



# Chipper

## Hakselaar | Broyeur de végétaux | Picadora







## **IMPORTANT**

#### **OWNER'S MANUAL.**



Please read these instructions carefully before assembly. Keep these and the engine instructions in a safe place for future use.

This manual covers a range of different Masport Chippers. Some features mentioned may not apply to your Chipper.

#### GEBRUIKERSHANDLEIDING.



Lees deze voorschriften zorgvuldig door alvorens de machine te monteren. Bewaar deze voorschriften en die over de motor op een veilige plaats om ze later te kunnen raadplegen.

Deze handleiding geldt voor verschillende typen Masporthakselaars/houtversnipperaars. Mogelijk zijn sommige punten niet van toepassing op uw hakselaar/houtversnipperaar.

## MANUEL D'UTILISATION.



Lire soigneusement ces instructions avant l'assemblage de l'appareil. Garder ces instructions et celles du moteur dans un endroit sûr pour future référence.

Ce manuel couvre toute une gamme de déchiqueteuses Masport. Les caractéristiques mentionnées ici ne s'appliquent pas toujours à votre déchiqueteuse.

#### MANUAL DEL PROPIETARIO.



Lea estas instrucciones detenidamente antes del montaje. Guarde estas instrucciones y las del motor en un sitio seguro para uso en el futuro.

Este Manual cubre una gama de diferentes Picadoras Trituradoras Masport. Algunas características mencionadas tal vez no correspondan a la suya.

www.masport.com

Part Nº: 536672.A.0



Do not operate this machine before it has been assembled correctly and you have read and understood these instructions.

Do not allow children to operate this equipment.



These instructions are intended as a general guide and do not supersede national or local codes in any way. Contact local Authorities for clarity of laws relating to operation of this appliance.

#### Keep the instructions in a safe place for future use.

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## Symbols in this Owner's Manual



Threatened hazard or hazardous situation. Not observing this instruction can lead to injuries or cause damage to property.



Important information on proper handling. Not observing this instruction can lead to faults in the machine.



User information. This information helps you to use all the functions correctly.

## Symbols used on the Machine



Read and understand this Owner's Manual before operating the machine.



Keep bystanders clear. Danger of flying objects.



Keep hands and feet clear.



Remove Spark Plug.



Refer to manual before working on machine



Always wear ear protection when using the machine



Always wear eye protection when using the machine



Always wear safety gloves when using the machine



Warning! Keep hands clear of rotating blades.



Do not open while machine is running



Pinch point, hands clear of rotating rotor



Pinch point, hands clear of rotating belts



Danger, fast flying objects

## **Important Safety Information**

Please read and understand this manual fully before assembly and use.

- The Manufacturer's Warranty may be voided by the incorrect use of this product.
- The operator must understand all the safety requirements detailed in this manual before using the equipment.
- The operator is responsible for the safety of all third parties while the equipment is in use.
- The use of alcohol, prescription or non-prescription drugs may impair the user's ability to properly assemble or safely operate this chipper.
- If you have any queries regarding these instructions, contact your local dealer for clarification before you use your unit.
- The unit must be correctly assembled before use. Failure to follow the manual's instructions could result in serious damage or injury.
- Ensure that the unit is on a level and stable surface before operating and in open space (e.g. not close to a wall or other fixed object).
- Ensure all fuel hoses are in good condition and have been correctly fitted.
- The chipper should be carefully checked for operational safety every time before use.
- Carbon monoxide can be extremely dangerous in enclosed areas; do not run the machine in an enclosed area since the exhaust from the engine contains carbon monoxide, which is colourless, odourless and tasteless.
- Do not place hands or any other part of the body or clothing inside the feeding chutes, discharge area, or near any moving part.
- Before inspecting or servicing any part of the machine, shut off the power source. Make sure that all moving parts have come to a complete stop. Disconnect the spark plug wire from the spark plug.
- Use the correctly specified fuel with this unit, Check with your dealer for the specific fuel for which this unit has been designed.
- Do not leave the chipper unattended when it is running.
- Onlookers should be kept a safe distance away from the chipper when it is in use.
- Keep children and animals well away while the unit is in use and while it is slowing down.
- Never try to move and tilt the unit when it is on, or before it has had time to stop.
- Parts of the engine do get extremely hot and could cause serious burns.
- The person operating this unit should pay constant attention to the material being processed.
- The person should remain at the unit at all times when it is running.
- Ensure that the engine is turned OFF at the throttle after use and while the unit is unattended.
- The Manufacturer or their Agents can accept no liability for any material that is processed and causes personal discomfort or injury

#### **Assembly**

1. The separate items you should have in the two cartons are:-

#### Carton 1

- Engine Chassis assembly
- Axle
- Two wheels
- A plastic bag containing:
  - an operation & maintenance manual
  - a Warranty Card
  - an Engine Booklet
  - 2 of M10 Nuts
  - 4 of M8 Nyloc Nuts
  - 2 of 10mm Spring Washers
  - 1 of 6mm Spring Washer
  - 4 of 8mm Spring Washers
  - 2 of 10mm Flat Washers
  - 1 of 6mm Flat Washer
  - 2 of 8mm x 32 Flat Washer
  - 6 of 8mm x 19 Flat Washers
  - 1 of M6 x 20 screw
  - 2 of M8 x 20 Screws
  - 2 of M8 x 25 screws
  - 2 of M8 x 20 Coach Bolts
  - 2 of 16mm x 35mm Washers
  - 2 of M8 Knobs
  - 2 of Rubber Mount Feet
  - 1 of spacer tube.

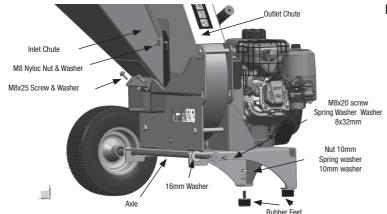
#### Carton 2

- Discharge Chute
- Inlet Chute
- Discharge Flap

#### To Assemble

Refer to Fig.1 & Fig.2 to the right

- 1. Remove the unit from the shipping support.
- 2. Prop up the Engine Chassis assembly and fit the two rubber mounts using two M10 nuts, spring washers & flat washers.
- 4. Slide the two 16mm washers on either side of the axle, fit the two Wheels,  $8\times32$ mm washers, spring washers, M8 x 20mm screws and tighten.
- 5. Loosen the M12 nut and bolt holding the disc in place and loosen the second top nut and bolt that is used to hold the discharge chute.
- 6. Fit the discharge chute and fasten in place using the  $2x\,M12$  bolts, 4x washers and 2x nuts, make sure the spacer tubes are inbetween the housing plates and fasten the chute.
- 7. Fit the discharge flap, slide the coach bolts through the holes from the inside outward. Fit the two spring washers and tighten the two knobs.
- 8. Fit the inlet chute, slide it on the anvil and locating the two M8 studs. Fit the 2x washers and M8 nuts on the studs. Fit the 2x M8 x 25mm screws, 4x washers and 2x nuts and fasten the chute down.
- 9. Add oil and fuel to the engine. (See engine owner's manual.)



#### Fig.1

## **Operating Instructions**

1. To move the unit, place a foot behind a wheel and tilt the unit backwards until it passes its balance point.



Never move the unit while the engine is running.

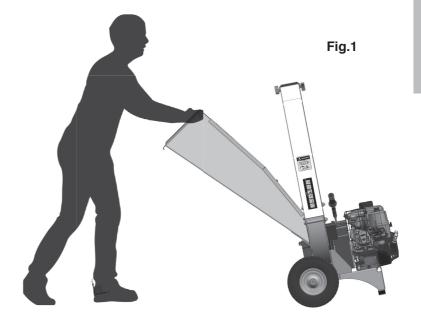
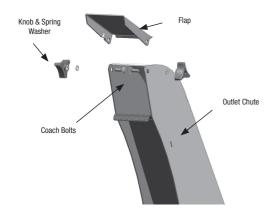


Fig.2



- 2. When crossing rough terrain or sloping areas, hold the handle firmly at each side with both hands (to prevent tipping). In some instances, it may be easier to tow the unit behind you.
- 3. For transport by means of a vehicle the chipper may be transported as a single unit or with the inlet & outlet chute removed. It must be tied in an upright position using the tiedown slots on the machine.



Note: If transporting with the inlet chute removed, Lock the cutting disc using the M12 bolt & nut.

## **Preparation**

- 1. Wear safety glasses at all times while operating the machine. Hearing protection is also recommended, especially for extended operating periods.
- 2. Avoid wearing any loose-fitting clothing or that has hanging cords or ties.
- 3. Before starting the machine, check that all screws, nuts, bolts and other fasteners are properly secured. Replace damaged or unreadable warning and operating decals.

#### 4. **Marning**

Use extra care in handling fuels. They are flammable and the vapours are explosive.

- a) Use only an approved container for fuel.
- Never remove fuel cap or add fuel with engine running. Allow engine to cool before refuelling. Do not smoke while refuelling.
- c) Never refuel the machine indoors.
- d) Never store the machine or fuel container inside where there is an open flame such as a water heater.
- e) Always replace & securely tighten the fuel cap after refilling.
- f) If fuel is spilled, do not attempt to start the engine, but move the machine away from the area of spillage before starting.
- g) If the fuel tank is drained, this should be done outdoors.

## **Operating Safety**

#### **OPERATION**

- When feeding shreddable material into the equipment, be extremely careful that pieces of metal, rocks, bottles, cans or other foreign objects are not included.
- 2. If the cutting mechanism strikes any foreign objects or if the machine should start making any unusual noise or vibration, immediately shut off the engine and allow the machine to stop. Disconnect the spark plug and take the following steps:
  - 1) Inspect for damage
  - 2) Replace or repair any damaged parts with equivalent specifications
  - 3) Check for and tighten any loose parts

Do not attempt to repair the machine unless you are competent to do so.

- 3. Keep the engine clean of debris and other accumulations to prevent damage to the engine or possible fire.
- 4. Keep all guards and deflectors in place and in good working condition.
- 5. Always stand clear of the discharge area when operating this machine.
- 6. Keep your face and body away from the feed & discharge openings.
- 7. Do not over-reach. Never stand at a higher level than the base of the machine when feeding material into it. Keep proper balance and footing at all times.
- 8. Do not allow processed material to build up in the discharge zone; this may prevent proper discharge and can result in kickback of material through the feed intake opening.
- 9. If the machine becomes clogged at the inlet opening or discharge chute shut off the power source and disconnect the spark plug wire before clearing debris in the inlet opening or discharge chute. Remember that operating the starting mechanism on engine powered machines will still cause the cutting means to move.
- 10. Do not tamper with the engine governor settings on the machine: the governor controls the maximum safe operating speed and protects the engine and all moving parts from damage caused by overspeed. Seek authorised service if a

- problem exists.
- 11. Do not rotate the chipper disc by hand without first disconnecting the spark plug

#### **MAINTENANCE AND STORAGE**

- 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.
- 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.
- When servicing the cutting means be aware that, even though the power source will not start due to the interlock feature of the guard, the cutting means can still be moved by a manual starting mechanism.

## **Starting**

- 1. Ensure the chipper is on stable, level ground so it won't tip over.
- 2. Do not discharge chipped material on hard surface as it will rebound and may cause damage to people or property.
- 3. Make sure people and pets are clear of the operating area.
- 4. Refer to your engine booklet for details on adding oil and fuel to your engine
- 5. Make sure the actuation lever is in the disengage position before starting
- 6. Follow the instructions to Turn switch to "on" position, turn fuel tap open, throttle to fast and choke the engine (if it is cold).
- 7. Pull the starting cord until the engine starts and open the choke after 5 seconds.
- 8. For the electric start model, turn the key as instructed in the engine manual
- 9. Adjust the throttle to achieve maximum operating speed.
- 10. Once the engine is hot it is not necessary to use the choke when restarting.
- 11. Slowly pull the actuation lever to engage the belts and cutting disc. (A fast engagement action will stall the engine.)
- 12. Do not restart the unit with material in the inlet chute. The additional drag may cause severe wear on the drive belt or you may damage the pull starter on the engine.



**Note: STOPPING** Disengage the actuation lever, move the throttle to slow and turn the switch to "off".

## Chipping



## Warning

- A. Wear eye protection.
- B. Never put your hands or fingers in the chipper chute. For the

6

protection of others, do not leave the machine unattended when it is running.

- C. Do not push the material into the chute with your hands. Use a green stick or a piece of softwood.
- D. Do not move the unit while the engine is running. The resultant tilting may starve the engine of oil and cause it to seize.
- E. Beware of a sudden jerk as the branches are tugged into the
- F. Chip small stubs along with bushy shrubs to prevent it from bouncing about in the chute.
- G. Do not chip old hard branches or root clumps, this will dull the blades and/or stall the engine.
- H. Do not overload or feed oversize branches in the inlet chute.
- 1. Branches up to 70mm diameter can be chipped, depending on the type of timber. Green timber will chip faster & easier than dry timber. Do not chip timber which contains nails.
- 2. Keep a stick handy to push leafy and bushy material down the chute, less bushy material should self-feed.



#### Important!

#### Beware of a sudden jerk as the branches are tugged into the chipper.

- 3. Many organic materials as well as leaves and branches can be fed into the chipper. Vines will need be cut into short lengths.
- 4. Prune the branches to suit the inlet chute.
- 5. If the unit can't 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. Alternatively, a wheely bin can be placed under the discharge chute or a chipper bag catcher could be used. (The bin or bag is not supplied with the unit.)
- 6. When processing palm fronds, flax or similar fibrous materials it is best to feed it slowly in bundles. The blades must be sharp and the fibrous material preferably should be green.
- 7. If the engine is slowing substantially while chipping, reduce the rate you are feeding branches into the machine. This will also make the resulting chips smaller and will also extend the life of the belt drive. Alternatively, check if the blades are blunt.
- 8. If the chipper becomes jammed, the engine should be stopped immediately (if it has not stalled). Disengage the actuation lever, disconnect the spark plug wire and move it away from the sparkplug. Remove the offending material before restarting. This may involve opening the discharge chute and turning the disc backwards (with the sparkplug disconnected) and prise the material out. Replace the discharge chute before operating.
- 9. Once a jam is cleared, close and bolt the outlet chute before restarting the engine.
- 10. Disengage the actuation lever before restarting the engine.



Note! Do not continue chipping if the belt is slipping or smoking. To readjust the belt, see maintenance information.

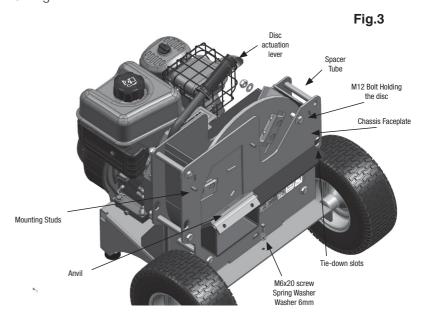
#### **Basic Maintenance**

#### **TOOLS REQUIRED**

- 10mm socket & wrench.
- Two 13mm open-ended ring spanners. b)
- 18mm open-ended ring spanner
- 19mm open-ended ring spanner
- 5mm Allen key.
- 1. Every 5-10 hours of operation check the oil level and top up if necessary. Change the oil in accordance with the instructions in the engine booklet.
- Regularly check the condition of the engine's air cleaner, especially in dusty environments.
- The drive belts may stretch after a short period of use, but should then stabilise for a considerable time if not overloaded or constantly slipping.
- 4. If the engine is vibrating badly, check the engine mount bolts may need tightening.
- 5. To grease the bearing blocks, open the discharge chute as described below, remove the belt guards to access the bearings. Initially grease after the first 2-3 hours then grease after every 20 hours. Make sure not to over grease.

## **Chipper Blade Removal**

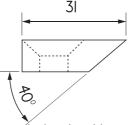
- Disconnect the spark plug lead from the spark plug.
- 2. Refer to fig.4 Loosen and remove the M12 nut & bolt holding the rear side of the exit chute.
- 3. Loosen the opposite nut & bolt a few turns.
- Swivel the chute to expose the disc and blades.
- Turn the disc to align locking holes in the disc and face plate, push the M12 bolt through the holes to hold the disc from turning.



With a sharp object such as a nail, remove wooden debris 6. from the allen key holes in the two countersunk chipper blade bolts. Remove the bolts and chipper blade using the 5mm allen key and 13mm spanner.

Warning: BEWARE OF THE SHARP EDGE ON THE CHIPPER BLADE.

- 8. Remove the M12 bolt and rotate the disc to locate the next hole, push the bolt through the hole and remove the next blade. Repeat to remove the third blade.
- 9. Sharpen the blades to 40°. Remove equal amounts but do not remove more than 2mm of material. If the blades are shorter than 31mm they should be replaced.



10. Use new nylock nuts and bolts when replacing the chipper blades if they appear damaged. Ensure the blades are sitting flat on the disc surface before tightening.

**Note:** Turn the disc slowly when fitting new blades or anvil, make sure the blades do not make contact with the anvil.

#### **Anvil Removal**

- 1. Disconnect the spark plug lead from the spark plug.
- 2. Refer to fig.1, 3 & 4.
- 3. Loosen the 8mm screws and nuts and remove the inlet chute.
- 4. Loosen and remove the M12 nut & bolt holding the rear side of the exit chute.
- 5. Loosen the opposite nut & bolt a few turns.
- 6. Swivel the chute to expose the disc and blades.
- 7. Turn the disc to align locking holes in the disc and face plate, push the M12 bolt through the holes to hold the disc from turning.
- 8. Remove the bolts and anvil using the 5mm allan key and 13mm spanner. [BEWARE OF THE SHARP EDGE ON THE ANVIL.]
- 9. Sharpen the edge at 90° to the face. The anvil has two sharp edges and can be rotated.

To reinstall the anvil, clean the anvil and mounting surface and fit the anvil in the reverse procedure.

#### **Anvil & Blade Gap Setting**

Note: Turn the disc slowly when fitting new blades or anvil, make sure the blades do not make contact with the anvil.

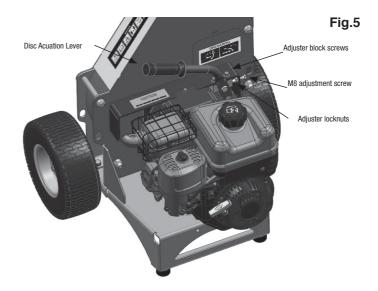
- 1. Refer to anvil removal above.
- 2. Refer to fig.1, 3, 4 & 6.
- 3. Open the exit chute.
- 4. Remove the inlet chute.
- 5. Loosen the anvil enough to adjust it.
- 6. The anvil will be at a slight angle to the blades.
- 7. Using a feeler gauge set the gap to 3mm between the outer blade and the anvil, closest to the outside of the disc.
- 8. Set the gap to 1mm between the inner blade and anvil, closest to the centre of the disc.
- 9. Tighten the anvil in place, close the exit chute and fit the inlet chute.

- 1. Disconnect the spark plug lead from the spark plug.
- 2. Loosen and remove the M6 screws holding the belt guards
- 3. Remove the belt guards.
- 4. Remove the engine mount bolts.
- 5. Unhook the belts from the engine pulley and remove the engine.
- 6. Reverse process to refit the engine.
- 7. Make sure the pulleys are aligned vertical to each other and the engine face is parallel to the chippers face.
- 8. Fasten the mounting screws and check the tension of the belts. (See belt adjustment.)

#### **Belt Removal**

**Note:** Replace the drive belts when the adjustment block and screws have reached the end of its slotted holes.

- 1. Remove guard and engine as above.
- 2. Note how the belts are threaded and remove the belts.
- 3. Fit two new belts in the reverse of removal.
- 4. Adjust belts if required.

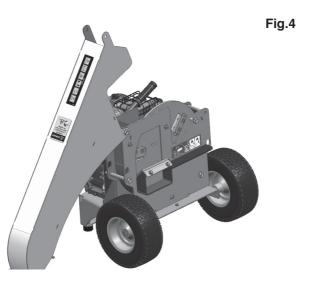


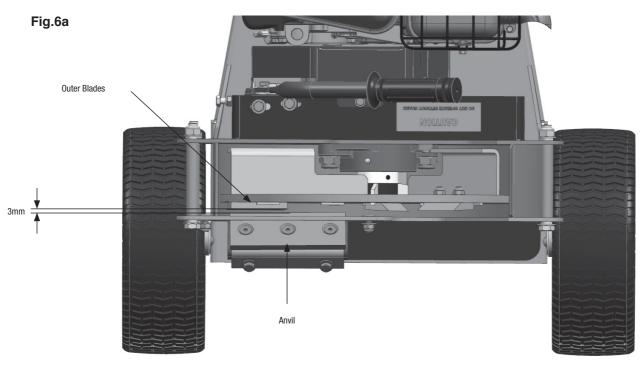
**Note:** Do not run the machine with the belt guards removed.

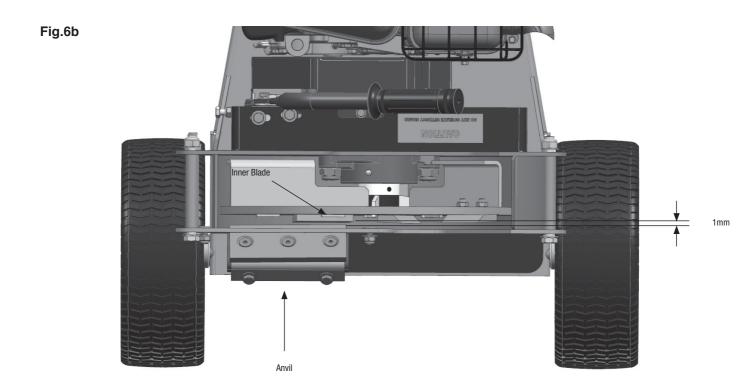
## **Belt Adjustment**

- 1. Refer to fig 5, loosen the two adjuster block mount screws.
- 2. Loosen the locknuts and adjust the block with the adjuster screw.
- 3. Tighten the nuts and mount screws and check the belt tension. In the disengaged position, the belts must slip on the disc pulley and allow it to turn freely. Engage the actuation lever and the belts must engage the pulley, do not overtight but enough to run the disc without the belts slipping.

## **Engine Removal**







## **Troubleshooting**

PROBLEM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Engine Fails to start	Fuel Tank Empty	Fill Fuel Tank with correct fuel
	Fuel Tank filter clogged	Clean Fuel Tank
	Spark plug wire disconnected	Connect wire onto spark plug
	Faulty spark plug	Clean spark plug
	Faulty spark plug	Replace spark plug
Loss of Power; Operation erratic	Spark plug Wire loose	Tighten spark plug connection
	Unit still running on CHOKE	Move the CHOKE lever to NORMAL
	Blocked Fuel Line	Clean fuel lines
	Fuel Tank is nearly empty	Re-fill Petrol Tank
	Carburettor requires setting	Consult your local dealer
	Dirty/Clogged Air Filter	Clean or replace Air Filter
	Fuel Tank dirty	Clean Petrol Tank
Engine Overheats	Engine Oil Low	Refill with correct grade of oil
	Debris around engine	Turn unit off and clean around engine
Unit Vibrates	Engine Mounting Bolts loose	Tighten mounting bolts.
	Chipping Blade damaged	Check blades and replace if needed
	Debris jammed into disc or blades	Open exit chute and remove any debris
	Uneven surface	Move unit to a flat surface
Unit does not discharge	Discharge chute clogged	Disconnect Spark Plug Wire then
		remove and clean chute
		Add dry or a different material mix
		Lessen the volume going into the Chute
Unit not performing	Unit taking longer to process material	Replace or sharpen Chipper Blades
		Check Belt for correct tension

## **Technical Information**

Masport Chipper MC900H 6.0HP Honda GX200 196cm³ 4.3kW 3600/min Model:

Engine Type: Engine Power: Rated no-load speed: Petrol tank capacity: 3100mL Oil tank capacity: 610mL Cutting blade part number: 536643 Weight: 106kg

Sound pressure level LPA at the operator position: 94 dB(A) Measured sound power level LWA: 112.0 dB(A) Guaranteed sound power level LWA (2000/14/EC): 112.0 dB(A)

