DR[®] PREMIER RAPIDFIRE™ LOG SPLITTER

SAFETY & OPERATING INSTRUCTIONS





Serial No.	
Order No	

DR Power Equipment

Toll-free phone: 1-800-DR-OWNER (376-9637)

Fax: 1-802-877-1213

Website: www.DRpower.com



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Conventions used in this manual



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

A CAUTION

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

NOTICE

This information is important in the proper use of your machine. Failure to follow this instruction could result in damage to your machine or property.

Serial Number and Order Number

A Serial Number is used to identify your machine and is located on the Serial Number Label on your machine. An Order Number is used to check and maintain your order history and is located on the upper left portion of your packing slip. For your convenience and ready reference, enter the Serial Number and Order Number in the space provided on the front cover of this manual.

Additional Information and Potential Changes

DR Power Equipment reserves the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser. The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your machine.

A WARNING

Read this Safety & Operating Instructions manual before you use the DR RAPIDFIRE LOG SPLITTER. Become familiar with the operation and service recommendations to ensure the best performance from your machine. If you have any questions or need assistance, please contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER (376-9637) and one of our Technical Support Representatives will be happy to help you.

Labels

Your DR PREMIER RAPIDFIRE LOG SPLITTER carries prominent labels as reminders for its proper and safe use. Shown below are copies of all the Safety and Information labels that appear on the equipment. Take a moment to study them and make a note of their location on your LOG SPLITTER as you set up and before you operate the unit. Replace damaged or missing safety and information labels immediately.



#35185

NOTICE

- Do not exceed maximum 3 MPH while using this machine. 352201
- Jack-knifing or turning too sharply may result in damage to the tow vehicle, tow hitch or other parts.
- Insure all connections between the tow bar and tow vehicle are secure before use.

#35220

A WARNING PINCH POINT

#25044

WARNING: Check Oil Before Starting Engine

#13758

Protecting Yourself and Those Around You

A WARNING

This is a high-powered machine, with moving parts operating with high energy. You must operate the machine safely. Unsafe operation can create a number of hazards for you, as well as anyone else in the nearby area. Always take the following precautions when using this machine:

- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people, their property, and themselves.
- Always wear protective goggles or safety glasses with side shields while using the Log Splitter to protect your eyes from
 possible thrown debris.
- Avoid wearing loose clothing or jewelry, which can catch on moving parts.
- We recommend wearing gloves while using the Log Splitter. Be sure your gloves fit properly and do not have loose cuffs or drawstrings.
- Wear shoes with non-slip treads when using your Log Splitter. If you have safety shoes, we recommend wearing them. Do
 not use the machine while barefoot or wearing open toed sandals.
- Wear long pants while operating the Log Splitter.
- Use ear protectors or ear plugs rated for at least 20 dba to protect your hearing.
- Keep bystanders at least 50 feet away from your work area at all times. Stop the engine when another person or pet approaches.

Safety for Children and Pets

A WARNING

Tragic accidents can occur if the operator is not alert to the presence of children and pets. Children are often attracted to the machine and the splitting activity. *Never* assume that children will remain where you last saw them. Always follow these precautions:

- Keep children and pets at least 50 feet from the working area and ensure they are under the watchful care of a responsible adult.
- Be alert and turn the machine off if children or pets enter the work area.
- Never allow children to operate the Log Splitter.

Safety with Gasoline - Powered Machines

A WARNING

Gasoline is a highly flammable liquid. Gasoline also gives off flammable vapor that can be easily ignited and cause a fire or explosion. Never overlook the hazards of gasoline. Always follow these precautions:

- Never run the engine in an enclosed area or without proper ventilation as the exhaust from the engine contains carbon monoxide, which is an odorless, tasteless, and deadly poisonous gas.
- Store all fuel and oil in containers specifically designed and approved for this purpose and keep away from heat and open flame, and out of the reach of children.
- Replace rubber fuel lines and grommets when worn or damaged and after 5 years of use.
- Fill the gasoline tank outdoors with the engine off and allow the engine to cool completely. Don't handle gasoline if you or anyone nearby is smoking, or if you're near anything that could cause it to ignite or explode. Reinstall the fuel tank cap and fuel container cap securely.
- If you spill gasoline, do not attempt to start the engine. Move the machine away from the area of the spill and avoid creating any source of ignition until the gas vapors have dissipated. Wipe up any spilled fuel to prevent a fire hazard and properly dispose of the waste.
- Allow the engine to cool completely before storing in any enclosure. Never store a machine that has gas in the tank, or a fuel container, near an open flame or spark such as a water heater, space heater, clothes dryer or furnace.

Safety with Gasoline - Powered Machines (continued)

A WARNING

- Never tamper with the engine's governor setting. The governor controls the maximum safe operation speed and protects the engine. Over-speeding the engine is dangerous and will cause damage to the engine and to the other moving parts of the machine. If required, see your authorized dealer for engine governor adjustments.
- Keep combustible substances away from the engine when it is hot.
- Never cover the machine while the muffler is still hot.
- Do not operate the engine with the air cleaner or the carburetor air intake cover removed. Removal of such parts could create a fire hazard. Do not use flammable solutions to clean the air filter.
- The muffler and engine become very hot and can cause a severe burn; do not touch.

Safety with Electric - Powered Machines

A WARNING

Never overlook the hazards of electricity. Always follow these precautions:

- Never open the switch box or motor cover. Never attempt any electrical repairs yourself. If in doubt, consult a qualified electrician, visit our website at www.DRpower.com or contact DR Power Equipment for toll-free support at: 1-800-dr-owner (376-9637) for help or information.
- Never use an extension cord that is not rated for outdoor use.
- Never operate the Log Splitter if there is an electrical hazard present.
- Never operate the Log Splitter in wet conditions and always store under cover.
- Never operate the Log Splitter with a damaged electrical cord or damaged extension cord.
- Never pull on the electrical cord to move the machine.
- Always grasp the electrical cord plug when unplugging the cord from the outlet; never pull the plug out by the cord. Make sure your fingers do not touch the metal prongs when plugging or unplugging.
- Never operate the Log Splitter unless the electrical cord is plugged into a properly grounded GFCI protected electrical outlet, which supplies 110-120v power, and is protected by a 20-amp circuit breaker.
- Never tamper with safety devices. Check their proper operation regularly.
- If you are using an extension cord, keep the connection between the electrical cord and the extension cord well away from any water.
- Never use an extension cord longer than 25 feet and smaller than 12 awg in diameter, or longer than 50 feet and smaller than 10 awg in diameter; the cord will produce a voltage drop that will prevent the motor from supplying full power and may cause damage to the motor. Use of a smaller diameter (larger awg number) extension cord could result in melting of the insulation or even create a fire.
- Always keep the electrical cord and/or extension cord away from excessive heat, oil, and sharp objects.

Towing

A WARNING

- ALWAYS check before towing to make certain your Splitter is correctly and securely attached to the machine you are towing
 with.
- ALWAYS allow for added length of the Splitter behind you when turning, parking and in all towing situations.
- ALWAYS be careful when backing up. You could jackknife your Splitter if care is not taken.
- NEVER exceed 3 mph. when towing your Splitter.
- NEVER allow anyone to sit or ride on your Splitter.
- NEVER carry any cargo on your Splitter.
- Do travel slowly over rough terrain, on hillsides, and around curves to prevent tipping.
- Do not tow the Splitter near the edge of a ditch or excavation.

General Safety

A WARNING

Operating this Log Splitter safely is necessary to prevent or minimize the risk of death or serious injury. Unsafe operation can create a number of hazards for you. Always take the following precautions when operating this Log Splitter:

- Your Log Splitter is a powerful tool, not a plaything. Exercise extreme caution at all times. The machine is designed to split logs. Do not use it for any other purpose.
- Know how to stop the Log Splitter quickly; see "stopping the engine" in chapter 3.
- Never operate your unit on a slippery, wet, muddy, or icy surface. Exercise caution to avoid slipping or falling.
- See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by DR Power Equipment.
- Never use the machine without ensuring that all guards and shields are in place.
- Never, under any conditions, remove, bend, cut, fit, weld, or otherwise alter standard parts on the Log Splitter. This includes
 all shields and guards. Modifications to your machine could cause personal injuries and property damage and will void your
 warranty.
- Allow only one person to operate the Log Splitter at any time.
- If the machine should start making an unusual noise or vibration, <u>For Gas Engine</u>: Shut down the engine, disconnect the spark plug wire, keeping it away from the spark plug to prevent accidental starting, <u>For Electric Motor</u>: Shut off the Motor, Unplug the Power Cord. Wait 5 minutes for machine to cool down then inspect for damage. Vibration is generally a warning of trouble. Check for damaged parts and clean, repair and replace as necessary.
- Never tamper with safety devices. Check their proper operation regularly.
- Before performing any maintenance or inspection procedure on the Log Splitter, <u>For Gas Engine</u>: Shut down the engine, disconnect the spark plug wire, keeping it away from the spark plug to prevent accidental starting, <u>For Electric Motor</u>: Shut off the Motor, Unplug the Power Cord. Wait 5 minutes for machine to cool down.
- Never allow people who are unfamiliar with these instructions to use the Log Splitter. Allow only responsible individuals who are familiar with these rules of safe operation to use your machine.
- Never overload or attempt to split logs beyond the recommendations listed in this manual. Personal injury or damage to the machine could result.
- While using the Log Splitter, don't hurry or take things for granted. When in doubt about the equipment or your surroundings, stop the machine and take the time to look things over.
- Never operate the machine when under the influence of alcohol, drugs, or medication.
- Use the machine only in daylight.
- Stay alert for hidden hazards or traffic.
- Keep all nuts and bolts tight and keep the equipment in good operating condition.

A Note to All Users

Under California law, and the laws of some other states, you are not permitted to operate an internal combustion engine using hydrocarbon fuels without an engine spark arrester. This also applies to operation on US Forest Lands. All DR PREMIER RAPIDFIRE LOG SPLITTERS shipped to California, New Mexico and Washington State are provided with spark arresters. Failure of the owner or operator to maintain this equipment in compliance with state regulations is a misdemeanor under California law and may be in violation of other state and/or federal regulations. Contact your State Park Association or the appropriate state organization for specific information in your area.

No list of warnings and cautions can be all-inclusive. If situations occur that are not covered by this manual, the operator must apply common sense and operate this DR PREMIER RAPIDFIRE LOG SPLITTER in a safe manner. Contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.

Chapter 2: Setting Up The DR PREMIER RAPIDFIRE LOG SPLITTER

It may be helpful to familiarize yourself with the controls and features of your DR PREMIER RAPIDFIRE LOG SPLITTER as shown in Figure 1 before beginning these procedures. If you have any questions at all, please feel free to contact us at www.DRpower.com.

DR PREMIER RAPIDFIRE LOG SPLITTER Controls and Features

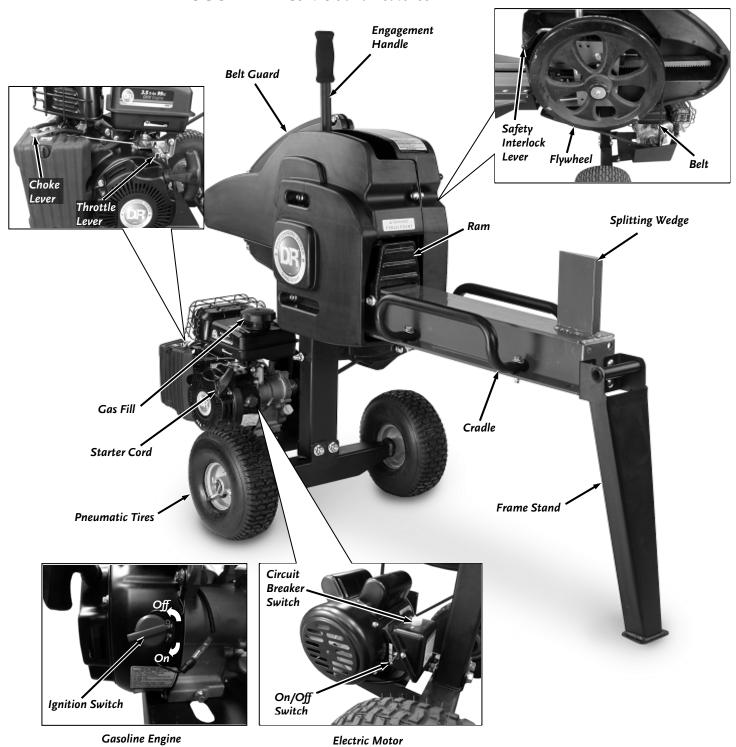


Figure 1

Specifications

	GAS ENGINE	ELECTRIC MOTOR
НР	3	0.5
Output Torque	3.5 ft-lbs (4.7 N-m)	1.47 ft-lbs (2 N-m) @ Full Load
Fuel Capacity	.53 gal / 2.1 qt (2 L)	1.47 It-IDS (2 IN-III) (W I UII LOAU
Oil Capacity	.37 qt / 11.8 oz. (0.35L)	-
Voltage	.37 qt / 11.8 02. (0.33L)	115
Full Load Current (Amps)	_	6.7
Power (Watts)	_	360
Hertz		60
Phase		1
Overload Protection	<u> </u>	Thermal Breaker
Outlet Cord		11"
Frame Gauge	.25"	.25"
Belt Size	4L-750	4L-750
Ground Clearance	3"	3"
Flywheel Weight (lbs.)	55	55
Flywheel RPM	400	400
Maximum Log Length	18"	18"
	30"	30"
Maximum Log Diameter		2.5
Cycle Time (sec.)	2.5	
Splitting Force	Out splits 22 ton Hydraulic	Out splits 22 ton Hydraulic
Wedge Height	6.2"	6.2"
Wheel size	4x11	4x11
Machine Height	46"	46"
Machine Length w/ Table	80"	80"
Machine Length w/out Table	62"	62"
Machine Width	25"	25"
Weight w/ Table (lbs.)	275	285
Weight w/out Table (lbs.)	225	235

^{*}The diameter listed is indicative of the maximum suggested size - a small log can be difficult to split when it contains knots or a particularly tough fiber. On the other hand, it may not be difficult to split logs with regular fibers even if its diameter exceeds the maximum indicated above.



Figure 2

Assembling the DR PREMIER RAPIDFIRE LOG SPLITTER

Tools needed:

- Jack Stand
- Two 9/16" Wrenches

Installing the Frame Stand

The Frame Stand hardware is in the Product Package. Do not install the Frame Stand at this time if you have a Table accessory (install Table first).

Hardware Supplied (Figure 2):

Item #	Part #	Description	Qty
1	. 32104	. Bolt, Carriage, 3/8-16 X 1", GR5, ZP	4
2	. 33333	Nut, Nylon Lock, Flanged, 3/8-16	4

- 1. Support the Beam with a Jack Stand or equivalent so the front of the Beam is high enough to install the Frame Stand (*Figure 3*).
- 2. Secure the Support Leg to the Beam with four Carriage Bolts and Locknuts using a 9/16" Wrench. Bolt head on stand side.
- 3. Remove the Jack Stand.

Installing the Cradle Kit

Parts Supplied (Figure 2):

Item #	Part #	Description	Qty
1	34496	Cradle	2
2	33350	Bolt, Hex, Flange, 3/8-16 X 2"	4
3	28551	Washer, Saddle, 3/8 X 1"	4
4	33333	Nut, Nylon Lock, Flanged, 3/8-16	4

- 1. Remove the Hardware from the Cradles (Figure 4).
- 2. Secure the Cradles to the Beam with the Bolts, Saddle Washers and Locknuts using two 9/16" Wrenches (*Figure 5*).

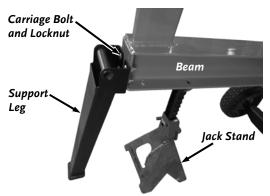


Figure 3

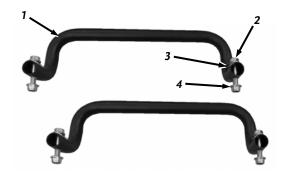


Figure 4

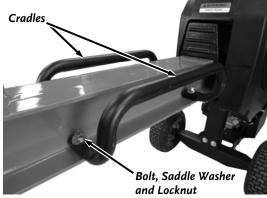


Figure 5

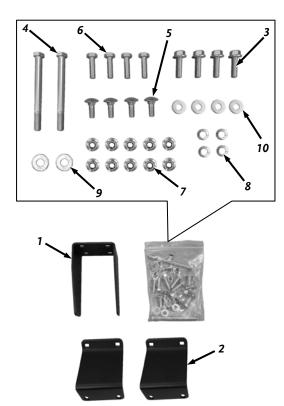


Figure 6

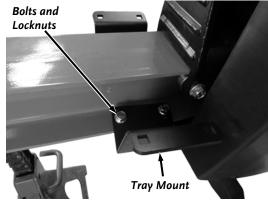


Figure 7



Figure 8

Installing the Log Table Kit

Parts Supplied (Figure 6):

Item #	Part #	Description	Qty
1	. 34503	.Bracket, Log Table	1
2	. 32105	. Mount, Tray	2
3	. 33351	.Bolt, Hex, Flange, 3/8-16 X 1.25"	4
4	. 22912	.Bolt, HHCS, 3/8-16 X 4.5", GR5, ZP	2
5	. 32104	.Bolt, Carriage, 3/8-16 X 1", GR5, ZP	4
6	. 15043	. Bolt, HHCS, 3/8-16 X 1-1/4", ZP	4
7	. 33333	. Nut, Nylon Lock, Flanged, 3/8-16	10
8	. 18081	. Washer, Lock, 3/8"	4
9	. 11239	. Washer, Flat, 3/8", USS	2
10	. 11241	.Washer, Flat, 5/16" USS, ZP	4
Not Shown	. 31363	.Table, Log	1

Installing Log Table with Support Leg

- 1. Place a Jack Stand under the Beam to lift it up.
- 2. Loosely install a Tray Mount on both side of the Beam with Flange Bolts and Locknuts using two 9/16" Wrenches (*Figure 7*).
- 3. Install the front of the Tray to the Beam with four Bolts, Flat Washers and Lock Washers using a 9/16" Wrench (*Figure 8*).
- 4. Install the Table to the Tray Mounts with four Carriage Bolts and Locknuts using a 9/16" Wrench (*Figure 9*).

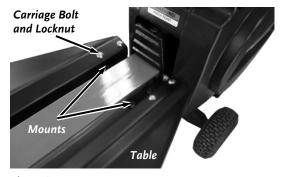


Figure 9

- 5. Install the Tray Bracket to the Frame Stand with four Carriage Bolts and Locknuts using two 9/16" Wrenches (*Figure 10*).
- 6. Install the Frame Stand onto the Tray with four Bolts, Flat Washers and Locknuts (*Figure 11*).

Adding Oil and Gasoline (gas engine model)

Engine Oil	See Engine Manual for specific Engine capacities and specifications
Fuel	Unleaded gasoline

NOTE: Use only the recommended high detergent engine oil. Other types of oil could cause problems operating your machine. Please refer to your Engine Owner's Manual for detailed oil information.

NOTICE

The Engine must be level to get an accurate reading when adjusting the amount of oil. If the machine is not level, the oil level reading will not be accurate and may cause engine damage.

Supplies Needed:

- Clean Rag
- Engine Oil
- 1. Position the machine so the Engine is level. Remove the Oil Fill/Dipstick (*Figure 12*) and clean the end of it with a rag.
- 2. Machines are shipped with no oil. Initially add approx, 8 oz. of the oil recommended by the Engine Manufacturer. Wait one minute for the oil to settle.
- 3. Replace the Dipstick, but <u>DO NOT</u> screw it in to ensure an accurate reading and then remove it to check the oil level (clean the Dipstick with the clean rag after checking).
- 4. Continue adding a few ounces of oil at a time, rechecking the Dipstick until the oil reaches the fill mark. Be careful not to overfill.
- 5. Replace the Dipstick and screw all the way down when full.

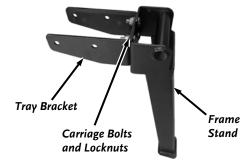


Figure 10

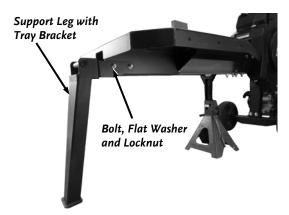


Figure 11



Figure 12

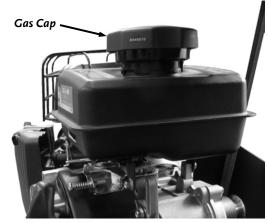


Figure 13

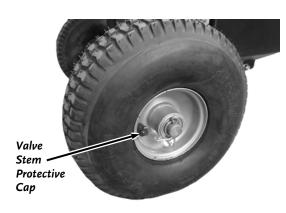


Figure 14

6. Remove the Gas Fill Cap and fill the Gas Tank with fresh, unleaded gas (with a minimum of 85 Octane) to approximately 1" to 1-1/2" below the top of the fill neck to allow for fuel expansion (*Figure 13*). Be careful not to overfill. Install the Gas Fill Cap before starting the engine. See your Engine Owner's Manual for more detailed information.

NOTE: To refill the gas tank, turn the engine OFF and let the engine cool at least five minutes before removing the gas fill cap.

NOTICE

We highly recommend the use of fuel treatments in your fuel to prevent Carburetor fouling.

Check the Tire Pressure

Tools Needed:

- Tire Pressure Gauge
- Air Compressor
- 1. Remove the Valve Stem Protective Cap (*Figure 14*) and check the tire pressure with a Tire Pressure Gauge.
- 2. Check what the manufacturers recommended pressure is that is stamped on the side of the Tire.
- 3. If the pressure is too low, add air through the Valve Stem with an air hose.
- 4. Replace the Valve Stem Protective Cap when finished.

NOTICE

Do not over inflate the tires. Inflate to the manufacturers recommended pressure found on the tires.

Chapter 3: Operating The DR PREMIER RAPIDFIRE LOG SPLITTER

It may be helpful to better familiarize yourself with the features of your Log Splitter by reviewing *Figure 1* in Chapter 2 before beginning the steps outlined in this chapter.

A WARNING

- Read and understand all instructions, safety precautions, and/or warnings listed in "Chapter 1 General Safety Rules" before operating this DR PREMIER RAPIDFIRE LOG SPLITTER. If any doubt or question arises about the correct or safe method of performing anything found in this manual, please contact our Customer Service Representatives at our toll free number: 1-800-DR-OWNER (376-9637).
- When operating the Log Splitter, make sure you are standing in the safe operating area (OPERATOR ZONE) as shown in Figure 15. You must stay in the safe operating area at all times when the ram is in motion (whether extending or retracting). Never place any part of your body into a position that causes an unsafe operating condition.

Gas Engine Model

Starting the Engine

Note: See the Engine Manual for more detailed and specific information on operating the Engine.

- 1. Position your Log Splitter on flat, dry ground and chock the Wheels to prevent the Splitter from moving during use.
- 2. Move the choke control lever to the CHOKE position to the right (should only be needed if the engine is cold) (*Figure 16*).
- 3. Move the throttle control lever to the FAST "Rabbit" position.
- 4. Turn the Ignition Switch to the "On" position. Grasp the recoil starter handle and slowly pull until you feel resistance. Let the cord retract a little bit then pull the cord rapidly to start the engine. One or two pulls usually starts the engine.
- 5. Move the choke control lever (if used for cold engine) slowly back to the RUN position (to the left) when the engine is running well.

Note: If the Log Splitter has not been running (cold engine), warm up the engine by running the engine at half throttle for 3 to 4 minutes, then advance the engine throttle control to maximum speed.

Stopping the Engine

- 1. Move the Throttle Lever to Idle "Turtle" position ((Figure 16).
- 2. Turn the Ignition Switch to the "Off" position.

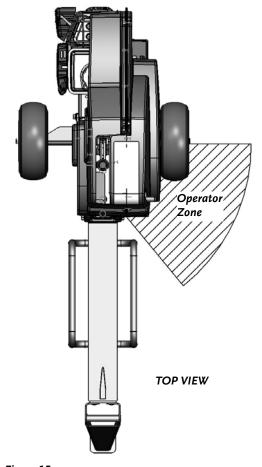


Figure 15

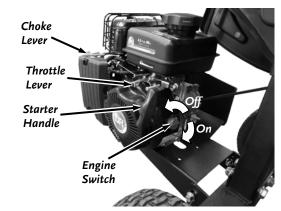


Figure 16

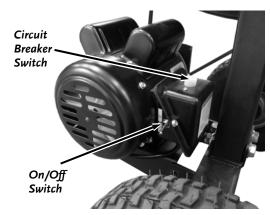


Figure 17



Figure 18



Figure 19

Electric Motor Model

Starting the Motor

- 1. Position your Log Splitter on flat, dry ground and chock the Wheels to prevent the Splitter from moving during use.
- 2. Make sure the Log Splitter is plugged into a properly grounded 15 Amp, GFCI protected outlet.
- 3. Pull the On/Off Switch up to start the Motor (Figure 17).

Stopping the Motor

- 1. Push the On/Off Switch down to stop the Motor (Figure 17).
- 2. When not using the Splitter unplug the Cord.

Splitting

Note: All logs should be no longer than 18". Use the following photos for the correct and incorrect methods of splitting logs. Never split a log using an incorrect or unsafe method.

M WARNING

- Do not place your hands on the ends of the log when loading the Log Splitter. This is a very UNSAFE method and could result in injury to your hands (Figure 18).
- Do not reach or step across the beam while the Log Splitter is running.
 This is a very UNSAFE method which could cause personal injury or even death.

A CAUTION

- Never attempt to split wood across the grain. The Log Splitter was not designed for cross-grain splitting. Doing so could damage the Log Splitter and may cause personal injury (*Figure 19*).
- Make sure both ends of the log you are splitting are cut as square as
 possible. This will prevent the log from sliding out of position while under
 pressure (Figure 20).



Figure 20

1. Place the log on the Log Splitter. Grasp the log on the sides near the middle of the block (*Figure 21*). Center the log, side-to-side, on the rail of the Log Splitter, making sure that one end is against the Splitting Wedge.

A CAUTION

- The engagement Handle must be held fully forward against the hard stop when splitting. Failure to do so may result in kickback of the Handle.
- 2. With one hand, lift and hold the Safety Interlock Lever in the up position then **RAPIDLY** move the Engagement Handle fully forward against the hard stop (towards the log) until the Log is split (*Figure 22*).
- 3. Release the Lever as soon as the Log is split to allow the Ram to return. Continuing to hold the Lever at the end of the stroke may put unnecessary stress on the Rack Teeth.

Splitting Tough Logs

If the Ram stops before the end of the stroke while splitting a tough Log, quickly push the Lever back to prevent stress on the Belts. Let the Ram return and the Flywheels to gain momentum to allow for another full power split.

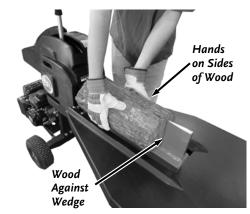


Figure 21

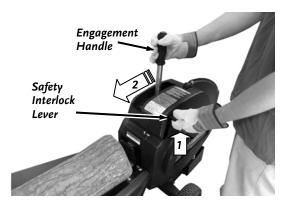


Figure 22

Chapter 4: Maintaining The DR PREMIER RAPIDFIRE LOG SPLITTER

Regular maintenance is the way to ensure the best performance and long life of your machine. Please refer to this manual and the engine manufacturer's owner's manual for maintenance procedures. Service intervals listed in the checklist below supersede those listed in the engine manufacturer's owner's manual.



Before performing any maintenance procedure or inspection, stop the engine, wait five minutes to allow all parts to cool. Disconnect the spark plug wire, keeping it away from the spark plug.

Regular Maintenance Checklist

PROCEDURE	BEFORE EACH USE	Every 5 Hours	EVERY 10 HOURS	EVERY 25 HOURS	EVERY 100 HOURS
Check Engine Oil Level	A				
Check General Equipment Condition	A				
Perform Rail Maintenance	A				
Check Belt	A				
Check the condition of the electrical cord.	A				
Grease Rack		A			
Grease Engagement Fittings			A		
Check Tire Pressure				A	
Clean Engine Exterior and Cooling Fins				A	
Change Engine Oil	1 st time 5 hours			A	
Replace Air Filter				A	
Replace Spark Plug					A

Engine Service

Refer to the engine manufacturer's manual for engine maintenance.

Lubrication

All Bearings of your Splitter are sealed units and should have sufficient lubricant to last the life of your machine with normal use. Perform machine lubrication per the following instructions.

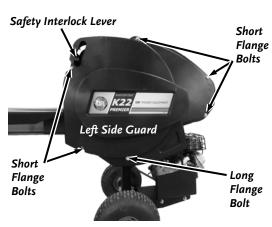


Figure 23

Greasing the Engagement Fittings

Tools and Supplies needed:

- Two 9/16" Wrenches
- 9/16" Socket and Ratchet
- Extended Hose Grease Gun with all Purpose Grease
- Clean Rags
- 1. Remove the long Flange Bolt and Locknut that secures the lower portion of the Guards to the Frame using two 9/16" Wrenches (*Figure 23*).
- 2. Remove the five short Flange Bolts and Locknuts that secure the Guard Flanges together using two 9/16" Wrenches and remove the left side Guard from the Splitter.

- 3. Remove the four short Flange Bolts and Locknuts that secure the right side Guard to the Frame using a 9/16" Socket and Ratchet to remove the right side Guard from the Splitter (*Figure 24*).
- 4. Grease the Engagement Lever Grease Fittings from the front of the machine with a few pumps of All Purpose Grease (*Figure 25*).
- 5. Grease the Yoke Grease Fittings from the rear of the machine with a few pumps of All Purpose Grease (*Figure 26*).
- 6. Reinstall the Guards in the reverse order that they were removed.

Changing Engine Oil (Gas Engine Model)

One of the easiest methods to remove oil from this Engine is to use a siphon style Oil Extractor. If you do not have one you can purchase it from us at www.DRpower.com.

Tools and Supplies needed:

- Clean Approved Container for used Oil
- 10mm Wrench
- 1. Place an approved Container under the Oil Plug.
- 2. Remove the Oil Drain Plug with a 10mm Wrench to drain the Oil into the Container (*Figure 27*).
- 3. Reinstall the Oil Drain Plug.
- 4. Add oil as described in "Adding Oil and Gasoline" in Chapter 2.

Rail Maintenance

Between each use of the LOG SPLITTER, we recommend applying a rust preventative (Fluid Film or equivalent) to any bare metal areas on the top of the rail (*Figure 28*). This will assure the smoothest return action of the ram.

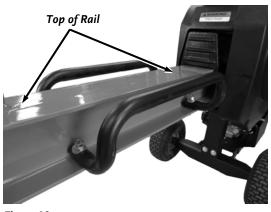


Figure 28

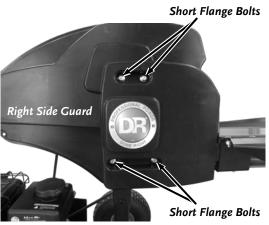


Figure 24

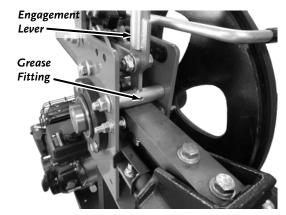


Figure 25

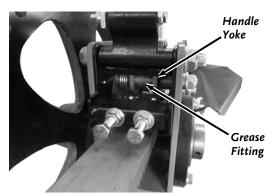


Figure 26

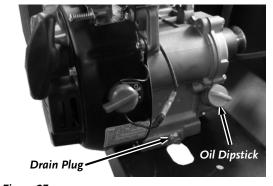


Figure 27

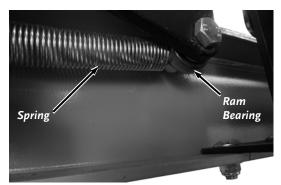


Figure 29



Figure 30

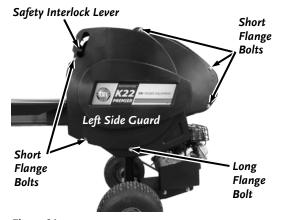


Figure 31

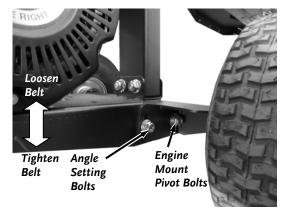


Figure 32

Greasing the Rack

It is important to grease the Rack every 5 hours for proper operation.

Tools and Supplies needed:

- General Purpose Lithium Grease
- Clean Rags
- 1. Pull out the Ram and slide both return Spring ends from the Ram Bearing hardware (*Figure 29*).
- 2. Pull the Rack out and grease the Teeth (Figure 30).
- 3. Reinstall the Spring ends when finished greasing.

Changing and Adjusting the Belt

Tools and Supplies needed:

- Two 9/16" Wrenches
- DR Belt
- 1. Remove the long Flange Bolt and Locknut that secures the lower portion of the Guards to the Frame using two 9/16" Wrenches (*Figure 31*).
- 2. Remove the five short Flange Bolts and Locknuts that secure the Guard Flanges together using two 9/16" Wrenches and remove the left side Guard from the Splitter.
- 3. Loosen the front two Engine Mount Pivot Bolts and Locknuts with two 9/16" Wrenches (*Figure 32*).
- 4. Loosen the rear two Angle Setting Bolts with Flat Washers using two 9/16" Wrench.
- 5. Pivot the Mount up slightly and remove the Belt (Figure 33).

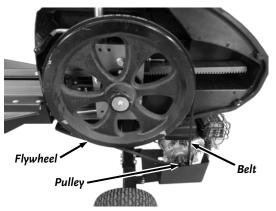


Figure 33

Note: The weight of the Engine should be enough to tension the Belts properly but depending on hardware looseness and cleanliness of Engine Mount pivot area, you may need to push down slightly to aid in proper tension. The Belt performs best with a slight amount of slack to allow for some slippage when the Wedge encounters a tough log. Too much tension may stall the engine or slip the belt on the engine pulley.

- 6. Install the new Belt and adjust tension as needed (Figure 33).
- 7. Tighten the two Engine Mount Bolts that are at the center of the machine (shown) first and then tighten the outer two Bolts (*Figure 32*).
- 8. Reinstall the Guard (Figure 31).

Adjusting the Rack Alignment

Tools needed:

- Two 9/16" Wrenches
- 9/16" Socket and Ratchet
- 1. Remove the long Flange Bolt and Locknut that secures the lower portion of the Guards to the Frame using two 9/16" Wrenches (*Figure 34*).
- 2. Remove the five short Flange Bolts and Locknuts that secure the Guard Flanges together using two 9/16" Wrenches and remove the left side Guard from the Splitter.
- 3. Remove the four short Flange Bolts and Locknuts that secure the right side Guard to the Frame using a 9/16" Socket and Ratchet to remove the right side Guard from the Splitter (*Figure 35*).
- 4. Disconnect the Return Springs from the Ram Bearing Hardware (*Figure 36*) and pull the Ram out to the Wedge.
- 5. Center the Rack between the Frame.
- 6. Loosen the Jam Nuts with a 9/16" Wrench and turn the Carriage Bolts with a 10mm Wrench until they touch the Rack (*Figure 37*).
- 7. Turn each Carriage Bolt back away from Rack two turns.
- 8. Tighten the Locknuts against the Frame to lock the Carriage Bolts into place.
- 9. Replace the Guards in the reverse order that they were removed.

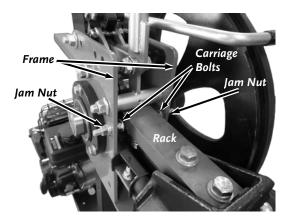


Figure 37

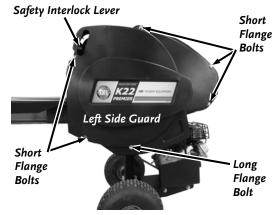


Figure 34

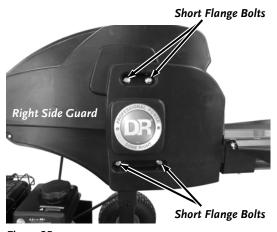


Figure 35

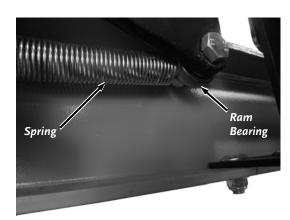


Figure 36

Adjusting the Steel Bushing Over Center

Tools needed:

- Two 9/16" Wrenches
- 9/16" Socket and Ratchet
- 1. Remove the long Flange Bolt and Locknut that secures the lower portion of the Guards to the Frame using two 9/16" Wrenches (*Figure 38*).
- 2. Remove the five short Flange Bolts and Locknuts that secure the Guard Flanges together using two 9/16" Wrenches and remove the left side Guard from the Splitter.
- 3. Remove the four short Flange Bolts and Locknuts that secure the right side Guard to the Frame using a 9/16" Socket and Ratchet to remove the right side Guard from the Splitter (*Figure 39*).
- 4. Loosen the Stop Bolt Jam Nuts (Figure 40).
- 5. Lift the Safety Interlock Lever and push the Engagement Handle forward to position the Steel Bushing Yoke as close to vertical as you can and hold it there (*Figure 41*).
- 6. Rotate the Stop Bolts until they touch the Steel Bushing Yoke. Turn the Bolt back out of the Frame counterclockwise 1-1/4 revolutions. Tighten the Jam Nuts with a 9/16" Wrench to lock the Stop Bolts at this position.

NOTICE

Do not adjust more than 1-1/4 revolutions when adjusting off center. Adjustment too far off center will not allow the Rack Teeth to engage fully and will cause damage to the Splitter.

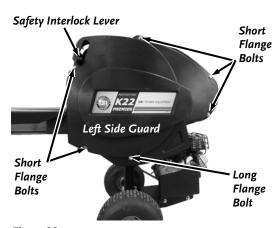


Figure 38

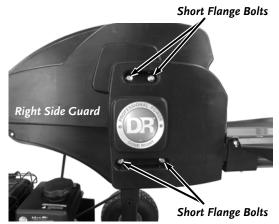


Figure 39

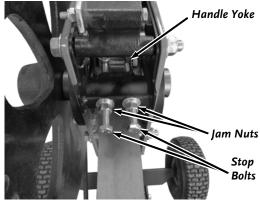


Figure 40

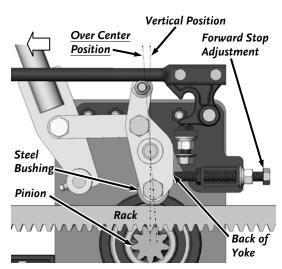


Figure 41

7. Push the Engagement Handle all the way forward to confirm the Steel Bushing Yoke is moving just past center.

A WARNING

The Handle Yoke must move just past center as it contacts the Bolt Stop. If it is at the center position, or off center in the wrong direction, the force of splitting a log will be transferred through the Engagement Handle and could cause injury.

When using the Splitter for the first time after this adjustment, split smaller diameter logs with no knots to verify that the adjustments are correct before trying larger diameter tougher logs.

If you have any questions please contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.

Replacing the Wheels

Tools and Supplies needed:

- Pliers
- Jack and Jack Stands

A CAUTION

The Splitter must be supported carefully so it does not tip over when jacking or it could cause Splitter damage or personal injury.

- 1. Jack the Splitter off the ground and secure with Jack Stands.
- 2. Straighten the ends of the Cotter Pin with Pliers so the Cotter Pin can be pulled from the hole in the Axle (*Figure 42*).
- 3. Pull the Wheel assembly from The Axle.
- 4. Install the new/repaired Wheel Assembly and secure with a new Cotter Pin by bending the ends of the Cotter Pin with Pliers.

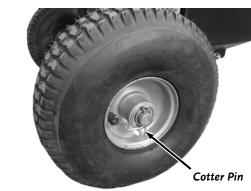


Figure 42

Chapter 5: Troubleshooting

Most problems are easy to fix. Consult the Troubleshooting Table below for common problems and their solutions. If you continue to experience problems, contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER (376-9637) for support.



Before performing any maintenance procedure or inspection, stop the engine, wait five minutes to allow all parts to cool. Disconnect the spark plug wire, keeping it away from the spark plug.

Troubleshooting Table

SYMPTOM	Possible Cause				
The gas engine won't	\Rightarrow	Is the ignition switch in the "On" position?			
start. (Please refer to the	\Rightarrow	Are you using fresh, clean gas? If the gas is old, change it. Use a fuel stabilizer if you keep gas longer than 30 days.			
engine owner's manual for engine-specific procedures.)	\Rightarrow	Is the spark plug clean? If the spark plug is dirty or cracked, change it. If it's oily, leave it out, hold a rag over the plug hole and pull the recoil cord several times to blow out any oil in the cylinder, then wipe off the plug and reinsert it.			
	\Rightarrow	If your engine still won't start, contact us at www.DRpower.com for assistance.			
The gas engine lacks	\Rightarrow	Check that the Throttle Lever is in the "Run" position and the Choke is off.			
power or is not running smoothly.	\Rightarrow	Is the air filter clean? If it's dirty, change it following the procedure in the engine manufacturer's owner's manual.			
(Please refer to the engine owner's manual	\Rightarrow	Is the spark plug clean? If it's fouled or cracked, change it. If it's oily, leave it out, hold a rag over the plug hole and pull your recoil cord several times to blow out any oil in the cylinder, then wipe off the plug and reinsert it.			
for engine-specific procedures.)	\Rightarrow	Are you using fresh, clean unleaded gas? If it's old, change it. Use a fuel stabilizer if you keep gas longer than 30 days.			
	\Rightarrow	Does your engine have the right amount of clean oil? If it's dirty, change it following the procedure in the engine manufacturer's owner's manual.			
	\Rightarrow	Check the oil level and adjust as needed.			
	\Rightarrow	If your engine still lacks power, contact us at www.DRpower.com for assistance.			
Gas Engine smokes.	\Rightarrow	The choke may still be on; Move the choke lever to the open position.			
(Please refer to the	\Rightarrow	Check the oil level and adjust as needed.			
engine owner's manual	\Rightarrow	Check the air filter and clean or replace if needed.			
for engine-specific procedures.)	\Rightarrow	You may be using the wrong oil—too light for the temperature. Refer to your Engine Owner's Manual for detailed information.			
	\Rightarrow	Clean the cooling fins if they're dirty.			
	\Rightarrow	If the engine still smokes, contact us at www.DRpower.com for assistance.			
With Motor running and the handle is pushed,	\Rightarrow	Make sure the voltage at the outlet or extension cord connection to the Splitter is 110-120VAC.			
the wedge does not move or is slow to respond.	\Rightarrow	If you are using an extension cord, make sure that the cord is no more than 25 feet long, is not smaller than 12 AWG wire or no more than 50 feet long, and is not smaller than 10 AWG wire.			
	\Rightarrow	If the Wedge will still not move or is slow to respond, Visit our website at www.DRPower.com, or call 1-800-DR-OWNER (376-9637) for assistance.			

Troubleshooting Table (Continued)

▲ WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait five minutes to allow all parts to cool. Disconnect the spark plug wire, keeping it away from the spark plug.

S YMPTOM	POSSIBLE CAUSE		
The Motor does not run	⇒ Splitter unplugged; plug Splitter in.		
	⇒ Splitter Cord may be damaged; visit our website at www.DRPower.com or call 1-800-DR-OWNER (376-9637) for assistance.		
	\Rightarrow The motor Reset has tripped; push the Reset Button.		
	⇒ If the above causes are not the problem, a circuit breaker might need to be reset; Reset Circuit Breaker.		
	⇒ If the Motor still does not run, visit our website at www.DRPower.com or call 1-800-DR-OWNER (376-9637) for assistance.		
Log fails to split.	⇒ Incorrect positioning of the log; re-position the log flat on the splitting beam with the end squarely against the Wedge.		
	⇒ Log exceeds permitted dimensions or the wood is too hard for the capacity of the machine. The maximum log length is 18" with a maximum diameter of 30" for the Splitter		
Rack returning very slow or not returning	⇒ Check for wood chips or debris between ram bushing plate and beam. Clean beam of built up/caked on debris.		
properly.	\Rightarrow Check rack lift bearing for alignment or damage.		
	\Rightarrow Return spring is unhooked or damaged. Reconnect or replace as needed.		
Operator Lever snapping out of gear or not staying in gear.	⇒ Lever not all the way forward when rack comes under full load. Push lever quicker and more forcefully into the full forward position. A hard stop should be felt at the end of the stroke when engaging the handle.		
	⇒ Stop bolts may be bent or not adjusted properly; contact us at www.DRpower.com for assistance.		
	\Rightarrow Ram has been overloaded at lower part of face. Check rack gear for straightness.		
Rack slamming back too	⇒ Wedge end of machine too high. Must be almost level with ram end or just slightly higher.		
fast.	\Rightarrow Springs not operating properly. Fix or replace as needed.		
Machine does not seem to have full splitting power.	⇒ The belt may be too loose and slipping. Adjust or replace belt as needed.		
Operator Lever not	⇒ Clean wood chips or other debris from under rack.		
engaging rack with pinion gear.	⇒ Clean accumulated dirt from frame where carriage assembly rests against rubber bumpers.		
Rack not disengaging from pinion when handle is released	⇒ Belt must be loosened to allow for slipping while disengaging		

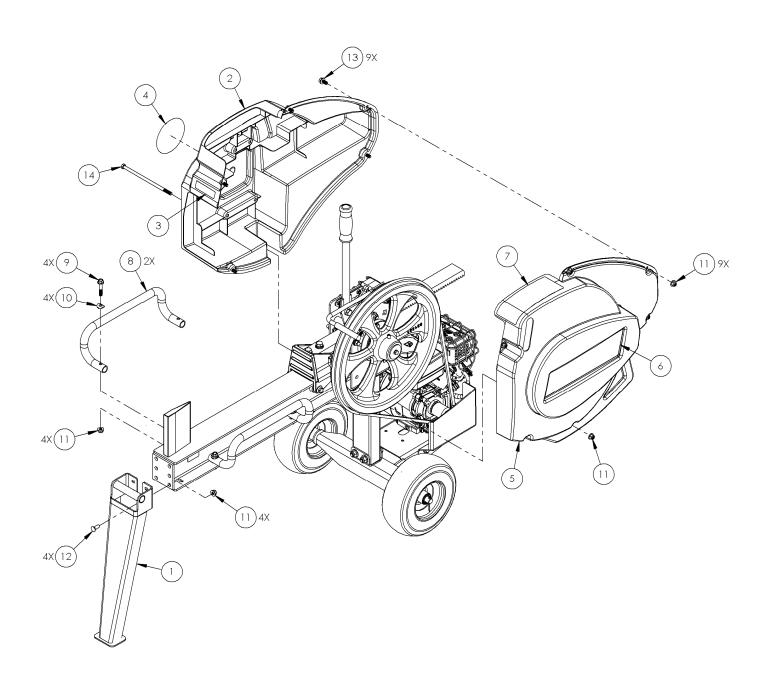
Chapter 6: Parts Lists and Schematic Diagrams

Parts List – FRAME STAND AND GUARD ASSEMBLY

NOTE: Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description	Ref#	Part#	Description
1	34497	Stand, Frame	8	34496	Cradle
2	35178	Guard, RH, With Labels	9	33350	Bolt, Hex, Flange, 3/8-16 X 2"
3	25044	Label, Warning, Pinch Point, 3.5" X 1"	10	28551	Washer, Saddle, 3/8" X 1"
4	35187	Label, DR Logo, 5" Diameter	11	33333	Nut, Nylon Lock, Flanged, 3/8-16
5	35179	Guard, LH, With Labels	12	32104	Bolt, Carriage, 3/8-16 X 1", GR5, ZP
6	35186	Label, Branding	13	34512	Bolt, Hex, Flange, 3/8-16 X .75", GR5, ZP
7	35185	Label, Operation, Warning, Caution	14	34513	Bolt, HCS, 3/8-16 X 8 1/2", GR5, ZP

Schematic – FRAME STAND AND GUARD ASSEMBLY

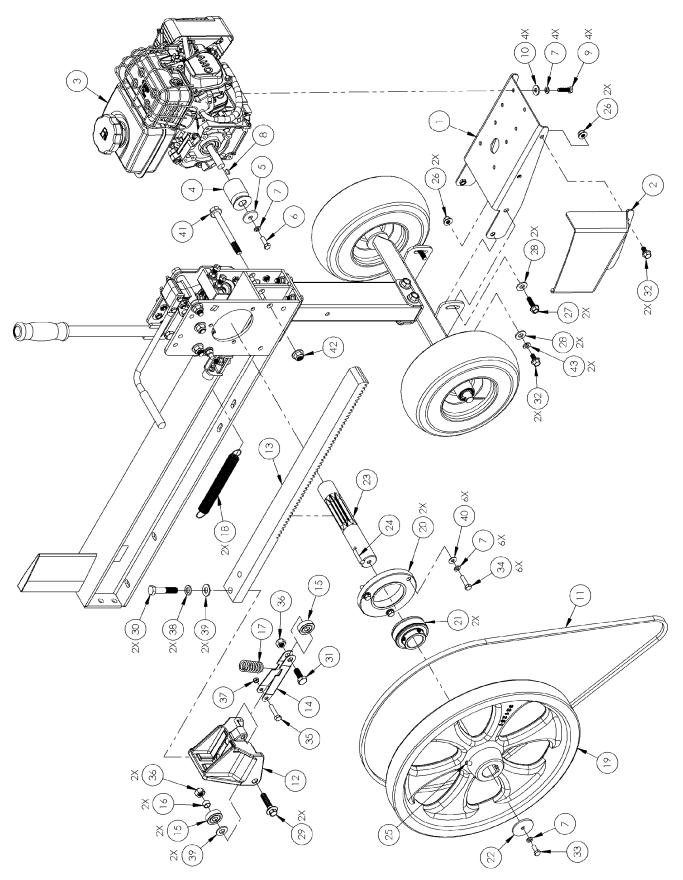


Parts List – DRIVE ASSEMBLY

NOTE: Part numbers listed are available through DR Power Equipment.

Ref#	Part#	<u>Description</u>	Ref#	Part#	Description
1	34493	Mount, Engine	22	32122	Washer, 5/16" ID, 2.0" OD, 0.13" t
2	34500	Guard, Belt	23	34491	Gear, Pinion
3	34507	Engine, 3.5tq, 100cc, Rato, Ms, W/	24	29494	Key, Square, 3/8" X 3/8" X 1.5" L
		Labels	25	29493	Screw, Set, Cup Point, 3/8-16 X .5" L
4	34508	Pulley, 4L, 3/16" Keyway	26	33333	Nut, Nylon Lock, Flanged, 3/8-16
5	16514	Washer, .385" ID, 1.39" OD, .15" t	27	33351	Bolt, Hex, Flange, 3/8-16 X 1.25"
6	17882	Bolt, HCS, 5/16-24 X 1", GR2 ZP	28	112391	Washer, Flat, 3/8", USS
7	11243	Washer, Lock, Split, 5/16"	29	33358	Bolt, Hex, Flange, M12-1.75 X 50, CL 8.8,
8	10638	Key, Square, 3/16" X 3/16" X 1.5" L			ZP
9	30245	Bolt, HHCS, M8-1.25 X 30, Class8 ZP	30	31238	Bolt, HCS, 1/2-20 X 2.5", GR8, ZP
10	11241	Washer, Flat, 5/16" USS, ZP	31	33354	Bolt, HCS, M12-1.75 X 30, CL 8.8, ZP
11	34505	Belt	32	34512	Bolt, Hex, Flange, 3/8-16 X .75", GR5, ZP
12	32107	Ram	33	12321	Bolt, HCS, 5/16-18 X 3/4", GR5, ZP
13	34492	Gear, Rack	34	12336	Bolt, HHCS, 5/16-18 X 1.25", GR5, ZP
14	32099	Bracket, Rack, Lifter	35	13443	Bolt, HCS, 5/16-18 X 1-1/2", GR5, ZP
15	32111	Bearing, 6301, 12mm ID, 37mm OD,	36	30253	Nut, Nylon Lock, M12-1.75
		12mm W	37	18755	Nut, Lock, 5/16-18, Thin Nylon Insert
16	33346	Bushing, Bronze, 0.5" ID, 0.625" OD,	38	11242	Washer, Lock, 0.5"
	00.460	0.375"	39	23499	Washer, SAE Flat, 1/2", ZP
17	29468	Spring, Compression, Carriage	40	11238	Washer, Flat, 1/4"
18	35183	Spring, Extension, Carriage, Return	41	33349	Bolt, Hex, Flange, 1/2-13 X 5"
19	32125	Flywheel, 55lb	42	33335	Nut, Nylon Lock, Flanged, 1/2-13
20	29455	Housing, Bearing	43	18081	Washer, Lock, 3/8"
21	29456	Insert Bearing W/ Snap Ring			

Schematic – DRIVE ASSEMBLY

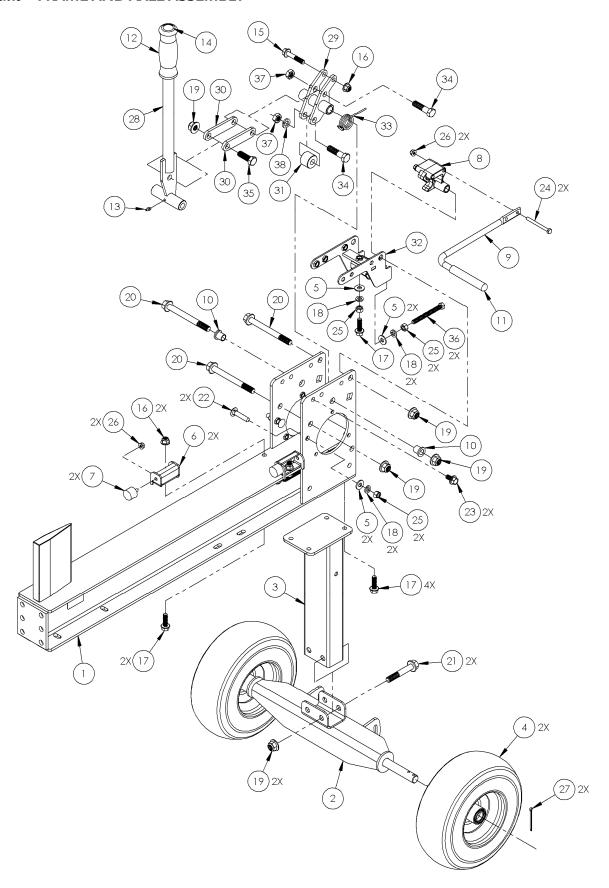


Parts List – FRAME AND AXLE ASSEMBLY

NOTE: Part numbers listed are available through DR Power Equipment.

Ref#	Part#	<u>Description</u>	Ref#	Part#	<u>Description</u>
1	35176	Frame, Main, With Labels	20	33349	Bolt, Hex, Flange, 1/2-13 X 5"
2	34494	Axle	21	34511	Bolt, Hex, Flange, 1/2-13 X 3", GR5, ZP
3	34495	Support, Frame	22	23103	Bolt, Carr, 3/8-16 X 1-3/4", GR5, ZP
4	34501	Wheel, Pneumatic, Turf Saver Tread, 11	23	34512	Bolt, Hex, Flange, 3/8-16 X .75", GR5, ZP
		X 4	24	18085	Bolt, HCS, 1/4-20 X 2.75"
5	11241	Washer, Flat, 5/16" USS, ZP	25	12683	Nut, 3/8-16, ZP
6	32126	Bracket, Return, Stop	26	33331	Nut, Nylon Lock, Flanged, 1/4-20
7	29498	Cylinder, Bumper	27	25311	Pin, Cotter, 5/32" X 2"
8	32106	Catch, Handle Engagement	28	35223	Handle
9	32109	Lever, 2 Hand	29	35225	Yoke, Handle
10	32098	Bushing, Bronze, SAE 954	30	35224	Link, Handle
11	11022	Grip, Shift Handle	31	35237	Bushing, Roller
12	33355	Grip, Foam, 1" Tube, 5.1" Long	32	35238	Bracket, Control Interface
13	10189	Grease Fitting, 1/4-28 Straight	33	35240	Spring, Torsion
14	10948	Cap, Round 1"	34	35357	Bolt, HCS, 1/2-13 X 2", GR8, ZP
15	33350	Bolt, Hex, Flange, 3/8-16 X 2"	35	22909	Bolt, HCS, 1/2-13 X 1-1/2", GR5, ZP
16	33333	Nut, Nylon Lock, Flanged, 3/8-16	36	35358	Bolt, Hex Tap Bolt, Fully Threaded, 3/8-
17	33351	Bolt, Hex, Flange, 3/8-16 X 1.25"			16 X 3-1/2", GR8, ZP
18	18081	Washer, Lock, 3/8"	37	35359	Nut, Hex, Jam, 1/2-13, GR5, ZP
19	33335	Nut, Nylon Lock, Flanged, 1/2-13	38	11242	Washer, Lock, 0.5"

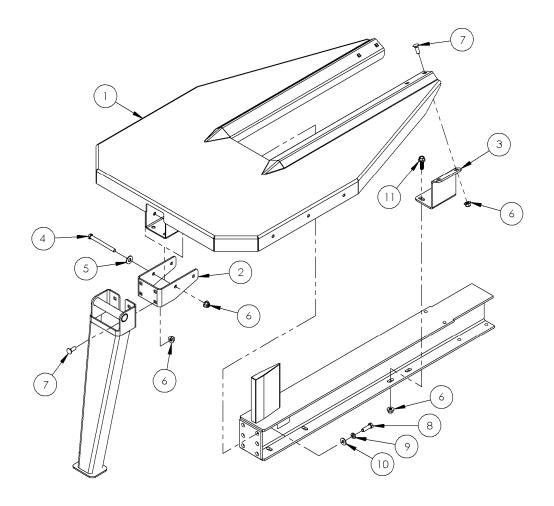
Schematic – FRAME AND AXLE ASSEMBLY



Parts List – TRAY KIT ASSEMBLY

NOTE: Part numbers listed are available through DR Power Equipment.

Ref#	Part#	<u>Description</u>			Ref# Part# Description
1	31363	Table, Log	7	32104	Bolt, Carriage, 3/8-16 X 1", GR5, ZP
2	34503	Bracket, Log Table	8	15043	Bolt, HHCS, 3/8-16 X 1-1/4", GR5
3	32105	Mount, Tray	9	18081	Washer, Lock, 3/8"
4	22912	Bolt, HHCS, 3/8-16 X 4.5", G5, ZP	10	11241	Washer, Flat, 5/16 USS, ZP
5	11239	Washer, Flat, 3/8, USS	11	33351	Bolt, Hex, Flange, 3/8-16 X 1.25"
6	33333	Nut, Nylon Lock, Flanged, 3/8-16			



Notes:

Daily Checklist for the DR PREMIER RAPIDFIRE LOG SPLITTER

To help maintain your DR PREMIER RAPIDFIRE LOG SPLITTER for optimum performance, we recommend you follow this checklist each time you use your Log Splitter.

A WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait five minutes to allow all parts to cool. Disconnect the spark plug wire, keeping it away from the spark plug.

] Check the	Engine Oil	l and Gas	Tank	level.
-------------	------------	-----------	------	--------

- [] Check that Engine is clean of debris.
 - 1 Check the general condition of the Log Splitter, e.g.; Nuts, Bolts, Welds, etc.
 - Check Tire Pressure and wear.
- [] Check the Frame for wear and damage.
- [] Check the Wedge for nicks and wear. Sharpen if needed.
- [] Apply a rust preventative (Fluid Film or equivalent) to any bare metal areas on the top of the Rail. This will assure the longest possible service life of the Wedge.

End of Season and Storage

A WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait five minutes to allow all parts to cool. Disconnect the spark plug wire, keeping it away from the spark plug.

- · Change the Engine Oil.
- Clean or replace the Air Filter.
- Check the Wedge for nicks and wear. Sharpen if needed.
- Apply Grease to the Rack and Pinion Teeth.
- Apply a rust preventative (Fluid Film or equivalent) to any bare metal areas on the top of the Rail.
- If your DR PREMIER RAPIDFIRE LOG SPLITTER will be idle for more than 30 days, we recommend using a gas stabilizer. This will prevent sediment from gumming up the Carburetor. If there is dirt or moisture in the gas or Tank, remove it by draining the Tank. Completely fill the Tank with fresh, unleaded gas and add the appropriate amount of stabilizer or gasoline additive. Run the Engine for a short time to allow the additive to circulate.
- Clean the exterior of the unit to remove all dirt, grease, and any other foreign material. Clean dirt and debris from the Cylinder Head Cooling Fins and Muffler area of the Engine. To prevent rust, touch up painted surfaces that have been scratched or chipped.
- Be sure all Nuts, Bolts, and Screws are securely fastened.
- Remove the Spark Plug and pour about 1 ounce of Motor Oil into the Cylinder hole. Replace the Plug and crank the Engine over a couple of times using the Pull Cord. This will coat the Piston and seat the Valves to prevent moisture buildup.
- If possible, store the Log Splitter in a dry, protected place. If it is necessary to store the Log Splitter outside, cover it with a protective material (especially the Engine).

