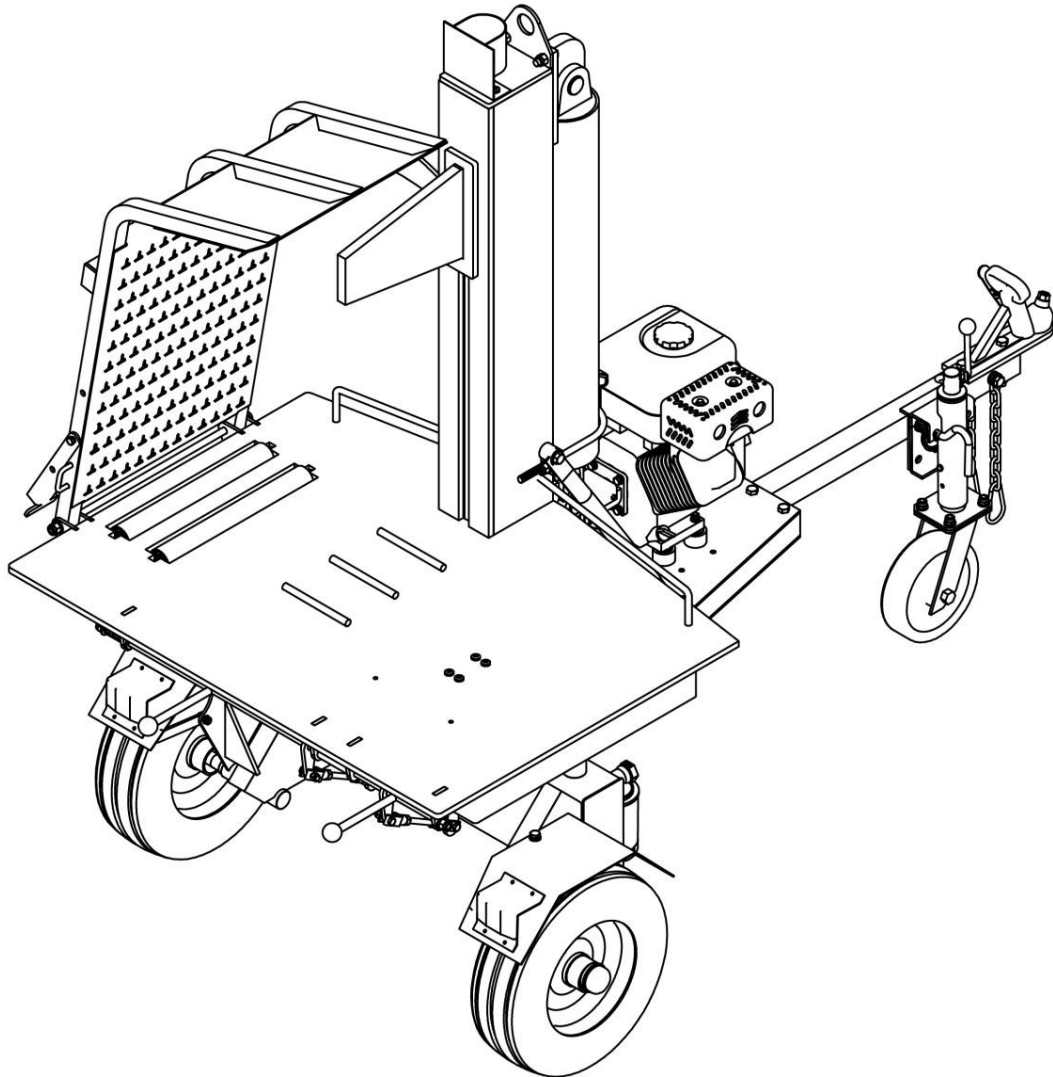


Operation Manual

BWM LSV30H Vertical Log Splitter



Instruction & Assembly

IMPORTANT

**READ SAFETY RULES AND INSTRUCTIONS CAREFULLY BEFORE OPERATION
SAVE THIS INSTRUCTION FOR FUTURE REFERENCE**

Warning:

Failure to follow this important safety information may result in serious injury to the user or bystanders, or cause equipment damage.

Table of Contents

Important Safety Information	1
Operation Warnings	1
Crush and Cut Hazards.....	1
Hazard Signal Word Definitions	1
Assembly Overview	2
Step 1: Wheel Assembly.....	2
Step 2: Attach Tow Bar to Oil Tank	2
Step 3: Attach the Engine and Cylinder Mounting Bracket.....	3
Step 4: Attach the Lifting table.....	4
Step 5: Attach the Split Wood Valve and Handle.....	4
Step 6: Attach the oil pipe correctly complete.....	5
Step 7: Add Engine Oil.....	6
Step 8: Add Fuel to the Engine.....	6
Step 9: Add Hydraulic Oil	7
Operation Instructions.....	8
Maintenance and Storage	12
Troubleshooting	13
Specifications.....	14
Illustrated Parts List	15

Important Safety Information



Read and understand the complete Operation Manual before assembling or using this product! Failure to comprehend and comply with warnings, cautions and/or instructions for assembly and operation could result in serious injuries or death. Save these instructions for further reference.

The actual product is slightly different from the manual, please refer to the actual product as the standard.

Operation Warnings

- ◆ Do not at any time carry passengers, sit or stand on the log splitter.
- ◆ Do not allow children to play on, stand upon or climb on the log splitter.
- ◆ Always inspect the log splitter before using to assure it is in good working condition.
- ◆ Replace or repair damaged or worn parts immediately.
- ◆ Always check and tighten hardware and assembled parts before operation.
- ◆ Do not exceed equipment maximum load capacity of 30 tons.
- ◆ Avoid large holes and ditches when towing the equipment.
- ◆ Always operate the log splitter on clear and level ground.
- ◆ Do not operate the log splitter at night, only during daylight hours.
- ◆ Always tow at reduced speed in rough terrain, along creeks, ditches and hillsides.
- ◆ To avoid personal injury and/or equipment damage. **DO NOT EXCEED 60 KM/H.**
- ◆ Always refer to the vehicle owner's manual for proper towing.
- ◆ Always secure and lock the log splitter to the vehicle hitch before towing.

Crush and Cut Hazards

- ◆ Always keep hands and feet clear from moving parts while operating the equipment.
- ◆ Always clear and keep work area clean and free of debris when operating.
- ◆ Always wear safety gear, eye protection, gloves and work boots when operating the log splitter.

Hazard Signal Word Definitions

DANGER	DANGER indicates an imminently hazardous situation, which if not avoided, will result in death or serious injury.
WARNING	WARNING indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury.
CAUTION	CAUTION used without the safety alert symbol indicates a potentially hazardous situation, which if not avoided, may result in property damage.

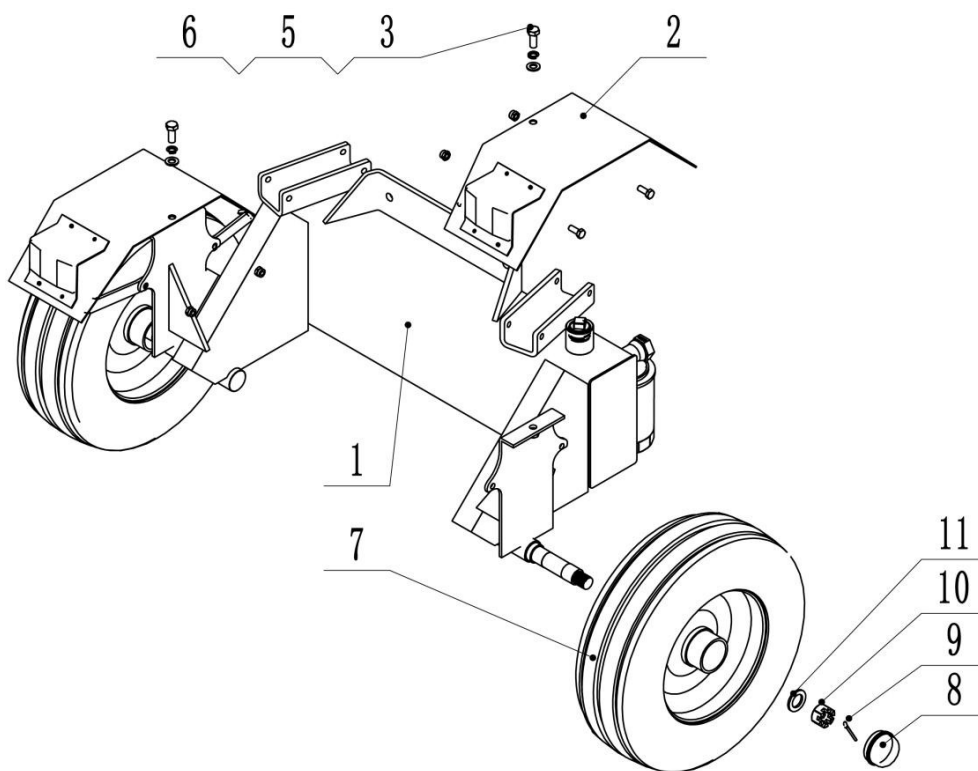
The warnings, cautions, and instructions outlined in this instruction manual cannot cover all possible conditions or situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product and must be supplied by the operator.

Assembly Overview

Set the shipping crate on a solid flat surface and carefully remove the lid. Use two people and take all parts out of the shipping crate and inspect the components to ensure there are no missing pieces before starting to assemble the log splitter.

Step 1: Wheel Assembly

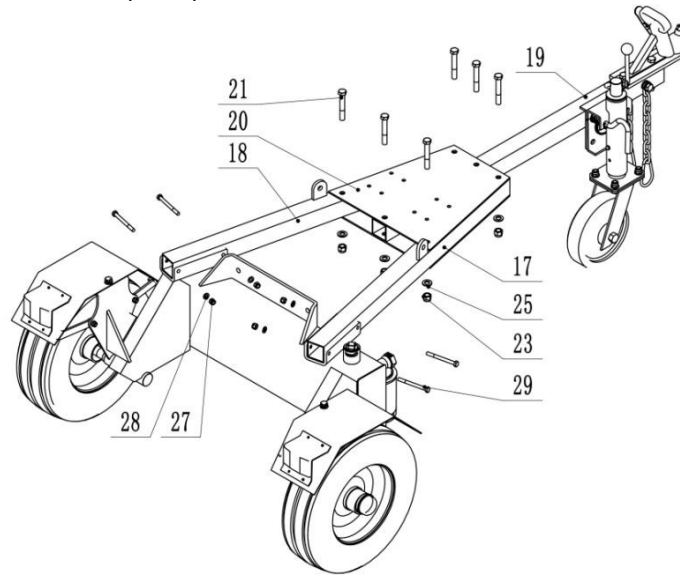
1. Attach the wheels (#7) to the oil tank (#1) secure using flat washer $\Phi 20$ (#11), hex slotted nut M20(#10), cotter pin $\Phi 4 \times 40$ (#9). Install the axle cap (#8) on the end.
2. Attach 2# (1 on the left and 1 on the right) to the oil tank as shown in the figure, and fasten them with M10 \times 20(#5), 10 spring washer (#6), 10 flat washer(#3), M10 lock nut(#4).



Step 2: Attach Tow Bar to Oil Tank

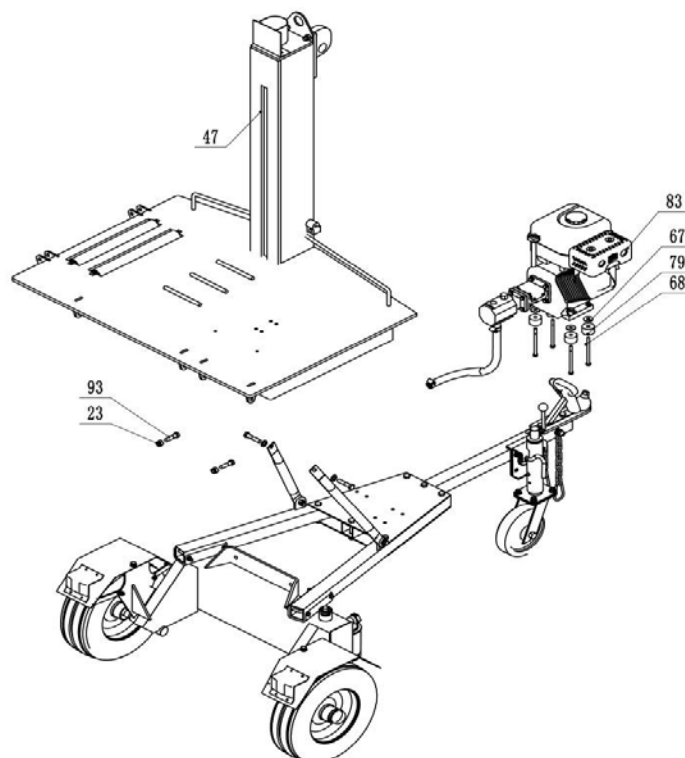
1. Install the support rods (# 17, # 18, # 19) onto the gasoline engine mounting plate (# 20) using six sets of M8 * 80 hex head bolts (# 21), flat washers 8 (# 28), and hex nuts M8 (# 27).

2. Fix the tow bar to the fuel tank (# 1) using four sets of hex bolts M8 × 90 (# 29), flat washers 8 (# 28), and hex lock nuts M8 (# 27).



Step 3: Attach the Engine and Cylinder Mounting Bracket

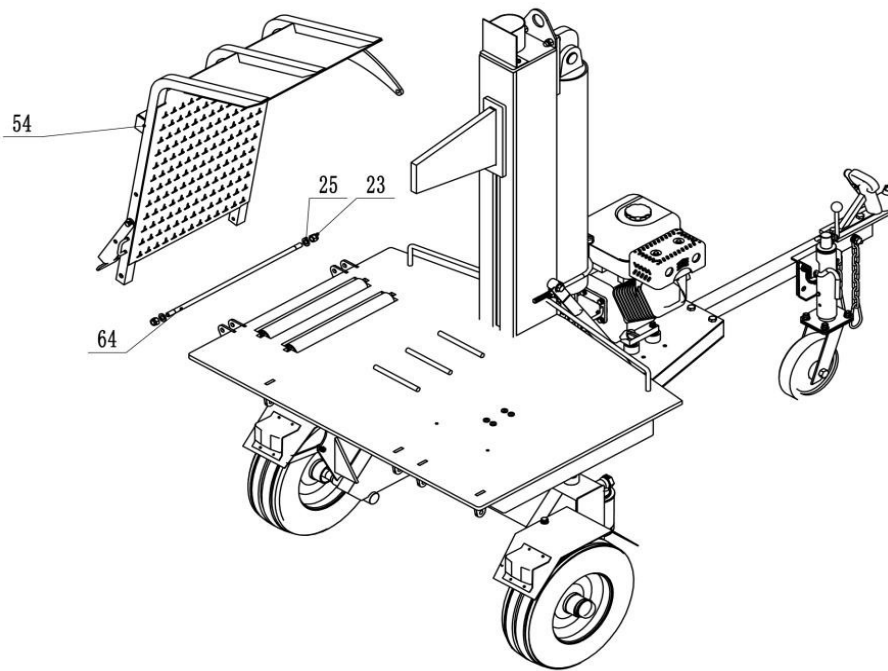
1. Install the cylinder mounting bracket (# 47) onto the fuel tank (# 1) using two sets of M12 * 45 hex head bolts (# 93) and hex lock nuts M12 (# 23).
2. As shown in the figure, connect the engine (# 83) to the fuel tank. Place the large flat washer (# 67) and damping washer (# 79) in the correct position and tighten them with M8 * 120 (# 68), 8 flat washer (# 28), and M8 locking nut (# 27).



3. Connect the gear pump to the engine (# 82) and tighten it with 4 5/16-2 bolts (# 69), 4 spring washers (# 79), and 4 flat washers (# 28).

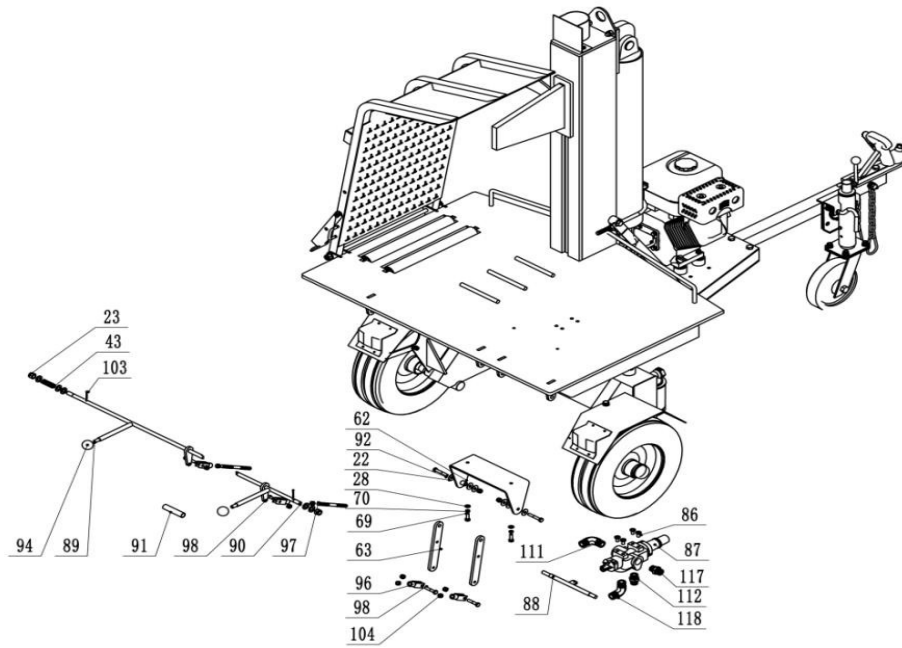
Step 4: Attach the Lifting table

1. Secure the lifting table (# 54) to the mounting bracket (# 78) using the shaft (# 64), flat washer M12 (# 25), and hex lock nut M12 (# 23).

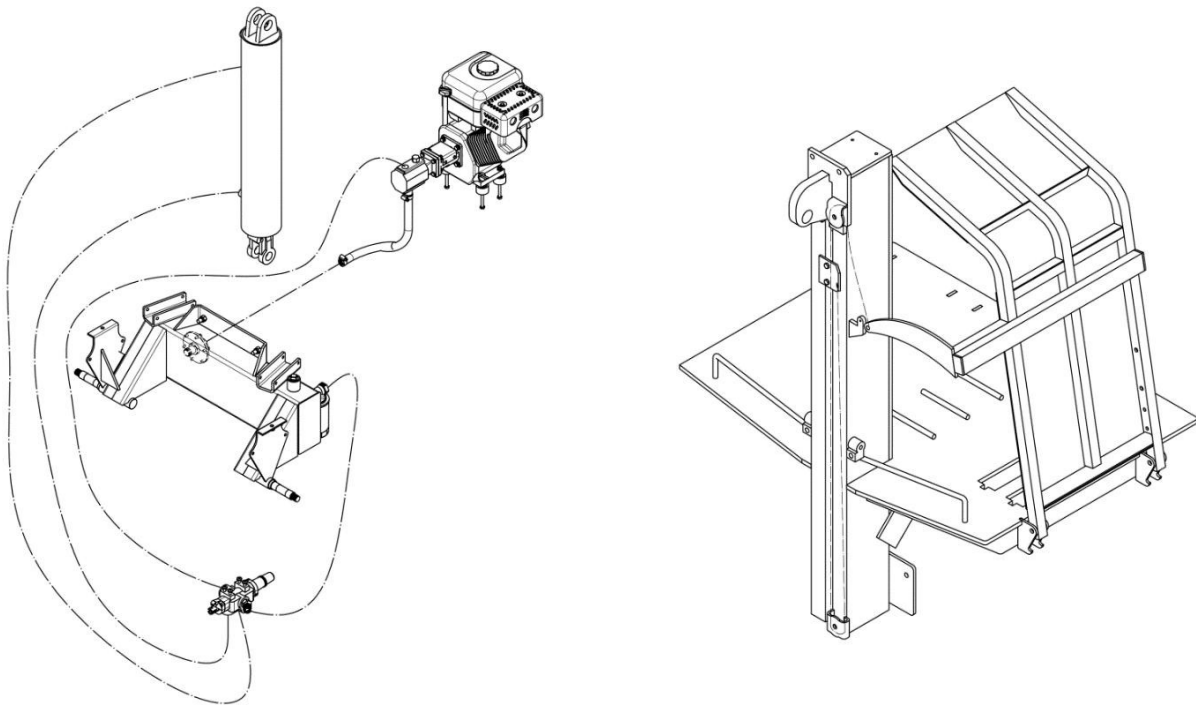


Step 5: Attach the Split Wood Valve and Handle

1. As shown in the figure, install the split wood valve (# 87) on the mounting plate with Screw M8× 16 (# 86).
2. Install the drag plate (# 62) onto the mounting plate using two sets of M8*20 hex head bolts (# 69), Flat Washer $\Phi 8$ (#28) and Spring Washer $\Phi 8$ (#70).
3. Install the handles (# 89, 90) connect the pallet (# 62) using a Y-joint (# 96).



Step 6: Attach the oil pipe correctly complete.



Step 7: Add Engine Oil

1. Make sure the log splitter is on a level surface.
2. Remove oil fill cap / dipstick to add oil.
3. Refer to the separate owner's engine manual for the amount needed for engine oil; replace oil fill cap/dipstick
4. Check engine oil level daily and add as needed.

NOTE: During the break in period check the engine oil level often.

CAUTION

Do not attempt to crank or start the engine before it has been properly filled with the recommended type and amount of oil. Damage of the log splitter as a result of failure to follow these instructions will void your warranty.

Step 8: Add Fuel to the Engine

1. Use only clean, fresh, regular 91 unleaded fuel.
2. Do not mix oil with fuel.
3. Remove the cap and slowly add fuel to the tank. Do not overfill, allow approximately 1/4 inch of space for fuel expansion.
4. Screw on the fuel cap and wipe away any spilled fuel

DANGER

1. Log splitter engine exhaust contains carbon monoxide, a colorless and odourless poison gas.
Breathing carbon monoxide will cause nausea, dizziness, fainting, or death. If you start to feel dizzy or weak, get some fresh air immediately.
2. Operate log splitter outdoors only in a well ventilated area
3. Do not operate the log splitter inside any building, enclosure or compartment.
4. Do not allow exhaust fumes to enter a confined area through windows, doors, vents or other openings.

DANGER CARBON MONOXIDE Using a log splitter indoors CAN KILL YOU IN MINUTES.

CAUTION

1. Fuel and fuel vapors are highly flammable and extremely explosive.
2. Fire or explosion can cause severe burns or death.
3. Unintentional startup can result in entanglement traumatic amputation or laceration.
4. Only use regular unleaded 91 fuel.
5. Do not mix oil and petrol together.
6. Fill tank approximately 1/4 inch below the top of the tank to allow for fuel expansion.
7. Do not fill fuel tank indoors or when the engine is running or hot.
8. Do not light cigarettes or smoke when filling the fuel tank.

Step 9: Add Hydraulic Oil

WARNING: Please add enough hydraulic oil before using the machine.

1. The log splitter needs to be on a flat, level surface before adding the hydraulic oil.
2. Remove the oil cap from the hydraulic oil tank.
3. Add approximately 10 litres of hydraulic oil, 10W AW32 ASLE H-150, ISO 32 are all acceptable types of fluid.
4. Start the engine and use the control level to extend and retract wedge several times to remove air from the lines.
5. With the wedge retracted, check the hydraulic oil level, add 1.5 litres more till you get to the level on the dipstick.

WARNING

1. Do not remove the hydraulic oil fill cap when the engine is running or hot. Hot oil can escape causing severe burns. Always allow the log splitter to cool completely before removing the hydraulic oil cap.
2. High fluid pressure and temperatures are created in the hydraulic log splitter. Hydraulic fluid will escape through a pin size hole opening and can puncture skin and cause severe blood poisoning. Inspect hydraulic system regularly for possible leaks.
3. Never check for leaks with your hand while the system is pressured. Seek medical attention immediately if injured by escaping fluid.
4. Make sure all fitting are tight and secure before applying pressure. Relieve system pressure. Relieve system pressure before servicing.
5. Make sure the hydraulic hoses do not touch any hot surfaces or cutting areas.
6. Hoses need to be positioned where they are clear from the engine and cutting wedge. To avoid serious bodily injury, always inspect the hoses before operating the log splitter.

Operation Instructions

WARNING

Before operating or using the log splitter, review the instructions below and all safety information. Failure to follow these instructions may result in property damage or injury to the operator or bystanders.

WARNING

Always use the log splitter for its intended use.

Only use the log splitter to split wood logs, lengthwise with the grain.

Never modify, alter or change the log splitter in anyway, modifications will void the warranty.

Never attach a rope, cable or other device to the control level on the log splitter.

Only operate the log splitter in daylight.

Never leave the log splitter unattended while the engine is running.

Do not change the splitting position with the engine running. Contact with muffler can cause serious burns.

Always make sure the beam is in the locked position.

Do not let the beam drop as it could crush fingers or cause damage to the log splitter.

Never operate or let anyone else operate the log splitter while under the influence of alcohol, drugs, or medication.

USING YOUR LOG SPLITTER

1. Do not at any time carry passengers, sit or stand on the log splitter.
2. Check the hydraulic oil level and visually inspect all hoses and attachments for problems. 3. Inspect the engine and make sure the engine oil level is correct.
4. Before towing the log splitter the tyres need to be fully inflated.
5. Refer to the vehicle owner's manual for proper safety and towing instructions.

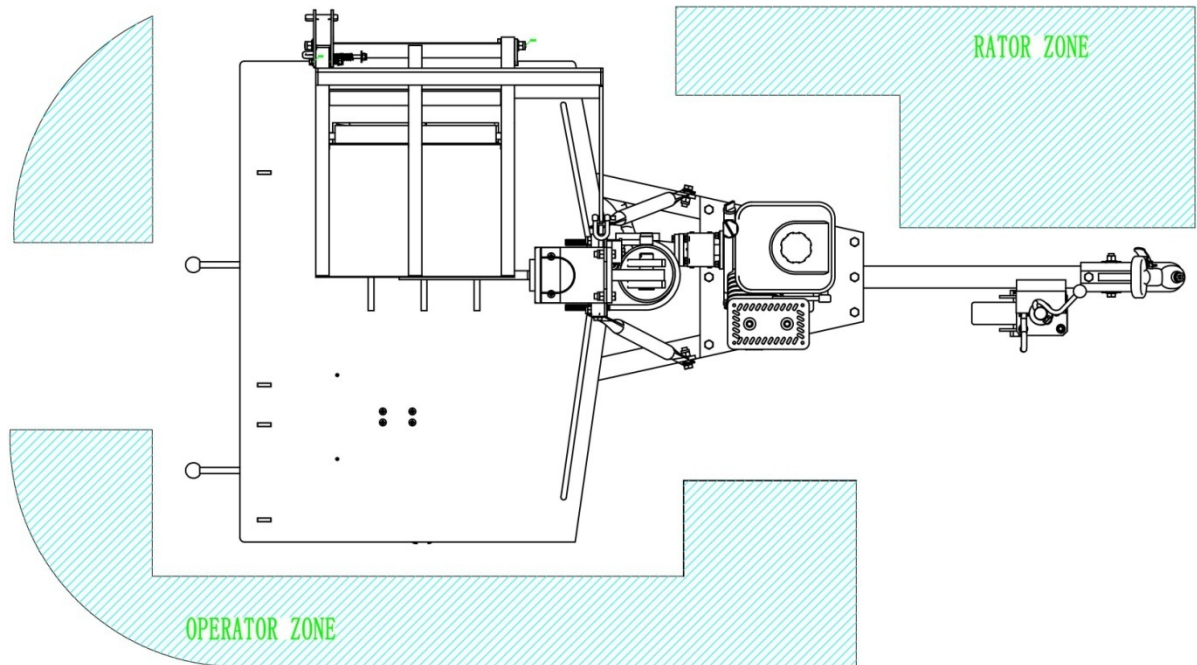
TYRE WARNING

- Do not over inflate tyres. Serious injury can result if tyres explode.
- Do not tow the log splitter if the tyres are worn or will not hold air.
- Do not exceed the maximum 60 KM/H towing speed.

TOWING WARNING

- ❖ Serious injury or death can occur if towing safety rules are not followed.
- ❖ Always check the ball coupler and wheels to make sure all hardware is secure before towing.
- ❖ Before towing a long distance check to make sure the axle nuts and pins are tight and security in plate.
- ❖ Always use safety chains, secure and lock the log splitter to the vehicle hitch before moving.
- ❖ Drive safely. Be aware of the added length of the log splitter.
- ❖ Never ride or transport cargo on the log splitter.
- ❖ Turn off the vehicle before leaving the log splitter unattended.
- ❖ Block the log splitter wheels to prevent unintended movement.

6. The log splitter must have at least two metres of clearance from combustible materials. It needs to be on a dry and level surface with good footing. Do not work on mud, ice, brush or snow. When using the log splitter the work zone must be maintained at all times.



NOTE: Serious accidents can happen when other people are allowed inside the work zone. Keep everyone else outside the work zone while operating the control lever.

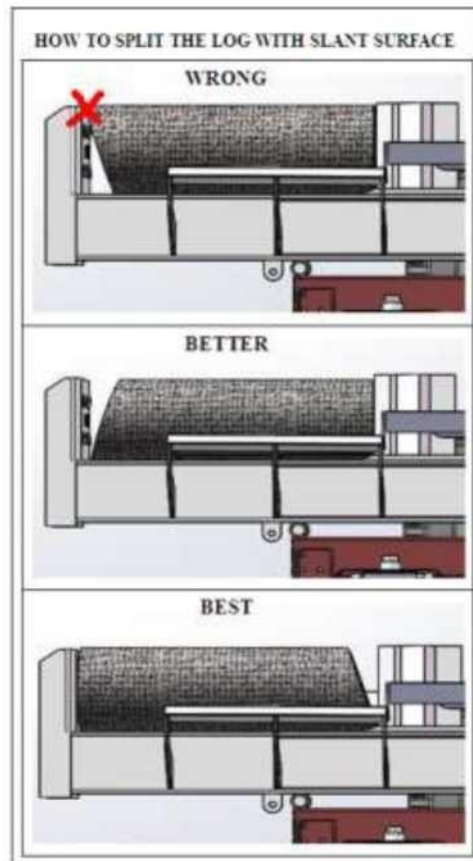
- 7. Always wear safety gear, eye protection and work boots when operating the log splitter
- 8. Start the engine and make sure the log splitter is on level ground before operating.

NOTE: The hydraulic oil needs to be above 12C° before starting the engine. Cold hydraulic oil can damage the hydraulic pump. If outdoor air temperature is below 0 C°, allow the log splitter to warm up by extending and returning the wedge several times before splitting wood.

- 9. Put both support legs in the down position to prevent the log splitter from moving during operation and block both tyres.
- 10. Set the log splitter in either the horizontal or vertical position.

NOTE: Horizontal position is used for lighter logs that can easily be loaded onto the beam. The vertical position is used for either light logs or heavy logs that are difficult to load onto the beam. Back injury can result from lifting logs onto the log splitter if proper lifting techniques are not used.

11. Load a log onto the beam against the end plate (Max. log length is 60cm).



12. Make sure hands are clear from the wedge and crush hazard areas.
13. Push control lever FORWARD by one hand to split the log.
14. Push control lever BACKWARD by one hand to return wedge to its original position.
15. Always keep work zone clean and free of split wood and debris.

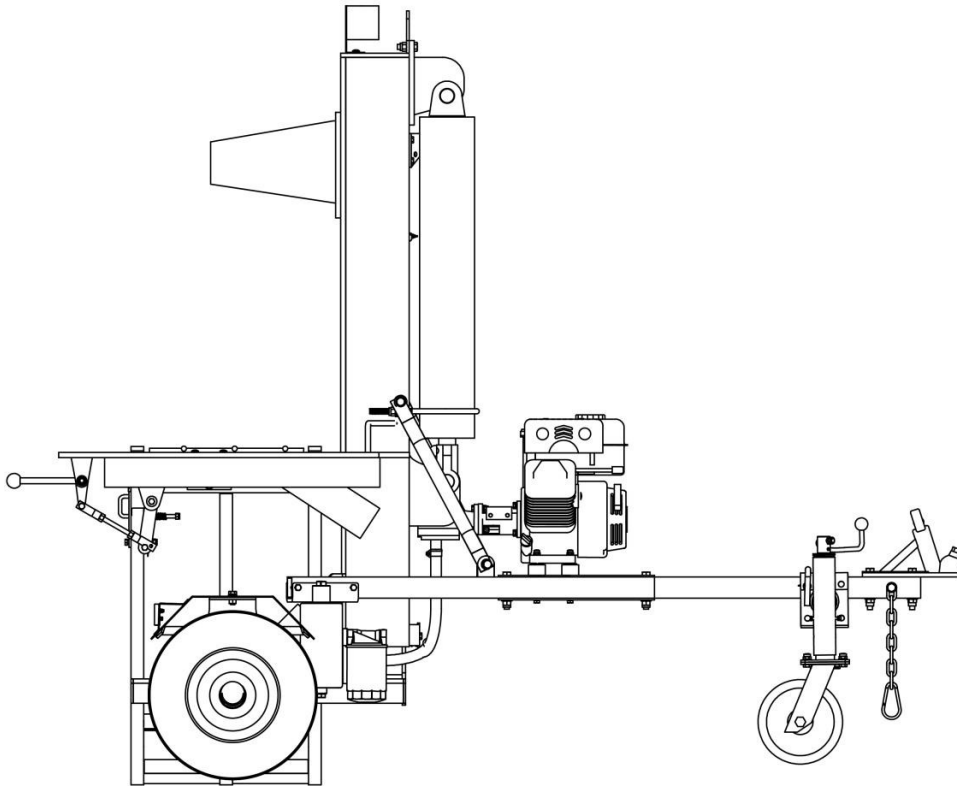
CRUSH WARNING

1. Wedge can cut through skin and break bones. Keep both hands away from wedge and beam slide.
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 lever.
3. Do not wear loose clothing. It can get tangled in moving parts of log splitter.
4. Only use the log splitter in daylight so you can see what you are doing.

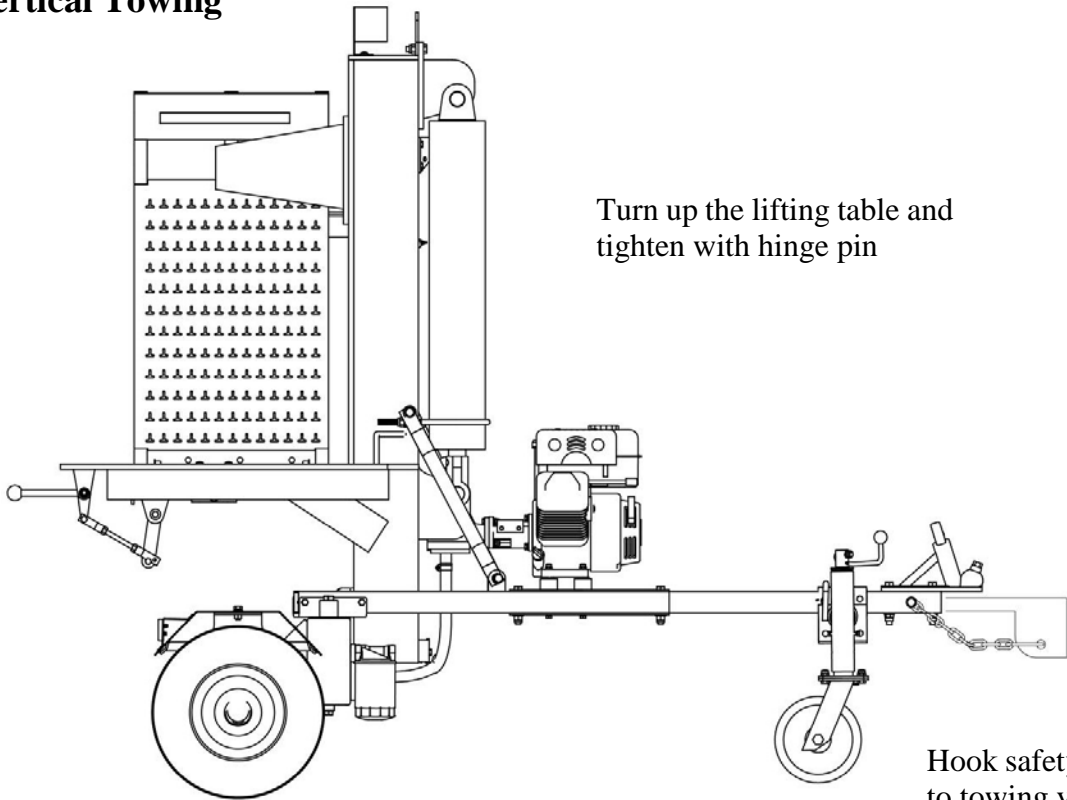
CAUTION

1. If a log gets stuck, embedded or will not split completely, push the control lever in the reverse direction and allow the splitter to strip the log from the wedge.
2. If the log still remains stuck, embedded or will not split, turn the machine off and use a sledge hammer and crow bar to remove the log.
3. Always keep hands clear of the log and wedge while it is retracting.

Horizontal Using Only



For Vertical Towing



Maintenance and Storage

WARNING

Improper maintenance and storage of the log splitter may void your warranty.

MAINTENANCE

- ◆ Before performing maintenance, the log splitter must be placed in maintenance mode. Turn off the engine and move the control lever forward and backwards to relieve the hydraulic pressure.
- ◆ After performing any maintenance, make sure all guards, shields and safety features are put back in place before operating the log splitter.
- ◆ Before operating make sure the tyres have the RECOMMENDED TYRE PRESSURE.
- ◆ Regularly grease axle and wheel bearing areas or when needed.
- ◆ After the wheel bearing have been greased make sure the axle nuts and pins are in place and secure.
- ◆ Periodically check all fasteners and hoses for tightness and leaks.
- ◆ Annually clean and lightly lubricate all moving parts or when needed.
- ◆ Use a glossy enamel spray paint to touch up scratched or worn painted metal surfaces.
- ◆ Never exceed load capacity rating 30 tons. It will damage the log splitter.

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

Refer to the Engine Owner's Manual for engine maintenance.

NOTE: If a part needs replacement, only use parts that meet the manufacture's specifications. Replacement parts that do not meet specifications may result in a safety hazard or poor operations.

STORAGE

- ◆ Before storing make sure the log splitter is clean and dry for years of trouble free service.
- ◆ Lightly lubricate all log splitter surface and moving parts to prevent rust.
- ◆ Store indoors or protected area during severe weather and winter months.

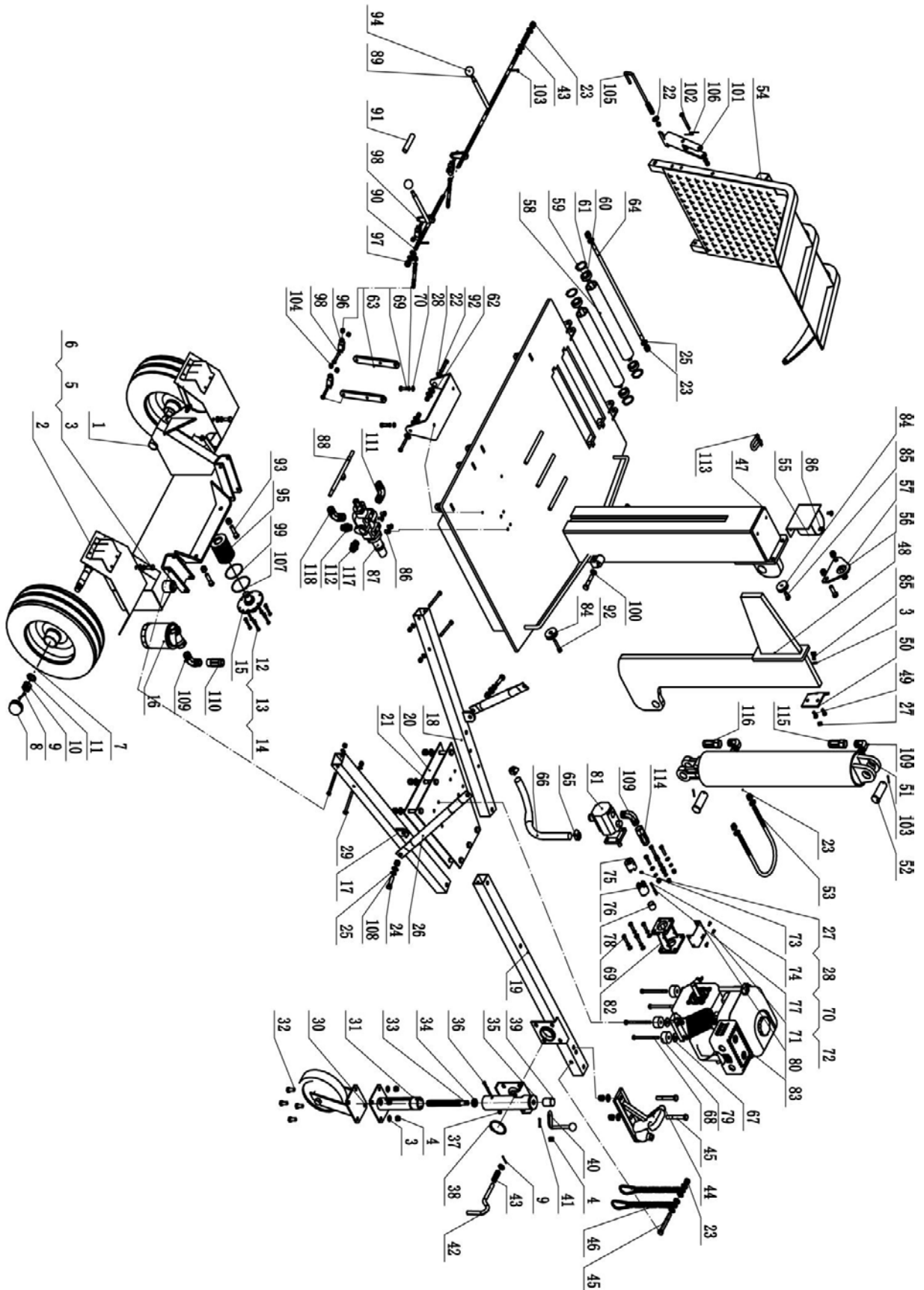
Troubleshooting

Problem	
Cylinder rod will not move	Solution: A, D, E, H, J
Slow cylinder rod 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 reservoir
B: Air in oil	Check oil level in reservoir
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 cylinder for authorized repair
K: Internally damaged cylinder	Return cylinder 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 to allow engine to speed up before contact

Specifications

Ram Force	30T
Cycle Time	15S
Hydraulic Tank Capacity	14L
Max. Log Length	58cm (22.8")
Hydraulic Cylinder	4½" ×22¾"
Max. Pressure.....	3000 PSI
Gear Pump	12GPM, 2- Stage
Wheel Size	17.7"
Hitch Type	50mm Ball Coupler
Max. Towing Speed.....	60 KM/H
Manual Start Engine.....	Honda GX200
Jockey Wheel	8"

Illustrated Parts List



Ref	Part No.	Description	Qty
1	BWMLSV30H-001	Oil Tank	1
2	BWMLSV30H-002	Right and Left Protection Fender	2
3	BWMLSV30H-003	Flat Washer Φ10	12
4	BWMLSV30H-004	Hex Lock Nut M10	9
5	BWMLSV30H-005	Hex Bolt M10×25	6
6	BWMLSV30H-006	Spring Washer Φ10	2
7	BWMLSV30H-007	Tyre/Wheel	2
8	BWMLSV30H-008	Axle Cap	2
9	BWMLSV30H-009	Cotter Pin d4*40	3
10	BWMLSV30H-010	Slotted Nut M20×1.5	2
11	BWMLSV30H-011	Flat Washer Φ20	2
12	BWMLSV30H-012	Hex Bolt M6×20	6
13	BWMLSV30H-013	Spring Washer Φ6	6
14	BWMLSV30H-014	Flat Washer Φ6	6
15	BWMLSV30H-015	Filter Mounting Plate	1
16	BWMLSV30H-016	Outer Filter	1
17	BWMLSV30H-017	Left support bracket	1
18	BWMLSV30H-018	Right support bracket	1
19	BWMLSV30H-019	Middle support bracket	1
20	BWMLSV30H-020	Engine mounting plate	2
21	BWMLSV30H-021	Hex Bolt M12×80	6
22	BWMLSV30H-022	Big Flat Washer Φ8	7
23	BWMLSV30H-023	Hex Lock Nut M12	21
24	BWMLSV30H-024	Hex Bolt M12×40	2
25	BWMLSV30H-025	Flat Washer Φ12	26
26	BWMLSV30H-026	Connecting pipe	2
27	BWMLSV30H-027	Hex Lock Nut M8	21
28	BWMLSV30H-028	Flat Washer Φ8	19
29	BWMLSV30H-029	Hex Bolt M8×90	4
30	BWMLSV30H-030	Caster Wheel	1
31	BWMLSV30H-031	Lift Tube	1
32	BWMLSV30H-032	Hex Bolt M10×30	4
33	BWMLSV30H-033	Lift Screw	1
34	BWMLSV30H-034	Thrust Ball Bearing	1
35	BWMLSV30H-035	Outer Bushing	1
36	BWMLSV30H-036	Hex Bolt M6×60	1
37	BWMLSV30H-037	Hex Lock Nut M6	1
38	BWMLSV30H-038	Slotted Spring Pin D5×30	1
39	BWMLSV30H-039	Jockey Wheel Handle Bushing	1
40	BWMLSV30H-040	Jockey Wheel Handle	1
41	BWMLSV30H-041	Cotter Pin d3.2*25	1
42	BWMLSV30H-042	Safety Pin	1
43	BWMLSV30H-043	Spring	3
44	BWMLSV30H-044	Tow Head Assembly	1
45	BWMLSV30H-045	Hex Bolt M12×90	3
46	BWMLSV30H-046	Safety Chain with Hook	2
47	BWMLSV30H-047	Installation bracket	1
48	BWMLSV30H-048	Wedge	1
49	BWMLSV30H-049	Hex Bolt M8×20	2

50	BWMLSV30H-050	Axe fixing plate	1
51	BWMLSV30H-051	Cylinder	1
52	BWMLSV30H-052	Wedge Pin	2
53	BWMLSV30H-053	U-shaped bolt	1
54	BWMLSV30H-054	Lifting Table	1
55	BWMLSV30H-055	Pipe sleeve	1
56	BWMLSV30H-056	Suspension ear	1
57	BWMLSV30H-057	Hex Bolt M8×16	2
58	BWMLSV30H-058	Pipe sleeve	2
59	BWMLSV30H-059	optical axis	2
60	BWMLSV30H-060	Bearing	4
61	BWMLSV30H-061	Steel Wire Snap Ring for Shaft Φ40	4
62	BWMLSV30H-062	Pallet	1
63	BWMLSV30H-063	Installation board	2
64	BWMLSV30H-064	Round rod	1
65	BWMLSV30H-065	Clamp	2
66	BWMLSV30H-066	Bottom Hose	1
67	BWMLSV30H-067	Big Flat Washer Φ8	4
68	BWMLSV30H-068	Hex Bolt M8×120	4
69	BWMLSV30H-069	Hex Bolt M8×25	6
70	BWMLSV30H-070	Spring Washer Φ8	10
71	BWMLSV30H-071	Hex Bolt M5×10	4
72	BWMLSV30H-072	Hex Bolt M8×30	4
73	BWMLSV30H-073	Inner Hex Set Screw M6*10	1
74	BWMLSV30H-074	Flat Key 3×3×25	1
75	BWMLSV30H-075	Gear Pump Connector	1
76	BWMLSV30H-076	Engine Connector	1
77	BWMLSV30H-077	Flat Key 5×5×25	1
78	BWMLSV30H-078	Engine Bushing	1
79	BWMLSV30H-079	Shock Pad Ø40×25	4
80	BWMLSV30H-080	Connector Cover	1
81	BWMLSV30H-081	Gear Pump Connector	1
82	BWMLSV30H-082	Gear Pump Stand	1
83	BWMLSV30H-083	Petrol Engine	1
84	BWMLSV30H-084	Wire rope pulley	2
85	BWMLSV30H-085	Hex Bolt M10×20	2
86	BWMLSV30H-086	Round head cross bolt M8 * 16	6
87	BWMLSV30H-087	Control Valve	1
88	BWMLSV30H-088	Rotating shaft	1
89	BWMLSV30H-089	Round rod	1
90	BWMLSV30H-090	Round rod	1
91	BWMLSV30H-091	Pipe sleeve	1
92	BWMLSV30H-092	Hex Bolt M8×50	3
93	BWMLSV30H-093	Hex Bolt M12×45	2
94	BWMLSV30H-094	Handle ball	2
95	BWMLSV30H-095	Oil Filter	1
96	BWMLSV30H-096	Y Joint	4
97	BWMLSV30H-097	Threaded round rod	2
98	BWMLSV30H-098	Hex Bolt M8×40	4
99	BWMLSV30H-099	O Ring D75*2.4	1

100	BWMLSV30H-100	Hex Bolt M12×55	2
101	BWMLSV30H-101	Plate	1
102	BWMLSV30H-102	Hex Bolt M8×70	1
103	BWMLSV30H-103	Cotter Pin d5*50	4
104	BWMLSV30H-104	Hex Nut M8	4
105	BWMLSV30H-105	Tie rod	1
106	BWMLSV30H-106	Torsion spring	1
107	BWMLSV30H-107	O Ring D80*2.4	1
108	BWMLSV30H-108	Spring Washer Φ12	2
109	BWMLSV30H-109	Gear pump joint	4
110	BWMLSV30H-110	Return oil pipe	1
111	BWMLSV30H-111	Oil inlet joint	1
112	BWMLSV30H-112	Return oil direct head	1
113	BWMLSV30H-113	Shackle M8	1
114	BWMLSV30H-114	Oil inlet pipe	1
115	BWMLSV30H-115	Hydraulic Hose (Valve - Cylinder)	1
116	BWMLSV30H-116	Hydraulic Hose (Valve - Cylinder)	1
117	BWMLSV30H-117	Return oil right angle joint	1
118	BWMLSV30H-118	Valve oil outlet straight joint	1

Customer Service:

303 Warrigal Road, Cheltenham, Victoria 3192, Australia

Telephone: 13000 454 585

Website: www.BWMachinery.com.au

Email: admin@bwmachinery.com.au

Spare parts are available from our dealers and our official website