



FORD PERFORMANCE

M-1021-F15RB 2017 Raptor Off-Road Bead Lock Ring Installation

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

Please visit www.performanceparts.ford.com for the most current instruction and warranty information.

PLEASE READ ALL OF THE FOLLOWING INSTRUCTIONS CAREFULLY PRIOR TO INSTALLATION. AT ANY TIME YOU DO NOT UNDERSTAND THE INSTRUCTIONS, PLEASE CALL THE FORD PERFORMANCE TECHLINE AT 1-800-367-3788

Warning: Converting the bead-lock compatible wheel to true bead-locks is for off-road use only. On road driving is not permitted.

Warning: Ford Performance only recommends using bead-lock rings from Ford Performance, in conjunction with the OEM tire. Any other combination using this wheel could result in air loss or tire failure.

Ford Performance Raptor Off-Road Bead Lock Wheel Mounting Instructions

STEP 1: Place the Wheel on a level surface, or on a tire machine if available. Remove trim ring. If you are installing bead-lock rings on factory supplied bead-lock compatible wheels and not replacing the tires, release air from tire by removing valve stem core. Break outer bead of tire off wheel and pull over outside of outer wheel flange. New Ford Performance wheels and tires, go to STEP 2.

STEP 2: Place a liberal amount of tire soap on the outer flange and force the inner bead over the wheel. Use a rocking motion until entire bead has cleared the outer flange. Tire soap can be obtained at your local auto parts store or online. We recommend Myers #8 MTS Europaste or equivalent. (See Pic 2.1)



Pic 2.1 – Force the inner tire bead over wheel flange

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



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STEP 3: Place the outer bead of the tire against the outer wheel flange. Ensure the tire fits within the flange provided. (see Pic 3.1)



Pic 3.1 – Outer tire bead fits on wheel flange

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STEP 4: Apply a liberal amount of tire soap onto the outside face of the tire bead. This will greatly aid in ease of assembling the bead lock ring and is essential to even seating of the tire. (See Pic 4.1)



Pic 4.1 – Apply a liberal amount of tire soap to the entire bead.

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STEP 5: Press the bead-lock ring firmly against the tire. Make sure the cut-out for the valve stem is positioned properly. The ring will wedge itself onto the tire. Take four (4) of the provided bolts and hand tighten them at four corners of the wheel. Once they are threaded in, tighten them an additional one full turn with a hand socket or wrench. The bolt head size is 13mm. (See Pics 5.1 & 5.2)



Pic 5.1 – Hand thread 4 bolts at the corners.

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pic 5.2 – Tighten each bolt at least one turn with a socket wrench.

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STEP 6: Hand-tighten all remaining bolts on the bead lock ring. Ensure the gap between the ring and wheel is uniform around the entire circumference. If it is not, tighten the side that has a larger gap with a hand socket or wrench until it is uniform. (See Pics 6.2 & 6.3)



Pic 6.1 – Hand thread in all remaining bolts.

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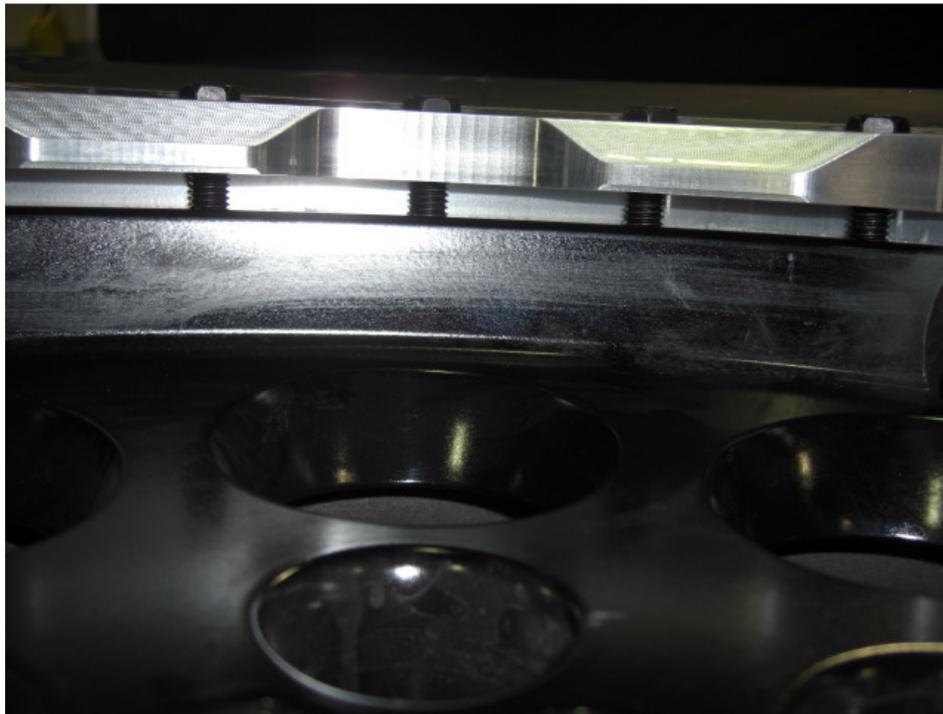
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Pic 6.2 – Ensure a uniform gap around entire ring.

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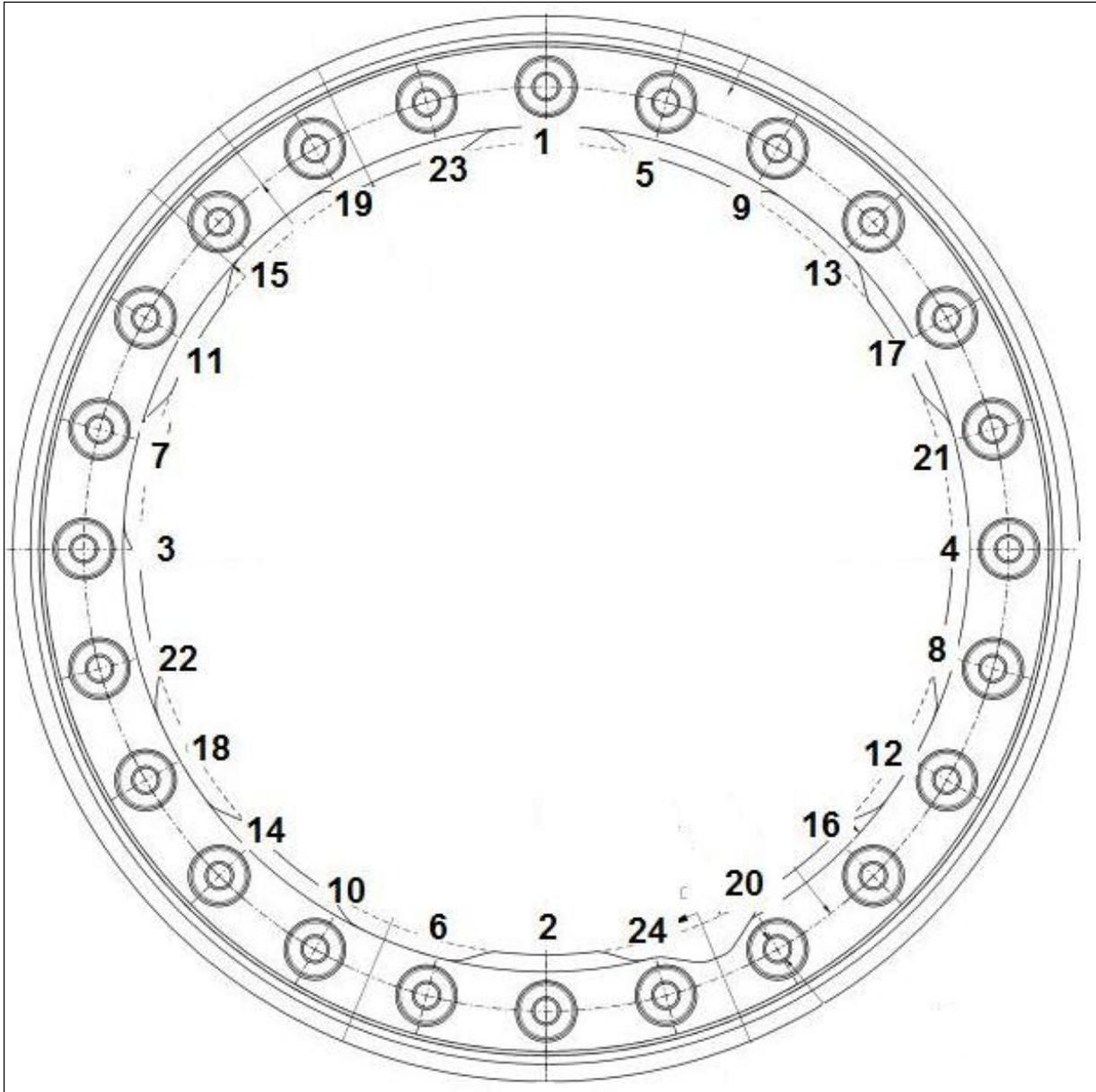


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- 1) Apply the provided torque sequence template on the wheel. The sequence can start at any bolt. (See Pics 7.1 & 7.2). For better clarity, you can also use a dry erase marker and write the torque sequence next to each bolt hole on the ring.



Pic 7.1 – Torque sequence

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Pic 7.2 – Torque in the proper sequence using a torque wrench.

- 2) Using the sequence, torque all bolts to 15Nm (11ft.-lb.)
- 3) Repeat the torque sequence and torque all bolts to 35Nm (25.8 ft.-lb.)
- 4) Repeat the torque sequence and torque all bolts to 65Nm (47.9 ft.-lb.)
- 5) Recheck all bolts to 65Nm. (47.9 ft.-lb.) No torque sequence necessary for this step.

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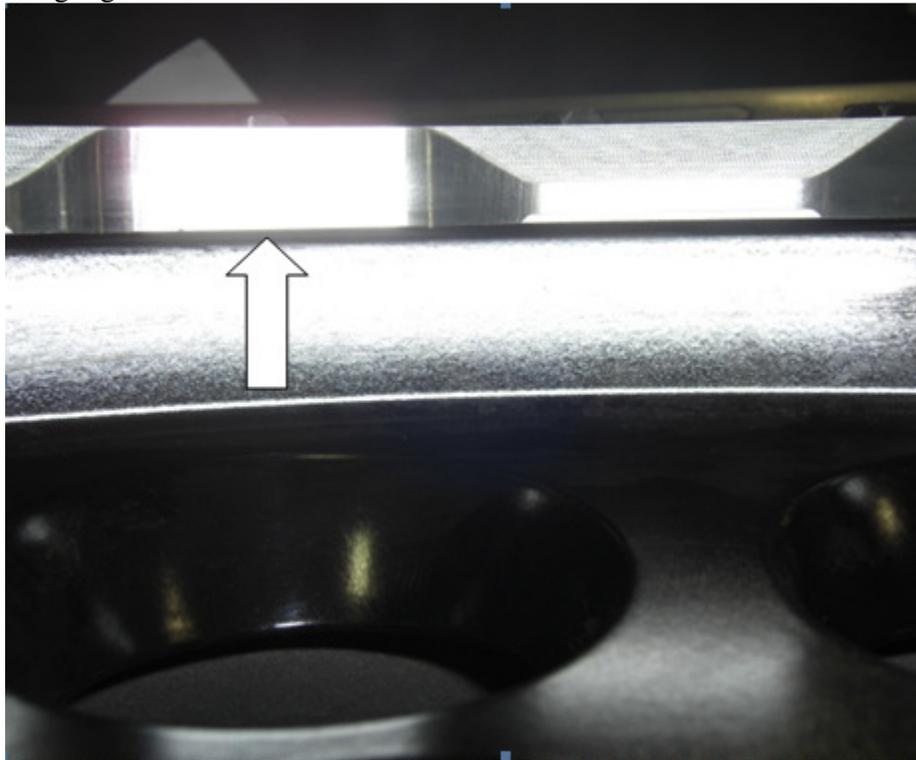
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- 1) Ensure all bolts are fully compressing the ring onto the wheel. You will be able to tell as the bolts will gain torque quickly once they are bottomed out. All bolts must be bottomed out before the torque sequence is complete. Ensure there is no gap between the ring and wheel. (See Pic 12.1) Use a piece of paper or feeler gauge to check.



Pic 12.1 – Ensure no gap between ring and wheel

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- 1) Stand the tire/wheel up and inflate. **DO NOT EXCEED 44 PSI!** The rear bead will need to "pop" over the inboard bead hump while inflating.

NOTE: After an initial 500 miles, re-check bead lock bolt torque. 65Nm (47.9 ft.-lb.) Tighten as necessary.

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