



# OPERATING INSTRUCTIONS & PARTS LIST ECO MINI/MINEY

VERSION Model Applicable products N/A

ECO MINI / MINEY PALLET TRUCK
ECO MINI / MINEY

NOTE: Owner and operator MUST read and understand the operating instructions before using the unit.

Thank you for using our pallet truck. Your pallet truck is made of high quality steel and is designed for the horizontal lifting and transport of loads on a pallet or standardized containers on a level, fixed base. For your safety and correct operation, please carefully read this instruction before using it.

NOTE: All of the information reported herein is based on data available at the moment of printing. We reserve the right to modify our own products at any moment without notice and incurring in any sanction. So, it is suggested to always verify possible updates.

#### 1. GENERAL SPECIFICATIONS

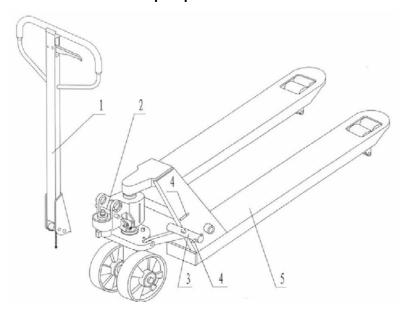
Capacity	2000KG / 4400LBS		
Fork Height Raised	165mm / 6-3/4"		
Fork Height Lowered	51mm / 2"		
Fork Length	1150mm / 45" or 1220mm / 48"		
Width Across Forks	520mm / 20 ½"	685mm / 27"	838mm / 33"
Individual Fork Width	160mm / 6-5/16"		
Roller Size	Ø50X70mm / Ø1-31/32 x 2 ¾" (Steel)		
Mail Wheel Size	Ø180X50mm / Ø7-1/4 x 2"		

Materials and specification are subject to change without notice.

### 2. TO ATTACH DRAW-BAR TO PUMP UNIT

If you have purchased a wooden box of pallet truck, some assembly is required. Certainly, you need some tools, a hammer, a pliers, a spanner, etc; and some parts, one axle with hole (G105), two elastic pins (G106)(**Note one is in the axle (G105)**), these parts are putted in a plastic bag, which is putted into the draw-bar.

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



1. Draw-bar 2. Pin 3. Axle with hole 4. Elastic pin 5. Fork frame Fig. 1

When attaching the handle, you had better squat just behind the pallet truck. Then you:

- **2.1** Insert the draw-bar onto the pump piston (303), then use a hammer to insert the axle with hole (G105) into the hydraulic pump and draw-bar **from the right to left.** (See fig. 2).
- **2.2** Let control handle(G117) to the 'LOWER' position, then pass the adjusting nut(G104), adjusting bolt(G103) and chain(G102) through the hole of axle(G105) with your hand (See fig. 3).



Fig. 2

- 2.3 Press the draw-bar (G110) down, take away the pin (#2) (See Fig. 1).
- 2.4 Let the control handle (G117) on 'RAISE' position, then raise the lever plate (319) with the pin (#2) and insert the adjusting bolt(G103) into the front slot of lever plate (319), note to keep the adjusting nut (G104) on the under side of the lever plate.

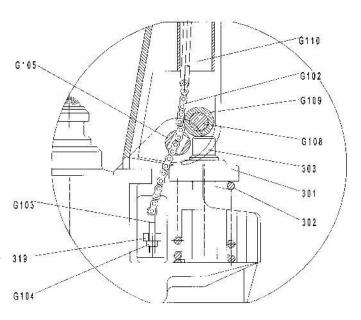


Fig.3

**2.5** Use a hammer to tap another elastic pin (G106) into the axle with hole (G105). The draw-bar is now assembled to the pump.

## 3. TO ADJUST RELEASE DEVICE

On the draw-bar of this pallet truck, you can find the control handle (G117) which can be regulated in three positions:

Raise -handle down

**Drive** position -handle in center position

**Lower** -handle up, the lever moves back the drive position when released.

If however they have been changed, you can adjust according to following step:

- **3.1** If the forks elevate while pumping in the **DRIVE** position, turn the adjusting nut (G104) on the adjusting bolt (G103) or screw (318) clockwise until pumping action does not raise the forks and the **DRIVE** position functions properly.
- **3.2** If the forks descend while pumping in the **DRIVE** position, turn the nut (G104) or screw (318) counter-clockwise until the forks do not lower.
- 3.3 If the forks do not descent when the control handle (G117) is in the LOWER position, turn the nut (G104) or screw (318) clockwise until raising the control handle (G117) lowers the forks. Then check the DRIVE position according to item 3.1 and 3.2 to be sure the nut (G104) and screw (318) is in the proper position.

**3.4** If the forks do not elevate while pumping in the **RAISE** position, turn the nut (G104) or screw (318) counter-clockwise until the forks elevate while pumping in the **RAISE** position. Then check the **LOWER** and **DRIVE** position according to item 3.1, 3.2 and item 3.3.

#### 4. MAINTENANCE

The pallet truck is largely maintenance-free.

#### 4.1 OIL

Please check the oil level every six months. The oil can be hydraulic oil: ISO VG32, its viscosity should be 30cSt at 40 °C, total volume is about 0.4lt.

#### 4.2 TO BANISH THE AIR

The air may come into the hydraulic oil because of transportation or pump in upset position. It can cause that the forks do not elevate while pumping in the **RAISE** position. The air can been removed in the following way: let the control handle (G117) on the **LOWER** position, then move the draw-bar up and down for several times.

#### 4.3 DAILY CHECK AND MAINTENANCE

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

#### **4.4 LUBRICATION**

All bearings and shafts are provided with long-life grease at the factory. You only need provide with long-life grease at monthly intervals or after each time the truck is cleaned thoroughly to the lubrication points.

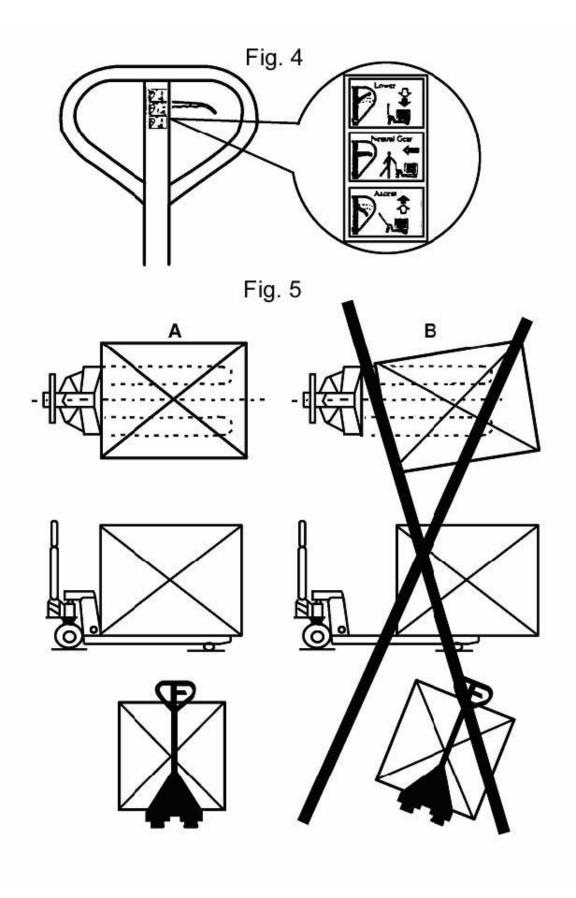
## **5 GUIDE TO SAFETY OPERATION**

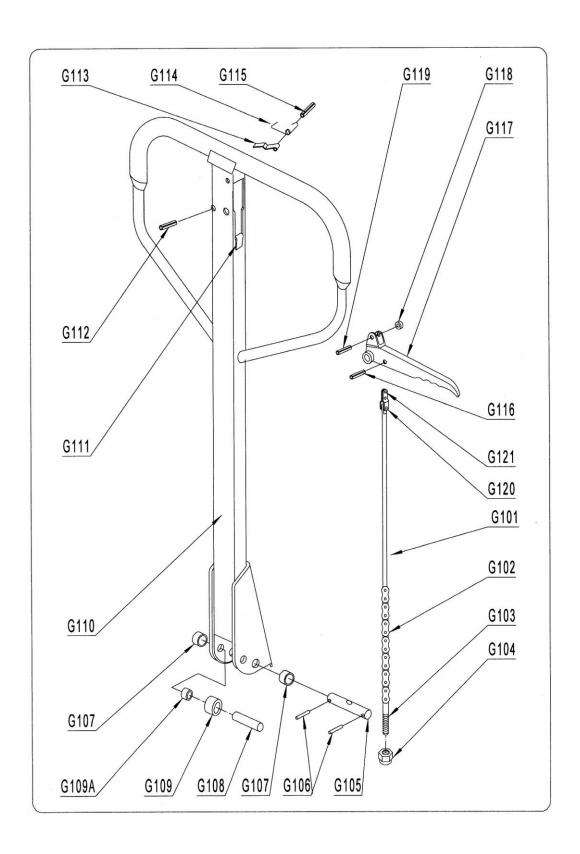
- 5.1 Operator should read all warning signs and instructions here and on the pallet truck before using this truck.
- 5.2 Do not use on sloping ground.
- 5.3 Do not operate a pallet truck unless you are familiar with it and have been trained or authorized to do so.
- 5.4 Do not operate a pallet truck unless you have checked its condition. Give special attention to the wheels or rollers, the draw-bar unit, the fork unit, the lever plate, etc.
- 5.5 To pull the truck, always move the control handle into the drive position. This makes the draw-bar easier to move and depressurizes the pump section of the hydraulics. This preserves the hydraulic seals and the valve components. A long service life can be expected.
- 5.6 Do not take up any people on the pallet truck.
- 5.7 The operator had better take on gloves for labor protecting.
- 5.8 When the goods have been transported, all people should be away from the forks for 600mm.
- 5.9 Do not load goods like fig. 5/B and load over maximum capacity.
- 5.10 At others unusual conditions or places, the operator should take care in operating the pallet truck.

## **6. TROUBLES SHOOTING**

No	Trouble	Clause	Fixing Methods
1	The forks can not be	-The hydraulic oil is not enough.	-Pour in the oil.
	up the max height.		
		-Without hydraulic oil.	-Fill in the oil.
	The forks can not be	-The oil has impurities.	-Change the oil.
2	lifted up.	-The nut (G104) is too high, keep the	-Adjust the nut(G104) or
		pumping valve open.	screw (318) (see item 3.4)
		-Air come into the hydraulic oil.	-Banish the air.(see item 4.2)
		-The piston rod (328) or pump (322)	-Replace the piston rod (328)
		is deformed resulting from partial	or pump (322).
		loading slanting to one side or	
		over-loading.	
3	The forks can not be	-The fork was kept in the high	-Keeping the fork in the
	descended.	position for long time with piston rod	lowest position if not using,
		bared to arise in rusting and jamming	and pay more attention to
		of the rod.	lubricate the rod.
		-The adjusting nut (G104) or screw	-Adjust the nut (G104) or
		(318) is not in correct position.	screw (318) (see item 3.3)
4	Leaks	-Sealing parts worn or damaged.	-Replace with the new one.
		<ul> <li>Some part cracked or worn into small.</li> </ul>	-Replace with the new one.
		-The impurities in the oil cause the	-Replace with new oil.
		release valve to be unable to close	-Inspect and replace the
		tight.	parts.
5	The fork descends	-Some parts of hydraulic system is	-Banish the air. (See item
	without the release	cracked or bored.	4.2)
	valve worked.	-Air has come into the oil.	-Replace with the new one.
		-Sealing parts worn or damaged.	-Adjusting the nut (G104) or
		-The adjusting nut (G104) or screw	screw (318). (See item 3.2)
		(318) is not in the correct position.	

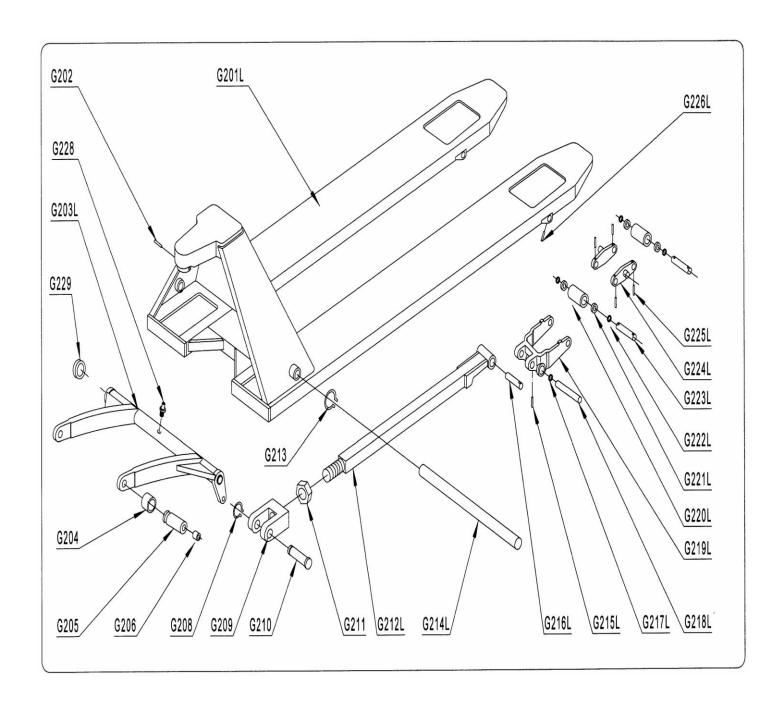
NOTE: DO NOT ATTEMP TO REPAIR THE PALLET TRUCK UNLESS YOU ARE TRAINED AND AUTHORIZED TO DO SO.





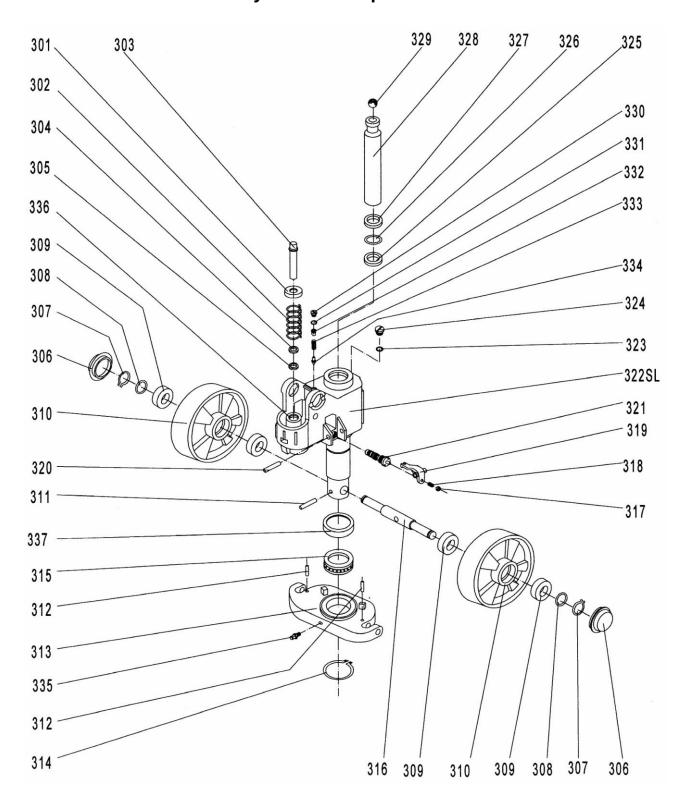
No.	Mobile No.	Description	Qty.
G101	18E101	Release Rod	1
G102	18E102	Chain	1
G103	18E103	Adjusting Bolt	1
G104	18E104	Adjusting Nut	1
G105	18E105	Axle with Hole	1
G106	18E106	Elastic Pin	2
G107	18E107	Bushing	2
G108	18E108	Roller Pin	1
G109	18E109	Pressure Roller	1
G109A	18E109A	Bushing	1
G110	12G110	Draw-bar	1
G111	18E111	Stop Rubber	1
G112	18E112	Elastic Pin 1	
G113	18E113	Blade Spring 1	
G114	18E114	Spring 1	
G115	18E115	Elastic Pin 1	
G116	18E116	Elastic Pin 1	
G117	18E117	Control Handle 1	
G118	18E118	Roller 1	
G119	18E119	Elastic Pin	1
G120	12G120	Pin	1
G121	18E121	Pull Board	1

# **Fork Frame Unit**



No.	Mobile No.	Description	Qty.
G201L	18G201L	Fork Frame	1
G202	18G202	Elastic Pin	1
G203L	18G203L	Rock - Arm	1
G204	18G204	Bushing	2
G205	18G205	Shaft	2
G206	18G206	Grease Cup	2
G208	18G208	Retaining Ring	2
G209	18G209	Joint	2
G210	18G210	Pin	2
G211	18G211	Nut	2
G212L	18G212L	Pushing Rod	2
G213	18G213	Retaining Ring	2
G214L	18G214L	Long Shaft	1
G215L	18G215L	Elastic Pin	2
G216L	18G216L	Shaft	2
G217L	18G217L	Washer	4
G218L	18G218L	Shaft	2
G219L	18G219L	Frame of Roller	2
G220L	18G220L	Steel Roller (Standard)	4
G220LP	18G220LP	Polyurethane Roller (Optional)	4
G221L	18G221L	Bearing	8
G222L	18G222L	Washer	8
G223L	18G223L	Axle for Roller	4
G224L	18G224L	Linking Plate	4
G225L	18G225L	Elastic Pin	8
G226L	18G226L	Elastic Pin	2
G228	18G228	Grease Cup	1
G229	18G229	Washer	2/1

# **Hydraulic Pump Unit**



# **Hydraulic Pump Unit**

No.	Mobile No.	Description	Quantity	Remark
301	18E301	Spring Cap	1	
302	18E302	Spring	1	
303	18E303	Pump Piston	1	
304	18E304	Dust Ring	1	
305	18E305	Seal	1	
306	18E306	Dust Cover	2	
307	18E307	Locking Ring	2	
308	18E308	Washer	2	
309	18E309	Bearing	4	
310	18E310P-1	Loading Wheel	2	
311	18E311	Elastic Pin	1	
312	18E312	Elastic Pin	2	
313	18E313	Thrust Plate	1	
314	18E314	Retaining Ring	1	
315	18E315	Bearing	1	
316	18E316	Shaft of loading Wheel	1	
317	18E317	Nut	1	
318	18E318	Screw	1	
319	18E319	Lever Plate	1	
320	18E320	Elastic Pin	1	
321	18E321	Valve Cartridge	1	
322SL	18E322SL	Pump Body	1	For ECO MINI Only
323	18E323Y	Seal Washer	1	
324	18E324Y	Screw Plug	1	
325	18E325	Seal	1	
326	18E326	O – Ring	1	
327	18E327	Dust Ring	1	
328	18E328	Piston Rod	1	
329	18E329	Steel Ball	1	
330	18E330Y	Screw Plug	1	
331	18E331Y	O - Ring	1	
332	18E332Y	Bolt	1	
333	18E333Y	Spring	1	
334	18E334Y	Spindle of Safety Valve	1	
335	18E335	Grease Cup	1	
336	18E336	Cylinder	1	
337	18E337	Cover of Bearing	1	



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