

OWNER'S MANUAL

ASSEMBLY OPERATION MAINTENANCE PARTS LIST

Important:

Read Safety Rules and Instructions Carefully



This snow thrower has provisions for optional 110V starter (390-986).

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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 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.

SAFE OPERATION PRACTICES FOR SNOW THROWERS

TRAINING

- Read the Owner's guide instruction manual carefully. Be thoroughly familiar with the controls and proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
- Never allow children to operate equipment. Never allow adults to operate equipment without proper instructions.
- 3. Keep the area of operation clear of all persons, especially small children and pets.
- 4. Exercise caution to avoid slipping or falling, especially when operating in reverse.

PREPARATION

- Thoroughly inspect the area where the equipment is to be used and remove all door mats, sleds, boards, wires and other foreign objects.
- 2. Disengage all clutches and shift into neutral before starting engine.
- Do not operate equipment without wearing adequate winter outer garments. Wear footwear which will improve footing on slippery surfaces.
- 4. Handle fuel with care. It is highly flammable.
 - (A) Use approved fuel container.
 - (B) Never add fuel to a running engine or hot engine.
 - (C) Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
 - (D) Replace gasoline cap securely and wipe up spilled fuel.
- Use a grounded three wire plug-in for all units with electric drive motors or electric starting motors.
- Adjust collector housing height to clear gravel or crushed rock surface.
- Never attempt to make any adjustments while engine is running (except where specifically recommended by manufacturer).
- 8. Let engine and machine adjust to outdoor temperature before starting to clear snow.

OPERATION

- Do not put hands or feet near rotating parts. Keep clear of discharge opening at all times.
- Exercise extreme caution when operating on or crossing a gravel drive, walks, or roads. Stay alert for hidden hazards or traffic. Do not carry passengers.
- After striking a foreign object, stop the engine, remove wire from spark plug, thoroughly inspect the snow thrower for any damage, and repair the damage before restarting and operating the snow thrower.
- 4. If the snow thrower should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
- Stop engine whenever you leave the operating position, before unclogging the collector/

- impeller housing or discharge guide, and making any repairs, adjustments, or inspections.
- Take all possible precautions when leaving the vehicle unattended. Disengage the power take-off, lower the attachment, shift into neutral, set the parking brake, stop the engine, and remove the key.
- When cleaning, repairing, or inspecting make certain collector/impeller, and all moving parts have stopped. Disconnect spark plug wire and keep away from plug to prevent accidental starting.
- 8. Do not run engine indoors, except when starting engine and for transporting snow thrower in or out of building. Open doors. Exhaust fumes are dangerous.
- Do not clear snow across the face of slopes. Exercise extreme caution when changing direction on slopes. Do not attempt to clear steep slopes.
- 10. Never operate snow thrower without guards, plates, or other safety protection devices in place.
- Never operate snow thrower near glass enclosure, automobiles, window wells, dropoff, etc. without proper adjustments of snow thrower discharge angle. Keep children and pets away.
- 12. Do not overload machine capacity by attempting to clear snow at too fast a rate.
- Never operate machine at high transport speeds on slippery surfaces. Use care when backing.
- Never direct discharge at bystanders or allow anyone in front of unit.
- 15. Disengage power to collector/impeller when transporting or not in use.
- 16. Use only attachments and accessories approved by the manufacturer of snow thrower (such as wheel weights, counter weights, cabs, etc.).
- 17. Never operate the snow thrower without good visibility or light. Always be sure of your footing and keep a firm hold on the handles. Walk, never run.

MAINTENANCE AND STORAGE

- Check shear bolts, engine mounting bolts, etc. at frequent intervals for proper tightness to be sure equipment is in safe working condition.
- Never store machine with fuel in the fuel tank inside a building where open flame or spark are present. Allow engine to cool before storing in any enclosure.
- Always refer to owner's guide instructions for important details if snow thrower is to be stored for an extended period.
- Run machine a few minutes after throwing snow to prevent freeze up of collector/ impeller.



The snow thrower is shipped without gas or oil. See operating section of this manual after assembly.



Reference to right hand or left hand side of machine are observed from the operating position.

ASSEMBLY INSTRUCTIONS

Tools Required for Assembly

9/16" Wrench 1/2" Wrench 7/16" Wrench or or One Adjustable Wrench Screwdriver Hammer Block of Wood

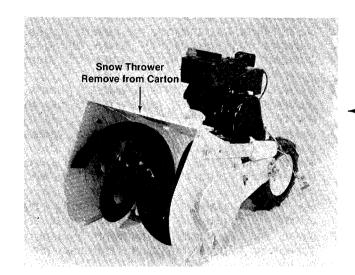
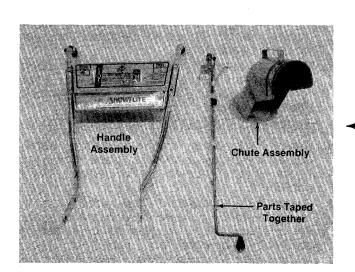


FIGURE 1.

- 1. Remove snow thrower and all parts from the carton. Make certain that all loose parts and literature have been removed before the carton is discarded.
- 2. Extend throttle control assembly which is attached to engine at rear of the snow thrower and place on floor.



Do not bend or kink control wire.



Loose Parts in Carton

- (1) Handle Assembly
- (1) Parts Taped Together which Includes:
 - (1) Chute Crank Assembly
 - (1) Shifting Rod
 - (1) Clutch Rod Assembly
- (1) Chute Assembly

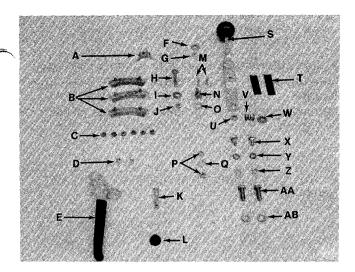


FIGURE 3.



FIGURE 4.

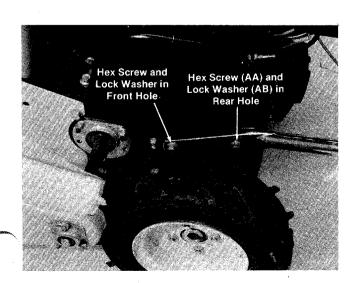


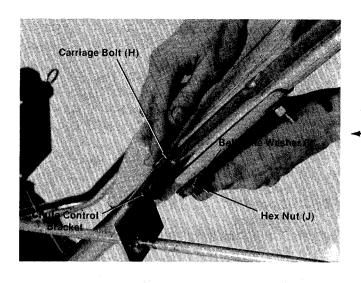
FIGURE 5.

Contents of Hardware Pack

- A (2) Ignition Keys
- B (3) Chute Flange Keepers
- C (6) Hex Cent. Lock Nut 1/4-20 Thd.
- D (2) Self-Tapping Screws #8 x .50" Lg.
- E (1) Auger Clutch Grip Assembly—L.H.
- F (1) Belleville Washer .34 I.D. x .88 O.D.
- -G (1) Hex Nut 5/16-18 Thd.
- H (1) Carriage Bolt 5/16-18 x 1.75" Lg.
- (1) Belleville Washer
- J (1) Hex Nut 5/16-18 Thd.
- K (1) Clevis Pin
- L (1) Push Cap
- M (2) Cotter Pins 3/32" Dia. x 1.00" Lg.
- N (1) Ferrule
- O (1) Flat Washer .344 I.D. x .88 O.D.
- P (2) Hex Jam Nut 5/16-24 Thd.
- Q (1) Lock Washer 5/16" Scr.
- S (1) Shift Lever
- T (2) Vinyl Tape
- U (1) Elastic Lock Nut 3/8-24 Thd.
- V (1) Compression Spring
- W (1) Belleville Washer .40 I.D. x .88 O.D.
- X (2) Carriage Bolts 5/16-18 x .62" Lg.
- Y (2) Lock Washers 5/16" Scr.
- Z (2) Hex Nuts 5/16-18 Thd.
- AA (2) Hex Screws 3/8-16 x .88" Lg.
- AB (2) Lock Washer 3/8" Scr.
- 3. To attach handle assembly to the snow thrower, first remove the hex screw and lock washer from each side of snow thrower housing. A 9/16" wrench is required. See figure 4.
 - 4. Fasten handle assembly to snow thrower housing. Place lock washer (AB) on hex screw (AA). Line up holes in handle with holes in sides of snow thrower housing. Start hex screws into rear holes by hand. Replace hex screw and lock washer in front hole. See figure 5. Do not tighten at this time.

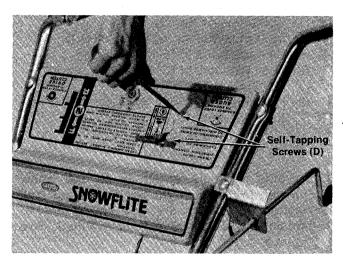


Loosen the three hex nuts which hold the handle panel to the handle. This will permit handle to move freely so it can be assembled to the housing with greater ease. Leave hex nuts loose.



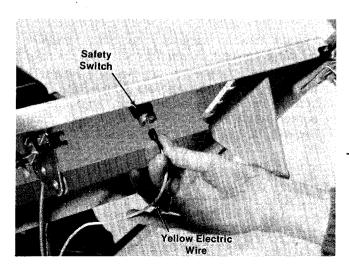
- Attach chute crank assembly to unit. Line up hole in chute control bracket with hole in handle. Secure with carriage bolt (H), belleville washer (I) and hex nut (J) as shown in figure 6.
- 6. At this point, tighten securely all nuts and bolts.

FIGURE 6.



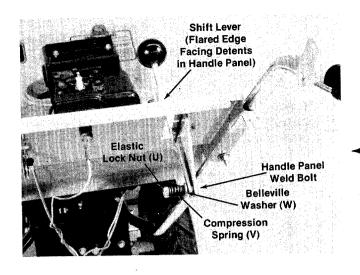
7. Hold throttle control underneath handle panel. Bring throttle control knob through the slot in handle panel. Line up the two holes in the throttle control with the two holes in handle panel. Secure with self-tapping screws (D). A screwdriver is required. See figure 7.

FIGURE 7.



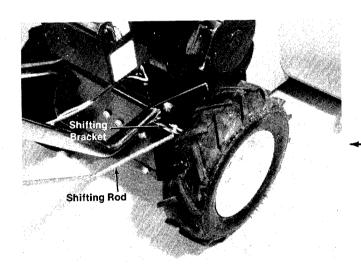
8. Plug yellow electric wire into safety switch beneath handle panel. See figure 8.

FIGURE 8.



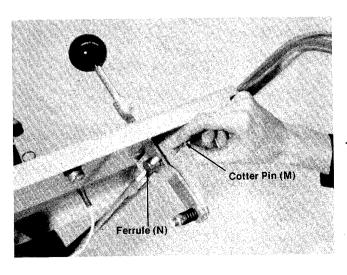
- Place shift lever (S) through slot in handle panel, making sure flared edge of shift lever faces the detents on handle panel. See figure
- Place shift lever on handle panel weld bolt.
 Secure with belleville washer (W) (cupped side goes against shift lever), compression spring (V) and elastic lock nut (U). See figure 9. Tighten lock nut until compression spring holds the shift lever into detent slots on handle panel.

FIGURE 9.



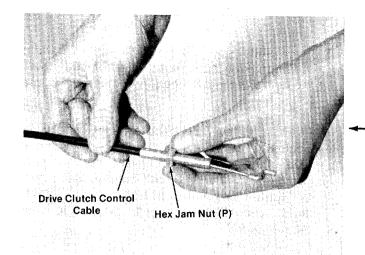
- 11. Place bent end of shifting rod up through shifting bracket located on right side of unit (see figure 10). Secure with flat washer (0) and cotter pin (M).
- 12. Move shifting bracket to middle (neutral) position. Roll the unit back and forth. It should move freely.

FIGURE 10.



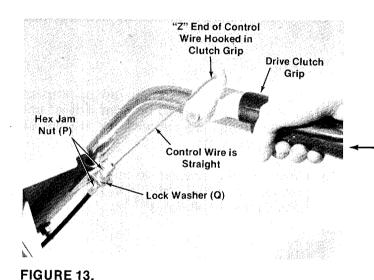
- 13. Place shift lever in **neutral** position. Thread ferrule (N) onto shifting rod and place into shift lever. Roll unit back and forth, checking to be sure it is in neutral gear. If it does not move freely, remove the ferrule and thread in or out as necessary. Replace the ferrule and move the unit again. Repeat procedure as needed until neutral position is reached.
- 14. After unit is set in neutral, secure ferrule to shift lever with cotter pin (M) as shown in figure 11.

FIGURE 11.



15. Thread hex jam nut (P) onto drive clutch control cable which is attached to the snow thrower housing. See figure 12.

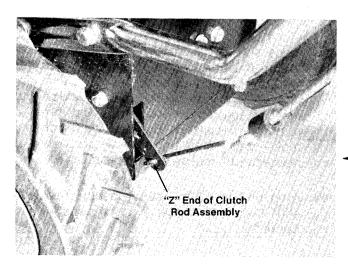
FIGURE 12.



- 16. Thread end of clutch control cable through cable support bracket on right handle. Place lock washer (Q) and hex jam nut (P) over clutch control cable. Start nut on cable housing by hand.
- 17. Hook "Z" end of control wire through hole in drive clutch grip assembly. See figure 13.
- 18. Hold clutch grip so that the grip is against the handle as shown in figure 13. Adjust the clutch control cable so that the slack is taken out of the control wire. Tighten the two hex nuts at the cable support bracket. Control wire should now be straight.

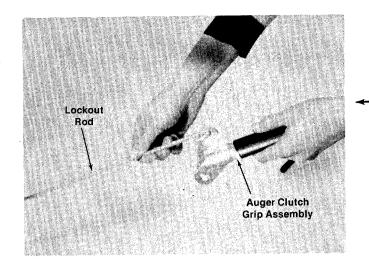


Do not overtighten control wire. Too much tension may cause it to break.



19. Auger clutch rod assembly and lockout rod are preassembled. Place "Z" end of clutch rod assembly into hole in clutch bracket on left side of unit as shown in figure 14.

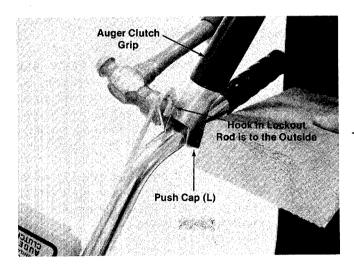
FIGURE 14.



20. Hook lockout rod into auger clutch grip

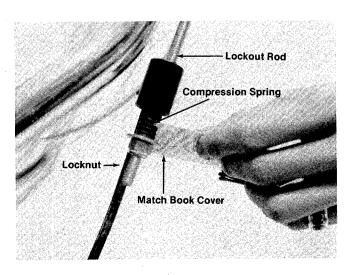
——assembly (E) as shown in figure 15.

FIGURE 15.



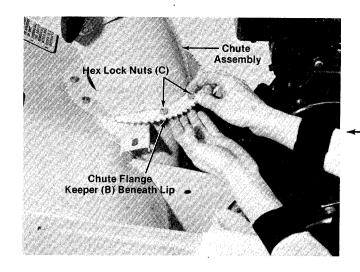
21. Place auger clutch grip on left handle (hook in lockout rod is to the outside). Secure with clevis pin (K) and push cap (L), using a hammer and a block of wood as shown in figure 16.

FIGURE 16.



22. Squeeze the auger clutch grip to engage lockout rod so you can check for correct adjustment. With the lockout rod engaged, you should be able to get a match book cover between the coils of the compression spring (spring should not be compressed tightly). If there is not space between spring coils, adjust the locknut using a 7/16" wrench until correct adjustment is reached. See figure 17.

FIGURE 17.



- 23. Grease the chute opening.
- 24. Place chute assembly over chute opening. Place chute flange keepers (B) beneath lip of chute assembly. Secure with hex lock nuts (C) as shown in figure 18. Tighten with a 7/16" wrench, then back off 1/4 turn to allow easier movement.

FIGURE 18.

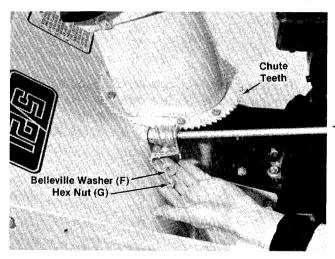


FIGURE 19.

- 25. Grease the teeth on the chute assembly.
- 26. Place the end of chute crank assembly into slot provided. Slide worm and bracket on chute crank assembly into teeth on chute assembly. Fasten in position with belleville washer (F) (cupped side up) and hex nut (G). See figure 19. Tighten finger tight.
- 27. Turn chute crank to see that chute moves freely. If adjustment is necessary, slide worm and bracket in or out. Then tighten hex nut securely with a wrench.

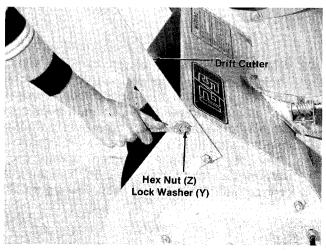
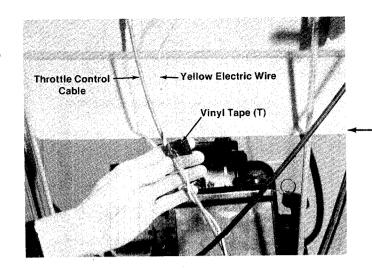


FIGURE 20.

28. Loosen hex nut holding drift cutter to unit.

Pivot into position. Insert carriage bolt (X)

through snow thrower housing and drift cutter
with head to the **inside** of housing. Secure
with lock washer (Y) and hex nut (Z). Tighten
securely. See figure 20.



29. Secure yellow electric wire to throttle control cable with the vinyl tape (T) provided. See figure 21.

FIGURE 21.

OPERATION

CONTROLS

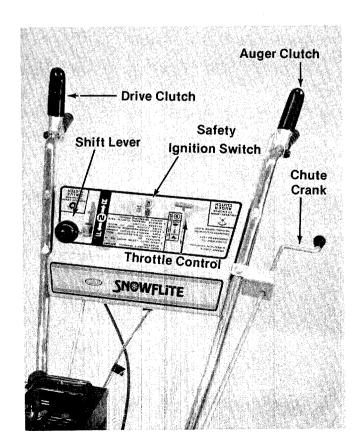


FIGURE 22.

Shift Lever (See Figures 22 and 23)

The shift lever is located on the right hand side of the handle panel. The shift lever may be moved into forward, neutral or reverse position.

- A. Center Position (N) is Neutral.
- B. Forward Position (F) is Forward.
- C. Rear Position (R) is Reverse.



FIGURE 23.

Safety Ignition Switch (See figures 22 and 24)

The ignition key must be in the switch and turned to the on position before the unit will start.



FIGURE 24.

Throttle Control (See figures 22 and 25)

The throttle control is located on the left hand side of handle panel. It regulates the speed of the engine.

THROTTLE

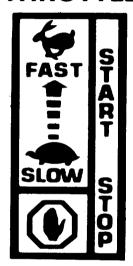


FIGURE 25.

Drive Clutch (See figures 22 and 26)

The drive clutch is located on the **right** handle Squeeze the clutch grip to engage drive. Release to stop.



FIGURE 26.

Auger Clutch (See figures 22 and 27)

The auger clutch is located on the **left** handle. Squeeze the clutch grip to engage the augers. Release to stop the snow throwing action.



FIGURE 27.

Chute Crank (See Figure 22)

The chute crank is located on left hand side of the snow thrower.

To change the direction in which snow is thrown, turn chute crank as follows:

- 1. Crank clockwise to discharge to the left.
- 2. Crank counterclockwise to discharge to the right.

STARTING INSTRUCTIONS

1. Remove oil fill cap. Add oil until reaching point of overflowing. See figure 28.

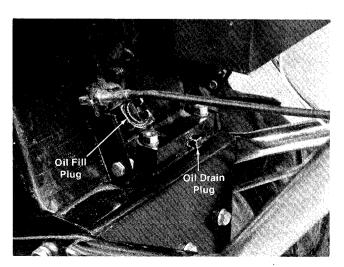


FIGURE 28.

Above Freezing Temperatures: Use oil with viscosity grade SAE 30 or SAE 10W-30 or SAE 10W-40.

Below Freezing Temperatures: Use oil with viscosity grade SAE 5W-30 or SAE 10W.

2. Fill fuel tank with fresh, clean unleaded or regular gasoline.



Never fill fuel tank indoors, with engine running or while engine is hot.

- 3. Attach spark plug wire to spark plug.
- 4. Insert ignition key and turn to "ON" position.
- 5. Place shift lever in "NEUTRAL" (N) position.
- 6. Place throttle control in "START" (fast) position.



Never run engine indoors or in enclosed poorly vented area. Engine exhaust gases contain carbon monoxide: an odorless and deadly gas.

- 7. Start engine, following appropriate instructions:
 - A. Cold engine start (engine has not been run recently)
 - 1. Pull choke wire out to "ON" position. See figure 29.



FIGURE 29.

2. Push primer two (2) or three (3) times. See figure 30.



NOTE

Additional priming may be required (for initial start only) if temperature is below 15°F.

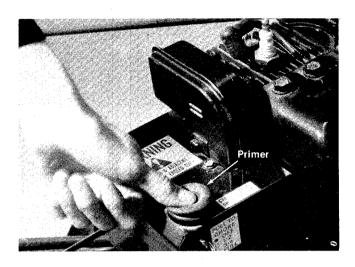


FIGURE 30.

- Grasp the starter rope handle and pull out rapidly. Return rope handle slowly. Repeat until engine starts. If engine fails to start, repeat steps 2 and 3 as necessary until engine starts.
- 4. After engine starts, push choke wire in gradually (to "OFF" position).
- B. Warm engine start (engine still warm from recent running)
 - Grasp the starter rope handle and pull out rapidly. Return rope handle slowly. Repeat until engine starts.
 - If engine fails to start after a number of attempts, pull choke wire out. Repeat step one until engine starts. After engine starts, push choke wire in gradually.



Once the snow blower has been in operation, caution should be exercised in the area of the muffler and surrounding surfaces. See figure 31.

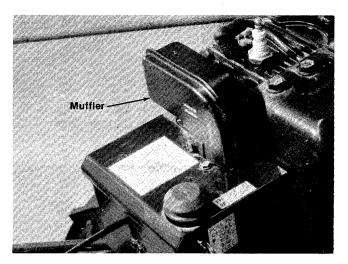


FIGURE 31.

TO STOP ENGINE



Run engine for a few minutes before stopping to help dry off any moisture which may have accumulated on the recoil starter.

- Move throttle control lever to "STOP" position.
- 2. Turn ignition key to "OFF" position.
- 3. Remove ignition key to prevent accidental starting.



Disconnect spark plug wire from spark plug and secure it so that it cannot accidentally contact spark plug. This will reduce the possibility of unauthorized starting of engine while equipment is unattended.

TO ENGAGE DRIVE

- With the engine running near top speed, move shift lever into forward (F) or reverse (R) position. (If the lever does not shift easily, move the unit back and forth to align gears as you shift the lever.)
- 2. Squeeze the drive clutch grip (located on the right handle) and the snow thrower will move. Release it and the drive motion will stop.



NEVER move shift lever without first releasing the drive clutch.

ADJUSTMENTS



NEVER attempt to clean chute or make any adjustments while engine is running.

CHUTE ASSEMBLY ADJUSTMENT

The distance snow is thrown can be adjusted by adjusting the angle of the chute assembly. The sharper the angle, the shorter the distance snow is thrown.

To adjust chute assembly, loosen the hand knob. Pivot the top of the chute assembly to position desired. Retighten the hand knob.

SKID SHOE ADJUSTMENT

The space between the shave plate and the ground can be adjusted. For close snow removal, place skid shoes in the low position. Use middle or high position when area to be cleared is uneven. See figure 32.

To adjust skid shoes, loosen the four hex nuts and carriage bolts. Move skid shoes to desired position. Retighten nuts and bolts securely.

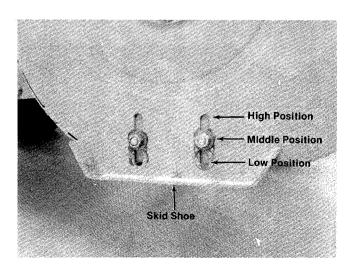


FIGURE 32.

AUGER CHAIN ADJUSTMENT

If the drive chain to the auger is loose, it may be adjusted using a 9/16" wrench. Loosen the hex nut on the outside of the chain guard on the left hand side of the unit. Slide the bolt down as necessary. Tighten the hex nut securely. See figure 33.

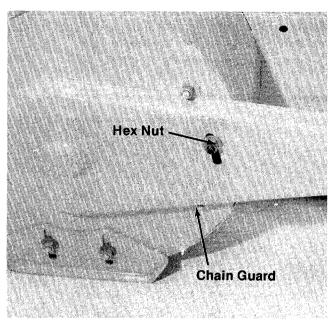


FIGURE 33.
REAR AXLE CHAIN ADJUSTMENT

To adjust the rear axle chain, first tip the snow thrower forward so it rests on the auger housing and drift cutters.



FIGURE 34.

Loosen the two hex nuts at the wheel axle on the right hand side of snow thrower housing. Lift up on the right wheel to take the slack out of the chain as you retighten the nuts. See figure 34.

SHIFTING ROD ADJUSTMENT

To adjust the shifting rod, refer to step number 13 under assembly instructions.

DRIVE CLUTCH CONTROL ADJUSTMENT

To adjust the drive clutch control, refer to step number 18 under assembly instructions.

AUGER CLUTCH CONTROL ADJUSTMENT

To adjust the auger clutch control, refer to step number 22 under assembly instructions.

LUBRICATION

SPECIFICATIONS:

Lubricate once a season or after every 25 hours of operation.

Oil—Use SAE 30 or equivalent.

Grease—Use automotive multi-purpose grease.

Lubricate chain once a season with engine oil.

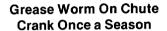
Engine—Remove oil fill plug and add oil until it reaches point of overflowing.

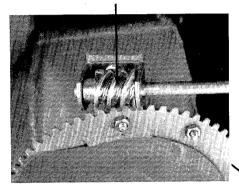
Change Oil—After first two (2) hours of operation and every twenty-five (25) hours thereafter. Drain oil from oil drain plug.

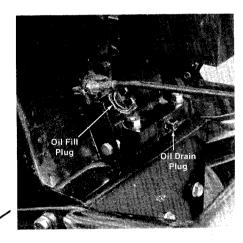
Above Freezing Temperature: Use oil with viscosity grade SAE 30, or SAE 10W-30, or SAE 10W-40.

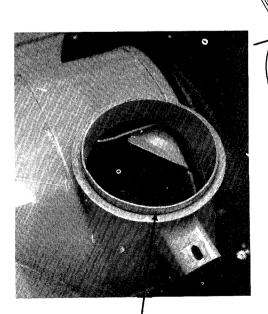
Below Freezing Temperature: Use oil with viscosity grade SAE 5W-30 or SAE 10W.

Capacity - Approximately 11/4 pints.



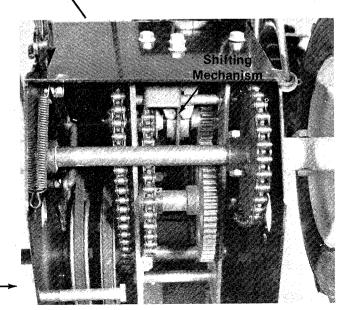






Grease Chute Opening Once A Season

Oil all chains, bearings, gears and the shifting mechanism at least once a season. Use engine-oil. Avoid getting oil on V-belts and pulleys.



MAINTENANCE

SHAVE PLATE AND SKID SHOES

The shave plate and skid shoes on the bottom of the snow thrower are subject to wear. They should be checked periodically and replaced when necessary.

To remove shave plate, remove the carriage bolts, lock washers and hex nuts which attach it to the snow thrower housing. Reassemble new shave plate, making sure heads of the carriage bolts are to the inside of the housing. Tighten securely.

To remove skid shoes, remove the four carriage bolts, belleville washers and hex nuts which attach them to the snow thrower. Reassemble new skid shoes with the four carriage bolts, belleville washers (cupped side goes against skid shoes) and hex nuts.

BELT REMOVAL AND REPLACEMENT



Remove the spark plug wire from the spark plug and ground. Drain gasoline from the fuel tank, or place a piece of plastic film underneath the gas cap to prevent gasoline from leaking.

To remove and replace either the auger drive belt or the drive belt, proceed with the following instructions.

1. Remove the three self-tapping screws from the belt cover using a 7/16" wrench. See figure 35.

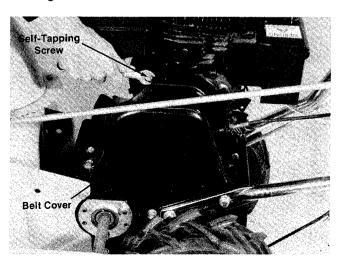


FIGURE 35.

Remove the belt keeper by removing the selftapping screw shown in figure 36. A 9/16" wrench is required.

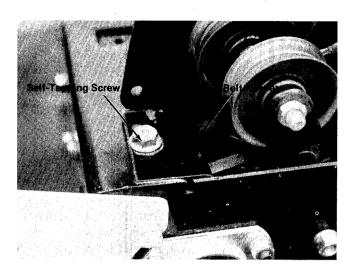


FIGURE 36.

- 3. Tip the snow thrower forward so that it rests on the auger housing and drift cutters.
- 4. Remove bottom cover. First remove the two self-tapping screws shown in figure 36 with a ½" wrench. Then lift cover out from the slots in the frame. See figure 37.

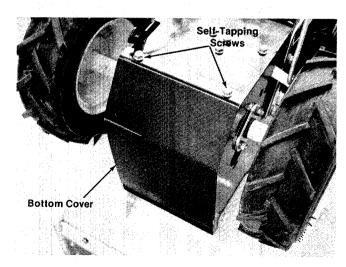


FIGURE 37.

5. Remove the large shoulder bolt which acts as a belt keeper by removing the hex nut and lock washer on the outside of the frame assembly. A 9/16" wrench is required. See figure 38.

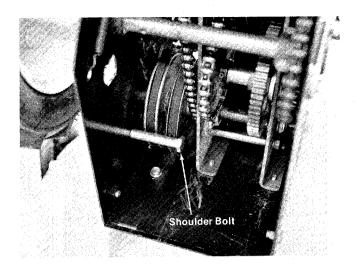


FIGURE 38.

6. Remove the belt guard plate by removing the self-tapping screw shown in figure 38. Hold one hand underneath the frame to catch the plate so it does not fall. A ½" wrench is required. See figure 39.

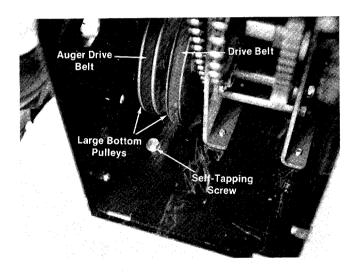


FIGURE 39.

- 7. To Remove Auger Drive Belt:
 - a. Slip auger drive belt off engine pulley. See figure 40.
 - b. Lift belt out of the sheave of the bottom pulley.
 - c. Slide belt out the bottom of the chain case.
- 8. To Remove Drive Belt:
 - a. First slip the auger drive belt off the engine pulley as shown in figure 40.
 - b. Slip the drive belt over the double engine pulley.

c. Slide the belt off the bottom pulley and out the bottom of the chain case.

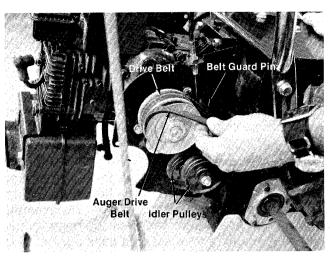


FIGURE 40.

- 9. To Reinstall Drive Belt:
 - a. Slip belt over engine pulley.
 - b. Place belt between belt guard pin and idler pulley. See figure 40.
 - c. Feed belt over large bottom pulley.
- 10. To Reinstall Auger Belt:
 - a. Slide belt in from bottom.
 - b. Slip belt over engine pulley.
 - c. Place between belt guard pin and idler pulley. See figure 40.
 - d. Feed belt over large bottom pulley.
- 11. Reinstall belt guard plate. Hold it in place beneath frame in one hand. Secure with self-tapping screw, using a 1/2" wrench. See figure 41.

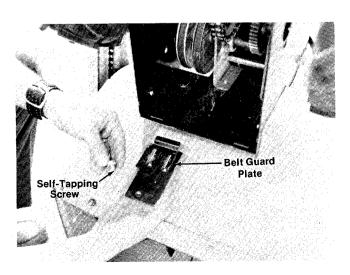


FIGURE 41.

- 12. Reinstall shoulder bolt (which acts as a belt keeper) at the base of the two large pulleys. A 9/16" wrench is required. Tighten securely.
- 13. Reinstall bottom cover by slipping it into the two slots in frame provided. Secure with two self-tapping screws, using a ½" wrench.
- 14. Tip unit into operating position.
- 15. Reinstall belt guard and belt cover.
- 16. Remove plastic film from gas cap.



Check engine and snow thrower frequently for loose nuts, bolts, etc., and keep these items tightened.

OFF-SEASON STORAGE



NEVER STORE ENGINE WITH FUEL IN TANK INDOORS OR IN ENCLOSED, POORLY VENTILATED, ENCLOSURES, WHERE FUEL FUMES MAY REACH AN OPEN FLAME, SPARK OR PILOT LIGHT AS ON A FURNACE, WATER HEATER, CLOTHES DRYER, ETC.

If unit is to be stored over 30 days, prepare for storage as follows:

1. Remove all gasoline from fuel tank to prevent gum deposits from forming on these parts and causing possible malfunction of engine.



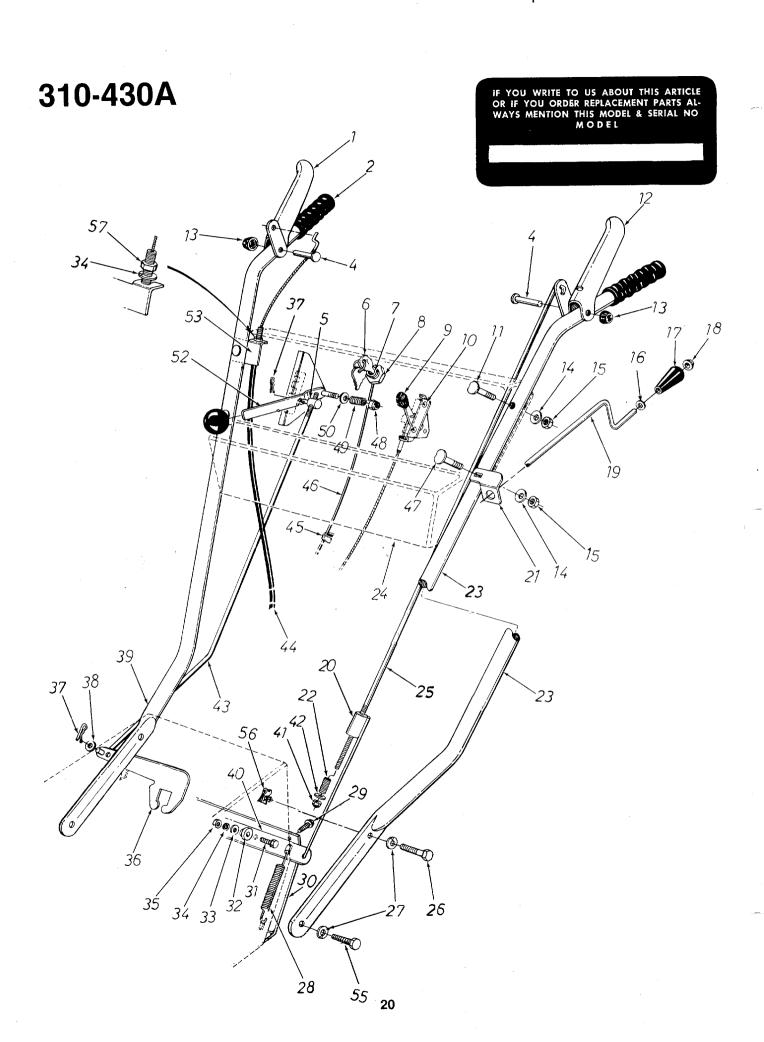
DRAIN FUEL INTO APPROVED CONTAINER OUTDOORS, AWAY FROM OPEN FLAME.

Run engine until engine starts to falter, then use choke to continue engine operation until all fuel in tank and carburetor is exhausted. Remove fuel line at tank or carburetor and drain any remaining gasoline from system.



FUEL LEFT IN ENGINE DURING WARM WEATHER DETERIORATES AND WILL CAUSE SERIOUS STARTING PROBLEMS.

- 2. Remove spark plug and pour one (1) ounce of engine oil through spark plug hole into cylinder. Crank engine several times to distribute oil. Replace spark plug.
- 3. Clean unit by removing any dirt from exterior of engine and equipment.
- 4. Follow lubrication recommendations on page 16.



PARTS LIST FOR MODEL 310-430A

	· · · · · · · · · · · · · · · · · · ·		PARISLISI					
REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART COLOR NO. CODE	DESCRIPTION	NEW PART
1	05506		Drive Clutch Grip Ass'y.		32	748-0233	Shoulder Spacer	
2	01166		Grip		33	736-0231	FI-Wash34 I.D. x 1.12	1
4	711-04	15	Clevis Pin .375 Dia. x 1.62				O.D. x .125	
			Lg.		34	736-0119	L-Wash. 5/16" Scr.*	
5	711-067	77	Adjustment Ferrule		35	712-0158	Hex Cent. L-Nut 5/16-18	
6	725-020	01	Ignition Key				Thd.	
7	725-046	64	Ignition Switch		36	05811	Shifting Bracket	N
8	736-022	25	Internal L-Wash. 5/8" Scr.*		37	714-0111	Cotter Pin 3/32" Dia. x 1.00	
9	746-03		Throttle Control Ass'y.				Lg.	
10	710-022	27	Self Tap. Scr. #8 x .50" Lg.		38	736-0159	Fl-Wash344 I.D. x .88	
11			Curved Carriage Bolt				O.D. x .063	
ĺ	710-040	5	5/16-18 x 1.75 lg.		39	749-0204	Handle—R.H.	
12	05507		Auger Clutch Grip Ass'y.		40	05559	Thrower Clutch Bracket	
13	726-011	10	Push Cap .375" Rod—Black		41	712-0324	Hex Ins. L-Nut 1/4-20 Thd.	
14	736-024		Belleville Wash.		42	736-0173	FI-Wash28 I.D. x .75 O.D.	İ
15	712-026		Hex Nut 5/16-18 Thd.*		43	747-0175	Shifting Rod	
16	736-014	10	FI-Wash385 I.D. x .62		44	746-0374	Drive Clutch Control Cable	N
			O.D. × .060		45	725-0480	Vinyl Sealing Tape	
17	720-017	71	Black Knob—3/8" Dia. Hole		46	725-0476	Electric Wire	
18	726-010	00	Push Nut 3/8" Rod		47	710-0458	Carriage Bolt 5/16-18 x	
19	747-015	13-1B	Chute Crank				1.75" Lg.*	l
20	05567	-10	Auger Clutch Rod Ass'y.		48	712-0116	Hex Ins. Jam L-Nut 3/8-24	l
21	05516		Chute Control Bracket				Thd.*	ì
22	732-033	37	Compression Spring .39 O.D.		49	732-0193	Compression Spring .60	i
			x .75" Lg.	i			O.D. x .88" Lg.	i
23	749-020)3	Handle—Ľ.H.		50	736-0105	Belleville Wash40 l.D. x	
24	05816		Handle Panel Ass'y.	N			.88 O.D.	
25	747-015	54	Lockout Rod .214 Dia. x)
	710-03	42	32.0" Lg. <i>1-25</i>		-			
26			Pilot Scr. 3/8-16 x 2 Lg.		52	05694	Shift Handle Ass'y.	
27	736-016		L-Wash. 3/8" Scr.*		53	05554	Cable Support Bracket	
28	732-032	20	Extension Spring .38 O.D.					
			x 3.25 Lg.		55	710-0623	Hex Self Tap Scr. 3/8-16 x	
29	710-060	00	Hex Wash. Hd. Self Tap Scr.			.	.75" Lg.	
			5/16-24 x .50" Lg.		56	726-0195	"U"-Nut 3/8-16 Thd.	N
30	05790		Frame Cover	N	57		Hex Jam Nut 5/16-24 Thd.	
31	710-032	22	Hex Sems Scr. 5/16-18 x		ļ	712-0256		
			1.00" Lg.*					
L	L		_					

^{*}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.

(488-Mack Truck Yellow)

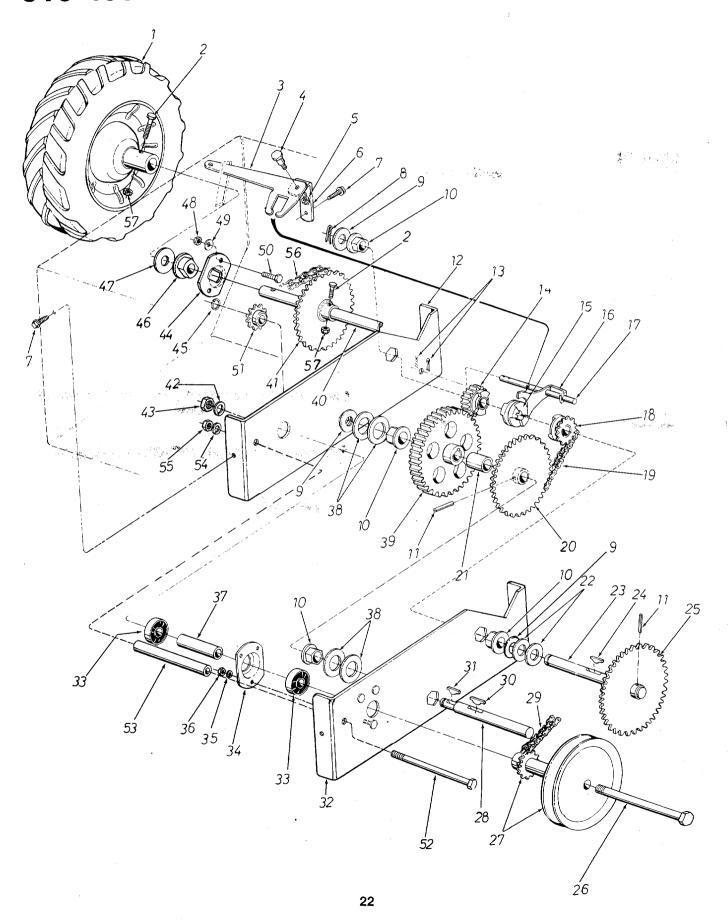
When ordering parts if color or finish is important, use color code shown at left. (e.g. Mack Truck Yellow Finish—05546 (488).)

The engine is not under warranty by the Snow Thrower 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.

310-430A



PARTS LIST FOR MODEL 310-430A

			ON MODEL 310-430A				
REF NO.		DESCRIPTION	NEW PART		PART COLOR NO. CODE	DESCRIPTION	NEW PART
1	734-0988	Wheel Ass'y.—Comp. 12.50		29	713-0265	#41 Chain ½ Pitch x 47	
		x 3.50—Ř.H.		-0	110 0200	Links	N
1	734-0987	Wheel Ass'y.—Comp. 12.50 x			713-0723	Master Link	'4
i	104 0001	3.50—L.H. (Not Shown)		30	714-0126	Hi-Pro Key—3/16 x 3/4" Dia.	ı
2	740 0400			31	714-0120	H: Dro Kov. 2/20 v. 5/4 Dia.	
2	710-0409	Hex Scr. 5/16-24 x 1.75" Lg.		"	114-0129	Hi-Pro Key—3/32 x 5/8"	
	05044	H.T.		32	05789	Dia.	
3	05811	Shifting Bracket		32	03769	Drive Housing Bracket	
4	738-0140	Shld. Scr438" Dia. x .180		33	744 0400	Ass'y.—L.H.	N
_	710 0170	Lg.	,	၂ ၁၁	741-0133	Ball Bearing .500 I.D. x 1.38	
5	712-0158	Hex Cent. L-Nut 5/16-18			05004	O.D. x .438	
6	5808	Shifting Bracket Support		34	05034	Bearing Housing	l
7	710-0600	Hex Wash. Hd. Self-Tap Scr.		35	736-0329	L-Wash. 1/4 Scr.*	
		5/16-24 x .50		36	712-0287	Hex Nut 1/4-20 Thd.*	l
8	714-0111	Cotter Pin 3/32" Dia. x		37	750-0295	Spacer52 I.D. x .62 O.D.	
		1.00" Lg.				x 2.69	ĺ
9	736-0187	FI-Wash64 I.D. x 1.25 O.D.		38	736-0250	FI-Wash. 1.06 I.D. x 1.75	l
		x .060				O.D. x .100	1
10	748-0229	Hex Flange Brg63 I.D.		39	748-0162	Spur Gear—62 Teeth	
111	715-0114	H-Spring Pin Sprl. 1/4" Dia.		40	738-0460	Wheel Axle	N
		x 1.50 Lg.		41	713-0261	32 Teeth—Sprocket Hub	1
12	05792	Drive Housing Bracket—	N			Ass'y.	N
'-	00.02	R.H.	' '	42	736-0921	L-Wash. for ½" Scr.*	' '
13	714-0104	Internal Cotter Pin 3/8" Dia.*		43	712-0200	Hex Ins. Jam L-Nut ½-20	
14	748-0163	Spur Gear—21 Teeth				Thd.	1
15	748-0161	Clutch Collar		.44	10470	Bearing Plate	
16	05054			45	716-0104	E-Ring for .500" Dia. Shaft	
17	738-0315	Shifting Yoke		46	710 0104	Flange Bearing w/Flats	ĺ
18	748-0164	Rod		70	741 0199	752 LD/A/A/A/S	
19	713-0263	Sprocket—10 Teeth		47	736-0287	.753 I.D(P/Astie) FI-Wash81 I.D. x 1.25	1-
119	113-0203	#41 Chain—½" Pitch x 33		7,	130-0201	O D × 000	
	740 0700	Links		48	712-0267	O.D. x .060	l
200	713-0723	Master Link		49	736-0119	Hex Nut 5/16-18 Thd.*	ĺ
20	05093	28 Teeth—Sprocket Hub		50	710-0451	L-Wash. 5/16" Scr. *	1
	750 0000	Ass'y.		50		Carriage Bolt 5/16-18 x .75"	i
21	750-0229	Spacer—.621.D. x .88 O.D.		E4	7/3-0278	Lg.	Í
		1.030		51	748 0852	8 Teeth Sprocket #41 Chain	i
22	736-0237	FI-Wash64 I.D. x 1.25		52	710-0190	Hex Scr. 5/16-18 x 4.00" Lg.	i
1		O.D. x .100		53	750-0324	Spacer .50 O.D. x .34 I.D. x	i
23	738-0459	Shifting Shaft	N -	- 4		3.25" Lg.	i
24	714-0137	Hi-Pro Key 3/16 x 3/4" Dia. x		54	736-0119	L-Wash. 5/16" Scr.*	
		1.062		55	712-0267	Hex Nut 5/16-18 Thd.*	J
	05137	32 Teeth Sprocket Hub Ass'y.		56	713-0264	#41 Chain 1/2 Pitch x 37 Links	Ν
	710-0506	Hex Scr. ½-20 x 5.50" La.			713-0723	Master Link	
27	756-0325	5.25" O.D. Pulley with 9		57	712-0273	Hex Jam L-Nut 5/16-24 Thd.	
		Teeth Sprocket					
28	738-0314	Shaft				- <u>.</u>	
20	1,00 0017	VIIUIT					

^{*}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.

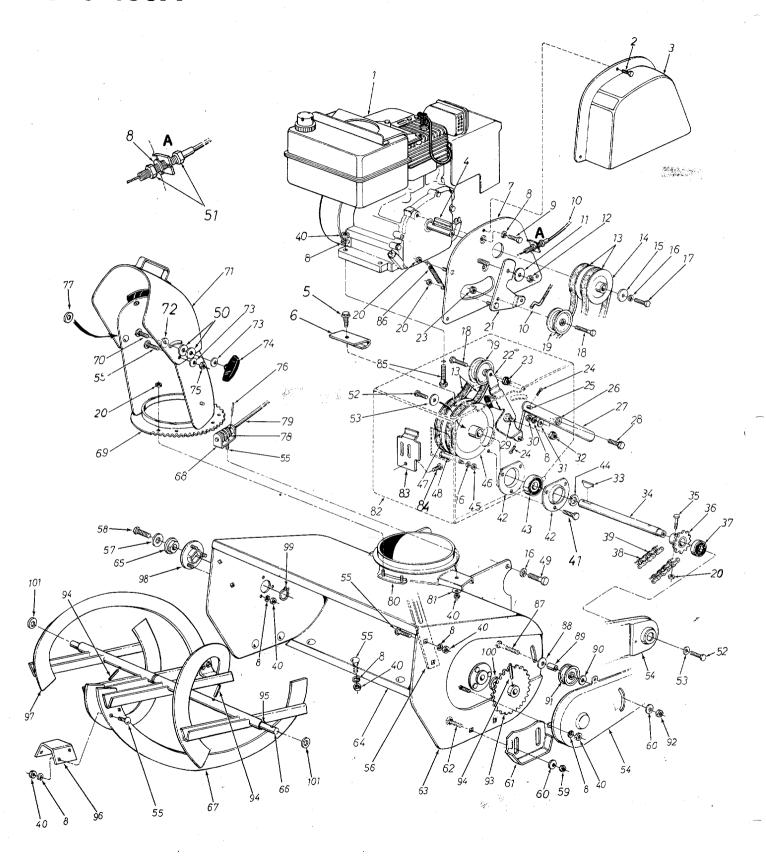
(488-Mack Truck Yellow)

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310-430A



PARTS LIST FOR MODEL 310-430A

ľ	REF.	F. PARTICOLOR				OR MODEL 310-430A NEW REF. PART COLOR		
	NO.		DESCRIPTION	NEW PART			DESCRIPTION	NEW PART
1	1 2	710-0599	Engine Hex Self-Tap Scr. 1/4-20 x .50"		49	710-0623	Hex Self-Tap Scr. 3/8-16 x	
ĺ			Lg.		50	736-0231	.75" Lg. FI-Wash341" I.D. x 1.12"	
١	3	05621 714-0105	Belt Cover	N	l		O.D.	
-	5	710-0600	Sq. Key 3/16 x 1.00" Lg. Hex Wash. Hd. Self-Tap Scr.		51	712-025	Hex Jam Nut 5/16-24 Thd.*	
ŀ			5/16-24 x .50" Lg.		52	710-0538	Hex Lock Screw 5/16-18 x	
	6	05810	Belt Guard	N	53	736-0242	.62" Lg. Bell. Wash34 l.D. x .88	
	7 8	05821 736-0119	Engine Plate Ass'y. L-Wash. 5/16" Scr.*	N	33	730-0242	O.D. x .060	
	9	710-0237	Hex Scr. 5/16-24 x .62" Lg.*		54	05561	Chain Guard	
ı	10	746-0374	Drive Clutch Control Cable	N	55	710-0260	Carr. Bolt 5/16-18 x .62" Lg.*	
1	11	736-0234	FI-Wash39 I.D. x 1.50		56 57	05139 07386	Drift Cutters FI-Wash.	
1	12	712-0116	O.D. x .060 Hex Ins. Jam L-Nut 3/8-24		58	710-0371	Hex Scr. 5/16-18 x .88" Lg.	
1	12	712-0110	Thd.		59	712-0798	Hex Nut 3/8-16 Thd.*	
١	13	754-0205	3 V-Belt 31.5" Lg.		60	736-0105	Bell. Wash40 I.D. x .88	
١	14 15	756-0257	Engine Pulley		61	05571	O.D. Slide Shoe	
	15	736-0235	FI-Wash40 I.D. x 1.25 O.D. x .157		62	710-0389	Carr. Bolt 3/8-16 x .75" Lg.*	:
	16	736-0169	L-Wash. 3/8" Scr.*		63	05540 —488	Spiral Housing Ass'y, 21"	
۱	17	710-0152	Hex Scr. 3/8-24 x 1.00" Lg.*		64	05001	Shave Plate	
	18	710-0723 756-0137	Hex Scr. 3/8-24 x 1.25" Lg.*		65	741-0170	Flange Brg. w/Flats 1.0" I.D.	
	19 20	712-0107	Flat Idler 2.25 O.D. *Hex Cent Look	Nut	66	738-0227	Spiral Shaft	
ί	21	05823	Drive Idler Brkt. Ass'y. 44-20 The	N	67	05018	Spiral Ass'y.—L.H.	
	22	05556	Thrower Idler Brkt. Ass'y.	'	68	05515	Chute Brkt.	
		712-0266	Hex Cent. L-Nut 3/8-16 Thd.		69 70	05482 —488 710-0276	Chute Ass'y. Carr. Bolt 5/16-18 x 1.00"	
	24	714-0111	Cotter Pin 3/32" Dia. x 1.00" Lg.*		'	710 0270	Lg.*	
7	25	747-0174	Clutch Rod 5/16" Dia. x		71	05225 —488	Top Chute Ass'y.	
1			2.88 Lg.		72	736-0179	FI-Wash53 I.D. x 1.25 O.D.	
	26 27	748-0233 05559	Shoulder Spacer		73	736-0242	x .100 Bell. Wash34 I.D. x .88	
		710-0322	Thrower Clutch Bracket Hex Sems Scr. 5/16-18 x				O.D.	
ı			1.00" Lg.*		74	09966	Handle Knob Ass'y.	
		738-0281	Shld. Scr625" Dia. x .170"		75	712-0158	Hex Cent. L-Nut 5/16-18 Thd.	
ļ	30	712-0158	Hex Cent. L-Nut 5/16-18 Thd.		76	715-0103	Spring Pin Roll 1/8" Dia. x	
İ	31	736-0231	FI-Wash34 I.D. x 1.12				.75" Lg.	
			O.D. x .125		77	736-0179	FI-Wash531 I.D. x 1.25	
	~~	712-0266	Hex Cent. L-Nut 3/8-16 Thd.		78	717-0301	O.D. Worm—R.H. with Three	
	33	714-0138	Woodruff Key 5/32 x 5/8 Dia.		. •	717 0001	Thread	
ı	35	710-0606	Woodruff Key 5/32 x 5/8 Dia. Thrower Shaft 20" Working zing Hex Scr. 1/4-20 x 1.50" Lg.*		79	747-0153	Chute Crank	
١	36	05156	14 Teeth Sprocket Hub Ass'y.		80 81	05783 736-0242	Chute Flange Keeper Ass'y.	N
ı	37	741-0155	Ball Brg625 I.D. x 1.38 O.D. x .438		01	730-0242	Bell. Wash34 I.D. x .88 O.D.	
	38	713-0266	#41 Chain—½" Pitch x 83		82	05785	Frame Ass'y.	N
			Links		83	05673	Belt Guard Plate	
	39	713-0723	#41 Master Link 1/2" Pitch		84	710-0726	Hex Wash. Self-Tap Scr. 5/16-18 x .75" Lg.	N
	40	712-0267	Type II Hex Nut 5/16-18 Thd.*		85	710-0442	Hex Scr. 5/16-18 x 1.50" Lg.*	"
		710-0600	Hex Wash. Hd. Self-Tap Scr.		86	732-0264	Extension Spring .38 O.D. x	
			5/16-18 x .50" Lg.		87	710.0560	2.50" Lg.	
		05244 741.0174	Bearing Housing		01	710-0560	Carriage Bolt 3/8-16 x 1.75" Lg.	
	43	741-0174	Self Aligning Brg750 I.D.	34	88	736-0235	FI-Wash40 I.D. x 1.25 O.D.	
1	45	712-0798	Hex Nut 3/8-16 Thd.*		89	750-0252	Idler Spacer	
3,		756-0258	½" V-Pulley .753 I.D.		90	736-0219	Bell. Wash40 I.D. x 1.12	[
1	47	756-0325	5.25" O.D. Pulley with 9 Teeth Sprocket		91	756-0192	O.D. Plastic Idler	
	48	738-0117	Shld. Scr498" Dia. x 2.475"		92	712-0130	Hex Ins. L-Nut 3/8-16 Thd.	
		-	Lg.		93	713-0177	40 Tooth Sprocket Hub Ass'y.	
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PARTS LIST FOR MODEL 310-430A (Continued)

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
94	715-011	8	Spring Pin Spiral 5/16 x	
^-	05400		1.75" Lg.	
95	05136		Plastic Bushing	
96	05023		Spiral Plate	
97	05017		Spiral Ass'y.—R.H.	
98	05360		Bearing Hsg. Ass'y.	
99	716-012	:1	Snap Ring for 1.50" Dia.	
			Shaft	
100	736-016	3	FI-Wash. 1.0" I.D. x	1.62
			O.D. X . 030	
101	736-025	0	FI-Wash. 1.06 I.D. x 1.75	
			O.D.	
102	736-0.	254	FlWASh . 34 I.D. X.6:	2 obx
103	736-	0235	FI-WASh. 34 IN 81.1	2/61

PARTS INFORMATION

POWER EQUIPMENT PARTS AND SERVICE

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

	BIRMINGHAM 2625 4th Ave. S35233 FORT SMITH
Mity Mite Motors, Inc	FORT SMITH 4515 South 16th Street 72901 NORTH LITTLE ROCK
CALIFORNIA	Rt. 4 Box 368 72117 PORTERVILLE
Billious	75 North D Street 93257 SAN BERNARDINO 25608 E. Baseline 92410
J.W. Jewett Co	SAN FRANCISCO 981 Folsom St 94107
COLORADO South Denver Lawn Equip	DENVER 527 West Evans 80223
FLORIDA	JACKSONVILLE 2403 Market St 32206
Small Eng. Dist.	OPA LOCKA 2351 N.W. 147th St 33054
II I INICIS	EAST POINT2834 Church St30344 LYONS
Koon Edge Co	8615 Ogden Ave 60534 ELKHART 2101 Industrial Pkwy. 46514
IOWA	2101 Industrial Pkwy 46514 DUBUQUE 2551 J.F. Kennedy52001
LOUISIANA Suhren Engine Co	NEW ORLEANS 8330 Earhart Blvd 70118
MARYLAND Contor Supply Co	TAKOMA PARK 6867 New Hampshire Ave 20012
MASSACHUSETTS Morting AN	
Lorenz Service Co	2500 S. Pennsylvania . 48910
Power Equipment Dist MINNESOTA	MOUNT CLEMENS 36463 South Gratiot 48043 HOPKINS 420 Excelsior Ave. W 55343
Hance Distributing Inc.	420 Excelsior Ave. W 55343 ST. PAUL 771 Sibley Memorial Hwy 55122
MISSISSIPPI Rilovi Sales & Service Inc.	506 Caillavet St 39533
Automotive Fauin, Service	3117 Holmes St 64109
D Francis Committee Co.	ST. JOSEPH 8th and Monteray 64503
Henzler, Inc	ST. LOUIS 2015 Lemay Ferry Rd 63125 BELLMAWR
	BELLMAWR717 Creek Rd08030 RUTHERFORD
Feld Distributor NEW YORK	28 Glen Rd
Gamble Dist., Inc.	

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.

Engines—Gasoline, Briggs & Strattor	or lecumseh Lauson.
GTP Leisure Products Inc.	STRACUSE 12204
GTP Leisure Products Inc	420 Marcellus 51 13204
NORTH CAROLINA Smith Hardware Co	GOLDSBORO
Smith Hardware Co	515 N. George St 27530
	GREENSBORO
Dixie Sales Company	327 Battleground Ave. 27402
OHIO	CARROLL
Stebe's Mid-State Mower Supply	Box 366-71 High St 43112
	CLEVELAND
Bleckrie, Inc	7900 Lorain Ave 44102
	WADSWODTH
National Central	687 Seville Bd
	VOLINGSTOWN
Burton Supply Co	301 Logan Ave. Box 929 44501
OKLAHOMA	ADA
OKLAHOMA Ada Auto Supply	301 F 12th St 74820
Ada Adio Supply	MUSKOGEE
Victory Motors, Inc	605 S Cherokee 7//01
Victory Motors, mc	OKLAHOMA CITY
Forest Sales Inc	1020 NIM 63rd St 73116
	PORTLAND
Kenton Supply Co	9216 N. Donver Ave. 97217
PENNSYLVANIA	CHESTER
Stull Equipment Corp	742 W. Eront St 10012
Stull Equipment Corp	HARRISBURG
EECO Inc	4004 N. CAb CA
EECO Inc	
	PHILADELPHIA
Thompson Rubber Co	5222-24 N. Fifth St 19120
	PITTSBURGH
Bluemont Co	11125 Frankstown Rd. 15235
TENNESSEE Master Repair Service	KNOXVILLE
Master Repair Service	2000 Western Ave 37921
	MEMPHIS
Memphis Cycle & Supply Co	421 Monroe Ave 38103
	1922 Lynnbrook 38116
TEXAS	DALLAS
Marr Brothers, Inc	423 E. Jefferson 75203
	FORT WORTH
	1702 N. Sylvania 76111
	HOUSTON
Bullard Supply Co	2409 Commerce St 77003
	SAN ANTONIO 414 Live Oak 78298
Catto & Putty, Inc	414 Live Oak 78298
UTAH	SALT LAKE CITY
A-1 Engine & Mower Co	437 E. 9th St 84111
VERMONT	BURLINGTON
Vermont Hdwe. Co. Inc	180 Flynn Ave 05401
VIRGINIA	RICHMOND
RBI Corp	963 Myers St 23260
WASHINGTON	SEATTLE
Bailey's Inc	1414 14th Ave 98102
WEST VIRGINIA Young's, Inc	CHARLESTON
Young's, Inc	233 Virginia St., E 25301
WISCONSIN	APPLETON
Automotive Supply Co	APPLETON 123 S. Linwood Ave 54911

WARRANTY PARTS AND SERVICE POLICY

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 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.