

Please read and save these instructions. Read through this owner's manual carefully before using product. Protect yourself and others by observing all safety information, warnings, and cautions. Failure to comply with instructions could result in personal injury and/or damage to product or property. Please retain instructions for future reference.



20 TON AIR/MANUAL SHOP PRESS W/ GAUGE

FOR CUSTOMER SERVICE

Technical Question?

CALL 1-866-458-2472

customerservice@oem-tools.com

UNPACKING

After unpacking unit, inspect carefully for any damage that may have occurred during transit. Check for loose, missing, or damaged parts. If any damage is observed, a shipping damage claim must be filed with carrier. Do not use Shop Press if broken, bent, cracked or damaged parts (including labels) are noted. Any Shop Press that appears damaged in any way, operates abnormally or is missing parts should be removed from service immediately. If you suspect that the Shop Press was subjected to a shock load (a load that was dropped suddenly, unexpectedly, etc.) immediately discontinue use until it has been checked by a factory authorized service center.



⚠ WARNING

The following safety information is provided as guidelines to help you operate your 20 Ton Air/Manual Shop Press w/ Gauge under the safest possible conditions. Any tool or piece of equipment can be potentially dangerous to use when safety or safe handling instructions are not known or not followed. The following safety instructions are to provide the user with the information necessary for safe use and operation. Please read and retain these instructions for the continued safe use of your service system. Failure to follow instructions listed below may result in serious injury. In addition, make certain that anyone that uses the equipment understands and follows these safety instructions as well.

⚠ WARNING

This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Explanation of Safety Signal Words

⚠ WARNING : Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION : Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION : Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Notes : Provide clarity and helpful information.



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Thank you very much for choosing an OEMTOOLS Product!

For future reference, please complete the owner's record below:

Model: _____ **Purchase Date:** _____

Save the receipt, warranty and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it. This machine is designed for certain applications only. OEMTOOLS cannot be responsible for issues arising from modification. We strongly recommend this machine is not modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted OEMTOOLS to determine if it can or should be performed on the product.

For technical questions please call 1-866-458-2472.



IMPORTANT INSTRUCTIONS AND SAFETY RULES

1. Know your tool. Read this manual carefully. Learn the tool's applications and limitations, as well as, potential hazards specific to it.
 2. Keep work area clean and well lit. Cluttered or dark work areas invite accidents.
 3. Keep children away. All children should be kept away from the work area. Never let a child handle a tool without strict adult supervision.
 4. Do not operate this tool if under the influence of alcohol or drugs. Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not attempt to operate.
 5. Use safety equipment. Eye protection should be worn at all times when operating this tool. Use ANSI approved safety glasses. Everyday eyeglasses are NOT safety glasses. Dust mask, non-skid safety shoes, hard hat or hearing protection should be used in appropriate conditions.
 6. Wear proper apparel. Loose clothing, gloves, neckties, rings, bracelets or other jewelry may present a potential hazard when operating this tool. Keep all apparel clear of the tool.
 7. Don't overreach. Keep proper footing and balance at all times when operating this tool.
 8. Check for damage. Check your tool regularly. If part of the tool is damaged it should be carefully inspected to make sure that it can perform its intended function correctly. If in doubt, the part should be repaired. Refer all servicing to a qualified technician. Consult your dealer for advice.
 9. Keep away from flammables. Do not attempt to operate this tool near flammable materials or combustibles. Failure to comply may cause serious injury or death.
 10. Store idle tools out of the reach of children and untrained persons. Tools may be dangerous in the hands of untrained users.
 11. Do not use the shop press to compress spring or any other item that could disengage and cause a potential hazard. Never stand directly in front of loaded press and never leave loaded press unattended.
- Maintain tools with care.
 - Keep tools dry and clean.
 - Properly maintained tools are less likely to bind and are easier to control. Do not use a damaged tool. Tag damaged tools "Do not use" until repaired.
 - Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation.
 - If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.
 - Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool may become hazardous when used on another tool.
 - Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
 - When servicing a tool, use only identical replacement parts. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of injury.
 - Maintain a safe working environment. Keep the work area well lit. Make sure there is adequate surrounding workspace. Keep the work area free of obstructions, grease, oil, trash, and other debris. Do not use this product in a damp or wet location.
 - Maintain labels and nameplates on this product. These carry important information. If unreadable or missing, contact OEM for a replacement.



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- Keep the handle dry, clean, and free from brake fluid, oil, and grease.
- Before use, read and understand all warnings, safety precautions, and instructions as outlined in the vehicle manufacturer's service manual. It is beyond the scope of this manual to properly describe the correct procedure and test data for each vehicle.
- Always perform vehicle service in a properly ventilated area. Never run an engine without proper ventilation for its exhaust. Stop work and take necessary steps to improve ventilation in the work area if you develop momentary eye, nose, or throat irritation as this indicates inadequate ventilation.
- Engine parts that are in motion and unexpected movement of a vehicle can injure or kill. When working near moving engine parts, wear snug fit clothing and keep hands and fingers away from moving parts. Keep hoses and tools clear of moving parts. Always stay clear of moving engine parts. Hoses and tools can be thrown through the air if not kept clear of moving engine parts.
- The unexpected movement of a vehicle can injure or kill. When working on vehicles always set the parking brake or block the wheels.
- Avoid accidental fire and/or explosion. Do not smoke near engine fuel and battery components.
- The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.
- For safety purposes and the prevention of damage to expensive components it is advised that the user have an understanding of basic automotive repair and a working knowledge of automotive systems.
- We believe the information contained herein to be reliable. However, general technical information is given by us without charge and the user shall employ such information at their own discretion and risk. We assume no responsibility for results or damages incurred from the use of such information in whole or in part. Always refer to specific instructions and technical information supplied by vehicle manufacturer.
- The manufacturer declines any and all responsibility for damage to vehicles or components if said damage is the result of unskillful handling by the operator or of failure to observe the basic safety rules set forth in the instruction manual.
- This equipment is intended only for professional use by personnel trained in performing the service functions for which it is has been designed
- This equipment is designed for servicing a variety of vehicles in a safe, convenient manner. However, differences in vehicle makes and models may make it impossible to use this equipment as it is intended. Do not attempt to force the use of this equipment on an application for which it is not designed to perform.
- The procedures documented in this manual are to serve as guidelines for the use of this equipment.
- In addition to these guidelines, always follow the manufacturer's recommended procedures when servicing each unique vehicle.
- The use of this equipment is simple and straightforward if you follow the instructions. When operating this equipment, use common sense, and always stop to think before using a Shop Press or lifting a vehicle



20 TON AIR/MANUAL SHOP PRESS W/ GAUGE

PRODUCT SPECIFICATIONS

Capacity	20 Tons
Overall Height	70 3/4"
Overall Width	28 7/8"
Working Height	29 1/2"
Measurement Between Uprights	21 1/8"
Adjustment Spacing	5"
Working Range	0" - 40 1/2"
Base Measurement	25" W x 28" L
Movable Piston Assembly	Yes
Ram Travel	7 1/4"
Air Pressure	110 - 120 Psi
Air Inlet Fitting	1/4" NPT

PRODUCT DESCRIPTION

The 20-ton heavy duty H-frame shop press utilizes an air powered hydraulic bottle jack that delivers up to 20 tons of pressing force. When components need to be removed or assembled, this press delivers the controlled power to get the job done. The pressing ram head is forced down by the pressure of the bottle jack's piston pressing against the top plate. Heavy return springs collapse the bottle jack piston after the job is finished.

NEVER use for any purpose other than those uses outlined above!

Verify that the product and application are compatible, if in doubt call OEMTOOLS at 1-866-458-2472.

Before using this product, read the operator's manual completely and familiarize yourself thoroughly with the product, its components and recognize the hazards associated with its use.

Wear appropriate safety gear, including heavy-duty work gloves and ANSI-approved safety goggles during use. Always evaluate your task before using this press. Use as intended only.

Use only on a hard, level and flat surface capable of bearing the combined weight of the Shop Press, the operator and any tools being used.

Before each use, inspect the general condition of the Shop Press. Check for oil leaks, press operation, loose components. If a problem occurs, have the problem corrected before further use.

TO PREVENT SERIOUS INJURY: DO NOT USE A DAMAGED OR MALFUNCTIONING PRESS

If in doubt about the safety of your project, we advise you to have the work done by a professional familiar with applicable safety practices.

WARNING

Like all shop equipment there is potential danger when operating this press. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this press with respect and caution to decrease the risk of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

ASSEMBLY

Use the exploding drawing in this manual as your guide to assemble. Lay all parts and assemblies out in front of you before beginning.

It is advised that you get someone to help stand up and balance the parts during assembly.

Note: Do not fully tighten any bolts unless told to do so.

1. Attach one base section (21) to left post (20) and lower cross member (26) using bolts (25), washers (22), lock washer (23) and nuts (24), then attach another to right post (20) and the lower cross member.
2. Put the press frame in an upright position, and insert the under plate (7) to the two upper crossbeams at the same time, then secure this crossbeam to the posts with bolts (9), washers (13), lock washers (12) and nuts (11).
3. Put another upper crossbeam into position and insert the under plate (7) to the two upper crossbeams at the same time, then secure this crossbeam to the posts with bolts (9), washer (13), lock washers (12) and nuts (11).



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4. Screw the upper round nut (6) onto the ram (3), insert the ram into the hole in the under plate (7), then screw the under round nut (8) onto the ram and attach the serrated saddle (5) to the ram.
5. Join the two press bed frames (18) together by inserting the four bolts (27) through the bushings (28) and the holes in the bed frames, then tighten the four bolts, washers (14), lock washers (15) and nuts (16).
6. Insert the bed frame pins (19) into the holes in the post, and then insert the joined press bed frame (18) into press frame and onto bed frame pin.
7. Attach the pump and air motor assembly to the right post using bolts (29) and washers (14), then insert the jack handle (48) into the handle bracket (38).
8. Connect the hydraulic hose fitting (57) to the connection nut (58) and assemble the pressure gauge (1) to the pressure gauge connection nut (59) which is on top of the ram (3).
9. Tighten all bolts and nuts.

NOTICE: Before disassembly, carefully slide bed to its fully lowered position.

OPERATION

BEFORE FIRST USE

Pour a teaspoon of good quality air tool lubricant into the air supply inlet of the control valve, connect to an air supply and operate for 3 seconds to evenly distribute lubricant.

Purge air from the hydraulic system:

MANUAL SYSTEM: Open the release valve (41) by turning it counterclockwise. Pump several strokes to eliminate any air from the system

AIR OPERATING SYSTEM: Open the release valve (41) by turning it counterclockwise. Connect the air inlet fitting (39) to the shop air supply, then turn on the air valve (40) letting the pump eliminate any air in the system.

WARNING

The maximum load is 20 tons. **DO NOT** exceed this rated capacity. Never apply excessive force to a workpiece and always use the pressure gauge to accurately determine the applied load.

NEVER Stand directly in front of a loaded press and never leave loaded press unattended.

AVOID OVERLOAD. Exceeding rated press capacity can damage the press, shatter a workpiece, or launch a press pin causing a severe impact injury. When the press has reached its maximum pressure or the pump lever becomes stiff to operate, the press has reached its limit. Never use a cheater pipe for extra leverage.

OPERATION SAFETY. Applying pressure to parts with this press can cause them to spring out and strike you or bystanders with deadly force. Verify that bystanders are a safe distance away from the press during operations. Make sure that you are wearing leather gloves and safety glasses with a face shield. Heavy leather boots with extra toe protection are also required. Under some conditions, a hard hat may be needed.

WORKPIECE SUPPORT. When a part is pressed free, a workpiece may shift suddenly or fall from the press, causing a crushing injury to your foot or leg. Use a catch basket and support long or awkward workpieces with stands or chains, or have an assistant support the end of a long workpiece during pressing operations.

UNSAFE WORKPIECE. Applying pressure to unstable objects can cause the object to eject, causing an impact injury. Never apply pressure to balls, round objects, springs, or elastic items.

AVOIDING PROJECTILE INJURIES. Being hit by a launched workpiece or press tooling can cause severe impact injury or death. When using the press, stand out of the way of any possible projectile path. Never press with rods or pins that are long enough to shift off-center and kick out under a load. Never stack rods and spacers to create an extended press pin. If pressing must occur with an extended press pin, the pin must be fastened with a safety chain or the press pin must be enclosed in a safety cage to eliminate a projectile hazard.



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CORRECT TOOLING. Without using the correct spring caging tool or jig to hold the spring-loaded workpiece, the workpiece may shift suddenly, launching springs that could cause a severe impact injury. Never use this press to unload spring-loaded assemblies without also using the correct spring caging tool or jig.

CORRECTING MISALIGNED LOADS. If a workpiece becomes misaligned during pressing operations, it may slip out of the press and cause severe impact injury. Never attempt to realign a workpiece while it is under pressure. Relieve hydraulic pressure, and start pressing operations over if a workpiece or press pin has moved or become misaligned. Relieve hydraulic pressure if you suspect the workpiece is in a bind, or structural failure is imminent.

SAFE WORKING ZONE. Falling tooling, arbor plates, or a shifting workpiece can cause a crushing injury to your leg or foot. Keep out from under the bed, do not work under the press when it is loaded, and never leave the press loaded and unattended.

AVOIDING INCORRECT PRESS OPERATIONS. Some workpieces cannot withstand the force of pressing and can explode, causing an impact injury. Other workpieces have hidden retaining rings, shoulders, pins, welds, or are integral and cannot be pressed apart. Before using this press, make sure that you understand how a component is built and pressed apart.

AVOIDING SPRING-BACK HAZARDS. Under heavy pressing operations, when some parts finally break free of the host workpiece, sudden hydraulic press unloading can result in spring-back. As a result, a workpiece, press pin, or arbor plate can spring up and fall from the bed, causing a crushing injury to your foot or leg. Before press operations begin, anticipate what the workpiece may do if this sudden unloading occurs, and secure the workpiece so it will not fall.

1. Insert the support pins to desired height, and then lower the bed. Ensure bed frame is fully rested on the support pins.
2. Place arbor plates on the bed frame as needed.

3. Place workpiece on bed frame, using every precaution necessary to ensure your safety and prevent property damage. Position workpiece in a manner which will not allow it to inadvertently fall from bed.
4. Close the release valve by turning it clockwise.
5. Connect the air inlet fitting (39) to shop air supply, then turn on the air valve (40), let the pump work until serrated saddle (5) nears workpiece, then turn off the air valve. For Manual Operation: Pump the Handle until the Serrated Saddle nears the workpiece.
6. Align ram and workpiece to ensure center-loading.
7. Apply load to workpiece by turning on the air valve. For Manual Operation: Pump the Handle.

Do not overload workpiece.

8. Stabilize workpiece in a manner which will not allow it to inadvertently fall from the bed once the load is removed, then turn release valve counterclockwise to retract the ram and remove workpiece. Do not turn the release valve counterclockwise more than 1 full turn.

Note: To protect your ram, do not continue to operate pump after it is fully extended or retracted.

WARNING

To reduce the risk of personal injury and/or property damage, ensure that the rated working pressure of each pressurized attachment be equal to or greater than the rated working pressure developed by the hydraulic pump.

WARNING

The hydraulic power unit provided with this device is intended to be used as an integral part of this press and not as a stand-alone jacking device separate of the press. Never use the hydraulic power unit provided with this press for any purpose other than that for which it is intended.

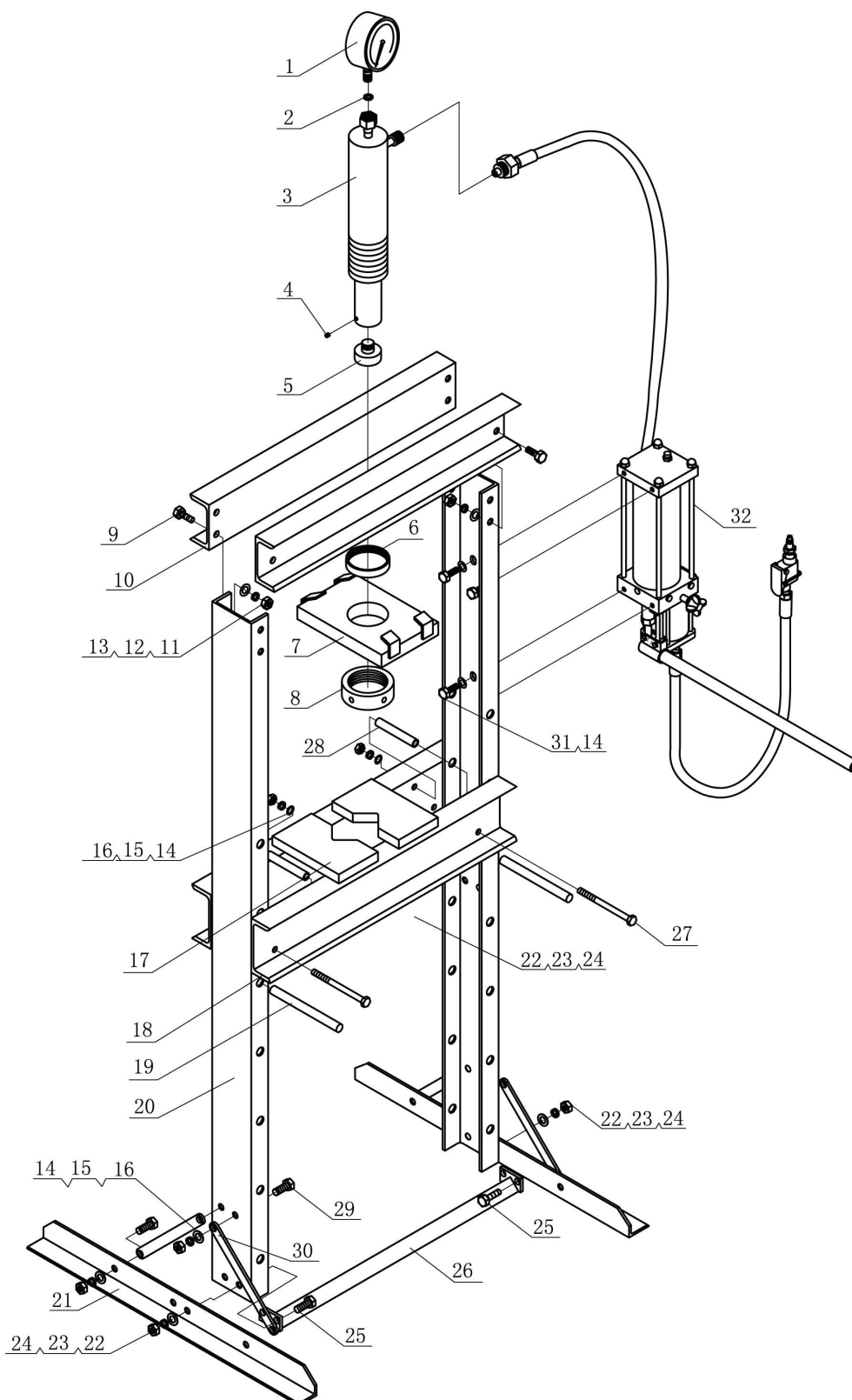


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Figure	Description	Quantity
24812-1	Pressure Gauge	1
24812-2	Nylon Ring	1
24812-3	Ram Assembly	1
24812-4	Lock Nut	1
24812-5	Serrated Saddle	1
24812-6	Upper Round Nut	1
24812-7	Under Plate	1
24812-8	Under Round Nut	1
24812-9	Bolt	8
24812-10	Upper Crossbeam	2
24812-11	Nut	8
24812-12	Lock Washer	8
24812-13	Washer	8
24812-14	Washer	16
24812-15	Lock Washer	12
24812-16	Nut	12
24812-17	Heel Block	2
24812-18	Press Bed Frame	2
24812-19	Bed Frame Pin	2
24812-20	Post	2
24812-21	Base Section	2
24812-22	Washer	4
24812-23	Lock Washer	4
24812-24	Nut	4
24812-25	Bolt	4
24812-26	Lower Cross Member	1
24812-27	Bolt	4
24812-28	Bushing	4
24812-29	Bolt M	8
24812-30	Side Bar	4
24812-31	Bolt	4
24812-32	Pump Assembly	1



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The manufacturer and/or distributor have provided the parts list and assembly diagram in this manual as a reference tool only. Neither the manufacturer nor distributor makes any representation or warranty of any kind to the buyer that he or she is qualified to make any repairs to the product, or that he or she is qualified to replace any parts of the product. In fact, the manufacturer and/or distributor expressly states that all repairs and parts replacements should be undertaken by certified and licensed technicians, and not by the buyer. The buyer assumes all risk and liability arising out of his or her repairs to the original product or replacement parts thereto, or arising out of his or her installation of replacement parts thereto.

Note: Not all components of the Shop Press are replacement items, but are illustrated as a convenient reference for location and position in the assembly sequence.

Use caution when troubleshooting a malfunctioning jack. Stay well clear of the supported load. Completely resolve all problems before use. If the press is malfunctioning, have a qualified technician inspect and repair the press before use. After the press is repaired: test it carefully without a load by raising it and lowering it fully, checking for proper operation.

MAINTENANCE

Before each use, inspect press for damage. Do not use if bent, broken, cracked, leaking or otherwise damaged components are noted. Periodically, lightly oil all moving parts, including the pump piston and ram.

ADDING/CHANGING OIL TO BOTTLE JACK

Important: Use only good grade hydraulic jack oil. Avoid mixing different types of fluid and NEVER use brake fluid, turbine oil, transmission fluid, motor oil or glycerin. Improper fluid can cause premature failure of the jack and the potential for sudden and immediate loss of load. Premium hydraulic jack oil or equivalent recommended.

Remove the oil filler nut (55) on the pump, if it is not adequate, fill with hydraulic jack oil as necessary, the replace the oil filler nut, purge air as described in BEFORE FIRST USE above.

Check ram and pump piston for signs of rust on a regular basis. Clean as needed with a lint free, oil saturated cloth.

If press will not be in use for some time: Pour a teaspoon of good quality air tool lubricant into the air supply inlet of the control valve, connect to an air supply and operate for 3 seconds to evenly distribute lubricant.

TROUBLESHOOTING

Symptom	Possible Causes	Corrective Action
Ram will not press load	<ul style="list-style-type: none"> • Release valve not tightly closed • Faulty/Loose couplers • Oil level in pump is low • Release valve not fully closed 	<ul style="list-style-type: none"> • Ensure release valve tightly closed • Remedy overload condition • Replace/Tighten couplers • Fill and bleed system • Tighten release valve
Ram bleeds off after press operation	<ul style="list-style-type: none"> • Release valve not tightly closed • Ram malfunction 	<ul style="list-style-type: none"> • Ensure release valve tightly closed • Contact OEMTOOLS
Ram will not retract after unloading	<ul style="list-style-type: none"> • Reservoir overfilled • Linkage binding 	<ul style="list-style-type: none"> • Drain fluid to proper level • Clean and lubricate moving parts
Poor pressing performance	<ul style="list-style-type: none"> • Fluid level low • Air trapped in system 	<ul style="list-style-type: none"> • Ensure proper fluid level • Follow Bleeding/Venting instructions
Ram will not extend to full extension	<ul style="list-style-type: none"> • Fluid level low 	<ul style="list-style-type: none"> • Ensure proper fluid level
Oil leak from ram	<ul style="list-style-type: none"> • Ram malfunction 	<ul style="list-style-type: none"> • Contact OEMTOOLS



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OEMTOOLS™ LIMITED 90 DAY WARRANTY

Please read the following carefully

From 90 days from the original purchase of this product, OEMTOOLS will warranty this item. If you find any defect in material or workmanship, through normal usage, return it to the place of purchase or to OEMTOOLS for repair or replacement at our discretion. In order to obtain this service send your tool and proof of purchase, transportation pre-paid, to OEMTOOLS Q.A. Dept., 3580 E. Raines Road #3, Memphis, TN 38118. We will not be responsible for lost or damaged goods during transportation, please insure your package. If our inspection verifies the defect, we will either repair or replace the product at our election, or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

OEMTOOLS does not provide warranty for products labeled other than OEM or OEMTOOLS. OEMTOOLS will not provide any warranty for products subjected to abnormal use. Abnormal use includes, but is not limited to, abuse, accident, alteration, neglect, and unauthorized or unreasonable use or repairs. This warranty does not cover bits, blades, files, batteries, or calibration. We recommend that you maintain your tools and sharpen or replace blades, bits, files, and batteries as necessary. OEMTOOLS reserves the right to make any changes in construction or design at any time without any obligation in incorporating such changes to tools or equipment previously sold.

OEMTOOLS makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear or to lack of maintenance.

We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

CONTACT US



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