Where to find us

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Location	Unit 20-21, Foxwood Road, Chesterfield, S41 9RF

OXDALE PRODUCTS LTD

OPERATING AND MAINTENANCE MANUAL

PTO400 LOG SPLITTER





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Other Information

Manufacturer	**Oxdale Products** **Unit 20 – 21 Foxwood Road** **Off Sheepbridge Lane** **Chesterfield S41 9RF**
Year of Construction	**2023**
Machinery Type	**PTO400**
Mass of Machine	
Serial Number	
Max. Hydraulic Oil Operating Pressure	

RELATED PRODUCTS

Saw Bench

Available as Electric (240v) or PTO.

Electric – Swinging cradle, 600mm blade, cuts logs up to 10” diameter.

PTO – Grizzly 700R has a swinging cradle, suitable for logging, balanced blade for smooth and efficient cutting, 700mm blade which cuts lots up to 12” diameter.







Log Grab

Available in two sizes (42cm and 70 cm log diameter.)

Rear Mounted Crane

Ideal for lifting and moving heavy items behind your tractor and is available with or without lifting chains and timber grab.



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S44 6AU
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SAFETY

OXDALE PRODUCTS REQUIRES THAT ANYONE OPERATING OR MAINTAINING THE LOG SPLITTER SHALL READ AND UNDERSTAND ALL SAFETY, OPERATION AND MAINTENANCE DATA CONTAINED IN THIS USER MANUAL BEFORE USING THE LOG SPLITTER.

The log splitter is an attachment for tractors. **IT IS FOR SINGLE PERSON USE ONLY.** Hydraulic action provides the force to drive a splitting wedge into a log. Never operate the log splitter if unauthorised persons are in the area, especially small children.

Hazards associated with log splitting may be pinch points, splinters, eye injury and entanglement.

YOU ARE RESPONSIBLE FOR THE SAFE OPERATION AND MAINTENANCE OF THE LOG SPLITTER. THE MOST IMPORTANT SAFETY DEVICE ON THE EQUIPMENT IS A SAFE OPERATOR.

- Never put hands or fingers between the wedge and log to be split or near moving parts. Always stop the machine before cleaning or adjusting.
- The operator should wear suitable PPE including eye protection, gloves, ear protection and safety boots. Close fitting clothing should be worn to reduce the risk of entanglement.
- Never stand either side of the log splitter whilst operating the machine as sometimes logs can split apart violently. Stand in front of the machine to minimise the risk from falling debris.
- Never hold the top of a log whilst setting into place or splitting.
- Never split two logs on top of each other.
- The log splitter is very powerful, but some hard or wet wood can be difficult to split. Do not force the wedge as this cause injury to yourself and damage to the log splitter.
- Never let children operate machinery.
- Do not leave the machine unattended when running.
- Both ends of the log should be cut as square as possible to help prevent the log from riding out of the splitter. This is also aided by the three holes in the log platform as they have raised edges to reduce the risk of slipping.
- Always choose a working area free from obstructions and then keep the working area free from obstructions such as logs and split wood.

B5

DECLARATION OF CONFORMITY FOR CE MARKING

Company contact details:

Oxdale Products LTD (formerly CS Trading),

Units 20-21, Foxwood Rd, Chesterfield, Derbyshire, S41 9RF, UK

Registered Address:

Units 20-21, Foxwood Rd, Chesterfield, Derbyshire, S41 9RF, UK

Telephone:

01246 529020

Technical file compiled by:

Brian Thurman, Cobweb Cottage, 43 Main Road, Higham, Derbyshire, DE55 6EH, L

Oxdale Products LTD declares that the product:

Oxdale PTO400 log splitter

Conforms with the following EU Directives:

Directive 2006/42/EC Machinery

And conforms with the following EU Harmonized Standards:

EN 609-1:1999

Name of signatory: Chris Butcher

Position of signatory: Director

Signed: C. Butcher **Dated:** 20/1/13 **Place:** Stanfree

TECHNICAL SPECIFICATIONS – PTO400

Log Splitter		**Log Splitter Ram**	Model No.
MAX PTO SPEED	540rpm	Max Pressure	4780psi 330 Bar
Min HP	6hp	Ram Bore Diam	60mm
Weight	85kg	Ram Stroke	400mm
Tractor Mounting	Cat 1 / 2	Ram Rod Diam	40mm
Gear Box	Hydr app ML32-3.8	**Pump**	Saturn Group 2 E-10-N
Input Speed	540rpm	Input Speed	540rpm
Output Speed	2052rpm	Torque	33n/m
Max Output Speed	3000rpm	Displacement	16cc/rev
Max Input Toque	159 n/m	Flow	32 l/min
Max Output Toque	42 n/m	Max Cont. Pressure	250 bar 3625psi
Oil Type	SAE 9O Gear Oil	Max Peak Pressure	290 bar 4200psi
Filter	MP Filtration MPF0301AG-1P25NB	**Spool Block**	MB2
Type	Return	Mac Cont. Pressure	250 bar 3600psi
Filter Code	0301P25NB	Max Peak Pressure	320 bar 4600psi
		Max Back Pressure on Port T	30 bar 430psi
		Port Marked P	Pressure Line
		Port Marked T	Exhaust Line
		Relief Valve Setting	220 bar 3150psi

- The machine is **for single person use only, using both hands on the operating lever.**
- Operate the log splitter on solid, level ground.
- Always ensure the parking brake is engaged on the tractor.
- The log splitter is designed to only split wood. Using it for any other purpose may damage the machine and cause injury to the user and others in the area.
- Ensure that the machine is securely always attached to the tractor when in use.
- Store away safely in a dry place when not in use.

LABELS

The PTO400 log splitter should have the following labels attached. If any safety decals are missing or illegible, they should be replaced immediately.

SAFETY LABELS



"Danger! Keep clear of moving parts!"
Always keep hands and any loose clothing out of the way of moving parts, especially the splitting wedge.



Wear eye protection!"
Splitting logs carries the risk of flying debris, always wear eye protection.



"Wear gloves!"
Log splitting can involve contact with sharp objects, suitable gloves should always be worn.



"Wear appropriate footwear!"
Steel toecap boots should always be worn due to potential for heavy objects to fall off the splitter.



Wear hearing protection!"
Operators are required to wear hearing protection conforming to current standards.

WARRANTY INFORMATION

Warranty claims which arise because of incorrect operation, insufficient maintenance or the use on non – approved consumables (lubricants, hydraulic oils etc) will not be accepted by the manufacturer.

Only original Oxdale parts may be used. When ordered replacement parts please provide the model name and serial number, if bought through a dealer, please provide name. Pressure adjustments to valves must only be carried out by Oxdale authorised dealers.

No liability is accepted for damages caused by incorrect repairs, the non-use of original Oxdale replacement parts or repairs that have not been carried out by Oxdale or a pre-authorised specialist, the same applies to auxiliary parts and accessories.

All warranty claims are on a return to manufacturer basis.

All Oxdale Products have a full 12 month warranty.

refilling the tank. Check the oil level once the log splitter has been run and top up if required.

Gear Box

The oil level will need to be checked periodically. This can be done by looking at the level gauge and will require topping up as required.

The gear box oil needs to be changed annually or after 100 hours use.

To change the oil, remove the drain plug from the bottom of the unit, drain the oil into a suitable container and dispose of this in a responsible manner e.g. at an oil bank for recycling.

Replace the plug before refilling the oil to the indicated level on the level gauge on the side of the gear box. Check the level after running the log splitter for the first time following the oil change and top up as required.

QUICK GUIDE

Before First Use
Before the log splitter can be used for the first time

- Fit the log splitter to the tractor.
- Fit the pump to the PTO spine on the tractor.
- The hydraulic oil tank needs to be filled.
- Grease the ram collar.
- Fill the gear box with oil.

Pre-Operation Checklist
It is important for both personal safety and maintaining the good mechanical condition of the log splitter that this checklist is followed.

- Grease the slider after every ten hours of operation and pre/post season.
- Check that all the hydraulic fittings and connections are tight and in good condition.
- Check for damaged, work and missing parts and replace if necessary.
- Replace missing or illegible safety decals.

Operating Instructions

- Position the log splitter on solid level ground when operating.
- Apply the tractor brake securely and put the transmission into park/neutral.
- Using both hands grasp the safety levers and lift the handle to lower the ram, lower the handle to raise the ram.
- Operate ram to lift the wedge above the height of the log to be split.
- Position the centre of the log under the wedge. Move the wedge until contact is made with the log.
- Keep two hands on the control levers when splitting a log. The speed can be controlled by how much pressure you put on the control valve.
- Stop splitting if the log starts to move sideways and reposition the log as per the above instructions.
- Should the wedge lodge or become stuck in the log, return the wedge too the fully open position and gently rock the log free before continuing.

Post Operating Checks and Maintenance Instructions

- Wipe off the log splitter with a damp cloth periodically to keep it free from debris.
- The splitting wedge may need to be sharpened periodically, just using a file.

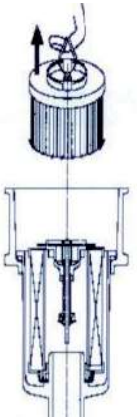
Hydraulic leaks can be hard to see, **never check for these leaks with your hand as the high pressure can inject oil droplets under the skin**. **Oil under the skin is a medical emergency** and if this happens you should seek immediate medical attention.

Hoses and fittings can become overheated from heavy use. When checking these, place your hand near the connection to sense for heat before touching any heated connections.

Hydraulic pumps and valves operate with minute clearance (tolerances) and grit, grime and other dirt which are pushed through these opening can eventually cause wear to the surfaces and damage the system. This is the greatest cause of damage to the hydraulic system.

Only use clean hydraulic oil in the log splitter and ensure that the fill area and any connections are also kept clean.

Filter Element Replacement



The replace the filter element, remove the top cover on the filter body. Using the handle on top of the filter remove the filter from the filter body. To replace the filter, reverse the removal process.

If you need to change the oil, you can drain the oil through the feed pipe to the pump.

Remove the pipe from the pump and drain the oil into a suitable container. If you are replacing the oil, you will also need to replace the filter element. Replace the pipe and filter before

POST OPERATING CHECKS AND MAINTENANCE

Always stop the machine before cleaning or adjusting.

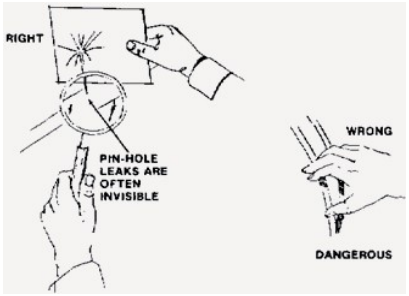
The log splitter should be cleaned down at the end of each day's work. It is advised that wood chips and other debris are removed from the unit as well as removing any contaminated grease from the wedge collar.

Check for any loose bolts or signs of other damage at regular intervals. The log splitter should be stored in a dry location. It should be stored in a safe manner to avoid being knocked over.

The PTO400 should be stored and transported in a vertical position.

Hydraulic System

Periodically check the hydraulic oil on the gauge on the side of the unit and top up as required. Check also for oil leaks, worn hoses and loose fittings. Please note that the pressure within the hydraulic system can exceed 200psi. Reinforced hoses develop pin hole leaks and hydraulic connections can vibrate loose.



Storage and Transportation

- The PTO400 should be stored in the vertical position only.
- Store in a dry location.
- Store in a safe location where the machine will not get knocked over.
- The PT0400 should be transported in a vertical position. It should be strapped securely during transport.

IN DEPTH INSTRUCTIONS

Before First Use

Fitting the Unit to the Tractor

The log splitter is designed for fitting to a cat 1 or cat 2 tractor. This can be on the back end, or if required, at the front. The log splitter is to be fitted so that it is level when positioned at the required working height.

Fitting the PTO Pump Unit to the Tractor

The log splitter comes with a PTO mounted pump. This pump needs to be fixed to the tractor PTO spline.



It is important that the pump is positioned the correct way up and that the securing chain is tightly fitted to stop the pump rotating.

The pump filler cap should be positioned pointing up and the drain plus pointing down.



GRASPING THE SAFETY LEVERS AND LOWERING THE HANDLE WILL LIFT THE WEDGE.

Pick your log to be split. The log should be cut square at both ends. This is very important as it will reduce the chance that the log will slip. Position the log under the wedge with the point of the wedge in the centre of the log.

Place both hands on the handle and lift to lower the wedge into the log.

Stop lowering the wedge if the log starts to go sideways and reposition.

If the wedge gets stuck return the wedge to the fully open position and rock the log free before continuing.

When splitting wood always stand in front of the unit and not to the side as logs can be split with some force and be thrown off the unit to the sides.

Always keep other people and animals out of this area when splitting logs.

Wheel blocks should also be used to stop the vehicle moving whilst the log splitter in in use.

Ensure that the log splitter is fitted to the tractor and that all the safety pins are in place.

Raise the log splitter to your pre-determined working height. When the ram is being extended and retracted both hands should be kept on the handle. Lifting the handle will extend the ram and lowering the handle will retract the ram.



WITH BOTH HANDS ON THE HANDLE, GRASP THE SAFETY LEVERS AND LIFT TO LOWER THE WEDGE.



THE HANDLE WILL RETURN ITSELF TO THE NEUTRAL POSITION WHEN NOT LIFTED OR LOWERED; IN THIS POSTION THERE WILL BE NO MOVEMENT OF THE WEDGE

Filling the Tank with Hydraulic Oil

The hydraulic tank holds approximately 14 litres of hydraulic oil. We recommend that you use ISO 46 type oil. The tank is filled through the filler cap on the top of the unit.

Pour the oil in until you have filled the tank as indicated on the level gauge. Please note that once the unit has been run for the first time and the pump filter and the pipe work has been filled you will need to top up the tank.

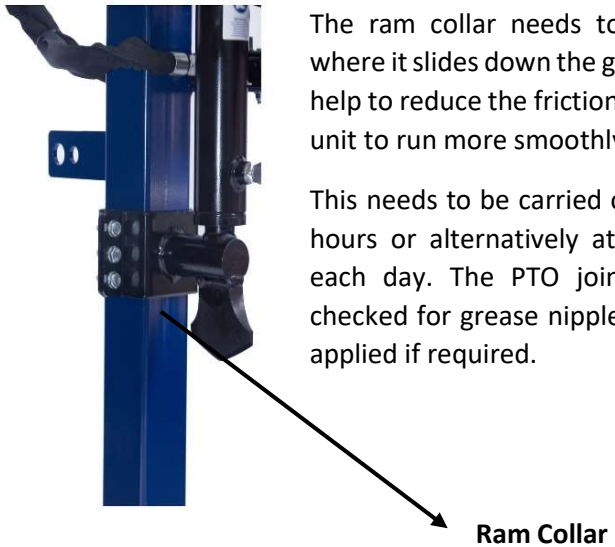


Level Gauge



Filler Cap

Greasing



The ram collar needs to be greased where it slides down the guide. This will help to reduce the friction and help the unit to run more smoothly.

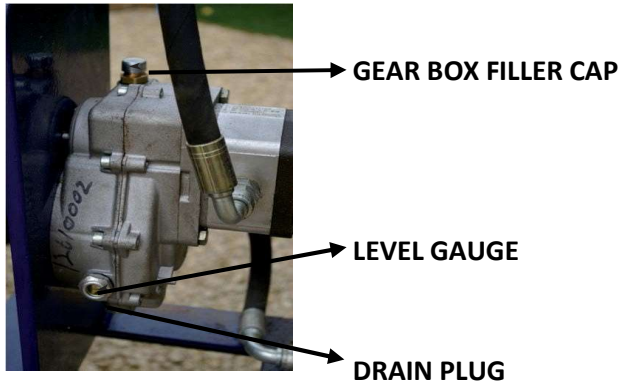
This needs to be carried out every ten hours or alternatively at the start of each day. The PTO joint should be checked for grease nipples and grease applied if required.

Fill the Gear Box with Oil – Diagram on next page.

The gear box needs to be filled with oil to classification of CLP/CC150 (ISO 150) (SAE 90.)

The oil level should be filled until the level can be seen in the level gauge (approximately 150ml.)

This oil needs to be changed after the first 30 – 50 hours of use and subsequently at least every 12 months.



OPERATING INSTRUCTIONS

The log splitter is designed for splitting logs only and is for single person use.

The maximum log length which the log splitter will handle is 450mm. The maximum width is 900mm and the minimum width is 75mm.

Only persons competent to do so and having read this manual in full should operate the log splitter.

Each time the log splitter is used a visual inspection should be carried out taking note of any damage and leakages and ensuring that they are fully repaired before use.

Position the tractor on solid, level ground when operating the log splitter and ensure that the parking brake is engaged.