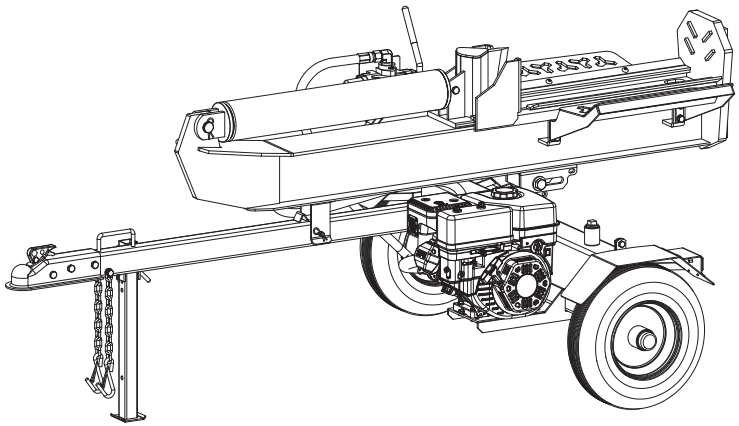
YARDWORKS®/MD

25 Ton Full Beam Log Splitter

model number 060-0550-6 | contact us: 1.866.523.5218



IMPORTANT:
Read and follow all safety rules and operating instructions before using this product.

Instruction Manual

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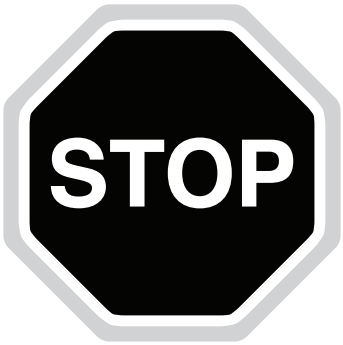


For problems or questions, **DO NOT RETURN TO STORE**.
Please contact one of our Customer Service Agents
who would be happy to assist you.

For Customer Assistance Please Call:
1.866.523.5218

- DANGER: Log splitter engine exhaust contains carbon monoxide, a colourless, odourless, poison gas. Breathing carbon monoxide will cause nausea, dizziness, fainting or death. If you start to feel dizzy or weak, get to fresh air immediately.
  - Operate log splitter outdoors only in a well-ventilated area.
  - DO NOT operate the log splitter inside any building, including garages, basements, crawlspaces and sheds, enclosures or compartments.
  - DO NOT allow exhaust fumes to enter a confined area through windows, doors, vents or other openings.
- DANGER: Using an engine indoors can kill you in minutes. Engine exhaust contains carbon monoxide. This is a poison you cannot see or smell.
  - Never use inside a home or garage, even if doors and windows are open.
  - Only use outside and far away from windows, doors, and vents.
  - Install battery-operated carbon monoxide alarms or plug-in carbon monoxide alarms with battery back-up according to the manufacturer's instructions.
- DANGER: Rotating parts can entangle hands, feet, hair, clothing and/or accessories. Traumatic amputation or severe laceration can result.
  - Keep hands and feet away from rotating parts.
  - Tie up long hair and remove jewellery.
  - Operate equipment with guards in place.
  - DO NOT wear loose-fitting clothing, dangling drawstrings or items that could become caught.
- WARNING: Operation of this equipment may create sparks that can start fires around dry vegetation.
  - A spark arrestor may be required. The operator should contact local fire agencies for laws or regulations relating to fire prevention requirements.
- WARNING: Sparks can result in fire or electrical shock.
  - When servicing the engine:
    - Disconnect the spark plug wire and place it where it cannot contact the plug.
    - DO NOT check for spark with the plug removed.
    - Use only approved spark plug testers.
- WARNING: Running engines produce heat. Severe burns can occur on contact. Combustible material can catch fire on contact.
  - DO NOT touch hot surfaces.
  - Avoid contact with hot exhaust gases.
  - Allow equipment to cool before touching.
  - Maintain at least 3' (91.4 cm) of clearance on all sides to ensure adequate cooling.

- Maintain at least 5' (1.5 m) of clearance from combustible materials.

– WARNING: Only one person should operate the log splitter and load the logs.

– WARNING: Crush Hazard

- Wedge can cut through skin and break bones. Keep all limbs away from wedge and endplate.

– WARNING: Projectile Hazard

- Pieces of log may be ejected from the splitter while operating. Wear ANSI-approved safety glasses when operating. Be alert.

– WARNING: Keep Operator Work Zone Clear

- Keep work zone clear of debris while working to ensure safe footing.

– WARNING: Before removing the pin installed into the front support leg make sure hitch is installed onto vehicle. Releasing the pin before will cause support leg to slide up and possibly cause injury.

– WARNING: Skin Injection Hazard. High pressure hydraulic oil can inject under your skin.

- Make sure all fittings are tightly secure before applying pressure. Relieve system of pressure before servicing.

– WARNING: Towing Hazard

- ALWAYS check all local and provincial regulations regarding towing, licensing and lights before towing your log splitter. Review towing safety warnings in your towing vehicle manual.
- Drive safely. Be aware of the added length of the log splitter. NEVER ride or transport cargo on the log splitter. Choose a level surface to operate the log splitter.
- NEVER EXCEED Maximum Towing Speed 45 mph (72 km/h)

– WARNING: Rapid retraction of the starter cord will pull hand and arm towards the engine faster than you can let go. Unintentional startup can result in entanglement, traumatic amputation or laceration. Broken bones, fractures, bruises or sprains could result.

- When starting engine, pull the starter cord slowly until resistance is felt and then pull rapidly to avoid kickback.

– CAUTION: Parts of the hydraulic circuit (cylinder, pump, valve-body, hoses) can become very hot during operation.

– WARNING: In most provinces towing on public streets is either prohibited or would require further licensing or modifications. Please check with your local authorities regarding regulations, restrictions and registration.

– CAUTION: Improper treatment or use of the log splitter can damage it, shorten its life and void your warranty.

- Use the log splitter only for intended uses.
- Operate only on level surfaces.
- DO NOT expose log splitter to excessive moisture, dust, or dirt.

- DO NOT allow any material to block the cooling slots.
- DO NOT use the engine if:
  - Equipment sparks, smokes or emits flames.
  - Equipment vibrates excessively.

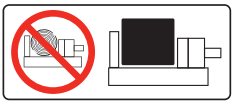
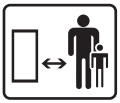
FUEL SAFETY

- DANGER: Gasoline and gasoline vapours are highly flammable and explosive.
  - Fire or explosion can cause severe burns or death.
- Gasoline and gasoline vapours:
  - Gasoline is highly flammable and explosive.
  - Gasoline can cause a fire or explosion if ignited.
  - Gasoline is a liquid fuel but its vapours can ignite.
  - Gasoline is a skin irritant and needs to be cleaned up immediately if spilled on skin or clothes.
  - Gasoline has a distinctive odour. This will help detect potential leaks quickly.
  - In any petroleum gas fire, flames should not be extinguished unless by doing so the fuel supply valve can be turned OFF. This is because if a fire is extinguished and a supply of fuel is not turned OFF, then an explosion hazard could be created.
  - Gasoline expands or contracts with ambient temperatures. Never fill the gasoline tank to full capacity, as gasoline needs room to expand if temperatures rise.
- When adding or removing gasoline:
  - Turn the engine off and let it cool for at least two minutes before removing the gasoline cap. Loosen the cap slowly to relieve pressure in the tank.
  - Only fill or drain gasoline outdoors in a well-ventilated area.
  - DO NOT pump gasoline directly into the engine at the gas station. Use an approved container to transfer the fuel to the engine.
  - DO NOT overfill the gasoline tank.
  - Always keep gasoline away from sparks, open flames, pilot lights, heat and other sources of ignition.
  - DO NOT light or smoke cigarettes.
- When starting the engine:
  - DO NOT attempt to start a damaged engine.
  - Make certain that the gasoline cap, air filter, spark plug, fuel lines and exhaust system are properly in place.
  - Allow spilled gasoline to evaporate fully before attempting to start the engine.
  - Make certain that the log splitter is resting firmly on level ground.
- When operating the log splitter:
  - DO NOT move or tip the log splitter during operation.
  - DO NOT tip the log splitter or allow fuel or oil to spill.

- When transporting or servicing the log splitter:
  - Make certain that the fuel valve is in the OFF position and the gasoline tank is empty.
  - Disconnect the spark plug wire.
- When storing the log splitter:
  - Store away from sparks, open flames, pilot lights, heat and other sources of ignition.
  - Do not store log splitter or gasoline near furnaces, water heaters, or any other appliances that produce heat or have automatic ignitions.
- WARNING: Never use a gasoline container, gasoline tank or any other fuel item that is damaged or appears damaged.

SYMBOL	MEANING
	Read Operator's Manual. To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Eye and Ear Protection. Always wear safety goggles or safety glasses with side shields, and as necessary a full face-shield as well as full ear protection when operating this product.
	Footwear. Always wear safety shoes or heavy boots when operating the machine.
	Gloves. Always wear nonslip, heavy-duty protective gloves when operating this product.
	Safety Alert. Precautions that involve your safety.
	Risk of Fire. Fuel and its vapours are extremely flammable and explosive. Fire can cause severe burns or death. Do not add fuel while the product is operating or still hot.
	Skin Injection Hazard. High pressure hydraulic oil can inject under your skin. Make sure all fittings are tightly secure before applying pressure. Relieve system pressure before servicing.
	Always keep hands away from the wedge and the ram. Moving parts can crush or cut.
	Always keep feet away from the wedge and the ram. Moving parts can crush or cut.

SAFETY SYMBOLS

SYMBOL	MEANING
	Hot Surface. To reduce the risk of injury or damage, avoid contact with any hot surface.
	Open Flame alert. Fuel and its vapours are extremely flammable and explosive. Keep fuel away from smoking, open flames, sparks, pilot lights, heat, and other ignition sources.
	Hold logs on sides when loading. Keep hands and feet away from cylinder, wedge, and partially split logs.
	Never place hands or any part of the body between a log and any part of the log splitter. Do not split logs against the grain. Split logs end to end in the direction of the grain only.
	Toxic Fumes. The engine exhaust from this product contains chemicals known to cause cancer and birth defects and other reproductive harm. Risk of Asphyxiation. This engine emits carbon monoxide, an odourless, colourless poison gas. Breathing carbon monoxide can cause nausea, fainting or death. Use only in a well-ventilated area.
	Clearance. Keep all objects including others at least 10’ (3 m) from this machine. Only one person should operate the log splitter and load the logs.
	Never operate on an incline. Make sure the splitter is on a level surface. Block tires and ensure support leg is secure to prevent unintended movement of the log splitter during operation.

LOG SPLITTER SPECIFICATIONS

Ram Force	25 Ton
Cycle Time	11 Seconds
Hydraulic Tank Capacity	4 gal (15.1 L)
Total Hydraulic Oil System Capacity	4.5 gal (17 L)
Max Log Length	23 3/4” (60.3 cm)
Max Log Weight	100 lb (45 kg)
Coupler Ball Size	2” (5.1 cm)
Tire Size	16” (40.6 cm)
Max Towing Speed	45 mph (72 km/h)
Cylinder Size	3 15/16 x 22 5/8” (10 x 57.5 cm)
Cylinder Rod Size	1 9/16” (4 cm)
Gear Pump	2-stage
Max Pressure	3900 PSI
Max Flow Capacity	11 GPM (41.6 LPM)
Control Valve	Detent (auto-return)
Gross Weight	498 lb 4 oz (226 kg)
Net Weight	429 lb 14 oz (195 kg)
Height	39 5/16” (99.8 cm)
Width	51 1/4” (130.2 cm)
Length	89 1/2” (227.3 cm)

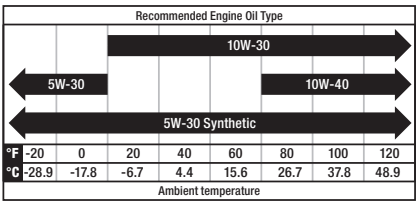
ENGINE SPECIFICATIONS

Model	YF172F-000
Displacement	224 cc
Type	4-Stroke OHV
Start Type	Manual

OIL SPECIFICATIONS

DO NOT OVERFILL.

Type	See chart below
Capacity	0.6 qt (0.6 L)



NOTE: Weather will affect engine oil and engine performance. Change the type of engine oil used based on weather conditions to suit the engine needs.

HYDRAULIC OIL SYSTEM

Capacity	4.5 gal (17 L)

For year-round use in warmer climates (always ABOVE 32˚F/ 0˚C):

- ISO 32
- Universal Hydraulic Oil

For year round use in colder climates (BELOW 32˚F/ 0˚C):

- Automatic Transmission Fluid

Replacement filters:

- Fram PH9342
- K&N HP-2008
- Wix 51361

FUEL SPECIFICATIONS

Use regular unleaded gasoline with a minimum octane rating of 85 and an ethanol content of less than 10% by volume. DO NOT USE E15 or E85. DO NOT OVERFILL.

Gasoline Capacity	0.9 gal (3.4 L)

SPARK PLUG SPECIFICATIONS

OEM Type	NHSP F6RTC
Replacement Type	NGK BPR6ES or equivalent
Gap	0.028–0.031” (0.7–0.8 mm)

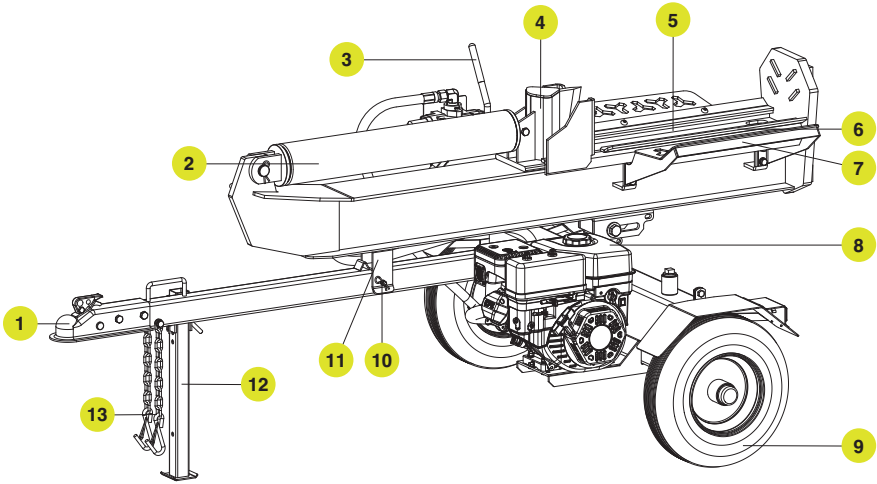
VALVE SPECIFICATIONS

Intake Clearance	0.005–0.007” (0.13–0.17 mm)
Exhaust Clearance	0.007–0.009” (0.18–0.22 mm)

IMPORTANT MESSAGE ABOUT TEMPERATURE

Your product is designed and rated for continuous operation at ambient temperatures up to 40°C (104°F). When your product is needed it may be operated at temperatures ranging from 2°F (-10°C) to 122°F (50°C) for short periods of time. If exposed to temperatures outside this range during storage, it should be brought back within this range before operation. In any event, the product must always be operated outdoors, in a well-ventilated area and away from doors, windows and vents.

⚠ NOTE: When temperature is below 32°F (0°C) use Automatic Transmission Fluid (Dexron-III or similar).



1. 2” (5.1 cm) Ball Coupler	For towing the log splitter behind your vehicle.
2. Hydraulic Cylinder	3 15/16” (10 cm) bore × 22 5/8” (57.5 cm) stroke. Rated to 3900 PSI.
3. Control Valve Handle	Controls the movement of the cutting wedge.
4. Wedge	
5. Splitting Beam	
6. Log Cradle	Prevents logs from rolling off beam.
7. Log Catchers	
8. Engine	224 cc, OHV.
9. Tires	Maximum travel speed is 45 mph (72 km/h).
10. Beam Lock Pin	Secures in either horizontal or vertical position.
11. Beam Bracket	Holds splitting beam in place.
12. Support Leg	Supports log splitter while operating. Raise leg for towing.
13. Safety Chains	For use while towing.

Parts Included

Part	Part Qty.	Hardware Needed	Hardware Qty.	Tool Needed
Wheels	2	Castle Nut	2	30mm open-end wrench
		Axle Cap	2	Mallet
Support Leg	1	Pin	1	
		R-Pin	1	
Tow Bar	1	Bolt M12 × 85	2	18mm wrench or socket
		Nut M12	2	19mm wrench or socket
Engine	1	Bolt M8 × 40	4	13mm wrench
		Nut M8	4	14mm wrench
		Lock Washer	4	
		Flat Washer	4	
Beam	1	Bolt M18 × 115	1	27mm wrench or socket
		Nut M14	1	22mm wrench or socket
Fenders	2	Bolt M10 × 25	4	16mm wrench or socket
		Nut M10	4	17mm wrench
		Lock Washer	4	
		Flat Washer	4	
Oil Return Hose	1			27mm open-end wrench
High Pressure Hose	1			27mm open-end wrench
Suction Hose	1	C-Clamp	2	Flat head screw driver or 8mm socket
Log Catchers	2	Bolt M10 × 30	2	6mm allen wrench
		Bolt M10 × 20	4	16mm wrench or socket
		Nut M10	2	17mm wrench
		Lock Washer	6	
		Flat Washer	6	

TRAINING

1. Read the Operator's Manual completely before attempting to use this log splitter.
2. Do not allow anyone to operate your log splitter who has not read the Operator's Manual or has not been instructed on the safe use of the log splitter.
3. Never allow children or untrained adults to operate this machine.
4. Many accidents occur when more than one (1) person operates the log splitter. If a helper is assisting in loading logs to be split, never actuate controls until helper is clear of the area.
5. Never allow anyone to ride on the machine.
6. Never transport cargo on the log splitter.
7. High fluid pressures are developed in hydraulic log splitters. Pressurized hydraulic fluid escaping through a pin hole opening can puncture skin and cause severe blood poisoning. Therefore, the following instructions should be heeded at all times.

   7a. Do not operate the unit with frayed, kinked, cracked or damaged hoses, fittings, or tubing.

   7b. Stop the engine and relieve hydraulic system pressure before changing or adjusting fittings, hoses, tubing, or other system components.

   7c. Do not adjust the pressure settings of the pump or valve.

   7d. Do not check for leaks with your hand. Leaks can be detected by passing cardboard or wood over the suspected area. Look for discolouration. If injured by escaping fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.

8. Keep the operator zone and adjacent area clear for safe, secure footing.
9. If your log splitter is equipped with an internal-combustion engine and intended for use near any unimproved forest, brush, or grass covered land, the engine exhaust should be equipped with a spark arrestor. Make sure you comply with local, provincial, and federal codes. Take appropriate fire-fighting equipment with you.
10. Log splitters should be used only for splitting wood. Do not use for other purposes unless the manufacturer provides attachments and instructions.
11. Only split wood WITH the grain. NEVER split perpendicular to the grain

PREPARATION

1. Be thoroughly familiar with all controls and with proper use of the equipment.
2. Safety Gear:
   - 2a. Always wear safety shoes or heavy boots when operating the machine.
   - 2b. Always wear safety glasses or goggles when operating the machine.
   - 2c. Never wear jewelery or loose-fitting clothing that might become entangled in moving or rotating parts of the machine.
3. Make sure the splitter is on a level surface. Block tires and ensure support leg is secure to prevent unintended movement of the log splitter during operation.
   - 3a. Always operate the splitter from the manufacturer's indicated operator zone.
4. Logs to be split on ram-type units should be cut as squarely as possible.
5. Fuel:
   - 5a. Use an approved fuel container.
   - 5b. Never add fuel to a running or hot engine.
   - 5c. Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
   - 5d. Replace gasoline cap securely and clean up any spilled fuel.

OPERATION

1. Before starting this log splitter, review all safety rules. Failure to follow these rules may result in serious injury to the operator or bystanders.
2. Be sure to confirm all hose connections and hose clamps are tight before each use. It is possible for connections to vibrate loose over time.
3. Never leave the machine unattended with the power source operating.
4. Never operate the machine when under the influence of alcohol, drugs or medication.
5. The machine owner should instruct all operators in safe log splitter operation.
6. Always operate the log splitter with all safety equipment in place and all controls properly adjusted for safe operation.
7. Always operate the log splitter at manufacturer's recommended speed.
8. Always keep hands and feet clear of moving parts.
9. When loading a ram-type log splitter, place your hands on the sides of the log, not the ends. Never place your hands or any part of your body between a log and any part of the log splitter.
10. On ram-type log splitters, never attempt to split more than one (1) log at a time unless the ram has been fully extended and a second log is needed to complete the separation of the first log.

11. On ram-type log splitters on which the logs are not cut square, the longest portion of the log should be rotated down and the most square end placed against the ram.
12. Only split logs with the grain of the wood.
13. Use only your hand to operate the log splitter controls.
14. Do not refuel the engine until it has cooled for several minutes.

MAINTENANCE AND STORAGE

1. Always shut off the power source while repairing or adjusting the splitter except as recommended by the manufacturer.
2. Clean debris and chaff from the engine cylinder, cylinder head fins, recoil starter cover, and muffler areas. If the engine is equipped with a spark arrestor muffler, clean and inspect it regularly (follow manufacturer's service instructions). Replace, if damaged.
3. Never store the unit indoors with fuel in the tank. Fumes might reach an open flame spark. Allow the engine to cool before storing in any enclosure.
4. Clear debris from movable parts, but only when the power source is shut off.
5. Check to be sure all nuts and bolts are tight to assure the equipment is in safe working condition.

ASSEMBLY

If your log splitter is already assembled, skip the assembly instructions in this manual.

If unassembled, please read and follow these instructions.

If you have any questions regarding the assembly of your log splitter, call our Technical Support Team at 1.866.523.5218. Please have your serial number and model number available.

TOOLS NEEDED

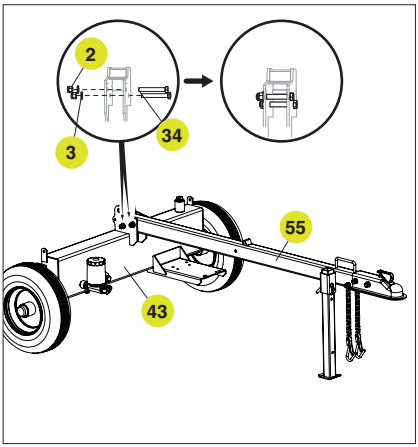
- Ratchet wrench
- 17 mm socket
- 17 mm wrench
- Adjustable wrench (to 1 1/4”)
- 13 mm socket
- 13 mm wrench
- Rubber mallet
- 10 mm socket
- 10 mm wrench
- Standard/flathead screwdriver

OPEN SHIPPING CRATE

1. Set the shipping crate on a solid, flat surface.
2. Carefully cut the shipping bands and remove lid of shipping crate.
3. Locate all hardware before beginning assembly.

1) INSTALL THE TOW BAR

Attach the tow bar (55) with the support leg facing down to the bracket on top of the hydraulic oil tank (43) with two M12 × 85 bolts (34), M12 washers (3) and M12 lock nuts (2).

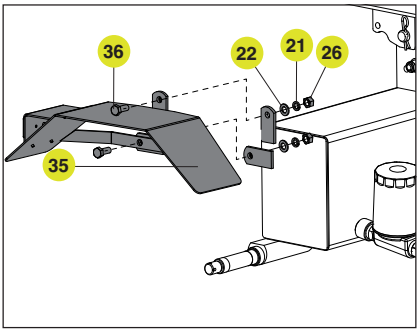


WARNING: Over-tightening the castle nut will cause the bearings to run hot and fail prematurely.

NOTE: Keep dirt and debris away from the wheel bearings during assembly.

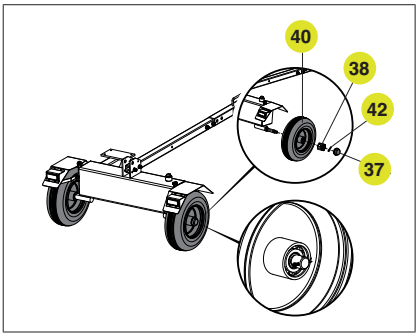
2) INSTALL THE FENDERS

1. Attach the fender (35) to the side of the hydraulic oil tank with an M10 × 25 bolt (36), M10 washer (22), M10 lock washer (21) and M10 nut (26). The safety reflector should be facing the back of the hydraulic oil tank.
2. Repeat with second fender on opposite side.



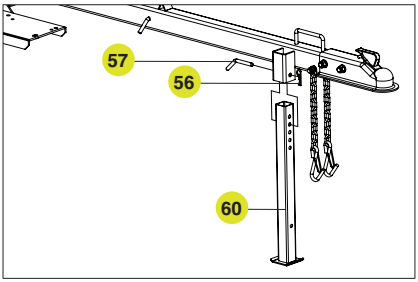
3) INSTALL THE WHEELS

1. Remove the two plastic shipping caps from the wheel hubs.
2. Slide the wheel (40) onto the axle.
3. Be sure the tire valve stem is facing out.
4. Thread the castle nut (38) on the axle and tighten by hand. Use a wrench to tighten another ¼ turn.
5. Spin the wheel (40) to distribute the bearing grease.
6. Loosen the castle nut (38) and re-tighten by hand.
7. Install the cotter pin (42) through the axle and castle nut (38).
8. Wheel should spin freely but when grasped on both sides, should not move from side to side (40).
9. Install the axle cap (37) using a soft-faced mallet or hammer and wood block.
10. Repeat for the other wheel.



4) INSTALL THE SUPPORT LEG

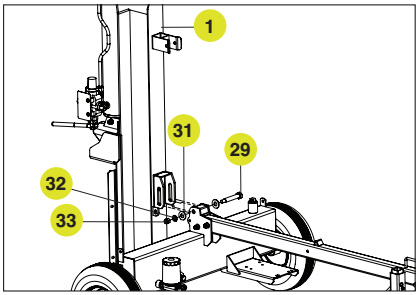
1. Insert the support leg (60) into the leg holder on the tow bar and secure with pin (57) and R-pin (56).

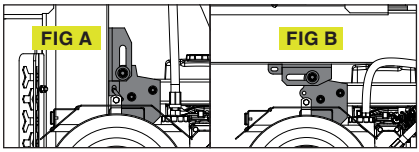


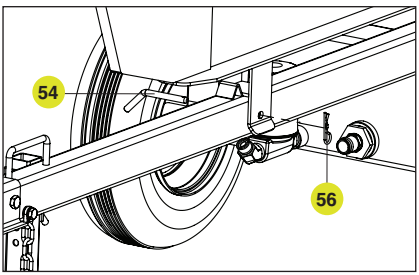
WARNING: The beam is extremely heavy and should only be handled with 2 or more people. DO NOT try and lift or handle the beam without assistance.

5) INSTALL THE BEAM

1. Stand the beam (1) vertical on the foot plate.
2. Roll the tank into position so the pivot holes of the tank and beam are aligned.
3. Insert the bolt (29) and secure it with the washers (31), (32) and lock nut (33).
4. Tighten the lock nut (33) onto the bolt (29).
5. Pivot the beam to the horizontal position and secure it with the lock pin (54) and R-clip (56) through the tow bar.







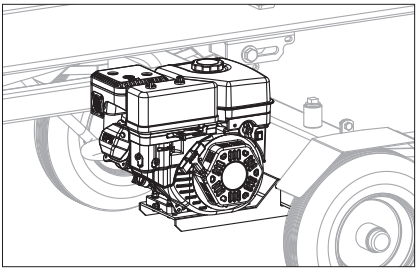
NOTE:
The bolt (36) should slide with little resistance in the slotted hole

- **When in the vertical position, the bolt should be at the rear/bottom of the slotted hole (see Fig. A).**
- **When in the horizontal position, the bolt should be at the front/top of the slotted hole (see Fig. B).**

If the bolt does not slide to the correct position when the beam is transitioned, loosen the nut in half turn increments until it does.

6) INSTALL THE ENGINE AND HOSES

1. Attach the engine/pump to the engine mounting plate on the hydraulic oil tank. Secure with hardware provided.



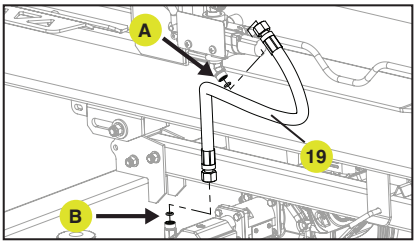
NOTE:
OIL INLET (HIGH PRESSURE) AND OIL RETURN HOSES

- **These hoses are black and have swivel nuts on both ends.**
- **The Oil Inlet Hose (19) sends hydraulic oil from the pump to the control valve/cylinder.**
- **The Oil Return Hose (49) returns hydraulic oil from the control valve/cylinder to the tank.**
- **Hose connections do NOT require thread seal tape. The O-ring seals against the face of the ttings on the pump and hose.**
- **Tighten to approximately 44-52 ft-lb. Over-tightening can cause damage.**

SUCTION HOSE

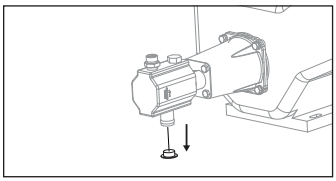
- **This is the clear hose that connects the hydraulic tank to the pump inlet.**
- **Secure both ends of hose with hose clamps.**

2. Place an o-ring into the control valve inlet fitting (A) and pump outlet fitting (B). Make sure the o-ring is properly placed in the inner groove. Connect one end of high pressure hose to the control valve inlet (A). Connect the other end of the hose to the pump outlet (B). Securely tighten both ends of the hydraulic hose with a 27mm wrench (Torque to 44 - 52 ft lbs.).

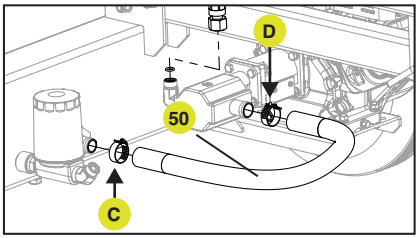


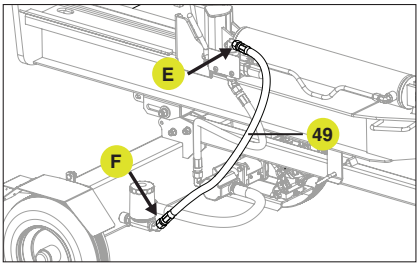
⚠ CAUTION: Red shipping plugs must be removed from hydraulic pump prior to installing hoses.

Hydraulic pump may contain residual oil from testing procedures during production. We recommend using an oil tray under the pump before removing the shipping plugs.



3. Using the provided d32 hose clamps, connect one end of the clear oil hose to the hydraulic oil tank (C) just beneath the engine and the other end to the pump inlet on the side of the pump (D). Securely tighten the clamps on both ends of the clear hydraulic hose with either a flat head screw driver or 8mm socket (Torque to 2.9-4.4 ft lbs.).

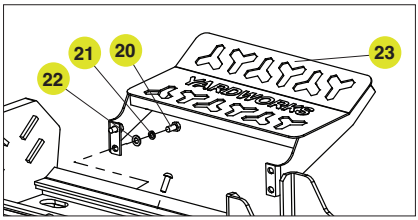


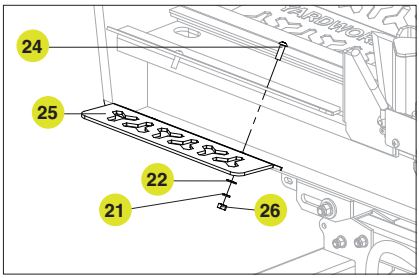


4. Place an o-ring into the control valve outlet fitting (E) and oil filter inlet fitting (F). Make sure the o-ring is properly placed in the inner groove. Connect one end of hose to the control valve outlet (E). Connect the other end of the hose to the oil filter inlet (F). Securely tighten both ends of the hydraulic hose with a 27mm wrench
(Torque to 44 - 52 ft lbs.).

7) INSTALL THE LOG CATCHERS

1. Attach large log catcher (23) to side of beam with four M10 × 20 bolts (20), Ø10 lock washers (21), and Ø10 washers (22).

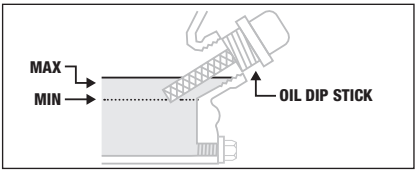




2. Attach small log catcher (25) (opposite side from engine) to the beam with two M10 × 30 bolts (24), Ø10 washers (22), Ø10 lock washers (21) and M10 nuts (26).

ADD ENGINE OIL

1. Place the log splitter on a flat, level surface.
2. Remove oil fill cap/dipstick to add oil.



NOTE: The recommended oil type is 10W-30 automotive oil.

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 to the engine as a result of failure to follow these instructions will void your warranty.

NOTE: Once oil has been added, a visual check should show oil about 1-2 threads from running out of the fill hole.

If using the dipstick to check oil level, DO NOT screw in the dipstick while checking.

NOTE: Check oil often during the break-in period. Refer to the Maintenance section for recommended service intervals.

CAUTION: The engine is equipped with a low oil shut-off and will stop when the oil level in the crankcase falls below the threshold level.

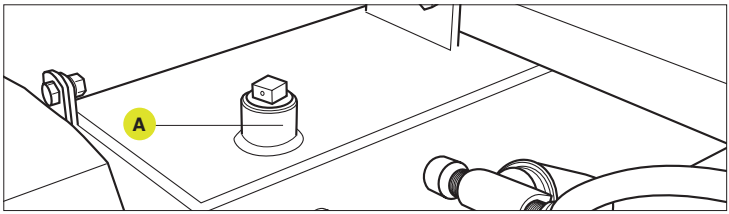
NOTE: We consider the first 5 hours of run time to be the break-in period for the engine. During the break in period we recommend using standard automotive non-synthetic blended oils. After the break in period synthetic lubricant can be used but is not required. Adjusting throttle setting will increase/decrease engine speed helping to seat piston rings. Avoid bogging or lugging the engine down and avoid prolonged running at constant RPM. After the 5 hour break-in period, change the oil. Using synthetic lubricants does not increase the recommended oil change interval.

NOTE: Weather will affect engine oil and engine performance. Change the type of engine oil used based on weather conditions to suit the engine needs.

NOTE: Synthetic oil may be used after the 5 hour initial break-in period. Using synthetic oil does not increase the recommended oil change interval. Full synthetic 5W-30 oil will aid in starting in cold ambient <5° C (41° F).

ADD HYDRAULIC OIL

1. Make sure the log splitter is on a flat, level surface.
2. Remove the oil plug from the oil tank (A).



3. Add 4 gal (15.1 L) of hydraulic oil - see specification section for types of acceptable oil.
4. Check the hydraulic oil level using the oil sight glass. Oil level should visibly fill the sight glass.
5. Replace and tighten the oil plug and orient the vent hole away from the operator zone.

WARNING: 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.

High fluid pressure and temperatures are created in the hydraulic log splitters. 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. Never check for leaks with your hand while the system is pressurized. Seek medical attention immediately if injured by escaping fluid.

6. Start engine (see starting the engine section).
7. Extend and retract the wedge to purge air from the hydraulic system. When the wedge motion is smooth, the system is properly purged.
8. Check the hydraulic oil tank sight glass. Add approximately 0.5 gallon (1.9 L) of hydraulic oil to bring the level back up to the sight glass. Do NOT overfill.
9. Check oil level daily and add as needed.

NOTE: When the outdoor temperature is below 32°F (0°C), Dexron III transmission fluid can be used. Do not mix hydraulic oil and transmission fluid. Drain all oil or fluid before adding the other one.

See hydraulic oil system specifications section for more details.

NOTE: To check oil level, use the oil sight glass on the tank. The oil sight glass has a marker for the acceptable level of oil. If oil is below the marker, add oil as needed. DO NOT OVERFILL.

ADD FUEL

1. Use clean, fresh, regular unleaded gasoline with a minimum octane rating of 85 and an ethanol content of less than 10% by volume.
2. DO NOT mix oil with gasoline.
3. Remove the gasoline cap.
4. Slowly add gasoline to the tank. DO NOT OVERFILL. Gasoline can expand after filling. A minimum of 1/4" (6.4 mm) of space left in the tank is required for gasoline expansion, although more than 1/4" (6.4 mm) is recommended. Gasoline can be forced out of the tank as a result of expansion if overfilled, and can affect the stable running condition of the log splitter.
5. Screw on the gasoline cap and wipe away any spilled fuel.

CAUTION: Use regular unleaded gasoline with a minimum octane rating of 85 and an ethanol content of less than 10% by volume.

DO NOT mix oil and gasoline.

Fill tank to approximately 1/4" (6.4 mm) below the top of the tank to allow for gasoline expansion.

DO NOT pump gasoline directly into the log splitter at the pump. Use an approved container to transfer the gasoline to the log splitter.

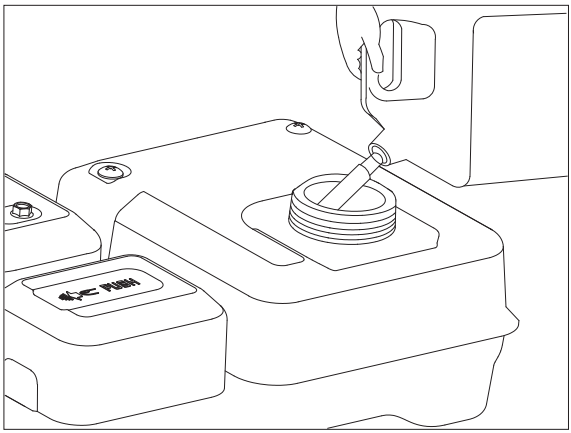
DO NOT fill tank indoors.

DO NOT fill tank when the engine is running or hot.

DO NOT overfill the tank.

DO NOT light cigarettes or smoke when filling the tank.

WARNING: Pouring gasoline too fast through the fuel screen may result in blow back of gasoline at the operator while filling.



NOTE: Our engines work well with 10% or less ethanol blend gasoline. When using ethanol-gasoline blends there are some issues worth noting:

- **Ethanol-gasoline blends can absorb more water than gasoline alone.**
- **These blends can eventually separate, leaving water or a watery goo in the tank, fuel valve and carburetor.**
- **With gravity-fed supplies, the compromised gasoline can be drawn into the carburetor and cause damage to the engine and/or potential hazards.**
- **There are only a few suppliers of fuel stabilizer that are formulated to work with ethanol-gasoline blends.**
- **Any damages or hazards caused by using improper gasoline, improperly stored gasoline, and/or improperly formulated stabilizers, are not covered by manufacturer's warranty.**

It is advisable to always shut off the gasoline supply, run the engine to starvation and drain the tank when the equipment is not in use for more than 30 days.

BEFORE EACH USE INSPECT THE LOG SPLITTER

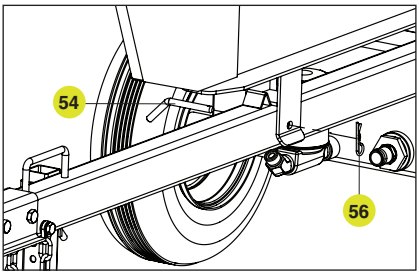
1. Check the hydraulic oil level and visually inspect all hoses, attachments and cylinder for loose fittings, leaks, cracks, fraying or other damage.
2. DO NOT operate the log splitter if there is any indication of damage.
3. Inspect the engine and make sure the oil level is correct before operating. If the engine is equipped with a spark arrestor, clean and inspect it regularly (follow spark arrestor maintenance schedule).
4. The tires need to be fully inflated and in good repair. Reference the tire sidewall for recommended tire pressure.

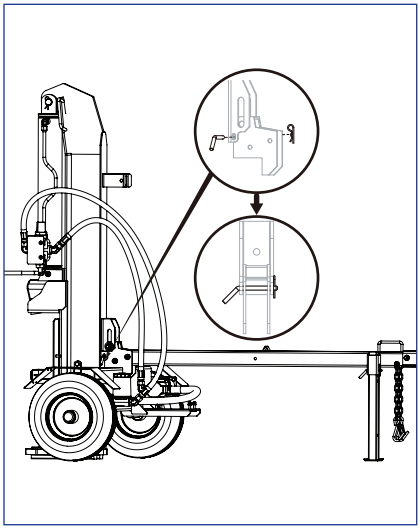
CHANGING BEAM FROM HORIZONTAL TO VERTICAL ORIENTATION.

When logs are too heavy to lift, log splitter beam can be moved from horizontal to vertical orientation.

To change from horizontal to vertical orientation:

1. Remove “R” clip and pin that locks the beam to the tow bar.
2. Standing alongside the hydraulic ram, (opposite side from the engine) firmly grasp the handle on the beam and lift upward while pushing the beam back until upright. (Caution, beam is heavy.)





3. Insert pin and “R” clip in the rear locking hole (at base of tow beam).

To change from vertical to horizontal orientation, reverse steps.

TOWING LOG SPLITTER SAFETY

1. Always check local and provincial regulations regarding the requirements for towing, licensing and lights.
2. Before towing make sure the log splitter is correctly and securely attached to the vehicle and the safety chains attached with enough slack to allow for turning.
3. Support leg must be pinned in the “UP” position for towing.
4. Never exceed the maximum travel speed of 45 mph (72 km/h). Towing the log splitter at speeds greater than 45 mph (72 km/h) could result in serious injury or death. Always adjust your towing speed according to the terrain and conditions.
5. Always disconnect the log splitter from the towing vehicle before operating.

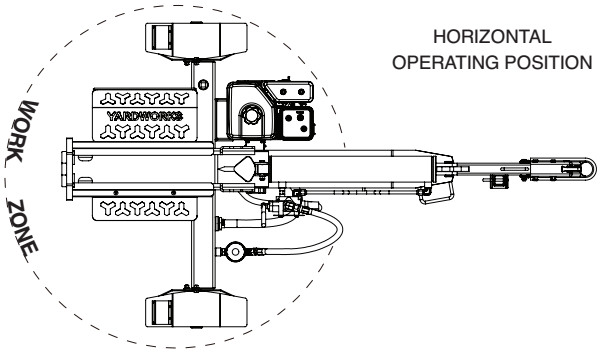
WARNING: DO NOT over inflate tires. Serious injury can result if tires explode.

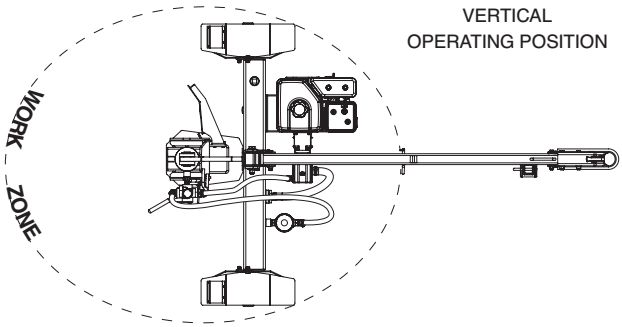
DO NOT tow the log splitter if the tires are worn or will not hold air.

DO NOT exceed the maximum 45 mph (72 km/h) towing speed.

LOG SPLITTER LOCATION

1. This log splitter must have at least 7’ (2.1 m) of clearance from combustible material. Leave at least 3’ (0.9 m) of clearance on all sides of the log splitter to allow for adequate cooling, maintenance and servicing. DO NOT place the log splitter near vents or intakes where engine exhaust fumes could be drawn into occupied or confined spaces. ONLY operate the log splitter outdoors.
2. The log splitter needs to be on a dry, level surface with good footing. DO NOT work on mud, ice, tall grass, brush or snow.
3. Only operate log splitter from work zone shown below.





NOTE: For Vertical Operation:

- **Remove the beam lock-pin from the beam bracket.**
- **Use handle on cylinder to rotate beam to vertical position.**
- **Insert beam lock-pin in the pivot bracket.**

WARNING: ALWAYS use the log splitter for its intended use. The log splitter should only be used to split wood logs, lengthwise with the grain.

NEVER modify, alter or change the log splitter in any way. Modifications will void the warranty.

NEVER attach a rope, cable or other device to the control lever on the log splitter.

DO NOT modify or change the engine and operating speeds or pressure settings. These changes can cause safety issues.

ONLY operate the log splitter in daylight.

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

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

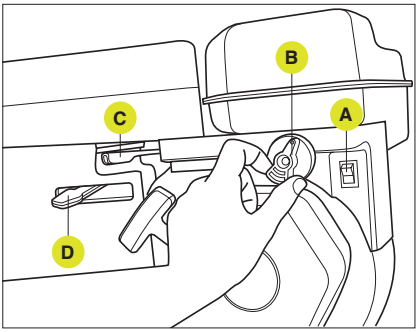
DO NOT change the splitting position with the engine running. Contact with the muffler can cause serious burns.

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.

STARTING THE ENGINE

1. Make certain the log splitter is on a flat, level surface.
2. Flip engine switch (A) to the “ON” position.
3. Rotate the fuel valve (B) to the “ON” position.
4. Move the throttle lever (C) to the “Fast” position.
5. Move the choke lever (D) to the “Choke” position.
6. Pull the starter cord slowly until resistance is felt and then pull rapidly. SEE NOTE.
7. As engine warms up, move the choke lever (D) to the “Run” position.



NOTE: Keep choke lever in “Choke” position for 2 pulls of the recoil starter. After second pull, move choke lever to the “Run” position for up to the next 3 pulls of the recoil starter. Too much choke leads to spark plug fouling/engine flooding due to the lack of incoming air. This will cause the engine not to start.

NOTE: If the engine starts but does not run make certain that the log splitter is on a flat, level surface. The engine is equipped with a low oil sensor that will prevent the engine from running when the oil level falls below a critical threshold.

STOPPING THE ENGINE

1. Turn the fuel valve (B) to the “OFF” position.
2. Let the engine run until fuel starvation has stopped the engine. This usually takes a few minutes.
3. Turn the engine switch (A) to the “OFF” position.

Important: Always ensure that the fuel valve and the engine switch are in the “OFF” position when the engine is not in use.

LOG SPLITTER OPERATION

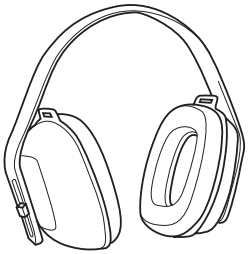
1. ALWAYS wear ear and eye protection, protective clothing and safety gear.
2. Block tires and ensure support leg is secure to prevent unintended movement of the log splitter during operation.
3. Set log splitter in either the horizontal or vertical position.
4. Load a log onto the beam against the end plate (MAX LOG LENGTH – 24” [61 cm]).
5. Make sure all limbs are clear of crush zones.
6. Push the control valve handle forward (towards the end plate) to split the log.
7. Push the auto control valve handle backward to return the wedge to its original position.
8. Clear the split wood from the work zone.

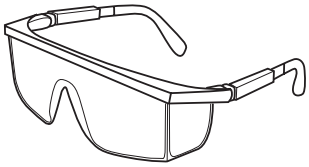
⚠ **NOTE: If the engine will not be used for a period of two (2) weeks or longer, please see the Storage section for proper engine and fuel storage.**

⚠ **NOTE: HORIZONTAL position is used for lighter logs that can easily be loaded onto the beam.**

VERTICAL position is used for light logs as well as 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.





NOTE: It is normal for the hydraulic fluid to appear foamy/frothy during operation. This can be caused by agitated oil in the tank collecting air.

NOTE: If a log gets stuck, embedded or will not split completely, push the control handle in the reverse direction and allow the splitter to strip the log from the wedge.

ALWAYS keep hands clear of the log and wedge while it is retracting.

NOTE: The cylinder stroke is designed so the wedge stops approximately 1 1/2” (3.8 cm) from the end plate.

OPERATION AT HIGH ALTITUDE

The density of air at high altitude is lower than at sea level. Engine power is reduced as the air mass and air-fuel ratio decrease. Engine power and log splitter output will be reduced approximately 3½% for every 1000' (305 m) of elevation above sea level. This is a natural trend and cannot be changed by adjusting the engine. At high altitudes increased exhaust emissions can also result due to the increased enrichment of the air fuel ratio. Other high altitude issues can include hard starting, increased fuel consumption and spark plug fouling.

To alleviate high altitude issues other than the natural power loss, a high altitude carburetor main jet and installation instructions can be obtained by contacting Yardworks Canada 1.866.523.5218.

The part number and recommended minimum altitude for the application of the high altitude carburetor main jet is listed in the table below.

In order to select the correct high altitude main jet it is necessary to identify the carburetor model. For this purpose, a code is stamped on the side of the carburetor. Select the correct high altitude jet part number corresponding to the carburetor code found on your particular carburetor.

Carb Code	High Altitude Jet Part Number	Minimum Altitude
P22-1-Z	27.131017.04.01.Z	3500' (1067 m)
P22-1-H	27.131017.04.01.H	
P22-1-Y	27.131017.04.01.Y	

WARNING: Operation using the alternative main jet at elevations lower than the recommended minimum altitude can damage the engine. For operation at lower elevations, the originally supplied standard main jet must be used. Operating the engine with the wrong engine configuration at a given altitude may increase its emissions and decrease fuel efficiency and performance.

Make certain that the log splitter is kept clean and stored properly. Only operate the unit on a flat, level surface in a clean, dry operating environment. DO NOT expose the unit to extreme conditions, excessive dust, dirt, moisture or corrosive vapours. Inspect all air vents and cooling slots to ensure that they are clean and unobstructed.

Clean spark arrester every 100 hours.

Check and tighten all bolts and nuts before operating the log splitter.

The owner/operator is responsible for all periodic maintenance.

Complete all scheduled maintenance in a timely manner.

Correct any issue before operating the log splitter.

For service or parts assistance, contact our Technical Support Team at 1.866.523.5218.

CLEANING THE LOG SPLITTER

Clear the debris from the beam, wedge and endplate.

Use a damp cloth to clean exterior surfaces of the engine and log splitter.

Use a soft-bristle brush to remove excess dirt and oil.
Use an air compressor (25 PSI) to clear dirt and small debris.

Wipe all metal parts with an oily rag to help prevent rust and corrosion.

CAUTION: DO NOT spray engine with water.

Water can contaminate the fuel system and can enter the engine through the cooling slots and damage the engine.

WARNING: Never operate a damaged or defective log splitter.

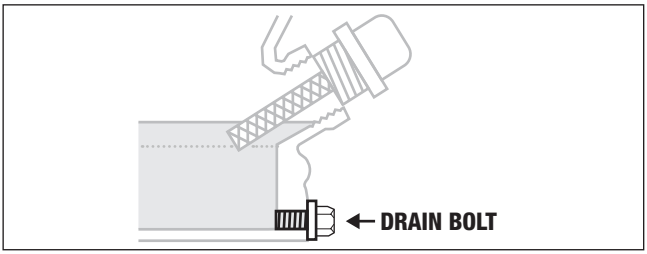
WARNING: Improper maintenance will void your warranty.

NOTE: Maintenance, replacement, or repair of emission control devices and systems may be performed by any non-road engine repair establishment or individual.

CHANGING THE ENGINE OIL

Change oil when the engine is warm. Refer to the oil specification to select the proper grade for your operating environment.

1. Remove the oil drain plug with a 12 mm socket (not included) and extension.

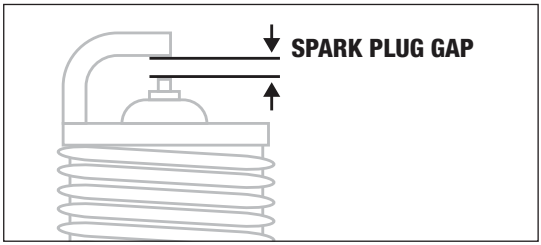


2. Allow the oil to drain completely into an appropriate container.
3. Replace the oil drain plug.
4. Remove the oil fill cap/dipstick to add oil.
5. Using a funnel, add up to 0.6 qt (0.6 L) of oil (not included) and replace oil fill cap/dipstick. DO NOT OVERFILL.
6. Dispose of used oil at an approved waste management facility.

NOTE: Once oil has been added, a visual check should show oil about 1-2 threads from running out of the fill hole. If using the dipstick to check oil level, DO NOT screw in the dipstick while checking.

CLEANING AND ADJUSTING THE SPARK PLUG(S)

1. Remove the spark plug cable from the spark plug.
2. Use a spark plug socket tool (not included), or a 13/16" (21 mm) socket (not included) to remove the plug.
3. Inspect the electrode on the plug. It must be clean and not worn to produce the spark required for ignition.
4. Make certain the spark plug gap is 0.028-0.031" (0.7-0.8 mm).
5. Refer to the spark plug types in Specifications when replacing the plug.
6. Firmly re-install the plug.
7. Attach the spark plug cable to the spark plug.



CLEANING THE AIR FILTER

1. Using your fingers, unscrew the thumb screws of the top holes of the air filter cover.
2. Remove the plastic outer casing.
3. Remove the foam element.
4. Wash in liquid detergent and water. Squeeze thoroughly dry in a clean cloth.
5. Saturate in clean engine oil.
6. Squeeze in a clean, absorbent cloth to remove all excess oil.
7. Place the filter in the assembly.
8. Reattach the air filter cover and using your fingers, insert the thumb screws into the top and bottom holes of the air filter cover. Screw until tight. Be sure not to over tighten.

HYDRAULIC OIL

Always shut off the engine and disconnect the spark plug.

Change the hydraulic oil filter after the first 50 hours of use, then every 100 hours or seasonally.

1. Begin with the cylinder retracted and the engine switch in the “OFF” position.
2. Turn the fuel valve to the “OFF” position.
3. Release any stored pressure by moving the valve lever forward and backward several times.
4. Place a container under the hydraulic tank. Make sure it is large enough to hold the contents of the tank. See model specification section of this manual for hydraulic oil capacities.
5. To drain the oil:

   5a. Place an oil drain container under the drain plug. Unscrew (counter-clockwise) and remove the tank drain plug on the bottom of the hydraulic tank. Allow oil to completely drain from the tank into the container. Re-apply non-stick sealing tape to the drain plug threads, then reinsert and turn (clockwise) in the tank drain plug. Tighten, but do not over tighten.

   5b. Place an oil drain container under the external oil filter (If your log splitter includes this feature). If not, skip to step “C”. Unscrew (counter-clockwise) and remove the external hydraulic oil filter and drain any oil in the filter into the container. A strap or oil filter wrench may be needed.

      5i. Locate an approved replacement filter.

      5ii. Lubricate the gasket of the new filter with a thin film of clean oil.

      5iii. Install a new hydraulic oil filter (A). Screw the new filter on clockwise. Tighten 3/4 - 1 turn after the gasket makes contact.

NOTE: When log splitters are not used for extended periods of time and they are exposed to changing temperature conditions, moisture through condensation can build up inside the tank.

NOTE: The drain plug is sealed with non-stick tape. Add 2-3 wraps of new non-stick tape as needed when replacing the drain plug to prevent an oil leak.

NOTE: Oil will drain from the filter and filter housing.

5c. Place an oil drain container under the large clear hose that runs from the tank to the pump.

5i. Loosen the hose clamp attached to the fitting on the tank.

5ii. Disconnect hose from fitting and drain oil into the container.

5iii. Using a large wrench, unscrew the fitting from the tank to expose the internal tank filter.

5iv. Check for any debris on the screen. Using a clean towel or air gun, carefully remove any debris.

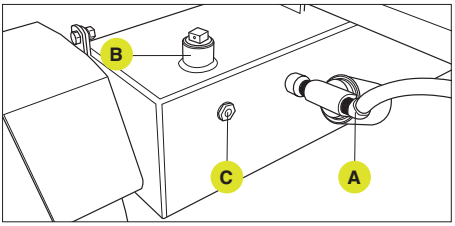
5v. Apply new non-stick sealing tape to threads, reinsert into tank and tighten. Be careful to tighten, but do not over tighten.

6. Unscrew and remove the tank fill plug on top of the tank. Using a funnel add approximately 4 gal (15.1 L) of hydraulic oil to the tank. Wipe up any spilled oil (B).

7. Turn the fuel valve to the “ON” position, and start the engine. Purge the air from the system by extending and retracting the wedge several times until the motion is smooth.

8. Check the hydraulic oil level using the sight glass. Add 1/2 gal (1.9 L) of hydraulic oil, so the oil level is visible in the sight glass (C).

9. Dispose of used oil at approved recycling locations in accordance with Federal, State, Local or Provincial regulations.



NOTE: Install a new hydraulic oil filter each time the hydraulic oil is changed (if your log splitter includes this feature).

WARNING: Always shut off the engine, disconnect the spark plug, and relieve system pressure before cleaning, adjusting, or repairing the splitter. Relieve system pressure by moving split control lever back and forth several times.

MAINTENANCE SCHEDULE

Follow the service intervals indicated in the following maintenance schedule.

Service your log splitter more frequently when operating in adverse conditions.

Contact our Technical Support Team at 1.866.523.5218 to locate the nearest certified service dealer for your log splitter or engine maintenance needs.

Every 8 Hours or Daily
Check engine and hydraulic oil levels
Clean around air intake and muffler

First 5 Hours
Change oil

Every 50 hours or every season
Change oil
Clean air filter
Change oil if operating under heavy load or in hot environments

Every 100 hours or every season
Change oil
Clean/adjust spark plug
Check/adjust valve clearance*
Clean spark arrestor
Clean fuel tank and filter*
Change hydraulic oil
Change hydraulic oil filter

Every 250 hours
Clean combustion chamber*

Every Year
Inspect wheel bearings and repack bearing grease as needed.

Every 3 years
Replace fuel line*

*To be performed by knowledgeable, experienced owners or certified service centres.

STORAGE

Refer to the Maintenance section for proper cleaning instructions.

LOG SPLITTER STORAGE

1. The log splitter needs to be cool for at least 5 minutes before storing.
2. Clean the log splitter before storage according to the Maintenance section.
3. Retract the wedge to protect the rod from corrosion.
4. Wipe the beam and wedge with an oily rag to prevent rust and corrosion.

ENGINE STORED FOR LESS THAN 30 DAYS

1. Allow the engine to cool completely before storage.
2. Clean engine according to the Maintenance section.
3. To extend the fuel storage life add a properly formulated fuel stabilizer to the tank.
4. Ensure the fuel valve is in the “OFF” position.

ENGINES STORED FOR OVER 30 DAYS

1. Add a properly formulated fuel stabilizer to the tank.
2. Run the engine for a few minutes so the treated fuel cycles through the fuel system and carburetor.
3. Turn the fuel valve to the “OFF” position.
4. Let the engine run until fuel starvation has stopped the engine. This usually takes a few minutes.
5. The engine needs to cool completely before cleaning and storage.
6. Clean the engine according to the maintenance section.
7. Change the oil.
8. Remove the spark plug and pour about 14.8 mL (1⁄2 ounce) of oil into the cylinder. Using the Recoil, crank the engine slowly to distribute the oil and lubricate the cylinder.
9. Reattach the spark plug.

WARNING: Never store the log splitter inside next to appliances where there is a source of heat or open flame, spark or pilot light because they can ignite gasoline vapours.

DO NOT store a log splitter near fertilizer or any corrosive material. Even with an empty gas tank, gasoline vapours could ignite.

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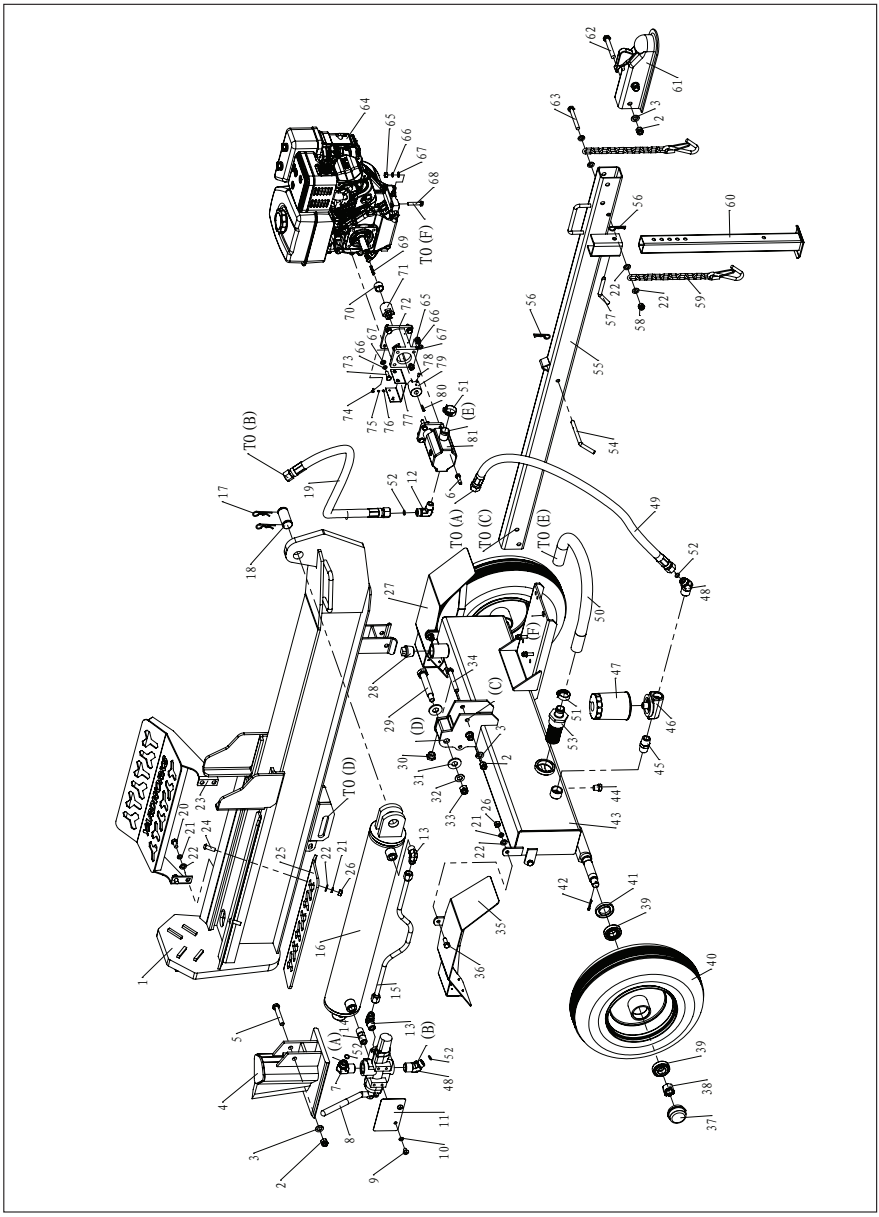
EXPLODED VIEW (PRODUCT)



YARDWORKS®MD

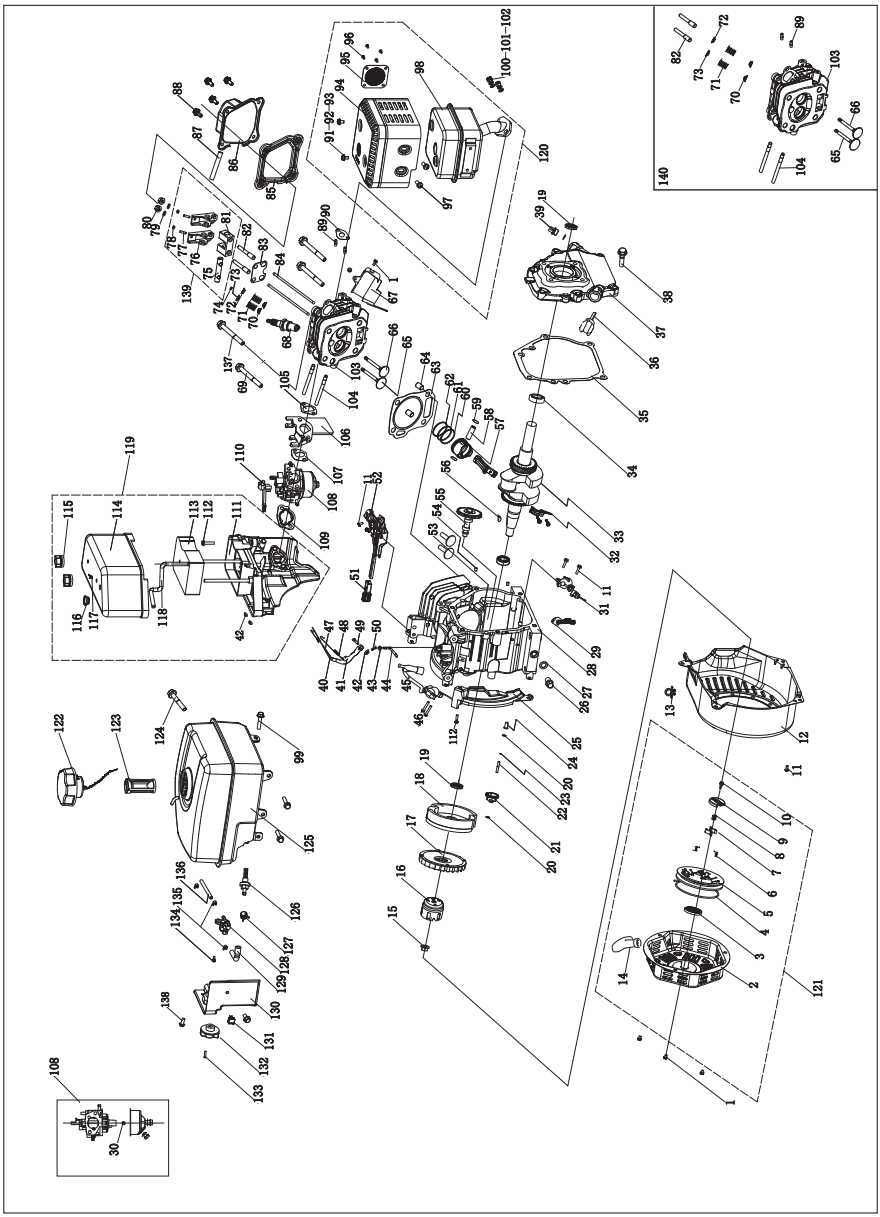
model no. 060-0550-6 | contact us: 1.866.523.5218

Item	Description	Drawing	QTY.
1	Beam, Teal 3145c	PMJ25M-01-00T	1
2	Lock Nut M12	G889.1-2000-M12	6
3	Washer Ø12	G95-2000-12	5
4	Wedge Slide, Cool Gray 11c	PMJ25M-02-00G	1
5	Bolt M12x75(12.9)	G5782-2000-M12-75	1
6	Bolt M8x30	G5783-2000-M8-30	4
7	Filter Housing "OUT" Connection	PMJ20J-16	1
8	Control Valve	PMJ25M-12	1
9	Bolt M8x12	G818-2000-M8-12	2
10	Washer Ø8	G859-1987-8	2
11	Plate	PMJ22J-19	1
12	Outlet Connector Of Pump	PMJ25M-16	1
13	Right Angle Joiner	PMJ25M-29	2
14	Valve Joiner	PMJ22M-22	1
15	Hydraulic Hose(Valve-Cylinder)	PMJ25M-28	1
16	Cylinder, Cool Gray 11c	PMJ25M-08-00G	1
17	R Pin	GJY12-3	2
18	Wedge Pin	PMJ25M-13	1
19	Hydraulic Hose(Valve-Pump)	PMJ25M-15A	1
20	Bolt M10x20	G5781-2000-M10-20	4
21	Lock Washer Ø10	G93-1987-10	10
22	Washer Ø10	G95-2000-10	14
23	Log Catcher, Cool Gray 11c	PMJ25C-36-00	1
24	Bolt M10x30	G70.2-2000-M10-30	2
25	Short Log Catcher, Cool Gray 11c	PMJ25C-31	1
26	Nut M10	G6170-2000-M10	6
27	Right Fender, Cool Gray 11c	PMJ22G-35-00G	1
28	Screw NPT 1 in.	PMJ22G-18	1
29	Bolt M18x115	PMJ25M-19	1
30	Oil Scale	G1160.2-89	1
31	Washer	PMJ25M-14	1
32	Washer Ø14	G95-2000-14	1

Item	Description	Drawing	QTY.
33	Lock Nut M14	G889.1-2000-M14	1
34	Bolt M12x85	G5782-2000-M12-85	2
35	Left Fender, Cool Gray 11c	PMJ22G-34-00G	1
36	Bolt M10x25	G5783-2000-M10-25	4
37	Axle Cap	PMJ22J-05-02	2
38	Slotted Nut M20x1.5	G9459-1988-M20-1.5	2
39	Tapered Bearing	L44634 LYC DS	4
40	Wheel, Cool Gray 11c	PMJ37N-05-03G	2
41	Cased Seal	PMJ22J-05-01	2
42	Cotter Pin Ø4x32	G91-2000-4-32	2
43	Oil Tank, Cool Gray 11c	PMJ25M-04-00GA	1
44	Oil Plug	PMJ22G-19	1
45	Through Joint	PMJ22Q-23	1
46	Auto Filter Base	PMJ25M-20-00	1
47	Auto Filter	PMJ22G-52	1
48	Filter Housing "OUT" Connection	PMJ20J-17	2
49	Hydraulic Hose(Valve-Oil Tank)	PMJ20J-15	1
50	Oil Pipe	PMJ25M-17	1
51	Clamp d32	J8870-1999-d32	2
52	"O" Ring Ø10x2.65	G3452.1-92-10-2.65	4
53	Internal Oil Filter	PMJ22Q-20A	1
54	Pin	PMJ22J-15	1
55	Tow Bar, Cool Gray 11c	PMJ25M-03-00G	1
56	R Pin	PMJ22G-30	2
57	Pin	PMJ22J-10	1
58	Lock Nut M10	G889.1-2000-M10	1
59	Safety Chain With Hook	PMJ25M-18-00	2
60	Front Support Leg, Cool Gray 11c	PMJ22J-07-00G	1

Item	Description	Drawing	QTY.
61	2-in. Coupler	PMJ22G-40	1
62	Bolt M12x80	G5782-2000-M12-80	2
63	Bolt M10x85	G5782-2000-M10-85	1
64	Engine, Teal 3145c	27.102.99	1
65	Nut M8	G6170-2000-M8	8
66	Lock Washer Ø8	G93-1987-8	12
67	Washer Ø8	G95-2000-8	12
68	Bolt M8x40	G5782-2000-M8-40	4
69	Flat Key 5x36	G1096-1979-5-36	1
70	Engine Bushing	PMJ22G-29	1
71	Engine Connector	PMJ22G-28	1
72	Gear Pump Stand	PMJ22G-27	1
73	Bolt 5/16 in.-24x1 in.	ASME-B18.2.1-1996-516-24-1	4
74	Cross Head Screw M4x10	G818-2000-M4-10	4
75	Lock Washer Ø4	G848-1985-4	4
76	Washer Ø4	G859-1987-4	4
77	Connector Cover	PMJ22G-32	1
78	Screw M6x10	G77-2000-M6-10	1
79	Gear Pump Connector	PMJ22G-26	1
80	Flat Key 3.18x25.4	G1096-1979-3.18-25.4	1
81	Gear Pump	PMJ22J-14	1

EXPLODED VIEW (ENGINE)



Item	Description	Drawing	QTY.
1	Flange Bolt M6 x 8	1.5789.0608	5
2	Cover, Recoil Starter, Black 419c	22.061100.00.30	1
3	Spring, Recoil Starter	21.061005.00	1
4	Rope Ø4 x 1550, Black	2.10.003.1	1
5	Reel, Recoil Starter	21.061001.01	1
6	Spring, Ratchet	45.060003.00	2
7	Starter Ratchet, Steel	45.060002.00	2
8	Spring, Ratchet Guide	45.060009.00	1
9	Ratchet Guide	45.060007.00	1
10	Screw, Ratchet Guide	45.060008.00	1
11	Flange Bolt M6 x 12	1.5789.0612	8
12	Fan Cover, Teal 3145c	27.080100.05.99	1
13	Clamp Ø9.5 x 5	2.05.002	1
14	Handle, Recoil, Soft	21.061300.00	1
15	Nut M14 x 1.5	2.02.006	1
16	Pulley, Starter	83.060001.01	1
17	Cooling Fan	27.080001.00	1
18	Flywheel	24.120100.06	1
19	Oil Seal Ø25 x Ø41.3 x 6	2.11.001	2
20	Washer Ø6.2 x Ø15 x 0.5, Black	2.03.020.1	2
21	Gear, Governor	21.110100.00	1
22	Shaft, Governor Gear	21.110013.00	1
23	Clip, Governor Gear	21.110011.00	1
24	Bushing, Govornor Gear	21.110012.01	1
25	Air Guide, Right	23.080600.00	1
26	Drain Bolt M10 x 1.25 x 25	2.08.037	2
27	Washer Ø10 x Ø16 x 1.5, Drain Bolt	2.03.016	2
28	Crankcase	27.030100.00	1
29	Diode Assembly	21.120400.01	1
30	Standard Main Jet	27.131017.04	1
	Altitude Main Jet	27.131017.04.01	/

Item	Description	Drawing	QTY.
31	Oil Level Sensor	21.127000.02	1
32	Connecting Rod	27.050200.00	1
33	Crankshaft, Q	27.050100.01	1
34	Bearing 6205	1.276.6205	2
35	Gasket, Crankcase Cover	24.030008.00	1
36	Oil Dipstick Assembly, Black	22.031000.00.1	1
37	Cover, Crankcase	24.030007.00	1
38	Flange Bolt M8 x 32	1.5789.0832	6
39	Oil Filler Cap, Black	22.031000.01.1	1
40	Spring, Throttle Return	23.110005.01	1
41	Arm, Governor	27.110003.00	1
42	Flange Nut M6	1.6177.06	3
43	Washer, Ø6.4 x Ø13 x 1, Black	2.03.021.1	1
44	Shaft, Governor Arm	21.110001.00	1
45	Ignition Coil	22.123000.02	1
46	Flange Bolt M6 x 25	1.5789.0625	2
47	Rod, Governor	23.110006.00	1
48	Spring, Governor	27.110007.01	1
49	Bolt M6 x 21, Governor Arm	2.08.040	1
50	Pin, Shaft	21.110008.00	1
51	Grip Sheath, Speed Governor, Teal 3145c	24.111008.01.99	1
52	Control Assembly	24.111000.01	1
53	Lifter, Valve	25.040013.00	2
54	Dowel Pin Ø9 x 14	2.04.001	2
55	Camshaft	27.041000.01	1
56	Woodruff Key, 4 x 7.5 x 19	2.14.012	1
57	Piston	27.050005.00	1
58	Pin, Piston	23.050003.00	1
59	Circlip Ø18 x Ø1	2.09.001	2
60	Ring, Oil	27.050303.00	1
61	Ring, Second Piston	27.050302.00	1
62	Ring, First Piston	27.050301.00	1
63	Gasket, Cylinder Head	27.030009.01	1
64	Dowel Pin Ø10 x 14	2.04.003	2

Item	Description	Drawing	QTY.
65	Valve, Intake	23.040002.02	1
66	Valve, Exhaust	23.040006.02	1
67	Air Guide, Lower	26.080400.00	1
68	Spark Plug F6RTC	2.15.002(F6RTC)	1
69	Flange Bolt M8 x 65	1.5789.0865	3
70	Oil Seal, Valve	23.040017.00	2
71	Spring, Valve	21.040003.00	2
72	Retainer, Exhaust Valve Spring	21.040007.00	1
73	Retainer, Intake Valve Spring	21.040001.00	1
74	Rotator, Exhaust Valve	21.040008.00	1
75	Shaft, Rocker Arm	24.040202.00	1
76	Rocker Arm	22.040009.00	2
77	Screw, Valve Adjustment	22.040012.00	2
78	Nut M6 x 0.5, Lock	21.040021.00	2
79	Washer Ø6	1.97.1.06	2
80	Flange Nut M6	1.6177.1.06	2
81	Retainer, Rocker Arm	24.040201.00	1
82	Bolt, Rocker Arm	23.040010.00	2
83	Guide Plate, Push Rod	24.040004.00	1
84	Push Rod	27.040005.00	2
85	Gasket, Cylinder Head Cover	21.020002.01	1
86	Cylinder Head Cover	24.021000.00	1
87	Breather Tube	21.020001.00	1
88	Flange Bolt M6 x 15	1.5789.0615	4
89	Stud Bolt M8 x 35	2.01.010	2
90	Gasket, Exhaust Pipe	26.100001.00	1
91	Flange Bolt M5 x 10	1.16674.0510	2
92	Washer Ø5	1.848.05	2
93	Lock Washer Ø5	1.93.05	2
94	Muffler Protector	24.101202.00	1
95	Muffler Screen	46.101300.05	1
96	Screw M4 x 6	1.818.0406	4
97	Screw/Washer Assembly M5 x 10	1.9074.4.0510	2
98	Muffler	24.101100.00	1

Item	Description	Drawing	QTY.
99	Flange Bolt/Washer Assembly M6 x 20	2.08.154	3
100	Nut M8	1.6175.08	2
101	Washer Ø8	1.848.08	2
102	Lock Washer Ø8	1.93.08	2
103	Cylinder Head, 224cc	26.010100.01	1
104	Stud Bolt M6 x 110	2.01.009	2
105	Gasket, Insulator	24.130002.00	1
106	Insulator, Carburetor	23.130001.00	1
107	Gasket, Carburetor	22.130003.00	1
108	Carburetor	27.131000.04 27.131000.09	1
109	Gasket, Air Cleaner	21.130004.00	1
110	Choke Handle, Teal 3145c	21.130100.00.99	1
111	Base, Air Cleaner	24.091100.01	1
112	Flange Bolt M6 x 20	1.5789.0620	2
113	Element, Air Cleaner	24.091003.02	1
114	Cover, Air Cleaner	24.091200.02	1
115	Screw Cap, Air Clean Cover	24.091600.01	2
116	Buffer Ø7.5 x 7.5	2.12.001	1
117	Clamp Ø7 x Ø1	2.06.006	1
118	Pipe, Reversal Valve	24.070014.02	1
119	Air Cleaner Assembly	24.091000.02	1
120	Muffler Assembly	24.101000.00.2	1
121	Recoil Assembly, Black 419c	22.061000.00.30	1
122	Cap, Fuel Tank	24.070100.02	1
123	Fuel Filter, Fuel Tank	81.070301.00	1
124	Flange Bolt/Washer Assembly M6 x 33	2.08.156	1
125	Fuel Tank, Black 419c	24.071000.01.30	1
126	Fitting, Fuel Tank	21.070600.03	1
127	Clamp, Ø8.7 x b8	2.06.016	1
128	Fuel Vavle	24.070400.00	1
129	Pipe, Ø4.5 x (30+30)	24.070011.01	1
130	Veil, Fuel Tank	24.070010.00	1
131	Ignition Switch, Red	5.1010.003.3	1

Item	Description	Drawing	QTY.
132	Fuel Knob	24.070001.00	1
133	Bolt M4 x 12	1.818.0412	1
134	Flange Bolt M5 x 12	1.16674.0512.2	1
135	Clamp Ø8 x b6	2.06.007	3
136	Pipe, Ø4.5 x Ø9.5 x 230	24.070011.00	1
137	Flange Bolt M10 x 65	2.08.121	1
138	Flange Bolt M6 x 12	1.5789.0612.3	2
139	Rocker Arm Assembly	24.040200.00	1
140	Cylinder Head Assembly	27.010000.00	1

PROBLEM	POSSIBLE CAUSE	SOLUTION
Engine will not start.	No fuel.	Add fuel.
	Faulty spark plug.	Replace spark plug.
	Unit loaded during start up.	Remove load from unit.
Engine will not start.	Low oil level.	Fill crankcase to the proper level.
Engine starts but runs roughly.	Choke in the wrong position.	Place log splitter on a flat, level surface.
	Spark plug wire loose.	Adjust choke.
Engine shuts down during operation.	Out of fuel.	Fill fuel tank.
	Low oil level.	Fill crankcase to the proper level. Place log splitter on a flat, level surface.
Engine cannot supply enough power or overheating.	Insufficient ventilation.	Check for air restriction. Move to a well-ventilated area.
Wedge movement is slow or erratic.	Air in the hydraulic oil system.	Purge air by extending and retracting the wedge several times until motion is smooth.
	Debris lodged in beam guides.	Clear debris from beam.
	Low hydraulic oil.	Check oil level and add as needed.
Oil leak from cylinder.	Faulty cylinder rod seal.	Contact Customer Service.
	Scored or bent cylinder rod.	Contact Customer Service.
	Loose hydraulic fitting.	Tighten hydraulic fitting.
	Faulty combination washer seal on cylinder hydraulic fitting.	Contact Customer Service.
Wedge will not extend or retract.	Faulty control valve.	Contact Customer Service.
	Faulty hydraulic pump.	Contact Customer Service.
	Low hydraulic oil.	Check oil level and add as needed.
Excessive bouncing while towing.	Under-inflated tires.	Inflate tires to proper pressure. Refer to tire sidewall.

2-YEAR LIMITED WARRANTY

For TWO YEARS from the date of purchase within Canada, YARDWORKS CANADA will, at its option, repair or replace for the original purchaser, free of charge, any part or parts found to be defective in material or workmanship.

THIS WARRANTY DOES NOT COVER:

1. Any part that has become inoperative due to misuse, commercial use, abuse, neglect, accident, improper maintenance, or alteration;

2. The unit, if it has not been operated and/or maintained in accordance with the owner's manual;

3. Normal wear, except as noted below;

4. Routine maintenance items such as oil, air filter, spark plug, fuel line; or

5. Normal deterioration of the exterior finish due to use or exposure.

FULL 120-DAY WARRANTY ON NORMAL WEAR PARTS:

Normal wear parts that are warrantied are defined as control valve, wheel bearings, hydraulic pump, high pressure o-ring, swivel fittings, hydraulic or return hoses. These parts are warranted to the original purchaser to be free from defects in material and workmanship for a period of one hundred twenty (120) days from the date of retail purchase.

HOW TO OBTAIN SERVICE:

Warranty service is available by calling the toll-free helpline at 1.866.523.5218. The factory will not accept the return of a complete unit unless prior written permission has been extended by YARDWORKS CANADA.

TRANSPORTATION CHARGES:

Transportation charges for the movement of the log splitter or accessories are the responsibility of the purchaser. The purchaser must pay transportation charges for any part submitted for replacement under this warranty unless such return is requested in writing by YARDWORKS CANADA.

OTHER WARRANTIES: All other warranties, express or implied, including any implied warranty of merchantability is limited in its duration to that set forth in this express limited warranty. The provisions as set forth in this warranty provide the sole and exclusive remedy of YARDWORKS CANADA obligations arising from the sale of its products.

Made in China. Imported by Yardworks Canada
Toronto, Canada M4S 2B8

YARDWORKS CANADA will not be liable for incidental or consequential loss or damage.

CHAMPION POWER EQUIPMENT, INC. (CPE), THE UNITED STATES ENVIRONMENT PROTECTION AGENCY (U.S. EPA) EMISSION CONTROL SYSTEM WARRANTY

Your Champion Power Equipment (CPE) engine complies with U.S. EPA emission regulations.

YOUR WARRANTY RIGHTS AND OBLIGATIONS:

The US EPA AND CPE are pleased to explain the Federal Emission Control Systems Warranty on your 2019 small off-road engine (SORE) and engine powered equipment. New engines and equipment must be designed, built and equipped, at the time of sale, to meet U.S. EPA regulations for small off-road engines (SORE). CPE warrants the emission control system on your small off-road engine (SORE) and equipment for the period of time listed below, provided there has been no abuse, neglect, unapproved modification, or improper maintenance of your equipment.

Your emission control system may include parts such as the carburetor, fuel-injection system, the ignition system, catalytic converter and fuel lines. Also included may be hoses, belts, connectors and other emission related assemblies. Where a warrantable condition exits, CPE will repair your small off-road engine (SORE) at no cost to you including diagnosis, parts and labor.

MANUFACTURER'S EMISSION CONTROL SYSTEM WARRANTY COVERAGE:

This emission control system is warranted for two years, subject to provisions set forth below. If, during the warranty period, an emission related part on your engine is defective in materials or workmanship, the part will be repaired or replaced by CPE.

OWNER WARRANTY RESPONSIBILITIES:

As the small off-road engine (SORE) owner, you are responsible for the performance of the required maintenance listed in your Owner's Manual. CPE recommends that you retain all your receipts covering maintenance on your small off-road engine (SORE), but CPE cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the small off-road engine (SORE) owner, you should however be aware that CPE may deny you warranty coverage if your small, off-road engine (SORE) or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

You are responsible for presenting your small off-road engine (SORE) to an Authorized CPE service outlet or alternate service outlet as described in (3)(f.) below, CPE dealer or CPE, Santa Fe Springs, Ca. as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty rights and responsibilities, you should contact:

Champion Power Equipment, Inc.
Customer Service
12039 Smith Ave.
Santa Fe Springs, CA 90670
1-877-338-0999
tech@championpowerequipment.com

EMISSION CONTROL SYSTEM WARRANTY

The following are specific provisions relative to your Emission Control System (ECS) Warranty Coverage.

1. **APPLICABILITY:** This warranty shall apply to 1997 and later model year small off-road engines (SORE). The ECS Warranty Period shall begin on the date the new engine or equipment is delivered to its original, end-use purchaser, and shall continue for 24 consecutive months thereafter.

2. **GENERAL EMISSIONS WARRANTY COVERAGE**
   CPE warrants to the original, end-use purchaser of the new engine or equipment and to each subsequent purchaser that each of its small off-road engines (SORE) is:

   2a. Designed, built and equipped so as to conform to U.S. EPA emissions standards for spark-ignited engines at or below 19 kilowatts.

   2b. Free from defects in materials and workmanship that cause the failure of a warranted part to be identical in all material respects to the part as described in the engine manufacturer's application for certification for a period of two years.

3. **THE WARRANTY ON EMISSION-RELATED PARTS WILL BE INTERPRETED AS FOLLOWS:**

   3a. Any warranted part that is not scheduled for replacement as required maintenance in the Owners Manual shall be warranted for the ECS Warranty Period. If any such part fails during the ECS Warranty Period, it shall be repaired or replaced by CPE according to Subsection "d" below. Any such part repaired or replaced under the ECS Warranty shall be warranted for any remainder of the ECS Warranty Period.

   3b. Any warranted, emissions-related part which is scheduled only for regular inspection as specified in the Owners Manual shall be warranted for the ECS Warranty Period. A statement in such written instructions to the effect of "repair or replace as necessary", shall not reduce the ECS Warranty Period. Any such part repaired or replaced under the ECS Warranty shall be warranted for the remainder of the ECS Warranty Period.

   3c. Any warranted, emissions-related part which is scheduled for replacement as required maintenance in the Owner's Manual shall be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part shall be repaired or replaced by CPE according to Subsection "d" below. Any such emissions-related part repaired or replaced under the ECS Warranty, shall be warranted for the remainder of the ECS Warranty Period prior to the first scheduled replacement point for such emissions-related part.

   3d. Repair or replacement of any warranted, emissions-related part under this ECS Warranty shall be performed at no charge to the owner at a CPE Authorized Service Outlet.

   3e. The owner shall not be charged for diagnostic labor which leads to the determination that a part covered by the ECS Warranty is in fact defective, provided that such diagnostic work is performed at a CPE Authorized Service Outlet.

   3f. CPE shall pay for covered emissions warranty repairs at non-authorized service outlets under the following circumstances:

      i. The service is required in a population center with a population over 100,000 according to U.S. Census 2000 without a CPE Authorized Service Outlet AND

      ii. The service is required more than 100 miles from a CPE Authorized Service Outlet. The 100 mile limitation does not apply in the following states: Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nebraska, Nevada, New Mexico, Oregon, Texas, Utah and Wyoming.

   3g. CPE shall be liable for damages to other original engine components or approved modifications proximately caused by a failure under warranty of an emission-related part covered by the ECS Warranty.

   3h. Throughout the ECS Warranty Period, CPE shall maintain a supply of warranted emission-related parts sufficient to meet the expected demand for such emission-related parts.

   3i. Any CPE Authorized and approved emission-related replacement part may be used in the performance of any ECS Warranty maintenance or repair and will be provided without charge to the owner. Such use shall not reduce CPE's warranty obligation.

   3j. Unapproved add-on or modified parts may not be used to modify or repair a CPE engine. Such use voids this ECS Warranty and shall be sufficient grounds for disallowing an ECS Warranty claim. CPE shall not be liable hereunder for failures of any warranted parts of a CPE engine caused by the use of such an unapproved add-on or modified part.

EMISSION-RELATED PARTS INCLUDE THE FOLLOWING: (using those portions of the list applicable to the engine)

Systems covered by this warranty	Parts Description
Fuel Metering System	Fuel regulator, Carburetor and internal parts
Air Induction System	Air cleaner, Intake manifold
Ignition System	Spark plug and parts, Magneto ignition system
Exhaust System	Exhaust manifold, catalytic converter
Miscellaneous Parts	Tubing, Fittings, Seals, Gaskets, and Clamps associated with these listed systems.
Evaporative Emissions	Fuel Tank, Fuel Cap, Fuel Line (for liquid fuel and fuel vapors), Fuel Line Fittings, Clamps, Pressure Relief Valves, Control Valves, Control Solenoids, Electronic Controls, Vacuum Control Diaphragms, Control Cables, Control Linkages, Purge Valves, Gaskets, Vapor Hoses, Liquid/Vapor Separator, Carbon Canister, Canister Mounting Brackets, Carburetor Purge Port Connector

TO OBTAIN WARRANTY SERVICE:

You must take your CPE engine or the product on which it is installed, along with your warranty registration card or other proof of original purchase date, at your expense, to any Champion Power Equipment dealer who is authorized by Champion Power Equipment, Inc. to sell and service that CPE product during his normal business hours. Alternate service locations defined in Section (3)(f.) above must be approved by CPE prior to service. Claims for repair or adjustment found to be caused solely by defects in material or workmanship will not be denied because the engine was not properly maintained and used.

If you have any questions regarding your warranty rights and responsibilities, or to obtain warranty service, please write or call Customer Service at Champion Power Equipment, Inc.

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1-877-338-0999
Attn.: Customer Service
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