

SNOW WOLF

Professional Snow Plow Systems and Accessories

Ultra Series Snow Plow Operation and Maintenance Manual



Date Purchased: _____

Purchased From: _____

Model Number: _____

Serial Number: _____

REMEMBER: Register your warranty! No claims for warranty shall be considered unless your warranty registration card is sent to SnowWolf within 30 days of purchase!

Forward

Congratulations on the purchase of your SnowWolf, the finest snow plow on the market today!

SnowWolf Ultra Series Snow Plows are designed by people with years of experience in the cold Minnesota winters. You can be sure that the quality and innovation of the **Ultra Series** is our first priority. Getting to know your new snow plow should be the first step in learning its features and limitations. This manual is designed to assist you in the operation and maintenance of your **SnowWolf**.

Document History

The table below lists all revisions of the Ultra Series Operation and Maintenance Manual.

Document Revision	Summary of Changes	Publication Date
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About this Manual

This manual contains information about the usage and maintenance required for the equipment. This document must be available for review by the operator before using the attachment to ensure proper safety, maintenance, and usage.

Hazard Notices Used in this Manual

The following hazard notices are used in this document:

NOTE – Notes are used to indicate important information. This information may be repeated in other areas of the manual.

CAUTION – Cautions are used to indicate a potentially hazardous situation which, if not avoided, may result in damage to the equipment or other property.

WARNING – Warnings are used to indicate a potentially hazardous situation which, if not avoided, could result in serious injury or death.

DANGER – Danger is used to indicate a potentially hazardous situation which, if not avoided, will result in serious injury or death.

Terminology

Prime Mover: The SnowWolf Ultra Series Snow Plow can be attached to many different pieces of equipment; therefore the term “prime mover” will be used. A prime mover is any skid steer, tractor or equipment, providing power to the attachment.

Safety

Safety Notices

Before operating or conducting maintenance on this equipment, it is important to wear proper protection. Recommended safety equipment when operating and maintaining this equipment includes earplugs, eye protection, and a hard hat.

NOTE: Additional safety equipment may be required depending on the operating environment and worksite conditions.

Only qualified and trained personnel should operate, maintain, and service this attachment. It is recommended that this equipment be inspected regularly for leaks, cracks, or other conditions that may impair proper usage of the equipment. Verify that all repairs have been completed and inspected prior to using the attachment under load.

It is the responsibility of the user to follow all local, state, and federal safety regulations. Improper use of this equipment may result in personal injury, property damage, and/or damage to the equipment.

Modifications to Equipment

Any modifications made to this equipment may void any warranty and relieve the manufacturer of liability of any resulting injury or damage.

About the Snow Plow Attachment

The Snow Plow attachment is intended for use in snow removal. Use of this equipment in any other manner is considered to be contrary to the intended use of the attachment.

Snow Plows

The SnowWolf Snow Plow attachment has become a necessity among plowing contractors today. This unique Snow Plow is offered for a variety of applications.

Figure 1 – Ultra Series Snow Plow

(Shown with Optional WolfWing Side Wing Kit)



SnowWolf Ultra Series Snow Plows are designed by people with years of experience in harsh Minnesota winters. You can be sure that the quality of the **SnowWolf** is our first priority.

The Ultra Series has been designed for absolute maximum durability and efficiency, regardless of snow conditions. Extra tight blade curl reduces horsepower requirements to get snow rolling, 35° angle gives you the most efficient snow discharge, double pivot A-Frame construction for unmatched strength, and Nitro-Steel® Cylinders are just a few features that combine to bring you the **world's finest snowplow!!**

P.S. Wolves are not usually solitary animals. They like to work in packs!!

Attaching the Snow Plow to the Prime Mover

NOTE: Before attempting to attach the Snow Plow to the prime mover, verify that all hydraulic couplings are compatible.

WARNING – Improper attachment to the prime mover may cause personal injury.

CAUTION – All hydraulic connections must be clean and free of debris before making any connection.

1. Place the Snow Plow attachment on a level surface.
2. Position and align the prime mover to the rear of the attachment, within proximity of the front of prime mover.
3. Insert and connect the prime mover into the attachment.
4. Connect the hydraulic lines from the attachment to the prime mover.
5. Close latches (or other locking mechanism) to secure the attachment to the prime mover.
6. Using the prime mover, raise the attachment and move the attachment to ensure hydraulic lines are clear of air and operate properly.

CAUTION – Hydraulics should operate in an even and smooth manner. Hydraulic movement that is not even and smooth may indicate that air is in the hydraulic lines.

7. Lower the attachment to ground level.
8. Route hoses away from pinch areas – install cable ties if necessary to assure extended hose life.
9. Inspect that the attachment is mounted properly and securely. If the attachment does not meet this requirement, follow the instructions to remove the Snow Plow and re-attach using the instructions above.

Removing the Snow Plow from the Prime Mover

WARNING – Improper disconnection may result person injury or damage to the attachment and prime mover.

CAUTION – All hydraulic connections must be clean and free of debris before disconnection.

1. Using the prime mover, lower the attachment to the ground.
2. Relieve the pressure in the hydraulic system by following these instructions:
 - a. Turn the ignition to off.
 - b. Turn the ignition back to the on position without starting the machine.
 - c. Move the auxiliary hydraulic function lever back and forth to relieve the pressure in the hydraulic lines. (This will greatly assist you when hooking the unit back up so that the hydraulic couplers connect easily)
3. Disconnect the hydraulic connection between the attachment and the prime mover. To prevent contamination, remove any dirt and debris from the couplings.

NOTE: Hydraulic connections must be disconnected before disengaging latches to prevent damage to the prime mover or the attachment.

4. Disengage the prime mover latches (or other locking mechanism) from the attachment.
5. Move the prime mover from the attachment.

Operation and Maintenance

Equipment Inspection

It is recommended to inspect the equipment for damage and wear before use. Use the following list as a guideline during equipment inspection.

- Check all hardware connections to the prime mover for damage or fatigue such as cracks or other structural flaws.
- Check that all latches or locks are closed.
- Check that all hydraulic fittings are tight and free of leaks
- Check that all hydraulic lines are free of leaks, holes, or cracks.

WARNING – Do not use hands to check for hydraulic leaks. Keep body parts away from leaking hydraulic lines and couplings that are under pressure.

- Check that the tires on the prime mover are in good condition and have proper load ratings.

NOTE: Replace any damaged hardware, hoses, and fitting before using the equipment.

Usage Guidelines

Before each use do the following:

- Perform the equipment inspection by performing a walk around.
- Perform daily inspection as indicated in the Inspection Checklist.
- Verify that the proper attachment is being used for the task.

DANGER – Keep all body parts away from the Snow Plow when in use. The pivoting blade is dangerous and hazardous and could potentially cause serious bodily injury or death.

Inspection Checklist

- ✓ Are all safety notices and warning stickers in proper locations and visible?
- ✓ Are there any visible hydraulic leaks?
- ✓ Are any cracks visible in Snow Plow structure?
- ✓ Is the cutting edge worn or bent?
- ✓ Are the bolts holding blades secure and tight?
- ✓ Has the prime mover been properly inspected for hydraulic leaks and proper tire inflation?
- ✓ Has the prime mover been properly maintained?

Operation

Always be sure the A-frame of your SnowWolf is level (perpendicular) with the ground when plowing, to insure proper cutting edge wear. You can regulate the scraping ability of your SnowWolf by increasing or decreasing the down pressure you apply via your tilt cylinders. The angle of your SnowWolf can be changed at any time by using your auxiliary circuit. As you become experienced with the SnowWolf, you will find its productivity will amaze you.

If you are on extremely uneven ground, you may prefer to raise your boom arms slightly, lower the SnowWolf to the ground using your tilt cylinders, then put your boom arms in the float position (if machine is equipped) to better follow the contours of the ground. You will learn from experience what works best for you in each situation.

Operation Continued

The SnowWolf has been designed to stack snow if you wish. This will not damage the plow no matter how high you push it into a pile of snow. Watch your hose routing carefully so as not to stretch and ruin your hoses.

DANGER – Always be aware of what is overhead.

Inspect the Snow Plow daily before use. It is also recommended to inspect the Snow Plow after extreme use or damage. Use the following inspection checklist as a guideline.

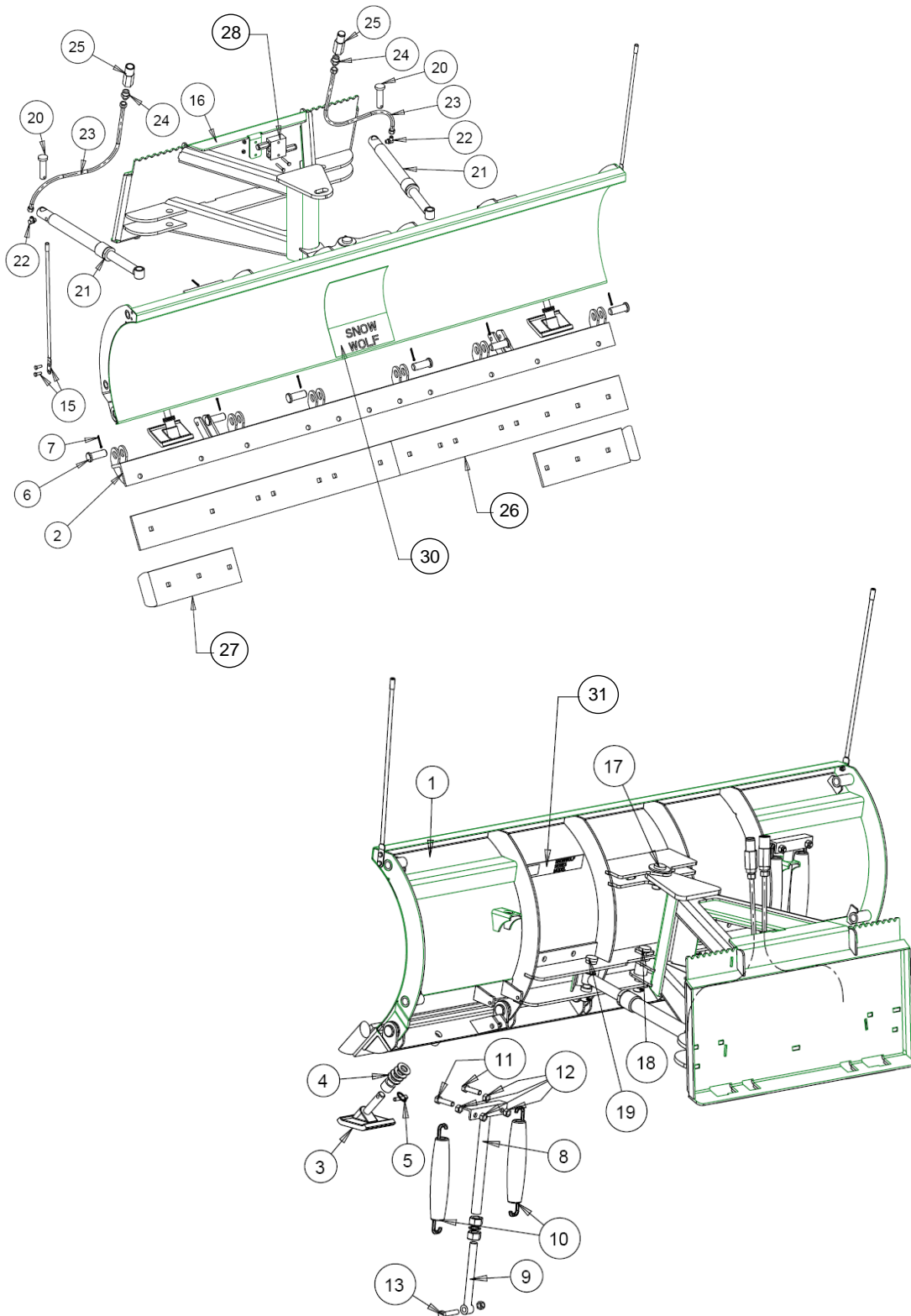
- As with any power attachment, safety is critical. An enclosed cab prime mover with the operator wearing safety protection is required.
- Never operate the Snow Plow with persons within 100 feet.
- Disengage Snow Plow and shut off engine before leaving the cabin of the prime mover.
- Keep all body parts away from the Snow Plow when in use.
- Use caution on slopes and uneven terrain.
- Never carry passengers.
- Never leave machine running unattended.
- Never leave Snow Plow off the ground when out of operator's seat.
- Never allow children or untrained personnel to operate the snowplow! STAY CLEAR

Maintenance

- **Disconnect the hydraulic connection between the attachment and the prime mover before performing any type of maintenance to the Snow Plow.**
- **Cutting Edge:** Be certain to replace bolt-on cutting edge when it wears within 1/2" -3/4" of the bolt head securing it to the trip-edge. It is reversible for long life. Replace only with genuine SnowWolf cutting edge and hardware.
- **Cylinder Gland Nut:** Periodically check cylinder gland nuts for tightness. Usually they will leak first if they become loose. A large slip-joint pliers or pipe wrench can be used to tighten. Do not over tighten!
- **Hoses:** Check hoses occasionally for abrasion damage. This may save you from downtime. If in doubt, replace with genuine SnowWolf parts.
- **Pivot Pins:** Pivot pins may be lubed with moly-type grease, same as used on your machine. Please check the cotter pins that retain all pivot/anchor pins after each use. If missing, replace! Severe damage could be caused by losing a pin.
- **Springs:** SnowWolf springs are adjusted by the two large jam nuts on the rod between each spring. Springs are adjusted correctly when you can fit a business card between the coils. It is very important to set them after your first use, then twice per year thereafter. Use of grease or "Anti Seize" on the rod and jam nuts will keep them from rusting to each other.
- **Storage:** Lubrication of pivot pins is recommended if unit is stored outside. Be certain hydraulic quick couplers are cleaned and joined together to keep dirt out. Put a light coating of grease on exposed rod portion of cylinders to prevent corrosion. Touch-up paint should be used on all scratches to prevent further rust.

Detailed Parts Diagram

Figure 2 – Ultra Series Snow Blade – Parts Diagram



Detailed Parts List
Table 1 – Parts List

Item #	Part #	Description
30	20017	Decal, SnowWolf Blade Front
31	20018	Decal, SnowWolf Model Number
	20019	Decal, "DANGER PINCH AREA"
1	40001	Moldboard Weldment
2	40002	Trip Edge Weldment
3	40003	Wear Shoe Weldment
4	40004	Spacer Kit for 40003
5	40005	Klik Pin for 40003
6	40006	Trip Edge Pin
7	40007	Cotter Pin, 3/16 x 3
8	40008-B	Spring Bar Assembly
9	40009	Spring Adjuster Assembly
10	40010-B	Trip Spring
11	40011	Cap Screw, 5/8 -11 x 2
12	40012	Locknut, 5/8 – 11
13	40013	Cap Screw, 5/8 - 11 x 2 ½
15	50001	Blade Marker Guide Set,
17	50002	Upper Pivot Pin
18	50003	Lower Pivot Pin
19	50004	Ram Anchor Pin, Blade End
20	50005	Ram Anchor Pin, Frame End
21	50006	Angle Cylinder, Nitro Steel
22	50007	90° Restricted Angle Fitting
23	50008	Hose Assembly, 6' long
24	50009-A	Adapter, #6 x #12, New Style Ultra
25	50010	ISO Flush Face Coupler Set
26	50011-A	6' Cutting Edge Kit with hardware
26	50011-C	7' Cutting Edge Kit with hardware
26	50011-E	8' Cutting Edge Kit with hardware
26	50011-G	9' Cutting Edge Kit with hardware
26	50011-H	10' Cutting Edge Kit with hardware
26	50012-A	6' Polymer Cutting Edge Kit with hardware
26	50012-C	7' Polymer Cutting Edge Kit with hardware
26	50012-D	7.5' Polymer Cutting Edge Kit with hardware
26	50012-E	8' Polymer Cutting Edge Kit with hardware
26	50012-G	9' Polymer Cutting Edge Kit with hardware
26	50012-H	10' Polymer Cutting Edge Kit with hardware
27	50013	Curb Guard Set w/ hardware, 7.5'-10' only
16	60000	Attaching Frame, Universal Skid-Steer Mount
16	60001	Attaching Frame, Blank Back
28	60002	Crossover Relief Valve Kit with hoses
21	60005	Cylinder Packing Kit for 50006
21	60006	Cylinder Packing Nut for 50006

Snow Plow Specifications

Table 2 – Specifications

Description	Ultra-72	Ultra-84	Ultra-96	Ultra-108	Ultra-120
Blade Width	6' (72")	7' (84")	8' (96")	9' (108")	10' (120")
Blade Width at Full Angle	59"	68.8"	78.6"	88.5"	98.3"
Blade Height	30"	30"	30"	30"	30"
Weight	732	774	816	858	920
Gauge of Moldboard	10	10	10	10	10
Trip Springs	4	4	4	4	4
Wear Shoes	Opt.	Opt.	Opt.	Opt.	Opt.
Cutting Edge (1085 High Carbon)	1/2"x6"	1/2" x 6"	1/2" x 6"	1/2" x 6"	1/2" x 6"
Angle Rams	1 1/2" x 13	1 1/2" x 13	1 1/2" x 13	1 1/2" x 13	1 1/2" x 13
Vertical Ribs	6	6	6	6	8
Moldboard Radius	14"	14"	14"	14"	14"
Trip Edge	Yes	Yes	Yes	Yes	Yes
Universal Skid Steer Mount	Std.	Std.	Std.	Std.	Std.

Ultra Series Available Accessories

WolfWing Side Wing Kit #60003

Adds 11" to each side of the blade. Quick release — no tools required!

Weight: 43 lbs. each



Poly Soft Touch Cutting Edge #50012

Great for brick, pavers, stamped concrete and other delicate surfaces. Constructed of non-marking proprietary high wear polymer.



High Carbon Curb Guards #50013

Extends your cutting edge life by approximately 300 percent. Protects the trip edge hinge pin area and gives maximum service life when scraping and detailing curb lines. Available for Ultra 96, 108 and 120 only.



MegaBite Side Plate Kit #50014

Used as a set to create a massive snow pusher for carrying snow long distances. Available for plow models Ultra 96 through Ultra 120. Quick release — no tools required!

Weight: 310 lbs. per set



Poly Snow Deflector #50000

Great for light, fluffy snow conditions, especially on two-speed machines.



Cross-Over Relief Valve #60002

Standard on model Ultra 120, optional on all other models.



Manufacturer's Warranty**Two-Year Limited Warranty**

WolfGroup International, hereinafter referred to as WOLFGROUP, warrants new SNOWWOLF SNOW PLOWS at the time of delivery to the original purchaser, to be free from defects in material and workmanship when properly set up and operated in accordance with the recommendations set forth by WOLFGROUP.

WOLFGROUP'S liability for any defect with respect to accepted goods shall be limited to repairing the goods at a WOLFGROUP designated location or at an authorized dealer location, or replacing them as WOLFGROUP shall elect. The above shall be in accordance with WOLFGROUP warranty adjustment policies. WOLFGROUP'S obligation shall terminate twenty-four (24) months after the delivery of the goods to original purchaser including cutting edge breakage or wear. This warranty shall not apply to any machine or attachment which shall have been repaired or altered outside the WOLFGROUP factory or authorized WOLFGROUP dealership or in any way so as in WOLFGROUP'S judgment, to affect its stability or reliability, nor which has been subject to misuse, negligence or accident beyond the Company recommended machine rated capacity.

Warranty Claim

To submit a warranty claim, a return authorization from WOLFGROUP must be obtained. The failed part may then be returned. Tampering with the failed part may void the warranty. This warranty does not include freight or delivery charges incurred when returning machinery for servicing. Dealer mileage, service calls, and pickup/delivery charges are the customers' responsibility.

Exclusions of Warranty

Except as otherwise expressly stated herein, WOLFGROUP makes no representation or warranty of any kind, expressed or implied, AND MAKES NO WARRANTY OF MERCHANTABILITY IN RESPECT TO ITS MACHINERY AND/OR ATTACHMENTS ARE FIT FOR ANY PARTICULAR PURPOSE.

WOLFGROUP shall not be liable for incidental or consequential damages for any breach or warranty, including but not limited to inconvenience, rental of replacement equipment, loss of profits or other commercial loss. Upon purchase, the buyer assumes all liability for all personal injury and property resulting from the handling, possession, or use of the goods by the buyer.

No agent, employee, or representative of WOLFGROUP has any authority to bind WOLFGROUP to any affirmation, representation or warranty concerning its machinery and/or attachments except as specifically set forth herein.

This warranty does not cover abuse, modifications by others, or leaking hoses due to improper routing, abrasion, or pinching.

This warranty policy supersedes any previous documents.

No claims for warranty shall be considered unless warranty registration is sent to WolfGroup within 30 days of purchase!

Manufactured By:



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