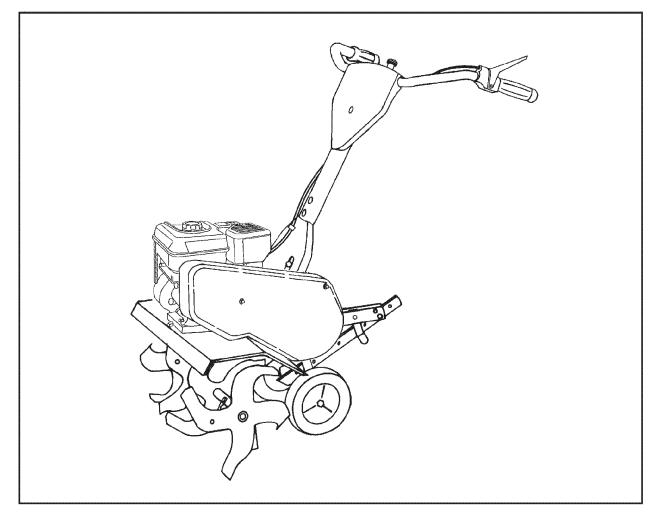
# Husqvarna®



# 917.299390

**Owner's Manual** 

532 43 58-47

# SAFETY RULES





### Safe Operation Practices for Walk-Behind Powered Rotary Tillers

### TRAINING

- Read the Owner's Manual carefully. Be thoroughly familiar with the controls and the proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
- Never allow children to operate the equipment. Never allow adults to operate the equipment without proper instruction.
- Keep the area of operation clear of all persons, particularly small children, and pets.

### PREPARATION

- Thoroughly inspect the area where the equipment is to be used and remove all foreign objects.
- Disengage all clutches and shift into neutral before starting the engine (motor).
- Do not operate the equipment without wearing adequate outer garments. Wear footwear that will improve footing on slippery surfaces.
- Handle fuel with care; it is highly flammable.
- Use an approved fuel container.
- Never add fuel to a running engine or hot engine.
- Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
- Replace gasoline cap securely and clean up spilled fuel before restarting.
- Use extension cords and receptacles as specified by the manufacturer for all units with electric drive motors or electric starting motors.
- Never attempt to make any adjustments while the engine (motor) is running (except where specifically recommended by manufacturer).

### **OPERATION**

- Do not put hands or feet near or under rotating parts.
- Exercise extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic. Do not carry passengers.
- After striking a foreign object, stop the engine (motor), remove the wire from the spark plug, thoroughly inspect the tiller for any damage, and repair the damage before restarting and operating the tiller.
- Exercise caution to avoid slipping or falling.
- If the unit should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
- Stop the engine (motor) when leaving the operating position.
- Take all possible precautions when leaving the machine unattended. Disengage the tines, shift into neutral, and stop the engine.
- Before cleaning, repairing, or inspecting, shut off the engine and make certain all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the plug to prevent accidental starting. Disconnect the cord on electric motors.

- Do not run the engine indoors; exhaust fumes are dangerous.
- Never operate the tiller without proper guards, plates, or other safety protective devices in place.
- Keep children and pets away.
- Do not overload the machine capacity by attempting to till too deep at too fast a rate.
- Never operate the machine at high speeds on slippery surfaces. Look behind and use care when backing.
- · Never allow bystanders near the unit.
- Use only attachments and accessories approved by the manufacturer of the tiller.
- Never operate the tiller without good visibility or light.
- Be careful when tilling in hard ground. The tines may catch in the ground and propel the tiller forward. If this occurs, let go of the handlebars and do not restrain the machine.

### MAINTENANCE AND STORAGE

- Keep machine, attachments, and accessories in safe working condition.
- Check shear pins, engine mounting bolts, and other bolts at frequent intervals for proper tightness to be sure the equipment is in safe working condition.
- Never store the machine with fuel in the fuel tank inside a building where ignition sources are present, such as hot water and space heaters, clothes dryers, and the like. Allow the engine to cool before storing in any enclosure.
- Always refer to the operator's guide instructions for important details if the tiller is to be stored for an extended period.

### - IMPORTANT -

CAUTIONS, IMPORTANTS, AND NOTES ARE A MEANS OF ATTRACTING ATTENTION TO IMPORTANT OR CRITICAL INFORMATION IN THIS MANUAL.

**IMPORTANT:** USED TO ALERT YOU THAT THERE IS A POSSIBILITY OF DAMAGING THIS EQUIPMENT.

**NOTE:** Gives essential information that will aid you to better understand, incorporate, or execute a particular set of instructions.



Look for this symbol to point out important safety precautions. It means CAUTION!!! BECOME ALERT!!! YOUR SAFETY IS INVOLVED.

CAUTION: Always disconnect spark plug wire and place wire where it cannot contact spark plug in order to prevent accidental starting when setting up, transporting, adjusting or making repairs.

### **PRODUCT SPECIFICATIONS**

Gasoline Capacity: Unleaded Regular	3 Quarts (2.8L)
Oil (API-SG-SL):	SAE 30 (Above 32°F/0°C)
(Capacity: 21 oz./0.6L)	SAE 5w-30 (Below 32°F/0°C)
Spark Plug :	Champion
(Gap: .030"/0.76mm)	RC12YC

**CONGRATULATIONS** on your purchase of a new tiller. It has been designed, engineered and manufactured to give you the best possible dependability and performance.

Should you experience any problems you cannot easily remedy, please contact your nearest authorized service center. We have competent, well-trained technicians and the proper tools to service or repair this unit.

Please read and retain this manual. The instructions will enable you to assemble and maintain your tiller properly. Always observe the "SAFETY RULES".

### **CUSTOMER RESPONSIBILITIES**

- Read and observe the safety rules.
- Follow a regular schedule in maintaining, caring for and using your tiller.
- Follow instructions under "Maintenance" and "Storage" sections of this Owner's Manual.

**IMPORTANT:** THIS UNIT IS EQUIPPED WITH AN INTERNAL COMBUSTION ENGINE AND SHOULD NOT BE USED ON OR NEAR ANY UNIMPROVED FOREST-COVERED, BRUSH-COVERED OR GRASS COVERED LAND UNLESS THE ENGINE'S EXHAUST SYSTEM IS EQUIPPED WITH A SPARK ARRESTER MEETING APPLICABLE LOCAL LAWS (IF ANY). IF A SPARK ARRESTER IS USED, IT SHOULD BE MAINTAINED IN EFFECTIVE WORKING ORDER BY THE OPERATOR.

IN THE STATE OF CALIFORNIA, A SPARK ARRESTER IS REQUIRED BY LAW (SECTION 4442 OF THE CALIFORNIA PUBLIC RESOURCES CODE). OTHER STATES MAY HAVE SIMILAR LAWS. FEDERAL LAWS APPLY ON FEDERAL LANDS. SEE YOUR AUTHORIZED SERVICE CENTER/DEPARTMENT FOR SPARK ARRESTER.

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# ASSEMBLY

Your new tiller has been assembled at the factory with exception of those parts left unassembled for shipping purposes. To ensure safe and proper operation of your tiller all parts and hardware you assemble must be tightened securely. Use the correct tools as necessary to insure proper tightness.

### TOOLS REQUIRED FOR ASSEMBLY

### OPERATOR'S POSITION (See Fig. 1)

A socket wrench set will make assembly easier. Standard wrench sizes are listed.

- (1) Utility knife
- (1) Screwdriver
- (1) Pair of pliers
- (2) 1/2" wrenches

When right or left hand is mentioned in this manual, it means when you are in the operating position (standing behind tiller handles).

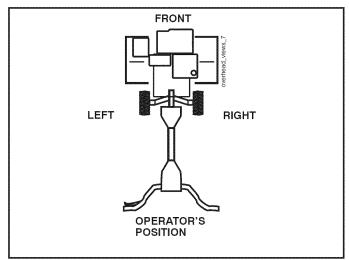
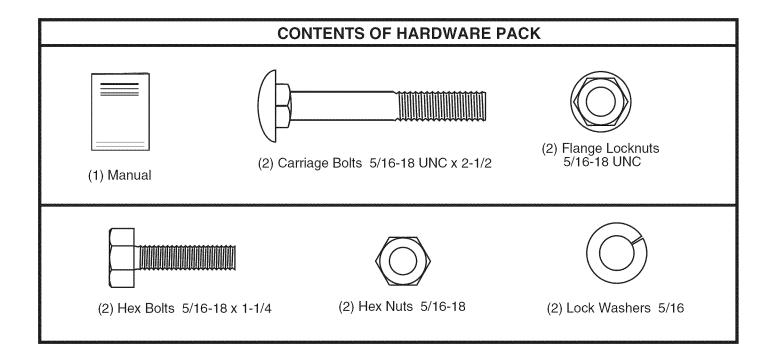


Fig. 1



# ASSEMBLY

# UNPACK CARTON & INSTALL HANDLE (See Fig. 2)



### CAUTION: Be careful of exposed staples when handling or disposing of cartoning material.

**IMPORTANT**: WHEN UNPACKING AND ASSEMBLING TILLER, BE CAREFUL NOT TO STRETCH OR KINK CABLE(S).

- Cut cable ties securing handle column.
- Route cable(s) as shown and slide handle column onto handle mount.
- Remove all packing from carton.
- Secure handle column using two (2) carriage bolts and two (2) flange locknuts. Tighten securely.
- · Cut away carton.
- Route tine control cable(s) through plastic cable clip on handle mount.

NOTE: Cables must not touch the muffler.

- Cut cable ties securing tiller to skid. Remove tiller from skid by pulling backwards.
- Remove screws securing depth stake to skid and discard the screws.

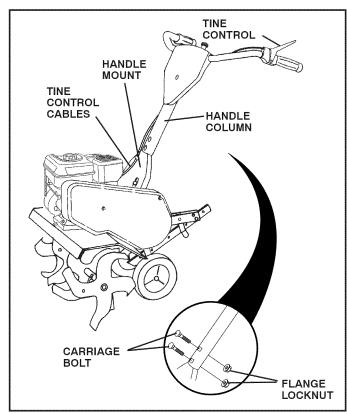


Fig. 2

# INSTALL DEPTH STAKE ASSEMBLY (See Fig. 3)

- Loosen nut "A".
- Insert stake support between engine bracket halves with stake spring down.
- Bolt stake support to engine brackets with bolts, lock washers and nuts. Tighten securely. Tighten nut "A".
- Depth stake must move freely. If it does not, loosen support bolt.

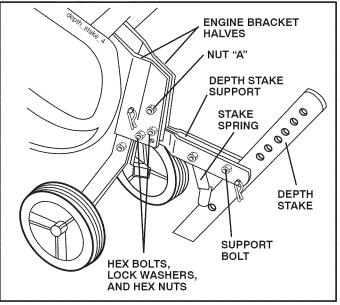


Fig. 3

### HANDLE HEIGHT

Handle height may be adjusted to better suit operator.
 (See "HANDLE HEIGHT" in the Service and Adjustments section of this manual).

### **TILLING WIDTH**

 Tilling width may be adjusted to better handle your tilling conditions (See "TINE ARRANGEMENT" in the Service and Adjustments section of this manual).

#### TINE OPERATION

 Check tine operation before first use. (See "TINE OP-ERATION CHECK" in the Service and Adjustments section of this manual).

### **KNOW YOUR TILLER**

### READ THIS OWNER'S MANUAL AND SAFETY RULES BEFORE OPERATING YOUR TILLER.

Compare the illustrations with your tiller to familiarize yourself with the location of various controls and adjustments. Save this manual for future reference.

These symbols may appear on your Tiller or in literature supplied with the product. Learn and understand their meaning.

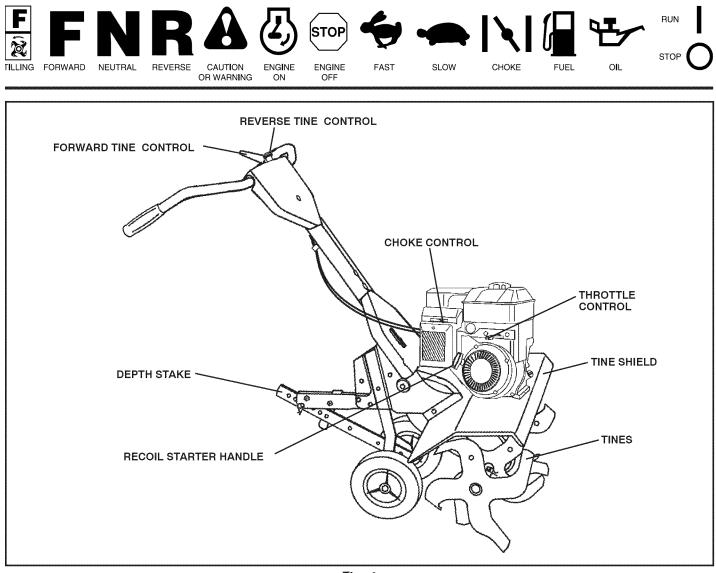


Fig. 4

### MEETS ANSI SAFETY REQUIREMENTS

Our tillers conform to the safety standards of the American National Standards Institute.

**FORWARD TINE CONTROL** - Engages tines in forward direction.

**REVERSE TINE CONTROL** - Engages tines in reverse direction.

CHOKE CONTROL - Used when starting a cold engine.

THROTTLE CONTROL - Controls engine speed. DEPTH STAKE - Controls forward speed and the depth at which the tiller will dig.

**RECOIL STARTER HANDLE** - Used to start the engine.



The operation of any tiller can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields before starting your tiller and while tilling. We recommend a wide vision safety mask over spectacles or standard safety glasses.

### HOW TO USE YOUR TILLER

Know how to operate all controls before adding fuel and oil or attempting to start engine.

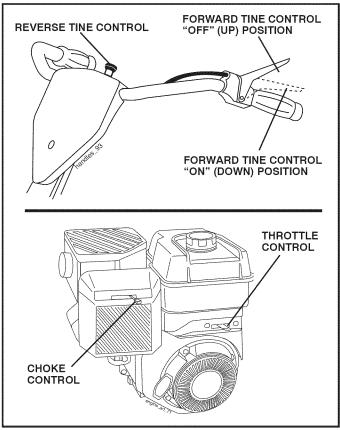
### STOPPING (See Fig. 5)

### TINES

- Release forward tine control to stop forward movement.
- Release reverse tine control to stop reverse movement.

#### ENGINE

- Move throttle control to "STOP" position.
- Never use choke to stop engine.





### **TINE OPERATION (See Fig. 5)**

### FORWARD

• Squeeze forward tine control to handle.

#### REVERSE

• With forward tine control "OFF" (up) position, pull back and hold reverse tine control.

### TILLING

The speed and depth of tilling is regulated by the position of the depth stake and wheel height.

The depth stake should always be below the wheels for digging. It serves as a brake to slow the tiller's forward motion to enable the tines to penetrate the ground. Also, the more the depth stake is lowered into the ground the deeper the tines will dig.

### DEPTH STAKE (See Fig. 6)

Adjust depth stake by removing the hairpin clip and clevis pin. Change depth stake to desired position. Replace the clevis pin and hairpin clip.

• For normal tilling, set depth stake at the second or third hole from the top.

### WHEELS (See Fig. 6)

Adjust wheels by removing the hairpin clip and clevis pin. Change wheel position. Replace the hairpin clip and clevis pin.

• For normal tilling, set wheels at the second or third hole from the top.

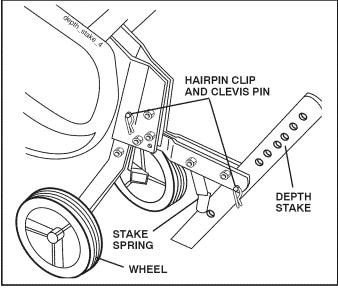


Fig. 6

### TO TRANSPORT



CAUTION: Before lifting or transporting, allow tiller engine and muffler to cool. Disconnect spark plug wire. Drain gasoline from fuel tank.

#### **AROUND THE YARD**

- Tip depth stake forward until it is held by the stake spring.
- Push tiller handles down, raising tines off the ground.
- Push or pull tiller to desired location.

#### **AROUND TOWN**

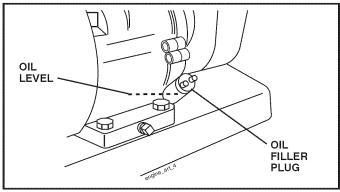
- Disconnect spark plug wire.
- Drain fuel tank.
- Transport in upright position to prevent oil leakage.

### **BEFORE STARTING ENGINE**

**IMPORTANT**: BE VERY CAREFUL NOT TO ALLOW DIRT TO ENTER THE ENGINE WHEN CHECKING OR ADDING OIL OR FUEL. USE CLEAN OIL AND FUEL AND STORE IN APPROVED, CLEAN, COVERED CONTAINERS. USE CLEAN FILL FUNNELS.

### FILL ENGINE WITH OIL (See Fig. 7)

- With engine level, remove engine oil filler plug.
- Fill engine with oil to point of overflowing. For approximate capacity see "PRODUCT SPECIFICATIONS" on page 3 of this manual.
- Tilt tiller back on its wheels and then re-level.
- With engine level, refill to point of overflowing if necessary. Replace oil filler plug.
- For cold weather operation you should change oil for easier starting (See "OIL VISCOSITY CHART" in the Maintenance section of this manual).
- To change engine oil, see the Maintenance section of this manual.





### ADD GASOLINE

• Fill fuel tank to bottom of filler neck. Do not overfill. Use fresh, clean, regular unleaded gasoline with a minimum of 87 octane. (Use of leaded gasoline will increase carbon and lead oxide deposits and reduce valve life). Do not mix oil with gasoline. Purchase fuel in quantities that can be used within 30 days to assure fuel freshness.



CAUTION: Fill to within 1/2 inch of top of fuel tank to prevent spills and to allow for fuel expansion. If gasoline is accidentally spilled, move machine away from area of spill. Avoid creating any source of ignition until gasoline vapors have disappeared.

Wipe off any spilled oil or fuel. Do not store, spill or use gasoline near an open flame.

**IMPORTANT:** WHEN OPERATING IN TEMPERATURES BELOW 32°F(0°C), USE FRESH, CLEAN WINTER GRADE GASOLINE TO HELP INSURE GOOD COLD WEATHER STARTING.

CAUTION: Alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel next season. See Storage Instructions for additional information. Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.

### TO START ENGINE (See Fig. 8)



CAUTION: Keep tine control in "OFF" position when starting engine.

When starting engine for the first time or if engine has run out of fuel, it will take extra pulls of the recoil starter to move fuel from the tank to the engine.

- Make sure spark plug wire is properly connected.
- Place throttle control in "FAST" position.
- Move choke control to full "CHOKE" position. Grasp recoil starter handle with one hand and grasp tiller handle with other hand. Pull rope out slowly until engine reaches start of compression cycle (rope will pull slightly harder at this point).
- Pull recoil starter handle quickly. Do not let starter handle snap back against starter. Repeat if necessary.
- If engine fires but does not start, move choke control to half choke position. Pull recoil starter handle until engine starts.
- When engine starts, slowly move choke control to "RUN" position as engine warms up.

NOTE: A warm engine requires less choking to start.

- Move throttle control to desired running position.
- Allow engine to warm up for a few minutes before engaging tines.

**NOTE:** If at a high altitude (3000 feet) or in cold temperatures (below 32°F), the carburetor fuel mixture may need to be adjusted for best engine performance. See "TO ADJUST CARBURETOR" in the Service and Adjustments section of this manual.

**NOTE:** If engine does not start, see troubleshooting points.

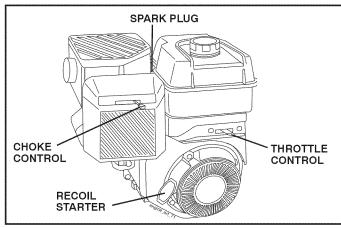


Fig. 8

### **BREAKING IN YOUR TILLER**

Break-in your belt(s), pulleys and tine control before you actually begin tilling.

- Start engine, tip tines off ground by pressing handles down and engage tine control to start tine rotation. Allow tines to rotate for five minutes.
- Check tine operation and adjust if necessary. See "TINE OPERATION CHECK" in the Service and Adjustments section of this manual.

### TILLING HINTS



CAUTION: Until you are accustomed to handling your tiller, start actual field use with throttle in slow position.

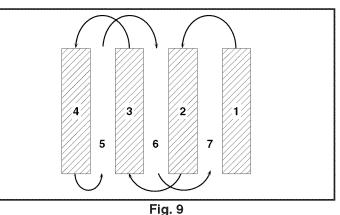
To help tiller move forward, lift up the handles slightly (thus lifting depth stake out of ground). To slow down the tiller, press down on handles.

If you are straining or tiller is shaking, the wheels and depth stake are not set properly in the soil being tilled. The proper setting of the wheels and depth stake is through trial and error and depends upon the soil condition. (The harder or wetter the ground, the slower the engine and tine speed needed. Under these poor conditions, at fast speed the tiller will run and jump over the ground).

A properly adjusted tiller will dig with little effort from the operator.

• Tilling is digging into, turning over, and breaking up packed soil before planting. Loose, unpacked soil helps root growth. Best tilling depth is 4"-6". A tiller will also clear the soil of unwanted vegetation. The decomposition of this vegetable matter enriches the soil. Depending on the climate (rainfall and wind), it may be advisable to till the soil at the end of the growing season to further condition the soil.

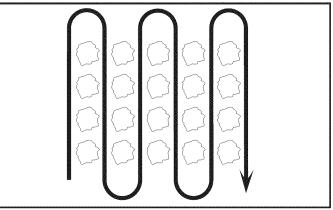
- Soil conditions are important for proper tilling. Tines will not readily penetrate dry, hard soil which may contribute to excessive bounce and difficult handling of your tiller. Hard soil should be moistened before tilling; however, extremely wet soil will "ball-up" or clump during tilling. Wait until the soil is less wet in order to achieve the best results. When tilling in the fall, remove vines and long grass to prevent them from wrapping around the tine shaft and slowing your tilling operation.
- You will find tilling much easier if you leave a row untilled between passes. Then go back between tilled rows. (See Fig. 9) There are two reasons for doing this. First, wide turns are much easier to negotiate than about-faces. Second, the tiller won't be pulling itself, and you, toward the row next to it.
- Set depth stake and wheel height for shallow tilling when working extremely hard soil or sod. Then work across the first cuts at normal depth.



### CULTIVATING

Cultivating is destroying the weeds between rows to prevent them from robbing nourishment and moisture from the plants. At the same time, breaking up the upper layer of soil crust will help retain moisture in the soil. Best digging depth is 1"-3".

- You will probably not need to use the depth stake. Begin by tipping the depth stake forward until it is held by the stake spring.
- Cultivate up and down the rows at a speed which will allow tines to uproot weeds and leave the ground in rough condition, promoting no further growth of weeds and grass (See Fig. 10).



# MAINTENANCE

MAINTENANCE SCHEDULE		FLOREEAC	-CH LIEF	Street Street	SAUS	Sala	7						
FILL IN DATES AS YOU COMPLETE REGULAR SERVICE		ELC ORE	Elin 5 HOL	EAV 25 40		/		SE	ERV	ICE	DAT	ES	
Check Engine Oil Level	~	~											
Change Engine Oil				<b>1</b> ,2									
Oil Pivot Points		~											
Inspect Spark Arrester / Muffler				~									
Inspect Air Screen	~												
Clean or Replace Air Cleaner Cartridge				$\checkmark_2$									
Clean Engine Cylinder Fins				~									
Replace Spark Plug				~									

1 - Change more often when operating under a heavy load or in high ambient temperatures.

2 - Service more often when operating in dirty or dusty conditions.

### GENERAL RECOMMENDATIONS

The warranty on this tiller does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain tiller as instructed in this manual.

Some adjustments will need to be made periodically to properly maintain your tiller.

All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

 Once a year you should replace the spark plug, clean or replace air filter, and check tines and belt for wear. A new spark plug and clean air filter assure proper air-fuel mixture and help your engine run better and last longer.

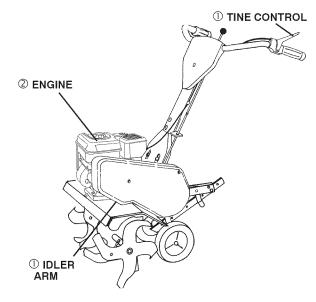
### **BEFORE EACH USE**

- Check engine oil level.
- Check tine operation.
- Check for loose fasteners.

### LUBRICATION

Keep unit well lubricated (See "LUBRICATION CHART")

### **LUBRICATION CHART**





# MAINTENANCE

Disconnect spark plug wire before performing any maintenance (except carburetor adjustment) to prevent accidental starting of engine.

Prevent fires! Keep the engine free of grass, leaves, spilled oil, or fuel. Remove fuel from tank before tipping unit for maintenance. Clean muffler area of all grass, dirt, and debris. Do not touch hot muffler or cylinder fins as contact may cause burns.

### ENGINE

### LUBRICATION

Use only high quality detergent oil rated with API service classification SG-SL. Select the oil's SAE viscosity grade according to your expected temperature.

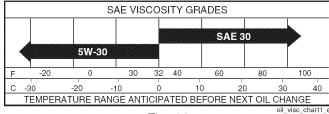


Fig. 11

**NOTE:** Although multi-viscosity oils (5W-30, 10W-30, etc.) improve starting in cold weather, these multi-viscosity oils will result in increased oil consumption when used above  $32^{\circ}F$  (0°C). Check your engine oil level more frequently to avoid possible engine damage from running low on oil.

Change the oil after every 50 hours of operation or at least once a year if the tiller is not used for 50 hours in one year.

Check the crankcase oil level before starting the engine and after each five (5) hours of continuous use. Add SAE 30 motor oil or equivalent. Tighten oil filler plug securely each time you check the oil level.

### TO CHANGE ENGINE OIL (See Figs. 11 and 12)

Determine temperature range expected before oil change. All oil must meet API service classification SG-SL.

- Be sure tiller is on level surface.
- Oil will drain more freely when warm.
- Catch oil in a suitable container.
- Remove drain plug.
- Tip tiller forward to drain oil.
- After oil has drained completely, replace oil drain plug and tighten securely.
- Remove oil filler plug. Be careful not to allow dirt to enter the engine.
- Refill engine with oil. See "FILL ENGINE WITH OIL " in the Operation section of this manual.

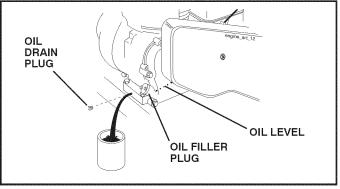
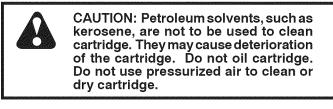


Fig. 12

### AIR CLEANER (See Fig. 13)

Service air cleaner cartridge every 50 hours, more often if engine is used in very dusty conditions.

- Loosen air cleaner screws, one on each side of cover.
- Remove air cleaner cover.
- Carefully remove air cleaner cartridge. Be careful. Do not allow dirt or debris to fall into carburetor.
- Clean by tapping gently on a flat surface.
- If very dirty or damaged, replace cartridge.
- Clean and replace cover. Tighten screws securely.



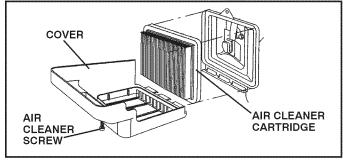


Fig. 13

# MAINTENANCE

### COOLING SYSTEM (See Fig. 14)

Your engine is air cooled. For proper engine performance and long life keep your engine clean.

- Clean air screen frequently using a stiff-bristled brush.
- · Remove blower housing and clean as necessary.
- · Keep cylinder fins free of dirt and chaff.

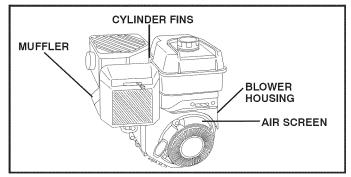


Fig. 14

### MUFFLER

Do not operate tiller without muffler. Do not tamper with exhaust system. Damaged mufflers or spark arresters could create a fire hazard. Inspect periodically and replace if necessary. If your engine is equipped with a spark arrester screen assembly, remove every 50 hours for cleaning and inspection. Replace if damaged.

### SPARK PLUG

Replace spark plugs at the beginning of each tilling season or after every 50 hours of use, whichever comes first. Spark plug type and gap setting is shown in "PRODUCT SPECIFICATIONS" on page 3 of this manual.

### TRANSMISSION

Your transmission is sealed and will only require lubrication if it is serviced.

# CLEANING

Do not clean your tiller when the engine and transmission are hot. We do not recommend using pressurized water (garden hose, etc.) to clean your unit unless the gasket area around the transmission and the engine muffler, air filter and carburetor are covered to keep water out. Water in engine will shorten the useful life of your tiller.

- Clean engine, wheels, finish, etc. of all foreign matter.
- Keep finished surfaces and wheels free of all gasoline, oil, etc.
- Protect painted surfaces with automotive type wax.

# SERVICE AND ADJUSTMENTS



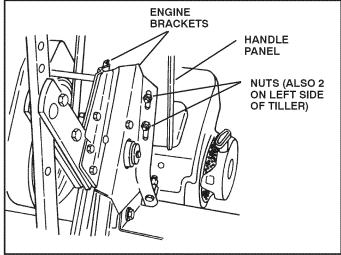
CAUTION: Disconnect spark plug wire from spark plug and place wire where it cannot come into contact with plug.

# TILLER

### TO ADJUST HANDLE HEIGHT (See Fig. 15)

Factory assembly has provided lowest handle height. Select handle height best suited for your tilling conditions. Handle height will be different when tiller digs into soil.

- If a higher handle height is desired, loosen the four nuts securing handle panel to engine brackets.
- Slide handle panel to desired location.
- Tighten the four nuts securely.





### TINE ARRANGEMENT

Your outer tines can be assembled in several different ways to suit your tilling or cultivating needs.



CAUTION: Tines are sharp. Wear gloves or other protection when handling tines.

#### NORMAL TILLING - 26 INCH PATH (See Fig. 16)

• Assemble holes "A" in tine hubs to holes "B" in tine shaft.

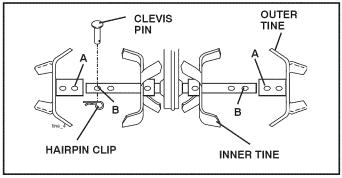


Fig. 16

#### MID-WIDTH TILLING - 24 INCH PATH (See Fig. 17)

 Assemble holes "A" in tine hubs to holes "C" in tine shaft.

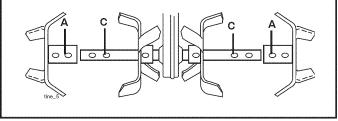


Fig. 17

# NARROW TILLING/CULTIVATING - 12-3/4 INCH PATH (See Fig. 18)

Remove outer tines.

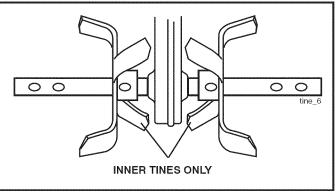


Fig. 18

**NOTE:** When reassembling outer tines, be sure right tine assembly (marked "R") and left tine assembly (marked "L") are mounted to correct side of tine shaft.

# SERVICE AND ADJUSTMENTS

### TO REMOVE BELT GUARD (See Fig. 19)

- Remove two (2) cap nuts and washers from side of belt guard.
- Loosen (do not remove) tine shield nut on underside of tine shield.
- Pull belt guard out and away from unit.
- Replace belt guard by reversing above procedure. Be sure slot in bottom of belt guard is under head of tine shield bolt and all nuts are tightened securely.

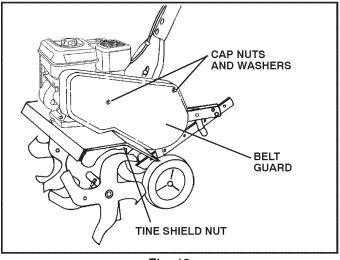


Fig. 19

### TINE OPERATION CHECK (See Fig. 20)



WARNING: Disconnect spark plug wire from spark plug to prevent starting while checking tine operation.

For proper tine operation, forward tine control lever must be against control body and all slack removed from inner wire of control cable when control is in the "OFF" (up) position.

If lever and cable are loose, loosen cable clip at lower end of cable. Pull up on cable to remove slack, without extending spring on end of cable, and retighten cable clip.

### FINAL CHECK "OFF" POSITION

- With tine control "OFF" (up), push down on handle to raise tines off the ground.
- Slowly pull recoil starter handle while observing tines. Tines should not rotate.
- If tines rotate, inner wire of control cable is too tight which is extending lower spring and engaging tines. Loosen cable clip and push down on cable only enough to relieve spring tension. Tighten cable clip.
- Recheck in "OFF" position and adjust if necessary.

### FINAL CHECK "ON" POSITION

- With tine control "ON" (held down to handle) push down on handle to raise tines off the ground.
- Slowly pull recoil starter handle while observing tines. Tines should rotate forward.
- If tines do not rotate, inner wire of control cable is too loose. Loosen cable clip and pull cable up to remove slack and retighten clip.

Recheck in "ON" position and adjust if necessary.

**NOTE:** If "ON" position check required adjustment, recheck "OFF" position adjustment to insure tines do not rotate when control is "OFF" (up).

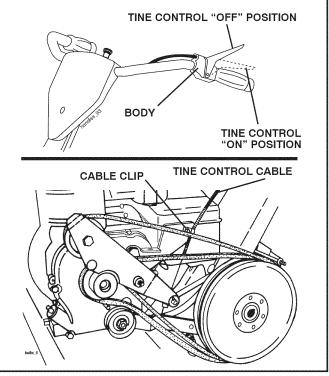


Fig. 20

### TO REPLACE V-BELTS (See Figs. 21 and 22)

Replace V-belts if they have stretched considerably or if they show cracks or frayed edges. There are two (2) V-belts - forward (inside) and reverse (outside).

Belt guard must be removed to service belts. See "TO REMOVE BELT GUARD" in this section of manual.

**NOTE**: Observe carefully routing of both belts and location of all belt guides before removing belts.

### **BELT REMOVAL**

- Remove reverse idler pulley from idler arm.
- Remove reverse (outside) V-belt.
- Remove forward (inside) V-belt from transmission pulley first and then from engine pulley.

### **BELT REPLACEMENT**

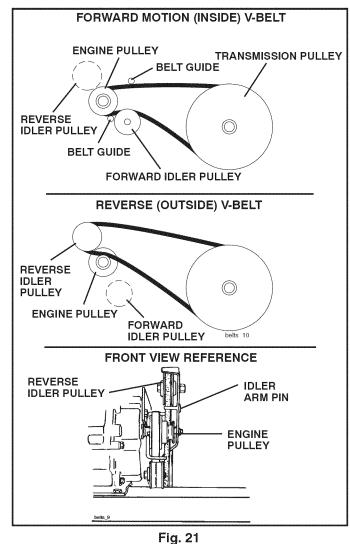
- Install new forward (inside) V-belt to engine pulley first then to transmission pulley. Be sure belt is positioned on inside groove of both pulleys, inside all belt guides and rests on idler pulley.
- Before installing reverse (outside) V-belt, turn belt "inside out". Twist so wide, flat surface of belt is to inside.
- Wrap V-belt around reverse idler pulley and reassemble idler to idler arm. Tighten securely. Be sure belt is between reverse idler pulley and idler arm pin.
- Install belt to outside groove of transmission pulley. Be sure belt is inside all belt guides and rests on outside groove of engine pulley.

# SERVICE AND ADJUSTMENTS

### CHECK TINE OPERATION

See "TINE OPERATION CHECK" in this section of manual.

#### **REPLACE BELT GUARD**



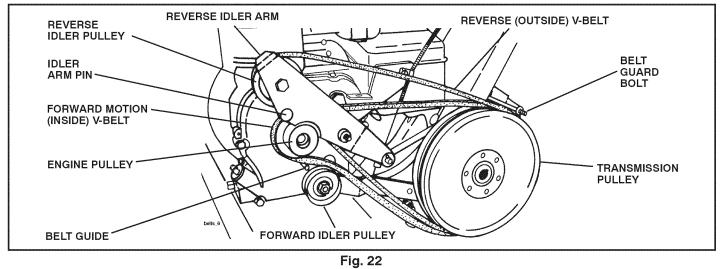
### ENGINE

Maintenance, repair, or replacement of the emission control devices and systems, which are being done at the customers expense, may be performed by any non-road engine repair establishment or individual. Warranty repairs must be performed by an authorized engine manufacturer's service outlet.

### **TO ADJUST CARBURETOR**

The carburetor has been preset at the factory and adjustment should not be necessary. However, engine performance can be affected by differences in fuel, temperature, altitude or load. If the carburetor does need adjustment, contact your nearest authorized service center/department

**IMPORTANT:** NEVER TAMPER WITH THE ENGINE GOVERNOR, WHICH IS FACTORY SET FOR PROPER ENGINE SPEED. OVERSPEEDING THE ENGINE ABOVE THE FACTORY HIGH SPEED SETTING CAN BE DANGEROUS. IF YOU THINK THE ENGINE-GOVERNED HIGH SPEED NEEDS ADJUSTING, CONTACT YOUR NEAREST AUTHORIZED SERVICE CENTER/ DEPARTMENT, WHICH HAS THE PROPER EQUIPMENT AND EXPERIENCE TO MAKE ANY NECESSARY ADJUSTMENTS.





# STORAGE

Immediately prepare your tiller for storage at the end of the season or if the unit will not be used for 30 days or more.



WARNING: Never store the tiller with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.

### TILLER

- Clean entire tiller (See "CLEANING" in the Maintenance section of this manual).
- Inspect and replace belts, if necessary (See belt replacement instructions in the Service and Adjustments section of this manual).
- Lubricate as shown in the Maintenance section of this manual.
- Be sure that all nuts, bolts and screws are securely fastened. Inspect moving parts for damage, breakage and wear. Replace if necessary.
- Touch up all rusted or chipped paint surfaces; sand lightly before painting.

## ENGINE

### FUEL SYSTEM

**IMPORTANT:** IT IS IMPORTANT TO PREVENT GUM DEPOSITS FROM FORMING IN ESSENTIAL FUEL SYSTEM PARTS SUCH AS THE CARBURETOR, FUEL FILTER, FUEL HOSE, OR TANK DURING STORAGE. ALSO, EXPERIENCE INDICATES THAT ALCOHOL BLENDED FUELS (CALLED GASOHOL OR USING ETHANOL OR METHANOL) CAN ATTRACTMOISTURE WHICH LEADS TO SEPARATION AND FORMATION OF ACIDS DURING STORAGE. ACIDIC GAS CAN DAMAGE THE FUEL SYSTEM OF AN ENGINE WHILE IN STORAGE.

- Drain the fuel tank.
- Start the engine and let it run until the fuel lines and carburetor are empty.
- Never use engine or carburetor cleaner products in the fuel tank or permanent.

**NOTE:** Fuel stablizer is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow the mix ratio found on stablizer container. Run engine at least 10 minutes after adding stablizer to allow the stabilizer to reach the carburetor. Do not drain the gas tank and carburetor if using fuel stabilizer.

### **ENGINE OIL**

Drain oil (with engine warm) and replace with clean oil. (See "ENGINE" in the Maintenance section of this manual).

### CYLINDER(S)

- Remove spark plug.
- Pour 1 ounce (29 ml) of oil through spark plug hole into cylinder.
- Pull starter handle slowly several times to distribute oil.
- Replace with new spark plug.

### OTHER

- Do not store gasoline from one season to another.
- Replace your gasoline can if your can starts to rust. Rust and/or dirt in your gasoline will cause problems.
- If possible, store your unit indoors and cover it to give protection from dust and dirt.
- Cover your unit with a suitable protective cover that does not retain moisture. Do not use plastic. Plastic cannot breathe which allows condensation to form and will cause your unit to rust.

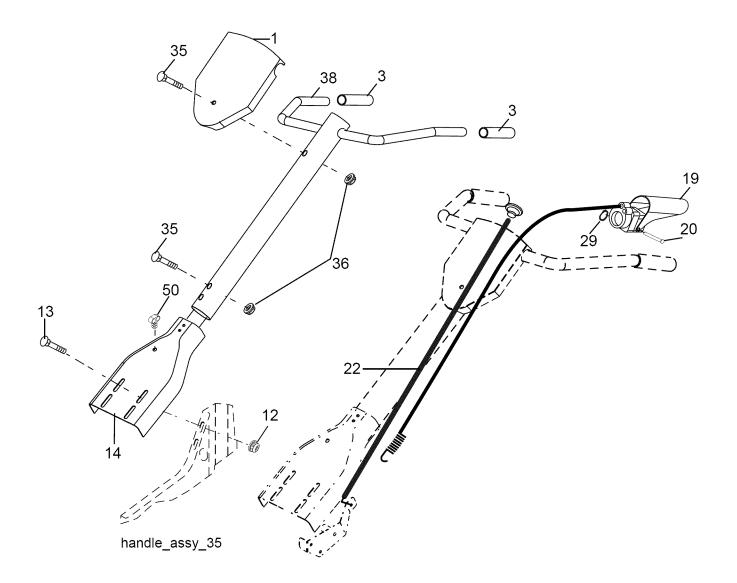
**IMPORTANT:** NEVER COVER TILLER WHILE ENGINE AND EXHAUST AREAS ARE STILL WARM.

# **TROUBLESHOOTING POINTS**

PROBLEM	CAUSE	CORRECTION		
Will not start	<ol> <li>Out of fuel.</li> <li>Engine not "CHOKED" properly.</li> <li>Engine flooded.</li> <li>Dirty air cleaner.</li> <li>Water in fuel.</li> <li>Clogged fuel tank.</li> <li>Loose spark plug wire.</li> <li>Bad spark plug or improper gap.</li> <li>Carburetor out of adjustment.</li> </ol>	<ol> <li>Fill fuel tank.</li> <li>See "TO START ENGINE" in the Operation section.</li> <li>Wait several minutes before attempting to start.</li> <li>Clean or replace air cleaner cartridge.</li> <li>Drain fuel tank and carburetor, and refill tank with fresh gasoline.</li> <li>Remove fuel tank and clean.</li> <li>Make sure spark plug wire is seated properly on plug.</li> <li>Replace spark plug or adjust gap.</li> <li>Make necessary adjustments.</li> </ol>		
Hard to start	<ol> <li>Throttle control not set properly.</li> <li>Dirty air cleaner.</li> <li>Bad spark plug or improper gap.</li> <li>Stale or dirty fuel.</li> <li>Loose spark plug wire.</li> <li>Carburetor out of adjustment.</li> </ol>	<ol> <li>Place throttle control in "FAST" position.</li> <li>Clean or replace air cleaner cartridge.</li> <li>Replace spark plug or adjust gap.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Make sure spark plug wire is seated properly on plug.</li> <li>Make necessary adjustments.</li> </ol>		
Loss of power	<ol> <li>Engine is overloaded.</li> <li>Dirty air cleaner.</li> <li>Low oil level/dirty oil.</li> <li>Faulty spark plug.</li> <li>Oil in fuel.</li> <li>Stale or dirty fuel.</li> <li>Water in fuel.</li> <li>Clogged fuel tank.</li> <li>Spark plug wire loose.</li> <li>Dirty engine air screen.</li> <li>Dirty/clogged muffler.</li> <li>Carburetor out of adjustment.</li> <li>Poor compression.</li> </ol>	<ol> <li>Set depth stake and wheels for shallower tilling.</li> <li>Clean or replace air cleaner cartridge.</li> <li>Check oil level/change oil.</li> <li>Clean and regap or change spark plug.</li> <li>Drain and clean fuel tank and refill, and clean carburetor.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Drain fuel tank and carburetor, and refill tank with fresh gasoline.</li> <li>Remove fuel tank and clean.</li> <li>Connect and tighten spark plug wire.</li> <li>Clean engine air screen.</li> <li>Clean encessary adjustments.</li> <li>Contact an authorized service center/department.</li> </ol>		
Engine overheats	<ol> <li>Low oil level/dirty oil.</li> <li>Dirty engine air screen.</li> <li>Dirty engine.</li> <li>Partially plugged muffler.</li> <li>Improper carburetor adjustment.</li> </ol>	<ol> <li>Check oil level/change oil.</li> <li>Clean engine air screen.</li> <li>Clean cylinder fins, air screen, muffler area.</li> <li>Remove and clean muffler.</li> <li>Adjust carburetor to richer position.</li> </ol>		
Excessive bounce/       1. Ground too dry and hard.         difficult handling       2. Wheels and depth stake incorrectly adjusted.		<ol> <li>Moisten ground or wait for more favorable soil conditions.</li> <li>Adjust wheels and depth stake.</li> </ol>		
Soil balls up or clumps	1. Ground too wet.	1. Wait for more favorable soil conditions.		
Engine runs but tiller won't move	<ol> <li>Tine control is not engaged.</li> <li>V-belt not correctly adjusted.</li> <li>V-belt is off pulley(s).</li> </ol>	<ol> <li>Engage tine control.</li> <li>Inspect/adjust V-belt.</li> <li>Inspect V-belt.</li> </ol>		
Engine runs but labors when tilling1. Tilling too deep. 2. Throttle control not properly adjusted. 3. Carburetor out of adjustment.		<ol> <li>Set depth stake for shallower tilling.</li> <li>Check throttle control setting.</li> <li>Make necessary adjustments.</li> </ol>		

TILLER - - MODEL NUMBER 917.299390

### HANDLES



KEY	PART	

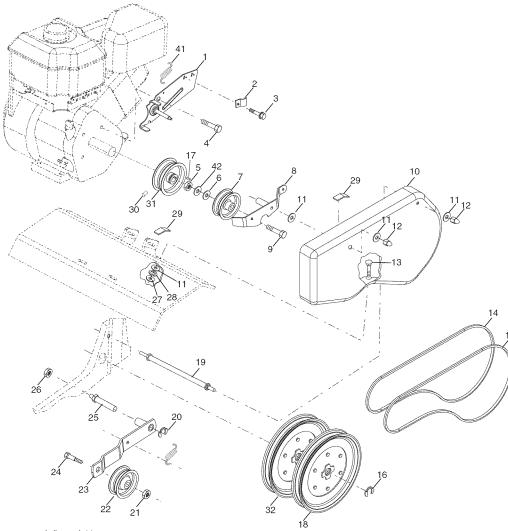
- DESCRIPTION NO. NO.
- 532 43 27-09 Panel, Control 1 3
- 12
- 13
- 532 43 27-09 Panel, Control 532 16 57-87 Grip, Handle 898 00 01-29 Nut, Flange 872 01 05-06 Bolt, Carriage 5/16-18 x 3/4 532 18 14-76 Assembly, Panel and Tube 532 18 85-32 Lever, Control, Tine 532 18 85-55 Pin, Pivot 532 18 81-71 Cable Asm Reverse 14
- 19
- 20
- 22
- 29 812 00 00-59 Retainer, Ring

KEY	PART	
NO.	NO.	DESCRIPTION
35	872 01 05 20	Bolt 5/16 18 V 2 1

- 35
- 872 01 05-20 Bolt 5/16-18 x 2-1/2 873 97 05-00 Locknut, Flange 5/16-18 unc 36
- 532 43 55-67 Assembly, Handle Column 532 18 15-80 Clip Routine Dual 38
- 50

NOTE: All component dimensions given in U.S. inches. 1 inch = 25.4 mm

### TILLER - - MODEL NUMBER 917.299390 BELT GUARD AND PULLEY ASSEMBLY



belt\_guard\_14

#### KEY PART

#### NO. NO. DESCRIPTION

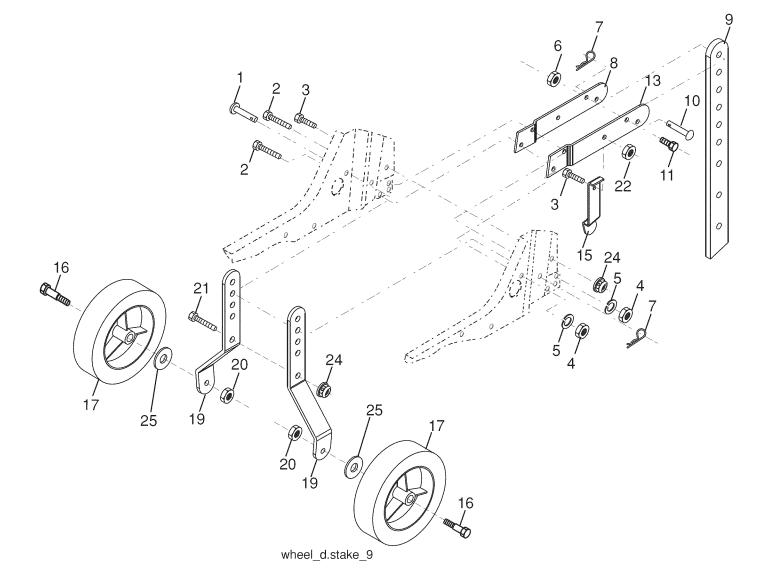
1 2 3	532 18 03-77 Assembly, Bracket, Belt Guard 532 00 94-84 Clip, Cable 532 08 67-77 Screw #10-24 x 1/2
4	874 61 08-12 Bolt, Hex Head 1/2-20 x 3/4
5	873 68 06-00 Nut, Hex 3/8-16
6	819 13 13-16 Washer 13/32 x 13/16 x 16 Ga.
7	532 12 50-04 Pulley, Idler, Reverse
8	532 18 03-23 Assembly, Arm, Reverse Idler
9	874 76 06-28 Bolt, Hex Head 3/8-16 x 1-3/4
10	532 43 27-10 Guard, Belt
11	819 09 10-16 Washer 9/32 x 5/8 x 16 Ga.
12	532 10 42-13 Nut, Cap 1/4- 20
13	872 14 04-06 Bolt, Carriage 1/4-20 x 3/4
14	532 13 30-35 V-Belt (Forward Motion)
15	532 00 26-14 V-Belt (Reverse)
16	812 00 00-28 Ring, Retainer
17	532 00 26-49 Key, Square
18	532 15 12-36 Sheave, Transmission "Flat"
19	532 18 85-02 Bolt, Belt Guard
~~	

20 812 00 00-36 Ring, Klip

KEY NO.		DESCRIPTION
21 22 23 24 25 26 27 28 29 30	532 16 18-06 532 17 53-77 874 76 06-20 532 10 69-68 873 35 05-00 873 22 04-00 810 04 04-00 532 10 92-27	Arm, İdler Bolt 3/8-16 x 1-1/4 Shaft, Idler Arm Nut, Hex, Jam 5/16-18 Nut, Hex 1/4-20 Washer, Lock 1/4
31 32 41 42	532 15 12-23	Sheave, Engine Sheave, Transmisison Spring Extension

# **NOTE:** All component dimensions given in U.S. inches. 1 inch = 25.4 mm

### TILLER - - MODEL NUMBER 917.299390 WHEEL AND DEPTH STAKE ASSEMBLY



#### KEY PART NO. NO. DESCRIPTION

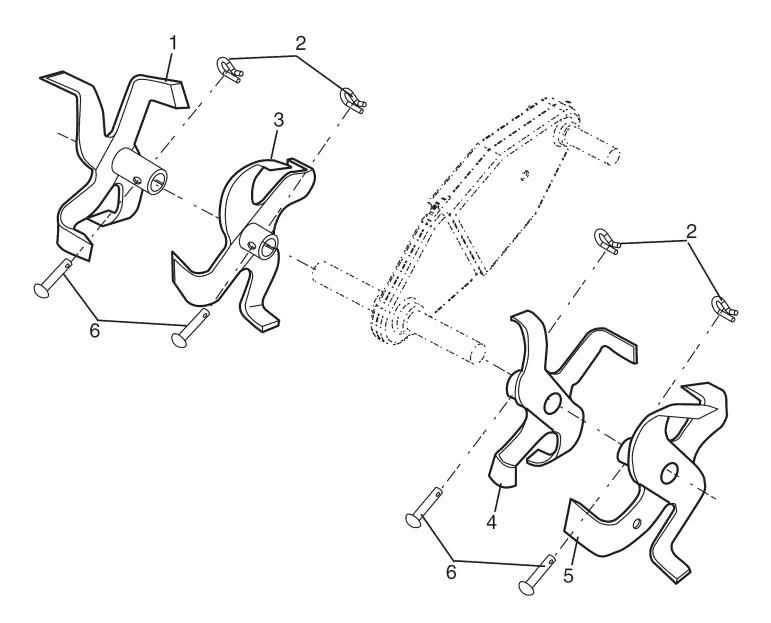
- 532 00 91-94 Pin, Clevis 1
- 874 76 05-20 Bolt, Hex Head 5/16-18 x 1-1/4
- 874 76 05-12 Bolt, Hex Head 5/16-18 x 3/4
- 2345678 873 22 05-00 Nut, Hex 5/16-18
- 810 04 05-00 Washer, Lock 5/16
- 873 80 06-00 Locknut, w/washer 3/8-16
- 532 12 49-61 Clip, Hairpin
- 532 00 19-52 Support, Depth Stake, R.H.
- 9 532 12 22-33 Stake, Depth
- 532 00 03-26 Pin, Clevis 10
- 874 78 06-28 Bolt, Hex 3/8-16 x 1-3/4 11
- 532 00 19-51 Support, Depth Stake, L.H. 13

KEY NO.	PART NO.	DESCRIPTION
15 16		Spring, Stake Bolt, Shoulder

- 532 42 70-25 Wheel 17
- 532 00 91-90 Bracket, Wheel 19
- 20 873 68 06-00 Locknut, Crown 3/8-16
- 874 76 05-16 Bolt, Hex Head 5/16-18 x 1 21
- 873 80 05-00 Locknut, w/insert 5/16-18 22
- 873 97 05-00 Locknut, Flange 5/16-18 unc 24
- 25 819 17 14-16 Washer 17/32 x 7/8 x 16 Ga.
- NOTE: All component dimensions given in U.S. inches. 1 inch = 25.4 mm

TILLER - - MODEL NUMBER 917.299390

TINE ASSEMBLY

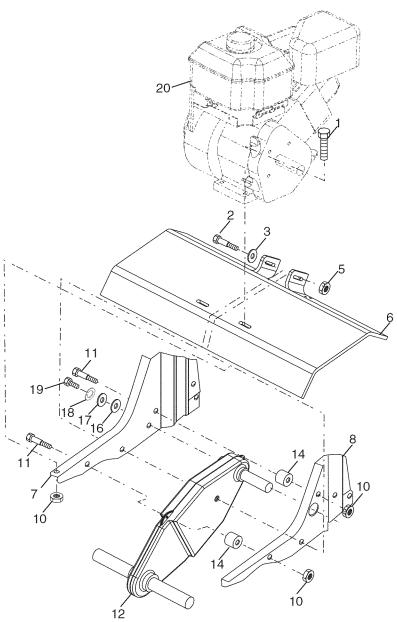


tine\_ipb\_3

KEY NO.	Part No. D	ESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	532 15 69-34	Tine, Outer, R.H.	4	532 15 69-31	Tine, Outer, L.H.
2	532 00 31-46	Retainer, Spring	5	532 15 69-33	
3	532 15 69-32	Tine, Inner, R.H.	6	532 00 49-29	

### TILLER - - MODEL NUMBER 917.299390

### TRANSMISSION



### KEY PART

### NO. NO. DESCRIPTION

- 1 874 76 05-24 Bolt, Hex 5/16-18 x 1-1/2 Gr. 2
- 2 874 78 06-52 Bolt, Hex 3/8-16 x 3-1/4
- 3 819 13 13-11 Washer 13/32 x 13/16 x 11
- 5 873 90 06-00 Locknut 3/8-16
- 6 532 43 27-11 Shield, Tine
- 7 532 18 81-95 Bracket, Engine, R.H.
- 8 532 16 58-34 Bracket, Engine, L.H.
- 10 873 97 05-00 Nut, Hex 5/16-18
- 11 532 18 79-12 Bolt, Hex Head 5/16-18 x 2.5
- 12 532 15 12-22 Transmission

#### transmission\_12

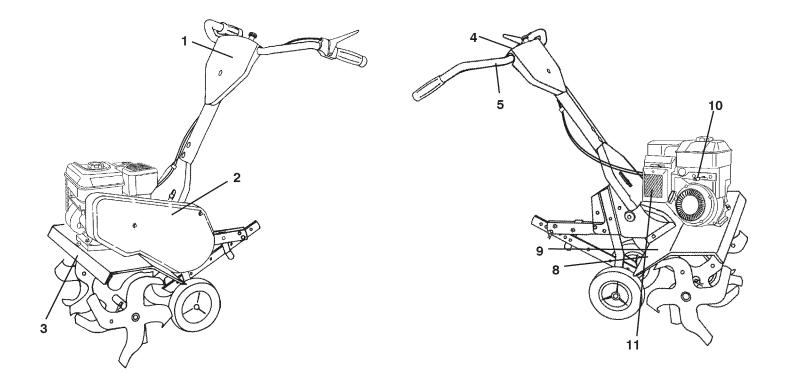
KEY PART

#### NO. NO. DESCRIPTION

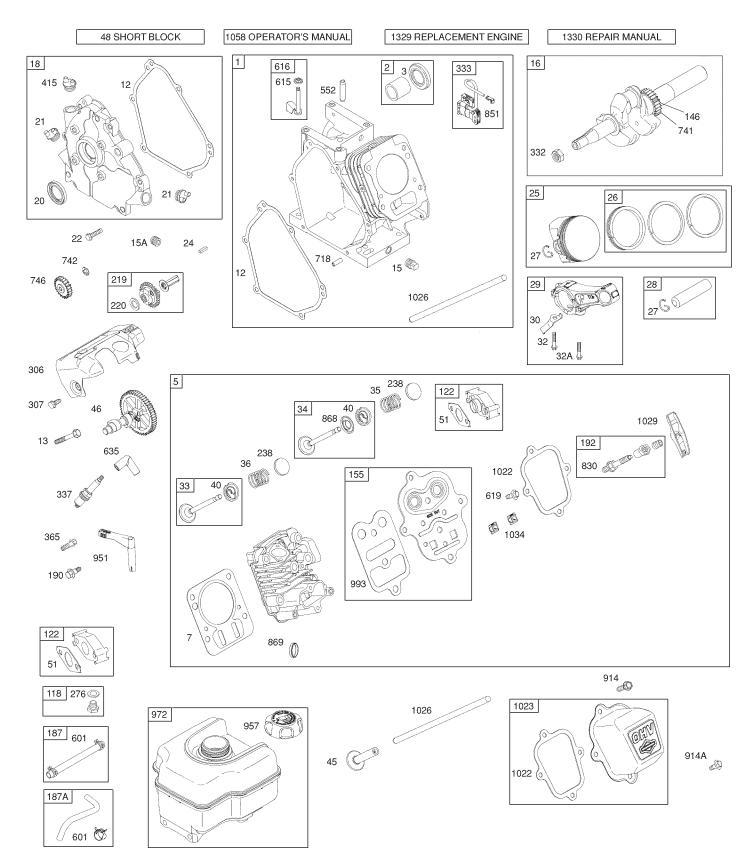
- 14 532 00 91-73 Spacer, Split
- 16 819 09 14-12 Washer 9/32 x 7/8 x 12 Ga.
- 17 819 09 20-16 Washer 9/32 x 1-1/4 x 16 Ga.
- 18 810 04 04-00 Washer, Lock 1/4
- 19 874 61 04-12 Bolt, Hex 1/4-28 x 3/4 Gr. 5
- 20 ----- Engine Briggs Model 121002-1380-B8
- **NOTE:** All component dimensions given in U.S. inches. 1 inch = 25.4 mm

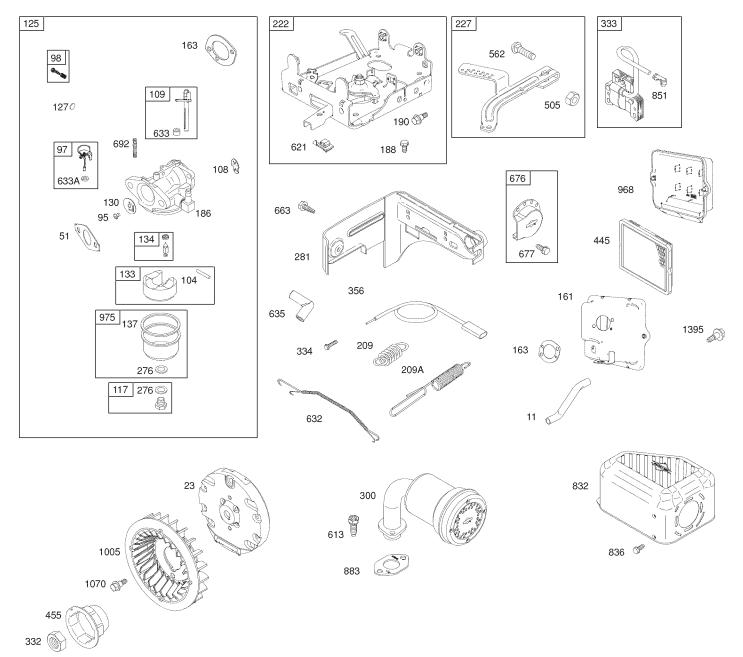
### TILLER - - MODEL NUMBER 917.299390

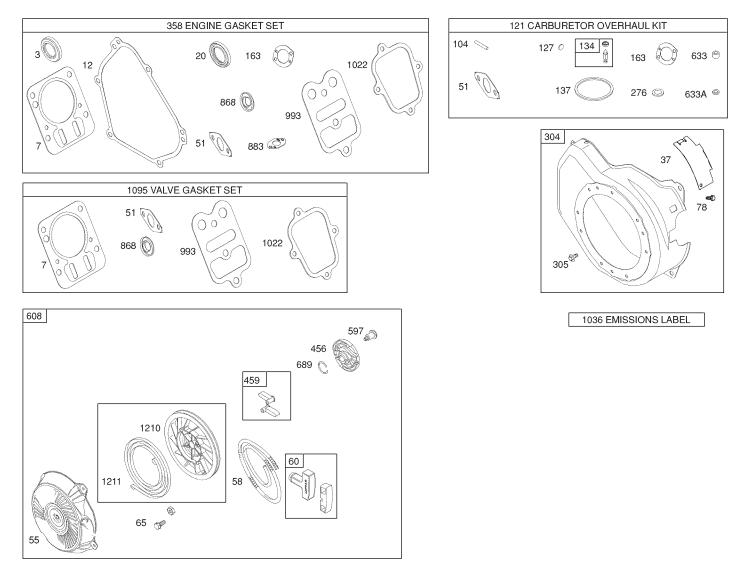
DECALS



KEY NO.	PART NO.	DESCRIPTION
NO.	NO.	DESCRIPTION
1	532 43 24-16	Decal, Logo
2	532 42 91-96	Decal, Logo
3	532 43 24-18	
4		Decal, Panel Control Inst.
5	532 11 06-14	Decal, Hand Placement
8	532 12 00-76	Decal, Warning, Rotating Tines
9	532 42 29-72	Decal, Tine Shield
10	532 40 41-43	Decal, Tank
11	532 43 22-78	Decal, Air Cleaner
	532 43 58-47	Manual, Owner's (English)
		Manual, Owner's (French)







KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	699510	Cylinder Assembly	161	790631	Base-Air Cleaner
2	399269	Kit-Bushing/Seal (Magneto Side)	163	696024	Gasket-Air Cleaner
3	299819s	Seal-Oil (Magneto Side)	186	692317	Hose-Connector
5	797439	Head-Cylinder	187	791766	Line-Fuel (Cut to Required Length)
7	698210	Gasket-Cylinder Head	187A	791867	Line-Fuel (Formed)
11	790632	Tube-Breather	188	699479	Screw (Control Bracket)
12	699485	Gasket-Crankcase	190	699220	Screw (Fuel Tank)
13	699482	Screw (Cylinder Head)	192	797440	Adjuster-Rocker Arm
15	691686	Plug-Oil Drain	209	691278	Spring-Governor (Platinum)
15A	691682	Plug-Oil Drain	209	692571	Spring-Governor (# 5 Hole)
16	797070	Crankshaft	219	693578	Gear-Governor
18	699696	Cover-Crankcase	220	691724	Washer (Governor Gear)
20	692550	Seal-Oil (PTO Side)	222	793107	Bracket-Control
21	281658s	Cap-Oil Fill	227	794367	Lever-Governor Control
22	699478	Screw (Crankcase Cover/Sump)	238	691300	Cap-Valve
23	699488	Flywheel	265	691024	Clamp-Casing
24	222698s	Key-Flywheel	267	699492	Screw (Casing Clamp)
25	795429	Piston Assembly (Standard)	276	271716	Washer-Sealing
	795430	Piston Assembly (.020" Oversize)	281	793122	Panel-Control
26	791969	Ring Set (Standard)	300	693593	Muffler
	793001	Ring Set (.020" Oversize)	304	699598	Housing-Blower
27	691866	Lock-Piston Pin	305	699480	Screw (Blower Housing)
28	499423	Pin-Piston	306	795334	Shield-Cylinder
29	690124	Rod-Connecting	307	699483	Screw (Cylinder Shield)
30	791584	Dipper-Connecting Rod	332	792723	Nut (Flywheel)
32	691664	Screw (Connecting Rod) (Short)	333	796964	Armature-Magneto
32A	695759	Screw (Connecting Rod) (Long)	334	699477	Screw (Magneto Armature)
33	499642	Valve-Exhaust	337	491055s	Plug-Spark
34	795443	Valve-Intake	356	692390	Wire-Stop
35	691304	Spring-Valve (Intake)	358	791797	Gasket Set-Engine
36	691304	Spring-Valve (Exhaust)	365	699484	Screw (Carburetor)
37	699661	Guard-Flywheel	415	693463	Plug (Crankcase Cover)
40	692194	Retainer-Valve	445	491588s	Filter-Air Cleaner Cartridge
45	690977	Tappet-Valve	455	692591	Cup-Flywheel
46	693404	Camshaft	456	692299	Plate-Pawl Friction
48	791518	Short Block	459	281505s	Pawl-Ratchet
51	692555	Gasket-Intake	505	691251	Nut (Governor Control Lever)
55	791848	Housing-Rewind Starter	552	692346	Bushing-Governor Crank
58	693389	Rope-Starter	562	691119	Bolt (Governor Control Lever)
60	490652	Grip-Starter Rope	597	691696	Screw (Pawl Friction Plate)
65	699228	Screw (Rewind Starter)	601	791850	Clamp-Hose (Green)
95	691636	Screw (Throttle Valve)	608	795930	Starter-Rewind
97	690024	Shaft-Throttle	613	699209	Screw (Muffler)
98	398185	Kit-Idle Speed	615	692576	Retainer-Governor Shaft
104	691242	Pin-Float Hinge	616	692547	Crank-Governor
108	692567	Valve-Choke	619	699230	Screw (Cylinder Head Plate)
109	790624	Shaft-Choke	621	692310	Switch-Stop (Brake)
117	690048	Jet-Main (Standard)	632	693408	Spring/Link-Mechanical Governor
118	497315	Jet-Main (High Altitude)	633	693867	Seal-Choke/Throttle Shaft (Choke
121	792006	Kit-Carburetor Overhaul			Shaft)
122	795643	Spacer-Carburetor	633A	691321	Seal-Choke/Throttle Shaft (Throttle
125	698474	Carburetor	005	000070	Shaft)
127	691739	Plug-Welch	635	692076	Boot-Spark Plug
130	691181	Valve-Throttle	663	699206	Screw (Control Panel)
133	398187	Float-Carburetor	676	796596	Deflector-Muffler
134	398188	Kit-Needle/Seat	677	699203	Screw (Muffler Deflector)
137	693981	Gasket-Float Bowl	689	691855	Spring-Friction
146	690979	Key-Timing	692	690572	Spring-Detent
155	797442	Plate-Cylinder Head	718	690959	Pin-Locating

KEY NO.	PART NO.	DESCRIPTION
741	695087	Gear-Timing
742	692564	Retainer-E Ring
746	790278	Gear-Idler
830	797441	Stud-Rocker Arm
832	693583	Guard-Muffler
836	699632	Screw (Muffler Guard)
851	493880s	Terminal-Spark Plug
868	795440	Seal-Valve
869	691115	Seat-Valve
883	691893	Gasket-Exhaust
914	699480	Screw (Rocker Cover) (Bottom)
914A		Screw (Rocker Cover)
951	790630	Lever-Choke
957	795027	Cap-Fuel Tank
958		Valve-Fuel Shut Off
968		Cover-Air Cleaner
972		Tank-Fuel
975	790559	Bowl-Fuel
993	694088	Gasket-Cylinder Head Plate
1005	692592	Fan-Flywheel
1022	691890	Gasket-Rocker Cover
1023	499924	Cover-Rocker
1026	790287	Rod-Push
1029		Arm-Rocker
1034	691343	Guide-Push Rod
1036		Label-Emissions (Available from a
4050	077040	Briggs & Stratton Authorized Dealer)
1058	277040	Operator's Manual
1070	699201	Screw (Flywheel Fan) Gasket Set-Valve
1095 1210	791798 791849	
		Pulley/Spring Assembly (Pulley)
1211 1329	791849 122002-	Pulley/Spring Assembly (Spring)
1958	0520-B8	Replacement Engine
1330	276781	Repair Manual
1395	690370	Screw (Air Cleaner Base)
1999	090370	OCIEW (All Cleaner Dase)

**NOTE:** All component dimensions given in U.S. inches. 1 inch = 25.4 mm

# **SERVICE NOTES**

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# Husqvarna WARRANTY STATEMENT

#### SECTION 1: LIMITED WARRANTY

Husqvarna Forest & Garden Company ("Husqvarna") warrants Husqvarna product to the original purchaser to be free from defects in material and workmanship from the date of purchase for the "Warranty Period" of the product as set forth below: Lifetime Warranty (Parts and Labor): All tiller tines and trimmer shafts against breakage. Proof of purchase required. Lifetime Warranty ("PARTS ONLY" after initial warranty expiration): Ignition coils and modules on handheld product. Proof of purchase required.

#### WARRANTY SCHEDULE FOR TURF CARE Equipment - Zero Turn Riders

(New warranty applies to units sold after August 1, 2005. Also applies to units factory-equipped with R.O.P.S. **EZ Zero Turn Riders:** 3 year consumer warranty or 600 hours of use (when used solely at the owner's residence.)

EZ & MZ Zero Turn Riders: 1 year commercial warranty or 600 hours of use.

iZ, LZ & BZ Zero Turn Riders: 5 year consumer warranty or 1,500 hours of use.

iZ, LZ & BZ Zero Turn Riders: 5 year commercial warranty or 1,500 hours of use.

3 Year or 1,500 Hour Commercial Use Warranty: spindles on zero turn riders, hydraulic pumps and wheel motors.
 Warranty Schedule for Turf Care Walk Behind Units - W, WG & WH Zero Turn Riders - 3 year consumer and commercial warranty. New warranty applies to units sold after August 1, 2005. Also applies to units factory-equipped with R.O.P.S.
 2 Year COMMERCIAL and CONSUMER Warranty: all Husqvarna ground-engaging commercial equipment.
 WARRANTY SCHEDULE FOR CONSUMER TURF CARE EQUIPMENT:

2 Year Consumer Warranty: Automatic mower, all Residential Zero Turn Riders, all lawn, yard and garden tractors, all noncommercial walk behind mowers, fillers, snow blowers, electrical products and power-assist collection systems for noncommercial, nonprofessional, noninstitutional or nonincome producing use, except as herein stated. All consumer product use must have been limited to the owner's residence.

#### WARRANTY SCHEDULE FOR CONSUMER FOREST & GARDEN EQUIPMENT:

2 Year Consumer Warranty: all consumer chain saws, trimmers, brushcutters, clearing saws, handheld blowers, backpack blowers, hedge trimmers, and electrical products for noncommercial, nonprofessional, noninstitutional or nonincome producing use, except as herein stated. All consumer product use must have been limited to the owner's residence.
2 Year or 2.000 Hour Powertrain & 1 Year or 1.000 Hour Body Warranty: Husgvarna Utility Vehicles.

1 Year Warranty: Power cutters, stump grinder, pole pruners and pole saws for non-commercial, non-professional, non-institutional, non-municipality or non-income producing use. All 300 series trimmers, brushcutters, clearing saws, hovering trimmers, stick edgers, backpack blowers, hand held blowers, hedge trimmers, power-assist collection systems for commercial, institutional, professional or income producing purposes or use.

1 Year Conditional Component Warranty: Chain saw crankshafts for commercial/professional use (parts and labor). Saw must be operated with Husqvarna XP 2 cycle oil.

90 Day Commercial Warranty: Automatic mower, chain saws, 100 series trimmers, power cutters, stump grinders, pole saws, pole pruners, snow throwers, model series 580 & 600 walk-behind mowers, or any Husqvarna product used for commercial, institutional, professional, municipality or income producing purposes or use except as otherwise provided herein. Batteries: 1 year prorated limited warranty with 100% replacement during the first 6 months.

Rental Warranty: 90 days on all applicable professional equipment reference warranty time period charts located in the back of the Retailer Warranty Policy & Procedure Manual.

Husqvarna Safety Apparel carries a 90-day warranty from the date of the customer's original purchase for defects in material and workmanship. Normal wear, tear or abuse is not covered under warranty. Product must be returned to Charlotte with a warranty claim form. All care and maintenance instructions must be followed as stated by the manufacturer on the care label. The fit of the protective apparel/boot is not covered under warranty.

**30 Day Warranty:** Replacement parts, accessories including bars and chains, tools and display items. Emission control system components necessary to comply with CARB-TIER II and EPA regulations, except for those components which are part of engine systems manufactured by third part engine manufacturers for which the purchaser has received a separate warranty with product at time of purchase.

#### SECTION 2: HUSQVARNA'S OBLIGATIONS UNDER THE WARRANTY

Husqvarna will repair or replace defective components without charge for parts or labor if a component fails because of a defect in material or workmanship during the warranty period.

#### SECTION 3: ITEMS NOT COVERED BY THIS WARRANTY

The following items are not covered by this warranty:

(1) Normal customer maintenance items which become worn through normal regular use, including, but not limited to, belts, blades, blade adapters, bulbs, clutches, clutch drums, filters, guide bars, lubricants, rewind springs, saw chain, spark plugs,

starter ropes and tiller tines;

(2) Natural discoloration of material due to ultraviolet light;

(3) Engine and drive systems not manufactured by Husqvarna; these items are covered by the respective manufacturer's warranty as provided in writing with the product information supplied at the time of purchase; all claims must be sent to the appropriate manufacturer;

(4) Lawn and garden attachments are covered by a third party which gives a warranty, all claims for warranty should be sent to the manufacturer,

(5) Commercial or consumer mowing decks with sand abrasion damage.

(6) Emission Control System components necessary to comply with CARB-TIER II and EPA regulations which are manufactured by third party engine manufacturer.

#### SECTION 4: EXCEPTIONS AND LIMITATIONS

This warranty shall be inapplicable to defects resulting from the following:

(1) Accident, abuse, misuse, negligence and neglect, including stale fuel, dirt, abrasives, moisture, rust, corrosion, or any adverse reaction due to incorrect storage or use habits;

(2) Failure to operate or maintain the unit in accordance with the Owner's/Operator's manual or instruction sheet furnished by Husqvarna;

(3) Alterations or modifications that change the intended use of the product or affects the product's performance, operation, safety, or durability, or causes the product to fail to comply with any applicable laws; or:

(4) Additional damage to parts or components due to continued use occurring after any of the above.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. HUSQVARNA SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THESE PRODUCTS EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THESE PRODUCTS IS LIMITED IN DURATION TO THE WARRANTY PERIOD AS DEFINED IN THE LIMITED WARRANTY STATEMENT. HUSQVARNA RESERVES THE RIGHT TO CHANGE OR IMPROVE THE DESIGN OF THE PRODUCT WITHOUT NOTICE, AND DOES NO TASSUME OBLIGATION TO UPDATE PREVIOUSLY MANUFACTURED PRODUCTS.

Some states do not allow the exclusion of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitations or exclusions 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.

#### SECTION 5: CUSTOMER RESPONSIBILITIES

The product must exhibit reasonable care, maintenance, operation, storage and general upkeep as written in the maintenance section of the Owner's/Operator's manual. Should an operational problem or failure occur, the product should not be used, but delivered as is to an authorized Husqvarna retailer for evaluation. Proof of purchase, as explained in section 6, rests solely with the customer.

#### SECTION 6: PROCEDURE TO OBTAIN WARRANTY CONSIDERATION

It is the Owner's and Retailer's responsibility to make certain that the Warranty Registration Card is properly filled out and mailed to Husqvarna Forest & Garden Company. This card should be mailed within ten (10) days from the date of purchase in order to confirm the warranty and to facilitate post-sale service.

Proof of purchase must be presented to the authorized Husqvarna retailer in order to obtain warranty service. This proof must include date purchased, model number, serial number, and complete name and address of the selling retailer.

To obtain the benefit of this warranty, the product believed to be defective must be delivered to an authorized Husqvarna retailer in a timely manner, no later than thirty (30) days from date of the operational problem or failure. The product must be delivered at the owner's expense. Downtime, pick-up and delivery charges are not covered by this warranty. An authorized Husqvarna retailer can be normally located through the "Yellow Pages" of the local telephone directory or by calling 1-800-HUSKY62 for a retailer in your area.

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