Save This Manual for Future Reference

Original Instruction



Hydraulic Log Splitter

Operator's Manual

MODEL NUMBER : □ 65553 □ 65558 □ 65558-6 □ 65558-7 **SERIAL NUMBER :**

Both model number and serial number may be found on the main label. You should record both of them in a safe place for future use.

FOR YOUR SAFETY

READ AND UNDERSTAND THE ENTIRE MANUAL BEFORE OPERATING MACHINE

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INTRODUCTION

Your new log splitter will more than satisfy your expectations. It has been manufactured under stringent quality standards to meet superior performance criteria. You will find your new unit easy and safe to operate, and with proper care, it will give you many years of dependable service.



RECYCLING AND DISPOSAL



This marking indicates that this product should not be disposed with other household wastes. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or check with your local authority or local stores for advice of environmental safe recycling.

SYMBOLS

The rating plate on your machine may show symbols. These represent important information about the product or instructions on its use.



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Read these instructions in full before using the machine.

Wear safety footwear!

Wear protective gloves!

Wear eye protection! Wear hearing protection!

Lifting Point.

Bundling mark.



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Keep your hands away!

Do not remove or tamper with any protection or safety devices.



Dispose of the used oil in an environment-friendly way.



Do not use in the rain.



Danger! Keep clear of moving parts!



Do not remove jammed logs with your hands.



Warning! Stay clear of moving parts!



Before starting any repair maintenance or cleaning, always disconnect the power.



Keep bystanders away from the working area.

SAFETY

Safety Warnings & Instructions

• UNDERSTAND YOUR LOG SPLITTER

Read and understand the owner's manual and labels affixed to the log splitter. Learn its application and limitations as well as the specific potential hazards peculiar to it.

DRUGS, ALCOHOL AND MEDICATION

Do not operate the log splitter while under the influence of drugs, alcohol, or any medication that could affect your ability to use it properly.

AVOID DANGEROUS CONDITIONS

Put the log splitter on a 72-85 cm high, stable, flat, and level work bench where there is plenty of room for handling, and help the operator stay altert. Bolt the log splitter to the work surface if it tends to slip, walk, or slide.

Keep your work area clean and well lit. Cluttered areas invites injuries. Do not use the log splitter in wet or damp areas or expose it to rain.

Do not use it in areas where fumes from paint, solvents or flammable liquids pose a potential hazard.

INSPECT YOUR LOG SPLITTER

Check your log splitter before turning it on. Keep guards in place and in working order. Form a habit of checking to see that keys and adjusting wrenches are removed from tool area before turning it on. Replace damaged, missing or failed parts before using it.

DRESS PROPERLY

Do not wear loose clothing, gloves, neckties or jewelry (rings, wrist watches). They can be caught in moving parts.

Protective electrically non conductive gloves and non-skid footwear are recommended when working. Wear protective hair covering to contain long hair, preventing it from get caught in machinery.

• PROTECT YOUR EYES AND FACE

Any log splitter may throw foreign objects into the eyes. This can cause permanent eye damage. Always wear safety goggles. Everyday eyeglasses have only impact resistant lenses. They are not safety glasses.

Do not put the log splitter on the ground for operations. This is awkward operating position means that the operator has to bring his face close to the machine, and thus risks being struck by wood chips or debris.

EXTENSION CORDS

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Improper use of extension cords may cause inefficient operation of the log splitter which can result in overheating. Be sure the extension cord is no longer than 10m and its diameter is no less than 2.5mm² to allow sufficient current flow to the motor.

Avoid use of free and inadequately insulated connections. Connections must be made with protected material suitable for outdoor use.

AVOID ELECTRICAL SHOCK

Check that the electric circuit is adequately protected and that it corresponds with the power, voltage and frequency of the motor. Check that there is a ground connection, and a regulation differential switch upstream.

Ground the log splitter. Prevent body contact with grounded surfaces: pipes, radiators, ranges, and refrigerator enclosures.

Never open the pushbutton box on the motor. Should this be necessary, contact a qualified electrician.

Mark sure your fingers do not touch the plug's metal prongs when plugging or unplugging the log splitter.

KEEP VISITORS AND CHILDREN AWAY

The log splitter must be always operated by one person only. Other people should keep a safe distance from the work area, especially when the log splitter is under operations. Never use another person to help you with freeing a jammed log.

INSPECT YOUR LOG

Make sure there are no nails or foreign objects in logs to be split. The ends of the logs must be cut square. Branches must be cut off flush with the trunk.

DON'T OVERREACH

Floor must not be slippery.

Keep proper footing and balance at all times.

Never stand on log splitter. Serious injury could occur if the tool is tipped or if the cutting tools are unintentionally contacted. Do not store anything above or near the log splitter where anyone might stand on the tool to reach them.

AVOID INJURY FROM UNEXPECTED ACCIDENT

Always pay full attention to the movement of the log pusher.

Do not attempt to load the log on until the log pusher has stopped.

Keep hands out of the way of all moving parts.

• PROTECT YOUR HANDS

Keep you hands away from splits and cracks which open in the log; They may close suddenly and crush or amputate your hands.

Do not remove jammed logs with your hands.

• DON'T FORCE TOOL

It will do a better and safer job at its design rate. Never try to split logs larger than those indicated in the specifications table. This could be dangerous and may damage the machine.

Don't use log splitter for a purpose for which it was not intended.

NEVER LEAVE TOOL RUNNING UNATTENDED

Don't leave tool until it has come to a complete stop.

• DISCONNECT POWER

Unplug when not in use, before making adjustments, changing parts, cleaning, or working on the log splitter. Consult technical manual before servicing.

• PROTECT THE ENVIRONMENT

Take used oil to an authorized collection point or follow the stipulations in the country where the log splitter is used.

Do not discharge into drains, soil or water.

MAINTAIN YOUR LOG SPLITTER WITH CARE

Keep the log splitter clean for best and safest performance.

MAKE THE WORKSHOP CHILDPROOF

Lock the shop. Disconnect master switches. Store the log splitter away from children and others not qualified to use it.

Special Warnings & Instructions

- The splitting operation of the machine is designed to be activated by one person. While there is the possibility that additional operators could be working with the machine (e.g. for loading and unloading), only one operator should activate splitting operations;
- The machine shall not be used by children;
- Description of functional tests of the machine;
- The installation and maintenance requirements including a list of those devices e.g. two-hand control device which should be verified, how frequently the verification shall be carried out and by what method;
- Do not remove jammed logs with your hands. Never use another person to help you with freeing a jammed log. Lower the wedge until the log is split open.
- Only qualified person can assemble the machine.

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Model Number		65553	65558	65558-6	65558-7	
Motor		230V~50Hz,	220-240V ~50Hz,		230V ~50Hz, 2300W,	
		1500W, 7.5A	2200W, S3 25%, 9.6A		S6 40%, 10.3A	
Log Size	Dia.	50~250 mm				
Capacity	Length	130~370 mm	200~520 mm			
Maximum Force		4 Ton	5 Ton	6 Ton	7 Ton	
Hydraulic Pressure		16.5 Mpa	20.6 Mpa	20.8 Mpa	24.2 Mpa	
Hydraulic Oil Capacity		2.4 L	3.5 L			
Noise Pressure Level (LpA)		78.8 dbA under no load; 89.8 dbA under full load				
Vibration < 2.5		< 2.5 m/s²	m/s ²			
	Length	99.5 cm	116 cm			
Overall Sizes	Width		42.5 cm			
	Height		61.0 cm			
Weight	Steel Cage	49 kg	55 kg	59 kg	60 kg	
	Wire Cage	45 kg	50 kg	54 kg	55 kg	

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Specifications

- * S6 40%, continuous operation periodic duty: time of one load cycle is 10 minutes, operation time at constant load is 4 minutes, operation time at no-load is 6 minutes.
- * S3 25%, Intermittent periodic duty: time of one load cycle is 10 minutes, operation time at constant load is 2.5 minutes, de-energized and at rest is 7.5 minutes.
- * The diameter of the log is indicative a small log can be difficult to split when it has knobs or a particularly tough fiber. On the other hand, it may not be difficult to split logs with regular fibers.

ELECTRICAL REQUIREMENTS

For model #65553, #65558-7, connect the main leads to a standard 230V±10% (50Hz±1%) electrical supply which has protection devices of under-voltage, over-voltage, over-current as well as a residual current device (RCD) which maximum residual current rated at 0.03A.

For model #65558, #65558-6, connect the main leads to a standard 220-240V±10% (50Hz±1%) electrical supply which has protection devices of under-voltage, over-voltage, over-current as well as a residual current device (RCD) which maximum residual current rated at 0.03A.

For all models, if machine installs BSI approved plug or SEV approved plug, the degree of protection of the plug and socket combination should be IP44 at least.



- 1. Log Splitter Frame
- 2. Transport Handle
- 3. Support Strut 1 (2 pair)
- 4. Support Strut 2
- 5. Guard Bottom Plate
- 6. Log Tray 1
- 7. Log Tray 2

Steel Guard / Wire Guard

- 8. Plate connector (Steel Guard only)
- 9. Top Guard Plate 1
- 10. Top Guard Plate 2
- 11. Rear Guard Plate 1
- 12. Rear Guard Plate 2
- 13. Front Guard Plate
- 6 ^{14.} Left Guard Plate

15. Operator's Manual
16. Hardware Bag, including



ASSEMBLY

Lifting Handle

Mount the lifting handle to the U bracket with two M6×16 bolts.



Log Tray

 Mount the guard bottom plate to rear guiding plate and secure with two M6×12 socket head cap screws and locknuts.

Loosen the socket head cap screw and big washer on the wheel bracket, insert the open end of support strut 2 between the big washer and wheel bracket and tighten screw.

Connect the upper end of support strut 2 to the guard bottom plate with cross recessed pan head screw $M6 \times 12$ and locknut M6 and then tighten it.



2. Align the two mounting holes of the log tray 1 to the holes on rear side of the splitter. Insert one socket head cap screw M6×12 and spring washer 6 into the mounting hole on left side and the other socket head cap screw M6×12 and locknut M6 on right side and securely tighten both.

Loosen the cup head bolt and nut on left side of the front leg, insert the open end of support strut 1 onto the bolt and then tighten the nut. Connect the upper end of support strut 1 to the log tray 1 with cross recessed pan head screw $M6 \times 12$ and locknut M6 and then tighten it.



3. Align the two mounting holes of the log tray 2 to the holes on front side of the splitter. Insert one socket head cap screw M6×12 and spring washer 6 into the mounting hole on right side and the other socket head cap screw M6×12 and locknut M6 on left side and securely tighten both.

Loosen the cup head bolt and nut on right side of the front leg, insert the open end of support strut 1 onto the bolt and then tighten the nut. Connect the upper end of support strut 1 to the log tray 2 with cross recessed pan head screw M6 \times 12 and locknut M6 and then tighten it.



4. Connect log tray 1 and log tray 2 with two M6×12 screws and locknuts.



Steel Guard

 Attach the front guard plate, left guard plate and two rear guard plates to the log tray and bottom plate with M6×12 bolts and nuts.



- 2. Mount the two top guard plates to the vertical plates with M5×12 bolts and nuts.
- 3. Connect two top guard plates / rear guard plates with the plate connectors and M5×12 bolts and nuts.



Wire Guard

- 1. Connect two rear guard plates together with two M6×20 bolts, U-spacers and nuts.
- 2. Attach the front guard plate, left guard plate and rear guard plates to the log tray and bottom plate. Secure the front and rear plates with M6×20 bolts, U-spacers and nuts and secure the left plate with M6×20 bolt and nut.



- 3. Mount the two top guard plates to the vertical plates with M6×20 bolts, U-spacers and nuts.
- 4. Connect two top guard plates with two M6×20 bolts, U-spacers and nuts.



KNOW YOUR MACHINE



Bleed Screw

Before operating the log splitter, the Bleed Screw should be loosened by some rotations until air can go in and out of the oil tank smoothly.



Air flow thru the Bleed Screw hole should be detectable whilst the log splitter is under operation.

Before moving the log splitter, make sure the Bleed Screw is tightened to avoid oil leaking from this point.



Failure to loosen the bleed screw will keep the sealed air in hydraulic system being compressed after being decompressed. Such continuous air compression and decompression will blow out the seals of the hydraulic system and cause permant damage to the log splitter.

Max Pressure Limiting Screw

Max pressure was set before the log splitter ex work and the max pressure limiting screw is sealed with glue to ensure the log splitter works under pressure no more than 4(5/6/7) tons. The setting was done by qualified mechanic with professional instruments.

Unauthorized resetting will cause the hydraulic pump fail to output enough splitting pressure or **RESULT IN SERIOUS INJURY AS WELL AS DAMAGE TO THE MACHINE**.



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TRANSPORT

The log splitter is equipped with 2 wheels for minor moving. To move the log splitter to the work site.



DELIVERING LOG SPLITTER TO WORK SITE

The log splitter is equipped with 2 wheels for minor moving. To move the log splitter to the work site. Grip the handle to tilt the log splitter slightly after making sure the oil tank cover is tightened.

For a Long Distance Transport

Fasten the log splitter at the positions with bundling marks after lifting it into the truck, to avoid free movement of the log splitter.



If using a crane, lay hoist sling at the lifting point. Never try to lift the log splitter at the Handle.

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SPLITTER OPERATION

Application Conditions

This log splitter is a home use model. It is designed for operating under ambient temperatures between +5°C and 40°C and for installation at altitudes no more than 1000m above M.S.L. The surrounding humidity should be less than 50% at 40°C. It can be stored or transported under ambient temperatures between -25°C and 55°C.

Before operation, put the log splitter on a 72-85cm high, stable, flat and level work bench or high stand and make sure it is bolted to the ground.

Fix the support leg of the log splitter with two bolts M8X35(A) on the worktop.



Splitting - Two Hands Operation

This log splitter is equipped with a "ZHB" control system that requires to be operated by both hands of the user. The left hand controls the hydraulic control lever, while the right hand controls the pushbutton switch. First push down and hold the pushbutton switch to start the motor, while continuing to hold down the





pushbutton switch, press and hold the hydraulic control lever downward to engage the log pusher. The log push will freeze upon absence of either hand. Only after both hands release the controls will the log pusher start to return to the starting position.



After this time interval, the oil under pressure will be overheated and the machine could be damaged. For such extremely hard log, rotate it by 90° to see whether it can be split in a different direction. In any case, if you are not able to split the log, this means that its hardness exceeds the capacity of the machine and thus that log should be discarded to protect the log splitter.

Always set logs firmly on the log retaining plates and work table. Make sure logs will not twist, rock or slip while being split. Do not force the blade by splitting the log on the upper part. This will break the blade or damage the machine.



Break log in the direction of its growing grain. Do not place log across the log splitter for splitting. It may be dangerous and may seriously damage the machine.

Do not attempt to split 2 pieces of log at the same time. One of them may fly up and hit you.



DANGER!

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Keep your hands away from splitting area, live area and heating area while working!

FREEING A JAMMED LOG

- Release both controls.
- After the log pusher moves back and completely stops at its starting position, insert a wedge wood under the jammed log.
- Start the log splitter to push the wedge wood to go completely under the jammed one.
- Repeat above procedure with sharper slope wedge woods until the log is completely freed.







Do not try to knock the jammed log off. Knocking about will damage the machine or may launch the log and cause an accident.



REPLACING HYDRAULIC OIL

Replace the Hydraulic oil in the log splitter after every 150 hours of use. Take the following steps to replace it.

- Make sure all moving parts stop and the log splitter is unplugged.
- Unscrew Oil Drain Bolt with Dipstick to remove it.
- Turn the log splitter on the Support Leg side over a 4 liters capacity container to drain the hydraulic oil off.
- Turn the log splitter on the motor side.
- Refill fresh hydraulic oil at the volume as per the hydraulic oil capacity of a particular model indicated in above specifications table.
- Clean the surface of Dipstick on the Oil Drain Bolt and put it back into the oil tank while keeping the log splitter vertical.
- Make sure the level of the refilled oil is just between 2 grooves around the Dipstick.
- Clean the Oil Drain Bolt before threading them back. Make sure they are tightened to avoid leakage before placing the log splitter horizontally.

Following hydraulic oils or equivalent are recommend for the log splitter's hydraulic transmission system:

SHELL Tellus 22 MOBIL DTE 11 ARAL Vitam GF 22 BP Energol HLP-HM 22





Oil Level

Use a drain pan to aid in the removal of all used oil and particles.

Remove oil drain plug to drain oil from the hydraulic transmission system. Examine oil for metal chips as a precaution to future problems.



Read dipstick to determine the maximum and minimum of the oil level. Low oil can damage the oil pump. Overfilling can result in excessive temperature in the hydraulic transmission system.



SHARPENING WEDGE

This log splitter is equipped with a reinforced splitting wedge, which has a blade which is specially treated. After long periods of operation, and when required; sharpen the wedge using a fine-toothed file removing any burrs or flat spots on the edge.

TROUBLE SHOOTING			
PROBLEM	PROBABLE CAUSE	REMEDY SUGGESTED	
	Log is improperly positioned	Refer to "Log Splitter Operation" section for perfect log loading.	
	The sizes or hardness of the log exceeds the capacity of the machine	Reduce the log sizes before splitting it on the log splitter.	
Fails to split logs	Wedge cutting edge is blunt	Refer to "Sharpening Wedge" section to sharpen the cutting edge.	
	Oil leaks	Locate leak(s) and contact the dealer.	
	Unauthorized adjustment was made on Max. Pressure Limiting Screw. Lower max pressure rating was set.	Contact the dealer.	
The log pusher moves jerkily, taking unfamiliar noise or vibrating a lot	Lack of hydraulic oil and excessive air in the hydraulic system.	Check oil level for possible oil refilling. Contact the dealer.	
	Air sealed in hydraulic system while operating.	Loosen Bleed Screw by 3 ~ 4 rotations before operating the log splitter.	
Oil leaks around cylinder ram or	Bleed Screw is not tightened before moving the log splitter.	Tighten the Bleed Screw up before moving the log splitter.	
from other points	Oil Drain Bolt with Dipstick is not tight.	Tighten the Oil Drain Bolt with Dipstick.	
	Hydraulic Control Valve Assembly and / or seal(s) worn	Contact the dealer	



ATTENTION: ALL REPAIR WORK MUST BE DONE BY A SPECIALIST FOR THIS PRODUCT.









PARTS SCHEMATIC

Parts List

No.	Description	Q'ty
1	Lever Mount Nut	1
2	Cap Nut M10	3
3	Lever	1
4	Lever Knob	1
5	Guard Plate	1
6	Customized Nut	2
7	Copper Gasket 10	4
8	Safety Valve Bolt M8	1
9	O-ring 5.5x2	1
10	Snap Washer 6	1
11	Valve Retract Spring	1
12	O-ring 6x1.5	1
13	Valve Core Rod	1
14	Sliding Sleeve	1
15	Sliding Sleeve Sping	1
16	Alumium Cover (Rear)	1
17	O-ring 50X2.65	1
18	Piston	1
19	Piston Ring 55	1
20	O-ring 32x3.5	1
21	Spring	1
22	Stud Bolt	4
23	Hydraulic Cylinder	1
24	Alumium Cover (Front)	1
25	Piston Rod Seal 30	1
26	O-ring 7x1.9	1
27	Wing Bolt M5X12	1
28	Wahser Groupware 14	1
29	Dipstick	1
30	Piston Rod	1
31	Lift Handle	1
32	Screw M6X16	2
33	Frame Tube	1
34	Lead plank	2
35	Spring Washer 6	6
36	Screw M6x12	12

No.	Description	Q'ty
37	Nut M14	2
38	Flat Wahser 14	2
39	Hexagon Thin Nut M14	2
40	Drain Plug	1
41	Washer Groupware 16	1
42	Valve Sleeve	1
43	O-ring 10x2	5
44	Adjusting Screw M5x8	1
45	Steel Ball 6	1
46	Valve Spring	1
47	Adjusting Screw M8x8	1
48	Log Pusher Connection Weldment	1
49	Plastic Insert 1	1
50	Plastic Insert 2	1
51	Log Pusher	1
52	Nut M10	4
53	Flat Wahser 10	5
54	Screw M10x25	4
55	Wheel Cap	2
56	Shaft Circlip A14	2
57	Wheel	2
58	Washer 6	1
59	Wheel Bracket	1
60	Bolt M8x55	6
61	Spring Washer 8	9
62	Washer 8	9
63	Gear Pump Cover	1
64	O-Ring 10.6x2.65	2
65	Gear Housing Plate	1
66	Circlip 10	2
67	Gear Shaft	1
68	Steel Ball 2.5	1
69	Pump Gear	2
70	Pin 2.5x4	1
71	Washer 6	1

No.	Description	Q'ty
70	Bolt M5x180 (For model 65558, 65558-6, 65558-7)	3
12	Bolt M5x185 (For model 65553 only)	3
73	Motor Cover	1
74	Seal FB11x26x7	1
75	Nut M8	1
76	Screw M8x35	1
77	Motor	1
78	Motor Fan	1
79	Shaft Circlip A17	1
80	Motor Cover	1
81	Spring Washer 5	6
82	Screw M5X10	3
83	Leg	1
84	Nut M8	5
85	Bolt M8x12	3
86	Cable & plug	1
87	Bolt M8x16	2
88	Cable Gland	1
89	Washer 5	6
90	Screw M4X10	11
91	Switch Box cover	1
92	Airproof Gasket	1
93	Connection Terminal	1

No.	Description	Q'ty
94	Capacitor	1
95	Switch	1
96	Switch Box	1
97	Waterproof Gasket	1
98	Motor Support Left Shoe	1
99	Motor Support Right Shoe	1
100	Pin 8X24	2
101	O-ring 46.2x1.8	2
102	Sliding Sleeve	4
103	Bolt M8x30	3
104	Spring Washer 14 (Model 65553 is none)	2
105	Screw M6X12 (Machine for assembling Steel Guard)	13
	Screw M6X12 (Machine for assembling Wire Guard)	5
106	Guard Bottom Plate	1
107	Locknut M6 (Machine for assembling Steel Guard)	17
	Locknut M6 (Machine for assembling Wire Guard)	9
108	Log Tray 1	1
109	Support Strut 1	2
110	Log Tray 2	1
111	Support Strut 2	1



Steel Guard Parts List

No.	Description	Q'ty
112	Top Guard Plate 2	1
113	Screw M5x12 (For model 65558, 65558-6, 65558-7)	20
	Screw M5x12 (For model 65553 only)	19
114	Locknut M5 (For model 65558, 65558-6, 65558-7)	20
	Locknut M5 (For model 65553 only)	19
115	Plate Connector	2
116	Top Guard Plate 1	1
117	Left Guard Plate	1
118	Rear Guard Plate 2	1
119	Rear Guard Plate 1	1
120	Front Guard Plate	1

Wire Guard Parts List

No.	Description	Q'ty
112*	Top Guard Plate 2	1
113*	Screw M6x20	20
114*	Locknut M6	20
115*	U-Spacer	19
116*	Top Guard Plate 1	1
117*	Left Guard Plate	1
118*	Rear Guard Plate 2	1
119*	Rear Guard Plate 1	1
120*	Front Guard Plate	1

