



BOSS PRODUCTS
A Division of Northern Star Industries, Inc.
P.O. Box 787 Iron Mountain MI 49801-0787
www.bosspow.com

BLADE WING EXTENSION OPTION KIT INSTALLATION INSTRUCTIONS

**Kit Number:
MSC08042C**

Covering Plow Sizes:
7'6" Standard Duty STB
7'6", 8'0", 8'6", and 9'0" Super Duty STB
8'0", 8'6", and 9'0" Super Duty XT STB
7'6" and 8'0" Super Duty Poly STB
7'6", 8'2", and 9'2" Steel Power V-Plow
8'2", and 9'2" Poly Power V-Plow
7'6", 8'0", and 9'0" Super Duty Trip Edge

WARNING

Serious injury or death can result if you do not follow these instructions and procedures which are outlined further within your owner's manual

- ALWAYS detach Blade Wing Extensions before transporting plow.
- Many newer trucks are equipped with air bags. DO NOT under any circumstances disable or remove or relocate any sensors or other components related to the operation of the air bags.
- Always follow the vehicle manufacturer's recommendations relating to snowplow installation. For recommended vehicle models refer to the Boss Snowplow Application Chart and Selection Guide.
- Vehicles equipped with air bags are designed such that the air bags will be activated in a frontal collision equivalent to hitting a solid barrier (such as a wall) at approximately 14 mph or more, or, roughly speaking, a frontal perpendicular collision with a parked car or truck of similar size at approximately 28 mph or more. Careless or high speed driving while plowing snow, which results in vehicle decelerations equivalent to or greater than the air bag deployment threshold described above, would deploy the air bag.
- Read this manual carefully before using Blade Wing Extensions.
- Keep all body parts away from mating areas when attaching and detaching Blade Wing Extensions.
- When transporting, position plow so as not to block vision or plow headlights.
- DO NOT change blade position when traveling.
- DO NOT exceed 40 mph when transporting plow.
- DO NOT exceed 14 mph when plowing.
- Always lower blade when vehicle is not in use.
- Make sure plow is properly attached before moving vehicle.

Blade Wing Extension Option Kit Installation Procedure

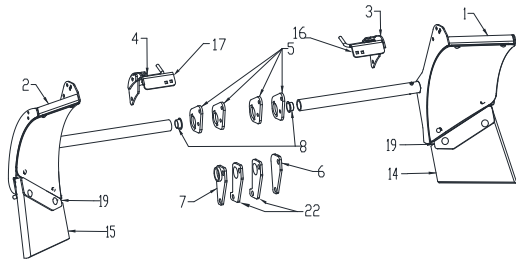


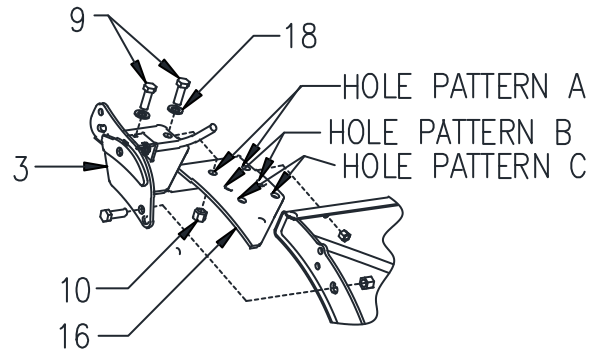
Figure 1. Blade Wing Parts **G10515**

ITEM #	QTY.	PART #	DESCRIPTION
1	1	BAL08008	DRIVER SIDE BLADE WING W/ SKIN
2	1	BAR08018	PASSENGER SIDE BLADE WING W/ SKIN
3	1	BAL09900	DRIVER SIDE SPRING PIN BRACKET
4	1	BAR09901	PASSENGER SIDE SPRING PIN BRACKET
5	4	BAX08035	PLOW RIB BRACKET
6	1	BAL08029	DRIVER SIDE TRIP-EDGE BRACKET
7	1	BAR08039	PASSENGER SIDE TRIP-EDGE BRACKET
8	2	MSC08040	TUBE PLUG
9	10	HDW01728	1/2"-13 X 1-1/2" HEX HEAD BOLT
10	10	HDW01748	1/2"-13 NYLON LOCK NUT
11	2	HDW05576	3/8"-16 X 1-1/4" CARRIAGE BOLT
12	2	HDW01720	3/8"-16 NYLON LOCK NUT
13	4	HDW01733	3/8" FLAT WASHER
14	1	BAX08057	UNIVERSAL CUTTING EDGE
15	1	BAX08057	UNIVERSAL CUTTING EDGE
16	1	BAL09898	DRIVER SIDE SPRING PIN BASE PLATE
17	1	BAR09899	PASSENGER SIDE SPRING PIN BASE PLATE
18	4	HDW01729	1/2" FLAT WASHER
19	2	BAX08031	EDGE MOUNTING PLATE
20	4	HDW09090	HHCS, 1/2-13X1-1/4, NC, GR5, YZN
21	4	HDW05597	1/2-13, TOP L/N, GRB, CAD&WAX, YZN
22	2	BAX09338	SPACER, WING EXT, TRP EDGE
23	4	HDW01797	HHCS, 3/4-10X3 GR5 FULL THREAD YZN

Note: This instruction manual is to be used for the installation of Blade Wing Extension Option Kit **MSC08042C**. Refer to Figure 9 for a list of current applications.

Figure 2. Hole Reference

G10517



- 1) Place plow in storage position detached from vehicle with coupler tower rotated forward.
- 2) On Driver Side of plow, measure, mark, and drill one 7/16" diameter hole in Blade Top. See Figure 10.
- 3) For older applications refer to Figure 9 for drilled hole reference measurements.
- 4) Mount Driver Side Spring Bracket Base Plate (16) to plow using one 3/8"-16 X 1-1/4" Carriage Bolt (11), and one 3/8" -16 Nylon Lock Nut (12). Do not tighten fasteners.
- 5) Mount Driver Side Spring Bracket (3) to plow using one 1/2"-13 X 1-1/2" Hex Head Bolt (9), one 1/2"-13 Nylon Lock Nut (10) and to Spring Bracket Base Plate (16) using two 1/2"-13 X 1-1/4" Hex Head Bolts (20), two 1/2" flat washers (18) and two 1/2"-13 Top Lock Nut (21). 2014+ Trip Edge blades with 70 degree attack angle use hole pattern B, Super Duty XT straight blade Plows use hole pattern C, all other applications use hole pattern A. See Figures 2 and 3. Do not tighten fasteners.

Note: Use 3/8" Flat Washers (13) to shim between Driver Side Spring Pin Bracket Base Plate (16) and top of blade if necessary.

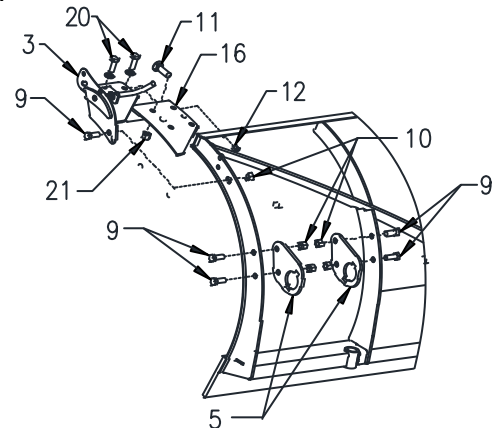


Figure 3. Mount Bracket Locations

G10516

- 6) Bolt Plow Rib Bracket (5) to inside of Outside Plow Rib. See Figure 3. Do not tighten fasteners.

Blade Wing Extension Option Kit Installation Procedure

- 7) Pull back Spring Pin and rotate upward into lock position.
- 8) Skip to step 15 if installing on 7'6" or 8'0" Super Duty Trip-Edge.
- 9) Bolt second Plow Rib Bracket (5) to outside of intermediate rib. Do not tighten fasteners.
- 10) Insert Driver Side Blade Wing (1) into Plow Rib Brackets (5).
- 11) Slide Driver Side Blade Wing (1) in until Attach Pin passes through first Plow Rib Bracket (5). See Figure 4.
- 12) Rotate Driver Side Blade Wing (1) until profile lines up with moldboard. Engage Spring Pin through hole corresponding to plow type. See Figure 7. Position Driver Side Blade Wing (1) so it's inside rib is parallel with Outside Plow Rib and Universal Cutting Edge (14) is contacting ground. Tighten all fasteners.
- 13) Adjust Universal Cutting Edge (14) as necessary. See Figure 8.

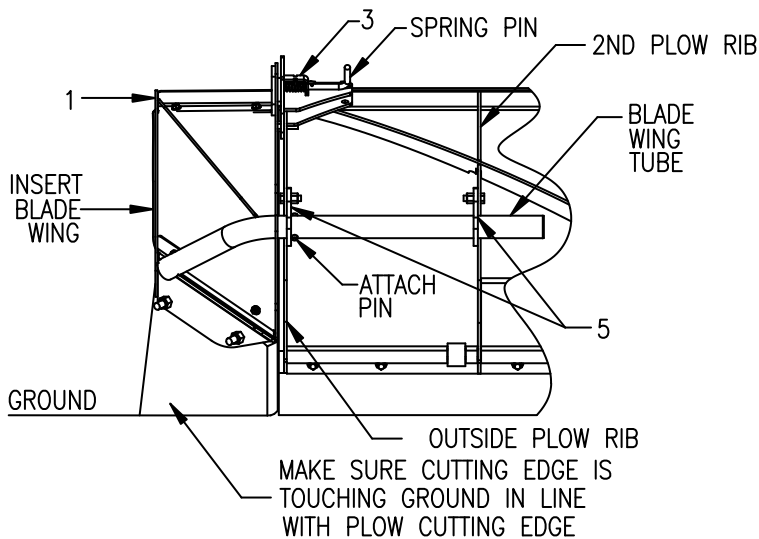


Figure 4. Blade Wing Extension Assembly

G10580

not, loosen fasteners, adjust to proper orientation, and re-tighten. Skip to step 20.

- 15) If installing on 7'6" or 8'0" Super Duty Trip Edge produced in 2014+ (blades will have a 70 degree attack angle) blade wing tube must be cut. See Figure 6 reference length.
- 16) Insert Driver Side Blade Wing (1) into first Plow Rib Bracket (5).
- 17) Attach Driver Side Trip Edge Bracket (6) using $\frac{3}{4}$ "-10 X 3" Hex Head Bolts (23) and $\frac{3}{4}$ "-10 Nylon Lock Nuts. See Figure 5. On Trip Edge blades produced in 2014+ (70 degree attack angle), place the spacer (22) between Driver Side Trip Edge Bracket (6) and the plow rib. Insert tube from Driver Side Blade Wing (1) into Driver Side Trip Edge Bracket (6). Rotate forward and engage Spring Pin through corresponding hole in Driver Side Blade Wing (1). Make sure Driver Side Blade Wing (1) is aligned properly and tighten fasteners.

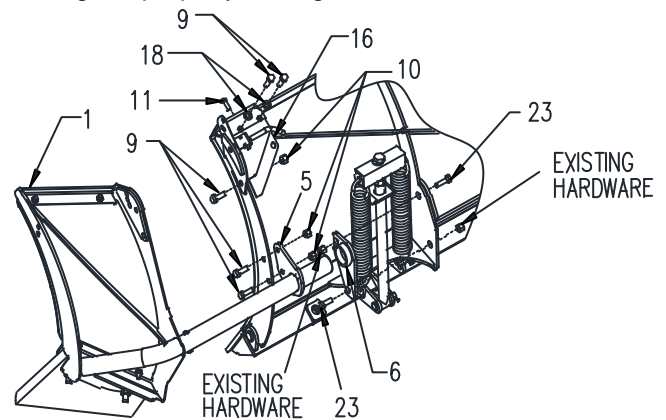


Figure 5. Trip Edge Bracket Installation

G10581

- 18) Make sure all fasteners are tightened. DO NOT OVER TIGHTEN. See guide to recommended assembly torque located in this manual. It is important that all fasteners be properly torqued to assure a safe operating plow. Re-tighten all fasteners after 2 hours of plowing.
- 19) Repeat steps 2-20 for Passenger Side.
- 20) Attach plow to truck. Make sure plow sits level and all cutting edges are contacting ground.

- 14) Attach and detach Driver Side Blade Wing (1) several times to ensure proper fit. Attach plow to truck and determine if all cutting edges are contacting ground. If

Blade Wing Extension Option Kit Installation Procedure

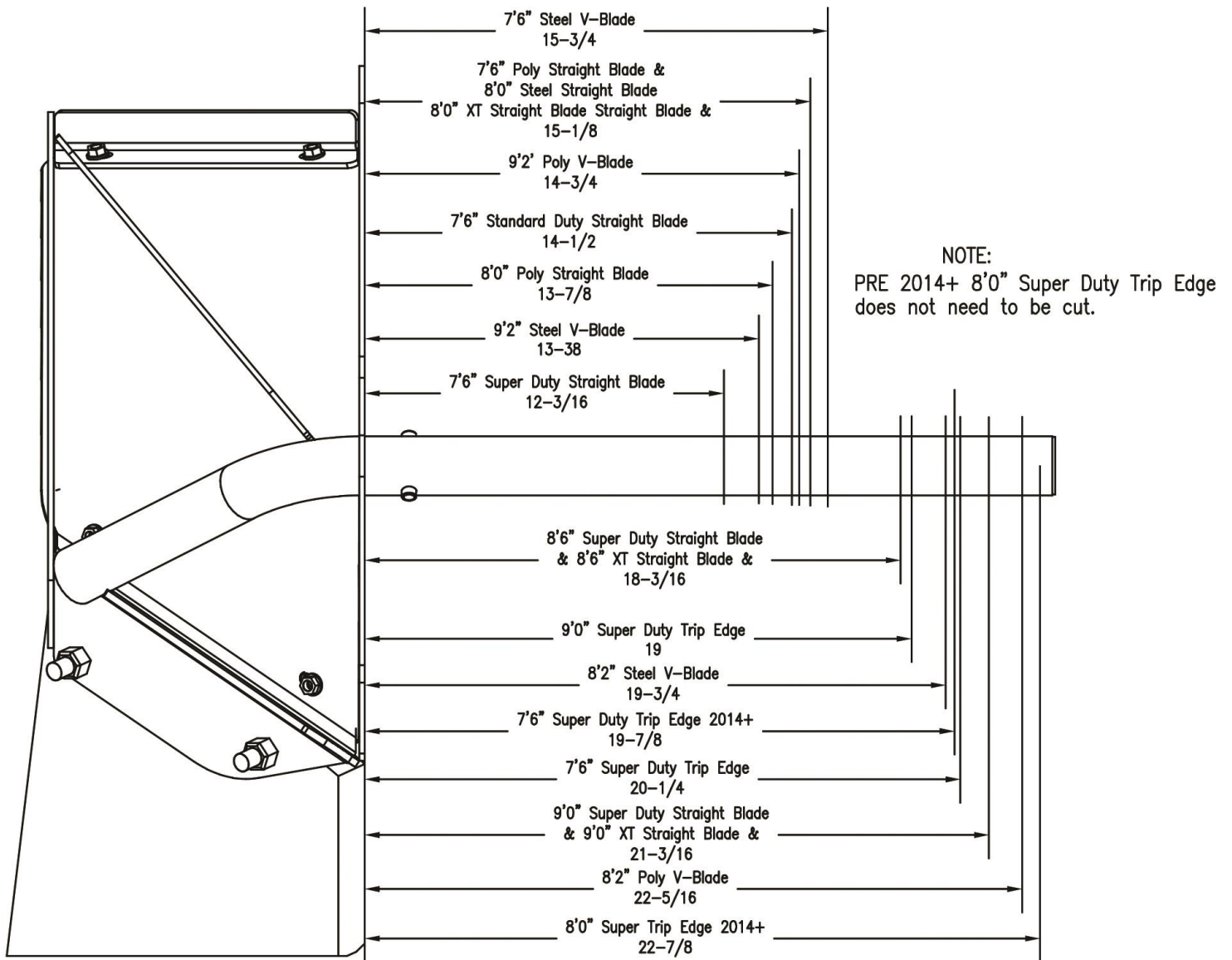


Figure 6. Blade Wing Tube cut locations

G10582

21) This step is optional. After installation is complete, Blade Wing Tube can be shortened by marking and cutting end of tube to 1/2" beyond inside of second Plow Rib Bracket (5). See Figure 6 for reference measurements. Tube Plug (8) must be inserted in end of Blade Wing Tube following cut to prevent corrosion.

Blade Wing Extension Option Kit Installation Procedure

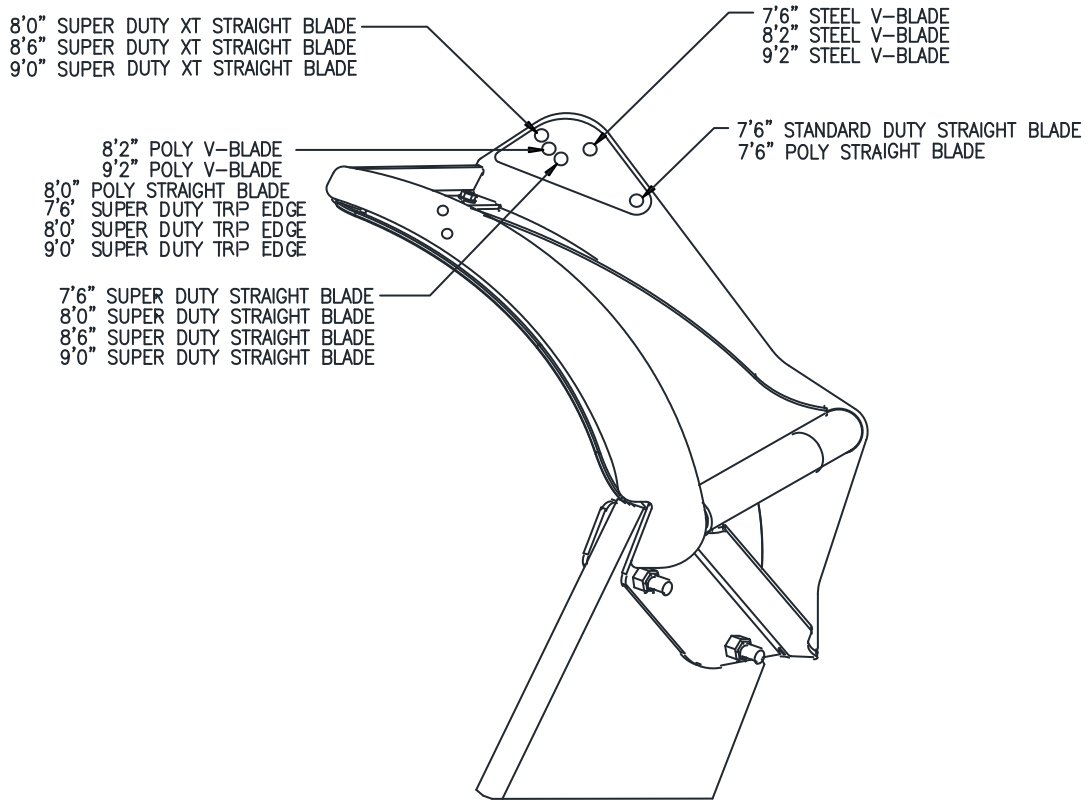


Figure 7. Individual Blade Spring Pin Location

G10583

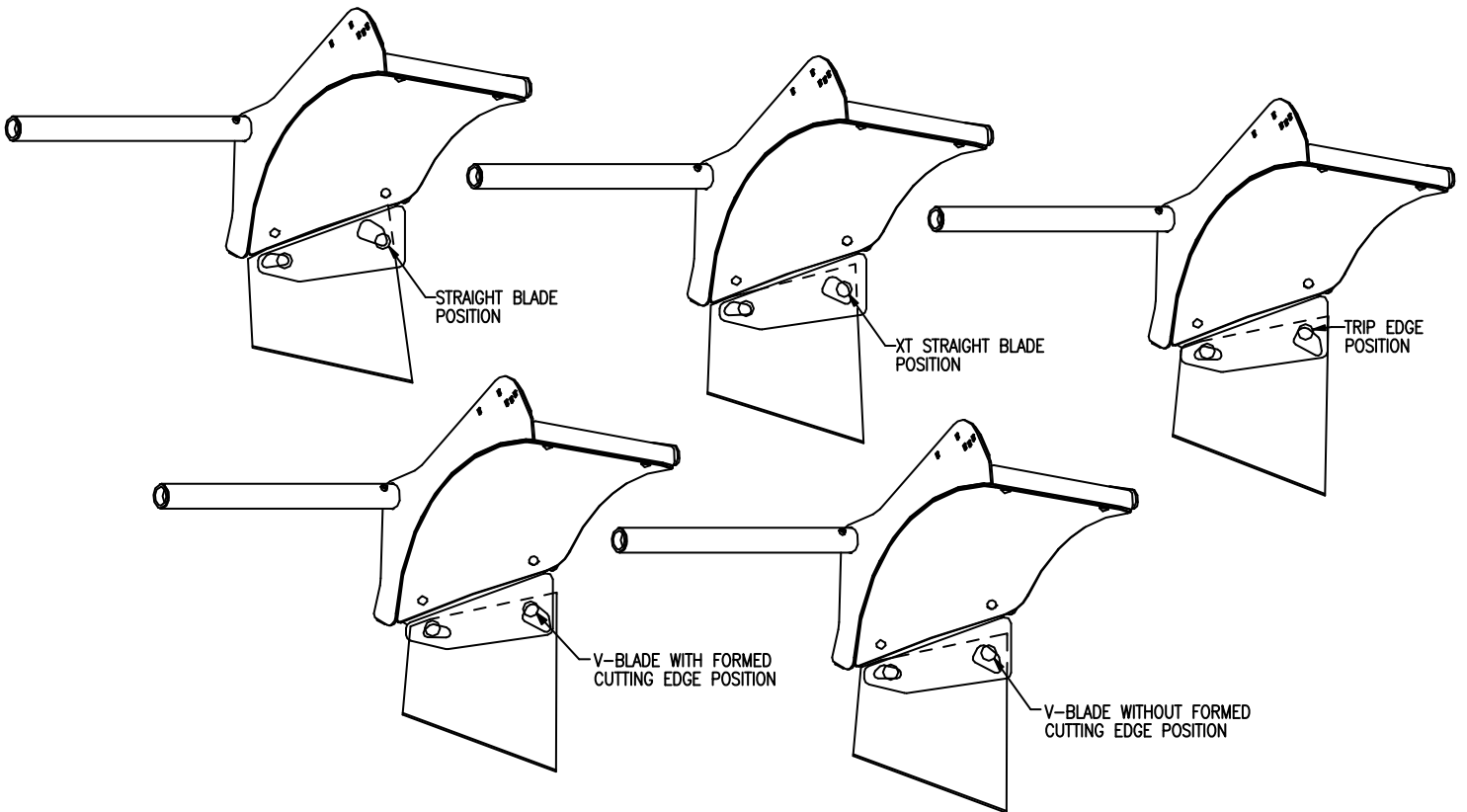
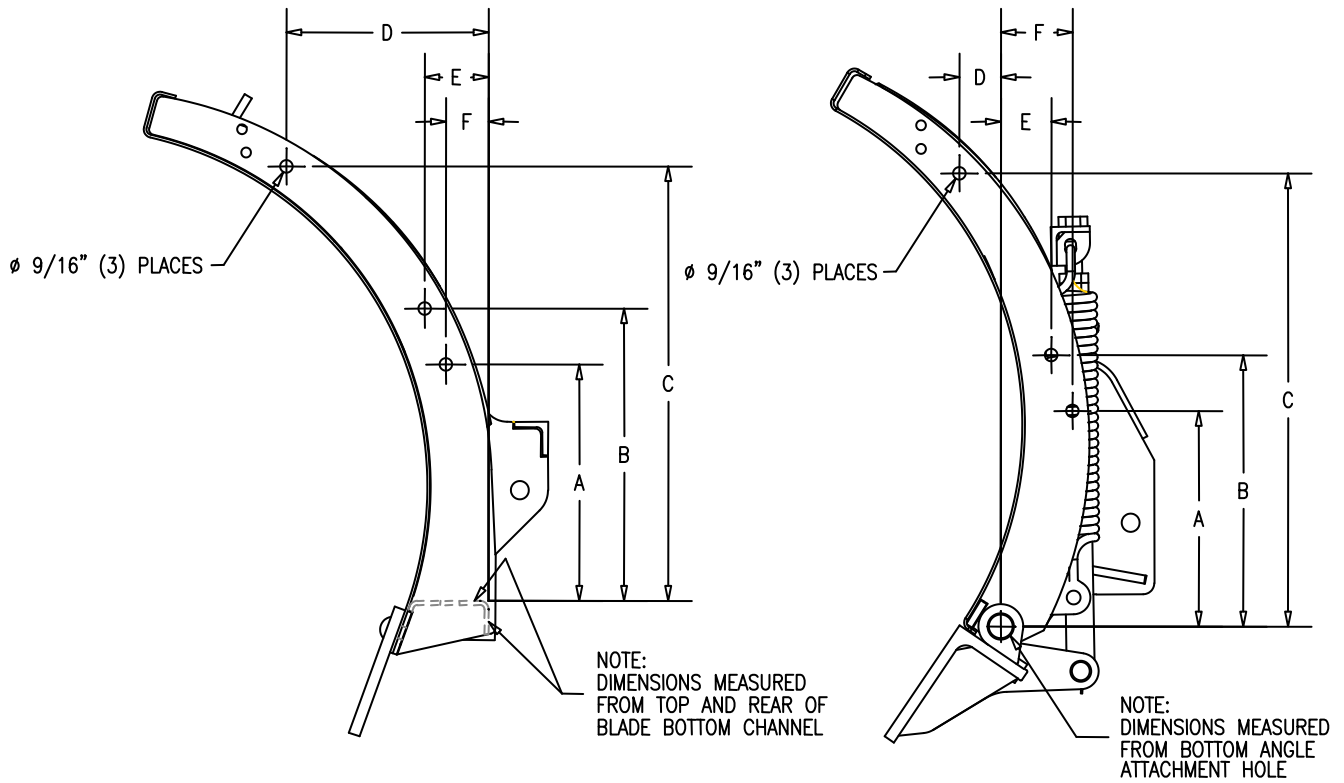


Figure 8. Cutting Edge Adjustment

G10584

REFERENCE DIMENSIONS ONLY



PLOW SIZE	TYPE	A	B	C	D	E	F
7'6" STANDARD	STEEL STRAIGHT	10 5/16	13 7/16	17 19/32	5 1/8	1 9/16	19/32
7'6", 8'0", 8'6" AND 9'0" SUPER DUTY	STEEL STRAIGHT	10 9/16	13 1/16	19 13/32	9 1/32	2 7/8	1 29/32
8'0", 8'6" AND 9'0" XT SUPER DUTY	STEEL STRAIGHT	7 25/32	10 9/32	19	6 27/32	1 1/4	9/32
7'6" STANDARD DUTY	POLY STRAIGHT	9 7/8	12 3/8	16 13/32	6	2 7/32	1 9/32
8'0" SUPER DUTY	POLY STRAIGHT	10 1/16	12 9/16	19 1/32	9 29/32	2 13/16	1 7/8
7'6", 8'2" AND 9'2" SUPER DUTY	STEEL V-PLOW	9 3/4	12 1/4	20 3/8	3 23/32	9/16	3/8
8'2" AND 9'2" SUPER DUTY	POLY V-PLOW	8 7/16	10 31/32	19 9/16	5 17/32	3/4	7/32
7'6", 8'0" AND 9'0" SUPER DUTY	TRIP EDGE	9 11/16	12 3/16	20 5/16	1 7/8	2 1/4	3 1/4

Figure 9. Plow Rib Drilled Hole Reference Measurements

G10362

Blade Wing Extension Option Kit Installation Procedure

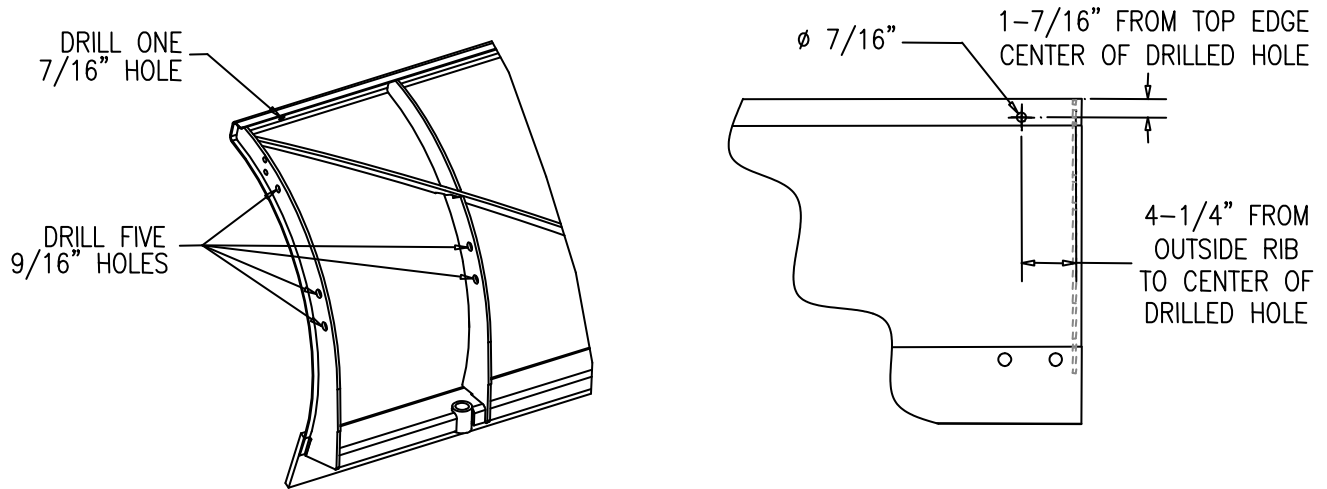


Figure 10. Blade Top Drilled Hole Measurements (POLY-V HOLES ARE PRE-CUT)

G10354

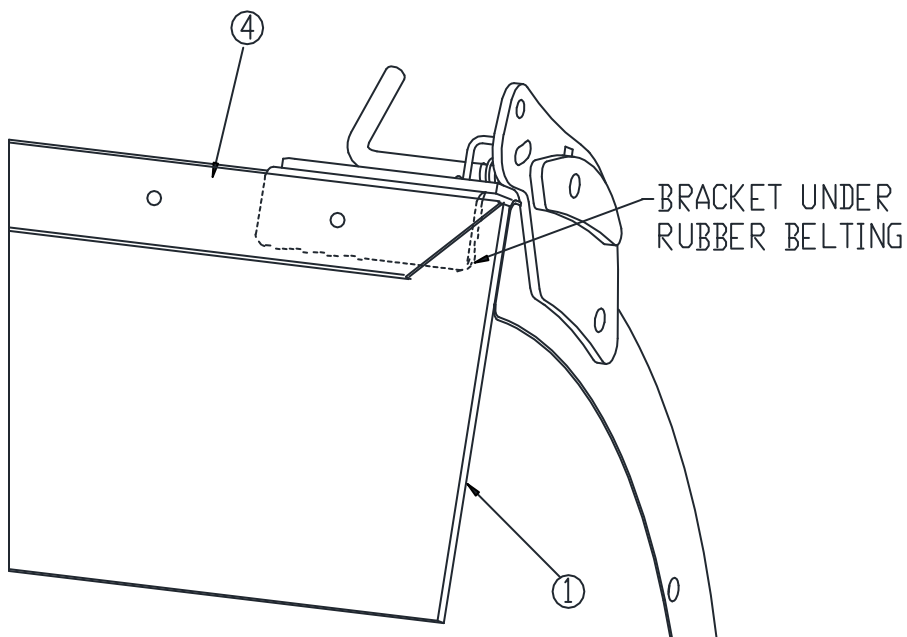


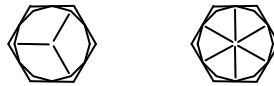
Figure 11. Blade Wing Bracket Installed on Blade

G10614

22) For plows with deflectors installed: Deflector Belting (1) must be mounted on top of Blade Wing Bracket (2).

23) Place Metal Strap (4) on top of Rubber Belting (1) and use the hardware provided to secure Rubber Belting (1) and the Metal Strap to the blade.

GUIDE TO RECOMMENDED ASSEMBLY TORQUE



DIAMETER / PITCH	GRADE 5	GRADE 8	GRADE 8.8	GRADE 10.9
1/4-20	6	9		
5/16-18	14	19		
3/8-16	23	33		
7/16-14	38	53		
1/2-13	56	80		
9/16-12	82	116		
5/8-11	113	159		
3/4-10	201	283		
M10 X 1.25			36	
M10 X 1.5				49
M12 X 1.75				71
M14 X 2.0				80

ALL TORQUE VALUES ARE IN FOOT-POUNDS (FT.-LB.)

* The torque values listed above are based on dry, coated bolts, variables such as oil, or other lubrications may appreciably alter these values and must be taken into consideration.

NOTE: IT IS IMPORTANT THAT ALL FASTENERS BE PROPERLY TORQUED TO ASSURE A SAFE OPERATING PLOW.

Figure 12. Recommended Assembly Torque

G10410