#### **Operating Instructions & Parts Manual**

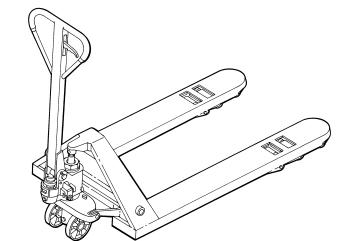
Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain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

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# Dayton<sup>®</sup> 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.



Hand Actuated

Entry, Load, Exit

Steel — 6<sup>5</sup>/16" Wide

**Return to Vertical** 

7<sup>1</sup>/<sub>4</sub>" x 2" (Nylon)

**Stainless Steel** 

2<sup>29</sup>/<sub>32</sub>" x 3<sup>21</sup>/<sub>32</sub>" (Nylon)

Nylon Wheel

Solid Steel

12

210°

Figure 1

#### Specifications

Up/Down Control Front Wheels Per Fork Steering Wheels Strokes To Raised Height Push Rods Forks Steering Radius Handle Return Lift Wheel Main Wheel Size Body Construction

#### Unpacking

Refer to Repair Parts Illustration and Repair Parts List to aid in identifying parts. Unpack and separate all components from container, making sure all parts are accounted for. If damage is evident, notify delivering carrier immediately and file necessary claims.

#### **General Safety Information**

In order to have a trouble free pallet truck, it is important to take caution during usage to ensure a long service life.

- Inspect the pallet truck for transit damage before operation. Carefully read all manuals included with this product before putting into service. 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.
- Distribute the load evenly on the forks — do not concentrate loads at one point, or load one fork more than the other.
- 4. Be especially cautious when using the pallet truck to move or set machinery. It is very easy to make the mistake of lifting at points that will develop concentrated or unbalanced loads that can damage the pallet truck.
- Do not allow loaded 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.
- 6. The pump's piston rod and lifting ram are polished with a hardened chrome-plate finish to provide maximum seal life and minimize oil leakage. Do not allow these surfaces to be nicked or pitted by abuse. Slight oil wetting of the external part of the piston is normal, as in all hydraulic

#### Dimensions

Model	Load Capacity	Lowered Height Of Forks	Raised Height	Overall Width Across Forks	Fork Width	Fork Length	Overall Length	Weight
2ZE62	4,400 lbs.	2 <sup>7</sup> /8″	7 <sup>3</sup> /4″	27″	6 <sup>5</sup> / <sub>16</sub> ″	48″	62 "	174 lbs.
Form 5S5	612		096	ted in China 67 6/232/VCPVP		NOB005 08/06	Day	yton®

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## Dayton<sup>®</sup> Hydraulic Hand Pallet Trucks

## General Safety Information (Continued)

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.

- 7. 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 oneself and others.
- 9. Never leave a loaded pallet truck unattended.
- 10. Always lower forks when trucking is completed.
- 11. Avoid abrasive or corrosive environments and/or materials that may tend to spill onto pallet truck parts.

#### Assembly

#### HANDLE ASSEMBLY

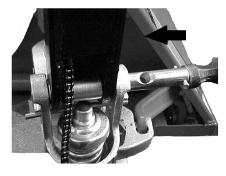
**NOTE:** Attach handle from behind pallet truck.

- 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).
- Set control handle in "LOWER" position then pass the adjusting nut, adjusting bolt and chain through the hole of the axle (See Figure 3).

- 4. Press draw-bar down and remove the pin.
- 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.



#### Assembly (Continued) FORK ADJUSTMENT

The control handle on the draw-bar has three positions:

"Raise" - handle down "Drive" - handle in center position "Lower" - handle up

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

- If the forks elevate while pumping in the DRIVE position, turn the adjusting nut or set screw clockwise until pumping action does not raise the forks and the DRIVE position functions properly.
- 2. If the forks descend while pumping in the DRIVE position, turn the adjusting nut or set screw counterclockwise until the forks do not lower.

Figure 2

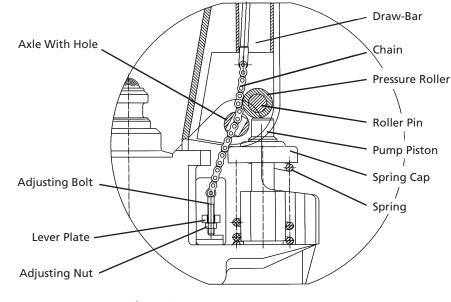


Figure 3

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## Model 2ZE62

#### Assembly (Continued) FORK ADJUSTMENT

- 3. If the forks do not descend when the control handle is in the LOWER position, turn the adjusting nut or set screw clockwise until raising the control handle lowers the forks. Then check the DRIVE position to be sure the nut and screw are in the proper position.
- 4. If the forks do not elevate while pumping in the RAISE position, turn the adjusting nut or set screw counter-clockwise until the forks elevate while pumping in the RAISE position. Then check the LOWER and DRIVE position.

#### Operation

The three position control lever is operated as follows: (See Figure 4)

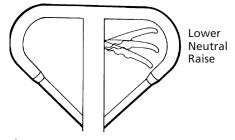


Figure 4

#### **TO RAISE**

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

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#### NEUTRAL

When finished raising the pallet truck, move control lever into NEUTRAL or "center" position. Move the pallet truck to desired location.

#### **TO LOWER**

Move the control lever into the LOWER or "up" position until desired height as been reached.

#### Maintenance

All bushings and bearings have been lubricated at the factory. To increase their life, it is suggested that regular maintenance be performed. Using the appropriate grease for the environment, lubricate each grease fitting every 6 months. Harsh environments may require more frequent maintenance.

#### DAILY

Visually check and do not use if any of the following are visible:

- 1. Oil leaks.
- Structural deformation of arms, forks, or any other component.
- 3. Unusual noise or binding of the lifting mechanism.

#### MONTHLY

- Check hydraulic oil level (more frequently for high use applications). See "Adding Hydraulic Oil" section.
- 2. Verify that all labels are in place and in good condition.
- 3. Clean off dirt and debris.

#### YEARLY

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

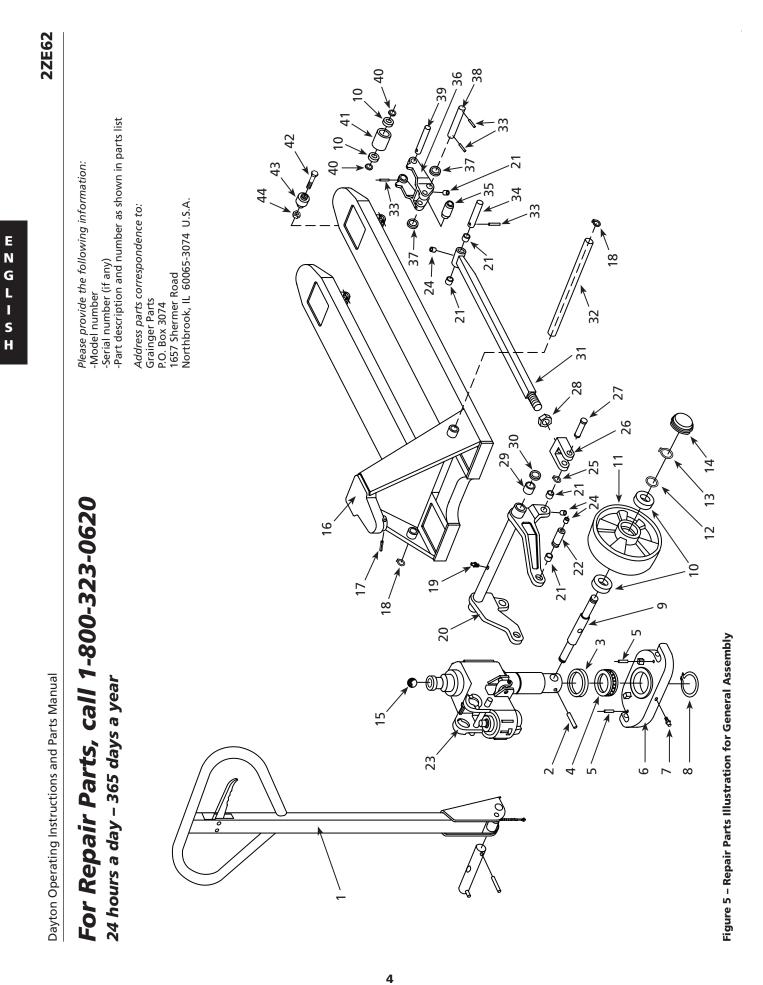
**NOTE:** Use standard hydraulic oil. Refer to Figures 6 and 7.

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

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



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#### 2ZE62

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

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Please provide the 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.

#### **Assembly Kits:**

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▲ = (2)-10, (1)-11, (1)-12, (1)-13, (1)-14

**=** (2)-10, (1)-33, (1)-40, (1)-41

#### **Repair Parts List for General Assembly**

Ref.				Ref.			
No.	Description	Part No.	Qty.	No.	Description	Part No.	Qty.
1	Handle Assembly	MHAC-01SG	1	24	Oiler	MHG206SG	10
2	Roll Pin	MHG311SG	1	25	Snap Ring	MHG208SG	2
3	Cover Of Bearing	MHG337SG	1	26	Joint	MHG209SG	2
4	Bearing	MHG315SG	1	27	Pin	MHG210SG	2
5	Roll Pin	MHG312SG	2	28	Nut	MHG211SG	2
6	Thrust Plate	MHG313SG	1	29	Bushing	MHG207SG	2
7	Grease Cup	MHG335SG	1	30	Washer	MHG229SG	2
8	Snap Ring	MHG314SG	1	31	Pushing Rod	MHG212SG	2
9	Shaft For Wheel	MHG316SG	1	32	Long Shaft	MHG214SG	1
10	Bearing	▲, ■	8	33	Roll Pin	MHG215SG, 🔳	8
11	Steer Wheel		2	34	Shaft	MHG216SG	2
12	Washer		2	35	Extending Roller	MHG217G	2
13	Snap Ring		2	36	Frame For Wheel	MHG220SG	2
14	Wheel Cap	MHG306G, 🔺	2	37	Intermediate Roller	MHG219G	4
15	Steel Ball	MHG329SG	1	38	Shaft	MHG218SG	2
16	Fork Frame	N/A	1	39	Axle For Wheel	MHG221SG	2
17	Roll Pin	MHG202SG	1	40	Washer		4
18	Snap Ring	MHG213SG	2	41	Load Wheel		2
19	Grease Cup	MHG228SG	1	42	Bolt	MHG225SG	2
20	Rock - Arm	MHG203SG	1	43	Enter Roller	MHG226G	2
21	Bushing	MHG204SG	8	44	Locking Nut	MHG227SG	2
22	Shaft	MHG205SG	2		Steer Wheel Kit*	MHAC-03NG	2
23	Hydraulic Pump	MHAC-02SG	1		Load Wheel Kit**	MHAC-04NG	2

(\*) Also available in Nylon wheel, order part No. is MHAC-03NG (\*\*) Also available in Nylon wheel, order part No. is MHAC-04NG



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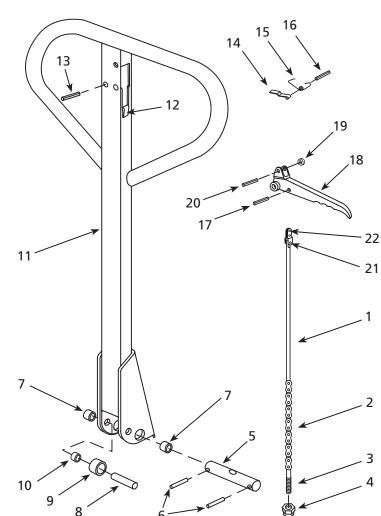
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Please provide the following information: -Model number -Serial number (if any) -Part description and number as shown in parts list

Address parts correspondence to: Grainger Parts P.O. Box 3074 1657 Shermer Road Northbrook, IL 60065-3074 U.S.A.

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### Assembly Kits:

- **▲** = 1-4, 21, 22
- **=** 18-20
- ♦ = 5, (2)-6

#### **Repair Parts List for Handle Assembly**

Ref. No.	Description	Part No.	Qty.	Ref. No.	Description	Part No.	Qty.
1	Release Rod		1	14	Blade Spring	MHG113SG	1
2	Chain		1	15	Spring	MHG114SG	1
3	Adjusting Bolt		1	16	Roll Pin	MHG115SG	1
4	Adjusting Nut		1	17	Roll Pin	MHG116SG	1
5	Axle With Hole	•	1	18	Control Handle		1
6	Elastic Pin	<b>♦</b>	2	19	Roller		1
7	Bushing	MHG107SG	2	20	Roll Pin		1
8	Roller Pin	MHG108SG	1	21	Pin		1
9	Pressure Roller	MHG109SG	1	22	Pull Board		1
10	Bushing	MHG109ASG	1		Chain Kit	MHAC-05SG	1
11	Draw-Bar	MHG110SG	1		Control Handle Kit	MHAC-06SG	1
12	Stop Rubber	MHG111G	1	•	Axle Kt	MHAC-07SG	1
13	Roll Pin	MHG112G	1				

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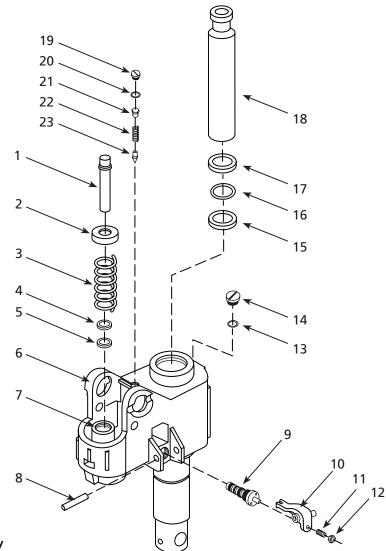
#### 2ZE62

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

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Please provide the 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.



Assembly Kits:

▲ = 4, 5, 7 ■ = 19-23

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= 15-25

Figure 7 – Repair P	arts Illustration for	Pump Assembly
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#### **Repair Parts List for Pump Assembly**

Ref. No.	Description	Part No.	Qty.	Ref. No.	Description	Part No.	Qty.
	•		QUJ.		•		<b>Q</b> ( <b>y</b> ).
1	Pump Piston	MHG303SG	1	14	Screw Plug	MHG324SG	1
2	Spring Cap	MHG301SG	1	15	Seal	MHG325G	1
3	Spring	MHG302SG	1	16	O - Ring	MHG326G	1
4	Dust Ring		1	17	Dust ring	MHG327G	1
5	Seal		1	18	Piston Rod	MHG328SG	1
6	Pump Body	MHG322SG	1	19	Screw Plug		1
7	Cylinder			20	O - Ring		1
8	Roll Pin	MHG320SG	1	21	Bolt		1
9	Valve Cartridge Kit	MHG321G	1	22	Spring		1
10	Lever Plate	MHG319SG	1	23	Spindle Of Safety Valve		1
11	Screw	MHG318SG	1		Pumping Cylinder Kit	MHAC-08SG	1
12	Nut	MHG317SG	1		Safety Valve Kit	MHAC-09SG	1
13	Seal Washer	MHG323G	1				



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#### **Troubleshooting Chart**

Symptom	Possible Cause)s)	Corrective Action		
Forks do not raise to the maximum height	Hydraulic oil is low	Add hydraulic oil, see "Maintenance" section		
Forks will not rise when	1. No hydraulic oil	1. Add hydraulic oil, see "Maintenance" section		
handle is pumped	2. Oil has impurities	<ol><li>Change oil, see "Maintenance" section</li></ol>		
	<ol> <li>The nut is too high keeping the pump valve open</li> </ol>	3. Adjust the nut or set screw		
	4. Air has entered the hydraulic system	4. Bleed air from system, see "Handle Assembly" section		
Forks cannot be lowered to the minimum height	<ol> <li>The piston rod or pump is deformed resulting from load slanting to one side or over-loading</li> </ol>	1. Replace the piston rod or pump		
-	<ol><li>Fork was kept in a raised position for an extended time causing exposed piston rod to rust jamming the rod</li></ol>	<ol><li>Position fork in the lowest position when not in use and keep piston rod well lubricated</li></ol>		
	<ol><li>The adjusting nut or screw is not in the correct position</li></ol>	<ol><li>Adjust the nut or set screw, see "Fork Adjustment" section</li></ol>		
Leaks oil	1. Worn or damaged seal	1. Order replacement seal group(s)		
	2. Some parts may become cracked or worn	2. Replace damaged part		
Fork descends unintentionally	1. The impurities in the oil cause the release valve to not close tight	1. Change oil, see "Maintenance" section		
	<ol> <li>Part of hydraulic system is cracked or damaged</li> </ol>	2. Inspect and replace the waste parts		
	3. Air has entered the hydraulic system	3. Bleed air from system, see "Handle Assembly" section		
	4. Worn or damaged seal	<ol><li>Order replacement seal group(s)</li></ol>		
	5. The adjusting nut or screw is not in the correct position	<ol><li>Adjust the nut or set screw, see "Fork Adjustment" section</li></ol>		

#### LIMITED WARRANTY

DAYTON LIMITED TWO-YEAR WARRANTY. Frame and mechanical components for Models 4YX96, 4YX97 are warranted by Dayton Electric Mfg. Co., (Dayton) to the original user against defects in workmanship or material under normal use for 2 years from the date of purchase. Hydraulic unit is warranted for 3 years on 4YX97 and 5 years on 4YX96. Warranty does not cover usage in cold storage, brine corrosive or similar application.

DAYTON 90-DAY LIMITED WARRANTY. Wheels, bearings and bushings for Models 4YX96, 4YX97 are warranted by Dayton Electric Mfg. Co. (Dayton) to the original user against defects in workmanship or materials under normal use for 90 days after the 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, Dayton's liability for consequential and incidental damages is expressly disclaimed. Dayton's liability in all events is limited to and shall not exceed the purchase price paid.

WARRANTY DISCLAIMER. Dayton 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 Dayton.

**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 Dayton 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.** Dayton 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 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.

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Manufactured for Dayton Electric Mfg. Co., 5959 W. Howard St., Niles, Illinois 60714 U.S.A.

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