



M11953E.1

ITEM NUMBER: 11953

SERIAL NUMBER:

Operator's Manual

Log Lifter: Accessory for a log splitter that lifts logs onto log splitter. Fits model 11954 log splitter.

▲ WARNING: HYDRAULIC INJECTION HAZARD. High fluid pressures and temperatures are developed in hydraulic log splitters. To avoid hydraulic injection, shut off the engine, disconnect the spark plug, and move all control valve handles back and forth to relieve system pressures before beginning assembly. 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 blood poisoning, infection, disability, gangrene, amputation, or death can result if proper medical treatment is not administered immediately by a doctor who is familiar with injection injuries.

▲ WARNING: HEAVY LIFTING The assembly of this product requires lifting heavy parts. Two or more people are required during some steps. Serious back injury can occur.

Any Questions, Comments, Problems or Parts Orders
Call NorthStar Product Support 1-800-270-0810

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>

fig01453

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Rules for Safe Operation

Training

▲ WARNING:

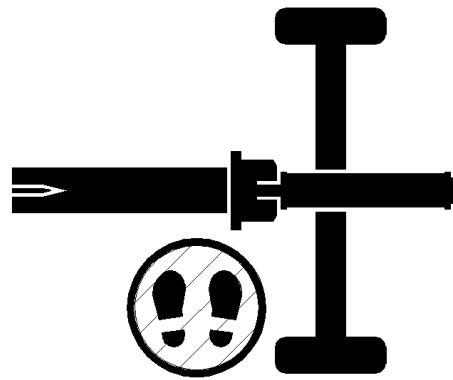
1. Read the log lift Operator's Manual the log splitter Operator's Manual and the engine owner's manual completely before attempting to use the log lift. Serious injury or death can result if safety instructions are not followed.
2. Do not allow anyone to operate the log lift who has not read the Operator's Manual or has not been instructed on the safe use of the log splitter.
3. Never allow anyone under 16 years old or untrained adults operate the log lift. Children 16 years and older must be trained and supervised by a trained adult.
4. **CRUSH HAZARD.** Moving parts from log lift can crush and cut. Keep hands and feet away. Only one (1) person should operate this log lift because many accidents occur when more than one (1) person operates the log lift. If a helper is assisting in loading logs to be split, never operate control valve handle until the helper and bystanders are at least 10ft from the log lift.
5. **MOVING VEHICLE HAZARDS.** Review towing safety warnings in your towing vehicle manual. Drive safely. Drive slowly when you encounter bad driving conditions such as bumpy roads or railroad crossings.
 - a.) Be aware of the added length of the log splitter.
 - b.) Make sure the log splitter is securely attached to the towing vehicle before towing.
 - c.) Never tow this splitter while under the influence of alcohol, drugs, or medication.
 - d.) Turn off the towing vehicle before leaving the log splitter unattended.
 - e.) Do not use the log splitter while it is connected to the towing vehicle.
 - f.) Do not tow this log splitter on any street, highway or public road without checking existing federal, state, or local requirements. Any licensing or the addition of trailer lights if needed to comply is the sole responsibility of the purchaser.
 - g.) Never tow log splitter over 45mph. Faster speeds may result in loss of control of the log splitter.
 - h.) Make sure all local, state, and federal towing requirements are met. Then, refer to the Towing the Log splitter section in this manual to make sure the log splitter is towed properly.
 - i.) Never allow anyone to sit or ride on the log splitter.
 - j.) Never transport cargo or wood on the log splitter.
6. **HYDRAULIC INJECTION HAZARD.** High fluid pressures and temperatures are developed in hydraulic log splitters. Hydraulic fluid escaping through a pin hole opening can burn and cause wounds that result in severe blood poisoning, infection, disability, gangrene, amputation, or death. Therefore, the following instructions should be heeded at all times.
 - a.) Do not operate the log splitter with frayed, kinked, cracked or damaged hoses, fittings, or tubing.
 - b.) Stop the engine, disconnect spark plug, and move all control valve handles back and forth to relieve system pressures before changing or adjusting fittings, hoses, tubing, or other system components.
 - c.) Do not adjust the pressure setting of the pump or valve.
 - d.) 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 over the suspected area (wear safety glasses). 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 wound that does not look serious. However, severe blood poisoning, infection, disability, gangrene, amputation, or death can result if proper medical treatment is not administered immediately by a doctor who is familiar with injection injuries.
 - e.) Do not remove the hydraulic oil fill cap when engine is running. Hot oil can escape causing severe burns. Allow log splitter to cool completely before removing hydraulic oil fill cap.
7. **FALL HAZARD.** Split logs and any other obstructions left in the area around the log splitter are a safety hazard. Please remove logs as they are split and remove any obstructions so they do not cause you to trip and fall.
8. **FIRE HAZARD.** If your log splitter is intended for use near any unimproved forest, brush, or grassy covered land, the engine should be equipped with a spark arrester. See the "Specifications" section to determine if you already have a spark arrester on your log splitter. Make sure you comply with applicable local, state, and federal codes. Take with you a fire extinguisher that puts out fires involving ordinary combustibles and flammable liquids.
9. **EXPOSURE HAZARD.** 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.
10. Log splitters should be used only for splitting wood. Do not use for other purposes unless the manufacturer provides attachments and instructions.
11. Log lifts should be used only for lifting wood. Do not use for other purposes.
12. **FIRE HAZARD.** Do not modify or add to exhaust system. Fire can result.
13. **FIRE HAZARD.** Do not modify or add fuel tanks or fuel lines. Fire can result.

Rules for Safe Operation

Preparation

▲ WARNING:

1. CRUSH HAZARD. Moving parts from log lift can crush and cut. Be thoroughly familiar with all controls and with the proper use of the equipment. Know how to stop the log lift and relieve system pressures quickly.
2. CRUSH HAZARD. Falling logs may crush feet. Always wear steel toed safety boots while operating log lift or helping load logs.
3. FLYING OBJECTS. Pieces of log may fly out while splitting. Always wear safety glasses or goggles when operating the machine. Keep bystanders 10ft from log lift during operation. Serious eye injury can occur.
4. ENTANGLEMENT HAZARD. Tie long hair back and never wear jewelry or loose-fitting clothing that might become entangled in moving or rotating parts of the log lift.
5. FALL HAZARD. To prevent accidental falls, make sure the splitter is on a dry level surface with good footing. Stay clear of areas with mud, ice, tall grass, weeds or brush.
6. CRUSH HAZARD. Log splitter is very heavy. It can crush and cause serious injury to people if it rolls out of control.
 - a.) Block the log splitter as required to prevent unintended movement.
 - b.) Do not move the log splitter up or down hills by hand. Use a towing vehicle for moving up or down hills.
 - c.) Never move the log splitter with the engine running.
7. FIRE HAZARD. Hot exhaust fumes from engine can cause fire. Position muffler at least 7 feet from combustible objects during operation.
8. CRUSH HAZARD. Always operate the log lift from the manufacturer's indicated OPERATOR POSITION. Other positions are unsafe because they can increase the risk of being crushed by the ram and wedge.



OPERATOR POSITION

9. CRUSH HAZARD. 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.
10. BURN HAZARD. Gasoline is highly flammable and explosive. You can be burned or seriously injured when handling fuel. Use extreme care when handling gasoline. If gasoline is spilled on your skin or your clothes, change clothes and wash skin immediately.
 - a.) Do not pump fuel directly into engine at gas station. Static charge can build and ignite fuel. Use a UL approved fuel container to transfer gas to the engine.
 - b.) No smoking near engine. Keep heat, sparks, and flame away.
 - c.) Never add fuel or remove gas cap if engine is running or still hot. Before adding fuel, stop the engine and keep heat, sparks, and flame away. Allow engine to cool at least two minutes before refueling.
 - d.) Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
 - e.) Do not overfill the gas tank. Allow at least 1/2" of empty space below the fill neck to allow for fuel expansion.
 - f.) Replace gas cap securely before starting engine. If fuel was spilled, wipe up fuel spills immediately, move log splitter away from spilled fuel, wipe fuel off engine and wait 5 minutes for excess fuel to evaporate before starting engine. Gas soaked rags are considered hazardous waste. Dispose of properly.

Rules for Safe Operation

Operation

▲ **WARNING:**

- 1.) Before using this log lift, review the “Rules for Safe Operation” and read the log splitter operators manual thoroughly. Failure to follow these rules may result in serious injury to the operator or bystanders.
- 2.) **CRUSH HAZARD.** Moving parts from log splitter can crush and cut. Keep hands and feet away from ram, wedge, and partially split logs.
 - a.) When loading the log splitter, place your hands on the bark side of the log not at the ends. Never place your hands or any part of your body between a log and any part of the log splitter.
 - b.) Do not pile unsplit logs in a place that will make you reach across the log splitter to load them on the beam.
 - c.) Do not load logs onto the beam while the ram is moving.
 - d.) Never leave the machine unattended with the engine running.
 - e.) Never operate or let anyone else operate the log splitter when under the influence of alcohol, drugs, or medication.
 - f.) The log splitter owner should instruct all operators in safe log splitter operation.
 - g.) Always operate the log splitter with all safety equipment in place and in good working order; and all controls properly adjusted for safe operation.
 - h.) Always operate the log splitter at the manufacturer’s recommended speed. The maximum speed of the engine, pump and ram are preset within safe limits.
 - i.) Only use log splitter in daylight so you can see what you are doing.
 - j.) Use only your hand to operate the log splitter controls. Never use any other body part, a rope, cable or any other remote device to actuate the controls.
 - k.) Once the control valve is actuated in the return direction, the ram is designed to keep returning by itself completely and then stop automatically. Stay clear of the log splitter while the ram is returning. It is still powerful enough to cause serious injury while returning.
- 3.) **CRUSH HAZARD.** Rolling logs can crush and cut. Do not place hands between rolling logs and log lift, wedge, beam, or log cradle
- 4.) **FLYING OBJECTS.** Never attempt to split more than one (1) log at a time. Pieces of log can unexpectedly be thrown from the machine causing serious injury.
- 5.) **PINCH HAZARD.** Cracks in logs can close quickly and pinch fingers. Keep hands clear of partially split logs.
- 6.) **FLYING OBJECTS.** Do not use the log splitter to split logs across the grain. Doing so can cause pieces of log to be thrown from the log splitter and damage log splitter components. Split wood in the direction of the grain only. Use a chainsaw for cutting logs across the grain.
- 7.) **CRUSH HAZARD.** Some types of wood are too stringy or tough to split completely and they may get stuck on the wedge. Stuck logs such as this can cause serious injury unless the following rules are followed:
 - a.) Retract ram 1” by moving split control to return, then stop the ram by moving the split control to neutral “N”.
 - b.) Turn engine off. Do not use the hydraulic force of the log splitter in any way to remove stuck logs.
 - c.) Do not modify the log splitter in any way or add attachments that automatically remove stuck logs. Such modifications may create safety hazards and result in serious injury.
 - d.) Stuck logs should be removed from the wedge manually with a pry bar or a sledgehammer. Be extremely careful. Make sure bystanders are clear. Wear safety goggles.
 - e.) Do not attempt to resplit a stuck log once it has been removed from the wedge.
- 8.) **FIRE HAZARD.** A running engine is hot enough to ignite fuel. Do not refuel the engine until it has cooled for two minutes.
- 9.) **POISONOUS GAS.** This product 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 doors and windows. If you start to feel sick, dizzy, or weak while using the log splitter, shut it off and get to fresh air RIGHT AWAY. See a doctor. You may have carbon monoxide poisoning.

Rules for Safe Operation

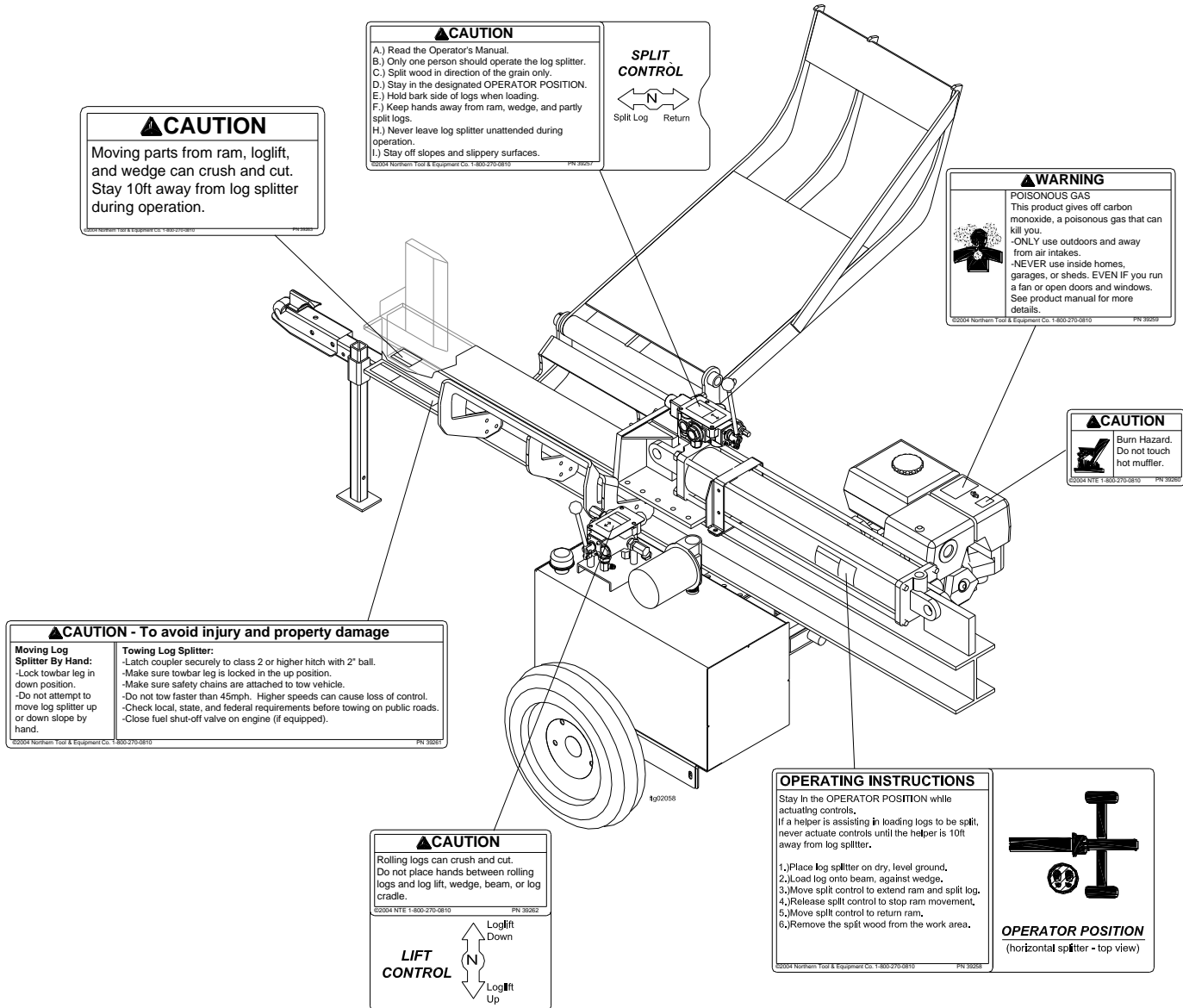
Maintenance and Storage

▲ WARNING:

- 1.) Refer to the engine manual for proper engine maintenance and storage.
- 2.) Always shut off the engine, disconnect the spark plug, and move all control valve handles back and forth to relieve system pressures before repairing or adjusting the splitter except as recommended by the manufacturer.
- 3.) FIRE HAZARD. A running engine is hot enough to ignite debris. Turn off engine and clean debris and chaff from engine cylinder, cylinder head fins, blower housing rotating screen, and muffler areas. If the engine is equipped with a spark arrester muffler, clean and inspect it regularly (follow the engine manufacturer's service instructions.) Replace if damaged.
- 4.) FIRE HAZARD. Only store and handle fuel outdoors. Gasoline vapors can ignite if they collect inside an enclosure. Explosion can result.
- 5.) FIRE HAZARD. Never store log splitter inside where there is an open flame, spark, or pilot light as on water heaters, space heaters, furnaces, clothes dryers, or other gas appliances EVEN IF the log splitter's gas tank is empty. Allow machine to cool 5 minutes before storing.
- 6.) FIRE HAZARD. 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.
- 7.) Clear debris from movable parts, but only when the engine is shut off. This will help to make sure the log splitter is in safe working condition.
- 8.) Check to be sure all nuts, bolts, hose clamps and hydraulic fittings are tight to assure the log splitter is in safe working condition.
- 9.) Make sure all guards and shields are replaced after maintenance is complete.
- 10.) 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 lift.
- 11.) Never modify the log splitter or log lift in any way, modifications may create a safety hazard and result in serious injury.
 - a.) Never attach a rope, cable, or other remote device to the splitting control, or lift control.
 - b.) Never increase the height of the splitting wedge.
 - c.) Never increase the speed of the splitting ram.
 - d.) Never increase the speed of the log lift.
 - e.) Never increase the pressure setting of the pump or control valve.

Save These Instructions

Safety Label Locations



Call 1-800-270-0810 to order new safety labels.

▲ WARNING:

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.

Description	Part Number
Split Control Caution Label	39257
Hot Muffler Caution Label	39260
Poisonous Gas Warning Label	39259
Operating Instructions Label	39258
Moving/Towing Caution Label	39261
Lift Control Caution Label	39262
Moving Parts from Log lift Caution	39263

Machine Component Identification

Closely inspect all contents in the shipping carton.

- If you have missing or damaged components then: Contact Product Support at 1-800-270-0810.

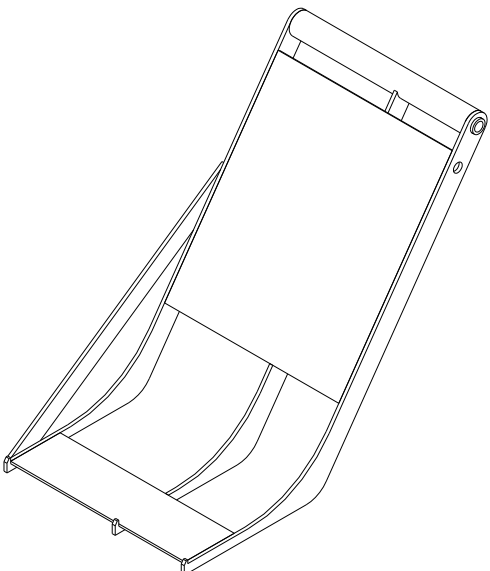
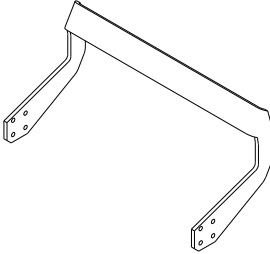
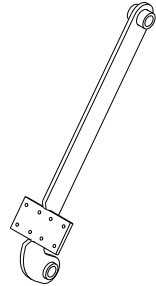
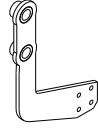

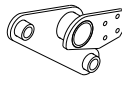

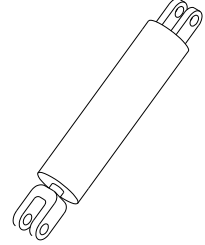


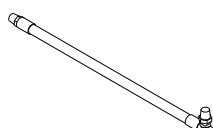
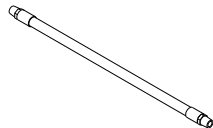
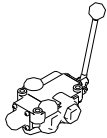



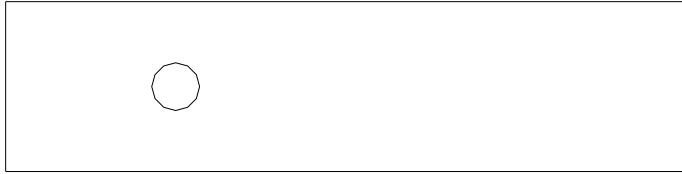
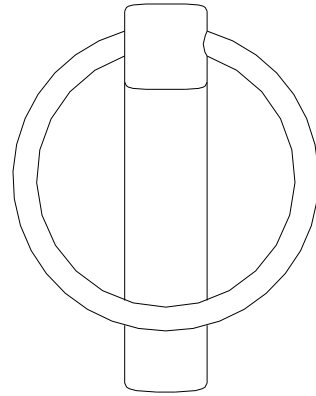
 <p>Lift Table</p>	 <p>Backstop</p>	 <p>Lift Arm</p>
	 <p>Left Mount Arm</p>	 <p>Right Mount Arm</p>
	 <p>Left Cylinder Mount</p>	 <p>Right Cylinder Mount</p>
		 <p>Hydraulic Cylinder</p>
 <p>Valve Plate</p>	 <p>Rollers</p>	 <p>Hose w/ Elbow</p>
		 <p>Hose w/ Straight Fittings</p>
 <p>Lift Control Valve and Handle Kit</p>	 <p>Tubes</p>	 <p>Hose w/ Green Marking</p>
		 <p>Hose w/ Red Marking</p>

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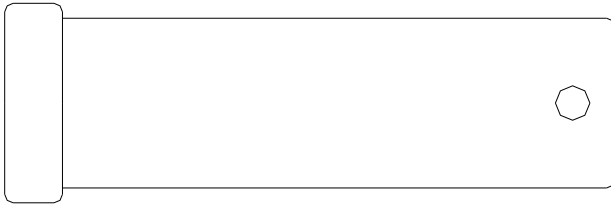
Machine Component Identification



#38983 (qty 2)
lift pin



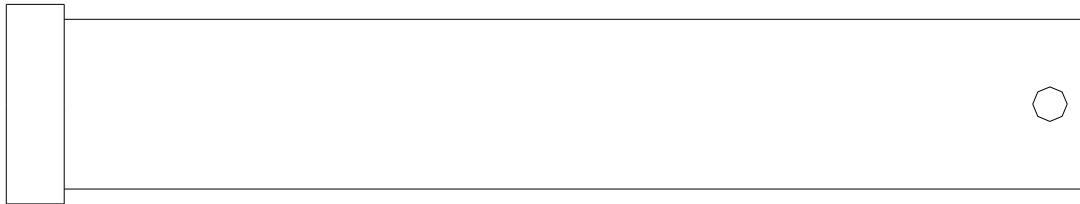
#39159 (qty 1)
lynch pin



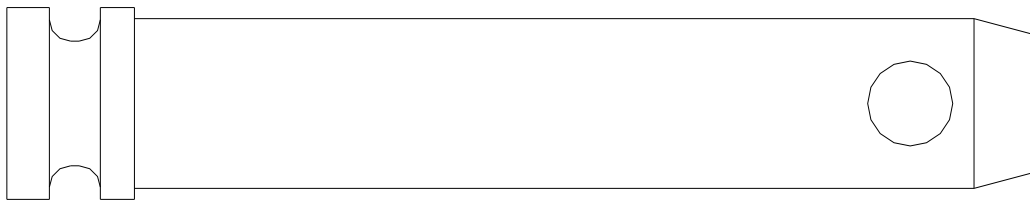
#406518 (qty 1)
3-1/4" clevis pin
(Shipped with Cylinder)



#82140 (qty 3)
cotter pin



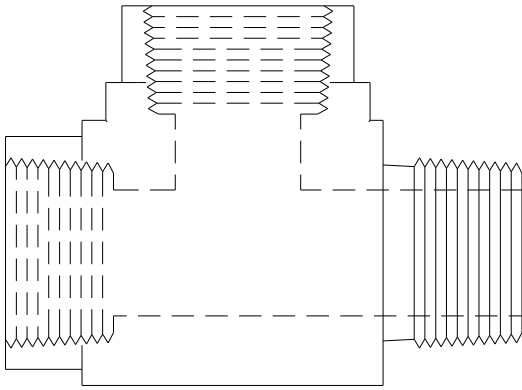
#37878 (qty 2)
6" clevis pin



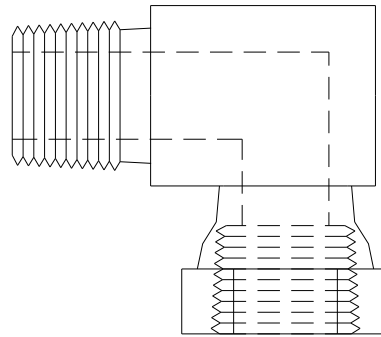
#2501935 (qty 1)
travel pin

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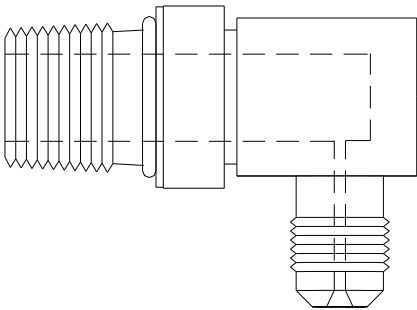
Machine Component Identification



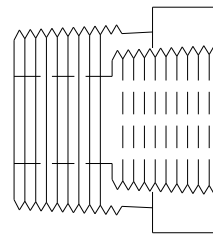
tee (qty 1)



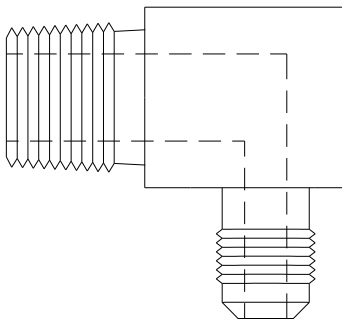
1/2" elbow (qty 2)



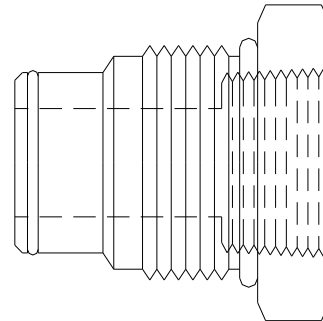
flow reducer (qty 1)
(Already installed into cylinder)



pipe reducer (qty 4)



1/2" x JIC6 elbow (qty 3)
(1 of 3 already installed onto cylinder)



Power beyond plug (qty 1)

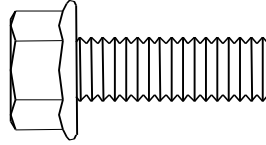
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Machine Component Identification

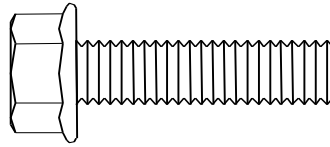
1/4" lock nut
(qty 10)



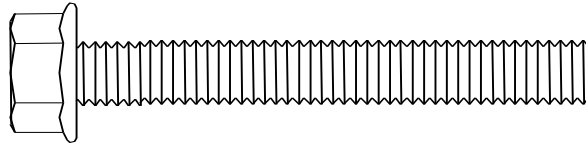
1/4 x 3/4" bolt
(qty 3)



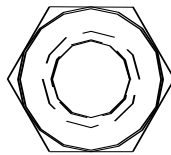
1/4 x 1" bolt
(qty 8)



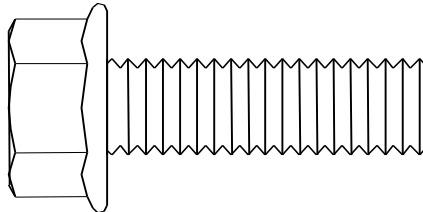
1/4 x 2" bolt
(qty 5)



3/8" lock nut
(qty 20)



3/8 x 1-1/4" bolt
(qty 16)



3/8 x 1-3/4" bolt
(qty 4)

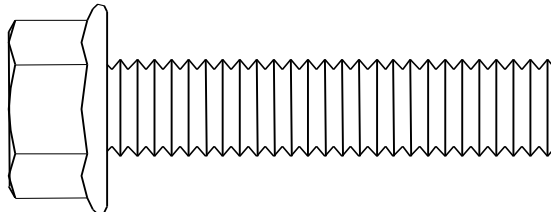


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Assembly

- 1.) Before beginning assembly, start engine and extend ram to its full out position. This will make assembly easier. Then, shut off the engine, disconnect the spark plug, and move all control valve handles back and forth to relieve system pressures and allow log splitter to cool before beginning assembly.

▲ WARNING: Risk of eye injury. Wear safety goggles during assembly.

▲ WARNING: HYDRAULIC INJECTION HAZARD. High fluid pressures and temperatures are developed in hydraulic log splitters. Hydraulic fluid escaping through a pinhole opening can burn and cause wounds that result in severe blood poisoning, infection, disability, gangrene, amputation, or death. Therefore, the following instructions should be heeded at all times.

- a.) Do not operate the log splitter with frayed, kinked, cracked or damaged hoses, fittings, or tubing.
- b.) Stop the engine, disconnect spark plug, and move all control valve handles back and forth to relieve system pressures before changing or adjusting fittings, hoses, tubing, or other system components.
- c.) Do not adjust the pressure setting of the pump or valve.
- d.) 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 over the suspected area (wear safety glasses). 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 wound that does not look serious. However, severe blood poisoning, infection, disability, gangrene, amputation, or death can result if proper medical treatment is not administered immediately by a doctor who is familiar with injection injuries.
- e.) Do not remove the hydraulic oil fill cap when engine is running. Hot oil can escape causing severe burns. Allow log splitter to cool completely before removing hydraulic oil fill cap.

Assembly

2.) Splitter Control Valve

- a.) Disconnect return line hose.
- b.) Remove elbow from splitter control valve (save elbow for later).
- c.) Remove conversion plug from splitter control valve. (save conversion plug for later)
- d.) Install tee into splitter control valve. Tighten with wrench. Point tee at 5 o'clock.
- e.) Install power beyond plug, pipe reducer, and hose with elbow into splitter control valve. Tighten with wrench. Point hose with elbow down.
- f.) Install elbow (saved from step b above) into tee (installed in step d above). Tighten with wrench. Point elbow at 3 o'clock. Keep tee pointed at 5 o'clock.
- g.) Reconnect return line hose to elbow. Tighten with wrench.
- h.) Install pipe reducer and hose with straight fittings into tee. Tighten with wrench.

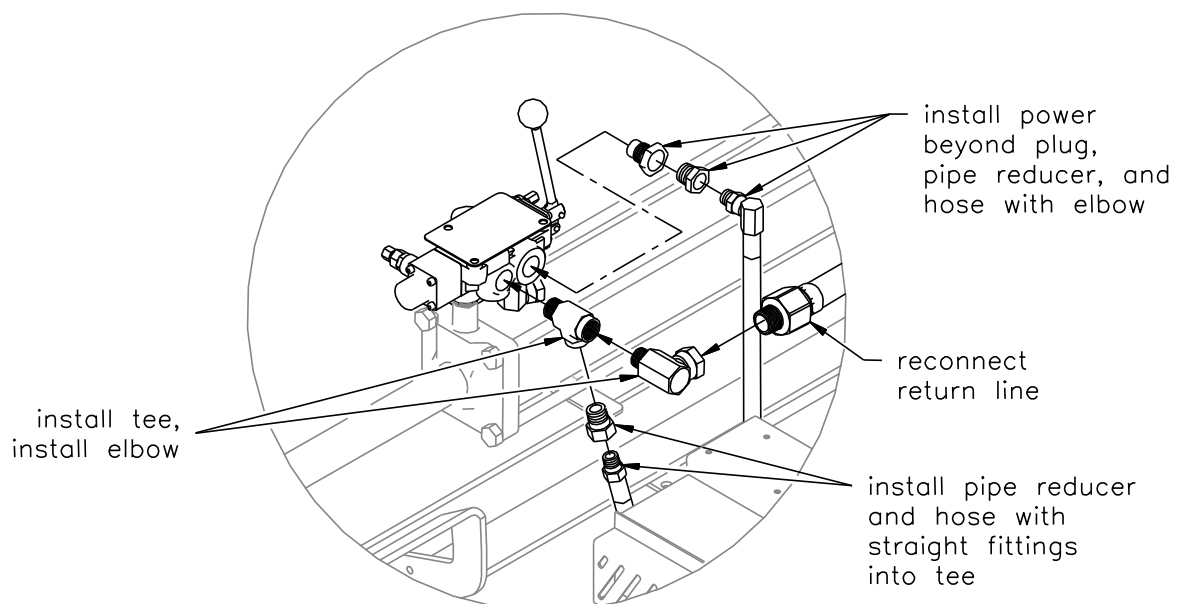
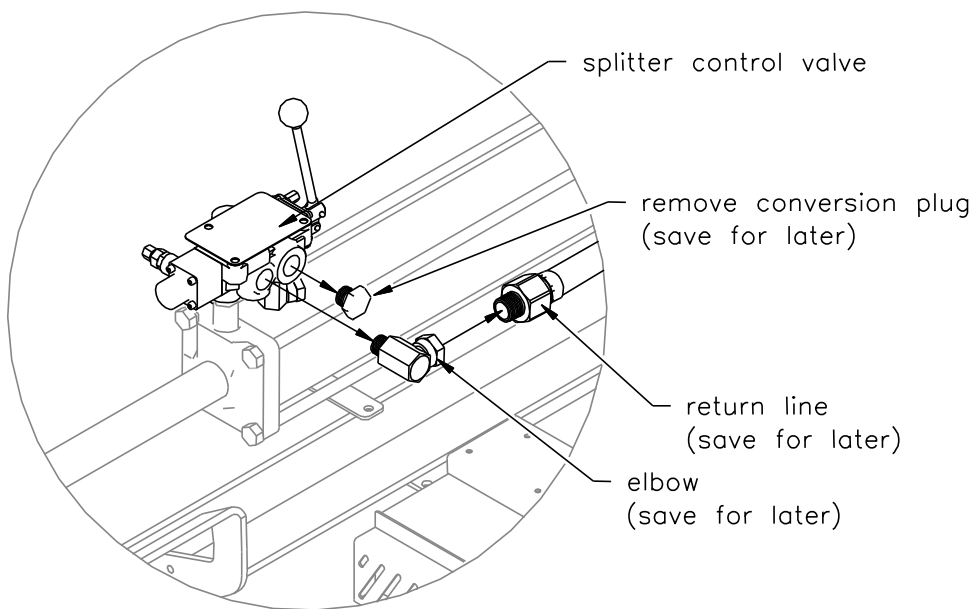
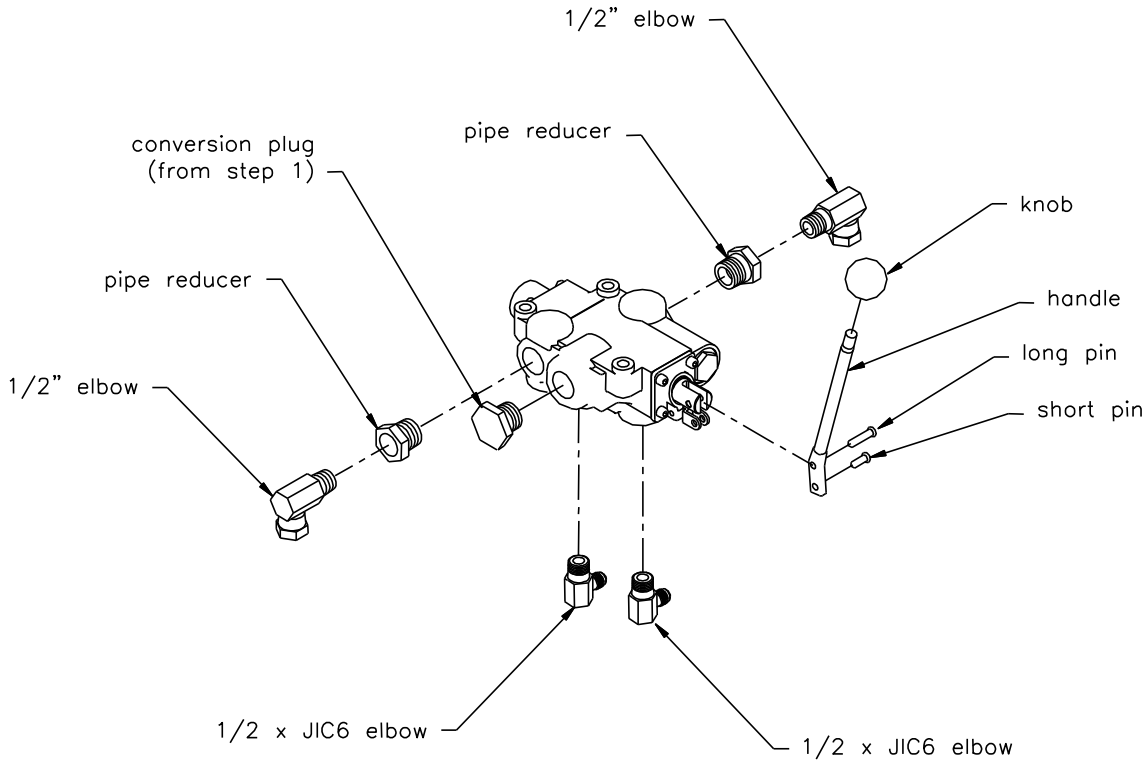


fig02052

Assembly

3.) Install Lift Control Valve Fittings

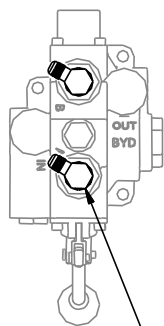
- a.) Install two 1/2" x JIC6 elbows into bottom ports on lift control valve. Tighten with wrench. Point elbows as shown below.
- b.) Install two pipe reducers and two 1/2" elbows into IN and OUT ports on lift control valve. Tighten with wrench. Point elbows as shown below.
- c.) Install conversion plug (saved from split control valve on previous page) into BYD port.
- d.) Install handle onto lift control valve with long pin, short pin, and small cotter pins (cotter pins not shown, they come in the same bag as the handle).
- e.) Thread knob onto handle hand tight (the knob comes in the same bag as the the handle).



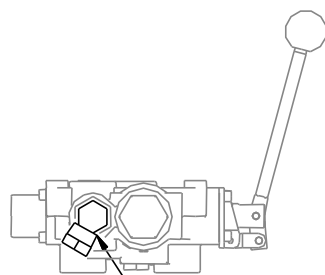
Bottom of Valve

Left Side

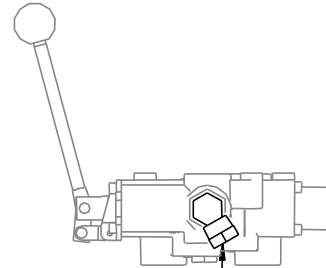
Right Side



turn both #6 JIC elbows to 10 o'clock



outlet side, turn 1/2" elbow to 7 o'clock



inlet side, turn 1/2" elbow to 5 o'clock

fig02053

Assembly

4.) Install Lift Control Valve.

- a.) Bolt tubes onto the hydraulic tank with three $\frac{1}{4}$ x $\frac{3}{4}$ " bolts. Tighten with wrench.
- b.) Bolt lift control valve and valve plate to tubes with three $\frac{1}{4}$ x 2" bolts. Make sure decal faces up. Tighten with wrench.

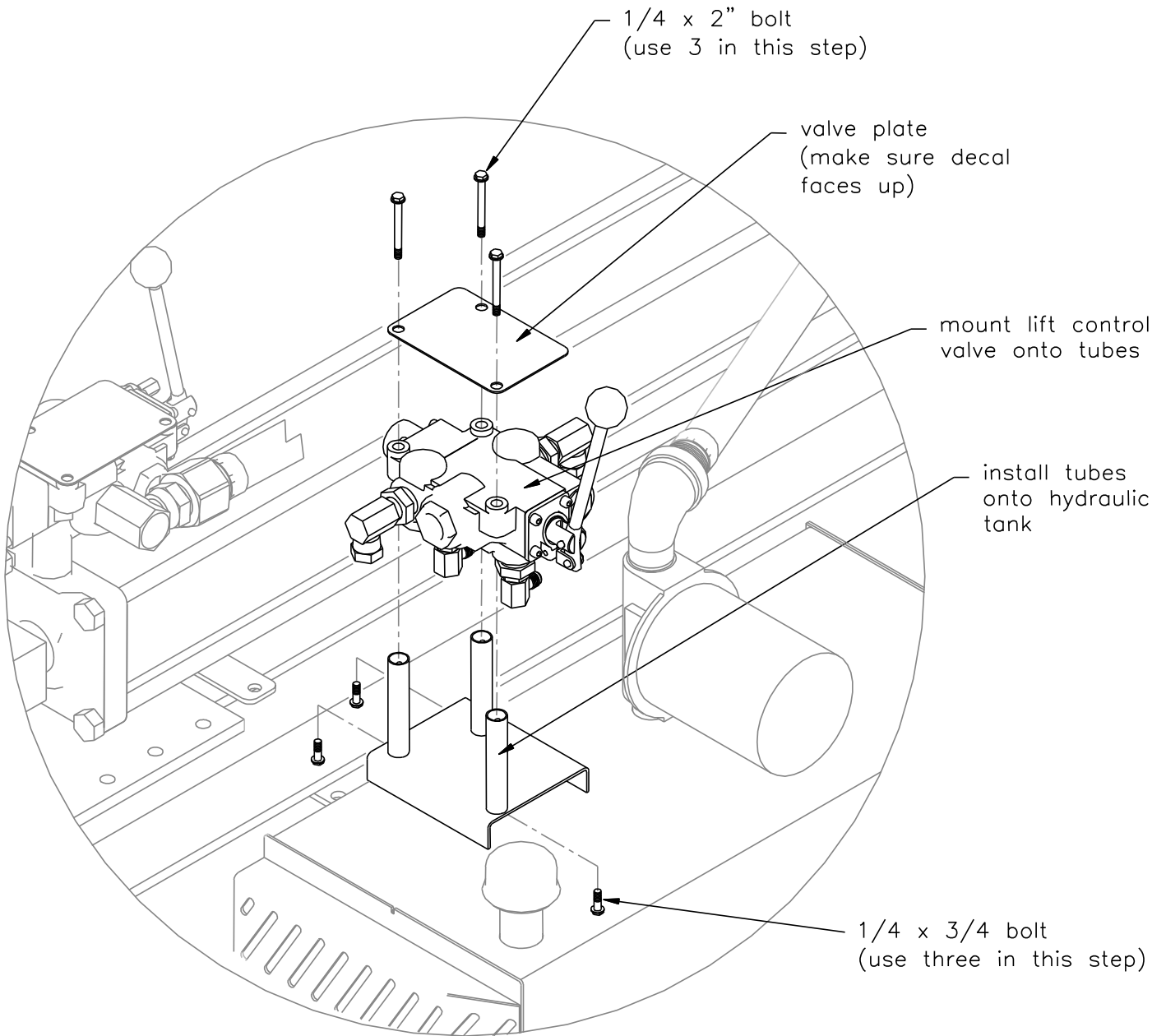


fig02054

Assembly

5.) Connect Hoses to Lift Control Valve

- a.) Connect hose from tee (hose with straight fittings) to OUT port on lift control valve. Tighten with two wrenches. Make sure hose doesn't twist. Align tee so hose doesn't touch beam slide when it is retracted and make sure hose doesn't touch any sharp steel surfaces. Align elbow so hose doesn't touch hydraulic tank.
- b.) Connect hose from BYD port on split control (hose with elbow) to IN port on lift control valve. Tighten with two wrenches. Make sure hose doesn't twist. Align elbow so hose doesn't touch hydraulic tank.
- c.) Connect long hose with green marking to port A on lift control valve. Tighten with wrench. Align elbow so hose doesn't touch tube that mounts lift control valve.
- d.) Connect long hose with red marking to port B on lift control valve. Tighten with wrench.
- e.) Route hoses with red and green markings between beam and hydraulic tank toward wedge end of log splitter. Tie hoses to return line hose near return line filter.

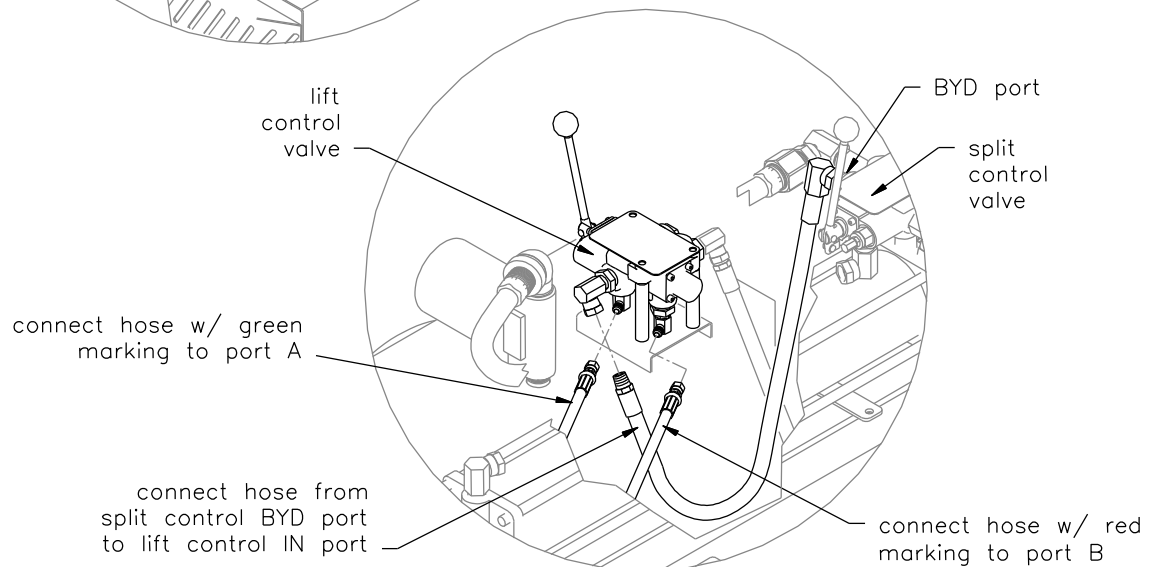
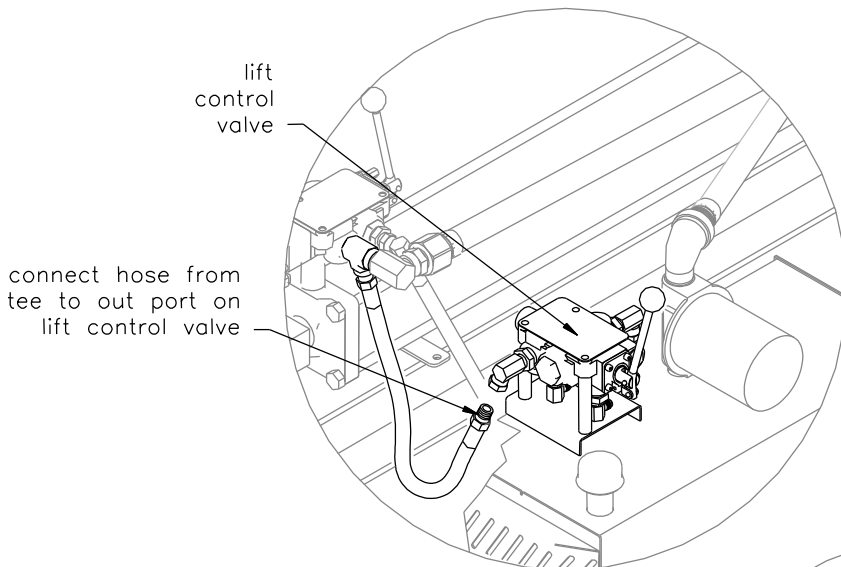
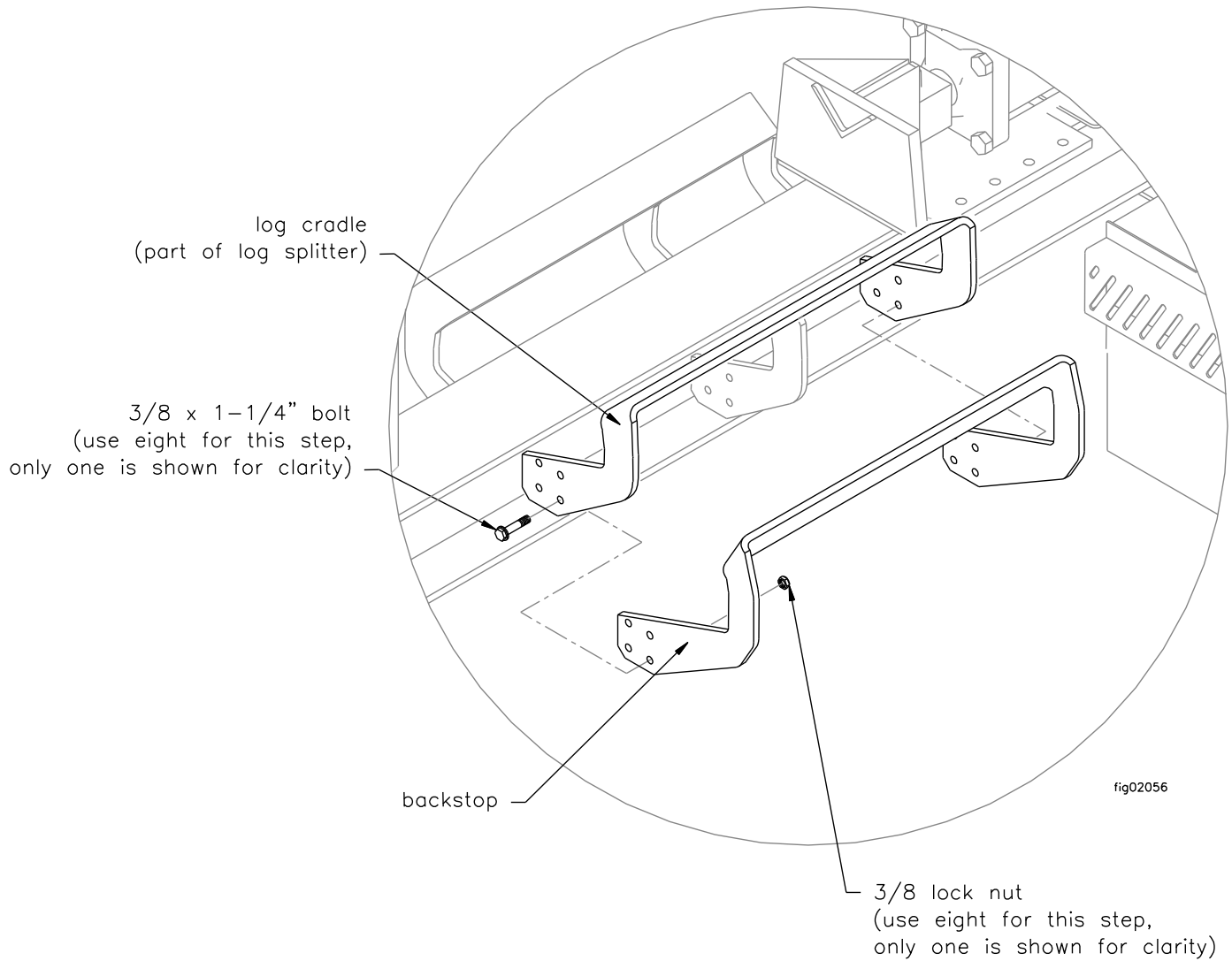


fig02055

Assembly

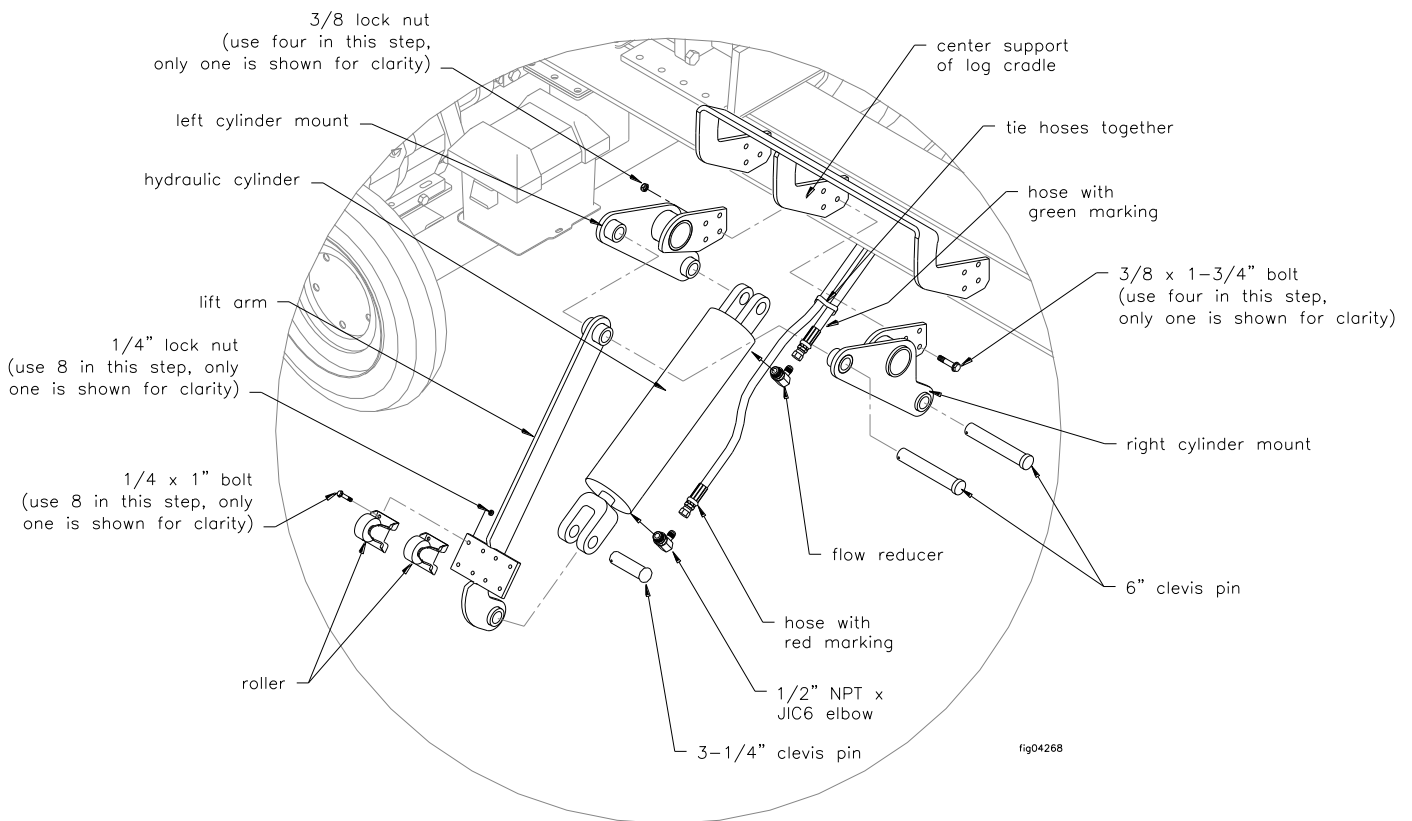
- 6.) Install backstop onto log cradle with eight $3/8 \times 1-1/4$ " bolts and $3/8$ " lock nuts. The backstop fits inside the log cradle. Tighten with a wrench.



Assembly

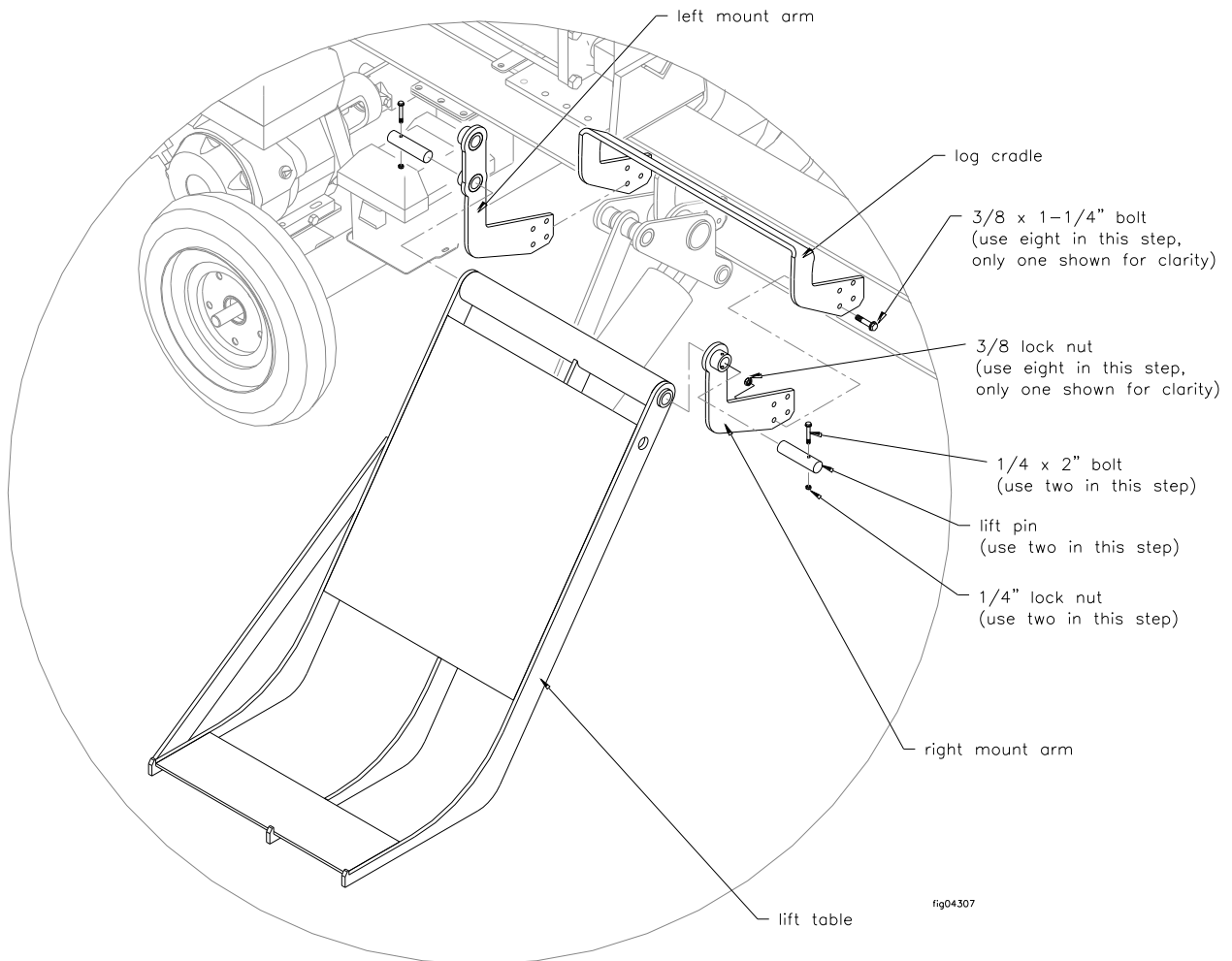
7.) Install Hydraulic Cylinder

- a.) Bolt right and left cylinder mounts to middle log cradle support with four 3/8 x 1-3/4" bolts and 3/8" lock nuts. Do not tighten completely.
- b.) Connect hydraulic cylinder to left and right cylinder mounts with 6" clevis pin (make sure ports point downward). Secure clevis pin in place with a cotter pin.
- c.) Connect lift arm to left and right cylinder mounts with 6" clevis pin. Secure clevis pin in place with a cotter pin.
- d.) Connect lift arm to hydraulic cylinder with 3-1/4" clevis pin. Secure clevis pin in place with a cotter pin. Tighten bolts installed in step a above with a wrench.
- e.) Connect hose with green marking to flow reducer. Tighten with two wrenches. Make sure hose doesn't twist. Make sure hose doesn't pass by any sharp steel edges.
- f.) Connect hose with red marking to 1/2" x JIC6 elbow. Tighten with two wrenches. Make sure hose doesn't twist. Make sure hose doesn't pass by any sharp steel edges.
- g.) Tie hoses together near top port on hydraulic cylinder.
- h.) Bolt rollers to lift arm with eight 1/4 x 1" bolts and 1/4" lock nuts. Tighten with wrench.



Assembly

- 8.) Attach Lift Table to Log Splitter (this step requires two or more people)
- Bolt left mount arm to log cradle. Use four $3/8 \times 1-1/4$ " bolts and lock nuts. Do not tighten completely.
 - Bolt right mount arm to log cradle. Use four $3/8 \times 1-1/4$ " bolts and lock nuts. Do not tighten completely.
 - Attach lift table to mount arms. Use two log lift pins (one at each end). Be careful not to push the lift pins too far into the lift table. Lock a pair of locking pliers onto the end of each lift pin to make sure they don't go in too far and also to help line up the holes for step e below.
 - Bolt lift pins to mount arms. Use two $1/4 \times 2$ " bolts and lock nuts. Tighten with wrench.
 - Tighten bolts from step a and b above with a wrench.



Assembly

- 10.) Double check all fittings to make sure they are tight. A loose fitting can be a safety hazard.
- 11.) Apply "Moving Parts" caution label to log splitter. See safety label location section of this manual for location.
- 12.) Run Log Splitter
 - a.) Start engine.
 - b.) Check for leaks. Tighten any loose fittings. Do not use the log splitter until leaks are fixed.

▲ WARNING: HYDRAULIC INJECTION HAZARD 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 over the suspected area (wear safety glasses). 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 wound that does not look serious. However, severe blood poisoning, infection, disability, gangrene, amputation, or death can result if proper medical treatment is not administered immediately by a doctor who is familiar with injection injuries.

- c.) Cycle the split control forward and back 10 times.
- d.) Cycle the lift control up and down 10 times.
- e.) Check hydraulic oil level. Fill until the level is 1" below the top of the hydraulic tank (not including fill neck).

Operation Instructions

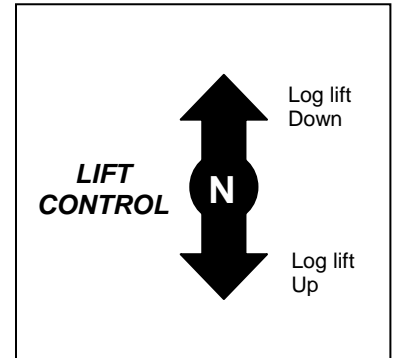
Operating the log lift

1.) Lower the log lift by pushing the lift control.

▲ WARNING

CRUSH HAZARD: Moving parts from log splitter can crush and cut. Keep hands and feet away from log lift.

- a.) Stay in the OPERATOR POSITION while actuating controls.
- b.) If a helper is assisting in loading logs to be split, never actuate controls until the helper is 10 feet away from log splitter.
- c.) Use only your hand to operate the log splitter controls. Never use any other body part, a rope, cable or any other remote device to actuate the controls. Serious injury can result.



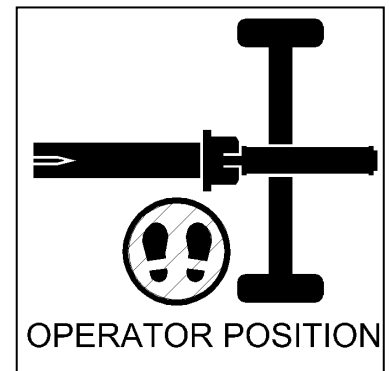
2.) Load log onto log lift.

3.) Raise the log lift by pulling the lift control.

▲ WARNING

CRUSH HAZARD: Moving parts from log splitter can crush and cut. Do not reach across the beam to activate lift controls.

- a.) Stay in the OPERATOR POSITION while actuating controls.
- b.) If a helper is assisting in loading logs to be split, never actuate controls until the helper is 10 feet away from log splitter.
- c.) Use only your hand to operate the log splitter controls. Never use any other body part, a rope, cable or any other remote device to actuate the controls. Serious injury can result.



4.) Release lift control to stop lift movement.

IMPORTANT: If a hazardous situation is encountered at any time during the lifting operation, release the lift control and the log lift will stop.

5.) Allow log to roll onto beam. If log is oddly shaped it may not roll down the log lift. If this happens, walk around the log splitter to the log lift side and move the log onto the beam by hand.

▲ WARNING

CRUSH HAZARD: Moving parts from log splitter can crush and cut. Keep hands and feet away from log lift.

- d.) Stay in the OPERATOR POSITION while actuating controls.
- e.) If a helper is assisting in loading logs to be split, never actuate controls until the helper is 10 feet away from log splitter.
- f.) Use only your hand to operate the log splitter controls. Never use any other body part, a rope, cable or any other remote device to actuate the controls. Serious injury can result.

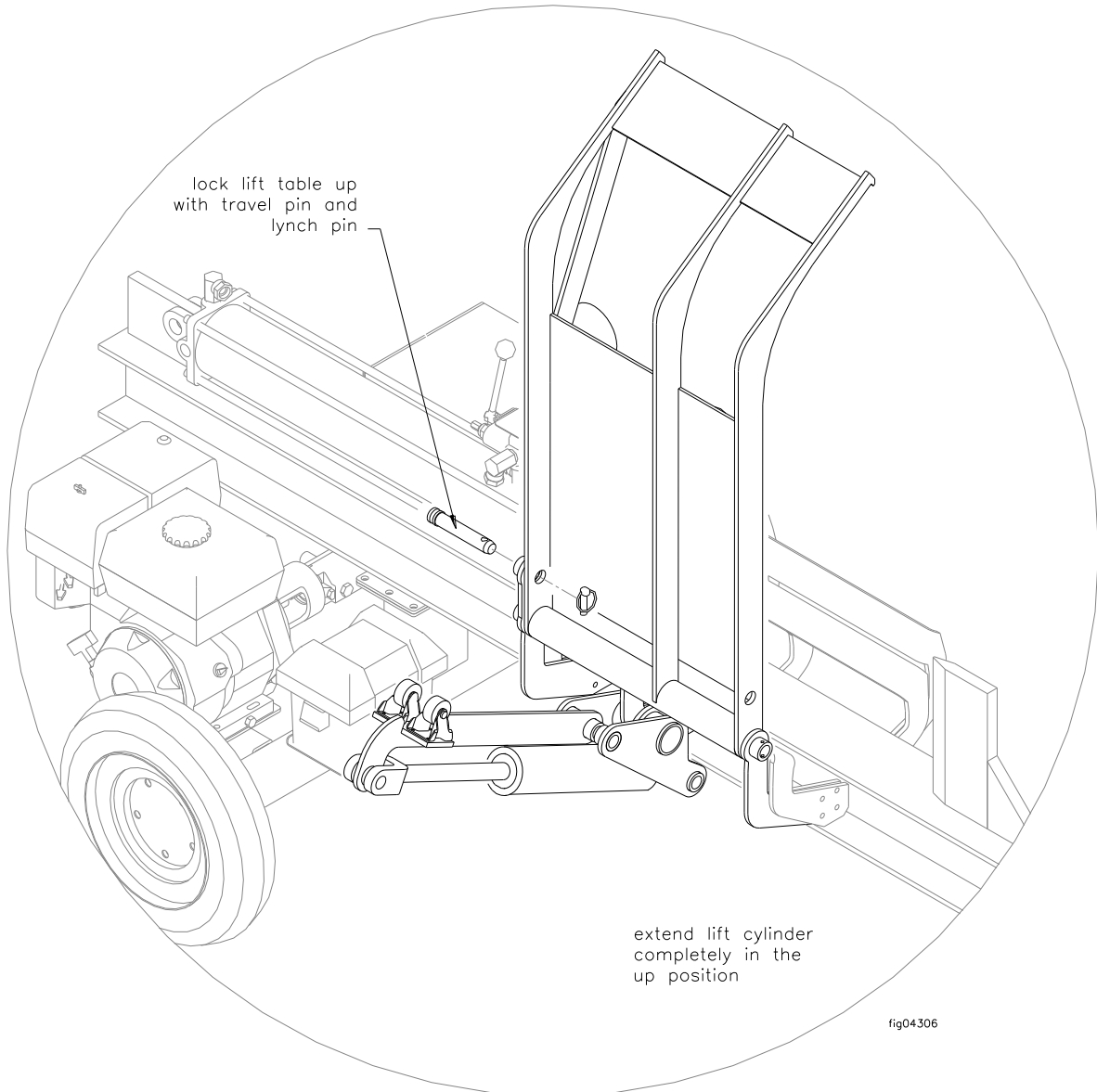
CRUSH HAZARD: Moving parts of the log splitter can crush and cut. Do not reach across the beam to move a log off the log lift onto the beam. The controls can accidentally be activated causing serious injury.

Towing and Moving the Log Splitter

⚠ WARNING

RISK OF PERSONAL INJURY AND/OR PROPERTY DAMAGE

The log lift table must be locked in the up position and the lift cylinder must be extended completely in the up position before towing or moving the log splitter. Towing or moving the log splitter in with the log lift in any other position is a safety hazard and can cause damage to the log lift and log splitter. Please read your log splitter operators manual for additional towing and moving instructions.



Parts Explosion – Rev E.1

Maximum Pressure	3000 psi
Maximum Log Weight	340 lbs
Dry Weight	200 lbs

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 NorthStar Product Support 1-800-270-0810

Parts Explosion – Rev E.1

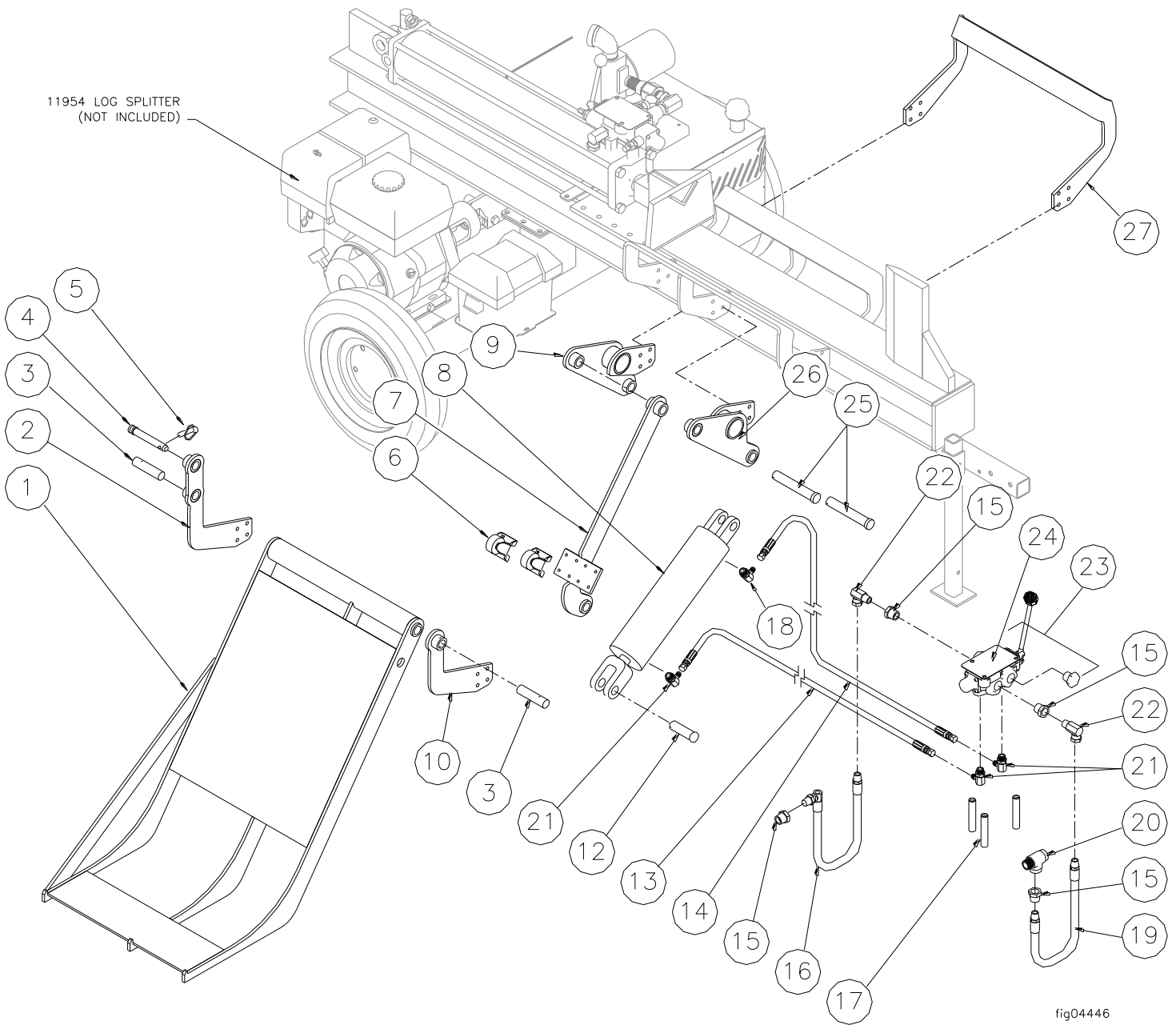


fig04446

REF	PART#	DESCRIPTION	QTY
1	39013	Lift table	1
2	39122	Left mount arm	1
3	38983	Lift pin	2
4	2501935	Travel pin	1
5	39159	Lynch pin	1
6	189900	Roller	2
7	788003	Lift arm	1
8	788105	Hydraulic cylinder	1
9	788001	Left cylinder mount	1
10	39124	Right mount arm	1
12	406518	3-1/4" clevis pin	1
13	37660	Long hose w/ red marking	1
14	5084	Long hose w/ green marking	1

REF	PART#	DESCRIPTION	QTY
15	50CSC128	Pipe reducer	4
16	39213	Hose w/ elbow	1
17	39273	Tube	3
18	788079	Flow reducer	1
19	50125	Hose w/ straight fittings	1
20	39206	Tee	1
21	5018	1/2 x JIC6 elbow	3
22	50RAS8	1/2" elbow	2
23	39201	Lift control valve & handle kit & power beyond plug	1
24	39217	Valve plate	1
25	37878	6" clevis pin	2
26	788002	Right cylinder mount	1
27	39024	Backstop	1

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Limited Warranty

Dear Valued Customer:

The NorthStar 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 a NorthStar 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. Please thoroughly read the instructions and understand the operation before using your product.

Limited Warranty

NorthStar shall warranty any piece of equipment manufactured, or parts of equipment manufactured, to be free from defects in material or workmanship for a period of 2 years from the date of purchase by user. This warranty applies to the original purchaser of the equipment and is non transferable. Verification of purchase is the responsibility of the buyer. Parts will be replaced or repaired at no charge, except when the equipment has failed due to lack of proper maintenance. 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 NorthStar.

NOTE: Some services performed by parties other than NorthStar may void warranty.

This warranty covers parts only. It will not provide for replacement of complete products due to defective parts. Components not manufactured by NorthStar such as engines are guaranteed by their manufacturer and can be serviced at factory-authorized locations near you. Any costs incurred due to replacement or repair of items outside of a NorthStar approved facility is the responsibility of the buyer and not covered under warranty. NorthStar can supply you with the service center location in your area.

This warranty specifically excludes the following; failure of parts due to damage caused by accident, fire, flood, windstorm, acts of God, applications not approved by NorthStar in writing, corrosion caused by chemicals, use of replacement parts which do not conform to manufacturer's specifications, 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.

Warranty does not cover items subject to normal wear such as tires, receptacles or any part subject to direct physical contact by the public. This warranty does not cover any personal injury or damage to surrounding property caused by failure of any part.

This warranty is in lieu of any other warranty expressed or implied and NorthStar assumes no other responsibility or liability outside that expressed within this warranty.

Please fill in the following information and have it on hand when you call in a warranty claim.

Customer Number: _____

Date of Purchase: _____

NorthStar Serial Number: _____

Item Number: _____



Manufactured by
Northern Tool + Equipment Co.,
2800 SouthCross Drive West
P.O. Box 1499 Burnsville, MN 55337-0499