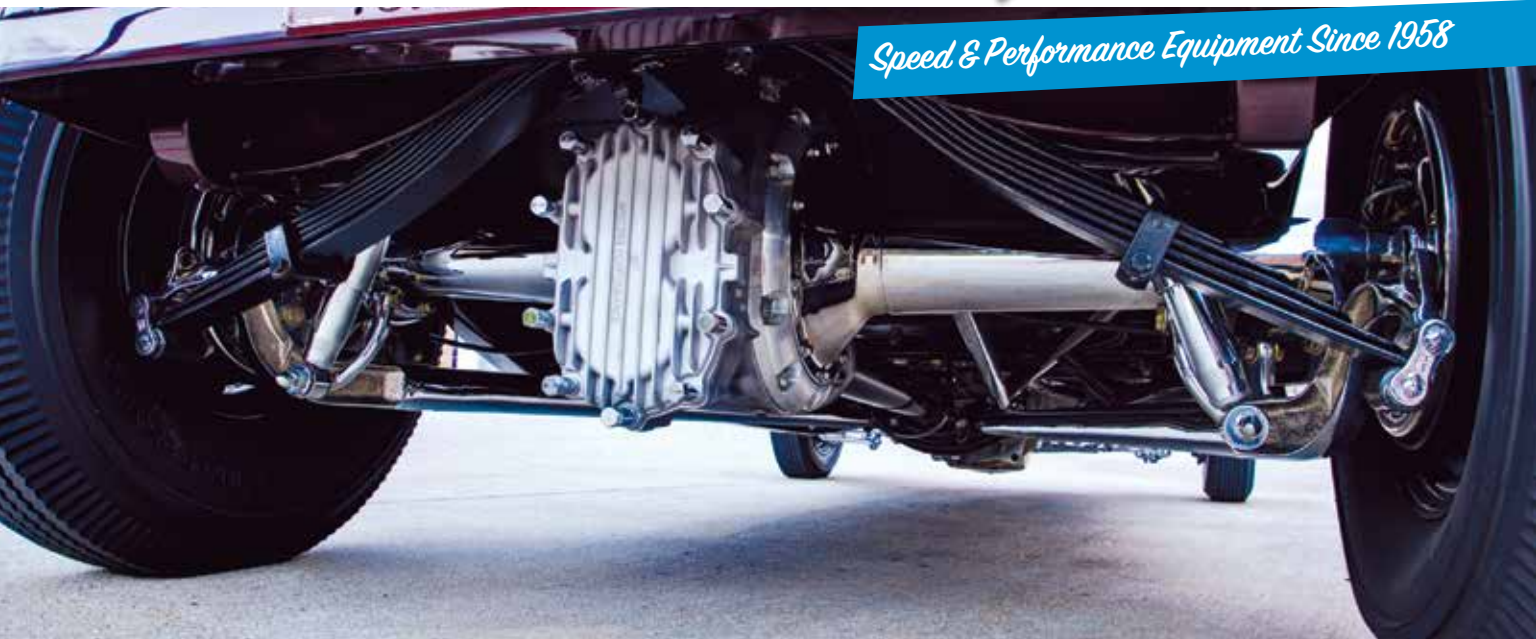


HOT ROD REARS

V8 and CHAMP QUICK CHANGE
SOLID and INDEPENDENT
XTREMELINER LAND SPEED
9-INCH and CHAMP 9-INCH
DRUM and DISC BRAKE KITS



Speed & Performance Equipment Since 1958



Since 1958

Winters has been crafting the highest quality performance products available for hot rodders and racers alike. Our hot rod quick change and 9-inch rear ends were born on the racetracks of America. They've got nostalgic good looks to fit even the most traditional build, and the guts to handle anything you can throw their way.

Keith and Jody Hill's Pinkee's Rod Shop-built 1933 Ford three-window coupe with a polished Winters Champ Adapter Quick Change rear end.

All feature car photography courtesy of *The Rodder's Journal*



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ORDER POLICY

- Know your customer number.
- Order by part number. Winters will not be responsible for incorrect orders placed by description only.
- Specify shipping instructions - otherwise we'll use our discretion.
- Refused orders will have a \$25.00 handling charge and applicable freight charges billed to the customers account.
- Special orders can not be cancelled after the order is in process.

RETURN POLICY

IMPORTANT: All returns must include a Return Authorization Number (RA#). The issuance of an RA# does not constitute a guarantee of credit or replacement. Credit, refund or replacement will only be issued after an inspection and determination at our discretion. No returns are accepted on special order, obsolete, damaged, used or altered merchandise.

ALL RETURNED MERCHANDISE MUST INCLUDE:

- RA# clearly written on outside of box as well as:
 - Customer number, name and phone number
 - Copy of invoice
 - Written explanation for cause of return
 - Whether return is for replacement, credit or refund
- Returned merchandise is subject to the following restocking fees (except sellers error):
 - 1-90 days = 15%
 - 91 days - 6 months = 25%
 - **NO RETURNS AFTER 6 MONTHS**
- Returns must be freight pre-paid (except sellers error).
- Returned parts must be packaged properly to avoid damage.
- Shipping damages must be reported immediately to your carrier.
- Shortage claims must be reported immediately.
- Save your cartons.

WINTERS PERFORMANCE PRODUCTS, INC.

1580 Trolley Road • York, Pennsylvania 17408 USA
Phone (717) 764-9844 • Fax (717) 764-0617

WWW.WINTERSPERFORMANCE.COM

Hours: Monday - Friday 8:30 AM - 5:30 PM EST

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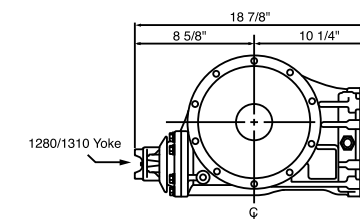
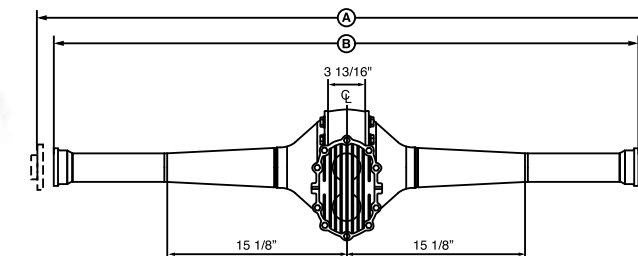
See back of catalog or visit website for limited warranty and venue provision.

STEEL TUBE & BELL V8 QUICK CHANGE

See pages 42-43 for Exploded View and Parts List



Assembly P/N SR2550STB shown with Polished Finish (Option SR8207-V) Nostalgia Gear Cover (Option SR9134) Stainless Steel Hardware (Option SR8277-STB)



- Ⓐ Axle Flange-to-Flange 56" (standard)
- Ⓑ Housing Flange-to-Flange 51" (standard)
- Standard assembly uses 27-1/2" and 28" axles (install longer axle on driver's side)



Assembly P/N SR2220STB shown with Straight Finned Gear Cover (Standard) Stainless Steel Hardware (Option SR8277-STB) Polished Finish (Option SR8207-V)

FAST FACTS

- Horsepower**
Up to 600*
- Ring & Pinion**
8-3/8" / 3.78
- Differential**
Winters Wedgelock
- Heat-treated lower shaft
- Includes axle seals and one set of 6-spline straight-cut gears with your choice of ratio

**Horsepower ratings are approximate. Use of trans brakes, extra wide slicks, and other conditions may necessitate using one of our heavier duty rears. Please call to discuss the specifics of your build.*

Quick changes have been a cornerstone of hot rodding since the 1940s. But 1940s components can't always handle the horsepower and torque hot rodders coax out of even vintage powerplants today. **Our Steel Tube & Bell V8 Quick Change is the perfect solution.** With nostalgic styling and modern, race-bred construction good to about 600 horsepower, they'll take everything you can dish out while maintaining the right look for any period hot rod.

See page 7 for Winters Wedgelock Differential information.

ASSEMBLIES

- SR2220STB** Big Bearing Flanged Axle
- SR2550STB** Big Bearing Flanged Axle (Torino®)

Big Bearing Rears accommodate stock 3.150" O.D. axle bearings
Please Note: When assembled, axle will be 1/2" longer on left side.

POPULAR OPTIONS

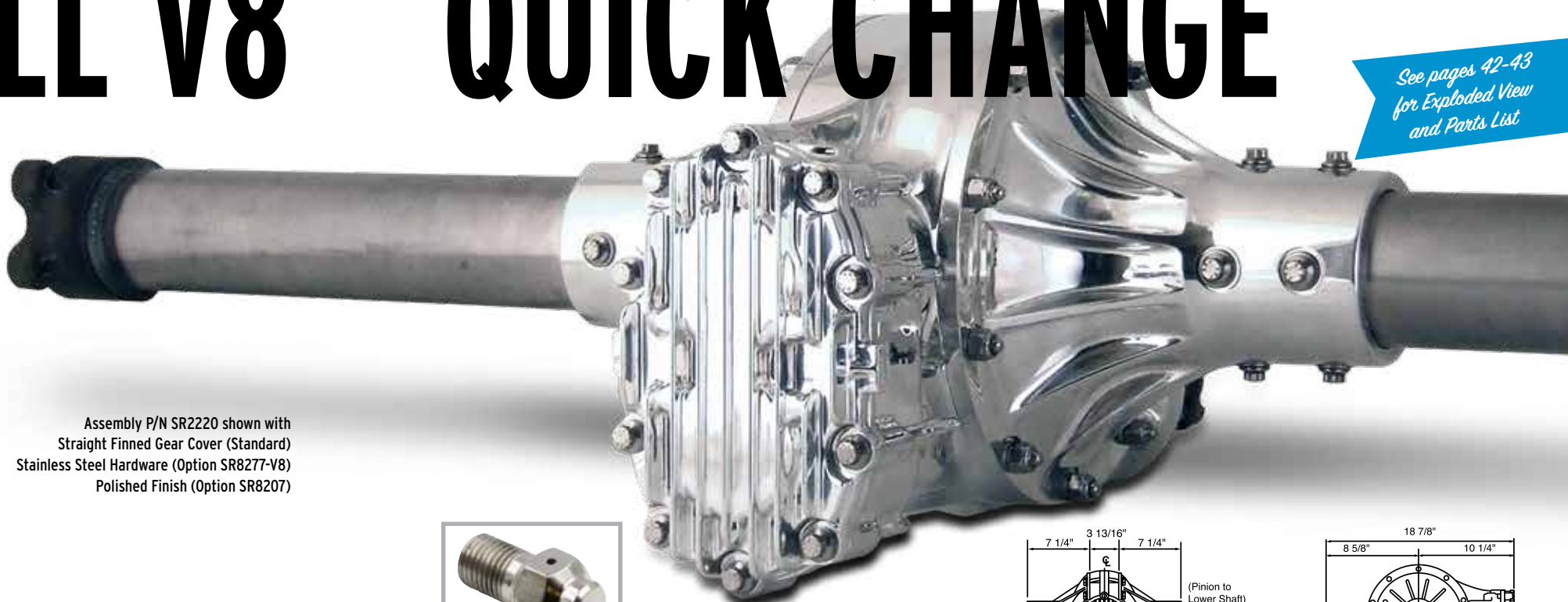
- SR2980** Axle Set
- SR8154-6** Closed Drive, 6 Spline
- SR8154-10** Closed Drive, 10 Spline
- SR8207-V** Polished Center & Cover
- SR8247** Helical Gear (Specify Ratio)
- SR8277-STB** Stainless Steel Hardware
- SR9132** Polished Gear Cover Only

See page 34 for available gear cover options

RIBBED BELL V8 QUICK CHANGE

See pages 42-43 for Exploded View and Parts List

Since the early days, hot rodders have incorporated finned aluminum details on their cars not just because they help disperse heat, but because they just plain look cool. Our Ribbed Bell V8 Quick Change captures that finned aesthetic in a cast aluminum bell that's as strong as it is good looking.



Assembly P/N SR2220 shown with Straight Finned Gear Cover (Standard) Stainless Steel Hardware (Option SR8277-V8) Polished Finish (Option SR8207)

FAST FACTS

Horsepower

Up to 600*

Ring & Pinion

8-3/8" / 3.78

Differential

Winters Wedgeloak

Heat-treated lower shaft

Includes axle seals and one set of 6-spline straight-cut gears with your choice of ratio

**Horsepower ratings are approximate. Use of trans brakes, extra wide slicks, and other conditions may necessitate using one of our heavier duty rears. Please call to discuss the specifics of your build.*

ASSEMBLIES

- SR2220** Big Bearing Flanged Axle
- SR2550** Big Bearing Flanged Axle (Torino®)

Big Bearing Rears accommodate stock 3.150" O.D. axle bearings
Please Note: When assembled, axle will be 1/2" longer on left side.

POPULAR OPTIONS

- SR2980** Axle Set
 - SR8207** Polishing
 - SR8247** Helical Gear (Specify Ratio)
 - SR8277-V8** Stainless Steel Hardware
 - SR9132** Polished Gear Cover Only
- See page 34 for available gear cover options**



Use Winters Semi-Synthetic Lube with Moly 80-90-140 P/N SR1730

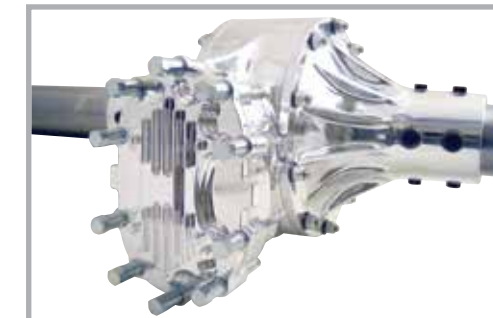
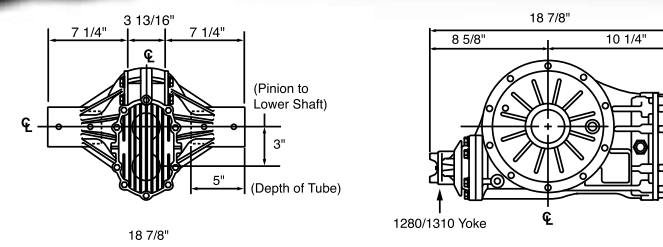


3/8-24 x 1/2" Stainless Vent Fitting P/N SR9341

WEDGELOCK



P/N SR1792-31 31-Spline
P/N SR1792-28 28-Spline
The Wedgeloak is an all gear driven differential that delivers smooth, durable performance and is standard in all V8 rear ends. The unique, race-proven gear design automatically senses wheel spin and delivers positive traction.



Assembly P/N SR2220 shown with Billet Finned Gear Cover (Option SR8211-V8B) Polished Finish (Option SR8207)

VINTAGE BELL



Assembly P/N SR3605-31 shown with Straight Finned Gear Cover (Standard) Polished Finish (Option SR8207V)

V8 CENTER KIT

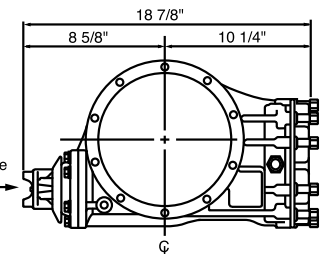
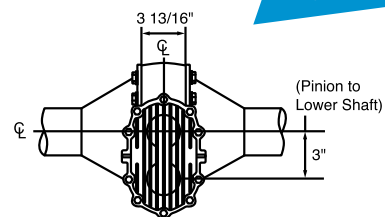
FOR USE WITH OE '35-'48 TUBES & BELLS

See pages 44-45 for Exploded View and Parts List



Optional Nostalgia Gear Cover Natural Cast finish with bearings (P/N SR12350) For Polished Finish, add P/N SR8207-12350

See page 34 for additional gear cover options



FAST FACTS

- Horsepower**
Up to 600*
- Ring & Pinion**
8-3/8" / 3.78
- Differential**
Winters Wedgelock
- Heat-treated lower shaft

Includes one set of 6-spline straight-cut gears with your choice of ratio

**Horsepower ratings are approximate. Use of trans brakes, extra wide slicks, and other conditions may necessitate using one of our heavier duty rears. Please call to discuss the specifics of your build.*

Looking to combine modern mechanicals with some vintage componentry? Our Vintage Bell V8 Center Kit is just the trick. It features all the race-proven internals of our complete V8 Quick Change rears, but the Winters center section is machined to accept your OE '35-'48 Ford® steel tubes & bells (not included).

ASSEMBLIES

- SR3605-31** 8-3/8" V8 Center Kit, 31-Spline
- SR3605-28** 8-3/8" V8 Center Kit, 28-Spline

Please Note: Assembly uses Late Model style 28 or 31-Spline Axles and requires late style bearing ends to be machined and welded to '35-'48 Ford bells & tubes.

POPULAR OPTIONS

- SR8154-6** Closed Drive, 6-Spline
- SR8154-10** Closed Drive, 10-Spline
- SR8207V** Polished Center & Cover
- SR8247** Helical Gear (Specify Ratio)
- SR9132** Polished Gear Cover Only

See page 34 for available gear cover options

WEDGELOCK



P/N SR1792V-31 31-Spline
P/N SR1792V-28 28-Spline
The Wedgelock is an all gear drive differential that delivers smooth, durable performance and is standard in Vintage Bell V8 Center Kits. The unique, race-proven gear design automatically senses wheel spin and delivers positive traction. Designed to work with OE steel bells.

EARLY FORD®



1/4 x 18
Oil Level
Pipe Plug
P/N 9366

Assembly P/N SR3620 shown in
Natural Cast finish with
Nostalgia Gear Cover (Option SR9134)

FAST FACTS

Horsepower

We do not provide horsepower ratings for this specific kit. We can not verify the condition of the owner-provided OE Ford carrier and axles to be used.

Ring & Pinion

8-3/8" / 4.11

Differential

Builder-supplied OE Ford carrier assembly (not included)

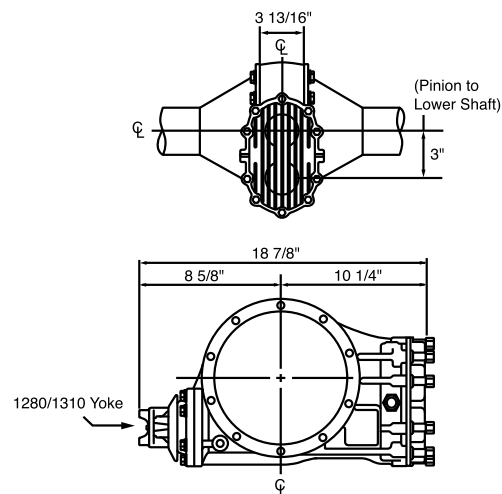
Includes axle housing gasket set, carrier bearing and one set of 6-spline straight-cut gears with your choice of ratio

Hardcore DIY rodders can assemble their own custom quick change with our **Early Ford V8 Center Kit**. It's designed to use an original '35-'48 Ford carrier assembly, axles, and steel tubes & bells. We provide the center section, ring & pinion, axle housing gaskets, carrier bearing, hardware, and one straight cut, 6-spline gear set of your choice. Assembly instructions included.

V8 CENTER KIT

FOR USE WITH OE '35-'48 AXLES, CARRIER, TUBES & BELLS

See pages 69-70 for
Set-Up Instructions



Use Winters
Semi-Synthetic Lube
with Moly 80-90-140
P/N SR1730



Assembly shown with
6-Spline Closed Drive Line (Option SR8154-6)



Assembly P/N SR3620 shown with
Straight Finned Gear Cover (Standard)
Polished Finish (Option SR8207-V)
OE Steel Bells (not included)

ASSEMBLIES

SR3620 8-3/8" Early Ford® V8 Center Kit

POPULAR OPTIONS

SR8154-6 Closed Drive, 6-Spline
SR8154-10 Closed Drive, 10-Spline
SR8207V Polished Center & Cover
SR8247 Helical Gear (Specify Ratio)
See page 34 for available gear cover options

INDEPENDENT

V8 QUICK CHANGE

See pages 46-47 for Exploded View and Parts List

FAST FACTS

- Horsepower**
Up to 600*
- Ring & Pinion**
8-3/8" / 3.78
- Differential**
Winters Wedgelock
- Heat-treated lower shaft**
- Includes caliper-mount side bells, support bearing upgrade, pinion lock nut assembly, and one set of 6-spline straight-cut gears with your choice of ratio**

*Horsepower ratings are approximate. Use of trans brakes, extra wide slicks, and other conditions may necessitate using one of our heavier duty rears. Please call to discuss the specifics of your build.



Assembly P/N SRP437-838 shown in Natural Cast finish with Billet Finned Gear Cover (Option SR8211-V8B)

Sometimes a build calls for the versatility of a quick change in a high-performance, IRS-equipped chassis. **Winters' Independent V8 Quick Change** features the same bullet-proof internals of our standard V8 rears in a compact, independent package.

ASSEMBLIES

- SRP437-838** 8-3/8" w/Wedgelock
- SRP437-838NQ** 8-3/8" Non-Quick Change

POPULAR OPTIONS

- SR8207** Polishing
 - SR8247** Helical Gear (Specify Ratio)
 - SR8275-1** Yoke, 1350-Series
 - SR9132** Polished Gear Cover Only
- See page 34 for available gear cover options



Assembly shown with 930 CV Joint Adapter Flange P/N SR12626 installed



Steel 1310-Series Flange Yoke P/N 3702



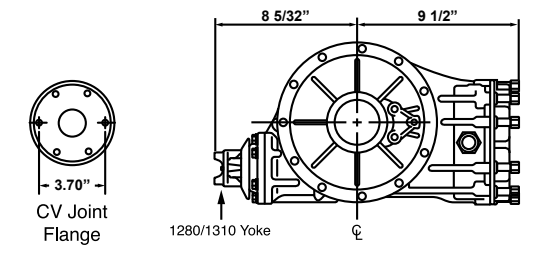
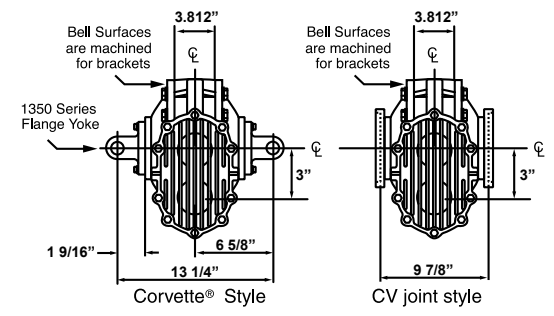
Aluminum 1310-Series Flange Yoke P/N 3453-01



UBolt 1310-Series Flange Yoke P/N 4862



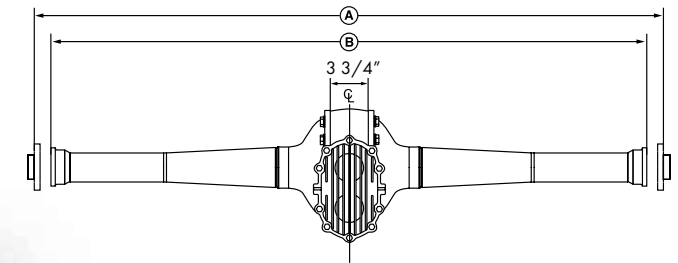
Use Winters Semi-Synthetic Lube with Moly 80-90-140 P/N SR1730



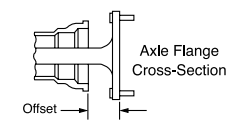
CHAMPIONSHIP

QUICK CHANGE WITH STEEL TUBES & BELLS

See pages 48-49
for Exploded View
and Parts List



Ⓐ Axle Flange-to-Flange 56" (standard)
Ⓑ Housing Flange-to-Flange 51" (standard)



Big Bearing Ford 2.36" Offset
Big Bearing Ford 2.50" Offset
Big Bearing Ford Torino 2.50" Offset

FAST FACTS

- Horsepower**
Up to 1,000*
- Ring & Pinion**
10" / 4.12
- Differential**
Winters Track
- Heat-treated lower shaft
- Includes axle seals and one set of 10-spline straight-cut gears with your choice of ratio

**Horsepower ratings are approximate. Use of trans brakes, extra wide slicks, and other conditions may necessitate using one of our heavier duty rears. Please call to discuss the specifics of your build.*

Assembly P/N SR2535STB shown with Nostalgia Gear Cover (SR12738) Stainless Steel Hardware (Option SR8277) Polished Finish (Option SR8207CSTB)

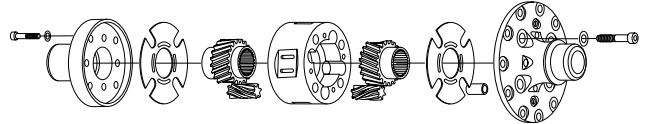
Our beefy **Champ Quick Change with Steel Tubes & Bells** is tailor-made for higher horsepower hot rods and racecars built in a traditional, period style. Based on our Sprint center, Champ rears utilize a larger 10-inch ring & pinion and our rugged Winters Track Differential for positive traction and smooth, consistent performance on the street or strip. Stock-appearing flanged 31-spline axles will accommodate aftermarket drum or disc brakes. See pages 36-37 for brake options.

ASSEMBLIES

- SR2530STB** Big Bearing Flanged Axle
 - SR2535STB** Big Bearing Flanged Axle (Torino®)
- Big Bearing Rears Accommodate Stock 3.150" O.D. Axle Bearings

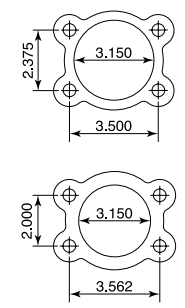
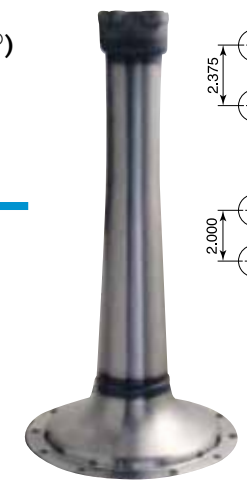
POPULAR OPTIONS

- SR2980** Axle Set
 - SR8207CSTB** Polishing
 - SR8247** Helical Gear (Specify Ratio)
 - SR8275-1** Yoke, 1350-Series
 - SR8277** Stainless Steel Hardware
- See page 35 for available gear cover options



See page 17 for details about Winters Track Differential

CHAMP STEEL TUBE & BELL



- SR4910C** Steel Tube & Bell with Big Bearing
- SR4915C** Steel Tube & Bell with Big Bearing (Torino®)
- P/N SR12460** Steel Tube & Bell Tube Seal

The bolt circle for a Full Size 10" Bell is 11 on 11.532"

CHAMPIONSHIP



Champ Tube & Bell Adapters hark back to when hot rodders made adapter plates to mate banjo axle housings with quick change center sections. Our adapters are designed for either Winters Steel Tubes & Bells (*this page*) or OE '35-'48 Ford tubes & bells (*facing page*).

Assembly P/N SR2520STB (Winters Steel Tubes & Bells) shown with Straight Finned Gear Cover (Standard) Polished Finish (Option SR8207-CA)

FAST FACTS

Horsepower

Up to 1,000*

Ring & Pinion

10" / 4.12

Differential

Winters Track

Heat-treated lower shaft

Includes axle seals and one set of 10-spline straight-cut gears with your choice of ratio

*Horsepower ratings are approximate. Use of trans brakes, extra wide slicks, and other conditions may necessitate using one of our heavier duty rears. Please call to discuss the specifics of your build.

WINTERS STEEL TUBE & BELL ASSEMBLIES

- SR2520STB** Big Bearing Flanged Axle
- SR2525STB** Big Bearing Flanged Axle (Torino®)

Big Bearing Rears Accommodate Stock 3.150" O.D. Axle Bearings

POPULAR OPTIONS

- SR2980** Axle Set
 - SR8207-CA** Polishing
 - SR8275-1** Yoke, 1350-Series
 - SR8247** Helical Gear (Specify Ratio)
 - SR8277** Stainless Steel Hardware
- See page 35 for available gear cover options



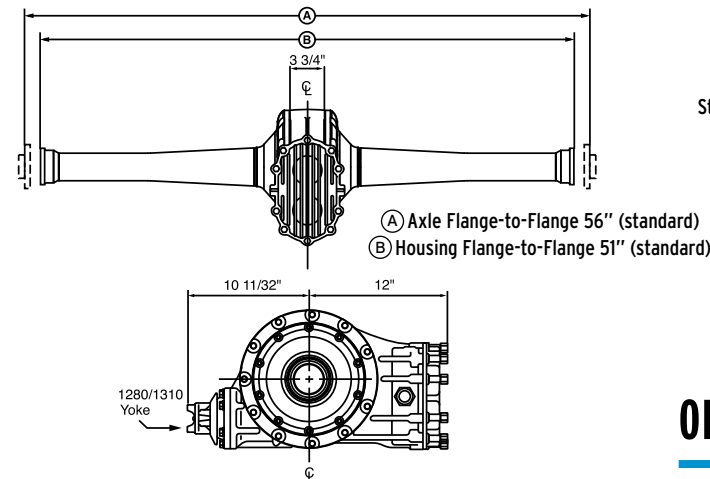
P/N SR2493-01 Champ Adapter Bell for Winters Steel Tube & Bell

P/N SR2493 Champ Adapter Bell for OE '35-'48 Ford tube & bell

Adapters must be used with Winters Track P/N SR2419.

ADAPTER SERIES

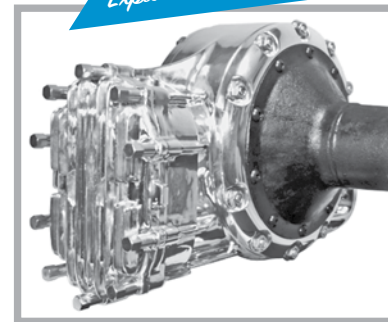
ADAPTS CHAMP QUICK CHANGE TO WINTERS OR FORD STEEL TUBES & BELLS



A Axle Flange-to-Flange 56" (standard)
B Housing Flange-to-Flange 51" (standard)

See pages 50-51 for Exploded View and Parts List

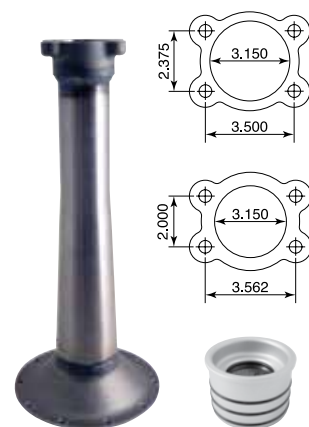
P/N SR3600 (OE '35-'48 Ford tubes & bells, not included) shown with Straight Finned Gear Cover (Standard) Polished Finish (Option SR8207)



OE BELL ASSEMBLIES

SR3600 Sprint Center w/Champ Adapter Bells

WINTERS STEEL TUBE & BELL SPECS



SR4900 Steel Tube & Bell with Big Bearing

SR4905 Steel Tube & Bell with Big Bearing (Torino®)

P/N SR12460 Steel Tube & Bell Tube Seal

POPULAR OPTIONS

- SR8207-CA** Polishing
 - SR8247** Helical Gear (Specify Ratio)
 - SR8275-1** Yoke, 1350-Series
- See page 35 for available gear cover options

WINTERS TRACK



P/N SR2419 Our 31-spline Winters Track Differential is standard equipment in all Championship Steel Tube & Bell assemblies. Its race-proven gear design automatically senses wheel spin and delivers positive traction.

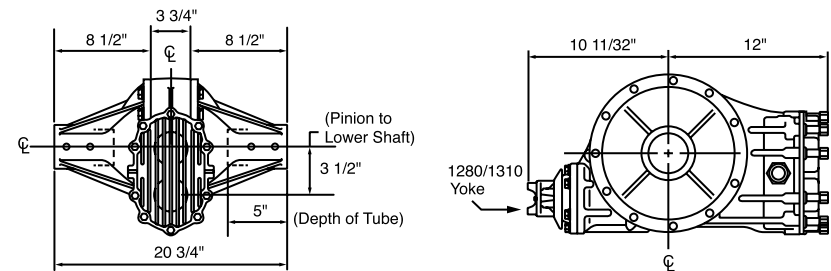
CHAMPIONSHIP

QUICK CHANGE WITH 6-RIB ALUMINUM BELLS

See pages 52-53
for Exploded View
and Parts List



Assembly P/N SR2520 shown
with 6-rib side bells (SR8186P)
Billet Finned Gear Cover (SR8211CF)
Stainless Steel Hardware (Option SR8277)
Polished Finish (Option SR8207)



FAST FACTS

Horsepower

Up to 1,000*

Ring & Pinion

10" / 4.12

Differential

Winters Track

Heat-treated lower shaft

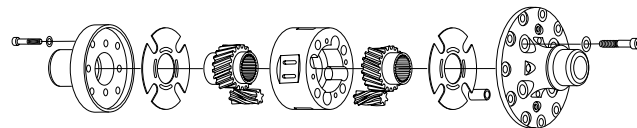
Includes axle seals and one set of 10-spline straight-cut gears with your choice of ratio

**Horsepower ratings are approximate. Use of trans brakes, extra wide slicks, and other conditions may necessitate using one of our heavier duty rears. Please call to discuss the specifics of your build.*



Winters Track Diff
P/N SR6513-31

Perfect for traditional and contemporary hot rods alike, our **Champ 6-Rib Aluminum Bell Quick Change** features our Sprint center with a stout 10-inch ring & pinion and Winters Track Differential, flanked by 6-rib, cast aluminum axle bells and steel tubes.



ASSEMBLIES

- SR2520** Big Bearing Flanged Axle
- SR2525** Big Bearing Flanged Axle (Torino®)

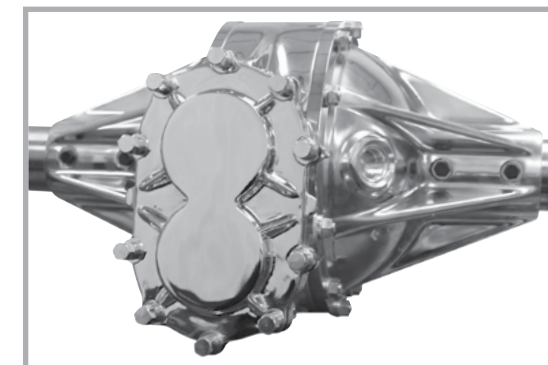
Big Bearing Rears Accommodate Stock 3.150" O.D. Axle Bearings

POPULAR OPTIONS

- SR2980** Axle Set
- SR8207** Polishing
- SR8247** Helical Gear (Specify Ratio)
- SR8275-1** Yoke, 1350-Series
- SR8277** Stainless Steel Hardware

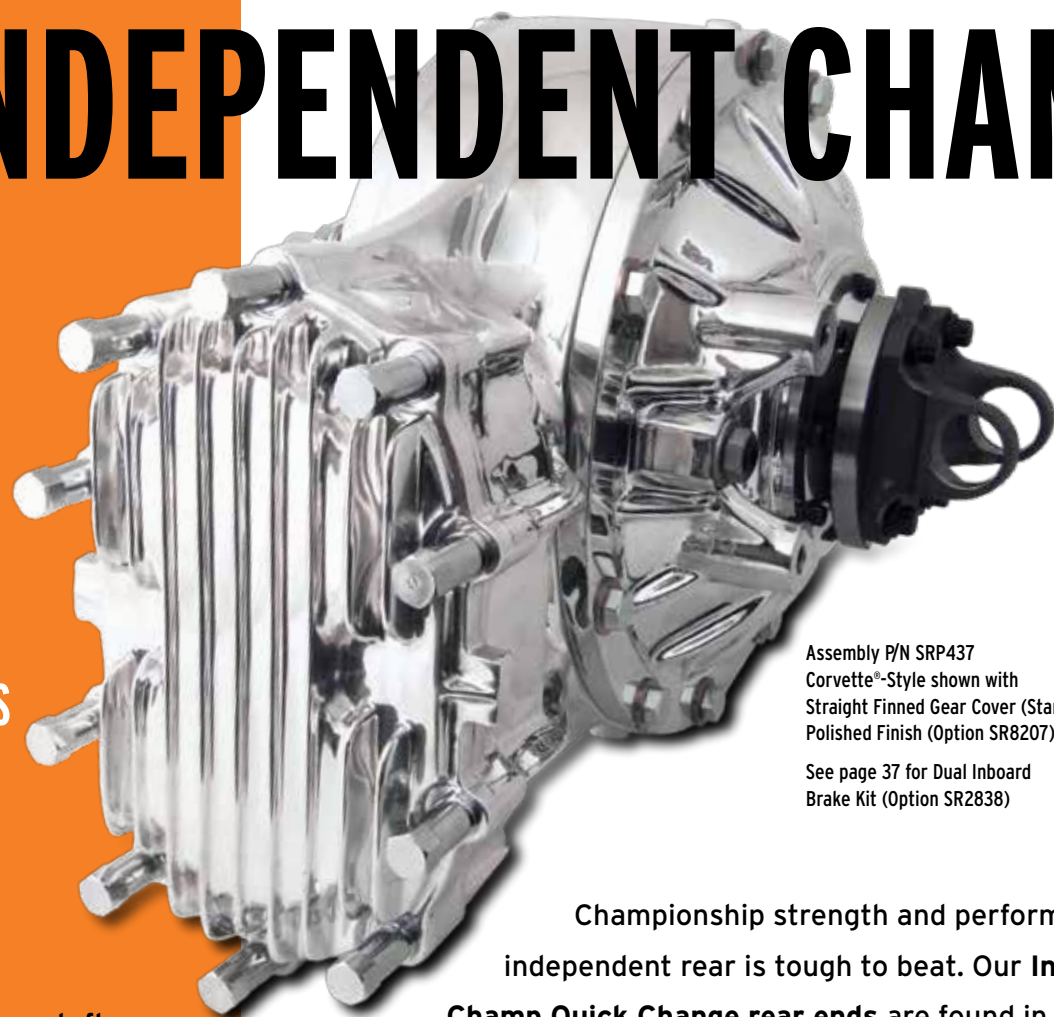
See page 35 for available gear cover options

3/8-24 x 1/2"
Stainless Vent Fitting
P/N SR9341



Assembly P/N SR2525 shown with SR8186P 6-Rib Bells, SR12738 Nostalgia Gear Cover, and SR8207 Polishing

INDEPENDENT CHAMP



FAST FACTS

Horsepower
Up to 1,000*

Ring & Pinion
10" / 4.12

Differential
Winters Track

Heat-treated lower shaft

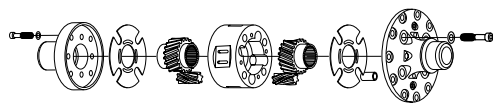
Includes caliper-mount bells, roller support bearing upgrade, pinion lock nut assembly, and one set of 10-spline straight-cut gears with your choice of ratio

*Horsepower ratings are approximate. Use of trans brakes, extra wide slicks, and other conditions may necessitate using one of our heavier duty rears. Please call to discuss the specifics of your build.

Assembly P/N SRP437
Corvette®-Style shown with Straight Finned Gear Cover (Standard) Polished Finish (Option SR8207)

See page 37 for Dual Inboard Brake Kit (Option SR2838)

Championship strength and performance in an independent rear is tough to beat. Our **Independent Champ Quick Change** rear ends are found in everything from early IRS-equipped hot rods to muscle cars and high-horsepower drift and autocross machines.

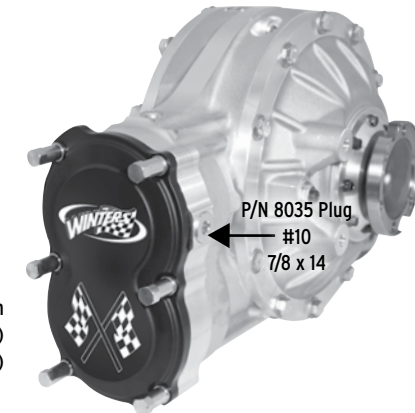


P/N SR2418-31 (31-Spline)
P/N SR2418-35 (35-Spline)

Winters Track Differential automatically senses wheel spin and delivers positive traction.

QUICK CHANGE

See pages 54-55 for Parts List and Exploded View



Assembly P/N SR12175 shown with 6-Bolt Cover (Option SR8133-10-6) CV Joint Flange (Option SR8219-31 or SR8219-35)

ASSEMBLIES

- SRP437** 10" Independent w/Winters Track Diff
- SRP437NQ** 10" Non-Quick Change w/Winters Track Diff

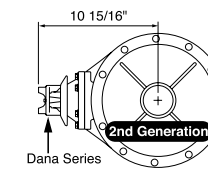
OPTIONS

- SR8133-10-6** 6-Bolt Cover
- SR8106V** Lower Shaft, Vascomax® 10-Spline
- SR8106V-32** Lower Shaft, Vascomax® 32-Spline
- SR8207** Polishing
- SR8275-1** Yoke, 1350-Series
- SR8219-31** CV Joint Flange 930, 31-Spline, Porsche®
- SR8219-35** CV Joint Flange 930, 35-Spline
- SR9154-35** CV Joint Flange 934, 35-Spline, HD

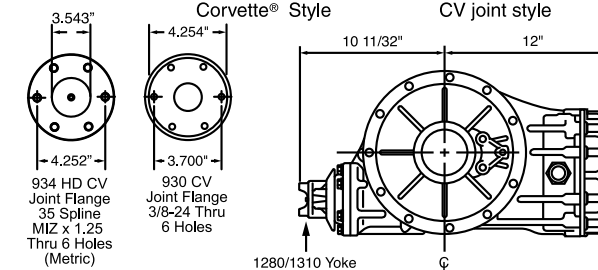
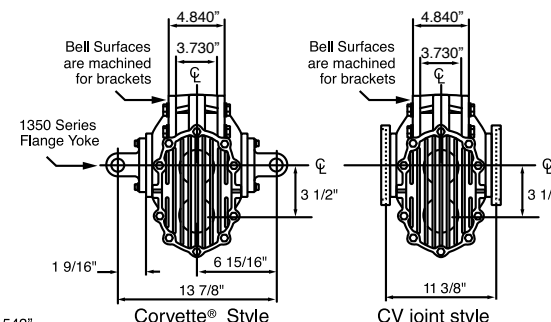
See page 35 for available gear cover options



CV Joint Flange 930
P/N SR2944-31 Output Flange (31-Spline) 930
P/N SR2944-35 Output Flange (35-Spline) 930



P/N SRP437NQ
Corvette®-Style
Non-Quick Change
Independent Assembly



With rotors installed, assembly measures 14.438" outside-to-outside

CHAMPIONSHIP

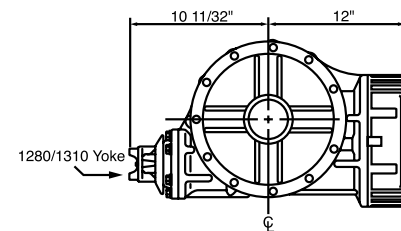
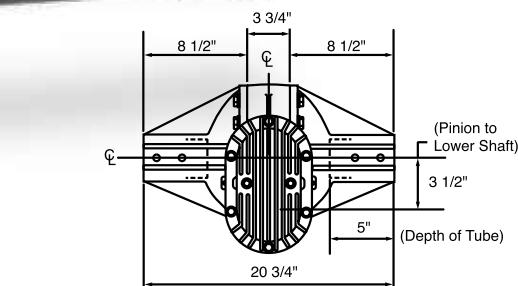
HEAVY DUTY REINFORCED QUICK CHANGE

See pages 56-57
for Exploded View
and Parts List

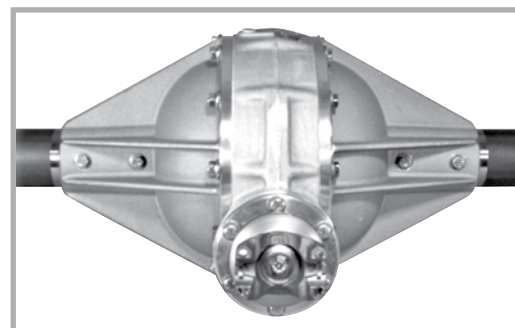


Assembly P/N SR2520HD with
Deep Dish Gear Cover (Standard)
8-Rib Side Bells (Option SR8155)
Polished Finish (Option SR8207-HD)

While our standard Champ Quick Change rears can take a lot of abuse, some situations call for more muscle. Enter our **Champ Heavy Duty Quick Change**. It's based on our Champ internals housed in a reinforced center section and deep dish gear cover that are unique to the Champ HD rears.



Bolt pattern for a Full Size 10" Bell is 11 on 11.532"



Assembly P/N SR2520 shown with
8-Rib Side Bells (SR8155)
(4 & 6-Rib also available)
1310-Series Yoke (Standard)

FAST FACTS

Horsepower

1,000+

Ring & Pinion

10" / 4.12

Differential

Winters Track

Heat-treated lower shaft

Includes axle seals and one set of 10-spline straight-cut gears with your choice of ratio

**Horsepower ratings are approximate. Use of trans brakes, extra wide slicks, and other conditions may necessitate using one of our heavier duty rears. Please call to discuss the specifics of your build.*

ASSEMBLIES

- SR2520HD** Big Bearing Flanged Axle
- SR2525HD** Big Bearing Flanged Axle (Torino®)

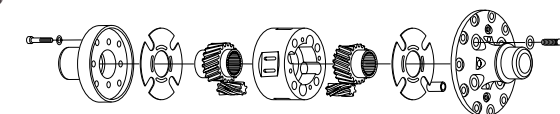
Big Bearing Rears Accommodate Stock 3.150" O.D. Axle Bearings

POPULAR OPTIONS

- SR2980** Axle Set
- SR8106V** Lower Shaft, Vascomax® 10-Spline
- SR8106V-32** Lower Shaft, Vascomax® 32-Spline
- SR8207-HD** Polishing
- SR8247** Helical Gear (Specify Ratio)
- SR8275-1** Yoke, 1350-Series

WINTERS TRACK

P/N SR6513-31
Our 31-Spline Winters Track Differential is standard equipment in all Championship Heavy Duty Assemblies. CNC machined to exacting tolerances, this virtually unbreakable parallel gear design automatically senses wheel spin and delivers positive traction.



Use Winters Semi-Synthetic Lube with
Moly 80-90-140 P/N SR1730

XTREMELINER



Choose from our standard 3.08 or optional 2.00 Ring & Pinion Assembly P/N SR3920 shown with Standard Gear Cover Polished Finish (Option SR8207-308)

FAST FACTS

Horsepower

1,000+

Ring & Pinion

10" / 3.08 (2.00 optional)

Differential

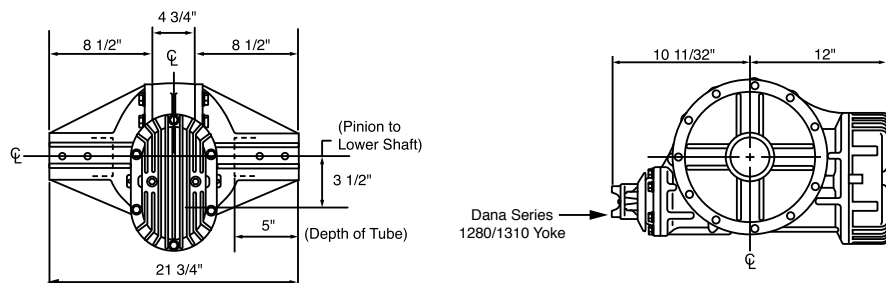
Winters Track

Heat-treated lower shaft

Includes axle seals and one set of 22-spline straight-cut gears with your choice of ratio

**Horsepower ratings are approximate. Use of trans brakes, extra wide slicks, and other conditions may necessitate using one of our heavier duty rears. Please call to discuss the specifics of your build.*

Built with the Bonneville Salt Flats in mind, the Xtremeliner features our brawniest center section and ribbed bells yet, along with the largest pinion gear of any of our quick change rears. When you're gunning for a land speed record, you'll benefit from a beefed-up center section, 22-spline spur gears, and 10-inch ring & pinion with either a 3.08 or 2.00 ratio.



QUICK CHANGE

LAND SPEED RACING REAR END

See pages 58-59 for Exploded View and Parts List



3/8-24 x 1/2" Stainless Vent Fitting SR9341

ASSEMBLIES

- SR3920** 3.08 Big Bearing Flanged Axle
- SR3925** 3.08 Big Bearing Flanged Axle (Torino®)
- SR3910** 3.08 Super Speedway Hubs
- SR3963** 3.08 2-1/2" Grand National Hubs

Big Bearing Rears Accommodate Stock 3.150" O.D. Axle Bearings

POPULAR OPTIONS

- SR8207-308** Polishing
- SR8121W** 31-Spline Winters Track
- SR8115-31** 31-Spline Aluminum Spool Yoke, 1350-Series
- SR8275-1** VascoMax® Lower Shaft
- SR8106-308V** 3.08 Ring & Pinion, Reverse Rotation
- SR81308RR** 3.08 Ring & Pinion, Reverse Rotation

2.00 Applications

- SR81200** 2.00 Ring & Pinion
- SR8121W-200** 31-Spline Winters Track-2.00
- SR8115-31-200** 31-Spline Aluminum Spool
- SR8115-35-200** 35-Spline Aluminum Spool



Assembly P/N SR3920 shown with 1350-Series Yoke (Option SR8275-1) Polished Finish (Option SR8207-308)

WINTERS TRACK

- SR6513-31** For 3.08 Ring & Pinion
- SR6513-31-200** For 2.00 Ring & Pinion

Virtually unbreakable, our Winters Track Differential's CNC-machined parallel gear design automatically senses wheel spin and delivers positive traction.



Aluminum Spool for 2.00 Ratio 31-Spline P/N SR4075A-31 35-Spline P/N SR4075A-35

V8 "NO CHANGE"



Assembly P/N SR4225MSTB shown in Natural Cast

If you want the traditional good looks of a banjo rear but with modern components in place of the nearly century-old originals, our "No Change" Banjo rears are for you.

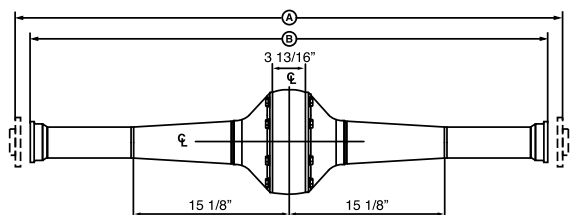
STEEL TUBE & BELL ASSEMBLIES

- SR4220MSTB** Big Bearing Flanged Axle
- SR4225MSTB** Big Bearing Flanged Axle (Torino®)

Big Bearing Rears Accommodate Stock 3.150" O.D. Axle Bearings

POPULAR OPTIONS

- SR8277-MSTB** Stainless Steel Hardware
- SR2980** Axle Set
- SR8207-BAN** Polishing



(A) Axle Flange-to-Flange 56" (standard)
(B) Housing Flange-to-Flange 51" (standard)

See page 7 for Winters Wedgelock specs

BANJO REAR ENDS



Assembly P/N SR4225M shown with Polished Finish (Option SR8207-MB)

See pages 60-61 for Exploded View and Parts List



These V8-size Banjos use the same differential and ring & pinion as our V8 Quick Changes, housed in brand new banjo castings with either tapered steel tubes & bells or ribbed, cast aluminum bells.

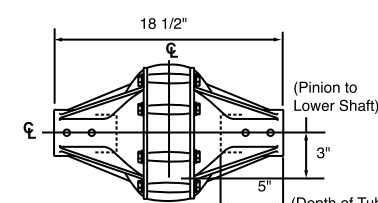
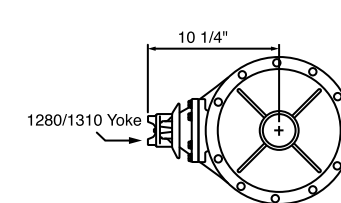
RIBBED ALUMINUM BELL ASSEMBLIES

- SR4220M** Big Bearing Flanged Axle
- SR4225M** Big Bearing Flanged Axle (Torino®)

Big Bearing Rears Accommodate Stock 3.150" O.D. Axle Bearings

POPULAR OPTIONS

- SR8277-MB** Stainless Steel Hardware
- SR2980** Axle Set
- SR8207-MB** Polishing



3/8-24 x 1/2" Stainless Vent Fitting SR9341

Use Winters Semi-Synthetic Lube with Moly 80-90-140 P/N SR1730



FAST FACTS

Horsepower

Up to 600*

Ring & Pinion

8-3/8" / 3.78

Differential

Winters Wedgelock

*Horsepower ratings are approximate. Use of trans brakes, extra wide slicks, and other conditions may necessitate using one of our heavier duty rears. Please call to discuss the specifics of your build.

CHAMP "NO CHANGE"

BANJO REAR ENDS

See pages 62-63
for Exploded View
and Parts List



Assembly P/N SR4225
shown in Natural Cast

Use Winters
Semi-Synthetic Lube
with Moly 80-90-140
P/N SR1730



FAST FACTS

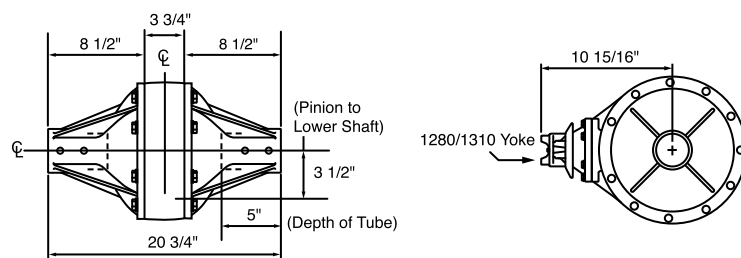
Horsepower
Up to 1,000*

Ring & Pinion
10" / 4.12

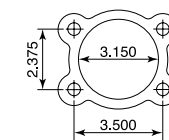
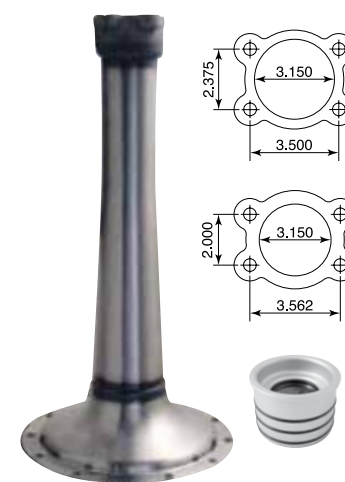
Differential
Winters Track

**Horsepower ratings are approximate. Use of trans brakes, extra wide slicks, and other conditions may necessitate using one of our heavier duty rears. Please call to discuss the specifics of your build.*

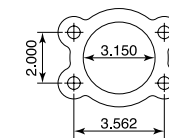
Putting more than 600 horsepower through a banjo rear?
Our Champ-size "No Change" Banjo is the way to go.
Its cast aluminum "No Change" center section houses our Champ internals, including a 10", 4.12 ring & pinion, and Winters Track Diff, and they're available with either ribbed aluminum side bells or tapered steel tubes & bells.



Also Available with CHAMP STEEL TUBES & BELLS



SR4910C
Steel Tube & Bell
with Big Bearing



SR4915C
Steel Tube & Bell
with Big Bearing
(Torino®)

P/N SR12460
Steel Tube & Bell
Tube Seal

The bolt circle for a Champ-size 10" Bell is 11 on 11.532"
*Steel Tube & Bell version of Champ Banjo requires Winters Track Diff P/N SR2419. Please call to discuss your Champ Steel Tube & Bell Banjo project.

ASSEMBLIES

- SR4220** Big Bearing Flanged Axle
 - SR4225** Big Bearing Flanged Axle (Torino®)
- Big Bearing Rears Accommodate Stock 3.150" O.D. Axle Bearings

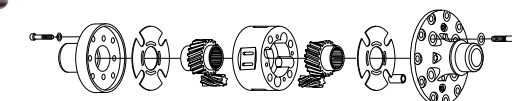
POPULAR OPTIONS

- SR2980** Axle Set
- SR8207** Polishing

WINTERS TRACK



P/N SR6513-31
Our 31-Spline Winters Track Differential is standard equipment in Champ Ribbed Bell Banjo assemblies.* CNC machined to exacting tolerances, this virtually unbreakable, parallel gear design automatically senses wheel spin and delivers positive traction.



CHAMPIONSHIP



Assembly P/N SR92525CR shown with Polished Finish, Complete Rear (Option SR8207-9CR)

FAST FACTS

- Ring & Pinion**
9" / Customer Specified Ratio
- Differential**
Truetrac® Posi-Trac
- Housing**
Cast aluminum 356 alloy

Our Championship 9-Inch rear brings a whole new level of style to the ubiquitous 9-inch rear end category.

The ultra-strong housing, cast from aluminum 356 alloy, uses a unique rear-loading 9-inch differential behind a finned cover that can be positioned either horizontally or vertically. It's available fully assembled with ring & pinion (specify ratio), Truetrac® Posi-Trac Differential and aluminum "Daytona"-style pinion retainer, or as a bare housing and tube assembly. Champ 9-Inch rears accept most stock or after-market equivalent components.

9-INCH REAR

See pages 64-65 for Exploded View and Parts List



Cover can be positioned with fins vertical or horizontal



ASSEMBLIES

- SR92520CR** Big Bearing Flanged Axle
- SR92525CR** Big Bearing Flanged Axle (Torino®)

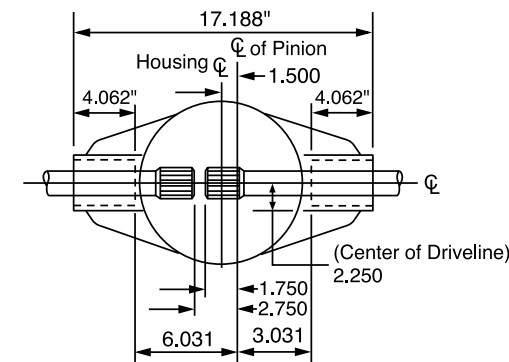
POPULAR OPTIONS

- SR2980** Axle Set
- SR8207-3611** Polishing, Cover Only
- SR8207-9CR** Polishing, Complete

BARE HOUSING WITH TUBES

- SR92540CR** Big Bearing Flanged Axle
- SR92545CR** Big Bearing Flanged Axle (Torino®)

Big Bearing Rears Accommodate Stock 3.150" O.D. Axle Bearings



Accepts OEM components or aftermarket equivalent

CUSTOM 9-INCH



Assembly P/N SR92525 shown with Polished Finish (Option SR8207-9CR)

When a stamped steel 9-inch housing isn't enough, Winters' Custom 9-Inch Housings have the extra detail you need.



3/8-24 x 1/2" Stainless Vent Fitting SR9341

FAST FACTS

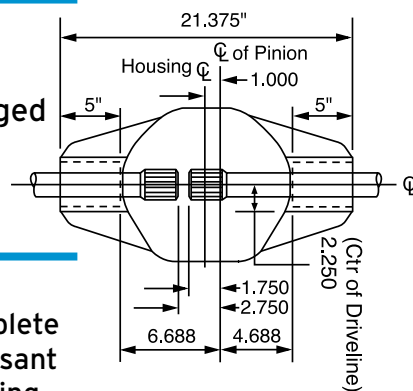
- Housing**
Cast and polished aluminum
- Third Member**
OEM or Aftermarket (owner-supplied)
- Tubes**
Steel
- Axles**
Big Bearing or Big Bearing Torino Flanged 31-Spline

HOUSING AND TUBES ONLY

- SR2540** Big Bearing Flanged Axle
- SR2545** Big Bearing Flanged Axle (Torino®)

POPULAR OPTIONS

- SR2980** Axle Set
- SR8207-9CR** Polishing, Complete
- SR8208-9** Thermal Dispersant
- SR8249** Machined Housing



HOUSINGS



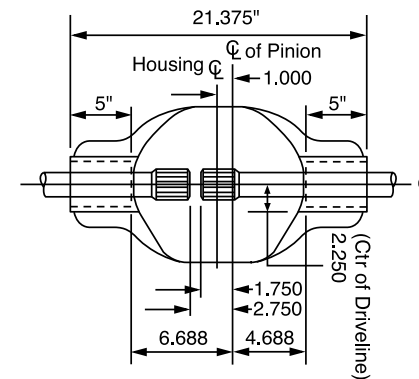
Assembly P/N SR2545PA Shown

Hidden Oil Fill/Breather Plug behind the detailed fins (#6 Part)

Our 9-Inch Housings accept most OEM and aftermarket third members and brakes. Polished aluminum housing (this page) comes with 31-spline axles.



See page 75 for flanged axle info and ordering specs

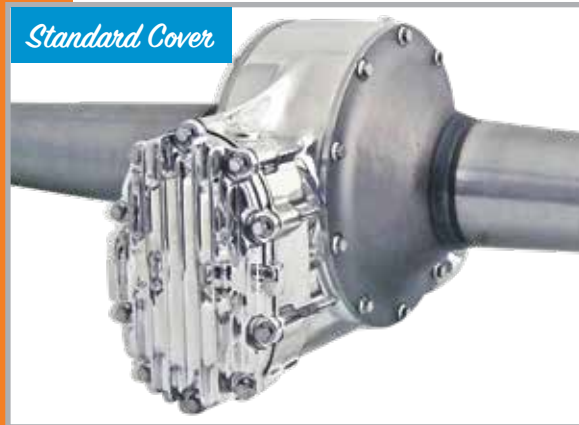


ASSEMBLIES

- SR2540PA** Big Bearing Flanged Axle
 - SR2545PA** Big Bearing Flanged Axle (Torino®)
- Big Bearing Rears Accommodate Stock 3.150" O.D. Axle Bearings

QUICK CHANGE

V8 GEAR COVER OPTIONS



V8 Straight Finned Gear Cover, cast aluminum (Standard)
Available finishes: Natural Cast or Polished (shown)



V8 Nostalgia Gear Cover, cast aluminum (Option SR9134)
Available finishes: Natural Cast or Polished (shown)



V8 Original Gear Cover, cast aluminum (Option SR8211V)
Available finishes: Natural Cast (shown) or Polished



V8 Billet Finned Gear Cover, billet aluminum (Option SR8211-V8B)
Available in Polished finish

GEAR COVERS

CHAMP GEAR COVER OPTIONS



Champ Straight Finned Gear Cover, cast aluminum (Standard)
Available finishes: Natural Cast or Polished (shown)



Champ Nostalgia Gear Cover, cast aluminum (Option SR12738)
Available finishes: Natural Cast or Polished (shown)



Champ Milled Gear Cover, billet aluminum (Option SR8211)
Available in Polished finish



Champ Billet Finned Gear Cover, billet aluminum (Option SR8211CF)
Available in Polished finish

DRUM AND DISC

BRAKE KITS



BOLING BROTHERS LINCOLN® OR BUICK®-STYLE DRUM BRAKE KITS

KIT P/N SR9406 Lincoln-Style Brakes
KIT P/N SR9407 Buick-Style Brakes
 Includes backing plate assembly with 2" shoes and a pair of Boling Brothers Lincoln or Buick-style drums. Designed to bolt to Winters axles (shipped uninstalled).



STAINLESS STEEL REAR BRAKE KIT

KIT P/N SR4917SS

Includes stainless steel backing plates and mounting hardware, drilled and slotted zinc-plated rotors and polished calipers. All hardware is included.

- 3.062" pilot
- 2-1/2" offset
- 12-1/8" rotor diameter



REAR DRUM BRAKE KIT

KIT P/N SR4918

- 11" x 2-1/4" shoe
- 5 x 5-1/2", 5 x 4-1/2", and 5 x 4-3/4" bolt pattern
- Fits Torino®-Style housing end with 2-1/2" offset
- 2.875" pilot



DUAL INBOARD BRAKE KIT

KIT P/N SR2838

Built specifically for Winters Independent Quick Change P/N SRP437 (see page 20), which requires inboard brakes. Kit comes with polished calipers and all installation hardware.

Winters rears

have been used on the world's finest hot rods and winningest racecars for decades. With quick change and fixed ratio rears suited for a wide range of torque, horsepower, build eras and styles, it's about time your car is Winters-equipped.



Jon Wright's Johnson's Hot Rod Shop-built 1932 Ford three-window coupe with a polished Steel Tube & Bell V8 Quick Change rear end. See more detail of Jon's chassis and quick change on the inside back cover.

TECH INFO

SAVE THIS INFO FOR REFERENCE

This tech info is intended to be used as a guide in the maintenance and set-up of your Winters Performance Rear End. Our instructions, along with your common sense, will give you the satisfaction and performance that you expect and deserve when you use Winters Performance.

MODEL # _____

TYPE _____

SERIAL # _____

PURCHASE DATE _____

FREQUENTLY ASKED QUESTIONS

• **What type of oil should I use in my Winters Rear End?**
Use a good quality lube, such as Winters 80-90-140 semi-synthetic with moly.

• **What oil level should I maintain in my Winters Rear End?**
At two places. (1) The rear end cavity. (2) Quick change gear cavity. See Figure 1 at right. **DO NOT OVER FILL.** Too much lube causes excessive heat!

Championship 10"
Maintain oil level at 2" below axle center line. Make sure the car is level when checking oil.

V8 8 3/8", Mini
Maintain oil level at 1 3/4" below axle center line. Make sure the car is level when checking oil.

• **How do I fill my Winters Rear End and quick change gear cavity with oil?**
The level plug is in the right side bell (See Figure 1). Optional pinion inspection plug in the right bell may be used as a fill plug. **DO NOT USE INSPECTION PLUG TO DETERMINE FLUID LEVEL.**

• **Ring Gear Bolt Torque Specifications**
Threaded Ring Gear Bolts- 60 ft lbs using red thread lock.

• **Thru Bolt & Side Bell Stud Torque Specifications**
Full Size Rears (7/16" Thru Bolts)- 35 ft lbs
V8/Mini (3/8" Studs)- 30 ft lbs

• **How do I install a side tube into a side bell?**
DO NOT TORCH! Bell cracking may occur. Place the tube in a 5 gallon bucket filled with ice. Make sure the bell is clean and free of chemicals and flammable materials. Heat the side bell in an oven to 270°-300°F. Vaseline the bell bore and drop the tube into the bell.

• **Can I weld brackets to my steel side tubes?**
Yes. Weld a series of 1/2" long "tacks" along the bracket starting at ends, then alternate back and forth towards the center. Long continuous welds will heat and "draw" the tubing, causing distortion.

• **Can I use helical quick change gears in my Winters Rear End?**
Helical cut gears, although not recommended in racing applications, do have their advantages in street applications. Quick change gear noise at highway speeds can be reduced with helical cut gears versus conventional straight cut gears. Quick change gear end play (clearance) must be limited to .010 max.

• **Can gears from different gear sets be mixed to form new ratios?**
No. Gears are matched by pitch, diameter, tooth count and paired for proper backlash. Once two gears are paired, they must remain together.

• **What is the correct way to install quick change gears?**
The machined lip faces out.

• **Can I remove my tubes and bells for painting?**
Yes. Remove left side bell first by standing rear on right side tube, this will keep the differential from falling out. Before reassembling, now is a good time to pre-lube all seals and bearings. Maintaining a dirt free environment will result in a clean rear.

• **How do I remove my pinion in my Winters Rear End?**
Make sure the center is clean and free of chemicals and flammable materials. Heat the center in an oven to 270°-300°F. **EXERCISE CAUTION- MAGNESIUM CAN BE IGNITED!** Torching your center will damage the casting and ring & pinion life will be adversely affected.

• **Can I determine ring & pinion ration without opening the rear?**
Yes. Elevate the car (engine off). Remove quick change gears. Chalk mark the tire at the 12 o'clock position. Chalk mark the pinion at the 12 o'clock position. Rotate the tire by hand one complete revolution. Count pinion rotation as tire is rotated. Just past four revolutions = 4.11/4.12, 3 7/8 revolutions = 3.78.

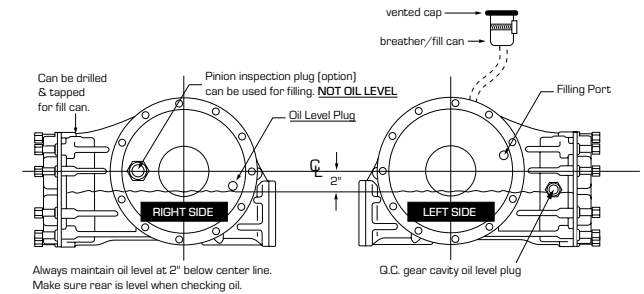
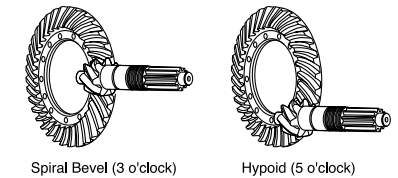


Figure 1



V8 QUICK CHANGE

SR2220 Big Bearing Flanged Axle

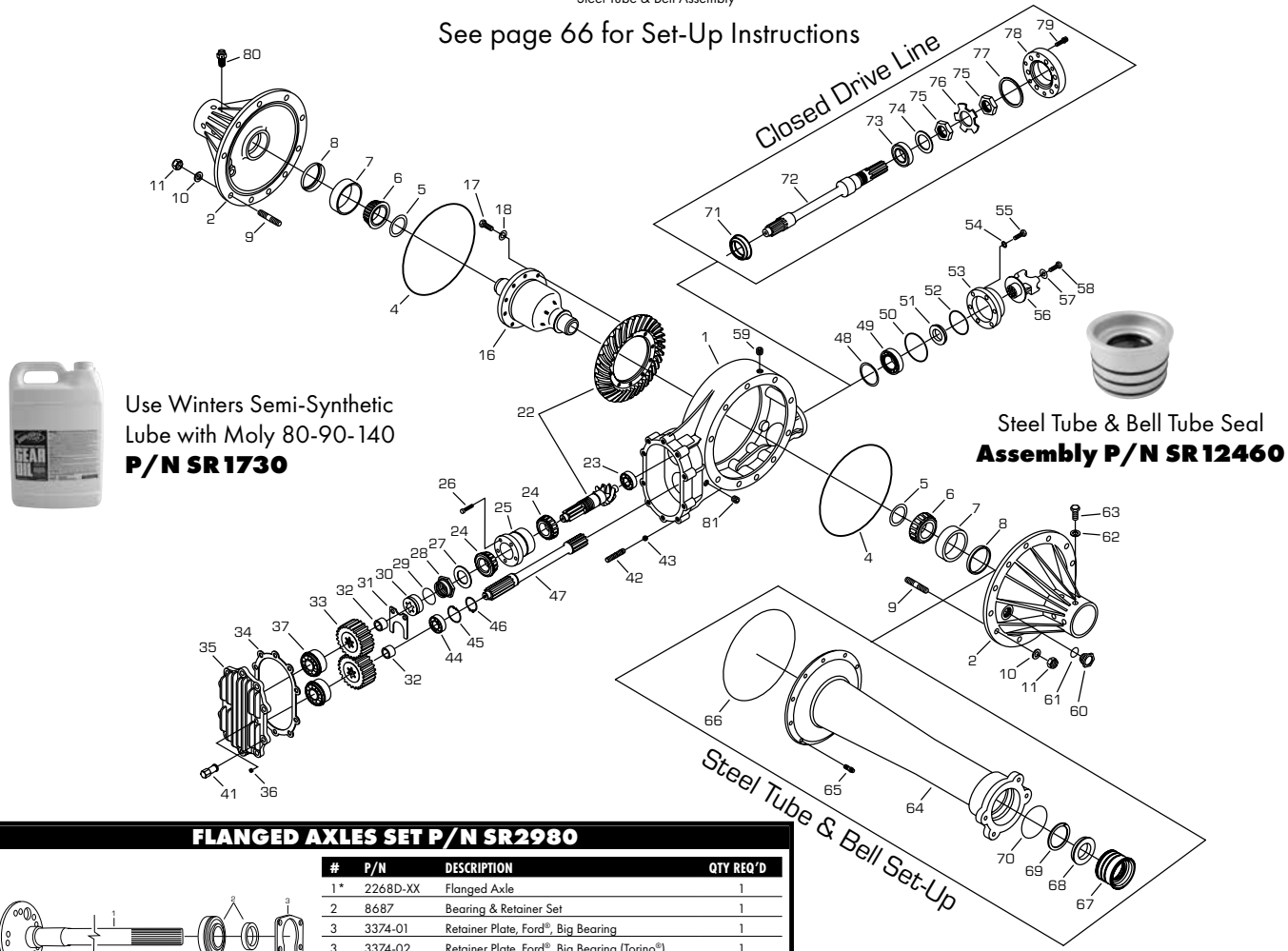
SR2550 Big Bearing Flanged Axle (Torino®)

* **SR2220STB** Big Bearing Flanged Axle

* **SR2550STB** Big Bearing Flanged Axle (Torino®)

* Steel Tube & Bell Assembly

See page 66 for Set-Up Instructions



Use Winters Semi-Synthetic Lube with Moly 80-90-140
P/N SR1730

Steel Tube & Bell Tube Seal
Assembly P/N SR12460

FLANGED AXLES SET P/N SR2980

#	P/N	DESCRIPTION	QTY REQ'D
1*	2268D-XX	Flanged Axle	1
2	8687	Bearing & Retainer Set	1
3	3374-01	Retainer Plate, Ford®, Big Bearing	1
3	3374-02	Retainer Plate, Ford®, Big Bearing (Torino®)	1
4	3834-01	1/2-20 x 2" Stud, Press-In	5
4	4266	1/2-20 x 2" Stud, Screw-In	5
5	8812	Internal Star Lockwasher, Stud	5

* Specify Length when ordering.

V8 QUICK CHANGE

Must be specific when ordering replacement parts. P/N's shown are unpolished.
Polishing available at extra charge.

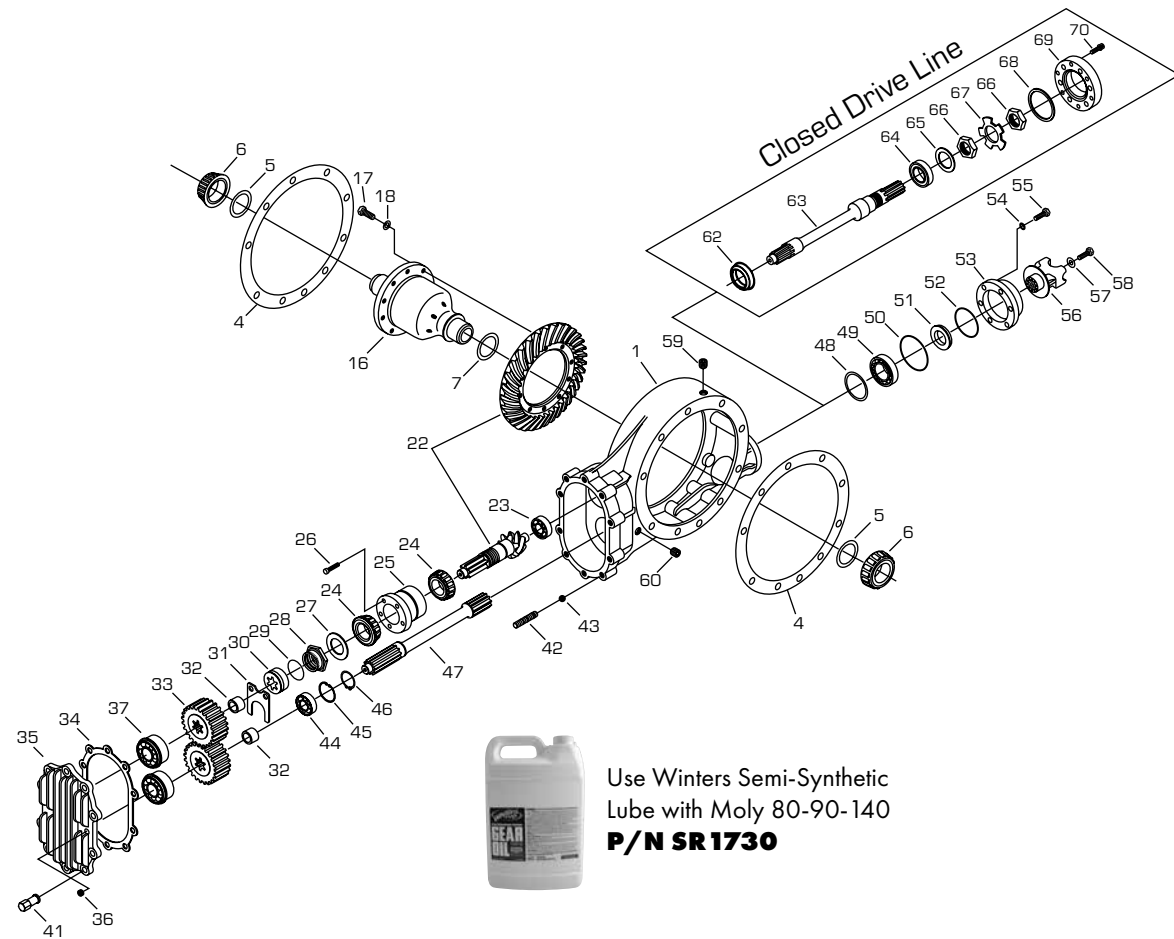
#	P/N	DESCRIPTION	QTY REQ'D	#	P/N	DESCRIPTION	QTY REQ'D
1	2524HD	Aluminum Center Section	1	48	6680	Spacer	1
2	3180	Aluminum Side Bell	2	49	7390	Bearing, Lower Shaft	1
4	7451	O'Ring, Side Bell	2	50	7413	O'Ring, Seal Plate	1
5	5295	Shim Kit	1	51	7204T	Seal, Seal Plate (Thick Seal .750")	1
6	7340	Bearing Cone	2	52	7474	Internal O'Ring, Seal Plate	1
7	7310	Bearing Cup, Side Bell	2	53	6854S	Seal Plate	1
8	7205	Seal, Side Bell	2	54	7114	3/8" Flatwasher	6
9*	7905	3/8-16 x 2" Stud	20	55	7110	3/8-16 x 1" HHCS	6
10*	7916	3/8" Belleville Washer	20	56*	5038	Drive Yoke, 1310, Steel	1
11*	7885	3/8-16 Nylon Lock Nut	20	56*	5038AS	Drive Yoke, 1310, Aluminum	1
16	1792-31	Wedgelock	1	56*	3588M	Drive Yoke, 1350, Steel	1
17*	7852	3/8-24 Ring Gear Bolt	10	57	5037	Retaining Washer, Drive Yoke	1
18*	7815	3/8" Belleville Washer	10	58	7109Y	3/8-24 x 1" HHCS	1
22	6811	Ring & Pinion, 3.78 Standard	1	59	7111B	3/8" Socket Pipe Plug	3
23	7392	Ball Bearing, Pinion Nose	1	60	6857	Small Inspection Plug w/O'Ring	1
24	7527	Bearing Cone, Pinion Shaft	2	61	7454	O'Ring, Small Inspection Plug	1
25	7525	Flanged Double Cup, Pinion Shaft	1	62	7114	3/8" SAE Flatwasher	16
26	7878	3/8-16 x 1" BHCS	5	63	7109S	3/8-24 x 3/4" HHCS	16
27	6824	Bearing Washer, Pinion	1	64†	SR4900	Steel Tube & Bell Assembly	2
28	6821	Pinion Nut	1	65†	7735	Side Bell Bolts	20
29	7455	O'Ring, Pinion Nut	1	66†	7451	8 3/8" Side Bell O'Ring	2
30	6822	Pinion Nut Retainer	1	67†	SR4933	Seal Adapter	2
31	6751	Bearing Retainer	1	68†	SR8376	Seal	2
32	1372	Gear Spacer, For 1" Gears Only	2	69†	SR8378	Retaining Ring	2
33	4500	Quick Change Gear Set, 1 3/8" Wide	1	70†	SR7468	O'Ring	6
34	6703	Gasket, Gear Cover, HD	1	71*	7280	Seal, Lower Shaft	1
35	3056	Gear Cover	1	72*	3648-6L	Lower Shaft, Closed Drive, 6 Spline	1
36	7874	#6 AN Port Plug	3	72*	3648-10L	Lower Shaft, Closed Drive, 10 Spline	1
37	7532-01	Bearing, Gear Cover	2	73*	7383F	Sealed Bearing	1
41	7794	3/8-16 Steel High Nut	10	74*	5055-01	Washer	1
41†	7735	Gear Cover Bolts	10	75*	5032R	Locknut, Right Hand	2
42	7802	3/8-16 x 1 3/4" Stud	10	76*	5056	Lockwasher	1
43	7398	5/16" Diameter Steel Ball	10	77*	6680	Spacer	1
44	7534	Bearing, Lower Shaft (Rear)	1	78*	3647	Adapter Plate, Closed Drive	1
45	7655	Retaining Ring, Rear Bearing	1	79*	7713	3/8-16 x 1 1/4" 12pt	6
46	7658	Retaining Ring, Lower Shaft	1	80	SR9341	3/8-24 Stainless Steel Breather, 1/2" Hex	1
47*	6881-03	Heat Treated Lower Shaft	1	81	9366	1/4-18 Socket Pipe Plug	1

* Part Numbers in this list may vary depending on options ordered at time of purchase. Please check the assembly tag included with your rear. † Steel Tube & Bell Assembly.

VINTAGE BELL V8 CENTER KIT

SR3605 8 3/8" V8 Center Kit

See pages 67-68 for Set-Up Instructions



VINTAGE BELL V8 CENTER KIT

Must be specific when ordering replacement parts. P/N's shown are unpolished.
Polishing available at extra charge.

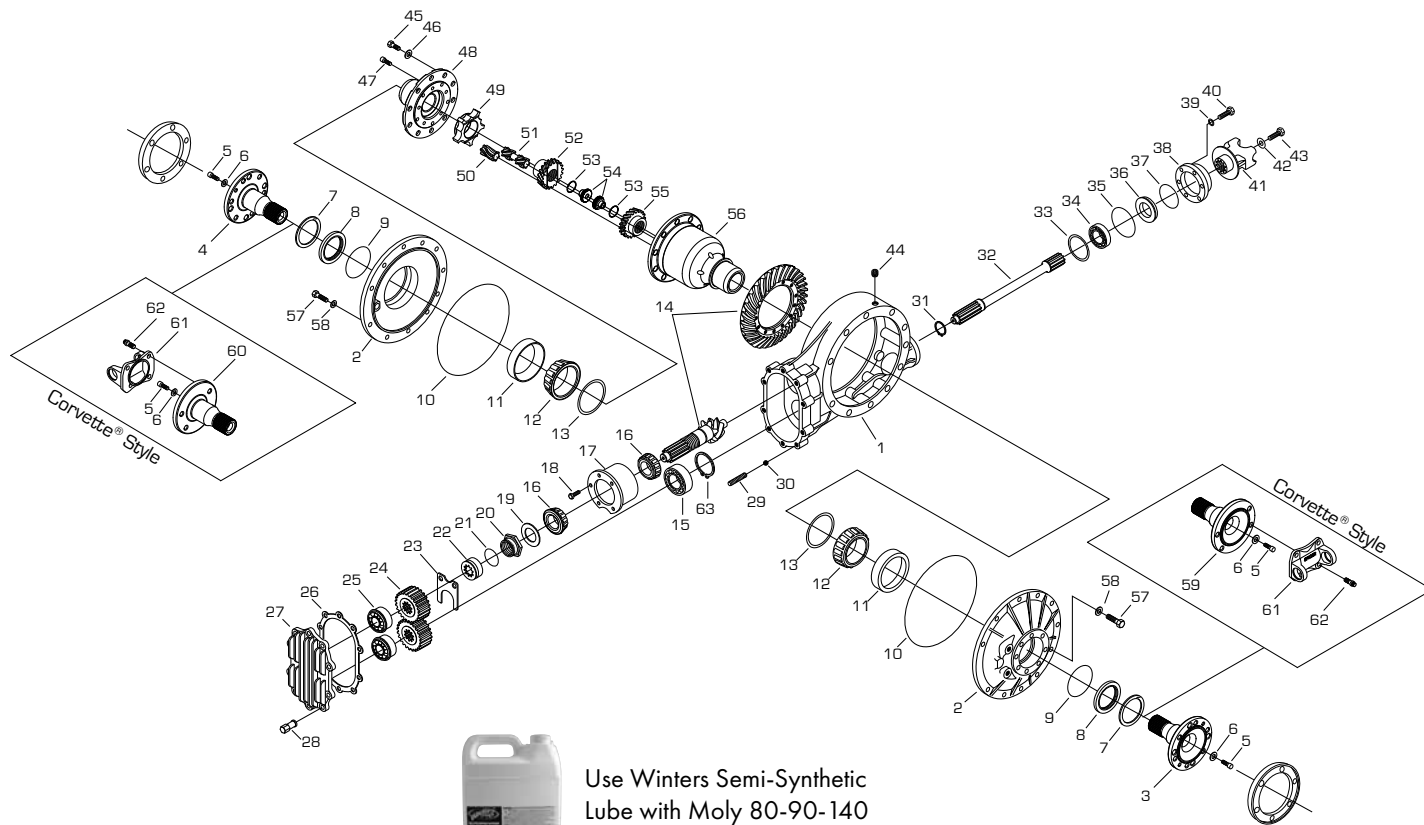
#	P/N	DESCRIPTION	QTY REQ'D	#	P/N	DESCRIPTION	QTY REQ'D
1	2524HD-01	Center Section	1	45	7655	Retaining Ring, Rear Bearing	1
4	4606	Gasket, Side Bell	2	46	7658	Retaining Ring, Lower Shaft	1
5	3171	Shim Kit	1	47	6881-03	Lower Shaft, Heat Treated	1
6	8606	Bearing Cone	2	48	6680	Spacer	1
7	3097	Spacer	1	49	7390	Bearing, Lower Shaft	1
16	1792V	Wedgelock	1	50	7413	O'Ring, Seal Plate	1
17	7852	3/8-24 Ring Gear Bolt	10	51	7204T	Seal, Seal Plate (Thick Seal .750")	1
18	7815	3/8" Belleville Washer	10	52	7474	Internal O'Ring, Seal Plate	1
22	6811	Ring & Pinion, 3.78 Standard	1	53	6854S	Seal Plate	1
23	7392	Ball Bearing, Pinion Nose	1	54	7114	3/8" Flatwasher	6
24	7527	Bearing Cone, Pinion Shaft	2	55	7110	3/8-16 x 1" HHCS	6
25	7525	Flanged Double Cup, Pinion Shaft	1	56*	5038	Drive Yoke, 1310, Steel	1
26	7878	3/8-16 x 1" BHCS	5	56*	5038AS	Drive Yoke, 1310, Aluminum	1
27	6824	Bearing Washer, Pinion	1	56*	3588M	Drive Yoke, 1350, Steel	1
28	6821	Pinion Nut	1	57	5037	Retaining Washer	1
29	7455	O'Ring, Pinion Nut	1	58	7109Y	3/8-24 x 1" HHCS	1
30	6822	Pinion Nut Retainer	1	59	7111B	3/8" Socket Pipe Plug	3
31	6751	Bearing Retainer	1	60	9366	1/4-18 Socket Pipe Plug	1
32	1372	Gear Spacer, For 1" Gears Only	2	62*	7280	Seal, Lower Shaft	1
33**	4400	Quick Change Gear Set, 1" Wide	1	63*	3648-6L	Lower Shaft, Closed Drive, 6 Spline	1
33**	4500	Quick Change Gear Set, 1 3/8" Wide	1	63*	3648-10L	Lower Shaft, Closed Drive, 10 Spline	1
34	6703HD	Gasket, Gear Cover, HD	1	64*	7383F	Sealed Bearing	1
35	3056	Gear Cover	1	65*	5055-01	Washer	1
36	7874	#6 AN Port Plug	3	66*	5032R	Locknut, Right Hand	2
37	7532	Bearing, Gear Cover	2	67*	5056	Lockwasher	1
41	7794	3/8-16 Steel High Nut	10	68*	6680	Spacer	1
42	7802	3/8-16 x 1 3/4" Stud	10	69*	3647	Adapter Plate, Closed Drive	1
43	7398	5/16" Diameter Steel Ball	10	70*	7713	3/8-16 x 1 1/4" 12pt	6
44	7534	Bearing, Lower Shaft (Rear)	1				

* Part Numbers in this list may vary depending on options ordered at time of purchase. Please check the assembly tag included with your rear. ** Not Included with Assembly.

V8 INDEPENDENT

SRP437-838 8 3/8" w/Wedgelock
SRP437-838NQ 8 3/8" Non-Quick Change

See page 75 for Set-Up Instructions



Use Winters Semi-Synthetic
 Lube with Moly 80-90-140
P/N SR1730

V8 INDEPENDENT

#	P/N	DESCRIPTION	QTY REQ'D
1	2524HD	Aluminum V8 Center Section	1
2	4658	Side Bell	2
3	4610-01	Output Flange, Right	1
4	4610-02	Output Flange, Left, Long	1
5	9363	7/16-20 x 3" SHCS	2
6	7921	Belleville Washer	2
7	8390	Retaining Ring	2
8	8976V	Seal, Side Bell	2
9	8419	O'Ring, Side Bell Seal	2
10	7451	O'Ring, Side Bell	2
11	7302	Bearing Cup, Side Bell	2
12	7301	Bearing Cone, Differential	2
13	6709	Shim Kit	1
14	6811	Ring & Pinion, 3.78 Standard	1
15	7534	Shielded Ball Bearing, Lower Shaft	1
16	7527	Bearing Cone, Pinion Shaft	2
17	7525	Double Bearing Cup, Pinion Shaft	1
18	9308	3/8-16 x 1" HHCS (Torx®)	6
19	6824	Bearing Washer, Pinion	1
20	6821	Posi-Lock Nut	1
21	7455	O'Ring, Posi-Lock Retainer	1
22	6822	Posi-Lock Retainer	1
23	6751	Bearing Retainer, Pinion	1
24	4500	Quick Change Gear Set, 1 3/8" Wide	1
25	7532-01	Double Roller Ball Bearing w/Snap Ring	2
26	6703HD	Gasket, Gear Cover, HD	1
27	3056	Gear Cover	1
28	7794	3/8-16 Steel High Nut	10
29	7802	3/8-16 x 1 3/4" Stud, Gear Cover	10
30	7398	5/16" Diameter Steel Ball, Gear Cover Stud	10
31	7658	Retaining Ring, Lower Shaft	1
32	6881-01	Heat Treated Lower Shaft	1

#	P/N	DESCRIPTION	QTY REQ'D
33	6680	Steel Spacer, Bearing	1
34	7390	Ball Bearing, Lower Shaft	1
35	7413	O'Ring, Seal Plate	1
36	7204	Seal, Seal Plate	1
37	7474	O'Ring, Seal	1
38	K6854-01M	Seal Plate, .750" Seal (.375" P/N 5018M)	1
39	7114	3/8" SAE Flatwasher	6
40	7110	3/8-16 x 1 1/4" HHCS	6
41*	5038	Drive Yoke, Steel	1
41*	5038AS	Drive Yoke, Aluminum	1
42	5037	Retaining Washer, Drive Yoke	1
43	7109Y	3/8-24 x 1" HHCS	1
44	7111B	3/8" Pipe Plug	1
45	7852	Ring Gear Bolt, Threaded Ring Gear	10
46	7815	3/8" Belleville Washer, Threaded Ring Gear	10
47	8796	1/4-28 x 1" 12pt	5
48	1688	Cover, Wedgelock Differential	1
49	1996	Scalloped Spacer	1
50	1692-01	Pinion Gear, Short	5
51	1692-02	Pinion Gear, Long	5
52	1693-31A	Side Gear, Left, 31 Spline	1
53	8336	Retaining Ring, Side Gear Insert	2
54	4639	Insert, Side Gear	2
55	1693-31B	Side Gear, Right, 31 Spline	1
56	1687	Main Housing, Wedgelock Differential	1
57	7953	3/8-16 X 1 1/4" HHCS (Torx®)	2
58	7151	3/8" SAE Flatwasher	2
59	4846-01	Output Flange, Right, Corvette Style	1
60	4846-02	Output Flange, Left, Long, Corvette Style	1
61	3453-01	Yoke	2
62	7740	7/16-20 x 3/4" 12pt	8
63	7655	Retaining Ring, Rear Bearing	1

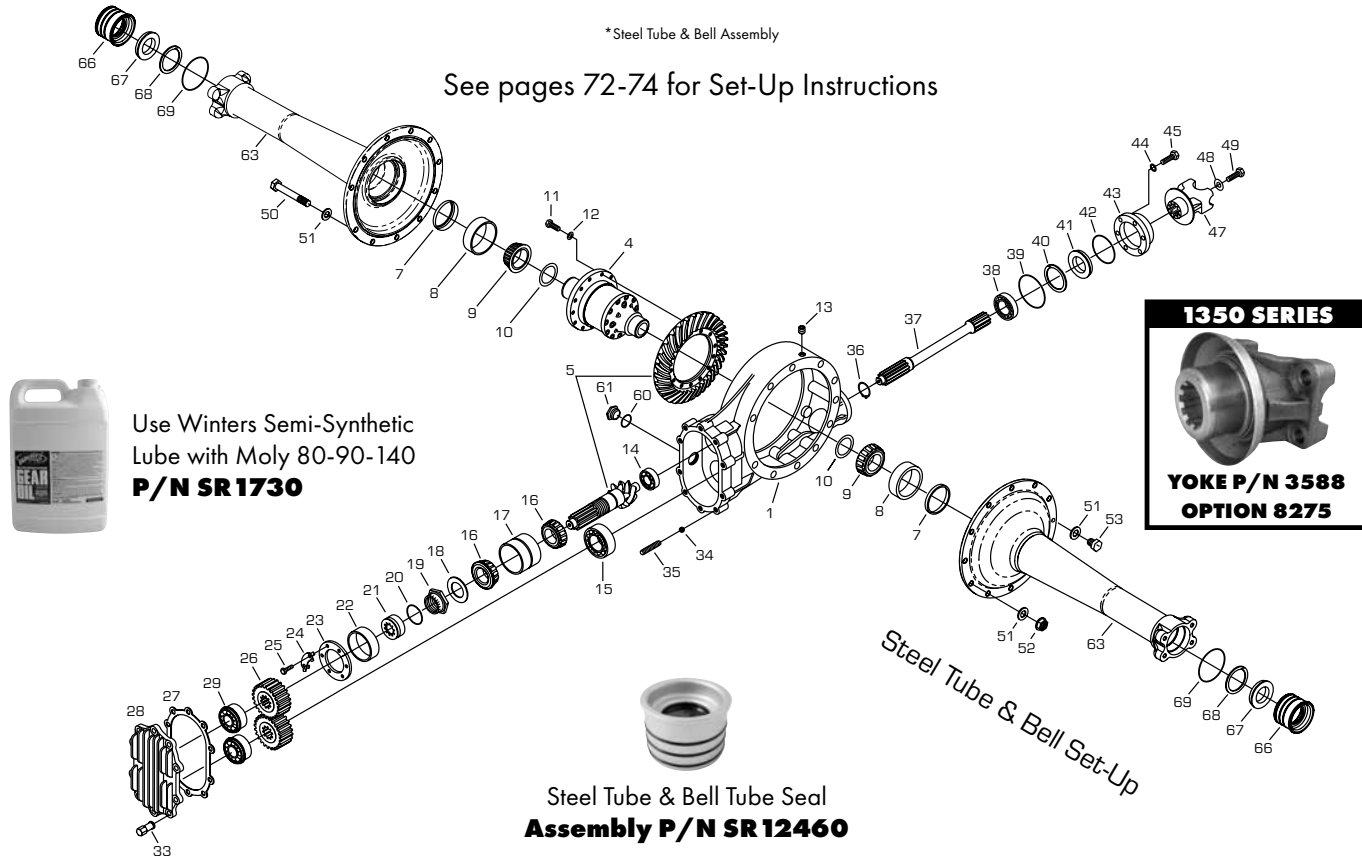
* Part Numbers in this list may vary depending on options ordered at time of purchase. Please check the assembly tag included with your rear. ** Used only with P/N 5038AS.

CHAMPIONSHIP STEEL TUBE & BELL

*** SR2530STB** Big Bearing Flanged Axle
*** SR2535STB** Big Bearing Flanged Axle (Torino®)

*Steel Tube & Bell Assembly

See pages 72-74 for Set-Up Instructions



FLANGED AXLES SET P/N SR2980

#	P/N	DESCRIPTION	QTY REQ'D
1*	2268D-XX	Flanged Axle	1
2	8687	Bearing & Retainer Set	1
3	3374-01	Retainer Plate, Ford®, Big Bearing	1
3	3374-02	Retainer Plate, Ford®, Big Bearing (Torino®)	1
4	3834-01	1/2-20 x 2" Stud, Press-In	5
4	4266	1/2-20 x 2" Stud, Screw-In	5
5	8812	Internal Star Lockwasher, Stud	5

* Specify Length when ordering.

CHAMPIONSHIP STEEL TUBE & BELL

Must be specific when ordering replacement parts. P/N's shown are unpolished.
 Polishing available at extra charge.

#	P/N	DESCRIPTION	QTY REQ'D	#	P/N	DESCRIPTION	QTY REQ'D
1	5840	Aluminum "Sprint" Center Section	1	36	7610	Retaining Ring, Lower Shaft	1
4	2419	Winters Track, 31 Spline	1	37	5003	Heat Treated Lower Shaft	1
5	5714	Ring & Pinion, 4.12 Standard	1	38	7390	Front Ball Bearing, Lower Shaft	1
6	7403T	O'Ring, 4 & 6 Rib Bell	2	39	7413	O'Ring, Seal Plate	1
7	7205	Seal, Side Bell	2	40	7652	Retaining Ring, Seal Plate (.750" Seal)	1
8	7357	Bearing Cup, Side Bell	2	41	7204T	Seal, Seal Plate (Thick Seal .750")	1
9	7358	Bearing Cone	2	42	7474	O'Ring, Seal	1
10	6115	Shim Kit	1	43	5018-01M	Seal Plate, .750" Seal	1
11	7852	Ring Gear Bolt, Threaded Ring Gear	12	44	7114	3/8" SAE Flatwasher	6
12	7815	3/8" Belleville Washer, Threaded Ring Gear	12	45	7107	3/8-16 x 1 1/4" HHCS, Seal Plate	6
13	7111B	3/8" Recessed Socket Head Pipe Plug	2	47*	3533	Drive Yoke, 1310, Steel	1
14	7331	Roller Bearing, Pinion Nose	1	47*	5038AS	Drive Yoke, 1310, Billet Aluminum	1
15	7339	Shielded Ball Bearing, Lower Shaft	1	47*	3588	Drive Yoke, 1350, Steel	1
16	7308	Bearing Cone, Pinion Shaft	2	48	5037	Retaining Washer, Drive Yoke	1
17	7307	Double Bearing Cup, Pinion Shaft	1	49	7109Y	3/8-24 x 1" HHCS, Drive Yoke	1
18	5055	Bearing Washer	1	50	7176	7/16-20 x 5 1/2" Thrubolt	10
19	6485R	Posi-Lock Nut, Pinion Shaft	1	51	7178	7/16" SAE Flatwasher, Thrubolt	22
20	7445	O'Ring, Posi-Lock	1	52	7177	7/16-20 Flanged Locknut, Thrubolt	10
21	6484	Posi-Lock Retainer, Pinion Shaft	1	53	7117	7/16-14 x 1 1/4" HHCS	2
22	5020	Retaining Ring, Pinion	1	60	7454	O'Ring, Plug	1
23	6296A	Retaining Plate, Pinion	1	61	6857	Inspection Plug	1
24	2374	Lock Tab	3	62*	2493	Champ Adapter Bell, Early Ford® Steel Tube & Bell	2
25	7110	3/8-16 x 1" HHCS, Retaining Plate	6	62*	2493-01	Champ Adapter Bell, Winters Steel Tube & Bell	2
26	8500	Quick Change Gear Set	1	63†	SR4910C	Steel Tube & Bell with Big Bearing	2
27	6729HD	Gasket, Gear Cover, HD	1	63†	SR4915C	Steel Tube & Bell with Big Bearing (Torino®)	2
28	6508	Gear Cover	1	65†	7451	8 3/8" Side Bell O'Ring	2
29	7332	Ball Bearing, Gear Cover	2	66†	SR4933	Seal Adapter	2
33	7794	3/8-16 Steel High Nut	10	67†	SR8376	Seal	2
34	7398	5/16" Diameter Ball, Gear Cover	10	68†	SR8378	Retaining Ring	2
35	7802	3/8-16 x 1 3/4" Stud, Gear Cover	10	69†	SR7468	O'Ring	6

* Part Numbers in this list may vary depending on options ordered at time of purchase. Please check the assembly tag included with your rear. † Steel Tube & Bell Assembly.

CHAMPIONSHIP ADAPTER SERIES

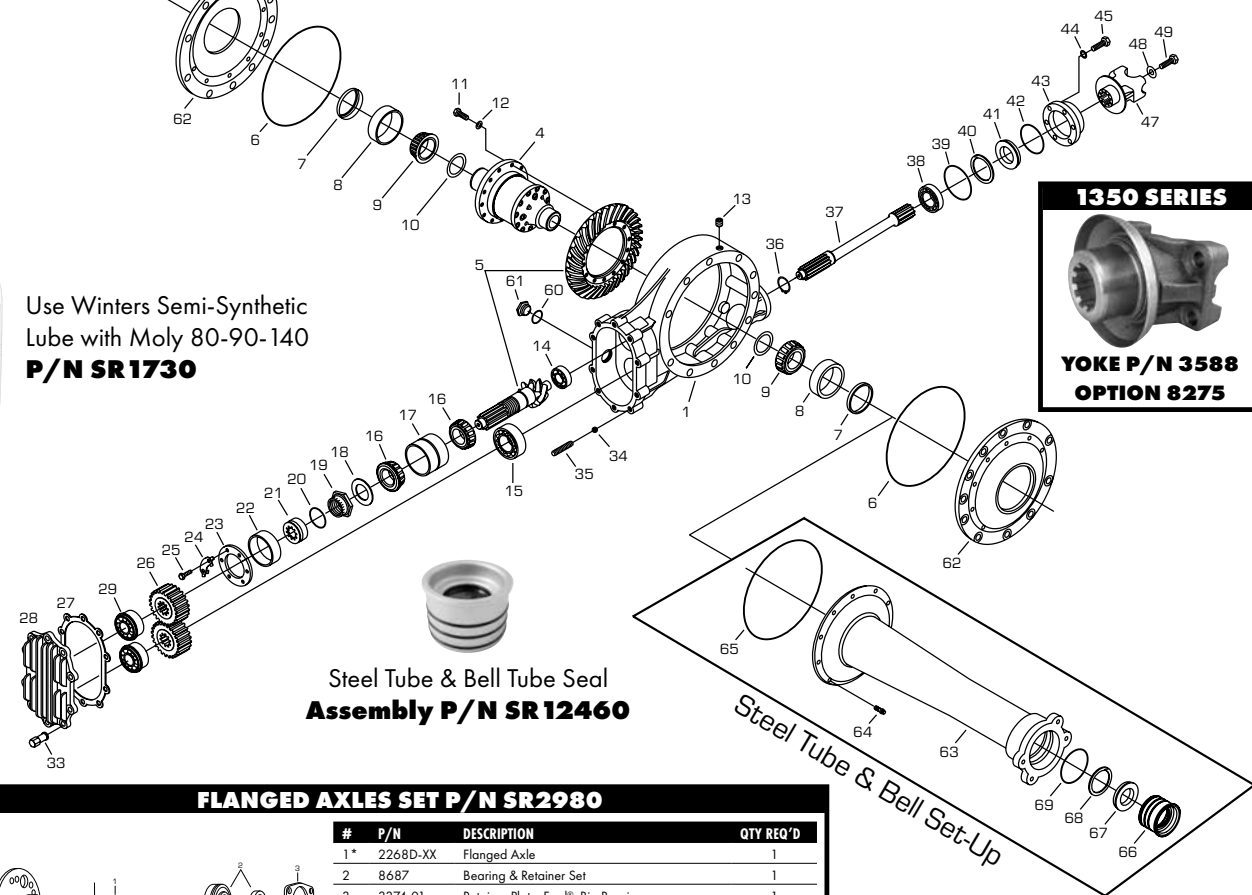
SR3600 "Sprint" Center with Champ Adapter Bells
 * **SR2520STB** Big Bearing Flanged Axle
 * **SR2525STB** Big Bearing Flanged Axle (Torino®)

* Steel Tube & Bell Assembly

See pages 72-74 for Set-Up Instructions

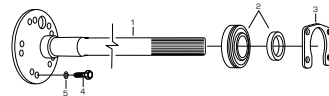


Use Winters Semi-Synthetic Lube with Moly 80-90-140
P/N SR1730



Steel Tube & Bell Tube Seal
Assembly P/N SR12460

FLANGED AXLES SET P/N SR2980



#	P/N	DESCRIPTION	QTY REQ'D
1*	2268D-XX	Flanged Axle	1
2	8687	Bearing & Retainer Set	1
3	3374-01	Retainer Plate, Ford®, Big Bearing	1
3	3374-02	Retainer Plate, Ford®, Big Bearing (Torino®)	1
4	3834-01	1/2-20 x 2" Stud, Press-In	5
4	4266	1/2-20 x 2" Stud, Screw-In	5
5	8812	Internal Star Lockwasher, Stud	5

* Specify Length when ordering.

CHAMPIONSHIP ADAPTER SERIES

Must be specific when ordering replacement parts. P/N's shown are unpolished.
 Polishing available at extra charge.

#	P/N	DESCRIPTION	QTY REQ'D	#	P/N	DESCRIPTION	QTY REQ'D
1	5840	Aluminum "Sprint" Center Section	1	34	7398	5/16" Diameter Ball, Gear Cover	10
4	2419	Winters Track, 31 Spline	1	35	7802	3/8-16 x 1 3/4" Stud, Gear Cover	10
5	5714	Ring & Pinion, 4.12 Standard	1	36	7610	Retaining Ring, Lower Shaft	1
6	7403T	O'Ring, 4 & 6 Rib Bell	2	37	5003	Heat Treated Lower Shaft	1
7	7205	Seal, Side Bell	2	38	7390	Front Ball Bearing, Lower Shaft	1
8	7357	Bearing Cup, Side Bell	2	39	7413	O'Ring, Seal Plate	1
9	7358	Bearing Cone	2	40	7652	Retaining Ring, Seal Plate (.750" Seal)	1
10	6115	Shim Kit	1	41	7204T	Seal, Seal Plate (Thick Seal .750")	1
11	7852	Ring Gear Bolt, Threaded Ring Gear	12	42	7474	O'Ring, Seal	1
12	7815	3/8" Belleville Washer, Threaded Ring Gear	12	43	5018-01M	Seal Plate, .750" Seal	1
13	7111B	3/8" Recessed Socket Head Pipe Plug	2	44	7114	3/8" SAE Flatwasher	6
14	7331	Roller Bearing, Pinion Nose	1	45	7107	3/8-16 x 1 1/4" HHCS, Seal Plate	6
15	7339	Shielded Ball Bearing, Lower Shaft	1	47*	3533	Drive Yoke, 1310, Steel	1
16	7308	Bearing Cone, Pinion Shaft	2	47*	5038AS	Drive Yoke, 1310, Billet Aluminum	1
17	7307	Double Bearing Cup, Pinion Shaft	1	47*	3588	Drive Yoke, 1350, Steel	1
18	5055	Bearing Washer	1	48	5037	Retaining Washer, Drive Yoke	1
19	6485R	Posi-Lock Nut, Pinion Shaft	1	49	7109Y	3/8-24 x 1" HHCS, Drive Yoke	1
20	7445	O'Ring, Posi-Lock	1	60	7454	O'Ring, Plug	1
21	6484	Posi-Lock Retainer, Pinion Shaft	1	61	6857	Inspection Plug	1
22	5020	Retaining Ring, Pinion	1	62*	2493	Champ Adapter Bell, Early Ford® Steel Tube & Bell	2
23	6296A	Retaining Plate, Pinion	1	62*	2493-01	Champ Adapter Bell, Winters Steel Tube & Bell	2
24	2374	Lock Tab	3	63†	SR4900	Steel Tube & Bell Assembly	2
25	7110	3/8-16 x 1" HHCS, Retaining Plate	6	64†	8060	12pt Side Bell Bolts	20
26	8500	Quick Change Gear Set	1	65†	7451	8 3/8" Side Bell O'Ring	2
27	6729HD	Gasket, Gear Cover, HD	1	66†	SR4933	Seal Adapter	2
28	6508	Gear Cover	1	67†	SR8376	Seal	2
29	7332	Ball Bearing, Gear Cover	2	68†	SR8378	Retaining Ring	2
33	7794	3/8-16 Steel High Nut	10	69†	SR7468	O'Ring	6

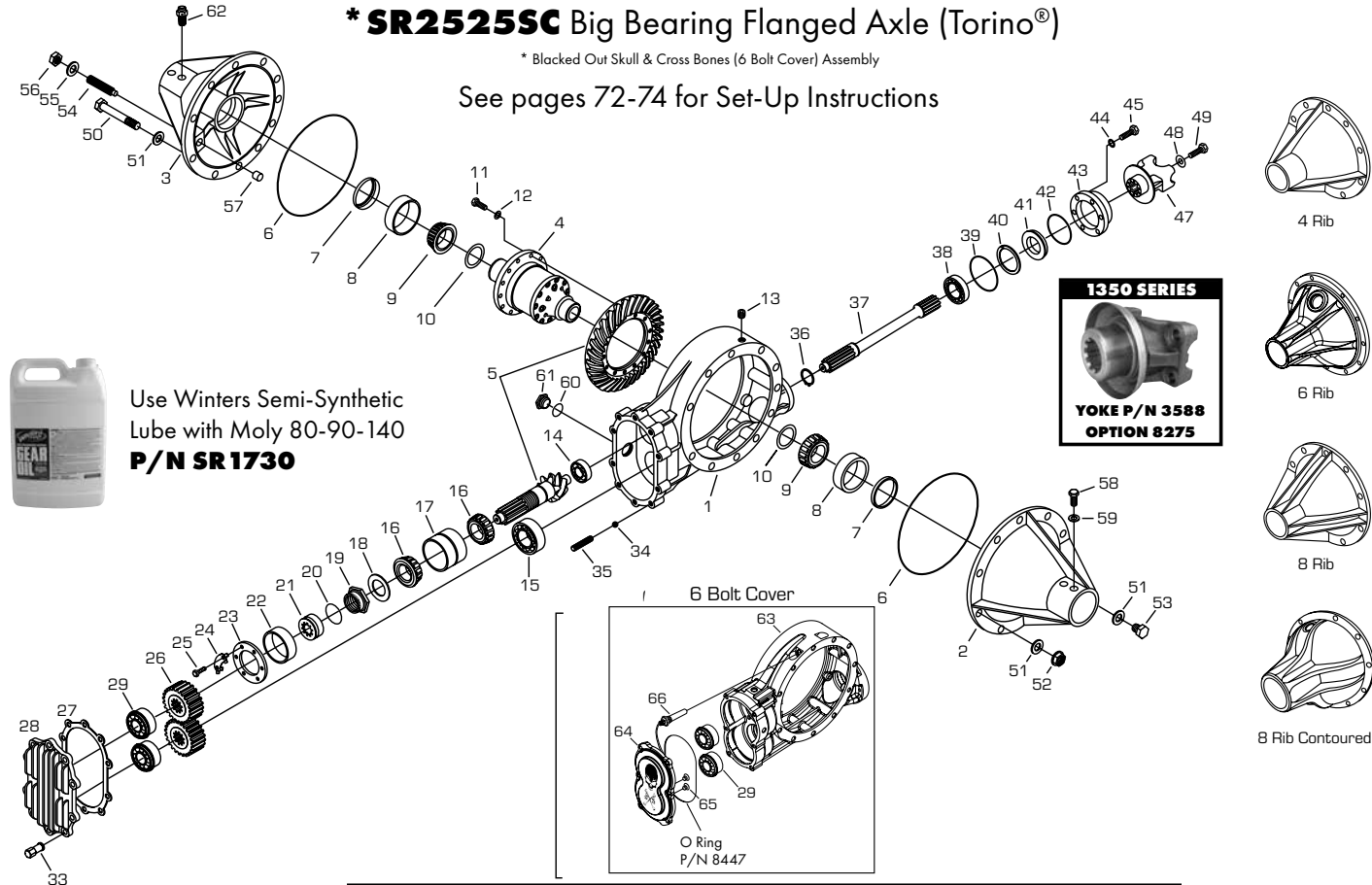
* Part Numbers in this list may vary depending on options ordered at time of purchase. Please check the assembly tag included with your rear. † Steel Tube & Bell Assembly.

CHAMPIONSHIP QUICK CHANGE

- SR2520** Big Bearing Flanged Axle
- SR2525** Big Bearing Flanged Axle (Torino®)
- * **SR2520SC** Big Bearing Flanged Axle
- * **SR2525SC** Big Bearing Flanged Axle (Torino®)

* Blacked Out Skull & Cross Bones (6 Bolt Cover) Assembly

See pages 72-74 for Set-Up Instructions



FLANGED AXLES SET P/N SR2980			
#	P/N	DESCRIPTION	QTY REQ'D
1*	2268D-XX	Flanged Axle	1
2	8687	Bearing & Retainer Set	1
3	3374-01	Retainer Plate, Ford®, Big Bearing	1
3	3374-02	Retainer Plate, Ford®, Big Bearing (Torino®)	1
4	3834-01	1/2-20 x 2" Stud, Press-In	5
4	4266	1/2-20 x 2" Stud, Screw-In	5
5	8812	Internal Star Lockwasher, Stud	5

* Specify Length when ordering.

CHAMPIONSHIP QUICK CHANGE

Must be specific when ordering replacement parts. P/N's shown are unpolished.
Polishing available at extra charge.

#	P/N	DESCRIPTION	QTY REQ'D
1	5840	Aluminum "Sprint" Center	1
2*	6697-01	Aluminum 4 Rib Right Side Bell	1
2*	1663-01	Aluminum HD 6 Rib Right Side Bell	1
2*	5016-01	Aluminum HD 8 Rib Right Side Bell	1
3*	6697-02	Aluminum 4 Rib Left Side Bell	1
3*	1663-02	Aluminum HD 6 Rib Left Side Bell	1
3*	5016-02	Aluminum HD 8 Rib Left Side Bell	1
3*	5016-05	Aluminum Lightweight 8 Rib Right Side Bell	1
3*	5016-02M	Aluminum Lightweight 8 Rib Left Side Bell	1
4	6513-31	Winters Track, 31 Spline	1
5	5714	Ring & Pinion (4.12 Ratio Standard)	1
6*	7403	O'Ring, 8 Rib Bell	2
6*	7403T	O'Ring, 4 & 6 Rib Bell	2
7	7205	Seal, Side Bell	2
8	7310	Bearing Cup, Side Bell	2
9*	7340	Bearing Cone, Differentials	2
10*	5295	Shim Kit, Differentials	1
11	7852	Ring Gear Bolt, Threaded Ring Gear	12
12	7815	3/8" Belleville Washer, Threaded Ring Gear	12
13	7111B	3/8" Recessed Socket Head Pipe Plug	2
14	7331	Roller Bearing, Pinion Nose	1
15	7339	Shielded Ball Bearing, Lower Shaft	1
16	7308	Bearing Cone, Pinion Shaft	2
17	7307	Double Bearing Cup, Pinion Shaft	1
18	5055	Bearing Washer	1
19	6485R	Posi-Lock Nut, Pinion Shaft	1
20	7445	O'Ring, Posi-Lock	1
21	6484	Posi-Lock Retainer, Pinion Shaft	1
22	5020	Retaining Ring, Pinion	1
23	6296A	Retaining Plate, Pinion	1
24	2374	Lock Tab	3
25	7110	3/8-16 x 1" HHCS, Retaining Plate	6
26	8500	Quick Change Gear Set	1
27	6729HD	Gasket, Gear Cover, HD	1
28*	6508	Gear Cover	1
29*	7332	Ball Bearing, Gear Cover	2
33	7794	3/8-16 Steel High Nut	10

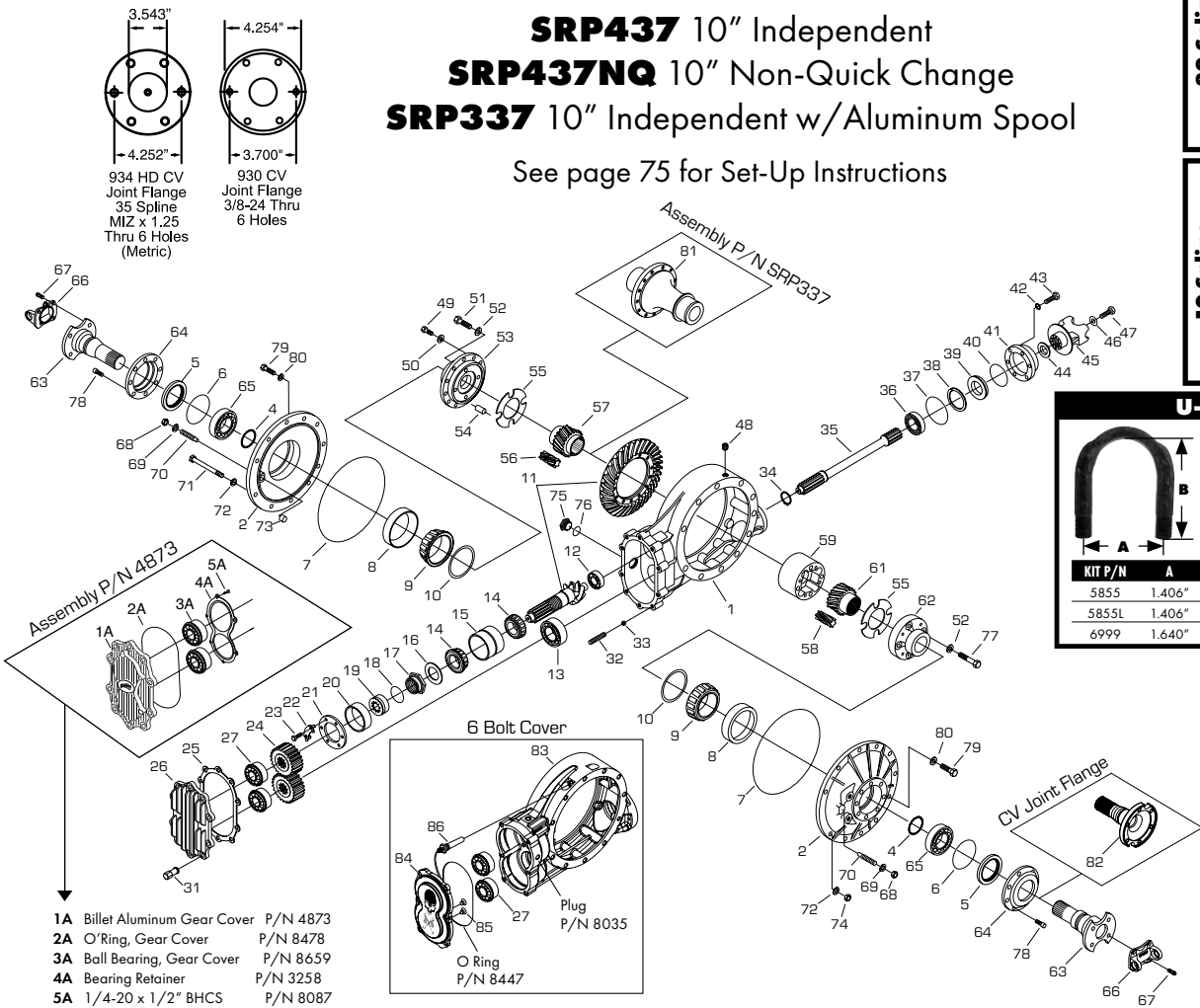
#	P/N	DESCRIPTION	QTY REQ'D
34	7398	5/16" Diameter Ball, Gear Cover	10
35	7802	3/8-16 x 1 3/4" Stud, Gear Cover	10
36	7610	Retaining Ring, Lower Shaft	1
37	5003	Heat Treated Lower Shaft	1
38	7390	Front Ball Bearing, Lower Shaft	1
39	7413	O'Ring, Seal Plate	1
40	7652	Retaining Ring, Seal Plate (.750" Seal)	1
41	7204T	Seal, Seal Plate (Thick Seal .750")	1
42	7474	O'Ring, Seal	1
43	5018-01M	Seal Plate, .750" Seal (.375" P/N 5018M)	1
44	7114	3/8" SAE Flatwasher	6
45	7107	3/8-16 x 1 1/4" HHCS, Seal Plate	6
47*	3533	Drive Yoke, 1310, Steel	1
47*	5038AS	Drive Yoke, 1310, Billet Aluminum	1
47*	3588	Drive Yoke, 1350, Steel	1
48	5037	Retaining Washer, Drive Yoke	1
49	7109Y	3/8-24 x 1" HHCS, Drive Yoke	1
50	7176	7/16-20 x 5 1/2" Thrubolt	10
51	7178	7/16" SAE Flatwasher, Thrubolt	22
52	7177	7/16-20 Flanged Locknut, Thrubolt	10
53	7117	7/16-14 x 1 1/4" HHCS	2
54*	7155	1/2-13 Adjusting Screw, 8 Rib Bell	1
54*	6149	1/2-13 Adjusting Screw, 4 & 6 Rib Bell	1
55	7167	1/2" SAE Flatwasher, Adjusting Screw	1
56	7137	1/2-13 Jam Nut, Adjusting Screw	1
57	5010	Thrustblock	1
58*	7109	3/8-24 x 1" HHCS, 8 Rib Side Bell	16
58*	7109S	3/8-24 x 3/4" HHCS, 4 & 6 Rib Side Bell	16
59	7114	3/8" SAE Flatwasher	16
60	7454	O'Ring, Plug	1
61	6857	Inspection Plug	1
62	SR9341	3/8-24 Stainless Steel Breather, 1/2" Hex	1
6 BOLT COVER			
63	12088	Aluminum 6 Bolt Center	1
64	12175	Billet Aluminum 6 Bolt Gear Cover	1
65	12417	Bearing Retainer	2
66	2966-02	Breather Assembly (Sold Separately)	1

* Part Numbers in this list may vary depending on options ordered at time of purchase. Please check the assembly tag included with your rear.

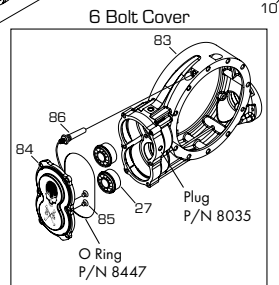
CHAMPIONSHIP INDEPENDENT

SRP437 10" Independent
SRP437NQ 10" Non-Quick Change
SRP337 10" Independent w/Aluminum Spool

See page 75 for Set-Up Instructions



- 1A Billet Aluminum Gear Cover P/N 4873
- 2A O'Ring, Gear Cover P/N 8478
- 3A Ball Bearing, Gear Cover P/N 8659
- 4A Bearing Retainer P/N 3258
- 5A 1/4-20 x 1/2" HHCS P/N 8087



- 83 Plug P/N 8035
- 84 O Ring P/N 8447

1350 SERIES

32 Spline

YOKE P/N 3566
OPTION 8275

1350 SERIES

10 Spline

YOKE P/N 3588
OPTION 8275

U-BOLT KITS

KIT INCLUDES
 2 - U-Bolts
 4 - Lock Washers
 4 - Hex Nuts
 Torque: 15 Ft Lbs

KIT P/N	A	B	SERIES	JOURNAL DIA.
5855	1.406"	1.684"	1310	1 1/16"
5855L	1.406"	1.934"	1310	1 1/16"
6999	1.640"	2.000"	1350	1 3/16"

JOURNAL ASSEMBLY

P/N 5382 1310 Series
 1 1/16" Dia w/ Grease Fitting

P/N 6847 1310 Series
 1 1/16" Dia w/o Grease Fitting

P/N 6996 1350 Series
 1 3/16" Dia w/ Grease Fitting

31 & 35 SPLINE OUTPUT FLANGE

SR2944-31 Output Flange, 31 Spline, Porsche® 930 Style CV Joint

SR2944-35 Output Flange, 35 Spline, Porsche® 930 Style CV Joint

SR4874-01 Output Flange, 35 Spline HD 934 Style CV Joint

WINTERS TRACK

P/N SR2418-31 31 Spline **P/N SR2418-35** 35 Spline

Our 31 Spline Winters Track Differential is standard equipment in all Championship Independent Assemblies. CNC machined to exacting tolerances. This virtually unbreakable, parallel gear design automatically senses wheel spin and delivers positive traction.

CHAMPIONSHIP INDEPENDENT

#	P/N	DESCRIPTION	QTY REQ'D
1	5840	Aluminum "Sprint" Center Section	1
2	2928	Side Bell	2
4	7619	Retaining Ring	2
5	7236	Seal, Side Bell	2
6	7413	O'Ring, Side Bell Seal	2
7	7403T	O'Ring, Side Bell	2
8	7357	Bearing Cup, Side Bell	2
9	7358	Bearing Cone, Differential	2
10	6115	Shim Kit	1
11	5714	Ring & Pinion, 4.12 Standard	1
12	7331	Roller Bearing, Pinion Nose	1
13	7339	Shielded Ball Bearing, Lower Shaft	1
14	7308	Bearing Cone, Pinion Shaft	2
15	7307	Double Bearing Cup, Pinion Shaft	1
16	5055	Bearing Washer, Pinion	1
17	6485R	Posi-Lock Nut	1
18	7445	O'Ring, Posi-Lock Retainer	1
19	6484	Posi-Lock Retainer	1
20	5020	Retaining Ring	1
21	6296A	Retainer Plate	1
22	2374	Lock Tab	3
23	7110	3/8-16 x 1" HHCS	6
24	8500	Quick Change Gear Set	1
25	6729HD	Gasket, Gear Cover, HD	1
26	6508	Gear Cover	1
27	8659	Double Roller Ball Bearing w/Snap Ring	2
31	7794	3/8-16 Steel High Nut	10
32	7802	3/8-16 x 1 3/4" Stud, Gear Cover	10
33	7398	5/16" Diameter Steel Ball, Gear Cover Stud	10
34	7610	Retaining Ring, Lower Shaft	1
35	5003	Heat Treated Lower Shaft, 10 Spline	1
35	5003-32	Lower Shaft, Heat Treated, 32 Spline	1
35	5003-V	Lower Shaft, Vascomax®, 10 Spline	1
35	5003V-32	Lower Shaft, Vascomax®, 32 Spline	1
36	7390	Ball Bearing, Lower Shaft	1
37	7413	O'Ring, Seal Plate	1
38	7653	Retaining Ring, Seal Plate	1
39	7204T	Seal, Seal Plate	1
40	7474	O'Ring, Seal	1
41	5018-01M	Seal Plate, .750" Seal (.375" P/N 5018M)	1
42	7114	3/8" SAE Flatwasher	6
43	7107	3/8-16 x 1 1/4" HHCS	6
44**	6532	Spacer, Drive Yoke	1
45*	3533	Drive Yoke, 1310, Steel	1
45*	3566	Drive Yoke, 1350, Steel, 32 Spline	1
45*	3588	Drive Yoke, 1350, Steel, 10 Spline	1

#	P/N	DESCRIPTION	QTY REQ'D
46	5037	Retaining Washer, Drive Yoke	1
47	7109Y	3/8-24 x 1" HHCS	1
48	7111A	Plug	1
49	7852	Ring Gear Bolt, Threaded Ring Gear	12
50	7815	3/8" Belleville Washer, Threaded Ring Gear	12
51	7113	1/2-20 x 2" HHCS	4
52	8005	1/2" Belleville Washer	8
53	2940	Housing End, Ring Gear Side	1
54	1459-01	Sleeve	4
55	6315-01	Wear Plate	2
56	6329-02	Pinion Gear, Left Hand	4
57*	6330-01	Side Gear, Left Hand, 31 Spline	1
57*	6330-35L	Side Gear, Left Hand, 35 Spline	1
58	6329-01	Pinion Gear, Right Hand	4
59	6361	Central Housing	1
61*	6330-02	Side Gear, Right Hand, 31 Spline	1
61*	6330-35R	Side Gear, Right Hand, 35 Spline	1
62	2941	Housing Cover	1
63*	2943-31	Output Flange, Corvette Style	2
64	2945	Seal Plate, Output Flange	2
65	7531	Bearing (Remove Shields)	2
66	6320	Yoke, For Use With 2943-31 Only 1350 Series	2
67	7740	7/16-20 x 3/4" 12pt	8
68	7137	1/2-13 Jam Nut, Adjusting Screw	2
69	7167	1/2" Flatwasher	2
70	6149	1/2-13 Adjusting Screw	2
71	7176	7/16-20 x 5 1/2" HHCS	10
72	7177	7/16" SAE Flatwasher	22
73	5010	Thrust Block	1
74	7177N	7/16-20 Flanged Locknut	10
75	6857-01	Small Inspection Plug	1
76	7454	O'Ring, Inspection Plug	1
77	8058	1/2-20 x 1 1/2" HHCS	4
78	7195	Bolt	16
79	7117	7/16-14 X 1 1/4" HHCS	2
80	7178	7/16" SAE Flatwasher	2
81*	SR3353-31	Aluminum Spool, 31 Spline	1
81*	SR3353-35	Aluminum Spool, 35 Spline	1
82*	SR2944-31	Output Flange, 31 Spline, Porsche® 930 Style CV Joint	2
82*	SR2944-35	Output Flange, 35 Spline, Porsche® 930 Style CV Joint	2
82*	SR4874-01	Output Flange, 35 Spline HD 934 Style CV Joint	2

6 BOLT COVER

83	12088	Aluminum 6 Bolt Center	1
84	12175	Billet Aluminum 6 Bolt Gear Cover	1
85	12417	Bearing Retainer	2
86	2966-02	Breather Assembly (Sold Separately)	1

* Part Numbers in this list may vary depending on options ordered at time of purchase. Please check the assembly tag included with your rear. ** Used only with P/N 5038AS.

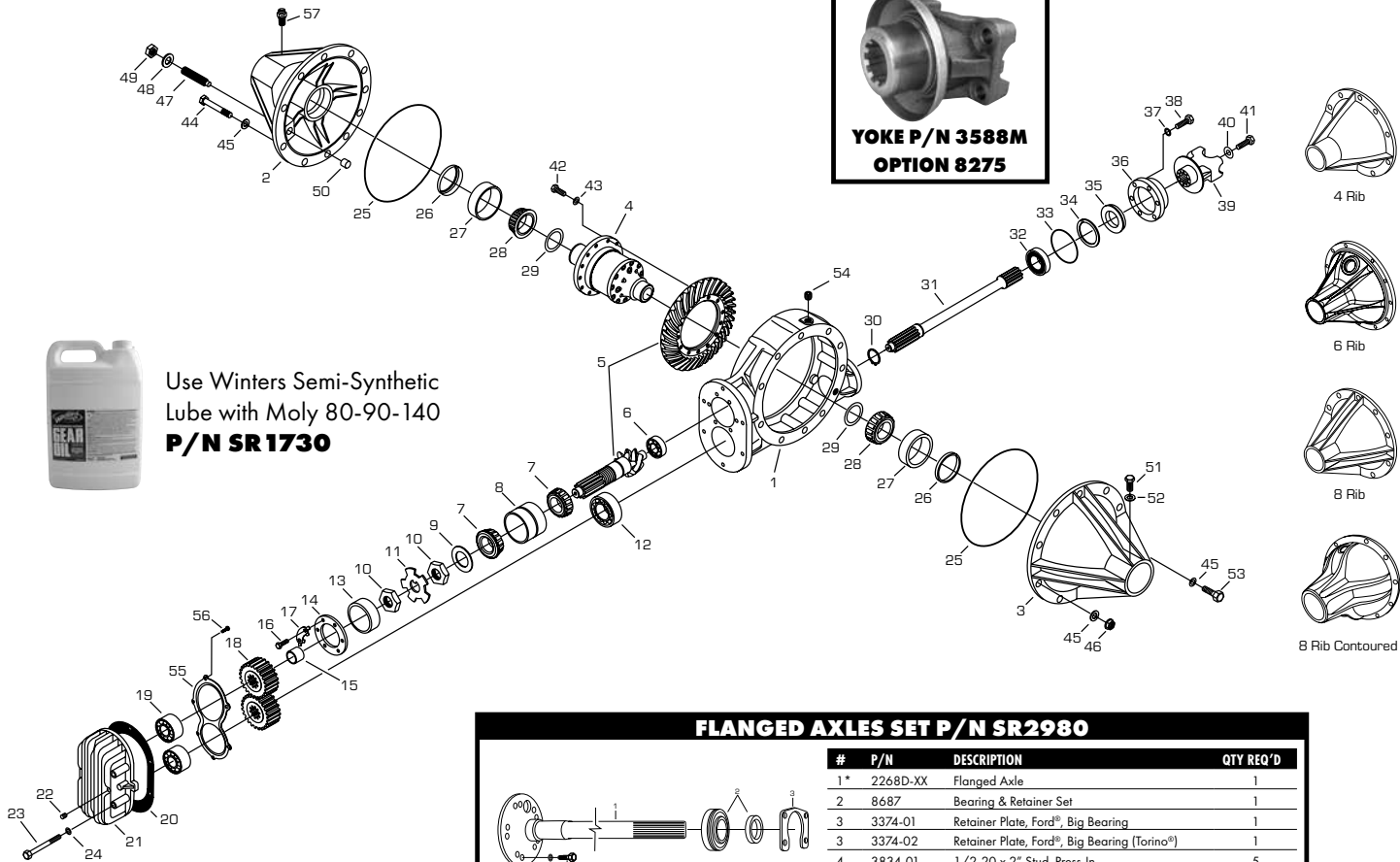
CHAMPIONSHIP HEAVY DUTY

SR2520HD Big Bearing Flanged Axle SR2525HD Big Bearing Flanged Axle (Torino®)

See pages 72-74 for Set-Up Instructions



Use Winters Semi-Synthetic
Lube with Moly 80-90-140
P/N SR1730



FLANGED AXLES SET P/N SR2980

#	P/N	DESCRIPTION	QTY REQ'D
1*	2268D-XX	Flanged Axle	1
2	8687	Bearing & Retainer Set	1
3	3374-01	Retainer Plate, Ford®, Big Bearing	1
3	3374-02	Retainer Plate, Ford®, Big Bearing (Torino®)	1
4	3834-01	1/2-20 x 2" Stud, Press-In	5
4	4266	1/2-20 x 2" Stud, Screw-In	5
5	8812	Internal Star Lockwasher, Stud	5

* Specify Length when ordering.

CHAMPIONSHIP HEAVY DUTY

Must be specific when ordering replacement parts. P/N's shown are unpolished.
Polishing available at extra charge.

#	P/N	DESCRIPTION	QTY REQ'D
1	5012	Aluminum "Sprint" Center	1
2*	6697-02	Aluminum 4 Rib Left Side Bell	1
2*	1663-02	Aluminum HD 6 Rib Left Side Bell	1
2*	5016-02	Aluminum HD 8 Rib Left Side Bell	1
3*	6697-01	Aluminum 4 Rib Right Side Bell	1
3*	1663-01	Aluminum HD 6 Rib Right Side Bell	1
3*	5016-01	Aluminum HD 8 Rib Right Side Bell	1
3*	5016-05	Aluminum Lightweight 8 Rib Right Side Bell	1
3*	5016-02M	Aluminum Lightweight 8 Rib Left Side Bell	1
4	6513-31	Winters Track, 31 Spline	1
5	5714	Ring & Pinion (4.12 Ratio Standard)	1
6	7331	Roller Bearing, Pinion Nose	1
7	7308	Bearing Cone, Pinion Shaft	2
8	7307	Double Bearing Cup, Pinion Shaft	1
9	5055	Bearing Washer	1
10	5032R	Jam Nut, Pinion Shaft	2
11	5056	Bearing Lockwasher	1
12	7339	Shielded Ball Bearing, Lower Shaft	1
13	5020	Retaining Ring, Pinion	1
14	6296A	Retaining Plate, Pinion	1
15	5021	Quick Change Gear Spacer	1
16	7110	3/8-16 x 1" HHCS, Retainer Plate	6
17	2374	Lock Tab	3
18	8500	Quick Change Gear Set	1
19	8659	Ball Bearing, Gear Cover	2
20	1764HD	Gasket, Gear Cover, HD	1
21	5017HD	Aluminum Gear Cover, Less Bearings	1
22	7111B	3/8" SH Pipe Plug	4
23	7108	3/8-16 x 4" HHCS, Gear Cover	6
24	7114HD	3/8" HD Flatwasher	6
25*	7403	O'Ring, 8 Rib Side Bell	2
25*	7403T	O'Ring, 4 & 6 Rib Side Bell	2
26	7205	Seal, Side Bell	2

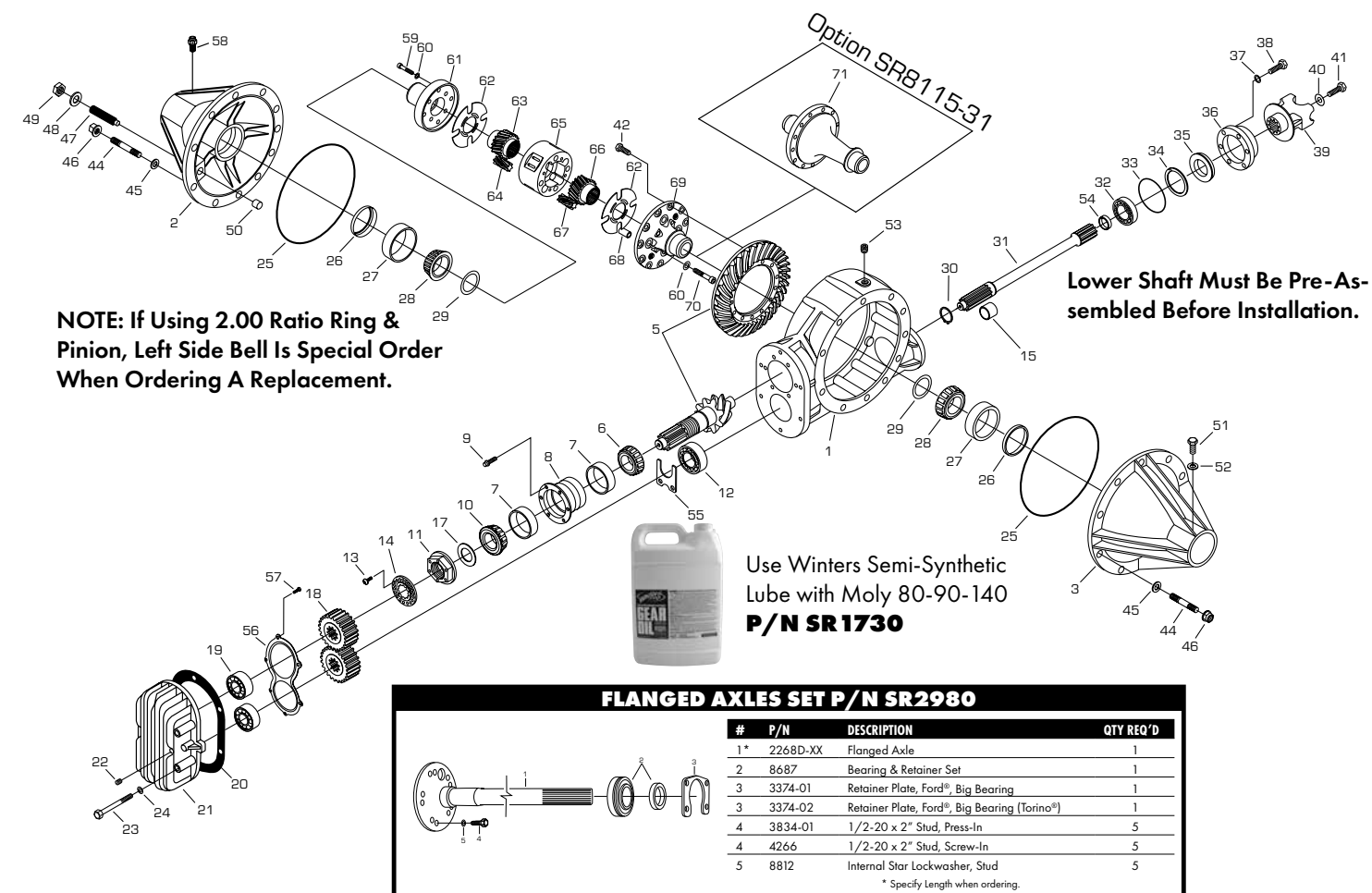
#	P/N	DESCRIPTION	QTY REQ'D
27	7310	Bearing Cup, Side Bell	2
28*	7340	Bearing Cone, Differentials	2
29	5295	Shim Kit, Differentials	2
30	7610	Retaining Ring, Lower Shaft	1
31	5003	Heat Treated Lower Shaft	1
32	7311	Double Row Ball Bearing, Lower Shaft	1
33	7413	O'Ring, Seal Plate	1
34	7652	Retaining Ring, Seal Plate (.750" Seal)	1
35	7204T	Seal, Seal Plate (Thick Seal .750")	1
36	5018-01M	Seal Plate, .750" Seal	1
37	7114	3/8" SAE Flatwasher	6
38	7107	3/8-16 x 1 1/4" HHCS, Seal Plate	6
39*	5038	Drive Yoke, 1310, Steel	1
39*	5038AS	Drive Yoke, 1310, Aluminum	1
39*	3588M	Drive Yoke, 1350, Steel	1
40	5037	Retaining Washer, Drive Yoke	1
41	7109Y	3/8-24 x 1" HHCS, Drive Yoke	1
42	7852	Ring Gear Bolt, Threaded Ring Gear	12
43	7815	3/8" Belleville Washer	12
44	7176	7/16-20 x 5 1/2" Thru Bolt	10
45	7178	7/16" SAE Flatwasher	22
46	7177	7/16-20 Flanged Locknut	10
47	7155	1/2-13 Adjusting Screw	1
48	7167	1/2" SAE Flatwasher	1
49	7137	1/2-13 Jam Nut, Adjusting Screw	1
50	5010	Thrustblock, Adjusting Screw	1
51	7109	3/8-24 x 1" HHCS, Side Bell	16
52	7114	3/8" SAE Flatwasher	16
53	7117	7/16-14 x 1 1/4" HHCS	2
54	7111B	3/8" SH Pipe Plug	2
55	3258	Bearing Retainer, Gear Cover	1
56	8087	1/4-20 x 1/2" BHCS	6
57	SR9341	3/8-24 Stainless Steel Breather, 1/2" Hex	1

* Part Numbers in this list may vary depending on options ordered at time of purchase. Please check the assembly tag included with your rear.

XTREMELINER

- SR3920** Big Bearing Flanged Axle
- SR3925** Big Bearing Flanged Axle (Torino®)
- SR3910** Super Speedway Hubs
- SR3963** 2 1/2" Grand National Hubs
- SR3975** 2 1/2" Wide 5 Hubs

See pages 72-74 for Set-Up Instructions



NOTE: If Using 2.00 Ratio Ring & Pinion, Left Side Bell Is Special Order When Ordering A Replacement.

Lower Shaft Must Be Pre-Assembled Before Installation.

Use Winters Semi-Synthetic Lube with Moly 80-90-140
P/N SR1730

FLANGED AXLES SET P/N SR2980

#	P/N	DESCRIPTION	QTY REQ'D
1*	2268D-XX	Flanged Axle	1
2	8687	Bearing & Retainer Set	1
3	3374-01	Retainer Plate, Ford®, Big Bearing	1
3	3374-02	Retainer Plate, Ford®, Big Bearing (Torino®)	1
4	3834-01	1/2-20 x 2" Stud, Press-In	5
4	4266	1/2-20 x 2" Stud, Screw-In	5
5	8812	Internal Star Lockwasher, Stud	5

* Specify Length when ordering.

XTREMELINER

Must be specific when ordering replacement parts. P/N's shown are unpolished. Polishing available at extra charge.

#	P/N	DESCRIPTION	QTY REQ'D
1	5012-308	Aluminum Center Section	1
2	5016-02	Aluminum HD 8 Rib Left Side Bell	1
3	5016-308	Aluminum HD 8 Rib Right Side Bell	1
5*	25308	Ring & Pinion, 3.08	1
5*	25308RR	Ring & Pinion, 3.08, Reverse Rotation	1
5*	25200	Ring & Pinion, 2.00	1
6	8634	Front Cone	1
7	8633	Cup	2
8	3440	Pinion Bearing Carrier	1
9	7713	3/8-16 x 1 1/4" HHCS	6
10	7308	Rear Cone	1
11	3179	Pinion Nut	1
12	7329	Roller Bearing, Lower Shaft	1
13	7869	10-24 x 1/2" BHCS	1
14	3178	Pinion Nut Retainer	1
15	3194	Quick Change Gear Spacer	1
17	3308	Washer	1
18	308	Quick Change Gear Set (Not Included)	1
19	8659	Ball Bearing, Gear Cover	2
20	1764-308	Gasket, Gear Cover	1
21*	5017HD	Aluminum Gear Cover, Less Bearings	1
22	7111B	3/8" SHCS Pipe Plug	4
23*	7108	3/8-16 x 4" HHCS, Gear Cover	6
24	7114	3/8" Flatwasher	6
25	7403	O'Ring, Side Bell	2
26	7205	Seal, Side Bell	2
27	7310	Bearing Cup, Side Bell	2
28*	7309	Bearing Cone, Differentials	2
29*	5097	Shim Kit, Differentials	1
30	8332	Retaining Ring, Lower Shaft	2
31*	5003-308	Lower Shaft	1
31*	5003-308V	Lower Shaft, VascoMax®	1
32	7390	Ball Bearing, Lower Shaft	1
33	7413	O'Ring, Seal Plate	1
34	7652	Retaining Ring, Seal Plate (.750" Seal)	1
35*	7204T	Seal, Seal Plate (Thick Seal .750")	1

#	P/N	DESCRIPTION	QTY REQ'D
36	5018-01M	Seal Plate, .750" Seal	1
37	7114	3/8" SAE Flatwasher	6
38	7107	3/8-16 x 1 1/4" HHCS, Seal Plate	6
39	3436	Drive Yoke, 1350, Steel	1
40	5037	Retaining Washer, Drive Yoke	1
41	7109Y	3/8-24 x 1" HHCS, Drive Yoke	1
42	8077	Ring Gear Bolt, Threaded Ring Gear	12
44	7863	Stud	22
45	7178	7/16" SAE Flatwasher	22
46	7177N	7/16-20 Flanged Locknut	22
47	7155	1/2-13 Adjusting Screw	1
48	7167	1/2" SAE Flatwasher	1
49	7137	1/2-13 Jam Nut, Adjusting Screw	1
50	5010	Thrustblock, Adjusting Screw	1
51	7109	3/8-24 x 1" HHCS, Side Bell	16
52	7114	3/8" SAE Flatwasher	16
53	7111	3/8" Hex Head Pipe Plug	2
54	3193	Retaining Ring Retainer	1
55	3441	Bearing Retainer	1
56	3258	Bearing Retainer, Gear Cover	1
57	8087	1/4-20 x 1/2" BHCS	6
58	SR9341	3/8-24 Stainless Steel Breather, 1/2" Hex	1
59	7113	1/2-20 x 2" HHCS	4
60	7773	Spring Washer	8
61†	6360	Right Side Housing	1
62	6315	Wear Plates	2
63	6330-02	Side Gear, Right Hand	1
64	6329-01	Pinion Gear, Right Hand	4
65†	6361	Center Housing	1
66	6330-01	Side Gear, Left Hand	1
67	6329-02	Pinion Gear, Left Hand	4
68	1459	Bushing	4
69†	6359	Left Side Housing	1
70	7113	1/2-20 x 2" HHCS	4
71	5034-11A	31 Spline Aluminum Spool	1

* Part Numbers in this list may vary depending on options ordered at time of purchase. Please check the assembly tag included with your rear. † Must be purchased as a complete unit.

V8 "NO CHANGE" BANJO

SR4220M Big Bearing Flanged Axle

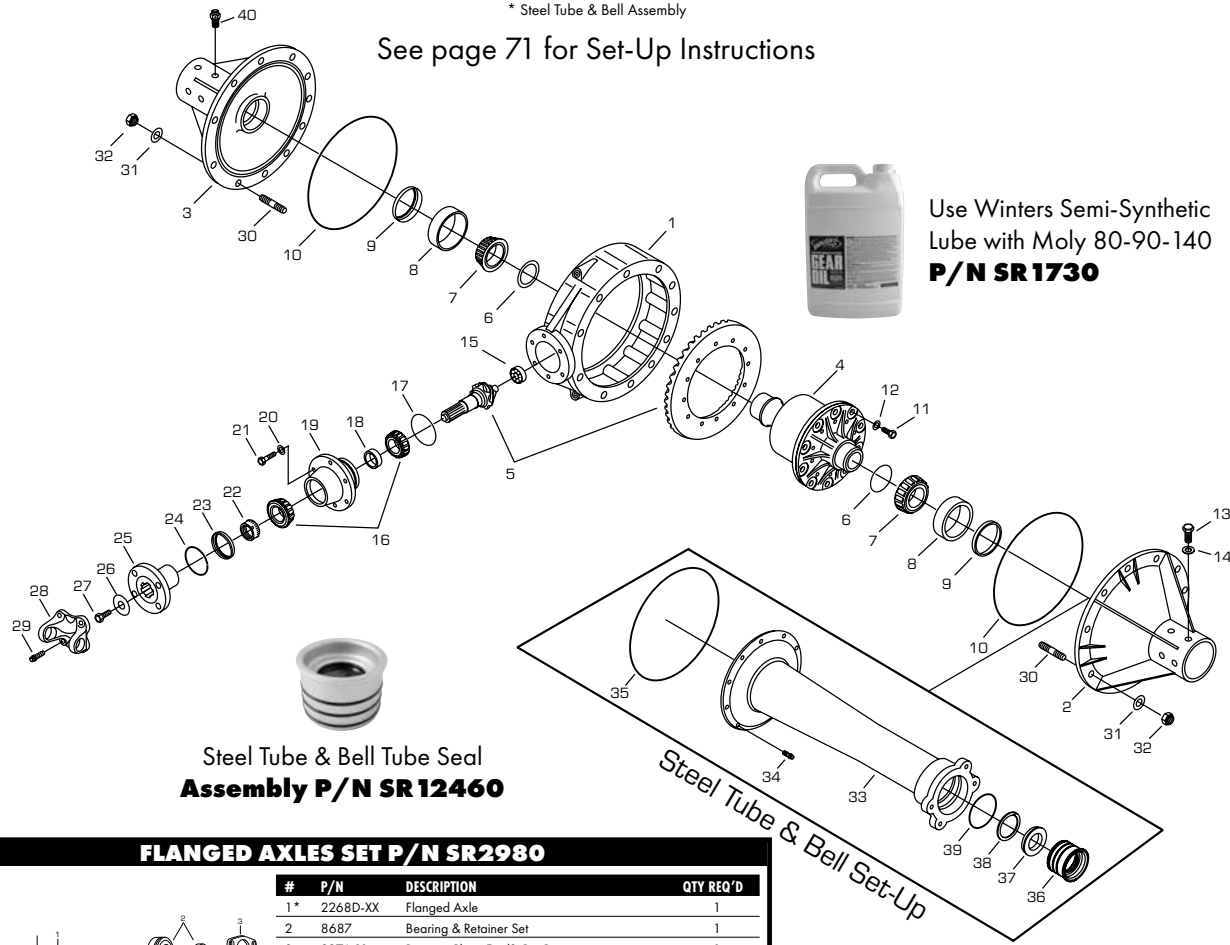
SR4225M Big Bearing Flanged Axle (Torino®)

***SR4220MSTB** Big Bearing Flanged Axle

***SR4225MSTB** Big Bearing Flanged Axle (Torino®)

* Steel Tube & Bell Assembly

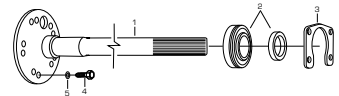
See page 71 for Set-Up Instructions



Use Winters Semi-Synthetic Lube with Moly 80-90-140
P/N SR1730

Steel Tube & Bell Tube Seal
Assembly P/N SR12460

FLANGED AXLES SET P/N SR2980



#	P/N	DESCRIPTION	QTY REQ'D
1*	2268D-XX	Flanged Axle	1
2	8687	Bearing & Retainer Set	1
3	3374-01	Retainer Plate, Ford®, Big Bearing	1
3	3374-02	Retainer Plate, Ford®, Big Bearing (Torino®)	1
4	3834-01	1/2-20 x 2" Stud, Press-In	5
4	4266	1/2-20 x 2" Stud, Screw-In	5
5	8812	Internal Star Lockwasher, Stud	5

* Specify Length when ordering.

V8 "NO CHANGE" BANJO

Must be specific when ordering replacement parts. P/N's shown are unpolished.
Polishing available at extra charge.

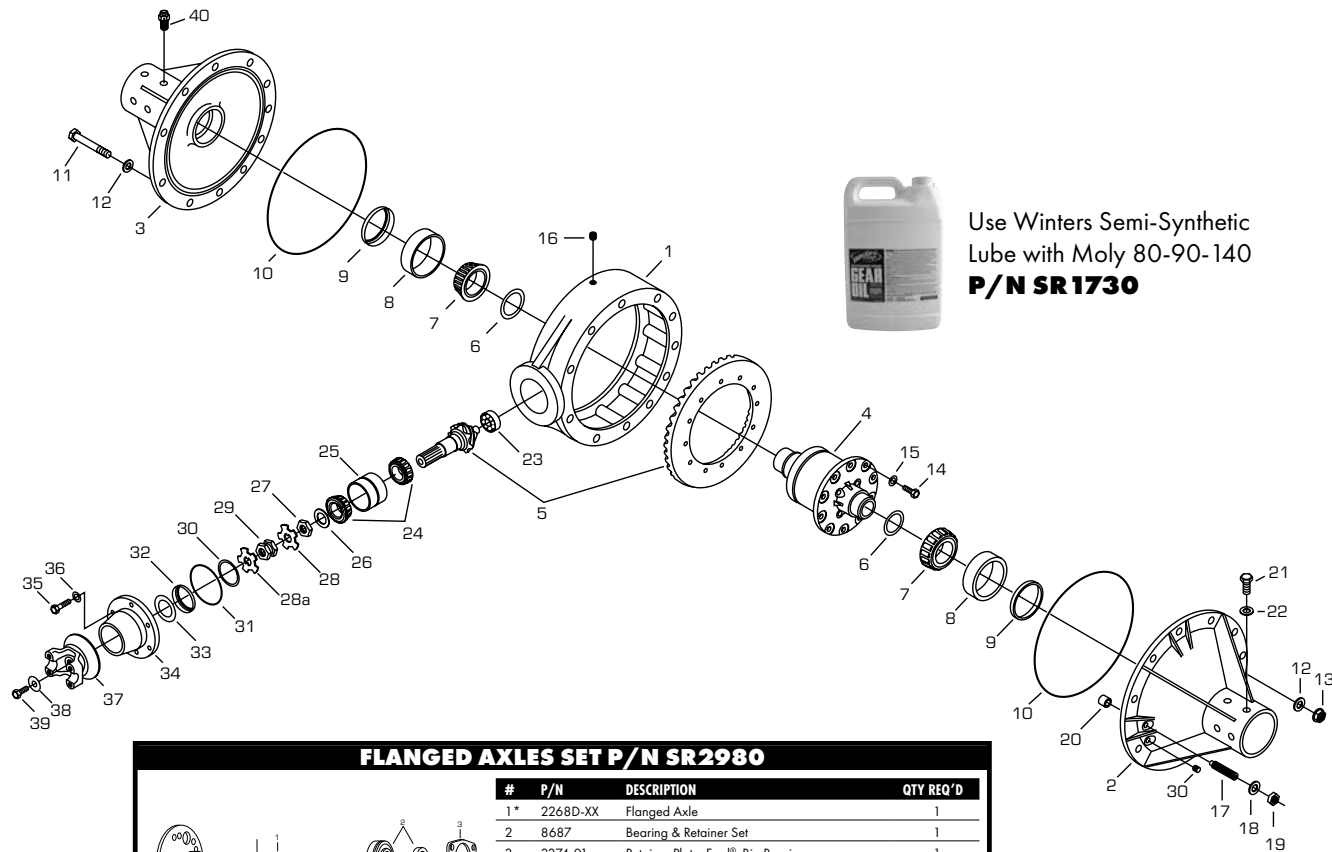
#	P/N	DESCRIPTION	QTY REQ'D	#	P/N	DESCRIPTION	QTY REQ'D
1*	2518	Aluminum Non-Quick Change Center Section	1	21	7110	Bolt	6
2*	1449-02	Aluminum 4 Rib Left Side Bell	1	22	2892	Pinion Nut	1
3*	6840-01	Aluminum 4 Rib Right Side Bell	1	23	7204	Seal	1
4*	1792	Wedgelock	1	24	7652	Retaining Ring	1
5*	6811	Ring & Pinion, 3.78 Standard	1	25	2521	Output Flange	1
6*	5295	Shim Kit	1	26	5037	Retaining Washer, Drive Yoke	1
7	7340	Carrier Bearing Cone	2	27	7109Y	3/8-24 x 1" HHCS	1
8	7310	Bearing Cup, Side Bell	2	28	5856	Yoke, 1310	1
9	7205	Carrier Seal	2	29	7735	Bolt	4
10	7451	O'Ring, 4 Rib Side Bell	2	30*	7905	Stud	20
11	7852	Ring Gear Bolt, Threaded Ring Gear	12	31*	7916	3/8" Belleville Washer	20
12	7815	3/8" Belleville Washer	12	32*	7885	3/8-16 Nylon Locknut	20
13	7109S	3/8-24 x 3/4" HHCS, 4 Rib Side Bell	16	33†	SR4900	Steel Tube & Bell Assembly	2
14	7114	3/8" SAE Flatwasher	16	34†	7735	Side Bell Bolts	20
15	7392	Ball Bearing, Pinion Nose	1	35†	7451	8 3/8" Side Bell O'Ring	2
16	7527	Bearing Cone, Pinion Shaft	1	36†	SR4933	Seal Adapter	2
17	8404	O'Ring	1	37†	SR8376	Seal	2
18	2951	Spacer	1	38†	SR8378	Retaining Ring	2
19	2519	Bearing Cup	1	39†	SR7468	O'Ring	6
20	7114	3/8" SAE Flatwasher	6	40	SR9341	3/8-24 Stainless Steel Breather, 1/2" Hex	1

* Part Numbers in this list may vary depending on options ordered at time of purchase. Please check the assembly tag included with your rear. † Steel Tube & Bell Assembly.

CHAMPIONSHIP "NO CHANGE" BANJO

SR4220 Big Bearing Flanged Axle
SR4225 Big Bearing Flanged Axle (Torino®)

See page 71 for Set-Up Instructions



FLANGED AXLES SET P/N SR2980

#	P/N	DESCRIPTION	QTY REQ'D
1*	2268D-XX	Flanged Axle	1
2	8687	Bearing & Retainer Set	1
3	3374-01	Retainer Plate, Ford®, Big Bearing	1
3	3374-02	Retainer Plate, Ford®, Big Bearing (Torino®)	1
4	3834-01	1/2-20 x 2" Stud, Press-In	5
4	4266	1/2-20 x 2" Stud, Screw-In	5
5	8812	Internal Star Lockwasher, Stud	5

* Specify length when ordering.

CHAMPIONSHIP "NO CHANGE" BANJO

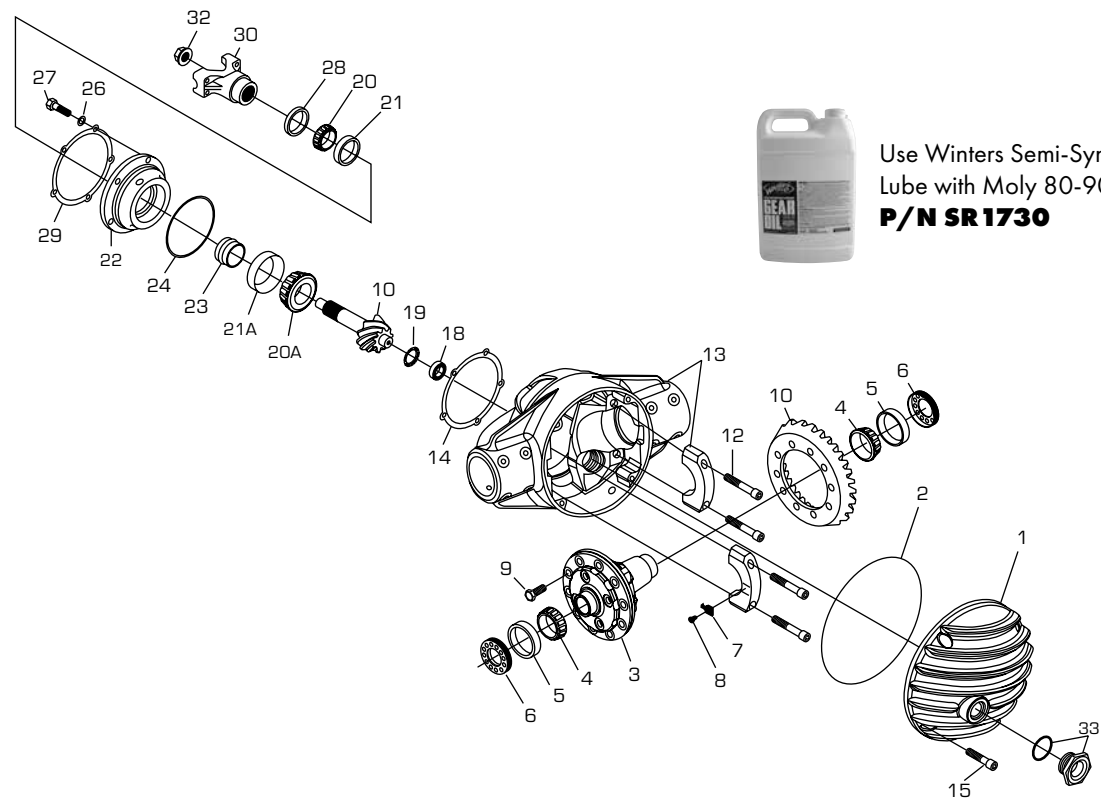
Must be specific when ordering replacement parts. P/N's shown are unpolished.
 Polishing available at extra charge.

#	P/N	DESCRIPTION	QTY REQ'D	#	P/N	DESCRIPTION	QTY REQ'D
1	6559	Aluminum Non-Quick Change Center Section	1	20	5010	Thrust Block	1
2*	6697-02	Aluminum 4 Rib Left Side Bell	1	21*	7109S	3/8-24 x 3/4" HHCS, 4 & 6 Rib Side Bell	16
2*	1663-02	Aluminum HD 6 Rib Left Side Bell	1	21*	7109	3/8-24 x 1" HHCS, 8 Rib Side Bell	16
2*	5016-02	Aluminum HD 8 Rib Left Side Bell	1	22	7114	3/8" SAE Flatwasher	16
3*	6697-01	Aluminum 4 Rib Right Side Bell	1	23*	7312	Ball Bearing, Pinion Nose	1
3*	1663-01	Aluminum HD 6 Rib Right Side Bell	1	23*	7331	Roller Bearing, Pinion Nose	1
3*	5016-01	Aluminum HD 8 Rib Right Side Bell	1	24	7308	Bearing Cone, Pinion Shaft	2
4	6513-31	Winters Track, 31 Spline	1	25	7307	Bearing Double Cup, Pinion Shaft	1
5	5714M	Ring & Pinion, 4.12 Standard	1	26	5055	Bearing Washer, Pinion Shaft	1
6	5295	Shim Kit	1	27	5032R	Jam Nut, Pinion Shaft	2
7	7340	Carrier Bearing Cone	2	28	5056	Bearing Lockwasher, Pinion Shaft	1
8	7310	Bearing Cup, Side Bell	2	28a	1136	Bearing Lockwasher, Double Tab	1
9	7205	Carrier Seal	2	29	1137	Top Nut	1
10*	7403T	O'Ring, 4 & 6 Rib Side Bell	2	30	7653	Internal Snap Ring, Seal Plate	1
10*	7403	O'Ring, 8 Rib Side Bell	2	31	7448	O'Ring, Seal Plate	1
11	7176	7/16-20 x 5 1/2" HHCS Thru Bolt	11	32*	7204	Seal, Seal Plate	1
12	7178	7/16" SAE Flatwasher	22	33	6115-065	Shim, .065" Thick	1
13	7177	7/16-20 Flanged Locknut	11	34	6554	Seal Plate	1
14	7852	Ring Gear Bolt, Threaded Ring Gear	12	35	7107	3/8-16 x 1 1/4" HHCS	6
15	7815	3/8" Belleville Washer	12	36	7114	3/8" SAE Flatwasher	6
16	7111B	3/8" Socket Head Pipe Plug	3	37*	5038	Drive Yoke, 1310, 10 Spline	1
17*	6149	1/2-13 Adjusting Screw, 4 & 6 Rib Side Bell	1	37*	3588M	Drive Yoke, 1350	1
17*	7155	1/2-13 Adjusting Screw, 8 Rib Side Bell	1	38	5037	Retaining Washer, Drive Yoke	1
18	7167A	1/2" SAE Flatwasher	1	39	7109Y	3/8-24 x 1" HHCS	1
19	7137	1/2-13 Jam Nut	1	40	SR9341	3/8-24 Stainless Steel Breather, 1/2" Hex	1

* Part Numbers in this list may vary depending on options ordered at time of purchase. Please check the assembly tag included with your rear.

CHAMPIONSHIP 9-INCH

SR92520CR Big Bearing Flanged Axle
SR92525CR Big Bearing Flanged Axle (Torino®)



Use Winters Semi-Synthetic
 Lube with Moly 80-90-140
P/N SR1730

FLANGED AXLES SET P/N SR2980

#	P/N	DESCRIPTION	QTY REQ'D
1*	2268D-XX	Flanged Axle	1
2	8687	Bearing & Retainer Set	1
3	3374-01	Retainer Plate, Ford®, Big Bearing	1
3	3374-02	Retainer Plate, Ford®, Big Bearing (Torino®)	1
4	3834-01	1/2-20 x 2" Stud, Press-In	5
4	4266	1/2-20 x 2" Stud, Screw-In	5
5	8812	Internal Star Lockwasher, Stud	5

* Specify Length when ordering.

CHAMPIONSHIP 9-INCH

Must be specific when ordering replacement parts. P/N's shown are unpolished.
 Polishing available at extra charge.

#	P/N	DESCRIPTION	QTY REQ'D
1	94305	Aluminum Rear Cover	1
2	98417	O'Ring	1
3	94620-31A	Gear Trac	1
4	97541	Bearing Cone	2
5	97542	Bearing Cup	2
6	93613	Adjusting Nut, Carrier Bearings, 3.250" O.D.	2
7*	93614	Locking Tab, Adjusting Nut	2
7*	93615	Locking Tab, Adjusting Nut	2
7*	93616	Locking Tab, Adjusting Nut	2
8	97933	5/16-18 x 3/8" BHCS, Locking Tab	2
9	97934	7/16-20 Ring Gear Bolt (Special)	10
10*	945XXX	Ring & Pinion	1
12	97932	1/2-13 x 3 1/4" SHCS, Bearing Cap	4
13	94305	Aluminum Housing	1
14	91275	Shim Kit, Pinion Retainer	1
15	97778	3/8-16 x 1" SHCS	4
18	97576	Roller Bearing, Pinion Pilot	1

#	P/N	DESCRIPTION	QTY REQ'D
19	92588	Retainer, Pilot Bearing	1
20	97527	Bearing Cone, Pinion Retainer	2
20A	97553	Large Bearing Cone, Pinion Retainer	2
21	98622	Bearing Cup, Pinion Retainer	2
21A	98623	Large Bearing Cup, Pinion Retainer	2
22	96897	Pinion Retainer, Aluminum, Daytona Style	1
23*	92392	Crush Sleeve	1
23*	92969	Solid Sleeve (Machine To Length)	1
24	98407	O'Ring	1
26	97114	3/8" SAE Flatwasher	5
27	97107	3/8-16 x 1 1/4" HHCS	5
28	97247	Seal, Pinion Retainer	1
29	93617	Lock Ring	1
30	92417	Yoke, 1310 Series, Short-Narrow	1
32	92222	Pinion Lock Nut	1
33	96857	Large Inspection Plug w/O'Ring	1

* Part Numbers in this list may vary depending on options ordered at time of purchase. Please check the assembly tag included with your rear.

V8 QUICK CHANGE SET-UP

DO NOT TORCH

350°F plus and heat treat is permanently lost. Localized hot spots cause permanent distortion and loss of critical alignments. Castings will “crack” if subjected to torching.

PINION INSTALLATION

1. Make sure center is clean and free of chemicals or flammable materials.
2. Heat the “clean” center to 270°-300°F in an oven. **DO NOT OVER HEAT as loss of heat treatment or distortion will occur.** Place the pinion in the freezer before attempting installation. Using a cold pinion with a warm center makes installation effortless.
3. Remove heated center from oven, lubricate pinion bearing bore and bearings. Install “chilled” pinion using a urethane (soft) hammer to ensure the pinion is seated.

PINION PRELOAD

After pinion is installed and case has cooled down to room temperature (68°-72°F), torque the pinion retainer bolts to 25 ft lbs. Preload **NEW** pinion bearings to a maximum of 20 in lbs. Preload **USED** pinion bearings to 8-10 in lbs.

SHIM STARTING POINT

.085”

SIDE BELL PRELOAD

WITHOUT seals or o’rings. .007” Wedgelock

RING AND PINION BACKLASH

.004”-.006”, **NO** tight spots when rotated

TORQUE SPECIFICATIONS

Pinion Retainer Plate Bolts- 25 ft lbs

Gear Cover Bearing Retaining Caps- 60 in lbs (5 ft lbs)

*Threaded WP Ring Gear Bolts with Belleville Washers- Final Torque, Steel using Red Loctite®- 60 ft lbs

*Side Bell Nuts- 30 ft lbs

*Torque alternating in a crisscross pattern in steps to specified final torque.

After ring gear is installed and backlash is of absolute minimum and the bolts/nuts torqued, the total preload of the assembly should be: Preload **NEW** pinion bearings and seals, 27-29 in lbs, Preload **USED** pinion bearings and seals, 15-20 in lbs.

VINTAGE BELL V8 CENTER KIT SET-UP

As purchased, this housing unit will fit 1935 to 1948 Ford® rear axle housings. Rear axle assemblies prior to 1937 will require the use of different carrier bearings matching the year of bells being used.

INSPECTION AND PREPARING DONOR BELLS

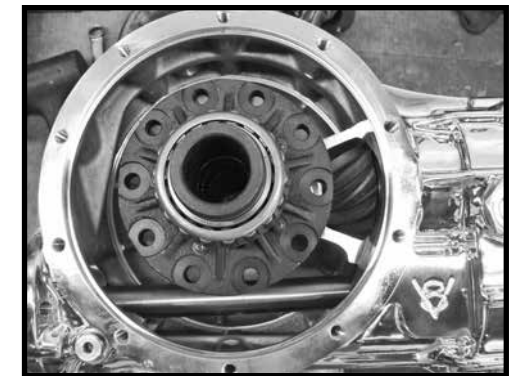
1. Clean both axle housings and inspect carrier races. New race replacement is suggested at this time.
2. This kit uses modern day flanged 9” Ford style axles, so updating the housing ends is needed before assembly can be accomplished.

ASSEMBLY

Upon successful inspection of donor parts, please follow these next steps for assembly. It is suggested that you make an assembly stand to help hold the unit in a vertical position for assembly. With receiving this kit, the center section is complete. The pinion preload is set to factory specs. If your unit is not together, please refer to page 72 for the pinion installation procedure.

CARRIER PRELOAD

1. Stand right bell vertically in assembly stand with bell end up.
2. Place one gasket on the bell, lining up the holes. While making sure the mating surfaces are clean and smooth, stack the center section on top of the bell, aligning the bolt holes or studs, then torque the two together to 30 ft lbs, using a crisscross pattern.
3. Install Torrington® spacer and .060” of shims on right hand side of the differential, and .060” of shims on the left hand side using a press. Press on the inner race of the bearing to avoid damage to the bearing. Press until bearings are firmly seated.
4. Place the Wedgelock Differential in the center section with the ring gear mounting flange toward the top (Ring gear not installed. See photo at right.).
5. Put the other side gasket in place, and stack the left side bell on the center section. NOTE: It will rock side to side. The bell will not seat against the center section.
6. Measure the amount of gap between bell and center with feeler gauges. Make measurement the same on both sides of the left bell (top and bottom) of rear.
7. After taking that measurement, subtract .007”. That is the thickness of shims that need to be removed from the differential to obtain the proper side bell crush (carrier preload). Example: .015-.007= the shim thickness to be removed is .008”. (See figure #1 on page 78)



VINTAGE BELL V8 CENTER KIT SET-UP

CARRIER PRELOAD CONTINUED

8. Disassemble the rear. Mount the ring gear to the differential by following the instructions supplied in the ring gear bolt pack.

9. With the right bell and center still standing vertically, place the differential back in the center. When rotating the differential from side to side (see photo below), you should feel play between the ring and pinion (the two gears). If there is no play, remove .005 shims off of the left side of the differential and add .005" to the right side of the differential. Repeat as necessary.

10. After establishing play between the two gears, place the left gasket on the center section and follow with the left bell aligning the bolts or studs, nut combination. Torque to 30 ft lbs using a crisscross pattern.

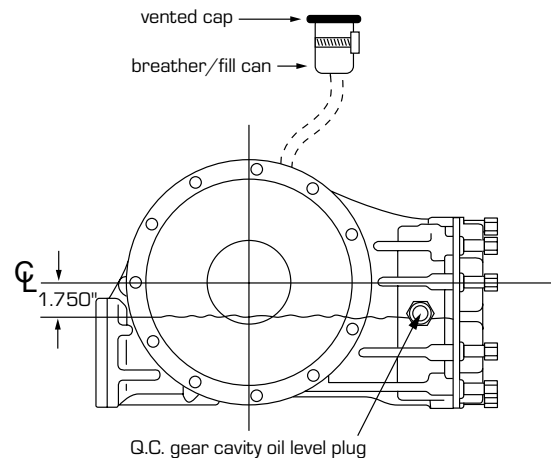
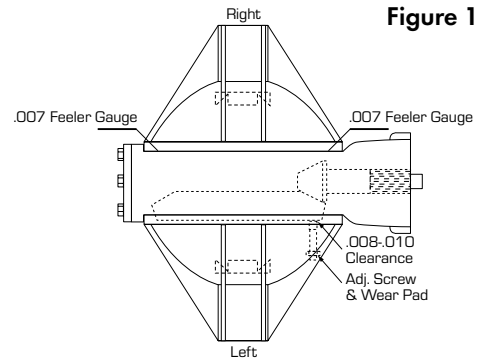
11. Check carrier preload. Rotating the pinion shaft a few times will seat the bearings. If available, a torque meter reading should be taken at this time. You are looking for a reading of 22-27 in lbs of rotational drag. If the reading is high, remove an equal amount of shims from both sides. If too low, add an equal amount of shims to both sides.

12. Check the backlash between the ring and pinion (the two gears). Placing a dial indicator on the pinion spline that the quick change gear rides on, you are looking for .004-.006 between them. If backlash is too high, remove a .005" shim from the right and add it to the left. If backlash is too low, add shims to the right and remove the left equally.

13. These last few steps may need to be repeated to obtain the proper rear end set-up specs.

14. When the rear end set-up specs are met within tolerance, disassemble the rear and lightly coat the gaskets with a layer of silicon and reassemble the rear. When the silicon dries, peel the excess silicon off the outer edges of the bells.

15. A vent should be installed on this rear.



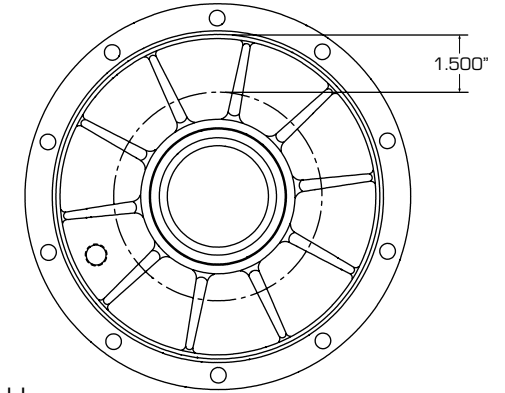
EARLY FORD V8 CENTER KIT SET-UP

As purchased, this housing unit will fit 1935 to 1948 Ford® rear axle housings. Rear axle assemblies prior to 1937 will require the use of different carrier bearings matching the year of housing being used. The quick change unit features a 4.11 ring and pinion.

INSPECTION AND PREPARING DONOR BELLS

1. Remove from original Ford the differential carrier, spider gears and axles. Clean and prepare for reuse. Inspect axle housings and carrier races. New race replacement is suggested at this time.

2. Additional carrier bolt clearance is necessary on the inside of the left axle tube. Using a hand grinder, remove approximately 1 1/2" from the outer edges of the reinforcement webs (see diagram at right). Place ring gear carrier on housing and check for proper clearance.



ASSEMBLY

Upon successful inspection of donor parts, please follow these next steps for assembly.

1. The pinion unit has been pre-assembled in the quick change case and has the correct bearing crush. **DO NOT REMOVE!**
2. Remove quick change cover and gear set and set aside.
3. Install left side differential carrier case (*4205) to ring gear carrier.
4. Install left axle shaft into carrier ring gear assembly (*4235L) and coat axle bearing with light oil.
5. Install spider (*4211) and spider gear (*4215) to left differential carrier case
6. Coat right axle bearing with light oil and install right axle (*4235R) into right side carrier.
7. Install right side carrier case (*4206) and axle to left side carrier case and spider, making sure the spiders mesh in the axle gears and coating with light oil.
8. Make sure differential carrier is seated on ring gear carrier.
9. Install differential carrier bolts (*4217), place hardened washers on ring gear, install castle nuts and tighten, making sure all wire holes align in a circular fashion.
10. Safety wire bolts.

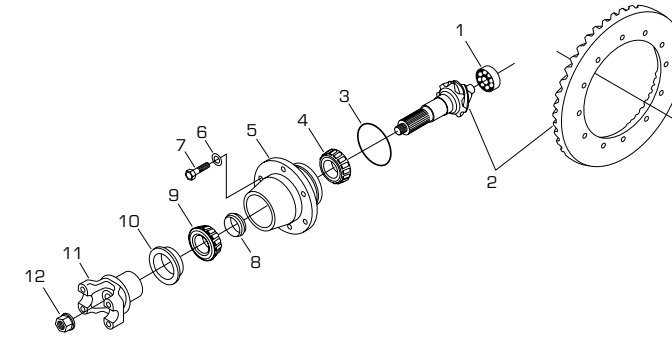
*Original Ford® Part Number. Used for reference purpose only.

EARLY FORD V8 CENTER KIT SET-UP

CARRIER PRELOAD

1. With the right axle housing in the upright position, install .010" paper gasket on housing (4010) bell.
2. Position quick change on right axle housing with the index bolt hole. Install four bolts 90° apart.
3. Install the ring gear axle assembly to the quick change case and right housing assembly. Put a light coat of oil on the bearing. Take care not to damage the axle grease seal in the axle housing when inserting axle.
4. Check mesh on ring to pinion gear and put a light coat of oil on the left carrier bearing.
5. Place .010" paper gasket on the left side bell and install the left housing over the left axle and position on quick change. Tighten four bolts 90° apart at 25 ft lbs.
6. Install and tighten remaining side bell bolts. Remove from stand and place on the floor.
7. Checking correct carrier bearing adjustment will require two people. With a helper, each grab one side of the axle shaft and rotate them forward at the same speed and time. There should be a heavy drag upon the forward rotation.
8. If the gear turns easily, remove the right axle housing and replace the .010" gasket with a .005" thick gasket (this means it has too much clearance).
9. If the gear does not turn or turns very hard add .005" gasket to the right axle housing (this means there is not enough clearance).
10. Reassemble and re-check drag.
11. Repeat steps 7-9 as necessary. This may take several attempts.
12. Pinion backlash should be between .004-.008 using a dial indicator.
13. If the pinion backlash is too tight, it is necessary to add gasket to the left side.
14. If the pinion backlash is too loose, it is necessary to put in a thinner left side housing gasket.
15. To maintain a proper differential bearing adjustment after adjusting pinion backlash, it will be necessary to balance carrier bearing adjustments. For example, if .005" was added to the left side bell, the right bell gasket must be decreased by .005" and the reverse holds. If the left side bell gasket had .005" removed, then the right bell must have .005" added. This operation may also take several attempts.
16. Re-torque side bell bolts to 30 ft lbs. Check pinion bolt and pinion seal cover bolts.

BANJO STYLE SET-UP



#	P/N	DESCRIPTION	QTY REQ'D
1	7331	Pinion Nose Roller Bearing	1
2*	35XXX	Ring and Pinion	1
3	7490	O'Ring	1
4	7554	Inner Bearing Cone	1
5	7569	Pinion Bearing	1
6	7114	3/8" SAE Flatwasher	6
7	7107	3/8-16 x 1 1/4" HHCS	6
8	2276	Crush Sleeve	1
9	7553	Outer Bearing Cone	1
10	7260	Seal	1
11	2216	Drive Yoke, 1310	1
12	2222	Pinion Nut	1

* When ordering Ring & Pinion add prefix 35 to gear ratio desired. Example: P/N 35457 = 4.57 ratio

1. Install two each 3/8-16 x 3" guide pins into the center section pinion flange to assure holes line up when pinion is installed.
2. Check and remove any nicks or burrs in the center section pinion bore. Make sure center is clean and free of chemicals or flammable materials.
3. Heat the "clean" center to 270°-300°F in an oven. **DO NOT OVER HEAT as loss of heat treatment or distortion will occur.** Place the pinion in the freezer before attempting installation into the center. Using a cold pinion with a warm center makes installation effortless.
4. Lubricate pinion bearing bore and bearings.
5. Install "chilled" pinion using a urethane (soft) hammer to ensure pinion is seated.
6. Allow assembly to cool to room temperature (68°-72°F) before attempting to adjust the pinion bearing load.
7. Back off pinion nut two turns.
8. With a soft punch (brass or aluminum) and a steel hammer, tap (not strike) on the yoke end of pinion to position pinion nose bearing into the bore properly.
9. Using a yoke spanner and 3/4" drive, 1 1/16" 6 point socket, tighten pinion nut gradually while rotating pinion to allow bearings to align. Adjust pinion bearing preload to 20-25 in lbs.
10. Remove guide studs and install bearing retaining bolts (using anti-seize). Torque to 20-25 ft lbs.

Pinion installation is now complete.

CHAMPIONSHIP QUICK CHANGE SET-UP

DO NOT TORCH

350°F plus and heat treat is permanently lost. Localized hot spots cause permanent distortion and loss of critical alignments. Castings will “crack” if subjected to torching.

PREPARATORY TO INSTALLING PINION INTO CASE (CENTER SECTION)

1. Retain pinion nose bearing on to the pinion gear with fast dry thread lock to insure the bearing does not fall off during installation into the center section.
2. Check and remove any nicks or burrs in the center section pinion bore. Make sure center is clean and free of chemicals or flammable materials.
3. Heat the “clean” center to 270°-300°F in an oven. **DO NOT OVER HEAT as loss of heat treatment or distortion will occur.**

INSTALLING PINION INTO CASE

Remove heated center section from the oven and lubricate the pinion bearing bores and bearings. Install “chilled” pinion, then use a urethane (soft) hammer to ensure the pinion is seated.

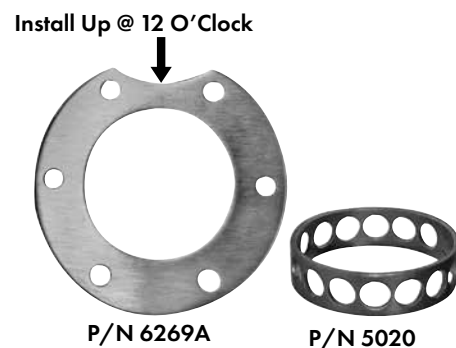
Install the lower shaft and bearings while the center is still hot. **USE CAUTION-Don’t burn yourself.**

1. Lubricate all bearing bores.
2. Start front ball bearing into case bore approximately 1/8”.
3. Install lower shaft through center section from rear to front into ball bearing.
4. Slide rear ball bearing over installed shaft and carefully tap rear bearing evenly into place. Pinion Spacer P/N 5020 and Pinion Retainer P/N 6269A should now be installed using six (6) 3/8-16 x 1” HHCS P/N 7110 torqued to 20-25 ft lbs.

NOTE: All bolts threaded into aluminum should be treated with an anti-seize product.

5. Front ball bearing can now be evenly tapped into place. NOTE: the above assembly procedure is to insure that bearings do not “cock” in center section.
6. Front seal plate may now be installed and retaining bolts torqued to 20-25 ft lbs.

ALLOW ASSEMBLED UNIT TO COOL TO ROOM TEMPERATURE (68°-72°F) BEFORE ATTEMPTING TO ADJUST PINION BEARING PRELOAD.



CHAMPIONSHIP QUICK CHANGE SET-UP

TAPERED ROLLER BEARING PINION PRELOAD

When adjusting pinion bearing posi-lock with new bearings, torque the posi-nut to obtain 15-20 in lbs pinion bearing rotational preload, 8-10 in lbs for used bearings. Lubricate O’ring in posi-lock retaining cap. Install retaining cap using finger pressure only. If it resists engagement, remove cap from pinion and rotate to next spline on 10 spline shaft and re-install. 10 splines = 10 combinations... Try each spline for the best “no resistance” fit. **Above preloads are set at 68°-72°F.**



Posi-Lock Assembly
P/N 6498R

CARRIER ASSEMBLY AND RING GEAR

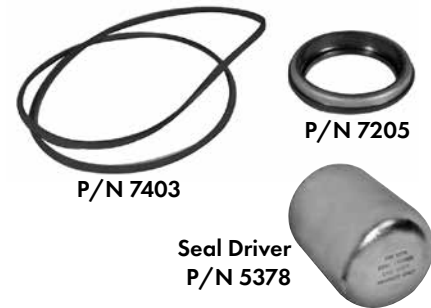
1. Adjusting Carrier preload is next. Remove seals and o’rings from bells. Do not install ring gear onto carrier or spool as of yet.
2. Stand left side bell and tube vertically with bell up. Install Checking Bearing P/N 5294 on ring gear end of carrier.
3. Set carrier and bearing into left vertical bell.
4. Set center section assembly on bell, making sure center section is setting flat against bell flange without bell seals and o’rings.
5. Install second checking bearing on carrier.
6. Right bell should now be put into position on top of center section. If bell flange has full contact with center section, shims should be added until right bell flange is held above center section approximately .012” for Winters Track.
7. Now that proper shim pack thickness has been determined, the shim pack should be removed and set aside for step number 9.
8. Ring gear should now be installed on carrier making sure contact surfaces are perfectly clean. Install all 12 bolts and torque nuts alternating in a crisscross pattern in steps to 35 ft lbs on non-threaded ring gears. Use 60 ft lbs for threaded W/P type ring gear bolts using Belleville washers. Red Loctite® adhesive should be used on these bolts.
9. Place one shim at a time under checking bearing on ring gear side of carrier. Placing carrier and ring gear assembly in left bell, set center section on left bell and check for ring gear/pinion backlash. Make sure adjustable ring gear pad in left bell is backed out far enough so that it does not make contact with the ring gear. (If you remove the wear pad completely, **DO NOT** forget to replace it before tightening the thru-bolts or complete rear will have to be disassembled to re-install the pad.) Carefully add shims until backlash has been removed.

The remaining shims from the original shim pack should be installed on the opposite side of carrier. Put the right bell in place and bolt together. Check backlash. It should be between .004”-.006”. If backlash is too much, shims from the right side must be moved to the left side. Once proper backlash has been reached, the checking bearings can be removed and regular bearings installed, with shims in place.

CHAMPIONSHIP QUICK CHANGE SET-UP

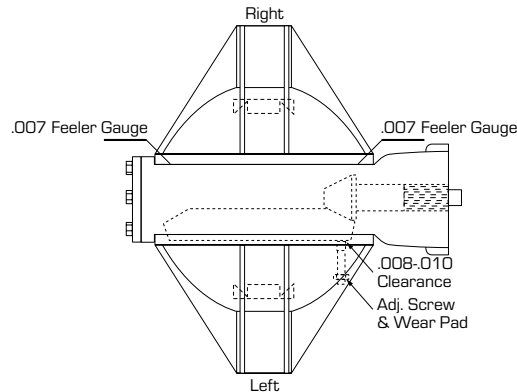
CARRIER ASSEMBLY AND RING GEAR CONTINUED

10. Install new side bell seals (P/N 7205) and o’rings (4 & 6 Rib Bells P/N 7403T, 8 Rib Bells P/N 7403). Lubricate seals generously. Reassemble, install thru-bolts, washers and nuts. Be sure to torque thru-bolts in steps until a final torque of 35 ft lbs is reached using an alternating crisscross sequence. Spin the pinion over several times checking the backlash at several intervals. Backlash should be between .004”-.006”. If backlash is not correct, the rear must be torn apart and the shims swapped from side to side until proper backlash is obtained. Tight spots are not acceptable.



11. Adjust ring gear wear pad by running wear pad in against the ring gear with force of 5 in lbs, then back off approximately 1/4 turn to obtain .008”-.010” clearance between ring gear and wear pad. Tighten jam nut on adjusting screw being careful not to turn adjusting screw any further.

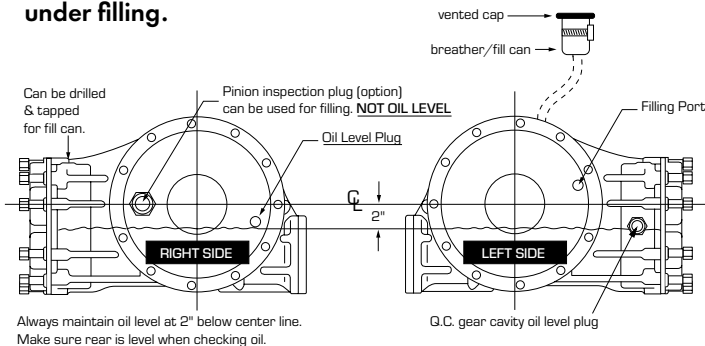
NOTE: Assembly Temperature: 68°-72°



COMMONLY USED REPLACEMENT PARTS

P/N	DESCRIPTION	SIZE
7309	Carrier Bearing, Steel Carrier	2.000
7340	Carrier Bearing, Aluminum Carrier	2.031
5138	Checking Bearing, Steel Carrier	2.000
5294	Checking Bearing, Aluminum Carrier	2.031
5097	Carrier Shim Kit, Steel	Journal Size
5295	Carrier Shim Kit, Aluminum	Journal Size
7205	Side Bell Seals	-----
7204T	Front Yoke Seal, .750”	-----
7204V	Front Yoke Seal, .750”, Viton	-----
6729	Gear Cover Gasket, 10 Bolt	-----
6729HD	Heavy Duty Gear Cover Gasket, 10 Bolt	-----
7403T	Bell O’Ring, 4 & 6 Rib Bell	-----
7403	Bell O’Ring, 8 Rib Bell	-----
7868	Winters Threaded Ring Gear Bolts/Washers (12 Each)	-----
SR1730	Winters 80-90-140 Semi Synthetic w/Moly (Gal)	-----

IMPORTANT: Overfilling can cause problems as well as under filling.



TORQUE SPECS

- Threaded Ring Gear Bolts - 60 ft lbs using Red Loctite®
- Non- Threaded Ring Gear Bolts & Locknut - 35 ft lbs
- Thru-bolts - 35 ft lbs
- Pinion Retaining Plate Bolts - 25 ft lbs
- Seal Plate Bolts - 20 ft lbs
- Left Bell Adjuster Screw-Snug up, back off 1/4 turn, use red thread lock on jam nut.

INDEPENDENT SET-UP

DO NOT TORCH

350°F plus and heat treat is permanently lost. Localized hot spots cause permanent distortion and loss of critical alignments. Castings will “crack” if subjected to torching.

PINION INSTALLATION

1. Make sure center is clean and free of chemicals or flammable materials.
2. Heat the “clean” center to 270°-300°F in an oven. **DO NOT OVER HEAT as loss of heat treatment or distortion will occur.**
3. Remove heated center from oven, lubricate pinion bearing bore and bearings. Install “chilled” pinion using a urethane (soft) hammer to ensure the pinion is seated.

TAPERED ROLLER BEARING PINION PRELOAD

After pinion is installed and case has cooled down to room temperature (68°-72°F), torque the pinion nut to approximately 50-60 ft lbs. Preload NEW pinion bearings to a maximum of 25 in lbs. Preload USED pinion bearings to 8-10 in lbs.

SHIM STARTING POINT

.125” on right, .100” on left

SIDE BELL PRELOAD

.008”-.010” WITHOUT seals or o’rings

RING AND PINION BACKLASH

.004”-.006”, NO tight spots when rotated

TORQUE SPECIFICATIONS

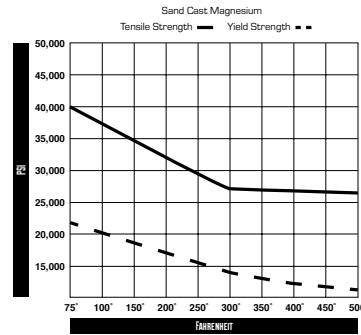
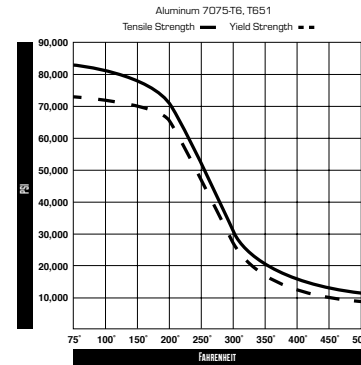
- Pinion Retainer Plate Bolts- 25 ft lbs
- Seal Plate Bolts- 20 ft lbs (when applicable)
- *Threaded WP Ring Gear Bolts with Belleville Washers- Final Torque, Steel using thread lock- 60 ft lbs
- *Thru Bolts- 35 ft lbs
- *Torque alternating in a crisscross pattern in steps to specified final torque.

After ring gear is installed and backlash is of absolute minimum and the bolts/nuts torqued, the total preload of the assembly should be: Preload **NEW** pinion bearings and seals, 37-39 in lbs, Preload **USED** pinion bearings and seals, 15-20 in lbs.

To adjust the left bell adjustment screw, turn screw in until it bottoms out (with approximately 5 in lbs of force), then back it off a 1/4 turn. Use thread lock and tighten aluminum nut.

IMPORTANT INFORMATION

TYPICAL TENSILE PROPERTIES AT VARIOUS TEMPERATURES



The following typical properties are not guaranteed since in most cases they are averages for various sizes. This data is intended only as a guide when determining metals that best suit your requirements. Refer to Machinery Handbook for strengths of metals, published by Industrial Press, Inc., New York.

ALUMINUM	TENSILE STRENGTH	YIELD STRENGTH
7075-T6	83000	73000
2024-T3	70000	50000
6061-T6	45000	40000

FACT
Titanium is 60% the weight of steel.

FACT
Aluminum is approx. 33% the weight of steel.

FACT
Magnesium is 66% the weight of aluminum.

BREAK-IN PROCEDURE

As with any new or rebuilt product, be it an engine, transmission or rear end, it is important to avoid premature wear on the gears and bearings by avoiding full throttle loads and high RPM conditions for at least 20 miles. Start break-in at 30% power and gradually increase not to exceed 80% power.

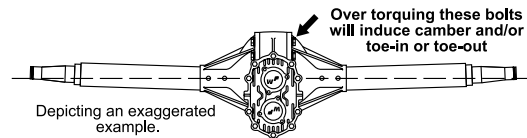
Drain and refill the gear lube in both the rear end and the quick change gear cavity to the proper oil levels with the car sitting level (over filling will cause excessive heat).

Winters recommends the continued use of Winters P/N 1730 with Moly, semi-synthetic lubricant or Mobil 1® for the life of your rear end.

BELL TORQUING PROCEDURE

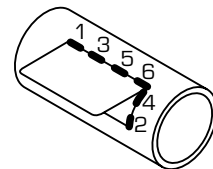
When attaching suspension brackets, exercise care when torquing thru bolts.

Use a torque wrench to tighten bolts in steps. Tighten in a crisscross pattern to 35 ft lbs.



WELDING BRACKETS TO TUBES

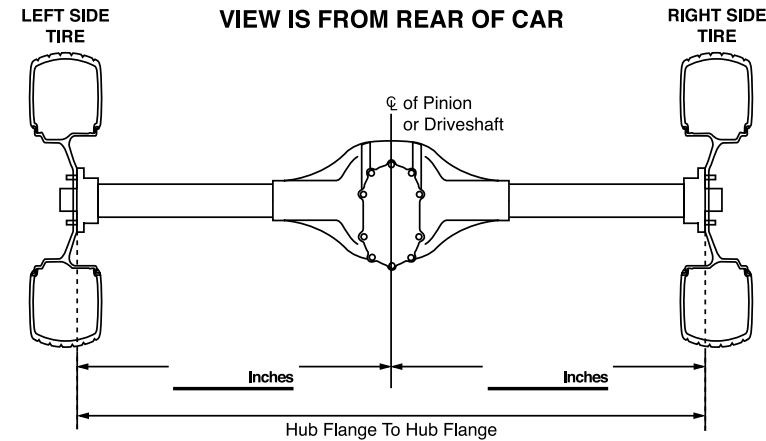
Weld a series of 1/2" long "tacks" along the bracket starting at the ends, then alternate back and forth towards the center. Long continuous welds will heat and "draw" the tubing, causing distortion.



FLANGED AXLES/REAR END DIMENSIONAL DATA FORM

FLANGED AXLE SET P/N SR2980

Made from one piece forgings, these 31 Spline Flanged Axles are of a superior material, heat treat depth and design, which exceeds the strength and durability of stock axles. The induction hardened, non-tapered shaft combined with a ductile flange allows for shortening or bolt pattern changes in the future. Each axle is made to order with your choice of any bolt pattern configuration with 1/2" fine thread or 12mm studs. Set comes complete with bearings installed and heavy duty bearing retainer plates.



Sign, date and return this form by mail, fax or email (office@wintersperformance.com)

Customer Name _____
 Customer # _____ PO # _____
 Email _____
 Phone _____ FAX _____
 Signature _____
 Date _____
 Notes _____

Bolt Pattern (Ex. 5 x 4 3/4", See Figure A): _____

If ordering Winters Axles, it is extremely important to specify the following:

Studs: 1/2" Fine Thread

Press In 3874-01 Screw In 2" Long 4266 Washer 8812

Retainer: 3374-01 (Big) 3374-02 (Big Torino®)

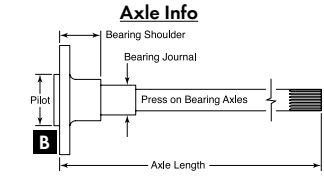
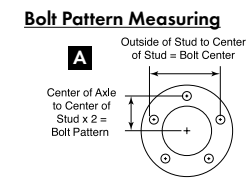
Brake Kit: Disc Drum Bearing 8687-B

Winters Kit P/N SR4917SS Winters Kit P/N SR2838

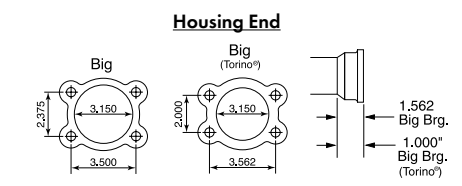
Winters Kit P/N SR4918 Other _____

Pilot Diameter (Center hole in drum or disc) _____ Inches (See Figure B)

Brake Offset: 2.375" 2.500" Other _____ Inches

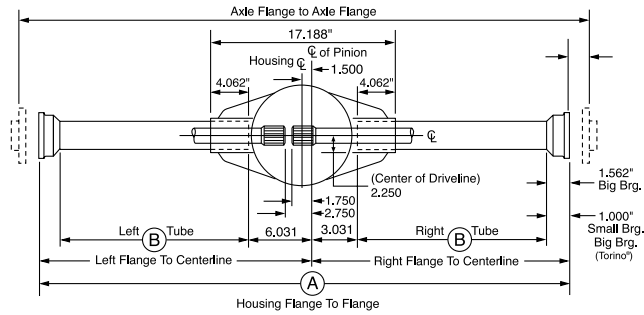


12" Lincoln® Drum
 with Torino® Ends
 Pilot: 3.254"
 Offset: 3.125"

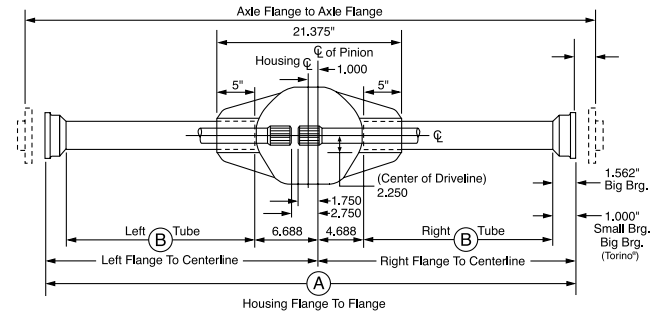


Splines: 31 Housing End: Big Bearing Big Bearing (Torino®)

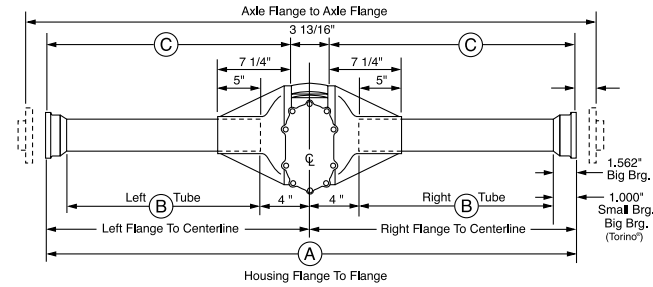
DIMENSIONAL DATA



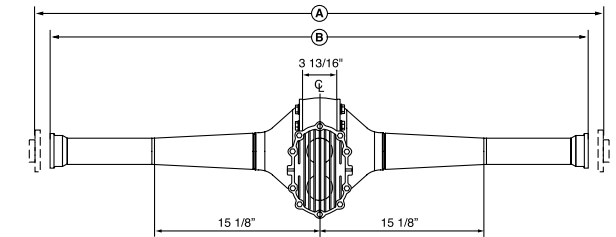
CHAMPIONSHIP 9"
SR92520CR, SR92525CR



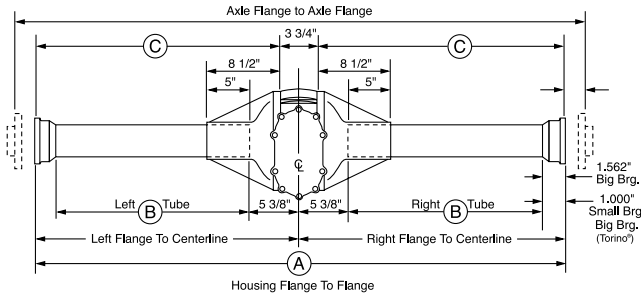
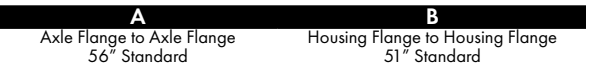
9"
SR92520, SR92525



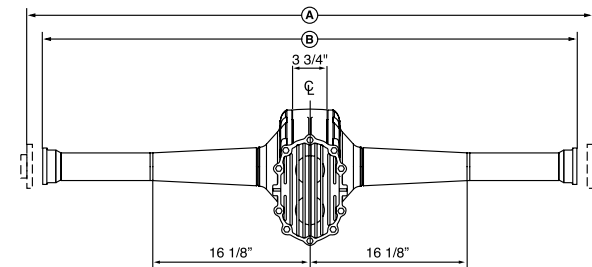
8 3/8" V8 QUICK CHANGE
SR2220, SR2550



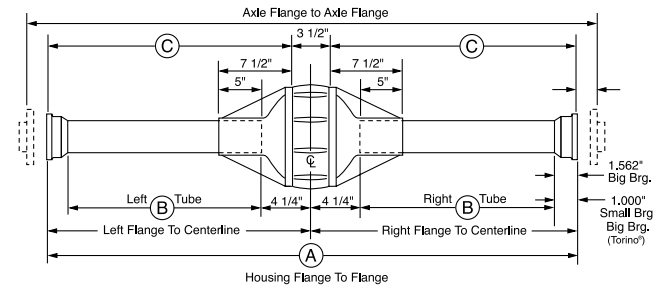
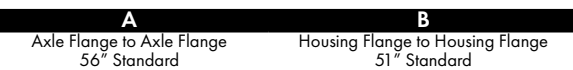
STEEL TUBE AND BELL CHAMP ADAPTER
SR2220STB, SR2550STB



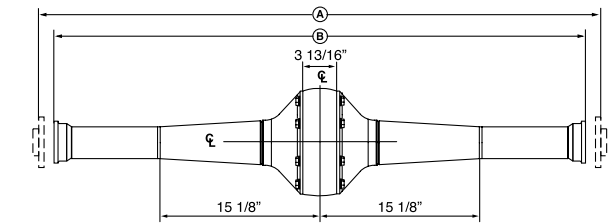
10" CHAMPIONSHIP QUICK CHANGE
SR2520, SR2525
10" BANJO-FULL SIZE
SR4220, SR4225



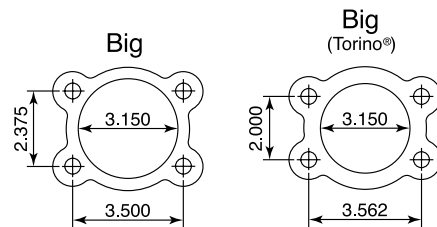
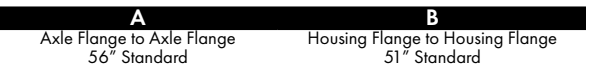
STEEL TUBE AND BELL CHAMP ADAPTER
SR2520STB, SR2525STB



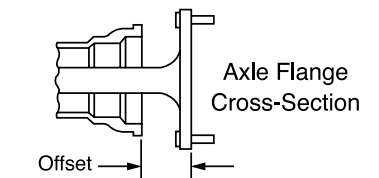
8 3/8" BANJO STYLE-MINI
SR4220M, SR4225M



STEEL TUBE AND BELL BANJO
SR4220MSTB, SR4225MSTB



DESCRIPTION	OFFSET
Big Bearing Ford	2.36"
Big Bearing Ford	2.50"
Big Bearing Ford (Torino)	2.50"



QUICK CHANGE GEARS

NEW RE-ENGINEERED HELICAL GEARS

RE-ENGINEERED FOR QUIETER RUNNING!

All Winters Helical Quick Change Gears have REM® Process Enhanced Surface Finish.



4500 SERIES (6 SPLINE)				3.78 R&P Ratio (9-34 Teeth)	
P/N	LOW SPUR RATIO	HIGH SPUR RATIO	# OF TEETH	LOW	HIGH
SR4501HR	1.000	1.000	24/24	3.78	3.78
SR4502HR	0.958	1.043	23/24	3.62	3.94
SR4503HR	0.920	1.087	23/25	3.48	4.11
SR4503AHR	0.880	1.136	22/25	3.33	4.30
SR4504HR	0.846	1.182	22/26	3.19	4.47
SR4512HR	0.655	1.526	19/29	2.48	5.77

8500 SERIES (10 SPLINE)				4.12 R&P Ratio (8-33 Teeth)	
P/N	LOW SPUR RATIO	HIGH SPUR RATIO	# OF TEETH	LOW	HIGH
SR8503HR	0.806	1.240	25/31	3.32	5.11
SR8504HR	0.774	1.292	24/31	3.19	5.32
SR8509AHR	0.833	1.200	25/30	3.43	4.94
SR8517HR	0.867	1.154	26/30	3.57	4.75
SR8526HR	0.931	1.074	27/29	3.84	4.43

6 SPLINE HELICAL GEAR SPACER KIT
P/N SR3551
Includes one Spacer P/N SR3416 & the following shims:

6 SPLINE SHIMS		
P/N	THICKNESS	QTY
SR3442-030	.030"	2
SR3442-045	.045"	2
SR3442-060	.060"	2

10 SPLINE HELICAL GEAR SPACER KIT
P/N SR3552
Includes one Spacer P/N SR3417 & the following shims:

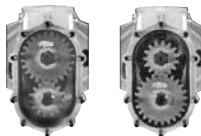
10 SPLINE SHIMS		
P/N	THICKNESS	QTY
SR3430-030	.030"	2
SR3430-045	.045"	2
SR3430-060	.060"	2

30800 SERIES GEARS

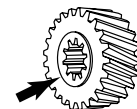
Standard Quick Change Gears. When ordering add prefix 308 to set number. Example: SR30801

XTREMELINER (30800 SERIES)				2.00 R&P Ratio (17-34 Teeth)		3.08 R&P Ratio (12-37 Teeth)	
GEAR SET #	LOW SPUR RATIO	HIGH SPUR RATIO	# OF TEETH	LOW	HIGH	LOW	HIGH
01	1.00	1.00	21/21	2.00	2.00	3.08	3.08
15	0.95	1.05	19/20	1.90	2.10	2.93	3.23
25	0.90	1.10	20/22	1.82	2.20	2.77	3.39
17A	0.85	1.16	24/28	1.71	2.33	2.62	3.57
03	0.80	1.24	25/31	1.61	2.48	2.46	3.82
16	0.75	1.33	18/24	1.50	2.67	2.31	4.11
14	0.71	1.39	23/32	1.44	2.78	2.19	4.28
36	0.68	1.47	17/25	1.36	2.94	2.09	4.53
21	0.65	1.52	19/29	1.31	3.05	2.00	4.68
28	0.63	1.57	19/30	1.27	3.16	1.94	4.83
31	0.60	1.66	21/35	1.20	3.33	1.84	5.11

HIGH LOW



Remember to refill gear cavity with good quality lube after quick change gear changes. Install quick change gears with the shoulder facing toward gear cover bearings.



IMPORTANT
Install quick change gears with shoulder facing toward gear cover bearings.

QUICK CHANGE GEARS

8500 SERIES GEARS

Standard Quick Change Gears. When ordering add prefix 85 to set number. Example: SR8501

10 SPLINE (8500 SERIES)				4.12 R&P Ratio (8-33 Teeth)	
GEAR SET #	LOW SPUR RATIO	HIGH SPUR RATIO	# OF TEETH	LOW	HIGH
01	1.000	1.000	21/21	4.12	4.12
02	0.964	1.037	27/28	3.97	4.27
05	0.960	1.042	24/25	3.96	4.29
15A	0.955	1.048	21/22	3.93	4.32
15	0.950	1.053	19/20	3.91	4.34
26	0.931	1.074	27/29	3.84	4.43
06	0.920	1.087	23/25	3.79	4.48
25	0.909	1.100	20/22	3.75	4.53
12	0.897	1.115	26/29	3.69	4.60
07	0.885	1.130	23/26	3.65	4.66
07A	0.875	1.143	21/24	3.61	4.71
17	0.867	1.154	26/30	3.57	4.75
17A	0.857	1.167	24/28	3.53	4.81
08A	0.852	1.174	23/27	3.51	4.84
08	0.846	1.182	22/26	3.49	4.87
19	0.840	1.190	21/25	3.46	4.91
09A	0.833	1.200	25/30	3.43	4.94
09	0.826	1.211	19/23	3.40	4.99
11	0.815	1.227	22/27	3.36	5.06
03	0.806	1.240	25/31	3.32	5.11
13	0.800	1.250	20/25	3.30	5.15
18	0.793	1.261	23/29	3.27	5.20
18A	0.786	1.273	22/28	3.24	5.24
04A	0.783	1.278	18/23	3.22	5.26
20A	0.778	1.286	21/27	3.20	5.30
04	0.774	1.292	24/31	3.19	5.32
20	0.769	1.300	20/26	3.17	5.36
22	0.760	1.316	19/25	3.13	5.42
16	0.750	1.333	18/24	3.09	5.49
10	0.739	1.353	17/23	3.05	5.57
10A	0.733	1.364	22/30	3.02	5.62
34	0.724	1.381	21/29	2.97	5.69
34A	0.727	1.375	16/22	3.00	5.67
14	0.719	1.391	23/32	2.96	5.73

More SR8500 Series Gear Sets available. Call for more info or visit our web site.

To Determine Final Drive:
(# Teeth Top Gear) ÷ (# Teeth Bottom Gear) x R&P Ratio = Final Drive

4500 SERIES GEARS

Standard Quick Change Gears. When ordering add prefix 45 to set number. Example: SR4501

6 SPLINE (4500 SERIES 1 3/8" WIDE)				3.78 R&P Ratio (9-34 Teeth)	
GEAR SET #	LOW SPUR RATIO	HIGH SPUR RATIO	# OF TEETH	LOW	HIGH
01	1.00	1.000	24/24	3.78	3.78
02	0.985	1.043	23/24	3.62	3.94
03	0.920	1.087	23/25	3.48	4.11
03B	0.895	1.118	17/19	3.38	4.22
03A	0.880	1.136	22/25	3.33	4.30
04	0.846	1.182	22/26	3.20	4.47
05	0.808	1.238	21/26	3.05	4.68
05A	0.792	1.263	19/24	2.99	4.77
06	0.778	1.286	21/27	2.94	4.86
24	0.767	1.304	23/30	2.90	4.93
25	0.750	1.333	18/24	2.84	5.04
07	0.741	1.350	20/27	2.80	5.10
23	0.727	1.375	16/22	2.75	5.20
08	0.714	1.400	20/28	2.70	5.29
22	0.704	1.421	19/27	2.66	5.37
09	0.696	1.438	16/23	2.63	5.43
10	0.682	1.467	15/22	2.58	5.54
11	0.667	1.500	18/27	2.52	5.67
12	0.655	1.526	19/29	2.48	5.77
13	0.652	1.533	15/23	2.47	5.80
14	0.636	1.571	14/22	2.41	5.94
15	0.625	1.600	15/24	2.36	6.05
16	0.615	1.625	16/26	2.33	6.14
17	0.600	1.667	18/30	2.27	6.30
18	0.591	1.692	13/22	2.23	6.40
18A	0.571	1.750	16/28	2.16	6.62
19	0.560	1.786	14/25	2.12	6.75
20	0.556	1.800	15/27	2.10	6.80
27	0.542	1.846	13/24	2.05	6.98
21	0.531	1.882	17/32	2.01	7.12
28	0.528	1.895	19/36	2.00	7.16
29	0.522	1.917	12/23	1.97	7.25
26	0.517	1.933	15/29	1.96	7.31
30	0.500	2.000	20/40	1.89	7.56
31	0.488	2.050	20/41	1.84	7.75
32	0.475	2.105	19/40	1.80	7.95

To Determine Gear RPM Change:
(RPM) ÷ (Gear Ratio) x (New Ratio) = (New RPM)
Example: 3000 ÷ 3.93 x 3.43 = 2618

LIMITED WARRANTY

BACKGROUND

Winters Performance Products, Inc., referred to herein as Winters, manufactures parts and equipment which are purchased by persons in various industries, who may install and use Winters parts and equipment in applications which may not be suitable for that Purchaser's intended purpose. Purchaser understands, recognizes and acknowledges that all parts and equipment manufactured or sold by Winters are exposed to many, varied and unforeseeable uses and conditions. As a consequence, Winters can make no promise, warranty, affirmation or representation as to the performance of its parts or equipment, nor does Winters make any description of the parts or equipment sold to Purchaser, nor does Winters make any description or affirmation of fact concerning any sample or model of parts or equipment except as specifically set forth in this Limited Warranty. As further consideration for Purchaser using Winters' parts or equipment, Purchaser acknowledges that, due to differing conditions and circumstances under which all parts and equipment are installed and used, Purchaser is not relying on Winters' skill and judgement to select or furnish the proper part or equipment. Purchaser expressly affirms that it is relying on its own expertise, skill, and judgement to select, purchase and install parts or equipment which are suitably safe and durable for their intended purpose. Purchaser assumes all risks associated with the performance of Winters' parts.

LIMITED WARRANTY

Winters warrants to Purchaser that any part or equipment manufactured by Winters ("a Part") will conform to the description of such Part contained in the catalog most recently published by Winters prior to the time of sale of such part or equipment to Purchaser ("the Description"). WINTERS MAKES NO OTHER WARRANTY, EITHER EXPRESS OR IMPLIED WITH RESPECT TO ANY PART. WINTERS EXPRESSLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE OR PURPOSE AND EXPRESSLY DISCLAIMS ANY WARRANTY AS TO THE PERFORMANCE OF ANY PART. The liability of Winters for breach of the foregoing warranty is limited to repair or replacement of any Part determined to fail to conform to its Description prior to installation and use. The burden of establishing that any Part fails to conform to its Description shall be upon Purchaser. In order to be entitled to repair or replacement of any Part, Purchaser must (i) inspect the part upon receipt; and (ii) notify Winters in writing of the defect PRIOR TO INSTALLATION OF THE PART. In no event shall Winters be liable hereunder for any Part which has been installed. Purchaser assumes all risks relating to a Part once such Part is installed. WINTERS SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES (INCLUDING BUT NOT LIMITED TO LOST PROFITS) OR FOR LOSS OR DAMAGE DIRECTLY OR INDIRECTLY ARISING FROM THE USE OF A PART. Every claim under this Limited Warranty shall be deemed waived unless made in writing within ninety (90) days of delivery of the Part by Winters to Purchaser. Purchaser acknowledges that, due to the multiple uses of Parts, it is impossible for Winters to predict the performance of any Parts once installed or the suitability of any Parts for any particular use. Purchaser expressly acknowledges its obligation to inform all users (customers) of the above disclaimer.

INDEMNITY AGAINST THIRD PARTY CLAIMS

PURCHASER HEREBY AGREES TO INDEMNIFY AND HOLD HARMLESS WINTERS FROM AND AGAINST ANY AND ALL CLAIMS, LIABILITY, LOSS AND DAMAGES, INCLUDING ATTORNEYS FEES, MADE BY ANY THIRD PARTY AGAINST WINTERS RELATING TO A PART OR THE USE OF ANY PART. Purchaser understands and agrees that no officer, director, employee or agent of Winters (including but not limited to any vendor, dealer or distributor) has any authority to make any statements contrary to the terms of this Limited Warranty. Winters specifically disavows any statements contrary to what is written above.

CHOICE OF LAW/ VENUE

This Limited Warranty shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania. Any legal action which may arise as a result of disputes, controversies, or claims arising out of or related to this Limited Warranty or the purchase or use of any Part shall be litigated exclusively in the Court of Common Pleas of York County, Pennsylvania or the United States District Court for the Middle District of Pennsylvania.

MISCELLANEOUS

This writing constitutes the full, complete and final statement of Winters' Limited Warranty for Parts. All prior oral and written correspondence, test data, negotiations, representations, understandings and the like regarding Parts are merged in this writing and extinguished by it. This Limited Warranty may not be altered, amended, extended or modified except by a writing signed by the President or Vice President of Winters. Winters' failure at any time to enforce any of the terms and conditions stated herein shall not constitute a waiver of any of the provisions herein. This Limited Warranty shall not be assigned by Purchaser. Winters' responsibility for merchandise shipped via common carrier ceases upon delivering the order to the carrier. Winters is not responsible for merchandise lost or damaged in transit. Purchaser must file a claim with the delivery carrier for merchandise lost or damaged during transit. Winters will assist Purchaser by supplying any information necessary for submission of a claim. It is the responsibility of the Purchaser to comply with all laws and regulations, Federal, State and Local, governing resale of products sold by Winters. NSF Charge: \$38.00 per returned check/payment. Repayments must be made by cashier check or money order.

On request, all parts in Winters Performance Products, Inc. inventory and/or catalog are available in super strength heat treated steel (300,000/350,000 P.S.I. tensile strength) at extra cost and special order. Refer to machinery handbook for strengths of other materials.

RACING IS A DANGEROUS SPORT THAT CAN RESULT IN SERIOUS INJURY OR DEATH. THE ULTIMATE RESPONSIBILITY FOR PARTICIPANT AND VEHICLE SAFETY LIES WITH THE PARTICIPANT.

www.wintersperformance.com

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Detail of Jon Wright's 1932 Ford chassis with a polished Steel Tube & Bell V8 Quick Change rear end. Chrome-plated bells and other details by CustomChrome Plating, Grafton, Ohio. See more of Jon's coupe on pages 38-39.



Since 1958

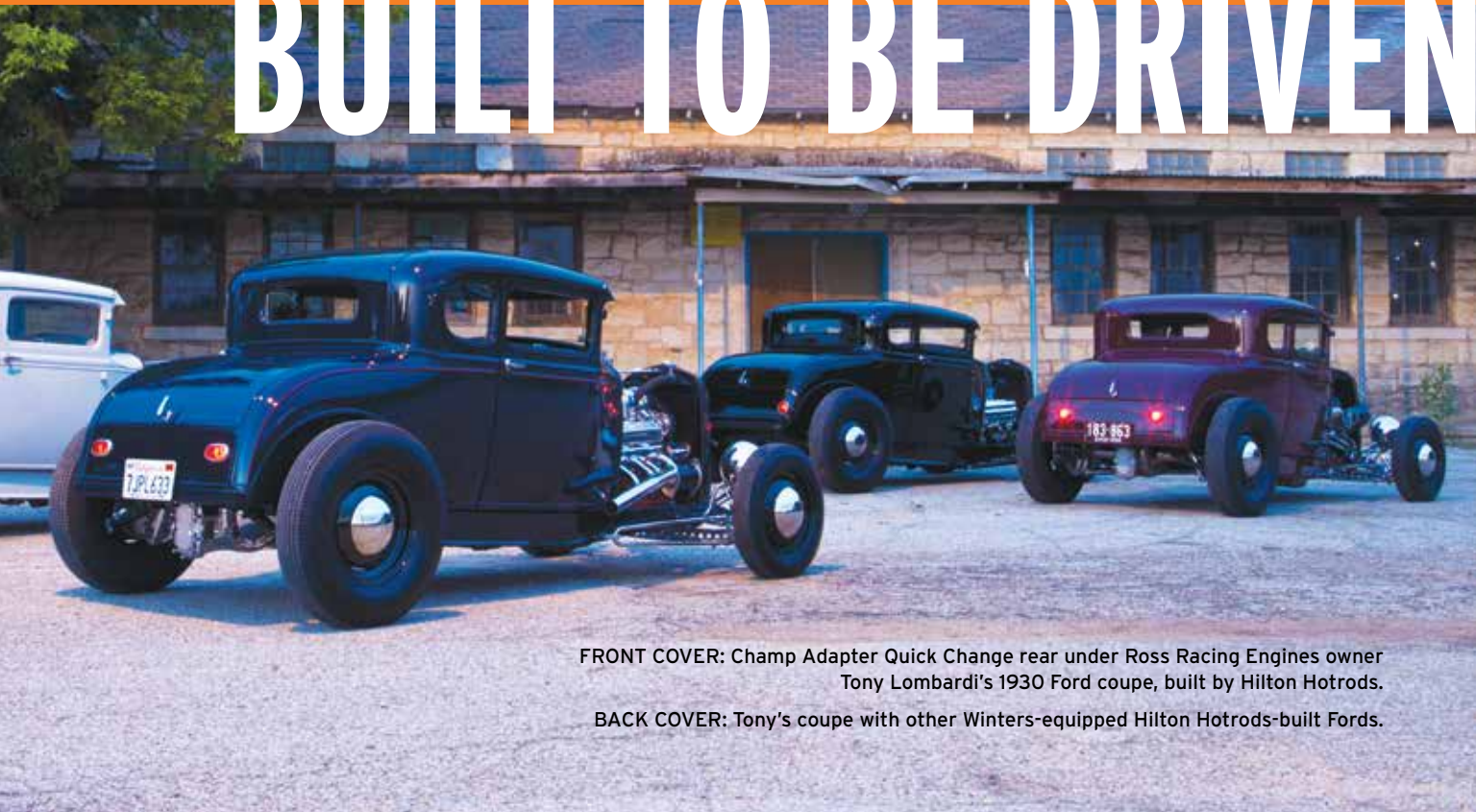
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Catalog #WP3, Volume 8

BUILT TO BE DRIVEN



FRONT COVER: Champ Adapter Quick Change rear under Ross Racing Engines owner
Tony Lombardi's 1930 Ford coupe, built by Hilton Hotrods.

BACK COVER: Tony's coupe with other Winters-equipped Hilton Hotrods-built Fords.