

RT3 Undercarriage 2021 and After Ford F150 Truck

Part No. LTA25150—Serial No. 400000000 and Up

Installation Instructions

Safety

- Always follow the vehicle manufacturer's recommendations relating to system installation. For recommended vehicle models, refer to the BOSS Snowplow Application Chart and Selection Guide.
- Never disable, remove, or relocate any sensors or other components related to the operation of the air bags.
- To comply with federal regulations and to assure a safe vehicle, do not exceed the front gross-axle-weight rating (FGAWR), rear gross-axle-weight rating (RGAWR), and the gross-vehicle-weight rating (GVWR) at any time.
- Due to the variety of equipment that you can install on the vehicle and undercarriage, do not exceed the front gross-axle-weight rating (FGAWR), rear gross-axle-weight rating (RGAWR), and the gross-vehicle-weight rating (GVWR) at any time. This may require weighing the vehicle and adding ballast as necessary. It may also limit the payload capacity of the vehicle.

Installation

- Park the vehicle on a level surface, engage the parking brake, shut off the engine, and remove the key.
- Remove the bumper and tow hooks from the vehicle.

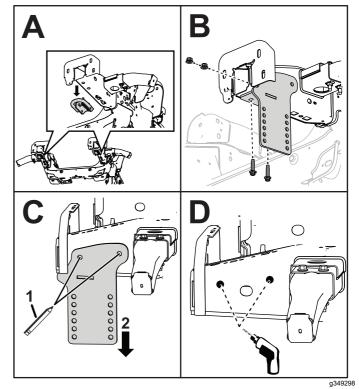


Figure 1

- Align the bottom holes of the support plates with the tow hook holes under the end of the vehicle frame rails.
- Use the existing bolts from the tow hooks to attach the driver-side support plate, passenger-side support plate, and tow hooks to the frame.
- Mark the holes on the outside of the frame rails and remove the support plates.



A WARNING

Using a drill without proper eye protection may allow debris to enter the eye, causing injury.

When drilling, always wear eye protection.

- 6. Locate your marks and drill 2 holes (1.43 cm or 9/16 inch) on each frame rail.
- Remove the skid plate from the vehicle 7. crossmember under the truck.
- 8. Align the skid plate attachment with the existing holes (1/4 inch) in the crossmember.
- Use a drill to widen the existing holes (1/4 inch) to 1/2 inch.

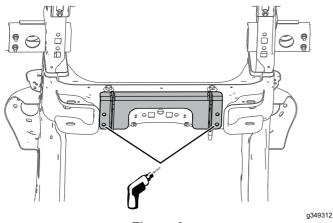


Figure 2

Use bolt pullers to secure the 4 hex-head bolts (1/2 inch), flat washers (1/2 inch), lock washers and top locknuts (1/2 inch) to the skid plate and crossmember.

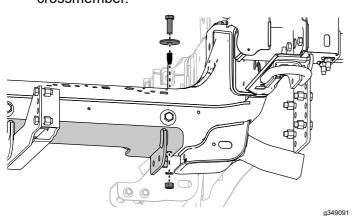


Figure 3

Use 4 hex-head bolts (1/2 inch, GR8) and 4 nylon locknuts (1/2 inch) to loosely secure the angle brackets to the skid plate attachment (Figure 4).

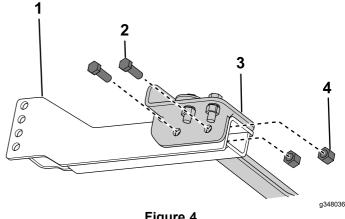


Figure 4

- 1. Angle bracket—driver side 3. Skid plate attachment
- Hex-head bolt (1/2 inch, GR5)
- 4. Nylon locknut (1/2 inch)
- Use 4 hex-head bolts (1/2 inch, GR5) and 4 nylon locknuts (1/2 inch) to loosely secure the support plates to the vehicle frame.

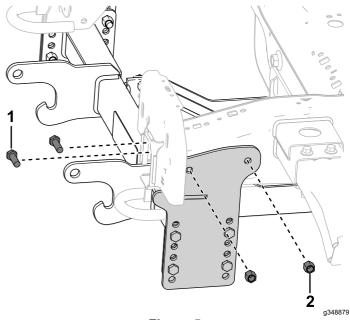


Figure 5

- Hex-head bolt (1/2 inch,
- 2. Nylon locknut (1/2 inch)
- Install the tow hooks.

14. Use 8 hex-head bolts (1/2 inch, GR5) and 8 nylon locknuts (1/2 inch) to loosely secure the push beam assembly to the support plates.

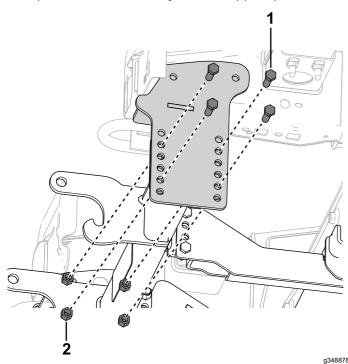


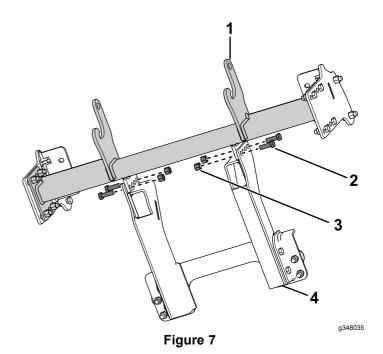
Figure 6

- . Hex-head bolt (1/2 inch, 2. Nylon locknut (1/2 inch) GR5)
- 15. Use 4 hex-head bolts (1/2 inch, GR5) and 4 nylon locknuts (1/2 inch) to loosely secure the angle brackets to the tabs on the back of the push beam assembly (Figure 7).

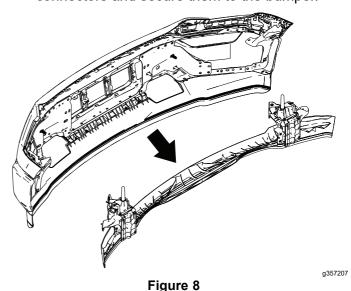
Note: Refer to the Recommended Pushbeam Height table below

Recommended Pushbeam Height

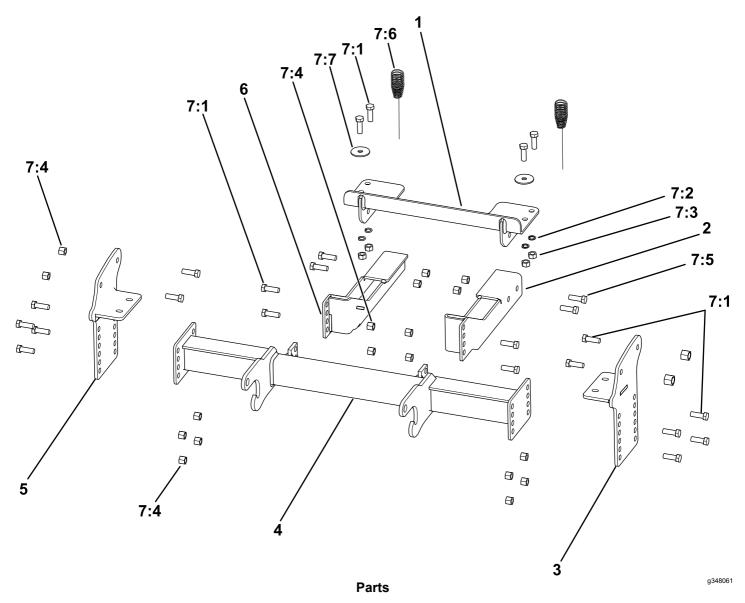
Plow Type	Recommended Pushbeam Height
Rear Mounted Plow	48 cm (19 inches)
UTV	44-1/2 cm (17-1/2 inches)
Heavy Duty	15 cm (16-1/2 inches)
Standard Duty	39 cm(15-1/2 inches)
HTX/Sport Duty	37 cm (14-1/2 inches)



- 1. Push beam assembly
- 3. Nylon locknuts (1/2 inch)
- 2. Hex-head bolts (1/2 inch, GR8)
- Angle bracket—driver side
- 16. Measure and notch the vehicle valance, or remove the valance if desired.
- 17. Remove the active air dam valance and motors (if equipped) from the backside of the bumper. Apply dielectric grease to the electrical connectors and secure them to the bumper.



- 18. Install the bumper to the vehicle.
- 19. Torque all of the fasteners to the following specifications:
 - 1/2-inch bolts: torque to 76 N·m (56 ft-lb)
 - M12 bolts: torque to 80 to 100 N·m (59 to 73 ft-lb).



Ref.	Part Number	Qty.	Description	Ref.	Part Number	Qty.	Description
1	LTA10122-03	1	SKID PLT,FORD F150,21+	7:1	HDW01728	20	HHCS, 1/2-13 X 1-1/2, NC,
2	LTA10123-03	1	ARM,ANGLE BRKT,DR,FORD F150,21+	7:2	HDW01732	4	GR5, YZN WASHER, 1/2, SPLIT LOCK,
3	PBA10125-03	1	PBSP,DR,FORD F150,21+				YZN
	PBA09166-03		PUSHBEAM ASM RT3	7:3	HDW02410	4	NUT, 1/2-13, FIN, FULL, YZN
4	1 2/100 100 00	1	SP/FORD F150,09+[WELD]	7:4	HDW01748	20	NUT, 1/2-13, NYL INS, YZN
5	PBA10130-03	1	PBPS,PS,FORD F150,21+	7:5	HDW05553	4	HHCS, 1/2-13 X 1-1/2, NC,
•	LTA10124-03	4	ARM,ANGLE BRKT,PS,FORD				GR8, YZN
6		1	F150,21+	7:6	MSC09670	2	BOLT PULLER, 1/2-13
7	HDW10175	1	FASTENER KIT, FORD F150, 21+	7:7	HDW10982	2	WASHER,FENDER,1/2"IDX2"OI