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# ***R series***

***PTO WOOD CHIPPER***

**18**



Thank you for choosing JONCO. JONCO chippers are designed to give safe and dependable service if operated according to the instructions.

## **IMPORTANT HEALTH AND SAFETY INFORMATION**

Before using your new chipper, please take time to read this manual.

Failure to do so could result in:

- personal injury
- equipment damage
- damage to property
- 3rd party injuries

This manual covers the operation and maintenance of the JONCO R18 PTO. All information in this manual is based on the latest product information available at the time of purchase.

Ensure that all operators are **properly trained** for operating this machine, especially in **safe working practices**.

JONCO's policy of regularly reviewing and improving their products may involve major or minor changes to the chippers or their accessories. JONCO reserves the right to make changes at any time without notice and without incurring any obligation.

Due to improvements in design and performance during production there may be, in some cases, minor discrepancies between the actual chipper and the text in this manual.

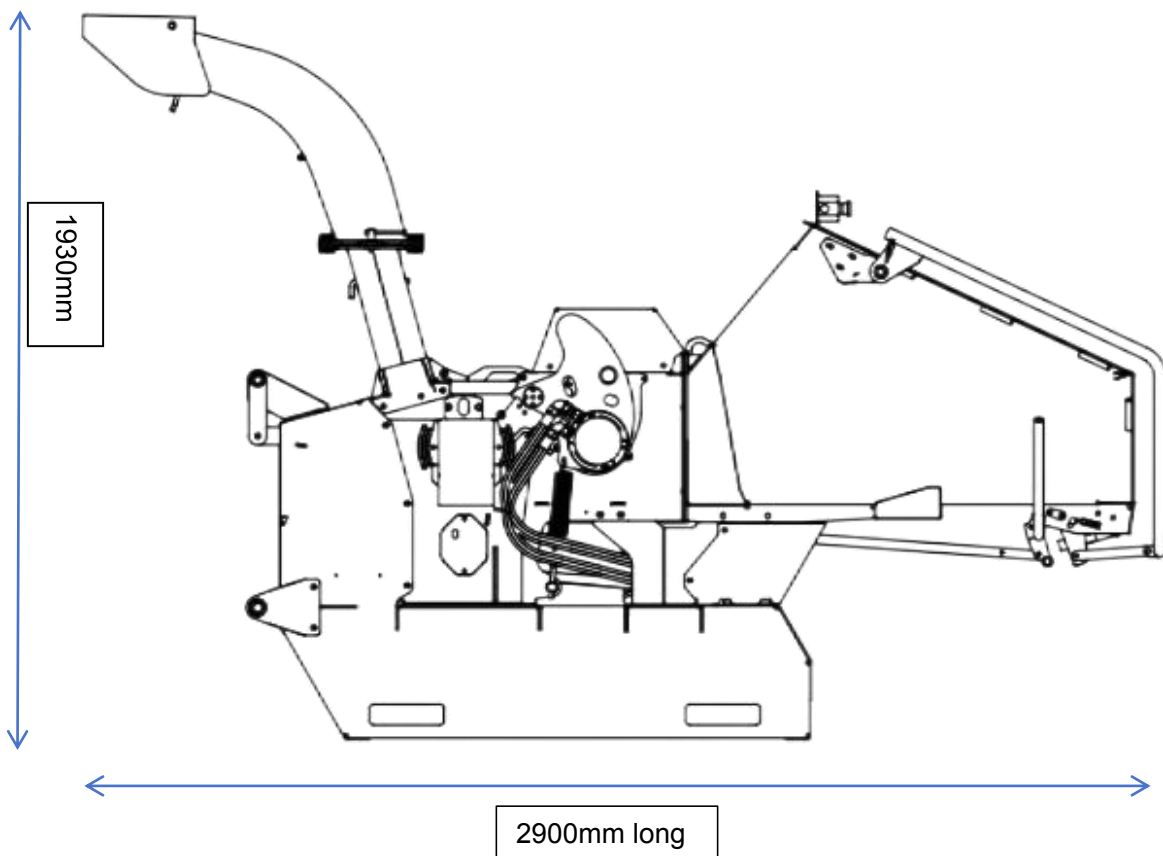
**The manual should be considered an important part of the machine and should remain with it if the machine is resold.**

## THE JONCO R18 PTO

The JONCO R18 PTO brushwood chipper, is designed to chip solid wood material including timber branches, saplings and brushwood up to a maximum of 180mm in diameter. It is capable of chipping over 3 tonnes of brushwood per hour.

The JONCO R18 PTO brushwood chipper is required to be securely 3 - point coupled with a 70hp tractor unit with 540rpm PTO when in use. Power from the attached tractor unit is to be supplied to the chipper via PTO drive shaft.

## DIMENSIONS



*Power source: Tractor PTO Drive*  
*PTO speed: 540 rpm*  
*Required engine power: 70+hp*  
*3-Point Mounting: Cat. 1/2*  
*Overall weight: 500kg*

*Type of feed: Hydraulic*  
*Maximum diameter material: 180mm/7"*  
*Material processing capacity: 4 ton/hr*

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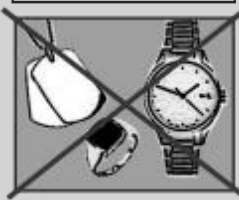
## WARNING

The chipper will feed material through on its own. To do this, it relies on sharp blades both on the feed rollers and the chipper rotor. To keep the blades sharp, only feed the machine with clean brushwood.

DO NOT put muddy/dirty wood, roots, potted plants, bricks, stones or metal in to chipper.



## OPERATOR'S PERSONAL PROTECTIVE EQUIPMENT REQUIRED

	<b>CHAINSAW SAFETY HELMET FITTED WITH MESH VISOR AND RECOMMENDED EAR DEFENDERS TO THE APPROPRIATE SPECIFICATIONS.</b>		<b>CLOSE FITTING HEAVY-DUTY NON-SNAG CLOTHING.</b>
	<b>WORK GLOVES WITH ELASTICATED WRIST.</b>		<b>FACE MASK IF APPROPRIATE.</b>
	<b>STEEL TOE CAP SAFETY BOOTS.</b>		<b>DO NOT WEAR RINGS, BRACELETS, WATCHES, JEWELLERY OR ANY OTHER ITEMS THAT COULD BE CAUGHT IN THE MATERIAL AND DRAW YOU INTO THE CHIPPER.</b>

## BASIC WOODCHIPPING SAFETY

### THE OPERATOR SHOULD BE AWARE OF THE FOLLOWING POINTS:

- Maintain a safety exclusion zone around the chipper of at least 10 meters for the general public or employees without adequate protection. Use hazard tape to identify this working area and keep it clear from debris build up. Chips should be ejected away from any area the general public have access to.
- Hazardous material - Some species of trees and bushes are poisonous. The chipping action can produce vapour, spray and dust that can irritate the skin. This may lead to respiratory problems or even cause serious poisoning. Check the material to be chipped before you start. Avoid confined spaces and use a face mask if necessary.
- Be aware when the chipper is processing material that is an awkward shape. The material can move from side to side in the funnel with great force. If the material extends beyond the funnel, the brush may push you to one side causing danger. Badly twisted brush should be trimmed before being chipped to avoid thrashing in the feed funnel.
- Be aware that the chipper can eject chips out of the feed funnel with considerable force. Always wear full head and face protection.
- Always work on the side of the machine furthest from any local danger, e.g. not road side.
- In the event of an accident, stop the machine and call the emergency services immediately.

# GENERAL SAFETY MATTERS

## DO'S AND DON'TS



Always stop the tractor engine, remove ignition key and disconnect the PTO shaft before making any adjustments.

Always check machine has stopped rotating and remove tractor ignition key before maintenance of any kind, or whenever the machine is to be left unattended.

Always check machine is securely coupled to tractor pin hitch and on firm level ground.

Always run tractor engine at required speed to achieve correct PTO speed.

Always check (visually) for fluid leaks.

Always take regular breaks. Wearing personal protective equipment for long periods can be tiring and hot.

Always keep hands, feet and clothing out of feed opening, discharge and moving parts.

Always use the next piece of material or a push stick to push in short pieces. Under no circumstances should you reach into the funnel.

Always keep the operating area clear of people, animals and children.

Always keep the operating area clear from debris build up.

Always keep clear of the chip discharge tube. Foreign objects may be ejected with great force.

Always ensure protective guarding is in place before commencing work. Failure to do so may result in personal injury or loss of life.

Always operate the chipper in a well ventilated area - exhaust fumes are dangerous. Do not operate chipper unless available light is sufficient to see clearly.

Do not attempt to engage PTO without the feed funnel, belt guard, guards and discharge unit securely in place.

Do not stand directly in front of the feed funnel when using the chipper. Stand to one side.



 **DO NOT ALLOW THE FOLLOWING TO ENTER THE MACHINE, AS DAMAGE IS LIKELY**



**CLOTH**



**PLASTIC**



**STONES**



**METAL**



**GLASS**



**RUBBER**



**BRICKS**



**STRING**



**ROOTS**



**BEDDING PLANTS**

Do not smoke when refuelling.

Do not let anyone who has not received instruction operate the machine.

Do not climb on the machine at any time.

Do not handle material that is partially engaged in the machine.

Do not touch any exposed wiring while machine is running.

Do not use the chipper inside buildings.



All JONCO R18 PTO machines have a full pre-delivery inspection before leaving the factory and are ready to use. Read and understand this instruction manual before attempting to operate the chipper. .

## **OPERATOR'S PERSONAL PROTECTIVE EQUIPMENT REQUIRED**

- Chainsaw safety helmet fitted with visor and recommended ear defenders to an appropriate specification.
- Heavy-duty gloves with elasticated wrist area.
- Close - fitting heavy-duty non-snag clothing.
- Safety footwear.
- Face mask (if appropriate).

## **CONNECTING TO TRACTOR**

- Ensure tractor horsepower and lift capacity meets the chippers requirements and has the correct PTO speed.
- Ensure tractor and chipper are on firm level ground
- Check tractor drop arms are equal length, adjust if necessary.
- Attach chipper securely to tractor 3 - point linkage.
- Stop engine and apply handbrake,
- Set tractor top link to ensure chipper is level and top link is lower at tractor end.
- Ensure tractor engine is turned off and the ignition key has been removed.
- Connect PTO drive shaft - female half shaft to be fitted to tractor unit.
- Connect power cable from tractor to chipper.
- Ensure all PTO guards on tractor, drive shaft and chipper are re-fitted and drive shaft guard chain is attached to prevent rotation.

## **CONNECTING PTO SHAFT**

- Check the angle of the drive shaft between tractor and chipper will not exceed 16o whilst in work and rotating.
- Check when lifted for transport the angle of the drive shaft between tractor and chipper will not exceed 40o .
- Ensure two sliding halves of the drive shaft have at least 180mm of engagement and be of a suitable length to prevent 'butting up' when chipper is lifted.

## **MOVING THE CHIPPER**

- Do not move the chipper with the rotor running.
- Always ensure the retaining nuts and clamp are tight when transporting with a discharge tube in place.
- Never pull the machine by the red stop bar as linkages will be damaged.



## DAILY CHECKS BEFORE STARTING THE TRACTOR

- Check chipper is securely and correctly mounted to 3 - point linkage.
- Check chipper linkage for signs of damage or fatigue.
- Ensure drive shaft ends are securely fitted to PTO shaft and chipper input shaft.
- Check for properly guarded PTO shaft, chipper input shaft and drive shaft.
- Check that guard chains are securely attached to stationary frame to prevent rotation of guard.
- Connect power cable from tractor to chipper.
- Locate the machine on firm level ground.
- Check chipper hydraulic oil level.
- Check the discharge unit is in place and tightened securely.
- Check discharge tube is pointing in a safe direction.
- Check the feed funnel to ensure no objects are inside.
- Check feed tray is in up position to prevent people reaching rollers.
- Check controls as described below.
  - Stop bar is NOT engaged
  - Control handle is at stop position
  - Emergency is not engaged(pop up)

## BEFORE USING THE CHIPPER

It is essential to carry out the following tests to check safety equipment - this sequence of tests will only take a few seconds to carry out. We recommend that these tests are carried out daily.

### ROTOR RUNNING AT 540 RPM

## HYDRAULIC OIL THERMOMETER / OIL LEVEL INDICATOR

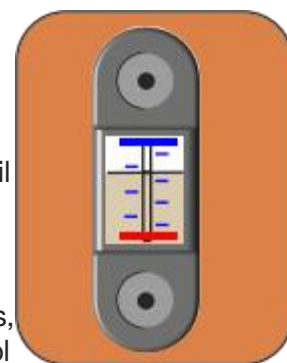
This is situated on the side of the hydraulic oil tank. When the chipper is running the oil temperature should not exceed 65°C. If it does, stop the machine immediately. Failure to do so may result in damage.

Overheating can result from the chipper being worked extremely hard in hot conditions, as the oil is not getting a chance to cool down. Stop the chipper and allow oil to cool before continuing.

If the temperature goes above 65°C and the machine is not being worked hard or the air temperature is not particularly high this indicates low oil, a jammed hydraulic motor or valve. Stop immediately and investigate.

When the chipper is on level ground the oil level should sit between the red line at the bottom of the gauge and the blue line at the top.

If this level drops significantly it indicates an oil leak. Stop immediately and investigate.



## MANUAL CONTROLS

**ROLLER CONTROL HANDLE:** this is the control bar in side of the feed opening of the chipper funnel. Its function is to control the feed rollers. The feed rollers draw material into the machine. It does not control the main rotor.

**RED STOP BAR:** this is the large red bar that surrounds the feed tray and side of the feed funnel. The bar is spring loaded and connected to a switch that will interrupt the power to the rollers. The switch is designed so that it only activates if the bar is pushed to the limit of its travel. The rollers stop instantly, but can be made to turn again by pressing either the **reset handle**.

### RED STOP BAR TEST

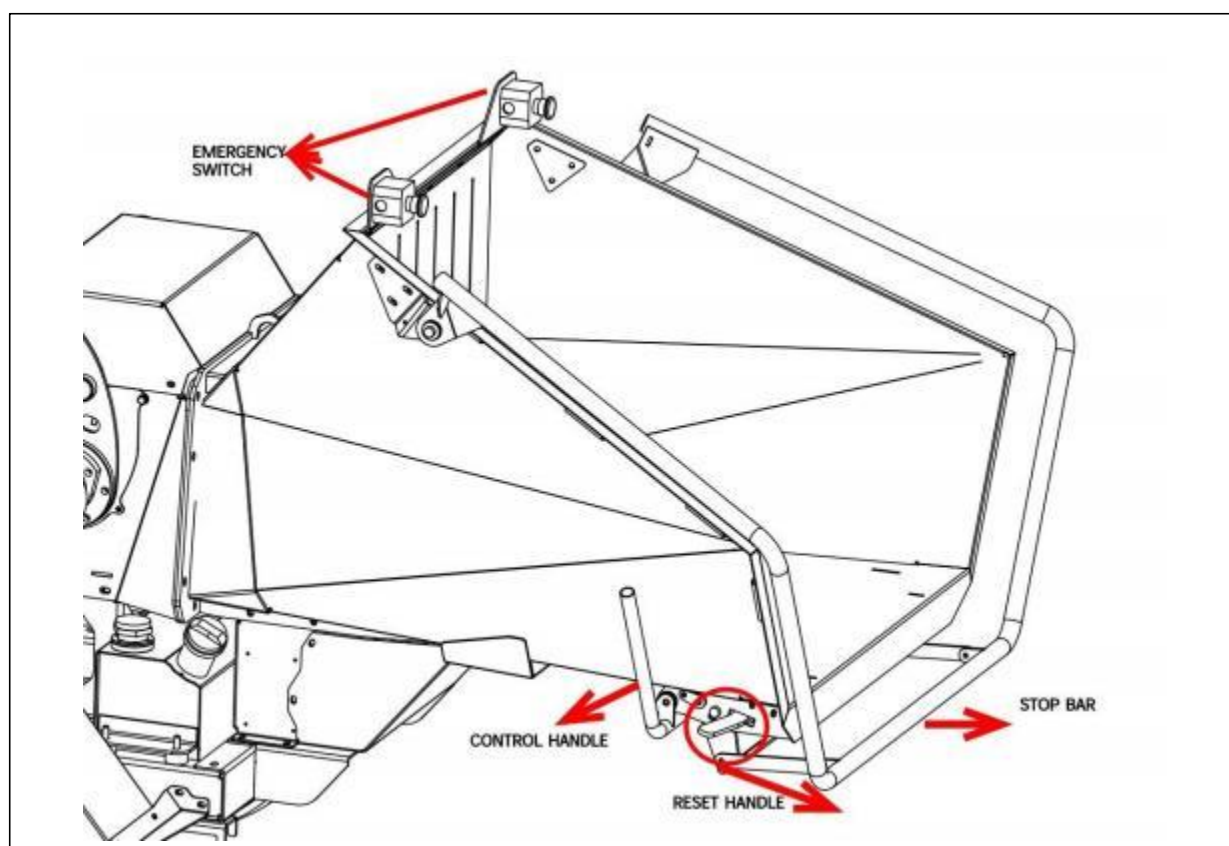
To ensure the safety bar is always operational it must be activated once before each work session. The rollers will not function until the bar is activated. This procedure must be repeated each time the ignition is switched off.

## WARNING

DO NOT REMOVE, JAM, DISABLE, BYPASS, OVERRIDE OR OTHERWISE IMPEDE THE EFFECTIVENESS OF THE RED STOP BAR.



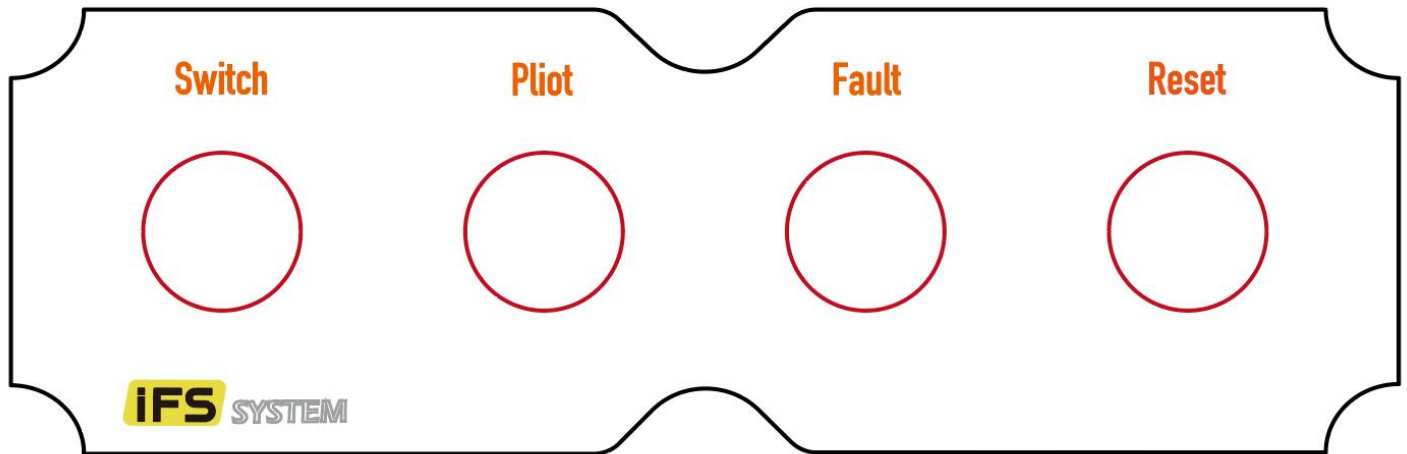
## CONTROL DIAGRAM



Do not rely on the red bar to keep the rollers stationary if it is necessary to clear or touch the rollers. Always turn off tractor engine, remove ignition key and disconnect PTO shaft before approaching the rollers.

## AUTO CONTROLS

The no stress unit controls the feed rate of the material going into the chipping chamber. If the rotor speed is below the predetermined level the no stress unit will not allow the feed rollers to work in the forward direction until the rotor speed rises above the predetermined level, at which point the feed rollers will start turning without warning. The reverse function will operate at any speed.



Switch: Battery switch

Pilot: Electricity on/working

Fault: Alarm in case there is improper operation, such as housing cover is not closed, or panic bar is engaged, or emergency is engaged.

## BLADE WEAR

The most important part of using a wood chipper is keeping the cutter blades sharp. JONCO chipper blades are hollow ground to an angle of 30 degrees. When performing daily blade checks ensure blade edge is sharp and free from chips, if there is any evidence of damage, or the edge is “dull” change the blade(s).

This model is fitted with 2 blades. A new blade should chip for up to 25 hours before it requires sharpening. This figure will be drastically reduced by feeding the machine with stony, sandy or muddy material.

As the blade becomes blunt, performance is reduced. With increased stress and load on the machine the chips will become more irregular and stringy. At this point the blade should be sent to a reputable blade sharpening company.

The blade can be sharpened several times in its life. A wear imitation by width of between hole center to blade edge, is 34mm. If it is less than 34mm at any points, the blade need to be changed.

The machine is also fitted with a static blade (anvil). It is important that the anvil is in good condition to allow the cutting blades to function efficiently. Performance will be poor, even with sharp cutter blades, if the anvil is worn.

## EMERGENCY STOPPING

Push the RED STOP button or push the RED STOP BAR (whichever is the quickest for you to reach). Turn off tractor ignition key or operate tractor stop lever.

The emergency stop will prevent any more material being fed into the chipper. The rotor will still be turning. The tractor must be disengaged or powered down to stop the rotor.

## STARTING TO CHIP

# WARNING

ENSURE FEED FUNNEL, FEED TRAY, FEED ROLLER GUARD, PROP SHAFT GUARDS AND ACCESS COVERS ARE FITTED AND SECURE, AND THAT THE DISCHARGE UNIT IS FITTED AND POINTING IN A SAFE DIRECTION.



- Start tractor.
- Gently engage PTO clutch.
- Increase tractor revs until tractor PTO speed = 540 rpm.
- DO NOT RUN ON ANY OTHER PTO SPEED SETTING.
- Check that chipper is running smoothly.
- Release the catch on the feed tray and lower.
- Pull to release the red stop bar and emergency button, perform safety bar tests.
- Push handle to forward. rollers will commence turning.
- Stand to one side of the feed funnel.
- Proceed to feed material into the feed funnel.

## CHIPPING

Wood up to 180 mm diameter can be fed into the feed funnel. Put the butt end in first and engage it with the feed roller. The hydraulic feed rollers will pull the branch into the machine quite quickly.

Large diameter material will have its feed rate automatically controlled depending on the tractor power available. Sometimes a piece of wood that is a particularly awkward shape is too strong for the feed rollers to break. This will cause the roller to either bounce up and down on the wood. If this occurs, REVERSE until the material has been released.

Pull the material out of the feed funnel and trim it so the chipper can handle it.

Both feed rollers should always turn at the same speed. If rollers stop or suddenly slow down it may be that a piece of wood has become stuck behind the rollers. If this occurs press the REVERSE button and hold for 2 seconds - then re FEED. This should enable the rollers to free the offending piece of material and continue rotation at the correct speed.

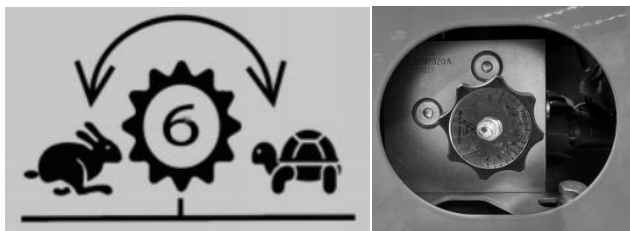
If the rollers continue to stall in the 'forward feed' or 'reverse feed' position push the RED STOP BUTTON, turn tractor engine off, remove ignition key and investigate.

## FEED SPEED REGULATION

The feed speed can be adjusted to suit the material being chipped.

Total travel is 6 turns, starts from '0' and ends at '0'.

Default speed is in middle (3 turns clockwise to close, 3 turns anti-clockwise to the highest speed)



*When feeding Leylandii or leafy material, set feed roller speed BY 0.5-1 turn clockwise from the middle.*

*While chipping wood close to Max, set the feeding speed to the minimum.*

## STOPPING THE CHIPPER


- Push the RED STOP bar.
- Shut feed funnel.

- Keeping PTO engaged set tractor speed to idle.
- When idle speed steady stop tractor engine.
- When engine stationary disengage PTO clutch.
- **WARNING! DO NOT** disengage the PTO clutch while engine is running as the chipper rotor may continue to free wheel for a long time

## DISCONNECTION FROM TRACTOR

- Ensure tractor and chipper are stationary on firm level ground.
- Ensure tractor PTO clutch is disengaged and handbrake applied.
- Lower the chipper to the ground and adjust top link until machine is seated in a stable safe condition.
- Ensure tractor engine is switched off and the ignition key is removed.
- Disconnect PTO drive shaft and stow on support bracket provided.
- Disconnect power cable from tractor and stow lead safely.
- Uncouple chipper from tractor 3 - point linkage leaving pins and retainers in place.


## BLOCKAGES

<b>WARNING</b>	<p><b>DO NOT REV ENGINE AND INCREASE PTO SPEED ABOVE 540RPM IN AN ATTEMPT TO CLEAR BLOCKAGES. ALWAYS FOLLOW PROCEDURE AS OUTLINED BELOW TO PROTECT OPERATOR AND BYSTANDERS FROM EJECTED MATERIAL.</b></p>	
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Always be aware that what you are putting into the chipper must come out. If the chips stop coming out of the discharge tube but the chipper is taking material in - STOP IMMEDIATELY. Continuing to feed material into a blocked machine may cause damage and will make it difficult to clear.

If the chipper becomes blocked proceed as follows:

- Stop the tractor engine and remove the ignition keys.
- Ensure tractor engine has come to a complete stop.
- Remove the discharge tube. Check that it is clear.
- Wearing gloves, reach into the rotor housing and scoop out the majority of the debris causing the blockage.

<b>WARNING</b>	<p><b>DO NOT REACH INTO THE ROTOR HOUSING WITH UNPROTECTED HANDS. THERE ARE SHARP BLADES AND ANY SMALL MOVEMENT OF THE ROTOR MAY CAUSE SERIOUS INJURY.</b></p>	
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- Replace the discharge tube.
- Restart the tractor engine and increase revs to achieve PTO speed of 540 rpm.

- Allow machine time to clear excess chips still remaining in rotor housing before you continue feeding brushwood.

Feed in a small piece of wood while watching to make sure that it comes out of the discharge. If this does not clear it, repeat the process and carefully inspect the discharge tube to find any obstruction.

#### NOTE

Continuing to feed the chipper with brushwood once it has become blocked will cause the chipper to compact the chips in the rotor housing and it will be difficult and time consuming to clear.

**AVOID THIS SITUATION - WATCH THE DISCHARGE TUBE AT ALL TIMES**



THE FOLLOWING PAGES DETAIL ONLY BASIC MAINTENANCE GUIDELINES SPECIFIC TO YOUR CHIPPER.  
**THIS IS NOT A WORKSHOP MANUAL.**



The following guidelines are not exhaustive and do not extend to generally accepted standards of engineering/mechanical maintenance that should be applied to any piece of mechanical equipment and the chassis to which it is mounted.

Authorized JONCO service agents are fully trained in all aspects of total service and maintenance of JONCO wood chippers. You are strongly advised to take your chipper to an authorised agent for all but the most routine maintenance and checks.

JONCO accepts no responsibility for the failure of the owner/user of JONCO chippers to recognise generally accepted standards of engineering/mechanical maintenance and apply them throughout the machine.

The failure to apply generally accepted standards of maintenance, or the performance of inappropriate maintenance or modifications, may invalidate warranty and/or regulatory compliance, in whole or in part.

Please refer to your authorised JONCO service agent for service and maintenance.

## SERVICE SCHEDULE



### **WARNING**

ALWAYS IMMOBILISE THE MACHINE BY STOPPING THE TRACTOR AND REMOVING THE IGNITION KEY BEFORE UNDERTAKING ANY MAINTENANCE WORK. WHEN THE TRACTOR IS STOPPED IT WILL BE NECESSARY TO DISENGAGE THE PTO SO THAT THE ROTOR CAN BE TURNED.

SERVICE SCHEDULE	Daily	25 Hours	50 Hours (once a month)	400 Hours (once a year)
Check linkage points for damage or signs of fatigue.	✓			
Check feed funnel, feed roller cover, rotor access cover, discharge tube and PTO guards are securely fitted	✓			
Check safety bar mechanism	✓			
Lubricate PTO shaft coupling grease nipples.	✓			
Inspect blades and change if necessary.	✓			
Check hoses for signs of chafing or leakage.	✓			
Check for loose electrical wiring			✓	
Check for tightness all visible nuts bolts and other fasteners.			✓	
Check (and adjust if necessary) tension of rotor belts.	✓ 1st time	then ✓		
Check (and adjust if necessary) pump belt tension.			✓	
Grease the roller box slides			✓	
Grease the roller spline and bearing.			✓	
Grease hydraulic motor spline drives.			✓	
Check anvil for wear.			✓	
Change hydraulic oil and filter.				✓
Replace anvil	<b>RETURN TO DEALER FOR ANVIL CHANGE</b>			

## SAFE LIFTING OF THE CHIPPER

The lifting hole is designed to lift the machine's weight only. Use the forklift directly on the lifting holes. Inspect the lifting holes prior to each use - DO NOT USE IF DAMAGED and make sure fork never touch hose underneath.

## SPARES

Only fit genuine JONCO replacement blades, screws and chipper spares. Failure to do so will result in the invalidation of the warranty and may result in damage to the chipper, personal injury or even loss of life.

## CHECK HOSES

All the hydraulic hoses should be regularly inspected for chafing and leaks. The hydraulic system is pressurized up to 275 Bar and thus the equipment containing it must be kept in good condition.

Identify the hoses that run to the motor. These have the highest chance of damage as they are constantly moving. If any hydraulic components are changed, new seals should be installed during reassembly. Fittings should then be re-tightened.



## SAFE MAINTENANCE

*ALWAYS IMMOBILISE THE TRACTOR BEFORE UNDERTAKING ANY MAINTENANCE WORK ON THE CHIPPER.*

- Always stop the tractor engine before installing or removing the prop shaft.
- Handle blades with extreme caution to avoid injury. Gloves should always be worn when handling the cutter blades.
- Avoid contact with hydraulic oil.
- Whenever possible the pump belt should be connected while changing blades, as this will restrict sudden movement of the rotor.
- The major components of this machine are heavy. Lifting equipment must be used for disassembly.
- CLEAN machines are safer and easier to service.

## CHECK FITTINGS

The JONCO R18 PTO is subject to large vibrations during the normal course of operation. Consequently there is always an possibility that nuts and bolts will work themselves loose. It is important that periodic checks are made to ensure the security of all fasteners. Fasteners should be tightened using a torque wrench to the settings listed below.

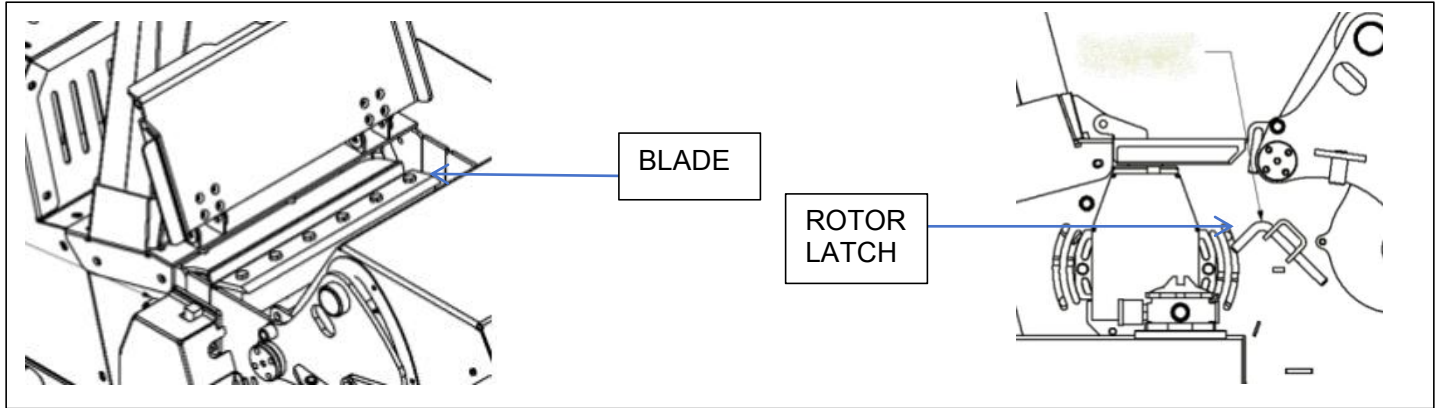
**Calibrated torque wrenches can be inaccurate by as much as 25%. It is therefore essential that a calibrated torque wrench is used to achieve the tightening torques listed below.**

	Size	Pitch	Head	Torque lbft	Torque Nm
Blade Bolts	M14	Standard	21mm Hex skt	45	61
Hyd Motor Retaining Bolts	M12	Standard	18 mm Hex	34	46
Funnel Retaining Nuts	M14	Standard	21mm Hex	38	51
General	M8	Standard	13 mm Hex	20	27
General	M10	Standard	16 mm Hex	45	61
General	M12	Standard	18 mm Hex	65	88

# CHANGE BLADES

## WARNING

WEAR RIGGERS GLOVES FOR THE BLADE CHANGING OPERATION. USE ROTOR LATCH TO LOCK ROTOR



- 1 Turn the tractor off and remove the ignition keys.
- 2 Remove PTO shaft.
- 3 Remove LONG PIN retaining roller box cover.
- 4 Open rotor housing cover.
- 5 NOTE: Slide off the rotor latch and lock the rotor
- 6 Use a small screwdriver to remove sap and debris from Torx socket in screw - be particularly careful to ensure every last piece has been removed.
- 7 Undo blade screws using Torx socket drive provided.
- 8 Before fitting replacement blades carefully clean blade recess in rotor so that no debris is trapped between blade and rotor.
- 9 When fitting blades replace any damaged screws with new and coat each screw with copper slip over the whole of the thread.
- 10 Re-tighten each screw to 150Nm. Note: This torque setting is vitally important to ensure your bolts come out at a later date and JONCO recommend you use a calibrated torque wrench for this and other jobs on the chipper.
- 11 Grease all surfaces of the roller box sliding mechanism.
- 12 Close roller box guard making sure that it is located over the retaining bracket, and ensure bolt and washer are tightened.

## WARNING



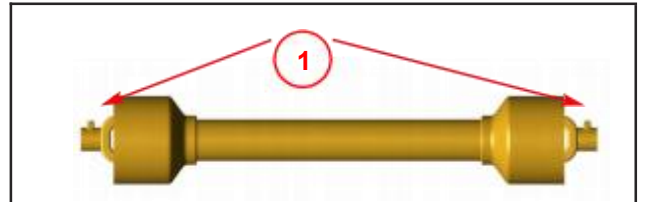
ALWAYS SHARPEN BLADES ON A REGULAR BASIS. FAILURE TO DO SO WILL CAUSE THE MACHINE TO UNDER PERFORM AND WILL OVERLOAD ENGINE AND BEARINGS CAUSING MACHINE BREAKDOWN. BLADES MUST NOT BE SHARPENED BEYOND THE WEAR MARK (SEE DIAGRAM). FAILURE TO COMPLY WITH THIS COULD RESULT IN MACHINEDAMAGE, INJURY OR LOSS OF LIFE.

## PTO DRIVE SHAFT MAINTENANCE

Lubricate regularly, at least every 16 hours on coupling grease nipples (1) and 8 hours on all other lubricated points.

Replace prop shaft shear bolts only with correct grade of bolt available from the shaft supplier.

*SEE SEPARATE PROP SHAFT INSTRUCTION SHEET FOR FULL DETAILS.*



## GREASE THE ROLLER SPLINE AND BEARING

NOTE:

**This should be done regularly. In dirty and dusty conditions or during periods of hard work it should be weekly. If the bearings and splines are allowed to run dry premature wear will occur resulting in a breakdown and the need for replacement parts. This failure is not warranty. Early signs of insufficient grease includes squeaking or knocking rollers.**

- 1 Remove bolt and washer retaining roller box guard and lift guard.
- 2 Locate two grease nipples; one in the centre of each roller shaft.
- 3 Use a pump action grease gun to apply a generous amount of grease to each roller drive. **DO NOT USE GRAPHITE BASED GREASE.**
- 4 After applying grease, to penetrate all the bearing surfaces thoroughly, start the machine and operate the rollers for 20 seconds. Switch off the machine. Repeat this greasing/running procedure a further 3 times.
- 5 Close roller box guard making sure that it is located over the retaining bracket, and ensure bolt and washer are tightened.

## TENSION BELTS

**NOTE: There will normally be a rapid drop in tension during run-in period for new belts. When new belts are fitted, check the tension every 2-3 hours and adjust until the tension remains constant.**

**Belt failures due to lack of correct tension will not be covered under your JONCO warranty.**

## TENSION DRIVE BELTS

- 1 Remove the belt guard.
- 2 Check the belt tension. For instructions on checking belt tension & correct belt tension values, please refer to the JONCO V-Belt Tensioning Data Table
- 3 Loosen the M12 Bolt.
- 4 Adjust the belt tension by tightening the nut clamping the bracket to the base.
- 5 Re-tighten the M12 Bolt.
- 6 Refit belt guard.

Models were fitted with a gearbox on a slider. The belt tensioner for these models is located on the slide plate.

## TENSION HYDRAULIC PUMP BELT

- 1 Remove side panel.
- 2 Access the two nuts on the under side of the chassis beneath pump bracket and slacken using a 18mm socket spanner.
- 3 Adjust the M8 bolt on the outside plate until the desired tension is achieved. For instructions on checking belt tension & correct belt tension values, please refer to the JONCO V-Belt Tensioning Data Table.
- 4 Ensure pulleys are aligned then re-tighten the two nuts to (80Nm) 59lbs/ft.
- 5 Re-fit side panel.

NOTE: Slack drive belts will cause poor performance and belt/pulley wear.

## CHANGE HYDRAULIC OIL AND FILTER

### WARNING

Use plastic gloves to keep oil off skin and dispose of the used oil and filter in an ecologically sound way. The oil and filter should be changed once a year or at any time it becomes contaminated. Before starting check that the chipper is standing level and brush away loose chips.



- 1 Remove the black screw cap from the top of the filter housing.
- 2 Partially remove filter element from inner cup. Leave filter to drain for 15 minutes.
- 3 Remove filter element from cup when clear of hydraulic oil.
- 4 Remove drain plug and drain oil into a suitable container.
- 5 Replace drain plug.
- 6 Refill with VG 32 hydraulic oil until the level is half way up the sight glass (about 15 litres).
- 7 Refit the filter cup. Install a new filter element and refit the black screw cap to the filter housing, ensuring o-ring remains in place.

**NOTE: THIS IS A NON-ADJUSTABLE AIR BREATHER FILTER.**

**JONCO**  
simple but different

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