



WMS Series Manual Forkover Stacker

Operation & parts manual



Warning: Please read and follow all warnings before operation.
Please confirm that the safety parts are always intact.

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WMS Series Manual Forkover Stacker

OPERATION DIRECTIONS

I . Use

WMS Series Forkover manual stacker is a dual-purpose tool for high-lifting handling and short haulage. AS it produces no spark and electromagnetic field, the stacker is especially applicable for truck loading or unloading and for handling or hauling inflammable and explosive goods in the site of workshop, warehouse, depot, freight yard etc. This product contains a quick lift pump which makes quickly lift when no load on it, with the characteristics of stable elevation, flexible turning, easy operation, safe and reliable performance and particularly brake caster, this lifter is an ideal tool for reducing labor intensity, increasing productive efficiency and ensuring safe handling.

II . Technical parameter

The main technical parameters of the WMS manual stacker are contained in Figure A and Table A.

III. Structure and Mechanism

WMS manual stacker is composed of hydraulic system, mast and fork.

This stacker hoists weights with manual hydraulic jack and hauls loads by manual force. The hydraulic gear is equipped with spill valve and foot brake pedal to control fork lowering rate and ensure the hydraulic action accurate and reliable.

The framework is welded of high-quality swage. The rear wheels are equipped with brake casters that turn freely and easily. The front and rear casters are fixed with ball bearings on its wheel axle. The casters are made of nylon that is wearable, durable and harmless to the working surface.

The working process is as follows: place the fork under the weights, brake the rear wheels if required, throw handle to press pump element so that the oil in pump tank enters the bottom of piston cylinder and lift the piston rod assembly upwards a stroke and through chain lift forked frame and fork upwards twice stroke. Repeatedly throw handle to hoist weights. When the fork is lifted to the highest position, pressure oil will get back to oil tank via relief valve so as to avoid the forks from further lifting and even damaging. Pull or push the lifter manually to haul loads from place to place. To unload the weights, throw spill valve so that the spill valve will be open and working oil in piston cylinder via the spill valve will get back to oil tank by the action of the weight of loads and the fork proper. Piston rod assembly and the forks will lower to the preset position; then withdraw the forks and unload the weights. Thus, the dual effects of hoist and hauling are obtained.

Figure A

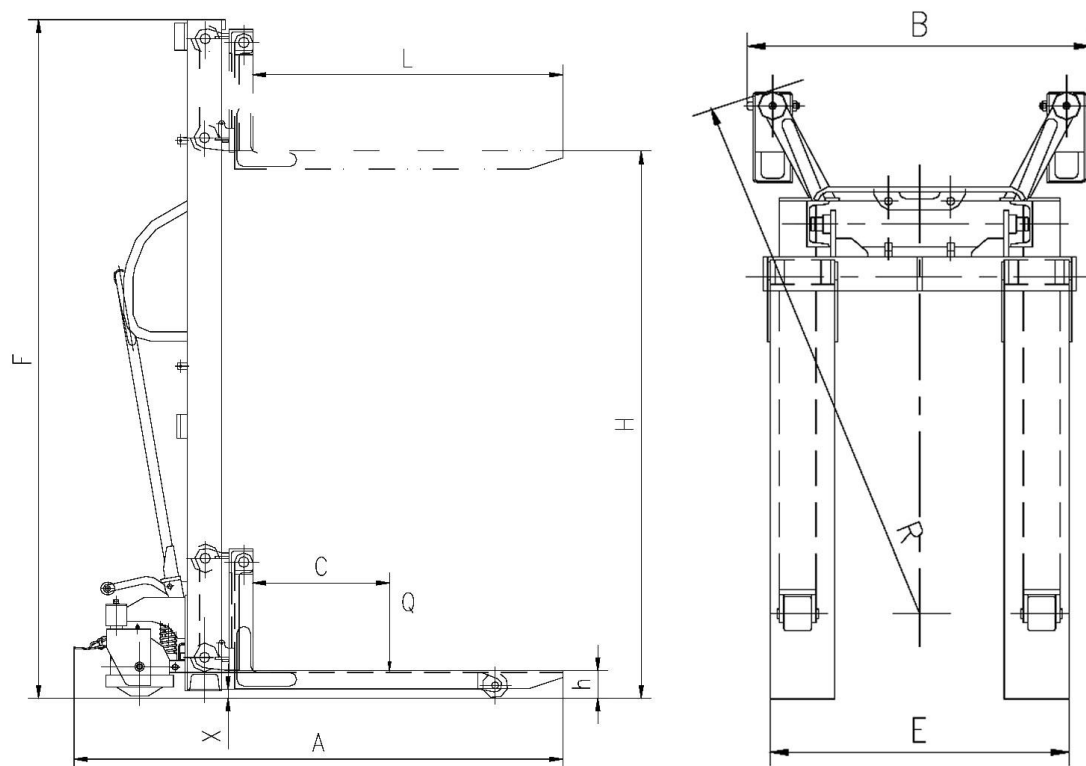
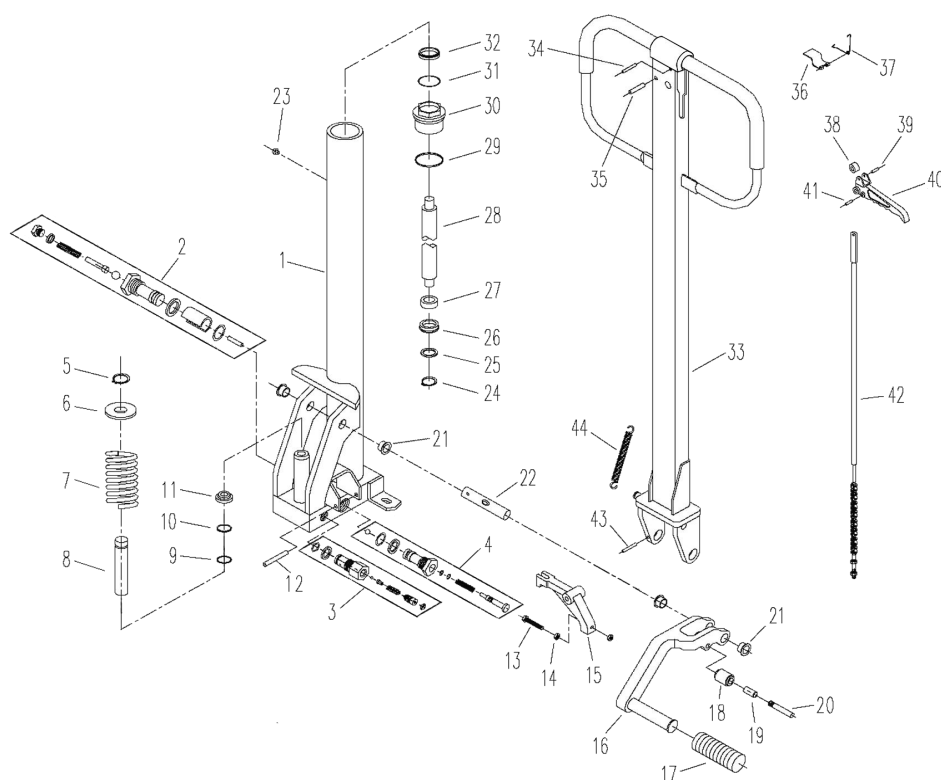


Table A

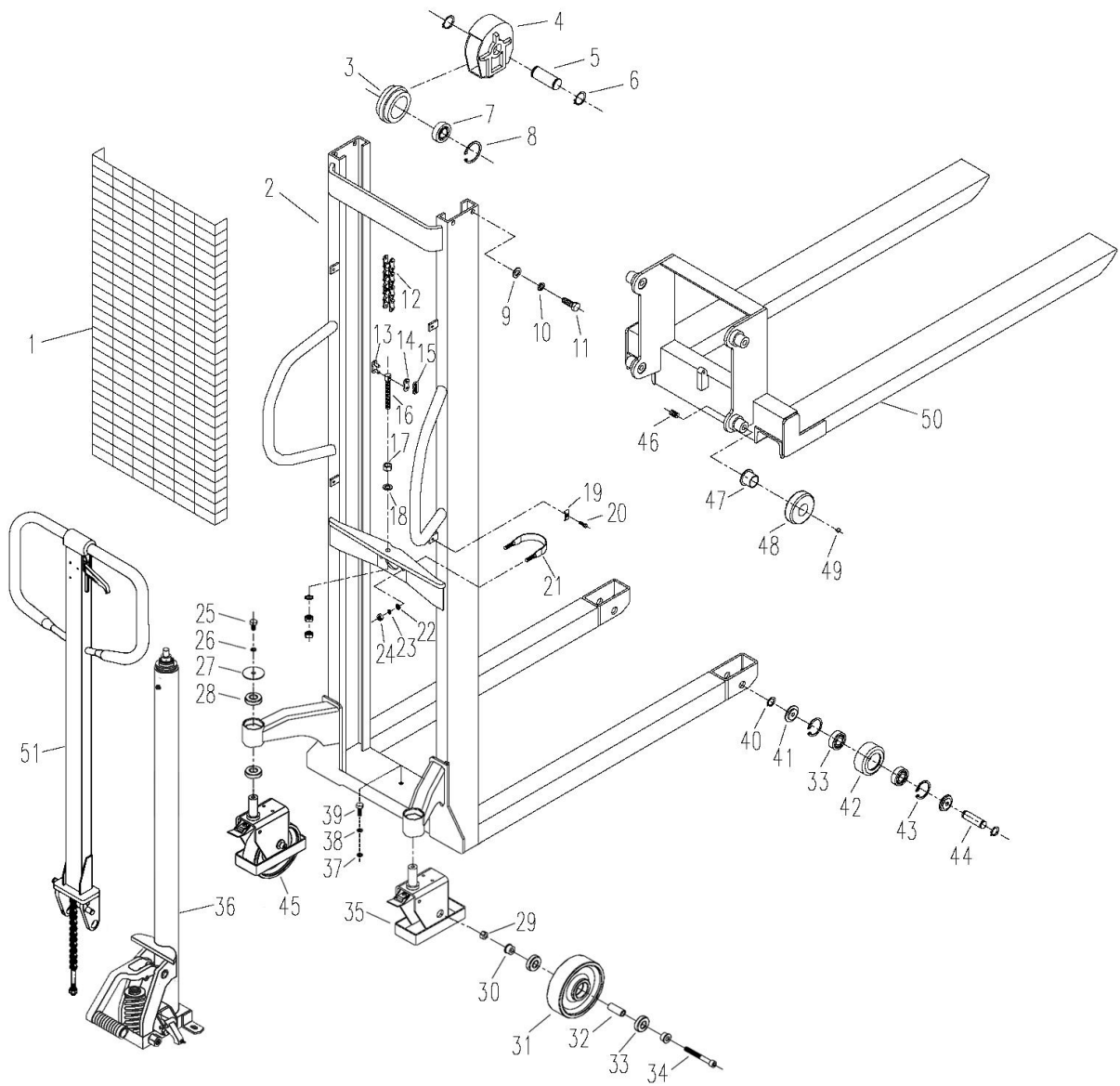
Main parameter			Unite	Model						
				WMS500	WMS1000	WMS1500	WMS2000	WMS1000	WMS1500	
				Single mast				Duplex mast		
Capacity		Q	kg	500	1000	1500	2000	1000	1500	
Load center		C	mm	600						
Maximum lift height		H		1600				2000/2500/3000		
Minimum fork height		h		90						
Fork length		L		1150						
Outside width between forks		E		560						
Lifting speed			mm/time	≥16						
Lowering speed			mm	Controllable						
Dimensions:	Overall length	A		1650						
	Overall width	B		630	680	690		760		
	Overall height	F		1970	1990	1990		1520/1770/2020		
Wheel	Size of load wheel			Ø80*40	Ø80*60					
	Size of rear wheel			Ø180*50						
Minimum clearance form ground		X		≥ 30						
Extreme radius of turn		R		≦ 1540	≦ 1590			≦ 1650		

Fig 1. Handle and pump Exploded view and parts details
WMS500-1600



Item	Parts No.	Description	QTY	Item	Parts No.	Description	QTY
1	19010101	Cylinder body	1	24	19010124	Snap Ring 12	1
2	19010102	Check valve assy.	1	25	19010125	Plane Washer 16	1
3	19010103	Safety valve assy.	1	26	19010126	Seal Ring UN27	1
4	19010104	Relief valve assy.	1	27	19010127	Bush	1
5	19010105	Snap Ring 15	1	28	19010128	Piston Rod	1
6	19010106	Spring Cup	1	29	19010129	Seal washer	1
7	19010107	Spring	1	30	19010130	Top Nut	1
8	19010108	Pump Plunger	1	31	19010131	O-Seal Ring 29.5×3.65	1
9	19010109	O-Seal Ring 18×2.5	1	32	19010132	Dust ring 38.5×28.5×6.5	1
10	19010110	Snap Ring	1	33	19010133	Handle Instrument	1
11	19010111	Dust Seal Ring 18	1	34	19010134	Spring Cotter 4×30	1
12	19010112	Spring Cotter 8×40	1	35	19010135	Spring Cotter 6×30	1
13	19010113	Bolt M6×35	1	36	19010136	Flat Spring	1
14	19010114	Nut M6	2	37	19010137	Spring	1
15	19010115	Bracket	1	38	19010138	Nylon Roller	1
16	19010116	Food Pedal	1	39	19010139	Spring Cotter 4×20	1
17	19010117	Pedal Pad	1	40	19010140	Return Oil Handle	1
18	19010118	Roller	1	41	19010141	Spring Cotter 4×12	1
19	19010119	Oilless Bearing 1028	1	42	19010142	Tie Rod and chain assy.	1
20	19010120	Pin	1	43	19010143	Spring Cotter 4×30	1
21	19010121	Oilless Bearing 26/20×18×11	4	44	19010144	Extension Spring	1
22	19010122	Handle Axle	1	***	19010145	Pump seal kits	1
23	19010123	Stopper	1				

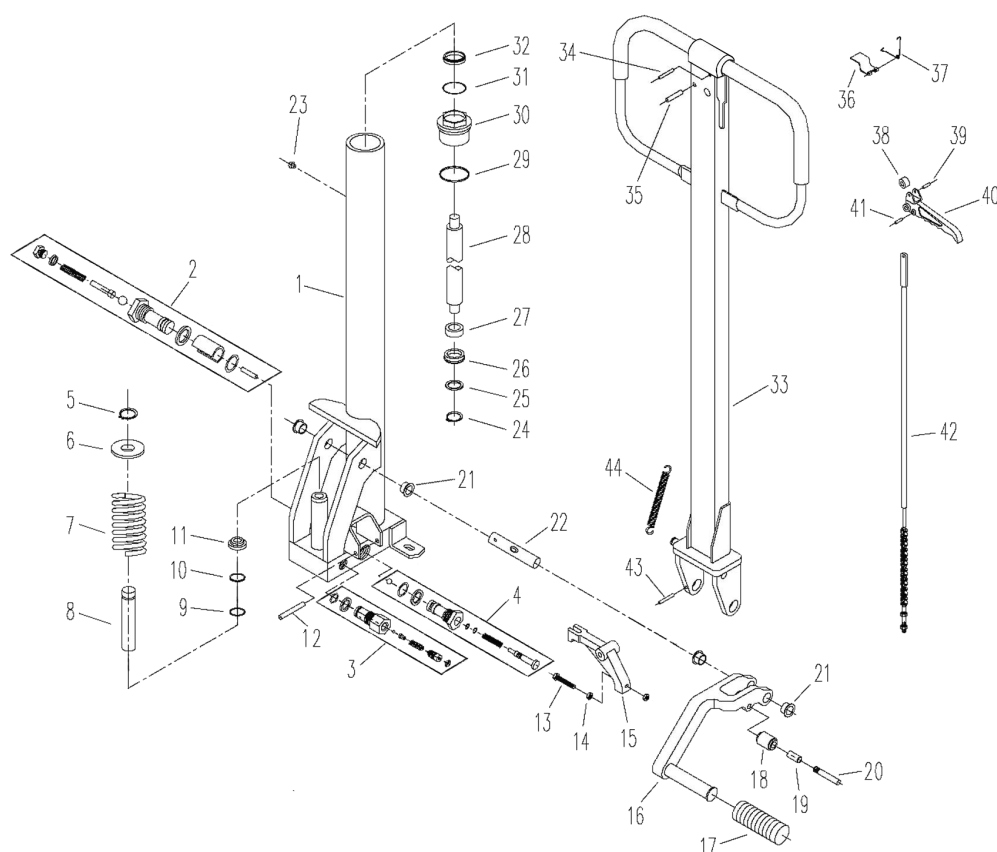
Fig 2. Chassis and mast Exploded view
WMS500-1600



Parts details of WMS500-1600

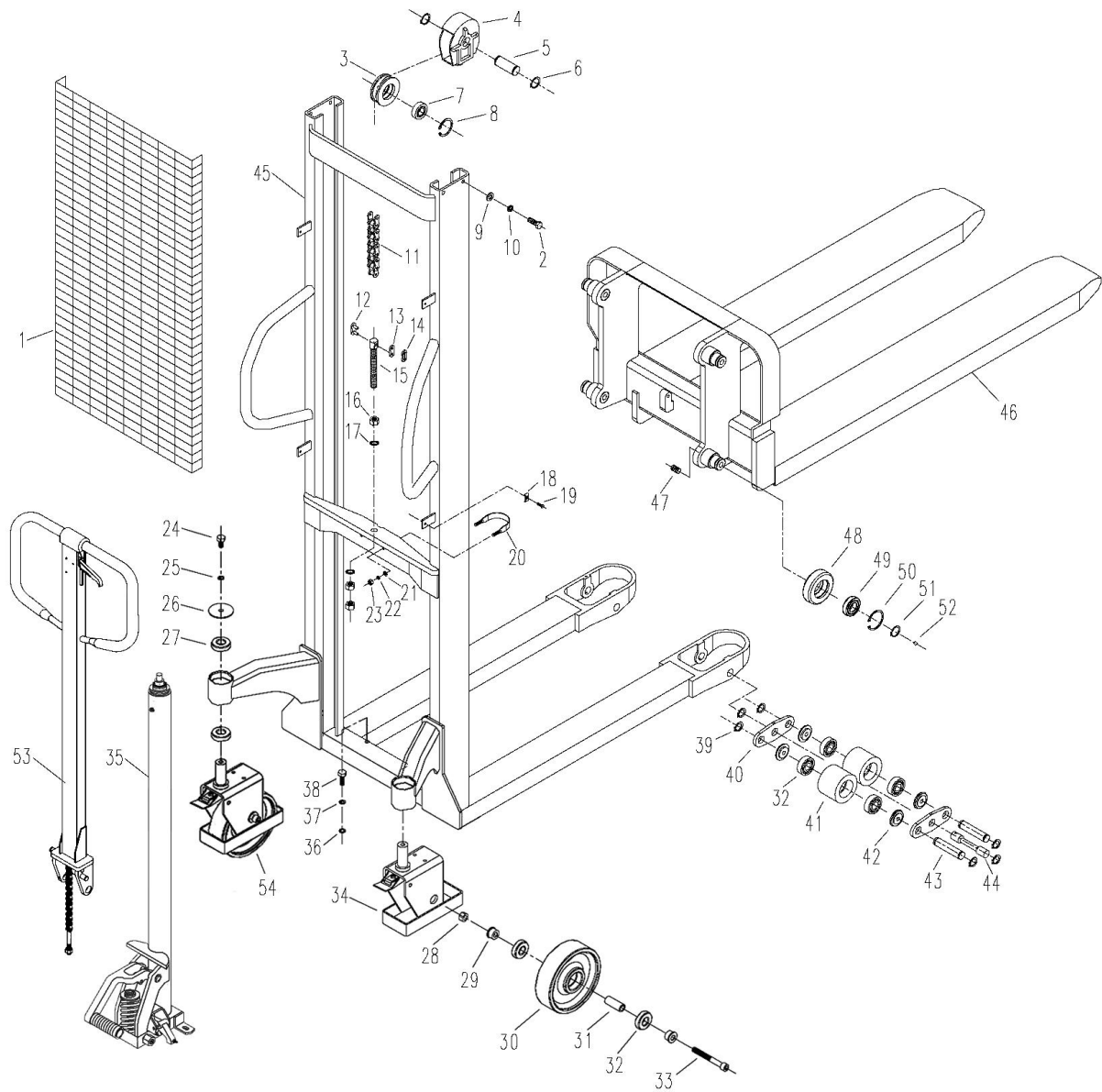
Item	Parts No.	Description	QTY	Item	Parts No.	Description	QTY
1	19010201	Net Cover	1	27	19010227	Cover	2
2	19010202	Chassis & mast	1	28	19010228	Bearing 6205	4
3	19010203	Carrier Wheel	1	29	19010229	Nut M12	2
4	19010204	Carrier Wheel Cover	1	30	19010230	Push Cover	4
5	19010205	Carrier Wheel Axle	1	31	19010231	Steering Wheel	2
6	19010206	Snap Ring 30	2	32	19010232	Axle Cover	2
7	19010207	Bearing 6206	1	33	19010233	Bearing 6204	8
8	19010208	Snap Ring 62	1	34	19010234	Load Wheel Ø78x36	2
9	19010209	Plane Washer 12	4	35	19010235	Wheel rack	2
10	19010210	Spring Washer 12	4	36	19010236	Cylinder assy. 0.5T/1.6M	1
11	19010211	Bolt M12×35	4	37	19010237	Flat Washer 10	2
12	19010212	Chain	1	38	19010238	Spring Washer 10	2
13	19010213	Chain Pin	2	39	19010239	Bolt M10x25	2
14	19010214	Chain Sheet	2	40	19010240	Snap Ring 20	4
15	19010215	Chain Lock Sheet	2	41	19010241	Push Cover	4
16	19010216	Chain Joint 12A-66L	1	42	19010242	Front Wheel Ø78x36	2
17	19010217	Nut M16	3	43	19010243	Snap Ring 47	4
18	19010218	Plane Washer 16	2	44	19010244	Axle	2
19	19010219	Flat washer	4	45	19010245	Steering wheel assy.	2
20	19010220	Bolt M6×20	4	46	19010246	Screw M12×20	4
21	19010221	Clevis Bolt	1	47	19010247	Oilless Bearing 43/34×30×24	4
22	19010222	Flat Washer 8	2	48	19010248	Roller	4
23	19010223	Spring Washer 8	2	49	19010249	Steel Bead 12	4
24	19010224	Nut M8	2	50	19010250	Fork Arm Carrier	1
25	19010225	Bolt M10×25	2	51	19010251	Handle assy.	1
26	19010226	Spring Washer 10	2				

Fig 3. Handle & pump Exploded view/parts details
WMS1000-1600



Item	Parts No.	Description	QTY	Item	Parts No.	Description	QTY
1	19020101	Cylinder body	1	24	19020124	Snap Ring 12	1
2	19020102	Check valve assy.	1	25	19020125	Plane Washer 16	1
3	19020103	Safety valve assy.	1	26	19020126	Seal Ring UN27	1
4	19020104	Relief valve assy.	1	27	19020127	Bush	1
5	19020105	Snap Ring 15	1	28	19020128	Piston Rod	1
6	19020106	Spring Cup	1	29	19020129	Seal washer	1
7	19020107	Spring	1	30	19020130	Top Nut	1
8	19020108	Pump Plunger	1	31	19020131	O-Seal Ring 31.5×3.55	1
9	19020109	O-Seal Ring 18×2.5	1	32	19020132	Dust ring 32×45×8	1
10	19020110	Snap Ring	1	33	19020133	Handle Instrument	1
11	19020111	Dust Seal Ring 18	1	34	19020134	Spring Cotter 4×30	1
12	19020112	Spring Cotter 8×40	1	35	19020135	Spring Cotter 6×30	1
13	19020113	Bolt M6×35	1	36	19020136	Flat Spring	1
14	19020114	Nut M6	2	37	19020137	Spring	1
15	19020115	Bracket	1	38	19020138	Nylon Roller	1
16	19020116	Food Pedal	1	39	19020139	Spring Cotter 4×20	1
17	19020117	Pedal Pad	1	40	19020140	Return Oil Handle	1
18	19020118	Roller	1	41	19020141	Spring Cotter 4×12	1
19	19020119	Oilless Bearing 1028	1	42	19020142	Tie Rod and chain assy.	1
20	19020120	Pin	1	43	19020143	Spring Cotter 4×30	1
21	19020121	Oilless Bearing 26/20×18×11	4	44	19020144	Extension Spring	1
22	19020122	Handle Axle	1	***	19020145	Pump seal kits	1
23	19020123	Stopper	1				

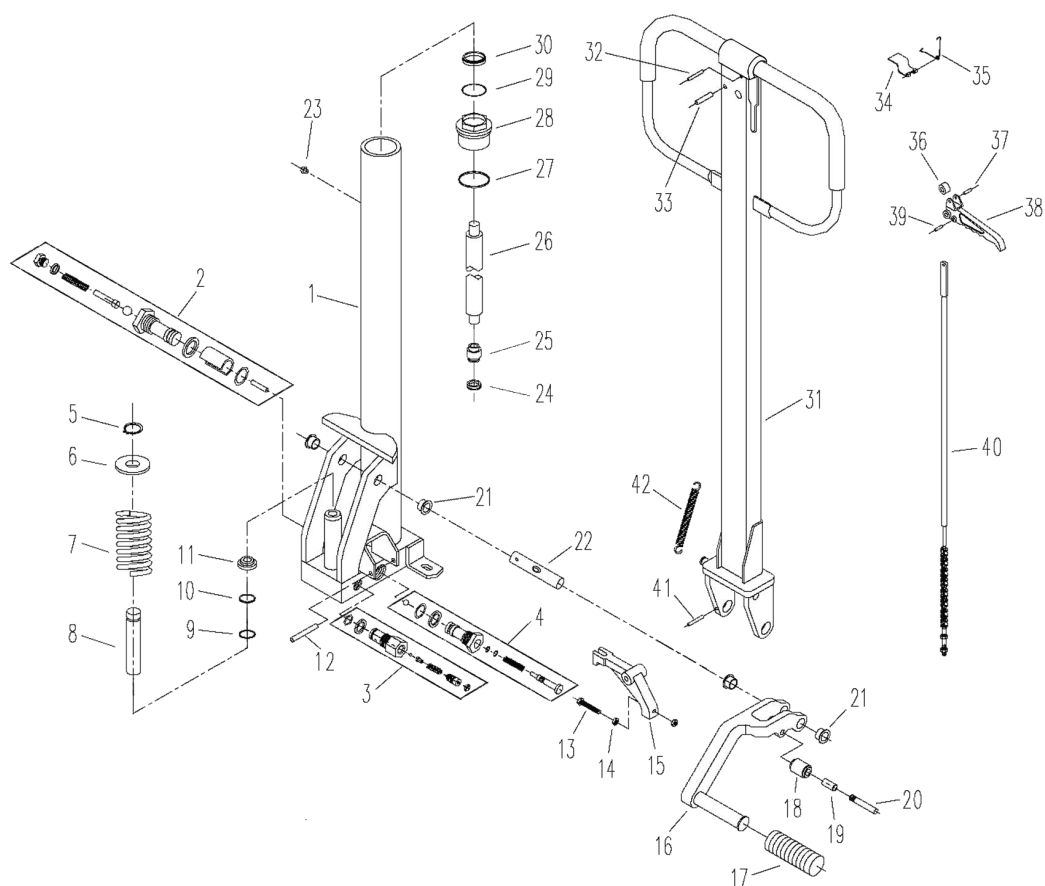
Fig 4. Chassis and mast Exploded view
WMS1000-1600



Parts details of WMS1000-1600

Item	Parts No.	Description	QTY	Item	Parts No.	Description	QTY
1	19020201	Net Cover	1	28	19020228	Nut M12	2
2	19020202	Bolt M12×35	4	29	19020229	Push Cover	4
3	19020203	Carrier Wheel	1	30	19020230	Steering Wheel	2
4	19020204	Carrier Wheel Cover	1	31	19020231	Axle Cover	2
5	19020205	Carrier Wheel Axle	1	32	19020232	Bearing 6204	12
6	19020206	Snap Ring 30	2	33	19020233	Bolt M12×100	2
7	19020207	Bearing 6306	1	34	19020234	Wheel rack	2
8	19020208	Snap Ring 72	1	35	19020235	Cylinder assy. 1T/1.6M	1
9	19020209	Plane Washer 12	4	36	19020236	Flat Washer 10	2
10	19020210	Spring Washer 12	4	37	19020237	Spring Washer 10	2
11	19020211	Chain	2	38	19020238	Bolt M10x25	2
12	19020212	Chain Pin	4	39	19020239	Snap Ring 20	12
13	19020213	Chain sheet	4	40	19020240	Connect plate	4
14	19020214	Chain lock sheet	4	41	19020241	Load wheel φ78×60	4
15	19020215	Chain joint	2	42	19020242	Push Cover	8
16	19020216	Nut M16	3	43	19020243	Axle	4
17	19020217	Plane Washer 16	2	44	19020244	Mandrel	2
18	19020218	Flat washer	2	45	19020245	Chasis & mast	1
19	19020219	Bolt M6×20	4	46	19020246	Fork Arm Carrier	1
20	19020220	Clevis Bolt	4	47	19020247	Screw M12x20	4
21	19020221	Plane Washer 8	1	48	19020248	Roller	4
22	19020222	Spring Washer 8	2	49	19020249	Bearing 6206	4
23	19020223	Nut M8	2	50	19020250	Snap Ring 62	4
24	19020224	Bolt M10×25	2	51	19020251	Snap ring 30	4
25	19020225	Spring Washer 10	2	52	19020252	Steel bead 12	4
26	19020226	Cover	2	53	19020253	Handle assembly	1
27	19020227	Bearing 6205	4	54	19020254	Steering wheel assy.	2

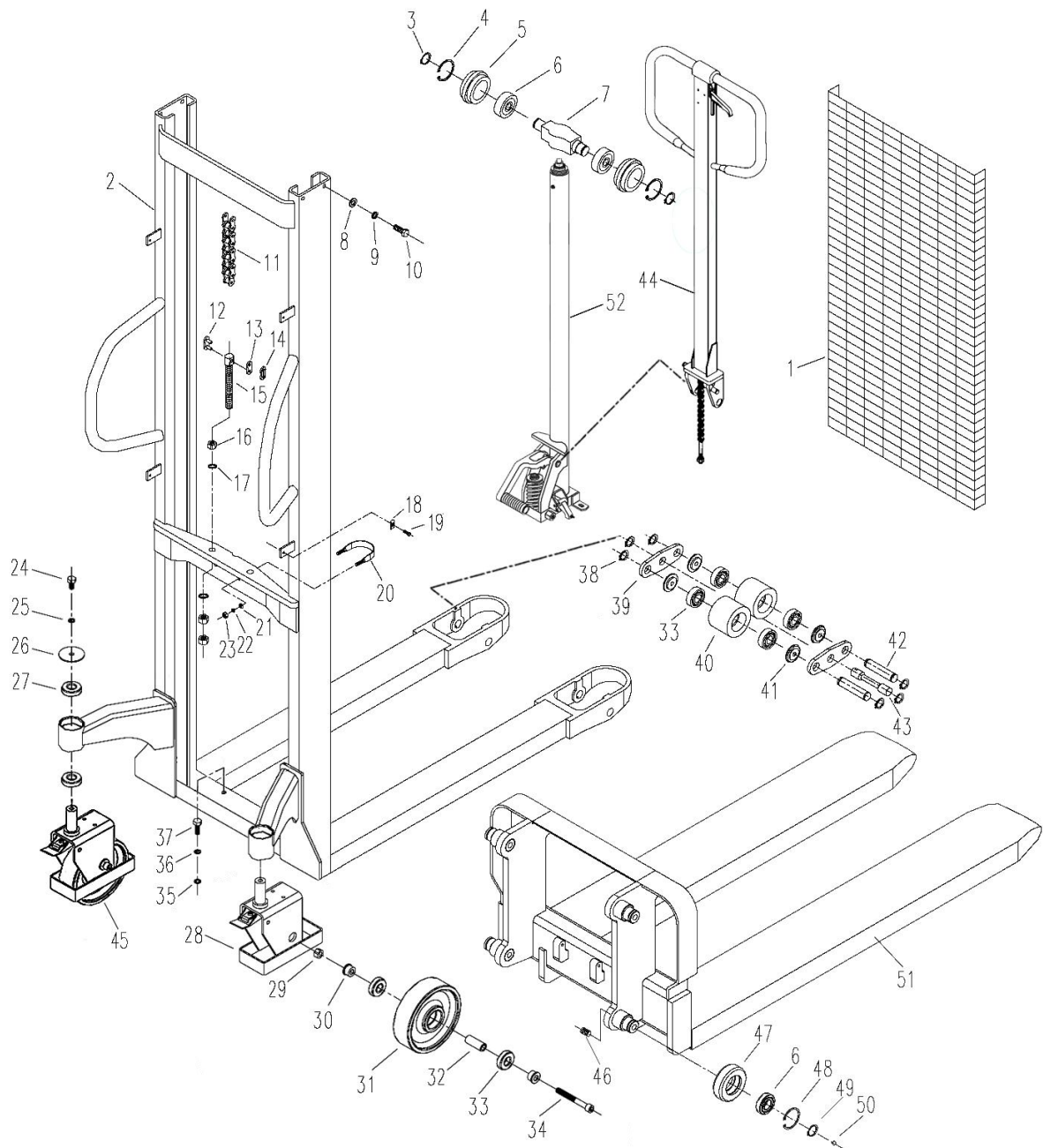
Fig 5. Handle and pump Exploded view and parts details
WMS1500-1600



Item	Parts No.	Description	QTY	Item	Parts No.	Description	QTY
1	19030101	Cylinder body	1	23	19030123	Stopper	1
2	19030102	Check valve assy.	1	24	19030124	Seal washer 30*40*6	1
3	19030103	Safety valve assy.	1	25	19030125	Piston	1
4	19030104	Relief valve assy.	1	26	19030126	Piston rod	1
5	19030105	Snap Ring 15	1	27	19030127	Oil seal	1
6	19030106	Spring Cup	1	28	19030128	Top Nut	1
7	19030107	Spring	1	29	19030129	O-Seal Ring 31.5×3.55	1
8	19030108	Pump Plunger	1	30	19030130	Dust ring 32×45×8	1
9	19030109	O-Seal Ring 18×2.5	1	31	19030131	Handle Instrument	1
10	19030110	Snap Ring	1	32	19030132	Spring Cotter 4×30	1
11	19030111	Dust Seal Ring 18	1	33	19030133	Spring Cotter 6×30	1
12	19030112	Spring Cotter 8×40	1	34	19030134	Flat Spring	1
13	19030113	Bolt M6×35	1	35	19030135	Spring	1
14	19030114	Nut M6	2	36	19030136	Nylon Roller	1
15	19030115	Bracket	1	37	19030137	Spring Cotter 4×20	1
16	19030116	Food Pedal	1	38	19030138	Return Oil Handle	1
17	19030117	Pedal Pad	1	39	19030139	Spring Cotter 4×12	1
18	19030118	Roller	1	40	19030140	Tie Rod and chain assy.	1
19	19030119	Oilless Bearing 1028	1	41	19030141	Spring Cotter 4×30	1
20	19030120	Pin	1	42	19030142	Extension Spring	1
21	19030121	Oilless Bearing 26/20×18×11	4	***	19030143	Pump seal kits	1
22	19030122	Handle Axle	1				

Fig 6. Chassis and mast Exploded view

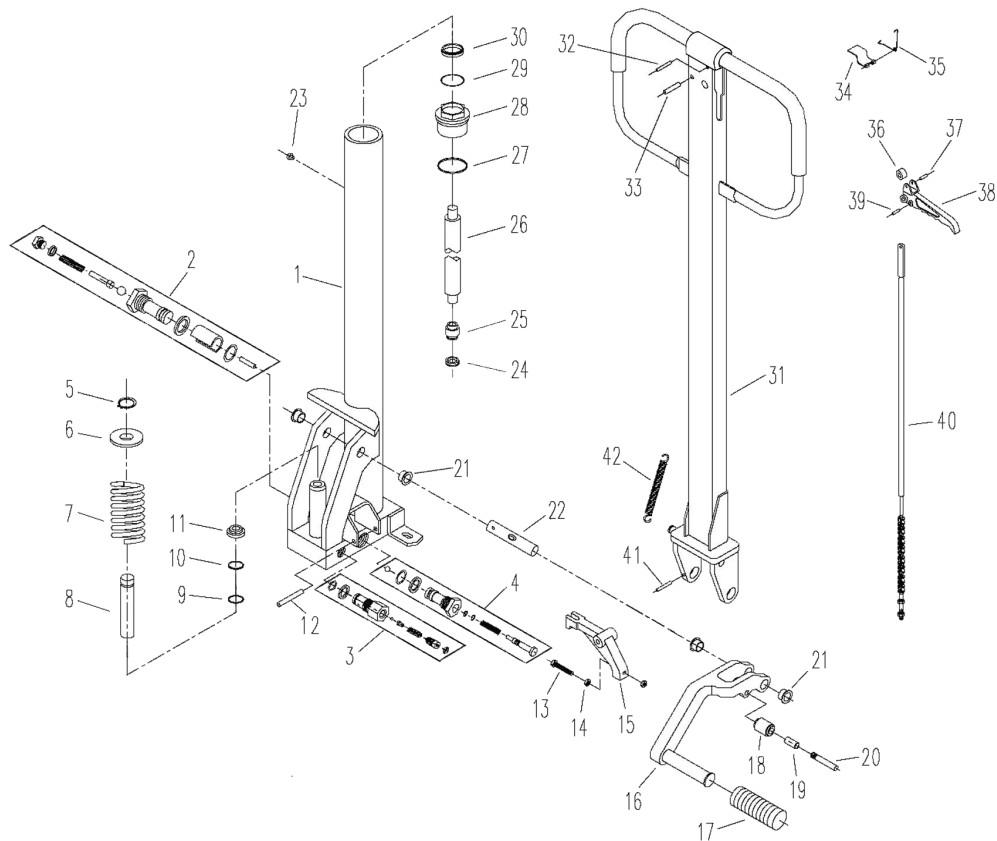
WMS1500-1600



Parts details of WMS1500-1600

Item	Parts No.	Description	QTY	Item	Parts No.	Description	QTY
1	19030201	Net Cover	1	27	19030227	Bearing 6205	4
2	19030202	Chassis & mast	1	28	19030228	Wheel rack	2
3	19030203	Snap Ring 30	2	29	19030229	Nut M12	2
4	19030204	Snap Ring 62	2	30	19030230	Push Cover	4
5	19030205	Carrier Wheel	2	31	19030231	Steering Wheel	2
6	19030206	Bearing 6206	6	32	19030232	Axle Cover	2
7	19030207	Carrier Wheel axle	1	33	19030233	Bearing 6204	12
8	19030208	Plane Washer 12	4	34	19030234	Bolt M12×100	2
9	19030209	Spring Washer 12	4	35	19030235	Flat Washer 10	2
10	19030210	Bolt M12×35	4	36	19030236	Spring Washer 10	2
11	19030211	Chain	2	37	19030237	Bolt M10x25	2
12	19030212	Chain Pin	4	38	19030238	Snap Ring 20	12
13	19030213	Chain sheet	4	39	19030239	Connect plate	4
14	19030214	Chain lock sheet	4	40	19030240	Load wheel φ78×60	4
15	19030215	Chain joint	2	41	19030241	Push Cover	8
16	19030216	Nut M16	6	42	19030242	Axle	4
17	19030217	Flat washer 16	4	43	19030243	Mandrel	2
18	19030218	Flat washer	4	44	19030244	Handle assembly	1
19	19030219	Bolt M6×20	4	45	19030245	Steering wheel assy.	2
20	19030220	Clevis Bolt	1	46	19030246	Screw M12x20	4
21	19030221	Plane Washer 8	2	47	19030247	Roller	4
22	19030222	Spring Washer 8	2	48	19030248	Snap Ring 62	4
23	19030223	Nut M8	2	49	19030249	Snap ring 30	4
24	19030224	Bolt M10×25	2	50	19030250	Steel bead 12	4
25	19030225	Spring Washer 10	2	51	19030251	Fork Arm Carrier	1
26	19030226	Cover	2	52	19030252	Cylinder assy. 1.5T/1.6M	1

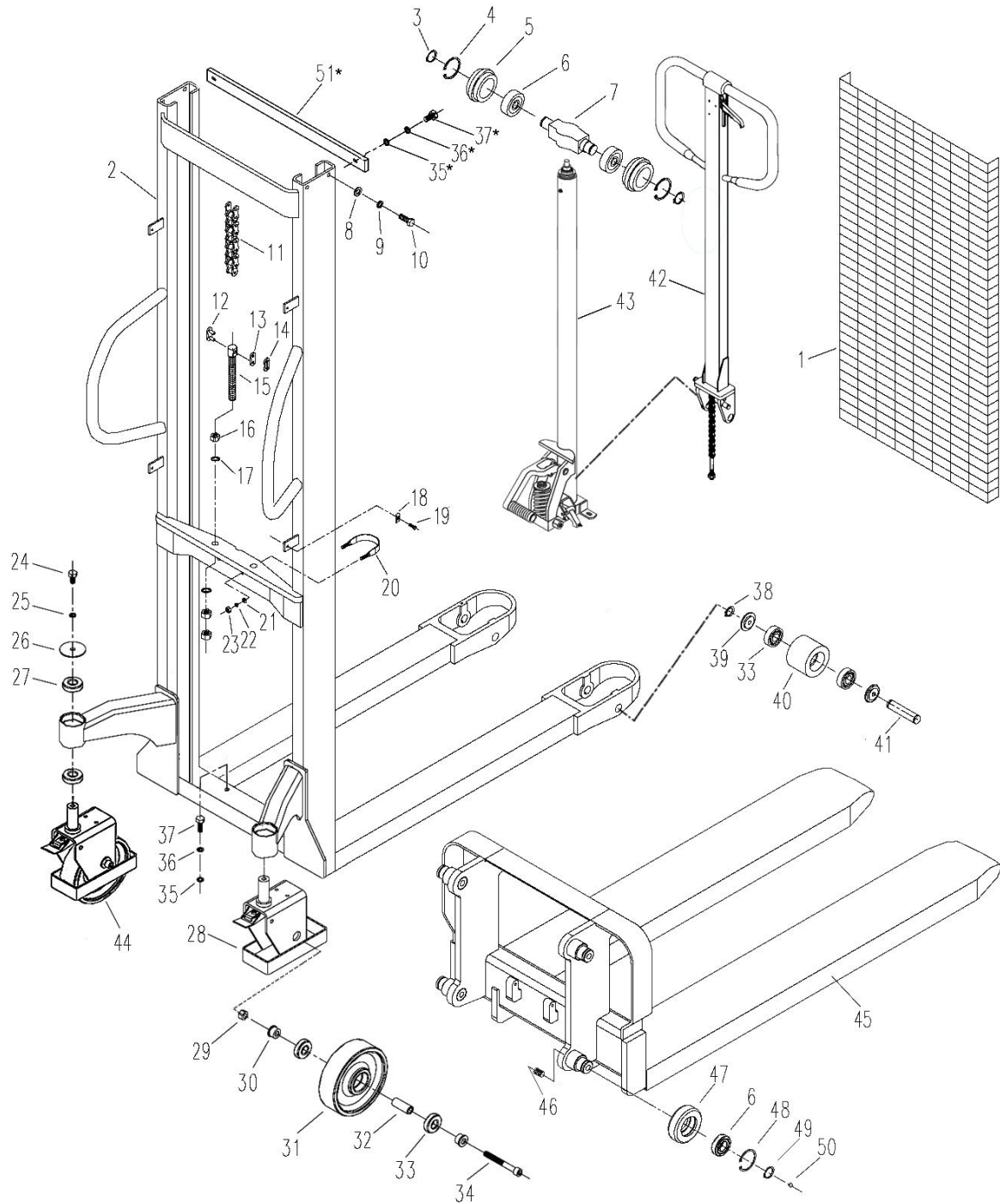
Fig 7. Handle and pump Exploded view and parts details
WMS2000-1600



Item	Parts No.	Description	QTY	Item	Parts No.	Description	QTY
1	19040101	Cylinder body	1	23	19040123	Stopper	1
2	19040102	Check valve assy.	1	24	19040124	Seal washer 30*40*6	1
3	19040103	Safety valve assy.	1	25	19040125	Piston	1
4	19040104	Relief valve assy.	1	26	19040126	Piston rod	1
5	19040105	Snap Ring 15	1	27	19040127	Oil seal	1
6	19040106	Spring Cup	1	28	19040128	Top Nut	1
7	19040107	Spring	1	29	19040129	O-Seal Ring 31.5×3.55	1
8	19040108	Pump Plunger	1	30	19040130	Dust ring 32×45×8	1
9	19040109	O-Seal Ring 18×2.5	1	31	19040131	Handle Instrument	1
10	19040110	Snap Ring	1	32	19040132	Spring Cotter 4×30	1
11	19040111	Dust Seal Ring 18	1	33	19040133	Spring Cotter 6×30	1
12	19040112	Spring Cotter 8×40	1	34	19040134	Flat Spring	1
13	19040113	Bolt M6×35	1	35	19040135	Spring	1
14	19040114	Nut M6	2	36	19040136	Nylon Roller	1
15	19040115	Bracket	1	37	19040137	Spring Cotter 4×20	1
16	19040116	Food Pedal	1	38	19040138	Return Oil Handle	1
17	19040117	Pedal Pad	1	39	19040139	Spring Cotter 4×12	1
18	19040118	Roller	1	40	19040140	Tie Rod and chain assy.	1
19	19040119	Oilless Bearing 1028	1	41	19040141	Spring Cotter 4×30	1
20	19040120	Pin	1	42	19040142	Extension Spring	1
21	19040121	Oilless Bearing 26/20×18×11	4	***	19040143	Pump seal kits	1
22	19040122	Handle Axle	1				

Fig 8. Chassis and mast Exploded view

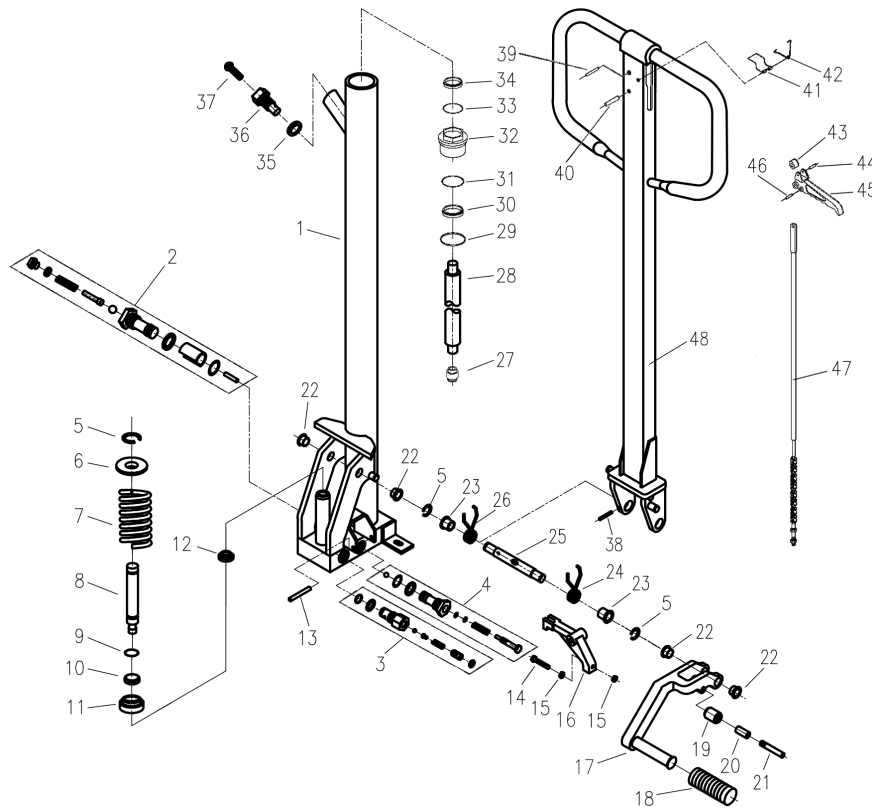
WMS2000-1600



Parts details of WMS2000-1600

Item	Parts No.	Description	QTY	Item	Parts No.	Description	QTY
1	19040201	Net Cover	1	28	19040228	Wheel rack	2
2	19040202	Chasis & mast	1	29	19040229	Nut M12	2
3	19040203	Snap Ring 30	2	30	19040230	Push Cover	4
4	19040204	Snap Ring 62	2	31	19040231	Steering Wheel	2
5	19040205	Carrier Wheel	2	32	19040232	Axle Cover	2
6	19040206	Bearing 6206	6	33	19040233	Bearing 6204	4
7	19040207	Carrier Wheel axle	1	34	19040234	Bolt M12×100	2
8	19040208	Plane Washer 12	4	35	19040235	Flat Washer 10	4
9	19040209	Spring Washer 12	4	36	19040236	Spring Washer 10	4
10	19040210	Bolt M12×35	4	37	19040237	Bolt M10x25	4
11	19040211	Chain	2	38	19040238	Snap Ring 20	4
12	19040212	Chain Pin	4	39	19040239	Push Cover	4
13	19040213	Chain sheet	4	40	19040240	Bearing 6204	4
14	19040214	Chain lock sheet	4	41	19040241	Load wheel φ78×60	2
15	19040215	Chain joint	2	42	19040242	Axle	2
16	19040216	Nut M16	6	43	19040243	Handle assembly	1
17	19040217	Flat washer 16	4	44	19040244	Cylinder assy. 2T/1.6M	1
18	19040218	Flat washer	4	45	19040245	Steering wheel assy.	2
19	19040219	Bolt M6×20	4	46	19040246	Screw M12x20	4
20	19040220	Clevis Bolt	1	47	19040247	Roller	4
21	19040221	Plane Washer 8	2	48	19040248	Bearing 6206	6
22	19040222	Spring Washer 8	2	49	19040249	Snap Ring 62	4
23	19040223	Nut M8	2	50	19040250	Snap ring 30	4
24	19040224	Bolt M10×25	2	51	19040251	Steel bead 12	4
25	19040225	Spring Washer 10	2	52	19040252	Fork Arm Carrier	1
26	19040226	Cover	2	53	19040253	Baffle (Only for 2T/1.6M)	1
27	19040227	Bearing 6205	4				

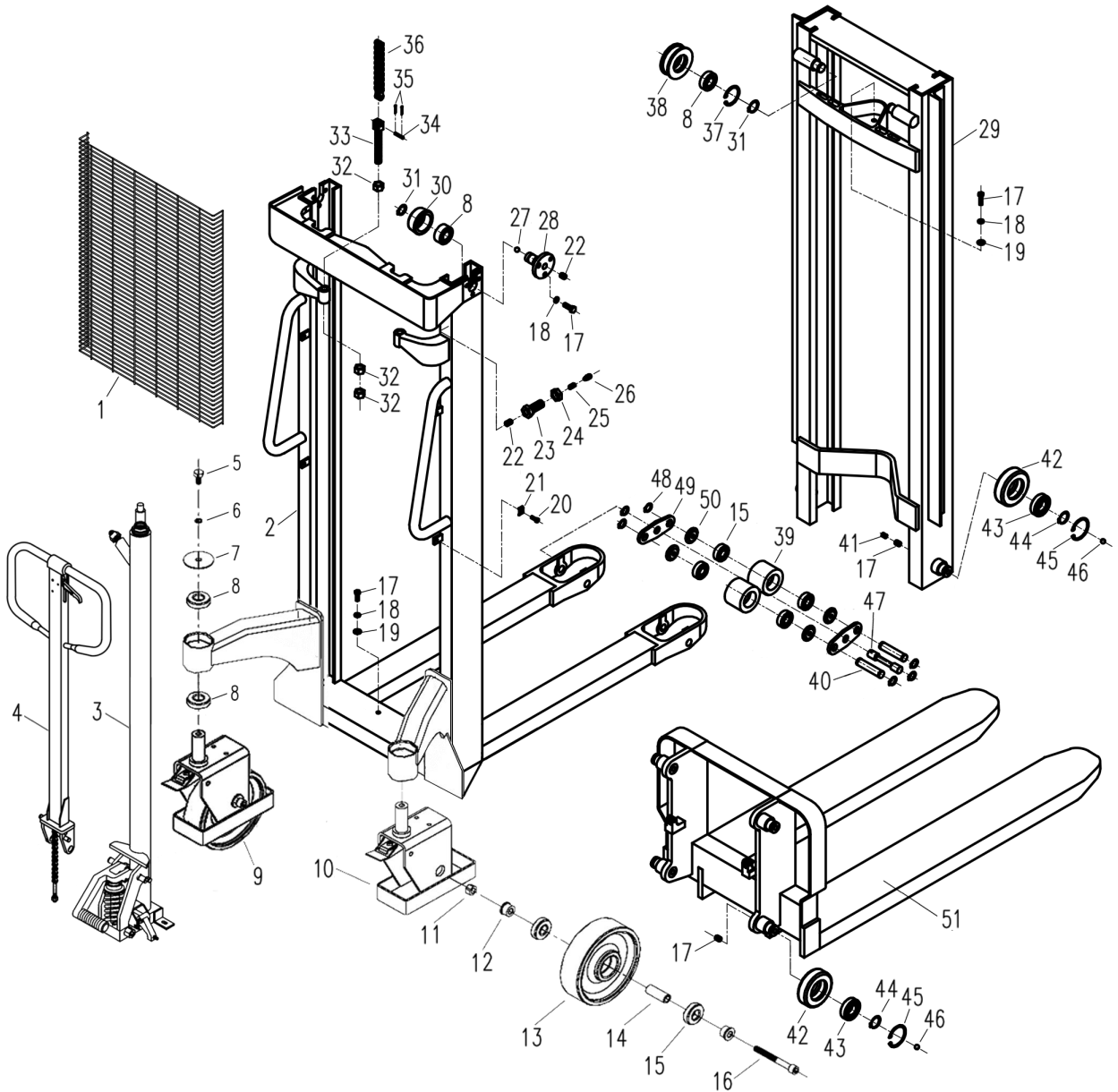
Fig 9. Handle and pump Exploded view and parts details
WMS1000-2000/2500/3000 with duplex mast



Item	Parts No.	Description	QTY	Item	Parts No.	Description	QTY
1	19050101	Cylinder body	1	26	19050126	Left torsional spring	1
2	19050102	Check valve assy.	1	27	19050127	Piston	1
3	19050103	Safety valve assy.	1	28	19050128	Piston Rod	1
4	19050104	Relief valve assy.	1	29	19050129	O-ring 43.7*3.55	1
5	19050105	Snap Ring 12	1	30	19050130	Seal washer D35	1
6	19050106	Spring Cup	1	31	19050131	Oil seal	1
7	19050107	Spring	1	32	19050132	Top Nut	1
8	19050108	Pump Plunger	1	33	19050133	O-Seal Ring 34.5*3.55	1
9	19050109	O-Seal Ring 11.2*2.65	1	34	19050134	Dust ring 35	1
10	19050110	Seal washer D16	1	35	19050135	Composite Washer	1
11	19050111	Spring seat	1	36	19050136	Bolt	1
12	19050112	Dust ring	1	37	19050137	Screw M5x8	1
13	19050113	Spring Cotter 8x40	1	38	19050138	Spring pin ϕ 4x30	1
14	19050114	Bolt M6x30	2	39	19050139	Spring Cotter 4x30	1
15	19050115	Nut M6	1	40	19050140	Spring Cotter 6x30	1
16	19050116	Bracket	1	41	19050141	Flat Spring	1
17	19050117	Food Pedal	1	42	19050142	Spring	1
18	19050118	Pedal Pad	1	43	19050143	Nylon Roller	1
19	19050119	Roller	1	44	19050144	Spring Cotter 4x20	1
20	19050120	Oilless Bearing	1	45	19050145	Return Oil Handle	1
21	19050121	Pin	1	46	19050146	Spring Cotter 4x12	1
22	19050122	Oilless Bearing	4	47	19050147	Tie Rod and chain assy.	1
23	19050123	Snap Ring 12	2	48	19050148	Handle Instrument	1
24	19050124	Right torsional spring	1	***	19050149	Pump seal kits	1
25	19050125	Handle Axle	1				

Fig 10. Chassis and mast Exploded view

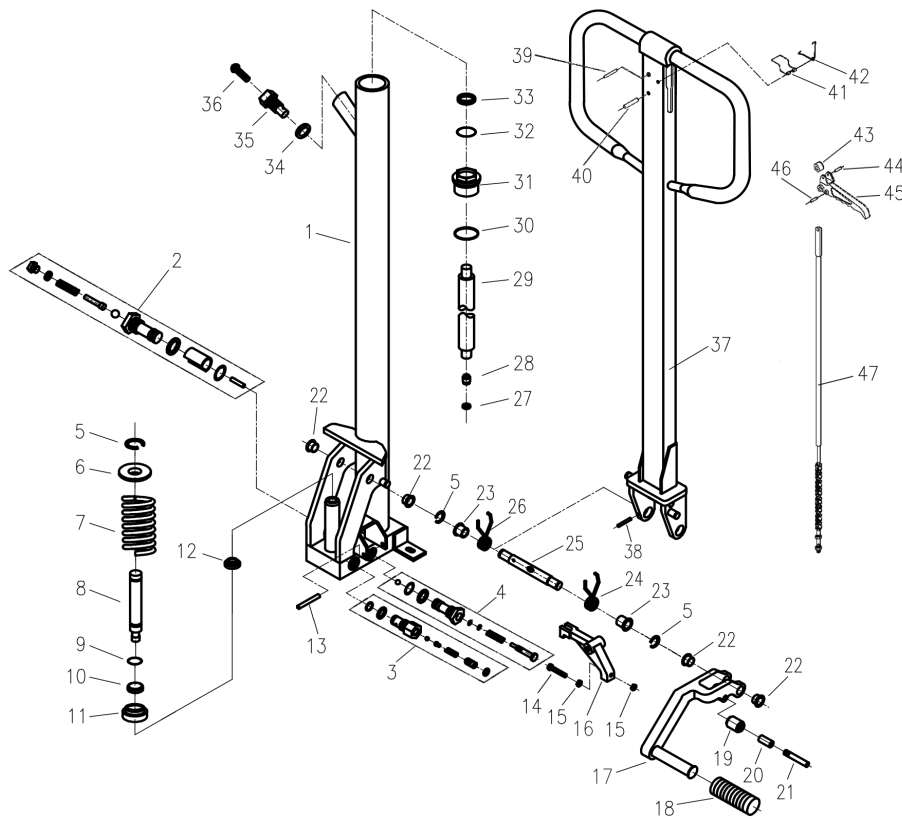
WMS1000-2000/2500/3000 with duplex mast



Parts details of WMS1000-2000/2500/3000 with duplex mast

Item	Parts No.	Description	QTY	Item	Parts No.	Description	QTY
1	19050201	Net Cover	1	27	19050227	Steel ball 12.0000G16b	2
2	19050202	Chassis & mast 1T	1	28	19050228	Upper bearing socket 1T	2
3	19050203	Cylinder assy. 1T/2M	1	29	19050229	Inner mast	1
	19050203-1	Cylinder assy. 1T/2.5M	1	30	19050230	Cover of roller $\phi 72 \times 26$ 1T	2
	19050203-2	Cylinder assy. 1T/3M	1	31	19050231	Circle 25	4
4	19050204	Handle assy.	1	32	19050232	Net M16	6
5	19050205	Bolt M10×25	2	33	19050233	Chain connector	2
6	19050206	Spring Washer 10	2	34	19050234	Spring pin $\phi 5 \times 30$	4
7	19050207	Cover	2	35	19050235	Spring pin $\phi 1.2 \times 16$	8
8	19050208	Bearing 6205	8	36	19050236	Chain for 3m lifting height	2
9	19050209	Steering wheel assy.	2		19050236-1	Chain for 2m lifting height	2
10	19050210	Wheel rack	2		19050236-2	Chain for 2.5m lifting height	2
11	19050211	Nut M12	2	37	19050237	Chain roller	2
12	19050212	Push Cover	4	38	19050238	Circlip 52	2
13	19050213	Steering Wheel	2	39	19050239	Load wheel $\phi 78 \times 60$	4
14	19050214	Axle Cover	2	40	19050240	Shaft for load wheel	4
15	19050215	Bearing 6204	12	41	19050241	Blocking column	2
16	19050216	Bolt M12×100	2	42	19050242	Cover of roller $\phi 107.2 \times 32$	6
17	19050217	Flat Washer 10	2	43	19050243	Bearing 6206	6
18	19050218	Spring Washer 10	2	44	19050244	Circlip 30	6
19	19050219	Bolt M10x25	2	45	19050245	Circlip 62	6
20	19050220	Bolt M6×15	4	46	19050246	Steel ball 12.0000G16b	6
21	19050221	Washer	4	47	19050247	Mandrel	2
22	19050222	Screw M12×20	10	48	19050248	Circlip 20	12
23	19050223	Connect bolt	2	49	19050249	Connected block	4
24	19050224	Nut M20×1.5	2	50	19050250	Push Cover	8
25	19050225	Spring	2	51	19050251	Fork assy. 1T	1
26	19050226	Position rod	2				

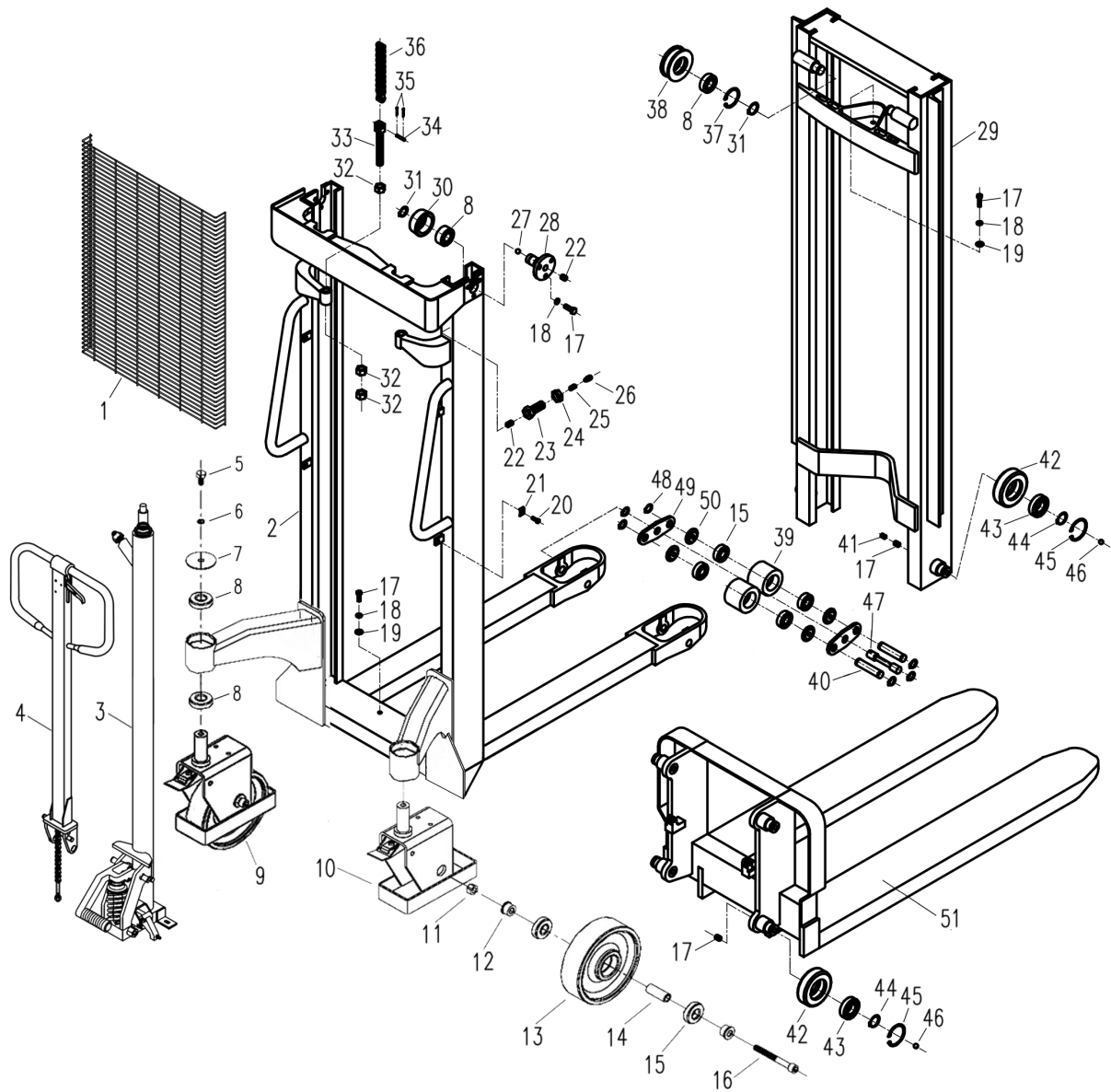
Fig 11. Handle and pump Exploded view and parts details
WMS1500-2000/2500/3000 with duplex mast



Item	Parts No.	Description	QTY	Item	Parts No.	Description	QTY
1	19060101	Cylinder body	1	25	19060125	Handle Axle	1
2	19060102	Check valve assy.	1	26	19060126	Left torsional spring	1
3	19060103	Safety valve assy.	1	27	19060127	Seal washer 35	1
4	19060104	Relief valve assy.	1	28	19060128	Piston	1
5	19060105	Snap Ring 12	1	29	19060129	Piston rod	1
6	19060106	Spring Cup	1	30	19060130	Oil seal	1
7	19060107	Spring	1	31	19060131	Top Nut	1
8	19060108	Pump Plunger	1	32	19060132	O-Seal Ring 34.5×3.55	1
9	19060109	O-Seal Ring 11.2×2.65	1	33	19060133	Dust ring 35	1
10	19060110	Seal washer D16	1	34	19060134	Composite Washer	1
11	19060111	Spring seat	1	35	19060135	Bolt	1
12	19060112	Dust ring	1	36	19060136	Screw M5x8	1
13	19060113	Spring Cotter 8×40	1	37	19060137	Handle Instrument	1
14	19060114	Bolt M6×30	2	38	19060138	Spring pin φ4x30	1
15	19060115	Nut M6	1	39	19060139	Spring Cotter 4×30	1
16	19060116	Bracket	1	40	19060140	Spring Cotter 6×30	1
17	19060117	Foot Pedal	1	41	19060141	Flat Spring	1
18	19060118	Pedal Pad	1	42	19060142	Spring	1
19	19060119	Roller	1	43	19060143	Nylon Roller	1
20	19060120	Oilless Bearing	1	44	19060144	Spring Cotter 4×20	1
21	19060121	Pin	1	45	19060145	Return Oil Handle	1
22	19060122	Oilless Bearing	4	46	19060146	Spring Cotter 4×12	1
23	19060123	Snap Ring 12	2	47	19060147	Tie Rod and chain assy.	1
24	19060124	Right torsional spring	1	***	19060148	Pump seal kits	1

Fig 12. Chassis and mast Exploded view

WMS1500-2000/2500/3000 with duplex mast



Parts details of WMS1500-2000/2500/3000 with duplex mast

Item	Parts No.	Description	QTY	Item	Parts No.	Description	QTY
1	19060201	Net Cover	1	27	19060227	Steel ball 12.0000G16b	2
2	19060202	Chassis & mast 1.5T	1	28	19060228	Upper bearing socket 1.5T	2
3	19060203	Cylinder assy. 1.5T/2M	1	29	19060229	Inner mast for 1.5T	1
	19060203-1	Cylinder assy. 1.5T/2.5M	1	30	19060230	Cover of roller $\phi 72 \times 30$ 1.5T	2
	19060203-2	Cylinder assy. 1.5T/3M	1	31	19060231	Circle 25	4
4	19060204	Handle assy.	1	32	19060232	Net M16	6
5	19060205	Bolt M10×25	2	33	19060233	Chain connector	2
6	19060206	Spring Washer 10	2	34	19060234	Spring pin $\phi 5 \times 30$	4
7	19060207	Cover	2	35	19060235	Spring pin $\phi 1.2 \times 16$	8
8	19060208	Bearing 6205	8	36	19060236	Chain for 3m lifting height	2
9	19060209	Steering wheel assy.	2		19060236-1	Chain for 2m lifting height	2
10	19060210	Wheel rack	2		19060236-2	Chain for 2.5m lifting height	2
11	19060211	Nut M12	2	37	19060237	Chain roller	2
12	19060212	Push Cover	4	38	19060238	Circlip 52	2
13	19060213	Steering Wheel	2	39	19060239	Load wheel $\phi 78 \times 60$	4
14	19060214	Axle Cover	2	40	19060240	Shaft for load wheel	4
15	19060215	Bearing 6204	12	41	19060241	Blocking column	2
16	19060216	Bolt M12×100	2	42	19060242	Cover of roller $\phi 107.2 \times 32$	6
17	19060217	Flat Washer 10	2	43	19060243	Bearing 6206	6
18	19060218	Spring Washer 10	2	44	19060244	Circlip 30	6
19	19060219	Bolt M10x25	2	45	19060245	Circlip 62	6
20	19060220	Bolt M6×15	4	46	19060246	Steel ball 12.0000G16b	6
21	19060221	Washer	4	47	19060247	Mandrel	2
22	19060222	Screw M12×20	10	48	19060248	Circlip 20	12
23	19060223	Connect bolt	2	49	19060249	Connected block	4
24	19060224	Nut M20×1.5	2	50	19060250	Push Cover	8
25	19060225	Spring	2	51	19060251	Fork assy. 1.5T	1
26	19060226	Position rod	2				