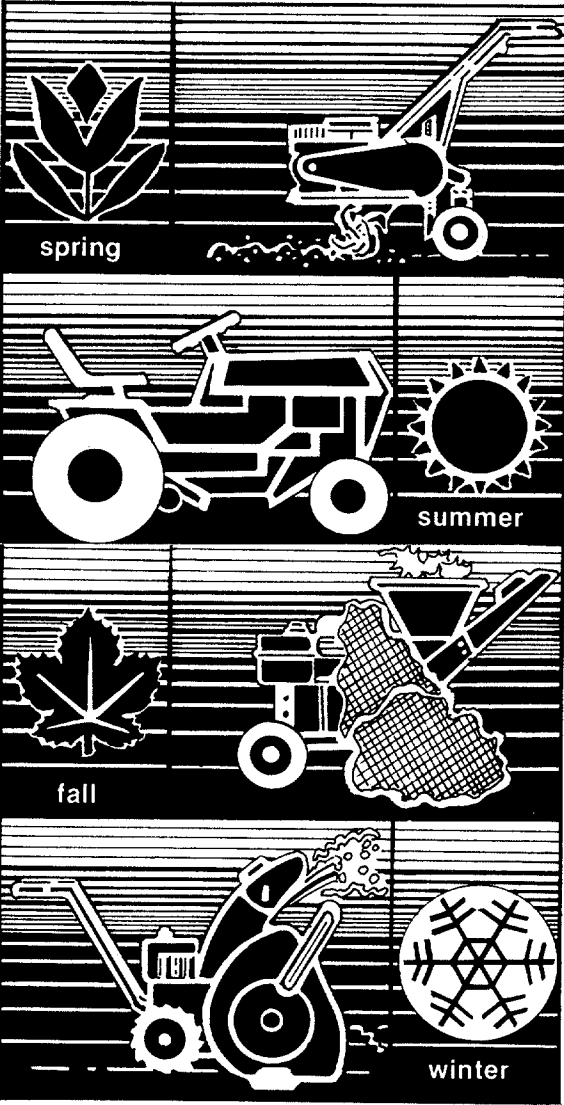


# OWNER'S GUIDE

OUTDOOR POWER EQUIPMENT  
for all seasons



**5 H.P.  
FOUR SPEED  
CHAIN DRIVE  
TILLER**

**Model Number  
215-386-000**

**Important:  
Read Safety Rules and  
Instructions Carefully**

Thank you for purchasing  
an American-built product.

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Instructions given with this symbol are for personal safety. Be sure to follow them.

## LIMITED WARRANTY

For one year from the date of original retail purchase, MTD PRODUCTS INC will either repair or replace, at its option, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. Transportation charges for the movement of any power equipment unit or attachment are the responsibility of the purchaser. Transportation charges for any parts submitted for replacement under this warranty must be paid by the purchaser unless such return is requested by MTD PRODUCTS INC.

This warranty will not apply to any part which has become inoperative due to misuse, excessive use, accident, neglect, improper maintenance, alterations, or unless the unit has been operated and maintained in accordance with the instructions furnished. This warranty does not apply to the engine, motor, battery, battery charger or component parts thereof. Please refer to the applicable manufacturer's warranty on these items.

This warranty will not apply where the unit has been used commercially.

Warranty service is available through your local authorized service dealer or distributor. If you do not know the dealer or distributor in your area, please write to the Customer Service Department of MTD.

The return of a complete unit will not be accepted by the factory unless prior written permission has been extended by MTD.

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



**WARNING**

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. A spark arrester muffler is available at your nearest engine authorized service center.



To reduce the potential for any injury, comply with the following safety instructions. Failure to comply with the instructions may result in personal injury.

## SAFE OPERATION PRACTICES FOR TILLERS

1. It is suggested that this manual be read in its entirety before attempting to assemble or operate this unit. Keep this manual in a safe place for future reference and for ordering replacement parts.
2. Your tiller is a precision piece of power equipment, not a plaything. Therefore, exercise extreme caution at all times.
3. Read this Owner's Manual carefully. Be thoroughly familiar with the controls and the proper use of the equipment.
4. Never allow children to operate a power tiller. Only persons well acquainted with these rules of safe operation should be allowed to use your tiller.
5. No one should operate this unit while intoxicated or while taking medication that impairs the senses or reactions.
6. Keep the area of operation clear of all persons, particularly small children and pets.
7. Do not operate equipment when barefoot or wearing open sandals. Always wear substantial footwear.
8. Do not wear loose fitting clothing that could get caught on the tiller.
9. Do not start the engine unless the shift lever is in the neutral (N) position.
10. Do not stand in front of the tiller while starting the engine.
11. Do not place feet and hands on or near the tines when starting the engine or while the engine is running.
12. Never attempt to make a wheel or depth bar adjustment while the engine is running.
13. Do not leave the tiller unattended with the engine running.
14. Do not walk in front of the tiller while the engine is running.
15. Check the fuel before starting the engine. Gasoline is an extremely flammable fuel. Do not fill gasoline tank indoors, when the engine is running, or while the engine is still hot. Wipe off any spilled gasoline before starting the engine as it may cause a fire or explosion.
16. Do not run the engine while indoors. Exhaust gases are deadly poisonous.
17. Be careful not to touch the muffler after the engine has been running. It is hot.
18. Do not change the engine governor settings or overspeed the engine. Excessive engine speeds are dangerous.
19. Before any maintenance work is performed or adjustments are made, remove the spark plug wire and ground it on the engine block for added safety.
20. Use caution when tilling near buildings and fences. Rotating tines can cause damage or injury.
21. Before attempting to remove rocks, bricks and other objects from tines, stop the engine and be sure the tines have stopped completely. Disconnect the spark plug wire and ground to prevent accidental starting.
22. Check the tine and engine mounting bolts at frequent intervals for proper tightness.
23. Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
24. Never store the equipment with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.

# ASSEMBLY INSTRUCTIONS



This unit is shipped WITHOUT GASOLINE or OIL. After assembly, see operating section of this manual for proper fuel and engine oil recommendations.

Before any step is undertaken, the instructions for that step should be read thoroughly.

## ← Tools Required (See Figure 1)

1. (1) 1/2" Socket, Open or Box Wrench
2. (2) 9/16" Socket, Open or Box Wrench
3. (1) 1/4" Flat Screwdriver

## Parts in Carton (See Figure 1)

- Tiller
- Handle Panel Assembly
- Depth Bar
- Tailpiece
- Control Rod
- Hardware Pack
- Shift Lever

## ← Contents of Hardware Pack (See Figure 2)

- A (1) "U"-Clevis Pin
- B (1) Internal Cotter Pin
- C (2) Hairpin Cotters
- D (1) Adjustment Ferrule
- E (1) Flat Washer 5/16" I.D.
- F (1) Belleville Washer 5/16" I.D.
- G (1) Compression Spring
- H (1) Hex Lock Nut 5/16-18 Thread
- J (1) Clevis Pin
- K (1) Spring Pin
- L (6) Hex Bolts 3/8-16 x 1.00" Long
- M (2) Belleville Washers 3/8" I.D.
- N (6) Lock Washers 3/8" I.D.
- O (6) Hex Nuts 3/8-16 Thread
- P (2) Hand Grips (Not Shown)

### 1. Tailpiece Installation

Slide the tailpiece into the chassie. Secure with "U"-Clevis (A) and internal cotter pin (B). See figure 3.

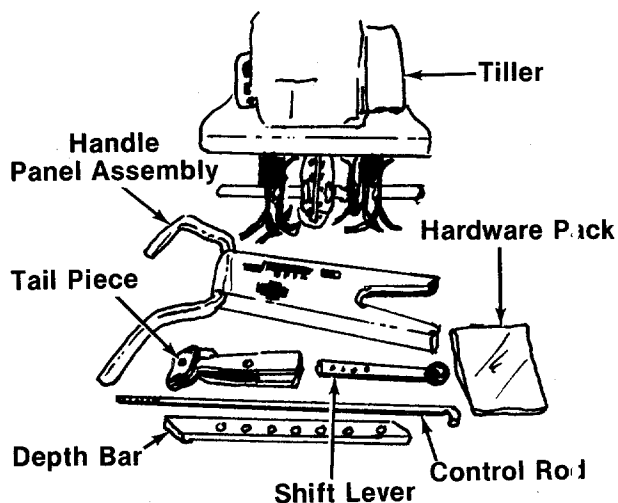


FIGURE 1.

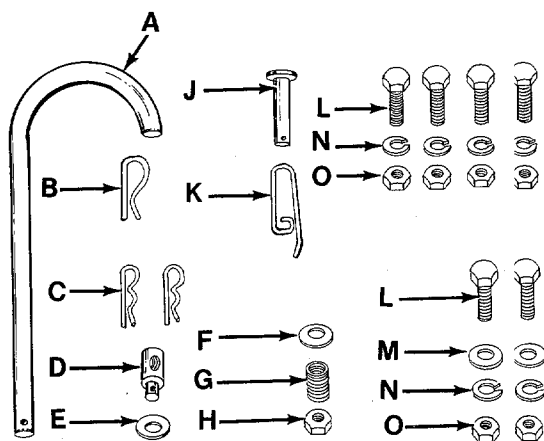


FIGURE 2.

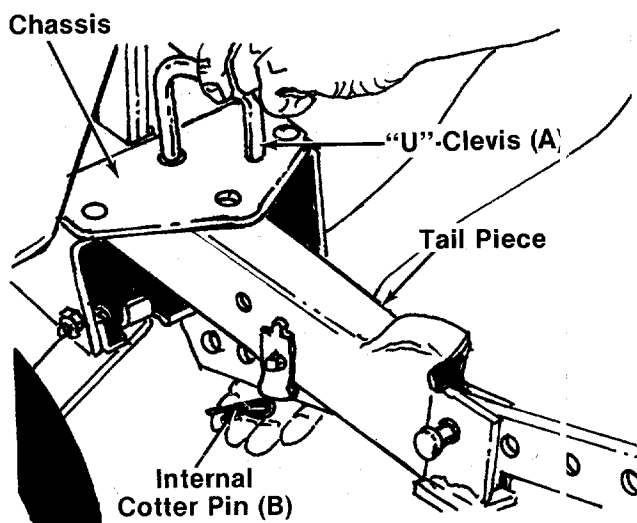


FIGURE 3.

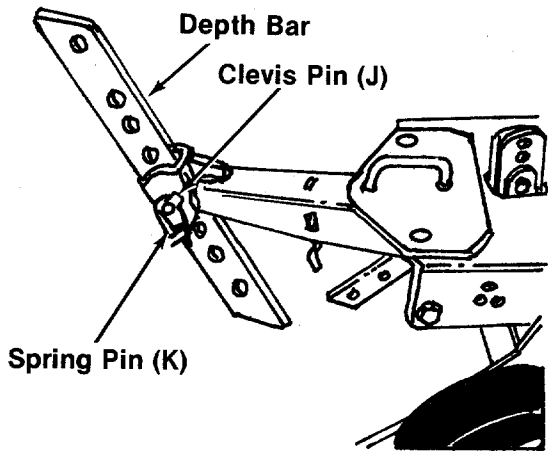


FIGURE 4.

### 2. Depth Bar Installation

Slide the depth bar into the tailpiece to desired depth. Secure with clevis pin (J) and spring pin (K).

← See figure 4.

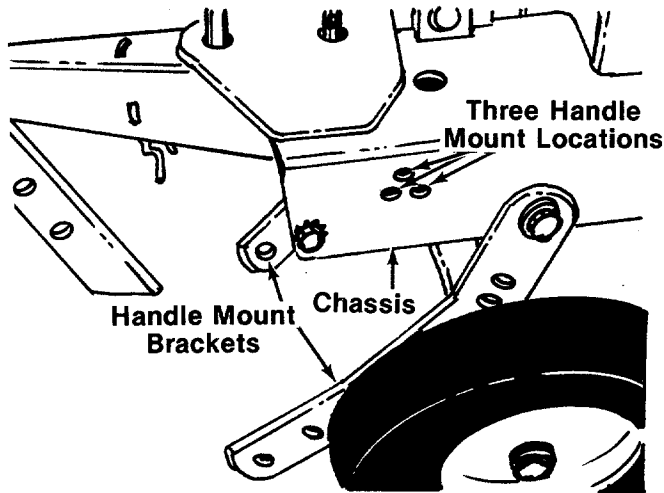


FIGURE 5.

### 3. Attaching Handle Mount Brackets

For shipping purposes, the handle mounting brackets are pivoted down. See figure 5. Pull handle mount brackets up and select height position for the handle by lining up one of the holes in the handle mount brackets with desired hole in chassis. See figure 5.

←

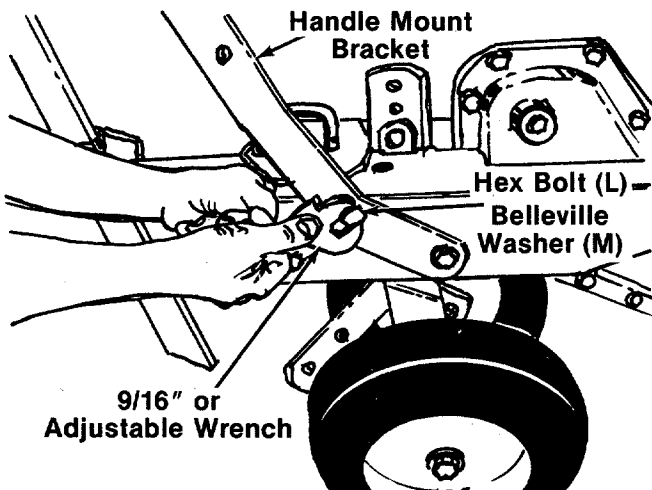


FIGURE 6.

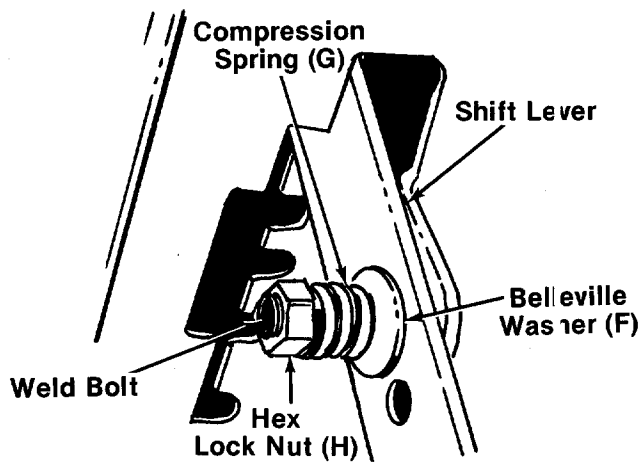
Place hex bolt (L) and belleville washer (M) (cupped side against the handle mount bracket) through handle mount bracket and chassis.

Secure with lock washer (N) and hex nut (O) on the inside of chassis. See figure 6.

←

### NOTE

This tiller is a variable speed unit. Any movement in the handle (after assembly) may change your speed. The handle mount brackets **must** be as tight as possible. See figure 6.



#### 4. Shift Lever Installation

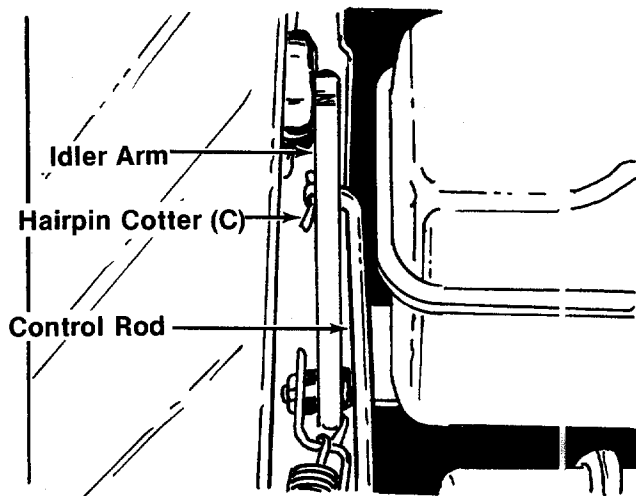
The shift lever is mounted to the handle panel in the following manner.

- A. Place the top hole of the shift lever over weld bolt on handle panel. See figure 7.
- B. Place belleville washer (F) and spring (G) over weld bolt as shown in figure 7.
- C. Secure with hex lock nut (H). See figure 7.



Tighten hex lock nut just to the point the spring starts to compress.

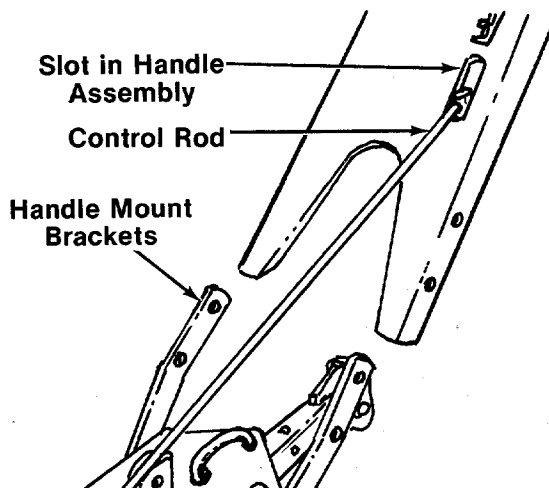
FIGURE 7.



#### 5. Handle Panel Installation

Thread adjustment ferrule (D) on end of control rod. Hook the other end of control rod into the tab on idler arm. Secure with hairpin cotter (C). See figure 8.

FIGURE 8.



Slip other end of control rod with ferrule attached through the slot in handle panel. Then slide the handle assembly down over the handle mount brackets on the chassis. See figure 9.

FIGURE 9.

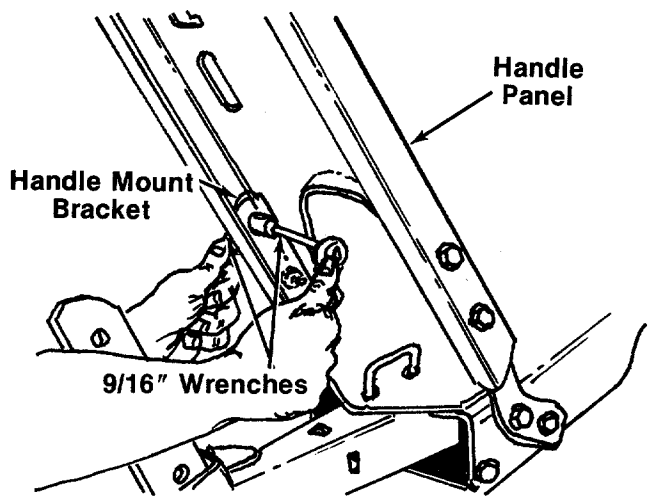


FIGURE 10.

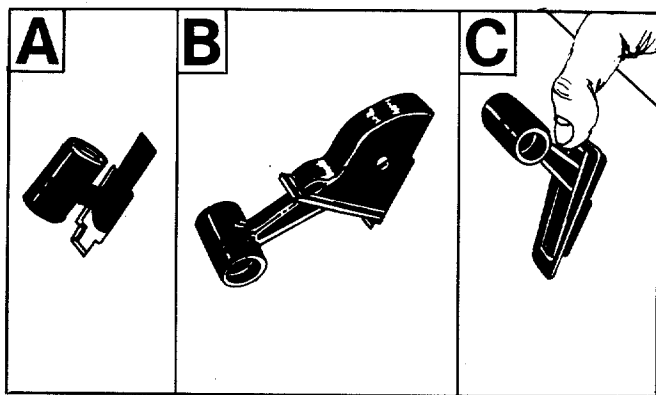


FIGURE 11.

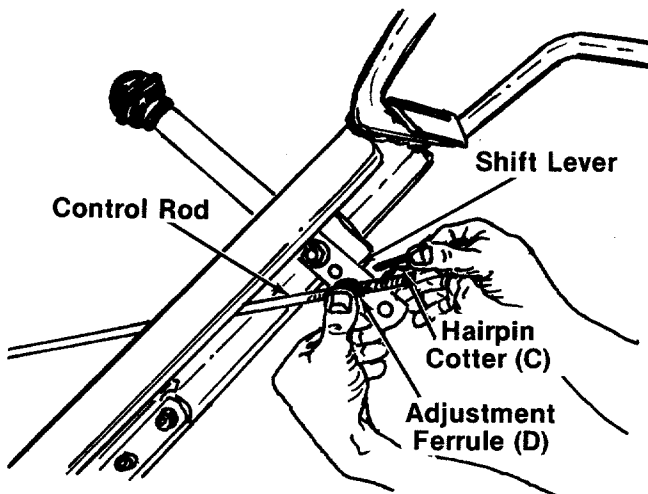


FIGURE 12.

Secure handle panel with four hex bolts (L), lock washers (N) and hex nuts (O). Lock washers and hex nuts are tightened from the inside of handle panel. Tighten securely. See figure 10.

Slip hand grips on the upper end of each handle. They will slip on more easily if you first soak them in warm, soapy water.

### 6. Throttle Control Installation

Assemble the throttle control to the handle panel as follows.

- A. Hold the throttle control assembly beneath the handle panel. Turn the control sideways and insert the lever up through the wide portion of the slot on the handle panel.
- B. After the end of the lever is through the slot, turn and then tip the control forward as shown in figure 11B to slide it through the slot.

#### NOTE

The lever must be all the way to the back of the control housing as shown in figure 11B.

- C. Push the control back into the slot in the handle panel and press in place. Be certain the control is locked securely into the slot.

### 7. Control Rod Installation and Adjustment

#### NOTE

Changing the handle position requires readjustment of the clutch rod.

- A. Place shift lever in 1st speed position. Thread ferrule up or down control rod so that ferrule lines up with hole in shift lever. See figure 16. Secure ferrule with flat washer (E) and hairpin cotter (C).
- B. Put shift lever in neutral position. With the spark plug grounded, pull starter cord several times. **The tines should not turn.** If they do, remove the hairpin cotter, flat washer and ferrule. Thread the ferrule in or out as necessary. Replace and check again for correct adjustment.

#### NOTE

If neutral cannot be obtained after following above procedure several times, refer to engine adjustment section on page 11.

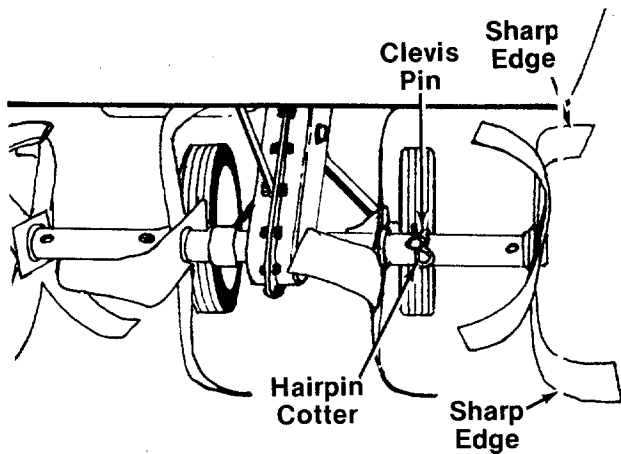


FIGURE 13.

### 8. Tine Assemblies

Check to be certain the tine assemblies are on the tine shaft so that the sharp edge enters the soil first. See figure 13.

## OPERATION

### BEFORE STARTING ENGINE

1. Before starting, fill crankcase with oil as instructed in the separate engine manual packed with the unit.  
During initial break-in period, watch oil level closely.
2. Fill fuel tank with fresh, **regular** gasoline.

### TO START ENGINE



BE SURE NO ONE IS STANDING IN FRONT OF THE TILLER WHILE THE ENGINE IS RUNNING OR BEING STARTED.

1. Place the shift lever in the neutral (N) position. See figure 14.
2. Move choke lever to "CHOKE" position.



Warm engine may not require choking.

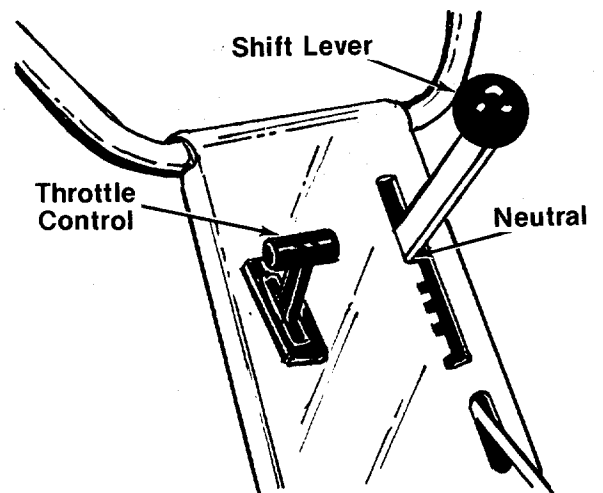


FIGURE 14.

3. Move throttle control lever forward to "START" position. See figure 14.
4. Stand at side of the tiller. Grasp the starter handle and pull out rapidly. Return it slowly to the engine. Repeat if necessary.
5. After engine starts, push choke lever gradually to "OFF" position.

### TO STOP ENGINE

1. Move throttle control lever to "STOP" position.
2. Disconnect spark plug wire from spark plug and ground to prevent accidental starting while equipment is unattended.



# HOW TO USE YOUR TILLER

The gear shift lever is located on the top left hand side of handle panel. There are four (4) forward speeds, Neutral (N) and Reverse (R). Your tiller has a variable speed pulley, which allows you to change gears First (1) through Fourth (4) without stopping.

A. Forward Speeds: First and second speeds are generally used for tilling sod or soil which has not been tilled before. Third and fourth speeds are usually used for fine tilling or cultivating. The soil conditions in your area will determine the speed you will want to use. If you stop your tiller or stall the engine while in a forward speed, you **must** proceed as follows:

- 1.) Remove the spark plug wire and ground on engine block.
- 2.) Pull the recoil starter rope, and at the same time pull back on gear shift lever. Pull the rope out as many times as it takes to move the gear shift lever into neutral (N) position. **Do Not** force shift lever back into neutral at any time.
- 3.) Place the spark plug wire back on the spark plug. Start your tiller.
- 4.) Push down the handle so that the tines do not touch the ground.
- 5.) Move the gear shift lever through the forward speeds, neutral and reverse. Readjust control rod if necessary.

B. Neutral (N): The neutral detent on the handle panel is used when starting, stopping the tiller and going from a forward speed to reverse.

C. Reverse (R) Gear: The reverse gear is deadman type. If you put the tiller into reverse to back up, or to unclog the tines and you let go of gear shift lever, the reverse motion will **stop**. Reverse will **only** work when you pull the gear shift lever back and hold it in that position.

## WHEEL POSITION

The tiller is shipped with the wheels adjusted such that the unit sits level. During digging as the tines enter the ground and the front of the tiller lowers, the wheels must be raised to level the unit. This is essential for proper engine operation. This adjustment is made by removing the clevis pin and hairpin cotter from wheel yoke, raising the wheels to the desired height, and replacing the clevis pin and hairpin cotter. See figure 15.

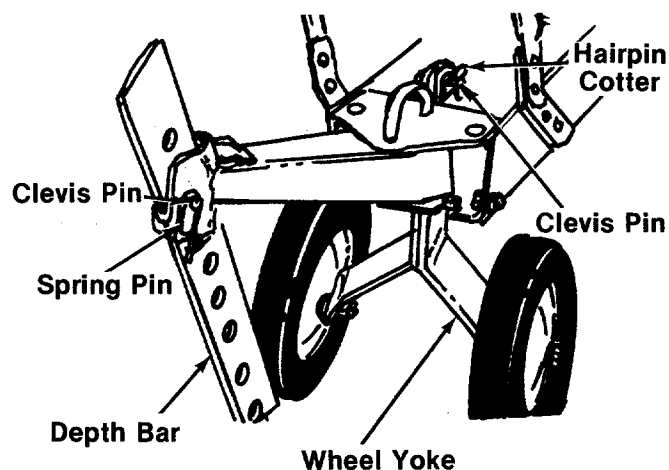


FIGURE 15.

## CONTROLLING SPEED AND TILLING DEPTH

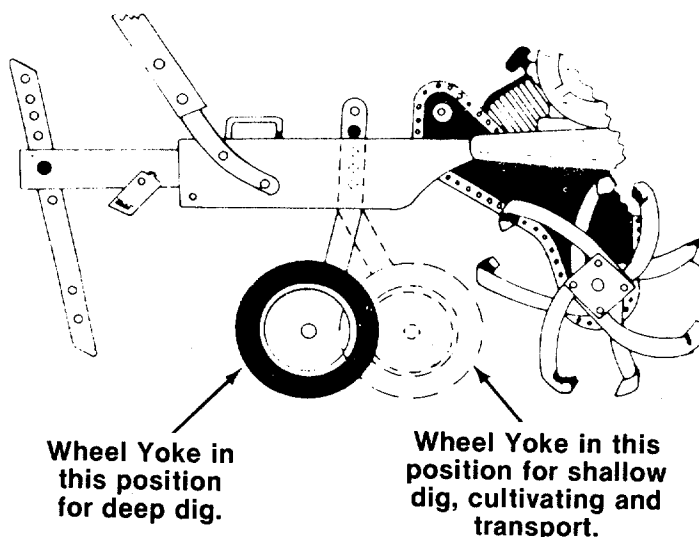


FIGURE 16.

1. **Wheel Yoke Adjustment:** Place wheel yoke so that the wheels are forward (nearest point between wheels and tines) for shallow tilling, cultivating and transport. This will increase the forward speed. See figure 15. Turn yoke around (farthest point between wheels and tines) for deep tilling. Forward speed will decrease. See figure 16.
2. **Depth Bar Adjustment:** The depth bar acts as a brake for the tiller and controls the depth and speed at which the machine will operate. See figure 17. Remove the clevis pin and spring pin to raise or lower depth bar.

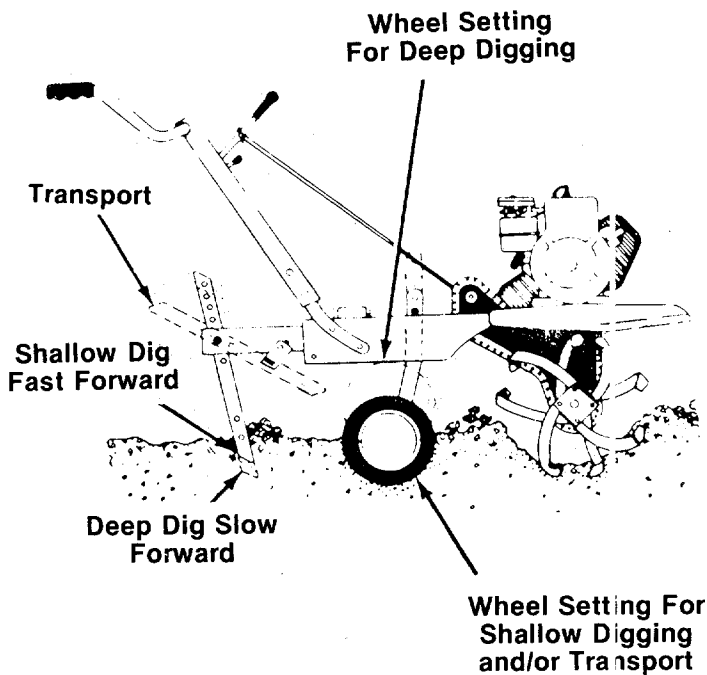


FIGURE 17.

By increasing the depth of the depth bar, the forward speed of the machine is reduced, and the working depth is increased. When the depth bar is raised, the working depth of the machine is reduced and the forward speed is increased. The working depth of the machine may be predetermined by setting the depth bar and wheels so that the wheels are about four inches from the ground when the tines and depth bar are resting on the ground. This setting will permit a working depth of about four inches. Use maximum engine speed for deep tilling. When presetting the working depth, the handles should be a little above waist height because the tiller will be lower when the tines and depth bar penetrate the ground. The best method will be determined by the soil condition. In some soils, the desired depth is obtained the first time over the garden. In other soils, the desired depth is obtained by going over the garden two or three times. In the latter case, the depth bar should be lowered before each succeeding pass over the garden. Passes should be made across the length and width of the garden alternately. Rocks which are turned up should be removed from the garden area.

3. **Handle Pressure:** Further control of tilling depth and travel speed can be obtained by variation of pressure on the handles. A down-

ward pressure on the handles will reduce the working depth and increase the forward speed. An upward pressure on the handles will increase the working depth and reduce the forward speed. The type of soil and working conditions will determine the actual setting of the depth bar and the handle pressure required.

4. **Throttle Control:** The throttle control lever is located on the right side of handle panel.



Right hand side is determined from the operator's position standing behind the tiller.

The throttle control lever adjusts the engine speed. It also gives finger tip control of the carburetor and magneto stop switch. With the throttle control knob pushed completely forward, the carburetor is in "START" position. Pulling the throttle control back slightly adjusts the engine speed to "FAST." Pulling the throttle back further reduces the engine speed to "SLOW." When the throttle is pulled completely back, the magneto stop switch grounds out the spark and stops the engine. Use maximum engine speed for deep tilling.

Move the throttle control to slow when transporting the tiller. When the tiller is being moved to or from the garden, the depth bar should be pivoted forward until it engages the depth bar spring pin. The machine may be moved under its own power, without damaging grass areas as long as it is allowed to move freely. If the operator holds back, it will start to dig.

### CULTIVATING

For cultivating, a two to three inch depth is desirable. Setting the wheels and depth bar so that the wheels are about two inches above the ground while the tiller is resting on the tines and depth bar will allow the machine to work at cultivating depth. The throttle should be set to control forward movement to a slow walking speed. With standard tines, the maximum working width of the tiller is 26 inches. This width may be reduced to 24 inches by moving the clevis pins and hairpin cotter to the inner holes on the tine shaft. For cultivation, remove the outer tines to obtain a tilling width of 13 inches.

When laying out plant rows, be sure to allow enough width to permit cultivation between the rows. In growing corn or similar crops, check-row planting will permit cross cultivation and practically eliminate hand hoeing.

The tiller has many uses other than tilling and cultivating a garden. One of these is the preparation of lawn area for seeding. The tiller will prepare a deep seed bed which will be free of hard untilled spots, allowing a better stand of grass to grow. The tiller is very useful for loosening hard soil for excavation with a shovel. No tedious hand pick work will be necessary. Your tiller may be used for mixing compost in the pile, or for mixing it with the soil in your garden. This should be done after the soil has been broken to the full working depth. The compost should be worked in to a depth of six to eight inches. This may be done by working the length of the garden, and then by mixing separate passes across its width. The addition of decayed organic matter will substantially increase the fertility of your garden. For proper decaying action, fertilizer should be applied and worked in with the mulch materials. Breaking up leaves and straw and mixing it with several inches of soil causes the soil to hold moisture longer and allows proper aeration of the plant root system. It also retards the growth of weeds.

The U.S. Department of Agriculture and various state and local agencies offer published booklets and expert advice on all phases of gardening. They should be consulted regarding soil information, planting dates, and the most satisfactory varieties of crop for your particular area.

## ADJUSTMENTS



Do not at any time make any adjustment to the tiller without first stopping engine and disconnecting spark plug wire.

### ENGINE ADJUSTMENT

When engaging the clutch rod, you may encounter difficulty in putting the unit in reverse. This may arise when the friction disc on the variable speed does not make contact with the engine disc. To remedy this problem, loosen the four hex screws securing the engine to the tine shield and the frame until you are able to slide the engine back a little in the slots in the frame. Then tighten the hex screws, start the engine and put unit in reverse. If you cannot obtain neutral, the engine is too far back and should be moved forward (not more than 1/4"). Check again to be certain you still have reverse. Refer to Control Rod Installation on page 8.

### CONTROL ROD ADJUSTMENT

To adjust the clutch control rod, refer to step number 5 under assembly instruction.

### WHEEL ADJUSTMENTS

To adjust the wheel yoke and wheel position, refer to "How To Use Your Tiller," on page 9.

### DEPTH BAR ADJUSTMENT

To adjust the depth bar, refer to "How To Use Your Tiller" on pages 9 and 10.

### TINE WIDTH ADJUSTMENT

To adjust the tine width, refer to "Cultivating" on page 10.

### CARBURETOR ADJUSTMENT



If any adjustments are made to the engine while the engine is running (e.g. carburetor), disengage all clutches and tines. Keep clear of all moving parts and be careful of heated surfaces and muffler.

Do not make unnecessary adjustments. Factory settings are correct for most application. If adjustments are needed, refer to the separate engine manual packed with your tiller.

## LUBRICATION



Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on lawn mower.

### CHAIN CASE

The chain case is pre-lubricated and sealed at the factory. It requires no checking unless the chain case is disassembled. To fill with grease, lay the left half of the chain case on its side, add 14 ounces of Plastilube #0 grease and assemble the right half to it. This grease can be obtained at your nearest authorized dealer.

# MAINTENANCE



Disconnect spark plug wire and ground it against the engine before performing any repairs or maintenance.

## ENGINE OIL

Change the oil in the crankcase after the first two hours of operation of your new engine and after each 25 hours of use thereafter to insure proper lubrication of internal parts. Take care to remove dirt around filler plug.

To change oil, remove drain plug and tip the tiller while engine is warm. Replace drain plug. Remove oil filler cap and refill with new oil of proper grade. Replace filler cap.

Check oil level every five operating hours. Make sure oil level is maintained full to point of overflowing.

## AIR CLEANER

The air cleaner prevents damaging dirt, dust, etc., from entering the carburetor and being forced into the engine and is important to engine life and performance.

To service air cleaner, refer to the separate engine manual packed with your tiller.

**Never run your engine without air cleaner completely assembled.**

## CLEAN ENGINE

This is an air cooled engine which operates most efficiently when the cooling fins are clean.

Clean cylinder fins and underside of tank or housing thoroughly of all accumulated grass and debris.

## SPARK PLUG

The spark plug should be cleaned and the gap reset once a season. Spark plug replacement is recommended at the start of each season; check engine manual for correct plug type and gap specifications.

## BELT REPLACEMENT

Your tiller has been engineered with belts made of special material (Kevlar Tensile). Replacement should not be made with an off-the-shelf belt.

If belt replacement is required, order belt or belts by part number from your authorized dealer.

Front Drive Belt—Part No. 754-0254 1/2" x 19" Lg.

Rear Drive Belt—Part No. 754-0265 1/2" x 23" Lg.

## Removing the Reverse Drive Belt

1. Remove the belt cover by removing the two self-tapping screws, and one hex nut. See figure 18.

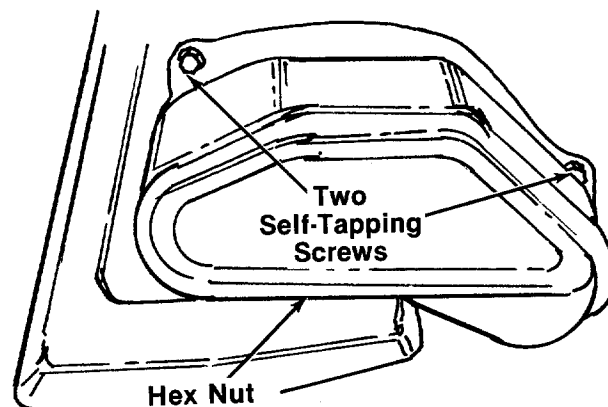


FIGURE 18.

2. Push forward on the idler. Lift belt off the chain case pulley, idler pulley and variable speed pulley. See figure 19.

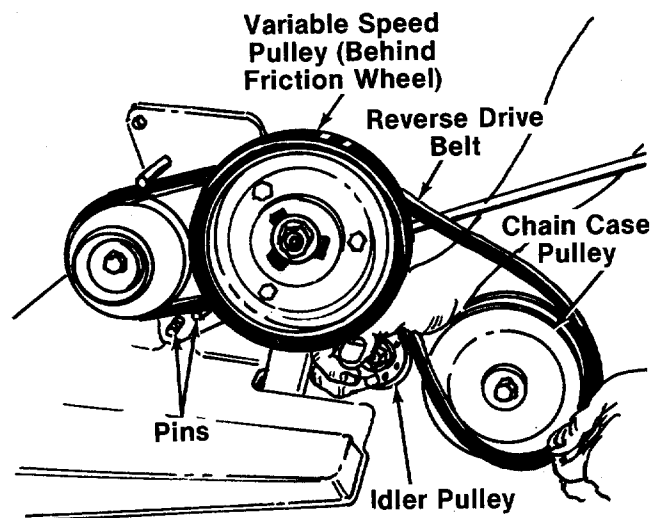
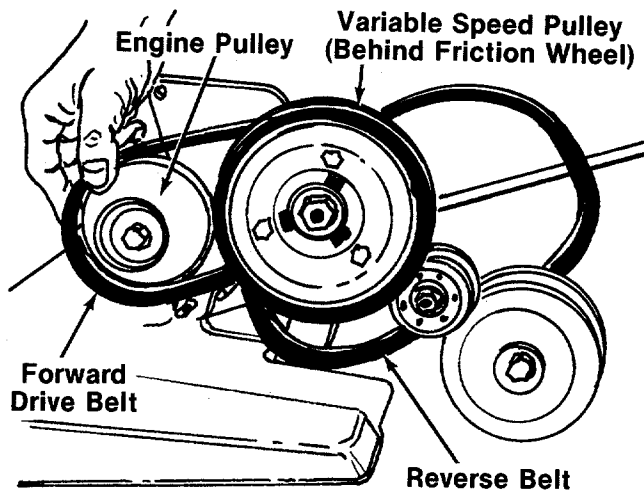


FIGURE 19.

## Removing the Forward Drive Belt

1. To remove the forward drive belt, you must remove the reverse drive belt first. See removing the reverse drive belt section.
2. Push the shift lever forward and lift off belt from variable speed pulley and engine pulley. See figure 20.



**FIGURE 20.**

### Replacing Belts

Replace belts in reverse order. Be certain forward drive belt is inside the guide pins as shown in figure 19.

When belts are replaced, it may be necessary to readjust the clutch rod and engine. See clutch rod and engine adjustment.

## OFF-SEASON STORAGE

If the tiller is not to be used for a while, the following procedure should be followed. The tines, depth bar, gear case and wheels should be cleaned of all dirt. It is very important that the unit be stored in a level position to prevent engine oil from draining into the cylinder head cavity.

Engines on tillers to be stored between seasons should be completely drained of fuel to prevent gum deposits forming on essential carburetor parts, and fuel tank.

- (a) All fuel should be removed from fuel tank. Run the engine until it stops from lack of fuel. The small amount of fuel that remains in the sump of the tank should then be removed by absorbing it with a clean dry cloth.
- (b) Clean dirt and chaff from cylinder, cylinder head fins and blower housing.
- (c) Remove spark plug, pour 2 or 3 tablespoons of SAE-30 oil into cylinder and pull crank cord out slowly to distribute oil. Replace spark plug.

Just as your automobile needs professional mechanical maintenance from time to time, so does your air-cooled engine. Cleaning and adjusting of the carburetor and periodic replacement of the spark plug and ignition points is made necessary by NORMAL use.

Professional Air-Cooled Engine Service is as close as your telephone book.

A yearly checkup or tune-up by an authorized engine dealer is a good idea to avoid breakdowns or delay...do it at the end of the season, then you're ready for the next.

### TILLER WINTERIZING INSTRUCTIONS FOR USE WITH SNOW BLADE:

1. For cold weather (below 32°F.), drain oil from tiller engine crankcase and replace with SAE 10W detergent oil.
2. Replace any remaining fuel on hand or in the engine fuel tank with a fresh supply of winter grade fuel. Winter fuels contain additives for faster starts. Keep fuel tank full.



It may be necessary to enrich the carburetor idle and high speed jets 1/8 to 1/4 turn (counterclockwise) for good performance.

3. In the spring of the year, before the tilling season, be sure to change engine oil back to SAE 30W detergent oil.

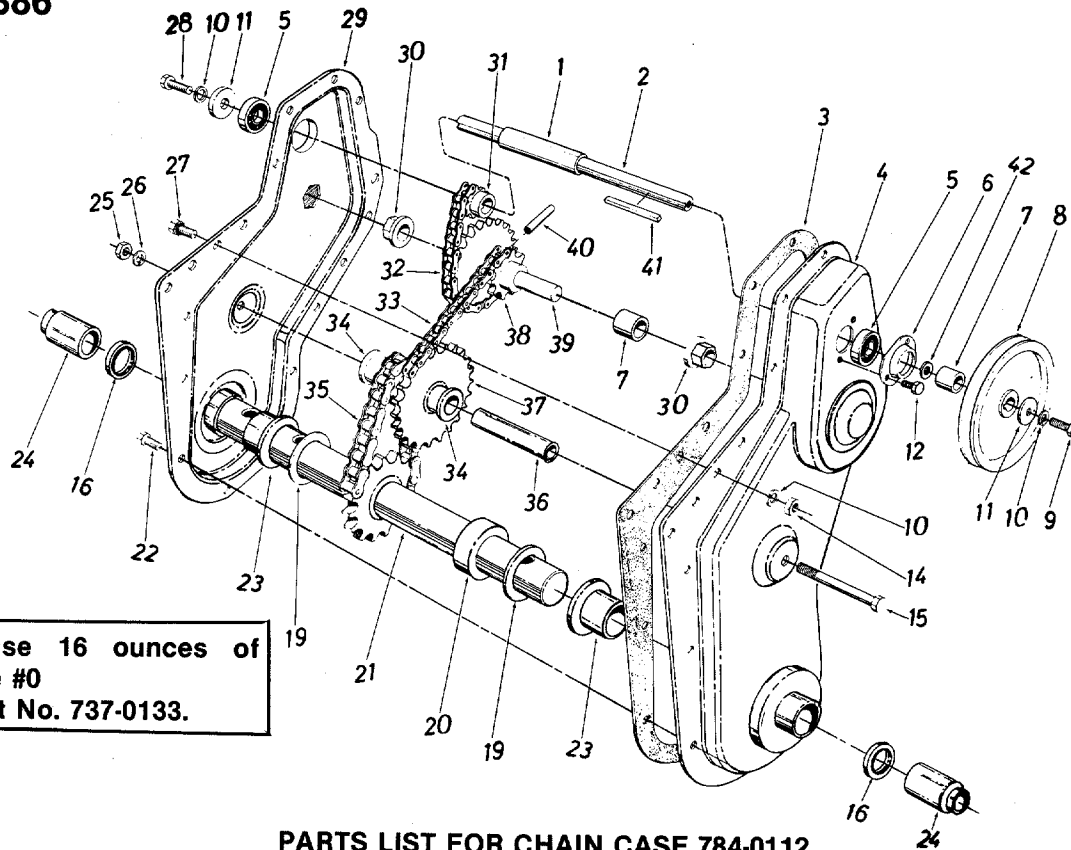
### TROUBLE SHOOTING CHART

SYMPTOM	POSSIBLE CAUSE(S)	SOLUTION
Engine fails to start	<ol style="list-style-type: none"> <li>1. Check fuel tank for gas.</li> <li>2. Spark plug lead wire disconnected.</li> <li>3. Faulty spark plug.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill tank if empty.</li> <li>2. Connect lead wire.</li> <li>3. Spark should jump gap between control electrode and side electrode. If spark does not jump, replace the spark plug.</li> </ol>
Hard starting or loss of power	<ol style="list-style-type: none"> <li>1. Spark plug wire loose.</li> <li>2. Dirty air cleaner.</li> </ol>	<ol style="list-style-type: none"> <li>1. Connect and tighten spark plug wire.</li> <li>2. Clean air cleaner as described in engine manual.</li> </ol>
Engine overheats	<ol style="list-style-type: none"> <li>1. Carburetor not adjusted properly.</li> <li>2. Air flow restricted.</li> <li>3. Engine oil level low.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust carburetor. See engine manual.</li> <li>2. Remove blower housing and clean as described in the engine manual.</li> <li>3. Fill crankcase with the proper oil.</li> </ol>
Tines not engaged	Belts worn and/or stretched.	Make control rod adjustment (see Assembly Instructions) or replace belts.

**NOTE:** For repairs beyond the minor adjustments listed above, please contact your authorized service dealer.

# Chain Case Assembly 784-0112

## Model 386



**NOTE: Use 16 ounces of Plastilube #0  
Order Part No. 737-0133.**

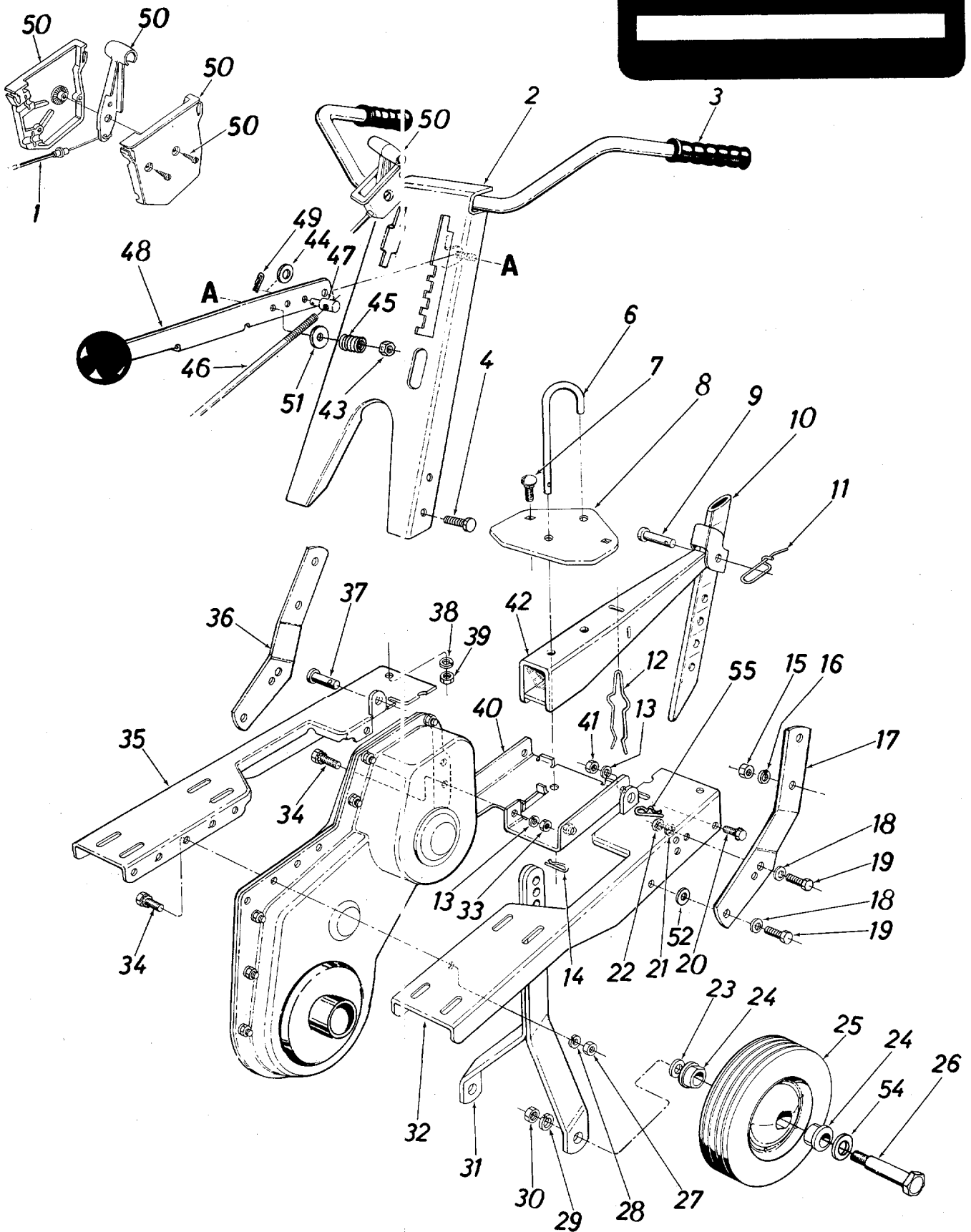
### PARTS LIST FOR CHAIN CASE 784-0112

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	750-0315		Spacer .657 I.D. x .78 O.D. x 2.19		24	731-0487		Dust Cap	
2	738-0182		Jack Shaft		25	712-0798		Hex Nut 3/8-16 Thd.*	
3	721-0132		Gasket for Housing		26	736-0169		L-Wash. 3/8" I.D.*	
4	784-0097		Housing Half—L.H.	N	27	710-0322		Hex Sems Scr. 5/16-18 x 1.00" Lg.	
5	741-0155		Ball Bearing .625 I.D. x 1.375 O.D.		28	710-0538		Hex Scr. 5/16-18 x .62" Lg. Special	
6	05034		Bearing Housing		29	784-0096		Housing Half—R.H.	N
7	750-0229		Spacer .625 I.D. x .88 O.D. x 1.035		30	748-0229		Hex Flanged Bearing .630 I.D.	
8	756-0369		Chain Case Pulley 4.5" Dia.		31	713-0206		Sprocket 10 Teeth x .500 Pitch	
9	710-0371		Hex Scr. 5/16-18 x .88" Lg. Special		32	713-0131		#41 Chain 1/2" Pitch x 34 Links—Endless	
10	736-0119		L-Wash. 5/16" I.D.*		33	713-0186		#420 Chain 1/2" Pitch x 48 Links—Endless	
11	736-0231		FI-Wash. 5/16 I.D. x 1.125 O.D. x .125		34	748-0855		Flange Bearing .628 I.D.	
12	710-0599		Hex Wash. Hd. Self-Tap Scr. 1/4-20 x .50" Lg.		35	713-0187		#50 Chain 5/8" Pitch x 28 Links—Endless	
14	712-0267		Hex Nut 5/16-18 Thd.*		36	738-0320		Sprocket Shaft	
15	710-0644		Hex Scr. 3/8-16 x 3.25" Lg.		37	713-0182		Sprocket Bearing Sleeve Ass'y.	
16	721-0175		Oil Seal 1" I.D. x 1.357 O.D. x .090		38	713-0181		Sprocket Sleeve Ass'y.	
19	736-0163		FI-Wash. 1.0" I.D. x 1.62 O.D. x .68		39	738-0308		Sprocket Shaft	
20	750-0314		Spacer 1.0" I.D. x 2.0" O.D. x .68		40	715-0114		Spring Pin Spiral 1/4" Dia. x 1.5" Lg.	
21	784-0090		Tine Shaft Ass'y.	N	41	714-0133		Sq. Key 3/16 x 1.50" Lg.	
22	710-0195		Hex Bolt 1/4-28 x .62" Lg.		42	736-0162		FI-Wash.	
23	731-0374		Flange Bearing (Plastic)						

\*For faster service obtain standard nuts, bolts, and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

# Model 386

IF YOU WRITE TO US ABOUT THIS ARTICLE  
OR IF YOU ORDER REPLACEMENT PARTS AL-  
WAYS MENTION THIS MODEL & SERIAL NO  
MODEL





# Model 386

## PARTS LIST FOR MODEL 386 TILLER

EF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	746-0242		Throttle Control Wire		31	06813	—463	Wheel Brkt. Ass'y.	
2	747-0110		Handle Ass'y.	N	32	06792	—463	Engine "U"-Channel Ass'y.—L.H.	
3	720-0204		Grip					Hex Nut 5/16-18 Thd.	
4	710-0253		Hex Scr. 3/8-16 x 1.00 Lg.*		33	712-0267		Hex Sems Scr. 5/16-18 x 1.00" Lg.	
6	04602		"U"-Clevis Pin .500" Dia.		34	710-0322		Engine "U"-Channel Ass'y.—R.H.	
7	710-0451		Carr. Bolt 5/16-18 x .75" Lg.*		35	06794	—463	Handle Brkt.—R.H.	
8	04586	—463	"U"-Channel Plate		36	06806	—463	Clevis Pin	
9	711-0231		Clevis Pin 1/2" Dia.		37	711-0599		L-Wash. 5/16" I.D.*	
10	04668	—463	Depth Bar		38	736-0119		Hex Nut 5/16-18 Thd.*	
11	732-0194		Spring Pin		39	712-0267		"U"-Channel Brkt. Ass'y.	
12	732-0290		Depth Bar Spring		40	06816	—463	Hex Nut 5/16-18 Thd.	
13	736-0119		L-Wash. 5/16" I.D.*		41	712-0267		Inter. Cotter Pin 1/2" Dia.	
14	714-0145		Inter. Cotter Pin 1/2" Dia.		42	04589	—463	Hex Nut 5/16-18 Thd.	
15	712-0798		Hex Nut 3/8-16 Thd.*		43	712-0158		Tailpiece Ass'y.	
16	736-0169		L-Wash. 3/8" I.D.*		44	736-0264		Hex Cent. L-Nut 5/16-18 Thd.	
17	06805	—463	Handle Brkt.—L.H.		45	732-0108		FI-Wash. .344 I.D. x .87 O.D.	
18	736-0105		Bell. Wash. 3/8" I.D.		46	747-0271		Spring	
19	710-0253		Hex Scr. 3/8-16 x 1.00" Lg.*		47	711-0392		Control Rod	
20	710-0118		Hex Bolt 5/16-18 x .75" Lg.*		48	04810		Ferrule	
21	736-0169		L-Wash. 3/8" I.D.*		49	714-0104		Shift Lever Assembly w/Knob	
22	712-0798		Hex Nut 3/8-16 Thd.*		50	831-0692		Inter. Cotter Pin 1/2" Dia.	
23	736-0253		Belleville Wash. Hdn.		51	736-0242		Throttle Control Box Complete	
24	741-0116		Flange Brg. w/Flats .631 I.D.		52	736-0101		Belleville Washer	
25	734-0584		Wheel Assembly 10.0 x 1.75		54	736-0187		Flat Washer	
26	738-0318		Shld. Scr. .625" Dia. x 2.75" Lg. (1/2-20 Thd.)		55	714-0149		Flat Washer (Hardened)	
27	712-0267		Hex Nut 5/16-18 Thd.*					Cotter Pin	
28	736-0119		L-Wash. 5/16" I.D.*						
29	736-0921		L-Wash. 1/2" I.D.*						
30	712-0200		Hex Elastic Insert Nut 1/2-20 Thd.						

\*For faster service obtain standard nuts, bolts, and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

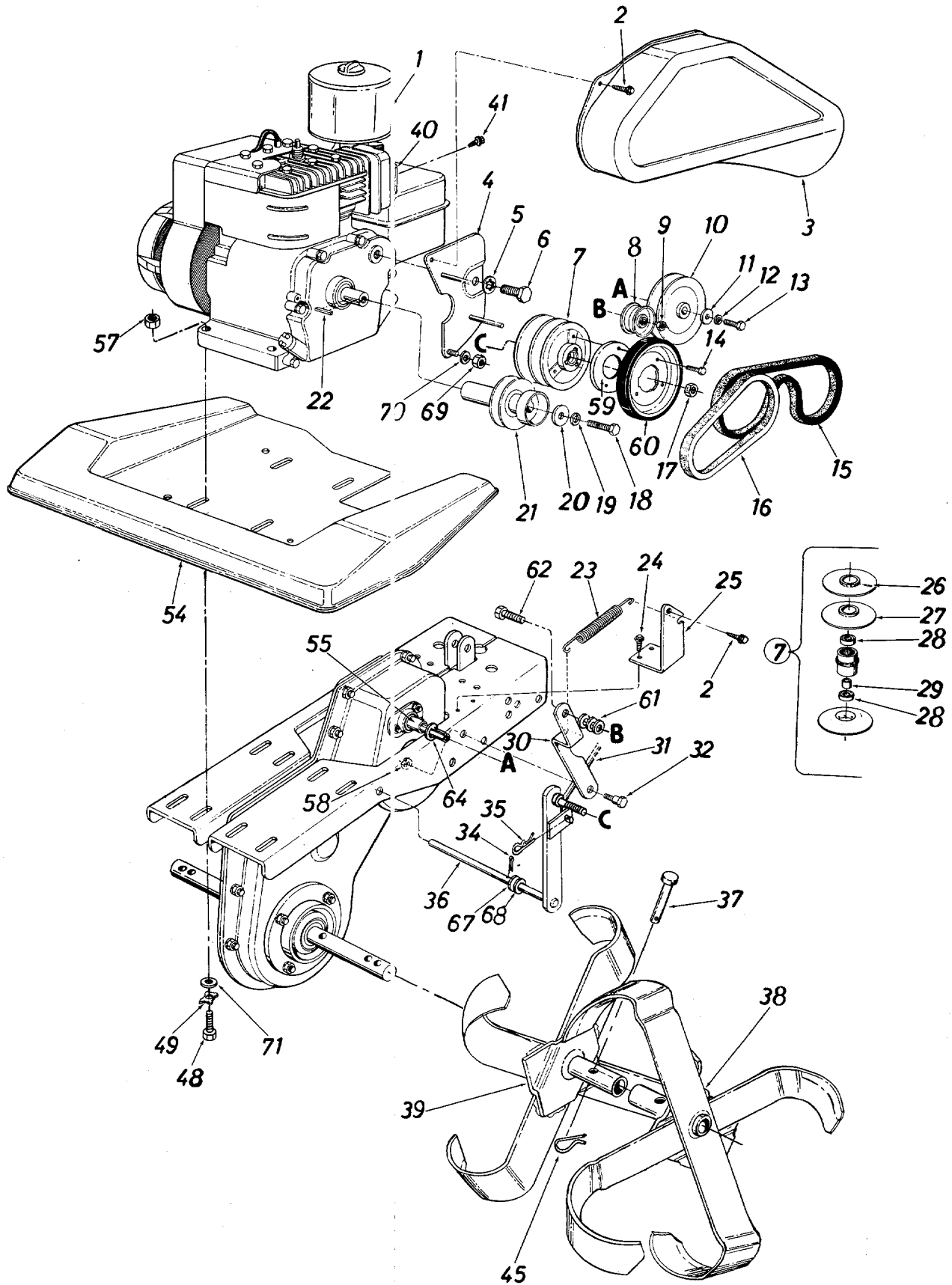
(463—Top Flite Red) When ordering parts if color or finish is important, use the appropriate color code shown at left. (e.g. Top Flite Red Finish—04626 (463).)

The engine is not under warranty by the tiller manufacturer. If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines—Gasoline."



This instruction manual covers various models and all specifications shown do not necessarily apply to your model. Specifications subject to change without notice or obligation.

# Model 386



# Model 386

## PARTS LIST FOR MODEL 386 TILLER

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	—		Engine		27	717-0471		Sheave Half	N
2	710-0599		Thread Rolling Scr. 1/4-20 x .50" Lg.		28	741-0139		Ball Bearing	
3	04899 —463		Belt Cover		29	750-0146		Spacer	
4	15227 —463		Front Belt Guard Support Ass'y.		30	04894		Idler Arm	
5	736-0114		Internal L-Wash 1/2" Dia.		31	747-0387		Control Rod 3/8" Rod	
6	710-0121		Hex Scr. 1/2-20 x .75 Spec.		32	738-0140		Shld. Bolt .437 Dia. x .180	
7	717-0475		Variable Speed Pulley Ass'y.	N	34	714-0115		Cotter Pin 1/8 Dia.	
8	756-0319		Idler Pulley		35	714-0145		Inter. Cotter Pin 1/2" Dia.	
9	712-0262		Hex L-Nut 3/8-24 Thd.		36	14751		Pivot Arm Ass'y.	
10	756-0369		Pulley 4.75" Dia.		37	1545-029		Clevis Pin	
11	736-0231		FI-Wash. 5/16 I.D. x 1.120" O.D.		38	—		Tine Ass'y. (See Chart)	
12	736-0119		L-Wash. 5/16" I.D.*		39	—		Tine Ass'y. (See Chart)	
13	710-0371		Hex Scr. 5/16-18 x .88" Lg.		45	714-0149		Inter. Cotter Pin 1/2 Dia.	
14	710-0230		Hex Bolt 1/4-28 x .50 Lg.		48	710-0442		Hex Bolt 5/16-18 x 1.50" Lg.	
15	754-0265		V-Belt 1/2" x 29" Lg.		49	736-0170		Shake-Proof Washer	
16	754-0254		V-Belt 1/2" x 19" Lg.		54	04883 —463		Tine Shield	
17	712-0204		L-Nut 1/2-13 Thd.		55	750-0229		Spacer .635 I.D. x .88 O.D. x 1.035 Lg.	
18	710-0158		Hex Scr. 5/16-24 x 1.25" Lg.		57	712-0267		Hex Nut 5/16-18 Thd.*	
19	736-0119		L-Wash. 5/16" I.D.*		58	712-0158		Hex Cent. L-Nut 5/16-18 Thd.	
20	736-0231		FI-Wash. 5/16" I.D. x 1.25" O.D.		59	09164		Reinforcement Plate	
21	756-0349		Engine Pulley		60	04900		Friction Wheel Ass'y.	
22	714-0133		Sq. Key 3/16 x 1.50" Lg.		61	736-0185		FI-Wash. 3/8" I.D. x .750" O.D.	
23	732-0376		Extension Spring		62	710-0459		Hex Bolt 3/8-24 x 1 1/2" Lg.	
24	710-0599		Hex Tapp. Scr. 1/4-20 x .50" Lg.		64	736-0162		FL-Wash.	
25	04898 —463		Belt Guard Support—Rear		67	736-0156		FI-Wash.	
26	715-0124		Spring Pin Spiral 5/32 Dia. x .62" Lg.		68	748-0198		Spacer	
					69	712-0287		Hex Nut 1/4-20 Thd.	
					70	736-0329		L-Wash. 1/4" I.D.*	
					71	736-0231		FI-Wash.	

### TINE CHART

Part No.	Description
784-0091	Inner Tine Ass'y. Comp.—L.H.
784-0092	Inner Tine Ass'y. Comp.—R.H.
784-0093	Outer Tine Ass'y. Comp.—L.H.
784-0094	Outer Tine Ass'y. Comp.—R.H.

### Heavy Duty Garden Tiller Attachments Available for All-Season Use

31-0106	Depth Gauge Wheels (Pair)	31-0123	Lawn Aerator (Use with 31-0114 Wheel Weights for added penetration)
31-0107	6-Tine Cultivator (Must be used with 31-0106 Depth Gauge Wheels)	31-0144	"V"-Bar Cultivating Kit Kit Includes: "V"-Bar Frame, 4-Point Cultivating Tines, Hiller/Furrower, Depth Gauge Wheels (Pair).
31-0110	8" Furrow Opener	31-0145	Depth Stake Cultivating Kit Kit Includes: 8" Furrow Opener, 15" Sweep Cultivator, 32" Leveling Rake, Extra Depth Stake.
31-0111	15" Sweep Cultivator		
31-0113	Pneumatic Tires, 13 x 5.00-6 (Pair)		
31-0114	Wheel Weights (Pair)		
31-0115	Tire Chains, 13 x 5.00 (2 Link) (Pair)		
31-0119	Tine Cultivating Shields w/Adapters (Pair)		

Note: Attachments are available through your local dealer or from the factory:  
Agri-Fab Inc., 303 W. Raymond Street, Sullivan, Illinois 61951 (217) 728-4334

# PARTS INFORMATION

## POWER EQUIPMENT PARTS AND SERVICE

Parts and service are available through the authorized service firms listed below. All orders should specify the model number of your unit, part numbers, description of parts and the quantity of each part required.

**NOTE:** If any parts are found to be missing or defective upon assembly of this unit, write to advise the factory so that immediate replacement can be made.

<b>ALABAMA</b>	<b>BIRMINGHAM</b>	
Auto Electric & Carburetor Co. ....	2625 4th Ave. S. ....	35233
<b>ARKANSAS</b>	<b>NORTH LITTLE ROCK</b>	
Sutton's Lawn Mower Shop .....	5301 Roundtop Drive Box 368, Rt. 4 .....	72117
<b>CALIFORNIA</b>	<b>PORTERVILLE</b>	
Billious .....	75 North D Street .....	93257
<b>COLORADO</b>	<b>DENVER</b>	
Spitzer Industrial Products Co. ....	6601 N. Washington St. ....	30229
<b>FLORIDA</b>	<b>JACKSONVILLE</b>	
Radco Distributors .....	4909 Victor St. Box 5459 .....	32207
	<b>HIALEAH</b>	
Small Eng. Dist. ....	7995 W. 26th Court. ....	33016
<b>GEORGIA</b>	<b>EAST POINT</b>	
East Point Cycle & Key Inc. ....	2834 Church St. ....	30344
<b>ILLINOIS</b>	<b>LYONS</b>	
Keen Edge Co. ....	8615 Ogden Ave. ....	60534
<b>INDIANA</b>	<b>ELKHART</b>	
Parts & Sales Inc. ....	2101 Industrial Pkwy. ....	46516
<b>IOWA</b>	<b>DUBUQUE</b>	
Power Lawn & Garden Equip. ....	2551 J.F. Kennedy ....	52001
<b>LOUISIANA</b>	<b>NEW ORLEANS</b>	
Suhren Engine Co. ....	8330 Earhart Blvd. ....	70118
<b>MARYLAND</b>	<b>TAKOMA PARK</b>	
Center Supply Co. ....	6867 New Hampshire Ave. ....	20912
<b>MASSACHUSETTS</b>	<b>SPRINGFIELD</b>	
Morton B. Collins Co. ....	300 Birnie Ave. ....	01107
<b>MICHIGAN</b>	<b>LANSING</b>	
Lorenz Service Co. ....	2500 S. Pennsylvania. ....	48910
	<b>MOUNT CLEMENS</b>	
Power Equipment Dist. ....	340 Hubbard .....	48043
<b>MINNESOTA</b>	<b>HOPKINS</b>	
Hance Distributing Inc. ....	420 Excelsior Ave. W. ....	55343
<b>MISSISSIPPI</b>	<b>BILOXI</b>	
Biloxi Sales & Service, Inc. ....	506 Caillavet St. ....	39533
<b>MISSOURI</b>	<b>KANSAS CITY</b>	
Automotive Equip. Service .....	3117 Holmes St. ....	64109
	<b>ST. JOSEPH</b>	
Ross-Frazier Supply Co. ....	8th and Monterey ....	64503
	<b>ST. LOUIS</b>	
Henzler, Inc. ....	2015 Lemay Ferry Rd. ....	63125
<b>NEW JERSEY</b>	<b>BELLMAWR</b>	
Lawnmower Parts Inc. ....	717 Creek Rd. ....	08030
<b>NEW MEXICO</b>	<b>ALBUQUERQUE</b>	
Spitzer Eng. & Parts Co. ....	1023 Third Ave. N.W. ....	87103
<b>NEW YORK</b>	<b>CARTHAGE</b>	
Gamble Dist., Inc. ....	West End Ave. ....	13619

## BRIGGS AND STRATTON, TECUMSEH AND PEERLESS PARTS AND SERVICE

Briggs & Stratton, Tecumseh and Peerless parts and service should be handled by your nearest authorized engine service firm. Check the yellow pages of your telephone directory under the listing **Engines—Gasoline**, Briggs & Stratton or Tecumseh Lauson.

<b>OHIO</b>	<b>CARROLL</b>	
Stebe's Mid-State Mower Supply ..	Box 366, 71 High St. ....	43112
	<b>CLEVELAND</b>	
Bleckrie, Inc. ....	7900 Lorain Ave. ....	44102
	<b>WADSWORTH</b>	
National Central .....	687 Seville Rd. ....	44281
	<b>YOUNGSTOWN</b>	
Burton Supply Co. ....	1301 Logan Ave. Box 929 .....	44501
<b>OKLAHOMA</b>	<b>MUSKOGEE</b>	
Victory Motors, Inc. ....	605 S. Cherokee .....	74401
<b>OREGON</b>	<b>PORTLAND</b>	
Kenton Supply Co. ....	8216 N. Denver Ave. ....	97217
<b>PENNSYLVANIA</b>	<b>HARRISBURG</b>	
EECO Inc. ....	4021 N. 6th St. ....	17110
	<b>PHILADELPHIA</b>	
Thompson Rubber Co. ....	5222-24 N. Fifth St. ....	19120
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Bluemont Co. ....	11125 Frankstown Rd. ....	15235
	<b>PUNXSUTAWNEY</b>	
Frank Roberts & Sons .....	R.D. 2 .....	15767
	<b>SCRANTON</b>	
Scranton Auto Ignition Co. ....	1133-35 Wyoming Ave. ....	18509
<b>TENNESSEE</b>	<b>KNOXVILLE</b>	
Master Repair Service .....	2000 Western Ave. ....	37921
	<b>MEMPHIS</b>	
American Sales & Service, Inc. ....	3035-43 Bellbrook .....	38117
<b>TEXAS</b>	<b>DALLAS</b>	
Marr Brothers, Inc. ....	423 E. Jefferson .....	75203
	<b>FORT WORTH</b>	
Woodson Sales Corp. ....	6733 Baker Blvd. Hwy. 10 .....	76118
	<b>HOUSTON</b>	
Bullard Supply Co. ....	2409 Commerce St. ....	77003
	<b>SAN ANTONIO</b>	
Engine House Inc. ....	8610 Botts Lane P.O. Box 17867 .....	78217
<b>UTAH</b>	<b>BOUNTIFUL</b>	
Powered Products .....	485 N 500 W. ....	84010
<b>VIRGINIA</b>	<b>ASHLAND</b>	
RBI Corp. ....	101 Cedar Ridge Dr. ....	23005
<b>WASHINGTON</b>	<b>SEATTLE</b>	
Equip. Northwest .....	1410 14th Ave. ....	98122
<b>WISCONSIN</b>	<b>CHILTON</b>	
Horst Dist. Inc. ....	444 N. Madison St. ....	53014
<b>NORTH CAROLINA</b>	<b>GOLDSBORO</b>	
Smith Hardware Co. ....	515 N. George St. ....	27530
	<b>GREENSBORO</b>	
Dixie Sales Company .....	335 N. Green .....	27402

### WARRANTY PARTS AND SERVICE POLICY

(0484)

The purpose of warranty is to protect the customer from defects in workmanship and materials, defects which are NOT detected at the time of manufacture. It does not provide for the unlimited and unrestricted replacement of parts. Use and maintenance are the responsibility of the customer. The manufacturer cannot assume responsibility for conditions over which it has no control. Simply put, if it's the manufacturer's fault, it's the manufacturer's responsibility; if it's the customer's fault, it's the customer's responsibility.

#### CLAIMS AGAINST THE MANUFACTURER'S WARRANTY INCLUDES:

1. Replacement of Missing Parts on new equipment.
2. Replacement of Defective Parts within the warranty period.
3. Repair of Defects within the warranty period.

All claims MUST be substantiated with the following information:

1. Model Number of unit involved.
2. Date unit was purchased or first put into service.
3. Date of failure.
4. Nature of failure.

MTD PRODUCTS INC • P.O. BOX 36900 • CLEVELAND, OHIO 44136

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