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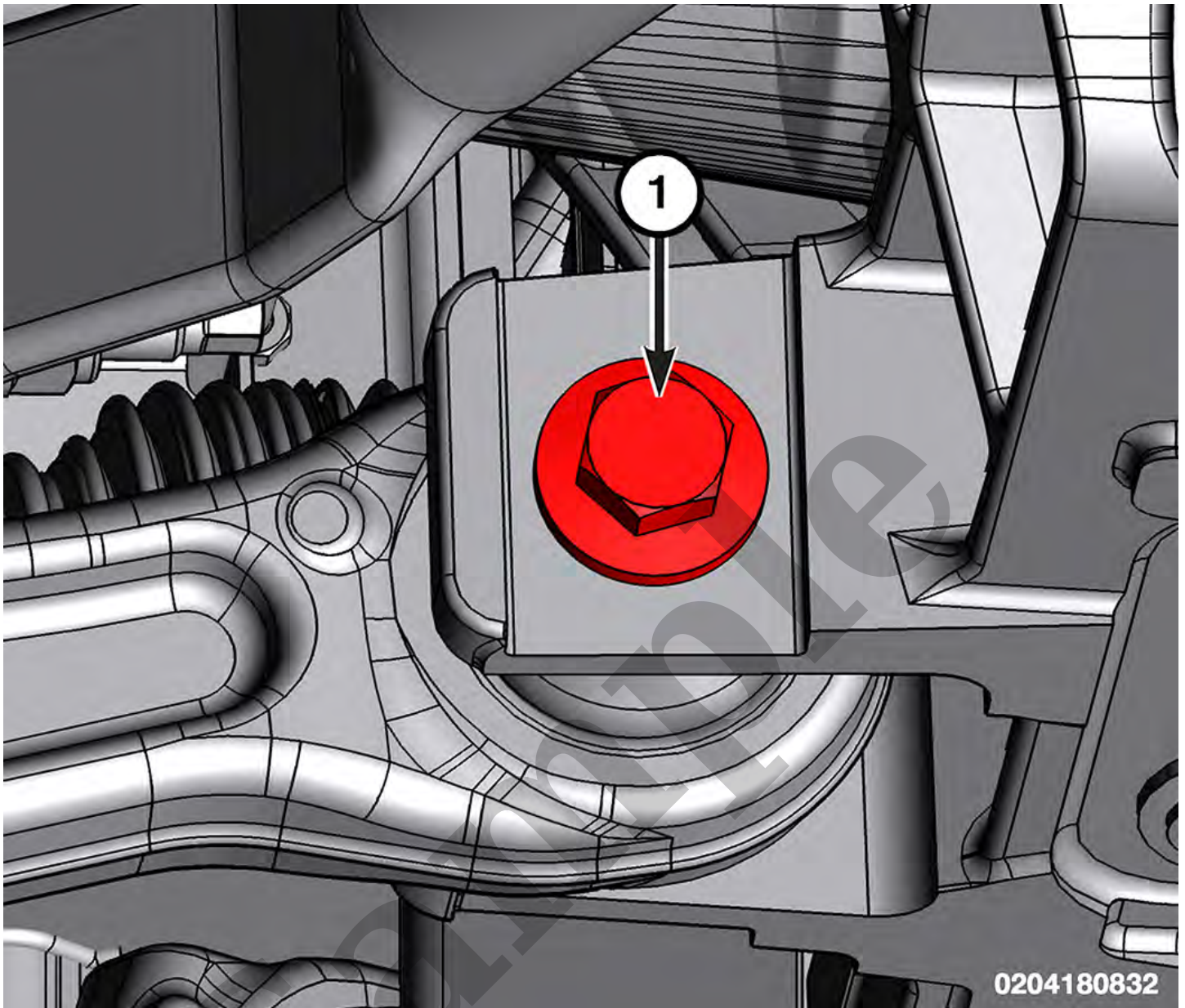
2016 Jeep Grand Cherokee Service and Repair Manual

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Diagnosis And Testing

DIAGNOSIS AND TESTING

CONDITION	POSSIBLE CAUSES	CORRECTION
FRONT END NOISE	1. Loose or worn hub and bearing	1. Replace the hub and bearing.
	2. Loose or worn steering or suspension components	2. Tighten or replace components as necessary.
EXCESSIVE PLAY IN STEERING	1. Loose or worn hub and bearing	1. Replace the hub and bearing.
	2. Loose or worn steering or suspension components	2. Tighten or replace components as necessary.
	3. Loose or worn steering gear	3. Replace the steering gear.
FRONT WHEELS SHIMMY	1. Loose or worn wheel bearing	1. Replace the wheel bearing.
	2. Loose or worn steering or suspension components	2. Tighten or replace components as necessary.
	3. Tires worn or out of balance	3. Replace or balance the tires.
	4. Wheel Alignment	4. Align the vehicle to specifications.
VEHICLE INSTABILITY	1. Loose or worn wheel bearing	1. Replace the wheel bearing.
	2. Loose or worn steering or suspension components	2. Tighten or replace components as necessary.
	3. Tire pressure	3. Adjust the tire pressure.



1 - Spring Link Bolt

1. On each side of the vehicle, measure the distance from the center of the spring link bolt to the ground, **record the measurement** .

NOTE

Due to the possibility of travel binding, it may be necessary to roll the vehicle back and forth in cases where the vehicle seems higher than normal ride height.

YOUR CURRENT VEHICLE

Wheel Alignment Adjustment

WHEEL ALIGNMENT ADJUSTMENT

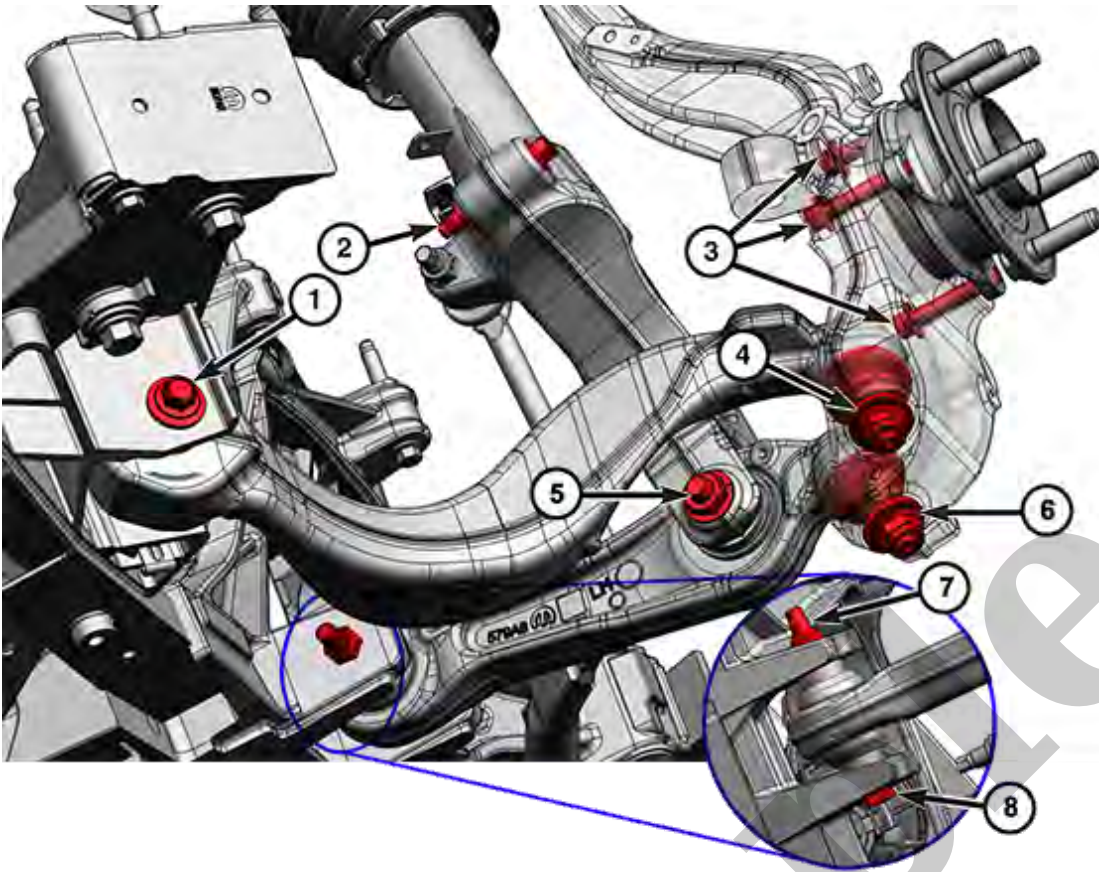
NOTE

For air suspension equipped vehicles, when checking or adjusting wheel alignment, the air suspension system must be set to Normal Ride Height (NRH) and Remain In Plant Mode using the diagnostic scan tool, or Wheel Alignment Mode in the radio menu can also be used if a diagnostic scan tool is not available. The preferred method is through the diagnostic scan tool.

REAR SUSPENSION

REAR CAMBER

1	Toe Link Inner Nut	120 N·m (89 Ft. Lbs.)	Fastener must be torqued with the vehicle at normal ride height. Do not reuse these fasteners. If removed, a new fastener must be installed and tightened to specifications.
2	Toe Link Stud	35 N·m (26 Ft. Lbs.)	Do not reuse these fasteners. If removed, a new fastener must be installed and tightened to specifications.
3	Tension Link Inner Bolt	100 N·m (74 Ft. Lbs.)	Fastener must be torqued with the vehicle at normal ride height.
4	Camber Link Inner Bolt	185 N·m (136 Ft. Lbs.)	Fastener must be torqued with the vehicle at normal ride height.
5	Camber Link Outer Bolt	200 N·m (148 Ft. Lbs.)	Fastener must be torqued with the vehicle at normal ride height.
6	Tension Link Outer Bolt	145 N·m (107 Ft. Lbs.)	Fastener must be torqued with the vehicle at normal ride height.
7	Hub and Bearing Bolts	160 N·m (118 Ft. Lbs.)	—
8	Spring Link Outer Bolt	185 N·m (136 Ft. Lbs.)	Fastener must be torqued with the vehicle at normal ride height.
9	Compression Link Outer Bolt	190 N·m (140 Ft. Lbs.)	Fastener must be torqued with the vehicle at normal ride height.
10	Toe Link Outer Bolt	200 N·m (148 Ft. Lbs.)	Fastener must be torqued with the vehicle at normal ride height. Do not reuse these fasteners. If removed, a new fastener must be installed and tightened to specifications.
11	Spring Link Inner Nut	190 N·m (140 Ft. Lbs.)	Fastener must be torqued with the vehicle at normal ride height.
12	Compression Link Inner Bolt	170 N·m (125 Ft. Lbs.)	Fastener must be torqued with the vehicle at normal ride height.



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CALLOUT	DESCRIPTION	SPECIFICATION	COMMENT
1	Tension Link Bolt	145 N·m (107 Ft. Lbs.)	Fastener must be torqued with the vehicle at normal ride height.
2	Clevis Pinch Bolt	100 N·m (74 Ft. Lbs.)	—
3	Hub and Bearing Bolts	116 N·m (86 Ft. Lbs.)	—
4	Tension Link Ball Joint Nut	70 + 85° N·m (52 + 85° Ft. Lbs.)	Do not reuse these fasteners. If removed, a new fastener must be installed and tightened to specifications.
5	Clevis Lower Bolt	308 N·m (227 Ft. Lbs.)	Fastener must be torqued with the vehicle at normal ride height.
6	Spring Link Ball Joint Nut	70 + 85° N·m (52 + 85° Ft. Lbs.)	Do not reuse these fasteners. If removed, a new fastener must be installed and tightened to specifications.

Specifications

SPECIFICATIONS

NOTE

For air suspension equipped vehicles, when checking or adjusting wheel alignment, the air suspension system must be set to Wheel Alignment Mode this will enable the Normal Ride Height (NRH). The preferred method of setting the system to Wheel Alignment Mode is through the diagnostic scan tool. Wheel Alignment Mode in the radio menu can also be used if a diagnostic scan tool is not available.

NOTE

Wheel alignment and ride height specification qualifiers are defined in the tables. Specifications are not affected by equipment such as PHEV or wheel base.

NOTE

All non-air suspension equipped vehicles are to be aligned at curb height ([Refer to Front Suspension/Wheel Alignment - Standard Procedure](#)).

Front Wheel Alignment Measurement Check Specifications

	Total Toe	Caster – Left	Caster – Right	Cross Caster	Camber – Left	Camber – Right	Cross Camber
Tolerance	+/- 0.20°	+/- 0.65°	+/- 0.65°	+/- 0.65°	+/- 0.65°	+/- 0.65°	+/- 0.65°
LHD Steel Spring 4X4	0.14°	7.60°	7.60°	0.00°	- 0.50°	- 0.50°	0.00°

Diagnosis And Testing

DIAGNOSIS AND TESTING

HUB BEARING - NOISE

0:00 / 2:34

NOTE

The halfshaft hub and bearing is designed to last for the life of the vehicle and requires no periodic maintenance. If it becomes necessary to replace a halfshaft hub and bearing, do not replace in pairs unless the parts manual specifically states to do so.

Bearings will produce noise if worn or damaged. The noise will generally change when the bearings are loaded. A road test of the vehicle is normally required to determine if there is a bearing noise, or if it is some other component. To assist in finding the location, the following procedure, together with the **DIAGNOSTIC TABLE**, should help determine if a bearing is causing the noise, and if so which one. Keep in mind that bearing noises are not typically intermittent. If a particular vehicle road test maneuver results in noise only part of the time, it is not likely a halfshaft hub and bearing issue.

NOTE

Wheel bearings normally purge a small amount of grease, sometimes resulting in wet appearance on or around the seals or adjoining knuckle. This is normal and is not cause for replacement. The only



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FAILED LEAKING SHOCK (REPLACE)

Sample