

Instruction Manual

Pallet Truck with Load Indicator



Note: Owner/Operator must read and understand this instruction manual before using the pallet truck with load indicator.

RevA: 04/2007

Thank you for using this hand pallet truck with load Indicator. For your safety and correct operation of the scale, please read these instructions carefully before using it.

NOTE: (1) All of the information reported herein is based on data available at the moment of printing. The factory reserves the right to modify its own products at any moment without notice and incurring any sanction. So it is suggested to always verify possible updates.

(2) The rechargeable batteries must be charged before use, according to the instructions supplied with the batteries.

1. GENERAL SPECIFICATIONS

Model	Capacity	Graduation	Weighing Accuracy		Fork size			Net weight
					Length	Width over forks	Fork Width	
SSS25L	5500 lb	10 lbs	0 ~ 4400lbs	±50 lbs	48"	27"	6.3"	203lbs
			4400~5500lbs	±60lbs				

Materials and specifications are subject to change without notice.

2. TO ATTACH HANDLE TO PUMP UNIT

- 2.1 Take out the handle assembly and then insert it into the pump body.
- 2.2 Take out the axle from the plastic bag.
- 2.3 Insert the axle into one end of the pump body and then connect the pump body and the handle assembly. Pay attention to the position of the hole of the axle and feed the steel wire and pin on rod and chain through the hole of the axle.
- 2.4 Secure the axle with the spring pin.
- 2.5 Press down the pump rod , and take out the pin.
- 2.6 Raise the crank link and take out the pin.

3. TO ADJUST RELEASE DEVICE

On the handle of the pallet truck, you will find the control lever (4058) 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 (3939) on the crank link (3938) until the LOWER position function works.
- 3.2 If the forks elevate while pumping in the NEUTRAL position, turn the setting screw (3939) 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 (3939) counter-clockwise until the forks do not lower.
- 3.4 If the forks do not descend when the control lever (4058) is in the LOWER position, turn the setting screw (3939) clockwise until raising the control lever (4058) 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 (3939) 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 volume of oil is about 0.8lt. Restore the fluid 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
-5°C~+45°C	L-HM68 Hydraulic oil (equivalent to ISO VG68)
-15°C~-5°C	L-HM46 Hydraulic oil (equivalent to ISO VG46)

- 4.2 How to expel air from the pump unit
Air may get into the hydraulics during transportation or when a pump is stored upside down. This can prevent the forks from lifting while pumping with the lever in the ASCENT position. The air can be expelled in the following way: Lift the control lever (4058) to the LOWER position, then move the handle (4051) up and down several times.
- 4.3 Daily check and maintenance
Daily check of the pallet truck will limit wear as much as possible. Pay special attention to the wheels (127, F116 or F117), the axles (F114, F118, F121, F122), the handle (4051), the forks (F110) and lift and lower control. The forks should be unloaded and lowered in the lowest position when the job is over.
- 4.4 Lubrication
Use motor oil or grease to lubricate all moveable parts.

5. GUIDE TO SAFE OPERATION

For safe operation of the truck, please read all warning signs and instructions here and on the truck before using this truck.

- 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 checked its condition. Give special attention to the wheels, the handle assembly, the forks, lift 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 The operator should wear gloves and safety shoes for protection.
- 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 (refer to Fig.).
- 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 (refer to Fig. 2)
- 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 At other specific conditions or places, the operator should operate the pallet truck carefully.

6. TROUBLESHOOTING

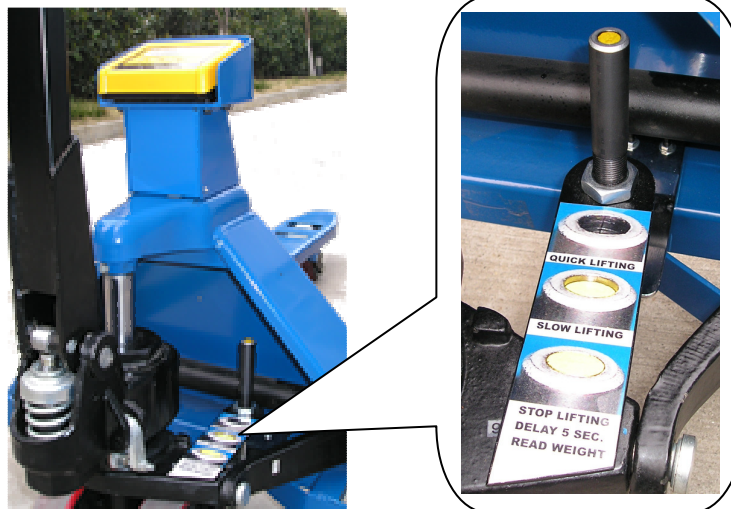
NO	TROUBLE	CAUSE	SOLUTION
1	The forks cannot be lifted to max. height.	-There is not enough hydraulic oil.	- Pour in enough filtered oil.
2	The forks do not lift up.	-There is no hydraulic oil. -The oil has impurities. -Discharge valve is out of adjustment. -Air in the hydraulic oil.	-Pour in more filtered oil. -Change the oil. -Adjust the setting screw (3939) (See item 3.5). -Expel the air (See item 4.2).
3	The forks cannot be lowered.	-The rod (3902) and the cylinder (3946) becomes deformed due to serious unbalanced load. -Component deformation due to unbalanced load. -The forks were kept at high position for long time with rod (102) bared which became rusty.	-Replace the rod (3902) or cylinder (3946). -Repair or replace component to make it run smoothly. -Remove the rust on the rod (102). Keep the forks at lowered when not in use.

		-The setting screw (3939) is not in the correct position.	-Adjust the setting screw (3939) (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 (3988) to fail to close. -Air in the oil. -Seals worn or damaged. -Discharge valve (3988) is out of adjustment.	-Replace with filtered oil. -Expel the air (See item 4.2). -Replace with new ones. -Adjust the setting screw (3939) (See item 3.3).

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

7. WEIGHING OPERATION

- 7.1 Put the control lever in the LOWER position and lower the truck to lowest position.
- 7.2 Press the ① key to turn the system on. After the start-up sequence the indicator will display the weight.
- 7.3 Weighing method for gross weight:



Reference height

Put the control lever in the ASCENT position, pump the handle to make the forks rise until the reference height has been reached. Press the →0← key to set the gross weight to 0. Put the forks under the pallet and check that the load is properly balanced. Put the control lever in the ASCENT position, pump the handle to make the forks rise the reference height has been reached. When the indicator is stable, the gross weight of the goods (total weight of the pallet and the goods) is shown.

- 7.4 Weighing method for net weight:
To display the weight of the goods without the weight of the pallet (or other container):
 - 7.4.1 Put the control lever in the ASCENT position, pump the handle to make the forks rise until the reference height has been reached. Weigh single standard pallet, for example: weight of pallet: 88 lb.
 - 7.4.2 Press the →0← key, the indicator will display "0 lb".
 - 7.4.3 Remove the pallet from the forks, the indicator will display "-88 lb".
 - 7.4.4 Weigh the goods on the pallet as shown in 7.3, when the indicator is stable, the net weight of the goods is shown.
- 7.5 Switch between lb and kg.
When the weight is shown in lb, press the lb/kg key shortly and the unit shown will switch to kg's. Press the lb/kg key again and the unit shown will switch back to lb.

7.6 Totalling

7.6.1 First running: Power on and hold Σ button for 4 second and then release it , the screen will flash "- -00-" and "0" alternately. Finally appears with "0", then the totalling function is running.

7.6.2 Lift the goods to the rated height, press Σ button shortly after 4 second when stable, current totalling times and current totalling weight will flash alternately, finally appear with current weight. For example:

7.6.2.1 Lift the X lb goods to the rated height first time, press Σ button shortly after 4 second when stable, "- -01-" and " Σ_1 " will flash on the screen alternately, stable fix on X; $\Sigma_1=X$ finally.

7.6.2.2 Unload the heavy, make the fork to the minimum height. Raise the Y lb goods to the rated height second time, press Σ button shortly after 4 second when stable. "- -02-" and " Σ_2 " will flash on the screen alternately stable fix on Y; $\Sigma_2=X+Y$ finally.

7.6.2.3 Unload the heavy, make the fork to the minimum height. Raise the Z lb goods to the rated height second time, press Σ button shortly after 4 second when stable. "- -03-" and " Σ_3 " will flash on the screen alternately stable fix on $\Sigma_3=X+Y+Z$ finally.

7.6.2.4 And so on .

7.6.3 After used totalling function, hold Σ button for 4s then release(whatever with or without load) under power on status, former totalling times and totalling weight will flash alternately on the screen. If you press Σ button shortly at the time, "- -00-" and "0" with flash alternately, finally appears current weight, the former totalling will be erased. If you want totalling, please repeat 7.6.2.

ATTENTION:

- Weights below 210 lb will not be added .
- The scale needs to be unloaded before a 2nd weight can be added to the total.

7.7 Turn off the Indicator. Press the $\text{\textcircled{1}}$ key until the indicator displays "OFF". Releasing the key will turn off the indicator.

8.BATTERY POWER DATA AND REPLACEMENT




Step 1



Step 2



Step 3

The indicator on the pallet truck scale uses 4 "AA" size batteries as power. You are recommended to use alkaline battery. Also you can use rechargeable batteries. Rechargeable batteries need to be charged, according to their own instructions, before they are first used. Change the batteries when  is shown in the display.

8.1 How to change batteries:

8.1.1 Loosen the screws on the battery cover and remove the cover. (Step 1)

8.1.2 Replace the 4 "AA" batteries in the battery holder, taking care to place them in the same direction.

(Step 2)

8.1.3 Screw the battery cover plate back into position. (Step 3)

9. TROUBLE SHOOTING OF WEIGHING UNIT

NO	TROUBLE	CAUSE	SHOOTING
1	HELP1 in the display	-The load is too big for the scale	-Remove the load immediately.
2	Indicator can't be turned on.	-Battery voltage is too low. -Battery life is complete. -Charger is damaged.	-Charge the batteries. -Replace rechargeable battery with new ones. -Check charger output voltage replace charger with new one.

Fig.1

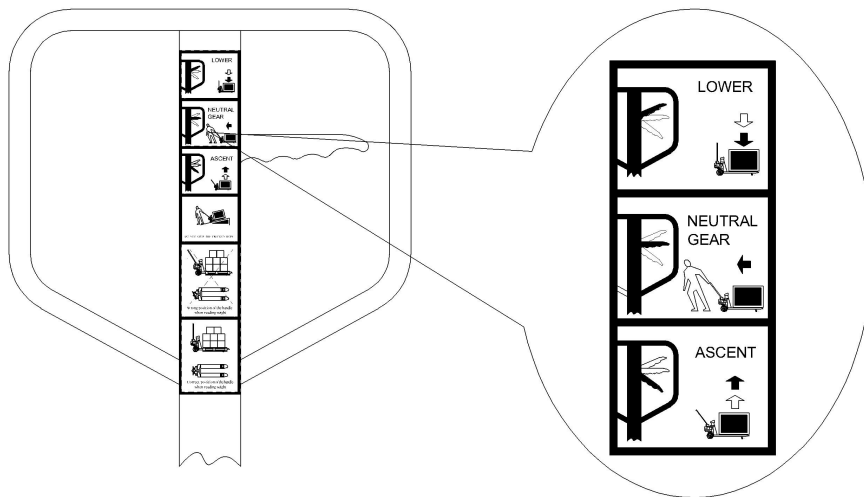
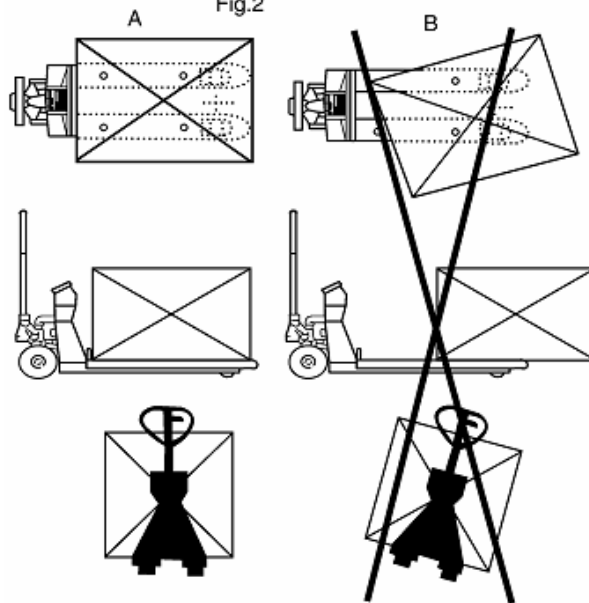


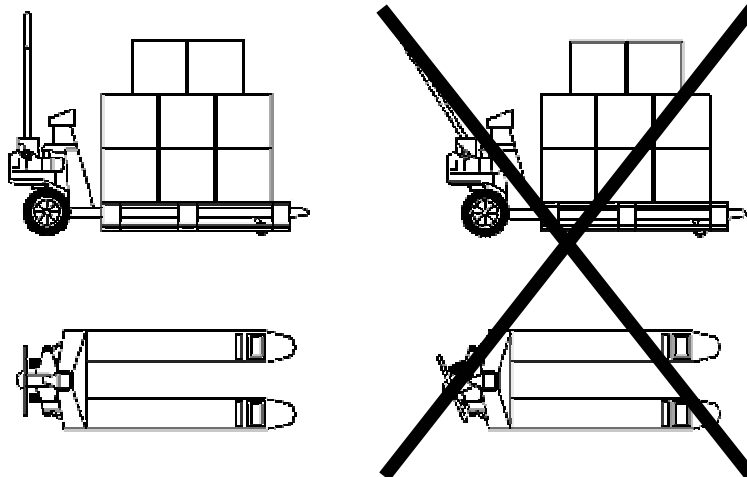
Fig.2



Correct way of lifting the load

Wrong way of lifting the load

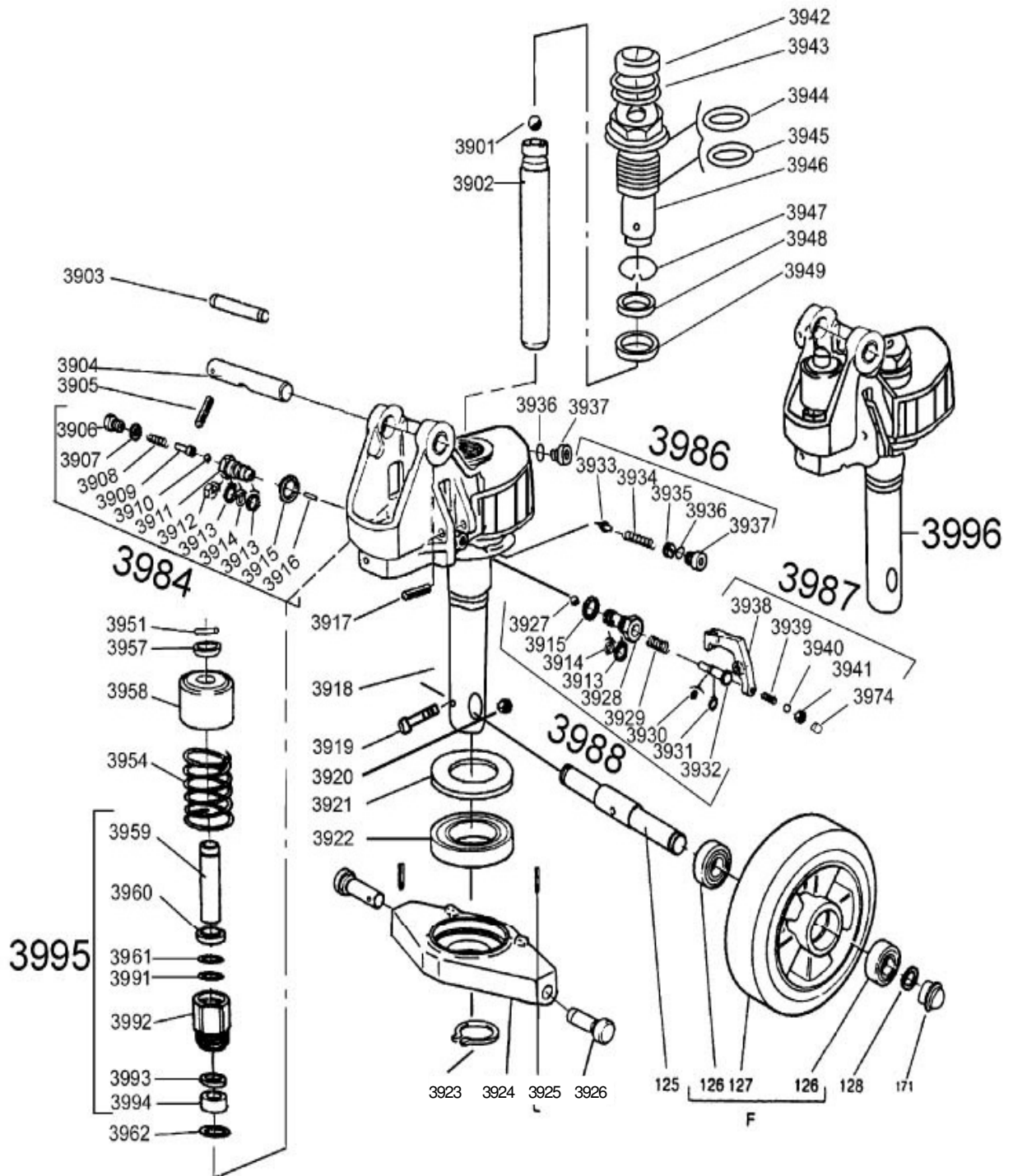
Fig.3



Correct position of the handle when reading weight

Wrong position of the handle when reading weight

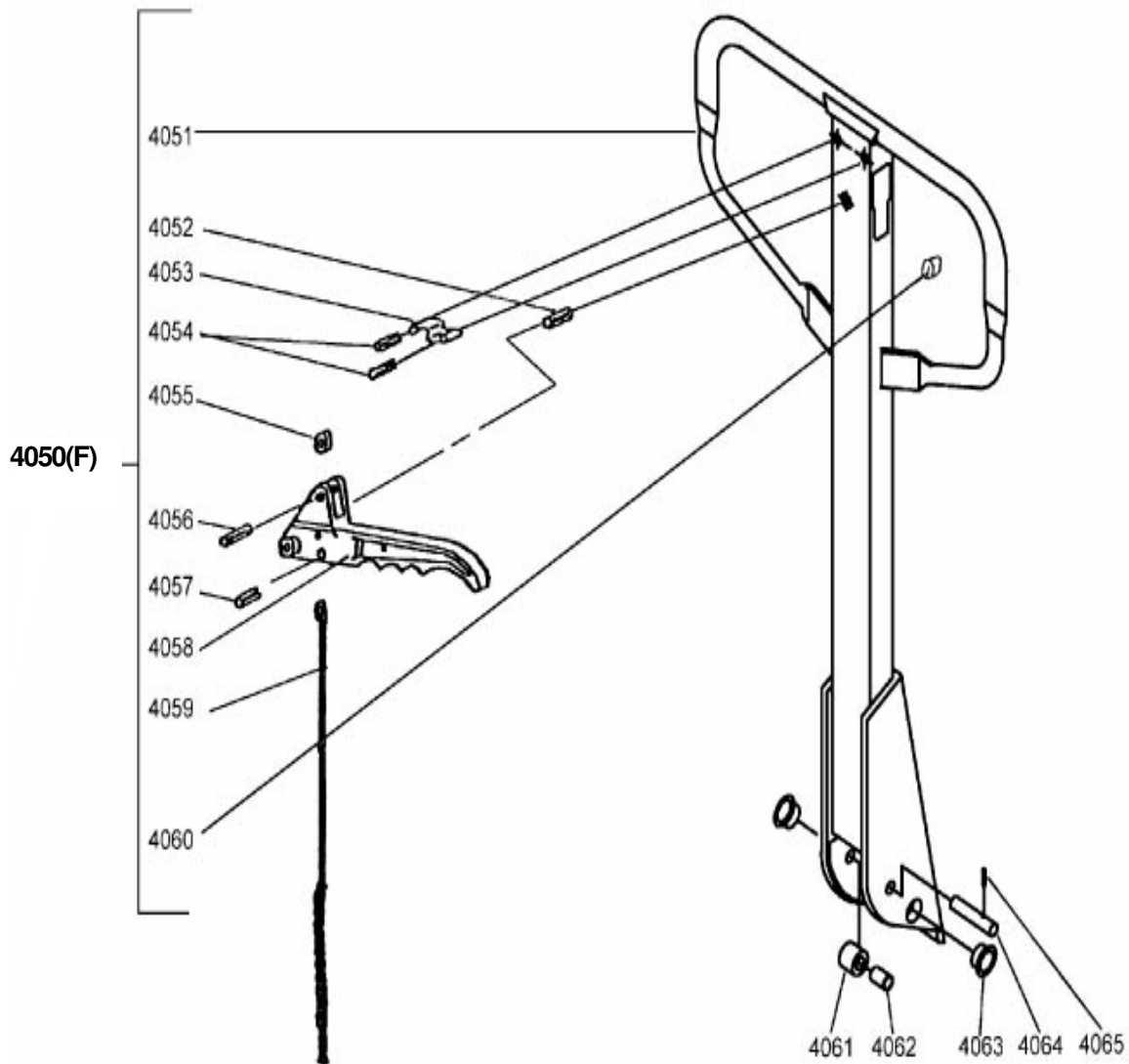
PARTS DRAWING OF PUMP ASSEMBLY



PARTS LIST OF PUMP ASSEMBLY

Part No.	Description	Qty	Part No.	Description	Qty
3901	Steel ball	1	3936	O-ring	2
3902	Rod	1	3937	Screw	2
3903	Pin	1	3938	Crank link	1
3904	Axle	1	3939	Setting screw	1
3905	Spring pin	1	3940	Washer	1
3906	Screw	1	3941	Nut	1
3907	Washer	1	3942	Dust proof ring	2
3908	Retaining ring	1	3943	O-ring	1
3909	Pressure rod	1	3944	O-ring	1
3910	Steel ball	1	3945	O-ring	1
3911	Pressure valve body	1	3946	Cylinder	1
3912	Split ring	3	3947	Retaining ring	1
3913	Retainer	2	3948	Washer	1
3914	O-ring	2	3949	Seal ring	1
3915	Washer	1	3951	Parallel pin	1
3916	Steel needle	1	3954	Spring	1
3917	Pin	1	3957	Retaining cover	1
3918A	Pump body	1	3958	Spring cover	1
3919	Bolt	1	3959	Pump rod (standard)	1
3920	Nut	1	3960	Dust proof ring	1
3921	Dust cover	1	3961	Retainer	1
3922	Bearing	1	3962	Red copper washer	1
3923	Retaining ring	1	3974	Nut	1
3924	Rhombus plate	1	3991	O-ring	1
3925	Pin	2	3992	Pump cylinder (standard)	1
3926	Dowel pin	2	3993	Seal ring	1
3927	Steel ball	1	3994	Nylon washer	1
3928	Discharge valve body	1	125	Steering wheel axle	1
3929	Spring	1	126	Bearing	4
3930	O-ring	1	127A	Steering wheel ,Nylon	2
3931	Retainer	1	127B	Steering wheel ,Polyurethane	2
3932	Discharge valve shaft	1	127C	Steering wheel ,Rubber	2
3933	Valve taper core	1	128	Retainer ring	2
3934	Discharge valve shaft	1	171	Dust cover	2
3935	Pressure regulating screw	1			
3983	Seal assembly (standard):Including: 3907, 3914, 3915, 3930, 3936, 3942, 3943, 3944, 3945, 3957, 3960,3 961, 3962, 3991, 3993				

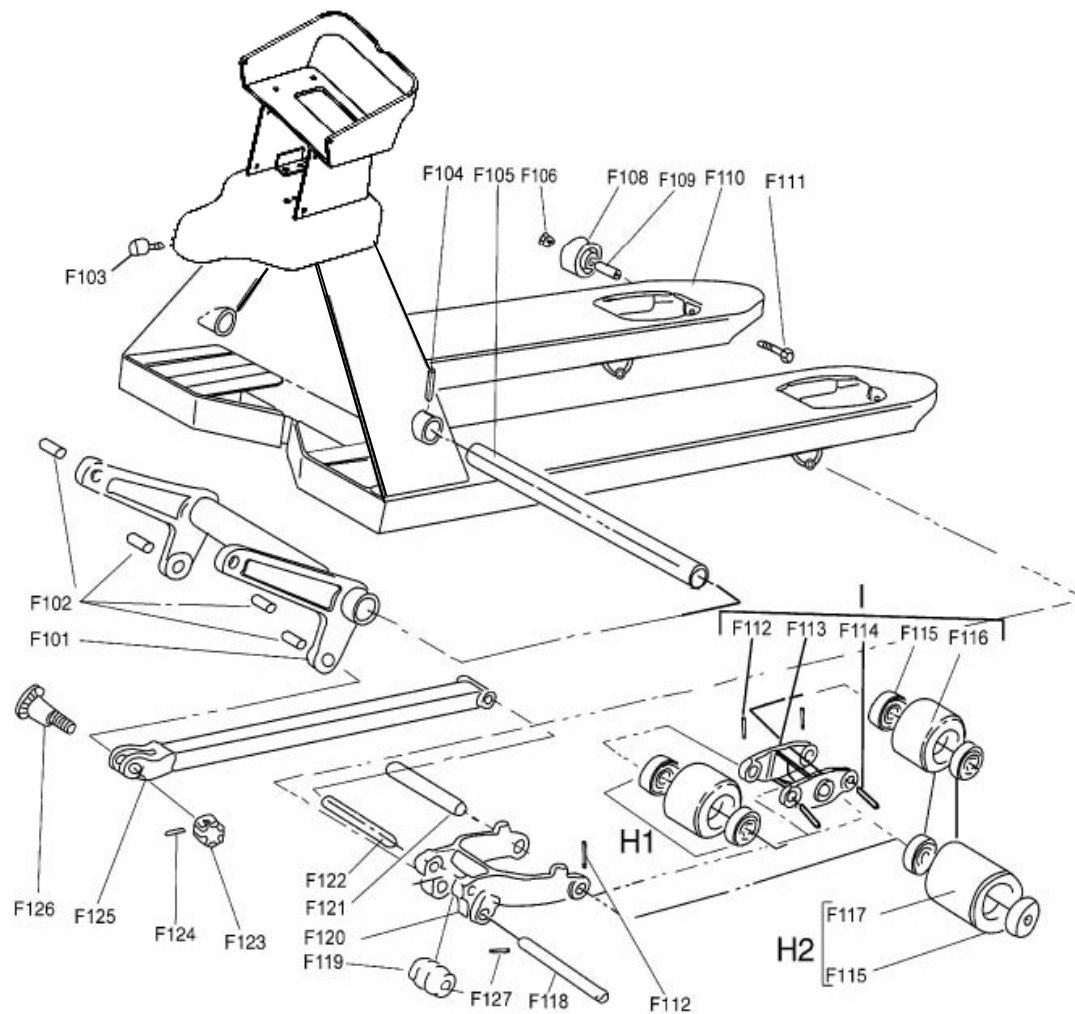
PARTS DRAWING OF HANDLE



PARTS LIST OF HANDLE

Part No.	Description	Qty	Part No.	Description	Qty
4050(F)	Handle assembly (square)	1	4058	Control lever	1
4051(F)	Handle	1	4059	Rod and chain	1
4052	Spring pin	1	4060	Rubber cushion	1
4053	Spring leaf	1	4061	Steel roller	1
4054	Spring pin	2	4062	Bushing	1
4055	Nylon roller	1	4063	Bushing	2
4056	Spring pin	1	4064	Shaft	1
4057	Spring pin	1	4065	Spring pin	1

PARTS DRAWING OF FRAME

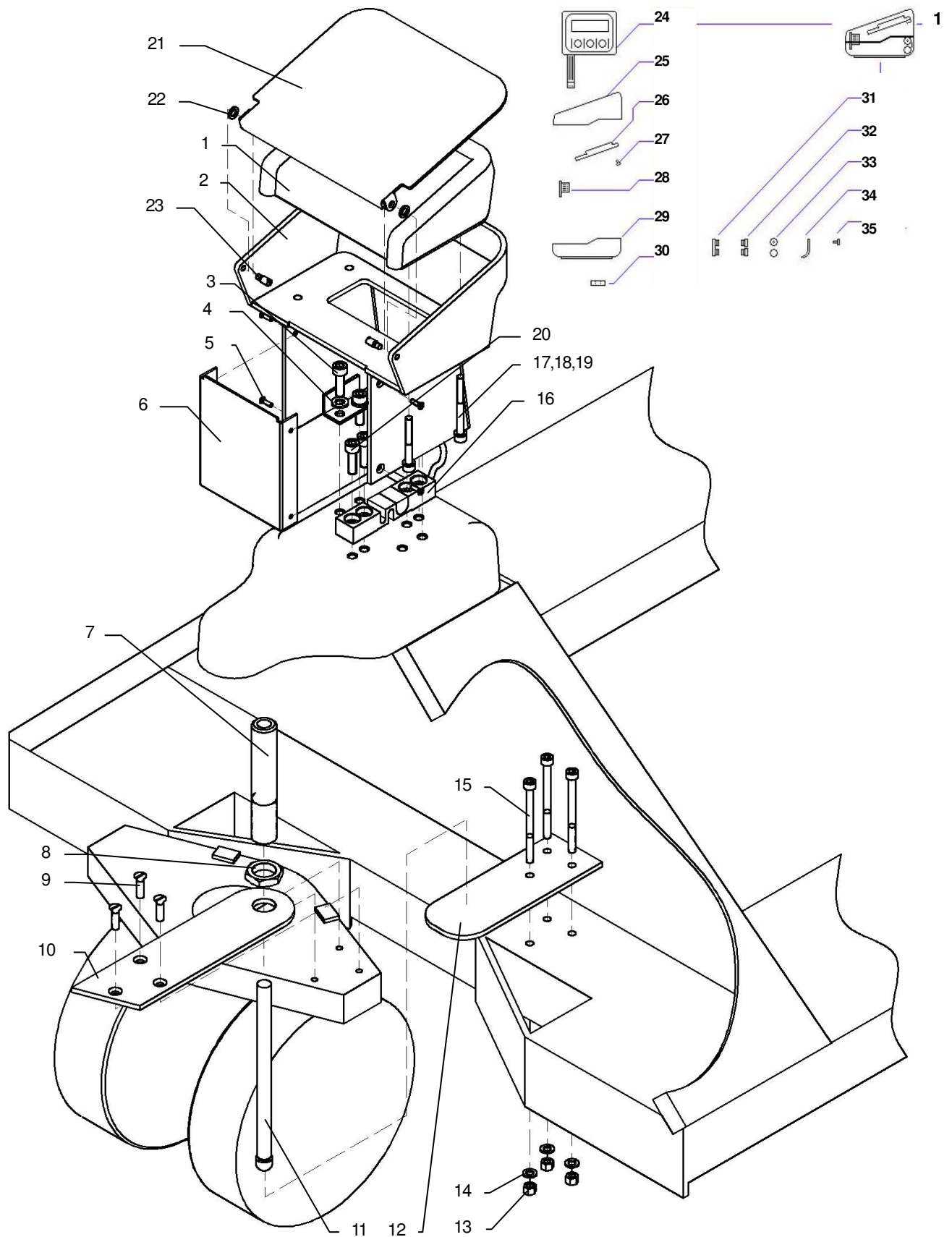


Parts List of Frame

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
F116A	Nylon load roller, tandem type	4	F127	Spring pin	2

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

PARTS DRAWING OF SCALE



Parts List of scale

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	F361	Complete indicator	1	19	GB848-85 Ø5	Washer	4
2	HLA61210001	Indicator seat	1	20	GB70-85 M6X20	Bolt	4
3	GB70-85 M6X20	Bolt	4	21	HLA8377001	Cover	1
4	GB95-85 Ø6	Washer	4	22	GB848-85 Ø5	Washer	4
5	GB819.1 M3X8	Bolt	4	23	GB831-88	Shoulder screws M4X12	2
6	HLA80400002	Cover	1	24	F357	Touch panel	1
7	HLA82120001	Tube	1	25	F354	Upper part of display housing	1
8	GB/T6173 M18X1.5	Nut	1	26	F352	Indicator board	1
9	GB819.1 M5X16	Bolt	3	27	F375	Bolt	2
10	HLA80310005	Plate	1	28	F358	Load cell connection board	1
11	HLA83530002	Rule	1	29	F353	Lower part of display housing	1
12	HLA86010003	Plate	1	30	F356	Rubber for cable enclosure	1
13	GB41-86 M5	Nut	3	31	F360	Battery contact clamp (double)	1
14	GB95-85 Ø5	Washer	3	32	F359	Battery contact clamp	2
15	GB70-85 M5X65	Bolt	3	33	F362	Battery	4
16	F351	Sensor	1	34	F355	Battery cover	1
17	GB70-85 M5X50	Bolt	2	35	F377	Bolt M3 x 8	2
18	GB70-85 M5X40	Bolt	2				

ASSEMBLY LIST

Assembly

3984

3986

3987

3988

3995

3996

3950

L

H1A

H2B

H2A

H2B

L1

L2

F1

F2

F4

3983

Description

Hydraulic valve assembly

Safety valve assembly

Lowering screw assembly

Lowering valve assembly

Standard pump unit piston assembly

Standard pump unit

Handle assembly

Rhombus plate assembly

Nylon load roller assembly (tandem type)

Polyurethane load roller (tandem type)

Nylon load roller assembly (single type)

Polyurethane load roller (single type)

Tandem nylon load roller system assembly

Tandem Polyurethane load roller system assembly

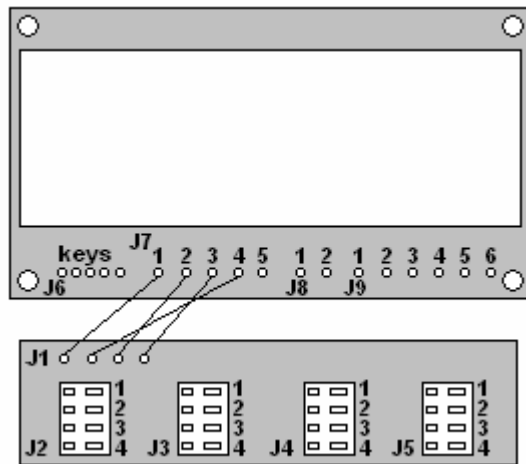
Nylon steering wheel assembly

Polyurethane steering wheel assembly

Rubber steering wheel assembly

Seal assembly (standard)

10. WIRING DIAGRAM OF SCALE, JUNCTION BOX, SENSOR



J1 – Connection to indicator board		
1	brown	Ex-
2	yellow	Ex+
3	white	sig-
4	green	sig+
J2 – J4 Connection from load cells		
1	white	sig+
2	green	sig-
3	red	Ex+
4	black	Ex-
J6 – Connection to touch panel		
J7 – Connection from load cell board		
1	brown	Ex-
2	white	sig-
3	green	sig+
4	yellow	Ex+
5		Sh
J8 – Connection from power supply		
1	black	Gnd
2	red	+6v