

DR[®] SNOW THROWER ATTACHMENT

SAFETY & OPERATING INSTRUCTIONS



Serial No. _____

Order No. _____

Original Language

DR Power Equipment
Toll-free phone: 1-800-DR-OWNER (376-9637)
Fax: 1-802-877-1213
Website: www.DRpower.com

! WARNING

Read and understand this manual and all instructions before operating the DR SNOW THROWER ATTACHMENT.

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Conventions used in this manual

⚠ WARNING

This indicates a hazardous situation, which, if not avoided, **could** result in death or serious injury.

⚠ CAUTION

This indicates a hazardous situation, which, if not avoided, **could** result in minor or moderate injury.

NOTICE

This information is important in the proper use of your machine. Failure to follow this instruction could result in damage to your machine or property.



Figure 1

Serial Number and Order Number

A Serial Number is used to identify your machine and is located on the Serial Number Label on your machine. An Order Number is used to check and maintain your order history and is located on the upper left portion of your packing slip. For your convenience and ready reference, enter the Serial Number and Order Number in the space provided on the front cover of this manual.

Additional Information and Potential Changes

DR Power Equipment reserves the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser. The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your machine.

Chapter 1: General Safety Rules

WARNING

- Read this safety & operating instructions manual before you use the DR SNOW THROWER ATTACHMENT. Become familiar with the operation and service recommendations to ensure the best performance from your new Snow Thrower. Also, review the safety & operating instructions for your DR FIELD AND BRUSH MOWER before the set up and operation of the DR SNOW THROWER ATTACHMENT.
- Thoroughly inspect the area in which you will be working and remove all objects that could damage the Snow Thrower.
- This is a high-powered machine, with moving parts operating with high energy at high speeds. You must use proper clothing and safety gear when operating this machine to prevent or minimize the risk of severe injury. This machine can crush, grind, cut, and sever parts of your body if they enter the inlet or discharge area of your DR SNOW THROWER ATTACHMENT.

Labels

Your DR SNOW THROWER ATTACHMENT carries prominent labels as reminders for its proper and safe use. Shown below are copies of all the Safety and Information labels that appear on the equipment. Take a moment to study them and make a note of their location on your SNOW THROWER as you set up and before you operate the unit. Replace damaged or missing safety and information labels immediately.



#21510



#21512



#21514



#21513



#21511

Protecting Yourself and Those Around You

WARNING

- This is a high-powered machine, with moving parts operating with high energy at high speeds. You must operate the machine safely. Unsafe operation can create a number of hazards for you, as well as anyone else in the nearby area. Always take the following precautions when operating this machine:
- Always set the parking brake and be sure the snow thrower auger (blade) and wheel controls are disengaged before attempting to start the engine on your DR FIELD AND BRUSH MOWER.
- Always wear protective goggles or safety glasses with side shields while operating the snow thrower to protect your eyes from possible thrown debris.
- Avoid wearing loose clothing or jewelry, which can catch on moving parts or controls.
- We recommend that you wear adequate winter garments when operating the snow thrower. Be sure your gloves fit properly and do not have loose cuffs or drawstrings.
- Use ear protectors or ear plugs rated for at least 20 dba to protect your hearing.
- Never allow people who are unfamiliar with these instructions to use the DR SNOW THROWER ATTACHMENT. Allow only responsible individuals who are familiar with these rules of safe operation to use your machine.
- Keep your hands and feet away from the belts, chains, pulleys, and concealed areas while the engine is running. Never reach in the snow thrower chute or auger area when the engine is running.
- Watch for traffic when operating in or near roadways. Pay extra attention when operating near public roadways.
- Be aware of your surroundings when operating the DR SNOW THROWER ATTACHMENT, e.g., ditches, culverts, drop-offs, and hills.
- Keep bystanders away from your work area at all times. Snow and ice exit the machine at high speed. To be safe, do not operate the machine near small children or pets, and never allow children to operate the machine. Disengage the snow thrower and stop the engine when another person or pet approaches.
- Always operate the snow thrower from the “operator zone” (**Figure 5** on page 8). Never pass by the discharge chute when the engine is running or the auger is turning.
- Always disengage the snow thrower belt drive, turn off the power unit engine and remove the spark plug wire(s) before cleaning, adjusting or servicing the snow thrower.
- Use extra care when approaching blind corners, shrubs, trees, or other obstructions that might hide people or pets from sight.
- Clear the area of objects such as sleds and shovels, etc. Ingesting these objects into the snow thrower could damage the machine and/or cause injury.
- Never, under any conditions, remove, bend, cut, fit, weld, or otherwise alter standard parts on the DR Snow Thrower Attachment. Modifications to your machine could cause personal injuries and property damage and will void your warranty.

Safety for Children and Pets

WARNING

Tragic accidents can occur if the operator is not alert to the presence of children and pets. Children are often attracted to the machine and the snow throwing activity. Never assume that children will remain where you last saw them. Always follow these precautions:

- Keep children and pets out of the working area and under the watchful care of a responsible adult.
- Be alert and turn the machine off if children or pets enter the work area.
- Never allow children to operate the machine.

General Safety

WARNING

You must operate the DR SNOW THROWER ATTACHMENT safely to prevent or minimize the risk of death or serious injury. Unsafe operation can create a number of hazards for you. Always take the following precautions when operating this machine:

- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people, their property, and themselves.
- Your DR SNOW THROWER ATTACHMENT is a powerful tool, not a plaything. Exercise extreme caution at all times. The design of your machine is to throw snow. Do not use it for any other purpose.
- Know how to stop the machine quickly in case of emergency by disengaging the snow thrower (blade control) and shutting down the power unit engine.
- Always disengage snow thrower (blade control), make certain the auger and all moving parts have come to a complete stop, shut off the power unit engine and remove the key whenever you leave the operating position or if you have to stop to remove snow from the machine.
- Keep combustible substances away from the power unit engine when it is hot.
- Stay alert for hidden hazards or traffic when operating near a roadway.
- Do not carry passengers on your DR SNOW THROWER ATTACHMENT.
- Exercise extreme caution when operating on or crossing gravel driveways, walks, or roads. Make sure to adjust the height of the skid shoes so the cutting edge will clear gravel or crushed rock surfaces.
- Do not attempt to operate the machine on steep slopes or near embankments.
- Use caution when backing up the Snow Thrower.
- See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by DR Power Equipment.
- If the Snow Thrower auger strikes a foreign object or if your machine should start making an unusual noise or vibration, immediately disengage auger (blade control), stop the power unit engine, wait for all moving parts to come to a complete stop and disconnect the spark plug wire(s). Vibration is generally a warning of trouble. Inspect for clogging or damage. Clean and repair and/or replace damaged parts.
- While using the DR SNOW THROWER ATTACHMENT, do not hurry or take things for granted. When in doubt about the equipment or your surroundings, stop the machine and take the time to look things over.
- Never operate the machine when under the influence of alcohol, drugs, or medication.
- Use the machine only in daylight or good artificial light.
- Keep all shields in place and make certain nuts and bolts are tight to assure a safe working condition and always use the supplied self-locking hardware; do not substitute.
- Wear boots with non-slip treads when using your DR SNOW THROWER ATTACHMENT.

WARNING

California Proposition 65:

- This product contains or emits chemicals known to the state of California to cause cancer, birth defects, and other reproductive harm.

A Note to All Users

No list of warnings and cautions can be all-inclusive. If situations occur that are not covered by this manual, the operator must apply common sense and operate this DR SNOW THROWER ATTACHMENT in a safe manner. Contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.

Chapter 2: Setting Up the DR SNOW THROWER ATTACHMENT

It may be helpful to familiarize yourself with the controls and features of your DR SNOW THROWER ATTACHMENT as shown in Figure 1 before beginning these procedures. If you have any questions at all, please feel free to contact us at www.DRpower.com.

DR SNOW THROWER ATTACHMENT Controls and Features

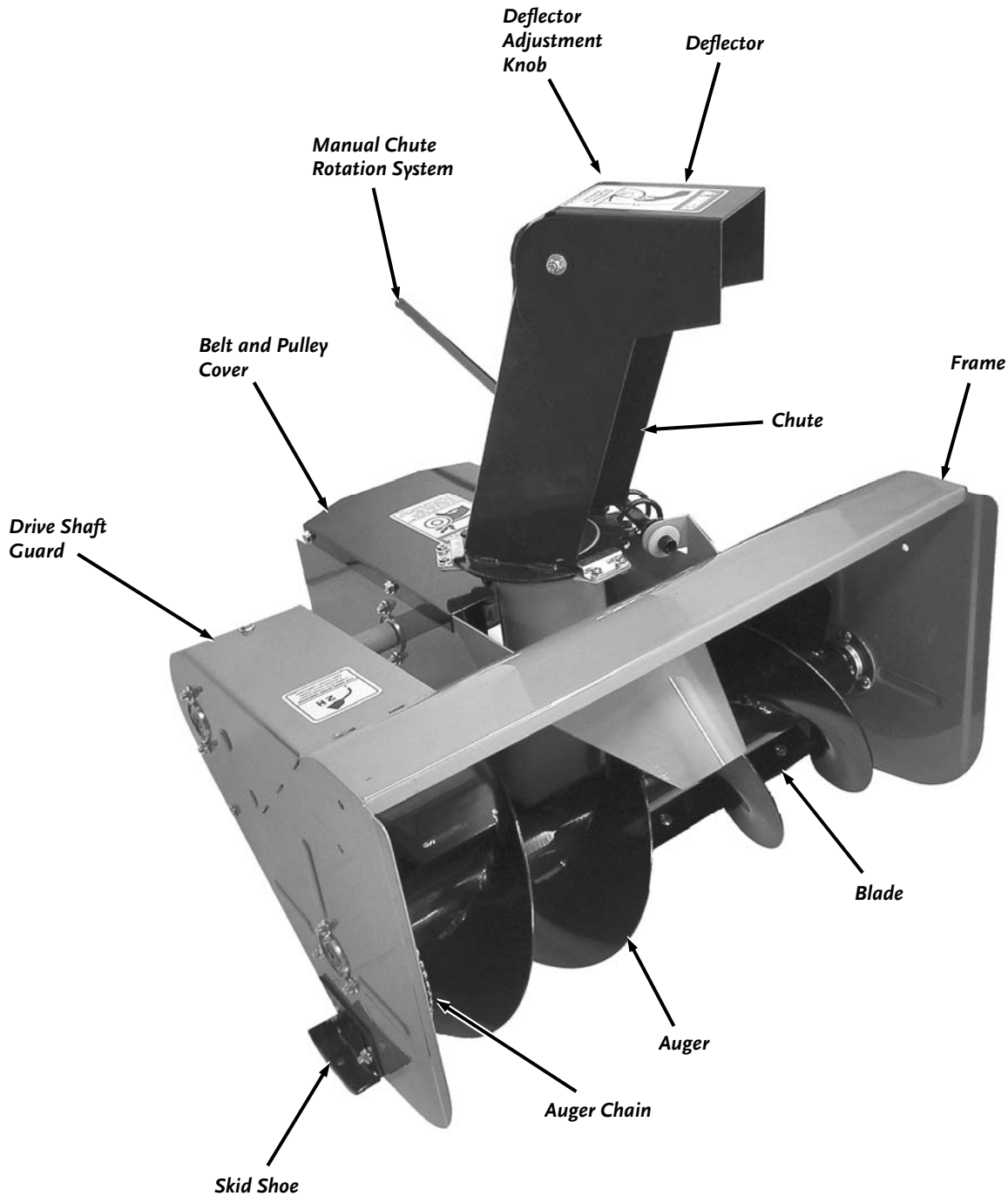


Figure 2

Specifications

Overall width	30-1/2"
Overall height (without chute)	18-3/4"
Overall height (with chute)	35-1/2"
Overall length	29-1/2 "
Inlet width	29-3/4"
Inlet height	17-7/8"
Frame thickness	12 gauge
Side thickness	12 gauge
Number of stages	1
Drive	"V" type Belt and "V" type Pulley
Drive Pulley	6" O.D.
Idler belt adjustment	Automatic Spring Tensioner
Auger Drive	#40 Chain and Sprockets
Ratio	2.82:1
Auger RPM	1100 RPM
Idler chain adjustment	Automatic Spring Tensioner
Auger diameter	11-3/4"
Auger pitch	11-3/4"; Dual Pitch
Chute position	Center
Chute rotation	Manual
Adjustable Deflector	Yes
Adjustable Skid Shoes	Yes
Replaceable Cutting Edge	Yes
Shear-Bolt on Drive Pulley	Yes
Drift Cutters	Optional
Hitch System	Fixed to DR Field and Brush Mower
Weight with Chute	138 lbs.

Attaching the Discharge Chute

For assembly, place the DR SNOW THROWER ATTACHMENT on a flat and level surface.

Tools and Supplies Needed:

- Two 7/16" Wrenches
- General Purpose Petroleum Based Grease

1. Position the Chute Base Washer around the Discharge Hole on the Frame (**Figure 3**).
2. Apply a thin film of General Purpose Petroleum Based Grease to both sides (top and bottom) of the Chute Gear.
3. Position the Chute over the Discharge Hole.
4. Position the three Retaining Plates as shown (**Figure 3**) and secure with 1/4-20 x 1/2" Bolts and 1/4-20 Flange Nuts.
5. Verify that the Discharge Chute will rotate freely.

Note: If the Discharge Chute does not rotate freely you may need to loosen the Retaining Plate hardware, pull out on the Retaining Plates and retighten the hardware.

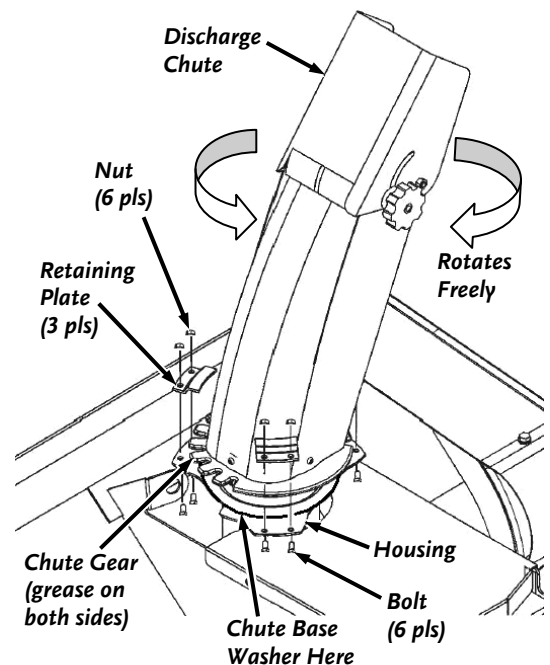


Figure 3

CONTACT US AT www.DRpower.com

Installing the Rotation Handle

Tools Needed:

- Two 7/16" Wrenches
- Pliers

1. Using two 7/16" Wrenches, install the Rotation Handle Support (**Figure 4**) on the left side Handle Bar of your DR FIELD and BRUSH MOWER approximately 28" from the ground using the U-Bolt, Plate and Nuts.
2. Insert the Plastic Bushing, with the flange facing the operator, into the Snow Thrower Housing by pushing the Bushing forward until it snaps into place.
3. Insert the Worm Gear end of the Rotation Shaft in the Plastic Bushing and engage the Worm Gear with the gear teeth on the Discharge Chute Flange.
4. Place the Flat Washer over the end of the Worm Shaft and insert the Cotter Pin. Spread the ends of the Cotter Pin with the pliers to hold the Pin in place.
5. Insert another Plastic Bushing, with the flange facing the operator, into the Rotation Handle Support by pushing the Bushing forward until it snaps into place.
6. Insert the Handle of the Rotation Shaft through the Bushing in the Rotation Handle Support and then into end of the Worm Gear Shaft.
7. Secure the two halves of the Rotation Shaft together by aligning the holes in the shaft ends and inserting a Hairpin Clip.
8. Operate the Rotation Handle and check that the Discharge Chute rotates smoothly.

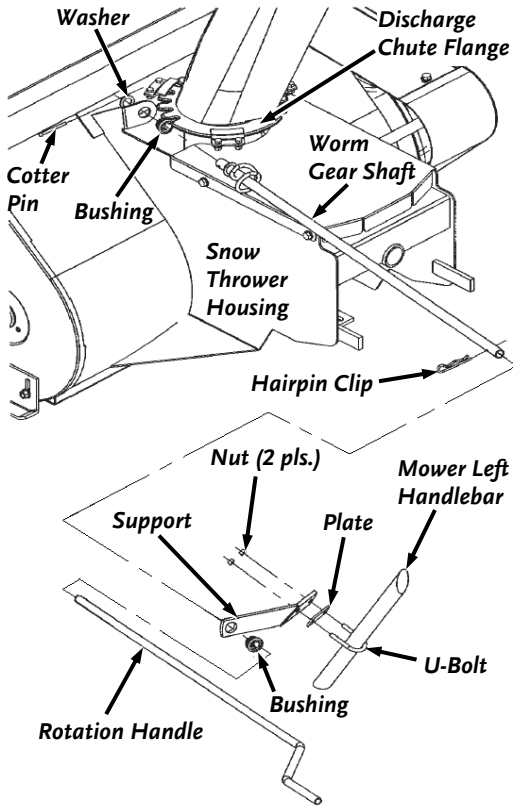


Figure 4

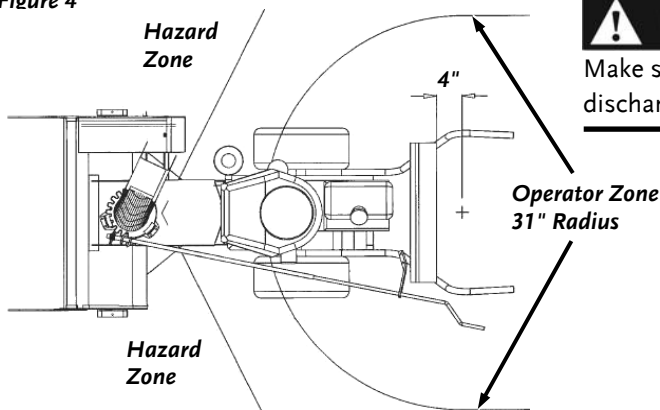


Figure 5

CAUTION

Make sure the discharge chute stops in both directions to prevent snow from discharging in the operator zone (**Figure 5**).

WARNING

Before adjusting the skid shoes, always stop the engine, set the parking brake, and remove the spark plug wire(s), keeping it away from the spark plug(s).

Adjusting the Skid Shoes

Adjust the Skid Shoes in order to allow the required clearance (H) between the Cutting Edge of the Snow Thrower and the surface that you are cleaning (**Figure 6**). For a level paved or cement surface, the clearance (H) should be $\frac{1}{16}$ " to $\frac{1}{8}$ ". For a gravel or uneven surface, depending on the gravel size, the clearance (H) should be $\frac{1}{2}$ " to $\frac{5}{8}$ ".

Tool Needed:

- 1/2" Wrench

1. Using a 1/2" Wrench, loosen the two Nuts on the Carriage Bolts that retain the Skid Shoe (**Figure 6**). For ease of adjustment, loosen only one side at a time.
2. Adjust the Skid Shoe to the required height (H) and tighten the Nuts.
3. Repeat steps 1 and 2 for the Skid Shoe on the other side of the Snow Thrower.

Attaching the Optional Drift Cutters

Tools Needed:

- 1/2" Wrench

1. Align the two square holes in the Drift Cutter with the two (2) round holes in the side of the Snow Thrower Housing (**Figure 7**).
2. Insert two 5/16" x 5/8" Carriage Bolts, from the outside, through the Drift Cutter and the Snow Thrower Housing.
3. Secure the Bolts in place with two 5/16" Flange Nuts and tighten using a 1/2" Wrench.
4. Repeat Steps 1 through 3 for the Drift Cutter on the other side of the Snow Thrower Housing.

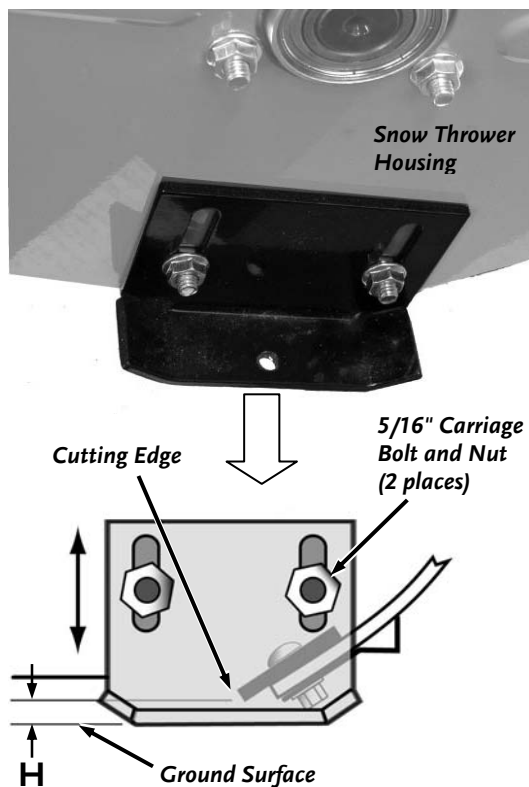


Figure 6

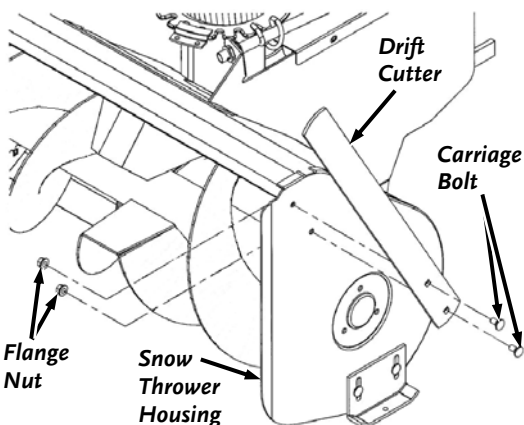


Figure 7



Figure 8

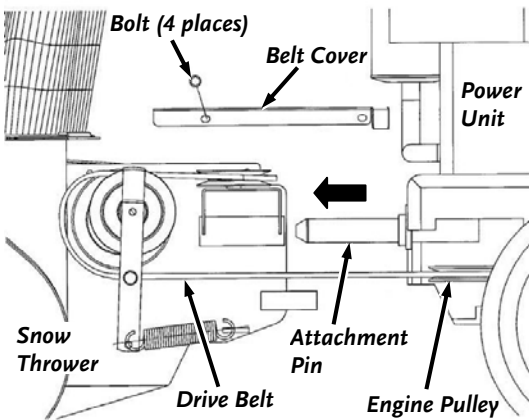


Figure 9

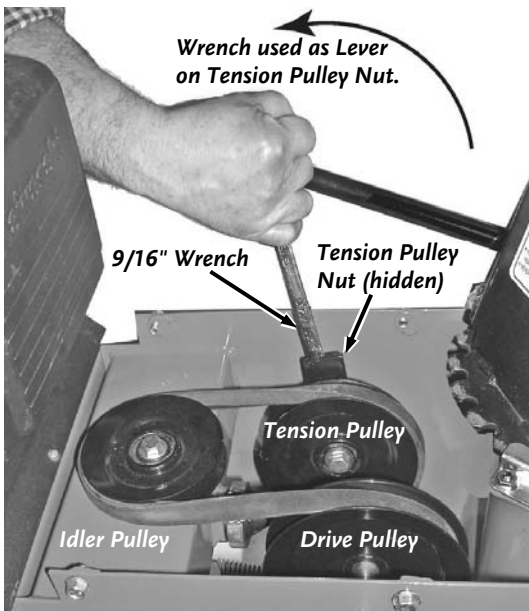


Figure 10

Installing the DR SNOW THROWER ATTACHMENT

Tools and Supplies Needed:

- 1/2" Wrench
- 9/16" Box Wrench
- #2 Lithium Grease

1. Apply a thin coating of #2 Lithium Grease on the Attachment Pin (**Figure 9**).
2. Remove the four Belt Cover Retaining Bolts using a 1/2" Wrench and remove the Cover.
3. Line up the DR SNOW THROWER ATTACHMENT with the Power Unit Attachment Pin and slide the Pin into the socket on the Snow Thrower.
4. Attach the Locking Collar with the stopping posts toward the frame and Retaining Pin as shown (**Figure 8**) to secure the Snow Thrower.
5. Wrap the Snow Thrower Drive Belt around the clutch (**Figure 9**) beneath the engine.
6. Using a 9/16" Box Wrench on the Tension Pulley Nut (**Figure 10**), pull on the Wrench to release the tension and install the Belt on the Idler Pulley. Make sure that the V-belt is not twisted and fits into the V-groove on the Pulley.

Note: Pulling on the Wrench will tighten the Nut and move the Idler Arm.

7. Route the V-belt around the Drive Pulley, Tension Pulley, and Idler Pulley and then ease the Tension Pulley back into position with the Wrench.
8. Reinstall the Belt Cover and secure in place using the four Belt Cover Retaining Bolts. Tighten the Bolts using a 1/2" Wrench or Socket.

Removing the DR SNOW THROWER ATTACHMENT

Tools Needed:

- 1/2" Wrench
- 9/16" Box Wrench

1. Remove the Hairpin Clip from the Rotation Handle and remove the Handle from the Handle Support (**Figure 4** on page 8). Reinstall the Hairpin Clip on the Rotation Handle for storage.
2. Remove the four Belt Cover Retaining Bolts using a 1/2" Wrench and remove the Cover (**Figure 2** on page 6).
3. Using a 9/16" Box Wrench on the Tension Pulley Nut (**Figure 10**), pull on the Wrench to release the tension and remove the Belt from the Power Unit Engine Pulley (**Figure 9**).
4. Remove the Retaining Pin and Collar from the Power Unit Attachment Pin (**Figure 8**) and carefully roll the Power Unit back away from the DR SNOW THROWER ATTACHMENT.
5. Reinstall the Belt Cover and secure using the four Belt Cover Retaining Bolts. Hand tighten the bolts for storage (**Figure 7** on page 9).

Chapter 3: Operating The DR SNOW THROWER ATTACHMENT

It may be helpful to better familiarize yourself with the features of your Snow Thrower by reviewing **Figure 2** in Chapter 2 before beginning the steps outlined in this chapter.

Cold Weather Operation

At temperatures below 30°F and a high dew point your DR FIELD and BRUSH MOWER engine may experience icing of the carburetor and/or the crankcase breather system. DR Power Equipment offers an optional engine cover to prevent icing in these weather conditions. You can purchase the cover through DR Power Equipment by calling 1-800-DR-OWNER (376-9637). Please have your DR FIELD and BRUSH MOWER Model# and Serial# on hand when the call is placed.

Depending on the temperature, the engine may require the use of winter grade oil in your DR FIELD and BRUSH MOWER. See the Engine Owner's Manual for specifications.

Tip: To increase traction and stability, use DR Tire Chains. Call 1-800-DR-OWNER (376-9637) to order.

! WARNING

- NEVER use your hands or feet to unclog the Auger or Discharge Chute! Never attempt to unclog the Snow Thrower while the engine is running. If the chute clogs, disengage the PTO drive, wait for the auger to completely stop, apply the parking brake, shut off the engine, and remove the spark plug wire(s) before unclogging the chute. For safety, use a short stick or plastic tool designed to clear snow from the chute.
- ALWAYS wear protective winter clothing and safety glasses during operation of this machine.
- Always keep the DR SNOW THROWER ATTACHMENT discharge chute pointed away from people, animals, and objects that could be struck by debris
- Only operate the Snow Thrower from the operator zone (**Figure 5** on page 8).
- The design of this machine is for throwing snow. Never use this machine for any other purpose as it could cause serious injury.

Operating the DR SNOW THROWER ATTACHMENT

1. Start the engine as described in your DR FIELD and BRUSH MOWER Safety & Operating Instructions manual.
2. After the engine has warmed up, set the Throttle to a moderate engine speed.
3. Make sure the Snow Thrower Auger is clear of snow before engaging the Drive Belt.
4. To start the Snow Thrower Auger, engage the PTO (Belt Drive) by pushing the Blade Control Lever forward or pulling up on the Blade Control Knob for machines with an electric clutch.
5. Adjust the engine RPM to full throttle for maximum power. Low engine RPM may tend to clog the Discharge Chute.
6. Move the DR FIELD and BRUSH MOWER Shift Lever to the desired gear and release the Parking Brake.
7. Gently squeeze the Wheel Clutch/Traction Drive Lever to engage a gear.
8. Upon completion of your work, return the Throttle to Idle and allow the Auger to operate for a minute or two to prevent the Auger from icing.
9. Disengage the PTO drive and turn off the engine. Be sure to remove the Key for safety.

NOTICE

- If the Auger strikes a foreign object or if your machine should start making an unusual noise or vibration, immediately disengage the PTO, stop the engine and wait for all moving parts to come to a complete stop. Inspect for any damage and repair or replace any damaged parts before restarting and operating the machine.
- Never use THE DR SNOW THROWER ATTACHMENT as a snowplow. Do not push the snow; let the snow thrower work its way through the snow.
- If the ground speed of the power unit is too fast, engage and disengage the Wheel Clutch/Traction Drive lever to reduce the speed and prevent the discharge chute from becoming overloaded, and clogged.
- For best results, raise the Snow Thrower by pushing down on the handlebars and remove a top layer of snow first, or take a half-width pass. A second or third pass will remove the remaining snow much easier.

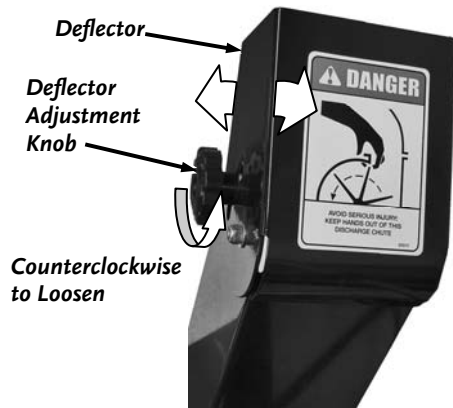


Figure 11

3. Re-tighten the Knob securely.

Chute Rotation

Adjust the Chute direction with the Rotation Handle (*Figure 4* on page 8).

Adjusting the Deflector

Adjust the Deflector angle according to the distance that you want to throw the snow.

! WARNING

Always stop the engine and set the parking brake before adjusting the deflector.

1. Loosen the Deflector Adjustment Knob by turning it counterclockwise (*Figure 11*)
2. Adjust the Deflector angle up or down, to direct the discharge to the desired distance.

Chapter 4: Maintaining The DR SNOW THROWER ATTACHMENT

Regular maintenance is the way to ensure the best performance and long life of your machine. Please refer to this section for maintenance procedures.

⚠ WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait five (5) minutes to allow all parts to cool. Disconnect the spark plug wire, keeping it away from the spark plug. Disconnect the Battery Terminals (Electric start only).

Regular Maintenance Checklist

PROCEDURE	BEFORE EACH USE	EVERY 2 HOURS AND AFTER EACH USE	AFTER FIRST 4 HOURS THEN BEFORE EACH USE	EVERY 10 HOURS OR AS NEEDED
Check Engine Oil Level	▲			
Check General Equipment Condition	▲			
Check for foreign material in the Auger or Discharge Chute	▲			
Check Belt for nicks and fraying	▲			
Lubricate the Auger Drive Chain with Chain Saw Bar & Chain Lubricant		▲		
Check the Belt for proper orientation and for wear (Figure 18 page 16)			▲	
Grease Chute Gear				▲

Removing and Replacing the Drive Chain

Replace the Drive Chain when the distance between the sections of the Chain is less than 2" (**Figure 12**).

Note: A spring-loaded Tensioner maintains the chain tension on your DR SNOW THROWER ATTACHMENT. With this system, no tensioning adjustment is required.

Tools and Supplies needed:

- 1/2" Wrench
- Blade Screwdriver
- Pliers
- Chain Saw Bar and Chain Oil

1. Using a 1/2" Wrench, unbolt the Chain Cover (**Figure 12**) and remove it.
2. Locate and remove the Master Connecting Link in the chain by first removing the Lock Clip with a Blade Screwdriver and Pliers (**Figure 13**). You will need to lift one side and rotate the Clip to get it off the Master Link. Next, remove the Side Plate. Then remove the Master Chain Link and remove the Chain.
3. Check the Chain Tensioner for wear (**Figure 12**) and replace it if necessary.
4. Install the new chain around the Drive Sprocket and the Auger Sprocket.
5. Pull the Chain Tensioner up and away from the Chain to release tension on the Chain and reinstall the Master Chain Link (**Figure 13**) in the new Chain.

Tip: It is easier to install the Master Link on the Auger Sprocket to hold the chain ends in place.

6. Release the Chain Tensioner onto the new Chain and lubricate the Chain with Chain Saw Lubricant.
7. Reinstall the Chain Cover.

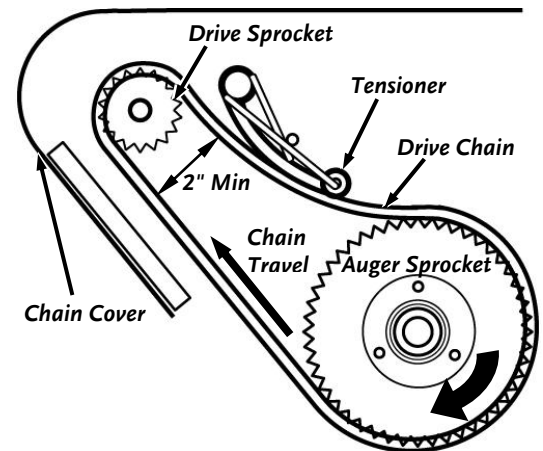


Figure 12

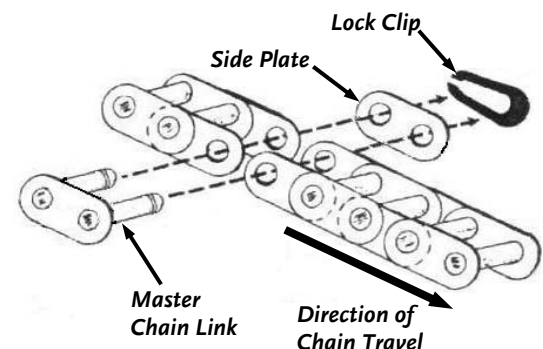


Figure 13

Check for Belt wear (cracking or fraying)

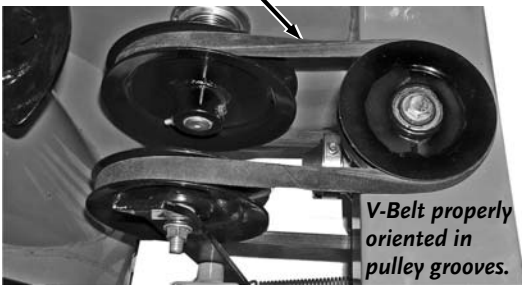


Figure 14

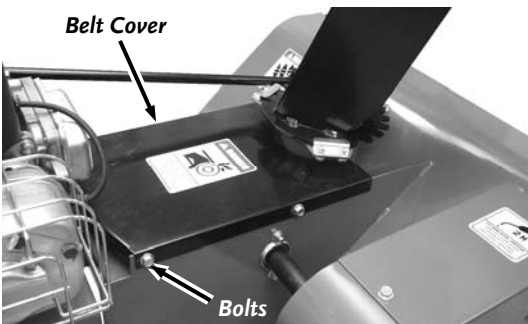


Figure 15

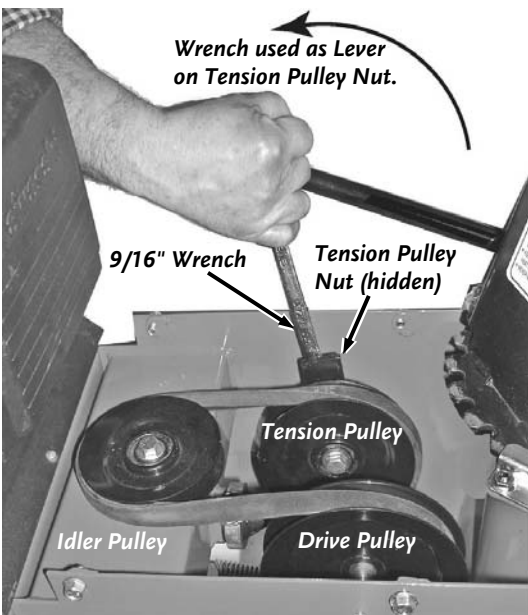


Figure 16

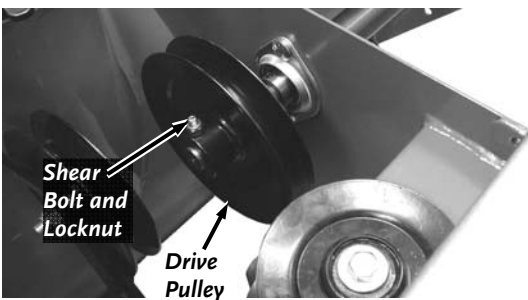


Figure 17

Removing and Replacing the Drive Belt

- Check the Belt for proper orientation and wear after the first four hours of operation (**Figure 14**).
- Check the Belt for wear when replacing the Shear-Bolt.
- Replace the Belt if you notice reduced performance and/or Belt slippage.

Tools Needed:

- 1/2" Wrench
- 9/16" Box Wrench

1. Remove the Hairpin Clip from the Rotation Handle and remove the Handle from the Handle Support (**Figure 4** on page 8). Reinstall the Hairpin Clip on the Rotation Handle for storage.
2. Remove the Belt Cover Bolts with a 1/2" Wrench and remove the Cover (**Figure 15**).
3. Using a 9/16" Box Wrench on the Tension Pulley Nut (**Figure 16**), pull on the Wrench to release the tension and remove the old Belt from the Pulleys.
4. Install the new Drive Belt onto the Engine Pulley below the Power Unit (**Figure 9** on page 10).
5. Using a 9/16" Box Wrench on the Tension Pulley Nut (**Figure 16**), pull on the Wrench to release the tension to install the Belt on the Tensioner Pulley, Idler Pulley and the Drive Pulley. Make sure that the V-Belt is not twisted and fits into the V-groove on the Pulleys and ease the Tension Pulley back into position by releasing the Wrench.

Note: Make sure that you have positioned the Belt so it is not touching anything but the Pulleys.

6. Reinstall the Belt Cover and reconnect the Rotation Handle.

Replacing the Shear-Bolt

If you should strike a foreign object (wood, stone, curbing, etc.) there is a safety Shear-Bolt in the Auger Drive System that will break, stopping the Auger from turning. When replacing the Shear-Bolt, also check the Drive Belt for wear.

Tools needed:

- 1/2" Wrench or Socket
- Two 7/16" Wrenches

1. Perform steps 1 thru 3 from the previous section "Removing and Replacing the Drive Belt".
2. Remove any debris from the Shear-Bolt holes located in the Pulley Hub and Auger Drive Shaft (**Figure 17**).
3. Align the Shear-Bolt hole in the Pulley with the Shear-Bolt hole in the Auger Drive Shaft and insert the new Shear-Bolt. Install the supplied Nut on the Shear-Bolt with two 7/16" Wrenches until the Nut just touches the Hub and then back the Nut off 1/2 turn. The Shear-Bolt will fail prematurely if over tightened.
4. Reinstall the Belt, Belt Cover and Rotation Handle.

Chapter 5: Troubleshooting

Most problems are easy to fix. Consult the Troubleshooting Table below for common problems and their solutions. If you continue to experience problems, contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER (376-9637) for support.

WARNING

Before performing any maintenance procedure or inspection while the Snow Thrower is attached to the power unit: stop the engine, set the parking brake, wait for all moving parts to come to a complete stop and disconnect the spark plug wire(s), keeping it away from the spark plug(s).

Troubleshooting Table

SYMPTOM	POSSIBLE CAUSE
<i>No auger operation.</i>	<ul style="list-style-type: none">⇒ The PTO (Blade Drive) Lever is not engaged. Push the Lever forward or pull UP on the Blade Control Knob.⇒ The Snow Thrower Drive Belt is broken or fell off the pulleys. Check the routing of the Belt and replace or reinstall the Drive Belt. See page 16.⇒ The Shear-Bolt is broken; replace the Shear-Bolt. See page 16.⇒ The Drive Chain is broken or has fallen off the Drive Sprockets due to wear. Replace the Drive Chain. See page 15.
<i>The Deflector Chute will not rotate.</i>	<ul style="list-style-type: none">⇒ Snow and ice may have accumulated in the rotating mechanism. Remove the accumulated snow and ice.⇒ The Cotter Pin or Hairpin Clip may have fallen off the Rotating Handle. Replace the Pin or Clip. See Figure 9 on page 10.
<i>The Drive Belt frays or rolls over the Drive Pulley.</i>	<ul style="list-style-type: none">⇒ The Drive Pulley groove probably has a nick in it. File off any nicks on the Pulley.⇒ Check the Drive Belt for wear and hard spots. The Drive Belt is probably stretched; replace it. See page 16.⇒ Check the routing of the Belt to make sure that it is away from any protrusions.
<i>The Cutting Edge of the Snow Thrower is digging into the ground surface.</i>	<ul style="list-style-type: none">⇒ Adjust or replace the Skid Shoes. See page 13.

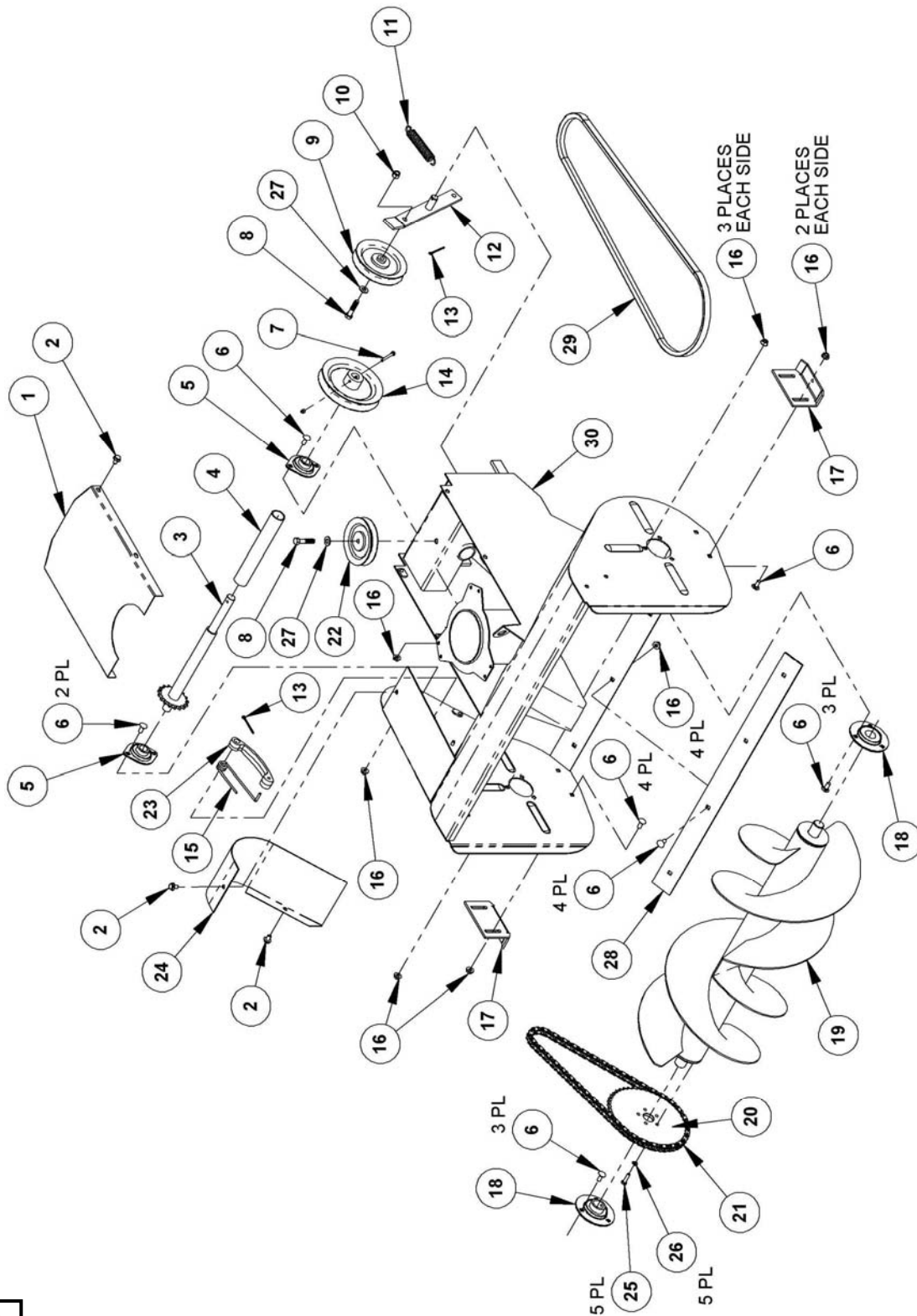
Chapter 6: Parts Lists and Schematic Diagrams

Parts List - MAIN BODY, 30" DR SNOW THROWER ATTACHMENT

NOTE: Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description	Ref#	Part#	Description
01	18122	Cover, Belt and Pulley	18	18662	Bearing, with Flange, 1"
02	18670	Bolt, Serrated Flange, 5/16"-18 x 1/2" Gr5 ZP	19	18118	Auger
03	28247	Shaft, Auger Drive	20	18964	Sprocket, 40 x 1/2" pitch, 48 teeth
04	18120	Sleeve, Shaft Guard	21	18658	Chain, #40, 82 links including the Master Link
05	18663	Bearing, with Flange, 3/4"	22	18664	Pulley, Idler, 4-1/4"
06	14529	Bolt, Carriage, 5/16"-18 x 3/4"	23	18125	Tensioner, Chain
07	27991	Bolt, Shear with Nut	24	18121	Guard, Drive Shaft
08	12334	Bolt, Hex, 3/8" NC x1-3/4" Gr5 ZP	25	11149	Bolt, 1/4"-20 x 1", HCS, Gr5, ZP
09	18665	Pulley, Idler, Spring Tension	26	10181	Washer, Lock, 1/4", Split, ZP
10	11075	Nut, Nylon Lock, 3/8"-16	27	12170	Washer, Flat, 3/8", Narrow, ZP, ANSI
11	15899	Spring, Extension	28	18117	Blade
12	18124	Bar, Tension, Pulley	29	18659	V-Belt, B78, 5/8" x 80.8"
13	18656	Pin, Cotter, 1/8 x 1 3/4"		36631	V-Belt, B71, 5/8" x 73.8"
14	28246	Pulley, 6.0", V-Belt	30	18116	Frame, Main
15	18660	Spring, Torsion	<u>Not Illustrated:</u>		
16	10668	Nut, 5/16"-18, Flanged		28248	Kit, Auger Drive Shaft
17	18123	Skid Shoe		21510	Label, Warning, Operation
				21511	Label, Danger, Hands
				21512	Label, Auger
				21513	Label, Warning, Lubrication
				21514	Label, Danger, Belt Drive
				36649	Locking Collar, Stop, Pivot

Schematic – MAIN BODY, 30" DR SNOW THROWER ATTACHMENT

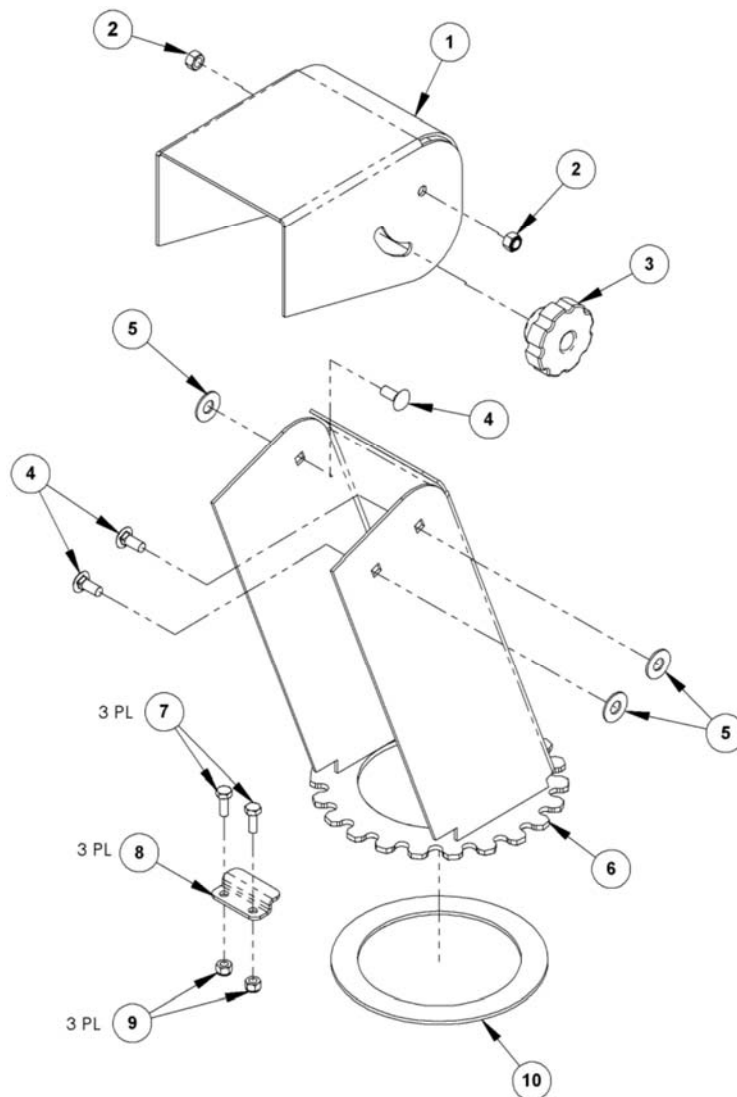


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Parts List and Schematic - Chute with Deflector

NOTE: Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description
01	18127	Deflector
02	11076	Nut, Nylon Lock, 5/16"-18
03	14366	Knob, Flush Nut, Handlebar
04	14529	Bolt, Carriage, 5/16"-18 x 3/4"
05	18669	Washer, Chute
06	18126	Base, Chute
07	11983	Bolt, 1/4"-20 x 3/4", HCS
08	18128	Plate, Retaining
09	11073	Nut, Nylon Lock, 1/4"-20
10	18969	Washer, Chute Base

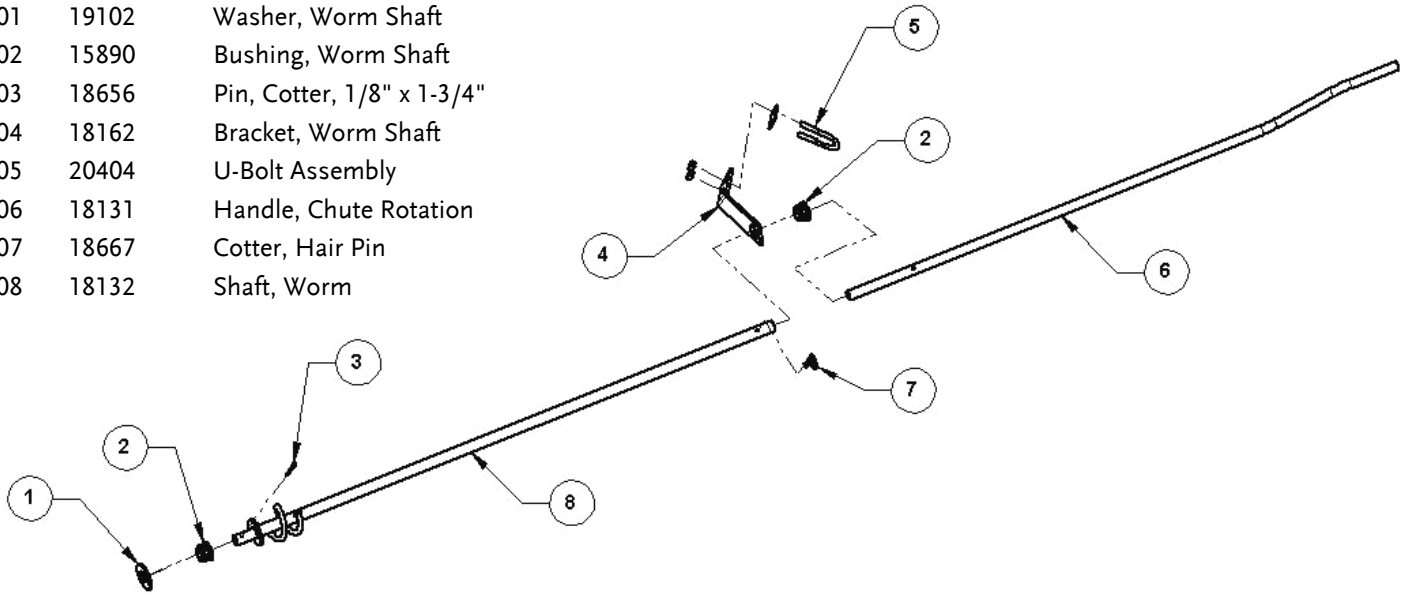


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Parts List and Schematic - Manual Chute Rotation System

NOTE: Part numbers listed are available through DR Power Equipment.

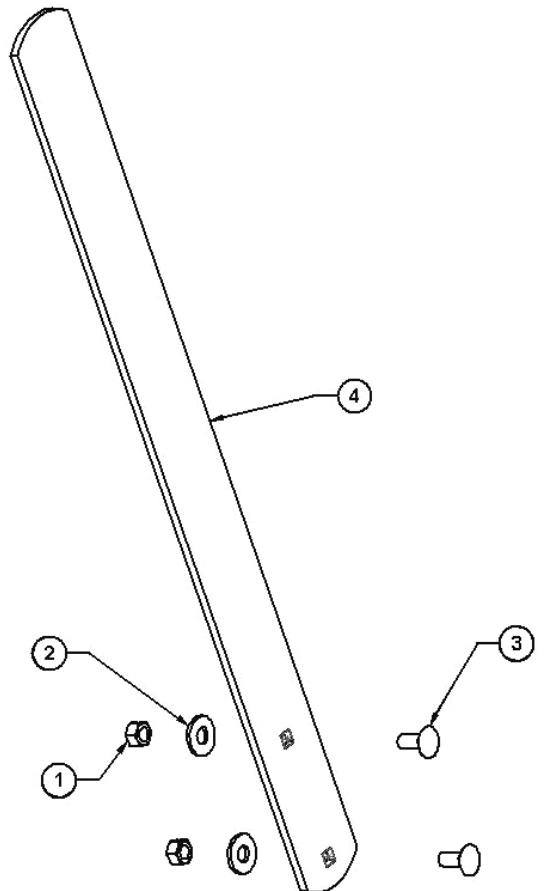
Ref#	Part#	Description
01	19102	Washer, Worm Shaft
02	15890	Bushing, Worm Shaft
03	18656	Pin, Cotter, 1/8" x 1-3/4"
04	18162	Bracket, Worm Shaft
05	20404	U-Bolt Assembly
06	18131	Handle, Chute Rotation
07	18667	Cotter, Hair Pin
08	18132	Shaft, Worm



Parts List and Schematic - Optional Drift Cutter

NOTE: Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description
01	11076	Nut, Nylon Lock, 5/16"-18
02	11241	Washer, Flat, 5/16" USS
03	14529	Bolt, Carriage, 5/16"-18 x 3/4"
04	17928	Plate, Drift Cutter



Daily Checklist for the DR SNOW THROWER ATTACHMENT

To help maintain your DR SNOW THROWER ATTACHMENT for optimum performance, we recommend you follow this checklist each time you use your SNOW THROWER.

WARNING

Before performing any maintenance procedure or inspection while the Snow Thrower is attached to the power unit: disengage the drive clutch, stop the engine, set the parking brake, wait for all moving parts to come to a complete stop and disconnect the spark plug wire(s), keeping it away from the spark plug(s).

- [] DISCHARGE CHUTE: Inspect the Chute for accumulated snow, ice or other debris.
- [] ROTATION SYSTEM: Inspect the Chute Rotation System to be sure that operates freely and does not travel beyond the safety limits. See **Figure 5** on page 8.
- [] DRIVE BELT: Check the condition of the Drive Belt for nicks and cuts. If you find the Belt worn or damaged, replace it with a new DR Snow Thrower Belt.
- [] SKID SHOES: Check the condition of the Skid Shoes and that they are properly adjusted for the operating surface. See page 9 for the adjustment procedure.
- [] GENERAL CONDITION: Check the general condition of the machine, e.g.; nuts, bolts, welds, etc.

End of Season and Storage

WARNING

If the DR Snow Thrower Attachment will be stored while attached to the power unit, and before performing any maintenance procedure or inspection: set the parking brake, and disconnect the spark plug wire(s), keeping it away from the spark plug(s).

- Wipe down and dry the Snow Thrower to remove any moisture and dirt that may have accumulated, especially in and around the Discharge Chute.
- Release the tension from the Drive Belt Idler Pulley and check the Drive Belt for wear. Leave the tension off the Belt for storage.
- Make any necessary repairs or adjustments.
- Repaint all parts and areas where the paint has worn or peeled.
- Lubricate the Auger Drive Chain with Chain Saw Bar & Chain Lubricant.
- Apply a spray type oil film (general purpose lubricate) to the Worm Gear and the surface of the Gear Teeth on the Discharge Chute Flange (**Figure 3** on page 7) and turn the Rotation Handle back and forth a couple of times to work in the oil. Then apply the same oil liberally to all surfaces to protect against rust.
- Store the DR SNOW THROWER ATTACHMENT in a dry location.



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