



AD SERIES SUSPENSIONS

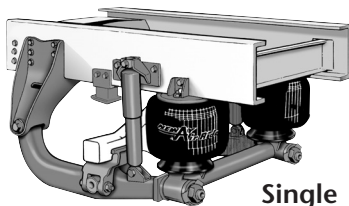
SERVICE BULLETIN



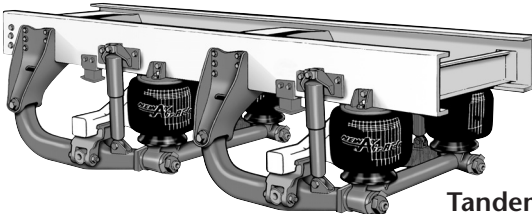
AD Series Suspensions

Axle Alignment Welding and Torque Specifications for Pivot Connections

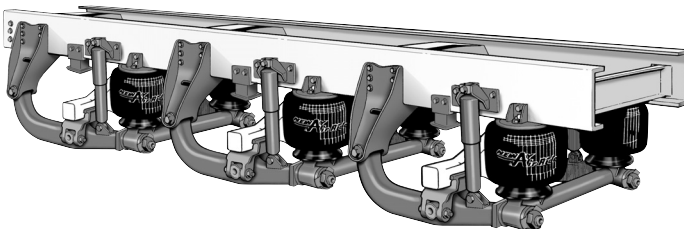
March 1, 2002



Single
AD-123/126/130



Tandem
AD-246/252/260



Tridem
AD-369/378/390

IMPORTANT: For proper installation and preventative maintenance of the AD Suspension Pivot Connection, the following is recommended.

1. OEM INSTALLATION

Follow Procedures and Specifications listed under OEM Axle Alignment Procedures (page 2).

2. DEALER PRE-DELIVERY INSPECTION

It is recommended that the Dealer check for proper torque of all pivot connections prior to delivery of the truck to assure that connections are torqued to the recommended specifications listed in Table 1 - page 3.

3. CUSTOMER PREVENTATIVE MAINTENANCE

It is recommended that the customer check for proper torque of all pivot connections after the first 100 hours of service or 5,000 miles, whichever ever comes first and thereafter at 50,000 mile intervals, every routine P.M., or brake relining (Reference AD Series Maintenance Manual #94100719, XL-AK383-01 or Torque Spec Decal)

IMPORTANT: Be certain torque decal is attached to vehicle near suspension (Figure 1). New torque specification decals are available from Holland - Part No. 90044236, XL-AK399-01 (Figure 4).

OEM AXLE ALIGNMENT PROCEDURES

NOTE: The following steps assumes that the pivot connection is assembled with the proper hardware based on the frame width and frame bracket type specified for the application.

Perform the following procedures for each axle.

1. Determine whether the frame bracket is “fixed” (alignment block centered and welded to the frame bracket by Holland Neway) or “adjustable” (alignment block shipped loose by Holland Neway) (Fig. 2).

NOTE: Typically, suspension kits are shipped to the OEM with one frame bracket “fixed” and one frame bracket “adjustable”. Some OEM’s however specify both frame brackets as “adjustable”.

2. Holland Neway recommends that the chassis be set at the specified Ride Height prior to axle alignment (Fig 1).

3. “Fixed” frame bracket – torque pivot connection to the specifications listed in Table 1 - page 3.

4. “Adjustable” frame brackets – adjust axle alignment by sliding alignment blocks fore/aft (Fig. 2). Torque to specifications listed in Table 1 - page 3.

5. Weld alignment blocks on both sides of the adjustable frame bracket (Fig. 2).

IMPORTANT: A minimum 3 minute cool down period is required after welding connection before re-applying torque to pivot bolt nut.

6. Re-torque the cooled down pivot connection on the “Adjustable” frame bracket to the specifications listed in Table 1 - page 3.

Figure 1. Installed AD Series Suspension

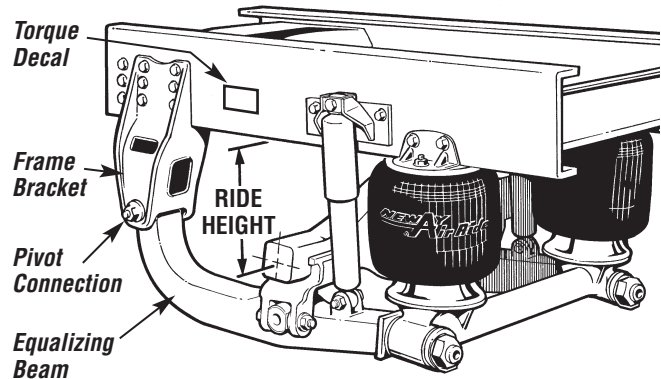


Figure 2. “Adjustable” Frame Bracket

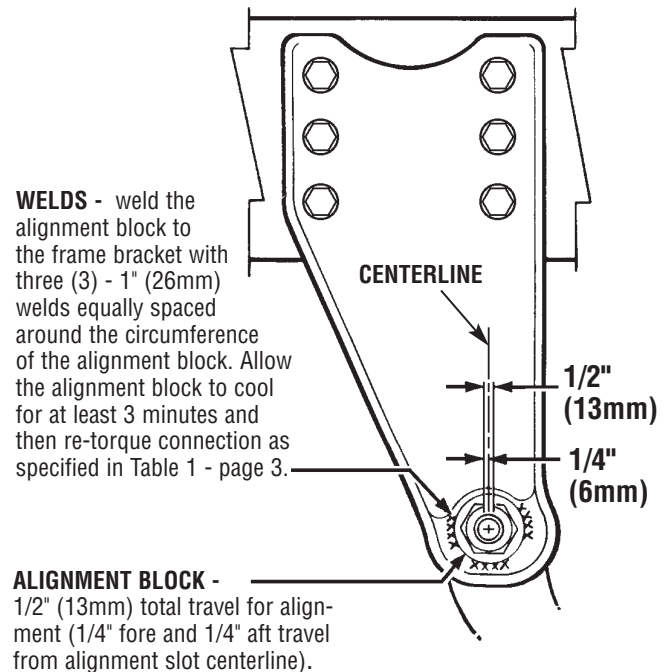


Table 1

RECOMMENDED TORQUE SPECIFICATIONS FOR AD SERIES SUSPENSION PIVOT CONNECTIONS	
<p>GENERAL INFORMATION</p> <ul style="list-style-type: none"> • Torque specifications listed are applied to the nut. • Torque specifications: +/- 5% tolerance • Lubricated Vs. Non-Lubricated Threads – The torque specifications stated are for lubricated and non-lubricated fasteners. Holland defines lubricated vs. non-lubricated as follows: <ul style="list-style-type: none"> • Lubricated – a bolted connection, such as the pivot bolt/nut arrangement, that has some form of friction modifier or lubricant pre-applied or applied to the thread surfaces, providing a lower torque requirement for a predetermined clampload. • Non-Lubricated – a bolted connection, either new or in service, that has little or no lubricant on the thread surfaces. Typically, this applies to bolted connections that have been in service for a certain length of time where the original protective coating has evaporated or deteriorated due to environmental exposure. Thus, a “non-lube” torque specification is commonly required for in-service torque check or retorquing procedures. A “non-lube” specification could be required for new installations if the pivot bolt has seen sufficient shelf life to allow for evaporation and deterioration of the protective coating. <p>NOTE: Use of special lubricants with friction modifiers, such as Anti-Seize or Never-Seize, without written approval from Holland Engineering will void warranty and could lead to premature bolt failure or other component issues.</p>	
<p>IMPORTANT:</p> <ul style="list-style-type: none"> • Prior to May of 2002, all AD Series pivot bolts supplied by Holland were coated with an industry standard corrosion protectant commonly referred to as “phos & oil”. The black colored phos & oil protectant is susceptible to evaporation. Thus, the lubricating properties of the phos & oil coating varies significantly depending on the age of the coating. Holland recommends pivot bolts to be considered “non-lube” even though the phos & oil coating may still be present (Figure 3). • As of May 2002, Holland will supply all AD Series pivot bolts with a new coating that effectively eliminates the non-lube vs. lubricated issue. This silver colored coating is specifically formulated to provide greatly enhanced corrosion protection and act as a permanent lubricant. No additional lubrication is required (Figure 3). Thus, the new coating will only require one torque setting (with the possible exception of severe duty applications): 600 ft. lbs. Additionally, the coating will provide a superior, more consistent clampload. • Retorque Procedure – to re-torque a connection, Holland recommends that the nut be loosened a couple of turns and then torqued to the recommended specification. 	
<p>SUSPENSION MODELS:</p> <p>AD-123 / 246 / 369 and AD-126 / 252 / 378 1 1/8" - 7 Pivot Connection Bolt</p> <hr/> <p>OEM Installation – 600 ft. lbs.* for lubricated threads or 800 ft. lbs.* for non-lubricated threads.</p> <hr/> <p>Dealer Pre-Delivery Inspection – 600 ft. lbs.* for lubricated threads or 800 ft. lbs.* for non-lubricated threads. Threads may be lubricated or non-lubricated depending on OEM installation procedures. Check with the Truck OEM to confirm lubricated or non-lubricated threads.</p>	<p>SUSPENSION MODELS:</p> <p>AD-130 / 260 / 390 1 1/4" - 7 Pivot Connection Bolt</p> <hr/> <p>OEM Installation – 700 ft. lbs.* for lubricated threads or 900 ft. lbs.* for non-lubricated threads.</p> <hr/> <p>Dealer Pre-Delivery Inspection – 700 ft. lbs.* for lubricated threads or 900 ft. lbs.* for non-lubricated threads. Threads may be lubricated or non-lubricated depending on OEM installation procedures. Check with the Truck OEM to confirm lubricated or non-lubricated threads.</p>
<p>*Torque Specification: ± 5% Tolerance</p>	

Figure 3. Pivot Bolt Torque Lubrication Requirements - Old Style vs. New Style Identification



Figure 4. New AD Series Torque Specification Decal

AD SERIES SUSPENSION TORQUE SPECIFICATIONS

Fastener Size	Pivot Connection*		Transverse Beam**	Shock Absorber	Air Spring Attachments
	AD-123/126	AD-130			
	1 - 1/8"	1 - 1/4"	2 - 1/4"	3/4"	3/4"
Torque Ft. Lbs. (Nm)	600 (813)	700 (949)	525 (711)	150 (203)	35 (47)

ALL TORQUE SPECIFICATIONS ARE ± 5%. TORQUES ARE WITH CLEAN, LUBRICATED THREADS. ALWAYS APPLY TORQUE TO NUT IF POSSIBLE.

*** IMPORTANT: SEE PIVOT BOLT HEAD**

Pivot Bolt Head marked "NEWAY" REQUIRES lubrication.

Pivot Bolt Head marked "HOLLAND NEWAY" DOES NOT REQUIRE lubrication.

****AFTER APPLYING PROPER TORQUE TO THE TRANSVERSE BEAM NUT, FOLD THE WASHER TAB OVER A FLAT SIDE OF THE NUT.**

REQUIRED RE-TORQUING SCHEDULE:

- ALL FASTENERS AFTER FIRST 100 HOURS OF SERVICE OR 5,000 MILES.
- 50,000 MILE INTERVALS, ROUTINE P.M., OR BRAKE RELINING.

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900 44 236 • XL-AK399-01
GO THE DISTANCE.

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