

# The **Handy**



## **OPERATOR'S MANUAL AND PARTS LIST PETROL TILLER - THTILL3.5**

Spares & Support: 01793 333212

[www.thehandy.co.uk](http://www.thehandy.co.uk)

**Before use please read & understand this manual, paying particular attention to the safety instructions.**

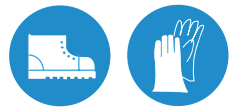
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# SAFETY INSTRUCTIONS



- **Read and understand the owner's manual and labels affixed to the petrol tiller. Learn its application and limitations as well as the specific potential hazards. Retain these instructions for reference.**
- Check your tiller before use. Keep guards in place and in working order. You should only work with a machine that is in good condition. If you notice any defect on the machine that may cause damage to the operator, do **NOT** operate until faults have been rectified. Replace worn or damaged parts using only original spare parts.
- Do **NOT** operate the tiller whilst under the influence of drugs, alcohol or any medication that could affect your ability to use the apparatus correctly.



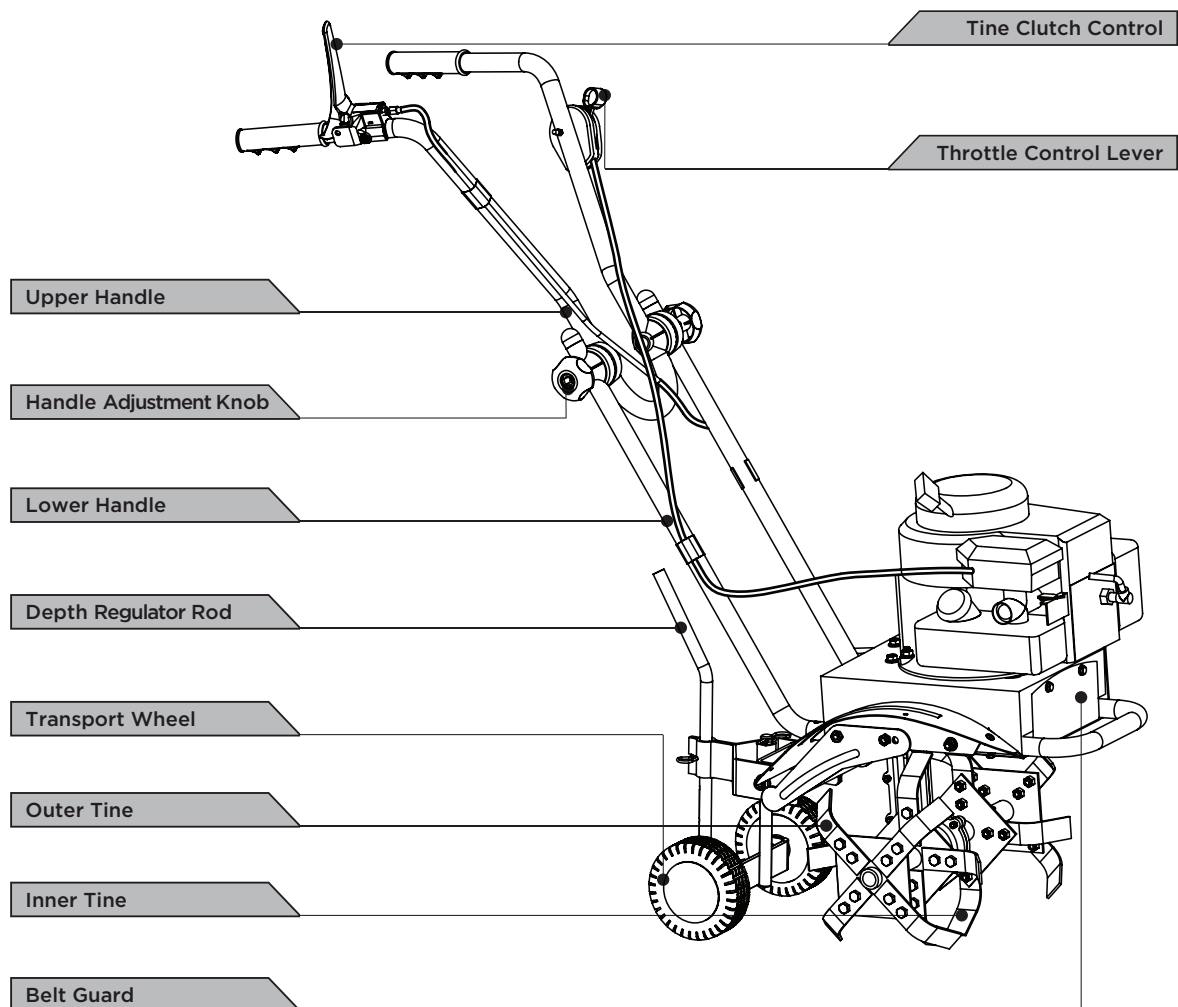
- Dress appropriately – do **NOT** wear loose clothing, ties, jewellery or anything that could be caught in the moving tines. Use of gloves and strong footwear is recommended.
- Only work in daylight or sufficiently good artificial light.

- Keep children and pets at least 23 metres away from the tiller at all times and do **NOT** operate near underground electric cables, telephone lines, pipes or hoses.



- Wear eye protection and a face or dust mask if working in dusty conditions.
- Do **NOT** operate on slopes of more than 10 degrees. When on slopes, slow down and make sure you have a good footing.
- Never operate the machine with one hand and be aware that, if the tines hit stones, frozen ground or buried roots and stumps, then it may unexpectedly bounce upward and jump forward.
- If the tines hit a large stone, stump or other obstacle immediately turn off the tiller and check for any damage to the tines. If the machine starts to vibrate abnormally switch off the motor immediately and check for the cause.
- Always switch off the machine, wait for the tines to stop turning and disconnect the spark plug before carrying out any inspection or maintenance. **The tines may not stop immediately after switching off.**

# MAJOR PARTS



**Throttle Control** - Controls the engine speed and stops the engine.

**Tine Clutch Control** - Push down to engage the tines forward. Releasing returns the machine to neutral.

**Transport Wheels** - Set the wheels down and the depth regulator rod will curve up when transporting the tiller. Tilt the machine back until the tines clear the ground. Push or pull the unit to the next location.

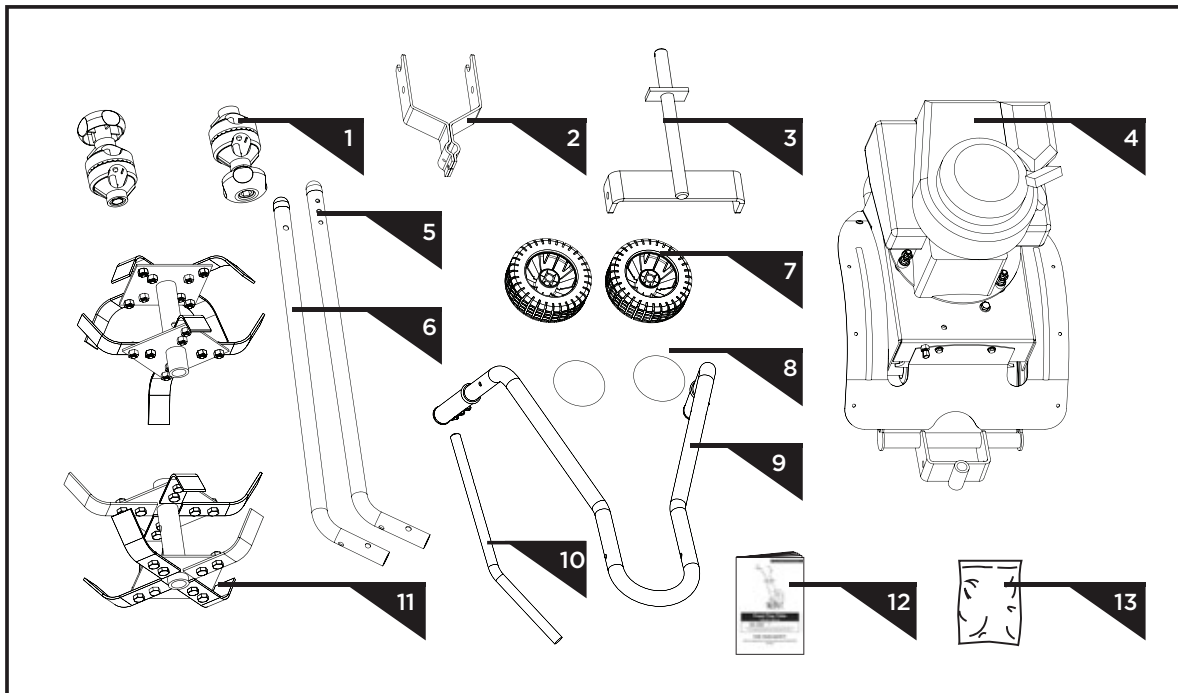
**Handle Adjustment Knobs** - Provides different handle heights for different tilling conditions. Loosen both handle adjustment knobs and pivot hand to desired height. Tighten knobs.

**Depth Regulator Rod** - Lowering the depth regulator rod will slow the tiller and make it till deeper. Raising the rod will allow it to move faster and till shallower.

**Do not adjust the tilling depth unless the clutch lever is in the neutral position.**

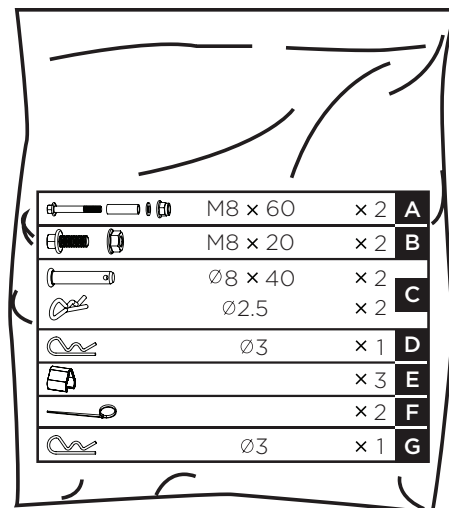
# MAJOR PARTS

The tiller is supplied partly assembled. All parts included in the carton are shown below.



1	Handle Adjustment Knobs (1 pair)
2	Stop-Move Staff Bracket
3	Wheel Support Bracket
4	Chassis with Engine & Transmission
5	Lower Handle - Left
6	Lower Handle - Right
7	Wheel (1 pair)
8	Wheel Cover (1 pair)
9	Upper Handle
10	Depth Bar
11	Tilling Tine (1 pair)
12	Operator's Manual

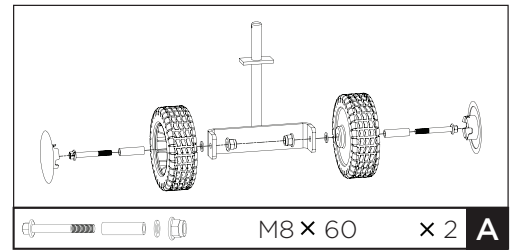
13. Hardware Bag, including:



# ASSEMBLY

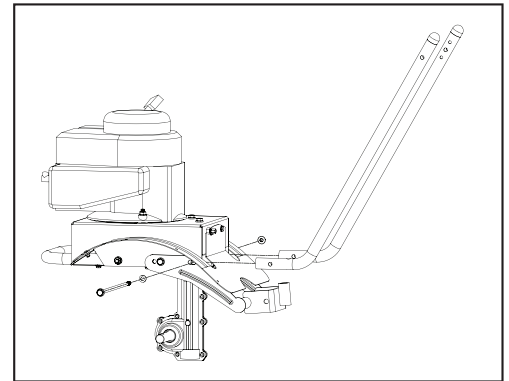
## A. Wheels:

- Slide the tube sleeves into the wheels.
- Mount the wheels on both sides of the bracket with M8 flange screws, washers and flange nuts.
- Attach the wheel covers.



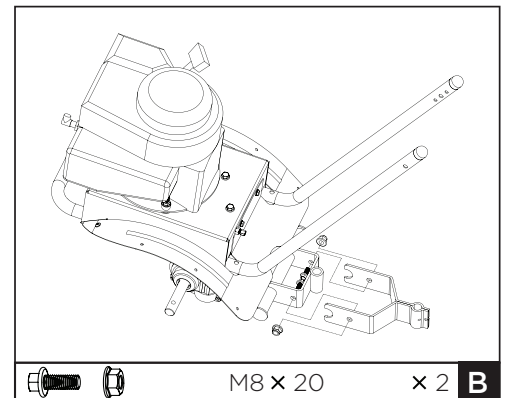
## Lower Handles:

- Remove the M8x250 screw, flat washer and locknut from the rear end of the tiller chassis.
- Mounting holes for the adjustment knob are arranged in the top portion of each lower handle. Make sure the 3-hole side of the handle is facing inward.
- Insert the bottom portions of the lower handles into the mounting channels located in the underside of each side of the tiller chassis.
- Mount the flat washer on the M8x250 screw. Line up the holes in the bracket, handles and tiller chassis.
- Slide the screw through the holes from one side and secure with a locknut on the other side. Tighten.



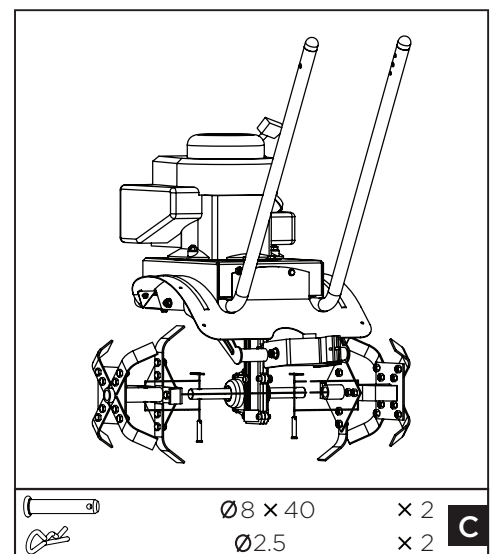
## B. Tailpiece and Depth Rod Brackets:

- Mount the depth regulator rod bracket on the tailpiece bracket with two M8x20 flange screws and flange nuts.



## C. Tilling Tines:

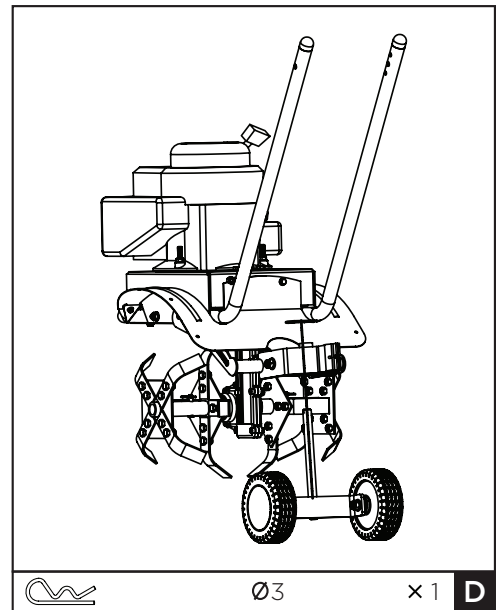
- Place tilling tines on the tine shaft on both sides of the gearbox.
- Line up the holes in the tine frame sleeves and tine shaft.
- Insert Ø8x40 clevis pins through the holes in the tine frames and tine shaft.
- Insert Ø2.5 cotter pins through the holes in the clevis pins to secure them.



# ASSEMBLY cont'd

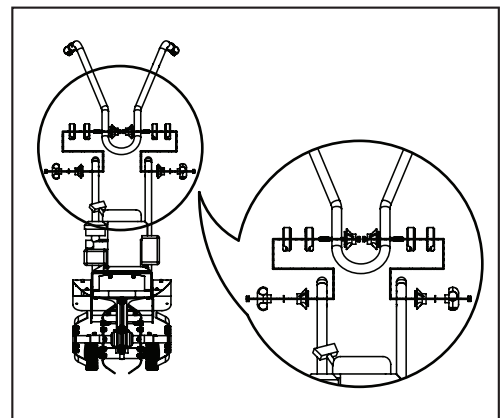
## D. Wheels Bracket:

- Insert the wheels support rod into the holes on the tailpiece bracket.
- Insert a  $\text{Ø}3$  cotter pin through the hole in the support rod to secure it.



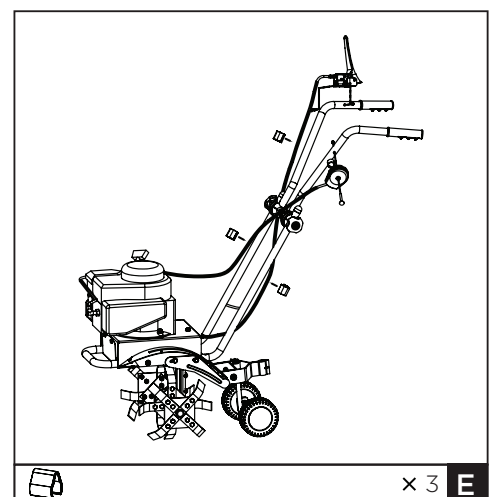
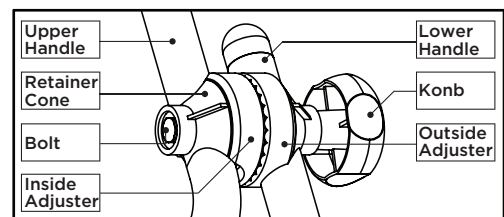
## Upper Handle:

- Disassemble the handle adjustment knobs.
- Mount the upper handle on the lower handles with the handle adjustment knobs.



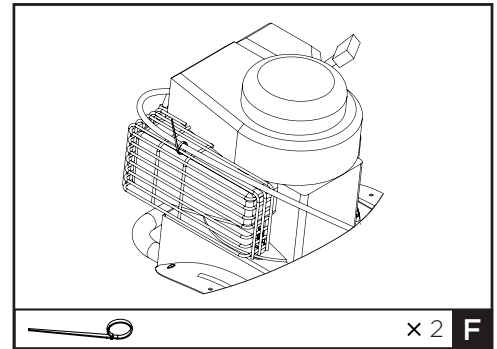
## E. Throttle & Clutch Controls:

- Unwind the throttle control and clutch control from around the engine.
- Straighten the cables taking care not to bend or kink them.
- Remove the M6x60 carriage bolt and nut from the throttle control assembly.
- Mount the throttle control on the left side of the upper handle with the hardware removed, ensuring that the control is mounted outside the handle.
- Remove the M6x40 socket screw and nut from the clutch control lever assembly.
- Mount the clutch control lever on the right hand side of the upper handle with the hardware removed, ensuring that the lever is mounted on the top.
- Use two cable clips to secure the cables. Attach the clutch control cable to the upper handle with another cable clip.



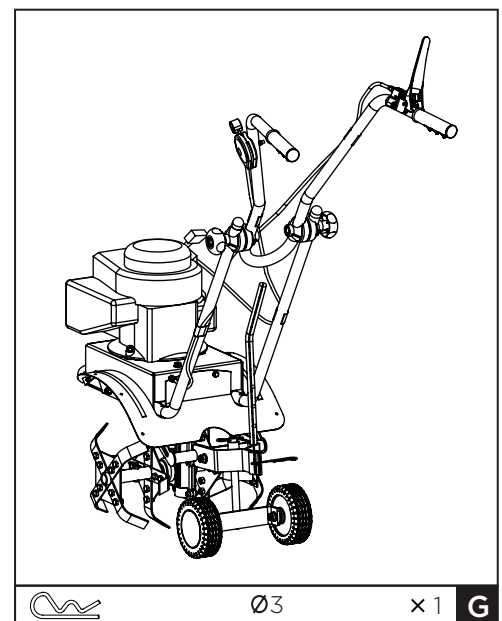
## ASSEMBLY cont'd

- Secure the throttle cable on the engine shield with a cable fastener. This will help prevent it from catching or snagging during normal operation.
- Keep the other cable fastener as a spare.



### G. Depth Regulator Rod:

- Insert the depth regulator rod through the holes in the bracket from the top down with the curve to the rear of the unit and secure with a  $\text{\O}3$  cotter pin through the holes in the bracket, passing through the desired hole in the depth regulator rod.





# OPERATION

## Starting the Engine:

### The tiller is supplied without fuel or oil.

- Fill the engine to the correct level with good quality SAE 30 engine oil.
- Fill the fuel tank with unleaded petrol, in accordance with the engine manual which is enclosed with the tiller. Take care to wipe up any spillages with a cloth.
- Press the primer bulb 3 times to allow fuel into the engine (for the first use, press 5 times).
- Set the throttle lever to "FAST".
- Hold the start handle firmly and pull rope out a short distance until you feel some resistance. Then pull the rope briskly and smoothly to start the engine. Allow the rope to return gently. If necessary, pull the rope several times until the engine starts.
- Allow the machine to idle for a short period before commencing work.
- Manoeuvre the machine to the working area, remove the transport wheels and set the depth rod to the required setting.
- Holding the handles firmly, gently squeeze the clutch lever to engage the tines and move forward.

## Idle Speed:

Set the throttle control lever to the "SLOW" position to reduce stress on the engine when not tilling. Lowering the engine speed will extend the life of the engine and conserve fuel.

## Shutting Down:

- Set the clutch control lever to the neutral position to stop the tines.
- Set the throttle control lever to the "STOP" position to stop the engine.

## Operating Speed:

- For normal tilling, set the throttle control lever to "FAST". If the soil is particularly hard it may be necessary to change the speed to "SLOW" to allow the tines to dig down into the hard soil.
- Putting pressure on the handles will encourage the tines to dig deeper, whereas releasing the pressure will allow for shallower digging.
- The best tilling depth is 100-150mm (4-6"). For cultivating around existing plants to loosen the soil, set the depth rod to 50mm (2") or less.

## Tips:

- Avoid tilling soil that is too dry as it will be pulverised and produce dust that will not hold water.
- In some soils it may be necessary to pass the tiller over two or three times. In which case, lower the depth rod a little further each time, and if possible cultivate across the length and width of the garden alternately.
- If the tiller stops in one place, rock the handles from side to side to start it moving again.

# MAINTENANCE

Keeping your tiller in top running condition will prolong its life and help you obtain optimum performance whenever you wish to till your garden.

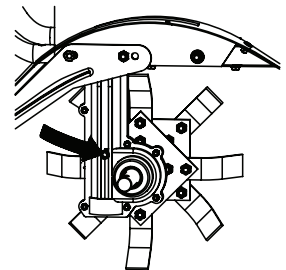
Clean the tiller underneath the tine shield after each use. It is easier to clean off immediately after use before it has had time to dry.

- Turn off the engine and allow to cool down.
- Keep the throttle position in the “STOP” position and remove the spark plug.
- Remove all vegetation, string and other debris which has accumulated around the axle and tines.
- Wipe off the tiller afterwards and apply a light coat of oil or silicone to prevent rusting or water damage.
- Replace the spark plug.

**Never use a pressure washer to clean the tiller as water can penetrate the tiller and cause damage to the transmission and engine.**

At least once a season remove the tines and lubricate the shafts. The worm gear housing is pre-lubricated and sealed at the factory. At the beginning of the season ensure that there is sufficient lubricant inside the worm gear housing.

- Ensure the transmission is cool before filling with grease.
- Remove right side tines and place tiller on level surface.
- Remove the grease fitting screw and fill the worm gear housing until grease begins to come out. Do **not** overfill.
- Refit the grease fitting screw.



If the machine is not being used for at least six weeks:

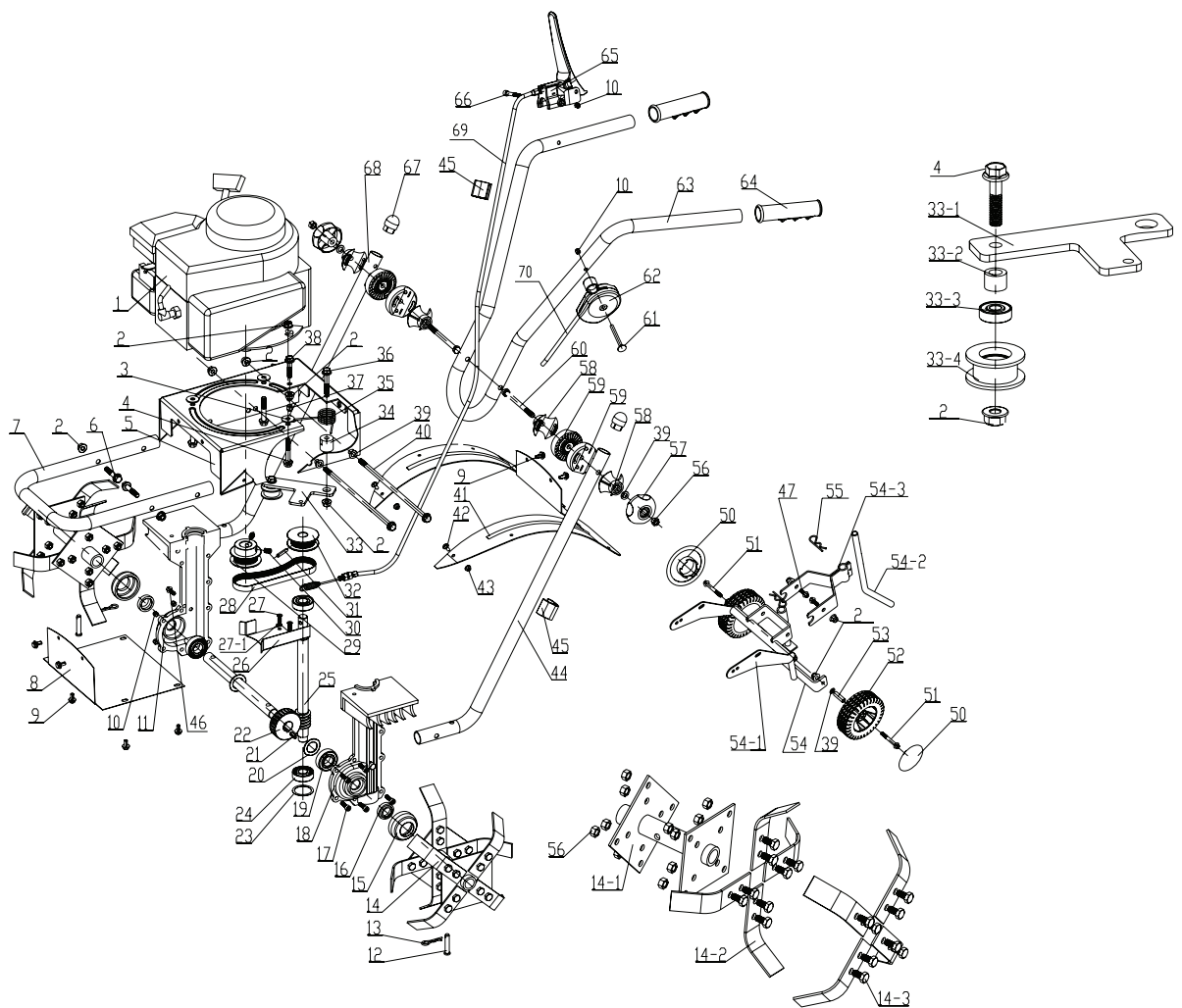
- Drain the fuel tank completely of petrol by allowing the engine to run until it stops.
- Allow the engine to cool, remove the spark plug and put a few drops of high quality motor oil into the cylinder. Pull the starter rope a few times to distribute the oil. Replace the spark plug.
- Clean off the outside of the tiller to keep the vents free of dust.
- Inspect the tiller for any loose or damaged parts. Repair or replace and tighten any loose screws, nuts or bolts.
- To store with the handles folded down, loosen the knobs that secure the upper and lower handles. Fold the upper handle down being careful not to crimp any of the control cables. Tighten the knobs.

**Do not store the tiller with fuel in a non-ventilated area where fuel fumes may reach flames, sparks or any other ignition sources.**

# TROUBLE SHOOTING

<b>Problem</b>	<b>Cause</b>	<b>Remedy</b>
Engine fails to start	<ul style="list-style-type: none"> <li>• Spark plug wire disconnected</li> <li>• Out of fuel or stale fuel</li> <li>• Throttle control lever not in the correct starting position</li> <li>• Blocked fuel line</li> <li>• Fouled spark plug</li> <li>• Engine flooding</li> <li>• Tine clutch control not in neutral position</li> </ul>	<ul style="list-style-type: none"> <li>• Attach spark plug wire securely to spark plug</li> <li>• Fill with clean fresh petrol</li> <li>• Move throttle lever to start position</li> <li>• Clean fuel line</li> <li>• Clean, adjust gap, or replace</li> <li>• Wait a few minutes, restart but do not prime</li> <li>• Set lever to neutral</li> </ul>
Engine runs erratically	<ul style="list-style-type: none"> <li>• Spark plug wire loose</li> <li>• Blocked fuel line or stale fuel</li> <li>• Vent plugged</li> <li>• Water or dirt in fuel system</li> <li>• Dirty air cleaner</li> <li>• Improper carburettor adjustment</li> </ul>	<ul style="list-style-type: none"> <li>• Connect and tighten wire</li> <li>• Clean fuel line - refill with fresh fuel</li> <li>• Clear vent</li> <li>• Drain fuel tank and refill with fresh fuel</li> <li>• Clean or replace air cleaner</li> <li>• Refer to Engine Manual</li> </ul>
Engine overheats	<ul style="list-style-type: none"> <li>• Engine oil level low</li> <li>• Dirty air cleaner</li> <li>• Air flow restricted</li> <li>• Carburettor not adjusted properly</li> </ul>	<ul style="list-style-type: none"> <li>• Fill crankcase with proper oil</li> <li>• Clean air cleaner</li> <li>• Remove blower housing and clean</li> <li>• Refer to Engine Manual</li> </ul>
Engine will not stop when throttle control is at "STOP" or engine speed does not increase when throttle control is adjusted	<ul style="list-style-type: none"> <li>• Debris interfering with throttle linkage</li> <li>• Improper throttle linkage adjustment</li> </ul>	<ul style="list-style-type: none"> <li>• Clean dirt and debris</li> <li>• Refer to Engine Manual</li> </ul>
Tiller moves forward during starting	<ul style="list-style-type: none"> <li>• Tine clutch control not in neutral position</li> </ul>	<ul style="list-style-type: none"> <li>• Tine clutch control must be set to neutral to start the engine</li> </ul>
Tiller is difficult to control when tilling (jumps and lurches forward)	<ul style="list-style-type: none"> <li>• Incorrect tilling depth set</li> <li>• Too high engine speed on hard ground</li> </ul>	<ul style="list-style-type: none"> <li>• Raise the tines for shallower tilling by raising the depth rod</li> <li>• Set the throttle lever at lower speed</li> </ul>
Tines do not engage	<ul style="list-style-type: none"> <li>• Foreign object lodged in tines</li> <li>• Tine clevis pin(s) missing</li> <li>• Belt worn and/or stretched</li> <li>• Pulley and idler not in correct adjustment</li> </ul>	<ul style="list-style-type: none"> <li>• Stop tiller completely, check and remove foreign object.</li> <li>• Replace tine clevis pin(s)</li> <li>• Replace belt</li> <li>• Contact authorised service dealer</li> </ul>

# PARTS DIAGRAM



# PARTS LIST

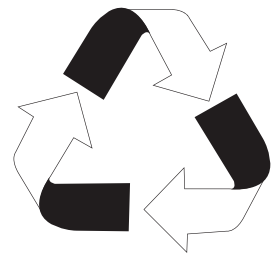
No	Part No	Description	Qty	No	Part No	Description	Qty
1	TH112-1	Engine	1	2	TH112-2	Locknut M8	14
3	TH112-3	Washer 8	3	4	TH112-4	Hexangular Bolt M8x35	4
5	TH112-5	Basis	1	5	TH112-6	Hexangular Bolt M8x40	2
7	TH112-7	U Shape Handle	1	8	TH118-8	Front Plant	1
9	TH112-9	Screw M6x12	10	10	TH112-10	Locknut M6	11
11	TH112-11	Transmission Case L	1	12	TH112-12	Shaft	2
13	TH112-13	Fork 2.5	2	14	TH112-14	Blade Assembly	2
14-1	TH112-14-1	Blade Jointing Set	2	14-2	TH112-14-2	Blade	16
14-3	TH112-14-3	Bolt M8x16	32	15	TH112-15	Bearing	2
16	TH112-16	Close Oil FA20x32x7	2	17	TH112-17	Inner Hexangular Screw M6x25	9
18	TH112-18	Transmission Case R	1	19	TH112-19	Bearing	2
20	TH112-20	Washer	2	21	TH112-21	Key	1
22	TH112-22	Worm Wheel	1	22-1	TH112-21-1	Output Axis	1
23	TH112-23	Washer	1	24	TH112-24	Bearing	2
25	TH112-25	Worm	1	26	TH112-26	Belt Groove	1
27	TH112-27	Screw M5x8	2	27-1	TH112-27-1	Washer M5	2
28	TH112-28	Belt	1	29	TH112-29	Engine Pulley	1
30	TH112-30	Lock Screw M8x12	2	31	TH112-31	Lock Pin 5x40	1
32	TH112-32	Transmission Case Pulley	1	33	TH112-33	Pulley Tightener Assy	1
33-1	TH112-31-1	T Plate	1	33-2	TH112-33-2	Pulley Tightener Sleeve	1
33-3	TH112-33-3	Bearing 608	1	33-4	TH112-33-4	Pulley Tightener	1
34	TH112-34	Spring Axis	1	35	TH112-35	Pulley Tightener Spring	1
36	TH112-36	Hexangular Bolt M8x45	1	37	TH112-37	Bolt Cap	1
38	TH112-38	Hexangular Bolt M8x40	1	39	TH112-39	Washer M8	9
40	TH112-40	Hexangular Bolt M8x250	2	41	TH112-41	Guard Plate	1
42	TH112-42	Inner Hexangular Screw M5x12	8	43	TH112-43	Locknut M5	2
44	TH112-44	Left Lower Handle	1	45	TH112-45	Line Clip	3
46	TH112-46	Bolt M8x10	1	47	TH112-47	Hexangular Bolt M8x20	2
50	TH112-50	Wheel Cover	2	51	TH112-51	Hexangular Bolt M8x60	2
52	TH112-52	Wheel	2	53	TH112-53	Wheel Bush	2
54	TH112-54	Wheel Bracket	1	54-1	TH112-54-1	Fixing Bracket	1
54-2	TH112-54-2	Stop-Move-Staff	1	54-3	TH112-54-3	Stop-Move Staff Bracket	1
55	TH112-55	Fork 3.0	2	56	TH112-56	Hexangular Nut M8	34
57	TH112-57	Revolving Handle	2	58	TH112-58	Clip Cover	4
59	TH112-59	Clip Seat	4	60	TH112-60	Screw M8x100	2
61	TH112-61	Square Neck Screw M6x60	1	62	TH112-62	Accelerograph Handle Assy	1
63	TH112-63	Upper Handle	1	64	TH112-64	Handle Cover	2
65	TH112-65	Brake Armguard Hold Assy	1	66	TH112-66	Inner Hexangular Screw M6x40	1
67	TH112-67	Round Plug	2	68	TH112-68	Right Lower Handle	1
69	TH112-69	Clutch Cable	1	70	TH112-70	Accelerograph Cable	1
71	TH112-71	Large Washer	1				

# SPECIFICATION

<b>Model</b>	<b>THTILL3.5</b>
Engine	Briggs & Stratton Classic 35
Cultivating Width	380mm
Cultivating Depth	250mm
Tine Speed	120 rpm
Sound Power Level	93 dB(A)
Sound Pressure Level	81.1 dB(A)
Vibrating Level on Handle Grips	Left: 4.06 m/s <sup>2</sup> Right: 5.40 m/s <sup>2</sup>
Weight	29kg

**Please recycle unwanted materials instead of disposing of them as waste.**

**All tools, hoses and packaging should be taken to your local recycling centre and disposed of in an environmentally friendly way.**





## EC Declaration of Conformity

We, Importer  
**Handy Distribution Ltd.**  
**SN3 4NS**

Declare that the product  
**Designation: 148CC PETROL TILLER**  
**Model: THTILL3.5**

Complies with the following directives:

2006/42/EC - Machinery Directive  
2004/108/EC - Electromagnetic Compatibility Directive  
2000/14/EC amended by 2005/88/EC- Noise Emission in the Environment by Equipment for  
Use Outdoors Directive.

The conformity assessment procedure followed was in accordance with Annex V of the  
**Directive 2000/14/EC.**

Name of the Notified Body: TUV Rheinland (Qingdao) Co.,Ltd.  
Address: 6F, No. 2 Building, No.175 Zhuzhou Road, 266101 Qingdao, P.R.China.

**-Measured Sound Power Level: 92.1 dB (A)**  
**-Guaranteed Sound Power Level: 93 dB (A)**

Standards and technical specifications referred to:  
**EN709: 1997 + A4:2009**

### Authorised signatory and technical file holder

Date: 24/11/2010

Signature: 

Name / title: Mr. Simon Belcher / Managing Director  
Hobley Drive, Stratton St Margaret, Swindon, Wiltshire, SN3 4NS

To order spare parts and see the complete range of garden machinery and garden equipment from Handy, visit:

**[www.thehandy.co.uk](http://www.thehandy.co.uk)**

Spares & Support: 01793 333212

