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

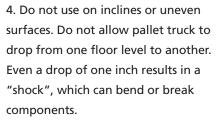
Dayton hand hydraulic pallet trucks are manually operated industrial duty products designed to lift a maximum weight as specified below. Safety features include an overload bypass valve and a pressure compensated flow valve for controlled lowering. A hand-actuated control lever for selecting "raise," "neutral," and "lower" positions is standard. 24L 323 has a Foot & Hand Actuated pump.

Specifications

General Safety Information

- 1. 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.
- 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.



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 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.

6. Do not put hands or feet under forks. Always remove load before making



Figure 1

repairs. Completely immobilize pallet truck before working on components that might 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.
- 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 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	
24L322	5000Lbs*	6 1/4"	1 3/4"	48"	27"	7"	63 1/2"	230Lbs	
24L323	5500Lbs*	7 3/4"	2 7/8"	48"	27"	6 5/16"	63 3/8"	160Lbs	

*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. Some tools that will be needed to assemble this are a hammer, pliers, and a spanner.

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

NOTE: Attach handle from behind pallet truck.

1. Remove the three bolts (D611) from the handle bracket (D151/L319A).

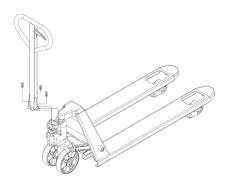


Figure 2

- 2. Set handle (D610/L110B) on the bracket (D151/L319A).
- 3. Feeding the chain through the hole in the center of the bracket (D151/L319A) and the bracket shaft (D153/L331A) install the handle (D610/L110B) onto the bracket . Insert the three bolts (D611) through the handle into the bracket and tighten securely. Using a screwdriver, carefully pry up the lever plat (D132/L345) and insert the adjusting bolt (D614) into the "fork slot" on the lever

plat, keeping the adjusting nut (D615) on the underside of the lever plat.

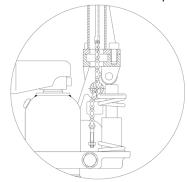


Figure 3

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

Operation

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

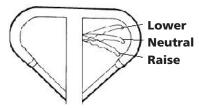


Figure 4

TO RAISE

Insert the forks into the pallet. Move the control lever into RAISE 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.

For 24L322:

- 1. If the forks elevate while pumping in the NEUTRAL position, turn the adjusting nut (D615) on the adjusting bolt(D614) clockwise until pumping action does not raise the forks and the NEUTRAL position functions properly.
- 2. If the forks descend while pumping in the NEUTRAL position, turn the nut (D615) counter-clockwise until the forks do not lower.
- 3. If the forks do not descent when the control handle(D608) is in the LOWER position, turn the nut(D615) clockwise until raising the control handle lowers the forks. Then check the NEUTRAL position according to item 1 and 2 to be sure the nut (D615) is in the proper position.
- 4. If the forks do not elevate while pumping in the LIFT position, turn the nut (D615) counter-clockwise until the forks elevate while pumping in the LIFT position. Then check the LOWER and NEUTRAL position according to item 1, 2 and 3.

For 24L323:

1. If the forks do not elevate while pumping in the RAISE position, turn the adjusting nut (D615) and/or set screw (D133) counterclockwise until the forks elevate while pumping in the RAISE position.

Models 24L322 and 24L323

ADJUSTMENT(Continued)

- 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, be sure to check all functions to be sure they haven't been affected before operating the unit.

Maintenance

A 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 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

A 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.

Do not attempt to **A WARNING** 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.

Troubleshooting Chart

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



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

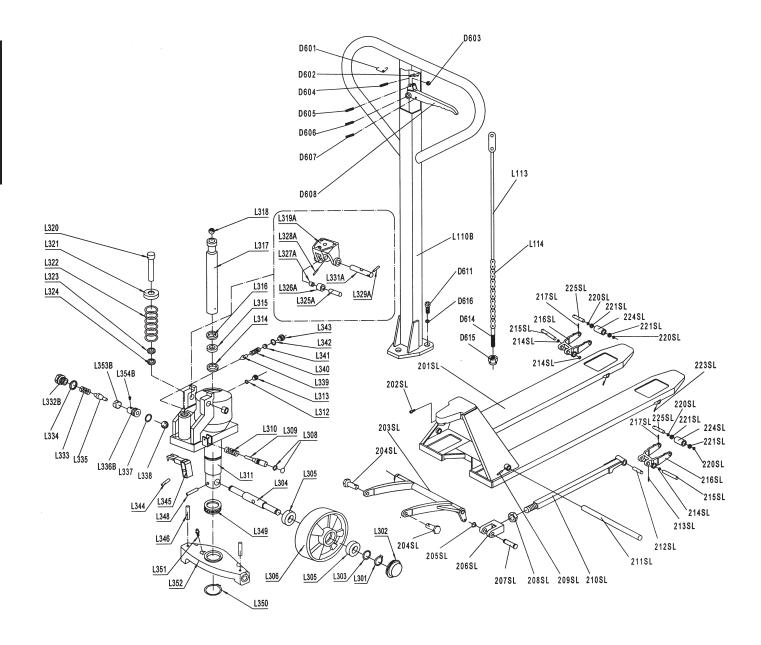


Figure 5 - Repair Parts Illustration for Hydraulic Hand Pallet Trucks: for 24L322

Repair Parts List for Hydraulic Hand Pallet Trucks: 24L322

	No.	Part No.	Description			No.	Part No.	Description	Qty.
1	D601	D601	Spring	1	9	D609	D609	Pull Board	1
2	D602	D602	Blade Spring	1	10	L110B	L110B	Handle	1
3	D603	D603	Roller	1	11	D611	D611	Screw	3
4	D604	D604	Elastic Pin	1	12	D612	D612	Chain	1
5	D605	D605	Elastic Pin	1	13				-
6	D606	D606	Elastic Pin	1	14	D614	D614	Adjusting bolt	1
7	D607	D607	Elastic Pin	1	15	D615	D615	Adjust nut	1
8	D608	D608	Control handle	1	16	D616	D616	Elastic washer	3
17	L301	**	Retaining Ring, 20	2	41	L326A	A	Pressure Roller	1
18	L302	D124	Hub Cap	2		L327A	<u> </u>	Bushing	1
19	L302	**	Washer, 20	2		L328A		Elastic Pin	1
20	L304	MH24L32201G	Shaft of wheel	1		L329A	**	Elastic Pin 5*35	1
21	L305	**	Bearing, 6204	4		L331A	MH24L32206G	Axle with hole	1
22	L305	MH24L32202G	Steering Wheel	2		L332B	*	Plug bolt	1
22	L300		Release valve kit		46		*	9	1
22	L308			1		L333	*	Spring Seal washer	1
23		A	O-ring	2			*		•
24	L309	A	Release valve	1	49	L335	*	Spindle pin of valve	1
25	L310	*	Spring	1	50	L336B	*	Seat of valve	1
26	L311		Pump Body	1	51	L337	**	O - ring	1
27	L312	D157	Seal Washer	1		L338		Steel ball, 11/32"	1
28	L313	D149	Bolt	1	53	L339	*	Safe Valve Pin	1
29	L314	*	Y-seal	1		L340	*	Spring	1
30	L315	*	Y-seal	1		L341	*	Adjusting Bolt	1
31	L316	*	Wiper	1		L342	*	O-ring	1
32	L317	*	Lift Piston Rod	1		L343	*	Plug Bolt	1
33	L318	**	Steel Ball, 3/4"	1		L344	**	Elastic pin, 5*30	1
		MH24L32204G	Pump piston kit	1		L345	MH24L32207G	Lever Plat	1
34	L320	A	Pump piston	1	60	L346	**	Elastic pin, 5*40	2
35	L321	A	Cap	1	61	L348	**	Elastic pin, 8*40	1
36	L322	A	Spring	1		L349	MH24L32208G	Thrust Bearing	1
37	L323	A	Wiper	1	63	L350	**	Retaining ring, 52	1
38	L324	A	Y-seal	1	64	L351	**	Grease cup, M6	1
		MH24L32205G	Bracket kit	1	65	L352	MH24L32209G	Thrust plate	1
39	L319A	A	Bracket	1	66	L353B	*	Sleeve	1
40	L325A	A	Axle of Roller	1	67	L354B	**	Screw, M2x2	1
68	201SL	*	Fork Frame	1	80	213SL	**	Elastic Pin, 5*26	2
69	202SL	**	Bolt, M8x16	1	81	214SL	**	Washer, 16	4
70	203SL	MH24L32210G	Rock-Arm	1	82	215SL	MH24L32215G	Shaft	2
71	204SL	MH24L32211G	Shaft	2	83	216SL	MH24L32216G	Frame of Roller	2
72	205SL	**	Retaining Ring, 16	2	84	217SL	**	Elastic Pin, 5*35	2
73	206SL	MHG209G	Joint	2	85	220SL	**	Washer, 17	4
74	207SL	MHG210G	Pin	2		223SL	MH223SLG	Elastic Pin	2
75	208SL	MHG211G	Nut	2				Load roller kit	2
76	209SL	**	Elastic Pin, 5x38	1	87	221SL	A	Bearing	4
77	210SL	MH24L32212G	Pushing Rod	2		224SL	<u> </u>	Roller	1
78	211SL	MH24L32213G	Long Shaft	1		225SL		Shaft for Roller	2
79	212SL	MH24L32214G	Shaft for pushing rod	2					

⁽A) Available as part of a kit only.



^(*) Not available as repair part.

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

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

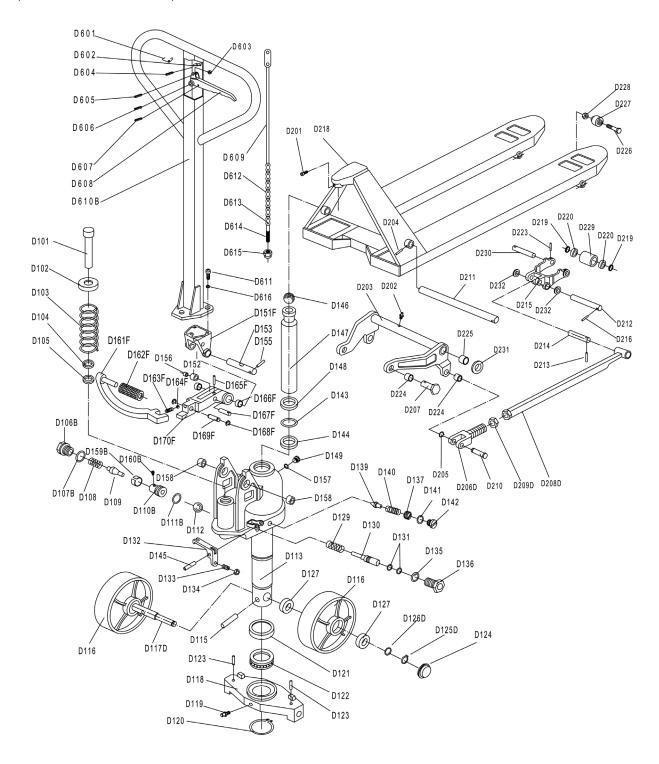


Figure 5 - Repair Parts Illustration for Hydraulic Hand Pallet Trucks: for 24L323

Repair Parts List for Hydraulic Hand Pallet Trucks: 24L323

110	Pan	I al	is fist for flyt	ai aai		Hall	a i anet	II acks. 2TLS	
	No.	Part No.	Description	Qty.		No.	Part No.	Description	Qty.
1	D601	D601	Spring	1	9	D609	D609	Pull Board	1
2	D602	D602	Blade Spring	1	10	D610	D610	Handle	1
3	D603	D603	Roller	1	11	D611	D611	Screw	3
4	D604	D604	Elastic Pin	1	12	D612	D612	Chain	1
5	D605	D605	Elastic Pin	1	13	D613	D613	Pin	1
6	D606	D606	Elastic Pin	1	14	D614	D614	Adjusting bolt	1
7	D607	D607	Elastic Pin	1	15	D615	D615	Adjust nut	1
8	D608	D608	Control handle	1	16	D616	D616	Elastic washer	3
17	D101	D101	Pump Piston Rod	1	51	D137	D137	Adjusting Bolt	1
18	D102	D102	Washer	1	52	D139	D139	Spindle of Safety Valve	1
19	D103	D103	Spring	1	53	D140	D140	Spring	1
20	D104	D104	Dust ring	1	54	D141	D141	O - ring	1
21	D105	D105	Y - seal	1	55	D142	D142	Screw	1
22	D106B	D106B	Screw	1	56	D143	D143	O - ring	1
23	D107B	D107B	O - ring	1	57	D144	D144	Y - seal	1
24	D107B	D107B	Spring	1	58	D145	D145	Elastic pin	1
25	D100	D109	Spindle of Pumping Valve	1	59	D146	D146	Steel ball	1
26		D103	Seat of Pumping Valve	1	60	D140	D147	Piston rod	1
27		D110B		1	61	D147	D148		1
			O - ring					Dust ring	1
28	D112	D112	Steel ball	1	62	D149	D149	Screw	1
29	D113	D113	Base pump	1	63	D150	D150	Shaft	1
30	D115	D115	Elastic Pin	1	64	D151F	MH24L32301G	Bracket	1
31	D116	D116	Steering wheel	2	65	D152	D152	Pressure	1
32		D117D	Shaft of Steering Wheel	1	66	D153	D153	Shaft	1
33	D118	D118	Thrust plate	1	67	D155	D155	Elastic pin	1
34	D119	D119	Oil – holder	1	68	D156	D156	Bushing	1
35	D120	D120	Retaining Ring	1	69	D157	D157	Seal washer	1
36	D121	D121	Cover of Bearing	1	70	D158	D158	Bushing	2
37	D122	D122	Bearing	1	71	D159B	D159B	Sleeve	1
38	D123	D123	Elastic pin	2	72	D160B	D160B	Screw	1
39	D124	D124	Dust cover	2			MH24L32302G	Pedal kit	1
40		D125D	Retaining ring	2	73	D161F	A	Pedal	1
41		D126D	Tab washer	2	74	D162F	A	Rubber sleeve	1
42	D127	D127	Bearing	4	75	D163F	<u> </u>	Spring	1
43	D129	D129	Spring	1	76	D164F	_	Steel ball	1
44	D130	D130	Strike pin	1	77	D165F	<u> </u>	Elastic pin	1
45	D130	D130	O - ring	2	78	D166F	T	bushing	2
46	D131	D131	Lever plat	1	79	D167F		Shaft	1
47	D132	D132		1	80	D167F		Lock ring	2
			Adjusting screw						1
48	D134	D134	Nut	1	81	D169F	A	Axle	1
49	D135	D135	O - ring	1	82	D170F	A	Bracket for pedal	1
50	D136	D136	Axle Sleeve	1		D246	D246	Flori, Div	
83	D201	D201	Screw	1	98	D216	D216	Elastic Pin Fork frame	2
84	D202	D202	Oil - holder	1	99	D218	D218		1
85	D203	D203	Rock - arm	1		D219	D219	Washer	4
86	D204	D204	Elastic Pin	1	101		D220	Bearing	4
87	D205	D205	Retaining ring	2		D223	D223	Elastic Pin	2
88		D206D	Joint	2		D224	D224	Bushing	4
89	D207	D207	Shaft	2		D225	D225	Bushing	2
90		D208D	Pushing rod	2		D226	D226	Bolt	2
91		D209D	Nut	2		D227	D227	Enter roller	2
92	D210	D210	Pin	2	107	D228	D228	Nut	2
93	D211	D211	Shaft	1	108	D229	D229	Loading roller	2
94	D212	D212	Shaft	2	109	D230	D230	Shaft for roller	2
95	D213	D213	Elastic Pin	2		D231	D231	Washer	2
96	D214	D214	Shaft	2		D232	D232	Washer	4
97	D215	D215	Frame of roller	2					
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(**A**) Available as part of a kit only.



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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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

