

# OPERATION AND PARTS MANUAL NR-ELHP 25

ENGLISH

HAND PALLET TRUCK

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**Note:**

1. The truck shall be used, serviced and repaired according to the manufacturer's requirements.
2. The truck shall not be modified or have attachments fitted without ensuring that the truck is still safe.
3. When the cargo weight exceeds 2500kg, please operate the truck by two persons together for labor-saving.

**1. Applicable Range**

- 1.1 Hand pallet truck is a low lift transportation tool which is limited to move palletized cargo. This kind of truck possesses the feature of stable lifting, easy operation, safety and reliability etc.
- 1.2 The working place must be non-slip, hard and flat ground without holes or obstacles.
- 1.3 The ambient lighting is 50 lux at least.

**2. Main parameters**

Capacity	(Kg)	2000/2500
Max. lift height	(mm)	200/190
Lowered fork height	(mm)	85/75
Height of handless	(mm)	431.5/421.5
Fork length	(mm)	600/650/700/750/800/850/900/950/1000/1050/1100/1150/1220
Width over the forks	(mm)	520/550/685
Steering wheel diameter	(mm)	Φ200/180
Fork wheel diameter	(mm)	Φ80/74
Noise Level	(dB)	<70
Service weight	(Kg)	52~74

### 3. Assembly of hand pallet truck

- 3.1 See fig 1, pull out the pin roll 1.
- 3.2 Insert the hand grip 3 to place A. Couple the hand grip 3 and pump body 5 with pin roll 1.
- 3.3 Then get the spring pin 2 through pin roll 1 and fix it.
- 3.4 See fig 2. Put the chain 4 of hand grip get across the middle hole of pin roll 1.
- 3.5 Take screw nut which is at the end of chain 4 and hitch the groove of lever board 6. See fig 2 and fig 4.
- 3.6 See fig 3, turn the hand grip to the level position, pull out pin 7 and save pin 7 with care for next use.

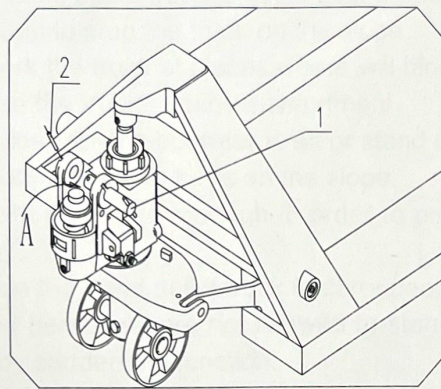


Fig. 1

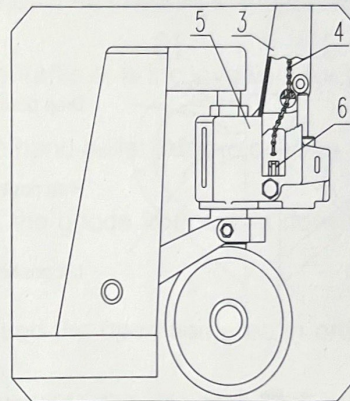


Fig. 2

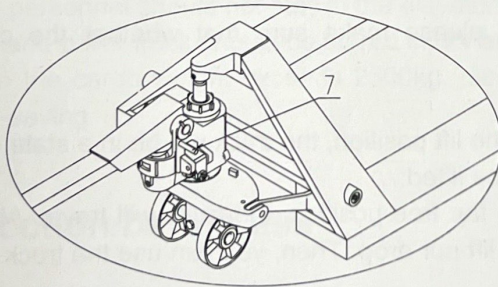


Fig. 3

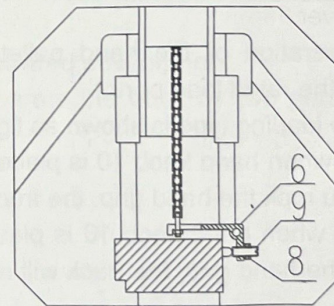


Fig. 4

## 4. Test of hand pallet truck

- 4.1 After the truck is assembled, try to rock the hand grip and operate different positions of control handle knob 10 to examine the lifting, free position and dropping and check that whether the different positions are normal or not. See fig 5.
- 4.2 The screw 9 in fig 4 is used to adjust the truck situation. When the truck body drops immediately after it is lifted, you should turn the screw 9 a little counter-clockwise. And then try the truck again until truck body could lift normally. If the truck body couldn't drop after it is lifted, you should turn the screw 9 a little clockwise. And then try to operate truck again until the truck body could drop normally. The external hexagon nut 8 at screw 9 plays the locking function in the truck. So you should undo the external hexagon nut 10 before adjustment. And screw down the nut 8 after you finish the adjustment.

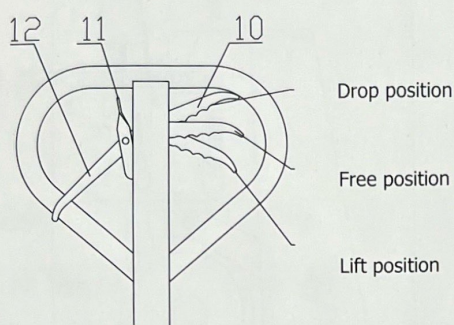


Fig. 5

## 5. Operation Manual

- 5.1 Before operation of the hand pallet truck please make sure that whether the cargo weight exceeds the rated load or not.
- 5.2 The cargo loading type is shown as fig 6.
- 5.3 See fig 5, when hand knob 10 is placed on the lift position, the truck will be in a state of lift. At this time, if you rock the hand grip, the truck will be lifted.
- 5.4 See fig 5, when hand knob 10 is placed on the free position, the truck will travel. At this time, if you rock the hand grip, the truck will neither lift nor drop. Then, you can use the truck to move the cargo.
- 5.5 See fig 5, when the hand knob 10 is placed on the drop position, truck forks will drop. At this time, the truck forks will drop automatically.
- 5.6 See fig 5, when the hand knob 12 is placed below, the truck will be in a state of free walking.
- 5.7 See fig 5, when the hand knob 12 is placed above, the truck will be in a state of brake.
- 5.8 See fig 5, hand knob 11 is used for release brake.

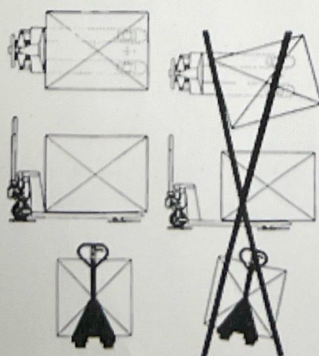


Fig. 6

## **6. Points for attention and safety norms**

- 6.1 The operators must put on the work clothes, safety shoes and gloves during the operation of the hand pallet truck.
- 6.2 When the hand pallet trucks are transported by truck, the hand pallet trucks should be locked in order to prevent the trucks from moving.
- 6.4 When the hand pallet truck is used for the motor vehicle, the truck must be moved slowly to ensure safety.
- 6.5 The wheels, bearings and bushings of the truck are wearing parts. Please change them according to situation.
- 6.6 Do not park the truck on the slope or in emergency passages.
- 6.7 When the hand pallet truck is used on the slope, the operator should operate the pallet truck carefully to ensure the operator on top of the slope.
- 6.8 When the hand pallet truck is not in use, the forks should be lowered to the lowest position.
- 6.9 It is forbidden to stop the truck on the slope.
- 6.10 Do not park the truck at places where will block the traffic or is inconvenient for work.
- 6.11 Do not use the truck in rainy environment.
- 6.12 It is forbidden for the operator to sit or stand on the hand pallet truck to operate the truck.
- 6.13 It is forbidden to make turns on the slope.
- 6.14 Do not pile the cargo too high in order to prevent the goods from falling down or overturning of the truck.
- 6.15 Do not use the hand pallet truck to carry people.
- 6.16 Untrained personnel are not allowed to stand around the operation area in order to avoid injury caused by sudden malfunction.
- 6.17 Before the hand pallet truck is pushed into the elevator, the operator shall make sure that the elevator can bear the total load of hand pallet truck and cargo as well as the total weight of the operator and other personnel in the elevator. When entering the elevator, people should let the load enter first but not operator. When the load or hand pallet truck enters or leaves the elevator, other personnel should not stay in the elevator.
- 6.18 The hand pallet truck should be stored in dry and ventilated environment.
- 6.19 When the cargo weight exceeds 2500kg, please operate the truck by two person together for labor-saving.

## **7. Inspection before use**

If the hand pallet truck is not used for a long time, air may get into the hydraulic system. Due to this, the trouble can be eliminated by the following method:

Turn the hand knob to the drop position and rock the handle for 4 to 6 times. Then release the operation knob. If necessary, the process can be repeated for several times until the hand pallet truck can be operated normally.

## **8. Loading type and rated weight**

The ideal loading type is that the gravity center of the cargo is just in the middle of the truck forks. The rated weight must be reduced when the cargo gravity center is not in the middle of the truck forks. The rated weight is shown as the label.

## 9. Oil

The oil capacity which oil pump needs is about 250ml (or 0.25kg). According to the ISO oil criterion, the choice of oil is 32# when the environment temperature during -5~40°C. The choice of oil is low temperature oil when the environment temperature during -35~-5°C.

## 10. Maintenance and upkeep

The routine check should be carried out daily and every abnormal phenomenon should be dealt with immediately. Please do not use faulty truck in order to prolong the service life. If there are any faults, please consult the professional. If it is necessary to replace the parts, the new parts should be provided by the original manufacturer. All the rotary joints should renew the motor oil every three months. Especially pay more attention to the place between wheel and axis. Make sure that there is not any yarn or other rags in order to keep all wheels running with handiness. After the maintenance and upkeep, place record in the list below:

Maintenance and upkeep recording list			
Maintenance date	Faults	Parts replace	Sign

## 11. Possible faults and trouble shooting

No.	Faults	Causes	Trouble shooting
1	The forks can't be lifted to the maximum lift height	Hydraulic oil is not enough.	Add appropriate filtrated working oil.
2	The forks can't return to the lowest position.	<ol style="list-style-type: none"> <li>1. Too much hydraulic oil.</li> <li>2. The rotary parts are deformed or blocked.</li> <li>3. The trunk piston and guides bushing are blocked.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take out appropriate working oil</li> <li>2. Replace the parts.</li> </ol>
3	The forks can't drop after lifted.	<ol style="list-style-type: none"> <li>1. There is something abnormal in the unloading device.</li> <li>2. The parts are deformed and damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Readjust the unloading device, see item 4.2.</li> <li>2. Replace the deformed and damaged parts.</li> </ol>
4	Hydraulic oil leakage	<ol style="list-style-type: none"> <li>1. The oil seal is unavailable.</li> <li>2. The surface of some parts is damaged or worn.</li> <li>3. The coupled places become loosened.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace the oil seal.</li> <li>2. Replace the damaged parts.</li> <li>3. Fasten the loosened place again.</li> </ol>
5	The fork can't be lifted.	<ol style="list-style-type: none"> <li>1. The viscosity of the working oil is too high, or there is no working oil.</li> <li>2. There is impurity in the oil.</li> <li>3. There is something abnormal in the unloading device.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace the working oil.</li> <li>2. Clear up the impurity and add new working oil</li> <li>3. Readjust the unloading device, see item 4.2.</li> </ol>
6	When the handle is rocked, the forks drop immediately after they are lifted; the handle returns or the forks drop markedly after they are lifted.	The valve of oil pump is blocked by abnormal matter.	Open the valve and take out the parts. Then re-install the parts after they are cleaned.

## **12. Disposal of waste oil**

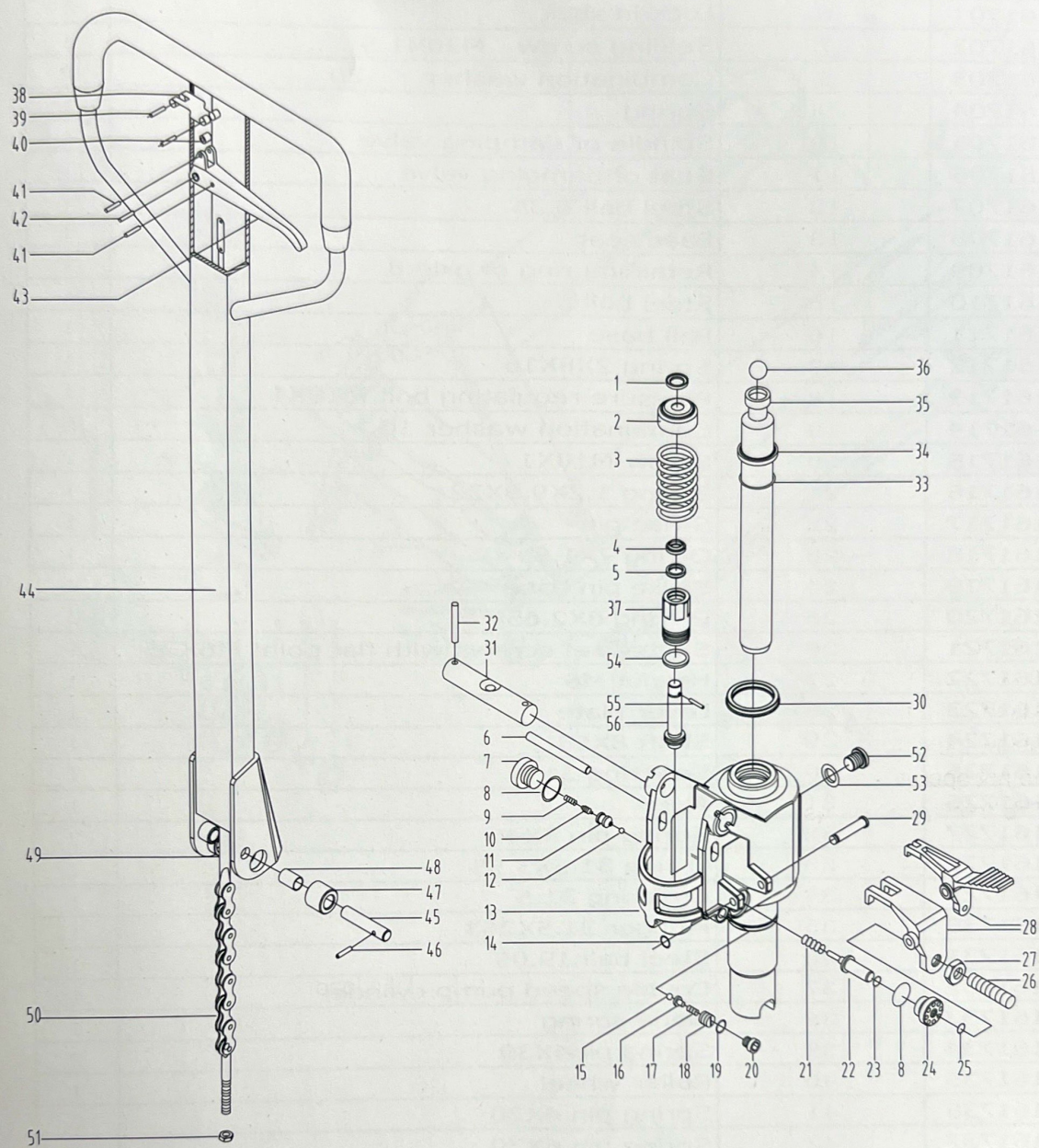
The waste hydraulic oil shall be disposed in terms of relative laws. And it is forbidden to pouring out anywhere.

## **13. Warning level**

- 13.1** Please read the operation instruction carefully before you operate the hand pallet truck and learn about all the features of this type of hand pallet truck.
- 13.2** If you want to let the truck down by controlling the hand knob, you should better lift the hand knob a little at first, and then let the truck down slowly. It is forbidden to pull the handle knob with great force, because rapid dropping could cause some damages to both the hand pallet truck and cargo.
- 13.3** Don't rock the hand grip at a high speed and in a high frequency!
- 13.4** Don't load the cargo at a high speed !
- 13.5** Do not overload the forks. Overloading could keep the hand pallet truck from working normally.
- 13.6** The gravity center of cargo should be in the middle of truck forks. The offset of cargo could make hand pallet truck out of balance !
- 13.7** Don't load loose or unstable goods!
- 13.8** Don't put the goods on the truck fork for a long time!
- 13.9** When the truck does not work, make sure that the truck forks are on the lowest position and the power should be cut off!
- 13.10** It is forbidden to load people and let them stand on the forks to slide. Don't put any part of body below the cargo.
- 13.11** Do not operate the unnamed position!
- 13.12** The truck shall be used, serviced and repaired according to the manufacturer's requirements and shall not be modified or have attachments fitted without ensuring that the truck is still safe.
- 13.13** Do not use the hand pallet truck at an insufficiently illuminated place!
- 13.14** Do not park the hand pallet truck by turning the hand grip to the right!
- 13.15** Do not use the hand pallet truck as bumper jack!
- 13.16** The extremity of fork arms shall not be used as a lever to lift a load!
- 13.17** It is forbidden to use the truck at places where a risk of unintentional movement exists.
- 13.18** It is forbidden to contact the truck with goods or cargo directly!
- 13.19** Do not use the hand pallet truck in a potentially explosive atmosphere !
- 13.20** During the operation of the hand pallet truck, the operator should pay more attention to the feet and any body part so as to avoid the risk of being crushed.
- 13.21** The truck shall be used, serviced and repaired according to the manufacturer's requirements.

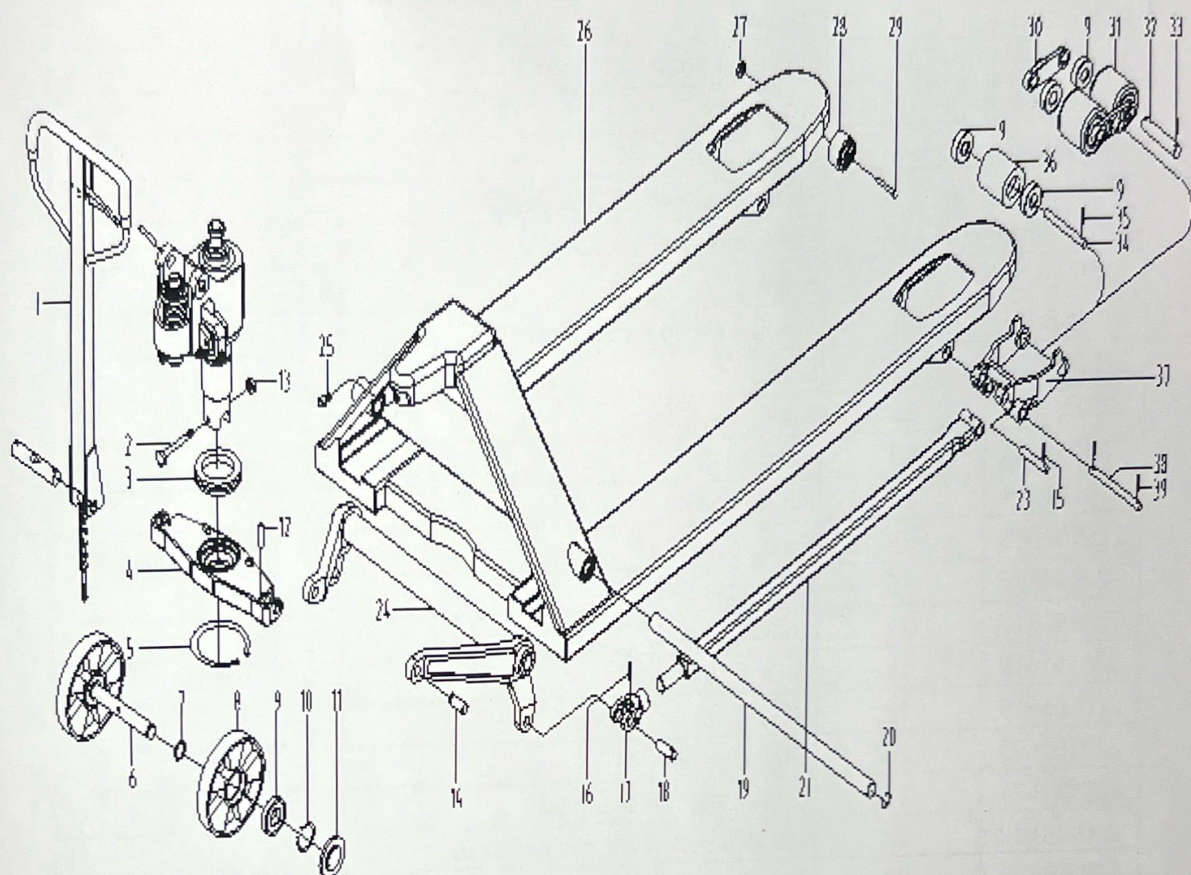
## 14. Parts List

### 14.1 Quick Lift Pump



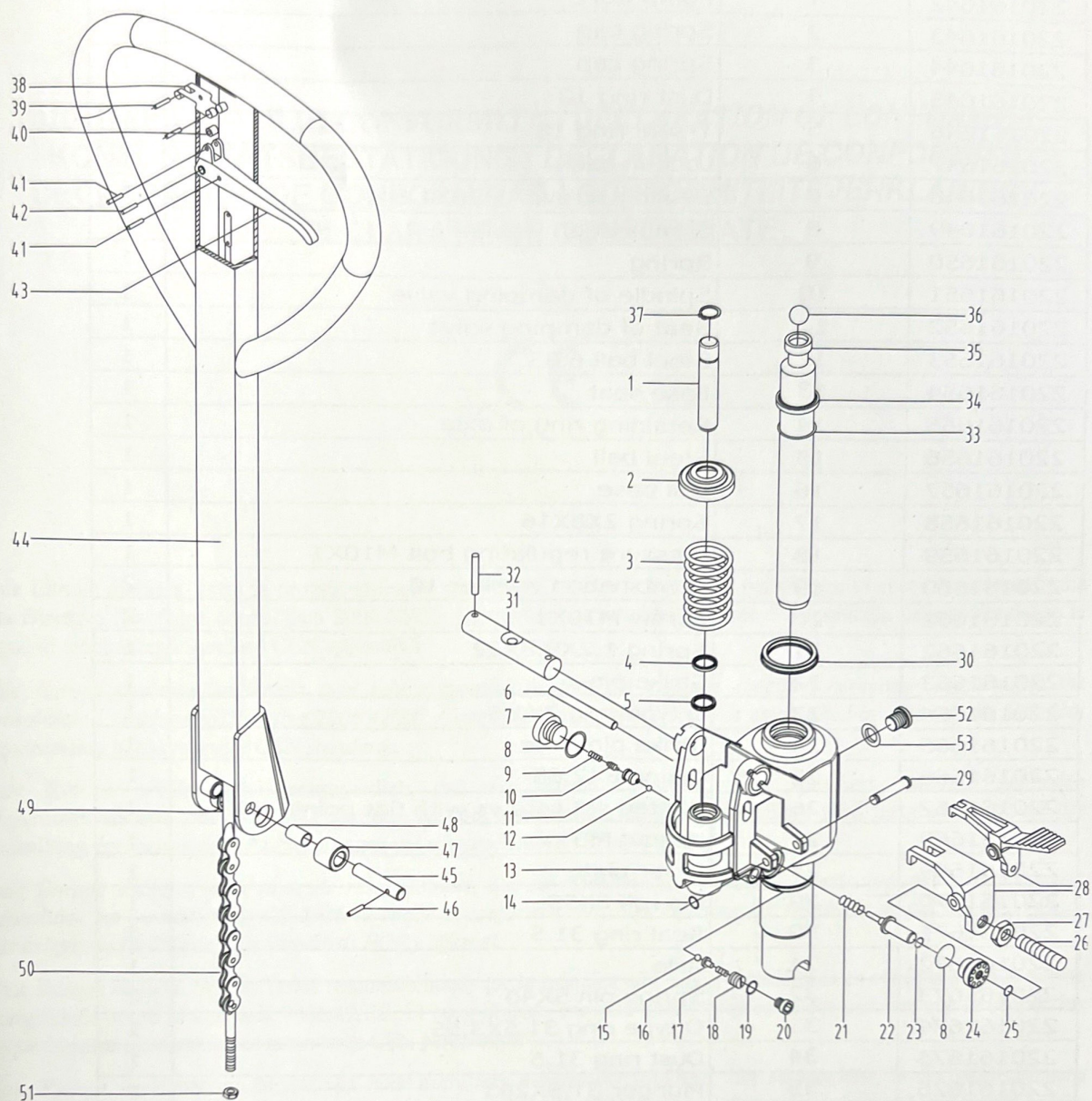
Quick Lift Pump			
220161696	1	Bowl washer	1
220161697	2	Washer	1
220161698	3	Spring	1
220161699	4	Dust ring 18	1
220161700	5	Y-ring 18	1
220161701	6	Lock-in stick	1
220161702	7	Sealing screw M20X1.5	1
220161703	8	Combination washer 20	2
220161704	9	Spring	1
220161705	10	Spindle of damping valve	1
220161706	11	Seat of damping valve	1
220161707	12	Steel ball 6.35	1
220161708	13	Base seat	1
220161709	14	Retaining ring of axle 8	1
220161710	15	Steel ball 5	1
220161711	16	Ball base	1
220161712	17	Spring 2X8X16	1
220161713	18	Pressure regulating bolt M10X1	1
220161714	19	Combination washer 10	2
220161715	20	Screw M10X1	2
220161716	21	Spring 1.2X9.8X22	1
220161717	22	Strike pin	1
220161718	23	O-ring 7X1.8	1
220161719	24	Strike pin base	1
220161720	25	O- ring 8X2.65	1
220161721	26	Slotted set screws with flat point M6X25	1
220161722	27	Hexnut M6	1
220161723	28	Lever plate	1
220161724	29	Shaft 8X58	1
220161725	30	Seal ring 31.5	1
220161726	31	Axle	1
220161727	32	Spring pin 5X40	2
220161728	33	O-ring 31.5X3.55	1
220161729	34	Dust ring 31.5	1
220161730	35	Plunger 31.5X263	1
220161731	36	Steel ball 19.05	1
220161732	37	Double speed pump cylinder	1
220161733	38	Blade spring	1
220161734	39	Spring pin4X30	2
220161735	40	Roller wheel	1
220161736	41	Spring pin 4X20	2
220161737	42	Spring pin 6X30	1
220161738	43	Handle knob	1
220161739	44	Handle tube	1
220161740	45	Round pin	1
220161741	46	Spring pin 3X20	1
220161742	47	Pressure roller	1
220161743	48	Bush 1220	1
220161744	49	Pull pole	1
220161745	50	Chain C-6-9-04A	1
220161746	51	Locknut M5	1
220161747	52	Oil plug	1
220161748	53	O-ring 2.65X10	1
220161749	54	Washer	1
220161750	55	Round pin 4X25	1
220161751	56	Quick lift pump assembly	1
220161752	58	Seal kit quick lift pump	1

## 14.2 Frame



	FRAME			
220161600	1	Hand shank assembly	1	
220161601	2	Hexagon-headed bolt	1	
220161602	3	Thrust ball bearing	1	
220161603	4	Cradle	1	
220161604	5	Circlip for shaft	1	
220161605	6	Front axle	1	
220161606	7	Spacer bush	6	
220161607	8	Steering wheel 180X50 Rubber	2	
220161608		Steering wheel 180X50 PU	2	
220161609	9	Bearing	8/12	
220161610	10	Thicken circlip fpr shaft 19X1.5	2	
220161611	11	Shield	2	
220161612	12	Spring pin 5X32	2	
220161613	13	locknut M6	1	
220161614	14	Pin roll 16X40	2	
220161615	15	Spring pin 5X28	2	Only Quick Lift
220161616	16	Spring pin 5X28	2	
220161617	17	Coupling head	2	
220161618	18	Pin roll 16X44	2	
220161619	19	Long shaft	2	
220161620	20	Circlip for hole 25	2	
220161621	21	Connecting rod assembly	2	
220161622	22	hexagon socket set screwsM8X10	2	
220161623	23	Pin roll 16X85	2	Only Quick Lift
220161624	24	Rocker assembly	1	
220161625	25	Soket head cap screw M6X12	1	
220161626	26	Frame	1	
220161627	27	Locknut M6	2	
220161628	28	Guide pulley (black )	2	
220161629	29	Hexagon bolt M6X55	2	
220161630	30	Support plate	4	
220161631	31	PU Fork wheel double 80X70	4	
220161632	32	Axle 20X95	4	
220161633	33	Spring pin 5X32	8	
220161634	34	Axle 20X122	2	
220161635	35	Spring pin 5X32	2	
220161636	36	PU Fork wheel 80X93	2	
220161637	37	Wheel carrier	2	
220161638	38	Diorate pin roll 16X152	2	
220161639	39	Spring pin 5X32	2	
220161640	40	Spring pin 5X28	2	Only Normal Lift
220161641	41	Pin roll 16X85	2	

### 14.3 Normal Lift Pump



Normal Lift Pump			
Yale partno	Serial No.	Description	Qty.
220161642	1	Pump Core	1
220161643	2	Spring cap	1
220161644	3	Spring cap	1
220161645	4	Dust ring 18	1
220161646	5	Y-seal ring 18	1
220161647	6	Lock-in stick	1
220161648	7	Sealing screw M20X1.5	1
220161649	8	Combination washer	2
220161650	9	Spring	1
220161651	10	Spindle of damping valve	1
220161652	11	Seat of damping valve	1
220161653	12	Steel ball 6.35	1
220161654	13	Base seat	1
220161655	14	Retaining ring of axle	1
220161656	15	Steel ball	1
220161657	16	Ball base	1
220161658	17	Spring 2X8X16	1
220161659	18	Pressure regulating bolt M10X1	1
220161660	19	Combination washer 10	2
220161661	20	Screw M10X1	2
220161662	21	Spring 1.2X9.8X22	1
220161663	22	Strike pin	1
220161664	23	O type ring 7X1.8	1
220161665	24	Strike pin base	1
220161666	25	O ring 8X2.65	1
220161667	26	Slotted set screws with flat point M6X25	1
220161668	27	Hexnut M6	1
220161669	28	Lever plate	1
220161670	29	Pin roll 8X58	1
220161671	30	Seal ring 31.5	1
220161672	31	Axle	1
220161673	32	Spring pin 5X40	2
220161674	33	O type ring 31.5X3.55	1
220161675	34	Dust ring 31.5	1
220161676	35	Plunger 31.5X263	1
220161677	36	Steel ball 19.05	1
220161678	37	Thicken Circlips for shaft17X1.5	1
220161679	38	Blade spring	1
220161680	39	Spring pin4X30	2
220161681	40	Roller wheel	1
220161682	41	Spring pin 4X20	2
220161683	42	Spring pin 6X30	1
220161684	43	Handle knob	1
220161685	44	Handle tube	1
220161686	45	Round pin	1
220161687	46	Spring pin 3X20	1
220161688	47	Pressure roller	1
220161689	48	Bush 1220	1
220161690	49	Draw bar assembly	1
220161691	50	Chain C-6-9-04A	1
220161692	51	Locknut M5	1
220161693	52	Oil plug	1
220161694	53	O ring 2.65X10	1
220161695	54	Seal kit normal lift pump	1