

BOSS PRODUCTS  
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# **UNIVERSAL UNDERCARRIAGE MOUNTING INSTRUCTIONS (PART NO. LTA07667B)**

***DRIVEN TO BE THE BEST***

MSC04297-7

# WARNING

Many newer trucks are now equipped with air bags. DO NOT under any circumstances disable, remove or relocate any sensors or other components related to the operation of the air bags.

Always follow the vehicle manufacturers' recommendations relating to snowplow installation. For recommended vehicle models refer to the Boss Snowplow Application Chart and Selection Guide.

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.

## UNIVERSAL UNDERCARRIAGE MOUNTING INSTRUCTIONS

The mounting procedures outlined below covers the Universal Undercarriage for use on trucks between 14,000 and 27,000 GVWR. There are two methods that are provided to match your trucks frame to this undercarriage. You will need to refer to the illustrations and familiarize yourself with each of the undercarriage components and their relative position to each other. Then choose one of the following:

### Method 1 – Typical for most Ford Mounts.

1. Cut UPPER SUPPORT ANGLE (Ref. 75C, Fig. 1) and the FRONT ANGLE BEAM (Ref. 62C, Fig. 1) to match the width of the outside of the frame. Install on top of the frame rails by tack welding or bolting. Tack weld PUSH BEAM SUPPORT PLATES to the FRONT ANGLE BEAM. The height of the Push Beam Hooks after installing the PUSH BEAM SUPPORT PLATES should be 16 ½" (see Pg. 6, Fig. 3). Weld the FRONT ANGLE GUSSETS (Ref. 62E, Fig. 1) to the inside of the FRONT ANGLE BEAM and PUSH BEAM SUPPORT PLATES. Mount the assembled FRONT ANGLE BEAM to the frame and assemble it to the frame and UPPER SUPPORT ANGLES by either tack welding or bolting it up.

2. Cut the ends of PUSH BEAM ASSEMBLY (Ref. 62, Fig.1) and BAR GUSSETS (Ref. 62G, Fig. 1) to a length that will allow it to fit inside of PUSH BEAM SUPPORT PLATES when PUSH BEAM SIDE PLATES (Ref. 62F, Fig. 1) are welded to it. Note: *This should be the distance between PUSH BEAM SUPPORT PLATES less than 1 inch.* Tack weld PUSH BEAM SIDE PLATES and BAR GUSSETS to PUSH BEAM ASSEMBLY. Position FRAME MOUNT ANGLE BRACKETS (Ref. 75A, Fig. 1) on the frame and drill out for 5/8" bolts then mount with 5/8" – 11 x 2 Hex Head Cap Screws and 5/8" – 11NC Oval Top Lock Nuts provided. Mount PUSH BEAM ASSEMBLY to PUSH BEAM SUPPORT PLATES using 5/8" – 11 x 2 Hex Head Cap Screws and 5/8" – 11NC Oval Top Lock Nuts provided. Fasteners should only be finger tight. Determine the distance between FRAME MOUNT ANGLE BRACKETS. This distance will be used when welding ATTACHMENT ANGLE MOUNTING TABS (Ref. 62B, Fig. 1) to PUSH BEAM ASSEMBLY. Also, determine the distance and angle from PUSH BEAM ASSEMBLY to FRAME MOUNT ANGLE BRACKETS. Remove PUSH BEAM ASSEMBLY and FRAME MOUNT ANGLE BRACKETS.

3. Cut each end of ANGLE BRACKET ANGLE ARMS (Ref. 75, Fig. 1) to the appropriate angles and length. Tack weld PUSH BEAM ATTACHMENT ANGLES (Ref. 75B, Fig. 1) and FRAME MOUNT ANGLE BRACKETS to ANGLE BRACKET ANGLE ARMS. Tack weld ATTACHMENT ANGLE MOUNTING TABS to PUSH BEAM ASSEMBLY. Re-mount PUSH BEAM ASSEMBLY and FRAME MOUNT ANGLE BRACKETS. Bolt PUSH BEAM ATTACHMENT ANGLES to ATTACHMENT ANGLE MOUNTING TABS using 5/8" – 11 x 2 Hex Head Cap Screws and 5/8" – 11NC Oval Top Lock Nuts provided.

4. If necessary add ANGLE ARM GUSSET (Ref. 62E, Fig. 1) to strengthen connection between ANGLE BRACKET ANGLE ARM and FRAME MOUNT ANGLE BRACKET. Gussets will need to be trimmed for best fit.
5. Finish welding and paint all parts.
6. With all undercarriage parts in place, securely fasten all mounting hardware. It is important that all fasteners be properly torqued (see Fig. 3) to assure a safe operating plow.

## Method 2 – Typical frame extension type mount.

1. Mount UPPER SUPPORT ANGLES over frame and cut so they are flush with the front bumper. Also cut FRONT ANGLE BEAM (Ref. 62C, Fig. 2) to match the width of the vehicle's frame. Tack weld PUSH BEAM SUPPORT PLATES to the FRONT ANGLE BEAM. Bolt FRONT ANGLE MOUNTS to UPPER SUPPORT ANGLES with 5/8" – 11 x 2 Hex Head Cap Screws (Ref. D, Fig. 2) and 5/8" – 11NC Oval Top Lock Nuts (Ref. A, Fig. 2) provided. The height of the Push Beam Hooks after installing the PUSH BEAM SUPPORT PLATES should be 16 1/2" (see Pg. 6, Fig. 3). Drill out (4) holes for 3/4" bolts in FRONT ANGLE BEAM to match the slotted holes in the FRONT ANGLE MOUNTS. Mount the assembled FRONT ANGLE BEAM to the FRONT ANGLE MOUNTS using 3/4" – 10 x 2NC Hex Head Cap Screws (Ref. E, Fig. 2), 3/4" Flat Washers (Ref. C, Fig. 1), and 3/4" – 10 Lock Nuts (Ref. B, Fig. 2) provided. Tack weld the FRONT ANGLE GUSSETS (Ref. 62E, Fig. 2) to the inside of the FRONT ANGLE BEAM and PUSH BEAM SUPPORT PLATES. Note: *It will be difficult to bolt the FRONT ANGLE BEAM to the FRONT ANGLE MOUNTS if the FRONT ANGLE GUSSETS are welded in place first.*
2. Cut the ends of PUSH BEAM ASSEMBLY (Ref. 62, Fig. 2) and BAR GUSSETS (Ref. 62G, Fig. 2) to a length that will allow it to fit inside of PUSH BEAM SUPPORT PLATES when PUSH BEAM SIDE PLATES (Ref. 62F, Fig. 2) are welded to it. Note: *This should be the distance between PUSH BEAM SUPPORT PLATES less than 1 inch.* Tack weld PUSH BEAM SIDE PLATES and BAR GUSSETS to PUSH BEAM ASSEMBLY. Position FRAME MOUNT ANGLE BRACKETS (Ref. 75A, Fig. 2) on the frame and drill out for 5/8" bolts then mount with 5/8" – 11 x 2 Hex Head Cap Screws and 5/8" – 11NC Oval Top Lock Nuts provided. Mount PUSH BEAM ASSEMBLY to PUSH BEAM SUPPORT PLATES using 5/8" – 11 x 2 Hex Head Cap Screws and 5/8" – 11NC Oval Top Lock Nuts provided. Fasteners should only be finger tight. Determine the distance between FRAME MOUNT ANGLE BRACKETS. This distance will be used when welding ATTACHMENT ANGLE MOUNTING TABS (Ref. 62B, Fig. 2) to PUSH BEAM ASSEMBLY. Also, determine the distance and angle from PUSH BEAM ASSEMBLY to FRAME MOUNT ANGLE BRACKETS. Remove PUSH BEAM ASSEMBLY and FRAME MOUNT ANGLE BRACKETS.
3. Cut each end of ANGLE BRACKET ANGLE ARMS (Ref. 75, Fig. 2) to the appropriate angles and length. Weld PUSH BEAM ATTACHMENT ANGLES (Ref. 75B, Fig. 2) and FRAME MOUNT ANGLE BRACKETS to ANGLE BRACKET ANGLE ARMS. Weld ATTACHMENT ANGLE MOUNTING TABS to PUSH BEAM ASSEMBLY. Re-mount PUSH BEAM ASSEMBLY and FRAME MOUNT ANGLE BRACKETS. Bolt PUSH BEAM ATTACHMENT ANGLES to ATTACHMENT ANGLE MOUNTING TABS using 5/8" – 11 x 2 Hex Head Cap Screws and 5/8" – 11NC Oval Top Lock Nuts provided.
4. If necessary add ANGLE ARM GUSSET (Ref. 62E, Fig. 1) to strengthen connection between ANGLE BRACKET ANGLE ARM and FRAME MOUNT ANGLE BRACKET. Gussets will need to be trimmed for best fit.
5. Finish welding and paint all parts.
6. With all undercarriage parts in place, securely fasten all mounting hardware. It is important that all fasteners be properly torqued (see Fig. 3) to assure a safe operating plow.

# UNIVERSAL UNDERCARRIAGE INSTALLATION PROCEDURE

REF. NO.	DESCRIPTION	PART NO.	QTY.
62	Push Beam Assembly	PBA07756	1
62A	Push Beam Support Plates	PBA07750	2
62B	Attachment Angle Mounting Tabs	LTA07758	2
62C	Front Angle Beam	PBA07752	1
62D	Front Angle Mount	PBA07751	2
62E	Front Angle Gusset / Angle Arm Gusset	LTA07757	4
62F	Push Beam Side Plate	PBA07762	2
62G	Bar Gusset	PBA07784	2
75	Angle Bracket Angle Arm	LTA07754	2
75A	Frame Mount Angle Bracket	LTA07753	2
75B	Push Beam Attachment Angle	LTA07755	2
75C	Upper Support Angle	PBA07785	2

	HARDWARE KIT, 10' V, UNIV U/C	HDW07721	1
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Includes:

A	5/8"-11NC Gr B Oval Top Lock Nut	HDW01709	28
B	3/4" – 10 Gr 5 Lock Nut	HDW01716	4
C	3/4" Flat Washer	HDW01722	4
D	5/8" – 11 x 2 Gr 5 Hex Head Cap Screw	HDW01731	28
E	3/4" – 10 x 2NC Gr 5 Hex Head Cap Screw	HDW01756	4
F	Battery Terminal Bolt	HDW01762	1
G	Battery Terminal Contact Spacer	HDW01763	1

## Method 1

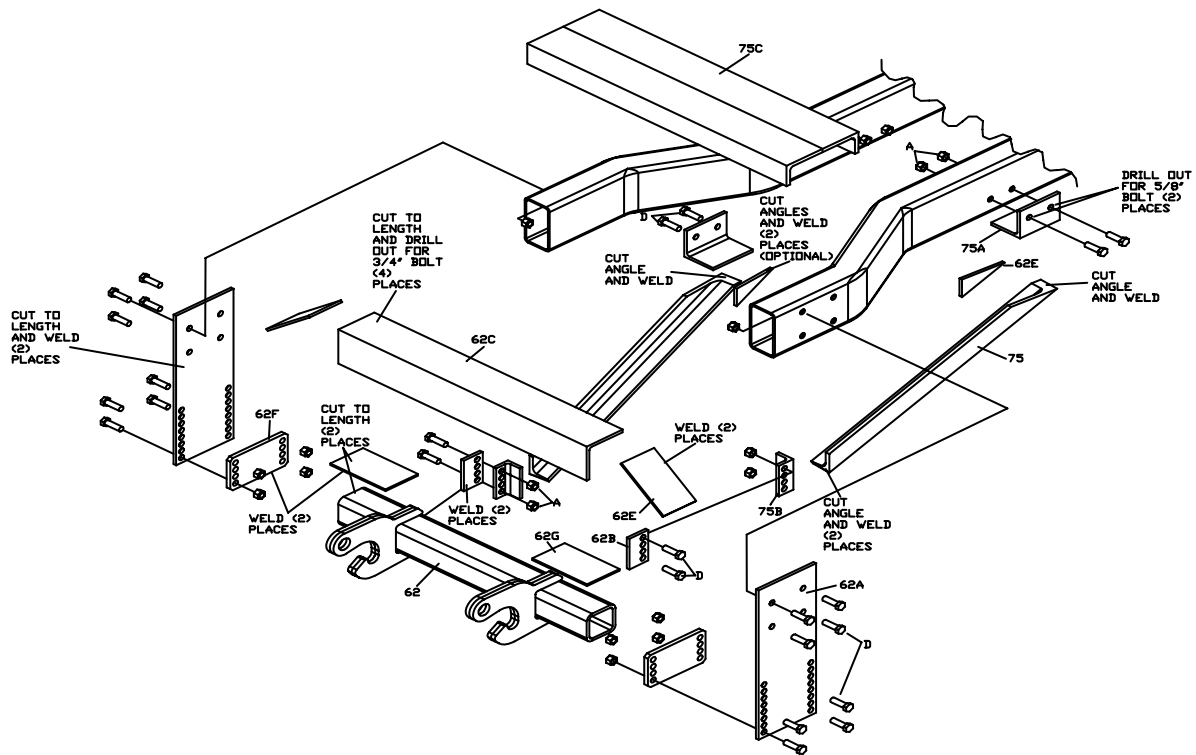


Figure 1

G10232

## Method 2

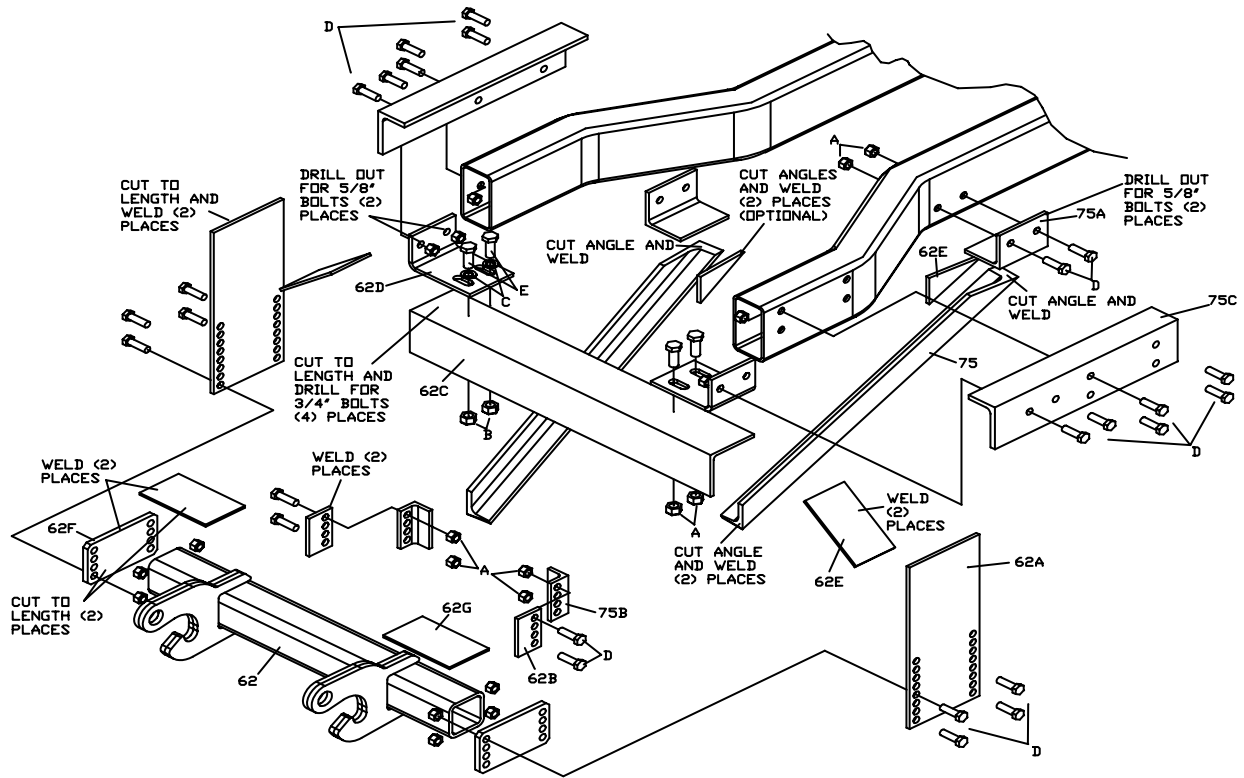


Figure 2

G10233

## RECOMMENDED PUSHBEAM HEIGHT

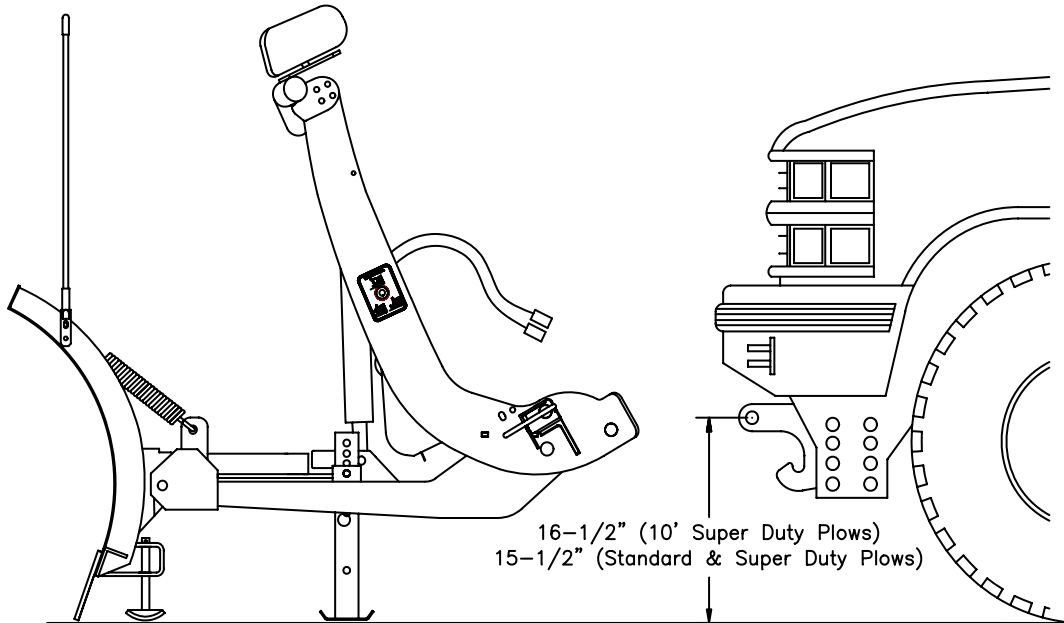


Figure 3

G10155

## 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.)

Figure 4

G10410

\* 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.