TSN01521-300: ASCENT RR AXLE, KIT

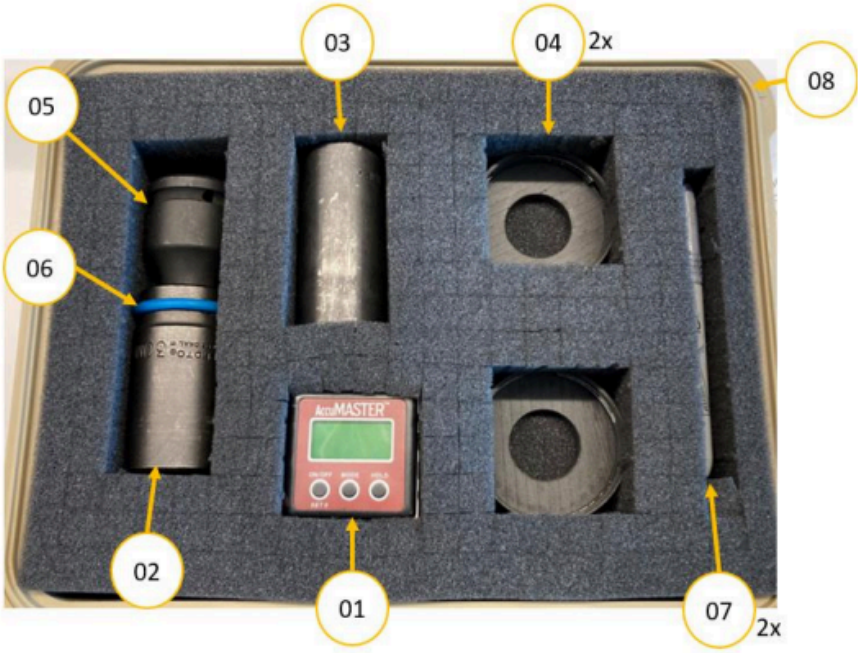
PURPOSE:

Used to aide with installation, proper meshing and final torque application of the rear axle bolt/ axle/ hub on the Ascent Drive unit (MY 2025 + Tri-motor and Quad R1)

REPLACEMENT PARTS:

***Note:** Sockets and extension manufacturer and p/n's below may vary from original kit contents. Mcmaster-carr items below are listed as equivalent tools that can be ordered as replacements if kit components are lost/damaged.

ITEM	QTY	DESCRIPTION	RIVIAN P/N	MFR - MFR P/N	ORDER FROM
01	1	DIGITAL ANGLE FINDER	TSN00472-100-A	ACCUMASTER - 7434	AMAZON
*02	1	SOCKET, 1/2" 6PT DEEP IMPACT 30MM	TSN01503-100-A	MCMASTER-CARR - 7205A61	MCMASTER-CARR
*03	1	SOCKET, 3/4" 6PT DEEP IMPACT 30MM	TSN01504-100-A	MCMASTER-CARR - 54175A8	MCMASTER-CARR
04	2	ASCENT RR AXLE - SCRIBE JIG	TSN01507-300-A	MPCM - NCT22721921	SBS - COUPA PUNCHOUT
*05	1	3/4" DRIVE IMPACT EXTENSION, 3" LONG (MUST ORDER RETAINING RING, ITEM-06)	TSN01519-100-A	MCMASTER-CARR - 5552A115	MCMASTER-CARR
*06	1	SOCKET RETAINING RING - 1-5/8" ID	TSN01520-100-A	MCMASTER-CARR - 5552A38	MCMASTER-CARR
07	2	INK MARKER - SILVER, 1MM STROKE WIDTH	TSN01523-100-A	MCMASTER-CARR 1661T47	MCMASTER-CARR



LABOR CODE:

4264- Rear Half Shafts

OTHER TOOLS REQUIRED:

TSN01505-100: Torque Wrench ¾” drive

TSN00049-100: Digital Torque wrench ½” drive

TSN01518-100: 3/4” drive Breaker bar (40” long)

TSN00490-100: Under Hoist Stand, ¾ Ton

PRIOR TO USAGE:

Visual Inspection

1. Visually inspect tools in the kit for any damage and replace before performing the procedure
2. Inspect hardware scribe jig for any damage (ensure scribe guide is smooth on the running surface edge) and replace if necessary
3. Verify presence of all sockets, extensions, markers and digital angle finder in the kit before using. Replace all missing parts of the kit immediately!

CAUTION: Do not perform procedure if any equipment is missing or damaged. Contact tooling team with any questions or requests for replacement parts. ServiceToolEngineering@rivian.com

Refer to the service procedure :

426410010	Halfshaft, Rear, LH (Remove and Replace)
426410110	Halfshaft, Rear, RH (Remove and Replace)

The service procedure will guide you on what steps to use the tools in **TSN01521-300-A: ASCENT RR AXLE, KIT** and provide you with the most up to date torque specs when performing the service procedure.

TOOL USAGE:

Tool	DIRECTIONS (When tool is used)	VISUAL AID
TSN01503-100 SOCKET, 1/2" 6PT. DEEP IMPACT 30MM	1. Used during installation procedure alongside TSN00049-100 1/2" drive Digital Torque wrench to set initial mesh between the axle and the hub.	

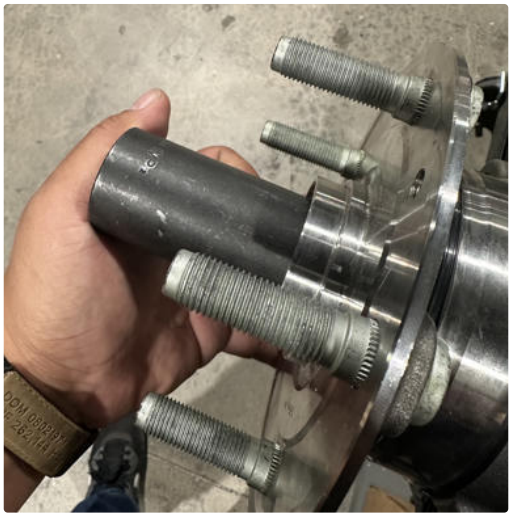
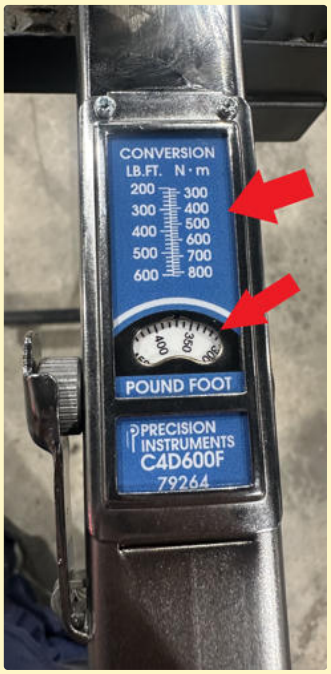
		 
TSN01504-100 SOCKET, 3/4" 6PT. DEEP IMPACT 30MM **TSN01519-100** 3/4" DRIVE IMPACT EXTENSION, 3" LONG **TSN01520-100** SOCKET RETAINING RING - 1-5/8" ID	1. Used during removal procedure alongside TSN01518-100 3/4” Breaker Bar (40” long) to break axle bolt free with the vehicle on the ground. 2. Used during installation procedure alongside TSN01505-100 3/4” drive Torque Wrench to provide final torque to rear axle bolt when vehicle is on the ground. For both removal and install, center cap needs to be removed from wheel assembly to access the axle bolt.t **Important note:** When using TSN01505-100 3/4” drive Torque Wrench, be sure to correctly set the torque wrench to the final torque spec. You will need to convert Nm to Ft lbs (based on the provided	

chart on the tool handle) to ensure that you do not input the incorrect torque value!
Always refer to the service manual for the most up to date torque spec for the axle bolt fastener!

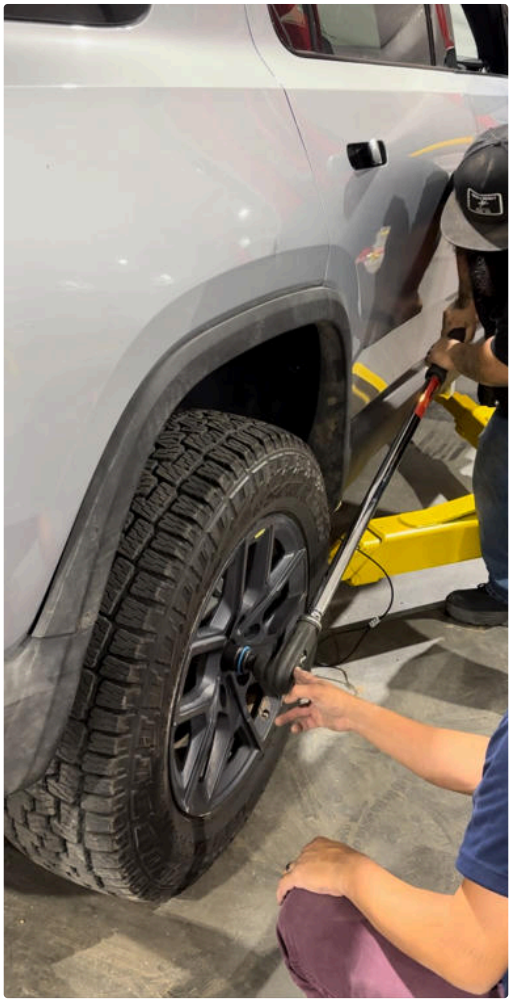


Upper arrow shows conversion chart, Lower arrow shows the torque spec set in Pound Foot (LB.FT)

Conversion calculator:
Convert Nm to ft lb

Incorrect setup of the torque wrench can lead to a under torque or over torque scenario on the axle bolt fastener!

1. Used alongside TSN01518-100 3/4" Breaker Bar (40" long) to break axle bolt initially on the the ground

		 2. Used with TSN01505-100 3/4” drive Torque Wrench to torque to final spec on ground
TSN01523-100 Permanent Marker, Fine Tip, Metallic Silver	1. Used during installation procedure alongside TSN01507-300 Ascent RR Axle-Scribe jig to draw the mesh indicator line on the axle (large bell side towards the hub).	

TSN01507-300 ASCENT RR AXLE - SCRIBE JIG	1. Used during installation procedure alongside TSN01523-100 Sharpie Permanent Marker, Fine Tip, Metallic Silver to provide guidance on the where to draw the mesh indicator line. **TSN01507-300** ASCENT RR AXLE - SCRIBE JIG must be firmly up against the face spline teeth before drawing the mesh indicator line on the axle shaft. This is 2 hand job (one to hold the scribe jig while the other hand uses the marker to draw the full circumference of the line).	
TSN00472-100 Digital Angle Finder	1. Used during installation procedure alongside TSN00490-100: Under Hoist Stand, ¾ Ton to set angle of axle during meshing of the face splines. **TSN00472-100** Digital Angle Finder must be set on the axle shaft body (using the magnetic base) as close to the hub as possible. Using the under hoist stand to lift the suspension assembly, set the axle to 0° before attempting the mesh between the axle and the hub. ***NOTE: Be sure to zero* TSN00472-100 Digital Angle Finder *on a known flat surface like a 2 post lift arm or workbench before using on the axle.***