



*1216 05+ Ford Mustang Adjustable Upper Trailing Arm* 



Thank you for your purchase from our new line of Ford parts. Please call us at (877) 4NO-ROLL if you have any questions regarding the service or installation of your Hotchkis products. Visit us online @ <u>www.hotchkis.net</u>

Warning: This installation should be performed by a trained professional.



# REMOVAL OF STOCK UPPER TRAILING ARM

1. Raise the vehicle to access the rear end section and lift on the body of the car to ensure the rear end can be dropped.



2. Disconnect the sway bar ends from both sides.



3. Disconnect the rear lower shock mounts on the both sides.



4. Remove bolt from the cabin that is under the rear seat. To gain access, there are two plastic tabs, one on each side that must be pushed in to be able to remove the bottom of the rear seats.



5. Lift car further up to gain access to the upper trailing arm by allowing the differential to droop as far as possible.





- 6. Remove the remaining two (2) bolts for the upper mount to the upper trailing arm.

7. Remove the lower mounting bolt of the upper trailing arm to the differential.





8. Remove upper trailing arm from upper mount and adjust the Hotchkis adjustable upper trailing arm to the same center to center length as the stock upper trailing arm. Tighten the jam nuts. Fine adjustments can be made later to set the pinion angle. Details of this is at the end of the installation instructions.



9. Install first the two (2) bolts from the upper mounts by having it finger tight, and then install the third bolt for the upper mount under the rear seat.





10. Connect the lower mount to the differential. To make the bolt align properly during installation, you may need to lift up the differential as shown below.



11. Reconnect the lower shock mounts and sway bar.

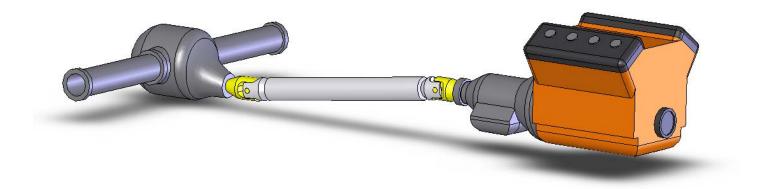




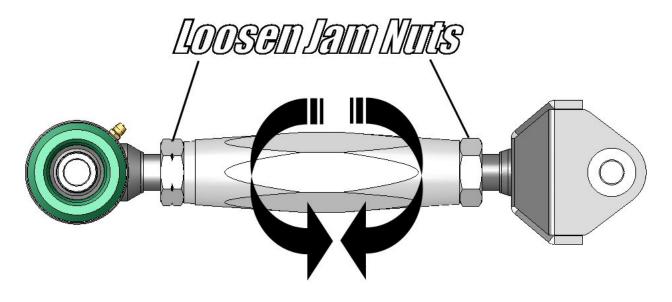
# **SETTING PINION ANGLE**

It may be necessary to set pinion angle after installation of your new Hotchkis upper trailing arms.

First of all, what is pinion angle? Pinion angle is basically the angle between the centerline of the differential pinion and the drive shaft centerline. This angle changes during acceleration and braking. If the pinion angle is excessive, then vibration and increased U-joint wear will occur.



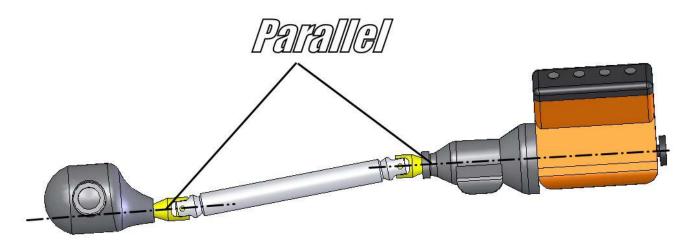
The Hotchkis double adjustable trailing arms allow you to adjust the pinion angle with ease. Simply loosen the two jam nuts and rotate the aluminum turnbuckle to lengthen or shorten the arm. So, how does one set the pinion angle?





The simplest rule of thumb is:

The centerline of the differential pinion should be parallel to the centerline of the engine's crankshaft without being the same line.

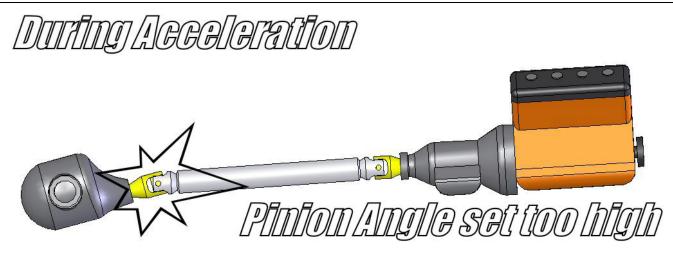


So, the first thing to do is to find out the angle the engine's crankshaft is sitting at. One way to do this is to set a digital angle finder on the front crank pulley or harmonic balancer. Record this angle. Next, set the digital angle finder on the front flat face of the differential yoke. This angle needs to be the same as the recorded crank angle. Adjust your Hotchkis trailing arms to obtain the angle needed.

Tighten all hardware and drive the car. Test for driveline vibration by accelerating.

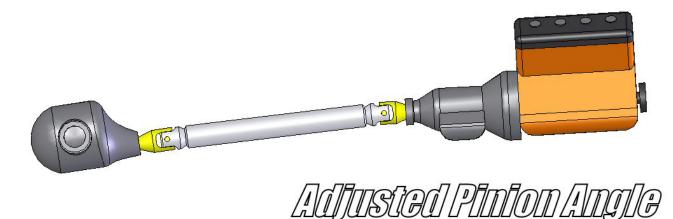
## If there is vibration during acceleration, then the pinion angle is set too high!





Fine tune your Hotchkis trailing arms to achieve the perfect setting for your driving style and horsepower.







## Hotchkis Performance LLC Return Policy & Limited Warranty

Effective December 1, 2010 all Hotchkis products must be registered to qualify for warranty at <u>www.hotchkis.net</u> or via the mail-in warranty card, included with the product, within 30 days of the original purchase date.

### **IMPORTANT:** This warranty supersedes all other warranties included with this product.

#### **Return Policy**

We want you to be completely satisfied with your Hotchkis Performance product. For products, presenting signs of shipping damage please contact the freight carrier immediately. All our products are guaranteed to be free from manufacturer's defects. If your order arrives with a manufacture defect, please contact our Customer Service Department at (562) 907-7757. You will be assigned a Returned Goods Authorization Number (RGA). The package you return must show the RGA on the outside of the package, include the original invoice and be shipped prepaid to our facility. The product has to be unused and in its original packaging materials. Exchanges or refunds made after 30 days will be subject to a 20% restocking charge. If you purchased your Hotchkis Performance product from an authorized dealer, you are still covered by this return policy. All returns however, should be made to your dealer, not to Hotchkis Performance directly.

#### **Limited Warranty**

Hotchkis Performance offers a Limited Warranty against defects in materials and workmanship for the term of 36 months (3 years) from the date of purchase of this product. This Warranty only applies to the original retail purchaser who retains ownership of the vehicle on which the product was originally installed. If the product is determined to be defective, Hotchkis Performance will repair, replace or refund the purchase price of the defective product at Hotchkis Performance's sole discretion, which shall fully satisfy and discharge any and all warranty claims. Any repaired or replaced product will be returned to the sender excluding the cost of freight. <u>Products must be registered to qualify for warranty at www.hotchkis.net or via the mail-in warranty card, included with the product, within 30 days of the original purchase date.</u>

#### **Exclusions from Warranty**

Items offered but not manufactured by Hotchkis Performance are warranted according to the manufacturer's terms and are not covered by this limited warranty. Hotchkis Performance shall not be responsible for any labor, removal, installation, re-installation or maintenance costs. This warranty does not cover the cosmetic finish or plating of any product or any normal wear and tear to any product including, but not limited to bushings, brackets, end-links, hardware, steering components, shocks or springs. In addition, this warranty does not apply to any products that have been:

- Improperly installed or installed by someone other than a qualified, licensed auto mechanic experienced in the installation and removal of suspension products;
- Improperly serviced, misused, or modified, altered or subjected to abuse, negligence, accident or collision;
- Installed in any vehicle that has been modified;
- Installed on any vehicle that has carried loads in excess of automobile manufacturer suggested weight limits; or
- Installed on any vehicle that has been subject to abnormal or excessive use, including rallying, racing, or racing-type activities or off-road use.

#### Limitation of Warranty

This limited warranty is the entire and only warranty for the products and may not be modified or supplemented by any other person or company in any form. Any description of the products, by anyone, is for the sole purpose of identifying them and is not part of the basis of the bargain, and does not constitute a warranty that the products will conform to that description. The statements of any salesperson do not constitute part of this limited warranty and cannot be relied upon as a warranty.

THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. ANY



## 1216 05-Current Ford Mustang

IMPLIED WARRANTIES ARE DISCLAIMED TO THE FULLEST EXTENT PERMITTED BY LAW. THIS WARRANTY DOES NOT COVER CONSEQUENTIAL DAMAGES, LOSS OF TIME OR REVENUES, INCONVENIENCE, LOSS OF USE OF THE VEHICLE, DAMAGE TO THE VEHICLE OR COMPONENTS OF THE VEHICLE, ANY OTHER TYPE OF CONSEQUENTIAL DAMAGES, OR OTHER INCIDENTAL OR INDIRECT DAMAGES. HOTCHKIS' MAXIMUM LIABILITY UNDER THIS WARRANTY SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE PRODUCT. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages and in such states the above limitations or exclusions may not apply. This limited warranty gives the purchaser specific legal rights and the purchaser may have other rights that may vary from state to state.

#### **Technical Information**

Hotchkis Performance makes every effort to ensure that you are provided with the most accurate and up-to-date technical information. However, all technical information is approximate and may vary upon application. Additional suspension components may be needed in some applications, depending upon the make, model, engine and chassis of the vehicle. Hotchkis Performance is not responsible for any consequences resulting from manufacturer's technical mid-year changes. Hotchkis Performance products should only be installed by a qualified, licensed auto mechanic experienced in the installation of such products.

#### Warranty Claim Procedure:

The answer to ALL the following questions should be YES before making a warranty claim:

- Did you register the product at <u>www.hotchkis.net</u> or via the mail-in warranty card within 30 days of purchase?
- Is the product appropriate to your application?
- Did you carefully and thoroughly read the instructions provided along with the product?
- Do you have the original invoice or sales receipt?
- Is the return date within 36 months from the purchase date?
- Are you the original purchaser?
- Was the product properly installed by a qualified, licensed auto mechanic?
- Has the product been installed on the original vehicle on which it was installed at all times?
- Is the product unmodified and clean?
- Is the reason for return a legitimate product defect?

If the answer to all these questions is YES, please contact our Customer Service Department at (562) 907-7757. You will be given a Returned Goods Authorization Number (RGA) valid for 60 days. You will also be asked to ship the product prepaid to our facility. All shipments MUST be (i) prepaid, (ii) include the original invoice or sales receipt, (iii) show the RGA on the outside of the package and (iv) include your name, address, make and model of the vehicle, and a brief description of the claimed defect, including the circumstances under which the defect occurred. If the warranty claim is deemed valid then Hotchkis will estimate shipping costs to return the repaired or replacement part and contact you for payment. Hotchkis's Limited warranty requires that any repaired or replaced product will be returned to the sender excluding the cost of freight. Warranty related inquires should be sent to the following address:

#### HOTCHKIS PERFORMANCE, LLC C/O CUSTOMER SERVICE 8633 Sorensen Avenue SANTA FE SPRINGS, CA 90670

Hotchkis Performance will not accept product returns without the RGA number, receipt and the information described above. C.O.D. or collect shipments will be refused. Once the returns are received at Hotchkis Performance, we will evaluate the products, verify the sales receipt, and investigate the warranty claim. Any repaired or replaced product will be returned to the sender.

# Effective December 1, 2010. This return policy and limited warranty supersedes all previous policy and warranty statements. Policies and warranties are subject to change without notice. Hotchkis Performance is not responsible for printing errors.