385, 387, 389, 391, 393, 395, 397, 399, 401, 403, 405, 407, 409, 411, 413, 415, 417, 419, 421, 423, 425, 427, 429, 431, 433, 435, 437, 439, 441, 443, 445, 447, 449, 451, 453, 455, 457, 459, 461, 463, 465, 467, 469, 471, 473, 475, 477, 479, 481, 483, 485, 487, 489, 491, 493, 495, 497, 499, 501, 503, 505, 507, 509, 511, 513, 515, 517, 519, 521, 523, 525, 527, 529, 531, 533, 535, 537, 539, 541, 543, 545, 547, 549, 551, 553, 555, 557, 559, 561, 563, 565, 567, 569, 571, 573, 575, 577, 579, 581, 583, 585, 587, 589, 591, 593, 595, 597, 599, 601, 603, 605, 607, 609, 611, 613, 615, 617, 619, 621, 623, 625, 627, 629, 631, 633, 635, 637, 639, 641, 643, 645, 647, 649, 651, 653, 655, 657, 659, 661, 663, 665, 667, 669, 671, 673, 675, 677, 679, 681, 683, 685, 687, 689, 691, 693, 695, 697, 699, 701, 703, 705, 707, 709, 711, 713, 715, 717, 719, 721, 723, 725, 727, 729, 731, 733, 735, 737, 739, 741, 743, 745, 747, 749, 751, 753, 755, 757, 759, 761, 763, 765, 767, 769, 771, 773, 775, 777, 779, 781, 783, 785, 787, 789, 791, 793, 795, 797, 799, 801, 803, 805, 807, 809, 811, 813, 815, 817, 819, 821, 823, 825, 827, 829, 831, 833, 835, 837, 839, 841, 843, 845, 847, 849, 851, 853, 855, 857, 859, 861, 863, 865, 867, 869, 871, 873, 875, 877, 879, 881, 883, 885, 887, 889, 891, 893, 895, 897, 899, 901, 903, 905, 907, 909, 911, 913, 915, 917, 919, 921, 923, 925, 927, 929, 931, 933, 935, 937, 939, 941, 943, 945, 947, 949, 951, 953, 955, 957, 959, 961, 963, 965, 967, 969, 971, 973, 975, 977, 979, 981, 983, 985, 987, 989, 991, 993, 995, 997, 999		
Model		
Serial No.		
Engine No.		
Capacity	Mass (kg)	
SRO No.	Power (kW)	
Year Of Manuf.	Eng. (rpm) Drum (rpm)	

4

**WINGET**

5



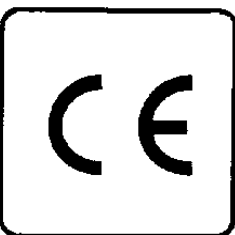
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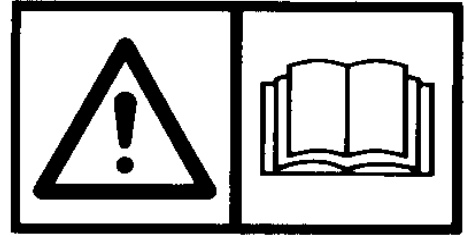
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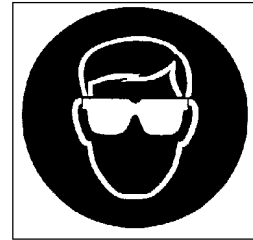
8



9



10



11

**SAFETY WARNING**

- 1 Before starting this machine the operator should be familiar with the operating instructions issued by the manufacturer
- 2 The manufacturer's rated capacity must never be exceeded
- 3 Before carrying out any maintenance servicing, or greasing, always ensure that the engine has been switched off. Never work on a machine while it is running

W5480195x11

# RP50XD DECALS AND LOGOS

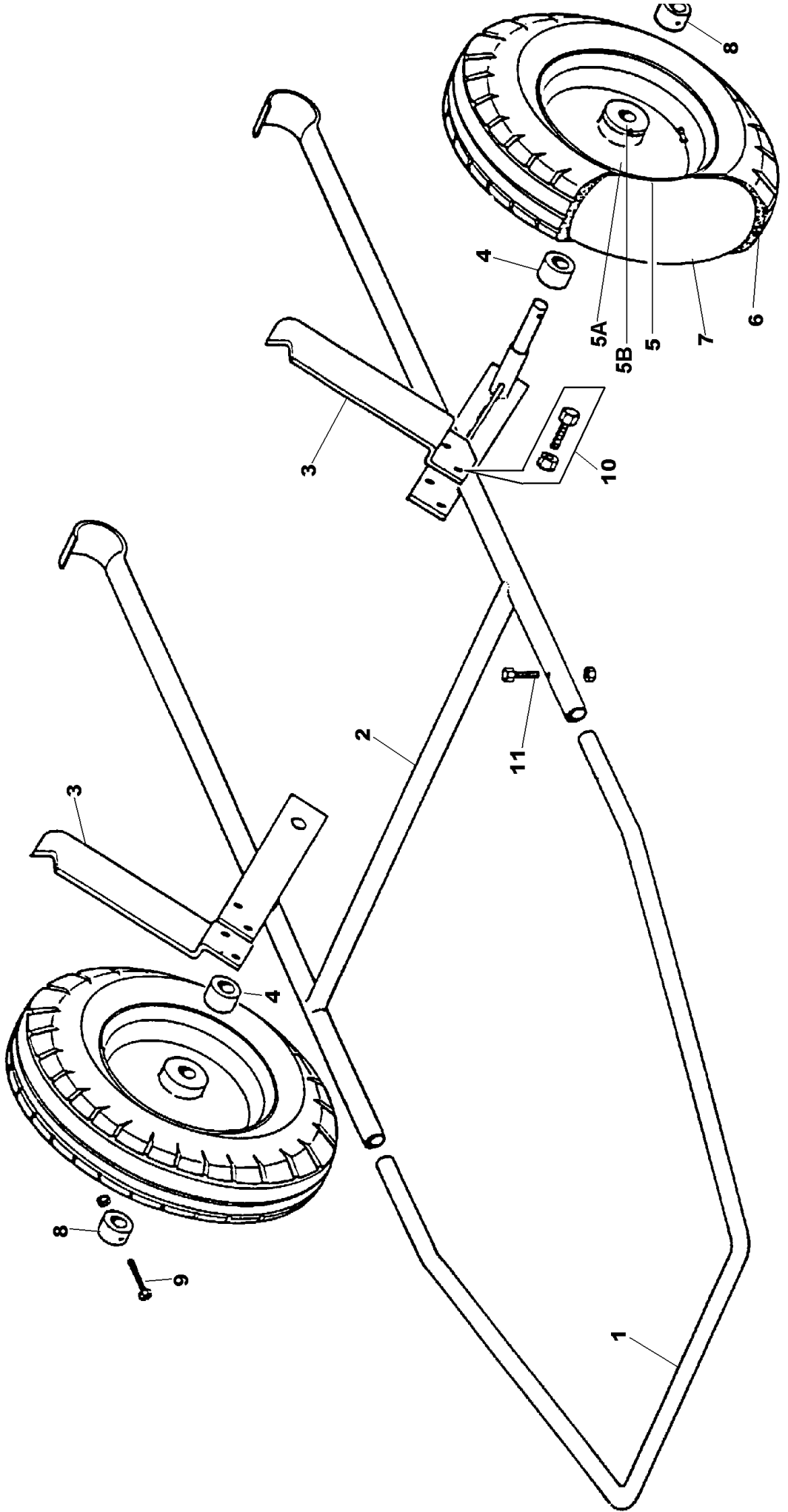
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1	CR85100763	DECAL RP100XD	2
1A	CR85100762	DECAL RP50XD	2
2	V2003037	PLATE SERIAL NUMBER	1
3	101S05D	RIVET POP	4
4	V2003039	DECAL 'WINGET' MEDIUM	2
5	V2003665	DECAL SLING POINT	4
6	V2003598	DECAL BRITISH MADE	2
7	V2004307	DECAL ELECTRICAL HAZARD	2
8	V2004223	DECAL 'CE' MARK	1
9	V2004229	DECAL OPERATORS HANDBOOK	2
10	V2004744	DECAL EYE PROTECTION	2
11	504694600	DECAL SAFETY	1

**OPERATING  
AND  
MAINTENANCE MANUAL**

**SECTION 5  
ANCILLARY EQUIPMENT  
SPARE PARTS**

# RP50XD PAN TROLLEY



# RP50XD PAN TROLLEY

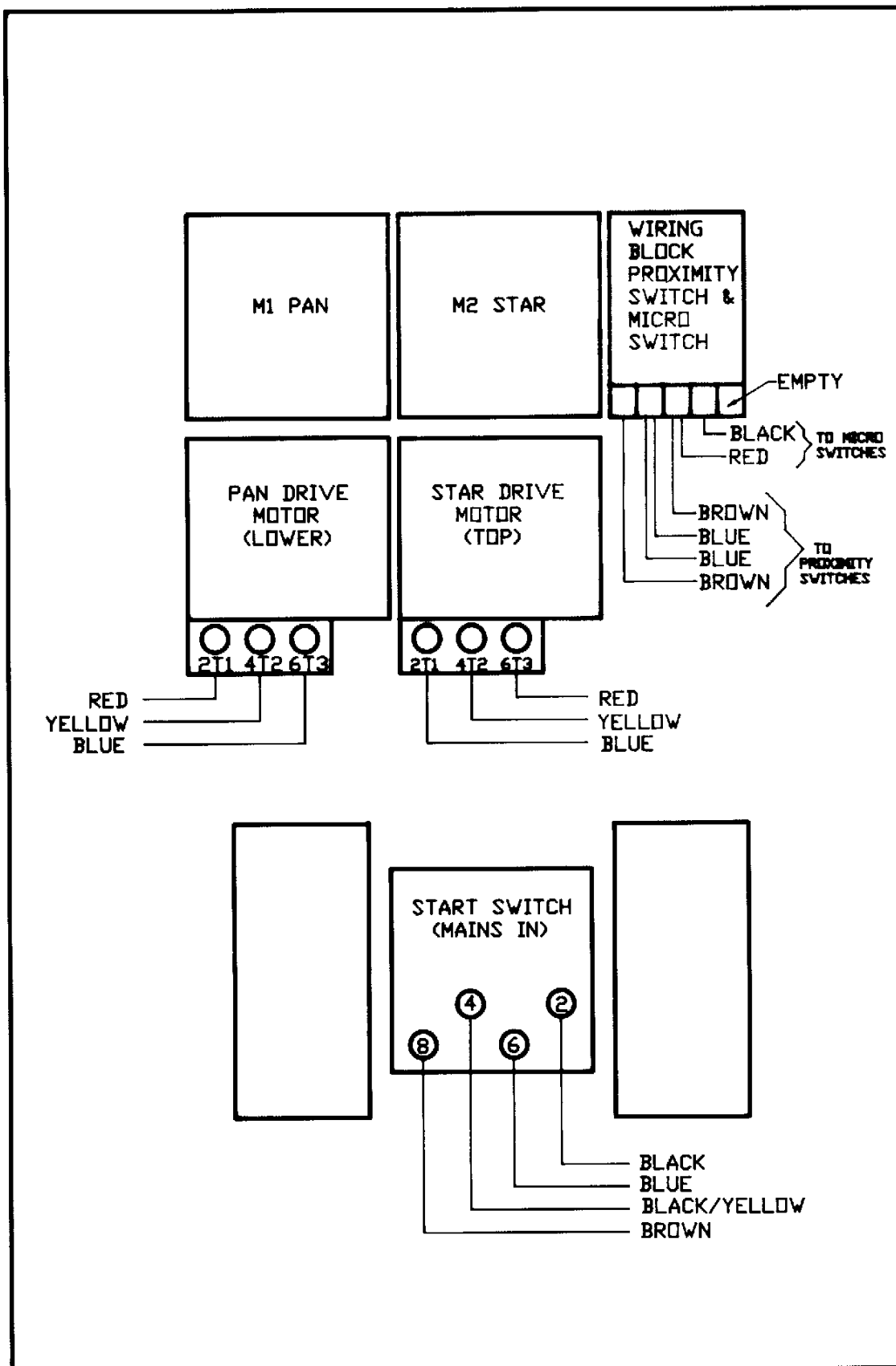
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1	CR260392	HANDLE, TROLLEY	1
2	CR260391	CHASSIS TROLLEY	1
3	CR530485	SUPPORT PAN (IN PAIRS)	1PR
4	10S65	SPACER WASHER, AXLE (WHEN REQUIRED)	4
5	CR440151	WHEEL ASSEMBLY INC ITEMS 5,6 & 7	2
5A	CR440122	WHEEL RIM	2
5B	CR440125	BEARING ROLLER	2
6	CR440123	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

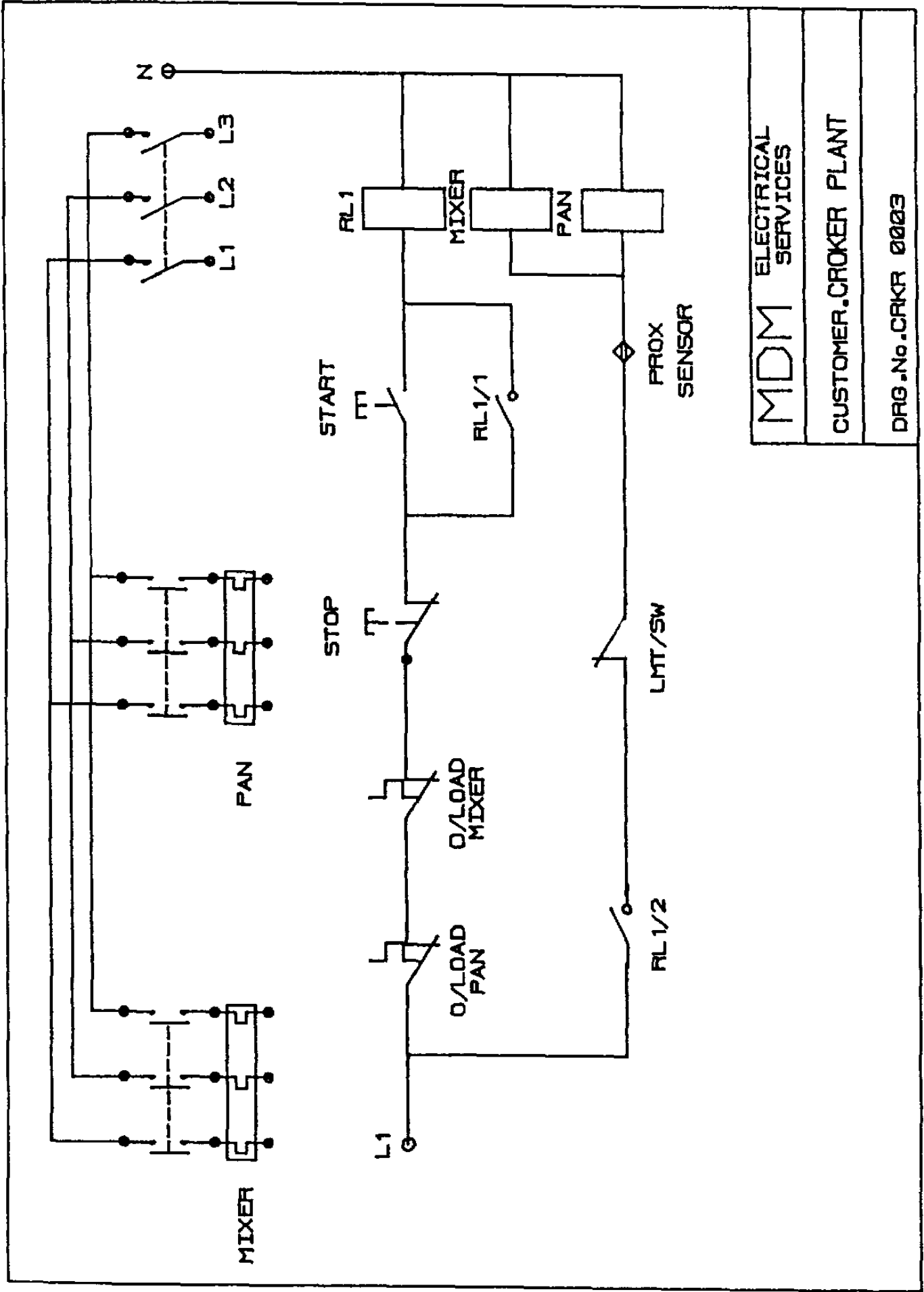
**OPERATING  
AND  
MAINTENANCE MANUAL**

**SECTION 6  
ELECTRICAL SYSTEM**

# CONTROL BOX WIRING LAYOUT







MDM ELECTRICAL SERVICES

CUSTOMER: CROKER PLANT

DRG. No. - CRKR 0003

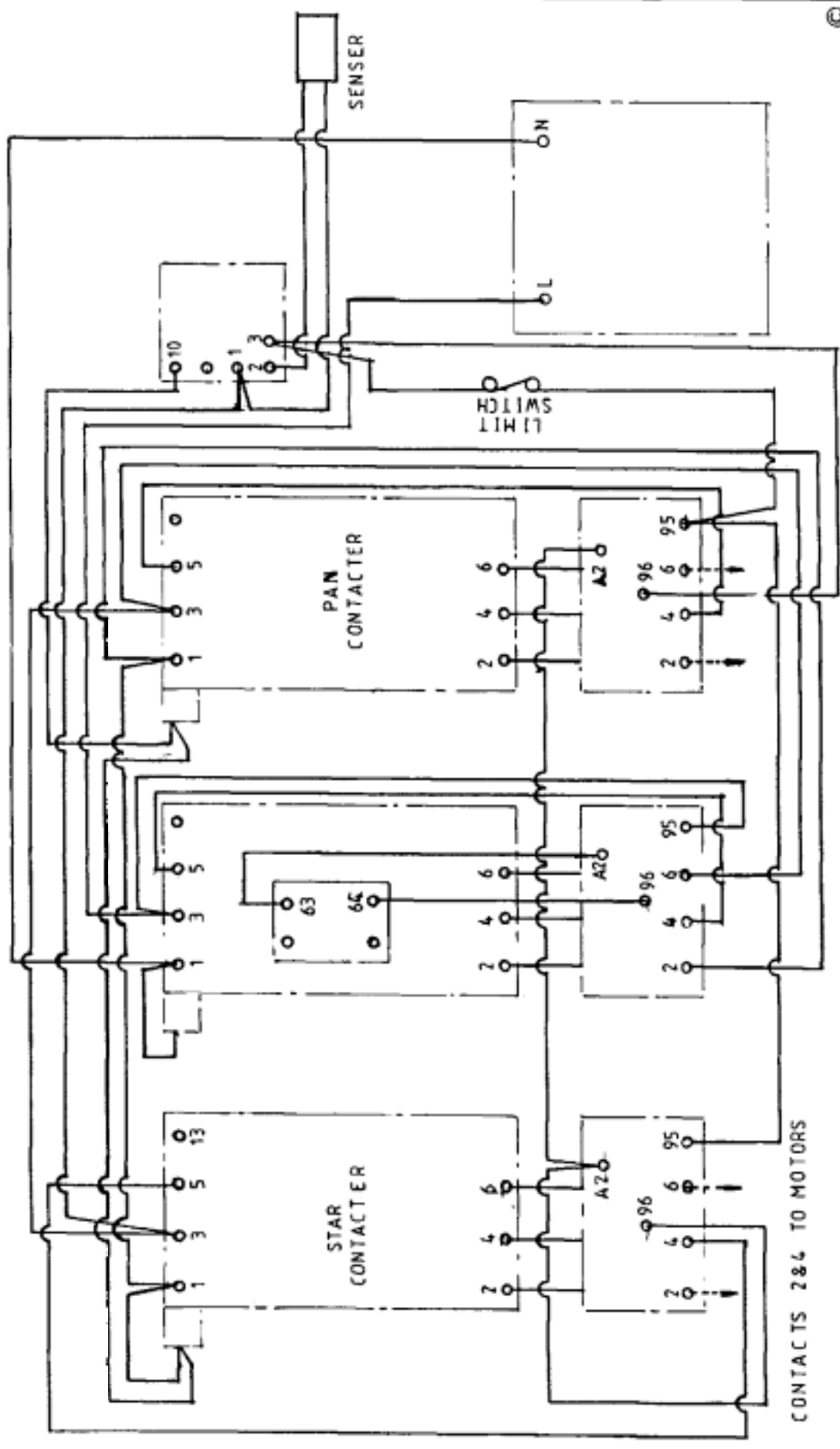
IF IN DOUBT ASK

DIMENSIONS IN MILLIMETRES

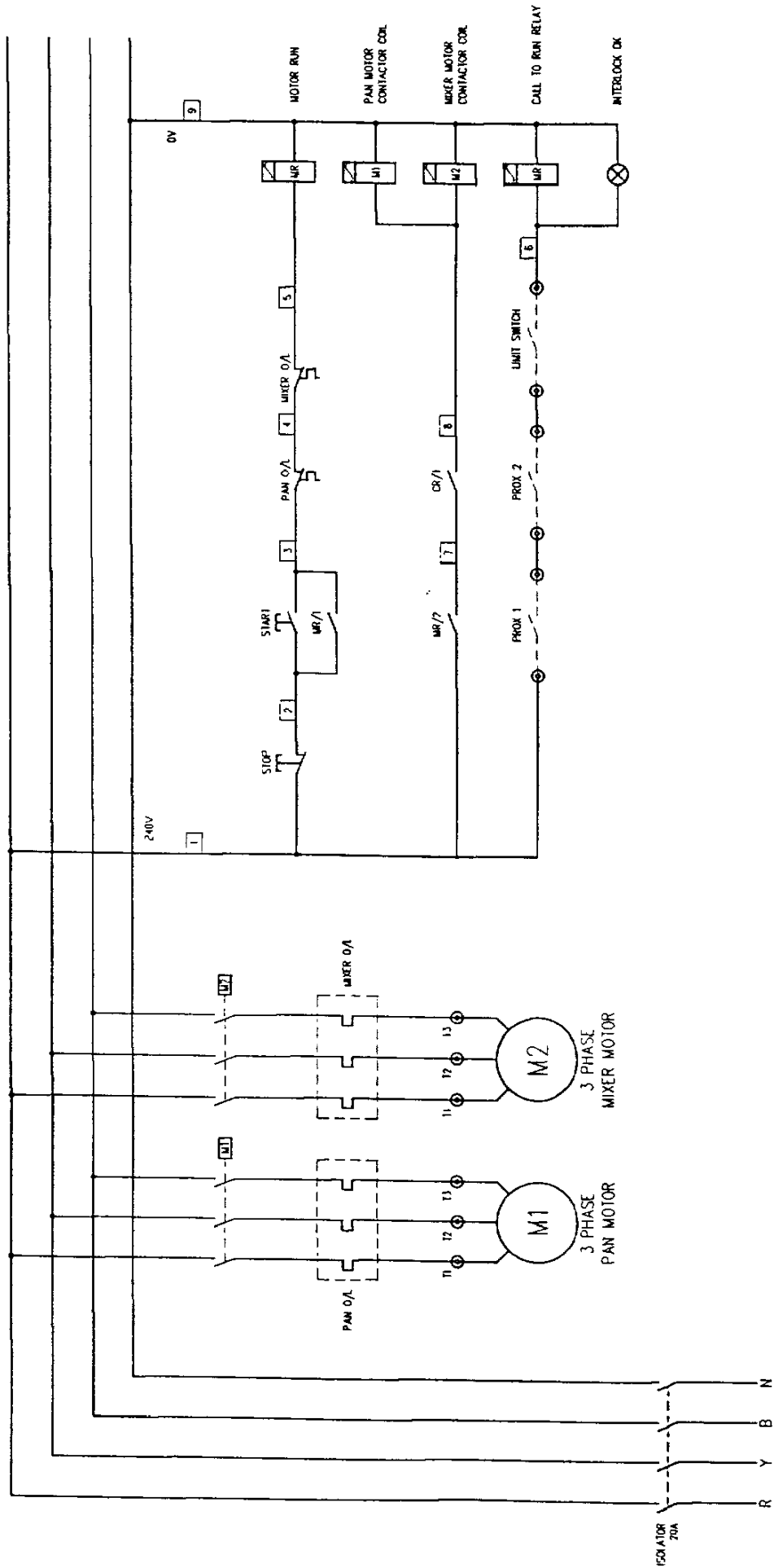
THIRD ANGLE PROJECTION

DO NOT SCALE DRAWING

REMOVE ALL BURRS AND SHARP EDGES

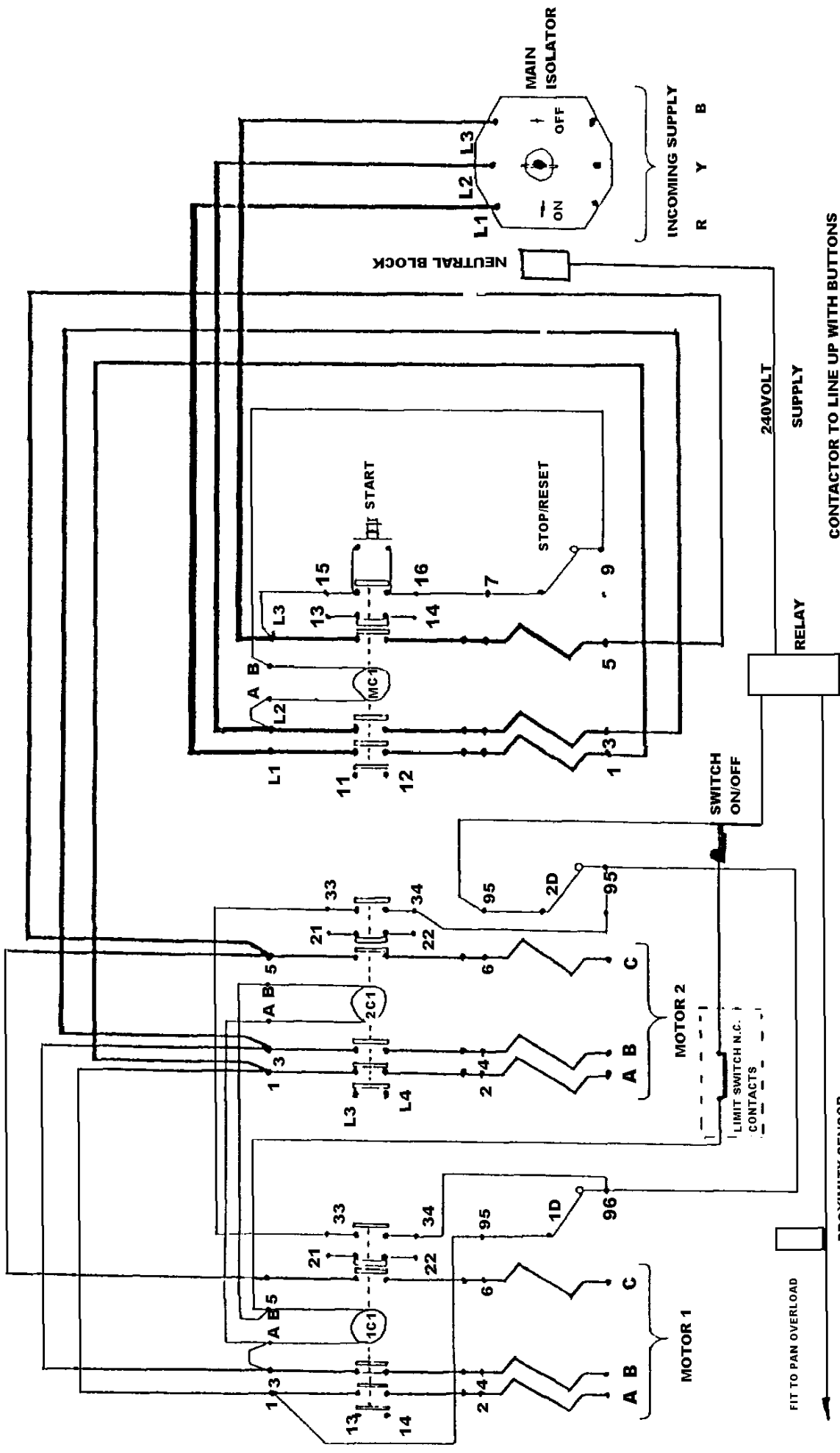


ISSUE	1	REVISION	DATE	DRAWN	DATE
MATERIAL		HARDNESS		FINISH	
				JM	
TOLERANCES UNLESS OTHER WISE STATED					
DEC. PLACES 2					
GENERAL TOL. 2					
ANGULAR 2 1/2°					
SURFACE FINISHES IN ACCORDANCE WITH BS 1134					
THE DRAWING IS THE SOLE PROPERTY OF "CROKER PLANT"					
WITHOUT THEIR WRITTEN PERMISSION IT MUST NOT BE COPIED, REPRODUCED OR IN ANY MANNER					
FIRST USED ON					
Croker plant		WINGET LIMITED		DRAWING NUMBER	
RP 100		SINGLE		22-9066	
TITLE		PHASE - SCHEMATIC			
SCALE		DRAWN		CHECKED	
				APPROVED	



415V 3 PHASE

ISSUE	MOD. BY	DATE	MODIFICATION	DRAWN	DATE	PROJECT TITLE
				I.T.	13-06-96	CROKER PLANT
				CHECKED		DRAWING TITLE
				APPROVED		RP100
B	I.T.	14-06-96	MAINS POWER SHOWN			JOB No. H2636
A			FIRST ISSUE FOR APPROVAL			DRG No. H2636-01
						ISSUE
						B



**RP100 CONTROL BOX WIRING DIAGRAM**

N.B. PAN & STAR BOTH ROTATE IN AN ANTI-CLOCKWISE DIRECTION WHEN LOOKING DOWN FROM THE TOP

FIT TO PAN OVERLOAD

PROXIMITY SENSOR

RELAY

240VOLT SUPPLY

CONTACTOR TO LINE UP WITH BUTTONS

INCOMING SUPPLY  
R Y B

MAIN ISOLATOR

NEUTRAL BLOCK

MOTOR 2

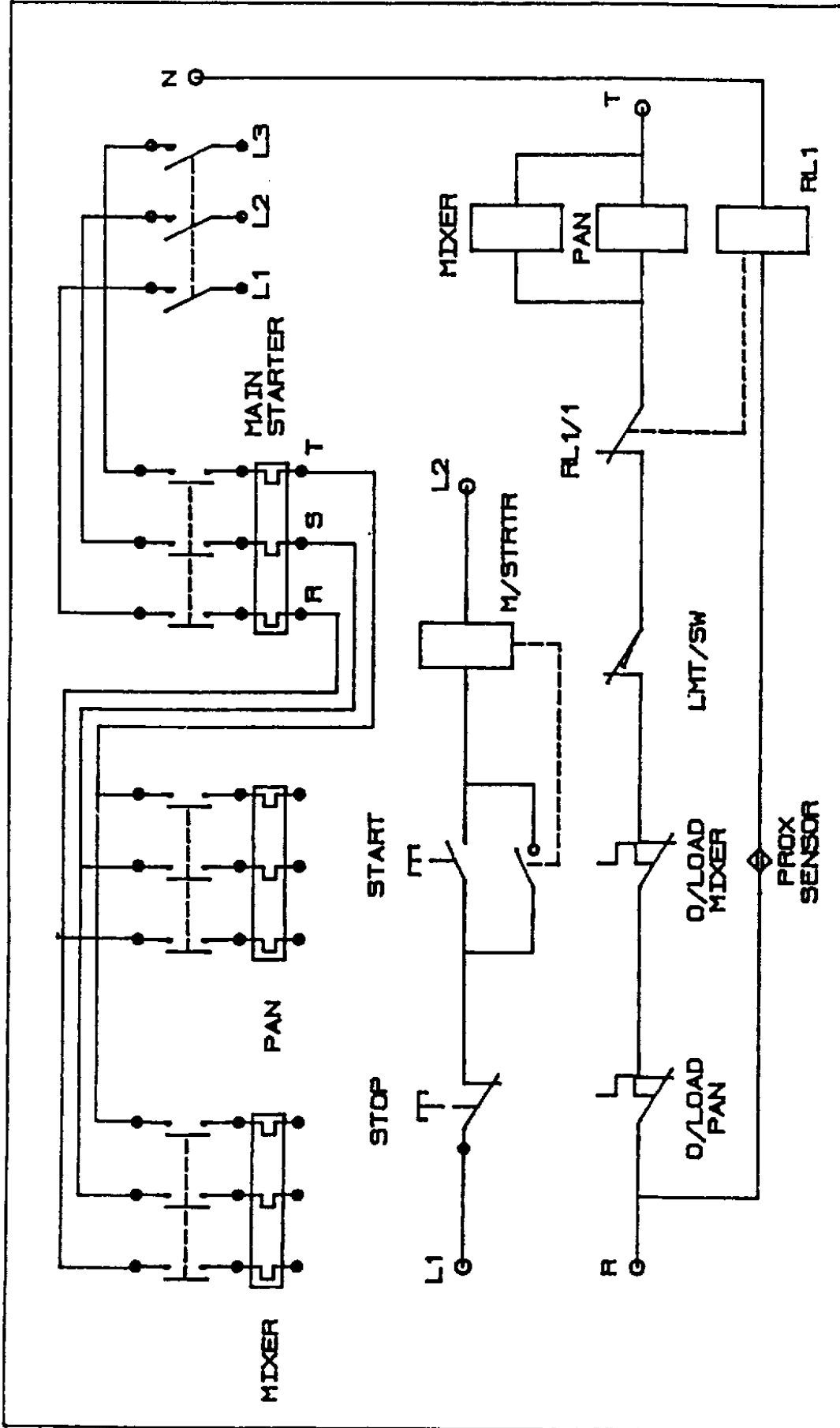
MOTOR 1

LIMIT SWITCH N.C. CONTACTS

SWITCH ON/OFF

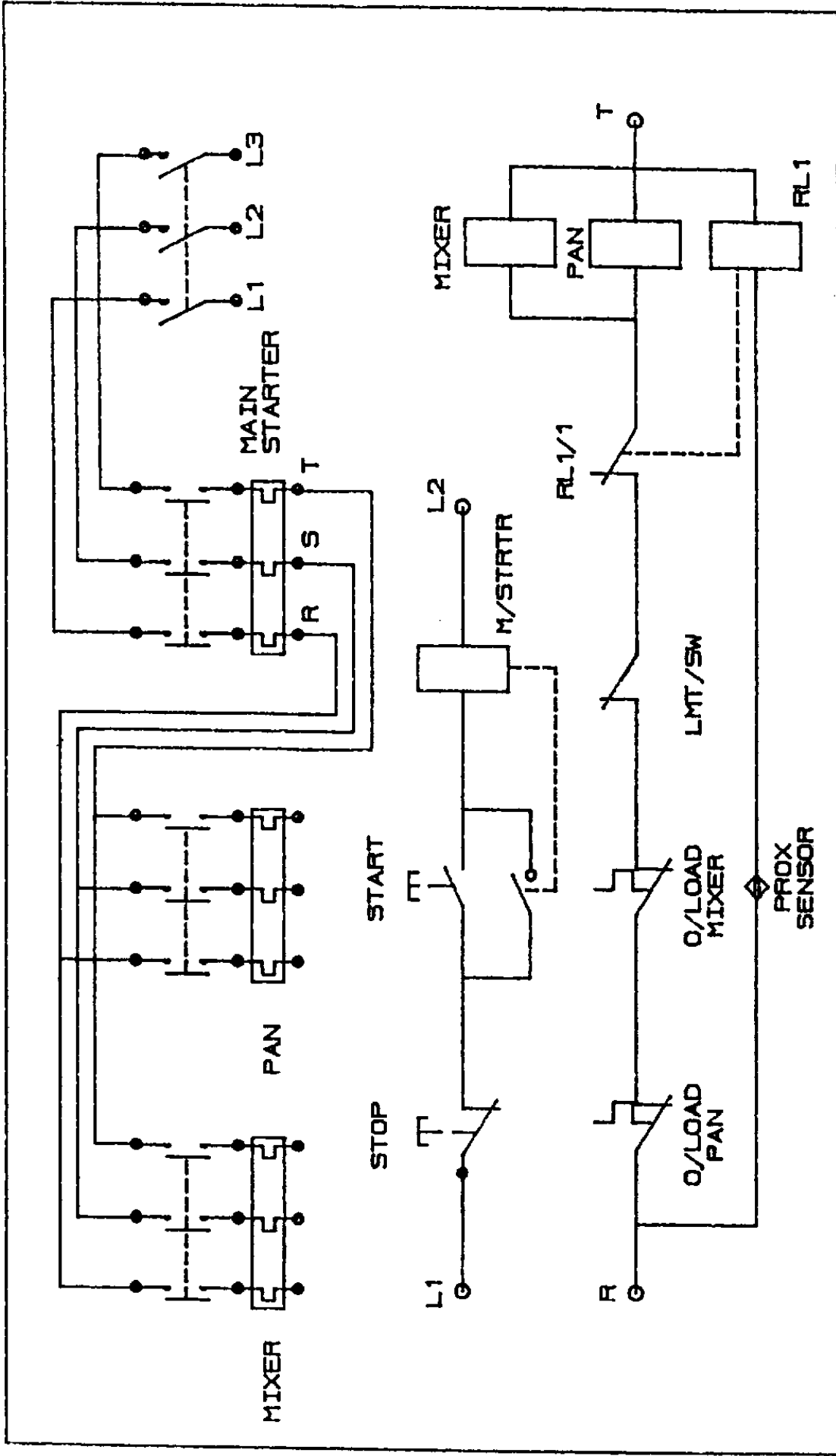
STOP/RESET

START



MDM ELECTRICAL SERVICES  
 CUSTOMER CROKER PLANT  
 DRG No. CKR 0001

415V 4 WIRE SUPPLY



220 VOLT 3 WIRE SUPPLY

MDM ELECTRICAL SERVICES

CUSTOMER CROKER PLANT

DRG No. CKR 0001

**OPERATING  
AND  
MAINTENANCE MANUAL**

**SECTION 7**

**MISCELLANEOUS**

## 7.1 NOISE DETAILS

Measured in accordance with Directive 2000/14 EC the noise did not exceed 104dB(a)LWA