

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

Westward® Shop and Bench Presses

Description

Westward hydraulic shop and bench presses are designed for use as an aid in assembling automotive and industrial components. Typical applications include installation and removal of alternator and power steering pump bearings, axle bearings, transmission bearings, seal, driveshaft bearings and u-joints and others. Each is designed to provide a positive means of performing clamping (gluing) and forming operations. It is not intended for use as an assembly table or as a fixture stand used to secure a large, final assembly component.

Specifications

| Model | Capacity | Dimensions | | | Minimum Working Space | Maximum Working Space | Hydraulic Stroke |
|---------------|----------|------------|---------|---------|-----------------------|-----------------------|------------------|
| | | Length | Width | Height | | | |
| 1MZJ4 | 25 Ton | 28" | 28" | 59" | 2-1/2" | 34-1/4" | 6" |
| 1MZJ7 (bench) | 12 Ton | 16-1/8" | 21-1/4" | 31-1/2" | 2-1/2" | 16-1/8" | 6" |
| 1MZJ8 | 12 Ton | 28" | 28" | 59" | 3" | 34-3/4" | 6" |

General Safety Information

▲ WARNING Study, understand, and follow all instructions before operating this device. Do not exceed rated capacity. Burst hazard exists if hose or connection pressure exceeds rated pressure. Always monitor pressure and load at all times. Never apply excessive force to a workpiece and always use a force gauge to accurately determine the applied load. Press should be set up on a hard level surface. Always wear safety goggles when working on or near this equipment. Always inspect hoses and connections for damage prior to use. Keep hands and feet from loading area. Never leave loaded press unattended. Center load workpiece to help prevent objects from becoming propelled from the press. Install safety shield around workpiece whenever possible to protect against flying objects if workpiece fractures under load. Ensure the user is familiar with the control and operational characteristics of this device and aware of the potential hazards associated with its use. Inspect before each use. Do not use if bent, broken, leaking, or damaged components are noted. No alteration of this product is allowed. Do not use this device for any purpose other than that for which it was intended. Failure to heed any one or combination of these warnings may result in severe personal injury and/or property damage.

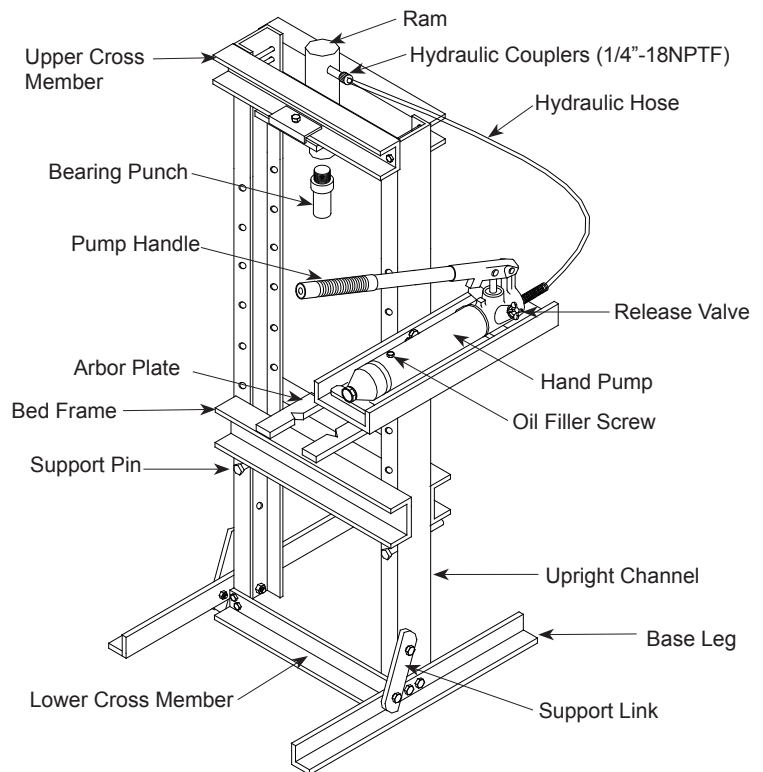


Figure 1 — Shop Press Components (1MZJ4 shown)

Westward® Shop and Bench Presses

IMPORTANT: Reference numbers are for assembly purposes only. See appropriate replacement parts illustration of your model for parts ordering.

| Model 1MZJ4 | | |
|-----------------------|---------|----|
| Size of Hardware Kits | | |
| 3* - bolt | M10x25 | 19 |
| lock washer | M10 | 19 |
| nut | M10 | 19 |
| 9 - bolt | M10x25 | 2 |
| 10* - bolt | M16x150 | 4 |
| flat washer | M16 | 8 |
| lock washer | M16 | 4 |
| nut | M16 | 4 |

* part of assembly

| Model 1MZJ8 | | |
|-----------------------|---------|----|
| Size of Hardware Kits | | |
| 3* - bolt | M10x25 | 19 |
| lock washer | M10 | 19 |
| nut | M10 | 19 |
| 9 - bolt | M10x25 | 2 |
| 10* - bolt | M16x115 | 4 |
| flat washer | M16 | 8 |
| lock washer | M16 | 4 |
| nut | M16 | 4 |

* part of assembly

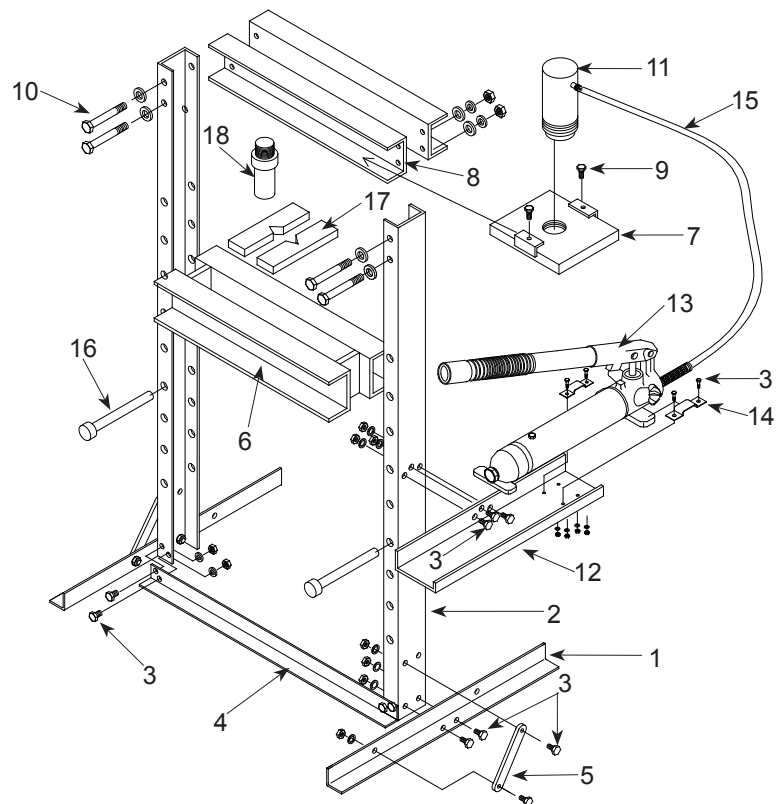


Figure 2 — Assembly Illustration for Model 1MZJ4 and MMZJ8

Assembly

MODELS 1MZJ4 and 1MZJ8

(Refer to Figure 2)

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

1. Attach base legs (No.1) to upright channels (No.2) with bolts, lock washers and nuts (No.3). Hand tighten only.
2. Attach lower cross member (No.4) to upright channels (No.2) with bolts, lock washers and nuts (No.3).
3. Attach support links (No.5) to the base (No.1) and upright channels (No.2) with bolts, lock washers and nuts (No.3).
4. Carefully slide bed frame (No.6) down to lowest possible position between the upright channels (No.2).

5. Slide head plate (No.7) to into upper cross members (No.8). Then, secure with bolts (No.9).
6. Attach the upper cross members assembly (No.8) to the upright channels (No.2) with bolts, flat washers, lock washers and nuts (No. 10).
7. Thread the ram (No.11) to head plate (No. 7) on upper cross members (No.8).
8. Attached pump support bracket (No.12) to upright channel (No.2) with three bolts, lock washers and nuts (No.3).
9. Tighten all applicable nuts and bolt assemblies.
10. Place the hand pump (No.13) on pump support bracket (No.12).
11. To hold the pump, attach the fixed

buckets (No.14) and secure with bolts, lock washers and nuts (No.3).

12. Connect the male coupler end of hydraulic hose (No.15) to the female coupler of the ram (No.11) to complete the connections.
 13. Carefully bring the bed frame (No.6) up and secure it with pins (No.16).
 14. Place the Arbor Plates (No.17) on Bed Frame (No.6).
 15. When necessary, replace the saddle of ram (No.11) with the bearing punch (No. 18).
 16. The press is now ready to use.
- Caution:** Before disassembly, carefully slide bed from down to its fully lowered position.

Models 1MZJ4, 1MZJ7 and 1MZJ8

IMPORTANT: Reference numbers are for assembly purposes only. See appropriate replacement parts illustration of your model for parts ordering.

| Model 1MZJ8 | | |
|-----------------------|-----------------|-----|
| Size of Hardware Kits | | |
| | | Qty |
| 3* | - bolt M10x30 | 8 |
| | lock washer M10 | 8 |
| | nut M10 | 8 |
| 9 | - bolt M10x30 | 2 |
| 10* | - bolt M16x120 | 4 |
| | flat washer M16 | 8 |
| | lock washer M16 | 4 |
| | nut M16 | 4 |

* part of assembly

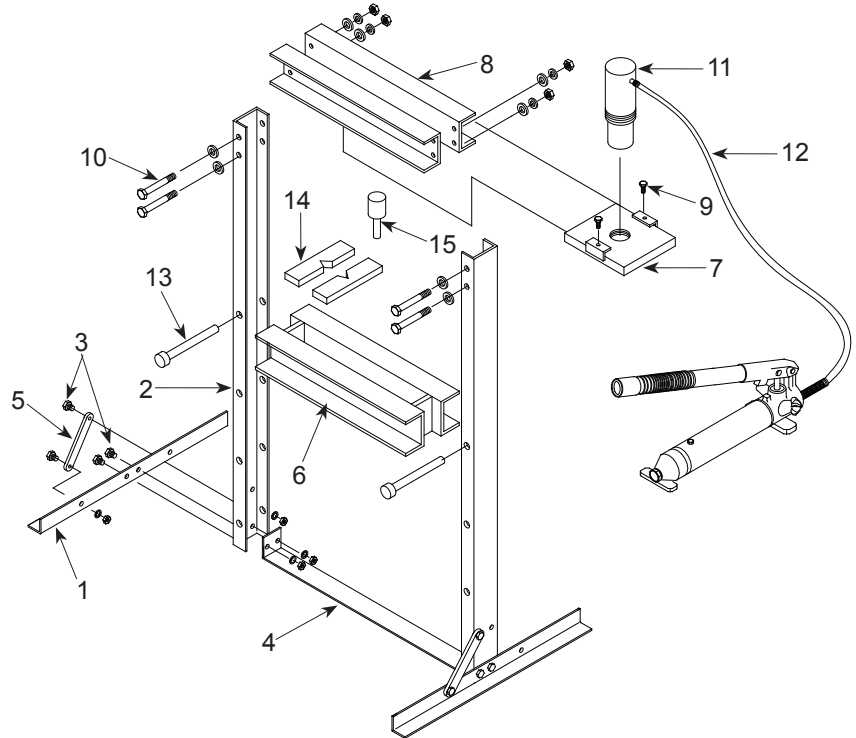


Figure 3 — Assembly Illustration for Model 1MZJ7

Assembly

MODEL 1MZJ7

(Refer to Figure 3)

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

1. Attach base legs (No.1) and lower cross member (No. 4) to upright channels (No.2) with bolts, lock washers and nuts (No.3). Hand tighten only.
2. Attach support links (No.5) to the base (No.1) and upright channels (No.2) with bolts, lock washers and nuts (No.3).
3. Carefully slide bed frame (No.6) down to lowest possible position between the upright channels (No.2).
4. Slide head plate (No.7) to into upper

cross members (No.8). Then, secure with bolts (No.9).

5. Attach the upper cross members assembly (No.8) to the upright channels (No.2) with bolts, flat washers, lock washers and nuts (No. 10).
6. Thread the ram (No.11) to head plate (No. 7) on upper cross members (No.8).
7. Tighten all applicable nuts and bolt assemblies.
8. Connect the male coupler end of hydraulic hose (No.12) to the female coupler of the ram (No.11) to complete the connections.
9. Bring the bed frame (No.6) up and secure it with pins (No.13).

10. Place the Arbor Plates (No.14) on Bed Frame (No.6).

11. When necessary, replace the saddle of ram (No.11) with the bearing punch (No. 15).

12. The press is now ready to use.

Caution: Before disassembly, carefully slide bed from down to its fully lowered position.

Westward[®] Shop and Bench Presses

Operation

IMPORTANT: Projectile Hazard! Never stand directly in front of loaded press. Ensure that workpiece is center-loaded and secure. Reduce risk of flying debris by carefully following all operating instruction. Know your press and the hazards associated with its use. Keep hands and feet from bed area at all times. Always center load workpiece..

1. Insert workpiece into 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.
2. Close release valve by turning it clockwise firmly, until tight.
3. Pump handle until ram nears workpiece.
4. Align ram and workpiece to ensure center-loading.
5. Apply load to workpiece by pumping handle. Do not overload workpiece.
6. Remove load from workpiece by turning release valve counterclockwise.
Stabilize workpiece in a manner which will not allow it to inadvertently fall from the bed once the load is removed.
7. Once ram has fully retracted, remove workpiece.

Maintenance

Before each use, inspect press for damage. Do not use if bent, broken, cracked, leaking or otherwise damaged components are noted.

IMPORTANT: Use only a good grade hydraulic oil such as Mobil DTE 13M or equivalent. Avoid mixing types of oil. Do not use hydraulic brake fluid, alcohol, glycerine, detergent motor oil, or dirty oil. Improper fluid can cause serious internal damage to the jack rendering it inoperative.

ADDING OIL TO HAND PUMP

1. With ram fully retracted, unloaded position, disconnect hydraulic hose from application.
2. With pump in its upright, horizontal position, remove oil filler screw located on top of the pump reservoir.
3. Use a small funnel to fill reservoir to within 1/4" (6mm) of the opening.
4. Wipe up any spilled fluid and reinstall the oil filler screw.

CHANGING OIL OF HAND PUMP

1. Repeat procedure no. 1 and 2 above, then pour used fluid into a sealable container.
2. Dispose of fluid in accordance with local regulations.
3. Fill with good grade hydraulic oil ONLY. Reinstall oil filler screw.

RUST PREVENTION

Check ram piston for signs of rust on a regular basis. Clean as needed and wipe with an oil saturated cloth.

Note: Never use sandpaper or abrasive material on ram piston surface.

HOW TO REMOVE FAULTY COUPLER

If ram does not retract, depressurize pump and hose. To avoid hydraulic oil from spilling, wrap the grasping tool with rags or similar padding. Remove the ram from application. Disconnect and replace with new coupler.

HOW TO BLEED AIR FROM SYSTEM

Place pump at a higher elevation than the hose and ram as shown in figure 4 below. Operate pump to fully extend and retract the ram 2 or 3 times. The objective is to "float the air bubbles up hill and back to the pump reservoir. To bleed the air from pump reservoir, simply open the oil filler screw on pump reservoir.

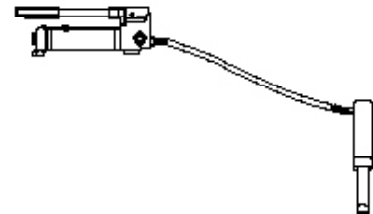


Figure 4 — Illustration to bleed air from system

Models 1MZJ4, 1MZJ7 and 1MZJ8

Troubleshooting Chart

| Symptom(s) | Possible Cause(s) | Corrective Action(s) |
|---|---|--|
| Ram will not press load | <ol style="list-style-type: none"> 1. Release valve not tightly closed 2. Overload condition 3. Loose couplers 4. Faulty couplers. 5. Oil lever in pump is low | <ol style="list-style-type: none"> 1. Ensure release valve tightly closed 2. Remedy overload condition 3. Tighten couplers 4. Replace both remale and male couplers 5. Fill and bleed the system. |
| Ram extends only partially | <ol style="list-style-type: none"> 1. Oil lever in pump is low 2. Ram malfunctioning | <ol style="list-style-type: none"> 1. Fill and bleed system 2. Replace |
| Ram will press load, but not maintaining pressure | <ol style="list-style-type: none"> 1. Overload condition 2. Ram malfunctioning | <ol style="list-style-type: none"> 1. Remedy overload condition 2. Replace |
| Ram will not retract after unloading | <ol style="list-style-type: none"> 1. Reservoir overfilled 2. Malfunctioning coupler 3. Ram malfunctioning | <ol style="list-style-type: none"> 1. Drain fluid to proper level 2. Depressurize pump and hose, remove application. Replace new coupler. 3. Replace |
| Poor extend performance | <ol style="list-style-type: none"> 1. Oil level low 2. Air trapped in system | <ol style="list-style-type: none"> 1. Ensure proper oil level 2. Bleed air from system |
| Oil lead from ram | <ol style="list-style-type: none"> 1. Ram malfunctioning | <ol style="list-style-type: none"> 1. Replace |

For Repair Parts, call 1-800-323-0620
24 hours a day - 365 days a year

Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

Address parts correspondence to:

Grainger Parts
 P.O. Box 3074
 1657 Shermer Road
 Northbrook, IL 60065-3074 U.S.A.

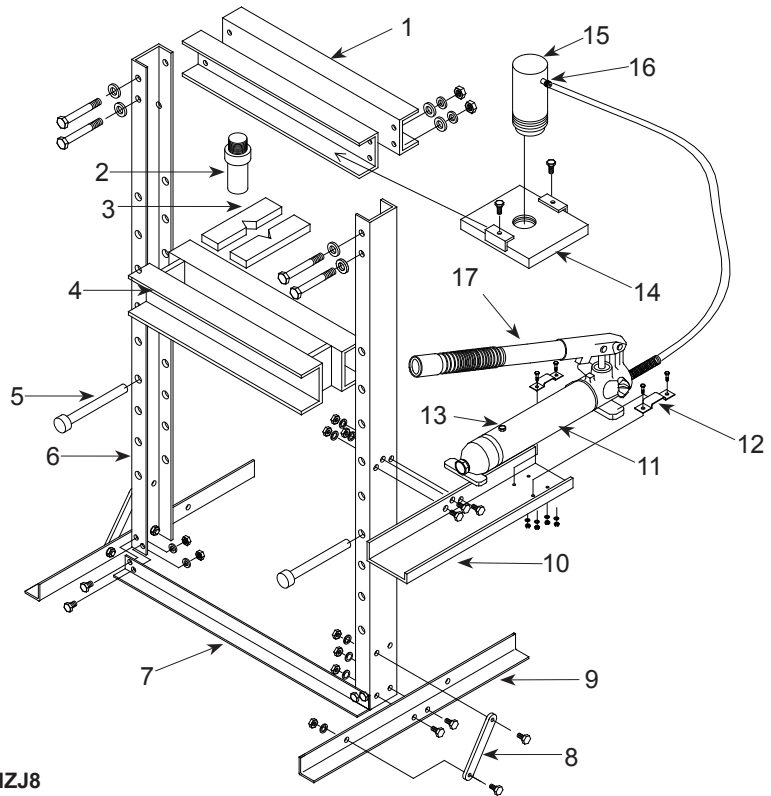


Figure 5 — Repair Parts Illustration for Model 1MZJ4 and 1MZJ8

Repair Parts List

| Reference Number | Description | Part Number for Model: | | Quantity |
|------------------|----------------------|------------------------|----------------|----------|
| | | 1MZJ4 | 1MZJ8 | |
| 1 | Upper Cross Member | T125-00001-000 | T184-00001-000 | 2 |
| 2 | Bearing Punch | T125-00003-000 | T184-00008-000 | 1 |
| 3 | Arbor Plates | T125-00007-000 | T184-00007-000 | 1 (pair) |
| 4 | Bed Frame | T125-02000-000 | T184-02000-000 | 1 |
| 5 | Support Pin | T125-01000-000 | T184-01000-000 | 2 |
| 6 | Upright Channel | T125-00002-000 | T184-00002-000 | 2 |
| 7 | Lower Cross Member | T184-00006-000 | T184-00006-000 | 1 |
| 8 | Support Link | T184-00004-000 | T184-00004-000 | 2 |
| 9 | Base Leg | T184-00005-000 | T184-00005-000 | 2 |
| 10 | Pump Support Bracket | T184-00003-000 | T184-00003-000 | 1 |
| 11 | * Hand Pump Assembly | F100-90004-K01 | F100-90004-K01 | 1 |
| 12 | Fixed Bracket | T125-00008-000 | T125-00008-000 | 2 |
| 13 | Oil filler Screw | F040-90107-K02 | F040-90107-K02 | 1 |
| 14 | Head Plate | T125-03000-000 | T184-03000-000 | 1 |
| 15 | * Ram | F250-30000-000 | F100-30000-000 | 1 |
| 16a | Ram Coupler - Female | F040-90009-K04 | F040-90009-K04 | 1 |
| 16b | Hose Coupoler - Male | F040-90009-K05 | F040-90009-K05 | 1 |
| 17 | Pump Handle | F100-90009-K01 | F100-90009-K01 | 1 |
| - | Hardware Kit | T125-04000-000 | T184-04000-000 | - |



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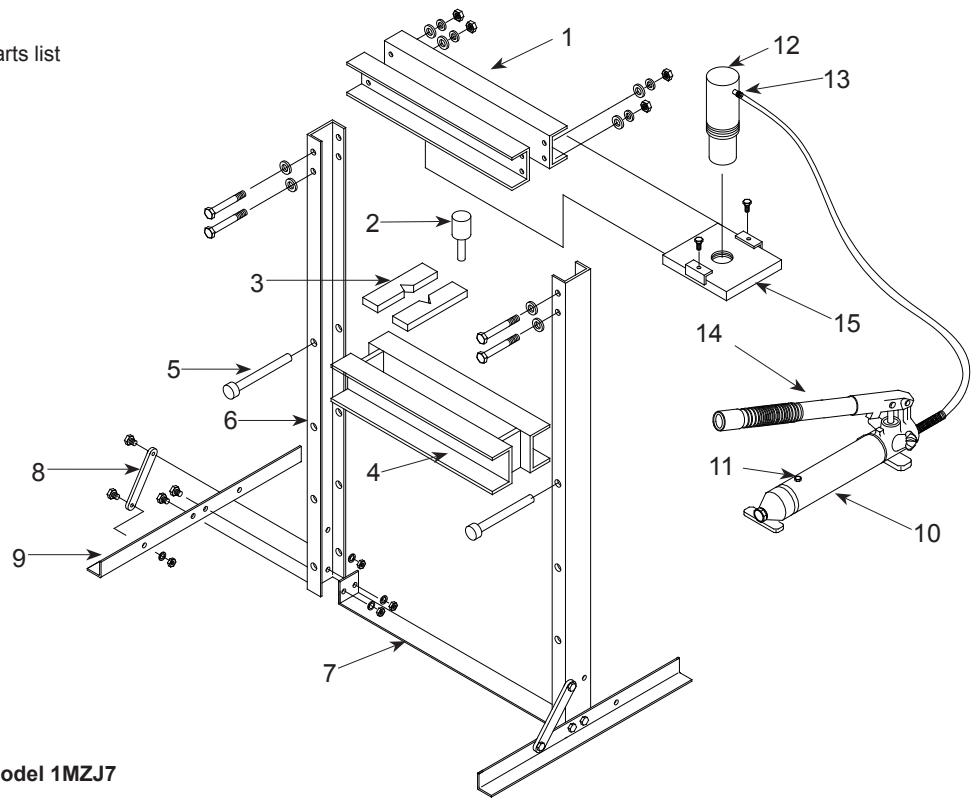


Figure 6 — Repair Parts Illustration for Model 1MZJ7

Repair Parts List

| Reference Number | Description | Part Number | Quantity |
|------------------|----------------------|----------------|----------|
| 1 | Upper Cross Member | T213-00001-000 | 2 |
| 2 | Punch | T184-00008-000 | 1 |
| 3 | Arbor Plates | T184-00007-000 | 1 (pair) |
| 4 | Bed Frame | T213-01000-000 | 1 |
| 5 | Support Pin | T184-01000-000 | 2 |
| 6 | Upright Channel | T213-00002-000 | 2 |
| 7 | Lower Cross Member | T213-00003-000 | 1 |
| 8 | Support Link | T184-00004-000 | 2 |
| 9 | Base Leg | T213-00004-000 | 2 |
| 10 | * Hand Pump Assembly | F100-90004-K01 | 1 |
| 11 | Oil filler Screw | F040-90107-K02 | 1 |
| 12 | * Ram | F100-30000-000 | 1 |
| 13a | Ram Coupler - Female | F040-90009-K04 | 1 |
| 13b | Hose Coupler - Male | F040-90009-K05 | 1 |
| 14 | Pump Handle | F100-90009-K01 | 1 |
| 15 | Head Plate | T184-03000-000 | 1 |
| - | Hardware Kit | T213-02000-000 | - |

Westward[®] Shop and Bench Presses

LIMITED WARRANTY

WESTWARD ONE-YEAR LIMITED WARRANTY. *Shop and Bench Presses* , covered in this manual, are warranted by Westward to the original user against defects in workmanship or materials under normal use for one year after date of purchase. For limited warranty claim procedures, see PROMPT DISPOSITION below. This limited warranty gives purchasers specific legal rights which vary from jurisdiction to jurisdiction.

LIMITATION OF LIABILITY. To the extent allowable under applicable law, Westward's liability for consequential and incidental damages is expressly disclaimed. Westward's liability in all events is limited to and shall not exceed the purchase price paid.

WARRANTY DISCLAIMER. Westward has made a diligent effort to provide product information and illustrate the products in this literature accurately; however, such information and illustrations are for the sole purpose of identification, and do not express or imply a warranty that the products are MERCHANTABLE, or FIT FOR A PARTICULAR PURPOSE, or that the products will necessarily conform to the illustrations or descriptions.

Except as provided below, no warranty or affirmation of fact, expressed or implied, other than as stated in the "LIMITED WARRANTY" above is made or authorized by Westward.

PRODUCT SUITABILITY. Many jurisdictions have codes and regulations governing sales, construction, installation, and/or use of products for certain purposes, which may vary from those in neighboring areas. While Westward attempts to assure that its products comply with such codes, it cannot guarantee compliance, and cannot be responsible for how the product is installed or used. Before purchase and use of a product, review the product applications, and all applicable national and local codes and regulations, and be sure that the product, installation, and use will comply with them.

Certain aspects of disclaimers are not applicable to consumer products; e.g., (a) some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you; (b) also, some jurisdictions do not allow a limitation on how long an implied warranty lasts, consequentially the above limitation may not apply to you; and (c) by law, during the period of this limited warranty, any implied warranties of implied merchantability or fitness for a particular purpose applicable to consumer products purchased by consumers, may not be excluded or otherwise disclaimed.

PROMPT DISPOSITION. Westward will make a good faith effort for prompt correction or other adjustment with respect to any product which proves to be defective within limited warranty. For any product believed to be defective within limited warranty, first write or call dealer from whom the product was purchased. Dealer will give additional directions. If unable to resolve satisfactorily, write to Westward at address below, giving dealer's name, address, date, and number of dealer's invoice, and describing the nature of the defect. Title and risk of loss pass to buyer on delivery to common carrier. If product was damaged in transit to you, file claim with carrier.

Manufactured for Grainger International, 100 Grainger Pkwy., Lake Forest, Illinois 60045 U.S.A.
