Sears

OWNERS MANUAL

MODEL NO. 917.299230

Caution: Read Rules for Safe Operation and Instructions Carefully

3.5 H.P. CRT 14 INCH REAR TINE TILLER WITH COUNTER ROTATING TINES

Assembly
Operation
Maintenance
Repair Parts

Sears, Roebuck and Co., Chicago, Ill. 60684 U.S.A.

MODEL NUMBER _____

SERIAL NUMBER _____

THE MODEL AND SERIAL NUMBERS WILL BE FOUND ON THE MODEL PLATE ATTACHED TO THE TOP OF THE TRANSMISSION (FIG. 1).

YOU SHOULD RECORD BOTH MODEL AND SERIAL NUMBERS AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

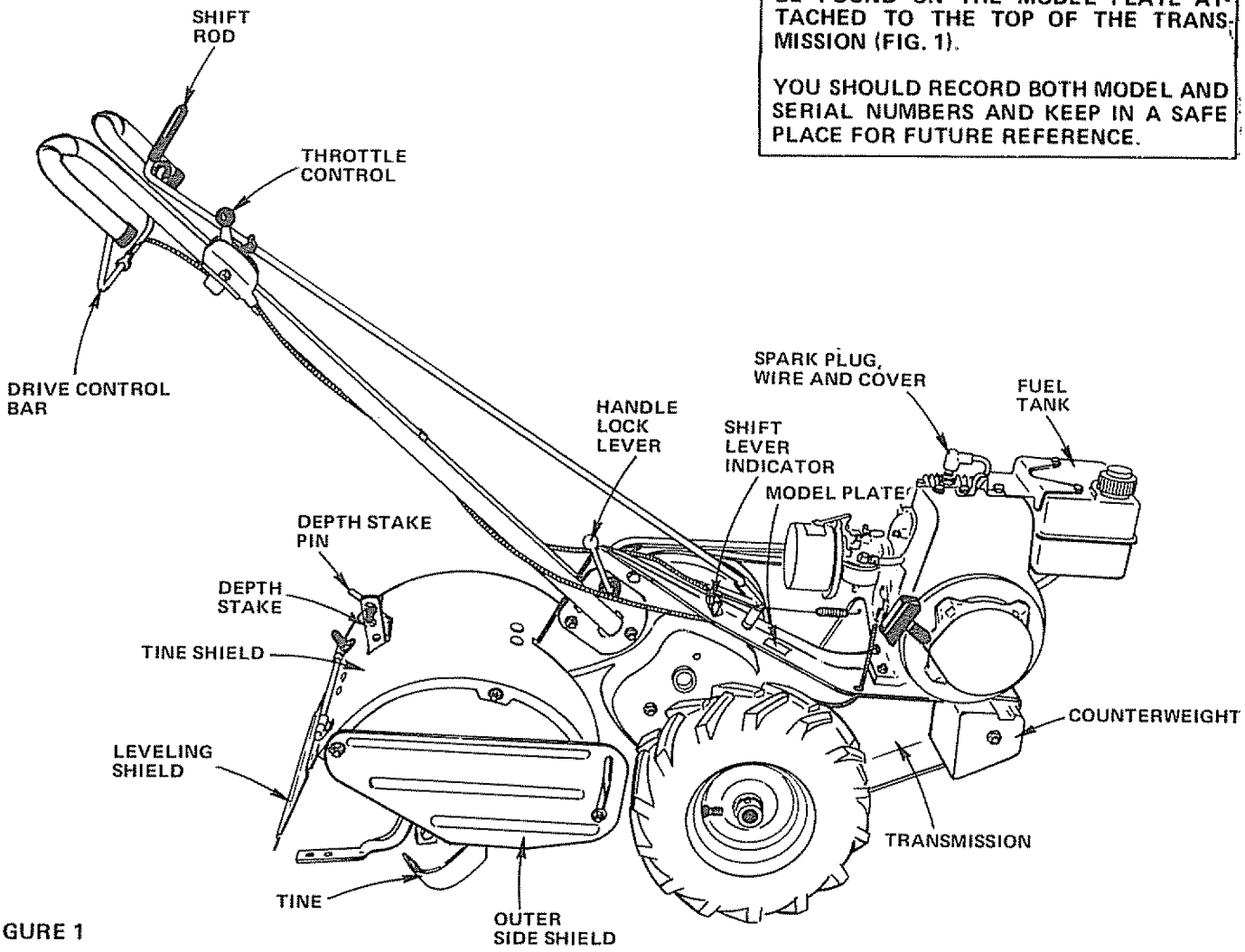


FIGURE 1

TABLE OF CONTENTS

	PAGE
WARRANTY	1
RULES FOR SAFE OPERATION	1
ASSEMBLY	2
GAS AND OIL FILL UP	4
OPERATION	4
TILLING HINTS	7
MAINTENANCE	9
LUBRICATION CHART	13
MAINTENANCE CHECK LIST	13
TROUBLE SHOOTING	14
REPAIR PARTS	15

OPTIONAL EQUIPMENT

71-29069 Til-Row Cultivator

– NOTE–

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 or state 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 the above 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 Sears Authorized Service Center for spark arrester muffler listed on page 24.

LIMITED ONE YEAR WARRANTY ON TILLER

For one year from date of purchase, when this tiller is maintained, lubricated, and tuned up according to the operating and maintenance instructions in the owner's manual, Sears will repair free of charge any defect in material or workmanship.

This warranty excludes tine(s), spark plug, air cleaner and belt(s) which are expendable parts and become worn during normal use.

If this tiller is used for commercial or rental purposes, this warranty applies for only 30 days from the date of purchase.

WARRANTY SERVICE IS AVAILABLE BY CONTACTING THE NEAREST SEARS SERVICE CENTER/DEPARTMENT IN THE UNITED STATES. This warranty applies only while this product is in use in the United States.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

SEARS, ROEBUCK AND CO., D/698-731A, Sears Tower, Chicago, IL 60684

RULES FOR SAFE OPERATION

1. **KNOW YOUR TILLER.** Become familiar with all the different sections of this Owners Manual before attempting to operate your Tiller. Know the controls and how to stop quickly.

2. **ALWAYS KEEP HANDS AND FEET AWAY FROM ROTATING TINES AND OTHER DRIVEN PARTS.** Always wear substantial footwear Do not wear loose fitting clothing that could get caught in moving parts

3. **LIMIT YOUR TILLER'S USE TO TRAINED ADULTS.** Do not allow children to operate your Tiller. Keep bystanders and pets away from the area when you are operating your Tiller.

4. **MAKE SURE THE AREA IS CLEAR** of bottles, stones, wire and other hazardous items before tilling

5. **HANDLE FUEL WITH CARE;** it is highly flammable. Never add fuel to a running or hot engine or fill tank indoors. Turn engine off and let your Engine cool before refueling.

   Fuel Tank Cap must be secure at all times except during refueling.

   Do not smoke while refueling.

   Fuel your Tiller in a clean area.

   Avoid spilling gasoline or oil. Wipe the Tiller clean of any spilled fuel or oil.

   Do not operate engine if air cleaner or cover directly over carburetor air intake is removed, except for adjustment. Removal of such part could create a fire hazard.

   Do not use flammable solutions to clean the air filter.

   Store your Tiller fuel and oil in approved containers away from heat or open flame and out of reach of children.

6. USE YOUR TILLER PROPERLY. Before starting engine make sure Drive Control Bar is in "STOP" position and Shift Lever Indicator is in "N" NEUTRAL position.

   Operate your Tiller up and down the face of slopes (not greater than 15^{o}); never across the face. Make turns gradually to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.

   Do not run engine indoors, exhaust fumes are poisonous.

   Never operate product when tired or fatigued. Always operate product with extreme care with your own safety in mind. Carelessness or misuse could lead to severe injury.

   Before removing obstacles, transporting your Tiller, or when making any adjustments except carburetor, make sure Drive Control Bar is in "STOP" position and Shift Lever Indicator is in "N" NEUTRAL position. Stop engine before leaving the operating position. Disconnect spark plug wire and cover from spark plug.

   Release Drive Control Bar to disengage tines before shifting into reverse. Be sure of your footing. Don't back yourself into a solid obstruction, such as a tree, fence, etc. To stop quickly, release the drive control bar.

7. **ALLOW THE ENGINE ON YOUR TILLER TO COOL** before performing any maintenance or adjustments, transporting your Tiller or storing your Tiller in any enclosure. Never store your Tiller with fuel in the tank inside a building where fumes may reach an open flame or spark.

8. **BE SURE THE TILLER IS IN GOOD WORKING ORDER.** Keep all nuts, bolts and screws tight to be sure your Tiller is in safe working condition.

   Do not change governor settings or over speed engine.

   Do not tamper with the exhaust system. Damaged mufflers or spark arrestors could create a fire hazard. Inspect periodically and replace if necessary.

   Your Tiller must be stopped and inspected for damage after striking a foreign object. The damage must be repaired before restarting or operating your Tiller.

9. **YOUR TILLER HAS BEEN DESIGNED WITH YOUR SAFETY AND CONVENIENCE IN MIND.** Keep all safety devices in place and do not alter your Tiller.

LOOK FOR THIS SYMBOL TO POINT OUT IMPORTANT SAFETY PRECAUTIONS. IT MEANS ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED.

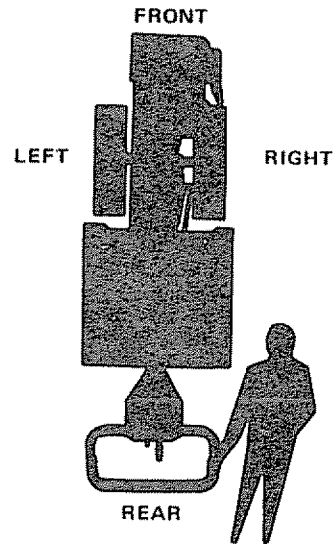


FIGURE 2

ASSEMBLY

To assemble your Tiller you will need:

a utility knife	a pair of pliers
a screwdriver	(1) 9/16" wrench
a hammer	tire pressure gauge
(1) 7/16" wrench	

NOTE: THE RIGHT HAND (R.H.) AND LEFT HAND (L.H.) SIDES OF YOUR TILLER ARE DETERMINED FROM OPERATOR'S POSITION (FIG. 2).

YOUR BAG OF PARTS WILL CONSIST OF THE FOLLOWING:

(1) Owners Manual	(1) Dual Cable Clip
(1) Handle Lock Lever	(1) Flange Nut 3/8 - 16
(1) Lock Plate	(1) Crownlock Nut 1/4 - 20
(2) Carriage Bolts 3/8 - 16 x 1	(2) Gripco Nuts 3/8 - 16
	(1) Washer 13/32 x 7/8 x 14 Ga.

1. UNCRATING
   a. Using a utility knife, cut Cardboard "A", "B", "C" and "D" (Fig. 3).
   b. With a screwdriver, pry Top Wood Frame loose at all four corners (Fig. 4).
   c. Remove Top Wood Frame.

2. HANDLE REMOVAL
   a. Grasp Handle Assembly as shown in Fig. 5.
   b. Slowly ease Handle Assembly up and place on top of crate. NOTE: BE CAREFUL NOT TO KINK CABLES.
   c. Remove Hairpin Clip from Shift Rod. Remove Shift Rod from Handle Assembly. Set Shift Rod and Hairpin Clip aside for later assembly.

3. INSTALL HANDLE
   a. Grasp Handle Assembly, ease Handle Base into position as shown in Fig's. 6 & 7. NOTE: BE CAREFUL NOT TO STRETCH OR KINK CABLES. Route Cables as shown in Fig. 7.
   b. With Handle Assembly in upward position (Fig. 6) install the two Carriage Bolts and Locknuts (shipped in bag of parts). Tighten Bolts so Handle moves with some resistance.

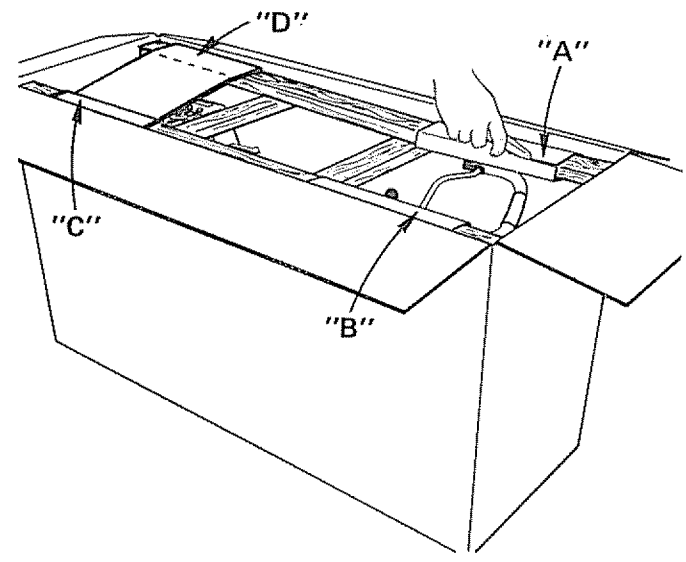


FIGURE 3

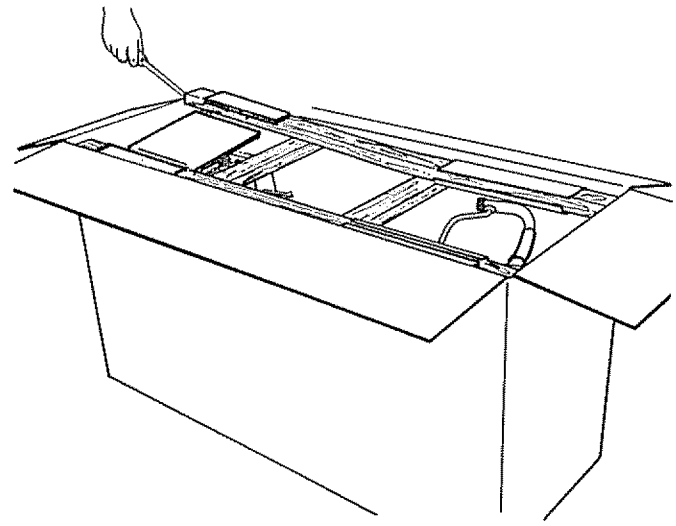


FIGURE 4

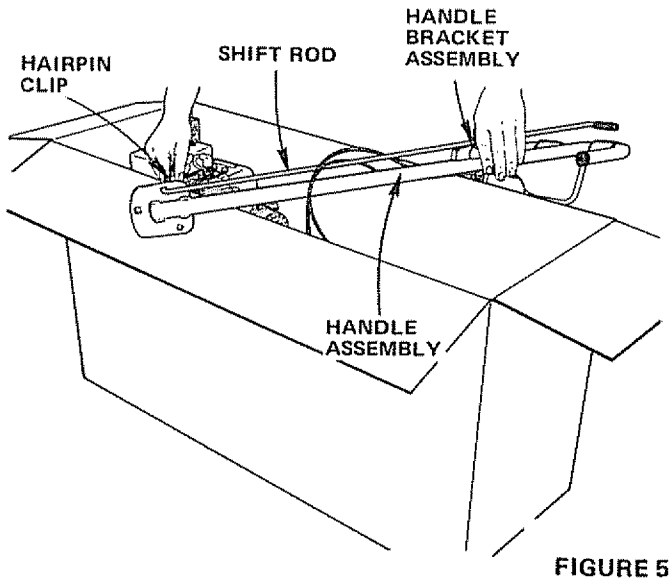
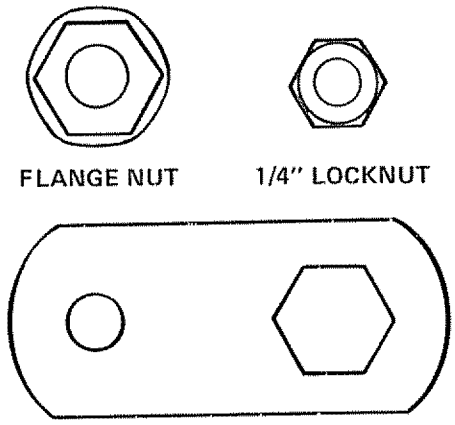


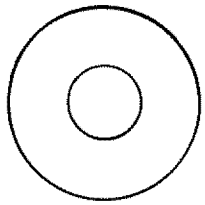
FIGURE 5

c. Install Flange Nut, 1/4 Locknut (shown full size below)



and Lock Plate (shipped in bag of parts) to Handle Assembly (Fig. 7 - Inset). Leave Locknut loose enough to allow Flange Nut to be aligned with Handle Lock Lever, installed in step d.

d. Install 7/16 x 1 Washer (shown full size below)



and Handle Lock Lever (shipped in bag of parts) on Handle Assembly (Fig. 6).

e. Handle swivels for comfortable operator positioning. When Handle is positioned, turn Lock Lever clockwise (↷) to tighten.

f. Securely tighten Locknut installed in step c.

4. CONNECT SHIFT ROD

a. Replace Shift Rod thru hole in Handle Bracket Assembly (Fig. 5).

b. Insert end of Shift Rod in hole of Shift Lever Indicator (Fig. 6).

c. Secure in place with Hairpin Clip removed in step 2c.

5. REMOVE TILLER FROM CRATE

a. Using a utility knife, cut down carton sides at corners, fold sides out and down (Fig. 8). Remove ends of crate by prying nails at base of skid (Fig. 8).

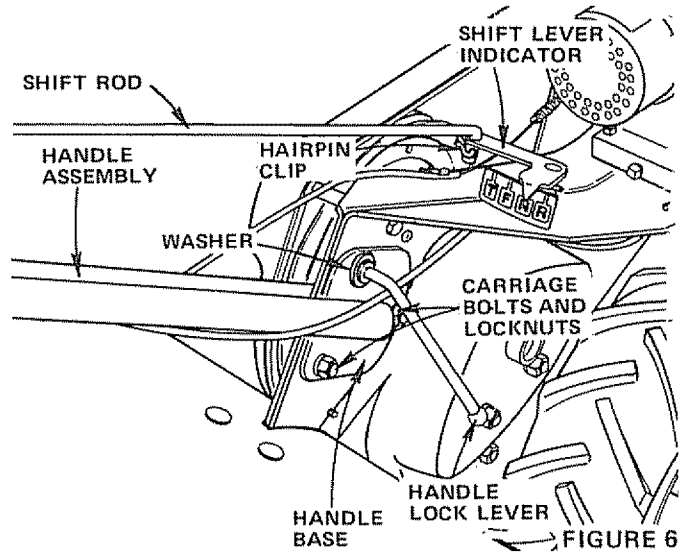
b. Remove bands holding tiller to crate bottom, front and rear.

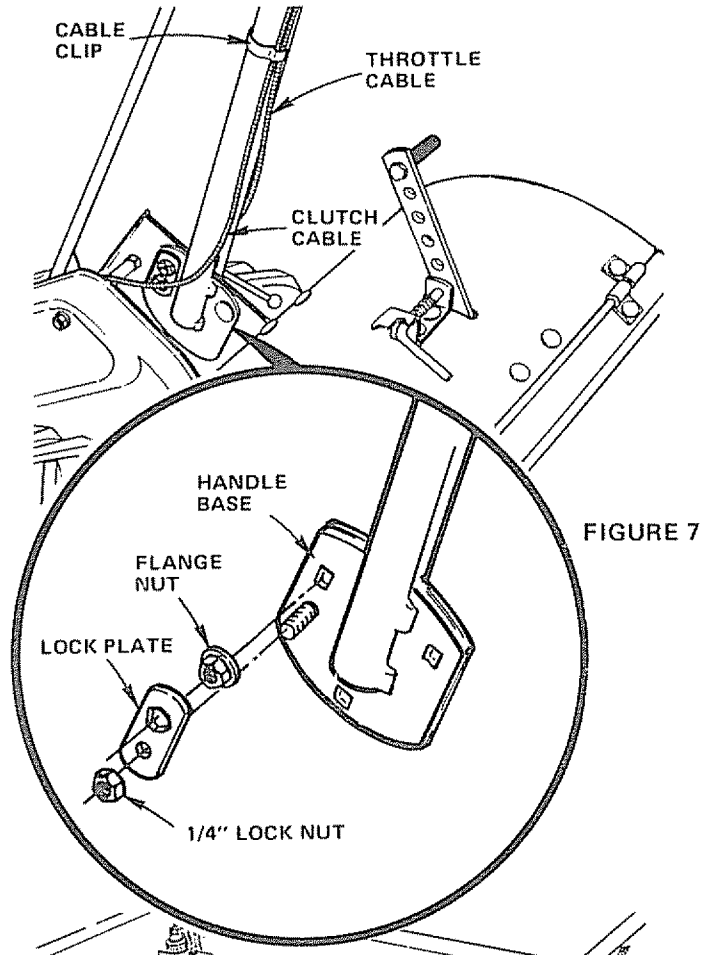
c. With Shift Lever Indicator (Fig. 6) in "N" neutral position push tiller free of crate.

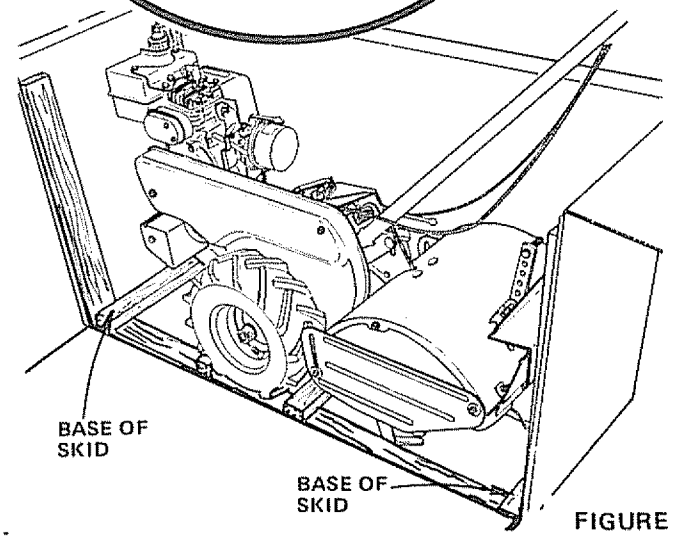
6. CABLE CLIP

a. Position Cable Clip to hold Throttle Cable and Clutch Cable to Handle (Fig. 7).

7. Reduce Tire pressure to 20 pounds. (Tires were overinflated for shipping purposes). If Tire pressures are not equal, Tiller will pull to one side.







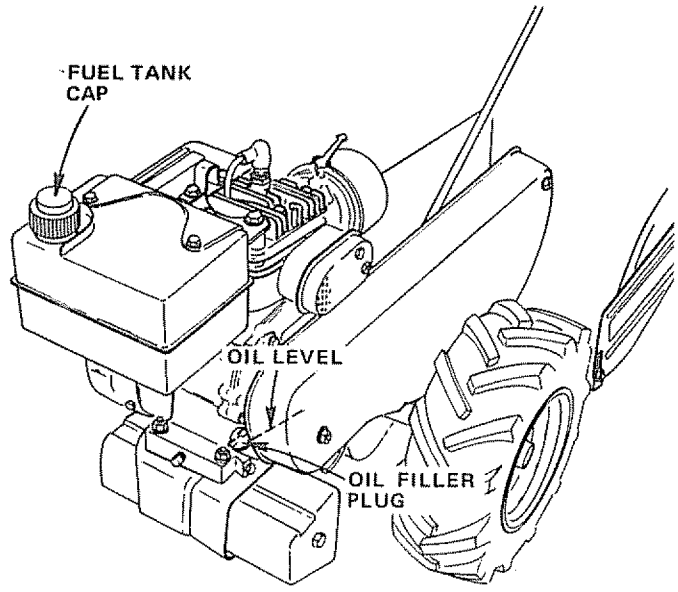


FIGURE 9

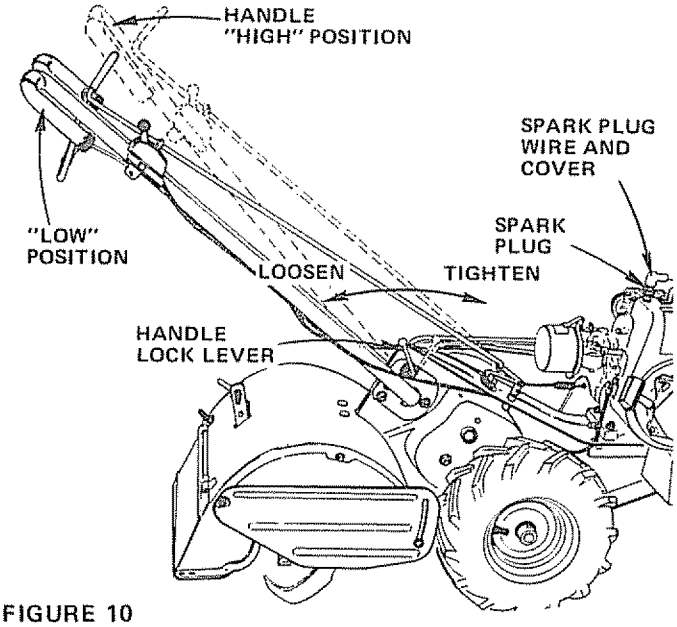


FIGURE 10

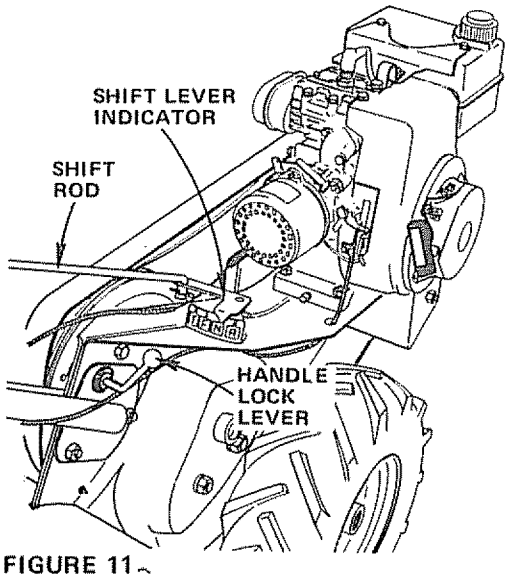


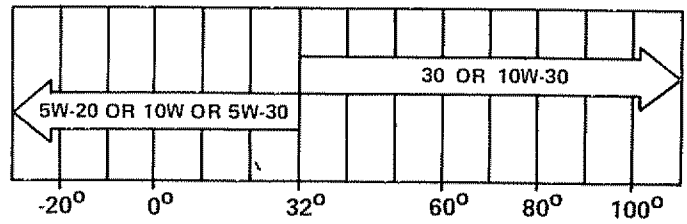
FIGURE 11

GAS AND OIL FILL UP

NOTE: ENGINE IS SHIPPED WITH OIL. CHECK OIL LEVEL BEFORE STARTING. BE VERY CAREFUL NOT TO ALLOW DIRT TO ENTER THE ENGINE WHEN CHECKING OR ADDING OIL OR FUEL.

1. Fill Engine with oil if necessary.
   a. Remove Engine Oil Filler Plug (Fig. 9).
   b. With Tiller level, fill Engine with oil to point of overflowing. Capacity is 1 - 1/4 pints.

RECOMMENDED SAE VISCOSITY GRADES



TEMPERATURE RANGE EXPECTED BEFORE NEXT OIL CHANGE. ALL OILS MUST MEET A.P.I. SERVICE CLASSIFICATION SD, SE, OR SF.

   c. Tilt tiller back on its wheels and re-level.
   d. Check oil level. Refill to point of overflowing if necessary. Replace Oil Filler Plug.

2. Fill Fuel Tank (Fig. 9). Use fresh, clean, unleaded automotive gasoline. (Leaded "Regular" grade gasoline is an acceptable substitute, but will increase carbon and lead oxide deposits and reduce valve life). Capacity is 2 quarts.

FILL TO WITHIN 1/2 INCH OF TOP OF FUEL TANK TO PREVENT SPILLS AND TO ALLOW FOR FUEL EXPANSION. IF GASOLINE IS ACCIDENTLY SPILLED, MOVE MACHINE AWAY FROM AREA OF SPILL. AVOID CREATING ANY SOURCE OF IGNITION UNTIL GASOLINE VAPORS HAVE DISAPPEARED.

WARNING: DO NOT USE GASOHOL OR METHANOL. These type fuels react with water content in the fuel and tend to form strong acids which can corrode metal parts and harm rubber and plastics.

NOTE: USE CLEAN OIL AND FUEL AND STORE IN APPROVED, CLEAN, COVERED CONTAINERS. USE CLEAN FILL FUNNELS.

OPERATION

BEFORE OPERATING YOUR TILLER FOR THE FIRST TIME, STUDY THIS SECTION AND THE "RULES FOR SAFE OPERATION", PAGE 1.

1. POSITION HANDLE

Loosen Handle Lock Lever (Fig. 10). Handle can be positioned at different settings between "HIGH" and "LOW" positions (Fig. 10). Retighten Handle Lock Lever.

KEEP DRIVE CONTROL BAR (FIG. 12) RELEASED WHEN STARTING ENGINE.

2. STARTING THE ENGINE

NOTE: BE SURE SPARK PLUG, WIRE AND COVER ARE ATTACHED TO SPARK PLUG (FIG. 10).

a. Move Shift Lever Indicator to "N" (neutral) position (Fig. 11).
b. Place Throttle Control (Fig. 12) in "START" position.
c. Move Choke Control on engine to "FULL CHOKE" position (Fig. 13).
d. Grasp Starter Handle (Fig. 14) and pull rope out slowly until engine reaches start of compression cycle (rope will pull slightly harder at this point). Let rope rewind slowly.
e. Pull rope with a rapid continuous full arm stroke. Keep a firm grip on Starter Handle and let rope rewind slowly. Do not let Starter Handle snap back against starter.
f. Repeat preceding instructions d and e until engine fires and when engine starts, move Choke Control on engine to "NO CHOKE" position (Fig. 13).
g. Move Throttle Control to "S" slow position for a few minutes warm up.

3. TRANSPORTING

a. Release the Depth Stake Pin (Fig. 15). Move the Depth Stake down to the top hole for transporting the Tiller. This prevents Tines from scuffing the ground. Place Depth Stake Pin in hole of Depth Stake to lock in position (Fig. 15).
b. Place Shift Lever Indicator (Fig. 11) in "F" (forward) position for transporting.
c. Hold the Drive Control Bar against the Handle (Fig. 12) to start Tiller movement. Tines will not turn.
d. Move Throttle Control (Fig. 12) to desired speed.

NEVER OPERATE TILLER WITH RIVETS REMOVED FROM WHEELS (FIG. 14).

UNTIL YOU ARE ACCUSTOMED TO HANDLING YOUR TILLER, START ACTUAL FIELD USE WITH THROTTLE IN SLOW POSITION (MIDWAY BETWEEN "FAST" AND "IDLE").

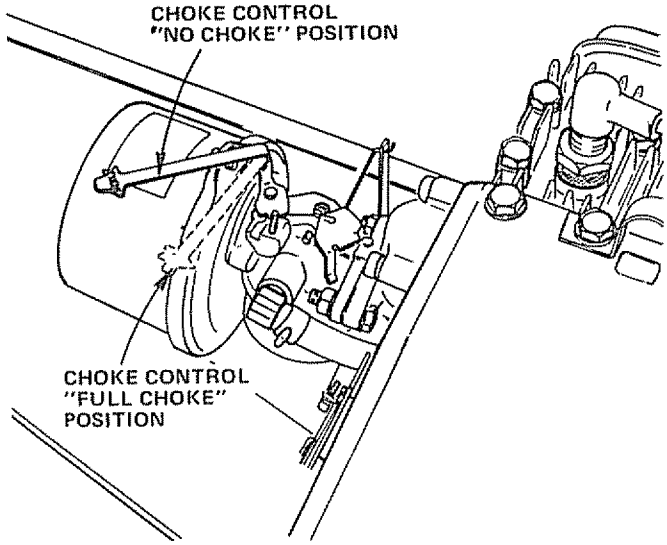


FIGURE 13

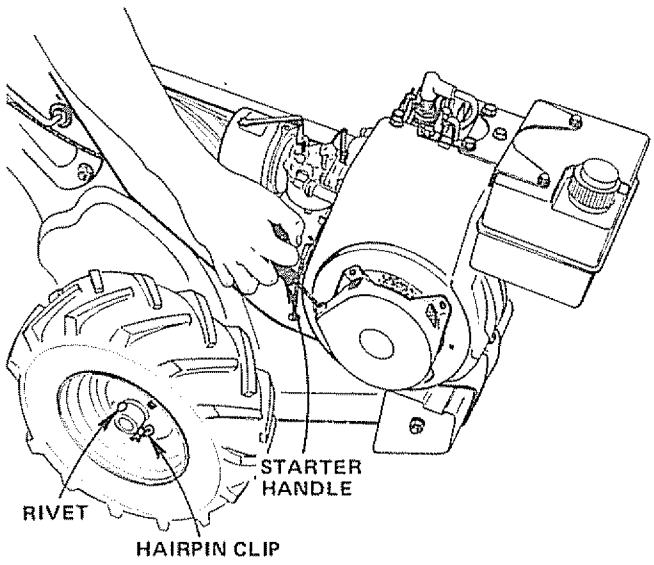


FIGURE 14

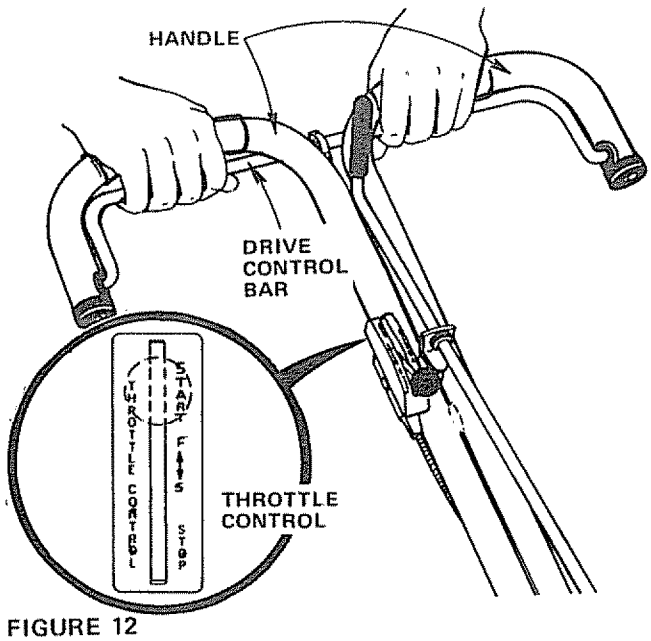


FIGURE 12

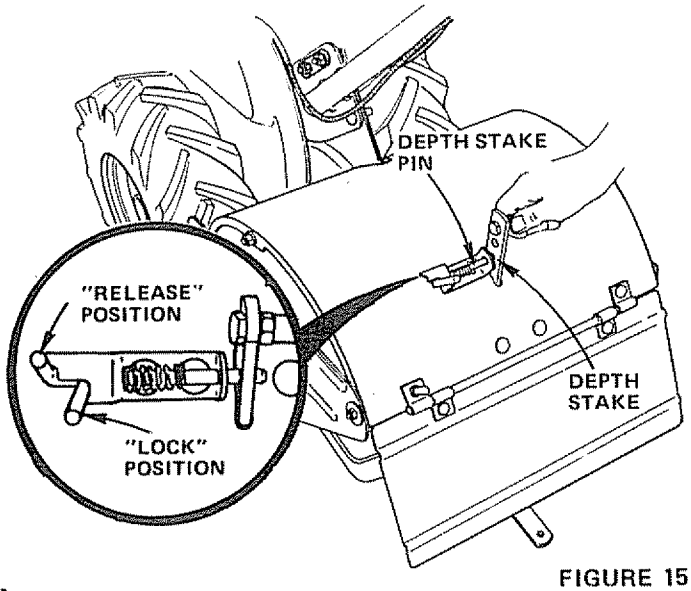


FIGURE 15

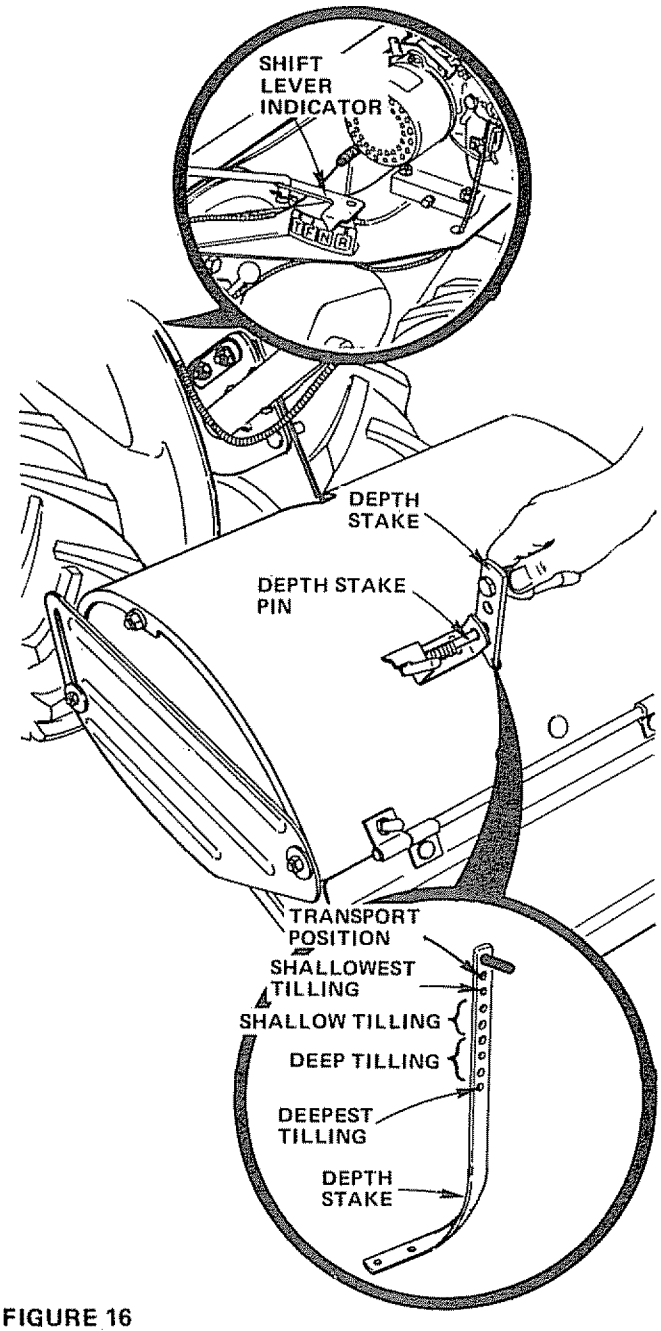


FIGURE 16

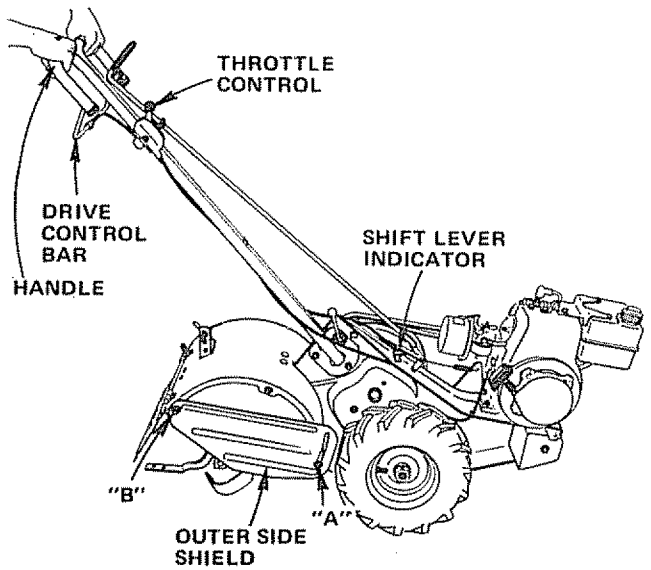


FIGURE 17

4. TILLING
   a. Release the Depth Stake Pin (Fig. 16). Pull the Depth Stake up for increased tilling depth. Place Depth Stake Pin in hole of Depth Stake to lock in position (Fig. 16).
   b. Place Shift Lever Indicator (Fig. 16 - Inset) in the "T" (TILLING) position.
   c. Hold the Drive Control Bar against the Handle (Fig. 17) to start tilling movement. Tines and wheels both turn.
   d. Move Throttle Control (Fig. 17) to "START" for deep tilling. For cultivating move Throttle Control to desired speed.

> **ALWAYS RELEASE DRIVE CONTROL BAR BEFORE MOVING SHIFT LEVER INTO ANOTHER POSITION.**

5. REVERSE
   a. Release the Drive Control Bar (Fig. 17).
   b. Move Throttle Control (Fig. 17) to "S" (slow) speed.
   c. Place Shift Lever Indicator (Fig. 16 - Upper Inset) in the "R" (reverse) position.
   d. Hold the Drive Control Bar against the Handle (Fig. 17) to start tiller movement. Tines will not turn.

> **DON'T BACK YOURSELF INTO A SOLID OBSTRUCTION, SUCH AS A TREE, FENCE, ETC.**

6. STOPPING TILLER, TINES AND ENGINE
   a. TILLER MOVEMENT AND TINES WILL STOP QUICKLY WHEN DRIVE CONTROL BAR (FIG. 17) IS RELEASED.
   b. Move Shift Lever Indicator (Fig. 16 - Upper Inset) to "N" (neutral) position.
   c. To stop engine, move Throttle Control (Fig. 17) to "STOP" position.

7. TURNING
   a. Release the Drive Control Bar (Fig. 17).
   b. Move Throttle Control (Fig. 17) to "S" (slow) speed.
   c. Place Shift Lever Indicator (Fig. 16 - Upper Inset) in "F" (forward) position. Tines will not turn.
   d. Lift Handle to raise Tines out of the ground (Fig. 17).
   e. Swing the Handle in the opposite direction you wish to turn being careful to keep feet and legs away from the Tines.

When you have completed your turn-around, lower the Handle. Place Shift Lever Indicator in "T" (tilling) position and Throttle Control to desired speed. To begin tilling hold Drive Control Bar against the Handle.

8. OUTER SIDE SHIELDS
The front of the Outer Side Shields (Fig. 17) are slotted so that they can be raised for deep tilling and lowered for shallow tilling to protect small plants from being buried. Loosen Nut "A" in slot and Nut "B". Move Shield to desired position (both sides). Retighten Nuts.

> **DON'T TRY TO REMOVE DEBRIS OR UNTANGLE VEGETATION WHILE THE TINES ARE IN MOTION. STOP THE TILLER ENGINE AND DISCONNECT THE SPARK PLUG WIRE AND COVER BEFORE CLEANING THE TINES.**

WINTER OPERATION

(UNDER 32°F.)

1. ENGINE LUBRICATION:
   a. Drain the engine oil while engine is warm.
   b. Refill with new oil. Use oil labeled 5W20 or 10W or 5W30. (See chart, page 4). Capacity is 1 - 1/4 pints.

2. FUEL:
   a. Use fresh, clean, unleaded automotive gasoline. Capacity is 2 quarts.

3. COLD WEATHER STARTING HINTS:
   a. Be sure to use the proper oil and gasoline.
   b. Keep Drive Control Bar released when starting the engine.
   c. Use full Choke for starting. Set Throttle Control at medium to fast position. Slowly move Choke Control to "NO CHOKE" position as engine warms up.
   NOTE: BE SURE TO CHANGE ENGINE OIL BACK TO S.A.E. 30 OR 10W30 (SD, SE OR SF) FOR SPRING TILLING. (See chart, page 4).

TILLING HINTS

Tilling is digging into, turning over, and breaking up packed soil before planting. Loose unpacked soil helps root growth. Best tilling depth is 4" to 6". A Tiller will also clear the soil of unwanted vegetation. The decomposition of this vegetable matter enriches the soil. Cross-tilling is the further breakup of 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. In extremely wet conditions, the 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.

For easier handling of your tiller, leave approximately 8 inches of untilled soil between the 1st and 2nd tilling passes. The 3rd pass will be between the 1st and 2nd (Fig. 18).

Do not lean on the handle. This takes the weight off the wheels and reduces traction. To get thru a really tough section of sod or hard ground apply upward pressure on handle or lower the Depth Stake.

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" to 3". Lower Outer Side Shields (Fig. 17).

Cultivate up and down the rows at a speed setting which will allow tines to uproot weeds and leave the ground in rough condition, promoting no further growth of weeds and grass (Fig. 19).

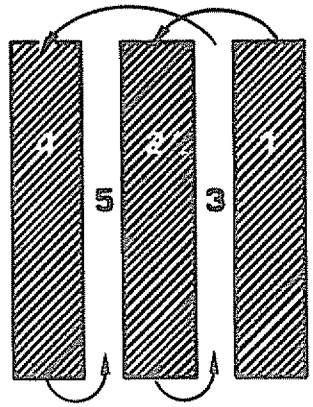


FIGURE 18

CULTIVATING

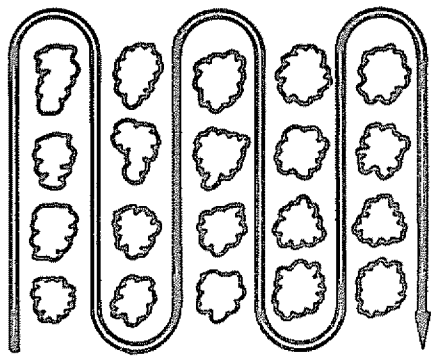


FIGURE 19

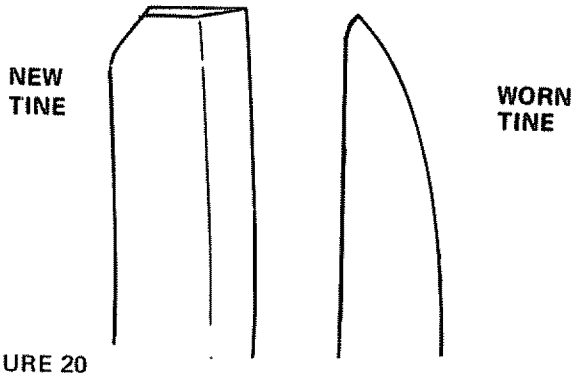


FIGURE 20

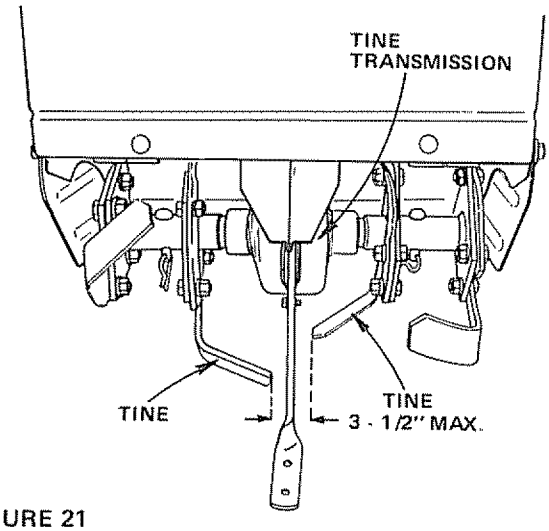


FIGURE 21

TINE REPLACEMENT

> **STOP THE ENGINE AND REMOVE THE SPARK PLUG WIRE AND COVER FROM SPARK PLUG (FIG. 23) BEFORE CLEANING OUT THE TINES BY HAND.**

A badly worn Tine causes your Tiller to work harder and dig shallower. Most important, worn Tines cannot chop and shred organic matter as effectively nor bury it as deeply as good Tines. A tine this worn (Fig. 20) needs to be replaced.

To maintain the superb tilling performance of this machine the Tines should be checked for sharpness, wear and bending particularly the Tines which are next to the Tine Transmission (Fig. 21). If the gap between the Tines exceeds 3 - 1/2", they should be replaced or straightened as necessary.

New Tines should be assembled as shown in Fig. 22. NOTE: SHARPENED TINE EDGES WILL ROTATE REARWARD FROM ABOVE (FIG. 22).

> USE CAUTION - TINES ARE SHARP.

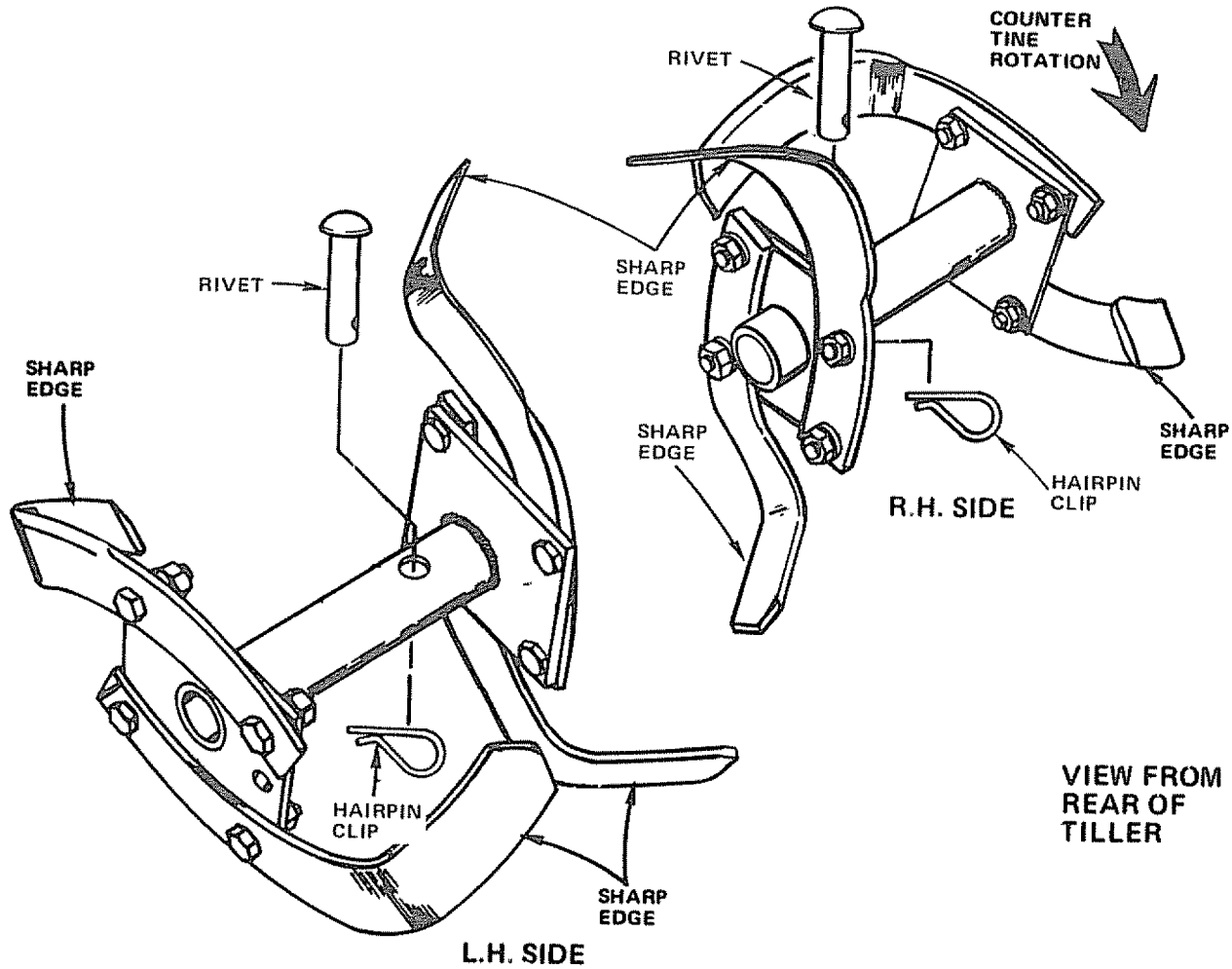


FIGURE 22

MAINTENANCE CHECKS

DISCONNECT SPARK PLUG WIRE AND COVER 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.

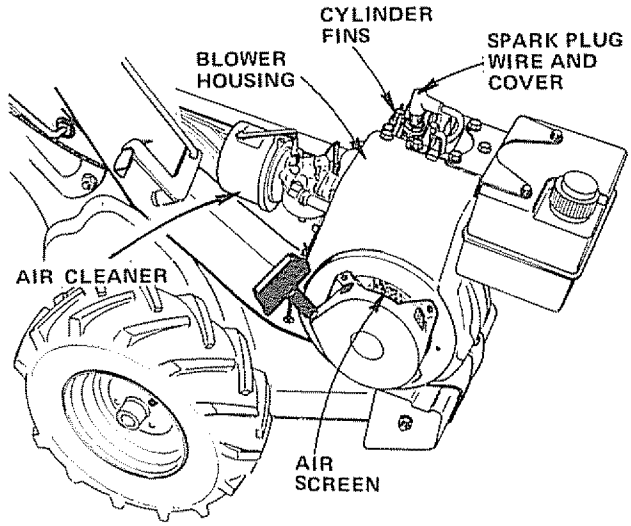


FIGURE 23

COOLING SYSTEM

Your engine is air cooled. For proper engine performance and longer life KEEP YOUR ENGINE CLEAN.

1. Clean Air Screen (Fig. 23) frequently using a stiff bristled brush.

2. Remove Blower Housing (Fig. 23) and clean as necessary.

3. Keep Cylinder Fins (Fig. 23) free of dirt and chaff.

4 DRY, TYPE PAPER AIR CLEANER (FIG'S 23 & 24). Replace Air Cleaner Element once a year or more often if used in extremely dusty or dirty conditions.
NOTE: DO NOT ATTEMPT TO CLEAN OR OIL AIR CLEANER ELEMENT.

Replacement Air Cleaner Elements are available at any Sears Service Center.

To install new Air Cleaner Element, proceed as follows:
a. Loosen two Screws that secure Body to Bracket.
b Turn Body counterclockwise (↶) and remove Body and Air Cleaner Element from Bracket. Discard Air Cleaner Element.
c. Clean inside of Bracket and Body thoroughly.
d. Insert new Air Cleaner Element into Body and reassemble Body to Bracket as it was before removal. Tighten Screws securely.
NOTE: NEVER RUN ENGINE WITH AIR CLEANER ELEMENT REMOVED.

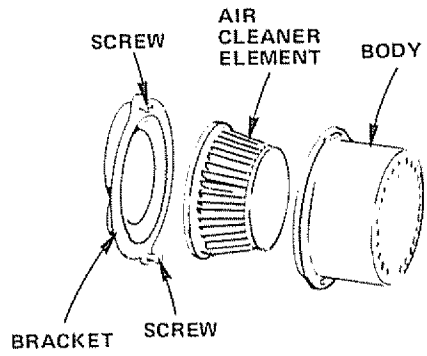


FIGURE 24

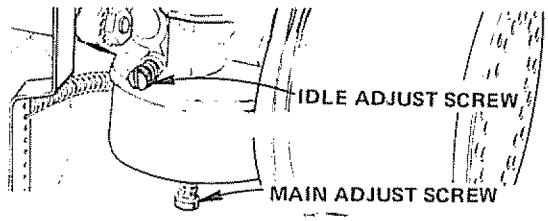


FIGURE 25

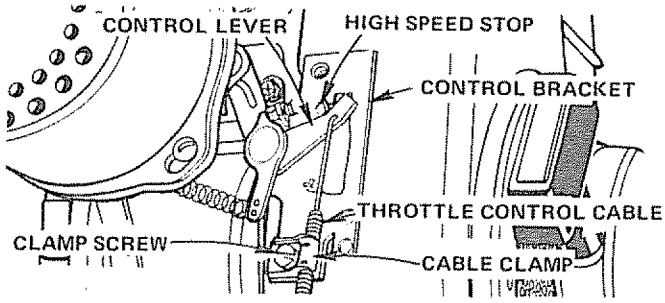


FIGURE 26

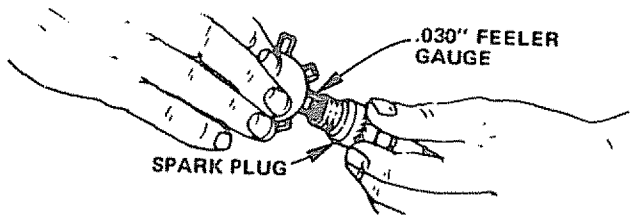


FIGURE 27

CARBURETOR

NOTE: A DIRTY AIR CLEANER WILL CAUSE ENGINE TO RUN ROUGH. BE SURE AIR CLEANER IS CLEAN BEFORE ADJUSTING CARBURETOR. DO NOT MAKE UNNECESSARY ADJUSTMENTS. FACTORY SETTINGS ARE SATISFACTORY FOR MOST APPLICATIONS AND CONDITIONS. IF ADJUSTMENTS ARE NEEDED, PROCEED AS FOLLOWS:

1. Close Main Adjust Screw (Fig. 25) by turning clockwise (↷). Close finger tight only. Forcing may cause damage.
2. Open Main Adjust Screw (Fig. 25) by turning 1 - 1/2 turns counterclockwise (↶).
3. Close Idle Adjust Screw (Fig. 25) by turning clockwise (↷). Close finger tight ONLY. Forcing may cause damage.
4. Open Idle Adjust Screw by turning 1 - 1/4 turns counterclockwise (↶).
5. Start engine. Follow Starting Instructions, page 5. Run engine a few minutes to warm it up.
6. Place Throttle Control in "FAST" position:
   a. Turn the Main Adjust Screw slowly clockwise (↷) until the engine starts to lose speed (lean mixture). (NOTE THE POSITION OF THE SCREW SLOT AT THIS POINT).
   b. Turn the Main Adjust Screw slowly counterclockwise (↶) until the engine starts to run rough. (NOTE THE POSITION OF THE SCREW SLOT AT THIS POINT).
   c. Adjust the Main Adjust Screw slowly between the settings in steps a and b, until the engine runs smoothly.
   Allow several seconds between adjustments for engine to adapt to new settings.
7. Place Throttle Control in "IDLE" position:
   a. Turn the Idle Adjust Screw slowly clockwise (↷) until the engine starts to lose speed. (NOTE THE POSITION OF THE SCREW SLOT AT THIS POINT).
   b. Turn the Idle Adjust Screw slowly counterclockwise (↶) until the engine starts to run rough. (NOTE THE POSITION OF THE SCREW SLOT AT THIS POINT).
   c. Turn the Idle Adjust Screw slowly between the settings noted in steps a and b, until the engine runs smoothly.
   Allow several seconds between adjustments for engine to adapt to new settings.
8. Check that engine will accelerate to full speed without hesitation. If it will not, turn Idle Adjust Screw 1/8 turn counterclockwise (↶). Repeat if necessary.

NOTE: ALL CARBURETOR ADJUSTMENTS SHOULD BE MADE WITH THE AIR CLEANER ON ENGINE. BEST ADJUSTMENTS MADE WITH FUEL TANK AT LEAST 1/2 FULL.

THROTTLE CONTROL ADJUSTMENT

To obtain satisfactory engine performance, the engine throttle control must be adjusted properly. If it is necessary to check the engine control adjustments, proceed as follows:

1. Set Throttle Control (Fig. 17) at "START" and keep it in this position.
   With Control in this position, Control Lever (Fig. 26) should touch High Speed Stop. If it does, the controls are adjusted correctly and no further adjustment should be necessary.
   If Control Lever does not touch High Speed Stop, proceed to Step 2.
2. Loosen Clamp Screw just enough so the Throttle Control Cable can be moved in Cable Clamp (do not remove Cable Clamp from Control Bracket or disconnect Throttle Control Cable from Control Lever).
3. Move Control Lever so it is touching High Speed Stop and hold it in this position. With Control Lever in this position, tighten Clamp Screw so that Cable Clamp will hold Throttle Control Cable in place.
4. Check that Engine stops when Throttle Control is moved to "STOP". If engine does not stop, loosen Clamp Screw and readjust until engine stops. Retighten Clamp Screw.

SPARK PLUG

1. The spark Plug should be changed every 50 hours of operation or at the beginning of every tilling season.
2. Reset the gap at .030" (Fig. 27). Order the part number listed in the Repair Parts Section of this Manual.

MUFFLER

Do not operate the Tiller without a Muffler (Fig. 28) or tamper with the 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.

ENGINE LUBRICATION

Your four cycle engine will normally consume some oil, therefore check engine oil level regularly–approximately every five hours of operation and before each usage. Stop engine and wait several minutes before checking oil level. With engine level the oil must be even with Oil Fill (Fig. 28). Change engine oil after the first two hours of operation and every twenty five hours thereafter.

1. Drain oil while engine is warm.
   a. Remove Oil Drain Plug (Fig. 28)
   b. Tip Tiller forward and catch oil in a suitable container.
   c. When engine is drained of all oil, replace Drain Plug securely.
2. Refill with fresh oil. Above 32°F., use oil labeled 30 or 10W30. Below 32°F., use oil labeled 5W20 or 10W or 5W30. Capacity is 1 - 1/4 pints. See "Gas and Oil Fill Up", page 4.
3. Replace Oil Filler Plug.

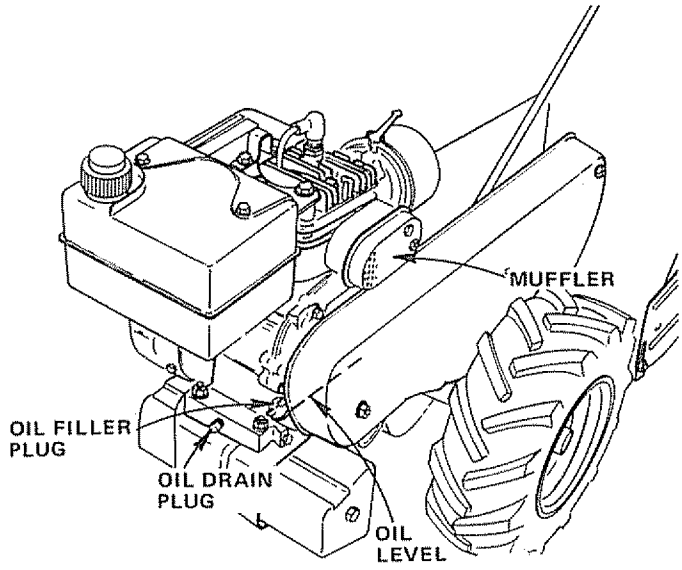


FIGURE 28

TRANSMISSION

Your Transmission will not require lubrication unless it is disassembled. The Transmission requires 8 oz. min., Plastilub No. 1 grease. Order Part No. 6066J or equivalent. Refer to page 23.

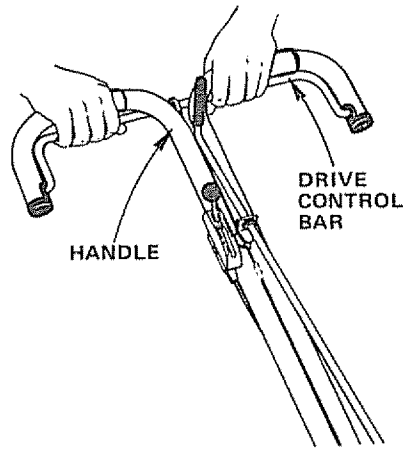


FIGURE 29

GROUND DRIVE BELT ADJUSTMENT

For proper belt tension, the Extension Spring (Fig. 30) should have approximately 5/8 inch stretch with Drive Control Bar (Fig. 29) against the Handle Grip. This dimension can be obtained as follows:

1. Loosen Cable Clip Screw securing the Clutch Control Cable (Fig. 30) and slide Cable forward for less tension and rearward for more tension. Tighten Cable Clip Screw securely.

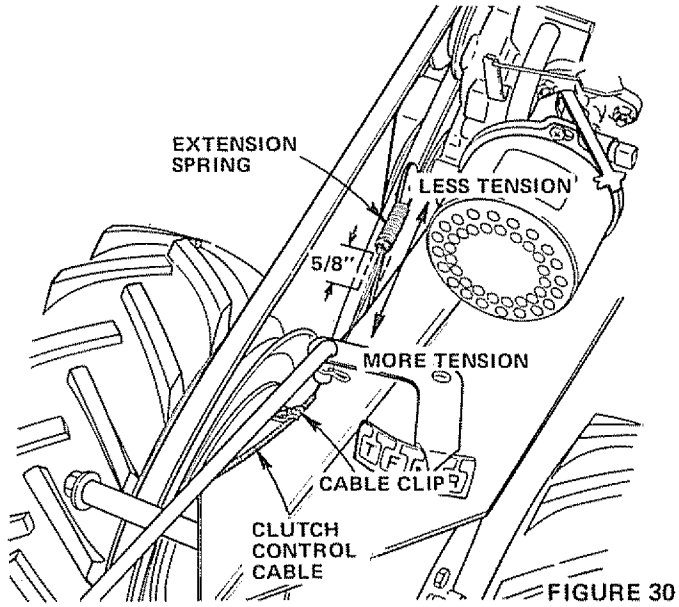


FIGURE 30

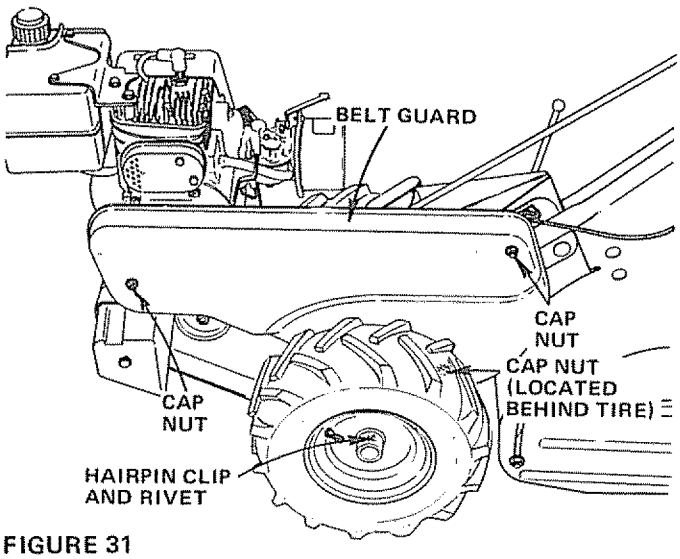


FIGURE 31

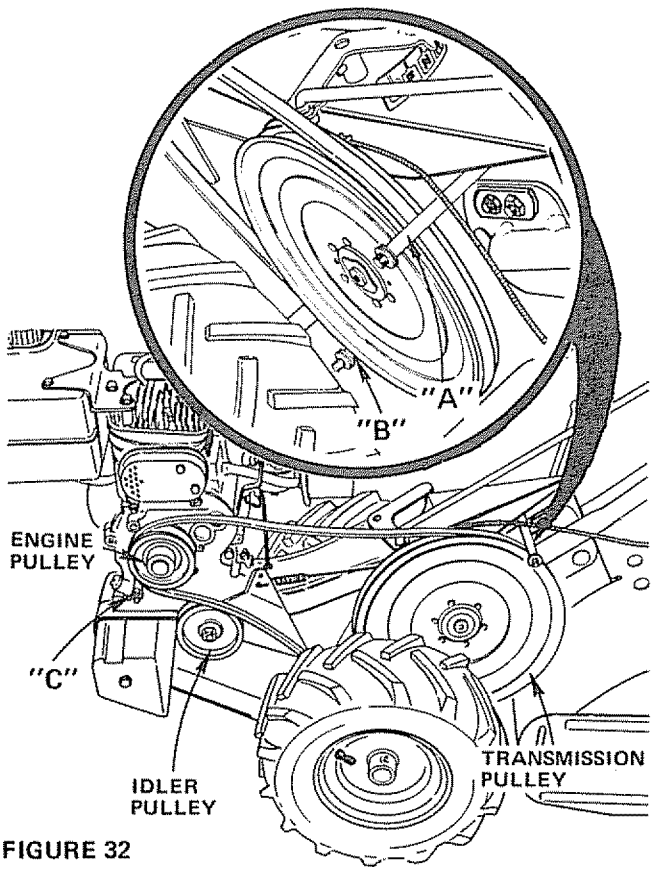


FIGURE 32

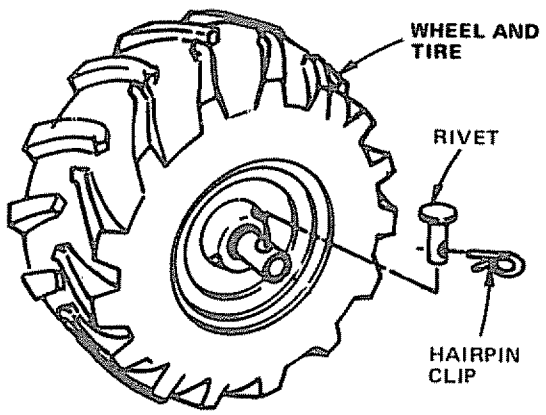


FIGURE 33

GROUND DRIVE BELT REPLACEMENT

CAUTION: PLACE BLOCKS UNDER TRANSMISSION TO KEEP TILLER FROM TIPPING.

1. Remove Hairpin Clip and Rivet (Fig. 31) from Hub of L.H. Wheel. Pull Wheel out from Tiller approximately 1 - 1/2".
2. Remove Belt Guard by removing three Cap Nuts (Fig. 31) so that Belt Guard can slide straight out away from Engine.
3. Loosen Belt Guides "A" and "B" (Fig. 32 - Inset). Remove Belt Guide "C" (Fig. 32).
4. Remove old Belt by slipping from Idler Pulley (Fig. 32) first.
5. Place new Belt in groove of Transmission Pulley (large pulley) and into groove of Engine Pulley (Fig. 32).
   NOTE: BELT MUST BE IN GROOVE ON TOP OF IDLER PULLEY (FIG. 32) NOTE POSITION OF BELT TO BELT GUIDES.
6. Replace Belt Guide "C" (Fig. 32) and tighten Belt Guides "A" and "B" (Fig. 32 - Inset).
7. Replace Belt Guard and Cap Nuts (Fig. 31).
8. Reposition Wheel and replace Rivet and Hairpin Clip.

TIRE CARE

1. Maintain 20 pounds of tire pressure. If tire pressures are not equal, Tiller will pull to one side.

2. Keep tires free of gasoline or oil which can destroy rubber.

3. Removing wheel and tire for tire repair (Fig. 33).
   a. Block up Tiller securely.
   b. Remove Hairpin Clip and Rivet.
   c. Remove Wheel and Tire.
   d. Repair tire and reassemble.

WHEN MOUNTING TIRES, UNLESS BEADS ARE SEATED, OVER INFLATION CAN CAUSE AN EXPLOSION.

FINISH

Keep Tiller finish and tires free of gasoline, oil, etc. Protect painted surfaces with automotive type wax.

STORAGE

Keep your Tiller in a weatherproof, dry building. If stored for over 30 days, these steps will protect basic engine parts from gum deposits and will ease restoring your tiller to service.

1. Drain fuel tank, run Engine until gasoline in carburetor is used.

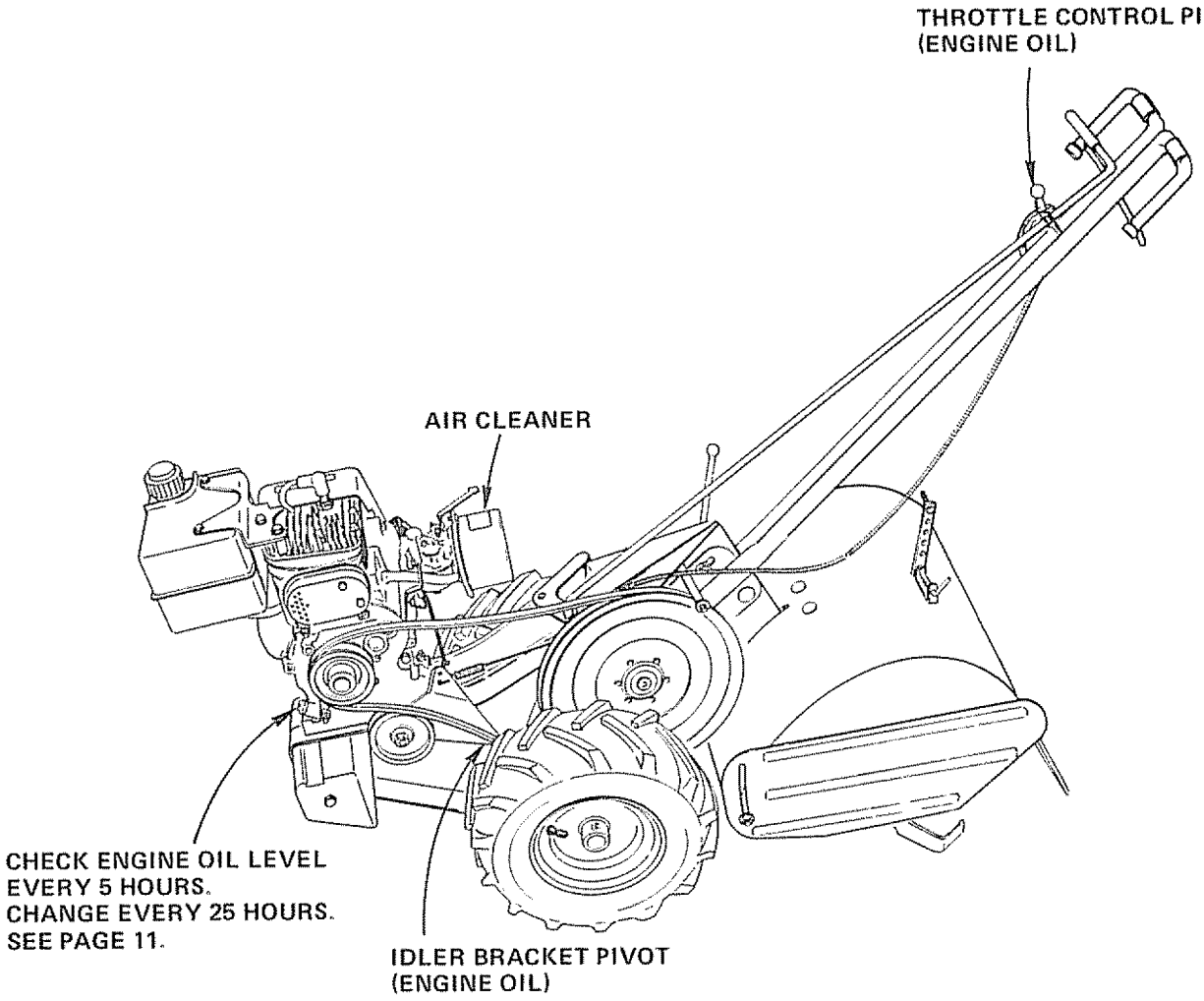
2. While Engine is still warm, drain oil from Engine. Refill with fresh oil.

3. Remove Spark Plug, pour one ounce (2 or 3 tablespoons) of clean engine oil into cylinder. Pull starter handle slowly several times to distribute oil. Replace Spark Plug.

4. Clean entire Tiller, including Cylinder Fins, Blower Housing and Air Screen. Tighten all bolts and nuts.

Gasoline stored for several months will lose its volatility (ability to burn effectively), therefore always use up gasoline at the end of the season. Do not store, spill or use gasoline near an open flame or devices such as a stove, furnace, water heater which utilize a pilot light, or devices that can create a spark.

LUBRICATION CHART



MAINTENANCE CHECK LIST SERVICE RECORD FILL IN DATES AS YOU COMPLETE REGULAR SERVICE	PAGE NO.	1ST 2 HOURS	FREQUENTLY	EVERY 5 HOURS	EVERY 25 HOURS	EVERY 50 HOURS	SERVICE DATES									
Check Engine Oil Level	11			✓	✓											
Change Engine Oil	11	✓			✓											
Oil Pivot Points	13			✓												
Spark Arrester Muffler	11					✓										
Inspect Air Screen	9		✓													
Air Cleaner	9				✓											
Clean Engine Cylinder Fins	9				✓											
Replace Spark Plug	10					✓										
Check Tire Pressure	12		✓													

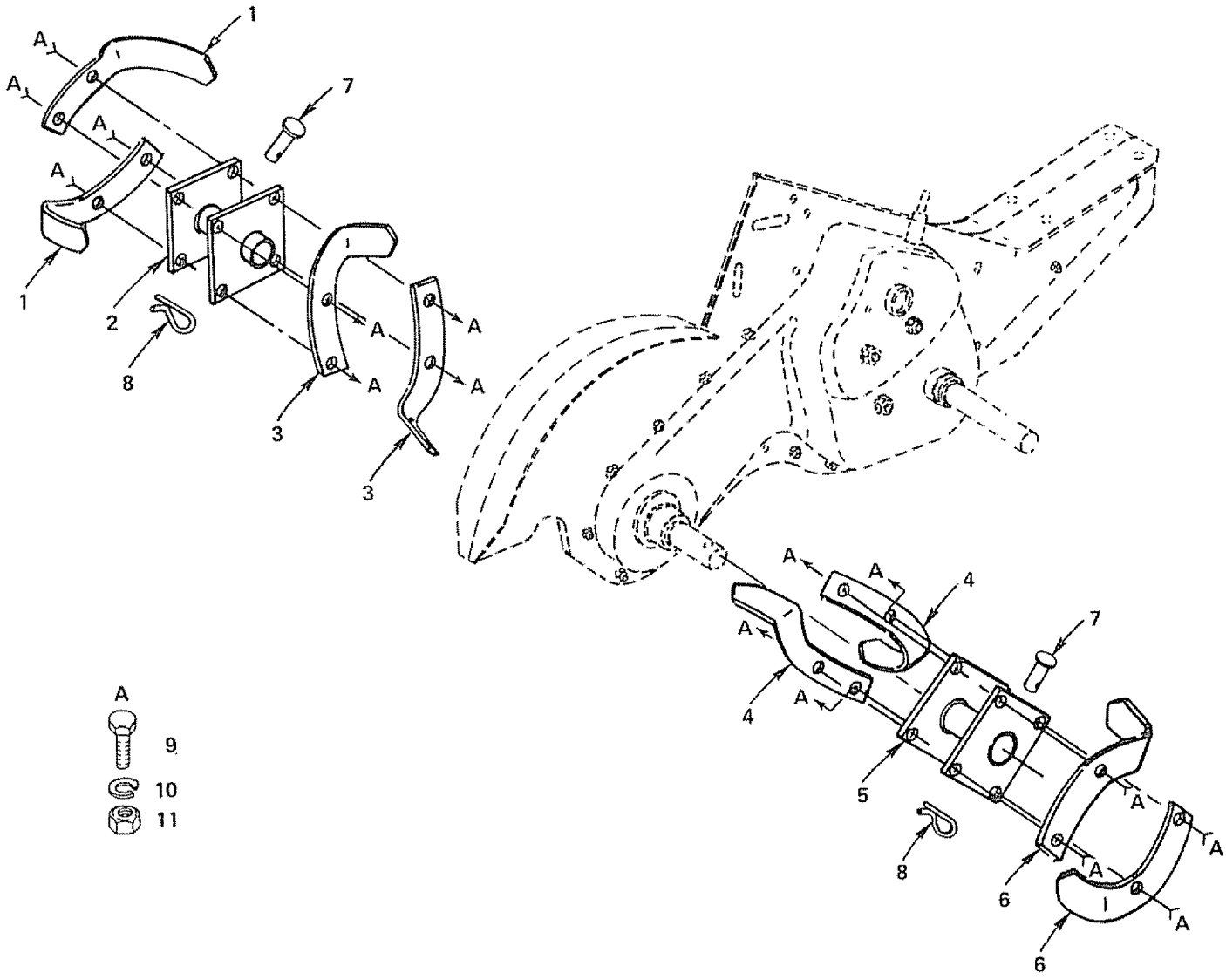
TROUBLE SHOOTING

POSSIBLE CAUSE	POSSIBLE REMEDY
WILL NOT START OR HARD TO START	
No gasoline in Fuel Tank	Fill Tank with gasoline. Check Carburetor (clean if necessary)
Throttle Control not set properly	Place Throttle Control (Fig. 12) in "START" position
Choked improperly, flooded Engine	Move Choke Control (Fig. 13) to "NO CHOKE" position. Place Throttle Control (Fig. 12) in "F" (FAST) position and pull starter several times to clear out gas
Clogged Fuel Tank	Remove and clean
Dirty Air Cleaner	Remove and replace (Fig. 24)
Spark Plug dirty or improper gap	Clean, adjust gap or replace (page 10)
Defective Ignition or loose wiring	Check the wiring and Spark Plug
Water in gasoline or old fuel	Drain Fuel Tank and Carburetor, use fresh fuel and replace Spark Plug
Improper Carburetor adjustment	Make necessary adjustments (page 10)
ENGINE MISSES OR LACKS POWER	
Engine overloaded	Lower depth stake (page 6)
Clogged Fuel Tank	Remove and clean
Partially plugged Air Cleaner	Remove and replace (Fig. 24)
Improper Carburetor adjustment	Make necessary adjustments (page 10)
Dirty Engine Air Screen	Clean Air Screen (page 9)
Low oil level or dirty oil	Add or change oil (page 11)
Spark Plug dirty, improper gap or wrong type	Clean, adjust gap or replace (page 10)
Faulty Ignition	Check Spark Plug and for loose wires
Poor compression	Major Engine overhaul
Oil in gasoline	Drain and refill Gas Tank and Carburetor
Spark Arrester Screen plugged	Clean or replace (page 11)
ENGINE OVERHEATS	
Dirty Air Screen	Clean Air Screen (page 9)
Low oil level or dirty oil	Add or change oil (page 11)
Dirty Engine	Clean Engine Cooling System (page 9)
Partially plugged Muffler	Remove and replace Muffler (page 11)
Partially plugged Air Cleaner	Remove and replace (page 9)
Stale fuel or improper Carburetor adjustment	Use fresh fuel and adjust Carburetor (page 10)
Partially plugged Spark Arrester Screen	Remove, clean or replace (page 11)
TILLER PULLS TO RIGHT OR LEFT	
Tire pressure uneven	Check tire pressure in both tires (page 12)

REPAIR PARTS

SEARS REAR TINE TILLER--MODEL NUMBER 917.299230

TINE ASSEMBLY



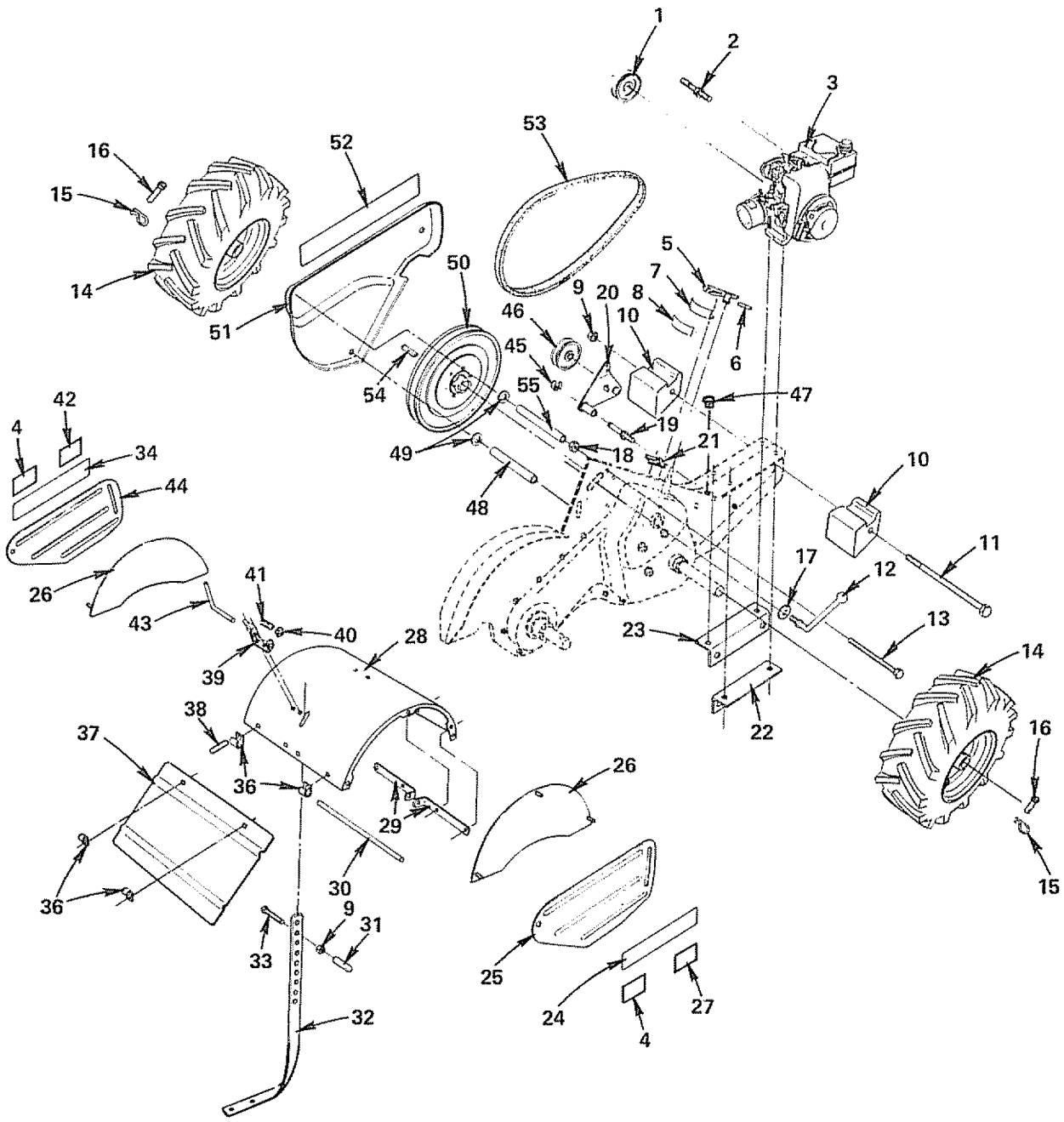
KEY NO.	PART NO.	DESCRIPTION
1	4459J	Tine - L.H.
2	102170X	Hub & Plate Assembly - L.H.
3	6554J	Tine - L.H.
4	6555J	Tine - R.H.
5	102172X	Hub & Plate Assembly - R.H.
6	4460J	Tine - R.H.
7	4929H	Rivet - Pan Hd. Drilled
8	3146R	Clip - Hairpin
9	STD623710	*Bolt - Hex 3/8 - 24 x 1
10	STD551137	*Washer - Lock 3/8
11	STD541137	*Nut - Hex 3/8 - 24
---	106414X	Manual - Owners

*STANDARD HARDWARE--PURCHASE LOCALLY

REPAIR PARTS

SEARS REAR TINE TILLER--MODEL NUMBER 917.299230

MAIN FRAME



REPAIR PARTS

SEARS REAR TINE TILLER--MODEL NUMBER 917.299230

MAIN FRAME

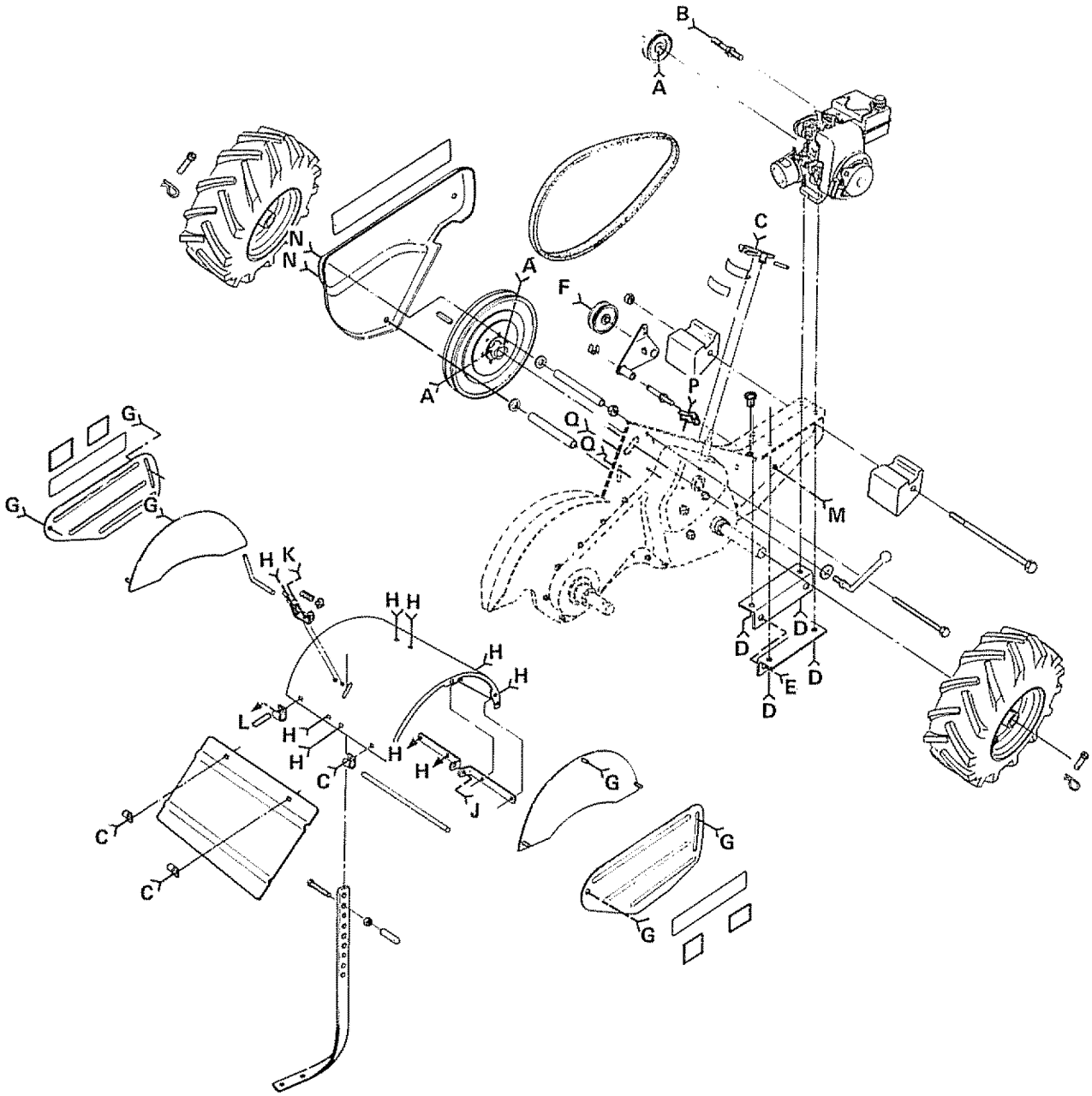
KEY NO.	PART NO.	DESCRIPTION
1	102142X	Sheave - Engine
2	102151X	Bolt - Guard, Belt
3	105290X	Engine - 3.5 H.P. Model No. 143.754012
4	105341X	Decal - Side Shield, 14"
5	102166X	Lever Assembly - Shift
6	1572H	Pin - Roll
7	8700J	Panel - Shift, Indicator
8	102180X	Decal - Shift Indicator
9	STD541037	*Nut - Hex 3/8 - 16
10	102173X	Counterweight
11	102194X	Bolt - Hex 3/8 - 16 x 10
12	102373X	Lever - Lock, Handle
13	74930576	Bolt - Hex 5/16 - 18 x 4 - 3/4
14	102189X	Rim (Only)
---	102190X	Tire
---	795R	Valve - Tire
15	4497H	Hairpin Clip
16	102841X	Rivet - Drilled
17	19131414	Washer 13/32 x 7/8 x 14 Ga.
18	STD541031	*Nut - Hex 5/16 - 18
19	102141X	Shaft - Idler Arm
20	105611X	Bracket Assembly - Idler
21	9484R	Clip
22	102332X	Bracket Reinforcement, R.H.
23	102331X	Bracket Reinforcement, L.H.
24	105240X	Decal - Stripes, R.H.
25	104101X	Shield - Side, Outer, R.H.
26	104085X	Shield Assembly - Side
27	105360X	Decal - CRT, R.H.
28	102152X	Shield - Tine
29	102155X	Bracket - Shield, Tine
30	102154X	Pin - Hinge
31	102701X	Grip
32	102156X	Stake - Depth
33	STD523720	*Bolt - Hex 3/8 - 16 x 2
34	105347X	Decal - Stripes, L.H
36	4440J	Hinge
37	102153X	Shield - Leveling
38	6712J	Cap - Vinyl
39	8392J	Bracket - Latch
40	12000036	Klip Ring
41	8394J	Spring
42	105739X	Decal - CRT, L.H.
43	8393J	Pin - Stake, Depth
44	104086X	Shield - Side, Outer, L.H.
45	12000032	Klip Ring
46	104679X	Pulley - Idler
47	105897X	Grommet
48	104370X	Spacer - Split
49	STD551031	*Washer 11/32 x 11/16 x 16 Ga.
50	100473M	Sheave - Transmission
51	102148X	Guard - Belt
52	105315X	Decal - Belt Guard
53	102143X	V-Belt
54	2649M	Key - Sq. 3/16 x 1 - 1/8
55	104369X	Spacer - Split

*STANDARD HARDWARE--PURCHASE LOCALLY

REPAIR PARTS

SEARS REAR TINE TILLER--MODEL NUMBER 917.299230

MAIN FRAME



A	B	C	D	E	F	G	H	J	K	L
1	2	5	8	11	13	16	17	18	19	20
	3	6	9	12			9	9	9	6
	3	7	10	13			10	10	10	7
	4									

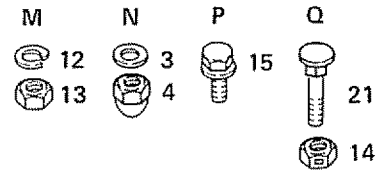
REPAIR PARTS

SEARS REAR TINE TILLER--MODEL NUMBER 917.299230

MAIN FRAME

KEY NO.	PART NO.	DESCRIPTION
1	23230506	Screw - Set, Hex 5/16 - 18 x 3/8
2	1685H	Nut - Gripco 5/16 - 18
3	STD551031	*Washer 11/32 x 11/16 x 16 Ga.
4	104214X	Nut - Cap 5/16 - 18
5	72110404	Bolt - Rd. Hd. Sq. Neck Carriage 1/4 - 20 x 1/2 Gr. 5
6	STD551125	*Washer - Lock 1/4
7	STD541025	*Nut - Hex 1/4 - 20
8	STD523115	*Bolt - Hex 5/16 - 18 x 1 - 1/2
9	STD551131	*Washer - Lock 5/16
10	STD541031	*Nut - Hex 5/16 - 18
11	STD523710	*Bolt - Hex 3/8 - 16 x 1
12	STD551137	*Washer - Lock 3/8
13	STD541037	*Nut - Hex 3/8 - 16
14	5394H	Nut - Gripco 3/8 - 16
15	17561008	Hex Washer Hd. Slotted Thd. Cutting Screw No. 10 - 24 x 1/2
16	98000129	Nut - Flange 5/16 - 18
17	72140505	Bolt - Carriage 5/16 - 18 x 5/8 Gr. 5
18	STD533110	*Bolt - Rd. Hd. Sq. Neck Carriage 5/16 - 18 x 1
19	STD523107	*Bolt - Rd. Hd. Sq. Neck Carriage 5/16 - 18 x 3/4 Gr. 5
20	72040410	Bolt - Rd. Hd. Sq. Neck Carriage 1/4 - 20 x 1 - 1/4 Gr 5 Full Thread
21	72140608	Bolt - Rd Hd Sq. Neck Carriage 3/8 - 16 x 1 Gr. 5

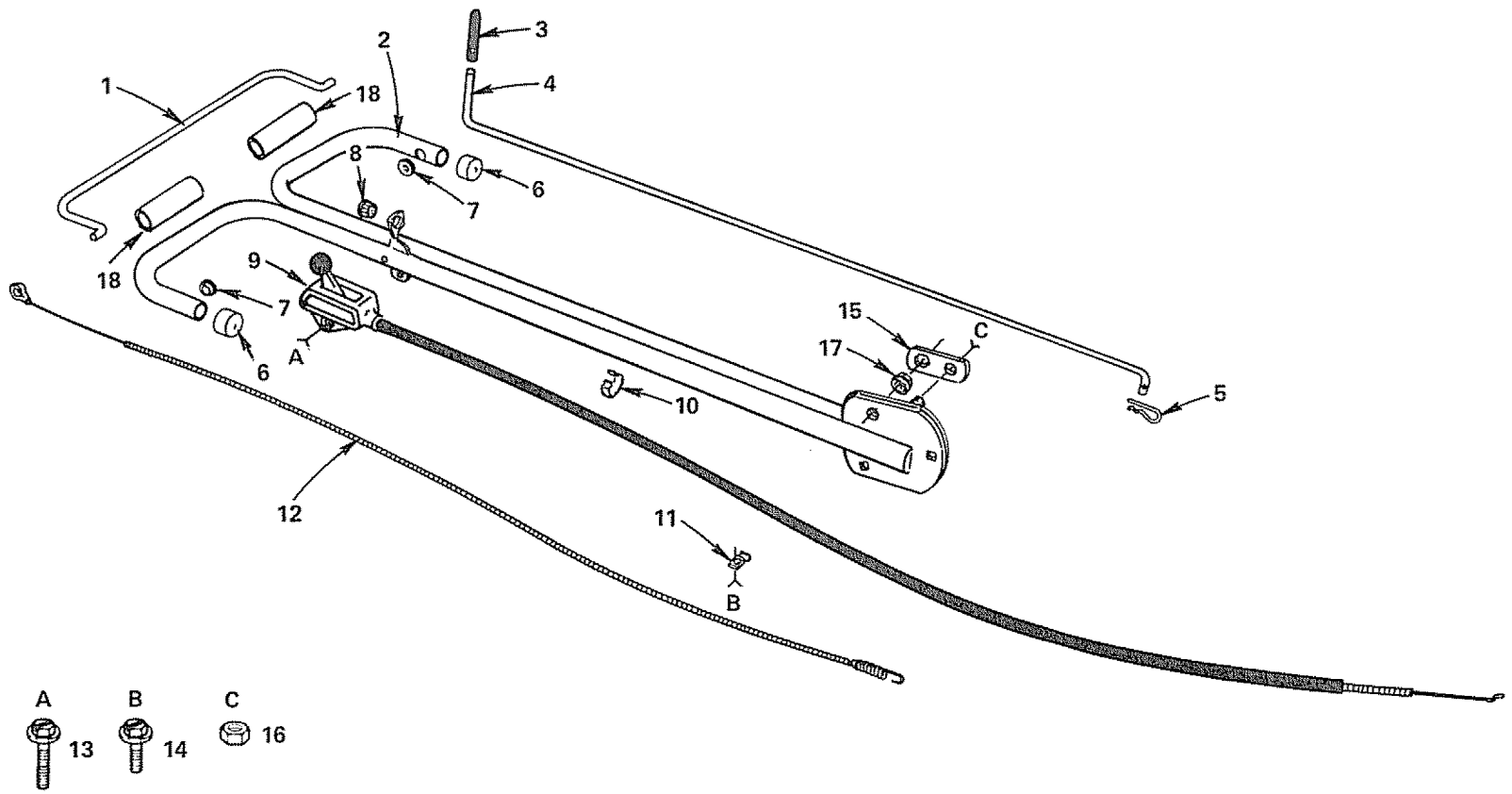
*STANDARD HARDWARE--PURCHASE LOCALLY



REPAIR PARTS

SEARS REAR TINE TILLER--MODEL NUMBER 917.299230

CONTROL GROUP



REPAIR PARTS

SEARS REAR TINE TILLER--MODEL NUMBER 917.299230

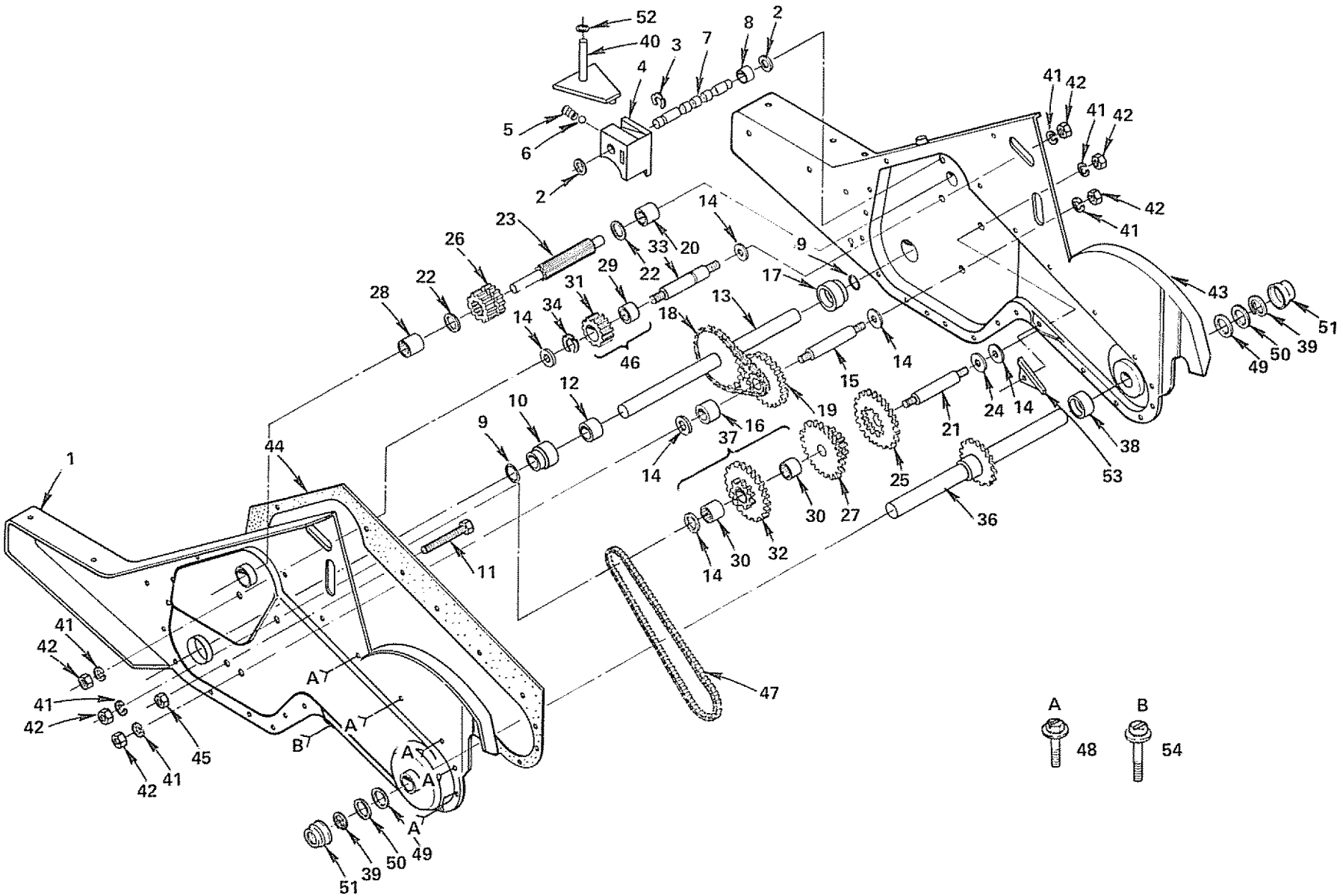
CONTROL GROUP

KEY NO.	PART NO.	DESCRIPTION
1	4405J	Control Drive Bar
2	104887X	Assembly - Handle
3	8389J	Grip
4	102168X	Rod - Shift
5	4497H	Clip - Hairpin
6	102169X	Cap - Sleeve
7	5420J	Grommet - Handle
8	102856X	Grommet
9	105363X	Kit - Control, Throttle
10	102379X	Clip - Cable, Dual
11	9484R	Clip
12	102162X	Cable - Clutch
13	17490416	Screw - Hex Washer Thread Rolling 1/4 - 20 x 1 Type TT
14	17561008	Hex Washer Hd. Slotted Thread Cutting Screw No. 10 - 24 x 1/2
15	101282K	Plate - Lock
16	73690400	Locknut - Gripco Crown 1/4 - 20
17	104886X	Nut - Flange 3/8 - 16
18	105312X	Grip

REPAIR PARTS

SEARS REAR TINE TILLER--MODEL NUMBER 917.299230

TRANSMISSION - GROUND DRIVE



REPAIR PARTS

SEARS REAR TINE TILLER--MODEL NUMBER 917.299230

TRANSMISSION - GROUND DRIVE

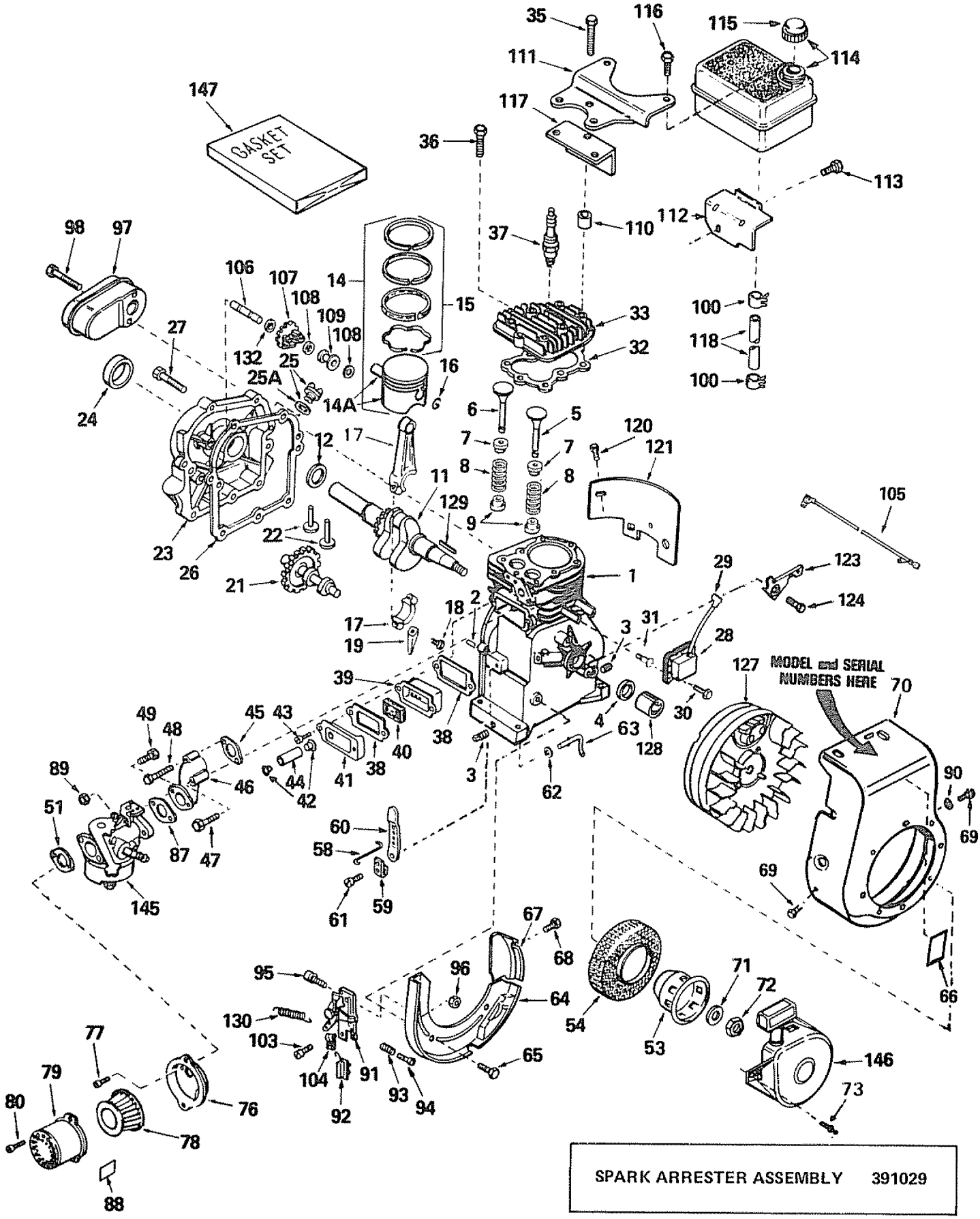
KEY NO.	PART NO.	DESCRIPTION
---	106134X	Transmission Assembly
1	106135X	Gearcase Assembly - L.H. w/Bearing (Inc. Key No. 28)
2	102136X	Washer - Seal
3	12000039	Klip Ring
4	8353J	Fork - Shift
5	100371K	Spring - Shift, Fork
6	7392M	Ball - Steel
7	102109X	Shaft - Shift
8	104159X	Spacer - Split
9	102128X	O-Ring
10	102100X	Bearing - Shaft, Ground Drive
11	102101X	Screw - Whiz - Lock 5/16 - 18 x 3 - 1/2
12	106390X	Bushing .765 x 1.125 x 1.23
13	102124X	Shaft Assembly - Ground
14	4358J	Washer
15	102112X	Shaft - Reduction (2nd)
16	106388X	Spacer - .70 x 1.00 x 1.150
17	102106X	Bearing - Shaft, Ground Drive
18	102134X	Chain No. 35-50 Pitch
19	102121X	Sprocket and Gear Assembly
20	4895H	Bearing - Needle
21	8358J	Shaft - Reduction (1st)
22	1370H	Washer - Thrust 5/8 x 1.10 x 1/32
23	102110X	Shaft - Input
24	4220R	Washer - Thrust
25	105346X	Gear - Reverse
26	102113X	Pinion - Input
27	105345X	Gear - Cluster - Red. 1st and 2nd
28	5020J	Bearing - Needle
29	6803J	Bearing - Needle
30	4422J	Bearing - Needle
31	102115X	Gear - Reverse Idler
32	106142X	Sprocket Assembly (Tine)
33	102111X	Shaft - Reverse Idler
34	12000040	Klip Ring
36	106144X	Shaft Assembly - Tine
37	106141X	Sprocket Assembly w/Bearings (Inc. Key No. 32 and 2 of Key No. 30)
38	106146X	Spacer - 1.01 x 1 - 3/4 x .75
39	102144X	Ring - Spiral
40	102107X	Arm Assembly - Shift
41	STD551143	*Lockwasher 7/16
42	STD541143	*Nut - Hex 7/16 - 20
43	106138X	Gearcase Assembly - R.H. w/Bearing (Inc. Key No. 20)
44	106211X	Gasket - Gearcase
45	STD541031	*Nut - Hex 5/16 - 18
46	102114X	Gear Assembly - Reverse Idler (Inc. Key No's. 29 & 31)
47	106147X	Chain - Roller - 62P
48	17580408	Screw - Taptite 1/4 - 20 x 1/2
49	9674R	Seal - Oil
50	9676R	Seal - Ring, Rubber
51	9672R	Cup - Formed
52	106160X	O-Ring
53	106212X	Block - Chain Guide
54	17580410	Screw - Taptite 1/4 - 20 x 5/8
---	6066J	Grease Plastilub No. 1 (not furnished with your Tiller)

*STANDARD HARDWARE--PURCHASE LOCALLY

REPAIR PARTS

SEARS REAR TINE TILLER--MODEL NUMBER 917.299230
ENGINE--MODEL NUMBER 143.754012

ENGINE



REPAIR PARTS

SEARS REAR TINE TILLER--MODEL NUMBER 917.299230
ENGINE--MODEL NUMBER 143.754012

ENGINE

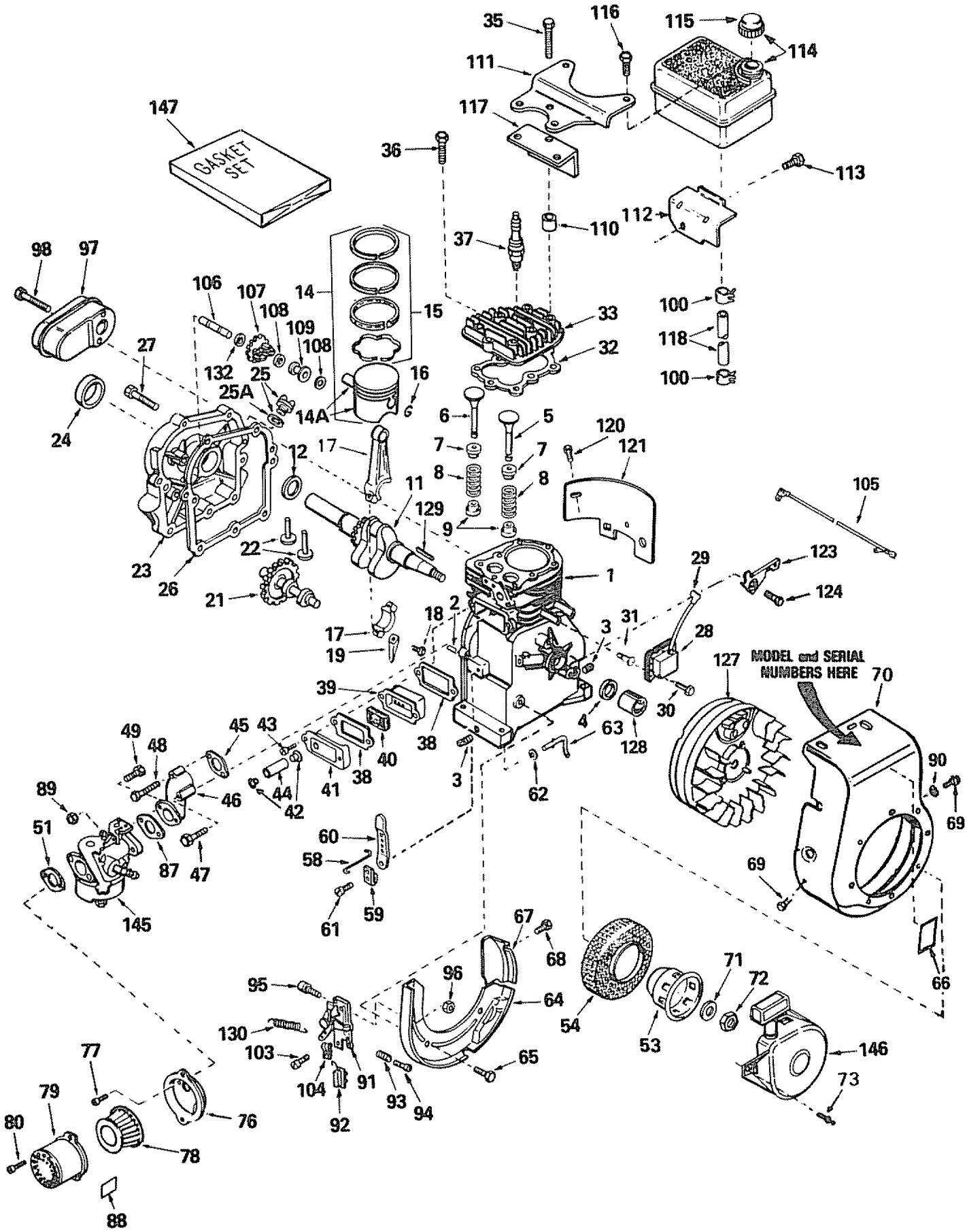
Key No.	Part No.	Part Name
1	34708A	Cylinder Assy. (Incl. Nos. 2, 3 & 4)
2	26727	Pin, Dowel
3	27642	Plug, Sq. hd. pipe, 1/4-18
4	32600	Seal, Oil
5	29314B	Valve, Intake (Std.) (Incl. No. 9)
5	29315C	Valve, Intake (1/32" oversize) (Incl. No. 9)
6	29313C	Valve, Exhaust (Std.) (Incl. No. 9)
6	29315C	Valve, Exhaust (1/32" oversize) (Incl. No. 9)
7	31671	Cap, Upper valve spring
8	31672	Spring, Valve
9	31673	Cap, Lower valve spring
11	35086	Crankshaft
12	32323	Washer, Thrust
14	34514	Piston, Pin & Ring Assy. (Std.) (Incl. Nos. 14A, 15 & 16)
14	34515	Piston, Pin & Ring Assy. (.010 oversize) (Incl. Nos. 14A, 15 & 16)
14	34516	Piston, Pin & Ring Assy. (.020 oversize) (Incl. Nos. 14A, 15 & 16)
14A	32538B	Piston & Pin Assy. (Std.) (Incl. No. 16)
14A	32548B	Piston & Pin Assy. (.010 oversize) (Incl. No. 16)
14A	32549B	Piston & Pin Assy. (.020 oversize) (Incl. No. 16)
15	28986	Ring Set, Piston (Std.)
15	28987	Ring Set, Piston (.010 oversize)
15	28988	Ring Set, Piston (.020 oversize)
16	20381	Ring, Piston pin retaining
17	32875	Rod Assy., Connecting (Incl. Nos. 18 & 19)
18	32610A	Screw, Connecting rod
19	32654	Dipper, Oil
21	33149A	Camshaft (Compression Release)
22	27241	Lifter, Valve
23	32700A	Cover, Cylinder (Incl. Nos. 24, 25, 25A, 106)
24	27897	Seal, Oil
25	27625	Plug, Oil filler (Incl. No. 25A)
25A	*29673	Gasket, Oil filler
26	*27677	Gasket, Cylinder cover
27	650488	Screw, Hex hd. Sems, 1/4-20 x 1-1/4
28	34443A	Lamination & Coil Assy. (Solid State)
29	610118	Cover, Spark Plug
30	650814	Screw, Hex hd. Sems, 10-24 x 1
31	650872	Stud, Lamination mtg.
32	*29953B	Gasket, Cylinder head
33	30579	Head, Cylinder
35	650694A	Screw, Hex flange hd., 5/16-18 x 2
36	6021A	Screw, Hex flange hd., 5/16-18 x 1-1/2
37	33636	Plug, Spark (Champion J-8 or equivalent) Except for Canada
37	34251 Canada	Resistor Spark Plug (Canadian Regulations require RJ-17LM resistor spark plug)
38	*27234	Gasket, Breather
39	27666	Body Assy., Breather
40	31410	Element, Breather
41	34146	Cover, Breather
42	32446	Grommet, Breather tube
43	650128	Screw, Fil. hd. Sems, 10-24 x 1/2
44	32447	Tube, Breather
45	*26754	Gasket, Intake
46	28416A	Pipe, Intake (Incl. No. 48)
47	650664	Screw, Fil. hd. Sems, 1/4-20 x 1-19/32
48	650840	Screw, Fil. hd. Sems, 1/4-20 x 1-7/32
49	6201	Screw, Hex hd., 1/4-28 x 7/8
51	*27272	Gasket, Air cleaner
53	34694	Cup, Starter
54	35185	Screen, Starter cup
58	31858	Link, Governor-to-throttle
59	31335	Clamp, Governor lever
60	31510	Lever, Governor
61	650548	Screw, Hex washer hd., 8-32 x 5/16
62	28277	Washer, Flat
63	31334	Rod, Governor
64	†33342	Baffle, Blower housing
65	650561	Screw, Hex washer hd., Durlok, 1/4-20 x 5/8
66	35087	Decal, Instruction
67	33341	Extension, Baffle
68	650701	Screw, Hex washer hd. shake-proof, self-drilling, 8-18 x 7/16
69	29212	Screw, Hex hd. Sems, 1/4-28 x 7/16
70	35184	Housing, Blower
71	650815	Washer, Belleville
72	650816	Nut, Flywheel
73		Pop Rivet (Can be purchased locally)
76	31708	Bracket, Air cleaner
77	28820	Screw, Fil. hd. Sems, 10-32 x 1/2
78	30727	Element, Air cleaner
79	31715	Body, Air cleaner
80	650152	Screw, Fil. hd. Sems, 8-32 x 3/8
87	*26756	Gasket, Carburetor
88	34612	Decal, Air cleaner
89	29752	Nut & Lockwasher Assy., 1/4-28
90	650168	Washer, Flat, 1/4
91	†33879A	Control Assy., Speed (Incl. Nos. 92 thru 96)
92	610973	Terminal Assy.
93	31342	Spring, Compression
94	650549	Screw, Fil. hd., 5-40 x 7/16
95	†650139	Screw, Fil. hd. Sems, 8-32 x 1/2
96	†30322	Locknut, Hex "keps", 8-32
97	34610	Muffler
98	650795	Screw, Hex hd., 1/4-20 x 2-1/4
100	26460	Clamp, Fuel line
103	28942	Screw, Hex washer hd. Sems, 10-32 x 3/8
104	27793	Clip, Conduit
105	35182	Wire, Ground
106	30574	Shaft, Mechanical governor
107	30591	Gear Assy., Governor (Incl. No. 132)
108	29193	Ring, Retaining
109	30588A	Spool, Governor
110	28212	Spacer, Tank bracket
111	28371B	Bracket, Upper fuel tank
112	34182	Bracket, Lower fuel tank
113	650561	Screw, Hex washer hd. Durlok, 1/4-20 x 5/8
114	34711	Tank Assy., Fuel (Incl. No. 115)
115	33032	Cap, Fuel tank
116	650665	Screw, Hex washer hd. thread cutting, 1/4-15 x 7/8
117	33344	Baffle, Heat
118	30705	Line, Fuel
120	650128	Screw, Fil. hd. Sems, 10-24 x 1/2
121	29745	Extension, Blower housing
123	34212	Bracket, Hold down
124	30200	Screw, Hex washer hd Sems, self-tap, 10-24 x 9/16
127	611080	Flywheel
128	34080	Spacer, Flywheel key

*Indicates Parts Included in Gasket Set, Key No. 147.

REPAIR PARTS

SEARS REAR TINE TILLER--MODEL NUMBER 917.299230
ENGINE--MODEL NUMBER 143.754012

ENGINE



REPAIR PARTS

SEARS REAR TINE TILLER--MODEL NUMBER 917.299230
ENGINE--MODEL NUMBER 143.754012

ENGINE

Key No.	Part No.	Part Name
129	610961	Key, Flywheel
130	31426	Spring, Extension
132	30590A	Washer, Flat
145	632284	Carburetor (Incl. No. 87)
146	590420A	Starter, Rewind
147	33233	Gasket Set (Incl. items marked *)

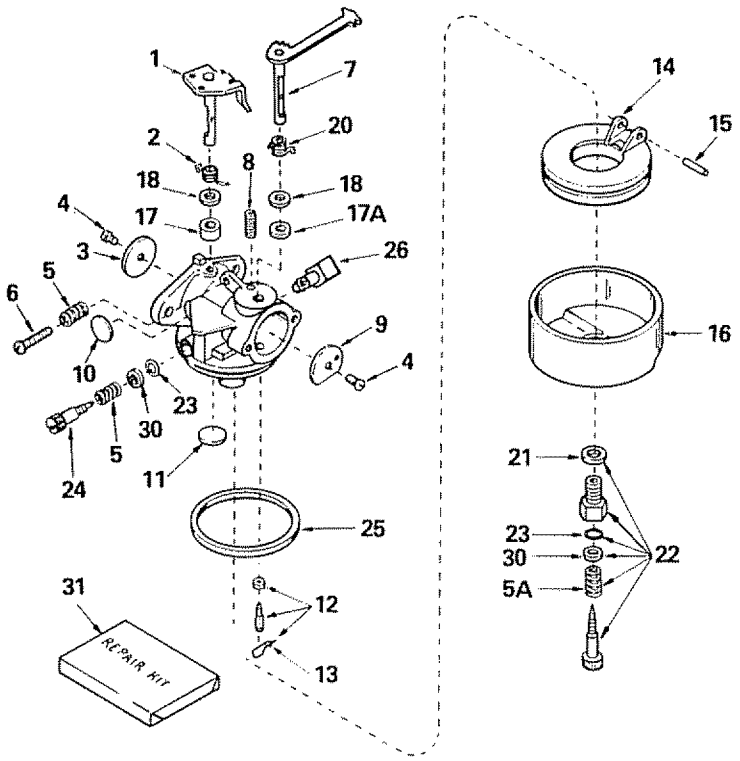
*Indicates Parts Included in Gasket Set, Ref. No. 147.

Key No.	Part No.	Part Name
		†In original production the speed control assembly is riveted to the blower housing baffle. Replacement speed control assembly includes screws and nuts for mounting. Replacement baffle has threaded holes.

REPAIR PARTS

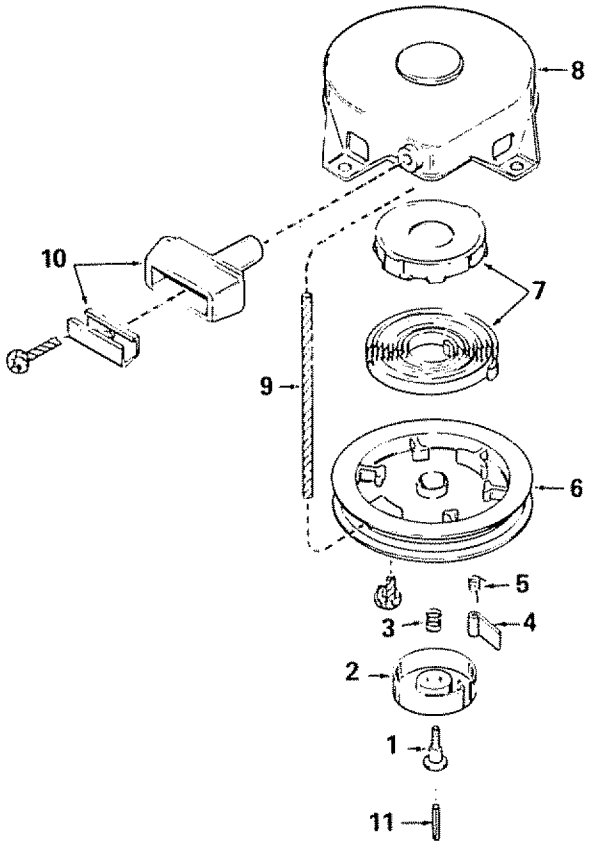
SEARS REAR TINE TILLER--MODEL NUMBER 917.299230
ENGINE--MODEL NUMBER 143.754012

CARBURETOR NO. 632284



Key No.	Part No.	Part Name
	632284	Carburetor
1	631615	Shaft & Lever Assy., Throttle
2	631767	Spring, Throttle
3	631036	Shutter, Throttle
4	650506	Screw, Rd. hd., 4-40 x 3/16
5	630766	Spring, Idle regulating screw
5A	630738	Spring, Main adjustment screw
6	650417	Screw, Idle regulating
7	632145	Shaft & Lever Assy., Choke
8	630735	Spring, Choke positioning
9	31837	Shutter, Choke
10	*630748	Plug, Welch
11	*631027	Plug, Welch
12	*631021	Inlet Needle, Seat & Clip Assy (Incl. No. 13)
13	631022	Clip, Inlet needle
14	632019	Float, Carburetor
15	*631024	Shaft, Float
16	631867	Bowl, Float
17	631971	Seal, Dust
17A	631183	Washer, Felt
18	631184	Washer
20	632042	Spring, Compression
21	27110	Gasket, Bowl-to-body
22	*31839	Adjustment Screw Assy., Main (Incl. Nos. 5A, 21, 23 & 30
23	*630740	"O" Ring, Adjustment screw
24	*631078	Screw, Idle adjustment
25	*631028	Gasket, Bowl-to-body
26	631775	Fitting, Fuel inlet
30	630739	Washer, Flat
31	31840	Repair Kit (Incl. items marked *)

REWIND STARTER NO. 590420A



Key No.	Part No.	Part Name
	590420A	Starter, Rewind
1	590409A	Screw, Retainer
2	590410	Retainer, R.H.
3	590411	Spring, Brake
4	590148	Dog, Starter
5	590412	Spring, R.H. dog
6	590413A	Pulley
7	590414	Spring & Keeper Assy.
8	590536	Housing Assy., Starter (Incl. No. 1)
9	590535	Rope, Starter
10	590387	Handle Assy., Starter
11	590459	Pin, Centering

SERVICE NOTES

106414X-12.9.84
Printed in U.S.A.

Sears

OWNERS MANUAL

MODEL NO. 917.299230

HOW TO ORDER REPAIR PARTS

3.5 H.P. CRT 14 INCH REAR TINE TILLER WITH COUNTER ROTATING TINES

The Model Number will be found on a plate attached to the top of the Transmission (Fig. 1). Always mention the Model Number when requesting service or repair parts for your Rear Tine Tiller.

All parts listed herein may be ordered from any Sears Service Center and most Sears stores.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

- THE PART NUMBER
- THE PART DESCRIPTION
- THE MODEL NUMBER
- THE NAME OF MERCHANDISE

If the parts you need are not stocked locally, your order will be electronically transmitted to a Sears Repair Parts Distribution Center for "expedited handling".

Sears, Roebuck and Co., Chicago, Ill. 60684 U.S.A.