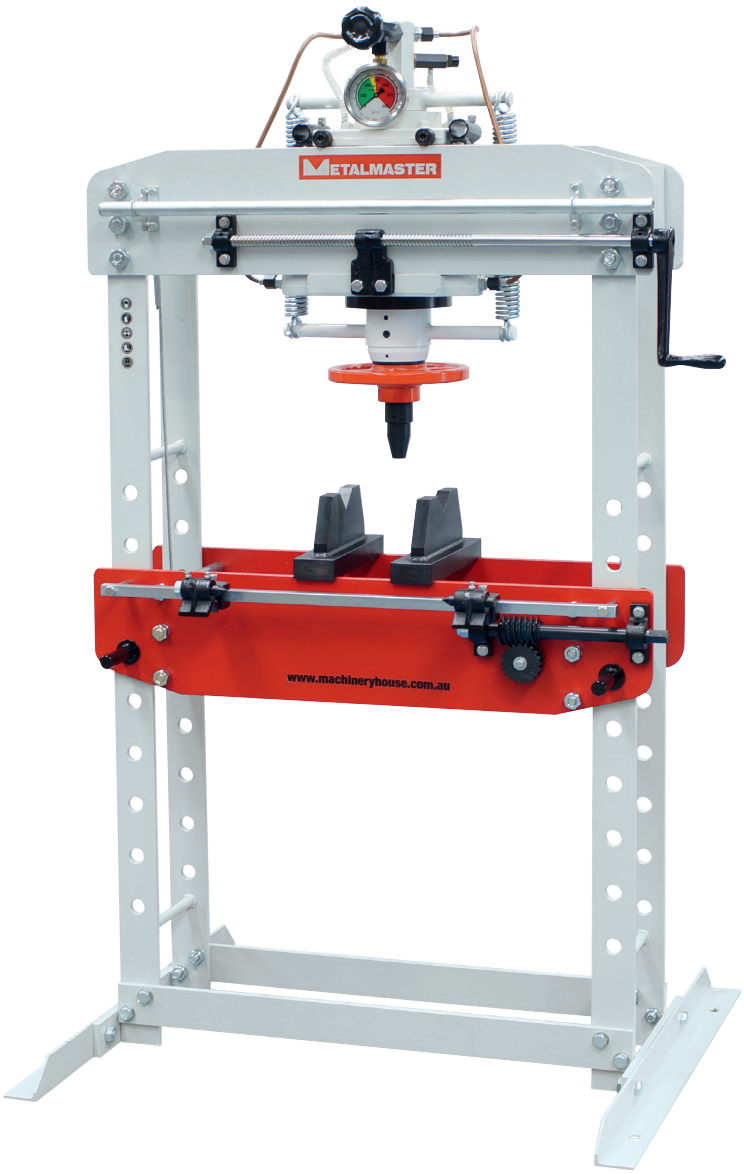
METALMASTER



Edition : 2
Date: (11/26)

Instruction Manual

HYDRAULIC PRESS - 35 TONNE

HDP-35

Order Code: (P129)

MACHINE DETAILS

MACHINE.	Hydraulic Press - 35 Tonne
MODEL NO.	HDP-35
SERIAL NO.	
DATE OF MANF.	

IMPORTED BY

AUSTRALIA

HARE&FORBES MACHINERYHOUSE

www.machineryhouse.com.au

NEW ZEALAND

MACHINERYHOUSE

www.machineryhouse.co.nz

NOTE:
This manual is only for your reference. At the time of the compiling of this manual every effort to be exact with the instructions, specifications, drawings, and photographs of the machine was taken. Owing to the continuous improvement of the METALMASTER machine, changes may be made at any time without obligation or notice. Please ensure the local voltage is the same as listed on the specification plate before operating any electric machine.

SAFETY SYMBOLS:
The purpose of safety symbols is to attract your attention to possible hazardous conditions

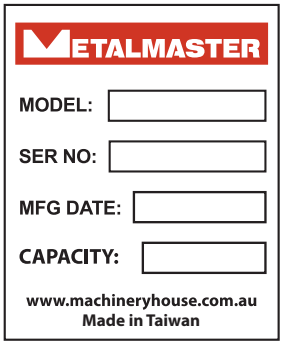
⚠WARNING ***Indicates a potentially hazardous situation causing injury or death***

⚠CAUTION ***Indicates an alert against unsafe practices.***

Note: ***Used to alert the user to useful information***

NOTE:
In order to see the type and model of the machine, please see the specification plate. Usually found on the back of the machine. See example (Fig.1)

FIG.1



C O N T E N T S:

1. GENERAL MACHINE INFORMATION
1.1 Specifications. 4
1.2 Standard Equipment 4
1.3 Identification 5

2. SAFETY
2.1 General Machine Safety 6
2.2 Specific Safety for Hydraulic Press 9
2.2 Machine Safety Precautions 7
2.3 Lifting Instructions 8

3. SET-UP
3.1 Unpacking 10
3.2 Clean-up 10
3.3 Site Preparation 10
3.4 Lifting Instructions 10

4. OPERATION
4.1 Operation Overview 11
4.2 Pressing 11

5. MAINTENANCE
5.1 Removing Air From The System 13
5.2 Troubleshooting 13

Spare Parts 14

WARNING!

The machine is the sole responsibility of the owner for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training, proper inspection and maintenance, manual availability and comprehension. The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

1.1 SPECIFICATIONS

Oder Code	P129
Model	**HDP-35**
Pressing Capacity (Tonne)	35
Hydraulic Ram Operation (Type)	Manual / Hydraulic
Sliding Ram (left-right) (Yes/No)	Yes
Width Between Front Posts (mm)	790
Width Between Side Posts (mm)	208
Table Top Opening - Front to Back (mm)	240
Maximum Ram To Table (mm)	730
Piston Ram Stroke (mm)	130
Ram Diameter (mm)	Ø80
Floor Space (W x D x H) (mm)	1170 x 850 x 1870
Shipping Dimensions (L x W x H) (mm)	1950 x 1100 x 500
Nett Weight (kg)	312.5

1.2 STANDARD EQUIPMENT

- ❒ Screw type rapid approach on ram
- ❒ Heavy duty winch on table rise and fall
- ❒ 100mm pressure gauge
- ❒ Spring return on ram
- ❒ Adjustable dead centres for shaft straightening
- ❒ Vee blocks



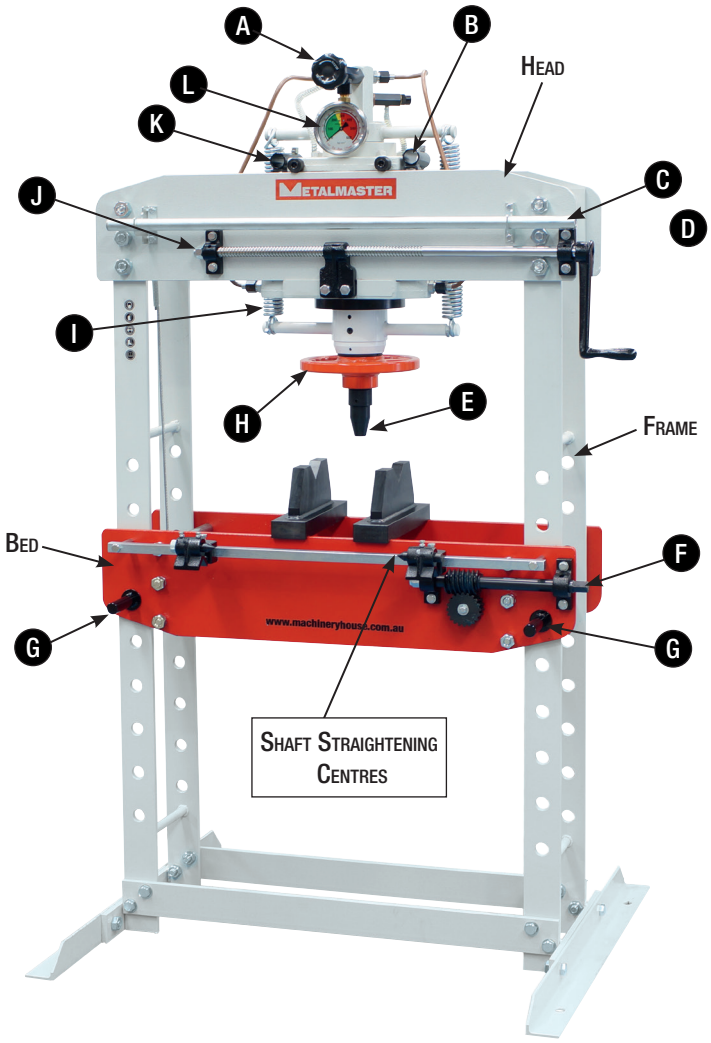


WARNING!

Read and understand the instructions in this manual, before operating this machine to reduce the risk of serious injury or even death. Save all warnings and instructions for future reference.

1.3 IDENTIFICATION

Become familiar with the names and locations of the controls and features shown below to better understand the instructions when mentioned later in this manual.



A	**Release Valve** Controls pressure to the ram.	**G**	**Bed Pins** Supports the table once it is in place
B	**Pump Handle Socket (Slow)** Takes the handle for slow travel of the ram when pumped.	**H**	**Hand Wheel** Rapidly moves the press head up or down
C	**Handle Storage** Storage point for the pump handle.	**I**	**Return Springs** Returns the press head to top position
D	**Head Handle** Moves the head sideways	**J**	**Moving Head Shaft** Slides the head from side to side
E	**Press Head** Pressing point	**K**	**Pump Handle Socket (Fast)** Moves the head down fast.
F	**Crank Gear Shaft** Raises and lowers the table	**L**	**Pressure Gauge** Displays the pressure applied to the ram

2. SAFETY

2.1 GENERAL METALWORKING MACHINE SAFETY

DO NOT use this machine unless you have read this manual or have been instructed in the use of this machine in its safe use and operation.

WARNING!

This manual provides safety instructions on the proper setup, operation, maintenance, and service of this machine. Save this manual, refer to it often, and use it to instruct other operators.

Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury, including amputation, electrocution, or death.

The owner of this machine is solely responsible for its safe use. This responsibility includes, but is not limited to proper installation in a safe environment, personnel training and authorization to use, proper inspection and maintenance, manual availability and comprehension of the application of the safety devices, integrity and the use of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.



- ✓ Always wear safety glasses or goggles.
- ✓ Wear appropriate safety footwear.
- ✓ Wear respiratory protection where required.
- ✓ Gloves should never be worn while operating the machine, and only worn when handling the work piece.
- ✓ Wear hearing protection in areas > 85 dBA. If you have trouble hearing someone speak from one metre (three feet) away, the noise level from the machine may be hazardous.
- ✓ DISCONNECT THE MACHINE FROM POWER when making adjustments or servicing.
- ✓ Check and adjust all safety devices before each job.
- ✓ Ensure that guards are in position and in good working condition before operating.
- ✓ Ensure that all stationary equipment is anchored securely to the floor.
- ✓ Ensure all machines have a start/stop button within easy reach of the operator.
- ✓ Each machine should have only one operator at a time. However, everyone should know how to stop the machine in an emergency.

2.1 GENERAL SAFETY REQUIREMENTS CONT.

- ✓ Ensure that keys and adjusting wrenches have been removed from the machine before turning on the power. Appropriate storage for tooling should be provided.
- ✓ Ensure that all cutting tools and blades are clean and sharp. They should be able to cut freely without being forced.
- ✓ Stop the machine before measuring, cleaning or making any adjustments.
- ✓ Wait until the machine has stopped running to clear cuttings with a vacuum, brush or rake.
- ✓ Keep hands away from the cutting head and all moving parts.
- ✓ Avoid awkward operations and hand positions. A sudden slip could cause the hand to move into the cutting tool or blade.
- ✓ Return all portable tooling to their proper storage place after use.
- ✓ Clean all tools after use.
- ✓ Keep work area clean. Floors should be level and have a non-slip surface.
- ✓ Use good lighting so that the work piece, cutting blades, and machine controls can be seen clearly. Position any shade lighting sources so that they do not cause any glare or reflections.
- ✓ Ensure there is enough room around the machine to do the job safely.
- ✓ Obtain first aid immediately for all injuries.
- ✓ Understand that the health and fire hazards can vary from material to material. Make sure all appropriate precautions are taken.
- ✓ Clean machines and the surrounding area when the operation is finished.
- ✓ Use proper lock out procedures when servicing or cleaning the machines or power tools.

DO NOT

- × Do not distract an operator. Horseplay can lead to injuries and should be strictly prohibited.
- × Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelery that can become entangled in moving parts. Confine long hair.
- × Do not handle cuttings by hand because they are very sharp. Do not free a stalled cutter without turning the power off first. Do not clean hands with cutting fluids.
- × Do not use rags or wear gloves near moving parts of machines.
- × Do not use compressed air to blow debris from machines or to clean dirt from clothes.
- × Do not force the machine. It will do the job safer and better at the rate for which it was designed.



CAUTION!

It is impossible to cover all possible hazards Every workshop environment is different. These are designed as a guide to be used to compliment training and as a reminder to users prior to equipment use. Always consider safety first, as it applies to the individual working conditions.

2.1 GENERAL SAFETY REQUIREMENTS Cont.

HAZARDS ASSOCIATED WITH MACHINES include, but are not limited to:

- Being struck by ejected parts of the machinery.
- Being struck by material ejected from the machinery.
- Contact or entanglement with the machinery.
- Contact or entanglement with any material in motion.

Health Hazards (other than physical injury caused by moving parts)

- Chemicals hazards that can irritate, burn, or pass through the skin.
- Airborne items that can be inhaled, such as oil mist, metal fumes, solvents, and dust.
- Heat, noise, and vibration.
- Ionizing or non-ionizing radiation. (X-ray, lasers, etc.)
- Biological contamination and waste.
- Soft tissue injuries (for example, to the hands, arms, shoulders, back or neck) resulting from repetitive motion, awkward posture, extended lifting, and pressure grip.

Other Hazards

- Slips and falls from and around machinery during maintenance.
- Unstable equipment that is not secured against falling over.
- Safe access to/from machines. (access, egress)
- Fire or explosion.
- Pressure injection injuries from the release of fluids and gases under high pressure.
- Electrical Hazards, such as electrocution from faulty or ungrounded electrical components.
- Environment in which the machine is used. (in a machine shop, or on a work site)



WARNING!

There is potential danger when operating any machine. Accidents are frequently caused by failure to pay attention or a lack of familiarity. Always use the machine with respect and caution to reduce the risk of operator injury. When normal safety precautions are overlooked or ignored, serious personal injury can occur.



WARNING!

Machines are safeguarded to protect the operator from injury or death with the placement of guards. Machines must not be operated with the guards removed or damaged.

2.2 SPECIFIC SAFETY FOR HYDRAULIC PRESS

DO NOT use this machine unless you have been instructed in its safe use and operation and have read and understood this manual



Safety glasses must be worn at all times in work areas



Close fitting/protective clothing must be worn



Sturdy footwear must be worn at all times in work areas



Rings and jewellery must not be worn.

PRE-OPERATIONAL SAFETY CHECKS

1. Ensure you are familiar with the operation of the hydraulic press.
2. Check for any hydraulic fluid leaks.
3. The press table must be clean and steel weights are flat and secure on press table.
4. Any forming die or cutting die must be inspected for safe use i.e. no cracks.
5. Ensure safety glasses or goggles are available and are worn by all persons in the vicinity.
6. Any test piece, project or material (work piece) to be pressed must be of an appropriate thickness and safe to use on this equipment.
7. Faulty equipment must not be used. Immediately report suspect machinery.

OPERATIONAL SAFETY CHECKS

1. Place your test piece, project or material (work piece) securely on the press table.
2. Ensure the pressure valve is closed before operation.
3. Use the press handle in a pumping action to slowly lower the press hammer.
4. Use your shoulder muscles when operating, NOT your lower back.
5. Keep hands and fingers away from all clamping and moving parts.
6. Carefully and accurately align the press hammer face with the work piece for even force to be applied.
7. Once the press hammer makes contact with the work piece, closely watch the PSI gauge and note the pressure applied.
8. Once the work piece is pressed sufficiently, release the hammer pressure at the release valve.
9. DO NOT apply excessive force with the press.

HOUSEKEEPING

1. After use, clean the press down and return any tools and equipment to the appropriate storage areas – including the press handle.
2. Place all scrap or waste in the appropriate bin.

POTENTIAL HAZARDS

- Beware of high forces applied
- Pinch and squash
- Potentially uneven forces being applied to the work piece
- Eye injuries – flying or shattering objects
- Laceration injuries

3 SET-UP

3.1 UNPACKING

This machine was carefully packaged for safe transport. When unpacking, separate all enclosed items from packaging materials and inspect them for shipping damage. If items are damaged, please contact your distributor.

NOTE: Save all the packaging materials until you are completely satisfied with the machine and have resolved any issues with the distributor, or the shipping agent.

When unpacking, check the packing list to make sure that all parts shown are included. If any parts are missing or broken, please contact your distributor.

3.2 CLEAN - UP

The unpainted surfaces of the machine have been coated with a waxy oil to protect them from corrosion during shipment. Remove the protective coating with a solvent cleaner or a citrus based degreaser.

Optimum performance from your machine will be achieved when you clean all moving parts or sliding contact surfaces that are coated with rust preventive products.

It is advised to avoid chlorine based solvents, such as acetone or brake parts cleaner, as they will damage painted surfaces and strip metal should they come in contact. Always follow the manufacturer's instructions when using any type of cleaning product.

3.3 SITE PREPARATION

When selecting the site for the machine, consider the largest size of work-piece that will be processed through the machine and provide enough space around the machine for operating the machine safely. Consideration should be given to the installation of auxiliary equipment. Leave enough space around the machine to open or remove doors/covers as required for the maintenance and service as described in this manual.

It is recommended that the machine is anchored to the floor to prevent tipping or shifting. It also reduces vibration that may occur during operation.

3.4 LIFTING INSTRUCTIONS

On the day that the machine arrives, make sure that a forklift or lifting device, with sufficient capacity is available to unload the machine from the vehicle. Ensure access to the chosen site is clear and that doors and ceilings are sufficiently high and wide enough to receive the machine.

⚠WARNING ***This machine is extremely heavy. Serious personal injury may occur if safe moving methods are not followed. To be safe, you will need assistance and power equipment when moving the shipping crate and removing the machine from the crate.***





WARNING!

Make sure everyone is away from the load before hoisting. The load must be under control when lowering loads suspended. Rigging and crane operation must be carried out by persons with approved qualifications.

3.4 LIFTING INSTRUCTIONS Cont.

When the press arrives, visually inspect all components for damage which may have been caused during shipping. If shipping damage is found, notify the carrier at once, as they are responsible for all repair and replacement costs. This damage is not covered under warranty.

Metalmaster recommend that the machine is moved with a forklift, with the tines under the top beam of the press. Use thick cardboard or timber between the tines and the machine to eliminate damage. (Fig.3.1)



Fig. 3.1

4. OPERATION

4.1 OPERATION OVERVIEW

This overview purpose is to provide a novice machine operator with a basic understanding of how the machine is used during operation, and so that if the machine controls or components are mentioned later in this manual, it will be easy to understand. The overview is not intended to be an instructional guide and is only generic in nature. To learn more about the specific operation, read this entire manual and seek additional training from an experienced machine operator. Another source of information may be found in video's on websites or by reading trade magazines.

1. **Preparation & Setup:** Secure the workpiece on the adjustable bed rails, ensuring it is centered. Misaligned parts can slip or cause dangerous equipment damage.
2. **Approach:** Lower the press ram (or the press head) close to the workpiece using a quick-travel mechanism, lead screw, or traversing head.
3. **Pressing:** Ensure the release valve is fully closed. Pump the handle (manually or via air/electric controls) to build hydraulic pressure.
4. **Monitoring:** Watch the pressure gauge to avoid exceeding the machine's rated tonnage (e.g. 10 to 50 tons). Press slowly to ensure the part moves smoothly.
5. **Retraction**: Open the release valve slowly to allow hydraulic fluid to return to the reservoir. The ram will retract via internal return springs, releasing the load.

NOTE: Always use V-blocks, pressing pins, or mandrels to support the item properly. Never rely on friction to hold the piece in place. Visually monitor the press frame and components for signs of bending or buckling during high-tonnage applications.

4.1 PRESSING

When operating the press there are a few procedures that need to be done before pressing begins.

Make sure there is enough travel in the ram to complete the task. If out of range then the bed needs to be raised or lowered accordingly.

To raise or lower the press bed, lift the bed by rotating the handle (A in Fig 4.1) so that the weight of the bed no longer rests on the bed pins. Pull out the bed pins,(B in Fig.4.1) and raise or lower the bed to the desired height and line up the holes in the bed and the main frame then re-install the bed pins making sure the flanges on the pins are hard up against the bed.

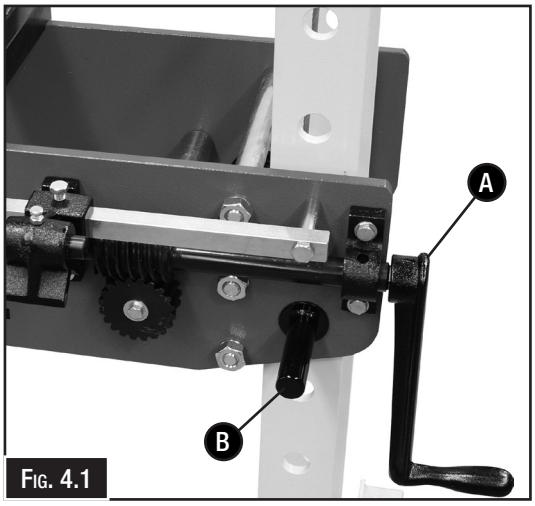


Fig. 4.1

4.1 PRESSING Cont.

⚠ WARNING Before operating the press, make sure that both the bed support pins are fully inserted so that flange on the pin is flat against the bed.

Check the press set-up and any locating fixtures being used, for safe operation.

1. Move the head (Fig. 4.2) to center the work piece and all parts of the set-up in line with the force direction. If using spacers in the set-up, they should be constructed of one solid piece or tack welded together for stability.

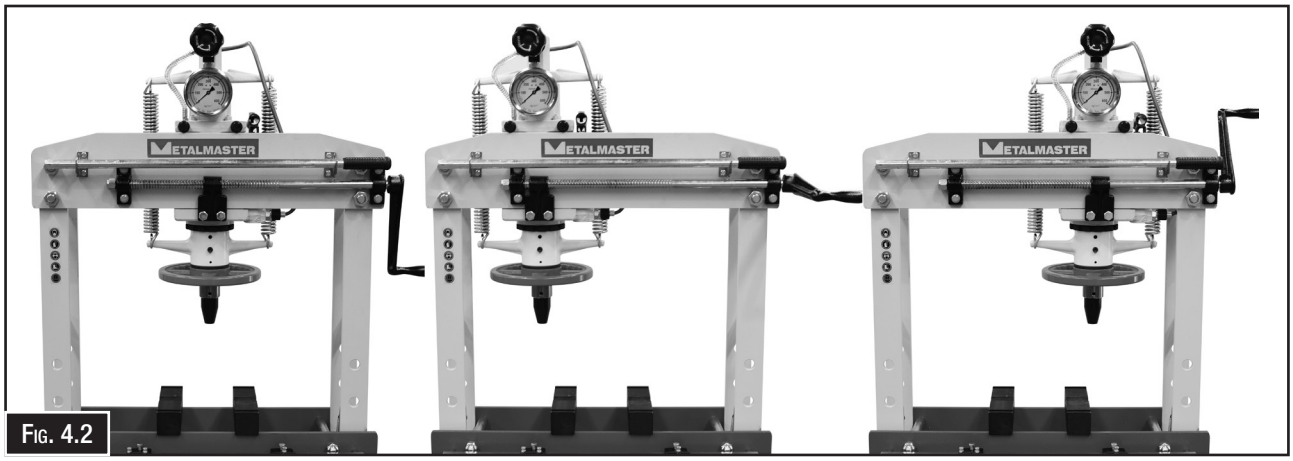


FIG. 4.2

2. Using the hand wheel (Fig. 4.3) move the press head close to the workpiece
3. Close the release valve finger tight.(C in Fig.4.4)
4. Operate the pump handle to build pressure.(D in Fig.4.4)

NOTE: The model HDP-35 has a two stage pump. Pressure can be quickly applied using the fast pump position (E in Fig.4.4) then changed to the slow position. (D in Fig.4.4) for better control

5. Pressure will be maintained and can be monitored on the gauge (F in Fig.4.4) until the release valve is opened.
6. Open release valve (C in Fig.4.4) to release pressure, and the ram will retract.


FIG. 4.3

WARNING

Never exceed the maximum pressure allowed for the press HDP-35 - 35 ton

WARNING!

Take care when operating this machine. Crush Points can occur between the Ram and the workpiece or between the workpiece and the table.

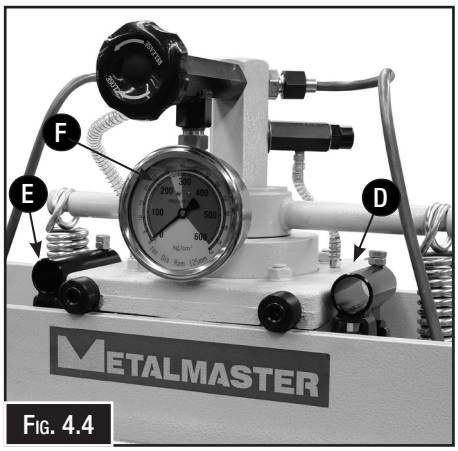


FIG. 4.4

5. MAINTENANCE

To prevent oil leakage during transportation a hex bolt filler plug is used to seal the hydraulic system. To provide better performance, replace the hex bolt with the air vent filler bolt supplied with the machine. The filler bolt can be found at the back of the head (see Fig.5.1)

Be sure that all parts are wiped clean before and after each use. A light grade of oil should be used on moving parts to prevent rusting and to extend life.

The hydraulic oil is filled before the machine leaves the factory but should be checked regularly.

To check the oil remove the filler plug and using the long end of an hex key insert it into the hole and check if oil is present on the key. The oil level should be around 50mm from the top of the casting. Should the hydraulic oil need of be topped up open the filling point located on the rear side of machine and add R32 or AW32 hydraulic oil. (F in Fig. 5.1)

NOTE: Always check or replenish the oil when the ram is in the fully UP position.

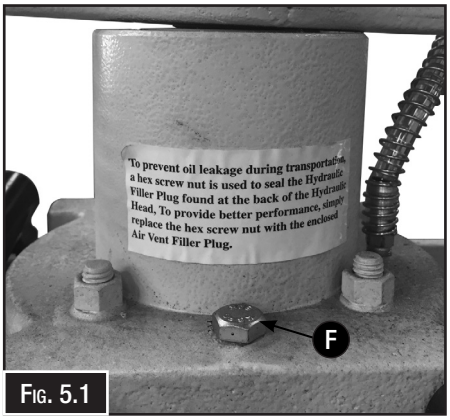


Fig. 5.1

5.1 REMOVING AIR FROM THE HYDRAULIC SYSTEM

Advance and retract the ram several times, without building up pressure. Air is fully removed from the system when the cylinder advances and retracts smoothly.

5.2 TROUBLESHOOTING

Problem	Possible Cause	Possible Solution
Cylinder does not advance, advances slowly, or advances in spurts.	1. Oil level in pump is low. 2. Pump release valve open. Loose hydraulic coupler. 3. Load is too heavy. 4. Air trapped in the system. Cylinder plunger binding.	1. Add oil according to the pump instructions. 2. Close pump release valve. Check that all couplers are fully tightened. 3. Do not attempt to exert more than rated tonnage. Remove air according to the instructions. 4. Check for damage to cylinder. Have cylinder serviced by a qualified hydraulic technician.
Cylinder advances, but does not hold pressure.	1. Leaking connection. 2. Leaking cylinder seals. 3. Internal leakage in pump.	1. Check that all connections are tight and leak free. 2. Locate any external leaks and have equipment serviced by a qualified hydraulic technician. 3. Have the pump serviced by a qualified hydraulic technician.
Cylinder does not retract, retracts part way, or retracts more slowly than normal	1. Pump reservoir is overfilled 2. Loose hydraulic coupler 3. Air trapped in the system.	1. Drain oil level to full mark. See pump instructions for adding oil. 2. Check that all couplers are fully tightened. 3. Remove air according to the instructions.
Cylinder does not retract, retracts part way, or retracts more slowly than normal	1. Pump release valve closed. 2. Cylinder retraction spring broken or other cylinder damage. 3. Cylinder attachments are too heavy for a single-acting cylinder. 4. Coupler not connected fully.	1. Open pump release valve. 2. Have cylinder serviced by a qualified hydraulic technician. 3. Remove attachments and see if ram retracts. 4. Tighten the connections.

HYDRAULIC PRESS - 35 TONNE
HDP-35

Order Code: (P129)

The following section covers the spare parts diagrams and lists that were current at the time this manual was originally printed. Due to continuous improvements of the machine, changes may be made at anytime without notification.

HOW TO ORDER SPARE PARTS

1. Have your machines model number, serial number & date of manufacture on hand, these can be found on the specification plate mounted on the machine.
2. A scanned copy of your parts list/diagram with required spare part/s identified.

NOTE: SOME PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

3. Go to www.machineryhouse.com.au/contactus and fill out the inquiry form attaching a copy of scanned parts list.

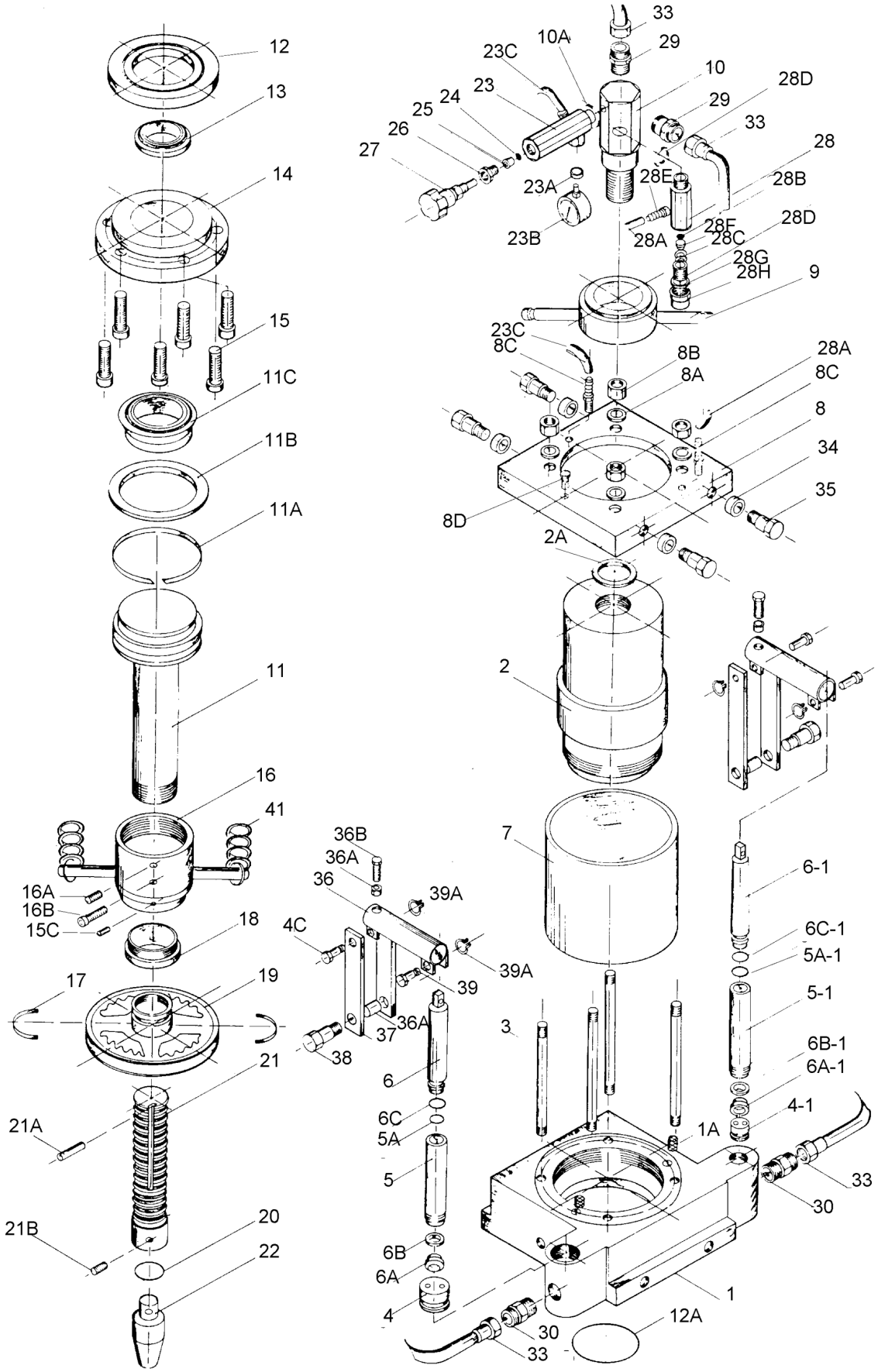


WARNING!
Electricity is dangerous and could cause death.
All electrical work must be carried out by a qualified electrician.



CAUTION!
It is impossible to cover all possible hazards Every workshop environment is different. These are designed as a guide to be used to compliment training and as a reminder to users prior to equipment use. Always consider safety first, as it applies to the individual working conditions.

HEAD - PARTS DIAGRAM



HEAD - PARTS LIST

Index No.	Part No.	Description	Size	Qty
1	JL-35A-01	HYDRAULIC BASE		1
1A	JL-9511-50-3	BASE FILTER **		2
2	JL-35A-02	CYLINDER		1
2A	JL-35A-2A	SPACER **		2
3	JL-35A-03	SUPPORT ROD		4
4	JL-35A-04	SINGLE ACTION VALVE		1
4-1	JL-15A-04	SINGLE ACTION VALVE		1
5	JL-35A-05	PUMP CYLINDER		1
5A	AG-27A	O-RING		1
5A-1	JL-15A-05A	O-RING		1
5-1	JL-35A-05-1	PUMP CYLINDER		1
6	JL-35A-06	SHAFT		1
6-1	JL-35A-06-1	SHAFT		1
6A	JL-35A-06A	CUP SEAL **		1
6A-1	JL-15A-6A	CUP SEAL **		1
6B	JL-35A-06B	WIPER SEAL **		1
6B-1	JL-15A-6C	WIPER SEAL **		1
6C	JL-35A-06C	O-RING **		1
6C-1	JL-15A-6B	O-RING **		1
7	JL-35A-07	RESERVOIR		1
8	JL-35A-08	HYDRAULIC TOP BASE		1
8A	WAS240	LOCK WASHER	1/2	1
8B	NUT240	HEX NUT	1/2	5
8C	JL-15A-08F	BRASS TUBE CONNECTOR		4
8D	SCR134	HEX FILLER PLUG W/SEAL		4
9	JL-35A-09	CONNECTOR POST		1
10	JL-35A-10	OIL PASS CONNECTOR		1
10A	JL-15A-23D	SPACER		2
11	JL-35A-11	PLUNGER		1
11A	JL-35A-11B	SPACER RING **		1
11B	JL-35A-11A	TEFLON SUPPORT RING		1
11C	JL-35A-11C	CUP SEAL **		1
12	JL-35A-12	BRASS GASKET		1
12A	JL-35A-12A	O-RING **		1
13	JL-35A-13	SEAL **		1
14	JL-35A-14	PLUNGER PLATE W/ GASKET		1
15	SCR230	SOCKET HEAD CAP SCREW	3/8-1 1/4	6
16	JL-35A-16	CONNECTOR POST		1
16A	SCR331	SOCKET SET SCREW		1
16B	SCR220	SET SCREW		1
16C	SCR311	SOCKET SET SCREW		1
17	JL-15A-17	HAND WHEEL RETAINER CLIPS		2
18	JL-15A-18	HAND WHEEL SPACER		1
19	JL-35A-19	HAND WHEEL		1
20	JL-15A-20	SEAL		1
21	JL-35A-21	EXTENSION SCREW		1
21A	WAS361	STOPPER ROLL PIN		1
21B	SCR331	SET SCREW		1
22	JL-15A-22	PRESS HEAD		1
23	JL-35A-23	RELEASE VALVE BLOCK		1
23A	JL-15A-23C	SPACER		1
23B	JL-35A-23B	PRESSURE GAUGE		1
23C	JL-15A-23B	PLASTIC TUBE		1
24	SB-04	STEEL BALL		1
25	JL-15A-25	RELEASE VALVE SEAL **		1

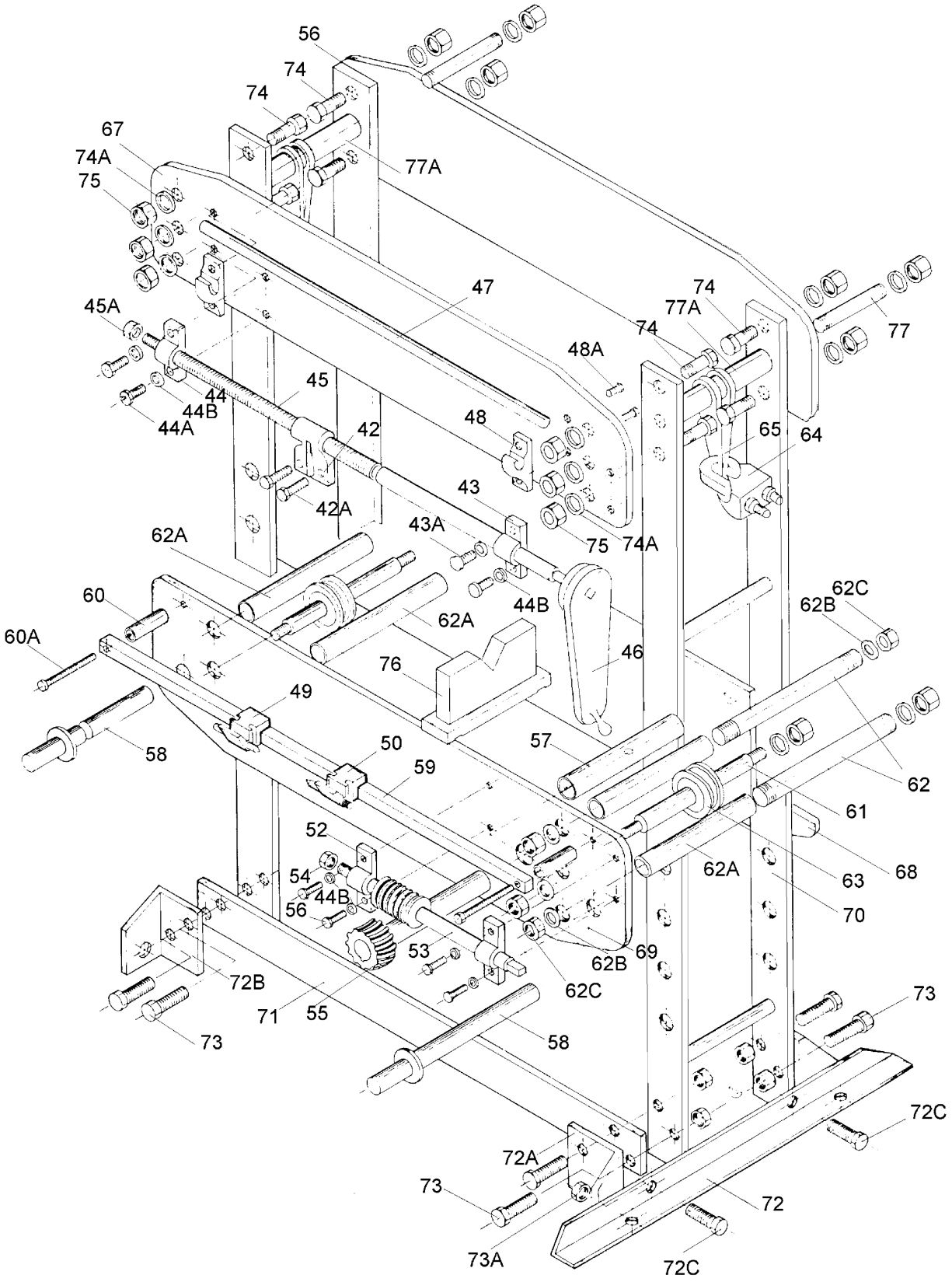
NOTE: SOME INDIVIDUAL PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

HEAD - PARTS LIST CONT.

Index No.	Part No.	Description	Size	Qty
26	JL-15A-26	RELEASE VALVE NUT		1
27	JL-15A-27	RELEASE VALVE		1
28	JL-35A-28	SAFETY VALVE BLOCK		1
28A	JL-15A-23B	PLASTIC TUBE		1
28B	SB-04	STEEL BALL		1
28C	JL-35A-28C	SAFETY SPRING		1
28D	JL-35A-28D	SAFETY VALVE SET SCREW		1
28E	JL-15A-08F	BRASS TUBE CONNECTOR		1
28F	JL-35A-28F	RELEASE VALVE SEAL **		1
28G	JL-35A-28I	WASHER		1
28H	JL-35A-28H	HEX NUT		1
28I	JL-15A-23D	SPACER		1
29	JL-15A-29	MALE CONNECTOR		2
30	JL-15A-30	MALE CONNECTOR		2
33	JL-35A-33	BRONZE TUBE		2
34	JL-35A-34	SLIDING WHEEL		4
35	JL-35A-35	HEX LOCKING SCREW		4
36	JL-35A-36	HANDLE SOCKET		2
36A	NUT130	NUT	3/8	2
36B	SCR135	HEX HEAD SCREW	3/8-16X1	2
37	JL-35A-37	LINKING SLEEVE		4
38	JL-35A-38	BOTTOM	FIXED BOLT	2
38A	JL-35A-38A	SPACER		2
39	JL-35A-39	BOLT		2
39A	WAS413	C-CLIP		4
40	JL-35A-40	BOLT		2
41	JL-35A-41	RETURN SPRING		2
	JL-35A-RK	HYDRAULIC REPAIR KIT		1
		**INCLUDED IN HYDRAULIC REPAIR KIT		

NOTE: SOME INDIVIDUAL PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

FRAME - PARTS DIAGRAM



FRAME - PARTS LIST

Index No.	Part No.	Description	Size	Qty
42	JL-35A-42	SHAFT HOLDER		1
42A	SCR142	HEX CAP HEAD BOLT	1/2XL	2
43	JL-15A-43	ROLLING SHAFT BLOCK		1
43A	SCR131	HEX HEAD BOLT	3/8XL 1/4	2
44	JL-15A-44	ROLLING SHAFT BLOCK		1
44A	SCR130	HEX CAP BOLT	3/8-16XL	2
44B	WAS132	WASHER	3/8	8
45	JL-35A-45	ROLLING SHAFT		1
45A	NUT351	NUT	5/8-18	1
46	JL-15A-46	HAND CRANK		1
47	JL-35A-47	HANDLE		1
48	JL-35A-48	HANDLE HOLDER		2
48A	SCR121	HEX CAP BOLT	5/16X1	4
49	JL-15A-49-1	CENTRE POST ASSY.(LEFT)		1
50	JL-15A-49-2	CENTRE POST ASSY.(RIGHT)		1
51	JL-35A-51	FIXED HOLDER		1
52	JL-35A-52	SHAFT FIXED BLOCK		1
53	JL-35A-53	DRIVE GEAR SHAFT ASSEMBLY		1
54	NUT361	HEX NUT		1
55	JL-35A-55	WORM GEAR / SHAFT ASSEMBLY		1
56	SCR131	HEX HEAD SCREW	3/8X1	4
57	JL-35A-57	SPACER SLEEVE		1
58	JL-35A-58	TABLE HOLDER PIN		1
59	JL-35A-59	SQUARE BAR		1
60	JL-35A-60	SCREW SPACER		2
60A	SCR430	HEX CAP BOLT	3/8X3 1/2	2
61	JL-35A-61	SLIDE WHEEL SHAFT		2
62	JL-35A-62	TABLE SPINDLE		4
62A	JL-35A-62A	SPINDLE SLEEVE		8
62B	WAS250	LOCK WASHER	5/8	12
62C	NUT150	HEX NUT	5/8	12
63	JL-15A-63	CABLE SLIDE WHEEL		2
64	JL-15A-65	WIRE ROPE CLIP		2
65	JL-15A-64	CABLE		1
66	JL-35A-66	TOP FRAME (REAR)		1
67	JL-35A-67	TOP FRAME (FRONT)		2
68	JL-35A-68	TABLE FRAME (REAR)		1
69	JL-35A-69	TABLE FRAME (FRONT)		1
70	JL-35A-70	MAIN FRAME		2
71	JL-35A-71	LOWER FRAME SUPPORT		2
72	JL-35A-72	BASE FRAME BRACKET		2
72A	JL-35A-72A	FRAME BRACKET(LEFT)		2
72B	JL-35A-72B	FRAME BRACKET(RIGHT)		2
72C	SCR150	HEX CAP BOLT	5/8X1 1/2	8
73	SCR151	HEX CAP BOLT	5/8X2	4
73A	NUT150	NUT	5/8	12
74	SCR460	HEX HEAD BOLT	3/4X2	8
74A	WAS260	LOCK WASHER	3/4	12
75	NUT160	NUT	3/4	12
76	JL-35A-76	V-BLOCK BED PLATE		2
77	JL-35A-77	TOP LINK BOLT		2
77A	JL-35A-77A	SPACER SLEEVE		2

NOTE: SOME INDIVIDUAL PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

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