



**Long Travel Heavy Duty Tie Rod Kit (+3” Per Side),
Polaris RZR 170
SKU#360-90076**

Introduction

- The Cognito long travel tie rod kit should be used with control arms that are 3 inches longer per side.
- This heavy duty tie rod kit uses ½” heim joints. The tie rod is made of Chromoly (AISI 4130 Alloy Steel).
- The position of the tie rod is moved to the top of the pitman arm to reduce bump steer.
- 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.
- Always wear safety glasses when using power tools.
- This instruction set available in color on www.cognitomotorsports.com

Requirements

- Ability to drill 1/2” hole into OEM equipment.

Parts List

ITEM	PartNo	DESCRIPTION	QTY.
1	5954	RZR170 Tie Rod Tube Long Travel	2
2		1/2"-20 Jam Nut	2
3		1/2"-20 Jam Nut LH	2
4		1/2"-20 RH Heim Joint /w Stud	2
5		1/2"-20 LH Heim Joint /w Stud	2
6		1/2"-20 Flange Nut	4

Installation

1. Remove the front wheels by jacking the front end of the car up and removing the four (4) lug nuts on each wheel.
2. Remove the OEM tie rods by removing the cotter pins and nuts on the pitman arm, and the steering knuckle.
3. Remove the steering knuckle from the OEM control arm.
4. Remove the pitman arm from the car. The pitman arm and the steering knuckle need to be drilled out to 1/2" for the new tie rods to fit (Figure 1).

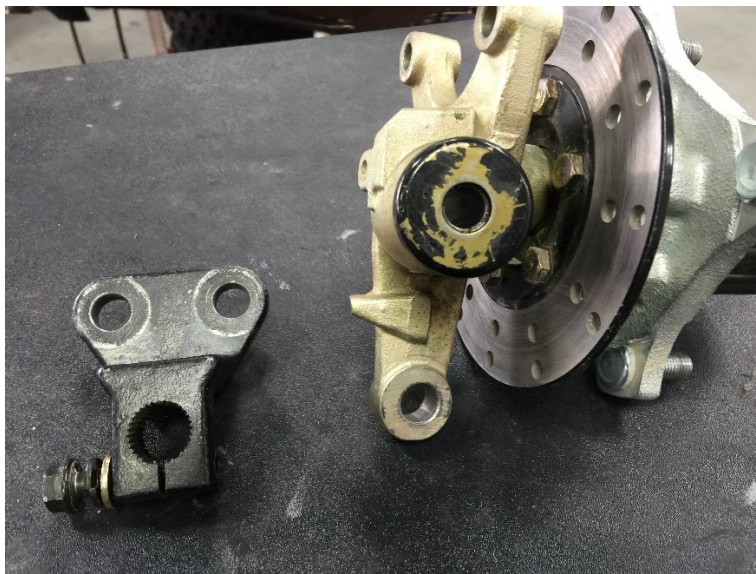


Figure 1: Stock knuckle and pitman arm drilled out to 1/2".

5. Reinstall the steering knuckle and pitman arm. Assemble the tie rods and install onto vehicle. The tie rods should be ran from the top of the pitman arm to the top of the steering knuckle (Figure 2).



Figure 2: The position of the tie rod should be as pictured.

6. Verify all bolts are tightened down. Then put wheels back on the car. Torque wheel lug nuts to factory specifications of 27 ft. lbs. (37 Nm).
7. Lower to car and adjust to preferred ride height. You can now adjust the toe as needed. Keep in mind that toe and camber will change with ride height, so it is important to take notes on your desired ride height so you can maintain that.

Recommended procedure for setting toe and camber.

(Contains some instructions specific to the Cognito RZR170 Long Travel Kit, but can be used as a general guide.)

Toe and camber change dynamically with each other. It is recommended that camber be locked down first then toe adjusted. The easiest way to perform this is to first pick a side (can be drivers or passengers), and turn the steering wheel until the front tire is parallel to the rear tire (your steering wheel may not be straight at this point.) Set the camber for that side to the desired angle by loosening the two bolts in the slotted holes that hold the clevis bracket and the arm together. Break loose the jam nuts securing the hex camber adjuster and turn the hex adjuster with a wrench to adjust the camber. After the desired camber angle is achieved, verify that the front and rear tires are still parallel, then lock all bolts back down. Repeat this process for the opposite side. Now your camber should be set for both sides. Break loose the jam nuts securing the tie rods and turn tie rods by hand to set toe. Retighten tie rod jam nuts. After toe is set verify that the wheels are aligned properly and make any adjustments if required.

Cognito Motorsports

Limited Lifetime Warranty

Cognito Motorsports warrants, to the original retail purchaser, that its suspension products are free from defects in workmanship and material for as long as the purchaser owns the vehicle on which the product was originally installed. Cognito Motorsports does not warrant the product for finish, alterations, modifications, and/or original installation contrary to specifications of Cognito Motorsports. Cognito Motorsports suspension products are not designed nor intended to be installed on vehicles used in race applications or for racing purposes or for similar activities involving abnormal abuse other than the vehicle was originally designed to handle or endure. (A “RACE” is defined as any contest between two or more vehicles, and/or contest of one or more vehicle against the clock, whether or not such contest is for a prize.)

This warranty is for a one-time replacement of each Cognito Motorsports product and does not cover any part that Cognito Motorsports has previously replaced under this warranty. This warranty does not include coverage for police or taxi vehicles, race vehicles, or vehicles used for government or commercial purposes. Also excluded from this warrant are sales outside of the United States of America. Alterations to the finish of the parts including but not limited to painting, powder coating, plating, and/or welding will void all warranties. Cognito Motorsports obligation under this warranty is limited to the repair or replacement, at Cognito Motorsports option of the defective product. Any and all costs of removal, installation or re-installation, freight charges, incidental or consequential damages are expressly excluded from this warranty.

This warranty excludes the following items: bushings, bumpstops, tie-rod ends, limiting straps, and heim joints. These parts are subject to wear and are not considered defective when worn. They are warranted for 60 days of purchase for defects in workmanship. Cognito Motorsports suspension components must be installed as a complete system. Any substitutions or exemptions of required components will immediately void the warranty. Some finish damage may happen to parts during shipping and is not covered under warranty. This warranty shall not apply to any product that had been subject to accident, negligence, alteration, abuse, or misuse. Cognito Motorsports does not warrant products not manufactured by Cognito Motorsports. Cognito Motorsports reserves the right to supersede, discontinue, or change the design, finish, part number and/or application of parts when deemed necessary by Cognito Motorsports without written notice, and in the sole and absolute discretion of Cognito Motorsports.

Warranty Claims

All warranty claims must be submitted through the original company of purchase. All claims must be shipped back to the original company of purchase with an approved RMA number listed as a reference on the shipping label and clearly printed on two opposing sides of the package(s); product in question must be inspected by Cognito Motorsports before replacement parts are shipped out.

Return Policy

Cognito Motorsports has a no refund return policy. Under special circumstances, returns might be accepted with prior written approval. All returned product will be shipped freight prepaid. Product returned is subject to a 25% restocking fee. No returns will be accepted after 30 days upon receipt of product.

Product Consumer Safety and Warning

The installation of this kit will modify the suspension of your vehicle and may cause it to handle significantly different than a factory equipped vehicle. Installing larger tires with modified suspension and increased ground clearance will significantly alter the handling characteristics of the vehicle, and may result in increased braking distances as well as changes in vehicle maneuverability and handling compared to the factory equipped vehicle. As with any vehicle, extreme caution and care must be used to prevent loss of control or roll-over during sharp turns or abrupt maneuvers. Always wear seat belts and drive safely, recognizing the reduced speeds and specialized driving techniques is required.

This suspension system will not strengthen nor reinforce the stock frame of the vehicle, nor will it increase rollover protection. It is necessary to periodically inspect all suspension and drive train components for tightness of fit or any damage. Installation of these parts will modify the height of the vehicle and will raise the center of gravity. Altered height modifications and off-road operation may increase your vehicle’s susceptibility to roll over conditions and may cause serious injury or death. Many states regulate the height modification to each vehicle. Check the laws in your state for exact specifications. Height modifications may affect the reaction, ride, handling, and wear factor of your vehicle’s components.

Failure to drive this vehicle safely may result in injury or death! Do not drive this vehicle unless you are familiar with its unique handling characteristics and are confident of your ability to maintain control under all driving conditions. Some modifications and combinations of modifications are not recommended, unsafe, and may not be permitted in your state. Consult your vehicle owner’s manual, the instructions accompanying this product, and your state laws before undertaking these modifications. The owner of the modified vehicle and the qualified mechanic required to install this product are responsible for the legality and safety of the vehicle being modified.