

Instruction Manual

WINCH STACKER

CAPACITY: 80kg 150kg



LIFTING HEIGHT: 1100mm

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

IMPORTANT

Please read, understand and follow these safety rules and operating instructions before operating this machine.

Only trained and authorized personnel should be permitted to operate this machine.

1. Safety Rules



Warning

Failure to obey the instructions and safety rules in this manual may result in death or serious injury.

1.1 Do Not Operate Unless:

1) You learn and practice the principles of safe machine operation contained in this operating manual.

- Avoid hazardous situations.
- Always perform a pre-operation inspection.
- Always perform the function tests prior to use.
- Inspect the workplace.
- Only use the machine as a material lift.

2) You read, understand and obey:

- Manufacturer's instructions and safety rules
- Employee's safety rules and worksite regulations
- Applicable governmental regulations

1.2 To Avoid Hazardous Situations:

1) Fall Hazard

Do not use a personnel lifting platform or step.

2) Tip-over Hazards

Do not overload the winch stacker.

Do not raise the load unless the machine is on a firm, level surface.

Do not move the machine with a raised load, except for minor positioning.

Do not tilt the machine back with a raised load.

Do not operate the machine in strong or gusty winds.

Prior to use, check the work area for drop-offs, holes, bumps, debris, unstable surfaces or other possible hazardous conditions.

Do not subject the machine to horizontal force by raising or lowering a fixed or overhanging load.

Users refer to prEN1005-3 for further guidance.

If the load exceeds the actual operational capacity, the operator must be assisted by one or more persons.

The machine can be only used in the light environment of at least 50 lux.

3) Collision Hazards

Do not lift if the load is not properly centred on the forks.

Check the work area for overhead obstruction or other possible hazards.

Do not stand under or allow personnel under the machine when the load is raised.

Do not lower the load unless the area below is clear of personnel and obstructions.

4) Bodily Injury Hazards

Do not grasp the cable.

Keep hands and fingers away from pulleys, the carriage and other potential pinch points.

Recommended operators to wear safety shoes and gloves.

Do not put the hands or feet under the forks to avoid any damages when using the machine.

5) Improper Use Hazard

Never leave a machine unattended with a load. Unauthorized personnel may attempt to operate the machine without proper instruction, creating an unsafe situation.

6) Damaged Machine Hazards

Do not use a damaged or malfunctioning machine.

Do not use a machine with a worn, frayed, kinked or damaged cable.

Do not use a machine with less than 4 wraps of cable on the winch drum when the carriage is fully lowered. If you see the red mark on the cable, at least 4 wraps are on the winch drum.

Conduct a thorough pre-operation inspection prior to each use.

Be sure that all decals are in place and legible.

Maintain proper lubrication of the winch.

7) Crushing Hazard

Do not release grasp on the winch handle until the brake is locked.

8) Lifting Hazard

Use proper lifting techniques to load the machine.

9) Other Items

When pushing the machine on the rough floor the force will be bigger.

Pay attention to the balance of the goods to avoid their turning over when lifting them.

Do pay attention to avoid the goods turn over towards the back when using the machine on a slope.

2. Pre-operation Inspection

The operator should perform a visual inspection prior to each work shift to discover if anything is wrong with a machine.

2.1 Be sure that the instruction manual is complete, legible and available for reference.

2.2 Be sure that all decals are legible and in place.

2.3 Checking the following components or areas for damage and improperly installed, loose or missing parts:

- Winch and Related Components
- Base Components
- Legs
- Rollers
- Frame
- Cable Anchor
- Cable and Pulleys
- Casters
- Forks
- Brake System
- Handle
- Nuts, Bolts and Other Fasteners

2.4 Check entire machine for:

- Dents or damage
- Corrosion or oxidation
- Cracks in welds or structural components

2.5 Be sure that there is a minimum of 4 wraps of cable around the winch drum when the carriage is fully lowered.

3. Function Tests

The operator must follow the step-by-step instructions to test all machine functions.

3.1 Test the Brake Operation

- 1) **Press down on the foot pedal to lock the brake.**
- 2) **Push the machine. The machine should not move.**
- 3) **Pull up on the foot pedal to release the brake.**
- 4) **Push the machine. It should now move freely.**

3.2 Test the Winch Operation

- 1) **Rotate the winch handle clockwise to raise the carriage.**

The carriage should rise to the top of the column. The carriage should move smoothly, free of hesitation and binding.

- 2) **Rotate the winch handle counterclockwise to lower the carriage.**

The carriage should lower into the column. The carriage should move smoothly, free of hesitation and binding.

* There are several layers of cable on the drum. During the course of raising and lowering, the noise the cable makes will change, as more or less cable is wound onto the drum. This change in sound is perfectly normal. It will not affect the functions of the machine.

Note:

A damaged or malfunctioning machine must never be used. If damage or malfunctions are discovered during pre-operation inspection or function tests, the machine must be tagged and removed from service.

Repairs to the machine may only be made by a qualified service technician and according to the manufacturer's instructions.

After repairs are completed, the operator must perform a pre-operation inspection and function test again before putting the machine into service.

Not do modifications shall be carried out which adversely affect any safety requirements and the compliance of the truck with this standard (EN1757-1).

4. Workplace Inspection

To operate the machine safely, the operator should inspect the workplace prior to moving the machine to the workplace.

Be aware of and avoid the following hazardous situations:

- 1) Drop-offs or holes
- 2) Bumps and floor obstructions
- 3) Debris
- 4) Overhead obstructions and high voltage conductors
- 5) Hazardous locations
- 6) Inadequate surface support to withstand all load forces imposed by the machine
- 7) Wind and weather conditions
- 8) All other possible unsafe conditions

5. Operating Instructions

The working grade of the winch stacker : 1BM.

Warning: pay attention to the winch lever kick back when in lifting will cause a risk.

- The machine shall not be used on gradients due to possible excessive efforts and loss of control.
- The machine shall not be used in places insufficiently illuminated.
- The machine shall not be used to lift or to transport persons.
- The machine shall not be used as a vehicle jack.
- The extremity of fork arms shall not be used as a lever to lift a load.
- The machine shall not be used in applications where a risk of exceeding the rated capacity exists.
- The machine shall not be used in applications where a risk of unintentional movement exists.
- The machine shall not be used for handling free swinging loads.
- The machine shall not travel with its fork arms in the upper position except for loading and unloading operations.

- The machine shall not have direct contact with foodstuffs.
- The machine shall not be used in a potentially explosive atmosphere.
- Using the machine for any purpose other than lifting material is unsafe.

5.1 Raising and Lowering Load

- 1) Centre the load on the forks.
- 2) Raise the load by firmly grasping the winch handle and rotating it clockwise. Do not allow the cable to wind unevenly onto the winch drum.
- 3) Lower the load by firmly grasping the winch handle and rotating it counterclockwise. After lowering to the desired position, loosen the winch handle.

5.2 Moving Machine With a Load

It is best to move the machine without load. Moving a raised load should be restricted to positioning for loading and unloading. If it is necessary to move the machine with a raised load, understand and obey the following safety rules:

- 1) Area is level and clear of obstructions.
- 2) Load is centred on the forks.
- 3) Avoid sudden starts and stops.
- 4) Travel with load in the lowest possible position.
- 5) Keep personnel away from machine and load.
- 6) Do not tilt the machine back with a raised load.
- 7) The machine shall be moved slowly and smoothly.
- 8) While moving no part of the fork arms or of the load shall come into contact with an obstacle.
- 9) During moving neither the fork arms nor the load shall rest upon an obstacle.

6. Maintenance, repair & placement of this machine:

The maintenance, repair shall be carried out by a trained qualified mechanic.

6.1 Routine maintenance

Routine maintenance of the machine will prolong the working life of this machine. For the frequency of maintenance please refer to the following table.

Items	Inspection Content	Cycle		
		1month	6months	12months
Chassis	Check the loading parts		●	
Front and rear roller	Check wearing of the bearing and bearing housing	●		
Turning	Check whether it turns properly	●		
Winch device	Check whether the transmission of gears is proper	●		
Lifting cable	Check whether it is loosen, kinked or worn.	●		
Brake	Check whether it functions properly	●		
Moveable parts	Check lubrication & wearing	●		

6.2 Placement while store

After work is over, the stacker shall be kept in a dry room and the forks shall be placed to its lowest position. The stacker shall be kept on firm flat floor without any load. During placement, the brakes of the stacker shall be on.

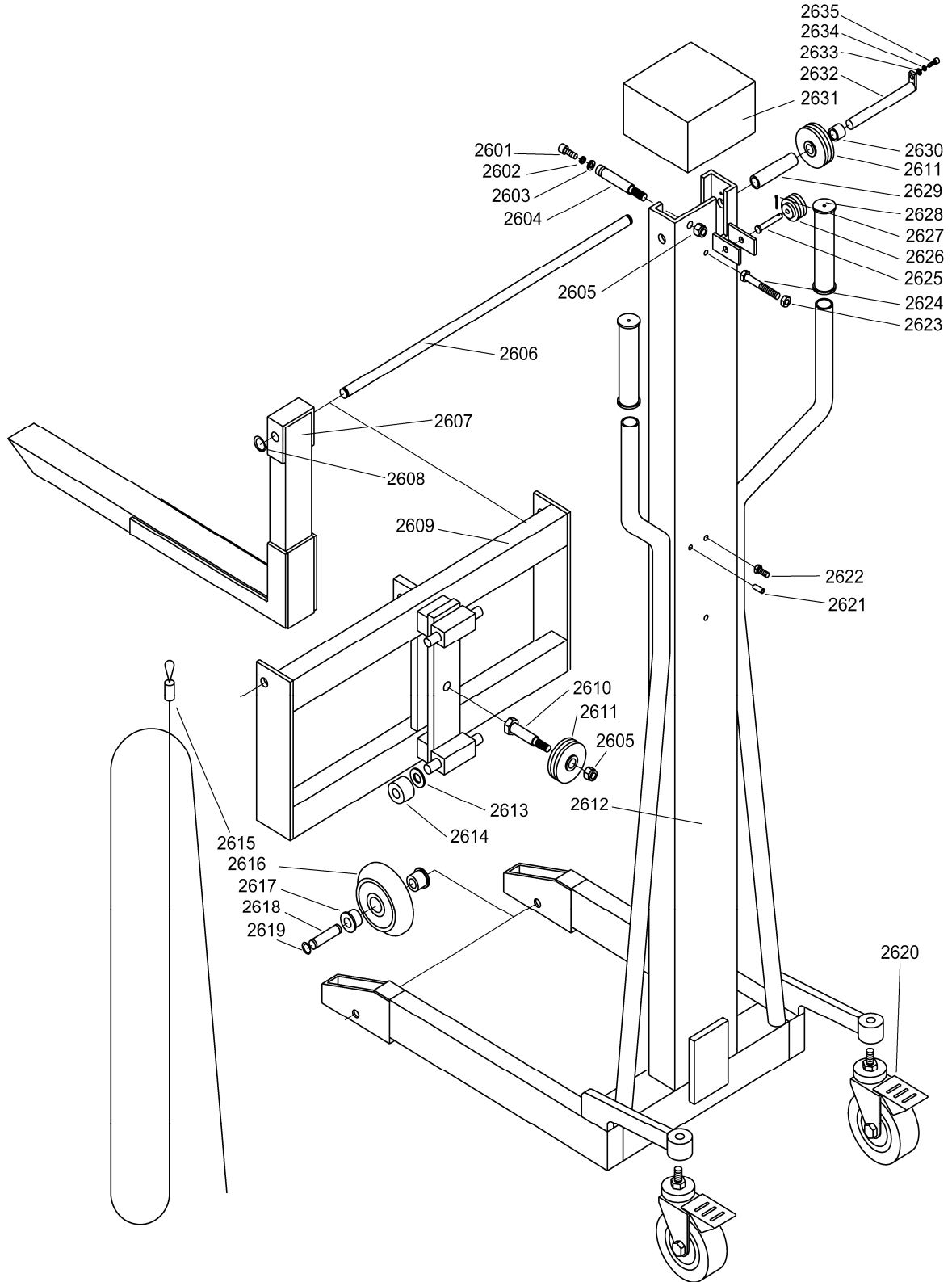
7. Specifications

Model	LS80	LS150
Capacity	80 kg	150 kg
Load centre	250 mm	250 mm
Max. fork height	1100 mm	1100 mm
Min. fork height	70 mm	70 mm
Lifting height range	105~1100 mm	105~1100 mm
Individual Fork width	60 mm	60 mm
Fork length	500 mm	500 mm
Max. Overall fork width	520 mm	520 mm
Load roller	Ø100×30 mm	Ø100×30 mm
Steering wheel	Ø100×30 mm	Ø100×30 mm
Overall length	865 mm	840 mm
Overall width	550 mm	580 mm
Overall height	1470mm	1475 mm
Net weight	52 kg	62 kg
Cable diameter	3.6 mm	3.6 mm
Cable capacity	1860 MPa	1860 MPa

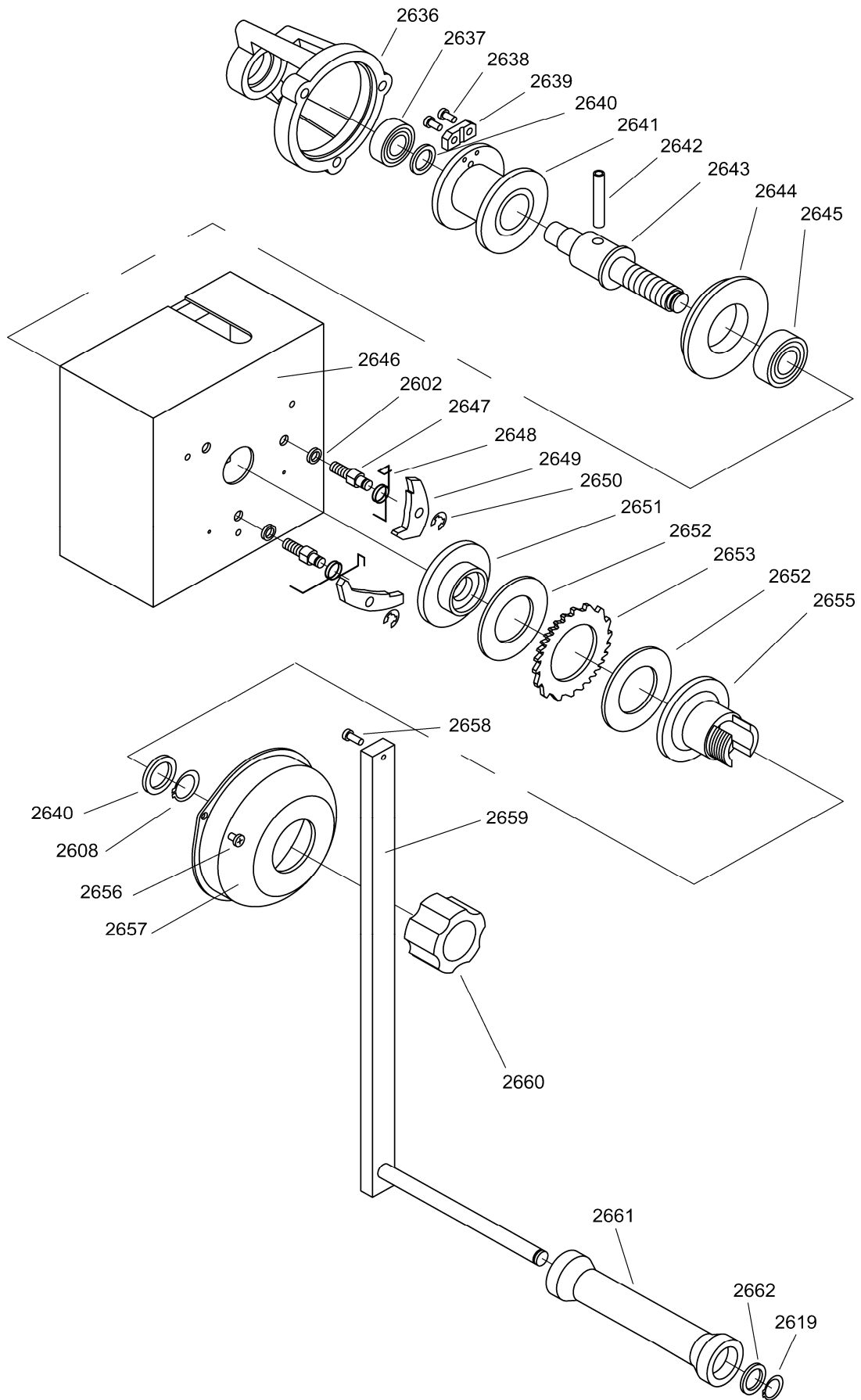
8. Troubles Shooting

NO	TROUBLE	CAUSE	ACTION
1	Turn the handle, the carriage does not lift up.	-The cable is improperly installed or loose. -The internal thread of the chain pulley is damaged.	-Check the installing position of the cable. -Replace the chain pulley.
2	The carriage does not self-lock after lifting up.	-The friction plate is worn. -The interval between nut bushing and friction washer is too large.	-Replace the friction plate. -Adjust the interval.
3	The carriage does not descend after lifting up.	-Ratchet and pawl are worn and binding. -The carriage is seriously deformed with load resulting from shock.	-Replace the ratchet and pawl. -Correct the carriage or replace the carriage.
4	The carriage does not move smoothly.	-The locking spring does not work. -The load is not correctly centred.	-Replace the spring. -Centre the load correctly.

Frame of LS80



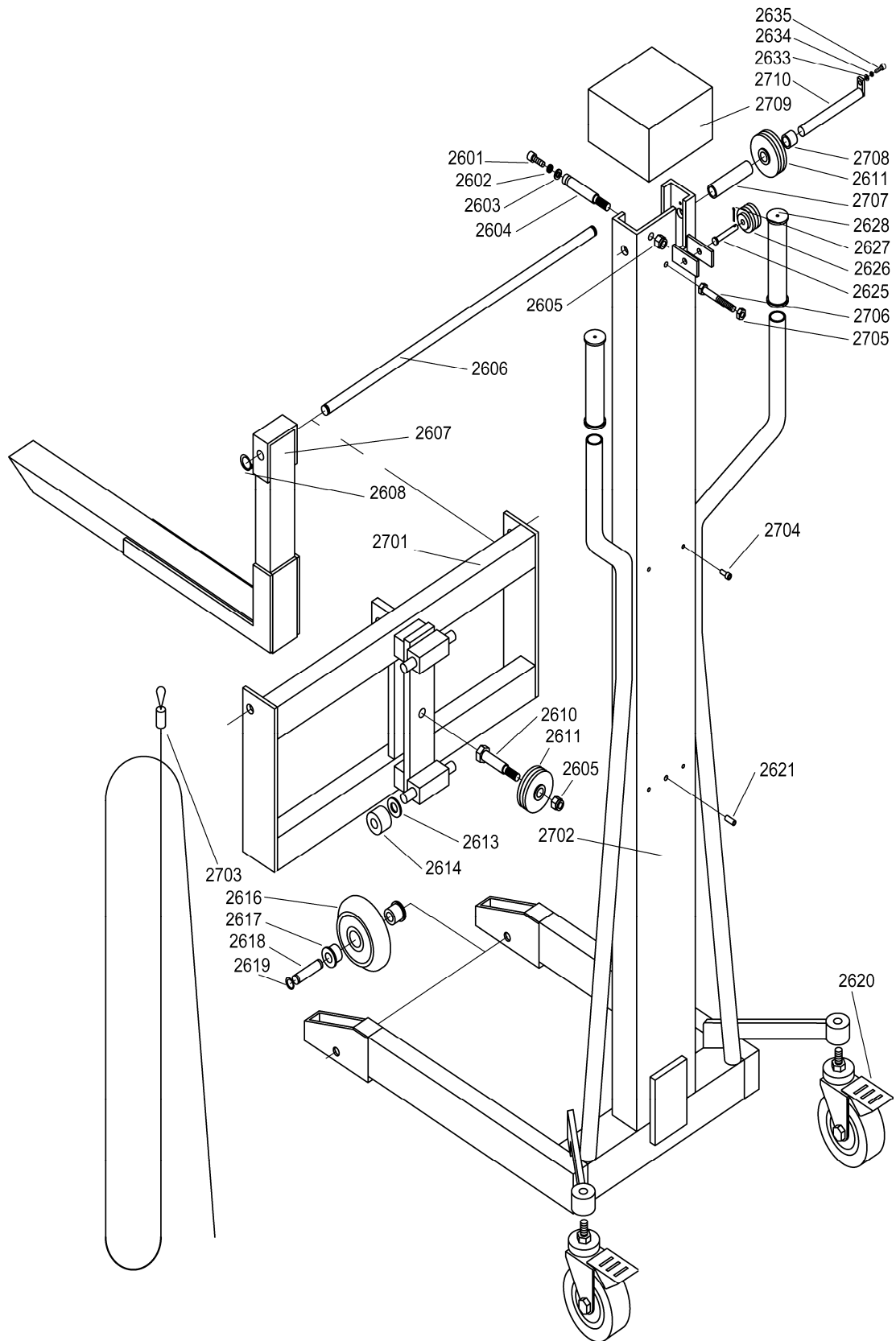
Winch of LS80



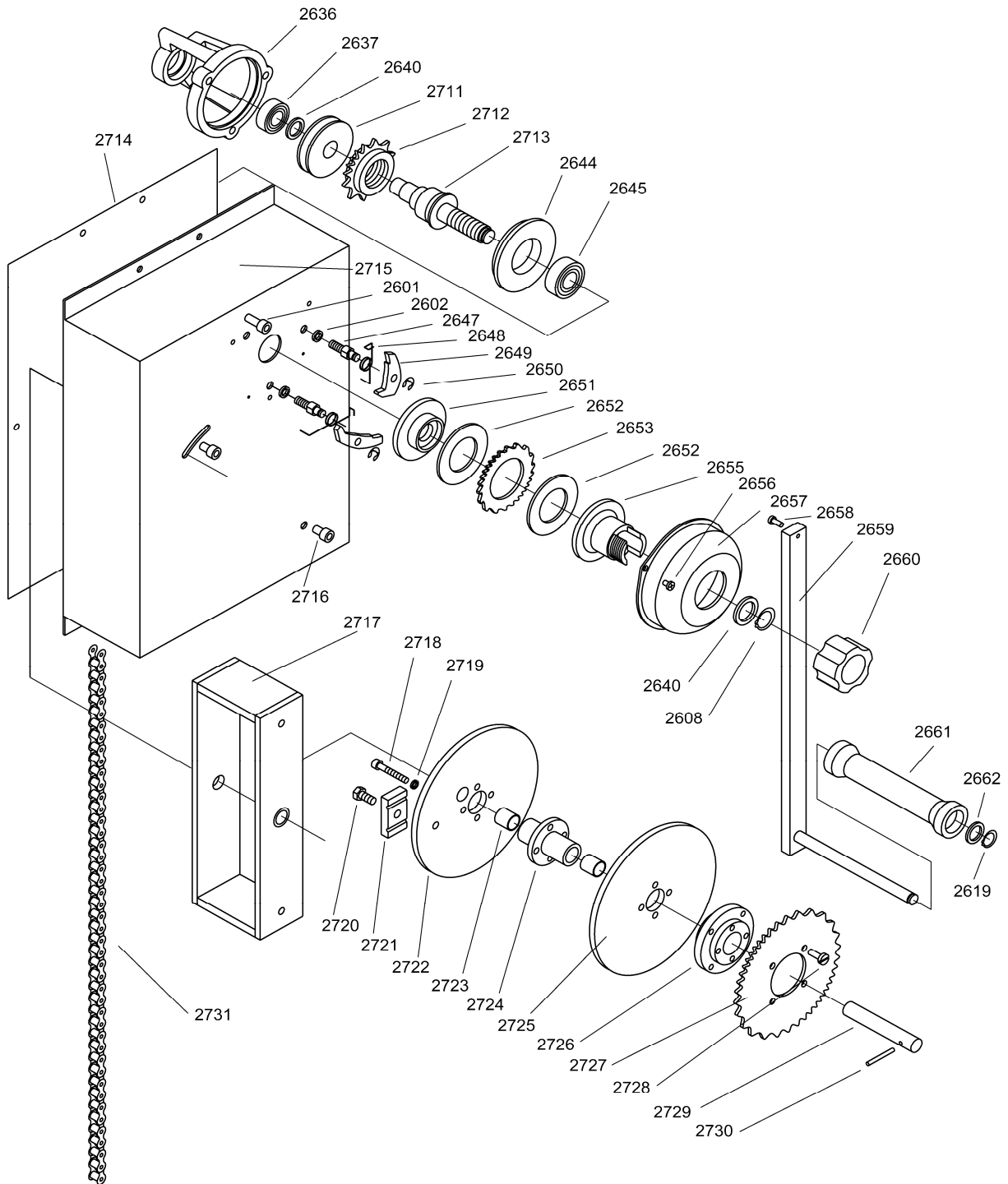
Parts List of LS 80

Parts No.	Description	Q'ty	Parts No.	Description	Q'ty
2601	Hexagon socket screw	1	2632	Axle	1
2602	Spring washer	6	2633	Washer	1
2603	Washer	4	2634	Spring washer	1
2604	Axle	1	2635	Hexagon socket screw	1
2605	Locking nut	2	2636	Bracket	1
2606	Carriage rod	1	2637	Bearing	1
2607	Fork assembly	2	2638	Screw	2
2608	Retaining ring	3	2639	Pressure plate	1
2609	Carriage assembly	1	2640	Washer	2
2610	Bolt axle	1	2641	Drum	1
2611	Pulley I	2	2642	Spring pin	1
2612	Frame assembly	1	2643	Screw rod shaft	1
2613	Washer	4	2644	Fill plate	1
2614	Pulley	4	2645	Bearing	1
2615	Cable and cable clip	1	2646	Base	1
2616	Load roller	2	2647	Screw rod	2
2617	Nylon bushing	4	2648	Torsion spring	2
2618	Roller axle	2	2649	Pawl	2
2619	Retaining ring	5	2650	Split retaining ring	2
2620	Steering wheel with brake	2	2651	Nut cushion	1
2621	Spring pin	1	2652	Friction washer	2
2622	Hexagon head screw	3	2653	Ratchet	1
2623	Nut	1	2655	Nut casing	1
2624	Hexagon head bolt	1	2656	Screw	3
2625	Pin	1	2657	Roller cover	1
2626	Pulley II	1	2658	Screw	1
2627	Split pin	1	2659	Handle	1
2628	Handle bar casing	2	2660	Knob	1
2629	Casing	1	2661	Handle casing	1
2630	Casing	1	2662	Washer	1
2631	Top plate assembly	1			

Frame of LS150



Winch of LS150



Parts List of LS 150

Parts No.	Description	Q'ty	Parts No.	Description	Q'ty
2601	Hexagon socket screw	2	2656	Screw	3
2602	Spring washer	8	2657	Roller cover	1
2603	Washer	1	2658	Screw	1
2604	Axle	1	2659	Handle	1
2605	Locking nut	2	2660	Knob	1
2606	Carriage rod	1	2661	Handle casing	1
2607	Fork assembly	2	2662	Washer	1
2608	Retaining ring	3	2701	Carriage assembly	1
2610	Bolt axle	1	2702	Frame assembly	1
2611	Pulley I	2	2703	Cable and cable clip	1
2613	Washer	4	2704	Hexagon socket screw	4
2614	Pulley	4	2705	Nut	1
2616	Load roller	2	2706	Hexagon head bolt	1
2617	Nylon bushing	4	2707	Casing	1
2618	Roller axle	2	2708	Casing	1
2619	Retaining ring	5	2709	Top plate assembly	1
2620	Steering wheel with brake	2	2710	Axle	1
2621	Spring pin	1	2711	Cable pulley	1
2625	Pin	1	2712	Chain pulley	1
2626	Pulley II	1	2713	Screw rod shaft	1
2627	Split pin	1	2714	Cover plate	1
2628	Handle bar casing	2	2715	Transmission box	1
2633	Washer	1	2716	Hexagon socket screw	2
2634	Spring washer	1	2717	Supporting box	1
2635	Hexagon socket screw	1	2718	Hexagon socket screw	4
2636	Bracket	1	2719	Spring washer	4
2637	Bearing	1	2720	Hexagon socket screw	1
2640	Washer	2	2721	Pressure plate	1
2644	Fill plate	1	2722	Drum side plate I	1
2645	Bearing	1	2723	Bushing	2
2647	Screw rod	2	2724	Winch sleeve	1
2648	Torsion spring	2	2725	Drum side plate II	1
2649	Pawl	2	2726	Chain pulley casing	1
2650	Split retaining ring	2	2727	Chain pulley	1
2651	Nut cushion	1	2728	Screw	4
2652	Friction washer	2	2729	Chain pulley axle	1
2653	Ratchet	1	2730	Spring pin	1
2655	Nut casing	1	2731	Chain	1