




PETRO LOG SPLITTER

Owner's Manual

Log splitter: Outdoor product that splits wood logs for use as fuel in a fireplace or a woodstove.

	 WARNING
	<p>Read this manual.</p> <p>Serious injury or death can result if safety instructions are not followed.</p>

	<p>Engine is shipped without oil.</p> <ul style="list-style-type: none">-Before starting engine, fill with SAE 10W-30 motor oil.-See engine manual for engine oil capacity.
	<p>Hydraulic Oil Tank is shipped without oil.</p> <ul style="list-style-type: none">-When add oil, Verify oil level is 1 from top of hydraulic reservoir (not including fill neck). <p>Closely inspect all log splitter components.</p> <ul style="list-style-type: none">-If you have damaged components then: contact the freight company that delivered the unit and file a claim.

Hazard Signal Word Definitions









	<p>This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.</p>
	<p>DANGER (red) indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.</p>
	<p>WARNING(orange) indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.</p>
	<p>CAUTION(yellow) indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.</p>
<p>CAUTION</p>	<p>CAUTION(yellow) used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.</p>

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Important safety Rules



WARNING

1.) Read this manual completely.

Serious injury or death can result if safety instructions are not followed.

Everyone who operates the log splitter must read and completely understand all safety rules, operating instructions, and maintenance instructions, and maintenance instructions.

You must be 16 or older to operate this machine. Keep untrained people away.

-Shut engine off before leaving log splitter unattended.

2.) Crush Hazard.

Wedge can cut through skin and break bones. Keep both hands away from wedge and endplate.

-Serious accidents can happen when other people are allowed inside the work zone. Keep everyone else out of the work zone while operating control valve.

-Do not wear loose clothing. It can get tangled in moving parts of log splitter.

-Only use the log splitter in daylight so you can see what you are doing.

3.) Flying objects.

Pieces of log may fly out while splitting. Wear safety glasses. Serious eye injury can occur.

4.) Skin injection hazard.

High pressure fluid can inject under skin resulting in serious injury including amputation.

-Make sure all fitting are tight before applying pressure. Relieve system pressure before servicing.

-Do not check for leaks with hand. Instead, use a piece of cardboard to check for leaks.

-If skin injection happens, seek immediate "Surgical Treatment".

Save These Instructions



Important safety Rules



WARNING

6.) Risk of fire and explosion

Hot exhaust fumes from engine can cause fire. Gasoline is highly flammable and explosive. You can be burned or seriously injured when handling fuel.

-Position muffler at least 7 feet from combustible objects.

-Before adding fuel, stop the engine and keep heat, sparks, and flame away.

Do not add fuel when engine is running or still hot. No smoking near engine.

-Do not pump fuel directly into engine at gas station. Static charge can build and ignite fuel. Use a UL approved fuel container to transfer gas to the engine. Wipe up fuel spills immediately.

-Only store and handle fuel outdoors. Gasoline vapors can ignite if they collect inside an enclosure. Explosion can result.

-Do not change or add to exhaust systems. Fire can result.

-Do not change or add fuel tanks or fuel lines. Fire can result.

-Before each use, check fuel tank and fuel lines for leaks. Any fuel leak is a fire hazard. Fix any fuel leaks before starting engine.

-During transportation take precautions to make sure machine will not tip over and cause a fuel leak fire hazard.



7.) Breathing hazard.

Poisonous fumes from engine can kill you. Do not operate indoors even if Ventilated. For outdoor use only.



CAUTION

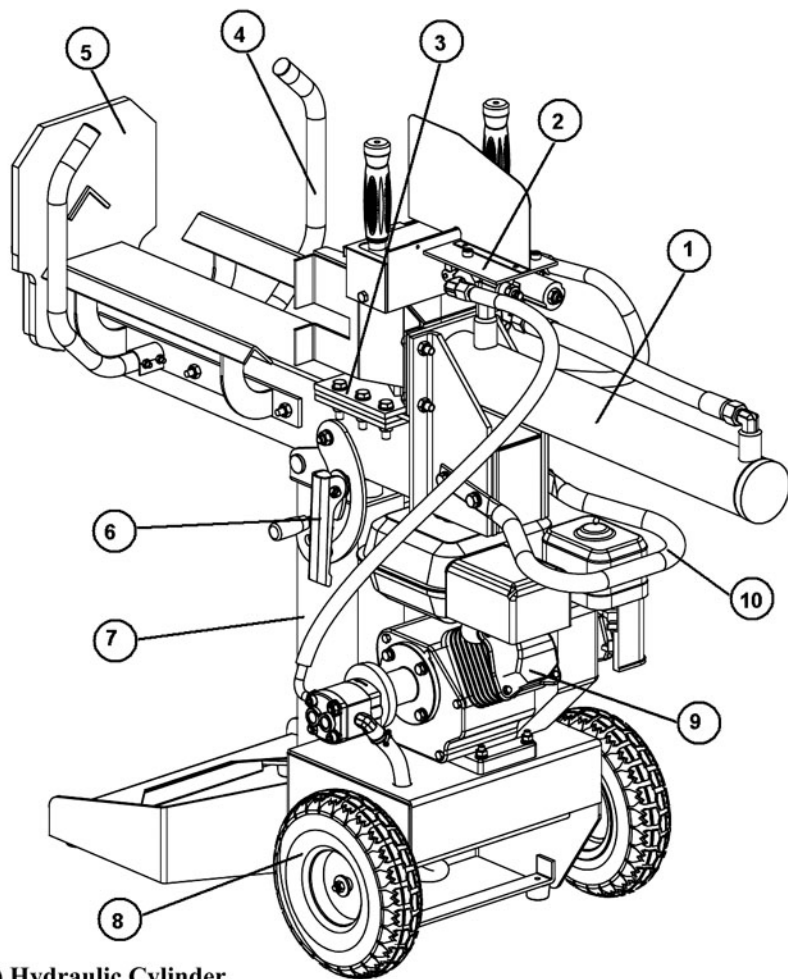
1.) Hot muffler.

You can be burned by muffler.

Do not touch.

Save These Instructions

Machine Component Definitions



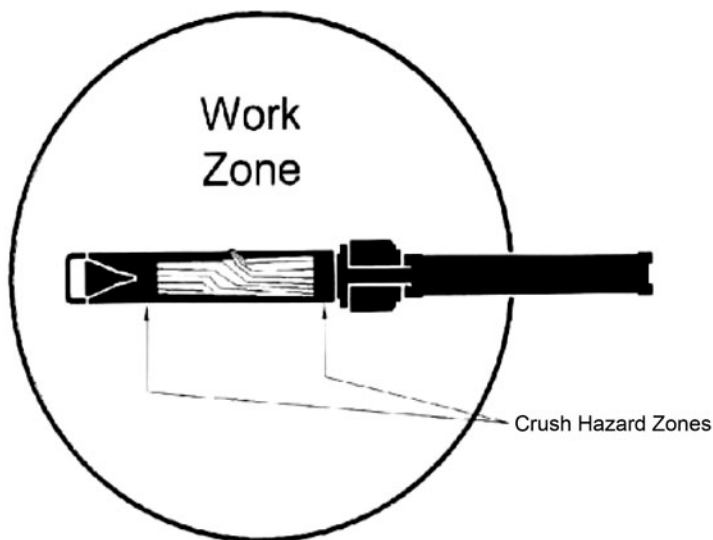
- 1.) Hydraulic Cylinder.
- 2.) Control Valve Handle.
- 3.) Wedge.
- 4.) Log Guide & Guard
- 5.) Beam.
- 6.) Lock Assemble.
- 7.) Main Body.
- 8.) Wheel.
- 9.) Engine Assemble
- 10.) Handle.



Operation Instructions

Proper Operation of the Log splitter

- 1.) Load a log onto the beam and against the wedge.
- 2.) Serious accidents can happen when other people are allowed inside the work zone.
Keep everyone else out of the work zone while operating control valve.
- 3.) Push control valve handle FORWARD by two hands to split log.
- 4.) Push control valve handle BACKWARD by two hands to return wedge to its original position.
- 5.) Clear the split wood from the work zone.



WARNING

Crush hazard.

Wedge can cut through skin and break bones. Keep both hands away from wedge and beam slide.

-Serious accidents can happen when other people are allowed inside the work zone. Keep everyone else out of the work zone while operating control valve.

-Do not wear loose clothing. It can get tangled in moving parts of log splitter.

-Only use the log splitter in daylight so you can see what you are doing.



Maintenance and Storage



Before performing maintenance, the log splitter must be placed in maintenance mode.

- 1.) Turn off engine.
- 2.) Move the control valve handle forward and backward to relieve hydraulic pressure.



After performing maintenance, make sure all guards, shields, and safety features are put back in place. Failure to follow this warning can result in serious injury.

Refer to the engine owner's manual for engine maintenance.

What	When	How
Hoses	Each Use	Inspect for exposed wire mesh and leaks. Replace all worn or damaged hoses before starting engine.
Hydraulic fittings	Each Use	Inspect for cracks and leaks. Replace all damaged fitting before starting engine.
Nuts and Bolts	Each Use	Check for loose bolts
Beam	Each Use	Apply grease to beam surface
Moving Parts	Each Use	Clear debris



CAUTION

Residual Hydraulic Energy

Residual energy must be released from the the pressurized hydraulic fluid before any maintenance or repair work is done on the firewood processor. Hydraulic fluid can emain highly pressurized even while the processor's Engine is off. Escaping pressurized hydraulic fluid can penetrate skin and cause serious injury.

To release residual hydraulic energy:

1. Shut off Engine
2. Move control valves back and forth, from one limit of travel to the other, at least four times.
3. Hold valve for three seconds at each limit of travel.



WARNING

Skin injection hazard.

High pressure fluid can inject under skin resulting in serious injury including amputation.

-Make sure all fitting are tight before applying pressure. Relieve system pressure before servicing.

-Do not check for leaks with hand. Instead, use a piece of cardboard to check for leaks.

-If skin injection happens, seek immediate

"Surgical Treatment"

Troubleshooting

Problem	
Cylinder rod will not move	SOLUTION: A, D, E, H, J
Slow cylinder shaft speed when extending or retracting	SOLUTION: A, B, C, H, I, K, L
Wood will not split or splits extremely slowly	SOLUTION: A, B, C, F, I, K
Engine bogs down during splitting	SOLUTION: G, L
Engine stalls under low load condition	SOLUTION: D, E, L, M

Cause	Solution
A-Insufficient oil to pump	Check oil level in oil tank
B-Air in oil	Check oil level in oil tank
C-Excessive pump inlet vacuum	Check pump inlet hose for blockage or kinks
D-Blocked hydraulic lines	Flush and clean the splitter hydraulic system
E-Blocked control valve	Flush and clean the splitter hydraulic system
F-Low control valve setting	Adjust control valve with a pressure gauge
G-High control valve setting	Adjust control valve with a pressure gauge
H-Damaged control valve	Return control valve for authorized repair
I-Internal control valve leak	Return control valve for authorized repair
J-Internal cylinder leak	Return control valve for authorized repair
K-Internally damaged cylinder	Return control valve for authorized repair
L-Engine Control out of adjustment	Adjust idle control nuts
M-Engine is loaded during idle down mode	Use shorter log length (20" or less) to allow engine to speed up before contact.

Specifications

Ram force: 12/15ton

Engine: 6.5HP

Gear Pump: 2.1 GPM

Maximum Pressure: 3500PSI

Hydraulic Cylinder Size (bore x stroke): 3"x 19"

Cycle time: 19s

Hydraulic oil No.: SHELL Tellus 22

MOBIL DTE 11

ARAL Vitam GF 22

BP Energol HLP-HM 22

Hydraulic Tank Capacity: 5L

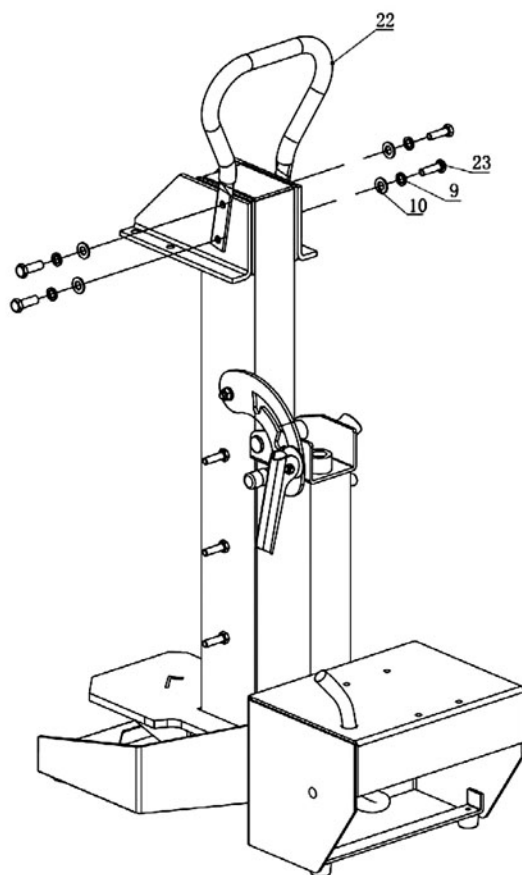
Max. Log opening: 52cm

The manufacturer reserves the right to make improvements in design and/or changes in specifications at any time without incurring any obligation to install them on units previously sold.

ASSEMBLY STEP

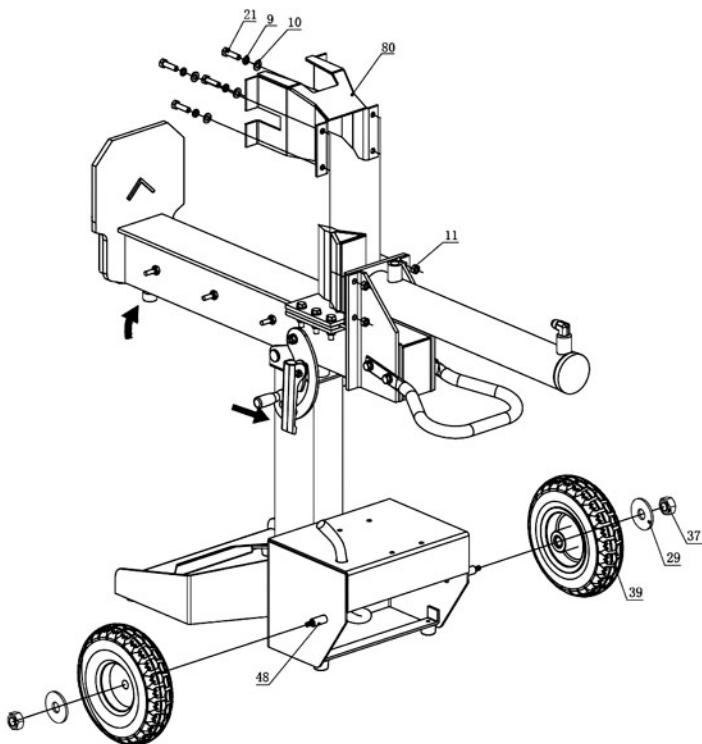
STEP 1: LOCK & HANDLE ASSEMBLY

1. Fix the handle(#22) on the end of the beam with bolt (#23), spring washer (#9) and washer (#10).



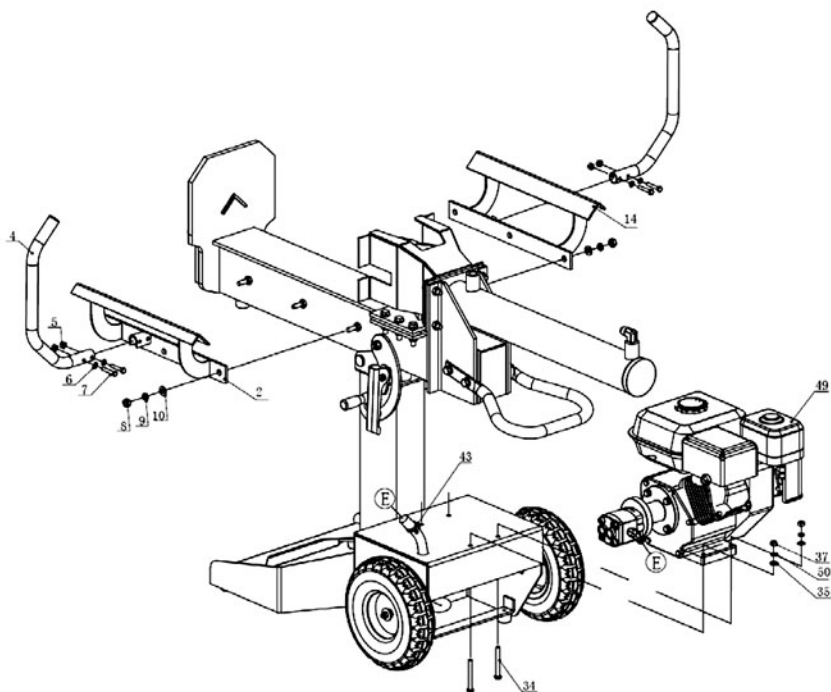
STEP 2: WHEEL & CYLINDER ASSEMBLY

1. Adjust the beam to a horizontal position and fix it with lock system.
2. Assemble the cylinder and wedge protector to the beam by using Hex Bolt (#21), Spring Washer (#9), Flat Washer (#10) and Nut #11.
3. Assemble 2pcs wheels (#39) to the main body by using wheel shaft (#48), Flat Washer (#29) and Nut (#37).



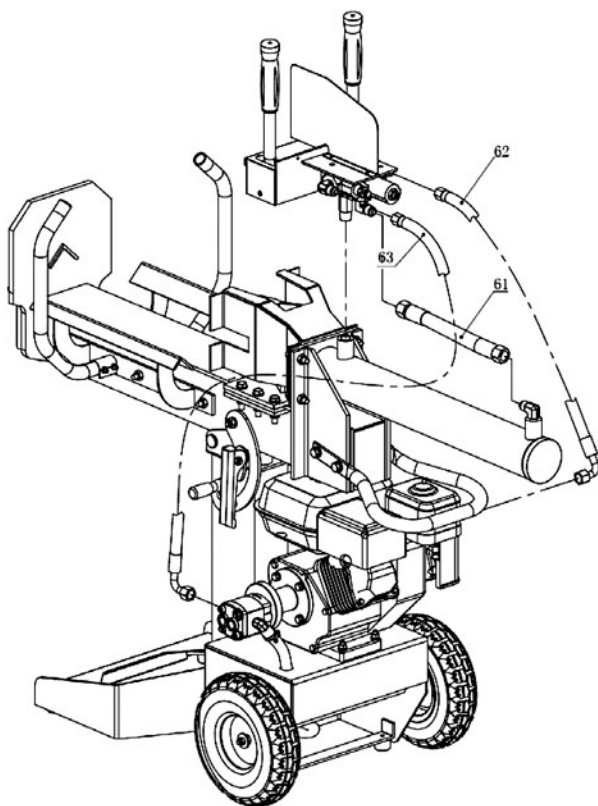
STEP 3: LOG GUIDE & ENGINE ASSEMBLY

1. Assemble the Left and Right Log Guide (#2& #14) by using Nuts (#8), Spring Washer (#9) and Flat Washer (#10).
2. Assemble the Log guard (#4) by using Nuts (#5), Flat Washer (#6) and Bolt (#7).
3. Fix the Engine Assembly to the main body by using Bolts(#34), Flat Washer (#35), Spring Washer (#50) and Nuts (#37).

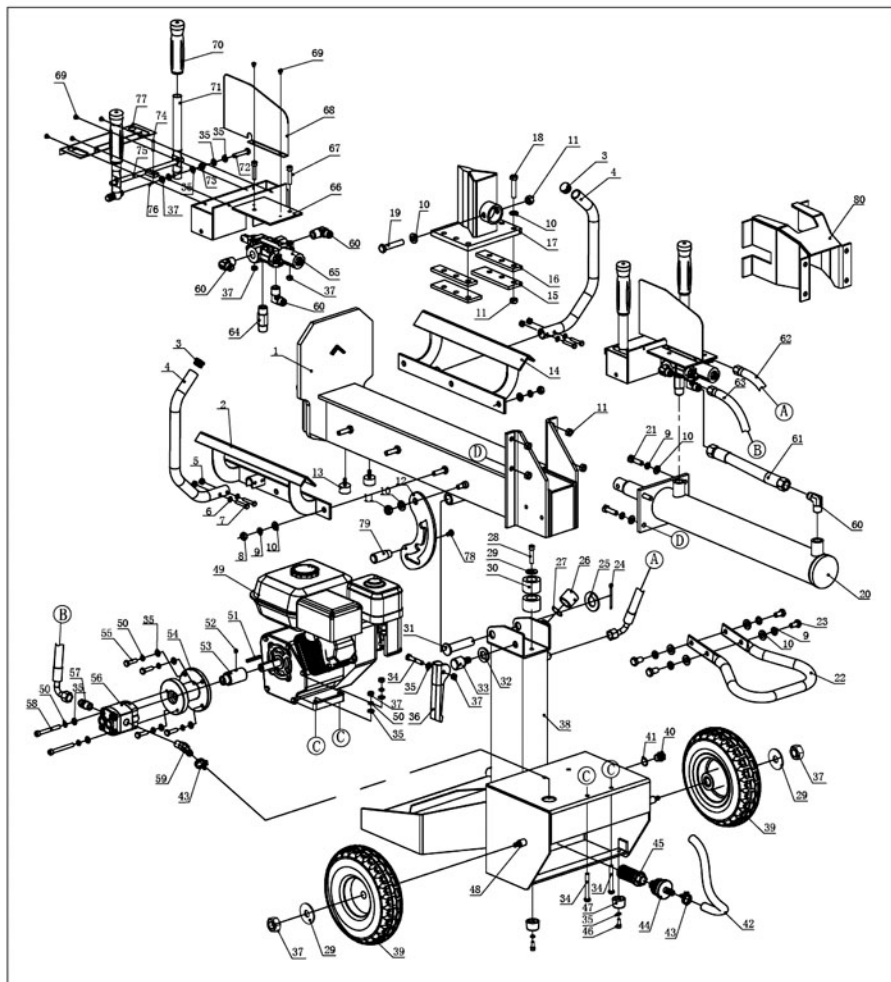


STEP 4: ASSEMBLY HYDRAULIC HOSES

1. Attached the hydraulic hoses (#63). Using one high pressure hose (#63) which will assemble to the control valve and engine gear pump. Fix one end to the control valve input joint (already fixed at factory) and another end to the Engine Gear Pump.
2. Using the other hydraulic hose (#62) which will assemble to the control valve and oil tank. Fix one end to the control valve output joint (already fixed at factory) and another end to the oil tank.
3. Then assemble the Oil Pipe to the gear pump, fix it by clamp (#43).
4. Connected the control valve and the cylinder with oil pipe (#61).



EXPLODED VIEW



SPARE PARTS

NO.	NAME	QTY	NO.	NAME	QTY
1	BEAM	1	42	COMBINATION WASHER Φ 16	1
2	LOG GUIDER	2	43	SUCTION TUBE	1
3	BOLT M10*35	2	44	HOOP	2
4	TUBE GAP	2	45	INLET PIPE CONNECTOR	1
5	LOG GUARD	2	46	OIL FILTER	1
6	M6 LOCK NUT	4	47	M8*20 BOLT	4
7	Φ 6* Φ 12*1.5 WASHER	4	48	RUBBER FOOT	4
8	M6*40 BOLT	4	49	WHEEL SHAFT	1
9	M10 NUT	6	50	ENGINE (7HP)	1
10	Φ 10 SPRING WASHER	14	51	Φ 8 SPRING WASHER	10
11	Φ 10* Φ 20*2 WASHER	22	52	FLAT KEY	1
12	M10 LOCK NUT	12	53	M8X6 SCREW	1
13	LOCK METAL PLATE	1	54	SHAFT CONNECTOR	1
14	RUBBER ABSORBER	2	55	SHAFT CONNECTOR SEAT	1
15	LOG GUIDER(RIGHT)	1	56	M8*30 BOLT	4
16	WEDGE PLATE	2	57	PUMP	1
17	WEDGE SPACER	2	58	CONNECTOR 3/8-M18*1.5	1
18	WEDGE	1	59	M8*90 BOLT	2
19	M10*45 BOLT	6	60	INLET PIPE CONNECTOR	2
20	M10*65 BOLT	1	61	CONNECTOR 1/2-M18*1.5	4
21	CYLINDER	1	62	OIL TUBE B	1
22	M10*35 BOLT	4	63	OIL TUBE A	1
23	HANDLE BAR	1	64	OIL TUBE C	1
24	M10*16 BOLT	4	65	CONNECTOR	1
25	COTTER PIN Φ 4X36	1	66	CONTROL VALVE	1
26	Φ 14* Φ 37*3 WASHER	1	67	VALVE FRAME	1
27	OIL TANK GAP	1	68	SCREW M8*40	2
28	O-RING 25*3.55	1	69	PROTECTION PLATE	1
29	M8*50 BOLT	1	70	SCREW M5X6	6
30	Φ 8* Φ 24*2 WASHER	3	71	HANDLE BAR COVER	2
31	RUBBER ABSORBER	2	72	HANDLE BAR	2
32	PIN	1	73	M8*45 BOLT	2
33	Φ 14* Φ 37*3 WASHER	1	74	M8 BOULT	2
34	LOCK SHAFT	1	75	PIN 5X25B	1
35	M8*40 BOLT	5	76	CONNECT ROD	1
36	Φ 8 WASHER	23	77	COTTER PIN Φ 1.6X10	1
37	LOCK HANDLE	1	78	VALVE FRAME COVER	1
38	M8 NUT	11	79	M6X10 SCREW	1
39	BODY FRAME	1	80	ADJUSTABLE HANDLE	1
40	TYRE 10"	2	81	WEDGE PROTECTOR	1
41	DRAIN BOLT M16*15	1			