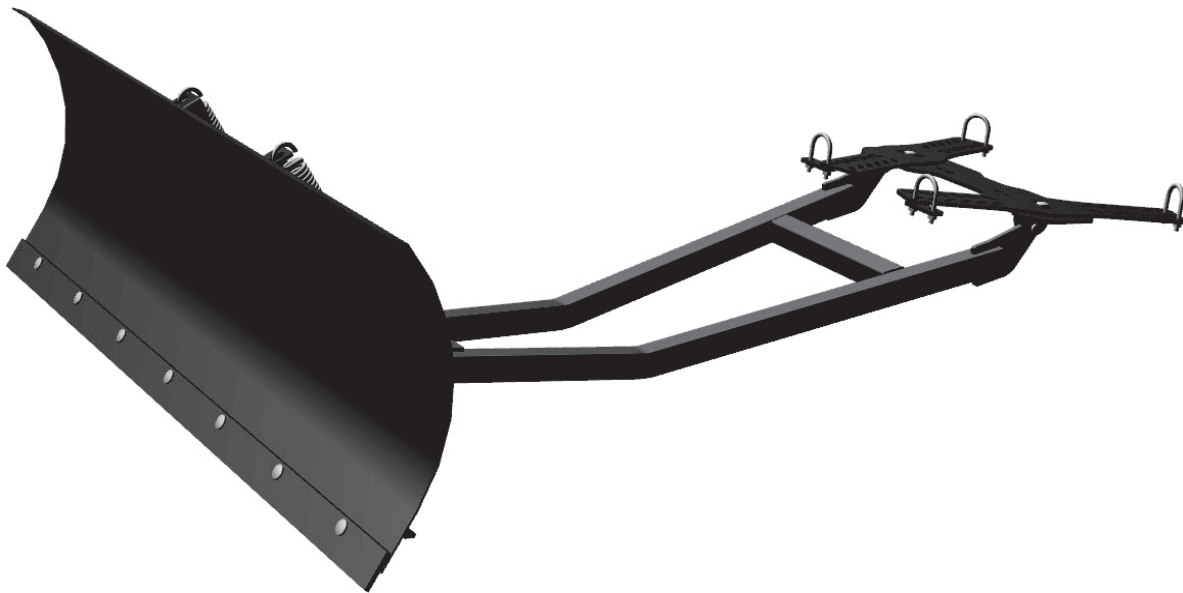




50 and 60 INCH ATV/UTV SNOW PLOW KIT

Owner's Manual



NOTICE

The Snow Plow Kit requires the ATV or UTV to have a winch attached to the front to raise and lower the blade.

The Snow Plow Kit is NOT compatible with Can-Am Outlander models.

⚠ WARNING

This Snow Plow Kit is intended for OFF ROAD use ONLY. It is NOT intended for use on public roads or highways. Always using an approved helmet and protective gear **COULD SAVE YOUR LIFE!**

Federal, state, provincial, and municipal governments have different regulations pertaining to operating off road vehicles. Learn and follow the regulations in your area.



⚠ WARNING

**READ AND UNDERSTAND THIS INSTRUCTION MANUAL
PRIOR TO USING THIS PRODUCT. FAILURE TO DO SO MAY
RESULT IN SERIOUS INJURY OR DEATH.**

Keep this instruction manual for future reference.

This instruction manual is intended for your benefit. Please read and follow the safety, installation, maintenance and troubleshooting steps described within to ensure your safety and satisfaction. The contents of this instruction manual are based upon the latest product information available at the time of publication. The manufacturer reserves the right to make product changes at any time without notice.

The safety instructions provided in this manual are not intended to cover all possible conditions and practices that may occur when operating, maintaining and cleaning power equipment.

Always use common sense and pay particular attention to all the DANGER, WARNING, CAUTION and NOTICE statements in this manual.

WARNING SYMBOLS AND DEFINITIONS

	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
 DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE	Addresses practices not related to personal injury.
CAUTION	

Maintain labels. Labels on this product, if applicable, carry important information. If unreadable or missing, contact Star-Asia USA, LLC for free replacement labels.

The label on your tool may include the following symbols. The symbols and their definition are as follows:

Symbol	Property or Statement
	Safety Alert Symbol
	Read and understand this instruction manual prior to using this product.
	Wear ANSI approved (or applicable national standard) goggles or properly fitted protective glasses with top and side protection.

Symbol	Property or Statement
	Use approved hearing protection such as ear plugs or ear muffs.
	Wear a DOT approved safety helmet.
	Wear anti-vibration gloves when operating.

INTENDED USE

The BOZEMAN Snow Plow Kit includes a chassis mounting bracket that is configurable to fit most ATVs and UTVs which allow these vehicles to be converted into a functional snow plow that can clear snow from driveways, sidewalks, or small parking lots where larger snow removal equipment might not be practical. Built from heavy gauge steel, the Snow Plow blade can be adjusted to four pitch angles and seven blade angles up to 30°. The chassis mounting bracket provides maximum ground clearance, and the blade push bar is easily installed and removed with two quick release pins. Operation requires a winch or manual lift kit. The Snow Plow is NOT configured for use on public roadways and is intended for off-road use ONLY. Consult with your federal and state transportation departments regarding Snow Plow safety regulations.

SPECIFICATIONS

Specification	Value
Blade Width x Height 86050/86860	50x16 in. (1250x405 mm) 60x16 in. (1500x405 mm)
Blade Wear Bar	Reversible, 1/4 in.x 2 in.
Blade Material	13 Ga. Steel
Blade Angle Settings	-30°, -20°, -10°, 0°, 10°, 20°, 30°
Blade Pitch Settings	4 Positions

Specification	Value
Total Length	54 in. (1360 mm)
Weight (86050/86060)	88 lbs (40 kg) 93 lbs (42 kg)
Finish	Powder Coated
Color	Black
Push Bar Type	Quick Release

UNPACKING & INSPECTION

When unpacking, please inspect the product carefully to ensure the product is intact and undamaged. If any parts are missing or broken, please call 1-800-386-0191 as soon as possible.



WARNING

Do not use this product if damaged during shipment, handling, or after misuse.

Do not use the product until the parts have been replaced or the fault rectified. Failure to do so may result in serious personal injury or property damage.



WARNING

The Snow Plow and its parts are heavy. It is recommended a minimum of two people are needed for unpacking, lifting, moving, and assembling.

Follow proper lifting techniques at all times as recommended by the Occupational Safety and Health Administration.

Remove the parts and accessories from the packaging and inspect for damage. Make sure that all items in the contents are included.

Package contents : **See Parts List**

GENERAL SAFETY RULES



WARNING

READ ALL SAFETY WARNINGS AND ALL INSTRUCTIONS. Failure to follow the warnings and instructions may result in electric shock, serious injury and/or DEATH.

Save this instruction manual for future reference.

WORK AREA SAFETY

- Assemble, adjust, and operate in a safe work environment. Keep your work area clean, well-lit and free of distractions. Place lights so you are not working in a shadow.
- Keep anyone not wearing appropriate safety equipment away from the work area.
- If working alone, always arrange to have someone check on you at pre-arranged, regular intervals.
- Keep out of reach of children.
- Do not use in the presence of flammable gases, dust, or liquids.

PERSONAL SAFETY

- Wear Personal Protective Equipment (PPE) approved by the American National Standards Institute (ANSI) or the Canadian Standards Association (CSA).
- Always wear impact safety goggles or eye wear that provide front and side protection for the eyes. Eye protection equipment should comply with ANSI Z87.1 or CSA Z94.3-07 standards based on the type of work performed.
- Wear hearing protection with an appropriate Noise Reduction Rating to withstand increased decibel levels when working near engines.
- Control the tool, personal movement and the work environment to avoid personal injury or damage to the equipment.
- Do not operate, adjust, or perform maintenance on any part of this Snow Plow when tired or under the influence of drugs, alcohol, or medications.
- Wear protective clothing designed for the work environment and equipment.
- Avoid wearing clothes or jewelry that can become entangled when operating or working on the Snow Plow. Keep long hair covered and bound.
- Wear gloves that provide protection based on the work materials.
Note: Do not wear gloves when operating a tool that can snag the material and pull the hand into the tool.
- Do not overreach when using. Wear non-skid footwear to maintain proper footing and balance and to enable better control in unexpected situations.
- Keep fingers away from the pinch points around the Snow Plow.
- The operator's ability to safely operate this off-road equipment is largely dependent upon the operator's ability to exercise proper judgment. The operator must be of sufficient age, understanding, mental capacity, and physical capability to safely operate this equipment. ALWAYS FOLLOW THE RECOMMENDED AGE RESTRICTION OF 16 YEARS FOR OPERATORS.

SPECIFIC SAFETY PRECAUTIONS



WARNING

Using a Snow Plow that is incorrectly assembled or installed

can be very dangerous. If you do not feel completely comfortable or confident in assembling or installing, seek the services of a competent and qualified technician to assemble and install it for you.



WARNING

DO NOT let comfort or familiarity with the product (gained from

repeated use) replace strict adherence to the tool safety rules. To avoid damage, serious personal injury, or DEATH, follow these safety precautions:

- Use the correct tool for the job. This equipment was designed for a specific function. Do not modify or alter this equipment or use it for an unintended purpose.
- Read and understand your ATV/UTV manual, including all safety precautions and vehicle attachment precautions, prior to using this product.
- Do not use the Snow Plow if any parts are damaged, broken or misplaced. Repair or replace the parts.
- Do not use the Snow Plow if it appears or sounds to be operating abnormally. Seek a qualified technician to repair and verify the Snow Plow and its components are operating correctly before using.
- Assembly, maintenance, and/or repair of the Snow Plow and its components should only be performed by persons of sufficient mechanical skill, experience, and judgment (such as outdoor equipment dealers, motorcycle dealer/shops, or power equipment repair shops) so that no unsafe condition or modification is made.
- Loose clothing, long hair, or articles worn by an operator

- must be fully contained or covered to prevent being caught in any moving parts.
- Ensure the ATV or UTV power is OFF, the brakes are locked, and the wheels are blocked prior to attaching or removing the Snow Plow Push Bar to avoid unintentional movement.
 - Never use the Snow Plow if the Chassis Mounting Bracket is loose or not functioning correctly.
 - Keep hands and fingers away from pinch points when using, adjusting, setting-up, and at installation.
 - Attach the Snow Plow Push Bar to a vehicle that is on a surface that is stable, level, and not slippery.
 - ALWAYS raise the Snow Plow blade when driving the vehicle and not performing plowing operations. REMOVE the Snow Plow push bar after plowing operations are completed and before operating the vehicle for other purposes.
 - Check to ensure all fasteners are tight, and that the Push Bar retaining clevis pins are fully engaged with hairpins installed to prevent the clevis pins from falling out.
 - Check that the blade angle swivel mechanism is operating correctly and locked in place prior to use.
 - **WHEN OPERATING THE SNOW PLOW:**
 1. The equipment owner shall ensure all operators have read and understand the safety guidelines in both the Vehicle and Snow Plow operator's manual prior to operation.
 2. Do not allow passengers to ride on the vehicle.
 3. Allow for an increased stopping distance due to the added tow weight.
 4. Allow for an increased turning radius when turning.
 5. Operate the vehicle at a walking speed when the blade or push bar are installed. **DO NOT EXCEED 5 MPH (8KPH) EVEN WITH THE BLADE IN THE RAISED POSITION.**
 - 6. Plow slowly, using caution. Impact with a hidden object could cause the vehicle to stop suddenly or lose control.
 - 7. Do not operate the vehicle with an attached snow plow on slopes greater than 10 degrees.
 - 8. Do not stand or ride on the plow blade.
 - 9. Never place your hands or feet under the blade.
 - 10. Keep clear of moving parts, cables and joints. Keep others at a safe distance when operating or adjusting the plow.
 - 11. Inspect all plow mechanisms, fasteners, cables, and make adjustments prior to operating.
 - 12. Do not leave the vehicle unattended. Lower the plow blade to the down position, stop the engine, remove the keys, and set the parking brake before leaving the vehicle.
 - Wet, slippery, rough, or steep terrain is potentially dangerous and may result in injury if proper caution is not observed. Slow speeds are required to safely operate the snow plow under these conditions. The operator must use mature judgment, skill, and experience to choose a speed suitable for terrain and riding conditions.
 - Disconnect the Snow Plow from the ATV or UTV after each use and before servicing either the vehicle or the Snow Plow..
 - Operators under 18 years of age must be appropriately supervised by an adult at all times while operating this equipment.
 - Operation of this Snow Plow requires skills acquired through practice over a period of time. Take time to learn the basic techniques well before operation of the Snow Plow and any of its components.
 - Operate only on safe and familiar terrain. Avoid steep inclines, and allow for extra braking distances, especially on wet surfaces.

ASSEMBLY & INSTALLATION



WARNING

This is a dangerous machine. The Snow Plow and its components can be dangerous when assembled incorrectly. If you do not feel completely comfortable assembling it, then seek the services of a qualified technician to assemble it.

The Snow Plow will need to be assembled by the user or by a competent technician. Follow these steps to ensure proper assembly.

Tools needed for assembly:

- Metric open-end/box end wrench set
- Torque wrenches
- Socket driver and metric sockets
- Framing Square / Painter's Tape

ITEMS IN PARENTHESIS () REFER TO THE ITEM NUMBERS IN THE PARTS LIST.

Step 1: Open the shipping crate. Open the shipping crate and remove any plastic covering.

Step 2: Unpack the hardware. With the top removed carefully remove each piece and set them aside. Remove any plastic coverings on the individual parts. Place similar items together to easily find them.

Step 3: Check that the parts are correct. Check that parts match the items in the parts list and that the quantity is correct. If any parts are missing or broken, contact Star-Asia at 1-800-386-0191 as soon as possible.

Step 4: Locate the Mounting Bracket parts and place them near the ATV/UTV. In a well-lit area with enough room to assemble the Snow Plow Mounting Bracket to the bottom of the vehicle frame, place items 1 through 10 near the vehicle.

Step 5: Install the Horizontal Mounting Bracket (1) to the vehicle frame. Ensure the vehicle is cold prior to beginning. With the vehicle lifted up, the wheels chocked, and the brake set, look under the vehicle and determine if the frame is a round tube or square tube. Use the Round Tube U-Bolts (3) if the frame is round tube, and use the Square Tube U-Bolts (4) if the frame is square tube.

1. Place the U-bolt over the frame with the threads facing down. Position the U-bolts so they are separated as far as possible. Place a U-Bolt Clamp Plate (5) onto each U-Bolt, place a piece of painters tape on the thread to hold the clamp in place (Fig.1).
2. Install a Carriage Bolt (6) into the center slot of each Vertical Mounting Bracket (2), and use a piece of painters tape on the back of the bolt to hold it in place.

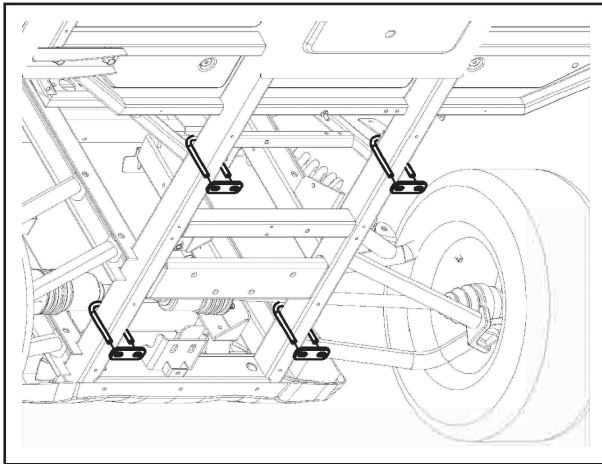


Fig. 1

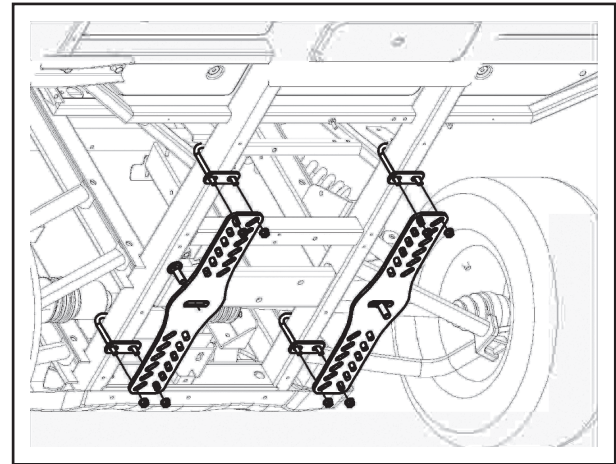


Fig. 2

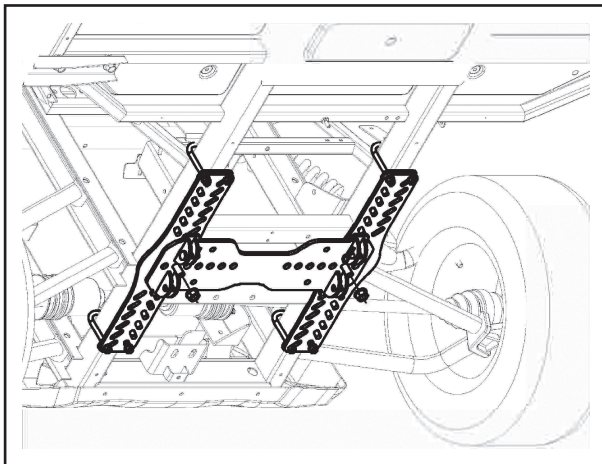


Fig. 3

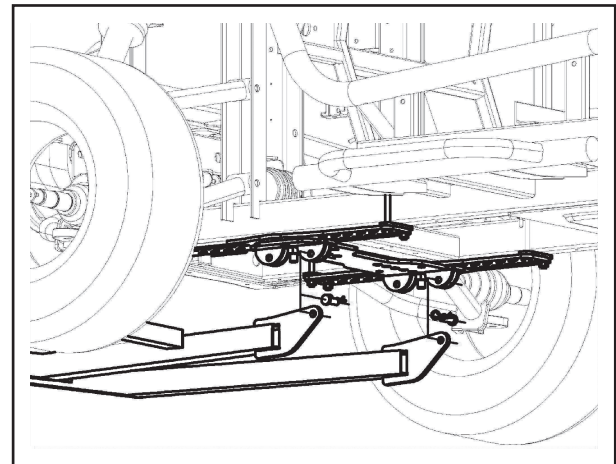


Fig. 4

3. With the U-bolts as far apart as possible, place one Vertical Mounting Bracket (2) onto the U-Bolts with the Carriage Bolt (6) threads pointing down. Place a Flatwasher (9) and Locknut (10) on each U-Bolt thread (total 4 each). Thread the locknuts so they are touching the Vertical Mounting Bracket (2), but do not tighten. Repeat this for the other Vertical Mounting Bracket.
4. Place the Horizontal Mounting Bracket (1) onto the two Carriage Bolts (6). Place two Flatwashers (7) onto the Carriage Bolts (6), then thread the Locknuts (8) so they are touching the Horizontal Mounting Bracket (1), but do not tighten.
5. Tighten the eight Locknuts (10) on the U-Bolts to between 192 and 220 inch-pounds.
6. Use a framing square and check that the Horizontal Mounting Bracket (1) is perpendicular with the frame of the vehicle. Tighten the two Locknuts (8) to between 55 and 65 foot-pounds.
7. With the Push Bar (15) in the correct orientation, place the ears of the Push Bar (15) onto either the front or rear slots on the Horizontal Mounting Bracket (1). Pin in place using the quick release Clevis Pins (11), and install the Hairpins (12) on both Clevis Pins (11) to prevent them from falling out.
8. Lower the vehicle.

STEP 6: Install the Blade onto the Push Bar. Place an Oversized Flatwasher (29) onto the two Bolts (27), then place the Blade (16) onto the Swivel Index Plate (13). Align the holes and insert a Bolt (27) from the outside. Place a Spacer (29) over the threads of the Bolt (27) and seat the Spacer (29) into the hole. Place another Oversized Flatwasher (29) onto the bolt, then thread the Locknut (30) onto the bolt, but do not tighten. Repeat this for the other side. Tighten these two Bolts (27) and Nuts (30) to between 55 and 65 foot-pounds. Check that the Blade (16) can be pitched forward and back. If not, then check the position of the Spacer (29).

The Pitch Adjustment Cam (33) allow the pitch of the blade to be adjusted forwards or backwards. Note that the hole on the cam is offset. These Cams act as a stop for the Blade's backwards pitch and allow the blade pitch to be placed in 4 positions (Fig. 5).

With the Blade (16) pitch tilted to its most forward position, place the Cam into the desired position, then place a Bolt (31) with a Flatwasher (32) through the Pitch Adjustment Cam. Install the Pitch Adjustment Cam (33) onto the holes located vertically on the sides of the Swivel Index Plate (13) and nearest the Blade (1). The Pitch Adjustment Cams should be on the outside of the Swivel Index Plate (13). Place another Flatwasher (32) onto the bolt, then thread the Locknut (34) onto the bolt so that it is just touching the Swivel Index Plate, but do not tighten. Repeat this for the other side. Push the blade

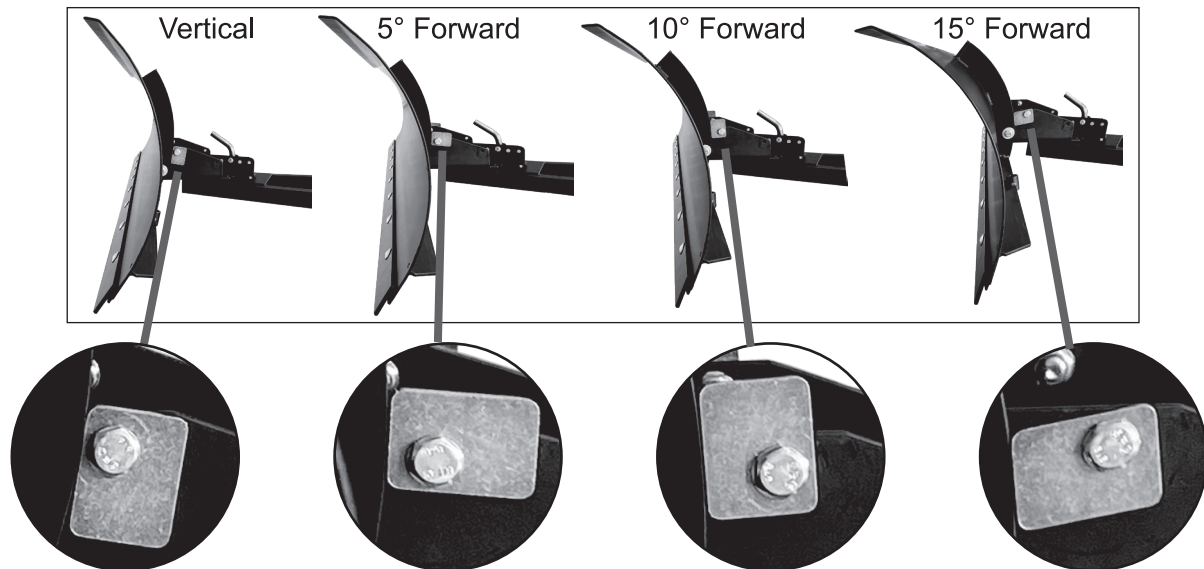


Fig. 5 - Blade Pitch Cam

back so that it is pressing against the Pitch Adjustment Cams (33), then tighten the Bolt (31) and Locknut (34) between 32 and 36 foot-pounds.

Place the L-Brackets (21) onto the holes located vertically on the sides of the Swivel Index Plate (13) and farthest away from the Blade (16). The L-Bracket should be on the outside of the Swivel Index Plate (13), over-hanging to the outside, and with the hole in the overhanging bracket closest to the Blade. Insert a Bolt (22) through the hole from the outside, then on the opposite side place a Flatwasher (23) and Locknut (24). Do not tighten.

Install the Eyebolt (25) onto the top of the over-hanging L-Bracket (21) with about one inch (25 mm) of threads protruding from the opposite side. Hook the Extension Spring (26) between the Eyebolt (25) and the holes at the top of the ribs on the Blade (1). If the Extension Spring (26) cannot be hooked to both the Eyebolt and the holes on the blade, loosen the locknut on the Eyebolt until there is enough slack. If that is still not enough slack, place the Pitch Adjustment Cams (33) into the position that allows the blade to be vertical. Tighten the nut on the Eyebolt (25) until the spring just begins to stretch.

STEP 7: Install the Leveling Feet onto the Blade. Place a Spacer (18) onto the Leveling Foot (20) shaft, then insert the Leveling Foot (20) shaft into the hole at the back and bottom of the Blade (1). Place six Flatwashers (19) onto the Leveling Foot (20) shaft, then place another Spacer (18) onto the Leveling Foot (20) shaft. Install the Ring Lock Clevis Pin (17) through the hole on the Leveling Foot (20) shaft to hold it in place. Repeat this for the other Leveling Foot (20). To adjust the Leveling Foot (20) height, remove the Leveling Foot (20), move a number of washers onto the opposite side then re-install. Always ensure both Leveling Feet (20) have at least a spacer on both the top and bottom, and the same number of washers on both sides.

CARE & MAINTENANCE

RUST AND CORROSION

Although the trailer has been treated to help eliminate rust and corrosion, it may be necessary to protect the trailer from the elements by parking it under a tin roof or carport to help prevent weathering from rain and snow. It is recommended to apply car wax to painted surfaces at least once a year. Use a rust inhibiting paint in areas where the color coating may have chipped or become deeply scratched. Apply a coat of lithium grease on all exposed threads, adjustment bolts, and inside nuts or threaded holes that are not being used.

DISPOSAL

Recycle a snow plow damaged beyond repair at the appropriate facility.

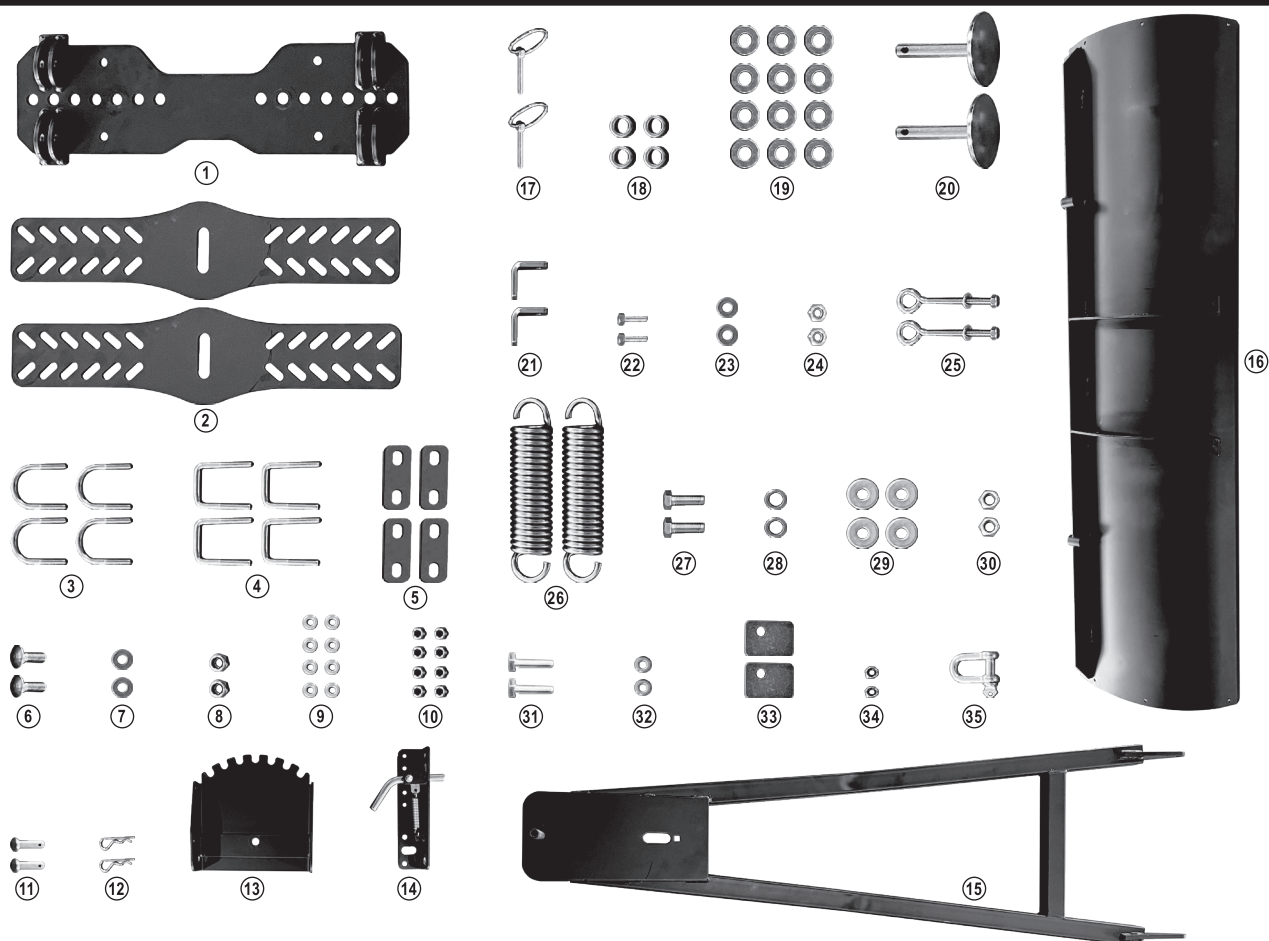
Contact your local municipality for a list of disposal facilities or by-laws for electronic devices, batteries, oil or other toxic liquids.

IMPORTANT! DO NOT pollute the environment by allowing uncontrolled discharge of waste oil.

TROUBLESHOOTING

Contact your distributor for a solution if the tool does not function properly or parts are missing. If unable to do so, have a qualified technician service the tool.

PARTS LIST



Item	Description	Qty
1	Mounting Bracket, Horiz	1
2	Mounting Bracket, Vert	2
3	U-Bolt, Round Tube M8	4
4	U-Bolt, Square Tube M8	4
5	Clamp Plate, U-Bolt	4
6	Carriage Bolt, M12x35	2
7	Flat Washer, M12	2
8	Locknut, M12	2
9	Flat Washer, M8x1.5	8
10	Locknut, M8	8
11	Clevis Pin, 10	2
12	Hairpin, 2	2

Item	Description	Qty
13	Index Plate, Swivel	1
14	Lock Mechanism, Swivel	1
15	Push Bar	1
16	Blade	1
17	Clevis Pin, Ring Lock	2
18	Spacer, Foot	2
19	Flat Washer, Foot Spcr	12
20	Leveling Foot	2
21	L-Bracket	2
22	Bolt, M8x25	2
23	Flatwasher, M8x1	2
24	Locknut, M8	2

Item	Description	Qty
25	Eyebolt, M8x120	2
26	Spring, Extension	2
27	Bolt, M12x35	2
28	Spacer, M12	2
29	Flat Washer, Oversized M12	4
30	Locknut, M12	2
31	Bolt, M10x30	2
32	Flat Washer, M10	2
33	Pitch Adjustment Cam	2
34	Locknut, M10	2
35	Shackle, Screw Pin	1
NS	Blade Wear Bar & Bolts	1 / 8

90 DAY LIMITED WARRANTY

Star Asia-USA, LLC (hereinafter “seller”) warrants to the original purchaser only, that this product will be free from defects in material or workmanship for a period of 90 days from date of purchase for home domestic use.

Warranty Performance

Warranty coverage is conditioned upon purchaser furnishing seller or its authorized service center with adequate written proof of the original purchase date. Products returned, freight prepaid and insured, to our factory or to an Authorized Service Center will be inspected and repaired or replaced, at seller's option, free of charge if found to be defective and subject to warranty. Defective parts not subject to normal wear and tear will be repaired or replaced, at our option during the above stated warranty periods. In any event, reimbursement is limited to the purchase price paid. Other than the postage and insurance requirement, no charge will be made for repairs or replacements covered by this warranty. Under no circumstances shall the manufacturer bear any responsibility for loss of the unit, loss of time or rental, inconvenience, commercial loss or consequential damages, There are no warranties which extend beyond the description of the face hereof.

Exclusions

This warranty does not cover parts damaged due to normal wear, abnormal conditions, misapplication, misuse, abuse, accidents, operation at other than recommended pressures or temperatures, improper storage of freight damage. Parts damaged or worn by operation in dusty environments are not warranted. Failure to follow recommended operating and maintenance procedures also voids warranty. Additional items not covered under warranty: product failure caused by rain, excessive humidity, corrosive environments or other contaminants; cosmetic defects that do not interfere with product's functionality. This warranty shall not apply when: the product has been used for commercial or rental purposes; defects in materials or workmanship or damages result from repairs or alterations which have been made or attempted by others or the unauthorized use of nonconforming parts; this damage is due to abuse, improper maintenance, neglect or accident; or the damage is due to use of the product after partial failure or use with improper accessories. Warranty does not apply to accessory items. Seller will not be liable for: labor charges, loss or damage resulting from improper operation, maintenance or repairs made by persons other than a Star Asia-USA, LLC Authorized Service Center. The use of other than genuine Star Asia-USA, LLC repair parts will void warranty.

Warranty Disclaimers

NO WARRANTY, ORAL OR WRITTEN, OTHER THAN THE ABOVE WARRANTY IS MADE WITH REGARD TO THIS PRODUCT, ANY IMPLIED WARRANTIES OF SELLER REGARDING THIS PRODUCT INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXCLUDED. BUYER'S OR USER'S REMEDIES ARE SOLELY AND EXCLUSIVELY AS STATED ABOVE. STAR ASIA-USA, LLC SHALL IN NO EVENT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, OR SPECIAL DAMAGES. IN NO EVENT, WHETHER AS A RESULT OF A BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, SHALL SELLER'S LIABILITY EXCEED THE PRICE OF THE PRODUCT WHICH HAS GIVEN RISE TO THE CLAIM OR LIABILITY. ANY LIABILITY CONNECTED WITH THE USE OF THIS PRODUCT SHALL TERMINATE UPON THE EXPIRATION OF THE WARRANTY PERIODS SPECIFIED ABOVE.

Limitations on Warranty Disclaimers

Any implied warranties shall be limited in duration to 90 days from the date of purchase. In some states of the U.S.A. and in some provinces of Canada there is no limitation for how long an implied warranty is valid, so the aforementioned limitation may not apply to you. In no event shall a seller be liable for any incidental or consequential damages (including but not limited to liability for loss of profits) arising from the sale or use of this product. In some states of the U.S.A. and in some provinces of Canada the exclusion or limitation of incidental or consequential damages is not allowed, so that aforementioned limitation or exclusion may not apply to you.

This Limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state in the U.S.A., Canada and the Commonwealth of Puerto Rico. For warranty coverage within other countries, contact your local star Asia-USA, LLC dealer or importer.

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