



# FH-400 Case - Puma Series

## Undercarriage Installation Instructions

### Caution:

- Always use precaution when working around any equipment.
- Always wear safety glasses.
- Follow tractor manufacturer's safety guidelines when installing this product.
  1. Read all instructions prior to installation.
  2. Remove either the weights and weight bracket or the front nose casting from the front of tractor.
  3. Position the undercarriage (U/C) under the tractor and center with the frame of the tractor.
  4. Lift the U/C until the holes on the tractor line up with the holes on the U/C.
  5. Insert 4 - 24mm x 150mm bolts (PN: 16-1875) through the top 4 holes of the U/C first and then the tractor frame.
  6. Once the bolts are through the tractor frame, install a 1" heavy clipped washer (PN: 57-3098) and 24mm nut (PN: 70-20874) on each 24mm bolt.
  7. Insert 2 - 20mm x 100mm bolts (PN: 16-1877) and 2 - 3/4" flat washers (PN: 57-20747) through the bottom 2 holes of the U/C and the tractor frame.
  8. Once the bolts are through the tractor frame, install a 3/4" flat washer (PN: 57-20747) and 20mm nut (PN: 70-3494) on each 20mm bolt.

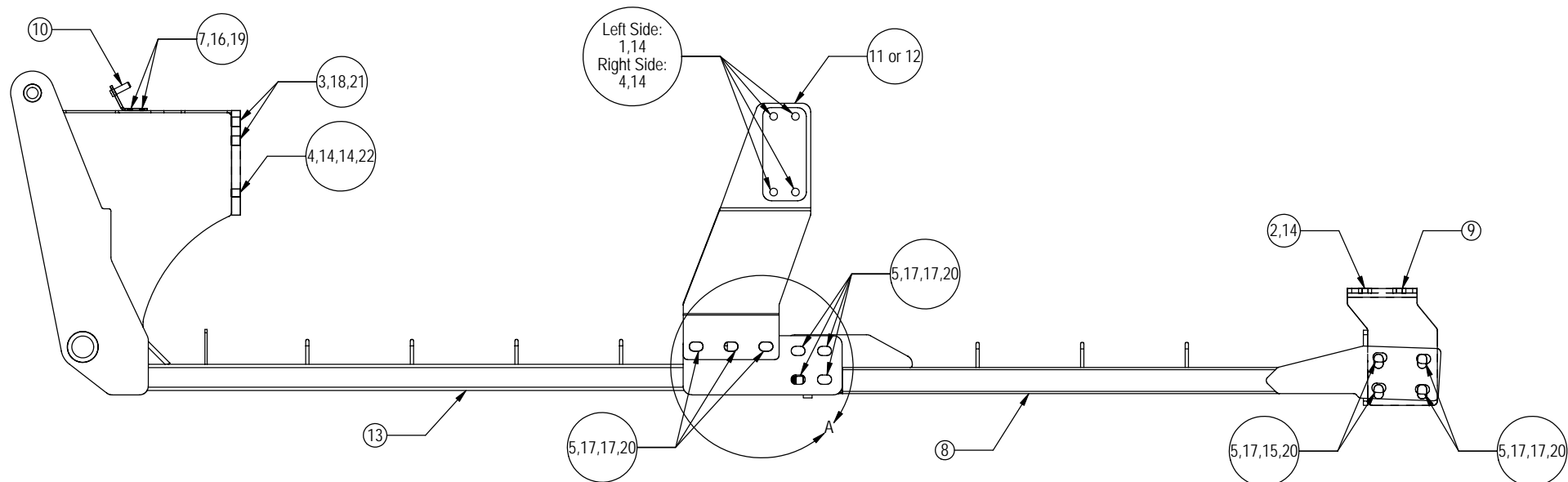
**NOTE:** If your machine has the front loader kit installed, remove the brackets. If there is a spacer with the exhaust support, the spacer will be used when installing the right rail in Step #10.

**NOTE:** If your machine does not have the front loader kit installed, remove the hardware attaching the exhaust support to the right side of the tractor. If there is a spacer with the exhaust support, the spacer will be used when installing the right rail. Remove the hardware attaching the exhaust to the exhaust support. While keeping the exhaust in the same location, slide the support out to make room for installing the right rail in Step #10. Reattach the exhaust to the exhaust support.

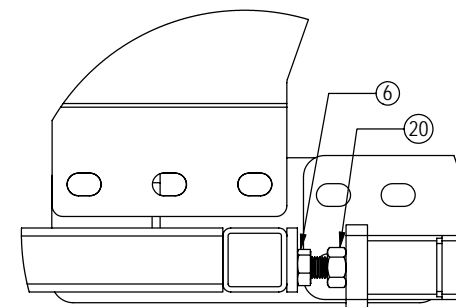
9. Use 4 - 20mm x 90mm bolts (PN: 16-1510) with a 3/4" flat washer (PN: 57-20747) on each bolt in the holes of the left rail (PN: 46-11985-L) to attach the left rail to the tractor frame.
10. Use 4 - 20mm x 100mm bolts (PN: 16-1877) with a 3/4" flat washer (PN: 57-20747) on each bolt in the holes of the right rail (PN: 46-11985-R) to attach the spacer, exhaust support, and right rail to the tractor frame. See attached diagram for any clarification.
11. Attach the left and right rails to the left and right sides of the undercarriage with 3 - 1" x 2-1/2" bolts (PN: 16-20560), 6 - 1" heavy flat washers (PN: 57-20819), and 3 - 1" nuts (PN: 70-20599) for each side.

- 12.** Once all bolts are installed, torque the front 24mm bolts to 909 ft-lbs., the front 20mm bolts to 432 ft-lbs., the remaining 20mm bolts to 432 ft-lbs., and all 1" bolts to 903 ft-lbs.
- 13.** Remove the four bolts from the drawbar under the rear axle.
- 14.** Attach the push pole bracket (PN: 18-11983) to the drawbar under the rear axle with 4 - 18mm x 80mm bolts (PN: 16-1815080) and 4 - 3/4" flat washers (PN: 57-20747).
- 15.** Push the push pole bracket back until it is tight against the tractor's drawbar bracket. Torque the 18mm bolts to 405 ft-lbs. See attached diagram for any clarification.
- 16.** Install 2 - 1" x 3" bolts (PN: 16-20562) and 2 - 1" nuts (PN: 70-20599) on the front end of the push pole (PN: 17-13399). See attached diagram for any clarification.
- 17.** Lift the end of the push pole (PN: 17-13399) with the installed bolts and nuts from Step #16 up to the U/C.
- 18.** Attach the push pole to the U/C with 4 - 1" x 2-1/2" bolts (PN: 16-20560), 8 - 1" heavy flat washers (PN: 57-20819), and 4 - 1" nuts (PN: 70-20599) for each side. Finger tighten the bolts and nuts.
- 19.** Lift the rear of the push pole up to the push pole bracket. Insert 4 - 1" x 2-1/2" bolts (PN: 16-20560) with a 1" heavy flat washer (PN: 57-20819) on each bolt through the holes on the push pole and bracket.
- 20.** After the bolts are through the holes on the push pole bracket, install a 1" SAE flat washer (PN: 57-20759) and a 1" nut (PN: 70-20599) on the front four bolts. Install a 1" heavy flat washer (PN: 57-20819) and a 1" nut (PN: 70-20599) on the rear four bolts. Finger tighten the bolts and nuts.
- 21.** Push the push pole as far forward as possible. Torque the rear 1" bolts on the push pole to 903 ft-lbs. and then torque the front 1" bolts on the push pole to 903 ft-lbs.
- 22.** Unscrew the two 1" x 3" bolts at the front of the push pole until they are tight against the U/C. Torque the 1" bolts to 90-95 ft-lbs. Tighten the nuts up tight against the push pole.
- 23.** To attach the hood latch bracket (PN: 18-11990) to the top of the U/C insert 3 - 3/8" x 1" carriage bolts (PN: 16-21064) from the bottom. Install a 3/8" lock washer (PN: 57-20762) and a 3/8" nut (PN: 70-20582) on each carriage bolt. See attached diagram for any clarification.
- 24.** After first 8 hours of use, re-torque all bolts.
- 25.** Check all fasteners regularly to ensure proper operation of equipment.

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Item No.	Qty.	Part No.	Description
1	4	16-1510	20mm x 2.5mm x 90mm Metric Hex Bolt Gr.10.9
2	4	16-1815080	18mm x 1.5mm x 80mm Metric Hex Bolt Gr. 10.9
3	4	16-1875	24mm x 3.0mm x 150mm Metric Hex Bolt Gr.10.9
4	6	16-1877	20mm x 2.5mm x 100mm Metric Hex Bolt Gr.10.9
5	22	16-20560	1" x 2-1/2" Hex Bolt Gr.8 NC
6	2	16-20562	1" x 3" Hex Bolt Gr.8 NC
7	3	16-21064	3/8" x 1" Carriage Bolt Gr.5 NC
8	1	17-13399	FH-400 MX Magnum Push Pole (4 tube)
9	1	18-11983	FH-400 Case - Puma Push Pole Bracket
10	1	18-11990	FH-400 Case - Puma Hood Latch Bracket
11	1	46-11985-L	FH-400 Case - Puma Rail Left
12	1	46-11985-R	FH-400 Case - Puma Rail Right
13	1	54-11980	FH-400 UC Case - Puma
14	16	57-20747	3/4" Flat Washer
15	4	57-20759	1" SAE Flat Washer - 2" OD
16	3	57-20762	3/8" Lock Washer
17	40	57-20819	1" Flat Washer Heavy Duty Gr 8 (USS)
18	4	57-3098	2.5" O.D. x 1.05" I.D. x 0.50" Washer CZ Plated - Clipped
19	3	70-20582	3/8" Hex Nut Gr.5 NC
20	24	70-20599	1" Hex Nut Gr.8 NC
21	4	70-20874	24mm Hex Nut 3.0 Pitch
22	2	70-3494	20mm Hex Nut 2.5 Pitch



DETAIL A  
SCALE 1 : 9



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TITLE: FH-400 U/C Case Puma

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