TOOL USE INSTRUCTION

RIVIAN	TOOL NUMBER	**TSN00541-300-C**
	TITLE	**BATTERY LIFT BEAM**
	REV - DATE	**REV C - 11/26/2024**

CONTENTS

TOOL FUNCTION

LIFT BEAM TO ASSIST WITH LIFTING BATTERY PACK VIA FORKLIFT OR OVERHEAD GANTRY
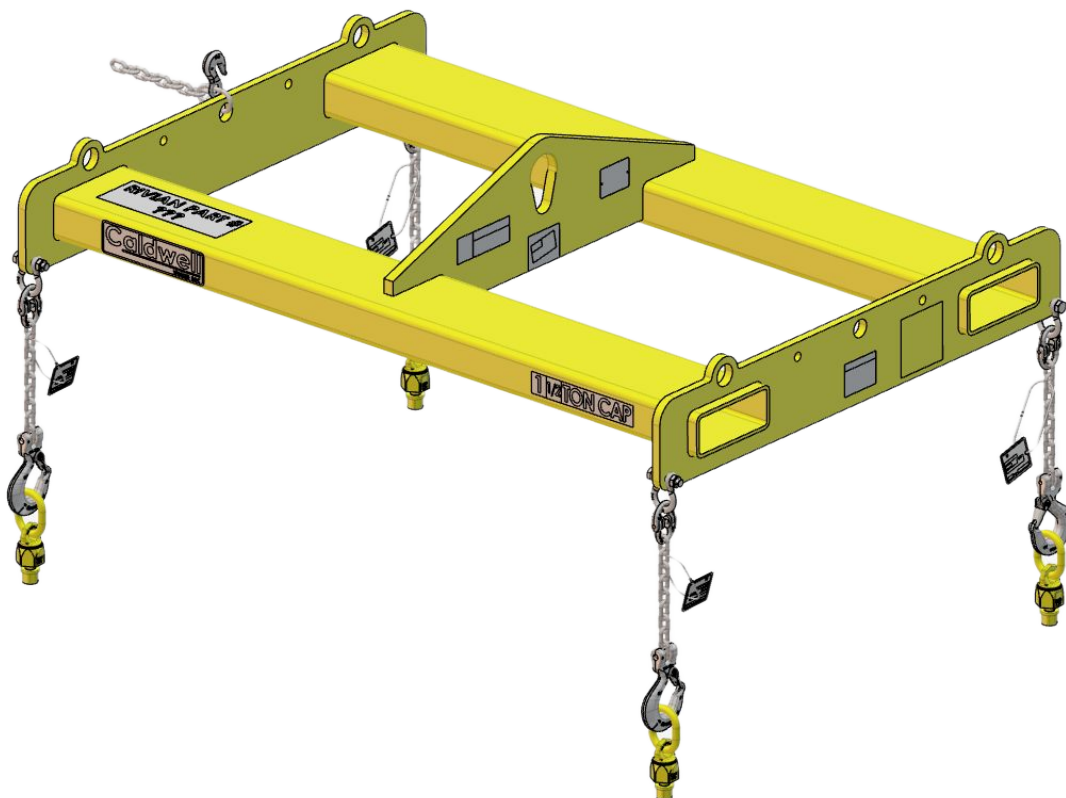
SPECIFICATIONS

RATED CAPACITY: 3000 lbs
MODEL NO: 27F-1.5-37/53
WEIGHT: 260 lbs
CERTIFICATION: ASME BTH-1, DESIGN CATEGORY B, SERVICE CLASS 2

LABOR CODES

301010010 HV Battery (Remove and Replace)
301010011 HV Battery (Remove and Reinstall)

OTHER TOOLS REQUIRED

TSN00553 - BATTERY LIFT TABLE JIG
TSN00523 - PORTABLE GANTRY, 2 TON CAP
TSN00522 - CHAIN HOIST
TSN00519 - FORK LIFT

COMPONENT GUIDE

ITEM	QTY	RIVIAN TOOL ID	DESCRIPTION
1	1	TSN00541-300	BATTERY LIFT BEAM ASSEMBLY
2	4	TSN00541-202	M16 SWIVEL HOIST RING
3	4	TSN00541-203	M16 FLANGE NUT (DIN 6331)
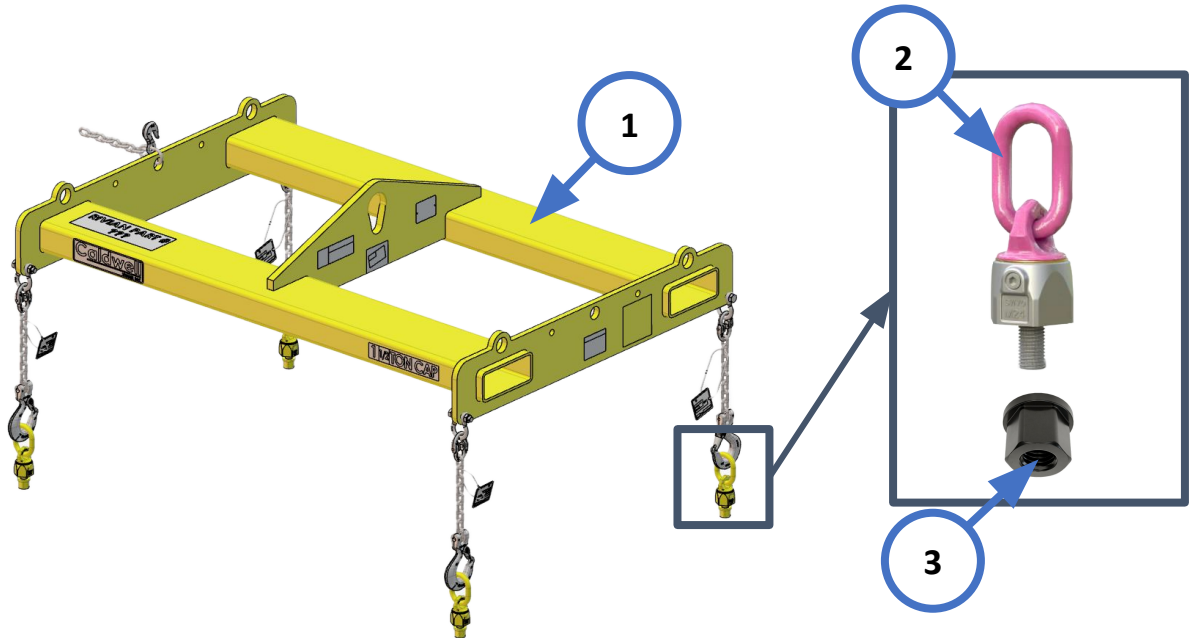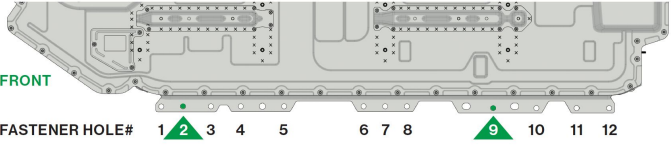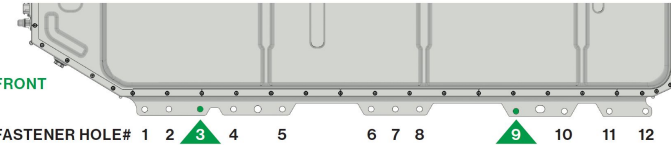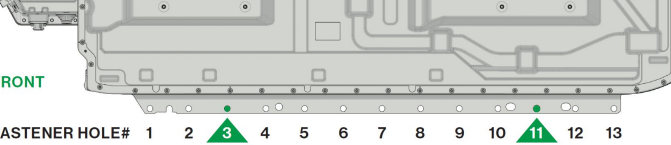
⚠️ **DANGER**

Do not perform procedure if tool is damaged or missing parts. Consult the Rivian Service Tool Catalog for replacement components.

Failure to follow guidelines outlined in this document could result in property damage, injury, and death.

SAFETY GUIDELINES

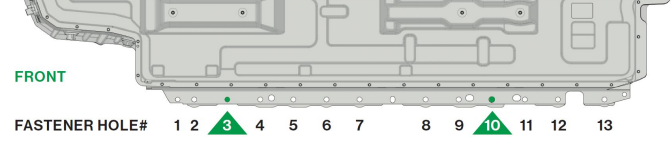|	
1	Do not exceed rated capacity
2	Inspect all chain slings and lift hardware for signs of damage prior to every use. Ensure chain slings are straight and free of twists prior to loading.
3	Ensure pathway is clear before transporting with forklift or lift table.
4	Do not move gantry while pack is lifted.
5	Do not use tool for purposes other than those outlined in this document.
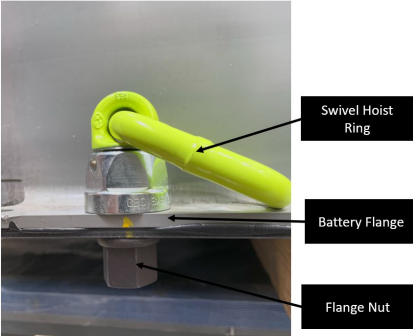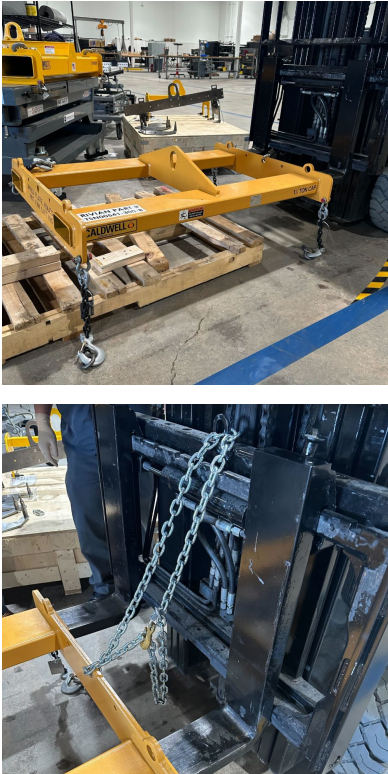
PACK VARIANT	VEHICLE	LIFT METHOD	LIFT POINTS
C1 9 Module NCA	R1 2022-2024 EDV 2022	Gantry Crane, Fork Lift	
Bengal LFP	EDV 2023+	Gantry Crane, Fork Lift	
C3 7 and 9 Module NCA	R1 2025+	Fork Lift	
Baltic LFP	R1 2025+	Gantry Crane, Fork Lift	

Gantry Crane

Fork Lift

1	Review LIFT CONFIGURATION GUIDE to confirm lift method and attach points for the battery variant you are lifting. **If using FORK LIFT > proceed to step 2** **If using GANTRY > jump to next section**	
2	Install (4x) swivel hoist rings to specified locations along flange of the battery according to LIFT CONFIGURATION GUIDE Thread on flange nut and torque to **60 Nm**	
3	Use forklift to pick up lift beam in orientation shown Wrap chain around the forklift mast and clip to secure the tool to the lift.	

4	Use forklift to raise the lift beam and position over the center of the pack.	
5	Attach the (4x) lift beam hooks to the hoist rings Align body of the hooks parallel to the side of the pack enclosure to prevent rubbing and damage to the pack	
6	Slowly begin to raise the hoist until the chains are taut and then **PAUSE** ● Check chains and hoist rings to ensure there are no twists or binding ● Check that lift hardware is not clashing with the pack enclosure ● Confirm load is well balanced Lower the load to correct any problems before proceeding.	
7	Lower pack either into crate or onto Battery Lift Table for transport as needed. Ensure pack is properly seated on support surfaces before releasing load and removing lift beam.	

1	Review LIFT CONFIGURATION GUIDE to confirm lift method and attach points for the battery variant you are lifting. **If using GANTRY > proceed to step 2** **If using FORK LIFT > refer to previous section**	
2	Install (4x) swivel hoist rings to specified locations along flange of the battery according to LIFT CONFIGURATION GUIDE Thread on flange nut and torque to **60 Nm**	 Swivel Hoist Ring Battery Flange Flange Nut
3	Attach the hoist lift hook to the center point of the lift beam. **IMPORTANT** For REV A tools, ensure lift point is in center position and pin is fully engaged **NOTE** Center lift point is fixed for later revisions of the tool	

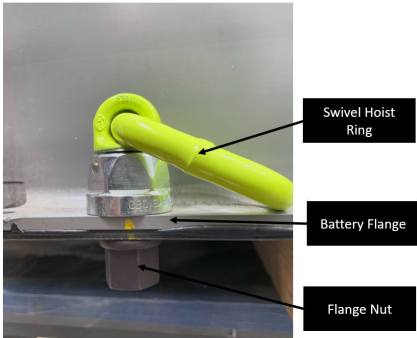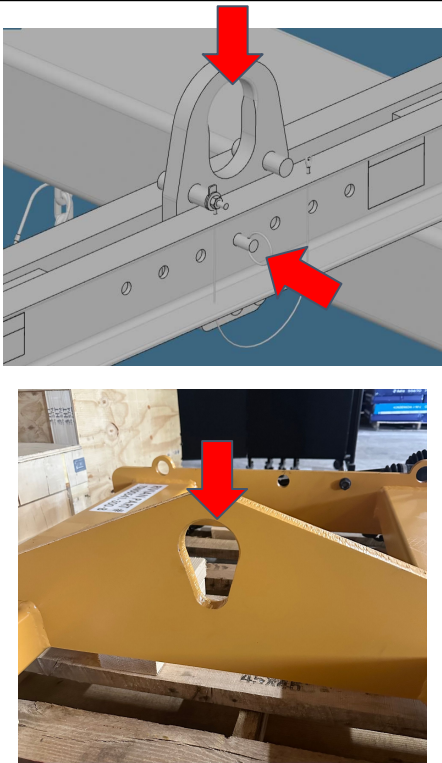|		
4	Use hoist to raise the lift beam and position over the center of the pack.	
5	Attach the (4x) lift beam hooks to the hoist rings Align body of the hooks parallel to the side of the pack enclosure to prevent rubbing and damage to the pack	
6	Slowly begin to raise the hoist until the chains are taut and then **PAUSE** • Check chains and hoist rings to ensure there are no twists or binding • Check that lift hardware is not clashing with the pack enclosure • Confirm load is well balanced Lower the load to correct any problems before proceeding.	**IMPORTANT** If using REV A tool, the center lift point should not be adjusted to balance the load
7	Lower pack either into crate or onto Battery Lift Table for transport as needed. Ensure pack is properly seated on support surfaces before releasing load and removing lift beam.	

BASIC MAINTENANCE GUIDE

TASK	FREQUENCY	IMAGE
Visually inspect all lift attachments and chain slings for signs of damage, cracks, elongation. Replace as necessary.	Before every use	
Verify presence of (4x) Chain slings, (4x) swivel hoist rings and (4x) flange nuts	Before every use	
Visually inspect the threads of the swivel hoist rings and flange nuts for cross-threading, damage, or bending	Before every use	
Clip 4x lift hooks to the loops provided at the top of the lift beam for safe storage	After every use	
Remove the 4x hoist rings from the pack and store them facing inward at locations shown	After every use	

SERVICE & REPLACEMENT COMPONENTS

FOR OTHER ITEMS NOT SHOWN, CONTACT RIVIAN SERVICE TOOL ENGINEERING

ITEM	DESCRIPTION	SUPPLIER + PART NUMBER
1	Swivel Hoist Ring	RUD VWBG-V 1.3t M16 35mm L - or - McMaster-Carr #4137N14
2	Flange Nut, M16 DIN6331	McMaster-Carr # 90360A117
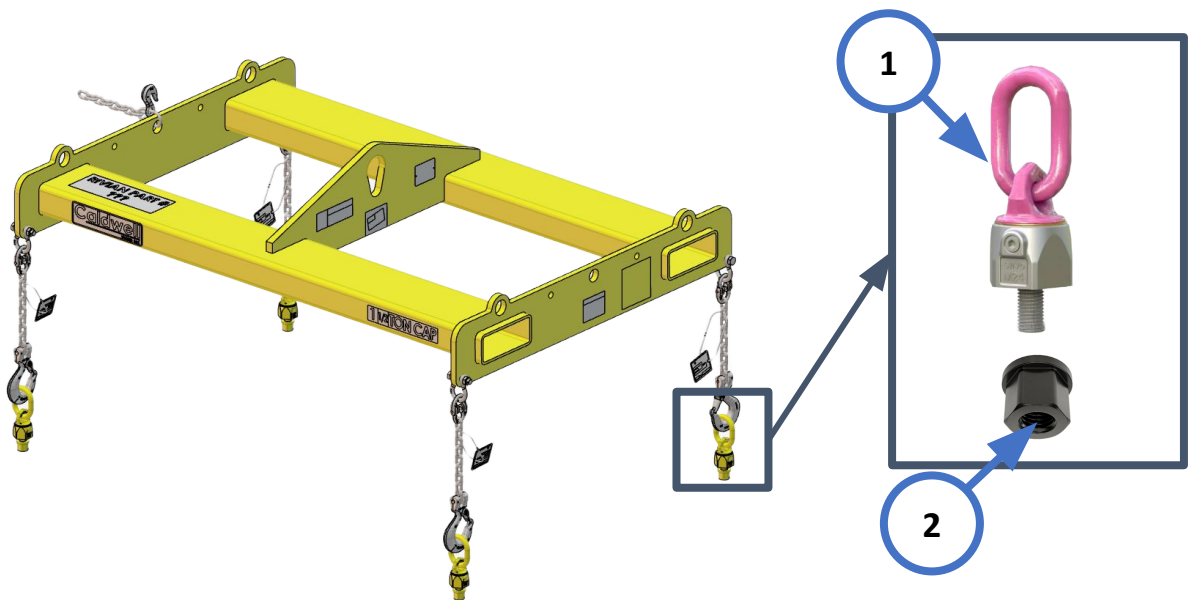
DANGER

Risk of major injury such as
- fire
- chemical or poison
- crushing / maiming
- death

IMPORTANT

Instructions to successfully complete a task

NOTE

Useful information

REVISION LOG

REV	DATE	CHANGE DESCRIPTION
A	11/26/2024	Initial release
C	06/03/2025	Updated to Rev C config, added McMaster PN for swivel hoist ring