



60-64 Galaxie

**Power Rack and
Pinion Cradle System**



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NOTE: Before beginning you must first measure the width of your front end from LEFT outer tie rod end zerk to the RIGHT outer tie rod end zerk to determine the overall width of your front end. Write dimension here for further reference _____

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Note: For safety disconnect battery cables and ensure that vehicle is properly supported by jack stands.

We recommend a professional alignment to set the proper alignment settings.

We recommend that you always install new outer tie rod ends when installing this kit.

Note: **** The use of Flaming River Headers maybe necessary with use of the Power Rack and Pinion System. ****

Note: Flaming River Recommends that you use Dextron or high grade power steering fluid.

Warranty Disclaimer

All parts are sold without any express or implied warranty of merchantability as to fitness for the intended purpose. Flaming River Industries, Inc. disclaims all liability for any damage or personal injury which may arise or result from the sale, installation or use of any products. The installation of the products may adversely impact a manufacturer's warranty with respect to certain vehicles and other manufactured goods. It is the customer's responsibility to select appropriate parts for the application. The disclaimer is limited only by applicable state laws. Flaming River recommends using qualified chassis specialists for installation of all steering related components. Flaming River will repair or replace any product found to be defective in material or workmanship. Improper installation, abuse, racing and or modification void warranty. Flaming River is not responsible for any labor costs associated with any warranty.

Parts Inventory

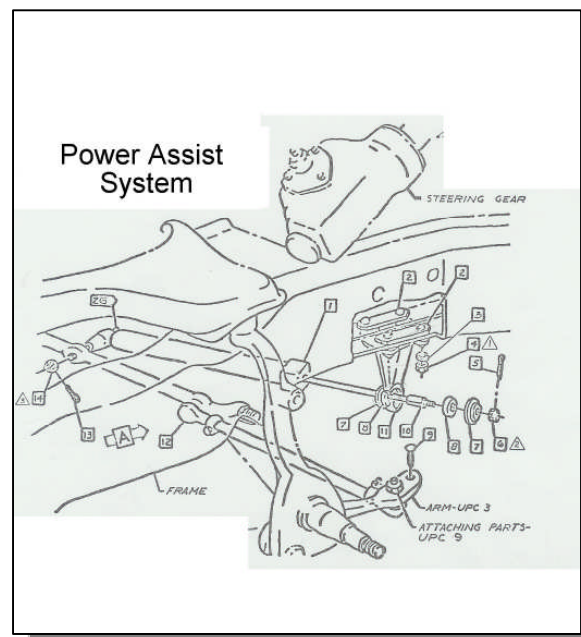
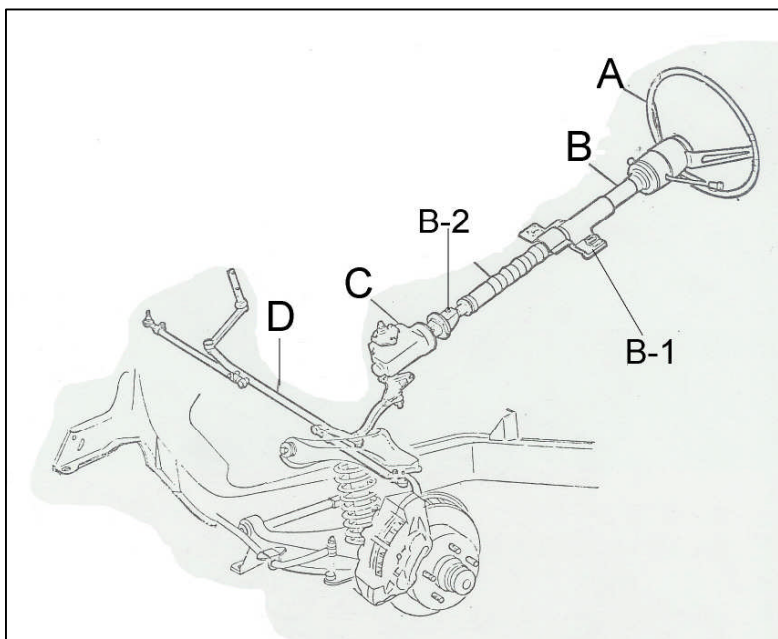
PART NUMBER	DESCRIPTION	QUANTITY
100229	HDWR FOR POWER MUST KIT	1
100296	GALAXIE RACK/CRADLE ASSEMBLY	1
BK10200	SUPPORT BEARING BRACKET BENT	1
FR1614	REMOTE RESERVOIR-PWR STEERING	1
FR1789P	FR POWER X 3/4 DD	1
FR1798-5	1"DDX3/4"DD DBL U-JOINT	1
FR1810-2	3/4 ZINC CUT FOR MUST KITS	1
FR20005	30" PAINTBLE TILT COLM 2" O.D.	1
FR20118	FEMALE CONNECTER KIT	1
FRDMDCL	FR DOMED DECAL	1
FRHRN2	HORN RELAY	1
FRPMPSB-V	PUMP W/ V-BELT PULLY ON	1

Steering Box Column Removal

- 1) Remove horn button by pushing down on horn hub and turning counter clockwise.
- 2) Remove steering wheel retaining nut and remove steering wheel (A) by using a steering wheel puller.
- 3) Disconnect the electrical plug towards the base of the column (B).
- 4) Remove the column support bracket under the dash. There are two nuts one on each side of the column. (B-1)
- 5) Remove the upper bushing located at the center of the turn signal switch.
- 6) Remove the column tube by sliding it up off the steering box shaft.

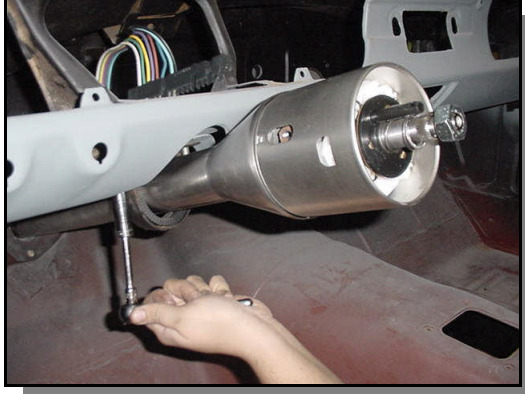
Steering Box and Linkage Removal

- 1) Remove the pitman arm from the steering box (C) using a pitman arm puller.
- 2) If you have power steering, remove pump, lines, and valve and assist cylinder. (See diagram below) A shorter belt may need to be installed.
- 3) Remove the two bolts that retain the idler arm to the frame.
- 4) Remove the cotter pins, castle nuts, separate the tie rod ends from the spindles and remove the steering linkage (D) from the car.
- 5) Remove the three retaining bolts that secure the gearbox (C) and remove the gearbox.



Installation of New Flaming River Tilt Column

- 1) Bend tabs inward on new floor bracket and slide over column tube.
- 2) Using your original dash support (**note: you must first place a shim that is included between the support and the column to ensure a tight fit this is included in your installation kit**), hold the column under the dash and tighten the two support nuts.
- 3) Make sure that the column is straight before securing column.



Installation of Original Wheel

Note: Some modification to your original wheel is necessary for the horn to work correctly.

- 1) Install steering wheel spacer ensuring that canceling cam hole is at the 10 o'clock position. For 65-66 cars, align the spring clip on the backside of the wheel so that the prongs are at the 3 o'clock and 5 o'clock positions.
- 2) Install horn contact into canceling cam and run wire through slot in steering wheel
- 3) Install steering wheel and tighten the steering wheel retaining nut.
- 4) The horn plates on the bottom of your horn button must be permanently attached to each other. Drilling a small hole and inserting a small sheet metal screw accomplish this. (1/4") (See picture below)
- 5) Connect the horn contact wire to the horn contact on top of the horn button.
- 6) Install the horn button by pushing down and turning clockwise, this will lock the button in position.



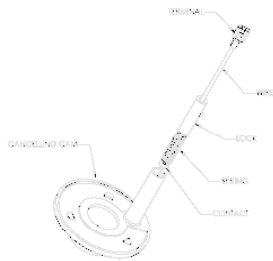
For wheels without a slot for the wire or Wooden wheels:

- 1) Turn wheel over to show the horn contact plates on the back of the wheel. (If it is an early wheel the turn signal tabs are at the 9 o'clock and the 6 o'clock position).
- 2) Place wheel spacer plate onto the wheel with the canceling cam hole approximately the 1-1:30 positions. This is where you will need to drill a 3/8-diameter hole for the canceling cam stem and horn contact wire to go through. (See picture below)

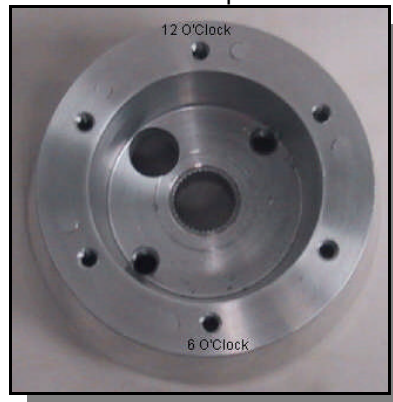
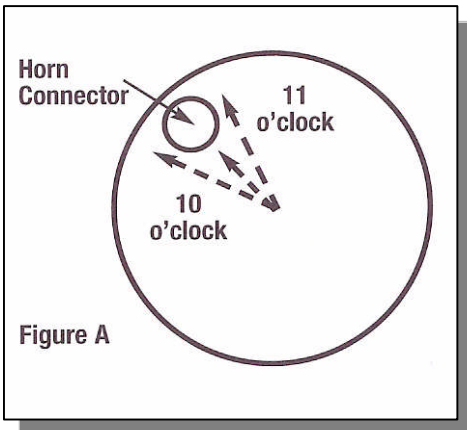


Aftermarket Wheel Installation

- 1) Install horn contact kit into canceling cam tube and turn to lock.



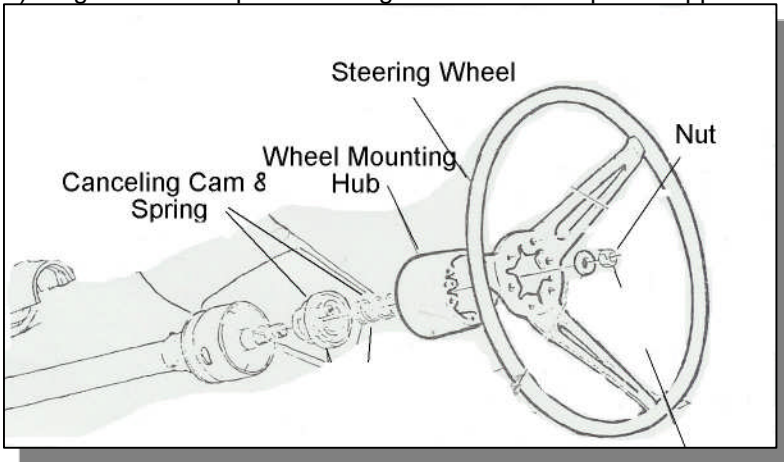
- 2) Align steering wheel adapter so that the canceling cam hole is at approx the 11 O'clock position and that one of the steering wheel mounting holes is at the 12 O'clock position.



- 3) To install the wheel adapter run the horn contact wire through the hole for the canceling cam and place the adapter on to the splined column shaft.

Aftermarket Wheel Installation Con't

4) Tighten the adapter-retaining nut until the adapter is approximately 1/16" away from the column shroud.



Connecting Electrical System

Caution: Before disconnecting your original steering column wiring harness please verify each wire color and function on the worksheet below. Some wire colors may vary from year to year.

COLUMN WIRING

P - WHITE - BRAKE LIGHT SWITCH

N - DK GREEN - RR TURN SIGNAL

M - YELLOW - L TURN SIGNAL

L - PURPLE - TUR SIGNAL POWER

K - BROWN - HAZARD POWER

J- DK BLUE - RF TURN SIGNAL

H- LT BLUE - LF TURN SIGNAL

G-BLACK HORN

Installing Horn Relay

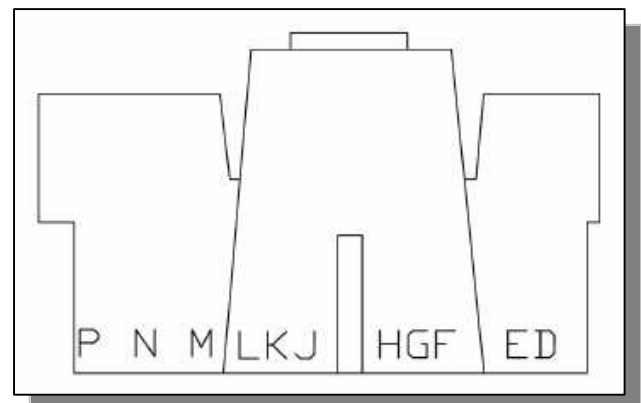
The yellow wire from the vehicle connects to TERMINAL 30 (yellow wire) on the horn relay; the blue wire with the yellow stripe connects to TERMINAL 87 (Red Wire) on the horn relay. The black wire from the column connects to TERMINAL 85 (brown wire) on the horn relay. Run a jumper wire from TERMINAL 86 (blue wire) to TERMINAL 30 on the horn relay.

NOTE: FOR 1964-½ MUSTANGS, HORN RELAY IS NOT REQUIRED FOR THIS APPLICATION; VEHICLE HAS A RELAY FROM THE FACTORY. BLACK WIRE FROM COLUMN WILL BE CONNECTED TO BLUE w/YELLOW STRIPE TO COMPLETE THE GROUND CIRCUIT.

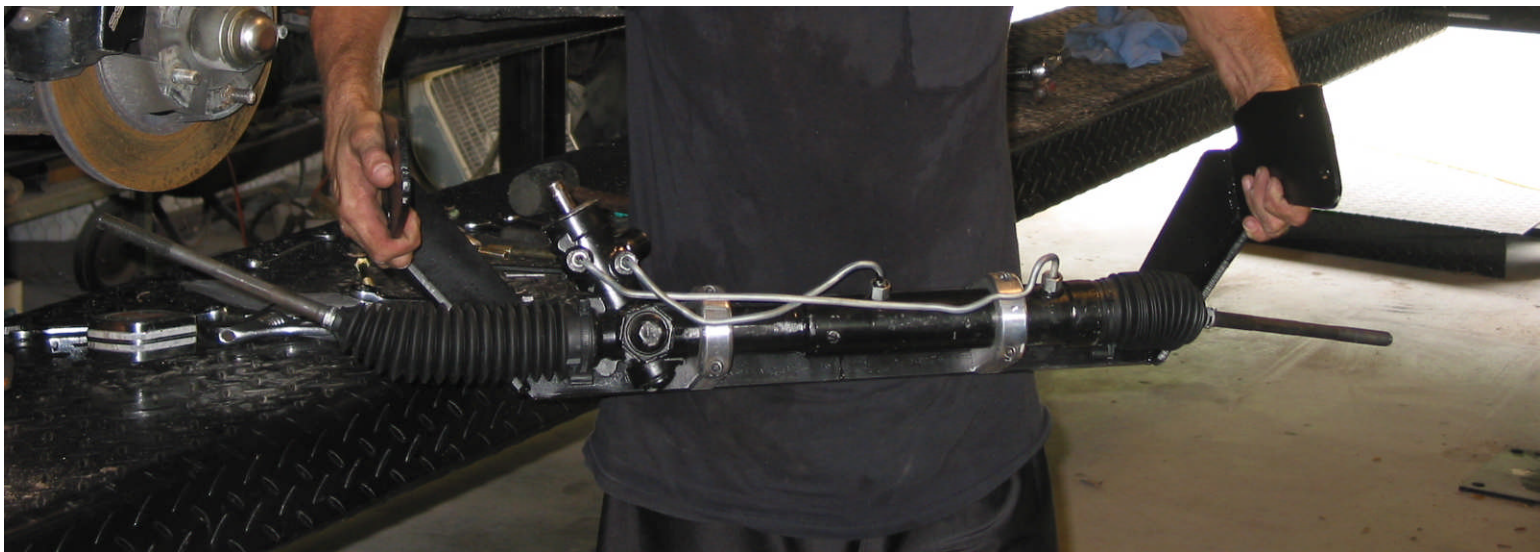
HAZARD NOTE: FROM 1964 ½ TO 1966 VEHICLES DID NOT HAVE HAZARDS, SO NO HAZARD POWER WIRE IS PRESENT BUT CANBE ADDED BY PURCHASING **PART # FR20118-1**

Color Verification to be completed before disassembly

- Brake Light Switch: _____
- RR Turn Signal: _____
- LR Turn Signal: _____
- Turn Signal Power: _____
- Hazard Power: _____
- RF Turn Signal: _____
- LF Turn Signal: _____
- Horn: _____



Installation the Flaming River Power Rack



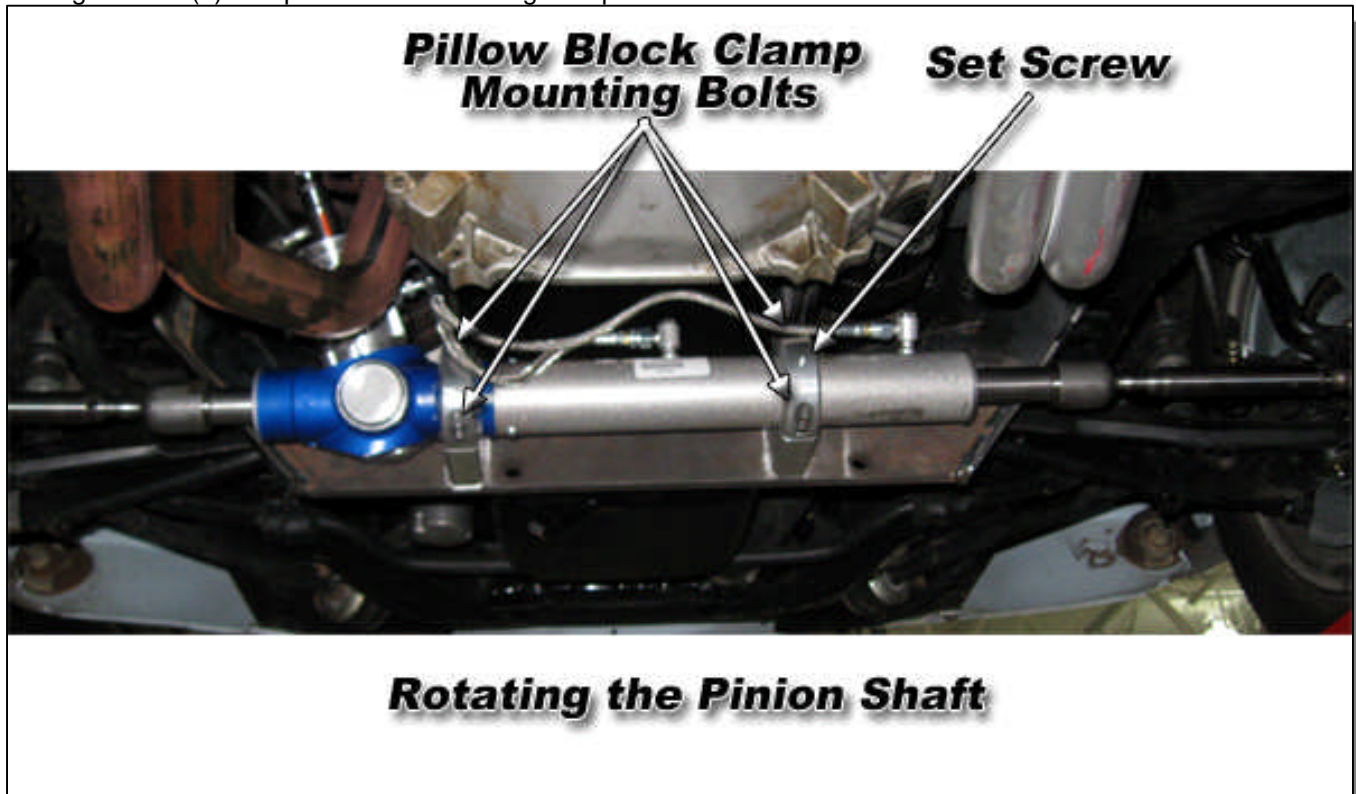
- 1) Install the Power Rack and Pinion Cradle Assembly by sliding it into place, installing the new hardware using three 7/16" bolts where the gear box was mounted and two 3/8" bolts where the idler arm was located. Tighten all nuts and bolts to 50-65 ft lbs.



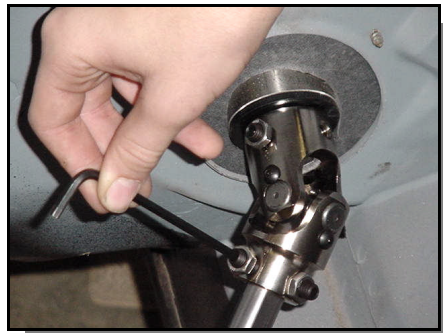
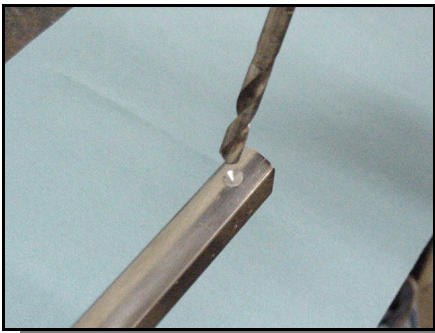
- 2) Install the jam nuts and outer tie rod ends onto the rack and pinion assembly.
- 3) To install the outer tie rod ends in the spindle arms you must load the front suspension. (Securely placing jack stands under the lower control arms and lowering the car onto the jack stands accomplishes this.) Install the outer tie rod ends into the spindle and tighten the castle nuts to 30-40 ft lbs. Make sure to install cotter pins into the castle nut and tie rod end and bend the tabs over for security.

Power Rack & Pinion Universal Joint System

- 1) The Flaming River Power Rack and Pinion Cradle Assembly comes preassembled from the factory, however you may need to adjust the pinion angle for proper u-joint alignment. – First loosen the set screw on the passenger side pillow block, next loosen the (4) four pillow block clamp mounting bolts, then adjust your pinion angle. Once your pinion angle is set tighten the (4) four pillow block mounting clamp bolts and then the set screw.



- 2) We recommend the use of $\frac{3}{4}$ " dowel rod to mock up the steering shaft to obtain the correct length of the shafts.
- 3) Install your shaft kit and snug each set screw so that it will leave a mark in the shafts.
- 4) Remove shaft and dimple each setscrew mark using a $\frac{1}{4}$ " drill bit. (As shown below.)




- 5) Re-install the shafts using **red high strength thread locker** on the set screw threads. Tighten each setscrew to 25 ft. lbs. Tighten all lock nuts securely. We recommend that you inspect setscrews periodically for tightness

Bleeding the System

- 1) Raise the front wheels off the ground and support vehicle on jack stands.
- 2) Turn the wheel to the left lock and fill the reservoir with high-quality power steering fluid and allow vehicle to sit for 2 minutes.
- 3) With the engine off and someone checking the fluid level rotate the steering wheel lock to lock 20 times filling with fluid as necessary.
- 4) With the engine running, rotate the steering wheel back and forth from lock-to-lock. Repeat several times. Check fluid level and add fluid if necessary.
- 5) Lower the vehicle on the ground and with the engine running, repeat step 4. Check fluid level and add if necessary.


Thread Size	English	Metric
7/16 – 14 UNC Thd.	59 – 74 ft. lb.	80 – 100 N•m
1/2 – 13 UNC Thd.	89 – 110 ft. lb.	120 – 150 N•m
9/16 – 12 UNC Thd.	89 – 110 ft. lb.	120 – 150 N•m
14mm x 2 – 6H Thd.	89 – 110 ft. lb.	120 – 150 N•m

Figure 2 Table of Torques for Attaching Gears to Frame



FLARED CONNECTOR
FITTING STYLE

TIGHTEN 40 – 54 N•m
(30 – 40 ft. lb.)



O-RING FITTING STYLE

TIGHTEN 20 – 35 N•m
(15 – 26 pl. lb.) AFTER
THE NUTS AND
BEADS HAVE BEEN
FIRMLY SEATED

Install your power steering lines attaching your pressure and return fittings to the correct ports shown to the right.



If using a stainless line kit follow the instructions that are included in your kit.

FR1610 Power Steering Line Kit is Available Separately

Always consult your factory manual for proper torque settings for your vehicle.

NOTE: If the fluid is extremely foamy, let the vehicle sit for a few minutes and repeat steps 1-5.

NOTE: Trapped air in the system will cause a milky appearance in the fluid. Trapped air will also cause the fluid level to rise in the reservoir when the engine is not running.

Torque Specs

Cradle to Frame Mounting Bolts	50-65 ft lbs
Outer Tie Rod Ends to Spindle	30-40 ft lbs
Universal Joint Set Screws	25 ft-lbs