

## GARDEN TILLER

Operation, Safety & Maintenance Instructions





#### INTRODUCTION

Dear Valued Customer,

Congratulations! You are now the proud owner of the Red Roo Model GT622 Garden Tiller. Please take a moment of your time to look over the following information Familiarise yourself with the tiller, its characteristics and method of operation. Pay particular attention to the safety and operating instructions.

If you have any questions or need any replacement parts in the future please contact us at your convenience on our toll-free phone number 1300 133 767 or redroo.com

THANK YOU for your patronage, confidence and support in Red Roo commercial environmental equipment.

# Machine Identification Record Red Roo Customer number Machine model number Machine serial number Engine manufacturer Engine model number Engine serial number



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#### ASSEMBLY INSTRUCTIONS

- 1. Remove the tiller from shipping crate. Please inspect immediately for any damage and notify the shipping company and Red Roo, right away if any is found.
- 2. Check reservoir according to instructions in service information on the following page.
- 3. Fill the engine with fuel and oil according to the engine manual.
- 4. When documentation refers to "right side" or "left side", it is relative to the operator's position with both hands on the handlebars.

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#### **ABOUT THIS MANUAL**

The information contained in this manual has been prepared to assist you in the safe operation, the routine maintenance and general care of your Red Roo product. By following these guidelines, you may look forward to years of reliable service from your Red Roo. Information is categorised and denoted by the following symbols and phrases:



**SAFETY FIRST** Identifies general safety practices.



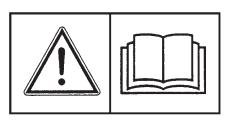
**DANGER!** An instruction which, if not followed, could result in serious or fatal injury.



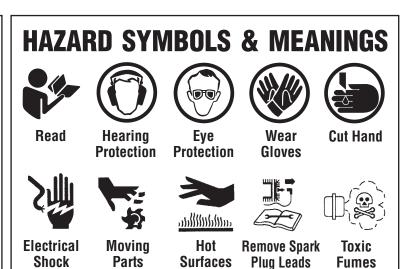
**WARNING!** An instruction which, if not followed, could result in personal injury.



**CAUTION!** An instruction which, if not followed, could damage machine components.



Before operating this Machine read and observe all Warnings, Cautions and Instructions on the Machine and in the Operators Manual. Although the reading of information contained in this manual does not eliminate the risk involved in operating this machine, your understanding of this information will promote the correct and safe use of your machine. Failure to follow Instructions and Safety Information could result in serious injury or death.











**Bystanders** 

Don't Remove Explosion Guards

Don't Refuel **Hot Engine** Rotating Tynes

Keep Clear

#### SAFETY FIRST - Stay Alert, Do Not Get Hurt



#### **Read this section before use!**

The GT622 Garden Tiller is designed to cultivate soil and therefore is potentially dangerous. Careless or improper use may result in serious or even fatal injury.

It is important that you read and understand the contents of this manual and that you allow only mature, adult individuals to operate your Garden Tiller. It is your responsibility to ensure that any individual who operates your garden tiller has read and understood this manual.

Never use the garden tiller for any other purpose than soil cultivation. The machine is designed for this purpose only. Any other use may result in serious or even fatal injury and/or damage to the machine.

#### SAFETY PRECAUTIONS FOR GT622 USERS

#### Outdoor Power Equipment Institute Recommendations



WARNING TO PURCHASERS OF INTERNAL COMBUSTION **ENGINE EQUIPPED MACHINERY OR DEVICES:** 

The equipment which you have purchased does not have a spark arrester muffler. If this equipment is to be used on any forest and brush covered land or grass covered unimproved land, the law may require that a spark arrester muffler be installed and be in effective working order. The spark arrester must be attached to the exhaust system and comply with local authorities by-laws.

#### **USE COMMON SENSE AND PLENTY OF IT**



DO NOT allow any person to operate the garden tiller without first reading and understanding the safety precautions and operating instructions. Read and understand the engine manual. KNOW THE CONTROLS AND HOW TO STOP THE GARDEN TILLER QUICKLY IN AN EMERGENCY.

- **NEVER** allow children or untrained adults to operate the garden tiller.
- ALWAYS wear protective clothing when operating the garden tiller. This includes, but is not limited to: safety glasses, loose fitting gloves, steel capped boots and hearing protection. NEVER wear loose fitting clothing or jewellery when operating the garden tiller. Keep all clothing away from moving parts. Items



- could become caught in the machine, resulting in injury.
- **ALWAYS** operate the garden tiller in a well lighted area.
- ALWAYS make certain that the tyne engagement control lever is in the "neutral" position prior to starting the engine. The TYNE ENGAGEMENT CONTROL LEVER on the left handlebar is for the operator's protection. All motion stops when the control lever's released!

DO NOT TAPE THE CONTROL LEVER UP or otherwise by-pass this safety feature!





**ALWAYS** operate garden tiller on level ground only. Police the area before garden tilling. Remove any foreign objects in the digging area (eg bricks, rocks, wire and sticks). Locate and mark any sprinkler heads, water pipes, gas lines, electrical and telephone cables or any other hazard either below or above ground.

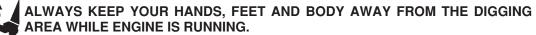


DO NOT allow other persons near the garden tiller. It is the responsibility of the operator to keep bystanders and animals a minimum of 6 metres (18ft) away from the machine while it is in operation.



Hydraulic oil is under extreme pressure and can get under skin and burn or poison. Check for leaks with cardboard.

NEVER operate the garden tiller when fatigued. ALWAYS BE ALERT! If you become tired while operating the garden tiller, take a break. If you have any physical or mental condition that may be aggravated by strenuous work, consult your physician before you operate this equipment. **NEVER** operate the garden tiller under the influence of medication, alcohol or drugs.



**NEVER** operate the unit without the safety guards in place and in working order. 11) Keep the unit well maintained and in good working order

- 12) **DO NOT** leave the machine unattended while the engine is running.
- 13) DO NOT overspeed the engine or alter the governor settings. Excessive speed is dangerous and will shorten engine life.
- **NEVER** operate the garden tiller in an enclosed area. Engine exhaust contains carbon monoxide, an odourless and tasteless poison.
- **STOP** the engine, disconnect the spark plug lead and allow engine to cool before inspecting or performing maintenance on the garden tiller.

#### 16)

#### **REFUELLING**

- SHUT OFF ENGINE. DO NOT REFUEL AN ENGINE WHILE OPERATING!
- Allow engine to cool. Minimum 5 minutes.
- USE UNLEADED FUEL ONLY. Use clean, fresh unleaded fuel.



- Do not mix oil with unleaded fuel.
- Do not over-fill fuel tank. Allow space for fuel expansion.
- Do not smoke near equipment.
- Allow no naked flame or hot material in refuelling area.
- Use only approved fuel containers and funnels. Remember, fuel is a potential hazard.
- Refer to engine owners manual for full details.



#### OPERATING INSTRUCTIONS - GT622

#### **BEFORE USE**

- 1) Ensure that all grass and weeds have been cut as low as possible.
- 2) If the garden tiller is to be used in clay or hard ground conditions, it is recommended to water the area thoroughly and allow sufficient time for the soil to soften.



Police the area. Remove any foreign objects from the area.

Identify and mark the location of sprinkler heads, gas pipes, telephone cables, etc.

#### OPERATION

1) Remove the garden tiller from its trailer/carrier/ute. Use caution



- 2) Familiarize yourself with the machine and its controls.
- 3) Adjust wheels if required, using the handle wheel adjustment lever.
- 4) Adjust depth shoe if required, using the depth control adjustment lever.
- 5) Ensure the tyne engagement control lever is in the neutral position. The tyne engagement control lever is located on the left hand side of the machine below handle bar. The neutral position of the lever is achieved by simply releasing the tyne engagement control lever.
- 6)

Open fuel shut-off valve. Set choke control to Choke or Start position. Set throttle control to Run or Fast position. Set engine stop switch to On or Run position. Pull starter cord rapidly. Repeat (if necessary) with



- 7) When in position to begin garden tilling, pull up on the tyne engagement control lever. The tynes will begin to turn, adjust accordingly in the rear position while tilling. Release the tyne engagement control lever to stop the tynes turning. Tyne speed is governed by engine throttle setting.
- 8) Do not hurry the job. Proceed slowly and allow the machine time to do the job. When ground is extremly hard, reduce engine speed. Consider watering the surface and reducing engine speed. Adjust wheels and depth shoe accordingly while tilling.



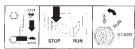


WARNING! - KEEP HANDS AND FEET CLEAR OF TYNES AT ALL TIMES!



WARNING! - IN CASE OF DIFFICULTY, RELEASE THE TYNE ENGAGEMENT CONTROL LEVER ALLTILLING ACTION STOPS. Turn the engine "STOP" switich to off located on the engine.

9) **Stop Engine:** Release the safety clutch control lever. Move throttle to Slow position. Set engine stop switch to Stop or Off position. DO NOT move choke control to Choke or Start position to stop engine. Backfire or engine damage may occur.



Typical Stop Switches

#### AFTER USE





Turn fuel shut off valve to the "OFF" position.

- Allow machine to cool down.
- 3) Wash mud and dirt off of the garden tiller. Ensure no water enters the carburettor.
- 4) Remove any weeds, wire, rope or other material that may have wrapped around the tynes and rotor assembly.
- Return wheel axle to forward position for transport. Replace shaft locking collar.
- 6) Return depth shoe (if equipped) to full Up position.

#### SERVICE INFORMATION

- Check the reservoir level using the sight glass on the top of the tank. If required, add to
  reservoir with tractor transmission hydraulic oil (AW or ISO rating of 68 is recommended).
  Recheck oil level after the tiller has been run and oil has been circulated through the tine
  motor. Routinely check level thereafter. DO NOT OVERFILL THE TANK.
- 2. Change the hydraulic oil filter after the first 50 hours of use. Change it after every 200 hours thereafter.
- 3. Check the tine bolts after each use and tighten as needed. Check all hydraulic fittings for leaks and tighten if necessary.
- 4. Tines should be changed as often as needed for the machine to do a satisfactory and efficient tilling job. Use Loctite stud and bearing adhesive/sealant on tine bolt threads to prevent loosening.
- 5. The grease zerk on the end of the tine frame should be greased after every 4 to 8 hours of use.
- 6. The grease zerks on the wheels should be greased monthly.

<u>IMPORTANT:</u> The engine is normally serviced prior to shipping. However, shipping regulations may prohibit this. Check levels and add oil and fuel as required before starting. Service according to the engine manual before starting.

<u>WARNING:</u> Running the tiller without hydraulic oil will cause serious damageto the hydraulic pump. CHECK RESERVOIR LEVEL BEFORE STARTING THE MACHINE.

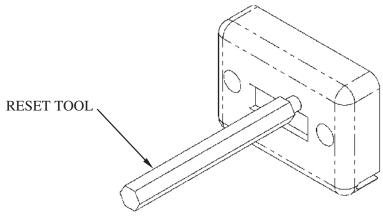
#### **HOUR METER**

The SenDEC® TACH/HOUR hour meter tracks the hours of machine operation in order for routine maintenance to be performed on a timely basis.

Your SenDEC® hour meter is preset at the SenDEC® factory to go into *Flash Alert* mode at 25-hour intervals. Although the engine manufacturer does not require changing engine oil this often, due to heavy-duty use and extreme conditions inherent to tiller use, <u>Red Roo strongly recommends frequent oil changes.</u>

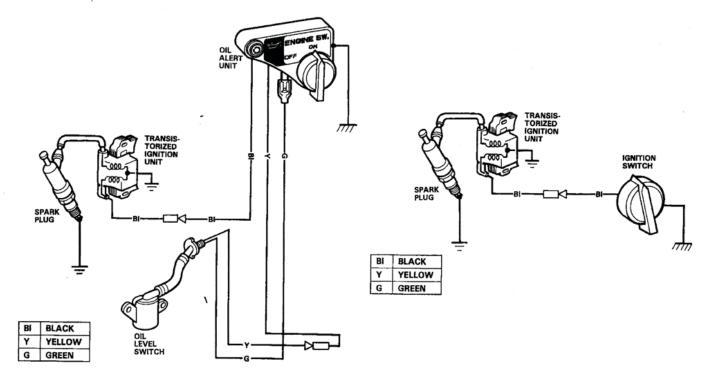
Refer to this manual for equipment service requirements and to the Engine Manual for engine service requirements.

While *Flash Alert* is active, hold the tip of the RESET TOOL (Key Cancel Wand) against the meter as shown. Within several seconds, the display will stop flashing indicating the Service Interval has been reset. If the wand gets lost, a small mechanic's pick-up magnet will work.

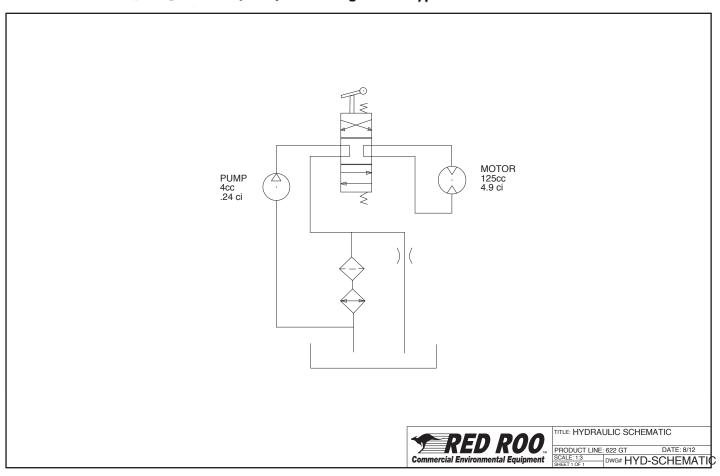


#### **ELECTRICAL SCHEMATIC - HONDA GX160**

#### <Type without electric starter>



NOTE: Wiring diagrams may vary according to the types.



#### **ELECTRICAL SCHEMATIC - ROBIN EX17D**

#### 8. WIRING DIAGRAM

#### 8-1 MODEL WITHOUT ELECTRIC STARTER (Models EX13, 17, 21 and 27)

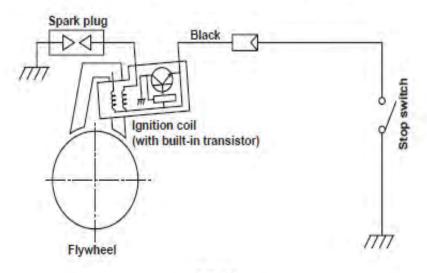
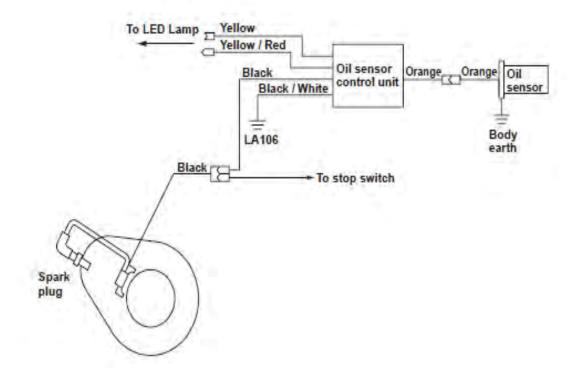


Fig. 8-1

#### 8-4 MODEL WITH OIL SENSOR



#### **GT622 SPECIFICATIONS**

MODEL NUMBER	622GT
DIMENSIONS Weight Height Length Width	211 lbs. (95.7kg) 50" (1.27m) 59" (1.5m) 28" (71.12cm)
ENGINE Engine Optional engine	Honda GX160 Robin EX 17D
FUEL	Gasoline
POWER: hp (kW) at 3600 RPM POWER: hp (kW) at 4000 RPM	H-5.5 hp (4.0kW) R-5.7 hp (4.2kW)
FUEL CAPACITY	H-0.95 U.S. gallons (3.6 liters) R-0.94 U.S. gallons (3.6 liters)
ENGINE OIL CAPACITY	H63 quart (.60 liters) R63 quart (.60 liters)
HOUR METER	Standard
HYDRAULIC SYSTEM Reservoir Capacity Oil Cooler Hydraulic pump output	1.4 U.S. gallons (5.3liters) Standard 4 gpm (15.14 liters)

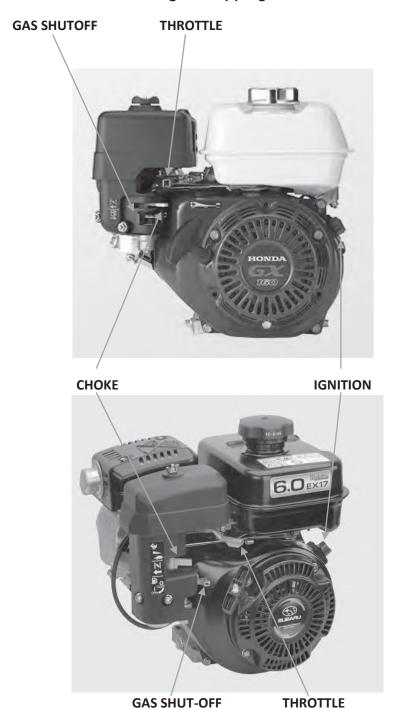
#### **ENGINE CONTROLS**

CHOKE: Use to aid starting the engine when it is cold.

IGNITION SWITCH: There are two ignition switches. One switch is located on the control panel for your convenience. The other is located on the engine. Use these to start and stop the engine.

THROTTLE: Use this to adjust engine speed.

GAS SHUT-OFF: Use this when starting or stopping machine.



#### 622GT TILLER TROUBLE SHOOTING GUIDE

CAUTION: ALWAYS USE EXTREME CARE WHEN TROUBLE SHOOTING OR MAKING ADJUSTMENTS ON THE TILLER. **STAY CLEAR OF TYNES WHEN ENGINE IS RUNNING.** ALWAYS SHUT THE ENGINE OFF BEFORE DISASSEMBLING ANY COMPONENT.

#### A. ENTIRE HYDRAULIC SYSTEM DOESNOT OPERATE AND THE ENGINE IS NOT UNDER LOAD

1. Lowhydraulicoil in tank. Fill to center of sight glass.

2. Hydraulic pump-to-engine coupler has slipped.

Check for wear and replace both coupler halves and rubber spider as needed.

#### **B. TYNES FAIL TO ROTATE**

1. Tyne motor worn. Rebuild or replace motor. New motors are

available from Red Roo.

#### C. ENGINE LUGS DOWN OR DIES AND TINES DO NOT TURN.

1. Rocks or other obstruction blocking tines. Shut OFF engine and remove obstruction or

reverse tynes.

2. Tyne shaft bound with wire, vines, or Shut OFF engine and remove debris,

grass. especially at the ends.

3. Outboard tine shaft bearings binding. Lubricate or replace bearings as needed.

4. Engine improperly tuned or maintained. See engine manual and correct as needed.

5. Low oil alert causes engine to shut down. This may occur if tilling on hills, (not

advised). Level the tiller and check engine oil

level. Fill if required. Oil alert should reset.

See engine manual.

6. Engine losing power due to wear. See engine manual.

#### D. OIL LEAKS IN HYDRAULIC SYSTEM.

1. Fittings are loose. Tighten as required.

2. Worn or broken hoses. Replace as necessary.

#### E. EXCESSIVE FOAMING OF HYDRAULIC OIL FROM VENT HOSE.

1. Improper oil used. Verify that hydraulic oil used has anti-

foaming additives.

2. Pump sucking air. Inspect and tighten fittings on intake side of

pump.



#### WORK SITE ASSESSMENT

Examine the work area for any conditions or obstructions that may inhibit tilling or create a safety hazard for the operator or others. Use the information in this manual combined with good judgment to identify any hazards to avoid.

In addition to calling to DETERMINE LOCATION OF UNDERGROUND UTILITIES (see previous section for details), the operator and/or job foreman should visually inspect the work site. Look for electrical drop boxes, notices of underground placements, manhole covers, recent trenching or tilling activity, any evidence of possible underground placements, banks, drop-offs, rocks, wire, uneven terrain, any existing holes and toxic ground conditions.



Only operate tiller outdoors and avoid breathing engine exhaust and fumes.

**WARNING**: Engine exhaust contains carbon monoxide gas that is toxic. Breathing it can cause unconsciousness and death.



Do not operate tiller near any source of flammable dust or vapors.

**WARNING**: Sparks from the engine exhaust can cause an explosion or fire in a flammable or explosive atmosphere. Fuel fumes can catch fire or explode.

Allow adequate side and overhead clearances between tiller and any objects such as buildings, fences, and trees.

Adequate lighting is required, daylight or artificial, for safe operation of the tiller.

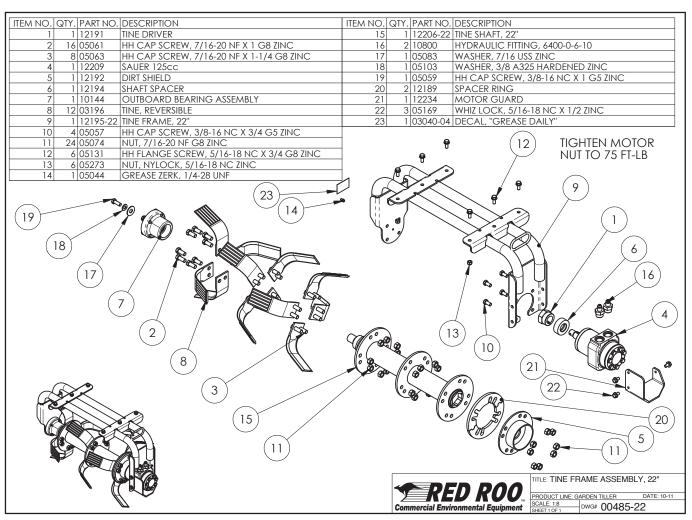
Keep others away. If the job site is near a road or pedestrian path, warn and divert both motorized traffic and pedestrians. As appropriate, erect barriers, use traffic flag personnel, signs, cones, and lighting devices to insure safety.

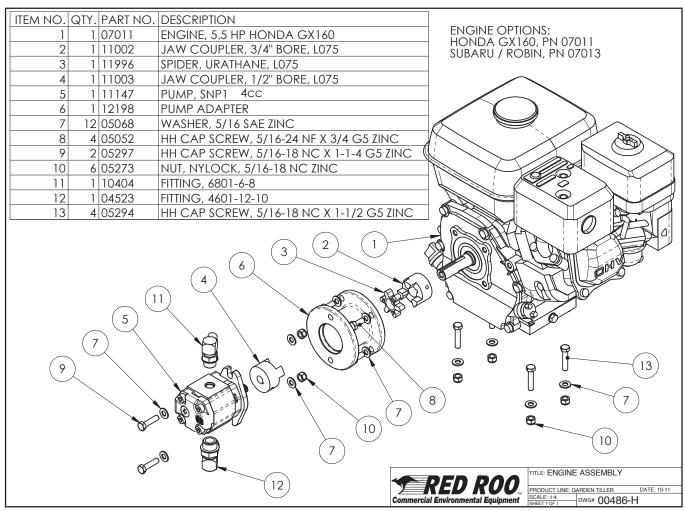


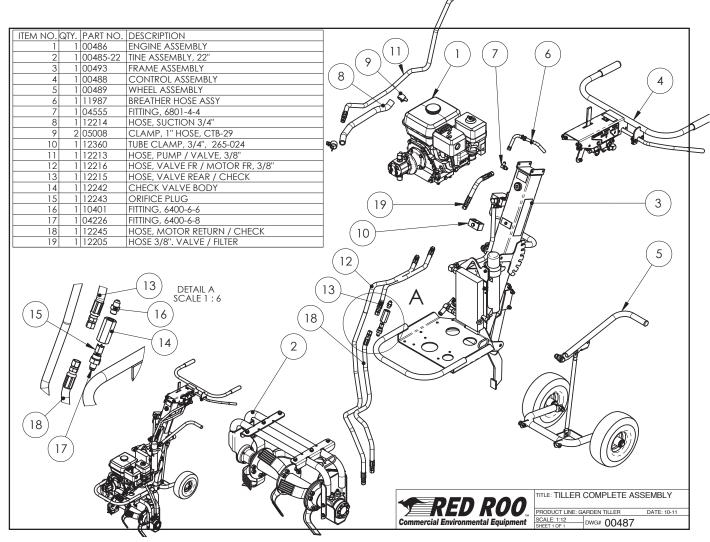
**WARNING**: Someone could step into the tilled area by accident. Walking near the edge of the tilled area could cause loss of balance and possibly cause someone to fall into the rotating tynes. Contact with the rotating tynes while in operation will cause serious injury or even death.

MACHINE FUNCTION CHECK: If the operator releases the TYNE ENGAGEMENT CONTROL LEVER, the rotating tynes should stop. This is intended for your safety and must be maintained in good functional condition. Contact your dealer or the factory if anything on the tiller does not function properly.

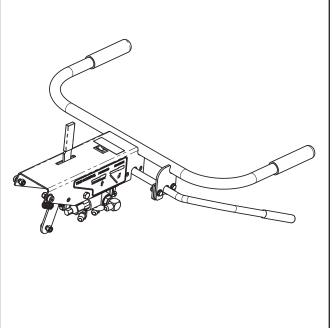








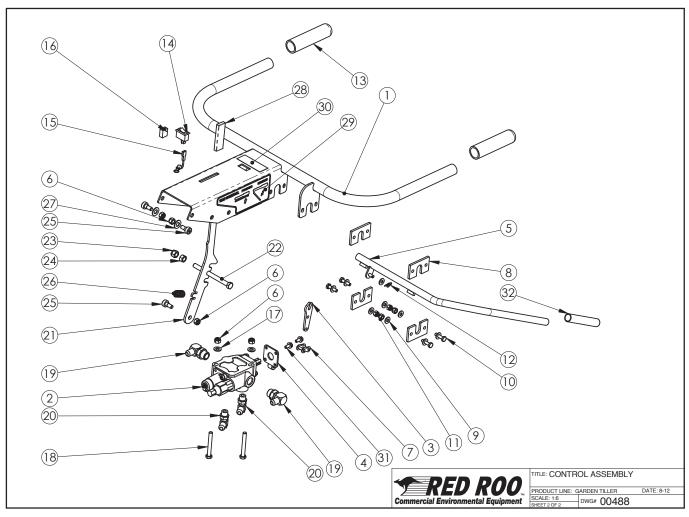


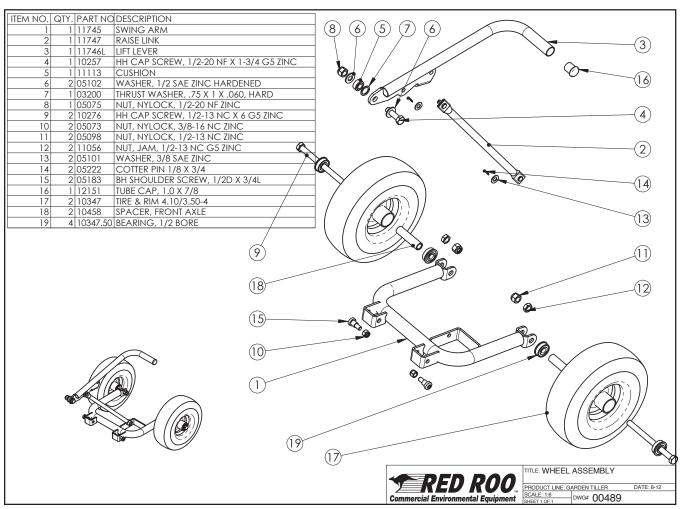


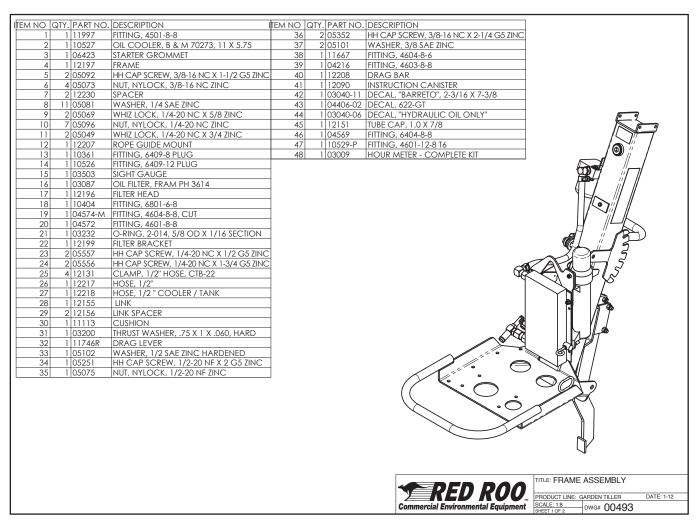
TRED ROO COMMERCIAL Environmental Equipment

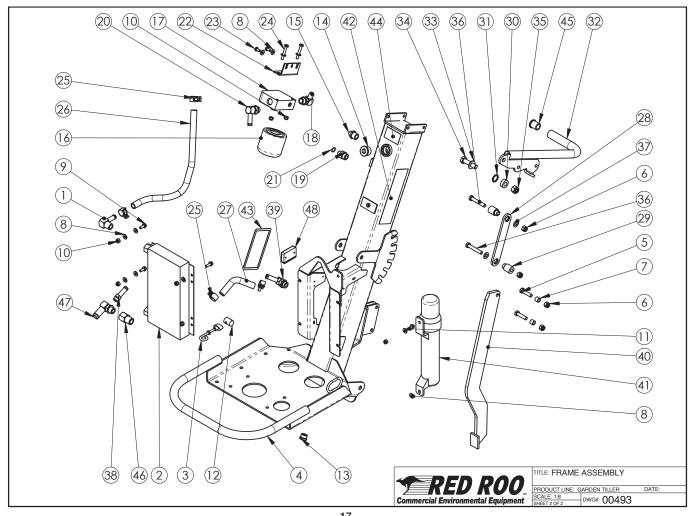
TITLE: CONTROL ASSEMBLY

PRODUCT LINE: GARDEN TILLER DATE:
SCALE: 1:6
DWG# 00488









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#### **PRODUCTS**

Red Roo provide extensive range of Commercial Environmental Equipment to Hire and Rental Industry, Arborist, Local Government Council



Chippers, Shredders & Mulchers



Commercial Wood Chippers



Stump Grinders - Up to 27hp



Stump Grinders - Up to 250hp



Log Splitters



Post Hole Diggers



Rotary Hoes



Trenchers



Trailers



**Turf Cutters** 



Aerator



Rigging Gear

### and explore our PRODUCTS TREDROO.

Commercial Environmental Equipment

#### Superseding Warranty

#### **Red Roo Group of Companies**

Warranty Policy effective September 12, 2012

Replaces all undated previous Warranties and all Warranties dated prior to Januray 1, 2010.

"For a time period shown below from date of purchase, pending owner registration, Red Roo Sales & Service Company, P/L, herein referred to as "MANUFACTURER", will, at its option, repair or replace for the original purchasers of new Red Roo equipment, free of charge, any part, or parts of the unit (excluding Power Unit, warranty coverage provided by respective engine manufacturer), found upon inspection and testing by a Factory Authorised Agent, or by the Factory at Keysborough, Victoria, to be defective in material or workmanship or both under normal operating conditions; this is the exclusive remedy. All transportation charges on parts submitted to the MANUFACTURER for replacement under this Warranty are the responsibility of the purchaser.

This Warranty shall not apply to any product that has been altered, modified, or operated in a manner not approved or recommended by the MANUFACTURER. Warranty will be null and void in the following circumstances: (1) repairs or attempted repairs have been performed by persons other than agents authorised by the MANUFACTURER; (2) repairs are required because of normal wear; (3) the unit has been subject to abuse or involved in an accident; (4) misuse is evident, such as that caused by an application that unit is not intended to perform.

The MANUFACTURER reserves the right to modify, alter, or otherwise improve any product or part.

The purchaser is responsible for the performance of regular maintenance services as specified in the operator manual applicable to the unit. Untimely and/or improper care and replacement of normal maintenance items (eg.: filters, belts, drive chains, blades, knives, lubricants) may void Warranty. Use of non genuine Red Roo parts may void Warranty.

THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO 14 DAYS FROM PURCHASE, AND TO THE EXTENT PERMITTED BY LAW ANY AND ALL IMPLIED WARRANTIES ARE EXCLUDED. LIABILITY FOR CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW. RED ROO GROUP OF COMPANIES DOES NOT AUTHORISE ANY PERSON OR ENTITY TO CREATE FOR IT ANY OTHER OBLIGATION OR LIABILITY IN CONNECTION WITH ITS PRODUCTS OR SERVICES. Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion of limitation of incidental or consequential damages, so the above limitation exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state."

Red Roo Sales & Service Company, P/L James A. Kerr III Managing Director

#### Warranty Period

All Equipment	Consumer Use* 365 Days	Commercial Use* 90 Days

<sup>\*</sup> For the purposes of this warranty policy, "consumer use" shall mean personal residential household use by the original retail consumer. "Commercial use" shall mean all other uses, including use for commercial, income producing or hire purposes. Once a unit has experienced commercial use, it shall thereafter be considered as a commercial use unit for purposes of this warranty policy.

Proper registration of your Red Roo equipment is required to obtain warranty service. It is the responsibility of the original purchaser to register equipment within 10 days of purchase.

