Fisher Engineering
P.O. Box 529 Rockland, Maine 04841

22240 RD
22250 HD
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HEADGEAR AND A-FRAME INSTALLATION INSTRUCTIONS FOR M SERIES BLADES

SAFETY INFORMATION

Read these instructions and labels on the snowplow before beginning installation.

⚠ WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious personal injury.

⚠ CAUTION

Indicates a situation that, if not avoided, could result in minor personal injury and/or damage to product or property.

NOTE: Identifies tips, helpful hints and maintenance information the owner/operator should know.

Torque all fasteners according to the torque chart. For proper fit, do not tighten fasteners until instructed to do so.

NC FASTENER TORQUE (FT-LB)			
DIAMETER-THREADS PER INCH	GRADE G2	GRADE G5	GRADE G8
1/4 - 20	6	9	13
5/16 - 18	11	18	28
3/8 - 16	19	31	46
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

NOTE: The illustrations found in this document represent typical components. They may not match your exact installation.

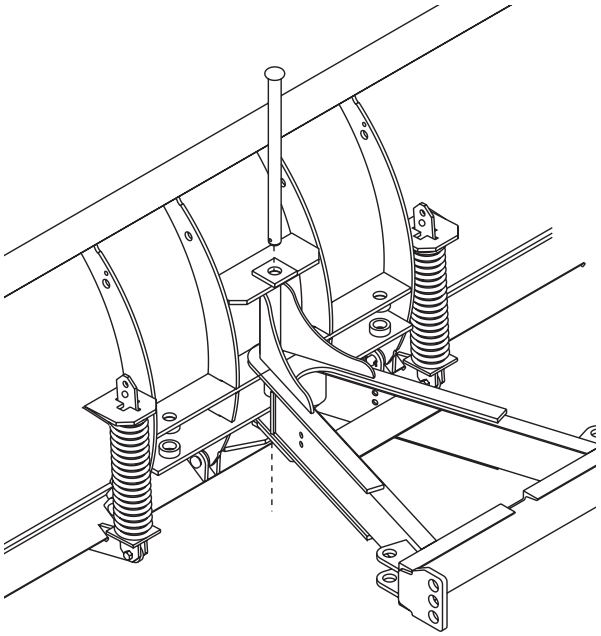
BLADE PREPARATION

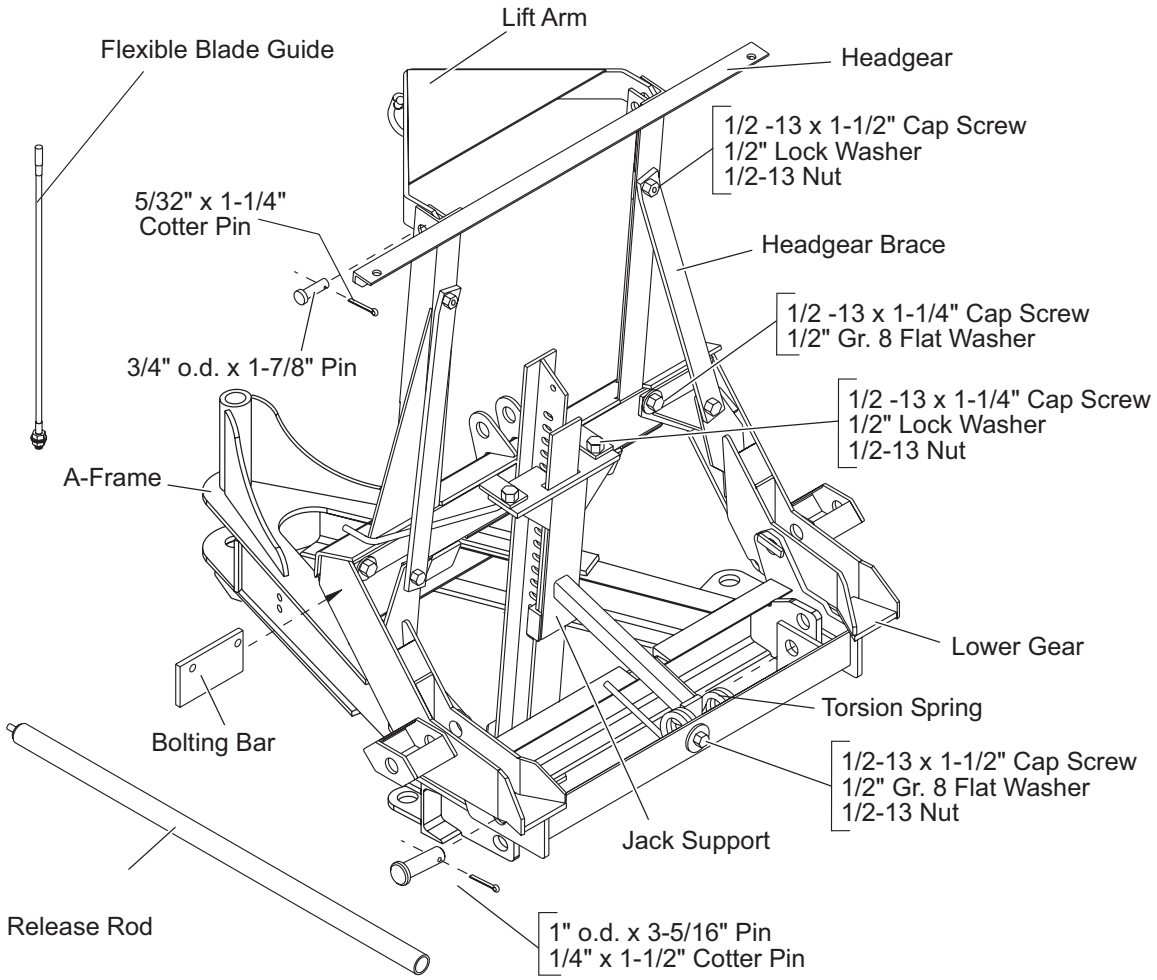
1. Attach the A-frame to the blade.

   Insert a 1" x 16" pivot pin down through the blade and A-frame.

   Install a 1/4" x 2" spring pin through hole in bottom of the pivot pin.

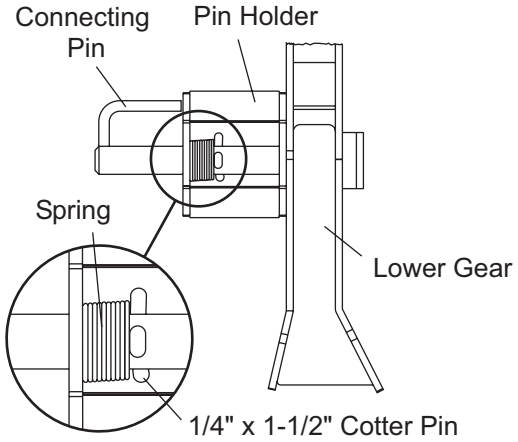
2. Install the blade guides on each end of the top of blade.





LOWER GEAR/HEADGEAR ASSEMBLY

1. To assemble connecting pins to lower gear, insert springs in pin holders. Then insert the connecting pin through all three holes with the pin handles



away from vehicle. Position cotter pin hole flush with inside plate. Pull back on the spring and install 1/4 x 1-1/2" cotter pins. **Bend both legs of cotter pins around connecting pins for proper clearance.**

2. Align holes in lower gear assembly with holes in the A-frame pushears and insert 1" x 3-5/16" pins as follows:

   For 22240 only: align with the **middle** holes in the A-frame pushears. Insert pins from **inside to outside**.

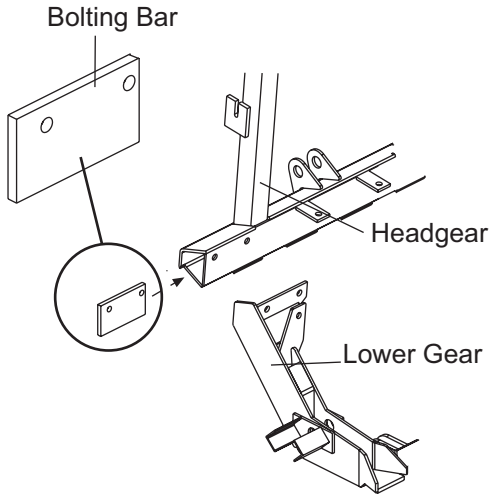
   For 22250 only: align with the **middle** holes in the A-frame pushears. Insert pins from **outside to inside**.

   Secure pins with two 1/4" x 1-1/2" cotter pins.

3. Attach headgear.

   Position bolting bar inside headgear as shown below. Place headgear on front end of lower gear. Insert four 1/2" x 1-1/4" cap screws with Gr. 8 flat washers through the holes in lower gear and bolting bar. Do not fully tighten.

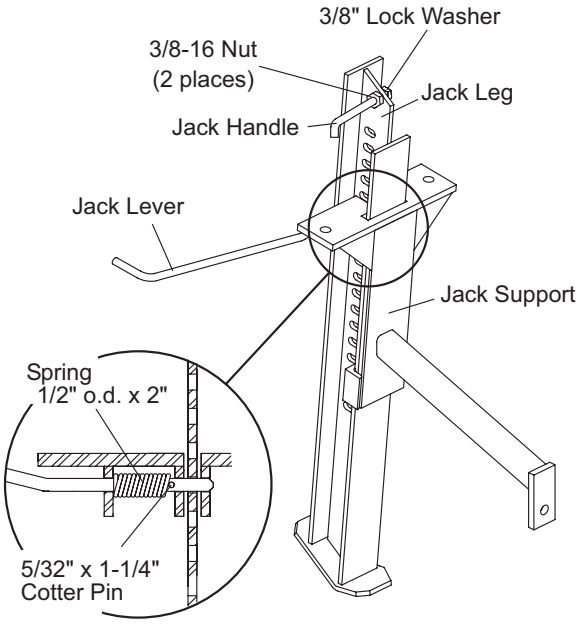
NOTE: Use a 6" piece of 1/2" threaded rod to hold each bolting bar in place and align headgear to lower gear. Thread into tapped hole after sliding bolting bar in place.



4. Ensure the A-frame cross member is parallel to the blade. Add wood blocking under A-frame cross member until A-frame is parallel with ground.

5. Insert jack lever through the three holes on jack support to clean out paint before assembling. Place jack lever spring between ear and guide on jack support. Insert the jack lever through ear until cotter pin hole is flush with jack guide. Pull back on spring and install 5/32" x 1-1/4" cotter pin.

Jack Support Assembly



6. Insert jack leg up through jack support and engage jack lever when several slots are visible. Install one 3/8" nut on jack handle and insert into top round hole on jack leg. Fasten with one 3/8" lock washer and nut.

7. Attach jack support assembly to tabs on rear of headgear. Jack support mounts beneath tabs.

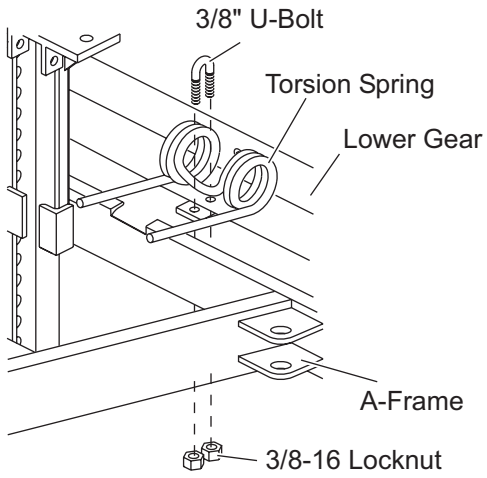
   Use two 1/2" x 1-1/4" cap screws, lock washers and nuts. Attach the jack support stiffener to the lower gear beam with one 1/2" x 1-1/2" cap screw, Gr. 8 flat washer and nut.

8. Install headgear braces to each side of headgear to lower gear tab. Top end of brace is bent and bottom of brace is installed on rear of tab.

   Fasten with four 1/2" x 1-1/2" cap screws, lock washers and nuts. Tighten all fasteners on headgear/lower gear assembly.

FINAL ASSEMBLY

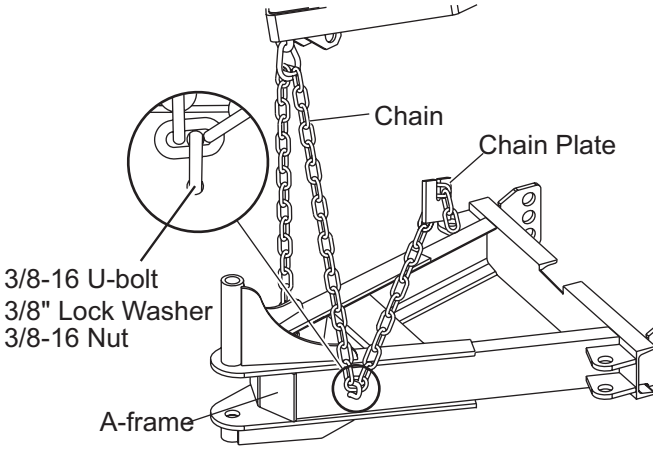
1. Pivot the headgear assembly away from the blade. Place torsion spring in center of the lower gear angle. Place 3/8" U-bolt over loop of spring, through holes in the angle and the tab. Fasten with two 3/8" locknuts. Tighten both down evenly.



2. Attach lift arm to headgear with two 3/4" x 1-7/8" pins and 5/32" x 1-1/4" cotter pins.

3. Install a 3/8" U-bolt through a link in the lift/carrying chain 32" from the end. Attach U-bolt and chain to the two holes on the driver side of the A-frame with two 3/8" locknuts. The other end of the lift chain will be attached to the passenger side of the A-frame after hydraulic unit is installed.

4. After installing the hydraulic lift package, insert long end of chain through the pear link on the lift arm. Fasten the end link of chain to the two corresponding holes in the passenger side of the A-frame using a 3/8" U-bolt, lock washer and nut.



Tighten.

5. When the plow is lifted, the A-frame should hit the lower crossmember/stop of the headgear just before lift cylinder is fully extended.

   Lift cylinder should extend to 10".

   Adjust the chain from driver side of A-frame, if needed, and tighten the U-bolt. Hook loose end of chain in chain plate on headgear upright.

6. See the release rod instructions, attached to the release rod, regarding its use.

7. Attach snowplow to vehicle according to the installation decal located in the upper, left corner on the back of the blade.

8. With plow attached to properly ballasted vehicle and blade lowered to ground, A-frame should be parallel with the ground

   If A-frame is not parallel to ground, verify that clearance exists in raised position and re-position A-frame so the **lower or upper** pushear holes align with holes in lower gear assembly.

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