



Wood Chipper

User Manual

[Revision 3.0 October 2017]

READ THIS MANUAL CAREFULLY BEFORE USE – FAILURE TO DO SO MAY RESULT IN INJURY, PROPERTY DAMAGE AND MAY VOID WARRANTY. • KEEP THIS MANUAL FOR FUTURE REFERENCE. • Products covered by this manual may vary in appearance, assembly, inclusions, specifications, description and packaging.



The product is NOT supplied with engine oil, although traces of oil from the manufacturing process may be present. It is essential to add adequate engine oil of the correct type to the engine before use. **Failure to add engine oil will void the product warranty.**

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Safety

General Safety Warnings

- It is important you read and understand the instruction manual before first use and keep the manual in a safe place for future reference.
- Safety precautions must be observed to reduce the risk of personal injury when operating this machine.
- Like all power equipment this unit must be handled carefully:
 - Do not expose yourself or others to danger.
 - Do not permit others to use this machine unless they have read this manual and are trained in its operation.
 - Do not operate if the equipment is damaged or in an excessively worn state.
 - To reduce fire hazards keep the engine and silencer free of debris, leaves, or excessive lubricant.
 - Do not use any attachments or accessories with the equipment other than the ones recommended by our company. Serious injury to the operator or bystanders can result as well as cause damage to the machine.
 - Always use proper handles when using the equipment.
 - Do not use the unit if it is damaged or poorly adjusted. Never remove the machine's guards. Serious injury to the operator or bystanders could result as well as damage to the machine.
 - Never leave the machine running and unattended.
 - Do not use this unit for any job other than those for which it is intended as described in this manual.
 - In start-up or during operation of the engine, never touch hot parts such as the muffler, the high voltage wire or the spark plug.
 - Do not operate the machine in the rain or under wet conditions.
 - Always ensure all handles and guards are fitted when using the machine.
 - Always keep the machine away from naked flame or sparks.
 - Always stop the engine before cleaning / clearing a blockage or checking, maintenance or working on the machine.

Clothing and Equipment

- Dress properly! Do not wear loose clothing or jewellery which can be caught in moving parts.
- Use of sturdy gloves, non-skid footwear, and safety glasses is recommended;
- Always wear ear protection. Loud noises for an extended period of time may damage your hearing.
- Total face and head protection must be worn to prevent injury.
- Wear no-slip heavy duty work gloves to improve your grip. Gloves also reduce the transmission of machine vibration to your hands.
- The dust, vapour and smoke produced during operation may be dangerous to health. If the work area is very dusty or smoky, wear a respirator.

Transporting the Machine

- Always turn off the engine.
- The engine should be turned off when the machine is moved between areas and when transporting or storing the machine.
- When transporting in a vehicle: properly secure your machine to prevent turnover, fuel spillage and damage.

Fuelling

- Petrol is an extremely flammable fuel. Keep clear of naked flames. Do not spill any fuel – do not smoke near fuel or the machine.
- Always shut off the engine before refuelling.
- Do not fuel a hot engine – fuel may spill and cause a fire. Open the fuel cap carefully to allow any pressure build-up in the tank to release slowly and avoid fuel spillage. Fuel your machine only in well ventilated areas. If you spill fuel, wipe the machine immediately – if fuel gets on your clothing, change immediately.
- To reduce the risk of serious or fatal burn injuries, check for fuel leakage. If fuel leakage is found, do not start or run the engine until leak is fixed.

During Operation

- Make sure you always have good balance and secure footing.
- Always be aware of your surroundings and stay alert for possible hazards that you may not hear due to the noise of the machine.
- Never allow children to access the machine.
- Avoid operating while people, especially children are nearby.
- To reduce the risk of injury, do not allow any other persons within a radius of 25 meters of your own position. To reduce the risk of damage to property, also maintain this distance from other objects (vehicles, windows).

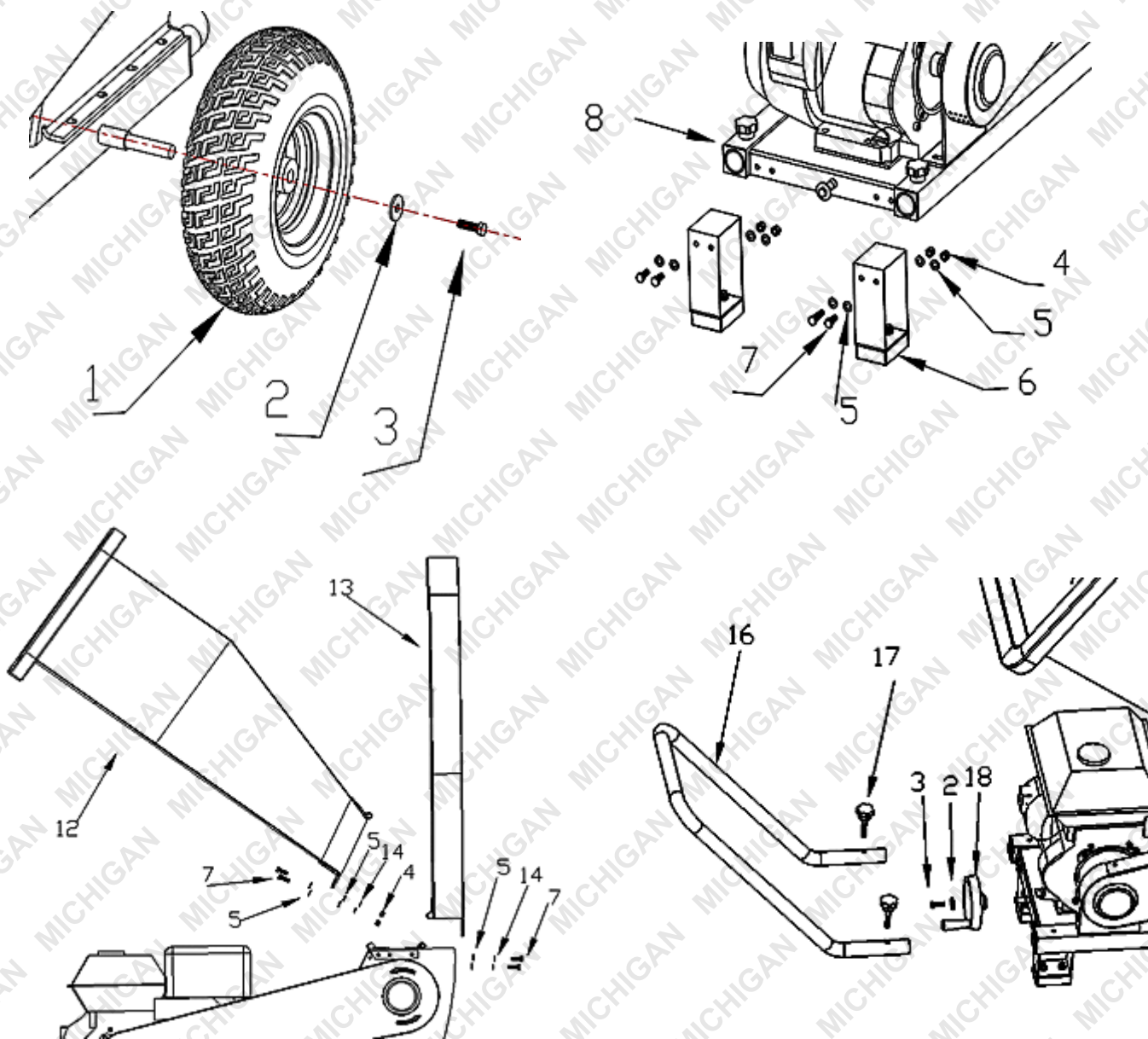
After Finishing Work

- Always clean dust and dirt off the machine – do not use any grease solvents.
- Always keep the machine clean, especially, the fuel tank, its surroundings, and the air cleaner.
- After the engine has stopped, the muffler will still be hot. Never place the machine in any places where there are flammable materials such as dry grass, combustible gases or combustible liquids etc.

Maintenance and Repairs

- Service the machine regularly. Do not attempt any maintenance or repair work not described in the instruction manual. Have all other work performed by a servicing dealer.
- We recommend that you have servicing and repair work carried out exclusively by an authorised service person.
- Before proceeding to adjust or repair the machine, be sure to stop the engine and detach the spark plug.
- Never attempt to make engine adjustments while the unit is running or strapped to the operator. Always make engine adjustments with the unit resting on a flat, clear surface.

Included Items



No.	Part
1.	Inflatable wheels
2.	Stop Washer
3.	20mm bolt
4.	Nut
5.	Flat washer
6.	Leg

No.	Part
7.	25mm bolt
8.	Chassis frame
9.	Motor
10.	Cutter wheel
11.	Belt cover
12.	Hopper Chute

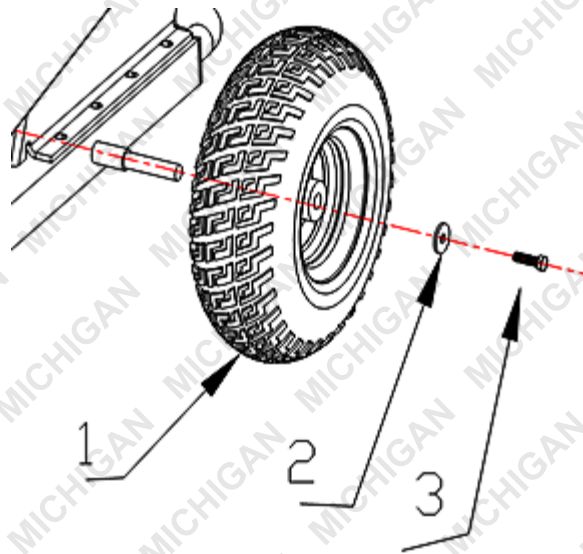
No.	Part
13.	Discharge Chute
14.	Washer
15.	Crusher room
16.	Handle
17.	Knob
18.	Belt tension wheel

Set-Up

IMPORTANT! As a rule, bolts and nuts should be tight enough so they will not vibrate free, typically hand tight plus half a turn.

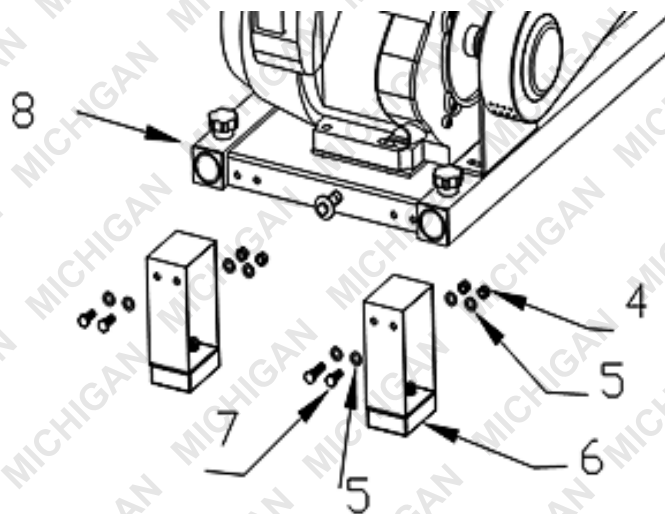
Attaching the Wheels

1. Slide a wheel (1) onto one axel at a time.
2. Slide on one stop washer (2).
3. Bolt (3) the wheel and stop washer to the axle using a 20mm bolt. The bolt should be hand tight plus half a turn to secure, adjust as needed to ensure the wheels move freely.



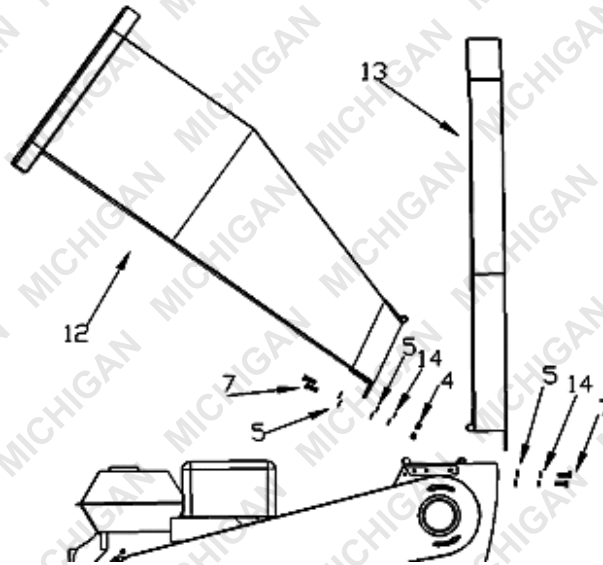
Attaching the Front Legs

1. Slide one flat washer (5) onto four 25mm bolts (7) and set aside.
2. One leg (6) at a time, bolt the boot to the chassis (8) using another flat washer (4) and nut (5).
3. Secure both feet to the chassis hand tight plus half a turn.



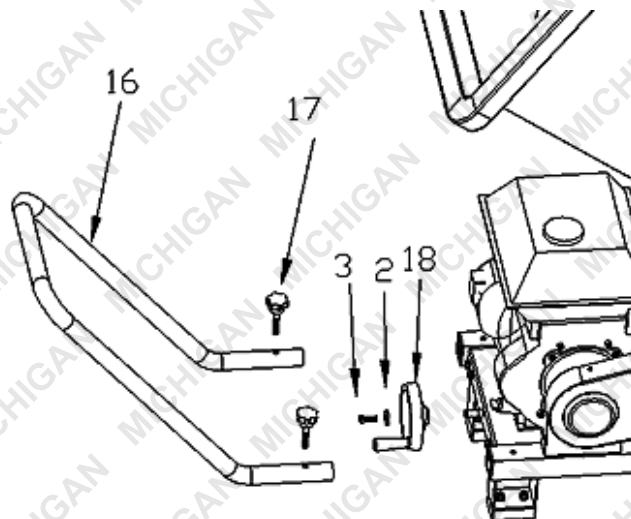
Assembling the Chutes

1. Connect the hinges to both the hopper and discharge chutes.
2. Slide one flat washer (5) onto four 25mm bolts (7) and set aside.
3. Position the hopper chute with attached hinge over the hopper body.
4. Bolt the chute hinge to the machine using the bolts set aside in step 2, each bolt must be secured with one flat washer (5), one washer (14) and one nut (4).
5. Position the discharge chute (13) with attached hinge over the rear of the hopper body.
6. Slide one washer onto the two remaining bolts and attach the discharge chute to the machine.



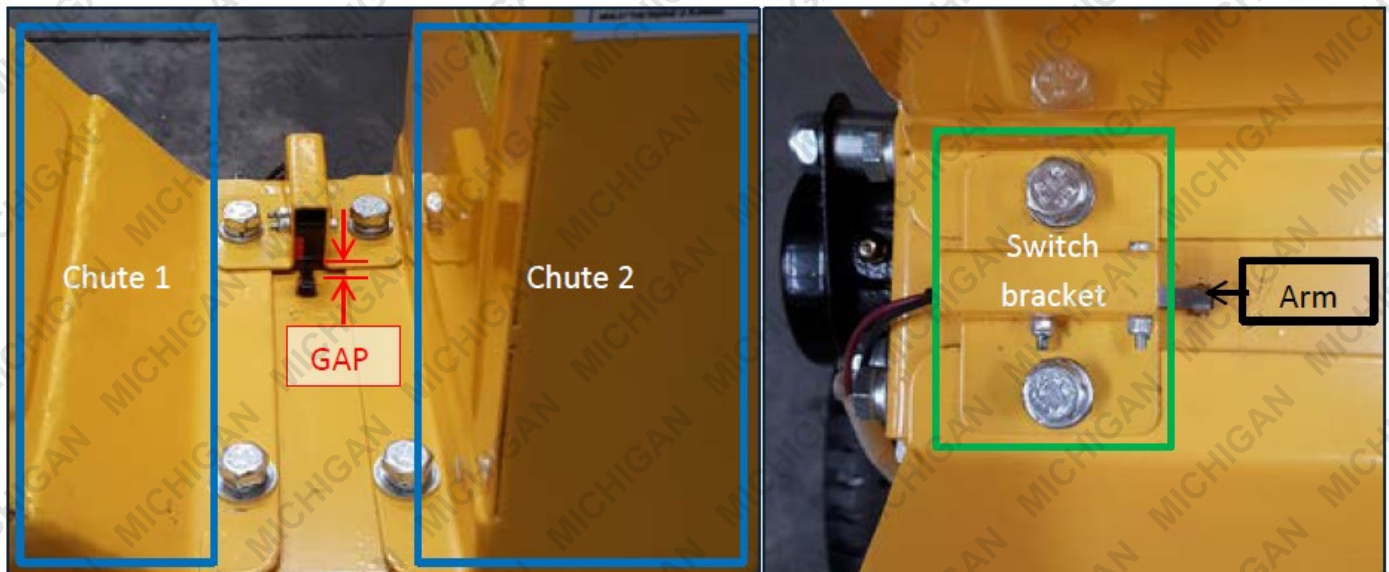
Attaching the Handle and Belt Tension Wheel

1. Insert the handle (16) into the corresponding holes in the frame.
2. Using the two knobs (17) bolt the handle to the frame hand tight. Make sure when hand tightening the handle that it is tight enough to avoid vibrating free.
3. Slide the Belt tension wheel (18) into its axle on the front of the machine.
4. Bolt the Belt tension wheel to the machine using one 20mm bolt (3) and washer (2).



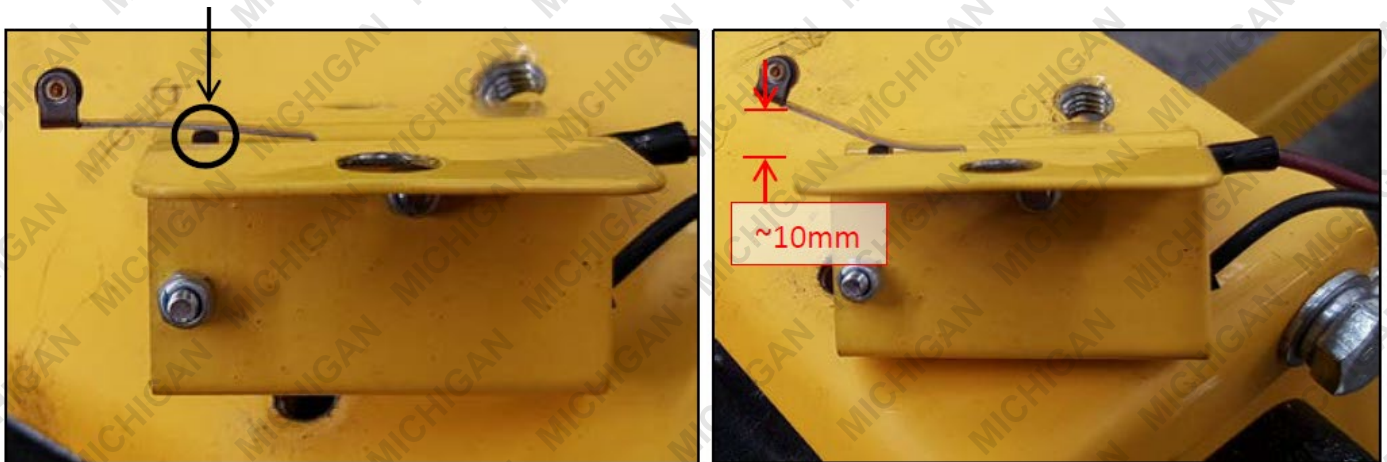
Chute Safety Switch Installation

The safety switch must be installed to prevent the machine from operating if the chutes are not correctly installed.



After installing the chutes, install the safety switch bracket – to do this, remove a bolt from each of the chutes and place the bracket in position, then re-install the bolts.

Ensure that the safety switch arm is fully pushing the [black] microswitch "in", otherwise, the engine will not start. If the safety switch arm is not fully pushing the microswitch "in", remove the safety switch assembly and bend the arm as shown below (approximately 10mm should be ample), then re-install the safety switch



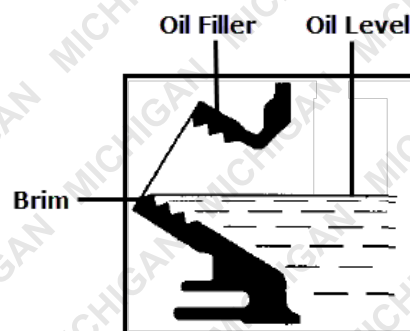
Operation

Adding Oil

WARNING! Using the wrong oil can damage your engine and void warranty.

Acceptable oil grades; 10W-30, 10W-40, 15W-30 OR 15W-40.

1. Remove the oil filler cap and wipe the dipstick with a clean rag.
2. Fill the recommended oil up to its brim.
3. If the oil level is below the brim of the filler, top up with the recommended oil.



Starting the Engine

IMPORTANT! Do not restart the unit with material in the hopper chute. The additional drag may cause severe wear on the drive belt or you may damage the pull starter on the engine and void any warranty.



- | | |
|----------------------|----------------------|
| 1. Air Filter | 5. Fuel tank |
| 2. Choke | 6. Oil filler |
| 3. Fuel ON / OFF | 7. Pull start & grip |
| 4. Petrol filler cap | |

1. Ensure the machine is on stable level ground so it won't tip over. Do not operate the machine on a hard surface such as concrete, as discharged material will rebound and may damage people or property.
2. Refer to section on adding oil and fuel to your engine.
3. Slide the choke lever all the way to the left (cold start) or for warm start slide the lever to the centre position half way between the left (OPEN) and right (CLOSED) sides.
4. Slide the fuel ON/OFF lever to the right (ON) position.
5. Pull the starting cord until the engine starts.

6. Once the engine has warmed up slide the choke lever right to the "OPEN" position.
7. Adjust the throttle to achieve the desired operating speed.

Chipping

IMPORTANT! Never put your hands or fingers in the chipper chute. For the protection of others, do not leave the machine unattended.

IMPORTANT! Do not move the unit with the engine running. The resultant tilting may starve the engine of oil and cause it to seize.

IMPORTANT! DO NOT throw the ends of branches that are larger than 15mm diameter into the hopper chute. Push them down the chipper chute using another piece of wood.

IMPORTANT! DO NOT continue chipping if the drive belt is slipping or smoking. To readjust the belt, see maintenance information.

WARNING! Never operate the machine with the small maintenance cover plate in its open position or removed. Serious injury can result.

1. Green timber will chip much faster than dry timber. Do not chip wood that contains nails.
2. If the unit cannot be placed on the surface on which the chips will be spread, then a sheet of plastic or canvas can be laid under the machine to collect the chips.
3. If the engine is slowing substantially while chipping, reduce the rate you are feeding branches into the machine. This will also make the resultant chips smaller and will extend the life of the drive. Alternatively, check if the blades are blunt.
4. Rotating the branches as you chip can reduce the incidence of bark wrapping around the shaft and causing jamming.
5. If the chipper becomes jammed, the engine should be stopped immediately (if it has not stalled). Disconnect the spark plug wire and move it away from the spark plug. Remove the offending material before restarting.

Shredding

WARNING! Do not push material into the hopper chute with your hands. Use a green branch or a piece of softwood. Wear eye protection.

IMPORTANT! Do not attempt to shred objects such as glass, metal, plastic bottles or rocks.

IMPORTANT! Beware of a sudden jerk as the branches are tugged into the hopper.

WARNING! Never put your hands or feet under the machine when it is running.

WARNING! Do not rotate the hopper assembly without first disconnecting the spark plug lead from the spark plug moving the lead away from the spark plug.

IMPORTANT! If material that is wrapped around the shaft is not removed, the shaft becomes hot and "boils" the oil out of the shaft bearings. The bearings will then fail.

1. This machine is not designed to be used for Palm leaves and doing so will void warranty.
2. Many organic materials as well as leaves and branches can be shredded. Vines will need to be cut into short lengths (about 300mm) before feeding them into the hopper chute as they may wrap around the shaft. This could cause jamming of the unit and cause severe injury to the operator.
3. Preferably wear gloves when feeding small branches into the hopper chute, hold the branches loosely and release them long before they contact the rotating blades.

4. Leaves shred very well, especially if they don't contain long sticks and they are kept loosely stacked in the hopper chute, i.e. don't force them down the chute if it becomes clogged. Stop the engine and free the jam.
5. Keep watching the area under the machine to ensure that the shredded material has not built up to the point where further shredded material cannot escape. This may prevent proper discharge and could cause kickback of material through the feed opening. Move the machine backwards a short distance as material builds up underneath.
6. Control the rate of feeding material into the hopper chute so that the motor is not overloaded. In particular, try to avoid rapid changes in engine speed caused by instantaneous bulk feeding.
7. If the hopper screen becomes clogged, stop the engine and clear the blockage (see Troubleshooting guide)
8. If the machine is blocking repeatedly when shredding material such as wet leaves, try mixing some dry material with the wet material to scour the screen clear or use the (optional extra) bar grate.

Maintenance

General Maintenance

- This machine has one main shaft bearing, which needs to be lubricated with oil every 50 hours of use.
- The blades must be checked regularly. Blunt blades will lower working efficiency and cause the damage of machine.
- This Maintenance Schedule below is based on ALL 4-Stroke engines - some items are not relevant for this chipper.

4-Stroke Petrol Engine Service Schedule	Each Use	Every 1 Month or Every 15 hrs. (Whichever comes first)	Every 3 Months or Every 30 hrs. (Whichever comes first)	Every 6 Months or Every 60 hrs. (Whichever comes first)	Every 12 Months or Every 1 00 hrs. (Whichever comes first)
Engine Oil	Check	Replace			
Engine Oil Filter (if equipped)				Replace	
Check machine for loose nuts/screws	Check				
Tighten all nuts and screws			Complete		
Fuel strainer cup (if equipped)	Check				
Air Cleaner	Check		Clean/Replace as necessary		
Fuel Filter (if equipped)			Check	Replace	
Spark Plug			Check	Replace	
Clean/Flush Fuel Tank					Complete
Fuel Line	Check		Replace as necessary		
Adjust Idle Speed					Adjust
Valve Clearance					Adjust
Cylinder Head Cover					Check
Clean Combustion Chamber					Complete as needed

NOTE:

- Harsh conditions such as high temperature operation, higher than normal loads and dusty applications will require reduced service intervals.
- Max. continuous running time without cool-off I daily check assuming full oil level and no noticeable oil usage or other concerns- 4hrs (except diesel).
- The manufacturer recommends that the number of hours per year be within the stated range for optimum machine performance, based on factors including consumable replacement intervals and machine life over an extended warranty period - recommended 260hrs.

Belt Removal

Never operate without all guards securely in place.

1. Disconnect the spark plug lead from the spark plug.
2. Loosen the Belt tension wheel.
3. Remove the belt guard cover.
4. Raise the engine and remove the belt.
5. When a new belt is installed, re-adjust and tighten the Belt tension wheel so that it is level when the belt is tight.
6. Re-Attach the belt guard.

Draining the Fuel

WARNING! Fuel is extremely flammable and is explosive under certain conditions. Perform this task in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area during this procedure.

1. Remove the fuel cap and fuel filter.
2. Drain all fuel from the fuel tank into an approved fuel container. We recommend using a commercially available fuel hand pump.
3. Reinstall the fuel filter and the fuel filler cap.

Greasing the Blade Barrel

Remove green cap and apply grease with a grease gun to the grease nipple (or Zerk fitting). This should be done every 6 months, depending on usage.



Transporting and Storage

WARNING! Do not operate the machine while it is on a vehicle. Take the machine off the vehicle and use it in a well ventilated place.

WARNING! Do not drive on a rough road for an extended period with the machine on board. If you must transport the generator on a rough road, drain the fuel from the machine beforehand.

WARNING! Before storing the unit for an extended period be sure the storage area is free from excessive humidity and dust.

WARNING! Avoid a place exposed to direct sunlight when putting the machine on a vehicle. If the machine is left in an enclosed vehicle for many hours, high temperature inside the vehicle could cause fuel to vaporise resulting in a possible explosion.

If you need to store the machine:

1. When this equipment is stopped for servicing, inspection, or storage, or to change an accessory, make sure the spark plug wire is disconnected from the spark plug. Make sure that all moving parts have come to a complete stop. Allow the machine to cool before making any inspections, adjustments etc. Maintain the machine with care and keep it clean.
2. Store the machine out of reach of children and where fuel vapour will not reach an open flame or spark. For extended storage periods, run the unit dry of petrol. Always allow the machine to cool before storing.
3. To prevent fuel spillage when transporting or during temporary storage, the generator should be secured upright in its normal operating position, with the engine switch and fuel switch OFF and the fuel cap vent closed.

Troubleshooting

PROBLEM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Engine fails to start	<ul style="list-style-type: none"> Fuel Tank Empty Fuel Tank filter clogged Spark plug wire disconnected Faulty spark Plug Faulty spark Plug Chute Safety Switch "Open" 	<ul style="list-style-type: none"> Fill Fuel Tank with correct fuel Clean Fuel Tank Connect wire onto Spark Plug Clean Spark Plug Replace Spark Plug Ensure chute safety switch is correctly installed.
Loss of power / operation erratic	<ul style="list-style-type: none"> Spark Plug Wire loose Unit still running on CHOKE Blocked Fuel Line Fuel Tank is nearly empty Carburettor requires setting Dirty/Clogged Air Filter Fuel Tank dirty 	<ul style="list-style-type: none"> Tighten Spark Plug connection Move the CHOKE lever to NORMAL Clean fuel lines Re-fill Petrol Tank Consult your local dealer Clean or replace Air Filters Clean Petrol Tank
Engine overheats	<ul style="list-style-type: none"> Engine Oil Low Debris around engine 	<ul style="list-style-type: none"> Refill with correct grade of oil Turn unit off and clean around engine
Excessive vibration	<ul style="list-style-type: none"> Engine Mounting Plate loose Chipping Blade damaged Debris jammed into flail blades Uneven surface 	<ul style="list-style-type: none"> Tighten mounting plate, refer to O/M Check blades and replace if needed Check flails and remove any debris Move unit to a flat surface
Unit does not discharge	<ul style="list-style-type: none"> The hopper is blocked 	<ul style="list-style-type: none"> Disconnect Spark Plug Wire then remove and clean hopper. Add dry or a different material mix Lessen the volume going into the Chute Check flail blades are not broken
Unit not performing	<ul style="list-style-type: none"> Unit taking longer to process material 	<ul style="list-style-type: none"> Check and replace the chipper blades Replace or sharpen Chipper Blades Check Belt for correct tension

Specifications

Engine Type	4-stroke, single cylinder
Drive	Dual belts
Fuel Tank Capacity	3.6 Litres
Fuel Type	Non-ethanol unleaded
Oil Capacity	0.6 Litres
Oil Type	10W-30, 10W-40, 15W-30 OR 15W-40
Maximum Branch Thickness	60mm
Wheel Diameter	21cm

Please note, this model is not designed for tough fibrous material, such as flax, vines or palm fronds.



Some experts believe that the incorrect or prolonged use of almost any product may cause serious injury or death. To help reduce your risk of serious injury or death, refer to the information below. For more information, see www.datastreamserver.com/safety

Consult all documentation, packaging and product labelling before use. Note that some products feature documentation available online. It is recommended to print and retain the documentation.

Before each use, check the product for loose/broken/damaged/missing parts, wear or leaks (if applicable). Never use a product with loose/broken/damaged/missing parts, wear or leaks.

Products must be inspected and serviced (if applicable) by a qualified technician every 6 months. This is based on average residential use by persons of average size and strength, and on a property of average metropolitan size. Use beyond these recommendations may require more frequent inspections/servicing.

Ensure that all users of the product have completed a suitable industry recognised training course before being allowed access to the product.

The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or description of application. Be sure to attain third-party approval from a qualified specialist for your application before use, regardless of any assurances from the retailer or its representatives.

This product is not intended for use where fail-safe operation is required. As with any product (for example, automobile, computer, toaster), there is the possibility of technical issues that may require the repair or replacement of parts, or the product itself. If the possibility of such failure and the associated time it may take to rectify could in any way inconvenience the user, business or employee, or financially affect the user, business or employee, then the product is not suitable for your requirements. This product is not intended for use where incorrect operation or a failure of any kind, including but not limited to, a condition requiring product return, replacement, parts replacement or service by a technician may cause financial loss, loss of employee time or an inconvenience requiring compensation.

If this product has been purchased in error when considering the information presented here, contact the retailer directly for details of their returns policy, if required.



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