

# GLACIER® PRO HD PLOW FRAME KIT



P/N 2889308

## BEFORE YOU BEGIN

Read these instructions and check to be sure all parts and tools are accounted for. Please retain these installation instructions for future reference and parts ordering information.

## APPLICATION

Verify accessory fitment at [www.polaris.com](http://www.polaris.com).

## REQUIRED SOLD SEPARATELY

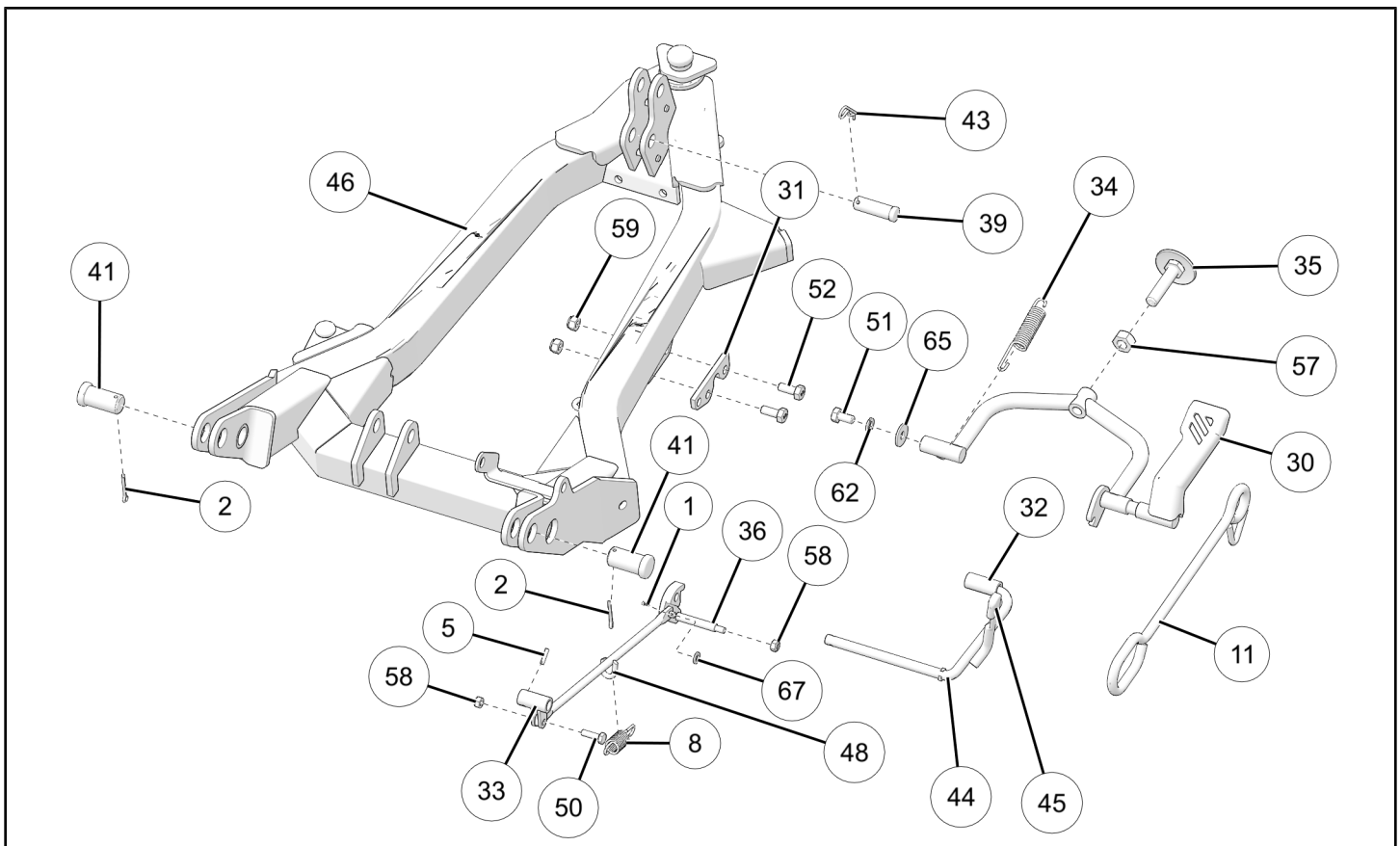
Only parts for installation of the Glacier® Pro HD Plow Frame Kit are included. Prior installation of the following additional kits are also required (sold separately):

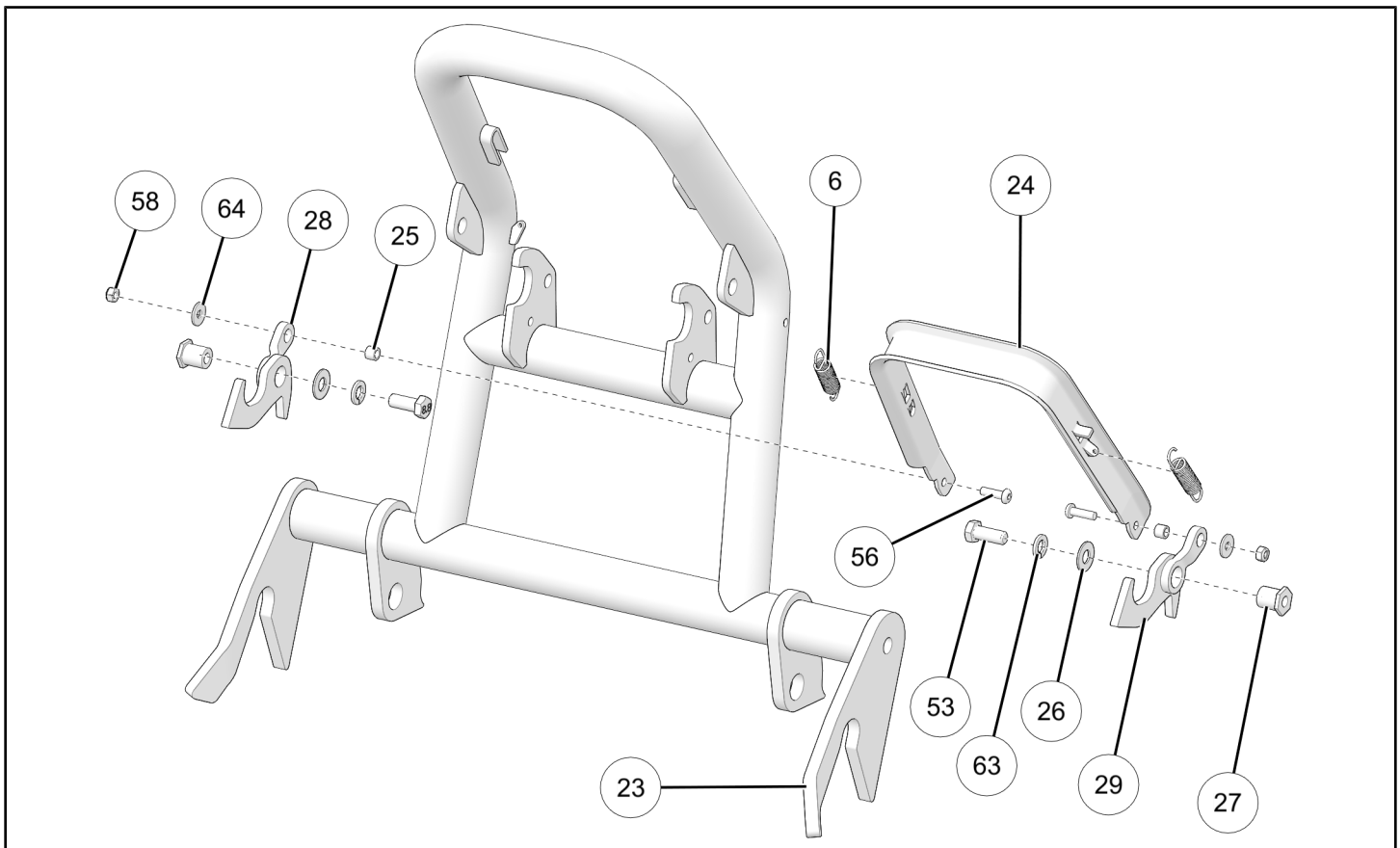
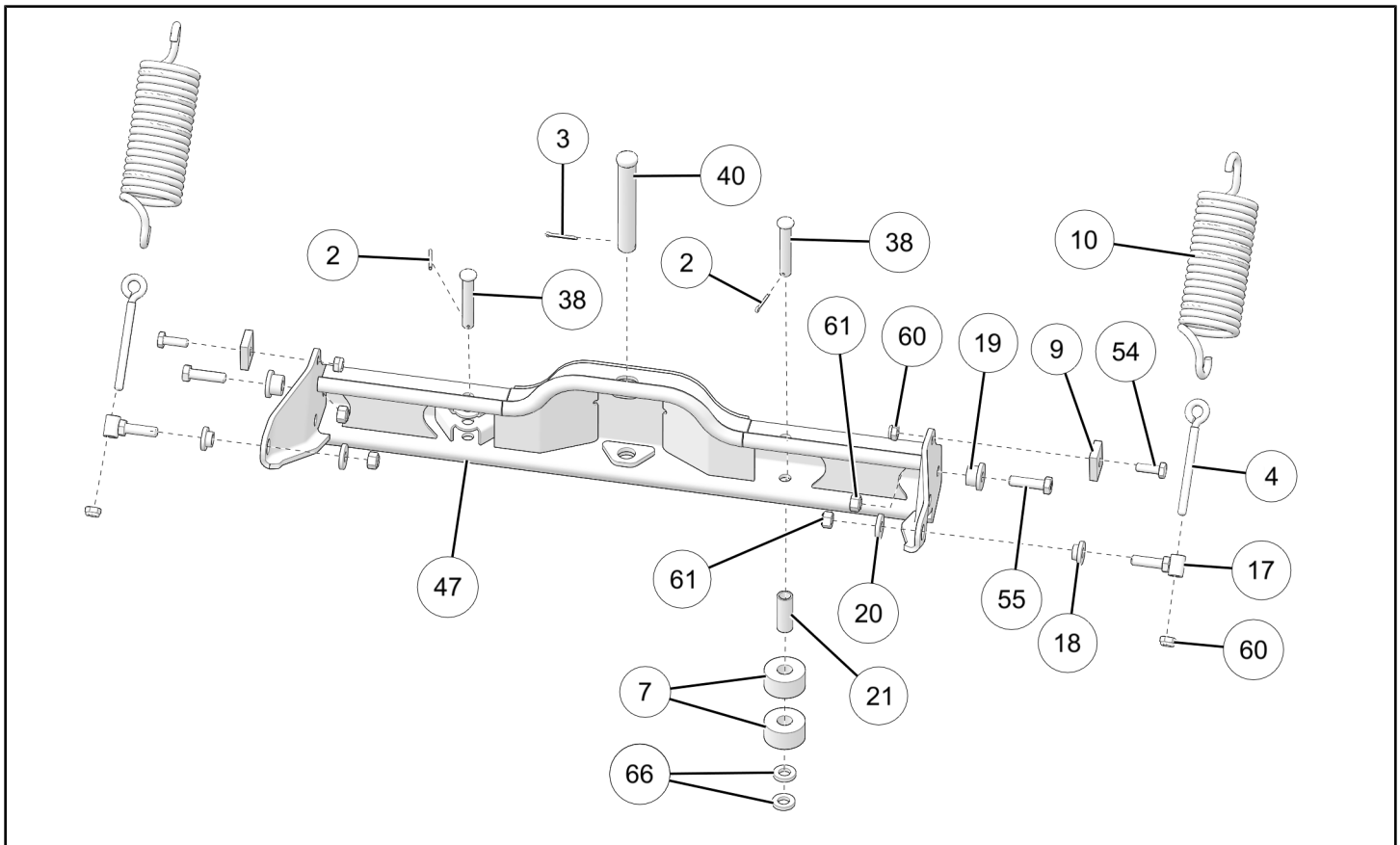
- *Winch Kit or Hydraulic Lift Kit*

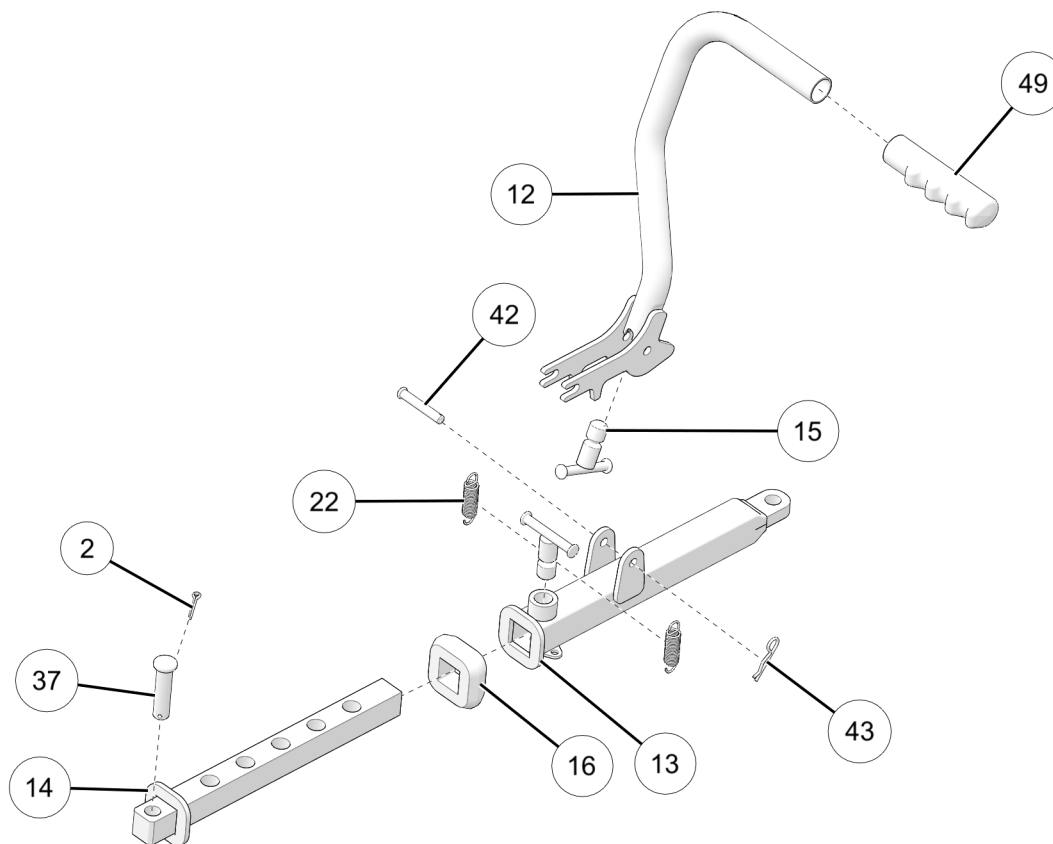
Only parts for installation of the Glacier® Pro HD Plow Frame Kit are included. For complete installation, the following kit is also required (sold separately):

- *Plow Blade Kit* See the *RANGER®* accessory catalog or website for requirements.

## KIT CONTENTS







REF	QTY	PART DESCRIPTION	P/N AVAILABLE SEPARATELY	AVAILABLE SERVICE KIT
1	1	Cotter Pin, 2 x 10 mm	n/a	2204826 (Includes 1) 2209450 (Includes 1)
2	5	Cotter Pin, 3 x 25 mm	n/a	2204826 (Includes 4) 2204827 (Includes 3) 2204892 (Includes 2)
3	1	Cotter Pin, 4 x 30 mm	n/a	2204826
4	2	Eye Bolt, M10-1.5 x 110 x 15 mm	n/a	2204830
5	1	Spiral Pin, 4 x 16 mm	n/a	2204826 (Includes 1) 2209450 (Includes 1)
6	2	Tension Spring, 13 x 58 mm	n/a	2204828
7	2	Rubber Bushing	n/a	2204827
8	1	Exhaust Spring	n/a	2209450
9	2	Blade Stop	n/a	2204830
10	2	Plow Spring	n/a	2204826 (Includes 2) 2858534 (Includes 2)
11	1	Winch Link	n/a	2204974
12	1	Angling Handle	n/a	2204827
13	1	Angling Bar, Outer	n/a	2204827
14	1	Angling Bar, Inner	n/a	2204827

REF	QTY	PART DESCRIPTION	P/N AVAILABLE SEPARATELY	AVAILABLE SERVICE KIT
15	2	Shear Lock ("T" Pin)	n/a	2204827
16	1	Rubber Stopper	n/a	2204827
17	2	Eyebolt Holder	n/a	2204830
18	2	Eyebolt Flange Bushing	n/a	2204830
19	2	Pivot Sleeve	n/a	2204830
20	2	Eyebolt Washer	n/a	2204830
21	1	Stopper Sleeve	n/a	2204827
22	2	Tension Spring	n/a	2204827
23	1	Hook Up	n/a	2205129
24	1	Handle	n/a	2204828
25	2	Handle Sleeve	n/a	2204828
26	2	Hook Shim	n/a	2204826 (Includes 2) 2204828 (Includes 2)
27	2	Hook Bushing	n/a	2204828
28	1	Right Hook Assembly	n/a	2204828
29	1	Left Hook Assembly	n/a	2204828
30	1	Kickstand	n/a	2209450
31	1	Kickstand Clamp	n/a	2209450
32	1	Plastic Cap	n/a	2209450
33	1	Auto-Release Link	n/a	2209450
34	1	Kickstand Spring	n/a	2209450
35	1	Kickstand Shoe	n/a	2204826 (Includes 1) 2209450 (Includes 1)
36	1	Kickstand Lock	n/a	2209450
37	1	Angling Pin, Short	n/a	2204826 (Includes 1) 2204827 (Includes 1) 2204892 (Includes 1)
38	2	Angling Pin, Long	n/a	2204826 (Includes 1) 2204827 (Includes 2) 2204892 (Includes 1)
39	1	Winch Link Pin	n/a	2204826
40	1	Pivot Pin	n/a	2204826
41	2	Hook Up Pin	n/a	2204826
42	1	Angling Pin, Handle	n/a	2204826 (Includes 1) 2204827 (Includes 1)
43	2	"R" Pin	n/a	2204826 (Includes 2) 2204827 (Includes 1)
44	1	Rod Weld	n/a	2209450

REF	QTY	PART DESCRIPTION	P/N AVAILABLE SEPARATELY	AVAILABLE SERVICE KIT
45	1	End Cap	n/a	2209450
46	1	Pushframe	n/a	2209556
47	1	Pivot	n/a	2206050
48	1	Auto-Release Linkage	n/a	2209450
49	1	Handle	n/a	2204827
50	1	Hex Bolt, M6 - 1.0 x 20 mm	n/a	2204826 (Includes 1) 2209450 (Includes 1)
51	1	Hex Bolt, M8 - 1.25 x 16 mm	n/a	2204826 (Includes 1) 2209450 (Includes 1)
52	2	Hex Bolt, M8 - 1.25 x 20 mm	n/a	2204826 (Includes 2) 2209450 (Includes 2)
53	2	Hex Bolt, M10 - 1.5 x 25 mm	n/a	2204828
54	2	Hex Bolt, M10 - 1.5 x 30 mm	n/a	2204826 (Includes 2) 2204830 (Includes 2)
55	2	Hex Bolt, M12 x 1.75 x 45 mm	n/a	2204830
56	2	Button Head Socket Cap Screw, M6 - 1.0 x 20 mm	n/a	2204826 (Includes 2) 2204828 (Includes 2)
57	1	Hex Nut, M12 x 1.75 mm	n/a	2204826
58	4	Hex Nut, M6 - 1.0 mm	n/a	2204826 (Includes 4) 2204828 (Includes 2) 2209450 (Includes 2)
59	2	Hex Nut, M8 - 1.25 mm	n/a	2204826 (Includes 2) 2209450 (Includes 2)
60	4	Hex Nut, M10 - 1.5 mm	n/a	2204826 (Includes 2) 2204830 (Includes 4)
61	4	Hex Nut, M12 - 1.75 mm	n/a	2204830 (Includes 4) 2209450 (Includes 1)
62	1	M8 Spring Lock Washer, 14.8 x 2 mm	n/a	2204826 (Includes 1) 2209450 (Includes 1)
63	2	M10 Lock Washer, 18.1 x 2.2 mm	n/a	2204828
64	2	Flat Washer, M6 I.D. x 18 mm O.D.	n/a	2204826 (Includes 2) 2204828 (Includes 2)
65	1	Flat Washer, M8 I.D. x 24 mm O.D.	n/a	2204826 (Includes 1) 2209450 (Includes 1)
66	2	Flat Washer, 14 mm I.D. x 28 mm O.D.	n/a	2204827
67	1	Flat Washer, M6 I.D. x 12 mm O.D.	n/a	2204826 (Includes 1) 2209450 (Includes 1)

## TOOLS REQUIRED

- Pliers, Locking
- Socket Set, Metric
- Torque Wrench
- Wrench Set, Metric

## IMPORTANT

Your Glacier® Pro HD Plow Frame Kit is exclusively designed for your vehicle. Please read the installation instructions thoroughly before beginning. Installation is easier if the vehicle is clean and free of debris. For your safety, and to ensure a satisfactory installation, perform all installation steps correctly in the sequence shown.

## INSTALLATION INSTRUCTIONS

### VEHICLE PREPARATION

#### GENERAL

1. Park vehicle on a flat surface.
2. Shift vehicle into PARK.
3. Turn key to OFF position and remove key.

#### FRAME ASSEMBLY

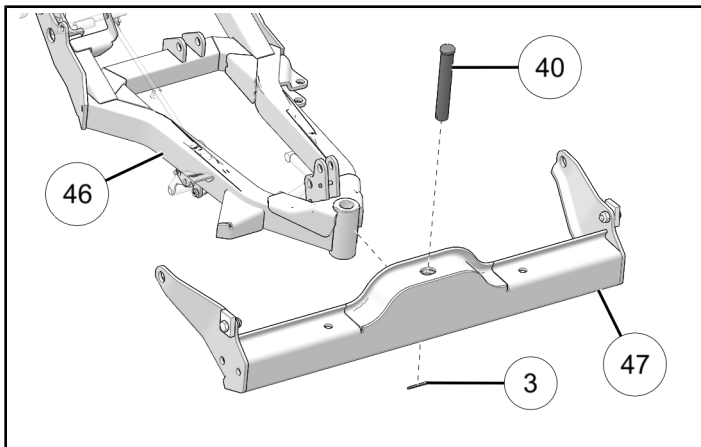
##### PIVOT ASSEMBLY

1. Position the pushframe ④⑥ into the middle section of the pivot ④⑦. Insert the pivot pin ④⑩ from above.

#### IMPORTANT

The pivot pin ④⑩ must be aligned to fit between the plow leveling springs and into the bottom hole of the pivot ④⑦.

2. Insert the cotter pin ③ and fold the ends so that it can not be removed.

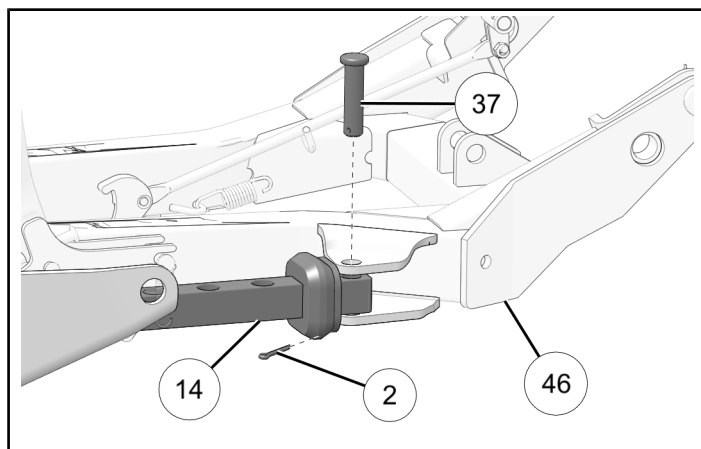


##### MANUAL ANGULATION MECHANISM ASSEMBLY

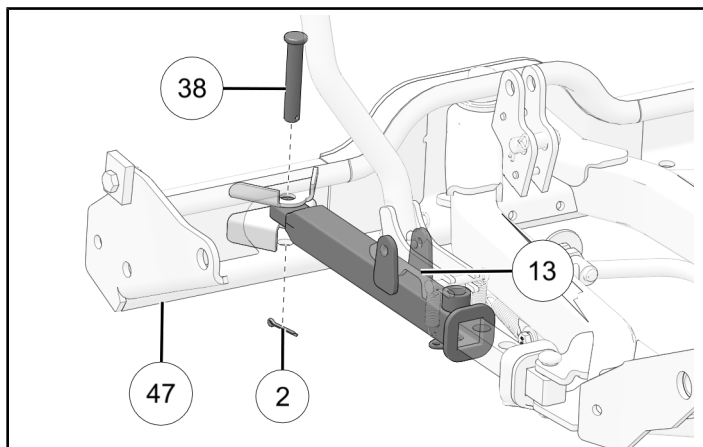
#### NOTICE

If you have purchased the Glacier® Pro HD Plow Hydraulic Angle System, (PN 2879224, PN 2889029, or PN 2889051), do not install this manual angulation mechanism. Follow the instructions provided with the Glacier® Pro HD Plow Hydraulic Angle System to install the hydraulic angle system.

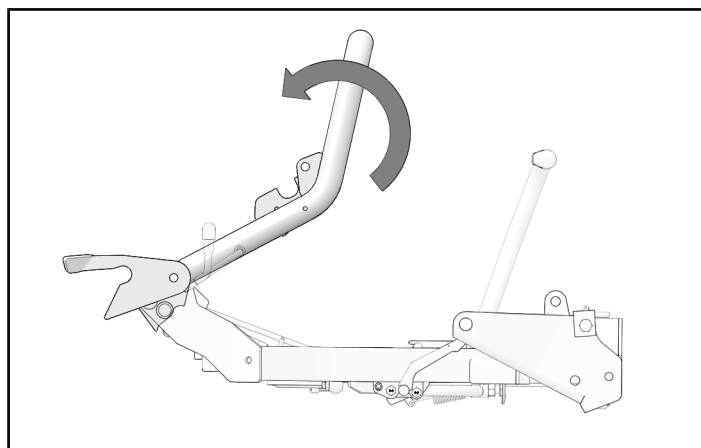
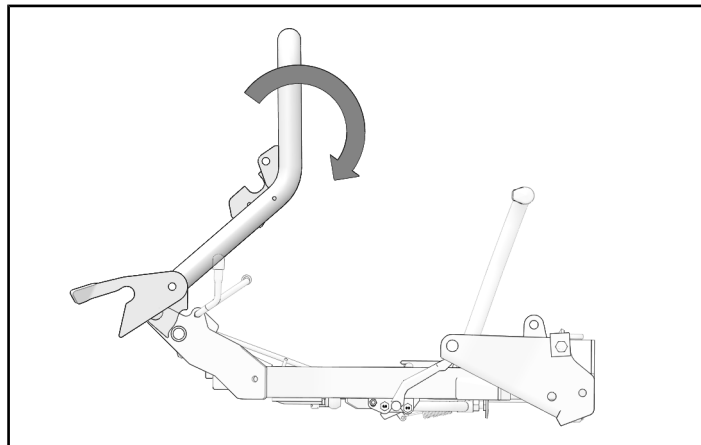
1. Position the mechanism and insert the angling pin (short) ③⑦ through the mounting holes of the pushframe ④⑥ and into the inner angling bar ①④.
2. Insert the cotter pin ② and fold the ends so that it can not be removed.



3. Position the other end of the mechanism and insert the angling pin (long) ③⑧ through the mounting holes of the pivot ④⑦ and into the outer angling bar ⑬.
4. Insert the cotter pin ② and fold the ends so that it can not be removed.

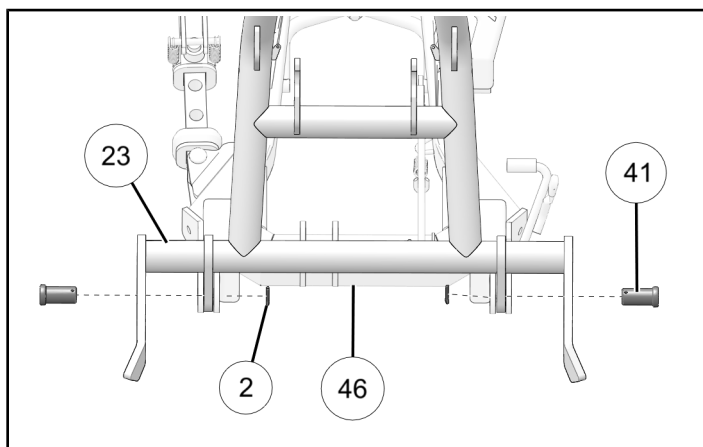


3. Make sure the hook up assembly can rotate freely as shown. If not, remove the hook up pins ④① and reposition the handle so that the stoppers allow the hook up assembly to freely move into the correct position.



### HOOK UP ASSEMBLY

1. Position the hook up assembly ②③ into position as shown and insert the two hook up pins ④① through the mounting holes of the pushframe ④⑥.
2. Insert two cotter pins ② and fold the ends so they can not be removed.

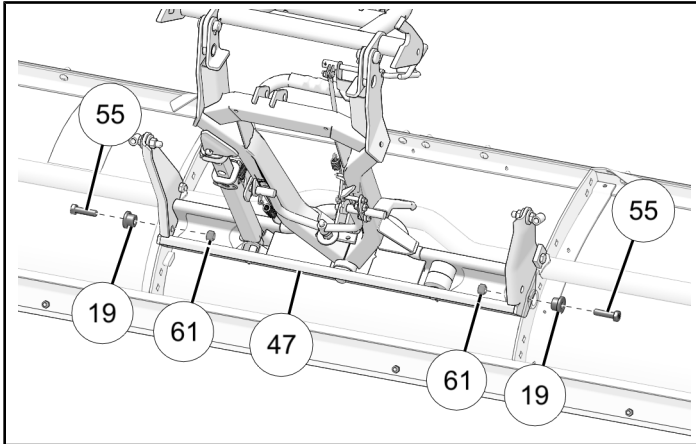


## BLADE ASSEMBLY

1. Place the front side of the blade against the ground as shown.
2. Position the pivot **47** onto the center of the blade.
3. Install the two pivot sleeves **19** through the mounting holes of the blade. Secure with two bolts **55** and nuts **61**. Torque the nuts to specification.

### TORQUE

Nut **61**:  
**63 ft-lbs (85 N·m)**



4. Attach one plow spring **10** onto the upper hole of the blade. Attach the other end of the plow spring to the pivot **47** using one eyebolt **4** and one nut **60**. Repeat this step on the other side of the frame.

### IMPORTANT

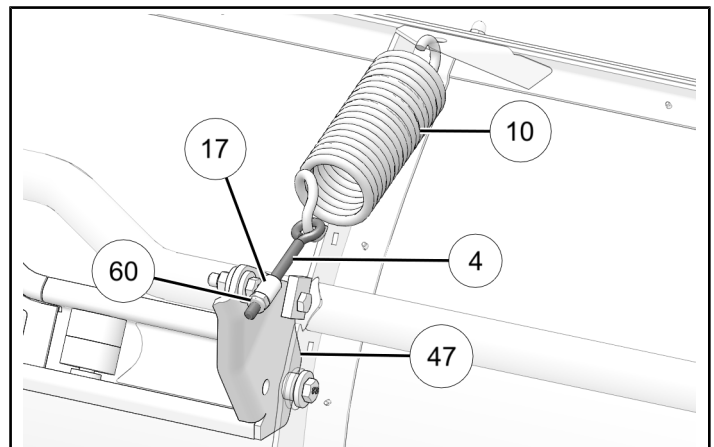
The blade is designed to trip (rotate away from point of impact) when it strikes a solid object or digs in too aggressively. This feature is designed to prevent damage to the vehicle and / or plow system in the event of excessive force on the plow system. When the pressure is released, the blade springs back into position. The spring tension can be increased by tightening the tensioning nuts **60** on the bottom of the eyebolts **4**. For less spring tension, loosen the tensioning nuts **60**. Always adjust the tensioning nuts **60** equally on each side.

### NOTICE

It might be necessary to slightly loosen the nut **61** that secures the eyebolt holder **17** if they can not rotate freely.

### NOTICE

Left side shown. Right side similar.





## ACCESSORY INSTALLATION

If you purchased a hydraulic lifting system, refer to installation manual supplied with the hydraulic lift system.

### NOTICE

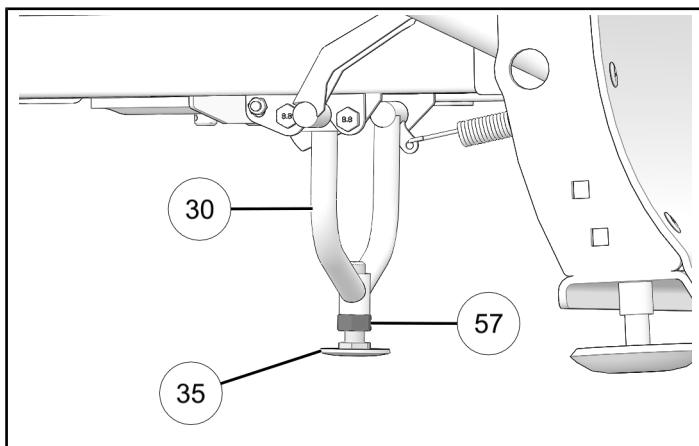
The first installation requires you to adjust the height of the kickstand ③⑩ so that the openings of the attachment plates are horizontally aligned with the vehicles attachment points. It might be necessary to repeat the exercise if you add accessories to your vehicle that affect the ride height of the vehicle.

### NOTICE

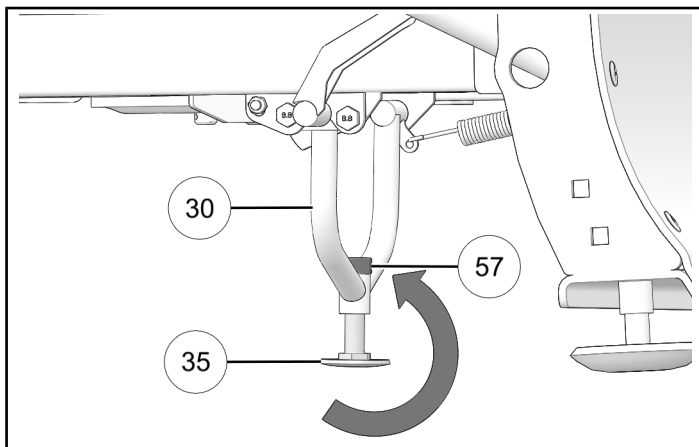
If the vehicle is too low, you might need to adjust the vehicle height by changing the adjustment of the front suspension. Refer to the vehicle's Owner's Manual for the adjustment method.

## KICKSTAND HEIGHT ADJUSTMENT

The kickstand ③⑩ should be adjusted so that when the plow is sitting on level ground, unattached from the vehicle, the opening of the lower attachment plates are of equal height with the connection points on the vehicle. Tighten or loosen the kickstand shoe ③⑤ to raise or lower the plow frame attachment plates. Once the height is properly adjusted, tighten the nut ⑤⑦ until fully seated.

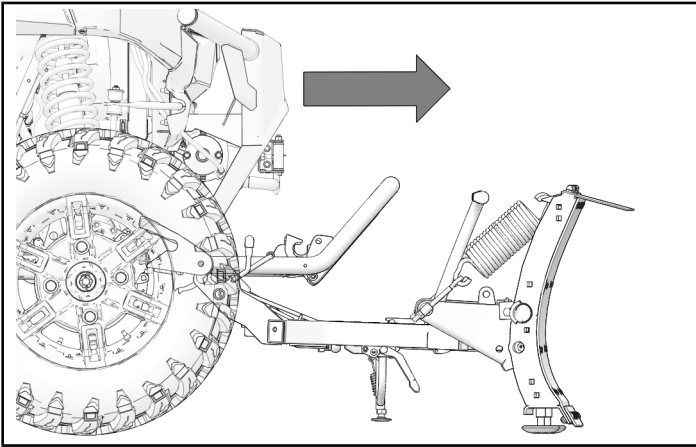


If you need to adjust the kickstand ③⑩ lower to the ground, you can move the nut ⑤⑦ onto the top of the kickstand.



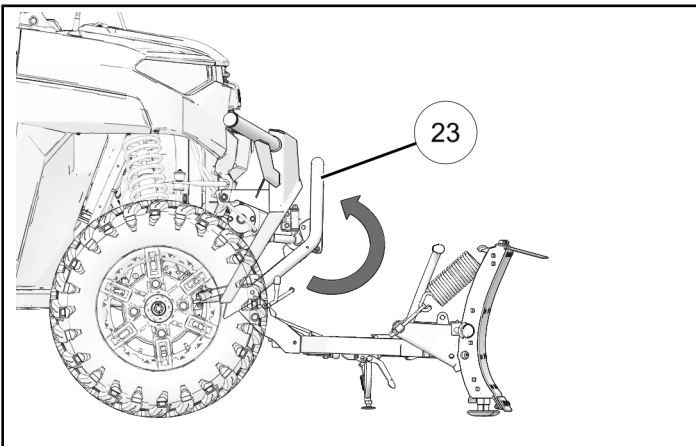
## PUSHFRAME INSTALLATION

1. Move the vehicle towards the pushframe assembly. Make sure to align the vehicle with the pushframe.
2. Make sure the vehicle is fully engaged in the attachment plates on both sides.



3. Rotate the hook up assembly 23 into position by pulling up towards the vehicle until the latching mechanism on the hook assembly engages the vehicle's front attachment mounting tube.

If the hook does not engage completely, check that the connection points on the vehicle are fully seated into the attachment plates. Accumulation of snow or ice could prevent the pushframe from fully engaging the connection points on the vehicle.

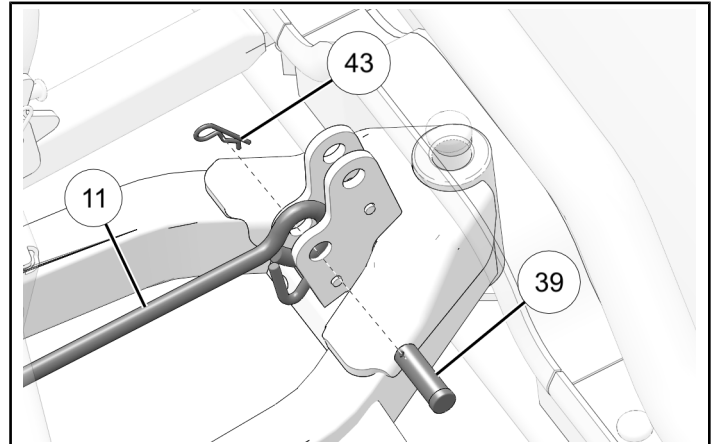


4. Once the pushframe is attached to the vehicle, make sure that the kickstand is slightly raised off the ground (1 inch recommended). If touching the ground, repeat steps of adjusting the height of the kickstand.

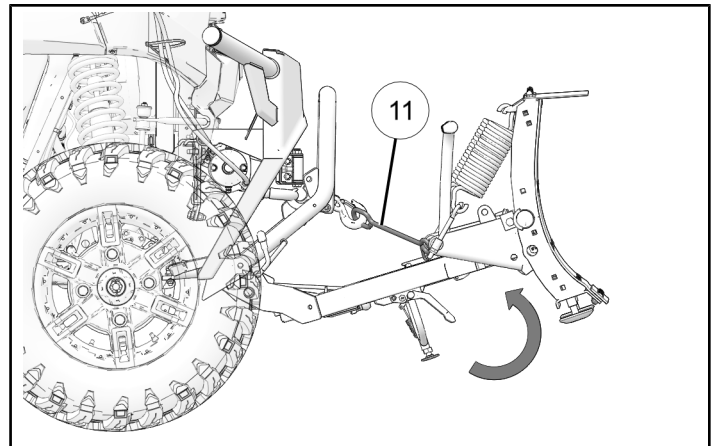
5. Connect one end of the winch link 11 that was supplied with your kit to the front of the pushframe. Secure the winch link to the pushframe with one winch link pin 39 and one "R" pin 43.

### NOTICE

You can insert the winch link pin 39 and "R" pin 43 through either one of the holes on the pushframe.

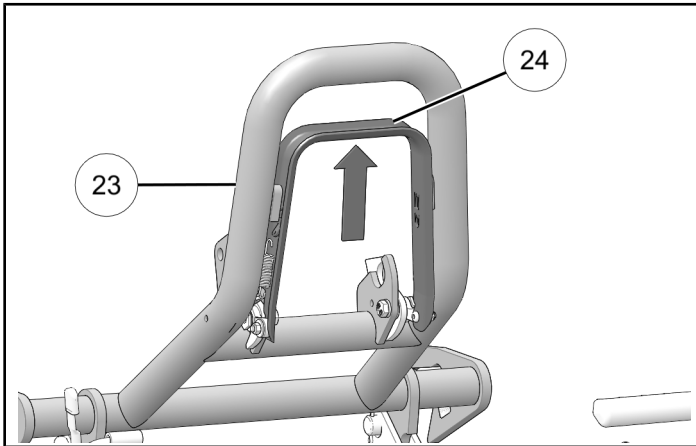


6. Connect the winch hook to the other end of the winch link 11.
7. Using the winch, raise the pushframe until the kickstand release lever engages and the kickstand is lifted automatically. The blade should be about halfway up when the kickstand is released.

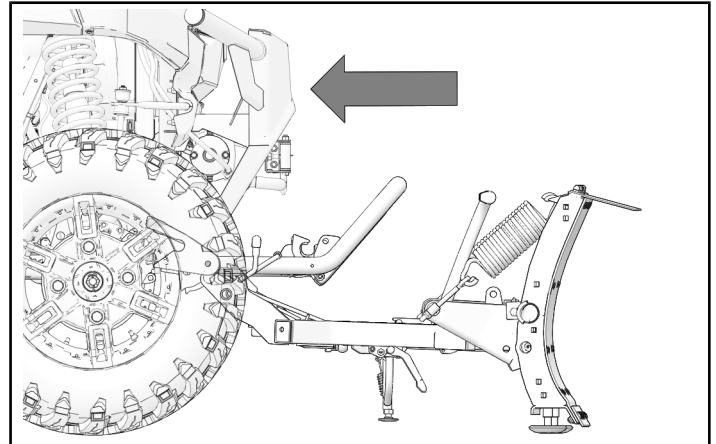


## PUSHFRAME REMOVAL

1. Lower the pushframe using the winch until the blade touches the ground and the winch cable tension is fully released. Remove the hook of the winch from the winch link ⑪.
2. Lower the kickstand until the locking mechanism engages. At that time, the kickstand shoe should not touch the ground. If it touches the ground, the height of the kickstand must be adjusted.
3. Pull the release handle ②④ upwards and hold the handle up while rotating the hook up assembly ②③ forward and down. The system should now be disengaged from the vehicle.



4. Retract the winch cable back into the fully retracted position.
5. Slowly back the vehicle up until it is no longer in contact with the pushframe.



## OPERATION

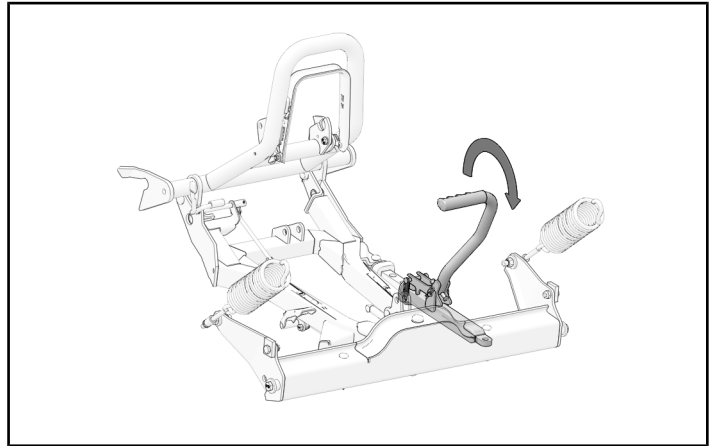
### IMPORTANT

Read and understand the following operating instructions to avoid severe personal injury or death. Compliance with these measures will also ensure that your snow plow will give you many years of good use.

1. Re-torque all bolts and nuts after the first 30 minutes of use.
2. Do not exceed 5 mp/h (8 km/h) with the blade installed.
3. Operate with extreme caution on slopes, grades, and rough terrain.
4. Keep bystanders away from the blade and vehicle while in motion.
5. Do not allow riders on the blade or vehicle when plowing.
6. When plowing snow or dirt into a pile, start backing up before raising the blade.
7. Do not ram the blade into a snow pile. Slow down before hitting a pile.
8. Be aware of possible hidden objects under the snow.
9. Read the blade Owner's Manual, vehicle's Owner's Manual, and Safety Decals prior to operation.
10. Always wear appropriate protective clothing as recommended in your vehicle's Owner's Manual.
11. Before you adjust the blade angle: stop the engine, set and lock the brakes, and raise the blade with the winch. Do not attempt to raise the blade by hand.
12. Lower the blade to the down position when the blade and vehicle are not in use.
13. Polaris recommends that you remove the blade and plow frame from the vehicle before you ride.

## BLADE ADJUSTMENT

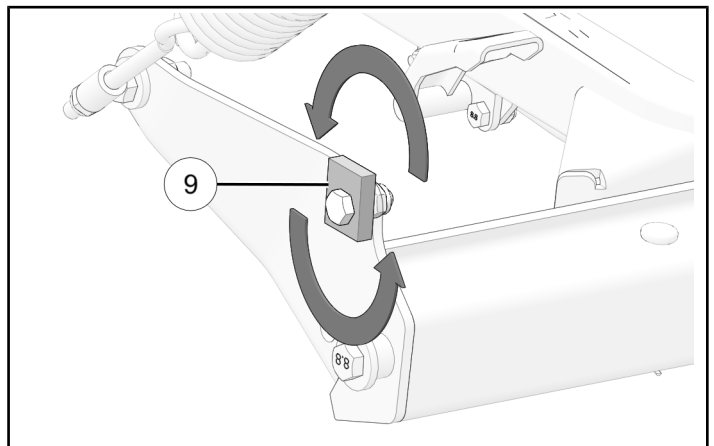
To adjust the blade angle for plowing to the side, raise the blade just enough to clear the ground. Pull the angle lever forward and pivot blade to the desired position. The angle lever will lock into place when the blade is at the correct angle.



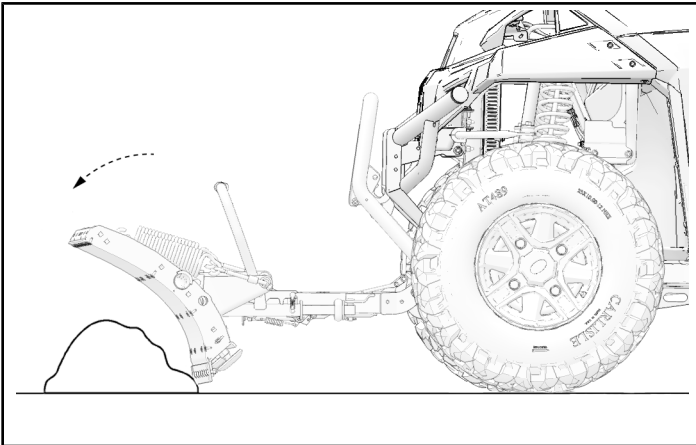
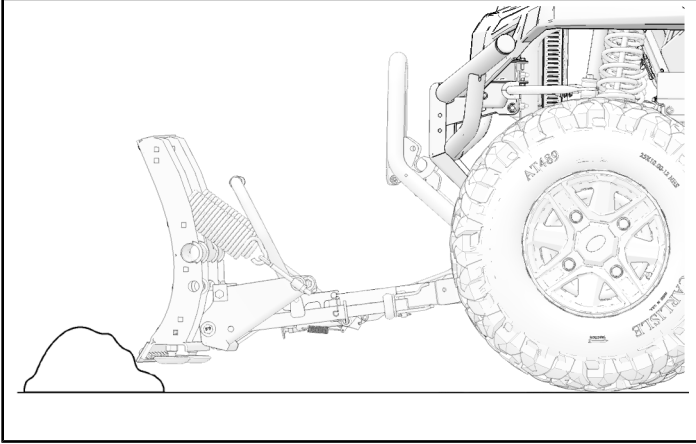
To adjust the blade to be more or less aggressive, turn the four-position adjustable blade stops ⑨ to the desired position.

### NOTICE

Always adjust the blade stops ⑨ equally on each side.



To minimize potential damage from hard impacts while operating the plow, the blade is designed to trip when it hits a solid object or digs in too far. When the pressure is released the blade springs back into position. Blade spring tension may be increased by tightening the locking nuts on the bottom of the eyebolts. To decrease spring tension, loosen the lock nuts.



In the event of a collision with an obstacle at a speed greater than what the system is rated for, the angle selection “T” pin ⑮ of the manual angulation mechanism is designed to shear to minimize the force of impact into the pushframe.

If the angle selection “T” pin is broken, inspect all components of the plow system to see if any other system components have been damaged. If a part is damaged, the impact speed was greater than what the system is designed to support. You must then buy a replacement from your dealer.

Should you need to replace the angle selection “T” pin, a spare pin is provided in the angle lever. Follow the proceeding steps to change the “T” pin:

1. Remove the “R” pin ④③ and the clevis pin ④② that secures the angle lever ⑫ in place.
2. Lift the angle lever ⑫ and remove the spare “T” pin ⑮.

#### IMPORTANT

Visit your **Authorized Polaris Dealer** to order a new “T” pin and replace the original spare you just removed in the event of an additional hard impact failure.

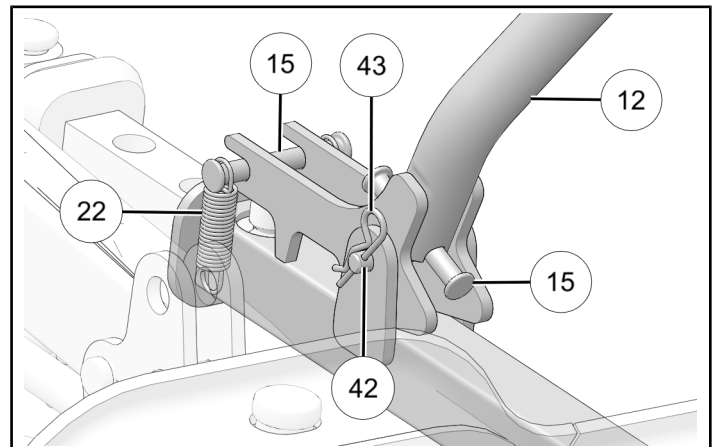
3. Remove the two tension springs (short) ②② that secure the “T” pin ⑮.
4. Remove the two pieces of broken “T” pin.
5. Insert the new “T” pin.
6. Replace the angle lever ⑫.
7. Reinstall the clevis pin ④② and the “R” pin ④③.
8. Replace the two tension springs (short) ②②.

#### NOTICE

The “T” pin is designed only to protect against the impacts affecting right and left ends of the blade. The “T” pin does not protect the system from a central impact.

#### IMPORTANT

Always inspect the entire system in the event of a hard impact to ensure that no damage occurred to any system components other than the “T” pin.



## INSTRUCTION FEEDBACK FORM

A feedback form has been created for the installer to provide any comments, questions or concerns about the installation instructions. The form is viewable on mobile devices by scanning the QR code or by clicking [HERE](#) if viewing on a PC.

