

# **SNO-WAY<sup>®</sup>**

**SNOW & ICE CONTROL EQUIPMENT**

## **INSTALLATION, OWNER'S & PARTS MANUAL**

### **29, 29T & 32 SERIES SNOW PLOWS WITH EIS**

**FOR PLOW SERIAL NUMBERS AFTER**

**29C100000**

**29TC100000**

**32C100050**



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# INTRODUCTION

This manual was written for the assembly, installation and maintenance of your new Sno-Way plow. Most importantly, this manual provides an operating plan for safe use. Refer to the Table of Contents for an outline of this manual.

Please keep this manual with your machine at all times as reference material and so it can be passed on to the next owner if the machine is sold.

We require that you read and understand the contents of this manual COMPLETELY, especially the chapter on SAFETY, before attempting any procedure contained in this manual.



The Society of Automotive Engineers has adopted this SAFETY ALERT SYMBOL to pinpoint characteristics that, if NOT carefully followed, can create a safety hazard. When you see this symbol in this manual or on the machine itself, BE ALERT!, your personal safety and the safety of others, is involved.

• Defined in the next column, are the SAFETY ALERT messages and how they will appear in this manual.

	WARNING
<p><b>FAILURE TO FOLLOW CAN RESULT IN INJURY OR DEATH.</b></p>	

	CAUTION
<p><b>Information, that if not carefully followed, can cause injury or damage to equipment!</b></p>	

*NOTE: Additional information concerning the equipment or the procedure that may or may not be contained elsewhere in this manual.*

**BE AWARE! It is illegal to remove, deface or otherwise alter the safety decals mounted on this equipment.**

Record the Power Pack Model Number, Power Pack Serial Number, Controller Serial Numbers, Blade Model Number, Blade Serial Number and the Pump Serial Number in the space provided below as a handy record for quick reference. The Power Pack Serial Number is

located on the A-Frame (near the front on the driver's side), the blade serial number is located on one of the middle ribs of the blade. These plates contain information that your Dealer needs to answer questions or to order replacement parts, if needed, for your unit.

NAME PLATE DATA	
POWER PACK MODEL NUMBER _____	
POWER PACK SERIAL NUMBER _____ <small>(Located on A-Frame)</small>	
BLADE MODEL NUMBER _____	
BLADE SERIAL NUMBER _____ <small>(Located on Blade Frame)</small>	
(FILL IN)	

DEALER	
NAME _____	
ADDRESS _____	
CITY _____ STATE _____ ZIP _____	
PHONE (____) - _____	
(FILL IN)	

ORIGINAL PURCHASER	
NAME _____	
ADDRESS _____	
CITY _____ STATE _____ ZIP _____	
PHONE (____) - _____	
(FILL IN)	

We reserve the right to make changes or improve the design or construction of any part(s) without incurring the obligation to install such parts or make any changes on any unit previously delivered.

Graphics and illustrations may be used which may show equipment and/or options not included in every installation without incurring the obligation to install such parts or make changes on units previously delivered.

Sno-Way Service Parts Manuals are available for purchase from your authorized Sno-Way dealer. Request part number 97100829 for the 29 & 32 Series Snow Plows. Factory contact information is available at [www.snoway.com](http://www.snoway.com).

Snow-Way Products are built under one or more of the following patents:

5,524,368	5,832,637	5,894,688	5,987,785	6,154,986
6,691,435	6,701,646	6,702,208	6,775,933	6,778,932
6,860,039	6,860,040	2,121,948		

# SAFETY

**BEFORE ATTEMPTING ANY PROCEDURE IN THIS BOOK, READ AND UNDERSTAND ALL THE SAFETY INFORMATION CONTAINED IN THIS SECTION. IN ADDITION, ENSURE ALL INDIVIDUALS WORKING WITH YOU ARE ALSO FAMILIAR WITH THESE SAFETY PRECAUTIONS.**

**For your safety Warning and Information Decals have been placed on this product to remind the operator to take safety precautions. It is important that these decals are in place and are legible before operation begins. New decals can be obtained from Sno-Way or your local dealer.**

**REMEMBER The careful operator is the best operator. Most accidents are caused by human error. Certain precautions must be observed to prevent the possibility of injury to operator or bystanders and/or damage to equipment.**

**NEVER** operate plow when under the influence of alcohol, drugs or other medications that could hamper your judgement and reactions. An accident may result in serious injury or death to other persons or yourself.

**ALWAYS** operate vehicle in a well-ventilated area. The carbon monoxide in exhaust gas is highly toxic and can cause serious injury or death.

**NEVER** allow hands, hair or clothing to get near any moving parts such as fan blades, belts and pulleys. Never wear neckties or loose clothing when working on the vehicle.

**NEVER** wear wrist watches, rings or other jewelry when working on the vehicle or individual equipment. These things can catch on moving parts or cause an electrical short circuit that could result in personal injury.

**ALWAYS** wear safety goggles when working on the vehicle to protect your eyes from battery acid, gasoline, and dust or dirt from flying off of moving engine parts.

**ALWAYS** be aware of and avoid contact with hot surfaces such as engine, radiator, and hoses.

**ALWAYS** wear safety glasses with side shields when striking metal against metal! In addition, it is recommended that a softer (non-chipable) metal material be used to cushion the blow. Failure to heed could result in injury to the eye(s) or other parts of the body.

**NEVER** allow children or unauthorized person to operate this unit.

**NEVER** exceed 45 m.p.h. when snow plow is attached to vehicle. Braking distances may be increased and handling characteristics may be impaired at speeds above 45 m.p.h.

**ALWAYS** lock the vehicle when unattended to prevent unauthorized operation of the plow.

**ALWAYS** check the job site for terrain hazards, obstructions and people.

**NEVER** exceed 10 m.p.h. when plowing. Excessive speed may cause serious injury and damage of equipment and property if an unseen obstacle is

encountered while plowing.

**ALWAYS** position blade so it does not block path of headlamps beam. Do not change blade positions while traveling. An incorrect plow position blocking headlamp beam may result in an accident.

**ALWAYS** check surrounding area for hazardous obstacles before operating this unit.

**ALWAYS** inspect the unit periodically for defects. Parts that are broken, missing or plainly worn must be replaced immediately. The unit, or any part of it should not be altered without prior written approval of the manufacturer.

**ALWAYS** insert the cylinder lock when plow is not in use. If the cylinder lock is not installed, the plow blade could inadvertently drop and cause injury.

**ALWAYS** shut off the vehicle engine, place the transmission in Neutral or Park, turn the ignition switch to the "OFF" position, firmly apply the parking brake of the vehicle and turn "OFF" the plow controller before attaching or detaching the blade from the vehicle or when making adjustments to the blade.

**ALWAYS** inspect lift system bolts and pins whenever attaching or detaching the plow, and before traveling. Worn or damaged components could result in the plow dropping to the pavement while driving, causing an accident.

**ALWAYS** keep hands and feet clear of blade and A-Frame when attaching or detaching plow.

**NEVER** place fingers in A-frame or mount lug holes to check alignment when attaching snow plow. Sudden motion of the plow could severely injure a finger.

**NEVER** stand between the vehicle and blade or directly in front of blade when it is being raised, lowered or angled. Clearance between vehicle and blade decreases as blade is operated and injury or death can result from blade striking a body or dropping on hands or feet.

**NEVER** work on the vehicle without having a fully serviced fire extinguisher available. A 5 lb or larger CO<sup>2</sup> or dry chemical unit specified for gasoline, chemical or electrical fires, is recommended.

**NEVER** smoke while working on the vehicle. Gasoline and battery acid vapors are extremely flammable and explosive.

**NEVER** use your hands to search for hydraulic fluid leaks; escaping fluid under pressure can be invisible and can penetrate the skin and cause injury! If any fluid is injected into the skin, see a doctor at once! Injected fluid MUST be surgically removed by a doctor familiar with this type of injury or gangrene may result.

**REMEMBER it is the owner's responsibility for communicating information on the safe use and proper maintenance of this machine.**

# INSTALLATION INSTRUCTIONS

## General

Install the subframe on the vehicle using the instructions supplied with the subframe package. The pin height should be 8" - 10" off the ground. (See Figure 1-1).

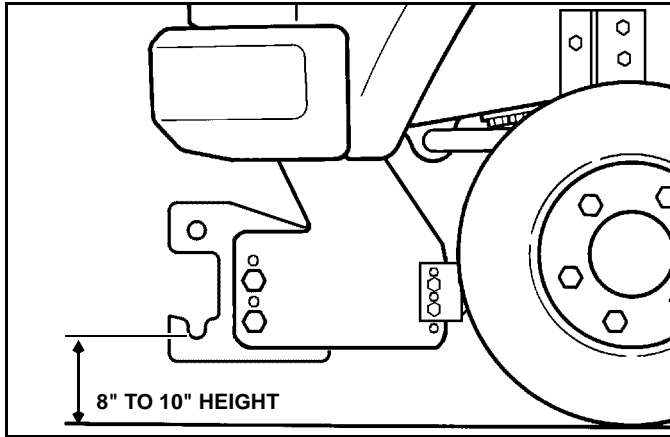


Figure 1-1

**Figure 3-2** Remove the main light harness from the power pack carton. Route the harness from the headlights to the front of the truck and through the grille or bumper. The ends with the green plugs go to the headlights and the ends with the black plugs go to the front of the truck.

1. Open the adapter harness bag, remove the harness and plug the proper adapters into the green plugs on the main harness. Connect the adapters to the truck wiring following the included instructions.
2. Secure the main harness and adapters. Make sure that the harnesses are not in contact with moving or hot engine parts.
3. Plug the male and female black plugs at the front of the truck together. These must be connected to allow the truck lights to operate.



## WARNING

Failure to connect the main light harness on the truck when plow is not attached will cause truck lights to not operate, which could cause an accident.

**FAILURE TO FOLLOW CAN RESULT IN INJURY OR DEATH.**

4. Apply included dielectric grease to all connectors.

## Mechanical Installation

### Assemble Blade, Swing Frame and Trip Springs (29 & 32 Series)

1. Open the power pack carton, remove the blade parts bag (part number 96106088, 32 Series or 96107662, 29 Series) and the trip stop bag (part number 96107396, 32 Series or 96109981, 29 Series). Face plates are in the bag with the stop blocks.

2. Slide the metal face plates into the slot in the blade stops from the side. Place the stops between the lugs on the swing frame. Secure with 3/8" x 2-1/2" bolts and locking nuts. (See Figure 1-3). Bolts and nuts are in the blade parts bag.

*NOTE: The 29 Series blade uses yellow stops and the 32 Series blade uses black stops. Make sure the proper stops are installed for the blade being used.*

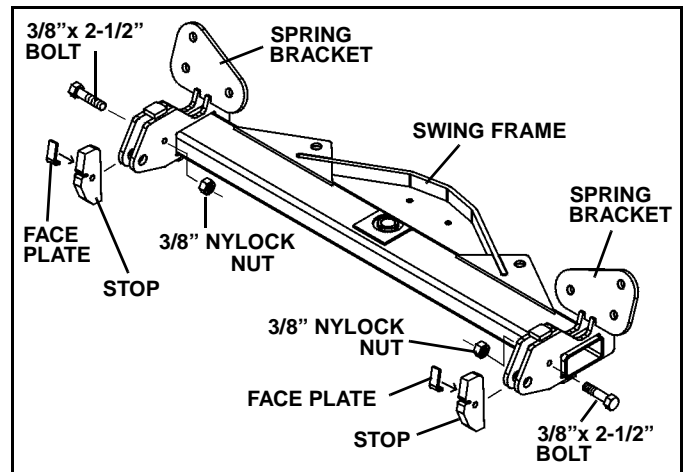


Figure 1-3

3. Lay blade face down on floor, using cardboard or similar material to prevent paint damage.

4. Place swing frame on blade and insert 3/4" x 2" clevis pin from blade parts bag. The ribs on either side of the center rib should be between the swing frame lugs. (See Figure 1-4).

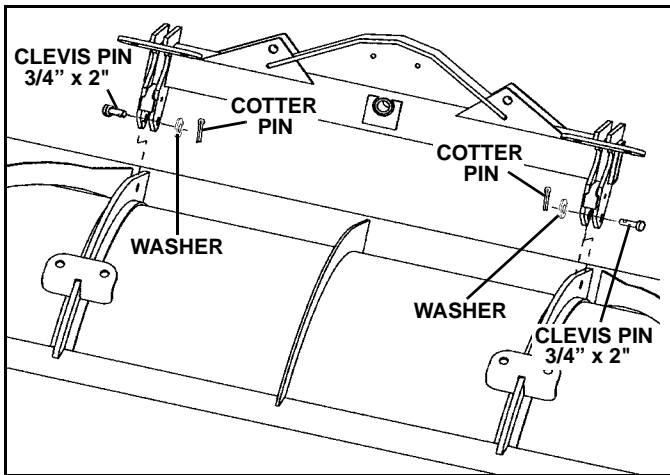


Figure 1-4

5. Insert washer on end of clevis pin and secure pin with cotter pin.

*NOTE: Make sure cotter pin is properly bent or pin may work loose (See Figure 1-5).*

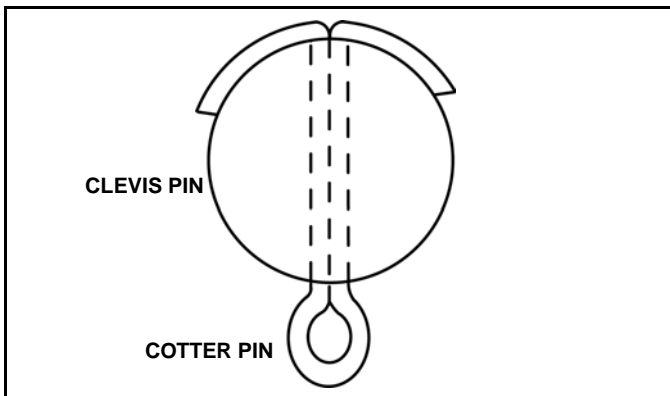


Figure 1-5

6. Remove the springs from the power pack carton. Two springs are needed for a 29 Series blade and four are needed for a 32 Series blade.

7. Hook springs onto blade with open end of loop facing up. (See Figure 1-6a) and (See Figure 1-7b).

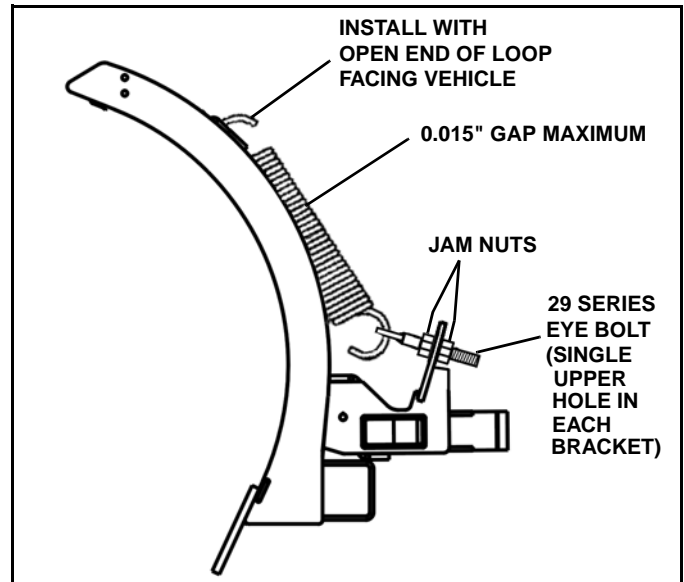


Figure 1-6a

8a. **29 SERIES BLADE ONLY:** Hook other end of spring onto eyebolt. Insert one eyebolt on each side of the blade into the single upper hole on the swing frame spring bracket. Use a jam nut on either side of bracket to secure. (See Figure 1-6a).

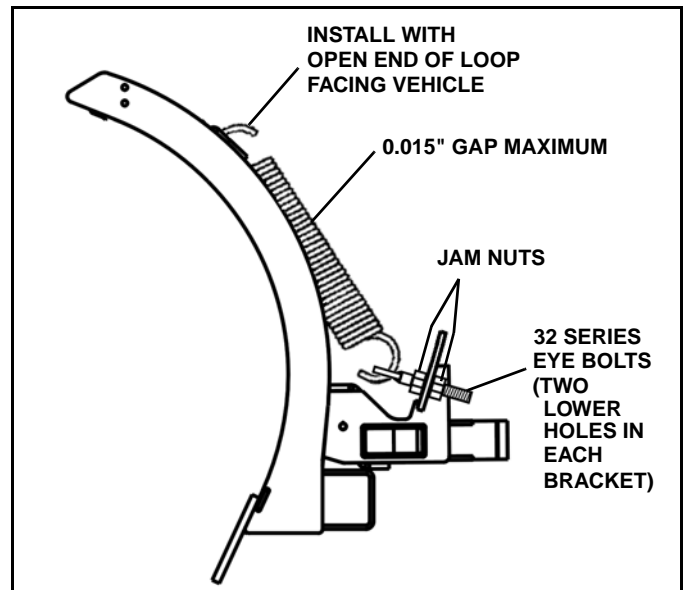


Figure 1-7b

8b. **32 SERIES BLADE ONLY:** Hook other end of spring onto eyebolt. Insert two eyebolts on each side of the blade into the two lower holes on the swing frame spring bracket. Use a jam nut on either side of bracket to secure. (See Figure 1-7b).

9. Tighten springs until a .010" feeler gauge can pass between two or three coils (a 3x5 postcard is approximately .010").



## CAUTION

Do not over tighten springs. If more than .015" (1/64") gap appears between coils damage could occur during plowing.

Spring must be installed with open end of top loop facing vehicle. Bottom loop position will vary.

### Assemble Blade, Swing Frame and Trip Springs (29T Series)

1. Open the power pack carton and remove the blade parts bag (part number 96107946).
2. Lay blade face down on floor, using cardboard or similar material to prevent paint damage.
3. Assemble swing frame to blade (See Figure 1-8):  
(The long ribs of the swing frame will fit between the double ribs on the top portion of the blade). Remove contents from parts bag, insert (6) 1/2"-13 x 1-3/4" hex cap screws through the holes in the blade ribs and the corresponding holes in the swing frame and secure loosely with (6) 1/2" nylock nuts. Secure the blade to the swing frame at the hinge points with (2) 3/4" x 2-1/2" clevis pins, install washers over the ends of the clevis pins and secure with cotter pins.

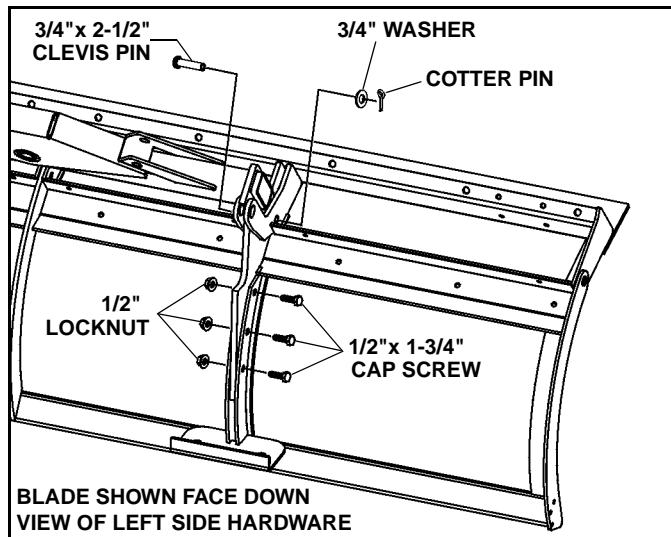


Figure 1-8

*NOTE: Make sure cotter pin is properly bent or pin may work loose (See Figure 1-9).*

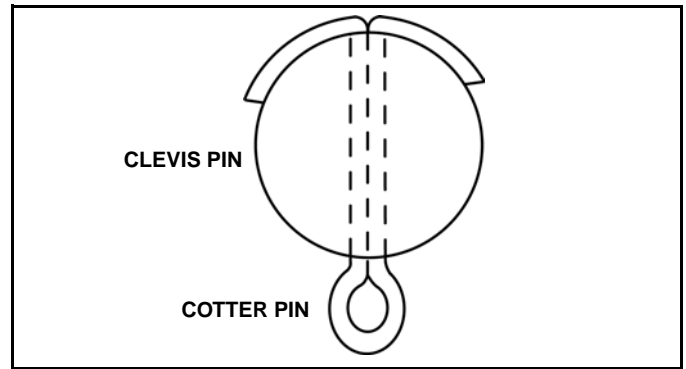


Figure 1-9

4. Tighten the nylock nuts at the rib connections.

5. Assemble the trip springs (See Figure 1-10):  
Remove the (4) saddle assemblies, (4) threaded rods and (12) 3/4"-10 hex nuts from the kit box. Run (3) nuts onto the longer threaded end of each of the threaded rods, far enough to have about 3/4" of thread showing at the end. Screw the rod firmly into the saddle assembly and lock the last hex nut against it. Ensure that the two remaining nuts are run up against the saddle locking nut. Repeat for all rods.  
Remove the (8) spring cups and (4) springs from the box. Place (1) spring cup over one of the threaded rods, with the cup facing away from the nuts. Place (1) spring over the rod and locate it into the cup, then place another spring cup on the rod, locating it over the end of the spring. Repeat for all rods.

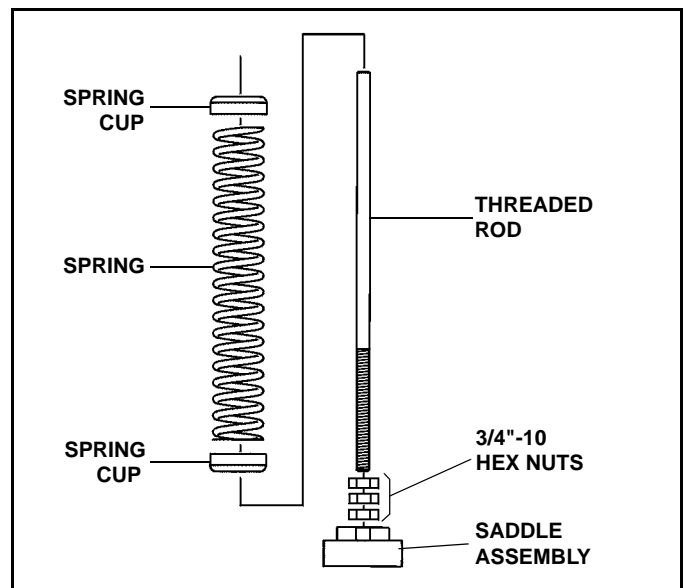


Figure 1-10

6. Stand the blade assembly up onto the wearstrip, forcing the lower blade as far forward as it will go. Chock the back of the swing frame up by approx. 8" to support the blade upright.

7. Fit the trip spring assemblies to the blade (See Figure 1-11):  
Remove (2) 1"-8 x 11-1/2" hex bolts, (2) 1"-8 locking nuts and (2) shock bushings from the kit box. Enter the end of the rod of one of the spring assemblies through the

outermost of the holes of the upper blade spring brackets. While holding the spring assembly hard up against the spring bracket, push the 1" bolt through the saddle, just entering it into the outermost of the holes of the upper blade spring brackets. While holding the spring assembly hard up against the spring bracket, push the 1" bolt through the saddle, just entering it into the outermost rib of the lower blade lever-arm. Locate (1) shock bushing between the lower blade lever-arm ribs and align it with the 1" bolt hole, then push the 1" bolt through the shock bushing enough to protrude beyond the lever-arm by about 1/2". Now locate a second spring assembly into the inner hole of the upper blade spring bracket and locate the saddle over the protruding bolt. Push the bolt all the way through the saddle assemblies, holding the inner saddle in place, and fit the 1" lock nut. Tighten the locknut onto the bolt sufficiently to loosely hold the saddle assemblies against the lever-arm ribs. Repeat on the other side of the swing frame.

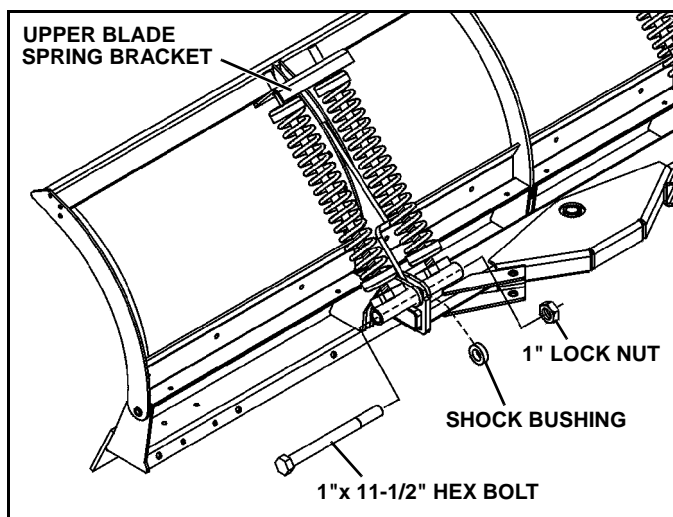


Figure 1-11

8. Adjust the trip spring loading (See Figure 1-12): Screw the 3/4" nut, adjacent to the lower spring cup, along the threaded rod so as to compress the spring to an overall compressed length of 16", measured over the spring cups. Run the remaining nut up to the underside of the adjusting nut and firmly lock them together. Repeat for all spring assemblies.

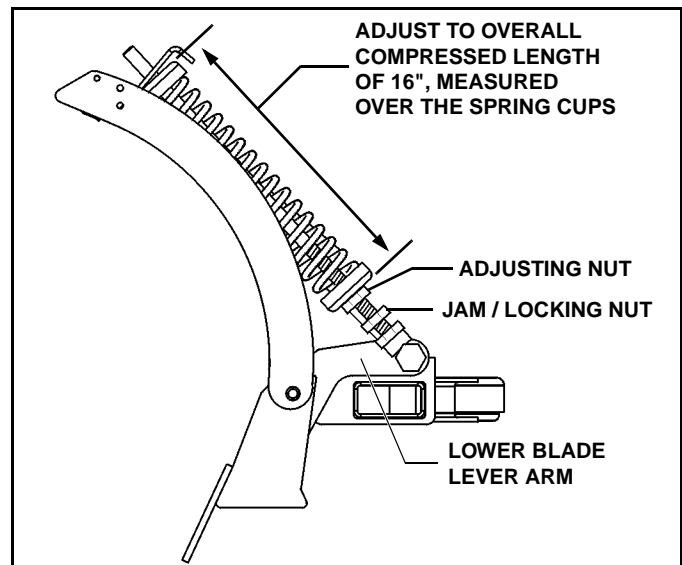


Figure 1-12

### Complete Installation (All Series)

1. Remove A-Frame assembly from carton.
- Set lower hitch pins into slot on truck subframe. Rotate light/lift bar into position. Lock in place by rotating cam handles. Level A-frame by placing blocking underneath it.

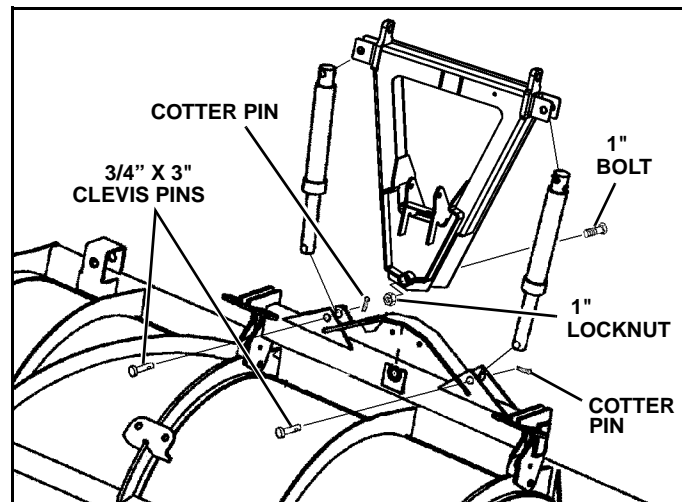


Figure 1-13

2. Remove 1" locknut and bolt. Slide swing frame into A-frame. Replace 1" bolt and locknut and tighten. (See Figure 1-13).

3. Remove cotter pins and 3/4" clevis pins from rod end of cylinders. Extend cylinders to align holes in cylinder rod and swing frame. Insert 3/4" clevis pins and secure with cotter pins (See Figure 1-13). Bend cotter pin as shown in Figure 1-6 to prevent it from working loose.

4. Install side marker into pre-drilled holes on blade frame using hardware included in package.

5. Install optional deflector, if equipped.



6. Plumb hydraulic lines from trucks central hydraulic system to plow cylinders. See "HYDRAULIC SCHEMATIC (Recommended)" on page 17 for recommended hydraulic systems schematic.

7. Remove left and right light support from power pack carton. Secure each light bar support to lift/light bar with (4) 3/8" x 1" screws, (8) washers and (4) lock nuts from the light bar parts bag, part number 96106089. Do not tighten at this time. (See Figure 1-14).

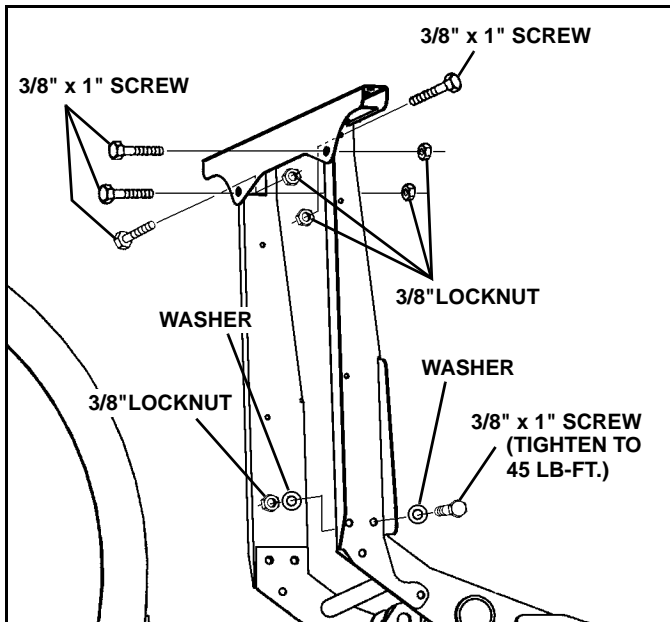


Figure 1-14

8. Secure light bar to supports with (4) 3/8" x 1" screws and lock nuts. Align light bar supports to vertical position and tighten all light bar hardware. Tighten eight lower screws to 45 lb-ft. (See Figure 1-14).

Mount lamps on light bar using supplied 1/2" lock washers and nuts. (See Figure 1-15).

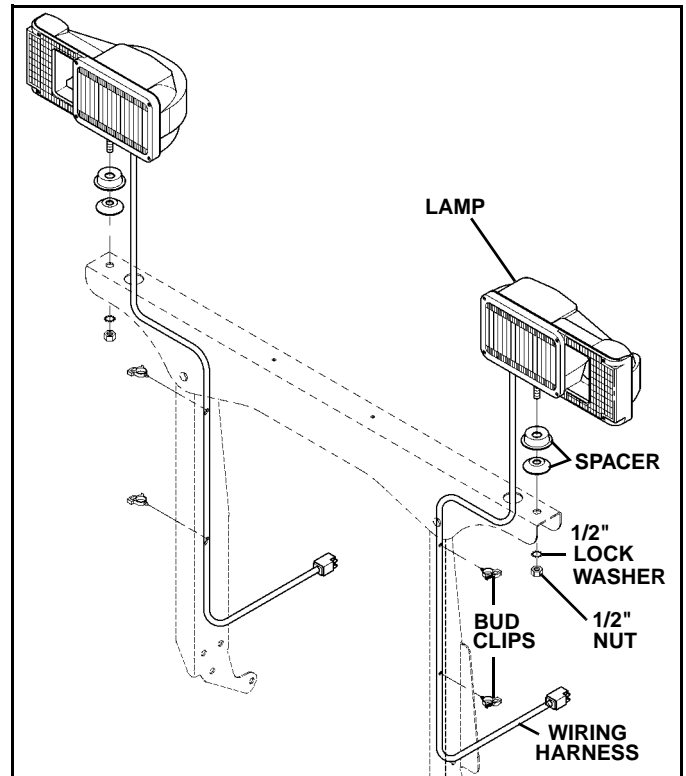


Figure 1-15

9. Route the harnesses through the light bar, through the access hole and down the inside of the light bar supports. (See Figure 1-15).

10. Check for proper light operation and aim plow lights with plow in up position.

11. Apply included dielectric grease to all light harness connections.

*NOTE: In order to conform to Federal Motor Vehicle Safety Standards a SAE J602 Approved aiming device must be used to aim plow lights.*

# Mounting Snow Plow To Vehicle

**IMPORTANT:** Graphics and illustrations may be used which may show equipment and/or options not included in every installation.

1. Drive truck into plow. Align light/lift bar frame inside of subframe lugs. Pins should fit inside slots cut into subframe lugs. (See Figure 1-16).

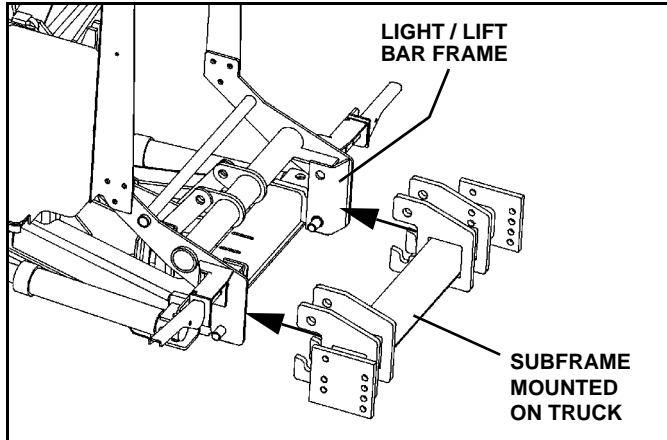



Figure 1-16

*NOTE: If pins are too high or low to fit into slots on subframe, adjust the height using plow controls. To lower the pins, place plow in float and push up on light bar. To raise the pins, press up.*


WARNING

When using the controller to raise or lower the plow A-frame for mounting the plow to the vehicle, be especially careful of the movement of the light bar. This movement will occur when raising or lowering the A-frame or jack stand.

**FAILURE TO FOLLOW CAN RESULT IN INJURY OR DEATH**


WARNING

Pressing the blade angle functions will result in the A-frame swinging if it is not secured to the truck. Do not press the angle function during plow installation.

**FAILURE TO FOLLOW CAN RESULT IN INJURY OR DEATH**

2. Connect hydraulic lines.

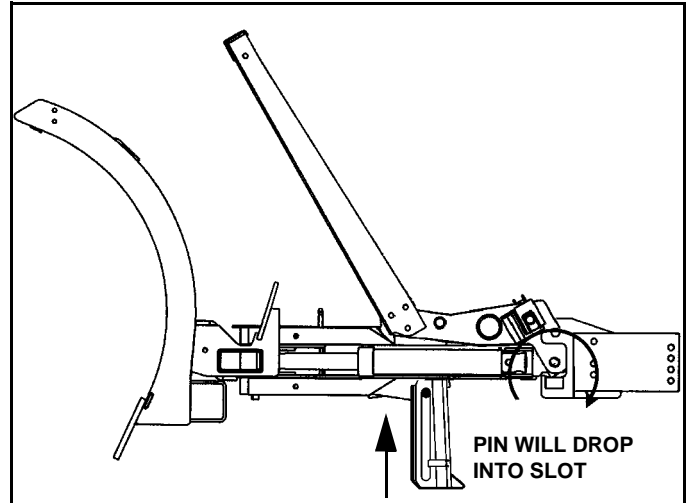


Figure 1-17

3. Manually rotate the light/lift bar into position by placing plow in float mode and pushing on the light bar. (See Figure 1-17).

4. Put plow into float position. Rotate pin handles down to lock pins in place. (See Figure 1-18).


WARNING

Make sure that upper hitch pins are engaged before moving truck. Hitch pins not fully engaged could result in the plow separating from the truck.

**FAILURE TO FOLLOW CAN RESULT IN INJURY OR DEATH**

*NOTE: Upper hitch pins are fully engaged when pin handle is tight against pin bracket and you cannot see the upper hitch pin between the pin bracket and pin handle. If upper hitch pins are not fully engaged: Raise plow an inch off the ground, then lower. Upper hitch pins will snap into place.*

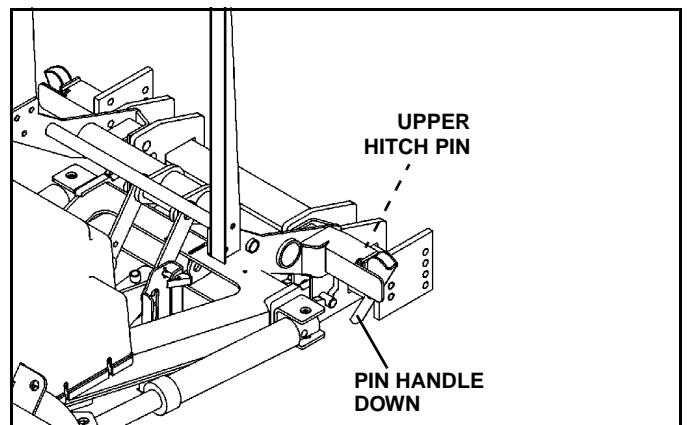


Figure 1-18

5. Disengage both jack stand pins by pulling on handles. Raise the jack stand and engage the bottom pin by pushing on the handle. Make sure pin is engaged in hole by rotating jack stand back and forth. (See Figure 1-19).

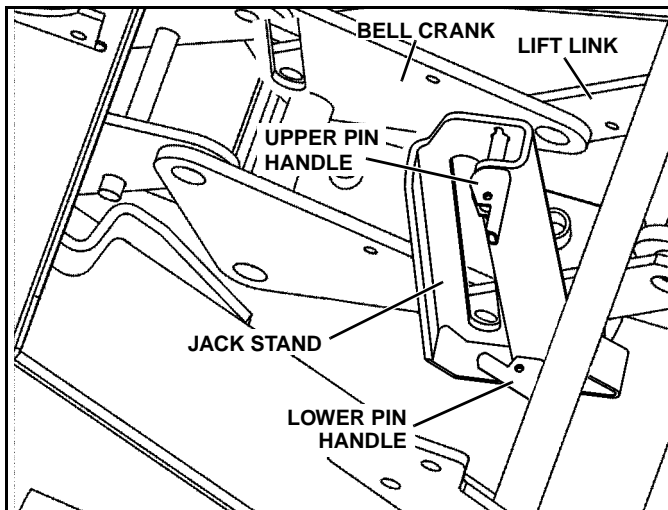


Figure 1-19



## CAUTION

Many new vehicles are equipped with onboard circuit sensors designed to display a dashboard LED when a headlight fails. Generally, these sensors are activated or tripped any time the circuit is being called upon to function while the headlight circuit is incomplete. This means that if a headlight fails while the headlight is in operation, the sensor will trip and the dashboard indicator will light up. It also means that if a headlamp socket is left empty—or a faulty lamp is installed—and the circuit is then activated, the sensor will trip and the dashboard indicator will light up.

These headlight circuit sensors are often engineered with pre-designated failure limits. This means that a sensor may be tripped a limited number of times. After that limit is reached the sensor may need to be reset by the dealer or replaced by the manufacturer.



## CAUTION

Sno-Way EIS plow light systems essentially operate through a planned interruption of the headlight circuit. When the truck-side connectors are detached from one another, the vehicle headlamps are disconnected from the truck circuits which otherwise power them. Until those truck-side connectors are attached to the plow-side light connectors, the truck-side circuits are open. This means that if the truck's onboard sensors are active while the plow lights are being attached to the truck, the truck's sensors may trip. To avoid unnecessarily tripping the truck's sensor, every time the plow lights are being attached to the truck circuits or the truck circuits are being reattached to the vehicle lights, the truck's lights should be turned off.

Due to the aforementioned concerns, operators of vehicles equipped with EIS lights should make themselves aware of whatever circuit sensors may be installed on their vehicles. Operators should further become familiar with their vehicle manufacturer's description of how their truck's sensors are actuated or tripped. Finally operators should know whether pre-designated failure limits may be engineered into their truck's sensors and what repair or replacement procedures are recommended should those limits be reached. Currently, the vehicle models affected are as follows:

**2006 and later-Dodge Dakota and Durango - All packages.**

**2006 and later-Dodge 1500, 2500 and 3500- All packages.**

**2008 Ford F250-F550 - All packages.**

6. Unplug light harness connectors on truck, and disconnect plow light connectors, which had been plugged together for corrosion protection during storage (See Figure 1-20).

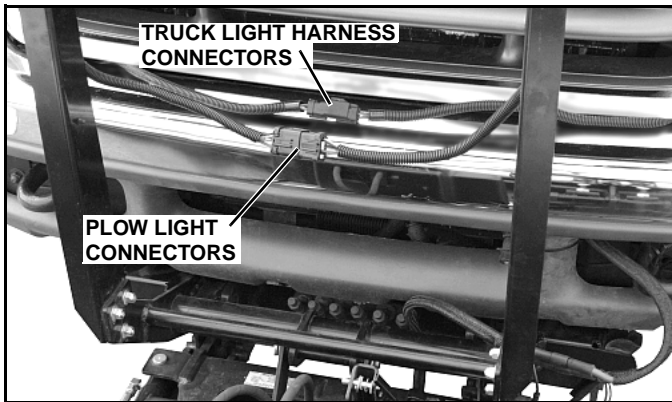


Figure 1-20

7. Plug plow light connectors into mating connectors on truck light harness (See Figure 1-21).

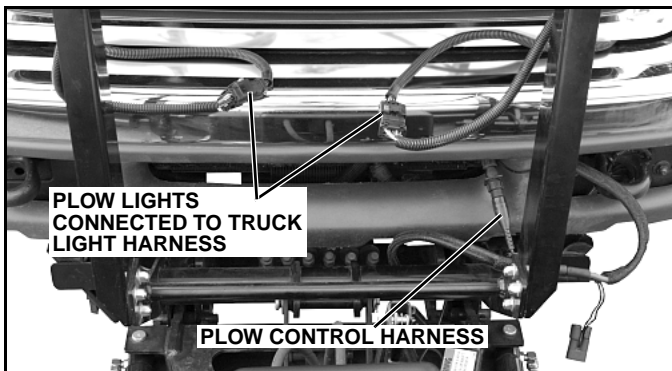


Figure 1-21

**WARNING**

Failure to properly connect plow lights to vehicle light harness will prevent plow lights from functioning. Follow proper procedure to connect light harnesses and test lights before operating.

**FAILURE TO FOLLOW CAN RESULT IN INJURY OR DEATH**

8. Raise, lower and angle plow to make sure no hoses or wires pinch in the plow mechanism.

## Installing The Cylinder Lock Clamp

**WARNING**

Always install the cylinder lock clamp when the plow blade is raised and the operator is not engaged in plowing operations. Equipment failure or inadvertent operation of the plow control while driving could allow the plow blade to fall, resulting in injury.

**FAILURE TO FOLLOW CAN RESULT IN INJURY OR DEATH**

1. Raise the plow to the full UP position.
2. Turn the ignition OFF and apply the parking brake.
3. Turn OFF the controller.
4. Remove the pin from the cylinder lock clamp.
5. Position the cylinder lock clamp around the exposed (chrome) portion of the lift cylinder with the open side of the cylinder lock up. Install the pin. (See Figure 1-22).

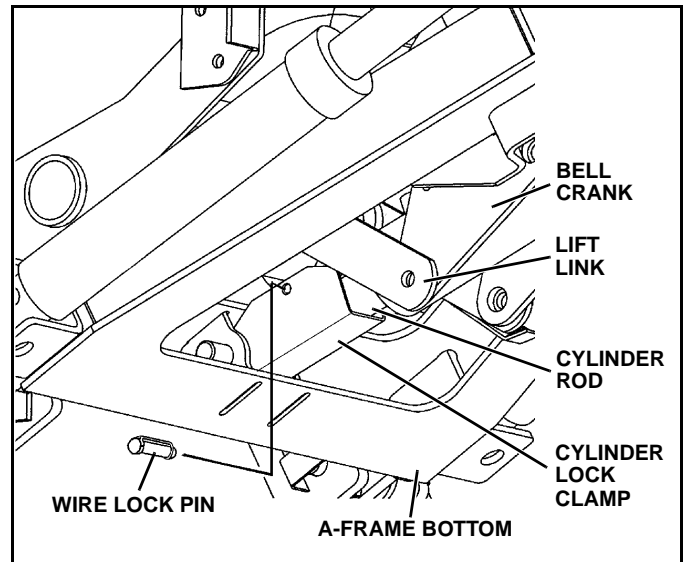


Figure 1-22

6. Lower the plow so that cylinder lock clamp is tight against cylinder.

**WARNING**

Failure to lower plow onto clamp could block headlights resulting in an accident.

**FAILURE TO FOLLOW CAN RESULT IN INJURY OR DEATH**

## Removing Snow Plow From Vehicle

Choose a location for the plow storage, which will allow the plow to be removed from the vehicle and not be moved after removal. Also, choose a location that will not allow the plow stand to sink into the ground. A dry, protected area is recommended.

1. Lower plow to the ground, put vehicle in park, turn off the engine and set the parking brake.

2. Disconnect the plow lights from the truck light harness (See Figure 1-23).

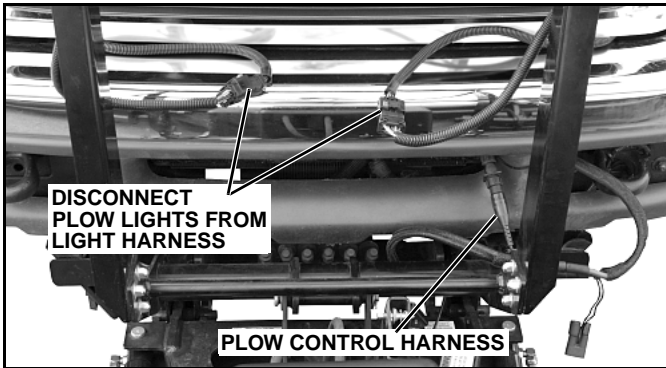


Figure 1-23

3. To prevent corrosion on the contacts, plug the male and female connectors on the plow together (See Figure 1-24).

4. To make the truck lights operable, plug the male and female connectors on the truck light harness together (See Figure 1-24).

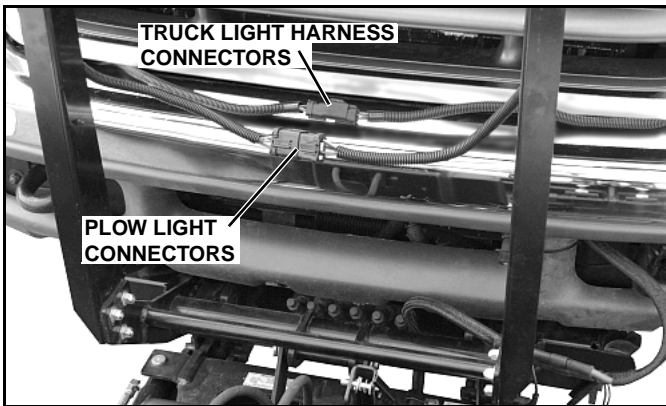


Figure 1-24



### WARNING

Failure to reconnect the main light harness on the truck when removing plow will cause truck lights to not operate, which could cause an accident. Test lights before operating.

**FAILURE TO FOLLOW CAN RESULT IN INJURY OR DEATH**

5. Rotate pin handles up (straight out) to unlock main pins. (See Figure 1-25).

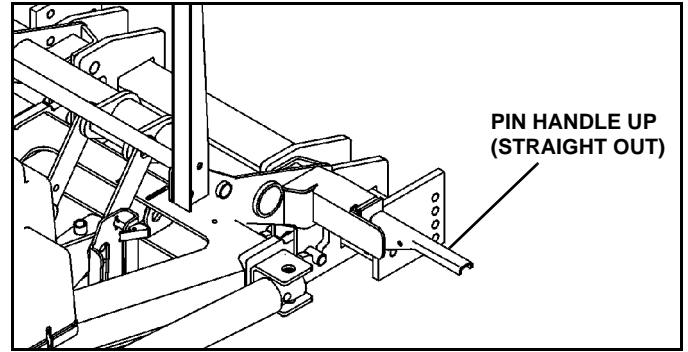


Figure 1-25

6. Disengage lower jack stand pin by pulling on handle. Lower the jack stand and engage the top pin by pushing on the handle. Make sure pin is engaged in hole by rotating jack stand back and forth. (See Figure 1-26).

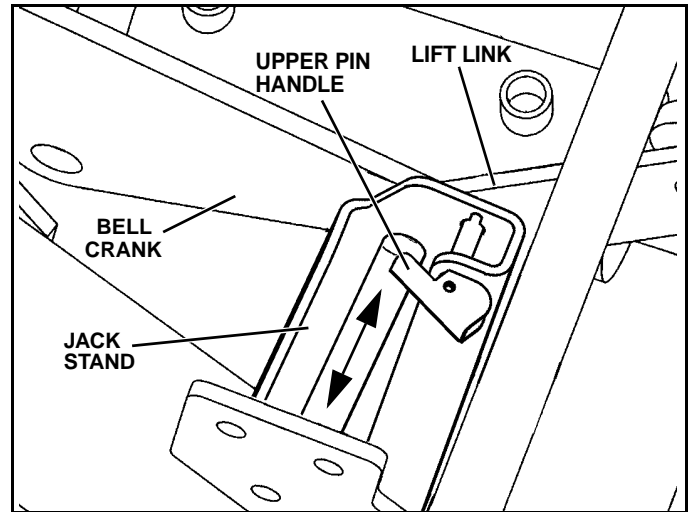


Figure 1-26

7. Rotate jack stand down and raise A-frame by pressing the up button. (See Figure 1-27).

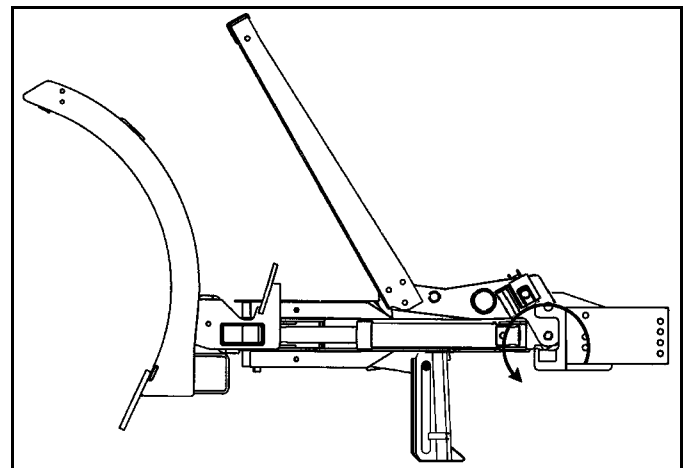


Figure 1-27

8. Disconnect hydraulic lines, back truck away from plow.

# MAINTENANCE

## General



### WARNING

Before servicing plow, lower plow to the ground or onto cylinder lock clamp and turn controls off.

**FAILURE TO FOLLOW CAN RESULT IN INJURY OR DEATH**

- Before operating, perform a through visual inspection of the equipment. Look for fluid leaks, cracked, bent or broken components, loose nuts, bolts or attachments and proper fluid levels.
- Ensure all electrical connections are clean and tight.
- To prevent rust from forming, clean and repaint exposed metal surfaces.
- NEVER operate the equipment with the protective covers or guards removed.

## Break In Period

The plow will go through a break in period during which the A-frame and swing frame will settle in. After 15-20 hours of operation check for free play of the A-frame and swing frame pivot.

1. Raise the plow and install the transport lock.
2. Push down on end of blade as far as it will go on the right or left side. Measure and record the distance from the ground to the bottom edge of the wear strip.
3. Pull upwards on the same end of the plow as far as it will go. Measure and record the distance from the ground to the bottom edge of the wear strip.
4. Subtract the two measurements. If the number is greater than 1-1/2" then the free play needs to be adjusted.

## To Remove Excessive Free Play

1. Tighten the pivot bolt nut (typically 1/6 to 1/3 turn, one or two flats).

## Trip Spring Adjustment

See steps 8 and 9 on page 5 of the Mechanical Installation.

## Periodic Inspection

After every 20 hours of operation perform the following inspections:

1. Inspect plow assembly including sub frame for any damage or excessive wear. Replace parts as necessary.
2. Inspect all fasteners to insure they are properly tightened. Re-tighten loose fasteners to the proper torque (Refer to torque specification chart in this manual).
3. Apply a small amount of light oil to: Quick-tatch pin and handle assemblies, pivot pins between the blade and swing frame, and pivot pins at lift and swing cylinders. Also lubricate jackstand pins. (See Figure 2-1).

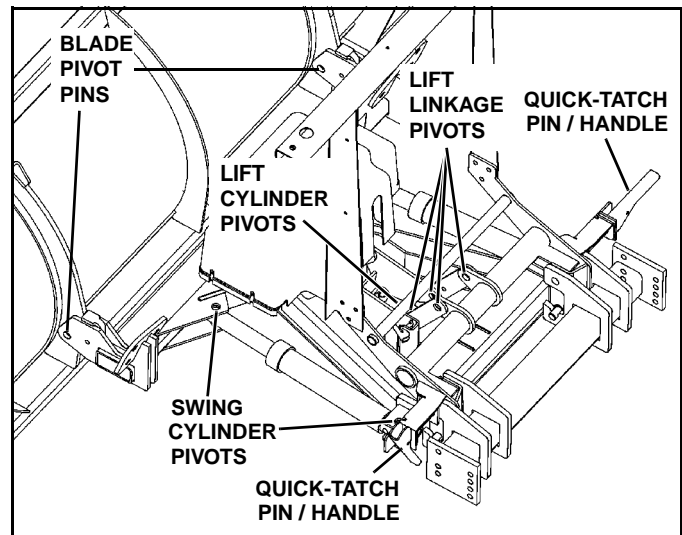


Figure 2-1

4. If wear is noticed between the A-frame and the swing frame apply a good quality anti-seize lubricant to this area.

## Polycarbonate Blade Care

- DO NOT use abrasive or highly alkaline cleaners on polycarbonate blade.
- Never scrape polycarbonate blade with squeegees, razor blades or other sharp instruments.
- Benzene, gasoline, acetone or carbon tetrachloride should never be used on polycarbonate blade.
- DO NOT clean polycarbonate blade in hot sun or at elevated temperatures.

## Polycarbonate Blade Cleaning Instructions

Wash with a mild soap or detergent and luke-warm water using a clean cloth or soft sponge. Dry thoroughly with a chamois or moist cellulose sponge to prevent water spots.

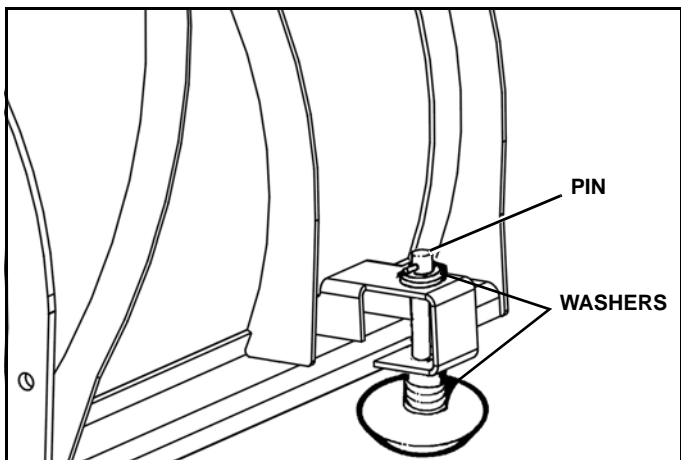
## Cutting Edge

*NOTE: Note: Cutting edge must be replaced when it is worn to the bottom edge of the frame.*

1. Raise the plow to full up position.
2. Install cylinder lock clamp.
3. Lower plow onto cylinder lock clamp.
4. The blade skin must be retained prior to removing cutting edge. This can be done using a pair of 6" C-clamps located at the center of the curved portion of the blade.
5. Remove mounting bolts holding old cutting edge to blade. Discard old cutting edge and hardware.
6. Consult parts manual for proper replacement cutting edge.
7. Install new cutting edge using new hardware.

## Disk Shoe Adjustment

1. Raise plow to full up position.
2. Install cylinder lock clamp.
3. Lower plow onto cylinder lock clamp.
4. Turn vehicle ignition switch and plow control OFF and apply emergency brake.
5. Adjust shoe assemblies by removing shoe mounting lynch pin and adding or subtracting washers on the top or bottom of the shoe-mounting bracket. (See Figure 2-2).



**Figure 2-2**

6. After the disk shoe position is properly adjusted place washer on the shoe stem - above the disk shoe mounting bracket and below the retaining lynch pin - to remove all up and down movement of the disk shoe in the bracket. Failure to do so will result in excessive wear of the holes in mounting bracket or bending of the disk shoe stem.

**IMPORTANT: Snap lynch pin ring over so that it contacts the pin. If ring does not contact lynch pin, rotate the pin and reverse the direction of the ring. If**

**the ring does not contact the pin it is not locked and could fall out.**

## Emergency Plow Raise

If your snowplow becomes inoperable for any reason, follow the instructions below to raise the plow for transport to your nearest Sno-Way Dealer.

1. Move truck to level hard ground.
2. Place a jack under the swing frame as close to the A-frame as possible.
3. Raise jack until the A-frame is at approximately 30 degrees with the ground.
4. Make sure the plow and jack are stable. Place a jack stand or wood blocking under the A-frame to prevent the plow from suddenly dropping.



## WARNING

**Failure to place a jack stand under the plow could result in the plow rapidly falling.**

**FAILURE TO FOLLOW CAN RESULT IN INJURY OR DEATH**

5. Install cylinder lock clamp. (See Page 11.)
6. Remove Jack and Jack stand.
7. Drive to your nearest Sno-Way dealer for service.

## Plow Storage

When storing the plow for long periods of time use the following guidelines.

1. If the plow will not be stored on pavement, place a board under the jack stand to prevent it from sinking into the ground.
2. To prevent corrosion, coat the exposed portion of the cylinders with light grease.
3. Grease all pivot points.
4. Place dielectric grease on the terminals of all electrical plugs, including those under pump cover. Make sure protective caps are in place or plugs are plugged together.
5. Check and replace any worn or damaged component, such as cutting edges, deflectors, and bushings.

# PLOWING OPERATION

## Operating Class

The 29 Series Sno-Way plow is specifically designed for heavy commercial applications on 3/4 and 1-ton trucks.

The 32 Series Sno-Way plow is specifically designed for heavy commercial applications on trucks with a GVWR of 10,000 to 19,000 lbs. The 8-1/2' and 9' blades can also be installed on many 3/4 ton trucks.

## Before the Season Begins

1. Inspect plow vehicles brakes, headlights, plowing lights, windshield wipers, flashers, electrical system, and cooling system for proper operation.
2. Inspect plow assembly including sub frame for any damage or excessive wear. Replace parts as necessary
3. Inspect all fasteners to insure they are properly tightened. Re-tighten loose fasteners to the proper torque (Refer to torque specification chart in this manual).
4. Apply a small amount of light oil to: Quick-tatch pin and handle assemblies, pivot pins between the blade and swing frame, and pivot pins at lift and swing cylinders. Also lubricate jackstand pins. (See Figure 2-1).
5. If wear is noticed between the A-frame and the swing frame apply a good quality anti-seize lubricant to this area.
6. Clean and repaint any exposed metal parts with corrosion resistant enamel.
7. Check free play between the A-frame and swing frame pivot. Adjust if necessary. (See "Break In Period" on page 13).
8. Inspect electrical connectors. Make sure the contacts are clean, and apply a small amount of dielectric grease.
9. Install auxiliary and flashing lights (if not equipped). Ensure auxiliary lights are aimed properly (with the plow raised).
10. If ballast is required, position and secure ballast behind rear wheels, for optimum performance.

## Transporting Vehicle With Plow Attached

1. Always install the cylinder lock clamp when the plow is raised and the operator is not engaged in plowing operations.

*NOTE: If cylinder lock clamp is not installed during transport equipment failure or inadvertent operation of the controls could allow the plow to fall.*



### CAUTION

**Remove the plow when driving extended distances at temperatures above 40 deg. F, the plow blocks enough airflow to cause it to overheat at temperatures above 40 deg. F.**

2. Position the blade out of the beam path of the headlights before driving.



### WARNING

**The 32 Series blade will partially block the plow lights when fully raised. Always lower plow unto lift cylinder lock clamp when transporting plow at night. Blocked plow lights could result in an accident.**

**FAILURE TO FOLLOW CAN RESULT IN INJURY OR DEATH**

3. Do not exceed 45 M.P.H. when driving with the snowplow attached. Braking distance is increased and handling impaired at speeds above 45 M.P.H.
4. Reduce speed when crossing railroad tracks or when road conditions deteriorate.
5. Never change blade angle or height while driving.
6. Inspect plow and attaching hardware for damage before transporting or plowing.



## Plowing Like A Pro



### WARNING

**Wear your seat belt! Contact with a hidden obstruction can cause serious personal injury from bodily contact within the vehicle cab or whiplash from sudden stops.**

**FAILURE TO FOLLOW CAN RESULT IN INJURY OR DEATH**

*NOTE: The air bag is factory set to deploy at a certain acceleration level. The air bag will deploy with the plow attached if an obstruction is hit with enough force to reach this level. Always plow within the recommended plowing speeds and know the area you are plowing to avoid any obstructions.*

*NOTE: For better clean up of hard packed snow; raise the disc shoes so that the cutting edge of the blade comes into direct contact with pavement. Use the lowest possible gear to place maximum power behind the cutting edge.*

For instructions on using the plow controller to manipulate the plow contact the installer of the central hydraulics system.

1. Become familiar with the area to be plowed and mark potential hazards before the snow falls. Many immovable objects cannot be seen when covered with snow. Developing a plan early can save valuable time and equipment damage. Allow sufficient room to pile snow, out of the traffic area, with enough space for when the next storm comes.

2. Plow with the storm. The “Pros” are out early removing only several inches at a time. Allowing snow to accumulate to unmanageable levels can cause removal problems and wear and tear on equipment. The plow is not a “Ram” or a “Bulldozer”. If used properly, it will give many years of safe and reliable service.

3. Research municipal ordinances for restrictions on the disposal of snow. Many municipalities do not allow snow to be placed in or moved across roads or highways.

4. Research state department of transportation rules on maximum width restrictions for snow plows. Certain blades may require permits.

## Clearing Driveways

1. Head into driveway with the blade angled to move snow away from buildings. Continue to widen the drive path by rolling snow away from buildings on successive passes.

2. If there is a garage at the end of the driveway, plow to within several vehicle lengths of the garage and push the snow off the driveway.

3. Raise the blade and drive through the snow up to the garage. Drop the blade and “Back Drag” the snow 1-1/2 vehicle lengths back. Repeat as necessary.

4. Back the vehicle to garage door and plow forward toward street, removing the remaining snow.

## Clearing Parking Lots



### CAUTION

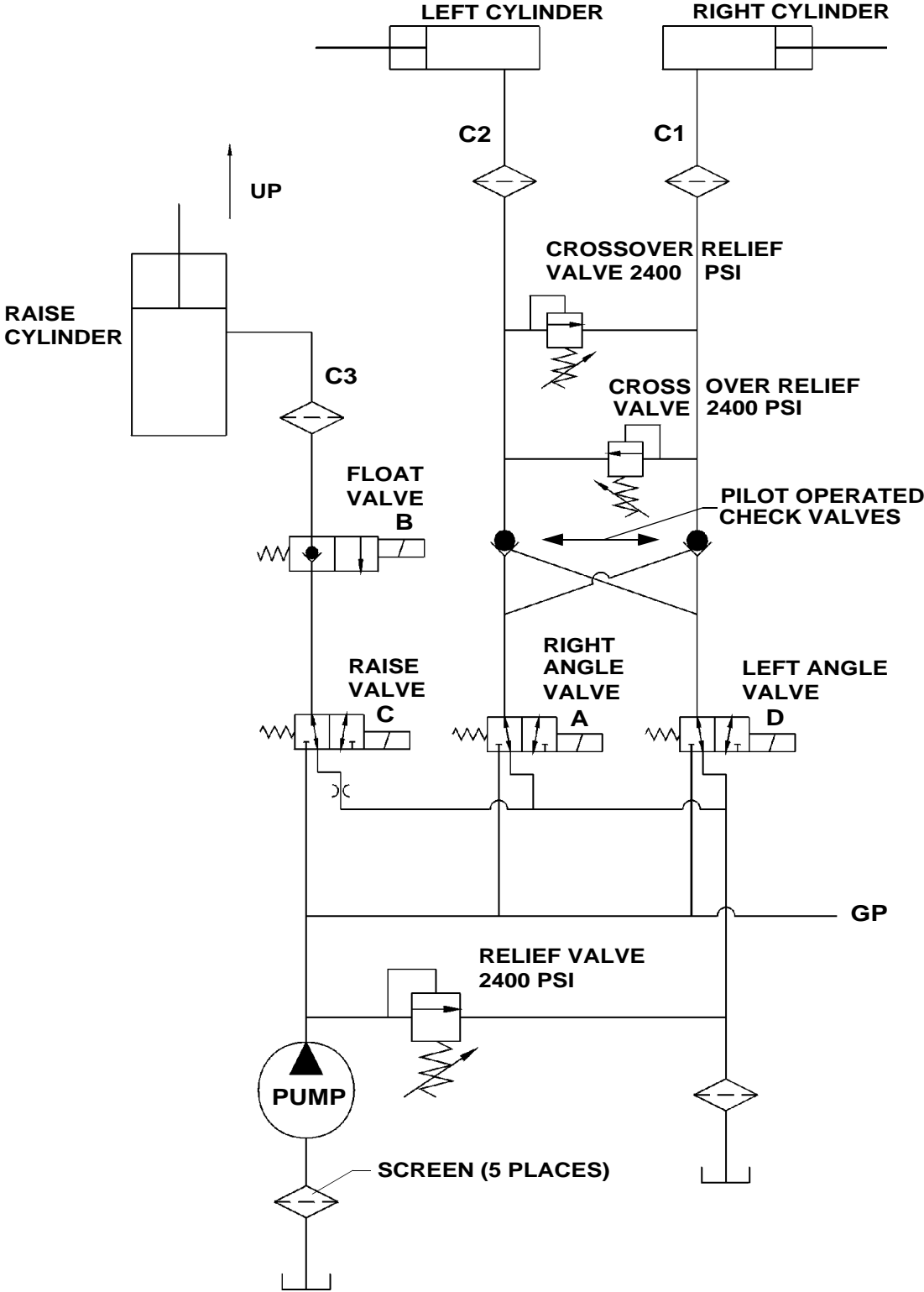
**Excessive stacking of snow causes undue stress to the snowplow and vehicle. Repeated loading of this nature may result in the failure of plow components designed to protect the snowplow and vehicle from major damage.**

1. “Back Drag” areas in front of buildings and near walls then work away from buildings towards the outer edges of the lot.

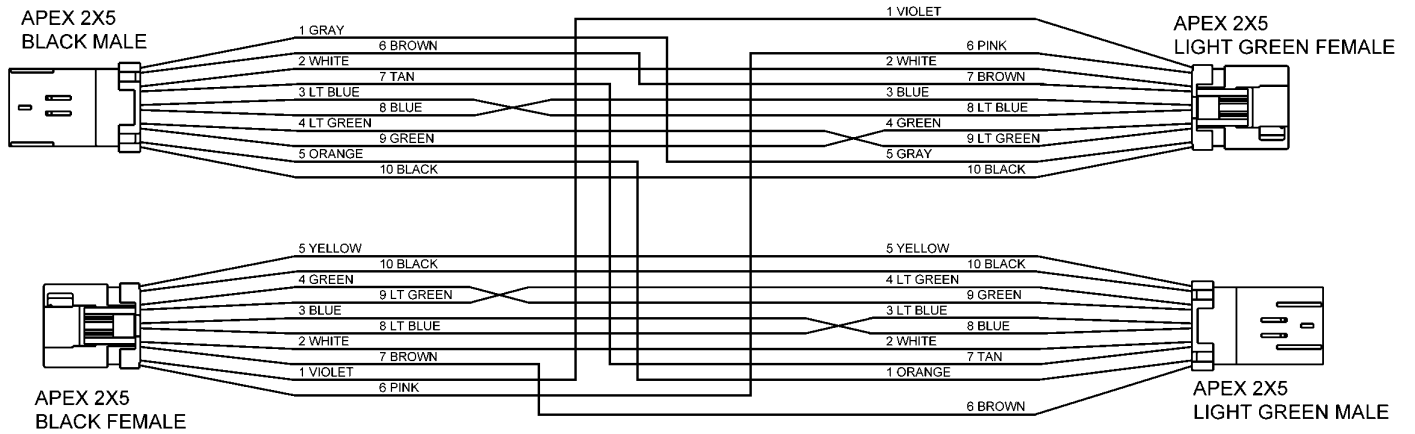
2. Plow a single path down the center in the longest direction.

3. Angle plow toward the outside and make successive passes until the area is cleared and the snow is “Stacked” around the outer edges. If snow is too deep to clear in the above manner, clear main traffic lanes and stack snow at intermediate positions.







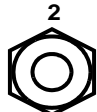




# HYDRAULIC SCHEMATIC (Recommended)



# MAIN WIRING HARNESS SCHEMATIC (Energy Interruption System)



# TORQUE SPECIFICATIONS

SAE Grade and Head Markings	1 or 2 No Marks 	5  5.1  5.2 	8  8.2 
	2 No Marks 	5  	8  

SIZE	Grade 1		Grade 2		Grade 5, 5.1 or 5.2		Grade 8 or 8.2	
	Lubricated <sup>a</sup>	Dry <sup>b</sup>	Lubricated <sup>a</sup>	Dry <sup>b</sup>	Lubricated <sup>a</sup>	Dry <sup>b</sup>	Lubricated <sup>a</sup>	Dry <sup>b</sup>
	lb-ft	lb-ft	lb-ft	lb-ft	lb-ft	lb-ft	lb-ft	lb-ft
8-32			14*	19*	22*	30*	31*	42*
10-24			21*	27*	32*	43*	45*	60*
1/4	2.8	3.5	4.5	5.5	7	9	10	12.5
5/16	5.5	7	9	11	15	18	21	26
3/8	10	13	16	20	26	33	36	46
7/16	16	20	26	32	41	52	58	75
1/2	25	31	39	50	63	80	90	115
9/16	36	45	56	70	90	115	130	160
5/8	50	62	78	100	125	160	160	225
3/4	87	110	140	175	225	280	310	400
7/8	140	175	140	175	360	450	500	650
1	210	270	210	270	540	675	750	975
METRIC COARSE THREAD			Grade 8.8		Grade 10.9		Grade 12.9	
Grade 8.8			Dry	Lubed	Dry	Lubed	Dry	Lubed
M6-1			8	6	11	8	13.5	10
M8-1.25			19	14	27	20	32.5	24
M10-1.5			37.5	28	53	39	64	47
M12-1.75			65	48	91.5	67.5	111.5	82
M14-2			103.5	76.5	145.5	108	176.5	131
M16-2			158.5	117.5	223.5	165.5	271	200

DO NOT use these values if a different torque value or tightening procedure is given for a specific application.

Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.

<sup>a</sup> "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings.

<sup>b</sup> "Dry" means plain or zinc plated without any lubrication

\* Values with asterisk are in lb-in.

# PARTS LIST INTRODUCTION

Our dealership network stands by to provide you with any assistance you may require, including genuine Sno-Way service parts. All parts should be obtained from or ordered through your dealer. Give complete information about the part as well as the Model Number and Serial Number of your machine.

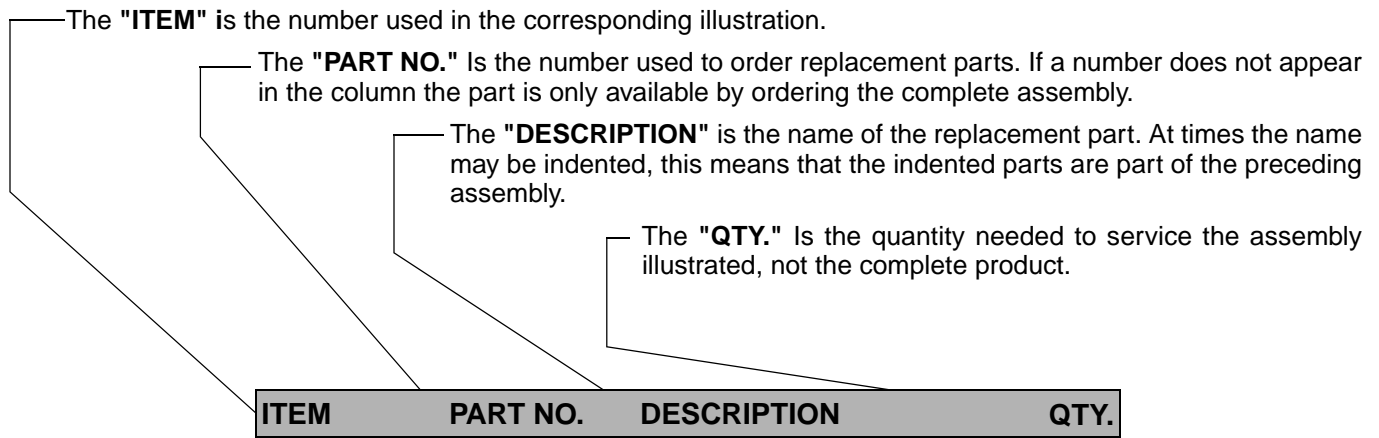
Record the Serial Number in the space provided in your Owner's Manual for quick reference. The Serial Number for the unit is on a plate located on the left frame gusset of the Hopper Frame.

"Right" and "Left" are determined from a position sitting on the Operators Seat of the vehicle.

We reserve the right to make changes or improvements in the design or construction of any part without incurring the obligation to install such changes in any unit previously delivered.

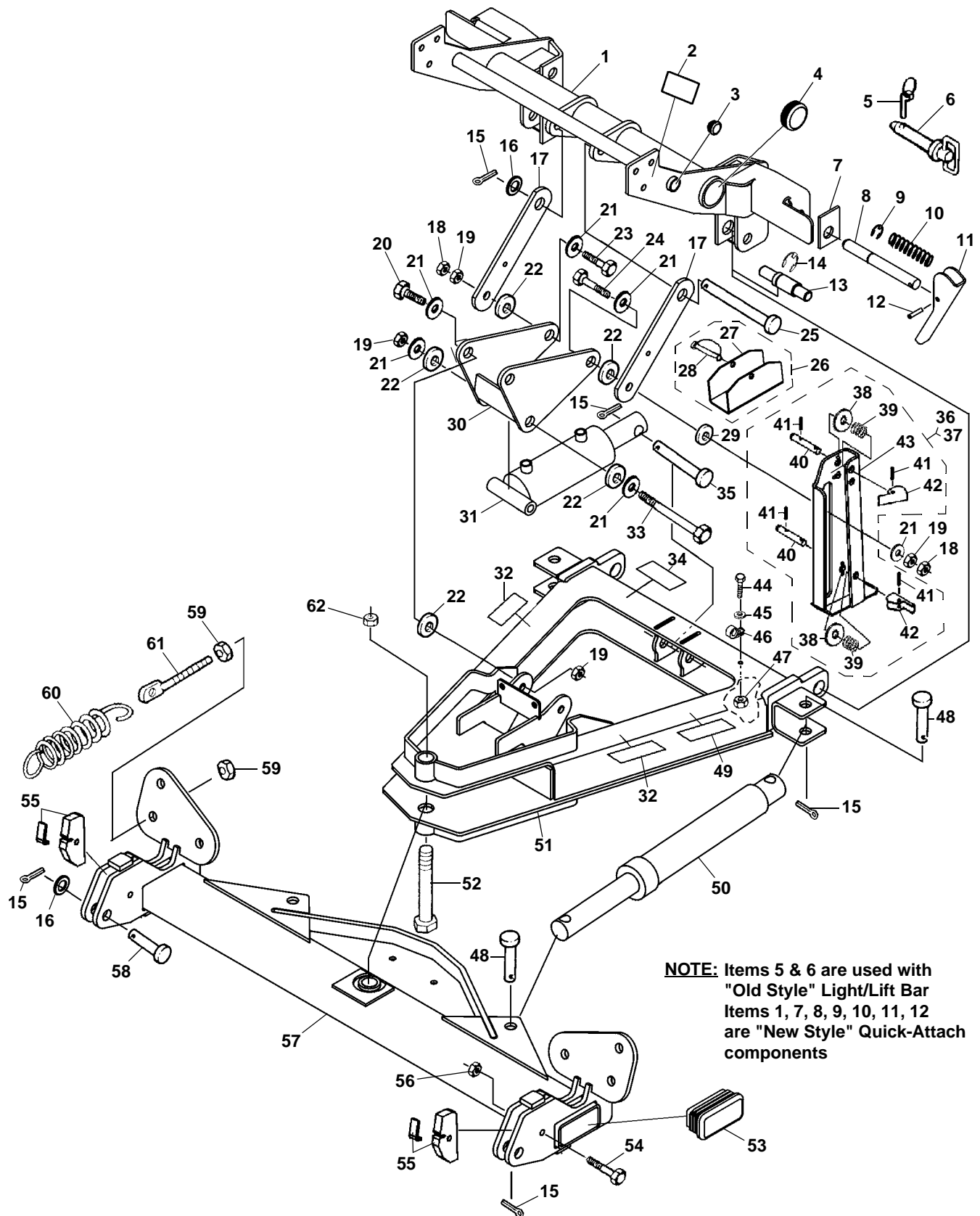
## USING THIS PARTS LIST

Below is parts listing with four columns. The first column is the "ITEM", the second is the "PART NUMBER", The third is the "DESCRIPTION" and the fourth is the "QUANTITY".



ITEM	PART NO.	DESCRIPTION	QTY.
1	96100083	O-ring1	
2	96001529	Elbow3	
3	98100036	Capscrew, Hex.,3/8"-16NC x 7/	

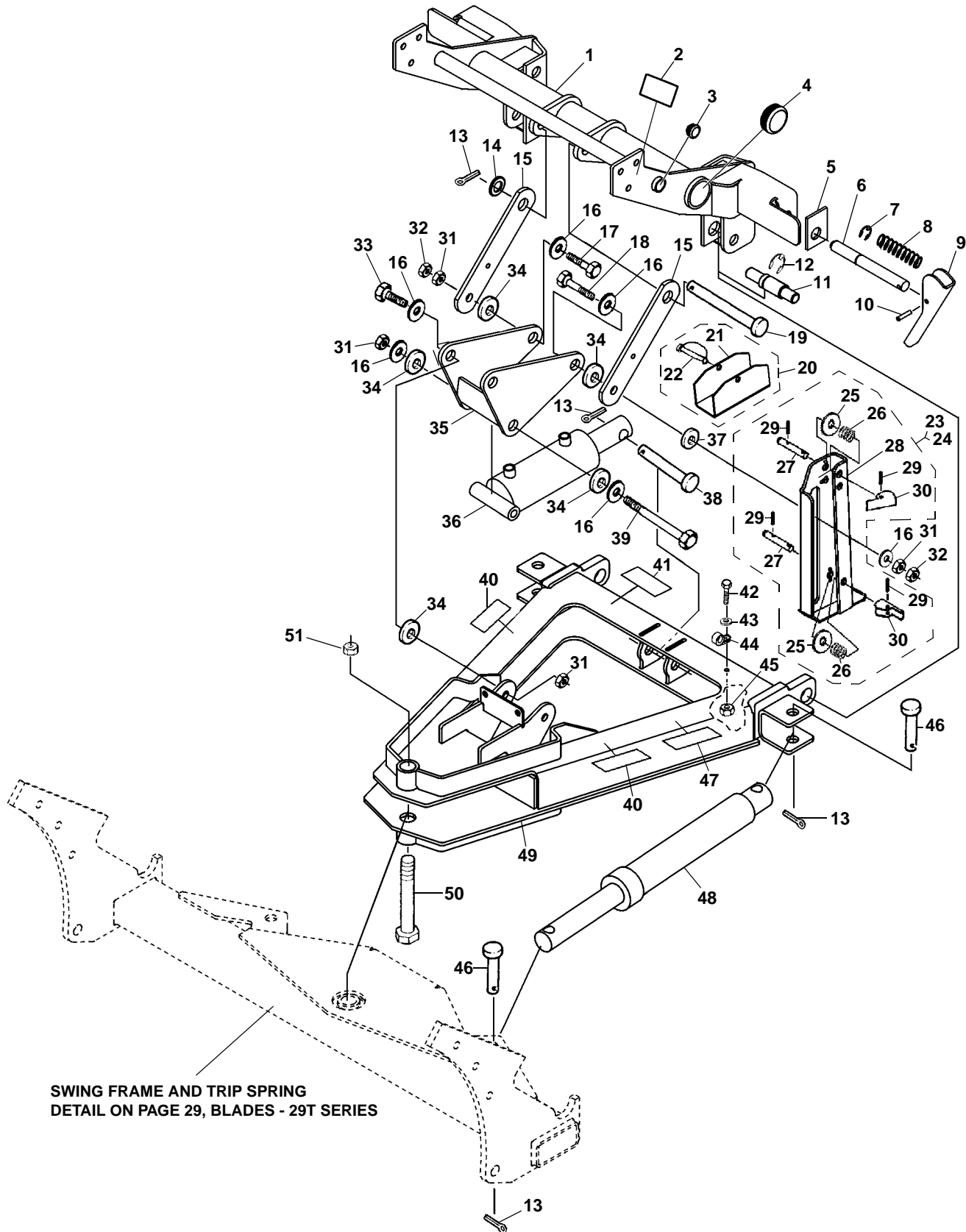
# POWER PACK FRAME - 29 & 32 SERIES



# POWER PACK FRAME - 29 & 32 SERIES

ITEM	PART NO.	DESCRIPTION	QTY
1	96107125 96107400	Light/Lift Bar, Quick-Attach..... Assembly, Light/Lift Bar, Quick-Attach (includes items 11, 12, 13, 14, 15, 16).....	1 1
2	97100400	Decal, Warning.....	1
3	96108874	End Cap, 1".....	2
4	96108873	End Cap, 2-1/4".....	2
5	98009169	Pin, Lynch, 1/4" x 1-5/8" (used with "Old Style" Light/Lift Bar).....	2
6	96105046	Pin, Hitch (used with "Old Style" Light/Lift Bar).....	2
7	96107329	Plate, Bearing, Polyethylene.....	2
8	96107128	Pin, Quick-Tatch.....	2
9	98100312	E-Ring.....	2
10	96107130	Spring, SS.....	2
11	96109013	Handle, Quick-Release.....	2
12	98100313	Pin, Roll, 1/4 x 1-3/8" SS.....	2
13	96106144	Pin, Quick Hitch.....	2
14	98100300	E-Ring, 1".....	2
15	98009085	Pin, Cotter, 5/32" x 1-1/2".....	8
16	98009030	Washer, Flat, 3/4".....	3
17	96105619	Link, Lift.....	2
18	98100172	Nut, Jam, 1/2"-13.....	2
19	98009013	Nut, Nylock, 1/2"-13.....	5
20	98009010	Cap Screw, Hex, 1/2"-13 x 1-1/2".....	2
21	98100176	Washer, Hardened.....	7
22	96102271	Spacer, Lift Bar.....	6
23	98100010	Cap Screw, Hex, 1/2"-13 x 2".....	1
24	98100062	Cap Screw, Hex, 1/2"-13 x 2-1/4".....	1
25	98100290	Pin, Clevis, 3/4" x 6".....	1
26	96107767	Clamp, Cylinder Lock, Gravity Down.....	1
27		Clamp, Cylinder Lock, Gravity Down.....	1
28		Pin, Wire Lock.....	1
29	96102168	Spacer, Stand.....	1
30	96105618	Bellcrank.....	1
31	96106076	Cylinder, Lift, Gravity Down.....	1
32	97100876	Decal, Warning, Pinch Point.....	2
33	98009114	Cap Screw, Hex, 1/2"-13 x 6".....	1
34	97100005	Decal, Patent.....	1
35	98100007	Pin, Clevis, 3/4" x 4".....	1
36	96106605	Jackstand Assembly, 32/29 Series.....	1
37	96107711	Kit, Jackstand Hardware (includes one ea. items 42, 43, 44, 46, two item 45).....	2
38	98009032	Washer, 3/8".....	2
39		Spring, Latch.....	2
40		Pin, Latch.....	2
41		Roll Pin, 5/32" x 7/8".....	4
42		Cam, Jackstand.....	2
43	96105959	Jackstand.....	1
44	98009027	Cap Screw, Hex, 1/4"-20 x 1".....	1
45	98009029	Washer, Flat, 1/4".....	1
46	96101891	Clamp, Tube.....	1
47	98100255	Nut, Nylock, 1/4"-20.....	1
48	98100040	Pin, Clevis, 3/4" x 3".....	4
49	97100001	Decal, Warning.....	1
50	96106078	Cylinder, Angle, 1-1/2" (See page 32 for parts breakdown).....	2
51	96106090	A-Frame.....	1
52	98100006	Cap Screw, Hex, 1"-14 x 7-1/2".....	1
53	96108876	End Cap, 2 x 4.....	2
54	98009134	Cap Screw, Hex, 3/8"-16 x 2-1/2".....	2
55	96107396	Kit, Cushion/Stop, Blade Trip, 32 Series.....	1
	96109981	Kit, Cushion/Stop, Blade Trip, 29 Series.....	1
56	98009009	Nut, Hex Nylock, 3/8"-16.....	2
57	96105457	Frame, Swing.....	1
58	98100315	Pin, Clevis, 3/4" x 2".....	2
59	98009078	Nut, Hex, 5/8"-11.....	8 (32 Series), 4 (29 Series)
60	98009037	Eye Bolt, 5/8"-11 x 6".....	4 (32 Series), 2 (29 Series)
61	96001392	Spring, Trip.....	4 (32 Series), 2 (29 Series)
62	98100294	Nut, Hex, 1"-14.....	1

# POWER PACK FRAME - 29T SERIES



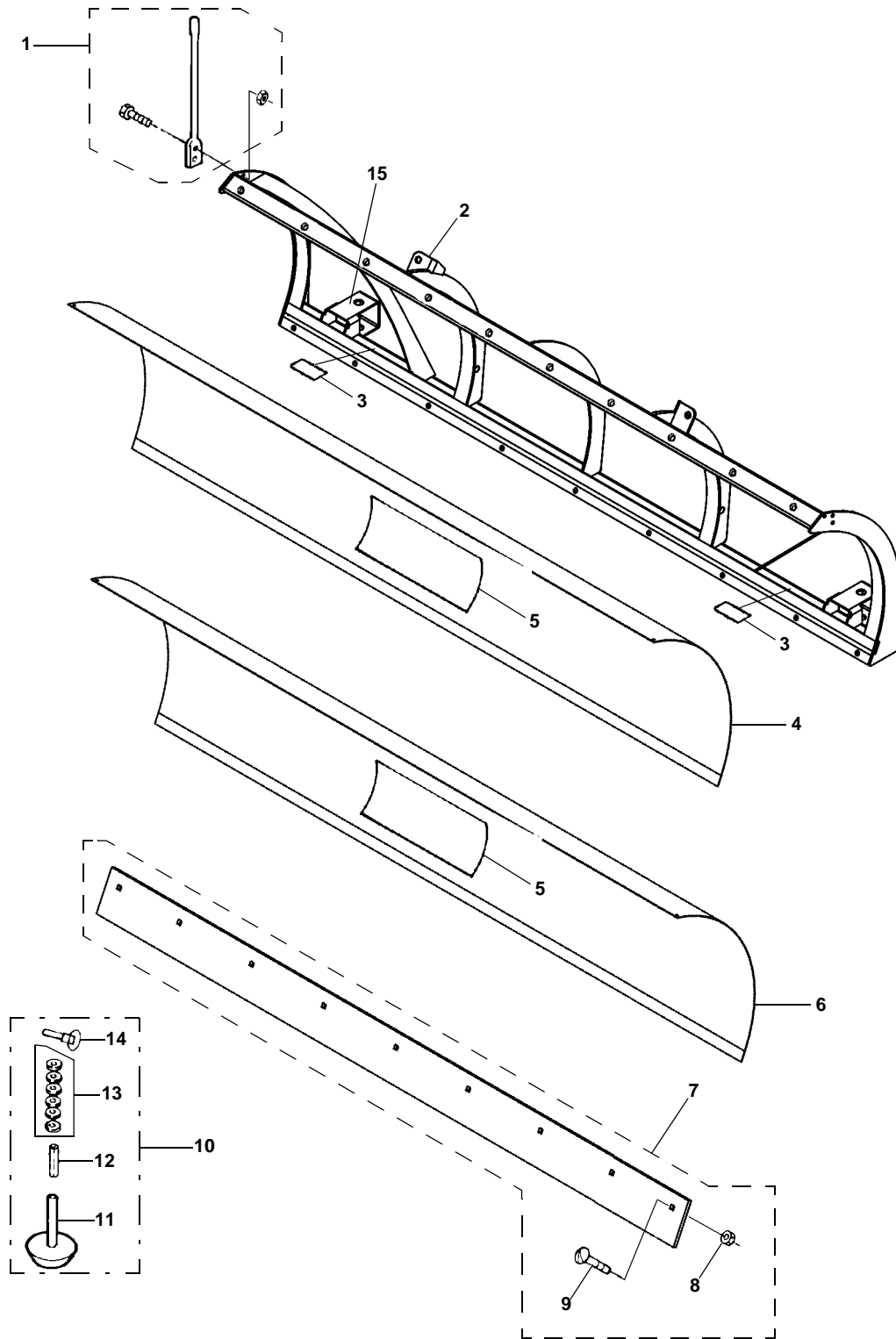
SWING FRAME AND TRIP SPRING  
DETAIL ON PAGE 29, BLADES - 29T SERIES



# POWER PACK FRAME - 29T SERIES

ITEM	PART NO.	DESCRIPTION	QTY
1	96107125	Light/Lift Bar, Quick-Attach .....	1
	96107400	Assembly, Light/Lift Bar, Quick-Attach (includes items 6, 7, 8, 9, 10, 11).	1
2	97100400	Decal, Warning .....	1
3	96108874	End Cap, 1" .....	2
4	96108873	End Cap, 2-1/4" .....	2
5	96107329	Plate, Bearing, Polyethylene.....	2
6	96107128	Pin, Quick-Tatch.....	2
7	98100312	E-Ring.....	2
8	96107130	Spring, SS .....	2
9	96109013	Handle, Quick-Release.....	2
10	98100313	Pin, Roll, 1/4 x 1-3/8" SS .....	2
11	96106144	Pin, Quick Hitch .....	2
12	98100300	E-Ring, 1" .....	2
13	98009085	Pin, Cotter, 5/32" x 1-1/2" .....	6
14	98009030	Washer, Flat, 3/4" .....	1
15	96105619	Link, Lift .....	2
16	98100176	Washer, Hardened.....	7
17	98100010	Cap Screw, Hex, 1/2"-13 x 2" .....	1
18	98100062	Cap Screw, Hex, 1/2"-13 x 2-1/4" .....	1
19	98100290	Pin, Clevis, 3/4" x 6" .....	1
20	96107767	Clamp, Cylinder Lock, Gravity Down .....	1
21		Clamp, Cylinder Lock, Gravity Down .....	1
22		Pin, Wire Lock.....	1
23	96106605	Jackstand Assembly, 32/29 Series .....	1
24	96107711	Kit, Jackstand Hardware .....	2
		(includes one ea. items 26, 27, 29, 32, two item 31)	
25	98009032	Washer, 3/8" .....	2
26		Spring, Latch .....	2
27		Pin, Latch.....	2
28	96105959	Jackstand.....	1
29		Roll Pin, 5/32" x 7/8" .....	4
30		Cam, Jackstand .....	2
31	98009013	Nut, Nylock, 1/2"-13.....	5
32	98100172	Nut, Jam, 1/2"-13.....	2
33	98009010	Cap Screw, Hex, 1/2"-13 x 1-1/2" .....	2
34	96102271	Spacer, Lift Bar .....	6
35	96105618	Bellcrank.....	1
36	96106076	Cylinder, Lift, Gravity Down .....	1
37	96102168	Spacer, Stand.....	1
38	98100007	Pin, Clevis, 3/4" x 4" .....	1
39	98009114	Cap Screw, Hex, 1/2"-13 x 6" .....	1
40	97100876	Decal, Warning, Pinch Point.....	2
41	97100005	Decal, Patent .....	1
42	98009027	Cap Screw, Hex, 1/4"-20 x 1" .....	1
43	98009029	Washer, Flat, 1/4" .....	1
44	96101891	Clamp, Tube.....	1
45	98100255	Nut, Nylock, 1/4"-20.....	1
46	98100040	Pin, Clevis, 3/4" x 3" .....	4
47	97100001	Decal, Warning .....	1
48	96106078	Cylinder, Angle, 1-1/2" (See page 32 for parts breakdown) .....	2
49	96106090	A-Frame.....	1
50	98100006	Cap Screw, Hex, 1"-14 x 7-1/2" .....	1
51	98100294	Nut, Hex, 1"-14 .....	1

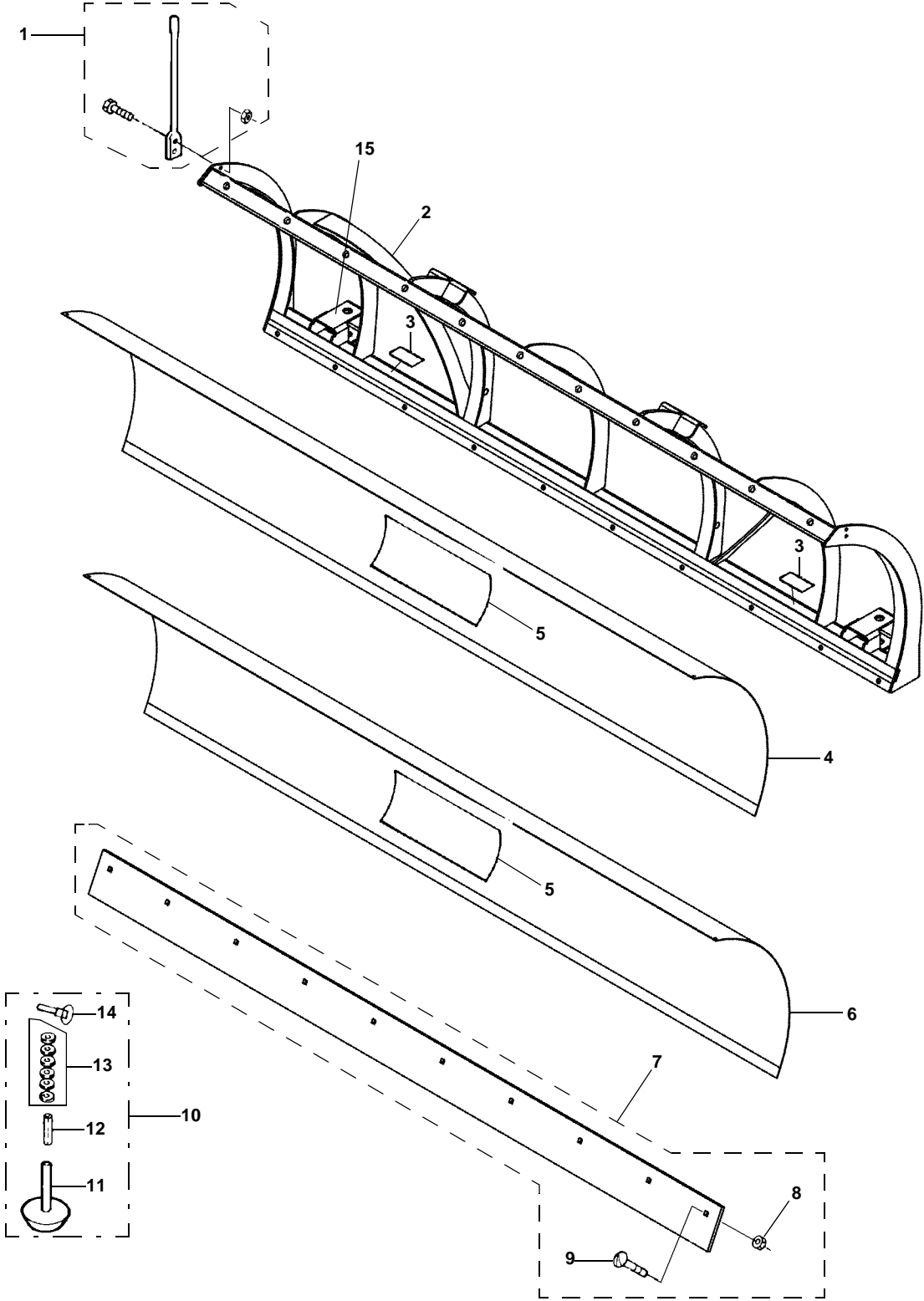
# BLADES - 29 SERIES



## BLADES - 29 SERIES

ITEM	PART NO.	DESCRIPTION	QTY
1	96106696	Kit, Guide, Blade (includes two Guides and Mounting Hardware) .....	1
2		Frame, 90" .....	1
		Frame, 96" .....	1
3	97100018	Decal, Warning.....	2
4	96106663	Kit, Skin, Polycarbonate, 90" (includes "Sno-Way" Decal) .....	1
	96106664	Kit, Skin, Polycarbonate, 96" (includes "Sno-Way" Decal) .....	1
5	97100879	Decal, Sno-Way (used with Steel Blade) .....	1
	97100880	Decal, Sno-Way (used with Polycarbonate Blade).....	1
6	96106665	Blade Skin, Steel, 90" (includes "Sno-Way" Decal).....	1
	96106666	Blade Skin, Steel, 96" (includes "Sno-Way" Decal).....	1
	96106667	Blade Skin, SS, 96" (includes "Sno-Way" Decal) .....	1
	96107332	Blade Skin, SS, 90" (includes "Sno-Way" Decal .....	1
7	96106668	Kit, Wearstrip, Steel, 90" .....	1
	96106669	Kit, Wearstrip, Steel, 96" .....	1
8	98009013	Nut, Hex., Nylock, 1/2" - 13 .....	9
9	98009171	Bolt, Carriage, Gr. 5, 1/2"-13 x 1-1/2" .....	9
10	96102542	Assembly, Shoe.....	2
11		Shoe, Cast, 1" Shaft.....	1
12		Spacer, 1".....	1
13	98009005	Washer, Flat, 1" .....	13
14	98009169	Pin, Lynch, 1/4" x 1-9/16" .....	1
15	96106375	Brkt., Shoe, 29, 26 .....	2

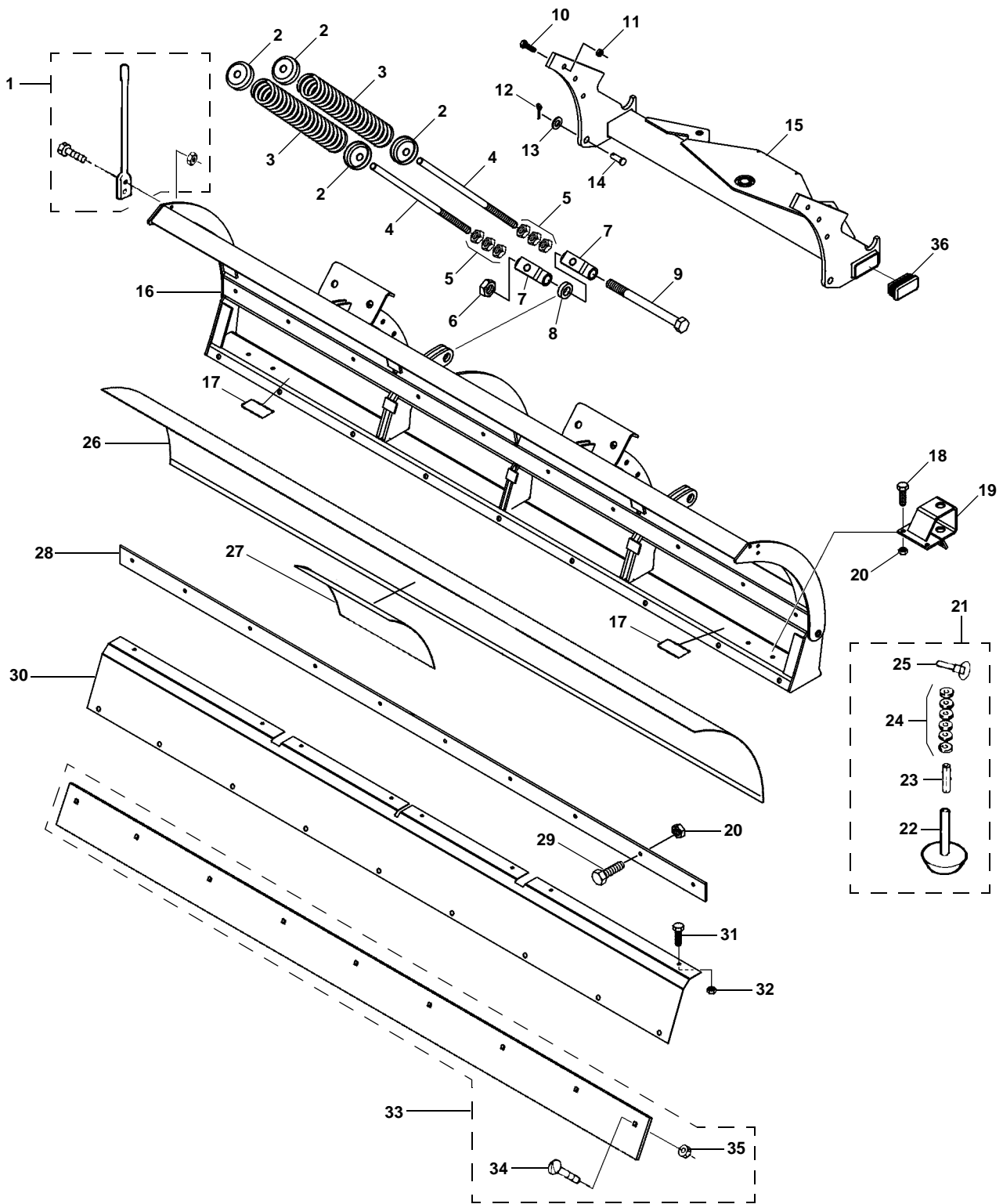
# BLADES - 32 SERIES



## BLADES - 32 SERIES

ITEM	PART NO.	DESCRIPTION	QTY
1	96106696	Kit, Guide, Blade (includes two Guides and Mounting Hardware) .....	1
2		Frame, 102" .....	1
		Frame, 108" .....	1
		Frame, 120" .....	1
3	97100018	Decal, Warning.....	2
4	96106356	Kit, Skin, Polycarbonate, 102" (includes "Sno-Way" Decal) .....	1
	96106357	Kit, Skin, Polycarbonate, 108" (includes "Sno-Way" Decal) .....	1
	96106358	Kit, Skin, Polycarbonate, 120" (includes "Sno-Way" Decal) .....	1
5	97100879	Decal, Sno-Way (used with Steel Blade) .....	1
	97100880	Decal, Sno-Way (used with Polycarbonate Blade) .....	1
6	96106353	Blade Skin, Steel, 102" (includes "Sno-Way" Decal) .....	1
	96106354	Blade Skin, Steel, 108" (includes "Sno-Way" Decal) .....	1
	96106355	Blade Skin, Steel, 120" (includes "Sno-Way" Decal) .....	1
	96106670	Blade Skin, SS, 102" .....	1
	96106671	Blade Skin, SS, 108" .....	1
	96106672	Blade Skin, SS, 120" .....	1
7	96106307	Kit, Wearstrip, Steel, 102" .....	1
	96106308	Kit, Wearstrip, Steel, 108" .....	1
	96106309	Kit, Wearstrip, Steel, 120" .....	1
8	98009013	Nut, Hex., Nylock, 1/2" - 13 .....	11
9	98009171	Bolt, Carriage, Gr. 5, 1/2"-13 x 1-1/2" .....	11
10	96102542	Assembly, Shoe.....	2
11		Shoe, Cast, 1" Shaft.....	1
12		Spacer, 1" .....	1
13	98009005	Washer, Flat, 1" .....	13
14	98009169	Pin, Lynch, 1/4" x 1-9/16" .....	1
15	96105410	Brkt., Shoe, 32 .....	2

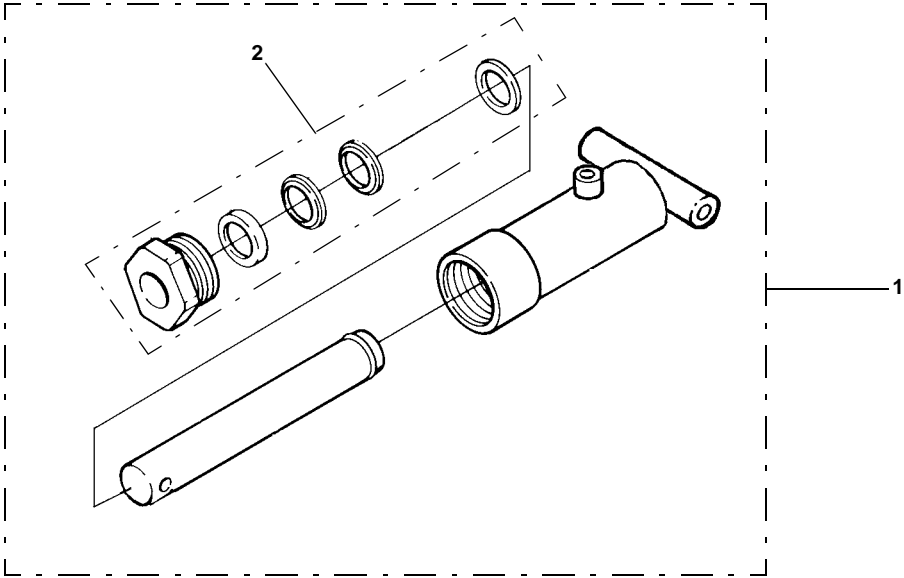
# BLADES - 29T SERIES



# BLADES - 29T SERIES

ITEM	PART NO.	DESCRIPTION	QTY
1	96106696	Kit, Guide, Blade (includes two Guides and Mounting Hardware) .....	1
2	96107374	Cup, Formed Out.....	8
3	96107208	Spring, Trip .....	4
4	96107673	Spring Rod, Threaded.....	4
5	98009075	Nut, Hex, 3/4"-12.....	12
6	98009053	Nut, Nylock, 1"-8 .....	2
7	96107365	Assembly, Saddle .....	4
8	96107221	Bushing, Shock .....	2
9	98100319	Cap Screw, Hex Head, 1"-12 x 11-1/2" .....	2
10	98100095	Cap Screw, Hex, 1/2"-13 x 1-3/4" .....	6
11	98009013	Nut, Nylock, 1/2"13.....	6
12	98009085	Pin, Cotter, 5/32" x 1-1/2" .....	2
13	98009030	Washer, Flat, 3/4".....	2
14	98100165	Pin, Clevis, 3/4" x 2-1/2" .....	2
15	96107106	Frame, Swing .....	1
16		Frame, 90" .....	1
		Frame, 96" .....	1
17	97100018	Decal, Warning.....	2
18	98009034	Cap Screw, Hex, 3/8"-16 x 1-1/4" .....	8
19	96107434	Assembly, Shoe Bracket.....	2
20	98009009	Nut, Nylock, 3/8-16.....	18
21	96102542	Assembly, Shoe.....	2
22		Shoe, Cast, 1" Shaft.....	1
23		Spacer, 1" .....	1
24	98009005	Washer, Flat, 1" .....	13
25	98009169	Pin, Lynch, 1/4" x 1-9/16" .....	1
26	96107935	Blade Skin, Upper, Polycarbonate, 90" (includes "Sno-Way" Decal).....	1
	96107938	Blade Skin, Upper, Polycarbonate, 96" (includes "Sno-Way" Decal).....	1
	96107936	Blade Skin, Upper, Steel, 90" (includes "Sno-Way" Decal) .....	1
	96107939	Blade Skin, Upper, Steel, 96" (includes "Sno-Way" Decal) .....	1
	96107937	Blade Skin, Upper, SS, 90" (includes "Sno-Way" Decal).....	1
	96107940	Blade Skin, Upper, SS, 96" (includes "Sno-Way" Decal).....	1
27	97100879	Decal, Sno-Way (used with Steel Blade) .....	1
	97100880	Decal, Sno-Way (used with Polycarbonate Blade).....	1
28	96107950	Retainer, Upper Skin, 90".....	1
	96107951	Retainer, Upper Skin, 96" .....	1
29	98009022	Cap Screw, Hex Head, 3/8-16 x 1" .....	10
30	96107503	Skin, Lower, 90" .....	1
	96107132	Skin, Lower, 96" .....	1
31	98100263	Cap Screw, Hex, 5/16-18 x 3/4" .....	8
32	98009150	Nut, Nylock, 5/16-18.....	8
33	96106668	Kit, Wearstrip, Steel, 90" .....	1
	96106669	Kit, Wearstrip, Steel, 96" .....	1
34	98009171	Bolt, Carriage, Gr. 5, 1/2"-13 x 1-1/2" .....	9
35	98009013	Nut, Nylock, 1/2"13.....	9
36	96108876	End Cap, 2 x 4.....	2

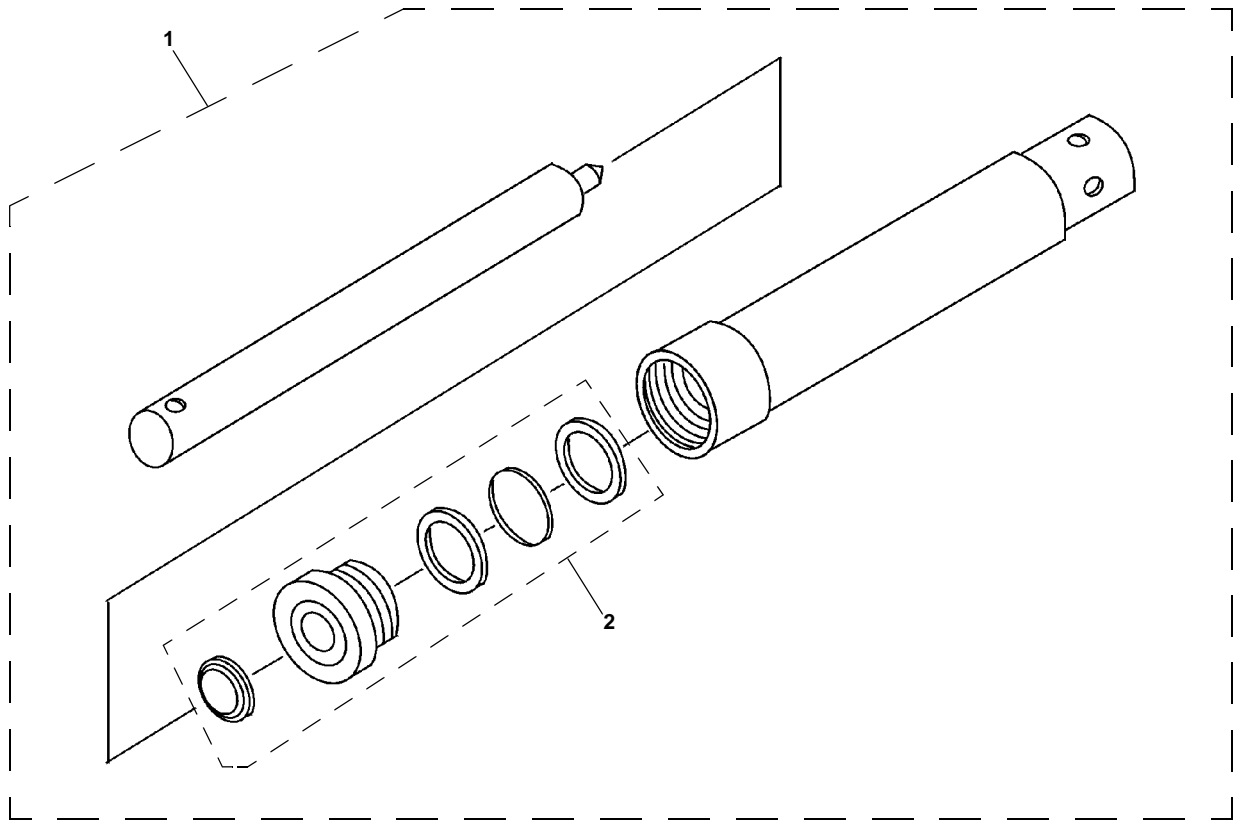
# LIFT CYLINDER GRAVITY DOWN SYSTEM



ITEM	PART NO.	DESCRIPTION	QTY
1	96106076	Cylinder, Lift, 2" (Single Action) .....	1
2	96106674	Kit, Lift Cylinder Gland Nut and Seal .....	1
		O-Ring .....	1
		Seal, Rod.....	1
		Ring, Guide.....	1
		Seal, Wiper .....	1
		Nut, Gland .....	1



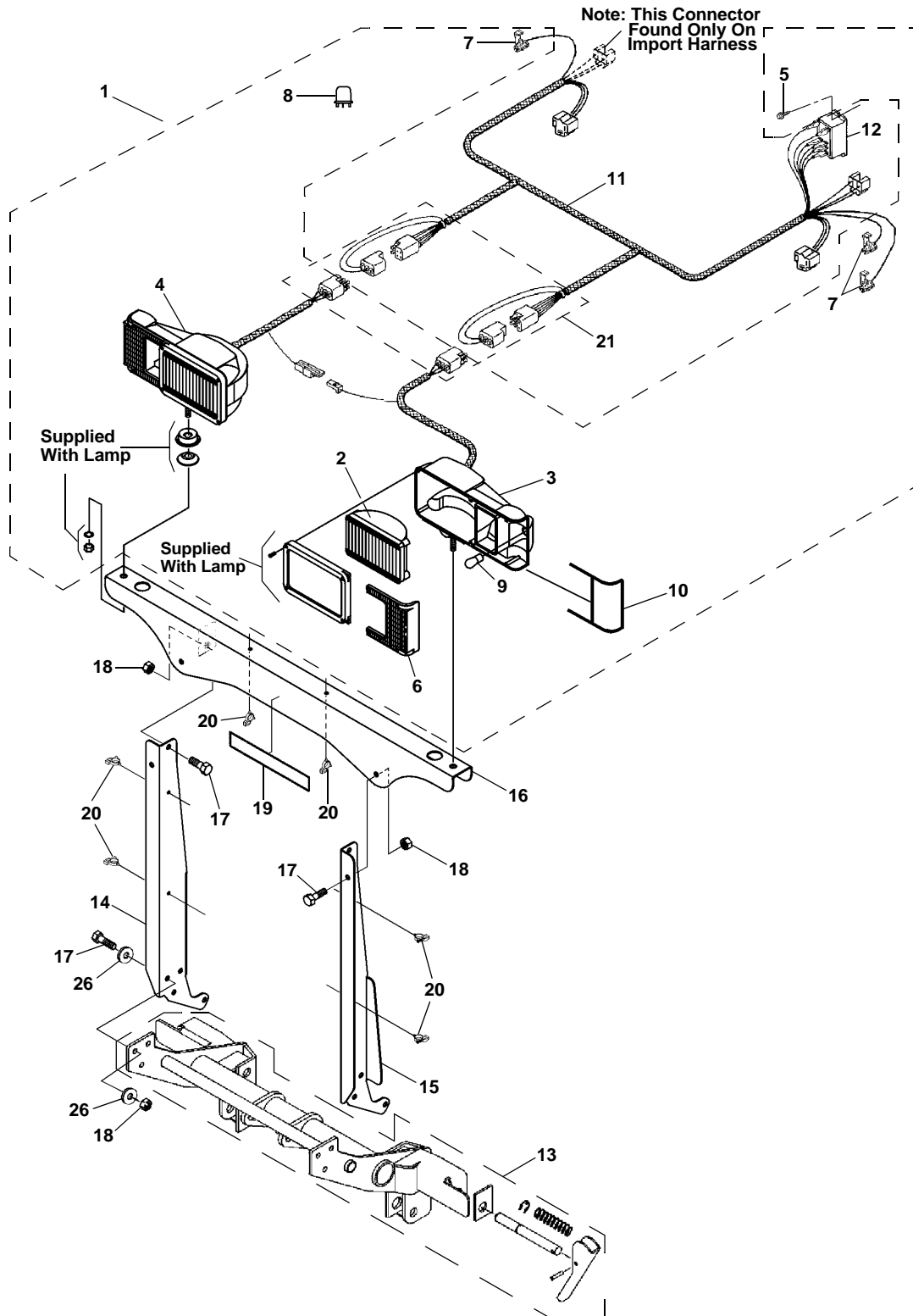
# ANGLE CYLINDERS



ITEM	PART NO.	DESCRIPTION	QTY
1	96106078	Cylinder, Swing, 1-1/2" .....	2
2	96106330	Kit, Swing Cylinder Gland Nut & Seal .....	1
		O-ring.....	1
		Seal, Rod .....	1
		Ring, Guide, 1-1/2" .....	1
		Seal, Wiper .....	1
		Gland Nut.....	1

# AUXILIARY LIGHTS

S.N. : 32C100000 - 100049



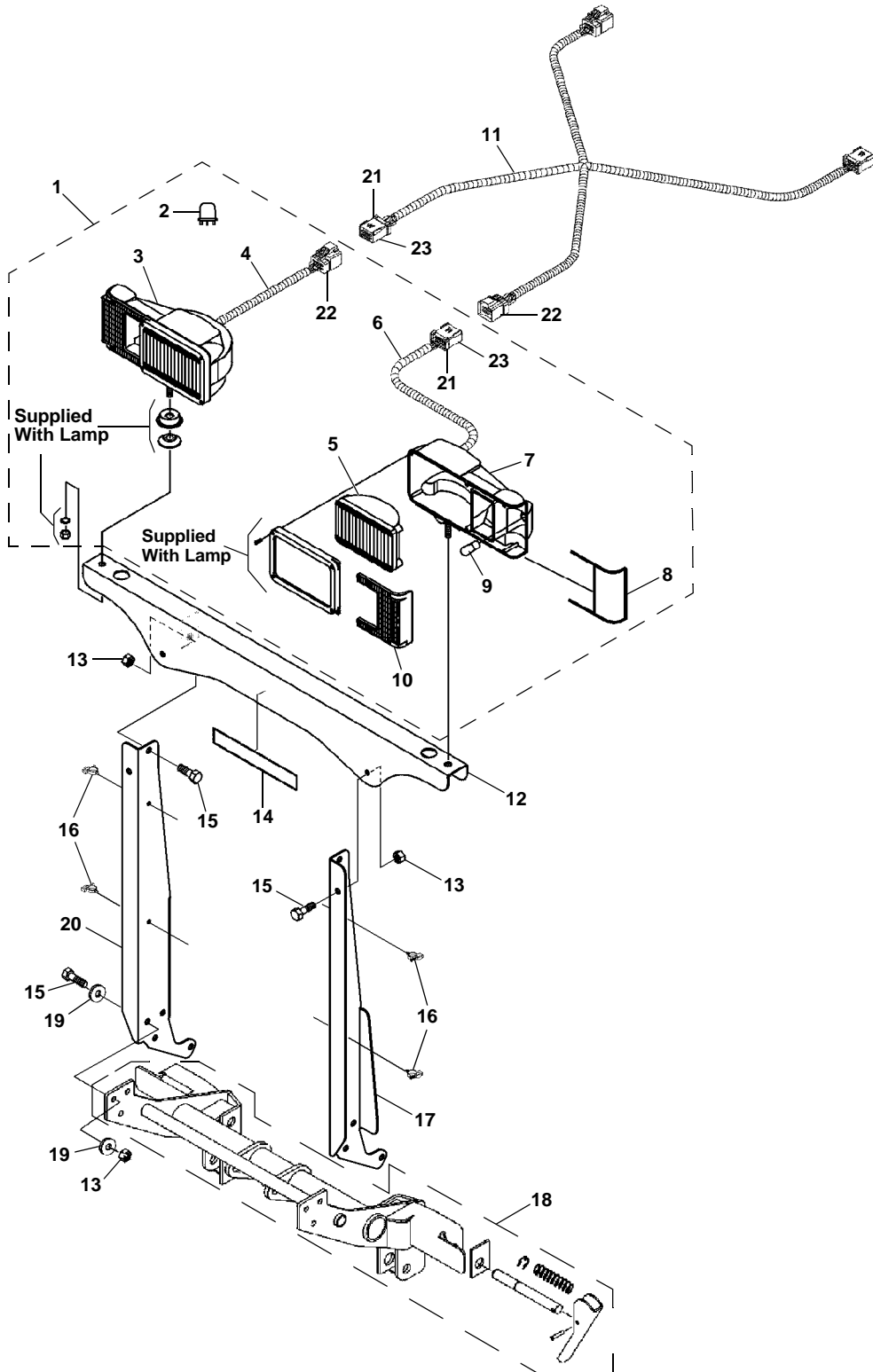
# AUXILIARY LIGHTS

## S.N. : 32C100000 - 100049

ITEM	PART NO.	DESCRIPTION	QTY
1	96106606	Kit, Lamp .....	1
2	96100514	Lamp, Sealed Beam.....	2
3	96106690	Light, Assembly, LH.....	1
4	96106691	Light, Assembly, RH.....	1
5	98100037	Screw, Self Tapping #10-16 x 1" .....	2
6	96106692	Lens, Turn Signal .....	2
7	96002039	Scotch Lock™ Connector .....	3
8	96003010	Flasher .....	1
9	96003060	Lamp, Park & Turn.....	2
10	96106693	Gasket, Turn Signal.....	2
11	99100196	Harness, Wiring, Standard .....	1
	99100197	Harness, Wiring, Import .....	1
12	96101536	Relay, DPDT.....	1
13	96107400	Assembly, Light/Lift Bar, Quick-Attach .....	1
14	96108629	Support, RH, 32 Series .....	1
	96108631	Support, RH, 29 Series .....	1
15	96108628	Support, LH, 32 Series.....	1
	96108630	Support, LH, 29 Series.....	1
16	96108030	Assy., Light Bar .....	1
17	98009022	Capscrew, Hex., 3/8"-16 x 1".....	10
18	98009009	Nut, Hex., Nylock, 3/8"-16 .....	10
19	97100882	Decal, Sno-Way .....	1
20	96100440	Clip, Rosebud.....	4
21	96102116	Kit, Plug Repair .....	1
22		Connector, Male End.....	2
23		Connector, Female End .....	2
24		Connector, Butt .....	24
25		Tube, Shrink .....	24
26	98009032	Washer, Flat, 3/8".....	6

# AUXILIARY LIGHTS

S.N. AFTER: 32C10050, 29C100000, 29TC100000



# AUXILIARY LIGHTS

## S.N. AFTER: 32C100050, 29C100000, 29TC100000

ITEM	PART NO.	DESCRIPTION	QTY
1	96107893	Kit, Lamp, EIS.....	1
2	96003010	Flasher.....	1
3	96107984	Light, Assembly, RH, EIS.....	1
4	96107986	Harness, Plow Light, RH, EIS.....	1
5	96100514	Lamp, Sealed Beam.....	2
6	96107985	Harness, Plow Light, LH, EIS.....	1
7	96107983	Light, Assembly, LH, EIS.....	1
8	96106693	Gasket, Turn Signal.....	2
9	96003060	Lamp, Park & Turn.....	2
10	96106692	Lens, Turn Signal.....	2
11	96107894	Harness, Main Light, EIS*.....	1
12	96108030	Assy., Light Bar.....	1
13	98009009	Nut, Hex., Nylock, 3/8"-16.....	12
14	97100882	Decal, Sno-Way.....	1
15	98009022	Capscrew, Hex., 3/8"-16 x 1".....	12
16	96100440	Clip, Rosebud.....	4
17	96108628	Support, LH, 32 Series.....	1
	96108630	Support, LH, 29 Series.....	1
18	96107400	Assembly, Light/Lift Bar, Quick-Attach.....	1
19	98009032	Washer, Flat, 3/8".....	8
20	96108629	Support, RH, 32 Series.....	1
	96108631	Support, RH, 29 Series.....	1
21	96108116	Connector, Male.....	2
22	96108117	Connector, Female.....	2
23	96108600	Clip, Secondary Lock.....	2

\* NOTE: Adapter required. See Application Guide

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96003060	34	9	96106668	26	7	96107984	36	3
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96100440	34	20	96106669	26	7	96107986	36	4
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96100514	34	2	96106670	28	6		36	12
	36	5	96106671	28	6	96108116	36	21
96101536	34	12	96106672	28	6	96108117	36	22
96101891	22	46	96106674	31	2	96108600	36	23
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96102168	22	29	96106692	34	6	96108629	34	14
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96102271	22	22	96106693	34	10	96108630	34	15
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96105046	22	6	96107106	30	15		24	4
96105410	28	15	96107125	22	1	96108874	22	3
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96106090	22	51	96107396	22	55	97100400	22	2
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96106308	28	7	96107434	30	19		28	5
96106309	28	7	96107503	30	30		30	27
96106330	32	1	96107673	30	4	97100880	26	5
96106353	28	6	96107711	22	37		28	5
96106354	28	6		24	24		30	27
96106355	28	6	96107767	22	26	97100882	34	19
96106356	28	4		24	20		36	14
96106357	28	4	96107893	36	1	98009005	26	13
96106358	28	4	96107894	36	11		28	13
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# NOTES



# NOTES

# NOTES

## SNO-WAY PLOWS - LIMITED WARRANTY

### **FIVE YEAR STRUCTURAL LIMITED WARRANTY COVERAGE**

The Sno-Way snow plow structural elements are warranted to be free from defects in materials and workmanship for a period of five years from date of delivery from an authorized Sno-Way Dealer. The Sno-Way Warranty Registration card for the product must be properly filled out and mailed to Sno-Way within 30 days of date of purchase to obtain benefits of this section of warranty.

**Structural elements are defined for this warranty as:** *Blade frames, A-frames, Swing Frames, vehicle sub frames, and structural components (weldments) of Sno-Way snow plows.*

### **TWO YEAR STANDARD LIMITED WARRANTY COVERAGE**

The Sno-Way snow plow non structural components are warranted to be free from defects in workmanship for a period of two years from date of delivery from an authorized Sno-Way Dealer. The Sno-Way Warranty Registration card for the product must be properly filled out and mailed to Sno-Way within 30 days of date of purchase to obtain the benefits of this section of warranty.

**Non structural product components are defined for this warranty as:** *Blade inserts (polycarbonate or steel) and the SM01 Hydraulic power system and control module.*

### **ONE YEAR STANDARD LIMITED WARRANTY ACCESSORIES / SERVICE PARTS / COMPONENTS.**

Sno-Way International, Inc. Warrants accessories, service parts and components purchased separately for a period of one year after original purchase to be free from defects in material and workmanship.

### **DEFINITION OF PRODUCT:**

Product as used throughout this warranty means the Sno-Way line of snow plows, straight blades and "V" blades and components thereof.

### **EXCLUSIONS UNDER THIS WARRANTY PROGRAM:**

1. The installation of product must be an approved installation in accordance with the Sno-Way Vehicle Application Guide, Installation Instructions Manual and the Owner's Manual.
2. The "use" of the Sno-Way product must be in conformity with the operating and maintenance instructions as set forth in the Owner's Manual.
3. Damage as a result of accident, misuse and/or negligence is not covered.
4. The polycarbonate moldboard under the two year warranty does not cover: *Puncture, Hazing, Abrasion, Yellowing, Scratching or Chemical Damage.*
5. Normal wear items are excluded (Without limitation): *Paint finish-corrosion/contamination, Bushings and bearings, Plow shoes, Plow cutting edges, Blade markers/pins/clips, Accessory items and non-standard attachments - or any damage caused by the addition of non-standard attachments not sold by Sno-Way.*
6. Specific exclusions relating to items covered under the Two Year Warranty: *Fasteners and damage caused by failure to retighten fasteners, Electric contact corrosion - damage or abrasion of wiring harness, Control key pads/contacts, Any damage resulting from a failure to properly service and maintain the product as prescribed in the Owner's Manual.*
7. General exclusions:
  - (A) Any and all damage from the improper installation of product, misapplication of product, abusive use of vehicle and/or product, failure to properly maintain and service, improper repair, service or alteration of product, and any damage as a result of accident or misuse.
  - (B) Sno-Way will not be liable for any expense not related to defects in materials and workmanship. The attachment of product to or upon a vehicle, including any necessary modification of product or vehicle, is entirely at the purchasers risk and expense, and compliance with applicable motor vehicle rules and regulations is the responsibility of the installer.
  - (C) This Warranty when applicable applies to the "first" purchaser of product installed in accordance with Sno-Way Application Guides, Installation and Owner's Manuals, and to the transfer of the product by the "first" purchaser to another approved vehicle application by an authorized Sno-Way Dealer.
  - (D) The "repair" and/or replacement of any part or component is at the option of Sno-Way.
  - (E) Indirect costs incurred while "product" is being repaired during the warranty period are excluded such as; lost time, equipment rental, transportation charges, and similar incidental charges incurred.

### **OBTAINING WARRANTY SERVICE**

To obtain warranty service, promptly return the product or any defective part at your expense to any authorized Sno-Way Dealer during the warranty period. Replacement or repair of defective or inadequate parts shall be performed without charge for labor or materials by such Dealer at his regular place of business during regular business hours after inspection and determination that the warranty applies.

Purchaser shall prepay all freight charges for returning Product or component to Dealer, Sno-Way or any other location designated by Sno-Way.

Note: The Sno-Way Technical Services help line is designed to service Sno-Way Dealers. Sno-Way Technical and Customer Service will help you locate your nearest Sno-Way Dealer.

Please also use the Sno-Way web site with the Dealer locator at: [www.snoway.com](http://www.snoway.com)

### **DISCLAIMERS:**

1. Sno-Way warrants it's Products only as set forth in this warranty. Sno-Way makes no other warranties, express or implied, and disclaims all other warranties, including any implied warranty of merchantability or fitness for any particular purpose.
2. Sno-Way's obligations under this warranty are limited to those expressed in this warranty, and Sno-Way shall not be liable to the purchaser or any third party for any direct or indirect, incidental or consequential damage or loss.
3. No person is authorized to modify or add to this warranty in any manner.
4. If any Sno-Way product is improperly installed, altered, misused, damaged or otherwise tampered with, this warranty shall lapse and become null and void.

### **LEGAL RIGHTS:**

Some states do not allow limitations on how long an implied warranty lasts or exclusions or limitations of incidental or consequential damages, so the above limitations or exclusions may not apply fully to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. All "other" provisions and "limitations" not altered by local law shall continue to apply.

### **ENFORCEMENT/CONSTRUCTION**

This Warranty shall be enforced and construed under the laws of the State of Wisconsin.

**SNO-WAY INTERNATIONAL, INC.**

# DEALER PRE DELIVERY CHECKLIST

The following inspections **MUST** be accomplished prior to delivering the snowplow to the customer. Place an X  in the box after accomplishing each item on the checklist.

## CHECK THAT

- Parts have not been damaged in shipment. Repair or replace items that are loose, dented or missing.
- All covers, guards and decals are in place and attached securely.
- All pivot pins and cotters are installed and secure.
- Trip springs are adjusted.
- Shoe assemblies are installed and adjusted.
- Snow plow headlamps are adjusted properly.
- Snow plow headlamps are functional.
  - High Beam                       Low Beam                       Park Lamps
  - Left Turn                       Right Turn                       Headlamp Beam Aimed Correctly
- Cylinder lock clamp is installed.

Start the vehicle engine and place an X  in the box after accomplishing each item on the checklist.

## CHECK THAT

- ALL** blade functions work properly.
- Cylinders, hoses and fittings **DO NOT** leak.
- Listen for abnormal noises or vibrations; Repair or replace as necessary.
- The Power Unit is properly filled.

# DELIVERY CHECKLIST

The following checklist is to be accomplished with the customer present, Place an X  in the box after accomplishing each item on the checklist.

- After giving the Customer his Owner's Manual, instruct him to read it **PRIOR** to operating the Snow Plow. If he has any questions or does not understand part(s) of the Manual, ask him to contact the Dealer for answers or explanations **BEFORE** operating the unit.
- Record the Serial Numbers, Date of Purchase, Purchaser's Name and Address, and the Dealers Name, Address and Phone Number in the space provided on Page 1 of the Owner's Manual.
- Explain mounting and removal procedures.
- Demonstrate power plow controller operation.
- Demonstrate cylinder lock clamp installation.
- Demonstrate Down Pressure hydraulic system function and operation. (If unit is so equipped)
- Fill out Warranty Registration Card and mail COPY 1 to the factory to validate Warranty. NO Warranty claims can be honored if the Warranty Card is not on file at the factory.**

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SNO-WAY® INTERNATIONAL, INC.



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