

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.

# Dayton® Hydraulic Hand Pallet Trucks

## Description

Dayton hand hydraulic pallet trucks are manually operated industrial duty products designed to lift a maximum weight as specified below. Safety features include an overload bypass valve and a pressure compensated flow valve for controlled lowering. A hand-actuated control lever for selecting "raise," "neutral," and "lower" positions is standard.

## Specifications

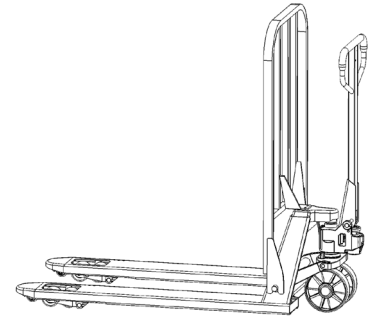
Up/Down Control.....Hand Actuated  
 Front Wheels per Fork  
 .....Entry, Load, Exit  
 Strokes to Raised Height.....16  
 Push Rods..... Square Tube  
 Steering radius.....210 degrees  
 Load Wheel...2.9" x 3.7" (Polyurethane)  
 Main Wheel.....7" x 2" (Polyurethane)

## General Safety Information

- Carefully read all manuals included with this product before putting into service. Inspect the pallet truck for transit damage before operation. Be thoroughly familiar with the controls and the proper use of the pallet truck.
- Never overload the pallet truck. Stay within the rated capacity of the truck.
- Distribute the load evenly on the forks — do not concentrate loads at one point, or load one fork

more than the other.

- Do not use on inclines or uneven surfaces. Do not allow pallet truck to drop from one floor level to another. Even a drop of one inch results in a "shock", which can bend or break components.
- The pump's piston rod and lifting ram are polished with a hardened-chrome finish to provide maximum seal life and minimize oil leakage. Do not allow these surfaces to be nicked or pitted by abuse. A slight amount of oil on the external part of the piston is normal as well as in all the hydraulic systems. This oil film provides lubrication between the polished surfaces and the seals through which they pass. Do not be alarmed at a trace of oil, even on new units.
- Do not put hands or feet under forks.



**Figure 1**

- Always remove load before making repairs. Completely immobilize pallet truck before working on components that might pinch fingers or hands if movement were allowed.
- Never allow anyone to ride a pallet truck "scooter style". All heavy material handling equipment should be operated with the utmost regard for the safety of the operator and others.
  - Never leave a loaded pallet truck unattended. Always lower forks when trucking is completed.
  - Avoid abrasive or corrosive environments and/or materials that may tend to spill onto pallet truck parts.

## Specifications

Model	Load Cap.	Max. Fork Height	Min. Fork Height	Fork Length	Width Across Forks	Fork Width	Overall Length	Weight
24L324	5500Lbs*	7 3/4"	2 7/8"	48"	27"	6 5/16"	63 3/8"	195Lbs

\*WARNING: MAXIMUM LOAD CAPACITY RATING IS FOR EVENLY DISTRIBUTED AND CENTERED LOAD.

# Dayton® Hydraulic Hand Pallet Trucks

## Assembly and Commissioning

Your Dayton pallet truck comes fully assembled. Inspect the pallet truck for transit damage before operation. Refer to the replacement parts illustration and list in identifying parts. If damage is evident, notify delivering carrier immediately and file necessary claims. If you have purchased a wooden box of pallet truck, some assembly is required. The tools needed will be a hammer, pliers, spanner, and some parts which are in a plastic bag which is located in the draw-bar.

**NOTE: The number of draw-bar and pump should be the same.**

**NOTE: Attach handle from behind pallet truck.**

### Handle Assembly

1. Remove elastic pin and axle with hole from draw-bar.
2. Insert the draw-bar into the pump piston. Use a hammer to insert the axle with hole into the hydraulic pump and draw-bar from right to left (See Figure 2).

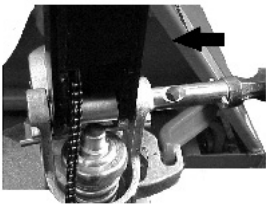


Figure 2

3. Set control handle in "LOWER" position then pass the adjusting nut adjusting bolt and chain through the hole of the axle (See Figure 3). Carefully read all manuals included with this product before putting into service. Never exceed the maximum capacity of the truck.
4. Press draw-bar down and remove the pin.

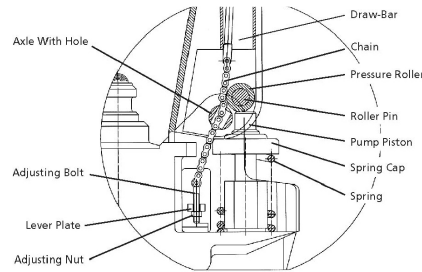


Figure 3

5. Set control handle in "RAISE" position then raise the lever plate with the pin and insert the adjusting bolt into the front slot of the lever plate.

**NOTE: Keep the adjusting nut on the under side of the lever plate.**

6. Use a hammer to tap another elastic pin into the axle with hole.

### Box Guard Assembly

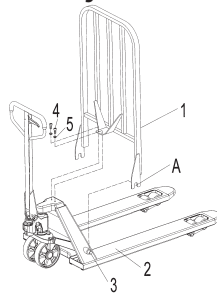


Figure 4

1. Box Guard; 2. Fork Frame;
3. Long shaft; 4. Bolt; 5. Washer

After finishing handle assembly, then assembly the box guard.

1. Take the box guard on the long shaft (No. 3); let the U shape slot (A point) of box guard to clutch the long shaft.
2. Insert the two bolts (No.4) through the box guard into the head of fork frame (No. 2) and tighten securely.

### Operation

The three position control lever is operated as follows (see Figure 5):

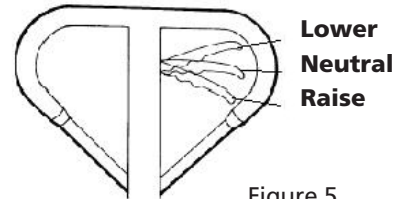


Figure 5

### TO RAISE

Insert the forks into the pallet. Move the control lever into RAISE position. With an up/down motion of the handle, pump the pallet jack to the desired height.

### NEUTRAL

When finished raising the pallet truck, move control lever into NEUTRAL position.

Move the pallet truck to desired location.

### TO LOWER

Move the control lever into the LOWER position until desired height has been reached.

**NOTE:** The lever should automatically move into the NEUTRAL position when released. If this does not happen, adjust accordingly.

### ADJUSTMENT

Test each of the functions by pumping the handle with the control lever in each of the three positions. If the functions do not operate as listed, perform the required adjustments as noted below. Over time, normal use and vibration may cause your pallet truck to require additional periodic adjustments.

1. If the forks do not elevate while pumping in the RAISE position, turn the adjusting nut (Item #4 of Chain Kit MHAC05G) and/or set screw (MHG318G) counterclockwise until the forks elevate while pumping in the RAISE position.
2. If the forks do not descend when the control lever is in the LOWER position, turn the adjusting nut and/or set screw clockwise until the control lever lowers the forks properly.

# Models 24L324

## ADJUSTMENT(Continue)

3. If the forks elevate while pumping in the NEUTRAL position, turn the adjusting nut and/or set screw clockwise until pumping action does not raise the forks and the NEUTRAL position functions properly.

4. If the forks descend while lever is in the NEUTRAL position, turn the adjusting nut and/or set screw counterclockwise until the forks do not lower.

After making an adjustment, be sure to check all functions to be sure they haven't been affected **before operating the unit.**  
**Maintenance**

**⚠ WARNING** *Remove loads before performing inspection or maintenance work.*

All bushings and bearings have been lubricated at the factory. To increase their life, regular maintenance is recommended. Use the appropriate grease for the application and lubricate

## Troubleshooting Chart

Symptom	Possible Cause(s)	Corrective Action
Forks don't raise, don't raise fully, or raise slowly	<ol style="list-style-type: none"> <li>1. Low hydraulic fluid level or impurities in oil.</li> <li>2. Control lever is out of adjustment</li> <li>3. Load is too heavy. Overload release valve is being activated</li> <li>4. Temperature is too low and the hydraulic oil has become too thick</li> </ol>	<ol style="list-style-type: none"> <li>1. Add approved hydraulic fluid or change oil as noted on page 3 (in Maintenance section)</li> <li>2. Follow the procedure for adjusting the control lever on page 2</li> <li>3. Reduce load</li> <li>4. Move truck to a warmer location</li> </ol>
Forks don't lower or don't lower fully	<ol style="list-style-type: none"> <li>1. Obstacle located under truck, in fork mechanism, etc.</li> <li>2. Control lever is out of adjustment</li> <li>3. Fork was left in a raised position for an extended time causing exposed piston rod to rust</li> <li>4. The piston rod or pump is deformed due to over-loading or uneven loading</li> </ol>	<ol style="list-style-type: none"> <li>1. Use caution removing the obstacle</li> <li>2. Follow the procedure for adjusting the control lever on page 2</li> <li>3. Keep fork in the lowest position when not in use and keep piston rod well lubricated</li> <li>4. Replace the piston rod or pump</li> </ol>
Forks lower without putting the control lever in the "lower" position	<ol style="list-style-type: none"> <li>1. Oil impurities are preventing the release valve from fully closing</li> <li>2. Some hydraulic components or seals are cracked or worn</li> <li>3. Control lever is out of adjustment</li> </ol>	<ol style="list-style-type: none"> <li>1. Drain and replace hydraulic fluid with approved fluid as noted on page 3 (in Maintenance section)</li> <li>2. Inspect and replace components as needed</li> <li>3. Follow the procedure for adjusting the control lever on page 2</li> </ol>
Leaks oil	<ol style="list-style-type: none"> <li>1. Worn or damaged seals</li> <li>2. Other cracked or worn parts</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace seals</li> <li>2. Replace damaged parts</li> </ol>

each grease fitting every 6 months. Harsh environments may require more frequent maintenance.

### DAILY

Visually check for oil leaks; structural deformation of arms, forks, or any other component; and unusual noise or binding of the lifting mechanism. Do not use if any of these conditions exist.

### MONTHLY

1. Check hydraulic oil level (more frequently for high use applications).
2. Verify that all labels are in place and in good condition.
3. Clean off dirt and debris.

### ANNUALLY

Change oil (more frequently if color has substantially darkened or feels gritty).

**NOTE:** If hydraulic oil is milky white in color, water is in the hydraulic system. Change the hydraulic oil immediately.

### ADDING HYDRAULIC OIL TO PUMP RESERVOIR

**NOTE:** Use standard hydraulic oil / jack

oil, SAE grade 10 (ISO Viscosity grade 32).

**⚠ CAUTION** *Pallet truck is heavy, use proper safety equipment and ask for help lifting the truck.*

1. Ensure forks are in lowered position.
2. Lay pallet truck on either side. Position drain plug of hydraulic cylinder upward.
3. Remove the screw plug.
4. Add hydraulic oil until level of oil is at bottom of hole.
5. Replace drain plug and return the truck to an upright position.

**⚠ WARNING** *Do not attempt to repair pallet trucks unless you are trained and authorized to do so. Serious injury could result.*

**⚠ WARNING** *These products may not be altered in any way without written permission from the manufacturer.*

# 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

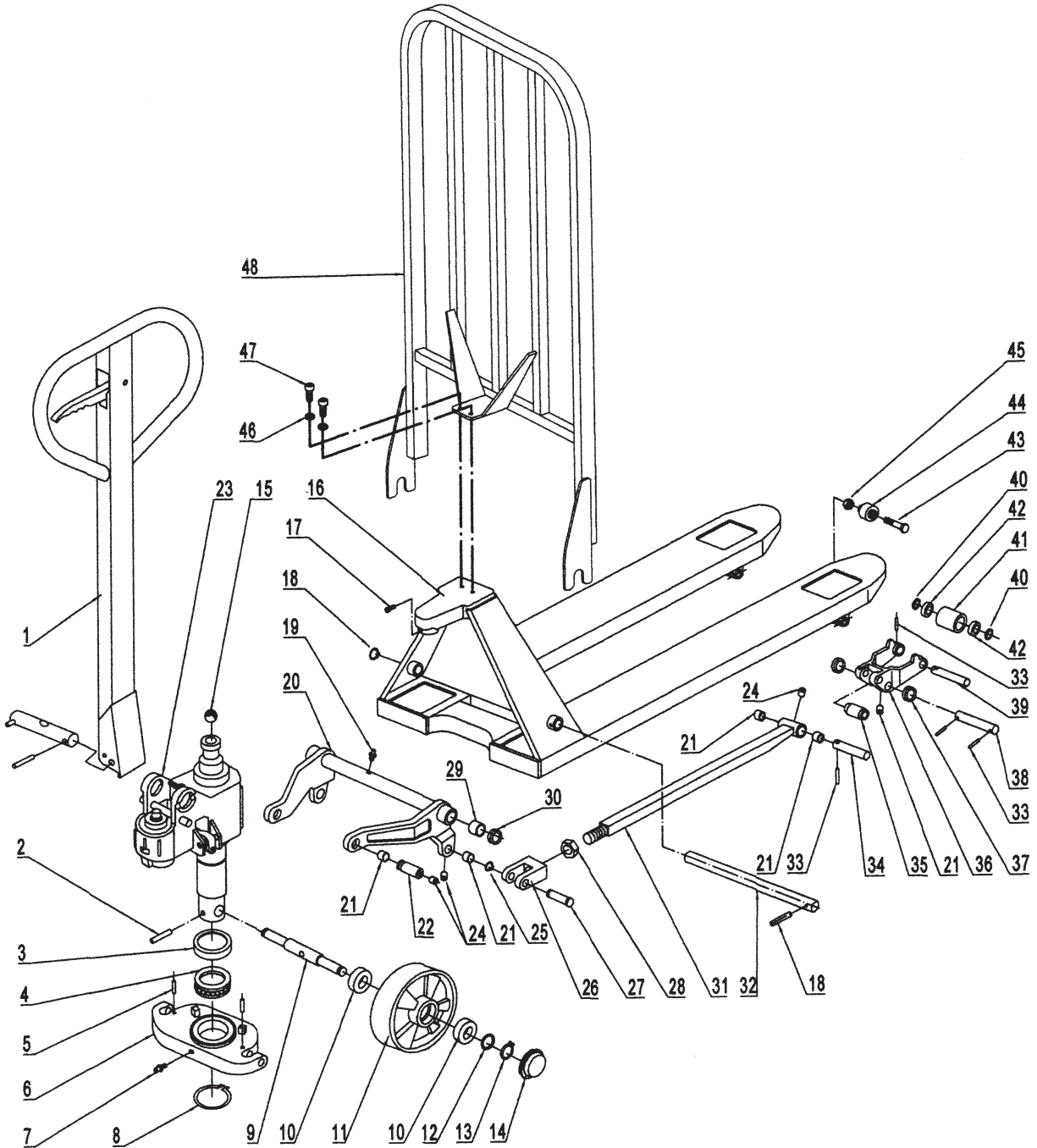


Figure 6 – Repair Parts Illustration for Hydraulic Hand Pallet Trucks

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# Repair Parts List for Hydraulic Hand Pallet Trucks

Ref. No.	Description	Part No.	Qty.	Ref. No.	Description	Part No.	Qty.
1	Handle assembly	MHAC01G	1	27	Pin	MHG210G	2
2	Roll pin	MHG311G	1	28	Nut	MHG211G	2
3	Cover of bearing	MHG337G	1	29	Bushing	MHG207G	2
4	Bearing	MHG315G	1	30	Washer	MHG229G	2
5	Roll pin	MHG312G	2	31	Pushing rod	MHG212G	2
6	Thrust plate	MHG313G	1	32	Long shaft	MH24L32401G	2
7	Grease cup, M6	MHG335G	1	33	Roll pin	MHG215G	8
8	Snap ring	MHG314G	1	34	Shaft	MHG216G	2
9	Shaft for wheel	MHG316G	1	35	Extending roller	MHG217G	2
	<b>Steer wheel kit</b>	<b>MHAC03G</b>	<b>2</b>	36	Frame for wheel	MHG220G	2
10	Bearing	▲	2	37	Intermediate roller	MHG219G	2
11	Steer wheel	▲	1	38	Shaft	MHG218G	2
12	Washer	▲	1	39	Axle for wheel	MHG221G	2
13	Snap ring	▲	1		<b>Load wheel kit</b>	<b>MHAC04G</b>	<b>2</b>
14	Wheel cap	▲	1	33	Roll pin	▲	1
15	Steel ball, 18	MHG329G	1	40	Washer	▲	2
16	Fork frame	*	1	41	Load wheel	▲	1
17	Bolt, M6x14	**	1	42	Bearing	▲	2
18	Roll pin, 5*40	**	1	43	Bolt, M10x60	MHG225G	2
19	Grease cup	MHG228G	1	44	Entry roller	MHG226G	2
20	Rock - arm	MH2TUR501G	1	45	Locking nut, M10	MHG227G	2
21	Bushing	MHG204G	8	46	Bolt, M8x25	**	2
22	Shaft	MHG205G	2	47	Washer	**	2
23	Hydraulic pump	MHAC02G	1	48	Box guard	MH24L32402G	2
24	Oiler	MHG206G	10				
25	Snap ring	MHG208G	2				
26	Joint	MHG209G	2				

(▲) Available as part of a kit only.

(\*) Not available as repair part.

(\*\*) Common hardware, not offered as a replacement part.

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Please provide following information:

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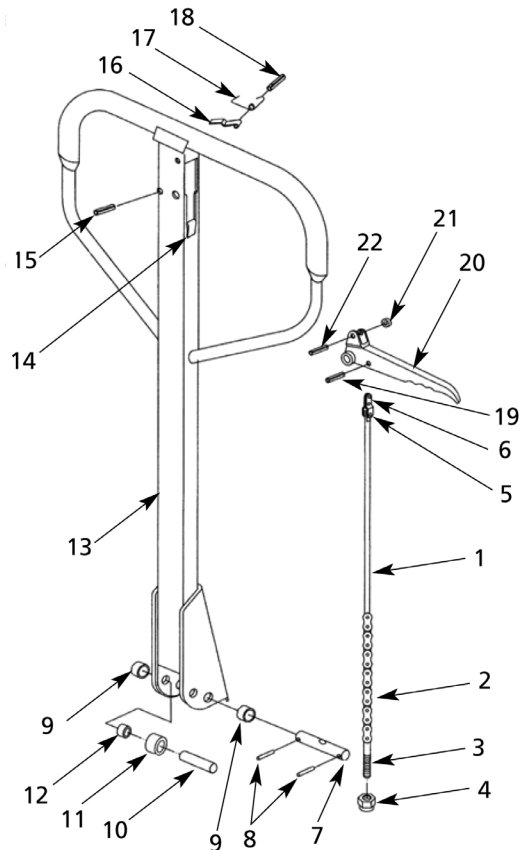


Figure 6 – Repair Parts Illustration for Pallet Truck Handle

### Repair Parts List for Pallet Truck Handle

Ref. No.	Description	Part No.	Qty.	Ref. No.	Description	Part No.	Qty.
	Chain kit	MHAC05G	1	13	Handle	MHG110G	1
1	Release rod	▲	1	14	Rubber stop	MHG111G	1
2	Chain	▲	1	15	Roll pin	MHG112G	1
3	Adjusting bolt	▲	1	16	Blade spring	MHG113G	1
4	Adjusting nut	▲	1	17	Spring	MHG114G	1
5	Pin	▲	1	18	Roll pin	MHG115G	1
6	Pull board	▲	1	19	Roller pin	MHG116G	1
	Axle kit	MHAC07G	1		Control Lever Kit	MHAC06G	1
7	Axle with hole	▲	1	20	Control lever	▲	1
8	Roll pin	▲	2	21	Roller	▲	1
9	Bushing	MHG107G	2	22	Roll pin	▲	1
10	Roller pin	MHG108G	1				
11	Pressure roller	MHG109G	1				
12	Bushing	MHG109AG	1				

(▲) Available as part of a kit only.

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24 hours a day – 365 days a year

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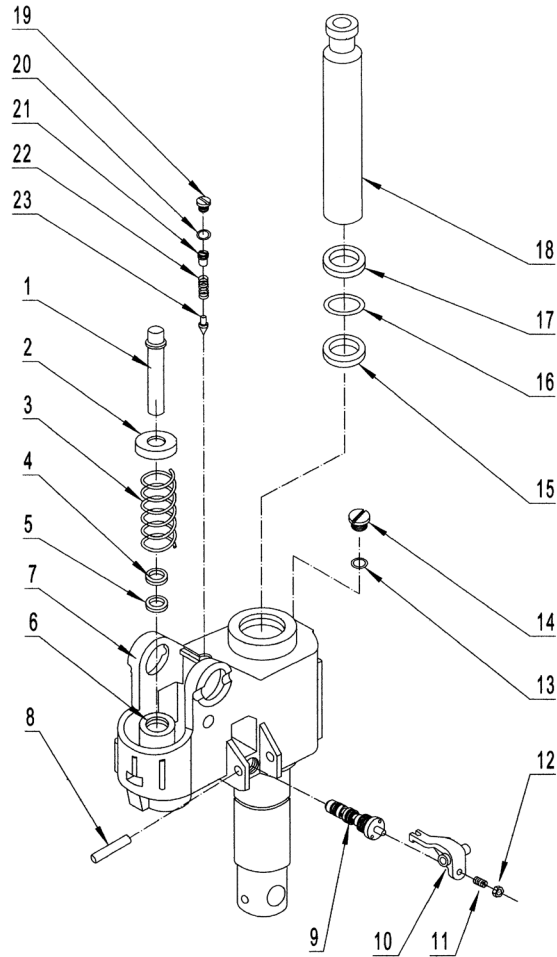


Figure 7 – Repair Parts Illustration for Pallet Truck Pump

## Repair Parts List for Pallet Truck Pump Assembly

Ref. No.	Description	Part No.	Qty.	Ref. No.	Description	Part No.	Qty.
1	Pump piston	MHG303G	1	14	Screw plug	MHG324G	1
2	Spring cap	MHG301G	1	15	Seal	MHG325G	1
3	Spring	MHG302G	1	16	O - ring	MHG326G	1
	<b>Pump cylinder kit</b>	<b>MHAC08G</b>	<b>1</b>	17	Dust ring	MHG327G	1
4	Dust ring	▲	1	18	Piston rod	MHG328G	1
5	Seal	▲	1		<b>Safety valve kit</b>	<b>MHAC09G</b>	<b>1</b>
6	Cylinder	▲	1	19	Screw plug	▲	1
7	Pump body	*	1	20	O - ring	▲	1
8	Roll pin	MHG320G	1	21	Bolt	▲	1
9	Valve cartridge kit	MHG321G	1	22	Spring	▲	1
10	Lever plate	MHG319G	1	23	Safety valve spindle	▲	1
11	Screw, M8x20	**	1				
12	Nut, M8	**	1				
13	Seal washer	MHG323G	1				

(▲) Available as part of a kit only.  
 (\*) Not available as repair part.  
 (\*\*) Common hardware, not offered as a replacement part.

ENGLISH

# Dayton® Hydraulic Hand Pallet Trucks

## LIMITED WARRANTY

**DAYTON ONE-YEAR LIMITED WARRANTY.** DAYTON® Hydraulic Hand Pallet Trucks, MODELS COVERED IN THIS MANUAL, ARE WARRANTED BY DAYTON ELECTRIC MFG. CO. (DAYTON) TO THE ORIGINAL USER AGAINST DEFECTS IN WORKMANSHIP OR MATERIALS UNDER NORMAL USE FOR ONE YEAR AFTER DATE OF PURCHASE. ANY PART WHICH IS DETERMINED TO BE DEFECTIVE IN MATERIAL OR WORKMANSHIP AND RETURNED TO AN AUTHORIZED SERVICE LOCATION, AS DAYTON DESIGNATES, SHIPPING COSTS PREPAID, WILL BE, AS THE EXCLUSIVE REMEDY, REPAIRED OR REPLACED AT DAYTON'S OPTION. FOR LIMITED WARRANTY CLAIM PROCEDURES, SEE "PROMPT DISPOSITION" BELOW. THIS LIMITED WARRANTY GIVES PURCHASERS SPECIFIC LEGAL RIGHTS WHICH VARY FROM JURISDICTION TO JURISDICTION.

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**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 attempts are made to assure that Dayton products comply with such codes, Dayton 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, consequently 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.** A good faith effort will be made 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 Dayton 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 Dayton Electric Mfg. Co., 100 Grainger Parkway, Lake Forest, IL 60045 USA**