



HAND PALLET TRUCK

INSTRUCTION MANUAL

Imported exclusively by Pacific Hoists Pty. Ltd. & Pacific Hoists Ltd.
In support of cancer charities in Australia & New Zealand



Thank you for choosing the Challenger hand pallet truck. By Choosing Challenger you are not only receiving a quality product but also helping to support cancer charities in Australia. For your safety and correct operation, please carefully read this manual before use.

NOTE

ALL OF THE INFORMATION REPORTED HERE IS BASED ON DATA AVAILABLE AT THE TIME OF PRINTING. THE FACTORY RESERVES THE RIGHT TO MODIFY ITS OWN PRODUCTS AT ANY TIME WITHOUT NOTICE OR INCURRING ANY SANCTIONS. PLEASE VERIFY WITH THE FACTORY FOR POSSIBLE UPDATES.

CORRECT APPLICATION

Use of this hand pallet truck is recommended according to this instruction handbook. This truck is a manually operated hand pallet truck designed to lift and transport the appropriate load on industrial pallets. Using this hand pallet truck to carry persons or for purposes other than its intended purpose could cause serious injury. Correct usage will also ensure a maximum lifetime and working efficiency of the product. The operator should ensure that only trained and authorised staff are operating this hand pallet truck.

To safely use this hand pallet truck, only operate it on substantially firm, smooth, level and prepared surfaces. Driving a loaded truck on sloped ground is not safe. The load should be placed approximately on the longitudinal central plane of the table and must be in satisfactory condition (see Fig.2).

The capacity is marked on the identification plate and depending on the model can also be found on the capacity sticker. The operator should consider and follow all warnings and safety instructions. The hand pallet truck is intended to be used for indoor applications and ambient temperatures between +5 degrees Celsius and +40 degrees Celsius. Operating lighting must be minimum 50 Lux.

MODIFICATION

No modifications or alterations to this hand pallet truck should be made without the prior written approval of the original hand pallet truck manufacturer, its authorized representative, or a successor. Modifications can cause malfunctions and changes in ideal operation.

These include modifications, which may affect for example, capacity, stability or safety requirements of the truck.

Other modifications include; changes affecting braking, steering, visibility and the addition of removable attachments. When the manufacturer or its successor, approve a modification or alteration, they shall also make and approve appropriate changes to the capacity plate, decals, tags and operation and maintenance handbooks. Unauthorised changes or modifications will result in the warranty becoming void.

WARNINGS AND SAFETY INSTRUCTIONS

Safety is the number 1 concern when operating heavy equipment. For the safety of the operator and surrounding persons, here are some common safety issues and misuses of this hand pallet truck. For optimum safety please take note of and avoid the following;

- Allowing another person, other than the operator to stand in front or behind the truck when it is moving or lifting/lowering
- Overloading the truck
- Putting your foot in front of a rolling wheel. This could result in injury
- Using the truck on a slope or inclined surface, the truck may become uncontrollable
- Lifting or carrying people. They could fall and suffer severe injury
- Using the truck with an unstable, unbalanced or loosely stacked load
- Using the truck in explosive atmospheres

Watch for the difference in floor levels when moving the truck between work areas. Loads could easily fall down or the truck itself could become uncontrollable. Constant monitoring of the load during movement or lifting is key in preventing these safety issues. If the load or truck becomes unstable at any time, cease operation of the truck. This truck is not designed to be water resistant, therefore use in a dry environment.

GENERAL SPECIFICATIONS

Capacity (kg)	2500
Max. Fork Height (mm)	190
Min. Fork Height (mm)	75
Fork Length (mm)	1220
Width overall forks (mm)	685
Individual fork width (mm)	160
Load Roller Single (mm)	Ø 74x93
Steering Wheel Diameter (mm)	Ø 180x50

* Materials and specifications are subject to change without notice.

TO ATTACH HANDLE TO PUMP UNIT

- Remove 3 bolts (D611) from the handle bracket (D151)
- Set the handle (D610A, D610B or D610AS) on the bracket (D151), and ensure it allows the chain (D612) and the adjusting bolts (D614) assembly to pass through the hole in the centre of the bracket (D151) and shaft (D153).
- Insert the 3 bolts (D611) through the handle into the bracket (D151), and then tighten them securely.
- Raise the lever plate (D132) and insert the adjusting bolt (D614) into the front slot, keeping the adjusting nut (D615) on the under side of the lever plate (D132).

TO ADJUST RELEASE DEVICE

On the drawbar of this hand pallet truck, you can find the control handle (D608 or D608S), which can be regulated in three positions (see Fig.1):

RAISE - handle down

DRIVE - handle in centre position

LOWER - handle up, the lever moves back to the drive position when released. If however they have been changed, you can adjust according to the following steps:

- If the forks elevate while pumping in the DRIVE position, turn the adjusting nut (D615) on the adjusting bolt (D614) or adjusting screw (D133) clockwise until the pumping action does not raise the forks and the DRIVE position functions properly.
- If the forks descend while pumping in the DRIVE position, turn the nut (D615) or adjusting screw (D133) counter-clockwise until the forks do not lower.
- If the forks do not descend when the control handle (D608 or D608S) is in the LOWER position, turn the nut (D615) or adjusting screw (D133) clockwise until raising the control handle (D608 or D608S) lowers the forks. Then check the DRIVE position according to item 5.1 and 5.2 to be sure the nut (D615) or adjusting screw (D133) is in the proper position.
- If the forks do not elevate while pumping in the RAISE position, turn the nut (D615) or adjusting screw (D133) counter-clockwise, until the forks elevate while pumping in the RAISE position. Then check the LOWER and DRIVE position according to item 5.1, 5.2 and 5.3.

DAILY INSPECTION

There are a number of checks recommended prior to operating the hand pallet truck. Daily inspection is effective in finding any malfunctions or faults on the hand pallet trucks and can maximise their lifetime. Check the trucks on the following points before operation. Remove any loads from the hand pallet truck and lower the forks to the lowest position before performing these checks.

DO NOT USE THE TRUCK IF ANY MALFUNCTION OR FAULT IS FOUND, THIS IS A SERIOUS SAFETY CONCERN!

- Visually check for structural deformation or cracks of arms, fork, or any other component; and unusual noise or binding on the lifting mechanism
- Check if there are any oil leakages
- Check the vertical creep of the lifting mechanism
- Check the smooth movement of the wheels
- Check if there are any particles or damage on the wheels
- Check if all the bolts and nuts are tightened firmly
- If equipped, check the brake
- Verify that all labels are in place

MAINTENANCE

Your hand pallet truck is largely maintenance-free. However the following components need to be regularly monitored to ensure maximum efficiency in this product.

OIL

Please check the oil level every six months. The oil capacity is about 0.3lt. Use the hydraulic type oil according to the temperature scale below.

Temperature	Oil
-20 ~+40	L-HV46 Hydraulic oil

HOWTO EXPEL AIR FROM PUMP UNIT

Air may have entered the pump unit during transportation; this can cause the forks to not elevate while pumping in the RAISE position. The air can be removed in the following way:

- Place the control handle (D608 or D608S) into the LOWER position, then move the handle (D610A, D610B or D610AS) up and down several times. This will release any trapped air.

DAILY CHECK AND MAINTENANCE

Daily check of the pallet truck can minimise wear as much as possible. Special attention should be paid to the wheels and axles, as thread, rags, etc. may block the wheels. The forks should be unloaded and lowered to the lowest position when each job is completed.

LUBRICATION

Use motor oil or grease to lubricate all moveable parts.

GUIDE TO SAFE OPERATION

For safe operation of the Hand Pallet Truck, please read all warning signs and instructions in this manual and on the pallet truck prior to use.

- Do not operate the pallet truck unless you are familiar with it and have been trained or authorised to do so.
- Give special attention to the wheels, the handle assembly, the forks, and the lower control.
- Do not use the truck on sloping ground.
- Never place any part of your body in the lifting mechanism or under the forks or load. Do not carry passengers.
- We advise that operators should wear gloves and safety shoes.
- Do not handle unstable or loosely stacked loads.
- Do not overload the truck.
- Always place loads centrally across the forks and not at the end of the forks (See Fig. 2).
- The capacity of the truck assumes an evenly distributed load with the centre of the load being at the halfway point of the length of the forks.
- Make sure that the length of the forks matches the length of the pallet.
- Lower the forks to the lowest height when the truck is not in use.
- In other specific conditions the operators should take extra care in operating the truck.

TROUBLE SHOOTING

NO	TROUBLE	CAUSE	ACTION
1	The forks cannot reach the max. Height.	- There is not enough hydraulic oil	- Top up the oil
2	The forks cannot be lifted up.	<ul style="list-style-type: none"> - No hydraulic oil. - The oil has impurities. - The nut (D615) is too high or the screw (D133) is too close, keep the pumping valve open. - The hydraulic oil has air. 	<ul style="list-style-type: none"> - Fill in the oil. - Change the oil. - Adjust the nut (D615) or the screw
3	The forks cannot be lowered	<ul style="list-style-type: none"> - The piston rod (D101) or pump body is deformed resulting from partial load slanting to one side or over-loading. - The fork was kept in the high position for a long time with the piston rod bared resulting in rusting and jamming of the rod - The adjusting nut (D615) or the screw (D133) is not in the correct position. 	<ul style="list-style-type: none"> - Replace the piston rod (D101) or pump body. - Keep the fork in the lowest position when not in use, and pay closer attention to lubricating the piston rod. - Adjust the nut (D615) or the screw (D133). (See item 5.3)
4	Leaks	<ul style="list-style-type: none"> - Sealing parts are worn or damaged. - Part is cracked or worn. 	- Replace with the new part.
5	The fork lowers without the release valve worked.	<ul style="list-style-type: none"> - The impurities in the oil are preventing the release valve from closing tight. - Some parts of the hydraulic system are cracked or bored. - There is air in the oil. - Sealing parts are worn or damaged. - The adjusting nut (D615) or the screw (D133) is not in the correct position. 	<ul style="list-style-type: none"> - Replace with new oil. - Inspect and replace the damaged parts. - Bleed the air - Replace with the new part. - Adjusting the nut (D615) or the screw (D133). (See item 5.2)

NOTE: DO NOT ATTEMPT TO REPAIR THE HAND PALLET TRUCK UNLESS YOU ARE TRAINED AND QUALIFIED TO DO SO.

Fig.1

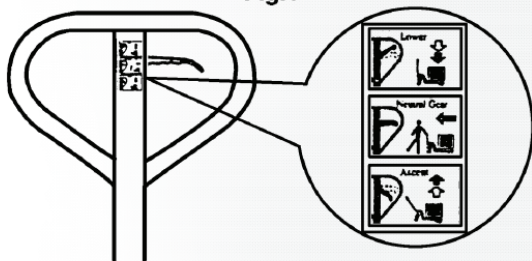
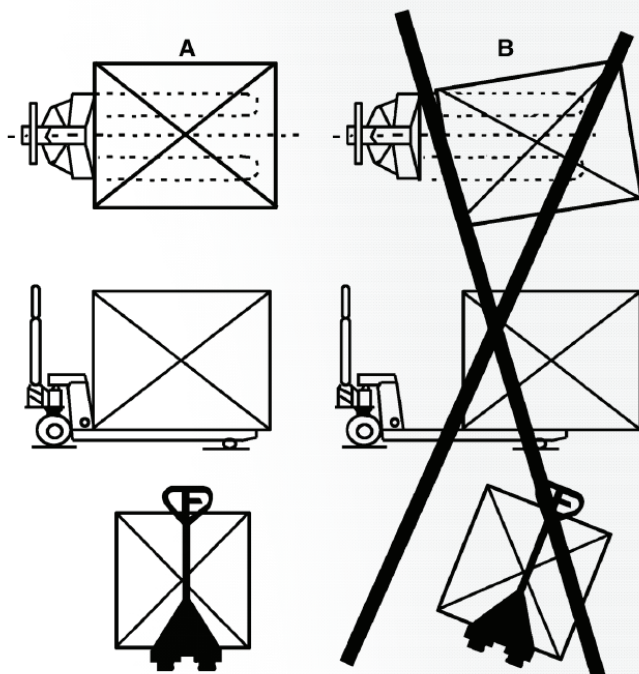
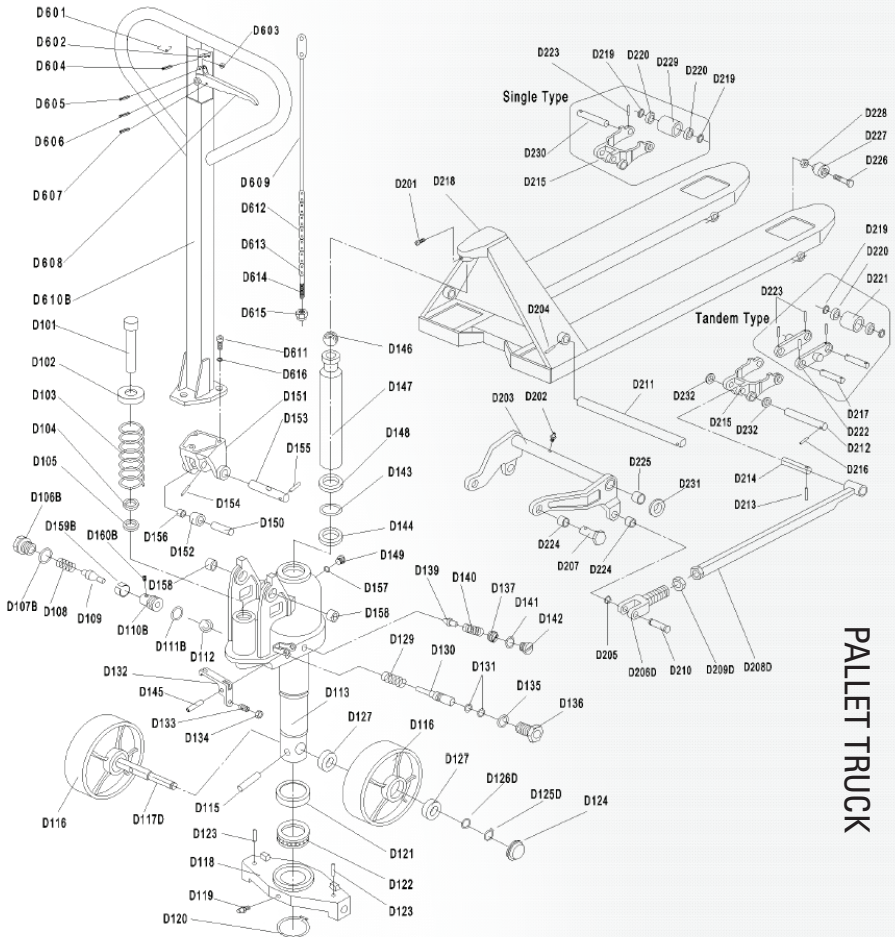


Fig.2



SPARE PARTS



PALETT TRUCK

SPARE PARTS

CODE	NO	DESCRIPTION
D601	1	Spring
D602	2	Blade Spring
D603	3	Roller
D604	4	Elastic Pin
D605	5	Elastic Pin
D606	6	Elastic Pin
D607	7	Elastic Pin
D608	8	Control Handle
D609	9	Pull Board
	10	Challenger handle
D611	11	Screw
D612	12	Chain
D613	13	Pin
D614	14	Adjusting Bolt
D615	15	Adjusting Nut
D616	16	Elastic Washer
D101	17	Pump Piston Rod
D102	18	Washer
D103	19	Spring
D104	20	Dust Ring
D105	21	Y – Seal
D106B	22	Screw
D107B	23	O – Ring
D108	24	Spring
D109	25	Spindle of Pumping Valve
D110B	26	Seat of Pumping Valve
D111B	27	O – Ring
D112	28	Steel Ball
D113	29	Base of Pump

D115	30	Elastic Pin
D116	31	Steering Wheel
D117D	32	Shaft of Steering Wheel
D118	33	Thrust Plate
D119	34	Oil – holder
D120	35	Retaining Ring
D121	36	Cover of Bearing
D122	37	Bearing
D123	38	Elastic Pin
D124	39	Dust Cover
D125D	40	Retaining ring
D126D	41	Tab Washer
D127	42	Bearing
D129	43	Spring
D130	44	Strike Pin
D131	45	O – Ring
D132	46	Lever Plate
D133	47	Adjusting Screw
D134	48	Nut
D135	49	O – Ring
D136	50	Axle Sleeve
D137	51	Adjusting Bolt
D139	52	Spindle of Safety Valve
D140	53	Spring
D141	54	O – Ring
D142	55	Screw
D143	56	O – Ring
D144	57	Y – Seal
D145	58	Elastic Pin
D146	59	Steel Ball

SPARE PARTS

D147	60	Piston Rod
D148	61	Dust Ring
D149	62	Screw
D150	63	Shaft
D151	64	Bracket
D152	65	Pressure Roller
D153	66	Shaft
D154	67	Elastic Pin
D155	68	Elastic Pin
D156	69	Bushing
D157	70	Seal Washer
D158	71	Bushing
D159B	72	Sleeve
D160B	73	Screw
D201	74	Screw
D202	75	Oil - holder
D203	76	Rock – arm
D204	77	Elastic Pin
D205	78	Retaining Ring
D206D	79	Joint
D207	80	Shaft
D208D	81	Pushing Rod
D209D	82	Nut

D210	83	Pin
D211	84	Shaft
D212	85	Shaft
D213	86	Elastic Pin
D214	87	Shaft
D215	88	Frame of Roller
D216	89	Elastic Pin
D217#	90	Shaft for Roller
D218	91	Fork Frame
D219	92	Washer
D220	93	Bearing
D221#	94	Loading Roller
D222#	95	Linking Plate
D223	96	Elastic Pin
D224	97	Bushing
D225	98	Bushing
D226	99	Bolt
D227	100	Enter Roller
D228	101	Nut
D229*	102	Loading Roller
D230*	103	Shaft for Roller
D231	104	Washer
D232	105	Washer

SPARE PARTS

NO	PARTS NO.	DESCRIPTION	LIST OF ASSEMBLY
1	DF20-01	Handle Ass'y	D601, D602, ..., D610B, D612, ..., D615
2	DF20-02-	Control handle kit	D603, D605, D608
3	DF20-03	Chain Ass'y	D609, D612, D613, D614, D615
4	DF20-04	Load Roller, Ass'y (Single Type)	D220, D220, D229
5	DF20-05	Load Roller, Ass'y (Tandem Type)	D220, D220, D221
6	DF20-06	Steering Wheel Ass'y	D116, D127, D127
7	DF20-07	Seal Kit of Pump Unit	D104, D105, D107B, D111B, D131, D131, D135, D141, D143, D144, D148, D157
8	DF20-08	Bracket Ass'y	D150, D151, D152, D154, D156
9	DF20-09	Pump Ass'y	"D101, D102, D103, D104, D105, D106B, D107B, D108, D109, D110B, D111B, D112, D113, D129, D130, D131, D132, D133, D134, D135, D136, D137, D139, D140, D141, D142, D143, D144, D145, D146, D147, D148, D149, D150, D151, D152, D153, D154, D155, D156, D157, D158, D159B, D160B

NOTE: DO NOT ATTEMPT TO REPAIR THE HAND PALLET TRUCK UNLESS YOU ARE TRAINED AND QUALIFIED TO DO SO.

THANK YOU FOR CHOOSING A QUALITY AND RELIABLE CHALLENGER PRODUCT. BY PURCHASING THIS PRODUCT YOU ARE SUPPORTING A BRAND THAT IS CONTINUOUSLY SUPPORTING CANCER CHARITIES IN AUSTRALIA & NEW ZEALAND AND TRYING TO MAKE A REAL DIFFERENCE!



INSPECTION LOG

INITIAL SERVICE DATE:

SERIAL NO:

DATE	NOTES	AUTH SIGNATURE

Imported exclusively by Pacific Hoists Pty. Ltd. and Pacific Hoists Ltd.
For further information in relation to this product,
please contact the branch where the product was purchased.

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