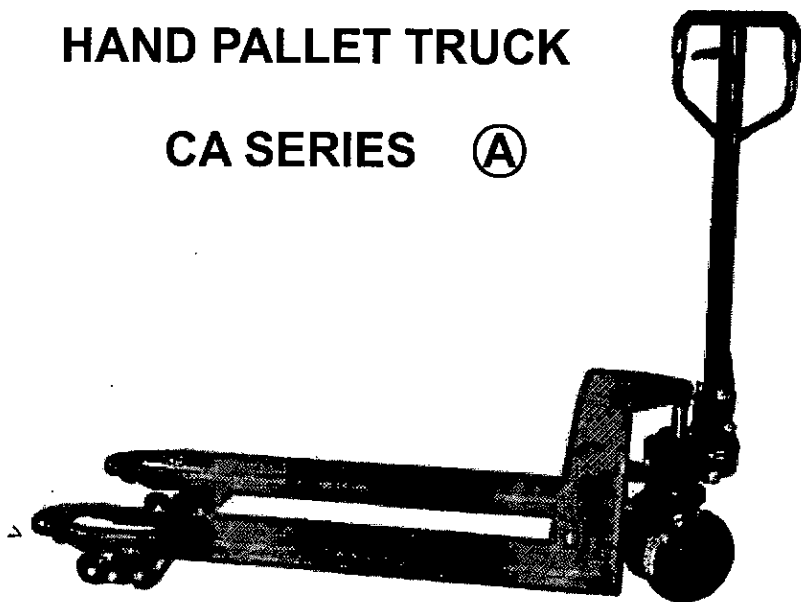


# Instruction Manual

HAND PALLET TRUCK

CA SERIES (A)



**Note:** Owner/Operator must read and understand this instruction manual before using the hand pallet truck.

Thank you for choosing our pallet truck. For your safety and correct operation, please carefully read the manual before use.

**NOTE:** All of the information reported herein 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 in any sanction. Please verify with the factory for possible updates.

## 1. GENERAL SPECIFICATIONS

Standard Model	CA20S	CA20L	CA25S	CA25L	CA30S	CA30L
Quick Lift Model	CAQ20S	CAQ20L	CAQ25S	CAQ25L	CAQ30S	CAQ30L
Capacity (kg)	2000	2000	2500	2500	3000	3000
Max. Fork Height (mm)	200(or190)					
Min. Fork Height (mm)	85(or75)					
Fork Length (mm)	1150	1220	1150	1220	1150	1220
Width Overall Forks (mm)	540	680	540	680	540	680
Individual Fork Width (mm)	160					
Load Wheel Diameter (mm)	Ø 80x60(or Ø 70x60) Nylon, Polyurethane					
Steering Wheel Diameter (mm)	Ø 200(or Ø 180) Nylon, Polyurethane, Rubber					
Net Weight (kg)	75	78	77	80	85	88

Special fork length are available 800, 900, 950, 1000, 1500, 2000mm.

Materials and specification are subject to change without notice.

## 2. TO ATTACH HANDLE TO PUMP UNIT

- 2.1 Loosen the setting screw(340M) on the crank link (339M).
- 2.2 Remove three screws (H109) and three spring washers (H110) from the base (303).
- 2.3 Place the handle (H101, H101A, H101(JR), H101(FR)) on the base (303), please note: Feed the rod and chain (H107) through the centre of the base (303) and axle (309).
- 2.4 Insert three screws (H109) with spring washers (H110) into the base (303). Then tighten them securely.
- 2.5 Raise the crank link (339M) and put the pin on rod and chain (H107) into the groove of crank link (339M).

## 3. TO ADJUST RELEASE DEVICE

On the handle of the pallet truck, you will find the control lever (H106) which can be set in three positions (See Fig. 1):

LOWER=to lower the forks; NEUTRAL=to move the load; ASCENT=to raise the forks.

After assembling the handle, you can adjust the three positions.

- 3.1 First tighten the setting screw (340M) on the crank link (339M) until the LOWER position function works.
- 3.2 If the forks elevate while pumping in the NEUTRAL position, turn the setting screw (340M) clockwise until pumping the handle does not raise the forks and the NEUTRAL position functions correctly.

- 3.3 If the forks descend while pumping in the NEUTRAL position, turn the setting screw (340M) counter-clockwise until the forks do not lower.
- 3.4 If the forks do not descend when the control lever (H106) is in the LOWER position, turn the setting screw (340M) clockwise until raising the control lever (H106) lowers the forks. Then check the NEUTRAL position as per item 3.2 and 3.3.
- 3.5 If the forks do not lift while pumping in the ASCENT position, turn the setting screw (340M) counter-clockwise until the forks elevate while pumping in the ASCENT position. Then check the NEUTRAL and LOWER position as per item 3.2, 3.3 and 3.4.

## 4. MAINTENANCE

### 4.1 OIL

Please check the oil level every six months. The oil capacity is about 0.3lt. Restore the fluid level in the rubber reservoir to 5mm below the top, this must be with the forks in the lowered position.

Use the hydraulic type oil according to temperature scale below.

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

### 4.2 HOW TO EXPEL AIR FROM THE PUMP UNIT

Air may enter the unit when the seals are replaced. Lift the control lever (H106) to the LOWER position, then move the handle (H101, H101A, H101(JR), H101(FR)) up and down for several times.

### 4.3 DAILY CHECK AND MAINTENANCE

Daily check of the pallet truck can limit wear and tear of the unit. Pay special attention to the wheels (327, F116 or F117), the axles (F114, F118, F121, F122), the handle (H101, H101A, H101(JR), H101(FR)), the forks (F110) and lift and lower control.

### 4.4 LUBRICATION

Use motor oil or grease to lubricate all moveable parts.

## 5. GUIDE TO SAFETY OPERATION

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

- 5.1 Do not operate the pallet truck unless you are familiar with it and have been trained or authorised to do so.
- 5.2 Do not operate the truck unless you have been trained and authorised. Give special attention to the wheels, the handle assembly, the forks, and the lower control.
- 5.3 Do not use the truck on sloping ground.
- 5.4 Never place any part of your body in the lifting mechanism or under the forks or load. Do not carry passengers.
- 5.5 We advise that operators should wear gloves and safety shoes.
- 5.6 Do not handle unstable or loosely stacked loads.
- 5.7 Do not overload the truck.

- 5.8 Always place loads centrally across the forks and not at the end of the forks (See Fig. 2).
- 5.9 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.
- 5.10 Make sure that length of the forks matches the length of the pallet.
- 5.11 Lower the forks to lowest height when the truck is not being used.
- 5.12 In other specific conditions the operators should take extra care in operating the truck.

## 6. TROUBLES SHOOTING

NO	TROUBLE	CAUSE	ACTION
1	The forks do not lift to maximum height.	-Not enough hydraulic oil.	-Add more oil.
2	The forks do not lift up.	-Not enough hydraulic oil. -The oil has impurities. -Discharge valve is out of adjustment. -Air in the hydraulic oil.	-Pour in more filtered oil. -Change the oil. -Adjust the setting screw (340M) (See item 3.5). -Expel the air (See item 4.2).
3	The forks do not descend.	-The rod (501) and the cylinder (505) are deformed resulting from a seriously unbalanced load. -A part has been broken or been deformed resulting from unbalanced load. -The setting screw (340M) is not in the correct position.	-Replace the rod (501) or cylinder (505).  -Repair or replace component.  -Adjust the setting screw (340M) (See item 3.4).
4	Leaks	-Seals worn out or damaged. -Some parts may be cracked or worn out.	-Replace seals with new ones. -Check and replace with new ones.
5	The forks descend without being lowered.	-Impurities in the oil cause the discharge valve (B) to fail to close. -Air in the oil. -Seals worn or damaged. -Discharge valve (B) is out of adjustment.	-Replace with filtered oil.  -Expel the air (See item 4.2). -Replace with new ones. -Adjust the setting screw (340M) (See item 3.3).

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

Fig.1

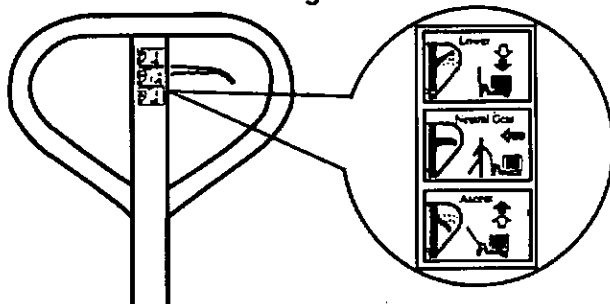
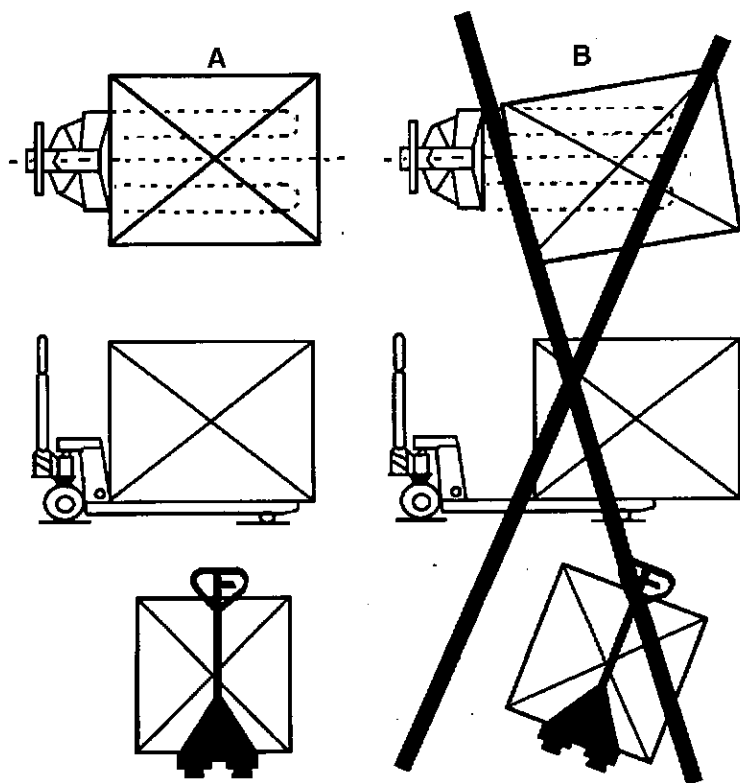
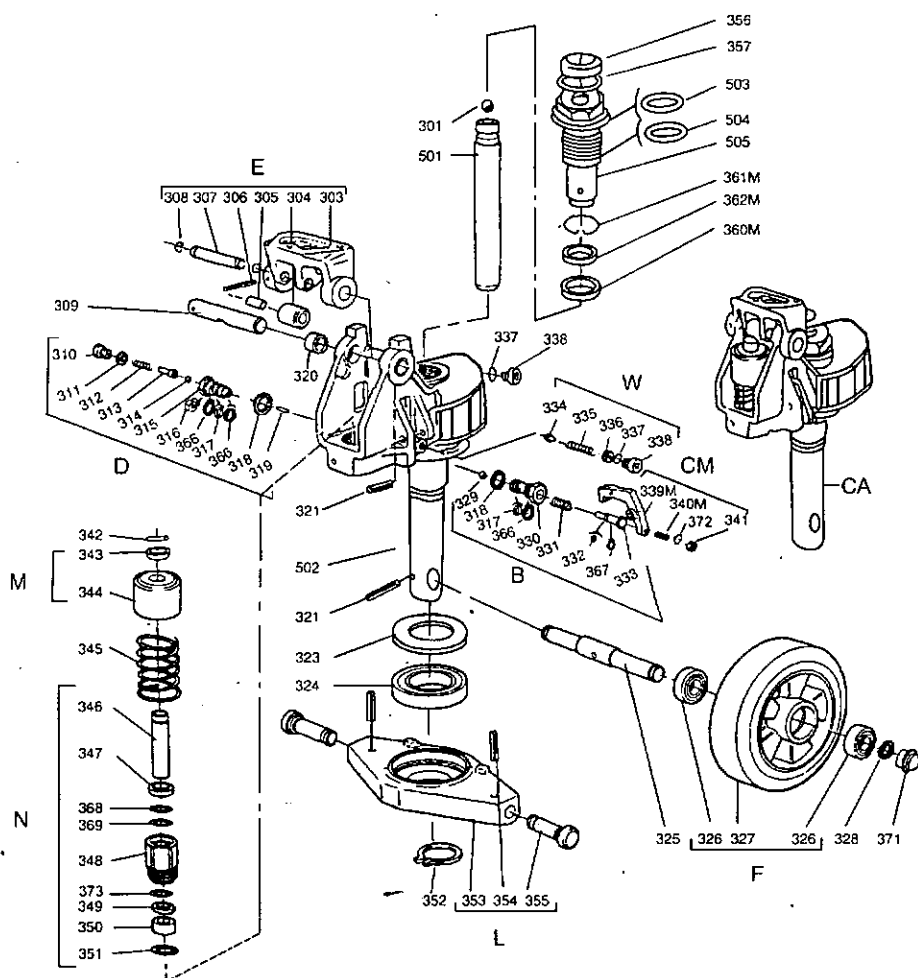


Fig.2



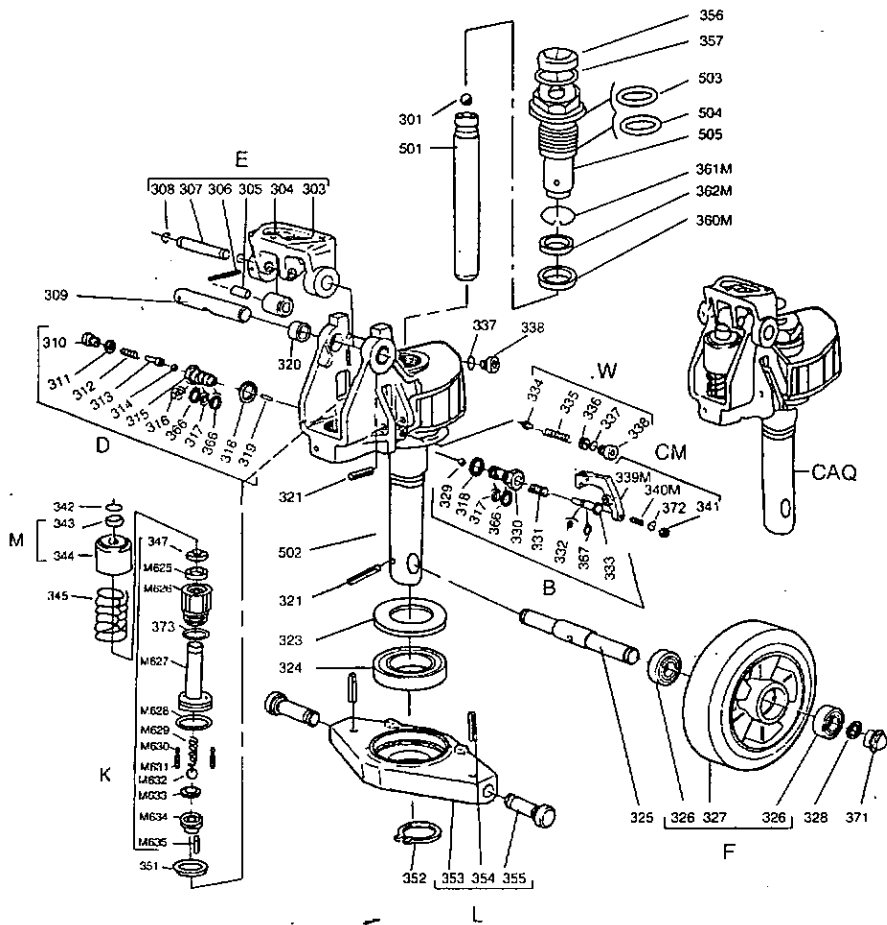
# Pump Assembly



## Parts List of Pump Assembly

PARTS NO.	DESCRIPTION	Q'TY	PARTS NO.	DESCRIPTION	Q'TY
501	Rod	1	332	O-ring	1
502	Pump body	1	333	Discharge valve shaft	1
503	O-ring	1	334	Valve taper core	1
504	O-ring	1	335	Spring	1
505	Cylinder	1	336	Pressure regulating screw	1
301	Steel ball	1	337	O-ring	2
303	Base	1	338	Screw	2
304	Steel roller	1	339M	Crank link	1
305	Bushing	1	340M	Setting screw	1
306	Pin	1	341	Nut	1
307	Shaft	1	342	Parallel pin	1
308	Retaining ring	2	343	Retaining cover	1
309	Axle	1	344	Spring cover	1
310	Screw	1	345	Spring	1
311	Washer	1	346	Pump rod	1
312	Spring	1	347	Dust proof ring	1
313	Pressure rod	1	348	Pump cylinder	1
314	Steel ball	1	349	Seal ring	1
315	Pressure valve body	1	350	Nylon bushing	1
316	Split ring	1	351	Red copper washer	1
317	O-ring	2	352	Retaining ring	1
318	Washer	2	353	Rhombus plate	1
319	Steel needle	1	354	Pin	2
320	Bushing	2	355	Dowel pin	2
321	Pin	2	356	Dust proof ring	1
323	Dust cover	1	357	O-ring	1
324	Bearing	1	360M	Seal ring	1
325	Steering wheel axle	1	361M	Retaining ring	1
326	Bearing	4	362M	Washer	1
327A	Steering wheel, Nylon	2	366	Retainer	3
327B	Steering wheel, Polyurethane	2	367	Retainer	1
327C	Steering wheel, Poly/Nylon	2	368	Retainer	1
327D	Steering wheel, Rubber	2	369	O-ring	1
328	Retaining ring	2	371	Dust cover	2
329	Steel ball	1	372	Spring washer	1
330	Discharge valve body	1	373	O-ring	1
331	Spring				

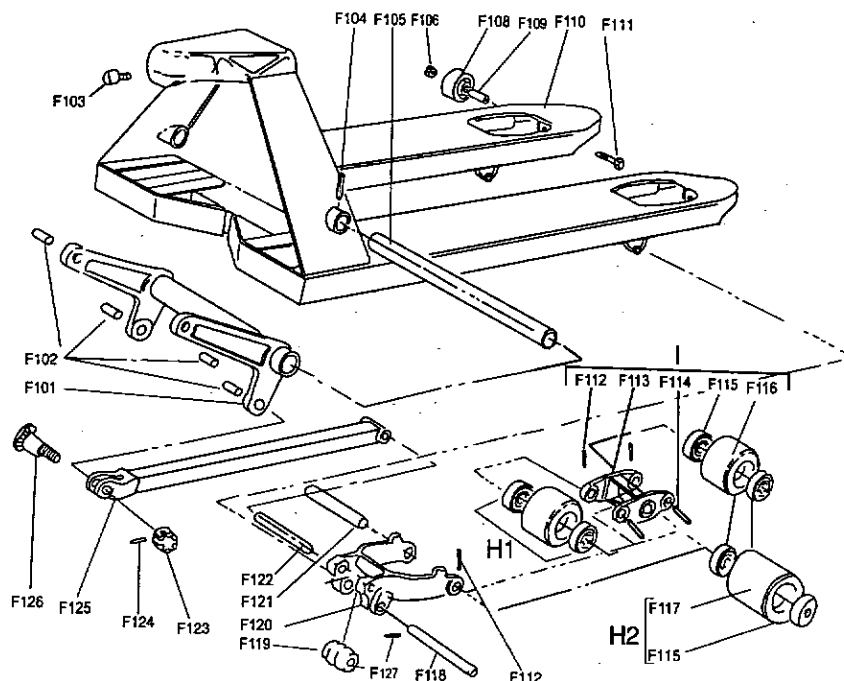
## Quick Lift Pump Assembly





# Parts List of Quick Lift Pump Assembly

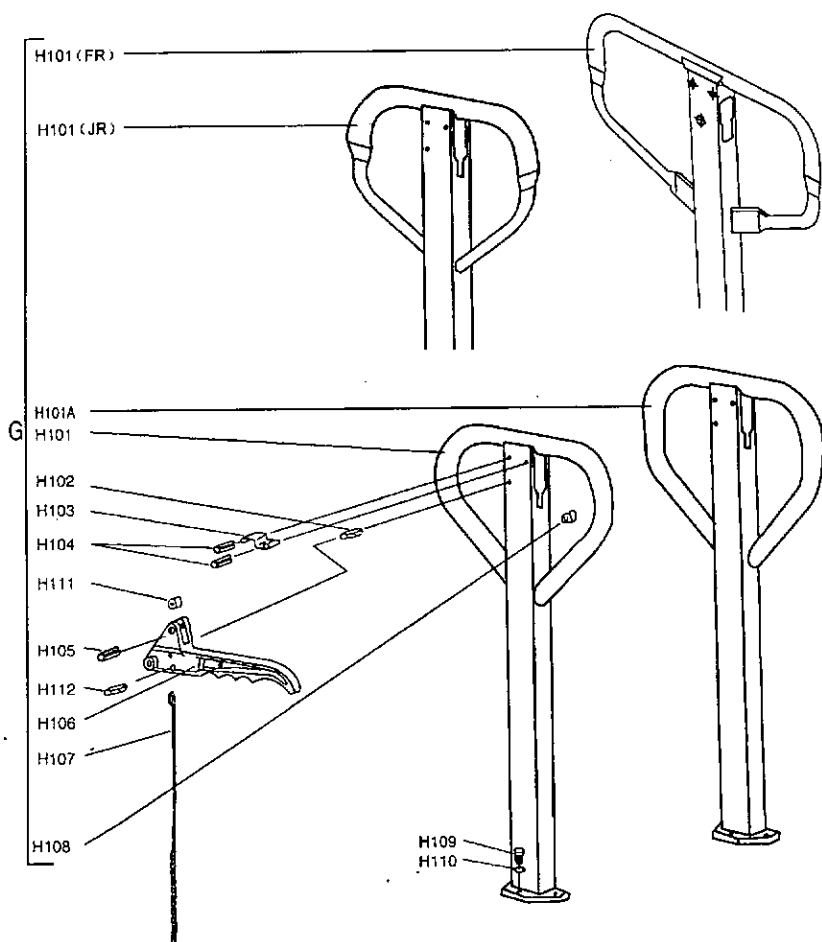
PARTS NO.	DESCRIPTION	Q'TY	PARTS NO.	DESCRIPTION	Q'TY
501	Rod	1	334	Valve taper core	1
502	Pump body	1	335	Spring	1
503	O-ring	1	336	Pressure regulating screw	1
504	O-ring	1	337	O-ring	2
505	Cylinder	1	338	Screw	2
301	Steel ball	1	339M	Crank link	1
303	Base	1	340M	Setting screw	1
304	Steel roller	1	341	Nut	1
305	Bushing	1	342	Parallel pin	1
306	Pin	1	343	Retaining cover	1
307	Shaft	1	344	Spring cover	1
308	Retaining ring	2	345	Spring	1
309	Axle	1	347	Dust proof ring	1
310	Screw	1	351	Red copper washer	1
311	Washer	1	352	Retaining ring	1
312	Spring	1	353	Rhombus plate	1
313	Pressure rod	1	354	Pin	2
314	Steel ball	1	355	Dowel pin	2
315	Pressure valve body	1	356	Dust proof ring	1
316	Split ring	1	357	O-ring	1
317	O-ring	2	360M	Seal ring	1
318	Washer	2	361M	Retaining ring	1
319	Steel needle	1	362M	Washer	1
320	Bushing	2	366	Retainer	3
321	Pin	2	367	Retainer	1
323	Dust cover	1	371	Dust cover	2
324	Bearing	1	372	Spring washer	1
325	Steering wheel axle	1	373	O-ring	1
326	Bearing	4	M625	Seal ring	1
327A	Steering wheel, Nylon	2	M626	Pump cylinder	1
327B	Steering wheel, Polyurethane	2	M627	Pump rod	1
327C	Steering wheel, Poly/Nylon	2	M628	O-ring	1
327D	Steering wheel, Rubber	2	M629	Big spring	1
328	Retaining ring	2	M630	Steel ball	2
329	Steel ball	1	M631	Small spring	2
330	Discharge valve body	1	M632	Steel ball	1
331	Spring	1	M633	Spring base	1
332	O-ring	1	M634	Plug	1
333	Discharge valve shaft	1	M635	Pin	1



## Parts List of Frame

PARTS NO.	DESCRIPTION	Q'TY	PARTS NO.	DESCRIPTION	Q'TY
F101	Torsion tube assembly	1	F116B	Poly load roller, tandem type	4
F102	Bushing	4	F116C	Poly/Nylon load roller, tandem type	4
F103	Hex socket screw	1	F117A	Nylon load roller, single type	2
F104	Spring pin	1	F117B	Poly load roller, single type	2
F105	Torsion tube shaft	1	F117C	Poly/Nylon load roller, single type	2
F106	Nut	2	F118	Axle	2
F108	Leading roller	2	F119	Roller	2
F109	Axle sleeve	2	F120	Wheel frame	2
F110	Frame	1	F121	H-link axle	2
F111	Bolt	2	F122	Pull rod axle	2
F112	Spring pin	6/2*	F123	Slotted nut	2
F113	H-link	2	F124	Split pin	2
F114	Load roller axle	4	F125	Pull rod	2
F115	Bearing	8/4*	F126	Eccentric pin	2
F116	Nylon load roller, tandem type	4	F127	Spring pin	2

\*Note: Quantity for tandem roller is 8, for single roller is 4.



## Parts List of Handle

PARTS NO.	DESCRIPTION	Q'TY	PARTS NO.	DESCRIPTION	Q'TY
H101	Handle	1	H106	Control lever	1
H101A	Handle	1	H107	Rod and chain	1
H101(JR)	Handle	1	H108	Rubber cushion	1
H101(FR)	Handle	1	H109	Screw	3
H102	Spring pin	1	H110	Spring washer	3
H103	Spring leaf	1	H111	Nylon roller	1
H104	Spring pin	2	H112	Spring pin	1
H105	Spring pin	1			

# Assembly list

Assembly	Description
CA	Pump unit
CAQ	Quick lift pump unit
B	Lowering valve ass'y
CM	Lowering screw ass'y
D	Hydraulic valve ass'y
E	Handle seat ass'y
F1	Nylon steering wheel ass'y
F2	Polyurethane steering wheel ass'y
F3	Polyurethane/Nylon steering wheel ass'y
F4	Rubber steering wheel ass'y
G	Handle ass'y
H1A	Nylon load roller ass'y (tandem type)
H1B	Polyurethane load roller ass'y (tandem type)
H1C	Polyurethane/Nylon load roller ass'y (tandem type)
H2A	Nylon load roller ass'y (single type)
H2B	Polyurethane load roller (single type)
H2C	Polyurethane/Nylon load roller ass'y (single type)
I1	Tandem nylon load roller system ass'y
I2	Tandem Polyurethane load roller system ass'y
I3	Tandem Polyurethane/Nylon load roller system ass'y
L	Rhombus plate ass'y
K	Quick lift pump piston ass'y
M	Spring cover ass'y
N	Pump piston ass'y
W	Safety valve ass'y
SM	*Seal kit
SMQ	*Seal kit

\*Note: Seal kit include following parts: 311, 317, 318, 332, 337, 347, 349,  
351, 356, 357, 373, 503, 504,  
360M, 369, M625, M628.