OWNERS MANUAL



ASSEMBLY
OPERATION
MAINTENANCE
PARTS LIST

Model Numbers 214-381-000 214-385-000

Important:

Read Safety Rules and Instructions Carefully

Thank you for purchasing an American built product.

INDEX

Safe Operation Practices	.3	Off-Season Storage	13
Assembly Instructions		Trouble Shooting Chart	14
Operation		Illustrated Parts	
How to Use Your Tiller	_	Parts Lists	
Adjustments		Parts for Chain Case	
Lubrication		Parts Information	
Maintenance			

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 rot be accepted by the factory unless prior written permission has been extended by MT).

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



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 ap licable 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

- 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.
- Your tiller is a precision piece of power equipment, not a plaything. Therefore, exercise extreme caution at all times.
- Read this Owner's Manual carefully. Be thoroughly familiar with the controls and the proper use of the equipment.
- 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. Keep the area of operation clear of all persons, particularly small children and pets.
- Do not operate equipment when barefoot or wearing open sandals. Always wear substantial footwear.
- 7. Do not wear loose fitting clothing that could get caught on the tiller.
- 8. Do not start the engine unless the shift lever is in the neutral (N) position.
- 9. Do not stand in front of the tiller while starting the engine.
- Do not place feet and hands on or near the tines when starting the engine or while the engine is running.
- 11. Never attempt to make a wheel or depth bar adjustment while the engine is running.
- 12. Do not leave the tiller unattended with the engine running.
- 13. Do not walk in front of the tiller while the engine is running.

- 14. 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.
- 15. Do not run the engine while indoors. Exhaust gases are deadly poisonous.
- 16. Be careful not to touch the muffler after the engine has been running. It is hot.
- 17. Do not change the engine governor settings or overspeed the engine. Excessive engine speeds are dangerous.
- 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.
- Use caution when tilling near buildings and fences. Rotating tines can cause damage or injury.
- 20. 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.
- 21. Check the tine and engine mounting bolts at frequent intervals for proper tightness.
- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
- 23. 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.

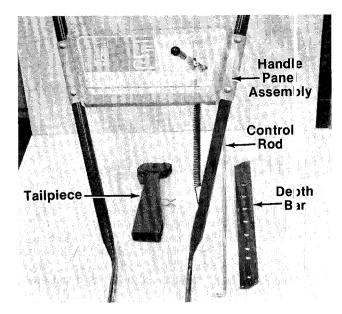


FIGURE 1.

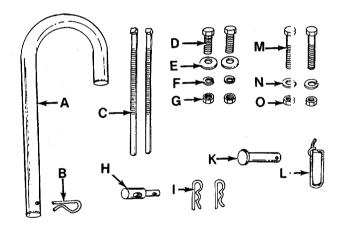


FIGURE 2.

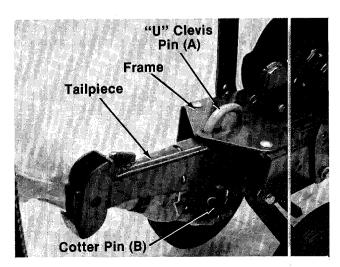


FIGURE 3.

ASSEMBLY INSTRUCTIONS



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

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

Tools Required:

(2) 9/16" Sockets, open or box wrench

← Loose Parts in Carton: (See Figure 1)

Handle Panel Assembly
Depth Bar

Ta.:piece

Control Rod

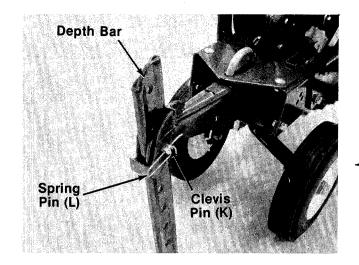
Hardware Pack (Not Shown)

← Contents of Hardware Pack: (See Figure 2)

- A (1) "U"-Clevis Pin .50" Dia.
- B (1) Internal Cotter Pin
- C (2) Cable Ties
- D (2) Hex Bolts 3/8-16 x 1.00" Lg.
- E (2) Belleville Washers 3/8" I.D.
- F (2) Lock Washers 3/8" I.D.
- G (2) Hex Nuts 3/8-16 Thd.
- H (1) Ferrule
- I (2) Hairpin Cotters
- K (1) Clevis Pin
- L (1) Spring Pin
- M (2) Carriage Bolts
- N (2) Lock Washers 5/16" I.D.
- O (2) Hex Nuts 5/16-18 Thd.
- P (2) Clevis Pins (385 Only—Not Shown)
- Q (2) Cotter Pins (385 Only—Not Shown)

TAILPIECE INSTALLATION

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

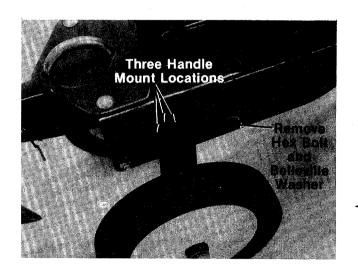


DEPTH BAR INSTALLATION

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

See figure 4.

FIGURE 4.



HANDLE ASSEMBLY

- 1. Secure handle panel to handles by placing carriage bolts (M) through the lower holes in the handle panel and through the handles. Secure with lock washers (N) and hex nuts (O), finger tight only.
- 2. Remove hex bolt and belleville washer from each side of frame as shown in figure 5.

FIGURE 5.

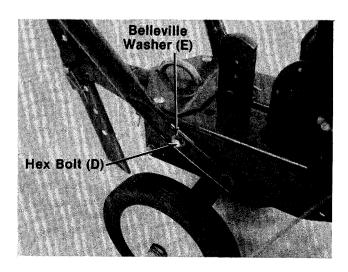
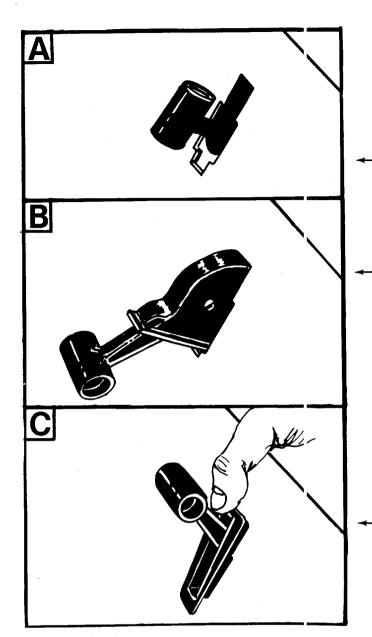


FIGURE 6.

- 3. Place the handle panel assembly in position against the frame.
- 4. Start the hex bolt and belleville washer (removed in step 1) by hand in the bottom hole in handle. See figure 6.
- 5. Select height position for the handle by lining up one of the holes in the handle with desired hole in frame. See figure 5.
- 6. Place belleville washer (E) on hex bolt (D), and insert hex bolt through handle and frame. Secure with lock washer (F) and hex nut (G) on inside of frame. See figure 6.
- 7. Tighten all nuts and bolts securely.



The clutch rod must be readjusted whenever the handle height is changed.



THROTTLE CONTROL ASSEMBLY

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
- After the end of the lever is through the slot, turn and then tip the control forward as shown
 in figure 7B to slide it through the slot.



The lever must be all the way to the back of the control housing as shown in figure 7B.

- 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.
- 4. Secure throttle control cable to handle with cable ties (C). Cut off excess ends.

FIGURE 7.

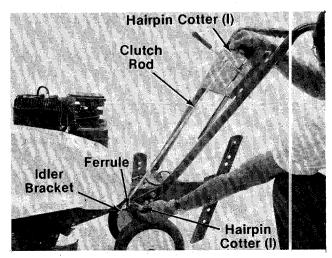


FIGURE 8.

CLUTCH CONTROL ROD INSTALLATION

- Place shift lever (located on handle panel) in neutral (N) position. Place bent end of control rod into shift lever. Secure with hairpin cotter — (I). See figure 8.
- 2. Thread ferrule (H) onto the other end of control rod so that the ferrule lines up with the hole in idler bracket. Secure with hairpin cotter (I). See figure 8.

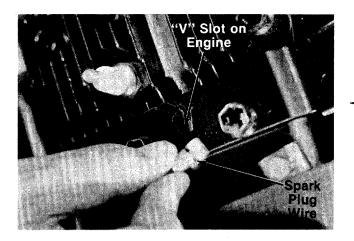
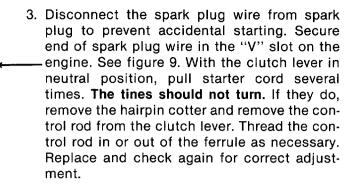


FIGURE 9.



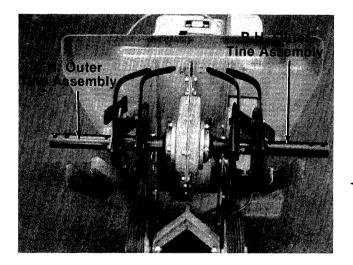


FIGURE 10.

TINE ASSEMBLIES Model 381 Only

Check to be certain the tine assemblies are on the tine shaft so that the sharp edge enters the soil first. See figure 11.

Model 385 Only

The inner tine assemblies are installed at the factory. The outer tine assemblies are inverted. See figure 10. The right hand outer tine assembly has been removed, inverted and slid onto the left hand side for shipping only. The same has been done with the left hand outer tine assembly.

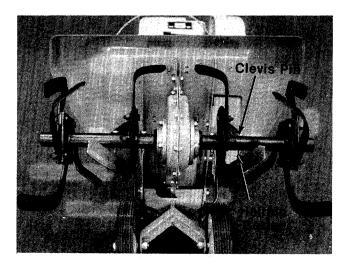


FIGURE 11.

Remove both outer tines. Place tine removed from left hand side on right hand shaft. Place tine removed from right hand side on left hand shaft. Make sure that the sharp edge of the tines enters the soil first. Secure with clevis pins (P) and internal cotter pins (Q). See figure 11.

OPERATION

BEFORE STARTING ENGINE:

- 1. Before starting, fill crankcase with oil as instructed in the separate engine manual packed with the unit.
- 2. Fill fuel tank with clean, fresh, lead-fre€, low-lead, or regular grade leaded gasoline.

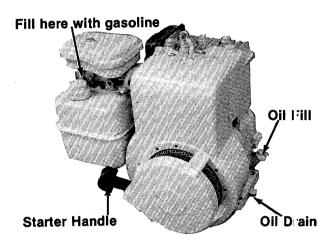


FIGURE 12.

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 13.

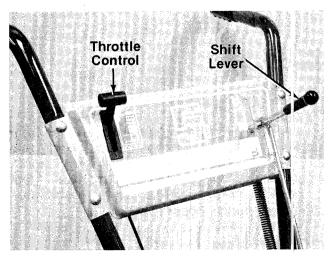


FIGURE 13.

Pull choke knob out to choke engine. See figure 14.



Warm engine does not require choking.

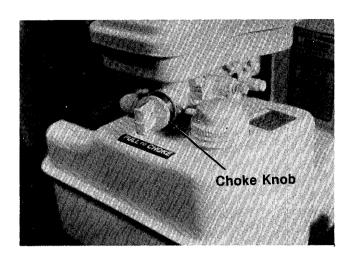


FIGURE 14.

- 3. Move throttle control lever forward to "START" position. See figure 13.
- 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 knob in gradually to "OFF" position.

TO STOP ENGINE:

- 1. Move throttle control lever to "STOP" position. See figure 13.
- 2. Remove spark plug wire from spark plug to prevent accidental starting while equipment is unattended.

HOW TO USE YOUR TILLER

The tiller is a precision built machine designed for seed bed preparation, cultivating, furrowing and mulching. It is engineered to minimize the hardest work in the vegetable or flower garden, to till the soil for planting and cultivating, and to perform many other useful labor saving tasks in the garden. With the proper amount of care and maintenance, this machine will provide the owner with many years of excellent service.

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.

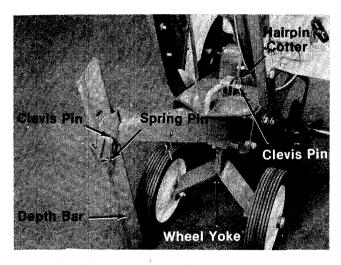
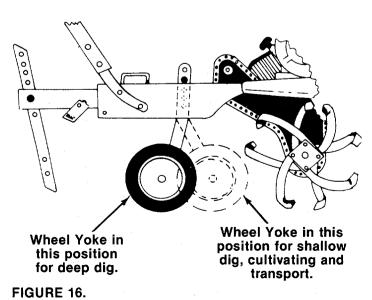


FIGURE 15.

CONTROLLING SPEED AND TILLING DEPTH:

 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 16. 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.

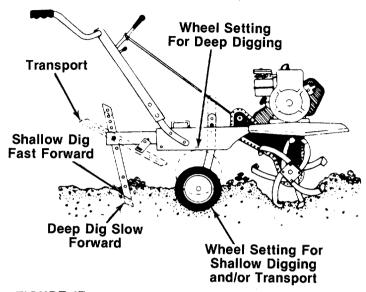


FIGURE 17.

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 around. 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 downward 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 fingertip control of the carburetor and magneto stop switch. With the throttle control knob pushed completely forward, the carburetor is in "START" position. Pullir g 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 working width of the machine is 26 inches. For cultivation, this may be reduced to 14 inches by removing the outer tines. See figures 18 and 19.

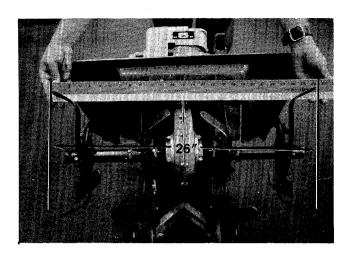


FIGURE 18.

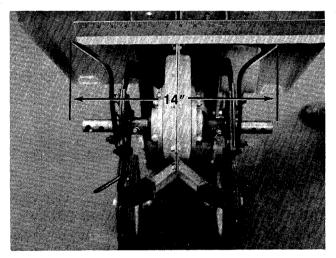


FIGURE 19.

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 pickwork 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



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

CLUTCH CONTROL ROD

To adjust the clutch control rod, refer to clutch control rod installation, step number 3, under Assembly Instructions.

WHEEL ADJUSTMENTS

To adjust the wheel yoke and wheel position, refer to "How To Use Your Tiller" on page 8.

DEPTH BAR ADJUSTMENT

To adjust the depth bar, refer to "How To Use Your Tiller" on page 8.

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. Be careful of heated surfaces and muffler.

Do not make unnecessary adjustments. Factory settings are correct for most applications. 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 tiller.

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 the spark plug wire and ground against the engine before performing any adjustments, repairs or maintenance.

ENGINE OIL

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

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. Refer to figure 12.

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

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 unit.

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 at least once a season or when oil is changed. Spark plug replacement is recommended at the start of each mowing season; check engine manual for correct plug type and gap specification.

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 be t.

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

Forward Drive Belt—Part No. 754-0154 ½" x 3" Lg. Reverse Drive Belt—Part No. 754-0201 ½" x 4 | " Lg.

Removing and Replacing the Forward Drive Belt.

- 1. Remove the belt guard, by removing fcur (4) hex self-tapping screws.
- 2. Press down on the left side of the tine shield and slip off the belt guard. See figure 20.

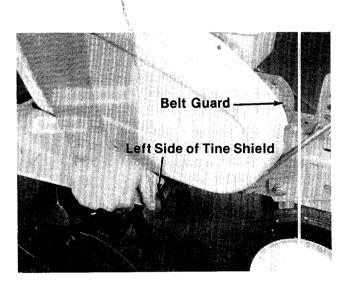


FIGURE 20.

3. Loosen (do not remove) the hex screw and nut holding the belt retainer, using two 7/16" wrenches. See figure 21.



When reassembling the belt, be certain to secure the belt retainer against the tab on the clutch mounting plate. Incorrect placement of the belt retainer can cause excessive wear on the belt.

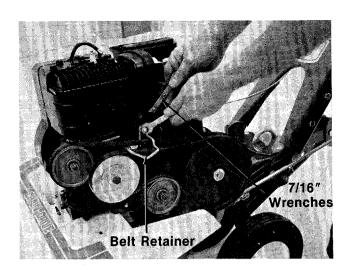


FIGURE 21.

Pull the shift lever back into reverse (R) position. Lift the forward drive belt off the engine pulley, flat idler and chain case pulley. See figure 22.

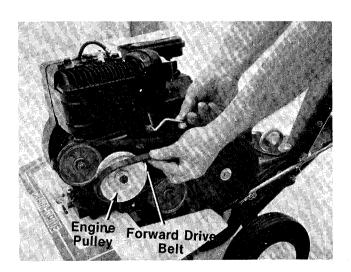


FIGURE 22.

Reassemble the new belt with the "V" side of belt to the inside. Assemble in reverse order.

Removing and Replacing the Reverse Drive Belt.

- 1. To remove the reverse drive belt, you must remove the forward drive belt first. See removing the forward drive belt section, steps 1, 2, 3 and 4.
- 2. With the shift lever in neutral (N) position, slip the reverse drive belt off the chain case pulley and "V"-Groove of engine pulley. See figure 23.

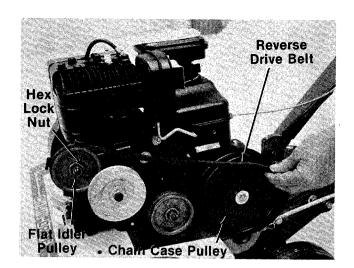


FIGURE 23.

3. Place the shift lever in reverse (R) position. Remove hex lock nut holding the flat reverse idler pulley. See figure 23. Pull the idler bracket forward with one hand. Slip off flat idler and belt together. See figure 24.

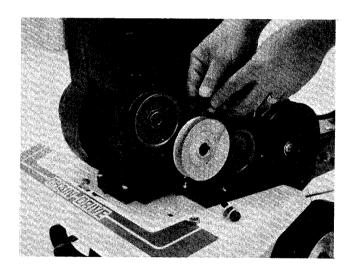


FIGURE 24.

4. When reassembling new reverse drive belt, make sure the V-portion of belt is to the outside and flat side is to the inside. Loop one end of belt over flat idler pulley and place flat idler pulley and belt back in position on idler bracket. Secure idler pulley with hex lock nut.



Flat idler pulley must be installed with the sleeve side towards the idler bracket. See figure 25.

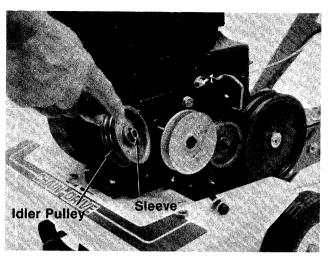


FIGURE 25.

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.

CAUTION

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

TILLER WINTERIZING INSTRUCTIONS FOF USE WITH SNOW BLADE:

1. For cold weather (below 32°F.), drain oil from tiller engine crankcase and replace with SAE 10W or 10W-20 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

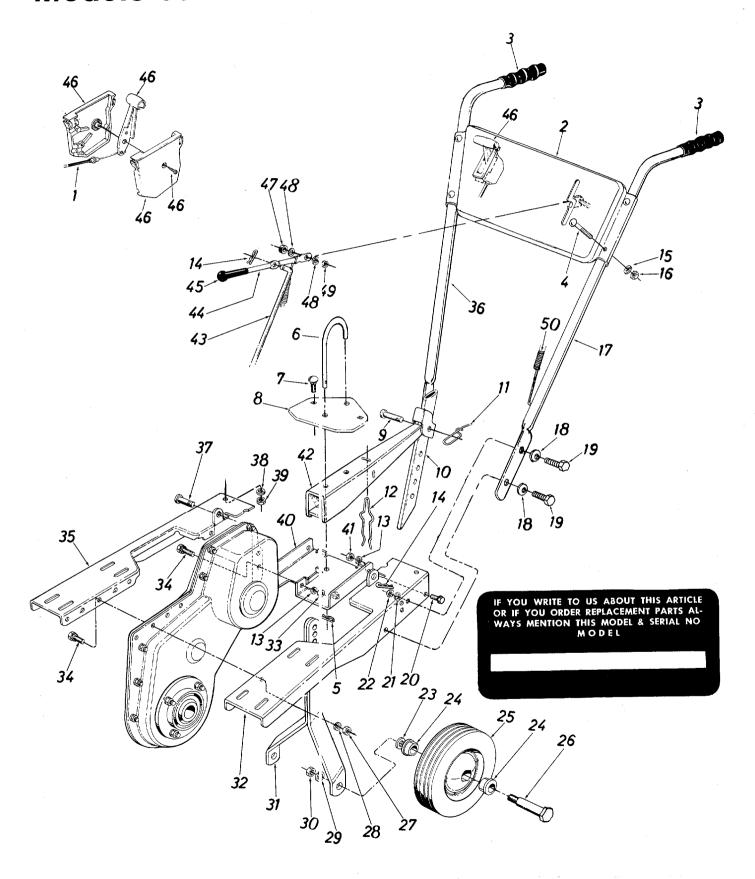
SYMPTOM	POSSIBLE CAUSE(S)	SOLUTION
Engine fails to start	1. Check fuel tank for gas. 2. Spark plug lead wire disconnected.	Fill tank if empty. Connect lead wire.
	3. Faulty spark plug.	Spark should jump gap between control electrode and side electrode. If spark does not jump, replace the spark plug.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

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

NOTES

15

Models 381 and 385



Models 381 and 385

PARTS LIST FOR MODEL 381 AND 385 TILLERS

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART		PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	746-050	_	Throttle Control Wire—35"		26	738-031	8	Shoulder Bolt .625" Dia. x	
2	784-003		Handle Panel Ass'y.	N				2.75" Lg.	
3	720-018		Handle Grip	1	27	712-026		Hex Nut 5/16-18 Thd.*	
4	710-045	8	Carriage Bolt 5/16-18 x 1.75"		28	736-011	9	L-Wash. 5/16" I.D.*	İ
1 _		_	Lg.*		29	736-092		L-Wash. 1/2 " I.D.*	
5	714-0149	9	Internal Cotter Pin		30	712-020		Hex Inst. L-Nut 1/2-20 Thd.	
6	04602		"U"-Clevis Pin .500" Dia.		31	06813	 46 3	Wheel Bracket Ass'y.	
7	710-045	1	Carriage Bolt 5/16-18 x .75"		32	06792		Engine "U"-Channeí	ļ
			Lg.*					Āss'y.—L.H.	
8	04586	_	"U"-Channel Plate		33	712-026		Hex Nut 5/16-18 Thd.*	
9	711-023		Clevis Pin .500" Dia.		34	710-032	2	Hex Sems Bolt 5/16-18 x	
10	04668	463	Depth Bar					1.00" Lg.*	
11	732-0194		Spring Pin		35	06794		Engine ''Ŭ''-Channel	
12	732-0290		Depth Bar Spring					Ass'y.—R.H.	
13	736-0119		L-Wash. 5/16" I.D.*		36	749-035		Handle—R.H.	
14	714-014		Internal Cotter Pin		37	711-0599		Clevis Pin	
15	736-0119		L-Wash. 5/16" I.D.*		38	736-0119		L-Wash. 5/16" I.D.*	
16	712-0267	1	Hex Nut 5/16-18 Thd.*		39	712-026		Hex Nut 5/16-18 Thd.*	•
17	749-0502	_	Handle—L.H.		40	06816		"U"-Channel Bracket Ass'y.	
18	736-0105		Belleville Wash. 3/8" I.D.		41	712-0267	7	Hex Nut 5/16-18 Thd.*	
19	710-0253		Hex Bolt 3/8-16 x 1.00" Lg.*		42	04589		Tailpiece Ass'y.	
20	710-0118	3	Hex Bolt 5/16-18 x .75" Lg.*		43	747-0183		Control Rod	
21	736-0169		L-Wash. 3/8" I.D.*		44	747-0182		Clutch Lever	
22	712-0798		Hex Nut 3/8-16 Thd.*		45	720-0143		Grip	
23	736-0253	3 .	Belleville Wash505 I.D. x		46	831-0692		Throttle Control Box Ass'y.	N
	744 0446	, 1	1.00" O.D.		47	735-0126	6	Rubber Wash.	
24	741-0116)	FI. Bearing w/Flats .631 I.D.		48	736-0159	9	FI-Wash344" I.D. x	
25	704.0000	,	(385 Only)					.880 O.D. x .06	
25	734-0968		Wheel Ass'y. 9 x 1.75 (381)		49	712-0158		Hex Cent. L-Nut 5/16-18 Thd.	
	734-0584	+	Wheel Ass'y. Comp. 10 x		50	732-0191		Extension Spring .75" O.D.	
igsquare			1.75 (385)					x 11.0" Lg.	

^{*}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.

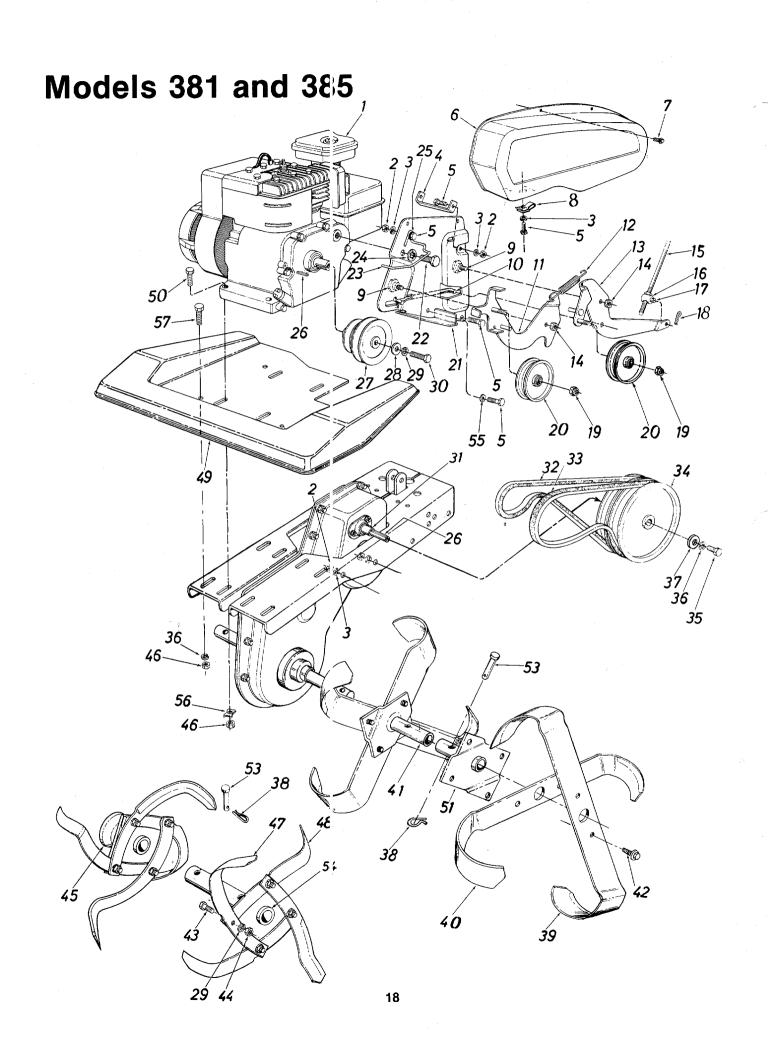
(463—Top Flite Red) When ordering parts if color or finish is important, use the appropriate color (447—Patina Silver) code shown at left. (e.g. Top Flite Red Finish—15278 (463).)

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.



Models 381 and 385

PARTS LIST FOR MODEL 381 AND 385 TILLERS

\	PARTS LIST FOR MODEL 381 AND 385 TILLERS								
REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART		PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	_		Engine		32	754-020	1	"V"-Belt 1/2" x 41" Lg.	
2	712-028	7	Hex Nut 1/4-20 Thd.*					Reverse	
3	736-032	9	L-Wash. 1/4" I.D.*		33	754-015	4	"V"-Belt ½" x 37" Lg.	
4	06801		Support Bracket		"		•	Forward	
5	710-025		Hex Bolt 1/4-20 x .75" Lg.*		34	756-026	2	Chain Case Pulley 6.0" Dia.	
6	06796	447			35	710-057	3	Hex Bolt 5/16-18 x 1.25" Lg.	
7	710-059	9	Thread Rolling Scr. ¼-20 x					Special	
1 _			.50" Lg.		36	736-017		Shake-Proof Wash.	
8	712-018		"U"-Type Speed Nut		37	736-023		FI-Wash. 5/16" I.D. x 1.120	
9	738-028	1	Shoulder Bolt .625" Dia. x		38	714-014		Internal Cotter Pin 1/2" Dia.	
1		_	.170" Lg. (2 Req'd.)		39	742-020		Tine Blade—L.H. (381)	
10	747-018	U	Control Rod		40	742-021	0	Tine Blade—R.H. (381)	
11	06786	^	Reverse Idler Brkt. Ass'y.		41	15697		Inner Tine Adapter Ass'y.	
12	732-043	3	Spring—Idler Brkt.	'		740.000	_	(381)	
13	06784	-	Forward Idler Brkt. Ass'y.		42	710-060	0	Hex Wash. Hd. Self-Tap Scr.	
14	712-037	ס	Hex Cent. L-Nut 3/8-16 Thd.			740 040	_	5/16-18 x .50" Lg. (381)	
15	747-018	9	(2 Reg'd.) Clutch Control Rod		43	710-019	7	Hex Bolt 3/8-24 x 1.25" Lg.	
16	712-019		Speed Nut 3/8-24 Thd.		44	712-024	4	(385)	
17	711-039		Ferrule		45	06798	1	Hex Nut 3/8-24 Thd.* (385)	ł
18	714-014		Inter. Cotter Pin		40	00790		Inner Tine Adapter Ass'y. (385)	
119	712-026		Hex Jam Nut 3/8-24 Thd.		46	712-026	7	Hex Nut 5/16-18 Thd.*	
'		_	(2 Reg'd.)		47	742-010		Tine—L.H. (385)	1
20	756-022	5	FI-Idler w/Flanges 3.12 O.D.		48	742-010		Tine—R.H. (385)	1
			x .75 (2 Req'd.)		49	04598	•	Tine Shield	
21	06803		Clutch Mounting Plate		50	710-044	2	Hex Bolt 5/16-18 x 1.50" Lg.*	j
22	710-012	1	Hex Bolt 1/2-20 x .75 Spec.		51	15380	_	Outer Tine Adapter Ass'y.	1
23	747-018		Belt Guard Rod					(381)	
24	736-0114		Internal L-Wash. ½" I.D.		53	1545-029	9	Clevis Pin (381)	
25	736-046		FI-Wash. 1/4" I.D.			711-0599	9	Clevis Pin (385)	
26	714-013		Sq. Key 3/16" x 1.50" Lg.*		54	04683		Outer Tine Adapter Ass'y.	
27	756-026		Engine Pulley					(385)	1
28	736-0258		Fl-Wash. 3/8" I.D. x 1.00"		55	736-017		Bell-Wash.	
29	736-0169		L-Wash 3/8" I.D.*		56	736-0170		Shake-Proof Wash.	1 .
30	710-019		Hex Bolt 3/8-24 x 1.25" Lg.*		57	710-0118	8	Hex Bolt 5/16-18 x .75" Lg.*]
31	750-0229	9	Spacer .635 I.D. x .88 O.D.		,			_	
			x 1.035 Lg.						
									•

^{*}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.

TINE CHART

Model 381 Part No.	Model 385 Part No.	Description
15696 15378 15695 15377	06818 04290 06819 04289	Inner Tine Ass'y. Comp.—R.H. Outer Tine Ass'y. Comp.—R.H. Inner Tine Ass'y. Comp.—L.H. Outer Tine Ass'y. Comp.—L.H.

Model 381 Chain Case Assembly 15282

Chain Case Assembly 15282

28 10 11 5 29

25 26 27

25 26 27

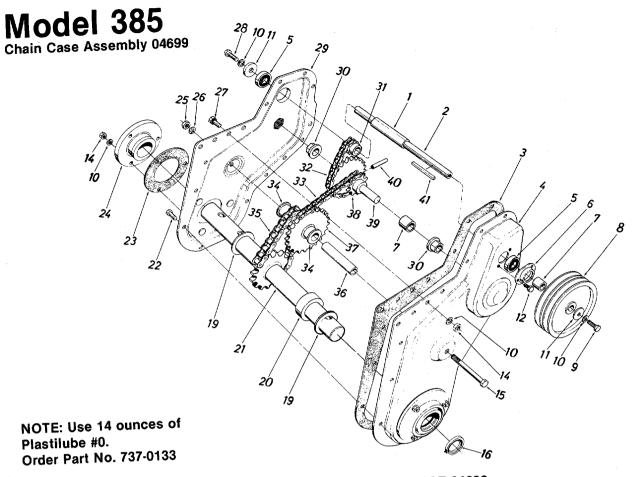
33 33 33 34 36 39

24 23 20 19 16 11 10 9

NOTE: Use 14 ounces of Plastilube #0.
Order Part No. 737-0133

PARTS LIST FOR CHAIN CASE 15282 (MODEL 381 TILLER)

	PARTS LIST FOR CHAIN CASE 15282 (MODEL 381 TILLER)								
REF. NO.	PART NO.	COLOR	DESCRIPTION	NEW PART		PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	750-0315	5	Spacer .657" I.D. x .78" O.D.		24	731-048	7	Dust Cap	
1 -		_	x 2.19" Lg.		25	712-0798		Hex Nut 3/8-16 Thd.*	
2	738-0182	2	Jackshaft		26	736-0169		L-Wash. 3/8" I.D.*	
3	721-0132		Housing Gasket		27	710-032		Hex Sems Bolt 5/16-18 x	1
4	15276	_	Housing Ass'y.—L.H. Hall					1.00" Lg.*	
5	741-015	5	Ball Bearing .625" I.D. x		28	710-0538	8	Hex Bolt 5/16-18 x .62" Lg.	
Ĭ	/ 4 / 0 / 0 (1.375" O.D.				-	(Special)	
6	05034		Bearing Housing		29	15274		Housing Ass'y.—R.H. Half	
7	750-0229	9	Spacer .635" I.D. x .88" O.D.		30	748-0229	9	Hex Flange Bearing	
•	'00 022'		x 1.03" Lg.		31	713-020	6	Sprocket 10 Tooth 1/2" Pitch	
8	756-0262	2	Chain Case Pulley 6.0" Dia.		32	713-013	1	#41 Chain 1/2" Pitch x 34	
9	710-064		Hex Bolt 5/16-18 x 1.0" Lg.					Links	
•			(Special)		33	713-018	6	#420 Chain 1/2" Pitch x 48	
10	736-0119	9	L-Wash. 5/16" I.D.*					Links	
111	736-023		Fl-Wash344" I.D. x 1.125"		34	748-085	5	Flange Bearing .625" I.D.	
1			O.D.		35	713-018	7	#50 Chain 5/8" Pitch x 28	
12	710-0599	9	Hex Wash. Hd. Self-Tap Scr.					Links	
1			1/4-20 x .50" Lg.		36	738-032	0	Sprocket Shaft	
14	712-026	7	Hex Nut 5/16-18 Thd.*		37	713-018	2	Sprocket Bearing Sleeve	
15	710-064	4	Hex Bolt 3/8-16 x 3.25" Lg.*					Ass'y.	
16	731-037		Flange Bearing (Plastic)		38	713-018	1	Sprocket Sleeve Ass'y.	
19	736-016		Flat Thrust Wash.		39	738-030	8	Sprocket Shaft	
20	750-031		Step Spacer	1	40	715-011	4	Spring Pin Spiral ¼" Dia.	;
21	15273		Tine Shaft Ass'y.	1				x 1.50" Lg.	
22	710-059	9	Hex Wash. Hd. Self-Tap Scr.	l	41	714-013	3	Square Key 3/16 x 3/16 x	
		1	1/4-20 x .50" Lg.	1				1.50" Lg.*	
23	721-017	5	Seal Ring	_ 2	ი _				
23	/21-017	5	Sear Ring	2	0			1	1



PARTS LIST FOR CHAIN CASE 04699 (MODEL 385 TILLER)

	(MODEL 385 TILLER)									
REF.	PART	COLOR		NEW PART	REF.	PART NO.	COLOR	DESCRIPTION	NEW PART	
NO.	NO.	CODE	Spacer .657 I.D. x .78 O.D.	PARI	23	721-013	33	Gasket for Bearing Hsg.		
1	750-031	15	x 2.19	1	24 25	741-019 712-079		Bearing Housing Ass'y. Hex Nut 3/8-16 Thd.*		
2	738-018	32	Jack Shaft		26	736-016		1 -Wash, 3/8" Scr.*		
3	721-013	32	Gasket for Housing Housing Half—L.H.		27	710-032		Hex Sems Bolt 5/16-18 x		
4	06926	55	Ball Bearing .625 I.D. x			-40.056	20	1.00" Lg.* Hex Bolt 5/16-18 x .62"		
5	741-01	30	1.375 O.D.		28	710-053	38	Lg. Special		
6	05034		Rearing Housing		29	06923		Housing Half—R.H.		
7	1	.29	Spacer .625 I.D. x .88 O.D.		30	748-022	29	Hex Flanged Bearing .630		
	750.00	200	x 1.035 Chain Case Pulley 6.00"					I.D. Sprocket 10 Teeth x .500		
8	756-02	62	Dia		31	713-020	06	Pitch		
9	710-06	343	Hex Bolt 5/16-18 x 1.00"		32	713-01	31	#41 Chain 1/2" Pitch x 34		
			Lg. Special L-Wash. 5/16" Scr.*	Ì	0-			Links—Endless		
10			FI-Wash. 5/16 I.D. x 1.125		33	713-01	86	#420 Chain 1/2" Pitch x 48 Links—Endless		
11	736-02	23 1	l on x .125		1 24	748-08	255	Flange Bearing .626 I.D.		
12	2 710-05	599	Hex Self-Tap Scr. 1/4-20 X		34	713-01		1#50 Chain 5/8" Pitch x 28		
'-			.50" Lg. Hex Nut 5/16-18 Thd.*		33	Ī		Links—Endless		
14	4 712-02		Hex Bolt 3/8-16 x 3.25" Lg.		36			Sprocket Shaft Sprocket Bearing Sleeve		
11		044 102	Oil Seal 1" I.D. x 1.357 O.D.		37	713-01	182	Ass'y.		
11		259	FI-Wash. 1.0" I.D. x 1.62		38	713-01	181	Sprocket Sleeve Ass'y.		
'			O.D. x .090		39	1 1		I Sprocket Shaft		
- 2	0 750-0	314	Spacer 1.0" I.D. x 2.0" O.D. x .68		40	_		Spring Pin Spiral 1/4" Dia.		
	1 06800	Λ	Tine Shaft Ass'y.				400	x 1.5" Lg. Sq. Key 3/16 x 1.50" Lg.		
	21 06800 22 710-0		Hex Self-Tap Scr. 1/4-20 X		41	714-0	133	3q. 10y 3/10 // 11== 5		
٦			.50" Lg.*		21				_	

Heavy Duty Garden Tiller Atlach	ments A	valiable for All-Season Use
31-0107 6-Tine Cultivator (Must be used with	31-0123	Lawn Aerator (Use with 21 0114 Mg
31-0111 15" Sweep Cultivator 31-0113 Pneumatic Tires, 13 x 5.00-6 (Pair) 31-0114 Wheel Weights (Pair)	31-0144	"V"-Bar Cultivating Kit Kit Includes: "V"-Bar Frame, 4-Point Cultivating Tines, Hiller/Furrower
31-0115 Tire Chains, 13 x 5.00 (2 Link) (Pair) 31-0116 32" Leveling/Snow Blade (385 Only) Tine Cultivating Shields w/Adapters (Pair)	31-0145	Depth Gauge Wheels (Pair). Depth Stake Cultivating Kit Kit Includes: 8" Furrower Opener, 15 Sweep Cultivator, 32" Leveling Rake Extra Depth Stake.

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.

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.

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.

ALADAMA			
ALABAMA	BIRMINGHAM	NORTH CAROLINA	GOLDSBORO
Auto Electric & Carburetor Co.	2625 4th Ave. S 35233	Smith Hardware Co	515 N. George St 27530
AUVAIAOVO	NORTH LITTLE BOOK		
Sutton's Lawn Mower Shop	5301 Roundtop Drive	Dixie Sales Company	GREENSBORO
04115051111	Box 368, Rt. 4	OHIO	. 335 N. Green
CALIFORNIA Billious	PORTERVILLE		CARROLL
Billious	75 North D Street 03257	Stebe's Mid-State Mower Supply	. Box 366, 71 High St 43112
Spitzer Industrial Products Co	6601 N	Błeckrie, Inc	7900 Lorain Ave 44102
	147 11	Notional Cantus	WADSWORTH
FLORIDA	JACKSONVILLE	National Central	687 Seville Rd 44281
FLORIDA Radco Distributors	4909 Victor St	Burton Supply Co OKLAHOMA Victory Motors, Inc	YOUNGSTOWN
	Box 5459	Burton Supply Co	1301 Logan Ave.
		OKLAHOMA	Box 929 44501
Small Eng. Dist	2351 N W 147th Ct COOF 4	OKLAHOMA Viotory Materia I	MUSKOGEE
GEORGIA	FAST POINT	Victory Motors, Inc.	605 S. Cherokee 74401
GEORGIA East Point Cycle & Key	2834 Church St 22044	OREGON	PORTLAND
ILLINOIS	I VONE	OREGON Kenton Supply Co.	8216 N. Denver Ave 97217
ILLINOIS Keen Edge Co	9615 Oadon Ave	PENNSYLVANIA	HARRISBURG
INDIANA	ELKHART	PENNSYLVANIA EECO Inc.	. 4021 N. 6th St 17110
Parts & Sales Inc.	2101 Industrial Division 425 co		PHILAIIE: DHIA
IOWA	DUBUQUE	Thompson Rubber Co	. 5222-24 N. Fifth St 19120
Power Lawn & Garden Equip	2551 LE Manual Mana		DITTEDUDALI
LOUISIANA	2001 J.F. Kennedy 52001	Bluemont Co	. 11125 Frankstown Rd 15235
Subren Engine Co	NEW ORLEANS 8330 Earhart Blvd70118	_	PUNXSUTAWNEY
MARYLAND	8330 Earhart Blvd70118	Frank Roberts & Sons	. R.D. 2
MARYLAND Center Supply Co	COCTAL-WILL		
озила сарриу со	door new Hampshire	Scranton Auto Ignition Co	1133-35 Wyoming Ave. 18509
MASSACHUSETTS	Ave 2)912	TENNESSEE Master Repair Service	KNOXVILLE
Morton B. Collins Co	200 Birnia Aug	Master Hepair Service	. 2000 Western Ave 37921
MICHIGAN	LANCING		MEMBHIC
MICHIGAN Lorenz Service Co	2500 C. Domandor di	American Sales & Service, Inc	. 3035-43 Bellbrook 38116
2010112 0011100 00	MOUNT CLEMENS	TEXAS	DALLAS
Power Equipment Dist	240 Habbard	Marr Brothers, Inc.	. 423 E. Jefferson 75203
MINNESOTA	HOPKINS	Woodson Sales Corp.	FORT WORTH
Hance Distributing Inc.	420 Expedient Aug. 144 - Evo. 15	woodson Sales Corp	. 1702 N. Sylvania 76111
MISSISSIPPI	DILOVI		HOUSTON
Biloxi Sales & Service, Inc	506 Caillayet St. 20500	Bullard Supply Co	. 2409 Commerce St 77003
MISSOURI	KANSAS CITV	Engine House Inc	SAN ANTONIO
Automotive Equip. Service	3117 Holmos St	Engine House Inc	. 8610 Botts Lane
	ST INSERU	UTAH	P.O. Box 17867 78217
Hoss-Frazier Supply Co	Oth and Manteurs a rea	A-1 Engine & Mower Co	SALT LAKE CITY
Henzler, Inc.	ST I OUIS	A-1 Engine & Mower Co	. 439 E. 900 So 84111
Henzler, Inc.	2015 Lemov Forey Dd Cores	VIRGINIA	ASHLAND
NEW JERSEY Lawnmower Parts Inc.	RELLMAND	VIRGINIA RBI Corp. WASHINGTON	. 101 Cedar Ridge Dr 23005
Lawnmower Parts Inc.	717 Creek Rd 05000	WASHINGTON S Bailey's Inc.	SEATTLE
NEW MEXICO	AL BUQUEROUE	MISCONCIN	. 1414 14th Ave 98122
Spitzer Eng. & Parts	1023 Third Ave. N.W. 97100	W13CON31N	APPLETON
NEW YORK	CARTHAGE	Automotive Supply Co	123 S. Linwood Ave.
NEW YORK (Gamble Dist., Inc.	West End Ave 13310		P.O. Box 798 54911
,		Horst Dist	HILTON
		110131 DISL	444 N. Madison 53014

WARRANTY PARTS AND SERVICE POLICY

(0783)

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 customers'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 per od.
- 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. 3OX 36900 **CLEVELAND, OHIO 44136**