

Installation Instructions

16021310 TE/SK Plow Wing Kit

WARNING

Stay clear of plow's cutting edge while installing and uninstalling the plow wings. Maximum over-the-road width 102", exceeding this width may result in a traffic violation. Adding wings will increase the weight of the plow, it is the operator's responsibility to verify vehicle's weight ratings are not exceeded.

Before you begin:

It is recommended to assemble wings to a plow that is equipped with a new or nearly new cutting edge. Verify you have received all of the required parts.

If plow already has two 1" holes in the end ribs skip to step 3. Otherwise, start at step 1.

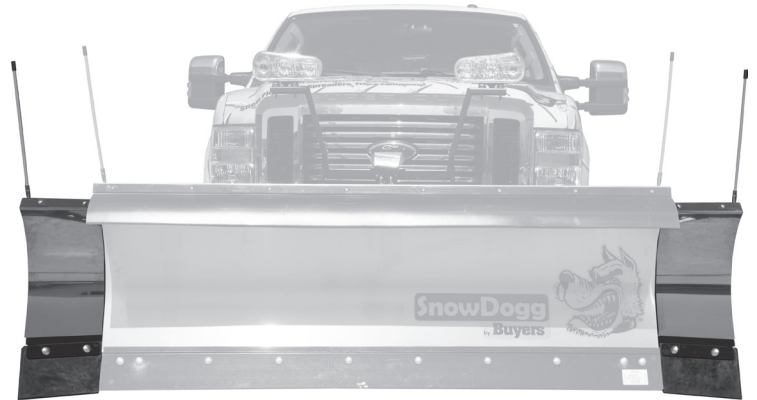
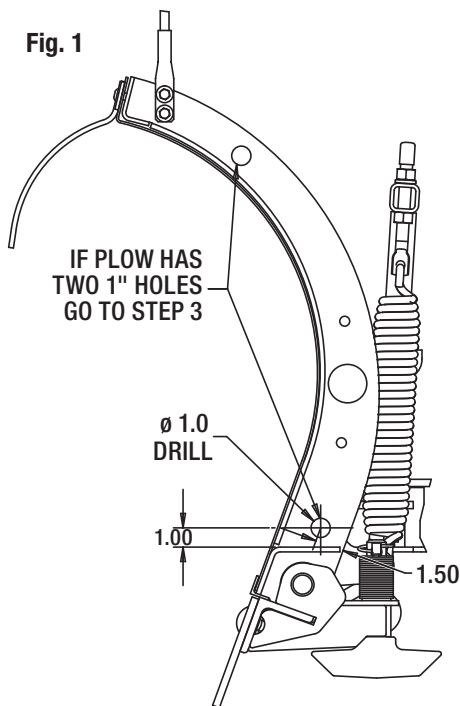


Fig. 1

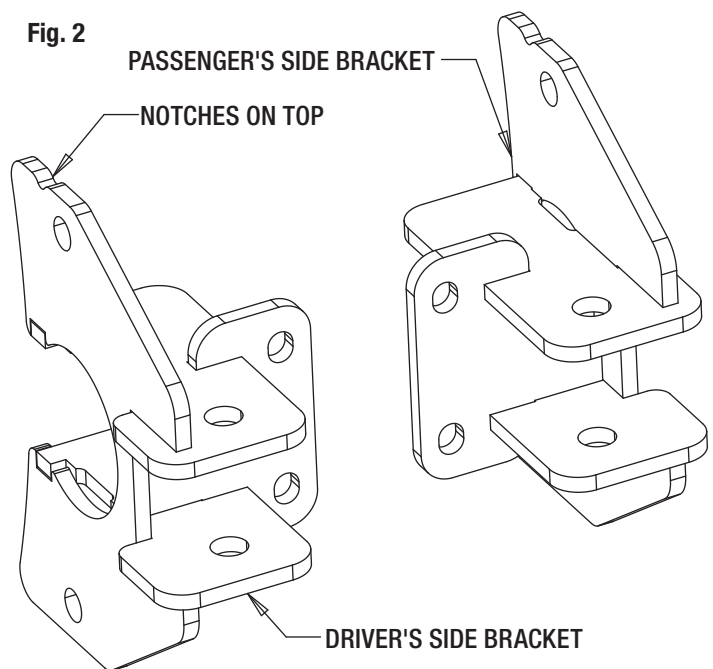


1. Measure and mark a line 1" up from the bottom angle of the moldboard frame on each end rib. Measure and mark a line 1.5" from the back edge of the each end rib. See figure 1.

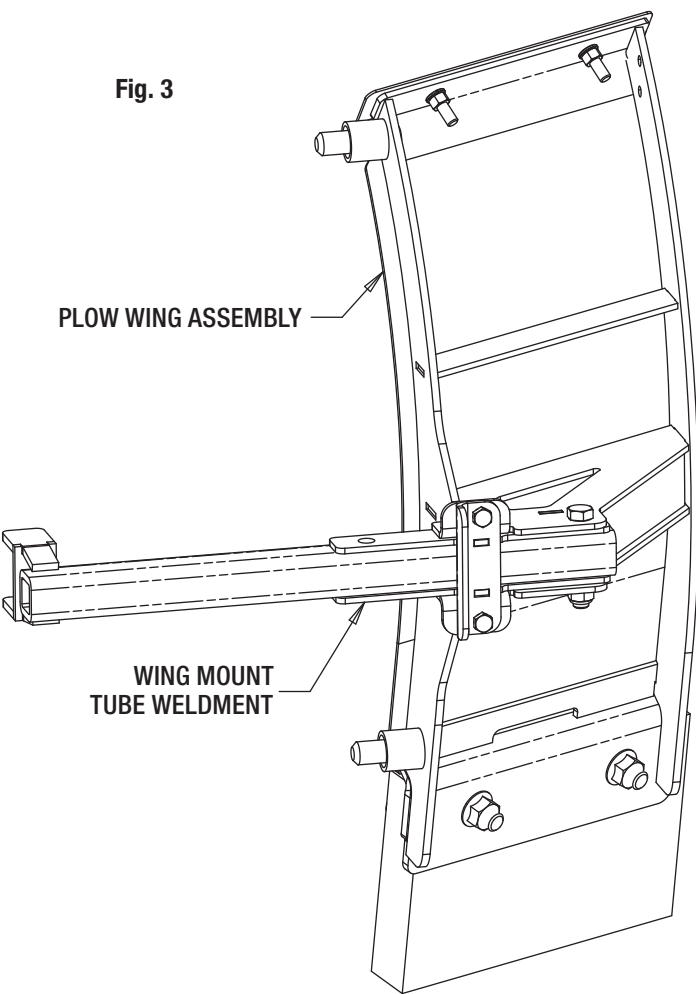
2. Drill a second 1" hole in each end rib in the positions marked in step 1. See figure 1.

3. Assemble each mount bracket to the plow by first attaching the bracket to the plow's cross-tube with one u-bolt (item 8) and two 3/8-16 lock nuts (item 12) supplied. Do not tighten the u-bolt at this time. See figure 2 to determine driver's and passenger's side brackets.

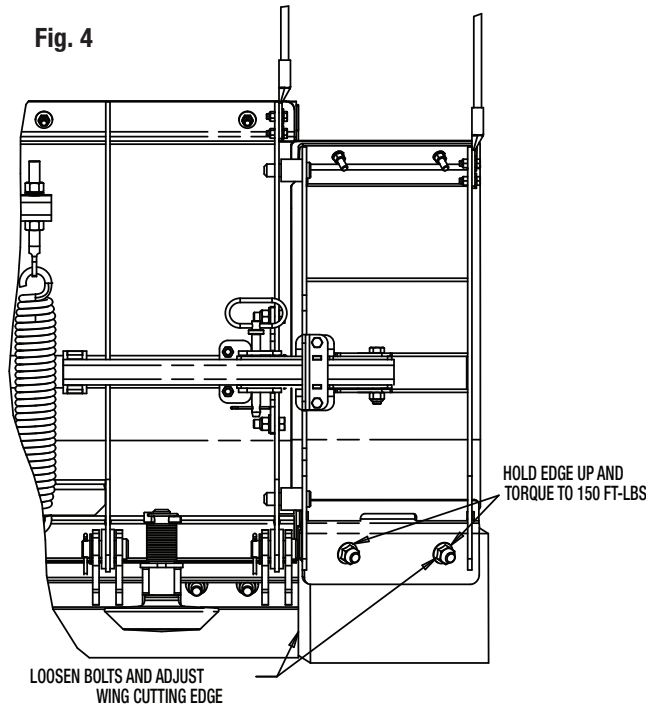
Fig. 2



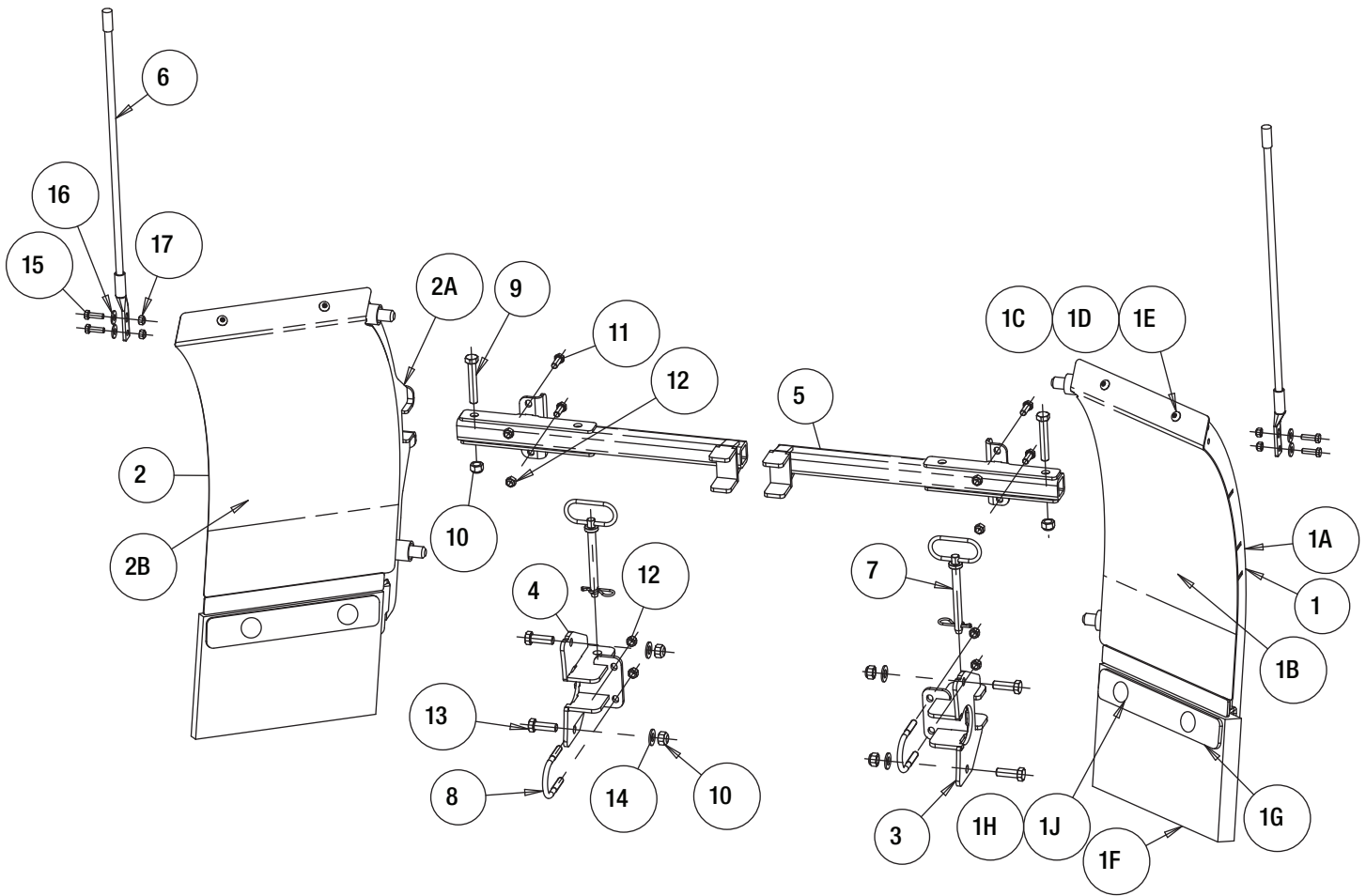
- 4.** Bolt each mounting bracket to the end ribs using two ½-13 x 1.5" screws, ½" flat washers, and ½-13 lock nuts (items 13, 14 & 10) supplied. Tighten the four mounting bolts making sure the front of each bracket is flush with the front of each rib.
- 5.** Tighten each u-bolt. Make sure that the u-bolt has an equal amount of threads exposed on each side. This will ensure that the wing mount tube will not interfere with the u-bolt when the wing assembly is installed on the plow.
- 6.** Assemble the wing mount tube weldment (item 5) to each plow wing assembly (items 1 & 2) with two 3/8-16 x 1" screws (item 11), two 3/8" locknuts (item 12), one ½-13 x 3" screw (item 9) and one ½-13 lock nut (item 10) each. See figure 3.



- 7.** Lift plow and carefully place a board under each end of the cutting edge. Lower the plow securely onto the boards.
- 8.** Assemble the plow wing assemblies into the mounting brackets using ½" hitch pin (item 7) supplied. It may be necessary to adjust the plow wing cutting edge by loosening the 5/8-11 x 3" carriage bolts and sliding the rubber edge over so that it is tight to the end of the plows cutting edge. Tighten plow wing cutting edge bolts to 150 ft-lbs. See figure 4.






- 9.** Assemble the blade guide markers (item 6) to each wing assembly using two 5/16-18 screws, 5/16" washers and 5/16-18 lock nuts (items 15, 16, & 17) supplied.



Bill Of Materials

ITEM	PART NO.	QTY	Description
1	16221340	1	WING ASSEMBLY, DS TE/SK PLOW
1A	16221342	1	FRAME WELDMENT, DS TE/SK WING
1B	16221344	1	SKIN, DS TE/SK WING, SST
N/S	16221658	2	HARDWARE KIT, SKIN, PLOW WINGS (Includes 1C,1D, & 1E)
1C	-	2	SCREW, HEX SOCKET BUTTON HEAD, 3/8-16X1.50, SST
1D	-	2	WASHER, LOCK, 3/8 SST
1E	-	2	NUT, HEX, 3/8-16, SST
1F	16221746	2	CUTTING EDGE, PLOW WING
1G	16221648	2	BAR, CLAMP, CUTTING EDGE
N/S	16221656	1	HARDWARE KIT, CUTTING EDGE (Includes 1H & 1J)
1H	-	4	BOLT, CARRIAGE, 5/8-11X3, GR5, ZP
1J	-	4	NUT, SERRATED FLANGE, 5/8-11, ZN
2	16221350	1	WING ASSEMBLY, PS TE/SK PLOW
2A	16221352	1	FRAME WELDMENT, PS TE/SK WING
2B	16221354	1	SKIN, PS TE/SK WING, SST
3	16221320	1	MOUNT BRACKET, DS TE/SK WING
4	16221330	1	MOUNT BRACKET, PS TE/SK WING

ITEM	PART NO.	QTY	Description
5	16221360	2	TUBE WELDMENT, MOUNT, TE/SK WING
N/S	16122100	1	BLADE GUIDE KIT (Pair W/ HDW)
6	-	2	MARKER, BLADE GUIDE
15	-	4	SCREW, HEX HEAD CAP, 5/16-18 X 1, GR5, ZN
16	-	4	WASHER, FLAT, 5/16 USS, ZN
17	-	4	NUT, NYLOCK, 5/16-18, ZN
N/S	16021710HDW	2	HARDWARE KIT, VX/TE PLOW WINGS (all items below)
7	16221768	1	HITCH PIN, 1/2 X 4-1/4, W/ COTTER, ZY
8	16221662	1	U-BOLT, ROUND, WING BRACKET
9	-	1	SCREW, HEX HEAD CAP, 1/2-13 X 3, GR5, ZN
10	-	3	NUT, NYLOCK, 1/2-13, ZN
11	-	2	SCREW, HEX HEAD CAP, 3/8-16 X 1, GR 5, ZN
12	-	4	NUT, NYLOCK, 3/8-16, ZN
13	-	2	SCREW, HEX HEAD CAP, 1/2-13 X 1.5, GR.5, ZN
14	-	2	WASHER, FLAT, 1/2" SAE, ZN
15	-	2	SCREW, HEX HEAD CAP, 5/16-18 X 1, GR5, ZN
16	-	2	WASHER, FLAT, 5/16 USS, ZN
17	-	2	NUT, NYLOCK, 5/16-18, ZN

Recommended Fastener Torque Chart (ft.-lb.)			
Size	 SAE Grade 2	 SAE Grade 5	 SAE Grade 8
1/4-20	6	9	13
5/16-18	11	18	28
3/8-16	19	31	46
3/8-24	24	46	68
7/16-14	30	50	75
1/2-13	45	75	115
9/16-12	66	110	165
5/8-11	93	150	225
3/4-10	150	250	370
7/8-9	150	378	591
1-8	220	583	893
Metric Grade 8.8 (ft.-lb.)			
Size	Torque	Size	Torque
M6	7	M12	60
M8	17	M14	95
M10	35	M16	155
These torque values apply to fasteners except those noted in the instruction.			

WARNING

- DO NOT under any circumstances disable, remove or relocate any sensors or components related to the operation of the air bags.
- Always follow the vehicle manufacturers' recommendations relating to snowplow installation.
- To comply with Federal Regulations and to assure a safe vehicle, the Front Gross Axle Weight Rating (FGAWR), Rear Gross Axle Weight Rating (RGAWR), and the Gross Vehicle Weight Rating (GAWR) must not be exceeded at any time.
- Due to the variety of equipment that can be installed on this vehicle, it is necessary to verify that the Front Gross Axle Weight Rating (FGAWR), Rear Gross Axle Weight Rating (RGAWR), and the Gross Vehicle Weight Rating (GAWR) are not exceeded at any time. This may require weighing the vehicle and adding ballast as necessary. It may also limit payload capacity of the vehicle. It is the operator's responsibility to verify that these ratings are not exceeded.

CAUTION

- Read all instructions prior to assembly
- It is critical that all fasteners be properly torqued for safe plow operation – see chart above.
- Fasteners should be retorqued after 5-8 hours of plow use

FULL ONE-YEAR WARRANTY

Manufacturer will repair, or at manufacturer's discretion will replace any part of this snowplow which proves to be defective in workmanship or material under normal use for a period of one year from the date of delivery to the original purchaser. Any cost incurred in returning the product to the supplier is the responsibility of the consumer.

EXCLUSIONS

Manufacturer shall not be liable for special, incidental, or consequential damages, or for damages resulting from lack of necessary maintenance, from misuse, abuse, acts of God, or alteration of the product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.