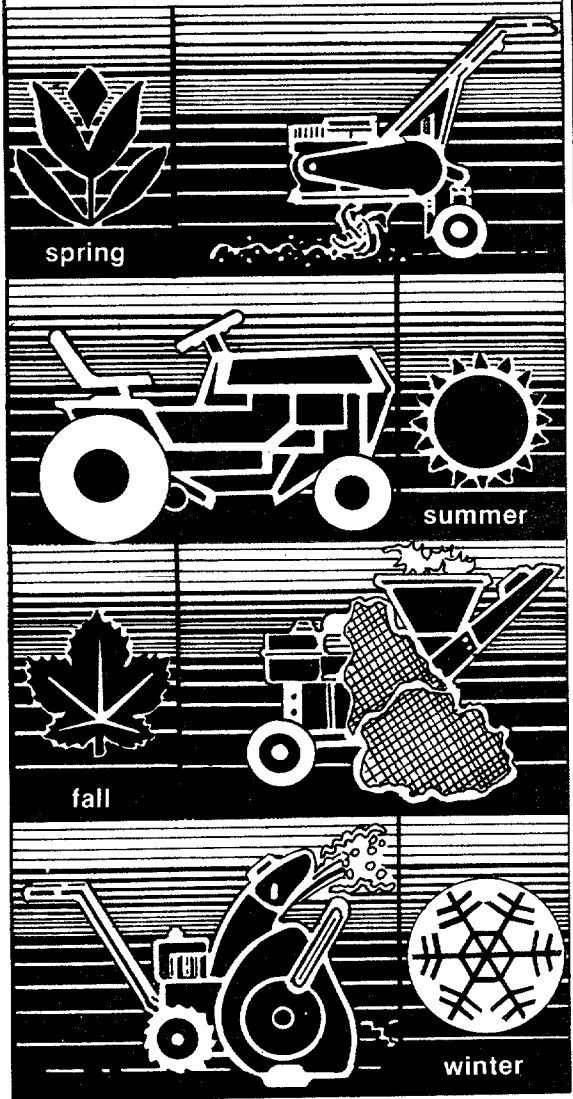


OWNER'S GUIDE

OUTDOOR POWER EQUIPMENT
for all seasons



5 AND 8 H.P. LOG SPLITTERS

Model Numbers
245-642-000
245-645-000
24642S ✓
24645S

Important:
Read Safety Rules and
Instructions Carefully

Thank you for purchasing
an American-built product.

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Instructions given with this symbol are for personal safety. Be sure to follow them.

LIMITED WARRANTY

For one year from the date of original retail purchase, MTD PRODUCTS INC will either repair or replace, at its option, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. Transportation charges for the movement of any power equipment unit or attachment are the responsibility of the purchaser. Transportation charges for any parts submitted for replacement under this warranty must be paid by the purchaser unless such return is requested by MTD PRODUCTS INC.

This warranty will not apply to any part which has become inoperative due to misuse, excessive use, accident, neglect, improper maintenance, alterations, or unless the unit has been operated and maintained in accordance with the instructions furnished. This warranty does not apply to the engine, motor, battery, battery charger or component parts thereof. Please refer to the applicable manufacturer's warranty on these items.

This warranty will not apply where the unit has been used commercially.

Warranty service is available through your local authorized service dealer or distributor. If you do not know the dealer or distributor in your area, please write to the Customer Service Department of MTD.

The return of a complete unit will not be accepted by the factory unless prior written permission has been extended by MTD.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.



WARNING

This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester muffler is available at your nearest engine authorized service center.



IMPORTANT

It is suggested that this manual be read in its entirety before attempting to assemble or operate. Keep this manual in a safe place for future reference and for ordering replacement parts.

This unit is shipped WITHOUT GASOLINE or OIL. After assembly, see separate engine manual for proper fuel and engine oil recommendations.

Your log splitter is a precision piece of power equipment, not a plaything. Therefore exercise extreme caution at all times.



SAFE OPERATION PRACTICES FOR LOG SPLITTERS

TRAINING

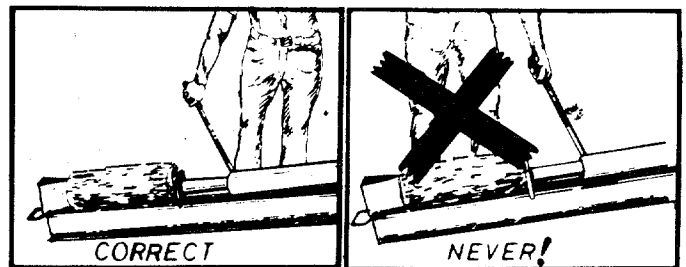
1. Know the controls and how to stop quickly--
READ THIS OWNER'S MANUAL.
2. Do not allow children to operate. Do not allow adults to operate it without proper instruction. Only persons well acquainted with these rules of safe operation should be allowed to use your log splitter.
3. No one should operate this unit while intoxicated or while taking medication that impairs the senses or reactions.
4. Never use your splitter for any other purpose than splitting wood. It is designed for this use only and any other use may cause an injury.
5. Only the operator is to be near your log splitter during use. Keep all others, including pets, a minimum of 20 feet away from your work zone. Flying wood can be hazardous.
6. Don't step over your splitter when engine is running. You may trip or accidentally activate ram if you step over. If you need to get to the other side, walk around.

PREPARATION

1. Do not wear loose fitting clothing that could get caught on the moving parts.
2. Do not operate equipment when barefoot or wearing open sandals. Always wear safety shoes or heavy boots. A dropped log can seriously injure your foot.
3. Check the fuel before starting the engine. Do not fill the gasoline tank indoors, when the engine is running, or while the engine is still hot. Wipe off any spilled gasoline before starting the engine.
4. Use only in daylight or in good artificial light.
5. Never operate your splitter on slippery, wet, muddy, or icy surfaces. Safe footing is essential in preventing accidents. Never operate your splitter while attached to a towing vehicle.
6. Always wear safety glasses or goggles while operating your log splitter. A piece of splitting log could fly off and hit your eyes.
7. Both ends of each log must be cut square. This will prevent the log from flying out of the splitter while under pressure.

OPERATION

1. Do not change the engine governor settings or overspeed the engine. Excessive engine speeds are dangerous.
2. Never place hands or feet between log and splitting wedge or between log and ram during forward or reverse stroke. To do so may result in crushed or amputated fingers or toes, **or worse**, you may lose an arm or foot.
3. If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
4. When cleaning, repairing or inspecting, make certain all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the plug to prevent accidental starting.
5. Handle gasoline with care. It is highly flammable.
 - A. Use approved gasoline container.
 - B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Wipe up spilled gasoline.
 - C. Don't run engine in an enclosed area. Exhaust gases contain carbon monoxide. This odorless gas can be deadly when inhaled.
6. Stand behind the ram when operating. See drawings.



7. Be careful not to touch the muffler after the engine has been running. It is **HOT**.
8. Never try to split two logs on top of each other. One may fly out and injure you.
9. When loading the log splitter, place your hands on the sides of the log, not at the ends.
10. For logs that are not cut square, the longest portion of the log should be rotated down and the most square end placed against the ram.

11. Never attempt to split wood across the grain. Some types of wood may burst or fly out of your splitter and result in injury to you or a bystander.
12. Never leave your log splitter unattended with the engine running. Shut off the engine if you are leaving your splitter, even for a short period of time. Someone could accidentally activate the ram and be injured.
13. Only use your hand to operate the ram or control lever. Never use your foot or a rope or any other extension device. This could result in your inability to stop your splitter quickly enough and cause an injury.
14. Only operate your splitter on the level ground and not on the side of a hill. It could tip, or rolling logs or poor footing could cause an accident. This also prevents the spillage of gas from the tank.

MAINTENANCE and STORAGE

1. Don't operate your splitter in poor mechanical condition or when in need of repair.
2. Keep all nuts, bolts, screws, hose clamps and hydraulic fittings tight to be sure equipment is in safe working condition.
3. Replace all damaged or worn parts such as hydraulic hoses and fittings immediately with manufacturer approved replacement parts.
4. Never store the equipment with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.
5. To reduce fire hazard keep engine free of grass, leaves, wood chips, excessive grease and oil.
6. The hydraulic system of your log splitter requires the careful inspection along with the mechanical parts. Be sure to replace frayed, kinked, cracked or otherwise damaged hydraulic components.
7. Fluid escaping from a very small hole can almost be invisible. Do not check for leaks with your hand. Escaping fluid under pressure can have sufficient force to penetrate skin, causing serious personal injury. Leaks can be located by passing a piece of cardboard or wood over the suspected leak and looking for discoloration.
8. Should it become necessary to loosen or remove any hydraulic fitting or line, be sure to relieve all pressure by shutting off the engine and moving the control handle back and forth several times.
9. Don't remove the cap from the hydraulic tank or reservoir while your log splitter is running. Hot oil under pressure could cause injury.
10. Never store outside without a waterproof cover. Rain will cause rust on the inside of the cylinder.



CAUTION

THIS UNIT SHOULD NOT BE TOWED ON ANY STREET, HIGHWAY OR PUBLIC ROAD. ANY LICENSING NEEDED TO COMPLY WITH THE EXISTING FEDERAL, LOCAL OR STATE VEHICLE REQUIREMENTS IS THE SOLE RESPONSIBILITY OF THE PURCHASER.

TOOLS REQUIRED:

- (1) Raw Hide or Plastic Hammer
- (1) 1-1/8" Wrench or Adjustable Wrench
- (1) 3/4" Wrench

OTHER MATERIALS NEEDED:

One gallon of regular grade gasoline (for engine)
 1-1/2 pints of SAE 30 or 10W-30 oil (for engine)
 Approximately 2-1/2 gallons of Dexron II auto-
 matic transmission fluid (may be obtained at your
 local service station or auto parts store.)
 Funnel

ASSEMBLY INSTRUCTIONS

CONTENTS OF HARDWARE PACK (See Figure 1):

- A (2) Spacers 1-1/2" Long
- B (2) Tapered Roller Bearings
- C (2) Castle Nuts 3/4-16 Thread
- D (2) Cotter Pins
- E (2) Hub Caps
- F (5) Hex Bolts 3/8-24 x 1" Long
- G (9) Lock Washers 3/8" I.D.
- H (10) Hex Nuts 3/8-24 Thread
- I (1) Hex Bolt 1/4-20 x 1-3/4" Long
- J (1) Hex Lock Nut 1/4-20 Thread
- K (1) Hex Lock Nut 5/16-18 Thread
- L (1) Shoulder Bolt
- M (1) Rubber Washer
- N (1) Hex Nut 3/8-16 Thread
- O (3) Hex Bolts 3/8-16 x 3/4" Long
- P (2) Shoulder Bolts
- Q (2) Lock Washers 5/16" I.D.
- R (2) Hex Nuts 5/16-18 Thread
- S (1) Automotive Grease
- T (1) Hex Bolt 1/4-28 x 1" Long
- U (1) Hex Bolt 3/8-24 x 1-3/4" Long
- V (1) Hex Nut 1/4-28 Thread
- W (1) Hex Lock Nut 1/4-28 Thread
- X (3) Flat Washers (Special)
- Y (1) Spring
- Z (2) Pivot Brackets

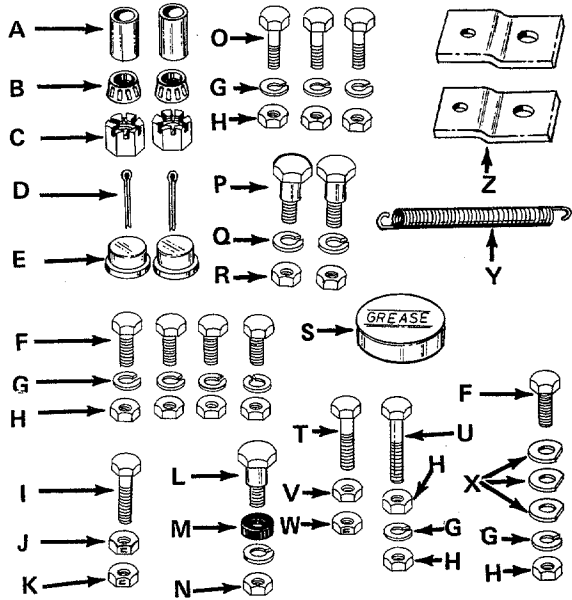


FIGURE 1

LOOSE PARTS IN CARTON:

- (1) Axle Assembly
- (2) Wheels
- (2) Tow Hitch Brackets
- (1) Tow Hitch Assembly
- (1) Pivot Stand
- (1) Hitch Chain
- (1) Engagement Rod Assembly
- (1) Engagement Handle

Remove log splitter and loose parts from carton. Make certain all parts and literature have been removed from the carton before the carton is discarded.

INSTALLATION OF WHEELS

1. Place the axle assembly in position inside the the engine frame assembly as shown in figure 2. Secure with hex bolts (F), lock washers (G) and hex nuts (H).

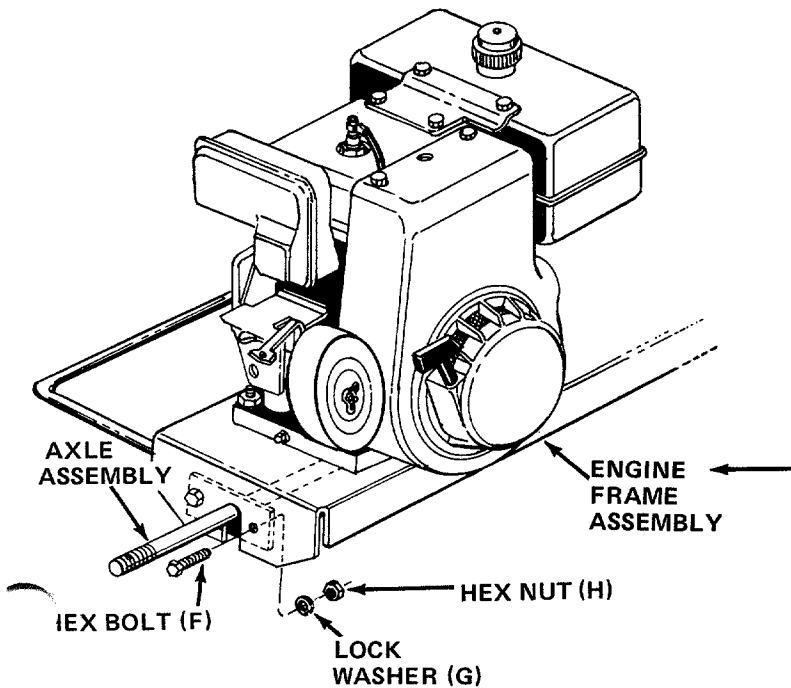


FIGURE 2

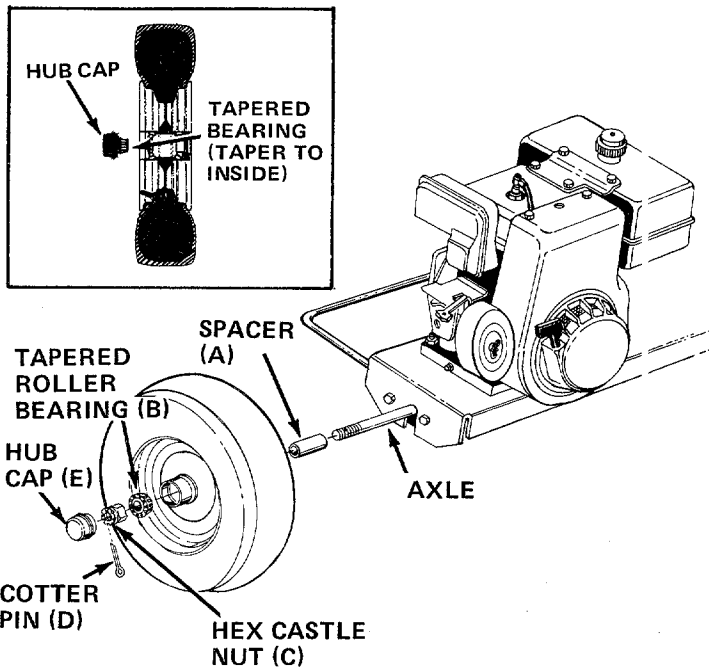


FIGURE 3

2. Pack the tapered roller bearings (B) with automotive grease provided.



Do not put any grease in the hub caps.

3. Place one spacer (A) on the axle, then one wheel and a tapered roller bearing (B). See figure 3.
4. Thread hex castle nut (C) on axle. Tighten castle nut until snug, then back off approximately 1/3 turn or until one of the slots on the castle nut lines up with hole in axle. Secure castle nut to axle with cotter pin (D). See figure 3.



Make certain wheel bearings were packed with grease.

5. Place hub cap (E) in position on wheel and tap on with a plastic hammer.
6. Repeat steps 3 through 6 for the second wheel.

ASSEMBLY OF TOW HITCH AND STAND

The wedge is already assembled to the log splitter, and is held in place with four 3-1/2" long hex bolts, lock washers and hex nuts. The top two bolts and nuts are tightened securely. The bottom two bolts and nuts have been assembled loosely.

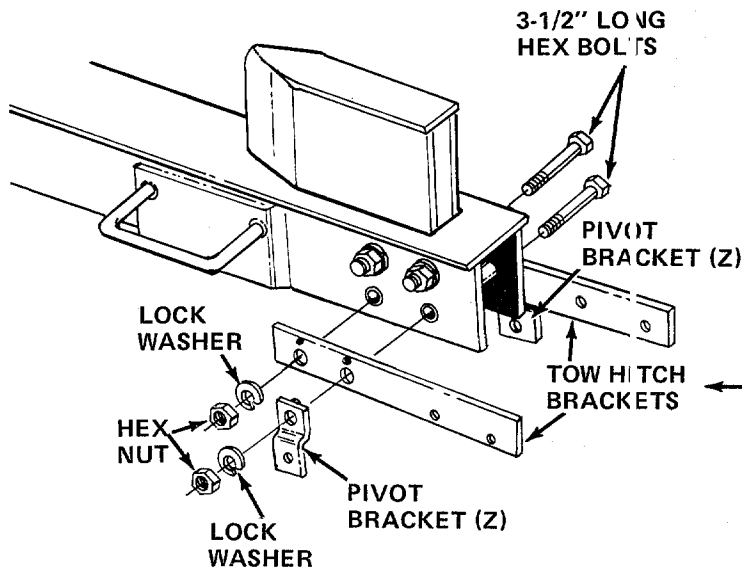


FIGURE 4

1. Remove the two bottom bolts, lock washers and hex nuts from the beam and wedge. See figure 4.
2. Place one tow hitch bracket on each side of the beam, lining up the large holes in the brackets with the bottom holes in the beam. Secure the tow hitch brackets with one hex bolt, lock washer and hex nut just removed.
3. Place one pivot bracket (Z) on each side of the two hitch brackets, lining up the holes in the hitch bracket with the holes toward the end of the beam. The pivot brackets must be assembled with the bend to the outside as shown in figure 4. Secure with the other hex bolt, lock washer and hex nut removed in step 1.

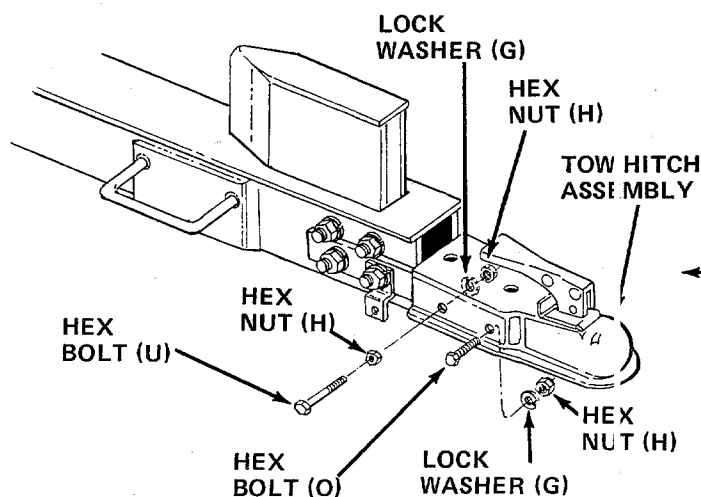


FIGURE 5

4. Place the tow hitch assembly in position on the tow hitch brackets. Secure the left side of tow hitch assembly with two hex bolts (O), lock washers (G) and hex nuts (H). See figure 5.
5. Secure the right hand side of tow hitch assembly with hex bolt (O), lock washer (G) and hex nut (H) in the front hole only.
6. Thread one hex nut (H) onto hex bolt (U). Secure rear hole in tow hitch assembly with this bolt, lock washer (G) and another hex nut (H).

NOTE: Spring (Y) will be attached to this bolt in step 9.

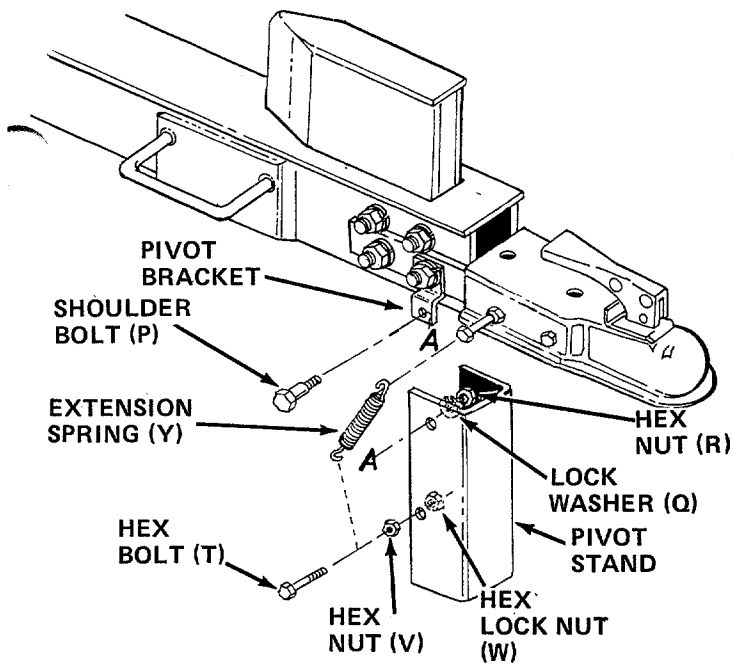


FIGURE 6

7. Thread hex nut (V) onto hex bolt (T). Secure to pivot stand with hex lock nut (W) as shown in figure 6.
8. Assemble the pivot stand to the pivot brackets with two shoulder bolts (P), lock washers (Q) and hex nuts (R).
9. Attach extension spring (Y) to long hex bolts on tow hitch and pivot stand. See figure 6.

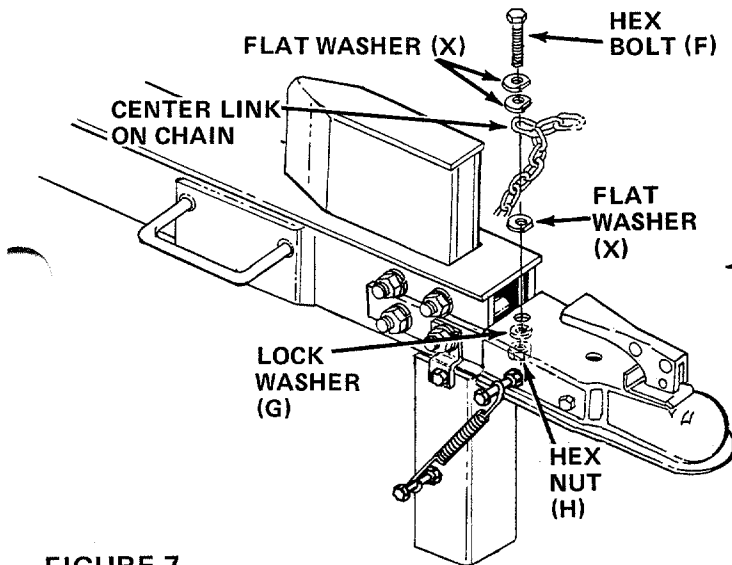


FIGURE 7

10. Find the center link of the tow hitch chain. Place two special flat washers (X) on hex bolt (F), then the center link on chain and another flat washer (X). Insert bolt down through the hole in the tow hitch assembly which is nearest the wedge. Secure with lock washer (G) and hex nut (H). See figure 7.

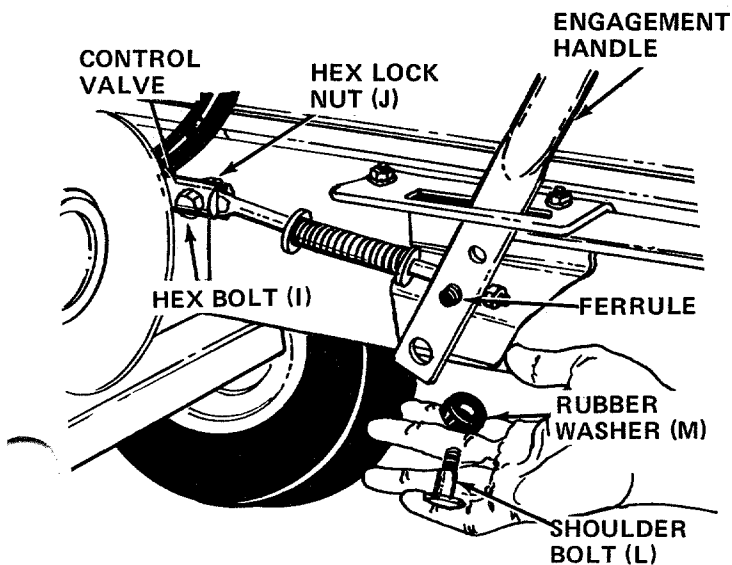


FIGURE 8

ASSEMBLY OF ENGAGEMENT ROD AND HANDLE

1. Attach the engagement rod assembly to the control valve with hex bolt (I) and hex lock nut (J) as shown in figure 8.
2. Place the flattened end of the engagement handle down through the slotted bracket beside the beam. Insert the end of the ferrule on the engagement rod into the second hole from the end of the engagement handle. See figure 8.
3. Place shoulder bolt (L) through bottom hole in engagement handle. Place rubber washer (M) on shoulder bolt. Secure to bracket with lock washer (G) and hex nut (N).

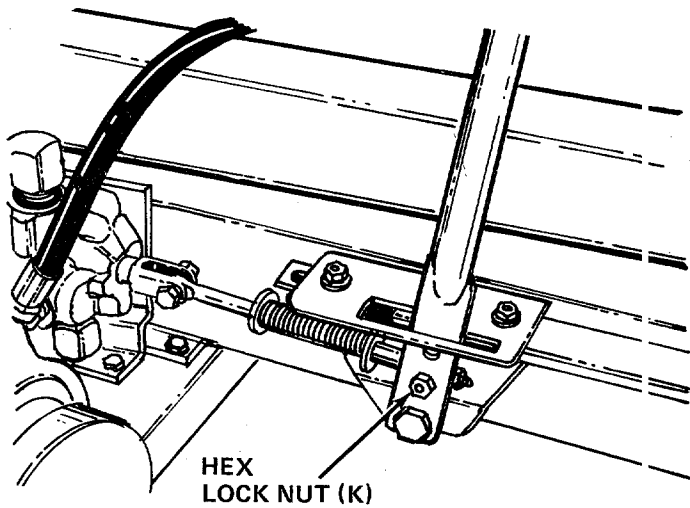


FIGURE 9

- Secure ferrule on engagement rod to engagement handle with hex lock nut (K). See figure 9.

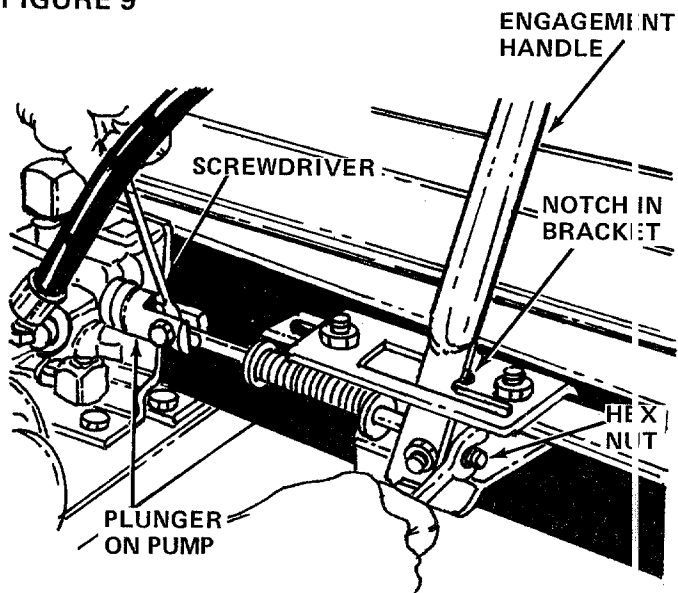


FIGURE 10

- Place the engagement handle in reverse position, locked in the notch in the slotted bracket. See figure 10.
- Adjust the engagement rod by tightening the hex nut on the end of the rod until the plunger on the pump is pushed all the way in when the engagement handle is locked in the reverse position. Insert a screwdriver into the slot in the plunger to keep the rod from turning as the hex nut is tightened. See figure 10.

OPERATION

BEFORE STARTING

- Fill reservoir tank on log splitter with approximately 2-1/2 to 3 gallons of Dexron II automatic transmission fluid as follows. Check oil level before each use.
 - Place log splitter in the operating position with the beam level, using the stand provided.
 - Remove the oil check plug from the back of the log splitter. See figure 11. If oil starts to come out of the hole, oil level is correct. If it does not, remove the cap from the breather tube and add oil until oil starts out of the check hole.
 - Replace oil check plug. Replace cap on the breather tube.

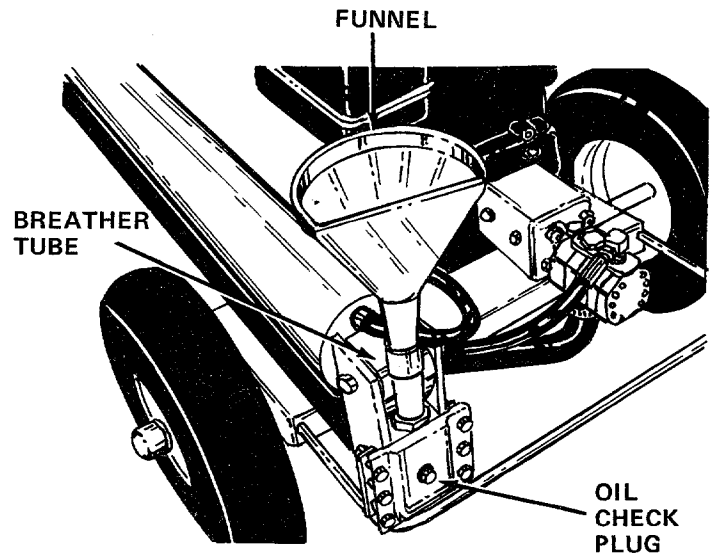


FIGURE 11

NOTE

DO NOT operate log splitter without proper amount of oil in reservoir tank (beam).

2. Fill sump with oil as instructed in the separate engine manual packed with your unit.
3. Fill fuel tank, using clean, fresh, **regular** grade automotive gasoline. Fill tank completely.

NOTE

Refer to engine manual packed with log splitter for complete instructions for the care and maintenance of engine. **READ DIRECTIONS CAREFULLY.**

TO START ENGINE

1. Place throttle control lever in FAST or CHOKE position. See figure 12.
2. Place choke control in CHOKE position (if unit is so equipped).

NOTE

A warm engine may not require choking.

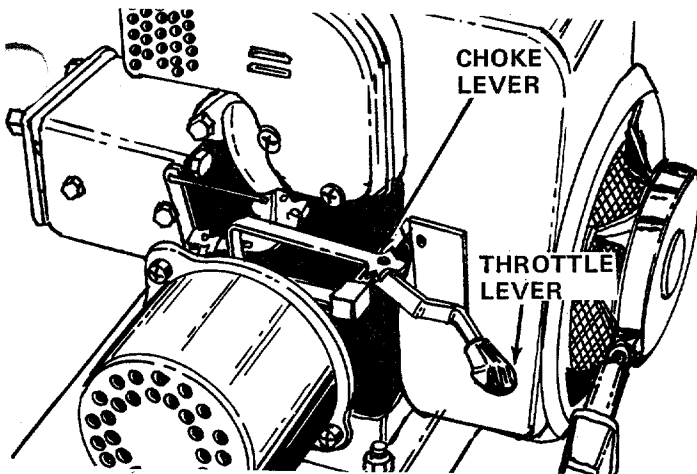


FIGURE 12A - 5 H.P. Tecumseh engine shown

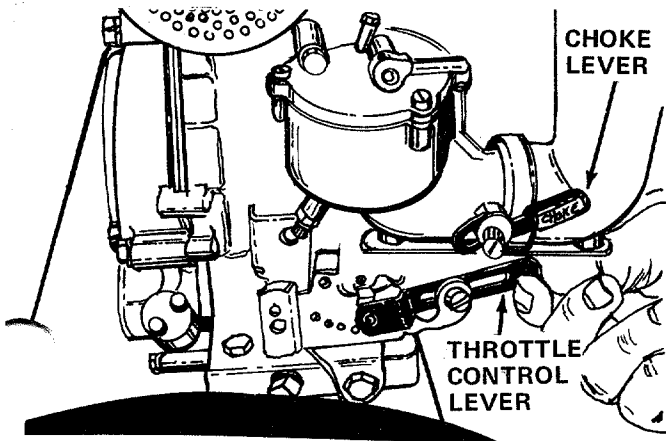


FIGURE 12B - 8 H.P. Briggs and Stratton engine shown

3. Grasp starter handle, place one foot on wheel and pull starter handle with a quick, full arm stroke. Return rope slowly to the engine.
4. After engine starts, move choke control gradually to OFF position (if unit is so equipped). Move throttle control to desired engine speed.

TO STOP ENGINE

1. Move throttle control lever to STOP position.
2. Disconnect spark plug wire from spark plug to prevent accidental starting while equipment is unattended.

USING YOUR LOG SPLITTER



This unit should not be towed on any street, highway or public road. Any licensing needed to comply with the existing federal, local or state vehicle requirements is the sole responsibility of the purchaser. Make certain the stand is folded up against the beam when transporting.

Your log splitter is designed for safe, efficient operation. **BE CAREFUL TO KEEP HANDS AND FEET AWAY FROM MOVING PARTS.**

Engagement handle has three positions: (See figure 13)

- Forward - ram moves toward wedge.
- Neutral - ram stops in place.
- Reverse - ram returns.

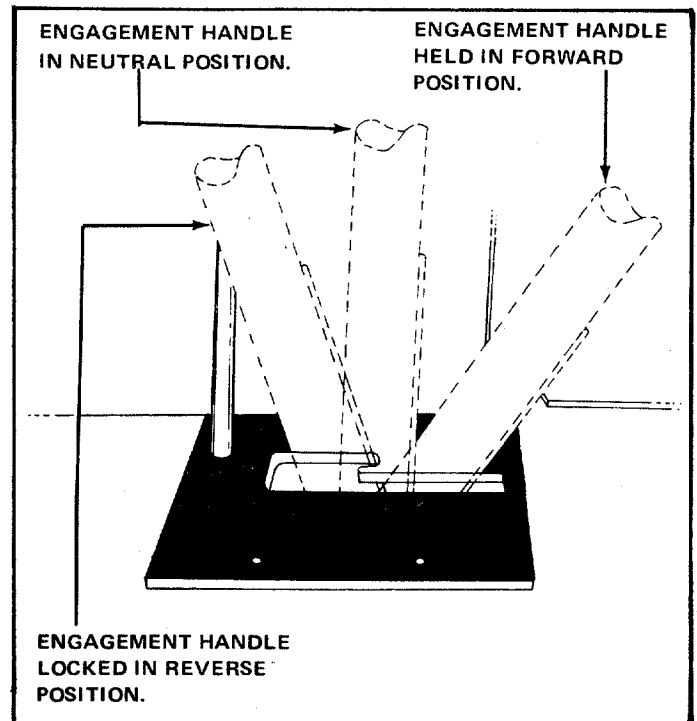


FIGURE 13

Maximum length that can be split is 26".

TO OPERATE LOG SPLITTER:

1. Set throttle at maximum speed.
2. Place log on beam and hold in place with right hand. See figure 14.
3. Slowly move engagement handle forward until ram rests against log. Release engagement handle (Neutral).
4. Remove your hand from the log and step behind the ram. See figure 15.
5. Move engagement handle forward until log is split.
6. Move the engagement handle to the rear to return ram.

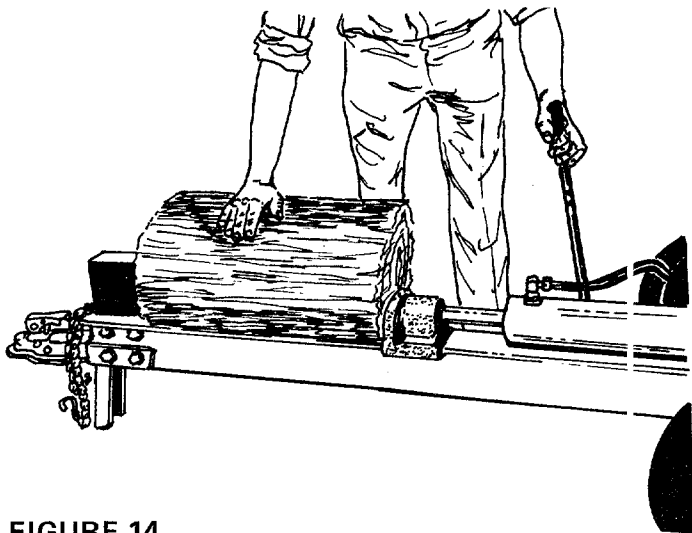


FIGURE 14

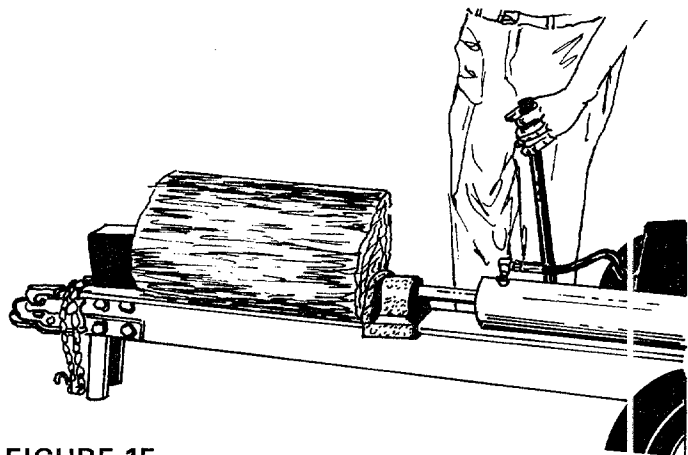


FIGURE 15

The ram should take approximately 12 seconds to make a complete cycle. This speed may vary depending on throttle setting and temperature of oil.



NOTE

If you lock the engagement handle in the reverse slot, the ram will return until it hits the engagement bracket, which will throw the engagement handle into neutral automatically.



WARNING

Never attempt to cut a log in half with the log splitter. See figure 16. Never stand next to the ram when operating. Always stand behind the ram. See figure 17.

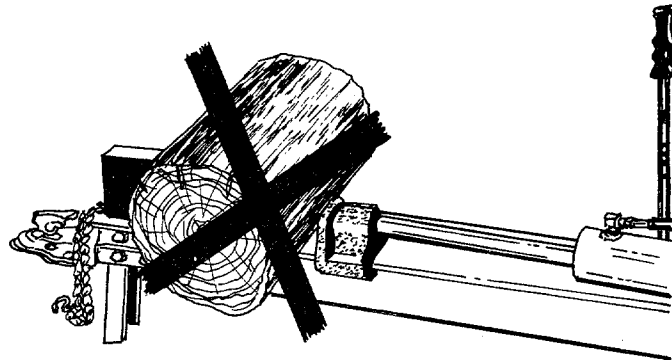


FIGURE 16

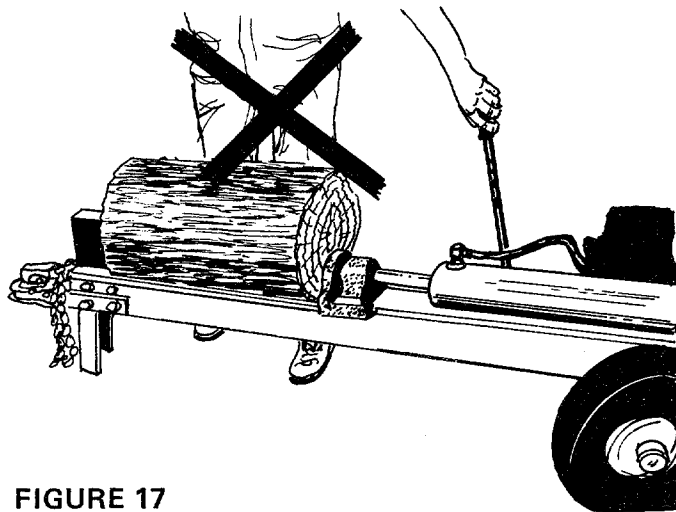


FIGURE 17

MAINTENANCE



WARNING

Always stop engine and disconnect spark plug wire before performing any maintenance or adjustments.

ENGINE OIL

Change oil first two (2) hours of operation. Check oil level every five (5) operating hours or each time equipment is used.

Change oil every twenty-five (25) operating hours or sooner if equipment is operated in extremely dusty or dirty conditions.

Refer to engine manual for quantity and type of oil.

LOG SPLITTER RESERVOIR OIL

Check oil in log splitter reservoir before every use. Refer to "Before Starting" under OPERATION section.

Change the oil in the reservoir every 100 hours of operation. Remove the six hex bolts, lock washers and hex nuts which hold the end plate to the beam. Remove the plate and drain the oil. Be prepared to catch oil in a suitable container.



NOTE

Drain the oil and flush the reservoir tank assembly and hoses each time repair work is performed on the tank, hydraulic pump or valve. Contaminants in the oil will damage the hydraulic components.

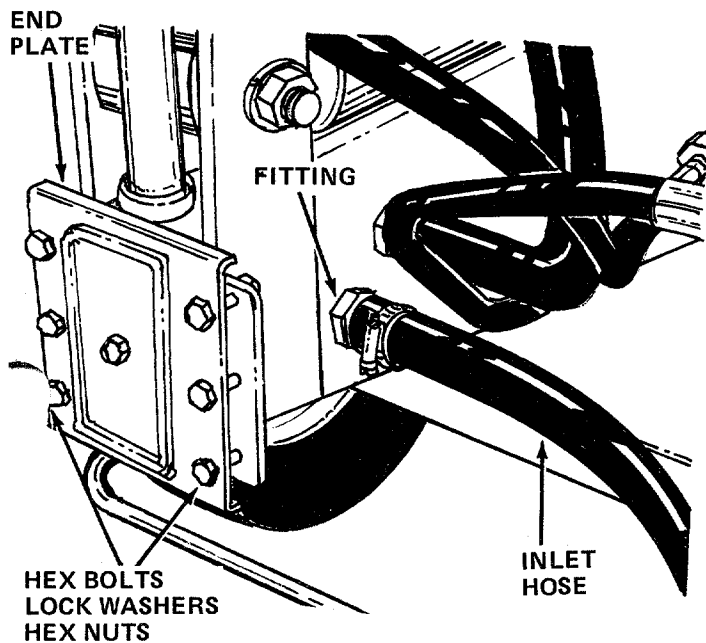


FIGURE 18

When the oil is drained from the reservoir, clean the strainer tube assembly as shown.

1. Remove the hose clamp at the inlet hose (bottom hose). See figure 18.
2. Pull the inlet hose off the fitting at the beam. Using an adjustable wrench, remove the fitting from the beam.
3. Reach inside the end of the beam and pull out the strainer tube assembly.
4. Clean the strainer tube assembly and reassemble in reverse order.

Reassemble the end plate. Refill oil reservoir with approximately 2-1/2 to 3 gallons of Dexron II automatic transmission fluid as instructed in "Before Starting" under OPERATION section.

HOSE CLAMPS

Check the hose clamps on the bottom of the pump for proper tightness before each use.

Hose clamps on the return hose should be checked once a season.

CARBURETOR ADJUSTMENTS



WARNING

If any adjustments are made to the engine while the engine is running (e.g. carburetor), keep clear of all moving parts. Be careful of heated surfaces and muffler.

Refer to engine manual packed with your unit for carburetor adjustment information.

TIRE PRESSURE

Check sidewall of tire for manufacturer's maximum tire pressure. If this information does not appear on your tire, maximum tire pressure under any circumstances is 30 p.s.i. Equal tire pressure should be maintained on all tires.

INSTALLATION OF TIRE TO RIM



WARNING

The following procedure must be followed when removing or installing a tire to the rim.

1. Be sure rim is clean and rust free.
2. Lubricate both the tire and rim generously.
3. Never inflate to over 30 p.s.i. to seat beads. Excessive inflation pressure when seating beads may cause tire/rim assembly to burst with force sufficient to cause serious injury.

OFF-SEASON STORAGE

If the machine is to be inoperative for a period longer than 30 days, prepare for storage as follows.

1. Clean the engine and the entire unit thoroughly.
2. Wipe the entire machine with an oiled rag to protect the surfaces.
3. Refer to the engine manual for correct engine storage instructions. The engine must be completely drained of fuel to prevent gum deposits from forming on essential carburetor parts, fuel lines and fuel tanks.
4. Store unit in a clean, dry area.

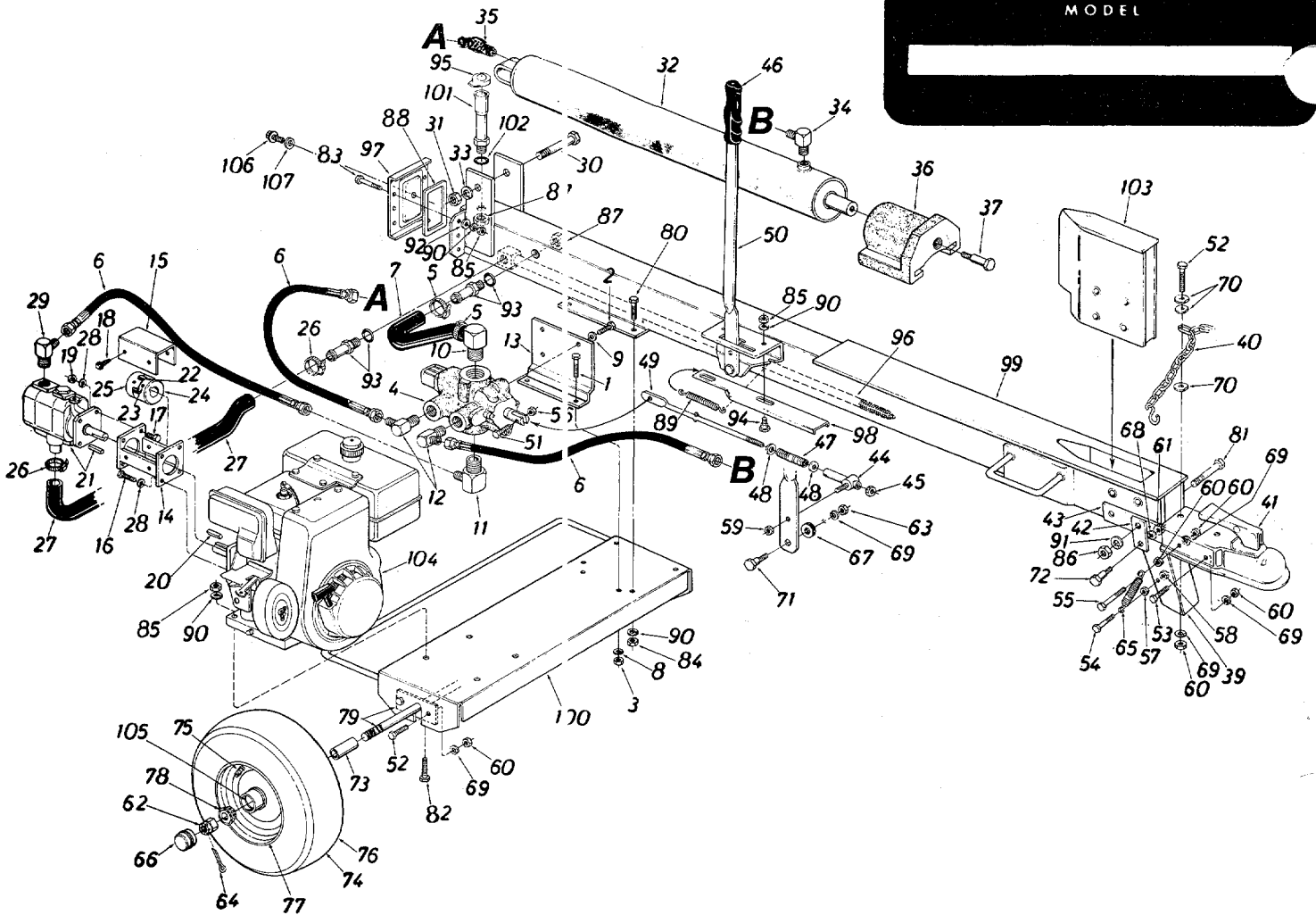


NOTE

When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rust proof the equipment. Using a light oil or silicone, coat the equipment, especially all moving parts.

Models 642 and 645

IF YOU WRITE TO US ABOUT THIS ARTICLE OR IF YOU ORDER REPLACEMENT PARTS ALWAYS MENTION THIS MODEL & SERIAL NO MODEL

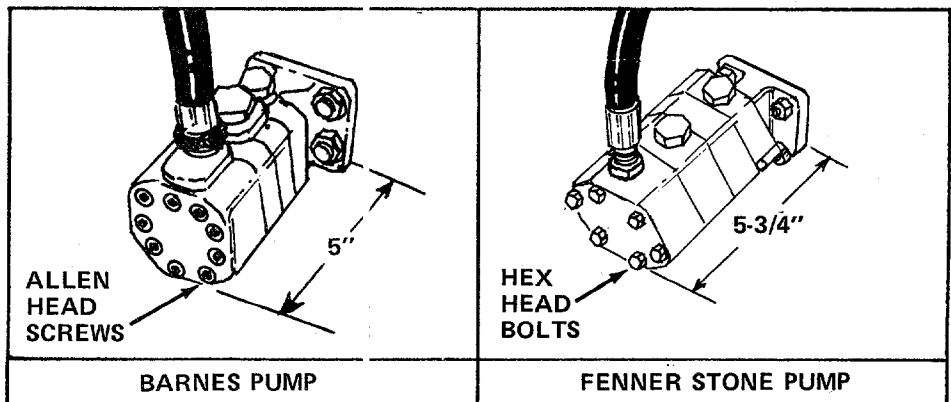


NOTE: The engine is not under warranty by the log splitter manufacturer . . . If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines - Gasoline".



NOTE
This instruction manual covers various models and all specifications shown do not necessarily apply to your model. Specifications subject to change without notice or obligation.

*The hydraulic pump is one of two types. As complete units, the two pumps are interchangeable (refer to parts list for part number). If it is necessary to determine the specific type of pump on your unit, refer to the illustrations below.



Models 642 and 645

PARTS LIST FOR MODELS 642 AND 645 LOG SPLITTERS

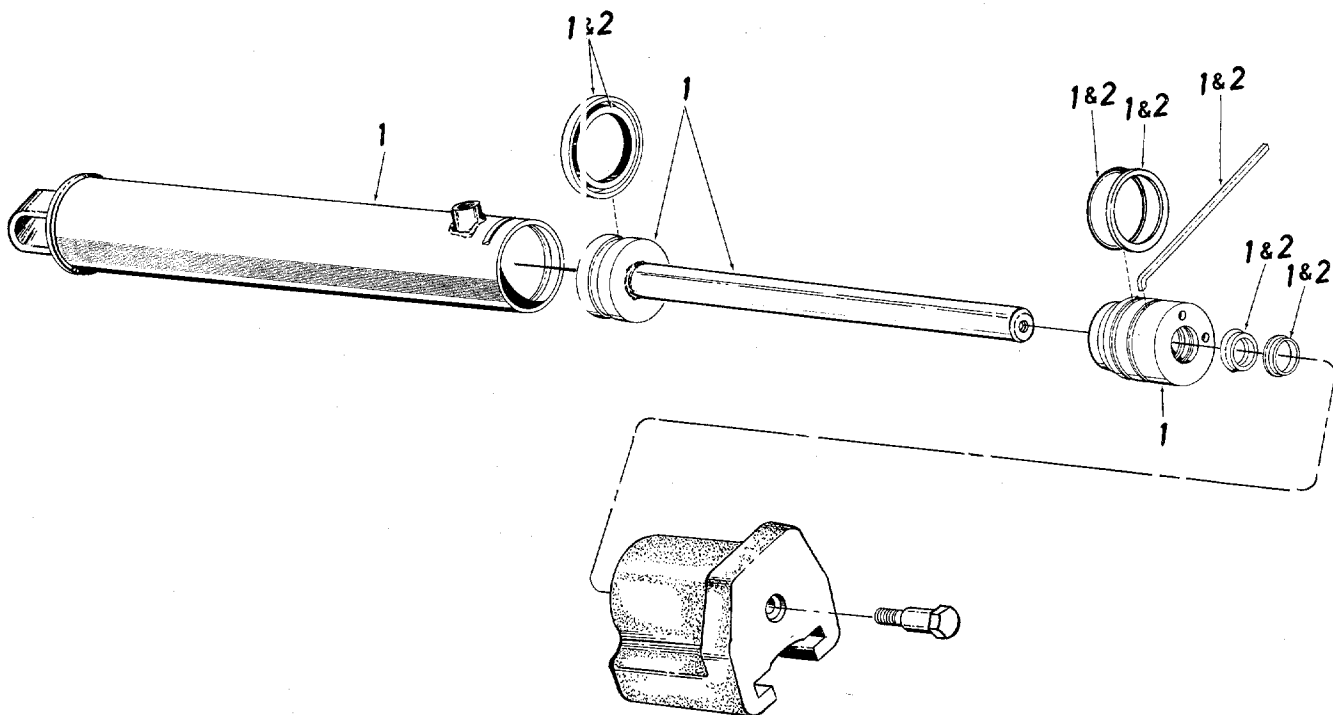
REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	710-0118		Hex Bolt 5/16-18 x .75" Lg.*		44	13115		Ferrule Ass'y.	
2	710-0168		Hex Bolt 3/8-16 x .60" Lg.*		45	712-0214		Hex Cent. L.-Nut 3/8-24 Thd.	
3	712-0267		Hex Nut 5/16-18 Thd.*		46	720-0157		Grip-Black Vinyl	
4	717-0407		Control Valve 400		47	732-0324		Compression Spring	
5	726-0132		Hose Clamp 5/8"		48	736-0206		Special Washer .378 x 1.00" x .125 Thd.*	
6	727-0297		High Pressure Hose Ass'y. .38" I.D.	N	49	747-0484		Engagement Rod 3/8" Dia. x 9.0" Lg.	N
7	727-0299		Return Hose - Valve to Tank 3/4" I.D.		50	749-0622		Engagement Handle	N
8	736-0119		L.-Wash. 5/16" I.D.*		51	710-0106		Hex Bolt 1/4-20 x 1.75" Lg.*	
9	736-0169		L.-Wash. 3/8" I.D.*		52	710-0152		Hex Bolt 3/8-24 x 1.00" Lg.*	
10	737-0153		Return Elbow		53	710-0180		Hex Bolt 3/8-24 x .75" Lg.*	
11	737-0171		90° Solid Male Adapter	N	54	710-0299		Hex Bolt 1/4-28 x 1.00" Lg.*	
12	737-0192		90° Solid Male Adapter	N	55	710-0539		Hex Bolt 3/8-24 x 1.75" Lg. (Grade 5)	
13	781-0035		Valve Mtg. Plate		56	712-0107		Hex Patch L.-Nut 1/4-20 Lg.*	
14	13295		Coupling Support Brkt. Ass'y.		57	712-0117		Hex Cent. L.-Nut 1/4-28 Thd.	
15	14806		Coupling Shield		58	712-0138		Hex Nut 1/4-28 Thd.	
16	710-0117		Hex Bolt 5/16-24 x 1.00" Lg.*		59	712-0158		Hex Cent L.-Nut 5/16-18 Thd.	
17	710-0157		Hex Bolt 5/16-24 x .75" Lg.*		60	712-0241		Hex Nut 3/8-24 Thd.*	
18	710-0653		Hex Wash. Hd. Tap Scr. 1/4-20 x .38" Lg.		61	712-0267		Hex Nut 5/16-19 Thd.*	
19	712-0123		Hex Nut 5/16-24 Thd.*		62	712-0299		Hex Castle Nut 3/4-16 Thd.	
20	714-0172		Sq. Key 1/4" x 1/4" x 2.25" Lg.		63	712-0798		Hex Nut 3/8-16 Thd.*	
21	717-0460		Pump with Woodruff Key (642)		64	714-0162		Cotter Pin 5/32" Dia. x 1.25" Lg.*	
	717-0461		Pump with Woodruff Key (645)		65	732-0429		Extension Spring .50" O.D. x 3.97" Lg.	
22	735-0205		Spider L-0-90		66	734-0873		Hub Cap	
23	710-0419		Set Scr. 1/4-20 x .25" Cup		67	735-0144		Rubber Washer	
24	717-0479		Coupling Half 1.00" I.D.		68	736-0119		L.-Wash. 5/16" I.D.*	
25	717-0498		Coupling Half .50" I.D.		69	736-0169		L.-Wash. 3/8" I.D.*	
26	726-0132		Hose Clamp 5/8"		70	736-0262		Fl.-Wash. .375" I.D. x .870" O.D. x .090	
27	727-0298		Suction Hose 1.0" Dia.	N	71	738-0143		Shoulder Bolt .498" Dia. x .340" Lg.	
28	736-0119		L.-Wash. 5/16" I.D.*		72	738-0296		Shoulder Bolt .437" Dia. x .268" Lg.	
29	737-0192		90° Solid Male Adapter	N	73	750-0442		Spacer .75" I.D. x 1.12" O.D. x 1.56" Lg.	
30	710-0920		Hex Bolt 3/4" x 4.0" Lg.		74	734-1016		Wheel Ass'y. Comp. 16.0 x 4.0"	
31	712-0203		Hex Nut 3/4" Thd.*		75	734-0255		Air Valve-Tubeless	
32	717-0818		Hydraulic Cylinder 3-1/2" Dia. (642)		76	734-0872		Tire Only 16.0 x 4.0 -2 Ply	
	717-0817		Hydraulic Cylinder 4" Dia. (645)		77	734-1017		Wheel Rim Ass'y Only	
33	736-0364		L.-Wash. 3/4" I.D.*		78	741-0107		Roller Rearing 3/4" I.D.	N
34	737-0152 0152 0220		High Pressure 90° Elbow		79	781-0018		Axle Ass'y. .75" Dia. x 35.25" Lg.	N
35	737-0194		45° Male Adapter 3/4-16 MJ-3/8-18 NP	N	80	710-0117		Hex Bolt 5/16-24 x 1.00 Lg.*	
36	719-0269		Pusher Plate (642)	N	81	710-0298		Hex Bolt 5/8-18 x 3.50" Lg.*	
	719-0268		Pusher Plate (645)	N					
37	738-0601		Shoulder Bolt .62" Dia. x 4.75" Lg. (1/2-13 Thd.)	N					
39	15850		Flip Stand Bracket						
40	713-0338		Chain-Tow Hitch						
41	727-0289		Tow Hitch Ass'y. Comp.	N					
42	781-0020		Stand Pivot Bracket	N					
43	781-0037		Tow Hitch Brk't. 2 x 3/16 x 10.25" Lg.	N					

PARTS LIST FOR MODELS 642 AND 645 LOG SPLITTERS (Continued)

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
82	710-0409		Hex Bolt 5/16-24 x 1.75 Lg.*		94	738-0140		Shoulder Bolt .437" Dia. x .180" Lg.	
83	710-0442		Hex Bolt 5/16-18 x 1.50" Lg.*		95	745-0174		Oil Fill Cap	
84	712-0123		Hex Nut 5/16-24 Thd.*		96	781-0021		Strainer Tube Ass'y.	N
85	712-0267		Hex Nut 5/16-18 Thd.*		97	781-0023		End Plate	N
86	712-0337		Hex Nut 5/1-18 Thd.*	N	98	781-0024		Engagement Brk't. 1.39 x 11.75" Lg.	
87	712-0338		Hex Nut 11/16-12 Thd	N	99	781-0025		Complete Oil Tank Ass'y.	
88	721-0203		Gasket 2.62 x 5.12	N	100	781-0033		Engine Frame Ass'y.	
89	732-0352		Extension Spring .50" O.D. x 4.25" Lg.		101	781-0036		Filler Tube Ass'y.	N
90	736-0119		L.-Wash. 5/16" I.D.*		102	721-0204		"O"-Ring 92" I.D. x 1.16" O.D. x .116 Dia.	N
91	736-0158		L.-Wash. 5/8" I.D.*		103	781-0038		Wedge Ass'y.	N
92	736-0275		Fl.-Wash. 34" I.D. x .68" O.D. x .062 Thk.		104	-----		5 H.P. Engine (642)	
93	737-0191		Adapter 1.0" Tube 11/16-12 "O"-Ring	N	105	721-0168		8 H.P. Engine (645)	
					106	710-0604		Bearing Seal	
					107	721-0205		Hex Hd. Tap Scr. 5/16" Gasket	N

*For faster service order standard nuts, bolts, and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

Models 642 and 645



**3-1/2" DIA. CYLINDER
PARTS LIST FOR MODEL 642**

**4" DIA. CYLINDER
PARTS LIST FOR MODEL 645**

REF. NO.	PART NO.	DESCRIPTION	NEW PART	REF. NO.	PART NO.	DESCRIPTION	NEW PART
1	717-0818	Cylinder Ass'y. Comp.	N	1	717-0817	Cylinder Ass'y. Comp	N
2	753-0272	3-1/2" Cyl. Kit "O"-Ring Set		2	753-0273	4" Cyl. Kit "O"-Ring Set	

TROUBLE SHOOTING CHART

SYMPTOM	POSSIBLE CAUSE (S)	SOLUTION
1. Engine fails to start	A. Check fuel tank for gas. B. Spark plug lead wire disconnected. C. Faulty spark plug.	A. Fill tank if empty. B. Connect lead wire. C. Spark should jump gap between control electrode and side electrode. If spark does not jump, replace the spark plug.
2. Hard starting or loss of power	A. Spark plug wire loose. B. Dirty air cleaner.	A. Connect and tighten spark plug wire. B. Clean air cleaner as described in engine manual.
3. Engine overheats	A. Carburetor not adjusted properly. B. Air flow restricted. C. Engine oil level low.	A. Adjust carburetor. See engine manual. B. Remove blower housing and clean as described in the engine manual. C. Fill crankcase with the proper oil.
4. Will not split logs	A. Reservoir oil level low. B. Pump setting incorrect.	A. Check and fill oil reservoir tank as instructed in Operation Section. B. Adjust pump setting to 3,000 p.s.i.*
5. Leaking cylinder	A. Broken seals. B. Scored cylinder.	A. Replace seals.* B. Replace cylinder.*

NOTE: For repairs beyond minor adjustments, please contact your local service dealer.

*Should be performed by an authorized service dealer only.

MTD PRODUCTS INC YARD-MAN COMPANY

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