



Wolverine

SKID STEER ATTACHMENT

PRODUCT MANUAL

V2023.9.25

STUMP GRINDER MANUAL

Model:SG-13-08D



**FOR MORE INFO
SCAN HERE**



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I. Preface

This product is carefully designed and manufactured to provide you with many years of reliable service. Only small maintenance (such as cleaning and lubrication) is required to keep it in top working condition. Be sure to follow all maintenance procedures and safety precautions in this manual, as well as any safety labels on the product.

This manual is designed to help you take your job better and more safely. Please read this manual carefully and familiarize yourself with its contents. Do not allow anyone to operate this device without reading this manual.

The illustrations and data used in this manual are up to date at the time of printing (based on the information available to us), but we reserve the right to redesign and change attachments if necessary without notice. Ensure that only trained personnel who have read, and understood this manual are allowed to operate the equipment. If you do not understand this manual or features of this equipment, please contact your local authorized distributor or the manufacturer for further assistance. This manual is provided to new owners and operators for reference.

II. Security statements

Improper installation, operation or maintenance of the equipment can cause serious personal injury or even death.

This manual and all manuals related to this equipment and prime mover shall be carefully read by operators and maintenance personnel before starting installation, operation or maintenance. Follow all safety instructions in this manual and in the prime mover manual.

Read and understand all safety statements. Read the warning labels and safety statements in all manuals before operating or using this device.

Understand and comply with all regulations, local laws and other professional guidelines. Understand and follow good working practices when assembling, maintaining, repairing, installing, removing or operating the equipment.

Learn about the performance, size of your device before operation.

Visually inspect the equipment before starting up. It is strictly prohibited to operate the equipment that does not work normally when all safety devices are in good condition. Check all the hardware to be tightened. Ensure that all locks, pins, and connections are properly installed and secured. Remove and replace any damaged or excessively worn parts. Ensure that all security decals are in place and legible. Keep warning labels clean and replace them if they are worn or difficult to read.

III. Warning labels

Warning Label Location:

Figure 1-1 is the location of the warning label. Warning labels are identified by their part number. The Photo1-2 is the instruction of the warning labels. Use this information to buy new warning labels for replacing the damaged ones. Before handling attachments, be sure to read all warning labels which include the information you need to understand and the safety and life span of the attachment.

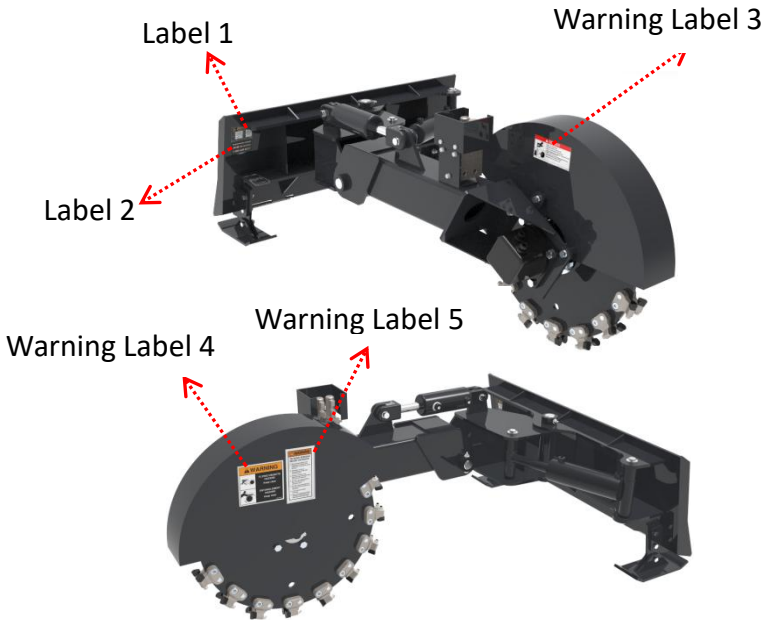




Figure 1-1

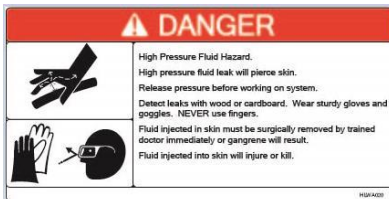
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 Wolverine POWERFUL ATTACHMENT TOOLS			
Model	SG-13-08D	Max pressure	3000 psi
Serial NO.	ZW-00001	GPM Range	15-26 gpm
Weight	650 lbs	Swing Arc	55°
Year	2023		
Email: usawolverine@hotmail.com			

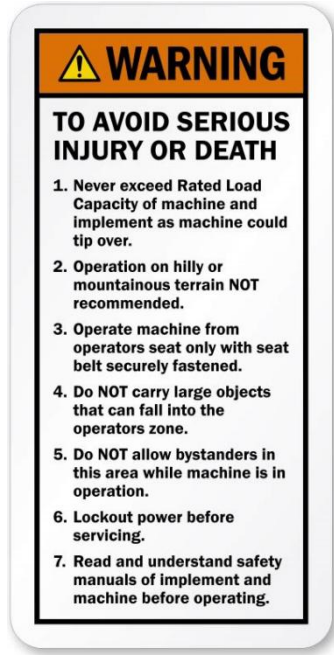
Warning Label 1
 Flying Objects Hazard and
 Entanglement Hazard



Label 2
 After-sales Hotline: 1-800-649-8017



Warning Label 3
 High Pressure Fluid Hazard

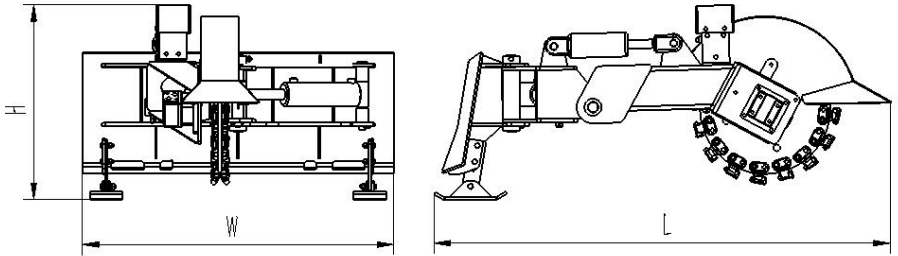


Warning Label 5
 To Avoid Serious Injury or
 Death



Warning Label 4
 Flying Objects and Entanglement
 Hazard

IV. Technical Parameters



No.	Item	Parameter		Remark
	Model	72"		
		Inch Parameter	Metric Parameter	
1	Total Weight	650 lbs	295 Kg	
2	Working Pressure	3000 psi	21 Mpa	
3	Overall Width W	45.2 "	1150 mm	
4	Height H	30"	760 mm	
5	Length L	75.7"	1924 mm	
6	Number of Blades	32 PCS		Left:14pcs,Right:14pcs, Straight:4pcs
7	Max. Diameter of Stump	35"	889 mm	
8	Max. Angle of Swing	55°		Horizontal Direction
9	Max. Angle of Tilt	25°		Vertical Direction

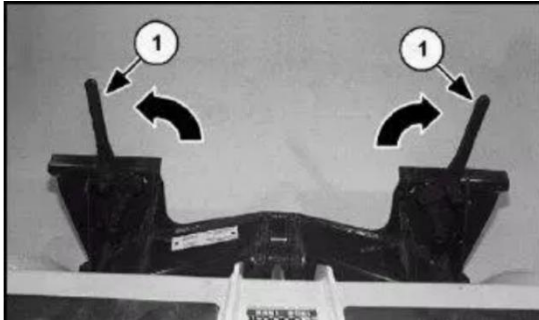
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10	Model of Motor	BM4W-160	Flow Rate:125L/min, Rotate Speed: 240r/min, Power:10Kw
11	Model of Hydraulic Control Valve	ZW191228002	Cartridge Valve, 12V
12	Swing Cylinder	3"x6"	Diameter:76" Distance:152"
13	Tilt Cylinder	3"x4"	Diameter:76" Distance:101"
14	Suitable Loader	Skid Steer Loader	

V. Installation

Please check the quick-change device before installing and operating the stump grinder.

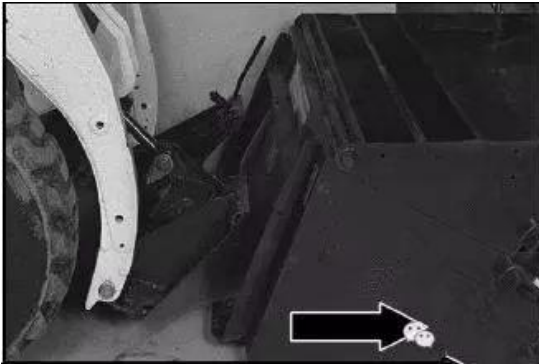
Manual-controlled Quick-change Device:



Pull the lever of quick-change device completely open. (as shown below)

Get into the cab, fasten your seat belt, depress the safety bar, and start the engine. Loosen hand brake.

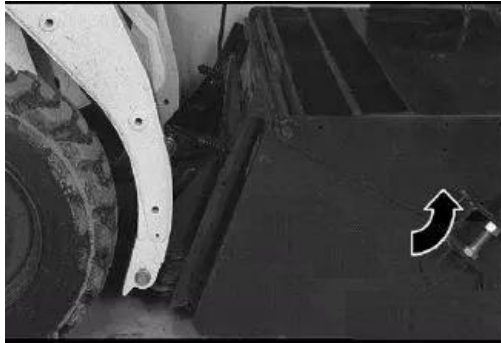
Tilt the quick-change unit forwards. Slowly move the machine forward so that the top edge of the quick-change device is fully integrated into the mounting flange of the grinder.



Make sure that the pull rod of the quick-change device does not

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collide with the stump grinder. Retract the quick-change device until the grinder is completely off the ground. (as shown below)



Turn off the engine and leave the cab. Depress the pull rod of the quick-change device until the locking pin is fully inserted into the pin hole of the mounting plate and locked. (as shown below)



The locking pin of the quick-change device is completely inserted into the pin hole of the mounting plate and locked, so that the grinder and the quick-change device are tightly combined. (as shown below)

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WARNING:

The locking pin of the quick-change device must be inserted into the pin hole of the attachment, and the pull rod must be fully depressed and locked. Otherwise, the grinder may fall off the support of the host, resulting in serious injury, even death.

Hydraulic connection:

Connect the high pressure hose and oil-return hose to the auxiliary hydraulic plug on the skid steer loader. Push the joint toward the lock position after alignment and insertion. (as shown below)

VI. Operation

Basic operations:

- 1.Start the skid steer loader and raise the loader arm so that the support board is completely off the ground.
- 2.Fully extend the swing cylinder for left and right of the stump grinder, so that the arm is in the expanded (cutter head forward) state.
- 3.Adjust the boom cylinder of stump grinder so that the cutter is in a proper position.
- 4.Lower the arm of loader so that the cutter head is aligned with the proper position of the stump. Also pay attention to the interference between the loader and the frame of the grinder.
- 5.Start the cutter head of the stump grinder and reach the rated speed, then slowly lower the arm of the loader, and begin to crush the stump.
- 6.Fully extend the swing cylinder of the stump grinder, rotate the cutting wheel to the right, and repeat steps 4 and 5.
- 7.Fully retract the swing cylinder of the stump grinders so that the cutting wheel rotates completely to the left and repeat steps 4 and 5.
- 8.After the work is completed, retract the hydraulic cylinder at the end of the mounting bracket of loader and the tilt cylinder on the stump grinder to make the grinder back to its starting position.
- 9.Put down the stump grinder until it stays on the ground.

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Notes:

1. There is always a danger of squeezing around equipment attached to skid steer loaders, where the arm of loader and hydraulic cylinder can be squeezed or crushed so as to cause serious injury or death.

① The operator of the skid steer loader must know how to control the loader and how to quickly stop it and ancillary equipment in an emergency.

② Do not drive in front of a person standing in front of a fixed object, such as a wall. Never assume that the brakes will stop the machine in time.

③ Keep all pedestrians, pets, and livestock away from your working area. When the arm is raised, no one should be allowed near or under the attachments.

④ The siren should be sounded before reversing to drive at a slower speed to prevent blind spots and cause injury.

2. Don't abuse the equipment. Improper use of skid steer loaders and stump grinders can damage the structure of the equipment and result in serious injury or death.

① Check hook points frequently to ensure that the hook of skid steer loader is properly positioned under the top corner bar. The locking pin is in place in its notch. The handle is locked and the equipment is in good operating condition.

② Do not carry or lift goods with this stump grinder.

③ Do not use the stump grinder as a working platform to prevent serious injury or death.

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④ Do not use the grinder to lift the front end of the loader off the ground to avoid damaging the equipment and causing injury if it exceeds the lifting capacity of the equipment.

3. Do not operate the stump grinder over the maximum output power or the speed of the cutting blades, which may cause injury or damage to human or equipment.

4. Start and close the broom at idle speed, so as not to cause damage to the motor of grinder.

VII. Maintenance

Regular maintenance is the key to extending life span of the equipment and safe operation. Maintenance requirements have been reduced to an absolute minimum. However, it is important that these maintenance functions are performed as described below.

No.	Item	Daily (Per 8 Hours)	Refer to manual for prime power
1	Clean off any dirt and grease that may have accumulated on the stump grinder.	✓	
2	Check the wear of blades	✓	
3	Check if hydraulic system is leaking and tighten it if necessary. Inspect for damage and replace as needed.	✓	
4	Grease fittings	✓	
5	Check if the hydraulic system of prime mover has sufficient oil.	✓	
6	Check whether the hardware is missing or loose. Replace or tighten it if necessary.	✓	
7	Check for missing or damaged warning decals and replace them if necessary.	✓	
8	Clean the air filter for prime mover .		✓

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WARNING: Hydraulic oil/diesel oil spilled under pressure can penetrate the skin and cause serious injury. The liquid spilling from a tiny hole is almost invisible. Use a piece of cardboard or wood instead of your hands to look for a suspected leaking point.

VIII. Hydraulic and Electric Control System

Electro-hydraulic Operation and Cable Installation

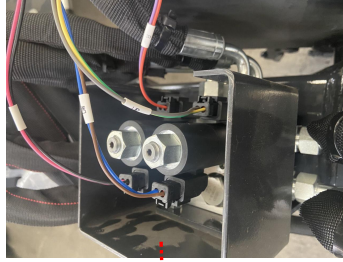
1. There are 4 2P waterproof plugs at the end of the controllers. UP and DW on the controllers are the corresponding group. R and L are the corresponding group, and are inserted into the corresponding solenoid valve slots (UP and DW are inserted into jacks 1 and 2 in the figure below, and R and L are inserted into jacks 3 and 4).

2. The cable must be secured to the stump grinder by cable ties to prevent damage to the line caused by the grinder.

3. The other end of the controller plug (cigarette lighter plug) is inserted into the cigarette lighter slot in the cab of the loader (if there is no cigarette lighter plug, connect the wire sleeve marked +12V to the positive terminal of the battery and that marked 0V to the negative terminal as shown below).

4. After power is on, there are 4 buttons on the controller handle. R and L control the swing of the grinder for left and right. UP and DW control the movement for up and down.

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Quick-plug interface

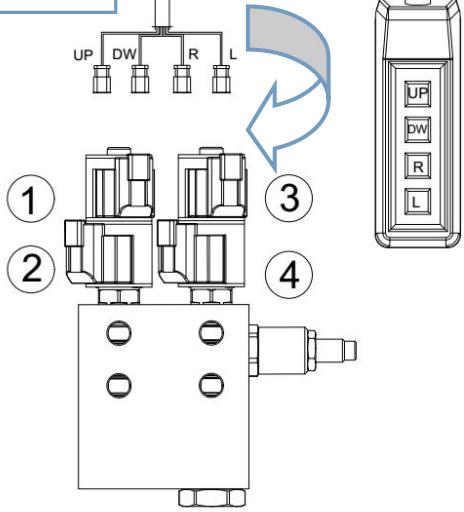
Priority selector valve for four ways

Wiring Diagram

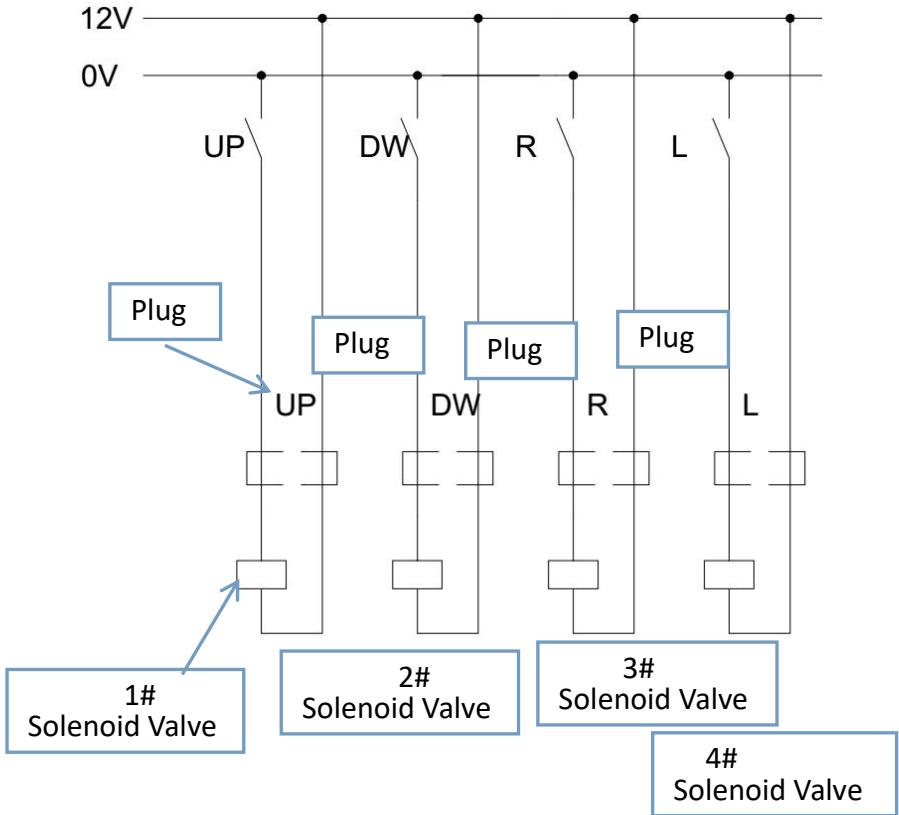
Connection Sequence:
U P is inserted Jack 1;
DW is inserted Jack 2;
R is inserted Jack 3;
L is inserted Jack 4.

Input
12V
power

Cigarette
lighter



Electric Diagram for Four-way Priority Valve





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