

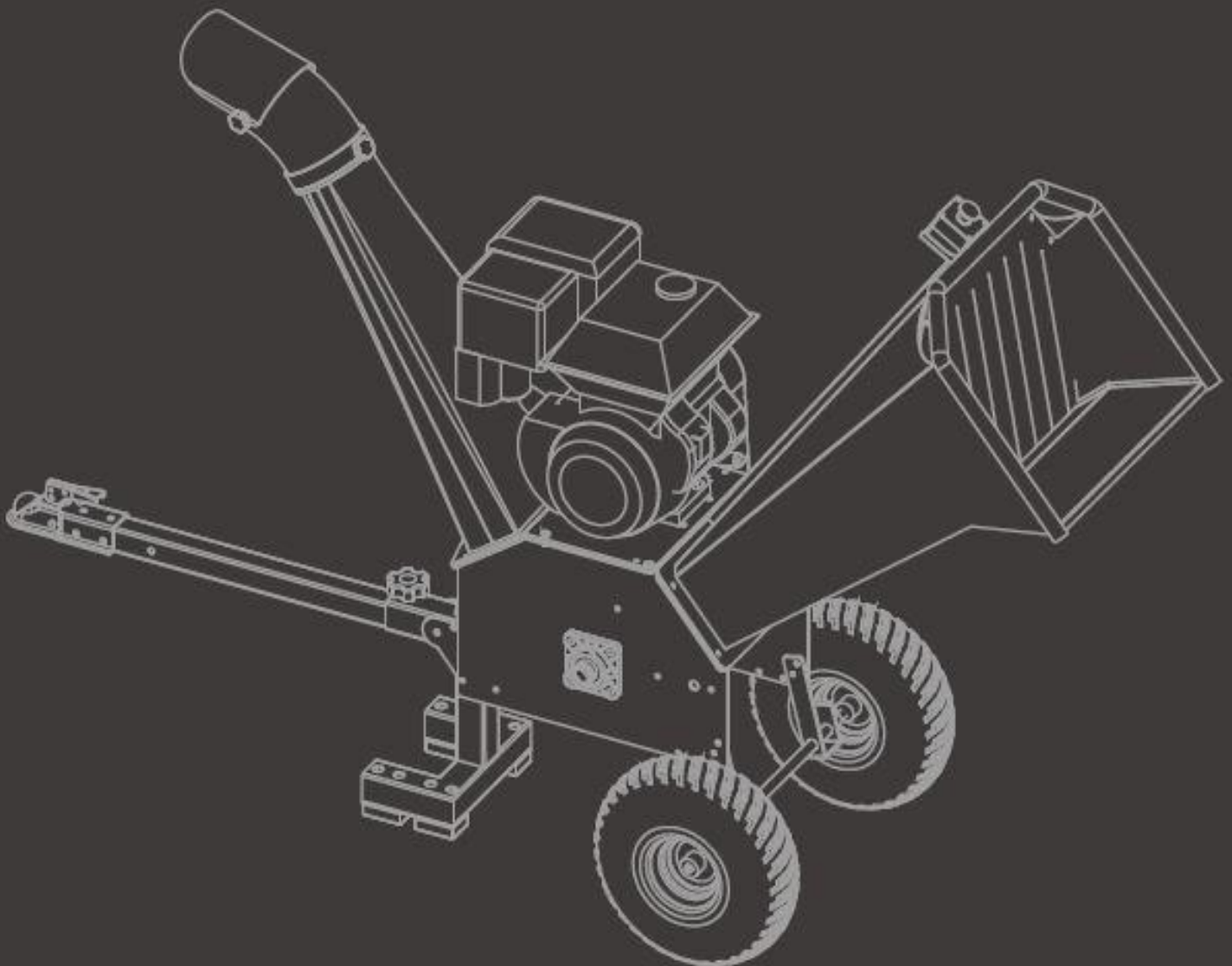
HYUNDAI
POWER PRODUCTS

PETROL WOOD CHIPPER

HYCH7070(E)-2

HYCH1500E-2

User Manual



INDEX

	CONTENTS	PAGE NO.S
1	SAFETY	3 - 8
2	ASSEMBLY HYCH1500[E]-2	9 - 11
3	ASSEMBLY HYCH7070[E]-2	12 - 14
4	QUICK START GUIDE	15 - 16
5	STARTING PROCEDURE	17 - 20
6	STOPPING PROCEDURE	21
7	OPERATING INSTRUCTIONS	22 - 27
8	MAINTENANCE	28 - 33
9	STORAGE	34
10	TRANSPORT	34
11	TROUBLESHOOTING	35 - 36
12	SPECIFICATION	37
13	DECLARATION OF CONFORMITY	38
14	RECYCLING & PRODUCT DISPOSAL	39
15	CONTACT US / WARRANTY	40

1. SAFETY

1.1 General Safety Notes.

- 1.2 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.
- 1.3 Please note the following safety points.
- 1.4 The machine should never be left in a condition which would allow an untrained or unauthorised person/s to operate this machine.
- 1.5 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.
- 1.6 Some or all of the following - warning signs, symbols and/or PPE pictograms may appear throughout this manual. You **MUST** adhere to their warnings. Failure to do so may result in personal injury to yourself or those around you.



DANGER

Indicates a hazard, which, if not avoided, could result in serious injury or death.



WARNING

Indicates a hazard, which, if not avoided, could result in serious injury.



CAUTION

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 understand all instructions to ensure you use and operate the machine safely.

Appropriate Personal Protective Equipment (PPE), **MUST** be worn at all times when operating or repairing the machine.



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

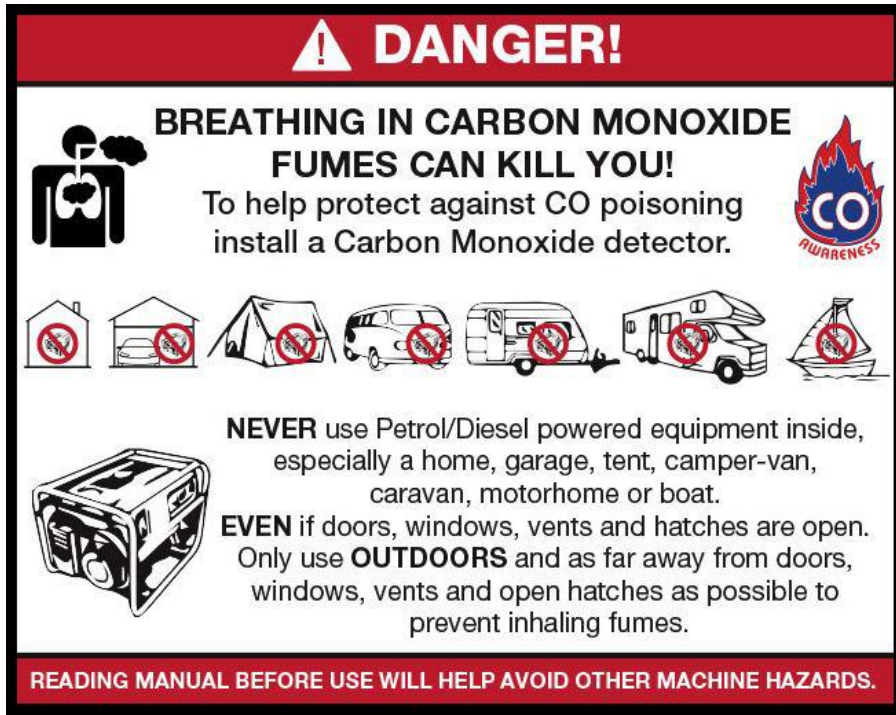


RESPIRATOR
MUST BE WORN



FACE SHIELD
MUST BE WORN

1.10 Carbon Monoxide (where applicable).



- 1.11 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.
- 1.12 The symptoms of carbon monoxide poisoning can include but are not limited to the following;
Headaches, dizziness, nausea, breathlessness, collapsing or loss of consciousness.
- 1.13 Carbon monoxide poisoning symptoms are similar to flue, food poisoning, viral infections and simply tiredness. It is quite common for people to mistake this very dangerous poisoning for something else.
- 1.14 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 is not exhaustive and if you are in any doubt contact your dealer.
- 1.15 If you think you have or someone around you has been affected by carbon monoxide poisoning;
- 1.16 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.
- 1.17 Contact a Doctor immediately or go to Hospital – let them know that you suspect carbon monoxide poisoning.
- 1.18 **DO NOT** use in an enclosed area or moving vehicle.

1.20 **General Fuel Safety (where applicable).**



CAUTION

ALL FUELS ARE FLAMABLE

1.21 Fire Hazard – keep fuel away from all sources of ignition for example heaters. Lamps, sparks from grinding or welding.



1.22 **DO NOT** carry out hot work on tanks that have contained fuel.

1.23 **ALWAYS** keep the work area tidy.

1.24 **ALWAYS** clean up spills promptly using absorbent granules and a lidded bin.

1.25 **ALWAYS** dispose of waste fuels correctly.

1.30 **Fueling/De-fueling (where applicable).**



CAUTION

ALL FUELS ARE FLAMABLE

1.31 **ALWAYS** fuel and defuel in a well ventilated area outside of buildings.

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



1.33 When fueling/de-fueling **ALWAYS** avoid inhaling fumes.

1.34 When de-fueling **ALWAYS** use a proper fuel retriever.



1.35 **ALWAYS** carry fuel in the correct and clearly marked container.

1.40 **Electrical Safety (where applicable).**

1.41 Electricity can kill – **NEVER** work on **LIVE/ENERGISED** equipment.


1.42 Prior to carrying out any maintenance work you **MUST** identify electrical isolation methods and isolate all electrical supplies.

1.43 Prior to use and with all electrical supplies isolated, you **MUST** check all electrical cables, plugs and connectors for the following;

1.44 Are intact and have no signs of damage, to include but not limited to bare wires, chaffing, cuts and loose wiring.

1.45 If there are any signs of damage, the damaged item **MUST** be taken out of service until the damage has been repaired by an electrically competent person.

1.46 All trailing cables should be routed so as not to cause any kind of trip hazard.

1.47  **NEVER** work on or near electricity with wet hands, wet clothing and wet gloves.



1.50 **Batteries (where present).**

1.51 Batteries present a risk if they become damaged by the possible leaking of electrolyte. This electrolyte is an acid and can cause serious burn injuries. Care should be taken when working on or near them. **NOTE** the electrolyte may be in a liquid or gel form.

1.52 Should you come in to contact with electrolyte you should;

1.53 Remove all clothing contaminated with electrolyte. If you cannot remove then saturate them in water.

1.54 Get medical assistance as soon as possible. You must advise the medical staff of the type of acid.


1.55 Lead/acid battery = dilute sulphuric acid.

1.56 Nickel/cadmium = potassium hydroxide alkali electrolyte.

1.57 Use fresh running water to wash off excess electrolyte, continue this until medical assistance arrives. Make sure that you do not wash the electrolyte to another part of your body or face.

1.58 If electrolyte comes in to contact with Eyes the electrolyte needs to be immediately washed away with large amounts of water. Make sure that you do not wash the electrolyte to another part of your face or body.

1.59 Gasses from charging batteries are highly flammable and great care should be taken to charge in well ventilated areas.

1.59.1  There is an explosion risk if the battery terminals are short circuited, when connecting/disconnecting **ALWAYS** exercise great care so that the terminals or battery leads are **NOT** allowed to touch and cause a spark. **ALWAYS** use suitable insulated tools.



1.60 **Vibrations (where applicable).**

1.61 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 never damage and circulatory tissue death.

1.62 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 in the formation of white finger. Note the following to reduce the risk of white finger and carpal tunnel syndrome;


1.63 Wear gloves and keep your hands warm.

1.64 Take regular breaks.

1.65 All of the above precautions may help reduce the risk of white finger disease but not rule out the 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.

1.70 Noise (where applicable).

- 1.71 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 hearing ear protection because your ability to hear alarm warnings will be reduced.
- 1.72 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.
- 1.73  See Certificate of Conformity section for Outdoor Noise declaration of conformity.

MACHINE SPECIFIC SAFETY

1.80 General Machine Safety.

- 1.81 Read the owner's manual carefully to understand how to operate this machine properly.
- 1.82 You should **NEVER** use the machine when;
- 1.83 Wearing loose clothing, barefoot or sandals.
- 1.84 Under the influence of drink or drugs or as a result of having taken medication for cold or flu, or any other times when a possibility exists that your judgement might be impaired or that you might not be able to operate the machine properly and in a safe manner.
- 1.85 Suffering from exhaustion or lack of sleep.
- 1.86 When the ground is slippery or when other conditions exist which might make it not possible to maintain a steady posture.
- 1.87 At night, at times of heavy fog, or at any other times when your field of vision might be limited and it would be difficult to gain a clear view of the area.
- 1.88 During rain storms, lightning storms, at times of strong or gale force winds, or at any other times when the weather conditions might make it unsafe to use this product.
- 1.89 **NEVER** run the engine indoors. The exhaust gasses contain harmful carbon monoxide.
- 1.90 When using this machine for the first time and before actual work, you **MUST** learn how to handle the machine from an experienced or skilled person.
- 1.91 Limit the amount of time using the machine continuously to somewhere around 10 minutes per session and take 10 to 20 minutes of rest between sessions. Also try to keep the total amount of work in a single day limited to 2 hours or less.

- 1.92 **NEVER** allow children or anyone unable to fully understand the directions given in this manual to operate this product.
- 1.93 Make sure you keep this manual handy so you may refer to it whenever questions arise and ensure you pass this manual on if the machine is loaned or sold.
- 1.94 Correct Personal Protective Equipment (PPE) **MUST** be worn at all times when operating or repairing this machine. This should include but is not limited to;



- 1.95 **DO NOT** use this machine inside a confined space such as but not limited to a vehicle, house, garage, container, boat or building. Only use outside in a well ventilate area.
- 1.96 For air cooling a minimum of 1m is required all around the machine. Maximum ambient temperature 40 degrees Celsius.
- 1.97 Fire risk- Fuel can expand and overflow in a hot environment or moving vehicle. Explosion risk- LPG/ Petrol can leak and the vapour is heavier than air.
- 1.98 **NEVER** store in confined spaces especially in a boat where the vapour/has will accumulate in the hull and create a high risk of explosion.
- 1.99 Carbon monoxide poisoning risk- Never run an engine in a confined space or poorly ventilated area. Keep machine away from windows to prevent fumes entering the internal space.
- 1.99.1 Carbon monoxide is produced by the engine and contained in the exhaust fumes. You cannot see it or smell it and it can kill you in minutes. **NEVER** use inside a confined space with an exhaust extension. If the exhaust extension fails the escaping exhaust gases could kill you.

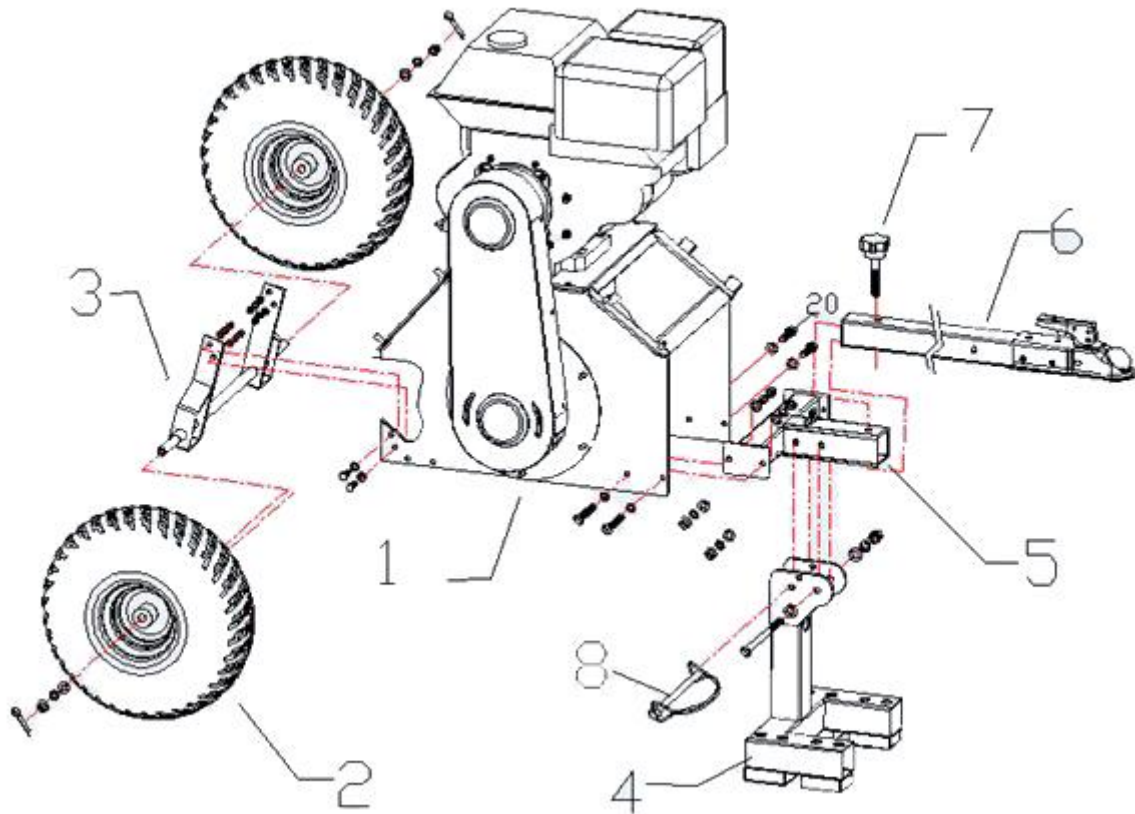
2. ASSEMBLY HYCH1500[E]-2



CAUTION

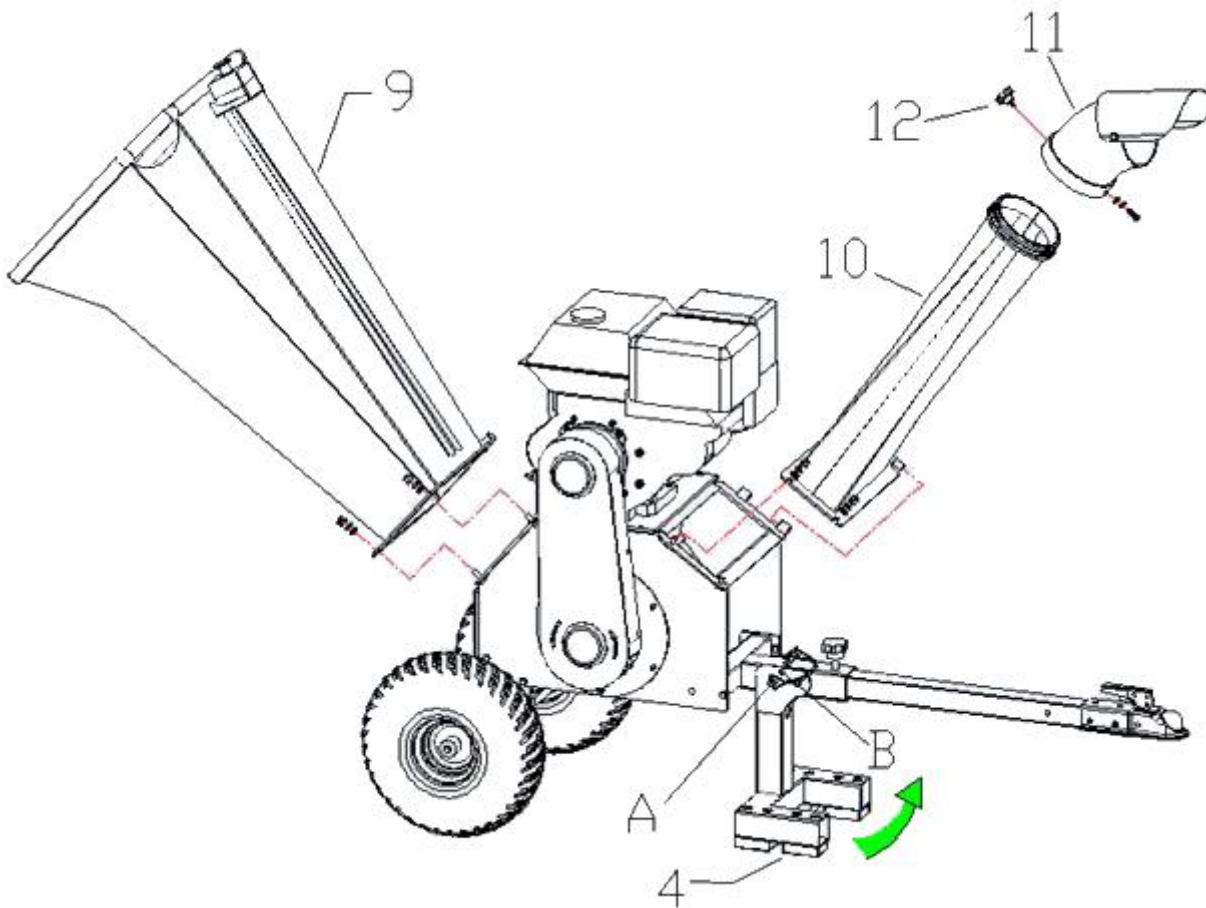
As this machine is heavy, it is recommended that the assembly is a two person operation.

2.0 Frame Assembly



Part No	1	2	3	4	5	6	7	8
Description	Main Body	Wheels	Axle Bracket	Front Leg	Tow Bar Bracket	Tow Bar	Tow Bar Bolt	D-Pin

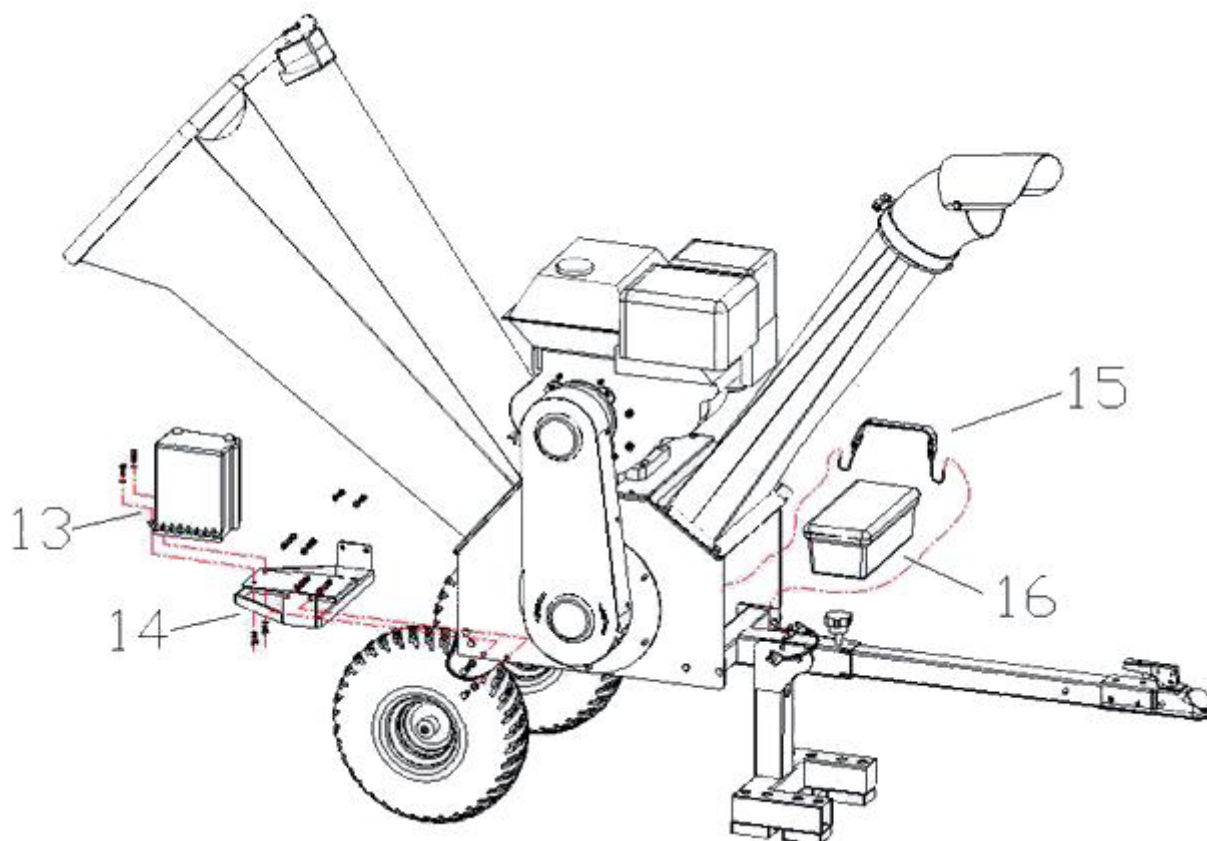
- 2.1 Lay the main body (1) on a support or platform that is about 30cm above the ground. Leave some space either side of the main body for the installation of the wheels (2).
- 2.2 Attach the wheels (2) to the axle bracket (3) and then fix the assembly to the main body (1).
- 2.3 Install the tow bar bracket (5) to the main body (1). Then attach the front leg (4), tow bar bracket (5) and D-Pin (8).
- 2.4 Mount the tow bar (6) and tow bar bolt (7).
- 2.5 Remove the support or platform.
- 2.6 **Feed Hopper & Discharge Chute Assembly**



Part No	9	10	11	12
Description	Feed Hopper	Lower Discharge Chute	Upper Discharge Chute	Knob

- 2.7 Connect the feed hopper (9) to the frame and secure. Due to the heavy weight of the components, use a lifting device or assistance of 2 or 3 people.
- 2.8 Attach the lower section of the discharge chute (10) to the main body and then fix the upper part of the discharge chute (11) to the lower discharge chute (10), using the knob provided (12).
- 2.9 The upper section of the discharge chute can be rotated to allow the wood chippings to be discharged in the direction required.
- 2.10 For transport, remove the D-Pin from its location (A) in the front leg (4), raise the leg and then refit the D-Pin to location (B).

2.11 Installation of 12v Battery & Tool Kit



Part No	13	14	15	16
Description	Battery Cover	Battery Tray	Tool Kit	Tool Kit Strap

- 2.12 Attach the battery tray (14) to the main body (1).
- 2.13 Connect the battery terminals with the positive and negative cables on the starter motor.
Take care not to short the positive to the negative.
- 2.14 Place the battery on to the battery tray (14), and place the battery cover over the battery and secure in place.
- 2.15 Attach the tool kit (16) to the mounting bracket at the front of the main body and connect one end of the tool kit strap (15) to the retaining ring on the main body (1).
- 2.16 Attach the other end of the strap (15) to the anchor point on the tow bar bracket.

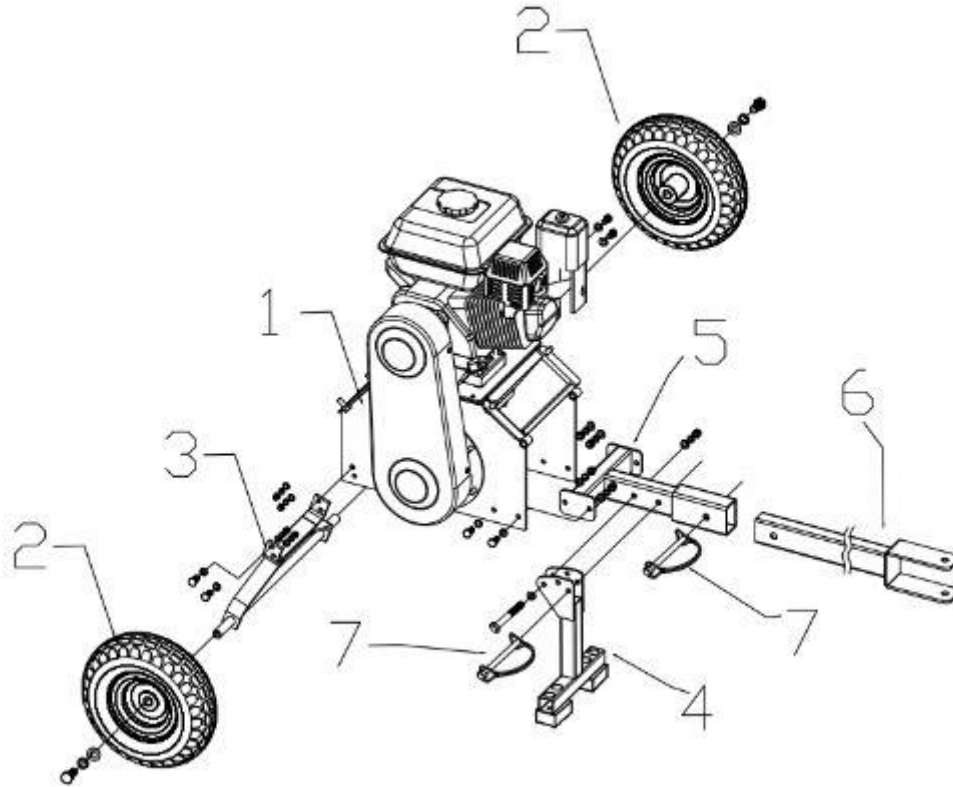
3. ASSEMBLY HYCH7070[E]-2



CAUTION

As this machine is heavy, it is recommended that the assembly is a two person operation.

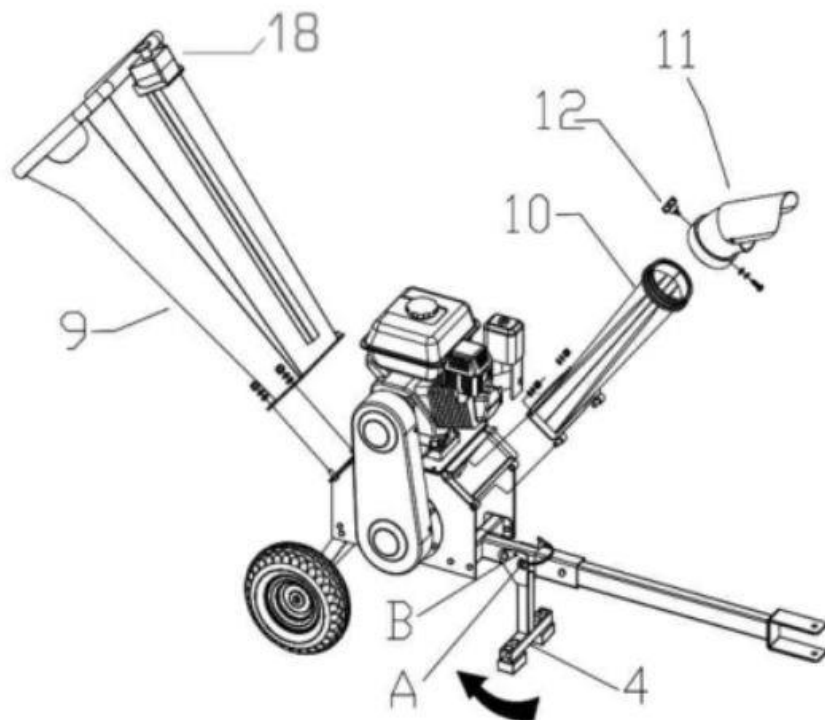
3.0 Frame Assembly



Part No	1	2	3	4	5	6	7
Description	Main Body	Wheel	Axle Stand	Front Leg	Tow Bar Bracket	Tow Bar	D-Pin

- 3.1 Lay the main body (1) on a support or platform that is about 30cm above the ground. Leave some space either side of the main body for the installation of the wheels (2).
- 3.2 Attach the wheels (2) to the axle bracket (3) and then fix the assembly to the main body (1).
- 3.3 Install the front leg (4), tow bar bracket (5) and D-Pin (7) and mount the tow bar (6) and tow bar bracket (5) with the D-Pin (7).
- 3.4 Remove the support or platform.

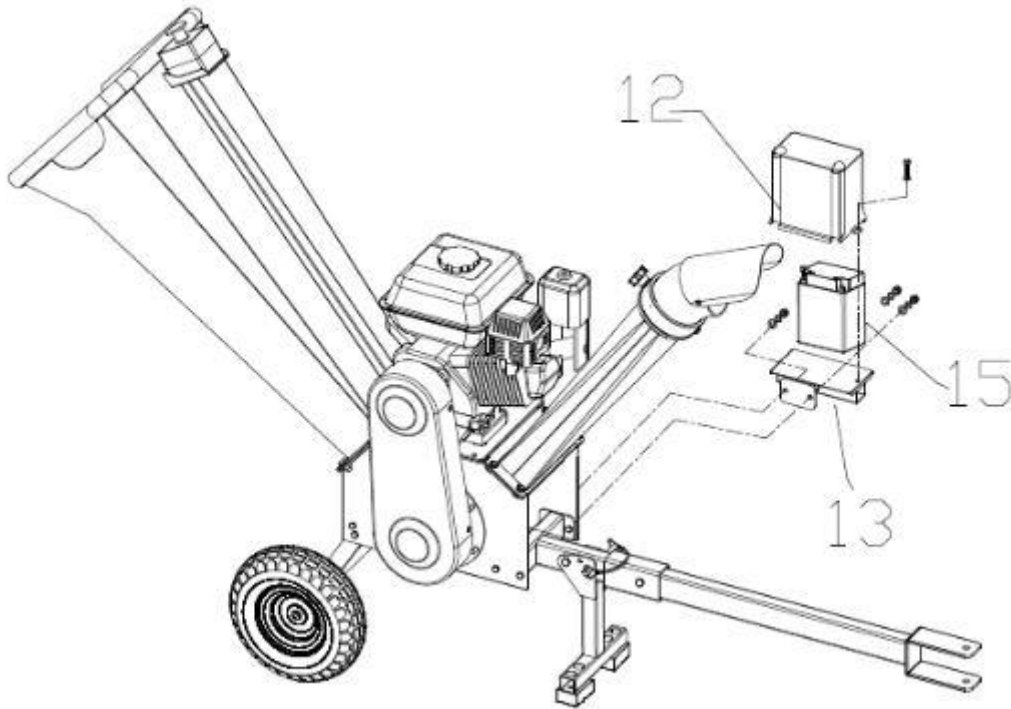
3.5 Hopper & Discharge Port



Part No	9	10	11	12	18
Description	Feed Hopper	Lower Discharge Chute	Upper Discharge Chute	Knob	Safety Cut Out Switch

- 3.6 Connect the feed hopper (9) to the main body of the chipper.
NOTE: You may require assistance.
- 3.7 Attach the lower section of the discharge chute (10) to the main body of the chipper and then fix the upper part of the discharge chute (11) to the lower discharge chute (10) using the knob provided (12).
- 3.8 The upper section of the discharge chute can be rotated to allow the wood chippings to be discharged in the direction required.
- 3.9 For transport, remove the D-Pin from its location (A) on the front leg (4), then raise the leg and refit the D-Pin to location (B).
 Connect the safety cut out button (18).

3.10

Installation of 12v Battery (where applicable)

Part No	12	13	15
Description	Battery Cover	Battery Tray	Battery

- 3.11 Attach the battery tray (13) to the mounting points on the main body.
- 3.12 Connect the battery terminals with the positive and negative cables on the starter motor.
Take care not to short the positive to the negative.
- 3.13 Place the battery (15) on to the battery tray (13), and place the battery cover (12) over the battery and secure in place.

4. QUICK START GUIDE



CAUTION

This guide is meant to serve as a quick reference only. We advise reading the manual in full before operation.



CAUTION

This machine is shipped **WITHOUT** Oil and Fuel and will require filling **BEFORE** use. Failure to do so will result in engine damage which will not be covered by warranty.



CAUTION

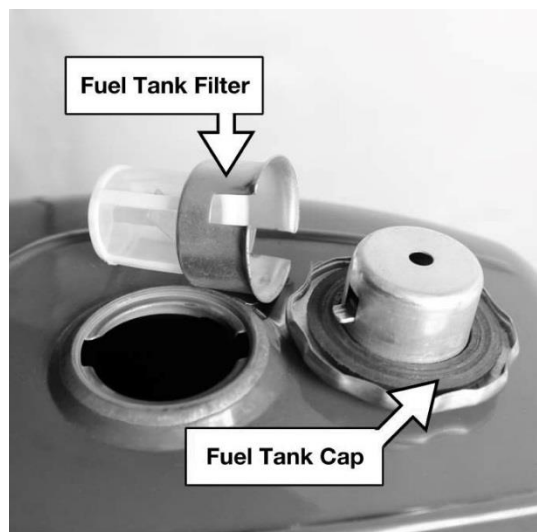
FOR OUTDOOR USE ONLY.

This machine produces carbon monoxide – a poisonous, colourless & odourless gas that can cause death or serious injury.

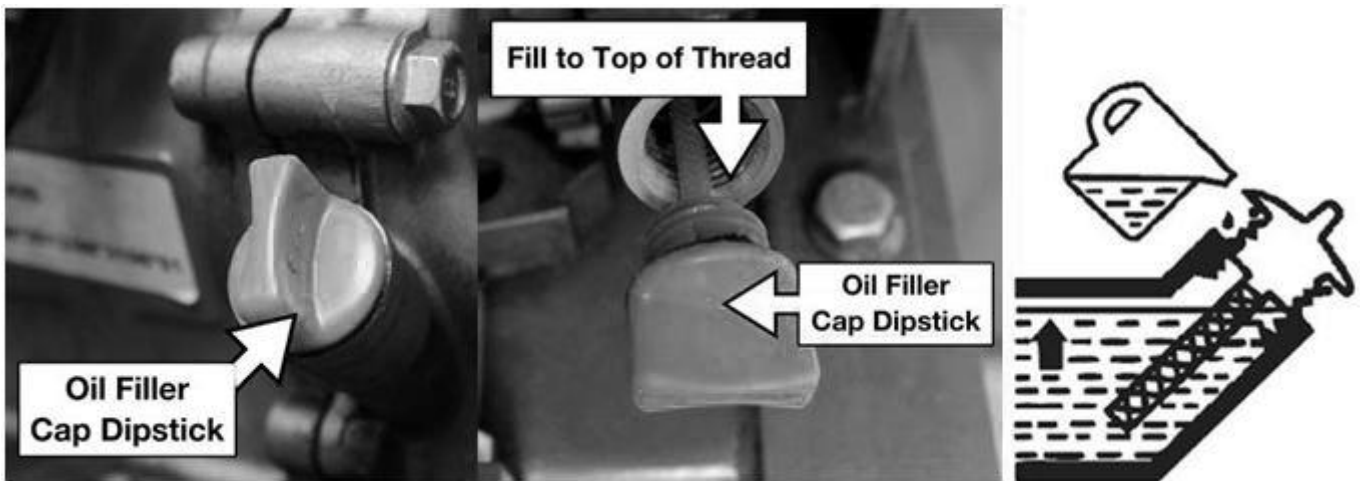
Petrol is highly flammable, always handle with extreme care and in a well-ventilated area.

Always remove the HT lead from the spark plug when checking the machine or changing parts.

- 4.0 Unscrew the fuel filler cap and carefully add fresh unleaded petrol. **DO NOT** overfill.
- 4.1 Allow a 25mm gap at the top of the fuel tank.
- 4.2 Fuel tank capacity is 3.6l for the 210cc engine and 6.5l for the 420cc engine.
- 4.3 Once full, replace and secure the fuel filler cap.



- 4.4 Unscrew the oil filler cap/dipstick and fill with oil.
- 4.5 Use SAE15W40 Semi-Synthetic engine oil.
The 420cc engine holds 1100ml of oil.
The 210cc engine holds 600ml of oil.
- 4.6 Fill to the top of the thread on the filler neck.
Stop occasionally to check the oil level.
DO NOT overfill.
- 4.7 Refit the oil filler/dipstick and tighten securely.



5. STARTING PROCEDURE



CAUTION

This machine is shipped **WITHOUT** Oil and Fuel and will require filling **BEFORE** use. Failure to do so will result in engine damage which will not be covered by warranty.



NOTE

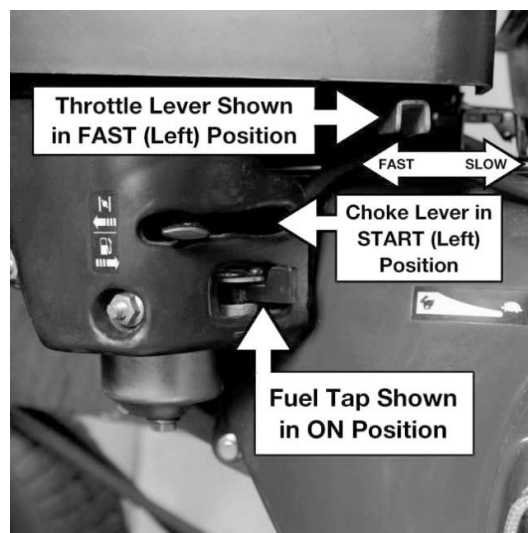
Before starting, make sure the machine is clear of materials and all non-essential persons.

RECOIL START

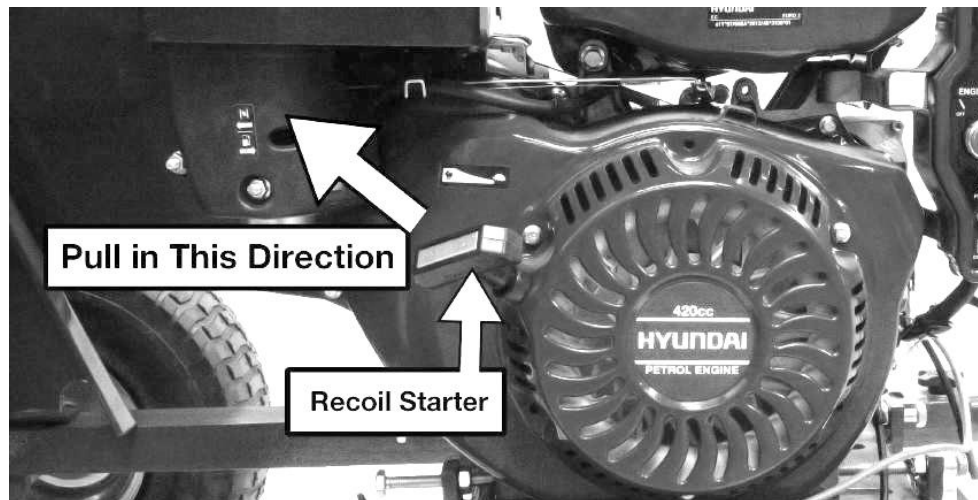
- 5.0 Turn the ignition switch to the ON position.
- 5.1 Make sure that the stop button is not in the stop (down) position on HYCH1500E-2



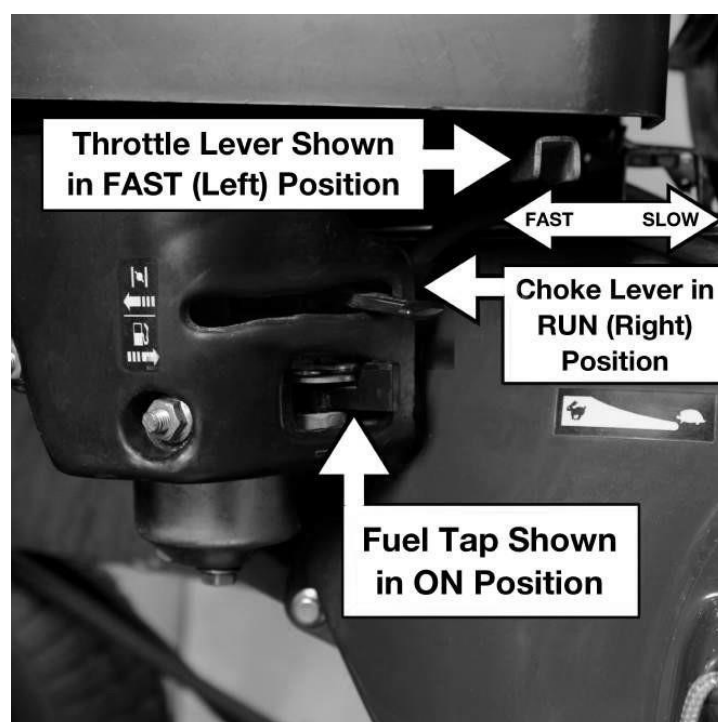
- 5.2 **FOR COLD START** : Move the choke lever left, to the **START** position.
- 5.3 Move the fuel tap right to the **ON** position.
- 5.4 Move the throttle lever right to the **MIDDLE** position.
- 5.5 **FOR WARM START**: Use half choke if warm or no choke if engine is hot.



- 5.6 Place one hand on the machine and using your other hand pull the recoil starter handle until you begin to feel resistance.
- 5.7 Once you feel resistance, pull the handle swiftly.
- 5.8 Repeat until the engine starts.
DO NOT let go of the recoil handle, instead return the handle slowly.

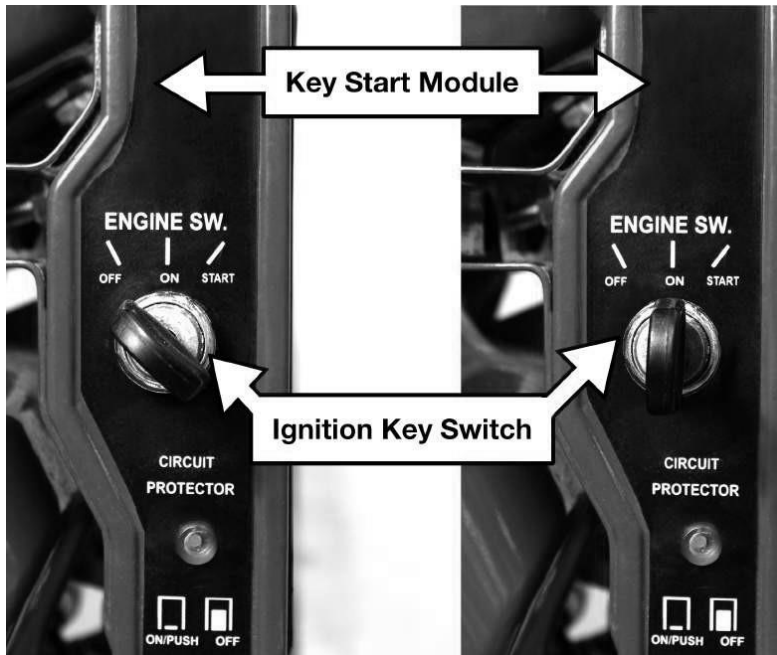


- 5.9 Once the engine has started, reduce the choke by slowly moving the lever right, to the **RUN** position.
- 5.10 If the engine falters, move the choke between **START/RUN** and adjust until the engine runs smoothly.
- 5.11 After the engine has warmed up, move the throttle lever to the left to accelerate the engine to the desired working speed.

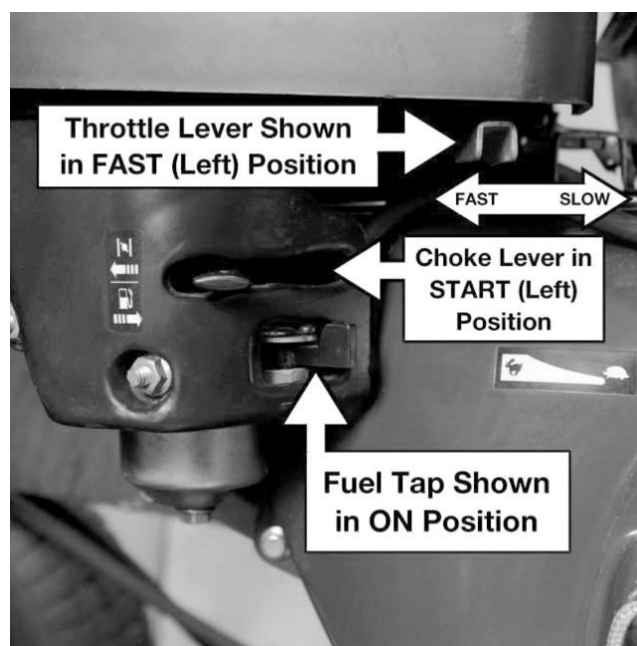


ELECTRIC START

- 5.12 Turn the ignition key on the key start module to the **ON** position.



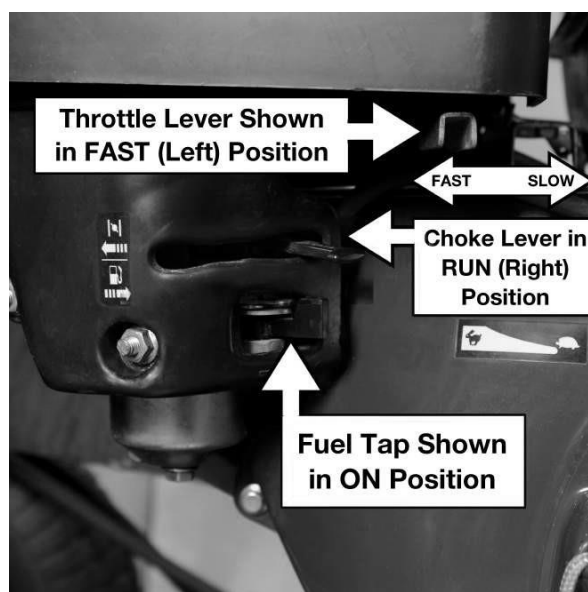
- 5.13 **FOR COLD START** : Move the choke lever left, to the **START** position.
- 5.14 Move the fuel tap right to the **ON** position.
- 5.15 Move the throttle lever right to the **MIDDLE** position.
- 5.16 **FOR WARM START**: Use half choke if warm or no choke if engine is hot.



- 5.20 Turn the ignition key clockwise against the spring tension to the **START** position until the engine starts.
- 5.21 **DO NOT** operate the ignition key for longer than 5 seconds between attempts. Allow 10 seconds between each attempt.
- 5.22 Once the engine has fired, release the key and it will return to the **RUN** position.



- 5.23 Once the engine has started, reduce the choke by slowly moving the lever right, to the **RUN** position.
- 5.24 If the engine falters, move the choke between **START/RUN** and adjust until the engine runs smoothly.
- 5.25 After the engine has warmed up, move the throttle lever to the left to accelerate the engine to the desired working speed.



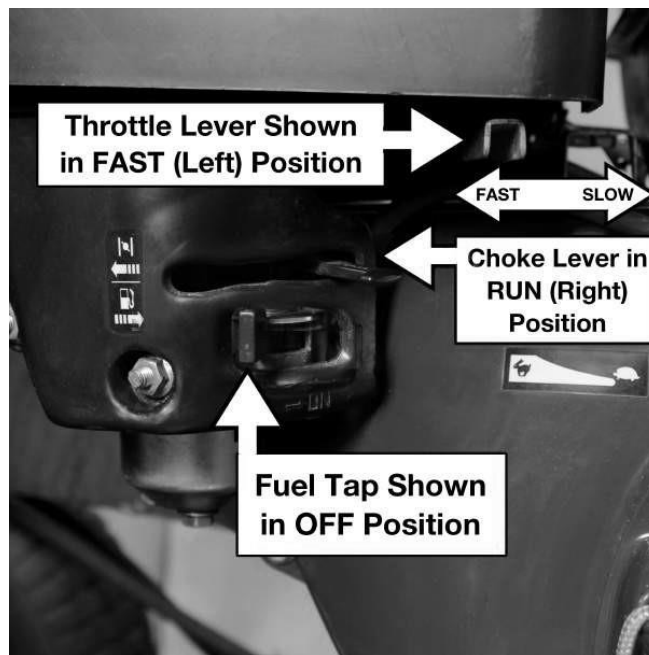
6. STOPPING PROCEDURE



CAUTION

You **MUST** allow the cutting head to come to a complete stop and switch the engine **OFF** before carrying out any maintenance on the machine.

- 6.0 Before stopping the machine, allow the engine to cool down by moving the throttle lever to the **SLOW** position and allowing the engine to idle for a few minutes.
- 6.1 Turn the Power Switch or Ignition key to the **OFF** position.
- 6.2 Turn the fuel tap left, to the **OFF** position.



EMERGENCY STOP

- 6.3 To **STOP** the machine in an emergency, press the emergency stop switch **DOWN**.



7. OPERATING INSTRUCTIONS



WARNING

You **MUST STOP** using the machine if any of the following occur.

The engine speed changes with no control.

In case of misfire or unusual noise.

In case of high vibration.

If belts are slipping.

In rain or stormy weather.



CAUTION

If you are not familiar with this type of machine you should seek advice and guidance from your dealer.

DO NOT attempt to lift or move the machine while the engine is running.



CAUTION

FOR OUTDOOR USE ONLY.

This machine produces carbon monoxide – a poisonous, colourless & odourless gas that can cause death or serious injury.

Petrol is highly flammable, always handle with extreme care and in a well ventilated area.

Always remove the HT lead from the spark plug when checking the machine or changing parts.

- 7.0 Position the machine on flat, level ground and in such a way so it cannot move during operation.
- 7.1 **DO NOT** overload the machine.
Use the correct machine for your application.
The correct machine will do the job better and safer at a rate for which it was designed.
- 7.2 **DO NOT** change the engine governor settings or increase the maximum engine speed.
The governor controls the maximum safe operating speed of the engine.
- 7.3 **DO NOT** run the engine at a high speed when you are not using it.
- 7.4 **DO NOT** put hands or feet near rotating parts.
- 7.5 This machine has rotating cutting knives capable of amputating hands and feet and throwing objects.
AT ALL TIMES you **MUST** keep hands and feet clear of all openings while the machine is running.
Failure to observe these safety instructions could result in serious injury or death.
- 7.6 Avoid contact with fuel, oil, exhaust fumes and hot surfaces.
- 7.7 **DO NOT** touch or allow clothing or any other flammable materials to come into contact with the engine or exhaust.
These parts get extremely hot and will remain hot for a short time after operation.
- 7.8 Allow the engine to cool before making any adjustments or maintenance.

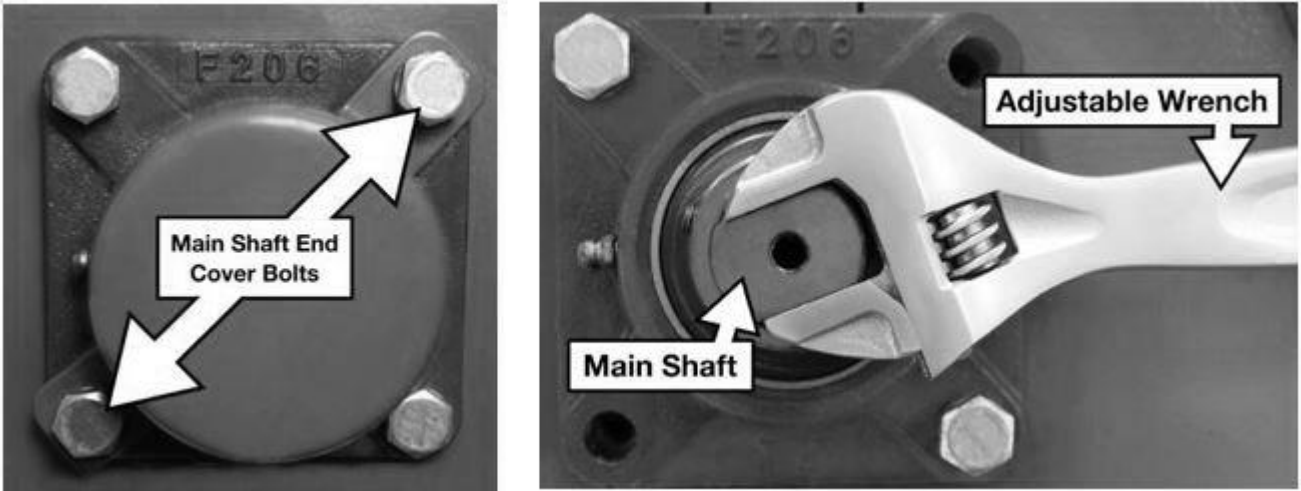
- 7.9 If the machine should start to make unusual noises or vibrations, immediately shut off the engine, disconnect the spark plug HT leads and check for the cause. Usually noise or variation is generally a warning of trouble. You **MUST** find the source of the problem and fix it before reusing the machine.
- 7.10 Use only attachments and accessories approved by the manufacturer. Failure to do so can result in personal injury and may invalidate any warranty.
- 7.11 Maintain the machine and check for misalignment or binding of moving parts, broken parts and any other condition that may affect the machine's operation. If damaged have the machine repaired before reuse.
- 7.12 Keep the engine, exhaust and muffler free of grass, leaves, wood chips, excessive grease or carbon build up to reduce the risk of fire.
- 7.13 **NEVER** pour or squirt the unit with water or any other liquid. Keep handles dry, clean and free from debris. Clean the machine after each use.
- 7.14 **DO NOT** allow persons unfamiliar with the machine or these instructions to operate it. This machine can be extremely dangerous in the hands of untrained users.
- 7.15 Thoroughly inspect the area to be worked, keep the working area clean and free of debris to prevent tripping. Operate on flat level ground.
- 7.16 **NEVER** place any part of your body where it could be in danger if movement should occur during assembly, installation, operation, maintenance, repair or moving.
- 7.17 Keep all bystanders, children and pets at least 23m (75 feet) away. If you are approached, stop the machine immediately.
- 7.18 The operator or user is responsible for preventing accidents or hazards occurring to other people, their property and themselves.
- 7.19 Start the engine carefully according to instructions.
- 7.20 Before starting the wood chipper, make sure the feed hopper and cutting housing are empty and free of all debris.
- 7.21 **NEVER** place your hands, feet, or any part of your body in the chipper hopper, discharge opening, or near or under any moving part while the machine is running. Keep area of discharge clear of people, animals, buildings, glass, or anything else that will obstruct clear discharge, causing injury or damage. Wind can also change discharge direction, so be aware. If it becomes necessary to push materials to the chipper hopper, use a small diameter stick, not your hands.
- 7.22 **NEVER** allow an accumulation of processed material to build up in the discharge hopper area as this will prevent proper discharge and can result in kickback from the chipper hopper.
- 7.23 Keep your face and body back from the chipper hopper and discharge chute to avoid accidental bounce back of any material.
- 7.24 **NEVER** reach with your hands, into the the feed hopper past the rubber flap while operating the machine.

- 7.25 **NEVER** attempt to unclog either the feed hopper or discharge chute while the engine is running.
Immediately shut off the engine, allow the cutting disk to come to a complete stop.
Remove the spark plug HT lead cap.
Remove the clogged material.
Inspect for damage and check for any loose parts for repair or replacement.
- 7.26 **DO NOT** tilt the machine while the engine is running.
- 7.27 **ALWAYS** stop the engine before moving the machine.
- 7.28 **ALWAYS** make sure that the engine is switched off and that the cutting disk and engine are at a complete standstill and the spark plug HT lead cap has been removed, before opening the cutting disk housing.
- 7.29 You **MUST** keep all combustible materials and substances away from the engine when it is hot.
- 7.30 **NEVER** cover the machine while the exhaust is still hot.
- 7.31 Feed only clean materials into the machine. Foreign matter like soil, sand, grit, stones, pieces of metal etc. will damage the sharp edge of the cutting knives.
Root balls and dead wood will also dull the blades quickly.
- 7.32 Avoid feeding any flax or roots into the machine, these stringy materials can wrap themselves around the rotor shaft and work their way into the bearings.
- 7.33 **DO NOT** force branches into the machine.
Allow the machine to automatically feed through.
- 7.34 **NEVER** operate the machine on slopes.
- 7.35 **DO NOT** alter or adjust any part of the wood chipper or its engine that is sealed by the manufacturer.
Only a qualified service technician may adjust parts that may increase or decrease governed engine speed.
- 7.36 This wood chipper is for off-road use only.
NEVER attempt to tow the machine on public highways, roads or thoroughfares.
- 7.37 **NEVER** operate this machine without the feed hopper or discharge chute properly attached to the machine.
- 7.38 Move the machine at least 3m away from the refuelling point before starting the engine.
- 7.39 **ALWAYS** check the oil level of the engine before use.
- 7.40 Inspect that all nuts and bolts are tight and well connected to ensure the safety and reliability of this machine prior to any operation.
- 7.41 Inspect the air pressure in the tyres prior to use and pay attention to sharp objects when moving the machine to prevent the tyres from being pierced.

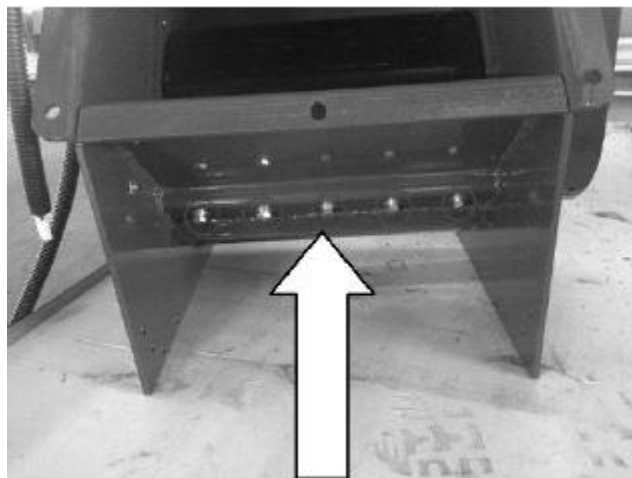
7.42 **Using The Machine**

- 7.43 The wood chipper can process a wide variety of dry or green organic materials such as branches, pruning, stalks, vines, leaves and vegetable matter.
- 7.44 The maximum capacity is:
HYCH1500E-2 – 100mm Diameter
HYCH7070E-2 - 70mm Diameter
- 7.45 Maximum diameters depend upon the type and hardness of the wood.
- 7.46 Rotate the wood as you feed it into the machine as this will improve performance.
- 7.47 Feed limbs and branches in butt end first, leaving the bushy head on.
This helps the limb go down the feed hopper and reduces the spinning and bouncing of small pieces back up the feed hopper.
Some branches may require pre-cutting so that the branch will 'self-feed' more efficiently.
- 7.48 It is advisable to process freshly cut materials as wooden branched get very hard and springy when dried out and become more awkward to handle by making the knives blunt more quickly.
- 7.49 While operating the machine, keep a wooden stick handy, approximately 30mm diameter x 600mm long.
This stick will be useful to push in short, brushy and very leafy materials and keep the feed hopper clear.
- 7.50 **DO NOT** force material into the machine.
If it does not chip well, the chipper knives may need sharpening or replacing, or the gap between the knives and wear plate needs adjusting.
- 7.51 **DO NOT** overload the machine by feeding too much material into the feed hopper at one time.
- 7.52 If you hear the speed of the engine decreasing, immediately stop feeding material into the machine.
DO NOT resume feeding material into the machine until the engine has returned to normal speed.
- 7.53 The wood chipper can clog up with soft, wet or fibrous materials.
However, if you feed soft materials intermittently with branches, there should be no problem as the wood chipper tends to clean out any residue left in the machine.
- 7.54 If any stringy material becomes wrapped around the rotor shaft.
Turn off the engine powers switch and wait until the cutting disk has come to a complete stop.
Remove the spark plug HT lead cap.
You can then remove it before it works its way into the bearing.
Take care of the sharp blades.
- 7.55 Should the wood chipper stall through overloading or clogging turn the ignition switch to the OFF position, wait until the cutting disk has completely stopped.
Remove the spark plug HY lead cap.
Open the housing cover to clear and remove all the materials from the housing.
Lock the housing cover, reinstall the spark plug HT lead cap and start the machine again.

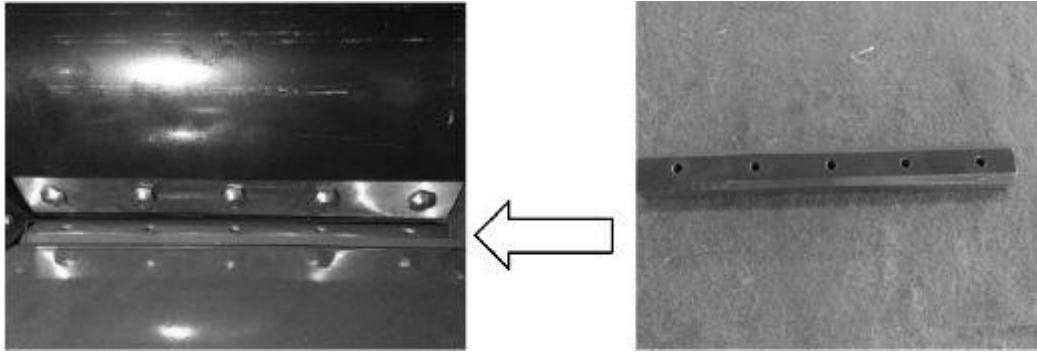
- 7.56 To remove blockages, **DO NOT** under any circumstances use your hands. **STOP** and disable the machine then undo the chutes. Remove the main shaft cover by undoing the two cover securing bolts. Using a spanner, rotate the blades in both directions until the machine is free of materials which have become stuck.



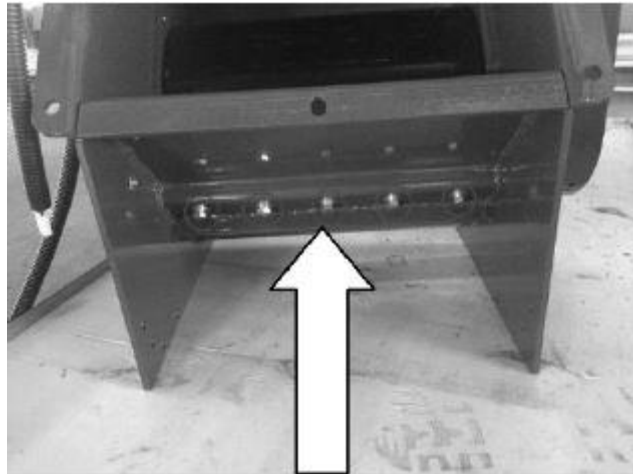
- 7.57 As the discharge materials pile up, move the chipper or the material to keep the outlet free. **DO NOT** position the deflector horizontally as it will reduce the airflow, impeding discharge and cause a blockage.
- 7.58 To reduce stress on the engine when wood chipping is not being performed, set the throttle control lever to its 'SLOW' position. Lowering the engine speed to idle will help extend the life of the engine, as well as conserve fuel and reduce the noise level of the machine.
- 7.59 The gap between the rotary blade and the fixed blade can be adjusted. The Factory gap setting between the rotary and fixed blade is 2 to 3mm. This is suitable for chipping soft wood. For hard wood we recommend adjusting the gap to 1 to 2mm.
- 7.60 Unscrew the bolts as indicated below.



- 7.61 Move the blade adjusting plate up or down to change the size of the gap. Ensure the blade drum will not rub between the blade adjusting plate.



- 7.62 Retighten the bolts.



8. MAINTENANCE



WARNING

ALWAYS stop the engine and disconnect the spark plug HT lead cap **BEFORE** doing any repairs or maintenance.

NEVER touch a rotating blade.

Check and maintain the oil and fuel level daily.

Frequently check the wood chipper and make sure that all deposits are removed from the feed hopper and discharge chute.

At regular intervals, check the tightness of all nuts, bolts and screws.

If the blade hits an obstacle, check for damage and if the machine vibrates badly, **STOP** the machine and take it to a service dealer.



CAUTION

ALWAYS refuel and defuel in a well-ventilated area with the engine off and cool.

Whilst carrying out any maintenance, you must wear the appropriate Personal Protective Equipment (PPE).



CAUTION

NEVER use a pressure washer or hose to clean the wood chipper.

Water can penetrate areas of the unit and cause damage to spindles, pulleys, bearings or the engine.

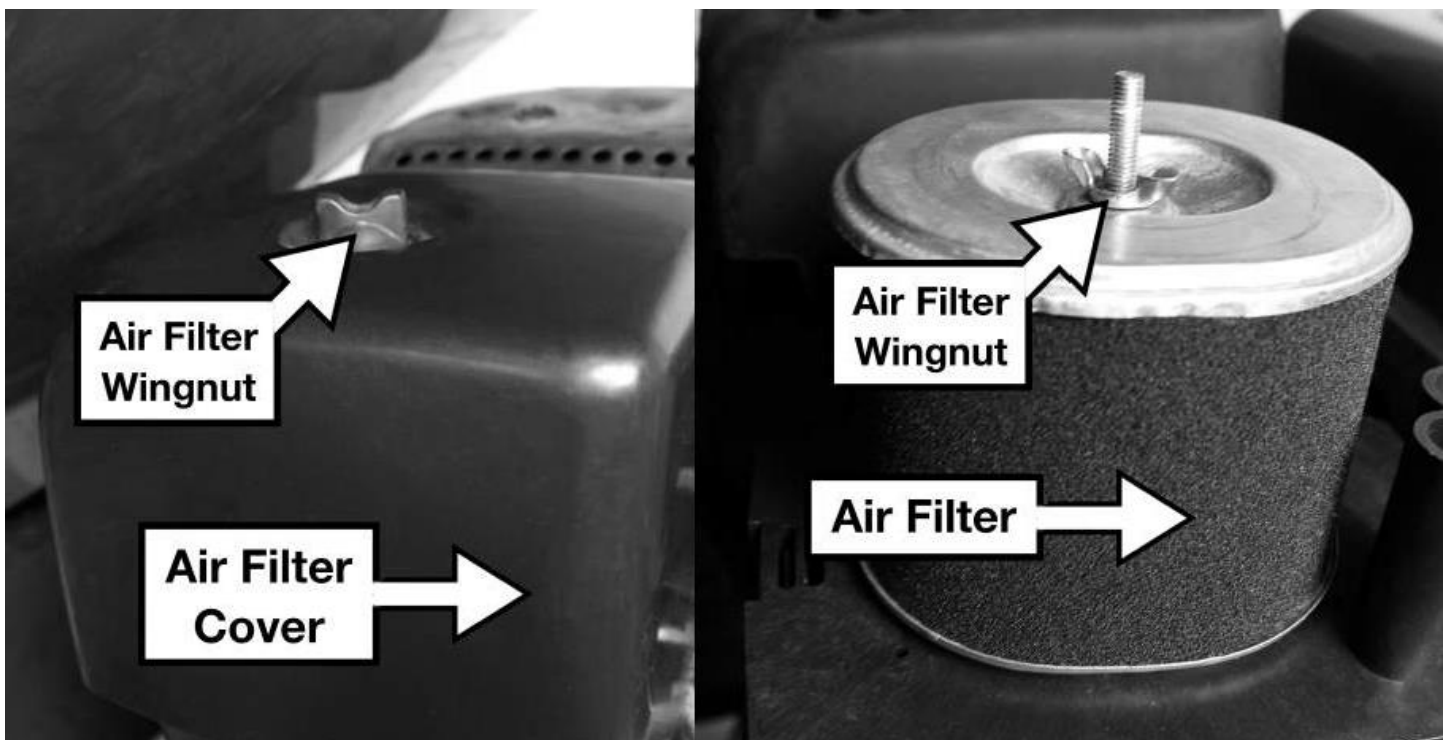
The use of pressure washers or hose pipes will result in shortened life and reduce serviceability.

Shut down the engine, wait for all moving parts to come to a complete stop, remove the HT lead cap and wait for the engine to cool **BEFORE** performing any maintenance.

		Each use	1st Month or 20 hours	Every 50 hours	Every 6 months or 100 hours	Every year or 300 hours
Engine oil	Oil Check	*				
	Replace		*		*	
Air Filter	Check	*				
	Clean			*	*	
Air filter Carburetor Float bowl Spark plug	Replace					*
	Clean				*	
	Clean / Adjust				*	
Carburettor Float bowl	Replace					*
Spark arrester	Clean				*	
Idle speed	Check / adjust					*#
Valve clearance	Check / adjust					*#
Fuel filter	Clean					*
Fuel tank	Clean					*
Fuel lines	Check	Check every 2 years – replace as required.				
Cylinder head	Clean	Every 500 hours #				
#- Unless you are mechanically proficient and have the correct tools we recommend that these service items are carried out by an authorised service dealer.						

AIR FILTER

- 8.0 **NEVER** let the engine run without an air filter being fitted.
- 8.1 A dirty air filter element decreases engine performance, increases fuel consumption and makes it difficult to start.
- 8.2 You **MUST** make sure that the housing is free of dust and debris.
DO NOT allow any dust or debris to enter the carburetor.
- 8.3 Remove the air filter housing by unscrewing the wingnut in an anticlockwise direction.
- 8.4 Carefully remove the cover.
- 8.5 Unscrew the air filter element wingnut and remove the paper/foam filter element.
- 8.6 Replace the filter element if it shows any signs of wear or damage.
- 8.7 Otherwise, remove the foam filter from the paper filter element and tap the debris for the paper element.
Use a low pressure airline to blow the remaining dust from the paper element by blowing from the inside to the out.
- 8.8 Wash the foam filter element in a mild detergent solution and allow to dry.
Once dry, soak the foam element in engine oil and remove the excess.
- 8.9 To reinstall, reverse the process above.



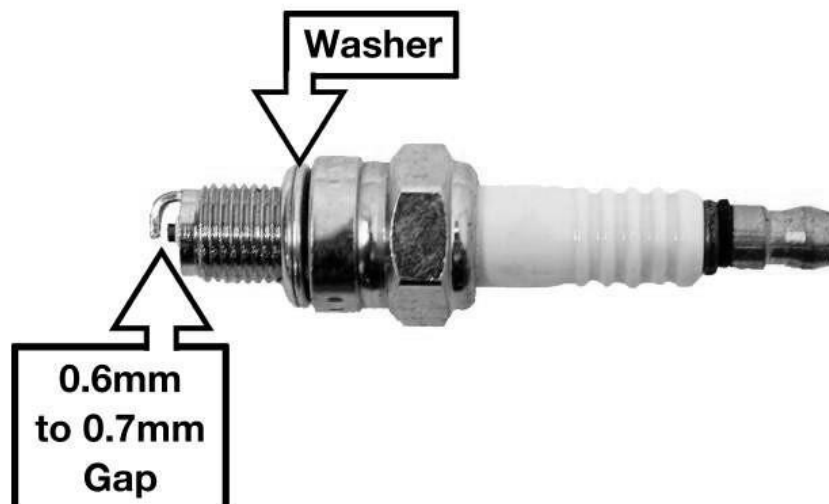
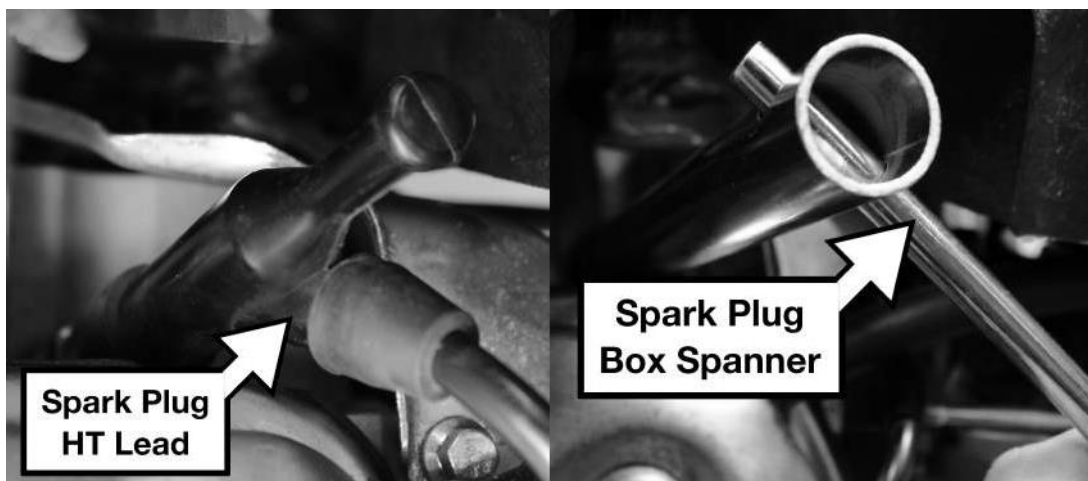
SPARK PLUG



CAUTION

The spark plug **MUST** be tightened correctly otherwise the engine will overheat causing damage.

- 8.10 To ensure the engine runs correctly, the spark plug gap of 06 – 0.7mm must be maintained and the spark plug must be free of carbon deposits.
- 8.11 To remove the spark plug, remove the HT lead cap and the undo the spark plug in an anticlockwise direction.
- 8.12 Once the plug has been removed, check for visual damage, electrode wear and carbon deposits.
Replace a damaged or badly worn spark plug.
Clean off any carbon deposits using a soft brass brush.
- 8.13 Check the spark plug gap with a feeler gauge and adjust the electrode to the correct gap of 0.6 – 0.7mm.
- 8.14 Check the spark plug washer for damage and replace if required.
- 8.15 Replace the spark plug by hand to make sure it doesn't cross thread, tighten the spark plug to a torque of 12/15Nm.



ENGINE OIL

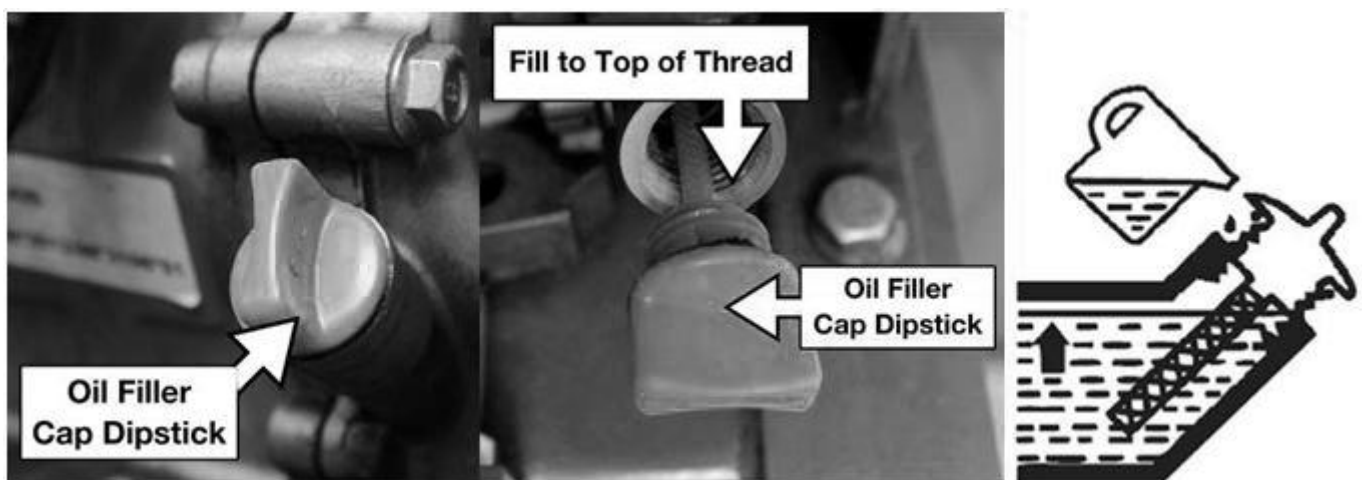


CAUTION

Risk of burn injury from **HOT** engine oil.
Allow the oil to cool to **WARM** before changing the oil.
Warm engine oil will drain more easily.

Use SAE15W40 Semi-Synthetic engine oil.
The 420cc engine holds 1100ml of oil.
The 210cc engine holds 600ml of oil.

- 8.16 Drain the oil while the engine is warm. Warm oil drains quickly and more effectively.
- 8.17 Remove the oil filler/dipstick and place a suitable container under the drain plug.
- 8.18 Unscrew the drain plug and allow the oil to drain, tilt the machine slightly to ensure all the oil has drained.
- 8.19 Once all the oil has drained, check the drain plug washer and replace if damaged.
- 8.20 Reinstall the drain plug by hand to avoid cross threading and then fully tighten with a spanner.
- 8.21 With the lawn mower/engine on flat, level ground, fill the engine with oil to the upper upper edge of the oil filler neck.
- 8.22 Fill slowly, stopping occasionally to check the oil level.
DO NOT OVERFILL.
- 8.23 Screw the oil filler/dipstick in securely.
- 8.24 Wipe up any spilt oil



BATTERY

- 8.25 The battery is maintenance free and as such requires no special treatment other than keeping it clean.
- 8.26 If the machine has not been used in a while, the battery may need charging.
- 8.27 The battery can be charged by starting the machine manually.
Once running, it will charge the battery.
- 8.28 You can also remove the battery and charge it with a mains battery charger.
- 8.29 When disconnecting the battery, you **MUST** observe the correct polarity.
Red wire to the Positive (+) terminal.
Black wire to the Negative (-) terminal.
DO NOT start the machine without the battery installed.
- 8.30 To access the battery, remove the battery cover retaining bolt and keep in a safe place.
Remove the cover and lift the battery out and place it on the floor.
- 8.31 Undo the **BLACK** wire to the (-) terminal **FIRST**, then undo the **RED** wire to the positive (+) terminal and cover it with insulating tape.
- 8.32 Place the battery on charge ensuring you connect the correct charge cable to the correct battery terminal.
- 8.33 Once charge reconnect the battery.
Connect the **RED** positive (+) cable first and then the **BLACK** negative (-).

BELT TENSIONING

- 8.34 Ensure belts are kept correctly tensioned. Tighten the adjusting nut (see image) to keep the belts tight.
- 8.35 **DO NOT** overtighten.
- 8.36 Belt tension should be



MAIN BEARING

- 8.36 Grease the main bearing every 50 hours of use.
- 8.37 There are grease nipple on either side of the bearing.



9. STORAGE



NOTE

Improper storage of this machine may cause starting difficulties and may cause permanent damage and will not be covered by the warranty.

- 9.0 Perform all the general maintenance from the maintenance section of this manual.
- 9.1 Clean the exterior of the machine.
DO NOT use a pressure washer or hose pipe as this could penetrate the engine with water and cause irreparable damage.
- 9.2 Remove all the fuel from the petrol tank by using either a syphon or by gently tilting the machine to drain the tank into a suitable container.
- 9.3 Turn **OFF** the fuel tap.
- 9.4 After all the fuel has been removed from the engine, start the engine and allow it to run at idle until the engine stops of its own accord.
This allows the remaining fuel in the fuel lines and carburetor to be drained.
- 9.5 Allow the engine to cool completely.
- 9.6 Remove the spark plug and pour 1 teaspoon of clean, fresh engine oil into the combustion chamber.
- 9.7 Place a clean, lint free cloth over the spark plug hole and then gently pull the recoil starter handle 4 to 5 times.
This coats the internal components with a fresh layer of oil.
- 9.8 Remove the cloth and replace the spark plug.
- 9.9 Replace the spark plug by hand to make sure it doesn't cross thread, tighten the spark plug to a torque of 12/15Nm.
- 9.10 Store the machine in a cool, dry place away from any sources of ignition such as an oil burner, water heater etc.
- 9.11 Disconnect the battery and store in a cool dry place.
During storage we advise you charge the battery at least once every month.

10. TRANSPORT

- 10.0 It is always advisable to transport the machine when the fuel tank and oil has been drained.
- 10.1 Ensure the machine is secured safely and not obstructing vision.
- 10.2 **ALWAYS** ask for assistance when lifting the machine in and out of vehicles.
- 10.3 **NEVER** transport the machine with the engine running.

11. TROUBLESHOOTING



CAUTION

If trouble shooting does not solve the problem, contact your dealer or the manufacturer directly.

Use **ONLY** original parts approved by the manufacturer, otherwise a hazard risk arises.

Common faults		Elimination method
1	The engine will not start	Read the engine users' manual, check the fuel level, ensure the fuel is fresh, ON-OFF switch is ON, lubrication oil level and the emergency stop button.
2	Engine cuts out during operation	Check if the engine stopped due to overloading, check if the discharge chute is clear and that the rotary blade is not jammed, check the emergency stop lever and safety protection switch
3	The hopper is blocked	Stop the machine, and remove the hoppers and clear the blocked material. Don't touch the blade during this procedure.
4	Unusual noises	Stop the machine, check all nuts and bolts are tight, check bearings for excessive play and that blades and belts are not rubbing anywhere.
5	Damaged blades	Fit new blades
6	Belts slipping	Ensure the belt tensioner is adjusted correctly or fit new belts.
7	Poor chipping performance	Adjust the blade clearance, the recommended clearance for rough chipping is 1.5mm-3mm and for fine chipping is 0.5mm-1.2mm.

Issue	Possible causes	Possible corrective actions
STARTING DIFFICULTY NORMAL SPARK ISSUE WITH FUEL SYSTEM	Poor fuel supply. 1. No fuel in fuel system, fuel tap closed. 2. Fuel cap air vent blocked. 3. Fuel tap blocked. Fuel supply normal. 4. Dirty or stale fuel. 5. Water in fuel. 6. Incorrect fuel.	Poor fuel supply. 1. Fill with fuel – open fuel tap. 2. Clear blocked air vent. 3. Clear blockage. Fuel supply normal. 4, 5 & 6. Clear fuel from system and refill with fresh fuel.
STARTING DIFFICULTY NORMAL FUEL ISSUE HT LEAD/SPARK PLUG	Normal spark from HT lead. 1. Carbon build up on spark plug. 2. Electrodes badly burnt/damaged. 3. Incorrect spark plug gap. No spark at HT lead. 4. HT lead damaged. 5. Ignition coil damaged. 6. Gap between ignition coil and flywheel too big.	Normal spark from HT lead. 1. Clean carbon build up. 2. Replace spark plug. 3. Adjust the spark plug gap. No spark at HT lead. 4. Replace HT lead. 5. Replace Ignition coil. 6. Adjust gap.
STARTING DIFFICULTY (ELECTRIC)	Battery connection. 1. Loose or incorrect battery connections. 2. Battery not charged.	Battery connection. 1. Check polarity and tighten connections. 2. Remove battery from machine and recharge.
MACHINE'S WHEELS TRACK LEFT OR RIGHT WHILE BEING TOWED	1. Low tyre pressures.	1. Inflate tyres.
THE SHREDDER DOES NOT SHRED PROPERLY. THE WOOD IS NOT PULLED INTO THE MACHINE BY ITSELF. THE CHIPS DO NOT HAVE THE SAME SIZE.	1. The blades are worn too much. 2. The diameter of the branches inserted into the machine are larger than 100 mm for HYCH1500E-2 or 70mm for HYCH7070[E]-2 3. The gap between the fixed blade and the counter-blade is too large, the correct gap is ½ mm	1. Change or sharpen the blades and counter-blade. Note that the blades are sharpened on both edges so they can be reversed. 2. Shut the engine off and remove the branch that is too thick. 3. Adjust the gap between the blade and the counter-blade in the slots
THE ENGINE WILL NOT START OR TURN BECAUSE THE ROTOR IS JAMMED.	1. The diameter of branches is too big. There are unacceptable materials such as stones or metal in the input tube. A length of branch remains in the rotor after the engine was last stopped.	Shut off the engine, remove the spark plug cap. NEVER under any circumstances use your hands to remove stuck wood. Reduce size of wood to 100 mm for HYCH1500E-2 or 70mm for HYCH7070[E]-2 or less. Use a piece of wood to turn the rotor to remove the material from the rotor and input tube. If necessary, remove the cap of the bearing housing and rotate the rotor axle with a spanner. If necessary, remove the input or output tube to get access to the rotor. Check the sharpness of all blades, have them sharpened or replace as required. Make sure all blade bolts are properly tightened.

12. SPECIFICATION

MODEL	HYCH7070[E]-2	HYCH1500[E]-2
Engine Type	4 Stroke OHV Single Cylinder	4 Stroke OHV Single Cylinder
Engine Size – cc	210	420
Oil Capacity – ml	600	1100
Noise Level – dB (A)	108	108
Power @ 3600rpm – hp	7.0	15.0
Starting Method	Recoil (optional electrical)	Recoil/Electric
Battery – V	12	12
Fuel Type	Unleaded Petrol	Unleaded Petrol
Fuel Tank Capacity – l	3.6	6.5
Wheel Type	Pneumatic	Pneumatic
Dry Weight – Kg	70	180
Drive Type	Twin V Belt in Parallel	Twin V Belt in Parallel
Max Chipping Size – mm	70	100
Performance – kg/hr	500 – 2000	1000 – 5500
Disc Speed – rpm	2880	2350

13. DECLARATION OF CONFORMITY

- 11.0 Genpower Ltd confirms that these Hyundai products conform to the following CE Directives;
2006/42/EC Machinery Directive
2004/108/EC EMC Directive
2000/14/EC, Amended by 2005/88/EC Noise Emissions Directive
97/68/EC_2010/26/EC NRMM Emissions Directive

EC DECLARATION OF CONFORMITY

The undersigned. As authorised by: **Genpower Ltd**
Declares that the following equipment manufactured under licensed by Hyundai Corporation, Korea

Conforms to the Directive:-
2000/14/EC (as amended)

Of the European Parliament and of the council on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for the use outdoors.

Equipment Category:	Power Equipment
Product Name/Model:	HYCH7070[E]-2 HYCH1500[E]-2
Type/Serial No:	Wood Chipper
Net installed power:	HYCH7070[E]-2 7.0hp HYCH1500[E]-2 15.0hp
The technical documentation is kept by:	Roland Llewelin, Genpower Ltd Isaac Way, Pembroke Dock, Pembrokeshire, SA72 4RW.

The conformity assessment procedure followed was in accordance with annex V of the Directive.

Notified Body:	TüV SüV Product Service GmbH Zertifizierstelle, Riddlerstraße, 65 80339 München, Germany. Certification n° M8A 13 07 84794001
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Measured Sound Power Level:	HYCH7070[E]-2 108dB HYCH7070[E]-2 108dB
Guaranteed Sound Power Level:	HYCH7070[E]-2 108dB HYCH7070[E]-2 108dB

A copy of this certificate has been submitted to the European Commission and the EU Member State United Kingdom.

Place of Declaration:	Pembroke Dock, SA73 4RW
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Date:	07/03/2018
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Signed by:	Roland Llewelin
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Position in Company:	Managing Director
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Name and address of manufacturer or Authorised representative:

**Genpower Ltd
Isaac Way, Pembroke Dock,
Pembrokeshire, SA72 4RW**

14. RECYCLING & PRODUCT DISPOSAL

- 12.1 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.
- 12.2 You MUST make sure that all unused oil and fuel is disposed of correctly either be forehand or at your local Civic Amenity Site. Under NO circumstance must any oil and fuel be put down any drains.
- 12.3 Waste Electrical Electronic Equipment (WEEE) recycling.
- 12.4  Certain products contain WEEE waste which should not be disposed of in your domestic waste.
- 12.5 You MUST recycle WEEE in accordance with your local authority or recycling centre.
- 12.6  Battery recycling, certain products contain batteries which should not be disposed of in your domestic waste
- 12.7 You MUST recycle batteries in accordance with your local authority or recycling centre.
- 12.8 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.
- 12.9  The symbol means that you should 'Reduce – Reuse – Recycle.'
- 12.10 We are a Member of the VALPAK National Compliance scheme and our registration number is RM08660.
- 12.11 For further information about disposal please contact your Local Authority.
- 12.12 You can also get more advice and guidance about recycling at the following website <http://www.recycle-more.co.uk>
- 12.13 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.

15. CONTACT DETAILS

- 13.0 POSTAL ADDRESS: Genpower Ltd
Isaac Way,
London Road,
Pembroke Dock,
Pembrokeshire,
SA72 4RW. UK.
- 13.1 FAX: +44 (0) 1646 686198
- 13.2 E-MAIL: aftersales@genpower.co.uk
- 13.3 WEBSITE: www.hyundaipowerequipment.co.uk

16. MANUAL UPDATES

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

17. WARRANTY

- 15.0 For specific warranty and warranty exclusion details for your product, please visit our Customer Services section on our website:
www.hyundaipowerequipment.co.uk/customer-service
- 15.1 To register your product for its warranty, please visit:
www.hyundaipowerequipment.co.uk/warranty

HYUNDAI

POWER PRODUCTS

For Inquiries, Please Contact:

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