

EN

Original Instructions
Version 1

DRAPER[®]

PETROL
**CULTIVATOR/
TILLER**

32329



**UK
CA** **CE**

These are the original product instructions. This document is part of the product; retain it for the life of the product, passing it on to subsequent holders. Read this manual in full before attempting to assemble, operate or maintain this product.

This Draper Tools manual describes the purpose of the product and contains all the necessary information to ensure its correct and safe use. Following all the instructions and guidance in this manual will ensure the safety of both the product and the operator and increase the lifespan of the product.

All photographs and drawings within this manual are supplied by Draper Tools to help illustrate correct operation of the product.

Every effort has been made to ensure the information contained in this manual is accurate. However, Draper Tools reserves the right to amend this document without prior warning. Always use the latest version of the product manual.

1.1 Product Reference

User Manual for: Petrol Cultivator/Tiller, 42.7cc

Stock No: 32329

Part No: MT254

1.2 Revisions

Version 1: May 2017

First release

Version 2: July 2022

General updates to formatting and content

As our manuals are continually updated, always ensure that the latest version is used.

Please visit drapertools.com/manuals for the latest version of this manual and the associated parts list, if applicable.

1.3 Understanding the Safety Content of This Manual



WARNING! – Situations or actions that may result in personal injury or death.



CAUTION! – Situations or actions that may result in damage to the product or surroundings.

Important: – Information or instructions of particular importance.

1.4 Copyright © Notice

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Draper Tools products are carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, return the complete tool to your nearest distributor or contact Draper Tools directly. Contact information can be found at the back of this manual.

Proof of purchase must be provided.

If, upon inspection, it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This warranty period covers parts and labour for 12 months from the date of purchase. Where tools have been hired out, the warranty period covers 90 days from the date of purchase.

This warranty does not apply to any consumable parts, batteries or normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accidents, or repairs attempted or made by any personnel other than the authorised Draper Tools repair agent.

In all cases, to make a claim for faulty workmanship or materials within the standard warranty period, please contact or return the product to the place of purchase. Proof of purchase may be required.

If the place of purchase is no longer trading or if you experience any difficulties with your warranty, please contact Customer Services with the product details and your proof of purchase. Contact details can be found at the back of this manual.

If the tool is not covered by the terms of this warranty, repairs and carriage charges will be quoted and charged accordingly.

This warranty supersedes any other guarantees expressed or implied and variations of its terms are not authorised.

Your Draper Tools guarantee is not effective until you can produce, upon request, a dated receipt or invoice to verify your purchase within the guarantee period.

Please note that this warranty is an additional benefit and does not affect your statutory rights.

Draper Tools Limited

4.1 Scope

This product is designed to prepare earth and soil for planting flowers and vegetables as part of home garden use. Any other application beyond the conditions established for use will be considered misuse. Draper Tools accepts no responsibility for improper use of this product.



WARNING! This product is not a toy and must be respected.

Read this manual in full before attempting to assemble, operate or maintain the product, and retain it for later use.

4.2 Specification

Stock No.	32329
Part No.	MT254
Rated power	1.2kW
Engine	
Capacity	42.7cc
Type	Two-stroke single cylinder
Idle speed	3,000rpm
Fuel	
Type	E5 (97 RON), E10* (95 RON)
Capacity	1.2L
Mixture	25:1
Tilling width	320mm
Tilling depth	150mm
Tines	
Diameter	230mm
Teeth	4
Rotation speed	200rpm
Vibration levels	4.56m/s ²
Noise emissions	
Sound pressure level	72.98dB(A)
Sound power level	93dB(A)
Weight	15.5kg

*Draper Tools recommends using an additive or stabiliser with E10 petrol so the fuel can be safely stored in the fuel tank for longer.

Important: The declared vibration total values and noise emissions values have been measured in accordance with a standard test method and may be used for comparing one tool with another. These values may also be used in a preliminary assessment of exposure.



WARNING! The vibration and noise emissions during actual use of the product can differ from the declared values depending on the mode selected and the workpiece upon which it is used. Noise levels during operations may reach 90dB(A). Before each use, estimate the likely exposure resulting from the actual conditions of use. Take into account all parts of the operation cycle in order to identify any safety measures required to protect the operator.

Important: Read all Health and Safety instructions before attempting to operate, maintain or repair this product. Non-compliance with these instructions may result in injury or damage to the user or the product.

5.1 General Health and Safety Precautions for Tilling Machines

Training

- Read the instructions carefully.
 - Be familiar with the controls and the proper use of the equipment.
- Never allow children or people unfamiliar with these instructions to use the machine.
 - Local regulations can restrict the age of the operator.
- Never work while people, especially children, or pets are nearby.
- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.

Preparation

- While working, always wear substantial footwear and long trousers.
 - Do not operate the equipment when barefoot or wearing open sandals.
- Thoroughly inspect the area where the equipment is to be used and remove all objects which can be thrown up by the machine.



WARNING!

Petrol is highly flammable:

- Store fuel in containers specifically designed for this purpose.
- Refuel outdoors only and do not smoke while refuelling.
- Add fuel before starting the engine; never remove the cap of the fuel tank or add petrol while the engine is running or when the engine is hot.
- If petrol is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until petrol vapours have dissipated.
- Replace all fuel tank and container caps securely.
- Replace faulty silencers.
- Before using, always visually inspect to see that the tools are not worn out or damaged.
 - Replace worn out or damaged elements and bolts in sets to preserve balance.

Operation

- Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.
- Work only in daylight or in good artificial light.
- Always be sure of your footing on slopes.
- Walk, never run with the machine.
- For wheeled rotary machines, work across the slopes, never up and down.
- Exercise extreme caution when changing direction on slopes.
- Do not work on excessively steep slopes.
- Use extreme caution when reversing or pulling the machine towards you.
- Do not change the engine governor settings or overspeed the engine.
- Start the engine carefully according to manufacturer instructions and with feet well away from the tool.
- Do not put your hands or feet near or under rotating parts.
- Never pick up or carry a machine while the engine is running.
- Stop the engine:
 - Whenever you leave the machine.
 - Before refuelling.
- Reduce the throttle setting during engine shut down and, if the engine is provided with a shut-off valve, turn the fuel off at the conclusion of working.

Maintenance and Storage

- Keep all nuts, bolts and screws tight to ensure the equipment is in safe working condition.
- Never store the equipment with petrol in the tank inside a building where fumes can reach an open flame or spark.
- Allow the engine to cool before storing in any enclosure.
- To reduce the fire hazard, keep the engine, silencer, battery compartment and petrol storage area free of vegetative material and excessive grease.
- Replace worn or damaged parts for safety.
- If the fuel tank has to be drained, this shall be done outdoors.

5.2 Additional Health and Safety Precautions for This Tilling Machine

- Observe **all** basic Health and Safety precautions when working with machines and mechanical tools in an outdoor environment.
- **ALWAYS** ensure that **all** safety features are in good working order and **all** safety labels are visible before use.
- Stay alert at **all** times when using the machine, and **DO NOT** use it while tired or under the influence of alcohol, drugs or medication.
- **DO NOT** modify the machine in any way and use it only in the manner intended.
- **DO NOT** tamper with or disable any of the safety systems employed by the machine.
- Wear appropriate personal protective equipment, including ear defenders and protective footwear and gloves.
- **DO NOT** overreach and maintain good balance while using the tool.
- Remove **all** adjustment tools before use.
- **NEVER** operate the tiller if the mudguard is damaged or missing.
- Adjust the tine rotation depth according to the condition of the ground.
 - Harder ground should be worked in small stages.
- Keep a firm and secure grip on both handlebars during use.
 - The handlebars may lift when the clutch engages.
- **ALWAYS** start the machine on a level surface and do not tilt it during start-up.
- If the tiller vibrates abnormally during use, immediately stop the machine, allow it to cool and investigate the cause.
 - **DO NOT** use the tiller until the issue has been resolved.
- **DO NOT** work on soggy ground as lumps of earth containing dangerous objects may get caught on the tines and thrown into the air.
- **DO NOT** work on any ground under which supply lines may be located.
- Avoid working near trees.
 - Small roots may be severed by the machine and cause the tree to be unstable.
 - Large roots may damage the machine and cause injury.

- To reduce the risks associated with prolonged exposure to vibrations through the handlebars, avoid operating the machine for longer than necessary and do not use excessive engine speeds.
- **ALWAYS** reduce the engine setting before switching off the machine.
- **ALWAYS** switch off the engine, allow the tines to stop completely and allow the engine to cool before adjusting, maintaining or transporting the machine.
- Maintain the machine appropriately and correctly to prevent damage to moving parts and mechanisms.
- **ONLY** have the machine serviced by authorised and suitably qualified personnel.

5.3 Health and Safety Information for Machines With a Petrol Engine

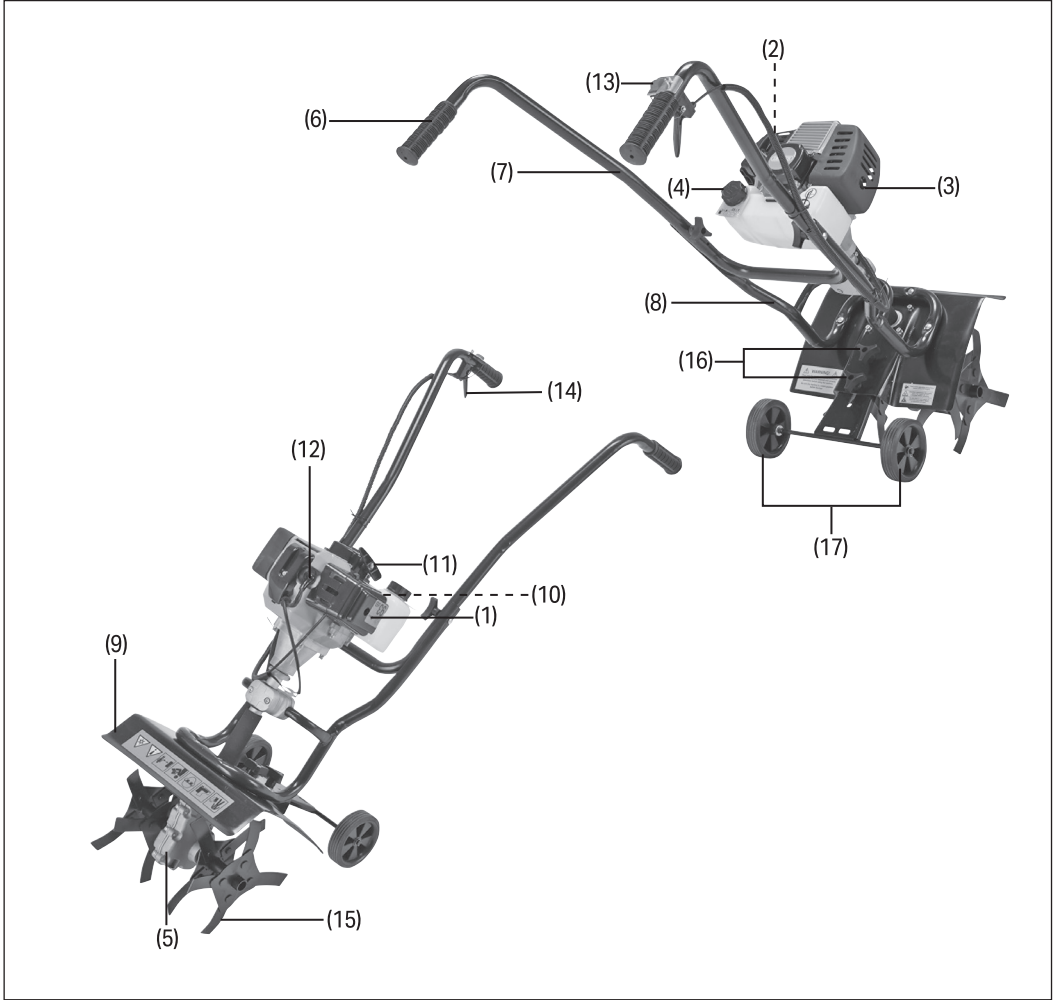
- **NEVER** smoke in the vicinity of the machine, especially during refuelling.
- **NEVER** start the engine if you can smell petrol vapour in the air.
 - If petrol vapour is present, wait for it to dissipate or move to a new location.
- The engine and fuel get hot during use.
 - **DO NOT** touch the engine during or immediately after use and allow it to cool before refuelling.
- **NEVER** remove the fuel cap while the engine is running or immediately after use.
 - Take care when opening the fuel cap after use as hot vapour may be released from the opening.
- **NEVER** place objects on the engine while it is in use and keep **all** air vents clear of dust, dirt and other obstructions.

Important: E10 petrol is hygroscopic and attracts moisture. Read **all** the preparation and maintenance information relating to E10 fuel before using it in this machine. Draper Tools recommends using an additive or stabiliser with E10 petrol to extend the period that it can be safely stored in the fuel tank. **ALWAYS** read the label of any additive or stabiliser applied.



WARNING! The machine exhaust emits toxic carbon monoxide: a colourless, odourless gas. Breathing exhaust fumes can cause loss of consciousness, permanent respiratory damage and eventually death. ONLY operate this machine in a well-ventilated outdoor environment.

6.1 Product Overview

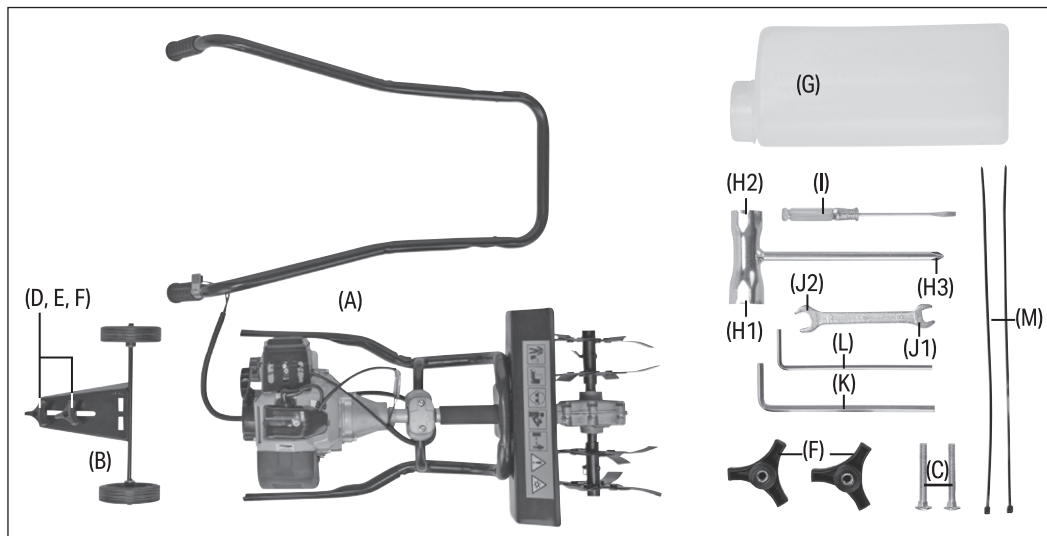


- | | |
|----------------------|-------------------------------|
| (1) Air filter cover | (10) Priming bulb |
| (2) Choke lever | (11) Recoil starter |
| (3) Exhaust | (12) Spark plug |
| (4) Fuel tank cap | (13) Start/stop switch |
| (5) Gearbox | (14) Throttle |
| (6) Handle grips | (15) Tines |
| (7) Handlebars | (16) Wheel assembly adjusters |
| (8) Handlebar struts | (17) Wheels |
| (9) Mudguard | |

6.2 What's in the Box?

Carefully remove the product from the packaging and examine it for any signs of damage that may have occurred during shipment.

Before assembling the product, lay the contents out and check them against the parts shown below. If any part is damaged or missing, do not attempt to use the product. Please contact the Draper Helpline; contact details can be found at the back of this manual.



- (A) 1 x Main assembly including handlebars
- (B) 1 x Wheel assembly
- (C) 2 x M5 x 45mm carriage bolts
- (D) 2 x M5 x 20mm carriage bolts*
- (E) 2 x M5 washers*
- (F) 4 x M5 locking nuts*
- (G) 1 x Fuel mixing bottle
- (H) 1 x Spanner driver
 - (H1) 1 x M12 box spanner
 - (H2) 1 x M10 box spanner
 - (H3) 1 x Cross head screwdriver

- (I) 1 x Plain slot screwdriver
- (J) 1 x Spanner
 - (J1) 1 x M6 spanner
 - (J2) 1 x M5 spanner
- (K) 1 x 5mm Hex key
- (L) 1 x 4mm Hex key
- (M) 2 x Cable ties

*Two of each of these parts are fitted to the wheel assembly before shipment

6.3 Packaging

Keep the product packaging for the duration of the warranty period for reference should the product need to be returned for repair.



WARNING! Keep packaging materials out of reach of children. Dispose of packaging correctly and responsibly and in accordance with local regulations.

Please visit drapertools.com for our full range of accessories and consumables.

7. Preparing the Tiller

Important: Before attempting to assemble or use this product, read and understand all the safety instructions listed in this manual.

7.1 Assembly

1. Attach the wheel assembly:
 - a. Remove the two M5 x 20mm carriage bolts (D), M5 washers (E) and M5 locking nuts (F) from the wheel assembly (B).
 - b. Place the wheel assembly bracket beneath the raised part of the mudguard (9) so that the openings align.

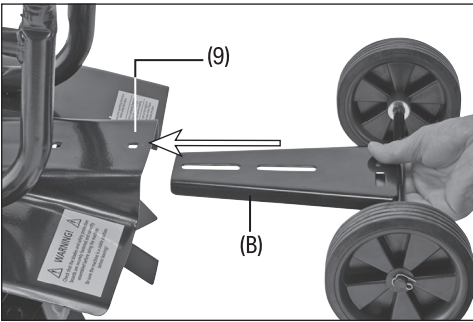


Fig. 1

- c. Pass the two M5 x 20mm carriage bolts up through the base of the wheel assembly bracket and through the holes in the mudguard.
Important: Ensure that the square necks of the bolts sit comfortably within the openings of both parts.

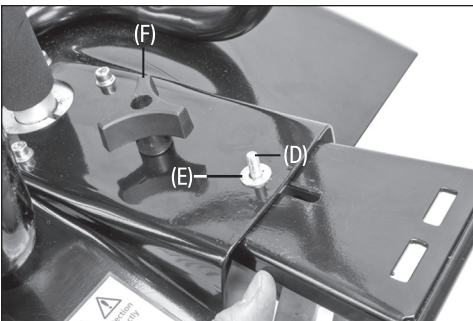


Fig. 2

- d. Secure each bolt in place with an M5 washer and locking nut.

2. Attach the handlebars:
 - a. Slide the handlebars (7) between the handlebar struts (8) so that the handle grips (6) are angled downwards.

The handlebars can be set at two different positions as required.

Important: Ensure that the power cable passes around the outside of the handlebars and does not get tangled with the main assembly.

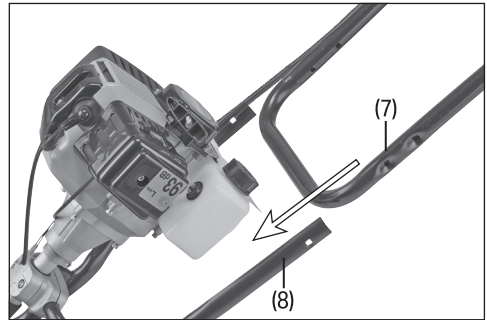


Fig. 3

- b. Pass the two M5 x 45mm carriage bolts (C) inwards through the handlebar struts and the handlebars and secure them tightly on the inside using the remaining locking nuts.

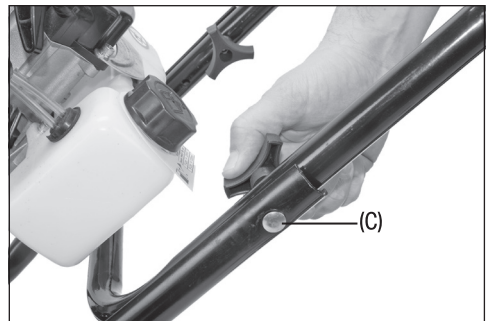


Fig. 4

- c. Use the cable ties (M) to strap the power cable to the handlebar so that it is held securely and away from any parts that may rotate or grow hot.

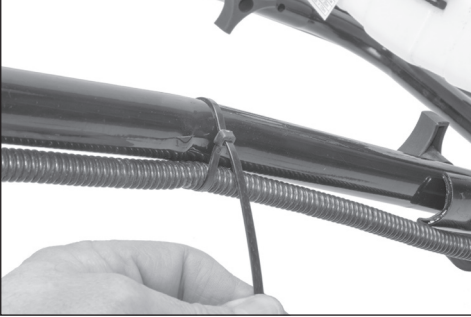


Fig. 5

7.2 Filling and Checking the Gearbox Oil



CAUTION! Oil is NOT supplied with this machine; the gearbox is EMPTY when shipped. DO NOT attempt to start the machine without first adding gearbox oil.

To drain, check or top up the gearbox oil, see **10.2 Replacing the Gearbox Oil.**

7.3 Checking the Air Filter

To ensure consistent airflow to the carburettor, check that the air filter is clean and free from obstructions before **EVERY** use and clean the filter element if necessary. Dirty or clogged filters may increase fuel consumption and cause issues during starting.

To access and clean the filter element, see **10.4 Air Filter Care.**

7.4 Adjusting the Handlebar Height

Important: ONLY adjust the handlebars while on firm, level ground.

The handlebars can be positioned at two different heights. To adjust the position of the handlebars:

1. Remove the locking nuts (F) and M5 x 45mm carriage bolts (C) that secure them to the handlebar struts (8).
2. Reposition the handlebars so that the required hole aligns with the openings in the struts.
3. Insert the bolts and secure them tightly with the locking nuts.

7.5 Adjusting the Tilling Depth

To adjust the tilling depth, loosen the locking nuts on the wheel assembly and adjust the position of the bracket. Increasing the extension of the wheel bracket decreases the depth that the tines dig into the soil.

8.1 Adding Fuel to the Tiller

Important: Read all the Health and Safety guidance for use of petrol as a fuel before filling or using this product.

ALWAYS use automotive petrol. Draper Tools recommends E10 (95 RON) automotive fuel, with an appropriate additive or stabiliser, for use with this product.

CAUTION! E10 petrol is hygroscopic and attracts moisture, which may damage the fuel system if stored in the product for more than four weeks. See 8.2 Using E10 Fuels for guidance.

CAUTION! This machine is supplied **WITHOUT** fuel. Check the fuel level before **EVERY** use and top up as appropriate. **NEVER** attempt to run the engine on an empty fuel tank.

The engine on this machine requires a mixture of petrol and oil to run. The mixture must contain the following components and quantities:

Component	Quantity	Notes
Petrol	25 parts.	Only use fresh, clean and good-quality unleaded automotive petrol.
Oil	1 part.	Only use high-quality two-stroke synthetic oil. DO NOT use any other type of oil, including engine oil, as this will permanently damage the engine.

WARNING! ALWAYS mix fuel in a well-ventilated area away from sources of ignition. Store fuel only for short periods and in containers designed for that purpose, away from direct sunlight and heat sources. Avoid prolonged contact with the skin and inhalation of petrol vapour.

To fuel the machine:

1. Fill the supplied fuel mixing bottle (G) to the 25:1 (576.92) level mark with petrol

2. Add two-stroke oil to the mixing bottle up to the 600 level mark.

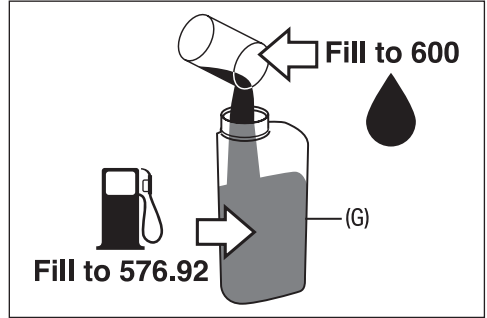


Fig. 6

3. Replace the bottle cap and gently shake the mixture.
4. Twist the fuel tank cap (4) anticlockwise to remove it.
5. Using a funnel (not supplied), pour the fuel mixture into the fuel tank so that the level is just below the filler neck. The fuel tank should accommodate two 600ml mixtures from the fuel mixing bottle.

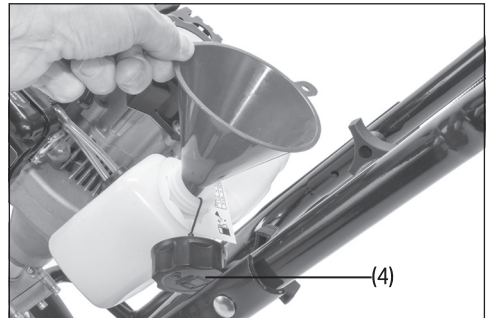


Fig. 7

CAUTION! DO NOT overfill the fuel tank as this may damage the engine. NEVER allow dust, dirt, water or dirty fuel to enter the fuel tank. Clean up any spillages IMMEDIATELY.

6. Reattach the fuel cap, ensuring it is properly fitted and securely tightened.

A 25:1 ratio can alternatively be considered as adding 40ml of oil to 1L of fuel.

8.2 Using E10 Petrol

All Draper petrol products are compatible with E10 petrol. However, due to the increased ethanol level, E10 petrol is hygroscopic: this means that it attracts and mixes with water from the air, which accumulates in the engine and the petrol deteriorates more quickly. If E10 petrol is stored in a machine's fuel tank for extended periods, this build-up of water can form a corrosive gum that rusts the fuel system from the inside.

Draper Tools recommends the use of petrol additives or stabilisers when using E10 petrol. Additives and stabilisers are widely available and can extend the length of time that E10 petrol can be safely stored in a product fuel tank.

The impact of each additive or stabiliser on the lifespan of the fuel varies with each product and will deteriorate over time – always read the label. E10 petrol should not remain in the fuel tank for more than four weeks without an additive or stabiliser.

Even where additives or stabilisers are used, Draper Tools recommends that E10 fuel is drained from the fuel tank every three to four weeks to reduce the risk of damage to the product. The fuel must be drained from the fuel tank within the time limit specified by any additives or stabilisers added to the fuel. If the machine will not be used for longer than this time, drain it before putting it into storage.

After draining the fuel tank, always run the engine until the last of the fuel in the system is spent and drain the float bowl when the engine is cool.

E10 petrol should be used within 30 days of purchase.

Some petrol brands contain other quantities of ethanol. Do not use fuels with more than 10% ethanol in Draper products.

Always store and dispose of fuels responsibly and in accordance with local regulations.

Important: Before use, read and understand all the safety instructions listed in this manual. Ensure that all fixtures are securely fastened and that the machine is correctly prepared for use.

CAUTION! This machine is **NOT** shipped with fuel or gearbox oil. **DO NOT** attempt to start the engine until fuel and gearbox oil have been added correctly.

9.1 Preparing the Route

Important: Thoroughly plan and inspect the route before operation.

- Remove **all** loose objects that might be thrown into the air by the rotating blades.
- Ensure that no hidden obstructions are present.
- Mark the location of any known obstructions and ensure that you adjust your route accordingly to avoid them.

Failure to identify and avoid obstructions or potential projectiles may result in injury or damage to the machine or other property.

9.2 Starting the Engine

Important: **DO NOT** start the engine until the machine is in its starting location. **NEVER** transport the tiller with the engine running if the tines are not in the ground.

CAUTION! **DO NOT** attempt to start the engine until you have added engine oil to the machine.

WARNING! In order to prevent uncontrolled movement of the tiller during start up, **ALWAYS** ensure that the throttle is not pressed while starting the engine.

Cold Starting

To start the engine when it has completely cooled since last use:

1. Ensure that the throttle (14) is fully released and unobstructed.

2. Slide the start/stop switch (13) to the START position.

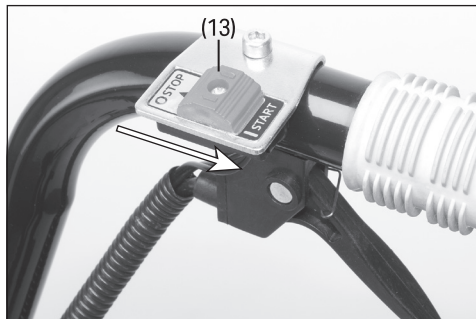


Fig. 8

3. Slide the choke lever (2) towards the OFF position.

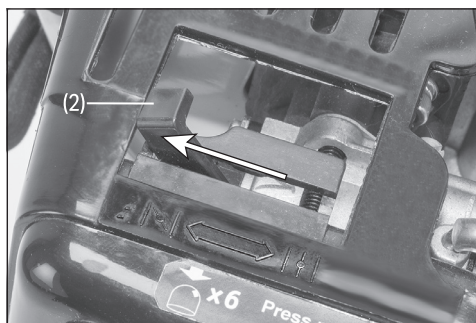


Fig. 9

4. Press the priming bulb (10) six to eight times until fuel can be seen flowing through the clear hose from the fuel tank into the carburettor.

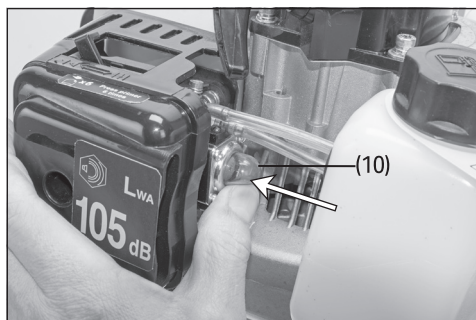


Fig. 10

5. Holding the machine steady, gently pull on the recoil starter (11) until resistance is felt, then pull it out rapidly.



CAUTION! DO NOT attempt to start the engine when the recoil starter is fully retracted. DO NOT allow the recoil starter to snap back against the engine. Return it gently to prevent damage to the starter.

6. Do this several times until the engine starts.
7. Allow the engine to run for at least five seconds, then move the choke lever halfway back towards the ON position.
8. Allow the engine to run for another five seconds, then move the choke lever fully to the ON position.
Important: A strong smell of fuel from the engine may indicate that the engine has flooded. When this occurs, move the start/stop switch to the OFF position and wait a few minutes before attempting a warm start.
9. Allow the engine to warm up for a few minutes, then squeeze the throttle to rotate the tines and begin tilling.

Warm Starting

When starting the engine warm, there is no need to prime the engine. The choke lever should be left in the ON position.

To start the engine after recent use when the engine is still warm:

1. Holding the machine steady, gently pull on the recoil starter (11) until resistance is felt, then pull it out rapidly.



CAUTION! DO NOT attempt to start the engine when the recoil starter is fully retracted. DO NOT allow the recoil starter to snap back against the engine. Return it gently to prevent damage to the starter.

2. Do this several times until the engine starts.
Important: If the engine does not start, attempt a cold start.
3. Allow the engine to warm up for a few minutes, then squeeze the throttle to rotate the tines and begin tilling.

9.3 Operating the Throttle

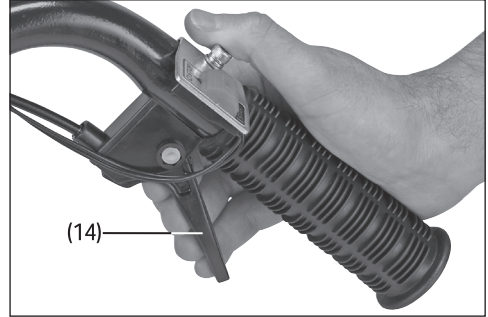


Fig. 11

The throttle (14) controls the rotation speed of the tines:

- Squeeze the throttle to engage the clutch and make the tines rotate.
 - The speed of the tines can be controlled by varying the pressure applied to the throttle.
- Releasing the throttle causes the tines to stop.

Important: Disengaging the throttle **DOES NOT** stop the engine, only the tine blades.

9.4 Stopping the Tiller

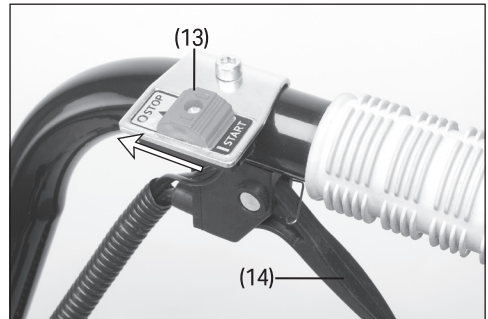


Fig. 12

To stop the machine, release the throttle (14) and move the start/stop switch (13) to the **STOP** position.

Important: **ALWAYS** allow the engine to cool before attempting to make any adjustments to the machine.

9.5 Tips for Using the Tiller

- This tiller is most effective when used on pre-dug earth.
- Ensure that the handlebars are in a comfortable position for use and adjust the height accordingly (see **7.4 Adjusting the Handlebar Height**).
- When starting the tines, tip the machine backwards slightly so that the tines are clear of the ground before squeezing the trigger, then lower the tines into the soil as they are rotating.
- Begin with a slower rotation speed and gradually increase pressure on the throttle.
- Work at a moderate pace until you become familiar with the handling and controls of the machine.
- Keep a firm grip on the tiller and maintain good balance at all times during operation and transportation.
- Handlebar manipulations may help if the movement of the machine is inconsistent:
 - If the tiller jerks forward during use, press downwards on the handlebars to increase the purchase with the soil.
 - If the tiller will not move forward during use, wiggle the handlebars from side to side to loosen the tines from the earth.
- Lower the handlebars slightly before making a turn; this lowers the centre of gravity and allows greater control.
- Stop and switch off the machine immediately if the tines become clogged with earth or stones, and clean the blades carefully while wearing heavy-duty gloves.

Important: Maintenance and repairs should be carried out **ONLY** by authorised and suitably qualified personnel.

! **WARNING!** ALWAYS turn off the engine and allow it to cool before maintaining or storing this product. If the engine must be run for testing, ensure that this is carried out in a well-ventilated environment that allows carbon monoxide from the exhaust to dissipate quickly.

10.1 General Maintenance

- Keep all air vents clean and free from obstructions at all times.
- Clean the tines after use and before storing the machine.
- Clean the machine with a damp cloth **ONLY**. **Important:** **DO NOT** use solvents as this may damage the plastic parts of the machine.
- Use **ONLY** spare parts supplied by Draper Tools.

10.2 Replacing the Gearbox Oil

- The gearbox oil should be changed after every 60 hours of use. Ensure that the gearbox is clean and free from excessive grease before filling.

! **CAUTION!** Ensure that the fuel tank is **EMPTY** before draining or filling the gearbox. If fuel is present in the tank, it may leak into other parts of the engine when the machine is tipped.

1. Remove the split pin (18) and locking pin (19) that secure the left tines in place (when viewed from the front).

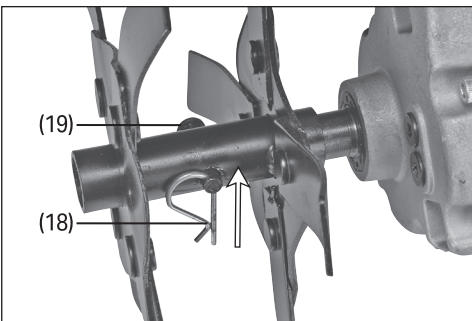


Fig. 13

2. Slide the left tines off the axle and stand the tiller in an upright position.

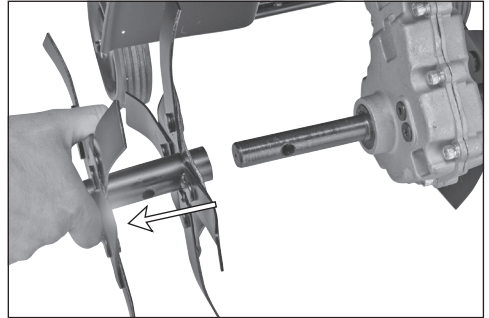


Fig. 14

Important: Support the tiller appropriately if it will not stand upright on its own.

3. To drain the gearbox of any existing oil:

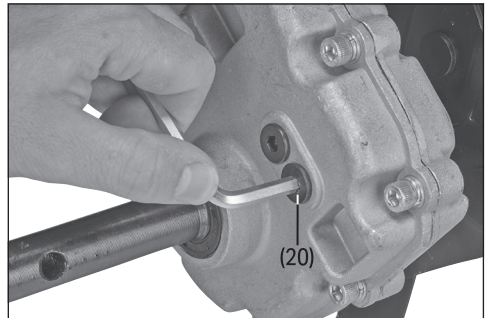


Fig. 15

- a. Use the 5mm hex key (K) to remove the oil drain bolt (20).
- b. Allow the oil contents to drain into a suitable container.
- c. Replace and firmly tighten the oil drain bolt.

4. To top up the gearbox oil level:

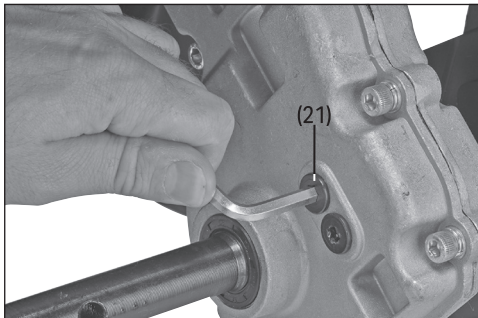


Fig. 16

- Use the 5mm hex key to remove the oil filler bolt (21).
 - Use a funnel (not supplied) to pour SAE 75W-85 oil into the gearbox until excess oil begins to leak out.
 - Replace and firmly tighten the oil filler bolt.
5. Slide the tines back onto the axle and secure them in place with the locking pin and split pin.

10.3 Draining the Fuel

Important: Read all the Health and Safety guidance for the use of petrol as a fuel before filling or draining this product.

- Ensure that the start/stop switch (13) is in the OFF position and remove the fuel tank cap (4).
- Lower the handlebars towards the ground and tip the fuel into a suitable container.
You may wish to remove the locking nut and bolt from the left handlebar before tilting the machine.
- Reattach the fuel tank cap securely and wipe up any spillages.
- Start the engine (see **9.2 Starting the Engine**).
- Allow the engine to run until it cuts out; this exhausts any fuel remaining in the carburettor.

10.4 Air Filter Care

Clean the air filter chamber and element regularly to ensure consistent airflow into the carburettor. Increase the frequency of cleaning when working in dusty environments.

WARNING! NEVER use petrol or solvents to clean the air filter elements as this may result in a fire when the machine is next used.

CAUTION! NEVER run the machine without the air filter elements in place as this may cause the engine to degrade rapidly.

- Ensure that the choke lever (2) is in the OFF position to prevent any debris from entering the carburettor.
- Use the 4mm hex key (L) to loosen and remove the air filter cover (1).

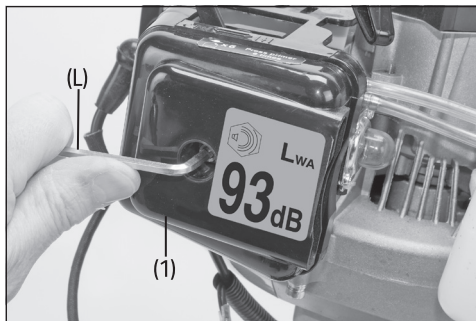


Fig. 17

- Detach the filter guard (22).

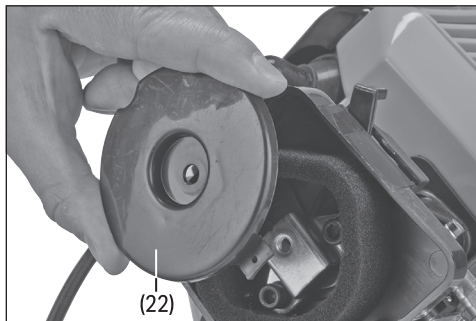


Fig. 18

- Remove the foam element and check it for holes, tears and obstructions.
Important: If the foam element is damaged, replace it with a new one. **DO NOT** use the machine if the air filter is damaged.
- Wash the element in warm soapy water and allow it to dry thoroughly.
Important: **DO NOT** use solvents to clean the element.

6. Clean the compartment and covers of any dust, dirt or other obstructions.
7. Reassemble the air filter and secure the cover back in place, ensuring that the choke lever (2) protrudes unobstructed through the opening in the air filter cover.

10.5 Spark Plug Care

Ensure that the spark plug is clean and correctly gapped. The spark plug may become contaminated over time if the machine is run with part throttle for prolonged periods or the fuel mixture contains too much oil.

Important: Replace the spark plug after every 50 hours of use or at least once a year. **ONLY** use **L7T** coded spark plugs.

1. Remove the rubber cap from the spark plug.
Important: **DO NOT** use tools to remove the cap as it may damage the HT lead.

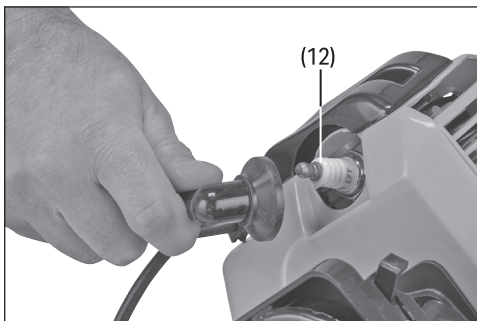


Fig. 19

2. Use the M12 box spanner (H1) to loosen and remove the spark plug from the socket.

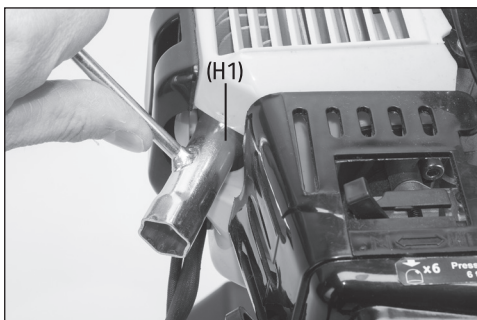


Fig. 20

3. Visually inspect the spark plug and replace it if the ceramic insulator is cracked or chipped.
4. Measure the spark plug gap using a feeler gauge (not supplied) and correct as appropriate by gently bending the electrode into position.
Important: The gap should be **0.6–0.7mm**.
5. Attach the spark plug washer and thread the plug into place by hand.
Important: If mounting a new spark plug, use the spark plug wrench to screw the spark plug an additional half rotation after hand-tightening to the point that the washer is compressed. If mounting an old spark plug, screw no more than up to an additional quarter rotation as appropriate.
6. Replace the spark plug cap.

CAUTION! The spark plug **MUST** be securely tightened. Loose spark plugs can become very hot and cause damage to the engine. **NEVER** use a spark plug with a heat range that is not appropriate for the machine in which it is used.

10.6 Transporting the Tiller

Important: When transporting the tiller, ensure that the start/stop switch (13) is in the **STOP** position.

To transport the tiller, extend the wheel bracket fully (see **7.5 Adjusting the Tilling Depth**), tip the tiller backwards so that the tines are clear of the ground and wheel the machine to the required location.

10.7 Storing the Tiller

Important: ALWAYS ensure that the engine has completely cooled before storing the machine.

- Prepare the tiller correctly for storage:
 - Ensure that the start/stop switch is in the **STOP** position.
 - Drain the fuel (see **10.3 Draining the Fuel**).
 - Clean and dry the tines to prevent corrosion.
 - Cover the machine with a plastic sheet to protect it against dust and moisture.
- Store the tiller in a dry and dust-free environment, out of reach of children.
- Store the tiller in an upright position if possible.
Important: The tiller is not freestanding in an upright position; ensure it is stable and secure when positioned upright.
- Start the engine and rotate the tine blades at periodic intervals to prevent seizure within the engine and driveshaft.

If the tiller is to be stored for a prolonged period, ensure that the engine cylinder is sufficiently lubricated to prevent it from seizing:

1. Remove the spark plug (see **10.5 Spark Plug Care**).
2. Pour a few drops of **SAE 5W-30** oil into the socket.
3. Pull the recoil starter (11) slowly to distribute the oil.
4. Return the spark plug securely to the socket.
5. When restarting after storage:
 - a. Remove the spark plug.
 - b. Hold a cloth around the spark plug socket opening.
Important: DO NOT smother or completely cover the opening.
 - c. Pull on the recoil starter several times and catch any ejected oil using the cloth.
Do this until no more oil is ejected from the opening.
 - d. Return the spark plug securely to the socket
 - e. Start the engine in the usual way (see **9.2 Starting the Engine**).

10.8 Troubleshooting

Problem	Possible Cause	Remedy
The engine will not start.	The fuel level is too low.	Check and top up the fuel tank (see 8).
	The fuel is mixed incorrectly.	Drain the fuel (see 10.3), remix the fuel and refill correctly.
	The start/stop switch is in the STOP position.	Move the start/stop switch to the START position and squeeze the throttle when safe to do so.
	The carburettor is blocked.	Clean or replace the air filter. Contact Draper Tools for repair and replacement options if the issue is still not resolved.
	There is no spark from the spark plug.	Remove and clean or replace the spark plug (see 10.5).
The engine stutters after starting.	The choke lever is set to the OFF (closed) position.	Move the choke lever to the ON position and retry.
The throttle is not working.	The engine speed is too low.	Squeeze the throttle further to increase the engine speed.
	The cable is too long.	Replace the faulty part. Contact Draper Tools for replacement options.
	The spring has failed.	
There is unusual noise from the gears.	The bearing inside the gearbox has failed.	
	A bearing inside the gearbox is loose.	Replace the faulty part. Contact Draper Tools for replacement options.
	The driveshaft has deformed.	
The machine is leaking oil.	The gears are worn or damaged.	
	An O-ring seal is damaged or failing.	Replace the faulty part. Contact Draper Tools for replacement options.
	There are loose bolts in the engine.	Tighten all bolts and fixings.

11. Spares, Returns and Disposal

For spare parts, servicing, and repair and replacement options, please contact the Draper Tools Product Helpline for details of your nearest authorised agent.

Draper Tools will endeavour to hold any spare parts, if applicable, for seven years from the date that it sells the final matching stock item.

Any servicing or repairs carried out by unauthorised personnel or installation of spare parts not supplied by Draper Tools will invalidate your warranty.

Important: For safety, **ALWAYS** drain and clean the product of any oil, fuel, chemicals or other substances before returning it to Draper Tools or its authorised agent. Store these materials in suitable containers and dispose of them in accordance with local regulations. Draper Tools and its agents cannot be responsible for the disposal of these substances.

At the end of its working life, dispose of the product responsibly and in line with local regulations. Recycle where possible.

- **DO NOT** dispose of this product with domestic waste; most local authorities provide appropriate recycling facilities.
- **DO NOT** burn or incinerate this product; this may release toxic or corrosive substances.
- Dispose of oil separately and in accordance with local regulations; **DO NOT** abandon it in the environment.



12. Explanation of Symbols



Read the instruction manual



Fuel tank capacity



Warning!



Engine size



Do not incinerate or throw onto fire



Rated power



Keep away from fire and open ignition sources; do not smoke nearby



Tine diameter



Do not abandon in the environment



Tilling width



Wear suitable protective clothing and protective gloves



Tilling depth



Wear protective boots



Continuous A-weighted sound power level



Wear suitable eye protection



Machine weight



Keep bystanders away



WEEE -

Waste Electrical & Electronic Equipment
Do not dispose of this product with domestic waste



Sharp rotating blades; keep feet away



UK Conformity Assessed



Hot surfaces



European conformity



Petrol and oil mixture required

Contact Details

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