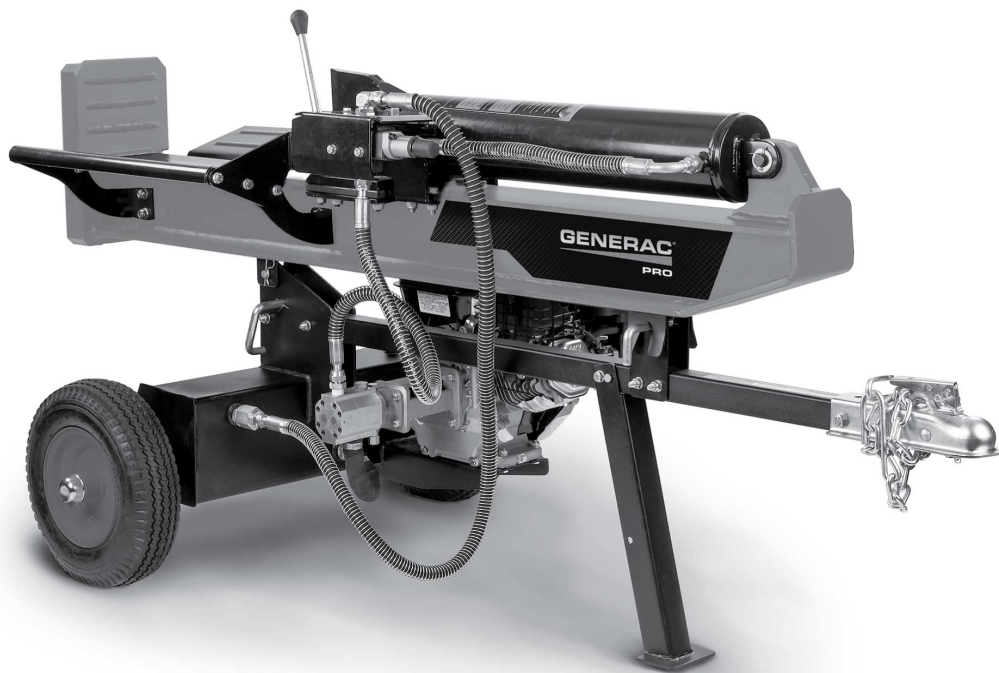


Owner's Manual

34 Ton Log Splitter



MODEL NUMBER: _____

SERIAL NUMBER: _____

DATE PURCHASED: _____

Register your Generac product at:
WWW.GENERAC.COM
1-888-GENERAC
(888-436-3722)

Original Language

SAVE THIS MANUAL FOR FUTURE REFERENCE

 **WARNING**

CANCER AND REPRODUCTIVE HARM

www.P65Warnings.ca.gov

(000393a)

Table of Contents

Section 1: Safety Rules & General Information

Introduction	1
Read This Manual Thoroughly	1
Safety Rules	1
How to Obtain Service	1
General Hazards	2
Exhaust and Fuel Hazards	3
Fire Hazards	4
Explosion Hazards	4
Hydraulic Hazards	4
Safety and Operating Decals	5

Section 2: General Information and Setup

Specifications	7
Components and Controls	8
Know Your Log Splitter	9
Emissions	9
Assembly	9
Installing the Wheels	9
Installing the Tow Bar	10
Installing the Pump Assembly	10
Installing the Engine	11
Installing the Beam Assembly	12
Installing the Hydraulic Hoses	12
Installing the Control Handle	13
Installing the Log Trays	13
Installing Manual Holder	14
Installing Hour Meter	14
Engine Fluid Requirements	15
Adding Fuel and Oil	15
Adding Hydraulic Fluid	16
Lubricating the Beam	17
Checking Tire Pressure	17
High Altitude Replacement Kit	17

Section 3: Operation

Operation and Use Questions	19
Before Starting Engine	19
Starting the Unit	19
Stopping the Engine	20
Handling Wood	20

Controls	21
Splitting Wood	22
Beam Operating Positions	22
Placing Beam in Vertical Position	22
Placing Beam in Horizontal Position	23
Towing the Log Splitter	23
Before Towing	23
Towing	24
Hitch Coupler Adjustment Check	24
Hitch Coupler Adjustment	25

Section 4: Maintenance and Troubleshooting

Maintenance	27
Maintenance Schedule	27
Changing Engine Oil	28
Beam and Wedge Maintenance	28
Changing Air Filter	29
Dual-Filter Element Types	29
Changing Spark Plug	29
Checking the Hydraulic Fluid Level	30
Changing the Hydraulic Fluid	30
Draining Head End of Cylinder	30
Draining the Hydraulic Tank	30
Refilling the Hydraulic Tank	30
Draining and Refilling Piston End of Cylinder	30
Start Engine and Cycle Cylinder	31
Adjusting Handle Return Lever	31
Replacing the Wheels	31
End of Season and Storage	32
Troubleshooting	33

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Section 1: Safety Rules & General Information

Introduction

Thank you for purchasing this Generac Pro 34 Ton Log Splitter. This unit has been designed to provide high-performance, efficient operation, and years of quality use when maintained properly.

The Generac Pro 34 Ton Log Splitter is designed and built for consistent, reliable use for log splitting projects. It is built to withstand frequent handling under these conditions.

The information in this manual is accurate based on products produced at the time of publication. The manufacturer reserves the right to make technical updates, corrections, and product revisions at any time without notice.

Read This Manual Thoroughly



WARNING

Consult Manual. Read and understand manual completely before using product. Failure to completely understand manual and product could result in death or serious injury. (000100a)

If any section of this manual is not understood, contact the nearest Independent Authorized Service Dealer (IASD) for starting, operating, and servicing procedures.

SAVE THESE INSTRUCTIONS: The manufacturer suggests that this manual and the rules for safe operation be copied and posted near the unit installation site. Safety should be stressed to all operators and potential operators of this equipment.

Safety Rules

The manufacturer cannot anticipate every possible circumstance that might involve a hazard. The alerts in this manual, and on tags and decals affixed to the unit, are not all inclusive. If using a procedure, work method, or operating technique that the manufacturer does not specifically recommend, verify that it is safe for others and does not render the equipment unsafe.

Throughout this publication, and on tags and decals affixed to the unit, DANGER, WARNING, CAUTION, and NOTE blocks are used to alert personnel to special instructions about a particular operation that may be hazardous if performed incorrectly or carelessly. Observe them carefully. Alert definitions are as follows:

DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

(000001)

WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

(000002)

CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

(000003)

NOTE: Notes contain additional information important to a procedure and will be found within the regular text of this manual.

These safety alerts cannot eliminate the hazards that they indicate. Common sense and strict compliance with the special instructions while performing the action or service are essential to preventing accidents.

How to Obtain Service

When the unit requires servicing or repairs, contact Generac Customer Service at 1-888-GENERAC (1-888-436-3722) or visit www.generac.com for assistance.

When contacting Customer Service about parts and service, always supply the complete model and serial number of the unit as given on its data decal located on the unit. Record the model and serial numbers in the spaces provided on the inside front cover of this manual.

General Hazards

⚠️ WARNING

Equipment damage. Do not overload the log splitter. Do not attempt to split logs beyond the units capability. Doing so could result in serious injury or equipment damage. (000439)

⚠️ WARNING

Personal injury. Do not reach or step across the beam while the log splitter is running. Doing so could result in death or serious injury. (000442)

⚠️ WARNING

Personal injury. Keep hands away from cracks in partially split or stuck logs. These cracks can quickly collapse, which could result in serious injury. (000444)

⚠️ WARNING

Personal injury. Do not attempt to remove partially split wood by hand. Always fully retract the wedge to dislodge logs. Failure to do so could result in serious injury or equipment damage. (000445)

⚠️ WARNING

Personal injury. Do not attempt to catch logs after splitting. Only pick up the logs from the ground. Attempting to catch logs could result in serious injury. (000446)

⚠️ WARNING

Personal injury. Never operate unit on slippery, wet, muddy, or icy surfaces. Doing so could result in death, serious injury, equipment or property damage. (000466)

⚠️ WARNING

Accidental Start-up. Disconnect the negative battery cable, then the positive battery cable when working on unit. Failure to do so could result in death or serious injury. (000130)

⚠️ WARNING

Personal injury. Keep people and pets away from work area. Failure to do so could result in death or serious injury. (000420)

⚠️ WARNING

Personal injury. Only allow qualified persons to operate unit. Operation by unqualified persons could result in death, serious injury, property or equipment damage. (000421)



⚠️ WARNING

Vision loss. Eye protection is required when servicing unit. Failure to do so could result in vision loss or serious injury. (000377)



⚠️ WARNING

Moving Parts. Do not wear jewelry when starting or operating this product. Wearing jewelry while starting or operating this product could result in death or serious injury. (000115)



⚠️ WARNING

Moving Parts. Keep clothing, hair, and appendages away from moving parts. Failure to do so could result in death or serious injury. (000111)



⚠️ WARNING

Hot Surfaces. When operating machine, do not touch hot surfaces. Keep machine away from combustibles during use. Hot surfaces could result in severe burns or fire. (000108)



⚠️ WARNING

Risk of Fire. Hot surfaces could ignite combustibles, resulting in fire. Fire could result in death or serious injury. (000110)

⚠️ WARNING

Risk of injury. Do not operate or service this machine if not fully alert. Fatigue can impair the ability to service this equipment and could result in death or serious injury. (000215)



⚠️ WARNING

Hearing Loss. Hearing protection is recommended when using this machine. Failure to wear hearing protection could result in permanent hearing loss. (000107)

⚠ WARNING

Equipment damage. Do not use as a tow or drag vehicle. Towing or dragging items behind the unit could cause serious injury, property or equipment damage. (000496)

⚠ WARNING

Personal injury. Never remove, alter, or tamper with safety devices. Do not operate unit without safety equipment in place. Doing so could result in death, serious injury, property damage, or equipment damage. (000403)

⚠ WARNING

Personal injury. Do not ride or allow riders on the unit. Riding on and allowing riders could result in death, serious injury, or equipment damage. (000409)

⚠ CAUTION

Personal injury. Wear appropriate personal protective equipment at all times while operating and servicing unit. Failure to do so could result in personal injury. (000419)

Exhaust and Fuel Hazards



⚠ DANGER

Asphyxiation. Do not operate unit without a properly functioning exhaust system. Doing so will result in death or serious injury. (000340)



⚠ DANGER

Asphyxiation. Running engines produce carbon monoxide, a colorless, odorless, poisonous gas. Carbon monoxide, if not avoided, will result in death or serious injury. (000103)



⚠ DANGER

Explosion and Fire. Fuel and vapors are extremely flammable and explosive. Store fuel in a well ventilated area. Keep fire and spark away. Failure to do so will result in death or serious injury. (000143)



⚠ DANGER

Explosion and Fire. Fuel and vapors are extremely flammable and explosive. Add fuel in a well ventilated area. Keep fire and spark away. Failure to do so will result in death or serious injury. (000105)



⚠ DANGER

Explosion and Fire. Do not overfill fuel tank. Fill to 1/2 inch from top of tank to allow for fuel expansion. Overfilling may cause fuel to spill onto engine causing fire or explosion, which will result in death or serious injury. (000166b)



⚠ DANGER

Risk of fire. Allow fuel spills to completely dry before starting engine. Failure to do so will result in death or serious injury. (000174)



⚠ WARNING

Fire risk. Fuel and vapors are extremely flammable. Do not operate indoors. Doing so could result in death, serious injury, or property or equipment damage. (000281)



⚠ WARNING

Explosion and fire risk. Do not smoke near unit. Keep fire and spark away. Failure to do so could result in death, serious injury, or property or equipment damage. (000282)



⚠ WARNING

Explosion and Fire. Do not smoke while refueling unit. Failure to do so could result in death, serious injury, or property or equipment damage. (000284a)

Fire Hazards



⚠️ WARNING

Risk of Fire. Verify machine has properly cooled before installing cover and storing machine. Hot surfaces could result in fire.

(000109)



⚠️ WARNING

Risk of fire. Never operate engine without the air cleaner installed. Operating engine without the air cleaner could result in death or serious injury.

(000249)



⚠️ WARNING

Risk of fire. Never operate engine without the carburetor air intake cover installed. Doing so could result in death or serious injury.

(000511)



⚠️ WARNING

Risk of Fire. Unit must be positioned in a manner that prevents combustible material accumulation underneath. Failure to do so could result in death or serious injury. (000147)



⚠️ WARNING

Risk of Fire. Hot surfaces could ignite combustibles, resulting in fire. Fire could result in death or serious injury.

(000110)

Explosion Hazards



⚠️ DANGER

Explosion and fire. Fuel and vapors are extremely flammable and explosive. No leakage of fuel is permitted. Keep fire and spark away. Failure to do so will result in death or serious injury. (000192)

Hydraulic Hazards



⚠️ WARNING

Fluid Injection. This machine produces high-pressure fluid streams that can pierce skin. Fluid injection could result in death or serious injury. (000106b)



⚠️ WARNING

Personal injury. Do not remove the hydraulic tank cap or reservoir cap while the unit is running or warm. The hydraulic tank contains hot oil under pressure. Doing so could result in serious injury or equipment damage. (000437)

⚠️ WARNING

Equipment damage. Do not alter hydraulic relief valve settings. Altering the settings could result in serious injury or equipment damage. (000436)

⚠️ WARNING

Equipment damage. Do not operate unit if hydraulic lines are damaged. Doing so could result in serious injury or equipment damage. (000435)



⚠️ WARNING

Personal Injury. Fuel lines are pressurized. Servicing the fuel lines may release high pressure fuel and could result in death or serious injury. (000501)

Safety and Operating Decals

See **Figure 1-1**. This unit features numerous safety and operating decals. These decals provide important operating instructions and warn of dangers and hazards. The following diagrams illustrate decal locations and

descriptions. Replace any missing or hard-to-read decals and use care when washing or cleaning the unit. Decal part numbers can be found in the unit parts manual at www.generac.com.

Item No.	Label Description
1	Operating instructions, warnings, and cautions
2	Warning: engine produces CO ₂ (located on left side of engine)
3	Warning: pinch point Caution: inspect safety equipment
4	Warning: inspect for fuel leakage

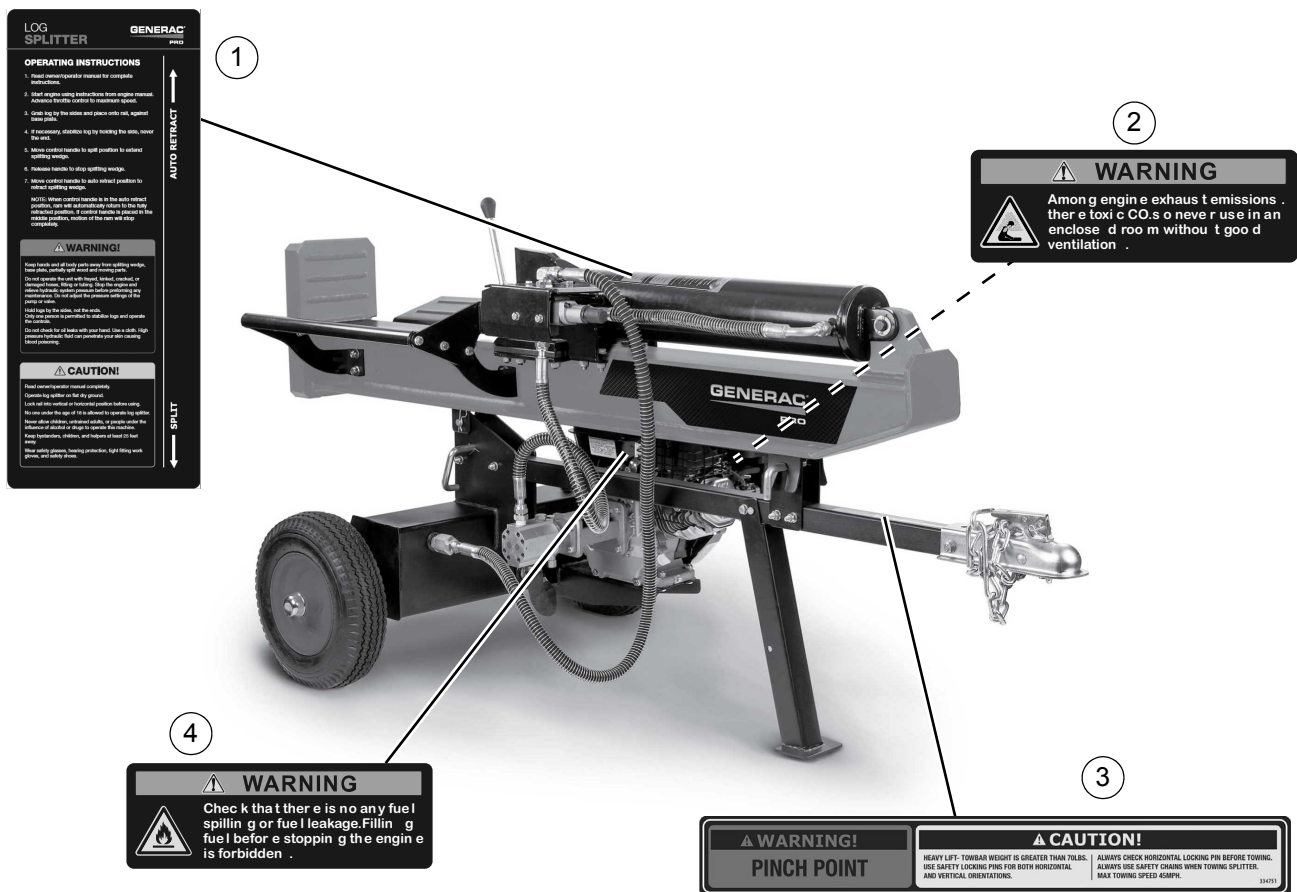


Figure 1-1. Safety and Operating Decal Locations

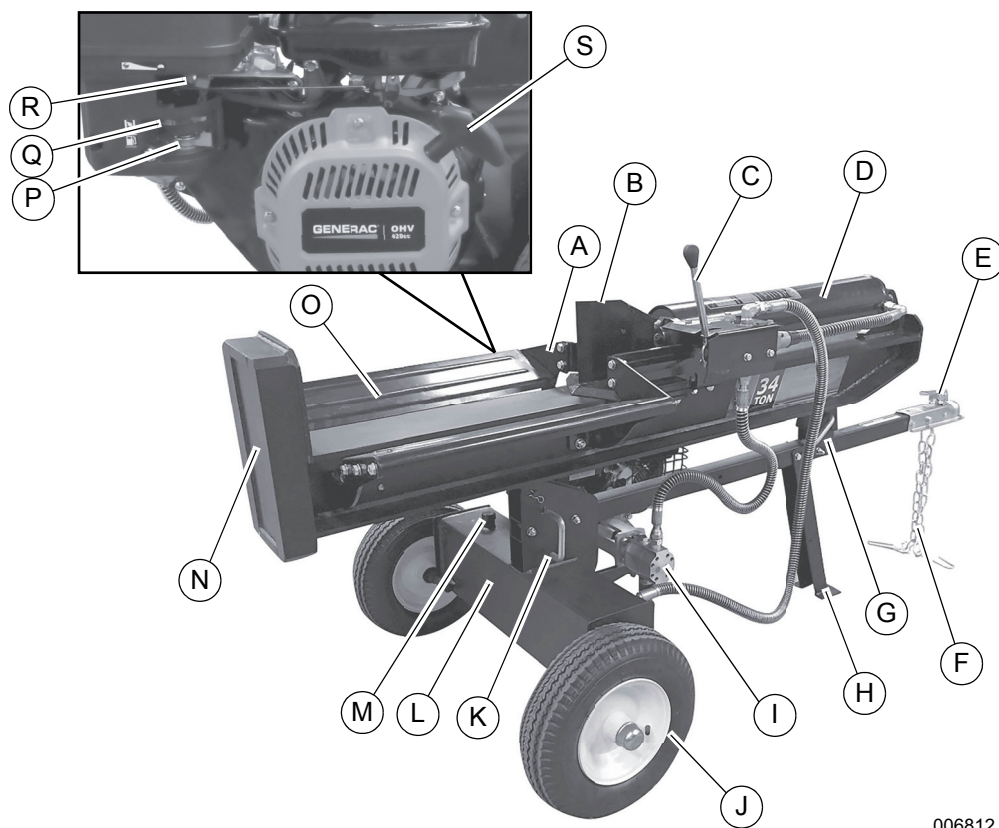
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Section 2: General Information and Setup

Specifications

Engine	Generac G-Force
Engine Starting	Manual
Oil Capacity	1 qt (0.95 L)
Fuel Capacity	1.6 gal (6.1 L)
Pump	2-Stage, 13 gpm (49.2 Lpm)
Max. Road Towing Speed	45 mph (72 km/h)
Cylinder (Bore x Stroke)	5 in x 23.7 in (12.7 cm x 60.2 cm)
Max. Splitting Force	34 tons* (29 mt)
Hydraulic Pressure	3500 psi* (24,132 kPa)
Max. Log Length	25 in (63.5 cm)
Wedge Height	7.9 in (20.1 cm)
Cycle Time	Forward: 8.5 seconds* Reverse: 7.5 seconds*
Hydraulic Capacity	Approx. 5 gal (18.9 L)
Height	Horizontal: 41.5 in (105.4 cm) Vertical: 71 in (180.3 cm)
Length	Horizontal: 87 in (221 cm) Vertical: 84 in (213.4 cm)
Width	41 in (104 cm)
Net Weight	549 lbs (249 kg)
*Tonnage and cycle times may vary dependent upon mechanical and environmental conditions.	

Components and Controls



006812

Figure 2-1. Component Locations

A	Log dislodger	K	Vertical beam lock
B	Splitting wedge	L	Hydraulic oil reservoir
C	Control handle	M	Hydraulic oil fill/check
D	Cylinder	N	End plate
E	Hitch receiver	O	Log tray
F	Safety chains	P	Fuel shutoff valve
G	Horizontal beam lock	Q	Choke control lever
H	Jack stand	R	Throttle control lever
I	Hydraulic pump	S	Recoil starter handle
J	Road tow wheels		

Know Your Log Splitter



⚠️ WARNING

Consult Manual. Read and understand manual completely before using product. Failure to completely understand manual and product could result in death or serious injury. (000100a)

See **Figure 2-1**. Be familiar with the controls and features of the unit prior to operation. Read this manual thoroughly before assembling and operating this unit. Save this manual for future and immediate reference.

Emissions

The United States Environmental Protection Agency (US EPA) (and California Air Resources Board (CARB), for engines/equipment certified to California standards) requires that this engine/equipment complies with exhaust and evaporative emissions standards. Locate the emissions compliance decal on the engine to determine applicable standards. For emissions warranty information, please reference the included emissions warranty. It is important to follow the maintenance specifications in the manual to ensure that the engine complies with the applicable emissions standards for the duration of the product's life.

Assembly

See charts below for list of included parts. Verify all parts are included before assembling.

NOTE: Do not discard packaging materials until assembly is complete and all parts accounted for.

Installing the Wheels



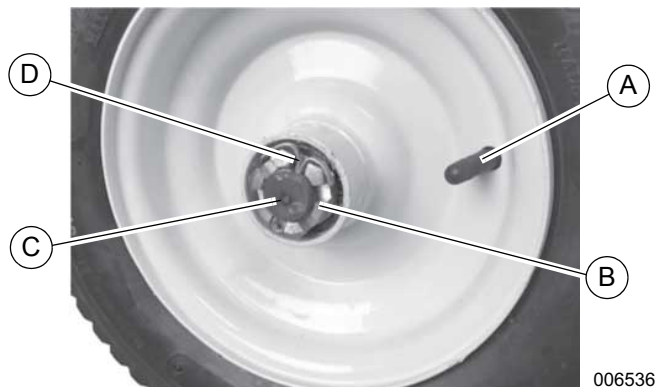
006535

Parts Supplied in Hardware Kit #1		
Item #	Description	Qty
1	Hub cap	2
2	Nut, castle, 1-14	2

3	Pin, cotter	2
---	-------------	---

Figure 2-2. Parts Supplied in Hardware Kit #1

1. Remove plastic shipping caps from wheels. Verify bearings remain seated when removing cap. Reinsert into the hub if bearing is dislodged.
2. See **Figure 2-3**. Block reservoir assembly up off the ground and position wheel onto axle with valve stem (A) facing out.



006536

Figure 2-3. Wheel Assembly

3. Install castle nut (B) onto axle (C) and tighten securely.
4. Loosen the castle nut and tighten it to the bearing. Do not over tighten.
5. Insert cotter pin (D) through slots of castle nut and into hole in axle.
6. Bend ends of cotter pin flush against castle nut.
7. See **Figure 2-4**. Install hub cap (E) onto wheel. Tap gently with soft faced hammer to secure.



006537

Figure 2-4. Hub Cap Installation

8. Repeat steps 1-7 for other wheel assembly.

Installing the Tow Bar



Parts Supplied in Hardware Kit #2		
Item #	Description	Qty
1	Horizontal beam lock	1
2	Bolt, hex, M10 x 80	4
3	Washer, flat, M10	8
4	Nut, nylon lock, M10	4

Figure 2-5. Parts Supplied in Hardware Kit #2

NOTE: Install the washers with one washer against the head of the bolt, and the other washer against the locknut.

1. See [Figure 2-6](#). Remove pin and hitch clip (C) locking jack stand (D) in place. Rotate jack stand downwards and secure with pin and hitch clip.

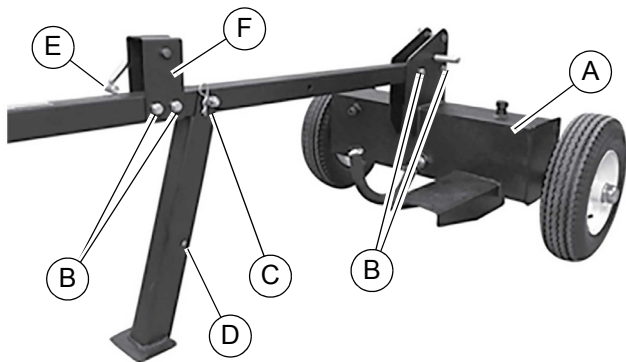


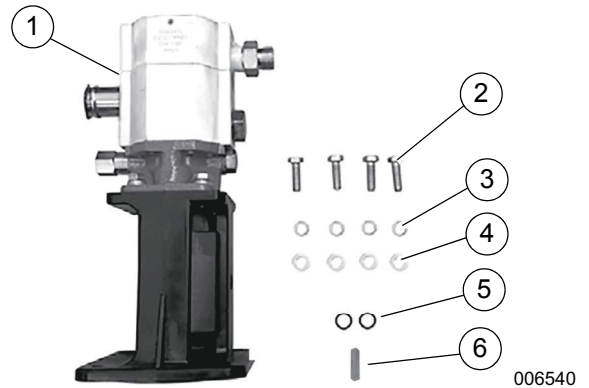
Figure 2-6. Trailer Components

2. Secure rear of the tow bar to the reservoir assembly (A) using two M10 x 80 bolts, four flat washers, and two locknuts (B). Tighten hardware.

NOTE: In the next step, the horizontal beam lock (F) must be installed with the handle (E) on the **right side**. The slot in the beam bracket will only latch properly to the handle if it is installed this way.

3. Install the horizontal beam lock onto tow bar using two M10 x 80 bolts, four flat washers, and two locknuts. Tighten hardware.

Installing the Pump Assembly



Parts Supplied in Hardware Kit #3		
Item #	Description	Qty
1	Two stage pump assembly	1
2	Bolt, HCS, M8-1.25 x 30 in	4
3	Washer, lock, M8	4
4	Washer, flat, M8	4
5	O-ring, 11 mm x 2 mm	2
6	Keyway, 1/4 in, Square	1

Figure 2-7. Parts Supplied in Hardware Kit #3

NOTE: O-rings in hardware kit #3 are used in [Installing the Hydraulic Hoses](#). Set o-rings aside in a secure place until needed.

1. Remove engine from container and place on a level surface.
2. See [Figure 2-8](#). Slowly pull on engine starter cord to position key slot (A) at top of shaft.

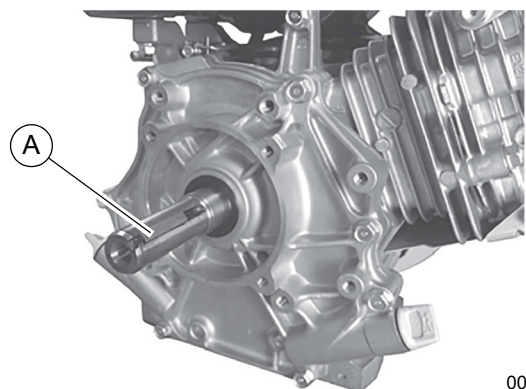


Figure 2-8. Key Slot Position

3. Gently tap the key (located in parts box) into the key slot on engine shaft using a soft face hammer.

- See **Figure 2-9**. Coupling (B) may have separated during shipping. Verify the two coupling halves are together with the nylon insert (C) in the center.

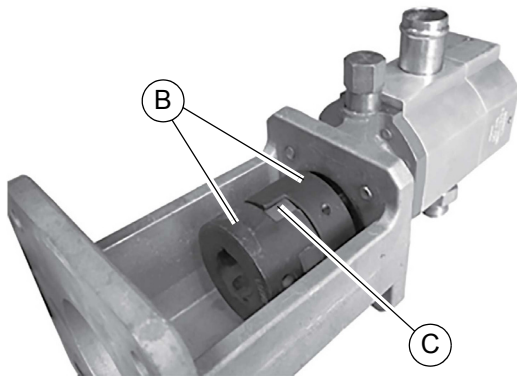


Figure 2-9. Coupling Halves

006542

- See **Figure 2-10**. Install the pump assembly (D) onto the engine shaft (E) with the opening facing up, allowing the key to slide into the coupling. Push the pump assembly onto the shaft until pump mount (F) is flush with the engine. Temporarily install a 5/16-24 bolt (G) to hold the pump against the engine.

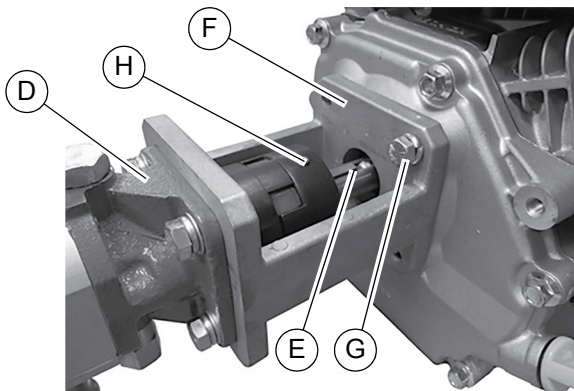
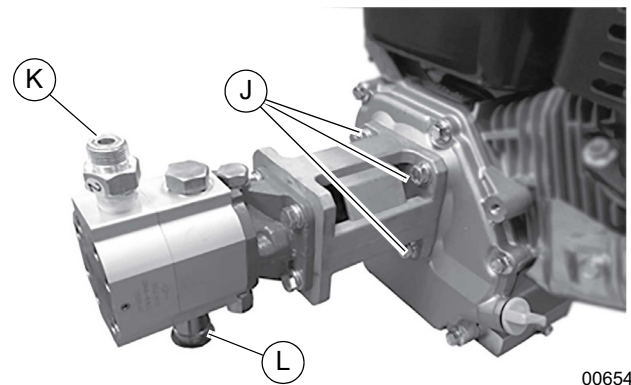


Figure 2-10. Engine Shaft Assembly

006543

- Remove one of the set screws (H) on the coupling with a hex key. Apply thread lock to the set screw and reinstall. Tighten the set screw to secure coupling. Repeat for other set screw.
- Remove temporary support bolt. Rotate pump assembly so opening of pump mount is on bottom.
- See **Figure 2-11**. Secure the pump assembly using four 5/16-24 bolts, M8 lock washers, and M8 flat washers (J). Tighten securely.



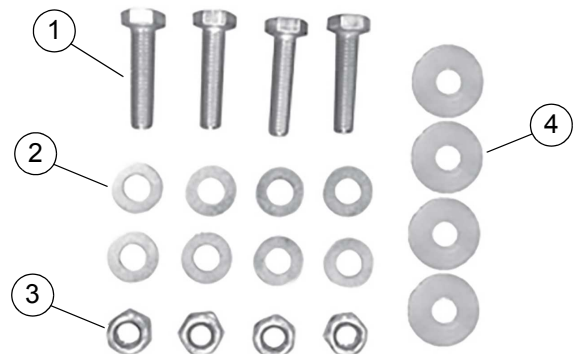
006544

Figure 2-11. Pump Assembly

NOTE: The threaded fitting (K) must be on the top side of the pump. If the threaded fitting is on top, continue to step 10. If it is not, continue to step 9.

- Remove four bolts and lock washers securing the pump to the pump mount. Rotate the pump so the threaded fitting is on top of the pump. Secure pump to pump mount.
- Remove plastic shipping cap (L) from bottom of pump.

Installing the Engine



006547

Parts Supplied in Hardware Kit #4		
Item #	Description	Qty
1	Bolt, hex, M10 x 40	4
2	Washer, flat, M10	8
3	Nut, nylon lock, M10	4
4	Isolator, vibration	4

Figure 2-12. Parts Supplied in Hardware Kit #4

NOTE: Install washers so one washer is against head of bolt, and other washer is against locknut.

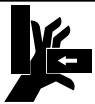
1. Position engine with pump assembly onto engine mount. Insert a vibration isolator between engine and mount at four mounting hole locations.
2. Secure engine with four bolts, eight flat washers, and four locknuts. Tighten hardware securely.

Installing the Beam Assembly



WARNING

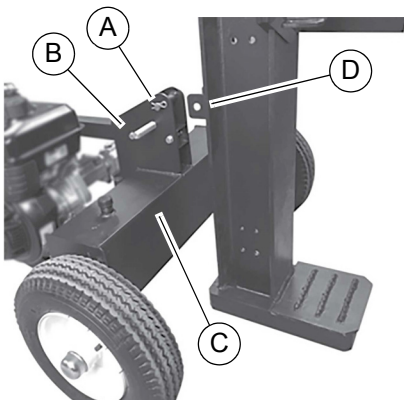
Crush hazard. Use the help of another individual to raise, lower, and install the beam. Failure to do so could result in death, serious injury, or equipment damage. (000582)



CAUTION

Pinch point. Use caution when handling mechanisms on the unit, as they could be pinch points. Failure to do so could result in personal injury. (000429)

1. See **Figure 2-13**. Have an assistant help to stand the beam upright on a flat level surface. Have the assistant support the beam until beam is secured to unit.



006548

Figure 2-13. Beam Assembly

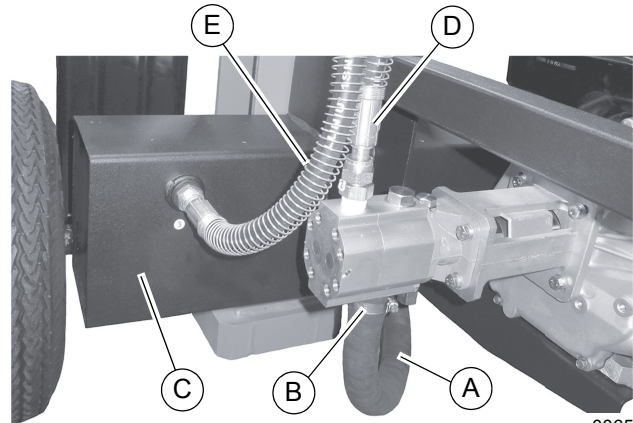
2. Remove pin and hitch clip (A) from beam support bracket (B). Position reservoir assembly (C) with beam support bracket in between the tabs (D) on the beam assembly.
3. Slide pin through aligned tab holes and secure with hitch clip. The tow bar may need to be lifted for the holes to align. Use a team lift to accomplish this.

NOTE: Leave the beam assembly in the upright position for the next procedures.

Installing the Hydraulic Hoses

NOTE: Each of the three hydraulic hoses is shipped with one end fixed on the fitting. The hoses are labeled for ease of installation.

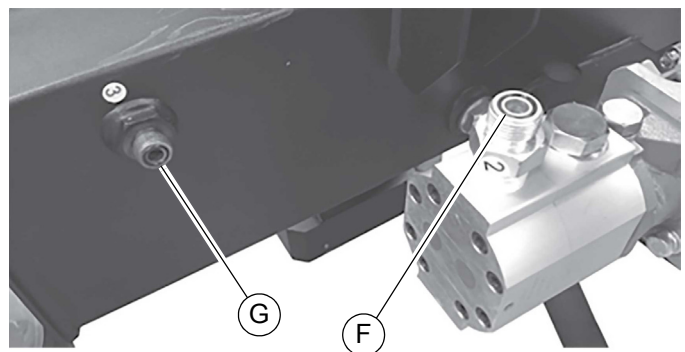
1. See **Figure 2-14**. Oil suction hose (A), labeled 1, comes from bottom of oil reservoir (C). Loosen hose clamp (B) on open end of hose and connect hose to fitting on bottom of pump. Tighten hose clamp.



006549

Figure 2-14. Oil Suction Hose Installation

2. See **Figure 2-14** and **Figure 2-15**. Pump/valve connecting hose (D), labeled as 2, comes from bottom of valve on beam assembly. Apply a small amount of hydraulic fluid to the o-ring (11 mm x 2 mm) (F) from hardware kit #3. Place o-ring into the groove of the fitting on top of pump. Screw open end of hose onto fitting on top of pump.



006550

Figure 2-15. O-Ring Locations

3. See **Figure 2-14** and **Figure 2-15**. Oil return hose (E), labeled as 3, comes from front of the valve on the beam assembly. Apply a small amount of hydraulic fluid to the o-ring (G) (11 mm x 2 mm) from hardware kit #3 and place o-ring into groove at end of threaded fitting on oil reservoir. Screw open end of hose onto oil reservoir.

NOTE: Verify hydraulic hoses are securely tightened at both ends. Tighten as needed.

Installing the Control Handle

NOTE: Control handle is shipped hanging from valve on handle link.

1. See **Figure 2-16**. Remove pin and hitch clip (A) from control valve.

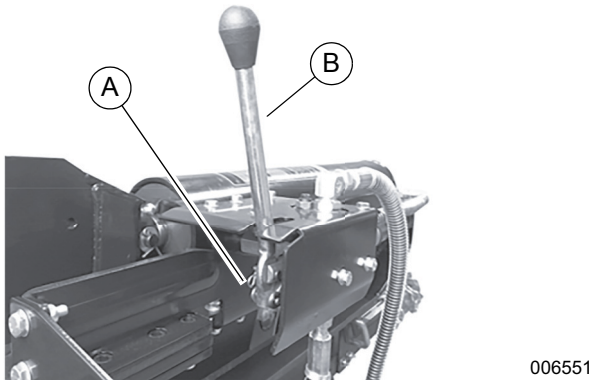
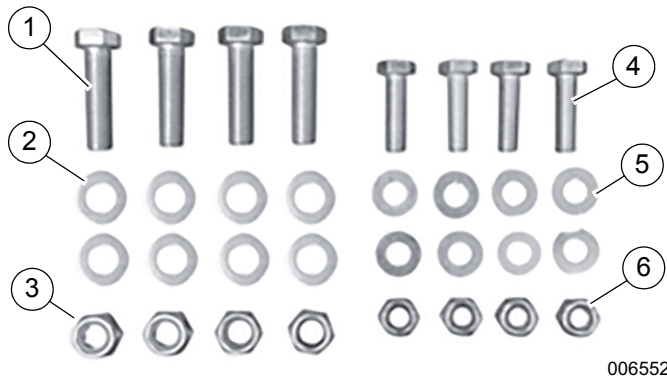


Figure 2-16. Control Handle Assembly

2. Rotate control handle (B) up into operating position and secure with pin and hitch clip.

Installing the Log Trays



Parts Supplied in Hardware Kit #5		
Item #	Description	Qty
1	Bolt, hex, M12 x 45	4
2	Washer, flat, M12	8
3	Nut, nylon lock, M12	4
4	Bolt, hex, M10 x 30	4
5	Washer, flat, M10	8
6	Nut, nylon lock, M10	4

Figure 2-17. Parts Supplied in Hardware Kit #5

NOTE: Install washers so one washer is against head of bolt, and other washer is against locknut.

1. Tighten hardware (A) on loosely assembled log trays.

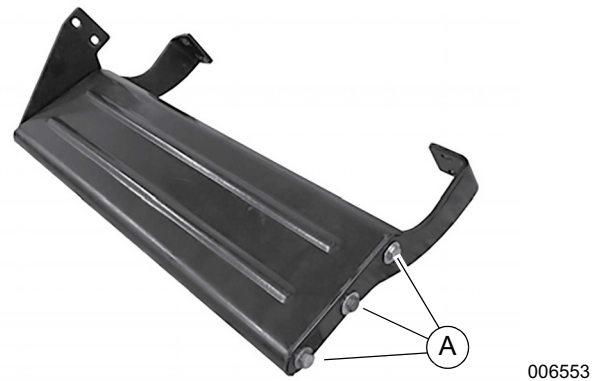


Figure 2-18. Log Tray Assembly

2. Lower the beam to the horizontal position with an assistant. See **Beam Operating Positions** for detailed information on raising and lowering beam.
3. See **Figure 2-19**. Position a log tray (B) onto beam and loosely secure end plate with two M10 x 30 bolts (C), four M10 flat washers, and two M10 locknuts. Repeat for the second log tray.

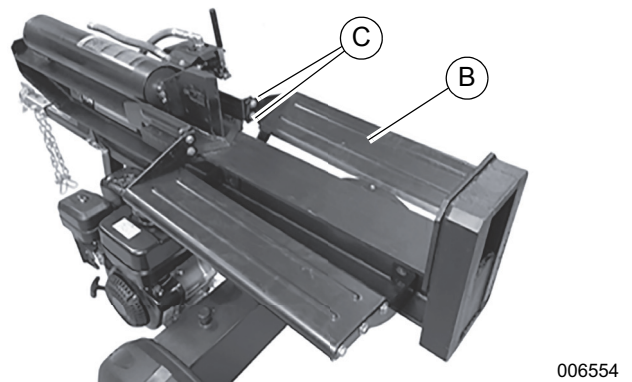


Figure 2-19. Attaching Log Tray

4. See **Figure 2-20**. Loosely secure bottom supports (D) to beam with four M12 x 45 bolts (E), eight M12 flat washers, and four M12 locknuts.

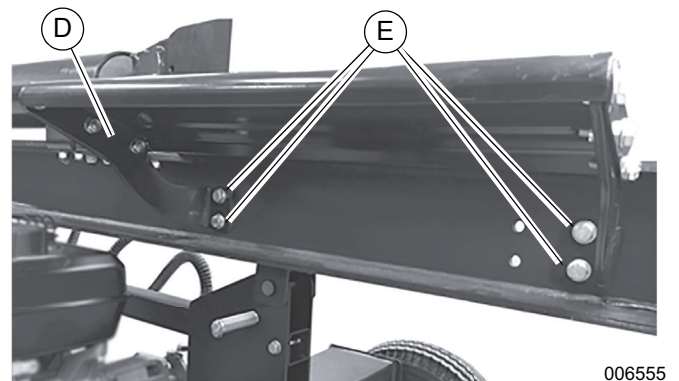
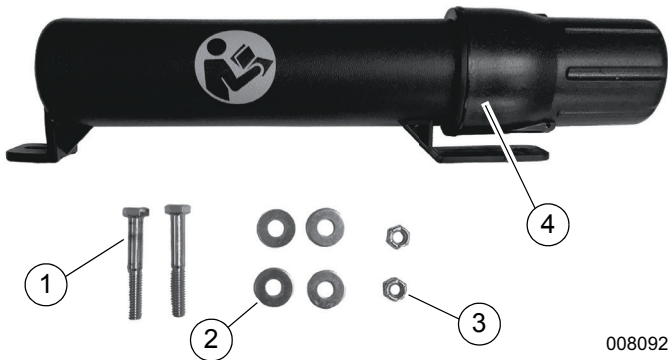


Figure 2-20. Attaching Log Tray to Beam

5. Tighten the M12 hardware.
6. Tighten the M10 hardware installed in step 3.

Installing Manual Holder

The manual holder is installed on the tow bar, near the jack stand. All documentation should remain with the unit at all times.

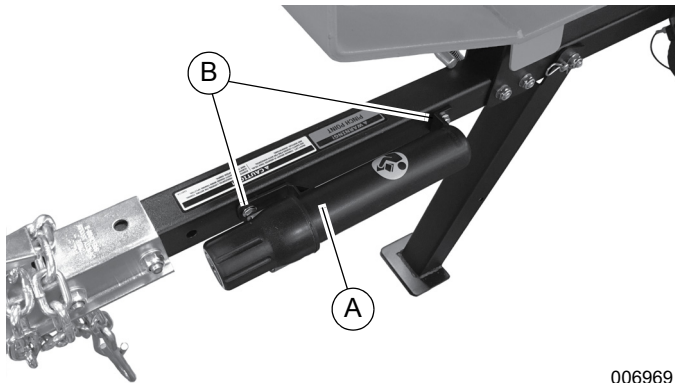


008092

Parts Supplied For Manual Holder		
Item #	Description	Qty
1	Bolt, HCS, M8-1.25 x 80	2
2	Washer, flat, M8	4
3	Nut, nylon lock, ZP, M8-1.25	2
4	Manual caddy	1

Figure 2-21. Parts Supplied for Manual Holder

1. See [Figure 2-22](#). Position manual holder (A) over pre-drilled mounting holes (B) on tow bar.



006969

Figure 2-22. Manual Holder Mounting Position

2. Secure manual holder using hardware provided.

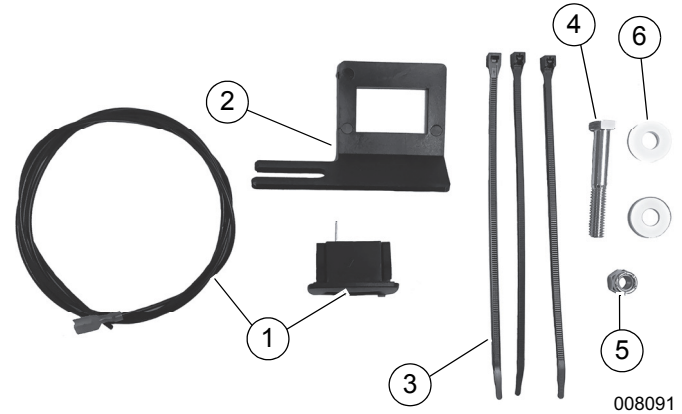
Installing Hour Meter



Accidental Start-up. Disconnect spark plug wire when working on unit. Failure to do so could result in death or serious injury.

(000102)

The hour meter is a reminder system that displays alerts at regular intervals for oil changes, and displays accumulated running times for long-term servicing needs.



008091

Parts Supplied For Hour Meter		
Item #	Description	Qty
1	Hour meter / 66 in (1.7 m) wire	1
2	Mounting bracket	1
3	Cable ties	3
4	Bolt, HCS, M8-1.25 x 80	1
5	Nut, nylon lock, ZP, M8-1.25	1
6	Washer, flat, M8	2

Figure 2-23. Parts Supplied For Hour Meter

1. Position the mounting bracket over the pre-drilled hole on the tow bar, located near the engine.
2. See [Figure 2-24](#). Install the hour meter (A) into mounting bracket (B) opening. Verify retaining clips on hour meter snap into place.

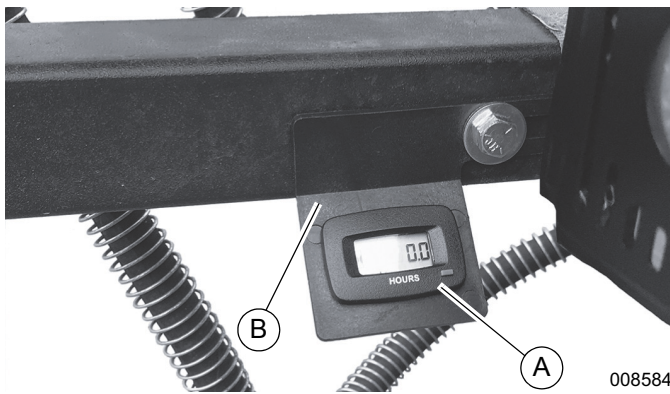


Figure 2-24. Hour Meter Installation

3. See [Figure 2-25](#). Install the sensor wire into the sensor wire connector on back of hour meter.

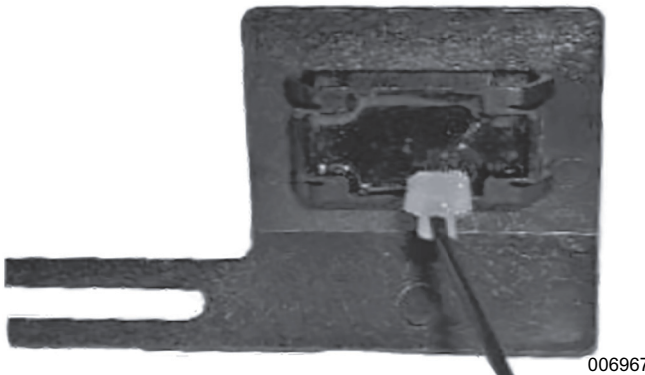


Figure 2-25. Sensor Wire Connection

NOTE: Do not place sensor wire on or near a hot surface.

4. Find a suitable path for the sensor wire leading to engine spark plug. Use two of the provided cable ties to secure sensor cable to frame.
5. See [Figure 2-26](#). Wrap sensor wire rightly around the spark plug wire four or five turns. Secure wire to itself with a cable tie. Cut and discard unused wire.

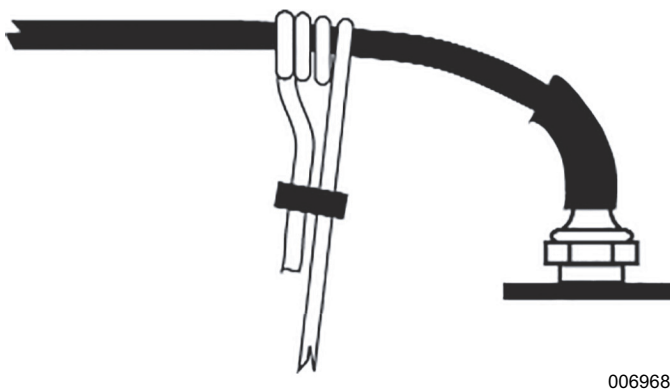


Figure 2-26. Sensor Wire Installation

Engine Fluid Requirements

Engine Oil	Above 50 °F (10 °C): SAE 30 30–90 °F (-1–32 °C): 10W-30 30 °F (-1 °C) or below: 5W-30
Fuel	Unleaded gasoline. Minimum 85 octane rating.

Adding Fuel and Oil



WARNING

Fire and explosion risk. Keep spark and flame away from liquid and vapor. Do not smoke while using. Doing so could result in death, serious injury, or equipment damage. (000341)

WARNING

Skin irritation. Avoid prolonged or repeated contact with used motor oil. Used motor oil has been shown to cause skin cancer in laboratory animals. Thoroughly wash exposed areas with soap and water. (000210)

CAUTION

Engine damage. Verify proper type and quantity of engine oil prior to starting engine. Failure to do so could result in engine damage. (000135)

IMPORTANT NOTE: The unit is shipped without oil in engine. Traces of oil may be in reservoir from factory testing. Oil must be added prior to initial operation. Use only the recommended high detergent engine oil. Refer to the engine owners manual for information.

NOTE: Use only the recommended high detergent engine oil. See [Engine Fluid Requirements](#).

1. Place unit on a firm, level surface, and verify engine is cooled.
2. See [Figure 2-27](#). Remove oil dipstick/fill cap (A). Clean with clean, lint free rag.

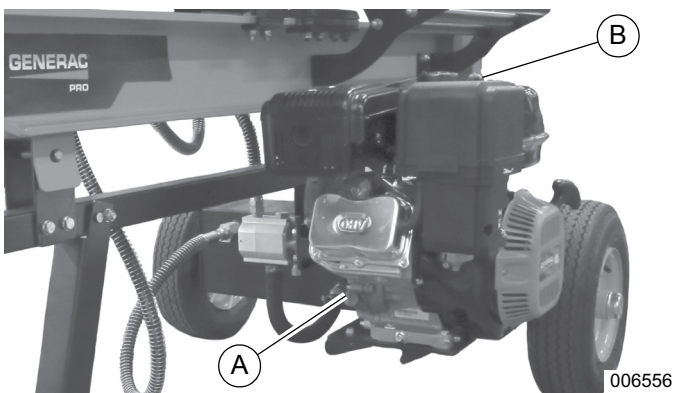


Figure 2-27. Oil Dipstick and Fuel Fill

3. Add 16 oz (0.5 L) of the recommended oil. Wait one minute for oil to settle.
4. Install oil dipstick and screw in.
5. Remove oil dipstick and check oil level. Clean oil dipstick after checking.
6. Add a few ounces of oil at a time until level reaches FULL mark. Check oil dipstick frequently to prevent overflow. **Do not overfill.**
7. Install oil dipstick and securely finger tighten when full.
8. Remove fuel fill cap (B) and fill fuel tank with fresh, unleaded gas to approximately 1–1.5 in (25.4–38.1 mm) below the top of the fill neck. **Do not overfill.**
9. Install fuel fill cap.

Adding Hydraulic Fluid



⚠ WARNING

Personal injury. Do not remove the hydraulic tank cap or reservoir cap while the unit is running or warm. The hydraulic tank contains hot oil under pressure. Doing so could result in serious injury or equipment damage.

(000437)

⚠ CAUTION

Equipment damage. Do not operate unit unless hydraulic fluid tank is at recommended level. Doing so will result in equipment damage.

(000432)

IMPORTANT NOTE: The unit is shipped without hydraulic fluid. Hydraulic fluid must be added prior to operation.

1. See [Figure 2-28](#). Remove hydraulic reservoir dipstick (A) located on top of hydraulic reservoir tank.

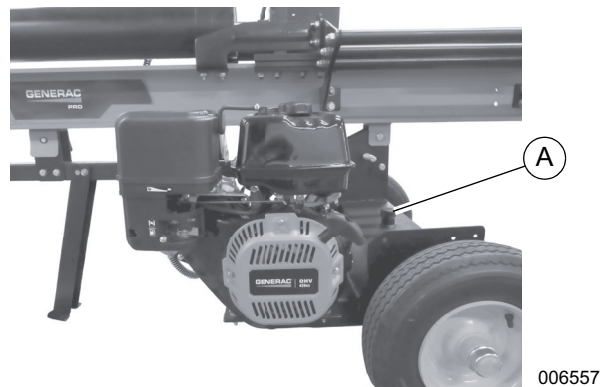


Figure 2-28. Hydraulic Reservoir Dipstick Location

2. Slowly fill the hydraulic reservoir tank with recommended hydraulic fluid until it reaches the initial fill line on the dipstick. **Do not overfill.**
3. Install hydraulic dipstick.
4. Verify engine is off with spark plug wire disconnected. Prime the pump by pulling recoil starter handle as far as possible. Repeat approximately 10 times.
5. Connect spark plug wire and start engine.
6. Use control handle to engage wedge to farthest extended position. Retract the wedge. See [Splitting Wood](#) for control handle operating instructions.

NOTE: Do not refill hydraulic tank to initial fill line. The fluid level has dropped since cylinder was cycled. Filling to this line will overflow hydraulic tank. The correct level for operation is 0.25 in (6.4 mm) from bottom of dipstick.

7. Stop engine and inspect hydraulic fluid level. Add hydraulic fluid as needed to keep hydraulic fluid at 0.25 in (6.4 mm) from bottom of dipstick.
8. Start engine and extend and retract wedge for 12 complete cycles to remove any trapped air in the hydraulic system.
9. Stop engine and refill tank as needed to keep hydraulic fluid at correct level. Install dipstick when finished.

Lubricating the Beam

See [Figure 2-29](#). Lubricate the beam area (A) with fluid film. **Do not use grease.**

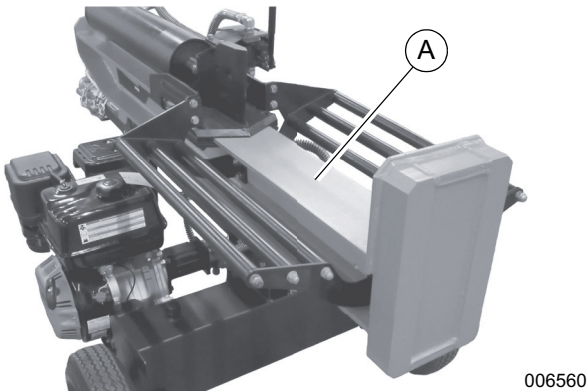


Figure 2-29. Beam Area

006560

Checking Tire Pressure



Loss of control. Do not overinflate tires. Overinflation could cause a blow out, which could result in loss of control. Loss of control could result in death, serious injury, property or equipment damage. (000428)

1. See [Figure 2-30](#). Remove valve stem protective cap (A) and check tire pressure using a tire pressure gauge.



Figure 2-30. Valve Stem Protective Cap

006537

2. Verify tire pressure is in accordance with recommended pressure stamped on side of tire. Add or remove air as needed.
3. Replace valve stem protective cap.

High Altitude Replacement Kit

The standard carburetor air-fuel mixture is too rich at high altitudes for this unit. Performance decreases and fuel consumption increases at high altitudes. A rich mixture also fouls the spark plug and causes hard starting. Operation for extended periods of time at an altitude that differs from what the engine was certified for may increase emissions.

Install an altitude kit, when required, when operating at higher altitudes. Follow the guide below to determine when an altitude kit is required:

Altitude Range	Part Number
0–5,000 ft (0–1,524 m)	Not required
5,000–8,000 ft (1,524–2,438 m)	10000035295

Kits can be obtained by contacting Generac Customer Service at 1-888-436-3722 (1-888-GENERAC), or visiting www.generac.com. Kits must be installed by a qualified individual.

NOTE: If a carburetor is replaced, the correct high altitude kit jet will need to be installed into the replacement carburetor.

NOTE: The warranty may be void if necessary installation of a high altitude kit is not made for high altitude use.

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Section 3: Operation

Operation and Use Questions

Call Generac Customer Service at 1-888-GENERAC (1-888-436-3722) with questions or concerns about unit operation and maintenance.

Before Starting Engine



⚠️ WARNING

Consult Manual. Read and understand manual completely before using product. Failure to completely understand manual and product could result in death or serious injury. (000100a)

⚠️ WARNING

Equipment damage. Do not attempt to start or operate a unit in need of repair or scheduled maintenance. Doing so could result in serious injury, death, or equipment failure or damage. (000291)

IMPORTANT NOTE: Unit is shipped without oil. Add engine oil before starting. See [Adding Engine Oil](#) for instructions.

Before starting, complete the checklist below.

- Check engine oil level.
- Check fuel level.
- Check hydraulic fluid level.
- Inspect unit for damage.
- Verify control handle operates properly.
- Check tire pressure.
- Verify beam area and splitting wedge is free of debris.
- Unit is positioned on firm, flat, and level ground.
- See [Figure 3-1](#). When operating the unit, verify operator is in an operator zone at all times.

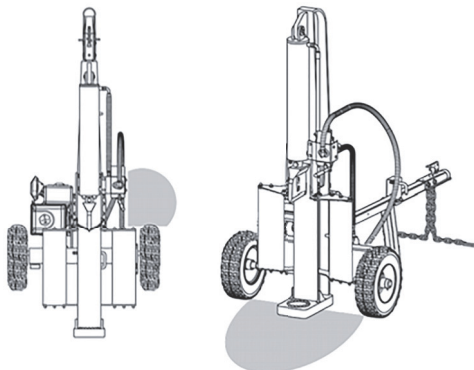


Figure 3-1. Operator Zones

006561

Starting the Unit



⚠️ WARNING

Risk of fire. Never operate engine without the carburetor air intake cover installed. Doing so could result in death or serious injury.

(000511)

⚠️ CAUTION

Equipment Damage. Do not continuously crank engine for more than ten seconds. Doing so will lead to overdischarge of batteries and starter seizure.

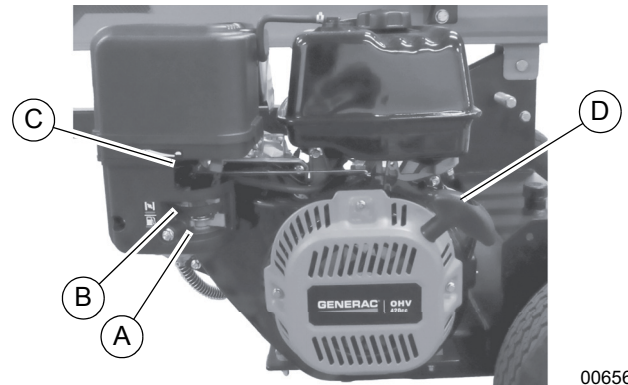
(000230)

⚠️ CAUTION

Equipment damage. Do not attempt to crank or start engine before properly servicing unit with recommended oil. Failure to do so could result in engine damage.

(000320)

1. See [Before Starting Engine](#) and complete the checklist.
2. See [Figure 3-2](#). Verify fuel shutoff valve (A) is set to ON.

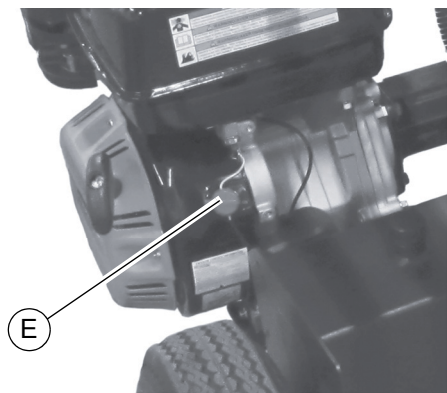


006562

Figure 3-2. Engine Controls

3. Set choke control lever (B) to CHOKE.
4. Set throttle control lever (C) to FAST.

- See **Figure 3-3**. Turn ignition switch (E) to ON.



006563

Figure 3-3. Ignition Switch Location

- Set choke control lever slowly back to OPEN once engine is running smoothly.

NOTE: If engine is cold, warm up engine first by running at half throttle for 3–4 minutes before splitting, then advance engine throttle to maximum speed.

Stopping the Engine

- Set throttle lever to IDLE.
- Turn ignition switch to OFF.

Handling Wood

WARNING

Equipment damage. Do not overload the log splitter. Do not attempt to split logs beyond the units capability. Doing so could result in serious injury or equipment damage.

(000439)

WARNING

Personal injury. Do not reach or step across the beam while the log splitter is running. Doing so could result in death or serious injury.

(000442)

WARNING

Personal injury. Do not operate unit from outside the operator zone. Doing so could result in death, serious injury, or equipment damage.

(000440)

WARNING

Personal injury. Load logs by holding them in the middle, not the ends. Loading logs by holding the ends could result in serious injury.

(000441)

WARNING

Personal injury. Do not attempt to split logs across the grain. Doing so could cause serious injury or equipment damage.

(000443)

WARNING

Personal injury. Keep hands away from cracks in partially split or stuck logs. These cracks can quickly collapse, which could result in serious injury.

(000444)

WARNING

Personal injury. Do not attempt to remove partially split wood by hand. Always fully retract the wedge to dislodge logs. Failure to do so could result in serious injury or equipment damage.

(000445)

WARNING

Personal injury. Do not attempt to catch logs after splitting. Only pick up the logs from the ground. Attempting to catch logs could result in serious injury.

(000446)

WARNING

Personal injury. Do not load log splitter when splitting wedge is in motion. Doing so could result in serious injury or equipment damage.

(000550)

NOTE: Logs must be shorter than 24 in (61 cm). Never split logs using an incorrect or unsafe method. Use the photos below as a guide. These instructions apply when splitting vertically or horizontally.

- See **Figure 3-4**. Do not hold log by ends. Never use your foot to stabilize a log. Do not reach or step across the beam while unit is running.



006564

Figure 3-4. Do Not Hold at Ends

- See [Figure 3-5](#). Do not split log against the grain.



006565

Figure 3-5. Do Not Split Against the Grain

- See [Figure 3-6](#). Do not cut angled wood. Verify both ends are cut as square as possible. This prevents logs from sliding out of position while under pressure from the splitting wedge.



006566

Figure 3-6. Do Not Cut Angled Wood

- See [Figure 3-7](#). Place hands on long sides of log. Verify both ends of log are flat. If stabilizing log with left hand, remove hand when splitting wedge makes contact with the log.



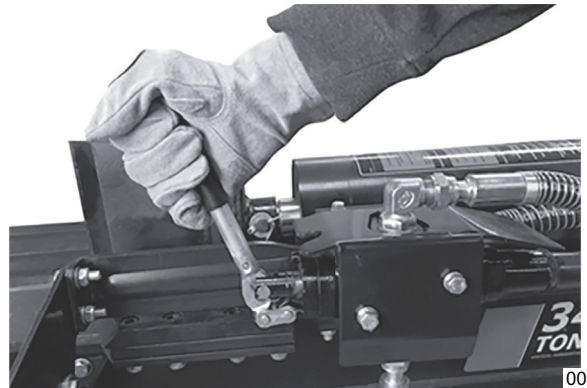
006567

Figure 3-7. Correct Log Loading Technique

Controls

The control handle has three positions:

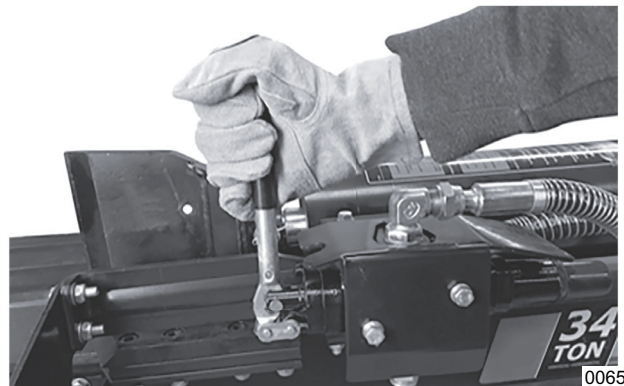
- FORWARD – Move control handle forward to the FORWARD position to move wedge towards log. See [Figure 3-8](#).



006568

Figure 3-8. FORWARD Position

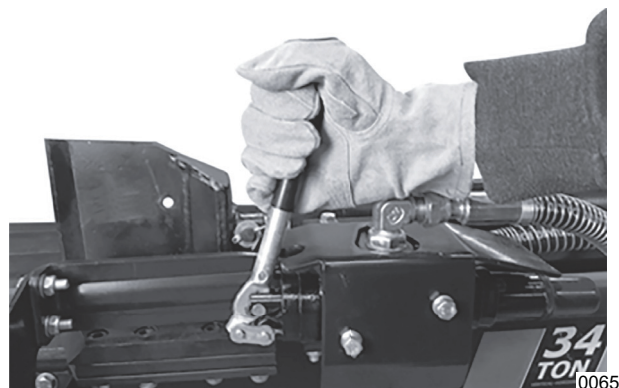
- NEUTRAL – Release the control handle to return it to NEUTRAL. The splitting wedge will stop any movement. See [Figure 3-9](#).



006577

Figure 3-9. NEUTRAL Position

- REVERSE – Move control handle backwards to the REVERSE position to return the splitting wedge toward the cylinder. Control handle moves to NEUTRAL position automatically when splitting wedge is fully retracted. See [Figure 3-10](#).



006569

Figure 3-10. REVERSE Position

IMPORTANT NOTE: Do not hold control handle in REVERSE position when splitting wedge is fully retracted. This will cause damage to the hydraulic cylinder.

NOTE: To stop the splitting wedge before it is fully retracted, move control handle to the neutral position.

Splitting Wood

WARNING

Equipment damage. Do not operate unit if hydraulic lines are damaged. Doing so could result in serious injury or equipment damage.

(000435)

WARNING

Equipment damage. Do not alter hydraulic relief valve settings. Altering the settings could result in serious injury or equipment damage.

(000436)

WARNING

Personal injury. Do not attempt to catch logs after splitting. Only pick up the logs from the ground. Attempting to catch logs could result in serious injury.

(000446)

WARNING

Personal injury. Do not reach or step across the beam while the log splitter is running. Doing so could result in death or serious injury.

(000442)

WARNING

Personal injury. Do not attempt to split logs across the grain. Doing so could cause serious injury or equipment damage.

(000443)

CAUTION

Equipment damage. Do not operate unit unless hydraulic fluid tank is at recommended level. Doing so will result in equipment damage.

(000432)

1. See [Handling Wood](#). Practice safe wood handling techniques. Operate log splitter from the operator zone only.
2. Start engine.

3. See [Figure 3-7](#). Load log onto log splitter. Gasp log with hands on both sides of log, near the middle. Center log side-to-side on beam. Place one end against the end plate.
4. Move control lever to the FORWARD position. If log moves before splitting wedge makes contact, release control handle and reposition log.
5. Hold control lever in FORWARD position until log is split or cylinder rod stops at maximum travel position. Release the control handle to NEUTRAL position at any point in splitting process if you feel an unsafe splitting condition is occurring.
6. Move control handle to the REVERSE position once splitting wedge reaches full forward travel to retract splitting wedge. Do not hold control handle in REVERSE position after splitting wedge is fully retracted.

Beam Operating Positions



WARNING

Crush hazard. Use the help of another individual to raise, lower, and install the beam. Failure to do so could result in death, serious injury, or equipment damage.

(000582)



CAUTION

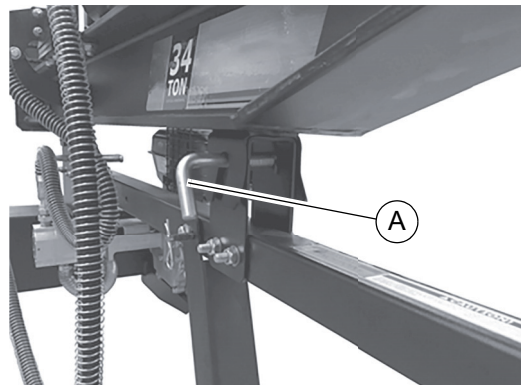
Pinch point. Use caution when handling mechanisms on the unit, as they could be pinch points. Failure to do so could result in personal injury.

(000429)

NOTE: Always use unit in vertical position when splitting heavy logs.

Placing Beam in Vertical Position

1. See [Figure 3-11](#) and [Figure 3-12](#). Pull horizontal beam lock (A) outwards, and lift up on beam to rotate it to vertical position.



006579

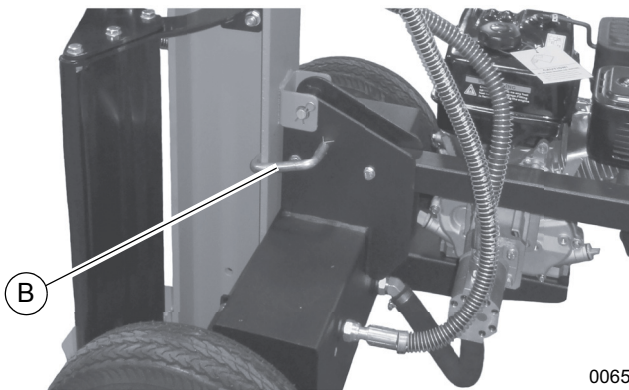
Figure 3-11. Horizontal Beam Lock



006578

Figure 3-12. Vertical Position

- See [Figure 3-13](#). Pull out vertical beam lock (B) and rotate it to secure the beam.



006580

Figure 3-13. Vertical Beam Lock

Placing Beam in Horizontal Position

- Pull out vertical beam lock and rotate down to the unlock position.
- Pivot beam to horizontal position.

NOTE: The horizontal beam lock is self-locking. The spring loaded lock will snap into place when beam is lowered into position.

Towing the Log Splitter

Before Towing

WARNING

Control loss. Trailer must be securely coupled to the hitch. An incorrectly coupled trailer could result in loss of control, death, or serious injury.

(000360)

WARNING

Personal injury. Do not operate unit during transport. Doing so could result in death, serious injury, or property damage.

(000231a)

WARNING

Property or equipment damage. Do not alter the trailer. Alterations can damage essential safety items. Doing so could result in death, serious injury, or property or equipment damage.

(000285)

WARNING

Personal injury. Do not attempt to move or transport unit while engine is running, or while flywheel is moving. Doing so could result in serious injury, property or equipment damage.

(000512)

WARNING

Equipment damage. Do not use as a tow or drag vehicle. Towing or dragging items behind the unit could cause serious injury, property or equipment damage.

(000496)

WARNING

Personal injury. Do not ride or allow riders on the unit. Riding on and allowing riders could result in death, serious injury, or equipment damage.

(000409)

WARNING

Personal injury. Trailer must be securely coupled to the hitch with the chains correctly attached. Uncoupled or unchained towing could result in death or serious injury.

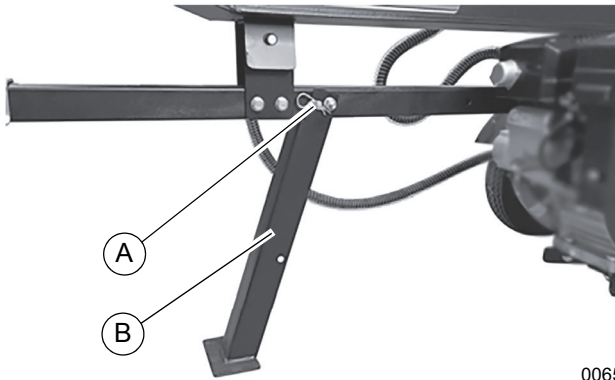
(000233a)

- Verify fuel shutoff valve is set to OFF.
- Do not exceed 45 mph (72 km/h) on road, and 5 mph (8 km/h) off road.
- Follow all local, state, and federal requirements when towing on any public road.
- Use a spotter outside the vehicle when backing up whenever possible. Do not jack knife the unit.
- Always disconnect the log splitter from the tow vehicle before operating.
- Verify safety chains are crossed before towing. Crossed safety chains provide support in case of uncoupling.

- Inspect coupler tightness every 50 miles (80.5 km).
- Check local government regulations for DOT information on accessory lights and safety devices.

Towing

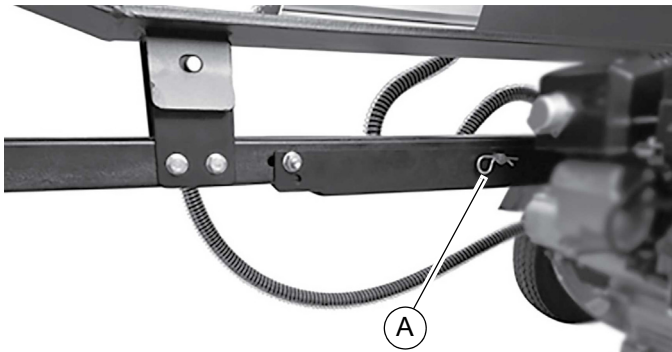
1. Verify beam is in horizontal position with the horizontal beam lock secured.
2. Set the jack stand to transporting position.
 - a. See **Figure 3-14**. Remove pin and hitch clip (A) from jack stand (B).



006581

Figure 3-14. Jack Stand Down Position

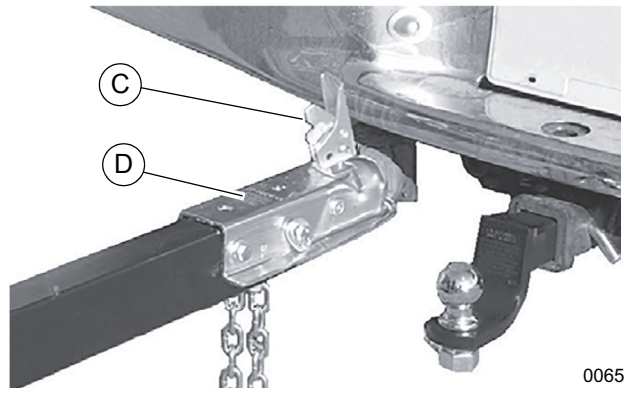
- b. See **Figure 3-15**. With assistance, support the tow bar and pivot the jack stand up to the transporting position.



006582

Figure 3-15. Jack Stand Up Position

- c. Secure with pin and hitch clip (A).
3. See **Figure 3-16**. Pull latch assembly (C) on receiver (D) up and into open position. Position receiver over and onto tow vehicle's tow ball (must be a 2 in [51 mm] tow ball).



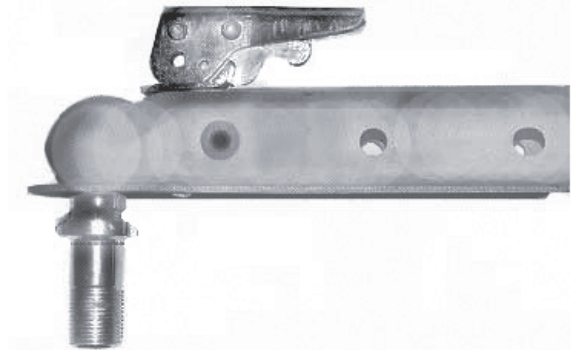
006583

Figure 3-16. Latch Assembly

4. Close latch assembly to lock onto tow ball. Attach towing safety chains to tow vehicle. Verify there is enough slack for turning. Attach chain to opposite anchor to cross the chains.
5. Insert locking pin into hole in latch assembly.

Hitch Coupler Adjustment Check

1. See **Figure 3-17**. Place a proper sized ball in the coupler socket and close the latch assembly. Verify that the locking trigger is properly engaged in its detent.



006584

Figure 3-17. Hitch Coupler

2. Pull on ball and/or coupler to inspect for movement. If ball moves more than 1/16 in (1.6 mm) in the socket, adjust the clamp.

Hitch Coupler Adjustment

1. Close latch of coupler with ball in socket. Verify locking trigger is properly engaged in its detent.
2. See [Figure 3-18](#). Tighten lock nut (A) on underside of coupler until spring (B) between nut and clamp (C) is fully compressed. Loosen lock nut one-half turn or just enough so latch is able to clamp and unclamp from ball.

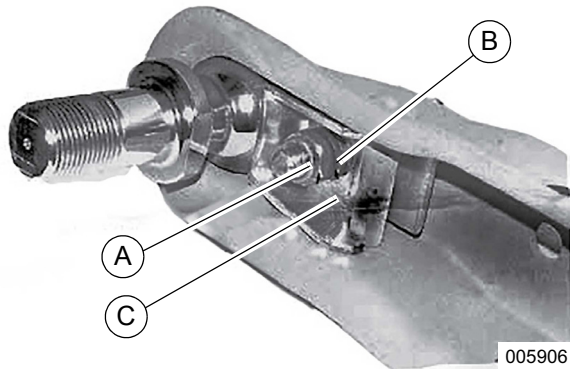


Figure 3-18. Clamp Assembly

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Section 4: Maintenance and Troubleshooting

Maintenance

Regular maintenance will improve performance and extend engine/equipment life. Generac Power Systems, Inc. recommends that all maintenance work be performed by an Independent Authorized Service Dealer (IASD). Regular maintenance, replacement, or repair of the emissions control devices and systems may be performed by any repair shop or person of the owner's choosing. To obtain emissions control warranty service free of charge, the work must be performed by an IASD. See the emissions warranty.

Maintenance Schedule



WARNING

Hot Surfaces. When operating machine, do not touch hot surfaces. Keep machine away from combustibles during use. Hot surfaces could result in severe burns or fire.

(000108)

WARNING

Risk of injury. Do not operate or service this machine if not fully alert. Fatigue can impair the ability to service this equipment and could result in death or serious injury.

(000215)

WARNING

Accidental start-up. Before servicing or detangling, shut down unit, allow to cool, remove keys, and disconnect spark plug wire(s). Failure to do so could result in death, serious injury, or equipment damage.

(000415)

CAUTION

Personal injury. Wear appropriate personal protective equipment at all times while operating and servicing unit. Failure to do so could result in personal injury.

(000419)

Procedure	Before Each Use	Every 25 Hours	Every 100 Hours
Check engine oil level	●		
Inspect general equipment condition	●		
Perform beam maintenance	●		
Clean engine exterior and cooling fans	●		
Check hydraulic fluid level	●		
Verify tire pressure		●	
Change engine oil	1 st time 5 hours	●	
Replace air filter		●	
Change hydraulic fluid			●
Replace spark plug			●

Changing Engine Oil

⚠ WARNING

Accidental Start-up. Disconnect spark plug wire when working on unit. Failure to do so could result in death or serious injury.

(000102)



⚠ WARNING

Risk of burns. Allow engine to cool before draining oil or coolant. Failure to do so could result in death or serious injury.

(000139)

⚠ WARNING

Skin irritation. Avoid prolonged or repeated contact with used motor oil. Used motor oil has been shown to cause skin cancer in laboratory animals. Thoroughly wash exposed areas with soap and water.

(000210)

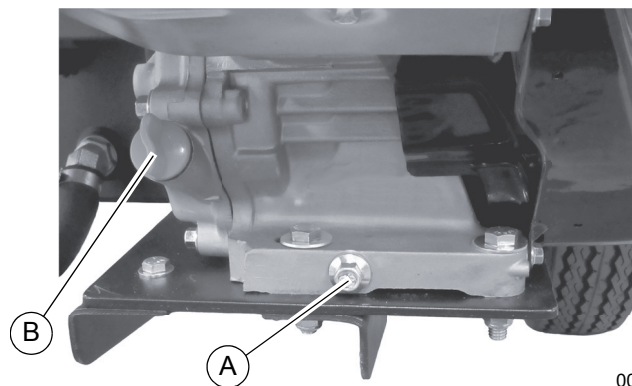
⚠ CAUTION

Engine damage. Verify proper type and quantity of engine oil prior to starting engine. Failure to do so could result in engine damage.

(000135)

NOTE: Drain oil when engine is warm. Warm oil drains more completely.

1. See [Figure 4-1](#). Place a suitable container below engine oil drain plug (A).



006609

Figure 4-1. Engine Oil Drain Plug and Oil Fill Locations

2. Remove engine oil dipstick/fill cap (B).
3. Remove oil drain plug. Allow oil to drain completely.
4. Install oil drain plug.
5. Fill with recommended oil. See [Adding Engine Oil](#).
6. Install oil dipstick/fill cap.
7. Attach the spark plug wire.

Beam and Wedge Maintenance

Lubricate the top, sides, and bottom of the beam and where it comes into contact with the splitting wedge with a rust preventative (Fluid Film or equivalent) before each use. **Do not use grease.** Sharpen wedge if it becomes dull or nicked.

Changing Air Filter



⚠ WARNING

Risk of fire. Never operate engine without the air cleaner installed. Operating engine without the air cleaner could result in death or serious injury.

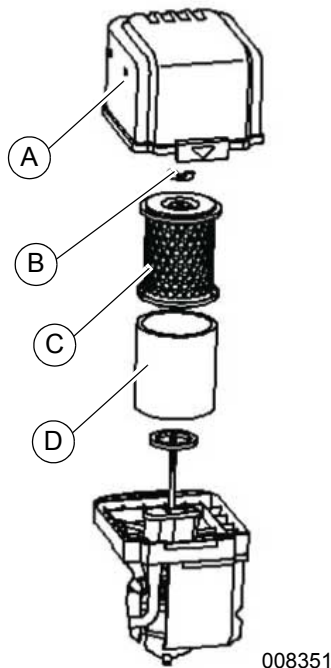
(000249)

A dirty air filter will restrict air flow to the carburetor, reducing engine performance.

When operating in very dusty areas, clean the air filter more often than specified in the maintenance schedule.

Dual-Filter Element Types

1. See [Figure 4-2](#). Remove wing nut from air cleaner cover (A), and remove air cleaner cover.



008351

Figure 4-2. Air Cleaner Components

2. Remove wing nut (B) from air filter, and remove air filter.
3. Remove foam filter (D) from paper filter (C).
4. Inspect both air filter elements. Replace if damaged.

NOTE: Always replace paper air filter element at scheduled interval.

5. Clean air filter elements as follows if they will be reused:
 - a. Paper air filter element: Tap filter element several times on a hard surface to remove dirt, or blow compressed air (not exceeding 30 psi [207 kPa]) through the air filter element from

the inside. Never attempt to brush off dirt; brushing will force dirt into fibers.

- b. Foam air filter element: Clean in warm soapy water, rinse, and air dry thoroughly. Or, clean in nonflammable solvent and air dry thoroughly. Dip filter element in clean engine oil, and remove excess oil. Engine will smoke when started if too much oil remains in the foam air filter element.
6. Use a moist rag to wipe dirt from inside the air cleaner base and cover. Verify dirt does not enter the air duct leading to the carburetor.
 7. Place foam air filter over paper air filter element, and install the assembled air filter. Verify gasket is in place beneath air filter. Tighten air filter wing nut securely.
 8. Install air cleaner cover, and tighten cover wing nut securely.

Changing Spark Plug

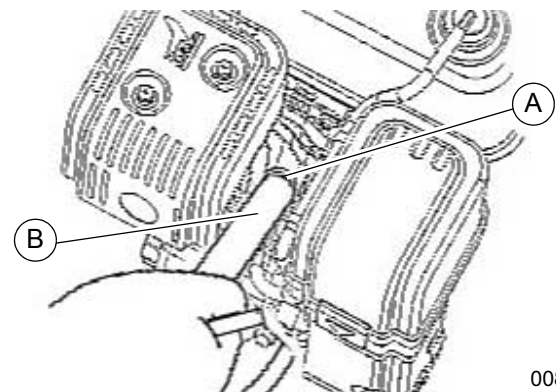
⚠ WARNING

Accidental start-up. Disconnect spark plug wires when working on unit. Failure to do so could result in death or serious injury.

(000141)

Recommended spark plugs: F7RTC or other equivalents.

1. Disconnect spark plug cap and remove any dirt from around the spark plug area.
2. See [Figure 4-3](#). Remove spark plug (A) with a spark plug wrench (B).

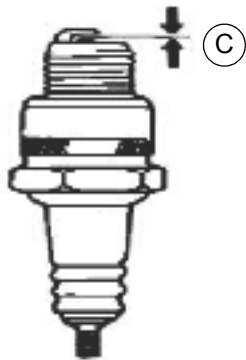


008352

Figure 4-3. Remove Spark Plug

3. Inspect spark plug. Replace spark plug if electrodes are worn, or if the insulator is cracked or chipped.

- See [Figure 4-4](#). Measure spark plug electrode gap (C) with a suitable gauge. The gap should be 0.028–0.031 in (0.70–0.80 mm). Correct the gap, if necessary, by carefully bending the side electrode.



008353

Figure 4-4. Spark Plug Electrode Gap

- Install spark plug carefully by hand, to avoid cross-threading.
- Tighten spark plug to compress the water after the spark plug seats.
 - If installing a used spark plug, tighten 1/8–1/4 turn after spark plug seats.
 - If installing a new spark plug, tighten one half turn after spark plug seats.

NOTE: Overtightening the spark plug can damage threads in the cylinder head. Undertightening the spark plug can overheat and damage the engine.

- Install the spark plug cap.

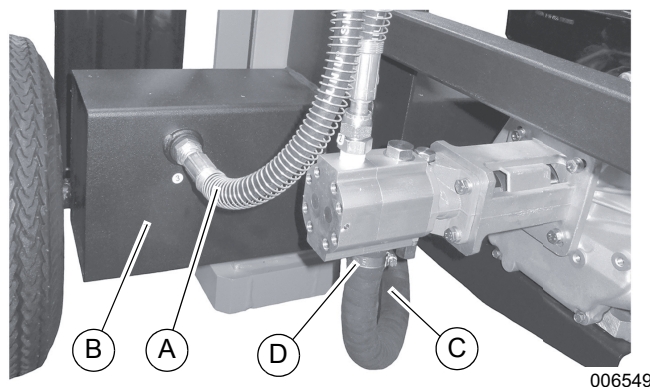
Checking the Hydraulic Fluid Level

- Verify unit is on a flat, level surface.
- Remove reservoir dipstick from reservoir tank and clean with a clean, lint free cloth.
- Replace dipstick and push down completely for an accurate reading.
- Remove dipstick and check fluid level. Proper level is approximately 0.25 in (6.4 mm) above the bottom of the dipstick.
- Add fluid as needed until fluid is at proper level.

Changing the Hydraulic Fluid

Draining Head End of Cylinder

- Remove spark plug wire and spark plug to reduce back pressure on engine and to prevent accidental startup.
- See [Figure 4-5](#). Place a suitable waste fluid container below oil return hose (A).



006549

Figure 4-5. Pump Assembly

- Disconnect oil return hose from oil reservoir (B). Position oil return hose into the waste fluid container.
- Extend the cylinder by holding the hydraulic control valve handle forward and have an assistant pull on engine's pull start cord until fluid from oil return hose stops flowing.
- Properly dispose of waste hydraulic fluid per local or state regulations.

Draining the Hydraulic Tank

- See [Figure 4-5](#). Position suitable waste fluid container under oil suction hose (C).
- Loosen hose clamp (D) securing oil suction hose to bottom of the pump.
- Remove hose end from pump and place into waste fluid container.
- Lower the front of unit slightly by folding the jack stand to completely drain tank.
- Connect oil suction hose to pump and secure hose clamp when draining is complete.

Refilling the Hydraulic Tank

NOTE: See [Adding Hydraulic Fluid](#) for recommended hydraulic fluid types.

- Remove reservoir dipstick and fill tank with recommended hydraulic fluid until it reaches the initial fill line on dipstick.
- Install dipstick when fluid has reached proper level.

Draining and Refilling Piston End of Cylinder

- Position oil return hose into a waste fluid container.
- Hold the control handle in reverse and pull engine pull start cord until rod is fully retracted to drain piston end of cylinder.
- Inspect o-ring (11 mm x 2 mm) on oil reservoir for damage. Replace if damaged or missing.

4. Connect oil return hose to oil reservoir.
5. Extend cylinder by holding control valve handle forward and pulling on engine's pull start cord until cylinder is completely extended. This refills piston end of cylinder.
6. Verify fluid level is approximately 0.25 in (6.4 mm) above bottom of dipstick. Add fluid if necessary. Do not overfill. Do not refill to initial fill line.

Start Engine and Cycle Cylinder

1. Install spark plug and spark plug wire.
2. Start engine and cycle the cylinder several times.
3. Retract cylinder and shutoff engine.
4. Verify fluid level is at proper level.

Adjusting Handle Return Lever

A handle return lever is attached to the valve bracket to manually stop the wedge when it is fully retracted. The handle return lever may need to be adjusted if:

- Wedge is not fully retracting.
 - Engine stalls and actuator handle stays in retract position with wedge fully retracted.
1. See [Figure 4-6](#). Loosen jam nut (A).

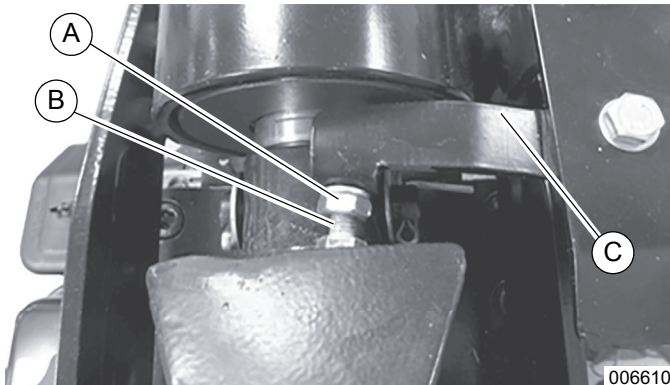


Figure 4-6. Handle Return Lever Assembly

2. Adjust bolt (B).
 - Turn bolt into handle return lever (C) if operator lever is being pushed forward before fully retracting.
 - Turn bolt away from handle return lever if operator lever is not being disengaged and engine is stalling.
3. After making adjustments, hold bolt while tightening jam nut against lever. Test and adjust as needed.

Replacing the Wheels



WARNING

Tipping hazard. Properly support the unit when jacking. Failure to do so could result in death, serious injury, property or equipment damage.

(000447)

1. Raise unit using jack. Secure with jack stands.
2. See [Figure 4-7](#). Remove dust cap (A) from wheel assembly.



006537

Figure 4-7. Dust Cap

3. See [Figure 4-8](#). Straighten ends of cotter pin (B) with pliers so cotter pin can be pulled from hole in axle.



006536

Figure 4-8. Cotter Pin

4. Remove castle nut (C).

5. See **Figure 4-9**. Pull wheel assembly and taper bearing (D) from axle.



Figure 4-9. Taper Bearing

6. Slide new or replacement wheel assembly onto axle shaft with valve stem facing out.
7. Install castle nut into axle and tighten it to seat the bearings.
8. Back the castle nut off and then tighten it up to the bearing lightly. Verify the slots of the castle nut align with the holes in the axle.
9. Insert a cotter pin through slots of castle nut and into hole in axle.
10. Bend ends of cotter pin to secure it.
11. Install dust cap onto wheel assembly. Place a piece of wood over it and lightly tap with a hammer until dust cap is seated against the lip.
12. Raise the back of the unit and remove the jack stands. Lower the unit.
13. Check tire pressure.

will coat pistons and seat valves to prevent moisture buildup.

- Clean and replace air filter and fuel filter.
- Verify all nuts, bolts, and screws are securely fastened.
- Clean exterior of unit to remove all dirt, grease, and any other foreign material. Apply a rust preventative (Fluid Film or equivalent) to any bare metal areas on the wedge and on top of the rail. **Do not use a pressure washer or garden hose to clean unit. This may damage bearings or the engine.**
- Store unit in a dry, protected place. Cover unit if stored outdoors. Do not use plastic covering; plastic allows condensation to build which causes rusting.

End of Season and Storage



WARNING

Risk of Fire. Verify machine has properly cooled before installing cover and storing machine. Hot surfaces could result in fire.

(000109)

Unit must be stored when not in use for extended periods of time. Perform the actions below before storage:

- Add stabilizer to fuel tank as needed. Fill tank with fresh, unleaded fuel and add appropriate amount of stabilizer or additive. Run engine for a short time to circulate additive.
- Change oil and oil filter.
- Inspect wedge for nicks and wear. Sharpen if necessary.
- Remove spark plug and add 1 oz (29.6 mL) of engine oil into the cylinder hole. Install spark plug and engage electric starter for a few seconds. This

Troubleshooting

Symptom	Possible Cause	Solution
Cylinder rod does not move	Broken shaft.	Contact an IASD.
	Pump coupling damaged.	
	Damaged relief valve.	
	Damaged control valve.	
	Set screws in coupling not adjusted properly.	
	Shipping plugs left in hydraulic hoses.	Disconnect hydraulic hoses, remove shipping plugs, and reconnect hoses.
	Loose pump coupling.	Correct engine/pump alignment as necessary.
	Hydraulic lines blocked.	Flush and clean hydraulic system.
	Blocked control valve	
	Incorrect oil level.	Check oil level, fill or drain as necessary.
Slow cylinder shaft speed while extending and retracting	Damaged pump coupling.	Contact an IASD.
	Slow engine speed.	
	Damaged relief valve.	
	Control valve leaking internally.	
	Internally damaged cylinder.	
	Incorrect oil level.	Check oil level, fill or drain as necessary.
	Contaminated oil.	Drain oil, clean reservoir, and refill.
	Excessive pump inlet vacuum.	Verify pump inlet hoses are clear, unblocked, and not kinked. Use short, large diameter inlet hoses.
Leaking at face of cylinder or at fittings	Worn seals.	Contact an IASD.
	Scored cylinder.	
	Loose fittings.	Tighten as needed.
Wood will not split or wood splits too slowly	Pump check valve leaking.	Contact an IASD.
	Control valve leaking internally.	
	Internally damaged cylinder.	
	Contaminated oil.	Drain oil, clean reservoir, and refill.
	Excessive pump inlet vacuum.	Verify pump inlet hoses are clear, unblocked, and not kinked.
	Overloaded cylinder.	Do not attempt to split wood against the grain.
	Incorrect oil level.	Check oil level, fill or drain as necessary.

Symptom	Possible Cause	Solution
Leaking pump shaft seal	Broken drive shaft.	Contact an IASD.
	Damaged shaft seal.	
	Engine/pump misalignment.	Correct alignment as necessary.
	Plugged oil breather.	Verify reservoir is properly vented.
Wedge continues forward when control handle is released	Damaged control valve.	Contact an IASD.
Control handle does not return to neutral when released from forward position	Hydraulic fluid too cold.	Warm up engine.
	Hydraulic fluid too thick.	Replace hydraulic fluid with recommended hydraulic fluid.
	Hydraulic fluid contaminated.	
	Damaged control valve.	Contact an IASD.

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