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Sip
SIP INDUSTRIAL

machinery specialists since 1968

45 Ton Shop Press (Pneumatic / Hydraulic)



03691

**FOR HELP OR ADVICE ON THIS PRODUCT PLEASE CONTACT YOUR DISTRIBUTOR,
OR SIP DIRECTLY ON:
TEL: 01509500400
EMAIL: sales@sip-group.com or technical@sip-group.com
www.sip-group.com**

**Please read and fully understand the instructions in this manual
before operation. Keep this manual safe for future reference.**

DECLARATION OF CONFORMITY

Declaration of Conformity

We

SIP (Industrial Products) Ltd
Gelders Hall Road
Shepshed
Loughborough
Leicestershire
LE12 9NH
England

As the manufacturer's authorised representative within the EC
declare that the


45 Ton Shop Press Pneumatic/Hydraulic - SIP Part. No. 03691

Conforms to the requirements of the following directive(s), as indicated.

2006/42/EC Machinery Directive

And the relevant standard(s), including:

EN ISO 12100:2010
EN 1494:2000+A1:2008
EN 349:1993+A1:2008
EN 953:1997+A1:2009
EN ISO 13857:2008

Signed: 

Mr P. Ippaso - Managing Director - SIP (Industrial Products) Ltd
Date: 09/10/2014.



PARTS LIST (PUMP)

Ref. No.	Description	Slp Part No.	Ref. No.	Description	Slp Part No.
P1.	Air vent / oil fill screw	HY02-00146	P28.	Air connector	05136
P2.	Domed nut	N/A	P29.	Air valve	HY02-00148
P3.	Pump cap	N/A	P30.	Air hose	HY02-00149
P4.	Washer	N/A	P31.	Air motor	HY02-00150
P5.	Reservoir	N/A	P32.	Copper washer	N/A
P6.	Rod	N/A	P33.	Pin	N/A
P7.	Filter	N/A	P34.	Connecting rod	N/A
P8.	Pump base	N/A	P35.	R-pin	N/A
P9.	U- limited	N/A	P36.	Roller pin	N/A
P10.	Spring washer	N/A	P37.	Handle base	N/A
P11.	Screw	N/A	P38.	Piston - big	N/A
P12.	Release valve	HY02-00147	P39.	Piston - small	N/A
P13.	O-ring	N/A	P40.	Clip	N/A
P14.	Ball	N/A	P41.	PTFE washer	N/A
P15.	Ball base	N/A	P42.	O-ring	N/A
P16.	Washer	N/A	P43.	Seal ring	N/A
P17.	Ball	N/A	P44.	Piston seat	N/A
P18.	Ball base	N/A	P45.	O-ring	N/A
P19.	Spring	N/A	P46.	Spring	N/A
P20.	Screw	N/A	P47.	Ball base	N/A
P21.	O-ring	N/A	P48.	Spring	N/A
P22.	Bolt	N/A	P49.	Adaptor	N/A
P23.	Plastic cap	N/A	P50.	Oil hose	N/A
P24.	Ball	N/A	P51.	Handle	HY02-00151
P25.	Spring	N/A	P52.	Nylon ring	HY02-00152
P26.	Washer	N/A	P53.	Connector	HY02-00153
P27.	Screw	N/A	N/A.	Complete pump assy	HY02-00101

Note: Not all pump spares are available to order.

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SAFETY SYMBOLS USED THROUGHOUT THIS MANUAL



Danger / Caution: Indicates risk of personal injury and/or the possibility of damage.



Note: Supplementary information.

SAFETY INSTRUCTIONS



IMPORTANT: Please read the following instructions carefully, *failure to do so could lead to serious personal injury and / or damage to the shop press.*

When using your shop press, basic safety precautions should always be followed to reduce the risk of personal injury and / or damage to the shop press or load.

Read all of these instructions before operating the shop press and save this user manual for future reference.

The shop press should **not** be modified or used for any application other than that for which it was designed.

It was designed for the removal or installation of bearings, universal joints, pulleys, etc.

If you are unsure of its relative applications do not hesitate to contact us and we will be more than happy to advise you.

Before operating the shop press always check no parts are broken, that no oil is leaking and that no parts are missing.

Always operate the shop press safely and correctly.

KNOW YOUR SHOP PRESS: Read and understand the owner's manual and labels affixed to the shop press. Learn its applications and limitations, as well as the potential hazards specific to it.

KEEP CHILDREN AND UNTRAINED PERSONNEL AWAY FROM THE WORK AREA: All visitors should be kept at a safe distance from the work area; never allow untrained persons to operate the shop press.

STAY ALERT: Always watch what you are doing and use common sense.

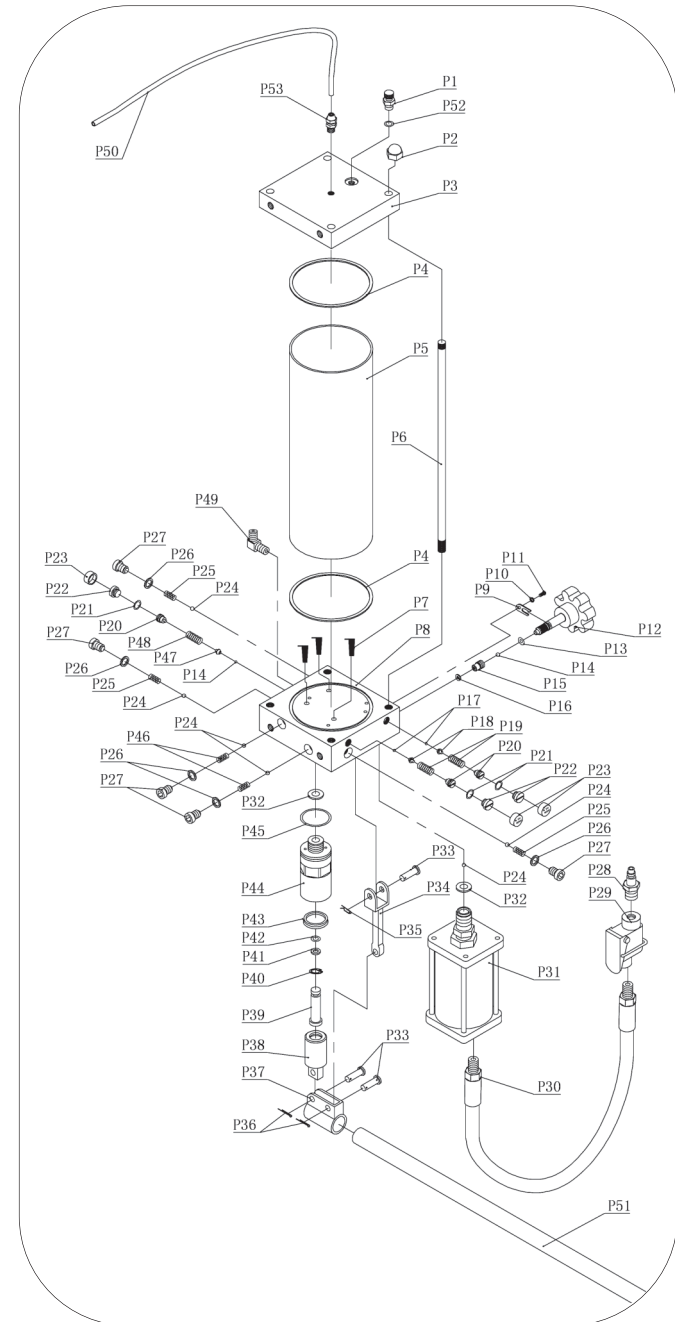
NEVER LEAVE THE SHOP PRESS UNATTENDED: When in use / under load.

HAVE YOUR SHOP PRESS REPAIRED BY A QUALIFIED PERSON: The shop press is in accordance with the relevant safety requirements. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user and void the warranty.

DANGER! Check that the shop press is in sound condition and good working order;

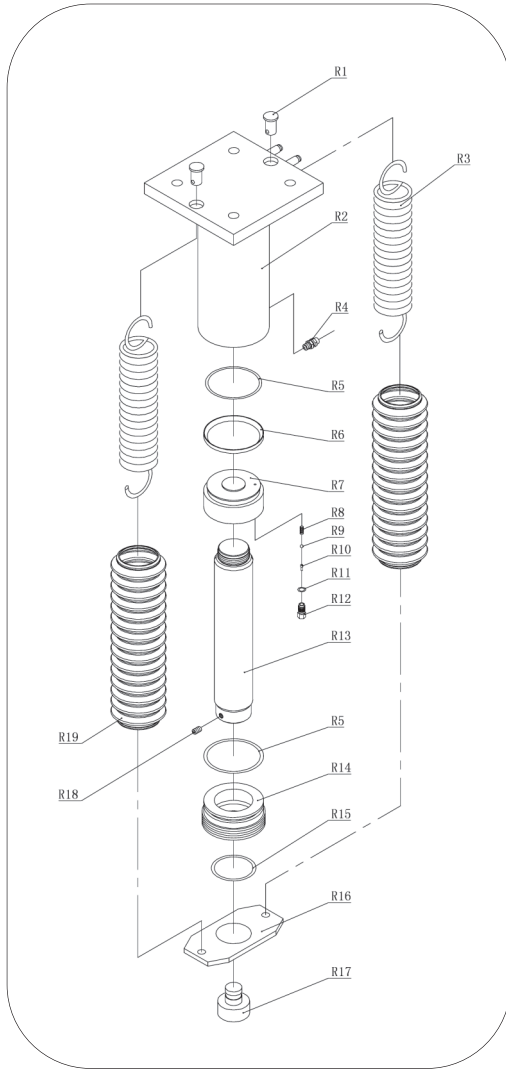
EXPLODED DIAGRAM

PUMP ASSEMBLY



EXPLODED DIAGRAM & PARTS LIST

RAM ASSEMBLY



Ref. No.	Description	Slp Part No.
R1.	Pin	N/A
R2.	Ram	N/A
R3.	Spring	HY02-00143
R4.	Connector	N/A
R5.	O-ring	N/A
R6.	Seal washer	N/A
R7.	Piston cap	N/A
R8.	Spring	N/A
R9.	Ball	N/A
R10.	Valve rod	N/A
R11.	Nylon ring	N/A
R12.	Screw	N/A
R13.	Piston	N/A
R14.	Ram cover	N/A
R15.	O-ring	N/A
R16.	Spring plate	N/A
R17.	Serrated saddle	HY02-00144
R18.	Hex screw M8x10	N/A
R19.	Spring cover	HY02-00145
N/A.	Complete ram assembly	HY02-00090

Note: Not all ram spares are available to order.

SAFETY INSTRUCTIONS...cont

Take immediate action to repair or replace damaged parts.

WARNING! Only operate on a level and stable surface and never use on soft ground where the shop press is likely to "sink" whilst in operation.

NEVER STAND ON THE SHOP PRESS: The shop press is not designed for this purpose.

DO NOT dismantle or tamper with the shop press, as this may be dangerous and will invalidate the warranty.

- If a problem with the shop press is experienced or suspected stop using the shop press **immediately** and contact your distributor for repair.
- Do not attempt to press a load that exceeds the rated capacity of the shop press.
- Never work under the shop press whilst in operation.
- Regularly inspect, clean and lubricate the shop press, ensuring that it is in good working order and condition.
- Always ensure that the work area is clean and tidy, free from unrelated materials and has adequate lighting.
- Keep hands, limbs etc. clear of moving parts during operation of the ram.
- **DO NOT** top-up the shop press with brake fluid, or other oil types; use hydraulic oil only.
- **DO NOT** adjust the safety overload valves.
- Ensure that there are no persons or obstructions beneath the shop press whilst its in operation.
- Clean the shop press correctly, with the ram in the down position, but **DO NOT** leave it extended.
- Failure to follow the warnings in this manual, may result in personal injury and/or property damage.
- Prior to applying the load, be sure that the hydraulic ram collar threads are fully engaged to the head assembly.
- Components of this shop press are specially designed to withstand the rated capacity. Do not substitute bolts, pins, or any other components.
- Always press the load on the centre of the ram. Offset loads can damage the ram, and may cause a workpiece to eject.
- Before operating, check for signs of cracked welds, bent bed support pins, loose or missing bolts, or any other structural damage. Do not operate if any of these conditions exist. Have repairs made only by authorised service centre.
- Remove all loads and arbor plates from the shop bed before attempting to adjust the bed height.
- Press only on the workpiece supported by the bed and arbor plates.
- When using accessories, such as arbor plates, be sure that they are centered on the bed, and are in full contact with the bed.
- Parts being pressed may splinter, shatter or eject from the press. Due to various applications, it is your responsibility to always use adequate guards, such as eye protection and heavy protective clothing, when operating this shop press.
- Do not stand in front of work area where the load is applied.

SAFETY INSTRUCTIONS....cont

- If the shop press appears to be damaged in any way, is found to be badly worn, or operates abnormally **IT SHOULD BE REMOVED FROM SERVICE** until necessary repairs are made by an authorised service centre.
- **DO NOT** use the shop press to compress springs or any other item that could disengage and cause a potential hazard.
- The winch is designed to move the bed up or down, it is not designed to hold the bed whilst in operation, use the supplied bed pins for holding the bed safely.



Danger / Caution: Never exceed the maximum capacity of 45 ton, overloading can lead to personal injury or damage to the shop press.



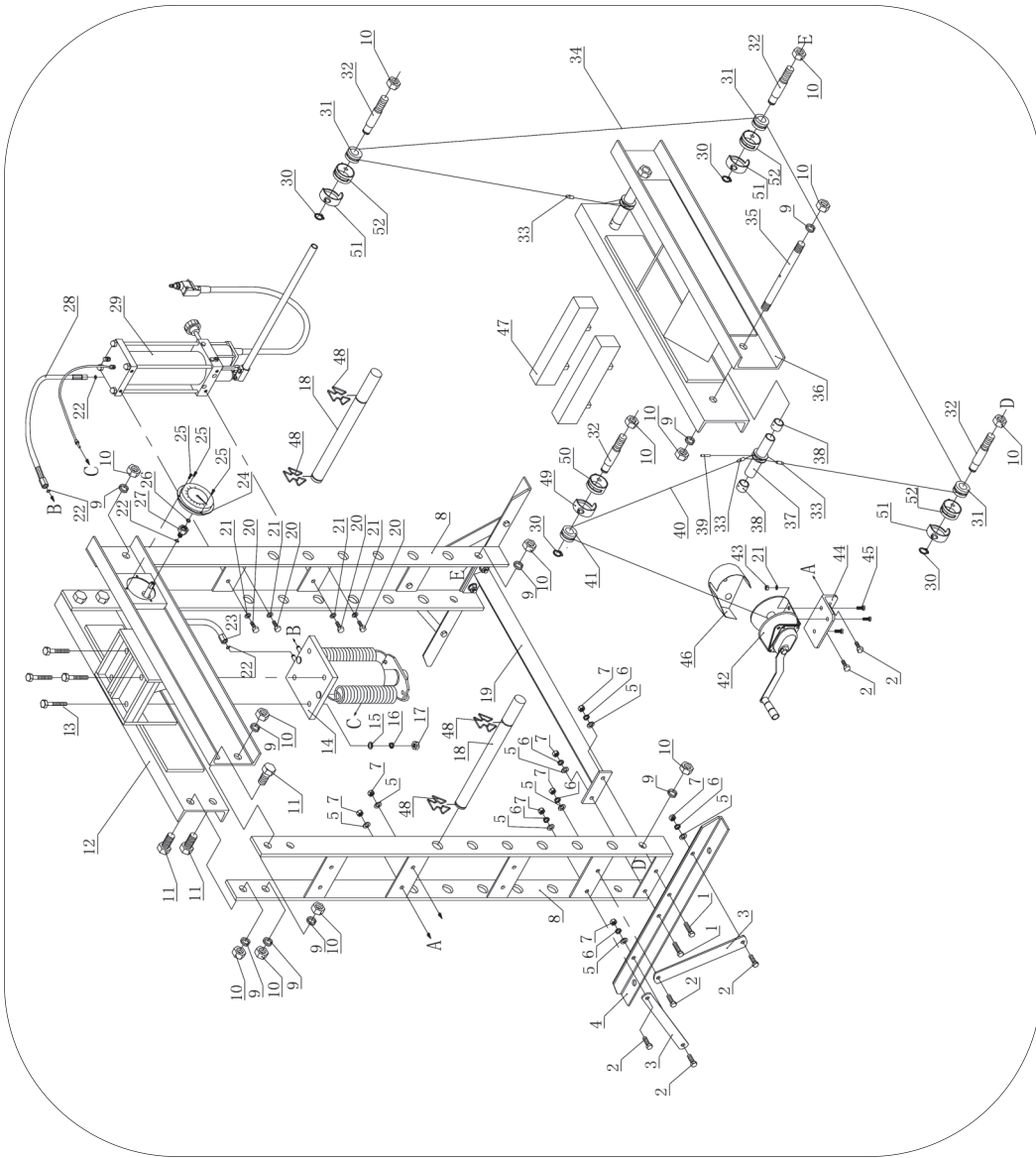
CAUTION: The warnings and cautions mentioned in this user manual can not cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be applied.

PARTS LIST (FRAME)

Ref. No.	Description	Slp Part No.	Ref. No.	Description	Slp Part No.
1.	Bolt M12x45	HY02-00082	28.	Hydraulic hose	HY02-00100
2.	Bolt M12x35	HY02-00064	29.	Complete pump assy.	HY02-00101
3.	Support bar	HY02-00083	30.	Clip	HY02-00102
4.	Leg	HY02-00084	31.	Roller	HY02-00103
5.	Washer 12mm	HY02-00061	32.	Roller bolt	HY02-00104
6.	Spring washer 12mm	HY02-00062	33.	Cable cover	HY02-00105
7.	Nut M12	HY02-00063	34.	Cable	HY02-00106
8.	Post	HY02-00085	35.	Bolt for bed	HY02-00107
9.	Spring washer 24mm	HY02-00086	36.	Bed	HY02-00108
10.	Nut M24	HY02-00087	37.	Tube bushing assembly	HY02-00109
11.	Bolt M24x55	HY02-00088	38.	Bush	HY02-00110
12.	Upper cross beam	HY02-00089	39.	Pin	HY02-00111
13.	Bolt M14x60	HY02-00025	40.	Cable	HY02-00112
14.	Complete ram assembly	HY02-00090	41.	Roller - big	HY02-00113
15.	Washer 14mm	HY02-00026	42.	Winch	HY02-00114
16.	Spring washer 14mm	HY02-00091	43.	Nut	HY02-00115
17.	Nut M14	HY02-00029	44.	Winch plate	HY02-00116
18.	Bed support pin	HY02-00092	45.	Bolt	HY02-00117
19.	Lower cross beam	HY02-00093	46.	Winch cover	HY02-00118
20.	Bolt M10x20	HY01-00290	47.	Arbor plate	HY02-00119
21.	Washer 10mm	HY02-00053	48.	Bed support pin clip	HY02-00120
22.	O-ring	HY02-00094	49.	Roller cover - big	HY02-00121
23.	Hydraulic hose	HY02-00095	50.	Roller cover - big	HY02-00122
24.	Manometer	HY02-00096	51.	Roller cover	HY02-00141
25.	Screw M5x10	HY02-00097	52.	Roller cover	HY02-00142
26.	Nylon ring	HY02-00098	N/A.	Fixing kit	HY02-00154
27.	Manometer connector	HY02-00099			

EXPLODED DIAGRAM

FRAME ASSEMBLY



GUARANTEE

This SIP shop press is covered by a 12 month parts and labour warranty covering failure due to manufacturers defects. This does not cover failure due to misuse or operating the shop press outside the scope of this manual - any claims deemed to be outside the scope of the warranty may be subject to charges including, but not limited to parts, labour and carriage costs.

This guarantee does not cover consumables such as oil, arbor plates etc.

In the unlikely event of warranty claims, contact your distributor as soon as possible.



Note: Proof of purchase will be required before any warranty can be honoured.

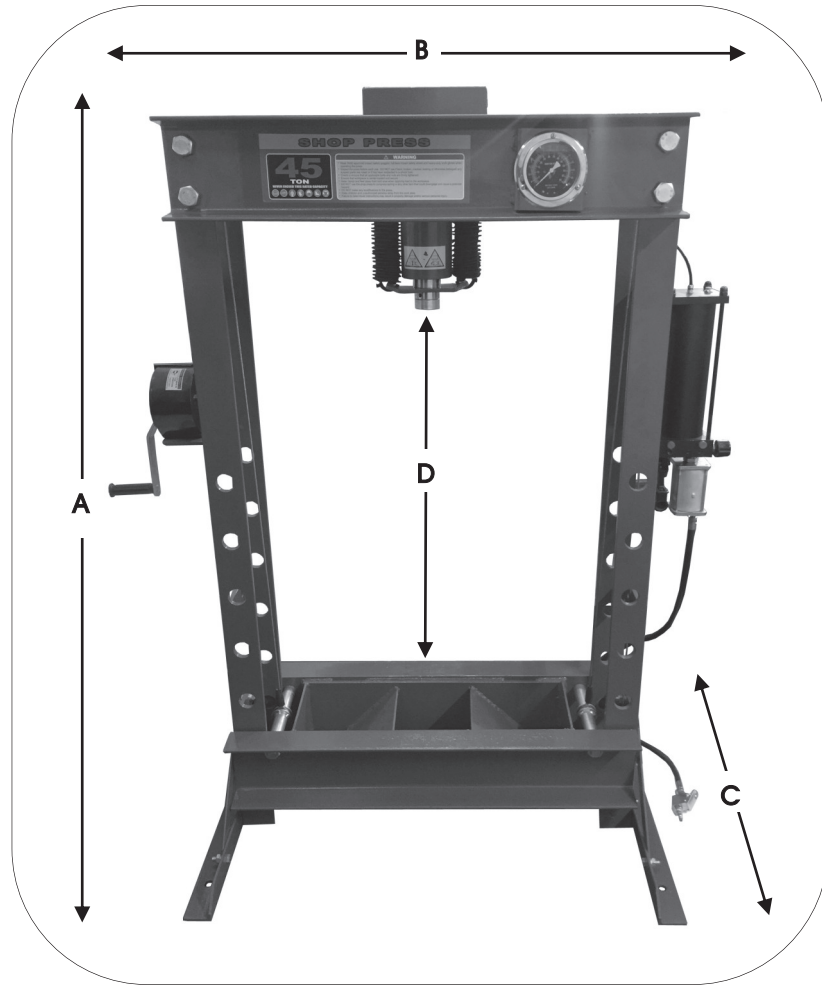
CONTENTS & ACCESORIES

45 Ton Shop Press	Leg Support (x4)	12mm Washer (x14)
Arbor Plate (x2)	Pump Handle	12mm Spring Washer (x14)
Bed Support Pin (x2)	Winch	M10x20 Bolt (x4)
Bed Support Pin Clip (x4)	M12x45 Bolt (x4)	10mm Washer (x4)
Pump	M12x35 Bolt (x10)	
Leg (x2)	M12 Nut (x14)	



Note: If any of the above are missing or damaged, contact your distributor immediately.

TECHNICAL SPECIFICATIONS



A (Height)	1707mm
B (Width)	1430mm
C (Depth)	800mm
D (Working range)	159 - 859mm
Ram Stroke	190 mm
Bed Width	826mm

MAINTENANCE...cont

CLEANING

Periodically check the ram and ram piston for signs of rust or corrosion. Clean as needed and wipe with an oily cloth.



Note: Never use sandpaper or abrasive material on these surfaces.

TROUBLESHOOTING

The following form lists the common operating issues with problems and solutions. Please read the form carefully and follow it.



If any of the following symptoms occurs during your operation, stop using the shop press immediately, or serious personal injury could result. Only a qualified person or an authorised service centre should perform repairs on the shop press. Disconnect from the air supply before attempting repairs or adjustments. When replacing parts etc.

FAULT	POSSIBLE CAUSES	REMEDIES
Loses pressure under load.	<ul style="list-style-type: none"> Release valve is open. Pump or piston fault. 	<ul style="list-style-type: none"> Close release valve. Replace pump.
Pump feels spongy during pumping, or lever has lost stroke.	<ul style="list-style-type: none"> Pump low on oil. Air trapped in pump. Pump or ram fault. 	<ul style="list-style-type: none"> Top up with oil. Bleed air out of system. Replace pump/ram.
Ram is weak or does not reach rated pressing capacity.	<ul style="list-style-type: none"> Pump low on oil. Air trapped in pump. Release valve is open. Pump or piston fault. 	<ul style="list-style-type: none"> Top up with oil. Bleed air out of system. Close release valve. Replace pump.



Note: Repairs should be carried out by a qualified person.

OPERATING INSTRUCTIONS...cont

- ⇒ Press the air valve lever down again (or pump the handle) to start the pressing.
- ⇒ Once the work is done release the air valve lever (or stop pumping the handle).
- ⇒ Turn the release valve anti-clockwise to retract the ram.
- ⇒ When the ram has fully retracted, remove the workpiece.
- ⇒ If no more work is to be done, then disconnect from the air supply and tighten the release valve and air vent / oil fill screw backup.

MAINTENANCE

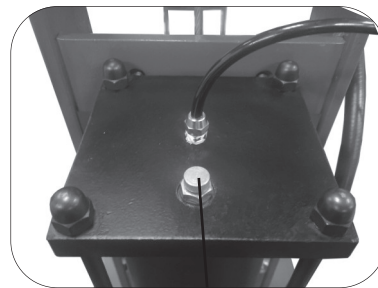
- ⇒ Periodically check the press frame to make sure all bolts are tight and inspect for cracked welds, bent, loose, or missing parts.
- ⇒ Periodically check hydraulic connections for possible leaks, replace or properly repair damaged or leaking hydraulic components before use.
- ⇒ Change hydraulic oil in the hydraulic system every 100 working hours, or more frequently in unusual dirty or dusty areas.
- ⇒ If the paint becomes badly chipped, it is suggested to repaint the press. This will prevent rusting.
- ⇒ Frequently check the cables for any signs of fraying, replace if any signs of fraying is noticed, never use the shop press until the cable has been replaced.

ADDING OIL

- ⇒ Make sure the ram is fully retracted.
- ⇒ Remove the air vent / oil fill screw (below right pic).
- ⇒ Fill with hydraulic oil through the oil fill hole, until the oil reaches the top of the oil chamber.
- ⇒ Refit the air vent / oil fill screw.

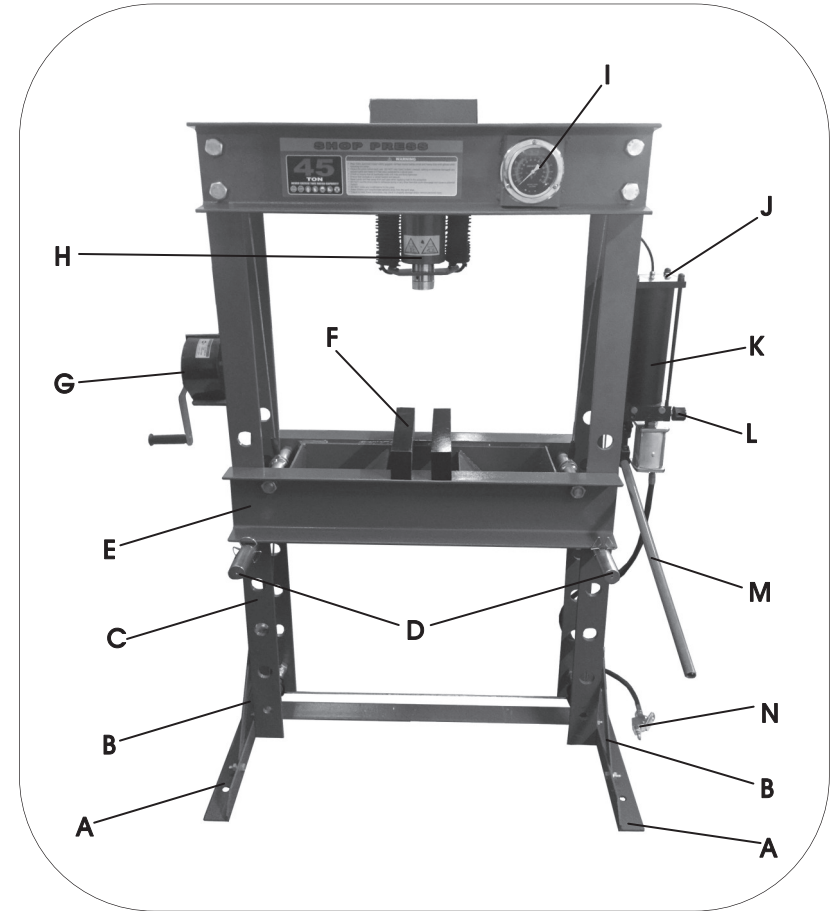
BLEEDING

- ⇒ Loosen the air vent / oil fill screw (right pic).
- ⇒ Insert the handle into the handle base.
- ⇒ Pump the handle about 10 times, this will purge the air out of the system.
- ⇒ Tighten the air vent / oil fill screw up.



Air vent / oil fill screw

GETTING TO KNOW YOUR SHOP PRESS



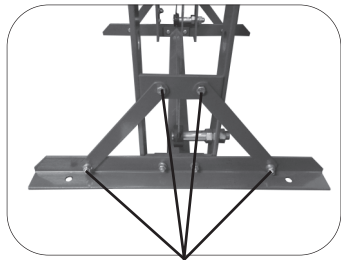
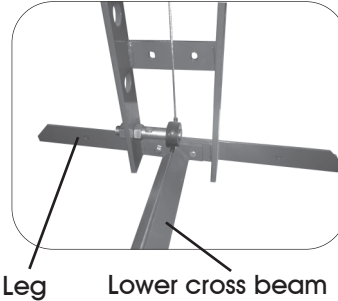
Ref.	Description	Ref.	Description
A.	Leg	H.	Ram
B.	Leg Support	I.	Manometer
C.	Post	J.	Air Vent / Oil Filler Screw
D.	Bed Pin	K.	Hydraulic / Manual Pump
E.	Bed	L.	Release Valve
F.	Arbor Plate	M.	Pump Handle
G.	Winch	N.	Air Valve

ASSEMBLY INSTRUCTIONS



Danger / Caution: Always use proper lifting equipment to move the shop press out of the crate or off the pallet, **NEVER** attempt to lift the shop press without lifting equipment as this is extremely dangerous.

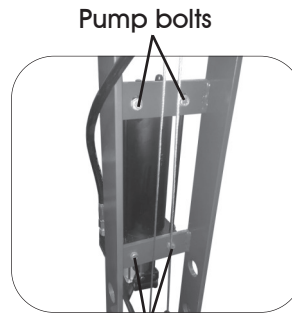
- ⇒ Connect the leg and lower cross beam to the left and right posts (right pic), by using the M12x45 bolt (x4), 12mm washer (x4), 12mm spring washer (x4) and M12 nuts (x4), note do not tighten fully just yet.



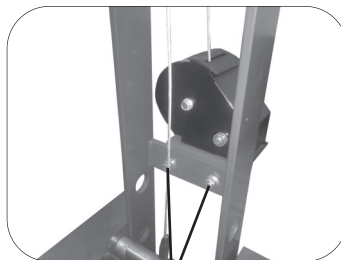
Leg support bolts

- ⇒ Connect all four leg supports to the left and right posts and both legs by using M12x35 bolt (x8), 12mm washer (x8), 12mm spring washer (x8) and M12 nuts (x8) (left pic).
- ⇒ Make sure everything is level and proceed to tighten up all the bolts.
- ⇒ Bolt both legs to the floor (bolts not supplied).

- ⇒ Fit the pump to the side of the post, by using the M10x20 bolt (x4) and 10mm washer (x4) (right pic).



Pump bolts



Winch plate bolts

- ⇒ Fit the winch plate to the side of the post, by using the M12x35 bolt (x2), 12mm washer (x2), 12mm spring washer (x2) and M12 nuts (x2) (left pic).

OPERATING INSTRUCTIONS

- ⇒ Use the winch to adjust the bed to your desired height.
- ⇒ Once at your desired height, slot both bed support pins through the left and right hand posts and secure with the four bed support pin clips.

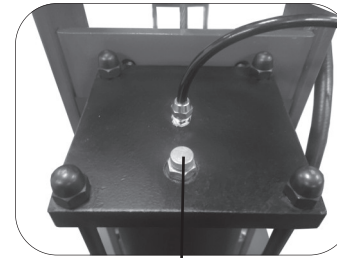


Danger / Caution: At all times use all four bed support pin clips to secure the bed support pins, using without the bed support pin clips is dangerous, this could cause injury to you or anyone in the vicinity, this will also damage the shop press and void your warranty.



Danger / Caution: With the bed pins/clips fitted and secure, the strain must be taken off the bed by rotating the handle anti-clockwise until it sits securely on the bed pins, failing to do this will damage the cables/shop press and could cause injury to you or anyone in the vicinity, this will not be covered under warranty.

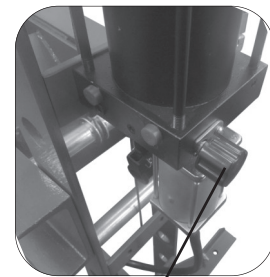
- ⇒ Take the pressure from the winch by rotating the handle anti-clockwise.
- ⇒ Place the arbor plates on the bed, then place the workpiece onto the arbor plates.



Air vent / oil fill screw

- ⇒ Open the air vent / oil fill screw (left pic).

- ⇒ Turn the release valve fully clockwise (right pic).



Release valve

- ⇒ Connect the air supply to the air valve inlet connection, press the air valve lever down and the ram will start to move (use the pump handle if no air supply is available), once the serrated saddle is near the workpiece take your hand off the air valve lever (or stop pumping the handle).
- ⇒ Align the workpiece and ram to ensure centre loading.