

GRAVELLY®

**SNOW THROWER
ATTACHMENT
OWNERS
MANUAL**

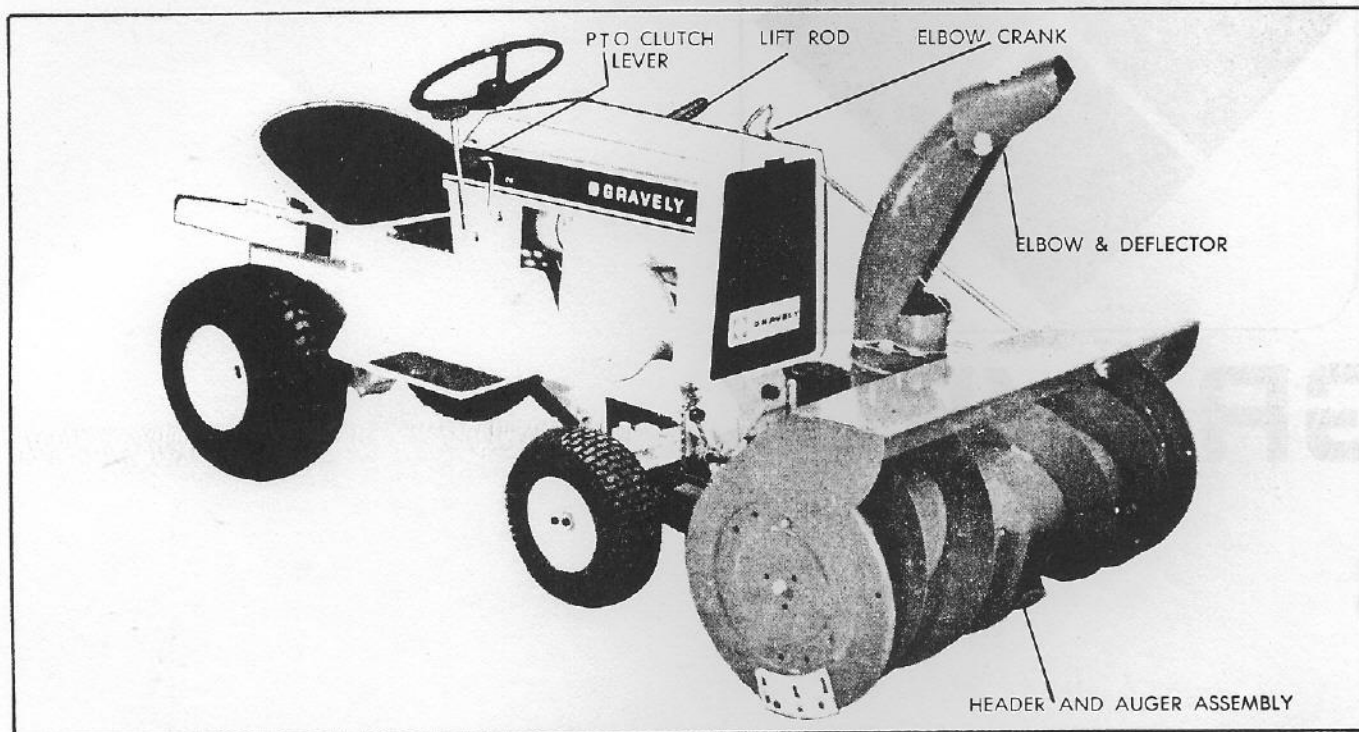
FOR 408 LAWN TRACTOR

 **GRAVELLY**

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FIGURE 1. Assembly of Snow Thrower Viewed from Right Side



OPERATING INSTRUCTIONS

Operating capacity of your Gravely Snow Thrower can be enhanced by careful observation of all safety rules and consideration for the type of snow removal job undertaken. Do not attempt force of snow thrower operation beyond its capacity. This will prevent jamming of machine or breakage of parts which were subjected to undue strain. Give your tractor and your Snow Thrower the opportunity to work within its capacity for safe and satisfactory operation.

Be certain to review all the operating instructions and adjustments. Become totally familiar with the machine prior to starting snow removal. Under no circumstances allow anyone to operate the machine without thoroughly his being first acquainted with all the controls and methods to be used in removing snow. Make certain that they have read the safety suggestions found on Page 6.

Every attempt has been made to provide a safe unit for use in snow removal work. By-passing or ignoring safety suggestions could result in serious injury to either the operator or bystanders. Safety and careful operation can never be over emphasized.

OPERATING HINTS TO PROVIDE EASY SNOW REMOVAL

1. For most effective performance, tractor should be equipped with tire chains.
2. Tractor engine should be operated from $\frac{3}{4}$ to full throttle for best performance.
3. Attempt to keep your tractor on level surface as much as possible loss of traction may be noted when attempting to "back the tractor up" any incline.

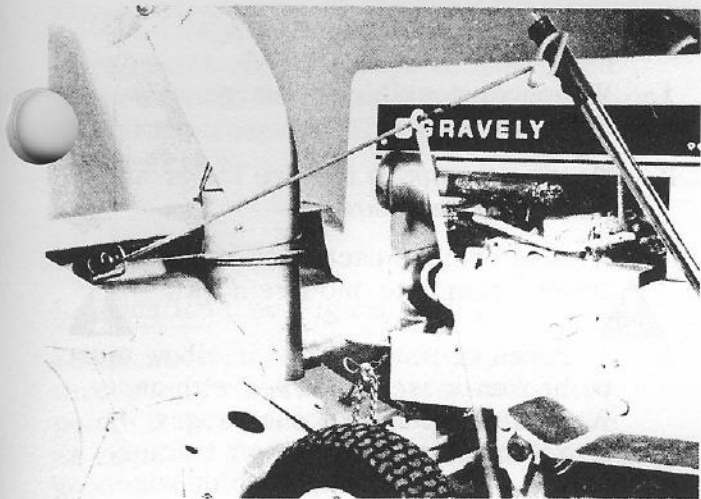


Fig. 2

OPERATING INSTRUCTIONS

Before placing auger into operation

1. Check all screws and nuts for proper tightness and that all parts are properly assembled.
2. Test all controls for smooth operation.
3. Read Safety and Operating Suggestions carefully for safe and proper use of the auger.

NOTE: Thrower is pre-lubricated at the factory and is ready to put into operation. Refer to lubrication instructions for location of lubricating points and required lubricant.

Auger Operating Controls And Adjustments

(See Figure 1)

Operation of the thrower auger is accomplished by three separate controls: P. T. O. lever, elbow crank, and lift handle. All controls are within easy reach from operator's position on the tractor.

P. T. O. Lever

Located on right side of tractor, starts and stops rotation of auger.

To Stop Auger

Push P.T.O. lever to Disengage Position.

Elbow Crank

Left hand side. Turn crank to the right or the left to change direction of snow discharge. Full 270° rotation... 135° right, front and 135° left.

Lift Handle

Located on left side of tractor and is used to raise and lower auger. By pulling handle back and locking in notch, the auger is raised into transport position. Moving handle forward places auger in its operating position. Lift handle must be in full forward position to allow auger to float.

OPERATING ADJUSTMENTS

Deflector

The deflector mounted on top of elbow determines the distance snow is thrown. Moving top of deflector down decreases distance of throw and raising deflector increases distance of throw. Operator must get off the tractor to make this adjustment. Disengage auger clutch before making this adjustment.



CAUTION



When making skid shoe or elbow drive tube adjustment, turn tractor engine off.

Skid Shoe Adjustment

The skid shoe mounted on each side of auger housing adjusts the distance the scraper blade is raised above plowing surface. Removing snow from gravel driveway or an uneven surface, it is advisable to keep scraper blade as high above the surface as possible to prevent possible damage to auger. On black top or concrete surface, keep scraper blade as close to the surface as possible. Skid shoes can be adjusted so that the scraper blade will rest directly on the surface by turning skid shoes around so that flange on bottom of skid shoes extends beyond auger housing. This is advisable on an extremely smooth surface only.

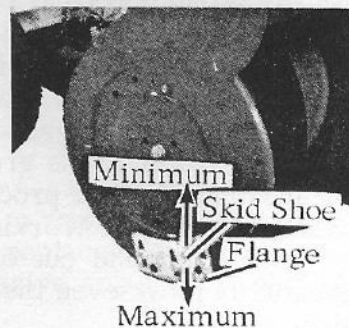


Fig. 3

To Adjust Skid Shoes

Raise auger a few inches off the ground and loosen 6 nuts securing skid shoes to auger housing (3 nuts on each side). Move skid shoes up or down to desired position and tighten nuts securely. Adjust both skid shoes to the same height to keep auger level. (See Fig. 3).

Snow Conditions

Snow removal conditions vary so greatly from the first light fluffy snowfall to the wet heavy snow that operating instructions must be flexible so the unit is adaptable for removing any type of snowfall that might be encountered. The operator must adapt the tractor and snow thrower to the depth of snow, wind direction, temperature and surface conditions.

Operating Speed

The auger speed is directly related to the engine speed. For maximum snow removal and discharge, maintain high engine r. p. m. (full throttle). The tractor's forward speed is controlled by selecting one of the forward speeds. It is advisable to operate the tractor at a slow ground speed (1st gear) for safe and efficient snow removal.

Deep or Drifted Snow

In deep, drifted, or banked snow, it will be necessary to use full throttle and first speed. Drive the auger into the snow, disengage tractor clutch and allow auger to clear the snow. Repeat this method until a path is cleared. On the second pass overlap the first enough to allow the auger to handle the snow without repeated clutching and declutching of the tractor.

In extremely deep snow, raise thrower from the ground, drive tractor ahead in the deep snow to remove top layers first. Do not enter tractor into snow bank where snow has not been removed to ground level. Disengage tractor clutch and allow thrower to clear the snow. Reverse the tractor and lower thrower to the ground. Drive tractor ahead and repeat process to remove balance of snow. Working with repeated passes into and out of the drifts will eventually move even the deepest of snow piles.

OPERATING TIPS

1. Whenever possible discharge snow down wind.
2. Do not attempt to remove ice or hard packed frozen snow.
3. Always overlap each pass slightly to assure complete snow removal.
4. A frozen or stuck auger or elbow must be broken loose or thawed with care. When attempting to loosen auger if frozen or jammed, shut off tractor engine and remove spark plug wire. Never attempt to clear Snow Thrower at any time with tractor engine in operation.

METHODS

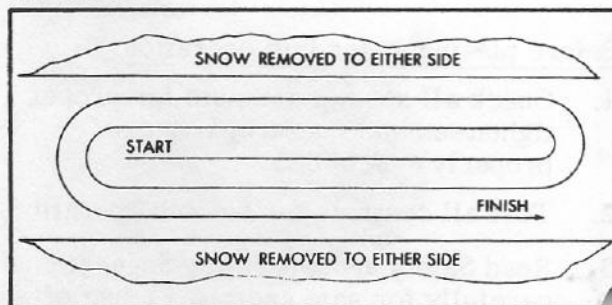


Fig. 4

A definite pattern of operating is required to thoroughly clean the snow area. This pattern will avoid a second removal of snow and avoid throwing snow in unwanted places. Where it is possible to throw snow to right and left, as on a long driveway, it is advantageous to start in the middle. Plow from one end to the opposite end throwing snow to both sides without changing the direction of discharge elbow. If snow can only be thrown to one side of the driveway or sidewalk, start on the opposite side. At the end of each succeeding pass, rotate the chute 180° to maintain direction of snow throw into the same area.

METHODS

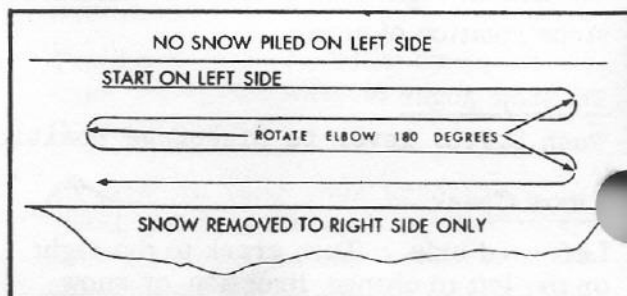


Fig. 5

Use of Tire Chains

Tire chains should always be used when extra traction is needed to give the tractor operator maneuverability in handling snow removal jobs.

MAINTENANCE

Lubrication (See Figure 6)

Lubrication points (A) are lubricated through grease fitting. Lubricate these points before each operating season and as required during the season with a good grade of pressure gun grease.

- A. Jackshaft Housing - Fittings
Elbow Collar - Fitting
- B. Auger drive chain: Lubricate chain every 40 operating hours with No. 30 oil. It is important that oil reaches inside each roller. Wipe off excess oil from chain.

The auger and idler pulley bearings are self-lubricating and no additional lubrication is required.

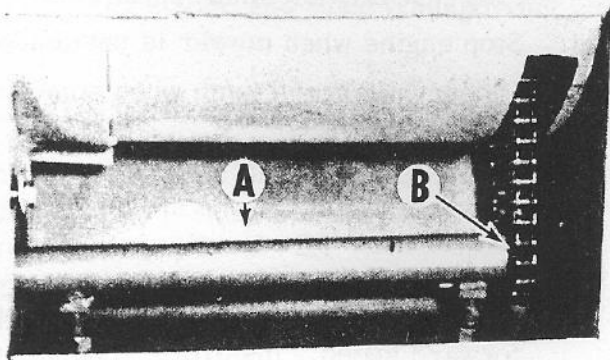


Fig. 6

Auger Drive Chain Adjustment

(See Figure 7)

Periodically check auger drive belt to insure that it is properly adjusted. It is important to maintain proper belt adjustment to obtain maximum belt life.

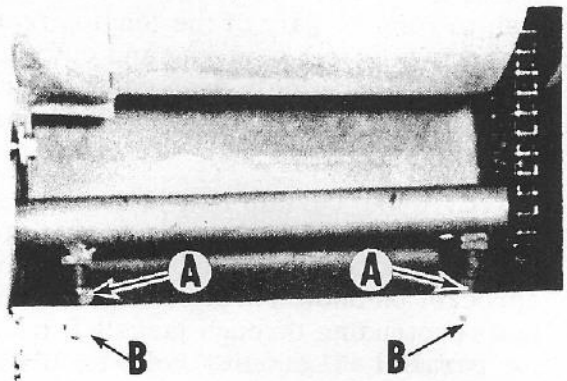


Fig. 7

To check belt adjustment and to adjust drive belt refer to setting up instructions. (page 10)

If belt is stretched beyond idler take up, replace with a new belt of the type specified in parts list.

Excessive slack in auger drive chain due to normal chain stretch can be removed by adjusting jackshaft housing nuts.

To Adjust Auger Chain:

1. Disengage auger clutch and loosen the two mounting nuts (A) 2 or 3 complete turns.
2. Tighten the two adjustment mounting nuts (B) to tighten chain. Make certain nuts (B) are turned the same amount to keep jackshaft housing parallel with the auger housing.

Caution: Do not over tighten chain. Correctly adjusted chain will have a slight amount of slack. An over tightened chain will result in early failure of chain.

3. Tighten mounting nuts (A) to secure the chain adjustment. Check chain clearance so as not to strike auger housing. Test chain and repeat adjustment if necessary until all excess slack is removed.

Scraper Blade and Skid Shoes

Both the scraper blade and skid shoes are subject to wear and are designed to be readily replaceable. Replace before wear is excessive so as not to damage the auger housing.



SAFETY SUGGESTIONS



Lift Assist Spring Setting

In extremely hard or packed snow, you may wish to remove part of the tension from the lift springs to get scraping and cutting ability. In extremely deep snow or drift banks, 'angle' approach to the bank may be needed.

NOTE: Make certain that jackshaft assembly is always properly aligned and that jackshaft sprocket is perfectly aligned with large sprocket on Snow Thrower auger. Measure bolts protruding through jackshaft housing for parallel alignment - bolts should always project equally from housing. Oil can lubrication of drive chain is desirable.

SPECIAL NOTE: Extreme adjustment of jackshaft assembly which would increase drive chain tension could in some cases decrease drive belt tension on your Snow Thrower. Should this happen, see Page for procedure to tighten V-Belt drive.

Storing Auger

At the end of the snow season the following steps are recommended:

1. Remove snow thrower assembly from mower.
2. Wash off any salt deposit which may have dried on the thrower and housing. Paint or cover exposed metal with a light coat of oil.
3. Lubricate thrower using lubricating instructions and recommended lubricant. Thrower drive chain must be oiled thoroughly to prevent rust from forming. The preferred method is to soak in oil for several hours before re-installing.
4. Store your Snow Thrower in a dry place.

Elbow Drive Tube Adjustment

If elbow will not hold its position and tends to rotate, adjust lock nut on end of elbow drive tube eye bolt. Tighten lock nut 1/8 turn and check rotation of drive tube by turning elbow crank. A small amount of resistance should be encountered. If elbow still tends to rotate, repeat adjustment. Do not over tighten nut, just tighten until elbow holds its position. Refer to Fig. 16

Training

1. Respect your snow thrower as a piece of power equipment and teach this respect to all who operate it.
2. Never allow children or your teen-agers to operate the mower and Snow Thrower.
3. Be sure you know how to stop the mower and thrower at a moment's notice.
4. Instruct children to keep away from the area of operation at all times.

Preparation

1. Check the mower and thrower to make certain both are in good operating condition.
2. Fill gas tank out of doors and avoid spilling gasoline over engine. Do not fill tank with gasoline while you are smoking or while engine is running.
3. Do not remove any guards or covers while operating mower and thrower.

Operation

1. Give complete and undivided attention to the job at hand.
2. Keep the area clear of all persons.... PARTICULARLY small children.
3. Stop engine when mower is unattended.
4. Disengage auger clutch when someone approaches.
5. Do not allow anyone other than the operator to ride on the mower or to be towed behind.
6. Extreme caution should be exercised under slippery conditions. Reduce the forward speed. Install tire chains to traction wheels for added safety.
7. Do not attempt to clear auger or discharge elbow while engine is running.
8. When changing position of the deflector, disengage the auger clutch.
9. Never direct snow discharge at people or buildings.
10. Disengage auger clutch when transporting.

Maintenance and Storage

1. Follow implicitly the manufacturer's recommendations for maintenance.
2. Have a competent service man make thorough inspection of the Snow Thrower before the snow season begins.
3. Store gasoline in a safe container. Store container in a cool, dry place... not in the house or near heating appliances.
4. Keep the snow thrower, mower and gas container in locked storage to prevent children from playing and tampering with them.
5. Maximum snow removal results, and safety can only be expected if the snow thrower is maintained and operated correctly.
6. Gasoline powered equipment and fuel containers should not be stored in the basement or in any closed area where heating appliances or open pilot lights are present, unless fuel is completely drained from power equipment or fuel containers.

OPERATING SUGGESTIONS

Preparing For Snow Removal

CAUTION: Disengage auger clutch when starting engine and when transporting auger.

Before the first snowfall, the area in which snow removal is to take place should be cleared of all stones, sticks, etc., which might be picked up by the auger. Any obstacles should be marked to prevent the tractor and auger from being driven into them.

To become familiar with the controls operate the tractor and snow thrower in a clear area before removing snow for the first time. The more familiar you are with the snow thrower the better results you will have in its use.

A light coat of wax applied to the inside surfaces of auger housing prevents snow and ice from sticking to it. The inside of the elbow and deflector should be waxed several times during the snow removal season.

Allow ample engine warm up time before starting snow removal.

Best results are obtained when snow is removed as soon as possible.

Operation

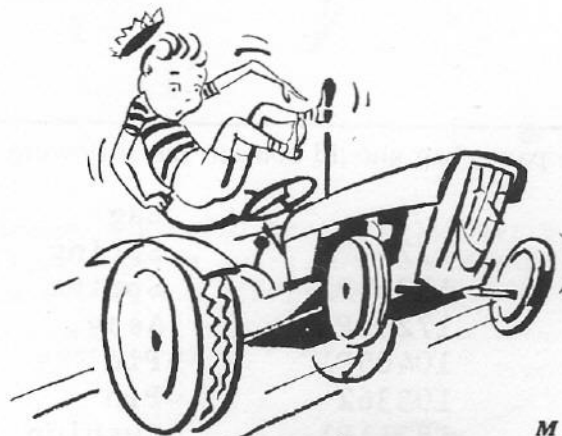
The thrower controls are conveniently located at the operator's position on the tractor. By engaging the auger clutch, snow is thrown through the elbow by the motion of the auger. Turning elbow crank directs snow discharge and deflector controls distance snow is thrown.

RULES FOR SAFE OPERATION

NOTE: Whenever servicing tractor or snow thrower, shut off engine, remove ignition key if unit is so equipped, and remove spark plug wire from spark plug.

DO NOT run engine indoors; exhaust gases contain carbon monoxide which is odorless and deadly poisonous. If for some reason, engine must be run indoors, open all doors and windows to provide sufficient ventilation.

Operate tractor and snow thrower only in daylight or in good artificial light.



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CAUTION: Always remove ignition key before leaving tractor.

SET UP

Preparation Of Tractor

To install your Gravely Snow Thrower, first remove any other attachments which may be on the tractor, such as rotary mower, dozer blade, etc. The Snow Thrower attachment is mounted to the quick hitch couplers on the tractor frame similar to other attachments.

NOTE: Terms left and right as used in this manual refer to the left and right side of the Snow Thrower when facing forward from the rear of the Snow Thrower.

Unpacking and Setting Up

The container should contain the following items: (See Fig. 8):

1. Snow Thrower Header Assembly
2. Discharge Spout
3. Deflector Spout Crank
4. Crank Rod Support
5. Mounting Frame
6. Bag of Parts
7. Belt Pulley Guard
8. Lift Push Rod Assembly

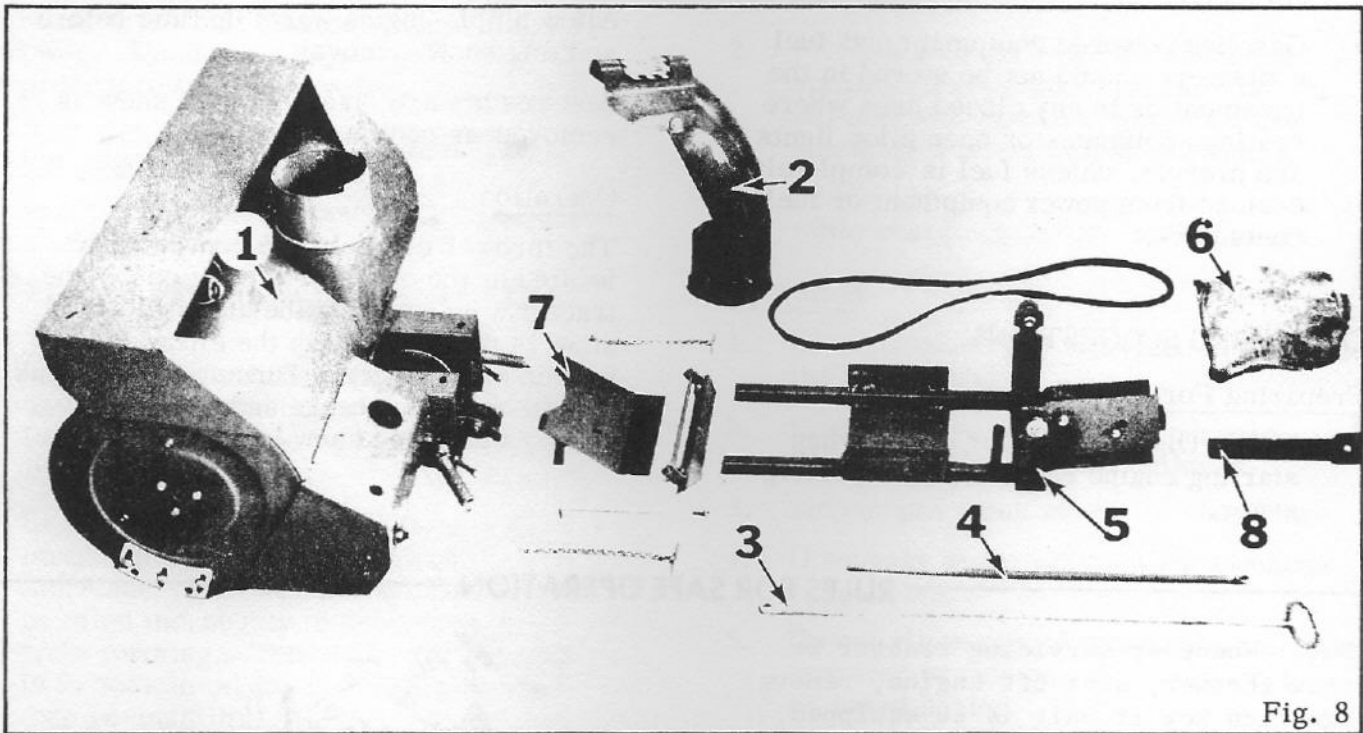


Fig. 8

The parts bag should contain the following items:

17246P1	Bag	Shipping (6 x 10 Plastic). 1
17249P1	Spring	Idler Pulley Tension..... 1
17250P1	Spring	Lift..... 2
10405P1	Assy.	Chain & Toggle..... 2
103362	Pin	Hair Cotter..... 4
18711P1	Pin	Hair Cotter..... 2
17254P1	Cushion	Locker Finger..... 1
17298P1	Pin	Clevis..... 1
180124	Trunnion 1
18712P1	Bolt	3/8-16 x 1-1/4 Hex. Hd.... 1
120388	Belt	Popper..... 1
	Washer	Flat (7/16 x 1 x .083).... 2

Included in bag of parts is belt-popper (V) (Fig. 9). To install, remove engine belt-guard on left-hand side of tractor. Place two washers (U) and belt-popper over bolt (T) and screw onto side of engine block as shown (Fig. 9).



Fig. 9

After checking the carton to make certain that all parts are accounted for, proceed as follows (Fig.10):

Place Snow Thrower mounting bracket (A) directly in back of the Snow Thrower as illustrated.

Slide square shaft extensions into mounting pocket (B)

Remove 3/8" nut from eye bolt (D) and push mounting bracket completely into the pockets taking care to see that eye bolt (D) is threaded through adjustment bracket (E) as shown in (Fig. 10).

Secure mounting bracket in this position by installing 3/8" hex nut onto eye bolt as shown (Fig. 10).

Do not complete tightening at this point.

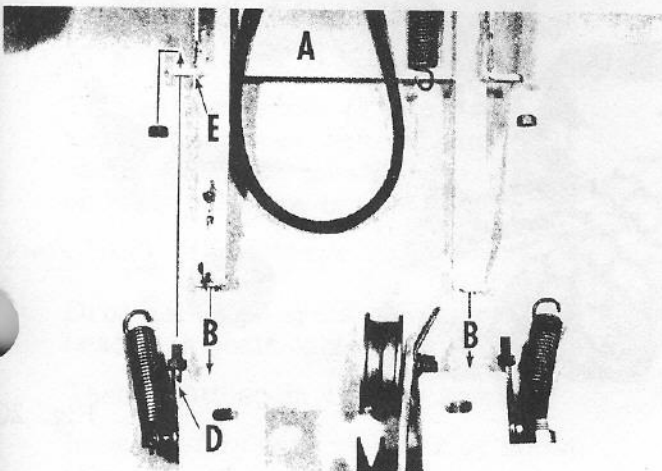


Fig. 10

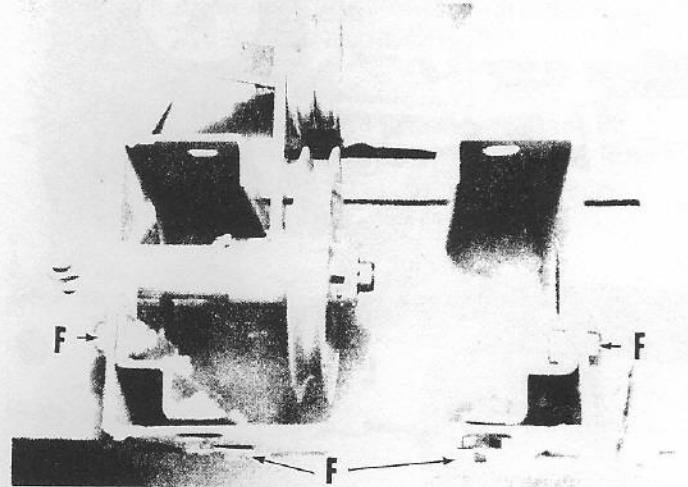


Fig. 11

The next step will be to tighten bolts (F) (see Fig. 11) which hold the mounting bracket in the pockets. Tighten each of the bolts securely.

Thread V-belt under idler pulley (G) as shown and on each side of idler pulley (H) (Fig. 12).

Attach lift spring (J) to idler (G) and idler pulley retainer arm as illustrated (Fig. 12).

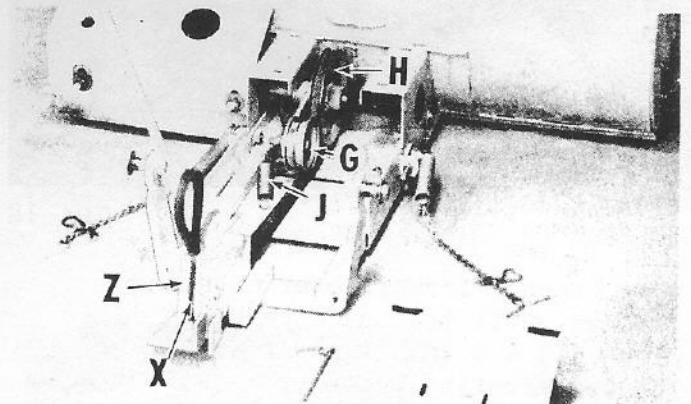


Fig. 12

Remove guard (Z) thread belt over pulley (X). Replace guard and secure with (two) nuts 1/2-13 and 3/8-13 hex.

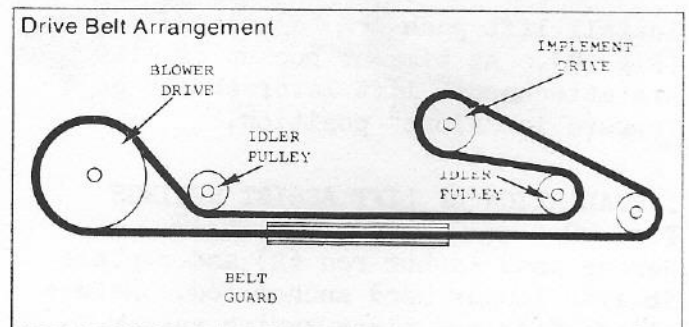


Fig. 13

SET UP

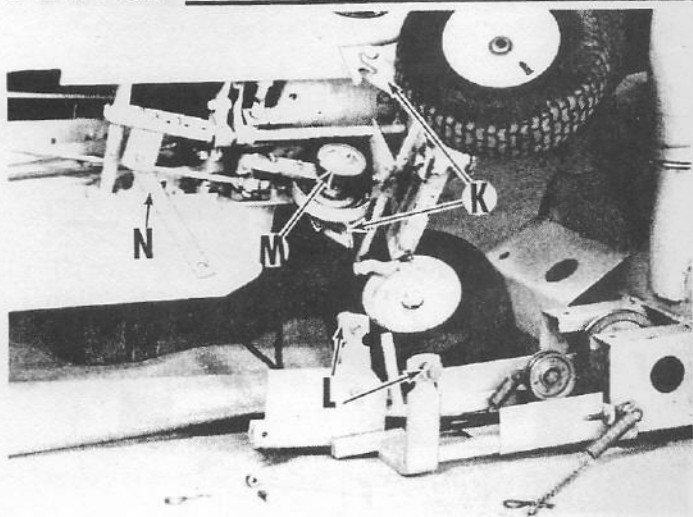


Fig. 17

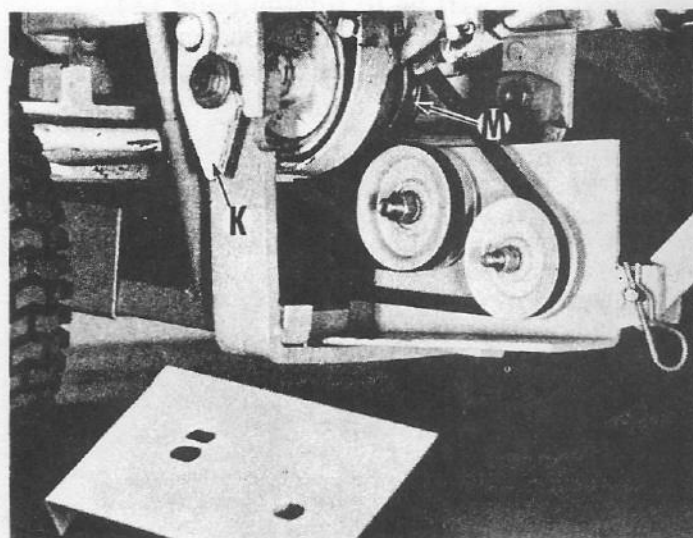


Fig. 18

Move tractor forward over mounting bracket until tractor attachment couplers (K) are in alignment with Snow Thrower mounting bolts (L). Raise mounting bracket upward and thread V-belt over tractor jackshaft pulley (M) (Fig. 17). Then raise mounting bracket into mounting couplers (K) and snap coupler hooks shut. Secure both couplers with hair cotter pins.

Install lift push arm (N) as shown in (Fig 19). At time of hookup of lift push arm attachment, lift lever should be forward in "float" position.

INSTALLATION OF LIFT ASSIST SPRINGS Fig. 20

Remove hood anchor rod (R) and replace it with longer hood anchor rod. Before reinserting rod place spring anchor

bracket (S) under hood threading rod through bracket and hood mounts securing with cotter pins on both sides. Thread toggle chain through angle bracket and attach it to lift spring (P) as shown in (Fig. 20). Repeat procedure for opposite side of tractor. Raise Snow Thrower with tractor lift lever to highest position. Then pull toggle chain through angle bracket exerting slight pressure on the lift spring and lock into position by inserting hair cotter pin in lift chain.

NOTE: Put slightly more tension on lift spring (P) on left-hand side of tractor (drop one or two additional lengths of chain) for proper weight carrying distribution.

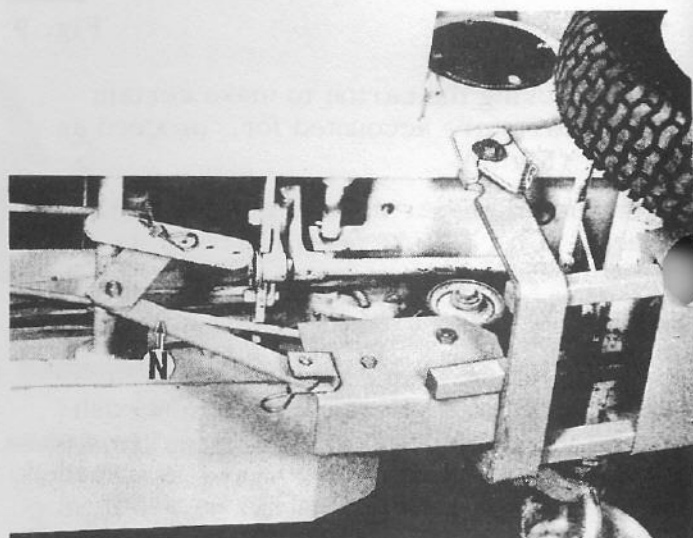


Fig. 19

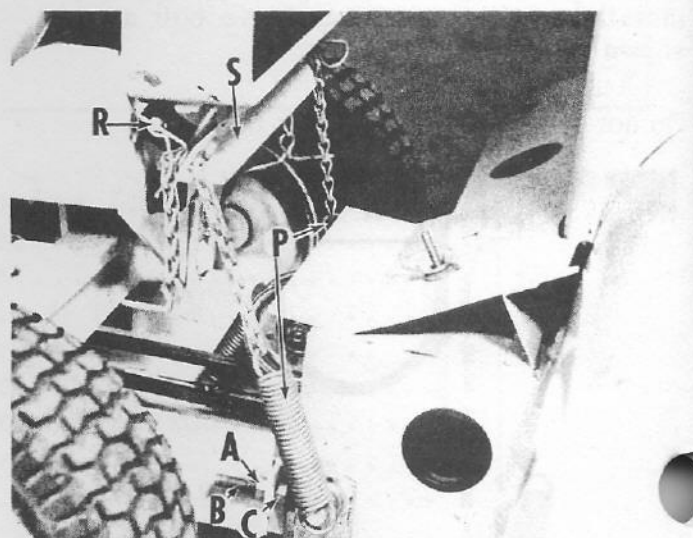


Fig. 20

Adjustment of V-Belt Drive Tension

There are two adjustments that can be made to increase tension on V-belt (R).

Adjustment procedure No. 1: (Fig. 20)

Remove header assembly on square extension shafts as follows:

Loosen outer nut (A) on eye bolt (B) to allow movement of eye bolt in adjustment bracket (both sides).

Turn 3/8" nuts (C) counterclockwise until desired tension is obtained on V-belt.

Lock this setting into position by re-tightening out jam nuts securely against outer edge of adjustment bracket.

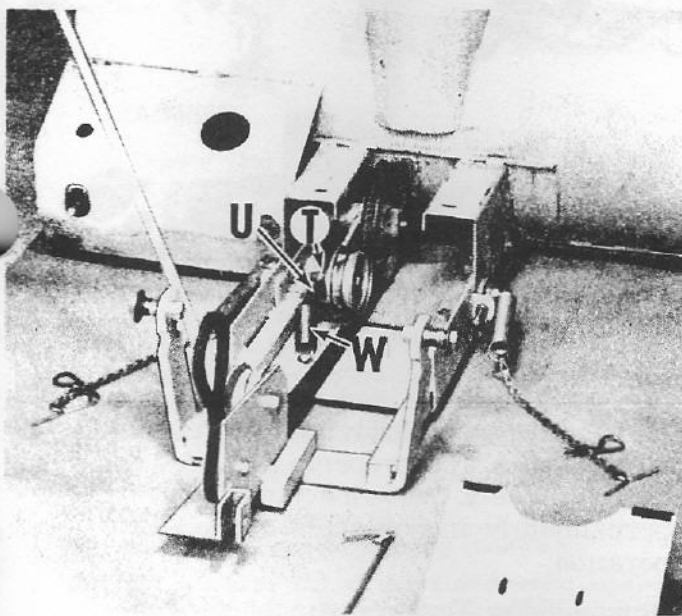


Fig. 21

Adjustment procedure No. 2: Fig. 21

Loosen nut on idler pulley (T) and raise pivot arm (U) upward.

Tighten nut on bolt (T) securely to maintain this new setting which will cause additional tension to be exerted on idler pulley by tension spring (W).

Installation of Discharge Spout

Drop deflector spout onto stack with header in position as shown (Fig. 22).

Then rotate spout 180° on stack.

Install safety wire retainer as shown (fig. 23) with cap screw claw washer and nut; tighten securely.

Loop both ends of stack control cable over bolt "X" as shown in (Fig. 24).

NOTE: Installation of spring retainer and bolt assembly is very important since this will prevent the operator from accidentally turning the discharge spout onto himself.

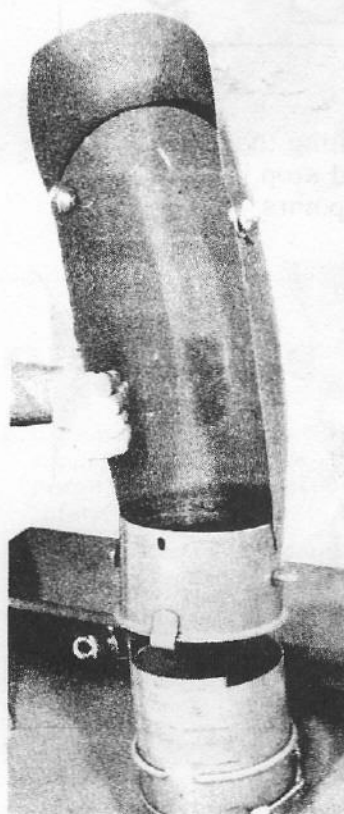


Fig. 22

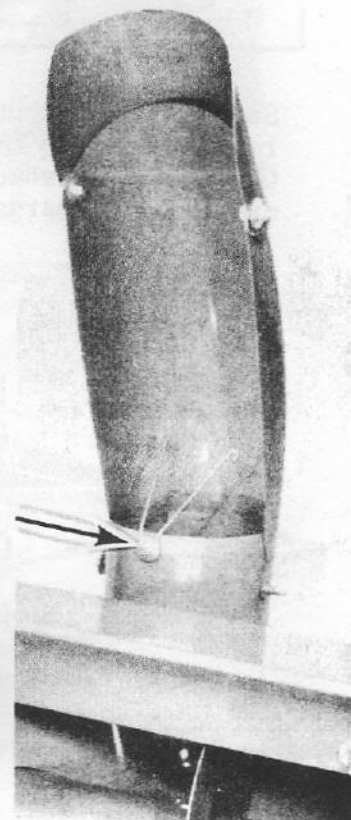


Fig. 23

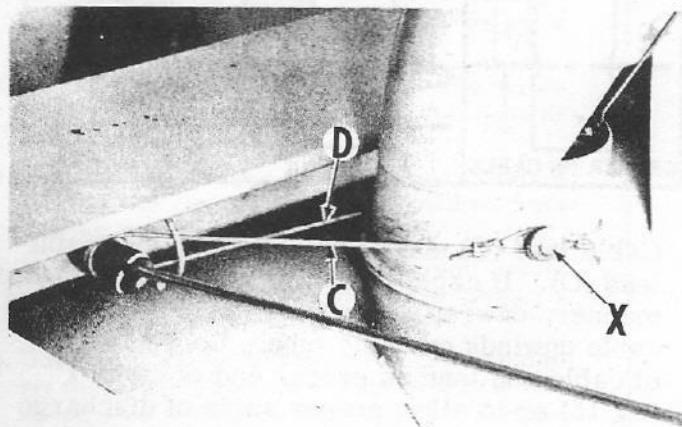
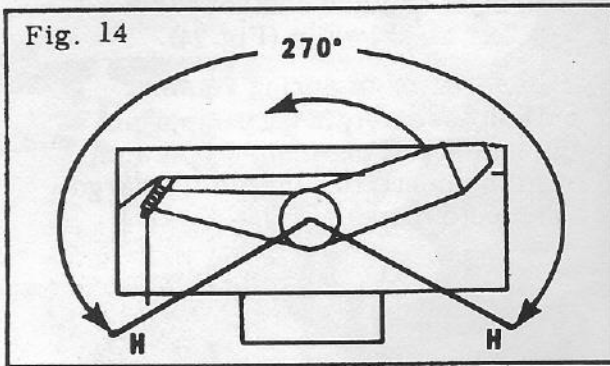


Fig. 24

SET UP



Snow Thrower chute has a discharge radius of 270 by turning the rod crank. Chute stop bolt should stop it from exceeding discharge points (H)

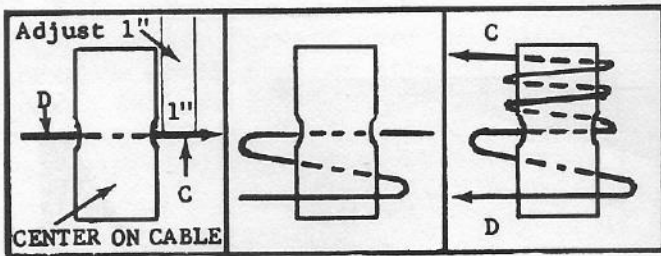
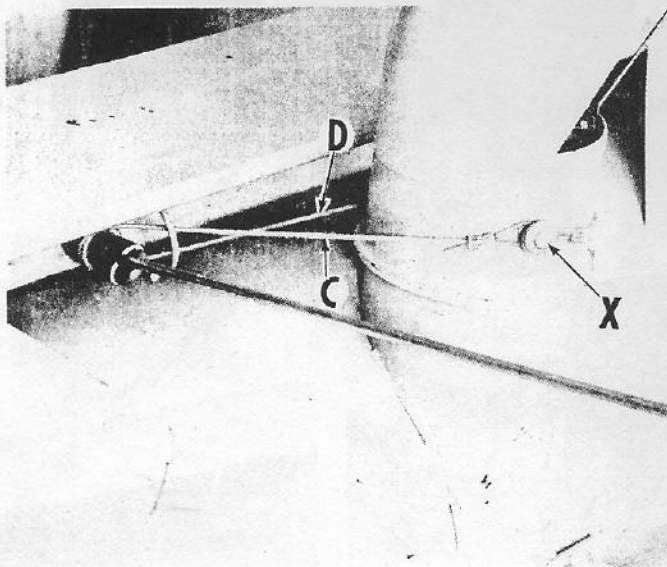


Fig. 15

Cable lead (C) should be 2" longer than cable lead (D). If cable leads are not set in this manner, unwrap cable from cable tube until cable unwinds on cable tube. Loosen wrap of cable and lengthen proper end of cable 1" (fig.15) or to allow proper angle of discharge spout. This should allow equal angle both ways.

Installation Discharge Spout Control Rod

Thread stack control rod support "in" over front end of stack control rod and slide onto straight part of the rod. (B)

Thread stack control rod hook into eye bolt (Y) as illustrated (Fig.16)

Position stack control rod support rod properly so that rod support can be placed in carrier tube (Z).

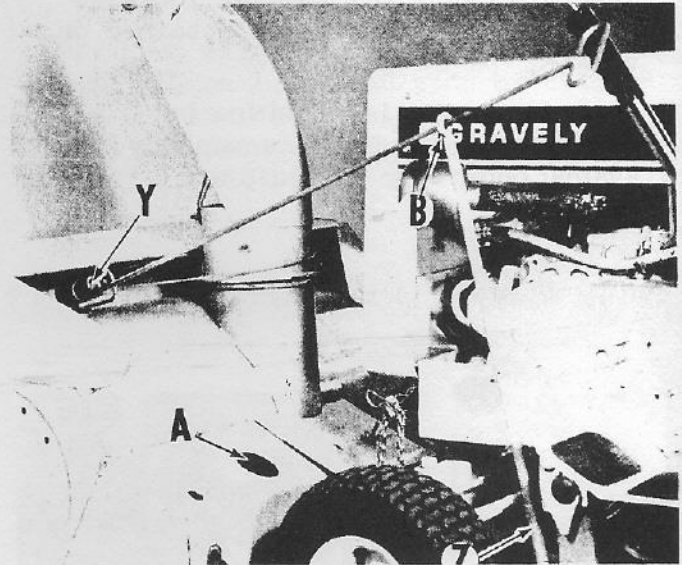


Fig. 16

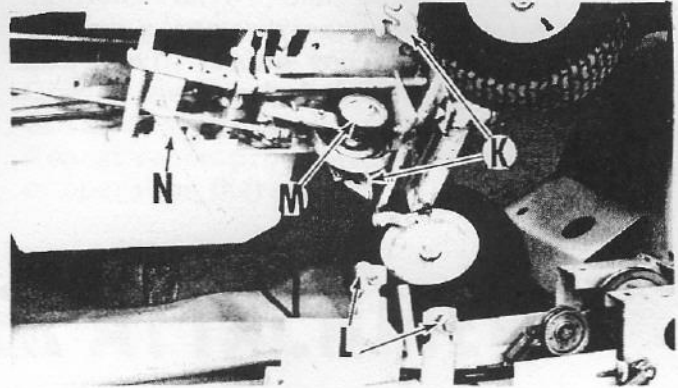
Start tractor engine and engage tractor attachment clutch slowly to make certain that all parts are properly installed and operating freely. Allow machine to operate approximately five minutes and observe operation.

Declutch Snow Thrower attachment and shut off tractor engine. Check short belt drive for proper tension and all nuts and bolts to make certain all have been tightened securely. Remove rubber cap from housing at (A) by sliding screwdriver tip underneath rubber cap. To 'pop out' cap. Grease jackshaft assembly thoroughly using regular pressure gun grease. Apply grease with gun until a slight amount of grease can be noticed projecting from both ends of jackshaft assembly housing. Wipe off surplus grease on the housing and replace rubber cap on housing. Check jackshaft chain drive for proper alignment to auger assembly.

Removal of Snow Thrower From Tractor

1. Drive tractor with Snow Thrower as close as possible to where Snow Thrower unit will be stored.
2. Shut off tractor engine and disengage tractor clutch.
3. Swing lift handle forward to place Snow Thrower header at ground level. Remove V-belt from tractor pulley (M) page 10.
4. Release lift assist spring tension on both sides and remove toggle chain assembly from springs.
5. Remove lift push arm from tractor lift bracket.

6. Release snap couplers on tractor frame and lower Snow Thrower mounting frame to ground level.
7. Roll or back tractor away from Snow Thrower.



SAFETY SUGGESTIONS

TRAINING

1. Regard your snow auger as a piece of power equipment and teach this regard to all who operate it.
2. Never allow children or young teen-agers to operate the tractor and snow auger.
3. Be sure you know how to stop the tractor and auger at a moment's notice.
4. Instruct children to keep away from the area of operation at all times.

PREPARATION

1. Check the tractor and auger to make certain both are in good operating condition.
2. Fill gas tank out of doors and avoid spilling gasoline over engine. Do not fill tank with gasoline while smoking or while engine is running.
3. Do not remove any guards or covers while operating tractor and auger.

OPERATION

1. Give complete and undivided attention to the job at hand.
2. Keep the area clear of all persons, particularly small children.
3. Stop engine when tractor is unattended.
4. Disengage auger clutch when someone approaches.
5. Do not allow anyone other than the operator to ride on the tractor or to be towed behind.

6. Extreme caution should be exercised under slippery conditions. Reduce forward speed. Install tire chains to traction wheels for added safety.
7. Do not attempt to clear auger or discharge elbow while engine is running.
8. When changing position of the deflector, disengage the auger clutch.
9. Never direct snow discharge at people or buildings.
10. Disengage auger clutch when transporting.

MAINTENANCE AND STORAGE

1. Follow implicitly the manufacturer's recommendations for maintenance.
2. Have a competent service man make thorough inspection of the snow auger before the snow season begins.
3. Store gasoline in a safe container. Store container in a cool, dry place, not in the house or near heating appliances.
4. Keep the snow auger, tractor and gas container in locked storage to prevent children from playing and tampering with them.
5. Maximum snow removal results and safety can be expected only if the snow auger is maintained and operated correctly.
6. Gasoline powered equipment or fuel containers should not be stored in basement or in any closed area where heating appliances or open pilot lights are present, unless fuel is completely drained from power equipment or fuel containers.

REPAIR PARTS LIST

Check all nuts and bolts to make certain that each item has been properly assembled and tightened.

Be certain to read all operating suggestions and instructions prior to starting up Snow Thrower so that maximum efficiency and satisfaction can be obtained. Observe all safety rules and suggestions.

The jackshaft on the Snow Thrower has been lubricated at the factory. As a matter of precaution, remove the rubber inspection cap by sliding a screwdriver under the lid of the cap and it will enable you to "pop out" the cap. Grease the jackshaft thoroughly until the grease is shown at both ends of the jackshaft housing. Repeat recent procedure every four to six hours of operation thereafter.

SNOW THROWER ATTACHMENT FOR 408 LAWN TRACTOR

Standard bolts, nuts, and rivets having no number, should be ordered by size. Always order repairs by number and give the description of the part, where used and whether it is a right or left hand part. Right or left parts can be determined by standing back of the machine looking in the direction of travel and then parts on the right are right hand parts and those on the left are left hand parts. Also give the model and serial number. The model and serial number plate will be found on the left back corner of the main frame angle.

We reserve the right to change specifications on design at any time without incurring the obligation to install such charges on machines previously manufactured.

DIRECTIONS FOR ORDERING PARTS:

Select any parts needed from exploded view illustration. Obtain correct part number and part name from parts list. **DO NOT USE THE REFERENCE LETTER OR NUMBER WHEN ORDERING PARTS.**

Always order parts by part number. When ordering parts, be sure to include the following information:

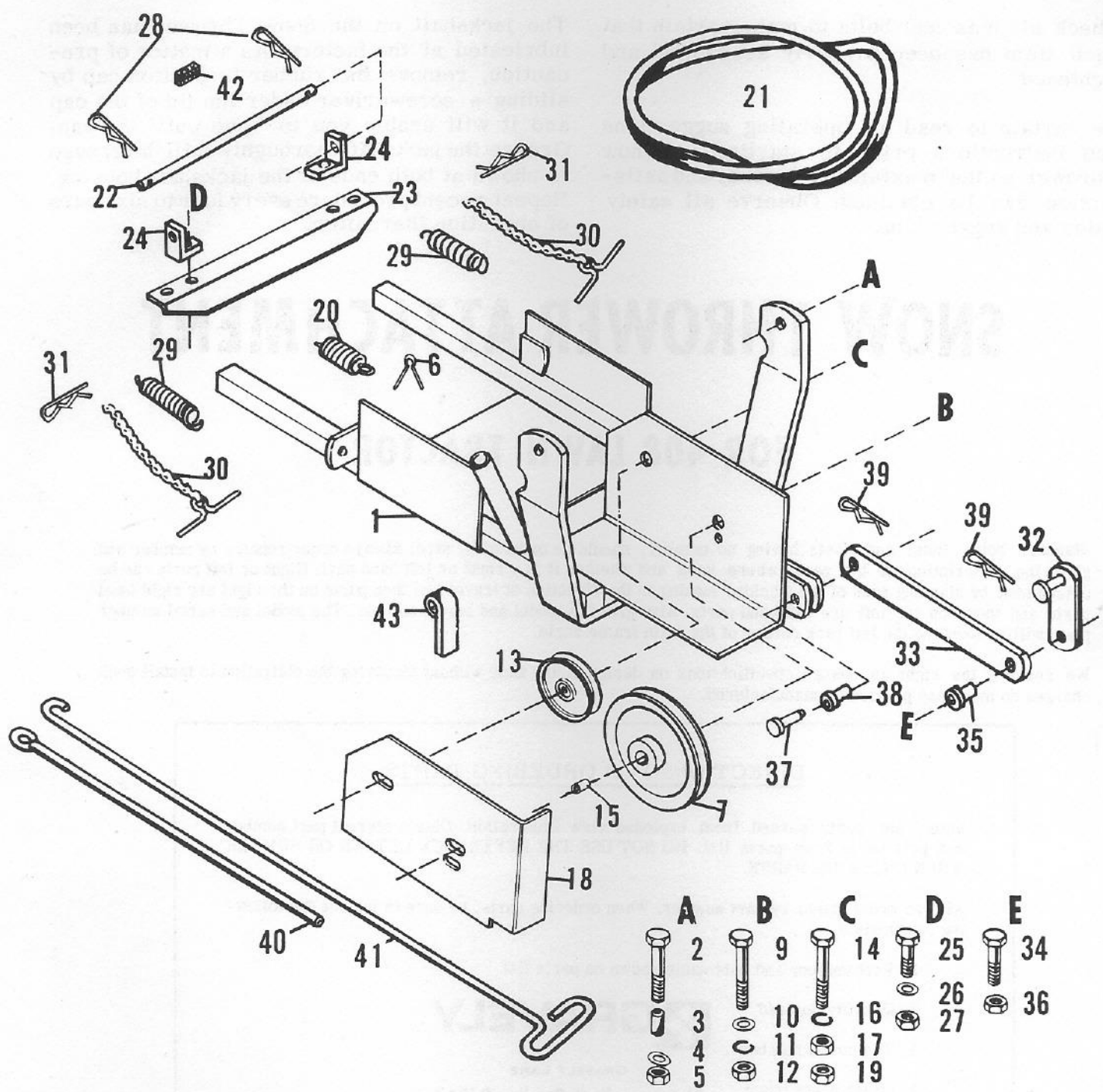
1. Part number and part name shown on parts list
2. Quantity desired
3. The model number
4. Order parts from:



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Clemmons, North Carolina 27012

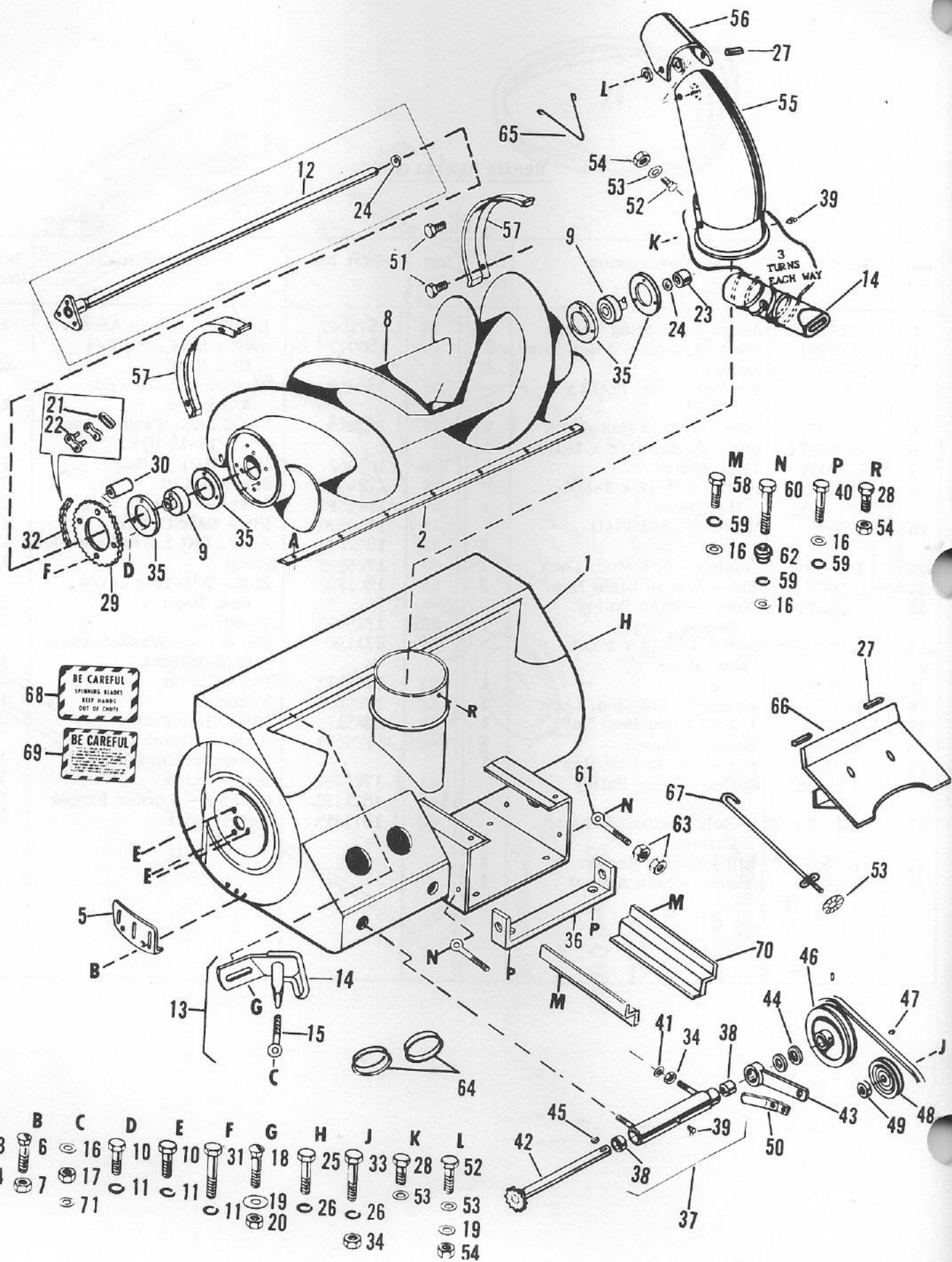
DESCRIPTION	INDEX TO UNITS	PAGE NO.
Model 34301 Snow Thrower Mounting Parts.....		16-17
Model 34301 Snow Thrower Header Assembly.....		18-19

REPAIR PARTS LIST



REPAIR PARTS LIST

Ref. No.	Part No.	Description	No. Req.	Ref. No.	Part No.	Description	No. Req.
1	17239P1	Assy. - Mounting Frame	1	24	18710P1	Bracket - Chain Anchor	2
2	18707P1	Bolt - 1/2-13 x 2 Hex.Head	2	25	180077	Bolt - 5/16-18 x 3/4 Hex. Head	2
3	17240P1	Spacer	4				
4	120390	Washer - Flat (9/16 x 1-3/8)	2	26	446363	Washer - (5/16 Flat) 3/8 x 7/8	2
5	9414074	Nut - 1/2-13 Hex. Lock	2	27	271184	Nut & Lock Washer Assy. 5/16-18 Hex.	2
6	120123P1	Pin - Cotter (1/8 x 1-1/4)	1	28	103362	Pin - Hair Cotter	2
7	17241P1	Idler Pulley	1	29	17249P1	Spring - Lift	2
9	180132	Bolt - 3/8-16 x 2-1/4 Hex. Head	3	30	17250P1	Assy. - Chain & Toggle	2
10	120388	Washer (3/8 Flat) 7/16 x 1	3	31	10405P1	Pin - Hair Cotter	2
11	120382	Washer - 3/8 Med. Lock	1	32	18520P1	Assy. Lift Lever Extension	1
12	120377	Nut - 3/8-16 Light Hex.	2	33	17253P1	Strap	1
13	17244P1	Assy. - Idler Pulley (2-3/4 Flat)	1	34	180124	Bolt - 3/8-16 x 1-1/4 Hex. Head	2
14	180183	Bolt - 1/2-13 x 2 1/4 Hex. Head	1	35	17298P1	Trunnion	1
15	17243P1	Spacer	1	36	271190	Nut & Lock Washer Assy. (3/8-16Hex.)	1
16	120384	Washer - 1/2 Med. Lock	1	37	17254P1	Pin - Clevis	1
17	120378	1/2-13 Light Hex. Nut	1	38	17298P1	Trunnion	1
18	17245P1	Shield - Pulley	1	39	17251P1	Pin - Hair Cotter	2
19	120238	Nut - 1/2-13 Half Hex.	1	40	17256P1	Assy. - Crank Rod Support(Comp)	1
20	17246P1	Spring - Idler Pulley Tension	1	41	17257P1	Rod - Crank	1
21	17247P1	V-Belt (Header J'Shaft Pulley)	1	42	18711P1	Cushion - Locker Finger	1
22	18708P1	Lift - Spring Anchor	1	43	18712P1	Belt Popper	1
23	18709P1	Angle - Chain Anchor	1				



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>No. Req.</u>
1	17258P1	Assembly - Header Housing.....	1
2	17259P1	Blade - Scraper.....	1
3	17260P1	Bolt - 1/4-20 x 5/8 Carriage.....	7
4	271178	Nut & Lock Washer Assy. - 1/4-20 Hex.....	7
5	17261P1	Shoe - Skid.....	2
6	18713P1	Bolt - 5/16-18 x 3/4 Carriage.....	6
7	271184	Nut & Lock Washer Assy. - 5/16-18 Hex.....	6
8	17267P1	Assy. - Auger.....	1
9	17268P1	Bearing - Auger.....	2
10	180075	Bolt - Auger (5/16-18 x 5/8 Hex. Head.....	9
11	120214	Washer - (5/16 Medium Lock).....	13
12	17270P1	Assy. - Auger Shaft (36").....	1
13	17262P1	Assy. - Stack Drive Bracket.....	1
14	17263P1	Assy. - Tube & Cable (Comp).....	1
15	17264P1	Eye Bolt - Drive Tube.....	1
16	120388	Washer - (7/16 x 1 x .083).....	9
17	9413534	Nut - Eye Bolt (3/8-16 Hex. Lock).....	1
18	120915	Bolt - (3/8-16 x 1 Carriage).....	1
19	17266P1	Washer - (3/8 Flat) (13/32 x 1 1/2).....	3
20	271190	Nut & Lock Washer Assy. - (3/8-16 Hex.).....	1
21	18718P1	Clip - Connector Link.....	1
22	18718P1	Link Connector.....	1
23	17271P1	Spacer - Auger Shaft.....	1
24	17272P1	Washer - (1 1/32 x 1 1/2 x 1/8 Flat).....	3
25	180175	Bolt - 1/2-13 x 1 1/4 Hex. Head.....	1
26	120384	Washer - 1/2 Medium Lock.....	2
27	17296P1	Molding - Deflector.....	1
28	180016	Bolt - (Cable) 1/4-20 x 1/2 Hx. Head.....	2
29	17273P1	Sprocket - Auger Driven (35 Tooth).....	4
30	17274P1	Spacer - Sprocket.....	4
31	180087	Bolt - (5/16-18 x 2 Hex. Head).....	4
32	17299P1	Chain - Auger Drive (70 Links).....	1
33	18714P1	Bolt - (Idler Pulley) 1/2-13 x 2 Hex. Head.....	1
34	120378	Nut - 1/2-13 Light Hex.....	5
35	17269P1	Flangette - Bearing.....	4
36	18715P1	Support - Channel (Rear).....	1
37	17276P1	Assy. Jackshaft Housing & Bushings (Comp).....	1
38	17277P1	Bushing - Jackshaft.....	2
39	17278P1	Fitting - Grease (1/4-28 Str. Self Tap).....	2
40	180124	Bolt - (3/8-16 x 1 1/4 Hex. Head).....	2
41	120389	Washer - (1/2 x 1 1/4 x .083 Flat).....	4
42	17282P1	Assy. - Jackshaft & Sprocket.....	1
43	17279P1	Assy. - Idler Arm.....	1
44	17283P1	Washer - (3/4 Flat) (49/64 x 1 1/2 x 16 Ga.)....	2
45	17284P1	Key - Drive Pulley Locking (#9 Woodruff).....	1

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>No. Req.</u>
46	17285P1	Assy. - Pulley & Hub.....	1
47	142671	Screw - Set (5/16-18 x 1/2 Square Head Cup Point	2
48	17280P1	Assy. - Idler Pulley (2 3/4 OD Flat).....	1
49	17243P1	Spacer - Idler Pulley (1/2" Long).....	1
50	17281P1	Strap - Idler Spring Adjusting.....	1
51	9414012	Screw - (1/4 x 1/2 Hex. Washer Head).....	4
52	180020	Bolt - 1/4-20 x 3/4 Hex. Head.....	3
53	17290P1	Washer - (Cable) Concave Tooth.....	7
54	17291P1	Nut - (Deflector to Elbow) 1/4-20 Hex. Lock.....	4
55	17289P1	Assy. - Deflector & Elbow.....	1
56	17295P1	Deflector Elbow.....	1
57	17275P1	Guard - Chain (Galvanized).....	2
58	180122	Bolt - (3/8-16 x Hex. Head).....	4
59	120382	Washer - (3/8 Medium Lock).....	8
60	180130	Bolt - (3/8-16 x 2 Hex. Head).....	2
61	17287P1	Eye Bolt - (Channel) 3" Long.....	2
62	17298P1	Trunnion (Eye Bolt to Channel).....	2
63	120377	Nut - (Eye Bolt) 3/8-16 Light Hex.....	4
64	17288P1	Button Plug (Plastic).....	3
65	18716P1	Chute - Guard.....	1
66	17293P1	Assy. - Cover Rear Channel.....	1
67	18717P1	Assy. - Wing Nut & Hook (Comp).....	1
68	17905P1	Decal - Chute Warning.....	1
69	17904P1	Decal - Be Careful.....	1
70	17286P1	Assy. - Channel Bracket.....	2
71	17265P1	Spring Washer - Stack Control Rod.....	1

Warranty

Products manufactured by Gravely are warranted to be free from defective material and workmanship for a period of one year from date of purchase, under normal use by a homeowner, and for a period of ninety (90) days from date of purchase, when used for commercial purposes.

Any defective part manufactured by Gravely will be replaced without charge provided such part is certified as defective by the manufacturer or by the manufacturer's expressly authorized representative.

IMPORTANT PROVISIONS

This warranty is not subject to change or modification by field representatives or Gravely dealers. Any warranty other than the warranty expressly stated above will not be binding upon the manufacturer.

Certain components carry separate warranties by the manufacturer of such components. Defective components are subject to their manufacturer's warranties, and any claims, work, or return of parts must be through an authorized Gravely dealer. Service costs for the transporting of a unit to and from the dealer are the responsibilities of the customer, and when such service is performed by the dealer, the dealer will charge the customer the usual rate for such service.

It is the customer's responsibility to mail the "Warranty Card" to the manufacturer within fourteen (14) days after date of purchase to ensure prompt handling of any warranty claim by the dealer or the manufacturer.



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To continue its program of quality and design improvement, the manufacturer reserves the right to change specifications, design or prices without notice and without incurring obligation.