# **DR®** SNOW BLOWER

# **SAFETY & OPERATING INSTRUCTIONS**

OFFESSIONAL POLICE

Models:

PRO-24

**PRO-28** 

PRO XL-30

PRO MAX-34



Serial No.	
Order No.	

DR Power Equipment

Toll-free phone: 1-800-DR-OWNER (376-9637)

Website: www.DRpower.com



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

#### **Table of Contents**

Chapter 1: General Safety Rules	3
Chapter 2: Setting Up the DR SNOW BLOWER	7
Chapter 3: Operating the DR SNOW BLOWER	14
Chapter 4: Maintaining the DR SNOW BLOWER	18
Chapter 5: Troubleshooting	28
Chapter 6: Parts Lists and Schematic Diagrams	30

#### Conventions used in this manual



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

# A 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.

#### 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 (*Figure 1*). An Order Number is used to check and maintain your order history and is located on 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.

# Serial Number Label

Figure 1

#### California Proposition 65

**WARNING** 

CANCER AND REPRODUCTIVE HARM - www.P65Warnings.ca.gov.

# **A** WARNING

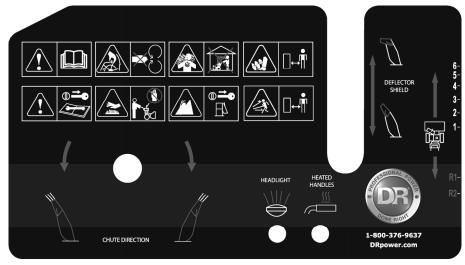
Read this safety & operating Instructions manual before you use the DR SNOW BLOWER. Become familiar with the operation and service recommendations to ensure the best performance from your machine. If you have any questions or need assistance, please contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER (376-9637) and one of our Technical Support Representatives will be happy to help you.

#### Labels

Your DR SNOW BLOWER 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 BLOWER as you set up and before you operate the unit. Replace damaged or missing safety and information labels immediately.







#10000036714







#42375



#42374

#### **Protecting Yourself and Those Around You**

# **A** WARNING

This is a high-powered machine, with moving parts operating with high energy. 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 using this machine:

- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people, their property, and themselves.
- Always wear protective goggles or safety glasses with side shields while using the SNOW BLOWER to protect your eyes from possible thrown debris.
- Avoid wearing loose clothing or jewelry, which can catch on moving parts.
- We recommend wearing gloves while using the SNOW BLOWER. Be sure your gloves fit properly and do not have loose cuffs or drawstrings.
- Wear shoes with non-slip treads when using your SNOW BLOWER. If you have safety shoes, we recommend wearing them. Wear long pants while operating the SNOW BLOWER.
- Use ear protectors or ear plugs rated for at least 20 dba to protect your hearing.
- Keep bystanders at least 75 feet away from your work area at all times. Stop the engine when another person or pet approaches.

#### Safety for Children and Pets

# **A** 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 blowing activity. *Never* assume that children will remain where you last saw them. Always follow these precautions:

- Keep children and pets at least 75 feet from the working area and ensure they are 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 SNOW BLOWER.

#### Safety with Extension Cords

# **A** WARNING

Never overlook the hazards of electricity. Always follow these precautions:

- Never open the Control Box cover. Never attempt any electrical repairs yourself. If in doubt, consult a qualified electrician, visit our website at www.DRpower.com or contact DR Power Equipment for toll-free support at: 1-800-dr-owner (376-9637) for help or information.
- Never use an extension cord that is not rated for outdoor use.
- Never connect the Cord to the Snow Blower if there is an electrical hazard present.
- Never connect the Cord to the Snow Blower in wet conditions.
- Never connect the Cord to the Snow Blower with a damaged extension cord.
- Always grasp the electrical cord plug when unplugging the cord from the outlet; never pull the plug out by the cord. Make sure your fingers do not touch the metal prongs when plugging or unplugging.
- Never Start the Snow Blower unless the electrical cord is plugged into a properly grounded outlet, which supplies 110-120V power, and is protected by a 15-amp circuit breaker.
- Never tamper with safety devices. Check their proper operation regularly.
- When using an extension cord, keep the connection between the Control Box and the extension cord well away from any
  water.

#### Safety with Extension Cords (continued)

# **WARNING**

- Never use an extension cord longer than 25 feet and smaller than 12 awg in diameter, or longer than 50 feet and smaller than 10 awg in diameter; the cord will produce a voltage drop that will prevent the starter from supplying full power and may cause damage to the Starter or Control Box. Use of a smaller diameter (larger awg number) extension cord could result in melting of the insulation or even create a fire.
- Always keep the electrical cord and/or extension cord away from excessive heat, oil, and sharp objects.

#### Safety with Gasoline - Powered Machines

# **A** WARNING

Gasoline is a highly flammable liquid. Gasoline also gives off flammable vapor that can be easily ignited and cause a fire or explosion. Never overlook the hazards of gasoline. Always follow these precautions:

- Never run the engine in an enclosed area or without proper ventilation as the exhaust from the engine contains carbon monoxide, which is an odorless, tasteless, and deadly poisonous gas.
- Store all fuel and oil in containers specifically designed and approved for this purpose and keep away from heat and open flame, and out of the reach of children.
- Replace rubber fuel lines and grommets when worn or damaged and after 5 years of use.
- Fill the gasoline tank outdoors with the engine off and allow the engine to cool completely. Don't handle gasoline if you or anyone nearby is smoking, or if you're near anything that could cause it to ignite or explode. Reinstall the fuel tank Cap and fuel container cap securely.
- If you spill gasoline, do not attempt to start the engine. Move the machine away from the area of the spill and avoid creating any source of ignition until the gas vapors have dissipated. Wipe up any spilled fuel to prevent a fire hazard and properly dispose of the waste.
- Allow the engine to cool completely before storing in any enclosure. Never store a machine that has gas in the tank, or a fuel container, near an open flame or spark such as a water heater, space heater, clothes dryer or furnace.
- Never make adjustments or repairs with the engine running. Shut down the engine, disconnect the spark plug wire, keeping it away from the spark plug to prevent accidental starting, wait 5 minutes before making adjustments or repairs.
- Never tamper with the engine's governor setting. The governor controls the maximum safe operation speed and protects the
  engine. Over-speeding the engine is dangerous and will cause damage to the engine and to the other moving parts of the
  machine. If required, see your authorized dealer for engine governor adjustments.
- Keep combustible substances away from the engine when it is hot.
- Never cover the machine while the muffler is still hot.
- Do not operate the engine with the air cleaner or the carburetor air intake cover removed. Removal of such parts could create a fire hazard. Do not use flammable solutions to clean the air filter.
- The muffler and engine become very hot and can cause a severe burn; do not touch.

#### General Safety

# **A** WARNING

Operating this SNOW BLOWER safely is necessary 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 SNOW BLOWER:

- Your SNOW BLOWER is a powerful tool, not a plaything. Exercise extreme caution at all times. The machine is designed to blow snow. Do not use it for any other purpose.
- Know how to stop the SNOW BLOWER quickly; see "stopping the engine" in chapter 3.
- Wear winter tread boots designed for snow and ice traction to avoid slipping or falling.
- See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by DR Power Equipment.
- Never use the machine without ensuring that all guards and shields are in place.

#### General Safety (continued

# **A** WARNING

- Never, under any conditions, remove, bend, cut, fit, weld, or otherwise alter standard parts on the SNOW BLOWER. This
  includes all shields and guards. Modifications to your machine could cause personal injuries and property damage and will
  void your warranty.
- Allow only one person to operate the SNOW BLOWER at any time.
- If the machine should start making an unusual noise or vibration, shut down the engine, disconnect the spark plug wire, keeping it away from the spark plug to prevent accidental starting, wait 5 minutes, then inspect for damage. Vibration is generally a warning of trouble. Check for damaged parts and clean, repair, and/or replace as necessary.
- Never tamper with safety devices. Check their proper operation regularly.
- Before performing any maintenance or inspection procedure on the SNOW BLOWER, stop the engine, remove the Safety Key, and wait five minutes to allow all parts to cool.
- Never allow people who are unfamiliar with these instructions to use the SNOW BLOWER. Allow only responsible individuals who are familiar with these rules of safe operation to use your machine.
- Never overload or attempt to use the SNOW BLOWER beyond the manufacturer's recommendation. Personal injury or damage to the machine could result.
- While using the SNOW BLOWER, don't 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.
- Stay alert for hidden hazards or traffic.
- Keep all nuts and bolts tight and keep the equipment in good operating condition.

#### A Note to All Users

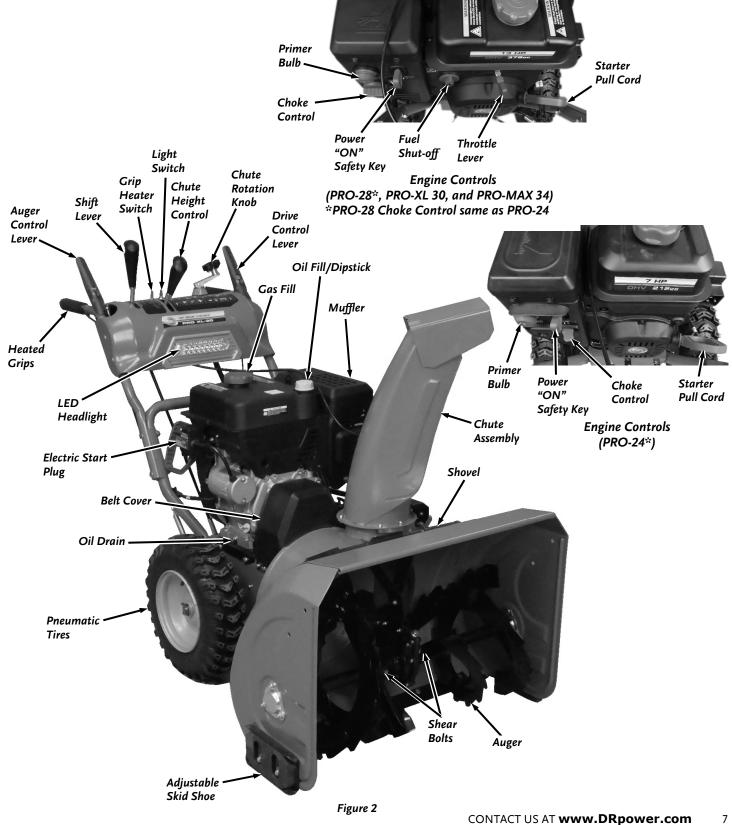
Under California law, and the laws of some other states, you are not permitted to operate an internal combustion engine using hydrocarbon fuels without an engine spark arrester. This also applies to operation on US Forest Lands. All DR® SNOW BLOWERS shipped to California, New Mexico and Washington State are provided with spark arresters. Failure of the owner or operator to maintain this equipment in compliance with state regulations is a misdemeanor under California law and may be in violation of other state and/or federal regulations. Contact your State Park Association or the appropriate state organization for specific information in your area.

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 BLOWER 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 BLOWER

It may be helpful to familiarize yourself with the controls and features of your DR SNOW BLOWER as shown in Figure 2 before beginning these procedures. If you have any questions at all, please feel free to contact us at www.DRpower.com.

#### **DR SNOW BLOWER Controls and Features**



#### **Specifications**

Model	PRO-24	PRO-28	PRO XL-30	PRO MAX-34
Clearing Width - Inch (mm)	24 (609)	28 (711)	30 (764)	34 (889)
Intake Height - Inch (mm)	20 (508)	21 (540)	21 (540)	21 (540)
Throwing Distance – Ft (m)	≤ 36ft (11m)	≤ 36ft (11m)	≤ 49ft (15m)	≤ 49ft (15m)
Starting System		110V Electric wi	th Recoil Back-up	
Transmission Type		Frictio	on Disc	
Speeds	6 Forward, 2 Reverse			
Wheel Size	15x4.80-7	15x4.80-7	16x4.80-8	16x4.80-8
Chute Rotation	Hand crank, 190° Turning Radius			
Ice Chopping Auger	Yes			
Differential System	Auto-Turn			
One Handed Operation		Υ	es	
Heated Grips		Υ	es	
Headlight	LED			
Operator Controls	Shift Lever, Drive Control, Auger Control, Chute Controls, Headlight Switch, Heater Switch			
Machine Dimensions – Inch (cm)	57x24x42 (145x61x107)	57x28x42 (144x72x107)	57x30x43 (146x77x110)	58x34x43 (147x87x110)
Machine Weight - Pound (Kg)	192 (87)	227 (103)	258 (117)	278 (126)

#### Components Supplied (Figure 3):

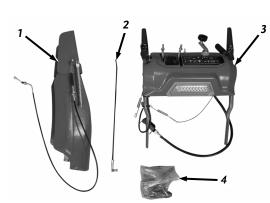


Figure 3



Figure 4

ltem#	<u>Description</u>	Qty
1	Discharge Chute Assembly	1
2	Shifter Rod Assembly	1
	Handlebar Assembly	
	Parts Bag	_

Compare the contents with the "Components Supplied" list above. If you have any questions, please contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.

#### Large Parts Bag (Figure 4):

ltem#	Part #	Description	Qty
1	400881	Plate, Adapter	2
2	401051	Handle, Shifter	2
3	403101	Bolt, M8x55	4
4	403331	Washer, 8mm ID X 22mm OD X 2mm	4
5	402781	Nut, Jam, M8	4
6	N/A	Key, Shear Bolt and Spark Plug Tool Bag	1
7	112141	Cable Tie, 7-1/2" L	5
		Chute Hardware and Shear Bolts	

Compare the contents with the "Large Parts Bag" list above. If you have any questions, please contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.

#### Smaller Parts Bags (Figure 5):

Item# Part #	<u>Description</u>	Qty
1 40424	. Key, Off Switch	2
2 42532	. Tool, Spark Plug	1
	. Bolt, Shear, Impeller, M6x35 (Pro-24)	
40297	. Bolt, Shear, Impeller, M6x40 (All except Pro-24)	2
4* 40313	. Nut, Jam M6	2
5* 40321	. Bolt, Shear, Auger (All except Pro-24)	2
6* 40278	. Nut, Jam, M8 (All except Pro-24)	2
	. Bolt, Shear, Auger (Pro-24)	
8* 40317	. Pin, Cotter, Auger Drive (Pro-24)	2
9 A0000268507.	. Bolt, Carriage, M6-1.0 X 12MM (Pro-24)	3
A0000268506.	. Bolt, Carriage, M8-1.25 X 16MM (All except Pro-24	.) .3
10 A0000268509.	. Nut, Hex Lock, M6-1.0 (Pro-24)	3
A0000268508.	. Nut, Hex Lock, M8-1.25 (All except Pro-24)	3
	· · · · · · · · · · · · · · · · · · ·	

<sup>\*</sup>Spare Shear Hardware (not needed for assembly)

Compare the contents with the "Smaller Parts Bags" list above. If you have any questions please contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.

#### Drift Cutter Parts (Figure 6):

ltem#	Part #	<u>Description</u>	<u>Qty</u>
1	40350	Drift Cutter	2
2	40303	Bolt, M8x20	4
3	40351	Nut, Wing, M8, Plastic	4

Compare the contents with the "Drift Cutter parts" list above. If you have any questions, please contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.

#### **Assembly Instructions**

#### **Tools Needed:**

- 6mm Wrench
- 14mm Wrench
- 8mm Wrench
- 17mm Wrench
- 10mm Wrench
- Wire Cutters
- 11mm Wrench
- Eye Protection
- 13mm Wrench
- 1. Position the handlebar Assembly behind the Snow Blower in a flat, clean area (*Figure 7*).
- 2. Move the Plastic Covers away from the Cable Spring Hooks to expose the Hooks (*Figure 8*).
- 3. Attach the Spring Hook of the Drive Control Cable into the Pulley Wire at the left side of the machine.
- 4. Attach the Spring Hook of the Auger Control Cable into the Tension Connector at the right side of the machine.

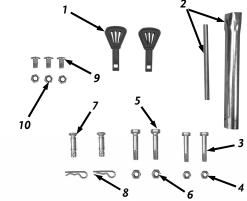


Figure 5



Figure 6

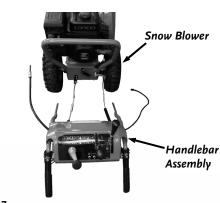


Figure 7

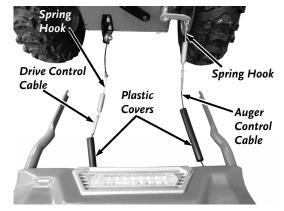


Figure 8

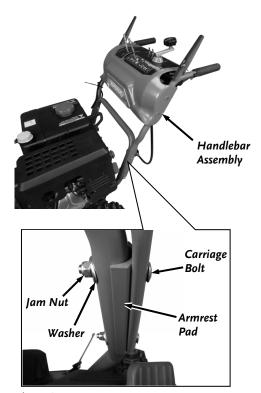


Figure 9

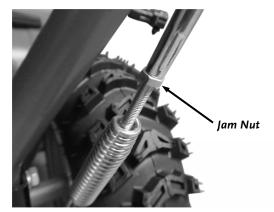


Figure 10

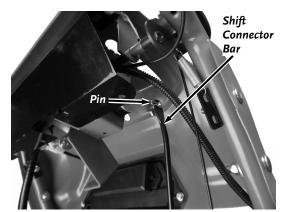


Figure 11

- 5. Have a helper hold the upper Handlebar Assembly in position on the lower Handlebar (*Figure 9*).
- 6. Place the Adapter Plates between the upper and lower Handlebar Assemblies and secure with The M8 X 55 Bolts, 8 X 22 X 2 Washers and M8 Jam Nuts using a 13mm Wrench.

**Note:** Ensure that the Bolt Heads are on the outside of the Handlebar and the square portion of the Bolts go fully into the squares in the handlebar.

- 7. Lift the Plastic Covers and check the Jam Nuts on the Auger Control Cable and Drive Control Cable to ensure they are tight (*Figure 10*). Tighten as needed using a 6mm Wrench to hold the Cable and an 8mm Wrench to tighten the Nut.
- 8. Remove the Pin and install the upper end of the Shift Connector Bar (*Figure* 11).
- 9. Remove the Locknut from the lower Gimbal end of the Shift Connector Bar and insert the threads through the Shift Connector at the center of the machine (*Figure 12*).
- 10. Secure the Gimbal with the Locknut using a 11mm Wrench on the Gimbal and a 13mm Wrench on the Locknut.
- 11. Ensure the Gimbal upper Jam Nut is tight using a 14mm Wrench.
- 12. Place the Chute Assembly onto the Gear Plate Assembly and align the mounting holes (*Figure 13*).

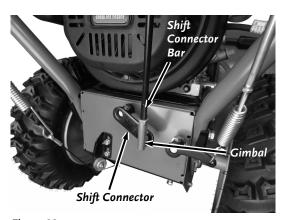


Figure 12

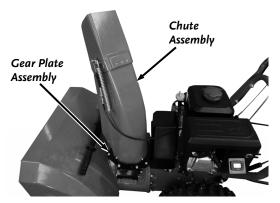


Figure 13

- 13. Secure the Chute Assembly to the Gear Plate Assembly with three M6-1.0 X 12MM Carriage Bolts (Pro-24) or three M8-1.25 X 16MM Carriage Bolts (All except Pro-24) and Locknuts using a 10mm Wrench (Pro-24) or 13mm Wrench (All except Pro-24) (*Figure 14*)
- 14. Screw the end of the Rotation Bracket Cable onto the Rotation Bracket (*Figure 15*).

**Note:** You may need to turn the Chute Rotation Handle on the Control Panel to align the Cable end with the Worm Gear in the Bracket.

- 15. lace the Rotation Bracket Cable into the Connecting Plate (Figure 16).
- 16. Install the Eyelet end of the Deflector Cable onto the Deflector Lever and secure with the Pin (*Figure 17*).
- 17. Loosen the top Jam Nut, slide the threaded portion of the Cable into the Bracket and tighten the two Jam Nuts against the Bracket using two 13mm Wrenches.
- 18. Screw the Handles onto the Shift and Deflector Levers and tighten the Jam Nuts using a 17mm Wrench (*Figure 18*).
- 19. Use Wire Cutters to cut the Cable Tie that is securing the Heated Grip Connector and insert the Connector into the Harness Plug (*Figure 19*).

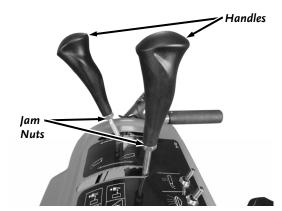


Figure 18



Figure 19

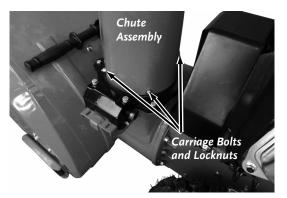


Figure 14

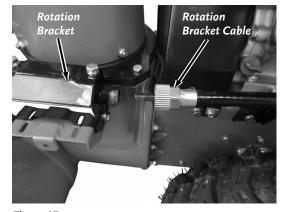


Figure 15

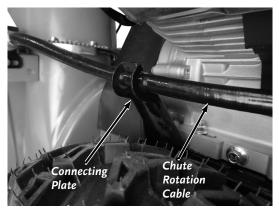


Figure 16

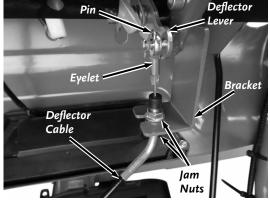


Figure 17

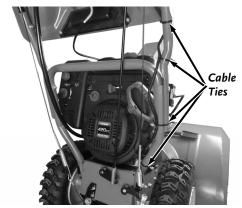


Figure 20

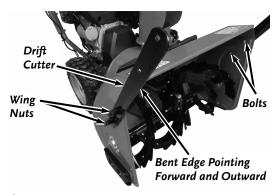


Figure 21



Figure 22

20. Install Cable Ties to secure the Wire Harness to the Handlebar, making sure that the Cables are not on top of the Handlebar where they can interfere with the Starter Pull Cord (*Figure 20*). Wear eye protection as you cut the excess ends of the Cable Ties using Wire Cutters.

#### Installing the Drift Cutters

1. Position the Drift Cutters and secure each one with two Carriage Bolts and Plastic Nuts (*Figure 21*).

**Note:** Ensure that the Drift Cutter bent edges are positioned as shown for proper operation.

#### Check the Tire Pressure

# **A** WARNING

Do not over inflate the tires. Inflate to the manufacturers recommended pressure found on the tires.

#### **Tools Needed:**

- Tire Pressure Gauge
- Air Compressor
- 1. Remove the Valve Stem Protective Cap (*Figure 22*) and check the tire pressure with a Tire Pressure Gauge.
- 2. Compare the tire pressure reading with the manufacturer's recommended tire pressure stamped on the side of the tire.
- 3. If the pressure is too low, add air through the Valve Stem with an air hose.
- 4. Replace the Valve Stem Protective Cap when finished.

#### Adding Oil and Gasoline

#### **NOTICE**

- You must add oil before starting the engine. This machine is shipped without oil. Traces of oil may be in the reservoir from
  factory testing, but you must add oil before starting the engine. Fill the reservoir slowly, checking the level frequently to avoid
  overfilling.
- To get an accurate reading when checking the oil level:
  - The Engine must be level.
  - The dipstick should not be screwed down to ensure an accurate oil level reading.

Engine Oil 5W-30 or 0W-30: -13°F (-25°C) or higher 0W-30: -13°F (-25°C) or lower		
Fuel	Unleaded gasoline	

**Note:** Use only the recommended high detergent engine oil. Other types of oil could cause problems operating your machine. Please refer to your Engine Owner's Manual for detailed oil information.

- 1. Position the machine so the Frame and Engine are level. Remove the Oil Fill/Dipstick (*Figure 23*) and clean the end of it with a rag.
- 2. Machines are shipped with no oil. Initially add 3/4 of the oil recommended by the Engine Manufacturer (see oil quantities in your Engine User Manual). Wait one minute for the oil to settle.
- 3. Insert the Dipstick without screwing it in and check the oil level. Clean the Dipstick with the rag after checking.
- 4. Continue adding a few ounces of oil at a time, rechecking the Dipstick until the oil reaches the fill mark. Be careful not to overfill.
- 5. When full, replace the Dipstick and screw all the way down.
- 6. Remove the Gas Fill Cap and fill the Gas Tank with fresh, unleaded gas (with a minimum of 85 Octane) to approximately 1" to 1-1/2" below the top of the fill neck to allow for fuel expansion (*Figure 23*). Be careful not to overfill and ensure you reinstall the Gas Fill Cap before starting the engine. See your Engine Owner's Manual for more detailed information.

**Note:** To refill the gas tank, turn the engine OFF and let the engine cool at least five minutes before removing the gas fill cap.

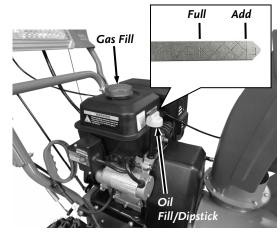


Figure 23

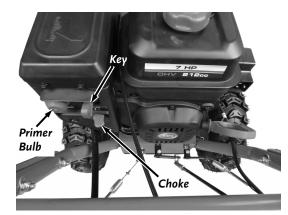


Figure 24

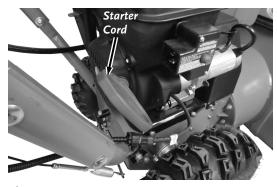


Figure 25

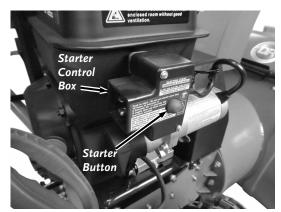


Figure 26

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

### **WARNING**

Read and understand all warnings listed in "Chapter 2" before operating this SNOW BLOWER.

#### Starting the PRO-24 Engine (Manual Start)

- 1. Insert the Key into the Key Slot (Figure 24).
- 2. Move the Choke Control Lever to the left "choke" position (leave in the right "Run" position if the engine is already warm).
- 3. Push and release the Primer Bulb 3 times.
- 4. Slowly pull the Starter Cord until you feel resistance, then pull quickly (*Figure 25*). The Cord will recoil back into position when released.
- 5. As the engine warms up, slowly adjust the Choke to the right. Wait until the engine runs smoothly before each Choke adjustment.
- 6. When the Engine is warmed up and running smoothly, ensure that the Choke is fully in the right "Run" position.

#### Starting the PRO-24 Engine (Electric Start)

- 1. Insert the Key into the Key Slot (Figure 24).
- 2. Move the Choke Control Lever to the left "choke" position (leave in the right "Run" position if the engine is already warm).

#### **WARNING**

Read and understand the warnings listed in Chapter 2 "Safety with Extension Cords" before connecting the Extension Cord.

- 3. Connect the required Heavy-Duty extension cord into the Snow Blower Control Box (*Figure 26*) and plug the Extension cord into a 120V outlet.
- 4. Push the Starter Button on the Snow Thrower Control Box until the engine starts and then release the Button.

**NOTICE:** Do not push the Starter Button more than 10 times at intervals of 5 seconds on/5 seconds off. If the Engine will not start, see the Troubleshooting section in Chapter 5 of this manual.

- 5. As the engine warms up, slowly adjust the Choke to the right. Wait until the engine runs smoothly before each Choke adjustment.
- 6. When the Engine is warmed up and running smoothly, ensure that the Choke is fully in the right "Run" position.

# Starting the PRO-28, PRO-XL 30, and PRO-MAX 34 Engines (Manual Start)

- 1. Insert the Key into the Key Slot (Figure 27).
- 2. Make sure the Fuel Shutoff is turned counterclockwise to the open position.
- 3. PRO-28 Move the Choke Control Lever to the left "choke" position (leave in the right "Run" position if the engine is already warm).
- 4. PRO-XL 30 and PRO-Max 34 Turn the Choke Control Lever counterclockwise to the choke position (leave in the clockwise run position if the engine is already warm).
- 5. Push and release the Primer Bulb 3 times.
- 6. Slowly pull the Starter Cord until you feel resistance, then pull quickly (*Figure 28*). The Cord will recoil back into position when released.
- 7. As the engine warms up, slowly adjust the Choke clockwise. Wait until the engine runs smoothly before each Choke adjustment.
- 8. When the Engine is warmed up and running smoothly, ensure that the Choke is fully in the clockwise position and the Throttle Lever is fully to the right.

# Starting the PRO-28, PRO-XL 30, and PRO-MAX 34 Engines (Electric Start)

# **MARNING**

Read and understand the warnings listed in Chapter 2 "Safety with starting machines using an Extension Cord" before connecting an Extension Cord.

- 1. Insert the Key into the Key Slot (Figure 27).
- 2. Make sure the Fuel Shutoff is turned counterclockwise to the open position.
- 3. PRO-28 Move the Choke Control Lever to the left "choke" position (leave in the right "Run" position if the engine is already warm).
- 4. PRO-XL 30 and PRO-Max 34 Turn the Choke Control Lever counterclockwise to the choke position (leave in the clockwise run position if the engine is already warm).
- 5. Connect the required Heavy-Duty extension cord into the Snow Blower Control Box (*Figure 29*) and plug the Extension cord into a 120V outlet.
- 6. Push the Starter Button on the Snow Thrower Control Box until the engine starts and then release the Button.

**NOTICE:** Do not push the Starter Button more than 10 times at intervals of 5 seconds on/ 5 seconds off. If the Engine will not start, see the Troubleshooting section in Chapter 5 of this manual.

- 7. As the engine warms up, slowly adjust the Choke clockwise. Wait until the engine runs smoothly before each Choke adjustment.
- 8. When the Engine is warmed up and running smoothly, ensure that the Choke is fully in the clockwise position and the Throttle Lever is fully to the right.

#### Stopping the Engine

1. Pull the Key out of the Key Slot to stop the Engine (Figure 27).

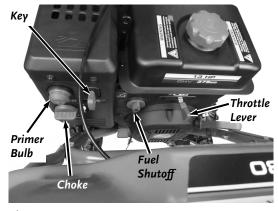


Figure 27

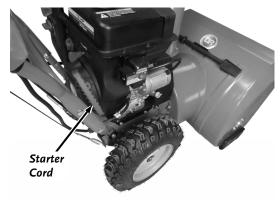


Figure 28

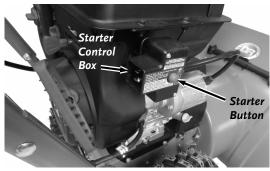


Figure 29

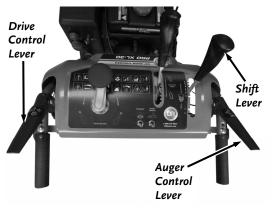


Figure 30

#### **Operating the DR Snow Blower**

- 1. Start the engine as described on the previous page.
- 2. After the engine has warmed up, set the Throttle to maximum speed.
- 3. Move the Shift Lever to the desired gear (see "Selecting Gears" in the next section.
- 4. Make sure the Snow Blower Auger is clear of snow before engaging the Auger Control Lever (*Figure 30*).
- 5. To start the Snow Blower Auger, push the Auger Control Lever down to the Handle.
- 6. Gently squeeze the Drive Control Lever to engage the Wheels.
- 7. Upon completion of your work, allow the Auger to operate for a minute or two to remove buildup and prevent icing.
- 8. Release the Drive and Auger Levers and pull out the Key to turn off the engine.

#### **NOTICE**

- If the Auger strikes a foreign object or if your machine should start making an unusual noise or vibration, immediately release the Levers, 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 DR Blower as a snowplow. Do not push the snow; let the snow thrower work its way through the snow.
- If the ground speed of the machine is too fast, release the Drive Control Lever and shift to a slower speed to prevent the discharge chute from becoming overloaded and clogged.
- In deeper snow you can raise the Snow Thrower by pushing down on the handlebars to remove some of the top layer of snow first, or take a half-width pass. A second or third pass will remove the remaining snow much easier.

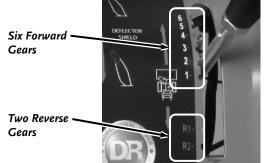


Figure 31

#### Selecting Gears

- The Snow Blower has six forward gears (*Figure 31*) that are labeled 1 (slowest) to 6 (fastest).
- There are two reverse gears that are labeled R1 (slowest) to R2 (fastest).

# **M** WARNING

Always ensure the Drive Control Lever is released before shifting gears to prevent damage to the machine and possible injury to the operator.

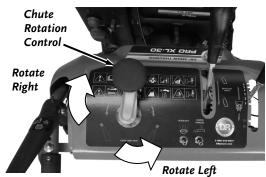


Figure 32

#### Changing the Discharge Chute Rotation

The Discharge Chute Rotation can be set to any position within a 190 degrees radius for ease of snow removal.

Rotate the Chute Rotation Knob until the desired angle is achieved (*Figure 32*). Rotate clockwise to rotate the Chute to the right. Rotate counterclockwise to rotate the Chute to the left.

#### **Changing the Chute Height**

The angle of the top portion of the Chute can be adjusted up or down to change the distance that the snow is being thrown.

- 1. Move the Chute Height Control forward to lower the Chute Deflector for Blowing the snow shorter distances (*Figure 33*).
- 2. Move the Chute Height Control back to raise the Chute Deflector for longer distances.

#### **Operating the Grip Warmers**

- 1. Move the Switch to the forward (ON) position to turn on the heat to the Grips (*Figure 34*).
- 2. Move the Switch to the rear (OFF) position to stop heat to the Grips.

#### Operating the LED Headlight.

- 1. Move the Switch to the forward (ON) position to turn the Headlight on (*Figure 34*).
- 2. Move the Switch to the rear (OFF) position to turn the Headlight off.



Drift Cutters will cut through snow that is taller than the top surface of the Auger Housing. This will keep the snow at the sides separated better and provide a more consistent cut path in deeper snow.



The Skid Shoes can be adjusted to work best with the surface you are working with. For smooth pavement without defects, the Skid Shoes can be set to the lowest position. If the surface is a gravel consistency, you should raise the Skid Shoes to a height that allows the most snow to be removed without disturbing the gravel surface.

- 1. Loosen the two Jam Nuts using a 1/2" Wrench (Figure 35).
- 2. Position the Skid Shoes to the desired height and tighten Jam Nuts.

**Note:** Both Skid Shoes should be set at the same height.

#### Clearing out a Clog in the Auger and Discharge Chute

## **MARNING**

Before clearing out a clog, stop the engine, remove the Safety Key, and wait five minutes to allow all parts to cool.

- 1. Use the Shovel that is secured to the top of the Auger Housing when clearing snow from the Discharge Chute or Auger Housing (*Figure 36*).
- 2. Start the machine to clean out remaining material and repeat cleaning process as needed until snow discharges freely.

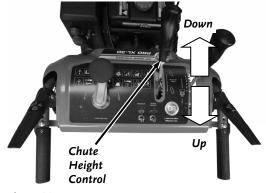


Figure 33

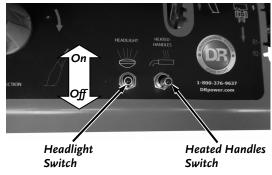


Figure 34

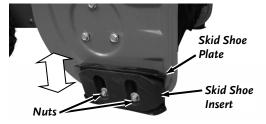


Figure 35

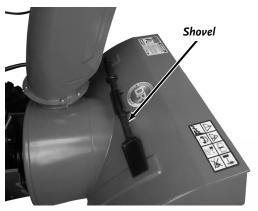


Figure 36

#### Chapter 4: Maintaining the DR SNOW BLOWER

Regular maintenance is the way to ensure the best performance and long life of your machine. Please refer to this manual and the engine manufacturer's owner's manual for maintenance procedures. Service intervals listed in the checklist below supersede those listed in the engine manufacturer's owner's manual.

# **A** WARNING

Before performing any maintenance procedure or inspection, stop the engine, remove the Safety Key, and wait five minutes to allow all parts to cool.

#### Regular Maintenance Checklist

PROCEDURE	BEFORE EACH USE	Every 5 Hours	EVERY 25 HOURS	EVERY 50 HOURS
Check Engine Oil Level (add as needed)	<b>A</b>			
Check General Equipment Condition	<b>A</b>			
Check Auger and Impeller (If they are excessively worn or damaged)	<b>A</b>			
Check Auger Shear Bolts (replace as needed)	<b>A</b>			
Clean Engine Exterior & Cooling Fins	<b>A</b>			
Check condition of belts (replace as needed)	<b>A</b>			
Lubricate Chute Gear Flange		<b>A</b>		
Lubricate Traction Drive Chain			<b>A</b>	
Clean Air Filter			<b>A</b>	
Lubricate Cables (SAE 30 Oil)			<b>A</b>	
Change Engine Oil		1 <sup>st</sup> time 5 hours	<b>A</b>	
Replace Spark Plug				<b>A</b>
Replace Air Filter				<b>A</b>

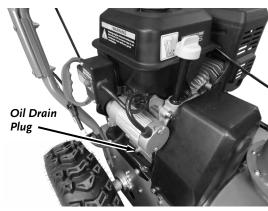


Figure 37

#### Removing and Replacing the Engine Oil

#### **Tools and Supplies Needed:**

- 10mm Wrench (PRO-24, PRO-28 and PRO-XL 30)
- 12mm Wrench (PRO-MAX 34)
- Rags and approved Container (for waste oil)
- Small Funnel
- Engine Oil (see your Engine Manual for Oil specifications)

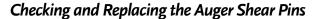
#### **NOTICE**

The Frame and Engine must be level to get an accurate reading when adjusting the oil level.

- 1. Position the machine so the Frame and Engine are level and place a Waste Oil Container under the Oil Drain Plug (*Figure 37*).
- Remove the Oil Drain Plug with a 10mm Wrench (PRO-24, PRO-28 and PRO-XL 30) or 12mm Wrench (PRO-MAX 34) to drain the Oil into the Container.
- 3. Replace the Oil Drain Plug when all Oil has drained.

#### **NOTICE**

- Fill the Oil reservoir slowly, checking the level frequently to avoid overfilling.
- To get an accurate reading when checking the oil level:
  - The Engine must be level.
  - The dipstick <u>should not</u> be screwed down to ensure an accurate oil level reading.
- 4. Remove the Oil Fill/Dipstick and initially add 3/4 of oil (type of oil recommended by the Engine Manufacturer) into the Oil Fill and wait one minute for the oil to settle (*Figure 38*).
- 5. Insert the Dipstick without screwing all the way in and then remove to check the level.
- 6. Continue adding a few ounces of oil at a time, rechecking the Dipstick until the oil reaches the fill mark. Be careful not to overfill.



Check the condition of the Shear Pins by removing them from the Auger Shafts. If the Shear Pins are worn excessively or if they are broken or missing from the Auger Shaft. They must be replaced.

#### Tools and Supplies needed:

- Two 13mm Wrenches (PRO-28, PRO-XL 30, and PRO-MAX 34)
- Safety Glasses
- Small punch
- Hammer
- Shear Pin (PRO-24)
- Cotter Pin (PRO-24)
- Shear Bolt (PRO-28, PRO-XL 30, and PRO-MAX 34)
- Jam Nut (PRO-28, PRO-XL 30, and PRO-MAX 34)

#### Checking

- 1. Remove the Shear Bolt and Locknut using two 13mm Wrenches (*Figure 39*).
- 2. If the Shear Pins are not worn excessively or damaged, they can be reinstalled.
- 3. If the Shear Pins are worn excessively or damaged, replace as described in the following steps.

#### Replacing

- 1. If you cannot see the Shear Bolt hole, you will need to turn the Auger until the holes in the Auger and Auger Shaft line up.
- 2. If the Shear Bolt ends are sheared off, you will need to use the Punch to push the remainder of the Bolt out.
- 3. Once the holes are aligned and the holes are clear, the new Shear Bolts and Cotter Pins can be installed.

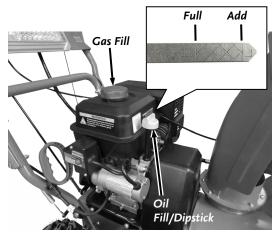


Figure 38

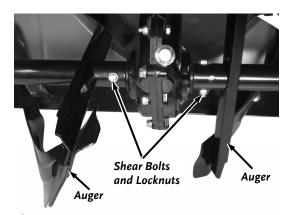


Figure 39

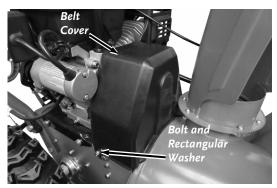


Figure 40

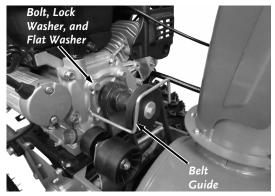


Figure 41

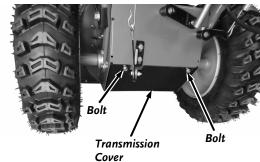


Figure 42

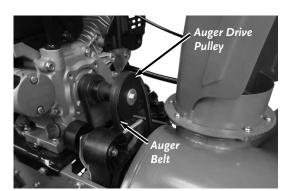


Figure 43

#### Replacing the Auger Belt (PRO 24 Model)

The Pro 24 Model uses one Belt to drive the Auger.

#### **Tools and Supplies needed:**

- 10mm Wrench
- 13mm Wrench
- Pliers
- One new DR Belt (Part number 40099)
- 1. Remove the two Bolts and rectangular Washers from the Belt Cover using a 10mm Wrench and remove the Belt Cover (*Figure 40*).
- 2. Remove the two Bolts, Lock Washers and Flat Washers that secure the Belt Guide to the Engine using a 13mm Wrench and remove the Belt Guide (*Figure 41*).
- 3. Remove the two Bolts that secure the Transmission Cover using a 10mm Wrench and Remove the Transmission Cover (*Figure 42*). This will allow you to guide the Belt off the Auger Pulley from underneath.
- 4. Roll the Auger Belt off the front of the Auger Drive Pulley (Figure 43).
- 5. Remove the Brake Spring from bottom left side of the Frame so the Brake Pad will come away from the Auger pulley, making room for Belt removal (*Figure 44*).
- 6. Remove the Belt from the Auger Pulley underneath and pull the Belt up past the rear side of the Pulley to remove it.
- 7. Position the new Belt down to the rear side of the Auger Pulley and install the Belt onto the Pulley from underneath making sure the Belt is fully into the Pulley groove.

**Note:** Ensure that the Belt is completely into the bottom of the Auger Pulley with the Brake Pad out of the way.

- 8. Install the Belt onto the Drive Pulley.
- 9. Reconnect the Brake Spring to the Frame.
- 10. Install the Transmission Cover.
- 11. Install the Belt Guide and Belt Cover.

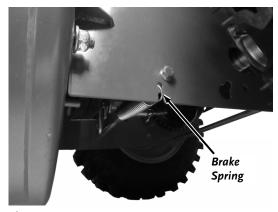


Figure 44

#### Replacing the Auger Belts (PRO 28, 30 and 34 Models)

The Pro 28, 30 and 34 Models use two Belts to drive the Auger.

#### **Tools and Supplies needed:**

- 10mm Wrench
- 13mm Wrench
- Two new DR Belts (Part number 40237, PRO-28) (Part number 40265, PRO-XL-30 and PRO-MAX 34)
- Remove the two Bolts and rectangular Washers from the Belt Cover using a 10mm Wrench (*Figure 45*). Remove the Belt Cover.
- 2. Remove the two Bolts, Lock Washers and Flat Washers that secure the Belt Guide to the Engine using a 13mm Wrench and remove the Belt Guide (*Figure 46*).
- 3. Remove the two Bolts that secure the Transmission Cover using a 10mm Wrench and remove the Transmission Cover (*Figure 47*).
- 4. Remove the Brake Spring from Frame so the Brake Pad will come away from the Auger pulley, making room for Belt removal (*Figure 48*).



Only remove the three Locknuts on the right side of the Transmission Box as described in the next step. If you remove the Locknuts from both sides, the machine can become unstable and cause possible injury.

5. Remove the three Locknuts from the right side of the Transmission Box using a 13mm Wrench (*Figure 49*).

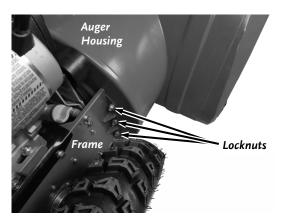


Figure 49

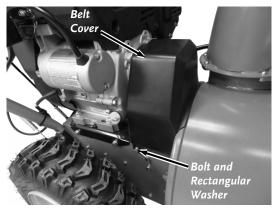


Figure 45

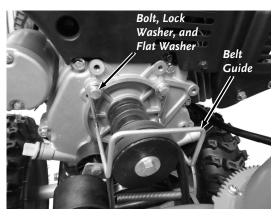


Figure 46

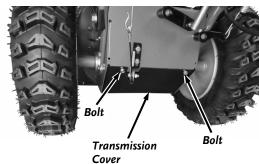


Figure 47

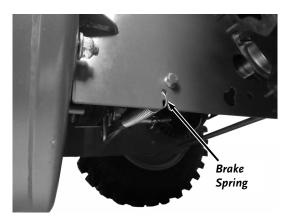


Figure 48

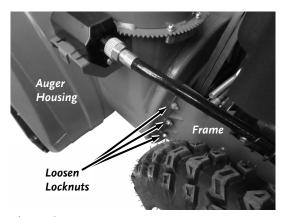


Figure 50

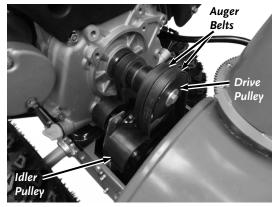


Figure 51

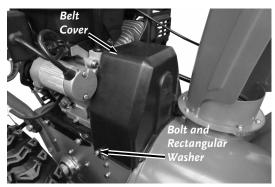


Figure 52



Figure 53

- 6. Loosen (do not remove) the three Locknuts on the left side of the Transmission Box using a 13mm Wrench (*Figure 50*).
- 7. Hold the Handles and pull them to the left to create some separation between the Auger Housing and Frame on the right side.
- 8. Roll the front Auger Belt off the front of the Engine Drive Pulley and the rear Auger Belt off the back of the Engine Drive Pulley (*Figure 51*).

**Note:** It may help to put a 13mm Wrench on the Engine Shaft Bolt and turn clockwise to aid in rolling the Belts off the Pulley.

- 9. Remove the Belts from the Auger Pulley underneath and remove the Belts from the machine.
- 10. Install the new Belts onto the Pulleys.
- 11. Hold the Handlebars and pull to the right to close the gap between the Auger Housing and Frame.
- 12. Install the Locknuts that secure the right side of the Frame to the Auger Housing (*Figure 49*).
- 13. Tighten the Locknuts to secure the left side of the Frame to the Auger Housing (*Figure 55*).
- 14. Install the Brake Spring to the Frame (Figure 48).
- 15. Install the Transmission Cover (Figure 47).
- 16. Install the Belt Guide and Belt Cover (Figures 46 and 45).

#### Replacing the Traction Drive Belt (PRO 24 Model)

#### **Tools and Supplies needed:**

- 10mm Wrench
- 13mm Wrench
- Pliers
- New DR Belt
- 1. Remove the two Bolts and rectangular Washers from the Belt Cover using a 10mm Wrench and remove the Belt Cover (*Figure 52*).
- Remove the two Bolts, Lock Washers and Flat Washers that secure the Belt Guide to the Engine using a 13mm Wrench and remove the Belt Guide (Figure 53).
- 3. Remove the two Bolts that secure the Transmission Cover using a 13mm Wrench and Remove the Transmission Cover (*Figure 54*).

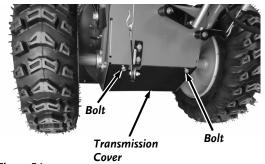


Figure 54

4. Roll the Auger Belt off the front of the Engine Drive Pulley to make room for removal of the Traction Drive Belt (*Figure 55*).

**Note:** It may help to put a 13mm Wrench on the Engine Shaft Bolt and turn clockwise to aid in rolling the Belts off the Pulley.

- 5. Remove the Traction Drive Spring from the Frame using Pliers (Figure 56).
- 6. Remove the Traction Drive belt from the Engine Pulley and let it rest in front of the Pulley.
- 7. Look under the Frame and observe how the end tabs of the Friction Disc Bracket are located on both sides of the rear Strut (*Figure 57*). It is very important that it is installed this way when reassembled for proper operation.
- 8. Remove the Bolts, Lock Washers and Flat Washers that secures the front Strut to the Frame (*Figure 58*). The Friction Disc Bracket will now move out of the way enough for Belt removal.
- 9. Remove the Traction Drive Belt from the Drive Pulley below and pull it up so it can be removed from the Pulleys on the Engine Shaft.
- 10. Install the new Traction Drive Belt onto the Drive Pulley and Engine Pulley.
- 11. Secure the rear Strut to the Frame. Ensure that the Tabs are on both sides of the Strut.
- 12. Install the Traction Drive Spring to the Frame.
- 13. Install the Auger Belt onto the Pulley.
- 14. Install the Transmission Cover.
- 15. Install the Belt Guide.
- 16. Install the Belt Cover.

#### Replacing the Traction Drive Belt (PRO 28, 30 and 34 Models)

#### Tools and Supplies needed:

- 10mm Wrench
- 13mm Wrench
- Pliers
- New DR Belt
- 1. Remove the two Bolts and rectangular Washers from the Belt Cover using a 10mm Wrench and remove the Belt Cover (*Figure 59*).

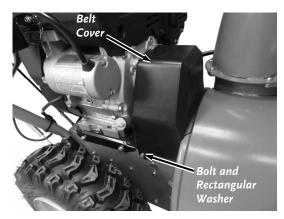


Figure 59

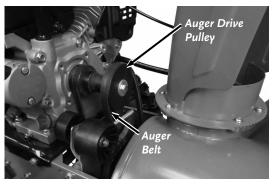


Figure 55

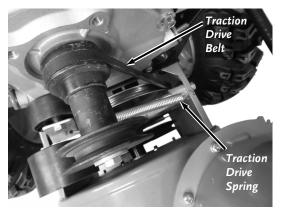


Figure 56

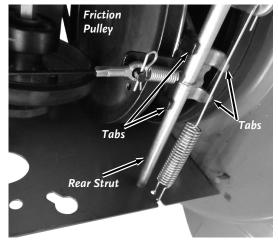


Figure 57

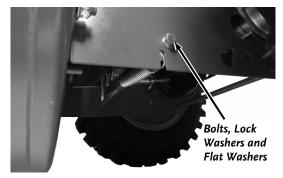


Figure 58

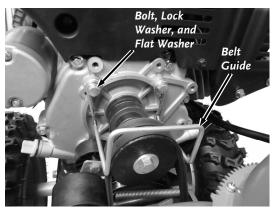


Figure 60

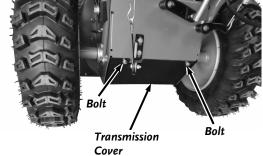


Figure 61

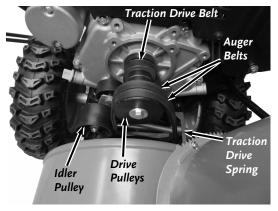


Figure 62

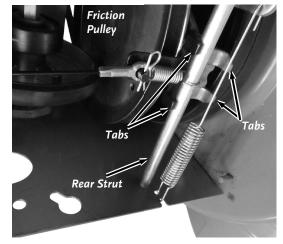


Figure 63

- 2. Remove the two Bolts, Lock Washers and Flat Washers that secure the Belt Guide to the Engine and remove the Belt Guide (*Figure 60*).
- 3. Remove the two Bolts that secure the Transmission Cover using a 13mm Wrench and Remove the Transmission Cover (*Figure 61*).
- 4. Roll the front Auger Belt off the front of the Engine Drive Pulley and the rear Auger Belt off the back of the Engine Drive Pulley (*Figure 62*).

**Note:** It may help to put a 13mm Wrench on the Engine Shaft Bolt and turn clockwise to aid in rolling the Belts off the Pulley.

- 5. Remove the Traction Drive Spring from the Frame using Pliers.
- 6. Remove the Traction Drive belt from the Engine Pulley and let it rest in front of the Pulley.
- 7. Observe how the end tabs of the Friction Disc Bracket are located on both sides of the front Strut (*Figure 63*). It is very important that it is installed this way when reassembled.
- 8. Remove the Bolts, Lock Washers and Flat Washers that secures the front Strut to the Frame (*Figure 64*). The Friction Disc Bracket will now move out of the way enough for Belt removal.
- 9. Remove the Traction Drive Belt from the Drive Pulley and pull it up so it can be removed from the Pulleys on the Engine Shaft.
- 10. Install the new Traction Drive Belt onto the Pulleys.
- 11. Secure the rear Strut to the Frame (*Figure 64*). Ensure that the Tabs are on both sides of the Strut (*Figure 63*).
- 12. Install the Friction Drive Spring to the Frame (Figure 62).
- 13. Install the Auger Belts onto the Pulleys.
- 14. Install the Transmission Cover (Figure 61).
- 15. Install the Belt Guide (Figure 60).
- 16. Install the Belt Cover (Figure 59).



Figure 64

#### Replacing the Friction Drive Wheel

#### Tools Needed:

- Flat Head Screwdriver
- 10mm Wrench
- Two 13mm Wrenches
- Dead Blow Hammer

#### **Disassembly**

- 1. Drain the Gas and Oil from the machine before starting these instructions.
- 2. Shift to 6th gear (Figure 65).
- 3. With the help of another person, tip the Snow Blower onto the Auger Housing (*Figure 66*).
- 4. Insert a Flat Head Screwdriver into the slot of the Wheel Retaining Clips, rotate the Screwdriver away from the Axle Shaft to lift the inside of the Clip above the end of the Axle (Step 1), and push the Clips off the Axle Shafts (Step 2) (Figure 67).
- 5. Remove both Wheels and Shaft Keys from the Axle Shafts (Figure 68).
- 6. Use a 10mm Wrench to remove the two Bolts securing the Transmission Cover and remove the Transmission Cover (*Figure 69*).

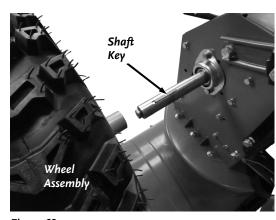


Figure 68

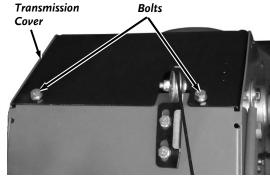


Figure 69

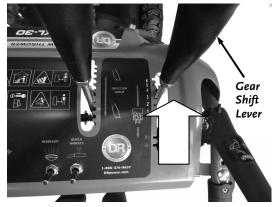


Figure 65

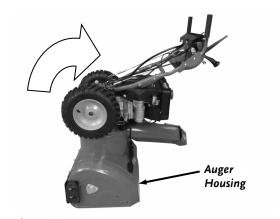
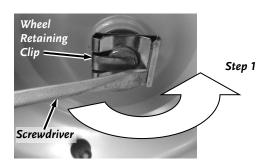


Figure 66



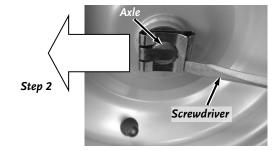


Figure 67

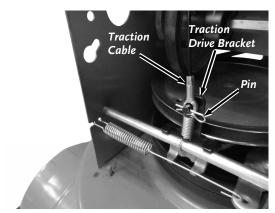


Figure 70

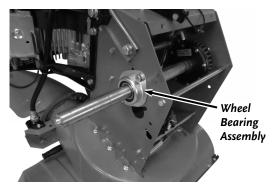


Figure 71

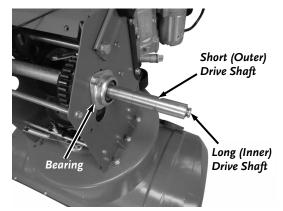


Figure 72

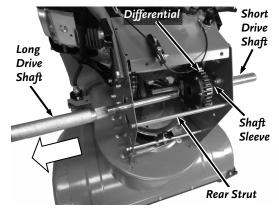


Figure 73

- 7. Remove the Pin and remove the Traction Cable from the Traction Drive Bracket (*Figure 70*).
- 8. Remove the two Bolts, Lock Washers, Flat Washers, and Locknuts that secure the left side Wheel Bearing Assembly using two 13mm Wrenches and remove the Bearing Assembly from the Axle (*Figure 71*).
- Hold the larger diameter outer Shaft of the right-side Axle Shaft while hitting the smaller diameter inner Shaft with a Dead Blow Hammer (*Figure* 72). This will push the smaller Shaft in, separating it from the larger outer Shaft.

**Note:** A Brass Punch may be needed to push the smaller diameter Shaft in further to separate the two Shaft sections.

- Remove the two Bolts, Lock Washers, Flat Washers, and Locknuts that secure the right side Wheel Bearing Assembly using two 13mm Wrenches. Remove the Bearing Assembly from the Axle.
- 11. Remove the two rear Strut Bolts and Lock Washers using a 10mm Wrench and remove the Strut (*Figure 73*).

**Note:** Pay attention to the orientation of the Differential on the Shaft before you remove it (Bolt heads facing left side of machine) to ensure it is replaced in the same orientation during assembly.

12. Remove the Long Shaft, Short semi-Shaft, Shaft Sleeve and Differential from the machine.

**Note:** You may need to tap the Differential with a Dead Blow Hammer to separate it from the Shaft splines for removal.

- 13. Remove the six Bolts, Lock Washers and Flat Washers (three each side) that secure the Friction Wheel Assembly using a 10mm Wrench (*Figure 74*).
- 14. Carefully remove the Friction Wheel Assembly from the machine ensuring that everything stays together.

**Note:** Ensure that the Chain side of the Friction Wheel Assembly stays together during the following steps. This will ensure easier installation.

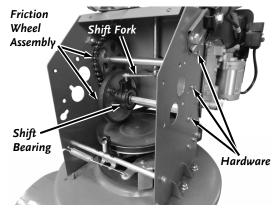


Figure 74

- 15. Remove the Pin from the Hexagon Shaft (Figure 75).
- 16. Hold the two Shafts in place as you pull the right side Bearing Seat away from the Assembly.
- 17. Remove the Rubber Wheel/Shift Bearing Assembly from the Hexagon Shaft.
- 18. Use a 10mm Wrench to remove the three Bolts that secure the Rubber Wheel to the Shift Bearing Assembly and remove the Wheel (*Figure 76*).

#### Assembly

- 1. Install the new Rubber Wheel onto the Shift Bearing Assembly in the orientation shown (*Figure 76*).
- 2. Slide the Rubber Wheel/Shift Bearing Assembly onto the Hexagonal Shaft (*Figure 75*). **IMPORTANT!** Ensure that the heads of the Bolts are facing the Chain and the Shift Bearing is facing away from the Chain.
- 3. Position the Bearing Seat with Bearings onto the Shafts.
- 4. Install the Pin into the Hexagonal Shaft.
- 5. Install the Friction Wheel Assembly into the machine (Figure 74).
  IMPORTANT! As you position the Friction Wheel Assembly into the machine, ensure that the Chain is on the left side of the machine and the Shift Fork Pin is inserted into the Shift Bearing slot.
- 6. Install the Long Drive Shaft, Short Drive Shaft, Shaft Sleeve and Differential into the machine. You may need to use the dead Blow Hammer to push the longer Shaft into the Short Shaft.
- 7. Install the rear Strut (Figure 73).
- 8. Install the right side Wheel Bearing Assembly (Figure 72).
- 9. Install the left side Wheel Bearing Assembly (Figure 71).
- 10. Install the Traction Cable onto the Traction Drive Bracket and Pin (Figure 70).
- 11. Install the Transmission Cover (Figure 69).
- 12. Install both and Shaft Keys and Wheels onto the Axle Shafts (Figure 68)
- 13. Install the Wheel Retainer Clips (Figure 67).
- 14. With the help of another person, tip the Snow Blower down onto the Wheels.
- 15. Add Oil and gas to the Engine as described in "Adding Oil and gasoline" in Chapter 2.

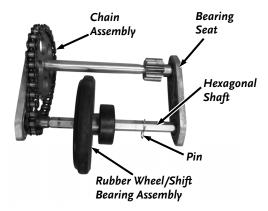


Figure 75

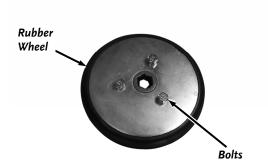


Figure 76

#### **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.



Shut down the engine, remove the spark plug wire keeping it away from the Spark Plug and wait 5 minutes for parts to cool before performing any maintenance procedure or inspection on the SNOW BLOWER.

#### **Troubleshooting Table**

Sумртом	POSSIBLE CAUSE
Recoil will not pull out or is difficult to pull.	⇒ There may be an oil compression lock in the cylinder. Take out the Spark Plug; hold a rag over the Spark Plug hole and pull the Recoil Cord several times to blow out any oil in the Cylinder. Wipe off the Spark Plug and reinstall it.
	⇒ Check the Engine oil level; the Engine may be seized.
	⇒ The Recoil may be broken or jammed. Visit our website at www.DRpower.com.
The Engine will not	⇒ Check the oil and gas level.
start.	$\Rightarrow$ Make sure that the Fuel Shut-Off is in the ON position.
(Please refer to the	⇒ Check that the Spark Plug Wire is attached.
Engine Owner's Manual for Engine-specific	$\Rightarrow$ The Air Filter may be dirty; change it following the procedure in the Engine Owner's Manual.
procedures.)	⇒ The gas may be old; change it if necessary. Use a fuel stabilizer if you keep gas longer than one month.
	$\Rightarrow$ Check the Throttle and Choke settings, adjustment and travel.
	⇒ The Spark Plug may be dirty or cracked; change it if necessary. If it's oily, leave it out, hold a rag over the Plug Hole and pull the Recoil Cord several times to blow out any oil in the Cylinder, then wipe off the Plug and reinsert it.
	⇒ If your Engine still will not start, visit our website at www.DRpower.com.
The Engine lacks power	⇒ Make sure the Choke Lever is all the way off.
or is not running	$\Rightarrow$ The Air Filter may be dirty; change it following the procedure in the Engine Owner's Manual.
smoothly.	⇒ The Spark Plug may be dirty or cracked; change it if necessary.
(Please refer to the Engine Owner's Manual	⇒ The gas may be old; change it if necessary. Use a fuel stabilizer if you keep gas longer than one month.
for engine-specific	⇒ The Engine oil may be dirty. Change it if necessary.
procedures.)	⇒ Check that the Cooling Fins are clean and free of debris. Clean as needed.
	⇒ If your Engine still lacks power, visit our website at www.DRpower.com.

# Troubleshooting Table (Continued)

# **MARNING**

Shut down the engine, remove the spark plug wire and wait 5 minutes before performing any maintenance procedure or inspection on the SNOW BLOWER.

SYMPTOM	POSSIBLE CAUSE
Engine smokes.	<ul> <li>⇒ Check the oil level and adjust as needed.</li> <li>⇒ Clean the Engine cooling fins and the carburetor housing if they are dirty.</li> <li>⇒ The Air Filter may be dirty; change it following the procedure in the Engine Owner's Manual.</li> <li>⇒ You may be using the wrong oil. Refer to your Engine Owner's Manual for detailed information.</li> <li>⇒ If the Engine still smokes, visit our website at www.DRpower.com.</li> </ul>
The Engine runs well but the machine is not Blowing Snow.	<ul> <li>⇒ Augers may not be turning. Check Auger Belt/s and Shear Bolts and replace as needed.</li> <li>⇒ Impeller may not be turning. Check Impeller Belt and Shear Bolts and replace as needed.</li> </ul>
The Wheels are not Turning when the Traction Drive Lever is engaged.	<ul> <li>⇒ Traction Drive Belt is Stretched or worn. Replace the Belt.</li> <li>⇒ The Traction Drive Pulley face is dirty or wet. Clean as needed.</li> <li>⇒ The Friction Wheel is worn or damaged. Replace as needed.</li> </ul>

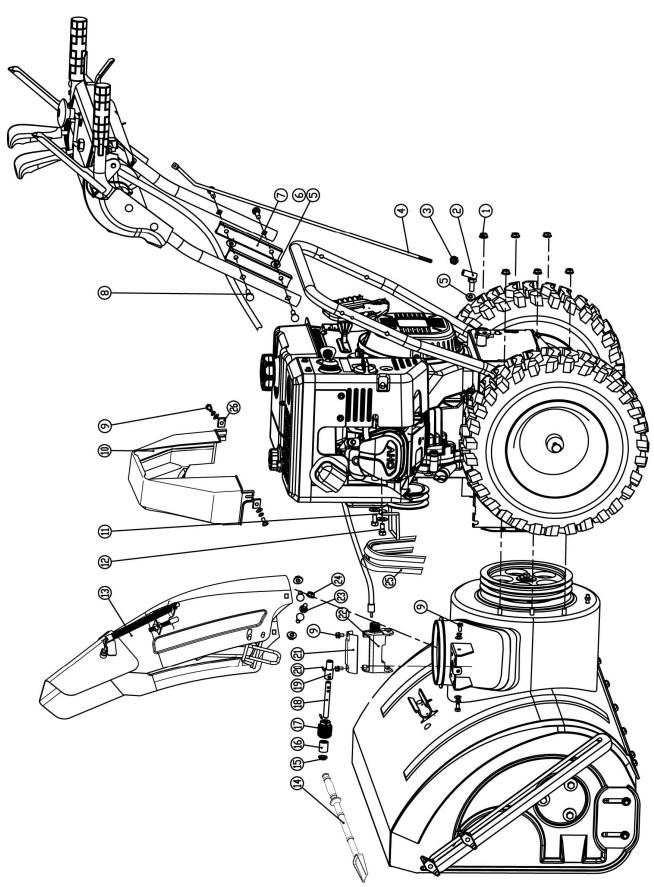
#### **Chapter 6: Parts Lists and Schematic Diagrams**

#### Parts List – PRO 24 MAIN ASSEMBLY

**Note:** Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description	Ref#	Part#	Description
1	40279	Nut, Jam, M8	14	40092	Shovel
2	40086	Gimball, Shifter	15	40334	Washer, Chute Worm Gear
3	40315	Nut, M8x1	16	40093	Spacer, Chute Worm Gear
4	40087	Connector Bar, Shifter	17	40094	Worm Gear, Chute
5	40278	Nut, Jam, M8	18	40095	Shaft, Core, Worm Gear
6	40333	Washer, 8mm ID X 22mm OD X	19	40096	Connector Tube, Worm Gear
		2mm	20	40319	Pin, Cylinder, 3mmx18mm
7	40088	Adapter Plate, Handlebars	21	A0000336158	Cover, Worm Gear
8	40310	Bolt, M8x55	22	A0000336165	Frame, Worm Gear
9	40290	Bolt, M6x16	23	A0000268507	Bolt, Carriage, M6-1.0 X 12MM
10	40089	Cover, Belt	24	A0000268509	Nut, Hex Lock, M6-1.0
11	40090	Guide, Belt	25	40099	Belt, Auger
12	40301	Bolt, M8 X 20	26	40342	Washer, Flat, 6mm
13	A0000331130	Chute Assembly			

#### Schematic – PRO 24 MAIN ASSEMBLY

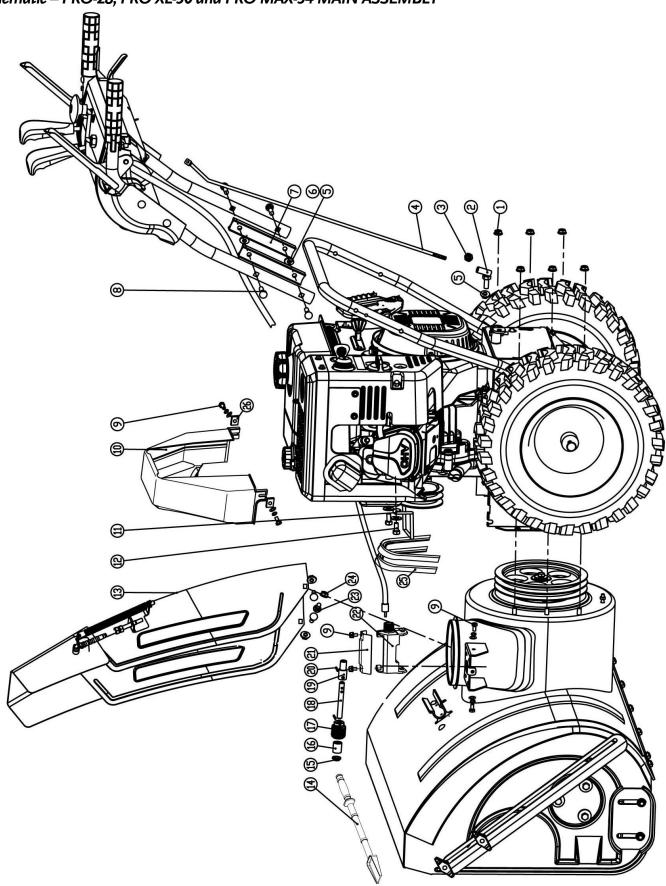


#### Parts List – PRO-28, PRO XL-30 and PRO MAX-34 Main assembly

**Note:** Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description	Ref#	Part#	Description
1	40279	Nut, Jam M8	15	40334	Washer, Chute Worm Gear
2	40086	Gimball, Shifter	16	40093	Spacer, Chute Worm Gear
3	40315	Nut, M8x1	17	40094	Worm Gear, Chute
4	40087	Connector Bar, Shifter	18	40095	Shaft, Worm Gear Core
5	40278	Nut, Jam, M8	19	40096	Connector Tube, Worm Gear
6	40333	Washer, 8mm ID X 22mm OD X	20	40319	Pin, Cylinder, 3mmx18mm
		2mm	21	A0000336158	Cover, Worm Gear
7	40088	Adapter Plate, Handlebars	22	A0000336165	Frame, Worm Gear
8	40310	Bolt, M8x55	23	A0000268506	Bolt, Carriage, M8-1.25 X 16MM
9	40290	Bolt, M6x16	24	A0000268508	Nut, Hex Lock, M8-1.25
10	40089	Cover, Belt	25	40237	Belt-Auger (PRO-28)
11	40090	Guide, Belt		40265	Belt-Auger (PRO XL-30 and PRO
12	40302	Bolt, M8x20			MAX-34)
13	A0000331198	Chute Assembly	26	40342	Washer, Flat, 6mm
14	40092	Shovel			

Schematic – PRO-28, PRO XL-30 and PRO MAX-34 MAIN ASSEMBLY



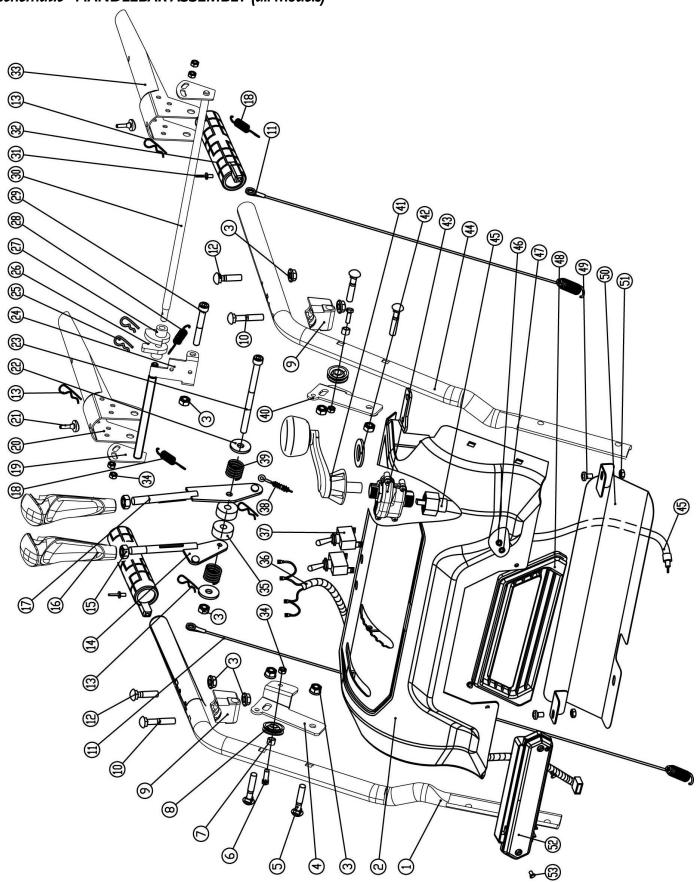
#### Parts List –HANDLEBAR ASSEMBLY (all models)

**Note:** Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description	Ref#	Part#	<u>Description</u>
1	A0000347424	Handle, Upper Right	27	40112	Cam, Left Lever
2	40101	Control Panel	28	40113	Spring, Stopper
3	40278	Nut, Jam, M8	29	40328	Screw, M8x60
4	A0000336187	Bracket, Pulley	30	A0000347431	Connector, Drive Handle
5	40307	Bolt, M8x40	31	40322	Rivet, 4x10
6	40291	Bolt, M6x20	32	40114	Handle, Heated
7	A0000347427	Bushing, Cable Pulley	33	A0000347432	Lever, Drive Handle
8	A0000330260	Pulley, Cable	34	40313	Nut, Jam, M6
9	A0000347434	Handle Seat	35	40116	Bushing, Rubber
10	40309	bolt M8X45	36	40117	Wire Harness, Switch
11	A0000347428	Cable, Control, Auger/Drive	37	40118	Switch, Electrical
12	40306	Bolt, M8x35	38	40119	Cable, Chute Deflector
13	40316	Pin, Cotter, 1.5x25	39	40120	Spring, Lever Reset
14	40104	Lever, Shifter	40	A0000347433	Bracket, Pulley, Left
15	40314	Nut, M10	41	40121	Handle, Chute Rotation
16	40105	Handle, Shifter	42	40122	Washer, Rubber, Chute
17	40106	Lever, Chute Deflector	43	40123	Transmission Box, Chute
18	40108	Spring, Handle Return	44	A0000347425	Handle, Upper Left
19	A0000347429	Connector, Auger Handle	45	40125	Shaft, Flexible, Chute
20	A0000347430	Lever, Auger Handle	46	40324	Screw, M6x10
21	40107	Bumper, Handle, Rubber	47	40343	Washer, Flat, 6mm
22	40336	Washer, 8mm	48	40126	Panel, Headlight Mount
23	40326	Screw, M8x120	49	40290	Bolt, M6x16
24	40110	Stopper, Cam Lever	50	40127	Cover, Control Panel
25	40318	Pin, Cotter	51	40313	Nut, Jam, M6
26	40111	Cam, Right Lever	52	40128	Light, Led
			53	40329	Screw, Self-Taping, 3.5x16
			Not Shown		

A0000330259 Cover, Drive Engage Spring

# Schematic –HANDLEBAR ASSEMBLY (all models)

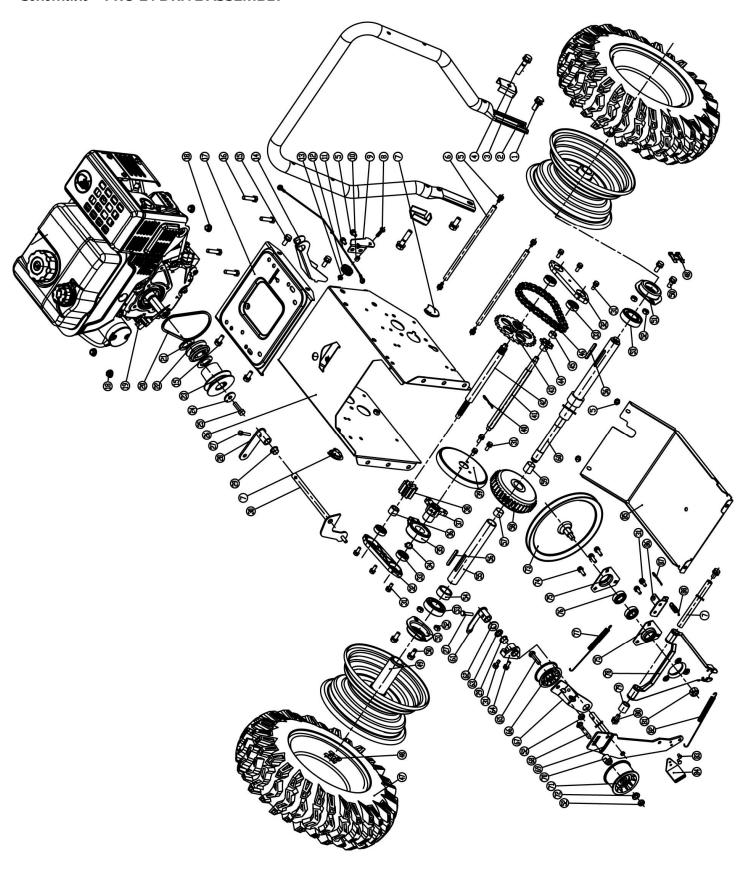


#### Parts List – PRO-24 DRIVE ASSEMBLY

**Note:** Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description	Ref#	Part#	Description
1	40286	Bolt, M10x25	45	40160	Sleeve, 12x15x8
2	40129	Handlebar Base	46	40161	Chain, Drive, 085-32
3	40130	Plate, Handlebar Connector	47	40242	Tire, 15x4.8-7
4	40288	Bolt, M10x25	48	40163	Clip, Wheel
5	40289	Bolt, M6x12	49	40164	Rim, PRO-24
6	40131	Strut, Frame Assembly	50	40298	Bolt, M8x16
7	40193	Strut, Friction Disc Support	51	40165	Seat, Bearing, Axle
8	40291	Bolt, M6x20	52	40278	Nut, Jam, M8
9	40133	Pulley Seat, Frame	53	40166	Bearing, Ball, 6205
10	40134	Sleeve, Shaft	54	40167	Sleeve, Shaft, 25x34x16
11	40135	Wire, Drive Engagement	55	40168	Shaft, Short, Drive
12	40136	Pulley, Wire, Drive Engagement	56	40169	Key, Flat, 6x4x45
13	40313	Nut, Jam, M6	57	40170	Sleeve, Bronze, 1
14	40138	Plate Connector Drive	58	40171	Differential, Di300p
15	40301	Bolt, M8x20	59	40172	Sleeve, Bronze, 2
16	40308	Bolt, M8x40	60	40173	Shaft, Long, Drive
17	40139	Seat, Engine	61	40174	Connector, Auger Tension
18	40279	Nut, Jam M8	62	40340	Washer, Flat, 12mm Dia
19	40140	Engine, Pro 24	63	40341	Washer, Spring, 12mm
20	40141	Belt, Pro 24	64	40175	Block, Connector, Tension
21	40337	Washer, Engine	65	40305	Bolt, M8x30
22	40142	Wheel, Drive	66	40176	Pulley, Auger Tension
23	40143	Pulley, Drive	67	40177	Plate, Auger Tension
24	40331	Washer, 8mm, Drive	68	40309	Bolt, M8x45
25	40282	Bolt, 5/16-24x1-1/4	69	40178	Plate, Auger Tension
26	40144	Box Assembly, Transmission	70	40179	Bushing, Auger
27	40292	Bolt, M6x20	71	40180	Pulley, Large, Tension Auger
28	40145	Connector, Shift	72	40181	Pad, Pulley Tension
29	40146	Sleeve, Plastic	73	40182	Pulley, Belt
30	40147	Shift Fork	74	40292	Bolt, M6x20
31	40290	Bolt, M6x16	75	40183	Seat, Bearing, Delta
32	40148	Bearing Seat, Drive	76	40184	Bearing, Ball, 6002
33	40149	Bearing, Ball, 6200	77	40185	Spring, Auger Tension
34	40150	Circlip, 25	78	40186	Bracket, Friction Disc
35	40151	Bearing, Shift	79	40187	Sleeve, Support, Friction Disc
36	40152	Sleeve, 15x20x15	80	40298	Bolt, M8x16
37	40153	Seat, Friction Wheel	81	40312	Nut, Jam, M12
38	40154	Gear-Small Drive	82	40188	Spring, Auger Brake
39	40155	Wheel, Friction Disc	83	40323	Rivet, 4x12
40	40317	Pin, Cotter	84	40189	Block, Auger Brake
41	40156	Shaft, Hexagon, Drive	85	40190	Cover, Transmission
42	40157	Shaft, Transit	86	40191	Bracket, Drive Cable
43	40158	Sprocket, Large Drive	87	40316	Pin, Cotter, 1.5x25
44	40159	Sprocket, Small, Drive	88	40192	Spring, Friction Disc

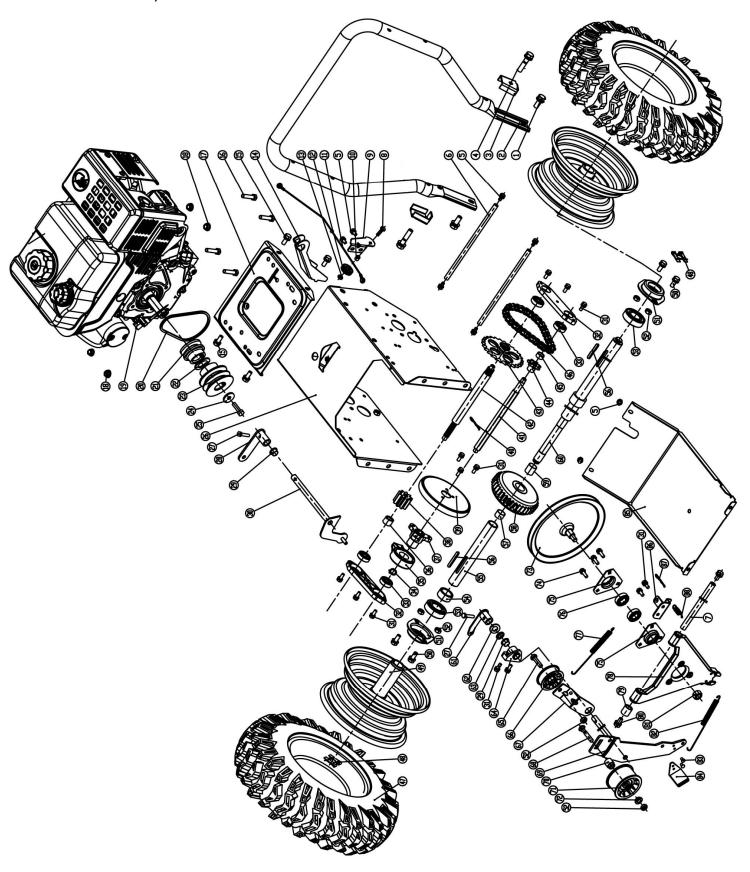
### Schematic – PRO-24 DRIVE ASSEMBLY



### Parts List –PRO-28, PRO XL-30 and PRO MAX-34 DRIVE ASSEMBLY

Ref#	Part#	Description	Ref#	Part#	Description
1	40286	Bolt, M10x25	46	40161	Chain, Drive 085-32
2	40129	Handlebar Base	47	40242	Tire, 15x4.8-7 (Pro-28)
3	40130	Plate Handlebar Connector		40267	Tire 16x4 8-8-Sb1 (Pro XL-30, Pro MAX-34)
4	40288	Bolt, M10x25	48	40163	Clip Wheel
5	40289	Bolt, M6x12	49	40243	Rim
6	40131	Strut, Frame Assembly	50	40298	Bolt, M8x16
7	40193	Strut, Friction Disc Support	51	40165	Bearing Seat, Axle
8	40291	Bolt, M6x20	52	40278	Nut, Jam M8
9	40133	Pulley Seat, Frame	53	40166	Ball Bearing 6205
10	40134	Sleeve, Shaft	54	40167	Sleeve, Shaft 25x34x16
11	40135	Drive Engagement Wire	55	40168	Shaft, Short Drive
12	40136	Pulley Wire, Drive Engagement	56	40169	Key-Flat 6x4x45
13	40313	Nut, Jam M6	57	40170	Sleeve, Bronze 1
14	40138	Plate Connector Drive	58	40171	Differential Di300p (Pro-28, Pro XL-30)
15	40301	Bolt, M8x20		40273	Differential Di500 Pro MAX-34)
16	40308	Bolt, M8x40	59	40172	Sleeve, Bronze 2
17	40139	Engine Seat	60	40173	Shaft, Long Drive
18	40279	Nut, Jam M8	61	40174	Connector, Auger Tension
19	40238	Engine (Pro-28)	62	40340	Washer, Flat 12mm Dia
.,	40266	Engine (Pro XL-30)	63	40341	Washer, Spring 12mm
	40272	Engine (Pro MAX-34)	64	40175	Block, Connector Tension
20	40141	Belt, Pro	65	40305	Bolt, M8x30
21	40239	Wheel, Drive	66	40176	Pulley, Auger Tension
22	40240	Washer, Drive	67	40244	Plate, Auger Tension
23	40241	Pulley, Drive	68	40309	Bolt, M8x45
24	40331	Washer, 8mm Drive	69	40178	Plate, Auger Tension
25	40282	Bolt, 5/16-24x1-1/4	70	40179	Bushing, Auger
26	40144	Transmission Box Assembly	71	40180	Pulley, Large Tension Auger
27	40292	Bolt, M6x20	72	40181	Pad, Pulley Tension
28	40145	Connector Shift	73	40182	Pulley, Drive
29	40146	Sleeve, Plastic	74	40292	Bolt, M6x20
30	40147	Shift Fork	75	40183	Bearing Seat, Delta
31	40290	Bolt, M6x16	76	40184	Bearing Ball 6002
32	40148	Bearing Seat, Drive	77	40185	Spring, Auger Tension
33	40149	Ball Bearing 6200	78	40186	Bracket, Drive
34	40150	Circlip 25	79	40187	Sleeve, Support Friction Disc
35	40151	Bearing, Shift	80	40298	Bolt, M8x16
36	40152	Sleeve 15x20x15	81	40312	Nut, Jam M12
37	40153	Seat Friction Wheel	82	40188	Spring, Auger Brake
38	40154	Gear, Small Drive	83	40323	Rivet, 4x12
39	40155	Friction Disc Wheel	84	40189	Block, Auger Brake
40	40133	Pin, Cotter Auger Drive	85	40190	Transmission Cover
41	40317	Shaft, Hexagon Drive	86	40191	Bracket, Drive Cable
42	40156	Shaft, Transit	87	40316	Pin, Cotter 1.5x25
42	40157	Sprocket, Large Drive	88	40192	Spring, Friction Disc
43 44	40158	Sprocket, Large Drive  Sprocket, Small Drive			, 5
45	40160	Sleeve, 12x15x8			
43	40100	SICCVC, IZAIJXO			

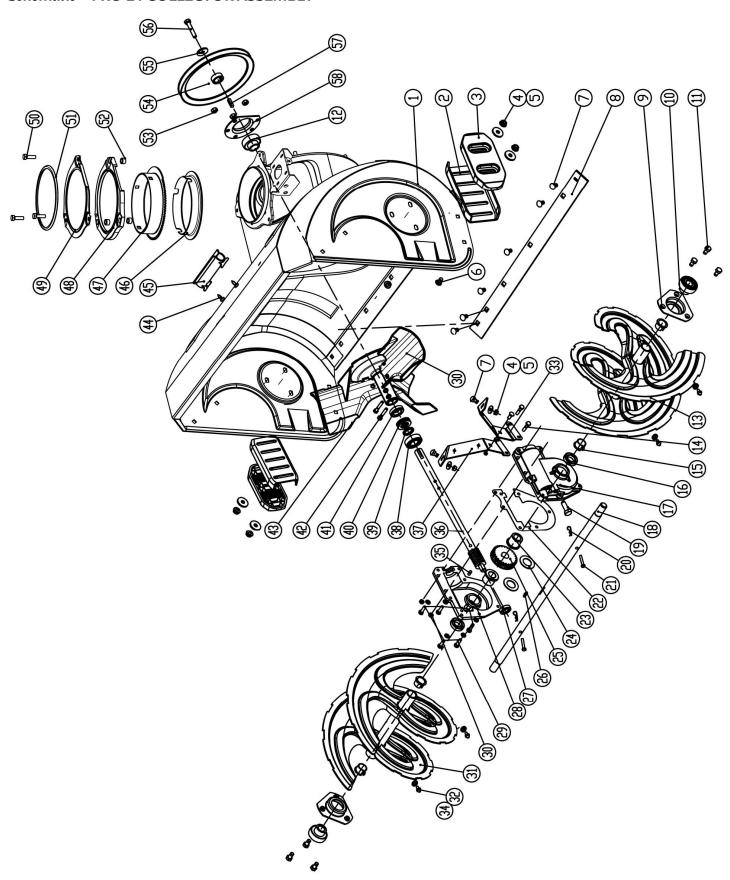
Schematic – PRO-28, PRO XL-30 and PRO MAX-34 DRIVE ASSEMBLY



### Parts List – PRO-24 COLLECTOR ASSEMBLY

Ref#	Part#	Description	Ref#	Part#	Description
1	40194	Collector Housing	30	40313	Nut, Jam M6
2	40195	Collector Skid Shoe	31	40211	Auger, Left
3	40196	Collector Skid Shoe	32	40212	Oil Cup, M6
4	40281	Nut, M8	33	40213	Bracket, Right Support
5	40338	Washer, 8mm	34	40343	Washer, Flat 6mm
6	40304	Bolt, M8x25	35	40320	Pin, Cylinder 6mmx14mm
7	40299	Bolt, M8x16	36	40214	Shaft, Auger Worm
8	40197	24in Shave Plate	37	40215	Bracket, Left Support
9	40198	Bearing Cover	38	40216	Ball Bearing 6004
10	40199	Bearing, Collector	39	40217	Sleeve, Auger Shaft
11	40327	Screw, M6x16	40	40218	Ball Bearing 51104
12	40225	Ball Bearing Sb204	41	40219	Seal Ring-20x35x7
13	40200	Auger, Right	42	40296	Bolt, M6x35
14	40293	Bolt, M6x25	43	40220	Impeller
15	40201	Bushing, Auger	44	40330	Screw, Self-Taping 4.2x9.5
16	40202	Seal Ring 22x30x7	45	40221	Bracket, Shovel
17	40203	Worm Gear Housing, Right	46	A0000336208	Gasket, Gear Plate
18	40204	Shaft, Auger Output	47	A0000336205	Gear Plate
19	40285	Bolt, M10x15	48	A0000336198	Cover, Gear Plate
20	40317	Pin, Cotter Auger Drive	49	A0000336195	Cover, Outer, Gear Plate
21	40311	Bolt, Shear Auger	50	40293	Bolt, M6x25
22	40205	Gasket, Paper	51	A0000336209	Seal, Chute
23	40206	Sleeve, Shaft 22mm Dia	52	A0000336190	Washer Sleeve
24	40349	Washer, Worm Gear	53	40279	Nut, Jam M8
25	40207	Worm Gear	54	40222	Pulley, Auger
26	40208	Key, Flat A6x6x18	55	40331	Washer, 8mm Drive
27	40209	Ball Bearing 6001	56	40284	Bolt, Left Hand Thread M10x25
28	40210	Housing Worm Gear Left	57	40223	Key, Flat 6x20
29	40294	Bolt, M6x30	58	40224	Cover Auger Drive

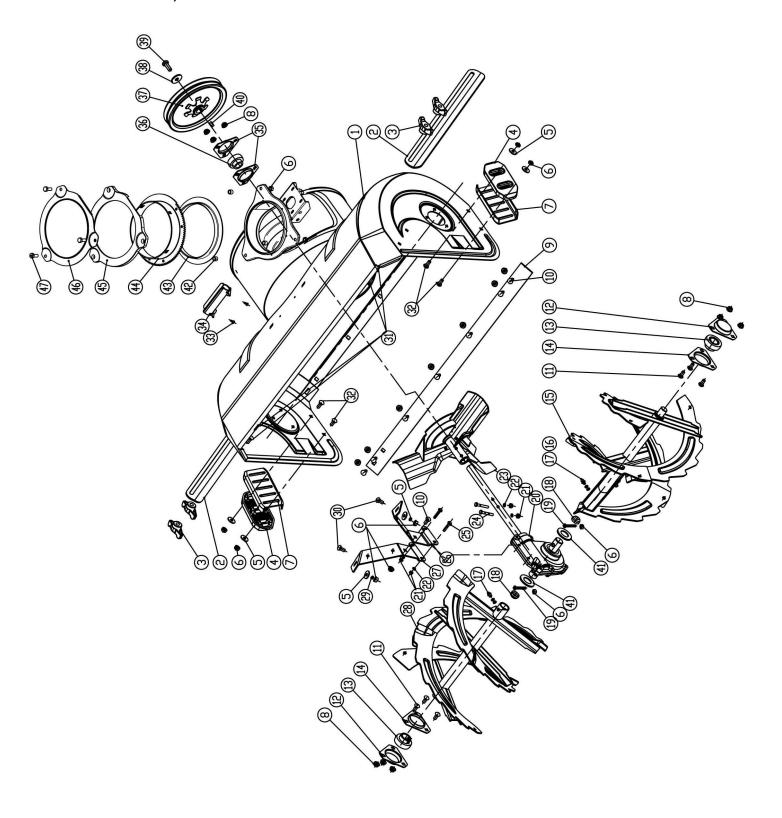
### Schematic – PRO-24 COLLECTOR ASSEMBLY



### Parts List – PRO-28, PRO XL-30 and PRO MAX-34 COLLECTOR ASSEMBLY

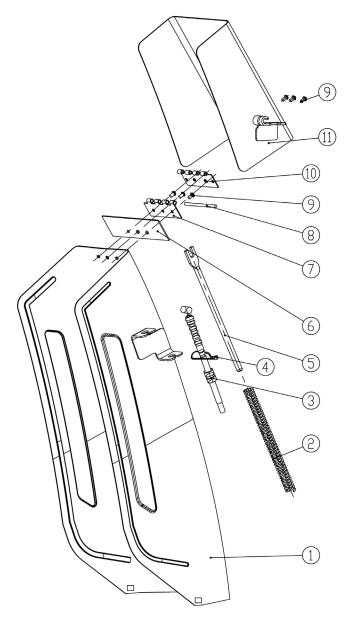
Ref#	Part#	Description	Ref#	Part#	<u>Description</u>
1	40245	Collector Housing, (Pro-28)	23	40254	Impeller
	40268	Collector Housing (Pro XL-30)	24	40297	Bolt, M6x40
	40274	Collector Housing Pro MAX-34)	25	40295	Bolt, M6x30
2	40350	Drift Cutter	26	40255	Bracket, Right Support
3	40351	Nut, Wing M8 Plastic	27	40256	Bracket, Left Support
4	40196	Collector Skid Shoe	28	40257	Auger Left, (Pro-28)
5	40344	Washer, Flat 8mm		40271	Auger Left (Pro XL-30)
6	40278	Nut, Jam M8		40277	Auger Left (Pro MAX-34)
7	40195	Collector Skid Shoe	29	40348	Washer, Spring 8mm
8	40279	Nut, Jam M8	30	40303	Bolt, M8x20
9	40299	Bolt, M8x16	31	40303	Bolt, M8x20
10	40300	Bolt, M8x18	32	40304	Bolt, M8x25
11	40246	Shave Plate, (Pro-28)	33	40330	Screw, Self-Taping 4.2x9.5
	40269	Shave Plate, (Pro XL-30)	34	40221	Bracket, Shovel
	40275	Shave Plate, (Pro MAX-34)	35	40258	Bearing Seat
12	40247	Bearing Seat	36	40225	Ball Bearing Sb204-
13	40248	Bearing Sb205-	37	40259	Pulley, Auger
14	40249	Bearing Seat, 205	38	40339	Washer, Flat 10mm
15	40250	Auger, Right (Pro-28)	39	40287	Bolt, M10x25
	40270	Auger Right (Pro XL-30)	40	40260	Key, Flat A 6x20
	40276	Auger Right (Pro MAX-34)	41	40346	Washer, Plastic
16	40345	Washer, Flat 8mm	42	A0000336190	Washer Sleeve
17	40251	Oil Cup, M8	43	A0000331125	Gasket, Gear Plate
18	40252	Grease Cap-	44	A0000331119	Gear Plate
19	40321	Pin, Shear	45	A0000331116	Cover, Gear Plate
20	40253	Housing Worm Gear	46	A0000336189	Outer Cover, Gear Plate
21	40313	Nut, Jam M6	47	40301	Bolt, M8x20
22	40347	Washer, Spring 6mm			

Schematic – PRO-28, PRO XL-30 and PRO MAX-34 COLLECTOR ASSEMBLY



### Parts List and Schematic – CHUTE ASSEMBLY (all models)

Ref#	Part#	<u>Description</u>	Ref#	Part#	Description	
1	A0000336173	Chute (Pro-24)	7	40232	Hinge, Lower Chute	
	A0000336181	Chute (Pro-28, Pro XL-30, Pro MAX-	8	40233	Hinge Axle Chute	
		34)	9	40322	Rivet, 4x10	
2	40227	Spring, Chute Deflector	10	40234	Hinge, Upper Chute (Pro-24)	
3	40228	Strut, Chute Deflector		40263	Hinge, Upper Chute (Pro-28, Pro XL-30,	
4	40229	Cable, Chute Deflector			Pro MAX-34)	
5	40230	Cable Tie 2.5x150	11	40235	Chute Deflector (Pro-24)	
6	40231	Plate, Chute Seal (Pro-24)		40264	Chute Deflector (Pro-28, Pro XL-30, Pro	
	40262	Plate, Chute Seal (Pro-28, Pro XL-30, Pro MAX-34)			MAX-34)	



Notes:

Notes:

## **DR®** SNOW BLOWER



### 2-Year Limited Warranty

#### Terms and Conditions

The DR® SNOW BLOWER is warranted for two (2) years against defects in materials or workmanship when put to ordinary and normal consumer use; ninety (90) days for any other use.

For the purposes of all the above warranties, "ordinary and normal consumer use" refers to non-commercial residential use and does not include misuse, accidents or damage due to inadequate maintenance.

DR Power Equipment certifies that the **DR®** SNOW BLOWER is fit for ordinary purposes for which a product of this type is used. DR Power Equipment however, limits the implied warranties of merchantability and fitness in duration to a period of two (2) years in consumer use, ninety (90) days for any other use.

The 2-Year Limited Warranty on the **DR®** SNOW BLOWER starts on the date the machine ships from our factory. The 2-Year Limited Warranty is applicable only to the original owner.

The warranty holder is responsible for the performance of the required maintenance as defined by the manufacturer's owner's manuals. The warranty holder is responsible for replacement of normally wearing parts such as the Belts, Air Filter, Spark Plug, and Shear Bolts. Accessories to the machine are not covered by this warranty.

During the warranty period, the warranty holder is responsible for the machine transportation charges, if required. During the warranty period, warranty parts will be shipped by standard method at no charge to the warranty holder. Expedited shipping of warranty parts is the responsibility of the warranty holder.

SOME STATES DO NOT ALLOW LIMITATIONS ON THE LENGTH OF IMPLIED WARRANTIES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

DR Power Equipment shall not be liable under any circumstances for any **incidental or consequential damages or expenses** of any kind, including, but not limited to, cost of equipment rentals, loss of profit, or cost of hiring services to perform tasks normally performed by the **DR®** SNOW BLOWER.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU ALSO HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE.

#### Daily Checklist for the DR SNOW BLOWER

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

# **M** WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait five minutes to allow all parts to cool, disconnect the spark plug wire, keeping it away from the spark plug.

	Check t	he engine	oil and	Gas	Tank	level.
--	---------	-----------	---------	-----	------	--------

[ ] Check that Engine is clean of debris.

[ ] Check the general condition of the SNOW BLOWER, e.g.; nuts, bolts, welds, etc.

[ ] Check Belts for wear and damage.

[ ] Check Tire wear.

[ ] Check the Auger and Shear Bolts for wear and damage.

[ ] Check the Frame for wear and damage.

[ ] Clean inside of Auger Housing with the supplied Shovel.

#### End of Season and Storage

# **MARNING**

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.

- Change the engine oil.
- Clean or replace the Air Filter.
- Check the Auger and Shear Bolts for wear and damage.
- If your DR SNOW BLOWER will be idle for more than 30 days, we recommend using a gas stabilizer. This will prevent sediment from gumming up the Carburetor. If there is dirt or moisture in the gas or tank, remove it by draining the tank. Completely fill the tank with fresh, unleaded gas and add the appropriate amount of stabilizer or gasoline additive. Run the Engine for a short time to allow the additive to circulate.
- Clean the exterior of the unit to remove all dirt, grease, and any other foreign material. To prevent rust, touch up painted surfaces that have been scratched or chipped.
- Be sure all nuts, bolts, and screws are securely fastened.
- Inspect moving parts and the Belts for damage and wear; replace if necessary.
- Remove the Spark Plug and pour about 1 ounce of motor oil into the Cylinder hole. Replace the Plug and crank the Engine
  over a couple of times using the Pull Cord, or the Electric Starter. This will coat the piston and seat the valves to prevent
  moisture buildup.
- If possible, store the SNOW BLOWER in a dry, protected place. If it is necessary to store the SNOW BLOWER outside, cover it with a protective material (especially the Engine).

