



MBHVH2216A

MODELS:

BHVH2216GX, BHVH2216GXF
 BHVH2616GX, BHVH2616GXD
 BHVH2616GXS

ITEM NUMBER: _____

SERIAL NUMBER: _____

Owner's Manual

Instructions for Assembly, Testing, Operation, Servicing and Storage

20, 22, 26 Ton Log Splitters: Outdoor hydraulic powered machine that splits wood logs.

⚠ WARNING

READ and UNDERSTAND this manual completely before using log splitter.

All operators of this equipment must read and completely understand all safety information, operating instructions, maintenance and storage instructions. Failure to properly operate and maintain the log splitter could result in serious injury to the operator and bystanders from moving parts that can crush or cut, flying objects, burns, fire or explosion, escaping high pressure hydraulic fluid, or carbon monoxide poisoning in particular, be aware of the following hazards.

Crush and Cut Hazards

Moving parts can crush and cut hands and fingers. Keep hands clear of endplate, wedge, logs, and log dislodger/strippers while splitting.

High Pressure Hydraulic Fluid Hazards

High fluid pressures and temperatures are developed in hydraulic log splitters. Hydraulic fluid escaping through even a pin-size hole opening 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.

Fire Hazards

- If your log splitter is intended for use near an ignitable forest, brush, or grassy covered land, the engine exhaust should be equipped with a spark arrestor. See the "Specifications" section of this manual to determine if your splitter already has a spark arrestor. If not equipped, call Iron & Oak Product Support for ordering information.
- Keep a fire extinguisher with you that is rated for ordinary combustibles and flammable liquids.

STOP!

ADD OIL TO ENGINE BEFORE USING: Engine is shipped without oil. DO NOT start log splitter without first adding oil.

ADD HYDRAULIC OIL: Your log splitter was shipped without hydraulic oil. Refer to Periodic Maintenance section of this manual for instructions on filling the hydraulic reservoir

PRIME THE PUMP: The pump on your log splitter needs to be primed before use. Refer to Initial Setup section for instructions.

INSPECT COMPONENTS: Closely inspect to make sure no components are missing or damaged.

See Initial Unpacking and Set-up for instructions and for whom to contact to report missing or damaged parts.

Any Questions, Comments, Problems or Parts Orders
Call Iron & Oak Product Support 1-800-817-1005

Hazard Signal Word Definitions






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

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About Your Log Splitter

Thank you for purchasing your Iron & Oak log splitter!

About Your Log Splitter:

This log splitter is a machine designed to split wood logs using a hydraulically powered moving wedge. The log splitter's gasoline engine is used to pressurize the hydraulic system.

This log splitter is designed to split logs *lengthwise with the grain only*.

This log splitter model is capable of splitting logs up to 24" long and 16" in diameter.

Your splitter can be used in either a vertical or horizontal splitting position:

- When the splitter is set up to operate in the horizontal splitting position, a log is placed on the horizontal beam and the wedge moves horizontally into the end of the log to split it.
- When the splitter is set up to operate in the vertical splitting position, the log is placed on the endplate, upright on its end, and the wedge moves down into the top of the log to split it.

The horizontal splitting position is used for lighter logs that can be easily loaded onto the beam. The vertical splitting position is used for heavier logs that are difficult to load onto the beam.

The technical specifications for your log splitter are provided in the Specifications section of this manual.

⚠ WARNING

This log splitter uses a high-pressure hydraulic system to generate a very strong splitting force.

Read the manual completely before using the machine to understand how to safely operate and maintain it.

Follow all safety precautions presented throughout this manual. A summary of important safety information can be found at the end of this manual.

Contact Iron & Oak Product Support at 1-800-817-1005 for any questions about the appropriate use of this log splitter and/or optional accessories.

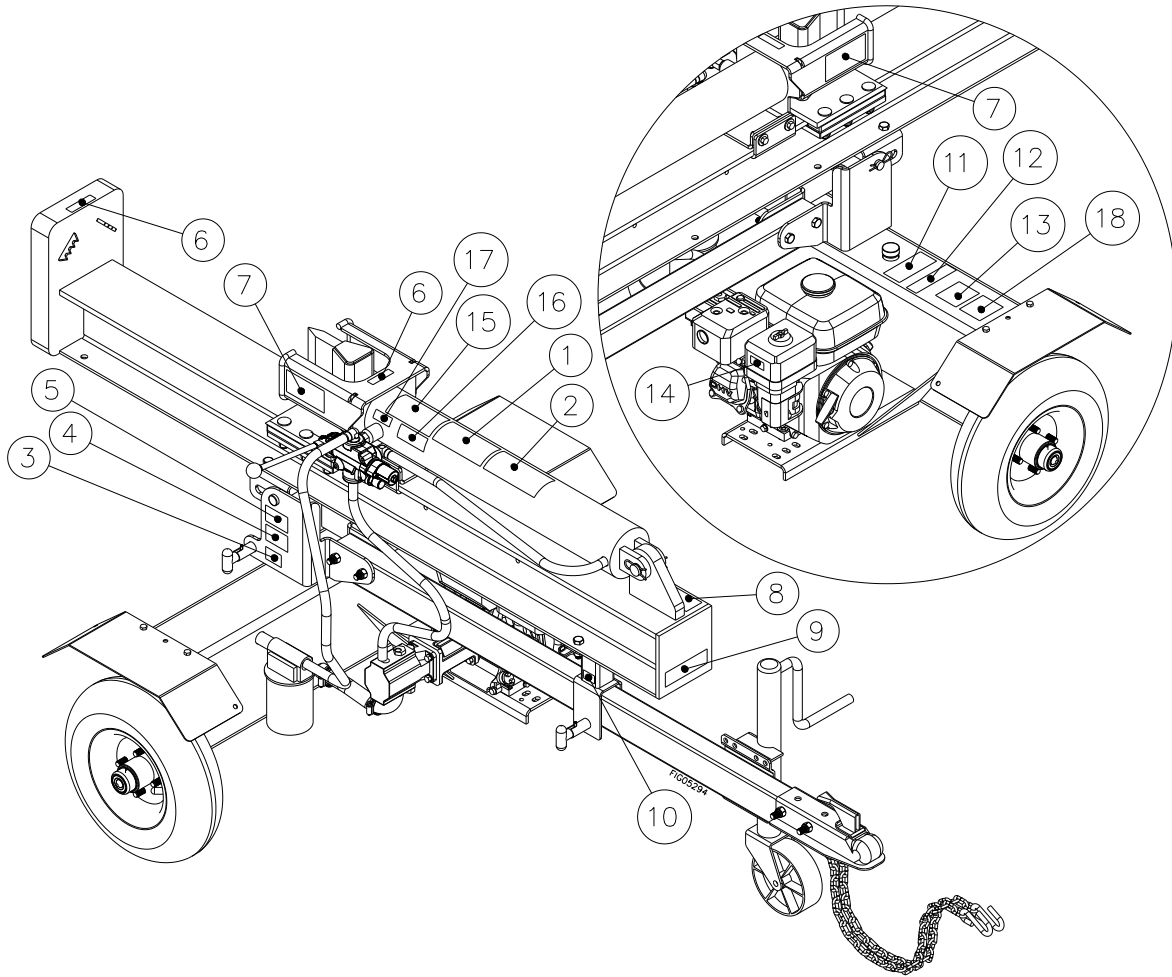
Warranty Registration:

Please fill out and submit the warranty registration card so that we have your contact information for any future product literature or replacement parts you may need.

Attention: All Rental Companies and Private Owners who loan this equipment to others!

All persons to whom you rent/loan the log splitter must have access to and read this manual. Keep this owner's manual with the splitter at all times and advise all persons who will operate the machine to read it. You must provide instruction on how to safely operate the splitter and remain available to answer any questions a renter/borrower might have.


Safety Label Locations



Always make sure safety labels are in good condition. If a safety label is missing or not legible, order new labels or unsafe operation could result. **Contact Iron & Oak Product Support at 1-800-817-1005**

Ref#	Part #	Description	QTY
1	778610	Log Splitter Warning	1
2	777889	Stuck Log Warning	1
3	778714	Vertical Lock	1
4	N/A	Nameplate/Serial Number	1
5	BR002621	Made in USA	1
6	787944	Small Pinch Point Warning	2
7	778717	Large Pinch Point Warning	2
8	793025	Moving/Towing Instructions	1
9	BR002653	Speed Limit Warning	1
10	778597	Horizontal Lock	1
11	BR002652	Hydraulic Fluid Notice	1
12	777890	Fire Hazard Warning	1
13	39259	Poisonous Gas Warning	1
14	786635	Burn Hazard Warning	1
15	777887	Operation Instructions	1
16	777891	Escaping Fluid Warning	1
17	778609	Split Control Directions	1
18	788935	Fuel Fire Explosion Warning	1

Safety Label Locations

1 **WARNING**

 Moving parts can crush and cut. Pieces can fly out while splitting. Follow safety rules for operating the log splitter or serious injury could result.
 •READ the Owner's Manual completely before operating.
 •Only one person should operate the log splitter. If an assistant is helping to load logs, the operator should not actuate controls until the assistant is at least 10 ft away.
 •Stay in the designated OPERATOR POSITION while actuating the controls.
 •Split wood in direction of the grain only.
 •Hold bark side of logs when loading.
 •Keep hands away from wedge, endplate/ram, and partly split logs.
 •Never leave log splitter unattended during operation.
 •Stay off slopes and slippery surfaces.
 See additional safety rules in the Owner's Manual.

2 **WARNING**
IF LOG BECOMES STUCK ON WEDGE
 A log can become stuck to the wedge if the wedge becomes embedded in the log and the log doesn't split and separate. This can happen if the log is too stringy or tough to split completely.
 A stuck log will move back with the wedge on the initial attempt to retract the wedge. If this happens, STOP retracting the wedge immediately and follow the directions below.
NEVER attempt to remove a stuck log by:
 •Using the hydraulic force of the splitter
 •Modifying the splitter
 •Adding attachments to the splitter
 Personal injury could result from log or metal pieces flying out at high speed toward the operator or bystanders, or the splitter could become damaged.
ALWAYS remove the log MANUALLY using the following procedure:
 1. If there is already 1" or more of clearance between the log and endplate, go to step 2. Otherwise, retract wedge just enough to remove pressure between the log and endplate - about 1" clearance.
 2. Turn engine OFF.
 3. Remove stuck log from the wedge manually with a pry bar or sledgehammer. Important: Be extremely careful as log pieces may fly off as they separate from the wedge. Wear safety goggles and make sure bystanders are clear.
 4. Do not attempt to resplit a stuck log once it has been removed from the wedge.

3 **VERTICAL LOCK**
 PN 778714

4 **LOG SPLITTER**
 Manufactured by **IRON & OAK**
 SERIAL NUMBER: _____
 ENGINE MODEL: _____
 CYLINDER: _____
 PUMP FLOW: _____
 ITEM NUMBER: _____

5 **MADE IN THE U.S.A.**
 PN 778263

6 **WARNING**
PINCH POINT
 Keep hands clear during operation.
 PN 787944

7 **LOG STRIPPER**
 RETRACT WEDGE TO REMOVE STUCK WOOD
WARNING
PINCH POINT
 Keep hands clear of wedge and log stripper
 PN 778009

8 **MOVING/TOWING INSTRUCTIONS**
Moving log splitter by hand:
 •Lock beam in horizontal position (tip-up models only).
 •Lock support leg or jack in DOWN position.
 •Do not attempt to move log splitter up or down slope by hand.
Towing log splitter:
 •Latch coupler securely to class 2 or higher hitch with 2" ball.
 •Lock support leg and/or jack in the UP position.
 •Attach safety chains to tow vehicle.
 •Close fuel shut-off valve on engine (if equipped).
 •Do not tow faster than 35 mph.
 Higher speeds can cause loss of control.
 •Check local, state, and federal requirements before towing on public roads.
 PN 793025

9 **WARNING**
Maximum Towing Speed 35 mph.
 PN 778597

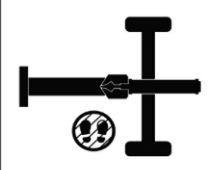
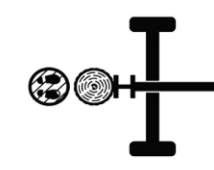
10 **HORIZONTAL LOCK**

11 **NOTICE**
HYDRAULIC FILL PLUG
 Maintain level of hydraulic oil at 1" below plug.
 Recommended to use Universal Hydraulic Oil or Dextron II Transmission Fluid.
 PN02852


12 **WARNING**
FIRE HAZARD
 Hot exhaust can ignite dry brush, trees, or grass.
 •Equip engine with a spark arrestor if you will be using near ignitable forest, brush or grassy covered land.
 •Keep a fire extinguisher on hand that is rated for ordinary combustibles & flammable liquids.
 PN 777006

13 **WARNING**
POISONOUS GAS
 This product's use gives off carbon monoxide, an odorless gas that can kill you.
 •ONLY use outdoors and away from air intakes.
 •NEVER use inside homes, garages or sheds. EVEN if you run a fan or open doors and windows.
 See product manual for more details.
 PN 38259

14 **WARNING**
BURN HAZARD
 Do not touch hot muffler.
 PN 778007

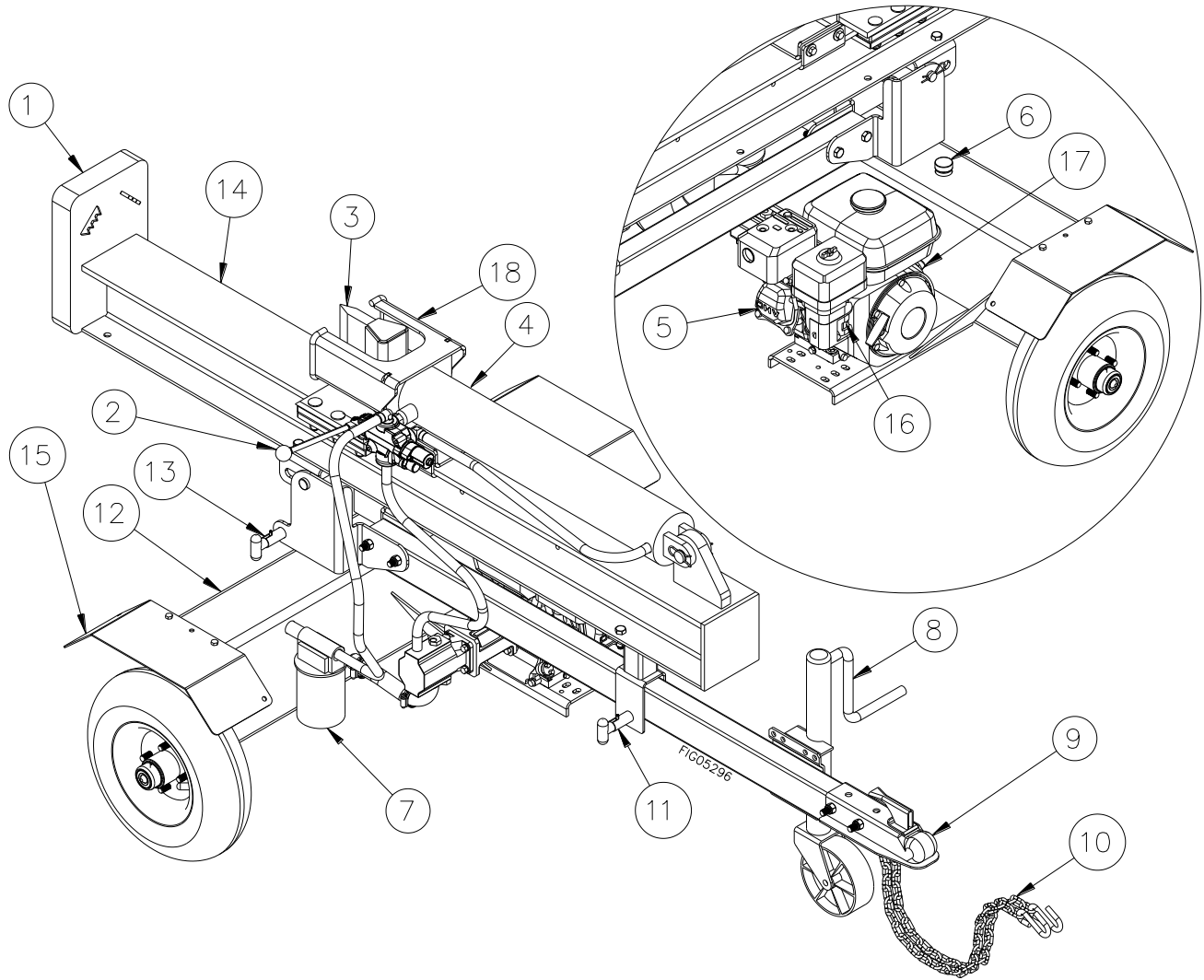
15 **OPERATING INSTRUCTIONS**
GENERAL
 •Stay in the OPERATOR POSITION while actuating controls.
 •Never actuate controls until the helper is 10ft away from log splitter, including any helpers assisting to load logs.
 •Wear eye protection, hearing protection, snug fitting gloves, and safety shoes or heavy boots. No loose or dangling apparel.
SETTING UP
 •Place log splitter on dry, level ground.
 •Secure splitter for unintended movement.
 •Place splitter in horizontal or vertical position.
 •Start engine
SPLITTING LOG
 •Position log on beam, against endplate.
 •Move split control to extend wedge and split log.
 •Release split control to stop wedge.
 •Move split control to return wedge.
 •Remove split wood from work area.


 Operator Position - horizontal Operator Position - vertical
 PN 777887

16 **WARNING**
ESCAPING HIGH PRESSURE HYDRAULIC FLUID HAZARD
 High fluid pressures and temperatures are developed in the hydraulic system. Hydraulic fluid escaping through even a pin-size hole opening can puncture skin and cause blood poisoning.
 •Inspect hydraulic system regularly for leaks
 •Never check for leaks with your hand while system is pressurized.
 •Seek medical attention immediately if injured by escaping fluid.
 PN 777881

17 **SPLIT CONTROL LEVER OPERATION**
 Split Log Neutral Return


18 **WARNING**
Fuel Fire/Explosion Hazard
 Fuel is flammable and explosive.
 Never fuel a running or hot engine.
 Clean up fuel spills immediately.
 Ensure there are no fuel leaks before starting.
 Keep sources of sparks and flames away.
 Hot exhaust may also ignite spilled fuel.
 No Smoking.
 Keep a fire extinguisher nearby.
 PN 781031

Machine Component Identification



Ref #	Description
1	End Plate
2	Split Control Lever
3	Wedge
4	Cylinder
5	Engine
6	Hydraulic Oil Cap
7	Return Line Filter
8	Jack
9	2" Coupler

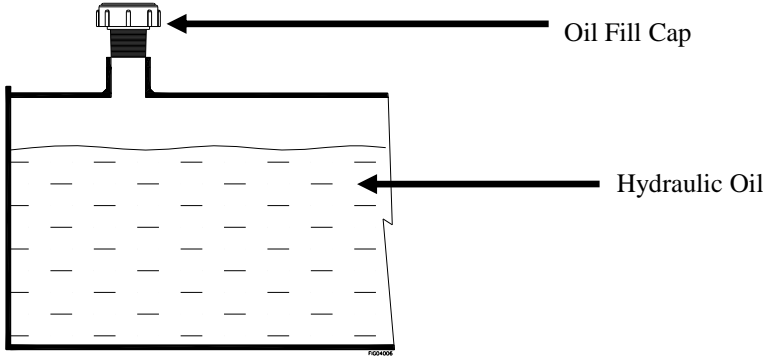
Ref #	Description
10	Safety Chains
11	Horizontal Lock
12	Hydraulic Tank
13	Vertical Lock
14	Beam
15	Fender
16	Fuel On/Off
17	Engine On/Off
18	Log Dislodger

Initial Setup

IMPORTANT!

Engine is shipped without oil. **DO NOT** start the engine before adding oil.

See Assembly Instructions section of this manual to assemble the log splitter before setup.

<p>Step One: Inspect Log Splitter Components</p>	<p>Closely inspect all log splitter components. (See Machine Components section of this manual for diagram of components.)</p> <ul style="list-style-type: none"> If you have missing or damaged components, please contact Product Support at 1-800-817-1005.
<p>Step Two: Add Oil to Engine</p>	<p>Add oil to the engine. Using a funnel, add SAE 10W-30 oil up to the FULL mark on the dipstick. (See engine Owner's Manual for oil capacity and location of fill cap.)</p>
<p>Step Three: Add Hydraulic Oil to Reservoir</p>	<p>⚠ WARNING: High fluid pressures and temperatures are developed in hydraulic log splitters. Hydraulic fluid escaping through a pin-hole sized opening can burn or puncture skin, resulting in wounds that could cause blood poisoning, infection, disability, gangrene, amputation, or death. Therefore, the following instructions should be heeded at all times when inspecting or servicing the hydraulic components of the log splitter.</p> <ul style="list-style-type: none"> NEVER check for leaks with your hand. Leaks can be located by holding a piece of cardboard or wood (at least two feet long) with your hand at one end and passing the other end near the suspected area (wear eye protection). Look for discoloration of the cardboard or wood. NEVER adjust the pressure of the pump or valve. If injured by escaping fluid, no matter how small the wound is, see a doctor at once. A typical injection injury may be a small wound that does not look serious. However, severe infection or reaction can result if proper medical treatment is not administered immediately by a doctor who is familiar with injection injuries. <p>IMPORTANT The hydraulic system oil filter for your log splitter is not factory installed. Make sure the filter is installed before attempting to fill the hydraulic tank or start the engine. (Installation instructions are provided in the “Assembly Instructions” section and are also printed on the side of the filter).</p> <ol style="list-style-type: none"> Remove hydraulic oil cap. Refer to the Specifications section for approximate hydraulic oil capacity. Fill reservoir with 10 wt AW32, ASLE H-150, or ISO 32 oil. Use a funnel Check that oil level is full. Oil level should be approximately one inch from the top of the tank. Replace oil fill cap once oil level is full.  <p>The diagram shows a cross-section of a rectangular hydraulic reservoir. At the top center, there is a cap labeled 'Oil Fill Cap'. Inside the reservoir, a horizontal line indicates the level of 'Hydraulic Oil'. The oil level is shown to be approximately one inch below the top edge of the reservoir.</p>

Initial Setup

Step Three:

Add Hydraulic Oil to Reservoir (continued)

5. Disconnect the spark plug wire from the spark plug. This prevents the engine from starting until the hydraulic pump and cylinder are completely filled with oil. Make sure the spark plug wire is held away from the spark plug with string or other nonconductive material.
6. Push the valve control handle with one hand to the forward (extend) position (towards the front of the cylinder). Pull on the starter grip recoil at least 20 times so that hydraulic fluid has cycled through the pump.
7. Reconnect the spark plug wire to the spark plug.
8. Start engine and use control valve handle to extend and retract wedge five (5) times to remove air from the high pressure lines.
9. With wedge retracted, check oil level again. Fill if necessary.
10. Replace hydraulic oil fill/vent cap.

⚠ WARNING: NEVER remove the hydraulic oil fill cap when the engine is running or hot. Hot oil can escape causing severe burns. Allow log splitter to cool completely before removing hydraulic oil fill cap.

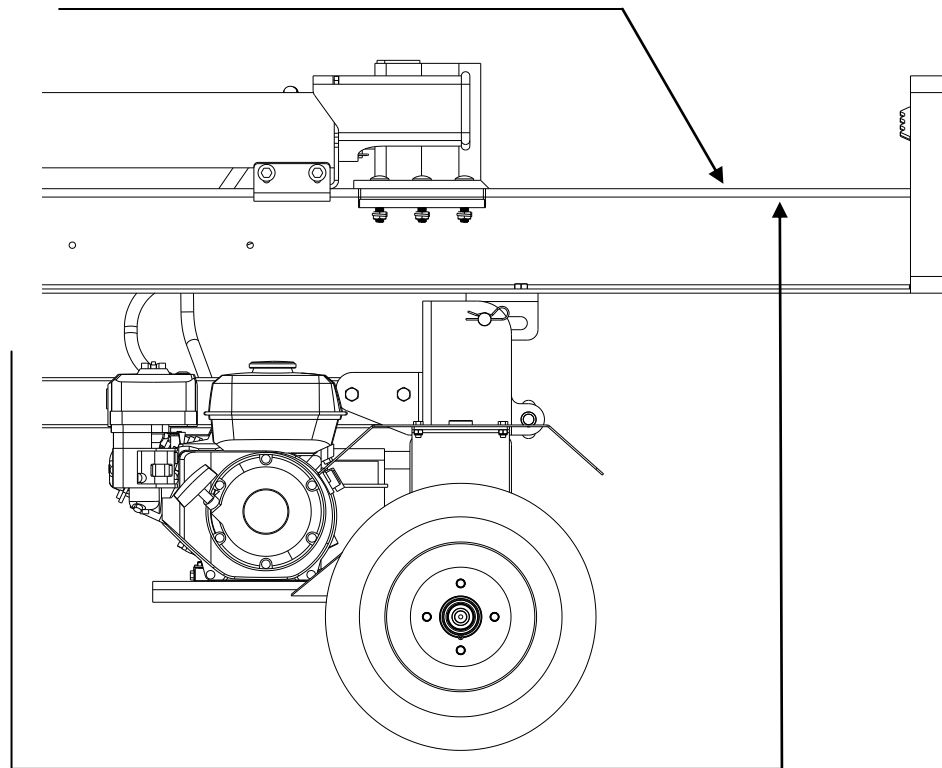
Note: If the log splitter will be run for long periods of time in outdoor temperatures above 70°F, we recommend changing the hydraulic oil to DEXRON III.

Step Four:

Lubricate Beam

Lubricate the surface of the beam with grease. This will help prevent wear between the wedge keepers and the beam.

NOTE: This is not applicable to the Duro-Glide models. Duro-Glide models should not have grease applied to beam.



Apply grease to the top of the beam and underneath the edge of the beam, where the wear pads travel.

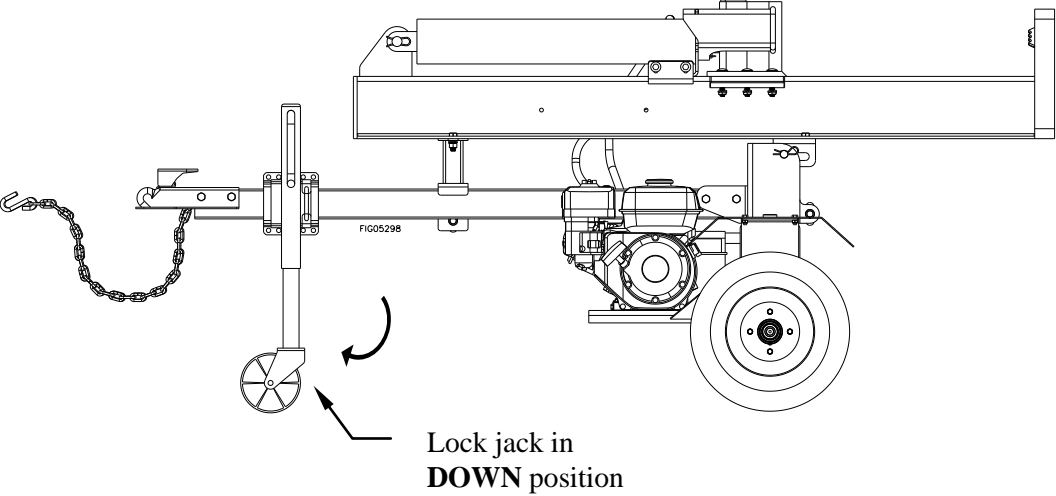
Moving and Towing to the Job Site

WARNING

The log splitter is heavy. It can crush and cause serious injury if it rolls out of control or tips over.

Follow the instructions below for safely moving and towing the log splitter.

Moving the log splitter:

<p>1. Place in Horizontal Position</p>	<p>Make sure the log splitter is locked in the horizontal position with horizontal latch before moving.</p> <p>NEVER move log splitter when it is in vertical configuration because it will be unstable and could tip.</p>
<p>2. Engine Off</p>	<p>IMPORTANT: Make sure log splitter engine is off.</p> <p>Never move the log splitter with its engine running.</p>
<p>3. Fuel Valve Off (if equipped)</p>	<p>Turn fuel valve off to prevent carburetor flooding and reduce the chance of fuel leakage. Refer to Engine owner's manual for fuel valve location.</p>
<p>4. Lock Jack DOWN</p>	<p>Lock jack in DOWN position before you move the log splitter.</p>  <p style="text-align: right;">Lock jack in DOWN position</p>
<p>5. Move Log Splitter to Work Site or Tow Hitch</p>	<p>Move log splitter by hand either directly to chosen work site or to vehicle hitch for towing. (See Step Three: Before Each Use - Work Site Selection and Set-Up)</p> <p><u>Important Safety Instructions:</u></p> <ul style="list-style-type: none"> • Hills. Do not move the log splitter up or down hills by hand—use a towing vehicle. • No riding. Never allow anyone to sit or ride on the log splitter. • No cargo. Never transport cargo or wood on the log splitter.

Moving and Towing to the Job Site

Towing:

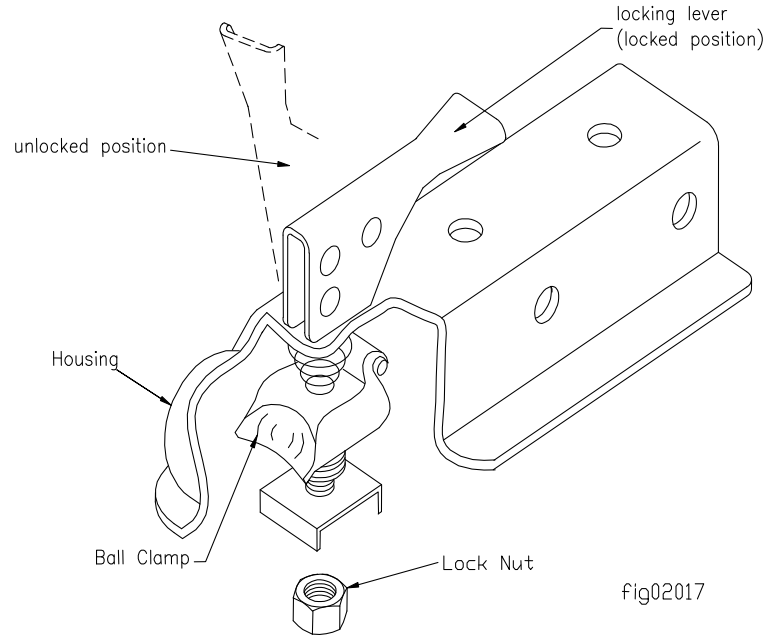
1. Read Instructions	Review towing safety instructions in your vehicle manual.
2. Check Tires	<p>Make sure tires are fully inflated and in good repair.</p> <p>⚠️ WARNING:</p> <ul style="list-style-type: none"> • Do not over-inflate tires. Serious injury can occur if tire explodes. • When seating a bead after repair, do not exceed 60 PSI. Pressures higher than 60 PSI can cause the tire and wheel to rupture and explode.
3. Engine Off	<p>IMPORTANT: Make sure log splitter engine is off.</p> <p>Never move the log splitter with its engine running.</p>
4. Fuel Valve Off (if equipped)	<p>Turn fuel valve off to prevent carburetor flooding and reduce the chance of fuel leakage. Refer to Engine owner's manual for fuel valve location.</p>

Moving and Towing to the Job Site

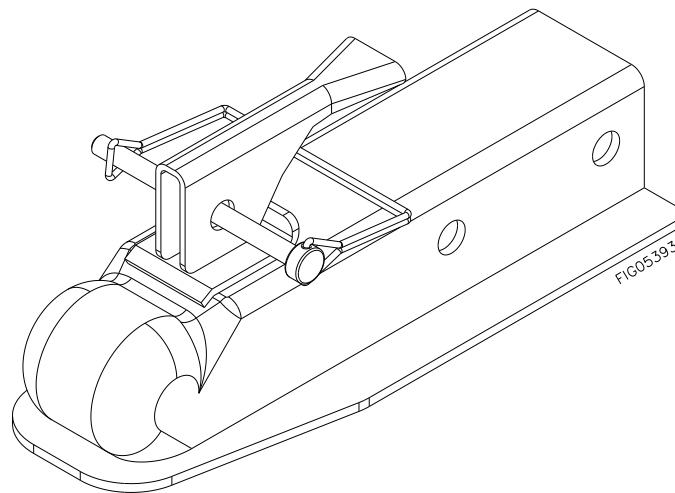
5. Attach to Hitch (2" ball)

Attach log splitter to vehicle hitch.

1. Attach log splitter's coupler to a class 2 or higher hitch with 2" ball (only).
2. Adjust coupler to ball by raising locking lever and turning lock nut with wrench.
3. Proper adjustment is obtained when coupler is as tight as possible on ball and locking lever can still be opened and closed.
4. Lock lever closed to secure the attachment.



5. Insert pin into locking lever to ensure it does not unlock while towing.



6. Attach Safety Chains

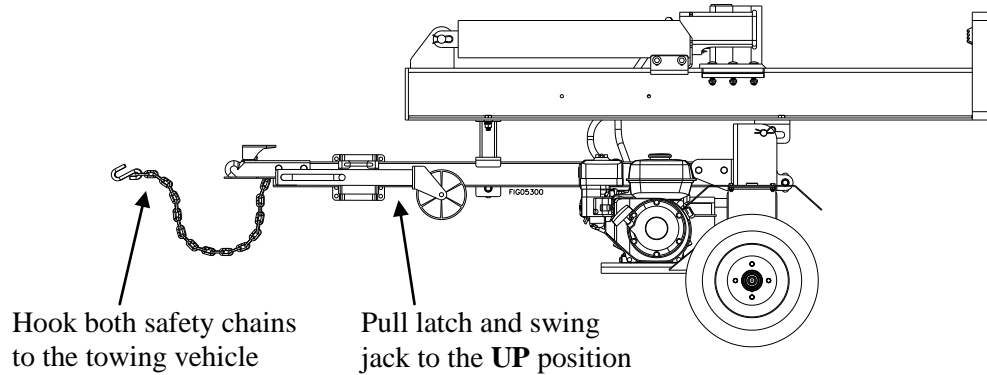
Attach safety chains.

1. Two safety chains must be used while towing.
2. Cross safety chains under the coupler allowing only enough slack for vehicle turns.

Moving and Towing to the Job Site

7. Lock Support Leg UP

To provide adequate ground clearance while towing, secure the support leg in the UP position.



Hook both safety chains to the towing vehicle

Pull latch and swing jack to the UP position

8. Tow to Desired Location

Tow log splitter carefully to desired work site.
(See Step Three: Before Each Use – Work Site Selection and Set-Up)

Important safety instructions:

- **Added length.** Be aware of the added length of the splitter.
- **Speed limit.** Never tow this log splitter over 35 mph. Faster speeds may result in loss of control.
- **Rough terrain.** Drive slowly and take extra caution when traveling over rough terrain.
- **On public roads.** If towing on a public road, make sure to comply with all local, state, and federal towing requirements. It is the sole responsibility of the purchaser to obtain licensing, trailer lights, safety chains or signage, as needed to comply.
- **Unattended.** Turn off the towing vehicle before leaving the splitter unattended.
- **Under the influence.** Never tow or operate this splitter while under the influence of alcohol, drugs, or medication.

9. Lock Support Leg DOWN and Unhitch

Lock support leg in the DOWN position and disconnect from vehicle.
NEVER operate log splitter while it is attached to the vehicle.

1. Lock the support leg down and open the coupler latch assembly.
2. Unhitch from vehicle.

Before Each Use – Inspection/Maintenance

Step One: Inspect and maintain log splitter before each use

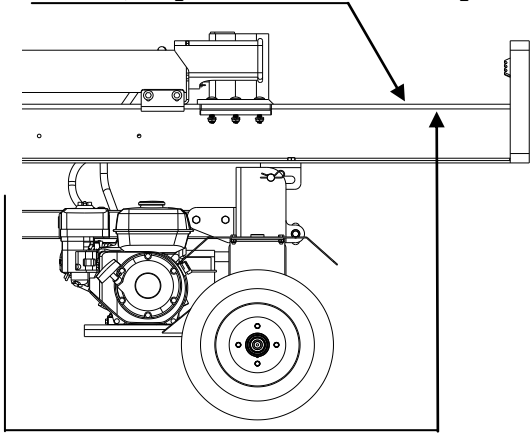
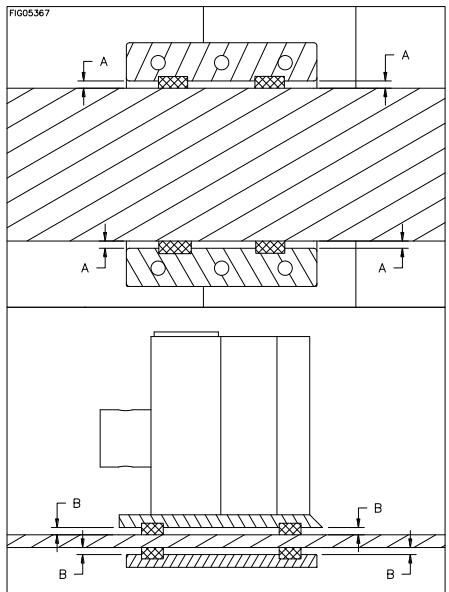
If the log splitter has been used previously, it must be inspected and maintained BEFORE EACH SUBSEQUENT USE.

⚠ WARNING

ALWAYS shut off the engine, disconnect the spark plug, and relieve system pressure before inspecting, cleaning, adjusting, or repairing the splitter. Relieve system pressure by moving Split Control Lever back and forth several times.

IMPORTANT:

If a part needs replacement, only use parts that meet the manufacturer's specifications. Replacement parts that do not meet specifications may result in a safety hazard or poor operation of the log splitter.

1. Engine Off / Relieve Pressure	<p>Perform all inspections/repairs with the engine off and hydraulic system pressure relieved.</p> <ol style="list-style-type: none"> 1. Make sure engine is off and cool. 2. Disconnect the spark plug. 3. Relieve all hydraulic system pressure by moving the Split Control Lever back and forth several times.
2. Remove Debris	<p>Remove debris from engine, muffler, and moving parts.</p> <ol style="list-style-type: none"> 1. <u>Engine debris</u>: Debris on a hot engine can be a fire hazard. Clean debris and chaff from engine cylinder head, cylinder head fins, fan housing/recoil starter, and muffler areas. Avoid contact with hot muffler. 2. <u>Other debris</u>: Debris on moving parts can cause excess wear. Clear debris from the beam, wedge, log dislodger, and endplate.
3. Fuel Tank / Lines	<p>Check fuel tank and fuel lines for leaks.</p> <p>Any fuel leak is a fire hazard. Fix any fuel leaks before starting engine.</p>
4. Mechanical Parts	<p>Check to be sure that all nuts and bolts are tight to ensure the log splitter is in safe working condition.</p> <p>Apply grease to beam where the wedge travels. NOTE: Does not apply to Duro-Glide model. Do not apply grease to Duro-Glide model. On the Duro-Glide, inspect condition of wear pads.</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%;">  <p style="text-align: center;">Apply grease to the top of the beam and underneath the edge of the beam, where the wear pads travel.</p> </div> <div style="width: 45%;">  <p style="font-size: small;">FIG05367</p> </div> </div> <p style="margin-top: 10px;">Check condition of the wear pads by measuring dimensions A and B from the diagram with a feeler gauge. If any of these dimensions are within .005" replace the wear pads. Shift any play in the wedge to achieve the lowest reading.</p>

Before Each Use – Inspection/Maintenance

5. Hydraulic System

Check the hydraulic system carefully:

1. Visually inspect all hoses, tubing, clamps/fittings, pump, and cylinder for cracks, fraying, kinks, or other damage.
2. Check all components for oily residue, which may indicate a leak.

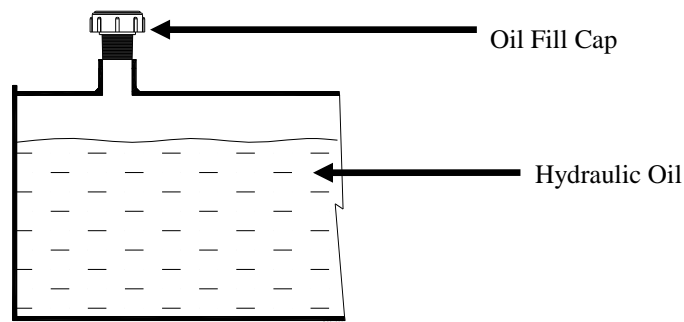
Do NOT operate the log splitter if there is any indication of damage or oily residue. Small leaks in hydraulic lines can cause severe injuries and can also be an indication of catastrophic failure in the near future. The life of hydraulic hoses may be from a few months to a few years, depending on use and storage patterns.

⚠ WARNING: High fluid pressures and temperatures are developed in hydraulic log splitters. Hydraulic fluid escaping through a pin-hole sized opening can burn or puncture skin, resulting in wounds that could cause blood poisoning, infection, disability, gangrene, amputation, or death. Therefore, the following instructions should be heeded at all times when inspecting or servicing the hydraulic components of the log splitter:

- Stop the engine, disconnect the spark plug, and move all control valve handles back and forth to relieve pressure before changing or adjusting hydraulic system components such as hoses, tubing, fittings, or other components.
- NEVER check for leaks with your hand. Leaks can be located by holding a piece of cardboard or wood (at least two feet long) with your hand at one end and passing the other end near the suspected area (wear eye protection). Look for discoloration of the cardboard or wood.
- NEVER adjust the pressure setting of the pump or valve.
- If injured by escaping fluid, no matter how small the wound, see a doctor at once. A typical injection injury may be a small puncture wound that does not look serious. However, severe infection or reaction can result if proper medical treatment is not administered immediately by a doctor familiar with injection injuries.

6. Hydraulic Oil Level

Check the hydraulic oil level. Fill as needed – The hydraulic oil level should be 1” from the top of the hydraulic tank with the cylinder retracted.



⚠ WARNING: NEVER remove the hydraulic oil fill cap when the engine is running or hot. Hot oil can escape causing severe burns. Allow log splitter to cool completely before removing hydraulic oil fill cap.

7. Engine

Inspect and perform engine maintenance as directed in the engine manual.

Before Each Use – Inspection/Maintenance


8. Spark Arrestor Muffler	<p>If the engine is equipped with a spark arrestor muffler, clean and inspect it regularly (follow spark arrestor manufacturer's service instructions). Replace if damaged.</p>
9. Tires	<p>Make sure tires are fully inflated and in good repair if you will be towing the splitter. See tire sidewall for recommended tire pressure.</p> <p>⚠️ WARNING:</p> <ul style="list-style-type: none"> • Do not over-inflate tires. Serious injury can occur if tire explodes. • When seating a bead after repair, do not exceed 60 PSI. Pressures higher than 60 PSI can cause the tire and wheel to rupture and explode.
10. Shields / Guards	<p>Replace all guards and shields after servicing the log splitter.</p>

Before Each Use – Fueling

Step Two: Fueling

⚠ WARNING

Gasoline is highly flammable and explosive. You can be burned or seriously injured when handling fuel. Use extreme care when handling gasoline.

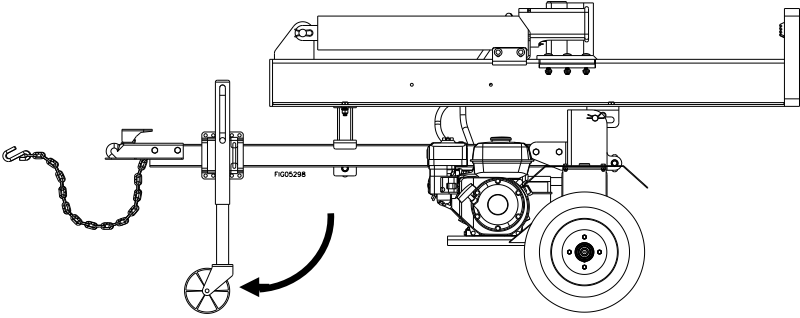
1. Engine Off and Cool	<p>The engine must be off and allowed to cool at least two minutes before adding fuel.</p> <p>⚠ WARNING: A running engine is hot enough to ignite fuel. Never add fuel or remove gas cap if engine is running or still hot.</p>
2. Outdoor Location	<p>Fill fuel tank outdoors – never indoors.</p> <p>⚠ WARNING: Gasoline vapors can ignite if they collect inside an enclosure. Explosion can result.</p>
3. Remove Gas Cap	<p>Remove engine gas cap.</p>
4. Add Gasoline	<p>Add gasoline through fill opening from a UL listed container.</p> <p><u>Important Safety Instructions:</u></p> <ul style="list-style-type: none"> • Use approved container. NEVER pump fuel directly into engine at gas station. Static charge can build and ignite fuel. Use a UL listed fuel container to transfer gas to the engine. • Don't overfill. DO NOT overfill the gas tank. Allow at least 1/2" of empty space below the fill neck to allow for fuel expansion • Heat / flames / sparks. Stay away from sources of heat, flame, or sparks while adding fuel. <div style="text-align: right; margin-top: 10px;">  </div>
5. Spills / Splashes	<p>Clean up fuel spills /splashes immediately.</p> <ol style="list-style-type: none"> 1. Move the log splitter away from spilled fuel on the ground. 2. Wipe fuel off engine and wait 5 minutes for excess fuel to evaporate before starting engine. 3. Gas soaked rags are flammable and should be disposed of properly. 4. If gasoline is spilled on your skin or clothes, change clothes and wash skin immediately.
6. Replace Gas Cap	<p>Replace gas cap securely before starting engine.</p>
7. Gasoline Storage	<p>Store extra gasoline in a cool, dry place in a UL listed, tightly sealed container.</p>

Before Each Use – Work Site Selection and Set-Up

Step Three: Work site selection and log splitter setup

⚠ WARNING

It is important to select an appropriate work site and properly set up the log splitter in order to minimize the risk of slips and falls, equipment rolling or tipping over, carbon monoxide poisoning, and accidental fires.

1. Select Location	<p>Select an appropriate location for operating the log splitter. Check work site for possible hazards before each use.</p> <p><u>Requirements:</u></p> <ol style="list-style-type: none"> 1. Dry-level surface with good footing. Stay clear of areas with mud, ice, tall grass, weeds, brush, or snow. 2. Outdoors, away from air intakes. <p>⚠ WARNING: The running engine gives off carbon monoxide, a poisonous gas that can kill you. You CANNOT smell it, see it, or taste it.</p> <ul style="list-style-type: none"> • ONLY run log splitter <u>OUTDOORS</u> and away from air intakes. NEVER run log splitter inside homes, garages, sheds, or other buildings or semi-enclosed spaces. These spaces can trap poisonous gases, EVEN if you run a fan or open windows. • If you start to feel sick, dizzy, or weak while using the log splitter, shut off the engine and get to fresh air RIGHT AWAY. See a doctor. You may have carbon monoxide poisoning.
2. Fire Precautions	<p>Take the following precautions against fire:</p> <ol style="list-style-type: none"> 1. <u>IMPORTANT:</u> If your splitter will be used near any unimproved forest, brush, or grassy covered land, <i>then engine must be equipped with a <u>spark arrestor</u>.</i> <p>(See the "Specifications" section of this manual to determine if your splitter already has a spark arrestor. Contact Iron & Oak Product Support at 1-800-817-1005 for information about obtaining a spark arrestor for your log splitter if it is unequipped.)</p> <ol style="list-style-type: none"> 2. Make sure you comply with applicable local, state, and federal codes. 3. Keep a fire extinguisher available (classified for both ordinary combustibles and flammable liquids) as a precautionary measure when operating the log splitter in dry areas.
3. Position Splitter	<p>Position muffler at least 7 ft. from combustible or flammable objects during operation. Hot exhaust fumes from engine could cause fire. Also, hydraulic oil leaking or spraying on hot engine can ignite.</p>
4. Lock Jack DOWN	<p>Lock the jack in the DOWN position.</p> <div style="text-align: center;">  </div>
5. Block Wheels	<p>Block the wheels to prevent unintended movement of the log splitter.</p>
6. Apply grease	<p>Apply grease to beam where the wedge travels. NOTE: Does not apply to Duro-Glide model. Do not apply grease to Duro-Glide model.</p>

Splitting Operation

WARNING

Before starting this log splitter, review the following instructions and safety information for safe operation of the log splitter.

Failure to follow these rules may result in serious injury to the operator or bystanders from moving parts that crush, cut, or entangle from flying objects, burns, fire, falling or tripping, or from carbon monoxide poisoning.

General Safety Information:

- **Read manual.** Do not allow anyone to operate the log splitter who has not read the Owner's Manual or has not been instructed on the safe use of the splitter. The log splitter owner should instruct all operators in safe log splitter operation.
- **Age restrictions.** Never allow anyone under 16 years old to operate the log splitter. Anyone 16 years and older must be trained and supervised by a trained adult.
- **Intended use.** Log splitters should only be used for splitting wood logs, lengthwise with the grain. Do not use for other purposes as unforeseen hazards may result.
- **Modifications.** Never modify or alter the log splitter in any way. Modifications can create serious safety hazards and will void the warranty.
- **Attachments.** Never add attachments to the splitter, except for authorized accessories supplied by the manufacturer with instructions for safe installation and use.
- **Engine speed.** The maximum engine speed is preset at a safe limit. Never attempt to modify the engine speed setting to run at a higher speed.
- **Fuel/exhaust system.** NEVER modify or add to the exhaust system, fuel tanks, or fuel lines. Fire can result.
- **Remote control.** NEVER attach a rope, cable, or other remote device to the splitting control.
- **Splitting wedge.** NEVER attempt to change the height or speed of the splitting wedge.
- **Pressure setting.** NEVER increase the pressure setting of the pump or control valve.
- **Safety equipment / controls.** Always operate the log splitter with all safety equipment in place and in good working order, and all controls properly adjusted for safe operation.
- **Know how to stop.** Be thoroughly familiar with all controls and with the proper use of the equipment. Know how to stop the log splitter and relieve system pressures quickly if needed.
- **Operating speed.** Always operate the log splitter at the manufacturer's recommended speed. The maximum speed of the engine pump and wedge are preset within safe limits.
- **Daylight only.** Only use the log splitter in daylight so you can see what you are doing.
- **Smoking / sparks.** Never smoke while operating the log splitter, and never operate near sources of sparks or flames.
- **Under the influence.** Never operate, or let anyone else operate, the log splitter while under the influence of alcohol, drugs, or medication.
- **Unattended.** Never leave the machine unattended while the engine is running.
- **Refueling.** Never refuel the engine until it has cooled at least two minutes.
- **Adjusting / repairing.** Always make sure the engine is off before cleaning, repairing or adjusting the splitter, except as recommended by the manufacturer. In addition, disconnect the spark plug and move all control handles back and forth to relieve system pressure *before changing or adjusting hydraulic system components* such as hoses, tubing, fittings or other components.
- **Replace labels.** Always make sure safety labels are in place and in good condition. If a safety label is missing or not legible, order new labels because unsafe operation can result. Call 1-800-817-1005 to order new safety labels.

Splitting Operation

<p>1. Put on Protective Clothing / Gear</p>	<p>Wear the following protective clothing and safety gear:</p> <ol style="list-style-type: none"> Eye protection. Always wear safety glasses or goggles when operating the machine. Pieces of log may fly out and serious eye injury can occur. Boots. Falling logs can crush feet. Always wear safety shoes or heavy boots when operating or helping to load logs. Gloves. Wear snug fitting gloves without drawstrings or loose cuffs. Hearing protection. The use of earplugs or other hearing protection device is recommended. No loose/dangling apparel. Loose or dangling apparel can become entangled in moving parts. Never wear jewelry or loose-fitting clothing.
<p>2. Lock and Block</p>	<p>Block the wheels to prevent unintended movement of the log splitter. Check that:</p> <ol style="list-style-type: none"> The jack is locked in the DOWN position. The wheels are blocked.

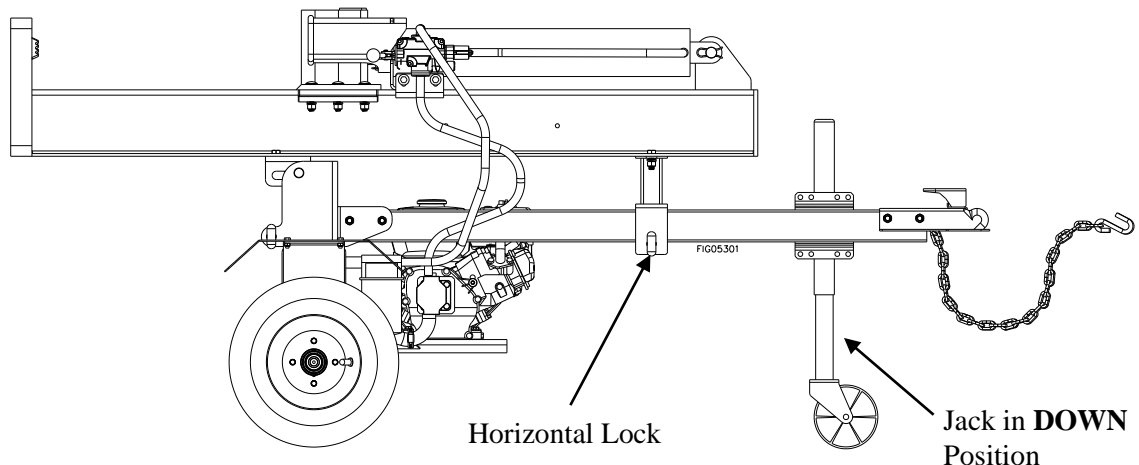
<p>3. Set to Horizontal or Vertical:</p>	<p>Set log splitter into either the horizontal or vertical splitting position. <i>The <u>HORIZONTAL</u> splitting position is used for lighter logs that can be easily loaded onto the beam. The <u>VERTICAL</u> splitting position is used for light logs as well as heavy logs that are difficult to load onto the beam.</i></p> <p>Note: Musculoskeletal injury can result from lifting logs onto the log splitter if proper lifting techniques are not used or the logs are too heavy for a person's size, weight, or strength. In some cases, logs as small as 8" in diameter and 14" in length may be heavier than what some persons should be repeatedly lifting onto the splitter.</p> <p>The use of the vertical splitting position can greatly reduce the need to lift logs onto the splitter. Employers are advised to consider NIOSH lifting guidelines when assigning employees to log splitting tasks for an extended period of time.</p>
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⚠ WARNING: NEVER change splitting positions with the engine running. You may contact the muffler and receive serious burns.

a) *Set to Horizontal Position*

Make sure beam is locked securely in the horizontal position by checking the horizontal lock. Jack must be locked in the down position.

Horizontal Splitting Position



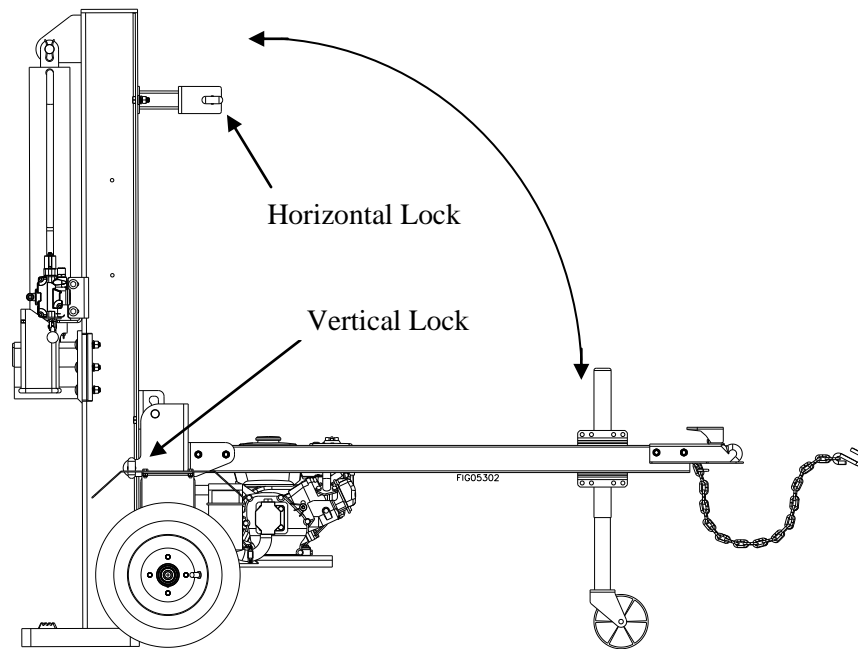
Splitting Operation

b) Set to
Vertical
Position

1. Pull out horizontal lock catch pin, grasp lifting handle and lift beam until it rotates into vertical position.

⚠ WARNING: Crush hazard. The beam is heavy – do not let it just drop. It could crush fingers or cause damage to the splitter.

Vertical Splitting Position



2. Lock in vertical position using catch pin through the vertical lock.
3. To return to horizontal position, unlock vertical position, grasp lifting handle and lower beam carefully in a controlled manner until it rests on the tow bar, lock beam in the horizontal position with catch pin.

4. Start Engine

Start the engine.

See the engine owner's manual for engine starting instructions.

NOTE:

- a) Make sure the hydraulic oil is above 10°F before starting the engine. Cold hydraulic oil can damage the hydraulic pump.
- b) If outdoor air temperature is below 32°F, allow log splitter to warm up by extending and returning the wedge several times before splitting wood.

⚠ WARNING

Burns. To avoid burns, stay clear of hot muffler if you are starting a warm engine.

Carbon monoxide. The running engine gives off carbon monoxide, a poisonous gas that can kill you. You CANNOT smell it, see it, or taste it. If you start to feel sick, dizzy, or weak while using the log splitter, shut off the engine and get to fresh air RIGHT AWAY. See a doctor. You may have carbon monoxide poisoning.

Other exhaust dangers. Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. Avoid inhalation of exhaust.

Splitting Operation

5. Load Log

Load log onto beam with a cut end against the endplate – positioned for a lengthwise cut.

Notes:

- The log splitter is designed only for cutting lengthwise with the grain, NOT for cutting across the grain.
- This log splitter is designed for cutting logs only up to a maximum of 16" in diameter and 24" long. Larger diameter logs could get stuck on the wedge and longer logs will not fit on the beam.

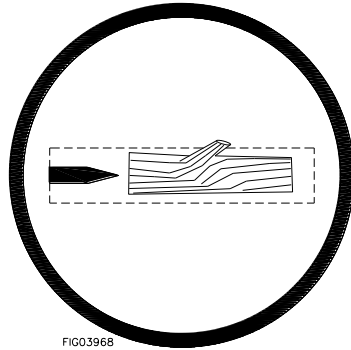
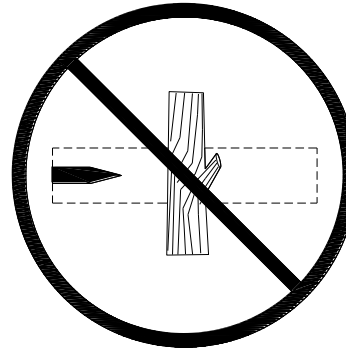
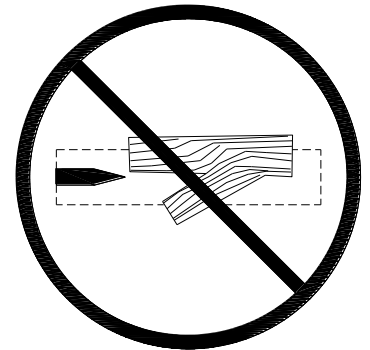


FIG03968

Correct Log Orientation



Incorrect Log Orientation



⚠ WARNING: ALWAYS keep hands and feet away from the endplate, wedge, and partially split logs while loading, operating, and unloading the log splitter.

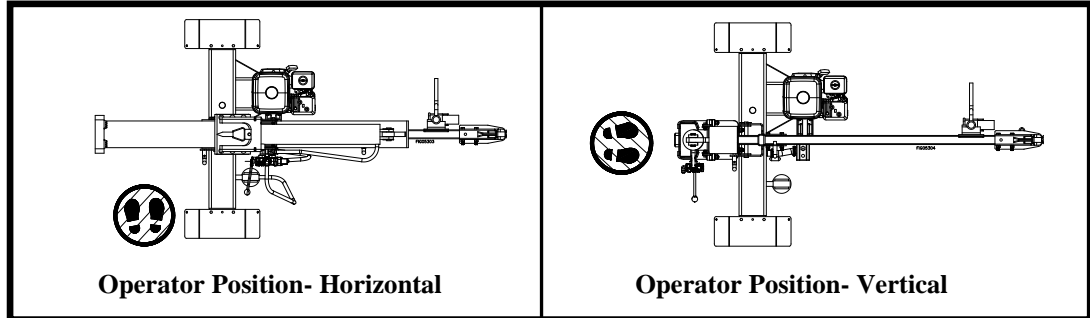
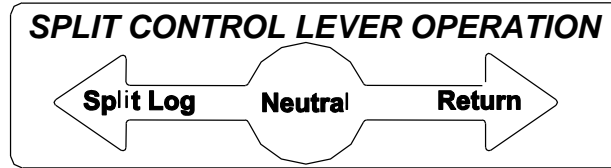
Important safety instructions:

- **Hold bark side.** Hold the bark side of logs when loading or positioning, never the ends. Never place your hands or any part of your body between a log and any part of the log splitter.
- **NOTE for vertical position loading:** Place the log on the endplate and turn it until it leans against the beam and is stable. If the log is too big or oddly shaped, stabilize the log with wooden shims between the log and endplate or ground. DO NOT use your leg or knee to stabilize the log. NEVER stabilize the log by placing your hand on top of the log.
- **Wedge moving.** NEVER load or unload logs while the wedge is moving.
- **Straddling / reaching across.** Never straddle, reach across, or step over the beam while the engine is running and the log splitter is in the horizontal position. You could trip, actuate the controls, and get seriously injured.
- **Unsplit log pile.** Do not pile logs to be split in a place that will make you reach across the log splitter in order to load them.
- **Square log ends.** Logs that are not cut square can slide out while splitting and become a safety hazard or cause excessive force to log splitter components. Use a chainsaw to cut logs square on each end before attempting to split them.
- **Single log.** Never attempt to split more than one log at a time. Pieces of log can unexpectedly be thrown from the machine causing serious injury.
- **Split along grain.** Do not use the log splitter to split logs across the grain. Doing so will damage the log splitter and could also cause pieces of log to be thrown, injuring the operator or bystanders.
- **Forked logs.** Splitting forked logs can cause damage the log splitter. Trim the forked log with a chain saw prior to splitting the log.
- **Changing splitting position.** Do not change splitting positions (horizontal/vertical) with the engine running. You may contact the muffler and receive serious burns. Be careful to avoid contact with hot muffler even after the engine is turned off.

Splitting Operation

6. Extend Wedge

Move Split Control Lever toward endplate to extend wedge and split log.



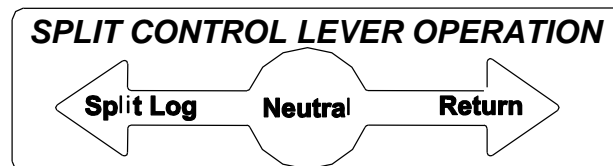
Important safety instructions:

- **Operator position.** ALWAYS operate the log splitter from the manufacturer's indicated OPERATOR POSITION. (See diagram above.) Other positions are unsafe because they can increase the risk of injury from crushing, cutting, flying objects, or burns.
- **Remove hands.** Remove both hands from log before activating Split Control Lever.
- **Hand activate.** Use only your hand to operate the Split Control Lever. Never use any other body part, or a rope, cable, or other remote device to actuate the control.
- **Second person.** Many accidents occur when there is more than one person involved in loading and operating the log splitter. Only one person should operate the controls. *If a second person is assisting in loading logs, the operator must NEVER actuate the Split Control Lever until the assistant and all bystanders are at least 10 feet away. NEVER allow an assistant to hold the log in place while the operator actuates the Split Control Lever.*

7. Stop Wedge

Release Split Control Lever to stop wedge movement when log is split.

⚠ WARNING: Cracks in logs can close quickly and pinch fingers. Keep fingers away from any cracks that open in partially split logs.



Splitting Operation

8. Important STUCK LOG Procedure

If a log does not split completely and becomes stuck on the wedge, follow the instructions below to remove the log.

A log can become stuck to the wedge if the wedge becomes embedded in the log and the log doesn't split and separate. This can happen if the log is too stringy or tough to split completely.

A stuck log will move back with the wedge on the initial attempt to retract the wedge. If this happens, retract the wedge completely to allow the log dislodger to strip the log from the wedge.

Keep hands clear of log, wedge, and log dislodger while wedge is retracting.

⚠ WARNING: NEVER attempt to remove a stuck log by:

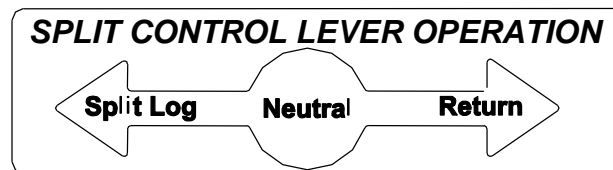
- Modifying the splitter.
- Adding attachments to the splitter.

Personal injury could result from log or metal pieces flying out at high speed toward the operator or bystanders, or the splitter could become damaged.

9. Return Wedge

Move Split Control Lever away from end plate to return wedge.

Once the control valve is actuated in the return direction, the wedge is designed to keep returning by itself completely and then stop automatically.



⚠ WARNING:

Stay clear while the wedge is returning. It is still powerful enough on the return stroke to cause serious injury. Keep hands away from any moving parts.

10. Remove Split Wood

Remove split wood from area.

Move each log away from log splitter after it is split. Split logs left near the log splitter are a trip hazard.

11. After use

1. Turn off engine.

2. Remove engine debris.

Debris on a hot engine can be a fire hazard. After the engine is off, clean debris and chaff from engine cylinder head, cylinder head fins, fan housing/recoil starter, and muffler areas.

⚠ WARNING: Avoid contact with hot muffler.

3. Return to horizontal position.

If in the vertical position, return log splitter to the horizontal position for greater stability and to prepare for transportation. Avoid contact with hot muffler.

Storage

⚠ WARNING

Gasoline vapors can ignite and cause a fire. Select a well-ventilated storage away from sources of heat, flame, or sparks.

Follow the instructions below for storing your log splitter between uses.

1. Retract Wedge	Retract the wedge completely to keep the rod protected from corrosion.
2. Cool	<p>Allow the machine to cool 5 minutes before storing.</p> <p>⚠ WARNING: A hot engine can be a fire hazard.</p>
3. Wipe With Oily Rag	Wipe the beam and wedge with an oily rag to prevent corrosion.
4. Engine Manual	<p>Refer to the engine manual for proper engine storage instructions.</p> <p>CAUTION: Gasoline will oxidize and deteriorate in storage. Old gasoline in the engine will cause hard starting and leave gum deposits that can clog the fuel systems. Deterioration problems may occur within a few months, or even less if gasoline was not fresh when you filled the tank.</p> <p><u>Short-Term Storage:</u></p> <ol style="list-style-type: none"> 1. Consider adding a fuel stabilizer to extend fuel storage life. 2. Leave the fuel valve lever in the OFF position to reduce the possibility of fuel leakage. <p><u>Long-Term Storage:</u> (between infrequent uses and at end of season)</p> <p>Drain the fuel tank and carburetor as instructed in the engine owner's manual.</p> <p><u>Important Safety Instructions</u></p> <ul style="list-style-type: none"> • Always drain fuel from tank in outdoor, well-ventilated area. • Stay away from sources of heat, flame, or sparks while handling fuel. • Clean up fuel spills/splashes immediately.
5. Splitter Storage Location	<p>Store the log splitter in a location away from corrosive material, sources of heat, open flames, sparks or pilot lights.</p> <p>⚠ WARNING: Never store log splitter inside where there is a source of heat or an open flame, spark or pilot light – such as water heaters, space heaters, furnaces, clothes dryers, or other gas appliances – EVEN IF the log splitter's gas tank is empty, residual gasoline vapors could ignite.</p> <p>NOTE: Do not store the log splitter near fertilizer or any other corrosive material.</p>
6. Gasoline Storage	<p>Store gasoline in a cool, dry place in an UL listed, tightly sealed container.</p> <p>⚠ WARNING: Gasoline vapors can ignite if they collect inside an enclosure and explosion can result.</p>

Periodic Maintenance

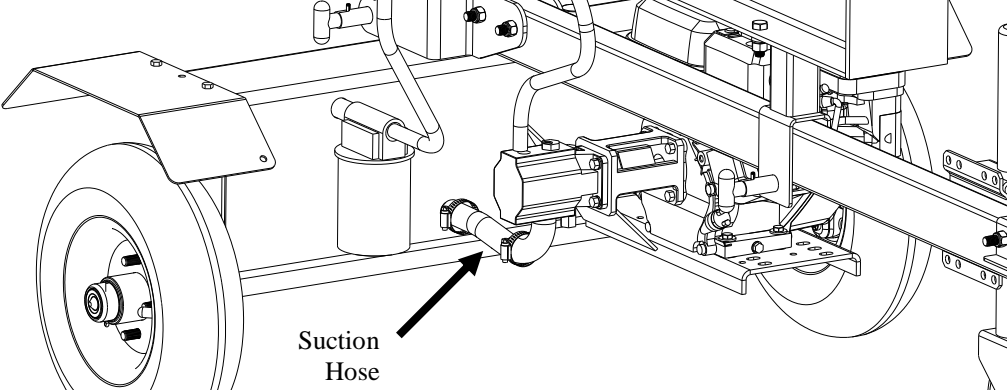
In addition to the maintenance performed with each use, periodic maintenance should also be performed according to the following schedule.

⚠ 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.

Important:

If a part needs replacement, only use parts that meet the manufacturer's specifications. Replacement parts that do not meet specifications may result in a safety hazard or poor operation of the log splitter.

1. Engine Maintenance	Perform engine maintenance as specified in engine owner's manual.
2. Hydraulic Oil Change	<p>Change hydraulic oil annually or every 100 hours.</p> <p>⚠ WARNING: High fluid pressures and temperatures are developed in hydraulic log splitters. Hydraulic fluid escaping through a pin-hole sized opening can burn or puncture skin, resulting in wounds that could cause blood poisoning, infection, disability, gangrene, amputation, or death. Therefore, the following instructions should be heeded at all times when inspecting or servicing the hydraulic components of the log splitter.</p> <ul style="list-style-type: none"> • NEVER check for leaks with your hand. Leaks can be located by holding a piece of cardboard or wood (at least two feet long) with your hand at one end and passing the other end near the suspected area (wear eye protection). Look for discoloration of the cardboard or wood. • NEVER adjust the pressure of the pump or valve. • If injured by escaping fluid, no matter how small the wound is, see a doctor at once. A typical injection injury may be a small wound that does not look serious. However, severe infection or reaction can result if proper medical treatment is not administered immediately by a doctor who is familiar with injection injuries. <ol style="list-style-type: none"> 1. Fully retract wedge. 2. Use 10wt AW32, ASLE H-150, or ISO32 oil. See the "Specifications" section of this manual for hydraulic oil capacity. 3. With engine off, relieve hydraulic system pressure by moving Split Control Lever back and forth several times. 4. Remove hydraulic oil fill cap. <p>⚠ WARNING: NEVER remove the hydraulic oil fill cap when the engine is running or hot. Hot oil can escape causing severe burns. Allow the log splitter to cool completely before removing hydraulic oil fill cap.</p> <ol style="list-style-type: none"> 5. Remove the suction hose from the pump to drain the hydraulic oil into a 10 gallon pan.  <p style="text-align: center;">Suction Hose</p>

Periodic Maintenance

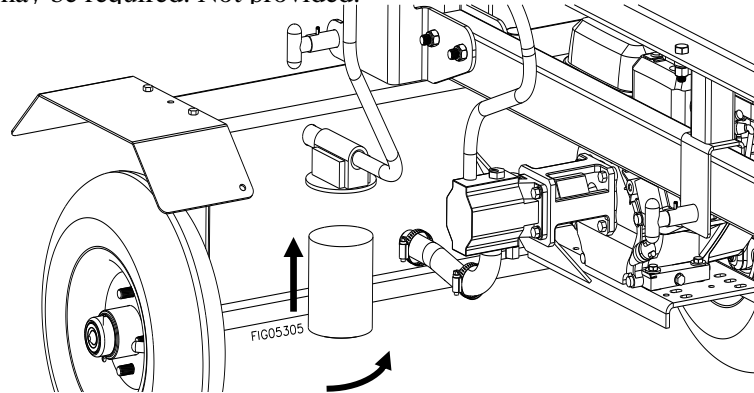
2. Hydraulic Oil Change (continued)

6. Reinstall suction hose
7. Dispose of used oil at an oil-recycling center. Used hydraulic oil is hazardous waste.
8. Fill the hydraulic tank and replace the oil fill cap.
9. Disconnect the spark plug wire from the spark plug and turn fuel valve off.
10. Pull on the starter grip recoil at least 20 times so that hydraulic fluid has cycled through the pump.
11. Reconnect the spark plug wire to the spark plug and turn fuel valve on.
12. Start engine. Extend and retract wedge five (5) times to purge air from the system.
13. Check hydraulic oil level with the engine off and wedge retracted. Fill if necessary.
Note: Proper hydraulic oil level is approximately 1" below the top of the tank.

3. Oil Filter Change

Change return line filter after the first 50 hours of operation, and every 250 hours thereafter.

1. Replace return line filter (Refer to the parts breakdown section for part #).
2. Shut down the engine on the Log Splitter.
3. Relieve hydraulic system pressure by moving the splitter control lever back and forth several times.
4. Unthread the canister and discard it along with the accompanying seal. Note: A strap wrench may be required. Not provided.



5. Apply a small amount of lubricant to the new canister seal.
6. Install the new canister and hand tighten 3/8 to 1/2 turn after gasket makes contact with head.

4. Spark Arrestor Muffler

If the engine is equipped with a spark arrestor muffler, clean and inspect it regularly (follow engine manufacturer's service instructions). Replace if damaged.

Troubleshooting

⚠ WARNING

Before troubleshooting or attempting to service, read the following safety instructions to avoid serious injury to the operator or bystanders from moving parts that can crush or cut, burns, fire or explosion, or escaping high pressure hydraulic fluid.

Important Safety Instructions:

1. **Engine off.** Always make sure the engine is off before cleaning, repairing or adjusting the splitter, except as recommended by the manufacturer.
2. **Hydraulic safety.** High fluid pressures and temperatures are developed in the hydraulic log splitters. Hydraulic fluid escaping through a pin-hole sized opening can burn or puncture skin, resulting in wounds that could cause blood poisoning, infection, disability, gangrene, amputation, or death. Therefore, the following instructions should be heeded at all times when inspecting or servicing the hydraulic components of the log splitter:
 - Stop the engine, disconnect the spark plug, and move all control valve handles back and forth to relieve pressure before changing or adjusting hydraulic components such as hoses, tubing, fittings, or other components.
 - Do not remove the hydraulic oil fill cap when the engine is running. Hot oil can escape causing severe burns. Allow the log splitter to cool completely before removing the hydraulic oil fill cap.
 - Do not adjust the pressure setting to the pump or valve.
 - Do not check for leaks with your hands. Leaks can be located by holding a piece of cardboard or wood (at least 2 feet long) with your hand at one end and passing the other end near the suspected area (wear eye protection). Look for discoloration of the cardboard or wood.
 - If injured by escaping fluid, no matter how small the wound is, see a doctor at once. A typical injection injury may be a small puncture that does not look serious. However, severe infection or reaction can result if proper medical treatment is not administered immediately by a doctor who is familiar with injection injuries.

Problem	
Wedge will not move	Solution: A,D,E,H,J
Slow wedge speed when extending or retracting	Solution: A,B,C,H,I,K
Wood will not split or splits extremely slow	Solution: A,B,C,F,I,K
Engine bogs down during splitting	Solution: G
Engine stalls under low load condition	Solution: D,E
Cause	Solution
A- Insufficient oil to pump	Check oil level in reservoir
B- Air in oil	Check oil level in reservoir, check for leaks in the suction line
C- Excessive pump inlet vacuum	Check pump inlet hose for blockage or kinks
D- Blocked hydraulic lines	Flush and clean the splitter hydraulic system
E- Blocked control valve	Flush and clean the splitter hydraulic system
F- Low control valve setting	Adjust control valve with a pressure gauge
G- High control valve setting	Adjust control valve with a pressure gauge
H- Damaged control valve	Return control valve for authorized repair
I- Internal control valve leak	Return control valve for authorized repair
J- Damaged cylinder piston	Return cylinder for authorized repair
K- Internally damaged cylinder	Return cylinder for authorized repair

Any Questions, Comments, Problems or Parts Orders

Call Iron & Oak Product Support 1-800-817-1005

Specifications

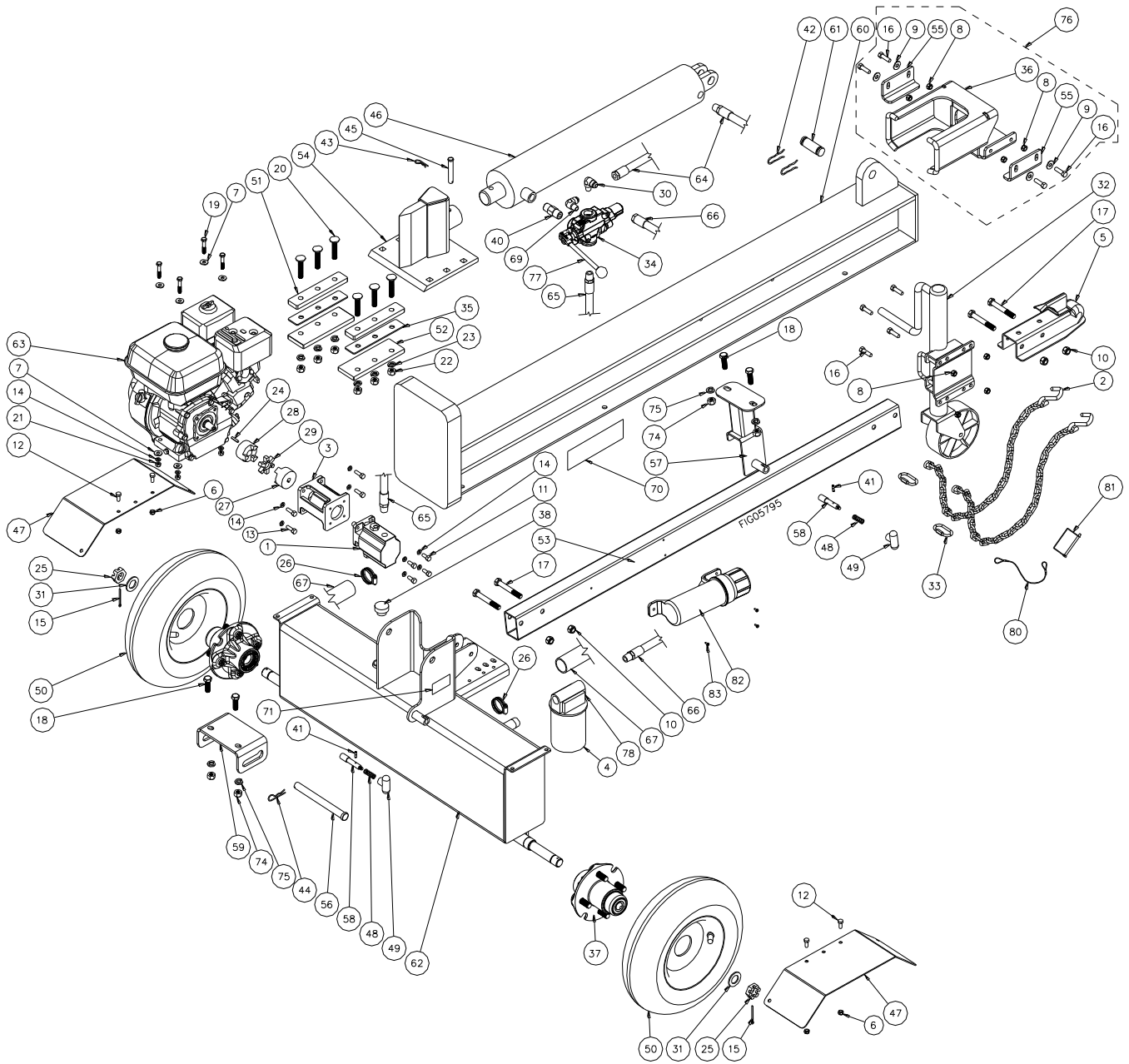
	BHVVH2216GX	BHVVH2216GXF	BHVVH2616GX BHVVH2616GXS	BHVVH2616GXD
Splitting Force	22 Ton	20 Ton	26 Ton	26 Ton
Maximum Pressure	3000 PSI	3000 PSI	3000 PSI	3000 PSI
Maximum Flow	11 GPM	16 GPM	16 GPM	16 GPM
Hydraulic Tank Capacity	7.5 Gallons	7.5 Gallons	7.5 Gallons	7.5 Gallons
Hydraulic Oil System Capacity (Cylinder, Tank, Hoses & Filter)	9.5 Gallons	9.5 Gallons	9.5 Gallons	9.5 Gallons
Hydraulic Fluid Type	*10 wt AW32, ASLE H-150, or ISO32			
Cycle Time	12 Seconds	8 Seconds	12 Seconds	12 Seconds
Engine	Honda GX, 160 cc	Honda GX, 270 cc	Honda GX, 270 cc	Honda GX, 270 cc
Coupler Size	2"	2"	2"	2"
Maximum Towing Speed	35 MPH	35 MPH	35 MPH	35 MPH
Operating Position	Vertical/Horizontal	Vertical/Horizontal	Vertical/Horizontal	Vertical/Horizontal
Log Opening	25"	25"	25"	25"
Maximum Log Length	24"	24"	24"	24"
Maximum Log Diameter	16"	16"	16"	16"
Hydraulic Cylinder Bore	4"	3.5"	4.5"	4.5"
Hydraulic Cylinder Stroke	24"	24"	24"	24"
Spark Arrestor	No	No	No	No
Fuel Valve	Yes	Yes	Yes	Yes
Overall Dimensions	93L x 49.5W x 42H	93L x 49.5W x 42H	93L x 49.5W x 42H	93L x 49.5W x 42H
Dry Weight	660 lbs	690 lbs	700 lbs	700 lbs
Replacement Filter	BR001113	BR001113	BR001113	BR001113
Features	Standard	<i>Fast Cycle</i>	Standard	<i>Duro-Glide</i>

* If the log splitter will be run for long periods of time in outdoor temperatures above 70°F, we recommend changing the hydraulic oil to DEXRON III

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

Any Questions, Comments, Problems or Parts Orders
Call Iron & Oak Product Support 1-800-817-1005

Parts Breakdown – Exploded View – Rev A



Parts Breakdown – Exploded View – Rev A

Unit Key: A = BHVH2216GX, B = BHVH2216GXF, C = BHVH2616GX, D = BHVH2616GXS, E = BHVH2616GXD

Ref	Part	Description	#	Unit
1	BR002001H	11 GPM Pump	1	A
	BR002002B	16 GPM Pump	1	B,C,D,E
2	1130	27" Chain w/ Hook	2	All
3	BR020010	Small Pump Mount	1	A
	BR020110	Large Pump Mount	1	B,C,D,E
4	BR001113	Small Filter Canister	1	All
5	BR008540	2" Ball Coupler	1	All
6	82020	5/16-18 Nylon Lock Nut	4	All
7	82021	5/16 USS Washer	8	All
8	82027	3/8-16 Nylon Lock Nut	4	All
9	82028	3/8 USS Washer	4	All
10	82037	½-13 Nylon Lock Nut	4	All
11	82089	5/16-24 x ¾ HHCS	4	All
12	82087	5/16-18 x ¾ HHCS	4	All
13	82601	5/16-24 x 1 HHCS	4	A
	82092	5/16-24 x 1 HHCS w/ patch	4	B,C,D,E
14	82100	5/16 Split Lock Washer	12	A
			8	B,C,D,E
15	BR008301F	1/8 x 2 Cotter Key	2	All
16	82405	3/8-16 x 1-1/4 HHCS	4	All
17	82490	½-13 x 3-1/2 HHCS	4	All
18	82493	½-13 x 1-1/2 HHCS	4	All
19	82494	5/16-18 x 1-3/4 HHCS	4	All
20	82499	½-13 x 2-1/2 Carriage Bolt	6	A,B,C,D
	BR001216	½-13 x 2-1/2 FHCS	4	E
	BR001286	½-13 x 2-3/4 FHCS	2	
21	82508	5/16-18 Hex Nut	4	All
22	82509	½-13 Hex Nut	6	All
23	82519	½ Split Lock Washer	6	All
24	82522	3/16 x 1 Square Key	1	All
25	777124	1" Slotted Jam Nut	2	All
26	777835	Hose Clamp	2	All
27	BR006001D	L095 x ½ Coupling	1	B,C,D,E
	BR006002D	L075 x ½ Coupling	1	A
28	BR006001C	L095 x 1 Coupling	1	B,C,D,E
	BR006002C	L075 x ¾ Coupling	1	A
29	BR006001B	L090/095 Insert	1	B,C,D,E
	BR006002B	L075 Insert	1	A
30	BR001017	10MJIC x 12MP Fitting	1	All
31	778844	1" Axle Washer	2	All
32	792988	Jack w/ Wheel	1	All
33	783948	Threaded Connector	2	All
34	791877	Brand Valve	1	All
35	791636	Keeper Shim	2	A,B,C,D
36	791666	Log Dislodger, 6" Beam	1	All
37	BR008317	1" Wheel Hub	2	All
38	BR001021	Vented Fill Plug	1	All
39	BR001025	.932 ID O-ring	1	All
40	BR001052	Straight Fitting	1	All
41	BR001090	3/16 x ¾ Spring Pin	2	All
42	BR001705	Cylinder Hairpin Clip	2	All
43	BR001761	3/32 x 1-5/8 Hairpin Clip	1	All
44	BR001764	3/32 x 2-1/2 Hairpin Clip	1	All

Ref	Part	Description	#	Unit
45	791835	½ x 2-1/2 Clevis Pin	1	All
46	BR004056	4-1/2 x 24 x 2 Cylinder	1	C,D,E
	BR004057	4 x 24 x 1-3/4 Cylinder	1	A
	BR004063	3-1/2 x 24 x 1-3/4 Cylinder	1	B
47	BR007016	Fender	2	All
48	BR008151	Latch Spring	2	All
49	BR008152	Latch Knob	2	All
50	BR008303	480 x 8 Wheel	2	All
51	BR013102	Keeper Spacer	2	A,B,C,D
	BR032006	Keeper Spacer w/ Pockets	2	E
	BR032009	Large Wear Pad	4	
52	BR013104	Keeper	2	A,B,C,D
	BR032007	Keeper w/ Pockets	2	E
	BR032008	Small Wear Pad	4	
53	793929	Tongue	1	All
54	BR021163	Wedge, 6" Beam	1	A,B,C,D
	BR032001	Wedge w/ Pockets	1	E
	BR032008	Small Wear Pad	4	
55	BR021174	Dislodger Clamp Plate	2	All
56	BR021251	Hinge Clevis Pin	1	All
57	BR02139302	Beam Rest	1	All
58	BR021396	Latch Pin, 6" Beam	2	All
59	BR031102	Hinge, 6" Beam	1	All
60	BR02126408PB	6" Beam	1	A,B,C
	BR02126408SG	6" Beam (Green)	1	D
	BR032000	Duro-Glide Beam	1	E
61	BR008531A	1" Grooved Clevis Pin	1	All
62	793232	Axle/Tank	1	A,B,C,E
	793235	Axle/Tank (Green)	1	D
63	GNEGX160	Honda GX160 Engine	1	A
	GNEGX270	Honda GX270 Engine	1	B,C,D,E
64	BR004119N	½ x 28-1/2 HP Hose	1	All
65	BR005061	½ x 38 HP Hose	1	All
66	BR005036	½ x 55-1/2 HP Hose	1	All
67	BR004998	1" LP Hose	7	All
69	778705	½MP x 3/4JIC Elbow Fitting	1	All
70	BR002627	22 Ton Iron & Oak Decal	2	A
	BR002628	26 Ton Iron & Oak Decal	2	C,D,E
	BR002631	20 Ton Iron & Oak Decal	2	B
71	BR002621	Made in USA Decal	1	All
72	BR002312	Fast Cycle Decal	2	B
	BR002697	Duro-Glide Decal	2	E
74	82509	½-13 Hex Nut	4	All
75	82519	½ Split Lock Washer	4	All
76	BR021172-14	Log Dislodger Kit	1	All
77	BR04100HK	Handle Kit for Valve	1	All
78	BR001112	Small Filter Head	1	All
79	BR021183	Log Deflector	1	E
80	782689	Cable Lanyard	1	All
81	778498	Catch Pin	1	All
82	788040	Manual Tube	1	All
83	82232	¼ X ¾ Self Tap Screw	3	All

Summary of Important Safety information for Operation

WARNING

Carefully read and make sure you understand the following safety information before using the log splitter. Improper use or maintenance of the log splitter can result in serious injury to the operator or bystanders from moving parts that can crush or cut, flying objects, burns, fire or explosion, escaping high pressure hydraulic fluid, or carbon monoxide poisoning.

Introduction

- **Read Manual.** Read this operator's manual and the engine Owner's Manual completely before attempting to use the log splitter. Serious injury or death can result if safety instructions are not followed.
- **Instruct operators.** The log splitter owner should instruct all operators in safe log splitter operation.
- **Intended use.** Log splitters should only be used for splitting wood logs, lengthwise with the grain. Do not use for other purposes, as unforeseen hazards may result.

Prohibition Against Modifications

Never modify or alter the log splitter in any way. Modifications can create serious safety hazards and will void the warranty.

- **Attachments.** Never add attachments to the splitter, except for authorized accessories supplied by the manufacturer with instructions for safe installation and use.
- **Engine Speed.** The maximum engine speed is preset at a safe limit. Never attempt to modify the engine speed setting to run at a higher speed.
- **Fuel/Exhaust system.** NEVER modify or add to the exhaust system, fuel tanks, or fuel lines. Fire can result.
- **Remote Control.** NEVER attach a rope, cable, or other remote device to the splitting control.
- **Splitting Wedge.** NEVER attempt to change the height or speed of the splitting wedge.
- **Pressure Setting.** NEVER increase the pressure setting of the pump or control valve.

Operator Restrictions

- **Untrained Operators.** Do not allow anyone to operate the log splitter who has not read the owner's manual or been instructed on the safe use of the splitter.
- **Minimum Operator Age.** Never allow anyone under age 16 to operate the log splitter. Anyone 16 years of age and older must be trained and supervised by a trained adult.

Safety in Moving and Towing the Log Splitter

WARNING

The log splitter is very heavy. It can cause serious injury if it rolls out of control or tips over.

Follow the safety instructions below for safely moving the log splitter.

General Safety While Moving

- **Horizontal position.** Make sure the log splitter is secured in the horizontal position before moving the log splitter. DO NOT move the log splitter when it is in the vertical position because it will be unstable and could tip.
- **Hills.** Do not move the log splitter up or down hills by hand – use a towing vehicle.
- **Engine off.** Never move the log splitter with its engine running.
- **No riding.** Never allow anyone to sit or ride on the log splitter.
- **No cargo.** Never transport cargo or wood on the log splitter.

Safety During Towing

- **Read instructions.** Review towing safety instructions in your towing vehicle manual.
- **Securely attached.** Be sure the log splitter is securely attached to the towing vehicle before towing.

Summary of Important Safety information for Operation

- **Tires.** Be sure the tires are fully inflated and in good repair before towing the log splitter. When adding air to the tires, do not over-inflate – serious injury could occur if tire explodes.
- **Added length.** Be aware of the added length of the splitter.
- **Speed Limit.** Never tow this log splitter over 35 mph. Faster speeds may result in loss of control.
- **Rough terrain.** Be extra cautious and drive slowly when traveling over rough terrain.
- **Under the influence.** Never tow this splitter while under the influence of alcohol, drugs, or medication.
- **On public roads.** If towing on a public road, make sure to comply with all local, state, and federal towing requirements. It is the sole responsibility of the purchaser to obtain licensing, trailer lights, safety chains or signage, as needed to comply.
- **Unattended.** Turn off the towing vehicle before leaving the splitter unattended.
- **Disconnect before operating.** Do not use the log splitter while it is connected to the towing vehicle.

Safety – Before Use

Read/Instruct

- **Read manual.** Do not allow anyone to operate the log splitter who has not read the owner's manual or has not been instructed on the safe use of the splitter.
- **Review safety rules.** Before starting this log splitter, review the "Rules for Safe operation." Failure to follow these rules may result in serious injury to the operator or bystanders.
- **Know how to stop.** Be thoroughly familiar with all controls and proper use of the equipment. Know how to stop the splitter and relieve system pressures quickly if needed.

Personal Protective Equipment

- **Eye protection.** Always wear safety glasses or goggles when operating the machine. Pieces of log may fly out and serious eye injury can occur.
- **Boots.** Falling logs can crush feet. Always wear safety shoes or heavy boots when operating or helping to load logs.
- **Loose/dangling.** Loose or dangling apparel can become entangled in moving parts. Never wear jewelry or loose-fitting clothing.
- **Gloves.** Wear snug fitting gloves without drawstrings or loose cuffs.
- **Hearing Protection.** The use of earplugs or other hearing protection device is recommended.

Safety During Inspection/Maintenance

Always inspect your log splitter before each use, and repair as needed, to keep it in safe working condition:

- **Engine off.** Always make sure the engine is off before cleaning, repairing or adjusting the splitter, except as recommended by the manufacturer.
- **Engine debris.** Debris on a hot engine can be a fire hazard. With the engine off, clean debris and chaff from engine cylinder head, cylinder head fins, fan housing/recoil starter, and muffler areas. Avoid contact with hot muffler.
- **Other debris.** Debris on moving parts can cause excess wear. With the splitter engine off, clear debris from moving parts.
- **Fuel tank / lines.** Before each use, check fuel tank and fuel lines for leaks. Any fuel leak is a fire hazard. Fix any fuel leaks before starting engine.
- **Mechanical parts.** Check to be sure that all nuts and bolts are tight to make sure the log splitter is in safe working condition.
- **Hydraulic system.** Check the hydraulic system (hoses, tubing, clamps/fittings, pump, and cylinder) carefully before each use. Do not operate the log splitter with frayed, kinked, cracked or damaged hydraulic hoses, fittings, or tubing, or if oily residue is observed on any of the components. High fluid pressures and temperatures are developed in the log splitter. Hydraulic fluid escaping through a pin-hole sized opening can burn or puncture skin, resulting in wounds that could cause blood poisoning, infection, disability, gangrene, amputation, or death. Therefore, the following instructions should be heeded at all times when inspecting or servicing the hydraulic components of the log splitter:
 - Do not remove the hydraulic oil cap when the engine is running. Hot oil can escape causing severe burns. Allow log splitter to cool completely before removing hydraulic oil cap.
 - Do not adjust the pressure setting of the pump or valve.

Summary of Important Safety information for Operation

- o Do not check for leaks with your hand. Leaks can be located by holding a piece of cardboard or wood (at least two feet long) with your hand at one end and passing the other end near the suspected area (wear eye protection). Look for discoloration of the cardboard or wood.
- o Stop the engine, disconnect the spark plug, and move all control valve handles back and forth to relieve pressure before changing or adjusting hydraulic system components such as hoses, tubing, fittings or other components.
- o If injured by escaping fluid, no matter how small the wound is, see a doctor at once. A typical injection injury may be a small puncture wound that does not look serious. However, severe infection or reaction can result if proper medical treatment is not administered immediately by a doctor who is familiar with injection injuries.
- **Spark arrestor muffler.** If the engine is equipped with a spark arrestor muffler, clean and inspect it regularly (follow manufacturer's service instructions). Replace if damaged.
- **Tires.** Be sure tires are fully inflated and in good repair before towing the splitter. When adding air to tires, do not over-inflate -- serious injury could occur if tire explodes.
- **Guards / shields.** Make sure all guards and shields are replaced after servicing the log splitter.
- **Replacement parts.** If a part needs replacement, only use parts that meet the manufacturer's specifications. Replacement parts that do not meet specifications may result in a safety hazard or poor operation of the log splitter.

Safety During Fueling

- **Gasoline is highly flammable and explosive.** You can be burned or seriously injured when handling fuel. Use extreme care when handling gasoline:
- **Fuel outdoors.** Fill fuel tank outdoors – never indoors. Gasoline vapors can ignite if they collect inside an enclosure. Explosion can result.
- **Use approved container.** Never pump fuel directly into engine at gas station. Static charge can build and ignite fuel. Use an UL approved fuel container to transfer gas to the engine.
- **Running / hot engine.** A running engine is hot enough to ignite fuel. Never add fuel or remove gas cap if engine is running or still hot. Stop the engine and allow to cool at least two minutes before adding fuel.
- **Heat / flames / sparks.** Stay away from sources of heat, flame, or sparks while adding fuel.
- **Don't overfill.** DO NOT overfill the gas tank. Allow at least 1/2" of empty space below the fill neck to allow for fuel expansion.
- **Replace cap.** Replace gas cap securely before starting engine.
- **Spills.** Clean up fuel spills immediately. Move log splitter away from spilled fuel on the ground. Wipe fuel off engine and wait 5 minutes for excess fuel to evaporate before starting engine. Gas soaked rags should be disposed of properly.
- **On skin / clothes.** If gasoline is spilled on your skin or clothes, change clothes and wash skin immediately.
- **Gasoline storage.** Store gasoline in a cool, dry place in an UL approved, tightly sealed container.

Safety in Work Site Selection

- **Spark arrestor.** If your splitter will be used near any unimproved forest, brush, or grassy covered land, then engine should be equipped with a spark arrestor. See the "Specifications" section of this manual to determine if your splitter already has a spark arrestor. Make sure you comply with applicable local, state and federal codes.
- **Hot exhaust.** Hot exhaust fumes from engine can cause fire. Position muffler at least 7' from combustible objects during operation.
- **Fire extinguisher.** Have a Class B fire extinguisher available as a precautionary measure when operating the log splitter in dry areas.
- **Level, dry surface.** To prevent accidental falls and equipment tip over, make sure the splitter is situated on a dry, level surface with good footing. Stay clear of areas with mud, ice, tall grass, weeds, brush, or snow.
- **Block wheels.** Always block the wheels to prevent unintended movement of the log splitter.
- **Carbon monoxide.** The running engine gives off carbon monoxide, a poisonous gas that can kill you. You CANNOT smell it, see it, or taste it. ONLY run log splitter OUTDOORS and away from air intakes. NEVER run log splitter inside homes, garages, sheds, or other semi-enclosed spaces. These spaces can trap poisonous gases, EVEN if you run a fan or open windows. If you start to feel sick, dizzy, or weak while using the log splitter, shut off the engine and get to fresh air RIGHT AWAY. See a doctor. You may have carbon monoxide poisoning.

Summary of Important Safety information for Operation

Safety – During Use General Safety During Use

⚠ WARNING: Before starting this log splitter, review the following rules for safe operation. Failure to follow these rules may result in serious injury to the operator or bystanders.

- **Safety equipment / controls.** Always operate the log splitter with all safety equipment in place and in good working order, and all controls properly adjusted for safe operation.
- **Operating speed.** Always operate the log splitter at the manufacturer's recommended speed. The maximum speed of the engine, pump and wedge are preset within safe limits.
- **Know how to stop.** Be thoroughly familiar with all controls and with the proper use of the equipment. Know how to stop the log splitter and relieve system pressures quickly if needed.
- **Daylight only.** Only use the log splitter in daylight so you can see what you are doing.
- **Smoking / sparks.** Never smoke while operating the log splitter, and never operate near sources of sparks or flames.
- **Hot muffler.** If you are starting a warm engine, stay clear of muffler. It may still be hot enough to burn you.
- **Unattended.** Never leave the machine unattended while the engine is running.
- **Under the influence.** Never operate, or let anyone else operate, the log splitter while under the influence of alcohol, drugs, or medication.
- **Adjusting / repairing.** Always make sure the engine is off before cleaning, repairing or adjusting the splitter, except as recommended by the manufacturer. In addition, disconnect the spark plug and move all control handles back and forth to relieve system pressure *before changing or adjusting hydraulic system components* such as hoses, tubing, fittings or other components.
- **Carbon monoxide.** The running engine gives off carbon monoxide, a poisonous gas that can kill you. You CANNOT smell it, see it, or taste it. If you start to feel sick, dizzy, or weak while using the log splitter, shut off the engine and get to fresh air RIGHT AWAY. See a doctor. You may have carbon monoxide poisoning.
- **Other exhaust dangers.** Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. Avoid inhalation of exhaust.

Safety in Loading, Operating, and Unloading

- **Square log ends.** Logs that are not cut square can slide out while splitting and become a safety hazard or cause excessive force to log splitter components. Use a chainsaw to cut logs square on each end before attempting to split them.
- **Single log.** Never attempt to split more than one log at a time. Pieces of log can unexpectedly be thrown from the machine causing serious injury.
- **Split along grain.** Do not use the log splitter to split logs across the grain. Doing so will damage the log splitter and could also cause pieces of log to be thrown, injuring the operator or bystanders.
- **Forked logs.** Splitting forked logs can cause damage the log splitter. Trim the forked log with a chain saw prior to splitting the log.
- **Keep hands clear.** ALWAYS keep hands and feet away from the endplate, wedge, and partially split logs while loading, operating and unloading the log splitter.
- **Operator position.** ALWAYS operate the log splitter from the manufacturer's indicated OPERATOR POSITION. Other positions are unsafe because they can increase the risk of injury from crushing, cutting, flying objects, or burns.
- **Straddling / reaching across.** Never straddle, reach across, or step over the beam while the engine is running and the log splitter is in the horizontal position. You could trip, actuate the controls, and get seriously injured.
- **Second person.** Many accidents occur when there is more than one person involved in loading and operating the log splitter. Only one person should operate the controls. *If a second person is assisting in loading logs, the operator must NEVER actuate the Split Control Lever until the assistant and all bystanders are at least 10 feet away. NEVER allow an assistant to hold the log in place while the operator actuates the Split Control Lever.*

Summary of Important Safety information for Operation

Loading/Unloading

- **Unsplit log pile.** Do not pile logs to be split in a place that will make you reach across the log splitter in order to load them.
- **Hold bark side.** Hold the bark side of logs when loading or positioning, never the ends. Never place your hands or any part of your body between a log and any part of the log splitter.
- **NOTE for vertical position loading:** Place the log on the endplate and turn it until it leans against the beam and is stable. If the log is too big or oddly shaped, stabilize the log with wooden shims between the log and endplate or ground. DO NOT use your leg or knee to stabilize the log. NEVER stabilize the log by placing your hand on top of the log.
- **Wedge moving.** NEVER load or unload logs while the wedge is moving.
- **Cracks.** Cracks in logs can close quickly and pinch fingers. Keep fingers away from any cracks that open in partially split logs.
- **Split log pile.** Move each log away from log splitter after it is split. Split logs left near the log splitter are a trip hazard.
- **Remove hands.** Remove both hands from log before activating Split Control Lever.
- **Hand activate.** Use only your hand to operate the Split Control Lever. Never use any other body part, or a rope, cable, or other remote device to actuate the control.
- **Returning wedge.** Once the control valve is actuated in the return direction, the wedge is designed to keep returning by itself completely and then stop automatically. Stay clear while the wedge is returning. It is still powerful enough on the return stroke to cause serious injury.
- **Log stuck on wedge.** If a log does not split completely and becomes stuck on the wedge, follow the instructions below to remove the log. A log can become stuck to the wedge if the wedge becomes embedded in the log and the log doesn't split and separate. This can happen if the log is too stringy or tough to split completely. A stuck log will move back with the wedge on the initial attempt to retract the wedge. If this happens, retract the wedge completely to allow the log dislodger to strip the log from the wedge. Keep hands clear of log, wedge, and log dislodger while wedge is retracting.

⚠ WARNING: NEVER attempt to remove a stuck log by:

- Modifying the splitter.
- Adding attachments to the splitter.

Personal injury could result from log or metal pieces flying out at high speed toward the operator or bystanders, or the splitter could become damaged.

- **Changing splitting position.** Do not change splitting positions (horizontal/vertical) with the engine running. You may contact the muffler and receive serious burns. Be careful to avoid contact with hot muffler even after the engine is turned off.
- **Refueling.** Never refuel the engine until it has cooled at least two minutes.

Safety – After use

- **Return to horizontal.** If in the vertical position, turn off engine and return log splitter to the horizontal position for greater stability and to prepare for transportation. Avoid contact with hot muffler.
- **Remove engine debris.** Debris on a hot engine can be a fire hazard. With the engine off, clean debris and chaff from engine cylinder head, cylinder head fins, fan housing/recoil starter, and muffler areas. Avoid contact with hot muffler.
- **Let engine cool before storing.** Let engine cool for at least five minutes before storing. A hot engine can be a fire hazard.
- **Storage location.** Store the log splitter in a location away from sources of heat, open flames, sparks or pilot lights – such as water heaters, space heaters, furnaces, clothes dryers, or other gas appliances. Even if the log splitter's gas tank is empty, residual gasoline vapors could ignite.
- **Gasoline storage.** Store extra gasoline in a cool, dry place in an UL approved, tightly sealed container. Gasoline vapors can ignite if they collect inside an enclosure.
- **Periodic maintenance.** Perform periodic maintenance as directed in this manual to keep the log splitter in safe working condition.

Assembly Instructions

Remove all components from the shipping crate. Using this manual, identify and sort components as necessary.

Note: For ease of installation, hydraulic tank assembly and beam assembly can remain on base of shipping crate.

CAUTION

The bands holding the log splitter and other items in place are under tension and can fly outward when cut. Wear the appropriate personal protective equipment to reduce the risk of injury. Never stand in front of or over the band when cutting. Always stand to the side in a safe area.

Closely inspect all log splitter components.

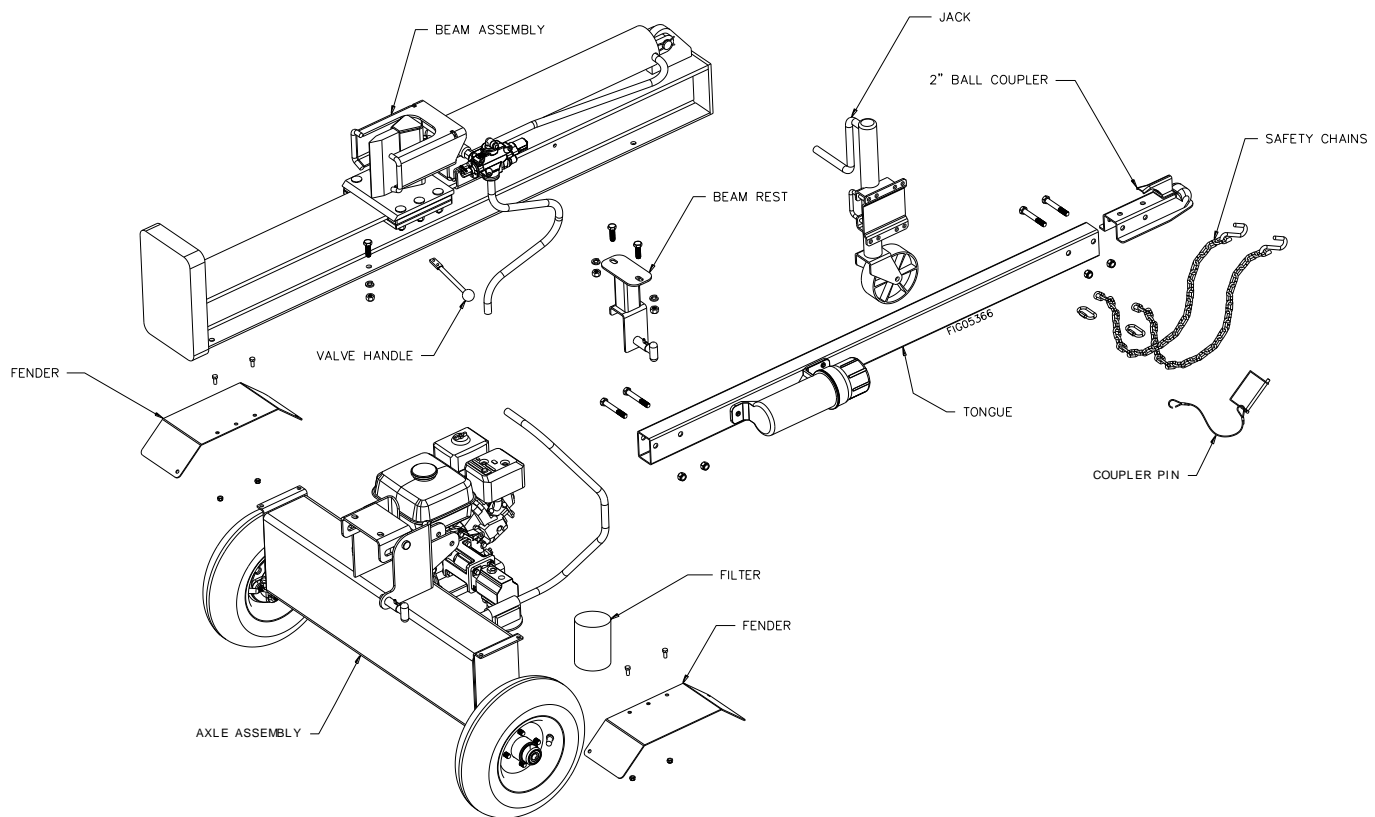
If you have missing or damaged components, please contact Product Support at 1-800-817-1005.

Find a work space that is large enough to maneuver log splitter once completely assembled. Assemble log splitter on solid and level ground.

CAUTION

Heavy lifting required. Some of the components in these assembly instructions are heavy and cannot be lifted by one person safely. Please plan on assembling this product when another person can be available to help.

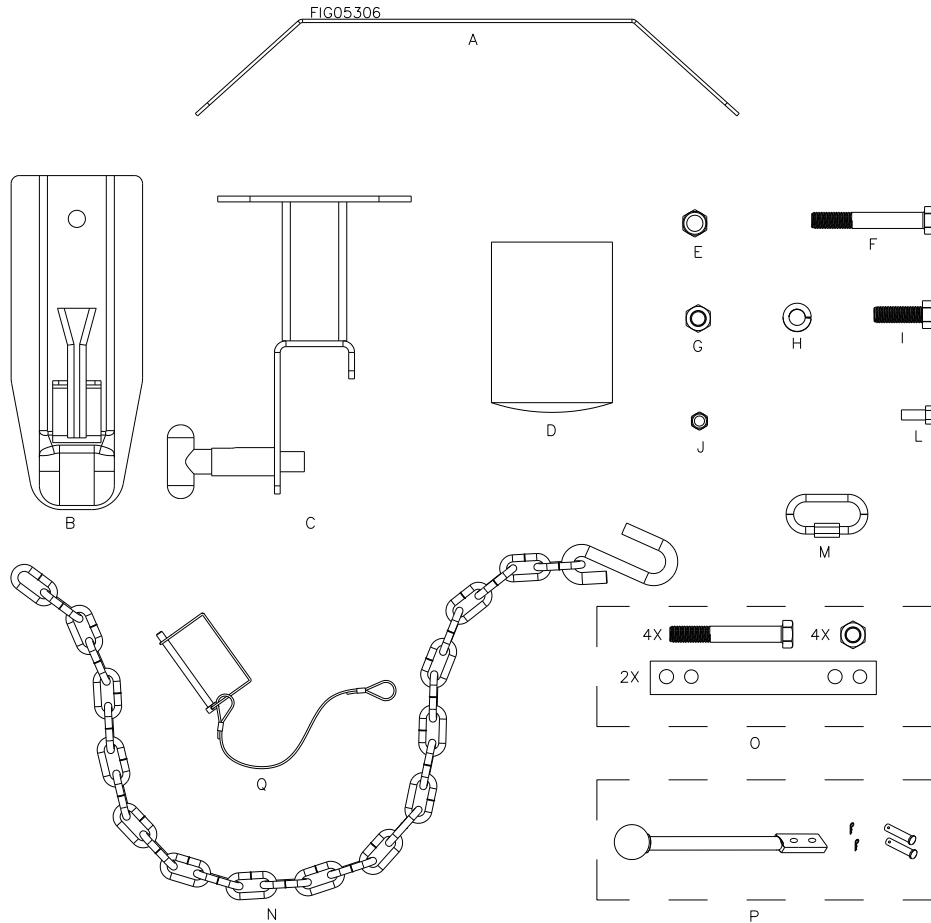
Tools needed: Two 10" crescent wrenches, 1/2" open-end wrench, 3/4" open-end wrench, pliers, band cutter, torque wrench, 3/4" socket, 1/2" socket, 9/16" socket, ratchet.



Assembly Instructions

Shipping List

Box Contents (includes fasteners in manual bag)



REF	ITEM #	DESCRIPTION	QTY
A	BR007016	Fender	2
B	BR008540	2" Ball Coupler	1
C	BR02139302	Beam Rest	1
D	BR001113	Small Filter Canister	1
E	82037	1/2-13 Nylon Lock Nut	4
F	82490	1/2-13 x 3-1/2 HHCS	4
G	82509	1/2-13 Hex Nut	4
H	82519	1/2 Split Lock Washer	4
I	82493	1/2-13 x 1-1/2 HHCS	4
J	82020	5/16-18 Nylon Lock Nut	4
L	82087	5/16-18 x 3/4 HHCS	4
M	783948	Threaded Connector	2
N	1130	27" Chain w/ Hook	2
O	N/A	Jack Mounting Hardware	1
P	N/A	Control Valve Handle and Hardware	1
Q	782689	Cable Lanyard	1
	778498	Catch Pin	1
-	-	Owner's Manual	1
-	-	Engine Manual	1

Assembly Instructions

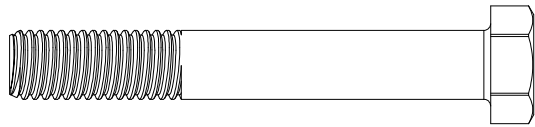
Step 1 – Jack to Tongue

- Place tongue in position that allows installation of wheeled jack assembly.
- Determine which side of the log splitter to place jack handle (owner's discretion).
- Install (2) bolts through the top mounting bracket holes. Slide a mounting strap on each bolt and loosely install (2) locknuts.
- Place jack assembly on tongue with mounting bracket and mounting straps straddling tow bar.
- Install (2) bolts in the lower mounting bracket holes and through the mounting straps. Loosely install (2) locknuts.
- Position front edge of bracket approximately 2 ½" from rear hitch coupler bolt hole.
- Torque to 22 ft.-lbs. using an alternating pattern.

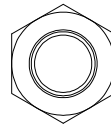
Tools Needed

- Torque Wrench
- 9/16" Socket
- Ratchet
- 9/16" Wrench

Fasteners Needed from Parts Bag (Jack hardware package):



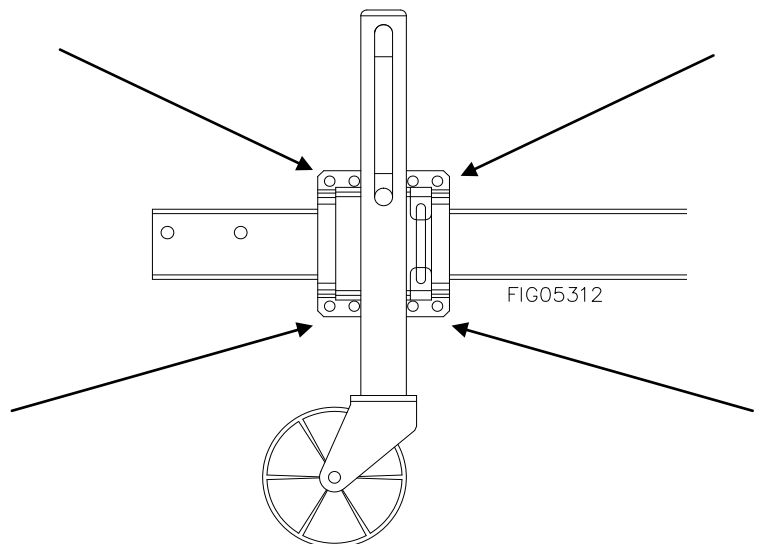
Jack to Tongue
3/8 Bolt
Qty 4



Jack to Tongue
3/8 Nylon Lock Nut
Qty 4



Jack to Tow Bar
Jack Mount Straps
Qty 2



Assembly Instructions

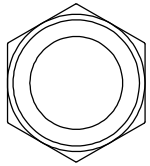
Step 2 – Tongue to Tank Assembly

- With tank assembly on base of crate, place tongue in bracket on tank assembly and align holes, as shown below.
- Insert (2) bolts and (2) locknuts.
- Torque to 83 ft.-lbs.
- Place jack in down position and lock into place.
- Carefully roll assembly off crate base.

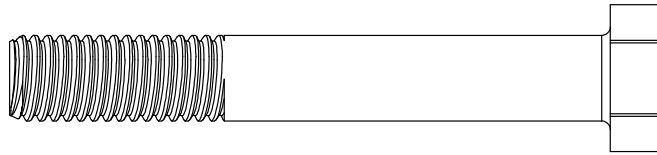
Tools Needed

- 3/4" Wrench
- Torque Wrench
- 3/4" Socket
- Ratchet

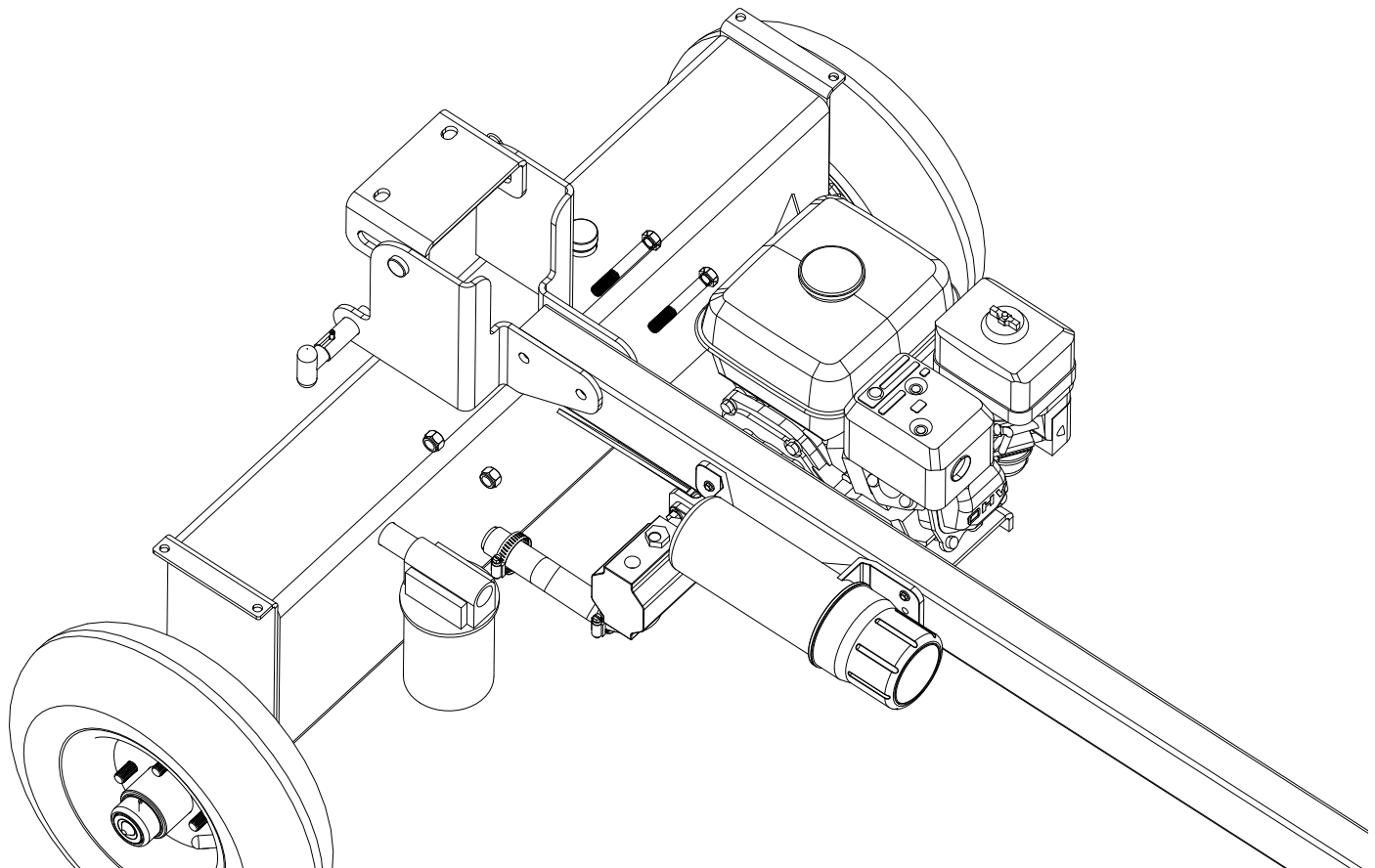
Fasteners Needed from Parts Bag:



Tongue to Tank
1/2 Nylon Lock Nut
Qty 2



Tongue to Tank
1/2 x 3-1/2 Bolt
Qty 2



Assembly Instructions

Step 3 – Position Beam Assembly

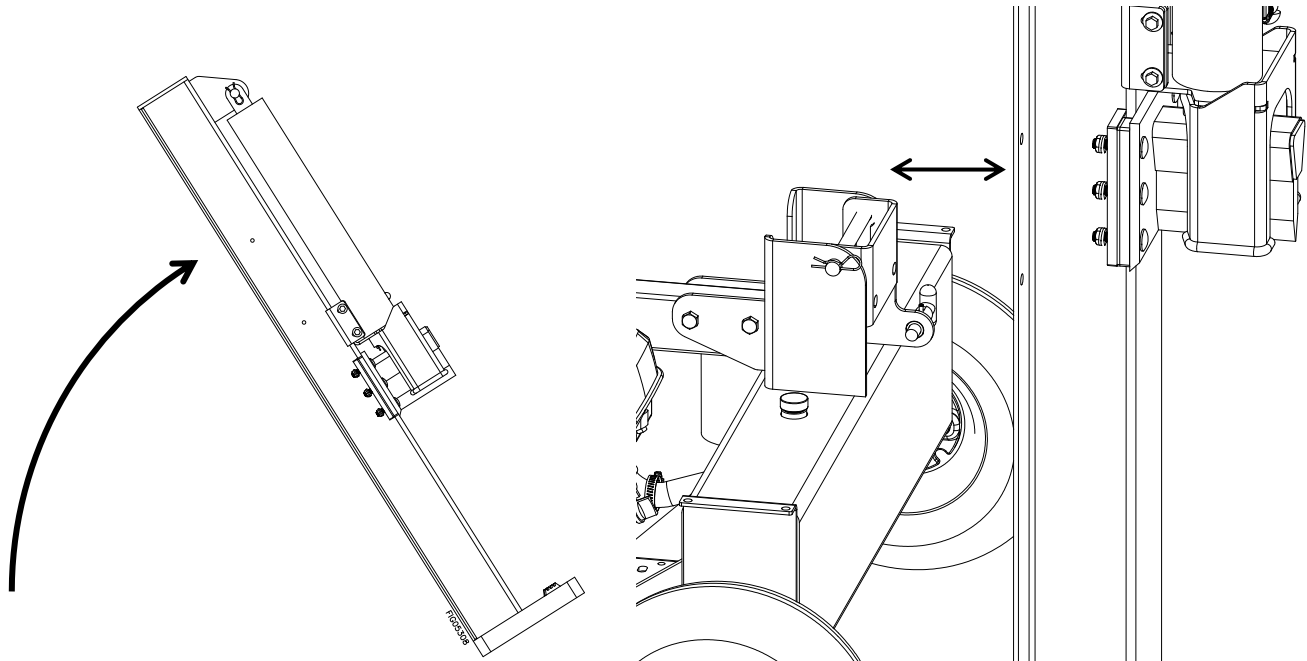
- Stand beam assembly on end plate with the help of another person. Have a person hold the beam in place while maneuvering any assembly.
- Ensure pivot bracket is parallel to back side of tank.
- Carefully align holes in pivot bracket with holes in bottom of beam.

Tools Needed

- None

WARNING

Make sure beam assembly is standing on flat, level area. Have another person steady the beam to prevent it from tipping over. The beam assembly weighs approximately 300 pounds and will cause bodily injury if it falls on someone.



Assembly Instructions

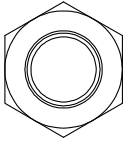
Step 4 – Install Beam to Tank Assembly

- Insert (2) bolts in holes to align beam to tank assembly.
- Add (2) lock-washers and (2) nuts. Hand tighten nuts. Do not torque at this time.

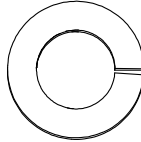
Tools Needed

- None

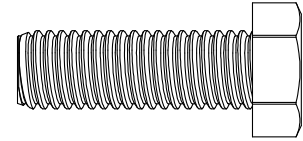
Fasteners Needed from Parts Bag:



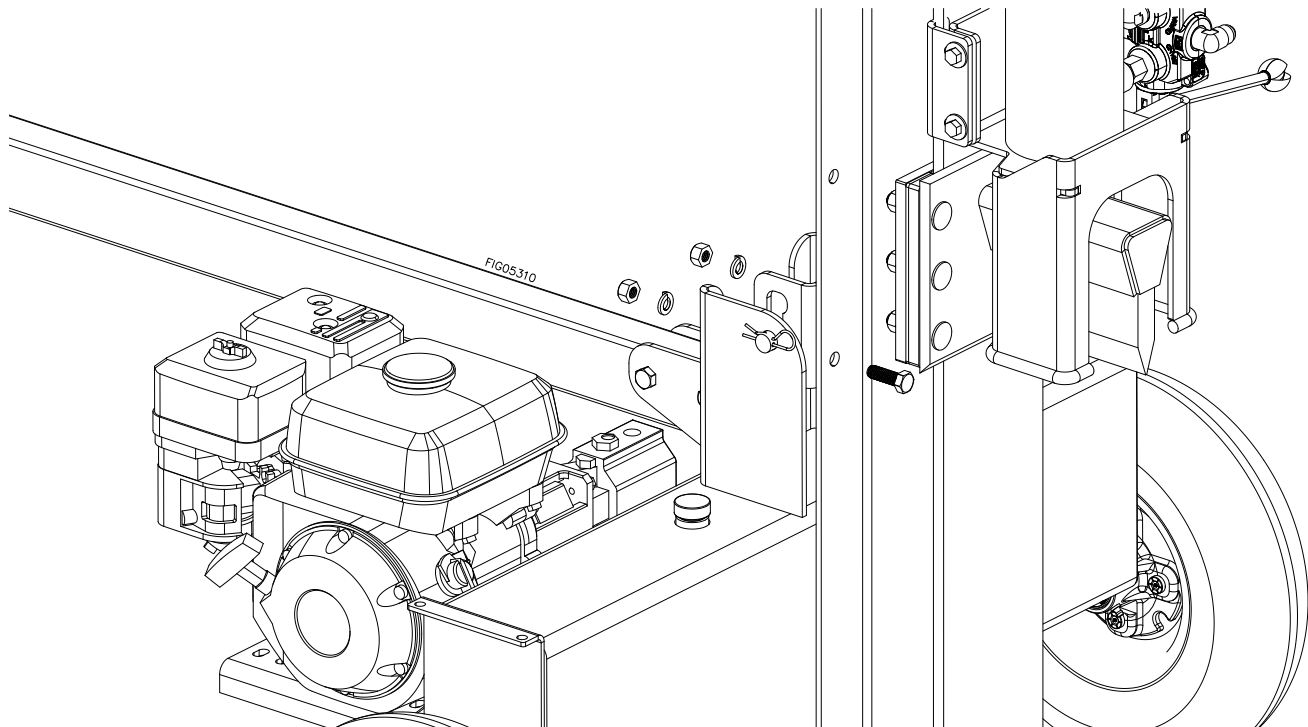
Hinge to Beam
1/2 Hex Nut
Qty 2



Hinge to Beam
1/2 Split Lock Washer
Qty 2



Hinge to Beam
1/2 x 1-1/2 Bolt
Qty 2



Assembly Instructions

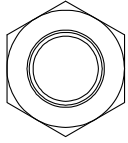
Step 5 – Horizontal Latch to Beam

- Align horizontal latch to beam using (2) bolts, (2) lock washers), and (2) nuts.
- Hand tighten nuts. Do not torque at this time.
- Pull latch mechanism outward and rotate handle to hold lock pin in unlocked position.

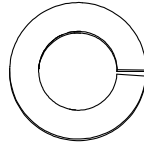
Tools Needed

- None

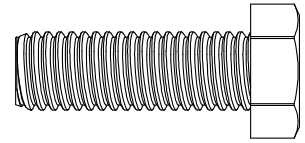
Fasteners Needed from Parts Bag:



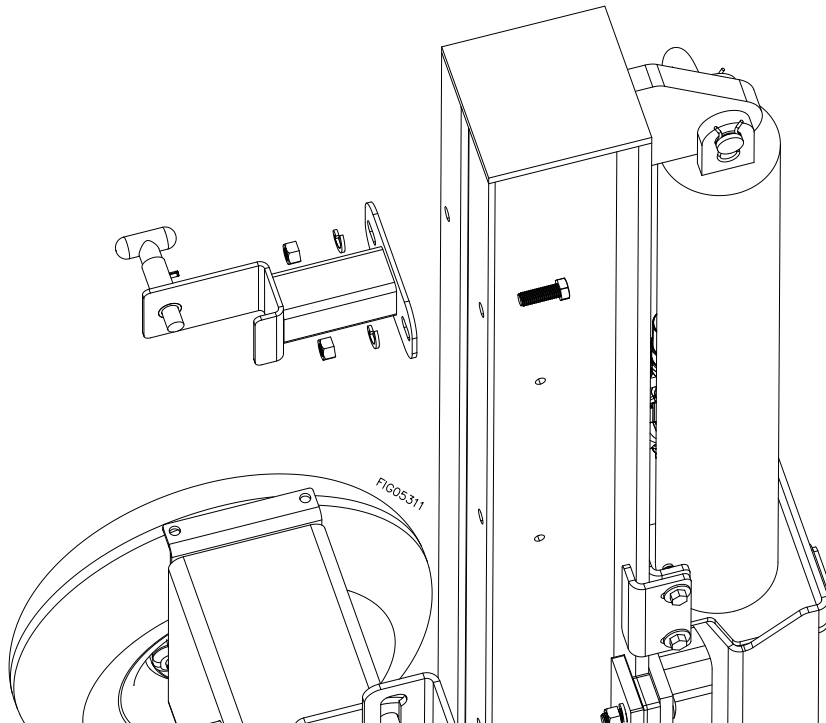
Latch to Beam
1/2 Hex Nut
Qty 2



Latch to Beam
1/2 Split Lock Washer
Qty 2



Latch to Beam
1/2 x 1-1/2 Bolt
Qty 2



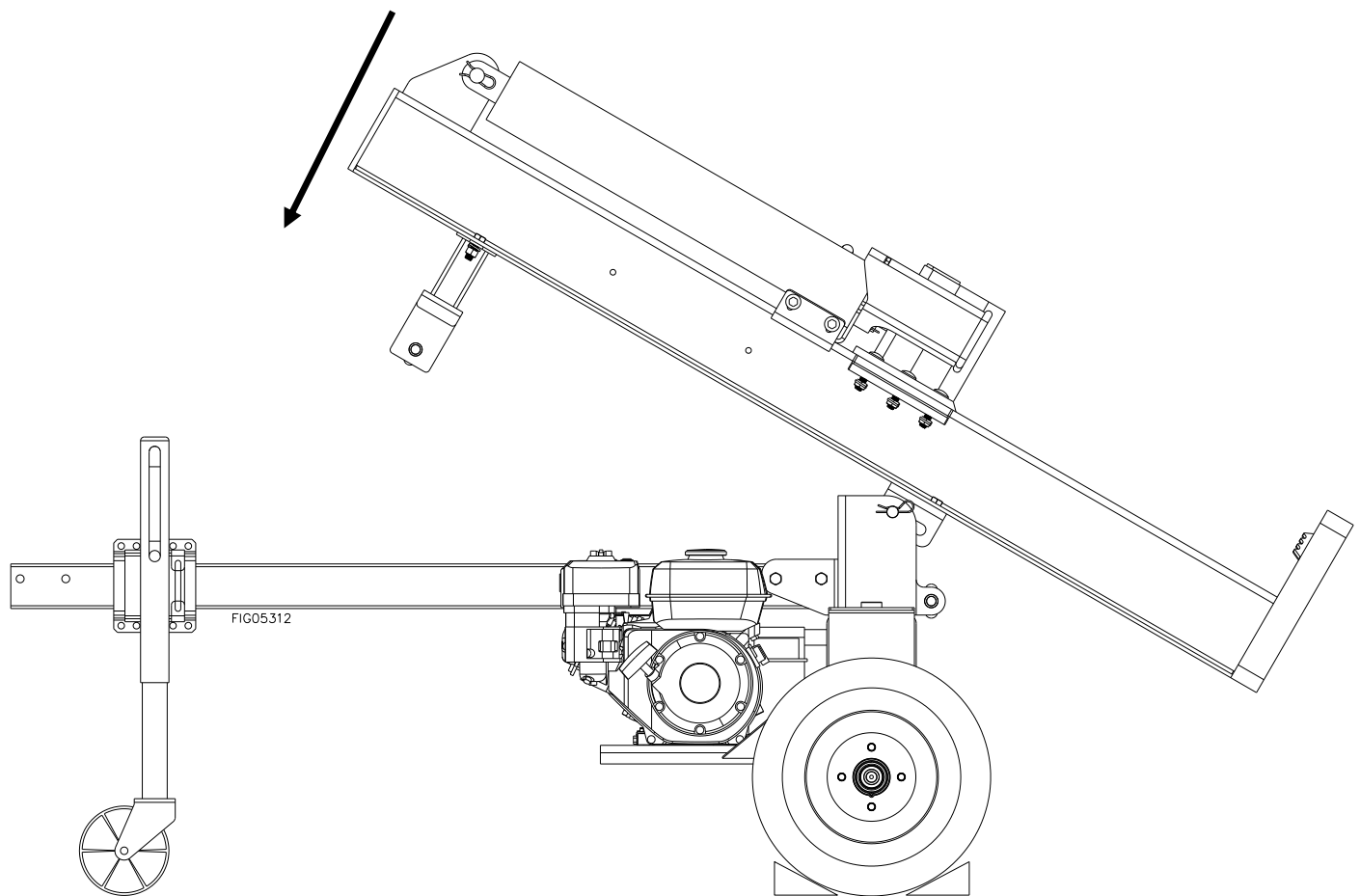
Assembly Instructions

Step 6 – Block and Rotate

- Block wheels to prevent unit from moving.
- Lower beam assembly to horizontal position.
- Torque fasteners installed in Step 5 and Step 6 to 83 ft.-lbs.

Tools Needed

- Torque Wrench
- 3/4” Socket
- 3/4” Wrench



Assembly Instructions

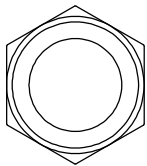
Step 7 – Coupler to Tongue

- Link ends of safety chains and lanyard attached to pin to safety quick links.
- Tighten locknuts securely with wrench.
- Place hitch coupler on tongue and align holes.
- Install (1) bolt and (1) locknut in rear hitch coupler hole.
- Position safety chain connectors under hitch coupler.
- Insert (1) bolt in front hitch coupler hole while passing through safety chain connectors.
- Thread on (1) locknut and tighten.
- Torque to 83 ft.-lbs.

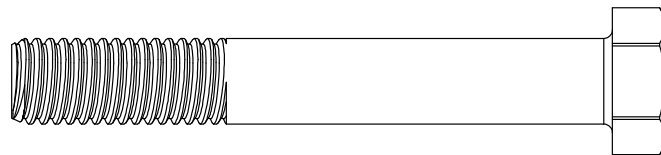
Tools Needed

- Torque Wrench
- 3/4" Wrench
- 3/4" Socket
- Ratchet
- Crescent Wrench

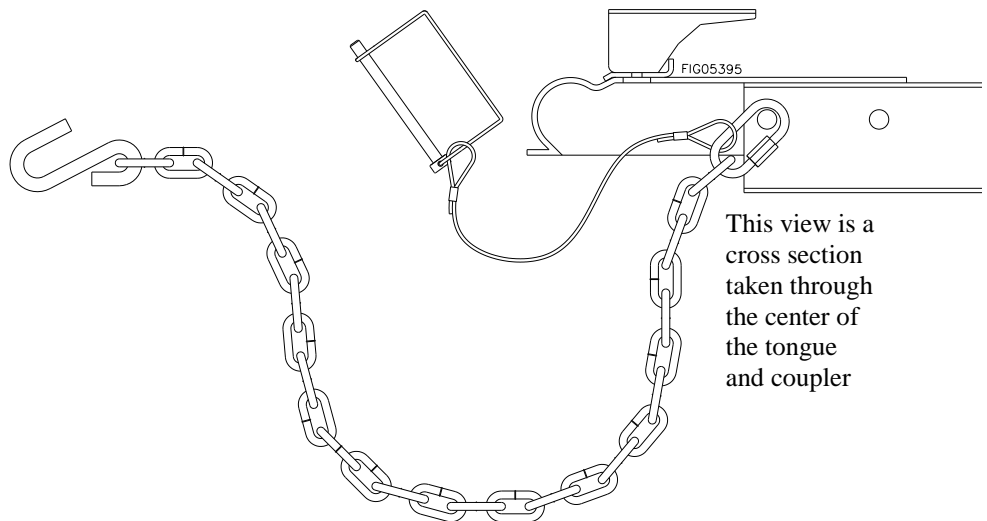
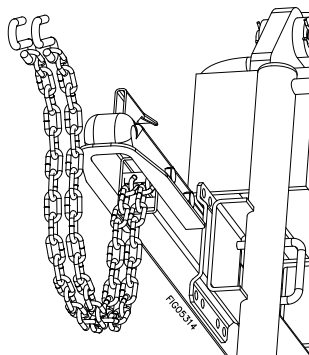
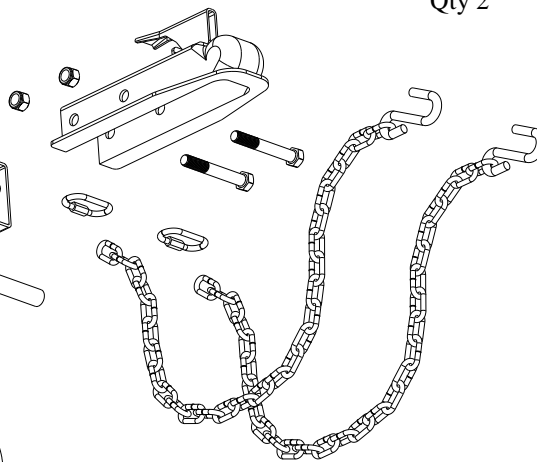
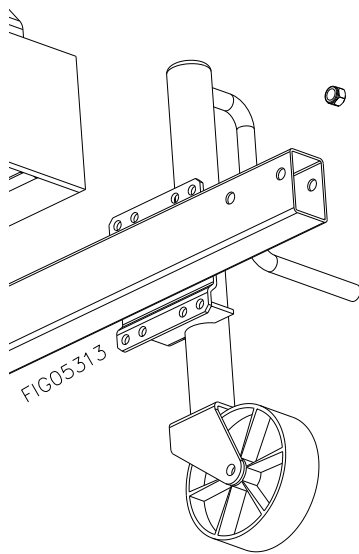
Fasteners Needed from Parts Bag:



Coupler to Tongue
1/2 Nylon Lock Nut
Qty 2



Coupler to Tongue
(through connectors)
1/2 x 3-1/2 Bolt
Qty 2



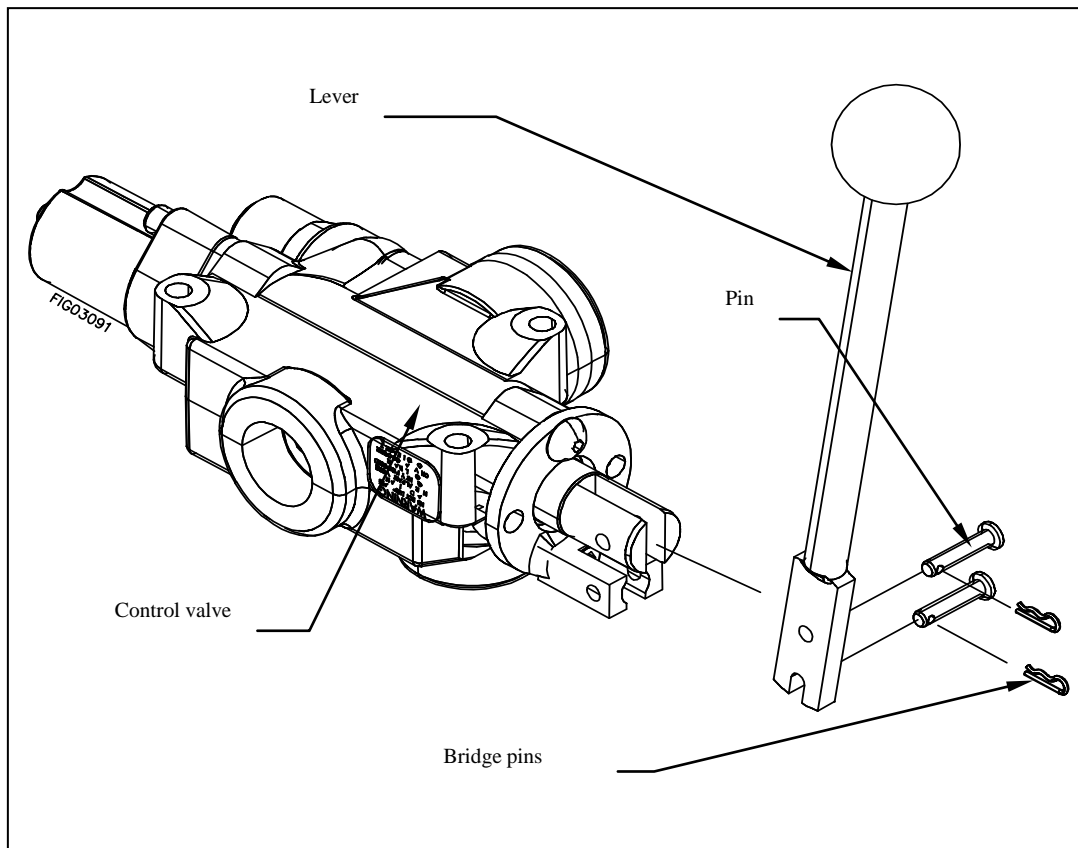
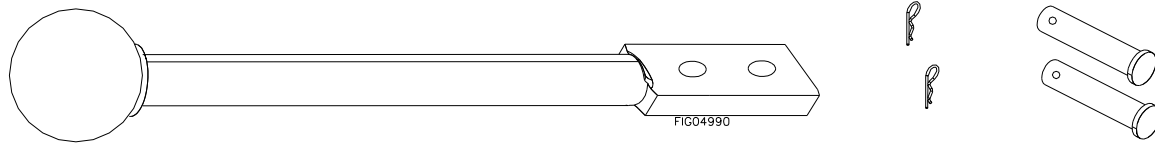
Assembly Instructions

Step 8 – Handle to Control Valve

- Slide control valve handle into the clevis slots on control valve.
- Align holes in handle with clevis holes.
- Insert the supplied pins through holes and secure with supplied bridge clips.

Tools Needed

- Pliers



Assembly Instructions

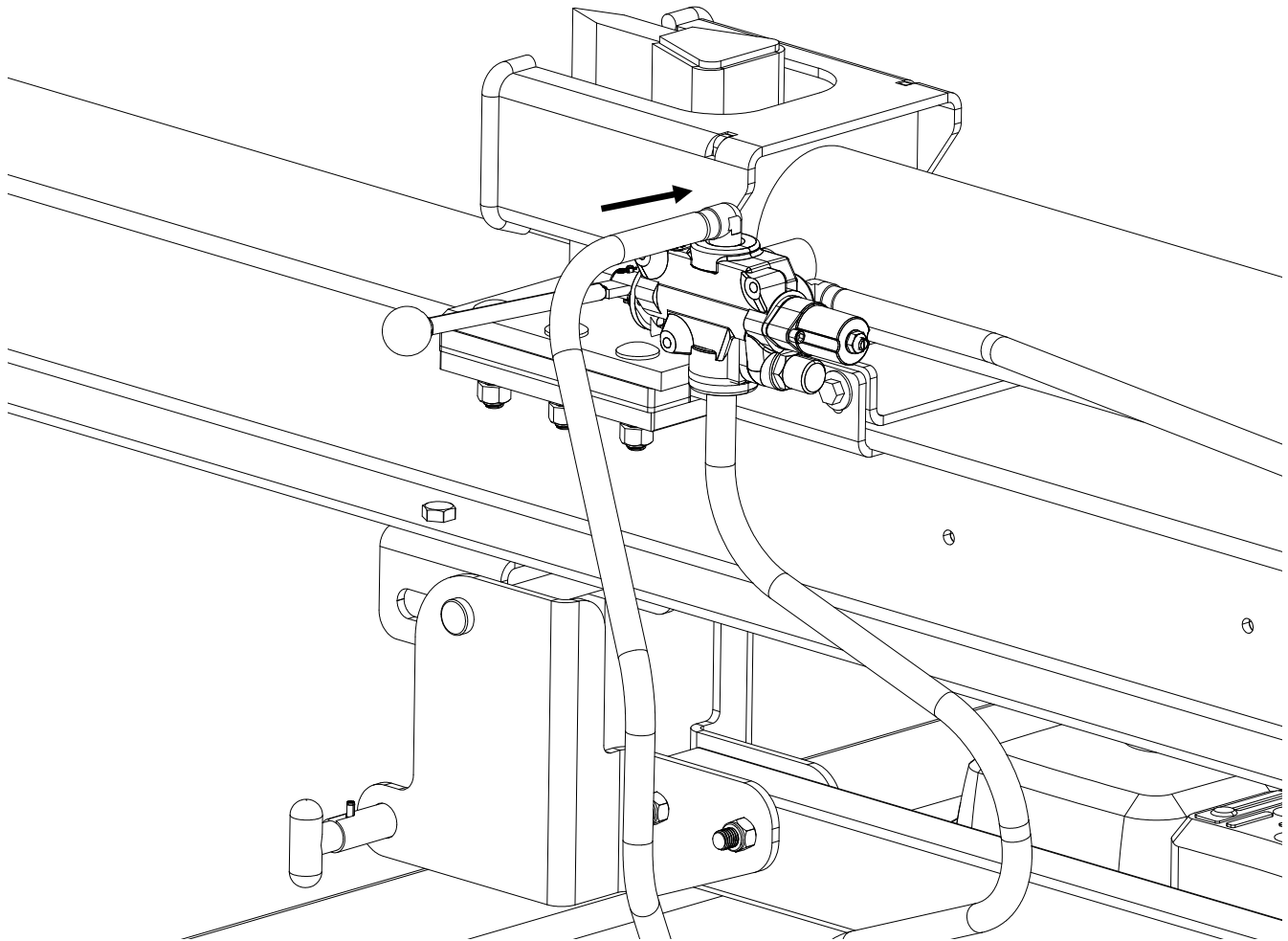
Step 9 – High Pressure Hose to Control Valve

- Route (1) high pressure hose from filter assembly to control valve.
- Thread hose fitting to 90° elbow fitting on top of control valve by hand.
- Wrench tighten 1/4 turn past hand-tight.

Tools Needed

- Crescent Wrench

NOTE: This connection is self-sealing and does not require any type of sealing material.



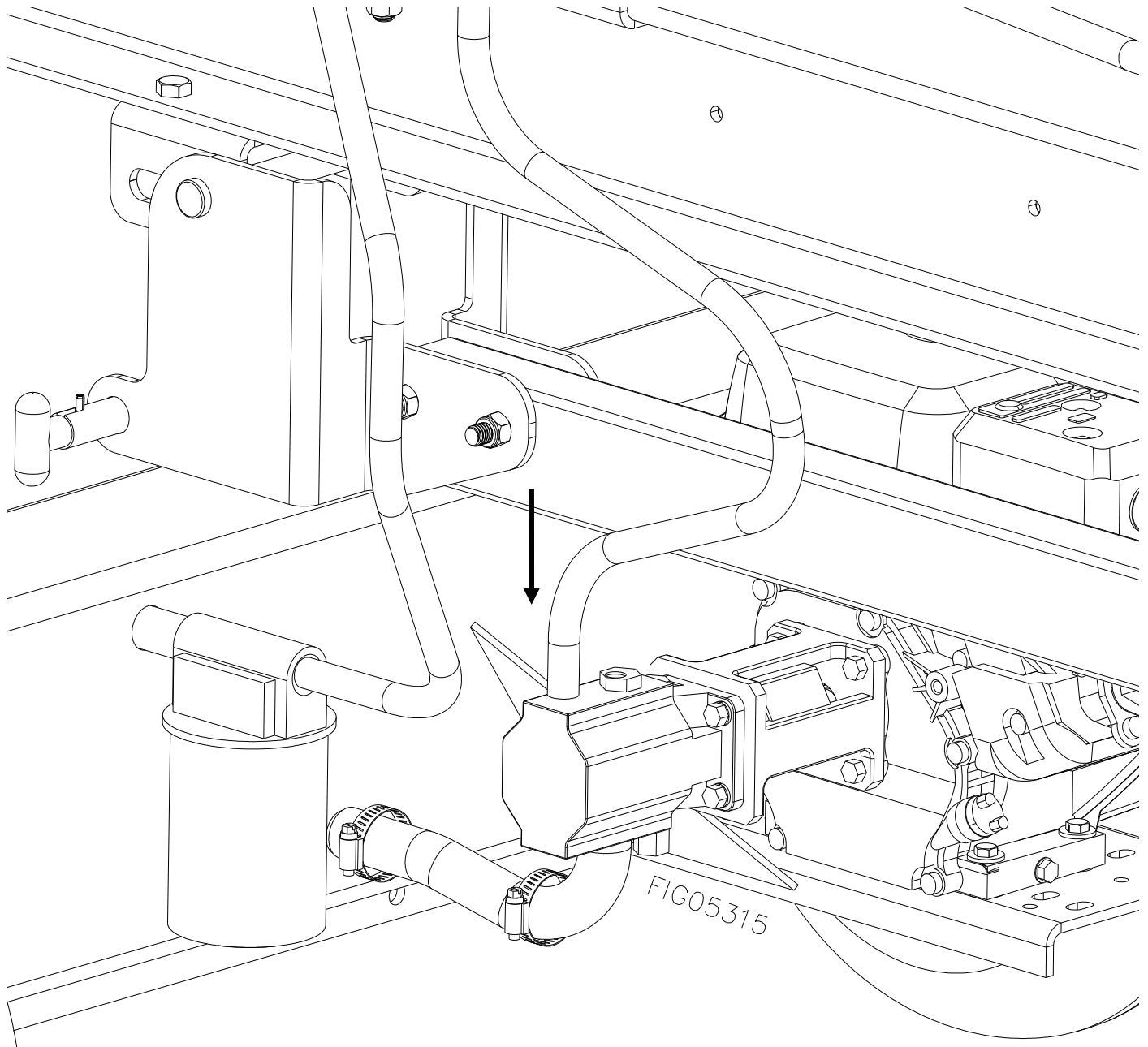
Assembly Instructions

Step 10 – High Pressure Hose to Pump

- Apply thread sealant to the threads on the hose end.
- Route (1) high pressure hose from bottom of control valve to top of hydraulic pump.
- Thread hose fitting to hydraulic pump by hand.
- Wrench tighten 1.5-3.0 turns past hand-tight.

Tools Needed

- Crescent Wrench



Assembly Instructions

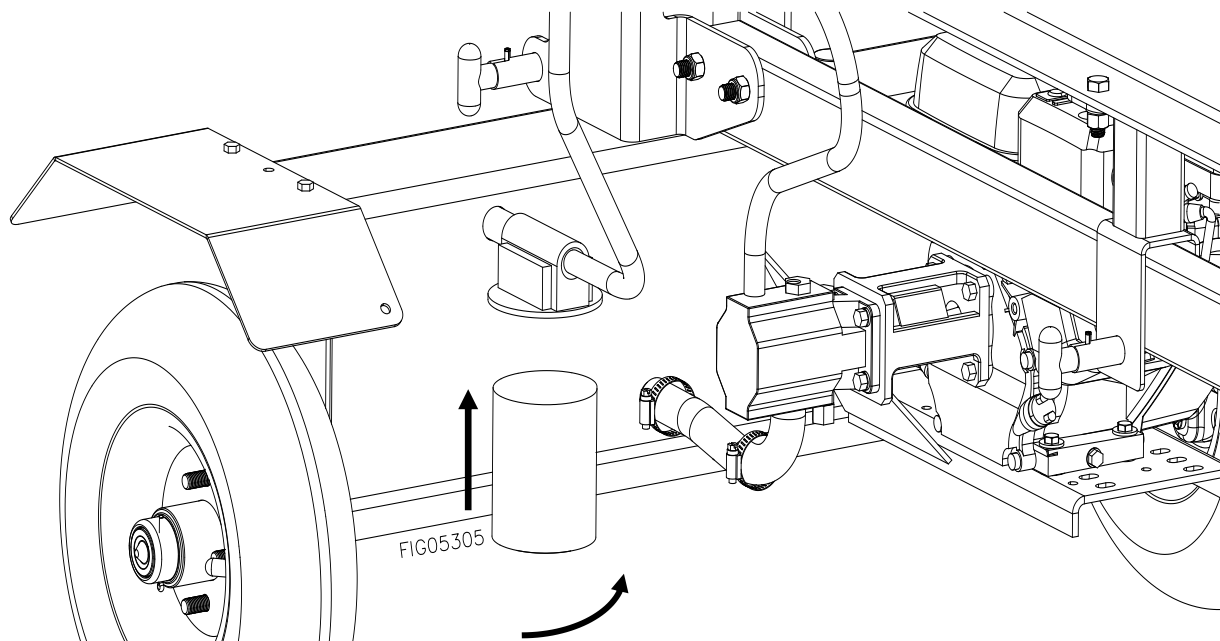
Step 11 – Install Hydraulic Oil Filter

- Remove oil filter from packaging.
- Apply a small amount of oil to oil filter gasket.
- Screw (1) oil filter onto bottom of return line filter head until gasket makes contact.
- Tighten filter an additional 3/4 turn.

Tools Needed

- None

NOTE: Do not over-tighten filter. This will cause difficulties in removing filter for periodic maintenance.



Assembly Instructions

Step 12 – Fender to Tank Assembly

- Align holes on fenders to those on fender brackets. Fenders are interchangeable (left or right).
- Insert (4) bolts and thread (4) locknuts to hold fenders (2 per side).
- Position each fender over tire with equal spacing (front and back).
- Torque to 19 ft.-lbs.

Tools Needed

- Torque Wrench
- Ratchet
- 1/2" Socket
- 1/2" Wrench

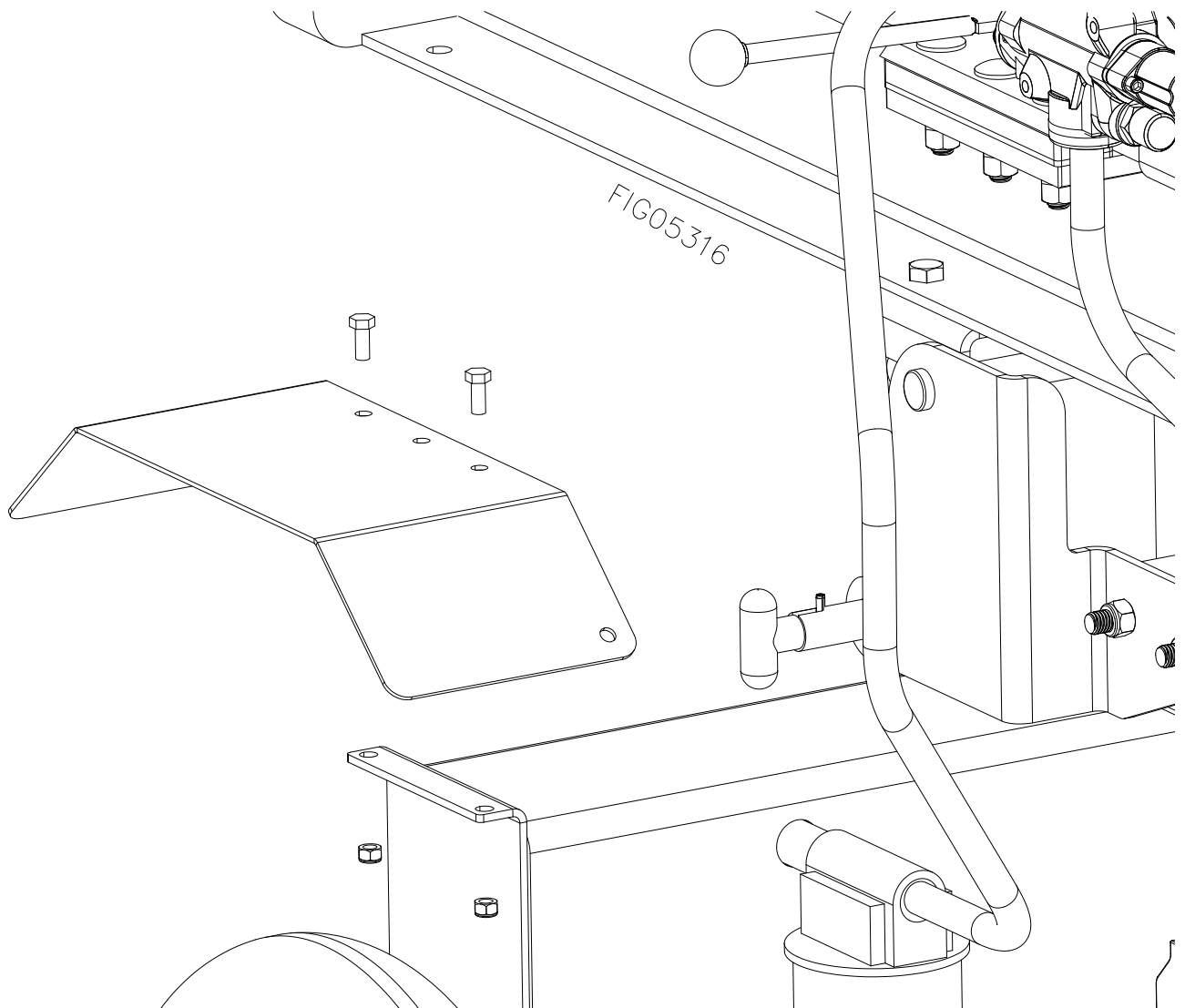
Fasteners Needed from Parts Bag:



Fender to Tank
5/16 Nylon Lock Nut
Qty 4



Fender to Tank
5/16 x 3/4 Bolt
Qty 4



Limited Warranty

Dear Valued Customer:

The Iron & Oak product you just purchased is built with the finest material and craftsmanship. Use this product properly and enjoy the benefits from its high performance. By purchasing an Iron & Oak product, you show a desire for quality and durability. Like all mechanical equipment this unit requires a due amount of care. Treat this unit like the high quality piece of machinery it is. Neglect and improper handling may impair its performance.

Thoroughly read the instructions and understand the operation before using your product. Always contact Iron & Oak Product Support at 1-800-817-1005 prior to having any service or warranty work performed, as some services performed by parties other than Iron & Oak approved service centers may void this warranty. This limited warranty is in lieu of any other warranty expressed or implied, written or oral and Iron & Oak assumes no other responsibility or liability outside that expressed within this limited warranty.

Limited Warranty for Log Splitter Models:

BHPCLS1516GC
 BHH2016GX
 BHH3016GX
 BHH3016GXF

BHH4016GX30
 BHVH2216GX
 BHVH2216GXF
 BHVH2616GX

BHVH2616GXD
 BHVH3414GX
 TMH16HYD

	Consumer Warranty Period	Commercial Warranty Period
Weldments		
	2 years from date of purchase by user	2 year from date of purchase by user
Cylinders, Valves, Pumps		
	2 years from date of purchase by user	1 year from date of purchase by user
Wear Parts	In addition to the normal warranty, Iron & Oak shall warrant some normal wear items from defects in material or workmanship for a period of 30 days from the date of purchase by user. Normal wear items covered under this warranty are limited to: pins, grease zerks, keepers, wheel bearing, wires, hoses, springs, cables, couplers, filters, tires, and switches. Routine maintenance items such as lubricants, clutch adjustments, tune ups are not covered under warranty.	
Engines	The engine warranty is covered under the terms and conditions as outlined by the engine manufactures warranty contained herein and is the sole responsibility of the engine manufacturer. Normal engine maintenance such as spark plugs, oil changes, air filters, adjustments, fuel system cleaning and obstruction due to build up is not covered by this Iron & Oak limited warranty.	

“**Consumer use**” means personal residential household use by a consumer. “**Commercial use**” means all other uses, including, but not limited to, use for commercial, income producing or rental purposes or when purchased by a business.

This limited warranty applies to the original purchaser of the equipment (verification of purchase, in the form of a receipt, is the responsibility of the buyer), is non-transferable, and covers parts and labor. Parts will be replaced or repaired at no charge, except when the equipment has failed due to lack of proper maintenance. If a part is no longer available, the part may be replaced with a similar part of equal function. Any misuse, abuse, alteration or improper installation or operations will void warranty. Determining whether a part is to be replaced or repaired is the sole decision of Iron & Oak. Iron & Oak will not provide for replacement of complete products due to defective parts. Any costs incurred due to replacement or repair of items outside of an Iron & Oak approved facility is the responsibility of the buyer and not covered under warranty. Transportation costs to and from service center and/or service calls are the responsibility of the customer.

This limited warranty specifically excludes the following; failure of parts due to damage caused by accident, fire, flood, windstorm, acts of God, applications not approved by Iron & Oak in writing, corrosion caused by chemicals, use of replacement parts which do not conform to manufacturer’s specifications, damage related to rodent and/or insect infestation and damage caused by vandalism. Additional exclusions: loss of running time, inconvenience, loss of income, or loss of use, including any implied warranty of merchantability of fitness for a specific use. Also, outdoor power equipment needs periodic parts and service to perform well, and this limited warranty does not cover instances when normal use has exhausted the life of a component or the engine.

This limited warranty does not cover any personal injury or damage to surrounding property caused by failure of any part, misuse or inability to use the product. Alteration of the product, including safety features, shall void this limited warranty.

Repair or replacement of parts does not extend the warranty period. This limited warranty gives you specific legal rights. You may also have other rights that vary by state.

Please have model number, item number and serial number on hand prior to making a warranty claim or inquiry.



Always follow manufacturer instructions

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Iron & Oak Product Registration Form

Your Information

Full Name:

Last

First

M.I.

Address:

Street Address

Apartment/Unit #

City

State

ZIP Code

Home Phone:

Alternate Phone:

Email Address:

Purchased From

Company:

Address:

Street Address

Apartment/Unit #

City

State

ZIP Code

Model Information

Purchase Date:

Application Type:

Homeowner

Commercial

Rental

Model (*i.e.* BHVH2213GX)

Serial # (*i.e.* BHVH2213GXA012345678)

Signature:



20195 S. Diamond Lake Rd, Ste 100
Rogers, MN 55374
1-800-817-1005