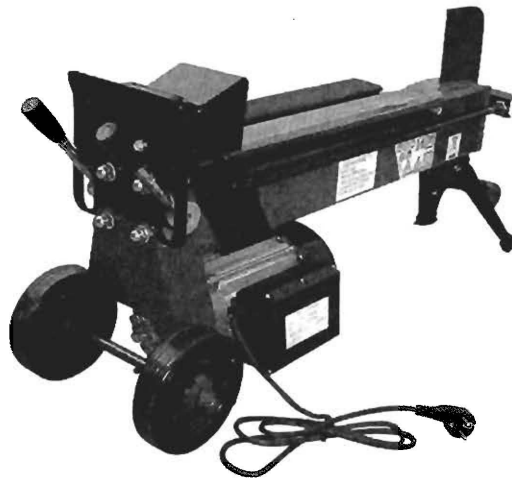


# Log Splitter

## Operation Manual



Please carefully read this operation manual before starting work.



Thank you for purchasing Log Splitter. Please carefully read this operation manual and strictly observe these instructions for the safety of you and the personnel around you. In this manner, you will enjoy long and satisfactory use of this product.

## **GENERAL SAFETY RULES**

### **Warning:**

All the operation and use of the machine may have some risk, but with operator caution this will reduce the risk of injury. also, can result in injury to the operator, remove damage of property.

1. Read and fully understand the operation manual, including the operation and scope of application as well as potential hazards.
2. Check for any damaged parts before use, to ensure the log splitter will operate normally.
3. before you start any maintenance or attempt to replace any parts please ensure the machine is switched off and the plug removed from the socket
4. We advise that you should wear head eye and ear protection - carry on with your wording.
5. Never operate this machine under the influence of alcohol or medicines.
6. Never stand on the machine , therwise there maybe a risk of injured.
7. Never operate this machine without reading the instructions.

Never leave the machine until it stops completely

8. When calibrating or changing the parts or working on the machine, you should pull the power plug out of the outlet.
9. Make sure that the cord is fully protected and ensure no damage from assembly or material.
10. Should keep a safe distance between your hands and the log, and between the pusher and the wedge .If the splitter is turned on , never place your hands into the moving parts of the machine.
11. Never wear jewelry or loose clothes, which can be entangled with the log chips.

## **ELECTRICAL CONNECTION**

Connect the power cord to a standard power supply via an approved plug or suitable protective and isolated switch .The power should meet specifications stated on the nameplate.

### **Extension cable**

If an extension cable is used we recommend the use of a moisture-proof connection.

This cable will produce a voltage drop, which can hamper the electrical motor from giving a full power and reduce the machine's performance. The extension cable must comply to the following specifications:

0-10 metre—Diameter of cable—2.5 square millimeters

Never use extension cable exceeding 10 metre.

If in doubt, please inquire a qualified electrician. Never make electrical repair by yourself.

## Symbols used

Standard graphic symbols are used on all machines in order to ensure complete safety of all parts of the Log Splitter. As these symbols are very important, read the information below attentively.



It is obligatory to read the machine's use and maintenance manual in full before using the machine,



It is obligatory to wear safety footwear at all times to provide protection against the risk of logs accidentally falling on feet.



It is obligatory at all times to wear gloves which protect the hands against chips and splinters which may be produced during work.



It is obligatory at all times to wear goggles or a visor which protects the hands against chips and splinters which may be produced during work.



It is forbidden to remove or tamper with the protection devices and safety devices.



It is forbidden to stand in the range of action of the machine ,apart from the operator, no other person or animal may be present within a radius of 5 metre from the machine.



Dumping of used oil in the environment is forbidden. The oil must be disposed of according to current legislation in the country where this operation is carried out.



Danger of cutting or crushing of the Hand :never touch hazardous areas while the wedge is moving.



Warning :always pay attention to the movement of the log pusher.

Warning: never remove a log trapped in the wedge with your hands.



Warning: Before carrying out any maintenance operation described in this manual, disconnect the plug of the machine.



Warning: voltage as indicated on the rating plate



## SPECIAL WARNINGS WHEN USING THE LOG SPLITTER

Using this powerful tool may create special Hazards .Take particular care to safeguard yourself and those around you.

### Hydraulic systems

Never operate this tool if there is a hazard presented by hydraulic system. Before using the splitter ,check for hydraulic leaks. Be sure the tool and your work area are clean and free of oil spills .Hydraulic fluid can create hazards ,causing you to slip and fall ,your hands to slip while using the machine ,on fire hazard.

## Electrical Safety

Never operate this tool if there is an electrical hazard. Never operate an electrical tool in wet conditions. Never operate this tool with an improper electrical cord or extension cord. Never operate this tool unless you are plugged into a properly grounded outlet. Which supplies specified power and is protected by a 16 Amp circuit breaker.

## Physical Hazards

Log Splitting creates special physical Hazards. Never operate this tool unless you are wearing proper safety gloves, hard-toed shoes and the approved eye protection. Be careful of the splinters that will be produced, to avoid injury and split logs, jamming of the tool. Never try to split logs, which are too large or small to fit properly within the tool. Never attempt to split logs containing nails, wire or other debris. Clean up as you work: accumulated split wood and wood chips can create a hazardous work environment. Never continue to work in a cluttered work area, which may cause you to slip, trip or fall. Keep onlookers away from this tool, and never allow unauthorised persons to operate this tool.

## NOTICE:

The safety warnings in this manual are important, however operator common sense should also be applied when using the log splitter

## FEATURES OF THE LOG SPLITTER

1. Portable. Small size, lightweight and built-in wheels make it easy to deliver this powerful tool to the work site.
2. Powerful. 6-ton power delivered by a beefy 30cm hydraulic ram will make short work of your log splitting task.
3. Electric powered. Convenient and reliable electric powered hydraulic system avoids the expense and hassle of maintaining a small gas engine. Just plug it in and start splitting.
4. Hydraulic Ram. Powerful hydraulic ram splits logs in a safe controlled manner, without axes, sledge hammers or wedge.
5. 2-Hand Safety Control. Built-in safety design keeps your hands away from the log and splitter during operation.
6. Durable Steel Construction. Welded steel construction, and enclosed hydraulic ram make this a tough, durable tool you'll use for years

## MAIN SPECIFICATIONS

|                                                        |                                                          |
|--------------------------------------------------------|----------------------------------------------------------|
|                                                        | <b>LS4T-520</b>                                          |
| <b>Electrical motor:</b>                               | <b>120volts/60 hertz 3400 rpm 2horsepower(1500Watts)</b> |
| <b>Max.force:</b>                                      | <b>4Tons</b>                                             |
| <b>Log size capacity:</b>                              | <b>520mm(length) (50-250)mm(diameter)</b>                |
| <b>Ram</b>                                             |                                                          |
| <b>Travel:</b>                                         | <b>400mm</b>                                             |
| <b>Ram</b>                                             |                                                          |
| <b>Diameter:</b>                                       | <b>30mm</b>                                              |
| <b>Hydraulic OIL</b>                                   |                                                          |
| <b>Capacity:</b>                                       | <b>2.9 liters</b>                                        |
| <b>Overall</b>                                         |                                                          |
| <b>Dimensions:</b>                                     | <b>980 mm (length)X270mm ( Width)X520mm(height)</b>      |
| <b>Net Weight:</b>                                     | <b>47kgs</b>                                             |
| <b>Special safety regulations for the log Splitter</b> |                                                          |

## Warning:

This powerful Log Splitter may cause special hazards. Pay special attention to protect yourself and those around you. Must observe basic safety precautions to reduce risk of injury. Please carefully read this operation manual before starting work.

1. This machine must be always be used by one operator only.
2. Never split the logs bigger than the specified log size capacity. The log is not permitted to have nails, which may jump up or damage the machine. The log end surface must be cut level and all the branches must be removed of the trunk. Should split the log along the direction of vein. Never put the log vertically onto the Log Splitter because this may damage the Log Splitter.
3. The operator must handle the control device with both hands and never use other means to operate the control device.
4. The Log Splitter must be operated by the adults who have read this operation manual only. Anybody not reading this manual is forbidden to use this Log Splitter.
5. Position the machine on a support of 60-75cm high, free from any objects that could prevent complete freedom of movement for the operator while working. Therefore we recommend using a special Log Splitter platform. If possible never operate the machine on the ground because this may increase the risk of the injury to the face due to the splinter or rubbish and make the operation difficult.

6. Never split 2 logs at one time otherwise the log may jump up .This is dangerous!
7. Never put or change log when machine in running because this is very dangerous.
8. When the machine is running, please keep bystanders and animals at least 5 metres away from the machine.
9. Never tamper with the electrical or working parts of the log splitter.
10. If you have hard or difficult log to split, never force the log splitter for more than 5 seconds, if this is the case, stop the machine and turn the log 90 degrees and start again. If the log still will not split, stop the machine remove the log and turn again and repeat the process.
11. Never leave the running machine Unattended, If the machine is not working please stop the machine and unplug the power.
12. Never use this machine near the Natural gas, gasoline tank or other flammable materials.
13. Never open switch box or electrical motor cover. If need, contact a qualified electrician.
14. Make sure that the machine and cable are kept away from the water. Take care to handle the cable .Never yank or tear the power cable. Keep the cable away from high temperature ,oil and sharp objects.

15. The specified length / diameter of the log capacity is for reference only:

Log Size capacity:

520 mm (length) x 50 -300 mm ( Diameter)

We recommend the use of the following hydraulic oil for the hydraulic ram:

**SHELL TELLUS T22**  
**ARAL VITAM Gf22**  
**SP ENGERGOL HCP22**

**MOBIL DTELL**  
**Or equivalent oils**

Never use other kinds of oils.

#### **CHECK BEFORE ASSEMBLY**

Take out all of the contents from the carton and ensure you have all the parts, please check for any transit damage to each part before assembly, if you have any damaged parts please contact the sales and helpline for advise.

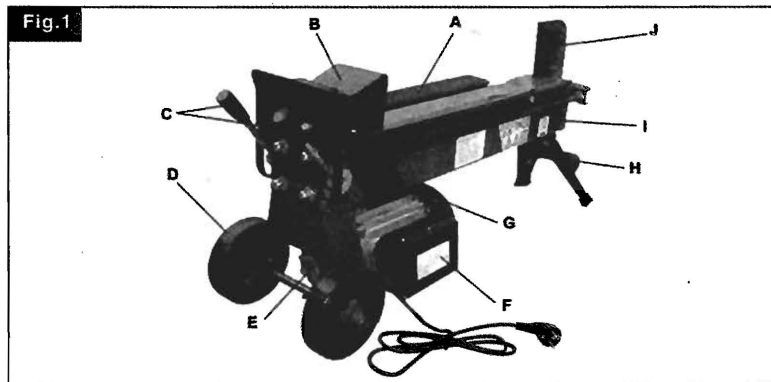


Figure 1: List of major components

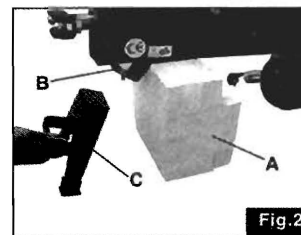
Check these components according to the following list and Figure 1.

- A. Log guiding plates
- B. Log pusher
- C. Operating handle assembly
- D. Wheel and frame
- E. Oil pump
- F. Electrical motor switch
- G. Electrical motor assembly
- H. Supporting feet
- I. Main body
- J. Splitting wedge

All the screws, bolts, washer and jig are in the packing box.(The complete list is on the attached part list).

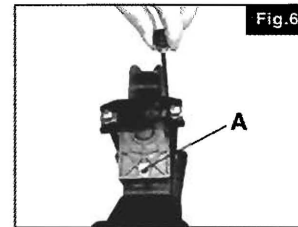
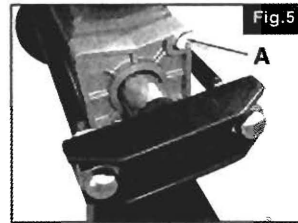
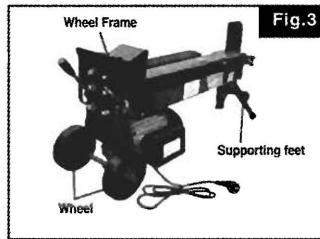
#### INSTALLATION OF WHEEL AND SUPPORTING FEET

Carefully take out the Log Splitter from the packing box with the help of another person and put it onto the foam material on the supporting surface (the foam material in the packing box together with the machine). (See Figure 2)



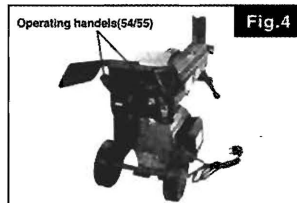
Put the main part on the foam material and fix with 2 screws (21) and 2 nuts (20) and tighten up the supporting feet (19). (See Figure 3)

On the main part that has been fixed on the foam block with the supporting feet. Use safety ring (59) to fix 2 wheels (60) onto the shaft of wheel frame (61). Then use the wheel shaft cover (58) to cover the wheels. Made sure that the wheels are not obstructed and turn uniformly. (See Figure 3)



Installation of operating handle  
Take out the operating handles (54/55) from the carton, and screw them onto the receiving hole (52) of the handles/ then tighten up. (See Figure 4)

Now the Log Splitter is ready for work



## OPERATION

1. Plan your work site. Work safely and save effort by planning your work before hand. Have your logs positioned where they can be easily reached. Have a site located to stack the split wood or load it onto a nearby truck or other carrier.
2. Prepare the logs for splitting. This splitter accommodates logs up to 520mm in length. When cutting large sections, do not cut sections any longer than the specified length. Do not attempt to split green logs. Dry, seasoned Logs split much more easily. and will not jam as frequently as green wood (moisture).
3. Route the power cable, and locate an appropriate power outlet. If required use an adequate extension cable. Route the cable from your power source in a safe way, so that you avoid damaging the cable during the working process and persons tripping.

4. Position the log splitter securely and on level ground or a secure stand. If necessary block the wheels to prevent the log splitter from moving during use.

solid supporting platform, 60-70cm high without any objects on it. Which could prevent complete freedom of movement for the operator while working. Never operate the machine on the ground because this may arise the risk of the injury to the face due to the splinter or rubbish and make the operation difficult. Therefore we recommend using a special Log Splitter platform. If necessary, block the wheels with wedges to prevent them from rolling.

5. Open the Air Bleed (A in Figure 5). Loosen the BLEED SCREW (14) 3-4 turns whenever the splitter is being used. Retighten this screw when you are finished.
6. Place log onto Splitter, lengthwise and lying flat on the Main Body (1 in Figure 1). The log should lie flat on the Splitter. And be cradled by the Log Guiding Plates (A in Figure 1). Never attempt to split a log at an angle. Be sure the Wedge (J in Figure 1) and Log Pusher (B in Figure 1) will contact the log squarely on the ends.
7. Two hand operation. Depress the Electric Motor Start Switch (Point F in Figure 1) with one hand. Wait a few seconds as the motor spins up and creates pressure in the Hydraulic pump. Then, when it is safe to do so, Depress the Operating Handle (C in Figure 1). The Log Pusher (B in Figure 1) will compress the log, pushing it against the Wedge (J in Figure 1), Splitting the log. Once the log is split, release both the Electric Motor Start Switch (F in Figure 1) and the Operating Handle (C in Figure 1); this will allow the Log Pusher (B in Figure 1) to retract.

**Warning:** If the log does not split immediately, do not force it by maintaining the thrust for more than a few seconds. This can damage the tool. It is better to try repositioning the log on the splitter, or setting the log aside.

8. Stack as you work. This will provide a safer work area. By keeping it uncluttered, and avoid the danger of tripping, or damaging the power cable.

9. See point and question 5.

#### HOW TO FREE A JAMMED LOG

1. Release both controls, so that the LOG PUSHER (Pos. B in Fig 1) will be fully retracted.
2. Insert a triangular wedge of wood under the log, and activate the log pusher to push the wedge under the jammed log.
3. Repeat this process using progressively larger wedges, until the jammed log is freed.

**Warning:** Never hammer on a jammed log, or place your hands near the log when attempting to free a jammed log.

- When attempting to free a jammed log, never ask other people to tamper with the machine.
- When the supporting feet is blocked, never attempt to take it out by striking with a tool. This may break the motor assembly.

#### Sharpening the Wedge

1. After long periods of operation, and when required, sharpen the wedge using a fine-toothed file and carefully. Remove any burrs or rough spots that might have developed on the edge.

**Warning!**

Be sure to unplug the power before any maintenance work!

**Changing the Hydraulic oil**

(The quantity of the hydraulic oil and recommended type have been indicated on page 5).

1. Make sure the LOG PUSHER (B in Figure 1) is fully retracted.
2. Unscrew the DIP STICK (10) and remove it together with O-type oil seal (11).(Figure 6)
3. Position a container under the Log Splitter that will hold at least 4 liters of oil. Then tilt the machine to empty the oil into the container.
4. Tilt the Log Splitter the other way, with the Oil Fill/Drain Port (in Figure 7) up. Using a clean funnel, pour the Hydraulic Oil into the hydraulic oil cylinder with the volume specified at Page 4. (Be sure to use only clean, high quality hydraulic oil specifically made for this purpose.)
5. Clean the DIP STICK (10), and insert it to make sure the oil level is between the two marks on the dipstick.



6. Clean the DIPSTICK (10) and O-Type SEAL (11) and re-install. Be careful not to damage the threads of the aluminum OIL CYLINDER COVER.

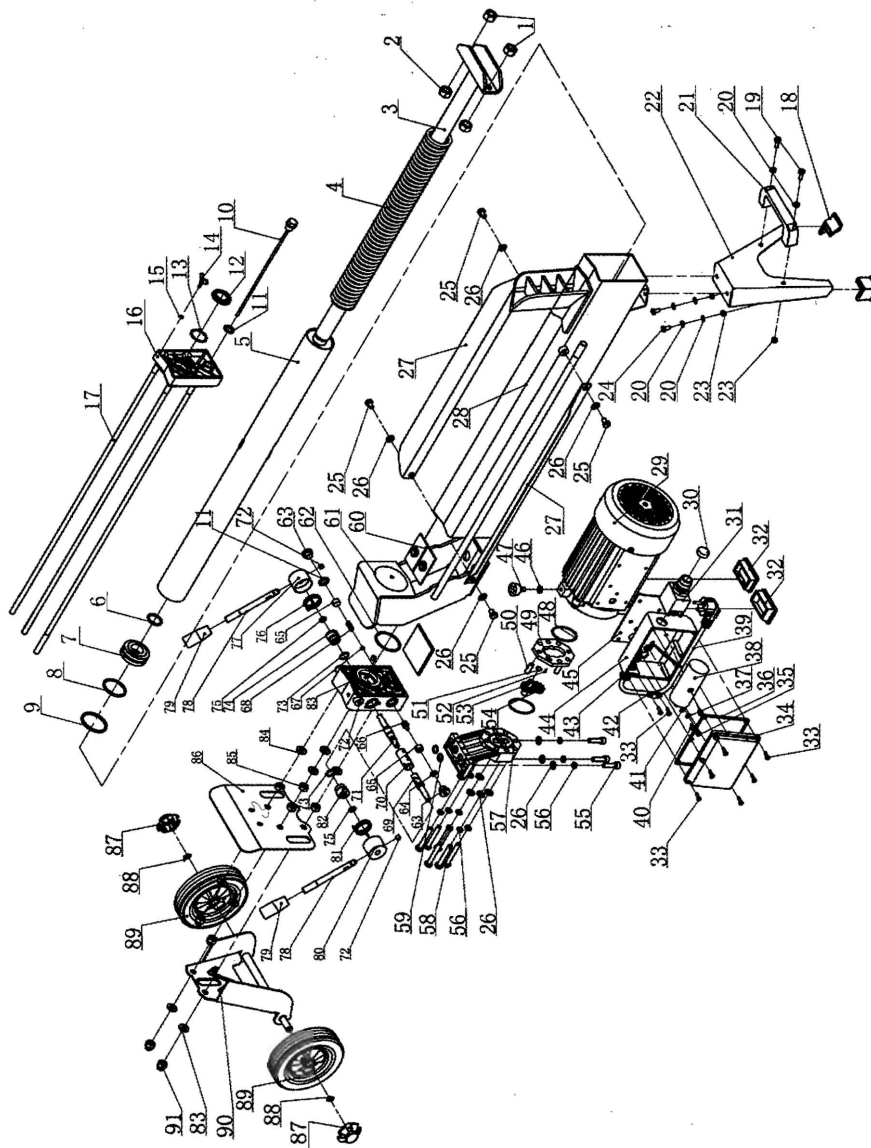
**Warning!**

Be sure to dispose of the dirty oil properly. Take it to your local, waste oil-recycling center. Never dispose it on the ground or mix it with household rubbish.

### Trouble-shooting

Problems that may arise when using the log splitter and recommended actions are shown in the table below. In the case that operation is carried out by unauthorised operators the guarantee is null and void, and the manufacture is not responsible for any injury to the operator , bystanders, animals or damage.

| Problem                                                          | Probable cause                                                                                                                                                                              | Corrective action                                                                                                                                                                                                                                 |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Log fails to split                                               | Incorrect positioning of the log<br>Log exceeds permitted dimensions or the wood is too hard for the capacity of the machine.<br>Wedge do not cut<br>Oil leak<br>Hydraulic pressure too low | Position correctly the log<br>Try to cut a small part or use other means to reduce the size of the log<br>Sharpen the wedge, check for burrs or nicks, file if necessary<br>Locate the leak using a piece of card or wood.<br>Contact your dealer |
| Log Pusher/Cam advances jerkily or with strong upward vibrations | Air in the circuit                                                                                                                                                                          | Check oil level. Fill oil if necessary.<br>If problem remain,contact your dealer.                                                                                                                                                                 |
| Oil leak from the Cams or from other external points             | Leakage form the tank<br>Seals worn                                                                                                                                                         | Check that the bleed screw has been unscrewed before using the machine.<br>Contact your dealer                                                                                                                                                    |



| No. | Description                     | Qty |
|-----|---------------------------------|-----|
| 1   | Nut M14                         | 2   |
| 2   | Hexagonal nut M14               | 2   |
| 3   | Hammer ram                      | 1   |
| 4   | Spring                          | 1   |
| 5   | Cylinder                        | 1   |
| 6   | O-ring oil seal 25x3.55         | 1   |
| 7   | Piston                          | 1   |
| 8   | O-ring oil seal 43.7x3.55       | 1   |
| 9   | O-ring 55                       | 1   |
| 10  | Dip stick                       | 1   |
| 11  | O-ring oil seal 14              | 2   |
| 12  | DH dustproof seal DH30          | 1   |
| 13  | O-ring oil seal 30x2.65         | 1   |
| 14  | Bleed screw                     | 1   |
| 15  | O-ring oil seal 8x1.9           | 1   |
| 16  | Oil cylinder cover              | 1   |
| 17  | Screw stud M10                  | 4   |
| 18  | Supporting foot cover           | 2   |
| 19  | Philips screw M6x20             | 2   |
| 20  | Gasket 6                        | 6   |
| 21  | Carrying handle                 | 1   |
| 22  | Supporting foot                 | 1   |
| 23  | Nut M6                          | 4   |
| 24  | Screw M6x12                     | 2   |
| 25  | Screw M8x12                     | 4   |
| 26  | Gasket 8                        | 13  |
| 27  | Log guiding plate               | 2   |
| 28  | Main body                       | 1   |
| 29  | Electric Motor                  | 1   |
| 30  | Switch dust shield              | 1   |
| 31  | Switch                          | 1   |
| 32  | Rubber support for motor        | 2   |
| 33  | Nut M4x16                       | 8   |
| 34  | Switch case cover               | 1   |
| 35  | Philips screw M5x6              | 1   |
| 36  | Waterproof seal for switch case | 1   |
| 37  | Spring washer 5                 | 1   |
| 38  | Capacitor                       | 1   |
| 39  | Cord                            | 1   |
| 40  | Philips screw M5x8              | 3   |
| 41  | Gasket 5                        | 4   |
| 42  | Cord pressed plate              | 1   |
| 43  | Faucet                          | 1   |
| 44  | Switch case                     | 1   |
| 45  | Waterproof seal for switch case | 1   |
| 46  | Hexagonal nut (thin) M8         | 1   |

| No. | Description                   | Qty |
|-----|-------------------------------|-----|
| 47  | Motor supporting (up)         | 1   |
| 48  | O-ring oil seal 50x2.4        | 2   |
| 49  | Gear chamber                  | 1   |
| 50  | Fixing pin                    | 2   |
| 51  | Gasket for axle 11            | 2   |
| 52  | Column pin 2.5                | 1   |
| 53  | Gear axle                     | 1   |
| 54  | Gear                          | 2   |
| 55  | Inner hexagonal nut M8x30     | 3   |
| 56  | Washer 8                      | 9   |
| 57  | Oil pump cover                | 1   |
| 58  | Bolt M8x55                    | 6   |
| 59  | O-ring oil seal 16x2.4        | 2   |
| 60  | Plastic slide                 | 2   |
| 61  | Log pusher                    | 1   |
| 62  | O-ring seal oil 55x3.1        | 1   |
| 63  | Nut for outer valve           | 2   |
| 64  | O-ring oil seal 14x1.9        | 1   |
| 65  | Nut for inner valve           | 2   |
| 66  | Valve fixer                   | 1   |
| 67  | Steel ball for valve $\phi 6$ | 1   |
| 68  | Adjustable pressure spring    | 1   |
| 69  | Valve core (right)            | 1   |
| 70  | Valve cover                   | 1   |
| 71  | Valve core (left)             | 1   |
| 72  | Fixing screw M8x8             | 3   |
| 73  | O-ring oil seal 20x2.4        | 2   |
| 74  | Nut (left)                    | 1   |
| 75  | O-ring oil seal 14x2.4        | 2   |
| 76  | Handle fixer spring (left)    | 1   |
| 77  | Handle fixer (left)           | 1   |
| 78  | Handle bar                    | 2   |
| 79  | Handle bar cover              | 2   |
| 80  | Handle fixer (right)          | 1   |
| 81  | Handle fixer spring (right)   | 1   |
| 82  | Nut (right)                   | 1   |
| 83  | Valve                         | 1   |
| 84  | Gasket 10                     | 8   |
| 85  | Hexagonal nut M10             | 4   |
| 86  | Handle protector              | 1   |
| 87  | Axle cover                    | 2   |
| 88  | Gasket for axle 11            | 2   |
| 89  | Wheel                         | 2   |
| 90  | Wheel frame                   | 1   |
| 91  | Cover nut                     | 4   |
|     |                               |     |