

HYUNDAI

STUMP GRINDER

Model HYSG150



User Manual

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1. SAFETY

1.1. General safety notes.















1.1.1. The operator of the machine is responsible for, and has a duty of care in making sure that the machine is operated safely and in accordance with the instructions in this user manual. Keep the manual safe and pass it on if the machine is loaned or sold to another user.

1.1.2. Please note the following safety points.

1.1.2.1. The machine should never be left in a condition which would allow an untrained or unauthorised person/s to operate this machine.

1.1.2.1.1. All due care and diligence should be taken by the operator for the safety of, and with regard to, those around whilst using the machine.

1.1.2.1.2. Some or all of the following - warning signs, symbols and/or PPE pictograms may appear throughout this manual. You **MUST** adhere to their warning/s. Failure to do so may result in personal injury to yourself or those around you.

The FOLLOWING safety notes will help avoid or reduce risk of injury or death.							
 DANGER		 WARNING		 CAUTION			
Indicates a hazard, which, if not avoided, could result in serious injury or death.		Indicates a hazard, which, if not avoided, could result in serious injury.		Indicates a hazard which, if not avoided, might result in minor or moderate injury.			
 NOTE							
Indicates a situation that could easily result in equipment damage.		READ and keep the manual safe and pass it on if the machine is loaned or sold to another user.		You MUST fully read instructions to make sure you use and operate machine safely.			
Appropriate Personal Protective Equipment (PPE) MUST be worn at all times when machine is in use or being repaired.							
 HAND PROTECTION MUST BE WORN	 EYE PROTECTION MUST BE WORN	 PROTECTIVE CLOTHING MUST BE WORN	 HEARING PROTECTION MUST BE WORN	 FOOT PROTECTION MUST BE WORN	 HEAD PROTECTION MUST BE WORN	 RESPIRATOR MUST BE WORN	 FACE SHIELD MUST BE WORN
ALWAYS keep the working area clear of non-essential people to include, but not limited to, children, the elderly and vulnerable persons. NEVER ALLOW an untrained person to use this machine.							

1.2. Carbon monoxide.

- 1.2.1. Carbon monoxide is a colourless and odourless gas. Inhaling this gas can cause death as well as serious long term health problems such as brain damage.
- 1.2.2. The symptoms of carbon monoxide poisoning can include but are not limited to the following;

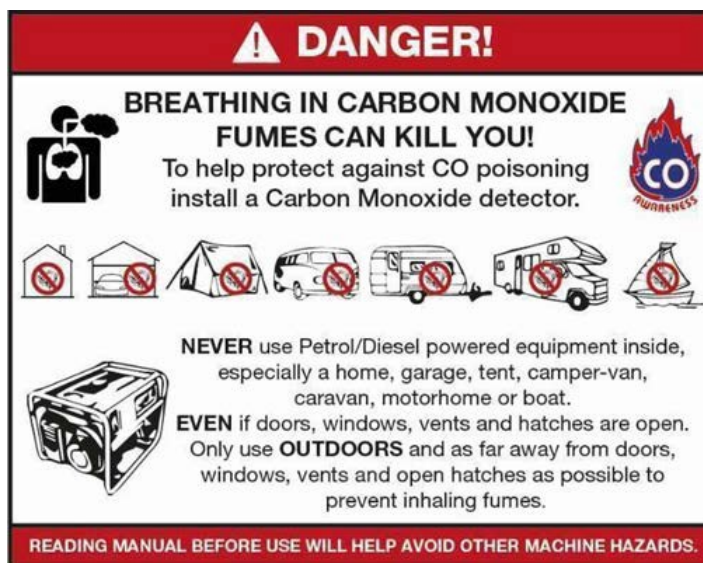
Headaches, dizziness, nausea, breathlessness, collapsing or loss of consciousness.

- 1.2.2.1. Carbon monoxide poisoning symptoms are similar to flu, food poisoning, viral infections and simply tiredness. It is quite common for people to mistake this very dangerous poisoning for something else.
- 1.2.2.2. To avoid carbon monoxide poisoning DO NOT use Petrol/Diesel-powered equipment inside any of the following;

Home, garage, tent, camper van, mobile home, caravan or boat.

This list is not exhaustive and if you are in any doubt contact your dealer.

- 1.2.3. If you think you have or someone around you has been affected by carbon monoxide poisoning;
 - 1.2.3.1. Get them fresh air immediately, by leaving the affected area or by opening doors and windows. If safe and practical to do so make sure that the machine is turned off. DO NOT enter a room you suspect of having carbon monoxide present – instead call the emergency services.
 - 1.2.3.2. Contact a doctor immediately or go to hospital - let them know that you suspect carbon monoxide poisoning.
- 1.2.4. **DO NOT** use in an enclosed area or a moving vehicle.



1.3. General fuel safety.

 **CAUTION** ALL FUELS ARE FLAMMABLE

1.3.1. Fire hazard - keep fuel away from all sources of ignition for example heaters, lamps, sparks from grinding or welding.



Fire Hazard

1.3.2. DO NOT carry out hot work on tanks that have contained fuel it is extremely dangerous.

1.3.3. ALWAYS keep work area clean and tidy.

1.3.4. ALWAYS clean up all spills promptly using correct methods i.e. absorbent granules and a lidded bin.

1.3.5. ALWAYS dispose of waste fuels correctly.

1.4. Fueling/De-fueling.

 **CAUTION** ALL FUELS ARE FLAMMABLE

1.4.1. ALWAYS fuel and defuel in a well-ventilated area outside of buildings.

1.4.2. ALWAYS wear correct, suitable and fit for purpose Personal Protective Equipment (PPE), suggested items are but not limited to safety gloves and overalls.



1.4.3. When fueling/de-fueling ALWAYS avoid inhaling fumes

1.4.4. When de-fueling ALWAYS use a propriety fuel retriever.

1.4.5. ALWAYS carry fuel in the correct and clearly marked container.



Fire Hazard

1.5. Vibrations.

1.5.1. Prolonged use of hand held (operated) machines will cause the user to feel the effects of/from vibrations. These vibrations can lead to white finger (Raynaud's phenomenon) or carpal tunnel syndrome. This condition reduces the ability of the hand to feel and regulate temperature, causing numbness and heat sensations and may cause nerve damage and circulatory tissue death.

1.5.2. Not all factors that lead to white finger disease are known, but cold weather,

smoking and other diseases that affect blood vessels and blood circulation as well as large and long-lasting impact of shocks are considered factors called in the formation of white finger. Note the following to reduce the risk the white finger and carpal tunnel syndrome:

1.5.2.1. Wear gloves and keep your hands warm

1.5.2.2. Take regular breaks

1.5.3. All of the above precautions may help reduce the risk of white finger disease but not rule out carpal tunnel syndrome. Long-term and regular users are therefore recommended to observe the condition of your hands and fingers. Seek medical attention immediately if any of the above symptoms should occur.

1.6. Noise.

1.6.1. The operating noise of the machine can damage your hearing. Wear hearing protection such as earplugs or ear defenders to protect your hearing. Long-term and regular users are advised to have hearing checked regularly. Be especially vigilant and cautious when wearing hearing protection because your ability to hear alarm warnings will be reduced.

1.6.2. Noise emissions for this equipment is unavoidable. Carry out noisy work at approved times and for certain periods. Limit the working time to a minimum. For your personal protection and protection of people working nearby it is also advisable for them to wear hearing protection.



2. MACHINE SPECIFIC SAFETY

2.1. Usage.

- 2.1.1. The stump grinder is only to be used to remove tree stumps. By moving the blade in sweeping movements laterally over the top and front of the stump, you can gradually grind it away. Read the SAFETY chapter before you use the machine for the first time.

2.2. General use.

- 2.2.1. The object of this manual is to help you use your machine safely and to give you information about how to maintain your machine. Please read the manual carefully before attempting to use the machine.
- 2.2.2. If after reading the user manual you are still unsure about the safety risks associated with use of the machine, you should not use the machine. Please contact your dealer for more information.
- 2.2.3. These safety instructions only address the basics for safe use. It would be impossible in the safety instructions to describe all possible risk situations that could arise when using the machine. You can, however, prevent accidents by always using common sense.
- 2.2.4. To obtain extra copies of the user manual, please contact your dealer.

WARNING

Under no circumstances may the original design of the machine be modified without written approval from the manufacturer. Such modifications not only affect the performance and durability of the machine but many even pose a safety risk for users and those in the vicinity. Unauthorised modifications to the design of the machine may absolve the manufacturer from liability for any resulting personal injury or property damage. Modifying the machine without written approval from the manufacturer may void the guarantee.

WARNING

The stump grinder can be dangerous if used incorrectly or without due care and can lead to serious accidents, in the worst cases even fatal accidents. It is very important that you read this user manual and understand the instructions before you attempt to use the machine.

- 2.3. Follow all safety instructions. Failure may result in injury to yourself or others.
- 2.4. Accident prevention regulations, other general safety regulation, occupational safety rules and traffic regulation must be followed without fail.
- 2.5. All users **MUST** be trained in use of the machine. The owner is responsible for training users.
- 2.6. You **MUST** use an authorised workshop for all service and repairs not described in this manual.
- 2.7. Learn how to use the machine and its controls safely and learn to recognize the safely labels.
- 2.8. Only use the machine for removing tree stumps it is not intended for any other use.
- 2.9. Check that the machine is in a serviceable condition prior to use.

- 2.10. Only use the machine in daylight or in other well-lit conditions. Keep the machine a safe distance from holes or other irregularities in the ground. Pay attention to other all other possible risks.
- 2.11. Only allow the machine to be used by adults who are trained in its use.
- 2.12. Never allow children or persons not trained in the use of the machine to use or service it Local laws may regulate the age of the user.
- 2.13. People and animals can distract you causing you to lose control of the machine. For this reason, you should always concentrate and focus on the task at hand.
- 2.14. Never leave the machine unsupervised with the engine running. You **MUST** always disable machine to stop others using it in your absence.
- 2.15. Make sure that there is always another person in the safe vicinity of your work area so that help is available should an emergency arise.
- 2.16. The machine is tested and approved only with the equipment originally provided or recommended by the manufacturer.

 **CAUTION**

The engine can become very hot.

To avoid being burned, you must turn off the engine and wait until all parts have sufficiently cooled before touching the engine.

 **CAUTION**

Overexposure to vibration may lead to circulatory or nerve damage, particularly in people who have impaired circulation. Contact your doctor if you experience symptoms that could have been caused by overexposure to vibration. Examples of common symptoms include numbness, pain, muscle weakness, change of skin color or an uncomfortable feeling of tingling. These symptoms appear most frequently in the fingers, hands or wrists.

 **CAUTION**

IMPORTANT INFORMATION

NEVER use a stump grinder that is damaged or incorrectly adjusted. **NEVER** use the stump grinder if any component is missing or if it is not properly assembled. **ALWAYS** Check that the cutting tools stop rotating when you fully reduce the throttle. If you find yourself in a situation where you are not sure what to do, you **MUST** always seek expert assistance. **DO NOT** try to solve any problem you are not qualified to resolve.

- 2.17. Before starting work you must clear the work area of any unnecessary materials, rubbish etc. that may cause the user to trip, slip or fall or the stump grinder to become entangled.
- 2.18. You **MUST** always wear appropriate personal protective equipment.

3. PREPARATIONS BEFORE USE

3.1. Before use.

- 3.1.1. Make sure that you always have first aid equipment at hand when using the machine.
- 3.1.2. Make sure nobody else is in the vicinity of the machine when you start the engine or run the machine.
- 3.1.3. Make sure onlookers and animals are kept a safe distance from the machine.
- 3.1.4. Clear the area of objects such as stones, toys, steel wire, etc. that could become caught in moving machine parts and thrown out.
- 3.1.5. Find and locate all fixed objects in the ground, such as sprinkler systems, poles, water valves, bases for washing lines, etc. Make sure that you check for hidden electrical cables or similar in the surface of the lawn. Always run the machine around these objects. Never intentionally run the machine over foreign objects.
- 3.1.6. Check the operator's presence lever and all guards are fitted and functioning correctly. **DO NOT** use the machine if it is not working properly.
- 3.1.7. Make sure no clothing, long hair or jewelry can catch in moving machine parts.
- 3.1.8. Use mouth protection, protective gloves with good grip and protective clothing which you can move unrestricted. Also use leg protection to protect your legs from sparks and the cutting tools.
- 3.1.9. Always wear protective boots with anti-slip and preferably with steel toecaps and **NEVER** use the machine when barefoot.
- 3.1.10. Use a helmet with a full face visor or a mesh visor and protective glasses. Wear approved ear-protection when running the machine. Ask your dealer about approved protective glasses, ear protection and recommended helmets.

CAUTION

Always use approved protective clothing and approved protective equipment when using the machine. Protective clothing and protective equipment cannot eliminate the risk of accident, but wearing proper clothing and the correct equipment will reduce the degree of injury should an accident occur. Ask your dealer about approved protective clothing and approved protective equipment recommended.

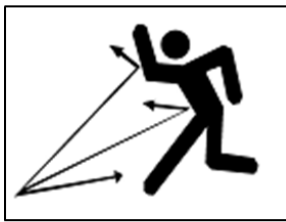


3.2. Operational safety.

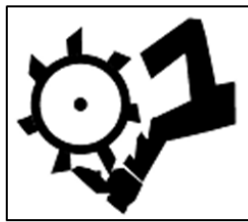
- 3.2.1. **DO NOT** use the machine on slopes greater than 10°.
- 3.2.2. **DO NOT** use the machine if you are tired, consumed alcohol, or if you are taking other drugs or medication that can affect your vision, judgement or coordination.
- 3.2.3. Never use the machine indoors or in spaces lacking proper ventilation.
- 3.2.4. Make sure you have a proper foothold when using the machine, particularly

when walking backwards (which you should avoid). Walk, don't run. Never work on wet grass. Poor traction may cause you to slip, trip or fall.

- 3.2.5. Keep your hands and feet away from moving parts and working tools.
- 3.2.6. DO NOT use your feet or other parts of your body to gain greater bearing pressure against the stump.
- 3.2.7. Open flames or sparks in the vicinity of the machine are strictly forbidden. Petrol is extremely flammable and carelessness in handling can result in personal injury of fire.
- 3.2.8. Never use a machine with a defective muffler.
- 3.2.9. In very warm and dry climates, stump grinder operation will pose a greater risk of starting fires.
- 3.2.10. Stop and inspect the equipment if you run over or into anything. If any damage has occurred you MUST make all necessary repairs before starting work again.
- 3.2.11. Whatever happens, you should always park the machine on even ground, disengage the drive, activate the parking brake, turn off the engine and wait until all moving parts have stopped before leaving the machine.
- 3.2.12. Beware of thrown objects, rotating cutters, DO NOT smoke in the vicinity of



Thrown objects



Rotating cutters



NO Smoking

4. PARTS LOCATIONS



- | | | |
|-----------------------------|-------------------------|-----------------------|
| 1 – Operator presence lever | 2 – Brake lever | 3 – Exhaust |
| 4 – Fuel filler cap | 5 – Fuel tank | 6 – Transport handles |
| 7 – Cutter blades | 8 – Guard | 9 – Engine switch |
| 10 – Engine | 11 – Wheels - pneumatic | 12 – Air filter |

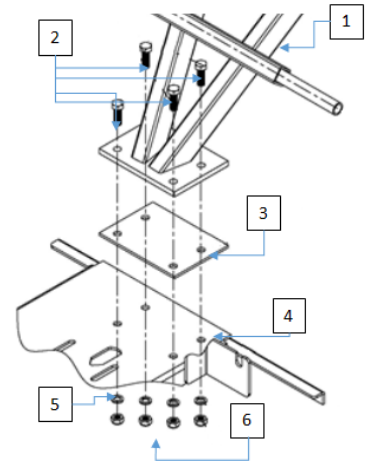
5. ASSEMBLY

5.1. The assembly will be minimal and should be limited to mounting the handle bar, brake and throttle levers.

5.2. Mounting the handle bars.

5.2.1. Take handlebar (1) and gasket (3) align them and offer them to the machines base (4). Take 1 of the M12 x 35mm hex bolts (2) and pass it through holes in the handlebar and gasket into the base. Once you have one bolt through you can pass 1 x 12mm spring washer (5) and 1 x M12 hex locknut (6) over the protruding end of bolt and screw it on loosely by hand. Repeat the process for the remaining three bolts, spring washers and hex locknut's.

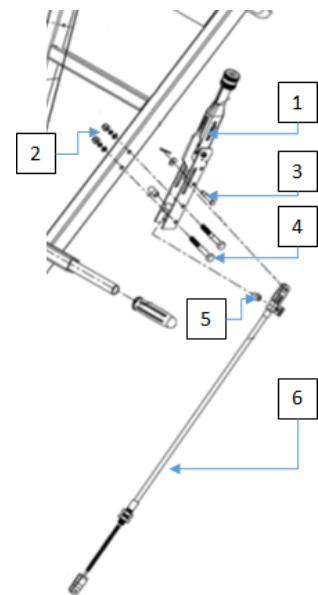
5.2.2. Once all nut/bolts/washers are located you can fully tighten them up.



5.3. Mounting the brake lever.

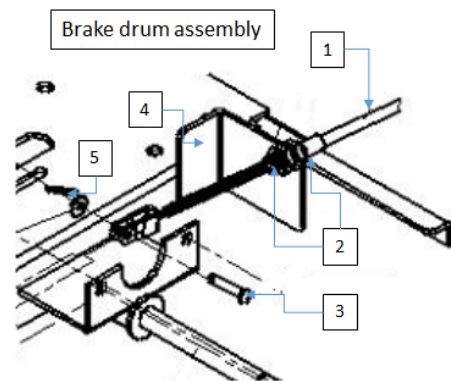
5.3.1. Take brake lever (1) and offer it up to handlebar then pass 1 x M8 x 75mm bolt (4) and push it through brake lever then through the handlebar and place 1 x M8 Hex locknut and 1 x M8 (2) spring washer (2) over bolt (4) and tighten up by hand. Repeat for second nut and bolt, once both fitted you can fully tighten them both up.

5.3.2. Take the top end of the brake cable assembly (6) Pass the bush (5) through hole at the end of the brake cable then through the bottom end of the brake lever. Once through you can push the cotter pin through to secure the bush.



5.4. Brake drum connections (If required).

5.4.1. Firstly take the brake drum end of the brake cable and undo 1 of the M12 hex nuts (2), then pass the end of the brake cable through the brake drum plate (4), once through put the removed M12 hex nut over the end of the cable and hand tighten. Push the brake bolt (3) though hole in brake drum plate them through end of cable, once through secure bolt with 2mm x 20 cotter pin (5). You will need to adjust and operate the brake lever until the brake holds the machine firmly. Once completed you must fully tighten the 2 x M12 hex nuts (2) onto the brake drum assembly.



5.4.2. Mounting the throttle lever.

- 5.4.2.1. Lift the throttle lever assembly to the right hand inside (viewed from operators position) of the handlebar. Then using the 2 x M6 hex locknuts, 2 x M6 spring washers and 2 x M6 x 45mm bolts, bolt the throttle cable lever assembly to the handlebars.

6. STARTING THE ENGINE - OPERATING MACHINE

6.1. Starting the engine.

- 6.1.1. Turn the engine switch (1) to the ON position.

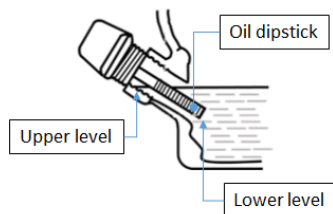


6.2. Check fuel level.

- 6.2.1. Check that there is sufficient fuel in the tank.
- 6.2.2. You should fill the tank with enough petrol to last for your working session. If you intend fill the petrol tank make sure that you leave a gap to allow for fuel expansion. Maximum fuel tank capacity from an empty tank is 6.5L

6.3. Check oil level.

- 6.3.1. You must make sure that the oil is full up to the level of the threads of the oil filler cap as shown. Maximum oil from an empty oil tank is 1.1 L

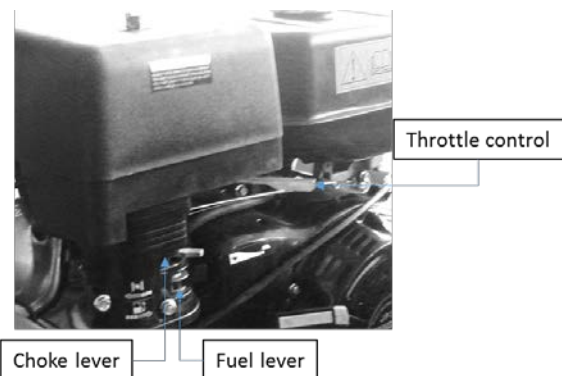


6.4. Fuel valve.

- 6.4.1. Open the fuel valve by moving the lever all the way to the right.

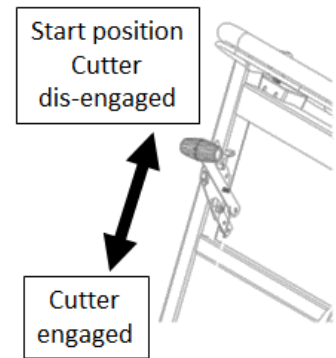
6.5. Choke control.

- 6.5.1. When starting the engine cold or partially warm, place the lever completely or partly to the left.
- 6.5.2. Move the lever back all the way right once the engine starts.
- 6.5.3. When the engine is cold, it may be best to move the lever back in several stages. Find the position where the engine runs smoothly.
- 6.5.4. When starting a warm engine the lever should be moved all the way to the right position.



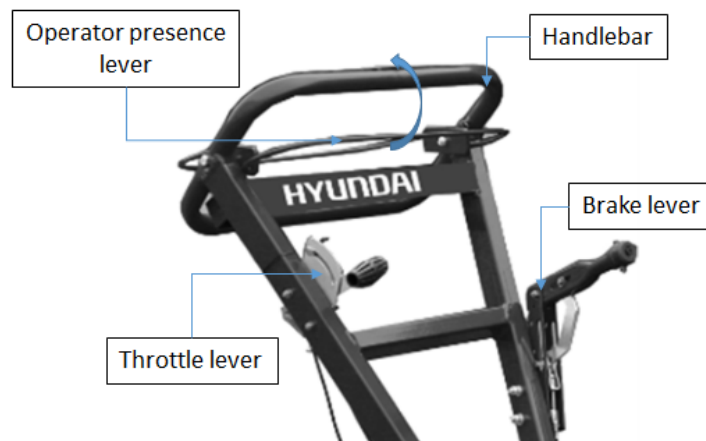
6.6. Throttle.

- 6.6.1. Move the throttle lever on the handlebar to the start position. N.B. In the start position the cutter blade is dis-engaged.
- 6.6.2. Keep the throttle at idle for about 2 minutes to allow the engine to warm up.



6.7. Operator presence bar.

- 6.7.1. This must be held towards the handlebar to start engine. If it is released the engine will not run.
- 6.7.2. If you release the operator presence bar, the ignition system will cause the engine to stop.



6.8. Brake lever.

WARNING

NEVER operate a machine with a defective brake.

- 6.8.1. The brake must always be ON when starting and using the stump cutter.
- 6.8.2. The brake lever activates a disk brake on the left wheel when it is pulled backwards. The brake should always be in the ON position when in operation, when it's parked and when it's being transported.

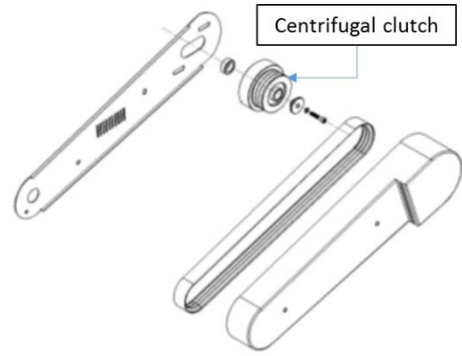
6.9. Starter handle.

- 6.9.1. Misuse of the starter handle can damage the starter.
- 6.9.2. DO NOT twist the starter cord around your hand.
- 6.9.3. Pull out the handle slowly until you feel a slight pressure.
- 6.9.4. Then give a steady sharp pull on the starter handle. Repeat until the engine starts.
- 6.9.5. DO NOT pull out the starter cord completely and DO NOT let go of the starter handle when extended.



6.10. Centrifugal clutch

6.10.1. The engine is equipped with a centrifugal clutch that is connected to the crankshaft. When the engine speed increases, the drive for cutting wheel engages automatically. It is not possible for the user to make adjustments to the centrifugal clutch. If the engine does not drive the blades you may need to replace worn shoes and springs and/or clutch bearings.



6.11. Operational procedure for stump cutting.

6.11.1. Operation.

 **WARNING**

NEVER leave operating position when cutting blade is rotating.
ALWAYS keep onlookers and animals away from the machine when cutting blade is rotating.

 **WARNING**

A rotating cutting blade is very DANGEROUS! Stay at the operating position and make sure that the blade comes to a complete stop before doing anything else.

 **CAUTION**

Before operating the stump machine, always review the machine controls
Be very careful when operating the stump grinder on hills because the machine can slip, topple or move unexpectedly.
NEVER use the machine on slopes steeper than 10°.

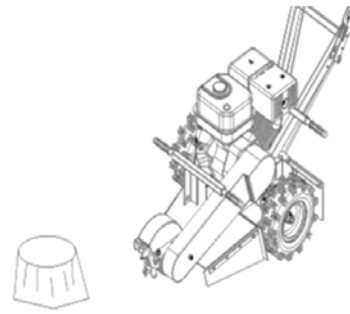
6.11.2. Clear around the stump.

- 6.11.2.1. Dig away the earth and remove any stones near the tree stump that may interfere with your work. Check that the ground is free of foreign objects, such as electrical cables, barbed wire, etc.
- 6.11.2.2. Cut or trim the stump as low to ground as required using a power saw.



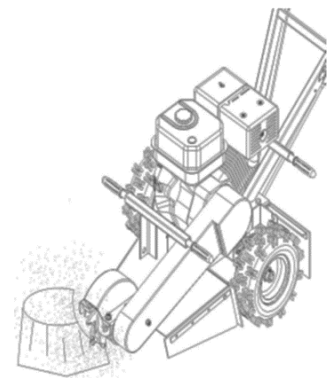
6.11.3. Stage one.

- 6.11.3.1. Place stump machine into position with cutting blade near the front-top edge of stump.
- 6.11.3.2. Set brake to lock position.
- 6.11.3.3. Set throttle to (START) DISENGAGE position.
- 6.11.3.4. Start the engine.
- 6.11.3.5. Allow engine to warm up at idle for two minutes.
- 6.11.3.6. Move throttle forward to the ENGAGE position (this will engage the cutting blade rotation).
- 6.11.3.7. Swing the cutting blade to one side, then lower it approximately $\frac{1}{2}$ " to 1" into the front-top corner of the stump. Swing the cutting blade back and forth, lowering the cutting blade approximately $\frac{1}{2}$ " to 1" before each sweep, until you have removed the front portion of the stump to ground level.
- 6.11.3.8. Raise cutting blade until center of cutting blade is just above top of stump.
- 6.11.3.9. With the cutting blade off to one side, advance the machine horizontally by releasing and resetting the brake. Advance the machine forward to engage the cutting blade into the stump so that when swept across the stump it will remove $\frac{1}{2}$ " to 1" of stump with each sweep.
- 6.11.3.10. Sweep the cutting blade across the stump, cutting away $\frac{1}{2}$ " to 1" of stump.
- 6.11.3.11. Advance cutting blade $\frac{1}{2}$ " to 1", and sweep across stump in opposite direction.
- 6.11.3.12. Continue sweeping cutting blade left and right across stump, advancing it before each sweep, cutting $\frac{1}{2}$ " to 1" depth of stump with each sweep.
- 6.11.3.13. Continue cutting until top level of stump is all removed, making sure not to cut stump deeper than ground level during this first stage.
- 6.11.3.14. Turn throttle to the (START) DISENGAGE position, wait ten seconds for blade to stop rotating then release brake and retract machine from stump. STOP the engine.
- 6.11.3.15. Pull machine away from stump, and rake chips away from stump.



6.11.4. Stage two.

- 6.11.4.1. Place stump machine into position with cutting blade near the front-top edge of the stump.
- 6.11.4.2. Set brake to lock position and start the engine.
- 6.11.4.3. Move throttle forward to the ENGAGE position.
- 6.11.4.4. Complete cutting stump by repeating step 6.9.2.13 again and again until entire stump is cut to desired depth.



6.11.5. Stop the machine.

- 6.11.5.1. Normal shutdown – Throttle.
 - 6.11.5.1.1. Set the throttle to SLOW/DISENGAGE.
 - 6.11.5.1.2. If the engine has been running full out, let it idle for about 30 seconds to one minute at low speed. Turn the engine switch to the OFF position. Turn the fuel tap to the OFF position.

6.11.5.1.3. DO NOT let front of unit touch ground until you are sure cutting wheel has stopped turning.

6.11.6. Brake.

6.11.6.1. Activate the brake by pulling lever upwards.

6.11.7. Fuel valve.

6.11.7.1. Close the fuel valve, by turning the lever all the way to the left.

6.11.7.2. Release the operator presence lever.

6.11.7.3. Wait until the blade stops.

6.11.7.4. Make sure that the blade is resting against the ground and has stopped completely before doing anything.

7. SPECIFICATIONS

HYSG150		
ENGINE	Engine type	4-stroke, 25° inclined, single cylinder with air-cooled
	Maximum output – hp/kw	13/9.7
	Bore × Stroke - mm	88 × 64
	Displacement - cc	389
	Compression ratio	8.0:1
	Maximum torque @2500rpm - Nm	26.4
	Ignition system	Non-contact transistorized ignition(T.C.I)
	Start method	Recoil
	Air cleaner	Semi-dry, oil, bath, dual, double, silent and cyclone type
	Fuel type/tank capacity - L	Fresh unleaded petrol/6.5
	Engine oil capacity - l	1.1
	Engine oil	SAE10W-30
	Dimensions L × W × H - mm	450 × 440 x 435
	Net weight - kg	31
	Brake	Disk-Lever activated
MACHINE SPECIFICATION	Drive	Direct
	Belt	9J
	Clutch	Centrifugal clutch
	Cutters	12 cutters with tungsten carbide tips
	Cutting depth – inches/mm	12/305
	Net weight - kg	100
	Package size L x W x H - mm	1130 x 830 x 760
	Gross weight - kg	125
	Wheel type/diameter - mm (inch)	Pneumatic/305 (12)

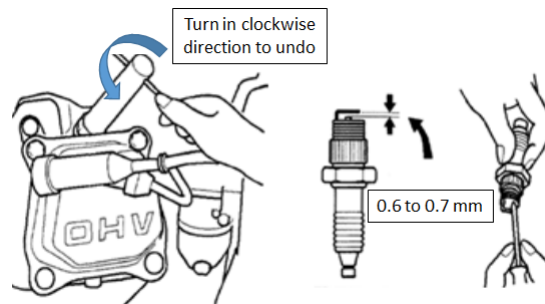
8. MAINTENANCE

WARNING

DO NOT carry out any maintenance tasks until the machine has been made safe. To make machine safe you MUST stop the engine, turn the fuel tap OFF, unplug the spark plug HT lead. You MUST wear appropriate personal protective clothing to protect yourself. Heavy duty gloves MUST be worn when changing the blade.

8.1. Spark plug.

- 8.1.1. You should check the spark plug after every 50 hours of use or if your machine becomes hard to start. The recommended gap is 0.6mm to 0.7mm
- 8.1.2. The spark plug should be a tan colour, if it is not then it should be cleaned and re-gapped as below.



8.2. Fuel tank filter.

- 8.2.1. Remove filler cap.
- 8.2.2. Remove fuel filter and clean with solvent.
- 8.2.3. Wipe off and dry with a clean lint free rag.
- 8.2.4. Replace filter into fuel tank.

CAUTION

The engine must NOT be run without the air filter element otherwise piston and/or cylinder wear can occur.

8.3. Air filter.

- 8.3.1. Maintaining the air filter in good condition is very important. If dirt is allowed to get into the engine through improperly installed, serviced, or inadequate elements can damage and wear out the engine. ALWAYS keep the element clean.
- 8.3.2. Remove air filter cover.



- 8.3.3. Take out the air filter element, wash in soapy water rinse in fresh water and allow it to dry completely.
- 8.3.4. Put a small amount of clean engine oil on to foam air filter element, squeeze out excess oil by hand.
- 8.3.5. Finally, put the filter element back into the filter housing, refit the filter cover securely.

8.4. After 10 hours of use.

- 8.4.1. Change the engine oil.
- 8.4.2. Check the clutch.
- 8.4.3. Check and adjust all belts.
- 8.4.4. Check and tighten as required all nuts and bolts.

8.5. Cutting blade.

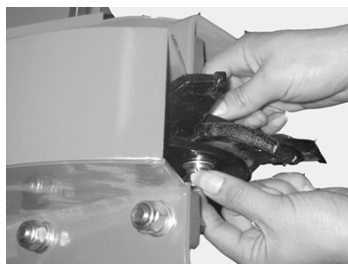
- 8.5.1. Among the most critical elements of the Stump grinder machine is the cutting blade. It is also the most subject to damage and wear. In the course of cutting stumps it not only makes contact with the wood, but also encounters numerous assortments of abrasives and objects in the stump's environment, such as dirt, stones, and occasionally a large rock or buried scrap. The loss of and wear of cutting teeth can significantly impair the efficiency and performance of the Stump Machine. Therefore, it is important to make frequent observations of the condition of all of the cutting teeth and replace or sharpen any damaged or worn blade sections. Read all of the following instructions before beginning to change cutting blade sections.

8.6. Changing cutting blade sections.

 **NOTE**

STOP the engine and Read all the following instructions before beginning to change cutting blade sections.

- 8.6.1. Clean all dirt from the cutting blade and mounting flanges.
- 8.6.2. Remove the two bolts holding cutting blade, (Be careful not to let a section drop when they become loose).



Remove the two bolts, once bolts are removed lift cutter section from flange

- 8.6.3. Check each section for cracks. Replace blade section if it is cracked.
- 8.6.4. When replacing cutting blade sections, make sure blade section is placed in alignment with blade rotation. Slide bolt through one side of flange, then through blade section, and through flange on other side. Attach lock washer and nut, tighten securely. (Make sure the two bolts are tightened for each blade section).
- 8.7. Blade sharpening.
 - 8.7.1. We recommend that you have your blades re-sharpened by your dealer.
- 8.8. Brake adjustment.
 - 8.8.1. For fine adjustment, loosen set the screw on side of brake lever knob. Adjust clockwise to tighten brake; adjust counter clockwise to loosen brake. (Wheel should lock completely, tighten set screw).
 - 8.8.2. For coarse adjustment, turn adjusting nuts on brake cable fitting at brake cable mount.
- 8.9. Cleaning and washing.
 - 8.9.1. Regular cleaning and washing of the machine will increase its life span. Make it a habit to clean the machine directly after use, before the dirt is allowed to accumulate. Check before washing that the fuel tank lid is properly in place to avoid getting water in the tank. Use caution when using high-pressure spray because warning decals, instruction signs and the engine can be damaged. Do not exceed 70 bar/1000 PSI water pressure when cleaning.
 - 8.9.2. Two minute rule.
 - 8.9.2.1. The machine may be tipped backward or on its side to facilitate access for cleaning or service, but no longer than 2 minutes. If the machine is held in this position for too long, the engine can be damaged by petrol draining into the crankcase. Should this happen, perform an extra oil change on the engine over a few revolutions with the starter handle before starting the engine again.
- 8.10. Bearing lubrication.

 **NOTE**

Pump grease in slowly and carefully to prevent damage to the bearing seals. Use extreme caution when using a high pressure or high volume grease gun.

- 8.10.1. The cutter blade bearings should be greased after every 10 hours of operation. Lubricate two fittings (one on each cutting blade bearing).
- 8.11. Drive belts.
 - 8.11.1. The drive system of the stump machine is composed of a 9J Joined Narrow V-belt. The stump machine's V-belt tension should be checked before each use.
 - 8.11.2. Before beginning work to check or adjust the belt, you **MUST** shut down the machine, and **MAKE** sure that all moving parts have come to a complete stop. Extreme caution must be used to avoid death or serious injury. Stay clear of belts, pulley, clutch and cutting blade when they are moving.
 - 8.11.3. To adjust belt tension, loosen the 2 bolts behind clutch. Also loosen the 4 engine mounting bolts. Turn square head adjusting bolt on frame clockwise to tighten belt, counter clockwise to loosen belt. (Make sure to tighten all bolts

after proper belt adjustment is achieved). To check belt tension, you should be able to depress the belt down about 6 to 10 mm from the original position.

8.11.4. To extend belt life, proper tension must be maintained. A loose belt will cause excessive cutting blade slippage and belt premature failure. A belt that is too tight can cause bearing, shaft and belt failure.

9. TROUBLESHOOTING

SYMPTOM		CAUSE	ACTION
The engine will not start	Fuel system	Fuel valve closed	Open the fuel valve
		Choke valve open	Close the choke when starting cold engine
		Fuel tank empty	Check and fill with fuel
		Machine stored incorrectly with regards to emptying fuel system	Check and clean fuel tank of sludge, fuel lines & carburetor. Refill with fresh fuel
		Water or ice in fuel system	
		Carburetor problem	Contact your dealer
	Spark plug	Incorrect spark plug	Replace with correct plug
		Dirt carbon build up on electrodes	Clean and check spark plug gap, replace as required
		Short circuit	Replace with correct plug
		Petrol/oil on spark plug	Clean the spark plug, allow any excess fuel to evaporate. Start with full throttle
No spark after service	Faulty engine switch	Contact your dealer	
Low compression	Serious internal engine damage or faulty valves	Contact your dealer	
Engine lacks power or runs unevenly	Air filter	Clogged air filter	Clean or replace as required
	Fuel system	Machine stored incorrectly with regards to emptying fuel system	Check and clean fuel tank of sludge, fuel lines & carburetor. Refill with fresh fuel
Blue exhaust – lots of Blue/White exhaust smoke		Tank filled with 2 stroke oil fuel mixture. Tank filled with diesel	Clean tank, sludge reservoir and empty carburetor. Fill the tank with proper fuel. Open choke valve. Clean or replace the air filter.
Black exhaust		Choke left ON Clogged air filter Carburetor problems	Move choke to correct position Clean air filter Clean carburetor If no success contact dealer

PROBLEM	POSSIBLE SOLUTION/S
Belt coming OFF	Pulleys not aligned Insufficient belt tension
Belt engages late	Tighten belt Reduce cutting depth
Belt does not stay tight after adjustment	Check for damage on axle, pulley or key. Make sure that the set screws are properly tightened Replace damaged parts
The cutting wheel does not rotate	Insufficient engine speed to operate centrifugal clutch Insufficient belt tension Clutch is worn, replace clutch shoes, springs and/or clutch bearings
The cutting wheel continues to rotate	Check that the throttle is disconnected Check for damage to throttle cable Check throttle cable is properly mounted onto the throttle valve The engine speed is NOT under 1000 rpm, which is required to disengage the centrifugal clutch. Inspect springs on the clutch shoes, if tension on clutch shoes is not enough to pull shoes back, replace spring and clutch shoes
The parking brake is slipping	Adjust the brake tension in the manner described in the user manual Check for damage on the brake rod or lever Check for wear on the brake pads. Replace as necessary

10. STORAGE & TRANSPORTATION

10.1. Winter storage.

WARNING

NEVER store an engine with fuel in the tank indoors or in poorly ventilated spaces where fuel vapour can come in contact with open flame, sparks or a pilot light such as in a boiler, hot water tank, clothing drier, etc. handle the fuel with caution. It is very flammable and careless use can cause serious damage to person and property. Drain the fuel into an approved container outdoors and far away from open flame. NEVER use petrol for cleaning, use a de-greaser and warm water instead.

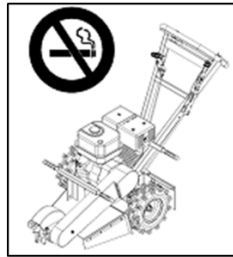
10.1.1. At the end of the season, the machine should be readied for storage (or if it will not be in use for longer than 30 days). Fuel allowed to stand for long periods of time (30 days or more) can leave sticky residues that can cause the carburetor and engine to clog up and reduce their function.

10.1.2. Fuel stabilizers are an acceptable option as to reduce sticky residues during storage. Add stabilizer to the fuel in the tank or in the storage container. Always use the mixing ratios specified by the manufacturer of the stabilizer. Run the engine for at least 10 minutes after adding the stabilizer so that it reaches the carburetor. DO NOT empty the fuel tank and the carburetor if you have added stabilizer.

10.2. Storage.

10.2.1. Before storing the machine you MUST allow the engine to fully cool down. NEVER store the machine near any naked flame or any other sources of ignition.

- 10.2.2. Store the machine with the fuel valve closed.
- 10.2.3. Store the machine and fuel in such a way that there is no risk that leaking fuel or fumes can come in contact with flames or sparks from electrical machine, electric engines, relays, switches, boilers or similar.
- 10.2.4. You **MUST** always lock the machine away from children and untrained adults.



Never store or operate the machine near an open flame



ALWAYS keep children and vulnerable Adults from the machine

- 10.2.5. An annual check-up at an authorised service workshop is a good way to ensure that your machine performs its best the following season.
- 10.2.6. Check the paintwork to prevent rust.
- 10.2.7. Inspect the machine for worn or damaged parts and tighten any nuts or screws that may have become loose.
- 10.2.8. Change the engine oil and make sure that you dispose of old oil properly.
- 10.2.9. Open the fuel valve. Empty the fuel tank and the carburetor once emptied close the fuel valve.
- 10.2.10. Remove the spark plug and pour about a tablespoon of engine oil in the cylinder. Turn over the engine so that the oil is evenly distributed and then refit the spark plug.
- 10.2.11. Lubricate all grease nipples, joints and cables.
- 10.2.12. Store the machine in a clean, dry place and cover it for extra protection.
- 10.2.13. Cover the blade and cutters with a thin coat of oil to avoid rust.
- 10.3. Transportation.
 - 10.3.1. To turn and steer the machine, press down on the handle and turn on the back wheels.
 - 10.3.2. Turn off the engine and allow it to cool at least 2 minutes before transport.
 - 10.3.3. Be careful and use safe lifting and moving techniques when loading/unloading the machine.
 - 10.3.4. We recommend having two people to lift the machine. You **MUST** use the lifting handles fitted on the machine.
 - 10.3.5. Activate the machines parking brake during transport.
 - 10.3.6. Fasten the machine properly in place with approved fasteners, such as tension belts, chains or rope. Always check that you are in compliance with applicable traffic regulations before transporting the machine.

11. RECYCLING & PRODUCT DISPOSAL

11.1. We do not offer a takeback scheme for the recovery of Waste Electrical Electronic Equipment (WEEE) & Batteries instead the responsibility to dispose of WEEE and or Batteries is passed onto you by us. So when it becomes necessary to dispose of your machine you must take it to your local Civic Amenity Site. For further information please contact your Local Authority for disposal advice.

11.2. You MUST make sure that all unused oil and fuel is disposed of correctly either beforehand or at your local Civic Amenity Site. Under NO circumstance must any oil and fuel be put down any drains.

11.3. Waste Electrical Electronic Equipment (WEEE) recycling.

11.3.1. Certain products contain WEEE waste which should not be disposed of in your domestic waste.



11.3.2. You MUST recycle WEEE in accordance with your local authority or recycling centre.

11.4. Battery recycling, certain products contain batteries which should not be disposed of in your domestic waste.



11.4.1. You MUST recycle batteries in accordance with your local authority or recycling centre.

11.5. Unwanted packaging materials should be sorted and taken to a recycling centre so it can be disposed of in a manner which is compatible with the environment.

11.6. The following symbol means that you should 'Reduce – Reuse – Recycle'.



11.7. We are a Member of the VALPAK National Compliance scheme and our registration number is RM08660

11.8. For further information about disposal please contact your Local Authority.

11.9. You can also get more advice and guidance about recycling at the following website <http://www.recycle-more.co.uk>

11.10. The following symbol means that you should 'Reduce – Reuse – Recycle'.

11.11. Should you pass this product onto another user either sold or loaned you MUST pass on this user manual. This will make sure that all other users can use and maintain the machine safely.

12. DECLARATIONS of CONFORMITY

Genpower confirms that this product complies with the EC Directives listed below;

97/68/EC	–	Non Road Mobile Machinery Directive
2004/108/EC	–	Electro Magnetic Compatibility Directive
2006/42/EC	–	Machinery Directive

13. CONTACT DETAILS

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FAX	+44 (0) 1646 686198
TECHNICAL E-MAIL	service@genpower.co.uk
WEBSITE	www.hyundaipowerequipment.co.uk

14. MANUAL UPDATES

- 14.1. Our manuals are constantly being reviewed and updated. However if should you find an error, omission or something you find unclear please contact your dealer for assistance.
- 14.2. Our latest manuals are also placed online.
- 14.3. We reserve the right to make any modifications without prior notice whenever necessary.

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