

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 4-directional hand hydraulic pallet truck, is a manually operated industrial duty product. This pallet truck is designed to move a load in the traditional way, and it is also designed to allow the pallet to be moved in a direction perpendicular to the forks. The maximum weight that can be lifted is 5,500lbs or 3,000lbs depending on direction. Safety features include an overload bypass valve and a pressure compensated flow valve for controlled lowering. They have a hand actuated control lever with three positions, "RAISE", "NEUTRAL" and "LOWER".

Specifications

Strokes to Max Height 13
 Steering Radius 210 Degrees
 Push Rods Adjustable length
 Front Wheels Perpendicular, Load, Exit
 Steering Wheel Steel Hub w/
 Polyurethane Coating

General Safety Information

1. Carefully read all manuals included with this product prior to use. Inspect the pallet truck for transit damage before operation. Be thoroughly familiar with the controls and the proper use of the pallet truck.
2. Never overload the pallet truck. Stay within the rated capacity of the truck.
3. Distribute the load evenly on the forks — do not concentrate loads at one point, or load one fork more than the other.
4. 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

shock, which can bend or break components.

5. 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 in all other hydraulic systems. This oil film provides lubrication between the polished surfaces and the seals through which they pass. Do not be alarmed with traces of oil, even on new units.

6. Do not put hands or feet under forks. Always remove load before making repairs. Completely immobilize pallet truck before working on components that may pinch fingers or hands if movement were allowed.

7. 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.



Figure 1

8. Never leave a loaded pallet truck unattended. Always lower forks when trucking is completed.

9. Avoid abrasive or corrosive environments and/or materials that may spill onto pallet truck parts.

Unpacking

Inspect for any damage that may have occurred during transit. Shipping damage claim must be filed with carrier.

Assembly Instructions

No Assembly Required. Your Dayton pallet truck comes fully assembled.

Operation

The three position control lever is operated as follows (see Figure 2).

TO RAISE

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

Specifications

Load Cap. Normal	Sideways	Max. Fork Height	Min. Fork Height	Fork Length	Width Across Forks	Fork Width	Overall Length	Weight
5500lbs*	3000lbs*	7 7/8"	3 3/8"	48"	27"	6 5/16"	63 1/2"	185lbs

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

Dayton® Hydraulic Hand Pallet Trucks

Operation (Continued)

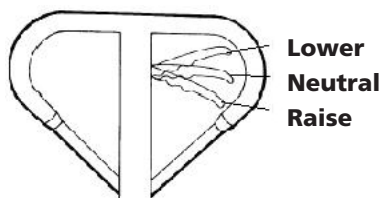


Figure 2

NEUTRAL

When finished raising the pallet truck, move control lever to the "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.

PERPENDICULAR MOVEMENT

1. Insert the forks into the pallet. Move the control lever into RAISE position. With an up/down motion, pump the pallet up to the fully raised position.

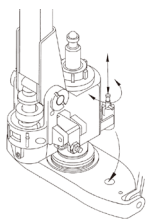


Figure 3

2. Rotate handle to either side and lock pump assembly in position with Arm Detent. Pull detent up and rotate 90° until pin drops into hole located in Base. (See Figure 3).

NOTE: Pallet will only move perpendicular to forks when pallet is fully raised.

Maintenance

WARNING Remove loads before performing

inspection or maintenance work.

ADJUSTMENT

Over time, normal use and vibration may cause your pallet truck to require additional periodic adjustments. 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.

Refer to Parts List Illustrations pages 4 thru 7 for component identification.

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 (MHG319G) 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.
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, recheck all (3) control functions before normal operation.

Maintenance

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 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 screw plug of hydraulic cylinder upwards. (Fig. 5, No.14)
3. Remove the screw plug.
4. Add hydraulic oil until level of oil is at bottom of hole.
5. Replace screw 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.

Models 493X19

Troubleshooting Chart

Symptom	Possible Cause(s)	Corrective Action
Forks don't raise, don't raise fully, or raise slowly	1. Low hydraulic fluid level or impurities in oil. 2. Control lever is out of adjustment 3. Load is too heavy. Overload release valve is being activated 4. Temperature is too low and the hydraulic oil has become too thick	1. Add approved hydraulic fluid or change oil as noted on page 2 (in Maintenance section) 2. Follow the procedure for adjusting the control lever on page 2 3. Reduce load 4. Move truck to a warmer location
Forks don't lower or don't lower fully	1. Obstacle located under truck, in fork mechanism, etc. 2. Control lever is out of adjustment 3. Fork was left in a raised position for an extended time causing exposed piston rod to rust 4. The piston rod or pump is deformed due to over-loading or uneven loading	1. Use caution removing the obstacle 2. Follow the procedure for adjusting the control lever on page 2 3. Keep fork in the lowest position when not in use and keep piston rod well lubricated 4. Replace the piston rod or pump
Forks lower without putting the control lever in the "lower" position	1. Oil impurities are preventing the release valve from fully closing 2. Some hydraulic components or seals are cracked or worn 3. Control lever is out of adjustment	1. Drain and replace hydraulic fluid with approved fluid as noted in Maintenance section 2. Inspect and replace components as needed 3. Follow the procedure for adjusting the control lever on page 2
Leaks oil	1. Worn or damaged seals 2. Other cracked or worn parts	1. Replace seals 2. Replace damaged parts

For Repair Parts, call 1-800-Grainger

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

ENGLISH

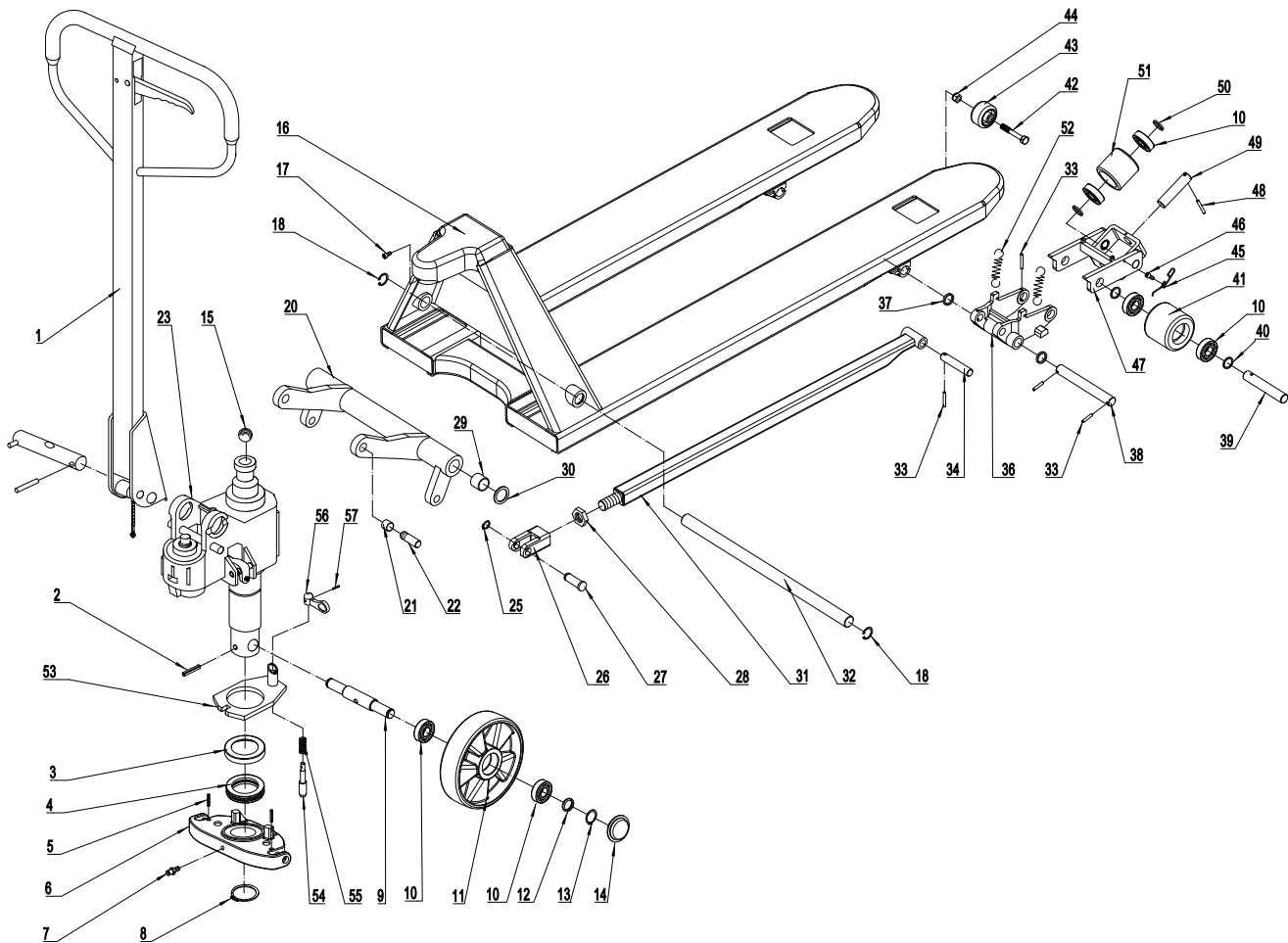


Figure 4 – Repair Parts Illustration for Hydraulic Hand Pallet Trucks

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	33	Roll pin	MHG215G	8
2	Roll pin	MHG311G	1	34	Shaft	D214	2
3	Cover of bearing	MHG337G	1	36	Frame for wheel	MH493X1903G	2
4	Bearing	MHG315G	1	37	Washer	*	4
5	Roll pin	MHG312G	2	38	Shaft	MHG218G	2
6	Thrust plate	54ZX26	1	39	Axle for wheel	MHG221G	2
7	Grease cup, M6	MHG335G	1		Load wheel kit	54ZX30	2
8	Snap ring	MHG314G	1	33	Roll pin	▲	1
9	Shaft for wheel	MHG316G	1	40	Washer	▲	2
	Steer wheel kit	MHAC03G	2	41	Load wheel	▲	1
10	Bearing	▲	2	10	Bearing	▲	2
11	Steer wheel	▲	1	42	Bolt, M10x60	MHG225G	2
12	Washer	▲	1	43	Entry roller	MHG226G	2
13	Snap ring	▲	1	44	Locking nut, M10	MHG227G	2
14	Wheel cap	▲	1	45	Torsion spring	MH493X1904G	2
15	Steel ball, 18	MHG329G	1	46	Bolt, M3x13	**	2
16	Fork frame	*	1	47	Holding plate	MH493X1905G	2
17	Bolt, M6x14	**	1	48	Roll pin, 4x35	**	2
18	Snap ring	MHG213G	1	49	Axle, 20x84	MH493X1906G	2
20	Rock - arm	MH493X1901G	1		Sideways roller kit	54ZX28	2
21	Bushing	MHG204G	4	50	Washer	▲	2
22	Shaft	MHG205G	2	51	Roller	▲	1
23	Hydraulic pump	54ZX27	1	10	Bearing	▲	2
25	Snap ring	MHG208G	2	52	Spring	MH493X1907G	2
26	Joint	MHG209G	2	53	Fixing plate	*	1
27	Pin	MHG210G	2		Locking pin kit	54ZX29	1
28	Nut	MHG211G	2	54	Locking pin	▲	1
29	Bushing	MHG207G	2	55	Spring	▲	1
30	Washer	MHG229G	2	56	Handle	▲	1
31	Push rod	MH493X1902G	2	57	Roll pin	▲	1
32	Long shaft	MH2TUR503G	1				

(▲) Available as part of a kit only.

(*) Not available as repair part.

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

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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

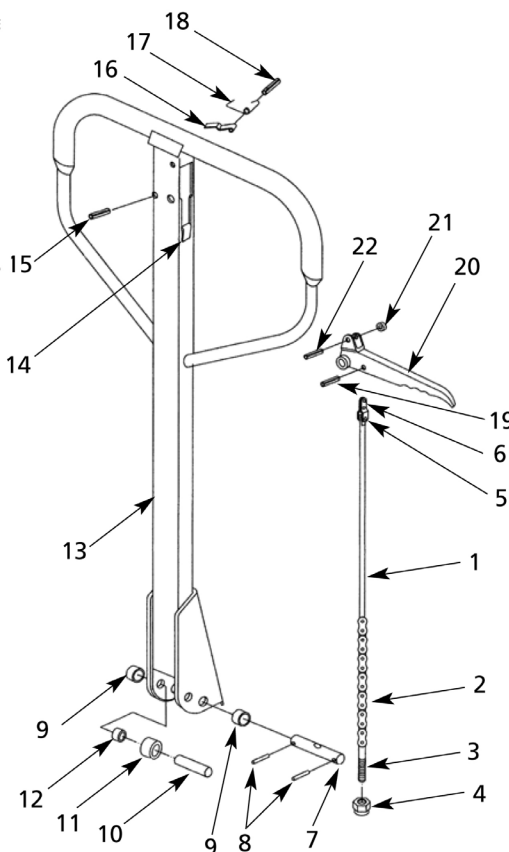


Figure 5 – Repair Parts Illustration for Pallet Truck Handle

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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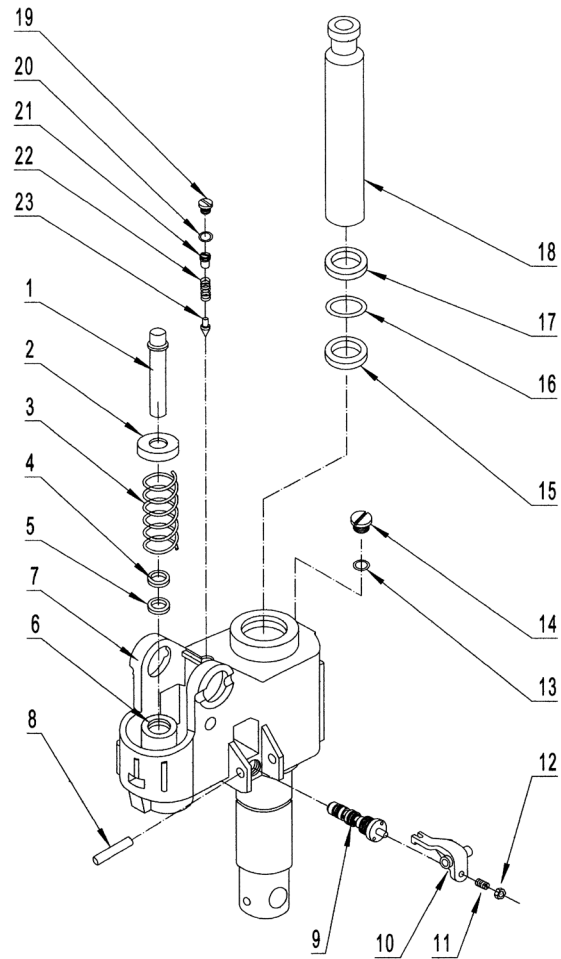


Figure 6 – Repair Parts Illustration for Pallet Truck Pump Assembly

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
	Pump cylinder kit	MHAC08G	1	17	Dust ring	MHG327G	1
4	Dust ring	▲	1	18	Piston rod	MHG328G	1
5	Seal	▲	1		Safety valve kit	MHAC09G	1
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.

DAYTON ONE-YEAR LIMITED WARRANTY

DAYTON ONE-YEAR LIMITED WARRANTY. All Dayton® product 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. If the Dayton product is part of a set, only the portion that is defective is subject to this warranty. Any product or part which is determined to be defective in material or workmanship and returned to an authorized service location, as Dayton or Dayton's designee designates, shipping costs prepaid, will be, as the exclusive remedy, repaired or replaced with a new or reconditioned product or part of equal utility or a full refund given, at Dayton's or Dayton's designee's option, at no charge. For limited warranty claim procedures, see "Warranty Service" below. This warranty is void if there is evidence of misuse, mis-repair, mis-installation, abuse or alteration. This warranty does not cover normal wear and tear of Dayton products or portions of them, or products or portions of them which are consumable in normal use. This limited warranty gives purchasers specific legal rights, and you may also have other rights which vary from jurisdiction to jurisdiction.

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Dayton Electric Mfg. Co.,

100 Grainger Parkway, Lake Forest, IL 60045 U.S.A.

or call +1-888-361-8649