



# **OWNER'S MANUAL**



## **Daniels Straight Blade**

- **Assembly Instructions**
- **Operating Instructions**
- **Illustrated Parts List**

**Congratulations!** By purchasing this Daniels Straight Blade, you can now benefit by owning the latest in state-of-the-art snow plowing equipment. It may take some time to get used to your new snow plow but after a few uses you will realize all the benefits which are gained by using the Daniels Straight Blade.

**Before you begin -----**

Prior to beginning the installation process, make sure your skid steer meets all the requirements needed to operate the Daniels Straight Blade. Use the following chart to determine proper plow sizes for your skid steer. Your skid steer must also be equipped with an auxiliary hydraulic circuit (i.e., 3<sup>rd</sup> valve). NOTE: If your skid steer is not equipped with an auxiliary circuit, you will need to add a valve and plumb it into the skid steer's hydraulic system. Contact your equipment dealer or Daniels (800) 386-2932 for assistance.

**Caution:** Prior to starting the installation process, make sure appropriate safety equipment is available at the work site. Provide a fire extinguisher and have it immediately available if welding. Safety glasses, gloves, hearing protection, and protective clothing should be worn whenever welding, using grinders or cutoff saws.

**Recommended Skid steer Size**

<b>10'</b>	<b>4,000 to 6,000 lbs. *</b>
<b>12'</b>	<b>6,000 to 8,000 lbs. *</b>
<b>14'</b>	<b>8,000 to 10,000 lbs. *</b>

**\* = Two speed transmission recommended.**

## Plow Installation

Use the parts diagram drawings to aid in the installation process.

1. **Connect the Daniels Straight Blade to the skid steer, making sure the plow is securely locked in place:**

IMPORTANT: Check to be sure the throat weldment is parallel to the pavement, as shown in diagram 2.

### Hydraulic hose installation:

Route two hydraulic hoses from the hydraulic ports on the skid steer to the two unused ports on the cushioning valve located on top of the throat weldment. Make sure the hoses will not be pinched when the plow is raised, lowered, or hydro turned. Secure the two hoses together with nylon ties as needed (see diagram #1). To confirm you have hoses of the appropriate length, raise the plow and roll the boom forward as if dumping a bucket. Measure your hose length from this position to ensure the hoses are not pulled or stretched during operation.

Making sure the area around the skid steer and plow is clear, set the parking brake and start the machine. Raise the plow a few inches off the ground by using the boom lift control in the cab, keeping the throat weldment level to the ground. Slowly cycle the plow fully to the left and right until the plow moves smoothly in both directions.

Visually check for hydraulic leaks. **Warning:** Never use hands to search for fluid leaks as high pressure fluid can have sufficient energy to penetrate the skin. Hydraulic fluid entry into skin can cause blood poisoning and must be treated by professional medical personnel immediately.

## Operation

Important: It is recommended to use the roll back lever to raise or lower the plow. The boom should only be used to raise the plow when stacking snow. Use the bucket roll back lever for raising or lowering the plow.

Position the boom so the throat weldment is parallel to the pavement. Before plowing, roll back on the backing plate until the chain tightens, then roll the backing plate forward allowing approximately 2" of slack in the chain (diagram #3). Be sure the boom is set at the proper plowing position (diagram #2).

Important: If the plow is hydro turned and the throat weldment is not parallel to the ground, one end of the plow will lift up off the pavement and the other end will dig into the pavement. This will result in damage to the pavement, poor plowing performance and uneven wear on the cutting edge (diagram #4). The same result will occur when plowing in the proper position if the plow is rolled back in the hydro turned position. The plow should only be raised when the blade is in the straight position.

Lower the plow in a slow and smooth motion. Dropping the plow may cause the cutting edge bolts to loosen and cause damage to the plowing surface.

**Caution: Know the areas you are plowing!** Hitting manhole covers or other hidden objects can cause equipment damage or injury to the operator.

## Maintenance

Before each use of the Daniels Straight Blade, check to make sure the cutting edge bolts and all hardware is securely tightened and that all hydraulic lines are secured and in good condition. Tighten or replace hardware as necessary. Check weldments for signs of fatigue and repair as necessary. Examine all surfaces for

excessive wear. Apply grease to all zerk fittings periodically throughout the year. Make a visual check for fluid leaks. It is also suggested that all cutting edge bolts be checked and tightened as needed throughout the plowing season.

**Warning:** Never use hands to search for fluid leaks as high pressure fluid can have sufficient energy to penetrate the skin. Hydraulic fluid entry into skin can cause blood poisoning and must be treated by professional medical personnel immediately.

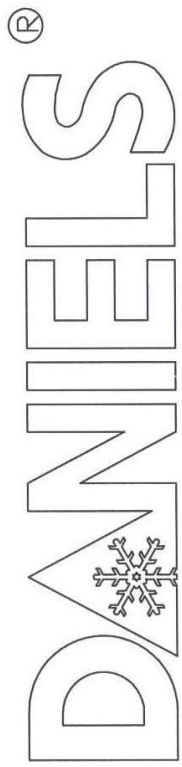
The cushioning valve is pre-set to the proper breakaway pressure to allow the plow to swing from side to side if the plow should contact an obstruction (such as a manhole cover) at the ends of the plow. This setting should not be changed as adjustments may cause performance problems and void the warranty. If you feel adjustments need to be made, please call Daniels for assistance at (800) 386-2932. The wear bar is reversible and should be reversed or replaced before the edge is completely worn away to prevent damage to the main plow.

## **Removing the Plow**

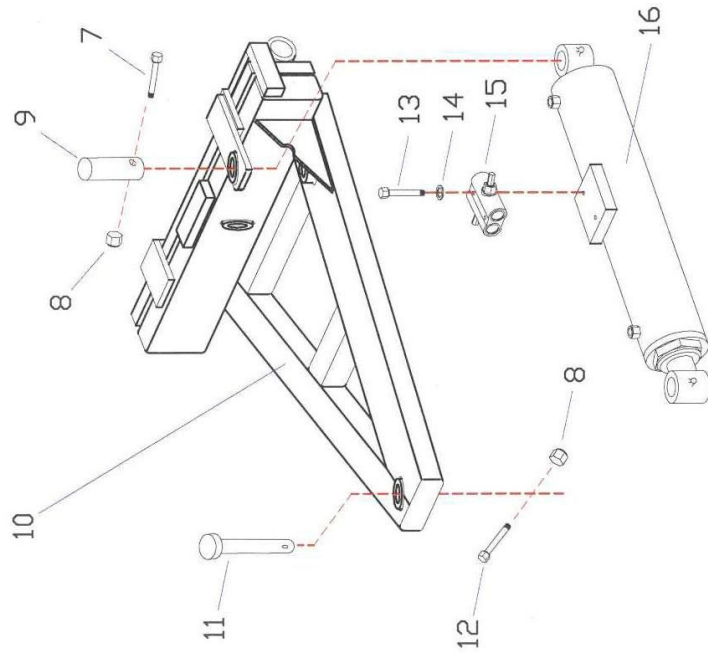
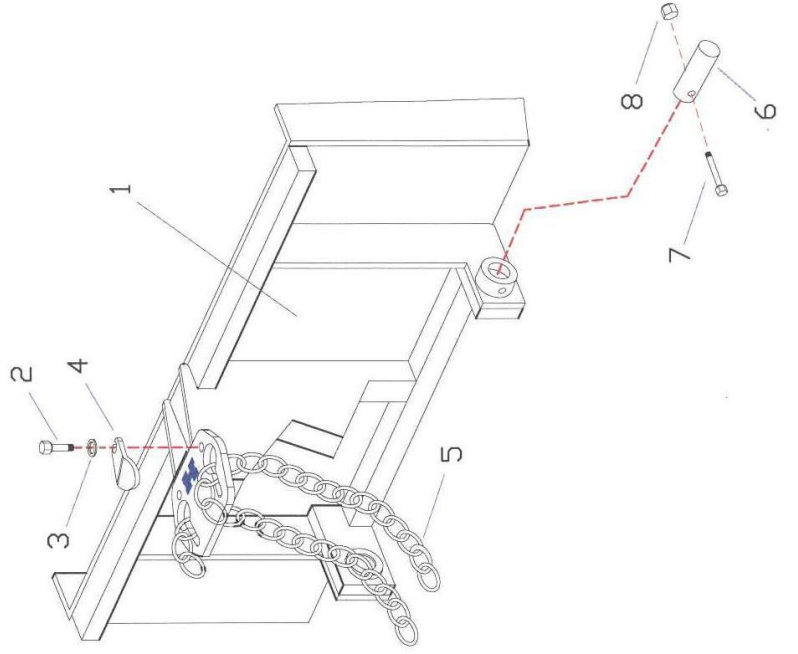
To remove the plow from the skid steer, set the parking brake and turn off the loader. Relieve all hydraulic pressure by cycling the valves. Disconnect the hydraulic lines from the loader. Connect the hydraulic hose couplers together to keep contaminants out of the hydraulic system. Disconnect the loader from the mounting plate.

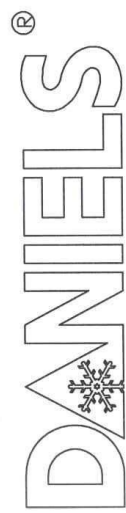
## **Off Season Storage and Maintenance**

It is recommended you store your Daniels Straight Blade indoors out of the elements. Connect the hydraulic couplers together to prevent system contamination. Grease all zerks before storage.

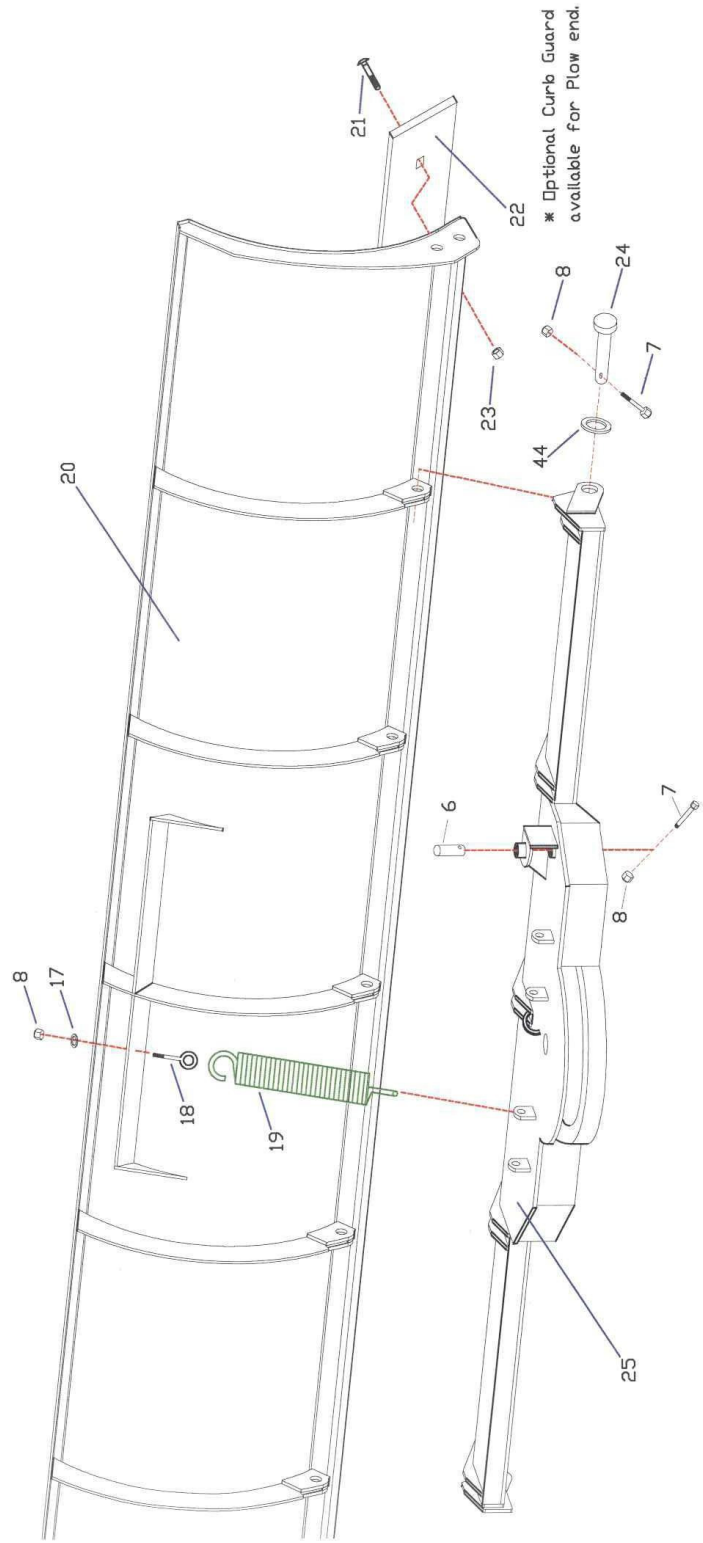


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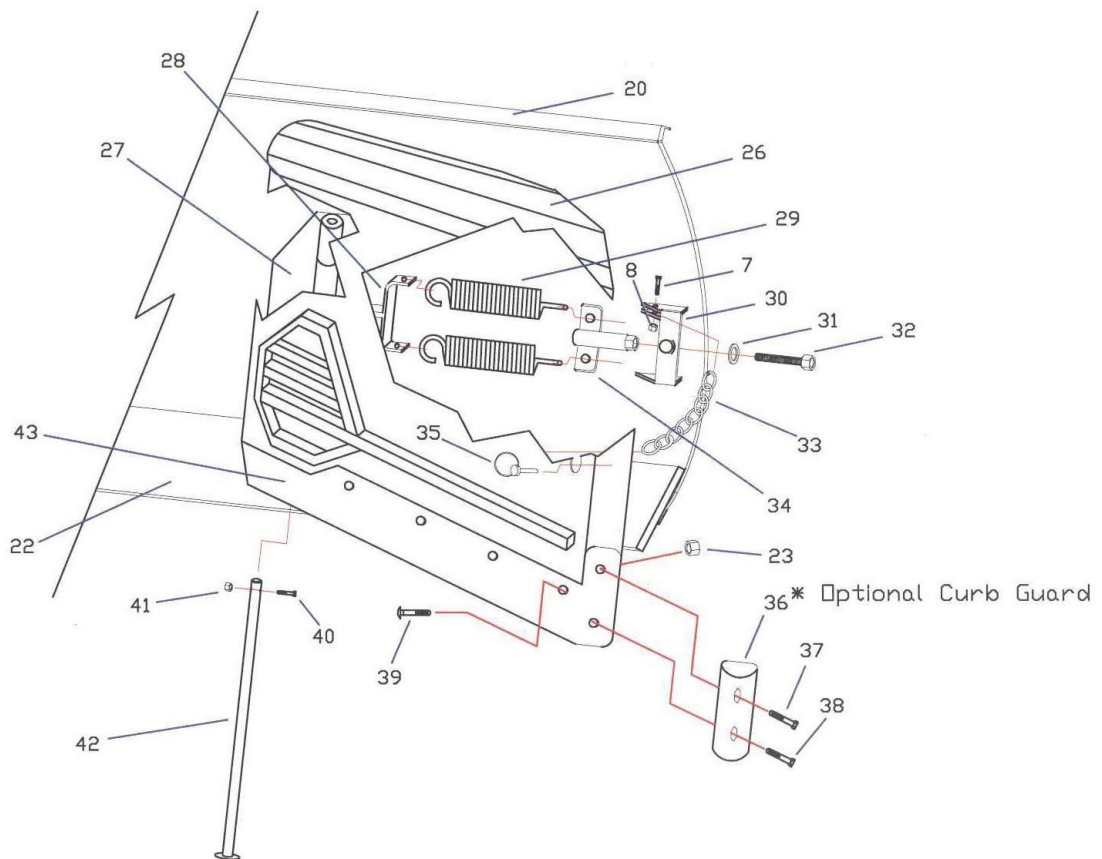
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NOTE: Plow is shipped with Bolt (#32) untightened. After receipt of plow & BEFORE use remove Pin (#35) and tighten bolt (#32) until spring mount (#34) is pulled tight against the pusher kit stop (#30) to ensure the pusher kit plate (#26) is fully engaged. Not doing so will result in poor performance & possible loss of part numbers (#29, #31, #32, & #34)





**Daniels Plows, Inc.**

Diagram #	2009 - 2010 Parts Diagram List for 2700 Models	Daniels Part #
1	Straight Blade Backing Plate	27020
2	Hex Head Bolt, 1/2 X 1	18170
3	Lock Washer, 1/2	18815
4	Chain Keeper	14501
5	Chain 3/8 X 59" for 2700	14510
6	Backing Plate / Front Cylinder Pin for 2700	27331
7	Hex Head Bolt, 1/2 X 3	18200
8	Lock Nut, Nylon 1/2 - 13	18425
9	Back Cylinder Pin for 2700	27330
10	Straight Blade Throat Weldment	27030
11	King Pin for 2700	27350
12	Hex Head Bolt, 1/2 X 2	18190
13	Hex Head Bolt, 5/16 X 2 1/2	18155
14	Lock Washer, 5/16	18805
15	Cushion Relief Valve for 2700	16180
16	Hydraulic Cylinder 3 X 16	16155
17	Flat Washer, 1/2	18720
18	Eye Bolt, 1/2 X 1 3/4	18300
19	Trip Spring for 2700	14695
20*	Straight Blade Board @ 10'	27010
20*	Straight Blade Board @ 12'	27012
20*	Straight Blade Board @ 14'	27014
21	Carriage Bolt, 5/8 X 2 1/2 Gr. 8	18110
22*	Straight Blade Cutting Edge (2 Pieces) for 2710	14205

Diagram #	2009 - 2010 Parts Diagram List for 2700 Models	Daniels Part #
22*	Straight Blade Cutting Edge (2 Pieces) for 2712	14207
22*	Straight Blade Cutting Edge (2 Pieces) for 2714	14209
23	Lock Nut, Nylon 5/8 - 11	18445
24	Trip Pin for 2700	27773
25	Straight Blade Turn Table	27040
26	Straight Blade Pusher Kit Push Plate (Set)	10100
27	Straight Blade Pusher Kit Back Plate (Set)	10200
28	Straight Blade Pusher Kit Inner Spring Mount (Set)	10600
29	Pusher Kit Spring	14697
30	Straight Blade Pusher Kit Stop (Set)	10400
31	Flat Washer, 3/4	18740
32	Hex Head Bolt, 3/4 X 4 Gr. 8 - Fully Threaded	18260
33	Straight Blade Pusher Kit Safety Chain	14522
34	Straight Blade Pusher Kit Outer Spring Mount (Set)	10700
35	Klik Pin, 7/16 X 2	18620
36	Curb Guard	14507
37	Hex Head Bolt, 5/8 X 2 1/2 Gr. 8	18235
38	Hex Head Bolt, 5/8 X 2 Gr. 8	18225
39	Carriage Bolt, 5/8 X 1 1/2 - Gr. 8	18104
40	Hex Head Bolt, 5/16 X 1 1/4	18153
41	Lock Nut, Nylon 5/16	18410
42	Straight Blade Pusher Kit Hinge Pin (Set)	10500
43	Straight Blade Pusher Kit Cutting Edge	10300
44	Flat Washer, 1	18750

**Barrington, IL 60010**

[www.danielsplows.com](http://www.danielsplows.com)

**847-426-1150**

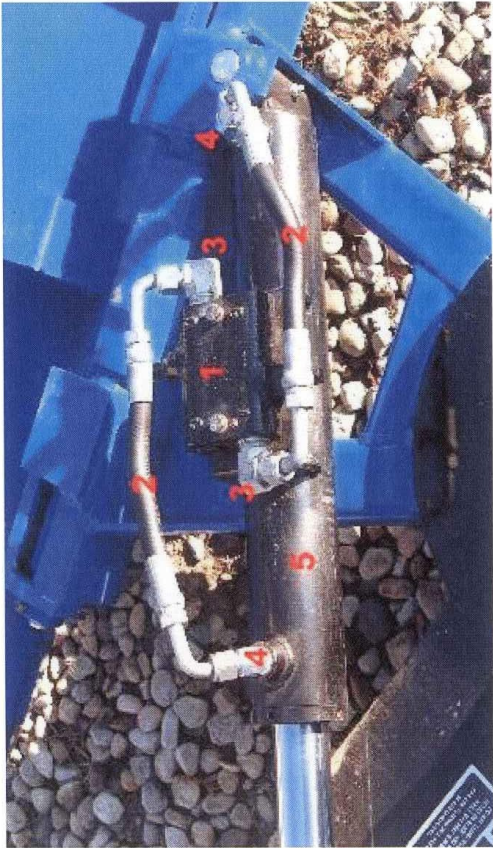
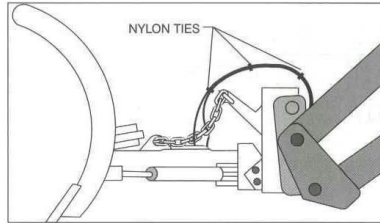


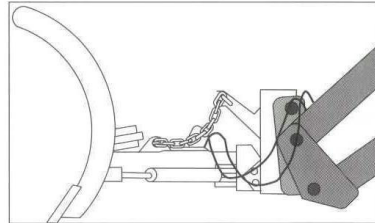
Diagram #	Description	Daniels Part #
1	Cushion Relief Valve (#15)	16180
2	Hydraulic Hose Assembly for 2700	16135
3	Valve Adapter Fitting	16137
4	Cylinder Adapter Fitting	16139
5	Hydraulic Cylinder (#16)	16155

**1A**



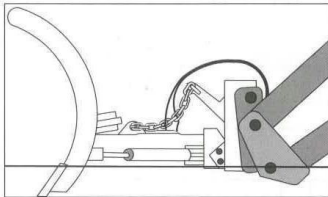
**CORRECT  
HOSE INSTALLATION**

**1B**



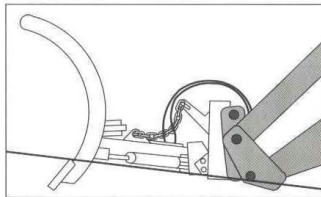
**INCORRECT  
HOSE INSTALLATION**

**2A**



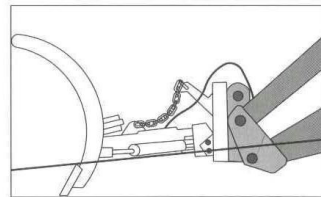
**SQUARE TUBE PARALLEL WITH  
PAVEMENT — CORRECT OPER-  
ATING POSITION**

**2B**



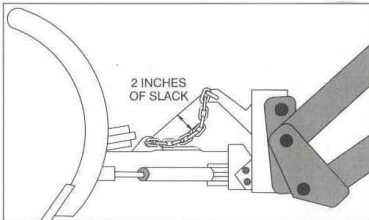
**SQUARE TUBE NOT PARALLEL  
WITH PAVEMENT — INCORRECT  
OPERATING POSITION**

**2C**

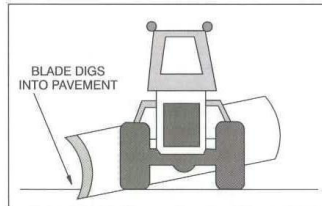


**SQUARE TUBE NOT PARALLEL  
WITH PAVEMENT — INCORRECT  
OPERATING POSITION**

**3**



**4**





## **Daniels Plows, Inc. Warranty Information**

Daniels Plows warrants to the original purchaser of a Daniels snow plow that the snowplow sold by Daniels will be free of defects in workmanship and material for 24 months from the date of delivery.

In the event any Daniels snowplow fails to comply with this warranty during the warranty period, and purchaser notifies Daniels in writing of the defect and provides proof of the original purchase date, Daniels, at its sole and absolute discretion shall authorize its designated representative to repair or replace the defective part(s), or shall correct such nonconformity by shipment of parts from the factory in repair or replacement of the defective part(s) provided that the snowplow has been stored, installed, operated and maintained in accordance with Daniels' instructions, has not been subject to abuse or misuse, including but not limited to any modification to or installation of the snowplow by anyone other than Daniels or an authorized Daniels representative, has not been subject to any repair work or replacement parts not authorized in writing by Daniels, and has not been used in any way other than its intended purpose. This warranty does not apply to any "wear parts" such as cutting edges, springs, wear shoes and curb guards.

The purchaser's remedy in respect to any defect in the snowplow or any loss or damage arising directly or indirectly from any defect, nonconformity or defective workmanship in the snowplow is limited to providing the repair or replacement of parts thereof. The snowplow or the applicable part thereof must be returned to Daniels by purchaser F.O.B. unless, in Daniels' sole discretion, Daniels authorizes its designated representative to repair or replace the part at the designated representative's site. The snowplow or the applicable part thereof will be returned to purchaser by Daniels F.O.B. In any event, labor charges shall not be included in this warranty and shall be due and payable by purchaser immediately upon receipt of invoice. Field



replaceable spare parts supplied by Daniels are warranted for the later of the unexpired portion of the snowplow warranty or 30 days.

The foregoing warranties set forth are exclusive and no other warranty is expressed or implied. Daniels specifically disclaims all other warranties whether statutory, express or implied, including all warranties of merchantability and fitness for particular purpose and all warranties arising from course of dealing or usage of trade, including but not limited to the acts or omissions of dealers, distributors, agents, contractors, suppliers and any tier or other designated representatives of Daniels.

Attachment of a snowplow to motor vehicles is at the risk and expense of the purchaser. Compliance with applicable motor vehicle regulations is the responsibility of the installer. Daniels does not assume any liability for any damage to a motor vehicle resulting from the attachment or from the use of a snowplow. Daniels does not assume any liability for the cost of modification of the snowplow or the vehicle required to attach the snowplow.

Daniels, and any of its agents, contractors, suppliers and any tier shall not be liable in contract, in tort (including negligence and strict liability), or otherwise for damage or loss of property, loss of profits or revenue, loss of use of equipment or cost of capital, claims of purchaser or any and all of its' customers, vendees, etc., or for any special, indirect, incidental, or consequential damages whatsoever.

The attached warranty registration form must be completed and returned to Daniels by purchaser to activate this warranty.



## Daniels Snowplow Warranty Registration Form

To activate and validate the warranty, this form must be completed and returned to Daniels Plows, Inc. within 30 days of original purchase.

Date Purchased: \_\_\_\_\_

Dealer Name/Address: \_\_\_\_\_

Model: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Company Name: \_\_\_\_\_ Owner: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_

ZIP: \_\_\_\_\_ Phone: \_\_\_\_\_ Mobile: \_\_\_\_\_

FAX: \_\_\_\_\_ Email: \_\_\_\_\_

Was this snowplow assembled and installed by the dealer? Yes/No

Was safe operation of this snowplow reviewed by the dealer? Yes/No

Was the owner's manual included with the snowplow? Yes/No



Please mail completed form to:

Daniels Plows, Inc.

15N365 Old Sutton Rd.

Barrington, IL 60010 ♦ Office: 847-426-1150 ♦ Fax: 847-426-1171