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INSTALL INSTRUCTIONS:

**11-20 GM 2500/3500
2WD/4WD Extreme Duty Tie
Rod and Center Link Kit**

SKU: 110-90940



PARTS LIST FOR SKU: 110 - 90940

QUANTITY	PART #	DESCRIPTION
2	5558	GM 8-Lug Outer Tie Rod End 2011-Up
2	5574	GM 8-Lug Inner Tie Rod End Left Hand
2	5575	Tie Rod Adjuster
1	6529	2011 – 2020 GM 2500-3500 Billet Extreme Duty Center Link
2	HARDWARE-M22-1.5-hexnut	M22-1.5 Din 934 Zinc Finish Steel Class 8 Hex Nut
2	HARDWARE-LHM22-1.5-hexnut	Left Hand Thread M22-1.5 Din 934 Zinc Finish Steel Class 8 Hex Nut

WARNING

Please read this entire instruction sheet before beginning installation. Proper installation of these components requires a qualified mechanic. Always wear safety glasses when using power tools and take appropriate precautions when working under a vehicle. If these instructions are not properly followed you may jeopardize your and your passenger's safety. Failure to properly follow these instructions can also lead to severe frame, suspension, tire, or other vehicle component damage.

REQUIREMENTS

- Always wear safety glasses when using power tools.
- When a lift is required to perform the installation of these products, always ensure the vehicle is properly supported before attempting installation or serious injury may occur.

TECHNICAL INFORMATION

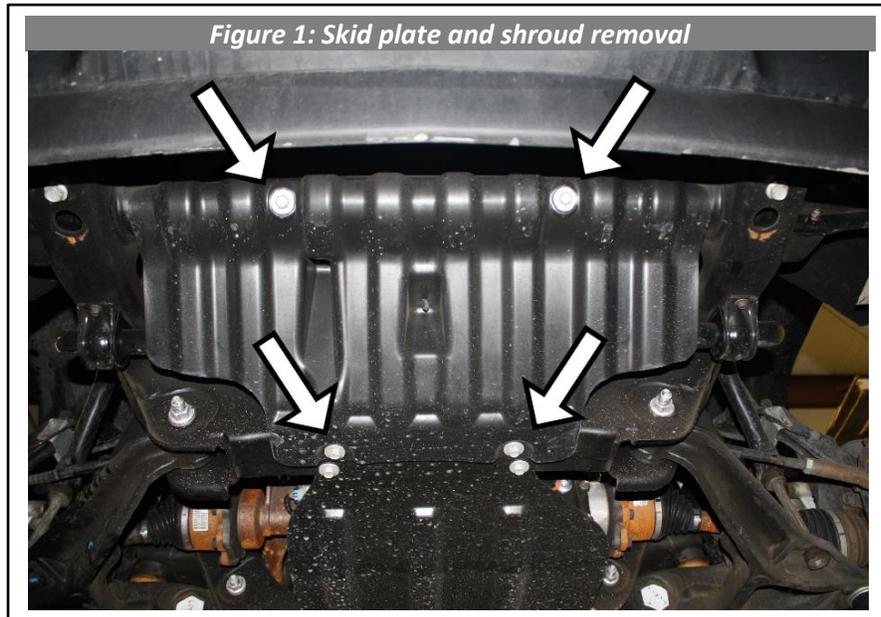
- Installation requires a qualified mechanic.
- Read instructions carefully and study the pictures before attempting installation.
- Check the parts and hardware packages against the parts list to assure that your kit is complete.
- Work through these instructions on both sides of vehicle at the same time to completion. The order of the steps is important.
- Modification of the tie rod assembly length may be required if the center link to spindle tie rod receptacle distance is less than 14.75".

TOOLS YOU WILL NEED

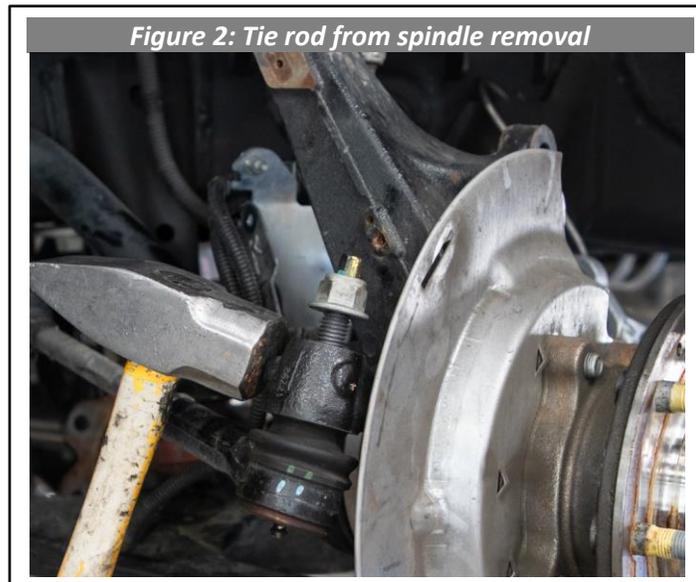
- | | |
|-----------------|------------------|
| • Ratchet | • Sockets: |
| • Torque Wrench | 1/2" |
| • Hammer | 5/8" |
| • 2-jaw Puller | 13/16" |
| • Wrenches: | • Allen Hex Key: |
| 13/16" | 5/16" |
| 15/16" | |
| 1" open end | |

INSTALLATION:

1. Support the vehicle on a lift or on jack-stands. NEVER WORK ON AN UNSUPPORTED VEHICLE.
2. If there is an existing skid plate and shroud at the front cross member of the vehicle, underneath the front of the engine, remove them with a **5/8" socket** to access the pitman and idler arms. Set the skid plate, shroud, and bolts safely aside.



3. Remove the nut holding the outer factory tie rod to the spindle with a **ratchet and 13/16" socket**. Using a **hammer**, tap on the spindle boss to dislodge the tie rod from the spindle.



4. If the truck is equipped with a steering stabilizer, remove bolt from the frame.
5. Unscrew the factory lock nuts that hold the factory center link to the pitman and idler arms, using a **15/16" deep socket**. Set the factory lock nuts safely aside, they will be reused.
6. Using a **2-jaw puller**, remove the factory center link from the pitman and idler arm.



7. Locate the Cognito Billet Extreme Duty Center Link (PN 6529). One side of the center link has one additional hole for the steering stabilizer. This side will be installed towards the passenger side of the vehicle.



8. Install the Cognito Billet Extreme Duty Center Link onto the pitman and idler arms with the steering stabilizer hole towards the passenger side of the vehicle. Reuse the factory lock nuts and torque to 70-ft-lbs.



9. Remove the nut attached to the pre-assembled Cognito tie rod and insert the tie rod through the center link's tapered hole. Test fit the tie rod assembly. Fasten the nut back onto the tie rod and tighten hand tight.

Note: This kit contains 2x tie rod ends with right-hand internal threads and 2x tie rod ends with left-hand internal threads. The tie rod ends with right-hand threads have a larger taper pin and mate with the spindles. The tie rod ends with left-hand threads have a smaller taper pin and mate with the center link. Be careful to install each tie rod in the correct orientation.



10. Wipe down and clean the tapered hole in the spindle where the outer tie rod will connect. Remove the nut attached to the pre-assembled Cognito tie rod and insert the outer tie rod into the tapered spindle hole. Fasten the nut back onto the outer tie rod and tighten hand tight.



11. Adjust the tie rods with the center adjuster by using a **1" open end wrench**; **if you find that the tie rod assembly is too long, follow the instruction step below.**
12. The tie rod ends, and tie rod adjuster are designed to accommodate a variety of applications. Depending on if the truck retains stock components or has a lift kit with aftermarket knuckles, some modifications may be necessary. In the case of aftermarket knuckles it may be necessary to cut the tie rods and adjuster. If the unmodified minimum center-to-center distance of 14.75" is too long the assembly may be shortened by up to 1.25" by simply cutting up to 0.625" from each tie rod end. To further shorten the assembly, the tie rod adjuster must also be cut.
 - **Note:**
When cutting threaded members, it is critical to make the cut as straight as possible to retain proper mating surfaces for hardware and to bevel the ends of the treaded sections to minimize interference.
13. Tighten the tie rod nuts on the spindle and center link to **80-ft-lbs**. Tighten the jam nuts against the inner and outer tie rod ends to lock-in the length of the tie rod assembly.
14. Grease both the inner and outer joints. Re-grease at every oil change.
15. When the suspension is at full droop, check and make sure the sway bar does not hit the newly installed Cognito tie rods all the way through the turning cycle, the Cognito tie rods are larger in diameter. If the tie rods and sway bar do hit, longer sway bar end links may be needed.
16. After completing this installation, the vehicle's toe settings will need to be adjusted to factory specifications with a professional alignment.

WARRANTY / RETURN POLICY / SAFETY

Cognito Limited Lifetime Warranty

Cognito Motorsports, Inc. hereinafter “Cognito,” warrants to the original retail purchaser, that its suspension products are free from workmanship and material defects for as long as the purchaser owns the vehicle on which the product(s) were originally installed. This warranty will be void if any modifications are made to the components, including alterations to the surface finish, i.e.; painting, powder coating, plating, and/or welding, or if they are improperly installed. Cognito truck suspension products are not designed nor intended to be installed on “competition” vehicles used in race applications, stunt or for exhibition purposes that are outside of the intended operating conditions specified by the manufacturer. Racing and competition are defined as any contests between two or more vehicles; or vehicles competing individually on off road circuits in timed events (whether or not such contests are for an award or prize).

This warranty does not include coverage for police, taxi, government or commercial vehicles, and the warranty does not cover Cognito products sold outside of the USA. Cognito’s obligations under this warranty are specified and applied at its sole discretion, and warranty coverage is limited to repair or replacement of the defective product(s). Any and all costs of removal, installation or reinstallation; freight charges, incidental or consequential damages associated with the covered products are expressly excluded from this warranty.

The following items are exempt from Cognito limited warranty coverage: bushings, bump stops, tie-rod ends (Heim joints) and limiting straps. These parts are “consumables” and designed to wear as a normal part of their duty cycle, therefore they are not considered defective when worn. The aforementioned products are warrantied separately against defects in workmanship, for 60 days from the date of purchase. As a condition of warranty validation, respective Cognito suspension components must be installed as a complete system (not combined with non-Cognito hardware or ancillary parts). Any substitutions or omission of required components will void the warranty. Some minor cosmetic wear and imperfections may occur to parts during shipping, which is not covered under this warranty. This limited warranty does not apply to any components that have been subjected to collision damage, negligence, alteration, abuse, or misuse, and coverage does not extend to products manufactured by third-party companies. Cognito reserves the right to supersede, discontinue, or change the design, finish, part number and/or application of its parts when deemed necessary, without notice.

Return Policy

Product returns will not be accepted without prior written approval from an authorized Cognito representative. All products being returned must be shipped via trackable, prepaid freight. Returned products are subject to a 25% percent restocking fee. The eligible return period for products purchased directly from Cognito is 30 days from the verified date when the product(s) were originally received by the purchaser.

Product Safety Advisory

The installation of Cognito steering and suspension components will modify your vehicle’s original factory equipment and geometry, which may cause it to handle differently than a stock (unaltered) vehicle. Installation of these components is not intended to strengthen nor reinforce the vehicle’s frame, nor are they designed to increase rollover protection. It is necessary to periodically inspect all suspension and drive train components for proper attachment, torque specifications, operation, and for any potential unusual wear or damage. Installation of these parts will modify the height of the vehicle and may raise the center of gravity. Modifying vehicle height combined with off road operation may increase your vehicle’s susceptibility to rollover conditions, which may cause serious injury or death. Many states regulate allowable vehicle height modifications, and it is your responsibility to know and comply with the legal requirements specified by the laws where you reside. Modifications to your vehicle’s ride height may also affect the ride quality, driver input response, trackability and handling, and wear to your vehicle’s suspension components and tires.