

# **PEM**

**pemracing.com**

**4th EDITION**



 **SCAN ME**

## **STREET ROD**

**9 inch Ford Center Sections**  
**Econo Brake Kits for 9 inch Ford**  
**Drum Brake Kits for 9 inch Ford**  
**9 inch Ford Housing and Axle Kits for**  
**Chevelle, G-Body, C-10, Tri 5 Chevy and others**

## **CIRCLE TRACK**

**9 inch Ford Floater Rear End Kits**  
**9 inch Ford Race Center Sections**  
**Quick Change Rear Ends**  
**Quick Change Gear Sets**

## **DRIVE SHAFTS & OFF ROAD**

**Carbon Fiber**  
**Aluminum**  
**Chrome Moly**  
**Steel**  
**Jeep / ATV / UTV**

## **DRAG RACE**

**9 inch Ford Housings**  
**Center Sections: Aluminum**  
**Bolt Thru and Nodular Iron**  
**Drive Shafts**

**PHONE: 636.629.6200 · sales@pemracing.com**

**GEARS / REARS / DRIVESHAFTS**



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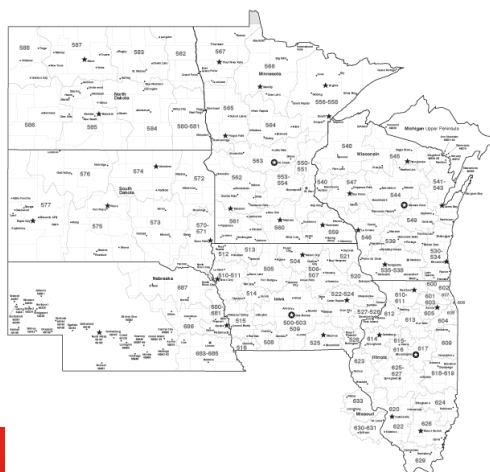


**WARNING:** Cancer And Reproductive Harm-  
www.P65Warnings.ca.gov

## WARRANTY

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## SPEE-DEE DELIVERY



## ORDERING

Order by part number. PEM will not be responsible for incorrect orders placed by description only. Specify shipping instructions when order is placed; otherwise, we will use our discretion. Specialized or custom parts cannot be cancelled after order is in process.

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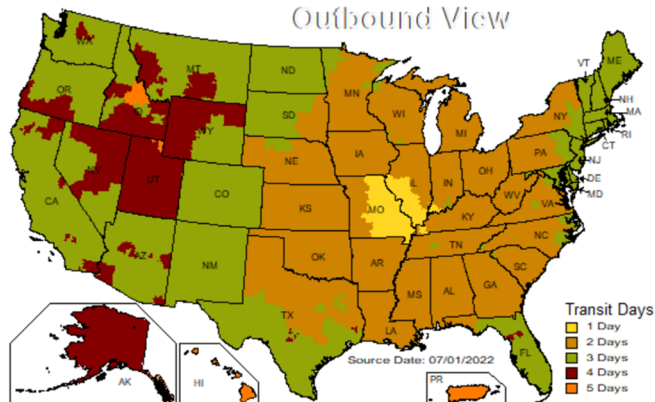
## RETURN POLICY

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## UPS Ground Service Outbound View



## PEM Quick Change Rear End



All of our quick changes are manufactured with permanent mold magnesium/aluminum alloy castings, heat treated lower shaft, roller pinion nose bearing, and pinion posi nut.

PEM GN complete assemblies use PEM 5 x 5" 2.5" GN hubs, .810 brake rotors and PEM solid wide 5 axles.

- QCNT quick change assembly / no tubes
- QCSTGN quick change assembly with steel .188" centerless ground 2.5" GN tubes
- QCKSTGN5 quick change assembly with 5 x 5" hubs, rotors and solid axles
- QCST-HV quick change assembly with Howe/Vogel 2" GN snouts on tubes**
- QCSTW5 quick change assembly wide 5 steel snouts on tubes
- QCATW5 quick change assembly with wide 5 aluminum tubes

*Please specify on above assemblies; 4:11 or 4:86, track width of rear end and either centered pinion or pinion offset requested.*

- QCNT-Max quick change assembly / no tubes
- QCSTGN-Max quick change assembly with steel .188" centerless ground 2.5" GN tubes
- QCKSTGN5-Max quick change assembly with 5 x 5" hubs, rotors and **gun drilled axles**
- QCST-HV-Max quick change assembly with Howe/Vogel 2" GN snouts**
- QCSTW5-Max quick change assembly with wide 5 steel tubes
- QCATW5-Max quick change assembly with wide 5 aluminum tubes

**QCATW5- 1TonMAX quick change assembly with 8 rib bells & 1 Ton wide 5 aluminum tubes**

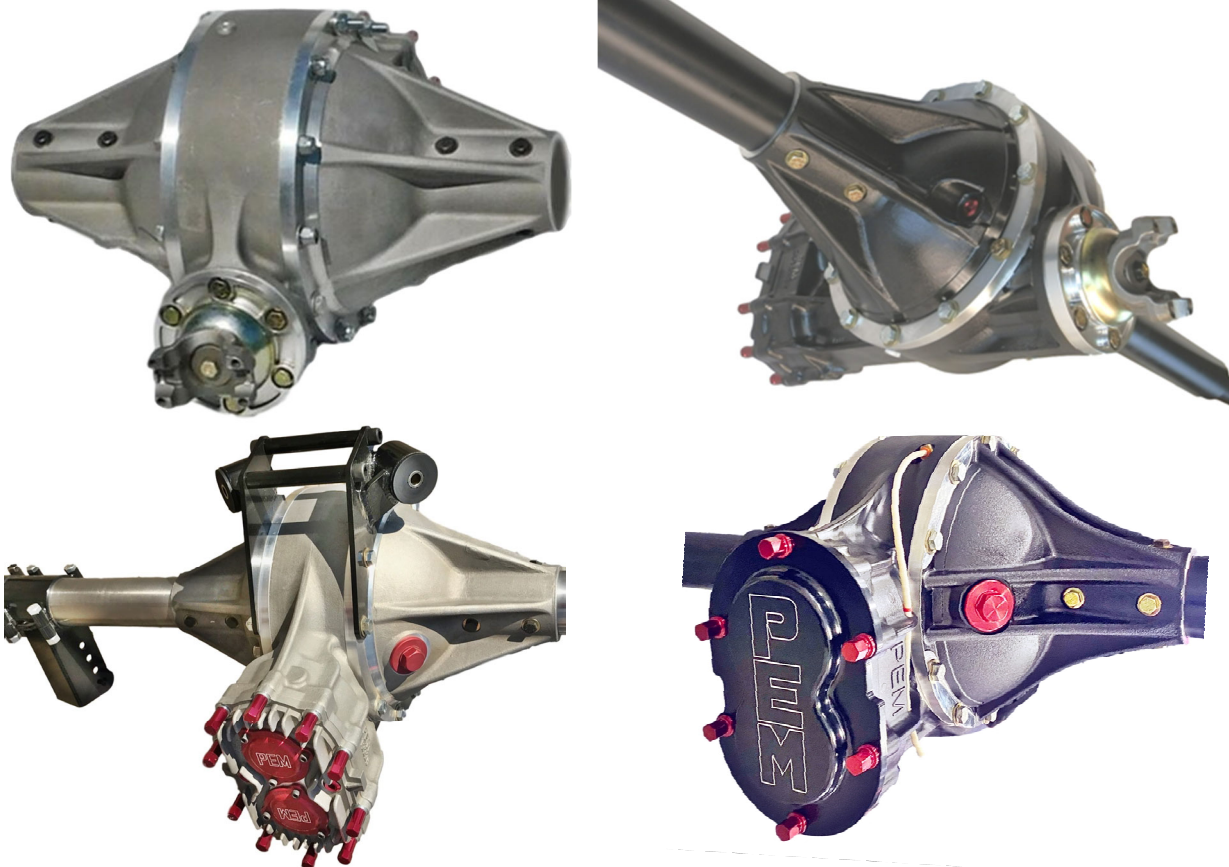
*MAX Option quick change rears have black thermal coating, 6 bolt billet rear cover, all REM internals for low drag, lightened spool, drilled lower shaft, gun drilled axles and breather kit.*

*Please specify on above assemblies; 4:11 or 4:86, track width of rear end and either centered pinion or pinion offset requested.*



**P. 636.629.6200 F. 636.629.6207**

## PEM Quick Change Rear End Options



### INSTALLED OPTION PART NUMBERS

**RED** means these options are already installed in a MAX QC Rear End

- |   |   |
|---|---|
| <b>QCO1000</b> Drilled Lightened Spool  | <b>QCO2500</b> Upcharge to Fully assemble for pick up   |
| <b>QCO1100</b> 9.5" outside diameter ring gear  | <b>QCO2600-1</b> Locking GN 2.5" Snout Nuts             |
| <b>QCO1200</b> 9.0" outside diameter ring gear (crate)                                      | <b>QCO2700</b> Up-charge for 6 bolt rear billet cover   |
| <b>QCO1300</b> Black thermal coating  | <b>QCO2800</b> Up-charge for 8 rib bells (pair)         |
| <b>QCO1400</b> REM finish ring & pinion   | <b>QCO2900</b> Up-charge for one ton aluminum tube      |
| <b>QCO1500</b> REM finish all bearings and races  | <b>QCO3300</b> Upcharge for longer forged rear end Yoke |
| <b>QCO1600B</b> Gun drilled Black Axle Option Pair  | <b>QCO3400</b> Upcharge for GN Scalloped Drive Flanges  |
| <b>QCO1750</b> .188" wall chrome moly tubes   | <b>QCO3600</b> Upcharge for 4.75 hubs                   |
| <b>QCO1800</b> Black anodized 10 bolt billet rear cover                                     |   |
| <b>QCO1900</b> Wilwood 1" wide spec 37 brake rotors   |   |
| <b>QCO2000</b> Drilled lower shaft  |   |
| <b>QCO2100</b> Assembled Center & Bells in Box - does not include the truck freight         |   |
| <b>QCO2250</b> Upcharge to install 5/8th steel tube on left rear wide 5 late model rear end |   |
| <b>QCO2300</b> Upcharge for breather kit  |   |
| <b>QCO2400-1</b> Upcharge for GM metric mounts top and single hole lower                    |   |
| <b>QCO2450-1</b> Upcharge for GM metric mounts, top and multi hole lower                    |   |





## PEM Quick Change Side Bells and Quick Change Gear Sets

### 6 Rib Side Bells

PEM 6 rib Quick Change Bells fit PEM, Winters, Tiger and DMI quick change rear ends. Our 6 rib bells have wider ribs and are stronger than other brand 6 rib side bells and are manufactured from our proprietary magnesium/aluminum alloy. #

**QCC0020K** driver side bell with thrust block and race installed

**QCC0030K** passenger side bell with inspection plug and race installed



**Black thermal option:**  
add -B after part number

### 8 Rib Side Bells

PEM 8 rib Quick Change Bells fit PEM, Winters, Tiger and DMI quick change rear ends. Our 8 rib bells are designed to reduce flex in the rear end due to high loads and are manufactured from our proprietary magnesium/aluminum alloy.

**QCC0021K** driver side bell with thrust block and race installed

**QCC0031K** passenger side bell with inspection plug and race installed



**Black thermal option:**  
add -B after part number

## PEM Premium LW Quick Change Gears 650 series

High strength alloy steel with REM® ISF Microfinished surface treatment to run cooler with less friction.



Drilled and machined to reduce your rotating weight.

*Not all ratios have both gears lightened due to tooth design.*



**Successfully Raced in Sprint Cars, Dirt and Asphalt Late Models.  
Big Block and IMCA/UMP/USMTS Style Modifieds**

### PEM Standard Quick Change Gears 610 series

High grade 8620 gear steel, hobbled and fully heat treated.

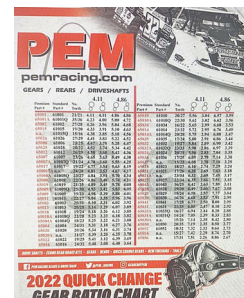
PEM Standard Quick Change Gears can be REM® ISF Microfinished at an additional charge.



### Quick Change Gear Poster

- Laminated, Easy to Read
- 19 x 25"

**QC Gear  
Poster**







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# Quick Change Gear Ratio Chart

Premium Standard No. 4.11 4.86  
Part # Part # Teeth

65001	61001	21/21	4.11	4.11	4.86	4.86
65001A	61001Q	35/36	4.23	4.00	5.00	4.72
65002	61002	27/28	4.26	3.96	5.04	4.68
65015	61015	19/20	4.33	3.91	5.10	4.63
n.a.	61015Q	15/16	4.38	3.85	5.18	4.56
65026	61026	27/29	4.41	3.83	5.22	4.52
65006	61006	23/25	4.47	3.78	5.28	4.47
65025	61025	20/22	4.52	3.74	5.34	4.42
65012	61012	26/29	4.58	3.68	5.42	4.36
65007	61007	23/26	4.65	3.63	5.49	4.30
65007A	61007Q	21/24	4.70	3.60	5.55	4.25
65017	61017	19/22	4.76	3.55	5.63	4.19
65017A	n.a.	24/28	4.80	3.52	5.67	4.17
65008A	61008Q	23/27	4.82	3.50	5.71	4.14
65008	61008	22/26	4.86	3.48	5.74	4.11
65019	61019	21/25	4.89	3.45	5.78	4.08
65009A	61009Q	25/30	4.93	3.42	5.83	4.05
65009	61009	19/23	4.98	3.39	5.88	4.01
65011	61011	22/27	5.04	3.35	5.96	3.96
65003	61003	25/31	5.10	3.31	6.03	3.92
65013	61013	20/25	5.14	3.29	6.08	3.89
65018	61018	19/24	5.19	3.25	6.14	3.85
65018A	61018Q	22/28	5.23	3.23	6.18	3.82
65004A	61004Q	18/23	5.25	3.22	6.21	3.80
65020A	n.a.	21/27	5.28	3.20	6.25	3.78
65004	61004	24/31	5.31	3.18	6.28	3.76
65020	61020	20/26	5.34	3.16	6.32	3.74
65022	61022	19/25	5.41	3.12	6.39	3.69
65016	61016	24/32	5.48	3.08	6.48	3.64

Premium Standard No. 4.11 4.86  
Part # Part # Teeth

65010	61010	20/27	5.55	3.04	6.56	3.59
65010A	61010Q	22/30	5.60	3.01	6.63	3.56
65034	61034	16/22	5.65	2.99	6.68	3.53
65014	61014	23/32	5.72	2.95	6.76	3.49
65014A	61014Q	20/28	5.75	2.94	6.80	3.47
65035	61035	17/24	5.80	2.91	6.86	3.44
65032	61032	19/27	5.84	2.89	6.91	3.42
65032A	61032Q	23/33	5.90	2.86	6.97	3.39
65024	61024	20/29	5.96	2.83	7.05	3.35
65036	61036	17/25	6.04	2.79	7.15	3.30
65037	n.a.	23/34	6.08	2.78	7.18	3.29
65023	61023	18/27	6.17	2.74	7.29	3.24
65021	61021	17/26	6.29	2.69	7.43	3.18
65021A	n.a.	15/23	6.30	2.68	7.45	3.17
65027	61027	22/34	6.35	2.66	7.51	3.15
65043	61043	16/25	6.42	2.63	7.59	3.11
65028	61028	19/30	6.49	2.60	7.67	3.08
65029	61029	15/24	6.58	2.57	7.78	3.04
65030	61030	16/26	6.68	2.53	7.89	2.99
65041	61041	17/28	6.77	2.50	8.00	2.95
65031	61031	21/35	6.85	2.47	8.10	2.92
65033A	61033Q	16/27	6.94	2.44	8.20	2.88
65031A	61031Q	14/24	7.05	2.39	8.33	2.83
65030A	n.a.	15/26	7.12	2.37	8.42	2.80
65050	61050	20/35	7.19	2.35	8.51	2.78
65052	61052	18/32	7.31	2.31	8.64	2.73
65054	n.a.	15/27	7.40	2.28	8.75	2.70
65056	n.a.	17/31	7.49	2.26	8.86	2.67

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**#gearedbyPEM**



## PEM QUICK CHANGE RING & PINIONS AND SPOOLS

### PEM Quick Change Ring & Pinions

*Standard ring gear OD is 10 inches*

**QC411R&P** 4.11 Ring & Pinion Bare

**QC486R&P** 4.86 Ring & Pinion Bare

**QC411R&PLW** 4.11 Ring & Pinion 9.5" OD LW Bare

**QC486R&PLW** 4.86 Ring & Pinion 9.5" OD LW Bare

**QCR&P411LOAD** 4.11 Ring & Pinion Loaded

**QCR&P486LOAD** 4.86 Ring & Pinion Loaded

**QCR&P411LWLOAD** 4.11 Ring & Pinion 9.5" Loaded

**QCR&P486LWLOAD** 4.86 Ring & Pinion 9.5" Loaded

*All loaded ring & pinions have an aluminum posi nut installed and also come with the roller nose bearing.*

**REM® ISF Finishing** available at additional charge.



### PEM QC Aluminum Spools

**QCFSA31** aluminum  
spool 2.032" journal

**QCFSA31L** lightened alu-  
minum spool



### SPOOL Bearings, Races and Shim Kit

**P368S** 2.032" spool bearing

**P368A** 2.000" spool bearing

**P362A** race for P368S and P368

**QCC0133** spool Shim Kit - 12 piece kit

REM is a registered trademark of REM Chemicals Inc.  
registered in the U.S. Patent and Trademark Office.

**REM® ISF Finished Bearings**  
on page 33

## Replacement Parts for Quick Change Rear Ends

QCC0010	center section case only -bare	QCC0120	lower shaft bearing retainer - snap ring
QCC0020K	drivers 6 rib side bell kit, plugs and race	QCC0121o	rear yoke plate o-ring
QCC0030K	passenger 6 rib side bell kit, plugs and race	QCC0122	back cover bearing retainer bolts
<b>QCC0021K</b>	drivers 8 rib side bell kit, plugs and race	QCC0123	back cover bearing retainer - aluminum
<b>QCC0031K</b>	passenger 8 rib side bell kit, plugs and race	QCC0125	3/8" allen head pipe plug, aluminum
QCC0040K	back cover assembly with bearings and retainers	QCC0126	yoke seal
QCC0050	wide 5 aluminum tube up to 30 3/16"	QCC0128K	passenger side inspection/fill plug with o-ring
QCC0060	lower solid thru shaft—heat treated	QCC0129K	tube bolt & washer kit 6 piece kit
QCC0061	drilled lower thru shaft—10 spline	QCC0131/2K	ring gear bolt and washer kit 12 pcs each
QCC0080	yoke seal plate - bare	QCC0135	thrust jam nut - aluminum
QCC0080o	yoke seal plate o-ring	QCC0136	thrust flat washer - aluminum
QCC0090	forged yoke -1310 series	QCC0137	thrust block
QCC0100	rear pinion retainer plate	QCC0137K	thrust block assembly kit
QCC0101	pinion retainer lock washer	QCC0139K	breather kit
QCC0102	spacer under pinion retainer	<b>QCC0139-1K</b>	2021-up breather kit
QCC0103	posi lock nut alum. for pinion RH thread	QCC0140K	thru bolt kit with short bolts 12 piece kit
QCC0104	rear cover gasket heavy duty, steel core	QCC0145	pinion thrust washer
QCC0105	rear cover gasket	QCC0146	lower bearing retainer
QCC0106K	yoke support bolt kit 6 piece kit	QCC0147	big bearing for only BB Billet back cover 6405R
QCC0107	carrier seal	QCC0231	wide 5 alum snout nut with locking system
QCC0108	back cover bearing standard - 6305NR	P27880	pinion tapered roller bearing
QCC0111	pinion retainer bolt and washer kit	P27880Kit	pinion bearing kit - 2 bearings, race and spacer
QCC0112o	o-ring for back cover bearing retainer	P27820OD	pinion race - holds 2 bearings
QCC0113	back cover stud	PMU1205	pinion support bearing
QCC0113K	back cover stud kit - 10 piece kit	P7339	rear lower shaft bearing 6207ZZ
QCC0114K	aluminum plug with o-ring	P7390	front lower shaft bearing 6307ZZ
QCC0115K	spur gear inspection plug with o-ring	K7339	Koyo rear lower shaft bearing 6207ZZ
QCC0116	yoke bolt only	K7390	Koyo front lower shaft bearing 6307ZZ
QCC0116K	yoke bolt and washer kit		
QCC0117	washer for yoke		
QCC0118	side bell o-ring - thin square		
QCC0119S	short back cover nut - red aluminum		
QCC0119S K-6	back cover nuts -6 piece kit		
QCC0119S K10	back cover nuts -10 piece kit		
		QCCRBK-2.032	rebuild kit with all bearings/races/seals/o-rings for a PEM or Winters Sprint center unit
		QCCRBK BBC-2.032	rebuild kit with all bearings/races/seals/o-rings for a PEM QC with big bearing cover

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## Replacement Parts for Quick Change Rear Ends

### REM ISF 9 inch OD Quick Change Ring & Pinion



(only for 602 & 604 crate motors)

Reduce rotating weight without converting to a weaker 8" OD quick change. Installs in your standard QC rear.

Specify Ratio; 4.11 or 4.86

REM-QC4##R&PLW9

REM-QC4##R&PLWLoaded9



**Forged 1310 Quick Change Yoke** 10 spline, use with u-bolts. Does not use spacer. Forged to be stronger than cast.

**QCC0090** QC yoke

**QCC0091** QC yoke Black Long +1 inch

**QCC0116K** yoke bolt and washer

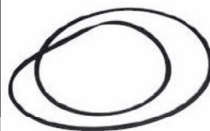
**N1-0089L** 1310 u-bolts, pair

**QCC0131/0132K Threaded Ring Gear Bolt and Washer Kit** with 3/8-24 thread, 1-1/8" long, Grade 8 hex head steel bolts, 12 bolts and 12 Belleville washers.



**QCC0232K** Top GM Metric Bolt on Mount for Quick Change Rear End

- 1979-1987 GM Midsize Chassis
- 4 degrees down pinion angle



**Side Bell O-Ring**

Thin square fits PEM, DMI and Winters Sprint Center.

**QCC0118**



**Plugs with O-Ring**

**QCC0114K** back cover (2 needed)

and passenger side fill level plug

**QCC0115K** center section plug

**QCC0128K** passenger side bell inspection plug

**QCC0149K** 12an to 10 an fill fitting



**Heat Treated Lower Shaft** fits PEM, Winters and DMI quick change, 10 spline.

**QCC0060** heat treated solid lower shaft, 10 spline

**QCC0061** gundrilled heat treated lower shaft, 10 spline

**QCC0120** snap ring for lower shaft

**QCC0103**  
**Posi Lock Pinion Nut**



Right hand thread.

Aluminum Locking Nut for Pinion with RH thread. Fits

**QCC0139-1K**

quick change breather kit, fitting and hose for 2021-up PEM QC rears



**Rear Cover Stud**

**QCC0113** one piece

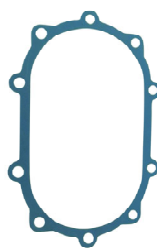
**QCC0113K** 10 piece kit



**RearCover Gasket** for 10 bolt quick change flat cover, sprint style.

**QCC0104** HD with steel core

**QCC0105** paper composite



**Quick Change Rebuild Kit** with all bearings and seals for PEM and Winters Sprint Center Rear. Fits

standard pinion (not spread pinion). Choose for standard or big bearing rear cover.



**QCCRBK** 2.032"

**QCCRBK BBC** 2.032"

**Rear Cover Assembly with bearings installed**

**QCC0040K** cast with caps and standard bearings

**QCC0040B BBK** black 10 billet big bearing cover

**QCC0040B BB6B-K** 6 bolt billet big bearing cover



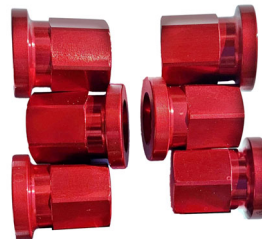
**Rear QC Cover Nuts**

Red Billet Short Nuts for Sprint Style Rear Covers

**QCC0119S** one piece

**QCC0119S K-6** 6 piece kit

**QCC0119S K-19** 10 piece kit





## PEM Double Spline Axles and Rear End Tubes

### Wide 5 High Test Gun-drilled Axle

High strength alloy steel. Black Oxide coated. Backed by extensive testing.

Axle includes aluminum plug for spacer bolt.

Fits 31 spline spool and 24 spline outer drive flanges.



**GDW5###31-B** Available lengths: 27.5, 28.5, 29.5, 30, 30.5, 31, 31.5, 32, 32.5, 33, 33.5, 34, 35, 35.5 and 36"

### 5/8" HEAVY WALL STEEL TUBES



for GN 2.5" and wide 5 Snouts

Centerless Ground Tubing Tubes weigh from 16-22 lbs. heavier than a .188" wall steel tube (depending on length of tube)

### Wide 5 Polished Gun-drilled Axle

Axle includes aluminum plug for spacer bolt. Fits 31 spline spool and 24 spline outer drive flanges.



**Limited Sizes and Quantities.**

**GDW5###31-A** Available lengths; 33, 33.5, 34, 34.5, and 35"

### Centerless Ground GN Rear End Tubes

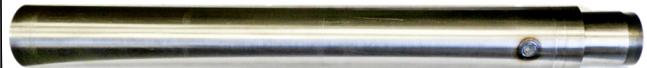
#### TWSnout##QCB

GN 2.5" snout rear end tubes; .188" and .250" wall DOM steel tubing centerless ground to 2.999 inch-3.0" OD. Available lengths; 22, 23, 24, 25, 26, 29 & 32".

These tubes are measured total length.

For example, a 60" centered pinion GN quick change takes two 24" tubes.

Retainer bolt holes must be drilled and tapped after installation. Plug welded snout.



### Conversion Kit for Quick Change to GN Steel Tubes

Change an aluminum tube quick change over to a 2.5" GN steel tube quick change. You must specify the track width and pinion placement you want.



**QCKK** conversion kit with tubes, hub nuts, solid axles and axle snout seals

**QCKK5** conversion kit with 5x5" GN 2.5" hub assemblies and .810" rotors, tubes, hub nuts, solid axles and axle snout seals

**QCKK4** conversion kit with 5x4 3/4" GN 2.5" hub assemblies and .810" rotors, tubes, hub nuts, solid axles and axle snout seals

### Gundrilled Axle Spacer Bolt Kit

Goes between axles so they space correctly on the drive flange spline.

**QCC0275K**



### TWS-QCB HV steel tube

Centerless ground .188" wall DOM Steel. Order tube for a GN 2.0" Howe/Vogel style hub.

Specify B measurement, length from bearing step to end of tube.

**TwsHV ##QCB**

**P. 636.629.6200**

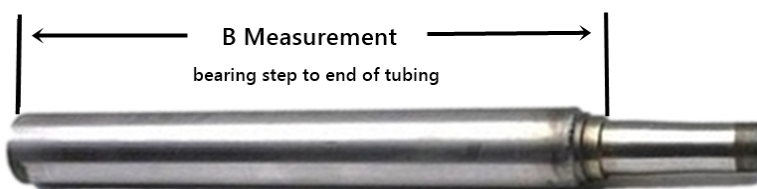
**F. 636.629.6207**

## Replacement Parts for Quick Change Rear Ends

### Wide 5 Steel Tube

Available in centerless ground .188", and .625" wall DOM Steel Tubing.

Specify B measurement - length from bearing step to end of tube. Plug welded snout.



**QCC0231** wide 5 aluminum locking hub nut kit

### Wide 5 Aluminum Tube

T6061 Aluminum black anodized

Specify B measurement, length from bearing step to end of tube.

**QCC0050-31.5** - B measurement 20.0"  
**QCC0050-32** for 32" axle - B measurement 20.5"  
**QCC0050-33** for 33" axle - B measurement 21.5"  
**QCC0050-34** for 34" axle - B measurement 22.5"  
**QCC0050-35** for 35" axle - B measurement 23.5"  
**QCC0050-36** for 36" axle—B measurement 24.5"  
**QCC0050-CTL** we cut to your B measurement



1 ton axle tubes offer racers and chassis builders an option to increase strength and reduce flex. This is done by using a thicker wall snout while providing more clearance for the axle itself.

### 1 TON Aluminum Tube

T6061 Aluminum black anodized

Stainless wear sleeve installed

Specify B measurement, length from bearing step to end of tube

**QCC0051-31.5** for 31.5" axle B measurement 20.0"  
**QCC0051-32** for 32" axle B measurement 20.5"  
**QCC0051-33** for 33" axle B measurement 21.5"  
**QCC0051-34** for 34" axle B measurement 22.5"  
**QCC0051-35** for 35" axle B measurement 23.5"  
**QCC0051-36** for 36" axle B measurement 24.5"  
**QCC0050-CTL** we cut to your B measurement  
**QCC0051-WR** wear sleeve for 1 ton tube

### 1 Ton Bearings, Seal and Kit

**QCC0230K** qc snout nut for 1 ton with locking system ( does not fit 1.5 ton tube )  
**QCC0237K** 1 ton bearing and seal kit ( 2 bearing sets and seal )  
**QCC0234** 1 ton seal  
**QCC0235** outer 1 ton bearing & race  
**QCC0236** inner 1 ton bearing & race



PEM 1 ton bearings & races are REM® ISF Microfinished surface treatment for less friction.



## Assembled Center Sections

**CSMS** 9 inch Ford with mini spool. New PEM nodular iron case, pinion support, yoke and competition ring & pinion with steel mini spool (28 or 31 spline). Reconditioned mini spool carrier.

**CSFS** 9 inch Ford with full steel spool. All New with PEM nodular iron case, pinion support, yoke and competition ring & pinion with steel lite full spool (28 or 31 spline). All new assembly.



### Gear Driven Torsional Differential Center Sections Smoother operation

**CSTT** Eaton True Trac Nodular Iron Ford 9 inch Center Section (28, 31 or 35 spline). PEM nodular iron case and pinion support, US Gear ring & pinion, helical gear unit differential and premium bearings.

**CSHT** PEM Heli-Trac Nodular Iron Ford 9 inch Center Section (28 or 31 spline). PEM nodular iron case and pinion support, US Gear ring & pinion, helical gear unit differential and premium bearings.



**CSTL** 9 inch Ford street with trac loc and PEM nodular iron case and pinion support, US Gear ring & pinion, trac loc clutch style differential (28 or 31 spline) and premium bearings. All new assembly.

**Ratios available:** 3:25 thru 4:30.  
**Specify yoke:** 1310 short narrow, 1330 short wide or 1330 long wide.



**“Brute” Nodular Iron Center Section** with steel spool (28, 31, 35 or 40 spline), 8620 ring & pinion, nodular iron case and iron daytona support. All new assembly.

**Ratios Available:** 3.25 thru 7.33.  
Optional Aluminum Daytona Support



**“Brute” Nodular Iron Drag Race Center Section** with steel spool (28, 31, 35 or 40 spline), 9310 PRO ring & pinion, nodular iron case and iron daytona support. All new assembly.

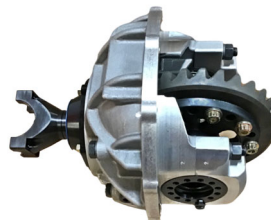
**Ratios Available:** 3.50 thru 4.88.  
Optional Aluminum Daytona Support

### Drag Race Yukon Gear Aluminum Bolt Thru 3.25” Carrier Bearing Case



with 10 bolt pinion support, steel spool (35 or 40 spline). 9310 PRO 35 spline ring & pinion, billet chrome moly yoke and premium bearings. All new assembly.  
**Ratios Available:** 3.50 thru 4.88.

### Yukon Gear Aluminum Bolt Thru 3.25” Carrier Bearing Case, 28 Spline Pinion with 5 bolt aluminum Daytona pinion support.



Standard 8620 28 spline ring & pinion, steel spool (28, 31, 33, 35 or 40 spline), billet chrome moly yoke and premium bearings. All new assembly.  
**Ratios Available:** 3.25 thru 7.33.

Center Section Options on page 15

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## Ring & Pinions



### **Xtreme Gear 9 inch Ford Ring & Pinion** 8620 steel

**Ratios Available:** 4.11, 4.30, 4.56, 4.64, 4.71, 4.86, 5.00, 5.14, 5.29, 5.43, 6.20, 6.33 and 6.50.



### **Xtreme Gear 9310 PRO 35 Spline Pinion 9 inch Ford Ring & Pinion**

Only Ratio Available is  
4.29

**Xtreme Gear  
Requires matching  
offset spool**



### **STG - PREMIUM 9 inch Ring & Pinions 8620 steel** **Ratios Available:** 3.25, 3.50, 3.70, 3.89, 4.11, 4.30

### **US Gear 9 inch 9310 Pro 35 spline Ring & Pinions** **Ratios Available:** 3.50, 3.70, 3.89, 4.11, 4.57 and 4.86.

US Gear sets the standard for high-quality gear sets. Racing professionals and performance enthusiasts have trusted US Gear products for more than 40 years. These gear sets are manufactured in the United States to the highest material and process standards.



### **9 inch Ford Ring & Pinion** 8620 steel **Ratios Available:** 3.50, 3.70, 3.89, 4.11, 4.30, 4.56, 4.71, 4.86, 5.00, 5.14, 5.29, 5.43, 5.67, 5.83, 6.00, 6.20, 6.33 and 6.50.

### **9 inch Ford Ring & Pinion New Ratios Available:**

**5.37, 5.50 and 5.57**

### **Lightweight 9 inch Ford Ring & Pinion**

**New Ratios Available:**  
**5.37, 5.50 and 5.57**

### **Lightweight 9 inch Ford Ring & Pinion** 8620 steel **Ratios Available:** 3.50, 3.70, 3.89, 4.11, 4.30, 4.56, 4.71, 4.86, 5.00, 5.14, 5.29, 5.43, 5.67, 5.83, 6.00, 6.20, 6.33, 6.50, 6.66, 6.83 and 7.00.



### **GM 7.5 inch Ring & Pinions** **Ratios Available:** 3.42, 3.73, 4.10 and 4.56.

### **GM 8.5 inch Ring & Pinions** **Ratios Available:** 3.08, 3.42, 3.73, 4.10 and 4.56.

All GM ring & pinions listed are for cars and have the narrow ring gear.



## Spools, Mini Spools and Drive Flanges



**Lite 9 inch Ford Spool**  
The industry standard for dirt track racing.  
1.78" journal size

**FS28** 6.25 lbs. 28 spline  
**FS31** 6.05 lbs. 31 spline



**Drag Spool 9 inch Ford**  
strong tapered body.  
1.78" journal size

**FS28DS** 8.55 lbs. 28 spline  
**FS31DS** 8.30 lbs. 31 spline



**Scalloped LW 9 inch Ford Spool**  
9 inch Lightened in the ring gear bolt pattern.  
1.78" journal size

**FS28LW** 6.00 lbs. 28 spline  
**FS31LW** 5.85 lbs. 31 spline



**Drag Spools 9 inch Ford**

1.78" journal size  
**FS933LW** 33 spline  
**FS35SB** 35 spline

2.00" journal size  
**FS35LB** 35 spline  
**FS940LW** 40 spline



**Ford 8.8 inch Spool**

**FS8831** Ford 8.8" 31 spline spool for upgrading your 8.8" to 31 spline.



**GM Spools**

**FS1230** 30 Spline 12 bolt GM Spool 8.5" 10 bolt GM  
**FS8530** 8.5" 10 bolt 30 Spline  
\* All our GM spools fit Car rear ends, not trucks.



**Chrysler Spool**

**FS87530** 8.75" Chrysler Full Spool 30 spline.



**Dana Spools**

**FSD4430** Dana 44 Full Spool 30 spline. Ratio 3.92 and higher ratios.

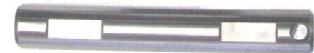
**FSD6035** Dana 60 Full Spool 35 spline. Ratio 4.56 and higher ratios.



**9 inch Ford Mini Spool**

**MS928** 28 spline  
**MS931** 31 spline

**F9traclocrossshaft**  
9inch Ford Mini Spool cross pin and Trac Loc cross shaft .750" OD



### Dana60DF

Front Drive Flange Kit with 35 spline drive slugs

- Replace Locking Hubs
- Fits Dana 60 Front Axles (not super duty)



### 4 Piece Mini Spools

**MS7526** 7.5 GM 26 spline

**MS7528** 7.5 GM/Ford 28 spline (Ford axle to 7.5 GM Center section)

**MS8528** 8.5 GM 28 spline

**MSD44-30** Dana 44 -30 spline



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## Ford Trac Loc and Trac Loc Rebuild Parts



### Ford Trac Loc Unit

OEM style with a stronger forged steel hat. Complete new unit assembled at our plant with USA manufactured clutch friction materials. 1.78" journal size.

Available 9 inch Ford.

**F9TracLoc 28 spline** 9 inch Ford

**F9TracLoc 31 spline** 9 inch Ford

**These units require a bottle of friction modifier in the lube.**

**F9tracloc fric mod** friction modifier

### TL Rebuild Kits fit both 8" & 9" Ford

**F9Traclocset** 9 piece clutch set

**F9TraclocReBKit** basic rebuild kit includes; clutch set, springs, guides, housing gasket and friction modifier

**F9TracLocRK28** complete internal kit 28 spl.

**F9TracLocRK31** complete internal kit 31 spl.

**F9TracLocHAT** forged hat only, replaces OEM cast hat on a stock Ford unit



## 9 inch Ford Rear End Bearing and Installation Kits



### 9 inch Ford Install Kit

with ring & pinion bolts, 5 hole support shims, o-ring, seal, pinion nut and housing gasket.

**F9IK** with crush sleeve

**F9IK SS** with solid pinion spacer kit

### 9 inch Ford Deluxe Install Kit

with pinion bearings and races, seal, pilot bearing, ring & pinion bolts, 5 hole support shims, o-ring, pinion nut and housing gasket.

**F9DIK** with crush sleeve

**F9DIK SS** with solid pinion



### 9 inch Ford Bearing Kit

with pinion bearings and races, carrier bearings and races, pinion seal and pilot bearing.

**F9BK1625ID2891ODPremium**

1.625 ID 2.891 OD premium bearings

**F9BK1781ID2891OD** 1.781 ID 2.891 OD neutral bearings

**F9BK1781ID2891ODPremium** 1.781 ID 2.891 OD premium bearings



### Ring & Pinion Kit

with 5 hole support shims, o-ring, pinion nut and housing gasket.

**F9RPKCS** with crush sleeve

**F9RPKSS** with solid spacer



**HH7162034G8K**  
3/4" ring gear bolt, 10 pc kit

### 9 inch Ford Solid Pinion Spacer Kit with shims

**F9SPSK** solid spacer with 5 shims

**F9SPSKL** longer spacer for Daytona Support with 5 shims

**F9SPSK35** adjustable 2 piece spacer for large 35 spline pinion with 6 shims



### Daytona Pinion Support Kits



**F9PSSBRK** Daytona pinion bearings, races, seal, o-ring and solid spacer kit

**F9PSLBRK** large pinion bearings, races, seal, o-ring and adjustable 2 piece spacer kit for large 35 spline pinion





## PEM Heli– Trac Differential



### *PEM 9 inch Heli Track 28 and 31 spline Differentials*

*1.78" bearing journal size*

*Helical cut gear driven torsional differential for smooth operation*

*Traction to the wheel that needs it*

*Great for street driving and high performance.*



**F9HT 28** 28 spline Heli Track  
**F9HT 31** 31 spline Heli Track

**F9HT 35** 35 spline Heli Track with 2.0" journal. (date to be announced)

## Center Section Options / Upgrade List

**CSO1000** UPGRADE - REM Finish ring & pinion

**CSO1100** UPGRADE - REM Finish bearings and races for center section

**CSO1200** UPGRADE - Additional Lightening of Ring Gear

**CSO1250** UPGRADE - MAX Lightening of Ring Gear

**CSO1300** UPGRADE to 35 spline spool FS35SB for 2.89 carrier bearing

**CSO1400** UPGRADE to Drag Race Tapered Spool- 31 spline

**CSO1450** 28 UPGRADE to FS28LWS - Scalloped LW Spool

**CSO1450** 31 UPGRADE to FS31LWS - Scalloped LW Spool

**CSO1500** UPGRADE to Iron Daytona Pinion Support with corresponding parts

**CSO1600** UPGRADE to Aluminum Daytona Pinion Support with corresponding parts

**CSO1700** UPGRADE to 1330 Long Wide Yoke

**CSO1750** UPGRADE to 1330 Short Wide Yoke

**CSO1800** UPGRADE to 1350 Forged Yoke

**CSO1850** UPGRADE to Brute (DHNI3250) and Conversion Races

(PRace325case289bearing)

**CSO1900** UPGRADE - US Gear Street Gear 3.25, 3.50, 3.70, 3.89, 4.11, 4.30, ratios

**CSO2000** UPGRADE to 1310S Forged Short Narrow Yoke

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## Bearings and Complete Install Kits



### 9 inch Complete Install Kits Neutral Brand

All kits include; bearings, races, ring gear bolts, pinion seal, pilot bearings, o-ring, pinion nut, housing gasket and support shim pack.

**PEM1** F9BK1781ID2891OD, F9RPKCS, HH7162034G8K with crush sleeve

**PEM2** F9BK1781ID306OD, F9RPKCS, HH7162034G8K with crush sleeve

**PEM3** F9BK1781ID2891OD, F9RPKCS, HH7162034G8K with solid pinion spacer kit

**PEM4** F9BK1781ID306OD, F9RPKCS, HH7162034G8K with solid pinion spacer kit

### 9 inch Premium Complete Install Kits

Premium Koyo or Timken bearings and races (depending on the size). All kits include; bearings, races, ring gear bolts, pinion seal, pilot bearings, o-ring, pinion nut, housing gasket and support shim pack.

**PEM1 Premium** F9BK1781ID2891OD, F9RPKCS, HH7162034G8K with crush sleeve

**PEM2 Premium** F9BK1781ID306OD, F9RPKCS, HH7162034G8K with crush sleeve

**PEM3 Premium** F9BK1781ID2891OD, F9RPKCS, HH7162034G8K with solid pinion spacer kit

**PEM4 Premium** F9BK1781ID306OD, F9RPKCS, HH7162034G8K with solid pinion spacer kit

**PEM5 Premium** F9BK1781ID306OD, F9SPSPL, F9SPS, HH7162034G8K fits small Daytona pinion support

**PEM6 Premium** F9BK2001ID3250OD, F9SPSP35, HH7162034G8K fits large 35 spline Pinion Support

**PEM7 Premium** F9BK2001ID3250OD, F9SPSPL, F9SPS, HH7162034G8K fits small Daytona pinion support

**PEM8 Premium** F9BK1781ID2891OD, F9SPSPL, F9SPS, HH7162034G8K fits small Daytona pinion support

**PEM9 Premium** Complete Bearing Install Kit for 3.25" case, 2.89" carrier bearings, 31 spline & Daytona support with PRace adaptor races

**PEM10 Premium** F95BK2.25ID3250OD, F9SPSP35, HH7162034G8K fits D 3.812, 35 spline pinion support

**PEM11 Premium** Complete Bearing Install Kit for 3.25" case, 2.89" carrier bearings, stock pinion support with PRace adapter races

### Premium Bearings and Races

**KHM89410** Daytona pinion support rear race

**KHM89443** Daytona pinion support rear bearing

**KLM102910** 1.781" ID x 2.891" OD carrier race

**KLM102949** 1.781" ID x 2.891" OD carrier bearing

**KLM104911** 2.00" ID x 3.250" OD race

**KLM104949** 2.00" ID x 3.250" OD bearing

**KLM603011** 1.781" ID 3.062" OD race

**KLM603049** 1.781" ID 3.062" OD bearing

**KM88010** stock pinion race

**KM88048** stock pinion bearing

**T2729** 35 spline pinion front race

**T2788** 35 spline pinion front bearing

*Brand Indicator: K- Koyo, T- Timken, P- Neutral*

### Premium Bearings and Races Continued

**KHM804810** 35 spline pinion rear race

**THM804846** 35 spline pinion rear bearing

**TLM501310** 1.625" ID x 2.891" OD carrier race

**TLM501349** 1.625" ID x 2.891" OD carrier bearing

### Neutral Brand Bearings and Races

**PHM89410** Daytona pinion support race rear

**PHM89443** Daytona pinion support bearing rear

**PLM102910** 1.781" ID x 2.891" OD carrier race

**PLM102949** 1.781" ID x 2.891" OD carrier bearing

**PM88010** stock pinion race

**PM88048** stock pinion bearing

**BA1535TAV** pilot bearing

**PRace** adaptor race for carrier bearing (3.250" to 2.891")





## 9 inch Ford Aftermarket Cases and Pinion Supports

### PEM BRUTE 3.25" Nodular Iron 9 inch Ford Case

36 lbs. for extreme duty drag racing and off road applications.



**DHNI3250** 3.250" carrier bearing size

### PEM Nodular Iron 9 inch Ford Case

29 lbs. standard weight case for street performance and circle track racing.

**DHNISW2891** 2.891" carrier bearing size

**DHNISW3062** 3.062" carrier bearing size



### 3.25" Aluminum Bolt Thru 9 inch Ford Case

Yukon 3.250" carrier bearing size bolt thru aluminum case for drag racing and other heavy duty applications.

**DHA3250BTCY**



### PEM Stock Style Pinion Support

New nodular iron pinion support for stock size bearings

**F9PSCStock**



### 9 inch Daytona 5 bolt Pinion Supports

**F9PSSB** aluminum Daytona pinion support  
**F9PSSBR** above with races installed

**F9PSLB** aluminum large pinion support  
**F9PSLBR** above with races installed

**F9PSCD** nodular iron Daytona pinion support  
**F9PSCDR** above with races installed



### Aluminum 10 Bolt 35 spline Pinion Support

Fits PEM, Moser and Yukon Cases with 10 bolts; for PRO large pinion shaft.

**F9PS3510** bare support

**F9PS3510SP** 6 pc shim pack only

**F9PS35 Stud Kit** 10 pc kit includes; 10 studs with washers and nuts, (5 of 7/16" & 5 of 3/8")

**F9PS3510Kit** Ford 9 inch alum. 10 bolt pinion support (no races) with 6 pc shim pack and stud kit



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## Rear End Yokes



### Ford 9 inch Yokes

**YF91310-2** cast steel 1310 28 spline series 4" tall with dust shield

**YF91330** cast 1330 Cleveland series (3 5/8" wide x 1 1/8" cap) 4" tall with dust shield

**YF91330Long** cast 1330 Cleveland series (3 5/8" wide x 1 1/8" cap) 5" tall with dust shield



### Ford 9 inch Forged Yokes

**YF91310S** forged 1310 series 4" tall (shown)

**YF91310S Day** forged 1310 series 4" tall, cut for Daytona support

**YF91330S** forged (3 5/8" wide x 1 1/8" cap) 1330 Cleveland series 4" tall with dust shield



### 1350 9 inch Ford Forged Yokes

**YF9135028** 28 spline 1350 series (3 5/8" wide x 1 3/16" cap) with dust shield

**YF9135035** large pinion 35 spline 1350 series (3 5/8" wide x 1 3/16" cap)



### 1350 9 inch Ford Billet Yokes

**YF9135028B** 28 spline 1350 series (3 5/8" wide x 1 3/16" cap)

**YF9135035B** large pinion 35 spline 1350 series (3 5/8" wide x 1 3/16" cap)



*Machined from 4140 Chrome-Moly*



### Chrysler 8.75 inch Yokes

**Y875-7290** 29 spline 7290 series (3 5/8" wide x 1 1/8" cap)

**Y875-1350** 29 spline 1350 series (3 5/8" wide x 1 3/16" cap)

### Dana 60 Yoke

**YD601350** 29 spline 1350 series (3 5/8" wide x 1 3/16" cap)



**All rear end yokes on this page use u-bolts, not straps for u joint retention.**



### Ford 8.8 inch Yokes

**YF881330** 1330 Cleveland series (3 5/8" wide x 1 1/8" cap) with dust shield

**YF881350** 1350 series (3 5/8" wide x 1 3/16" cap) with dust shield



### GM Forged Yokes

**YC121350** 1350 series 30 spline GM 12 bolt (3 5/8" wide x 1 3/16" cap)

**YGM1350** 1350 series GM 8.5 inch 10 bolt (3 5/8" wide x 1 3/16" cap)

### Aluminum Rear Yoke Girdles

**G1310K** 1310 series with aluminum caps and hardware

**G1350K** 1350 series with aluminum caps and hardware



### U Bolts for Rear End Yokes

**N1-0089L** 1310 series 1 1/16" cap

**S3-94-18X** 1350/1410 series 1 3/16" cap

**N1-0189** 1330 Cleveland series 1 1/8" cap



### Ford 9 inch Yoke Repair Sleeve

**YF9SS** presses on 28 spline 9 inch Ford yoke and repairs worn seal area





## Transmission Slip Yokes and U-Joints

### Quick Release 1350 Slip Yokes

CNC machined and heat treated 4140 steel forgings for greater strength. They feature a "Quick Release" cap design and the seal surface is specially ground to a 16 micro finish for a perfect fit.



Manufactured in the USA.

**INSY-350-1350Q** fits TH350, PG, 700R, 4L60E GM  
**INSY-400-1350Q** fits TH400, 4L80E GM 32 spline  
**INSY-727-1350Q** fits NP833, 727, Liberty, Doug Nash and Richmond 5 Speed Chrysler  
**INSY-904-1350Q** fits A904, Small NP833, 4SPD Chrysler  
**INSY-AOD-1350Q** fits 4R70LW and Ford AOD 28 spline  
**INSY-C4-1350Q** fits C4 & T5 Ford 28 spline  
**INSY-C6-1350Q** fits C6 & Tremec Ford 31 spline

### OEM Style Cast Slip Yokes

**S2-3-6081X** 1310 GM Slip Yoke 5.50" 27 spline  
**S3-3-4281X** 1350 GM Slip Yoke 6.938" 27 spline  
**N2-3-10431X** 1310 GM Slip Yoke 5.50" 32 spline  
**N3-3-2431X** 1350 GM Slip Yoke TH400 x 5.50"  
**N2-3-4871** 1310 Ford Slip Yoke 6.03" 28 spline  
**N2-3-15631X** 1310 Ford Slip Yoke 7.00" 31 spline  
**S2-3-12051X** 1330 GM Slip Yoke 6.8" 27 spline  
**S2-3-5981X** Ford 1330 Slip Yoke 28 spline fits AOD, C4 and T5 5.97" Long x 1.497" Seal Diameter  
**S2-3-6041X** Ford C6/T45 Slip Yoke 6.03" 31 spline



### NEAPCO Conversion U-Joints

**N1-5349** 1310/1330 Cleveland greaseable conversion 3 7/32" x 1 1/16" to 3 5/8" x 1 1/8" cap  
**N3-3130** 1310/3R GM Metric conversion  
**N2-4900** 1330/1330 Cleveland conversion(1 1/8" cap)  
**N2-3050** 1330/1350 greaseable conversion 3 5/8"x 1 1/16" to 3 5/8" x 1 3/16" cap  
**N2-4953** 1350/Cleveland greaseable conversion 3 5/8" x 1 3/16" to 3 5/8" x 1 1/8" cap  
**N2-1569** 1330/3R greaseable conversion  
**N2-1153** 1350/3R greaseable conversion  
**N2-1435** 1350/1410 solid cross conversion  
**N3-3140** 1310/1350 greaseable conversion

**S5-134X** 1310/1330 solid cross 3 7/32" x 1 1/16" to 3 5/8" x 1 1/16" cap



### NT Series Black Chrome Moly Forged Yokes

Manufactured in the USA.



**N T2-3-6081HP** 1310 PG TH350 5.5" 27 spline  
**N T2-3-10431HP** 1310 - TH400 5.5" 32 spline  
**N T2-3-13131HP** 1310 - TH400 4.88" 32 spline  
**N T2-3-4871HP** 1310 - C4 and T5 6.0" 28 spline  
**N T2-3-8251HP** 1310 - C4 and T5 6.5" 28 spline  
**N T2-3-5981HP** 1330 - C4 and T5 5.91" 28 spline  
**N T2-3-6041HP** 1330 - C6 6.0" 31 spline  
**N T2-3-10831HP** 1330 - TH400 6.76" 32 spline  
**N T3-3-2491HP** 1350 - C6 & Tremec 6.44" 31spline  
**N T3-3-14061HP** 1350 - 4R70W 6.63" 28spline  
**N T3-3-8251HP** 1350 - C4 6.5" 28 spline  
**N T3-3-4281HP** 1350 - PG TH350 6.94" 27 spline  
**N T3-3-6081HP** 1350 - PG TH350 5.5" 27spline  
**N T3-3-5551HP** 1350 - TH400 7.94" 32spline  
**N T3-3-2431HP** 1350 - TH400 5.5" 32 spline  
**N T3-3-2431CBH** 1350 - TH400 32 spline for roller bearing tail housing  
**N T3-3-6081H** 1350 - PG TH350 27 spline for roller bearing tail housing

**N T2-3-6081HP8XL** 1310 for circle track dirt racing, extra clearance 8" center of u-joint to end

### YSYXL8F

Forged 8 inch Extra Travel Transmission Slip Yoke for Dirt Track Racing. 1310 series with 27 spline for Bert, Brinn, and Falcon racing transmission.



### REM-YSYXL8F

REM ISF Micro Polished Forged version of above

**NEW in 2022 9 inch and 10 inch Forged Extra Clearance Slip yokes REM ISF Polished**  
**YSYXL9F** 9" center u-joint to end  
**YSYXL10F** 10" for Jerico Dirt Transmission



### SPICER U-Joints

**S5-1310X** 1310 solid cross 3 7/32" x 1 1/16" cap  
**S5-1330X** 1330 solid cross 3 5/8" x 1 1/16" cap  
**S5-1350X** 1350 solid cross 3 5/8" x 1 3/16" cap  
**S5-1410X** 1410 solid cross 4 3/16" x 1 3/16" cap  
**S5-153X** 1310 greaseable 3 7/32" x 1 1/16" cap  
**S5-213X** 1330 greaseable 3 5/8" x 1 1/16" cap  
**S5-178X** 1350 greaseable 3 5/8" x 1 3/16" cap  
**S5-160X** 1410 greaseable 4 3/16" x 1 3/16" cap

### Neapco Performance U-Joints

**N1-0153P** 1 1/16" cap 1310 Solid U-joint  
**N2-4800P** 1 1/16" cap 1330 Solid U-joint  
**N2-0053P** 1 3/16" cap 1350 Solid U-joint  
**N2-0054P** 1 3/16" cap 1410 Solid U-joint

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## Steel Drive Shafts

### 2.0" Steel Drive Shaft with Greaseable Spicer U-Joints

#### 2.0" OD x .065" wall CHROME MOLY Drive Shafts

- Great for crate engine racers
- 2.0" OD x .065" wall
- Up to 33" length

DS-2-###-065MJ with 1310 series u-joints

DS-2-###-065M-800 with 8.0" extra clearance yoke with 1310 series u-joints, balanced assembly



**These lightweight chrome moly shafts are only to be run with LIMITED HP engines.**

#### 2.0" OD x .083" wall DOM Drive Shaft

Available with 5.5" or

8" long extra clearance transmission slip yoke

DS-2-###-083J with 1310 series u-joints

DS-2-###-083-550 5.5" yoke with 1310 series u-joints

DS-2-###-083-800 8.0" yoke with 1310 series u-joints

#### Econo 2.0" OD x .120" wall DOM Drive Shaft

Available with 5.5" or

8" long extra clearance transmission slip yoke

DS-2-###-120J 1310 series u-joints

DS-2-###-120-550 5.5" yoke with 1310 series u-joints

DS-2-###-120-800 8.0" yoke with 1310 series u-joints

**Specify center to center u-joint length in inches.**

## All Drive Shafts Manufactured in house at PEM.

#### 2.5" OD x .083" wall DOM Drive Shaft

DS-25-515-083J 1310 series u-joints

DS-25-515-083-550 1310 series with 5.5" 27 spline slip yoke

DS-25-525-083J 1310 series u-joints

DS-25-525-083-550 1310 series with 5.5" 27 spline slip yoke

**Other lengths available.**



#### CUSTOM Steel Drive Shafts Available

- Specify tubing 1 3/4" to 5.00" OD
- Specify length
- Specify u-joint size: 1310, 1330, 1350, 1410, or 1480
- Specify slip yoke

**Custom Order Form on page 43**



**REMEMBER TO ORDER YOUR DRIVE SHAFT WITH A SLIP YOKE SO YOU GET A BALANCED ASSEMBLY!**

#### Chrome Moly 1350 series Drive Shaft for Drag Racing and Extreme Loads

- 3.0" OD x .083" wall Chrome Moly
- 3.5" OD x .083" wall Chrome Moly

- Chrome moly weld yokes
- Specify length
- Specify outside diameter
- Specify slip yoke
- 1350 Spicer solid u-joints

**Custom Order Form on page 43**



#### Chrome Moly with Spicer Ends

- 3.0" OD x .083" wall Chrome Moly
- 3.5" OD x .083" wall Chrome Moly

- Spicer cast weld yokes
- Specify length
- Specify outside diameter
- Specify slip yoke
- 1350 Spicer solid u-joints



## Carbon Fiber Drive Shafts

### PEM CARBON FIBER DRIVE SHAFTS

#### Circle Track Drive Shafts

**2.25" OD shafts are for IMCA, UMP and USMTS  
style Modifieds and 8" wide Tire Race Cars**

**CF-2-###-125J** 2.25" OD x .125" wall

Standard Black Carbon Fiber Wrap for standard track conditions

**CF-2-###-125J SF** 2.25" OD x .125" wall

**Superflex Orange Stripe Carbon Fiber Wrap**  
for slick track, limited traction conditions

**2CF-25-###-125J** 2.75" OD x .125" wall

Crate Late Models 602, 604 or CT525

**CF-25-###-155J** 2.88" OD x .155" wall

Dirt Late Models needing more clearance around tunnel  
and drive shaft loops

**CF-3-###-125J** 3.25" OD x .125" wall

Dirt Late Models and Stock Cars with  
Longer Lengths up to 55" c to c



*Drive shafts are available with and without transmission slip yokes*

*Specify center to center u-joint length in inches.*

## All Drive Shafts Manufactured in House at PEM

### LARGER PEM CARBON FIBER DRIVE SHAFTS

#### Available sizes:

**CF-3-###-1350J** 3.25" OD x .125" wall with 1350 solid u-joints  
**CF-35-###-1350J** 3.75" OD x .125" wall with 1350 solid u-joints  
**CF-35-###-1410J** 3.75" OD x .125" wall with 1410 solid u-joints  
**CF-35-###-1480J** 3.75" OD x .125" wall with 1480 solid u-joints  
**CF-4-###-1350J** 4.25" OD x .125" wall with 1350 solid u-joints  
**CF-4-###-1410J** 4.25" OD x .125" wall with 1410 solid u-joints  
**CF-4-###-1480J** 4.25" OD x .125" wall with 1480 solid u-joints  
**CF-5-###-1410J** 5.25" OD x .125" wall with 1410 solid u-joints  
**CF-5-###-1480J** 5.25" OD x .125" wall with 1480 solid u-joints  
**CF-5-###-1550J** 5.25" OD x .125" wall with 1550 solid u-joints

*Drive shafts are available with and without transmission slip yokes*

*Specify center to center u-joint length in inches.*

#### APPLICATIONS:

- Drag Racing
- Truck Pulling
- Street Performance
- Road Racing
- Industrial
- PTO

**P. 636.629.6200 F. 636.629.6207**

## Aluminum Drive Shafts

### 3.0" OD X .125" wall Aluminum Drive Shaft 6061 T6

Available with No slip yoke OR choose 5.5" or 8" long transmission slip yoke.

**DSA-3-###-125J** 1310 series greaseable Spicer u-joints

**DSA-3-###-125-550** 5.5" 27 spl yoke with 1310 series u-joints

**DSA-3-###-125-800** 8.0" 27 spl yoke with 1310 series u-joints

**Specify center to center u joint length in inches up to 54" c to c.**



**Great for  
Dirt Late Models**

### Extreme Duty .125" wall Aluminum Drive Shafts - Drag Racing and Extreme Loads

3.5" x .125 wall 6061 T6 Aluminum Tubing up to 72" c to c

4.0" x .125 wall 6061 T6 Aluminum Tubing up to 72" c to c

5.0" x .125 wall 6061 T6 Aluminum Tubing up to 84" c to c

**Custom Order Form on Catalog page 43**



### 3.5" and 4.0" OD Aluminum Drive Shafts - Street Performance and Trucks

**DSA-35-1330J** 3.5" OD x .114" wall with 1330 u-joints up to 60" c to c

**DSA-35-1350J** 3.5" OD x .114" wall with 1350 u-joints up to 60" c to c

**DSA-40-1350J** 4.0" OD x .087" wall with 1350 u-joints up to 73" c to c

**DSA-40-1410J** 4.0" OD x .087" wall with 1410 u-joints up to 73" c to c

**Purchase or send your transmission slip yoke  
and we will build as a balanced assembly.**



### Mustang OEM Replacement Aluminum Drive Shafts

3.5" OD x .114" wall 6061 T6 Aluminum

1979-1995 Mustang

**DSA-FMS-4602G-28** 45.5" c to c Aluminum Drive shaft, 1330 U-Joint, Ford Mustang with 28 spline C4/T5 transmission slip yoke and 8.8" rear mating flange

**DSA-FMS-4602J-31** 45.5" c to c Aluminum Drive shaft, 1330 U-Joint, Ford Mustang with 31 spline transmission slip yoke for C6/T45 Tremec and 8.8" rear mating flange

**Upgrades available for Aluminum Mustang Drive Shafts**

**N T2-2-949A** 1330 Flange Yoke Aluminum 2" pilot 3 1/2" B.C.

**N T3-2-949A** 1350 Flange Yoke Aluminum 2" pilot 3 1/2" B.C.

**N T3-2-1579A** 1350 Flange Yoke Aluminum 2" pilot 4 1/4" B.C.



### Camaro and Firebird Aluminum OEM Replacement Drive Shafts

3.0" OD x .125" wall Aluminum 6061 T6

**DSA-6769-400** DS Alum 1967-69 Camaro/Firebird 400, 49 1/2" c to c with 32 spline transmission slip yoke

**DSA-6769-350** DS Alum 1967-69 Camaro/Firebird 350, 49 7/8" c to c with 27 spline transmission slip yoke

**DSA-8200** DS Alum 1982-2000 Camaro/Firebird 00, 41 5/8" c to c with 32 spline transmission slip yoke

**(specify differential u-joint size)**



## 2.5 inch GN 9 inch Ford Floater Rear Ends



### 9 inch Ford GN Floater Kits

**Housing Kit with New stamped HNF9 center**, solid wide 5 axles, GN LW hubs kits with .810" wide rotors. Specify 28 or 31 spline axles and specify width and offset.

**HN300300** 60" new centered, housing only

**HNK3003004** 60" centered housing kit with 5x4 3/4 hubs

**HNK3003005** 60" centered housing kit with 5x5 hubs

#### Options for floater housing kits:

- Gundrilled axles
- Installed GM Metric brake brackets (welded)



**78-88 GM Midsize Metric 9 inch Ford Floater Kit**  
Housing kit with **NEW stamped HNF9 center**, radius rod mounts installed, solid wide 5 axles, GN hub kits with .810" wide rotors. Specify 28 or 31 spline axles and specify width and offset.

**Now with our standard 4 degrees down pinion angle.**

**HNM300300** 60" new centered, housing only

**HNMK3003004** 60" centered with 5x4 3/4 hubs

**HNMK3003005** 60" centered with 5x5 hubs

#### Options for GM Metric floater housing:

- Multiple Hole Lower Mounts
- Installed GM Metric brake brackets (welded)

**GN 9 inch Ford and GM Metric Floater Housings are available from 58" to 62".**

**\*\*GM 58" may require grinding for clearance.**  
**Custom build form on catalog page 46.**

### Bolt On GM Metric Radius Lower Mounts - pair

#### HMBL B-On

Pair of single hole Bolt-On mounts  
- drop of 2.75" from bottom of tube

#### HMBL Multi B-on

Pair of Bolt-On multi hole mount  
with radiused holes - Now with 5  
holes on drivers side with drop of  
6.91"

**HMBL B-on SSM** 2.25" drop measure-  
ment with single hole

**HMBL B-on 2.5"** 2.5" drop measurement  
with single hole

- Bolts on 3" OD tube
- Mounts available separately for repairs



## FLOATER HOUSING AND KIT OPTIONS

**HKO1000** Upcharge for DOM Tubes .250" wall (both sides)

**HKO1100** Centerless Ground Tubes for Floater Housings, Tubing turned to 2.999" to 3.000" OD

**HKO1200-1** Welded On GM Metric Brake Brackets added to any housing installed- includes brackets and labor.

**HKO1400** Chrome Moly Tubes 3" OD x .188" wall

**HKO1500-1** Housing New Back Brace for HNF9 includes back brace and labor to install

**HKO1600** Gundrilled Hi Test Axle Option for pair of axles

**HKO1700** Wilwood Spec 37 Rotors upgrade

**HKO1800** REM finish hub bearings and races

**HKO1900** Upcharge to install 5/8th Heavy Tube on left rear

**HKO2000** Upcharge for Multi Hole Brackets - Installed

**HKO2105** Change single hole measurement to 2.5"

**HKO22005** Specify if more than 4 degrees down pinion angle on Metric Housing for dirt racing

**HKO2300** Upcharge for a Round Back Housing

**HKO2500** Install Jack ring on bottom of housing

**HKO2600** Upcharge for Locking Nuts- pair

**HKO2800** Upcharge for GN 5x5 Scalloped Drive Flange

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## PEM 2.5 inch GN Hubs and W5 Axles

### Grand National 2.5 inch Hub Assembly

**GNHub 5 on 4 75 Kit** 5 x 4 3/4" bolt circle with 3.75" long 5/8" coarse screw in studs

**GNHub 5 on 5 Kit** 5 x 5" bolt circle with 3.75" long 5/8" press in coarse studs

**GNHub 5 on 5 Kit SS** 5 x 5" bolt circle with short 5/8" press in coarse studs



PEM GN 2.5 inch Hub Assemblies have bearings, races installed, lug nuts, long 5/8" coarse wheel studs, rotor bolts, hub seal, lock washer and hardware included (no hub nut).

**GNHRK5X5** 5x5 "bolt pattern (2) hubs, (2) .810 rotors and (2) Hub Nuts

**GNHRK5X4.75** 5x4.75" bolt pattern (2) hubs, (2) .810 rotors and (2) Hub Nuts



**Wide 5 Double Spline Solid Floater Axle**  
24 spline outer for drive flange 1541 alloy  
Induction Hardened for strength

**W5###31** 31 spline axle lengths 25.625, 27.5, 28.5, 29.5, 30.5, 31.5, 32.5, 33, 33.5, 34.5, 35 & 36". 4 inches of inner spline allow these axles to be cut off for other lengths.

**W5###28** 28 spline axle lengths; 28.5, 29.5, 30.5, 31.5, 32.5, 33.5, 35 and 36"

**QCC0270K** Spacer Bolt Kit for Solid Axles

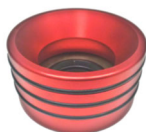
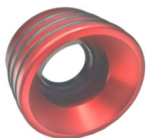
### F9AXTS3KIT

**9 inch Ford Axle Housing Seal**  
keeps your lube in the center housing instead of the axle tube.

Ford 9 inch Inner Axle Tube Seal  
Fits 3.0" OD x 3/16" wall rear end tubes

Seals 28 and 31 spline axles  
Remove spring on seal for 31 spline axles

Replacement seal **F9AXTIS**  
Replacement O-ring **F9AXTOR**



### 2.5 inch Grand National Hub Parts

**ZGNBL610549** 2.5" GN hub bearing

**ZGNRL610510** 2.5" GN hub race



**GNCKIT** GN dust cap with 3 screws and o-ring

**GNDFK5x43/4** drive flange kit 5 x 4 3/4" bolt circle

**GNDFK5x5** drive flange kit 5 x 5" bolt circle



**GNDFK5x43/4S** scalloped drive flange kit 5 x 4 3/4" bolt circle

**GNDFK5x5S** scalloped drive flange kit 5 x 5" bolt circle



*All Drive flange kits come with dust cap, o-rings and screws.*

**FHCSD5161812UCKit** drive flange bolt 2 piece kit

**GNHBAK** GN hub install kit with bearings, seal, o-ring and lock washer

**GNHOR** GN hub o-ring

**GNHDCOR** GN dust cover o-ring

**GNHSPL** GN hub double lip seal

**GNSSGN** GN snout seal for GN stepped axle

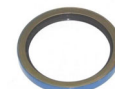
**GNSSW5** GN snout seal for wide 5 axle

**GNSRH** GN snout, RH thread, welds in .188" wall tubing

**GNSNRH** GN snout nut RH thread

**GNLW** GN lock washer

**GNSNRH-Lock** 2.5" GN locking RH Nut Kit



**WSSK** screw in 3.75" long, 5/8" coarse wheel stud, 5 piece kit for 4.75 GN hub

**WSS ARPK** screw in 2.5" long, 5/8" coarse wheel stud, 5 piece kit, for 4.75 GN hub

**WSPK** press in wheel stud 5/8" coarse with flat ground head, 5 piece kit 3.75" long, .685" knurl size

**WSP LHDK** press in wheel stud 5/8" coarse .690 knurl size, 5 piece kit 3.00" overall length



## HNF9 Rear End Center Housing and Weld Parts

### HNF9 9 inch Ford Stamped Center Housing

Designed to be built with 3.0" OD axle tubes (grinding may be required). Fits 9 inch Ford stock case plus 3.062" and 3.25" carriers. It weighs 18 lbs. and is manufactured from .160" mild steel. Manufactured in the **USA**.

**HNBBF9** back brace for HNF9 center housing (has to be modified to fit a stock housing)

**HSF9K** 9 inch Ford housing studs, 10 piece kit



**HNF9RB** smooth back 9 inch Ford stamped center housing. Great for street rods that want the smooth back look!

### 79-87 GM Metric Housing Mounts and Bungs

**HMBUSet** Metric Upper Trailing Arm Mounts without bushings, pair

**HMBUSHSet** metric housing top bushings, pair

**BBMSleeveSSK** Metric Upper Trailing Arm Sleeve with Set Screws(2), pair

**HMBLSET** Standard 2.75" drop lower 1 hole mounts notched for 3.0" tube, pair

**HMBLSET SSM** 2.25" drop lower 1 hole mounts notched for 3.0" tube, pair

**HMBLSET IMCA HS** 2.50" drop lower 1 hole mounts notched for 3.0" tube, pair

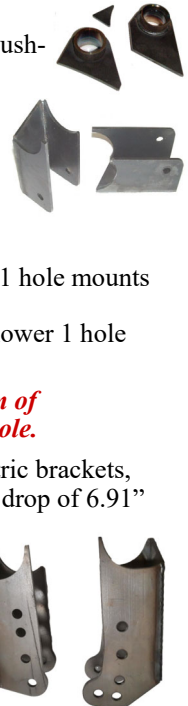
*These are measured from the bottom of the tube to the center of the single hole.*

**HMBLMulti** multi hole lower metric brackets, pair. Driver's side has 5 holes with a drop of 6.91"

**Housing Fill, Drain Bung & Plug**

**HDB34** weld bung for 3/4" npt.

**HPP34** pipe plug for 3/4" npt.



**HFCKit** Housing Fill with aluminum plug, steel bung and oring. 1.625" OD



### Rear End Tube with Snout

- This tube welds in a used or new center housing to make your own floater rear housing.
- 3.0" OD x 188" wall DOM steel tubing
- Custom lengths available

**Twinsnout** 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32"

**For Weld In housings, Not For Quick Change Rear Ends**



## Flanged 9 inch Ford Housing Ends

### Big Bearing 9 inch Ford Forged Housing Ends

Manufactured for 3.15" OD Big Ford axle bearing. Made for 3.0" OD x .188" wall tubing

**FlangeAxHE1/2** housing end 1/2" large, older Ford

**FlangeAxHE3/8LM** housing end 3/8" late model Torino

*Dimensions for the housing ends are on the Rear End Custom Order Form page 44.*



### Rear End Tube with Flange Housing End

- This tube welds in a used or new center housing to make your own rear housing.
- 3.0" OD x 188" wall DOM steel tubing
- 26" measurement end to end total length
- Custom lengths available

**TWFlange26 3/8** 26" long 3.0" OD tube with flange, 3/8" Housing End

**TWFlange26 1/2** 26" long 3.0" OD tube with flange, 1/2" Housing End



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## Flanged Axles and Parts

### Cut to Length Flanged 9 inch Ford Big Bearing Axle

**BBL Axle  
Combo Kit  
Shown**



- 1541 Induction Hardened Axle
- 1.565" Bearing journal for Big Bearing
- 5x4.5", 5x4.75" and 5x5" bolt patterns
- .685" drilled holes for press in wheel studs
- 2.5" or 2.375" brake offset
- 50" flange thickness for strength
- 5.94" flange OD
- 3.06" hub register OD (2.78" and 2.875" available)
- Easily cut to length

**FlangeAx28BBL** bare 33.0" long with 9.25" of inner 28 spline (minimum length 26").

**FlangeAx28BBS** bare 29.5" long with 10.0" of inner 28 spline (minimum length 21.5").

**FlangeAx31BBL** bare 33.0" long with 9.25" of inner 31 spline (minimum length 26").

**FlangeAx31BBS** bare 29.5" long with 10.0" of inner 31 spline (minimum length 21.5").

**FlangeAX31BBL Blank** bare 33.0" long with 9.25" of inner 31 spline (minimum length 26"). NO bolt pattern, must be drilled. Blank axle flange 7.0" OD.

**Order as a COMBO KIT with the PA20SET Bearing Installed and Axle Retainer-must specify brake offset and axle retainer required.**

### 35 spline Flanged 9 inch Ford Big Bearing Axle

- 1541 induction hardened axle
- 1.565" bearing journal for Big Bearing
- .685" drilled holes for press in wheel studs
- 8 inches of inner spline
- 2.5" brake offset
- 2.78" hub register OD



**Axle Shown with  
PA20set Bearing**

**FlangeAx35BBL** bare 31.75" long with 8.0" of inner 35 spline (minimum length 25.75").

**FlangeAx35BBS** bare 29.5" long with 8.0" of inner 35 spline (minimum length 23.5").

### FLAX7.5GMSSM

### New Product

- Replacement 7.5" GM axle with 26 splines
- 2 bolt patterns; 5x4.75" and 5x5" fits .685" knurl studs
- 1540 alloy induction hardened steel, 25% stronger than stock



### 9 inch Ford Flanged Axle Parts

**PA20Set** tapered bearing with race, seal and press on sleeve, 3.15" OD x 1.565" ID

**FlangeAxSpacer BB** flanged axle spacer Big Bearing - spaces offset from 2.375" to 2.5"

**FlangeAR500** flanged axle retainer 1/2" big old style Ford

**FlangeAR375 BB** Flanged Axle Retainer 3/8" Big Bearing Torino

**FlangeAR375 Sm Ford** Flanged Axle Retainer 3/8" Small Bearing 2.81" OD Ford

**T-bolt 1/2Kit** t-bolt 1/2" kit with lock nuts 4 pieces each

**T-bolt 3/8Kit** t-bolt 3/8" kit with lock nuts 4 pieces each



### Press In Wheel Studs - .685" knurl size unless listed

**FlangeAxStud 1/2"K BB S** press in short wheel stud 1/2" fine, 5 piece kit 1.875" long

**FlangeAxStud 1/2"K BB L** press in long wheel stud 1/2" fine, 5 piece kit 3.0" long 46190

**FlangeAxStud 5/8"K Fine2 3/4"** press in wheel stud 5/8" fine, 5 piece kit 2.75" long

**FlangeAxStud 7/16"K BB S** press in short wheel stud 7/16" fine, 5 piece kit 1.875" long

**FlangeAxStud 1/2"-20 x 3.0"** socket head screw in wheel stud 1/2" fine, 5 piece kit includes lock washers, 3.00" long





## Flanged Housing Kits



Flanged Housings and kits available from 49" to 62" wheel to wheel with standard part numbers.

We do build custom offset housings. Custom Build Form on catalog page 44.

Options for the Flange Housing kits include: cut to length axles, turning the hub register to match your brake rotor or drum and installation of wheel studs.

### 9 inch Ford Flanged Housing Kits

**Flanged Housing Kit with New stamped HNF9 center.** Includes cut to length flanged axles with bearing installed, axle retainers, t-bolt kits and wheel studs.

#### Specify;

- Housing end style
- Brake offset needed
- Wheel stud size and length

**FHNK300300-28** 60" centered with 28 spline axles

**FHNK300300-31** 60" centered with 31 spline axles

**FHN300300 60" centered pinion, housing only**

Please note: 60" width on part number is wheel flange to wheel flange with the rear end assembled.



GM Metric Flanged Housings are available from 58" to 62" with centered pinion.

### 1978-88 GM Midsize Metric Flanged Housing

9 inch Ford housing with new stamped HNF9 and radius rod mounts installed.

**FHNM300300\*** NEW flanged housing 60" centered for metric mounts (27.5" - 27.5") 3/8" housing ends

#### Options:

- Multiple radius hole lower mounts
- Added pinion angle for Dirt Track Racing

**\*Add K to Part Number for Kit with 28 or 31 Spline Axles**

### GM A Body 9 inch Ford Flanged Housing

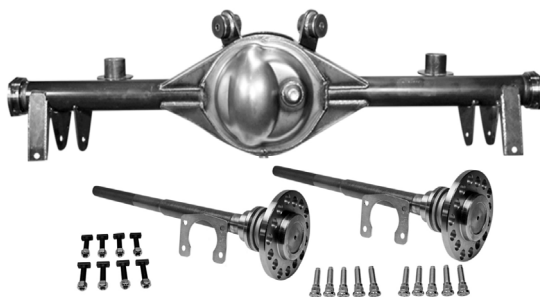
new stamped HNF9 center housing with all suspension radius arm, spring and shock mounts

**FHNAB300290SL\*** GM A-Body new flanged housing 59.5" stock location with 3/8" housing ends. Narrowest Chevelle Housing.

**FHNAB305295SL\*** GM A-Body new flanged housing 60.5" stock location with 3/8" housing ends 1964-67 Chevelle

**FHNAB315305SL\*** GM A-Body new flanged housing 62.5" stock location with 3/8" housing ends 1968-72 Chevelle

**\*Add K to Part Number for Kit with 28 or 31 Spline Axles**



### OPTIONS FOR A FLANGED REAR END HOUSING OR KIT:

**HKO1000** Upcharge for DOM Tubes .250" wall (both sides)

**HKO1400** Upcharge for Chrome Moly Tubes 3" OD x .188" wall

**HKO1500-1** Upcharge for Housing New Back Brace for HNF9 includes back brace and labor to install

**HKO2300** Upcharge for a Round Back Housing

**HKO2700** Upcharge to Fully Assemble a Street Kit (Does not include brake installation)

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## Center Section Build Options for Custom Orders



### 9 inch Ford Nodular Iron Center Section

**8620 Ratios Available:** 3.25 thru 7.33.

**9310 PRO Ratios Available:**

3.50 thru 4.86 in 35 spline pinion  
5.14 in 28 spline pinion

- Nodular Iron Case carrier size 2.891", 3.062" or 3.250" BRUTE
  - Daytona Pinion Support (Nodular Iron or Aluminum)
  - 1310, 1330 or 1350 series yoke
  - Large Aluminum 35 spline pinion support with 1350 series yoke
  - Steel Spools in 28, 31, 33, 35 or 40 spline
  - Trac Loc available in 28 or 31 spline
  - Detroit Lockers available in 31 or 35 spline
  - True Trac available in 31 or 35 spline
- Set up with street, competition or drag race backlash.**
- **Option:** REM® ISF Microfinishing of ring & pinion, bearings and races
  - **Option:** Lighten Ring Gear
  - **Option:** Cryo Treatment of ring & pinion

### 9 inch Ford Center Section with 3.25" carrier Aluminum Bolt Thru Case



**8620 Ratios Available:**  
3.25 thru 7.33.

**9310 PRO 35 spline**

Xtreme Gear only 4.29 available

**US Gear 9310 PRO standard pinion**  
5:14 small pinion only

**US Gear 9310 PRO large pinion:**

35 spline pinion, 3.50, 3.70, 3.89, 4.11, 4.57 and 4.86

- Yukon Gear 3.25" carrier size aluminum bolt thru case
- Steel Spools in 31, 33, 35 or 40 spline
- Detroit Locker in 35 spline
- True Trac in 35 spline
- Aluminum Pinion support available in 5 bolt for 28 spline pinion or 10 bolt for 35 spline pinion
- **Option:** REM® ISF Microfinishing of ring & pinion, bearing and races
- **Option:** Cryo Treatment of ring & pinion

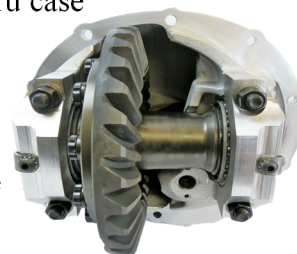
**These center sections are custom built to meet your needs. Contact PEM for information and ordering.**

### Drag Race Ford Center Section with 3.81" carrier Aluminum Bolt Thru Case



9310 PRO 9.5/10 inch ring & pinion with 35 spline pinion shaft.  
Moser Engineering 3.81" aluminum bolt thru case  
10 bolt aluminum pinion support  
40 spline spool only  
1350 Billet Yoke  
Premium Bearings

**9.5 inch OD Gear Ratios Available**  
**Xtreme Gear: 4.11 and 4.29**



**10 inch OD US Gear PRO: 3.70, 3.89, 4.11, 4.29, 4.57 and 4.86**

- **Option:** REM® ISF Microfinishing of ring & pinion, bearings and races
- **Option:** Cryo Treatment of ring & pinion

## Rear End Tools

### CLAMSHELL BEARING PULLER KIT

Clamshell carrier bearing puller tool works on most standard size carrier bearings and pinion bearings on differentials including, Dana and Ford rear ends.

Carrier and pinion bearing puller kit for Dana 30, 35, 44, 60, 70, Ford 10.25" & 10.5". **Please note:** will NOT pull pinion bearing on a Dana 80.

- Kit includes: three different size hardened steel clamshells, retaining rings, adjusting collars and handy bench top rack.



**The Clamshell bearing puller is the tool to use if you're setting up ring & pinions or doing general differential repairs. This tool works with an impact gun to quickly and safely remove your bearings while minimizing the risk of damage.**

### CASE SPREADER for DANA and Integral Housing Axles

- **Safely and easily set carrier bearing pre-loads**
- **Works on Dana 30 up thru Dana 80 Housings Please note: does not work on Dana 35 with dowel holes under the cover.**
- **Spreader is NOT compatible with Corvette Housings**



### YOKE HOLDING WRENCH

Helpful wrench used to hold pinion yoke while setting torque. Fits 1210 to 1550 u joint series.



### Axle Bearing Puller Extension

#### Plate Style

BPAE-PS (Toyota style)

#### Clamshell Style

BPAE-CSS (Ford style)

Use with clamshell bearing puller kit.



### REAR END and TRANSMISSION BENCH YOKE

When assembling differentials, being able to securely position the assembly is essential. The heavy duty steel construction of the PEM Bench Yoke makes

it the perfect tool for assembling and rebuilding center sections. The Bench Yoke rotates so you can work on any side.

Holds a rear center section or a transmission to your bench so you can rotate for service. This is strong and the exact unit we use in our assembly area daily.



## STANDARD WHEEL BEARINGS & RACES

**P18690** W5 outer wheel bearing  
**P18620** W5 outer wheel race  
**P18790** W5 inner wheel bearing  
**P18720** W5 inner wheel race  
**P23756** W5 hub seal

**Pwide5Kit** W5 bearing and race kit with seal - for one wheel

**Pwide5KitLocking** W5 bearing and race kit with seal - for one wheel with locking wide 5 aluminum nut

**PL68149** modified hybrid outer wheel bearing  
**PL68110** modified hybrid outer wheel race

**PLM12749** modified hybrid inner wheel bearing  
**PLM12710** modified hybrid inner wheel race

**P10573-340210** modified hybrid front hub seal

**PLHybrid Kit** modified hybrid bearing and race kit with seal - for one wheel

**PLM12649** GM metric outer wheel bearing for hub with large outer bearing

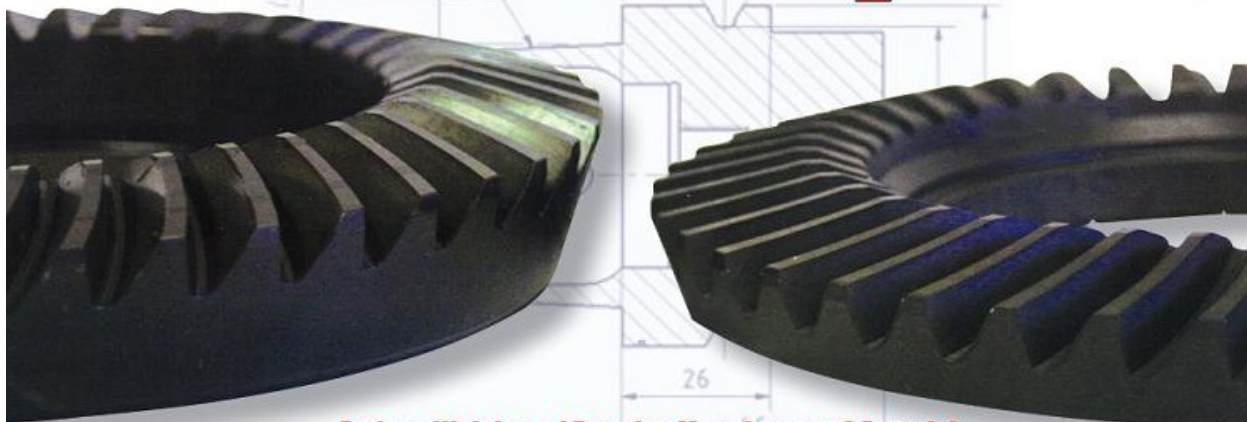
**PLM12610** GM metric outer race  
**PLM67048** GM metric inner wheel bearing

**PLM67010** GM metric inner race  
**P8871** GM metric front hub seal

**PLMetricKit** GM metric bearing and race kit with seal - for one wheel



# Dare To Compare!



**Reduce Weight and Rotating Mass by up to 6 Pounds!  
Standard Gear Set -vs- Xtreme Gear Set**



## **Xtreme Series from Performance Engineering**

Want to lose up to 6 pounds of rotating weight? Then you need to switch to Performance Engineering's (PEM) **Xtreme Gear** Ford 9" & 9½" ring and pinion sets, lockers and spools. Designed for ultimate strength and durability, PEM's ring and pinion sets provide 3 to 4 times the weight reduction of "chopped" gears without sacrificing durability.

### **8620 Ford 9 inch Ring & pinion Sets**

**PG F9/###LW** 8620 9 inch Ford Xtreme series, 28 spline standard size pinion

**### Ratios available:** 4.11, 4.30, 4.57, 4.63, 4.71, 4.86, 5.00, 5.14, 5.29, 5.43, 6.20, 6.33 and 6.50. **Some ratios may be limited.**

### **Xtreme Gear 9310 Ford 9 inch Ring & pinion Sets**

**PG F9/429BPLW** 4.29 ratio Big Pinion (35 spline)

### **Xtreme Gear 9.5 inch Ford 9310 Ring & Pinion Sets**

**PG F95/411BPLW** 4.11 ratio Big Pinion (35 spline)

**PG F95/429BPLW** 4.29 ratio Big Pinion (35 spline)

**PG F95/SPL40LW** 40 Spline Spool 2.25" journal for 3.812" carrier aftermarket case

### **Xtreme Gear Ford 9 inch Steel Spools**

**PG F9/SPL28LW** Ford 9 inch 28 Spline 1.78" journal

**PG F9/SPL31LW** Ford 9 inch 31 Spline 1.78" journal

**PG F9/SPL35LW** Ford 9 inch 35 Spline 2.0" journal

**PG F9/SPL40LW** Ford 9 inch 40 Spline 2.0" journal

### **Xtreme Gear Ford 9 inch Locker 31 spline only**

**PG 187N/178AL** Circle Track No Spin Locker Assembly 2.0" journal size for aftermarket 3.25" carrier case

### **Xtreme Gear 9 inch Ford Center Section Lightest rotating weight available**

**CSFSXLW** 9 inch Ford Xtreme Gear with full steel spool and PEM nodular iron case and pinion support. Xtreme Gear 8620 offset ring & pinion, steel spool (28 or 31 spline) and 1310 forged yoke.

Check ratios available.

**All new assembly.**

#### **Options:**

- REM® ISF Microfinishing
- Additional Ring Gear Lightening
- Daytona Pinion Support
- Other Yokes available



## **REM ® ISF Microfinish**

### **All REM® ISF Microfinish completed in house at PEM.**

Any time two metal parts come into contact with each other, the resulting friction causes heat build up. These high temperatures cause wear and over time reduce efficiency and eventually create the need for replacement. By creating a smooth and shiny finish, the ISF® Process improves the life and efficiency of moving metal parts. Increased life translates into lower operating costs as well as better performance.

The ISF® Process removes the asperities that are inherent in the manufacturing process. By safely removing these microscopic peaks, the ISF® Process leaves a much more uniform surface that reduces friction and allows for increased lubrication capability. While the dimensional integrity of the part remains intact, the result is an improved component that will operate at lower temperatures, have increased durability, quieter operation and increased time between maintenance.

**Please contact PEM for a RMA Authorization Number prior to shipping customer owned parts to be REM® ISF Microfinished.**

**REM® ISF Microfinishing available on all Ring & Pinions \$ 99.00**  
**Up to 10" diameter ring gear. Larger sizes quoted.**

- **Quick Change Gears for \$ 29.00 per Set**
- **Drive shaft Slip Yoke \$ 24.00 Each**
- **Motorcycle Transmission Internals \$ 199.00**
- **Racing Automotive Transmisson Internals**
- **Internal Engine Components**
- **We will Quote Polishing on other parts with price not listed.**



In extreme environments, such as automobile or motorcycle racing, every component must work in harmony at 100% capacity. Races are won and lost by fractions of a second, so it all comes down to getting the most power output possible. With the ISF® Process, the energy normally lost to friction is now available in the form of increased power output. Once friction is reduced, the parts will run cooler allowing for longer durability of parts and fewer failures. To the high performance racing market, Smooth and Shiny means faster and cooler.



REM is a registered trademark of REM Chemicals, Inc. registered in the U.S. Patent and Trademark Office. The ISF®-Process is a chemically accelerated vibratory mass finishing process patented worldwide by REM Chemicals, Inc USA.

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## REM ® ISF Microfinished Bearings and Races

### REM ® ISF Microfinished 9 inch Ford Center Section Bearings and Races

REM KHM89410	Daytona pinion support race rear-KOYO
REM KHM89443	Daytona pinion support bearing rear-KOYO
REM KLM102910	1.781" ID x 2.891" OD carrier race
REM KLM102949	1.781" ID x 2.891" OD carrier bearing
REM KLM 104911	2.00" ID x 3.250" OD race
REM KLM104949	2.00" ID x 3.250" OD bearing
REM KLM603011	1.781" ID 3.062" OD race
REM KLM603049	1.781" ID 3.062" OD bearing
REM KM88010	stock pinion race
REM KM88048	stock pinion bearing
REM BA1535TAV	pilot bearing
REM PRace	adaptor race carrier bearing (3.250" to 2.891")
REM T2729	35 spline pinion front race
REM T2788	35 spline pinion front bearing
REM THM804810	35 spline pinion race rear
REM THM804846	35 spline pinion race bearing rear



### REM ® ISF Microfinished GRAND NATIONAL 2.5" HUB BEARINGS and RACES

REM GNHBAK	GN hub install kit with bearings, seal, o-ring and lock washer
REM ZGNBL610510	GN hub race only
REM ZGNRL610549	GN hub bearing only
REM ZGNBRKit	GN Bearing and Race Kit 2 pieces each

### REM ® ISF Microfinished Wide 5 Hub Bearings and Races

REM P18690	W5 outer wheel bearing
REM P18620	W5 outer wheel race
REM P18790	W5 inner wheel bearing
REM P18720	W5 inner wheel race
P23756LD	W5 seal hub LOW DRAG
REM PLMWide5Kit	W5 bearing and race kit - one wheel
REM PLMWide5KitLodrag	W5 bearing & race kit with Low Drag seal - one wheel
REM PLMWide5KitLodragLocking	W5 bearing & race kit with Low Drag seal and wide 5 alum. locking



### REM ® ISF Microfinished Modified hybrid front Hub Bearings and Races

REM PL68149	modified hybrid inner wheel bearing
REM PL68110	modified hybrid inner wheel race
REM PLM12749	modified hybrid outer wheel bearing
REM PL12710	modified hybrid outer wheel race
REM PLHybridKit	modified hybrid bearing and race kit with seal- one wheel

### REM ® ISF Microfinished GM Metric front wheel Bearings and Races

REM PLM12649	GM metric outer wheel bearing
REM PLM12610	GM metric outer wheel race
REM PLM67048	GM metric inner wheel bearing
REM PLM67010	GM metric inner wheel race
REM PLMetricKit	GM metric bearing and race kit with seal- one wheel

GD \ αeh#Q dqr #Fhudp lf#Oxeulfdwqj #J uhdvh####  
#v#d#p xvw#iru#JHP #VI#lqvkng#Z khhd#Ehdulqj v#

1 ounce syringe

16 ounce tube




**DAYlube™** is a high performance, highly stable lubricant that delivers unmatched performance, durability and wear resistance. Nano Ceramic particles – the Key component – act as submicroscopic ball bearings that have an affinity for steel, providing continuous lubrication at the surface. These are fabricated over a calcium sulfonate thickener and offer a lower Coefficient of Friction at all temperatures.



## REM ® ISF Microfinished Bearings and Races

### REM ® ISF Microfinished 9 inch Ford Installation Kits

<b>REM PEM1 PREMIUM</b>	F9BK1781ID2891OD, F9RPKCS, HH7162034G8K	
<b>REM PEM2 PREMIUM</b>	F9BK1781ID3060OD, F9RPKCS, HH7162034G8K	
<b>REM PEM3 PREMIUM</b>	F9BK1781ID2891OD, F9SPSP, F9SPS, HH7162034G8K	
<b>REM PEM4 PREMIUM</b>	F9BK1781ID3060OD, F9SPSP, F9SPS, HH7162034G8K for stock pinion support	
<b>REM PEM5 PREMIUM</b>	F9BK1781ID3060OD, F9SPSPL, F9SPS, HH7162034G8K fits Daytona support	
<b>REM PEM6 PREMIUM</b>	F9BK2001ID3250OD, F9SPSP35, HH7162034G8K fits 3.250" carrier bearings, 35 spline pinion support	
<b>REM PEM7 PREMIUM</b>	F9BK2001ID3250OD, F9SPSPL, F9SPS, HH7162034G8K fits small Daytona pinion support	
<b>REM PEM8 PREMIUM</b>	F9BK1781ID2891OD, F9SPSPL, F9SPS, HH7162034G8K fits Daytona support	
<b>REM PEM9 PREMIUM</b>	Complete Bearing Install Kit for 3.25" case, 2.891" carrier bearings, 31 spline, small Daytona support and adaptor races	
<b>REM PEM10 PREMIUM</b>	F95BK225ID3250OD, F9SPSP35, HH7162034G8K fits 3.812" carrier bearings, 35 spline pinion support	
<b>REM PEM11 PREMIUM</b>	Complete Bearing Install Kit for 3.25" case, 2.89" carrier bearings, stock support with PRace adaptor races	

### REM ® ISF Microfinished Quick Change Rear Ends Bearings and Races

<b>REM P27820OD</b>	quick change pinion race - holds 2 bearings
<b>REM P27880</b>	quick change pinion tapered roller bearing
<b>REM P27880Kit</b>	quick change pinion bearing kit - 2 bearings, race and spacer
<b>REM P362A</b>	quick change race for P368S and P368
<b>REM P368A</b>	quick change 2.000" spool bearing
<b>REM P368S</b>	quick change 2.032" spool bearing
<b>REM PMU1205</b>	quick change pinion support bearing



### REM ® ISF Microfinished 8" Transmission Slip Yoke with Extra Clearance

**YSYXL8F** with extra u-joint clearance FORGED 8" slip yoke, 27 spline for Bert, Brinn and Falcon transmissions



## Cryogenic Treatment

Cryogenic Treatment is the process of treating work pieces to cryogenic temperatures (i.e. below -190 °C (-310 °F)) in order to remove residual stresses and improve wear resistance on steels. This is an option when you purchase a ring & pinion or an assembled center section from PEM. Cryogenic Treatment will add approximately 10-14 days to your order.

- Ring & Pinion up to 10" OD \$ 75.00
- Valve Springs for two Sets \$ 75.00
- Minimum Charge for Cryo \$ 75.00
- We will quote Cryo Treatment on other parts not listed.



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## PEM Street Kits



### Ford 9 inch New Small Web Street Kits

**STKit SmW OD** 49-64" wide Rear End Housing Kit with an Open Differential, 31 spline axles and Disc Brake Kit.

**STKit SmW TL** 49-64" wide Rear End Housing Kit with a Trac Loc, 31 spline axles and Disc Brake Kit.

**STKit SmW TT** 49-64" wide Rear End Housing Kit with an Eaton True Trac, 31 spline axles and Disc Brake Kit.

**STKit SmW HT** 49-64" wide Rear End Housing Kit with a Heli-Trac, 31 spline axles and Disc Brake Kit.

### Muscle Ford 9 inch Street Kit

**STKit M OD** Muscle Ford 9 inch New HNF9 Stamped 49-64" wide Rear End Housing Kit with an Open Differential, 31 spline axles and Disc Brake Kit.

**STKit M TL** Muscle Ford 9 inch New HNF9 Stamped 49-64" wide Rear End Housing Kit with a Trac Loc, 31 spline axles and Disc Brake Kit.

**STKit M TT** Muscle Ford 9 inch New HNF9 Stamped 49-64" wide Rear End Housing Kit with a Eaton True Trac, 31 spline axles and Disc Brake Kit.

**STKit M HT** Muscle Ford 9 inch New HNF9 Stamped 49-64" wide Rear End Housing Kit with a Heli-Trac, 31 spline axles and Disc Brake Kit.



### Quick Change Street Kit with a TrueTrac Differential



**STKit QC** Base kit includes Housing and 31 Spline Axles

**STKit QC B** Complete kit includes Housing, 31 spline axles, Disc Brake Kit and Standard QC gear set

**STKit QC B with E** Complete kit includes Housing, 31 spline axles, Disc Brake Kit with E brake and Standard QC gear set

**QCO3000** Upcharge for Polishing



All kits available can be ordered with integrated Emergency Brake Calipers and Dimpled & Slotted Rotors as upgrades upon request or you can order housing kits without brakes.

## PEM Street Kits



### Hot Rod Ford 9 inch Street Kit

**STKit HR OD** Hot Rod Ford 9 inch New Smooth 49-64" wide Rear End Housing Kit with an Open Differential, 31 spline axles and Disc Brake Kit.

**STKit HR TL** Hot Rod Ford 9 inch New Smooth 49-64" wide Rear End Housing Kit with a Trac Loc, 31 spline axles and Disc Brake Kit.

**STKit HR TT** Hot Rod Ford 9 inch New Smooth 49-64" wide Rear End Housing Kit with an Eaton True Trac, 31 spline axles and Disc Brake Kit.

**STKit HR HT** Hot Rod Ford 9 inch New Smooth 49-64" wide Rear End Housing Kit with a Heli-Trac, 31 spline axles and Disc Brake Kit.



### GM A-Body 9 inch Street Kits

**STKit GM A-Body OD** 1964-1967 Chevelle, Cutlass, Regal, Lemans, GTO, etc. 60.5" or 1968-1972 Chevelle, Cutlass, Regal, Lemans, GTO, etc. 62.5" wide Rear End Housing with an Open Differential, 31 spline axles & Disc Brake Kit.

**STKit GM A-Body TL** 1964-1967 Chevelle, Cutlass, Regal, Lemans, GTO, etc. 60.5" or 1968-1972 Chevelle, Cutlass, Regal, Lemans, GTO, etc. 62.5" wide Rear End Housing with a Trac Loc, 31 spline axles & Disc Brake Kit.

**STKit GM A-Body TT** 1964-1967 Chevelle, Cutlass, Regal, Lemans, GTO, etc. 60.5" or 1968-1972 Chevelle, Cutlass, Regal, Lemans, GTO, etc. 62.5" wide Rear End Housing with an Eaton True Trac, 31 spline axles & Disc Brake Kit.

**STKit GM A-Body HT** 1964-1967 Chevelle, Cutlass, Regal, Lemans, GTO, etc. 60.5" or 1968-1972 Chevelle, Cutlass, Regal, Lemans, GTO, etc. 62.5" wide Rear End Housing with a Heli-Trac, 31 spline axles & Disc Brake Kit.



### GM G-Body 9 inch Street Kits

**STKit GM G-Body OD** 1978-1988 New HNF9 Stamped Rear End Housing with an Open Differential, 31 spline axles and Disc Brake Kit.

**STKit GM G-Body TL** 1978-1988 New HNF9 Stamped Rear End Housing with a Trac Loc, 31 spline axles and Disc Brake Kit.

**STKit GM G-Body TT** 1978-1988 New HNF9 Stamped Rear End Housing with An Eaton True Trac, 31 spline axles and Disc Brake Kit.

**STKit GM G-Body HT** 1978-1988 New HNF9 Stamped Rear End Housing with a Heli-Trac, 31 spline axles and Disc Brake Kit.

**STFHNM295285** 58" GM G-Body Housing Only

**STFHNM300290** 59" GM G-Body Housing Only

**STFHNM305295** 60" GM G-Body Housing Only

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## PEM Street and Drag Racing Kits

### Other Street Kits Available

- B-Body 1959-1964 Impala/ Bel Air/ Biscayne
- F-body Camaro and Firebird  
1967-1969, 1970-1981 and 1982-1992
- C-10 Pickup 1967-1970/ 1970-1972
- Tri-Five 1955-1957 Chevrolet Passenger Cars
- Mustang 1964-1966
- Nova 1962-1967

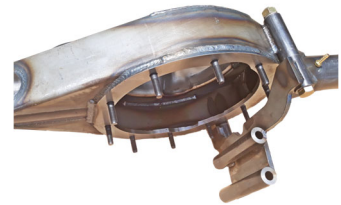
**Other kits added periodically,  
call and ask for a street rod  
specialist if you do not see  
your application.**



C-10 Pickup Housing with  
Disc Brakes Installed



1993-2002 Camaro / Firebird  
9 inch Ford Rear End Housing



### DRAG RACE HOUSING and Kit

- With back brace
- Kit available with 31 or 35 spline flanged axles
- Must fill out custom order form with dimensions
- Custom 35 or 40 spline axles available in shorter widths with screw in studs
- 4 link mounts available. Must fill out custom order form with all dimensions and instructions for the 4 link installation.



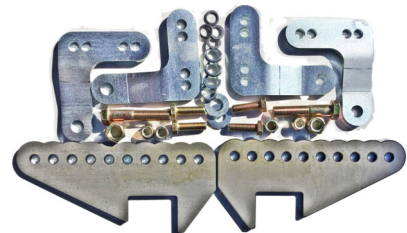
### COILOVER SHOCK MOUNTING KITS

#### SMK-2

Weld On Main Shock Bracket

#### SMK-3

Weld On Main Bracket for  
Square Back Brace



## PEM Econo Rear Brake Kits



### B-ON DBK DS

### B-ON DBK-with E DS

Bolt-on 9 inch Ford disc brake kit with or without GM metric emergency brake calipers, pads, mounting bolts and fitting bolts. **Dimpled and Slotted rotors.**

#### Two sizes available:

- Big Ford fits both sizes of housing ends for a 3.15" OD bearing
- Small bearing fits small Ford housing end for a 2.83" OD bearing

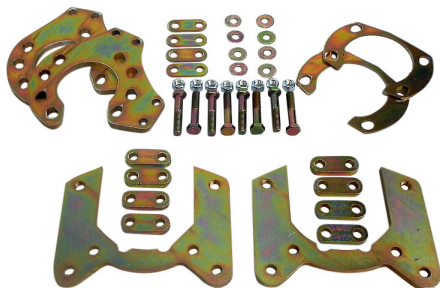
### B-ON DBK

### B-ON DBK-with E

Bolt-on 9 inch Ford disc brake kit with or without GM metric emergency brake calipers, pads, mounting bolts and fitting bolts.

#### Two sizes available:

- Big Ford fits both sizes of housing ends for a 3.15" OD bearing
- Small bearing fits small Ford housing end for a 2.83" OD bearing

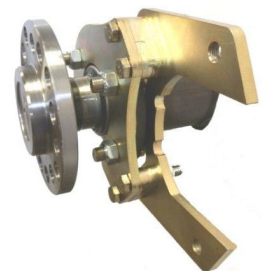


### Rear Bolt-On Rear Bracket Set

**B-On BracketKit** fits both sizes of big Ford housing ends for a 3.15" OD bearing.

### B-On BracketKit Small Ford

fits small Ford housing end for a 2.83" OD bearing.



Axle not included

*These brackets must be used with PEM Econo Street Rotor on pg. 38*

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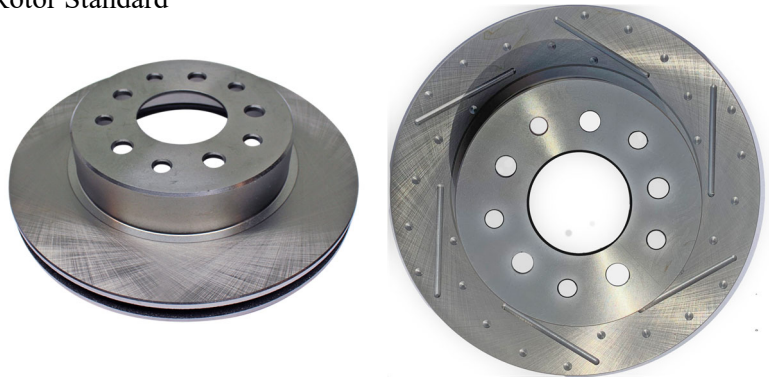
## PEM Brake Kits and Components

### R960x11250 Street Rod Rear Brake Rotor Standard

#### R960x11250 DS Dimpled and Slotted

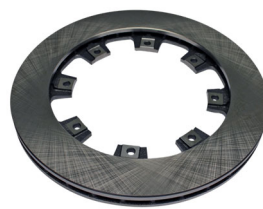
- .960" wide x 11.25" OD
- Dual bolt circle 5 x 4 1/2" and 5 x 4 3/4"
- Brake hat back spacing is 2.25"
- Hub register is 2.78" ID
- 6.25" ID for axle flange
- Rotor hat thickness .250"
- Wheel stud hole size in rotor 5 x 4.5" is 1/2" and 5 x 4 3/4" is 7/16"

*This is the rotor for our PEM econo brake kits.*



#### R810x11750

11.75" OD x .810" wide vented rotor 8 bolt x 7" bolt circle for GN hubs



#### BCalsp1

GM metric caliper spacer for .810 rotor. Fits 2.045" ID piston.



#### W-ON DBK with E

Weld-on 9 inch Ford disc brake kit with GM metric emergency brake calipers.

**Fits up to 3.25" OD axle tube**

GM metric emergency brake calipers with D154 disc brake pads, mounting bolts and fitting bolts.

#### W-ON DBK

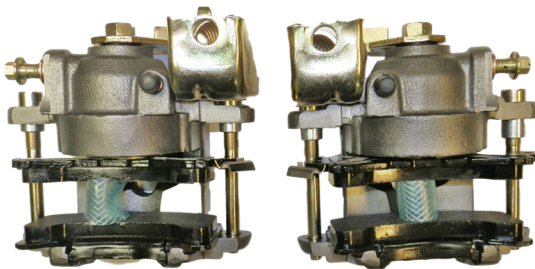
Weld-on 9 inch Ford disc brake kit with standard GM metric brake calipers.

**Welds on 3.25" OD axle tube for GN Hubs**

GM metric 11.25" rotor, brake calipers with D154 disc brake pads, mounting bolts and fitting bolts.

#### BrakeSet with E

Right and Left GM metric emergency brake calipers with D154 disc brake pads, mounting bolts and fitting bolt.



**W-On BMB3125Set** pair of weld-on brake brackets for weld-on Econo Street Kit, 3.25" tube

**W-On BBMSet** pair of weld-on brake brackets for 11.75" x .810" GN racing rotor, 3.25" tube

#### DrumBrakeKit



PEM 9 inch Ford Drum Brake Kit

- 11" ID x 2.75"
- Drum OD is 12.625"
- 2.88" hub register size
- Brake shoes are 2.25" wide
- All new drums, backing plates, brake shoes and hardware

#### Specify;

- Housing end pattern New Style Big Ford 3/8" Torino
- Wheel bolt pattern 5 x 4 1/2, 5 x 4 3/4, 5 x 5, or 5 x 5 1/2



## Offroad, Jeep and CV Style Drive Shafts

PEM offers stock replacements or complete custom builds based off the needs of your off-road vehicle. From mall crawler to rock bouncer, PEM can combine larger CV heads, spline sizes, heavier wall tube, t-case yokes and differential yokes to create exactly what you need. Give us a call to get your build started.

- **DS-JK1310FK Stock** Front JK drive shaft replacement kit includes: transfer case, yoke and greaseable 1310 u-joints
- **DS-JK1310RK Stock** Rear JK drive shaft replacement Kit includes: transfer case yoke, differential yokes, hardware and greaseable 1310 u-joints
- **DS-JK1310SFK** Front JK drive shaft replacement kit includes: transfer case and differential yokes, with solid 1310 u-joints and full spline stub shaft
- **DS-JK1310SRK** Rear JK drive shaft replacement kit includes: transfer case, differential yokes, solid 1310 u-joints and full spline stub shaft
- **DS-JK1350FK** Front JK drive shaft only includes: transfer case flange, differential yoke, solid 1350 u-joints and full spline stub shaft
- **DS-JK1350RK** Complete Rear JK drive shaft includes: transfer case flange, differential yoke, solid 1350 u-joints, hardware and full spline stub shaft
- **N909365-2600** 1310 CV DS 2" x .120" Tube size, 1.375"-16 spline slip and stub max length extended 45.94"/Compressed 42.84"
- **N909363-2600** 1310 CV DS 2.5" x .083" Tube size, 1.375"-16 spline slip and stub max length extended 48.32"/Compressed 44.19"



## PEM Gear Sets, Spools and Spindles

### Dana Ring & Pinions

**FULL RANGE OF  
SPICER  
AFTERMARKET  
GEARS...**



### Spools & Mini Spools

**FSD6030-1** Dana 60 Full Spool 4.56 and up 30 spline  
**FSD6035-6** Dana 60 Full Spool 4.10 and down ratio 35 spline  
**FSD6035** Dana 60 Full Spool 35 spline Ratio 4.56 and up  
**MSD44-30** 30 Spline Mini Spool for Dana 44  
**FSD4430** Dana 44 Full Spool 30 spline 3.92 thru 5.89 ratios  
**Full line** of Ford 31/ 35/ 40 spline spools  
**FSGM14BTruck** GM14 Bolt Truck 89-67 Full Spool 4.10 and down, 10.5" 30 Spline

### Dana 44 Front Spindles

**SpD44L77-87** Dana Late 77-87 Chevy & GMC 1/2ton K10 Pickup, K5 Blazer, Jimmy & Suburban, Dana 44 or Corporate 8 1/2", 88-91 Chevy Blazer, Suburban, GMC Jimmy



## DANA SPICER/ NEAPCO / AAM / RCV / ROCKWELL

### Drive Shaft Components

CV Heads, Flange Yokes, Companion Flanges, Slip Yokes, End Yokes, Tube Yokes, Stub Shafts, Yoke Shaft, Carrier Bearings, CV Components, Universal Joints and Tube sizes ranging from 1.25 - 5" OD with wall thickness up to .250" thick. From DOM Steel, Chrome Moly or Aluminum



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## Transfer Case, Flange and Differential Yokes

**SY1310-3520** 1310-27 Spline High Angle 22 Degree Non CV Slip Yoke

**SY1310-3505** 1310-27 Spline CV Slip Yoke, Uses Double Cardan CV Standard Components

**EY1410-1026** 1410 10.25 U-Bolt Early 83-92

**EY1410-1029** 1410 10.5 U-Bolt Late 93+

**EY1410-6050** 1410 DANA 60-61-70 U-Bolt Style Differential Yoke

**N2-4-JK01** 1310 T-Case Yoke U-Bolt Style JK 07-Newer

**N2-4-JK02** 1310 Diff Yoke (Rear) U-Bolt Style JK 07-Newer

**N2-4-JK03** 1310 T-Case Yoke CV Style JK 7-Newer

**N3-4-JK04** 1350 Jeep JK Differential Yoke (Rear)

**N3-1-JK05** JK07-17 T-Case Rear 1350 Flange

**N3-1-JK07** 1350 Companion Flange Front Transfer Case JK07-Newer

**N3-4-JK08** 1350 Pinion Yoke

**YD601350** 1350 Dana 60 1350 Forged Yoke

**N2-4-8091X** 1310 End Yoke Dana 44 1.146-26 Spline

**AAM 40055527** 1415 Flange Yoke- RAM

**AAM 40019801** 1344/3R Serrated Flange Yoke- Dodge

**AAM 40055528** 1485/1480 Flange Yoke

**N3-2-1579** 1350 Flange Yoke 4.25" B.C. 2.00" pilot

**YF881330** 1330 Ford 8.8" Yoke Forged

**YF881350** 1350 Ford 8.8" Yoke Forged

**YC12B1350** 1350 Chevy 12 Bolt Forged Yoke

**YGMC10B1350** 1350 GM 10 Bolt Forged Yoke

## Axles, Side by Side and UTV Parts

### RCV Performance Ultimate CV Axles

Simply replace your weak u-joint axle shafts with a high-strength constant velocity design. Tests prove Ultimate CV Axles to be twice as strong as OEM axle shafts, and they are just as tough at a straight angle as they are at extreme angles - where u-joints are the weakest. Ultimate CV Axles also eliminate u-joint binding to allow smooth transfer of power to the ground. Ultimate CV Axles are low maintenance and operate with a smoothness you can feel - whether off road or on the street.



**DANA 30, 44 and 60 axles**  
**CHROME MOLY and 1541**

**We can repair, build and balance Side by Side drive shafts using OEM or chrome moly components. We can also upgrade you to a heavier than stock tube.**



### CV JOINT KITS

ATV & UTV CV Joint Kits

### CAGES AND INNER RACES

### HALF SHAFTS

ATV & UTV Half Shafts

### CV REBUILD KITS

ATV & UTV CV Joint Rebuild Kits

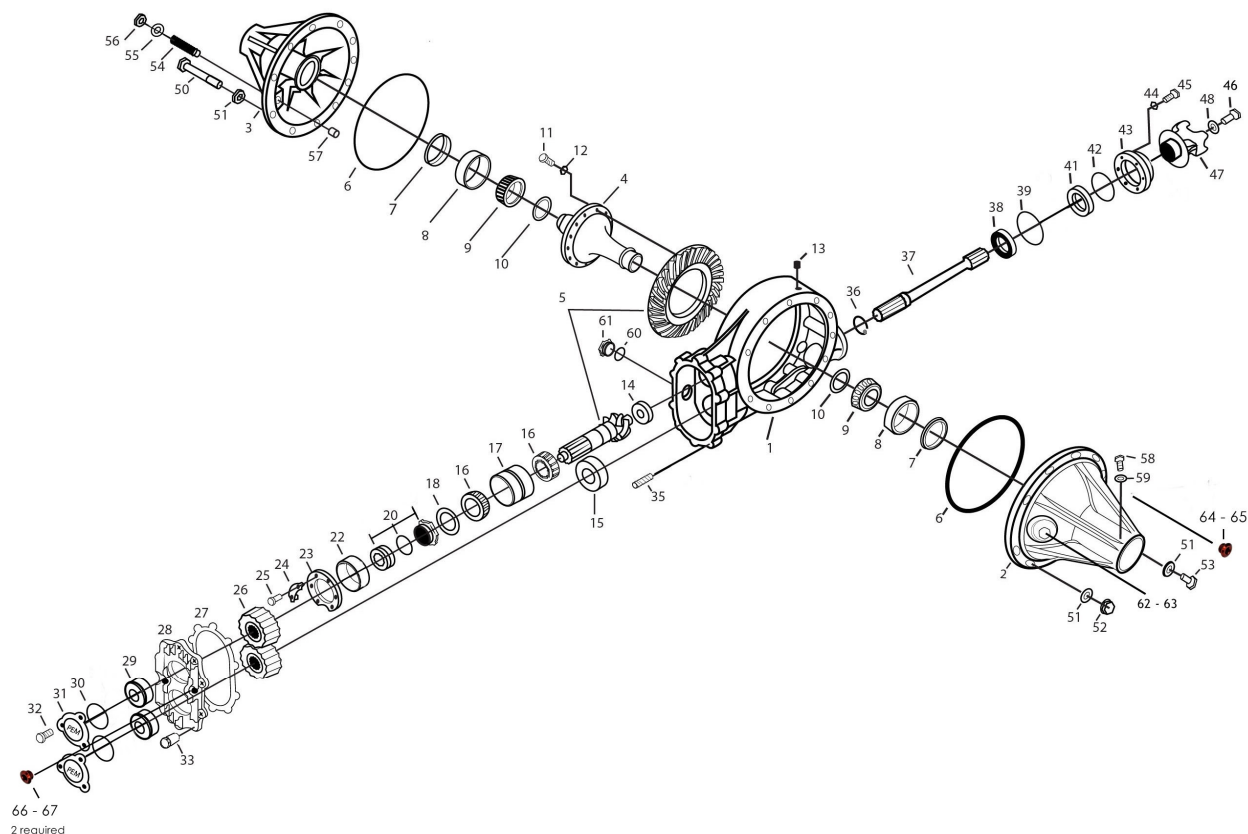
### U-JOINTS

ATV & UTV U-Joints

### AXLES AND ULTIMATE BALL JOINTS

## PEM Quick Change Standard Rear Schematic

#	Part Number	Description	Qty	#	Part Number	Description	Qty
1	QCC0010	center section	1	35	QCC0113	back cover stud	10
2	QCC0020	driver side 6 rib sidebell	1	36	QCC0120	lower shaft bearing retainer snap ring	1
3	QCC0030	passenger side 6 rib sidebell	1	37	QCC0060	lower solid thru shaft	1
4	QCFS31	aluminum spool 2.032" journal	1	38	P7390	front lower shaft bearing 6307ZZ	1
5	QC###R&P	ring & pinion	1	39	QCC0121o	rear yoke plate o-ring	1
6	QCC0118	side bell o-ring- thin square	2	41	QCC0126	yoke seal	1
7	QCC0107	carrier seal	2	42	QCC0080o	yoke seal plate o-ring	1
8	P362A	race for P368S and P368	2	43	QCC0080	yoke seal plate-bare	1
9	P368S	2.032" spool bearing	2	44	QCC0109	yoke plate washer	6
10	QCC0133	spool shim Kit- 12 piece kit	1	45	QCC0106	yoke seal plate bolt	6
11	QCC0131	ring gear bolt	12	46	QCC0116	yoke retainer bolt only	1
12	QCC0132	ring gear washer	12	47	QCC0090	forged yoke-1310 series	1
13	QCC0127	1/4"-18 allen head pipe plug, steel	1	48	QCC0117	washer for yoke	1
14	PMU1205	pinion support bearing	1	50	QCC0141	thru bolt	10
15	P7339	rear lower shaft bearing 6207ZZ	1	51	QCC0143	thru bolt washer	22
16	P27880	pinion tapered roller bearing	2	52	QCC0144	thru bolt 2 way flange loc nut	10
17	P278200D	pinion race- holds 2 bearings	1	53	QCC0142	bolt	2
18	QCC0145	pinion thrust washer	1	54	QCC0110	thrust bolt	1
20	QCC0103	posi lock nut alum. for pinion RH Thread	1	55	QCC0136	thrust flat washer-aluminum	1
22	QCC0102	spacer under pinion retainer	1	56	QCC0135	thrust jam nut-aluminum	1
23	QCC0100	rear pinion retainer plate	1	57	QCC0137	thrust block	1
24	QCC0101	pinion retainer lock	3	58	QCC0129	tube bell bolt	12
25	QCC0106	pinion retainer bolt	6	59	QCC0109	tube bell washer	12
26	6####	quick change gears (not included)		60	QCC0115o	center section fill plug o-ring	1
27	QCC0105	rear cover gasket	1	61	QCC0115	center section fill plug	1
28	QCC0040	back cover plate- bare	1	62	QCC0128o	passenger side inspection/fill plug o-ring	1
29	QCC0108	back cover bearing standard	2	63	QCC0128	passenger side inspection/fill plug	1
30	QCC0112o	o-ring for back cover retainer	2	64	QCC0114o	passenger side fill level plug o-ring	1
31	QCC0123	back cover bearing retainer- aluminum	2	65	QCC0114K	passenger side fill level plug with 0-ring	1
32	QCC0122	back cover bearing retainer- bolts	6	66	QCC0114o	standard back cover plug o-ring	2
33	QCC0119	back cover short red nut- aluminum	10	67	QCC0114K	standard nback cover plug with 0-ring	2
				68	QCC0125	bottom drain plug, 3/8 npt steel	1

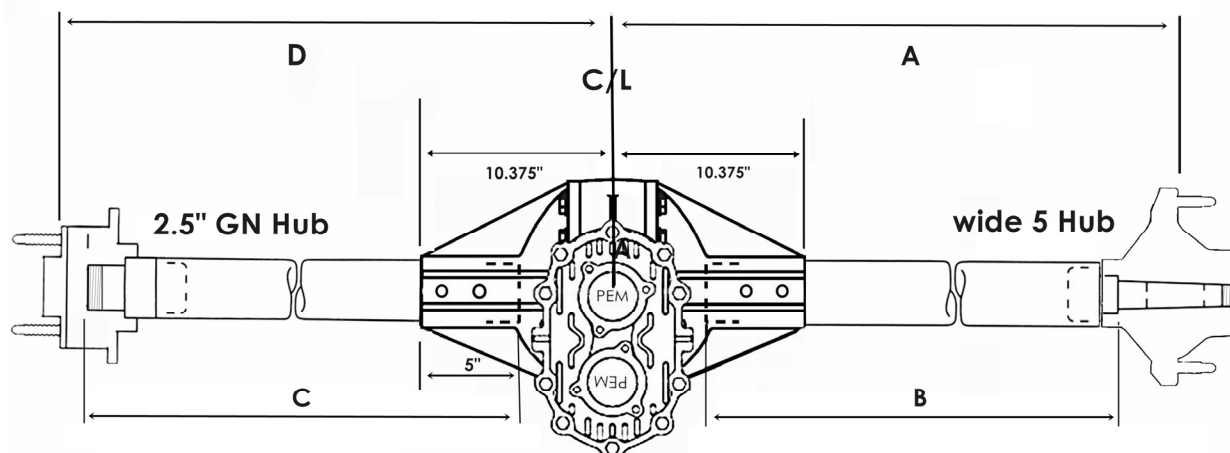


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## Quick Change Rear End Custom Order Build Sheet



### GN 2.5" Rear End

**C** \_\_\_\_\_ Driver side tube with snout measurement (total length)

**C** \_\_\_\_\_ Passenger side tube with snout measurement (total length)

#### Driver side dimension D

Center line to wheel mounting surface

#### Tube Options:

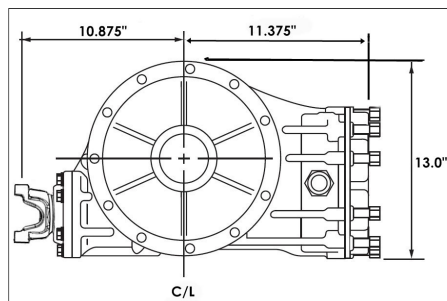
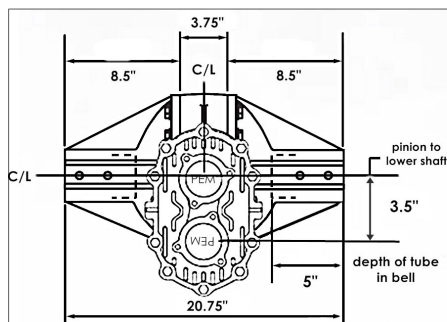
- \_\_\_\_\_ .188" wall DOM Steel
- \_\_\_\_\_ .188" wall Chrome Moly
- \_\_\_\_\_ .625" wall DOM Steel

#### Passenger side dimension A

Center line to wheel mounting surface

#### Tube Options:

- \_\_\_\_\_ .188" wall DOM Steel
- \_\_\_\_\_ .188" wall Chrome Moly
- \_\_\_\_\_ .625" wall DOM Steel



### Wide 5 Rear End

**D** \_\_\_\_\_ Driver side dimension

#### Tube Options:

- \_\_\_\_\_ .188" wall DOM Steel
- \_\_\_\_\_ .188" wall Chrome Moly
- \_\_\_\_\_ .625" wall DOM Steel
- \_\_\_\_\_ .250" wall wide 5 Aluminum
- \_\_\_\_\_ 1 ton Aluminum

**A** \_\_\_\_\_ Passenger side dimension

#### Tube Options:

- \_\_\_\_\_ .188" wall DOM Steel
- \_\_\_\_\_ .188" wall Chrome Moly
- \_\_\_\_\_ .625" wall DOM Steel
- \_\_\_\_\_ .250" wall wide 5 Aluminum
- \_\_\_\_\_ 1 ton Aluminum

**B** \_\_\_\_\_ Driver side bearing step to end of tubing

**B** \_\_\_\_\_ Passenger side bearing step to end of tubing

### Standard QC Rear End Options:

- \_\_\_\_\_ QCO1000 lightened spool \*\*
- \_\_\_\_\_ QCO1100 9.5" outside diameter ring gear
- \_\_\_\_\_ QCO1200 9.0" outside diameter ring gear (crate)
- \_\_\_\_\_ QCO1300 black thermal coating \*\*
- \_\_\_\_\_ QCO1400 REM finish ring & pinion \*\*
- \_\_\_\_\_ QCO1500 REM finish all bearings and races \*\*
- \_\_\_\_\_ QCO1600B gundrilled axles option for GN kit \*\*
- \_\_\_\_\_ QCO1750 .188" wall chrome moly tubes
- \_\_\_\_\_ QCO1900 Wilwood spec 37 brake rotors for GN kit
- \_\_\_\_\_ QCO2000 gundrilled lower shaft \*\*
- \_\_\_\_\_ QCO2100 assembled big box, does not include truck freight- bells and tubes bolted to center
- \_\_\_\_\_ QCO2200 upcharge to install 5/8th steel tube on GN rear end, specify side
- \_\_\_\_\_ QCO2250 upcharge to install 5/8th steel tube on wide 5 model rear end, specify side

- \_\_\_\_\_ QCO2300 upcharge for breather kit \*\*
- \_\_\_\_\_ QCO2400 upcharge for GM mounts metric with single hole lower
- \_\_\_\_\_ QCO2450 upcharge for GM mounts metric with multi hole lower
- \_\_\_\_\_ QCO2600-1 upcharge for aluminum locking GN nuts
- \_\_\_\_\_ QCO2700 upcharge for 6 bolt big bearing rear cover \*\*
- \_\_\_\_\_ QCO2800 upcharge for 8 rib bells (pair)
- \_\_\_\_\_ QCO2900 upcharge for one ton aluminum tube (per side) on late model rear end
- \_\_\_\_\_ QCO3300 upcharge for longer forged rear End Yoke
- \_\_\_\_\_ QCO3400 upcharge for scalloped GN drive flange
- \_\_\_\_\_ QCC3500 upcharge for .250" wall DOM steel GN tubes
- \_\_\_\_\_ QC03600 upcharge for GN 4.75 bolt pattern hubs

**\*\* STANDARD ON MAX REAR ENDS**

# Drive Shaft Custom Build Order Form

All measurements must be taken at vehicle ride height with pinion angle set.

Figure 1

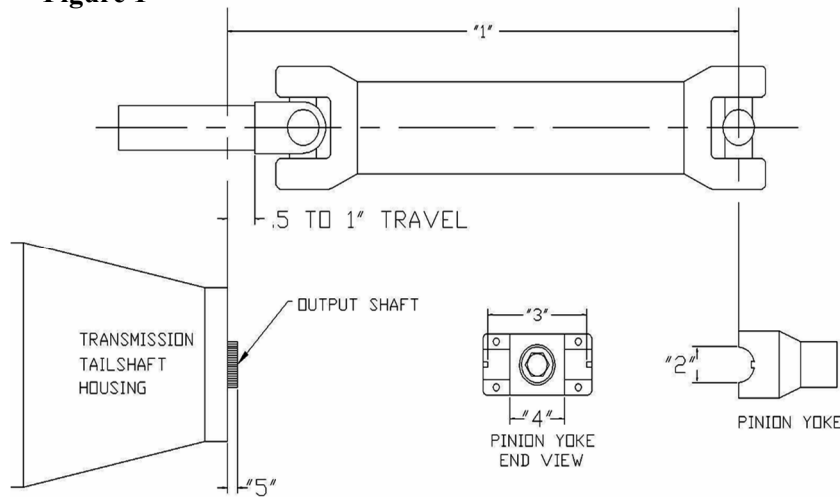


Figure 2

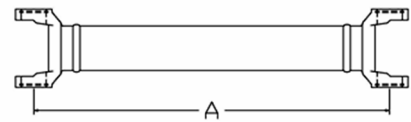
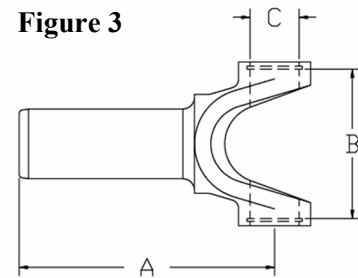


Figure 3



1. Length-1 from transmission to rear u-joint (refer to figure 1) \_\_\_\_\_
2. OR Length-A center to center u-joints (refer to figure 2) \_\_\_\_\_
3. Cap size OD Circle One: 1 1/16" or 1 1/8" or 1 3/16" \_\_\_\_\_
4. Width of outside Retaining u-joints (circle one): 3 7/32" or 3 5/8" \_\_\_\_\_
5. Inside Retaining u-joints \_\_\_\_\_
6. Length of extending output shaft \_\_\_\_\_
7. Additional Information \_\_\_\_\_

Slip Yoke (refer to figure 3)

(A) \_\_\_\_\_

(B) \_\_\_\_\_

(C) \_\_\_\_\_

Spline \_\_\_\_\_

Option:

Chrome Moly Slip Yoke \_\_\_\_\_

## DOM Steel x Wall thickness

2.0" OD x .083" wall \_\_\_\_\_  
 2.0" OD x .120" wall \_\_\_\_\_  
 2.5" OD x .083" wall \_\_\_\_\_  
 3.0" OD x .083" wall \_\_\_\_\_  
 3.5" OD x .083" wall \_\_\_\_\_  
 4.0" OD x .083" wall \_\_\_\_\_

## Carbon Fiber x Wall thickness

2.25" OD x .125" wall \_\_\_\_\_  
 2.25" OD x .125" wall (Superflex) \_\_\_\_\_  
 2.75" OD x .125" wall \_\_\_\_\_  
 2.88" OD x .155" wall \_\_\_\_\_  
 3.25" OD x .125" wall \_\_\_\_\_  
 3.75" OD x .125" wall \_\_\_\_\_  
 4.25" OD x .125" wall \_\_\_\_\_

## Aluminum x Wall thickness

3.0" OD x .125" wall \_\_\_\_\_  
 3.5" OD x .114" wall \_\_\_\_\_  
 3.5" OD x .125" wall \_\_\_\_\_  
 4.0" OD x .087" wall \_\_\_\_\_  
 4.0" OD x .125" wall \_\_\_\_\_  
 5.0" OD x .125" wall \_\_\_\_\_

## Chrome Moly x Wall thickness

2.0" OD x .065" wall \_\_\_\_\_  
 2.0" OD x .083" wall \_\_\_\_\_  
 3.0" OD x .083" wall \_\_\_\_\_  
 3.5" OD x .083" wall \_\_\_\_\_

Option: Chrome Moly Weld

Yokes available in:

3.0" \_\_\_\_\_ 3.5" \_\_\_\_\_

**TIPS:** The vehicle must be measured as it is to operate; DO NOT measure with the suspension hanging. Fill out all dimensions on the order to get the correct drive shaft with the correct yokes. Grease u-joints after you install the drive shaft. Some drive shafts have solid cross u-joints that don't need greased (permanent grease installed).

Do not over tighten u-bolts.

**Torque Specs:** Cap Size

1 1/16" and 1 1/8" 15-17 ft/lbs.

1 3/16" 15-25 ft/lbs.

1 3/8" 33-37 ft/lbs.

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## Flanged Rear End Housing Custom Order Build Sheet

### Flanged Housing Custom Build Sheet

*You must fill this build sheet out if you are having us build ANY custom housing that is not a stocking number.*

- Type of Application (circle one): street, drag race, circle track
- Housing Center Style (circle one): HNF9 New Stamped Center, HNF9RB New Stamped Center Round Back, New Stamped Small Web Round back Center
- Axle Brake Offset (circle one): 2 3/8" or 2 1/2"
- Housing End (circle one): Big Ford Old Style 1/2" bolt or Big Ford New Style Torino 3/8" bolt
- Tubing size (circle one): 3" OD x 3/16" wall or 3" x 1/4" wall
- Housing Drain Bung and plug, 3/4 npt: yes or no
- Housing Fill Bung and Plug, 3/4 npt: yes or no (*fills not available on round back rears*)
- Aluminum Housing Fill: yes or no
- Back Brace Installed (only for HNF9 center): yes or no

**Please provide these measurements from below diagram**

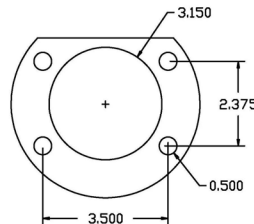
(D) \_\_\_\_\_

(E) \_\_\_\_\_

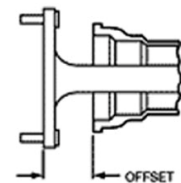
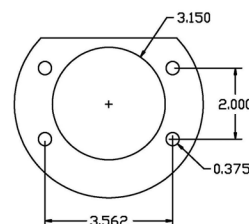
(F) \_\_\_\_\_

(G) \_\_\_\_\_

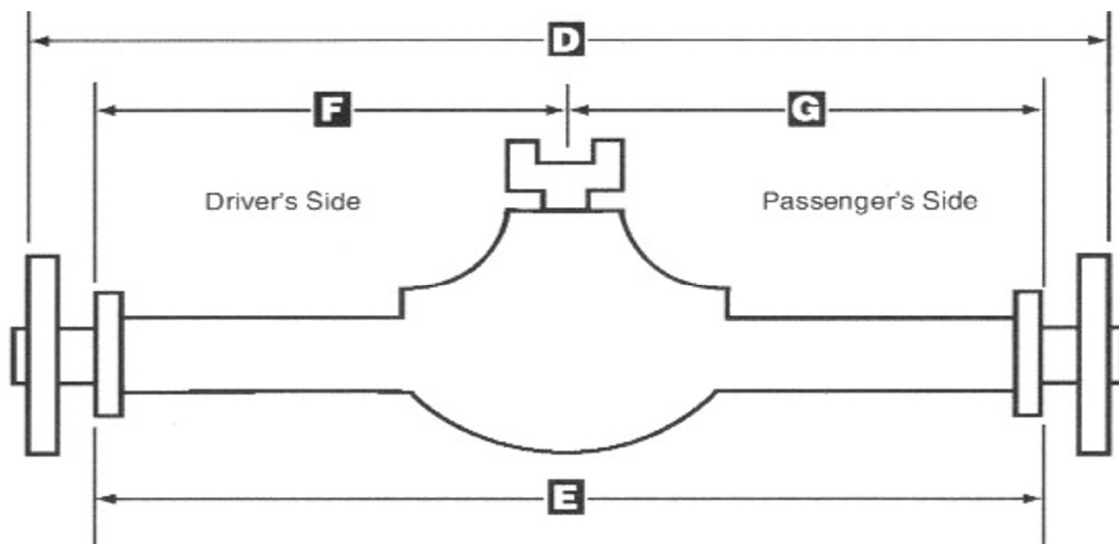
**Big Ford (Old Style)**



**Big Ford (Torino)**



**Axle Brake Offset**



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# FLANGED AXLE CUSTOM ORDER SHEET

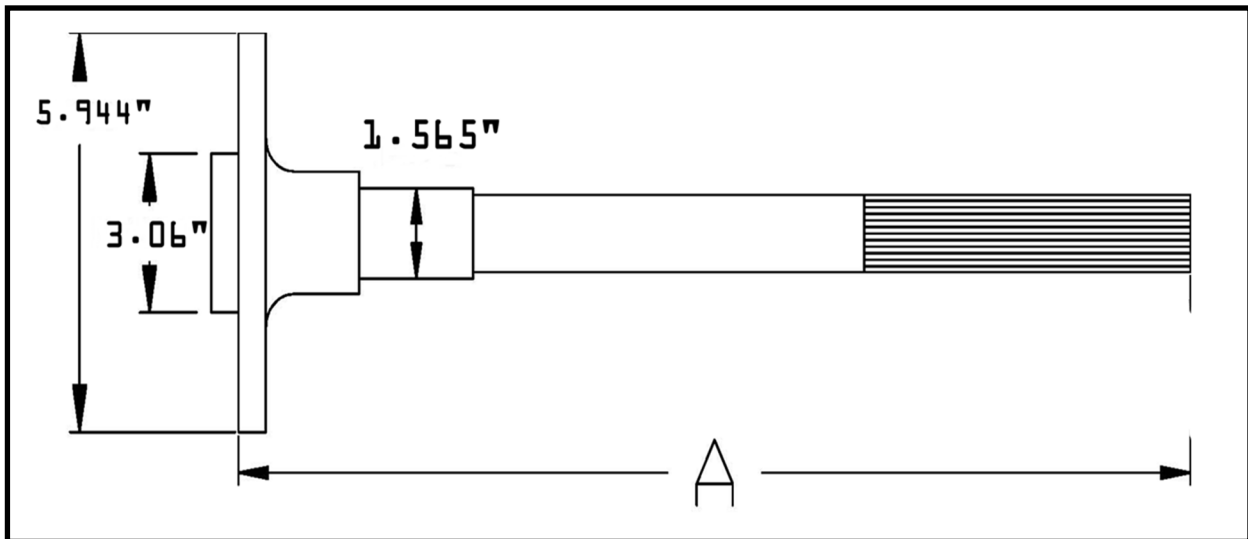
## Flanged Axle Custom Build Sheet

*You must fill this build sheet out if you are going to have PEM cut the flanged axles to length. Maximum axle length is 33.0" and Minimum length is 21.5"(applies to 28 and 31 spline only).*

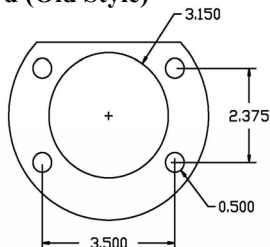
*35 spline axle maximum length is 31.75", minimum length is 23.5".*

*35 spline axles are only available with press in studs.*

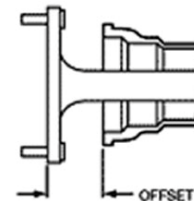
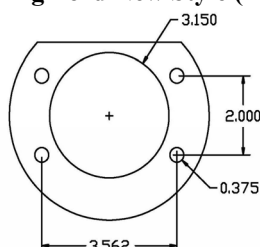
- **Type of Application:** (circle one) street, drag race, circle track
- **Axle Splines** (circle one): 28 spline 31 spline 35 spline
- **Axle Offset** drawing below (circle one): 2 1/2" or 2 3/8"
- **Turn Flange OD** (maximum 5.944") \_\_\_\_\_
- **Turn Hub Register** (maximum 3.06") \_\_\_\_\_
- **Driver Side A Measurement** \_\_\_\_\_
- **Passenger Side A Measurement** \_\_\_\_\_
- **Axle Retainer Pattern** (circle one): Big style Old Ford 1/2" or New Style Big Ford Torino 3/8"
- **Bolt Pattern** (circle one): 5 x 4.5" small Ford, 5 x 4.75" GM or 5 x 5"
- **Wheel Stud Size** press in only (circle one): 7/16" fine thread 1/2" fine short (custom wheels), 1/2" fine 3" long, 5/8" fine thread with quick start, 5/8" coarse thread 2 3/4" long with quick start, 5/8" coarse thread 3 3/4" long with quick start



**Big Ford (Old Style)**



**Big Ford New Style (Torino)**

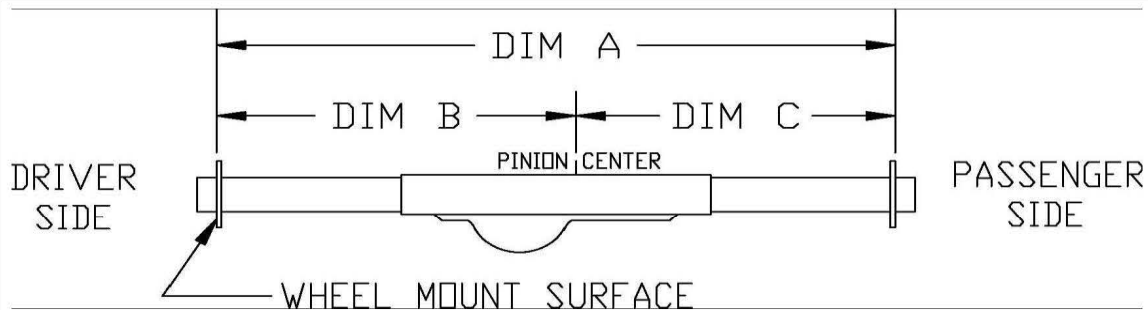


**Axle  
Brake Offset**

## 9 inch Ford Floater Custom Order Build Sheet

### PEM FORD 9" FLOATER HOUSING ORDERING FORM

636.629.6200 fax 636.629.6207



- **Dimension A:** Overall Length; Hub Face to Hub Face
- **Dimension B:** Driver side; Hub Face (Driver side) to Pinion Centerline
- **Dimension C:** Pass. side; Hub Face (Passenger side) to Pinion Centerline

Dimension A: \_\_\_\_\_ Dimension B: \_\_\_\_\_ Dimension C: \_\_\_\_\_

• **Center is a New Stamped Center HNF9**

- **Snouts** 2.5" GN snout \_\_\_\_\_ 2" Howe/Vogel \_\_\_\_\_  
Mini 5 or Coleman IMCA snout \_\_\_\_\_ wide 5 snout \_\_\_\_\_

• **Axle Tube Material**

- .188" wall D.O.M \_\_\_\_\_ .188" wall Chrome Moly \_\_\_\_\_  
.250" wall D.O.M. \_\_\_\_\_ .625" Heavy wall D.O.M for Left Rear \_\_\_\_\_  
Centerless Ground .188" wall DOM Rear End Tubes 2.999" to 3.00" \_\_\_\_\_

• **GM Metric Brake Brackets**

weld on installed \_\_\_\_\_

• **GM Metric Trailing Arm Mounts Top & Bottom with 4 degrees pinion angle**

single hole lower mounts installed \_\_\_\_\_ multi hole lower mounts installed \_\_\_\_\_

**GN 2.5" Hubs**

- GNHK5x4  $\frac{3}{4}$  \_\_\_\_\_ 5x4  $\frac{3}{4}$  Grand National with steel drive flange  
GNHK5x5 \_\_\_\_\_ 5x5 Grand National with steel drive flange  
5/8" coarse Hub Wheel studs standard long \_\_\_\_\_ short \_\_\_\_\_

• **Brake Rotors**

.810" wide x 11.75" OD vented \_\_\_\_\_ 1" wide x 11.75" OD Wilwood Spec 37 \_\_\_\_\_

• **Axle Sets**

28 spline solid \_\_\_\_\_ 31 spline solid \_\_\_\_\_ 31 spline Gun Drilled \_\_\_\_\_

NOTE: Axle lengths will match accompanying housing dimensions

## REAR END TECHNICAL INFORMATION and SET UP SPECIFICATIONS

**Technical Information for Ford 9 inch 6:66, 6:83, and 7:00 ring & pinions:** PEM recommends using a Daytona style support, solid pinion spacer, and an inner seal in the outer axle tube. Without these 3 things, your gears and bearing will get too hot and will cause the gears to anneal. Annealing will destroy the heat treatment applied to the gears at the factory making them soft. This is why gears will appear to have MELTED to some degree. **PEM highly recommends** a high pressure synthetic or synthetic blend and a rear end oil cooler in all three of these gear applications for the best results!

## Ford 9 inch CENTER SECTION BREAK IN PROCEDURES

**Carrier Assembly Torque** Carrier assembly to housing stud nuts 25-40 ft. lbs.

**Lube** Recommended Lube is a quality name brand mineral based 80/90w, 85/140w or 75/90w synthetic lube with a GL5 rating.

**Note: for oval track racing minimum of 1 gallon is required.**

**Ring & Pinion Break In Procedure** Proper break in of your new ring & pinion is extremely important. When the following procedures are followed, you will realize the performance gains expected.

### Circle Track Break In

1. Break in with mineral based lube.
2. Drive the car at slow speed for around 6 laps (1/2 mile oval).
3. Let the ring & pinion cool 30 minutes.
4. Drive the car again at slow speed for around 6 laps.
5. Drive the car at full speed 2-3 laps.
6. Let the ring & pinion cool 30 minutes.

### Street Vehicle Break In

1. Operate the car at normal street driving speed for around 10 miles (25-45 mph).
2. Let the ring & pinion cool 30 minutes.
3. Friction modifier additive must be used in addition to the lube in all Trac-Loc clutch style limited slip applications.

### Drag Race Break In

Drive the car around the pits or on the return road for approximately 10 minutes. NOTE: When the proper lube is used and backlash set properly excessive heat buildup should not occur.

### Towing Vehicle Break In

Operate the towing vehicle at normal street driving speed for around 250 miles (25-45 mph).

## PEM QUICK CHANGE ASSEMBLY INSTRUCTIONS

### Install Side Bells on Center Section

- The best way we have found to do this is to install your hub on the right side tube and stand straight up with the wheel mounted on the hub.
- Before you set on the ring gear/carrier group make sure to loosen the Thrust Block Adjustor Screw.
- Lube the ends of the spool so they will not tear the carrier seal.
- Install spool and ring gear with flat side of ring gear facing down.
- Sit the center assembly on the side bell. There are stamped numbers at the top of the bell and center section to line the bolts up correctly.
- The bells should almost sit flush with the center section and install thru bolts. Torque side bell bolts to 35 foot lbs.-- criss cross pattern.
- Lightly lube on the side bell o-ring and install in groove on bell. Set on the Right Side Bell.
- If you choose to aid in sealing of your housing, a thin coat of RTV can be used on the side bell o-rings.

### Thrust Block on Left Side Bell

Adjust screw on left side bell till the thrust block touches the back of the ring gear and then back off 1/4 turn and lock in place with lock nut. Check video on our web site.

**Torque Settings on Bolts** Side bell thru bolts & short bolts 35 foot lbs. Yoke seal plate bolts (6) 25 foot lbs.  
Rear Cover Aluminum High Nuts 25 foot lbs. Yoke retainer bolt (1) 45 foot lbs.

### Lubrication and Fill Level

- Recommended Lube is a quality name brand mineral based 80/90w, 85/140w or 75/90 synthetic lube with a GL5 rating.
- Fill through Large Pinion Inspection Plug on Right Side Bell.
- Oil Level Plug is Small Button Plug on the front side of the Right Side Bell. Make sure rear end is level when you are filling to the small oil level plug. Recommended oil level is 2" below axle center line (approximately 3 1/2 quart). Too much lube causes overheating.





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**GEARS / REARS / DRIVESHAFTS**