



PRODUCTS **

Iron & Oak 20 Ton Tractor Mount Horizontal Log Splitter

Model TMHIO





Owner/Operator and Safety Manual



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NOTE: Iron and Oak Commercial Products reserves the right to make technical changes for product improvement. This manual may contain illustrations and photographs, for demonstration purposes, which slightly deviate from the actual product design.

Serial Number	
Date of Purchase	

Please enter the serial number and purchase date of your log splitter in the space provided. Keep this manual for future reference.



AWARNING



To avoid personal injury or death, carefully read and understand all instructions pertaining to the Iron & Oak Commercial Products' log splitter.

Do not attempt to assemble, operate, or maintain our product without fully understanding all our instructions and safety precautions. Do not operate the log splitter unless you read and understand the instructions and warnings in this manual. If any doubt or question arises about the correct or safe method of performing anything found in this or other Iron & Oak Commercial Products' manuals, contact your Iron & Oak Commercial Products' dealer or call the Sales and Service representatives at our main headquarters. Proper care is your responsibility.

A WARNING

Accidents can often be avoided by being alert and recognizing potentially hazardous situations. Any individuals operating, maintaining, or repairing products manufactured by Iron & Oak Commercial Products should have the necessary training, skills, and tools required to perform these functions properly and safely. The safety information in this manual serves as a basic guide in an attempt to prevent injury or death.

Iron & Oak Commercial Products cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this manual and on the product itself are, therefore, not all inclusive. If tools, procedures, work methods, or operating techniques that are not specifically mentioned by Iron & Oak Commercial Products are used, you must satisfy yourself that they are safe for you and for others. Make sure the log splitter will not be damaged or made unsafe by any operation, lubrication, maintenance, or repair procedures that you choose.

DO NOT proceed if any doubt arises about the correct or safe method of performing anything found in this or other Iron & Oak Commercial Products' manuals. Seek out expert assistance from a qualified person before continuing.

Introduction

The commercial TMH10 Horizontal Tractor Mount Log Splitter is designed for tough applications elevated or on the ground. With up to 20 tons of splitting force, the TMH10 will handle most of your commercial log splitting needs. The log splitter attaches to any tractor with a class 1, 2, or 3 three-point hitch.

Power for the TMH10 comes directly from tractor-supplied hydraulic pressure. The maximum splitting force is determined by the pressure output of the tractor's hydraulic system. For example, 3000 psi of pressure produces 20 tons of splitting force, 2000 psi produces 12.5 tons, and 1500 psi produces 9 tons.

An attractive, powder-coated finish provides the finest protection available and Iron & Oak's rigid, quality-control and component testing help ensure years of productive, reliable service. Since 1982, the name Iron & Oak has stood for quality and reliability when it comes to log splitters and wood processing products.

Iron & Oak Commercial Products offers the finest commercial log splitter on the market today!

- ✔ Rugged, heavy-duty construction for years of exceptional service.
- ✓ Fits category 1, 2, and 3 tractor hitches.
- Rigid, quality-control during manufacturing ensures greater reliability.
- Factory testing of all major components.
- ✓ Powder-coated finish for the best appearance and weather protection.
- ✓ Year-round manufacturing, parts, and support.

For additional information, contact us at:

Iron & Oak Commercial Products 1705 N. Shabbona St. Streator, Illinois 61364-1301

Phone: (800) 817-1005 (toll free)

(815) 672-8596

Fax: (815) 672-9073

E-mail: sales@logsplitters-ironoak.com

Web Site: www.ironandoak.com

Safety

The following is a list of safety rules you must follow in order to use your log splitter safely.

Personal Protection



To avoid personal injury or death, carefully read and understand all instructions pertaining to the log splitter including the engine manufacturer's operating and maintenance instruction manual.









Always wear protective gear, such as safety goggles, tight-fitting gloves without drawstrings or loose cuffs, steel-toed shoes, and a protective hearing device.



To prevent injury, make sure all decals are attached to the log splitter and are legible at all times.

Worksite Safety



To avoid tripping, do not leave tools, logs, or other components laying around in the work area.



NEVER operate your log splitter on slippery, wet, muddy, or icy surfaces. The location you choose should be flat, dry, and free from any tall grass, brush, or other interferences.



NEVER operate the tractor in an enclosed area. Exhaust fumes contain carbon monoxide which can be deadly when inhaled. Make sure the area is well ventilated.



NEVER use your log splitter at night.



ALWAYS operate your log splitter on dry, solid, level ground.

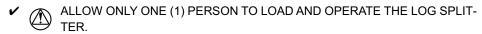


ALWAYS engage the parking brake and block the wheels of the tractor to prevent movement while operating the log splitter.



Sudden movement or accidental starting of the tractor can cause personal injury or death to persons on or near the tractor. When working on or near the tractor, park the tractor on a smooth level surface, stop the engine, and engage the parking brake.

Operating Safety



- Allow only adults to operate the log splitter. No one under the age of 18 should be allowed to operate the log splitter.
- Always keep bystanders, including children and pets, at least twenty-five (25) feet away from the work area. Only the operator should stand near the equipment, and the operator should stand only within the safe operating zone prescribed in this manual (see the photos on safe and unsafe operating zones in the "Operation" section).
- When the ram of the log splitter is in the return mode, keep your hands off the machine the log splitter is designed to automatically stop when the cylinder is fully retracted.
- Personal injury or death can result from not engaging the tractor's parking brake while attaching the log splitter. If the parking brake is not engaged, the tractor may roll while you are on or near the tractor. Always engage the parking brake before leaving the tractor.
- Personal injury could result from an improperly coupled log splitter. Be certain draft links, top link, and hitch pins are fully engaged on both sides before using the log splitter.
- An improperly installed log splitter could become dislodged from the tractor during operation. This could cause injury or death. Do not operate the tractor until you are sure the log splitter attachment is properly connected.
- Heavy three-point hitch mounted equipment reduces road stability, regardless of the amount of front-end counterweight added. Insufficient roading stability can lead to an accident, causing personal injury and property damage. Reduce speed when encountering rough terrain or whenever the tractor's directional stability is reduced.
- Do not allow any person to operate the log splitter until they have read and understood the safe operating instructions contained in this manual.
- Machine instability can result in injury or death. To ensure stability during operation, do not overload the tractor and follow all the tractor's manufacturers safety recommendations.





Do not, under any circumstances, alter your log splitter. This equipment was designed and engineered to be used in accordance with the operating instructions. Altering the equipment, or using the equipment in such a way as to circumvent its design capabilities and capacities, could result in serious or fatal injury and WILL VOID THE WARRANTY.





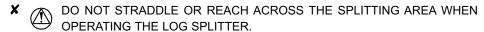
Never operate, or allow anyone else to operate, this equipment while under the influence of medication, drugs, or alcohol.

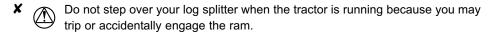


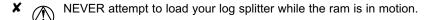
Never wear loose clothing or jewelry that may get caught or become entangled in the log splitter.



NEVER place hands or feet between log and splitting wedge or between log and ram during the forward or reverse stroke.







Only use your hand to operate the control lever. NEVER use your foot, knee, a rope, or any other extension device.

Log Splitting Safety

- Always keep your fingers away from any cracks that open in the log during the splitting operation.
- ALWAYS make sure that 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. Logs should be 24 inches or shorter in length.
- NEVER try to split two logs on top of each other.
- Never pile logs to be split in a manner that will cause you to reach across the log splitter.

Maintenance and Repair



Follow all safety rules, because most accidents involving the operation, maintenance, or repair of products occur because the assembler/owner/operator failed to observe basic safety rules or operating instructions.



ALWAYS inspect your log splitter before each use. Make sure all nuts, bolts, screws, hydraulic fittings, hose clamps, etc. are securely tightened.

- ALWAYS check the oil level in the hydraulic oil tank.
- NEVER operate your log splitter when it's in need of repair or is in poor mechanical condition.
- NEVER make alterations to your log splitter in any manner. Such alterations may cause the log splitter to become unsafe and WILL VOID THE WAR-RANTY.
- NEVER attach a rope or extension to the control lever or add width or height to the splitting wedge. Such ALTERATIONS may cause the log splitter to become UNSAFE and WILL VOID THE WARRANTY.
- ALWAYS clean the unit after each use. If possible, store the unit inside or cover it completely, if stored outside.

Assembly Instructions

Shipping List

The following charts contain the list of parts shipped with your log splitter.

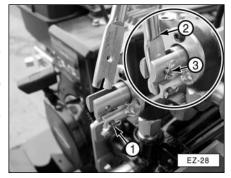
	TMVH02/PTO
Qty.	Valve Assembly
1	Control Lever (valve)
1	Knob (valve lever)
1	Valve Link
3	Clevis Pins
3	Cotter Pins

Attaching Handle

1. Attach the valve control handle to the valve. First, install clevis pin and hairpin clip (1) through the bottom hole on the valve.

Next, insert the forked end of handle (2) over pin (1).

Finally, align the hole in the handle with the top hole in the valve and insert clevis pin and hairpin clip (3).



Assembly and Initial Installation Procedure

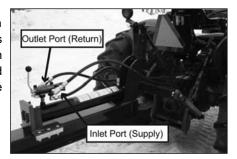
 Attach the tractor mount log splitter to the three-point tractor hitch, as shown, and according to the directions found in your tractor operating manual.



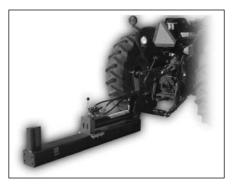
Lower the log splitter to the ground. Measure the distances from the inlet and outlet port of the valve to the tractor's supply and return port.



3. Attach customer supplied 3/4 inch hydraulic hose from your tractor's hydraulic supply port to the inlet port on the control valve. Connect the second hose from the tractor's return port to the outlet port on the control valve.



4. The log splitter is now completely assembled. Follow the "Start-Up Procedure" in the following section.



Start-Up Procedure

Model TMH10

- 1. Lubricate the surface of the slide rail with grease. This will help to prevent wear between the slide plates and the slide rail.
- 2. Push the valve control handle to the forward position (towards the front of the cylinder) until the cylinder piston moves forward. (Keep everything away from the splitting wedge during this step).
- 3. Cycle the log splitter several times.
- **4**. Push the valve control handle to the retract position and retract the cylinder piston. The cylinder valve will automatically stop the cylinder from retracting when it reaches the end of its stroke.
- 5. Your log splitter is now ready to use.

Operation

AWARNING



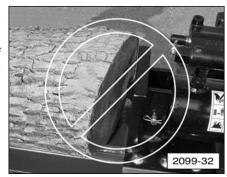
Do not attempt to operate the log splitter without fully understanding all our instructions, safety precautions, and/or warnings. If any doubt or question arises about the correct or safe method of performing anything found in this or other Iron & Oak Products' manuals, contact your

Iron & Oak Products' dealer or call the Sales and Service representatives at our main headquarters. Proper care is your responsibility.

When operating the log splitter make sure you are standing in the **safe operating area**, as shown in these pictures. You must stay in the **safe operating area** at all times when the splitting wedge is in motion (whether extending or retracting). Never place any part of your body into a position which would cause an unsafe operating condition.

- Place the tractor and log splitter on flat, dry ground. Make sure you read all recommendations from the "Safety" section before using the log splitter.
- 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. All logs should be 24 inches long or shorter.





A WARNING

Never attempt to split wood across the grain. The log splitter was not designed for cross-grain splitting. Doing so will damage the log splitter and may cause personal injury.



WARNING











Before loading and operating the log splitter, always wear protective gear, such as safety goggles, face shield, hearing protection,

tight-fitting gloves without drawstrings or loose cuffs, and steel-toed shoes.

- 3. Start the tractor. Warm up the PTO pump and/or hydraulic system by running the engine at half throttle for three to four minutes, then advance the engine throttle control to maximum speed.
- 4. Use the following photos for the correct and incorrect methods of splitting logs. Never split a log using an incorrect or unsafe method.
 - a. Place the log on the log splitter. Grasp the log on the sides near the middle of the block. Center the log, side-to-side, on the rail of the log splitter, making sure that the sawed end is against the splitting wedge.



ACAUTION



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.



b. Using only your hand, push the control lever forward (towards the log). If the log moves before it is contacted by the splitting wedge, release the control lever and then reposition the log. Operate the log splitter only when standing in the safe operating area, as shown in the picture.



ACAUTION



If you find you must hold the log until the wedge touches it and holds it in place, be very careful

not to put your hand between the log and the end plate or the log and the wedge. If you must, hold the log on top and in the middle. Remove your hand immediately when the splitting wedge engages the log. Never use your hip or any extension device to operate the valve control handle.

A WARNING



Do not operate the log splitter by reaching across the rail. This is a very UNSAFE method which

could cause personal injury or even death.

A WARNING



Do not reach or step across the rail while the log splitter is running. This is a very UNSAFE

method which could cause personal injury or even death.

c. Hold the control lever, extending the splitting wedge, until the log is split or the cylinder rod stops at its maximum travel position. As the log is being split, DO NOT reach forward and attempt to catch the split wood — let it fall to the ground.



- d. Once the wedge reaches its full forward travel, pull back on the control lever to the full retract position. The ram of the cylinder will automatically retract into the cylinder. It is not necessary to hold the control lever as the cylinder retracts. Stop the wedge if the log sticks (see caution below). When the cylinder is fully retracted, the control valve will automatically shift to a neutral position.
- e. DO NOT load another log or remove split pieces from the rail until the wedge has completely stopped and the control handle automatically returns to the neutral position.



ACAUTION



Depending on the type of wood being split, a log may not always break into two pieces and fall to

the ground. If a log sticks to the wedge, place the valve handle in the neutral position (stop the wedge from retracting) and carefully remove the log from the wedge. Allowing the log to remain attached to the wedge when it is fully retracted could lead to possible injury and/or damage to the log splitter.

Inspection and Maintenance

General Maintenance Check (before operating)

The hydraulic system (hoses, cylinder, and pump) should be carefully inspected before each use. Also, inspect the mechanical parts at the same time. Make sure all clamps, nuts, bolts, fittings, etc. are properly installed and tightened.

A WARNING



Do not check for leaks with your hand. Leaks can be located by passing a piece of cardboard or wood around the suspected leak and looking for discoloration. High-pressure fluid escaping from a very small hole can be almost invisible. Escaping fluid under pressure can have sufficient force to penetrate skin, causing serious injury or even death. If fluid is injected into your skin, it must be treated immediately by a doctor familiar with this type of injury.

Always replace frayed, kinked, or cracked hoses and/or other damaged hydraulic components with Iron & Oak Commercial Products' authorized parts and components specified in the "Parts" section of this manual. Replacement parts from secondary suppliers (not original Iron & Oak replacement parts) can lead to product damage and/or personal injury, and will void the warranty.

Should it become necessary to loosen or remove any hydraulic fitting or line, be sure to relieve all hydraulic pressure by shutting off the tractor and moving the valve control handle back and forth several times until no cylinder movement is visible.

Storage

Between each use of the log splitter, we recommend applying a rust preventative (WD-40 or equivalent) to any bare metal areas on the top of the rail.

Inspection and Maintenance

Mechanical Specifications (Model TMH10)

Three-Point Hitch	
Slide Rail	6" x 6" heavy-duty, formed steel
Wedge	9 inch, high-carbon steel, compound angle
Force/Tonnage	
	12.5 tons @ 2000 psi
	9 tons @ 1500 psi
Cylinder Stroke	24 inches
Log Opening	25 inch maximum
Operating Positions	Horizontal
Unit Weight	
Hydraulic Specifications	(Model TMH10)
Cylinder Size	4 x 24 inch, clevis type cylinder with 1.75 inch rod

Safety Release Control Valve Detent, auto return

Troubleshooting

The following section will detail procedures for checking your log splitter should you encounter a malfunction. Iron & Oak Commercial Products, Inc. recommends that you do not attempt to make repairs to the log splitter. In the long run, it is better to take your log splitter to a servicing lawn and garden dealer for repairs.

Problem: When the control handle is pushed forward (extend), the wedge does not move.

- 1. Check tractor hydraulic tank to make sure it is properly filled.
- 2. Make sure the tractor hydraulics are functioning.
- 4. Disconnect the wedge from the cylinder. Grasp the hydraulic cylinder shaft and try to pull it out. If the rod comes out easily, you will need to rebuild or replace the cylinder.

Problem: The wedge moves slowly, but will split wood.

- 1. Check the output of the tractor's supply oil.
- 2. For PTO models check the output of the PTO pump.

Problem: The ram will not automatically retract.

- 1. Check the slide rail or wedge assembly for damage.
- 2. Push the valve handle to the retract position. If the handle will not stay in this position, adjust valve detent, as described below.

Detent Adjustment Procedure

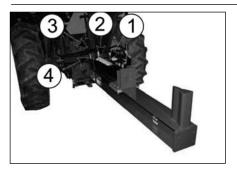
- a. Locate adjustment screw on lower side of valve body.
- b. Loosen locknuts.
- c. Turn adjustment screw clockwise one-half turn and retighten locknuts.
- **d**. Start tractor hydraulics and test for detent operation. If detent does not work, repeat Steps b and c.
- 3. If adjustment of detent does not correct the problem, replace the valve assembly.

Decals

A WARNING



Make sure all decals are attached to the log splitter and/or engine and are legible at all times.



(1a)

WARNING



Read safety instructions before operating this equipment. Failure to do so may result in crush and/or amputation injuries from moving parts.

SAFETY INSTRUCTIONS

- · Operate log splitter on flat, dry ground.
- Lock rail into Vertical or Horizontal position before using. (Some Iron & Oak models operate only in Horizontal position.)
- NO ONE under age 18 is allowed to operate log splitter.
- Keep bystanders, children, and helpers at least 25 ft. away.
- Wear safety glasses, tight fitting work gloves, and safety shoes.
- Keep hands and all body parts away from splitting wedge, base plate, partially split wood, and moving parts.
- · Lift logs by the sides, not the ends.
- Only one person is permitted to stabilize logs and operate the controls.
- Do not check for oil leaks with your hand. Use a cloth. High pressure hydraulic fluid can penetrate your skin, causing blood poisoning.
- Never operate log splitter under the influence of alcohol or drugs.

(1b)

A WARNING



Read and understand operator's manual before using this machine. Failure to follow instructions could result in serious injury.

(1c)

OPERATING INSTRUCTIONS

- Read Owner/Operator manual for complete instructions.
- 2. Start engine using instructions from engine manual. Advance throttle control to maximum speed.
- 3. Lift log by sides and place onto rail, against base plate or wedge.
- 4. If necessary, stabilize log by holding the top, never the end.
- Move control handle to FORWARD position to extend cylinder.
- 6. Release handle to STOP the cylinder.
- 7. Move control handle to REVERSE position to retract cylinder. Cylinder will retract automatically.

CONTROL VALVE

Reverse

Neutral

Forward





(3)



(4)



Item	Part No.	Description	Qty.
1	BR002308	Decal, Operating Safety (set)	1
2	BR002310	Decal, Warning Crush	1
3	BR002521	Decal, Serial Number	1
4	BR002621	Decal, Made in USA	1
(NS)	BR002499	Decal, Iron & Oak	2

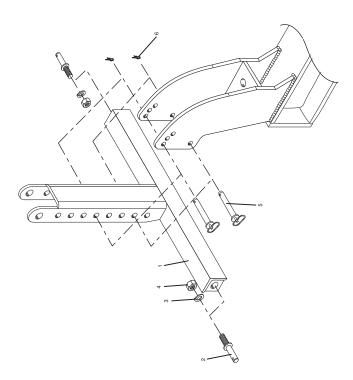
NS - not shown

Parts

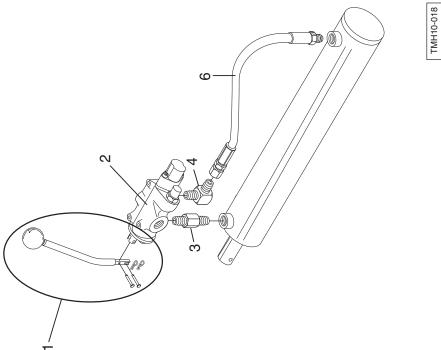
Model TMH10

IVI	od	eı	I IV	lH′	10														
Q.	~	_	2	2	9	9	9	_	_	_	_	2	⊒e.						
Description	Weldment, Rail	Weldment, Slide	Guide, Slide 5/8"	Retainer, Slide	Bolt, Carriage, 1/2-13 x 2-1/2"	Lockwasher, 1/2"	Nut, 1/2-13	Cylinder - SMC 4"x24"x1 3/4"	Pin, Clevis, 1/2 x 3" long	Clip, Hairpin, 3/32 x 1-3/4" long	Pin, Grooved, 1" dia.	Clip, Hairpin (Cylinder)	Note 1: Holes are used to mount optional BR021180 Log Cradle.	10 Note 2: Holes are used to mount optional BR026003SA Kit - PTO Tank (TM10)					
Part No.	BR026014	BR021258-03	BR013103	BR013104	BR001259	BR001404	BR001304	BR004057	BR001765	BR001761	BR008531A	BR001705	les are used to m	les are used to m - PTO Tank (TM1			•		TMH10-016
Item	_	2	3	4	2	9	7	80	6	10	11	12	Note 1: Ho	Note 2: Ho Kit				00	\
							<u>></u>		80					A .				9 9	Note 1
						(e	F (6)	9/,0			-0] s,			Note 2				

Item	Part No.	Description	Qty.
_	BR026002	Weldment, Hitch Bracket	-
2	BR001703	Pin Assembly, Lift Arm	7
3	BR001282	Lock Washer, 7/8"	2
4	BR001283	Lock Nut, 7/8"	7
5	BR001495	Hitch Pin, 5/8"	7
9	BR001764	Hairpin Clip	2



ltem	Part No.	Description	Ą.
-	BR004100HK	Handle Assembly Kit (Includes handle, clevis, pins,	
		and hairpin clips)	_
2	BR004102	Valve	~
3	BR001052	Fitting, Straight	~
4	BR004002K	Fitting, 90 Elbow	~
9	BR004119N	Hose, high Pressure	-



Warranty

For one year from the date of purchase, Iron & Oak Commercial Products Inc. will replace for the original purchaser, or repair free of charge, all parts of the Iron & Oak Commercial Products' Hydraulic Log Splitter, returned to our factory PREPAID and found upon inspection by us to be faulty, due to defects in materials or workmanship.

The warranty shall not apply to any unit which has been overloaded or misused or which has been installed, used, or operated contrary to our instructions, or which has been repaired or altered by anyone other than our authorized representative.

We shall not be liable for any contingent liabilities arising out of the improper function of any parts.

We make NO WARRANTY with respect to parts NOT of our manufacture, but we will carry out the terms of the warranties of their respective manufacturers.

If a service representative cannot be found in your area, call Iron & Oak Commercial Products at (800) 817-1005. Have your model and serial number on hand before calling.

Important Warranty Information

Iron & Oak Commercial Products, Inc. 1705 N. Shabbona St. Streator, IL 61364-1301 please fill out the information in the form below and mail in an envelope to the address listed on the right or To activate your Iron & Oak log splitter warranty,

go online to www.ironandoak.com			
Iron & Oak Log S	Iron & Oak Log Splitter Warranty Information	nation	- Please Print -
Model: TMH10 SERIAL#:	ERIAL #:		
OWNER'S NAME:			
ADDRESS:			
CITY:	STATE:	ZIP:	
Purchased From:			
Street Address:			
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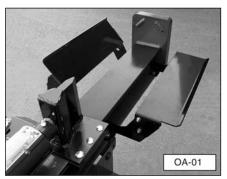
Your Signature:

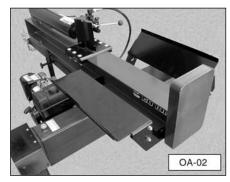
City:

Optional Attachments

Log Cradle (Part No. BR021180)

- ✓ Catches split logs no more stooping to pick up the split pieces.
- ✓ Each shelf is infinitely adjustable up to 45 degrees to accommodate various sizes of logs.
- ✓ Mounts easily to H-beam rail all hardware included, requires no drilling or welding on current model log splitters.

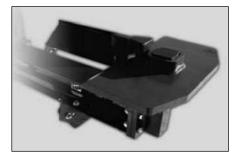




4-Way Wedge Assembly (Part No. BR021270-KIT)

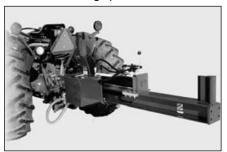
- Quickly splits large logs into pieces.
- ✓ Mounts easily to H-beam rail all hardware included, requires no drilling or welding on current model log splitters.
- ✓ Easy to remove quickly slide off the top.





PTO Kit (Part No. BR026003SA)

- ✓ Increases splitting force and cycle time.
- ✓ Easy to install.
- ✓ Mounts easily to H-beam rail all hardware included, requires no drilling or welding on current model log splitters.





Notes

Notes



COMMERCIAL PRODUCTS ™

Iron & Oak Commercial Products, Inc. 1705 N. Shabbona St.

Streator, Illinois 61364-1301

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Web Site: www.ironandoak.com