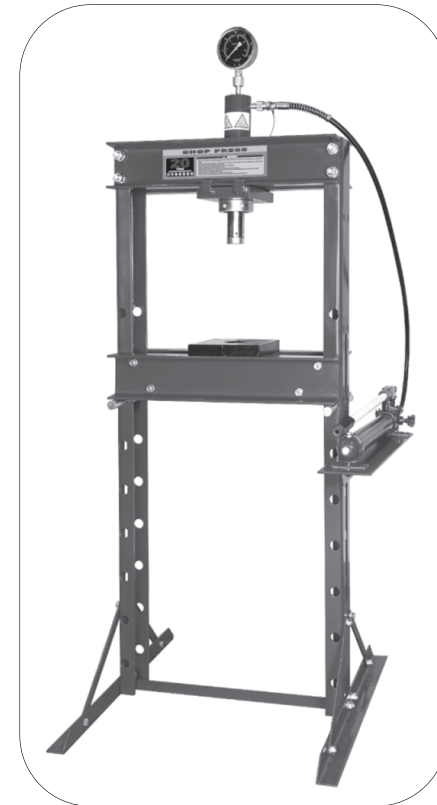




Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local amenity tip and place into the appropriate recycling bin.

## 20 Ton Hydraulic Shop Press



03689

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

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


Hydraulic 20 Ton Shop press - SIP Part. No. 03689

**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: 29/10/2014.



## PARTS LIST (PUMP)

Ref. No.	Description	Sip Part No.	Ref. No.	Description	Sip Part No.
P01.	Pump base	N/A	P23.	Nylon ring	N/A
P02.	Filter	N/A	P24.	Screw	N/A
P03.	O-ring	N/A	P25.	Screw protector	N/A
P04.	Reservoir	N/A	P26.	Screw	N/A
P05.	Tie rod	N/A	P27.	Nylon ring	N/A
P06.	Air vent / oil fill screw	HY02-00077	P28.	Sealing ring	N/A
P07.	O-ring	N/A	P29.	O-ring	N/A
P08.	Base of valve	N/A	P30.	Nylon ring	N/A
P09.	Steel ball	N/A	P31.	Pump core base	N/A
P10.	Screw	N/A	P32.	O-ring	N/A
P11.	Spring	N/A	P33.	Nylon ring	N/A
P12.	Pump foot	N/A	P34.	Pump core	N/A
P13.	Steel ball	HY02-00078	P35.	Pin	N/A
P14.	O-ring	HY02-00079	P36.	Retaining ring	N/A
P15.	Release valve	HY02-00080	P37.	Pin	N/A
P16.	Hydraulic hose	91424	P38.	Handle base	N/A
P17.	Coupler	91423	P39.	Handle	HY02-00076
P18.	Dust cover	N/A	P40.	Handle sleeve	HY02-00081
P19.	Steel ball	N/A	P41.	Screw	N/A
P20.	Steel ball base	N/A	R17.	O-ring	N/A
P21.	Spring	N/A	2.	Nylon ring	HY02-00041
P22.	Screw	N/A	N/A.	Complete pump assembly	HY02-00071

**Note:** Not all pump spares are available to order.

## CONTENTS

Page No.	Description
4.	Safety Symbols Used Throughout This Manual
4.	Safety Instructions
6.	Guarantee
6.	Contents and Accessories
8.	Technical Specifications
9.	Getting to Know Your Shop Press
10.	Assembly Instructions
11.	Operating Instructions
12.	Maintenance
13.	Troubleshooting
14.	Exploded Diagram (Frame)
15.	Parts List (Frame)
16.	Exploded Diagram & Parts List (Ram Assembly)
17.	Exploded Diagram (Pump Assembly)
18.	Parts List (Pump Assembly)
19.	Declaration of Conformity

## 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.

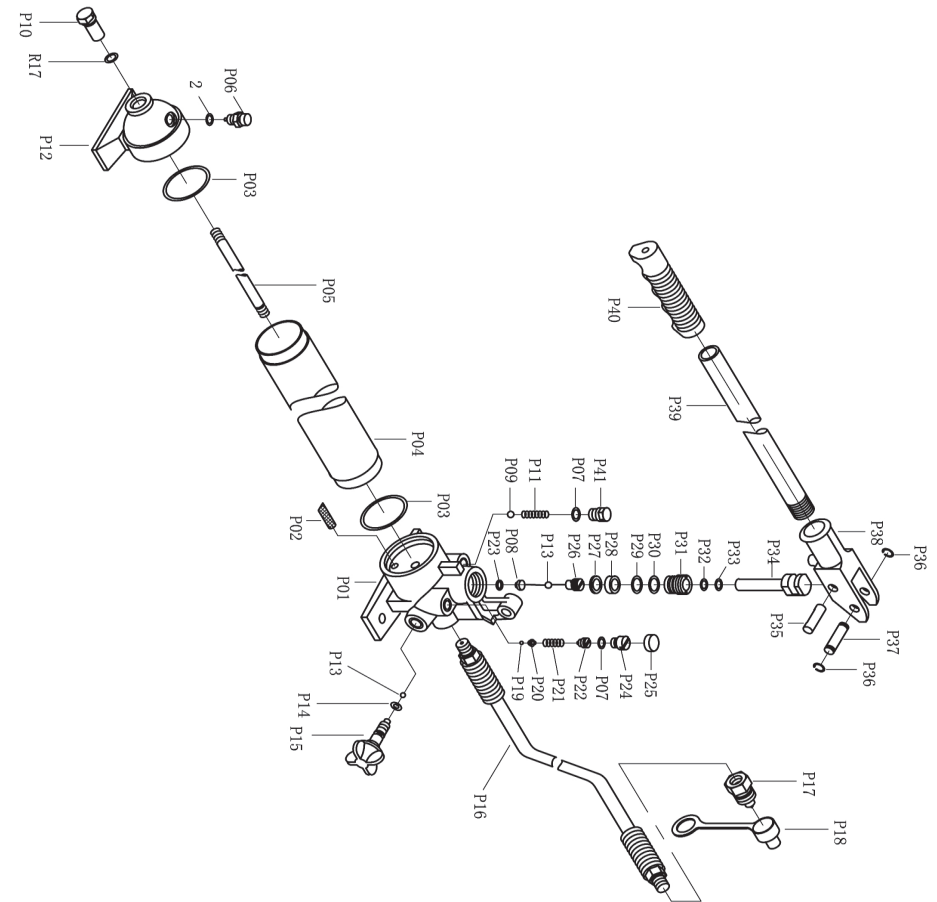
**NEVER LEAVE THE SHOP PRESS UNATTENDED:** When in use / under load.

**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;

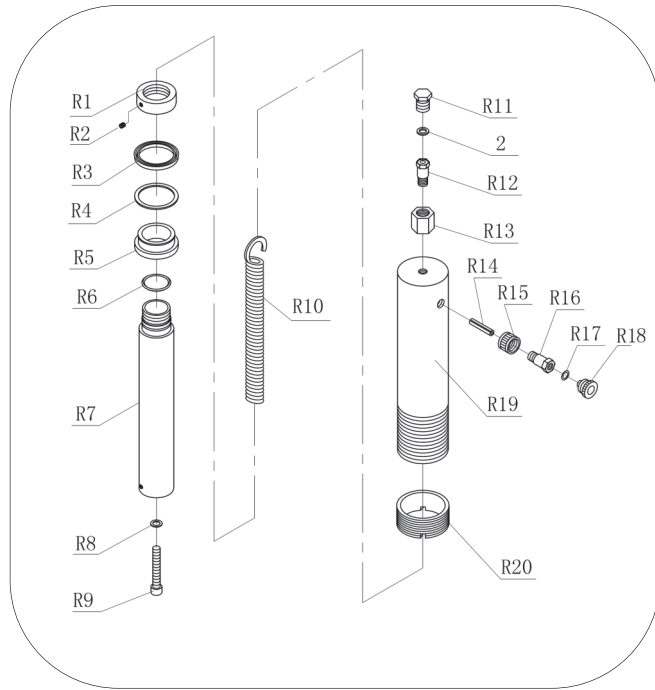
## EXPLODED DIAGRAM

### PUMP ASSEMBLY



## EXPLODED DIAGRAM & PARTS LIST

### RAM ASSEMBLY



Ref. No.	Description	Slp Part No.	Ref. No.	Description	Slp Part No.
R1.	Nut	N/A	R12.	Manometer coupler	N/A
R2.	Screw	N/A	R13.	Manometer connection nut	N/A
R3.	Sealing ring	N/A	R14.	Pin	N/A
R4.	PTFE ring	N/A	R15 & R16.	Coupler	91421
R5.	Bushing	N/A			
R6.	O-ring	N/A	R17.	O-ring	N/A
R7.	Piston	N/A	R18.	Dust cap	N/A
R8.	Copper ring	N/A	R19.	Ram	N/A
R9.	Screw	N/A	R20.	Limited ring	N/A
R10.	Spring	N/A	2.	Nylon ring	HY02-00041
R11.	Screw	N/A	N/A.	Complete ram assembly	HY02-00042

**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 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.



**Danger / Caution:** Never exceed the maximum capacity of 20 ton, overloading can lead to personal injury or damage to the shop press.



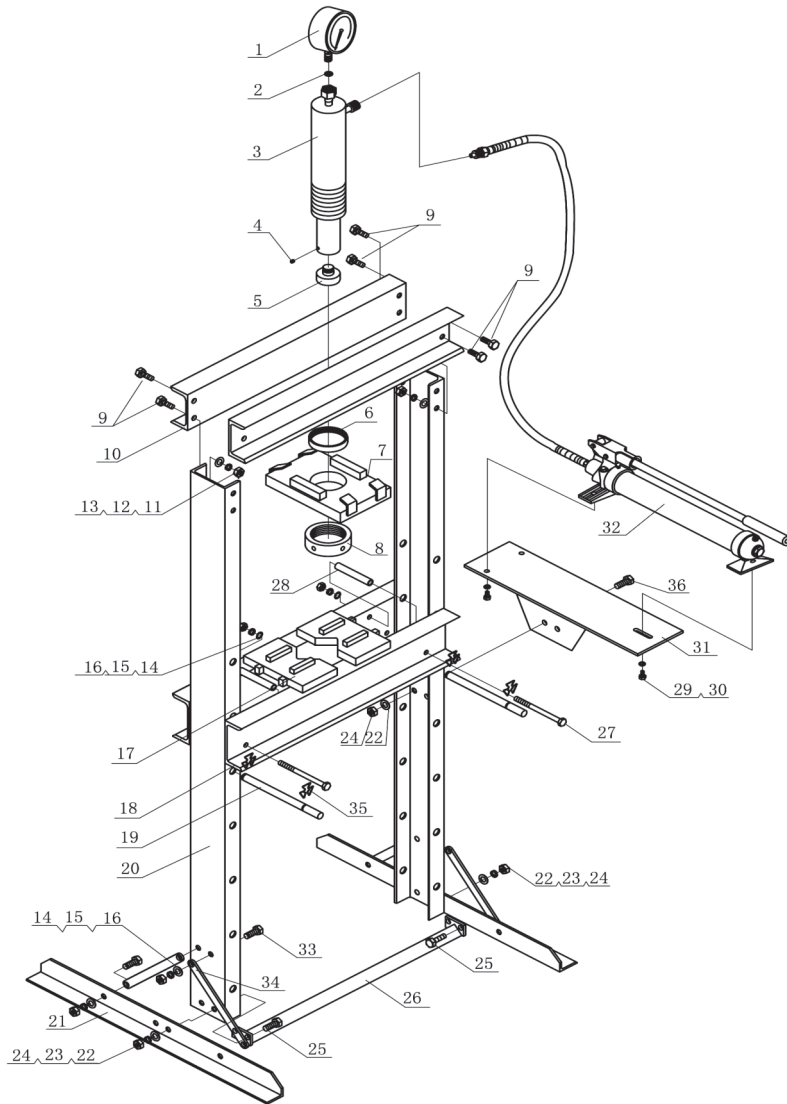
**CAUTION:** The warnings and cautions mentioned in this user manual can not cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be applied.

## PARTS LIST (FRAME)

Ref. No.	Description	Slp Part No.	Ref. No.	Description	Slp Part No.
1.	Manometer	HY02-00040	20.	Post	HY02-00059
2.	Nylon ring	HY02-00041	21.	Leg	HY02-00060
3.	Ram assembly	HY02-00042	22.	Washer 12mm	HY02-00061
4.	Lock nut M6	HY02-00043	23.	Spring washer 12mm	HY02-00062
5.	Serrated saddle	HY02-00044	24.	Nut M12	HY02-00063
6.	Upper round nut	HY02-00045	25.	Bolt M12x35	HY02-00064
7.	Ram support plate	HY02-00046	26.	Lower cross member	HY02-00065
8.	Ram nut	HY02-00047	27.	Bolt M10x140	HY02-00066
9.	Bolt M16x35	HY02-00048	28.	Bushing	HY02-00067
10.	Upper cross beam	HY02-00049	29.	Bolt M8x16	HY02-00068
11.	Washer 16mm	HY02-00050	30.	Washer 8mm	HY02-00069
12.	Spring washer 16mm	HY02-00051	31.	Pump plate	HY02-00070
13.	Nut M16	HY02-00052	32.	Pump assembly	HY02-00071
14.	Washer 10mm	HY02-00053	33.	Bolt M10x25	HY02-00072
15.	Spring washer 10mm	HY02-00054	34.	Support bar	HY02-00073
16.	Nut M10	HY02-00055	35.	Bed support pin clip	HY02-00074
17.	Arbor plate	HY02-00056	36.	Bolt M12x30	HY02-00155
18.	Bed	HY02-00057	N/A.	Fixing kit	HY02-00075
19.	Bed support pin	HY02-00058			

## 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.

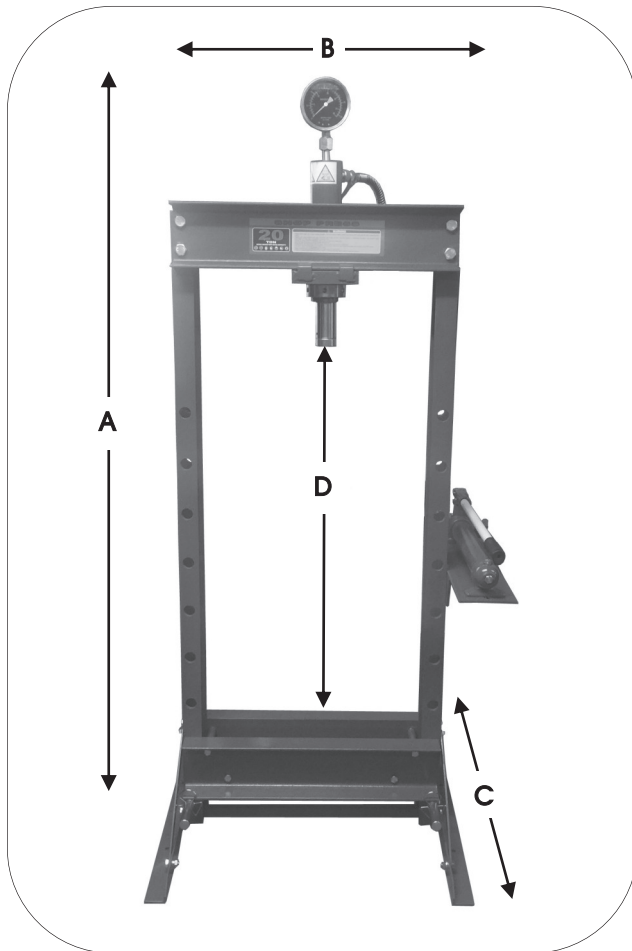
## CONTENTS & ACCESSORIES

Ram (c/w serrated saddle)	Lower Cross Beam	Washer 16mm (x8)
Pump (c/w hose)	Upper Cross Beam (x2)	Spring Washer 16mm (x8)
Manometer	Hydraulic Pump Plate	Nut M16 (x8)
Arbor Plate (x2)	Post (x2)	Bolt M10 x 140 (x4)
Ram Holder	Pump Handle	Bolt M10x25 (x8)
Legs (x2)	Bolt M12 x 35 (x4)	Washer 10mm (x12)
Leg Supports (x4)	Bolt M12 x 30 (x2)	Spring Washer 10mm (x12)
Bed (x2)	Washer 12mm (x6)	Nut M10 (x12)
Bed Support Pin (x2)	Spring Washer 12mm (x4)	Bolt M8 x 16 (x3)
Bed Support Pin Clip (x4)	Nut M12 (x6)	Washer 8mm (x3)
Bushing (for bed bolts x4)	Bolt M16 x 35 (x8)	



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

## TECHNICAL SPECIFICATIONS



A (Height)	1787mm
B (Width)	770mm
C (Depth)	700mm
D (Working range)	29.5 - 989.5mm
Ram Stroke	185mm
Bed Width	543mm

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



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



## OPERATING INSTRUCTIONS...cont

- ⇒ Align the workpiece and ram to ensure centre loading.
- ⇒ Pump the handle to start the pressing.
- ⇒ Once the work is done stop pumping the handle.
- ⇒ Turn the release valve anti-clockwise slowly to retract the ram.
- ⇒ When the ram has fully retracted, remove the workpiece.
- ⇒ If no more work is to be done, then tighten the release valve and air vent / oil fill screw back up.

## MAINTENANCE

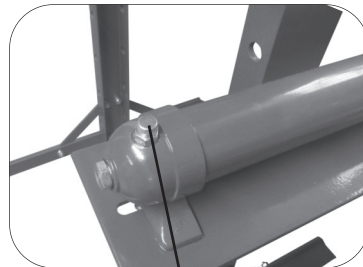
- ⇒ Periodically check the press frame to make sure all bolts are tight and inspect for cracked welds, bent, loose, or missing parts.
- ⇒ Periodically check hydraulic connections for possible leaks, replace or properly repair damaged or leaking hydraulic components before use.
- ⇒ Change hydraulic oil 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.

### 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 .

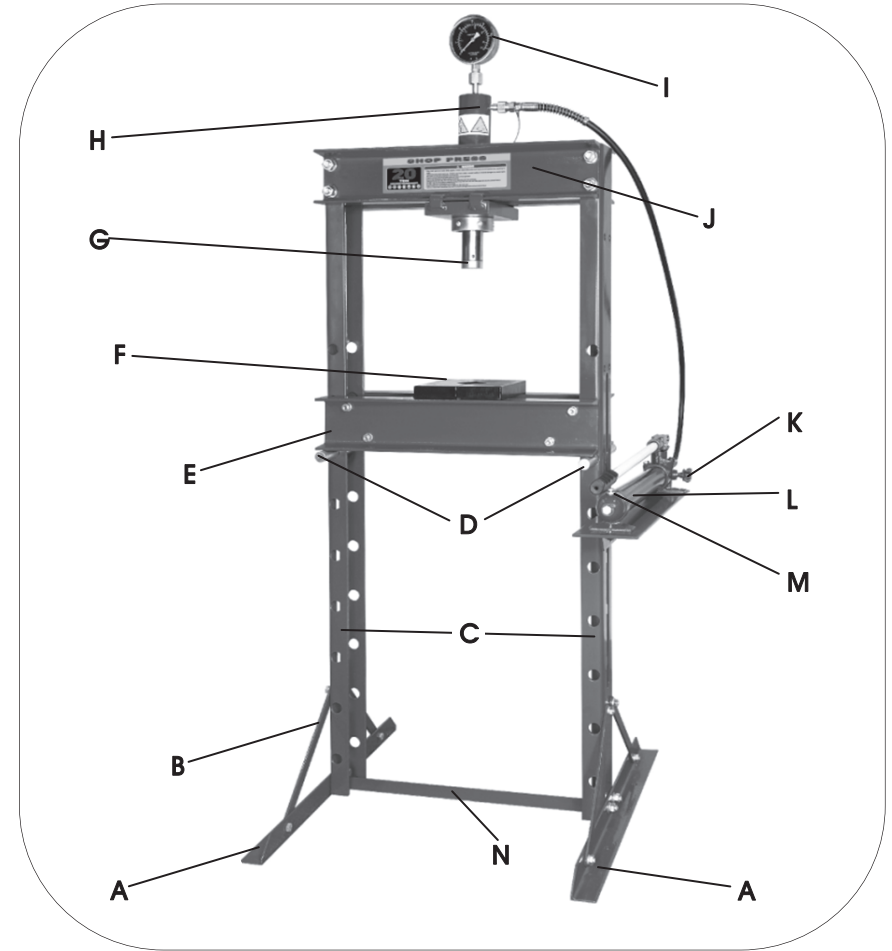
### BLEEDING

- ⇒ 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 screw back up.



Air vent / oil fill screw

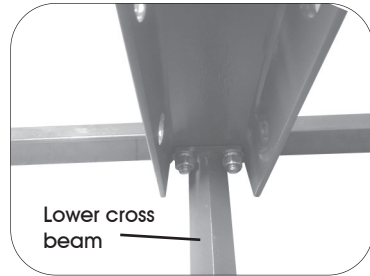
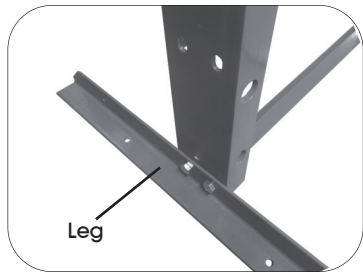
## GETTING TO KNOW YOUR SHOP PRESS



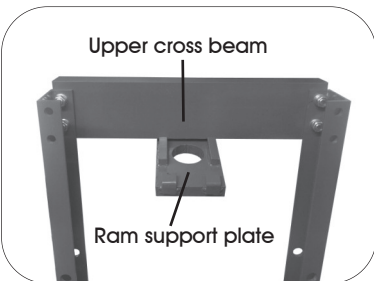
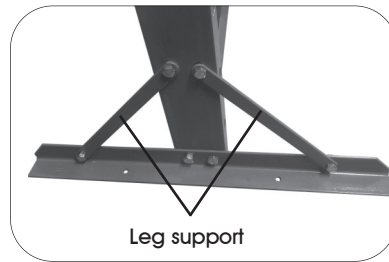
Ref.	Description	Ref.	Description
<b>A.</b>	Leg	<b>H.</b>	Ram
<b>B.</b>	Leg Supports	<b>I.</b>	Manometer
<b>C.</b>	Post	<b>J.</b>	Upper Cross Beam
<b>D.</b>	Bed Pin	<b>K.</b>	Release Valve
<b>E.</b>	Bed	<b>L.</b>	Pump
<b>F.</b>	Arbor Plate	<b>M.</b>	Air Vent / Oil Filler Screw
<b>G.</b>	Serrated Saddle	<b>N.</b>	Lower Cross Beam

## ASSEMBLY INSTRUCTIONS

- ⇒ Connect the leg and lower cross beam to the left or right post (see below pic), by using the M12x35 bolt (x2), 12mm washer (x2), 12mm spring washer (x2) and M12 nuts (x2), note do not tighten fully just yet.



- ⇒ Connect the both leg supports to the post and leg (see right pic), by using M10x25 bolt (x4), 10mm washer (x4), 10mm spring washer (x4) and M10 nuts (x4) (see right pic).
- ⇒ Repeat the process for the other post.



- ⇒ Slide the lip of the ram support plate over the upper cross beam, then bolt the upper cross beam to the left and right posts, by using the M16x35 bolt (x4), 16mm washer (x4), 16mm spring washer (x4) and M16 nut (x4) (see left pic).

- ⇒ Slide the remaining upper cross beam through the ram support plate lip, then bolt the upper cross beam to both posts using the remaining M16x35 bolt (x4), 16mm washer (x4), 16mm spring washer (x4) and M16 nut (x4) (see right pic).
- ⇒ Make sure everything is level and proceed to tighten up all the bolts.



## ASSEMBLY INSTRUCTIONS...cont

### FITTING THE PUMP

- ⇒ Fit the pump plate to the side of the post, by using the M12x30 bolt (x2), 12mm washer (x2), 12mm spring washer (x2) and M12 nuts (x2).
- ⇒ Fit the pump to the pump plate, by using the M8x16 bolt (x3) and 8mm washer (x3).

### FITTING THE RAM

- ⇒ Remove the nut from the ram.
- ⇒ From the top of the press, slide the ram down through the ram support plate, secure by refitting the nut.
- ⇒ Remove the bolt from the manometer connection, then screw the manometer in and secure tightly.
- ⇒ Connect the hose from the pump to the ram, and secure tightly.

### ASSEMBLING THE BED

- ⇒ Place both parts of the bed onto a table.
- ⇒ Slide the M10x140 (x4) bolts through one side of the bed.
- ⇒ From the other side, slide the four bushings over the four bolts.
- ⇒ Line up the other bed with the four bolts, slide the bolts through the four holes, secure tightly by using 10mm washer (x4), 10mm spring washer (x4) and M10 nuts (x4).

## OPERATING INSTRUCTIONS

- ⇒ Place the bed to your desired height, and use the bed support pin (x2) and bed support pin clips (x4) to secure in place.
- ⇒ Place the arbor plate on the bed, then place the workpiece onto the arbor plate.



**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 any one in the vicinity, this will also damage the shop press and void your warranty.

- ⇒ Open the air vent / oil fill screw on the hydraulic pump.
- ⇒ Turn the release valve fully clockwise, pump the handle down and the ram will start to move, once the serrated saddle is near the workpiece stop pumping the handle.