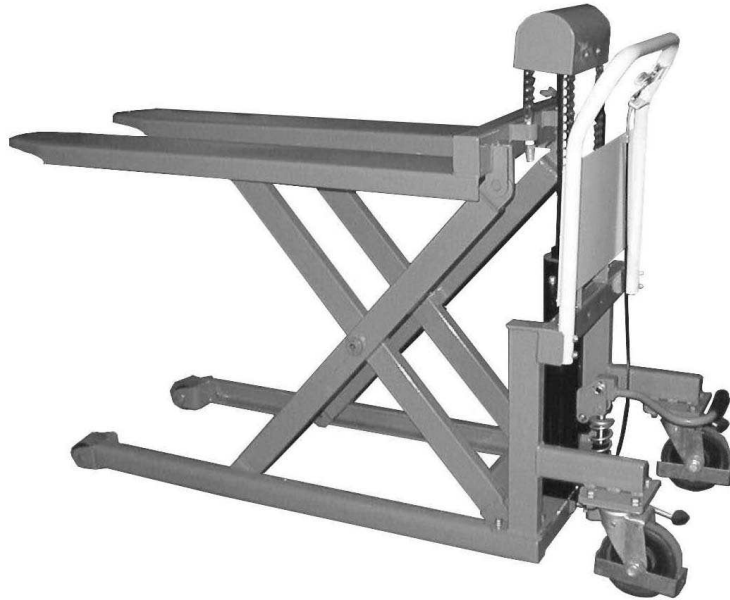


Instruction Manual

SKID LIFTER



Note: Owner/Operator must read and understand this instruction manual before using the skid lifter.

Contents

- 1. WARNING**
- 2. CAUTION**
- 3. NAME OF PARTS**
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- 8. REGULAR INSPECTION**
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THANK YOU FOR CHOOSING OUR SKID LIFTER. 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.



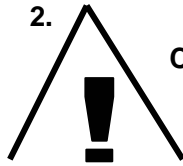
WARNING! *If operating the work skid lifter improperly, a person may be seriously injured. Therefore, operate properly according to the following instruction.*

- ◇ DO NOT put hand near chain sprocket or other moving parts. SEVERE PERSONAL INJURY could result.
- ◇ DO NOT allow another person to stand in front of or behind lifter when it starts to move.
- ◇ ALWAYS travel with fork in lowered position.
- ◇ NEVER sit, stand or ride on forks or platform. SEVERE PERSONAL INJURY could result.
- ◇ NEVER go under forks or platform. SEVERE PERSONAL INJURY or DEATH could result.
- ◇ DO NOT use in area of multi level floor surface that could create loss control and result in SEVERE INJURY & PROPERTY DAMAGE.
- ◇ DO NOT use lifter on slope, uneven or soft surface. Lifter may

become uncontrollable, SEVERE PERSONAL INJURY and PROPERTY DAMAGE could result.

- ◇ KEEP FEET CLEAR of rolling wheels that could result in SEVERE PERSONAL INJURY.
- ◇ DO NOT load one fork more than the other and DO NOT load tips on forks. SEVERE PERSONAL INJURY and PROPERTY DAMAGE could result.
- ◇ DO NOT overload lifter. ALWAYS stay within designated capacity and load center rating. SEVERE PERSONAL INJURY and PROPERTY DAMAGE could result.
- ◇ Replace chain every four years or if inspection reveals, excessive wear on links, pins, side plates and deformed, bent rusted or broken links.
- ◇ SHEARING HAZARD NEVER place hands or feet under lowering forks. SEVERE PERSONAL INJURY could result.

2.



CAUTION! *If operating the skid lifter improperly, a person may be injured. Therefore, operate properly according to the following instruction.*

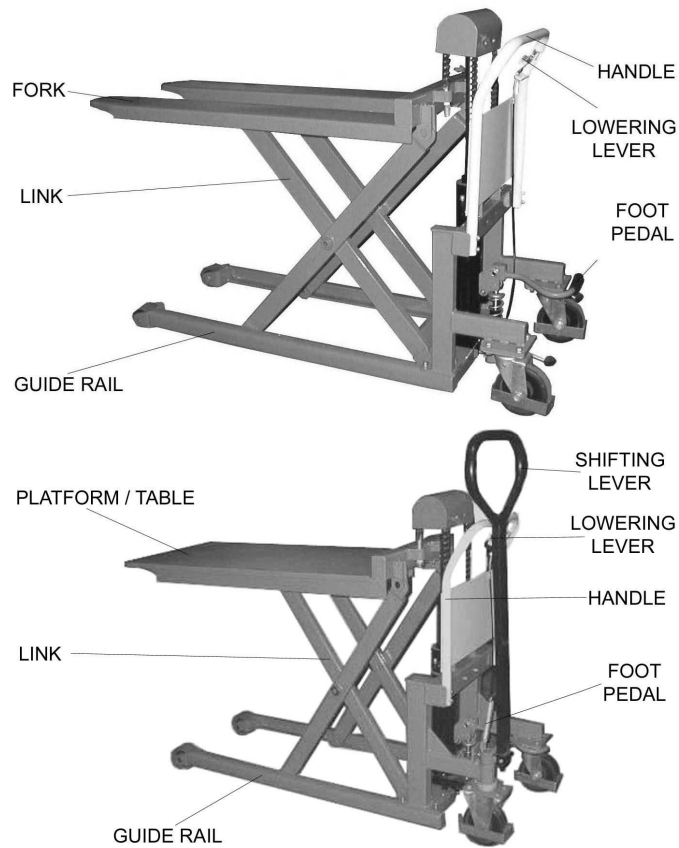
- ◇ Hazard or unsafe practice which, if not avoided, may result in MINOR or MODERATE PERSONAL INJURY and PROPERTY DAMAGE.
- ◇ READ THE OPERATION MANUAL COMPLETELY BEFORE USING AND THOROUGHLY UNDERSTAND AND FOLLOW ALL SAFETY INSTRUCTION.
- ◇ This lifter is designed to use with stable uniform load on a solid level floor, DO NOT use the lifter for any other purpose than its intended use.
- ◇ Lifter shall be operated by TRAINED personnel only.

OPERATOR shall read "Operation Manual" completely and thoroughly understand the controls and operation of this equipment BEFORE operating the lifter.

- ◇ ALWAYS observe lifter and ALWAYS stay at the controls while the lifter is in motion. RELEASE controls and STOP lifter immediately if load on lifter appears to become unstable. NEVER leave the loaded lifter unattended unless the forks are in the fully lowered position.
- ◇ DO NOT slide the load on or off the forks. The lifter may move allowing the load to fall. SEVERE PERSONAL INJURY and PROPERTY DAMAGE could result.
- ◇ DO NOT use lifter with unstable, unbalanced or loosely stacked load. Unbalanced loads may become unstable and fall. SEVERE PERSONAL INJURY and PROPERTY DAMAGE could result.
- ◇ ALL lifter service must be performed by qualified personnel only.
- ◇ DO NOT use forks of lifter as a hoist or to pull up the load. SEVERE PERSONAL INJURY and PROPERTY DAMAGE could result.
- ◇ ALWAYS keep feet, hands and fingers away from casters, load wheels and all moving components. SEVERE INJURY could result.
- ◇ ALWAYS perform maintenance and inspections with lifter unloaded.

Skid lifter is NOT waterproof and is intended to be used in a dry environment.

3.NAME OF PARTS



4.DAILY INSPECTION

Daily inspection is effective to find the malfunction or faulty on the skid lifter. Check the skid lifter according to the following points before operation.



CAUTION! Do not use the skid lifter if any malfunction or fault is found.

- ◇ Check scratch, bending or crack on the skid lifter.
- ◇ Check smooth movement of the wheels.
- ◇ Check if there is oil leakage from the cylinder.
- ◇ Check vertical creep of the table.
- ◇ Check the function of brake.
- ◇ Check if all the bolts and nuts are firmly tightened.

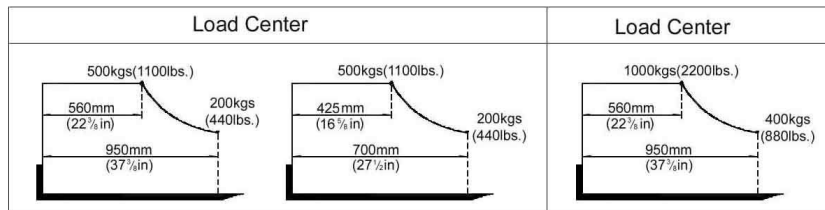
5. OPERATION

■ LOADING DIAGRAM

The maximum capacity on forks/platform is listed as follows.

Model	Max. Capacity
TAL-260-HD	1000kg (2200 lbs.)
TAL-220-HD	

However the capacity fluctuates according to the position of load center. The following diagrams are showing the relation between the position of load center and capacity.



Example: TAL-260-HD

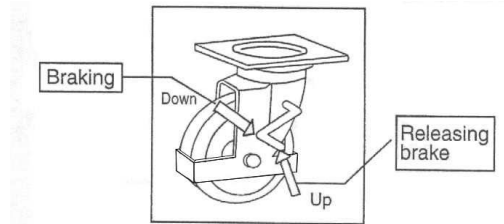
If the load center is located at the position of 950mm from the root of forks, the max. capacity become 400kg. Do not load more than 400kg.

■ Operation of Brake



CAUTION! Always brake skid lifter when it is not in motion.

- ◇ Brake the wheel
Press the brake pedal on this of brake pedal.
- ◇ Releasing the brake
Press the brake pedal on the other side of brake pedal.
(Refer to the following figure.)

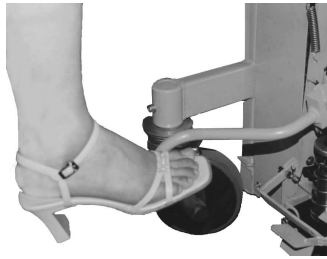


- Lifting up forks



CAUTION! Do not overload the skid lifter.
Do not load one fork more than the other.

- ◇ Insert the forks to the pallet to be lifted up and brake the lifter.
- ◇ Press lifting pedal down by foot several times and forks lift up.
(Refer to the following figure.)

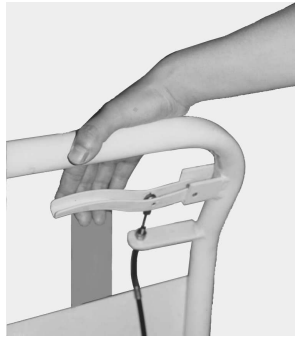


■ Lowering forks



CAUTION! Do not lower forks with load too fast and stop suddenly. Impact load could be created and lifter could be damaged.

- ◇ Check if there is nothing under the forks or load.
- ◇ Raise the lowering lever upward and forks lower.
(Refer to the following figure.)



■ Moving the skid lifter



WARNING! DO NOT move skid lifter on slope or inclined surface. Skid lifter becomes uncontrollable and creates danger.

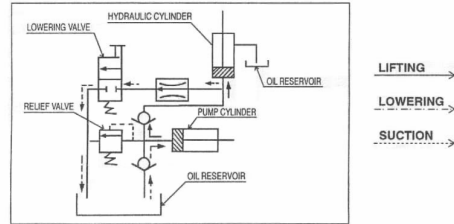
- ◇ Make the load stable to prevent it from falling.
- ◇ Lower the forks down to the height of approx. 200mm from the floor.
- ◇ Release the brake and move SL50 & PL50 with holding maneuver handle move SL100 & PL100 with up-handle.

KEEP watching the condition of load. Stop operating skid lifter if load becomes unstable.

6.SPECIFICATIONS

Model	SL100S				SL100L		PL50S	PL50L	PL100S	PL100L
Capacity (kg)	1000		1000				500		1000	
Table	Without table				With table					
Lowered height h(mm)	88								89	
Max. height H(mm)	825								833	
Fork length L(mm)	1115									
Platform length L(mm)									1115	
Fork width W(mm)	526	691	526	691						
Platform width W(mm)					538	703	538	703		
Pump strokes to Max. height	60		90		60		86			
Front roller (mm)	φ 70x68 polyurethane									
Steering wheel (mm)	φ 150x40 polyurethane									
Overall length L1(mm)	1550		1640		1550		1640			
Overall width W1(mm)	526	691	687	852	538	703	693	858		
Overall height H1(mm)	1012		1307		1012		1307			
Net weight (kg)	107	116	135	138	122	138	150	158		

7. HYDRAULIC CIRCUIT



8. REGULAR INSPECTION

Perform the regular inspection for the safety operation.

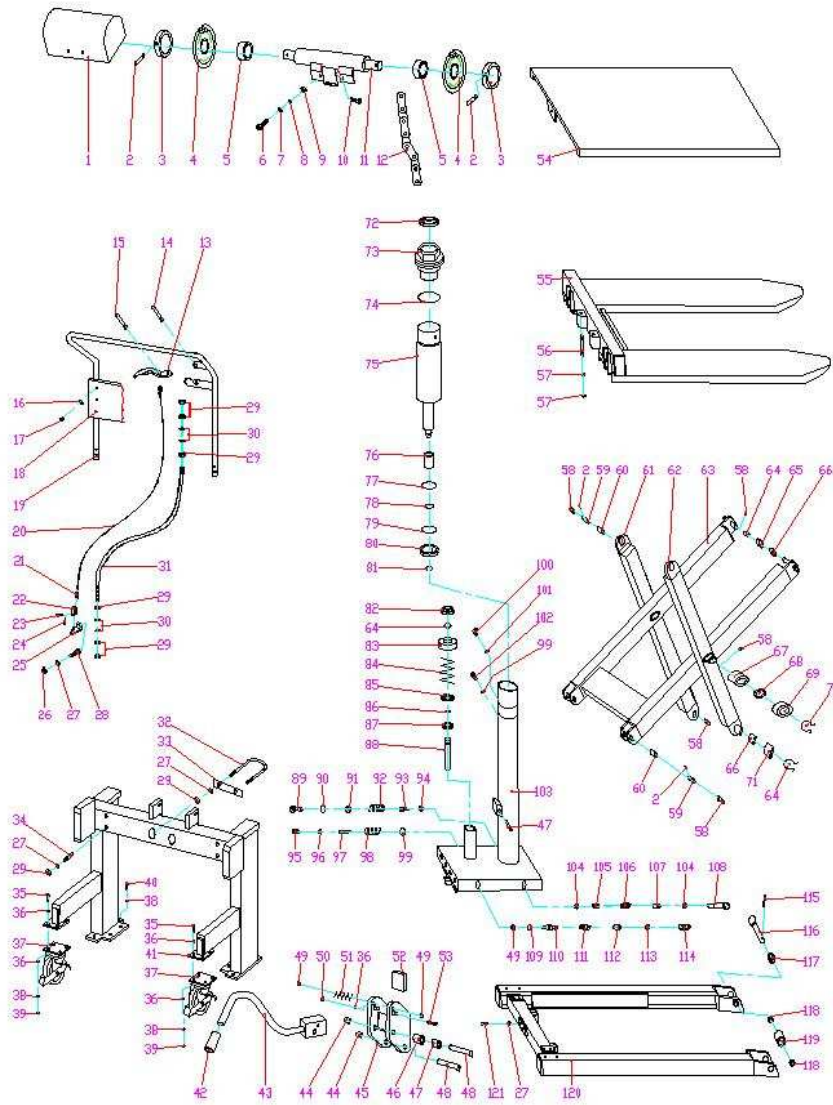
- Check if there is any rust, scratch, crack or kink on the chain. (Every month)
- Lubricate with grease the guides where roller moves. Also, lubricate the grease nipples and chain. (Every month)
- Lubricate all the pivoting points and axles. (Every 6 months)
- Replace the hydraulic oil. (Every 12 months)

9. TROUBLE SHOOTING

PROBLEM	CAUSE	SOLUTION
Forks do not raise load without load.	No oil in reservoir	Add oil.
	Value remains open as pressure pin entered into valve.	Replace valve and pressure pin.
Forks raise but it lowers even if lowering lever is not operated.	Insufficient seating of cone seat	Replace con and cone seat.
Forks do not lower even if lowering lever is operated.	Wear of packing in lift cylinder	Replace packing.
	Damage on control cable	Replace control cable.

10.EXPLODED FIGURE & PARTS LIST

PL50S PL50L SL50S SL50L



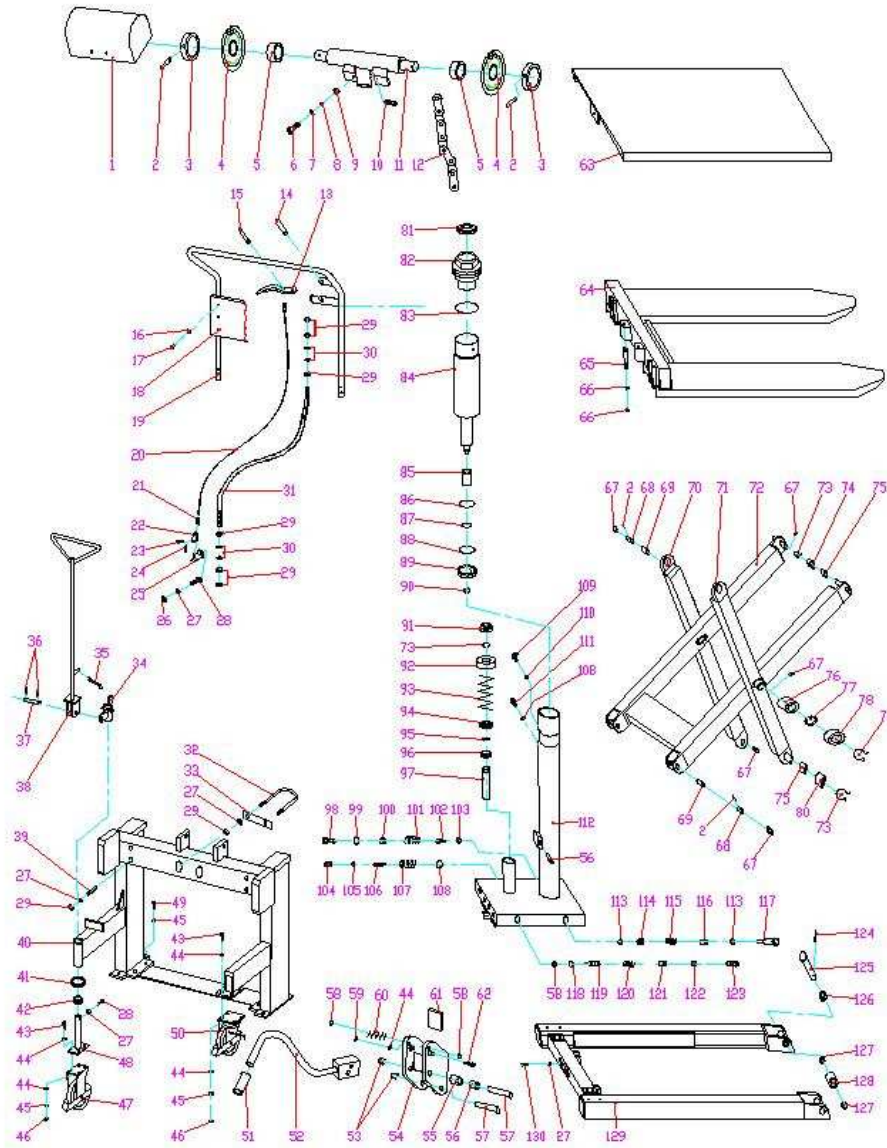
Item No.	Description	Quantity
1	Sprocket Cover	1
2	Spring Straight Pin 4x40	6
3	Retaining Ring	2
4	Sprocket	2
5	Bush of Sprocket	2
6	Plus Screw M5x16	2
7	Washer 5	2
8	Spring Washing 5	2
9	Nut M5	2
10	Socket Cap Holding Screw M8x8	1
11	Welding Part of Sprocket Axle	1
12	Chain 10Ax1x45	2
13	Lever	1
14	Spring Straight Pin 6x20	1
15	Spring Straight Pin 5x14	1
16	Washer 6	6
17	Plus Screw M6x8	6
18	Baffle on Handle	1
19	Welding Part of Handle	1
20	Steel Wire	1
21	Spring	1
22	U-fork	1
23	Pin Axle	1
24	Split Pin 2×15	1
25	Release Lever	1
26	Supporting Cover of Release Lever	1
27	Spring Washer 8	9
28	Socket Head Cap Screw M8x20	1
29	Nut M8	12
30	Washer 8	4

31	Tube For Steel Wire	1
32	Type U Bolt	1
33	Washer	1
34	Bolt	4
35	Socket Head Cap Screw M10x30	8
36	Washer 10	16
37	Rear Wheel ϕ 150	2
38	Spring Washer 10	16
39	Nut M10	8
40	Socket Head Cap Screw M10x20	8
41	Rear Wheel Frame	1
42	Rubber Bushing	1
43	Pedal Lever	1
44	Retaining Ring 12	2
45	Rocker Assembly	1
46	Wheel	1
47	Copper Bush	2
48	Axle	2
49	Steel Ball ϕ 7	2
50	Locknut M10	1
51	Location Spring	1
52	Rubber	1
53	Socket Head Cap Screw M10x50	1
54	Table	1
55	Fork	1
56	Screw for Adjusting	2
57	Nut M16x1.5	4
58	Grease Nipple M6	10
59	Short Axle	4
60	Hinge Bush	4
61	External Scissor Arm I	1

62	External Scissor Arm II	1
63	Internal Scissor Arm	1
64	Spring Retaining Ring for Axle 20	5
65	Fork Roller	2
66	Roller Cover	4
67	Bushing	2
68	Clip	2
69	External Cover	2
70	Spring Retaining Ring for Axle	2
71	Roller	2
72	Dust-proof Ring $\phi 38 \times \phi 30 \times 5$	1
73	Cylinder Cover	1
74	O-ring $\phi 75 \times 3.1$	1
75	Piston Rod	1
76	Piston	1
77	Supporting Ring	1
78	O-ring $\phi 20 \times 2.4$	1
79	Mixing Sealing Washer $\phi 34 \times \phi 40 \times 4.5$	1
80	Retaining Ring for Rod	1
81	Spring Retaining Ring for Axle 18	1
82	Retaining Ring Base	1
83	Spring Base	1
84	Spring	1
85	Dust-proof Ring $\phi 28 \times \phi 20 \times 4.5$	1
86	O-ring $\phi 20 \times 2.65$	1
87	Type Y Sealing Ring $\phi 28 \times \phi 20 \times 5$	1
88	Piston	1
89	Cover for Pressure Adjusting Plug	1
90	O-ring $\phi 16 \times 1.8$	1
91	Pressure Adjusting Plug	1
92	Pressure Adjusting Spring	1

93	Pressure Adjusting Base	1
94	Steel Ball ϕ 4	1
95	Guiding Cover	1
96	O-ring ϕ 4x1.8	1
97	Oil Return Mandrill	1
98	Oil Return Spring	1
99	O-ring ϕ 10.6x2.65	2
100	Valve Assembly	1
101	Mixing Sealing Washer 10	1
102	Screw Plug	1
103	Welding Part of Valve Body	1
104	O-ring ϕ 15x2.65	2
105	Speed Controlling Slide Valve	1
106	Speed Controlling Spring	1
107	Cover of Spring	1
108	Cover of Governor Valve	1
109	O-ring ϕ 6.9x1.8	1
110	Cone Valve	1
111	Spring of One Way Valve	1
112	Cover of One Way Valve	1
113	O-ring ϕ 10x1.8	1
114	Plug Screw of One Way Valve	1
115	Spring Straight Pin 4x30	2
116	Front Wheel Axle	2
117	Bearing 60204	4
118	Spacing Ring	4
119	Front Wheel ϕ 70	2
120	Welding Part of Base	1
121	Socket Head Cap Screw M8x12	2

SL100S SL100L PL100S PL100L



Item No.	Description	Quantity
1	Sprocket Cover	1
2	Spring Straight Pin 4x40	6
3	Retaining Ring	2
4	Sprocket	2
5	Bush of Sprocket	2
6	Plus Screw M5x16	2
7	Washer 5	2
8	Spring Washing 5	2
9	Nut M5	2
10	Socket Cap Holding Screw M8x8	1
11	Welding Part of Sprocket Axle	1
12	Chain 12Ax1x37	2
13	Lever	1
14	Spring Straight Pin 6x20	1
15	Spring Straight Pin 5x14	1
16	Washer 6	6
17	Plus Screw M6x8	6
18	Baffle on Handle	1
19	Welding Part of Handle	1
20	Steel Wire	1
21	Spring	1
22	U-fork	1
23	Pin Axle	1
24	Split Pin 2×15	1
25	Release Lever	1
26	Supporting Cover of Release Lever	1
27	Spring Washer 8	9
28	Socket Head Cap Screw M8x20	1
29	Nut M8	12
30	Washer 8	4

31	Tube For Steel Wire	1
32	Type U Bolt	1
33	Washer	1
34	Weldment For Holding Handle	1
35	Extension Spring	1
36	Spring Pin 3x22	2
37	Axle	1
38	Steering Handle Assembly	1
39	Bolt	4
40	Rear Wheel Frame	1
41	Bush For Bearing	1
42	Bearing 8306	1
43	Socket Head Cap Screw M10x30	8
44	Washer 10	16
45	Spring Washer 10	16
46	Nut M10	8
47	Steering wheel	1
48	Seat-weld ment For steering wheel	1
49	Socket Head Cap Screw M10x20	8
50	Rear Wheel ϕ 150	1
51	Rubber Bushing	1
52	Pedal Lever	1
53	Retaining Ring 12	2
54	Rocker Assembly	1
55	Wheel	1
56	Copper Bush	2
57	Axle	2
58	Steel Ball ϕ 7	2
59	Locknut M10	1
60	Location Spring	1
61	Rubber	1

62	Socket Head Cap Screw M10x50	1
63	Table	1
64	Fork	1
65	Screw for Adjusting	2
66	Nut M20x1.5	4
67	Grease Nipple M6	10
68	Short Axle	4
69	Hinge Bush	4
70	External Scissor Arm I	1
71	External Scissor Arm II	1
72	Internal Scissor Arm	1
73	Spring Retaining Ring for Axle 20	5
74	Fork Roller	2
75	Roller Cover	4
76	Bushing	2
77	Clip	2
78	External Cover	2
79	Spring Retaining Ring for Axle	2
80	Roller	2
81	Dust-proof Ring $\phi 43 \times \phi 35 \times 5$	1
82	Cylinder Cover	1
83	O-ring $\phi 77.5 \times 3.55$	1
84	Piston Rod	1
85	Piston	1
86	Supporting Ring $\delta 1.5 \times 15$	1
87	O-ring $\phi 20 \times 2.4$	1
88	Mixing Sealing Washer $\phi 34 \times \phi 40 \times 4.5$	1
89	Retaining Ring for Rod	1
90	Spring Retaining Ring for Axle 18	1
91	Retaining Ring Base	1
92	Spring Base	1

93	Spring	1
94	Dust-proof Ring $\phi 24 \times \phi 16 \times 4.5(t)$	1
95	O-ring $\phi 16 \times 2.65$	1
96	Type Y Sealing Ring $\phi 24 \times \phi 16 \times 5$	1
97	Piston	1
98	Cover for Pressure Adjusting Plug	1
99	O-ring $\phi 16 \times 1.8$	1
100	Pressure Adjusting Plug	1
101	Pressure Adjusting Spring	1
102	Pressure Adjusting Base	1
103	Steel Ball $\phi 4$	1
104	Guiding Cover	1
105	O-ring $\phi 4 \times 1.8$	1
106	Oil Return Mandril	1
107	Oil Return Spring	1
108	O-ring $\phi 10.6 \times 2.65$	2
109	Valve Assembly	1
110	Mixing Sealing Washer 10	1
111	Screw Plug	1
112	Welding Part of Valve Body	1
113	O-ring $\phi 15 \times 2.65$	2
114	Speed Controlling Slide Valve	1
115	Speed Controlling Spring	1
116	Cover of Spring	1
117	Cover of Governor Valve	1
118	O-ring $\phi 6.9 \times 1.8$	1
119	Cone Valve	1
120	Spring of One Way Valve	1
121	Cover of One Way Valve	1
122	O-ring $\phi 10 \times 1.8$	1
123	Plug Screw of One Way Valve	1

124	Spring Straight Pin 4×30	2
125	Front Wheel Axle	2
126	Bearing 60204	4
127	Spacing Ring	4
128	Front Wheel ϕ 70	2
129	Welding Part of Base	1
130	Socket Head Cap Screw M8×12	2