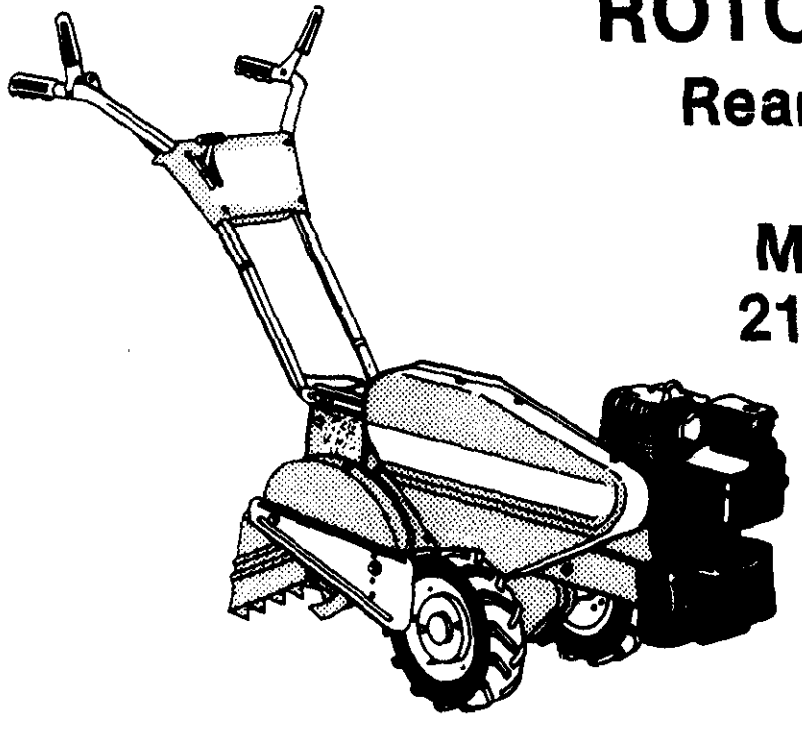
WHITE
OUTDOOR PRODUCTS

PARTS CATALOG
AND
INSTRUCTION MANUAL



ROTO BOSS 530
Rear Tine Tiller

Model No. 215-403-190

Thank you for purchasing an *American-built product.*

PRINTED IN U.S.A.

FORM NO. 770-4479

INDEX

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, WHITE OUTDOOR PRODUCTS 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 WHITE OUTDOOR PRODUCTS.

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 WHITE OUTDOOR PRODUCTS.

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

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 Resource 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.

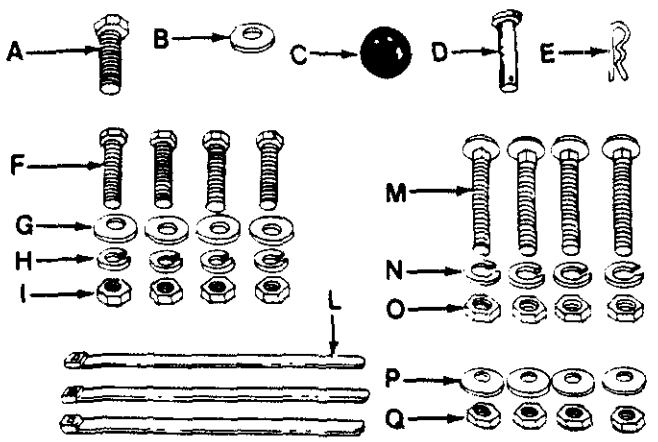


FIGURE 1.

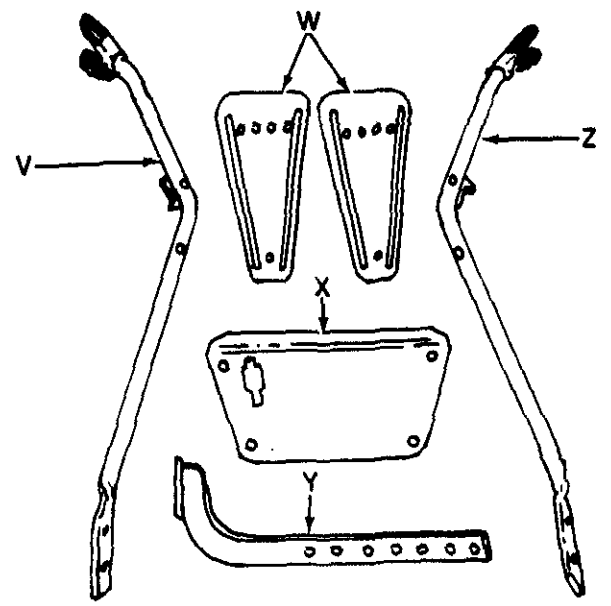


FIGURE 2.

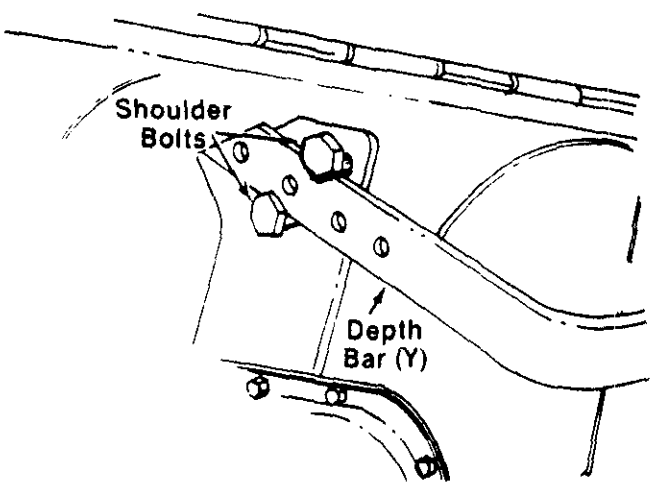


FIGURE 3.

ASSEMBLY

NOTE

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

Contents of Hardware Pack: (See Figure 1)

A (1) *Hex Bolt 3/8-16 x 3/4" Long*
B (1) Flat Washer 3/8" I.D.
C (1) Ball Knob
D (1) Clevis Pin
E (1) Hairpin Cotter
F (4) Hex Bolts 3/8-16 x 1.0" Long
G (4) Belleville Washers 3/8" I.D.
H (4) Lock Washers 3/8" I.D.
I (4) Hex Nuts 3/8-16 Thread
L (3) Cable Ties
M (4) Carriage Bolts 5/16-18 x 1.75" Long
N (4) Lock Washers 5/16" I.D.
O (4) Hex Nuts 5/16-18 Thread
P (4) Belleville Washers 5/16" I.D.
Q (4) Hex Nuts 5/16-18 Thread

Loose Parts in Carton: (See figure 2)

V (1) Handle—R.H.
W (2) Side Shields
X (1) Handle Panel
Y (1) Depth Bar Assembly
Z (1) Handle—L.H.

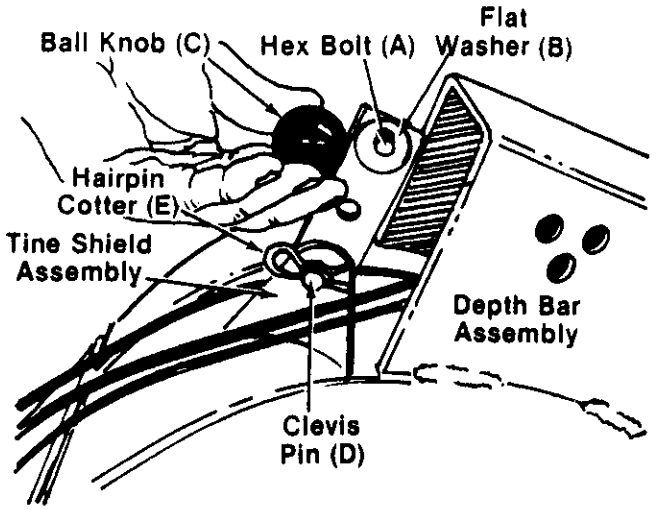
1. Remove tiller, loose parts and hardware pack from carton. Make certain all parts and literature have been removed from the carton before the carton is discarded.
2. Extend the control cables attached to the tiller and place on the floor. Be careful not to bend or kink the cables.

DEPTH BAR INSTALLATION

1. Raise the tine shield hinge flap assembly. Insert the depth bar assembly (Y) between the two shoulder bolts and up through the tine shield assembly as shown in figure 3.

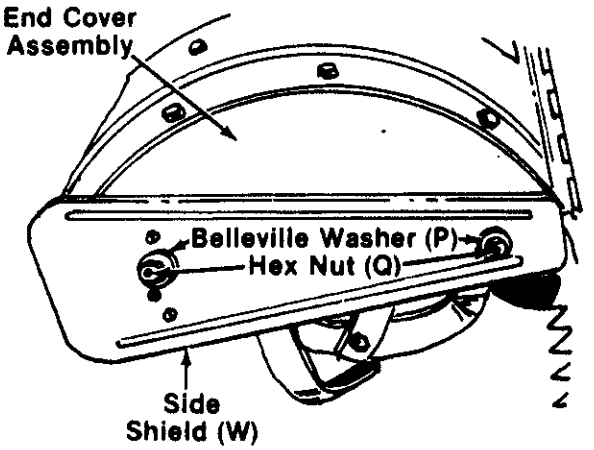
NOTE

For clarity, figure 3 was taken with tiller raised on end. It is not necessary to raise the tiller.



2. Insert clevis pin (D) through the tine shield and depth bar assemblies. Secure with hairpin cotter (E). See figure 4.
3. Insert hex bolt (A) into the upper hole of the depth bar assembly. Place flat washer (B) onto the hex bolt and thread ball knob (C) onto the hex bolt. See figure 4. Tighten securely.

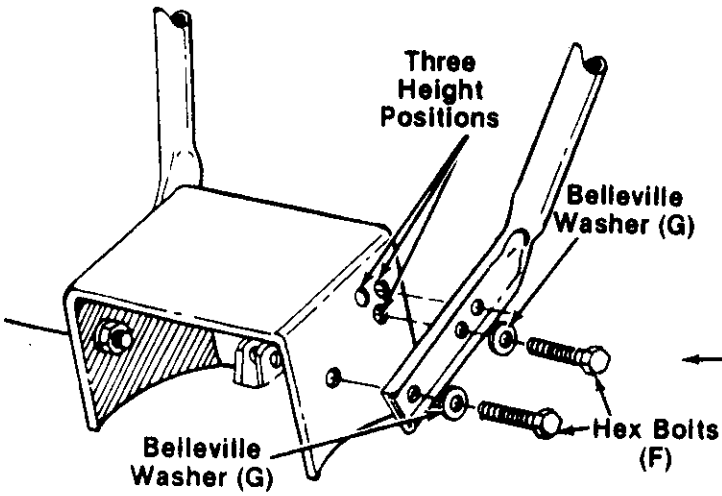
FIGURE 4.



SIDE SHIELD INSTALLATION

Mount side shields (W) over the weld bolts on the end cover assemblies. Secure with belleville washers (P) and hex nuts (Q). See figure 5.

FIGURE 5.



HANDLE ASSEMBLY

NOTE

Left and right is determined from the operator's position, standing behind the tiller.

1. Place right handle (V) in position on the right side of the tiller. Insert hex bolts (F) through belleville washers (G), handle and mounting bracket. See figure 6. Secure with hex nuts (I) and lock washers (H).
2. Repeat step 1 for left handle (Z) on the left side of the tiller.

FIGURE 6.

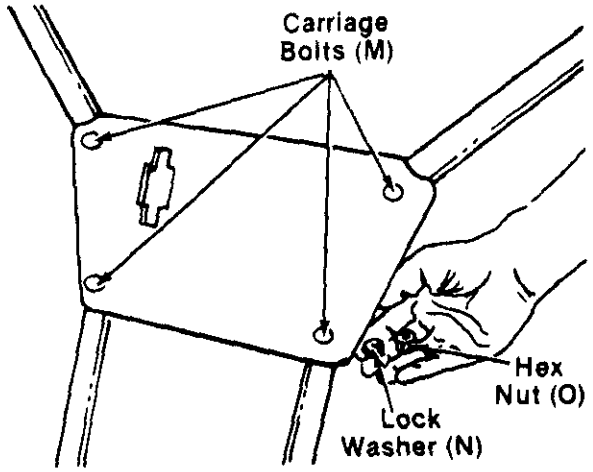


FIGURE 7.

3. Mount the handle panel (X) to the handles. Secure with carriage bolts (M), lock washers (N) and hex nuts (O). See figure 7.

NOTE

To align the holes in the handle panel and the handle, it may be necessary to loosen the cable brackets which are mounted to the back of the handles with self-tapping screws.

THROTTLE CONTROL INSTALLATION

Assemble the throttle control to the handle panel as follows.

1. 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. See figure 8A.
2. After the end of the lever is through the slot, turn and then tip the control forward as shown in figure 8B 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 8B.

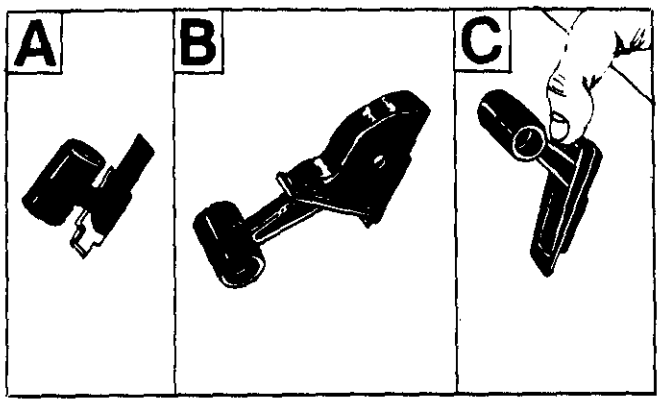


FIGURE 8.

3. 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 as shown in figure 8C.

ATTACHING THE CLUTCH CONTROL CABLES

The drive clutch and tine clutch control cables are already attached to the unit. There is a tag attached to the drive clutch cable (shorter cable). This cable attaches to the right handle.

NOTE

Both the drive clutch cable and the tine clutch cable are attached to springs, which are hooked to weld bolts. If either the cable or spring has come loose in shipping, it must be reassembled. Refer to page 18, reference numbers 1, 2 and 89.

1. Remove one nut and the lock washer from the end of the drive clutch cable (short cable). Slip the cable up through the slot on the cable bracket on the right handle. Rethread hex nut and lock washer on the end of the cable. See figure 9. Do not tighten at this time.

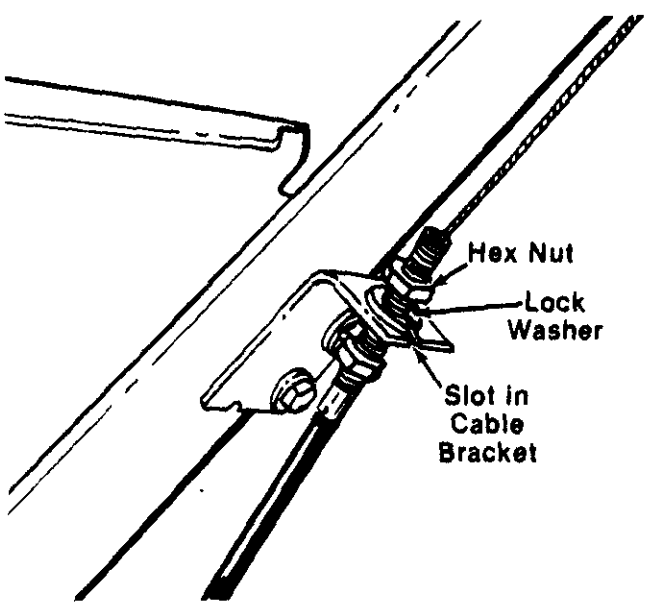


FIGURE 9.

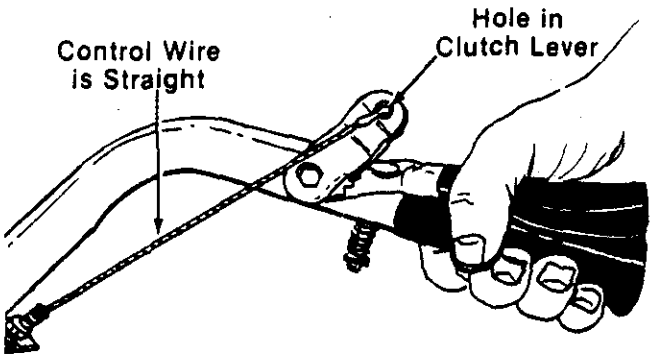


FIGURE 10.

2. Hook the "Z" end of drive clutch cable into the hole in drive clutch lever.
3. With the clutch lever released (in the "up" position), adjust the bottom nut at the cable bracket so there is only a slight amount of slack in the control wire. Tighten the upper nut against the bracket. Squeeze the clutch lever against the handle. The control wire should now be straight. See figure 10.

NOTE

Do not overtighten control wire. Too much tension may cause it to break.

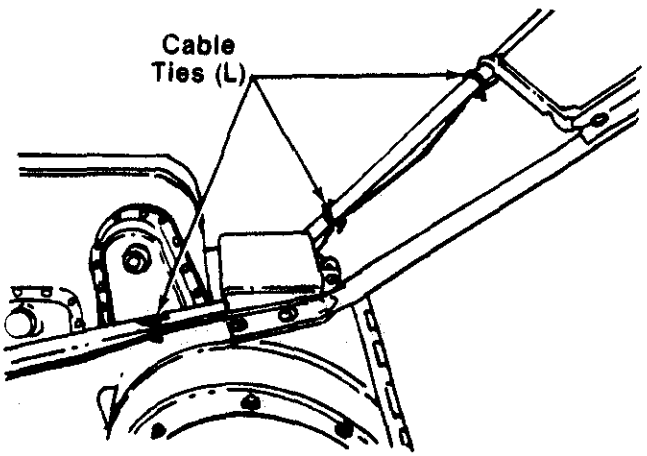


FIGURE 11.

4. Attach the tine clutch cable (longer cable) to the tine clutch lever on the left handle in the same manner as the drive clutch cable.
5. Secure all the cables to the right handle as shown in figure 11 with cable ties (L). In addition, secure the throttle cable directly to the tiller frame with cable tie.

CONTROLS—Location and Use

Throttle Control

The throttle control lever is located on the right hand side of handle panel and controls the engine speed. See figure 12.

1. Start—Push throttle control lever forward (down) to start position.
2. Stop—Pull lever back (upward) to stop the engine.

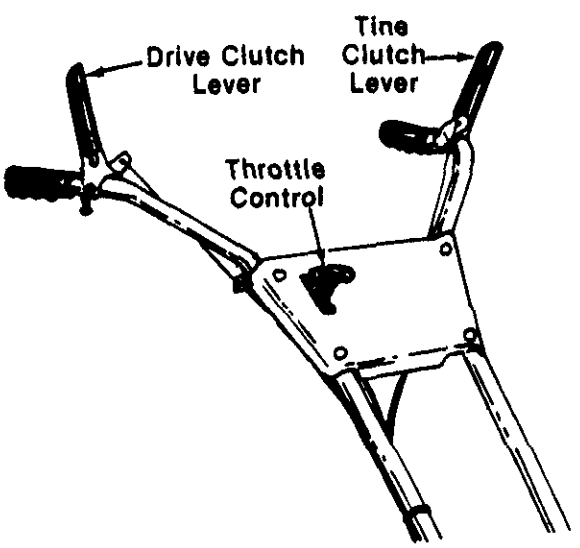


FIGURE 12.

Tine Clutch Lever

The tine clutch lever is located on the left handle. See figure 12.

Squeeze the lever down to engage the tines. Release the lever to disengage the tines.

Drive Clutch Lever

The drive clutch lever is located on the right handle. See figure 12.

Squeeze the lever down to engage the wheels. Release the lever to disengage the wheels.

The drive clutch lever may be locked into position for easier handling. See figure 13.

1. Squeeze the lever down and press the locking pin up through the lever.
2. Release the lever until it catches on the locking pin.
3. To release the locking pin, squeeze the lever down and then release the lever.

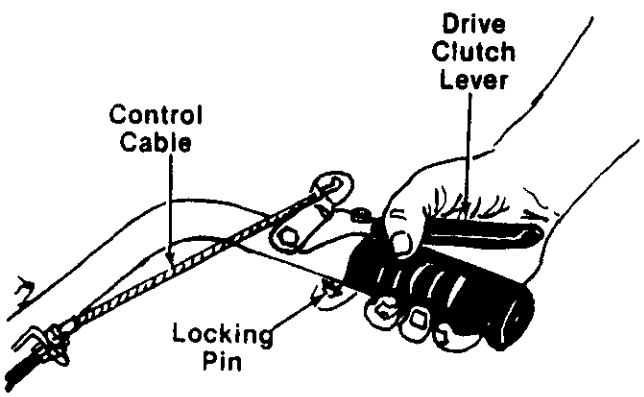


FIGURE 13.

OPERATION

NOTE

Engine is shipped **without** oil.

BEFORE STARTING

1. Before operating tiller for the first time or if tines have been removed and reassembled for any reason, check to be certain the tines are assembled correctly. **The sharp edge of the tines must enter the soil first as shown in figure 14.** (Figure 14 illustrates the left hand tines, viewed from the left hand side of the tiller. Right hand tines rotate in the same direction as the left hand tines.)

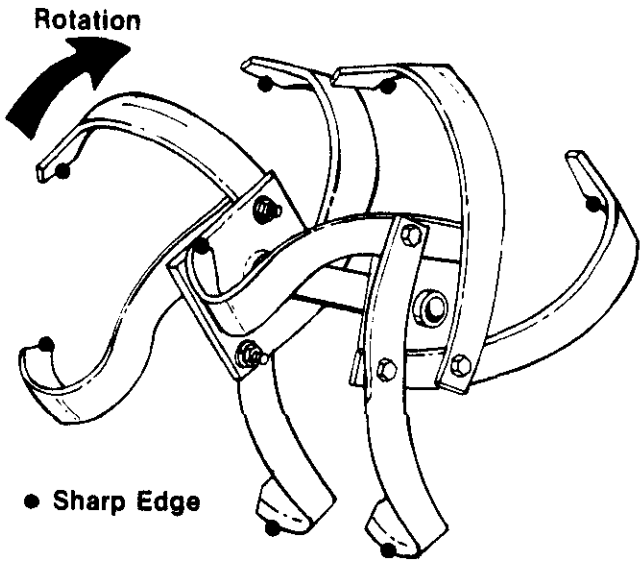


FIGURE 14.

2. Fill crankcase with oil as instructed in the separate engine manual packed with your unit.
3. Fill fuel tank with clean, fresh, lead-free, low-lead or regular grade leaded gasoline.

TO START ENGINE

WARNING

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

1. Place the throttle control lever in "START" position.
2. Move choke lever to "CHOKE" position.

NOTE

A warm engine may not require choking.

3. Stand at side of tiller. Grasp the starter handle and pull out rapidly. Return it slowly to the engine. Repeat as necessary.
4. After engine starts, move choke lever gradually to "OFF" position.

Refer to engine manual for additional engine information.

TO STOP ENGINE

1. Move throttle control to "OFF" position.
2. Disconnect spark plug wire and ground to prevent accidentally starting while equipment is unattended.

HOW TO USE YOUR TILLER

WARNING

When operating the tiller for the first time, use the depth bar setting that gives 1½ inches of tilling depth (second hole from the top). Refer to figure 15. Use slow speed only.

Tilling depth is controlled by the depth bar which can be adjusted to five different settings. See figure 15. Adjust the side shields as shown in figure 16, as you adjust the depth bar. Be certain spark plug wire is disconnected and grounded against the engine.

1. When using the tiller for the first time, use the second adjustment hole from the top (1½" of tilling depth). See figure 15.

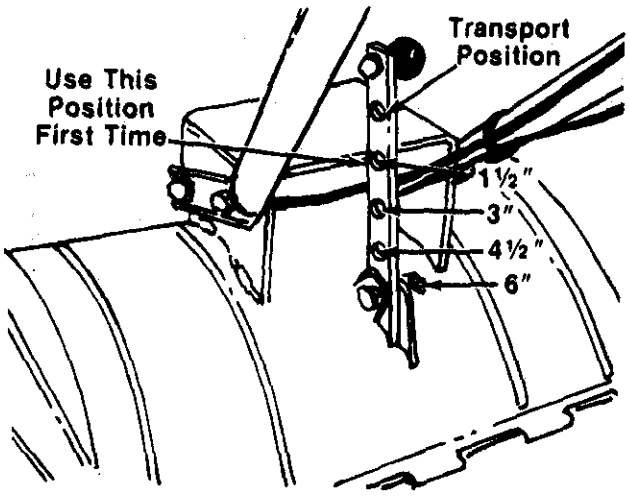


FIGURE 15.

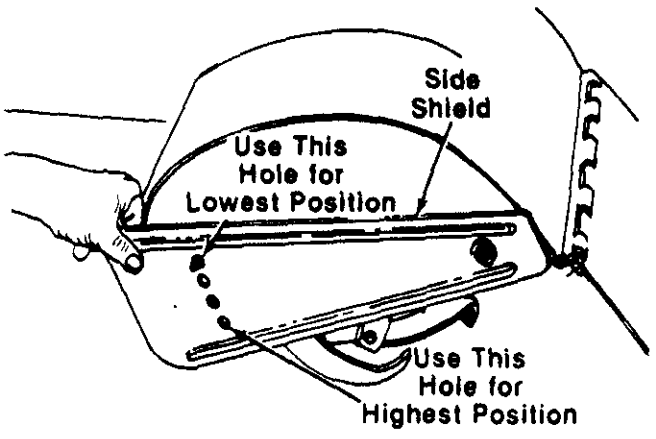


FIGURE 16.

2. When breaking up sod and for shallow cultivation, use the setting which gives 1½" of tilling depth (second hole from the top). Place the side shields in their lowest position. For further depth, raise the depth bar and side shields and make one or two more passes over the area.
3. When tilling loose soil, depth bar may be raised to its highest position (use bottom adjustment hole) to give the deepest tilling depth. Raise the side shields to their highest position.
4. To transport tiller, lower the depth bar (use top adjustment hole).

To adjust the depth bar, remove the clevis pin and hairpin cotter. See figure 15. Move the depth bar to the desired setting.

To adjust the side shields, remove the hex nut and belleville washer from the front and loosen the rear nut. See figure 16. Pivot the side shield to the desired position. Replace hex nut and belleville washer. Tighten securely.

To operate the tiller:

1. Select the depth bar setting.
2. Start engine as instructed on page 9.
3. Engage drive and tine clutch levers.

WARNING

Engage wheel drive before engaging the tine clutch lever.

NOTE

To transport tiller, **do not** engage the tine clutch lever. Engage the wheels only.

WARNING

Do not push down on the handles so that the wheels are lifted off the ground while the tine clutch is engaged, or the tiller could move backward and cause personal injury.

For best results, it is recommended the garden be tilled twice (lengthwise, then widthwise) to pulverize the soil.

ADJUSTMENTS

HANDLE ADJUSTMENT

The handle may be adjusted to one of three height positions. See figure 17. To adjust the handle:

1. Loosen the bolts on the ends of the handle.
2. Remove the hex bolts from the handle which are closest to the operator.
3. Pivot the handle to the desired position and replace the hardware. Tighten securely.

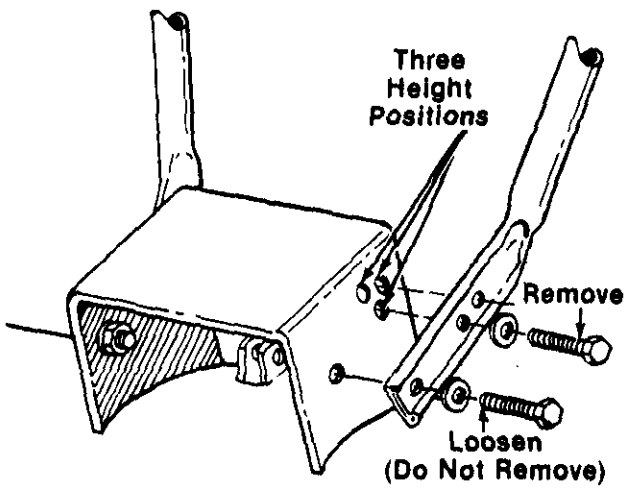


FIGURE 17.

BELT TENSION ADJUSTMENT—Drive and Tine Clutches

Periodic adjustment of the belt tension may be required due to normal stretch and wear on the belt. Adjustment is needed if the tines seem to hesitate while tilling, but the engine maintains the same speed.

To adjust, loosen the hex nuts at the cable bracket on the handle. Refer to figure 9. With the clutch lever released as shown in figure 12, adjust the bottom nut so that there is only a slight amount of slack in the control wire. Tighten the upper nut against the bracket.

NOTE

Do not overtighten control wire. Too much tension may cause it to break.

CARBURETOR ADJUSTMENT

WARNING

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. Be careful of heated *surfaces and muffler.*

Never make unnecessary adjustments. The factory settings are correct for most applications. If adjustments are needed, refer to the separate engine manual packed with your tiller.

LUBRICATION

Chain Cases—The chain cases are pre-lubricated and sealed at the factory. They require no checking unless the chain cases are dissassembled. To fill with grease, lay the left half of the chain case on its side. Add 12 ounces of plastilube #0 grease to the tine chain case or 10 ounces to the wheel chain case. Assemble the right half to it. This grease can be obtained at your nearest authorized dealer. Order part number 737-0133.

Wheels—Lubricate the wheel bearings with a light oil after each fifteen hours of operation.

Wheel Drive—*The wheels are driven by pawl and* ratchet drive. Lubricate the pawl and ratchet at least twice a season with a silicone type lubricant.

Figure 18 shows the left hub cap. To take off the *hub caps, remove* the two hex nuts and lock washers on the inside of the wheel. Remove the hub cap. A cotter pin holds the ratchet in place. The pawls must pivot freely. Clean with a solvent, *replace any broken or worn parts, and lubricate.*

The pawls and ratchet on the hub cap are assembled facing the opposite way.

After reassembling, test the operation of the drive without the engine running. Engage the drive clutch (on the right handle) and pull the tiller backwards. Both wheels should lock. Push the *tiller forward and both wheels should rotate.*

NOTE

The wheels will "click" when the tiller is pushed forward.

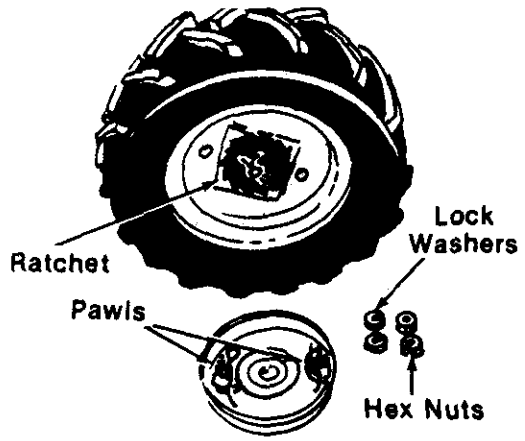


FIGURE 18.

Tine and Wheel Drive Controls—Lubricate the pivot points on the clutch levers and the cables at least once a season with light oil. The controls must operate freely in both directions.

Pivot Points—Lubricate all pivot points and linkages at least once a season with light oil.

MAINTENANCE

WARNING

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

IMPORTANT

If for any reason the tines are removed from the tiller, be certain the tines are reassembled so that the sharp edge of the tines enter the soil first. Refer to item number one under "Operation."

ENGINE OIL

After the first two hours of operating a new engine, drain the oil from the crankcase while the engine is still hot and refill the crankcase with new oil; thereafter change the oil after every 25 hours of operation.

To avoid spilling gasoline on your lawn or driveway, plan to change the oil when the gasoline tank and carburetor are empty.

To change the oil, refer to the separate engine manual.

Check oil level every eight hours of operation. Be sure level is maintained full to point of overflowing.

AIR CLEANER

Under normal operating conditions, the air cleaner, located on top of the carburetor, must be serviced after every ten hours of use. Under extremely dusty operating conditions, the air cleaner must be serviced after every hour of operation.

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

IMPORTANT

Never run your engine without air cleaner completely assembled.

CLEANING ENGINE AND TINE AREA

Any fuel or oil spilled on the tiller should be wiped off promptly. Dirt, leaves and other debris must not be left to accumulate around the cooling fins or the engine or on any part of the tiller. Clean the underside of the tine shield after each use. The dirt washes off the tines easier if washed off immediately instead of after it dries.

SPARK PLUG

The spark plug should be cleaned and the gap reset every 25 hours of engine operation. Spark plug replacement is recommended at the start of each tiller season; check engine manual for correct plug type and gap specification.

BELT REPLACEMENT

NOTE

Do not use an off-the-shelf belt.

Your tiller has been engineered with belts made of special material (Kevlar Tensile) for longer life and better performance. They should not be replaced with an off-the-shelf belt.

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

Part No. 754-0253	Part No. 754-0195
½" x 43" Short Belt	½" x 54" Long Belt

Tine (Long) Belt Removal

1. Remove belt cover by removing the four self-tapping screws. See figure 19.

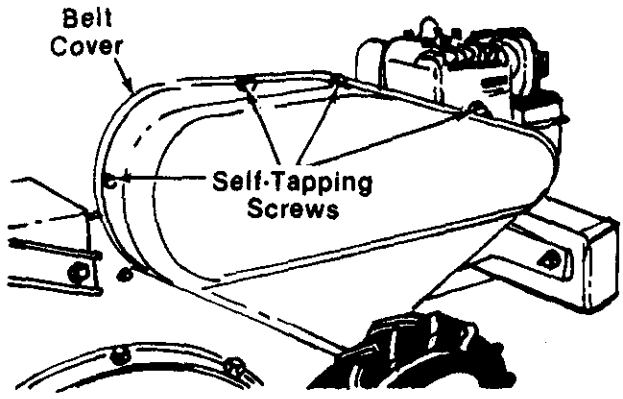


FIGURE 19.

2. Lift the belt from under the flat idler pulley. See figure 20.
3. Remove the wire belt guard. See figure 20.

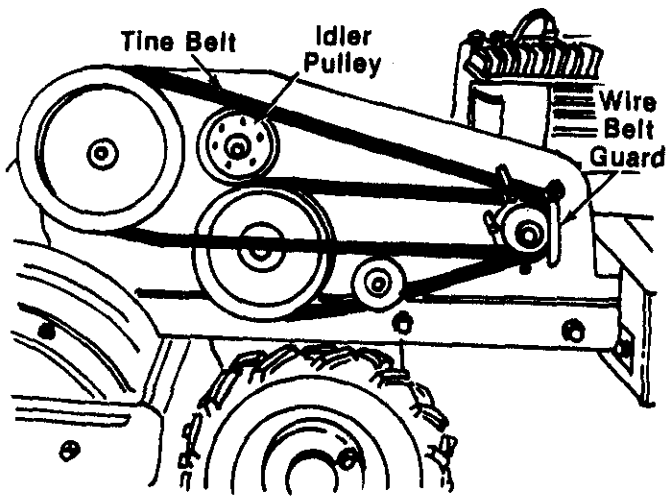


FIGURE 20.

4. Loosen, but do not remove, the hex bolt on the rear engine pulley. See figure 21.

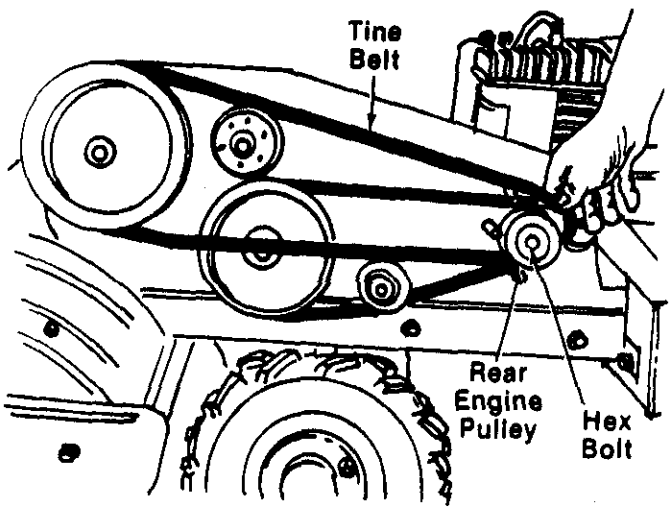


FIGURE 21.

5. Slip the engine pulley out until belt can be removed.
6. Install new belt.

Drive (Short) Belt Removal

1. Remove the tine belt as instructed in the previous section.
2. Remove the hex bolt, lock washer and flat washer from the rear engine pulley. See figure 21. Slip the rear engine pulley off the engine.
3. Loosen the two set screws on the front engine pulley. See figure 22.

NOTE

Do not lose the square key on the engine shaft.

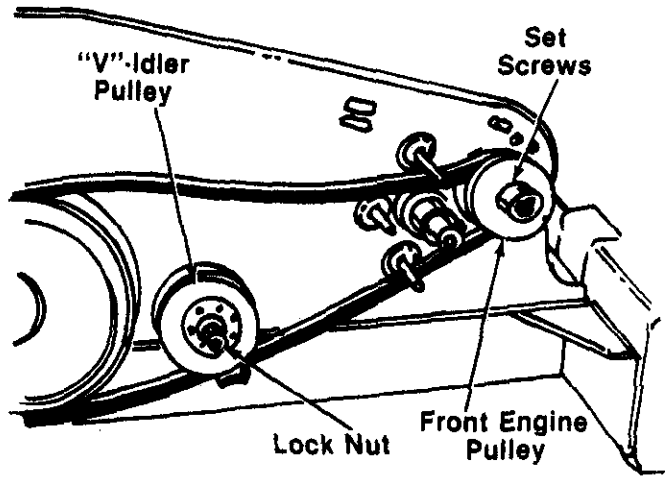


FIGURE 22.

4. Remove the lock nut on the "V"-idler pulley. See figure 22.
5. Slide the front engine pulley and "V"-idler pulley out as shown in figure 23.

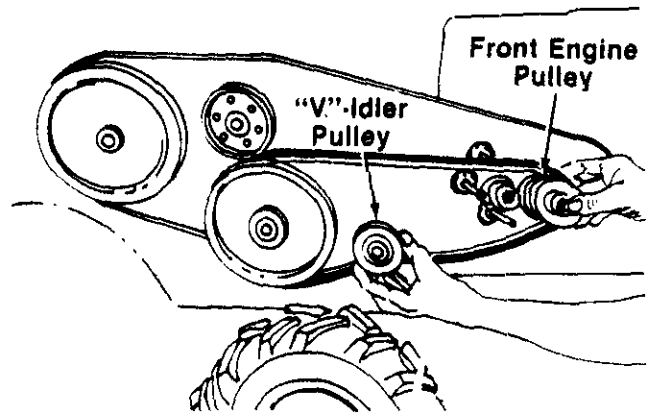


FIGURE 23.

6. Remove the belt and install the new belt. Be sure the belt is routed around the guide pins as shown in figure 24.

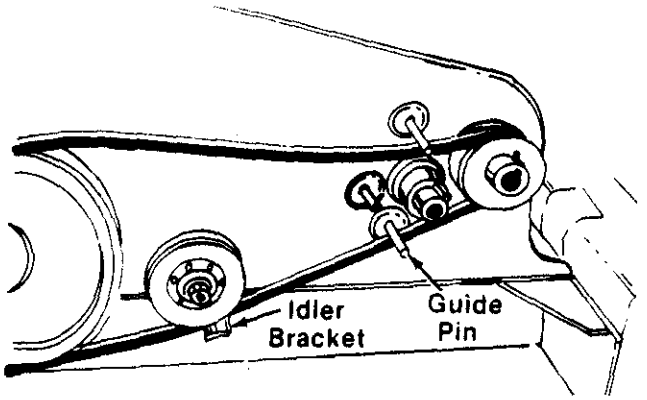


FIGURE 24.

NOTE

Belt must be between the "V"-idler pulley and the idler bracket. See figure 24.

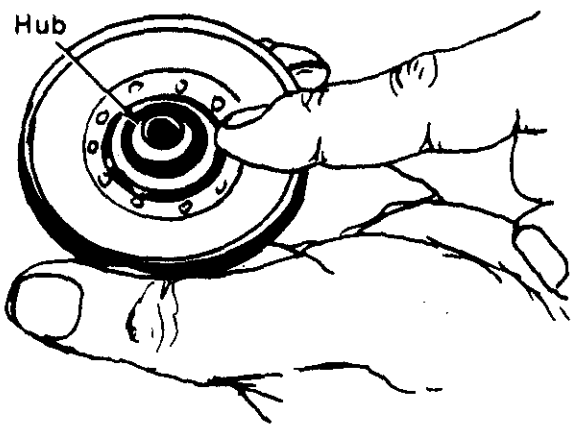


FIGURE 25.

NOTE

If the "V"-idler or flat idler pulleys are removed for any reason, be sure to install with hub side against the idler bracket. See figure 25.

NOTE

Upon reassembly, refer to illustration on page 18 for correct assembly of wire belt guard.

OFF-SEASON STORAGE

If the tiller is to be inoperative for a period longer than 30 days, the following precautions are recommended. Keep your tiller in a weatherproof, dry area. If stored for over 30 days the following steps will protect the essential engine parts from gum deposits.

1. Working outdoors, drain all fuel from the fuel tank. Use a clean, dry cloth to absorb the small amount of fuel remaining in the tank, then run the engine until all fuel in carburetor is exhausted.

WARNING

DO NOT DRAIN FUEL WHILE SMOKING, OR IF NEAR AN OPEN FIRE.

2. Drain all the oil from the crankcase (this should be done after the engine has been operated and is still warm) and refill the crankcase with clean new oil as instructed in the engine manual.
3. Protect the inside of the engine for storage as instructed in the separate engine manual packed with your unit.
4. Clean the exterior of engine and the entire tiller thoroughly.
5. Wipe tines with oiled rag to prevent rust.

NOTE

When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rustproof the equipment. Using a light oil or silicone, coat the equipment, especially any springs, bearings and cables.

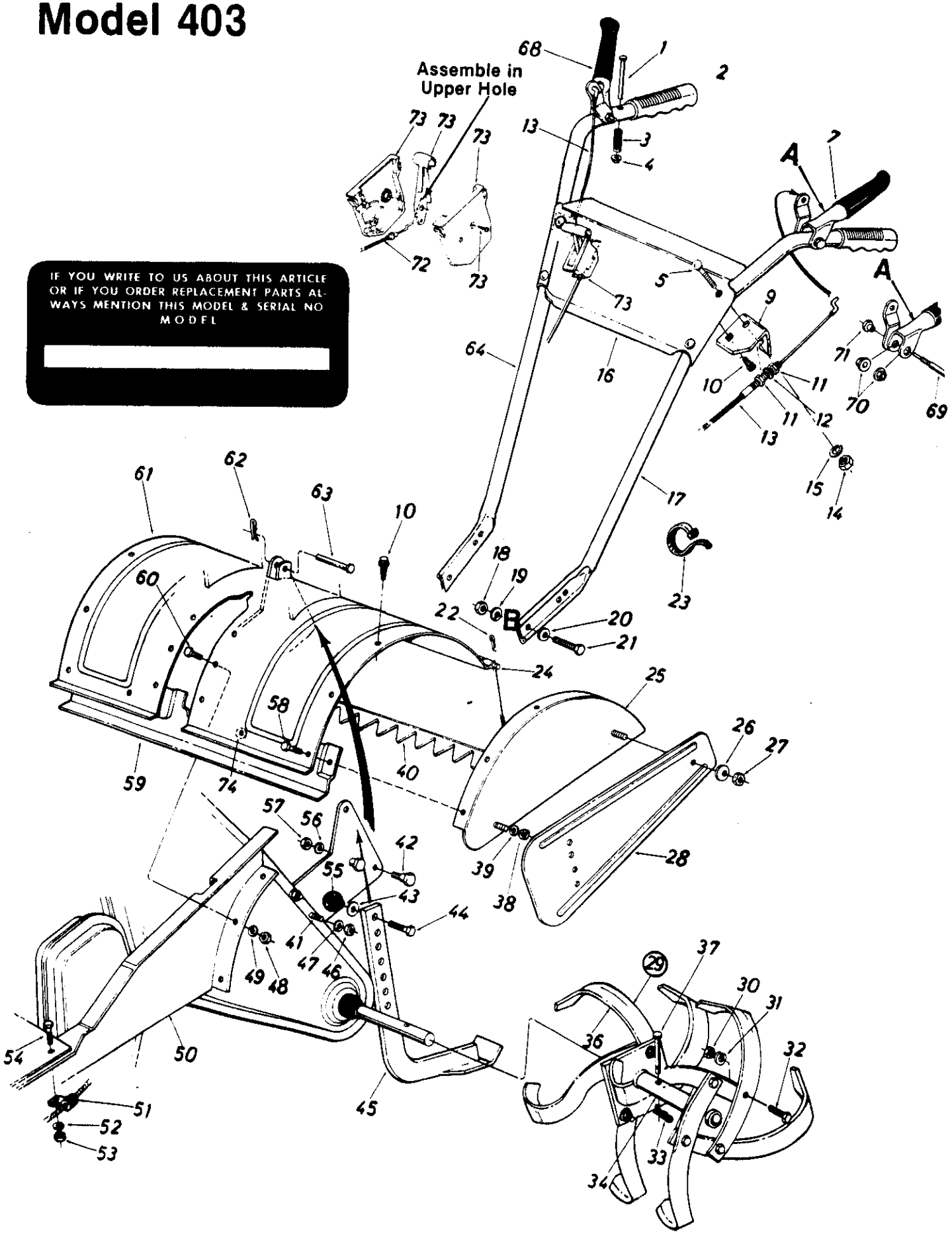
TROUBLE SHOOTING CHART

SYMPTOM	POSSIBLE CAUSE(S)	SOLUTION
Engine fails to start	1. Check fuel tank for gas. 2. Spark plug lead wire disconnected. 3. Faulty spark plug.	1. Fill tank if empty. 2. Connect lead wire. 3. Spark should jump gap between control electrode and side electrode. If spark does not jump, replace the spark plug.
Hard starting or loss of power	1. Spark plug wire loose. 2. Dirty air cleaner.	1. Connect and tighten spark plug wire. 2. Clean air cleaner as described in engine manual.
Engine overheats	1. Carburetor not adjusted properly. 2. Air flow restricted. 3. Engine oil level low.	1. Adjust carburetor. See engine manual. 2. Remove blower housing and clean as described in the engine manual. 3. Fill crankcase with the proper oil.
Controls do not engage	Belts worn and/or stretched.	Make control cable adjustment (see adjustment section) or replace belt.

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

NOTES

Model 403


Assemble in Upper Hole
IF YOU WRITE TO US ABOUT THIS ARTICLE OR IF YOU ORDER REPLACEMENT PARTS ALWAYS MENTION THIS MODEL & SERIAL NO
MODEL

Model 403

PARTS LIST FOR MODEL 403 TILLER

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	711-0750		Clevis Pin ¼" Dia. x 2.25"	
2	720-0180		Grip	
3	732-0442		Compression Spring .33" O.D. x 1.2" Lg.	
4	726-0106		Cap Speed Nut ¼" Rod	
5	710-0458		Carr. Bolt 5/16-18 x 1.75"*	
7	784-0031		Clutch Grip Ass'y.—L.H. (Tines)	
9	15093		Clutch Cable Bracket	
10	710-0607		Hex Wash. S-Tap Scr. 5/16-18 x .62" Lg.	
11	712-0256		Hex Nut 5/16-24 Thd.	
12	736-0119		L-Wash. 5/16" I.D.*	
13	746-0484		Clutch Control Cable	
14	712-0267		Hex Nut 5/16-18 Thd.*	
15	736-0119		L-Wash. 5/16" I.D.*	
16	784-0037		Handle Panel	
17	749-0631		Handle—L.H.	
18	712-0798		Hex Nut 3/8-16 Thd.*	
19	736-0169		L-Wash. 3/8" I.D.*	
20	736-0105		Bell-Wash. 3/8" I.D.	
21	710-0253		Hex Bolt 3/8-16 x 1.00" Lg.*	
22	714-0507		Cotter Pin 3/32" Dia. x 3/4"*	
23	725-0157		Cable Tie	
24	747-0501		Tiller Flap Rod	
25	14989		End Cover Ass'y.—L.H.	
	14990		End Cover Ass'y.—R.H. (Not Shown)	
26	736-0242		Bell-Wash. 5/16" I.D.	
27	712-0267		Hex Nut 5/16-18 Thd.*	
28	15390	—483	Side Shield	
29	784-0083		Tine Ass'y. Comp.—L.H.	N
	784-0082		Tine Ass'y. Comp.—R.H. (Not Shown)	N
30	712-0241		Hex Nut 3/8-24 Thd.*	
31	736-0169		L-Wash. 3/8" I.D.*	
32	710-0191		Hex Bolt 3/8-24 x 1.25" Lg.*	
33	714-0149		Hairpin Cotter	
34	784-0084		Tine Adapter Ass'y.	N
35	742-0106		Tine 12" R.H.	
36	742-0105		Tine 12" L.H.	
37	711-0415		Clevis Pin 3/8" Dia.	
38	712-0267		Hex Nut 5/16-18 Thd.*	
39	736-0119		L-Wash. 5/16" I.D.*	
40	784-0088		Tine Shield Flap	N
41	710-0736		Hex Bolt 5/16-18 x 1.0" Lg.*	
42	738-0507		Shld. Bolt ½" Dia. x .426"	
43	736-0117		Fl-Wash. 3/8" I.D. x 5/8" O.D.	
44	710-0216		Hex Bolt 3/8-16 x 3/4" Lg.*	
45	14992		Depth Bar Ass'y.	
46	712-0267		Hex Nut 5/16-18 Thd.*	
47	736-0119		L-Wash. 5/16" I.D.*	
48	712-0267		Hex Nut 5/16-18 Thd.*	
49	736-0119		L-Wash. 5/16" I.D.*	
50	14975	—483	Frame Rail—L.H.	
51	726-0175		Clamp 5/16" Dia.	
52	736-0119		L-Wash. 5/16" I.D.*	
53	712-0267		Hex Nut 5/16-18 Thd.*	
54	710-0118		Hex Bolt 5/16-18 x 3/4" Lg.*	
55	720-0165		Ball Knob 1¼" Dia. x 3/8-16 Thd.	
56	736-0169		L-Wash. 3/8" I.D.*	
57	712-0798		Hex Nut 3/8-16 Thd.*	
58	710-0118		Hex Bolt 5/16-18 x .75" Lg.*	
59	784-0087		Bracket Reinforcement	N
60	710-0118		Hex Bolt 5/16-18 x .75" Lg.*	
61	784-0085		Tine Shield Ass'y.	N
62	714-0149		Hairpin Cotter	
63	711-0415		Clevis Pin 3/8" Dia.	
64	749-0630		Handle—R.H.	
68	784-0029		Clutch Grip Ass'y.—R.H. (Wheels)	
69	738-0575		Shoulder Bolt .38" Dia. x 1.53" Lg. (Special)	
70	741-0402		Hex Flange Plastic Bearing	
71	738-0561		Shoulder Nut ¼-20 Thd.	
72	746-0512		Throttle Control Wire	
73	831-0692		Throttle Control Box Ass'y.	
74	736-0242		Bell-Wash. 5/16" I.D.	

NOTE

Specifications subject to change without notice or obligation.

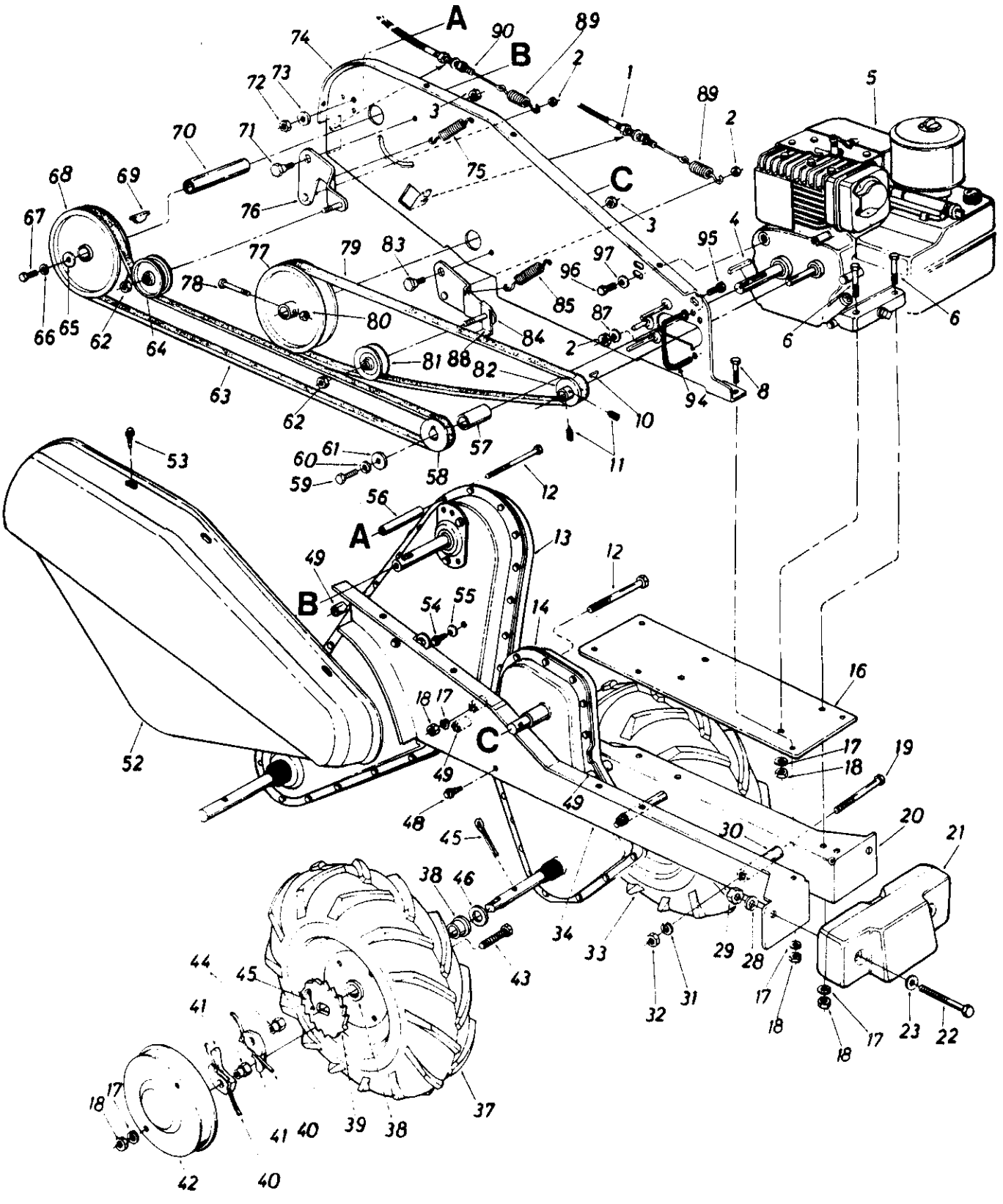
Part No.	Description
777-4553	"WHITE" Plastic Logo
777-5155	"ROTO BOSS 530" Label
777-3774	Throttle Label
777-3650	Tine Label—Left Handle
777-3651	Drive Label—Right Handle
777-4031	Choke Label
777-2751	Tilling Depth Label
777-4455	Tine Shield Caution Label

* 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.*

(483—Charcoal Grey)
(623—Silver Mist)

When ordering parts, if color or finish is important use the appropriate color code shown above. (e.g. Charcoal Grey Finish—04820 (483).)

Model 403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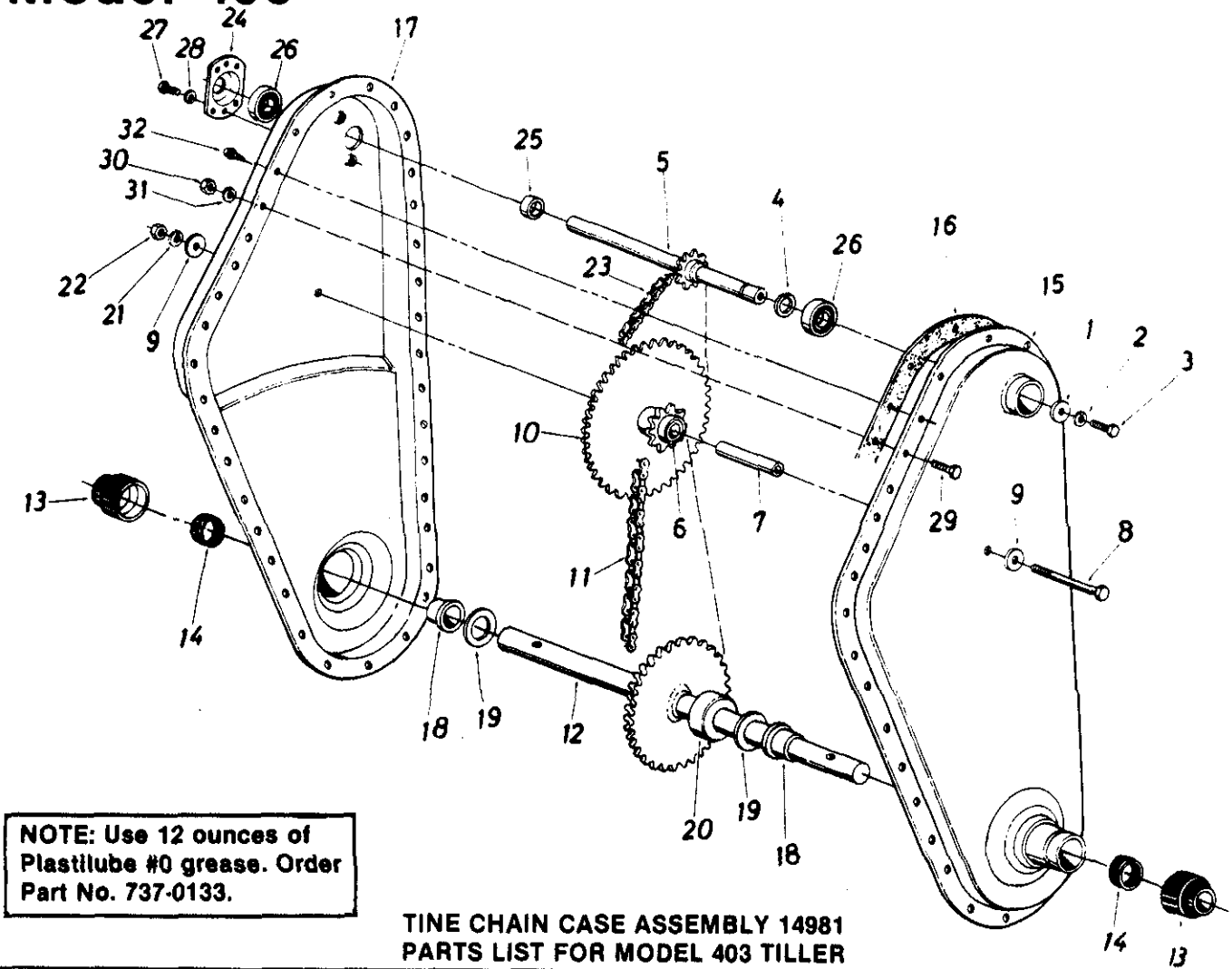
Model 403

PARTS LIST FOR MODEL 403 TILLER

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	746-0484		Clutch Control Cable	
2	712-0107		Hex Cent. L-Nut 1/4-20 Thd.	
3	712-0266		Hex Cent. L-Nut 3/8-16 Thd.*	
4	714-0122		Sq. Key 3/16" Dia. x .75	
5	—		Engine	
6	710-0442		Hex Bolt 5/16-18 x 1.50" Lg.*	
8	710-0118		Hex Bolt 5/16-18 x .75" Lg.*	
10	714-0131		Hi-Pro Key #5 Woodruff	
11	710-0938		Set Scr. 1/4-28 x .25" Lg.	
12	710-0189		Hex Bolt 5/16-18 x 3.0" Lg.*	
13	14981		Chain Case Ass'y. Comp.—Tines	
14	784-0102		Chain Case Ass'y. Comp.—Wheels	
16	14973		Engine Mounting Plate	
17	736-0119		L-Wash. 5/16" I.D.*	
18	712-0267		Hex Nut 5/16-18 Thd.*	
19	710-0830		Hex Bolt 3/8-24 x 3.0" Lg.*	
20	14975		Frame Rail—L.H.	
21	723-0340		Counter Weight	
22	710-0786		Hex Bolt 1/2-13 x 4.0" Lg.*	
23	736-0326		Fl-Wash. 1/2" I.D. x 1.0" O.D.	
28	736-0921		L-Wash. 1/2" I.D.*	
29	712-0206		Hex Nut 1/2-13 Thd.*	
30	750-0579		Spacer 3/8" I.D. x 5/8" O.D. x 2.18" Lg.	
31	736-0169		L-Wash. 3/8" I.D.*	
32	712-0241		Hex Nut 3/8-24 Thd.*	
33	734-1129		Comp. Wheel Ass'y.—L.H.	
34	14974		Frame Rail—R.H.	
37	734-1130		Comp. Wheel Ass'y.—R.H.	
38	741-0227		Flange Brg. 7/8" I.D. x 1.12" Lg.	
39	748-0292		Ratchet Wheel	
40	10622		Nylon Spring	
41	748-0291		Pawl .44" I.D.	
42	14967		Wheel Cover	
43	710-0874		Hex Bolt 5/16-18 x 1.25" Lg.*	
44	712-0329		Special Hex Nut 5/16-24 Thd.	
45	714-0470		Cotter Pin 1/8" Dia. x 1.25" Lg.*	
46	736-0214		Fl-Wash. 7/8" I.D. x 1-3/8" O.D. x .06	
48	710-0600		Hex Wash. Self-Tap Scr. 5/16-24 x .50" Lg.	
49	750-0470		Spacer 5/16" I.D. x 16 Ga. x .96" Lg.	
52	14980	—615	Belt Cover	
53	710-0599		Hex Wash. S-Tap Scr. 1/4-20 x .50" Lg.	
54	710-0653		Hex Wash. S-Tap Scr. 1/4-20 x 3/8" Lg.	
55	736-0270		Bell-Wash. 1/4" I.D.	
56	750-0219		Spacer 3/8" I.D. x 1/2" O.D. x 2.0" Lg.	
57	750-0442		Spacer 3/4" I.D. x 1.12" O.D. x 1.56" Lg.	
58	756-0396		1/2" "V"-4L Pulley 3/4" I.D. x 2.59" O.D.	
59	710-0152		Hex Bolt 3/8-24 x 1.00" Lg.*	
60	736-0169		L-Wash. 3/8" I.D.*	
61	736-0133		Fl-Wash. 3/8" I.D. x 1.25" O.D.	
62	712-0116		Hex L-Nut 3/8-24 Thd.	
63	754-0195		"V"-Belt 1/2" x 54" Lg.	
64	756-0405		Fl-Idler Pulley 3.75" O.D. x 3/8" I.D.	
65	736-0176		Fl-Wash. .25" I.D. x .93" O.D. x .120	
66	736-0329		L-Wash. 1/4" I.D.*	
67	710-0412		Hex Bolt 1/4-28 x .75" Lg.*	
68	756-0389		Split Pulley 6" Dia. x 5/8" I.D.	
69	714-0388		Hi-Pro Key	
70	750-0472		Spacer	
71	738-0183		Shld. Bolt 1/2" Dia. x .210" Lg.	
72	712-0267		Hex Nut 5/16-18 Thd.*	
73	736-0119		L-Wash. 5/16" I.D.*	
74	14991		Side Plate Ass'y.	
75	732-0445		Ext. Spring .50" O.D. x 1.55" Lg.	
76	14971		Idler Bracket Ass'y.—Tines	
77	756-0387		Pulley 6" Dia. x 5/8" I.D.	
78	710-0698		Hex Bolt 1/4-28 x 1.50" Lg.*	
79	754-0207		"V"-Belt 1/2" x 42" Lg.	
80	712-0117		Hex Cent. L-Nut 1/4-28 Thd.*	
81	756-0166		"V"-Idler Pulley 2-5/8" O.D.	
82	756-0386		1/2" "V"-Pulley 2 1/4" O.D. x .50" I.D.	
83	738-0147		Shld. Bolt 1/2" Dia. x .160" Lg.	
84	14969		Idler Bracket Ass'y—Wheels	
85	732-0444		Ext. Spring .50" O.D. x 1.97" Lg.	
86	712-0287		Hex Nut 1/4-20 Thd.*	
87	736-0270		Bell-Wash. 1/4" I.D.	
88	15399		Belt Keeper Ass'y.	
89	732-0387		Ext. Spring	
90	746-0484		Clutch Control Cable	
94	747-0507		Belt Keeper	
95	710-0106		Hex Bolt 1/4-20 x 1.25" Lg.*	
96	710-0237		Hex Bolt 5/16-24 x .62" Lg.*	
97	736-0242		Bell-Wash. 5/16" I.D.	

Model 403

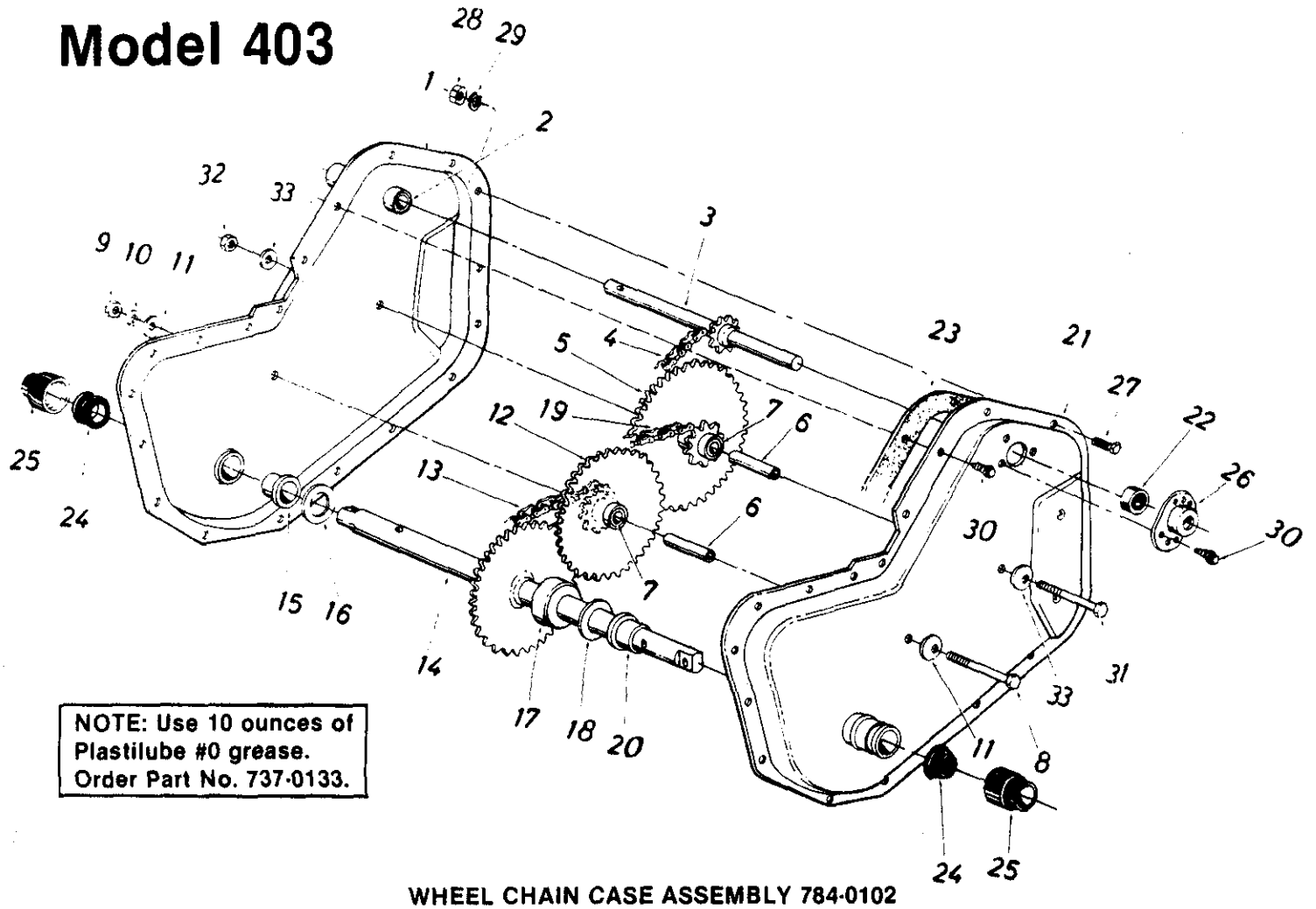


NOTE: Use 12 ounces of Plastilube #0 grease. Order Part No. 737-0133.

TINE CHAIN CASE ASSEMBLY 14981
PARTS LIST FOR MODEL 403 TILLER

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	736-0176		Fl-Wash. ¼" I.D. x .93" O.D. x .120		18	731-0374		Flange Brg. 1.00" I.D.	
2	736-0329		L-Wash. ¼" I.D.*		19	736-0163		Fl-Thrust Wash. 1.0" I.D. x .03 Thk.	
3	710-0513		Hex Bolt ¼-28 x .62" Lg. w/Patch		20	750-0570		Step Spacer	
4	716-0131		External Snap Ring—5/8" Dia.		21	736-0169		L-Wash. 3/8" I.D.*	
5	04956		Input Shaft Ass'y.		22	712-0711		Hex Nut 3/8-24 Thd.*	
6	741-0304		Bearing 5/8" I.D. x ¾" O.D. x 1.860" Lg.		23	713-0327		#35 Chain 3/8" Pitch x 52 Links Endless	
7	750-0275		Sprocket Hub Tubing 3/8" I.D. x 5/8" O.D. x 1.90		24	05034		Bearing Housing 1.38" I.D.	
8	710-0629		Hex Bolt 3/8-24 x 2.75" Lg.*		25	750-0471		Spacer	
9	736-0258		Fl-Wash. 3/8" I.D. x 1.25" O.D. x .10		26	741-0155		Ball Bearing .625" I.D. x 1.38" O.D. x .437	
10	713-0331		Sprocket Ass'y.		27	710-0599		Hex Wash. SF-Tap Scr. ¼-20 x .50" Lg.	
11	713-0328		#50 Chain 5/8" Pitch x 46 Links Endless		28	736-0329		L-Wash. ¼" I.D.*	
12	14986		Tine Shaft Ass'y.		29	710-0118		Hex Bolt 5/16-18 x .75" Lg.*	
13	731-0487		Dust Cup		30	712-0267		Hex Nut 5/16-18 Thd.*	
14	721-0175		Seal Ring Single Lip, Springless		31	736-0119		L-Wash. 5/16" I.D.*	
15	14984		Ass'y. Tiller Housing—R.H.		32	710-0599		Hex Wash. SF-Tap Scr. ¼-20 x .50" Lg.	
16	721-0170		Gasket		—	737-0133		Grease—Plastilube #0 (12 oz.)	
17	14985		Ass'y. Tiller Housing—L.H.		—	14981		Tine Chain Case Ass'y. Comp.	

Model 403



NOTE: Use 10 ounces of Plastilube #0 grease. Order Part No. 737-0133.

WHEEL CHAIN CASE ASSEMBLY 784-0102
PARTS LIST FOR MODEL 403 TILLER

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	14962		Chain Case Half Ass'y.—R.H.	
2	748-0154		Bearing 5/8" I.D. x .813" O.D. x 1.31" Lg. (2 Req'd.)	
3	14960		Input Shaft Ass'y.	
4	713-0325		Chain #35—3/8" Pitch x 44 Links	
5	713-0316		Sprocket and Hub Ass'y.	
6	750-0351		Bearing Inner Axle	
7	741-0228		Sleeve Brg. 5/8" I.D. x ¾" O.D. x 1.50	
8	710-0369		Hex Bolt 3/8-24 x 2.50" Lg.*	
9	712-0116		Hex Ins. L-Nut 3/8-24 Thd.	
10	736-0169		L-Wash. 3/8" I.D.*	
11	736-0219		Bell-Wash. .41" I.D. x 1.13" O.D. x .03	
12	713-0330		Sprocket & Hub Ass'y. 9T-22T	
13	713-0326		#420 Chain ½ Pitch x 28 Links Endless	
14	784-0095		Wheel Shaft Ass'y.	
15	741-0227		Flange Bearing	
16	736-0265		Fl-Wash. .88" I.D. x 1.5" O.D. x .03	
17	750-0354		Spacer 7/8" I.D. x 1¾" O.D. x .68" Lg.	
18	736-0265		Fl-Wash. .88" I.D. x 1.50" O.D. x .03	
19	713-0267		#420 Chain ½" Pitch x 30 Links Endless	
20	741-0227		Flange Bearing	
21	15797		Chain Case Half Ass'y.—L.H.	
22	741-0155		Bearing	
23	721-0156		Gasket	
24	721-0157		Seal	
25	731-0486		Dust Cup	
26	05034		Bearing Housing	
27	710-0195		Hex Bolt ¼-28 x 5/8" Lg.	
28	712-0138		Hex Nut ¼-28 Thd.	
29	736-0329		L-Wash. ¼" I.D.*	
30	710-0599		Hex Wash. S-Tap Scr. ¼-20 x .50" Lg.	
31	710-0378		Hex Bolt 5/16-18 x 2.5" Lg.	
32	712-0158		Hex Cent. L-Nut 5/16-18 Thd.	
33	736-0159		Fl.-Wash. 5/16" I.D.	
—	737-0133		Grease—Plastilube #0 (10 oz.)	
—	784-0102		Wheel Chain Case Ass'y. Comp.	N

Heavy Duty Rear Tine Garden Tiller Attachments Available for All-Season Use

31-0110 8" Furrower Opener
31-0144 "V"-Bar Cultivating Kit (Must be used with 31-0178 adapter) Kit Includes: "V"-Bar Frame, 4-Point Cultivating Tines, Hiller/Furrower, Depth Gauge Wheels (Pair).
31-0145 Depth Stake Cultivating Kit (Must be used with 31-0178 adapter) Kit Includes: 8" Furrower Opener, 15" Sweep Cultivator, 32" Leveling Rake, Extra Depth Stake.
31-0178 Adapter

To use these attachments on the tiller, it is necessary to:

1. Remove the tine shield flap assembly.
2. Remove the depth bar assembly (except when using the 8" furrower opener).

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.

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