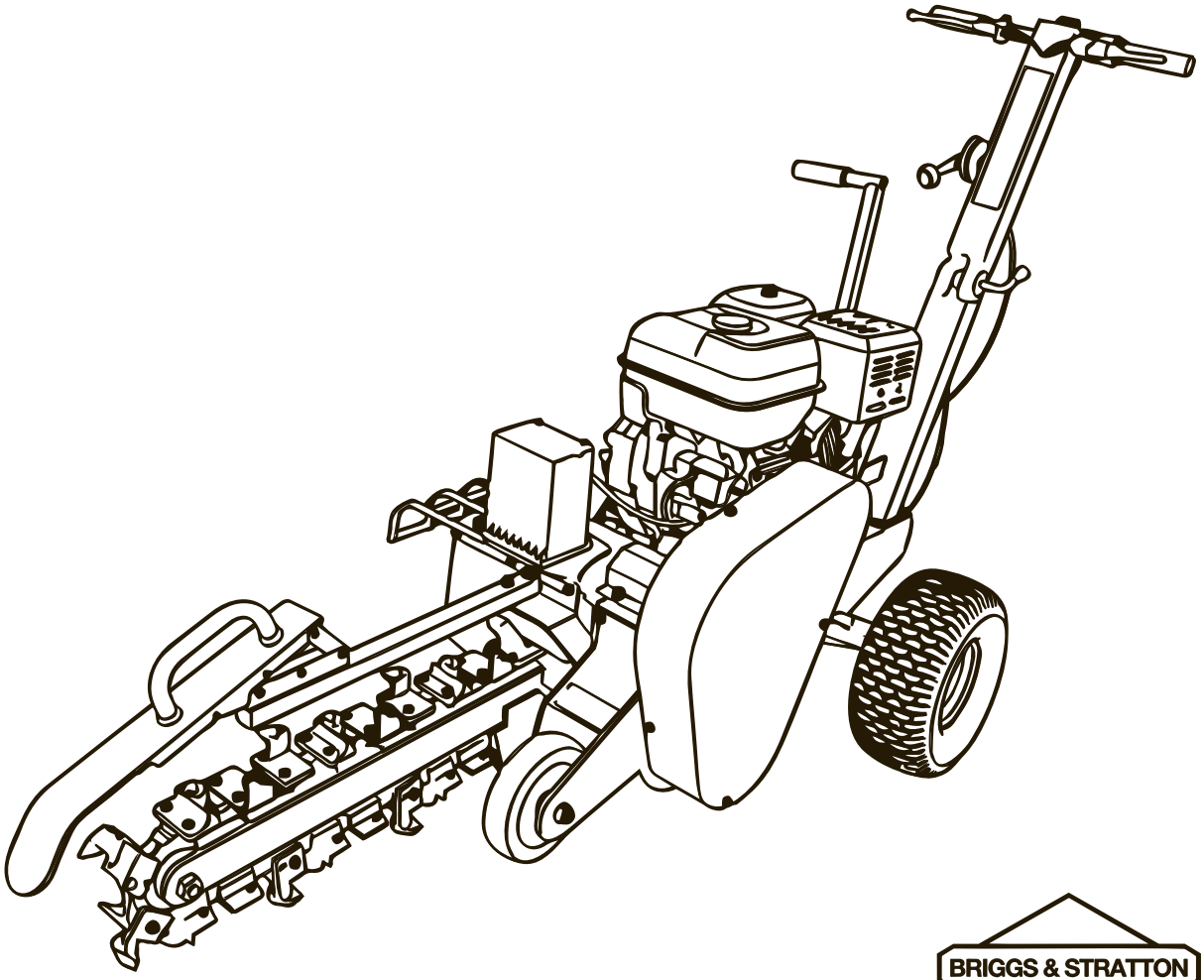
BBT AUSTRALIA

Trencher



BRIGGS & STRATTON

OWNER'S MANUAL

BBT-TR-13.5BS

IMPORTANT: Please make sure that the person who is to use this equipment carefully reads and understands these instructions before operating.

Save this manual for future use

Thank you for choosing our equipment. It was carefully engineered to provide excellent performance when properly operated and maintained.

Please read this entire manual before operating the equipment. It instructs you on how to set up, operate, and maintain your equipment safely and easily. Ensure that you and any other persons operating the equipment carefully follow the recommended safety practices at all times, as failure to do so could result in personal injury or property damage.

All information in this manual is relevant to the most recent product information available at the time of printing. Review this manual frequently to familiarise yourself with the equipment, its features, and operation. Please note that this Owner's Manual may cover a range of product specifications for various models. Characteristics and features discussed and/or illustrated in this manual may not be applicable to all models. We reserve the right to change product specifications, designs, and equipment without notice and without incurring obligation.

Customer Support

Before initiating a product return, kindly reach out to our dedicated Customer Support Department at BBT Australia. We are here to assist you.

Phone: 02 4257 4787
Email: bbt@bbta.com.au
Warehouse: Unit 2/3 Delta Place, Albion Park Rail NSW 2527

If you have difficulty assembling the product or have any questions about the controls, operations, or maintenance of the equipment, please don't hesitate to get in touch with our Customer Support Department.

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SAFETY & ALERT SYMBOLS

FOR YOUR SAFETY AND THE SAFETY OF OTHERS!

Safety precautions should be followed all the time when operating this equipment. Failure to read and understand the Safety Messages and Operating Instructions could result in injury to yourself and others.

This Operating Instructions has been developed to provide complete instructions for the safe and efficient operation of this equipment. Refer to the engine manufactures instructions for data relative to its safe operation.

WARNING: Read and thoroughly understand all instructions in this equipment and on the safety decals before assembling or operating this equipment. Failure to do so may cause serious injury or death. Do not allow anyone to operate this equipment who has not read this manual. As with all power equipment, this equipment can be dangerous if assembled or used improperly. Do not operate this equipment if you have any questions concerning its safe operation. Contact our Customer Support Department for assistance in addressing any queries or concerns.

This SAFETY ALERT SYMBOL identifies important safety messages in this manual. Failure to follow this important safety information may result in serious injury or death.

⚠ DANGER	**DANGER** indicates a hazardous situation which, if not avoided, will result in serious injury or death.
⚠ WARNING	**WARNING** indicates a hazardous situation which, if not avoided, could result in serious injury or death.
⚠ CAUTION	**CAUTION** indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

ADDITIONAL INFORMATION AND POTENTIAL CHANGES

We reserve the right to discontinue, change, and improve our products at any time without notice or obligation to the purchaser. The descriptions and sections contained in this manual were in effect at the time of printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your equipment.

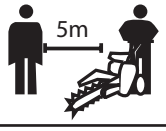
⚠ WARNING

Your Responsibility—Restrict the use of this equipment to persons who have read, understood, and will follow the warnings and instructions in this manual and on the machine

SAVE THESE INSTRUCTIONS!

HAZARDS SYMBOLS

Potential hazards associated with the operation of this equipment will be referenced with Hazard Symbols which appear throughout this manual.

	READ THE OWNER'S MANUAL(S) : Read, understand and follow all instructions in the manual(s) before attempting to assemble and operate.
	FACE PROTECTION : Always wear safety goggles or safety glasses with side shields or a face shield when operating this equipment as well as ear protection.
	WEAR GLOVES : Always wear non-slip, heavy-duty protective gloves when operating this equipment.
	WEAR SAFETY FOOTWEAR : Always wear non-slip steel-toed safety footwear when operating this equipment.
	BEWARE OF ROTATING BLADES : This equipment has a rotating cutting blade capable of amputating hands and feet and throwing objects. Keep hands and feet out of openings while machine is running. Failure to observe these safety instructions could result in serious injury or death.
	BEWARE OF FLYING OBJECTS : Beware of thrown objects, which can ricochet causing serious injury to the eyes. Always wear eye & ear protection when operating.
	Never wear loose clothes or long jewellery and keep your long hair secured when operating this equipment. Never operate this equipment in bare feet or sandals.
	CARBON MONOXIDE AND GAS : Exhaust contains poisonous carbon monoxide, a colourless and odourless gas. Breathing exhaust fumes can cause loss of consciousness and may lead to death.
	RESPIRATORY HAZARDS : ALWAYS wear approved respiratory protection when required.
	PETROL OIL : Petrol is extremely flammable and the vapours are explosive. Serious personal injury can occur when petrol is spilled on you or your clothing, which can ignite. In the event of a petrol spill, wash your skin and change clothes immediately.
	BURN HAZARDS : Engine components can produce intense heat. To avoid burns, DO NOT touch these areas while the engine is running or right after operations. Never operate the engine with removed heat shields or guards.
	**BYSTANDERS:** Keep bystanders, helpers, pets, and children at least 5m from the equipment while it is in operation. Stop equipment if anyone enters the area.
	SINGLE OPERATOR: Only one person should operate the equipment at a time.
	DO NOT use in the rain.

GENERAL SAFETY

- **Age Requirement:** Do not allow operation by persons under 18 years of age.
- **Protective Clothing:** Always wear protective clothing, including shatterproof glasses and steel-toed boots.
- **Health Check:** Do not operate if you are unwell, fatigued, or under the influence of drugs or alcohol.
- **Proper Protection:** Use respiratory masks, hearing, and eye protection.
- **Decal Visibility:** Replace any unreadable safety decals or nameplates.
- **Attachments:** Use only recommended accessories to prevent damage or injury.
- **High Temperatures:** Let the engine cool before refuelling or servicing. Never touch hot components like the exhaust manifold.
- **Ventilation:** Refuel in well-ventilated areas, away from open flames.
- **Explosive Atmospheres:** Avoid operating near combustible materials.
- **Unattended Operation:** Stop the engine if leaving the equipment unattended.
- **Maintenance:** Keep the equipment in safe operating condition. Service air filters and check all bolts before use.

OPERATION SAFETY

- **Safety Features:** Ensure all guards and safety devices are attached and functional.
- **Environment:** Operate in open, well-lit areas on flat, solid ground. Block wheels to prevent movement.
- **Safety Precautions:** Keep hands away from moving parts and never attempt to operate the controls with your feet.
- **Overreaching:** Keep proper footing and balance at all times. This allow better control of the machine in unexpected situations.
- **Health Precautions:** Prolonged machine use may lead to health complications, such as carpal tunnel syndrome, due to vibration. To help reduce the possibility of such conditions, wear gloves, take breaks frequently, keep fingers and hands warm, and maintain the equipment for optimal operation and minimal vibration. It is recommended to seek medical advice if you feel numbness or burning sensations in fingers/hands.
- **Cautionary Measures: Use EXTREME CAUTION** to avoid power cables – contact can be fatal. Also be aware of plumbing, water and gas pipes etc. If in any doubt, do NOT dig – contact the appropriate organisation or authority for information before digging.
- **Work Area Inspection:** Inspect the work area and remove any objects that may get caught up or obstruct the machine, or may get thrown by it.
- **Fire Risk:** Be aware of fire risks resulting from machine use. Ensure that the machine exhaust and spark arrestor (if equipped) is well maintained and that engine is tuned correctly.
- **Refuel outdoors only:** Avoid fuel spillage. Start the machine at least 3m away from the fuelling location.
- **Handling:** Always hold the machine firmly with both hands during operation. Always use the machine handles.
- **Sloping Surface:** Use **EXTREME CAUTION** when using the machine on sloping surfaces.
- **Direction change:** Use **EXTREME CAUTION** when changing machine direction, reversing etc.
- **Damaged Attachments:** Do NOT use any trenching attachment that is cracked or damaged in any way – replace it.
- **Trenching Teeth:** Ensure the trenching teeth are not obstructed before digging.
- **Trenching Teeth Position:** Ensure that all trenching teeth are fully secured before digging.
- **Jam:** If the trencher jams, stop the engine immediately.

» **Equipment Purpose:** Do NOT use the equipment for purposes it is not designed for, such as cutting concrete.

TRANSPORTING SAFETY

» **Shutting Off:** Always STOP the engine before transporting or working on it (refuelling, adjusting etc).

» **Machine Position:** When transporting the machine in a vehicle, ensure the engine is OFF, and the machine is secured in an upright position to prevent tip-over, machine damage or fuel spills.

MAINTENANCE SAFETY

» **Pre-service Checks:** Disconnect the spark plug before servicing.

» **Oil Levels:** Always check engine oil levels before operation.

ADDITIONAL HAZARDS

» **Environmental Check:** Ensure no hazardous utilities are in the operating area.

» **Noise:** Use hearing protection to prevent potential hearing loss from noise exposure.

» **Vibration:** Be cautious of repetitive motions and vibrations which could affect hands and arms.

Remember: Always keep the work area clean and free of obstructions. Never operate the equipment if it's in poor condition or without proper safety training and preparation.

STORAGE SAFETY

» **Cleanliness:** Always clean debris and chaff from the engine and muffler areas to prevent fires.

» **Cooling Period:** Allow the equipment to cool for at least ten (10) minutes before storing.

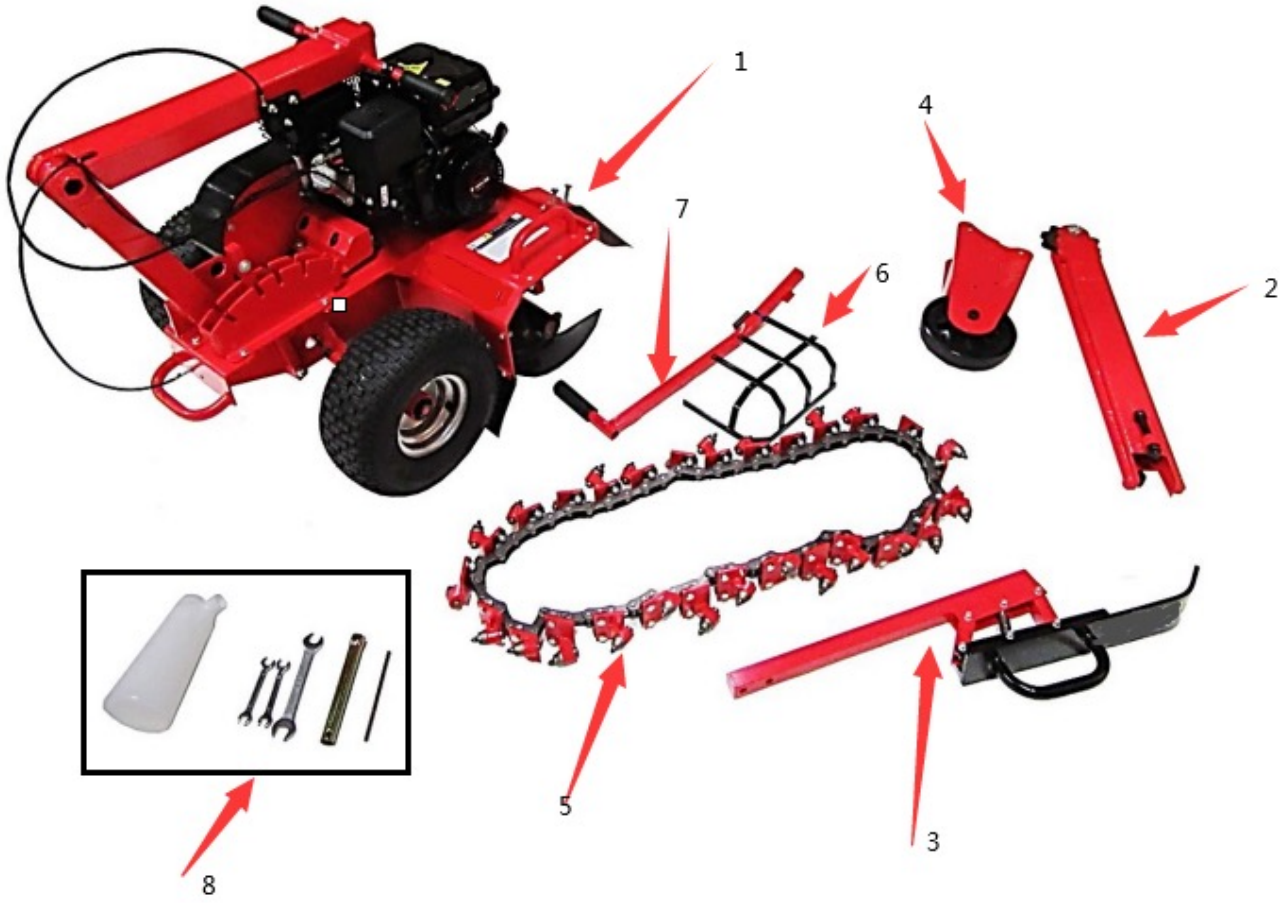
» **Fuel Management:** Always drain the fuel tank prior to storage to eliminate potential fire hazards.

» **Proper Location:** Store equipment in a clean, dry location out of the reach of children.

» **Maintenance Checks:** Ensure all safety features are intact and the equipment is in good repair before storing.

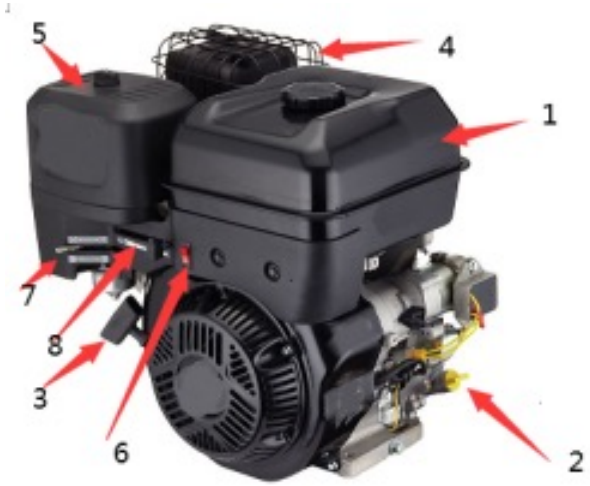
GENERAL INFORMATION

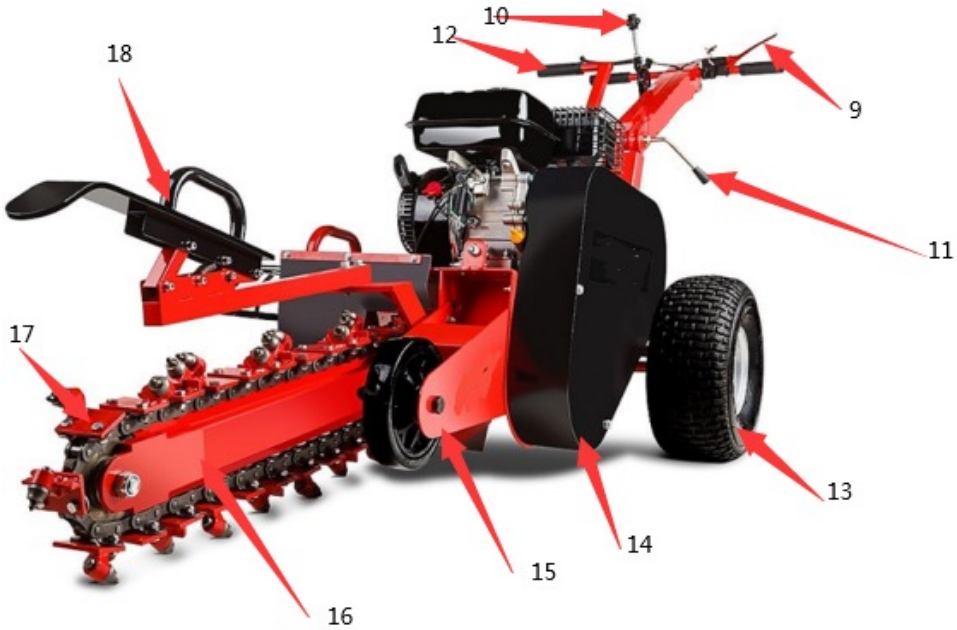
APPLICATION



1. **Engine /Gearbox/Frame/Handle Assembly**
2. **Chain Arm**
3. **Front Guard**
4. **Front Wheel**
5. **Complete Chain with Blades Fixed**
6. **Protection Grille**
7. **Depth Adjustment Handle**
8. **Tool Accessories**

Engine and Machine Components





1. **Fuel Tank**
2. **Oil Inner**
3. **Pull Starter**
4. **Exhaust**
5. **Air Filter Assembly**
6. **On/off Switch**
7. **Choke Lever**
8. **Throttle adding lever**
9. **Engine Safety Switch**
10. **Throttle Control**
11. **Angle Adjustment Wrench**
12. **Depth Adjustment Handle**
13. **Wheel**
14. **Gear Cover (Drive system inside)**
15. **Front wheel**
16. **Chain Arm**
17. **Complete Chain**
18. **Front Guard**

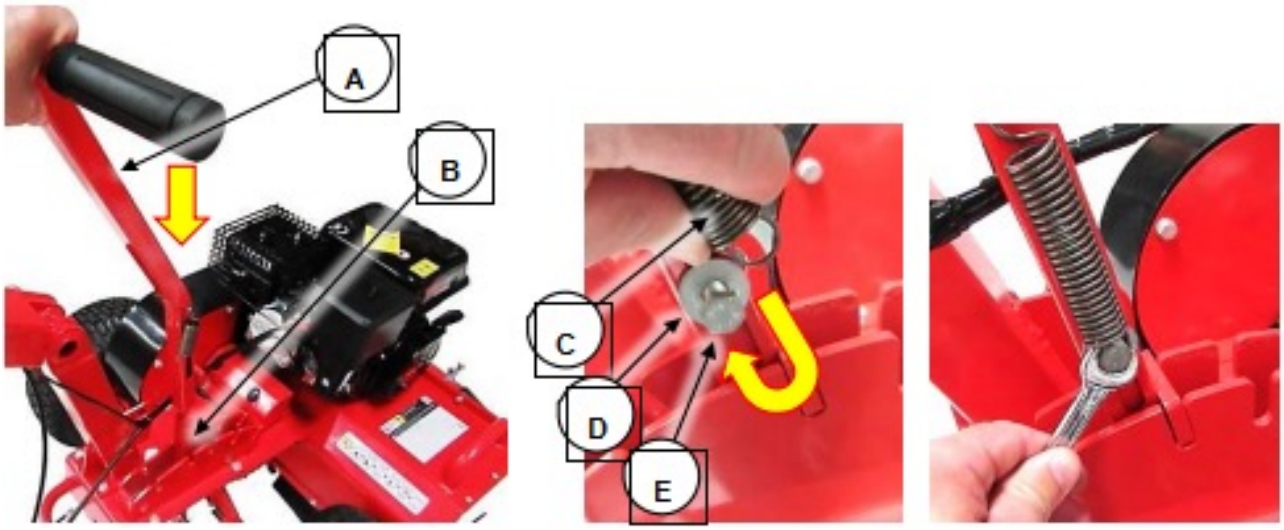
ASSEMBLY

Ensure that you carry out all procedures below before starting the engine or operating the equipment. All procedures described are generic in nature and slight variations between different models may exist. Failure to follow the checklist and carry out the procedures correctly may result in making the product warranty void. The product is NOT supplied with engine oil, although traces of oil from the manufacturing process may be present. It is essential to add adequate engine oil of the correct type to the engine before use. Failure to add engine oil will void the product warranty.

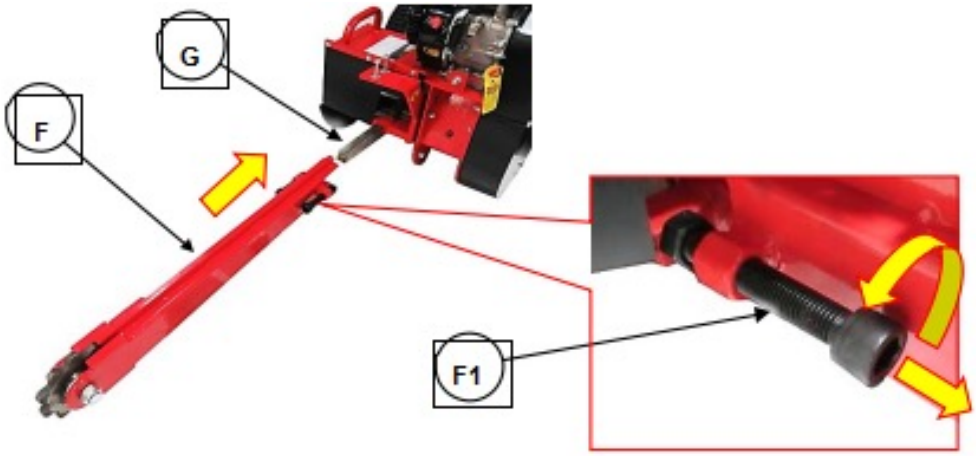
ASSEMBLY

- 2 or more persons are required for assembly.
- Suitable tools are required for correct assembly.
- Check all parts have been supplied and are in good condition before commencing assembly.
- Firmly secure all fasteners.

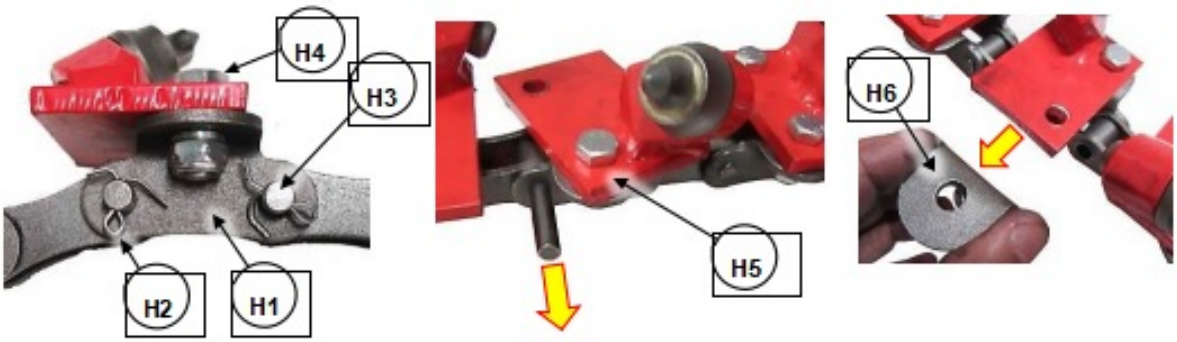
1. Place the depth adjustment handle (A) over the depth adjustment shaft (B). Ensure that the spring (C) is facing outward.
2. Place a M8 washer (D) in position and insert a M8x25 bolt (E) through the slot in the handle and screw it in (rotate right) to the depth adjustment shaft approximately 10mm. Pull the end of the spring over the bolt, then screw the bolt in further (there is no need to “tighten” the bolt as the spring tension should prevent it from loosening).



3. Slide the end of the chain arm (F) onto the bar (G) at the front of the machine. Using a suitable spanner and Allen key, back-off (rotate left) the chain tensioning bolts (F1) on either side of the chain arm so they are as far back as possible

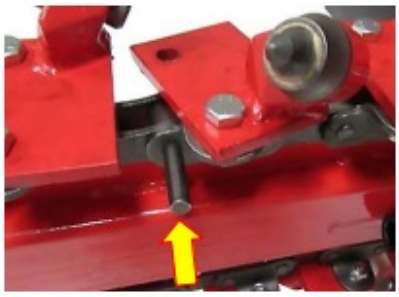


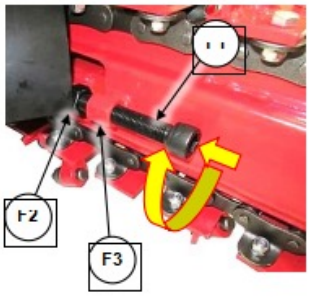
4. The chain and cutting teeth assembly (H) needs to be “split’ to be installed. Find the removable link (H1) in the chain – it has split pins (H2) to retain the link pins (H3). Remove both split pins (do not damage or discard them), then using a suitable pin punch and hammer, drive 1 link pin through the chain link from the split pin side. Remove 1 nut, spring washer and bolt (H4) from the split pin side of the tooth plate (H5), then remove the link plate (H6) from the split pin side – the chain is now split.



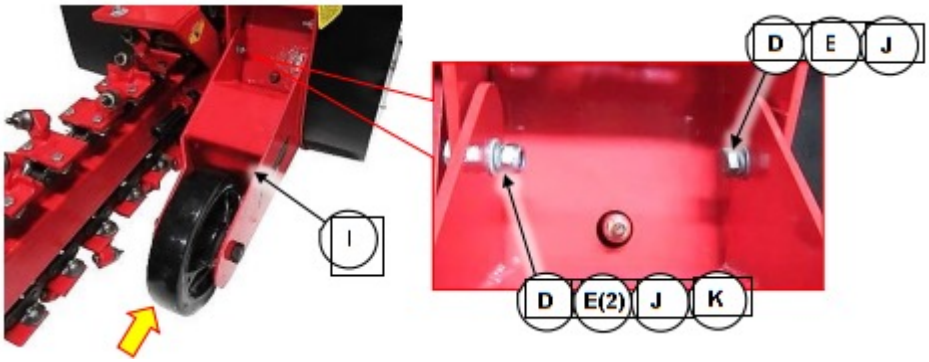
5. Pull the chain around the drive shaft housing underneath the machine (at this stage run the chain next to the drive gear and ensure that the cutting teeth are facing forward) so the free end of the chain will lie along the top of the chain arm. Lift the chain onto the drive gear so the links engage with the drive gear teeth. Rest the chain on the ridge running the length of the chain arm.

6. Hold the chain in position so it does not roll back around the drive gear, then pull the free end of the chain over the idler gear at the front end of the chain arm. Bring the two ends of the chain together, then drive the previously removed link pin through the chain link so the chain is again joined. Place the link plate over the two link pins, then re-insert the split pins through the link pins. Bend the legs of the split pins around so the pins cannot fall out. Re-insert the previously removed bolt through the tooth plate and link plate, then secure it using a spring washer and nut. Use the spanners to firmly tighten (rotate right) the nut.

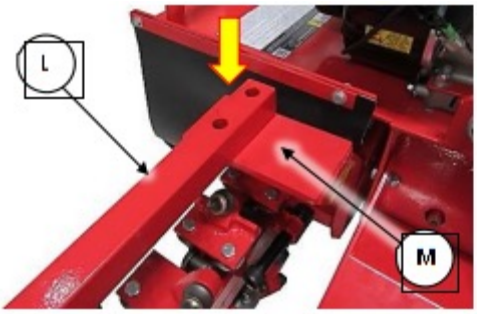




7. Using a suitable spanner and Allen Key, advance (rotate right) the chain tensioning bolts (F1) on either side of the chain arm to increase tension on the chain. Tension the chain so there is approximately 20 to 20mm of slack in it when you pull it down from the underside of the chain arm at its centre. When tension is correct, tighten the nut (F2) against the welded nut (F3) on both sides.
8. Bring the front wheel assembly (I) into position next to the chain arm (left side of the machine when standing behind it). Attached the front wheel assembly to the plate on the chain arm side using 2 M8*25bolts (E). The bolts should pass through a washer, plate, front wheel assembly, washer, spring washer, then nut. Note that it maybe be necessary to change the chain arm depth position in order to have access to the bolts holes.
9. On the gear cover side, attach the front wheel assembly using 2 M8*25 bolts (E), 2 washers (D) and 2 spring washers (J). The bolts should pass through a spring washer, washer, front wheel assembly, then into the plate. Firmly tighten (rotate right) all fasteners using the spanners.



10. Attach the front guard (L) to the mounting plate (M) above the chain arm using 2 M10*50 bolts (N), washers (O) and spring washers (P). The bolts should pass through a spring washer, washer, front guard, then into the plate. Firmly tighten (rotate right) the fasteners using the spanner.



11. 11. Attach the protective grille (Q) to the inside of the soil ejection chute (R) using M6*20 bolts (S), washers (T), spring washers (U) and nuts (V). The bolts should pass through a washer, chute, grille, spring washer, then nut. Firmly tighten (rotate right) the fasteners using the spanners.

12. When assembly is complete, the machine should look similar to below.

OPERATION

⚠ WARNING

These machines are supplied without fuel and oil. Fill before use, fuel and oil to the correct level. Operating the machine without or with too little oil can cause serious engine damage that is not covered by the warranty.

FILLING UP WITH FUEL

Always use fuel that meets the following specifications: unleaded petrol, minimum octane rating 86.

⚠ WARNING

Never top up with fuel while the machine is running. Allow the machine to cool for at least 15 minutes after filling up before adding fuel.
Do not smoke near the machine or near the fuel. Never add fuel in the vicinity of sparks, flames or open flames.

1. Remove the cover from the filling opening.
2. Carefully pour the fuel into the filling opening. Do not fill the tank beyond the top of the fuel filter.
3. Replace the lid on the filling opening.

FILLING WITH THE ENGINE OIL

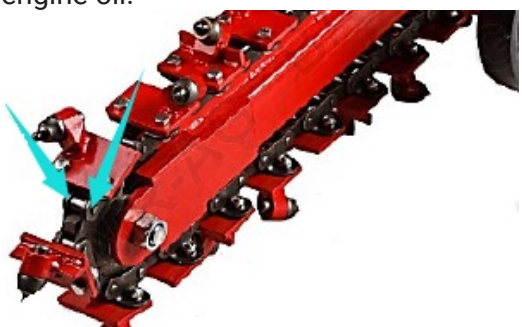
1. Use 4-stroke engine oil. SAE 10W-30 is suitable for general use at all temperatures. Other viscosity can be used when the average ambient temperature is within it specified ranges.
2. Remove the dipstick from the filling point.
3. Fill the crankcase with the specified amount of oil.
4. Refit the dipstick.

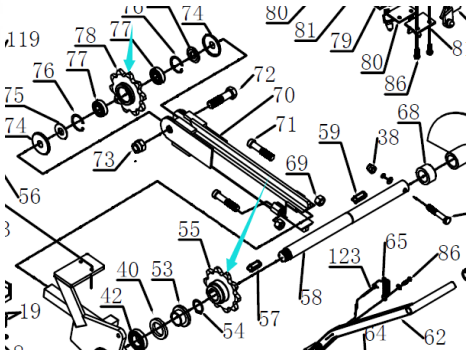
GREASING DRIVE SHAFTS

Components that REQUIRE greasing will have grease nipples. Grease at all places marked in the diagrams below before use. It is recommended to grease applicable components approximately every 3 months, possibly more frequently if used often. Users will require a grease gun and grease - normal automotive wheel bearing grease is suitable. Attach the grease gun hose to the nipple and inject one squeeze of grease.
Grease at all places marked below.

SPECIAL FOR THE CHAIN

Must clear the soil before use or after use, and then use the chain lubes or gear lubes to the following connect parts and gears (Dia.no. 55 &78). If no special lubes, you can use the waste engine oil.



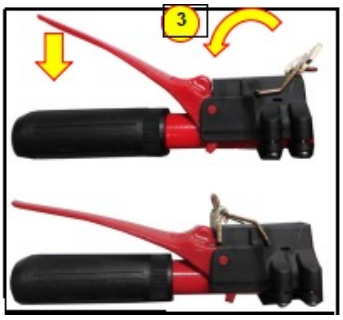


STARTING THE ENGINE

Be sure the depth control is in the “0” depth position and move both stop switches to the “ON” position. Always stand to the rear of the trencher, away from the side delivery auger and digging chain while starting the engine. Always start the trencher at the job site and allow it to warm up. While the machine is running, check that all controls are working properly before using.

1. Make sure the fuel shut-of valve is in the “ON” position.
2. Move the choke control lever to the “CHOKE” position (should only be needed if the engine is cold).
3. Move the throttle control lever to the “FAST” position.
4. Turn the Ignition Switch to the “ON” position. Grasp the recoil starter handle and slowly pull until you feel resistance. Let the cord retract a little bit then pull the cord rapidly to start the engine. One or two pulls usually starts the engine.
5. Move the choke control lever (if used for cold engine) slowly back to the “RUN” position when the engine is running well.
6. If the trencher has not been running (cold engine), warm up the engine by running the engine at half throttle for 3 to 4 minutes, then advance the engine throttle control to the maximum speed.

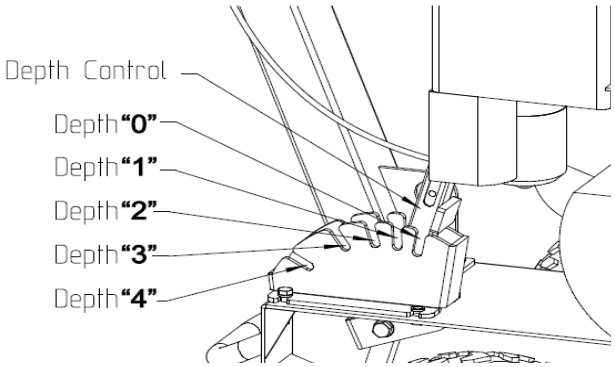
Note: That there is a secondary engine ON/OFF switch located on the left handlebar. To place it in the ON position, pull the lever and hold in this position, then rotate the metal clip over so it is between the lever and switch housing. Release the lever-the clip should remain in the ON position. Raise the Cutter Head wheel 4 to 5 inches from the ground by pushing down on the Handle Bar hold it in that position.



TRENCHING

Be sure the digging chain is not turning when the engine is at an idle. Be sure the engine is off or at an idle before moving the trencher at the job site.

WORK POSITION	Depth
Depth “0”	0 mm
Depth “1”	150 mm
Depth “2”	300 mm
Depth “3”	450 mm
Depth “4”	600mm



NOTE: All depths are approximate. Actual depth may vary depending upon soil conditions and trencher blade wear. Also, soil conditions and operator experience will dictate actual trenching action and speed.

A GENERAL DESCRIPTION ON HOW TO TRENCH

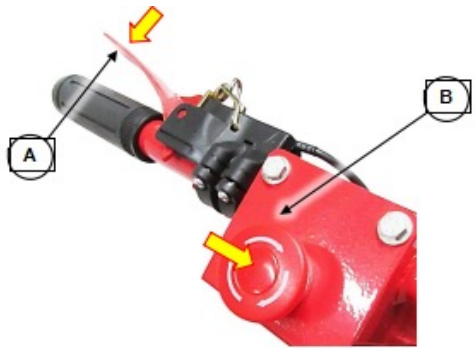
1. With the engine idle and the depth control in the depth “0” , apply downward pressure on the handle to raise the digging chain.
2. Lift the depth control handle and slowly move the lever forward into the desired depth position.
3. Apply downward pressure to the handlebar so that the digging chain do not come into contact with the ground. Increase the engine speed and hold on to the handlebar with both hands. Lower the handlebars slowly so that the chain can penetrate the ground until the selected depth is reached.
4. Pull the trencher 10 to 15cm towards you with an intermittent movement and slowly

lower the handlebars again so that the trencher can reach the selected depth again.

5. Repeat this operation until you are finished. The wheel lock aids you in this operation by helping to hold the trencher in place until the next movement is started.

STOPPING

There are three switches to turn off the machine: the safety lever on the handlebar (A), the emergency stop on top of handle (B) and the engine switch on the engine. Refer to the engine manual for the switch location on your trencher. The operator can turn the trencher off at any time by switching either stop switch to the "OFF" position. All switches must be "ON" before the engine can start.

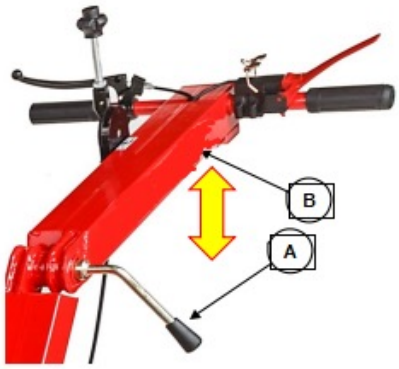


STOPPING THE ENGINE FOLLOWING THE PROCEDURES:

1. Switching stop switch on handle. Or press on the emergency stop on top.
2. Move the Throttle Lever to IDLE.
3. Recoil Start: Turn the Ignition Switch to the OFF position.

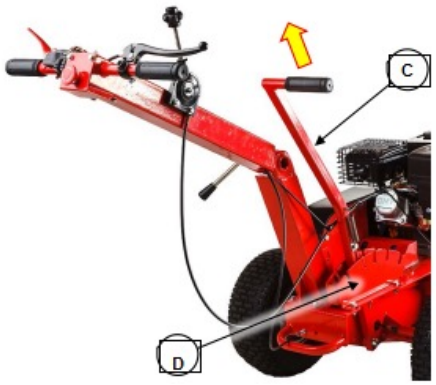
ADJUSTING HANDLEBAR POSITION

1. Rotate the locking handle (A) left (anti-clockwise) until the top section of the handle (B) can be rotated.
2. Where it is comfortable for you to hold, and to raise the front of the machine. Generally, waist height is a good starting point.
3. Rotate the locking handle right (clockwise) until the handlebar assembly is firmly held.



ADJUSTING TRENCH DEPTH

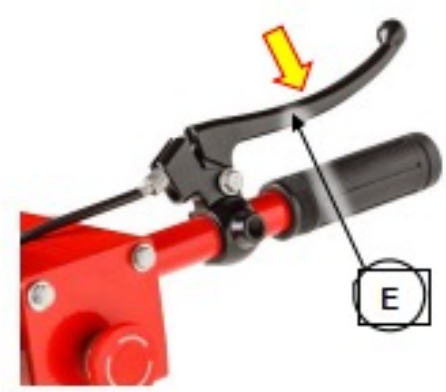
1. Pull the depth adjustment handle (C) upward so it disengages from the setting plate (D).
2. Move the handle forward to increase trench depth, or back ward to reduce depth as required. Note that it may be necessary to raise the front of the machine off the ground to allow the trenching arm to drop.
3. Release the depth adjustment handle, ensuring that the tab at its bottom is fully engaged in a slot in the setting plate.



USING THE WHEEL LOCKS

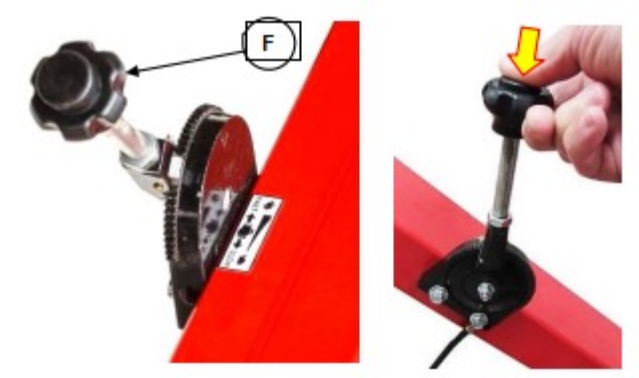
The wheels use spring-loaded pins to lock them in position while trenching. This is to help reduce forward "creep" caused by the digging action of the cutting teeth.

1. Pull and hold the lever on the right handlebar (E) to disengage the wheel locking pins.
2. Move the machine as required.
3. Release the lever. Note that there may be a small amount of movement before the locking pins fully engage.



USING THE THROTTLE

The throttle lever (F), located on the handlebar column, is used to adjust the engine speed, which in turn engages the trenching chain. To adjust the throttle, press and hold the button at the top of the lever, rotate the lever to the required position, then release the button.



WHEN BLOCKED

If the Chain stops moving while digging trenches, the engine should be stopped, remove the mud or anything which is stuck in the chain, then restart the engine, and start digging again.

MAINTENANCE

Regular maintenance is the way to ensure the best performance and long life of your machine. Please refer to this manual and the engine manufacturer's user manual for maintenance procedures.

» Before performing any maintenance procedure or inspection, stop the engine, wait 5 minutes to allow all parts to cool.

» Disconnect the spark plug wire, keeping it away from the spark plug.

» Stop engine before removing fuel cap.

» Use only genuine replacement parts of the engine manufacturer.

MAINTENANCE SCHEDULE

Proper maintenance extends the life of the machine and ensure safe and trouble-free use.

		Each use	1st month or 20 hrs	Every 50 hrs	Every 6 months or 100 hrs	Every year or 300 hrs
Engine Oil	Check Level	*				
	Replace		*		*	
Spark Plug	Check electrode distance, clean and replace if necessary			*		
Air Filter	Check	*				
	Clean and replace if necessary			*		
Fuel cap	Check and adjust when engine has cooled down					*
Fuel line	Check for damage and replace if necessary	*				
Carburetor	Check the operation of the choke	*				
Fixations	Check all fixations				*	
Bearing	Lubricate			*		

Never carry out maintenance work while the engine is running

AIR FILTER

1. Never let the engine run without and air filter being installed. A dirty air filter element affects the engine performance, increase fuel consumption and makes it difficult to start.

   If you notice a loss of engine power check the air filter. You MUS make sure the housing is free of dust and debris DO NOT allow any dust or debris to enter the carburettor.
2. Remove the air filter cover by unscrewing the air filter cover wing nut and removing the cover.
3. Once the cover has been removed, undo the air filter element wing nut and remove the foam and paper elements.
4. If damaged or worn, replace immediately.
5. Was the foam filter in a mild detergent solution and allow to dry.
6. Once dry, soak the foam in fresh engine oil and remove the excess.
7. Tap the paper element to remove dirt and debris and use a low pressure airline to blow from the inside of the element outwards to remove the remaining dust.
8. Reassemble and reinstall the air filter.

SPARK PLUG

1. The spark plug MUST be fully tightened otherwise the engine will overheat causing damage. ALWAYS complete the following steps after the engine has been turned off and allowed to cool down.
2. To make sure the engine runs correctly a spark plug gap of 0.6-0.7mm must be maintained and the spark plug free of carbon deposits.
3. To remove the spark plug, remove the spark plug HT lead cap and undo the spark plug.
4. Inspect the spark plug and if worn or damaged , replace immediately.
5. Clean any carbon deposits with a soft wire brush and using a feeler gauge, gentle tap the electrode until the correct gap is achieved.
6. Check the spark plug washer for damage and replace if required.
7. Replace the spark plug by hand to avoid cross threading then tighten to a torque of 12 to 15Nm.

ENGINE OIL

⚠ CAUTION

Risk of Burn from hot engine oil. ALWAYS allow engine oil to cool before changing.

1. Drain the engine oil when the engine is warm, not hot. Warm oil drains more effectively.
2. Place a suitable container underneath the oil drain plug.
3. Remove the oil filter cap/dipstick.
4. Undo and remove the oil drain plug and allow the oil to drain into the container. You may need to tilt the machine to drain all the oil, you will require assistance for this.
5. Inspect the oil drain plug and washer and if damaged, replace.
6. Reinstall the oil drain plug.
7. Place the machine of flat level ground and slowly refill with 1100ml of suitable engine oil.
8. Stop occasionally to check the oil level and DO NOT OVER FILL.
9. Refit the oil filter /dipstick.
10. Dispose of the waste engine oil in a safe and correct manner. DO NOT throw waste oil down drains or on to the ground.
11. Clean up an split oil.

TRANSPORT

- Always shut off the fuel valve and engine.
- Always allow the engine to cool.
- Store trencher and fuel where fuel vapors cannot reach sources of combustion like, water heaters, electric motors, switches, furnaces, etc.
- Always secure this trencher with tie downs or similar restraints when transporting.
- The trencher shall be stored in manner that prevent it from falling, rolling or tipping over.

STORAGE

NOTE: If the machine is to be taken out of use for a longer periods of time, you MUST empty the fuel tank and change the oil. This prevents problems with the restart.

- Allow the engine to cool completely before storing the machine.
- Drain the fuel from the fuel tank into a suitable container and then run the machine until it cuts out to drain the remaining fuel from the fuel lines and carburettor.
- Drain and replace the engine oil as specified in the maintenance section.
- Remove the spark plug and pour 1 teaspoon of fresh engine oil down the cylinder bore.
- Place a clean lint from cloth cover the spark plug hole and gently pull the recoil start handle 4 to 5 times to coat the cylinder wall with fresh oil, then refit the spark plug.
- Clean the machine thoroughly with a damp cloth.
- Use a silicone based grease and coat the cutting teeth to prevent rust.
- Lubricate all cables and moving parts of the machine.
- Top up the grease level at the grease point.
- Check the tightness of all bolts.
- Store in a cool, dry place away from sources of ignition.
- DO NOT stack other items on top the machine.

SPECIFICATION

Engine displacement	420 cc
Power	Petrol
Trench Capacity	60 m/hr
Trench Width	100 mm
Trench Depth	150, 300, 450, 600 mm
Blade	27 carbide alloy blades
Chain Length	2000 mm
Chain Speed(Max)	550 m/min
Tyre	145/7.0-6
Overall Height	1100 mm
Overall Length	2100 mm
Overall Width	720 mm
Net Weight	170 kg

TROUBLESHOOTING

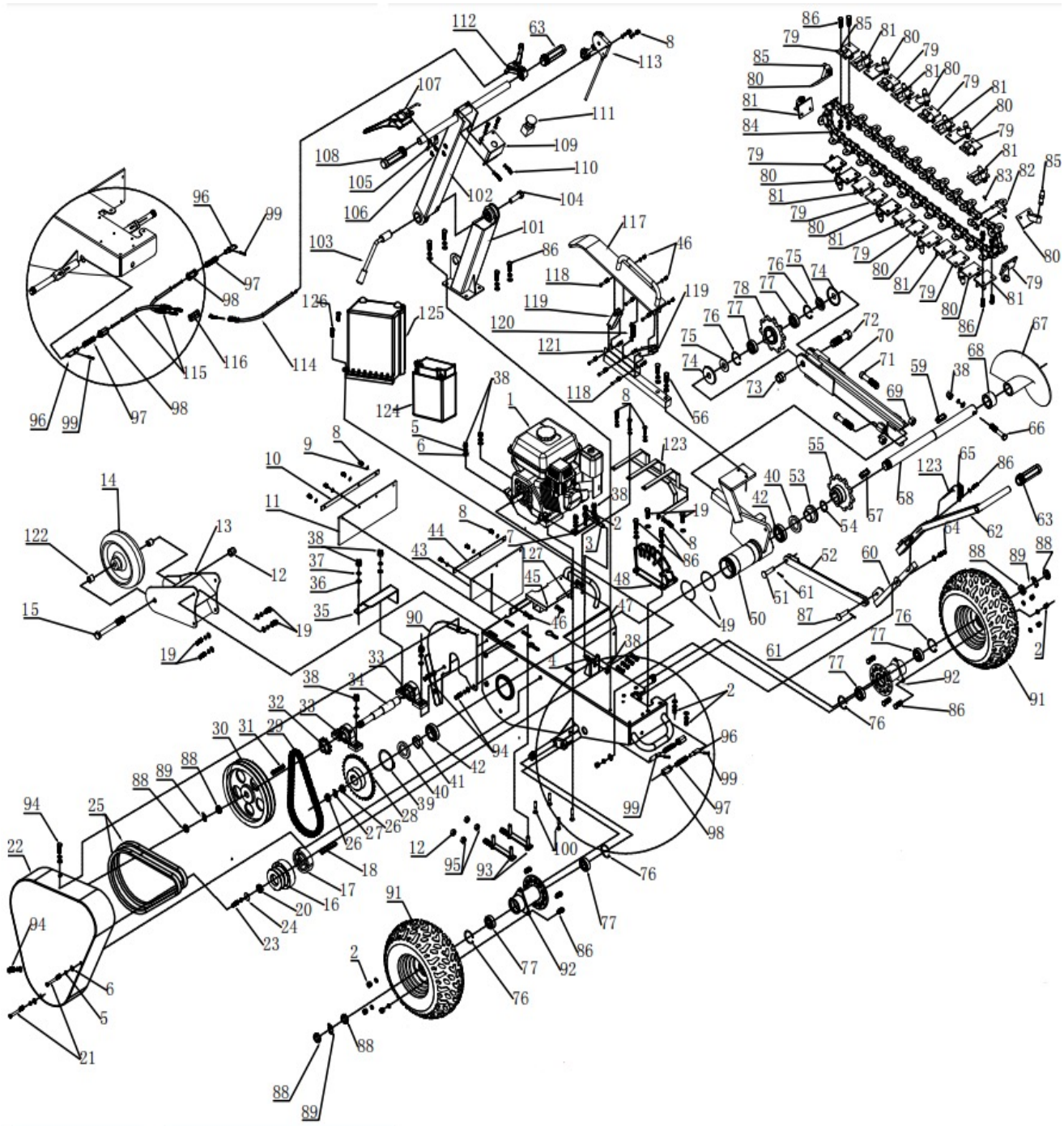
Most problems are easy to fix. Consult the Troubleshooting Table below for common problems and their solutions. If you continue to experience problems, contact the dealers in your area.

⚠ WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait 5 minutes to allow all parts to cool. Disconnect the spark plug wire, keeping it away from the spark plug.

SYMPTOM	POSSIBLE CORRECTIVE ACTION
The engine won't start. (Please refer to the engine user manual for engine-specific procedures.)	» Is the ignition switch in the " ON" position ? And also the Emergency stop and handle bar? » Is the fuel shut-off valve on ? » Are you using fresh, clean fuel? If the fuel is older than 14 days, change it. » Is the spark plug clean? If the spark plug is dirty or cracked, change it. If it's oily, leave it out, hold a rag over the plug hole and pull the recoil cord several times to blow out any oil in the cylinder, then wipe off the plug and reinsert it.
The engine lacks power or is not running smoothly. (Please refer to the engine user manual for engine-specific procedures)	» Check that the Throttle leaver is in the "FAST" position. » Is the air filter clean? If it's dirty, change it following the procedure in the engine manufacturer's owner's manual. » Is the spark plug clean? If it's fouled or cracked, change it. If it's oily, leave it out, hold a rag over the plug hold and pull your recoil cord several times to blow out any oil in the cylinder, then wipe off the plug and reinsert it. » Are you using fresh, clean fuel? If it's older than 14days, change it. » Does your engine have the right amount of clean oil? If it's dirty, change it following the procedure in the engine manufacturer's owner's manual. » Check the oil level and adjust as needed.
Engine smokes. (Please refer to the engine user manual for engine-specific procedures.)	» Check the oil level and adjust a needed. » Check the air filter and clean or replace if needed. » You may be using the wrong oil-too light for the temperature. » Refer to your Engine Owner's manual for detailed information. » Clean the cooling fins if they're dirty.

REPLACEMENT PARTS LIST



PART NO.	DESCRIPTION	QYT
1	Engine	1
2	Lock nuts	63
3	Articulated Bolts	1
4	Nuts	1
5	Spring Washer	78
6	Flat Washer	22
7	Adjustment plate	1
8	Hex bolts	11
9	Flat Washer	20
10	Pressure plate 1	1
11	Rubber plate 1	1
12	Lock nuts	3
13	Front Wheel Frame	1
14	Front Wheel	1
15	Hex bolts	1
16	Small Pulley	1
17	Clutch	1
18	Flat Key	1
19	Hex bolts	63
20	Engine Spacer	1
21	Hex bolts	2
22	Gear Cover	1
23	Hex bolts	1
24	Flat Washer	1
25	V-belt	2
26	Round Nut	2
27	Round Nut Stop Washer	1
28	Big Chain Wheel	1
29	Chain	1
30	Big Pulley	1
31	Flat Key	1
32	Small Chain Wheel	1
33	Bearing	2
34	Transmission shaft	1
35	Bearing protection cover	1
36	Flat Washer	5
37	Spring Washer	5
38	Lock nuts	5

PART NO.	DESCRIPTION	QYT
39	Shaft Ring	1
40	Framework Oil Seal	2
41	Shaft Spacer 2	1
42	Tapered Roller Bearing	2
43	Rubber plate 2	1
44	Pressure plate 2	1
45	Spring Washer	1
46	Lock nuts	7
47	Main Frame	1
48	Depth Adjuster	1
49	O-ring	2
50	Outer shaft	1
51	Shaft Pin	1
52	Link	1
53	Shaft Spacer 1	1
54	Shaft Ring	1
55	Non-standard Chain Wheel A	1
56	Hex bolts	2
57	Flat Key	2
58	Main Shaft	1
59	Flat Key	1
60	Adjusting Lever	1
61	Cotter Pin	2
62	Hand Lever	1
63	Handle Cover	2
64	Hex bolts	1
65	Plug	1
66	Hex Head Cap Screws	1
67	Spiral Discharge Sheet	1
68	Spacer 1	1
69	Nuts	2
70	Chain Frame	1
71	Hex Head Cap Screws	2
72	Hex Bolts	1
73	Lock nuts	1
74	Dust Cover	2
75	Shaft Block	2

PART NO.	DESCRIPTION	QYT
76	Ring	6
77	Bearing	6
78	Non-standard Chain Wheel B	1
79	Right Blade Seat	9
80	Left Blade Seat	9
81	Middle Blade Seat	9
82	Outer Link Connector	1
83	Cotter Pin	2
84	Non-standard Chain	1
85	Blade	27
86	Hex Bolts	60
87	Shaft Pin	1
88	Round Nut	6
89	Round Nut Stop Washer	3
90	Gear Cover Side Plate	1
91	tyre	2
92	Axle Casing	2
93	Bearing Adjustment Support	2
94	Hex Bolts	4
95	Bolts	2
96	Return Pin	2
97	Spring	2
98	Threaded Sleeve	2
99	Elastic Cylindrical Pin	2
100	Half-Round Square Neck Bolts	4
101	Arm Seat Lower	1
102	Arm Seat Upper	1
103	Angle Adjustment Wrench	1
104	Hex Bolts	1
105	Plastic Pressurer	2
106	Hex Bolts	2
107	Emergency stop handle	1
108	Handle cover	1
109	Switch Box	1
110	Hex bolts	4
111	Emergency stop	1

PART NO.	DESCRIPTION	QYT
112	Brake lever	1
113	Throttle Switch	1
114	Long Cable	1
115	Short Cable	2
116	Cable Connector	1
117	Protective plate	1
118	Hex Bolts	6
119	Tie Rob	2
120	Spring Plug	1
121	Guard Bar	1
122	Spacer	2
123	Protective Grill	1
124	Battery	1
125	Battery cover	1
126	Hex Bolt	2
127	Lock Nut	2

WARRANTY

This product comes with a 2-year parts warranty for all items used for domestic purposes from the date of purchase. For products used for commercial purposes, the warranty period is 3 months.

Warranty coverage does not include damage caused by normal wear and tear, accidents, misuse, lack of maintenance, neglect, natural disasters, or other external causes. Additionally, damage caused by operating the equipment in a manner outside the described instructions will not be covered. The warranty is considered void if the item has been modified, altered, or tampered with by a person, excluding standard periodic maintenance.

The warranty does not cover consumables such as tyres, blades, belts, brakes, chains, clutches, bearings, and pull starts.

Misuse or Abuse: We do not offer a warranty on items damaged due to misuse, abuse, or infrequent servicing. No refund or exchange will be provided in such instances. Please check each item description for further warranty details, as some specific components of power equipment are not covered. Warranties do not cover consumables such as blades, bars, chains, recoil starters, or issues arising from lack of oil in engines or improper oil-fuel mixtures where required.

Australian Consumer Law: Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if they fail to be of acceptable quality and the failure does not amount to a major failure.

Customer Support

For further assistance, kindly reach out to our dedicated Customer Support Department at BBT Australia. We are here to assist you.

Phone: 02 4257 4787
Email: bbt@bbta.com.au
Warehouse: Unit 2/3 Delta Place, Albion Park Rail NSW 2527

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