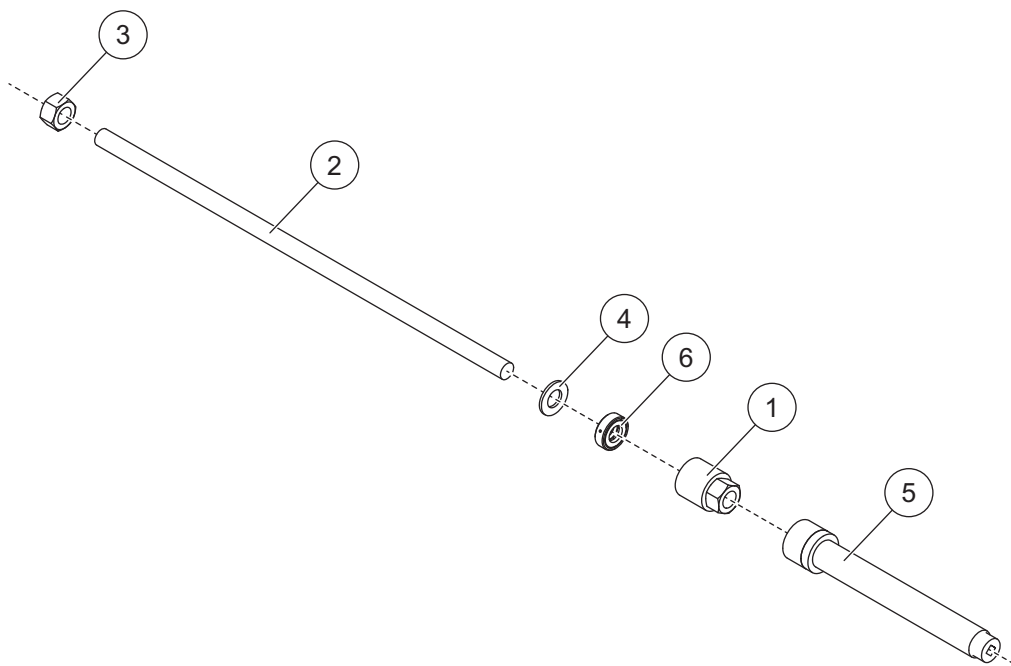


Wing Spring Removal Tool

PARTS LIST



69780 Wing Spring Removal Tool Kit							
Item	Part	Qty	Description	Item	Part	Qty	Description
1	69775	1	Bearing Nut	4	69778	1	Washer, UHMW
2	69779	1	Threaded Rod	5	B21033	1	Socket
3	69777	1	3/4-8 Hex Nut	6	B21030	1	Thrust Bearing

G = Grade

⚠ WARNING

Do not exceed GVWR or GAWR, including blade and ballast. The rating label is found on the driver-side vehicle door cornerpost.

⚠ CAUTION

Use standard methods and practices when attaching snowplow and installing accessories, including proper personal protective safety equipment.

⚠ CAUTION

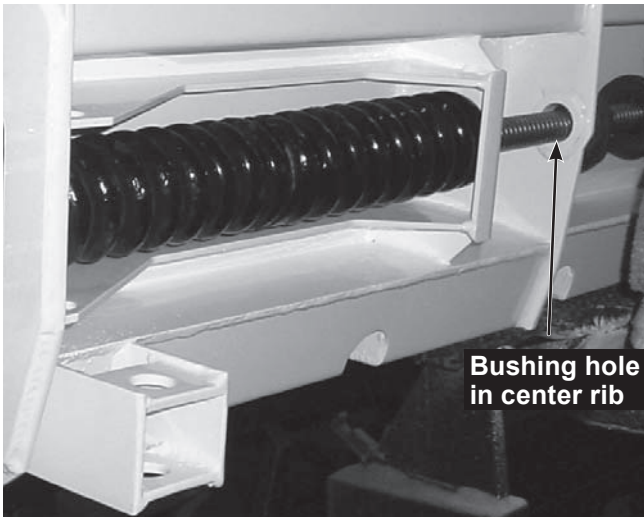
Read this document before using the wing spring removal tool.

INSTALLATION INSTRUCTIONS

⚠ WARNING

This tool must be used by qualified personnel to remove preloaded spring. Read and follow all instructions. Disconnect plow from vehicle before doing this repair.

1. Park the vehicle on a smooth, level, hard surface, such as concrete. Lower the blade to the ground, and turn the control OFF. Disconnect the snowplow from the vehicle, or turn the vehicle ignition to the "OFF" position and remove the key.
2. Unhook the trip springs and cable assemblies. Remove the moldboard from the pivot beam.
3. Insert the threaded rod through the moldboard bushing hole in the center rib, through the spring and wing spring guide. Secure the rod with the 1" nut approximately 2" from the end of the rod.

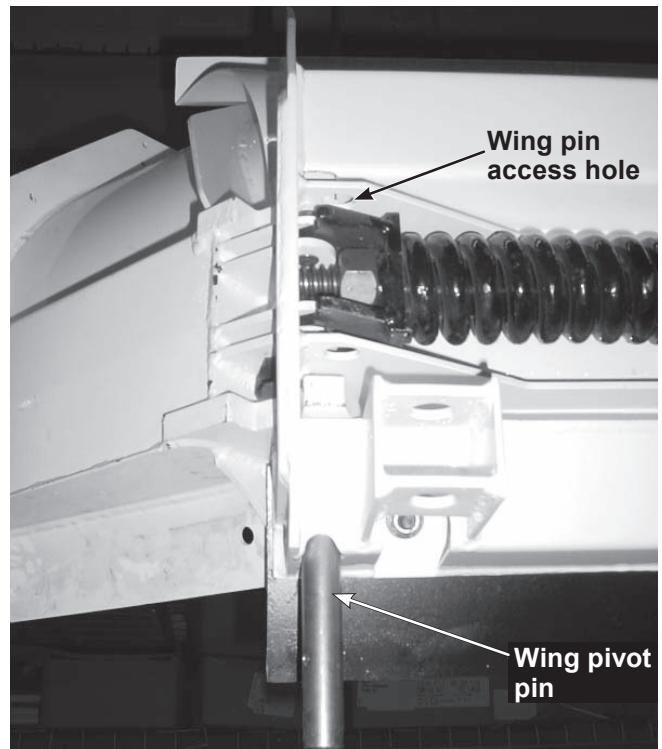


The nut threaded onto the rod keeps the springs compressed. The tool must remain in place until the wing is removed. This tool is designed for use with an air impact gun on the socket to compress the springs.

4. Attach the washer, thrust bearing (inserted into bearing nut) and bearing nut to the threaded rod.
The plastic washer reduces the friction between the socket and the bearing and also protects the paint on the blade.

5. Attach the socket to the bearing nut and tighten to compress the spring and relieve tension on the wing pivot pin.
6. **If the wing pivot pin head is up**, the wing pivot pin can be extracted from the top. Remove the stop bolt and pull the pin out from the top.

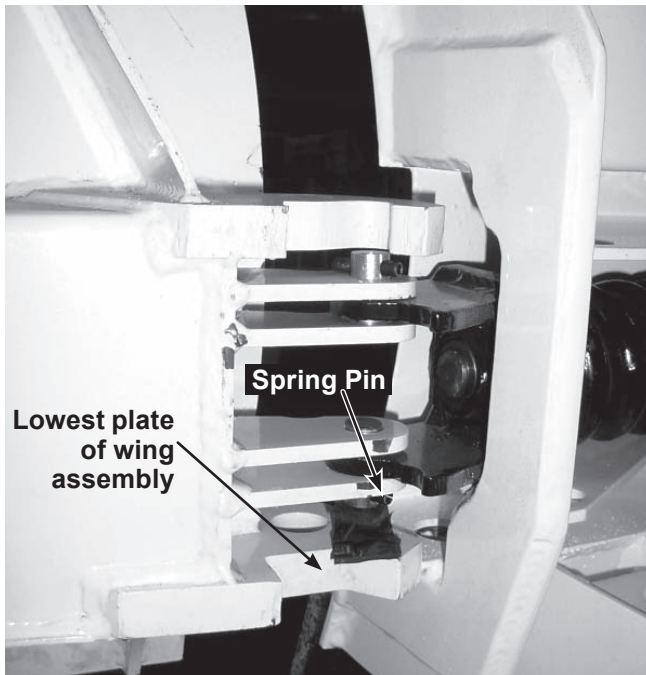
If the wing pivot head is down, the pin will be extracted from below. Remove the spring pin from the end of the wing pivot pin. Remove the wing pivot pin access cover from the top of the moldboard and tap the pin out the bottom.



7. Using the socket, loosen the bearing nut to release the tension on the spring while manipulating the wing past the end moldboard rib.
8. Remove the wing assembly and spring guide. Release the spring tension and remove the tool.
9. Reverse the procedure to install.

Installation Notes

- The nut must be flush with the end of the threaded rod for installation.
- The wing must be manipulated into proper position by pulling the wing back, then pushing it forward to align the wing pin mount holes.
- The spring pin in the wing pin should be aligned above the lowest plate of the wing assembly.



Copyright © 2013 Douglas Dynamics, L.L.C. All rights reserved. This material may not be reproduced or copied, in whole or in part, in any printed, mechanical, electronic, film or other distribution and storage media, without the written consent of the company. Authorization to photocopy items for internal or personal use by the company's outlets or snowplow owner is granted.

The company reserves the right under its product improvement policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used. This equipment manufacturer or the vehicle manufacturer may require or recommend optional equipment for snow removal. Do not exceed vehicle ratings with a snowplow. The company offers a limited warranty for all snowplows and accessories. See separately printed page for this important information.

Printed in U.S.A.
