

Service Bulletin

AD Suspensions

AD Frame Bracket Replacement Procedures for Aftermarket

December 2021

Introduction

As Neway®, a SAF-HOLLAND® division, phases out AD OEM production, pre-machined cast frame brackets will no longer be offered. These cast frame brackets are typically used on suspension ride heights at or around 10". This will result in repair facilities identifying, machining and replacing frame brackets that need servicing. The following provides information on procuring the correct parts and replacement procedures for installing the new brackets.

Part Identification

These cast frame brackets are handed (asymmetrical) by design, however can be use in a reverse orientation, which is why it is important to review the specific orientation of the frame bracket installed (**Figure 1**). The cast part number is located just below the Neway logo and can be used to ensure that the proper bracket is ordered (**Figure 2**). The casting number to replacement part number is listed in **Table 1**. Common machined part numbers are listed in **Table 2** (refer to page 5), with replacement parts.

The replacement frame brackets will also be provided in the adjustable state – meaning the alignment block will be loose. Typically, the fixed frame bracket is located on the RH (curbside) frame rail and has the alignment blocks pre-installed. If replacing this bracket, it is recommended to weld the alignment block prior to replacement. Refer to customer inspection drawing for locating dimensions.

IMPORTANT: The use of alignment blocks is required for each frame bracket. Replacement alignment blocks and pivot fasteners can be obtained with SRK-920 (P/N: 48100786).

Table 1: Part Number Conversion

CASTING PART NUMBER	REPLACEMENT PART NUMBER
90018578	90018733
90018579	90018734

Figure 1

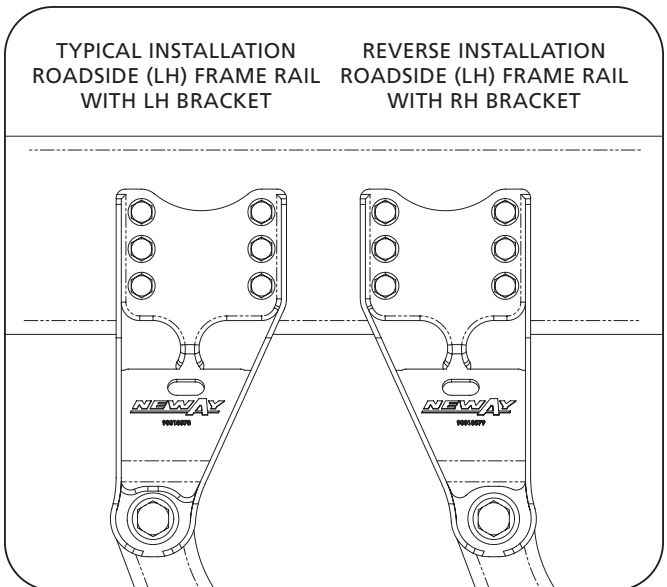
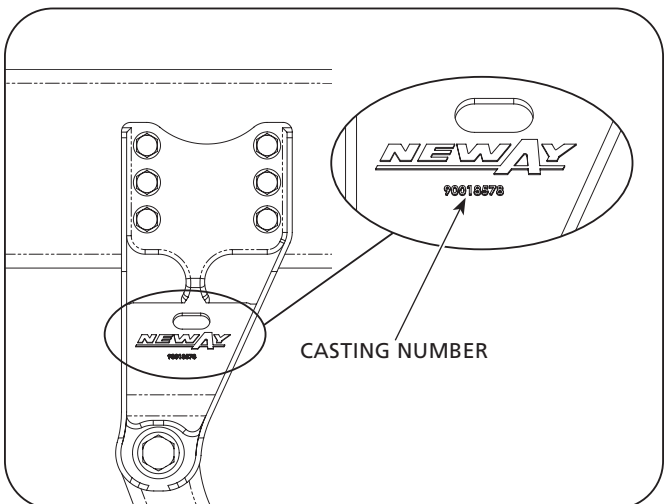


Figure 2



Frame Bracket Replacement

1. With the vehicle unloaded (trailer disconnected) and on a level surface, chock both front tires to prevent the vehicle from rolling forward or backwards.
2. Raise the rear of the vehicle using the vehicle's lift points and support with jack stands (**Figure 3**).

⚠ WARNING

Failure to properly lift or support the vehicle could result in a crush hazard, which if not avoided, could result in death or serious injury.

3. Remove tires.
4. Using floor jacks or equivalent, support the transverse beam and both equalizing beams near the pivot (**Figure 3**).

⚠ WARNING

Failure to properly support the suspension could allow the suspension to fall, which if not avoided, could result in death or serious injury.

5. Exhaust all air from the system by disconnecting the height control valve linkage from the suspension and pulling down. Refer to the height control valve manufacturer's instructions for further information.
6. Remove and discard the pivot connection hardware (**Figure 4**). Refer to SRK-920 for replacements.

IMPORTANT: Be sure to note the positions of the spacer washers between the frame bracket and the equalizing beams as there are multiple configurations based on frame width (**Figure 4**).

7. Using a square or straight edge, mark the forward most position of the frame bracket (**Figure 5**).
8. Remove and discard the frame and crossmember attaching hardware (**Figure 6**). Retain or replace the spacer between the crossmember and horizontal face on the frame bracket.

⚠ CAUTION

When replacing both frame brackets, replace one at a time to prevent crossmember disassembly, which if not avoided, could result in moderate injury.

Figure 3

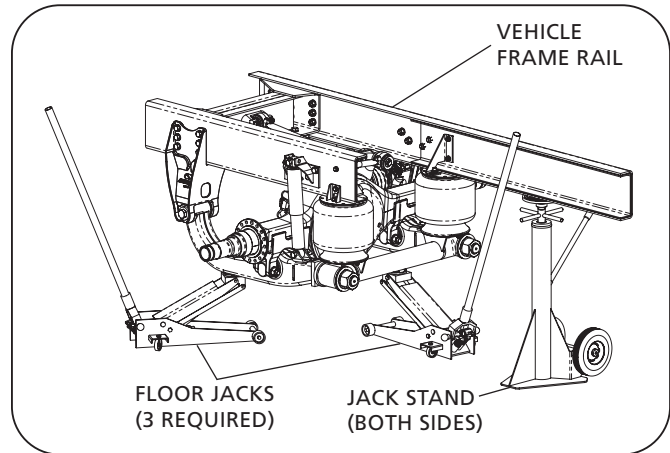


Figure 4

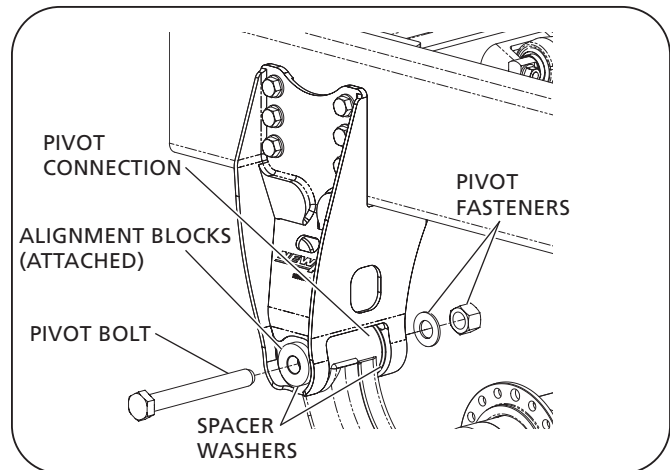
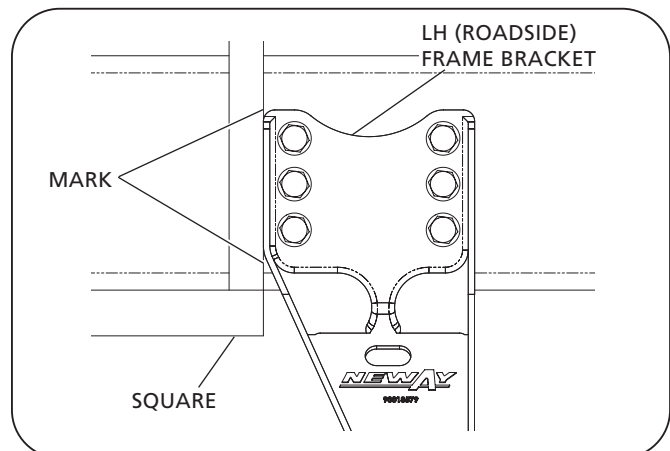


Figure 5

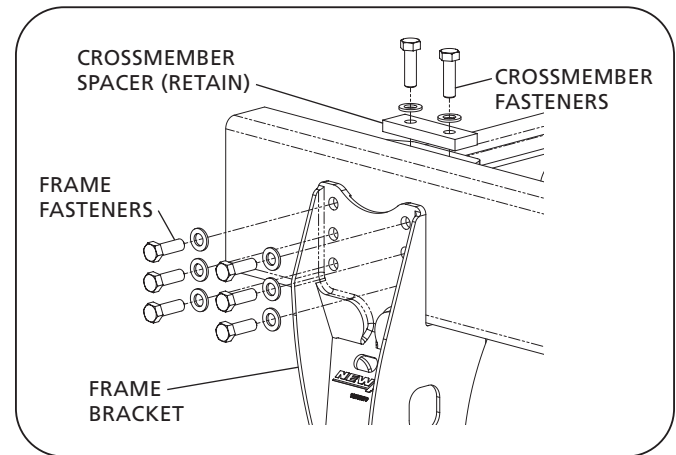
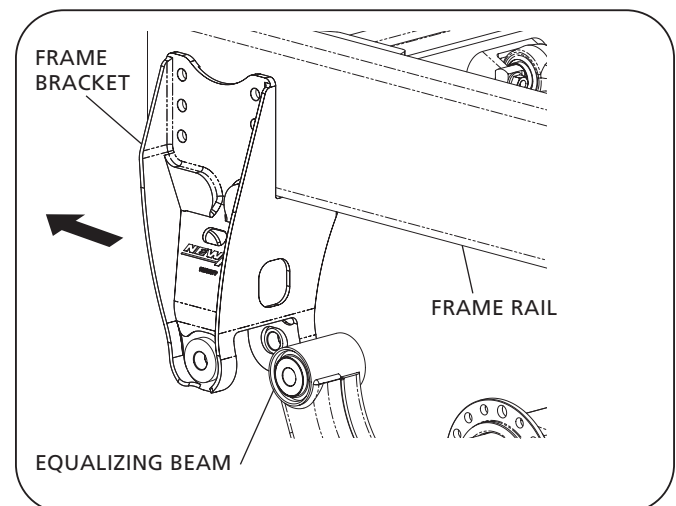
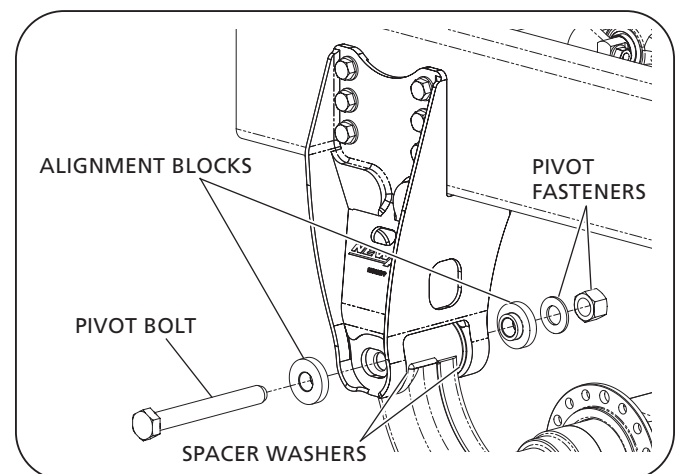


9. Slide the frame bracket forward off of the rail, crossmember and equalizing beam (**Figure 7**).

IMPORTANT: DO NOT lower the equalizing beam to remove the frame brackets.

10. Slide the new frame bracket into place, aligning the forwardmost vertical line drawn in step 7. Ensure the horizontal face is contacting the bottom of the frame rail and clamp in place.
11. If accessible, back-drill mounting holes from frame rail and crossmember. If not accessible, mark hole locations with transfer punch or other method, remove and drill.
12. Assemble the new frame bracket to the frame rail and crossmember using new grade 8 minimum bolts, grade C minimum nuts and a hardened washer under each bolt and nut (**Figure 6**). Torque according to OEM specifications (30,000 lbf clamp required).
13. Using new pivot hardware, assemble the frame bracket to the equalizing beam (**Figure 8**). Be sure to position the spacer washers in the same location when removed in step 6 (**Figure 4**).
14. If replacing the fixed bracket, torque SAF provided pivot hardware to 600 ft-lb [814 N•m], applied to the nut. If replacing the adjustable bracket, snug the fastener to allow for axle alignment.
15. Reconnect the height control valve linkage to the suspension and torque necessary fasteners per OEM specifications.
16. Remove the forward two floor jacks. Do not remove the jack supporting the transverse beam.
17. Reinstall tires and any remaining components. Torque wheels per the wheel manufacturer and/or OEM specifications.
18. Remove the floor jack supporting the transverse beam.
19. Remove the jack stands supporting the vehicle frame.
20. Apply proper air pressure to the system to inflate the air springs and ensure the suspension is within ± 0.25 " [6mm]. Refer to maintenance manual if ride height adjustment is necessary.

NOTE: Axle alignment is required after replacement of frame brackets. Refer to the following section (Axle Alignment) for procedures.

Figure 6

Figure 7

Figure 8


Axle Alignment

IMPORTANT: It is recommended to use appropriate alignment equipment and trained personnel to ensure proper handling and vehicle tracking. Failure to do so may lead to accelerated tire wear and improper vehicle handling.

1. With the vehicle unloaded, wheels chocked and the suspension within $\pm.25"$ [6 mm], support the frame rail with jack stands (**Figure 9**).

⚠ WARNING Failure to properly support the vehicle could result in a crush hazard, which if not avoided, could result in death or serious injury.

2. Exhaust all air from the system by disconnecting the height control valve linkage from the suspension and pulling down. Refer to the height control valve manufacturer's instructions for further information.
3. Slide equalizing beam fore/aft at the adjustable bracket to conform with the OEM alignment specifications.
4. Torque the SAF provided pivot fasteners to 600 ft-lb [814 N•m], applied to the nut.
5. Weld alignment block on both (inboard and outboard) sides of the frame bracket in three (3) places as illustrated (**Figure 10**).
6. Allow bracket to cool for a minimum of three (3) minutes and re-torque the pivot faster as defined in step 4.
7. Reconnect the height control valve linkage to the suspension and torque necessary fasteners per OEM specifications.
8. Remove jack stands and apply proper air pressure to the system to inflate the air springs and ensure the suspension is within $\pm.25"$ [6 mm].

Figure 9

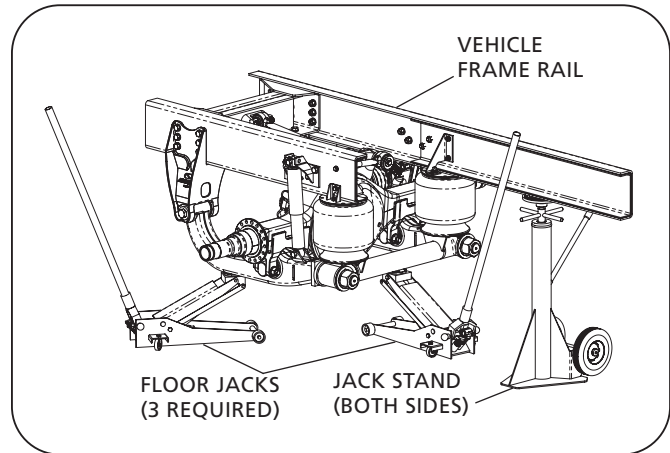
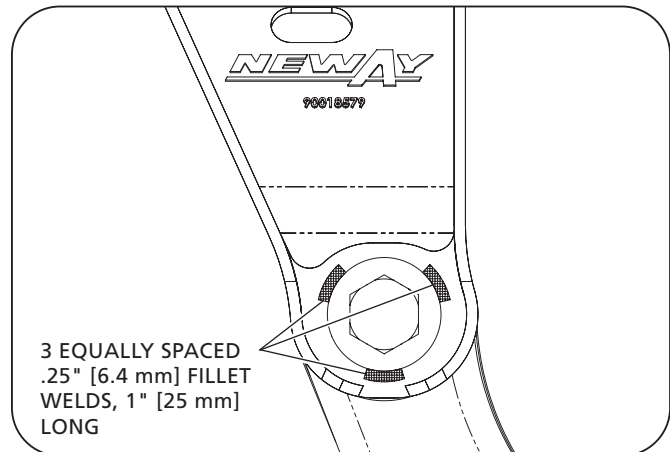


Figure 10



Appendix

Table 2: Common Machined Part Number Cross Reference

MACHINED PART NUMBER	FIXED OR ADJUSTABLE	REPLACEMENT PART NUMBER
90018582	Adjustable	90018733
90018583	Adjustable	90018734
90018584	Adjustable	90018733
90018585	Adjustable	90018734
90018586	Adjustable	90018733
90018587	Adjustable	90018734
90018588	Adjustable	90018733
90018595	Adjustable	90018733
90018596	Adjustable	90018734
90018619	Adjustable	90018733
90018620	Adjustable	90018734
90018622	Adjustable	90018733
90018623	Adjustable	90018734
90018628	Adjustable	90018733
90018629	Adjustable	90018734
90018630	Adjustable	90018733
90018631	Adjustable	90018734
90018662	Adjustable	90018734
90018663	Adjustable	90018733
90018664	Adjustable	90018734
90018773	Adjustable	90018733
90018774	Adjustable	90018734
90520884	Fixed	90018734
90520891	Fixed	90018733
90520892	Fixed	90018734
90521010	Fixed	90018733
90521657	Fixed	90018733
90521155	Fixed	90018733



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