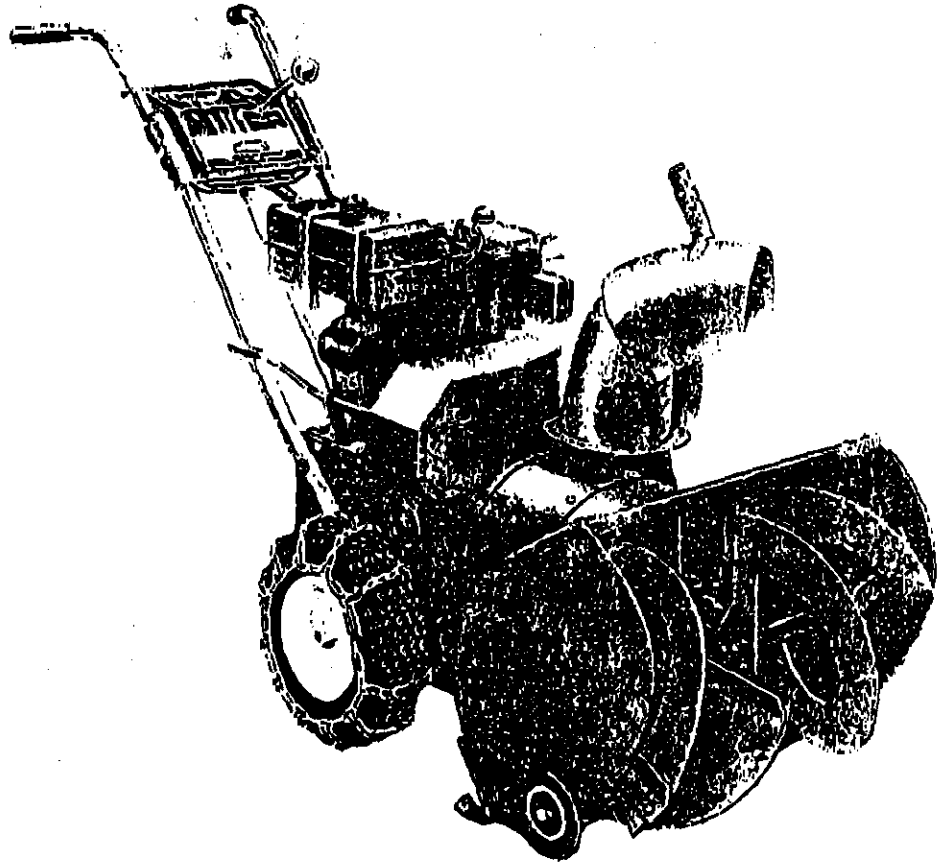


Sears

*owner's
manual*

**MODEL NO.
536.90515**



Sears

CRAFTSMAN

24" SNOW THROWER

CAUTION:

Read **SAFETY
RULES** and
INSTRUCTIONS
carefully

- Assembly
- Operating
- Maintenance
- Repair Parts

Sold by SEARS, ROEBUCK AND CO., Chicago, Ill. 60684 U.S.A.
and SIMPSONS-SEARS LIMITED, Toronto

IMPORTANT

RULES FOR SAFE OPERATION

It is imperative in operating and handling the power snow thrower that certain normal precautions be observed to prevent the possibility of injury or damage.

Please read the rules for safe operation before you assemble or use your power snow thrower.

1. **Read the Owner's Manual carefully. Familiarize yourself with the controls and use of the snow thrower. Be prepared to stop in a moment's notice. Don't loan your snow thrower to persons unfamiliar with its operation and use.**
2. **Do not allow minors to operate or to be near the snow thrower unless properly supervised.**
3. **Keep hands, feet and loose clothing clear of all moving parts. Do not ever place hands in discharge chutes or near any moving part while engine is running.**
4. **Be sure of your footing at all times to avoid slipping. Keep a firm hold on the handle. Be careful when turning.**
5. **Check fuel before each using. Do not fill gasoline tank when engine is running or while engine is hot. Wipe off any spilled gasoline before starting engine. Gasoline is highly flammable. Always handle with care.**
6. **Do not run engine indoors, exhaust gases contain carbon monoxide which is odorless and deadly poison. If for some reason engine must be run indoors, open all doors and windows to provide sufficient ventilation.**
7. **Move speed control to the neutral position before starting engine. Keep guards in place.**
8. **Do not allow anyone in the area while using the snow thrower. A foreign object or piece of ice may be thrown through the discharge chute causing injury to person or damage to property.**
9. **Stop the engine and be sure all moving parts have stopped turning. Remove the spark plug, to prevent accidental starting, before cleaning the discharge chute on rotor units; also before making any adjustments, inspecting or repairing, or cleaning.**
10. **Keep all screws, nuts and bolts tight at all times.**
11. **Don't change governor settings. The governor controls the speed and protects the engine from damaging excessive speeds.**
12. **Don't store snow thrower, with fuel in the tank, inside a building where fumes may reach an open flame or spark. Let the engine cool before storing in any enclosure.**
13. **If your snow thrower should start vibrating, stop the engine and check for damage or loose parts. Vibration generally is a warning of trouble.**
14. **For added safety, it is suggested that the operator wear safety glasses.**
15. **Never stand in front of the snow thrower or discharge chute.**

CRAFTSMAN POWER SNOW REMOVAL EQUIPMENT

CRAFTSMAN GUARANTEE

IF DURING THE FIRST YEAR THIS CRAFTSMAN PRODUCT FAILS TO GIVE PROPER PERFORMANCE DUE TO DEFECTS IN MATERIALS OR WORKMANSHIP, WE WILL MAKE ALL NECESSARY REPAIRS, FREE OF CHARGE.

THIS GUARANTEE SERVICE IS AVAILABLE THROUGH ANY OF OUR STORES OR SERVICE CENTERS THROUGHOUT THE UNITED STATES OR CANADA.

MAINTENANCE AGREEMENT

THE SEARS GUARANTEE PLUS A MAINTENANCE AGREEMENT PROVIDE MAXIMUM VALUE FOR SEARS PRODUCTS. CONTACT YOUR NEAREST SEARS STORE FOR DETAILS.

CUSTOMERS RESPONSIBILITIES

ALWAYS USE CARE WHEN OPERATING THE SNOW THROWER. KEEP CLEAR OF MOVING PARTS. DO NOT WORK ON SNOW THROWER WITH ENGINE RUNNING. AVOID STRIKING OR RUNNING INTO SOLID OBJECTS OR DEBRIS IN THE AREA TO BE WORKED. READ AND OBSERVE THE RULES FOR SAFE OPERATION. KEEP THE SNOW THROWER CLEAN. FOLLOW A REGULAR MAINTENANCE AND CHECK SCHEDULE TO PROVIDE EFFICIENT AND SAFE OPERATION. A WELL-CARED FOR SNOW THROWER WILL LAST LONGER AND OPERATE MORE EFFICIENTLY. ALWAYS BE CAREFUL FOR YOURSELF AND FOR OTHERS.

SET UP INSTRUCTIONS

IT IS SUGGESTED THAT THIS MANUAL BE READ IN ITS ENTIRETY BEFORE ATTEMPTING TO ASSEMBLE OR OPERATE THE SNOW THROWER.

THE SEARS SNOW THROWER HAS BEEN COMPLETELY ASSEMBLED AT THE FACTORY, EXCEPT FOR THE HANDLE AND OPERATING CONTROLS WHICH HAVE BEEN LEFT UNASSEMBLED FOR SHIPPING PURPOSES. ALL PARTS SUCH AS NUTS, WASHERS, BOLTS, ETC., NECESSARY TO COMPLETE ASSEMBLY OF THE HANDLE AND CONTROLS HAVE BEEN PRE-INSERTED IN THE PLACES THEY ARE TO BE USED OR PLACED IN A PLASTIC BAG.

ASSEMBLE THE UNIT AS OUTLINED. REFER TO ILLUSTRATIONS FOR ASSEMBLY ASSISTANCE.

ASSEMBLY

All hardware necessary to complete the assembly of your snow thrower will be found in the shipping carton. It will be necessary to install the upper and lower handle assemblies, control panel and shift control assembly and chute control rod. There are two bags of parts packed with your unit. One bag contains necessary hardware to complete assembly of your unit. The other bag contains three replacement shear bolts and nuts, an instruction sheet for shear bolt installation and a replacement chain connector link. Figures 1 and 2 show unit completely assembled. To complete assembly, proceed as follows:

1. Secure lower handles (figure 3) with two 5/8 inch screws, two split lockwashers, two 1 inch screws and two formed washers. **NOTE:** Handle with hole in the center must be installed on the left side of the unit.

2. Secure upper handles and control panel (figure 4) with four 1 1/4 inch screws, formed washers and locknuts.

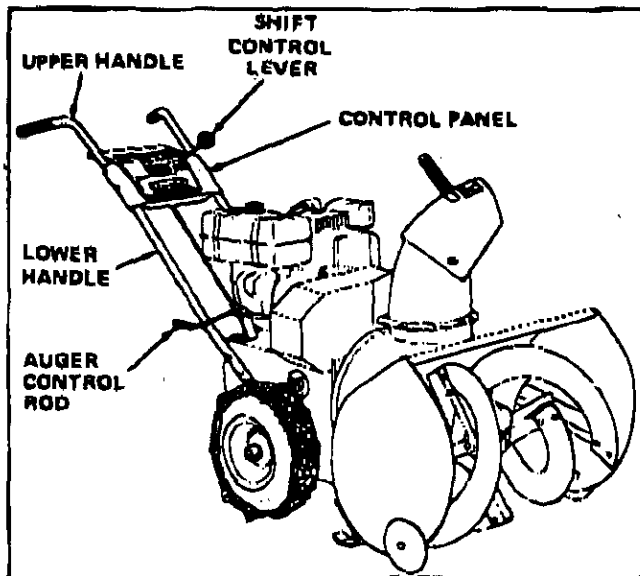


Figure 1

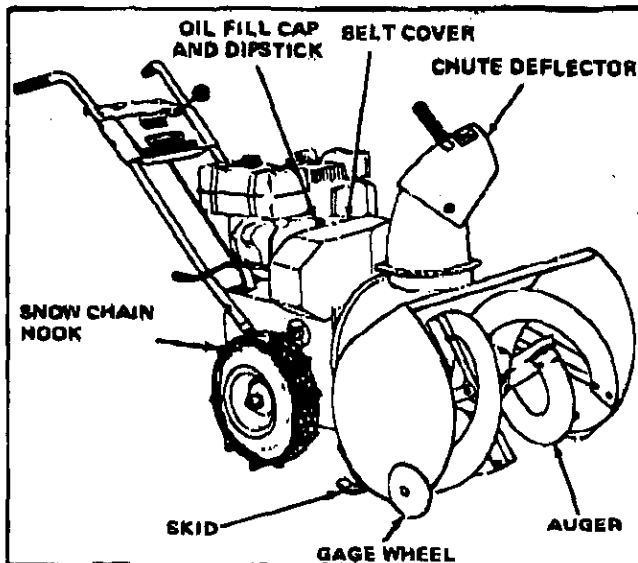


Figure 2

3. Secure chute control rod (figure 5) to left lower handle with fasteners installed in remote control strap.

4. Secure lower control rod bracket to engine platform with two 5/8 inch screws and locknuts. **NOTE:** Notice that lower control rod bracket is adjustable. Adjust the

bracket to a position where teeth on lower end of rod firmly engage holes in flange around bottom of the discharge chute.

5. To attach shift control rod, see paragraph Shift Control Rod Adjustment.

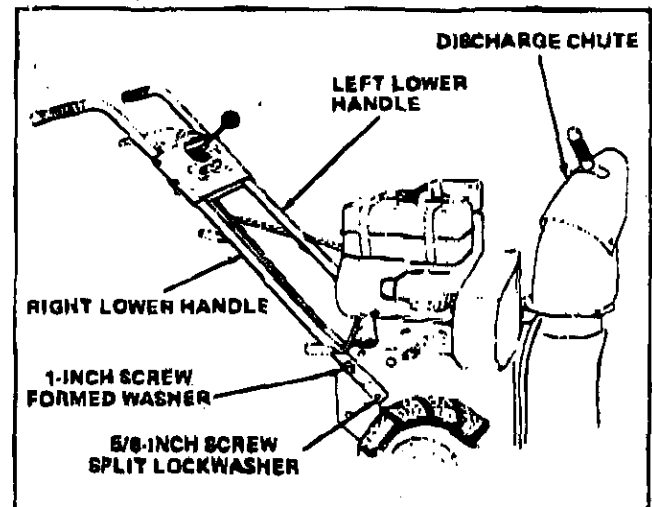


Figure 3

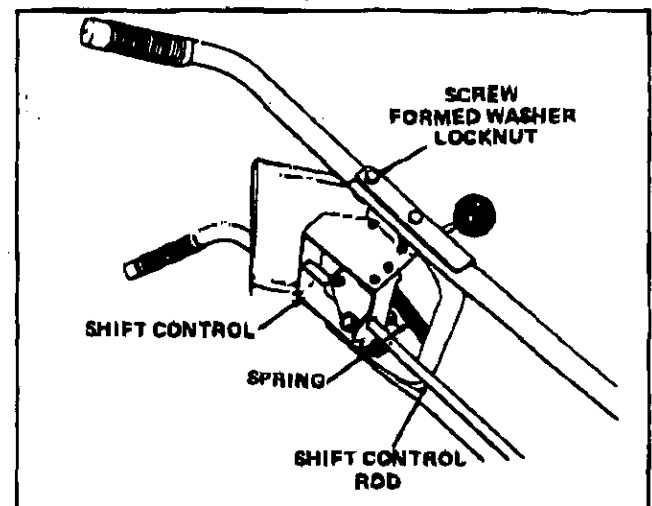


Figure 4

Shift Control Rod Adjustment

1. Remove locknut from screw located in bell crank assembly. Secure lower end of shift control rod to bell crank as shown in figure 5 and replace nut.

2. Loosen shift lever saddle nut (see figure 6A) until shift rod slides freely in saddle groove.

3. Stand unit up on auger end (figure 7). Remove protective packing (that was placed between rubber drive disc and speed disc for shipping purposes).

IMPORTANT: Failure to remove protective packing can cause unit to propel itself in NEUTRAL gear.

4. Place shift lever in a forward gear position (Detail A, figure 7). Using a piece of wood or other suitable material, block the lever back 1/2 inch from bottom of slot. Push bell crank down to engage drive disc and speed disc (figure 8). Tighten the shift rod saddle nut.

5. Remove block from shift lever and check to see that drive disc firmly contacts speed disc in all forward gears and REVERSE. The drive disc should clear the speed disc approximately 1/8 inch when shift lever is in NEUTRAL position.

6. Install the bottom cover which was packed separately with four taprite screws (figure 6).

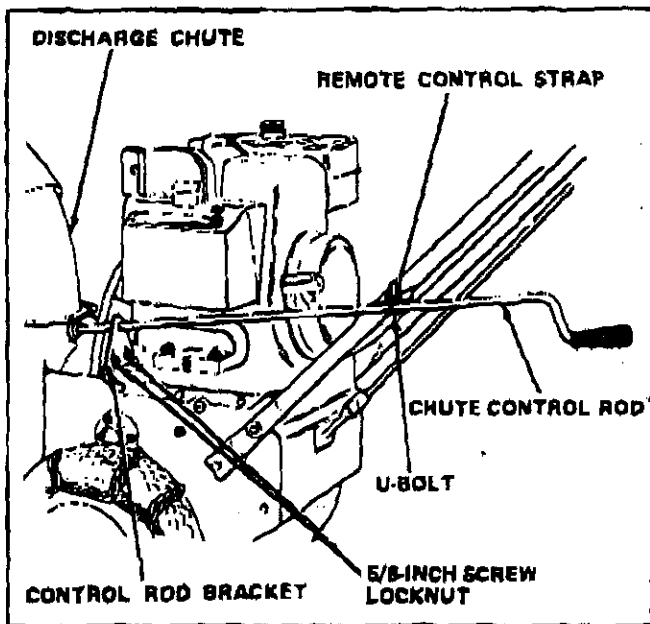


Figure 5

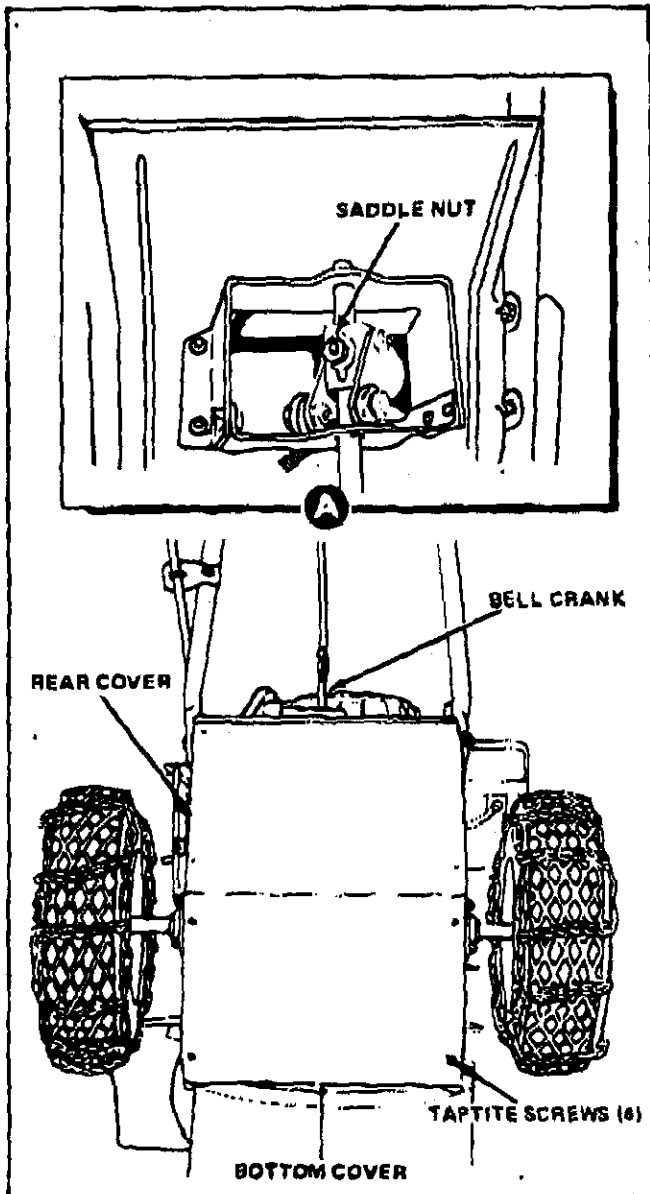


Figure 6

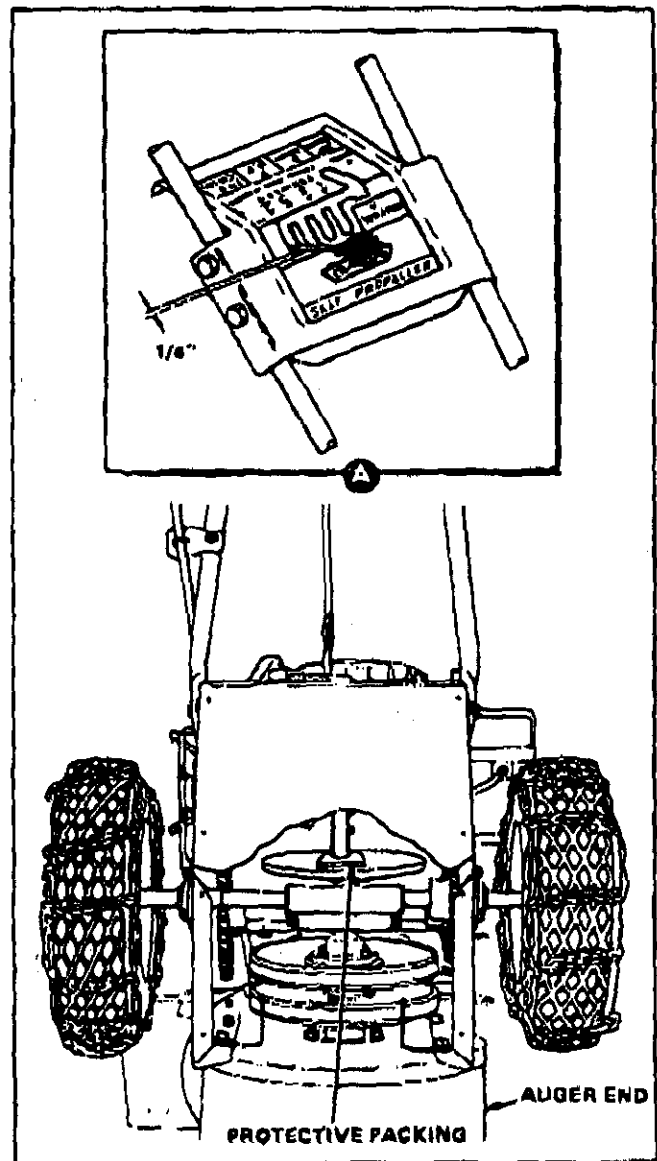


Figure 7

Height Adjustment – Skids & Gage Wheels

This unit is equipped with a pair of skids mounted on the back side of the auger housing and a pair of gage wheels located on the outside of the auger housing. Both the skids and gage wheels are used to elevate the front of the machine up to 1 inch. Figure 8 shows both parts. **NOTE:** Be certain that tires are inflated equally before adjusting skids or gage wheels.

When removing snow from hard surface areas such as paved driveway or sidewalk, we suggest use of gage wheels only to elevate front of machine to desired height. To change height of gage wheels, remove nut on axle of gage wheel (figure 9). Relocate axle into hole representing desired height and replace nut. Set wheel on other side at same height. Loosen, pull up, and tighten skids to full UP position after gage wheels have been set.

When removing snow from rock or unpaved construction, we suggest you raise the front of the machine with the skids. To raise the machine with the skids, loosen the mounting nuts (figure 9) and push the skids down until the front of the machine is raised to desired height. Retighten mounting nuts.

IMPORTANT: Be certain to maintain proper ground clearance for your particular area to be cleared. Objects such as gravel, rocks or other debris, if struck by the auger, may be

thrown with sufficient force to cause injury to personnel or damage to property.

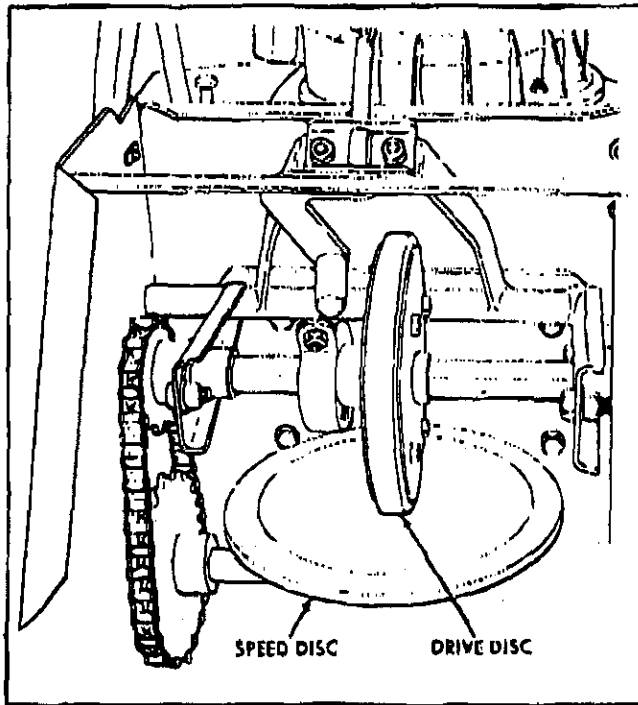


Figure 8

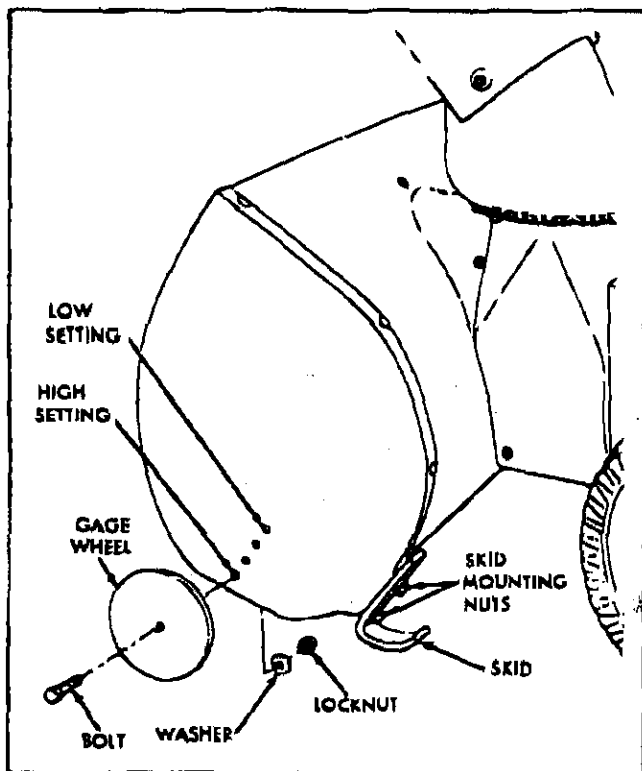


Figure 9

Before Starting Engine

1. Remove the oil cap and dipstick (figure 2) and fill crankcase to the FULL line on dipstick (approximately 1 1/2 pints) with SEARS 5W-20 motor oil which was included with the unit. Replace the oil cap and dipstick and tighten securely. Always check oil level before starting the engine and after each five hours of continuous use. Add oil as required. Do not over fill.

IMPORTANT: Change crankcase oil after the first 2 hours of operation and after each 25 hours of operation thereafter, or at the beginning of each season, whichever comes first. To drain the oil, see paragraph Lubrication.

2. Fill gas tank with clean regular grade automotive gasoline. Lead-free or low-lead gasoline is an acceptable substitute. Do not use Ethyl or high octane gasoline. Be certain container is clean and free from rust or foreign particles. Never use gasoline that may be stale from long periods of storage in the container.

CAUTION: Never fill the gas tank while engine is running or is hot. Immediately wipe off any spilled gasoline before attempting to start engine.

3. Check oil level in gear case by removing oil level plug (figure 10). Oil should be visible in hole. If not, remove oil fill plug (figure 10) and add SEARS SAE 30 engine oil until it starts to run out oil level hole. Replace both plugs and tighten securely.

4. Check tire pressure. Tires were factory inflated to 15 to 20 pounds. This is correct pressure for tires with snow chains. If chains are removed, decrease tire pressure to 12 to 15 pounds. Be certain that pressure is equal in both tires so front of unit stays level.

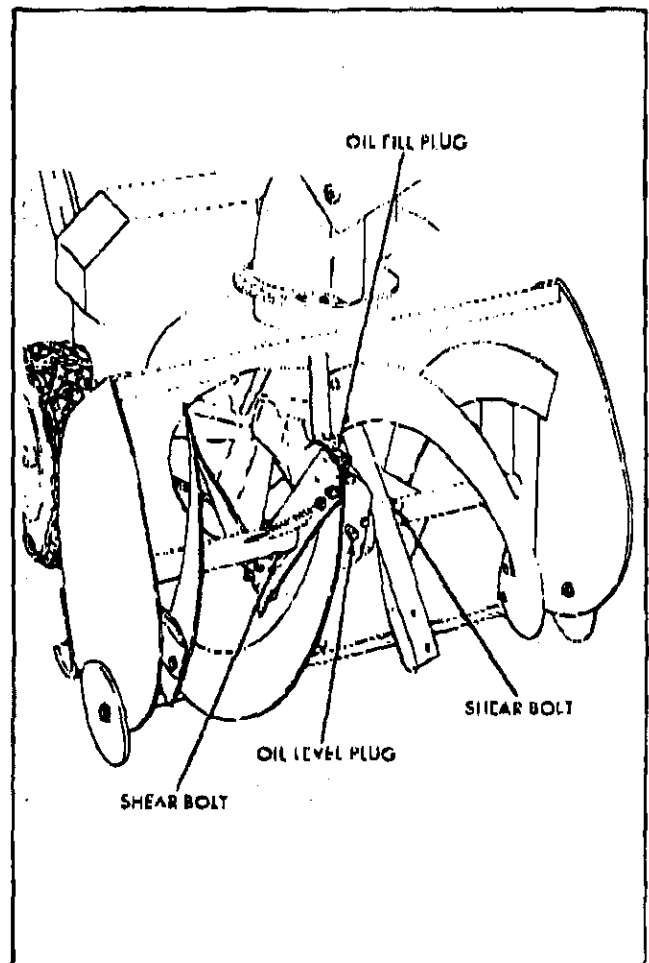


Figure 10

OPERATION

General Safety Precautions

1. Keep the area to be cleared free of stones, twigs, small toys and other debris. Once the snow begins to fall, these objects will be covered and impossible to be seen. If struck by the auger, small objects can be thrown with sufficient force to cause injury to personnel and damage to property.

2. Stand clear of unit when starting engine. Never place hands or feet near any moving parts. Never direct the discharge chute at bystanders.

CAUTION: If the discharge chute should become blocked, stop the engine and remove the spark plug before attempting to clear the obstruction.

3. Stop the engine and inspect unit for damage immediately after striking any foreign object. Do not use the machine until all damage has been repaired.

4. Your snow thrower is shipped with tire chains installed. For best traction, do not operate the snow thrower without the tire chains.

5. When using the snow thrower, dress warmly. If possible, use non-slip type footwear to insure safe footing.

6. Keep a firm hold on the handle. Be careful when turning to avoid slipping.

7. Never leave the snow thrower unattended while the engine is running.



8. The operation of any powered outdoor equipment can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields before commencing power tool operation. We recommend Wide Vision Safety Mask for over spectacles or standard safety glasses, available at SEARS Retail or Catalog Stores.

8. Familiarize yourself with the equipment and with the Rules for Safe Operation.

Operating Controls – Unit

Operating controls (figure 11) and their functions are as follows:

- o **Shift Control Lever** – Used to select desired unit speed or direction. Choice of four forward speeds, NEUTRAL and REVERSE.
- o **Chute Control Rod** – Used to change direction of snow discharge. Turn handle clockwise to turn chute to left. Turn handle counter-clockwise to turn chute to right. All snow can be discharged to one side by changing direction of chute each time direction of travel is changed.
- o **Chute Deflector** – The distance that the snow will be discharged can be adjusted by moving the deflector chute up or down using the chute handle mounted on the deflector chute (figure 11).
CAUTION: Do not put hands in or near the deflector chute while the engine is running.
- o **Auger Clutch** – Used to disengage power to auger. Pull up to engage. Push down to disengage.

Operating Controls – Engine

Engine operating controls (figure 12) and their functions are as follows:

- o **Primer Button** – Used to inject fuel directly into carburetor manifold to insure fast starts.
- o **Choke Lever** – Set choke lever to FULL CHOKE position to start engine.
- o **Throttle Lever** – Used to control speed of engine. Also used as kill switch when pushed to FULL FORWARD or STOP positions.

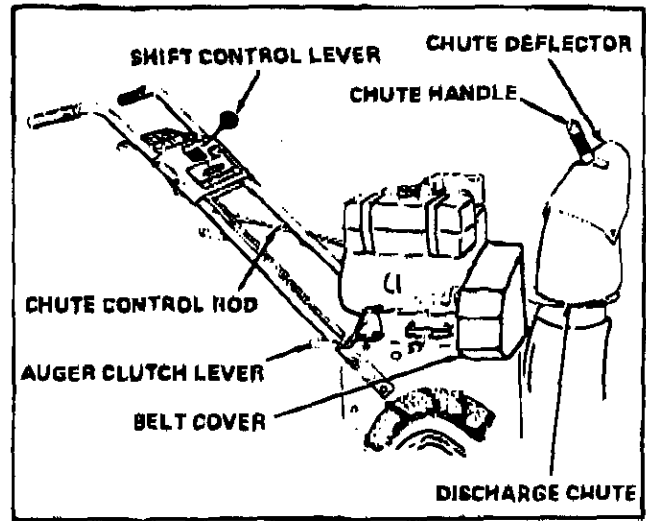


Figure 11

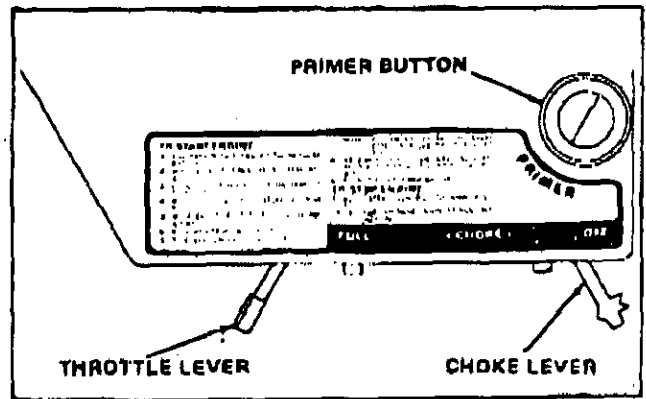


Figure 12

To Start Engine

CAUTION: Do not put hands, feet or loose clothing in or near the deflector chute or auger housing while the engine is running.

The snow thrower engine is equipped with a new instant start recoil starter. The operation of this engine is controlled by the throttle control (figure 13). Before starting the engine, be certain that you have read and followed all the instructions on the preceding pages.

1. Fill fuel tank with clean, fresh, regular gasoline.

CAUTION: Be certain that the shift lever is in NEUTRAL position and the auger control is in DISENGAGE position before starting engine.

2. Open fuel shut-off valve on fuel tank, if so equipped.

IMPORTANT: Before starting the engine on a unit that has been used, drain a small amount of gasoline from the carburetor fuel bowl by pushing up on the dump valve (figure 13). This will remove any condensation which may have accumulated since the snow thrower was last used.

3. Move throttle lever to RUN position.
4. Move choke lever to FULL CHOKE position.
5. Push primer bulb five times. **NOTE:** Do not prime a warm engine.
6. Pull starter handle rapidly. **NOTE:** Do not allow the starter rope to snap back but rewind slowly while keeping hold of handle.
7. If engine fails to start after three pulls, repeat step 6.
8. After engine starts, gradually return choke lever to

OFF CHOKE position. NOTE: Allow the engine to warm up for a few minutes as the engine will not develop full power until it reaches operating temperature.

9. To stop engine, move throttle lever to STOP position.

To engage self-propelling drive mechanism and for the most effective use of your snow thrower, refer to paragraph Snow Thrower Operation.

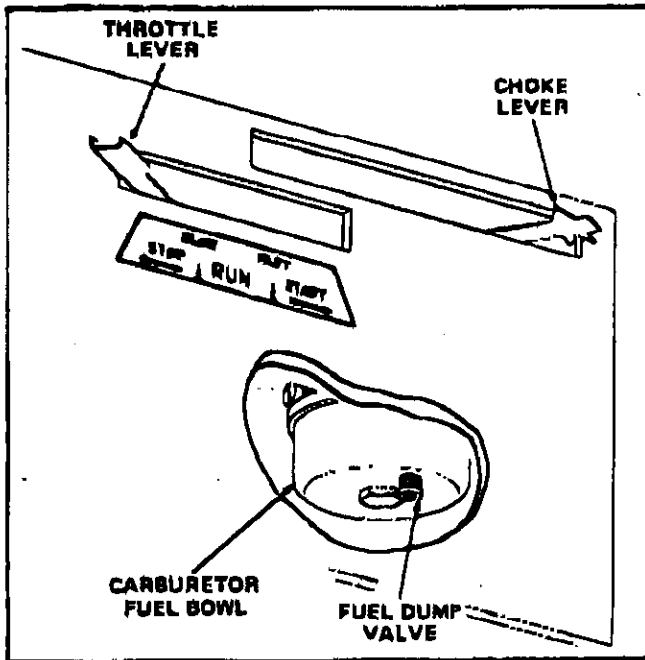


Figure 13

Snow Thrower Operation

The most effective use of the snow thrower will be established by experience, taking into consideration the terrain, wind conditions, location of buildings and the depth and weight of the snow. It is the wind conditions and building location which will determine the direction of the discharge chute (figure 11). Since the wind will tend to blow the discharged snow back into the cleared area, it will be necessary to change the chute direction to offset this condition as shown in figures 14 and 15. Do not discharge snow toward a building, as hidden objects could be thrown with sufficient force to cause damage. To engage the self-propelling drive mechanism, proceed as follows:

1. Start the engine as described in paragraph To Start Engine.

2. Using the chute control rod (figure 11), position the discharge chute to discharge the snow with the wind, or away from buildings.

3. Move auger control lever to ENGAGE position. The auger will start turning (figure 11).

CAUTION: Keep hands, feet and clothing away from the auger while engine is running.

4. Select proper speed for snow conditions as outlined below:

- A. Number 1 position is for extra deep, wet heavy snows.
- B. Number 2 position is for similar conditions, but not as severe.
- C. Number 3 position is for light fluffy snow.
- D. Number 4 position is mainly for transporting unit over bare or plowed areas, but may be used for very light snow.

6. Run engine at or near top speed, regardless of which

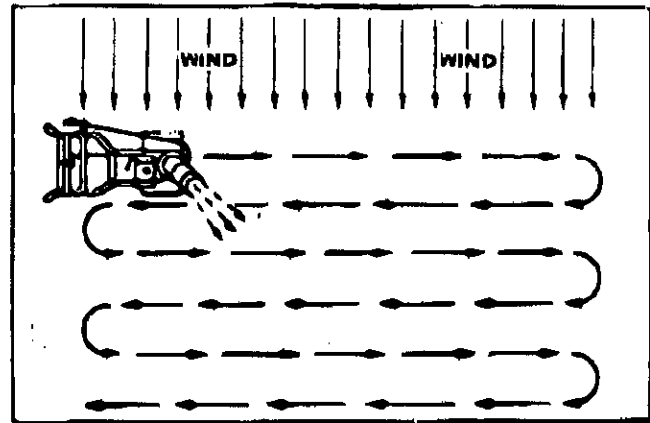


Figure 14

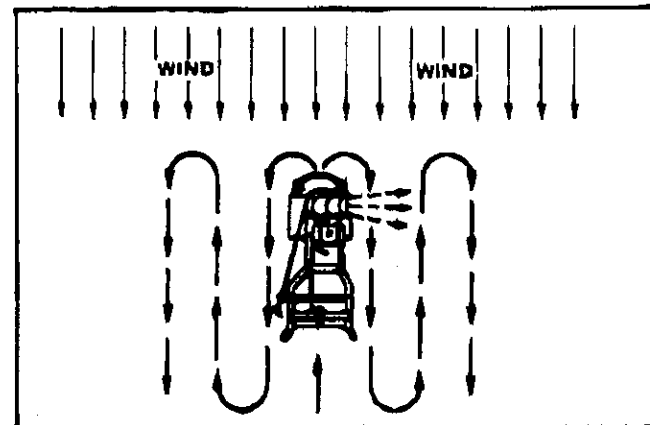


Figure 15

speed position you are using.

6. To stop forward motion, move shift lever to NEUTRAL position. Engine and auger will continue to run. To stop auger, move auger control to DISENGAGE position. To stop engine, move throttle control to STOP position.

CAUTION: Do not attempt to remove any item that may become lodged in auger without taking the following precautions:

1. Move auger control lever to DISENGAGE position.
2. Move shift lever to NEUTRAL position.
3. Move throttle lever to STOP position.
4. Remove spark plug.
5. Do not place your hands in the auger. Use a pry bar.

CAUTION: The engine compression could cause the auger to rotate sharply when lodged item is removed, if above precautions are not followed.

IMPORTANT: After each use of the snow thrower, stop the engine, remove the spark plug, remove all accumulated snow from the unit and wipe clean. Store the snow thrower in a protected area.

SERVICE

CAUTION: Always remove the spark plug before making any repairs or adjustments.

Drive Belt Adjustment

This unit is equipped with two drive bolts located just in front of engine under belt cover (figure 11). Figures 16 and 17 show both bolts and idler pulleys. Tension spring and idler pulley should keep drive mechanism belt (nearest to engine) firmly in contact with engine pulley at all times.

If adjustment becomes necessary due to wear or stretch of belt, loosen locknut idler pulley (figure 17) and push idler pulley toward belt until sufficient tension is achieved. Tighten pulley securely. Auger drive belt (farthest from engine) is engaged with engine pulley only when auger control lever is in ENGAGE position. Place auger control lever in ENGAGE position and adjust belt tension in same manner as described for drive mechanism belt.

Due to stiffness of a new belt, the auger may continue to rotate after auger control is moved to DISENGAGE position. When belt has seated itself, auger should stop turning 10 to 20 seconds after being disengaged. If auger continues to rotate for more than 20 seconds after being disengaged, adjust auger belt as follows:

1. Stop engine and wait for all moving parts to stop.
2. Remove spark plug.
3. Remove belt covers (see Drive Belt Adjustment section of Owner's Manual).
4. Adjust belt guides to minimum clearances from auger drive belt with auger control lever in ENGAGE position. (Clearances are: Left Guide - minimum, 1/16 inch; maximum, 1/8 inch; Right Guide - minimum, 1/8 inch; maximum, 1/4 inch.)
5. Replace spark plug and start engine, using extreme caution to avoid exposed belts.
6. Move auger control lever to ENGAGE position.
7. Move throttle control lever to FAST position.
8. Allow engine to attain full speed, then move auger control lever to DISENGAGE position.
9. Check auger stopping time. If stopping time still exceeds 20 seconds, check drive belt tension, as described in Drive Belt Adjustment section of Owner's Manual.
10. Replace belt cover.

CAUTION: Never attempt to manually stop auger from turning.

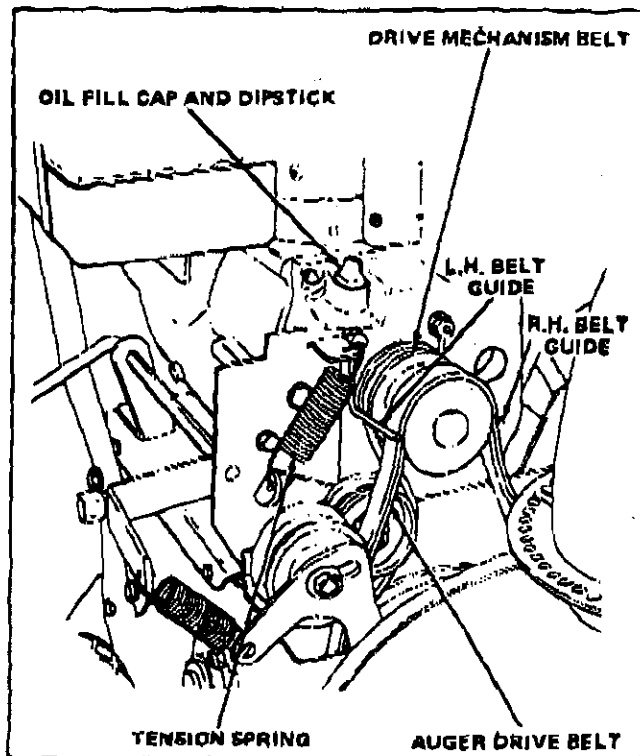


Figure 16

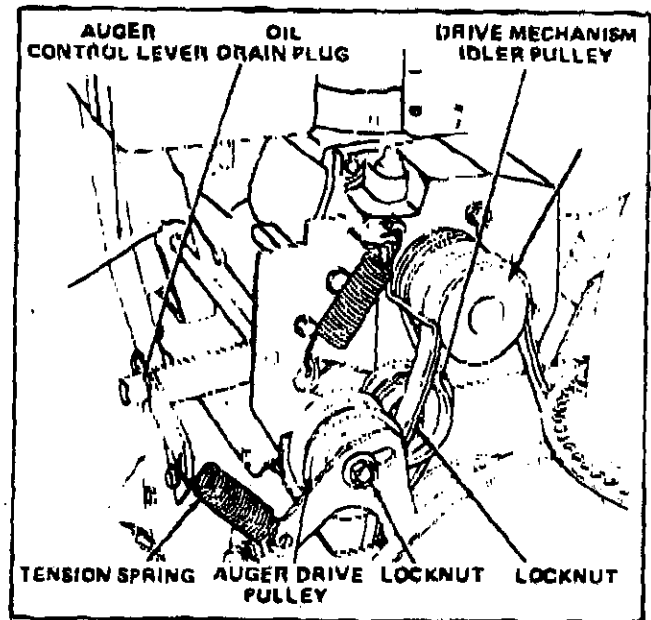


Figure 17

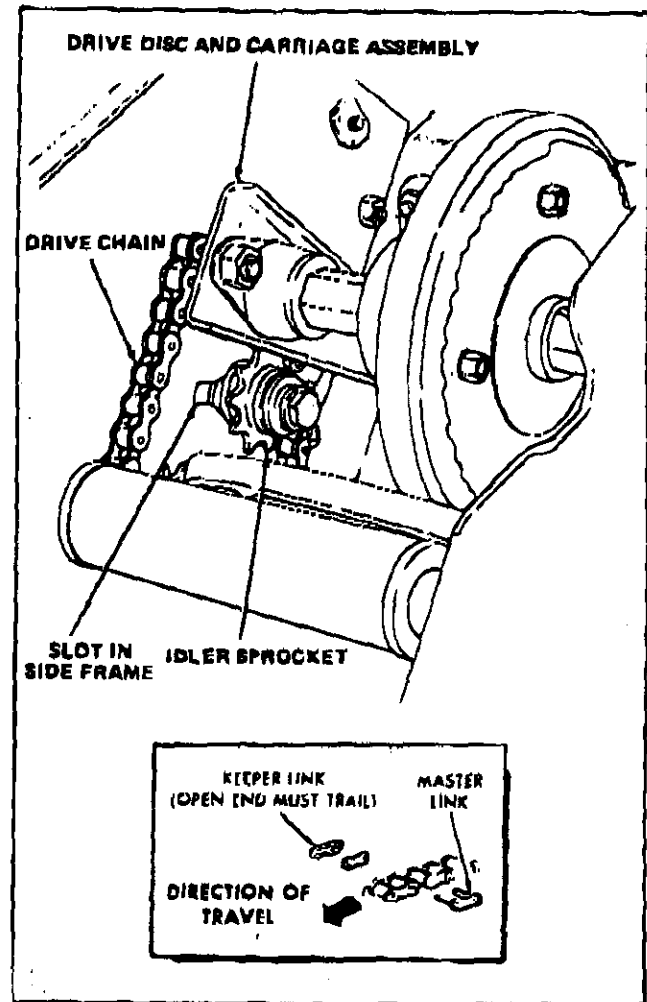


Figure 18

Drive Chain Adjustment

The drive chain (figure 18) must be checked periodically to insure correct chain tension. Proper tension exists when the chain is tight enough to prevent any noticeable sag. To adjust, proceed as follows:

1. Stand unit up on auger end.

2. Remove bottom and rear covers (figure 6). **NOTE:** Rear cover cannot be removed entirely because shift control rod is threaded through it.

3. Loosen idler sprocket (figure 18) and move in slot in side frame until desired tension is achieved. Tighten sprocket securely.

Shift Rod Length

For adjustment of shift rod length, see paragraph Shift Rod Adjustment in assembly section of this manual.

Shear Bolt Replacement

The auger assembly is made up of a right and left auger. Each is secured with a special bolt (figure 10) that acts as a shear bolt. These bolts are designed to break if an object becomes lodged in the auger. Three spare shear bolts and nuts have been furnished with your unit. If additional bolts are required, we suggest that you order genuine replacement bolts. Use of a harder bolt will destroy the protection provided by this special bolt. To replace a broken shear bolt, proceed as follows:

1. Remove the parts of the broken bolt.
2. Align the hole in the auger with the hole in the auger shaft. Install new shear bolt.

Roller Chain Replacement

To remove a roller chain assembly is a simple procedure requiring that the chain first be made slack (for adjustable chains) for ease of removal and replacement. Then remove the master link and chain. To slacken the chain assembly is the reverse of the procedures described under paragraph Drive Chain Adjustment. **NOTE:** Remaining chains that are not adjustable will have to be replaced without being slackened.

IMPORTANT: During installation of the replacement chain assembly, be certain to install the chain with the open end of the master link keeper trailing as shown in inset, figure 18.

Drive Belt Replacement

The drive belts on this unit are of special construction and should be replaced with original equipment belts available from your nearest SEARS Store or Service Center.

To replace drive mechanism belt:

1. Remove belt cover (figure 2).
2. Release idler pulley tension spring (figure 16).
3. Loosen screws holding belt guides and swing belt guides away from belt.
4. Roll belt off engine pulley. **NOTE:** It will be necessary to roll auger drive belt off engine pulley to allow drive mechanism belt to be removed from engine pulley.
5. Remove belt by threading up between large drive pulleys.
6. Install new belt in reverse order.

To replace auger drive belt:

1. Remove belt cover (figure 2).
2. Release tension on belt by placing auger control lever in DISENGAGE position.
3. Stand unit up on auger end and remove bottom cover (figure 18).
4. Loosen screws holding belt guides and swing guides away from belt.
5. Roll belt off drive pulley and engine pulley and remove up between drive pulleys.
6. Install new belt in reverse order.

Drive Disc Replacement

The replacement of the drive disc on this unit is a major service operation and should be done by a trained technician. The entire drive disc and carriage assembly must be removed. The Repair Parts section of this manual contains a list of replacement parts and illustrations to assist the trained technician in making repairs and ordering proper replacement parts.

Snow Chain Removal

To remove the snow chains, release the chain hook (figure 2, page 4) and the opposite fastener. Flatten the chain out on the ground and push unit off the chain. Installation is the reverse of removal.

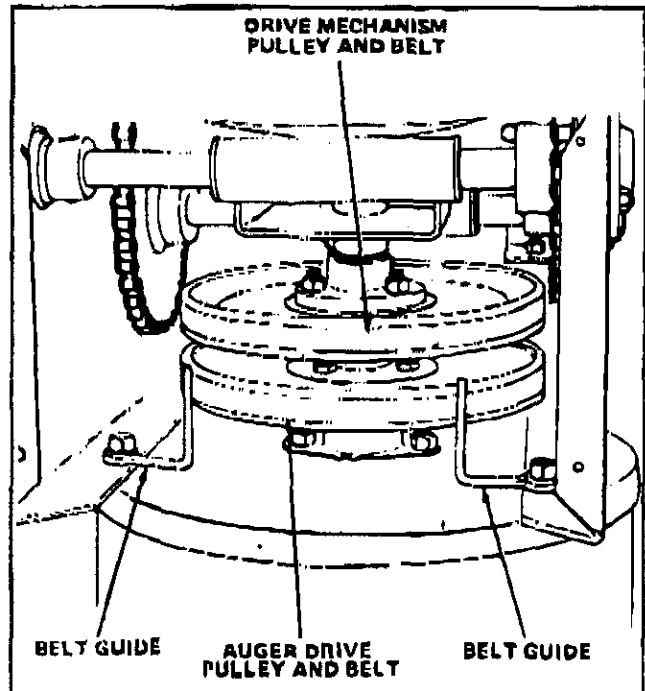


Figure 19

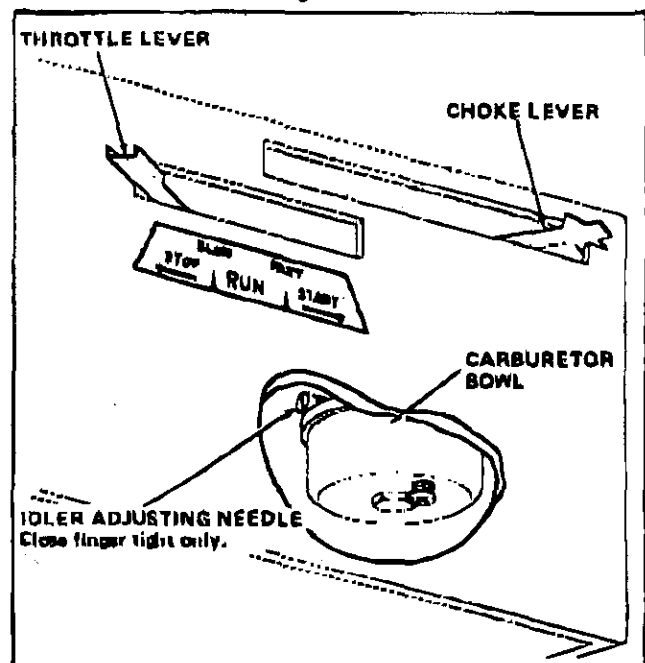


Figure 20

Carburetor Adjustment

Never make unnecessary adjustments. The factory settings

are correct for most applications. The high speed needle is not adjustable. If idle adjustment becomes necessary, proceed as follows:

1. Start engine and allow to warm up for a few minutes.
2. Move throttle lever to SLOW position.
3. Turn idle adjusting screw (figure 20) forward or backward 1/8 turn at a time until engine runs smoothly. **NOTE:** Always allow several seconds between each adjustment for the carburetor to react to the new setting.

Never attempt to change maximum engine speed as this is preset at the factory. Excessive speeds, caused by by-passing the governor, can cause extensive engine damage.

Spark Plug Adjustment

Check the spark plug periodically and reset spark plug gap to 0.030 inch using a wire feeler gauge.

The condition of the spark plug may be determined by color. A carbonized plug is black and burnt plugs are greyish in color, whereas a normal functioning spark plug is brown. If a new spark plug is required, refer to the Repair Parts List for proper replacement spark plug.

Before installing spark plug, coat threads lightly with graphite grease to insure easy removal.

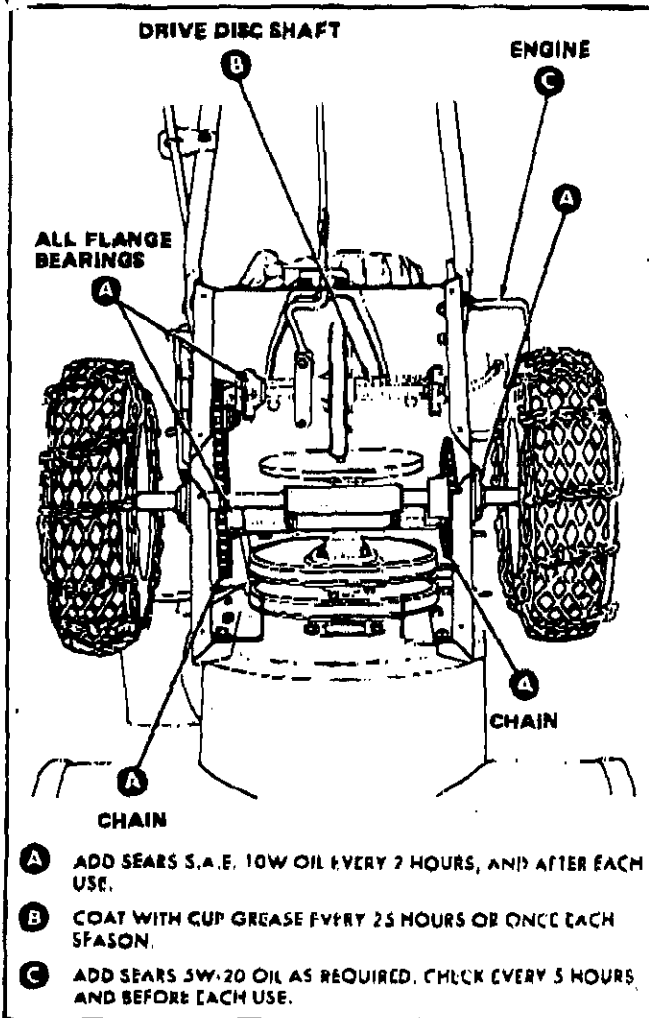


Figure 21

Lubrication

IMPORTANT: If oil or grease gets on either the rubber drive disc or metal speed disc, it will have to be removed or slippage will result. Use gasoline or other oil-cutting solvent to remove. Wipe off excess oil or grease.

For lubrication points, frequency of lubrication and type of lubricant, see figures 21 and 22.

1. Check crankcase oil level before starting engine and after each 5 hours of continuous use. Add SEARS 5W-20 motor oil or equivalent as required. Change crankcase oil every 25 hours of operation or at beginning of each season. **NOTE:** SEARS 10W or 5W-30 motor oil are acceptable substitutes.

To drain oil, proceed as follows:

- A. Remove oil fill cap and dipstick (figure 16, page 9).
- B. Remove oil drain plug (figure 17, page 9).
- C. Tip unit toward oil drain plug and drain into a suitable container. **NOTE:** Oil will drain more freely when warm.
- D. Replace oil drain plug securely and fill crankcase to proper level shown on dipstick (approximately 1 1/2 pints).

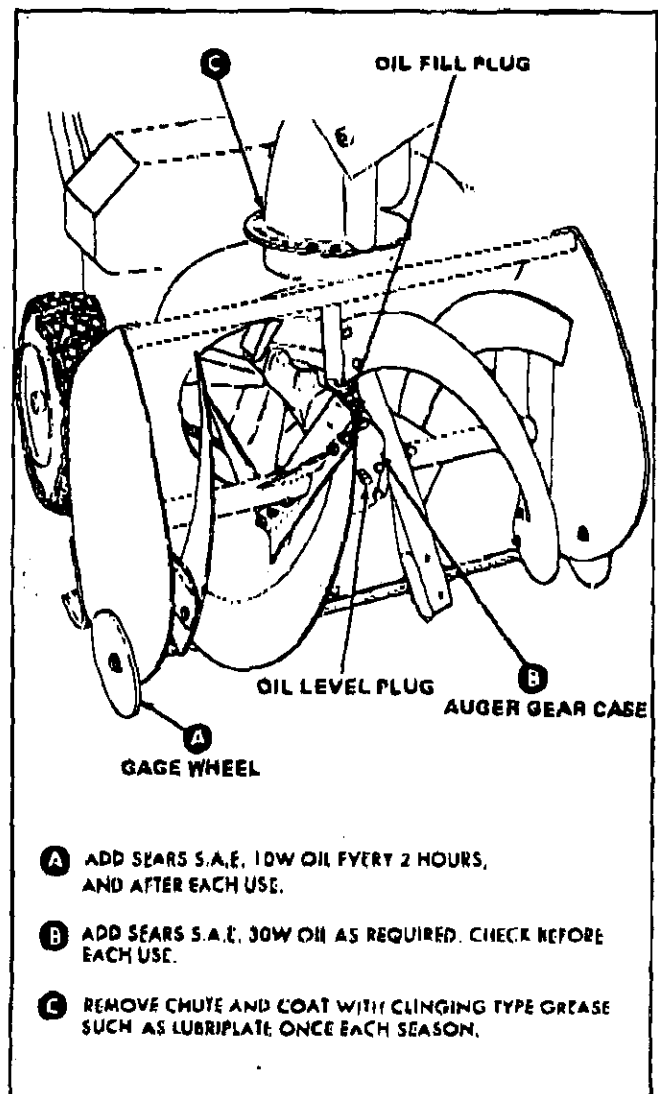


Figure 22

2. Check auger gear case oil level before each use by removing oil level plug (figure 22). Oil should be visible in hole. If oil is required, remove oil fill plug (figure 22) and add SEARS SAE 30 engine oil until oil begins to run out oil level hole. Replace both plugs and tighten securely.

3. Remove discharge chute assembly and grease rim of chute opening with a clinging type grease such as Lubriplate.

Storage Instructions

The snow thrower should be immediately prepared for storage at the end of the season or if the unit is to be inoperative for more than 30 days.

1. Drain the gas tank.
2. Run the engine until carburetor is dry.
3. Drain the carburetor fuel bowl using the dump valve shown in figure 13, page 8.

IMPORTANT: If not drained completely, gasoline will leave gum deposits which will foul up the fuel system making the engine hard to start.

4. Clean the unit thoroughly; remove all debris and wipe the unit dry.
5. Inspect the snow thrower for worn or damaged parts. Tighten all loose hardware.
6. Oil all points described in paragraph Lubrication.
7. Remove spark plug and pour a tablespoon of oil into the opening. Cycle the engine by pulling on the starter rope slowly several times to distribute the oil evenly on the piston and cylinder wall. Replace spark plug.

IMPORTANT: A yearly checkup or tuneup by the SEARS Service Department is a good way of insuring that your snow thrower will provide maximum performance for the next season.

- B. Store the snow thrower in a protected area and cover the unit for additional protection.

Engine Service

Unless the operator is fully qualified to make engine adjustments and repairs, it is recommended that such work be done by technicians trained to work on snow thrower-type gasoline engines.

The Repair Parts section of this manual contains a list of engine replacement parts and illustrations to assist the trained technician in making repairs and ordering proper replacement parts.

Service Helps

The following chart, Service Helps is provided as a guide for correcting minor problems when the trouble is known.

SERVICE HELPS

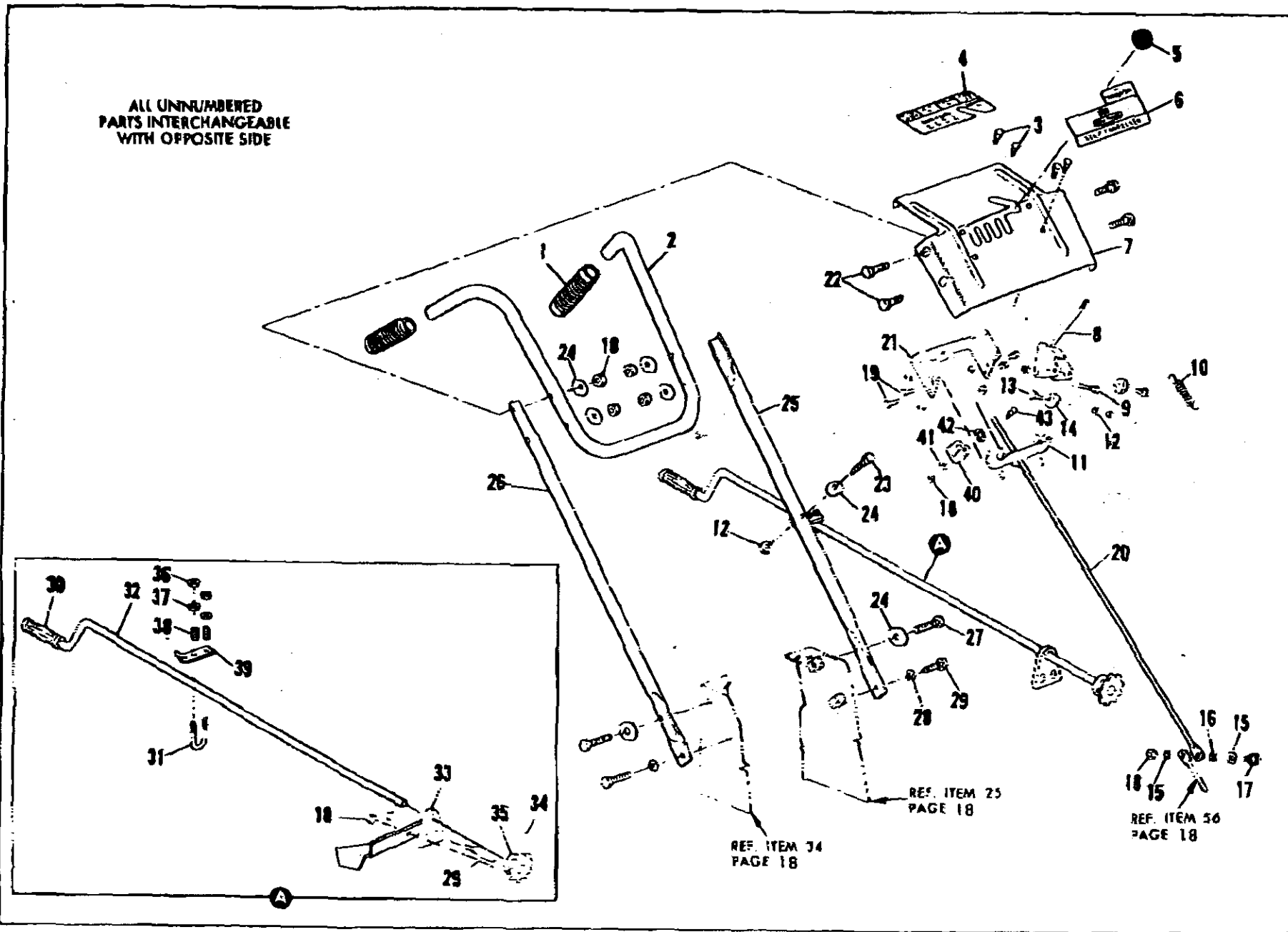
CAUTION: ALWAYS REMOVE SPARK PLUG BEFORE ATTEMPTING ANY REMEDY		
TROUBLE	LOOK FOR	REMEDY
Difficult starting; Engine runs erratic.	Defective spark plug.	Replace defective plug.
	Unit running on Choke.	Set choke lever to RUN position.
	Obstruction in auger housing.	Remove obstruction; clean auger housing.
Engine stalls; Loss of power.	Blocked fuel line or empty gas tank.	Clean fuel line; check fuel supply. Review paragraph To Start Engine.
	Water in fuel system.	Remove condensate from carburetor fuel bowl using dump valve (step 2 in paragraph To Start Engine).
Excessive vibration.	Loose parts.	Stop engine immediately; tighten all bolts and make all necessary repairs. If vibration continues, have the unit serviced by a competent repairman.
Unit fails to propel itself.	Drive chain loose or defective.	Adjust drive chain; replace if defective.
	Drive belt loose or defective.	Adjust drive belt; replace if defective.
	Low transmission fluid level.	Fill to proper level.
Unit fails to discharge snow.	Auger drive belt loose or defective.	Adjust auger drive belt; replace if defective.
	Shear bolt broken.	Replace shear bolt; see paragraph Shear Bolt Replacement.
	Discharge chute clogged.	Clean discharge chute and inside of auger housing.
	Foreign object lodged in auger.	Remove object from auger. See Caution following step 7 in paragraph Snow Thrower Operation
	Auger gear case trouble.	Check auger gear case for broken or bound parts and for oil level. See Repair Parts section of this manual for correct order of parts.

CRAFTSMAN 24" SNOW THROWER MODEL NUMBER 536.90515

REPAIR PARTS

JAN-30-2001 12:52

ALL UNNUMBERED
PARTS INTERCHANGEABLE
WITH OPPOSITE SIDE



CRAFTSMAN 24" SNOW THROWER MODEL NUMBER 536.90515

Key No.	Part No.	Description
1	8240	Grip, Hand
2	40362	Handle, Upper
3	36602	Bolt, Carriage, 1/2-20 Thd x 5/8 In. Lg
4	65724	Decal, Shift Control
5	22822	Knob, Handle
6	66739	Decal
7	41664	Panel, Control
8	41666	Shift Lever Assembly
9	122040	*Screw, Hex Hd, 5/16-18 Thd x 1 1/2 In. Lg
10	43484	Spring, Torsion
11	41875	Cam Plate, Front
12	997314	*Locknut, 1/2-20 Thd
13	42050	Shoulder Bolt
14	42051	Bearing, Shift Control
15	28149	Wave Washer
16	996407	*Flatwasher, 5/16 ID

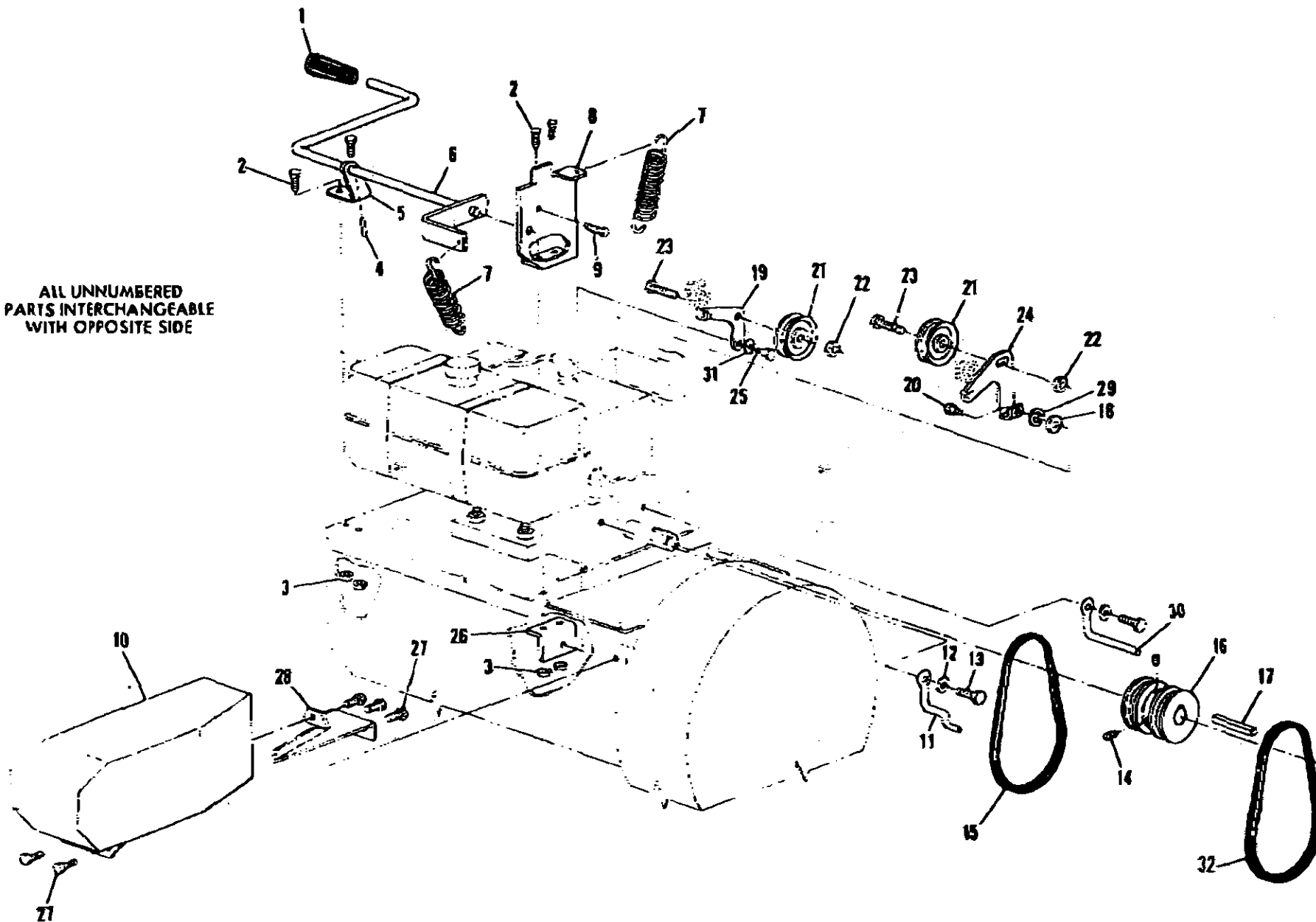
Key No.	Part No.	Description
17	41924	Shoulder Bolt
18	9413447	*Locknut, 5/16 x 18 Thd
19	180016	*Screw, Hex Hd, 1/2-20 Thd x 1/2 In. Lg
20	43479	Shift Rod Upper
21	41874	Pivot Bracket, Rear
22	122052	*Screw, Hex Hd, 5/16-18 Thd x 1 1/2 In. Lg
23	121926	*Capscrew, Hex Hd, 1/2-20 Thd x 1 1/2 In. Lg
24	22025	Washer, Formed
25	41657	Handle, Lower, LH
26	41658	Handle, Lower, RH
27	122017	*Screw, Hex Hd, 5/16-18 Thd x 1 In. Lg
28	120638	*Lockwasher, Split, 5/16 In.
29	120228	*Screw, Hex Hd, 5/16-18 Thd x 5/8 In. Lg

Key No.	Part No.	Description
30	8196	Grip, Handle
31	23940	U-Bolt
32	27325	Control Rod, Chute
33	41662	Bracket, Control Rod, Lower
34	455481	*Roll Pin, 5/16 x 1 In. Lg
35	27328	Sprocket, 9 Teeth
36	997319	*Locknut, 10-32 Thd, Hex Type N
37	23939	Spring
38	9417373	Washer
39	27326	Handle Strap, Remote
40	43478	Saddle
41	996315	Washer, 5/16 In.
42	138538	Lockwasher, Internal Tooth
43	998013	Bolt, Carriage, 5/16-18 x 1/2 In. Lg
	61028	Owner's Manual (Not Illustrated)

*Standard Parts May Be Purchased Locally.

CRAFTSMAN 24" SNOW THROWER MODEL NUMBER 536.90515

ALL UNNUMBERED
PARTS INTERCHANGEABLE
WITH OPPOSITE SIDE



CRAFTSMAN 24" SNOW THROWER MODEL NUMBER 536.90515

Key No.	Part No.	Description
1	3057	Knob
2	120228	*Screw, Hex Hd, 5/16-18 x 5/8 in.
3	9413447	*Locknut, 5/16-18 Thd
4	273836	*Roll Pin, 1/8 x 1 in.
5	41692	Bracket, Support
6	41689	Throwout Handle Assembly
7	40877	Spring, Idler
8	41685	Mount Plate, Idler
9	40886	Screw, Taptite, Hex Washer Hd, X-20 x 3/8 in.
10	41935	Cover, Belt
11	43504	Belt Guide, R.H.

Key No.	Part No.	Description
12	120638	*Lockwasher, Split, 5/16 I.D.
13	120741	*Screw, Hex Hd, 5/16-24 x 3/4 in.
14	998503	*Set Screw, 5/16-18 x 1/4 in.
15	41740	V-Belt
16	44917	Sheave, Engine
17	26794	Key, Square, 3/36 x 1 1/2 in.
18	41728	Spacer, 11/32 I.D. x 1 O.D. x 5/32 Thk
19	41687	Idler Arm, Primary
20	41727	Shoulder Bolt
21	30468	Pulley Idler
22	9413534	*Locknut, 3/8-16 Thd

Key No.	Part No.	Description
23	120918	Screw, Hex Hd, 3/8-16 x 1 1/2 in.
24	41726	Idler Arm, Secondary
25	23589	Shoulder Bolt
26	41909	Mounting Bracket, Auxiliary
27	35144	Screw, Slotted Hex Hd, Taptite 10-24 x 3/8 in.
28	41940	Extension, Belt Cover
29	138538	Lockwasher, Internal Tooth 5/16 I.D.
30	43503	Belt Guide, L.H.
31	3140	Washer, Wave
32	40899	V-Belt

CRAFTSMAN 24" SNOW THROWER MODEL NUMBER 536.90515

Key No.	Part No.	Description
1	40618	Bearing, Rotor
2	9413534	*Locknut, 3/16-16 Thd
3	41709	Spacer, Pulley Hub
4	9413447	*Locknut, 5/16-18 Thd
5	998503	*Set Screw, 5/16-18 Thd x 1/2 In. Lg
6	41704	Hub, Drive
7	120229	*Screw, Hex Hd, 5/16-18 Thd x 7/8 In. Lg
8	28588	Sheave 8.4 In. Dia. OD
9	25177	Washer
10	43498	Support & Bearing Assembly
11	25083	Bearing
12	43501	Bearing,
13	43499	Support Assembly
14	43502	Speed Shaft
15	27324	Key, Hi Pro No. 606
16	32398	Washer
17	32397	Thrust Bearing
18	41702	Speed Disc
19	30467	Belt Guide, Lower
20	274517	*Flatwasher, 3/8 ID
21	36625	Ring, Truarc
22	997314	*Locknut, 1/2-20 Thd
23	25072	Disc, Bearing Retainer
24	35345	Bearing, Self-Aligning
25	41753	Side Frame Assembly, LH
26	36602	Bolt, Carriage, 1/2-20 Thd x 5/8 In. Lg
27	43505	Chain Assembly

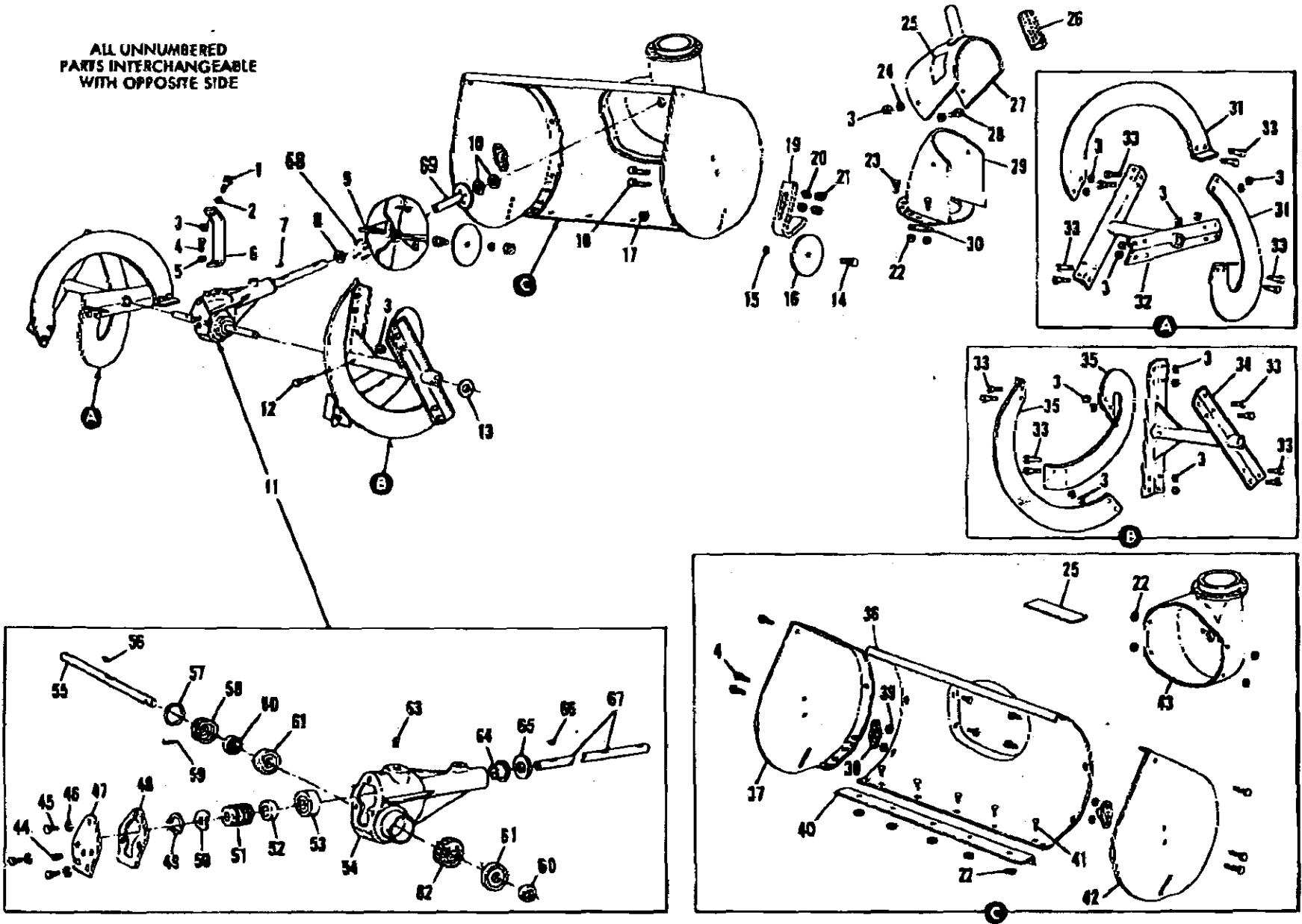
Key No.	Part No.	Description
28	25097	Link Connector No. 40
29	27189	Sprocket, 36 Teeth
30	454565	*Roll Pin, 1/2 x 1 1/2 In. Lg
31	41695	Shaft, Intermediate
32	41696	Sprocket, 9 Teeth
33	41743	Chain Assembly
34	41754	Side Frame Assembly, RH
35	33154	Chain, Snow Tire
36	41846	Wheel and Tire Assembly
37	24167	Valve Stem
38	169	Screw, Special
39	41707	Disc, Bearing Retainer
40	41708	Collar, Locking
41	41705	Shaft, Axle
42	41706	Sprocket 30 Teeth
43	36311	Pin, Drive-Lok, 1/2 x 1 1/2 In. Lg
44	120228	*Screw, Hex Hd, 5/16-18 Thd x 5/8 In. Lg
45	41693	Brace, Frame
46	271190	*Nut, Keps, 3/8-16 Thd
47	43485	Sprocket, Idler
48	43166	Bushing
49	122188	*Screw, Hex Hd, 3/8-16 Thd x 2 In. Lg
50	41890	Shoulder Bolt, Carriage
51	41891	Wave Washer
52	40677	Flatwasher
53	138485	Lockwasher, External Tooth, 5/16 ID
54	41711	Support Assembly, Carriage

Key No.	Part No.	Description
55	455999	*Bolt, Carriage, 5/16-18 Thd x 5/8 In. Lg
56	43481	Bell Crank Assembly
57	41885	Clamp, Bell Crank
58	44990	Sprocket, 8 Teeth
59	120834	*Screw, Hex Hd, 5/16-18 Thd x 1/2 In. Lg
60	40632	Bearing, Self-Aligning
61	25177	Flatwasher, 3/4 ID
62	35703	Ring, Truarc
63	35383	Bearing
64	180018	*Screw, 1/2-20 Thd x 5/8 In. Lg
65	41922	Bearing Yoke and Ball Assembly
66	35564	Bearing Yoke
67	995338	*Screw, Taptite, Hex Hd, 1/2-20 Thd x 5/8 In. Lg
68	36601	Casting, Retainer
69	35585	Disc Assembly, Rubber
70	29162	Spacer
71	41716	Drive Shaft, Hex
72	41729	Cover, Rear
73	35144	Screw, Taptite, Slotted, Hex Hd, 10-24 Thd x 3/8 In. Lg
74	41730	Cover, Bottom
75	15196	Engine, Model No. 143.62692
76	180120	*Screw, Hex Hd, 3/8-16 Thd x 1/2 In. Lg
77	41871	Plate, Engine Mount
78	42619	*Screw, Taptite, 3/8-16 x 1/2 In. Lg

*Standard parts may be purchased locally.

CRAFTSMAN 24" SNOW THROWER MODEL NUMBER 536.90515

ALL UNNUMBERED PARTS INTERCHANGEABLE WITH OPPOSITE SIDE



CRAFTSMAN 24" SNOW THROWER MODEL NUMBER 536.90515

Key No.	Part No.	Description
1	122017	*Screw, Hex Hd, 5/16-18 Thd x 1 In. Lg
2	996407	*Flatwasher, 5/16 ID
3	9413447	*Locknut, 5/16-18 Thd, Type N
4	122119	*Screw, Hex Hd, 3/8-16 Thd x 3/4 In. Lg
5	120382	Lockwasher, Solit, 3/8 ID
6	36007	Strap, Support
7	27324	*Key, Hi Pro No. 606
8	996427	*Washer, 13/16 ID x 1 1/2 OD x 16 Gauge l
9	44978	Impeller Assembly
10	25177	*Flatwasher, 3/4 ID
11	41913	Gear Case Assembly
12	122052	*Screw, Hex Hd, 5/16-18 Thd x 1 3/4 In. Lg
13	21970	*Washer, 1 ID x 3/4 OD x .125 Thk
14	39119	Shoulder Bolt
15	274517	*Flatwasher, 3/8 ID
16	27318	Wheel, Gage Assembly
17	271190	*Nut, Keps, 3/8-16 Thd
18	998010	*Bolt, Carriage, 5/16-18 Thd x 3/4 In. Lg
19	25091	Skid
20	446363	*Flatwasher, 5/16 ID
21	271184	*Nut, Keps, 5/16-18 Thd

Key No.	Part No.	Description
22	997314	*Locknut, Hex 1/2-20 Thd, Type N
23	180016	*Screw, Hex Hd, 1/2-20 Thd x 1/2 In. Lg
24	25840	Washer, Belleville, 5/16 ID
25	16839	Decal, Caution
26	8240	Grip, Hand
27	35137	Chute Assembly, Top
28	122007	*Screw, Hex Hd, 5/16-18 x 3/4 In. Lg
29	30480	Chute Assembly, Bottom
30	28576	Chute Clip
31	41870	Auger Blade, RH
32	41868	Auger Assembly, RH
33	120228	*Screw, Hex Hd, 5/16-18 Thd x 5/8 In. Lg
34	41867	Auger Assembly, LH
35	27368	Auger Blade, LH
36	41864	Cover, Auger
37	41852	Auger Housing End, RH
38	39142	Bearing, Auger
39	9413534	*Locknut, 3/8-16 Thd
40	41863	Scraper Blade
41	110356	*Bolt, Carriage, 1/2-20 Thd x 1/2 In. Lg
42	41851	Auger Housing End, LH
43	41750	Cover Assembly, Rotor
44	23700	*Pipe Plug, 3/4 In.

Key No.	Part No.	Description
45	120854	*Capscrew, Hex Hd, 1/2-20 Thd x 5/8 In. Lg
46	120380	*Lockwasher, 3/16 ID
47	28568	Plate, Cover
48	28569	Gasket
49	21681	Ring, Retaining
50	8421	Spring Washer
51	27117	Worm Gear
52	8292	Spacer
53	8290	Bearing Assembly
54	28526	Gear Case
55	28425	Shaft, Gear Box, Short
56	21684	*Key, Hi Pro
57	21921	"O" Ring
58	21686	Nut, Bearing Adjusting
59	119117	*Pin, Cotter, 3/32 x 1/2 In. Lg-
60	21922	Oil Seal
61	21924	Bearing Assembly
62	28426	Gear, Bronze
63	2503	*Pipe Plug, 3/8 In.
64	28570	Bearing
65	24274	Oil Seal
66	3021	*Key, Woodruff No. 9
67	41725	Shaft, Gear Box, Long
68	35497	Screw, Taptite, 5/16-18 In. Lg
69	43490	Rotor Shaft

*Standard parts may be purchased locally.