DUAL-STAGE SNOW THROWER

USE & CARE GUIDE

Safe Operation Practices for Walk-Behind Snowthrowers
DO NOT OPERATE THIS EQUIPMENT BEFORE READING THIS MANUAL

Training

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

Preparation

1. Thoroughly inspect the area where the equipment is to be used and remove all doormats, sleds, boards, wires, and other foreign objects.
2. Disengage all clutches and shift into neutral before starting the engine (motor).
3. Do not operate the equipment without wearing adequate winter outer garments. Wear footwear that will improve footing on slippery surfaces.
4. Handle fuel with care; it is highly flammable.
   (a) Use an 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.
5. Use extension cords and receptacles as specified by the manufacturer for all units with electric drive motors or electric starting motors.
6. Adjust the collector housing height to clear gravel or crushed rock surface.
7. Never attempt to make any adjustments while the engine (motor) is running (except when specifically recommended by manufacturer).
8. Let engine (motor) and machine adjust to outdoor temperatures before starting to clear snow.
9. Always wear safety glasses or eye shields during operation or while performing an adjustment or repair to protect eyes from foreign objects that may be thrown from the machine.

Operation

1. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
2. Exercise extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic.
3. After striking a foreign object, stop the engine (motor), remove the wire from the spark plug, disconnect the cord on electric motors, thoroughly inspect snowthrower for any damage, and repair the damage before restarting and operating the snowblower.
4. If the unit should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
5. Stop the engine (motor) whenever you leave the operating position, before unclogging the collector/impeller housing or discharge guide, and when making any repairs, adjustments, or inspections.
6. When cleaning, repairing, or inspecting, make certain the collector/impeller and all moving parts have stopped. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
7. Do not run the engine indoors, except when starting the engine and for transporting the snowthrower in or out of the building. Open the outside doors; exhaust fumes are dangerous.
8. Do not clear snow across the face of slopes. Exercise extreme caution when changing direction on slopes. Do not attempt to clear steep slopes.
9. Never operate the snowthrower without proper guards, plates or other safety protective devices in place.
10. Never operate the snowthrower near glass enclosures, automobiles, window wells, drop-offs, and the like without proper adjustment of the snow discharge angle. Keep children and pets away.
11. Do not overload the machine capacity by attempting to clear snow at too fast a rate.
12. Never operate the machine at high transport speeds on slippery surfaces. Look behind and use care when backing.
13. Never direct discharge at bystanders or allow anyone in front of the unit.
14. Disengage power to the collector/impeller when snowthrower is transported or not in use.
15. Use only attachments and accessories approved by the manufacturer of the snowthrower (such as wheel weights, counterweights, cabs, and the like).
16. Never operate the snowthrower without good visibility or light. Always be sure of your footing and keep a firm hold on the handles and walk, never run.
17. Do not over-reach. Keep proper footing and balance at all times.

Maintenance and Storage

1. Check shear bolts and other bolts at frequent intervals for proper tightness to be sure the equipment is in safe working condition.
2. Never store the machine with fuel in the tank inside a building where ignition sources are present such as hot water and space heaters, clothes dryers, and the like. Allow the engine to cool before storing in any enclosure.
3. Always refer to operator's guide instructions for important details if the snowthrower is to be stored for an extended period.
4. Maintain or replace safety and instruction labels, as necessary.
5. Run the machine a few minutes after throwing snow to prevent freeze-up of the collector/impeller.

Limited Warranty

EFFECTIVE DATE: JUNE 1, 1986

When warranty repair is justified, the Manufacturer will welcome such repairs by any of its Authorized Service Centres.

The Manufacturer warrants every new product ("NEW UNIT") purchased for non-commercial use against defects in material and workmanship in any part or parts of the NEW UNIT (except for engines, belts, augers, auger shafts, impellers, woodruff keys, pulleys, chains and shear bolts, due to the nature of their functions, as they are subject to normal wear and abuse), provided the purchaser returns the defective part or parts to one of the Manufacturer's Authorized Service Centres within a period of two years from the date of purchase. Friction discs are warranted for one year from the purchase date. New units purchased for commercial use (including without limitation, NEW UNITS purchased for rental and commercial landscaping and snow removal purposes) are warranted in the same manner and to the same extent EXCEPT such NEW UNITS are warranted for a period of ninety (90) days from the date of purchase. The Manufacturer's liability and the purchaser's sole and exclusive remedy is limited to the replacement of the part or parts found to be defective. All transportation charges on parts submitted for replacement under this warranty shall be paid by the purchaser.

This limited warranty applies only with respect to defects in material and workmanship under normal and proper use of the NEW UNIT in its unmodified condition. This limited warranty does not extend to the replacement of parts which are not defective, but where normal usage has exhausted the life of the part. The Manufacturer shall have no obligation hereunder to make repairs or cause replacements necessitated in whole or in part by the fault or negligence of the user, or improper or unauthorized use, or use in a manner for which the NEW UNIT was not designed, or by causes external to the equipment, components or parts.

EACH ENGINE, TRANSMISSION AND TRANSAXLE IS WARRANTED BY THEIR RESPECTIVE MANUFACTURER.

Warranty service can be arranged for by contacting either the Manufacturer Authorized Service Centre or the Manufacturer Customer Service Department, 155 Orenda Road, Brampton, Ontario, Canada, L6W 1W3. Warranty service can only be performed by a Manufacturer Authorized Service Centre. At the time of any warranty service request, evidence must be presented as to the date of the sale of the NEW UNIT, together with the unit model number and the unit serial number contained on the equipment. Any charges covering service calls and/or transportation of the product to and from the place of inspection will be borne by the Purchaser. Any damage incurred during the transportation will be borne by the Purchaser.

THE MANUFACTURER'S LIMITED WARRANTY EXTENDS ONLY TO THE ORIGINAL PURCHASER AND IS NOT TRANSFERRABLE. ALL CLAIMS UNDER THIS LIMITED WARRANTY MUST ORIGINATE WITH THE PURCHASER AND THE PURCHASER WILL INDEMNIFY AND HOLD THE MANUFACTURER HARMLESS FROM ANY CLAIMS FOR BREACH OF WARRANTY ASSERTED AGAINST THE MANUFACTURER BY ANY PERSON OWNING THE NEW UNIT AFTER RESALE THEREOF BY THE PURCHASER.

THE EXPRESS WARRANTY SET FORTH IN THIS AGREEMENT IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND ALL SUCH OTHER WARRANTIES ARE HEREBY DISCLAIMED AND EXCLUDED BY THE MANUFACTURER. IN NO EVENT SHALL THE MANUFACTURER BE LIABLE FOR ANY DAMAGES WHATSOEVER ARISING OUT OF THE USE OR OPERATION OF THE EQUIPMENT (INCLUDING, WITHOUT RESTRICTION THE GENERALITY OF THE FOREGOING), ANY PERSONAL OR PROPERTY DAMAGES OR DAMAGES FOR LOSS OF USE OR PROFIT.

The Manufacturer does not authorize any person (whether natural or corporate) to assume for the Manufacturer any obligation or liability in connection with or with respect to any part or parts of the NEW UNIT. The seller or dealer of any NEW UNIT manufactured by the Manufacturer has no authority to make any representation or promises on behalf of the Manufacturer or to modify the terms or limitations of this warranty in any way.

TO QUALIFY FOR THE ABOVE WARRANTY THIS CERTIFICATE AND YOUR RECEIPT MUST BE PRESENTED TO YOUR AUTHORIZED SERVICE DEALER.

CUSTOMER SERVICE DEPARTMENT, 155 ORENDA ROAD, BRAMPTON, ONTARIO, CANADA, L6W 1W3.

Date of Purchase _____ Serial No. _____

Where Purchased _____

_____

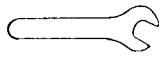
_____

Setting Up Instructions

Tools you will need:

a) Pliers

b) 1/2" Wrench



c) 7/16" Wrench

d) Adjustable Wrench

To Assemble Your New Snowthrower:

1. Remove crank assembly from shipping position by cutting and discarding plastic ties. On some models you may have to remove the plastic ties securing the clutch levers to the upper handle. Remove plastic cap from wormed end of crank assembly.
2. Remove the "eye bolt" (1) from the left hand side of the handle.
3. Remove the hex bolts (3) from the right and left side of the handle.
4. Swing the upper handle (4) into the operating position and tighten both wing nuts (5).
5. Replace "eye bolt" (1) and tighten.
6. Replace hex bolts (3) and tighten.

Models 826, 828, 1026, 1028, 1032, 1132

7. Remove three carriage bolts, lockwashers and nuts from snow chute flange. Position snow chute on snow chute flange and align the three holes in the snow chute with the tabs on the snow chute flange. Replace bolts, lockwashers and nuts and tighten. The cable has been pre-adjusted and should not require adjusting.
8. Rotate the toothed section of the discharge chute (6) toward the discharge direction control rod bracket (7). Install wormed end of rod (2) through hole in bracket. Secure with flat washer and cotter pin supplied.

It may be necessary to adjust the crank assembly after initial installation. If this is necessary adjust as follows: Adjust the inner or outer locking nut on the "eye" bolt to obtain maximum engagement of the worm in the rotating flange.

Models With Remote Control

Loosen mounting nuts and bolts. Rotate the crank mount bracket to obtain maximum engagement of the worm in the rotating flange. Tighten mounting nut and bolts.

Models 523, 623, 625, 725, 825

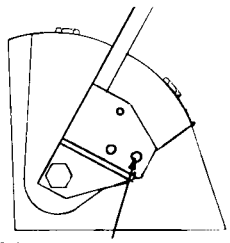
9. Loosen wing nut. Pull back on deflector (8) and set deflector to desired height. Tighten wing nut.

Models 826, 828, 1026, 1028, 1032, 1132

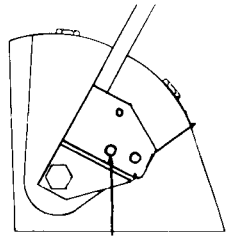
10a. Remove cotter pin and washer from the speed control rod. Move speed select lever into 6th gear. Insert rod (the end with the 90° bend) into the speed select brkt. hole (the one farthest from the pivot) from the right hand side. Install washer and cotter pin and secure cotter pin. Move speed select lever into 1st gear reverse. Attach ball joint to speed select lever with lockwasher and nut supplied, and tighten. The speed control rod and ball joint have been pre-adjusted at the factory and should not require re-adjustment.

Models 523, 623, 625, 725, 825

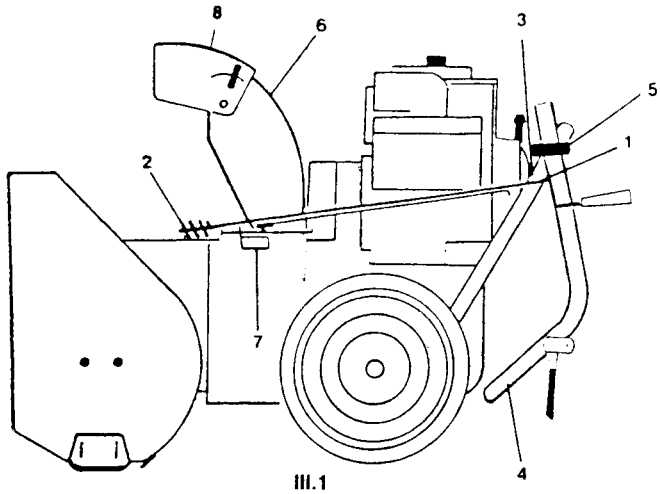
10b. Remove cotter pin and washer from the speed control rod. Move speed select lever into 6th gear. Insert rod (the end with the 90° bend) into the speed select brkt. hole (the one nearest from the pivot) from the right hand side. Install washer and cotter pin and secure cotter pin. Move speed select lever into 1st gear reverse. Attach ball joint to speed select lever with lockwasher and nut supplied, and tighten. The speed control rod and ball joint have been pre-adjusted at the factory and should not require re-adjustment.



826, 828, 1026, 1028, 1032, 1132



523, 623, 625, 725, 825



Ill.1

Pre-Operation Instructions

Reference to right and left hand side of the snowthrower is from the operators position at the handle

Before attempting to use your snowthrower, read carefully all the operating instructions and be sure you understand the function and location of all controls. Read again the rules for safe operation at the front of this manual. **Read engine manual before starting engine.**

Before Starting Engine

1. Position the snowthrower on a level surface and remove the oil filler plug.

2. With the use of an oil funnel add oil to crank case. (See engine manual.) Pour oil slowly to prevent air lock. Use SAE5W20 oil. (SAE10W is an acceptable substitute.)

3. After the oil has been added **and checked for proper level** replace oil filler plug. (See Engine Manual)

4. Initially change oil after the first two (2) hours of operation. Use SAE5W30 oil. Below 0°C use SAE0W30 oil.

5. Subsequently, change oil after twenty-five (25) operating hours. If less than 25 hours, change oil every year.

NOTE: Check oil level every five (5) operating hours or each time the snowthrower is used. Over filling the engine may affect performance. Tighten filler plug securely to prevent leakage.

Fill the snowthrower fuel tank with a fresh supply of clean regular gasoline (see engine manual).

NOTE: Winter grade gasoline has higher volatility to improve starting. Do not use gasoline left over from the previous year or summer.

Do not mix oil with gasoline. Premium gasoline, gasoline additives and white gas **must not be used.**

Prevent ice buildup on the fuel tank and the fuel tank cap to keep vent hole from plugging.

Know Your Controls

Refer to Ill. 2 on this page.

1. Auger drive clutch - used to engage and disengage the auger and impeller. To engage, push down, to disengage release.

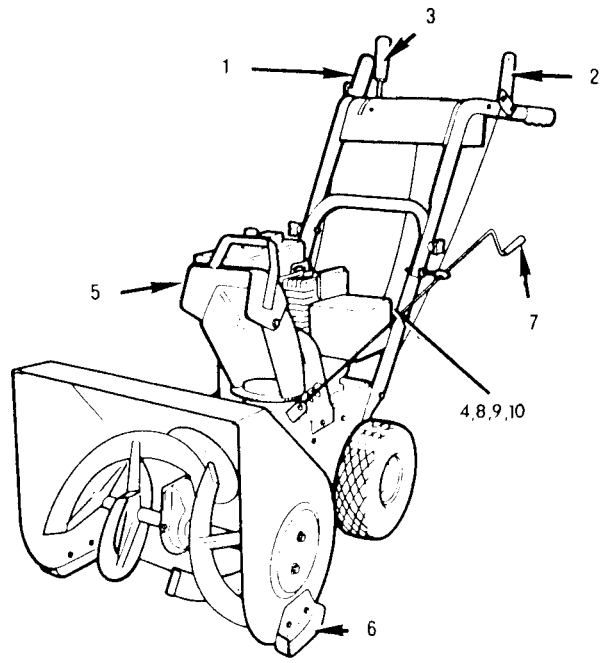
2. Traction drive clutch - used to propell snowthrower forward or reverse. Push down to engage, release to disengage.

3. Speed select lever allows the operator to use one of six (6) forward and two (2) reverse speeds. To shift, move speed select lever to desired position.

4. Throttle control - used to start, stop and operate the engine at different speeds. For optimum snow-throwing efficiency use fast position.

5. Snow chute deflector - used to adjust the height and distance of the discharged snow stream.

NOTE: Do not move speed selector lever while traction drive clutch is engaged.



Ill. 2

6. Height adjust skid - used to adjust ground clearance of auger housing.

7. Snow chute direction handle - used to discharge snow in the desired direction.

8. Key - must be inserted to operate engine. Remove key when snowthrower is not in use or left unattended.

9. Choke - set choke to "full choke" to start a cold engine.

10. Primer button - used to inject fuel directly into carburetor to insure fast starts.

Starting Instructions

NOTE: All small gasoline engines tend to be difficult to start in cold weather. Since this snowthrower will always be used in cold weather, we recommend you store it in a protected area.

1. Be sure impeller drive clutch and traction drive clutch are in the disengaged position.

2. Move throttle control up to "FAST" position. Insert key into ignition slot. Be sure it snaps into place.

3. Move choke lever to "FULL" choke position.

4. When temperature is below 10°F (-12C) depress primer button two or three times (if engine is equipped with primer button). This will inject fuel into the carburetor.

5. Pull the recoil starter handle slowly until the recoil engages, then give recoil a short quick pull. Do not allow starter rope to snap back. Pull starter rope until engine fires at least once. A "POP" at the muffler indicates the engine is firing.

6. Open choke slightly.

7. Pull starter again - engine should start.

8. As engine begins to run, open choke gradually.

9. If engine begins to die, close choke slightly.

NOTE: If fuel drips out of carburetor while trying to start engine, the engine is over choked. Pull starter several times with choke open.

To Stop Engine

Move throttle control down to stop position and/or remove key.

Operating Instruction

IMPORTANT: While familiarizing yourself with the snowthrower use only moderate throttle speeds and use only slower speed ranges.

Practice before operating your snowthrower under actual snow blowing conditions.

1. Start engine and assume operating position behind unit. **While familiarizing yourself with the controls, set the throttle at moderate speed.**

   IMPORTANT: When throwing snow, always use "FAST" throttle speed. (When engine has warmed up and the choke lever has been moved to "off" position, the engine is ready for snow throwing.)

2. To obtain impeller operation; (See Ill. 3.)

   IMPORTANT: Be sure front of unit is clear of bystanders or obstacles before operating impeller.

   Squeeze impeller drive lever (right hand handle). The impeller is now operating.

3. To disengage impeller drive; release impeller drive lever.

4. To obtain forward motion;

   a) Place gear shift lever in desired position (as recommended above).

   b) Slowly squeeze ground drive lever (see Ill. 4) (left hand handle) to engage ground drive.

   IMPORTANT: To prevent damage to the rubber friction wheel, DO NOT attempt to change speed range while ground drive lever on handle is engaged.

5. To stop forward motion;
   Release ground drive lever.

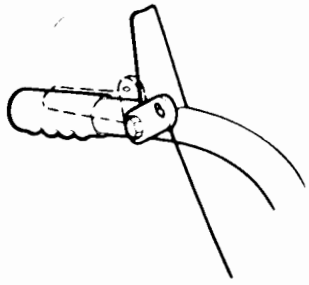
6. To obtain reverse motion;
   Pull speed control lever back to "reverse 1 or 2 position". Move throttle to slow position. Squeeze ground drive lever (left hand handle) to engage drive.

7. To stop reverse motion;
   Release ground drive lever

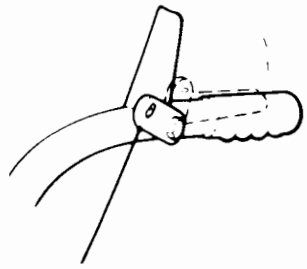
8. Operation of discharge chute and deflector.
   The direction of snow discharged from the chute can be varied approximately 200° from left to right.

   To discharge snow to your left, turn chute control rod handle clockwise. Rotate handle counter clockwise to obtain snow discharge to your right. The distance the snow will be thrown can be adjusted by tilting the deflector up or down.

   CAUTION: Always stop engine before changing deflector position. Keep hands away from chute and deflector when impeller is operating. The type and depth of snow will also influence distance snow can be thrown.



Ill. 3



Ill. 4

Speed Selection

Ground speed is determined by snow conditions. Select the speed you desire by moving the speed selector into the appropriate coloured area on the control panel.

Red - Wet, Heavy, Slushy
Amber - Moderate
White - Very Light
Green - Transport Only

Service Instructions

CAUTION: Always stop engine and disconnect spark plug wire before cleaning, lubricating or adjusting your snowthrower.

Belt Adjustment

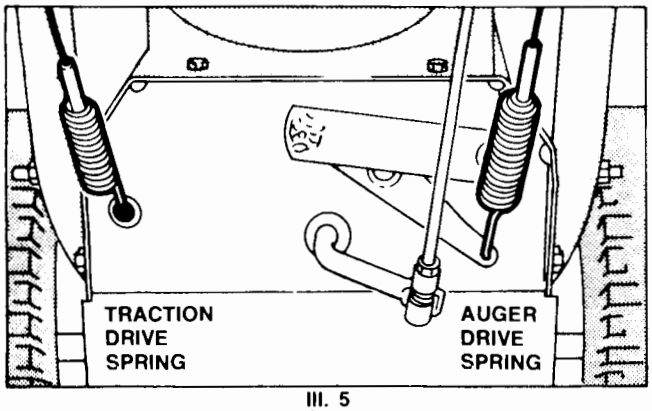
"V" Belts stretch slightly during normal use. Consequently the drive belts may require adjustment after the first few hours of operation.

If auger drive belt or traction drive disc slips under normal load, adjustment is required.

1. Remove belt cover.
2. Loosen nut on idler pulley.
3. Adjust idler pulley into belt about 1/8".
4. Tighten pulley nut.
5. Replace cover.

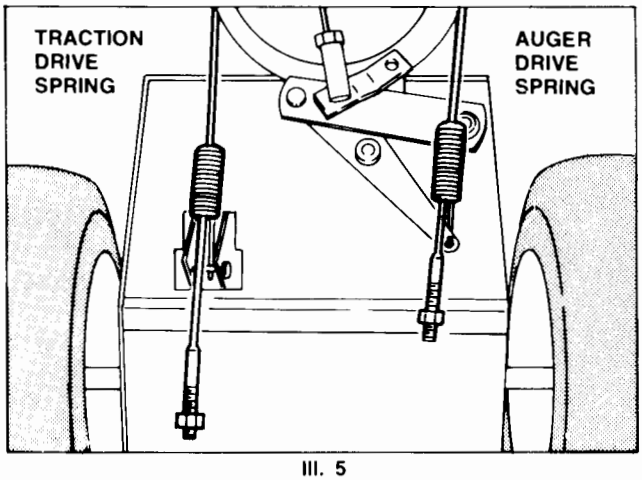
If after several adjustments (depending on belt stretch), there is still insufficient tension proceed as follows:

1. Disconnect cable from control lever on handle.
2. Push cable down and expose threaded end of control cable from spring, Ill. 5. Holding the squared end of the threaded portion with vice grips, use an adjustable wrench and turn nut clockwise in one turn increments until slippage is eliminated.
3. Pull cable threaded end back into spring and reattach cable to control lever.



Ill. 5

Models 826, 828, 1026, 1028, 1032, 1132

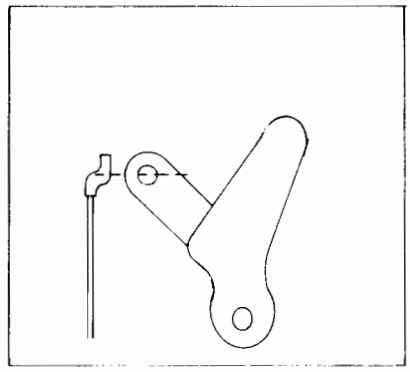


Ill. 5

Models 523, 623, 625, 725, 825

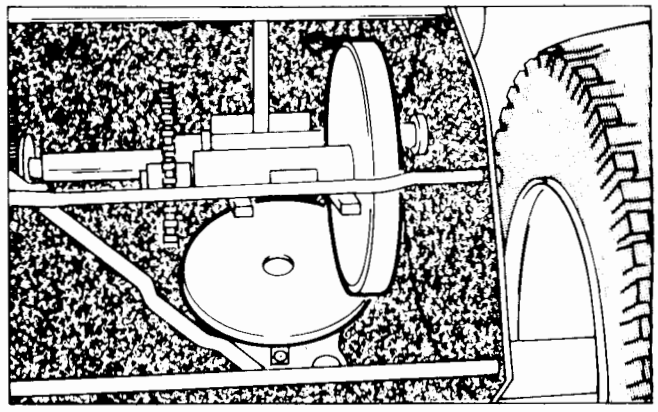
Traction Drive Clutch Cable Adjustment

If erratic drive conditions exist, it may be the result of a worn rubber drive disc. As the rubber wears, the traction drive cable will require adjusting. Follow same procedure as impeller cable adjustments. If erratic drive conditions exist after performing the following adjustment, contact your nearest service dealer for the necessary repairs.



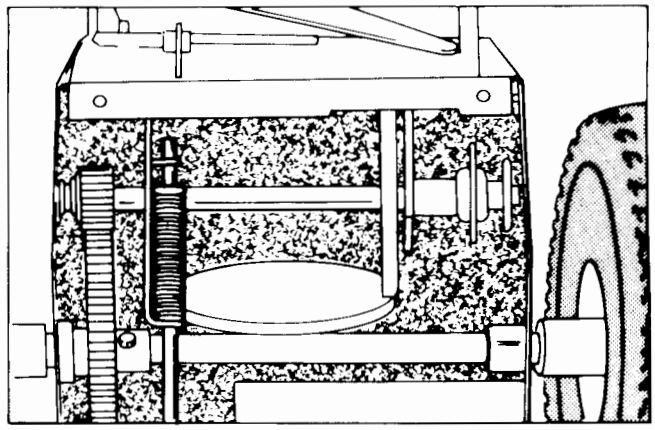
Ill. 5A

NOTE: Control lever must be in full forward position when checking cable length.



Ill. 6

Models 826, 828, 1026, 1028, 1032, 1132



Ill. 6

Models 523, 623, 625, 725, 825

IMPORTANT: Over adjustment of friction disc will result in permanent damage to the drive train.

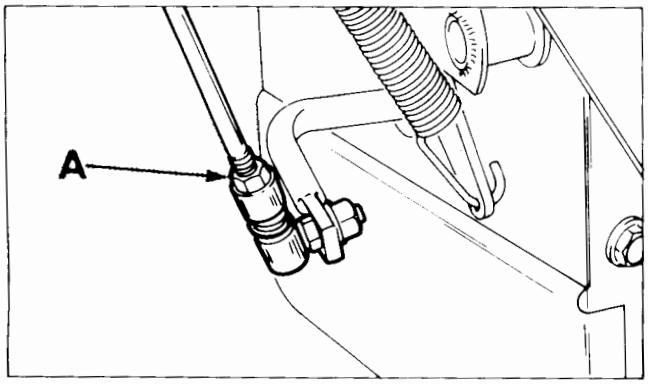
Friction Wheel Adjustment

Alignment of friction wheel and drive plate.

1. Using an adjustable wrench, remove inspection panel of drive unit.
2. Position gear shift lever in 6th gear.
3. Note position of rubber friction wheel on drive disc. It should contact the stop on the right hand side. (Ill. 6).

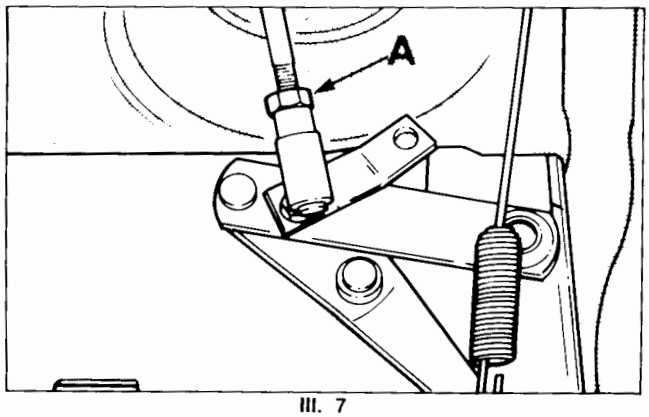
   If adjustment is required, proceed as follows (see Ill. 7):

   1. Using an adjustable wrench, loosen jam nut "A" on speed select rod (Ill. 7). Remove ball joint from shifter bracket, lengthen or shorten rod to obtain correct friction wheel position.
   2. Replace ball joint, tighten jam nut.
   3. Replace rear panel.



Ill. 7

Models 826, 828, 1026, 1028, 1032, 1132

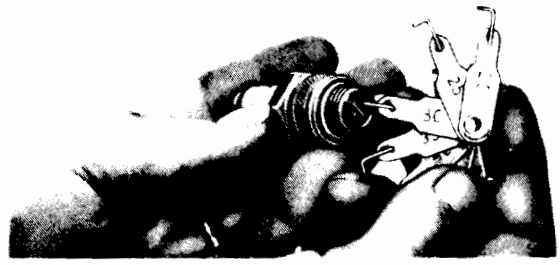


Ill. 7

Models 523, 623, 625, 725, 825

Changing Spark Plug (see Ill. 8)

Check the condition of the spark plug every twenty-five (25) operating hours. If the plug is fouled in any way, replace with a Champion RJ17LM or equivalent. Set the electrode gap at .030 inch. Apply a light film of graphite grease on the threads before installing.

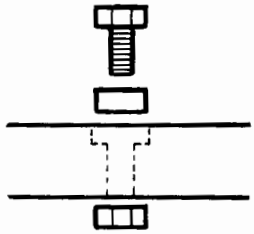


Ill. 8

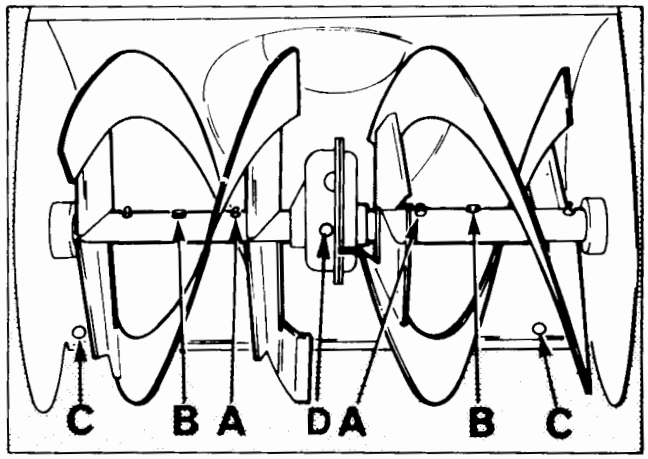
Auger Shear Bolts (see Ill. 9)

The augers are secured to the auger shafts with special bolts that are designed to break if an object becomes lodged in the auger. Use of a harder bolt will destroy the protection provided by the shear bolt. To replace a broken shear bolt, proceed as follows:

CAUTION: To insure safety and performance levels, only genuine replacement shear bolts should be used. When replacing shear bolts be sure to include shear bolt spacer.



1. Move throttle to STOP, disengage all controls, disconnect the spark plug lead wire, and insure all moving parts have stopped.
2. Remove the obstruction and align the hole in the auger with the hole in the auger shaft. Install new shear bolt and shear bolt spacer.
3. Lubricate the auger shaft zerks (A) if shear bolts are replaced (see Lubrication). Rotate the auger several revolutions to insure the components do not bind.

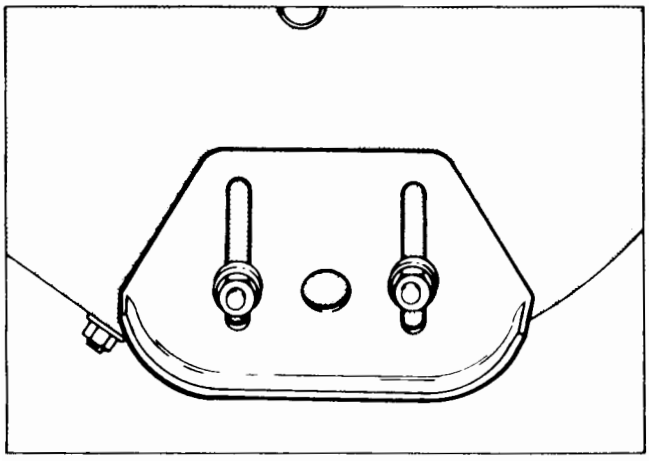


Ill. 9

Adjusting Scraper Bar (see Ill. 9)

After considerable usage, the metal scraper bar will have a definite wear pattern. The scraper bar in conjunction with the runners should always be adjusted to allow one-eighth of an inch between the scraper bar and the sidewalk or area to be cleaned. To adjust the scraper bar, proceed as follows:

1. Position the snowthrower on a level surface.
2. Loosen the carriage bolts (C) and nuts securing the scraper bar to the auger housing. (See Ill. 9)
3. Adjust the scraper bar to the proper position. Tighten the carriage bolts and nuts, insuring that the scraper bar is parallel with the working surface.
4. For extended operation, the scraper bar may be reversed. If the scraper bar must be replaced because of wear, remove the carriage bolts and nuts and install a new scraper bar.



Ill. 10

Adjusting Runners (see Ill. 10)

The auger housing is equipped with two (2) height adjusting runners. Raising or lowering these runners establishes the distance maintained between the scraper bar and the working surface. To adjust the runners, proceed as follows:

1. Position the snowthrower on a level surface and loosen the two (2) nuts retaining the runners.

   NOTE: The nuts are located on the outside of the auger housing side plates.

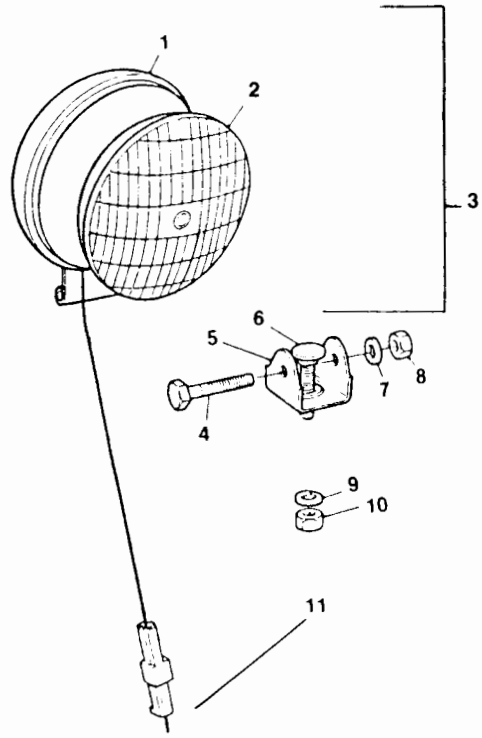
2. When using the snowthrower on gravel or crushed rock surfaces, the runners should be adjusted approximately one and one-fourth inch below the scraper bar.
3. Always insure the runners are parallel with a level surface at the time of adjustment. Tighten nuts securely.

It may be necessary to adjust the runner fully upward when using the snowthrower in wet or hard-packed snow. If the snow surface is rough or bumpy the snowthrower will have a tendency to lurch left and right as the two auger sections contact the snow. When these conditions exist, select a lower gear (1, 2, 3) to maintain the necessary forward movement.

For safe after dark use of your Dual Stage Snowthrower, an add-on alternator and light kit is available for 8 and 10 H.P. Tecumseh engines. The kit No. 5075 includes light assembly, wire harness, all necessary fasteners and complete installation instructions.

Light Kit (optional)

Replacement parts for Tecumseh and Briggs & Stratton equipped snowthrowers.



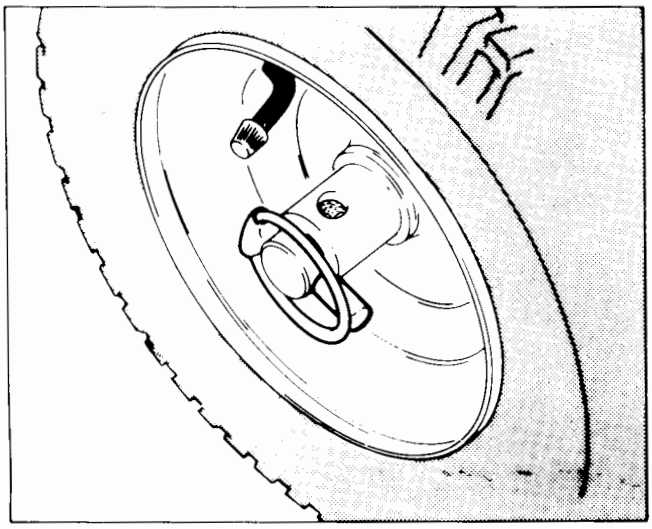
Ref. No.	Part No.	Description
1	3314	Light Housing
2	4161	Sealed Beam
3	4134	Light Assembly (1,2)
4	71009	3/8 - 16 x 1-3/4 HHCS
5	218	Bracket Light Mounting
6	3316	5/16 - 18 x 1 Carr. Bolt
7	71062	3/8 Split Lockwasher
8	71044	3/8 - 16 Hex Nut
9	71060	5/16 Split Lockwasher
10	71035	5/16 - 18 Hex Nut
11	6277	Wire Harness

Wheel Lock Out Pin (see Ill.11)

The left hand wheel is secured to the axle with a klik pin.

When maximum traction is required the klik pin should be located through the hole in the wheel hub and the corresponding hole in the axle. This locks both wheels to the axle and provides solid axle drive (no differential).

When lighter conditions prevail, for ease of operation remove the klik pin from the wheel and locate it through the hole in the axle outboard of the wheel hub. This unlocks the left hand wheel from the axle giving a differential effect.



Ill. 11

Lubrication

NOTE: The snowthrower should be lubricated every fifteen (15) hours of operation and no less than once a year.

Using motor oil, lubricate all control linkage pivot points every fifteen (15) operating hours.

Remove the rear panel. Using motor oil, lubricate all bearings, pivot points, and the hex shaft every fifteen (15) operating hours. Grease fittings on clutch plate **sparingly** once a year.

Replace the rear panel.

Using a hand grease gun, lubricate the auger shaft every fifteen (15) operating hours. Each time a shear bolt is replaced, the auger shaft MUST be greased.

CAUTION: Do not allow any oil to come in contact with the rubber drive wheel or the friction drive plate: damage to rubber drive wheel may result.

The auger gear box is lubricated at the factory and should not require additional lubrication. If for some reason the lubricant should leak out or if the auger gear box has been serviced add Sunoco Prestige 740AEP Grease or equivalent. Maximum 3-1/4 ounces, 92 grams should be used. Remove filler plug D, illustration 9, once a year. If grease is visible, do not add.

Off-Season Storage

If the snowthrower is to be stored for thirty (30) days or more or at the end of the snow season, the following steps are recommended to prepare your snowthrower for storage.

1. Thoroughly clean the snowthrower.

2. Drain the gasoline from the fuel tank by removing the fuel line at the fuel shut-off valve.

   NOTE: Close fuel shut-off valve before removing the fuel line. Allow gasoline to drain into a container. Replace the fuel line to the fuel shut-off valve.

   WARNING: Drain gasoline outdoors away from fire or flame.

3. Start the engine and run at SLOW speed (idle) until the engine stops from fuel exhaustion. Fuel tank, fuel line carburetor, and the engine should now be free from gasoline.

4. Remove the spark plug and squirt one (1) ounce of engine oil into the cylinder. Pull the recoil starter rope slowly which will allow the piston to coat the internal engine parts. Install an old spark plug; this prevents fouling a new plug with the preservative used to lubricate the internal parts of the engine. Close the choke and plug the muffler opening.

5. Lubricate all lubrication points (see Lubrication).

6. Insure that all nuts, bolts, and screws are securely fastened. Inspect all visible moving parts for damage, breakage, and wear. Replace if necessary.

7. Touch up all rusted or chipped paint surfaces; sand lightly before painting.

8. Cover the bare metal parts of the blower housing auger, and the impeller with rust preventative.

9. If possible, store your snowthrower indoors and cover it to give protection from dust and dirt.

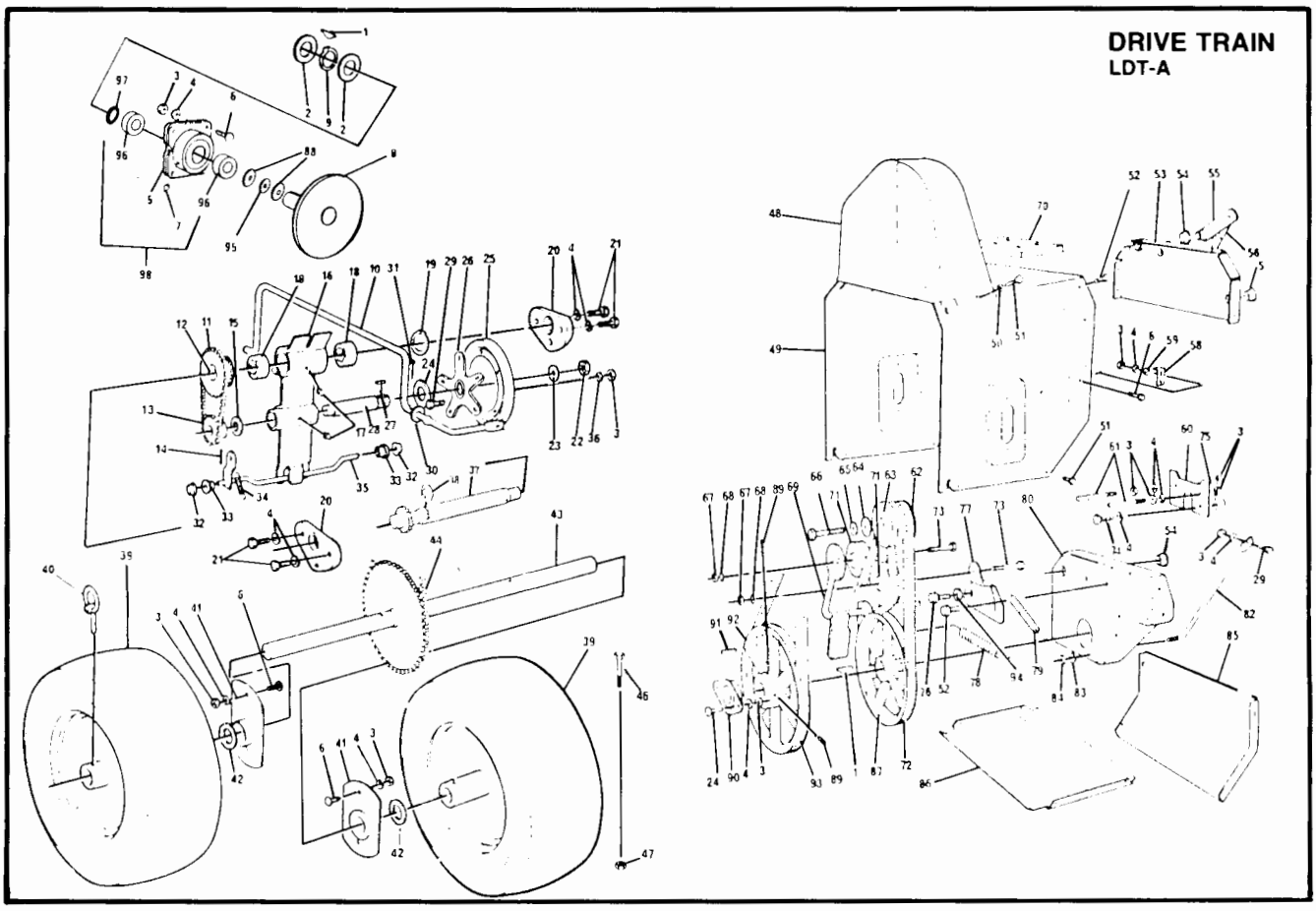
10. If the machine must be stored outdoors, block up the snowthrower and insure the entire machine is off the ground. Cover the snowthrower with a heavy tarpaulin.

    IMPORTANT: Include in the owner's kit are two replacement shear bolts, with spacers.

    Be sure to install these spacers when replacing your shear bolts.

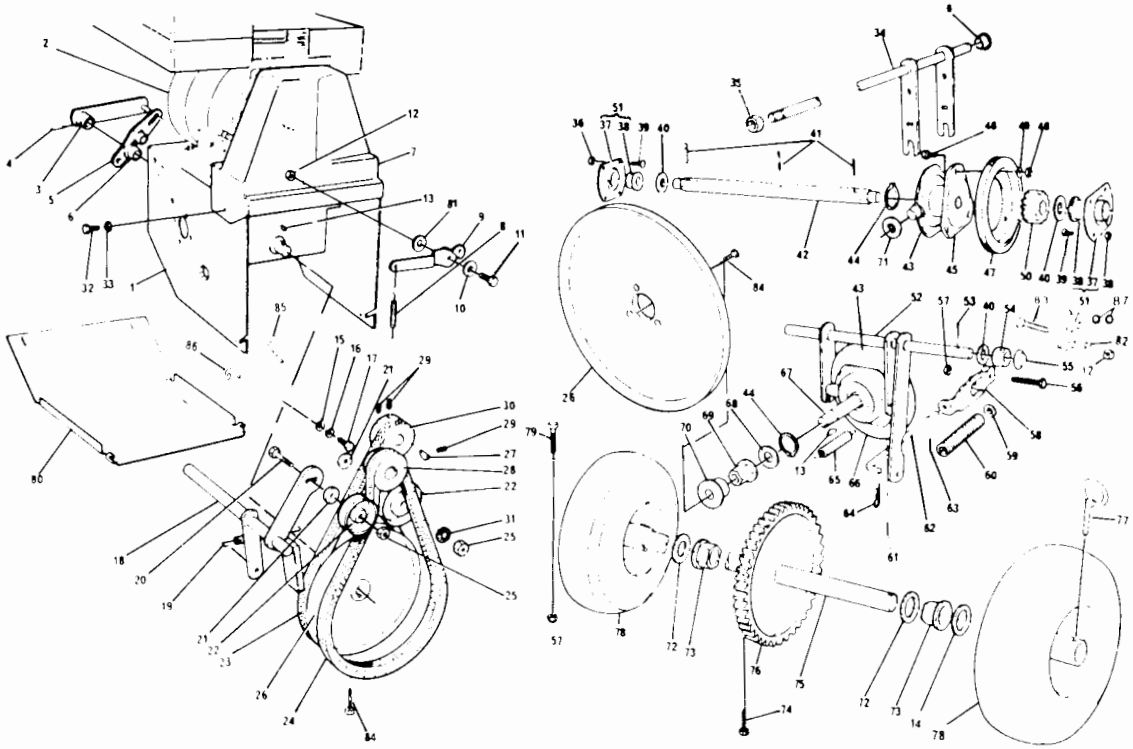
    Always use original equipment shear bolts on your snowblower to ensure maximum performance and safety.

DRIVE TRAIN
LDT-A



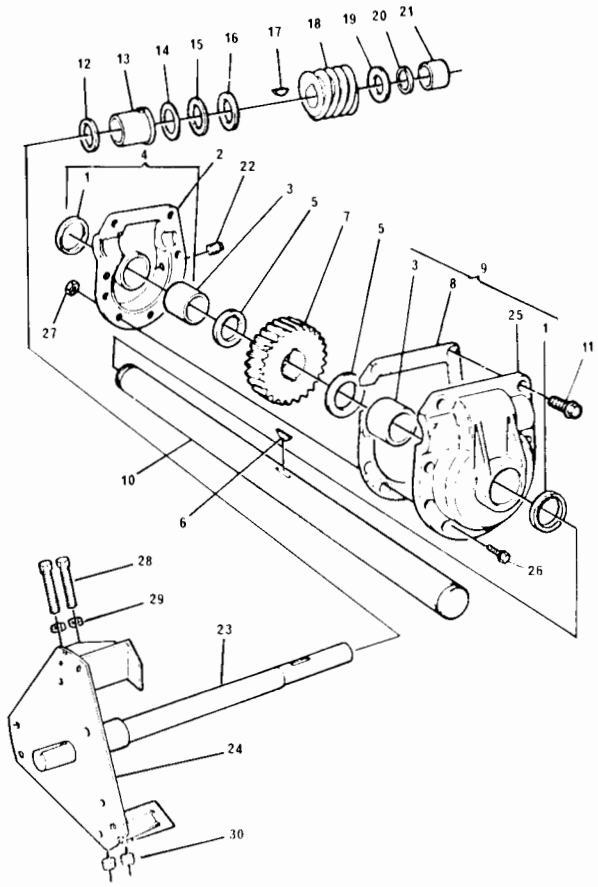
Ref. No.	Part No.	Description
1	50795	Hy pro key 3/16
2	50666	Race thrust
3	71037	5/16-18 Hex nut
4	71060	5/16 Split lock
5	50690	Spindle
6	70993	5/16-18 x 3/4 Car bolt
7	51501	Grease fitting
8	85214	Disc assy
9	50688	Ring retaining
10	51446	Yoke speed
11A	50798	Chain 13 & 15" wheels
11B	5893	Chain 16" wheels
12A	50706	Sprocket drive shaft 13 & 15" wheels
12B	5899	Sprocket drive shaft 16" wheels
13A	53675	Sprocket 8 tooth 13 & 15" wheels
13B	5894	Sprocket 8 tooth 16" wheels
14	12569	Roll pin
15	6051	Washer clutch
16	85204	Clutch plate
17	30440	Grease fitting
18	50705	Bearing hex shaft
19	50707	Retainer
20	1413	Drive bearing assy.
21	70983	5/16-18 x 5/8 HHCS
22	71048	3/8-24 Hex nut
23	71062	3/8 Split lockwasher
24	50704	Washer - special
25	5898	Friction wheel
26	5892	Hub drive roller
27	71203	Key 1/8 sq. x 3/8
28	5897	Shaft friction wheel
29	70985	5/16-18 x 3/4 HHCS
30	71074	1/2 SAE washer
31	71081	Cotter pin
32	73664	3/8 Retainer cap
33	50712	Bushing hgt. adj
34	53710	Spring return
35	85421	WF Yoke drive
36	71061	5/16 Int. lockwasher
37	4062	Shaft hex
38	50884	Crescent retaining ring
39A	5973	Wheel 13 x 500-6
B	5974	Wheel 15 x 600-6
C	5976	Wheel 16 x 750-8
D	5975	Wheel 4.80 x 4.00
40	73842	Klik pin
41	5954	MF Brkt. axle bearing
42	73840	Washer rear axle
43	6177	Axle
44A	50797	Chain (13 x 500 wheel) (15 x 600 wheel)
B	3181	Chain (16 x 750 - 4.80 x 4.00 wheel)
45	71085	5/32 x 1-3/4 Cot. pin
46	71009	3/8-16 x 1.75 HHCS
47	71046	3/8-16 Lock nut
48	167	Belt guard
49A	5504	Motor mount frame can red
49B	5505	Motor mount frame atlas red
49C	5508	Motor mount frame grey
50	71067	1/4 SAE washer
51	70978	1/4-20 x 1/2 Self tap
52	70982	5/16-18 x 1/2 Self tap
53A	5510	End plate can red
53B	5511	End plate atlas red
53C	5514	End plate grey
54	53703	Plastic bushing
55	85492	Lever auger clutch
56	85494	Lever clutch cable
57	53694	Grommet
58	53713	Brkt. clutch adj.
59	71071	5/16 SAE washer
60A	382	Plate belt guide BS
B	85187	Plate belt guide tec
61	70991	Belt Retainer
62	53720	Pulley wheel drive
63	53721	Pulley auger drive
64A	131	7/16 Bolt wsh. (BS eng.)
B	50677	Washer (tec. engine)
65A	71064	7/16 Spl. l. wsh. BS eng.
B	71063	3/8 Spl. l. wsh. tec. eng.
66A	71017	Bolt (BS engine)
B	71016	3/8-24 x 1-1/2 Bolt (tec.)
67	71045	3/8-16 Hex jam nut
68	71124	3/8 Ext. lockwasher
69	169	Auger idler
70	85190	Engine riser
71	51448	Idler pulley
72	51458	V belt 39
73	71006	3/8-16 x 1-1.4 HHCS
74	71393	5-16-24 x 1 HHCS
75	51438	Spacer belt guide
76	50740	Shoulder bolt
77	85111	Idler bracket
78	53704	Spring auger brake
79	51447	Spring drive idler
80	85408	Spindle plate
81	71391	5-16-18 Ctr. locknut
82	51445	Rod spindle support
83	71059	1/4 Split lockwasher
84	71034	1-4-20 Hex nut
85	85118	Rear panel
86	85112	Bottom panel
87	50794	Pulley 7
88	50683	Race thrust
89	130	Set screw
90	85087	Bearing assy. 7/8
91	70998	5/16-24 x 1" Hex
92	50796	Pulley 8.4"
93	51224	V belt auger drive
94	71073	7/16 SAE washer
95	50684	Bearing needle
96	50689	Bearing needle
97	50654	Seal spindle
98	85095	Spindle assy

DRIVE TRAIN
SDT



Ref. No.	Part No.	Description	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1A	5461	Frame engine mtg. can red	29	71002	Set screw	61	73823	Spring pin 1/8 x 1-3/8
1B	5462	Frame engine mtg. atlas red	30A	53788	Engine pulley - P.T.O. 5HP 3.73 kw	62	53821	Rod traction
2		Engine	30B	55025	Engine pulley - P.T.O. 6.7,8HP	63	73822	Spring pin 1/8 x 1-1/2
3	85492	Assembly lever auger clutch			4.47, 5.22, 5.97 kw	64	73824	Hair pin
4	73801	Roll pin	31	71124	3/8 internal lockwasher	65	53818	Spring return
5	85494	Assembly lever clutch cable	32	70978	1/4 - 20 x 1/2 self tap	66	53807	Disc drive
6	53703	Plastic bushing	33	71067	1/4 SAE washer	67	53803	Shaft hex traction
7	2889	Cover belt	34	85495	Assembly speed control shaft	68	53806	Washer thrust
8	53704	Spring traction	35	71111	3/8 - 16 centre locknut	69	53805	Bearing shaft traction
9	53793	Lever idler	36	71461	10 - 24 keps nut	70	53804	Bushing shaft traction
10	73795	Washer 14 ga.	37	85503	Flange bearing	71	73812	Washer trunion
11	70985	5/16 - 18 x 3/4 HHCS	38	53829	Bearing	72	73840	Washer 16 ga.
12	71391	5/16 - 18 centre locknut	39	72531	10 - 24 x 1/2 carr. bolt	73	53836	Bearing axle
13	50795	Hypro key	40	71074	1/2 SAE washer	74	73839	Bolt axle
14	239	Retainer axle	41	71086	1/8 x 3/4 roll pin	75	53837	Axle wheel drive
15	73787	Washer belt retainer	42	53832	Hex shaft	76	53838	Gear 48 tooth
16	71060	5/16 split lockwasher	43	85501	Assembly trunion bearing	77	73842	Klik pin
17	71393	5/16 - 24 x 1 HHCS	44	73811	Retainer 1-1/4	78A	53841	Wheel assembly 4.10 x 3.50 - 4
18	85489	Auger idler assembly	45	53831	Hub friction wheel	78B	1458	Wheel assembly 10.50 x 4.50
19	443	Spring impeller brake	46	70968	1/4 - 20 x 5/8 HHCS	78C	1392	Wheel assembly 13 x 500 - 6
20	71006	3/8 - 16 x 1.25 HHCS	47	53830	Friction wheel	79	73754	Bolt 1/4 - 20 x 1-1-2 gr. 5
21	71072	3/8 SAE washer	48	71034	1/4 - 20 hex nut	80	85510	Bottom panel
22	50793	Idler pulley	49	71059	1/4 split lockwasher	81	53794	Spacer
23A	53790	V belt traction drive 5HP 3.73 kw	50	53833	Pinion 8 tooth	82	1577	Pivot traction clutch
23B	25	V belt traction drive 6.7,8HP	51	85504	Bearing assembly	83	70988	5/16 - 18 x 1-1 4 HHCS
		4.47, 5.22, 5.97 kw	52	85499	Shaft traction clutch	84	130	Set screw
24A	3526	V belt auger drive 5,6,7HP	53	71079	1/8 x 1 cotter pin	85A	55026	Belt guide L.H. - 5,6,7HP
		3.73, 4.47, 5.22 kw	54	53816	Bushing shaft traction			3.73, 4.47, 5.22 kw
24B	3887	V belt auger drive 8HP 5.97 kw	55	73817	Push nut	85B	3948	Belt guide 8HP L.H.
25	71130	3/8 - 16 nte nut	56	70970	1/4 - 20 x 1-1/4 HHCS	86A	55027	Belt guide R.H. - 5,6,7HP
26	53802	Pulley traction drive	57	73826	1/4 - 20 centre locknut			3.73, 4.47, 5.22 kw
27	50729	Woodruff key #3	58	53819	Bracket traction clutch	86B	3949	Belt guide 8HP R.H.
28A	53714	Engine pulley - auger drive 5,6,7HP	59	71071	5/16 SAE washer	87	51438	Spacer
		3.73, 4.47, 5.22 kw	60	53820	Spring traction clutch			
28B	53715	Engine pulley - auger drive 8HP						

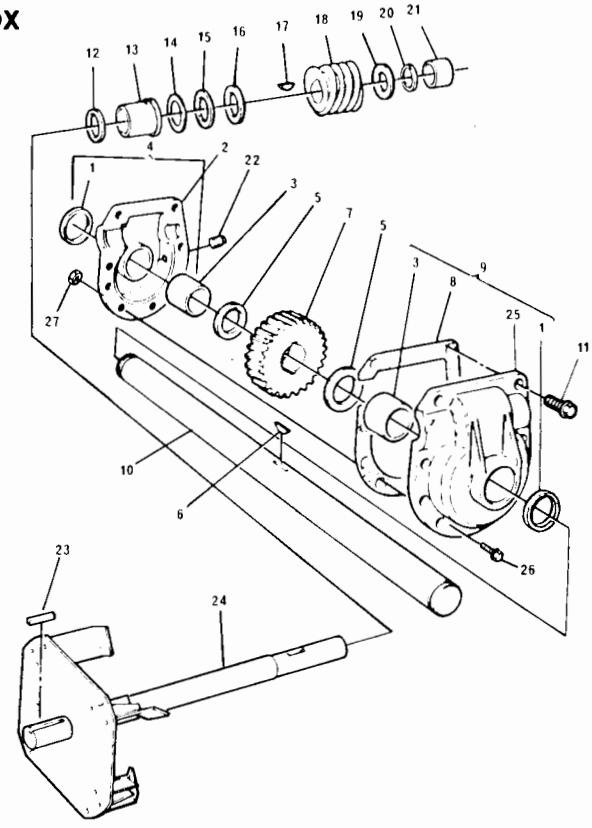
GEAR BOX
LGB



Ref. No.	Part No.	Description
		Auger Gear Box
1	53744	Seal
2	895	Housing L.H.
3	53743	Bearing
4	898	Housing assy. L.H.
5	53748	Race thrust
6	73905	Key woodruff #91
7	53730	Gear worm
8	897	Gasket
9	899	Housing assy. R.H.
10A	1417	Auger Shaft 26"
10B	1432	Auger Shaft 28"
10C	1403	Auger Shaft 32"
11	1441	5/16-24 x 1-3/4 HHCS
12	53737	Ring quad
13	53736	Bearing imp. shaft
14	53735	Race thrust
15	53734	Bearing needle
16	53733	Race thrust
17	50795	Key HP606
18	53732	Worm
19	50683	Race thrust
20	50688	Ring retainer
21	53731	Bearing imp. shaft
22	53749	Plug pipe
23	1401	Impeller shaft
24	85143	Impeller assy
25	896	Housing R.H.
26	71393	5/16-24 x 1 HHCS
27	71100	5/16-24 Flange Locknut
28	73839	1-4-20 x 2-1-4 HHCS GR 8
29	71067	1-4 SAE washer
30	73826	1-4-20 Centre locknut

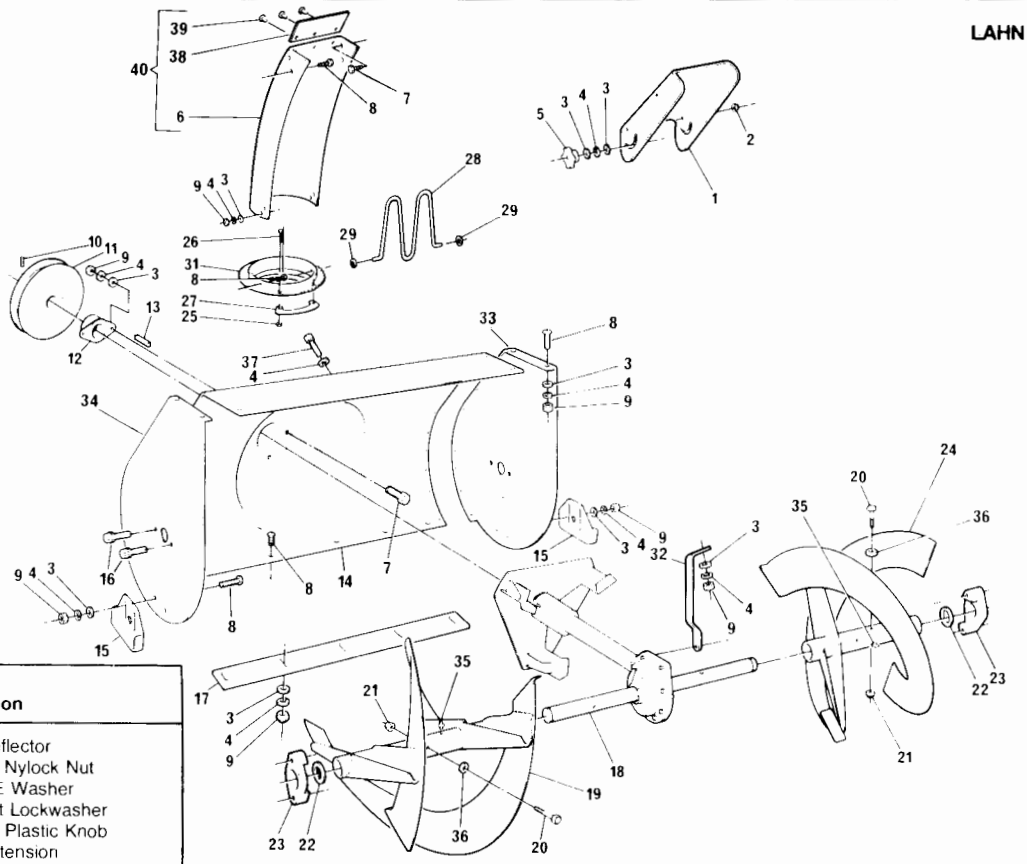
Models 523, 623, 625, 725, 825

GEAR BOX
SGB

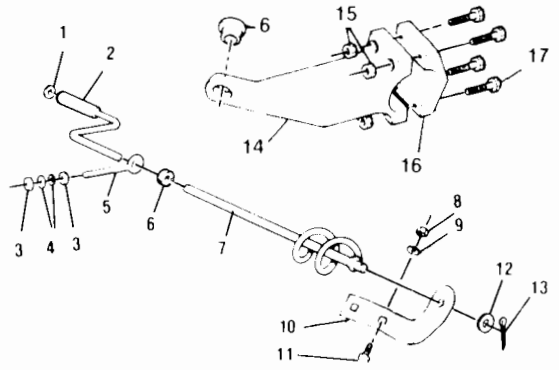


Ref. No.	Part No.	Description
		Auger Gear Box
1	53744	Seal
2	895	Housing L.H.
3	53743	Bearing
4	898	Housing assy. L.H.
5	53748	Race thrust
6	73905	Key woodruff #91
7	53730	Gear worm
8	897	Gasket
9	899	Housing assy. R.H.
10A	3953	Auger Shaft 21"
10B	3956	Auger Shaft 23"
10C	3959	Auger Shaft 25"
11	1441	5/16-24 x 1-3-4 HHCS
12	53737	Ring quad
13	53736	Bearing imp. shaft
14	53735	Race thrust
15	53734	Bearing needle
16	53733	Race thrust
17	50795	Key HP606
18	53732	Worm
19	50683	Race thrust
20	50688	Ring retainer
21	53731	Bearing imp. shaft
22	53749	Plug pipe
23	20556	3/16 sq x 2 key
24	85457	Impeller shaft assy
25	896	Housing R.H.
26	71393	5/16-24 x 1 HHCS
27	71100	5/16-24 Flange Locknut

LAHN

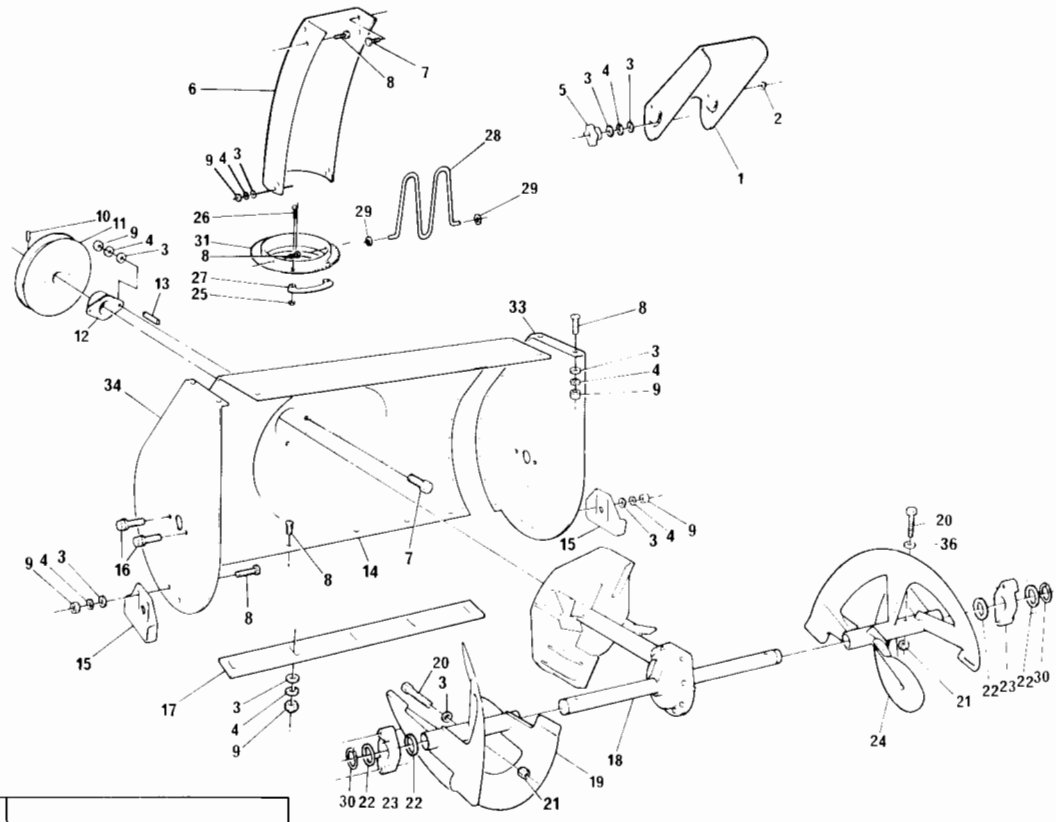


Ref. No.	Part No.	Description
1	4039	Chute Deflector
2	71038	5/16 - 18 Nylock Nut
3	71071	5/16 SAE Washer
4	71080	5/16 Split Lockwasher
5	71041	5/16 - 18 Plastic Knob
6	4035	Chute Extension
7	71147	5/16 - 18 x 3/4 Bolt
8	70993	5/16 - 18 x 3/4 Carr. Bolt
9	71037	5/16 - 18 Hex Nut
10	00130	Set Screw
11	50796	Pulley 8.4"
12	85087	Bearing Assy. 7/8
13	20556	3/16 Sq. Key
14A	5448	26" Auger Housing Can Red
14B	5492	26" Auger Housing Atlas Red
14C	5493	26" Auger Housing Grey
14D	5450	28" Auger Housing Can Red
14E	5494	28" Auger Housing Atlas Red
14F	5495	28" Auger Housing Grey
14G	5452	32" Auger Housing Can Red
14H	5498	32" Auger Housing Can Red
15	85105	Height Adj. Skid
16	70984	5/16 - 18 x 3/4 Self Tap
17A	85103	26" Scraper Bar
17B	154	28" Scraper Bar
17C	85104	32" Scraper Bar
18A	1419	26" Gear Box
18B	1434	28" Gear Box
18C	1405	32" Gear Box
19A	85016	26" Auger R.H.
19B	3842	28" Auger R.H.
19C	85020	32" Auger R.H.H
20	00235	Shear Bolt
21	71391	5/16 Lock Nut
22	50748	Spacer Washer
23	53757	Bearing Auger Shaft
24A	85018	26" Auger L.H.
24B	3841	28" Auger L.H.
24C	85022	32" Auger L.H.
25	71058	8 - 32 Centre Lock Nut
26	71032	8 - 32 x 1/2 HHCS
27	85113	Retainer Snow Chute
28	50782	Hand Guard
29	50763	Retainer Hand Guard
31	2987	Flange Chute Rotate
32	5524	Gear Box Bracket
33	5516	Side Plate L.H.
34	5518	Side Plate R.H.
35	10104	Grease Fitting
36	3944	Spacer Shear Bolt
38	3194	Rubber Skirt
39	3362	Rivet
40	3196	Snow Chute Assy.

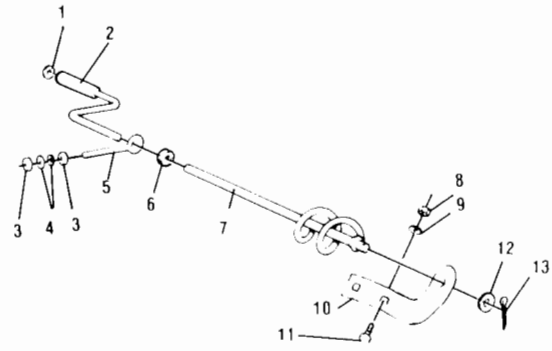


Ref. No.	Part No.	Description
1	71444	Retainer
2	51443	Knob
3	71045	3/8 - 16 Jam Nut
4	71062	3/8 Split Lockwasher
5	71457	Eye Bolt
6	148	Grommet
7	85192	Crank
8	71037	5/16 - 18 Hex Nut
9	71060	5116 Split Lockwasher
10A	3253	Bracket Crank
10B	3310	Bracket Crank Remote
11	70993	5/16 - 18 x 3/4 Carr Bolt
12	71072	3/8 Sae Washer
13	71081	3/32 x 3/4 Cotter Pin
14	3208	Bracket Crank Mount
15	71035	1/4-20 Hex Lock Nut
16	3209	Clamp Crank Mount
17	70969	1/4-20 x 1 HHCS

SAHN

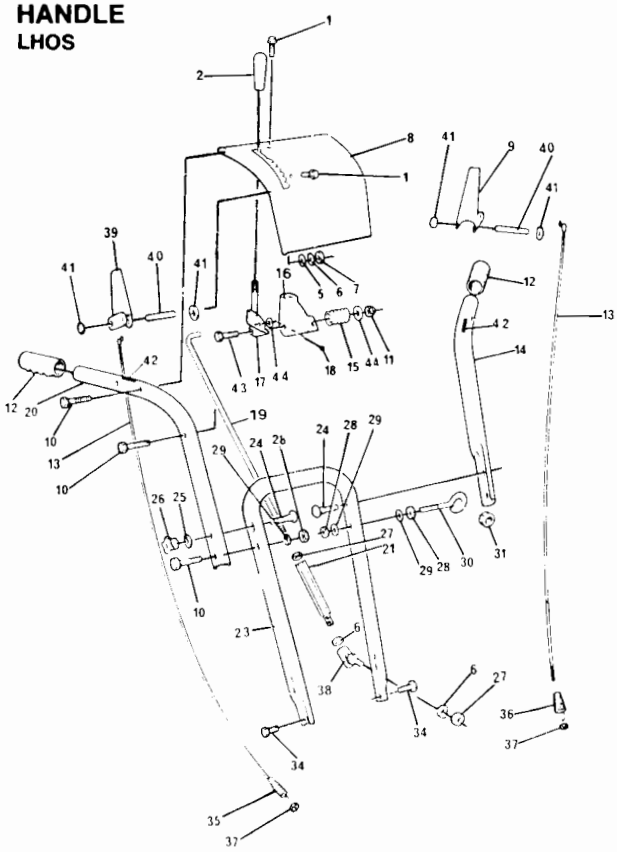


Ref. No.	Part No.	Description
1	5457	Chute Deflector
2	71038	5/16 - 18 Nylock Nut
3	71071	5/16 SAE Washer
4	71080	5/16 Split Lockwasher
5	71041	5/16 - 18 Plastic Knob
6	85477	Chute Extension
7	71147	5/16 - 18 x 3/4 Bolt
8	70993	5/16 - 18 x 3/4 Carr. Bolt
9	71037	5/16 - 18 Hex Nut
10	00130	Set Screw
11	53759	Pulley
12	85087	Bearing Assy. 7/8
13	20556	3/16 Sq. Key
14A	5442	21" Auger Housing Can Red
14B	5444	23" Auger Housing Can Red
14C	5486	23" Auger Housing Atlas Red
14D	5446	25" Auger Housing Can Red
14E	5488	25" Auger Housing Atlas Red
15	85105	Height Adj. Skid
16	70984	5/16 - 18 x 3/4 Self Tap
17A	85475	21" Scraper Bar
17B	00736	23" Scraper Bar
17C	738	25" Scraper Bar
18A	3955	21" Gear Box
18B	3958	23" Gear Box
18C	3961	25" Gear Box
19A	3973	21" Auger R.H.
19B	3979	23" Auger R.H.
19C	3985	25" Auger H
20	70971	Shear Bolt
21	73826	1/4 Lock Nut
22	73755	Spacer Washer
23	53757	Bearing Auger Shaft
24A	3971	21" Auger L.H.
24B	3977	23" Auger L.H.
24C	3983	25" Auger L.H.
25	71058	8 - 32 Centre Lock Nut
26	71032	8 - 32 x 1/2 HHCS
27	01849	Retainer Snow Chute
28	50782	Hand Guard
29	50763	Retainer Hand Guard
30	73756	Retainer Auger Shaft
31	2987	Flange Chute Rotate
33	5502	Side Plate L.H.
34	5520	Side Plate R.H.
38	3943	Spacer Shear Bolt



Ref. No.	Part No.	Description
1	71444	Retainer
2	51443	Knob
3	71045	3/8 - 16 Jam Nut
4	71062	3/8 Split Lockwasher
5	71457	Eye Bolt
6	148	Grommet
7	85192	Crank
8	71037	5/16 - 18 Hex Nut
9	71060	5116 Split Lockwasher
10	3528	Bracket Crank
11	70993	5/16 - 18 x 3/4 Carr Bolt
12	71072	3/8 Sae Washer
13	71081	3/32 x 3/4 Cotter Pin

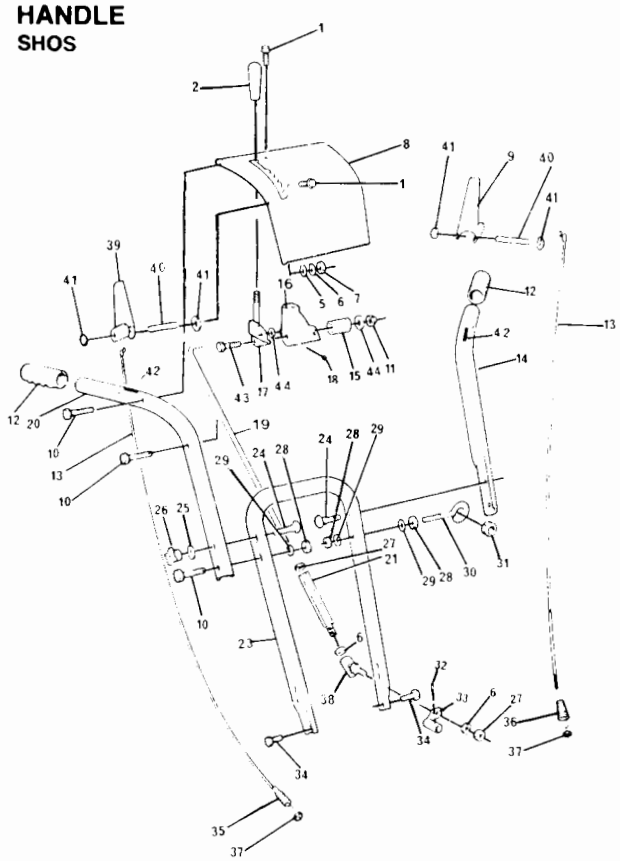
HANDLE
LHOS



Ref. No.	Part No.	Description
1	70982	5/16-18 x 1/2 Self tap
2	50780	Knob
5	71071	5/16 SAE washer
6	71060	5/16 Split lockwasher
7	71037	5/16-18 Hex nut
8A	6071	Control panel
8B	6074	Control Pannel - Remote Chute
9	85403	Hand control L H
10	70990	5/16-18 x 1-3/4 HHCS
11	71046	3/8-16 Nylock nut
12	50792	Handle grip
13	1579	Cable
14	5118	Upper handle L H
15	50786	Spring compression
16	85122	Brkt speed control
17	85031	Handle speed control
18	71081	3/32 x 3/4 Cotter pin
19	1669	Rod speed control
20	5120	Upper handle R H
21	6352	Adaptor rod speed control
23	5545	Lower handle
24	431	5/16-18 x 3 HHCS full thread
25	71078	Saddle washer
26	71041	Wing nut
27	71042	5/16-24 Hex nut
28	70145	3/8-16 Hex nut
29	71062	3/8 Split lockwasher
30	71457	"Eye" bolt
31	148	Grommet
34	70985	5/16-18 x 3/4 HHCS
35	1673	Spring auger clutch
36	1671	Spring traction clutch
37	71035	1/4-20 Locknut
38	50782	Ball joint
39	85517	Hand control R H
40	4140	Pivot pin
41	3535	Cap nut
42	4049	Clutch handle bumper
43	4058	318-16 x 1-3/4 HHCS
44	71072	3/8 SAE washer

Models 523, 623, 625, 725, 825

HANDLE
SHOS



Ref. No.	Part No.	Description
1	70982	5/16-18 x 1/2 Self tap
2	50780	Knob
5	71071	5/16 SAE washer
6	71060	5/16 Split lockwasher
7	71037	5/16-18 Hex nut
8	6071	Control panel
9	85403	Hand control L H
10	70990	5/16-18 x 1-3/4 HHCS
11	71046	3/8-16 Nylock nut
12	50792	Handle grip
13	1580	Cable control
14	5118	Upper handle L H
15	50786	Spring compression
16	85122	Brkt speed control
17	85031	Handle speed control
18	71081	3/32 x 3/4 Cotter pin
19	1669	Rod speed control
20	85401	Upper handle R H
21	6352	Adaptor rod speed control
23	5459	Lower handle
24	431	5/16-18 x 3 HHCS full thread
25	71078	Saddle washer
26	71041	Wing nut
27	71042	5/16-24 Hex nut
28	70145	3/8-16 Hex nut
29	71062	3/8 Split lockwasher
30	71457	"Eye" bolt
31	148	Grommet
32	73801	Roll pin
33	1449	Speed control lever
34	70985	5/16-18 x 3/4 HHCS
35	1673	Spring auger clutch
36	1672	Spring drive clutch
37	73826	1/4-20 Locknut
38	53874	Ball joint
39	5120	Hand control R H
40	4140	Pivot pin
41	3535	Cap nut
42	4049	Clutch handle bumper
43	4058	318-16 x 1-3/4 HHCS
44	71072	3/8 SAE washer


DANGER
AVOID INJURY FROM ROTATING AUGER — KEEP HANDS, FEET, AND CLOTHING AWAY
3908


DANGER
DO NOT USE HANDS TO UNCLOG DISCHARGE CHUTE.
• STOP ENGINE/MOTOR BEFORE REMOVING DEBRIS.
• DO NOT WALK IN FRONT OF RUNNING MACHINE.
• DO NOT DISCHARGE AT BYSTANDERS.
• KEEP PEOPLE AND PETS A SAFE DISTANCE FROM THE MACHINE.
• BEFORE LEAVING MACHINE, SHUTT OFF ENGINE/MOTOR AND REMOVE KEY.
3907