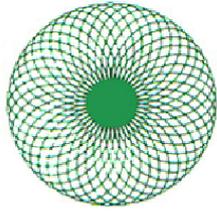


WINGET



Croker

CUMFLOW RP850 ROTATING PAN MIXER

PARTS & OPERATION MANUAL

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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 spare parts unless the 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 flat and spring washers to replace the existing items.

**OPERATING
AND
MAINTENANCE MANUAL**

SECTION 1

GENERAL INFORMATION

RP850

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 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 spare parts unless the part number and a full description of the items required is given when the order is placed.

IMPORTANT NOTICE

The CUMFLOW RP850 is a high performance mixer

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

ENSURE TRANSIT BAR AND RING ARE REMOVED FROM DOOR BEFORE STARTING MACHINE.

AGGREGATES

Strict control of graded aggregates must be maintained
Maximum size 25mm

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.

PAN RIM & BASE WEARING PLATES

They must be replaced before excessive wear causes distortion.

MAXIMUM BATCH LOADS

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

MIXING PAN

Ensure that the Mixing Pan is rotating concentrically and that the pan base is Rotating in horizontal place, otherwise damage may occur to the door mechanics.

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.

RP850
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 Discharge blade to pan base.
- 1.4 Rollers to register ring.
- 1.5 Correct oil level in gearboxes. All grease points charged. Gear teeth greased.
- 1.6 Air system tested.
- 1.7 Door operation and seating.
- 1.8 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 on Rollers and that pan rack and drive gear are in correct mesh.
- 3.5 Check locating rollers to register ring.
- 3.6 Check operating clearances star blade to pan. Fixed blade to pan wall. Discharge blade to pan base. See maintenance section Ops Manual.

ELECTRICAL SERVICES

- 4.1 Refer to wiring diagram in Ops Manual. All wiring to be undertaken by competent electrician.
- 4.2 Refer to pneumatic circuit diagram in Ops Manual. Connect compressor. Supply compressed air 5.5 bars as required (80psi).
- 4.3 Refer to wiring diagram in Ops Manual when connecting air control valves.
- 4.4 Remove transit bar and ring from door BEFORE starting mixer.
- 4.5 Ensure starters are mounted away from mixer on supports free of vibration.
- 4.6 Ensure starters are fitted with correct overloads – see technical specification power units.

OPERATION

- 5.1 Correct oil level, gearboxes. Air line lubricator.
- 5.2 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 Discharge door and blade correct operation.
- 5.5 Blade operating clearances adjust in line with maintenance instructions.
- 5.6 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. Recommended equipment double key exchange system.
- 6.2 Follow procedure detailed in company and users' Health and Safety Policy at all times.
- 6.2 Ensure all storage bins containing materials to be mixed are isolated.

6.3 Shut off water supply and drain off water tank or flowmeter

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 supplied by **WINGET LIMITED**.

GENERAL

- 8.1 Under no 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 Contract Drawing for scope of supply. Site instruction notes outlining weights etc.
- 8.7 Refer to Method Statement when installation and commissioning is responsibility of Winget Limited.

Nett Weights Max (kgs)

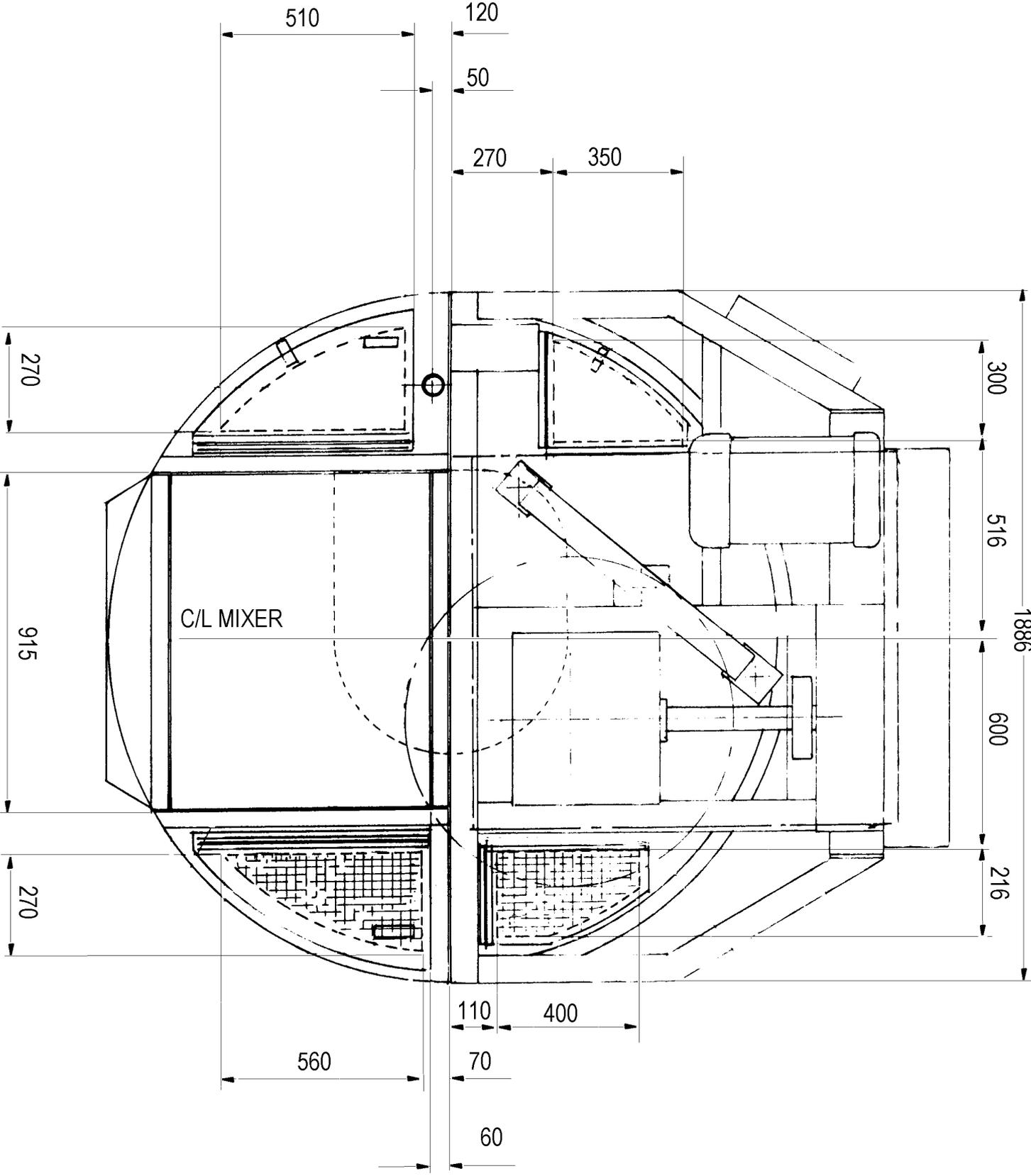
9.1	RP50XD	788	RP1250XD	4840
	RP100XD	814	RP1500XD	4980
	RP200XD	1400	RP3000XD	7112
	RP400XD	2000	FP1000	4040
	RP550XD	2150	FP1500	4065
	RP850XD	2600	FP2000	4100

- 9.2 Refer to technical specification for nett weights of ancillary equipment.
- 9.3 Refer to contract drawing for nett weights of ancillary equipment.

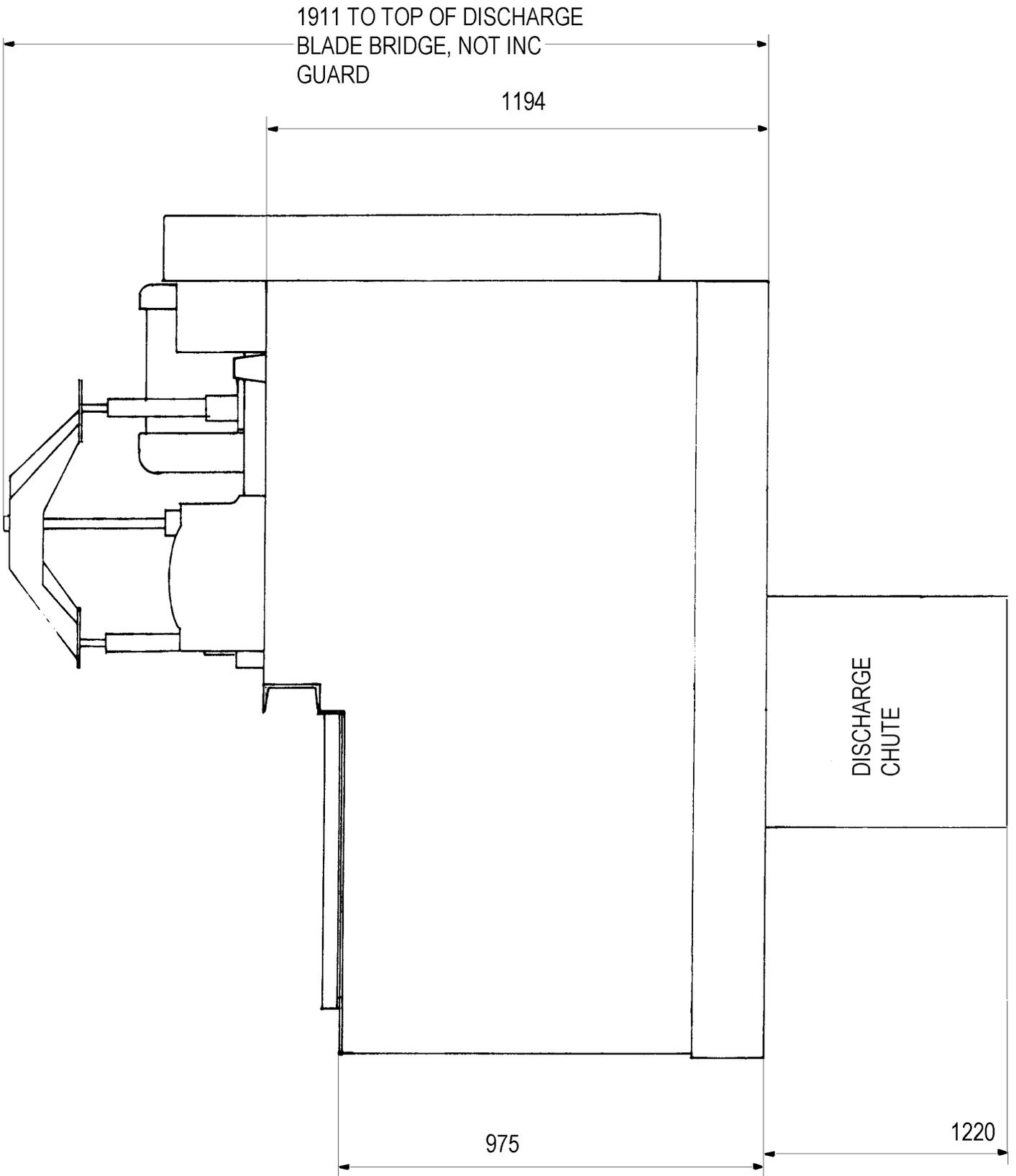
Miscellaneous

10.1 Noise measured in accordance with Directive 79/113 EEC- 85LPA.

GENERAL ARRANGEMENT DRAWING TOP VIEW



GENERAL ARRANGEMENT DRAWING SIDE VIEW



**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.

When unloading the mixer, care must be taken to ensure the discharge chute remains clear of obstructions as the chute and door hang below the chassis.

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 contract arrangement and site instructions as applicable.

It is recommended that a concrete foundation (to take foundation bolts – not supplied) should be provided for each leg of the support structure and runway when fitted. When the machine is supplied without a support structure it should be mounted on supports of sufficient strength and rigidity to prevent undue vibration when the machine is working. When making provision for a loading hopper pit it is strongly recommended that the pit is concreted out so that it can easily be kept clean and free from any build up which could prevent the bottom limit switch from operating correctly.

Before completing the installation, check that the main mixer frame is level with a spirit level. Packings should be inserted as required under the structure legs or main frame. The packings under the mixing pan roller brackets are set during manufacturing and must not be disturbed under any circumstances.

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. A check that the wiring is correct is rotation of the following:-

- The mixing pan and mixing star rotate anti-clockwise when looking from the top.
- The loader winch rotates anti-clockwise looking from the rope drum end and when the raise button is pressed.
- The whirler unit rotates clockwise when looking from the top.

It is advisable to mount the starters away from the machine on supports free from vibration. Ensure that the starters are fitted with suitable overloads – see technical specification – power units.

When wiring the air control valves refer to the correct wiring diagram in the control panel and make sure the door control solenoid is energised only when the control switch is in the 'DOOR OPEN' position.

The 180 litre (40 gallon) 'Invarac Water Tank' is fitted with a 25mm (1") bore hose inlet connection which will operate at all pressures up to 100 p.s.i. Alternative inlet valves to suit very low water pressures are available if required.

A simple Water Flow Meter is available as an option to the water tank, this has a range of 0-100 litres and features an adjustable flow indicator with a reset facility allowing very accurate measurement of water flow irrespective of the pressure. The Flow Meter is normally fitted with a manual 'on/off' valve and is protected by a washable in line strainer.

A supply of compressed air at 5.5 bars is required. The inlet for the connection from the air line is tapped ½" B.S.P. A drop in pressure will cause incorrect operation of the pneumatic system.

OPERATING THE MIXER

Before starting production the following points should be checked:-

- (1) That there is oil in (a) the Star Drive Gearbox
(b) the Loader Winch Gearbox (when fitted)
(c) the Air Line lubricator (situated in the control valve box).
- (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 Discharge Door and Discharge Blade are operating correctly.
- (4) Check that the blade clearances are correct and if necessary adjust, in line with the maintenance instructions.
- (5) Check that the limit switches on the loader stop the Loading Hopper in the required positions at the top and bottom of the runway.
- (6) Check that the Water tank is set to the required amount and is filling up to this level. (See later page for further information on Water Tank operation).
- (7) If a Flow Meter is fitted check that the pointer is reset to zero and the strainer is clean and free from debris
- (8) When Weigh Gear is fitted check that the setting arrangements and lubrication requirements have been carried out. (See the Salter and Pfister Parts Lists for details).

IMPORTANT:

The CUMFLOW is a high performance Mixer.

The following precautions are necessary to obtain the best results and to avoid damage to the Mixing Star and Drive.

AGGREGATES:

Strict control of graded aggregates must be maintained. Maximum Size 25mm (1”).

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

MIXING STAR BLADES:

They are of a special shape and material to prolong wear life. They should not be modified in any way and only replaced by genuine ‘**WINGET CROKER**’ spares.

Daily check is advised to ensure that the Blades/Wearing Pieces are securely bolted and undamaged.

PAN RIM & BASE WEARING PLATES:

They must be replaced before excessive wear causes distortion.

MAXIMUM BATCH LOADS:

Under no circumstances should the Maximum Batch Loads quoted be exceeded nor should the Mixer be stopped and re-started when there is a mix in the Pan.

After each mix the contents of the pan must be completely discharged before attempting to close the discharge door. At the end of each period of operation the mixing pan, mixing blades, discharge blade and fingers, discharge chute, discharge door and seating must be washed down to prevent concrete setting on them and so impairing the efficiency of the machine.

WARNING:

THE MAUFACTURER ACCEPTS NO RESPONSIBILITY FOR ANY DAMAGE OR FAILURE RESULTING FROM OPERATIONAL MIS-USE OR MALPRACTICE.

OPERATING INSTRUCTIONS FOR WEIGH GEAR

MECHANISM

PFISTER WEIGHER

- (1) Before operating check that the dashpot is filled with Total Azolla ZS32 or Azolla ZS46 or equivalent.
- (2) Ensure the pit is free from obstructions that may result in the hopper not reaching the bottom limit switch

- (3) **Setting the Weigher to Zero**

The hopper should be lowered until the limit switch operates, (i.e. above the hopper stops), then lowered onto the hopper stops by means of the rope tension release switch, until the hopper rope is slack, if not the weigher will not register a true reading. The dial should read zero when this has been done, if not, adjust the pointer by means of the zero adjusting nut on top of the dial head. (see item 20 on the relevant parts page)

- (4) If the pointer on the dial oscillates while the machine is in action, (i.e. through vibration), turn the damping adjusting nuts (items 6 & 7 parts page) down the spindle until the oscillations stop, then lock the two nuts together.
- (5) On a daily basis before weighing check the pointer of the dial for zero position. If the pointer isn't exactly on zero, check to see if the hopper and weighbridge have got free play and, if necessary clean the hopper or weighbridge. If zero cannot be obtained, adjust by means of the zero adjusting nut on top of the dial head. (item 20)
- (6) If the dial reads heavy or light at full load, adjustments can be made by moving the adjustable knife edge. **NOTE** This adjustable knife edge is set in our works prior to despatch and should only be moved if the above instructions have been carried out without result.

SALTER WEIGHER

- (1) Ensure the dashpot is filled with a Total S.A.E. 140 oil.
- (2) Ensure the pit is free from obstructions that may result in the hopper not reaching the bottom limit switch

(3) **Setting the Weigher to Zero**

The hopper should be lowered until the limit switch operates, (i.e. above the hopper stops), then lowered onto the hopper stops by means of the rope tension release switch, until the hopper rope is slack, if not the weigher will not register a true reading. The dial should read zero when this has been done, if not, adjust the pointer by means of the zero adjusting nut on top of the dial head. (see item 1 on the relevant parts page)

(4) On a daily basis before weighing check the pointer of the dial for zero position. If the pointer isn't exactly on zero, check to see if the hopper and weighbridge have got free play and , if necessary clean the hopper or weighbridge. If zero cannot be obtained, adjust by means of the zero adjusting nut on top of the dial head. (item 1)

(5) If the dial reads heavy or light at full load, adjustments can be made by moving the adjustable knife edge. **NOTE** This adjustable knife edge is set in our works prior to despatch and should only be moved if the above instructions have been carried out without result.

HYDROSTATIC LOADCELL & GAUGE

The Hydrostatic Load Cell is connected by a flexible capillary tube (approx 9.7 metres long) to a 300mm (12") diameter weigh gauge.

The whole system is assembled and filled with fluid under vacuum and under no circumstances should any of the components be disconnected, in the event of component damage the complete assembly should be returned to Winget Limited for repair.

The system is factory calibrated and any variation between the calculated tare and the actual tare recorded can be corrected by means of the tare adjustment knob on the side of the gauge.

With no load acting on the loadcell the pointer will be below zero, this is to accommodate the weight of the hopper. When the hopper is placed on to the loadcell the pointer will register zero. Final zero adjustment can be made via the zero adjustment knob on the side of the gauge housing.

OPERATING INSTRUCTIONS FOR 'INVARAC ' 180 LITRE (40 GALLON) WATER TANK

TO DISCHARGE IN STAGES: When the tank is used for a partial discharge (i.e. not a complete discharge in one go) slacken the wing nut so that the release lever is slack, then use the discharge lever for releasing the water. When the tank has emptied the release lever must be depressed before any water can enter the tank. Just a light touch is necessary.

NOTE It is necessary to pull the discharge lever **right down** for the first discharge. This locks the inlet valve in the 'shut off' position and thereafter the lever can be operated without pulling it to its full extent, i.e. the lever controls the amount of water released.

COMPLETE DISCHARGE: Lock the release lever in the 'down position by means of the wing nut.

METHOD OF OPERATION: Set the indicator to the required quantity of water and discharge by means of the discharge lever at the tank base. The lever must be pulled right down and held until the water is discharged. This action shuts off the inlet valve and stops water from entering the tank.

For accurate quantities, measure the water discharged and adjust by means of the handle, ten turns of the handle are equal to 1 gallon or 4.54 litres, (1.25 turns to 1 pint or 0.568 litres). Once set each batch of water will be the same.

The tank is designed for accurate water measurements and will operate satisfactorily on mains water pressure up to 100 p.s.i.

CAPACITY

180 litres 40 gallon maximum

18 litres 4 gallon minimum

THE ABOVE INFORMATION APPLIES TO IMPERIAL GALLONS ONLY

If the overnight temperature is expected to drop to or near freezing it is recommended that the water tank is completely drained each night or at the end of each shift to prevent damage to the tank.

OPERATING INSTRUCTIONS FOR 0-100 LITRE WATER FLOWMETER

The simple manually operated 0-100 litre Water Flow Meter is available as an option to the water tank and is normally mounted on the side of the mixer feeding directly into the pan. The meter is normally fitted with 1” hose tail connectors but different sizes of water inlet connections to suit various hose diameters are also available. The meter is normally provided with a simple ‘on/off’ valve and inline filter/strainer mounted next to but down stream of the flowmeter.

OPERATION

On a daily basis before use the strainer should be removed and checked for debris and obstructions, cleaned and refitted. Ensure the on/off valve is in the ‘off ‘ position and turn on the main water supply. Set the adjustable pointer on the dial face via the central knob to the required amount of water. Check the indicator reads zero, if not operate the reset lever on the side of the meter which will reset the indicator. Turn the on/off valve slowly to the ‘on’ position watching the movement of the indicator around the dial, when the indicator reaches the pointer sharply turn valve to the ‘off ‘ position. The indicator will register the amount of water delivered. Operate the reset lever to bring the indicator back to zero and repeat the operation for each batch of material mixed.

When shutting down the mixer either at night or at the end of each shift it is recommended that the main water supply to the flow meter and ‘on/off’ valve is shut off.

If it is expected that the overnight temperatures will drop to or close to freezing it is recommended that the Flow Meter, Valve, Filter and Pipework are drained to prevent damage.

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 damaged or defaced they should always be replaced.

It is likely that clutch and/or brake linings may contain asbestos and suitable precautions should be taken to avoid breathing in the dust, protective clothing should be worn. Hands should be washed immediately after handling components and old discarded parts or linings should be disposed of in a responsible manner in line with local or national regulations covering the disposal of asbestos waste.

**OPERATING
AND
MAINTENANCE MANUAL**

SECTION 3

**TECHNICAL SPECIFICATION
AND MAINTENANCE**

TECHNICAL SPECIFICATION OF CUMFLOW RP850

<u>CAPACITIES:</u>	Maximum Batch Capacity	by Weight	1300 kgs
		by Volume	850 litres
	Nominal Output (Based on 2.42kg/lt)		540 litres
	Nominal Output (Based on 2.162kg/lt)		600 litres
	Hourly Output		21.0cu.m
<u>AGGREGATES:</u>	Maximum Aggregate Size		25 mm
<u>MIXER FRAME:</u>	Strongly constructed from welded Steel Channel		
<u>MIXING PAN:</u>	Steel Base Pan mounted on three wide track rollers with central discharge door. Pan Rim, Base and Discharge Door fitted with renewable Wearing Plates.		
<u>MIXING STAR:</u>	Twin Arm Mounting, Four Spring loaded Star Blades, two at Pan floor level and two for high level mixing.		
<u>FIXED BLADE:</u>	Spring loaded pan side scraper assembly.		
<u>DISCHARGE BLADE:</u>	Pneumatically operated in conjunction with the Discharge Door.		
<u>WHIRLER:</u>	Intermittent blades mounted on vertical split shaft.		
<u>POWER UNITS:</u>	Mixing Star) Combined Motor		15 kw
	Mixing Pan)		
	Loader Motor (where fitted)		7.5 kw
	Whirler Motor (where fitted)		15 kw
<u>DRIVES</u>	Primary	Vee Flat	
	Secondary	Roller chain to pan and star drive sheets	
	Mixing Pan	Renewable cast bevel rack and bevel pinion	
	Mixing Star	Machine cut bevel gears	
	Whirler	Vee Rope Drive	
<u>SPEEDS</u>	Speed of Pan		12 rpm
	Speed of Star		57 rpm
	Speed of Loading Hopper		21 metres/min
	Speed of Whirler		720 rpm
<u>FREE AIR CONSUMPTION (PER BATCH 80 PSI)</u>			63.7 litres
<u>WEIGHTS (UNLADEN)</u>	Without Loader		2600 kg
	With Loader		3200 kg

ELECTRICS

Motor Voltage

415V 3ph 50hz

option 60 hz

Control Voltage

110V

MACHINE SAFETY DIRECTIVE

All Gears are suitably guarded.

MAINTENANCE

IMPORTANT

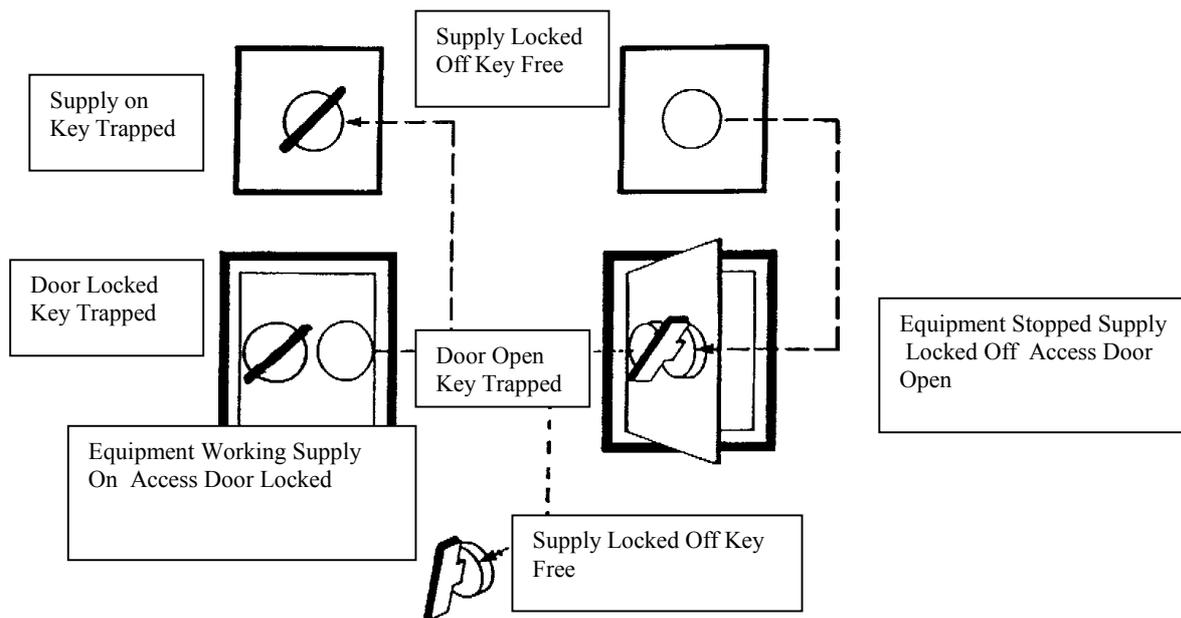
ALWAYS ENSURE APPARATUS IS ISOLATED FROM MAINS SUPPLY BEFORE COMMENCING MAINTENANCE.

SHUTDOWN PROCEDURE

Prior to any work being carried out the apparatus is to be isolated and physically locked off.

We recommend a double key exchange system.

Safe access to equipment with one access door and one control point.



Follow the procedures detailed in your Health and Safety Policy at all times.

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

Shut down the water supply and drain off any tank or flowmeter fitted.

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, PNEUMATIC 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
 - C) Discharge Blade
 - D) Whirler Blades

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.

- E) Pan base and rim wearing plates are also bolted construction and can be replaced in situ. However, pan covers will need to be dismantled to provide the necessary access.
- F) Other items prone to less wear are star blade fingers, lower whirler shaft assembly and mixing star. Each can be replaced again in situ but pan covers would require tensing to provide necessary access.
- G) Pan rollers can be adjusted to accommodate wear during operation. These can be replaced when required in situ using jacking method to support pan and provide the necessary access.

MAINTENANCE AND LUBRICATION

DAILY: Using Total EP2 Grease (or equivalent) grease the following points:-

Pan Roller Spindles	3 Points
Discharge Blade Lifting Gear Brackets	2 Points
Air Cylinder Lever Pivot Holder	1 Point
Star Gearbox and Conical Bearings	3 Points
Mixing Blade Finger Bearings	2 Points
Fixed Blade Finger Bearing	1 Point
Loading Hopper Rollers	2 Points
Whirler (where applicable)	2 Points

Inspect and top-up if necessary:-

Air Line Lubricator	Use Total Azolla 27 (or equivalent) or suitable Pneumatic Tool Oil
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WEEKLY: Inspect and top up if necessary:-

(1) Star Gearbox	Use Total Carter EP320 (or equivalent)
(2) Chain drip-feed Lubricators	Use S.A.E. 30 Oil
(3) Loader Winch Gearbox	Use Total Carter EP320 (or equivalent)

Inspect and Adjust

- (1) Pan Gear and Pinion – Apply 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 obstructions.

Mixing Blade: (3 mm) clear of pan base. Adjust by moving the blade down its finger.

Discharge Blade: Just touching pan base when finger bridge is resting on stop sleeves. Adjust by moving bridge up or down fingers.

Fixed Blade: (3 mm) clear of pan base and just touching pan rim. Adjust by moving hinge brackets along its slots and blade up or down its fingers. Re-set spring to 107 mm (4”) overall length after setting blade.

- (3) After the first week’s running the Vee Belt Drive will need adjustment to take up initial wear and stretch. At the correct tension it should be just possible to twist each

belt through 90° when gripped between finger and thumb midway between pulleys.

- (4) Loading Hopper Wire Rope – clean off grit etc. and inspect for broken strands. Clean and apply a suitable wire rope dressing.

MONTHLY: **Inspect:**

- (1) Driving Chain for misalignment shown by wear on the sides of the sprocket teeth. Rectify immediately. Adjust jockey pinion if necessary so that the chain is just off slack, excessive tightness will accelerate wear.
- (2) All blades for ware – replace when worn.
- (3) Pan rim, base and door wear plates – replace when worn
- (4) Pan Roller Bearings – replace if necessary
- (5) Pan Door Bearing – replace if necessary
- (6) Pneumatic system for leaks – repair or replace damaged parts.
- (7) Pneumatic Cylinders. Make sure that the door cylinder piston rod is at the end of its travel when the discharge door is just home in its seating.
- (8) Pfister or Salter Weighers. Clean the knife abutments by means of a brush and grease them thoroughly with Total EP2 grease or equivalent.

CAUTION: **BEFORE WORKING UNDER LOADING HOPPER, REST HOPPER ON SAFETY BOLTS. DO NOT FORGET TO REMOVE THESE BOLTS BEFORE RE-STARTING THE MACHINE**

(Item 45 on arrangement of Loader Section)

- (9) Loader Magnetic Brake (see below for NR range brake units.) – adjust if necessary, to the following instructions (these instructions apply only if a separate brake unit is fitted, refer to the manufacturers if a combined motor and brake unit is fitted) :-

Mounting:

Set the brake so that the horizontal centre-line of the shoe corresponds with the centre-line of the brake wheel shaft and the shoe pivots are equally spaced from the vertical centre-line.

Installing:

Slacken back equalising screw (Item 14) Slack nut (Item 5) and adjust screw (Item 3) to give required braking torque.

WARNING:

The end of the adjusting screw (Item 3) must always be visible in the hole at the end of the adjusting nut (Item 6).

Set nuts (Item 5) so that contact is made with the load spring block in the shoe lever when solenoid plunger has moved through half its stroke. Once properly set, this setting should not be altered. With solenoid plunger right down, set equalising screw (Item 14) to give equal friction lining clearances.

Tighten locknuts (Item 5 & Item 14) and be sure that the load spring bracket is in place.

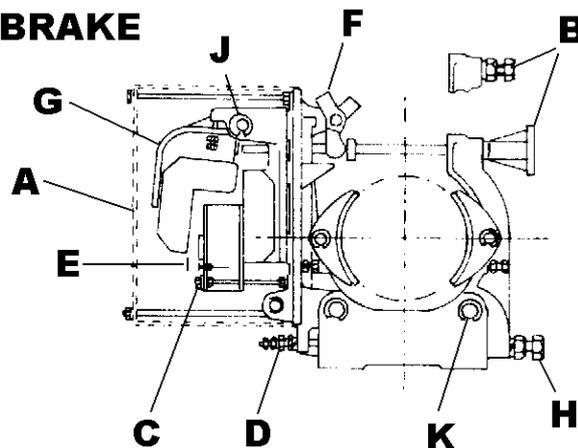
Check adjustments frequently and lubricate brake shoe pivots. To adjust for wear, screw in adjusting screw (Item 3) until the adjusting nuts are clear and only touch lever (Item 1) when plunger is depressed through half its stroke.

When ever new linings are fitted, repeat all adjustments.

Orders and enquiries should always state full description of parts required. The serial number on the brake should always be quoted.

- (10) NR Range Loader Magnetic Brakes – adjust if necessary, to the following instructions (these instructions apply only if a separate brake unit is fitted, refer to the manufacturers if a combined motor and brake unit is fitted) :-

NR RANGE BRAKE



MOUNTING

- (1) Release the spring pressure completely by unscrewing the torque screw H, in most cases the brake can now be slipped over and off the brake drum. If the brake cannot be slipped off the drum due to the proximity of equipment i.e. motors etc, the plain arm can be removed by taking out the pivot pin K and withdrawing the arm from the base. It may be necessary to remove the top rod.
- (2) Set the brake unit in position on the bed plate, insert the fixing bolts and screw down finger tight.
- (3) If previously removed replace the plain arm, rod and pivot pin. With the brake base resting evenly on the bed plate tighten up the torque screw H until the brake drum is gripped tightly by the shoes.
- (4) Tighten down the fixing setscrews or bolts and set the brake arm shoe stop screws Against the shoes to prevent them dropping in the released condition.

WIRING

A 3/4" screwed conduit entry is situated in each side of the base of the armature housing to accommodate the wiring to the terminals, it is essential that the conduit or lead in be flexible.

SETTING UP

- (1) Adjust and lock the torque screw H so that only 3mm (1/8") of further adjustment is available to compensate for any reduction in torque due to any wear of the brake linings.
- (2) Remove cover A and with no current flowing set gap E, indicated on the brake label, by adjusting the handwheel or alternatively the screw B. Replace the cover.
- (3) Adjust the setscrew D so that both shoes lift equally when the brake is energised.
- (4) When required the brake can be released manually by applying pressure to the release device F, using a suitable lever

MAINTENANCE AND SERVICE

NOTE, until it is obvious that the friction surfaces have bedded down completely, gap E should be should be carefully checked at frequent intervals. The length of this period will depend on the frequency of the operation of the brake. After this period normal maintenance only will be required. The only lubrication required is an occasional light application to the armature spindle bearing through the holes provided.

COIL REPLACEMENT

Isolate the electrical supply. Remove the armature cover A and disconnect the coil leads. Slacken the top rod adjustments by rotating the handwheel or alternatively the screw B anti-clockwise. Remove the e-clips on the armature spindle J and withdraw the spindle, lift out the armature G. Remove the eight nuts at C and withdraw the coil. Replace the coil and the nuts ensuring the positioning of the inner nuts prevents distortion of the coil flange when the outer nuts are tightened. Refit the armature, spindle and e-clips, reset the gap E as previously described and reconnect the leads. Replace the cover.

BRAKE LINING REPLACEMENT

Isolate the electrical supply. Release the torque spring pressure by unscrewing the torque screw N. Remove the shoe spindle and rotate the shoe around the drum by approximately 90° in an upward movement and withdraw. Fit new linings and reassemble. Reset as previously described under setting.

MAINTENANCE OF PFISTER WEIGHER

MONTHLY

Clean the knife edge abutments by means of a brush and grease them thoroughly using Total EP2 grease or equivalent.

EVERY THREE MONTHS

Free the dashpot cylinder securing nut at the bottom of the cylinder, and cylinder flange Remove the dashpot cylinder clean out and refill with new oil, either Total Azolla ZS32 or Azolla ZS46 or equivalent. Take care when removing the dashpot cylinder from its position as it must be replaced in the same position.

EVERY THREE MONTHS

Clean the dial head. Remove the back cover plate and wash the elements in the dial head with clean diesel oil, i.e. springs, shaft, ball bearings and rack etc.

When cleaning the ball bearings move the rack up and down. After cleaning lubricate the elements with Total EP2 grease. The ball bearings should be lubricated with Total Azolla ZS10. Replace the back cover.

MAINTENANCE OF SALTER WEIGHER

MONTHLY

Clean the knife edge abutments by means of a brush and grease them thoroughly using Total EP2 grease or equivalent.

EVERY THREE MONTHS

Free the dashpot cylinder securing nuts at the bottom of the cylinder, and cylinder flange, remove the dashpot cylinder cap. Remove the dashpot cylinder clean out and refill with new oil, Total S.A.E. 140 or equivalent. Take care when removing the dashpot cylinder from its position as it must be replaced in the same position.

ANNUALLY

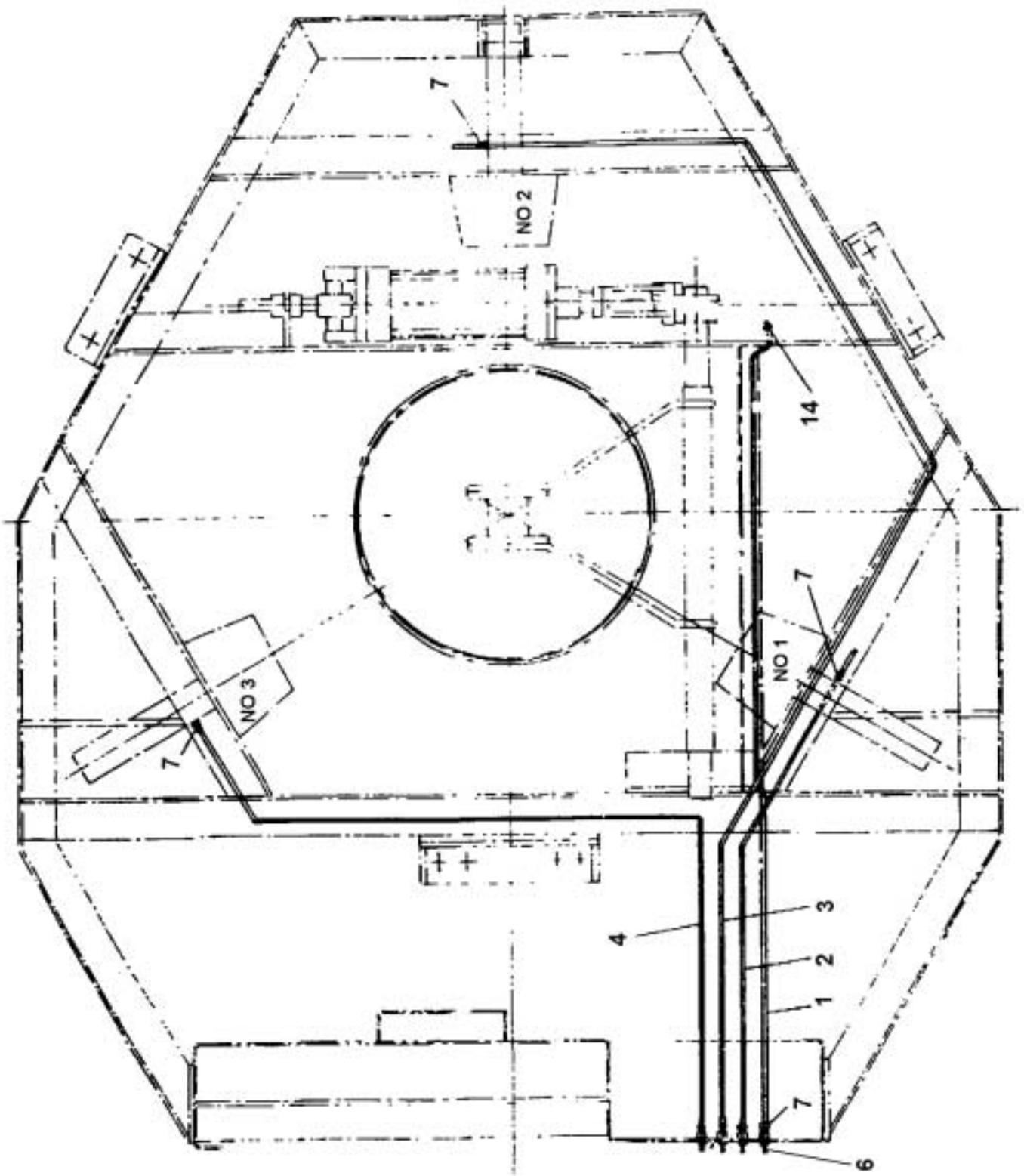
WORM REDUCTION UNIT

Drain and clean out the gear case and refill with Total Carter EP320 or equivalent. Some oils are incompatible and will not mix, if in doubt thoroughly flush out the unit prior to refilling. When running conditions are severe the oil should be changed more frequently. (Capacities – 10 Imperial Pints: 5.7 Litres: 1.6 American Gallons).

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.

LUBRICATION LAYOUT



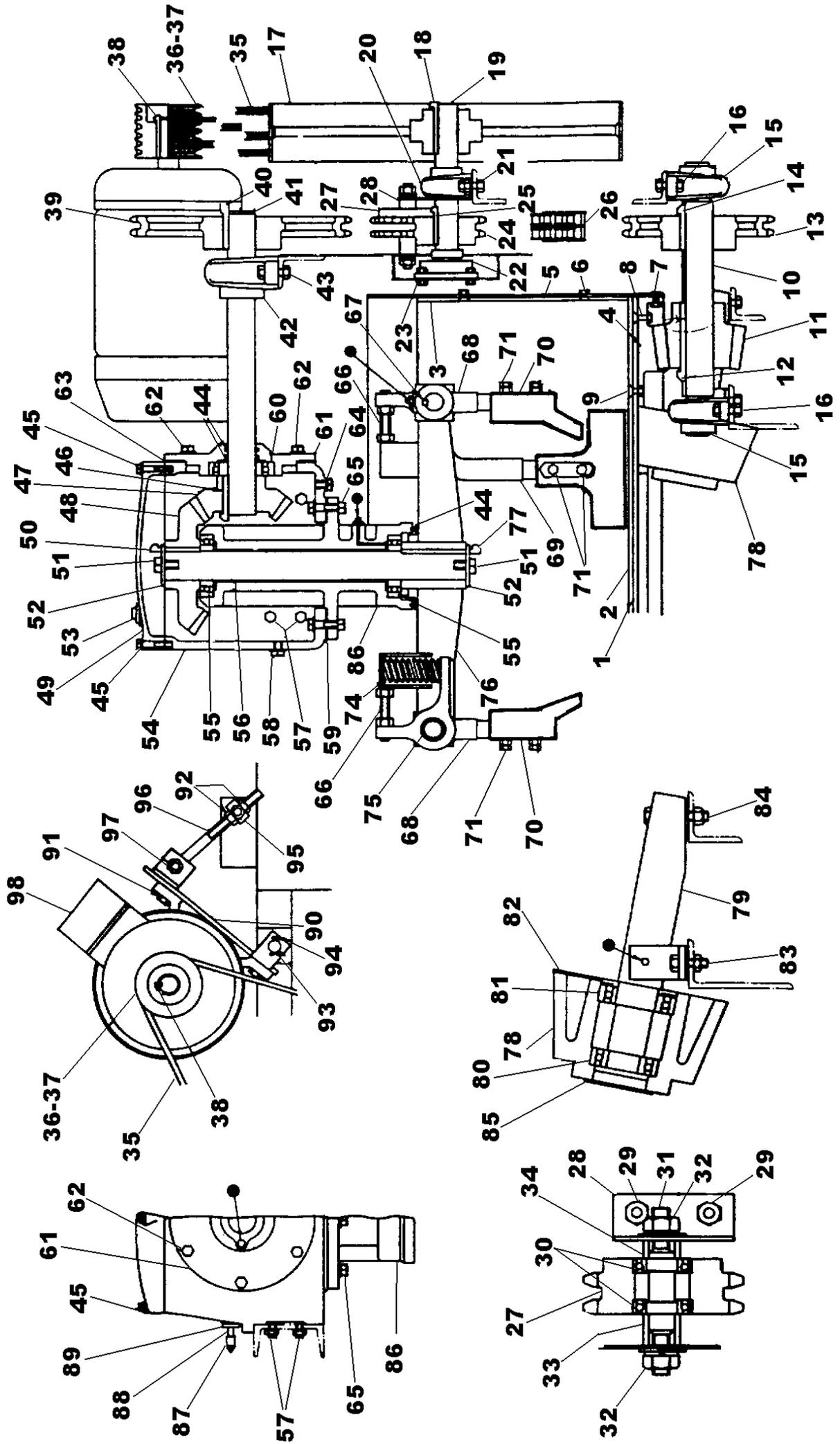
LUBRICATION LAYOUT

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	51-0415	Ram Holder Bundy Tube } Bundy Tube Supplied
2	51-0415	No.1 Roller Bundy Tube } in 10' 0" lengths
3	51-0415	No.2 Roller Bundy Tube } order fittings as
4	51-0415	No.3 Roller Bundy Tube } required
6	131S01	Grease Nipple Straight
7	51-0012	Straight Connector

**OPERATING
AND
MAINTENANCE MANUAL**

**SECTION 4
MIXER SPARE PARTS**

RP850 ARRANGEMENT OF STAR, BLADE & PAN DRIVE



RP850 ARRANGEMENT OF STAR, BLADE & PAN DRIVE

1	CR260439	Pan Base, obsolete use Item 1A below	
1A	CR2610008	Pan Base, Mild Steel	1
1B	CR2610008SS	Pan Base, Stainless Steel	1
2	CR53100011	Pan Base Wear Plates, Mild Steel	4
2A	CR53100011H	Pan Base Wear Plates, Wear Resistant Steel	4
2B	CR53100011SS	Pan Base Wear Plates, Stainless Steel	4
3	CR54100012	Pan Rim Wear Plates, Mild Steel	3
3A	CR54100012H	Pan Rim Wear Plates, Wear Resistant Steel	3
3B	CR54100012SS	Pan Rim Wear Plates, Stainless Steel	3
4	CR21100009	Pan Rack	1
5	CR54100010	Pan Rim, Mild Steel	1
5A	CR54100010SS	Pan Rim, Stainless Steel	1
6	52S04E	Pan Rim Wear Plate Countersunk Screws M10	30
6A	17S05	Washer Spring M10	30
6B	7S04	Nut M10	30
7	16S10G	Pan Rim Pan Headed Screws M12 x 40	8
7A	17S06	Washer Spring M12	8
7B	7S05	Nut M12	8
8	52S05J	Pan Rack Countersunk Screws M12 x 45	12
8A	17S06	Washer Spring M12	12
8B	7S05	Nut M12	12
9	52S03H	Pan Base Wear Plate Countersunk Screws M8	8
9A	17S04	Washer Spring M8	8
9B	7S03	Nut M8	8
9C	52S06J	Pan Base Wear Plate Countersunk Screws M16	16
9D	17S08	Washer Spring M16	16
9E	7S06	Nut M16	16
10	CR520186	Bevel Pinion Shaft	1
11	CR460009	Bevel Pinion	1
12	CR320030	Bevel Pinion Gib Key	1
13	CR200029	Bevel Pinion Shaft Chainwheel	1
14	CR329058	Bevel Pinion Shaft Chainwheel Parallel Key	1
15	CR150933	Bevel Pinion Shaft Pillow Block	1
16	8S06F	Bolt M16 x 50 Pillow Block	2
16A	267S09	Washer Flat M16	4
16B	61S06	Nut Binx M16	2
17	CR340507	Flat Pulley	1
18	CR3290020	Flat Pulley Gib Key	1
19	CR520252	Countershaft	1
20	CR150929	Countershaft Pillow Block	1
21	8S05F	Countershaft Pillow Block Bolts M12 X 50	2
21A	267S07	Washer Flat M12	4
21B	61S05	Nut Binx M12	2
22	CR150961	Countershaft Flange Unit	1
23	11S06F	Countershaft flange Unit Screw Set M16 x 40	4
23A	267S09	Washer Flat M16	8
23B	61S06	Nut Binx M16	4
24	CR200030	Countershaft Chain Pinion & Taperlock Bush	1
25	CR329015	Countershaft Chain Pinion Parallel Key	1
26	CR200057	Chain 142 Links incl. Spring Link	1
27	CR200027	Chain Adjuster Pinion	1
28	CR540588	Chain Adjuster Pinion Bracket	1
29	251S07H	Chain Adjuster Pinion Bolt 5/8 x 1" BSW	1

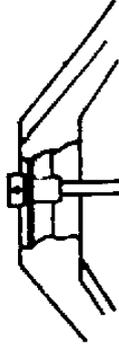
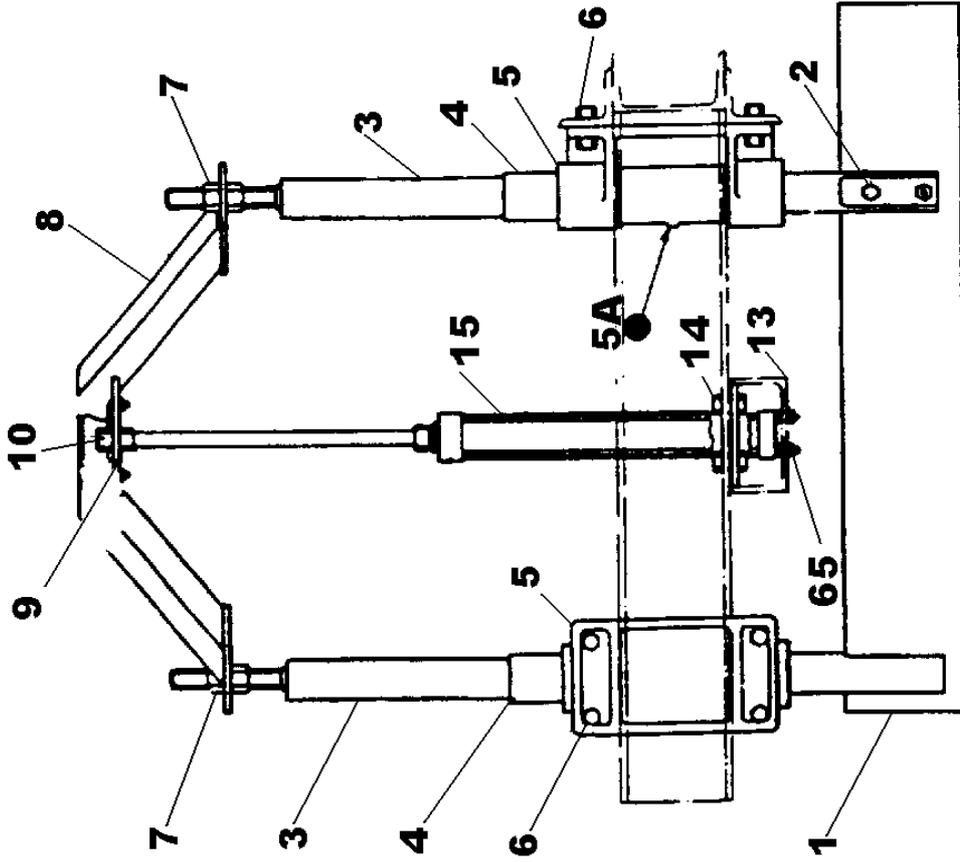
RP850 ARRANGEMENT OF STAR, BLADE & PAN DRIVE

30	88S16D	Chain Adjuster Pinion Bearings	2
31	CR520128	Chain Adjuster Spindle	1
32	253S07	Spindle Adjusting Nuts 3/4" BSF	2
32A	41S11	Washer Spring	2
32B	10S28	Washer Flat	2
33	CR630051	Sleeve long	1
34	CR630052	Sleeve Short	1
35	CR160039	V' Belts	1 SET
36	CR340176	Pulley 'V' D180L 60C Motor	1
37	CR340175	Pulley 'V' D160L 50C Motor	1
38	CR320053	V' Pulley Gib Head key	1
39	CR200028	Star Drive Shaft Chainwheel	1
40	CR329056	Star Drive Shaft Chainwheel Parallel Key	1
41	CR520251	Star Drive Shaft	1
42	CR151094	Star Drive Shaft Pillow Block	1
43	8S18K	Pillow Block Bolts M18 x 70	2
43A	267S24	Washer Flat M18	4
43B	17S15	Washer Spring M18	2
43C	7S16	Nut M18	2
44	CR560004	Star Shaft Felt Seal	4
45	79S03G	Star Gearbox Cover Bolts	4
46	CR329058	Star Drive Shaft Key	1
47	CR460021	Star Drive Shaft Bevel Wheel	1
48	CR460020	Star Shaft Bevel Wheel	1
49	CR210138	Gearbox Cover	1
50	CR329058	Star Shaft Key (Top)	1
51	251S07K	Star Shaft Centre Bolts	2
52	CR630046	Star Gear Washer	2
53	CR610003	Star Gearbox Filler Plug	1
54	CR210144	Star Gearbox Casing	1
55	CR150223	Star Shaft Bearings	2
56	CR520174	Star Shaft	1
57	251S07N	Star Gearbox Screw Sets 5/8"	8
57A	10S05	Washer Flat 5/8"	8
57B	41S09	Washer Spring 5/8"	8
57C	253S06	Nut 5/8"	8
58	CR240970	Star Gearbox Oil Level Bolts and 1/2" Fibre Washers	1
59	CR560035	Conical Gasket	1
60	CR150223	Star Drive Shaft Bearing	1
61	CR210145	Star Drive Shaft Brg. Housing	1
61A	131S01	Nipple Grease	1
62	251S07N	Star Drive Shaft Brg Housing Screw Sets 5/8"	6
62A	41S09	Washer Spring 5/8"	6
62B	10S05	Washer Flat 5/8"	6
63	CR560036	Bearing Housing Gasket	1
64	CR240970	Star Gearbox Drain Bolt & Gasket	1
65	8S06L	Star Conical Bolts M16 x 75	6
65A	267S09	Washer Flat M16	6
65B	61S06	Nut Binx M16	6
66	11S07DD	Star Blade Finger Adjusting Screws M20 x 110	2
66A	7S07	Nut M20	2
67	CR329015	Star Finger Parallel Key	2

RP850 ARRANGEMENT OF STAR, BLADE & PAN DRIVE

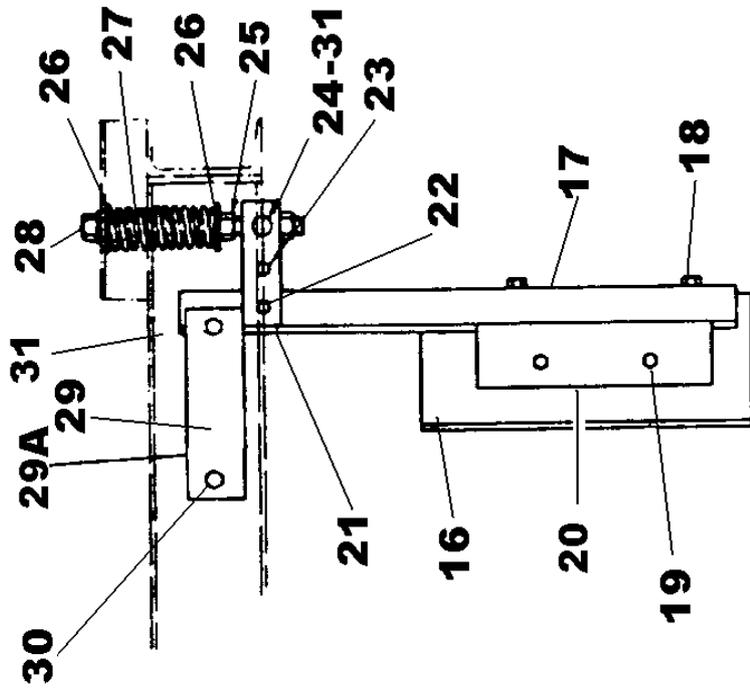
68	CR260430	Star Finger (Short)	2
69	CR260431	Star Finger (Long)	2
70	CR210007	Star Blade Holder not illustrated, for use with item 72, wear piece	4
70A	CR210035	Star Blade, Cast (obsolete use item 70B below)	
70B	CR21100015	Star Blade, Cast (standard)	4
70C	CR210035P	Star Blade, Polyurethane, do not use on RP850/XD & above see item 70D & 70E below	
70D	CR219008P	Star Blade, Standard Polyurethane alternative	4
70E	CR219008HP	Star Blade, Heavy Duty Polyurethane alternative	4
71	8S06M	Star Blade Bolts M16 x 80	8
71A	267S09	Washer Flat M16	8
71B	61S06	Nut Binx M16	8
72	CR210008	Star Blade Wearing Piece, not illustrated	4
73	52S05M	Star Blade Wearing Piece Countersunk Screw M12	8
73A	267S07	Washer Flat M12	8
73B	17S06	Washer Spring M12	8
73C	7S05	Nut M12	8
74	CR330070	Star Finger Spring	2
75	CR180013	Star Finger Bush	4
76	CR260432	Mixing Star	1
77	CR320036	Star Shaft Gib Key (Bottom)	1
78	CR210146	Pan Rollers	3
79	CR260433	Pan Roller Spindle	3
80	CR150126	Pan Roller Spindle Brg. (Outer)	3
81	CR150062	Pan Roller Spindle Brg. (Inner)	3
82	CR530570	Pan Roller Spindle Brg. Dust Washer	3
83	11S06H	Pan Roller Spindle Screw Set (Short) M16 x 50	6
83A	267S09	Washer Flat M16	12
83B	61S06	Nut Binx M16	6
84	8S06N	Pan Roller Spindle Bolt (Long) M16 x 90	3
84A	267S09	Washer Flat M16	6
84B	61S06	Nut Binx M16	3
85	CR54100074	Pan Rollers End Cap	3
86	CR210041	Star Conical	1
86A	131S01	Nipple Grease	1
87	CR510412	Ferrule	1
88	CR530571	Pipe	1
89	CR570008	Rubber Washer	1
90	CR260539	Motor Mounting Plate	1
91	11S05G	Motor Securing Screw Sets M12 x 45	4
91A	267S07	Washer Flat M12	8
91B	61S05	Nut Binx M12	4
92	253S07	Motor Plate Adjusting Nuts	2
93	CR520254	Motor Plate Pivot Pin	1
94	44S05E	Motor Plate Pivot Split Pin	4
95	CR520255	Motor Plate Trunnion	1
95A	41S11	Washer Spring 3/4"	1
95B	253S07	Nut 3/4"	1
96	CR530623	Motor Plate Adjusting Rod	1
97	79S08M	Motor Plate Adjusting Rod Pivot Bolt 3/4"	1
97A	41S11	Washer Spring 3/4"	1
97B	253S07	Nut 3/4"	1
98	CR220102	Electric Motor	1
99	CR529024	Chain Tension Rod (for items 26/27/28) not illustrated	1

RP850 ARRANGEMENT OF DISCHARGE BLADE & FIXED BLADE



Modification To Piston Rod End

if required the existing bridge may be modified by drilling a $1\frac{1}{16}$ diameter hole in the centre of the bridge (item 8)



RP850 ARRANGEMENT OF DISCHARGE BLADE & FIXED BLADE

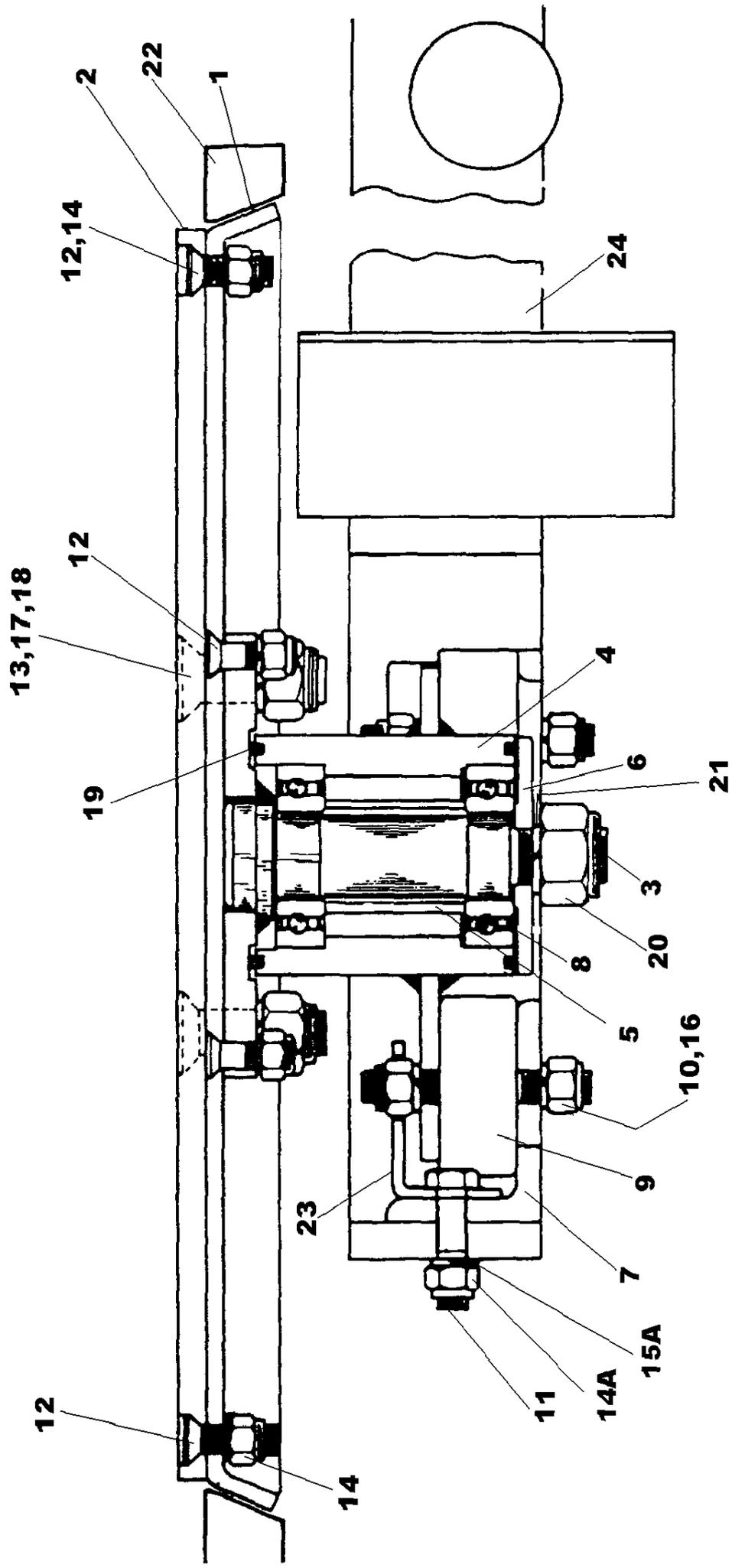
1	CR540590	Discharge Blade, Mild Steel	1
1A	CR540590H	Discharge Blade, Wear Resistant Steel	1
1B	CR540590SS	Discharge Blade, Stainless Steel	1
2	52S06M	Discharge Blade Countersunk Bolts	4
2A	267S09	Washer Flat	4
2B	61S06	Nut Binx	4
3	CR520005	Discharge Blade Finger	2
4	CR660003	Discharge Blade Finger Stop Pipe	2
5	CR210233	Discharge Blade Finger Bracket	2
5A	V2001237	Bush Hard Cast Nylon (not fitted in all builds)	4
5B	131S02	Nipple Grease	2
5C	176S01	Cover Nipple Grease	2
5D	CR570061	Discharge Finger Wiper Seal, Imperial	4
5E	CR531629	Wiper Seal Housing, Mild Steel, Imperial	4
5E	CR531629SS	Wiper Seal Housing, Stainless Steel, Imperial	4
5F	11S02C	Screw Set	12
5G	17S03	Washer Spring	12
6	11S06H	Discharge Blade Finger Bracket Bolts	8
6A	267S09	Washer Flat	16
6B	61S06	Nut Binx	8
6C	11S06G	Screw Set Finger Support Bracket to Frame (not illus)	8
6D	267S09	Washer Flat	16
6E	150S07	Washer Tapered	8
6F	61S06	Nut Binx	8
7	CR253S09	Discharge Blade Finger Bridge Nuts	6
8	CR260317	Discharge Blade Finger Bridge (obsolete)	1
* 8	CR26100019	Discharge Blade Finger Bridge (replaces above)	1
9	CR530030	Anti Vibration Mounting Plate (obsolete)	1
* 9	CR531582	Piston Rod End (use this item, replaces above)	1
10	CR241551	Mounting Plate Nut (see below)	1
10	185S04C1	Grub Screw (see note on modification to bridge)	1
* 10	54S04M	Pin Roll (see note on modification to bridge)	1
11	CR120001	Mounting (see note on modification to bridge)	2
12	CR241552	Mounting Nuts (see note on modification to bridge)	4
13	CR530675	Air Cylinder Support	1
14	11S06G	Air Cylinder Support Bolts	2
14A	267S09	Washer Flat	4
14B	150S07	Washer Taper	2
14C	61S06	Nut Binx	2
15	CR110304	Air Cylinder	1
15A	CR110323	Seal Kit (for CR110304)	1
16	CR530034	Fixed Blade, obsolete use item 16A below	
16A	CR53100039	Fixed Blade, Mild Steel	1
16B	CR53100039H	Fixed Blade, Wear Resistant Steel	1
16C	CR53100039SS	Fixed Blade, Stainless Steel	1
17	CR260024	Fixed Blade Finger	1
18	8S05L	Fixed Blade Finger Bolts	2
18A	267S07	Washer Flat	4
18B	61S05	Nut Binx	2
19	52S05G	Fixed Blade Countersunk Bolts	2

Items marked * are currently in use replacing all earlier parts

RP850 ARRANGEMENT OF DISCHARGE BLADE & FIXED BLADE

19A	267S07	Washer Flat	2
19B	61S05	Nut Binx	2
20	CR530035	Fixed Blade Angle, obsolete use item 20A below	
20A	CR53100040	Fixed Blade Angle, Mild Steel	1
20B	CR53100040SS	Fixed Blade Angle Stainless Steel	1
21	CR530036	Adjusting Rod Trunnion Plate	1
22	8S05Q	Adjusting Rod Trunnion Plate Bolt (Long)	1
22A	267S07	Washer Flat	2
22B	61S05	Nut Binx	1
23	8S05D	Adjusting Rod Trunnion Plate Bolt (Short)	1
23A	267S07	Washer Flat	2
23B	61S05	Nut Binx	1
24	CR530037	Adjusting Rod Trunnion	1
25	253S07	Adjusting Rod Nuts	2
26	CR490062	Adjusting Rod Washer	2
27	CR330066	Fixed Blade Compression Spring	1
28	CR530038	Adjusting Rod	1
28A	272127006	Washer Special Flat Adjusting Rod	1
29	CR260025	Fixed Blade Finger Pivot	1
29A	131S01	Nipple Grease	1
29B	176S01	Cover Nipple Grease	1
29C	44S06L	Pin Split	1
29D	CR630435	Washer Special Machined, Finger Pivot	1
30	8S06H	Fixed Blade Finger Pivot Bolts	2
30A	267S09	Washer Flat	4
30B	CR530647	Washer Special Square	2
30C	61S06	Nut Binx	2
31	8S05Q	Fixed Blade Finger Bolt	1
31A	267S07	Washer Flat	1
31B	61S05	Nut Binx	1
65	7S03	Nuts, Air Cylinder to Support Bracket	4
65A	17S04	Washer Spring	4

RP850 ARRANGEMENT OF DISCHARGE DOOR



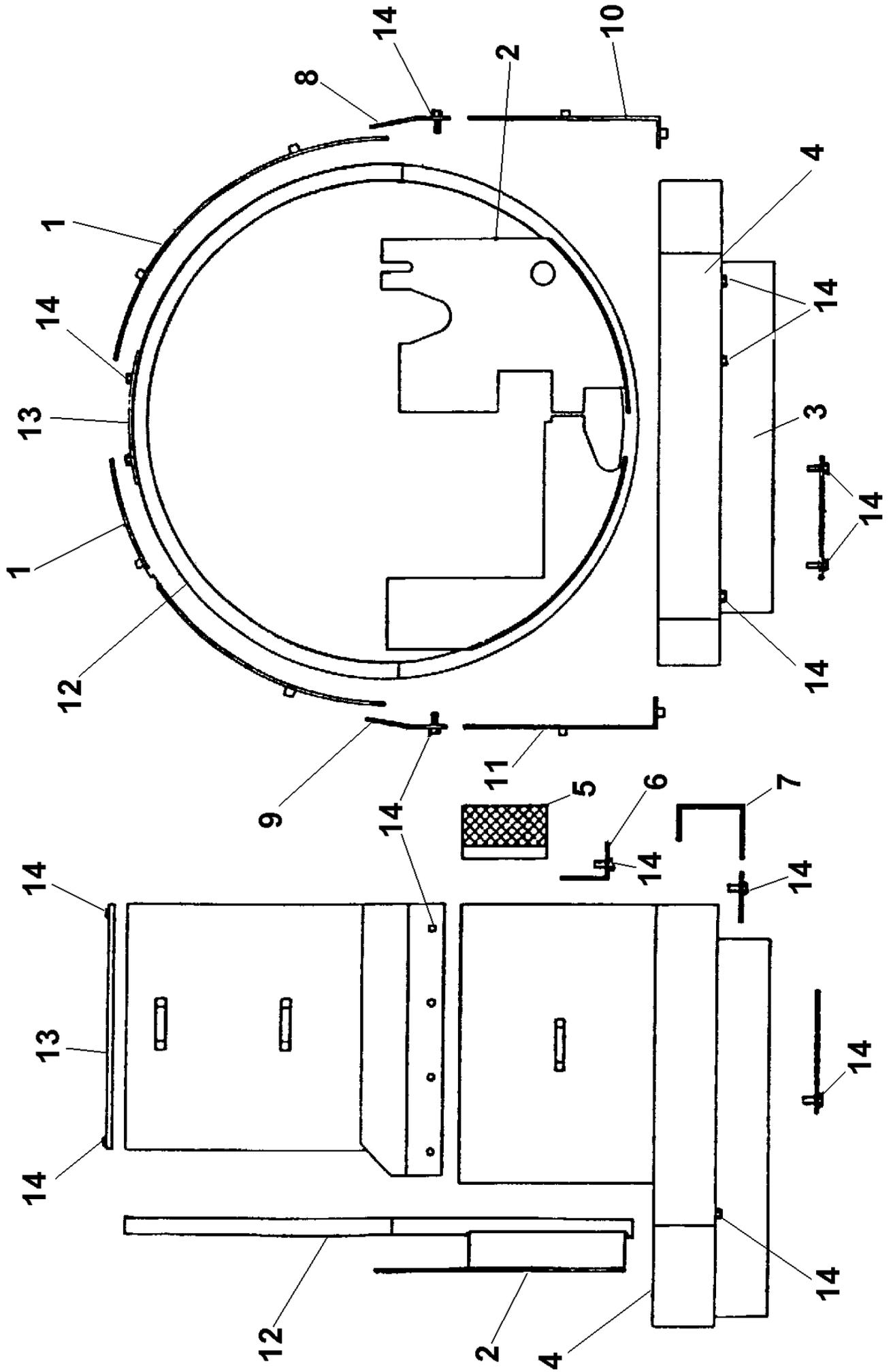
RP850 ARRANGEMENT OF DISCHARGE DOOR

1	CR26100018	Door, Mild Steel	1
1A	CR26100018SS	Door, Stainless Steel	1
2	CR53100027	Door Wear Plate, Mild Steel	1
2A	CR53100027H	Door Wear Plate, Wear Resistant Steel	1
2B	CR53100027SS	Door Wear Plate, Stainless Steel	1
3	CR26100016	Door Pin	1
4	CR26100017	Door Bearing Housing	1
5	CR63100030	Bearing Spacer	1
6	CR49100029	Door Pin Seal Washer	1
7	CR53100033	Bearing Support Angle	3
8	CR150817	R & M LJ30 WSRR Ball Bearing, obsolete use item 8A below	
8A	88S16D	Ball Bearing, Double Sealed	2
9	CR120003	Anti-Vibration Mountings B T R 1202 L.50	3
10	7S04	Nut M10	6
11	8S04C	Bolts M10	6
12	52S03F	Socket Head Csk Screws M8	12
13	52S06K	Socket Head Csk Screws M16	4
14	61S03	Nut Binx M8	12
14A	61S04	Nut Binx M10	6
15	267S05	Washer Flat M8	4
15A	267S06	Washer Flat M10	6
16	17S05	Spring Washers M10	6
17	267S09	Washer Flat M16	4
18	61S06	Nut Binx M16	4
19	CR560001	1/8" x 1/4" Felt 9.1/16" Long	2
20	61S07	Nut Binx M20	1
21	267S10	Flat Washer M20	1
22	CR53100077	Pan Door Seating, Mild Steel	1
22A	CR53100077SS	Pan Door Seating, Stainless Steel	1
23	CR54100028	Safety Retainers	3
24	CR260323	Door Arm	1

RP850 PAN DOOR CONTROLS

1	CR110305	Air Cylinder	1
1B	CR110326	Kit Seals for item 1	1
33	CR261175	Lever Pivot Holder	1
34	CR520191	Lever Pivot Holder Pin	1
35	44S05E	Pin Split	2
36	10S41	Washer Flat	2
37	CR530628	Lever Door Arm	1
38	CR329015	Key Parallel	1
39	1S10T	Bolt 1" X 5" BSF, Air Cylinder Trunnion	1
39A	41S13	Washer Spring 1"	1
39B	2S09	Nut 1" BSF	1
40	CR180014	Bearing Rubber	A/R
41	CR530627	Trunnion Air Cylinder	1
42	CR540359	Plate Trunnion	1
43	59S04	Nuts Nyloc M12 Plate Retaining	4
44	253S09	Nuts Trunnion Adjusting	2
45	CR150929	Pillow Block Bearing Door Arm	2
46	8S05H	Bolts Bearing M12	4
46A	267S07	Washer Flat	8
46B	61S05	Nut Binx	4
47	CR260323	Door Arm	1
48	CR54100047A	Discharge Chute Upper	1
48A	CR54100047B	Discharge Chute Upper	1
63	CR530039	Bearing Stop	2
63A	11S06G	Bearing Stop Screws M16	2
63B	267S09	Washer Flat	2
63C	61S06	Nut Binx	2

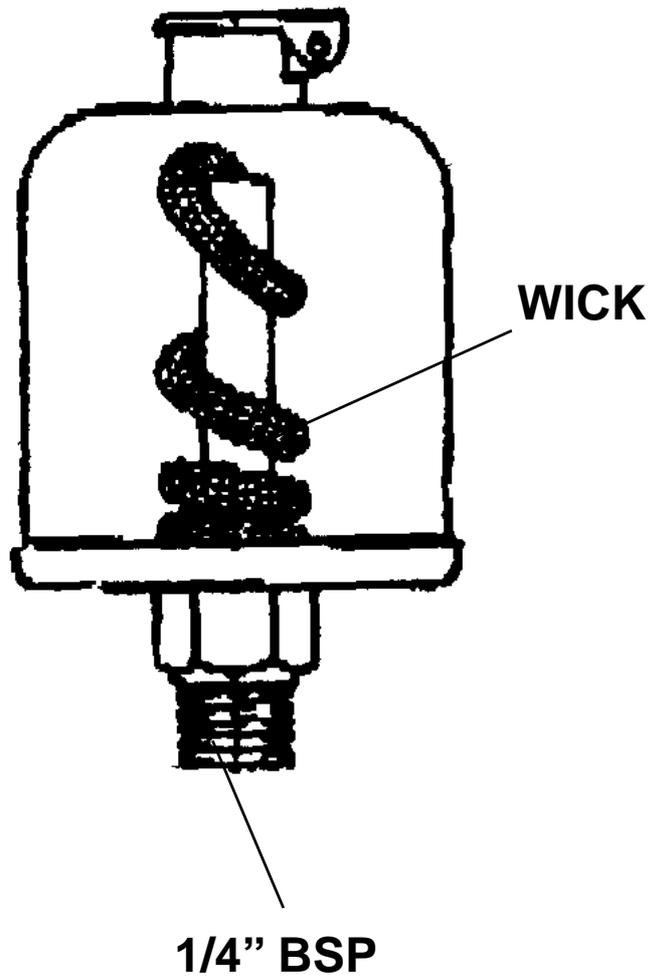
RP850 ARRANGEMENT OF GUARDS



RP850 ARRANGEMENT OF GUARDS

1	CR541705	Pan Guard	1
2	CR541724	Splash Guard	1
3	CR540347	Vee Drive Guard	1
4	CR540348	Top Drive Guard	1
5	CR540349	Bevel Pinion Guard	1
6	CR540350	Bevel Pinion Guard Cover	1
7	CR540351	Under Drive Guard	1
8	CR540352	Guard Support (Motor Side)	1
9	CR540353	Guard Support (Opposite Motor Side)	1
10	CR540354	Rear Guard (Motor Side)	1
11	CR540355	Rear Guard (Opposite Motor Side)	1
12	CR050103	Pan Guard Top Rim	1
13	CR541704	Pan Guard Support	1
14	11S03B	Screw Set Guard Securing	1
14A	17S04	Washer Spring M8	A/R
14B	267S05	Washer Flat m8	A/R
15	CR54100047A	Discharge Chute Upper (not illustrated)	A/R
15A	CR54100047B	Discharge Chute Lower (not illustrated)	A/R
16	CR54100052	Pan Guard Bottom Ring, Welded, (Not illustrated)	1

RP850 DRIVE CHAIN OIL LUBRICATOR

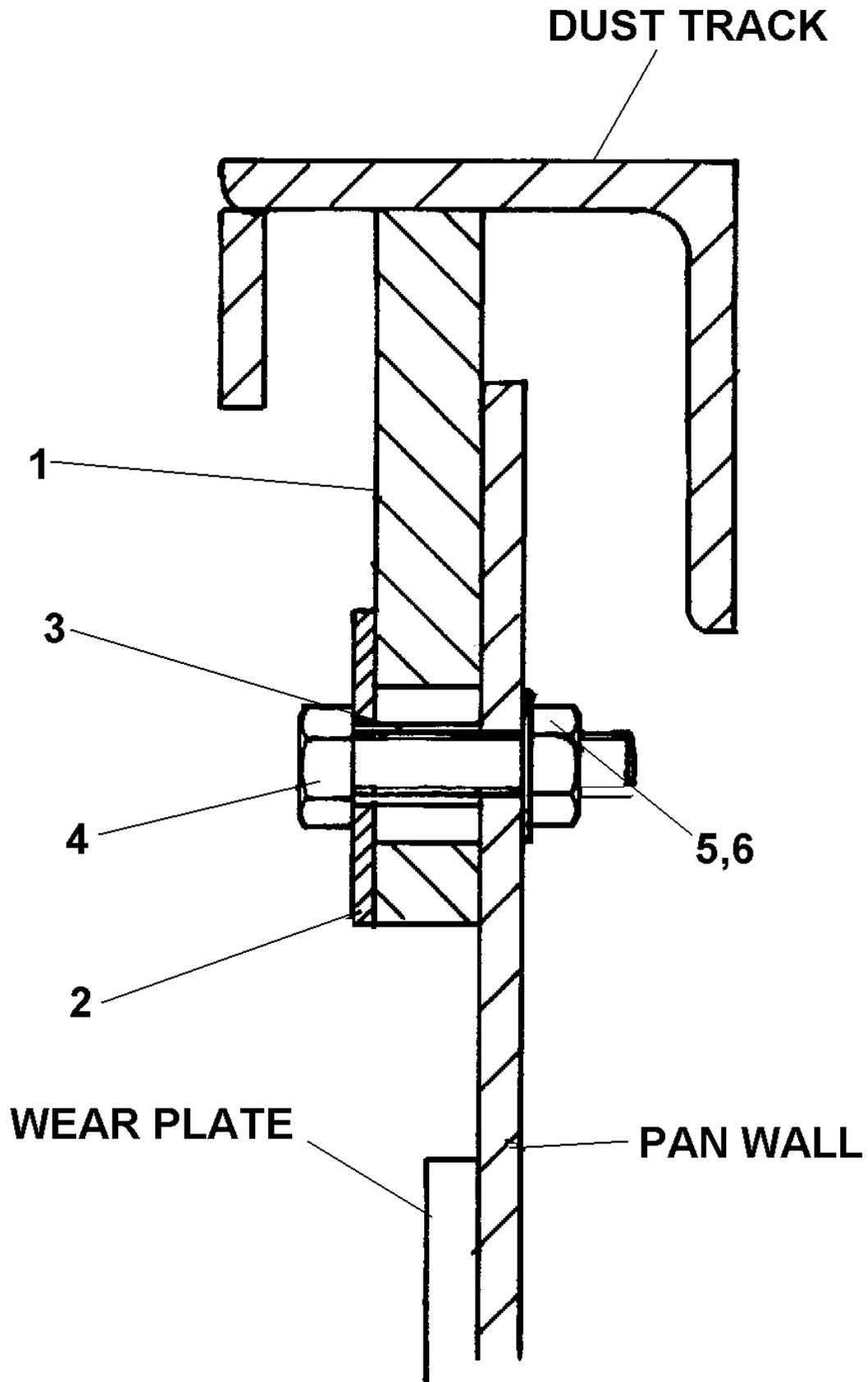


RP850 DRIVE CHAIN OIL LUBRICATOR

1 CR280035 Drive Chain Oil Lubricator

1

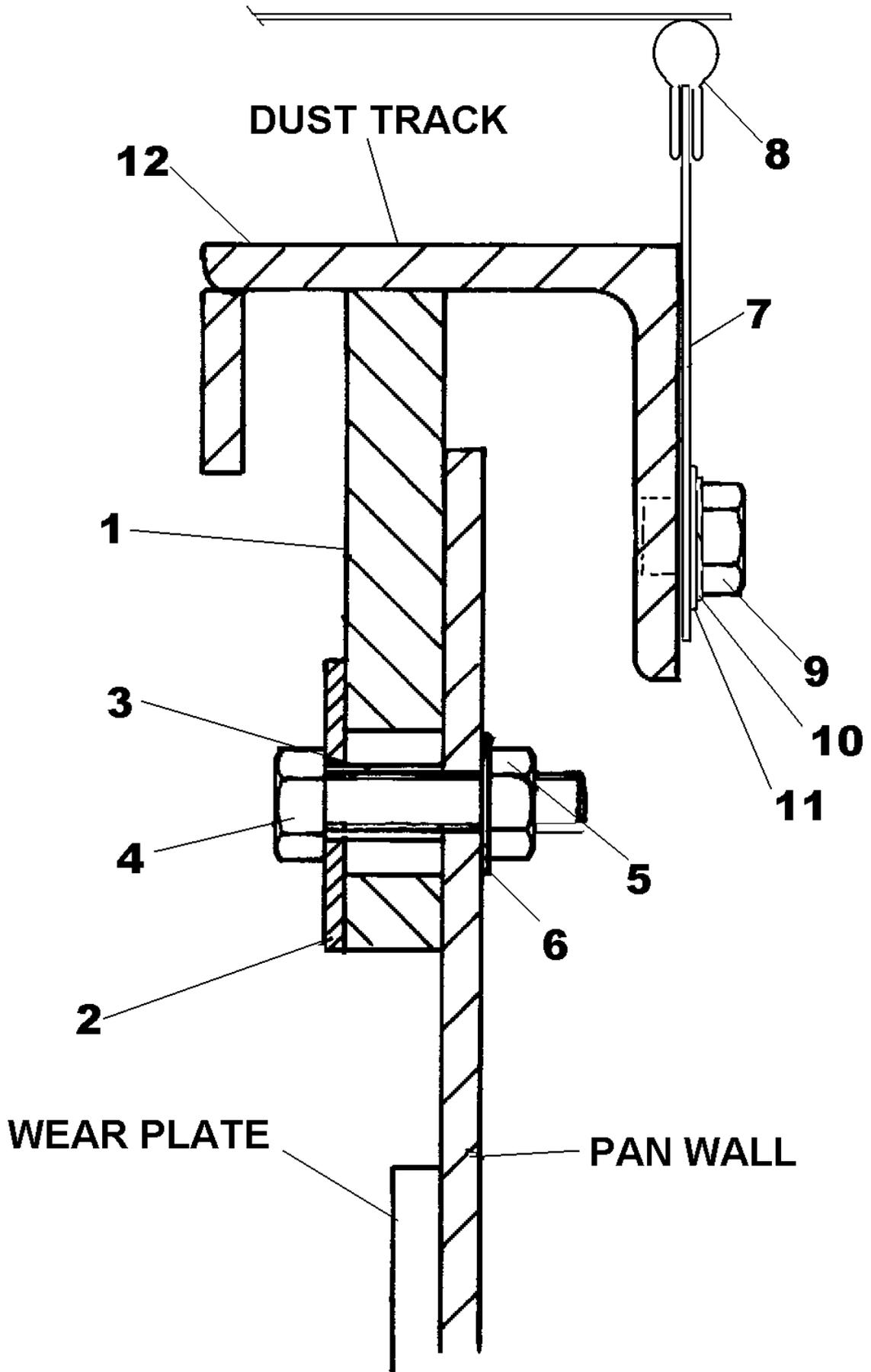
RP850 PAN SEALING STRIP (EARLY TYPE)



RP850 PAN SEALING STRIP (EARLY TYPE)

1	CR479004	Pan Sealing Rubber	4
2	CR539125	Holding Plate	4
3	CR529035	Spacer	16
4	11S03G	Screw set M8 x 45	16
5	61S03	Nut Binx M8	16
6	267S05	Washer Flat M8	16

RP850 PAN SEALING STRIP (LATER TYPE)



RP850 PAN SEALING STRIP (LATER TYPE)

1	CR479004	Pan Sealing Rubber	4
2	CR539125	Retaining Plate	4
3	CR529035	Spacer	20
4	8S03C	Screw Set M8 x 35	20
5	61S03	Nut Binx M8	20
6	267S05	Washer Flat M8	20
7	CR54100777	Guard Wrap Round	3
8	V2003587	Seal Rubber	3MT
9	11S03A	Screw M8	12
10	17S04	Washer Spring M8	12
11	267S05	Washer Flat M8	12
12	CR26100062	Pan Dust Track	1

The following track retaining brackets are not illustrated

13	8S05D	Bolt M12 Track to top Structure Rear	2
13A	61S05	Nut Binx M12	2
13B	267S07	Washer Flat M12	4
14	11S05D	Screw Set M12 Track to rear Bracket	2
14A	61S05	Nut Binx M12	2
14B	267S07	Washer Flat M12	2
15	CR26100779	Bracket Track to Front Bracket	1
15A	11S03C	Screw Set M8	1
15B	17S04	Washer Set M8	1
15C	267S05	Washer Flat M8	8
16	CR26100778	Bracket, Track Bracket to Top Structure Front	1
16A	11S04B	Screw Set M10	1
16B	17S05	Washer Spring M10	1
16C	267S06	Washer Flat, M10	1

RP850 DECALS AND LOGOS

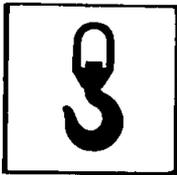
1 CROKER CUMFLOW RP850

WINGET		WINGET LIMITED 27, 29 & 31, Church Lane, Bilsborrow Lancashire, UK	
Model	_____		
Serial No.	_____		
Engine No.	_____		
Capacity	Mass (kg)	_____	
SRO No.	Power (kW)	_____	
Year Of Manuf.	Eng. (rpm)	Drum (rpm)	_____

2

WINGET

4



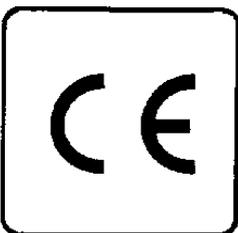
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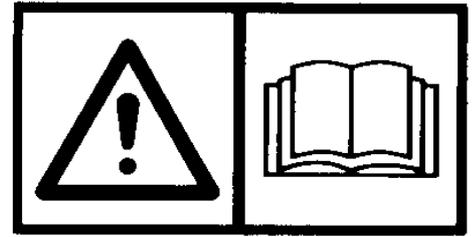


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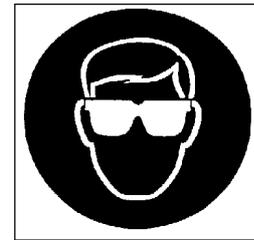


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10



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.

W5481015x11

12

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

13



THE BATCH LOADER MUST
BE GUARDED TO PREVENT
ACCESS WHEN MIXER IS
IN OPERATION.

14



THE TOP OF THE PAN
MUST BE GUARDED TO
PREVENT ACCESS WHEN
MIXER IS IN OPERATION.

RP850 DECALS AND LOGOS

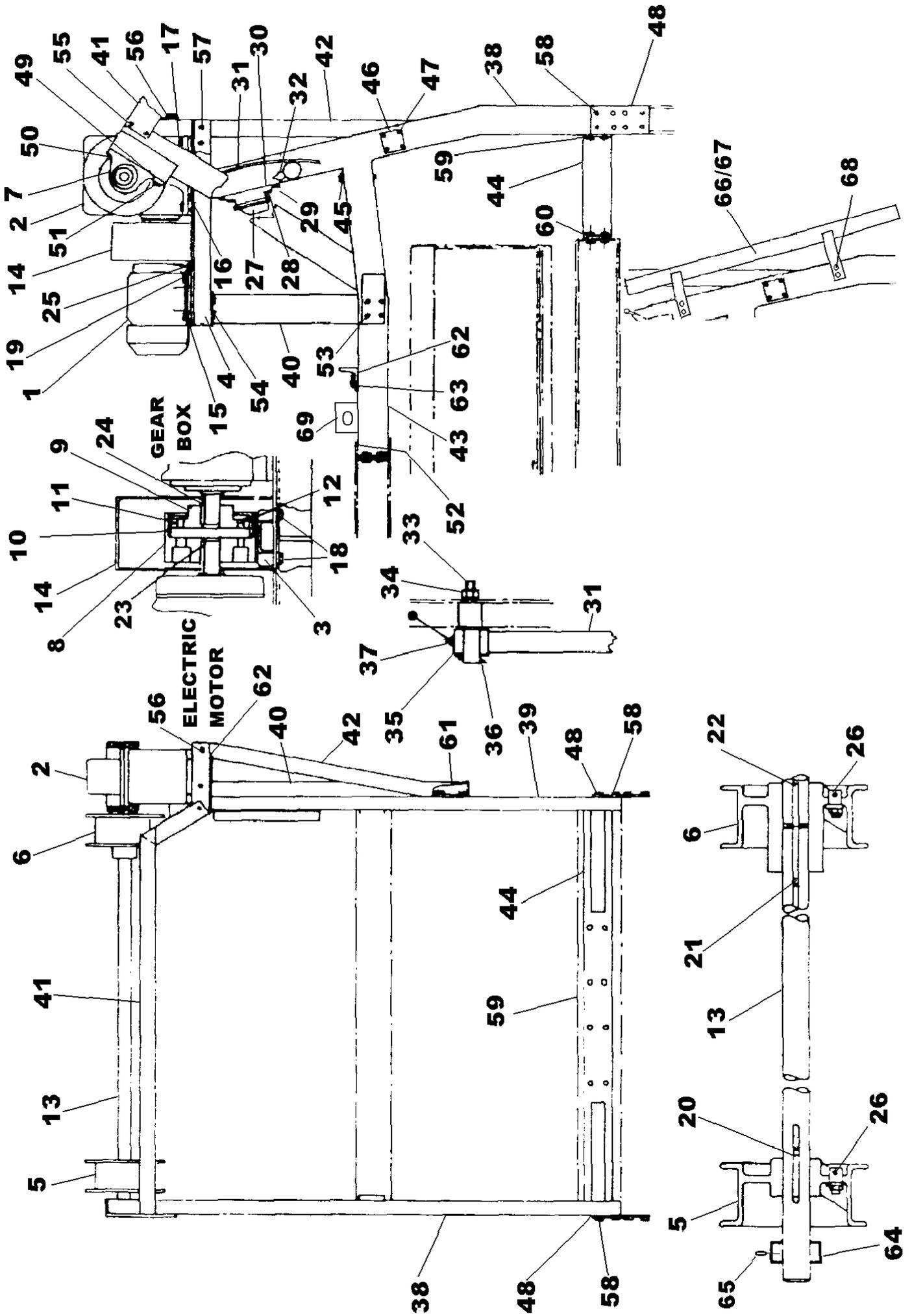
1	CR85100767	Decal RP850	3
2	V2003037	Plate Serial Number	1
3	101S05D	Rivet Pop	4
4	V2003039	Decal WINGET Medium	3
5	V2003665	Decal Sling Point	4
6	V2003598	Decal British Made	3
7	V2004307	Decal Electrical Hazard	5
8	V2004223	Decal CE Mark	1
9	V2004229	Decal Operators Handbook	3
10	V2004744	Decal Eye Protection	3
11	504694600	Decal Safety	3
12	513331600	Decal Danger	8
13	CR85100771	Decal Batch Loader Guarding	2
14	CR85100772	Decal Pan Guarding	2

**OPERATING
AND
MAINTENANCE MANUAL**

SECTION 5

**ANCILLARY EQUIPMENT
SPARE PARTS**

RP850 ARRANGEMENT OF LOADER (EARLY VERSION)



RP850 ARRANGEMENT OF LOADER (EARLY VERSION)

1	CR220099	Electric Motor	1
2	CR670047	Reduction Gear Box	1
3	CR220312	Magnetic Brake	1
4	CR260990	Bed Plate, use CR26100099	1
5	CR210147	Rope Drum (6448)	1
6	CR210155	Rope Drum (7200)	1
7	CR150936	Rope Drum Shaft Bearing Plumer Block	1
8	CR210223	Brake drum	1
9	CR230051	Half Coupling	1
10	CR230048	Flexible Coupling	1
11	CR230049	Flexible Coupling Pin	
12	CR520008	Brake Drum Pin	
13	CR520130	Rope Drum Shaft	1
14	CR540025	Magnetic Brake Guard	1
15	CR530585	Electric Motor Packing	A/R
16	CR530586	Reduction Gear Box Packing	A/R
17	8S07N	Reduction Gear Box Bolts M20 x 90	4
17A	17S09	Washer Spring	4
17B	7S07	Nut	4
18	8S05J	Magnetic Brake Bolts M12 x 65	2
18A	17S06	Washer Spring	2
18B	7S05	Nut	2
19	8S04L	Electric Motor Bolts M10 x 75	4
19A	17S05	Washer Spring	4
19B	7S04	Nut	4
20	CR320028	Rope Drum Gib Head Key	1
21	CR320029	Rope Drum Gib Head Key	1
22	CR329008	Reduction Box Output Shaft Sunk Key	1
23	CR320055	Electric Motor Sunk Key	1
24	CR320013	Reduction Box Input Shaft Sunk Key	1
25	8S05D	Magnetic Brake Guard Bolts	2
25A	267S07	Washer Flat	2
25B	17S06	Washer Spring	2
25C	7S05	Nut	2
26	CR530587	Rope Anchor Bolts (Special)	2
27	CR220100	Limit Switch, NLA use CR229083	1
28	8S03D	Limit Switch Securing bolts (for CR220100) M8 x 40	4
28A	267S05	Washer Flat	8
28B	17S04	Washer Spring	4
28C	7S03	Nut	4
28D	8S01D	Limit Switch Securing bolts (for CR229083) M5 x 40	4
28E	17S02	Washer Spring	4
28F	7S01	Nut	4
29	8S05D	Limit Switch Plate Securing Bolts	2
29A	267S07	Washer Flat	2
29B	17S06	Washer Spring	2
29C	7S05	Nut	2
30	CR53100123	Limit Switch Plate	
31	CR260590	Limit Switch Sledge	1
32	CR220100	Limit Switch Arm, NLA use CR229083	1
33	CR520273	Limit Switch Sledge Pin	1

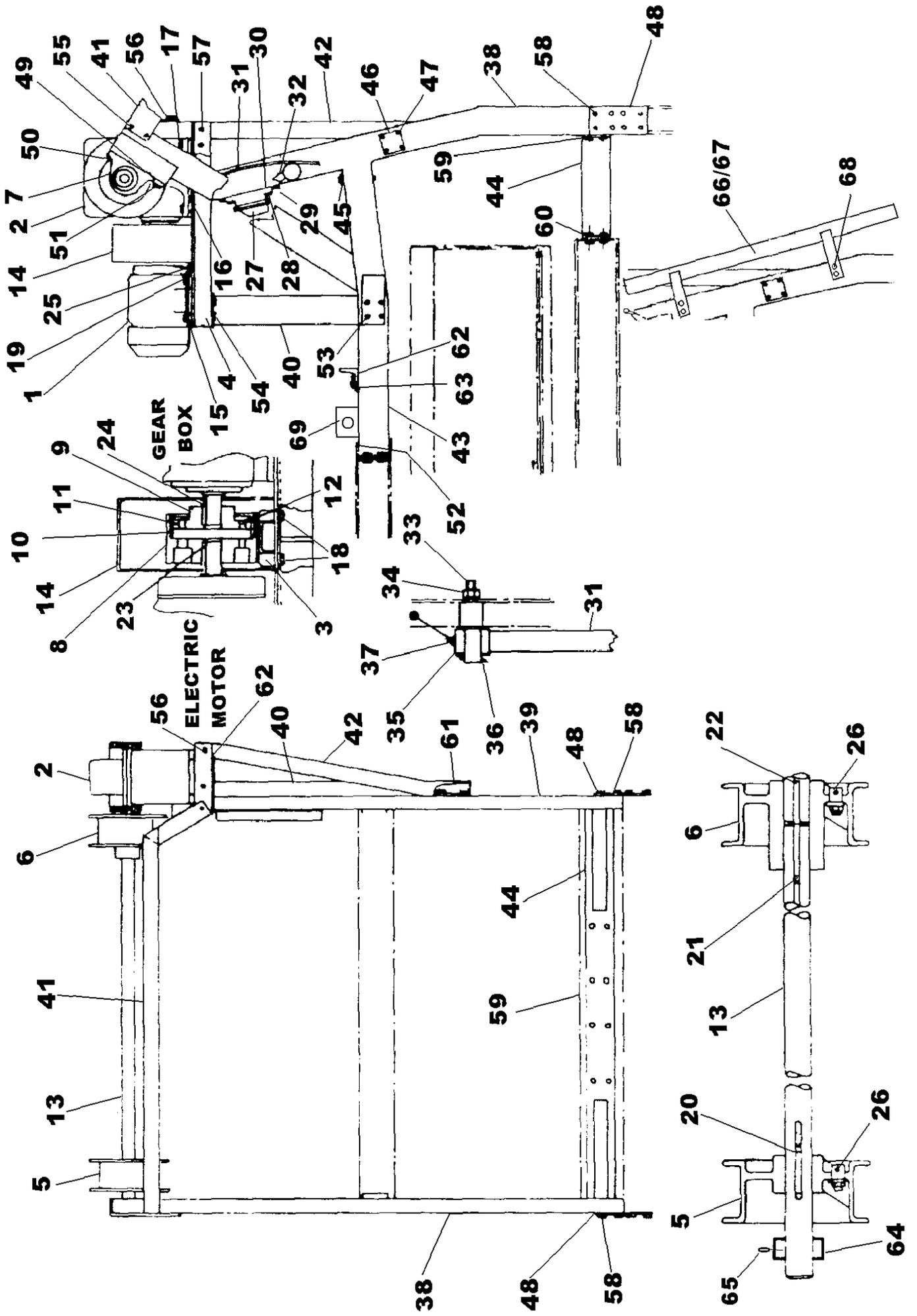
RP850 ARRANGEMENT OF LOADER (EARLY VERSION)

34	253S07	Limit Switch Sledge Pin Nut 3/4"	1
35	10S43	Limit Switch Sledge Pin Washer	1
36	CR480161	Limit Switch Sledge Split Pin	1
37	333104020	Limit Switch Sledge Grease Nipple	1
38	CR530588	Opposite Hoist Unit Side Runway	1
39	CR530591	Hoist Unit Side Runway	1
40	CR530592	Hoist Unit Support Channel	1
41	CR530593	Runway Tie , use CR261099	1
42	CR530590	Hoist Unit Support Angle	1
43	CR260200	Runway Tie Channel Opposite Hoist Unit Side	1
44	CR53100128	Bottom Support	1
45	CR530599	Safety Bolt & Chain	2
46	CR620006	Caution Plate	2
47	52S01C	Caution Plate C/Sunk Screw M5 x 16	8
47A	17S02	Washer Spring	8
47B	7S01	Nut	8
48	CR530597	Runway Gusset Plate	2
49	CR530039	Bearing Stop	1
50	8S06J	Rope Drum Bearing Bolts M16 x 65	2
50A	267S09	Washer Flat	2
50B	17S08	Washer Spring	2
50C	7S06	Nut	2
51	11S06H	Bearing Stop Bolt M16 x 50	1
51A	17S08	Washer Spring	1
51B	7S06	Nut	1
52	11S06F	Runway Tie Channel Screw Sets M16 x 40	8
52A	17S08	Washer Spring	8
52B	7S06	Nut	8
53	11S06F	Runway Screw Sets M16 X 40	8
53A	17S08	Washer Spring	8
53B	7S06	Nut	8
54	11S06G	Hoist Unit Support Channel Screw sets M16 x 45	2
54A	17S08	Washer Spring	2
54B	7S06	Nut	2
55	11S06F	Runway Tie Screw Sets M16 x 40	4
55A	17S08	Washer Spring	4
55B	7S06	Nut	4
56	11S06H	Hoist Unit Support Angle Screw Sets M16 x 50	2
56A	17S08	Washer Spring	2
56B	7S06	Nut	2
57	11S06F	Bedplate Support Angle Screw Sets M16 X 40	2
57A	17S08	Washer Spring	2
57B	7S06	Nut	2
58	52S05G	Gusset Plate Countersunk Screws M12 X 35	16
58A	17S06	Washer Spring	16
58B	7S05	Nut	16
59	52S05G	Bottom Support Runway C/Sunk Screws M12 x35	4
59A	17S06	Washer Spring	4
59B	7S05	Nut	4
60	11S06F	Bottom Support Mixer Srew Sets M16 X 40	8
60A	17S08	Washer Spring	8
60B	7S06	Nut	8

RP850 ARRANGEMENT OF LOADER (EARLY VERSION)

61	52S06J	Hoist Unit Support Angle C/Sunk Screws M16 x 45	2
61A	17S08	Washer Spring	2
61B	7S06	Nut	2
62	CR260199	Runway Tie Channel Hoist Unit Side	1
63	52S06G	Runway Tie Channel C/Sunk Screws M16 x 35	2
63A	17S08	Washer Spring	2
63B	7S06	Nut	2
64	CR630244	Rope Drum Shaft Collar	1
65	57S07F1	Screw Grub, Shaft Collar	1
66	CR260336L	Guide Rail Left Hand	1
67	CR360336R	Guide Rail Right Hand	1
68	52S05H	Screw Countersunk M12 X 40	8
68A	17S06	Washer Spring	8
68B	7S05	Nut	8
69	CR530630	Lifting Eye (Weldable)	2

RP850 ARRANGEMENT OF LOADER (LATER VERSION)



RP850 ARRANGEMENT OF LOADER (LATER VERSION)

1	CR220152	Electric Motor	1
2	CR670395	Reduction Gear Box	1
3	CR220312	Magnetic Brake	1
4	CR260990	Bed Plate, use CR26100099	1
5	CR210214	Rope Drum (6448)	1
6	CR210213	Rope Drum (7200)	1
7	CR151096	Rope Drum Shaft Bearing Plumer Block	1
8	CR210223A	Brake drum (38mm)	1
9	CR230051C	Half Coupling	1
10	CR230048	Flexible Coupling	1
11	CR230049	Flexible Coupling Pin	
12	CR520008	Brake Drum Pin	
13	CR520389	Rope Drum Shaft	1
14	CR541320	Magnetic Brake Guard	1
15	CR531743	Electric Motor Packing	A/R
16	CR531744	Reduction Gear Box Packing	A/R
17	8S07N	Reduction Gear Box Bolts M20 x 90	4
17A	17S09	Washer Spring	4
17B	7S07	Nut	4
18	8S05J	Magnetic Brake Bolts M12 x 65	2
18A	17S06	Washer Spring	2
18B	7S05	Nut	2
19	8S04J	Electric Motor Bolts M10 x 65	4
19A	17S05	Washer Spring	4
19B	7S04	Nut	4
20	CR320069	Rope Drum Gib Head Key	1
21	CR320029	Rope Drum Gib Head Key	1
22	CR329008	Reduction Box Output Shaft Sunk Key	1
23	CR329012	Electric Motor Sunk Key	1
24	CR329000	Reduction Box Input Shaft Sunk Key	1
25	8S05D	Magnetic Brake Guard Bolts	2
25A	267S07	Washer Flat	2
25B	17S06	Washer Spring	2
25C	7S05	Nut	2
26	CR530587	Rope Anchor Bolts (Special)	2
27	CR220100	Limit Switch, NLA use CR229083	1
28	8S03D	Limit Switch Securing bolts (for CR220100) M8 x 40	4
28A	267S05	Washer Flat	8
28B	17S04	Washer Spring	4
28C	7S03	Nut	4
28D	8S01D	Limit Switch Securing bolts (for CR229083) M5 x 40	4
28E	17S02	Washer Spring	4
28F	7S01	Nut	4
29	8S05D	Limit Switch Plate Securing Bolts	2
29A	267S07	Washer Flat	2
29B	17S06	Washer Spring	2
29C	7S05	Nut	2
30	CR53100123	Limit Switch Plate	
31	CR260766	Limit Switch Sledge	1
32	CR220100	Limit Switch Arm, NLA use CR229083	1
33	CR260052	Limit Switch Sledge Pin	1

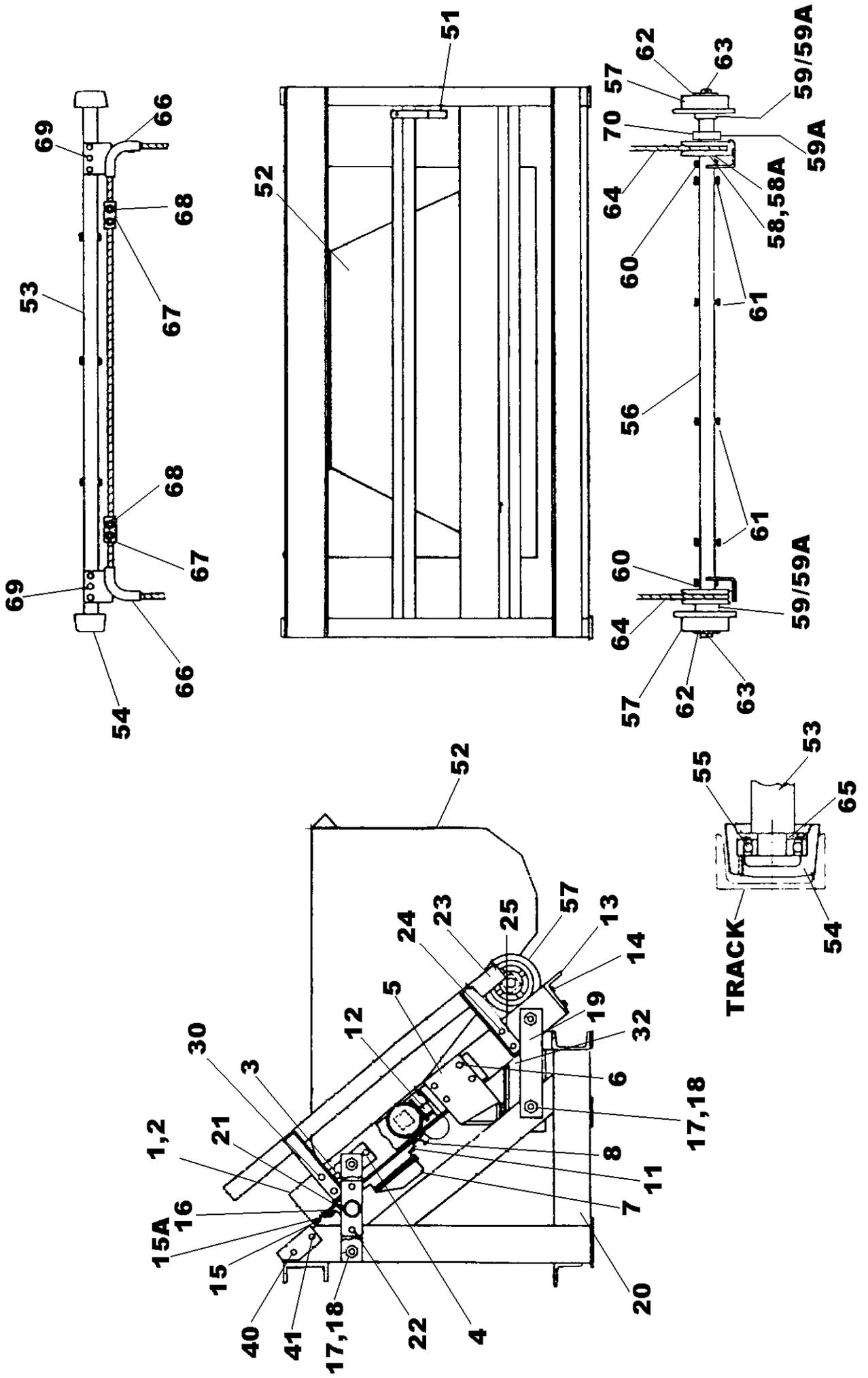
RP850 ARRANGEMENT OF LOADER (LATER VERSION)

34	253S07	Limit Switch Sledge Pin Nut 3/4"	1
35	10S43	Limit Switch Sledge Pin Washer	1
36	CR480161	Limit Switch Sledge Split Pin	1
37	333104020	Limit Switch Sledge Grease Nipple	1
38	CR530588	Opposite Hoist Unit Side Runway	1
39	CR530591	Hoist Unit Side Runway	1
40	CR530592	Hoist Unit Support Channel	1
41	CR261099	Runway Tie	1
42	CR260358	Hoist Unit Support Angle	1
43	CR530594	Runway Tie Channels 1 X L/H 1 X R/H	1PR
44	CR53100128	Bottom Support	1
45	CR530599	Safety Bolt & Chain	2
46	CR620006	Caution Plate	2
47	52S01C	Caution Plate C/Sunk Screw M5 x 16	8
47A	17S02	Washer Spring	8
47B	7S01	Nut	8
48	CR530597	Runway Gusset Plate	2
49	CR530039	Bearing Stop	1
50	8S06J	Rope Drum Bearing Bolts M16 x 65	2
50A	267S09	Washer Flat	2
50B	17S08	Washer Spring	2
50C	7S06	Nut	2
51	11S06H	Bearing Stop Bolt M16 x 50	1
51A	17S08	Washer Spring	1
51B	7S06	Nut	1
52	11S06F	Runway Tie Channel Screw Sets M16 x 40	8
52A	17S08	Washer Spring	8
52B	7S06	Nut	8
53	11S06F	Runway Screw Sets M16 X 40	8
53A	17S08	Washer Spring	8
53B	7S06	Nut	8
54	11S06G	Hoist Unit Support Channel Screw sets M16 x 45	2
54A	17S08	Washer Spring	2
54B	7S06	Nut	2
55	11S06F	Runway Tie Screw Sets M16 x 40	4
55A	17S08	Washer Spring	4
55B	7S06	Nut	4
56	11S06H	Hoist Unit Support Angle Screw Sets M16 x 50	2
56A	17S08	Washer Spring	2
56B	7S06	Nut	2
57	11S06F	Bedplate Support Angle Screw Sets M16 X 40	2
57A	17S08	Washer Spring	2
57B	7S06	Nut	2
58	52S05G	Gusset Plate Countersunk Screws M12 X 35	16
58A	17S06	Washer Spring	16
58B	7S05	Nut	16
59	52S05G	Bottom Support Runway C/Sunk Screws M12 x35	4
59A	17S06	Washer Spring	4
59B	7S05	Nut	4
60	11S06F	Bottom Support Mixer Srew Sets M16 X 40	8
60A	17S08	Washer Spring	8
60B	7S06	Nut	8

RP850 ARRANGEMENT OF LOADER (LATER VERSION)

61	52S06J	Hoist Unit Support Angle C/Sunk Screws M16 x 45	2
61A	17S08	Washer Spring	2
61B	7S06	Nut	2
62	CR530598	Runway Tie Channel Hoist Unit Side	1
63	52S06G	Runway Tie Channel C/Sunk Screws M16 x 35	2
63A	17S08	Washer Spring	2
63B	7S06	Nut	2
64	CR630244	Rope Drum Shaft Collar	1
65	57S07F1	Screw Grub, Shaft Collar	1
66	CR260336L	Guide Rail Left Hand	1
67	CR360336R	Guide Rail Right Hand	1
68	52S05H	Screw Countersunk M12 X 40	8
68A	17S06	Washer Spring	8
68B	7S05	Nut	8
69	CR530630	Lifting Eye (Weldable)	2

RP850 ARRANGEMENT OF WEIGHER & LOADING HOPPER



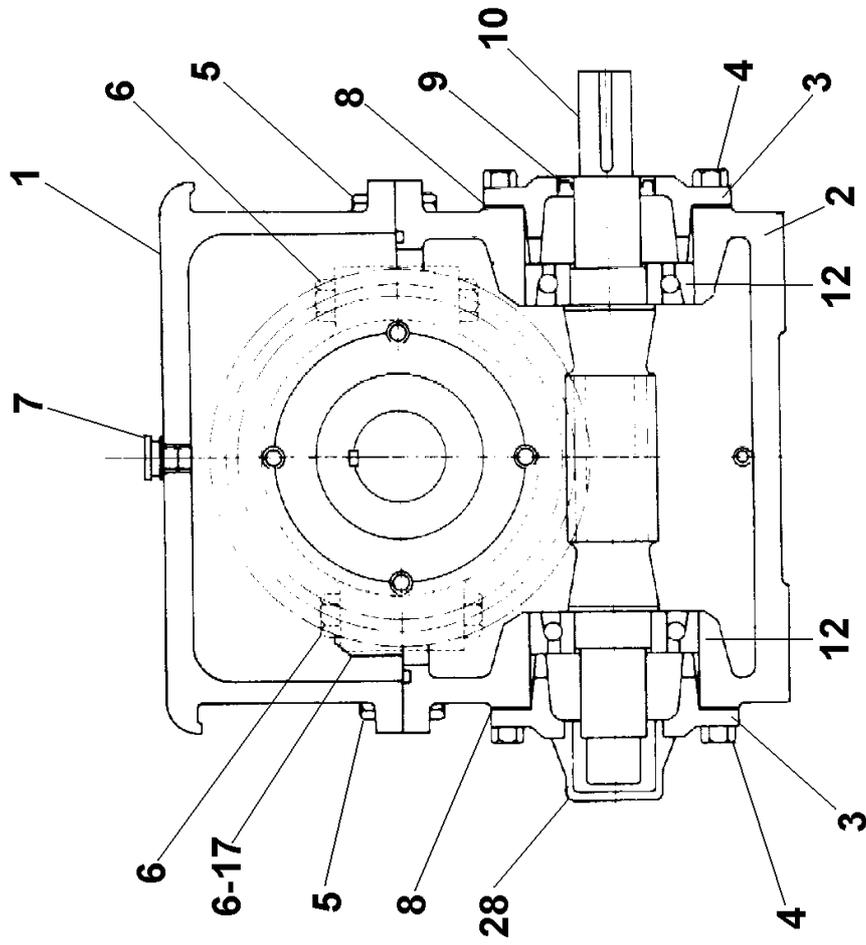
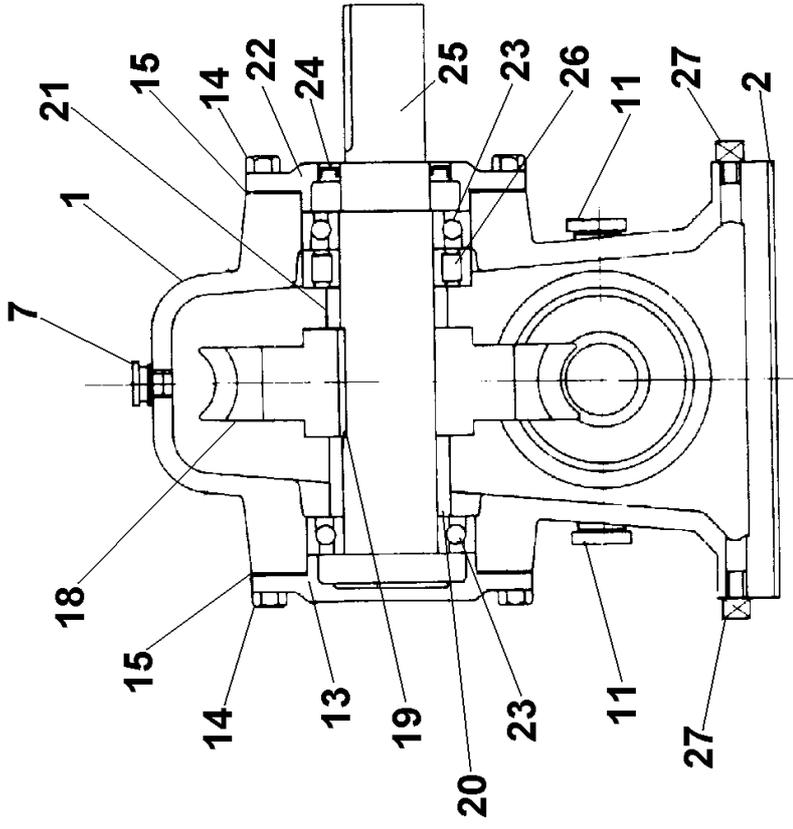
RP850 ARRANGEMENT OF WEIGHER & LOADING HOPPER

1	CR260338	Runway Opp. Limit Switch Side	1
2	CR260338	Runway Limit Switch Side	1
3	CR260062	Runway Hinge Pin	2
4	52S06G	Runway Hinge Pin C/Sunk Bolts M16 x35	4
4A	267S09	Washer Flat	4
4B	17S08	Washer Spring	4
4C	7S06	Nut	4
5	CR260334	Bridge	1
6	11S06G	Bridge Screw Sets M16 x 45	8
6A	267S09	Washer Flat	8
6B	17S08	Washer Spring	8
6C	7S06	Nut	8
7	CR220005	Limit Switch, NLA use CR229083	1
8	CR220100	Limit Switch Arm, NLA use CR229083	1
9	CR530450	Limit Switch Plate	1
10	52S05H	Limit Switch Plate C/Sunk Screws M12 x 40	4
10A	17S06	Washer Spring	4
10B	7S05	Nut	4
11	8S03D	Limit Switch Securing bolts (for CR220100) M8 x 40	4
11A	267S05	Washer Flat	8
11B	17S04	Washer Spring	4
11C	7S03	Nut	4
11D	8S01D	Limit Switch Securing bolts (for CR229083) M5 x 40	4
11E	17S02	Washer Spring	4
11F	7S01	Nut	4
12	CR260065	Hopper stop	1PR
13	CR260335	Runway Tie	1
14	8S06D	Runway Tie Bolts M16 X 40	4
14A	267S09	Washer Flat	4
14B	17S08	Washer Spring	4
14C	7S06	Nut	4
15	CR260337	Runway Brace	2
15A	8S06D	Runway Brace Bolts M16 X 40	4
15B	267S09	Washer Flat	4
15C	17S08	Washer Spring	4
15D	7S06	Nut	4
16	52S06J	Runway Brace C/Sunk Screws M16 x 45	4
16A	267S09	Washer Flat	4
16B	17S08	Washer Spring	4
16C	7S06	Nut	4
17	8S08T	Link Bolts M24 x 140	6
17A	267S12	Washer Flat	14
17B	17S11	Washer Spring M24	8
17C	7S08	Nut M24	6
18	CR180014	Rubber Bearing Silentbloc	8
19	CR260063	Link	4
20	CR260154	Weigher Frame	1
21	CR260064	Torque Tube (state machine number)	1
22	8S06G	Torque Tube Bolts M16 x 55	4
22A	267S09	Washer Flat	4
22B	17S08	Washer Spring	4
22C	7S06	Nut	4

RP850 ARRANGEMENT OF WEIGHER & LOADING HOPPER

23	CR260336L	Guide Rail Left Hand	1
23A	CR260336R	Guide Rail Right Hand	1
24	11S05F	Guide Rails Screw Set M12 X 40 (Lower)	4
24A	267S07	Washer Flat	4
24B	17S06	Washer Spring	4
24C	7S05	Nut M12	4
25	CR530600	Guide Rail Packings	4
30	52S05J	Guide Rails C/Screw M12 X 45 (Upper)	4
30A	267S07	Washer Flat	4
30B	17S06	Washer Spring	4
30C	7S05	Nut M12	4
40	8S06D	Runway Bolts M16 X 40	4
40A	267S09	Washer Flat	4
40B	17S08	Washer Spring	4
40C	7S06	Nut	4
41	52S06G	Runway C/Sunk Bolts M16 x35	4
41A	267S09	Washer Flat	4
41B	17S08	Washer Spring	4
41C	7S06	Nut	4
51	CR540344	Limit Swtich Striker	1
52	CR541293	Loading Hopper (550/850)	1
53	CR520131	Loading Hopper Front Axle	1
54	CR21100097	Loading Hopper Front Axle Roller	2
55	CR150844	Loading Hopper Front Axle Roller Bearing	2
56	CR520132	Rear Axle	1
57	CR210157	Rear Axle Roller	2
58	CR210160	Rear Axle Rope Pulley	2
58A	267S13	Waher Flat, M48 Rope Pulley	2
59	CR630209	Rear Axle Collar	2
59A	57S05D2	Screw Grub Rear Axle Collar	3
60	8S05L	Rear Axle Bolts Short M12 x 75	2
60A	17S06	Washer Spring	2
60B	7S05	Nut	2
61	8S05N	Rear Axle Bolts Long M12 X 90	4
61A	17S06	Washer Spring	4
61B	7S05	Nut	4
62	10S43	Rear Axle Flat Washer	2
63	44S06L	Rear Axle Split Pin	2
64	CR350008	Hopper Rope (when ordering quote machine no:)	1
65	CR530602	Front Axle Washer	2
66	CR260436	Front Axle Rope Guide	2
67	CR530603	Front Axle Rope Retainer Block	2
68	CR530587	Front Axle Rope Anchor Bolts (Special)	4
69	8S05L	Front Axle Rope Anc. Guide Bolts	6
69A	17S06	Washer Spring	6
69B	7S05	Nut	6
70	CR639010	Collar, Rope Pulley Retaining	1
FIXINGS FOR ELECTRONIC LOADCELL (NOT ILLUSTRATED)			
71	8S06D	Bolts M16 X 40	4
71A	267S09	Washer Flat	4
71B	17S08	Washer Spring	4
71C	7S06	Nut	2
ELECTRONIC LOADCELL & DIGITAL READOUT BOX (NOT ILLUSTRATED)			
72	CR179022	Loadcell	1
73	CR179028	Indicator, Digital Readout Box	1

RP850 WORM REDUCTION GEARBOX

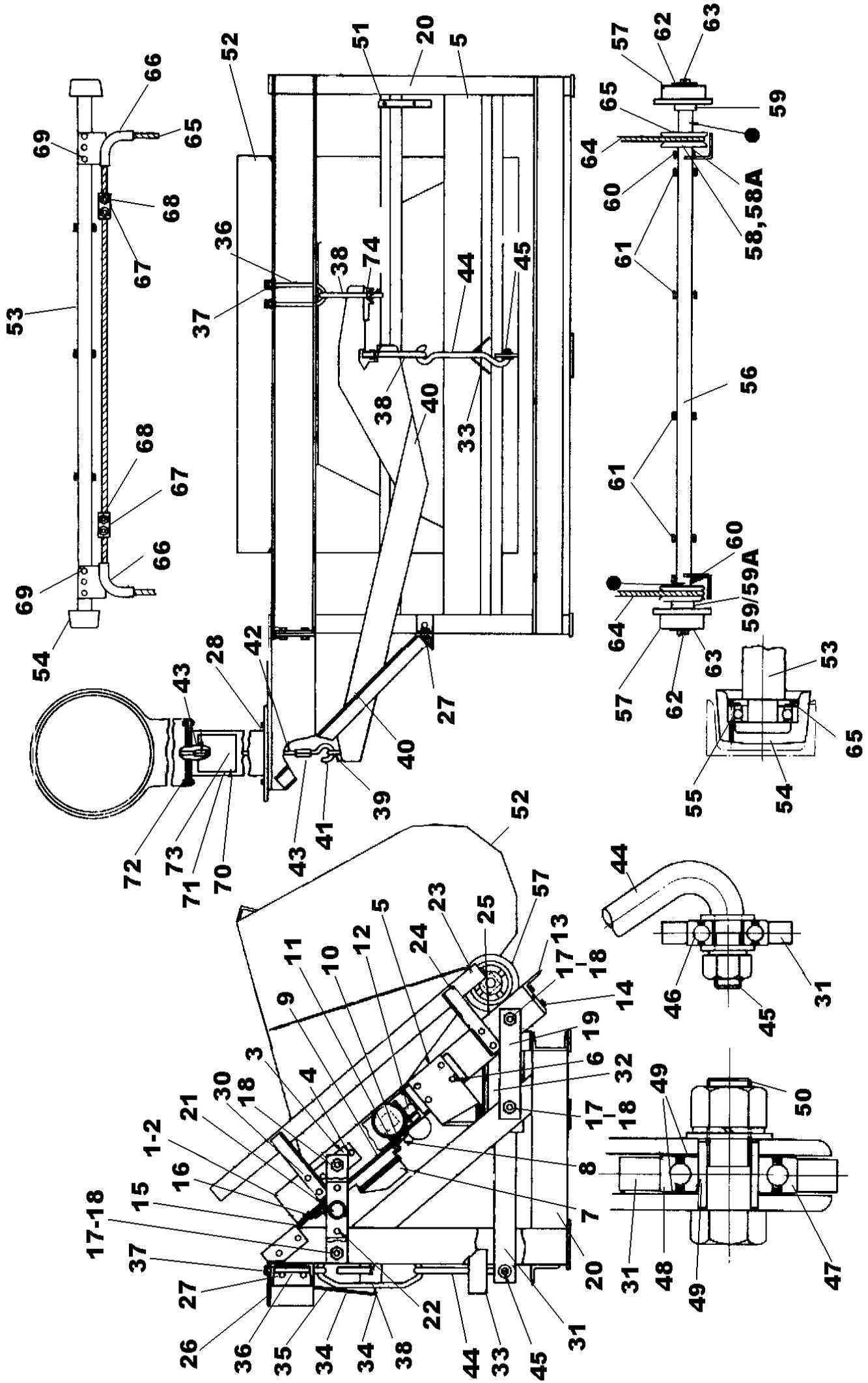


RP850 WORM REDUCTION GEARBOX

1	CR670048	Top Half Gear Case
2	CR670049	Bottom Half Gear Case
3	CR670050	Worm Shaft End Cover
4	CR670051	Worm Shaft End Cover Screws
5	CR670052	Joint Flange Bolts
6	CR670053	Joint Boss Bolts
7	CR670054	Filler Plug & Washer
8	CR670055	Worm shaft Shims
9	417072050	Worm Shaft Oil Seal
10	CR670057	Worm Shaft
11	CR670058	Oil Level Plug & Washer
12	CR670059	Worm Shaft Bearings
13	CR670060	Wheel Shaft Blank End Cover
14	CR670061	End Cover Screws
15	CR670062	Wheel Shaft Shims
16	CR670063	Oil Collector Boxes
17	CR670064	Oil Collector Box Screws
18	CR670065	Worm Wheel
19	CR670066	Wheel Shaft Feather Key
20	CR670067	Wheel Shaft Distance Piece
21	CR670068	Wheel Shaft Distance Piece
22	CR670069	Wheel Shaft End Cover
23	CR670070	Wheel Shaft Bearing
24	CR670071	Wheel Shaft Oil Seal
24A	CR569038	Wheel Shaft Oil Seal (alternative)
25	CR670072	Wheel Shaft
26	CR670073	Roller Bearings
27	CR670074	Oil Drain Plugs
28	CR670075	End Cap

When ordering spares please quote make, model and serial number of reduction gearbox. When ordering oil seals quote dimensions of seal or quote size moulded into front of seal face.

RP850 ARRANGEMENT OF SALTER LEVER TYPE WEIGHER & LOADING HOPPER



RP850 SALTER LEVER TYPE WEIGHER

1	CR260338	Runway Opposite Limit Switch Side	1
2	CR260338	Runway Limit Switch Side	1
3	CR260062	Runway Hinge Pin	1
4	52S06G	Runway Hinge Pin C/Sunk Bolts M16 x 35	4
4A	267S09	Washer Flat	4
4B	17S08	Washer Spring	4
4C	7S06	Nut	4
5	CR260334	Bridge	1
6	11S06G	Bridge Screw Sets M16 x 45	8
6A	267S09	Washer Flat	4
6B	17S08	Washer Spring	8
6C	7S06	Nut	8
7	CR220005	Limit Switch NLA Use CR229083	1
8	CR220100	Limit Switch arm NLA Use CR229083	1
9	CR6530450	Limit Switch Plate	1
10	52S05H	Limit Switch Plate C/Sunk Screws M12 x 40	4
10A	17S06	Washer Spring	4
10B	7S05	Nut	4
11	8S03D	Limit Switch Securing bolts (for CR220100) M8 x 40	4
11A	267S05	Washer Flat	8
11B	17S04	Washer Spring	4
11C	7S03	Nut	4
11D	8S01D	Limit Switch Securing bolts (for CR229083) M5 x 40	4
11E	17S02	Washer Spring	4
11F	7S01	Nut	4
12	CR260065	Hopper Stop	1PR
13	CR260335	Runway Tie	1
14	8S06D	Runway Tie Bolts M16 x 40	4
14A	267S09	Washer Flat	4
14B	17S08	Washer Spring	4
14C	7S06	Nut	4
15	CR260337	Runway Brace	
15A	8S06D	Runway Brace Bolts M16 x 40	4
15B	267S09	Washer Flat	4
15C	17S08	Washer Spring	4
15D	7S06	Nut	4
16	52S06G	Runway Brace C/Sunk Screws M16 x 35	4
16A	267S09	Washer Flat	4
16B	17S08	Washer Spring	4
16C	7S06	Nut	4
17	8S08T	Link Bolts M24 x 140	6
17A	267S12	Washer Flat M24	14
17B	17S11	Washer Spring M24	8
17C	7S08	Nut M24	6
18	CR180014	Rubber Bearing	8
19	CR260063	Link	4
20	CR260333	Weigher Frame	1
21	CR260064	Torque Tube (State Machine Number)	1
22	8S06G	Torque Tube Bolts M16 x 55	4
22A	267S09	Washer Flat	4
22B	17S08	Washer Spring	4
22C	7S06	Nut	4

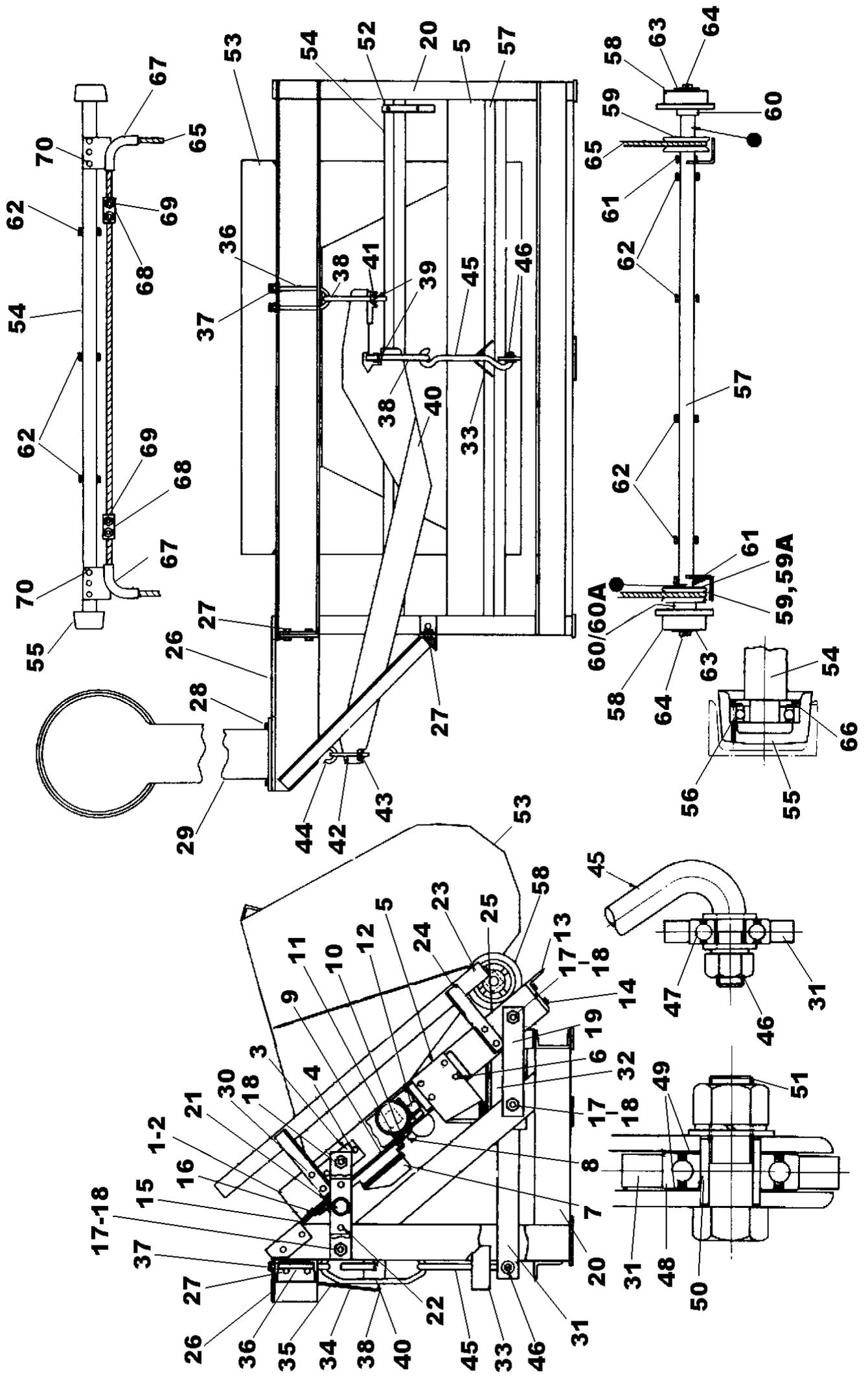
RP850 SALTER LEVER TYPE WEIGHER

23	CR260336L	Guide Rail Left Hand	1
23A	CR260336R	Guide Rail Right Hand	1
24	11S05F	Guide Rail Screw Set M12 x 40 (Lower)	4
24A	267S07	Washer Flat	4
24B	17S06	Washer Spring	4
24C	7S05	Nut	4
25	CR530600	Guide Rail Packings	4
26	CR260145	Dial Support	1
27	8S05D	Dial Support Bolts M12 x 40	4
27A	267S07	Washer Spring	4
27B	17S06	Washer Flat	4
28	8S05D	Pedestal Bolts M12 x 40	4
28A	267S07	Washer Spring	4
28B	17S06	Washer Flat	4
28C	7S05	Nut	4
29	CR170119	Dial Complete	1
30	52S05J	Guide Rail C/Sunk Screw M12 x 45 (Upper)	4
30A	267S07	Washer Flat	4
30B	17S06	Washer Spring	4
30C	7S05	Nut	4
31	CR260332	Bottom Lever	1
32	CR540663	Bottom Lever Guard	1
33	CR540067	Bottom Lever Bearing Cover	1
34	CR540666	Knife Edge Cover (Front)	1
35	CR540665	Knife Edge Cover (Rear)	1
36	CR170086	'U' Bolt	1
37	CR241342	'U' Bolt Nuts	4
38	CR170014	Supporting Link	1
39	CR170075	'C' Link	1
40	CR170125	Balance Arm	1
41	CR170078	Connecting Link	1
42	CR530547	Connecting Rod	1
43	CR170076	Link Adjuster	1
44	CR260533	Centre Link	1
45	253S06	Centre Link Nut	1
46	CR150846	Centre Link Bearing (Small)	1
47	CR150849	Centre Link Bearing	11
48	CR530534	Centre Link Bearing Washer	1
49	CR530535	Centre Link Bearing Bolt Sleeve	2
50	CR241334	Centre Link Bearing Bolt	2
51	CR540344	Limit Switch Striker	2
52	CR541293	Loading Hopper (550/850)	1
53	CR520131	Loading Hopper Front Axle	1
54	CR21100097	Loading Hopper Front Axle Roller	2
55	CR150844	Loading Hopper Front Axle Roller Bearing	2
56	CR520132	Rear Axle	1
57	CR210157	Rear Axle Roller	2
58	CR210160	Rear Axle Rope Pulley	2
58A	267S13	Washer Flat M48 Rope Pulley	2

RP850 SALTER LEVER TYPE WEIGHER

59	CR630209	Rear Axle Collar	2
59A	57S05D2	Screw Grub, Rear Axle Collar	2
60	8S05L	Rear Axle Bolts (Short) M12 x 75	2
60A	17S06	Washer Spring	2
60B	7S05	Nut	2
61	8S05N	Rear Axle Bolts (Long) M12 x 90	4
61A	17S06	Washer Spring	4
62B	7S05	Nut	4
62	10S43	Rear Axle Flat Washer	2
63	44S06L	Rear Axle Split Pin	2
64	CR350008	Hopper Rope (When Ordering Quote Machine No.)	1
65	CR530602	Front Axle Washers	2
66	CR260436	Front Axle Rope Guides	2
67	CR530603	Front Axle Rope Retainer Block	2
68	CR530587	Front Axle Rope Anchor Bolt (Special)	4
69	8S05L	Front Axle Rope Anchor Guide Bolts	6
69A	17S06	Washer Spring	6
69B	7S05	Nut	6
70	CR260598	Pedestal	1
71	CR540068	Pedestal Cover Plate	1
72	183S05H	Dial Head Securing Bolts 1/2" x 1.5" UNF C/Sunk	4
73	79S02U	Pedestal Cover Plate Bolt	4
73A	41S04	Washer Spring	4
74	CR170080	Adjustable Knife Edge	1

RP850 ARRANGEMENT OF PFISTER LEVER TYPE WEIGHER & LOADING HOPPER



RP850 PFISTER LEVER TYPE WEIGHER

1	CR260338	Runway Opposite Limit Switch Side	1
2	CR260338	Runway Limit Switch Side	1
3	CR260062	Runway Hinge Pin	2
4	52S06G	Runway Hinge Pin C/Sunk Bolts M16 x 35	4
4A	267S09	Washer Flat	4
4B	17S08	Washer Spring	4
4C	7S06	Nut	4
5	CR260334	Bridge	1
6	11S06G	Bridge Screw Sets M16 x 45	8
6A	267S09	Washer Flat	4
6B	17S08	Washer Spring	8
6C	7S06	Nut	8
7	CR220005	Limit Switch NLA Use CR229083	1
8	CR220100	Limit Switch Arm NLA Use CR229083	1
9	CR530450	Limit Switch Plate	1
10	52S05H	Limit Switch Plate C/Sunk Screws M12 x 40	4
10A	17S06	Washer Spring	4
10B	7S05	Nut	4
11	8S03D	Limit Switch Securing bolts (for CR220100) M8 x 40	4
11A	267S05	Washer Flat	8
11B	17S04	Washer Spring	4
11C	7S03	Nut	4
11D	8S01D	Limit Switch Securing bolts (for CR229083) M5 x 40	4
11E	17S02	Washer Spring	4
11F	7S01	Nut	4
12	CR260065	Hopper Stop	1PR
13	CR260335	Runway Tie	1
14	8S06D	Runway Tie Bolts M16 x 40	4
14A	267S09	Washer Flat	4
14B	17S08	Washer Spring	4
14C	7S06	Nut	4
15	CR260337	Runway Brace	2
15A	8S06D	Runway Brace Bolts M16 x 40	4
15B	267S09	Washer Flat	4
15C	17S08	Washer Spring	4
15D	7S06	Nut	4
16	52S06G	Runway Brace C/Sunk Screws M16 x 35	4
16A	267S09	Washer Flat	4
16B	17S08	Washer Spring	4
16C	7S06	Nut	4
17	8S08T	Link Bolts M24 x 140	6
17A	267S12	Washer Flat M24	14
17B	17S11	Washer Spring M24	8
17C	7S08	Nut M24	6
18	CR180014	Rubber Bearings Silentbloc	8
19	CR260063	Link	4
20	CR260333	Weigher Frame	1
21	CR260064	Torque Tube (State Machine Number)	1
22	11S06G	Torque Tube Screw Sets M16 x 55	4
22A	267S09	Washer Flat	4
22B	17S08	Washer Spring	4
22C	7S06	Nut	4

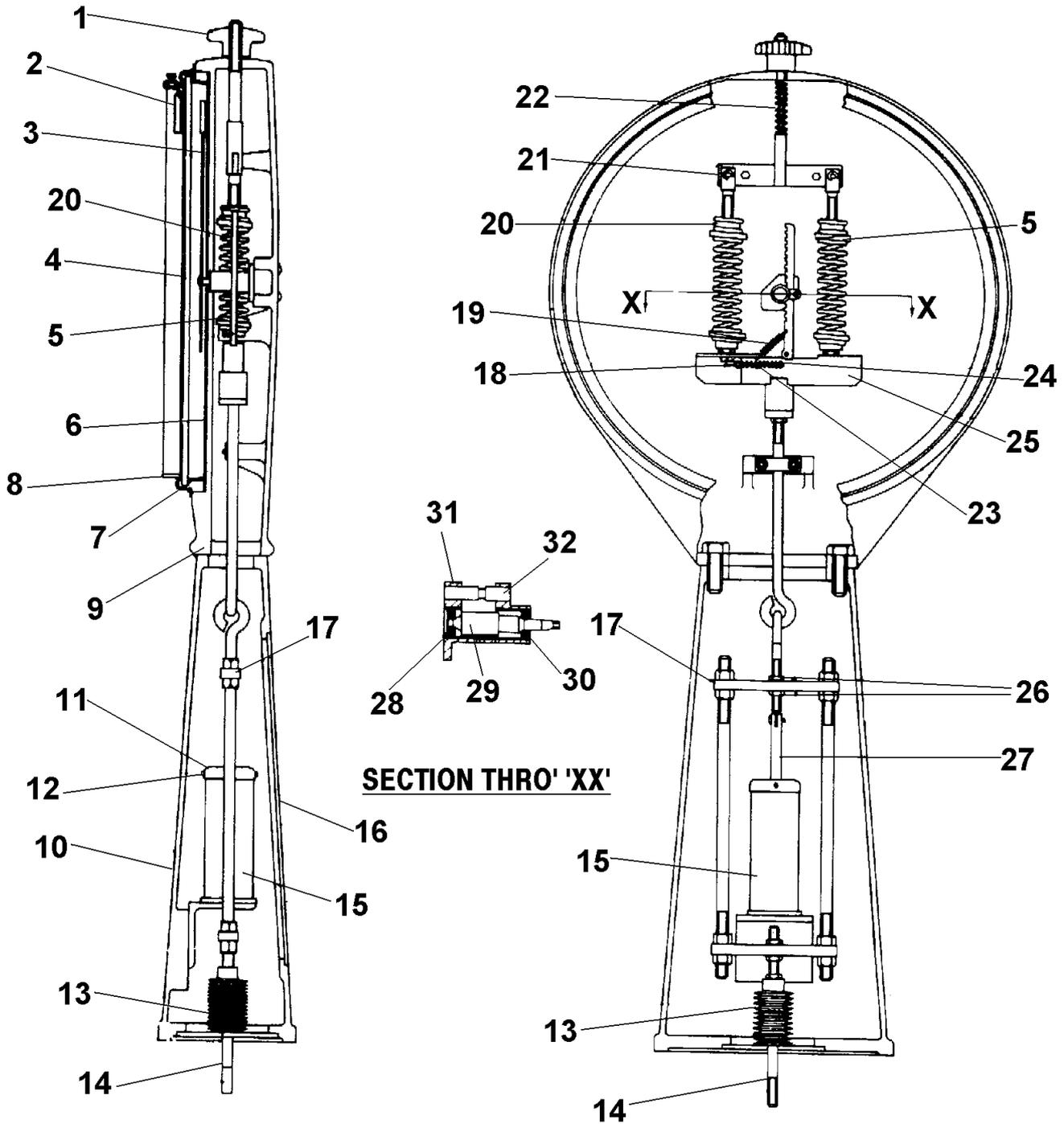
RP850 PFISTER LEVER TYPE WEIGHER

23	CR260336L	Guide Rail Left Hand	1
23A	CR230336R	Guide Rail Right Hand	1
24	11S05F	Guide Rail Screw Set M12 x 40 (Lower)	4
24A	267S07	Washer Flat	4
24B	17S06	Washer Spring	4
24C	7S05	Nut M12	4
25	CR530600	Guide Rail Packings	4
26	CR260145	Dial Support	1
27	8S05D	Dial Support Bolts M12 x 40	4
27A	267S07	Washer Flat	4
27B	17S06	Washer Spring	4
27C	7S05	Nut	4
28	8S05D	Pedestal Bolts M12 x 40	4
28A	267S07	Washer Flat	4
28B	17S06	Washer Spring	4
28C	7S05	Nut	4
29	CR170071	Pedestal	1
30	52S05J	Guide Rail C/Sunk Screw M12 x 45 (Upper)	4
30A	267S07	Washer Flat	4
30B	17S06	Washer Spring	4
30C	7S05	Nut	4
31	CR260332	Bottom Lever	1
32	CR540663	Bottom Lever Guard	1
33	CR540067	Bottom Lever Bearing Cover	1
34	CR540666	Knife Edge Cover (Front)	1
35	CR540665	Knife Edge Cover (Rear)	1
36	CR530452	'U' Bolt	1
37	CR241342	'U' Bolt Nuts	4
38	CR170014	Supporting Link	1
39	CR170019	Supporting Link Knife Edge	1
40	CR170126	Balance Arm	1
41	CR170017	Balance Arm Knife Edge Adjuster	1
42	CR170015	Dial Pull Link	1
43	CR170012	Dial Pull Link Knife Edge	1
44	CR530610	Supporting Hook	1
45	CR260533	Centre Link	1
46	253S06	Centre Link Nut	1
47	CR150846	Centre Link Bearing (Small)	1
48	CR150849	Centre Link Bearing	1
49	CR530534	Centre Link Bearing Washer	1
50	CR530535	Centre Link Bearing Bolt Sleeve	1
51	CR241334	Centre Link Bearing Bolt	1
52	CR540344	Limit Switch Striker	1
53	CR541293	Loading Hopper (550/850)	1
54	CR520131	Loading Hopper Front Axle	1
55	CR21100097	Loading Hopper Front Axle Roller	2
56	CR150844	Loading Hopper Front Axle Roller Bearing	2
57	CR520132	Rear Axle	1
58	CR210157	Rear Axle Roller	2
59	CR210160	Rear Axle Rope Pulley	2
59A	267S13	Washer Flat M48, Rope Pulley	2

RP850 PFISTER LEVER TYPE WEIGHER

60	CR630209	Rear Axle Collar	2
60A	57S05D2	Screw Grub, M8 Axle Collar	2
61	8S05L	Rear Axle Bolts (Short) M12 x 75	2
61A	17S06	Washer Spring	2
61B	7S05	Nut	2
62	8S05N	Rear Axle Bolts (Long) M12 x 90	4
62A	17S06	Washer Spring	4
62B	7S05	Nut	4
63	10S43	Rear Axle Flat Washer	2
64	44S06L	Rear Axle Split Pin	2
65	CR350008	Hopper Rope (When Ordering Quote Machine No.)	1
66	CR530602	Front Axle Washers	2
67	CR260436	Front Axle Rope Guides	2
68	CR530603	Front Axle Rope Retainer Block	2
69	CR530587	Front Axle Rope Anchor Bolts (Special)	2
70	8S05L	Front Axle Rope Anchor Guide Bolts	6
70A	17S06	Washer Spring	6
70B	7S05	Nut	6

RP850 SALTER WEIGH DIAL



NOTE

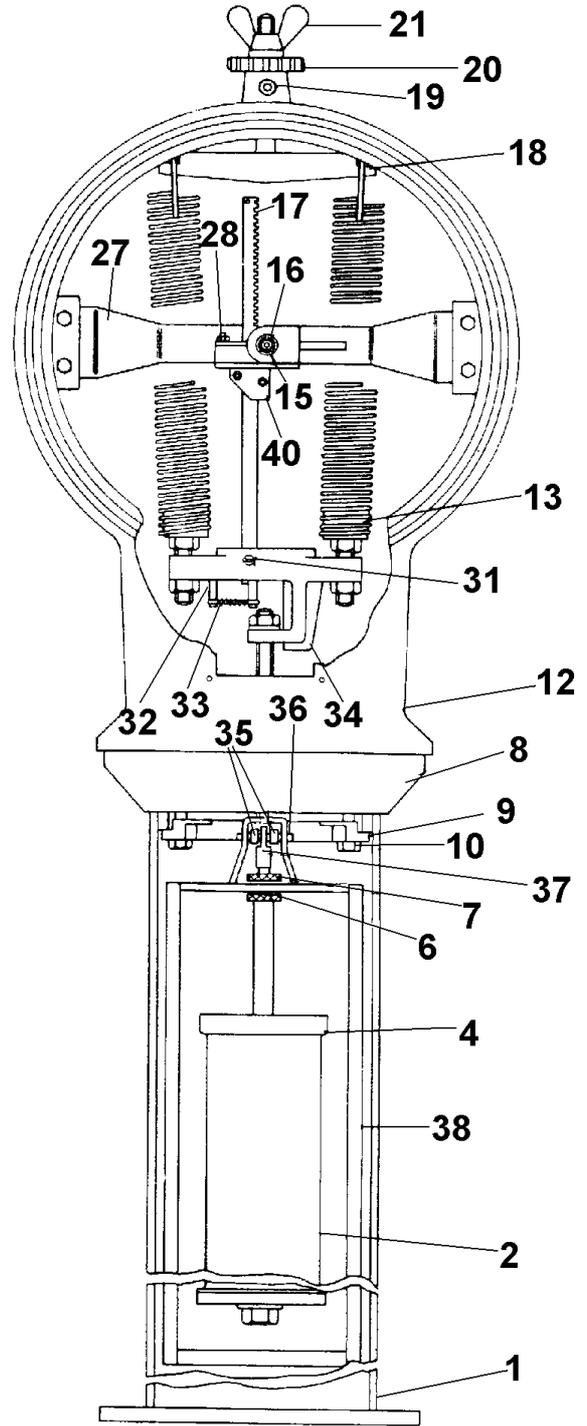
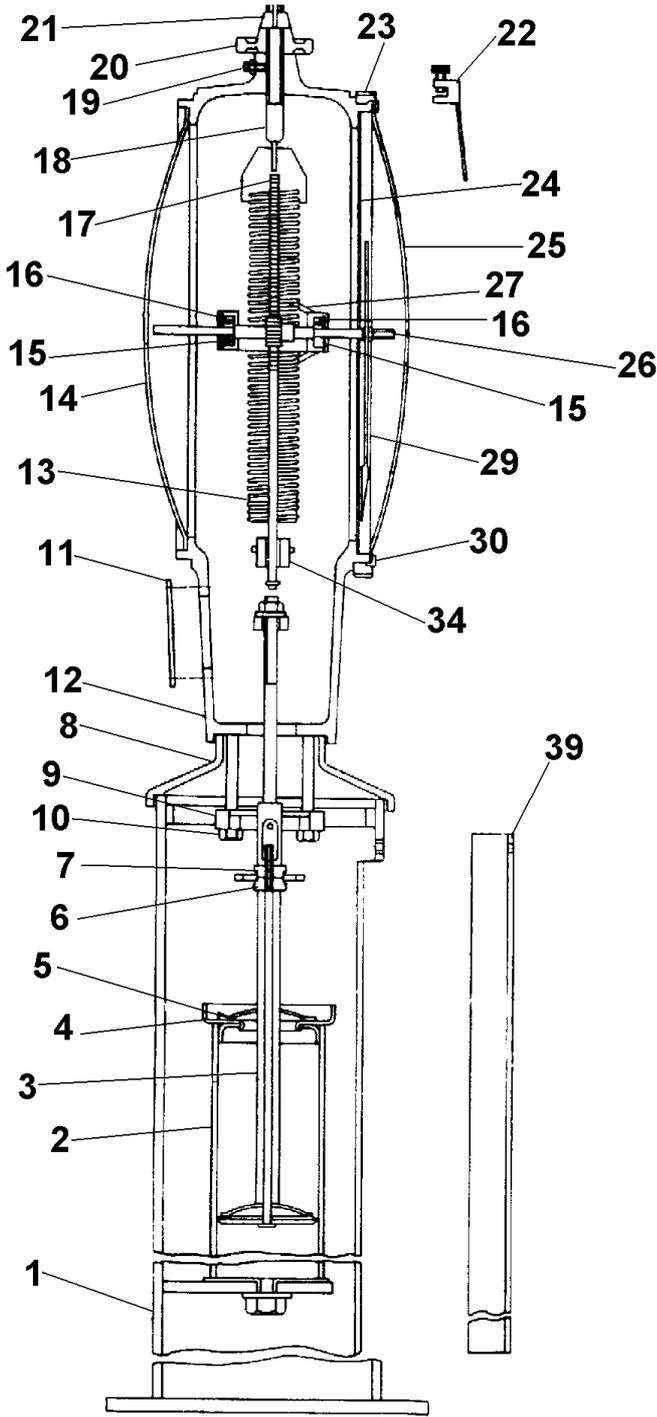
BEFORE USE IT IS NECESSARY TO CHARGE THE DASHPOT WITH THE OIL PROVIDED. PROCEED AS FOLLOWS:-

REMOVE THE PLATE ITEM 16 AT THE REAR OF THE COLUMN AND REMOVE THE SCREWS ITEM 12. LIFT THE TOP CAP, ITEM 11, CLEAR OF THE OIL CYLINDER, ITEM 15, CHARGE THE OIL CYLINDER TWO THIRDS FULL WITH THE SPECIAL OIL PROVIDED. REPLACE THE CAP, TIGHTEN THE SCREWS AND REPLACE THE PLATE.

RP850 SALTER WEIGH DIAL

1	CR170087	Tare Adjuster
2	CR170088	Indicator
3	CR170089	Finger Assembly
4	CR170090	Glass
5	CR170091	Rack
6	CR170092	Dial (3,300 lbs)
7	CR170120	Dial (2,200 lbs)
8	CR170121	Dial (1,100 lbs)
9	CR170124	Dial (4,400 lbs)
10	CR170093	Bezel
11	CR170094	Indicator Rim Assembly
12	CR170095	Dial Head
13	CR170096	Dial Pedestal
14	CR170097	Dashpot Cylinder Cap
15	CR170098	Dashpot Cylinder Cap Screw
16	CR170099	Corrugator
17	CR170100	Connecting Rod
18	CR170101	Dashpot Cylinder
19	CR170102	Pedestal Door
20	CR170103	Dashpot Cylinder Assembly
21	CR170104	Spring Rivet
22	CR170105	Rack Spring
23	CR170106	Main Spring Assembly
24	CR170107	Hanger Bar Assembly
25	CR170108	Adjuster Compression Spring
26	CR170109	Tension Spring
27	CR170110	Tension Spring Rivet
28	CR170111	Shock Absorber Mechanism Assembly
29	CR170112	Cross Bar Nut
30	CR170113	Dashpot Plunger Rod assembly
31	CR170114	Bearing Bush
32	CR170115	Pinion
33	CR170116	Bearing Bush
34	CR170117	Pinion Housing Assembly
35	CR170118	Guide Rack Pillar

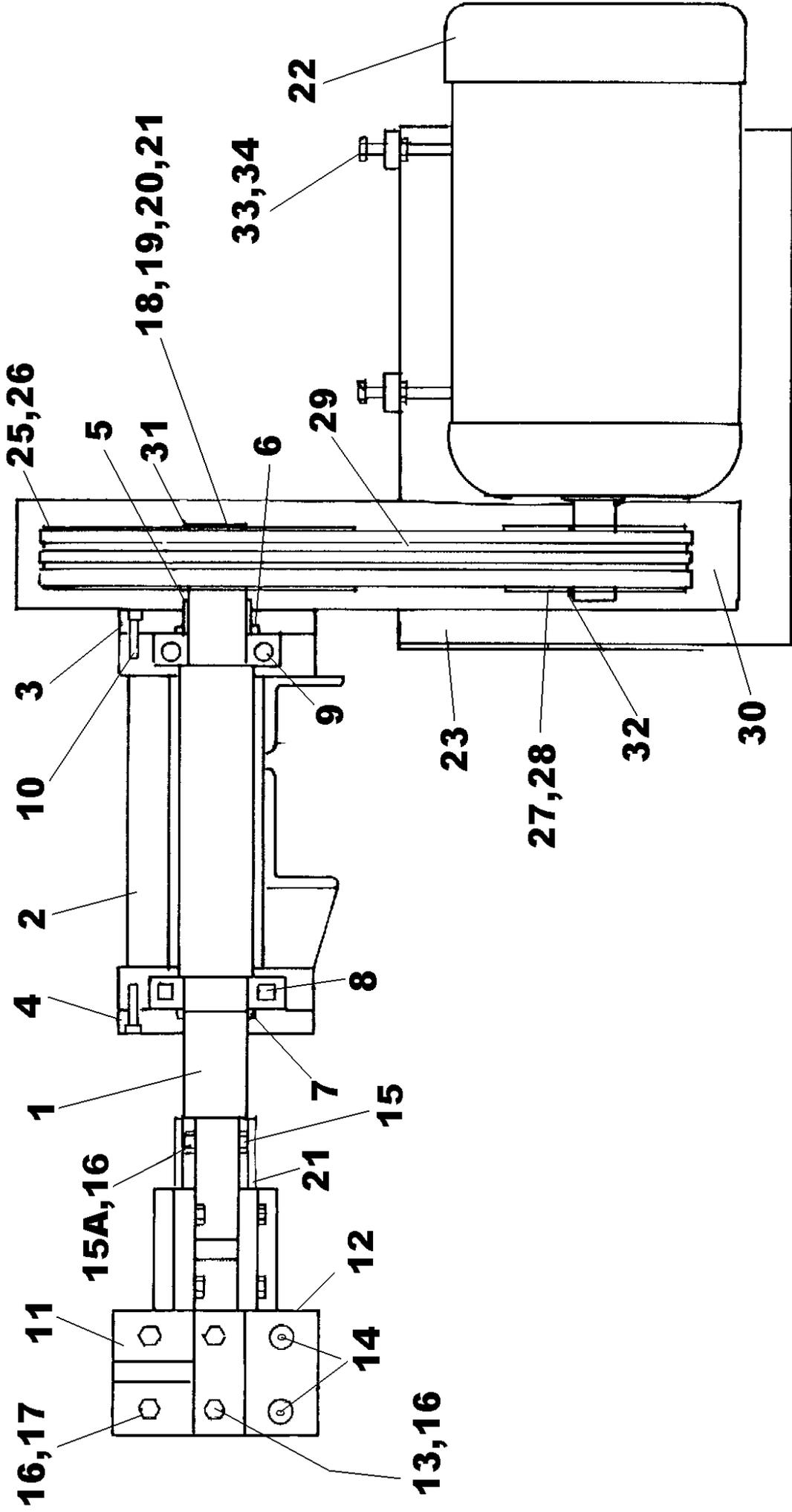
RP850 PFISTER WEIGH DIAL



RP850 PFISTER WEIGH DIAL

1	CR170021	Pedestal
2	CR170023	Dashpot Cylinder
3	CR170024	Plunger Assembly
4	CR170025	Cylinder Flange
5	CR170026	Cylinder Dust Cover
6	CR170027	Damping Adjustment Nut
7	CR170027	Locking Nut
8	CR170028	Dial Swivel Adaptor
9	CR170029	Dial Swivel Adaptor Locking Plate
10	CR170030	Dial Swivel Adaptor Locking Plate Bolts
11	CR170084	Cover Plate
12	CR170032	Dial Head Casting
13	CR170033	Spring With End Adaptors (complete)
14	CR170034	Back Cover Plate
15	CR170035	Ball Race Retaining Clip
16	CR170036	Ball Race
17	CR170037	Rack
18	CR170038	Upper Spring Bridge
19	CR170039	Grub Screw
20	CR170040	Zero Adjusting Nut
21	CR170059	Zero Adjusting Nut Wing Nut
22	CR170041	Preset Pointer
23	CR170042	Indicator Ring
24	CR170085	Dial (3,300 lbs)
25	CR170043	Dial (1,100 lbs)
26	CR170063	Dial (2,200 lbs)
27	CR170127	Dial (4,400 lbs)
28	CR170044	Plexi-Glass Dial Cover
29	CR170045	Indicator Shaft With Pinion (Complete)
30	CR170046	Pointer Bearing Support Bracket
31	CR170047	Rack Guide
32	CR170048	Pointer
33	CR170049	Dial Civer Retaining Ring
34	CR170051	Rack Pivot Pin
35	CR520127	Rack Spring Retaining Pin
36	CR170052	Rack Spring
37	CR170053	Lower Spring Bridge
38	CR170054	Plunger Eyebolt Collar
39	CR170055	Pliunger Eyebolt Pivot Pin
40	CR170056	Plunger Eyebolt
41	CR170057	Dial Pull Rod Assembly
42	CR170058	Inspection Door
43	CR170060	Taring Load Stop

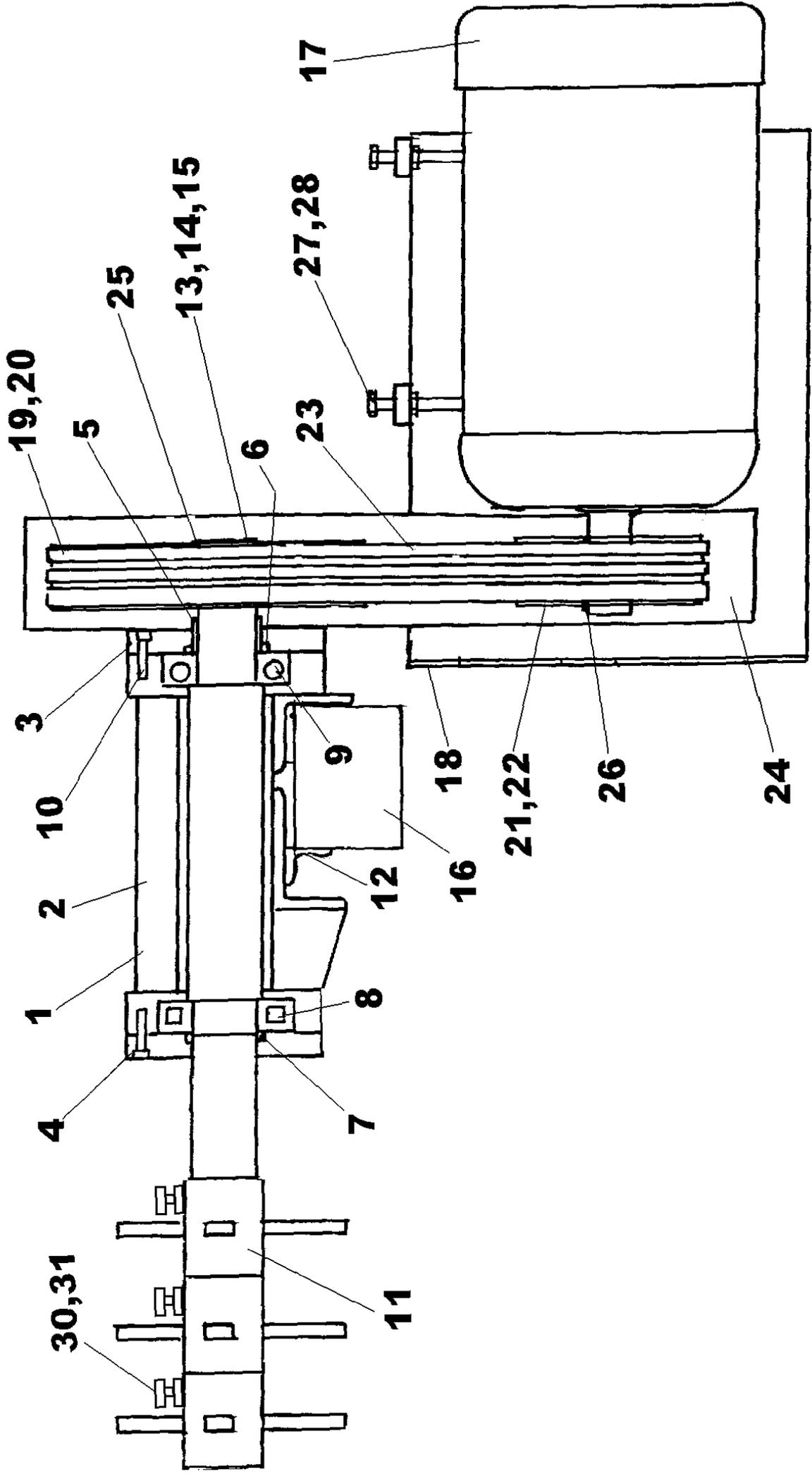
RP850 WHIRLER ASSEMBLY WITH TYPE A BLADES



RP850 WHIRLER ASSEMBLY (WITH TYPE 'A' BLADES)

1	CR520520	Whirler Shaft	1
2	CR261471	Bearing Housing	1
2	131S01	Nipple Grease	2
2A	176S01	Cover Nipple Grease	2
3B	CR532110	Bearing Cap	1
4	CR532111	Bearing Cap	1
5	CR532109	Spacer	1
6	CR569014	Lip Seal	1
7	CR569016	Lip Seal	1
8	CR150701	Bearing	1
9	CR150538	Bearing	1
10	68S05G	Cap Screw M10 x40	6
11	CR261472	Blade Whirler Type 'A'	4
12	CR531718	Wear Plate	4
13	11S05E	Screw Set M12 x 35 Whirler Blade Retaining	8
13A	17S06	Washer Spring M12	8
14	52S05K	Screw Countersunk M12 x 50 Wear Plate Retaining	8
15	11S05J	Screw Set M12 x 55	2
15A	7S05	Nut M12	2
16	17S06	Washer Spring M12	10
17	7S05	Nut M12	10
18	CR539005	Retaining Washer	1
19	11S05F	Screw Set M12 x 40	1
20	17S06	Washer Spring M12	1
21	CR539044	Sleeve	1
22	CR220102	Motor	1
23	CR261260	Bracket Motor Mounting	1
25	CR340550	Pulley Whirler	1
26	CR340551	Bush Taperlock	1
27	CR340552	Pulley Motor	1
28	CR340546	Bush Taperlock	1
29	CR1690001	V Belts	3
30	CR091007	Belt Guard	1
31	CR329001	Key Parallel 18 x 11 x 60	1
32	CR329000	Key Parallel 12 x 8 x 60	1
33	11S05M	Bolt Adjusting M12 x 70	2
34	7S05	Nut	2

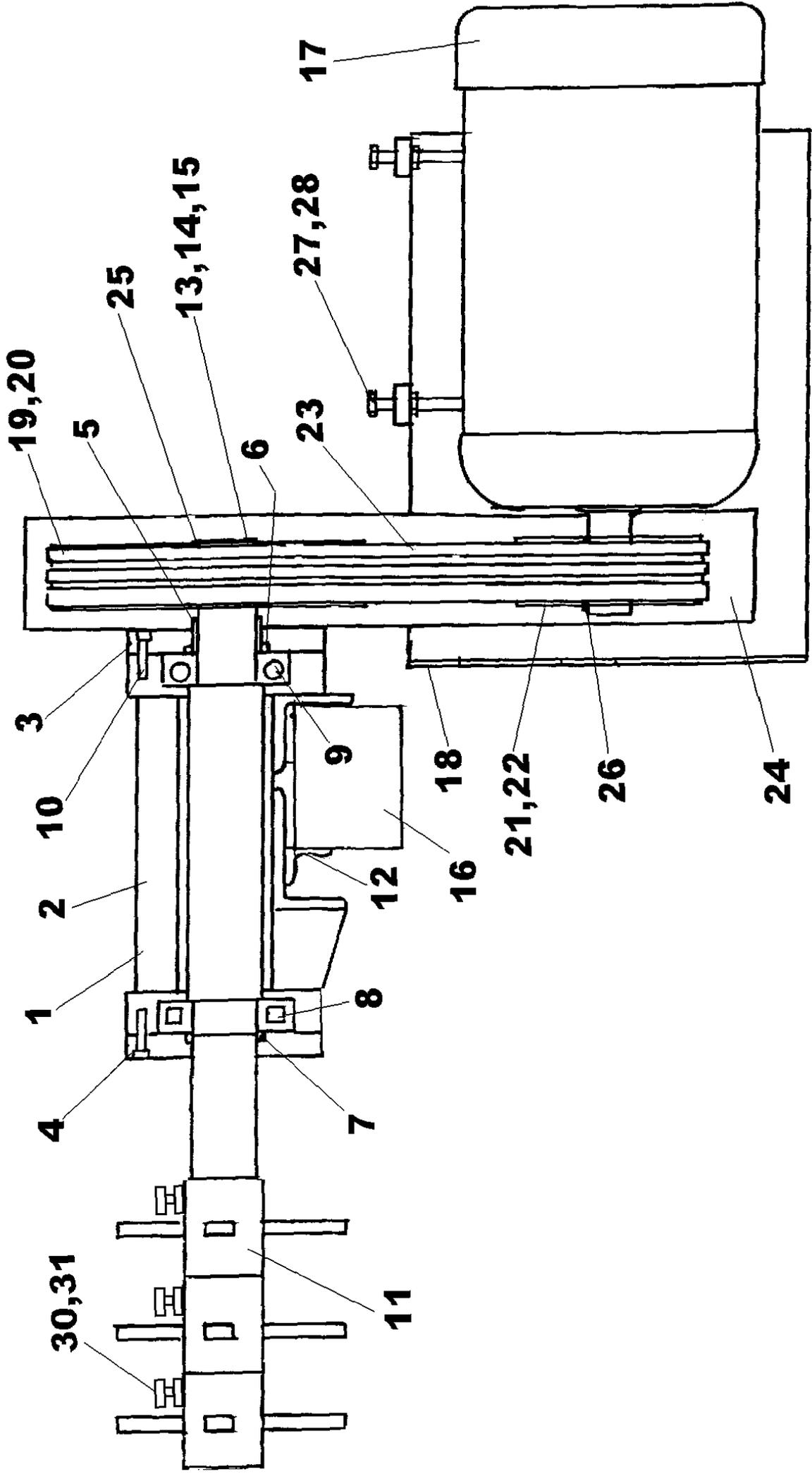
RP850 WHIRLER ASSEMBLY (MOTOR UP)



RP850 WHIRLER ASSEMBLY (MOTOR UP)

1	CR520520	Whirler Shaft	1
2	CR261471	Bearing Housing	1
2A	131S01	Nipple Grease	1
2B	176S01	Cover Nipple Grease	2
3	CR532110	Bearing Cap	2
4	CR532111	Bearing Cap	1
5	CR532109	Spacer	1
6	CR569014	Lip Seal	1
7	CR569016	Lip Seal	1
8	CR150701	Bearing	1
9	CR150538	Bearing	1
10	68S05G	Cap Screw M10 x 40	1
11	CR219006	Blade, Square Whirler Cast	3
11	CR219006SS	Blade, Square Whirler Stainless Steel	3
11	CR219006SSA	Blade, Square Whirler Stainless Steel, Angled	3
11	CR219006H	Blade, Square Whirler Tungsten Carbide Coated	3
11	CR219006AH	Blade, Square Whirler Tungsten Carbide Coated, Angled	3
11	CR219017	Blade, Whirler, Two Blades, Tungsten Carbide Coated	A/R
12	CR532112	Mounting Angle	1
13	CR539005	Retaining Washer	3
14	11S05F	Screw Set M12	1
15	17S06	Washer Spring M12	1
16	CR269211	Whirler Mounting Bracket	1
17	CR220102	Motor	1
18	CR269212	Bracket Motor Mounting	1
19	CR340550	Pulley Whirler	1
20	CR340551	Bush Taperlock	1
21	CR340552	Pulley Motor	1
22	CR340546	Bush Taperlock	1
23	CR169002	V Belts	1
24	CR519151	Belt Guard	3
25	CR329001	Key Parrallel 18 x 11 x 60	1
26	CR329000	Key Parrallel 12 x 8 x 60	3
27	11S05M	Screw Set Motor Adjusting M12 x 70	2
28	7S05	Nut M12	2
30	11S05F	Screw Blade Retaining M12	3
31	7S05	Nut M12	3

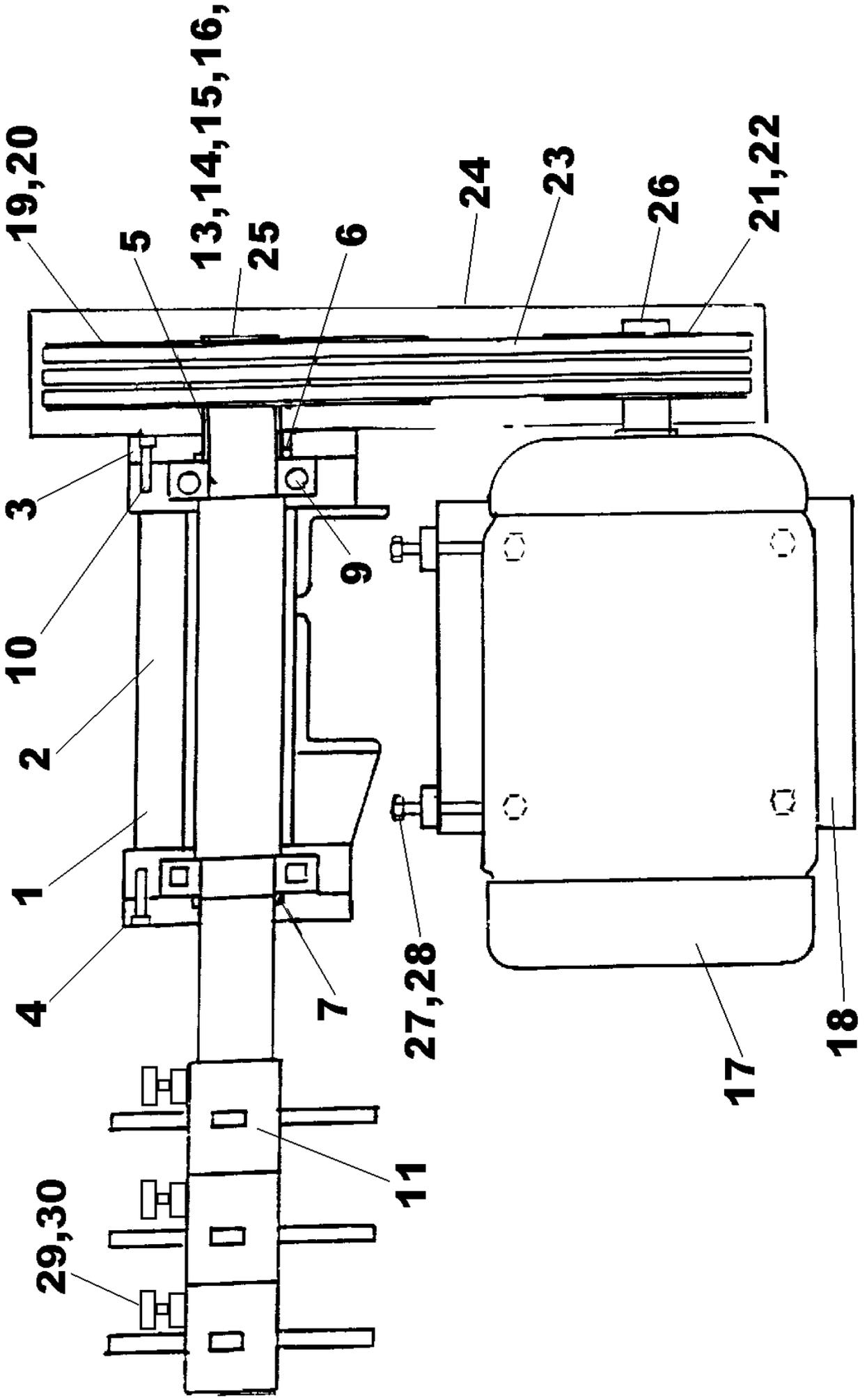
RP850 WHIRLER ASSEMBLY (MOTOR UP 460V 3PH 60HZ)



RP850 WHIRLER ASSEMBLY (MOTOR UP 460V 3PH 60HZ)

1	CR520520	Whirler Shaft	1
2	CR261471	Bearing Housing	1
2A	131S01	Nipple Grease	1
2B	176S01	Cover Nipple Grease	2
3	CR532110	Bearing Cap	2
4	CR532111	Bearing Cap	1
5	CR532109	Spacer	1
6	CR569014	Lip Seal	1
7	CR569016	Lip Seal	1
8	CR150701	Bearing	1
9	CR150538	Bearing	1
10	68S05G	Cap Screw M10 x 40	1
11	CR219006	Blade, Square Whirler Cast	3
11	CR219006SS	Blade, Square, Whirler Stainless Steel	3
11	CR219006SSA	Blade, Square, Whirler Stainless Steel, Angled	3
11	CR219006H	Blade, Square, Whirler Tungsten Carbide Coated	3
11	CR219006AH	Blade, Square, Whirler Tungsten Carbide Coated, Angled	3
11	CR219017	Blade, Whirler, Two Blades, Tungsten Carbide Coated	A/R
12	CR532112	Mounting Angle	1
13	CR539005	Retaining Washer	3
14	11S05F	Screw Set M12	1
15	17S06	Washer Spring M12	1
16	CR269211	Whirler Mounting Bracket	1
17	CR229086	Motor Electric 460 Volt 3Ph 60Hz	1
18	CR269213	Bracket Motor Mounting	1
19	CR340550	Pulley Whirler	1
20	CR340551	Bush Taperlock	1
21	CR340552	Pulley Motor	1
22	CR340546	Bush Taperlock	1
23	CR169002	V Belts	1
24	CR519151	Belt Guard	3
25	CR329001	Key Parallel 18 x 11 x 60	1
26	CR329000	Key Parallel 12 x 8 x 60	3
27	11S05M	Screw Set Motor Adjusting M12 x 70	2
28	7S05	Nut M12	2
30	11S05F	Screw Blade Retaining M12	3
31	7S05	Nut M12	3

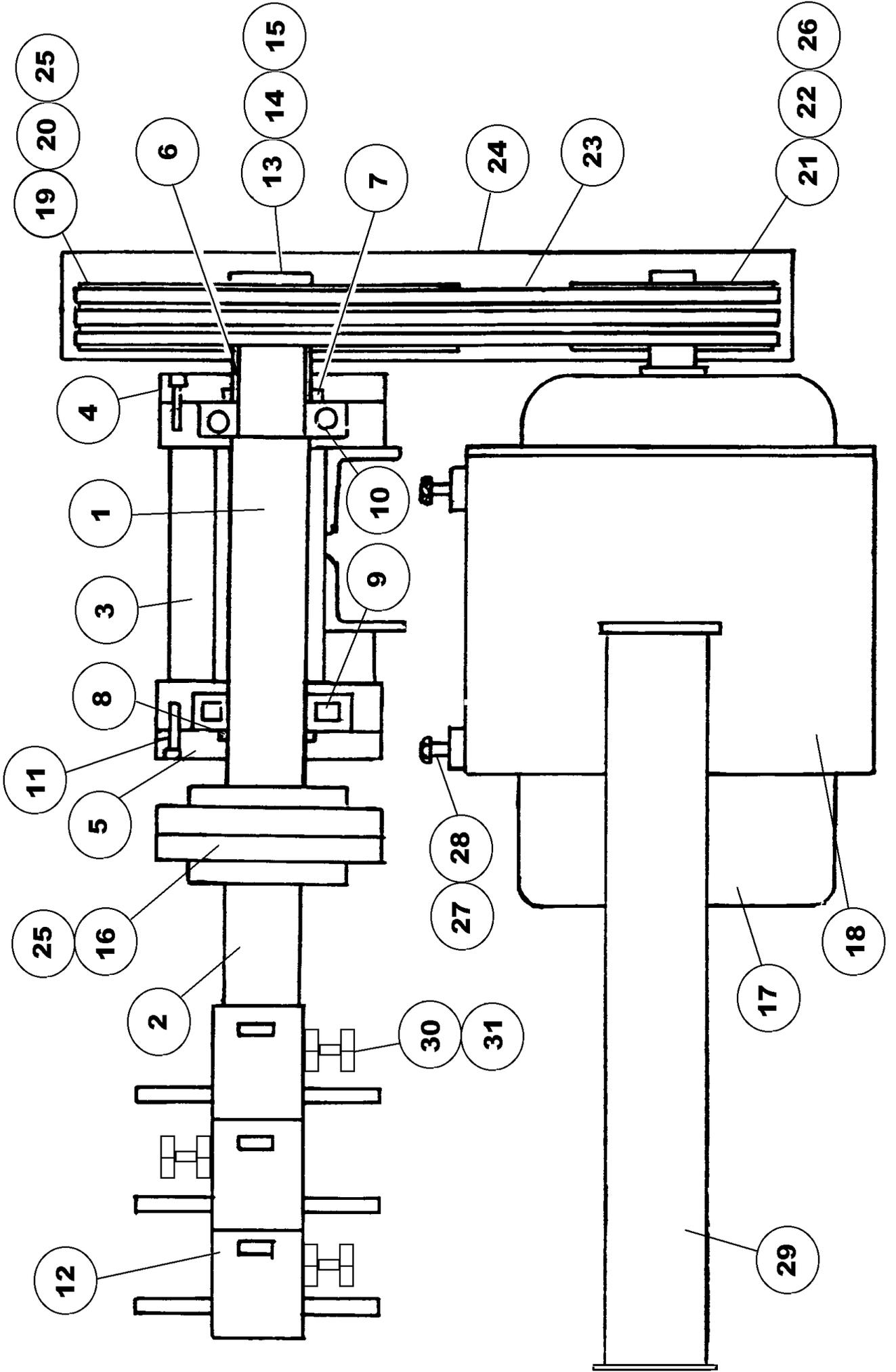
RP850 WHIRLER ASSEMBLY (MOTOR DOWN)



RP850 WHIRLER ASSEMBLY (MOTOR DOWN BY GUARDS)

1	CR520520	Whirler Top Shaft	1
2	CR261471	Bearing Housing	1
2A	131S01	Nipple Grease	2
2B	176S01	Cover Nipple Grease	2
3	CR532110	Bearing Cap	1
4	CR532111	Bearing Cap	1
5	CR532109	Spacer	1
6	CR569014	Lip Seal	1
7	CR569016	Lip Seal	1
8	CR150701	Bearing	1
9	CR150538	Bearing	1
10	68S05G	Cap Screw M12 x40	6
11	CR219006	Blade Square, Whirler Cast	3
11	CR219006SS	Blade Square Whirler, Stainless Steel	3
11	CR219006SSA	Blade Square Whirler, Stainless Steel, Angled	3
11	CR219006H	Blade Square Whirler, Tungsten Carbide Coated	3
11	CR219006AH	Blade Square Whirler, Tungsten Carbide Coated Angled	3
11	CR219017	Blade Whirler, Two Blades, Tungsten Carbide Coated	A/R
12	CR539005	Retaining Washer	1
13	11S05F	Screw Set M12	1
14	17S06	Washer Spring M12	1
15	CR239026	Coupling Rigid	1
16	CR530944	Sleeve	1
17	CR220102	Motor Electric	1
18	CR269180	Bracket Motor Mounting	1
19	CR340550	Pulley Motor	1
20	CR340551	Bush Taperlock	1
21	CR340552	Pulley Whirler	1
22	CR340546	Bush Taperlock	1
23	CR169001	V Belts	3
24	CR549137	Belt Guard	1
25	CR329001	Key Parallel 18 x 11 x 60	1
26	CR329000	Key Parallel 12 x 8 x 60	1
27	11S05M	Screw Set Motor Adjusting M12 x 70	2
28	CR249026	Nut	2
32	11S05F	Screw Blade Retaining M12	3
33	7S05	Nut M12	3

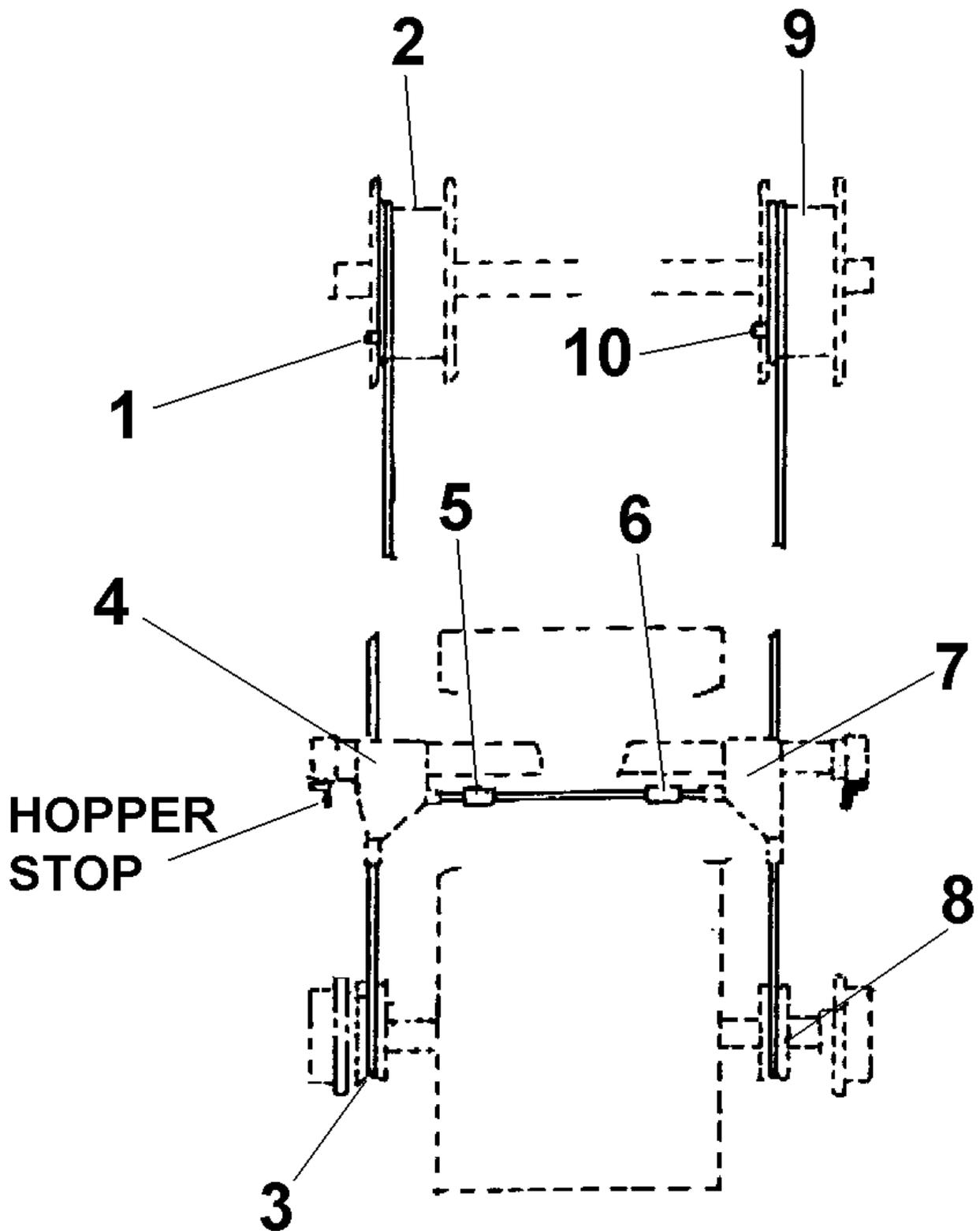
RP850 SPLIT SHAFT WHIRLER



RP850 SPLIT SHAFT WHIRLER ASSEMBLY

1	CR529154	Whirler Top Shaft	1
2	CR529155	Whirler Lower Shft	1
3	CR269163	Bearing Housing	1
3A	131S01	Nipple Grease	2
3B	176S01	Cover Nipple Grease	2
4	CR532110	Bearing Cap Upper	1
5	CR532111	Bearing Cap Lower	1
6	CR532109	Spacer Bearing	1
7	CR569014	Lip Seal Upper	1
8	CR569016	Lip Seal Lower	1
9	CR150701	Bearing	1
10	CR150538	Bearing	1
11	68S05G	Cap Screw M10 x 40	6
12	CR219006	Blade Square Whirler, Cast	3
12	CR219006SS	Blade Square Whirler, Stainless Steel	3
12	CR219006SSA	Blade Square Whirler, Stainless Steel, Angled	3
12	CR219006H	Blade Square Whirler, Tungsten Carbide Coated	3
12	CR219006AH	Blade Square Whirler, Tungsten Carbide Coated, Angled	3
12	CR219017	Blade Whirler, Two Blades, Tungsten Carbide Coated	A/R
13	CR539005	Retaining Washer	1
14	11S05F	Screw Set M12	1
15	17S06	Washer Spring M12	1
16	CR239026	Coupling Rigid	1
16A	11S06L	Screw Set M16	6
16B	17S08	Washer Spring M16	6
17	CR220102	Motor Electric	1
17A	8S05G	Bolt M12	4
17B	7S05	Nut M12	4
17C	17S06	Washer Spring M12	4
17D	267S07	Washer Flat M12	4
18	CR269180	Bracket Motor Bedplate	1
19	CR340550	Pulley	1
20	CR340551	Bush Taperlock	1
21	CR340552	Pulley	1
22	CR340546	Bush Taperlock	1
23	CR160060	V Belts	3
24	CR549137	Belt Guard	1
25	CR329001	Key Parallel 18 X 11 X 60	1
26	CR329000	Key Parallel 12 X 8 X 60	1
27	11S05M	Bolt Belt Adjusting M12 x 70	2
28	7S05	Nut M12	2
29	CR539166	Support Strut	1
30	11S05F	Screw Blade Retaining M12	3
31	7S05	Nut M12	3

RP850 WIRE ROPE RENEWAL PROCEDURE



CROKER LOADER

WIRE ROPE RENEWAL PROCEDURE

1. Place Loader Bin on hopper stops. Loosen nut from rope anchor bolt, item 1, on one rope drum only, item 2.
2. Remove end of old wire rope from anchor bolt.
3. Fit end of new wire rope to anchor bolt and tighten nut.
4. Lay other end of new wire rope end to end with old wire rope removed in part 2. Bind both ends together with sticky tape (electrical or masking tape).
5. Carefully pull on the old wire rope to pull the new wire down to the bottom of the loader bin and around the rear axle rope pulley, item 3, and up through the front axle rope guide, item 4.
6. Remove front axle rope retainer blocks, items 5 and 6, and slide onto the new rope.
7. Continue to pull the wire and thread through the second rope guide, item 7, and down around the second rope pulley, item 8, and up to the second rope drum, item 9.
8. Remove old wire from second anchor bolt, item 10, on second rope drum, item 9, and remove tape from ends of old and new wire.
9. Fit second end of new wire to second anchor bolt, item 10, on second rope drum, item 9.
10. Tighten anchor bolt nuts on both rope drums.
11. The new wire should now run over the front edges of both rope drums and down to front edges of both the lower axle rope pulleys, items 3 and 8, and up the back of the rope pulleys to the rope guides, items 4 and 7, with both rope retainer blocks, items 5 and 6, located on the section of wire rope between the two rope guides at the back of the bin.
12. Start and stop the loader by hand, using the start and stop buttons, and take out all the slack of the wire rope in the raise direction (see important note on page 30), ensuring that the wire slots into both axle rope pulleys, item 2 and 9, and that the wire has wound evenly onto both rope drums.

Make sure the loader bin is level and sitting on weigher track stops before positioning rope retainer blocks, items 5 and 6, approximately 2 inches (50 mm) in board of rope guides, item 4 and 7, each side and make fast retainer blocks onto wire.

13. Check that both limit switches are working correctly.
14. Make sure loader bin clears both sides of rope drums at the top of its operation.

NOTE: Bin reaches end of travel between rope drums.

IMPORTANT NOTE

Ensure that the slack wire is taken up in the raise direction and not the lowering direction. If the rope is wound incorrectly in the reverse direction on to the rope drums the hopper will not stop at the upper limit switch. It will continue until it makes contact with the top of the structure and will continue to heave until the wire rope breaks, with the result , if both sides of the wire fail at the same time, that the hopper will drop to the bottom end of the skip track.

WIRE ROPES

SAFETY NOTES

ALWAYS

Store and handle the wire rope correctly, wear protective gloves and eye protection.

Check the rope test certificate is still in date especially if the rope has been in storage also check that the certificate is applicable to the rope.

Remove the rope from any reel or coil correctly and without kinking.

Only use correct end terminations and rope anchors.

Ensure that the rope is correctly located and seated on the rope drum.

Ensure that the rope is correct for the application and only use good quality ropes from reputable suppliers.

Inspect the wire rope for damage, wear, corrosion or abuse at the start of each shift.

Keep the wire rope clean and maintained in accordance with the manufacturers instructions.

NEVER

Try to shorten any wire rope by knotting.

Bend a wire rope over small radii.

Subject wire ropes to shock loadings.

Allow wire ropes to run over sharp edges or abrasive surfaces etc.

Subject wire ropes to extremes of temperature.

Use wire ropes with obvious signs of mechanical, corrosive or heat damage.

Use wire ropes that are worn, frayed, split or corroded.

STORAGE

Store wire ropes in a clean well ventilated, dry location preferably undercover and protected from extremes of temperatures.

If site conditions are such that undercover storage is not possible cover the rope with a waterproof cover and support clear of the ground.

Rotate stored wire ropes, reels or coils regularly to prevent migration of the rope lubricant, particular in warm environments.

Be aware that subjecting wire ropes to extremes of temperature as can affect the in service performance, high storage temperatures can reduce the effective strength of the rope.

SAFETY

Running wire ropes are hazardous and should be guarded or personnel should be prevented access to them whilst in motion.

Wire ropes develop broken strands during their working life which present a hazard to maintenance personnel, always wear suitable hand and eye protection when handling ropes.

Take care when unfastening a coiled rope as the inherent springiness when released may cause it to strike attendant personnel or other equipment causing damage or injury.

Take care when removing worn, damaged or failed ropes from equipment as they may be tightly coiled, grossly distorted and still retain their springiness.

IN SERVICE INSPECTION AND MAINTENANCE

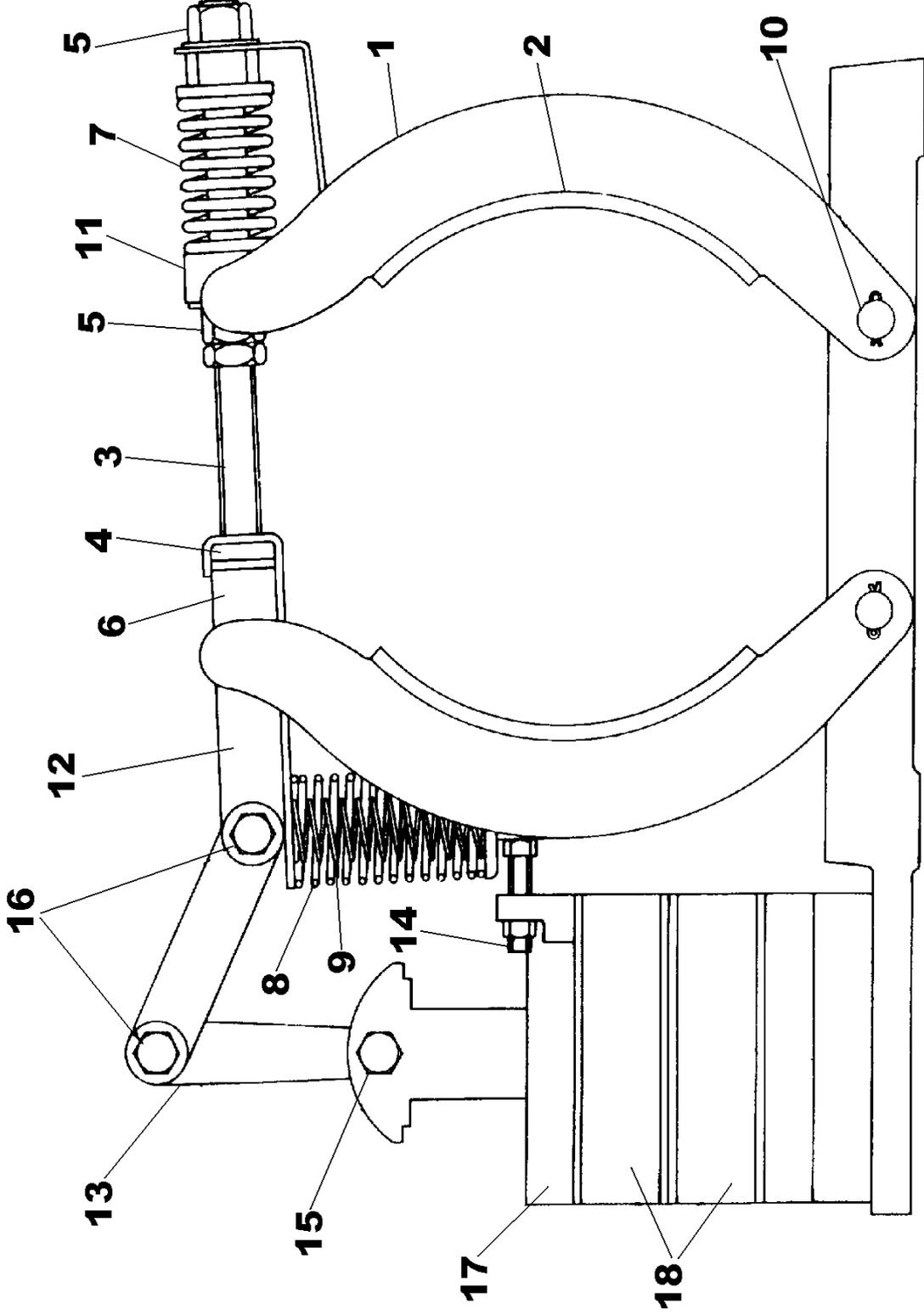
Wire ropes used for lifting operations should be regularly inspected by a competent person and inspection records kept upto date.

Inspections should not only concentrate on the rope but also extend to the condition of sheaves, drums, guides etc.

Decisions on whether a wire rope is suitable for continued service should only be made by a competent person.

IF IN DOUBT REPLACE THE ROPE.

RP850 A.C. SOLENOID BRAKE



WHEN ORDERING SPARES FOR BRAKE QUOTE
VOLTAGE, MAKE, MODEL AND SIZE. WHEN
ORDERING REPLACEMENT BRAKE SHOES
QUOTE PHYSICAL DIMENSIONS

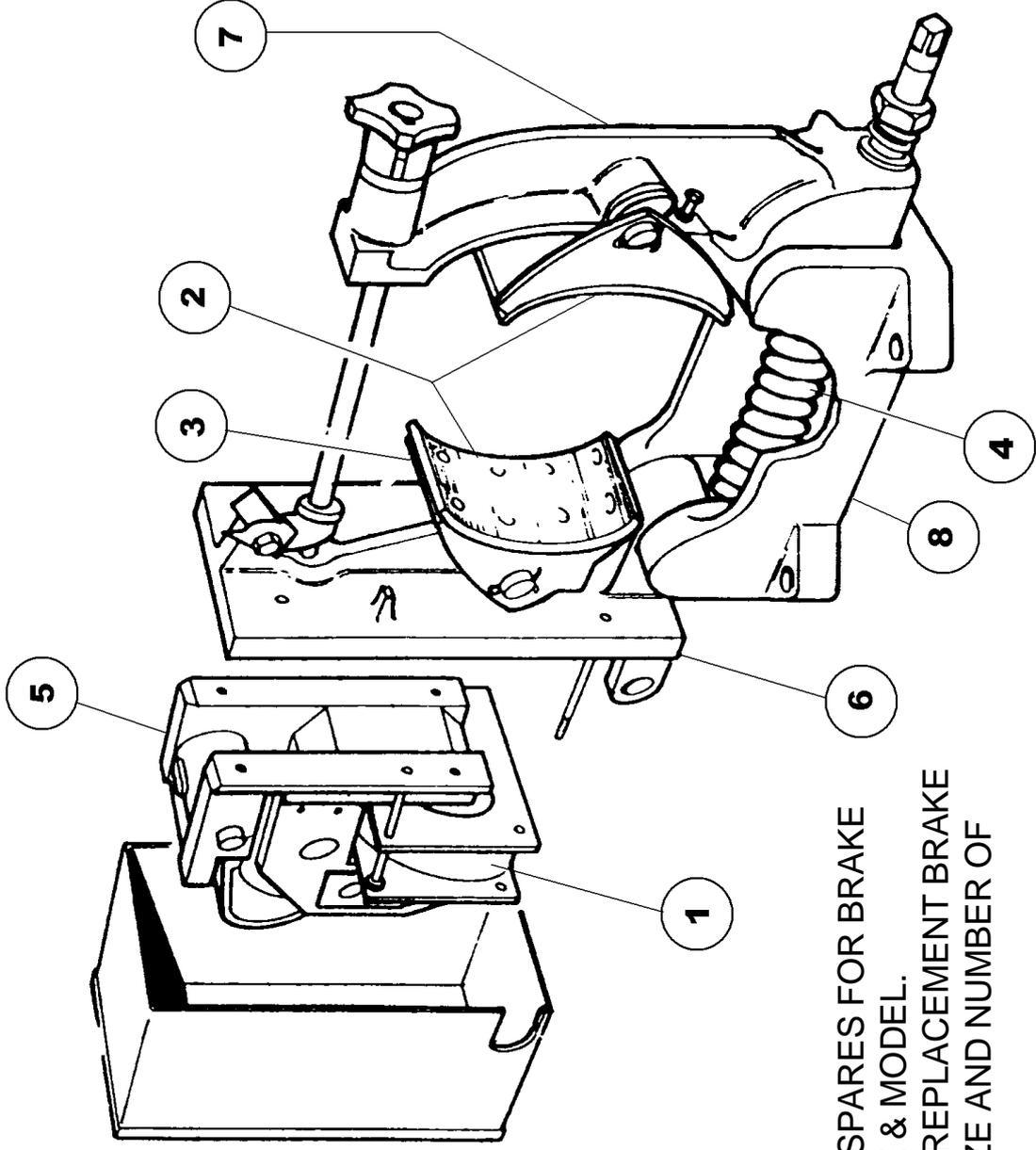
RP850 A. C. SOLENOID BRAKE

1	CR550042	Shoes (Complete With Linings)
2	CR550043	Brake Linings & Rivets
3	CR550044	Adjusting Screw
4	CR550045	Spring Gland
5	CR550046	Adjusting Screw Nut
6	CR550047	Adjusting Nut
7	CR550048	Load Spring
8	CR550049	Solenoid Spring Large
9	CR550050	Solenoid Spring Small
10	CR550051	Shoe Lever Hinge Pins
11	CR550052	Load Spring Block
12	CR550053	Operating Levers
13	CR550054	Plunger Link
14	CR550055	Equalising Screw & Nut
15	CR550056	Plunger Hinge Bolt & Nut
16	CR550057	Lever Hinge, Bolt, Nut & Collar
17	CR550058	Solenoid
18	CR550059	Solenoid Coils (both coils should be replaced together)

When ordering spares for the brake unit please quote voltage, make, model and serial number.
When ordering brake shoes please quote physical dimensions

RP850 ELECTROMAGNETIC BRAKE

SEPARATE BRAKE UNITS ONLY



WHEN ORDERING SPARES FOR BRAKE
UNIT QUOTE MAKE & MODEL.
WHEN ORDERING REPLACEMENT BRAKE
SHOES QUOTE SIZE AND NUMBER OF
RIVET HOLES.

RP850 ELECTROMAGNETIC BRAKE UNIT

SEPARATE BRAKE UNITS ONLY

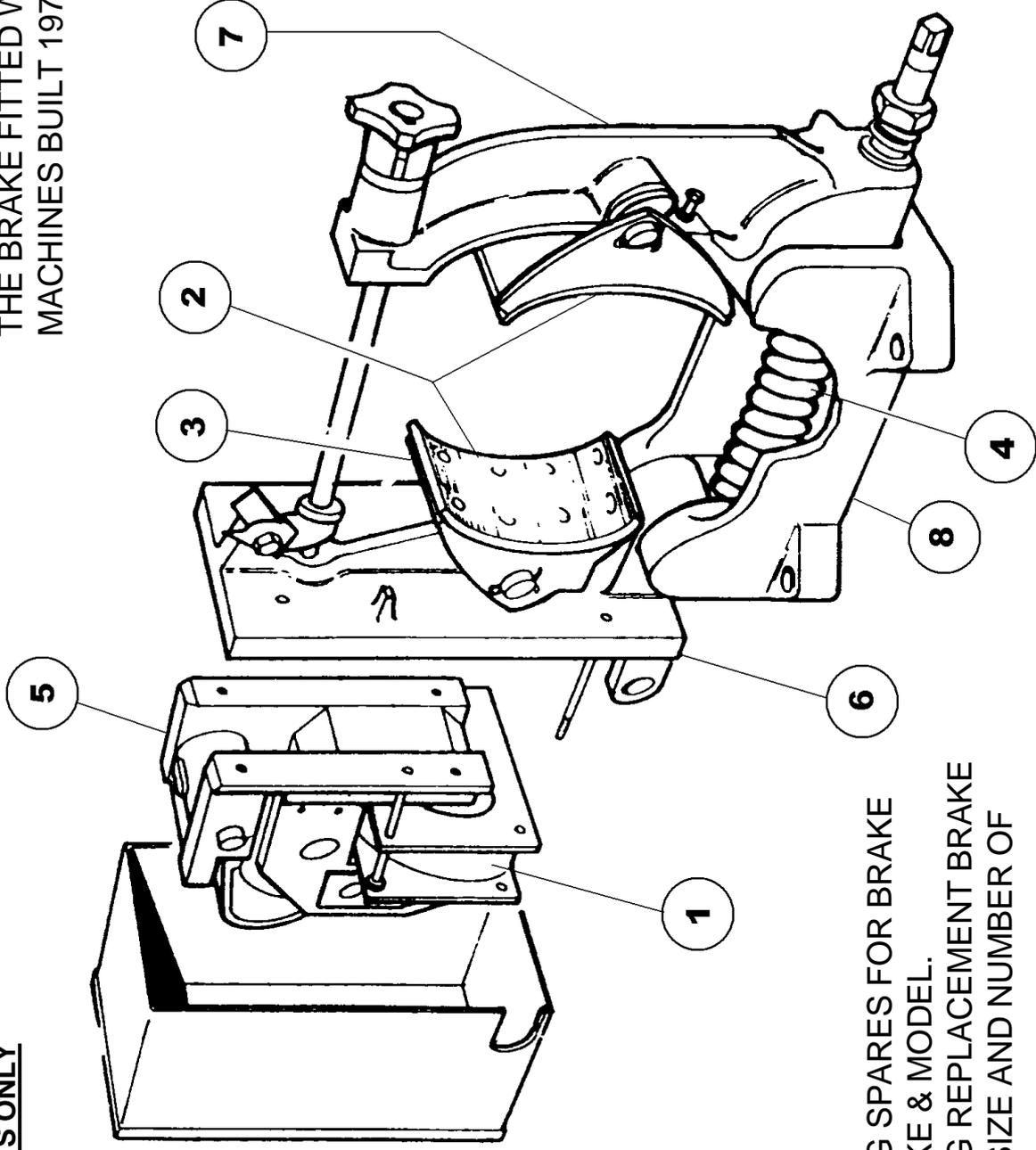
	CR220312	Brake Unit Complete	1
1	CR220327	Electric Coil	1
2	CR220326	Brake Linings & Rivets	1 SET
3	CR220325	Brake Shoes	2

It is not possible to supply the other major parts as separate items. If items other than those listed are required it will be necessary to replace the complete Brake Assembly. Due to the number of different Brake Units from different manufacturers used over the years when ordering spares please give a full description of the item required together with the make and model of the Brake Unit. When ordering replacement brake linings please give the dimensions together with the number of rivet holes required.

RP850 N.R. RANGE ELECTROMAGNETIC BRAKE

SEPARATE BRAKE UNITS ONLY

THE BRAKE FITTED WAS FITTED TO MACHINES BUILT 1973 ONWARDS.



WHEN ORDERING SPARES FOR BRAKE UNIT QUOTE MAKE & MODEL.
WHEN ORDERING REPLACEMENT BRAKE SHOES QUOTE SIZE AND NUMBER OF RIVET HOLES.

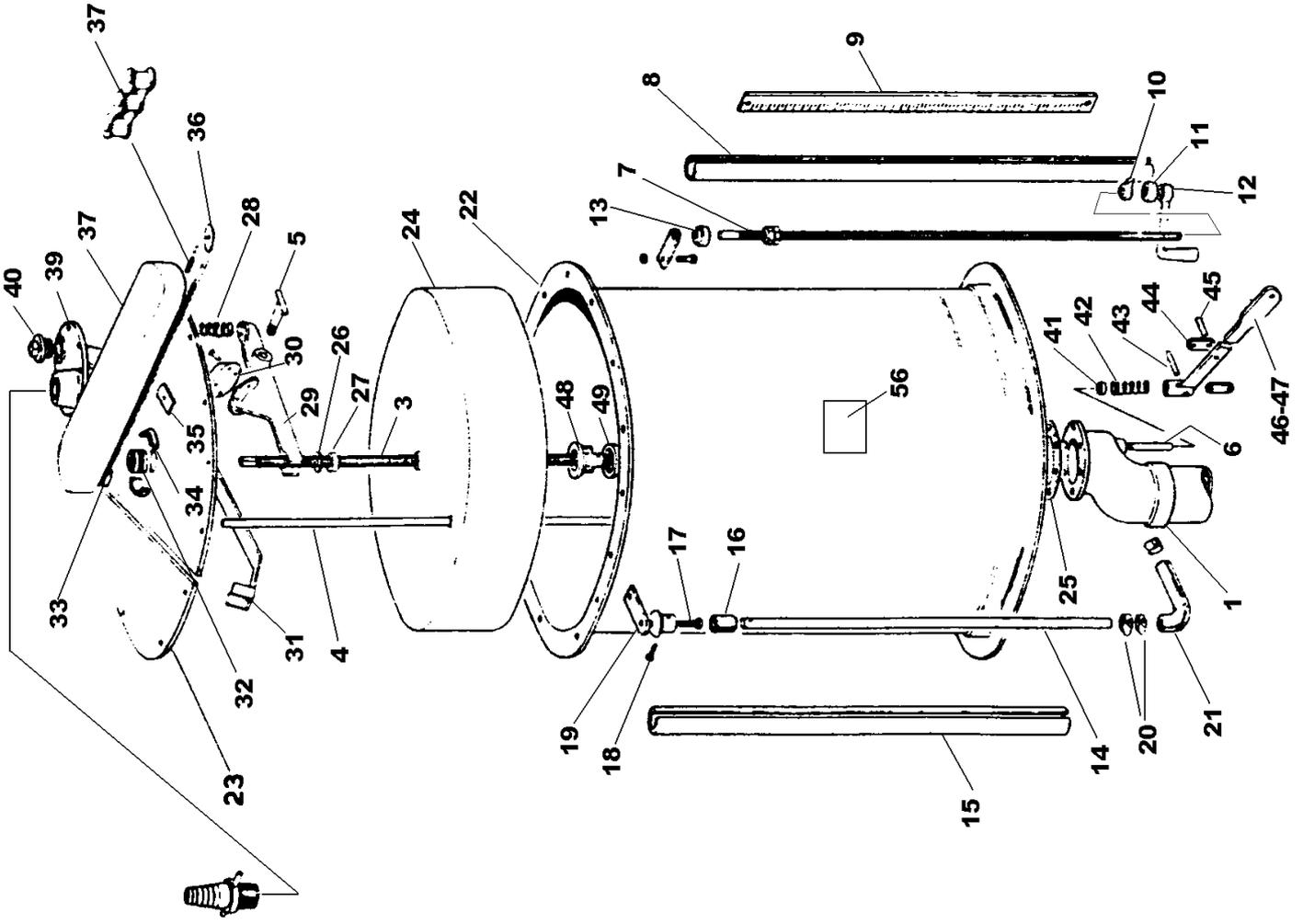
RP850 NR RANGE ELECTROMAGNETIC BRAKE UNIT

SEPARATE BRAKE UNITS ONLY

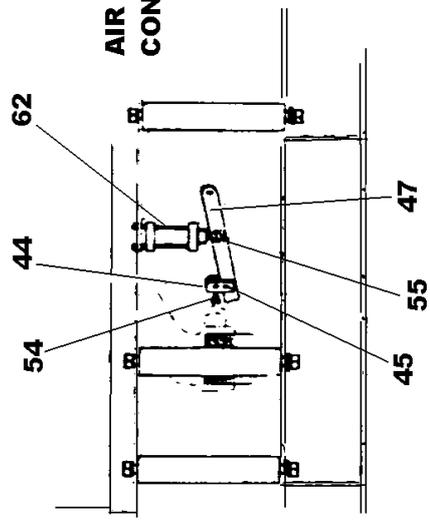
	CR550115	Brake unit complete	1
1	CR550116	Electric Coil	1
2	CR550117	Brake Linings & Rivets	1 SET
3	CR550118	Brake Shoes	2
4	CR550119	Torque Spring	1
5	CR550120	Magnet Unit (Less Coil)	1
6	CR550121	Magnet Carrier Arm (Less Shoe)	1
7	CR551022	Plain Arm (Less Shoe)	1
8	CR550123	Base	1

It is not possible to supply other major parts as separate items. If any other items are required it will be necessary to replace the complete brake assembly. This is due to the number of brake units fitted over the years from different manufacturers and the difficulties encountered identifying the different types. When ordering spares please quote the voltage, make, model and if possible the serial number together with a full description of the part required. When ordering replacement brake linings please give the physical dimensions together with the number of rivet holes required.

180 LITRE WATER TANK LESS HYDROBOT



AIR CONTROLS



WATER TANK 180 LITRES LESS HYDROBOT

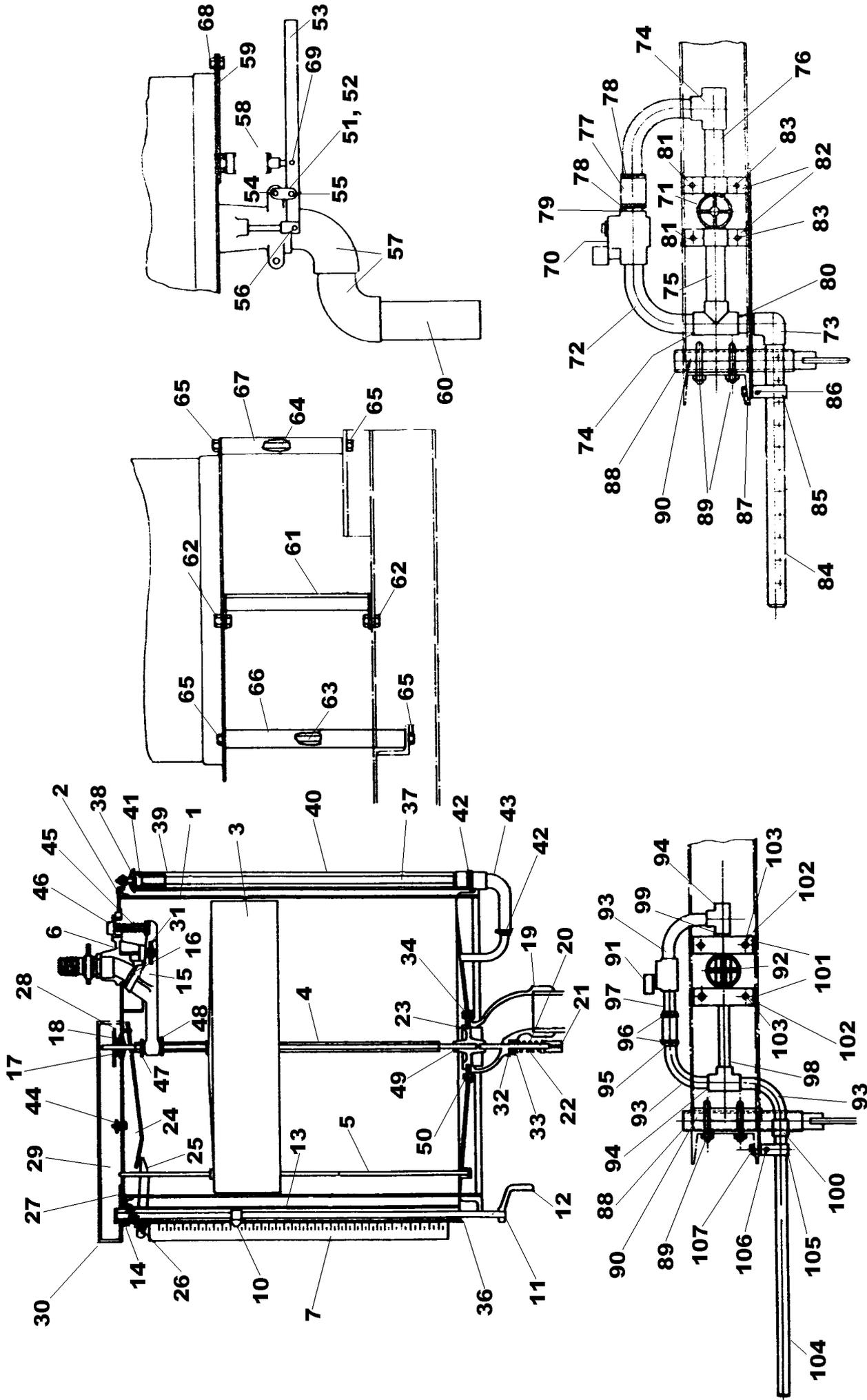
1	CR210153	Outlet Pipe	1
3	CR520205	Float Centre Spindle	1
4	CR520206	Float Guide Rod	1
5	CR520207	Fulcrum Pin	1
6	CR520202	Outlet Valve Spindle	1
7	CR520203	Indicator Adjusting Rod	1
8	CR530545	Indicator Guide Tube	1
9	CR479000	Indicator Scale	1
*	CR530546	Indicator Scale Stiffener	1
*	CR540502	Indicator Scale Support	1
10	CR210150	Indicator	1
11	CR660015	Guide Tube Bush	1
12	CR210149	Indicator Adjusting Rod Handle	1
13	CR630304	Collar	1
14	CR450026	Gauge Glass	1
15	CR540498	Gauge Glass Guard	1
16	CR510475	Gauge Glass Cover Rubber	1
17	CR260112	Gauge Glass Cover	1
18	CR240269	Gauge Glass Guard Bolt	1
19	CR540141	Gauge Glass Cover Support	1
20	CR243005	Connecting Clip+A1	1
21	CR510329	Gauge Glass Connecting Pipe	1
22	CR450003	Tank Body	1
23	CR450037	Tank Body Lid	1
24	CR450038	Float	1
25	CR560118	Outlet Pipe Joint	1
26	CR490025	Washers	1
27	CR630302	Locating Collars	1
28	CR330058	Inlet Valve Lever Spring	1
29	CR210151	Inlet Valve Lever	1
30	CR210152	Inlet Valve	1
*	CR570015	Inlet Valve Rubber	1
31	CR260445	Locking Plate	1
32	CR210029	Centre Bearing	1
33	CR200009	Centre Bearing Chain Pinion	1
34	CR210022	Centre Bearing Housing	1
35	CR540147	Chain Guide	1
36	CR200031	Adjusting Rod Chain Pinion	1
37	CR200058	Chain	1
38	CR540497	Chain Guard	1
39	CR210148	Inlet Valve Body	1
40	CR450039	Inlet Valve Lever Spring Adjuster	1
41	CR560019	Outlet Valve Spindle Seal	1
*	CR490031	Outlet Valve Spindle Washer	1
42	CR330028	Outlet Valve Spring	1
43	CR520058	Outlet Valve Spindle Pin	1
44	CR530118	Link	1
45	CR520049	Link Pin	1
46	CR530095	Outlet Valve Spindle End	1
47	CR450006	Operating Handle	1
48	CR210154	Outlet Valve	1
49	CR570016	Outlet Valve Rubber	1

WATER TANK 180 LITRES LESS HYDROBOT

54	CR520056	Fulcrum Bolt	1
55	CR530118	Operating Lever Pivot (air control)	1
56	CR629000	Serial No Plate	1
62	CR110306	Air Cylinder	1

* NOT ILLUSTRATED

180 LITRE WATER TANK WITH HYDROBOT



ARRANGEMENT OF 1 1/4" HYDROBOT

ARRANGEMENT OF 3/4" HYDROBOT

RP850 180 LITRE (40 GAL) WATER TANK WITH HYDROBOT

1	CR450003	Tank Body
2	CR450037	Tank Body Lid
3	CR450038	Float
4	CR520205	Float Centre Spindle
5	CR520206	Float Guide Rod
6	CR210148	Inlet Valve Body (High Pressure)
7	CR470010	Inlet Valve Body (Low Pressure)
8	CR530546	Indicator Scale
9	CR540502	Indicator
10	CR210150	Indicator Adjusting Rod
11	CR520203	Indicator Adjusting Rod Handle
12	CR210149	Indicator Guide Tube
13	CR530545	Inlet Valve Lever
14	CR630304	Inlet Valve (High Pressure)
15	CR210161	Inlet Valve (Low Pressure)
16	CR570015	Outlet Valve
17	CR210022	Centre Bearing Housing
18	CR210029	Centre Bearing
19	CR210153	Outlet Pipe
20	CR520202	Outlet Valve Spindle
21	CR530604	Outlet Valve Spindle End
22	CR330028	Outlet Valve Spring
23	CR570016	Outlet Valve Rubber
24	CR260445	Locking Plate
25	CR530605	Release Lever
26	CR330016	Release Lever Spring
27	CR200031	Adjusting Rod Chain Pinion
28	CR200032	Centre Bearing Chain Pinion
29	CR200058	Chain
30	CR540497	Chain Guard
31	CR520207	Fulcrum Pin
32	CR560019	Outlet Valve Spindle Seal
33	CR490031	Outlet Valve Spindle Washer
34	CR560118	Outlet Pipe Joint
35	CR510058	Hose Connection
36	CR660015	Guide Tube Bush
37	cr450026	Gauge Glass
38	CR260112	GaugeGlass Cover
39	CR510349	Gauge Glass Cover Rubber
40	CR540498	Gauge Glass Guard
41	CR240034	Gauge Glass Guard Bolt
42	CR243005	Connecting Clips
43	CR510078	Connecting Tube
44	CR530606	Chain Guide
45	CR330058	Inlet Valve Lever Spring
46	CR450039	Inlet Valve Lever Spring Adjuster
47	CR630138	Locating Collars

RP850 180 LITRE (40 GAL) WATER TANK WITH HYDROBOT

48	CR490025	Washers
49	CR210154	Outlet Valve
50	CR241628	Outlet Pipe Nuts
51	CR530097	Link
52	CR660001	Distance Piece
53	CR450006	Operating Handle
54	CR520056	Fulcrum Pin
55	CR520049	Link Pin
56	CR520058	Outlet Valve Spindle Pin
57	CR510076	Elbow
58	CR110041	Air Cylinder
59	CR260097	Air Cylinder Support Bracket
60	CR510398	Outlet Pipe
61	CR530617	Tank Support Bracing
62	CR240112	Tank Support Bracing Bolts
63	CR530607	Tank Support Pipe Bolt - Long
64	CR530608	Tank Support Pipe Bolt - Short
65	CR241506	Tank Support Pipe Bolt Nuts
66	CR260596	Tank Support Pipe - Long
67	CR260597	Tank Support Pipe - Short
68	CR240084	Air Cylinder Support Bracket Bolt
69	CR530119	Air Cylinder Pivot Pin
70	CR450022	Solenoid Valve
71	CR450023	Stop Valve
72	CR510053	Bend
73	CR510052	Elbow
74	CR510087	Tee Piece
75	CR530124	Connecting Pipe
76	CR530123	Connecting Pipe
77	CR510088	Connecting Rubber
78	CR240003	Connecting Rubber Clip
79	CR530125	Connecting Pipe
80	CR530122	Connecting Pipe
81	CR530618	Valve Support
82	CR243006	Valve Clamp
83	CR240045	Valve Clamp Bolt
84	CR530609	Spray Pipe
85	CR530610	Pipe Clamp
86	CR240011	Pipe Clamp Adjusting Bolt
87	CR240045	Pipe Clamp Bolt
88	CR260567	Probe
89	CR540612	U-Bolt
90	CR530120	Probe Clamp
91	CR450024	Solenoid Valve
92	CR450028	Stop Valve
93	CR510091	Bend
94	CR510092	Tee Piece
95	CR510094	Connecting Rubber
96	CR240002	Connecting Rubber Clip

RP850 180 LITRE (40 GAL) WATER TANK WITH HYDROBOT

97	CR530541	Connecting Pipe
98	CR530338	Connecting Pipe
99	CR530340	Connecting Pipe
100	CR510093	Ferrule
101	CR530618	Valve Support
102	CR540656	Valve Clamp
103	CR240045	Pipe Clamp Adjusting Bolt
104	CR240045	Valve Clamp Bolt
105	CR530616	Pipe Clamp
106	CR240011	Pipe Clamp Adjusting Bolt
107	CR240045	Pipe Clamp Bolt

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**OPERATING
AND
MAINTENANCE MANUAL**

SECTION 6

ELECTRICAL SYSTEM

ELECTRICAL INFORMATION

1. The mixing pan and mixing star motors should be interconnected in the control to operate at the same time, as it is important that both are working before a mix is added. Ensure that suitable overloads are fitted. The mixing pan and mixing star rotate anti-clockwise when looking from the top.

NOTE: With motors 5.5 kw and above, use Star Delta Starters. Below this, use Direct on Line Starters.

2. When a loader is attached a direct on line reversing starter is required complete with suitable overloads. The loader winch rotates anti-clockwise looking from the rope drum end and when the raise button is pressed.

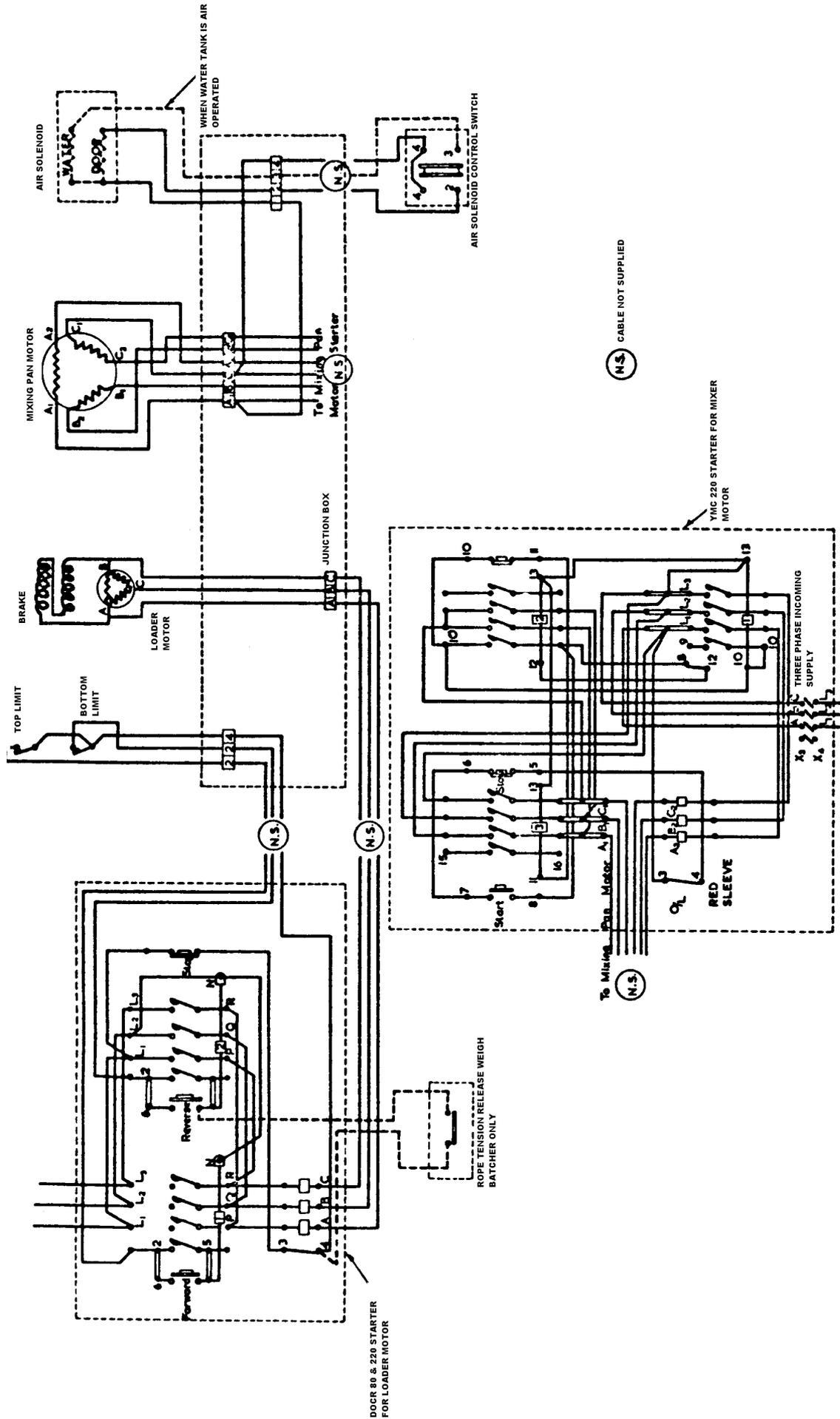
The upper and lower limit switches are positioned to break the electrical supply to the loader motor when the loading hopper is in the required position at the top and bottom of the runway.

3. The door control solenoid has to be energised when the mixer door is required in the open position.

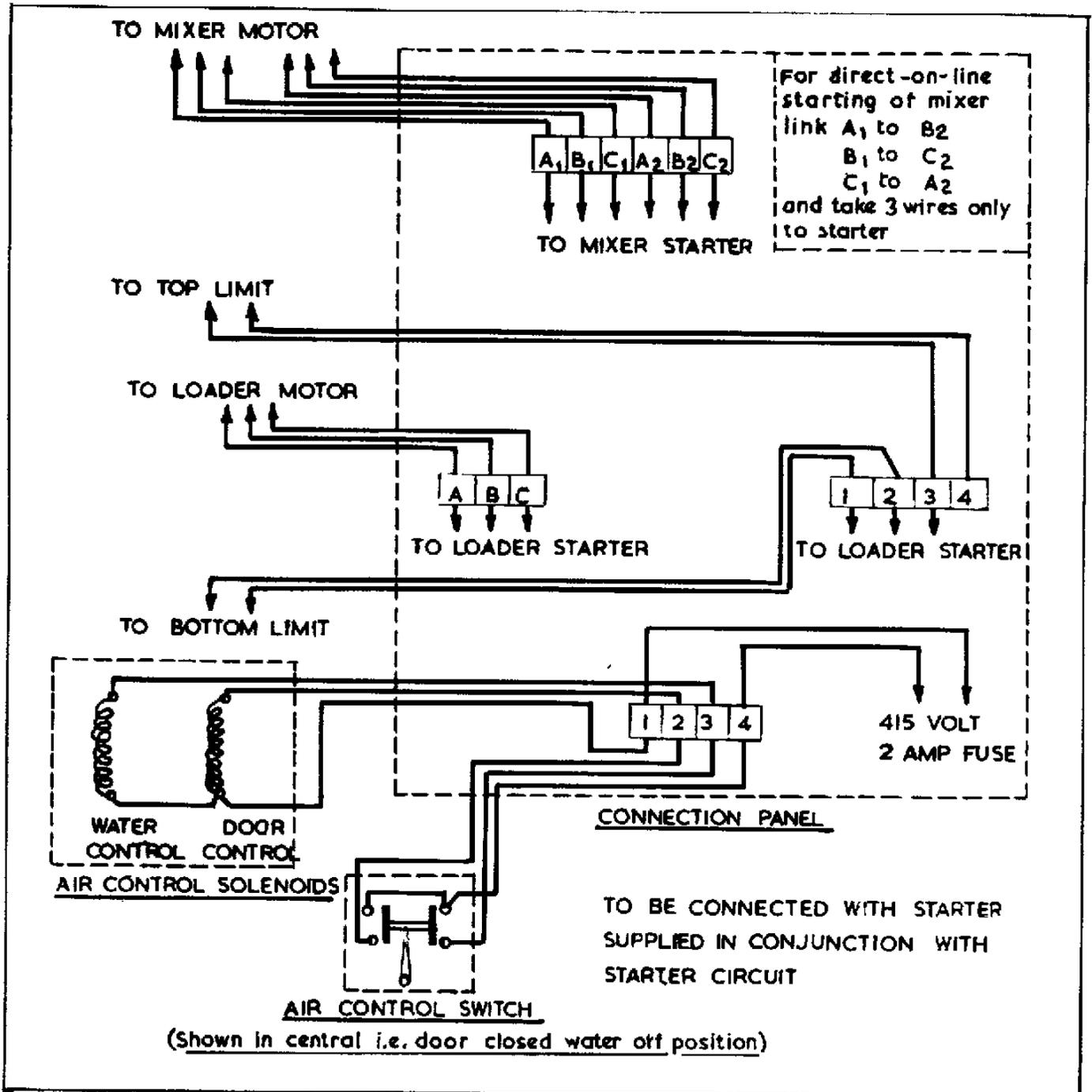
It is advisable to mount the starters away from the machine on supports free from vibration.

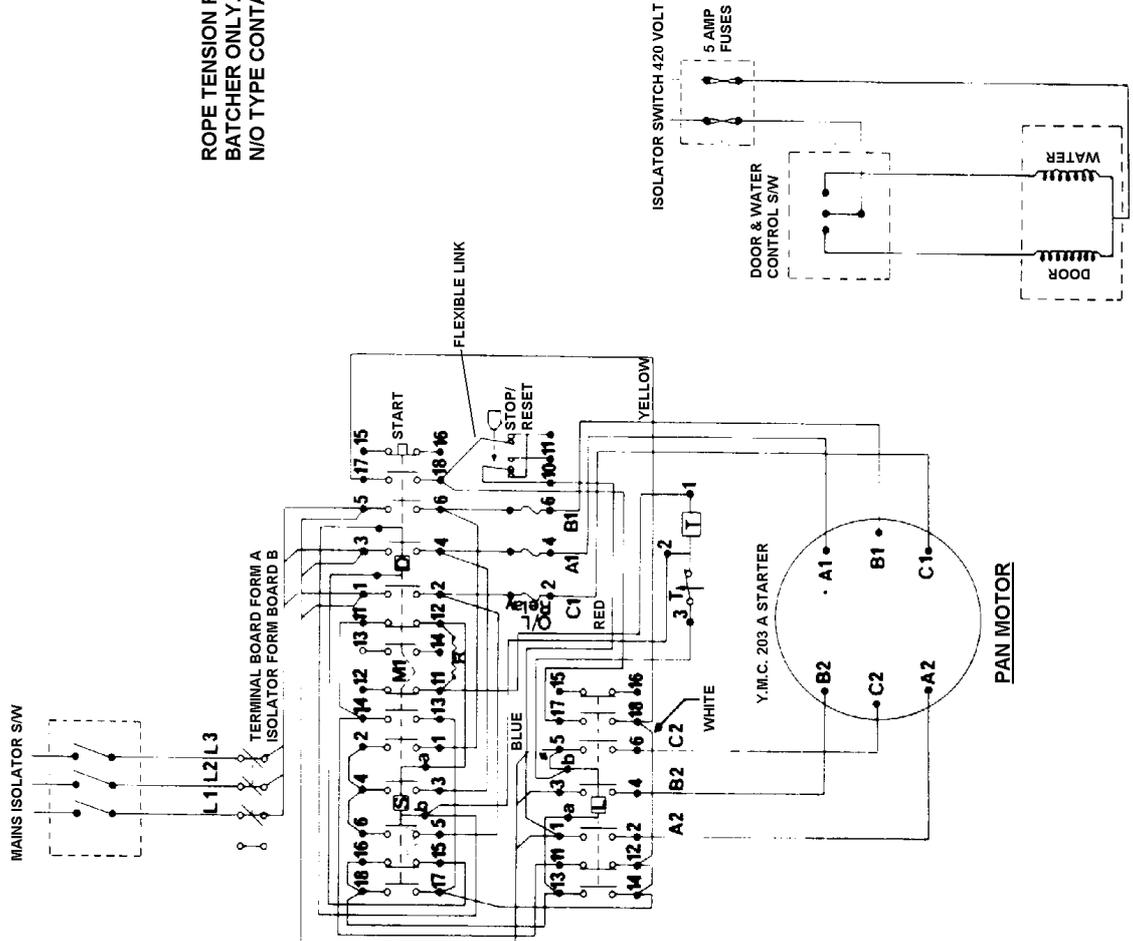
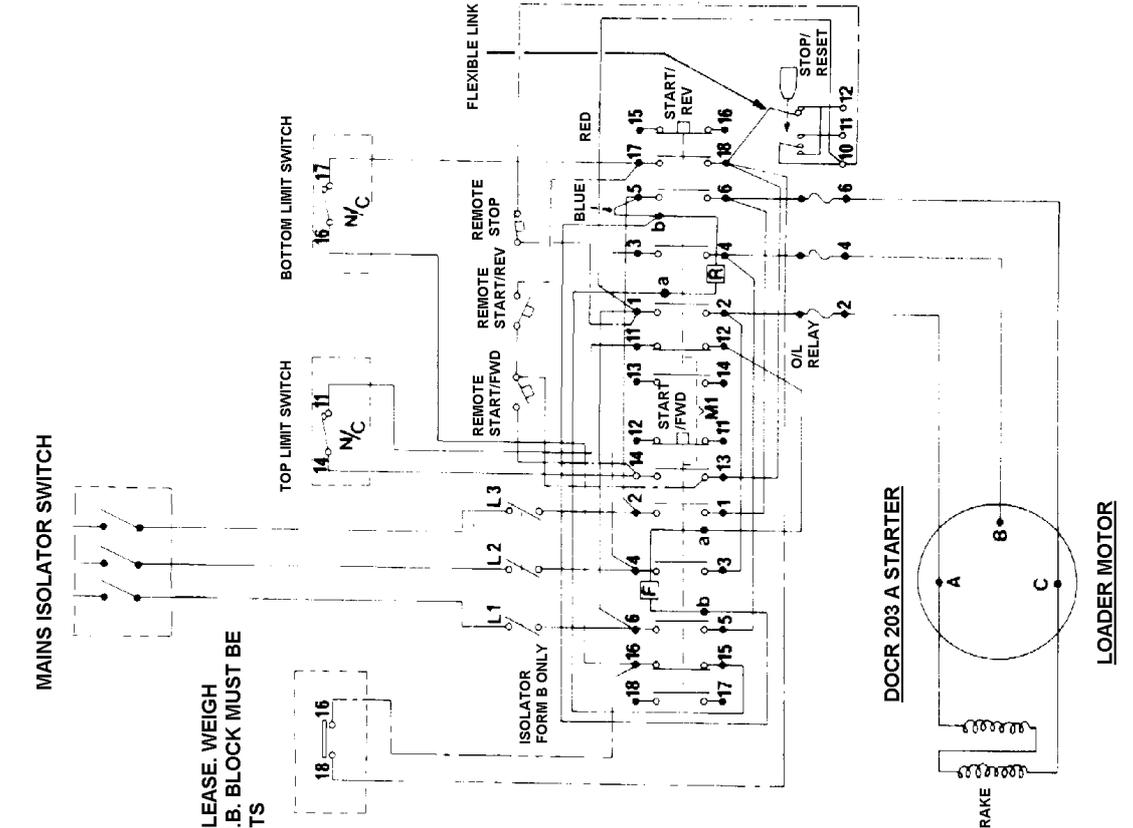
4. **IMPORTANT NOTICE:** All work on plant electrics including control panel circuits to be undertaken by a suitably qualified and competent electrical person.

WIRING DIAGRAM FOR 'RP850' CUMFLOW MIXER WITH LOADER, AIR OPERATED DISCHARGE GEAR & WATER TANK FOR USE WITH AEI STARTERS AND ELECTRIC MOTORS



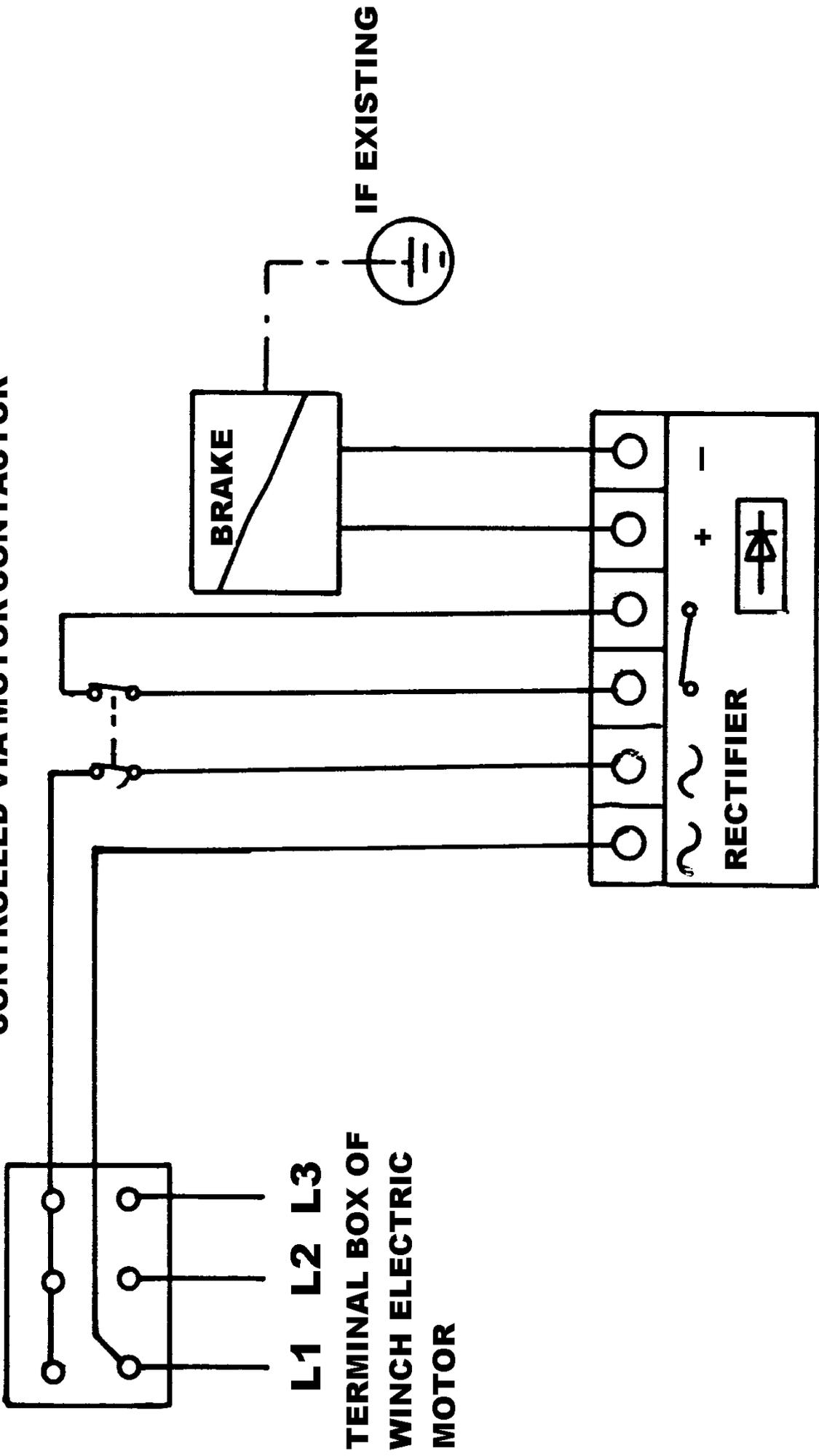
WIRING DIAGRAM BROOKS STARTERS





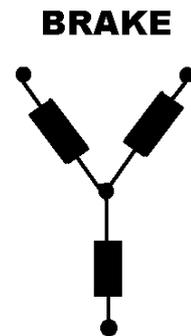
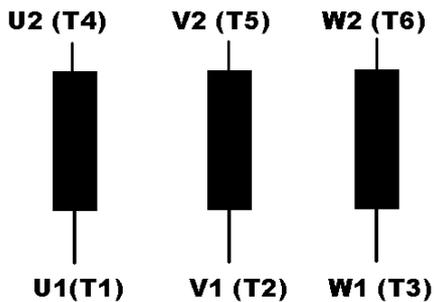
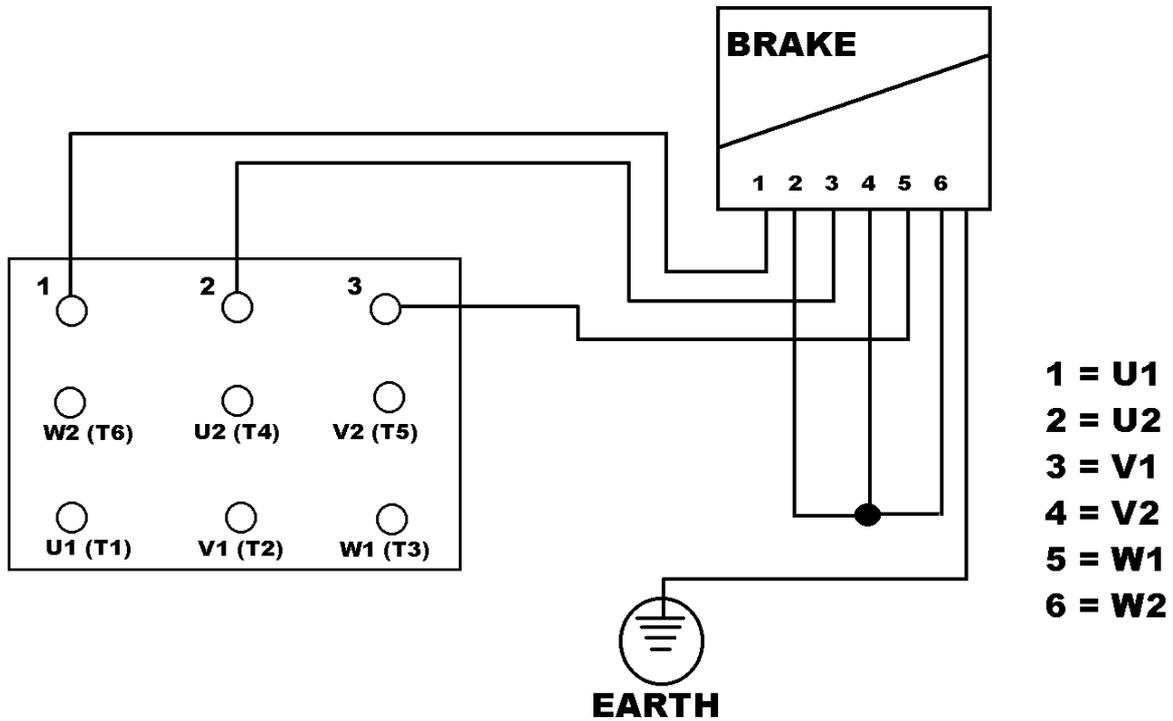
RP850 BRAKE MOTOR WIRING LAYOUT

**CONTACTOR-RATED 110V DC
CONTROLLED VIA MOTOR CONTACTOR**



RP850 WINCH MOTOR BRAKE WIRING

FLENDER THREE PHASE BRAKE SEPARATELY SWITCHED (9 PIN TERMINAL BLOCK)



MOTOR CONNECTIONS

UP TO AND INCLUDING 4.0KW DIRECT ON LINE STARTING

LINK W2 TO U2
LINK U2 TO V2

ABOVE 4.0KW DIRECT ON STARTING

LINK W2 TO U1
LINK U2 TO V1
LINK V2 TO W1

ABOVE 4.0KW STAR DELTA STARTING

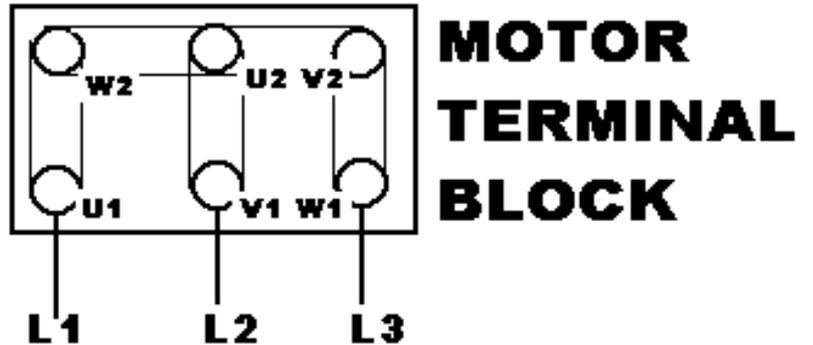
NO LINKING

RP850 FLENDER MOTOR WIRING DIAGRAM

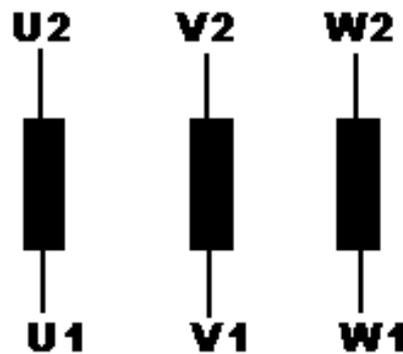
MOTORS UPTO & INCLUDING 4.0Kw

SEE SEPARATE PAGE FOR MOTORS

5.5Kw AND ABOVE



TO REVERSE DIRECTION OF ROTATION CHANGE OVER ANY TWO SUPPLY LEADS



<u>SUPPLY</u>	<u>METHOD OF START</u>	<u>CONNECTION STAR</u>	<u>LINK</u>
415/3/50	DIRECT ON LINE		W2-U1
380/3/50			U2-V1
			V2-W1

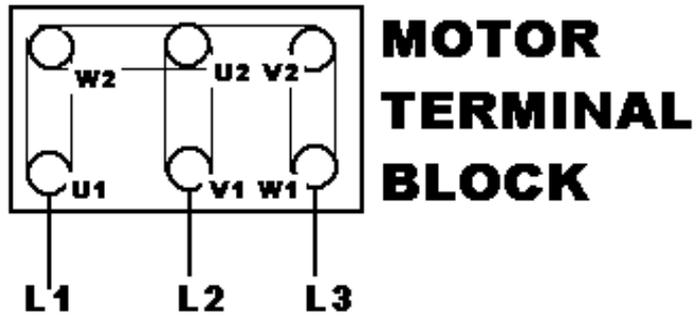
UPTO & INC 4.0Kw

RP850 FLENDER MOTOR WIRING DIAGRAM

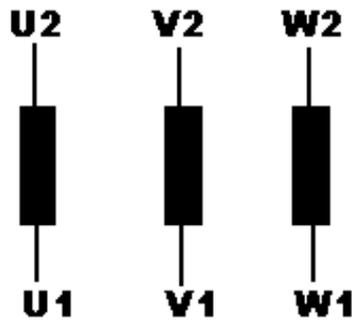
MOTORS 5.5Kw AND ABOVE ONLY

SEE SEPARATE PAGE FOR MOTORS

4.0Kw & BELOW



**TO REVERSE DIRECTION
OF ROTATION CHANGE
OVER ANY TWO SUPPLY
LEADS**



**STAR DELTA STARTING
NO LINKING REQUIRED**

<u>SUPPLY</u>	<u>METHOD OF START</u>	<u>CONNECTION DELTA</u>	<u>LINK</u>
415/3/50 380/3/50	DIRECT ON LINE		W2-U1 U2-V1 V2-W1

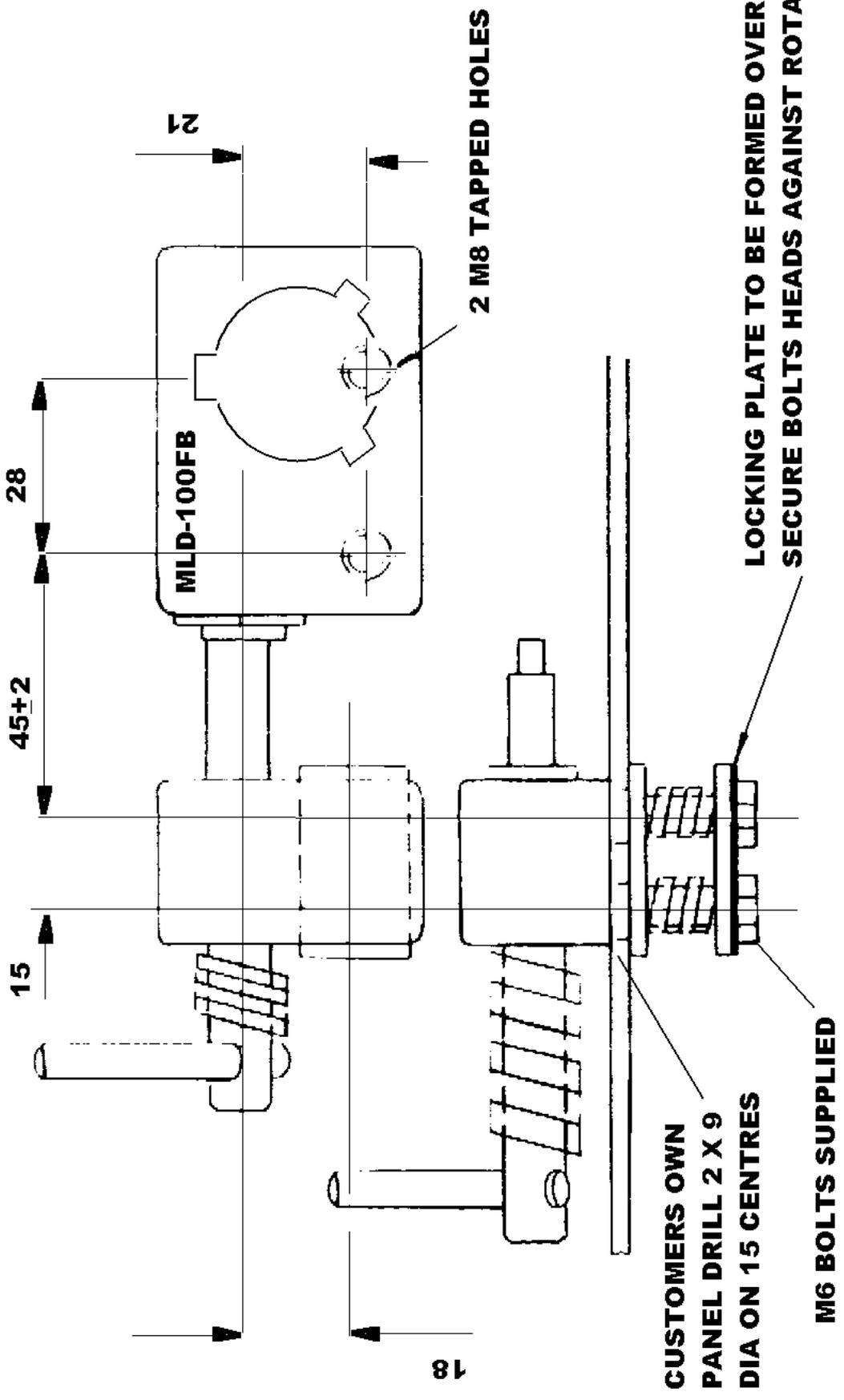
5.5Kw & ABOVE

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INTERLOCK DOOR MECHANISM

NOTE SUPPLY WITH FOLLOWING ITEMS

1. KEY STANDARD MLK100
2. DUST CAP MLM100



MISTURA DOOR INTERLOCK MECHANISM

1	CR719072	Interlock Door MLD100FB	A/R
2	CR229093	Key MLK100A Code A	A/R
2A	CR229094	Key MLK100B Code B	A/R
2B	CR229124	Key MLK100C Code C	A/R
3	CR229125	Cap Dust MLM100	A/R

When ordering replacement keys quote code of interlock mechanism

**OPERATING
AND
MAINTENANCE MANUAL**

SECTION 7

PNEUMATIC SYSTEM

SHUTDOWN PROCEDURE – PNEUMATICS

(This procedure to be read in conjunction with electrical procedure – see section six).

We Recommend

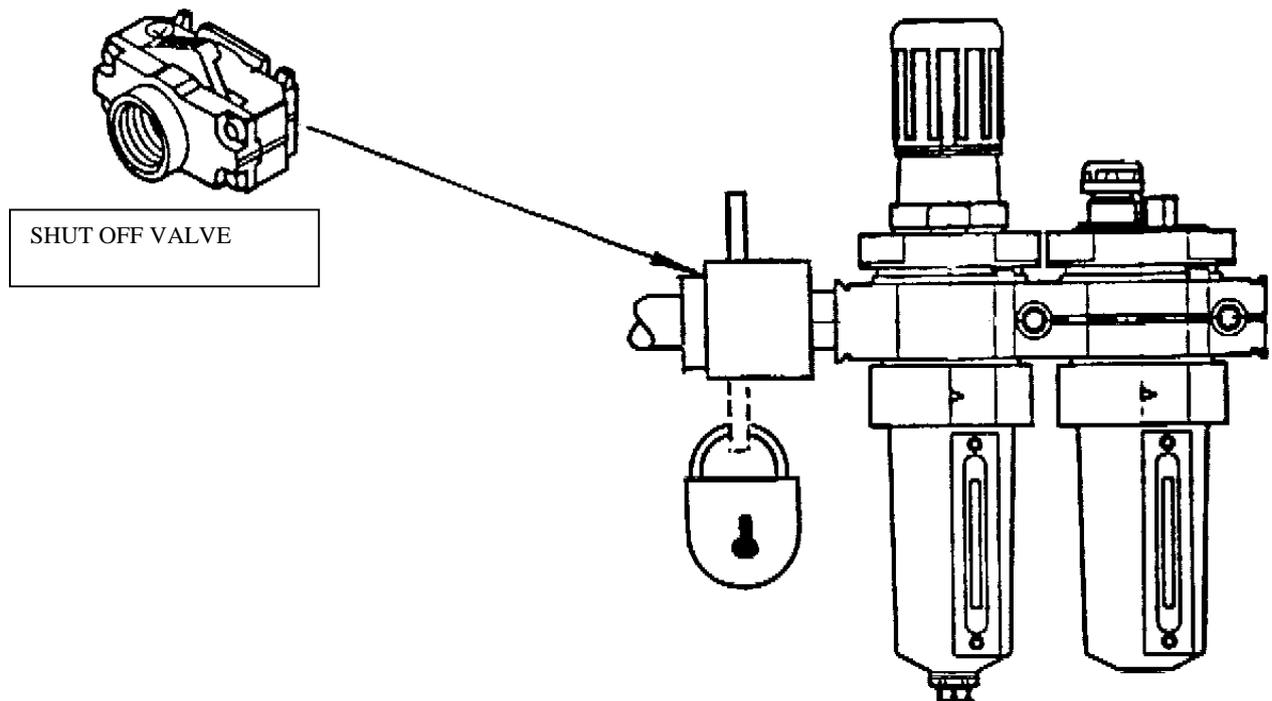
A lockable dump valve be fitted in the feed line to our mixing equipment (see drawing below).

Prior to any maintenance, the mixing equipment must be isolated using the above padlockable shut off valve. When put to the dump position, air will be allowed to vent to atmosphere removing the potential stored energy hazard. With the system in this condition, the mixer door will open and discharge blade will lower.

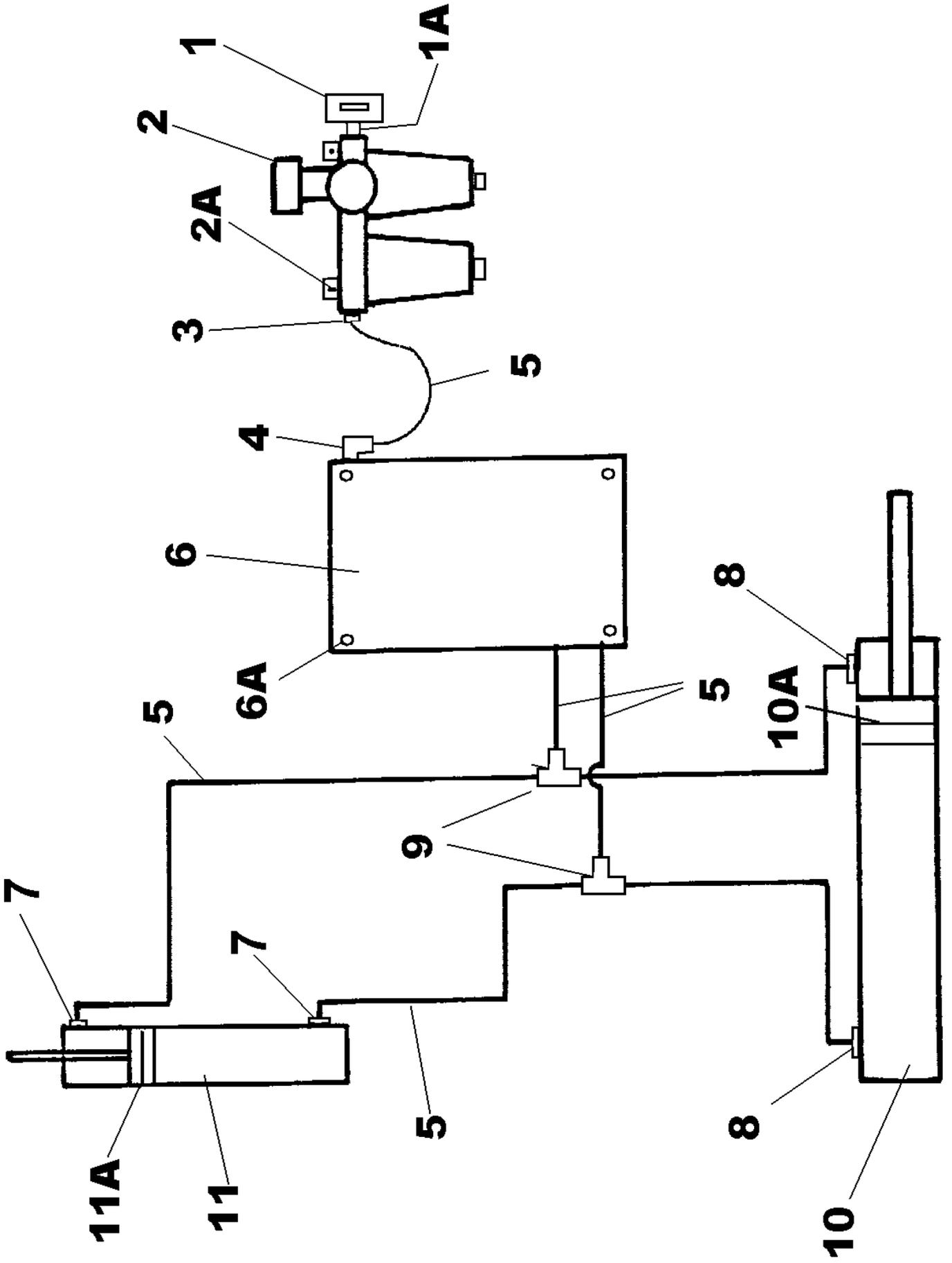
Important

Prior to entry into mixing pan, the air supply must be exhausted and isolated as above. Check door is fully open and the discharge blade rests upon pan base before commencing maintenance/cleaning. Also check that the pressure gauge reads zero.

Should blade or door remain up or partially closed, it is imperative that the cause is investigated and dealt with prior to entering mixing pan. See maintenance section.



RP850 PNEUMATIC LAYOUT (PLASTIC PUSH IN FITTINGS)



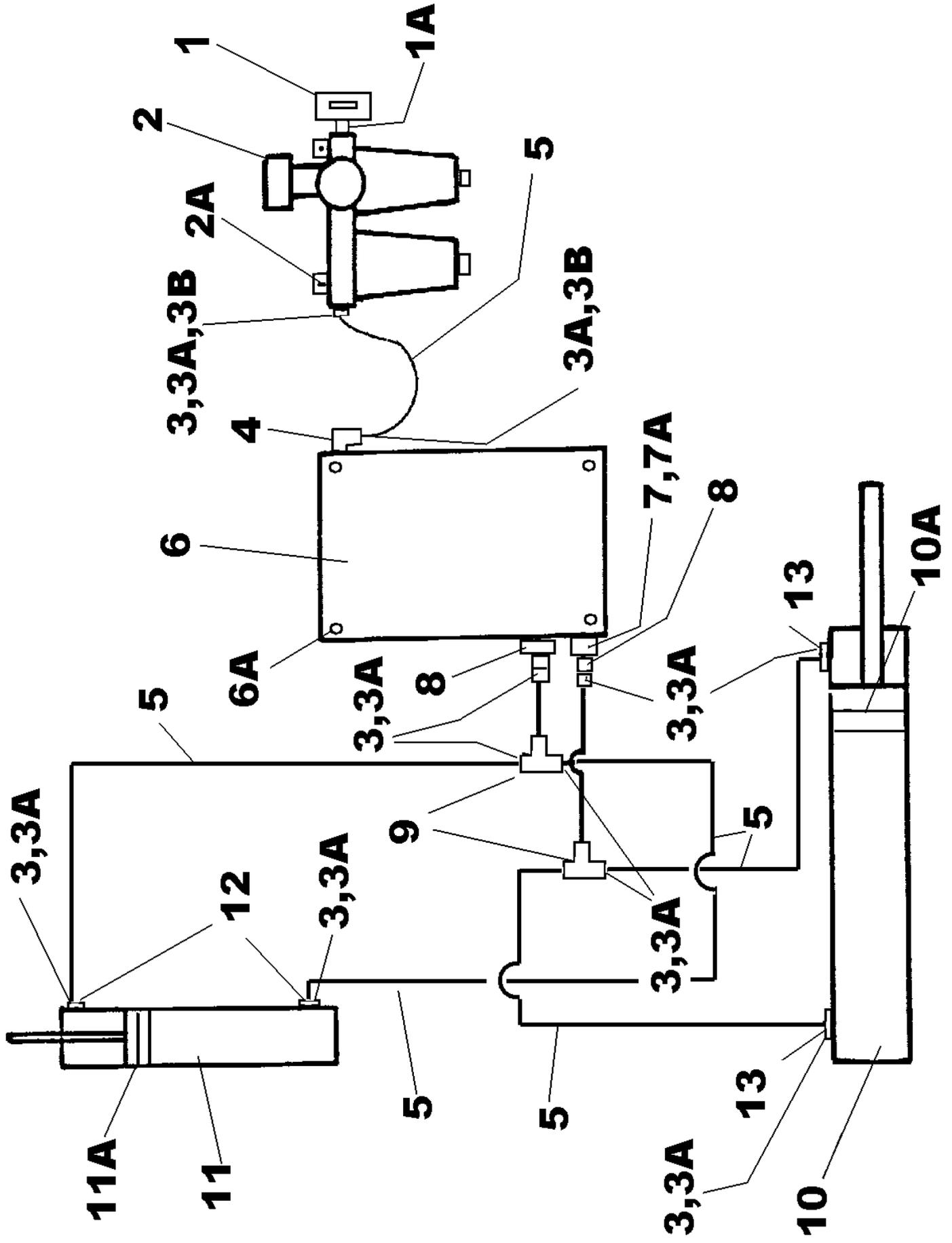
RP850 PNEUMATIC CIRCUIT (PLASTIC PUSH IN FITTINGS)

1	CR119347	Shut Off Valve	1
1A	191S03	1/2"-1/2" BSP Male/Male Nipple Adaptor Tapered	1
2	CR110005	Air Service Unit/Regulator/Lubricator	1
2A	11S03C	Screw Set Air Unit/Regulator Retaining	4
2B	267S05	Washer Flat	8
2C	17S04	Washer Spring	4
2D	7S03	Nut	4
Available spares for Air Service Unit as itemised Below:			
*	CR119373	Bowl Regulator	1
*	CR119374	Bowl Lubricator	1
*	CR119375	Filter Repair Kit	1
*	CR119376	Filter Element	1
*	CR119377	Lubricator Repair Kit	1
*	CR119378	Gauge Pressure	1
*	CR119379	Bracket Mounting	2
3	CR119261	1/2" BSP Male x 12mm Fem Push In Straight Adaptor	1
4	CR119265	1/2" BSP Male x 12mm Female Push In Elbow	1
5	CR119119	12mm Diameter Plastic Air Hose	A/R
6	CR119190	Electric/Pneumatic Solenoid Control Box Single Acting 110 Volt	1
6A	CR119240	Electric/Pneumatic Solenoid Control Box Double Acting 110 Volt	1
6B	11S03C	Screw Set Control Box Retaining	4
6C	267S05	Washer Flat	8
6D	17S04	Washer Spring	4
6E	7S03	Nut	4
7	CR119264	3/8" BSP Male x 12mm Female Push In Elbow, Discharge Blade Cylinder, both ends	2
7A	CR119129	Alternative 3/8" BSP Male x 12mm Female Push In Straight Adaptor for Bottom End of Discharge Blade Cylinder, if required	
8	CR119265	1/2" BSP Male x 12mm Female Push In Elbow, Discharge Door Cylinder, both ends	2
8A	CR119261	Alternative 1/2" BSP Male x 12mm Female Push In Straight Adaptor for Discharge Door Cylinder, both ends	2
9	CR119267	12mm Tee Plastic Push In	2
10	CR110305	Pneumatic Cylinder Discharge Door	1
10A	CR110326	Seal Kit For Item 10	1
11	CR110304	Pneumatic Cylinder Discharge Blade	1
11A	CR110323	Seal Kit For Item 11	1
12	V2003253	Cable Tie Nylon Long (not illustrated)	A/R
13	V2003111	Cable Tie Nylon short (not illustrated)	A/R
14	CR119215	M12 Female- M12 Male Push In Elbow, if required	A/R

The following alternative items are used to reduce from 12mm diameter Air Hose to 8mm diameter Air Hose if required

CR119208	M12 Male - M8 Female Straight Push In Reducer	A/R
CR119133	8mm Diameter Plastic Air Hose	A/R

RP850 PNEUMATIC LAYOUT (BRASS FITTINGS)

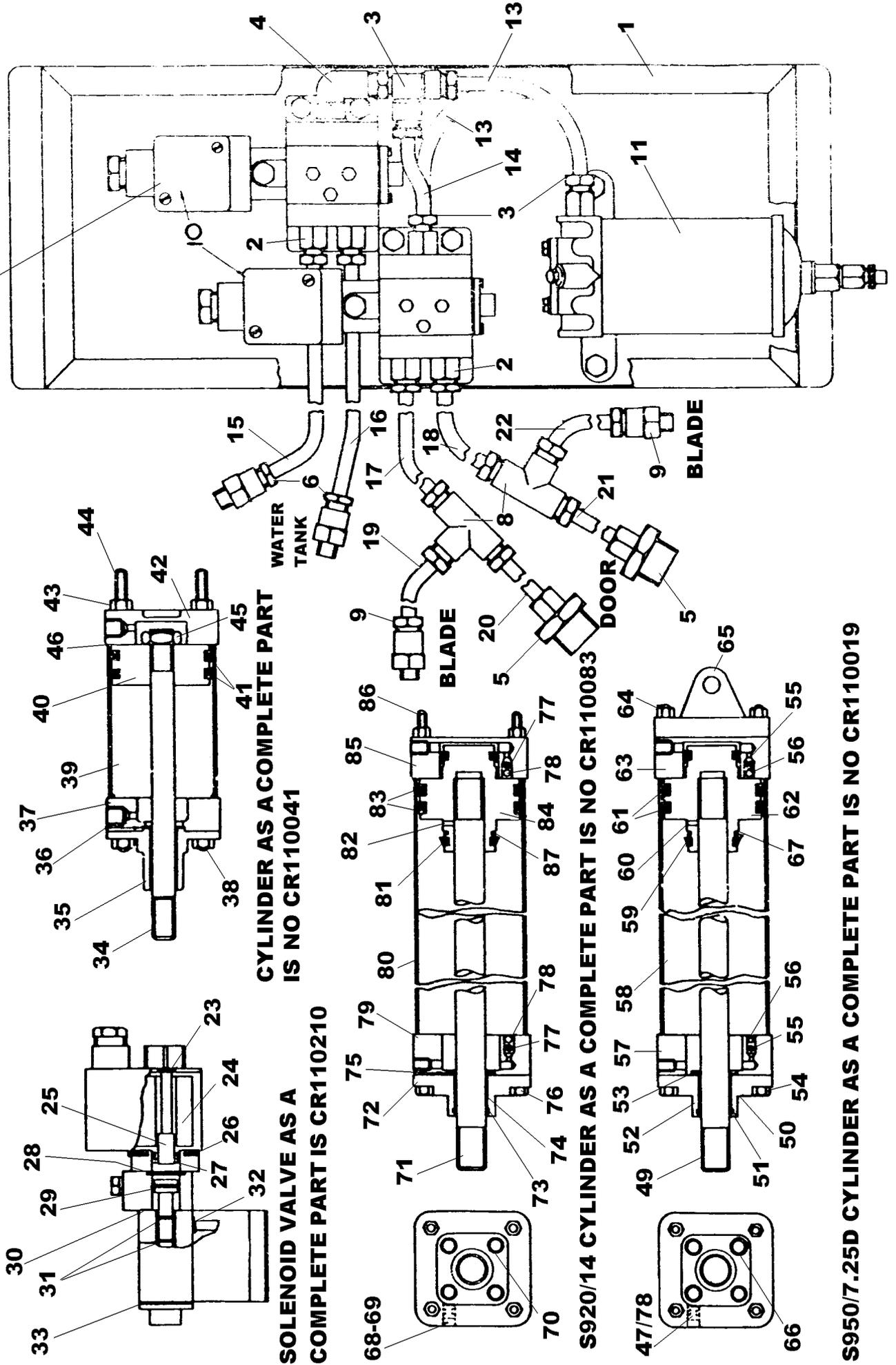


RP850 PNEUMATIC CIRCUIT (BRASS FITTINGS)

1	CR119347	Shut Off Valve	1
1A	191S03	1/2"-1/2" BSP Male/Male Nipple Adaptor Tapered	1
2	CR110005	Air Service Unit/Regulator/Lubricator	1
2A	11S03C	Screw Set Air Unit/Regulator Retaining	4
2B	267S05	Washer Flat	8
2C	17S04	Washer Spring	4
2D	7S03	Nut	4
Available spares for Air Service Unit as itemised below:			
*	CR119373	Bowl Regulator	1
*	CR119374	Bowl Lubricator	1
*	CR119375	Filter Repair Kit	1
*	CR119376	Filter Element	1
*	CR119377	Lubricator Repair Kit	1
*	CR119378	Gauge Pressure	1
*	CR119379	Bracket Mounting	2
3	CR119123	1/2" BSP x 12mm Straight Adaptor	1
3A	CR119118	Tube Olive 12mm	14
3B	CR119117	Tube Nut 12mm	14
4	CR119127	1/4" BSP x 12mm Elbow	1
5	CR119119	12mm Plastic Air Hose	A/R
6	CR110210	Air Solenoid Valve	1
7	CR119138	Tubed Nipple 1/4" BSP	1
7A	CR510412	Female Ferrule 1/4" BSP	1
8	CR119128	1/4" BSP x 12mm Straight Adaptor	2
9	CR119135	12mm Tee Adaptor	2
10	CR110305	Pneumatic Cylinder Discharge Door	1
10A	CR110326	Seal Kit For Item 10	1
11	CR110304	Pneumatic Cylinder Discharge Blade	1
11A	CR110323	Seal Kit For Item 11	1
12	CR119129	3/8" BSP x 12mm Elbow	2
13	CR119120	1/2" BSP x 12mm Elbow	2

RP850 AIR EQUIPMENT EARLY MACHINES

SUPPLIED ONLY WHEN WATER TANK IS FITTED WITH AIR CONTROLS



RP850 AIR EQUIPMENT EARLY MACHINES

1	CR540512	Air Valve Control Box
2	CR510313	Straight Connector c/w Nut and Olive
3	CR510108	Side Stem Te c/w Nut & Olive
4	CR510109	Elbow c/w Nut & Olive
5	CR510110	Stud Coupling c/w Nut & Olive
6	CR510308	Straight Connector c/w Nut and Olive
7	CR510111	Olives (not illustrated)
8	cr510112	Tee connector c/e Nut & Olive
9	CR510313	Straight Connector c/w Nut and Olive
10	CR110210	Soleniod Valve
11	CR110014	Air Line Lubricator
12	CR510316	Nylon Tube 6 1/4" Long
13*	CR510316	Nylon Tube 6 1/4" Long
14*	CR510316	Nylon Tube 3 1/2" Long
15*	CR510316	Nylon Tube
16*	CR510316	Nylon Tube
17	CR510316	Nylon Tube
18	CR510316	Nylon Tube
19	CR510316	Nylon Tube
20	CR510316	Nylon Tube
21	CR510316	Nylon Tube
22	CR510316	Nylon Tube
23	CR560038	'O' Ring
24	CR220075	Solenoid Coil
25	CR220076	Core Sub-Assembly
26	CR560039	'O' Ring
27	CR330074	Spring
28	CR560040	'O' Ring
29	CR560044	'O' Ring
30	CR560046	'O' Ring
31	CR560043	'O' Ring
32	CR560045	'O' Ring
33	CR490024	Base Washer
34	CR110042	Piston Washer
35	CR110044	Piston Rod Bearing
36	CR110051	Piston Rod Packing
37	CR110045	Front End Cover
38	CR110054	Front Tie Rod Nut
39	CR110050	Cylinder Barrel
40	CR110046	Piston
41	CR110049	Piston Seal
42	CR110048	Blank End Cover
43	CR110053	Rear Tie Rod Nuts
44	CR110047	Tie Rod
45	CR110055	Lock Nut
46	CR110052	Gasket
47	CR110035	Cushion Adjusting Seals
48	CR110025	Cushion Adjusting Screws
49	CR110034	Piston Rod
50	CR110023	Piston Rod Bearing

Parts marked * are required when the Water Tank is fitted with air controls

RP850 AIR EQUIPMENT EARLY MACHINES

51	CR110039	Wiper Seal
52	CR110029	Bearing Bush
53	CR110038	Piston Rod Packing
54	CR110024	Tie Rod Nuts
55	CR110030	Ball
56	CR110031	Pin
57	CR110020	Front End Cover
58	CR110032	Air Cylinder
59	CR110036	Cushion Seals
60	CR110027	Locking Screws
61	CR110037	Piston Seals
62	CR110022	Piston
63	CR110021	Rear End Cover
64	CR110033	Tie Rod
65	CR110033	Rear Trunnion
66	CR110029	Bearing Screws
67	CR110026	Retaining Rings
68	CR110084	Cushion Adjusting Seals
69	CR110085	Cushion Adjusting Screws
70	CR110086	Bearing Screws
71	CR110087	Piston Rod
72	CR110088	Piston Rod Bearing
73	CR110089	Wiper Seal
74	CR110090	Bearing Bush
75	CR110091	Piston Rod Bearing
76	CR110092	Tie RodNuts
77	CR110093	Ball
78	CR110094	Pin
79	CR110095	Front End Cover
80	CR110096	Cylinder Barrel
81	CR110097	Cushion Seals
82	CR110098	Locking Screw
83	CR110099	Piston Seals
84	CR110100	Piston
85	CR110101	Rear End Cover
86	CR110102	Tie Rod
87	CR110103	Retaining Ring

**OPERATING
AND
MAINTENANCE MANUAL**

SECTION 8

MISCELLANEOUS

MISCELLANEOUS

8..1 NOISE DETAILS

Measured in accordance with Directive 79/113EEC at four points around the machine at 1 metre radius and at a height of 1 metre the noise did not exceed 85LPA

RP850 PAN COVER FOR LOADER C/W REAR BOX WITH HINGED COVER, SWINGING LID, SAMPLING TUBE & FUNNEL

1	SCR014	Pan Cover Assembly for Loader c/w Rear Box with Hinged Lid, Swinging lid, Sampling Tube & Funnel, as supplied to Capital	1
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Comprises of following items

2	11S03A	Screw Set Cover Retaining M8 x 16	6
2A	11S03B	Screw Set Cover Retaining M8 x 20	2
3	17S04	Washer Spring M8	8
4	267S05	Washer Flat M8	8
5	CR059002	Door Swinging	1
6	CR059003	Counterbalance Weight	1
7	54S07M	Pin Roll	2
8	8S06U	Bolt M12 Drilled for Lynch Pin	2
9	902S02	Lynch Pin & Chain	2
10	SCR008	Funnel Assembly c/w Retaining Plate	1
11	11S03E	Screw Set Funnel Retaining M8 x 35	4
12	267S05	Washer Flat M8	8
13	17S04	Washer Spring M8	4
14	7S03	Nut M8	4
15	SCR012	Sampling Point	1

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