SPRINT & MIDGET COMPONENTS





WINTERS PERFORMANCE PRODUCTS, INC.

Catalog #WP1, Volume 7

WINTERS PERFORMANCE PRODUCTS, INC.

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

OUR HISTORY

Winters Performance Products, Inc. was established by Vaughn Winter, Sr. and his wife Madeline in 1958 as Winters Transmissions. Family lore actually says the business started as early as 1953 when Vaughn was enlisted in the Air Force, stationed in Wyoming. While in Wyoming, much to Madeline's resentment, but with her unfailing support, Vaughn borrowed $100 and began doing performance work to transmissions on the kitchen table of their basement apartment. Upon Vaughn's discharge from the Air Force, the couple moved back to their home town of York, PA where he continued to work with converters and performance racing parts for transmissions and drivelines. Soon after, Winters developed their aluminum, closed tube, quick change rear, which was patterned after Ford® truck rear ends of the late 1930's.

In 1982 Winters developed their first open tube, or "live axle", sprint car rear. This rear was a substantial upgrade from other well known brands of the time, which used ball bearings in the side bells. These ball bearings needed to be changed often. The Winters rear used tapered roller bearings that could better handle the side loads put on the rear, which in turn extended their life tremendously. Over the past 32 years, Winters has continued to create innovative developments to the sprint car rear such as the aluminum axle, internal coupler, caliper mount side bell and the eight inch quick change which is the first major change in sprint car rears in over 60 years.

Today, after over 55 years in the industry, Winters continues to commit to the future, utilizing more than 50 CNC machines to manufacture a variety of different products from quick change rears and Ford® 9" rears, to transmissions and shifter. The Winters name can be found in Cup® Cars, Dirt & Pavement Modifieds and Late Models, Bonneville Land Speed Trial Cars, Pulling Tractors, Pike's Peak Hill Climbers, Off Shore Boats, Dragsters, Street Rods, Midget & Dwarf Cars, and 305, 360 and 410 Outlaw Sprint Cars. We invite you to take a look at all of our other product catalogs, available on line at www.wintersperformance.com.

Winters is undeniably the most technically advanced and experienced manufacturer of quick change rears in the world. Our commitment to you, the customer, is to provide you with a cost effective, quality-engineered product with proven reliability, along with exceptional customer service. We are confident that you will find Winters has raised the standard that defines the very best!

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 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%
- 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.

EXPORTING WINTERS GOODS CONTRARY TO U.S. EXPORT LAWS IS STRICTLY PROHIBITED.

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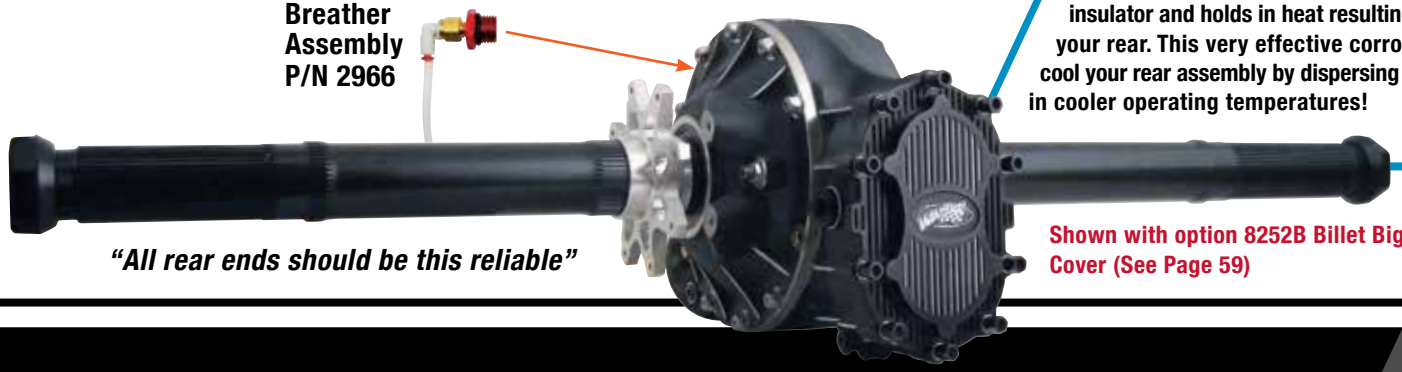
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PLEASE NOTE: Throughout this catalog you will find tables consisting of individual part numbers that make up the complete assembly. When ordering these individual parts, if the quantity listed is more than one, you must order that part number according to quantity listed.

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For Breather Info See Page 100

Breather Assembly P/N 2966



"All rear ends should be this reliable"

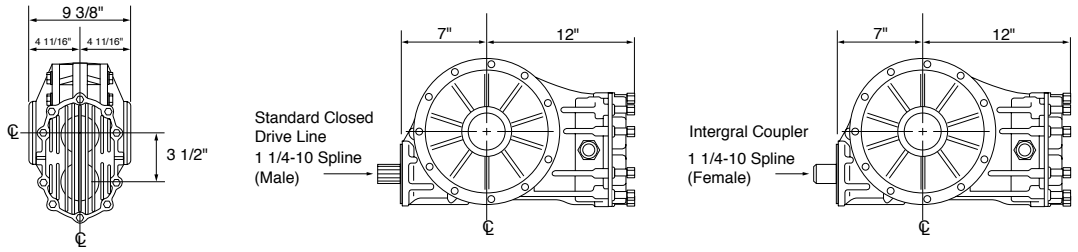
Thermal Dispersant Coating

While being 1/3 lighter than aluminum, magnesium acts as an insulator and holds in heat resulting in higher temperatures inside your rear. This very effective corrosion resistant coating helps cool your rear assembly by dispersing the heat, therefore resulting in cooler operating temperatures!

Shown with option 8252B Billet Big Bearing Cover (See Page 59)

PRO ELIMINATOR QUICK CHANGE

Make no mistake about it, Winters is the leader in Sprint Car Rear Ends! Since 1982 every major design upgrade in today's rear end assemblies, including Tapered Roller Bearings, Angular Contact Bearings, Aluminum Axles, Internal Coupler, Swivel Coupler, Pinion Posi-Lock Nut, Pinion Inspection Plug, Lightweight Ring Gear, REM® Process, Left Side Bell with Caliper Mount, Thermal Dispersant Coating and center saving Front Bearing Liner have ALL come from Winters!



- **4.86 Ratio Ring & Pinion**
- **Magnesium Cast Integral Right Side Bell**
- **Aluminum Axle**
- **Left Side Bell with Caliper Mount**
- **Front Bearing Liner**
- **Thermal Dispersant Coating**

PAGES OF INTEREST

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Forged Aluminum Birdcages
Part No. SC2575 (See Page 90)

10 Piece Spacer Kit
Part No. 3558 (See Page 91)

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Super Shifter Assembly
Part No. 3232 (See Page 92)

Cable Brackets
(See Page 93)

ASSEMBLY PART NO. K837S

ENHANCED SURFACE FINISH

rem® Process

P/N 8218-RP
(Ring & Pinion)
P/N 8218-BRG
(Bearings)



Looks Like Chrome, But Better!



ARP® RING GEAR BOLT KIT

Option 9147 Installed in Rear
KIT P/N 9381



POPULAR OPTIONS

CENTER

8106	Heat Treated Lower Shaft	8191	Flanged Pinion Race
8111	4.12 Ring & Pinion	8202-XXX	EDM Ring Gear (Specify Ratio)
81457	4.57 Ring & Pinion	8205	Titanium Center Studs
8150	Titanium Shifter Shaft	8206	Titanium Bolt Kit
8163	Steel Internal 10-10 Coupler	8218-BRG	REM® Bearing (# is per Bearing)
8163A	Aluminum Internal 10-10 Coupler	8218-RP	REM® Ring & Pinion
8163SS	Swivel Splined Coupler (Steel Shaft)	8252	Big Bearing Ultra HD w/Retainers
		8252B	Billet Big Bearing Ultra HD
		8252BL	Billet Big Bearing Ultra HD w/ Logo
		9121	VascoMax® Stub Shaft
		9147	ARP® Ring Gear Bolt Kit

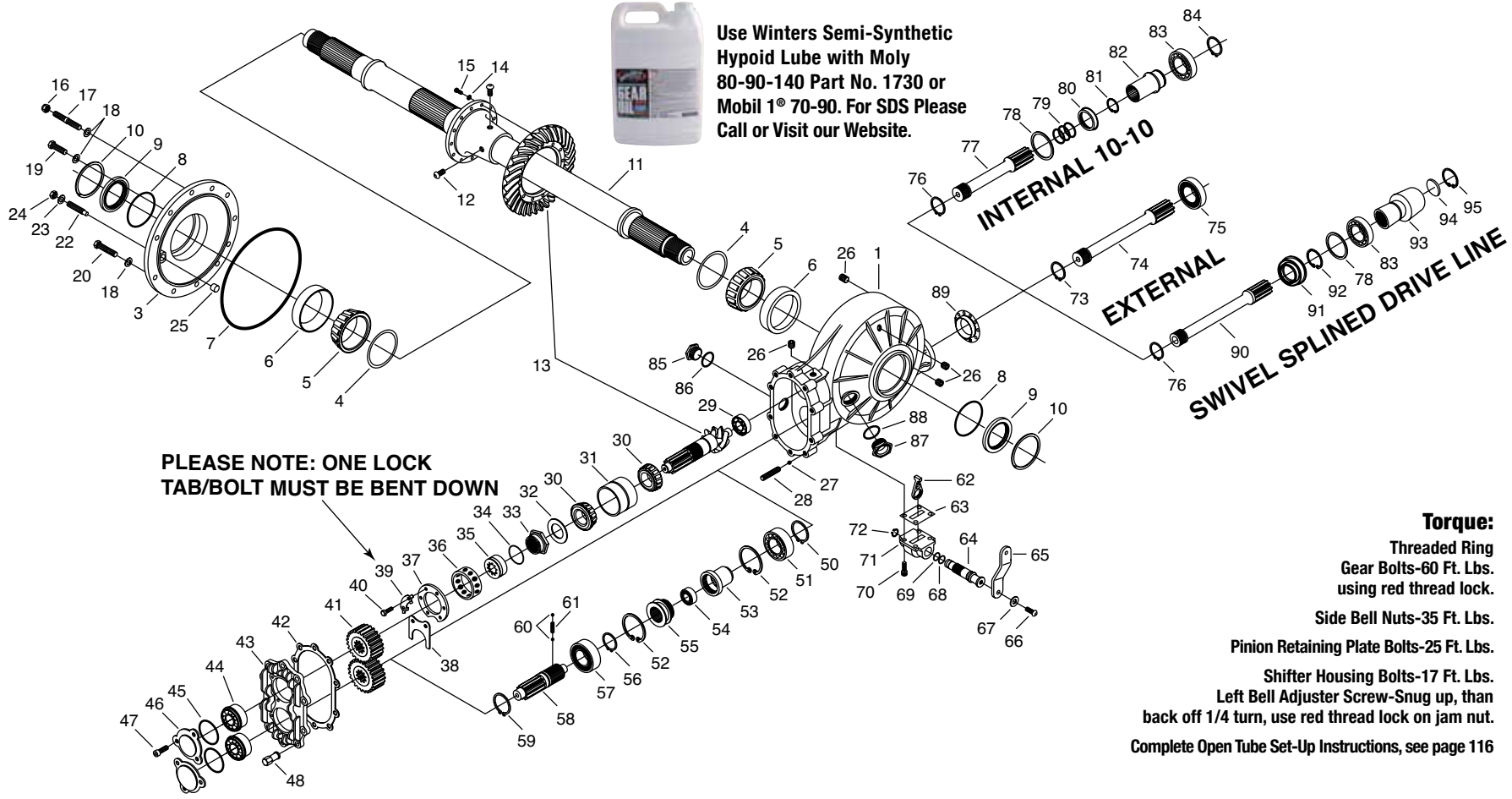
AXLE

*8122-52-1	Aluminum Axle, 52-1, 1.750 ID	8122ASPC	Special Aluminum Axle
*8153-52-1	Lightweight Axle, 52-1, 1.875 ID	8122-Custom	Custom Aluminum Axle
*†8153UL	Ultralight Axle, 2.062 ID	8244S-OT	Low Drag Brgs., Axle, Steel Balls
8122-54-4	Aluminum Axle, 54-4		

**Specify Offset †Includes Floating Brake Clamp & Hex Nuts*

ACCESSORY PACKAGE **PART NO. 3818, OPTION 8269**

Includes Rotor Mount (Part No. 6396S-1), Hex Nuts (Part No. 6121L (Left) & 6121R (Right)), Cable Bracket (Part No. 3067), Breather Kit (Part No. 2966), Torque Tube Stud Kit (Part No. 3627), 3-1/16" Steel Spacer (Part No. 6156), Brake Clamp Spacer (Part No. 2299) & Steel Cupped Splined Bearing Shoulder Spacer (Part No. 2269).



Torque:

Threaded Ring Gear Bolts-60 Ft. Lbs. using red thread lock.

Side Bell Nuts-35 Ft. Lbs.

Pinion Retaining Plate Bolts-25 Ft. Lbs.

Shifter Housing Bolts-17 Ft. Lbs. Left Bell Adjuster Screw-Snug up, than back off 1/4 turn, use red thread lock on jam nut.

Complete Open Tube Set-Up Instructions, see page 116

ULTRA HD MAGNESIUM CENTER



PART NO. K2225UHD
Shown with Option 8208-01
Thermal Dispersant Coating

ALUMINUM LEFT SIDE BELL W/ CALIPER MOUNT



PART NO. 6964-05
Shown with Option 8208-B
Thermal Dispersant Coating

MAGNESIUM LEFT SIDE BELL W/ CALIPER MOUNT



PART NO. K6964-02
Shown with Option 8208-B
Thermal Dispersant Coating

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PLEASE NOTE: When ordering individual parts listed below, if the quantity listed is more than one, you must order that part number according to the quantity listed.

#	PART NO	DESCRIPTION	QTY
1*	K2225UHD	Ultra HD Mag Pro Eliminator Center	1
3*	K6964-02	Magnesium Pro Eliminator Left Side Bell	1
3*	6964-02	Aluminum Pro Eliminator Left Side Bell	1
4	6115	Shim Kit, Axle Bearing	1
5*	7358	Bearing Cone, Axle	2
6*	7357	Bearing Cup, Side Bell	2
7	7403T	O'Ring, Side Bell	1
8	7433	O'Ring, Side Bell Seal	2
9	7224	Seal, Side Bell	2
10	7626	Internal Snap Ring, Side Bell Seal	2
11*	5778A	Aluminum Live Axle (Specify Offset)	1
12	7805	1/2-20 x 1" BHCS	4
13*	5400	Ring & Pinion, 4.86 Standard	1
14	7815	3/8" Belleville Washer	12
15	7852	Ring Gear Bolt	12
16*	7177	7/16-20 Flanged Locknut, Use w/2266	9
16*	7177N	7/16-20 Nylon Locknut, Use w/2266T	9
17*	2266	Stud, Steel	9
17*	2266T	Stud, Titanium	9
18	7178	7/16" SAE Flatwasher	11
19	7117	7/16-14 x 1-1/4" HHCS	1
20	7787	7/16-14 x 1" HHCS	1
22	6149	1/2-13 Adjusting Screw	1
23	7167	1/2" SAE Flatwasher	1
24	7137A	1/2-13 Aluminum Jam Nut	1
25	5010	Thrust Block	1
26	7874S	Plug w/O'Ring	4
27	7398	5/16" Dia. Steel Ball, Gear Cover Stud	10
28	7802	3/8-16 x 1-3/4" Stud, Gear Cover	10
29*	7331	Roller Bearing, Pinion Nose Shaft	1
30*	7308	Bearing Cone, Pinion Shaft	2
31*	7307	Double Bearing Cup, Pinion Shaft	1
32	5055	Bearing Washer, Pinion	1
33*	6485R	Posi-Lock Nut 1-5/16-20-2B Thread	1
34	7445	O'Ring, Posi-Lock Retainer	1
35	6484	Posi-Lock Retainer	1
36	5020	Retaining Ring, Pinion	1
37	6296A	Retainer Plate, Pinion	1
38	6267	Bearing Retainer	1
39	2374	Lock Tab, Pinion Retainer Plate	3
40	7110	3/8-16 x 1" HHCS, Retainer Plate	6
41**	8500	Quick Change Gear Set	1
42*	6729	Gasket, Gear Cover	1
43*	6655HD	HD Gear Cover, Less Bearings	1
44*	7521	Double Row Ball Bearing w/Snap Ring	2
45*	7476	O'Ring, Bearing Cap	2
46*	1667	Bearing Cap, HD Gear Cover	2
47*	7955	1/4-20 x 1" SHCS, Bearing Cap	6
48	7794ASBK	3/8-16 Aluminum Short High Nut	10
50	7673	Snap Ring, Stationary Coupler	1
51	7391	Ball Bearing, Stationary Coupler	1
52	7636	Internal Snap Ring, Rear Bearing	2
53	6252	Stationary Coupler	1
54	7392	Small Bearing, Stationary Coupler	1
55	6265	Sliding Coupler	1
56	7637	External Snap Ring, Stub Shaft	1
57	7390	Shielded Ball Bearing, Stub Shaft	1
58*	6250	Stub Shaft	1
58*	6250VHD	Stub Shaft, VascoMax®	1
59	7610	Snap Ring, Lower Shaft	1
60	7347	1/4" Diameter Steel Detent Ball	2
61	6318	Detent Spring	1
62	1524	Shifter Arm, Cast	1
63	6515	Gasket, Shifter Housing	1
64*	6251	Shifter Shaft	1
65	6496	Shift Arm	1
66	7109S	3/8-24 x 3/4" HHCS, Shift Arm	1
67	7815	3/8" Belleville Washer, Shift Arm	1
68	7442	O'Ring, Shifter Shaft, Large	1
69*	7443	O'Ring, Shifter Shaft, Small	1
70	7795	5/16-18 x 7/8" 12pt, Shifter Housing	4
71	6264	Shifter Housing, Aluminum	1
72	7631	External Snap Ring, Shifter Shaft	1
73	7605	Lower Shaft Snap Ring	1
74*	6249	Standard Lower Shaft, Shifter	1
74*	6249T	Standard Lower Shaft, Shifter, Titanium	1
75*	7383F	Special Sealed Ball Bearing, Lower Shaft	1
76*	7660	Lower Shaft Snap Ring	1
77*	6678-01	Standard Lower Shaft	1
78*	6680	Spacer, Front Bearing	1
79*	7452	O'Ring, Lower Shaft w/Internal Coupler	3
80*	7242	Seal, Internal Coupler	1
80*	7280-32	Seal, Internal Coupler, 10-32	1
81*	7664	Internal Snap Ring, Internal Coupler	1
82*	6676	Internal 10-10 Coupler, Steel	1
82*	6676A	Internal 10-10 Coupler, Aluminum	1
82*	6676-32	Internal 10-32 Coupler	1
83*	7531	Sealed Ball Bearing, Internal 10-10	1
84*	7657	External Snap Ring, Internal 10-10	1
85	6857-01	Small Inspection Plug 1-1/16-12 Thread (#12AN)	1
86	7454	O'Ring, Inspection Plug	1
87	5290-01	Large Inspection Plug 1-5/8-12 Thread (#20AN)	1
88	7453	O'Ring, Inspection Plug	1
89	3053	Bearing Liner	1
90*	2973	Lower Shaft, Steel	1
90*	2973T	Lower Shaft, Titanium	1
91*	7280	Seal	1
92*	7619	Snap Ring	1
93*	2975	Coupler	1
94*	7918	Core Plug	1
95*	8337	Retaining Ring	1

*Part numbers in this list may vary depending on options ordered at time of purchase.
**Not included in assembly.

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COMPETITION ELIMINATOR QUICK CHANGE

For Breather Info See Page 100

Breather Assembly P/N 2966



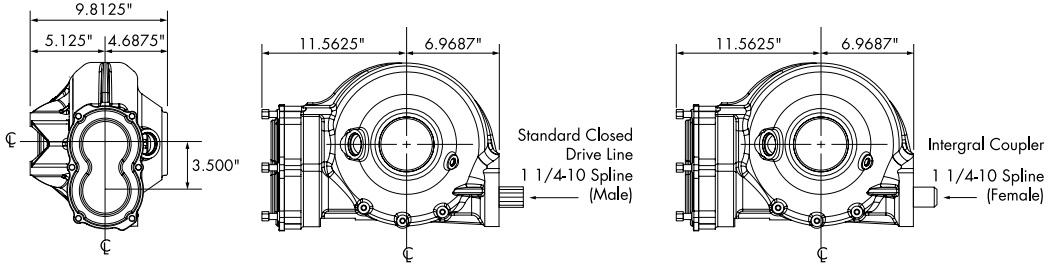
Thermal Dispersant Coating

While being 1/3 lighter than aluminum, magnesium acts as an insulator and holds in heat resulting in higher temperatures inside your rear. This very effective corrosion resistant coating helps cool your rear assembly by dispersing the heat, therefore resulting in cooler operating temperatures!

THE COMPETITION ELIMINATOR REAR

is built to ensure bulletproof performance and reliability

Our newest Sprint Car Rear will exceed your expectations and meet your most demanding needs! The pit resistant, full radius ground tooth increases tooth strength in both the Ring and Pinion. Ground surface contact pattern makes it the most efficient 10” Ring & Pinion ever offered. With a redesigned Center Section and a 6 Bolt Billet Aluminum, O’Ringed Gear Cover with old school logo, you’ll take one look and agree, this is the best one yet!



- 4.86 Ratio Ring & Pinion
- Magnesium Cast Integral Right Side Bell
- Aluminum Axle
- Left Side Bell with Caliper Mount
- Front Bearing Liner
- Thermal Dispersant Coating
- Billet Gear Cover

PAGES OF INTEREST

Exploded View: 8-9

Set-Up Instructions: 116



Forged Aluminum Birdcages
Part No. SC2575 (See Page 90)

10 Piece Spacer Kit
Part No. 3558 (See Page 91)

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Super Shifter Assembly
Part No. 3232 (See Page 92)

Cable Brackets
(See Page 93)

ASSEMBLY PART NO. K1037S-6

POPULAR OPTIONS

CENTER

8106	Heat Treated Lower Shaft
8111	4.12 Ring & Pinion
8128	Titanium Lower Shaft
81457	4.57 Ring & Pinion
8150	Titanium Shifter Shaft
8163	Steel Internal 10-10 Coupler
8163A	Aluminum Internal 10-10 Coupler
8163SS	Swivel Splined Coupler (Steel Shaft)
8202-XXX	EDM Ring Gear (Specify Ratio)
8205	Titanium Center Studs
8206	Titanium Bolt Kit
8218-BRG	REM® Bearing (# is per Bearing)
8218-RP	REM® Ring & Pinion
8252S-6	Billet Cover w/ Skull & Crossbones
9121	VascoMax® Stub Shaft
9147	ARP® Ring Gear Bolt Kit

AXLE

*8122-52-1	Aluminum Axle, 52-1, 1.750 ID
*8153-52-1	Lightweight Axle, 52-1, 1.875 ID
*†8153UL	Ultralight Axle, 2.062 ID
8122-54-4	Aluminum Axle, 54-4
8122ASPC	Special Aluminum Axle
8122-Custom	Custom Aluminum Axle
8244S-OT	Low Drag Brgs., Axle, Steel Balls

**Specify Offset †Includes Floating Brake Clamp & Hex Nuts*

ENHANCED SURFACE FINISH
rem® Process

P/N 8218-RP
(Ring & Pinion)
P/N 8218-BRG
(Bearings)



Looks Like Chrome, But Better!

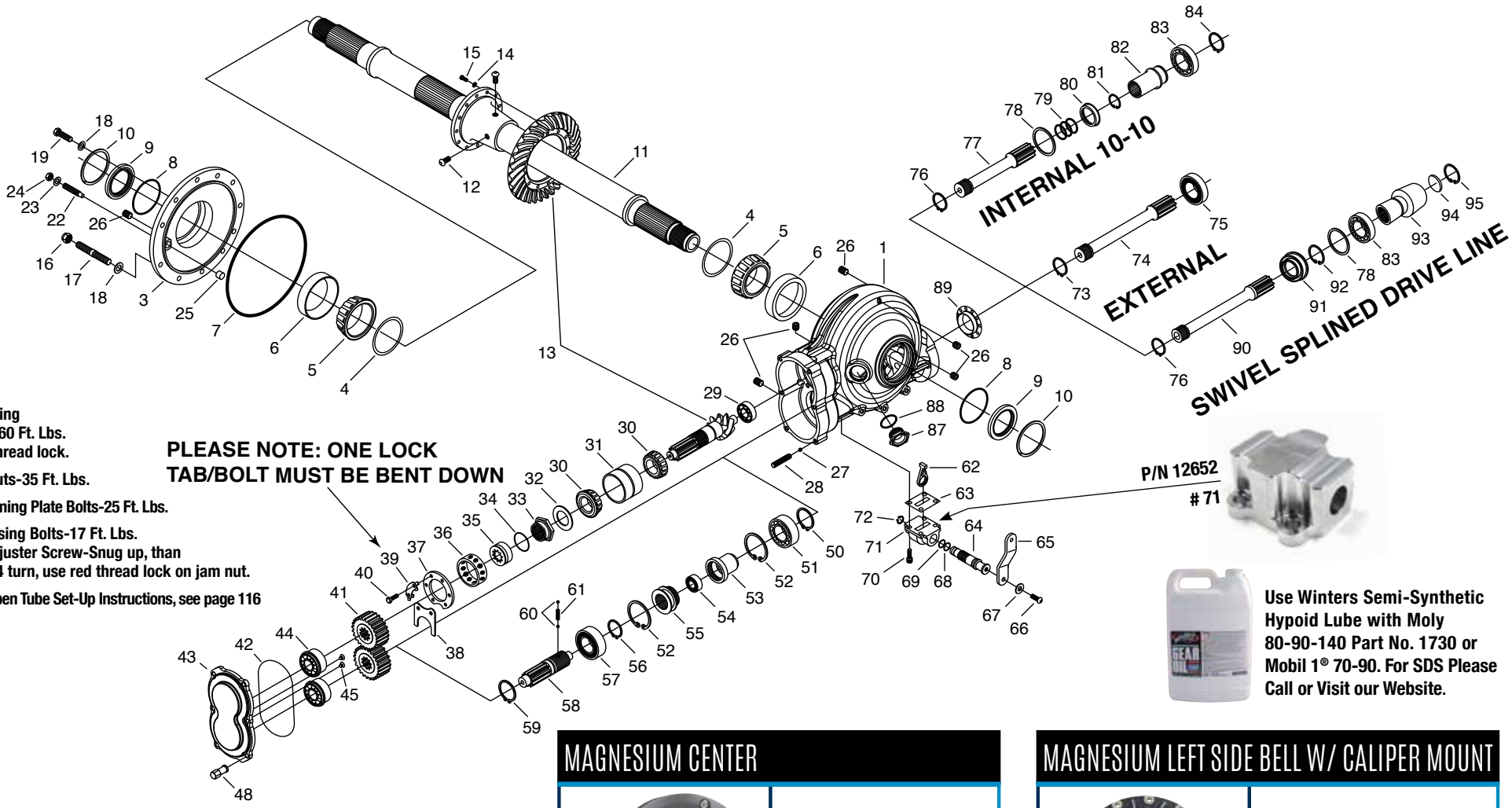


ARP® RING GEAR BOLT KIT
Option 9147 Installed in Rear
KIT P/N 9381



ACCESSORY PACKAGE **PART NO. 3818, OPTION 8269**

Includes Rotor Mount (Part No. 6396S-1), Hex Nuts (Part No. 6121L (Left) & 6121R (Right)), Cable Bracket (Part No. 3067), Breather Kit (Part No. 2966), Torque Tube Stud Kit (Part No. 3627), 3-1/16" Steel Spacer (Part No. 6156), Brake Clamp Spacer (Part No. 2299) & Steel Cupped Splined Bearing Shoulder Spacer (Part No. 2269).



Torque:

Threaded Ring Gear Bolts-60 Ft. Lbs. using red thread lock.

Side Bell Nuts-35 Ft. Lbs.

Pinion Retaining Plate Bolts-25 Ft. Lbs.

Shifter Housing Bolts-17 Ft. Lbs. Left Bell Adjuster Screw-Snug up, than back off 1/4 turn, use red thread lock on jam nut.

Complete Open Tube Set-Up Instructions, see page 116

P/N 12652
 # 71

Use Winters Semi-Synthetic Hypoid Lube with Moly 80-90-140 Part No. 1730 or Mobil 1® 70-90. For SDS Please Call or Visit our Website.

MAGNESIUM CENTER



PART NO. K12587
Shown with Option 8208-01
Thermal Dispersant Coating

MAGNESIUM LEFT SIDE BELL W/ CALIPER MOUNT



PART NO. K6964-02
Shown with Option 8208-B
Thermal Dispersant Coating

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PLEASE NOTE: When ordering individual parts listed below, if the quantity listed is more than one, you must order that part number according to the quantity listed.

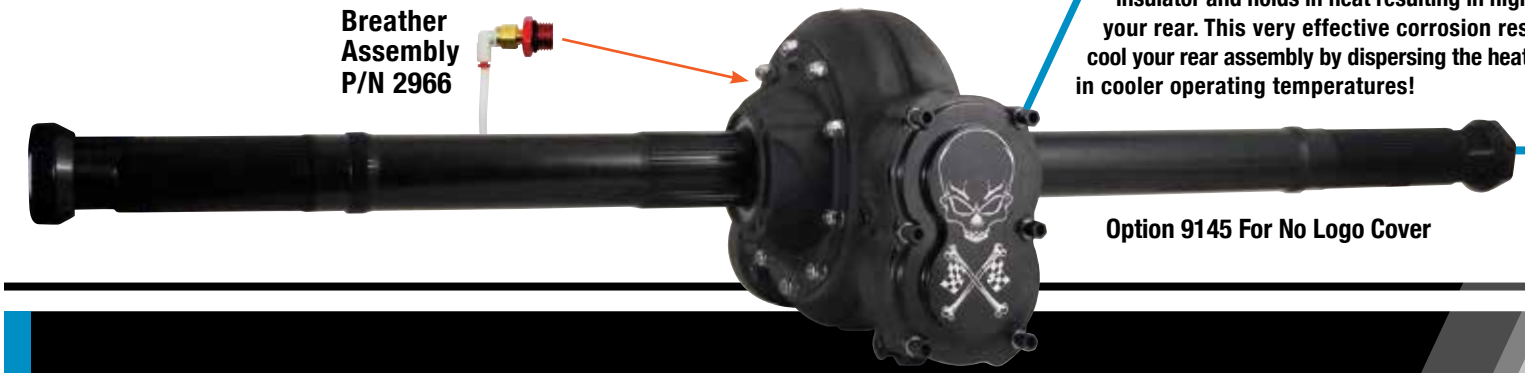
#	PART NO	DESCRIPTION	QTY
1	K12587	Magnesium Center Section	1
3*	K6964-02	Magnesium Pro Eliminator Left Side Bell	1
3*	6964-02	Aluminum Pro Eliminator Left Side Bell	1
4	6115	Shim Kit, Axle Bearing	1
5*	7358	Bearing Cone, Axle	2
6*	7357	Bearing Cup, Side Bell	2
7	7403T	O'Ring, Side Bell	1
8	7433	O'Ring, Side Bell Seal	2
9	7224	Seal, Side Bell	2
10	7626	Internal Snap Ring, Side Bell Seal	2
11*	5778A	Aluminum Live Axle (Specify Offset)	1
12	7805	1/2-20 x 1" BHCS	4
13*	5400	Ring & Pinion, 4.86 Standard	1
14	7815	3/8" Belleville Washer	12
15	7852	Ring Gear Bolt	12
16*	7177	7/16-20 Flanged Locknut, Use w/2266	9
16*	7177N	7/16-20 Nylon Locknut, Use w/2266T	9
17*	2266	Stud, Steel	9
17*	2266T	Stud, Titanium	9
18	7178	7/16" SAE Flatwasher	11
19	7117	7/16-14 x 1-1/4" HHCS	1
22	6149	1/2-13 Adjusting Screw	1
23	7167	1/2" SAE Flatwasher	1
24	7137A	1/2-13 Aluminum Jam Nut	1
25	5010	Thrust Block	1
26	7874S	Plug w/O'Ring 9/16"-18 (#6AN)	6
27	7398	5/16" Dia. Steel Ball, Gear Cover Stud	10
28	7802	3/8-16 x 1-3/4" Stud, Gear Cover	10
29*	7331	Roller Bearing, Pinion Nose Shaft	1
30*	7308	Bearing Cone, Pinion Shaft	2
31*	7307	Double Bearing Cup, Pinion Shaft	1
32	5055	Bearing Washer, Pinion	1
33*	6485R	Posi-Lock Nut 1-5/16-20-2B Thread	1
34	7445	O'Ring, Posi-Lock Retainer	1
35	6484	Posi-Lock Retainer	1
36	5020	Retaining Ring, Pinion	1
37	6296A	Retainer Plate, Pinion	1
38	6267	Bearing Retainer	1
39	2374	Lock Tab, Pinion Retainer Plate	3
40	7110	3/8-16 x 1" HHCS, Retainer Plate	6
41**	8500	Quick Change Gear Set	1
42*	8447	O'Ring, Gear Cover	1
42*	12185	Gasket, Gear Cover	1
43*	12175B	Billet Aluminum Cover, Less Bearings	1
44*	8659	Bearing, Gear Cover	2
45	12417	Bearing Retainer, Gear Cover	2
48	7794ASBK	3/8-16 Aluminum Short High Nut	6
50	7673	Snap Ring, Stationary Coupler	1
51	7391	Ball Bearing, Stationary Coupler	1
52	7636	Internal Snap Ring, Rear Bearing	2
53	6252	Stationary Coupler	1
54	7392	Small Bearing, Stationary Coupler	1
55	6265	Sliding Coupler	1
56	7637	External Snap Ring, Stub Shaft	1
57	7390	Shielded Ball Bearing, Stub Shaft	1
58*	6250	Stub Shaft	1
58*	6250VHD	Stub Shaft, VascoMax®	1
59	7610	Snap Ring, Lower Shaft	1
60	7347	1/4" Diameter Steel Detent Ball	2
61	6318	Detent Spring	1
62	1524	Shifter Arm, Cast	1
63	6515	Gasket, Shifter Housing	1
64*	6251	Shifter Shaft	1
65	6496	Shift Arm	1
66	7109S	3/8-24 x 3/4" HHCS, Shift Arm	1
67	7815	3/8" Belleville Washer, Shift Arm	1
68	7442	O'Ring, Shifter Shaft, Large	1
69*	7443	O'Ring, Shifter Shaft, Small	1
70	7795	5/16-18 x 7/8" 12pt, Shifter Housing	4
71	12652	Shifter Housing, Billet Aluminum	1
72	7631	External Snap Ring, Shifter Shaft	1
73	7605	Lower Shaft Snap Ring	1
74*	6249	Standard Lower Shaft, Shifter	1
74*	6249T	Standard Lower Shaft, Shifter, Titanium	1
75*	7383F	Special Sealed Ball Bearing, Lower Shaft	1
76*	7660	Lower Shaft Snap Ring	1
77*	6678-01	Standard Lower Shaft	1
78*	6680	Spacer, Front Bearing	1
79*	7452	O'Ring, Lower Shaft w/Internal Coupler	3
80*	7242	Seal, Internal Coupler	1
80*	7280-32	Seal, Internal Coupler, 10-32	1
81*	7664	Internal Snap Ring, Internal Coupler	1
82*	6676	Internal 10-10 Coupler, Steel	1
82*	6676A	Internal 10-10 Coupler, Aluminum	1
82*	6676-32	Internal 10-32 Coupler	1
83*	7531	Sealed Ball Bearing, Internal 10-10	1
84*	7657	External Snap Ring, Internal 10-10	1
87	5290-01	Large Inspection Plug 1-5/8-12 Thread (#20AN)	1
88	7453	O'Ring, Inspection Plug	1
89	3053	Bearing Liner	1
90*	2973	Lower Shaft, Steel	1
90*	2973T	Lower Shaft, Titanium	1
91*	7280	Seal	1
92*	7619	Snap Ring	1
93*	2975	Coupler	1
94*	7918	Core Plug	1
95*	8337	Retaining Ring	1

*Part numbers in this list may vary depending on options ordered at time of purchase.
**Not included in assembly.

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For Breather Info See Page 100

Breather Assembly P/N 2966



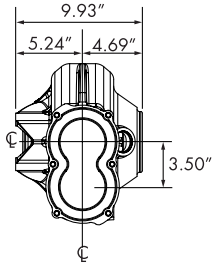
Thermal Dispersant Coating

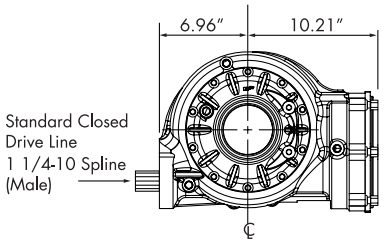
While being 1/3 lighter than aluminum, magnesium acts as an insulator and holds in heat resulting in higher temperatures inside your rear. This very effective corrosion resistant coating helps cool your rear assembly by dispersing the heat, therefore resulting in cooler operating temperatures!

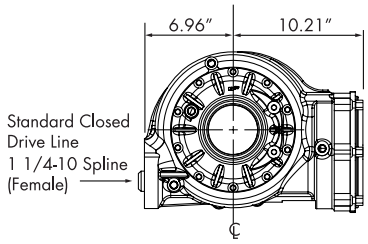
Option 9145 For No Logo Cover

OUTLAW V8-10 QUICK CHANGE

Additional fluid capacity keeps this Direct Replacement Rear running cooler. This assembly uses the same length Torque Tube, Drive Shaft, 10 Spline Gears and all current Inboard Brake Kits while saving 10 lbs. of rotating and unsprung weight. The standard 8" Ring Gear, weighing in at 7 lbs., is 20% smaller and 20% lighter. Acceleration and deceleration are 11% faster when compared to a conventional 10" Ring Gear. An optional Lightweight Ring Gear, weighing only 5.5 lbs., is available. The standard O'Ringed Billet Gear Cover is available without Skull & Crossbones logo on request. All Popular Options available.







- **8" 4.11 Ratio Ring & Pinion**
- **Magnesium Cast Integral Right Side Bell**
- **Aluminum Axle**
- **Billet Gear Cover**
- **Left Side Bell with Caliper Mount**
- **Front Bearing Liner**
- **Posi-Lock Nut**
- **Thermal Dispersant Coating**

PAGES OF INTEREST

Exploded View: 12-13

Set-Up Instructions: 116



Forged Aluminum Birdcages
Part No. SC2575 (See Page 90)

10 Piece Spacer Kit
Part No. 3558 (See Page 91)

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Super Shifter Assembly
Part No. 3232 (See Page 92)

Cable Brackets
(See Page 93)

ASSEMBLY PART NO. K858S-V8

ENHANCED SURFACE FINISH

rem® Process

P/N 8218-RP
(Ring & Pinion)
P/N 8218-BRG
(Bearings)



Looks Like Chrome, But Better!

POPULAR OPTIONS

CENTER

8128-V8	Titanium Lower Shaft	8205-V8	Titanium Center Studs
8150-V8	Titanium Shifter Shaft	8206-V8	Titanium Bolt Kit
8163-V8	Steel Internal 10-10 Coupler	8218-BRG	REM® Bearing (# is per Bearing)
8163A-V8	Aluminum Internal 10-10 Coupler	8218-RP	REM® Ring & Pinion
8163SS-V8	Swivel Splined Coupler (Steel Shaft)	8269	Accessory Package
8202-V8	EDM Ring Gear (Specify Ratio)	9121-V8	VascoMax® Stub Shaft

AXLE

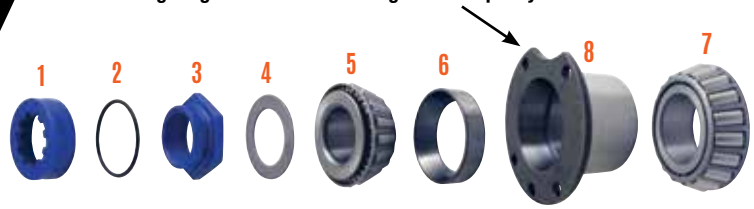
*8122-52-1	Aluminum Axle, 52-1, 1.750 ID	8122ASPC	Special Aluminum Axle
*8153-52-1	Lightweight Axle, 52-1, 1.875 ID	8122-Custom	Custom Aluminum Axle
*†8153UL	Ultralight Axle, 2.062 ID	8244S-OT	Low Drag Brgs., Axle, Steel Balls
8122-54-4	Aluminum Axle, 54-4		

**Specify Offset †Includes Floating Brake Clamp & Hex Nuts*

8" 4.11 PINION BEARING, 12 BOLT **PART NO. 65411SC**



When Ordering Ring & Pinion with Bearings Please Specify 5 Bolt Pattern



#	PART NO	DESCRIPTION
1	1807	Posi-Lock Retainer
2	7445	O'Ring
3	1806	Posi-Lock Nut 1-5/16-20-2B Thread
4	5055	Washer

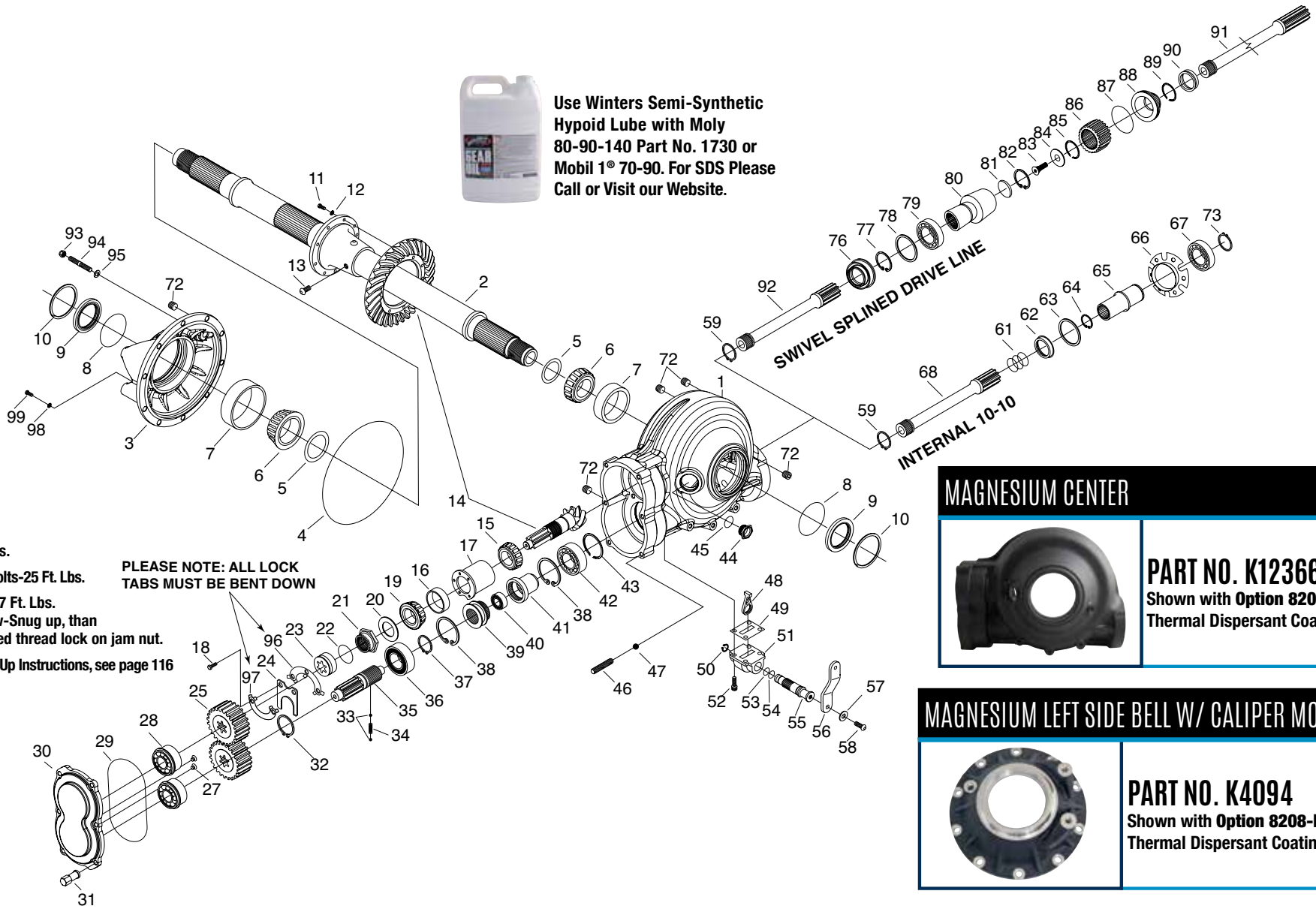
#	PART NO	DESCRIPTION
5	7527	Outer Roller Bearing
6	8622	Race
7	7308	Inner Roller Bearing
8	4871-01	Pinion Cup



ARP® RING GEAR BOLT KIT

Option 9147S Installed in Rear
KIT P/N 9381S

OUTLAW V8-10 QUICK CHANGE



Use Winters Semi-Synthetic Hypoid Lube with Moly 80-90-140 Part No. 1730 or Mobil 1® 70-90. For SDS Please Call or Visit our Website.

Torque:

Threaded Ring Gear Bolts-60 Ft. Lbs. using red thread lock.

Side Bell Nuts-35 Ft. Lbs.

Pinion Retaining Plate Bolts-25 Ft. Lbs.

Shifter Housing Bolts-17 Ft. Lbs. Left Bell Adjuster Screw-Snug up, than back off 1/4 turn, use red thread lock on jam nut.

Complete Open Tube Set-Up Instructions, see page 116

MAGNESIUM CENTER

PART NO. K12366
Shown with Option 8208-01
Thermal Dispersant Coating

MAGNESIUM LEFT SIDE BELL W/ CALIPER MOUNT

PART NO. K4094
Shown with Option 8208-B
Thermal Dispersant Coating

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PLEASE NOTE: When ordering individual parts listed below, if the quantity listed is more than one, you must order that part number according to the quantity listed.

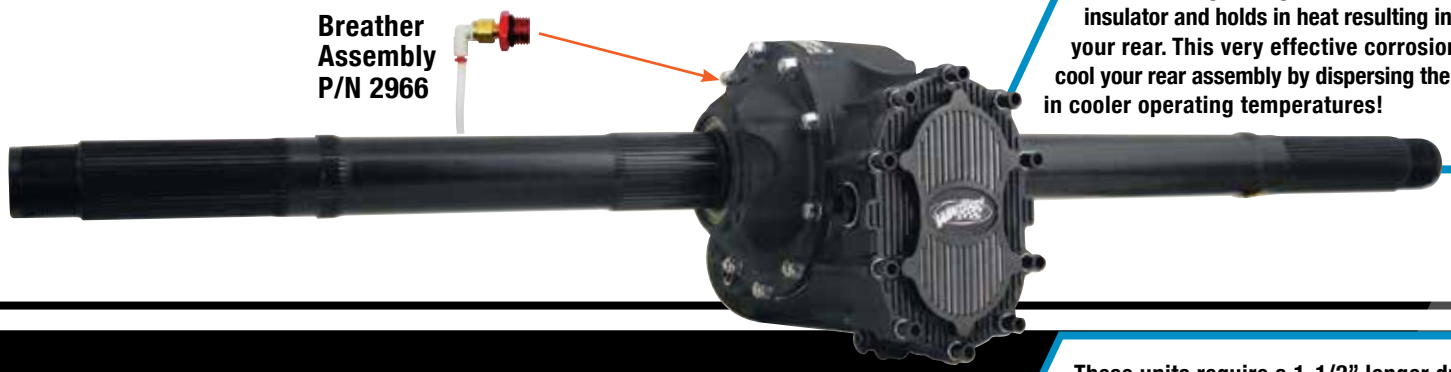
#	PART NO	DESCRIPTION	QTY
1	K12366	Magnesium Center Section	1
2	5778A	Aluminum Live Axle (Specify Offset)	1
3*	K4094	Magnesium Left Side Bell	1
3*	4094	Aluminum Left Side Bell	1
4	7451	O'Ring, Side Bell	1
5	6115	Bearing Shim Kit	1
6	7358	Bearing Cone, Axle	2
7	7357	Bearing Cup, Side Bell	2
8	7433	O'Ring, Side Bell Seal	2
9	7224	Seal, Side Bell, Axle Seal	2
10	7626	Snap Ring, Side Bell	2
11	7852S	3/8-24 Ring Gear Bolt	12
12	7815	3/8" Belleville Washer	12
13	7805	1/2-20 x 1" BHCS	4
14	65411S	4.11 Ratio Ring & Pinion	1
15	7308	Bearing Cone, Pinion Shaft	1
16	8622	Bearing Cup, Pinion	1
17	4871-01	Bearing Cartridge	1
18	7107	3/8-16 x 1-1/4" HHCS	5
19	7527	Bearing Cone, Pinion Shaft	1
20	5055	Bearing Washer, Pinion	1
21	1806	Pinion Nut 1-5/16-20-2B Thread	1
22	7486	O'Ring, Pinion Nut	1
23	1807	Pinion Nut Retainer	1
24	6267	Bearing Retainer	1
25**	8500	Quick Change Gear Set	1
27	12417	Bearing Retainer	2
28	8659	Bearing, Gear Cover	2
29	8447	O'Ring, Gear Cover	1
30*	12175B	Billet Aluminum Gear Cover, Less Brgs	1
31*	7794ASBK	3/8-16 Aluminum Short High Nut	6
32	7610	Snap Ring, Stub Shaft	1
33	7347	1/4" Steel Detent Ball	2
34	6318	Detent Spring	1
35*	6250	Stub Shaft	1
35*	6250VHD	Stub Shaft, VascoMax®	1
36	7390	Shielded Ball Bearing, Stub Shaft	1
37	7637	External Snap Ring, Stub Shaft	1
38	7636	Internal Snap Ring, Rear Bearing	2
39	6265	Sliding Coupler	1
40	7392	Small Bearing, Stationary Coupler	1
41	6252	Stationary Coupler	1
42	7391	Ball Bearing, Stationary Coupler	1
43	8313	Snap Ring, Stationary Coupler	1
44	6857-01	Small Inspection Plug w/O'Ring 1-1/16-12 Thread (#12AN)	1
45	7454	O'Ring, Small Inspection Plug	1
46	7802	3/8-16 x 1-3/4" Stud	6
47	7398	5/16" Diameter Steel Ball	6
48	1524	Cast Shift Arm	1
49	6515	Gasket, Shifter Housing	1
50	7631	External Snap Ring, Shifter Shaft	1
51*	6264	Shifter Housing, Aluminum Cast	1
51*	12653	Shifter Housing, Aluminum Forged	1
52	7795	5/16-18 x 7/8" 12pt, Shift Housing	4
53	7443	O'Ring, Shifter Shaft, Small	1
54	7442	O'Ring, Shifter Shaft, Large	1
55	6251	Shifter Shaft	1
56	6496	Shift Arm	1
57	7815	3/8" Belleville Washer, Shift Arm	1
58	7109S	3/8-24 x 3/4" HHCS, Shift Arm	1
59	7660	Snap Ring, Lower Shaft, Rear	1
61	7452	O'Ring, Lower Shaft	3
62	7242	Seal, Internal Coupler	1
63	6680	Spacer, Front Bearing	1
64	7664	Internal Snap Ring, Internal Coupler	1
65*	6676	Internal 10-10 Coupler, Steel	1
65*	6676A	Internal 10-10 Coupler, Aluminum	1
66	3053	Bearing Liner	1
67	7531	Ball Bearing, Internal Coupler	1
68*	4307-01	Lower Shaft, Steel	1
68*	4307T-01	Lower Shaft, Titanium	1
72	7874S	AN Plug 9/16-18 Thread (#6AN)	5
73	7657	External Snap Ring	1
76	7280	Seal	1
77	7619	Retaining Ring	1
78	6680	Spacer	1
79	7531	Bearing	1
80	2975	Coupler	1
81	7918	Core Plug	1
82	8337	Retaining Ring	1
83**	8723	3/8-24 x 1-1/4" FHCS	1
84**	2978	C-Sunk Washer	1
85**	8336	Retaining Ring	1
86**	2976	Swivel Insert	1
87**	8416V	Viton O'Ring	1
88**	7287V-01	Extended Seal, Viton	1
89**	8347	Retaining Ring	1
90**	3564	Boot Retainer	1
91**	2974G	Drive Shaft, Steel, Gundrilled	1
91**	2974TG	Drive Shaft, Titanium, Gundrilled	1
92**	4307	Lower Shaft, Steel	1
92**	4307T	Lower Shaft, Titanium	1
93	7177N	7/16-20 Nylon Locknut, Side Bell	10
94*	2266	Stud, Side Bell, Steel	10
94*	2266T	Stud, Side Bell, Titanium	10
95	7811	7/16" SAE Flatwasher, Side Bell	10
96	12042	Lock Tab	1
97	12043	Lock Tab	1
98	7196	Washer	1
99	8739	5/16-18 x 3/4" BHCS	1

*Part numbers in this list may vary depending on options ordered at time of purchase.
**Not included in assembly.

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For Breather Info See Page 100

Breather Assembly P/N 2966



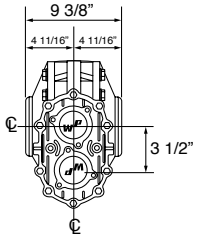
Thermal Dispersant Coating

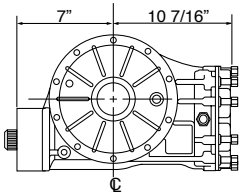
While being 1/3 lighter than aluminum, magnesium acts as an insulator and holds in heat resulting in higher temperatures inside your rear. This very effective corrosion resistant coating helps cool your rear assembly by dispersing the heat, therefore resulting in cooler operating temperatures!

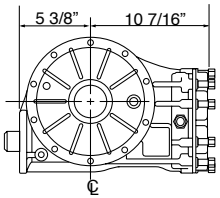
OUTLAW V8 QUICK CHANGE

These units require a 1-1/2" longer drive shaft and torque tube. See page 16, option #9101-V8 Adapter. This allows the use of a standard length drive shaft and torque tube as a standard size Quick Change.

This compact rear end assembly has many advantages never seen in the sprint car industry. This unit uses a special 4.11 Ring & Pinion new to our industry. Its 8" Ring Gear allows us to build a smaller, more compact rear with improved fuel cell and seat clearance. The 8" Ring Gear is 20% smaller and 20% lighter. From a performance standpoint, all sprint cars will benefit, some more than others. Smaller cubic inch engines and non-wing cars versus winged cars will benefit the most. The smaller the track the better the advantage!







- 8" REM® 4.11 Ratio Ring & Pinion
- Magnesium Cast Integral Right Side Bell
- Aluminum Axle
- Billet Gear Cover
- Improved Fuel Cell & Seat Clearance
- Left Side Bell with Caliper Mount
- Front Bearing Liner
- Posi-Lock Nut
- Thermal Dispersant Coating

ENHANCED SURFACE FINISH

Rem® Process

P/N 8218-RP
(Ring & Pinion)

P/N 8218-BRG
(Bearings)



Looks Like Chrome, But Better!



ARP® RING GEAR BOLT KIT

Option 9147S Installed in Rear
KIT P/N 9381S

PAGES OF INTEREST

Exploded View: 16-17
Optional Gear Covers: 58-59
Set-Up Instructions: 116

Forged Aluminum Birdcages
Part No. SC2575 (See Page 90)

10 Piece Spacer Kit
Part No. 3558 (See Page 91)

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Super Shifter Assembly
Part No. 3232 (See Page 92)

Cable Brackets
(See Page 93)

ASSEMBLY PART NO. K848S-V8

POPULAR OPTIONS

CENTER

8117-V8	Magnesium Left Side Bell	8206-V8	Titanium Bolt Kit
8128-V8	Titanium Lower Shaft	8218-BRG	REM® Bearing (# is per Bearing)
8150-V8	Titanium Shifter Shaft	**8244C-V8	Reduced Friction Ceramic Balls
8163-V8	Steel Internal 10-10 Coupler	8252BL	Billet Big Bearing Ultra HD w/Logo
8163A-V8	Aluminum Internal 10-10 Coupler	8269	Accessory Package
8163SS-V8	Swivel Splined Coupler (Steel Shaft)	9101-V8	Adapter, V8 Pro Sprint
8202-V8	EDM Ring Gear	9121	VascoMax® Stub Shaft
8205-V8	Titanium Center Studs		

*** Gear Cover and Lower Shaft Bearings*

AXLE

*8122-52-1	Aluminum Axle, 52-1, 1.750 ID	8122ASPC	Special Aluminum Axle
*8153-52-1	Lightweight Axle, 52-1, 1.875 ID	8122-Custom	Custom Aluminum Axle
*†8153UL	Ultralight Axle, 2.062 ID	8244S-OT	Low Drag Brgs., Axle, Steel Balls
8122-54-4	Aluminum Axle, 54-4		

**Specify Offset †Includes Floating Brake Clamp & Hex Nuts*

Ask yourself, what's the largest moving object in your rear assembly? That's correct, your Axle and Ring Gear. The lighter the rotating weight, the smaller the flywheel weight, the better! So what does this mean for me? Faster Acceleration and Deceleration!



BREATHER **PART NO. 2966**

See page 100 for more details.

PLEASE NOTE

One of these must be used with the Outlaw V8 Assembly.

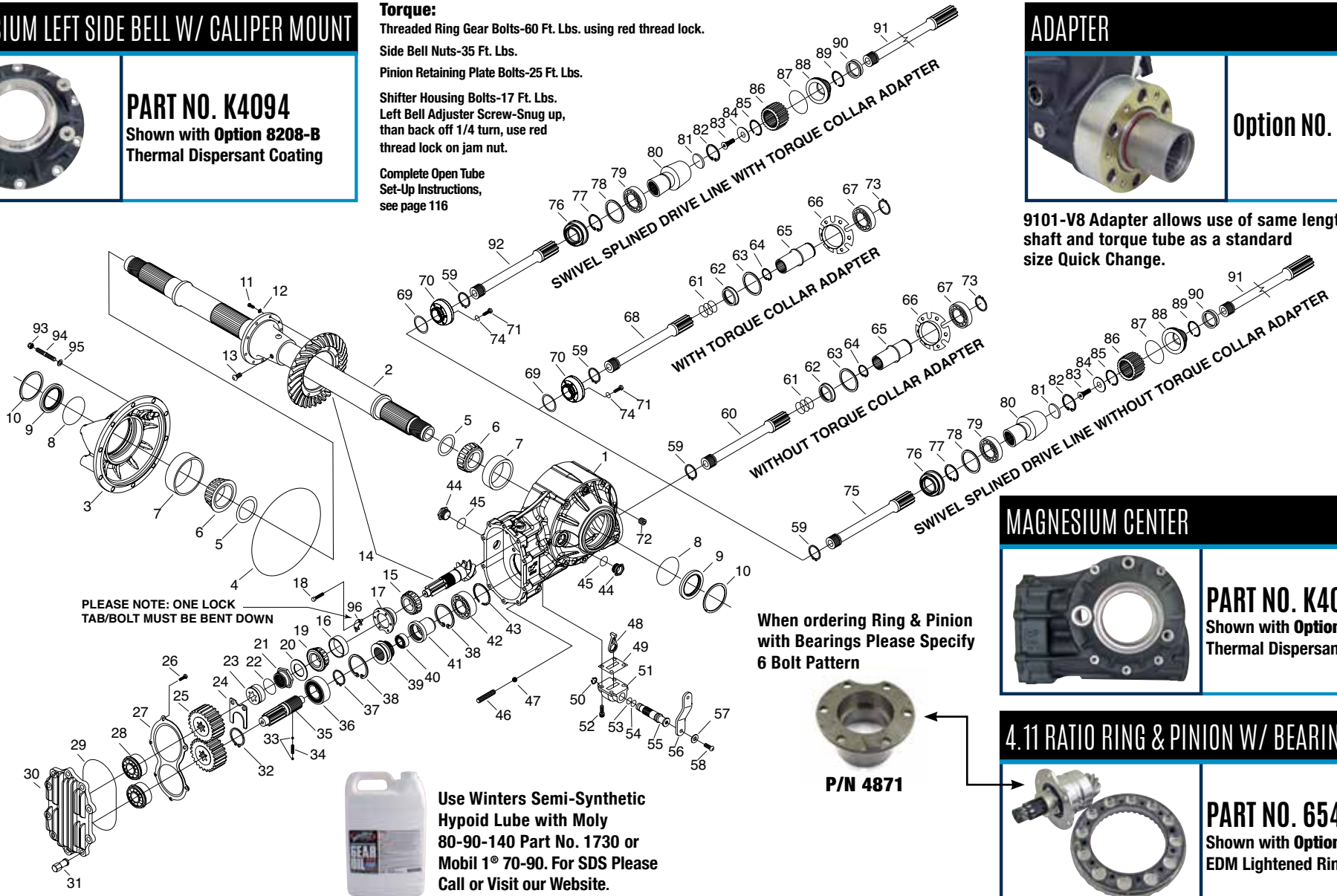
MAGNESIUM LEFT SIDE BELL W/ CALIPER MOUNT



PART NO. K4094
Shown with **Option 8208-B**
Thermal Dispersant Coating

Torque:
Threaded Ring Gear Bolts-60 Ft. Lbs. using red thread lock.
Side Bell Nuts-35 Ft. Lbs.
Pinion Retaining Plate Bolts-25 Ft. Lbs.
Shifter Housing Bolts-17 Ft. Lbs.
Left Bell Adjuster Screw-Snug up, than back off 1/4 turn, use red thread lock on jam nut.

Complete Open Tube Set-Up Instructions, see page 116



Use Winters Semi-Synthetic Hypoid Lube with Moly 80-90-140 Part No. 1730 or Mobil 1® 70-90. For SDS Please Call or Visit our Website.

When ordering Ring & Pinion with Bearings Please Specify 6 Bolt Pattern

P/N 4871

ADAPTER

Option NO. 9101-V8

9101-V8 Adapter allows use of same length drive shaft and torque tube as a standard size Quick Change.

MAGNESIUM CENTER

PART NO. K4085
Shown with **Option 8208-01**
Thermal Dispersant Coating

4.11 RATIO RING & PINION W/ BEARINGS

PART NO. 65411SB
Shown with **Option 8202-V8**
EDM Lightened Ring Gear

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PLEASE NOTE: When ordering individual parts listed below, if the quantity listed is more than one, you must order that part number according to the quantity listed.

#	PART NO	DESCRIPTION	QTY
1	K4085	Magnesium Center Section	1
2	5778A	Aluminum Live Axle (Specify Offset)	1
3*	K4094	Magnesium Left Side Bell	1
3*	4094	Aluminum Left Side Bell	1
4	7451	O'Ring, Side Bell	1
5	6115	Bearing Shim Kit	1
6	7358	Bearing Cone, Axle	2
7	7357	Bearing Cup, Side Bell	2
8	7433	O'Ring, Side Bell Seal	2
9	7224	Seal, Side Bell, Axle Seal	2
10	7626	Snap Ring, Side Bell	2
11	7852S	3/8-24 Ring Gear Bolt	12
12	7815	3/8" Belleville Washer	12
13	7805	1/2-20 x 1" BHCS	4
14	65411S	4.11 Ratio Ring & Pinion	1
15	7308	Bearing Cone, Pinion Shaft	1
16	8622	Bearing Cup, Pinion	1
17	4871	Bearing Cartridge	1
18	7110	3/8-16 x 1" HHCS	6
19	7527	Bearing Cone, Pinion Shaft	1
20	5055	Bearing Washer, Pinion	1
21	1806	Pinion Nut 1-5/16-20-2B Thread	1
22	7486	O'Ring, Pinion Nut	1
23	1807	Pinion Nut Retainer	1
24	6267	Bearing Retainer	1
25**	8500	Quick Change Gear Set	1
26	8087	1/4-20 BHCS	6
27	3258	Bearing Retainer	1
28	8659	Bearing, Gear Cover	2
29	8440	O'Ring, Gear Cover	1
30*	4872	Billet Aluminum Gear Cover, Less Brgs	1
31*	7794ASBK	3/8-16 Aluminum Short High Nut	10
32	7610	Snap Ring, Stub Shaft	1
33	7347	1/4" Steel Detent Ball	2
34	6318	Detent Spring	1
35*	6250	Stub Shaft	1
35*	6250VHD	Stub Shaft, VascoMax®	1
36	7390	Shielded Ball Bearing, Stub Shaft	1
37	7637	External Snap Ring, Stub Shaft	1
38	7636	Internal Snap Ring, Rear Bearing	2
39	6265	Sliding Coupler	1
40	7392	Small Bearing, Stationary Coupler	1
41	6252	Stationary Coupler	1
42	7391	Ball Bearing, Stationary Coupler	1
43	8313	Snap Ring, Stationary Coupler	1
44	6857-01	Small Inspection Plug w/O'Ring 1-1/16-12 Thread (#12AN)	2
45	7454	O'Ring, Small Inspection Plug	2
46	7802	3/8-16 x 1-3/4" Stud	10
47	7398	5/16" Diameter Steel Ball	10
48	1524	Cast Shift Arm	1
49	6515	Gasket, Shifter Housing	1
50	7631	External Snap Ring, Shifter Shaft	1
51*	6264	Shifter Housing, Aluminum Cast	1
51*	12653	Shifter Housing, Aluminum Forged	1
52	7795	5/16-18 x 7/8" 12pt, Shift Housing	4
53	7443	O'Ring, Shifter Shaft, Small	1
54	7442	O'Ring, Shifter Shaft, Large	1
55	6251	Shifter Shaft	1
56	6496	Shift Arm	1
57	7815	3/8" Belleville Washer, Shift Arm	1
58	7109S	3/8-24 x 3/4" HHCS, Shift Arm	1
59	7660	Snap Ring, Lower Shaft, Rear	1
60*	4653-01	Lower Shaft, Steel	1
60*	4653T-01	Lower Shaft, Titanium	1
61	7452	O'Ring, Lower Shaft	3
62	7242	Seal, Internal Coupler	1
63	6680	Spacer, Front Bearing	1
64	7664	Internal Snap Ring, Internal Coupler	1
65*	6676	Internal 10-10 Coupler, Steel	1
65*	6676A	Internal 10-10 Coupler, Aluminum	1
66	3053	Bearing Liner	1
67	7531	Ball Bearing, Internal Coupler	1
68*	4307-01	Lower Shaft, Steel	1
68*	4307T-01	Lower Shaft, Titanium	1
69	7471	O'Ring	1
70	3887-01	Torque Collar Adapter	1
71	7812	3/8-16 x 2" 12pt	6
72	7874S	AN Plug 9/16-18 Thread (#6AN)	1
73	7657	External Snap Ring	1
74	7151	3/8" Washer	6
75*	4653	Lower Shaft, Steel	1
75*	4653T	Lower Shaft, Titanium	1
76	7280	Seal	1
77	7619	Retaining Ring	1
78	6680	Spacer	1
79	7531	Bearing	1
80	2975	Coupler	1
81	7918	Core Plug	1
82	8337	Retaining Ring	1
83**	8723	3/8-24 x 1-1/4" FHCS	1
84**	2978	C-Sunk Washer	1
85**	8336	Retaining Ring	1
86**	2976	Swivel Insert	1
87**	8416V	Viton O'Ring	1
88**	7287V-01	Extended Seal, Viton	1
89**	8347	Retaining Ring	1
90**	3564	Boot Retainer	1
91**	2974G	Drive Shaft, Steel, Gundrilled	1
91**	2974TG	Drive Shaft, Titanium, Gundrilled	1
92**	4307	Lower Shaft, Steel	1
92**	4307T	Lower Shaft, Titanium	1
93	7177N	7/16-20 Nylon Locknut, Side Bell	10
94*	2266	Stud, Side Bell, Steel	10
94*	2266T	Stud, Side Bell, Titanium	10
95	7811	7/16" SAE Flatwasher, Side Bell	10
96	2374	Lock Tab	3

*Part numbers in this list may vary depending on options ordered at time of purchase. **Not included in assembly.

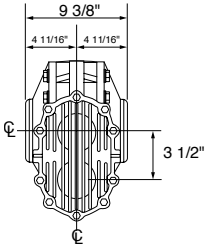
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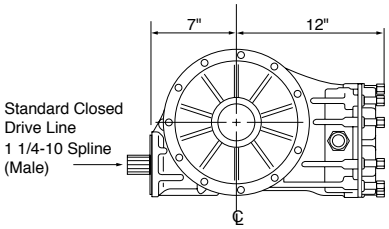
Thermal Dispersant Option 8208

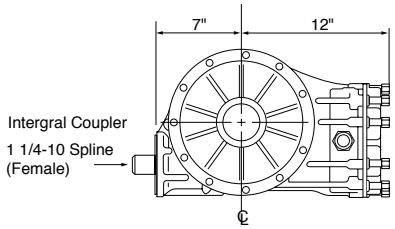
While being 1/3 lighter than aluminum, magnesium acts as an insulator and holds in heat resulting in higher temperatures inside your rear. This very effective corrosion resistant coating helps cool your rear assembly by dispersing the heat, therefore resulting in cooler operating temperatures!



SPRINT QUICK CHANGE







- **4.86 Ratio Ring & Pinion**
- **Standard Side Bells**
- **Aluminum Axle**
- **Lightweight Aluminum Gear Cover**
- **9/16" Plugs**
- **External Lower Shaft**



Option 8218-RP
REM® Ring & Pinion

Option 8202-XXX
EDM Ultralight Ring Gear

XXX = Specify Ratio

PAGES OF INTEREST

Exploded View: 20-21
Ring & Pinion Options: 61-63
Optional Gear Covers: 58-59
Set-Up Instructions: 116



Forged Aluminum Birdcages
Part No. SC2575 (See Page 90)

10 Piece Spacer Kit
Part No. 3558 (See Page 91)

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Super Shifter Assembly
Part No. 3232 (See Page 92)

Cable Brackets
(See Page 93)

AVAILABLE ASSEMBLIES

ASSEMBLY	BARE	W/6 PIN HUB KIT	W/WIDE 5 HUB KIT
Aluminum Non-Shifter	P637	P737	P537
Aluminum Shifter	P637S	P737S	P537S
Magnesium Non-Shifter	K637	K737	K537
Magnesium Shifter	K637S	K737S	K537S

ENHANCED SURFACE FINISH
rem® Process

P/N 8218-RP
(Ring & Pinion)
P/N 8218-BRG
(Bearings)



Looks Like Chrome, But Better!



ARP® RING GEAR BOLT KIT
Option 9147 Installed in Rear
KIT P/N 9381

POPULAR OPTIONS

CENTER

8106	Heat Treated Lower Shaft	8202-XXX	EDM Ring Gear (Specify Ratio)
8111	4.12 Ring & Pinion	8208	Thermal Dispersant Coating
8127	Titanium Thrubolts	8218-BRG	REM® Bearing (# is per Bearing)
8128	Titanium Lower Shaft	8218-RP	REM® Ring & Pinion
81457	4.57 Ring & Pinion	8252	Big Bearing Ultra HD w/Retainers
81486R	Reverse Rotation 4.86 Ring & Pinion	8252B	Billet Big Bearing Ultra HD
8150	Titanium Shifter Shaft	8252BL	Billet Big Bearing Ultra HD w/Logo
8163	Steel Internal 10-10 Coupler	8269	Accessory Package
8163A	Aluminum Internal 10-10 Coupler	9121	VascoMax® Stub Shaft
		9147	ARP® Ring Gear Bolt Kit

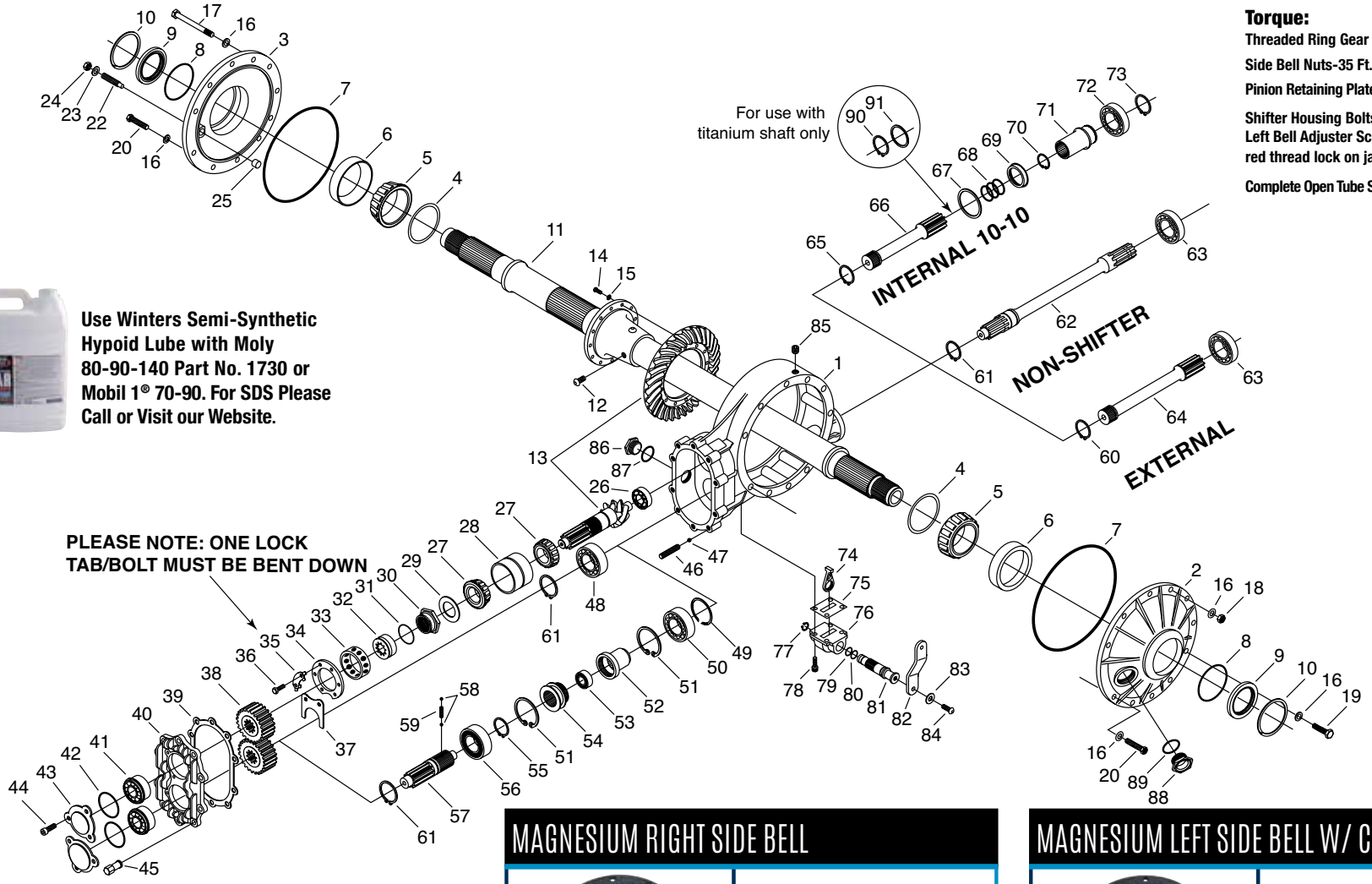
AXLE

*8122-52-1	Aluminum Axle, 52-1, 1.750 ID	8122ASPC	Special Aluminum Axle
*8153-52-1	Lightweight Axle, 52-1, 1.875 ID	8122-Custom	Custom Aluminum Axle
*†8153UL	Ultralight Axle, 2.062 ID	8244S-OT	Low Drag Brgs., Axle, Steel Balls
8122-54-4	Aluminum Axle, 54-4		

**Specify Offset †Includes Floating Brake Clamp & Hex Nuts*

BELL

8147	Lightweight Bell	8188	Right Bell w/Caliper Mount





Use Winters Semi-Synthetic Hypoid Lube with Moly 80-90-140 Part No. 1730 or Mobil 1® 70-90. For SDS Please Call or Visit our Website.

Torque:

Threaded Ring Gear Bolts-60 Ft. Lbs. using red thread lock.

Side Bell Nuts-35 Ft. Lbs.

Pinion Retaining Plate Bolts-25 Ft. Lbs.

Shifter Housing Bolts-17 Ft. Lbs.
Left Bell Adjuster Screw-Snug up, than back off 1/4 turn, use red thread lock on jam nut.

Complete Open Tube Set-Up Instructions, see page 116

SPRINT CENTER



Magnesium Center
PART NO. K5840

Aluminum Center
PART NO. 5840

Magnesium Shifter Center
PART NO. K5840S

Aluminum Shifter Center
PART NO. 5840S

Shown with Option 8208 Thermal Dispersant Coating

MAGNESIUM RIGHT SIDE BELL



PART NO. K6745-01
Shown with Option 8208-B Thermal Dispersant Coating

MAGNESIUM LEFT SIDE BELL W/ CALIPER MOUNT



PART NO. K6745-02
Shown with Option 8208-B Thermal Dispersant Coating

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PLEASE NOTE: When ordering individual parts listed below, if the quantity listed is more than one, you must order that part number according to the quantity listed.

#	PART NO	DESCRIPTION	QTY
1*	5840	Aluminum Sprint Center (Add S to P/N for Shifter)	1
2*	K6745-01	Magnesium Right Side Bell	1
3*	K6745-02	Magnesium Left Side Bell (w/Caliper Mounts)	1
4	6115	Shim Kit, Axle Bearing	1
5*	7358	Bearing Cone, Axle	2
6*	7357	Bearing Cup, Side Bell	2
7	7403T	O'Ring, Side Bell	2
8	7433	O'Ring, Side Bell Seal	2
9	7224	Seal, Side Bell	2
10	7626	Internal Snap Ring, Side Bell Seal	2
11*	5778A	Aluminum Live Axle (Specify Offset)	1
12	7805	1/2-20 x 1" BHCS	4
13*	5400	Ring & Pinion, 4.86 Standard	1
14	7852	Ring Gear Bolt	12
15	7815	3/8" Belleville Washer	12
16	7178	7/16" SAE Flatwasher	22
17†	7176	7/16-20 x 5 1/2" HHCS, Thrubolt	10
18†	7177	7/16-20 Flanged Locknut	10
19	7117	7/16-14 x 1-1/4" HHCS	2
20	7787	7/16-14 x 1" HHCS	2
22	6149	1/2-13 Adjusting Screw	1
23	7167	1/2" SAE Flatwasher	1
24	7137A	1/2-13 Aluminum Jam Nut	1
25	5010	Thrust Block	1
26	7331	Roller Bearing, Pinion Nose Shaft	1
27*	7308	Bearing Cone, Pinion Shaft	2
28*	7307	Double Bearing Cup, Pinion Shaft	1
29	5055	Bearing Washer, Pinion	1
30	6485R	Posi-Lock Nut 1-5/16-20-2B Thread	1
31	7445	O'Ring, Posi-Lock Retainer	1
32	6484	Posi-Lock Retainer	1
33	5020	Retaining Ring, Pinion	1
34	6296A	Retainer Plate, Pinion	1
35	2374	Lock Tab	3
36	7110	3/8-16 x 1" HHCS, Retainer Plate	6
37	6267	Bearing Retainer	1
38**	8500	Quick Change Gear Set	1
39*	6729	Gasket, Gear Cover	1
40*	6655	Gear Cover, Less Bearings	1
41*	7524	Double Row Ball Bearing w/Snap Ring	2
42*	7476	O'Ring, Bearing Cap	2
43*	1667	Bearing Cap, Gear Cover	2
44*	7842	1/4-20 x 7/8" SHCS, Bearing Cap	6
45	7794ASBK	3/8-16 Aluminum Short High Nut	10
46	7802	3/8-16 x 1-3/4" Stud, Gear Cover	10
47	7398	5/16" Diameter Steel Ball, Gear Cover	10
48*	7339	Bearing, Lower Shaft, Non Shifter	1
49	8313	Snap Ring, Stationary Coupler	1
50	7391	Ball Bearing, Stationary Coupler	1
51	7636	Internal Snap Ring, Rear Bearing	2
52	6252	Stationary Coupler	1
53	7392	Small Bearing, Stationary Coupler	1
54	6265	Sliding Coupler	1
55	7637	External Snap Ring, Stub Shaft	1
56	7390	Shielded Ball Bearing, Stub Shaft	1
57*	6250	Stub Shaft	1
57*	6250VHD	Stub Shaft, VascoMax®	1
58	7347	1/4" Diameter Steel Detent Ball	2
59	6318	Detent Spring	1
60	7605	Snap Ring, Drive Shaft	1
61	7610	Snap Ring, Lower Shaft	1
62*	5003-05	Std Lower Shaft (Closed Drive Line, Non Shifter)	1
63*	7383F	Special Seal Ball Bearing, Lower Shaft	1
64*	6249	Standard Lower Shaft, Shifter	1
64*	6249T	Standard Lower Shaft, Shifter, Titanium	1
65*	7660	Ext Snap Ring, Lower Shaft (Internal Coupler)	1
66*	6678-01	Std Lower Shaft, Shifter (w/Internal Coupler)	1
67	6680	Spacer, Front Bearing	1
68*	7452	O'Ring, Lower Shaft (w/Internal Coupler)	3
69*	7242	Seal, Internal Coupler	1
70*	7664	Internal Snap Ring, Internal Coupler	1
71*	6676	Internal 10-10 Coupler, Steel	1
71*	6676A	Internal 10-10 Coupler, Aluminum	1
72*	7531	Sealed Ball Bearing, Internal 10-10	1
73*	7657	External Snap Ring, Internal 10-10	1
74*	1524	Cast Shift Arm	1
75*	6515	Gasket, Shifter Housing	1
76*	6264	Shifter Housing, Aluminum Cast	1
76*	12653	Shifter Housing, Aluminum Forged	1
77*	7631	External Snap Ring, Shifter Shaft	1
78*	7795	5/16-18 x 7/8" 12pt, Shift Housing	4
79*	7443	O'Ring, Shifter Shaft, Small	1
80*	7442	O'Ring, Shifter Shaft, Large	1
81*	6251	Shifter Shaft	1
82*	6496	Shift Arm	1
83*	7815	3/8" Belleville Washer, Shift Arm	1
84*	7109S	3/8-24 x 3/4" HHCS, Shift Arm	1
85	7111B	3/8" Pipe Plug	1
86	6857-01	Inspection Plug, Gear Cavity	1
87	7454-01	O'Ring, Inspection Plug	1
88	5290-01	Large Inspection Plug w/O'Ring 1-5/8-12 Thread (#20AN)	1
89	7453	O'Ring, Large Inspection Plug	1
90	7645	Snap Ring	1
91	1724	Spacer	1

*Part numbers in this list may vary depending on options ordered at time of purchase.
**Not included in assembly.

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ASSEMBLY PART NO. K305-10

With 10 Bolt Cover

For Breather Info See Page 100

Breather Assembly P/N 2966



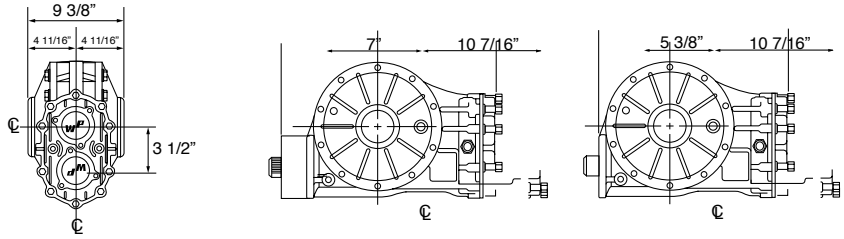
Thermal Dispersant Coating

While being 1/3 lighter than aluminum, magnesium acts as an insulator and holds in heat resulting in higher temperatures inside your rear. This very effective corrosion resistant coating helps cool your rear assembly by dispersing the heat, therefore resulting in cooler operating temperatures!

Forged Aluminum Birdcages
Part No. SC2575 (See Page 90)

10 Piece Spacer Kit - Part No. 3558 (See Page 91)

DESIGNED EXCLUSIVELY FOR THE 305 DIVISION! Built with a 42 Spline Ultralight, Long Spline Axle, this assembly utilizes a REM® Finish, 8", 4.11 Ring Gear that is 20% smaller and 20% lighter. From a performance standpoint, smaller cubic inch engines will benefit the most. This Direct Replacement Rear uses the same length Drive Shaft, Torque Tube and Inboard Brake Kit. Accepts 1-3/8" 10 Spline Quick Change Gears.



- 8" REM® 4.11 Ratio Ring & Pinion
- Magnesium Cast Integral Right Side Bell
- 42 Spline Ultralight Long Spline Axle
- Billet Gear Cover
- Left Side Bell with Caliper Mount
- Front Bearing Liner
- Posi-Lock Nut
- Thermal Dispersant Coating

PAGES OF INTEREST

Exploded View: 24-25

Set-Up Instructions: 116



Assembly Part No.
K305-106
With 6 Bolt Cover

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Super Shifter Assembly
Part No. 3232 (See Page 92)

Cable Brackets
(See Page 93)

ASSEMBLY PART NO. K305-10
ASSEMBLY PART NO. K305-106

ENHANCED SURFACE FINISH

rem® Process

P/N 8218-RP
(Ring & Pinion)
P/N 8218-BRG
(Bearings)



Looks Like Chrome, But Better!

POPULAR OPTIONS

			CENTER
8117	Magnesium Left Side Bell	8205	Titanium Center Studs
8128	Titanium Lower Shaft	8206	Titanium Bolt Kit
8150	Titanium Shifter Shaft	8218-BRG	REM® Bearing (# is per Bearing)
8163-V8	Steel Internal 10-10 Coupler	**8244S-OT	Reduced Friction Angular Contact Bearings
8163A-V8	Aluminum Internal 10-10 Coupler	8252BL	Billet Big Bearing Ultra HD w/Logo
8163SS	Swivel Splined Coupler (Steel Shaft)	8269	Accessory Package
8202-305	EDM Ring Gear	9121	VascoMax® Stub Shaft

*** Gear Cover and Lower Shaft Bearings*

Ask yourself, what's the largest moving object in your rear assembly? That's correct, your Axle and Ring Gear. The lighter the rotating weight, the smaller the flywheel weight, the better! So what does this mean for me? Faster Acceleration and Deceleration!

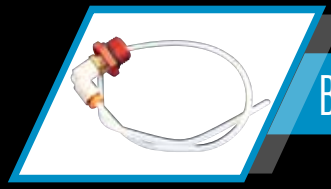


ARP® RING GEAR BOLT KIT

Option 9147S Installed in Rear
KIT P/N 9381S

PLEASE NOTE

One of these must be used with the Competition 305-10 Assembly.



BREATHER PART NO. 2966



ACCESSORY PACKAGE PART NO. 3818, OPTION 8269

Includes Rotor Mount (Part No. 6396S-1), Hex Nuts (Part No. 6121L (Left) & 6121R (Right)), Cable Bracket (Part No. 3067), Breather Kit (Part No. 2966), Torque Tube Stud Kit (Part No. 3627), 3-1/16" Steel Spacer (Part No. 6156), Brake Clamp Spacer (Part No. 2299) & Steel Cupped Splined Bearing Shoulder Spacer (Part No. 2269).

MAGNESIUM LEFT SIDE BELL W/ CALIPER MOUNT



PART NO. K4094
Shown with Option 8208-B
Thermal Dispersant Coating

ADAPTER



OPTION 9101-V8

Torque:

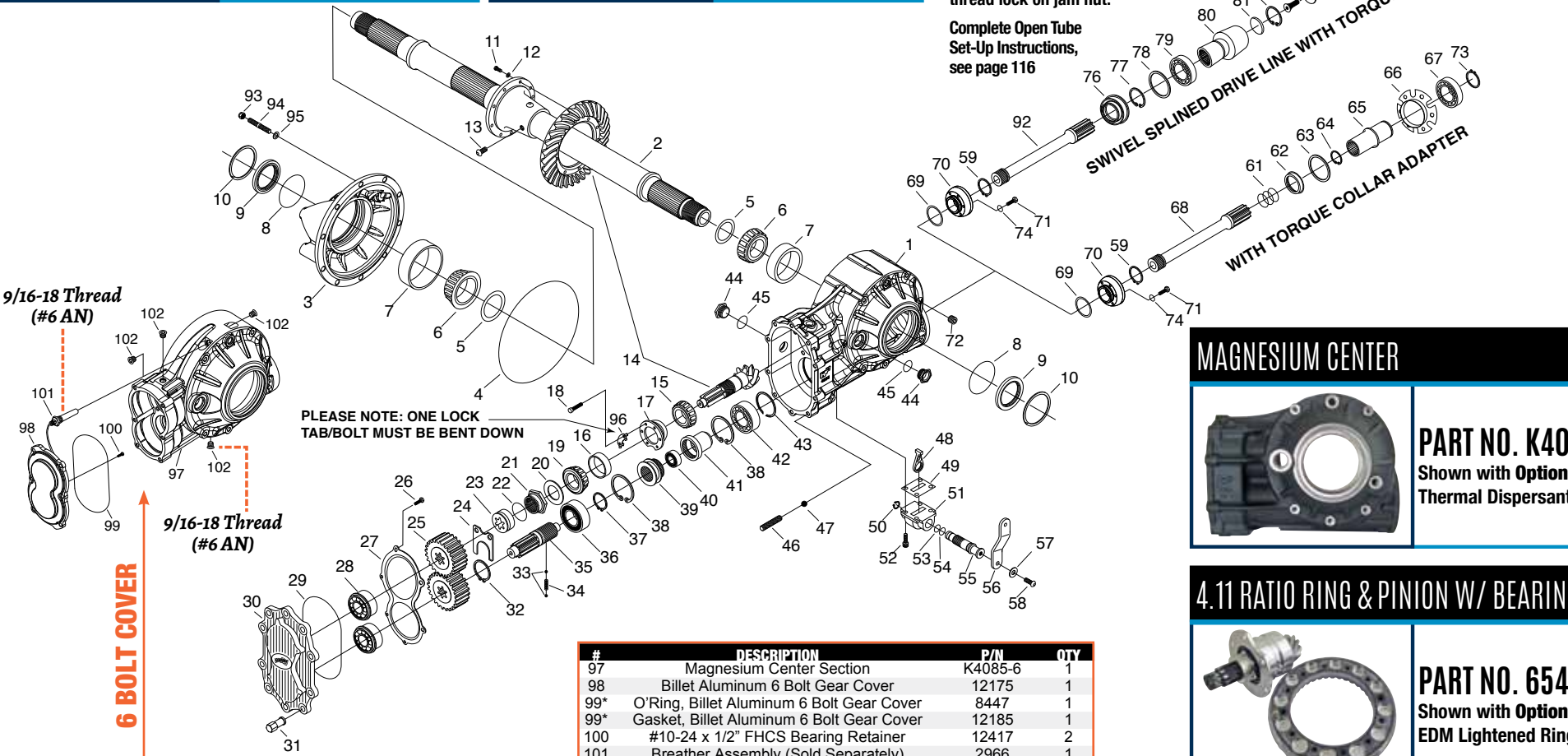
Threaded Ring Gear Bolts-60 Ft. Lbs. using red thread lock.

Side Bell Nuts-35 Ft. Lbs.

Pinion Retaining Plate Bolts-25 Ft. Lbs.

Shifter Housing Bolts-17 Ft. Lbs. Left Bell Adjuster Screw-Snug up, than back off 1/4 turn, use red thread lock on jam nut.

Complete Open Tube Set-Up Instructions, see page 116



#	DESCRIPTION	P/N	QTY
97	Magnesium Center Section	K4085-6	1
98	Billet Aluminum 6 Bolt Gear Cover	12175	1
99*	O'Ring, Billet Aluminum 6 Bolt Gear Cover	8447	1
99*	Gasket, Billet Aluminum 6 Bolt Gear Cover	12185	1
100	#10-24 x 1/2" FHCS Bearing Retainer	12417	2
101	Breather Assembly (Sold Separately)	2966	1
102	Steel Level Plug with O'Ring	7874S	4

MAGNESIUM CENTER

PART NO. K4085
Shown with Option 8208-01
Thermal Dispersant Coating

4.11 RATIO RING & PINION W/ BEARINGS



PART NO. 65411SB
Shown with Option 8202-V8
EDM Lightened Ring Gear

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PLEASE NOTE: When ordering individual parts listed below, if the quantity listed is more than one, you must order that part number according to the quantity listed.

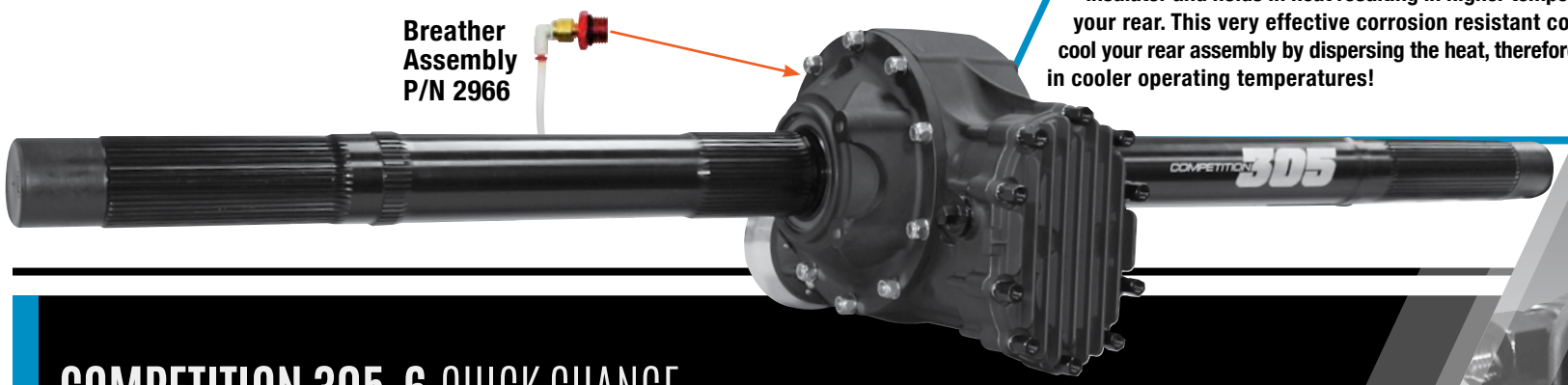
#	PART NO	DESCRIPTION	QTY
1	K4085	Magnesium Center Section	1
2	5778A	42 Long Spline Ultralight Aluminum Axle	1
3*	K4094	Magnesium Left Side Bell	1
3*	4094	Aluminum Left Side Bell	1
4	7451	O'Ring, Side Bell	1
5	6115	Bearing Shim Kit	1
6	7358	Bearing Cone, Axle	2
7	7357	Bearing Cup, Side Bell	2
8	7433	O'Ring, Side Bell Seal	2
9	7224	Seal, Side Bell, Axle Seal	2
10	7626	Snap Ring, Side Bell	2
11	7852S	3/8-24 Ring Gear Bolt	12
12	7815	3/8" Belleville Washer	12
13	7805	1/2-20 x 1" BHCS	4
14	65411S	4.11 Ratio Ring & Pinion	1
15	7308	Bearing Cone, Pinion Shaft	1
16	8622	Bearing Cup, Pinion	1
17	4871	Bearing Cartridge	1
18	7110	3/8-16 x 1" HHCS	6
19	7527	Bearing Cone, Pinion Shaft	1
20	5055	Bearing Washer, Pinion	1
21	1806	Pinion Nut 1-5/16-20-2B Thread	1
22	7486	O'Ring, Pinion Nut	1
23	1807	Pinion Nut Retainer	1
24	6267	Bearing Retainer	1
25**	8500	Quick Change Gear Set	1
26	8087	1/4-20 BHCS	6
27	3258	Bearing Retainer	1
28	8659	Bearing, Gear Cover	2
29	8440	O'Ring, Gear Cover	1
30*	4872	Billet Aluminum Gear Cover, Less Brgs	1
31*	7794ASBK	3/8-16 Aluminum Short High Nut	10
32	7610	Snap Ring, Stub Shaft	1
33	7347	1/4" Steel Detent Ball	2
34	6318	Detent Spring	1
35*	6250	Stub Shaft	1
35*	6250VHD	Stub Shaft, VascoMax®	1
36	7390	Shielded Ball Bearing, Stub Shaft	1
37	7637	External Snap Ring, Stub Shaft	1
38	7636	Internal Snap Ring, Rear Bearing	2
39	6265	Sliding Coupler	1
40	7392	Small Bearing, Stationary Coupler	1
41	6252	Stationary Coupler	1
42	7391	Ball Bearing, Stationary Coupler	1
43	8313	Snap Ring, Stationary Coupler	1
44	6857-01	Small Inspection Plug w/O'Ring 1-1/16-12 Thread (#12AN)	2
45	7454	O'Ring, Small Inspection Plug	2
46	7802	3/8-16 x 1-3/4" Stud	10
47	7398	5/16" Diameter Steel Ball	10
48	1524	Cast Shift Arm	1
49	6515	Gasket, Shifter Housing	1
50	7631	External Snap Ring, Shifter Shaft	1
51*	6264	Shifter Housing, Aluminum Cast	1
51*	12653	Shifter Housing, Aluminum Forged	1
52	7795	5/16-18 x 7/8" 12pt, Shift Housing	4
53	7443	O'Ring, Shifter Shaft, Small	1
54	7442	O'Ring, Shifter Shaft, Large	1
55	6251	Shifter Shaft	1
56	6496	Shift Arm	1
57	7815	3/8" Belleville Washer, Shift Arm	1
58	7109S	3/8-24 x 3/4" HHCS, Shift Arm	1
59	7660	Snap Ring, Lower Shaft, Rear	1
61	7452	O'Ring, Lower Shaft	3
62	7242	Seal, Internal Coupler	1
63	6680	Spacer, Front Bearing	1
64	7664	Internal Snap Ring, Internal Coupler	1
65*	6676	Internal 10-10 Coupler, Steel	1
65*	6676A	Internal 10-10 Coupler, Aluminum	1
66	3053	Bearing Liner	1
67	7531	Ball Bearing, Internal Coupler	1
68*	4307-01	Lower Shaft, Steel	1
68*	4307T-01	Lower Shaft, Titanium	1
69	7471	O'Ring	1
70	3887-01	Torque Collar Adapter	1
71	7812	3/8-16 x 2" 12pt	6
72	7874S	AN Plug 9/16-18 Thread (#6AN)	1
73	7657	External Snap Ring	1
74	7151	3/8" Washer	6
76	7280	Seal	1
77	7619	Retaining Ring	1
78	6680	Spacer	1
79	7531	Bearing	1
80	2975	Coupler	1
81	7918	Core Plug	1
82	8337	Retaining Ring	1
83**	8723	3/8-24 x 1-1/4" FHCS	1
84**	2978	C-Sunk Washer	1
85**	8336	Retaining Ring	1
86**	2976	Swivel Insert	1
87**	8416V	Viton O'Ring	1
88**	7287V-01	Extended Seal, Viton	1
89**	8347	Retaining Ring	1
90**	3564	Boot Retainer	1
91**	2974G	Drive Shaft, Steel, Gundrilled	1
91**	2974TG	Drive Shaft, Titanium, Gundrilled	1
92**	4307	Lower Shaft, Steel	1
92**	4307T	Lower Shaft, Titanium	1
93	7177N	7/16-20 Nylon Locknut, Side Bell	10
94*	2266	Stud, Side Bell, Steel	10
94*	2266T	Stud, Side Bell, Titanium	10
95	7811	7/16" SAE Flatwasher, Side Bell	10
96	2374	Lock Tab	3

*Part numbers in this list may vary depending on options ordered at time of purchase. **Not included in assembly.

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For Breather Info See Page 100

Breather Assembly P/N 2966

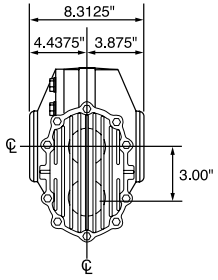


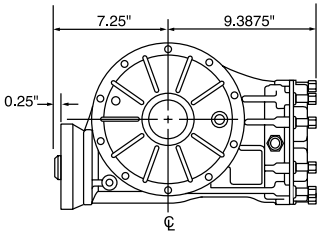
Thermal Dispersant Coating

While being 1/3 lighter than aluminum, magnesium acts as an insulator and holds in heat resulting in higher temperatures inside your rear. This very effective corrosion resistant coating helps cool your rear assembly by dispersing the heat, therefore resulting in cooler operating temperatures!

COMPETITION 305-6 QUICK CHANGE

DESIGNED EXCLUSIVELY FOR THE 305 DIVISION! Built with a 42 Spline Ultralight, Long Spline Axle, this smaller and lighter Direct Replacement Rear utilizes the same length Drive Shaft, Torque Tube and Inboard Brake Kit. The REM® Finish, 8-3/8", 3.78 Ratio Ring & Pinion reduces flywheel weight. From a performance standpoint, smaller cubic inch engines will benefit the most. Accepts 1" or 1-3/8" 6 Spline Quick Change Gears.







ARP® RING GEAR BOLT KIT
Option 9147 Installed in Rear
KIT P/N 9381

- 8-3/8" REM® 3.78 Ratio Ring & Pinion
- Magnesium Cast Integral Right Side Bell
- 42 Spline Ultralight Long Spline Axle
- Magnesium Gear Cover
- Left Side Bell with Caliper Mount
- Front Seal Plate Adapter
- Posi-Lock Nut
- Thermal Dispersant Coating

ENHANCED SURFACE FINISH
rem® Process



P/N 8218-RP
(Ring & Pinion)
P/N 8218-BRG
(Bearings)

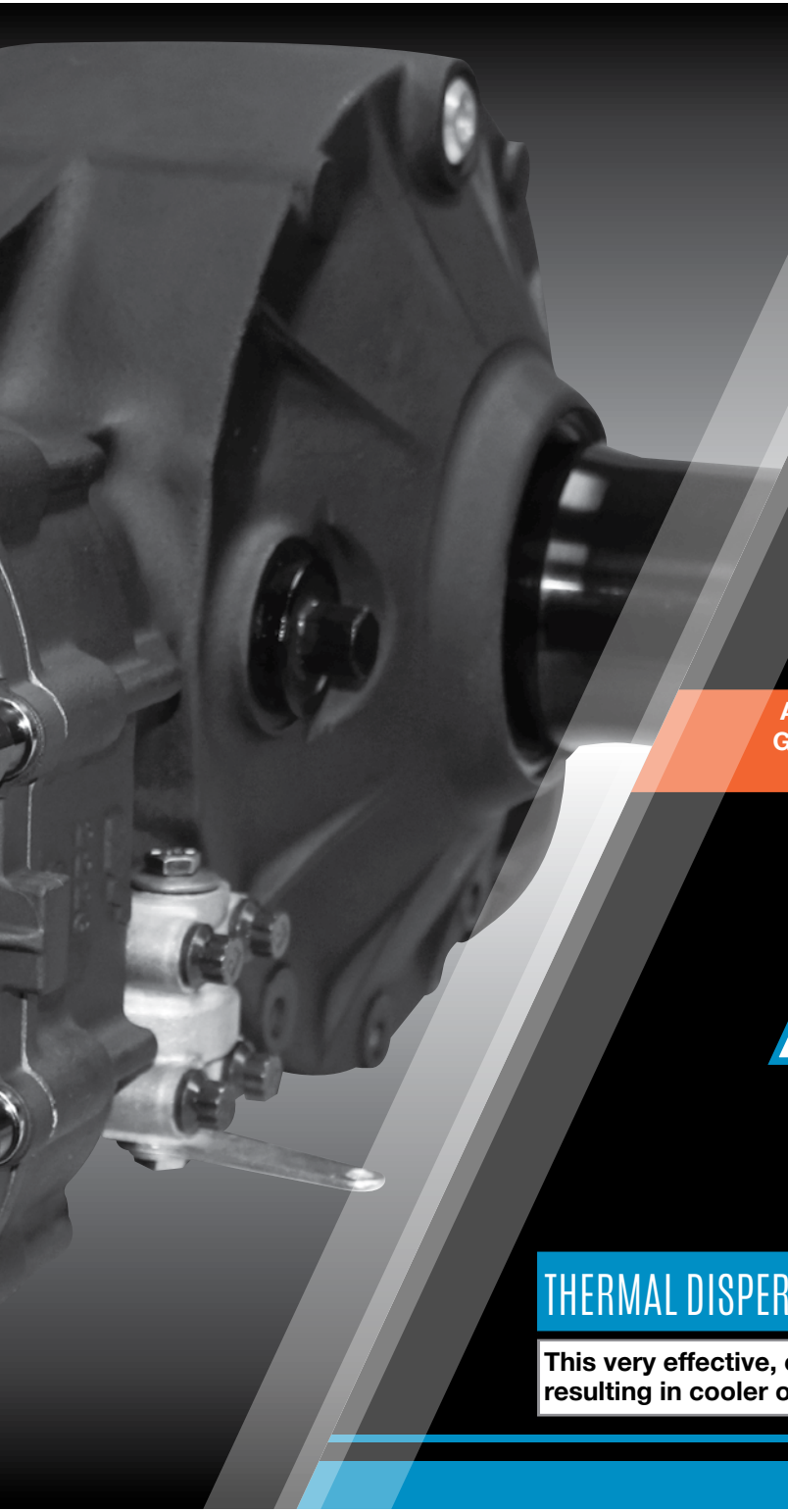
Looks Like Chrome, But Better!

PAGES OF INTEREST

Exploded View: 28-29

Set-Up Instructions: 117

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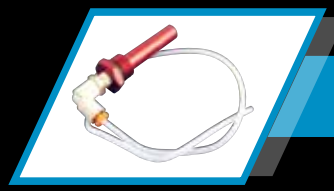
ASSEMBLY PART NO. K305-6

POPULAR OPTIONS

CENTER

8106	Heat Treated Lower Shaft	8167	5.38 Ring & Pinion
8163	Steel Internal 10-10 Coupler	8202-XXX	EDM Ring Gear (Specify Ratio)
8163A	Aluminum Internal 10-10 Coupler	8205	Titanium Center Studs
8163SS	Swivel Splined Coupler (Steel Shaft)	8208	Thermal Dispersant Coating
8164	4.33 Ring & Pinion	8218-BRG	REM® Bearing (# is per Bearing)
8165	4.88 Ring & Pinion	8218-RP	REM® Ring & Pinion
8166	5.13 Ring & Pinion	8225	Gear Cover w/Internal Brg Retainers

Ask yourself, what's the largest moving object in your rear assembly? That's correct, your Axle and Ring Gear. The lighter the rotating weight, the smaller the flywheel weight, the better! So what does this mean for me? Faster Acceleration and Deceleration!



BREATHER **PART NO. 2966-01**

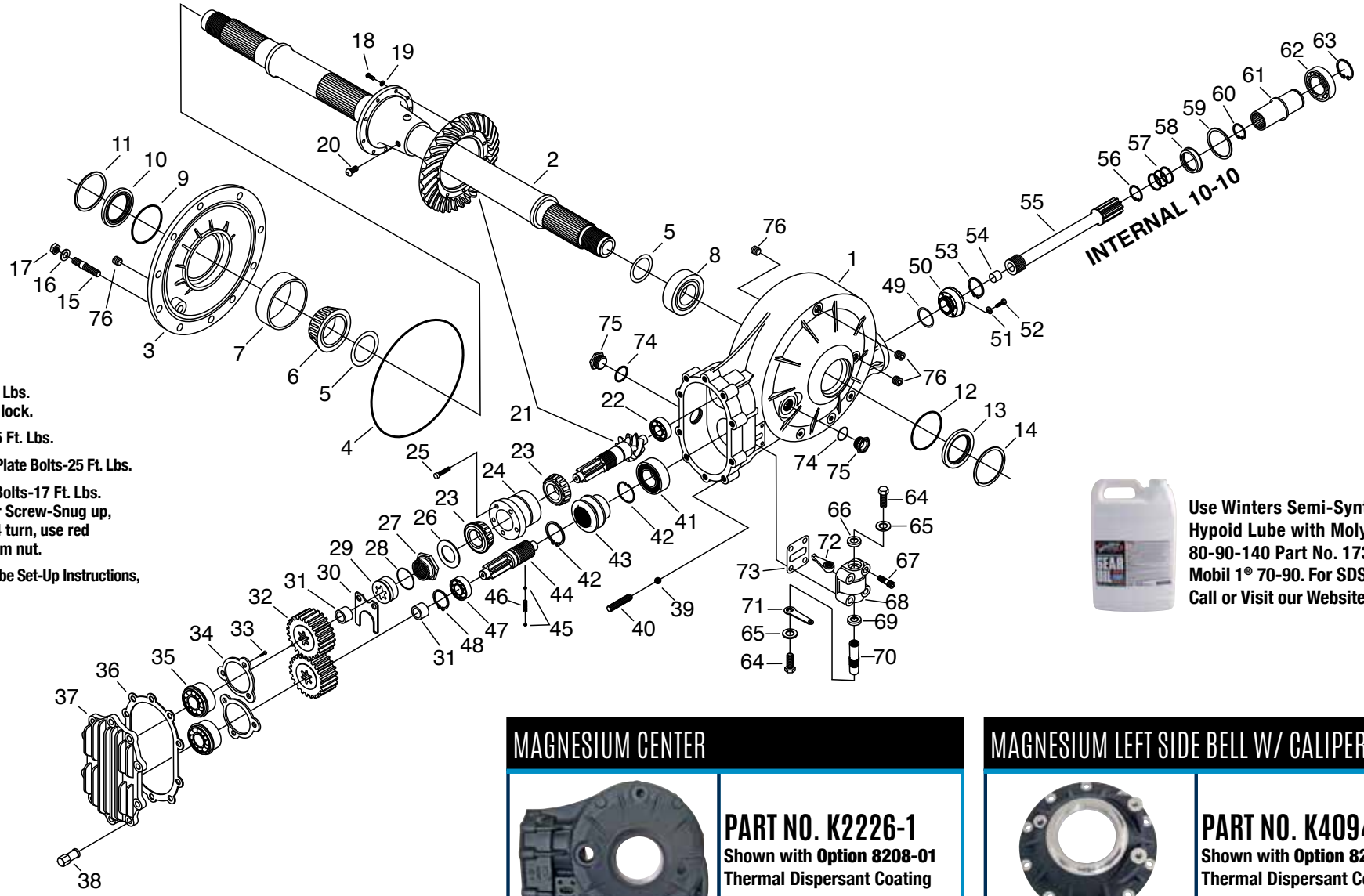
PLEASE NOTE

One of these must be used with the Competition 305-6 Assembly.

THERMAL DISPERSANT COATING **OPTION 8208**

This very effective, corrosion resistant coating helps cool your rear end assembly by dispersing the heat, therefore resulting in cooler operating temperatures.

COMPETITION 305-6 QUICK CHANGE



Torque:

Threaded Ring Gear Bolts-60 Ft. Lbs. using red thread lock.

Side Bell Nuts-35 Ft. Lbs.

Pinion Retaining Plate Bolts-25 Ft. Lbs.

Shifter Housing Bolts-17 Ft. Lbs. Left Bell Adjuster Screw-Snug up, than back off 1/4 turn, use red thread lock on jam nut.

Complete Open Tube Set-Up Instructions, see page 116

Use Winters Semi-Synthetic Hypoid Lube with Moly 80-90-140 Part No. 1730 or Mobil 1® 70-90. For SDS Please Call or Visit our Website.

MAGNESIUM CENTER



PART NO. K2226-1
Shown with Option 8208-01
Thermal Dispersant Coating

MAGNESIUM LEFT SIDE BELL W/ CALIPER MOUNT



PART NO. K4094
Shown with Option 8208-B
Thermal Dispersant Coating

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PLEASE NOTE: When ordering individual parts listed below, if the quantity listed is more than one, you must order that part number according to the quantity listed.

#	PART NO	DESCRIPTION	QTY
1	K2226-1	Magnesium 305 Center	1
2	5778A-V8	42 Long Spline Ultralight Aluminum Axle	1
3*	K4094	Magnesium Left Side Bell	1
3*	4094	Aluminum Left Side Bell	1
4	7451	O'Ring, Side Bell	1
5	6115	Bearing Shim Kit	1
6*	7358	Bearing Cone, Axle, Left	1
7	7357	Bearing Cup, Side Bell, Left	1
8	8658	One Piece Bearing Cup & Cone, Right	1
9	7433	O'Ring, Side Bell Seal, Left	1
10	7224	Seal, Side Bell, Axle Seal, Left	1
11	7626	Retaining Ring, Side Bell, Left	1
12	7438	O'Ring, Side Bell Seal, Right	1
13	12651	Seal, Side Bell, Axle Seal, Right	1
14	8328	Retaining Ring, Side Bell, Right	1
15*	2266	Stud, Side Bell	10
15*	2266T	Stud, Side Bell, Titanium	10
16	7811	Belleville Washer	10
17	7177	Locknut	10
18	7852	3/8-24 Ring Gear Bolt (Threaded Ring Gear Only)	10
19	7815	3/8" Belleville Washer	10
20	7805	1/2-20 x 1" BHCS	4
21*	6811	3.78 Ring & Pinion, Standard	1
22	7392	Ball Bearing, Pinion Nose	1
23*	7527	Bearing Cone, Pinion Shaft	2
24*	7525	Flanged Double Cup, Pinion Shaft	1
25	9308	3/8-16 x 1" BHCS, Torx®	5
26	6824	Bearing Washer, Pinion	1
27	6821	Pinion Nut 1-5/8-12 Thread (#20AN)	1
28	7455	O'Ring, Pinion Nut	1
29	6822	Retainer, Pinion Nut	1
30	6751	Bearing Retainer	1
31	1372	Gear Spacer (1" Wide Gears Only)	2
32**	4400	Quick Change Gear Set, 1" Wide	1
32**	4500	Quick Change Gear Set, 1-3/8" Wide	1
33	8087	1/4-20 x 1/2" BHCS, Bearing Retainer	6
34	3059	Bearing Retainer	2
35	7532	Ball Bearing w/Retaining Ring, Gear Cover	2
36	6703	Gasket, Gear Cover	1
37	K3056	Magnesium Gear Cover, Less Bearings	1
38	7794ASBK	3/8-16 Aluminum Short High Nut	10
39	7398	5/16" Steel Ball, Gear Cover Stud	10
40	7802	3/8-16 Stud, Gear Cover	10
41	7385	Ball Bearing, Lower Shaft (Rear)	1
42	7655	Snap Ring, Rear Bearings	2
43	6781	Sliding Coupler	1
44	6728	Stub Shaft	1
45	7347	1/4" Steel Detent Ball	2
46	6318	Detent Spring	1
47	7534	Shielded Ball Bearing, Stub Shaft	1
48	7658	Snap Ring, Stub Shaft	1
49	7471	O'Ring	1
50	3887	Seal Plate Adapter	1
51	7151	3/8" Washer	6
52	7861	3/8-16 x 1-3/4" 12pt	6
53	7659	Snap Ring, Lower Shaft (Rear)	1
54	7530	Bushing, Lower Shaft	1
55	12656	Heat Treated Lower Shaft (Use w/Internal Coupler)	1
56	7645	Retaining Ring, Lower Shaft, Front	1
57	7452	O'Ring, Lower Shaft	3
58	7242	Seal, Internal Coupler	1
59	6680	Spacer, Front Bearing	1
60	7664	Internal Snap Ring, Internal Coupler	1
61*	6676	Internal 10-10 Coupler, Steel	1
61*	6676A	Internal 10-10 Coupler, Aluminum	1
62	7531	Ball Bearing, Internal Coupler	1
63	7657	Retaining Ring	1
64	8880	1/4-24 x 1/2" HHCS	2
65	8878	Washer	2
66	8838	Seal, Shifter Housing	1
67	9336	5/16-18 x 1-1/2" BHCS	4
68	K6795-01	Shifter Housing, Magnesium	1
69	7244	Seal	1
70	2667-01	Shift Shaft	1
71	2665	External Lever	1
72	4663	Internal Shift Arm	1
73	6738	Gasket, Shifter Housing	1
74	7454	O'Ring, Inspection Plug	2
75	6857-01	Inspection Plug 1-1/16-12 Thread (#12AN)	2
76	7874S	AN Plug 9/16-18 Thread (#6AN)	4

*Part numbers in this list may vary depending on options ordered at time of purchase.

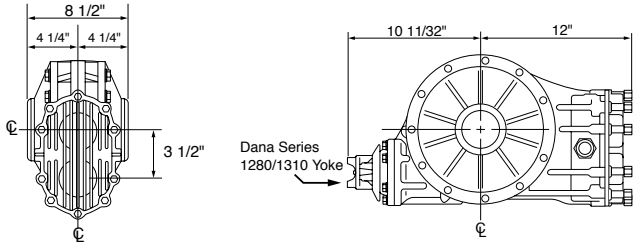
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Thermal Dispersant Option 8208

While being 1/3 lighter than aluminum, magnesium acts as an insulator and holds in heat resulting in higher temperatures inside your rear. This very effective corrosion resistant coating helps cool your rear assembly by dispersing the heat, therefore resulting in cooler operating temperatures!

SUPER MODIFIED QUICK CHANGE





Option 8218-RP
REM® Ring & Pinion
Option 8202-XXX
EDM Ultralight Ring Gear
XXX = Specify Ratio

- 4.86 Ratio Ring & Pinion
- Standard Side Bells
- Aluminum Axle
- Posi-Lock
- Open Drive

ENHANCED SURFACE FINISH
REM® Process
P/N 8218-RP
(Ring & Pinion)
P/N 8218-BRG
(Bearings)



Looks Like Chrome, But Better!

PAGES OF INTEREST

Exploded View: 32-33
Ring & Pinion Options: 61-63
Optional Gear Covers: 58-59
Axles: 64-65
Set-Up Instructions: 116

Forged Aluminum Birdcages
Part No. SC2575 (See Page 90)

10 Piece Spacer Kit
Part No. 3558 (See Page 91)

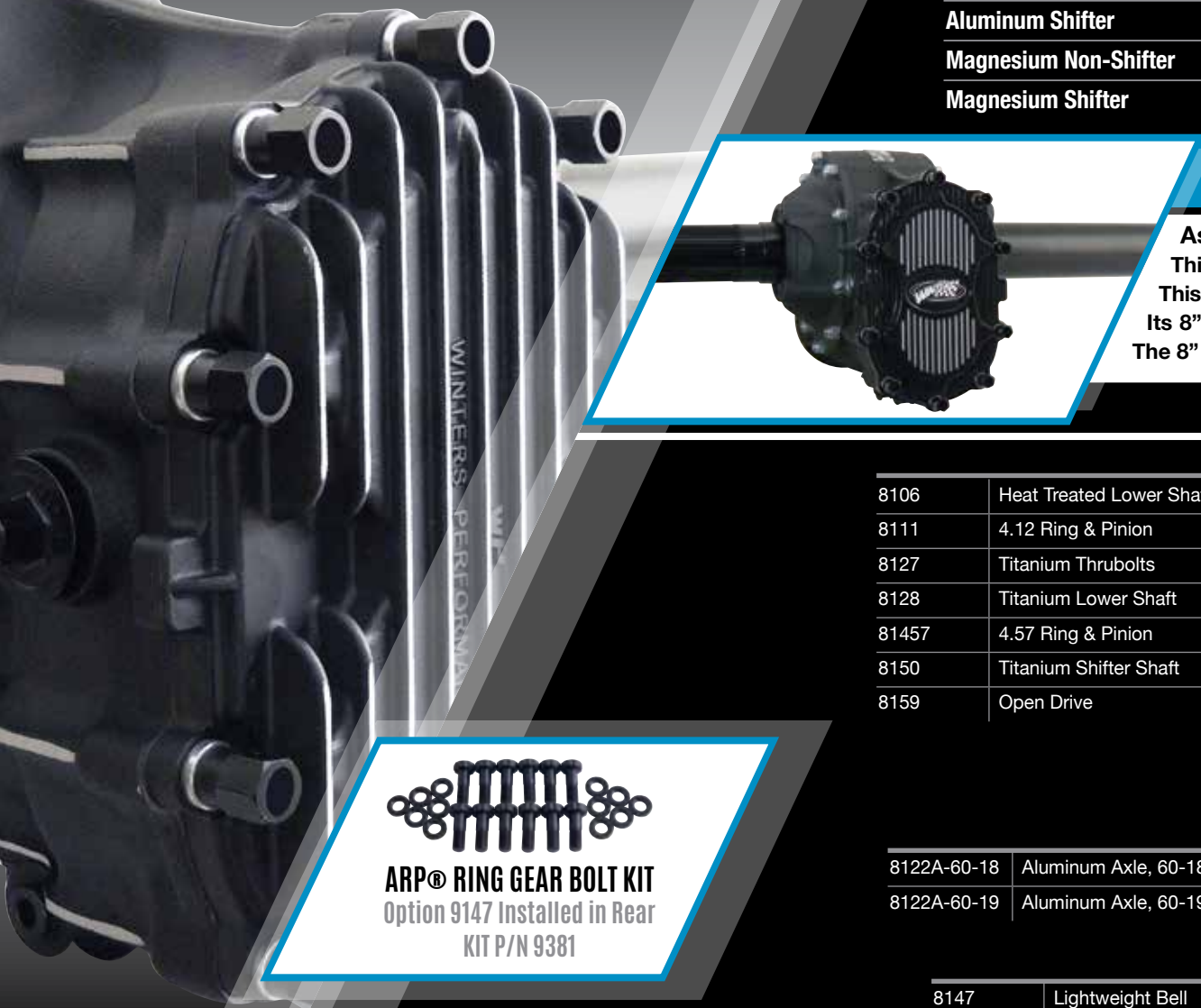
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Super Shifter Assembly
Part No. 3232 (See Page 92)

Cable Brackets
(See Page 93)

AVAILABLE ASSEMBLIES

ASSEMBLY	BARE	W/6 PIN HUB KIT	W/WIDE 5 HUB KIT
Aluminum Non-Shifter	P637	P737	P537
Aluminum Shifter	P637S	P737S	P537S
Magnesium Non-Shifter	K637	K737	K537
Magnesium Shifter	K637S	K737S	K537S



NEW 3 PIECE V8 OUTLAW W/ 8" RING & PINION

Assembly Part No. K648S-V8

This compact rear assembly has many advantages never seen. This new unit uses a special 4.11 Ring & Pinion new to our industry. Its 8" Ring Gear allows us to build a smaller, more compact rear. The 8" Ring Gear is 20% smaller and 20% lighter.

ARP® RING GEAR BOLT KIT
Option 9147 Installed in Rear
KIT P/N 9381

POPULAR OPTIONS

CENTER

8106	Heat Treated Lower Shaft	8191	Flanged Pinion Race
8111	4.12 Ring & Pinion	8202-XXX	EDM Ring Gear (Specify Ratio)
8127	Titanium Thrubolts	8208	Thermal Dispersant Coating
8128	Titanium Lower Shaft	8218-BRG	REM® Bearing (# is per Bearing)
81457	4.57 Ring & Pinion	8218-RP	REM® Ring & Pinion
8150	Titanium Shifter Shaft	8252	Big Bearing Ultra HD w/Retainers
8159	Open Drive	8252B	Billet Big Bearing Ultra HD
		8252BL	Billet Big Bearing Ultra HD w/Logo
		8269	Accessory Package
		9121	VascoMax® Stub Shaft

AXLE

8122A-60-18	Aluminum Axle, 60-18 (East Coast Mod)	8122ASPC	56K18 Aluminum Axle (West Coast Mod)
8122A-60-19	Aluminum Axle, 60-19 (East Coast Mod)	8244S-OT	Low Drag Brgs., Axle, Steel Balls

Specify Axle Size When Ordering

BELL

8147	Lightweight Bell	8188	Right Bell w/Caliper Mount

SUPER MODIFIED QUICK CHANGE

SPRINT CENTER

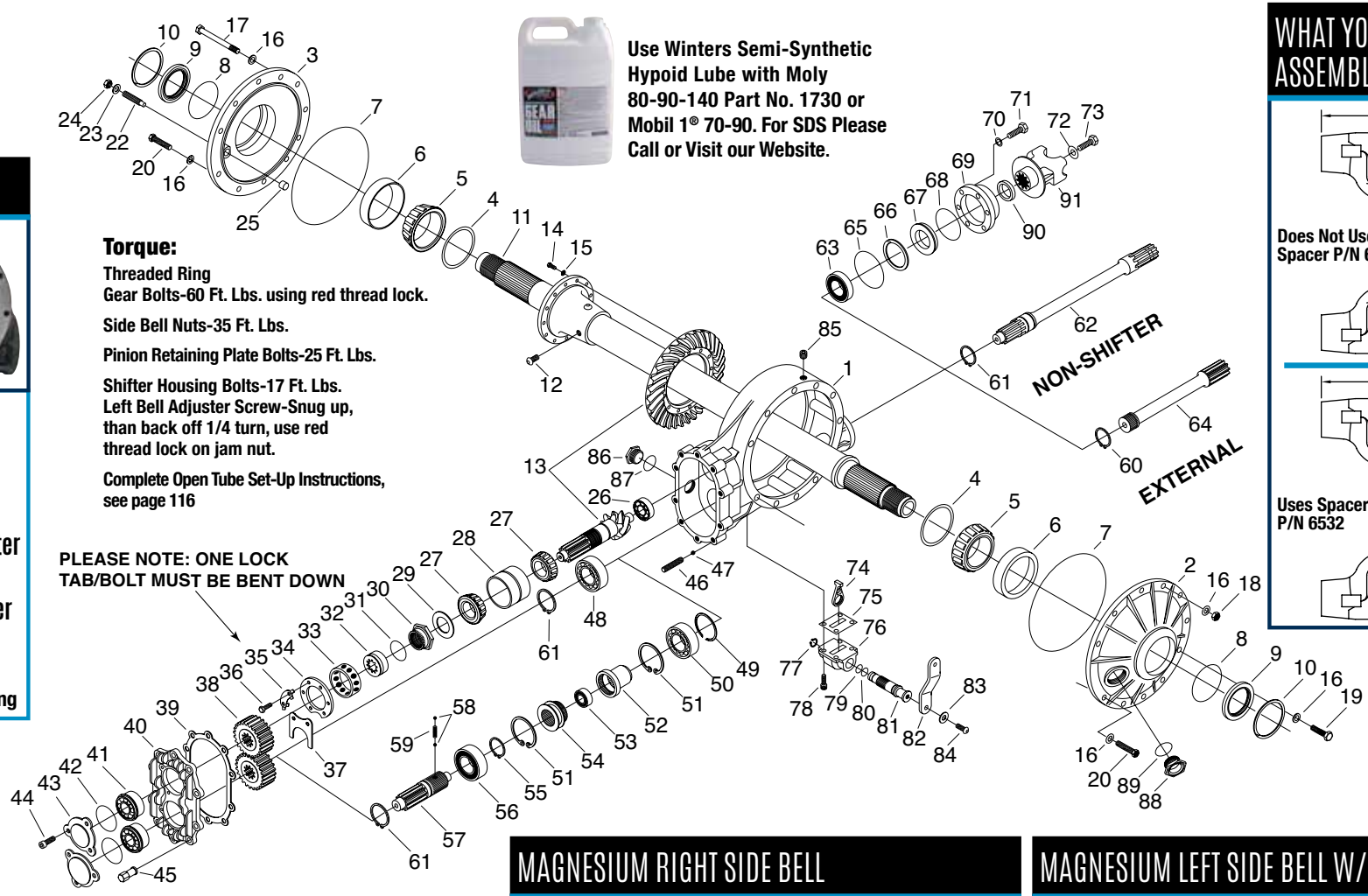


Magnesium Center
PART NO. K5840
Aluminum Center
PART NO. 5840
Magnesium Shifter Center
PART NO. K5840S
Aluminum Shifter Center
PART NO. 5840S
Shown with Option 8208 Thermal Dispersant Coating

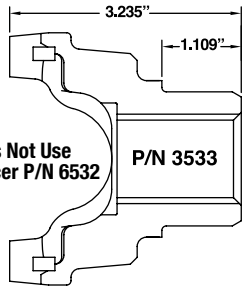
Use Winters Semi-Synthetic Hypoid Lube with Moly 80-90-140 Part No. 1730 or Mobil 1® 70-90. For SDS Please Call or Visit our Website.

Torque:
Threaded Ring
Gear Bolts-60 Ft. Lbs. using red thread lock.
Side Bell Nuts-35 Ft. Lbs.
Pinion Retaining Plate Bolts-25 Ft. Lbs.
Shifter Housing Bolts-17 Ft. Lbs.
Left Bell Adjuster Screw-Snug up, than back off 1/4 turn, use red thread lock on jam nut.
Complete Open Tube Set-Up Instructions, see page 116

PLEASE NOTE: ONE LOCK TAB/BOLT MUST BE BENT DOWN



WHAT YOKE IS IN MY ASSEMBLY?



MAGNESIUM RIGHT SIDE BELL



PART NO. K6745-01
Shown with Option 8208-B Thermal Dispersant Coating

MAGNESIUM LEFT SIDE BELL W/ CALIPER MOUNT



PART NO. K6745-02
Shown with Option 8208-B Thermal Dispersant Coating

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PLEASE NOTE: When ordering individual parts listed below, if the quantity listed is more than one, you must order that part number according to the quantity listed.

#	PART NO	DESCRIPTION	QTY
1*	5840	Aluminum Sprint Center (Add S to P/N for Shifter)	1
2*	K6745-01	Magnesium Right Side Bell	1
3*	K6745-02	Magnesium Left Side Bell (w/Caliper Mounts)	1
4	6115	Shim Kit, Axle Bearing	1
5*	7358	Bearing Cone, Axle	2
6*	7357	Bearing Cup, Side Bell	2
7	7403T	O'Ring, Side Bell	2
8	7433	O'Ring, Side Bell Seal	2
9	7224	Seal, Side Bell	2
10	7626	Internal Snap Ring, Side Bell Seal	2
11*	5778A	Aluminum Live Axle (Specify Offset)	1
12	7805	1/2-20 x 1" BHCS	4
13*	5400	Ring & Pinion, 4.86 Standard	1
14	7852	Ring Gear Bolt	12
15	7815	3/8" Belleville Washer	12
16	7178	7/16" SAE Flatwasher	22
17†	7176	7/16-20 x 5-1/2" HHCS, Thrubolt	10
18†	7177	7/16-20 Flanged Locknut	10
19	7117	7/16-14 x 1 1/4" HHCS	2
20	7787	7/16-14 x 1" HHCS	2
22	6149	1/2-13 Adjusting Screw	1
23	7167	1/2" SAE Flatwasher	1
24	7137A	1/2-13 Aluminum Jam Nut	1
25	5010	Thrust Block	1
26	7331	Roller Bearing, Pinion Nose Shaft	1
27*	7308	Bearing Cone, Pinion Shaft	2
28*	7307	Double Bearing Cup, Pinion Shaft	1
29	5055	Bearing Washer, Pinion	1
30	6485R	Posi-Lock Nut 1-5/16-20-2B Thread	1
31	7445	O'Ring, Posi-Lock Retainer	1
32	6484	Posi-Lock Retainer	1
33	5020	Retaining Ring, Pinion	1
34	6296A	Retainer Plate, Pinion	1
35	2374	Lock Tab	3
36	7110	3/8-16 x 1" HHCS, Retainer Plate	6
37	6267	Bearing Retainer	1
38**	8500	Quick Change Gear Set	1
39*	6729	Gasket, Gear Cover	1
40*	6655	Gear Cover, Less Bearings	1
41*	7524	Double Row Ball Bearing w/Snap Ring	2
42*	7476	O'Ring, Bearing Cap	2
43*	1667	Bearing Cap, Gear Cover	2
44*	7842	1/4-20 x 7/8" SHCS, Bearing Cap	6
45	7794ASBK	3/8-16 Aluminum Short High Nut	10
46	7802	3/8-16 x 1-3/4" Stud, Gear Cover	10
47	7398	5/16" Diameter Steel Ball, Gear Cover	10
48*	7339	Bearing, Lower Shaft, Non Shifter	1
49	8313	Snap Ring, Stationary Coupler	1
50	7391	Ball Bearing, Stationary Coupler	1
51	7636	Internal Snap Ring, Rear Bearing	2
52	6252	Stationary Coupler	1
53	7392	Small Bearing, Stationary Coupler	1
54	6265	Sliding Coupler	1
55	7637	External Snap Ring, Stub Shaft	1
56	7390	Shielded Ball Bearing, Stub Shaft	1
57*	6250HD	Stub Shaft	1
57*	6250VHD	Stub Shaft, VascoMax®	1
58	7347	1/4" Diameter Steel Detent Ball	2
59	6318	Detent Spring	1
60	7605	Snap Ring, Drive Shaft	1
61	7610	Snap Ring, Lower Shaft	1
62*	5003-02	Std Lower Shaft, (Closed Drive Line, Non Shifter)	1
63*	7390	Front Ball Bearing, Lower Shaft	1
64*	6249	Standard Lower Shaft, Shifter	1
64*	6249T	Standard Lower Shaft, Shifter, Titanium	1
65*	7413	O'Ring, Seal Plate	1
66*	7653	Snap Ring, Seal Plate (.375" Seal)	1
66*	7652	Snap Ring, Seal Plate (.750" Seal)	1
67*	7204	Seal, Seal Plate (Thin Seal .375")	1
67*	7204T	Seal, Seal Plate (Tick Seal .750")	1
67*	7204V	Seal, Seal Plate (Viton Seal .750")	1
68*	7474	O'Ring, Seal	1
69*	K5018-01M	Seal Plate, .750" Seal (.375" use P/N K5018M)	1
70*	7114	3/8" SAE Flatwasher	6
71*	7107	3/8-16 x 1-1/4" HHCS, Seal Plate	6
72*	5037	Retaining Washer, Drive Yoke	1
73*	7109Y	3/8-24 x 1" HHCS, Drive Yoke	1
74*	1524	Cast Shifter Arm	1
75*	6515	Gasket, Shifter Housing	1
76*	6264	Shifter Housing, Aluminum	1
77*	7631	External Snap Ring, Shifter Shaft	1
78*	7795	5/16-18 x 7/8" 12pt, Shift Housing	4
79*	7443	O'Ring, Shifter Shaft, Small	1
80*	7442	O'Ring, Shifter Shaft, Large	1
81*	6251	Shifter Shaft	1
82*	6496	Shift Arm	1
83*	7815	3/8" Belleville Washer, Shift Arm	1
84*	7109S	3/8-24 x 3/4" HHCS, Shift Arm	1
85	7111B	3/8" Pipe Plug	1
86	6857-01	Inspection Plug, Gear Cavity 1-1/16-12 Thread (#12AN)	1
87	7454	O'Ring, Inspection Plug	1
88	5290-01	Large Inspection Plug w/O'Ring 1-5/8-12 Thread (#20AN)	1
89	7453	O'Ring, Large Inspection Plug	1
90*	6532	Spacer, Drive Yoke, 0.235" Thick	1
91*	5038	Drive Yoke, Steel	1
91*	5038B	Drive Yoke, Steel, Threaded	1
91*	5038A	Drive Yoke, Billet Aluminum	1

*Part numbers in this list may vary depending on options ordered at time of purchase.
**Not included in assembly.
†Only 9 needed when using shifter.

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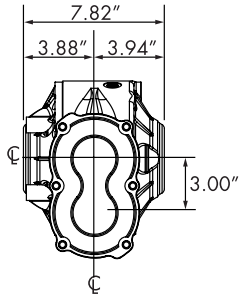


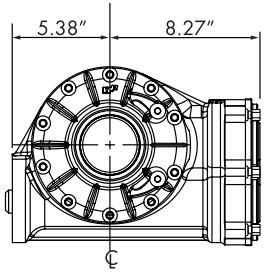
Thermal Dispersant Option 8208

While being 1/3 lighter than aluminum, magnesium acts as an insulator and holds in heat resulting in higher temperatures inside your rear. This very effective corrosion resistant coating helps cool your rear assembly by dispersing the heat, therefore resulting in cooler operating temperatures!

PRO ELIMINATOR MIDGET-7 QUICK CHANGE

This assembly uses the same length Torque Tube, Drive Shaft, 6 Spline Gears and all current Inboard Brake Kits with Caliper Adapter Plate. The standard 7" Ring Gear, weighing in at 4.6 lbs., accelerates and decelerates 10% faster when compared to a conventional 8-3/8" Ring Gear. The standard O'Ringed Billet Gear Cover is available without Skull & Crossbones logo on request.





CALIPER BRACKET **PART NO. 12645**



Allows for use of Standard Midget Inboard Brake Assembly.

3/8-16 x 1-1/4" FHCS Part No. 9343

- **7", 3.78 Ratio Ring & Pinion**
- **Smaller, Compact & Less Rotating Weight**
- **Aluminum Bell for Added Strength**
- **Magnesium Center Section for Less Weight**

The Winters Midget quick change is available in standard 31 spline (referred to as 2" axle) and also heavy duty 36 spline (referred to as 2-1/2" axle). The midget assembly uses 6 spline gears on 3" center distance.

PAGES OF INTEREST

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Axles: 66-67
Set-Up Instructions: 117

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ASSEMBLY PART NO. K347S



ENHANCED SURFACE FINISH

rem® Process

P/N 8218-RP
(Ring & Pinion)

P/N 8218-BRG
(Bearings)



Looks Like Chrome, But Better!

POPULAR OPTIONS

CENTER

8163	Steel Internal 10-10 Coupler	8208	Thermal Dispersant Coating
8163A	Aluminum Internal 10-10 Coupler	8218-BRG	REM® Bearing (# is per Bearing)
8202-XXX	EDM Ring Gear (Specify Ratio)	8218-RP	REM® Ring & Pinion
8205	Titanium Center Studs	81457-7	

AXLE

*8122-44-1	Aluminum Axle, 44-1, 1.188 ID	*8160UL	Ultralight Axle, 36 Spline, 1.625 ID
*8122-44-3	Aluminum Axle, 44-3, 1.188 ID	8160ASPC	Special HD Aluminum Axle, 36 Spline
*8122ASPC	Special Aluminum Axle	8224C-OTM	Low Drag Brgs., Axle, Ceramic Balls
*8160	HD Aluminum Axle, 36 Spline, 1.375 ID	8244S-OTM	Low Drag Brgs., Axle, Steel Balls

**Specify Offset*

SWIVEL LOWER SHAFT

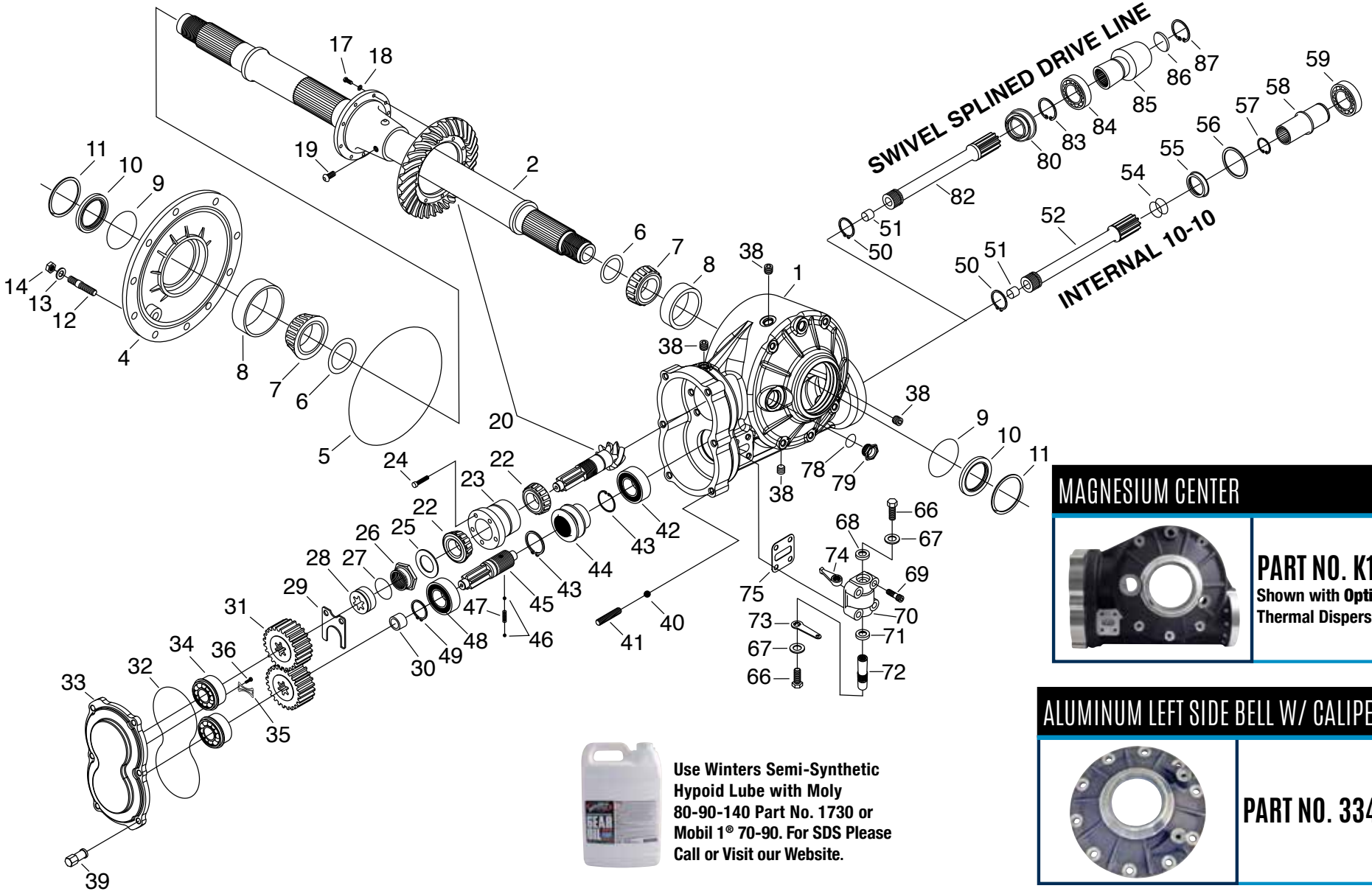


#	PART NO	DESCRIPTION	#	PART NO	DESCRIPTION
1	8612	Brass Bushing	5	7619	Retaining Ring
2	7658	Retaining Ring	6	2975	Swivel Coupler
3	12638	Steel Lower Shaft	7	7918	Core Plug
4	7531	Sealed Ball Bearing	8	8337	Retaining Ring

ARP® RING GEAR BOLT KIT

Option 9147 Installed in Rear
KIT P/N 9381

PRO ELIMINATOR MIDGET-7 QUICK CHANGE



Use Winters Semi-Synthetic Hypoid Lube with Moly 80-90-140 Part No. 1730 or Mobil 1® 70-90. For SDS Please Call or Visit our Website.

MAGNESIUM CENTER

PART NO. K12176
Shown with Option 8208-01
Thermal Dispersant Coating

ALUMINUM LEFT SIDE BELL W/ CALIPER MOUNT

PART NO. 3344

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PLEASE NOTE: When ordering individual parts listed below, if the quantity listed is more than one, you must order that part number according to the quantity listed.

#	PART NO	DESCRIPTION	QTY
1*	K12176	Magnesium Center Section	1
2*	6778A	31 Spline Aluminum Axle (Specify Offset)	1
2*	6760	36 Spline HD Aluminum Axle (Specify Offset)	1
4	3344	Aluminum Left Side Bell	1
5	3351	O'Ring, Side Bell	1
6	6709	Bearing Shim Kit	1
7*	7301	Bearing Cone, Axle	2
8	7302	Bearing Cup, Side Bell	2
9	7450	O'Ring, Side Bell Seal	2
10	7243	Seal, Side Bell, Axle Seal	2
11	7654	Snap Ring, Side Bell	2
12*	7905	3/8-16 Stud, Side Bell	10
13	7916	3/8" Belleville Washer	10
14	7885	3/8-16 Locknut	10
17	7852	3/8-24 Ring Gear Bolt (Threaded Ring Gear Only)	10
18	7815	3/8" Belleville Washer	10
19*	7805	1/2-20 x 1" BHCS	4
20*	11378	3.78 Ring & Pinion, Standard	1
22*	8609	Bearing Cone, Pinion Shaft	2
23*	3307	Flanged Double Cup, Pinion Shaft	1
24	9308	3/8-16 x 1" BHCS, Torx®	5
25	3308	Bearing Washer, Pinion	1
26	6821-03	Pinion Nut 1-1/8-18-2B Thread	1
27	7455	O'Ring, Pinion Nut	1
28	12574	Steel Retainer, Pinion Nut	1

#	PART NO	DESCRIPTION	QTY
29	3349	Bearing Retainer	1
30	1372	Gear Spacer (1" Wide Gears Only)	2
31**	4400	Quick Change Gear Set, 1" Wide	1
31**	4500	Quick Change Gear Set, 1 3/8" Wide	1
32	12180	O'Ring, Gear Cover	1
33*	12179	Billet Aluminum Gear Cover, Less Brgs	1
34	7532	Ball Bearing w/Snap Ring, Gear Cover	2
35	12178	Bearing Retainer	1
36	7143	#10-24 x 1/2" FHCS	2
38	7874S	AN Plug 9/16-18 Thread (#6AN)	4
39	7794ASBK	3/8-16 Aluminum Short High Nut	6
40	7398	5/16" Steel Ball, Gear Cover Stud	6
41	7802	3/8-16 Stud, Gear Cover	6
42	8608	Ball Bearing, Lower Shaft (Rear)	1
43	8323	Snap Ring, Rear Bearings	2
44	3319	Sliding Coupler	1
45	3311	Stub Shaft	1
46	7347	1/4" Steel Detent Ball	2
47	6318	Detent Spring	1
48	8608	Shielded Ball Bearing, Stub Shaft	1
49	7634	Snap Ring, Stub Shaft	1
50	7658	Snap Ring, Lower Shaft (Rear)	1
51	8612	Bushing, Lower Shaft	1
52	12182	Heat Treated Lower Shaft (Use w/Internal Coupler)	1
54	7418	O'Ring, Lower Shaft	2

#	PART NO	DESCRIPTION	QTY
55*	7242	Seal, Internal Coupler	1
56	6680	Spacer, Front Bearing	1
57*	7664	Internal Snap Ring, Internal Coupler	1
58*	6732	Internal 10-10 Coupler, Steel	1
58*	6732A	Internal 10-10 Coupler, Aluminum	1
59*	7531	Ball Bearing, Internal Coupler	1
66	8880	1/4-24 x 1/2" HHCS	2
67	8878	Washer	2
68	8838	Seal, Shifter Housing	1
69	9336	3/8-16 x 1-1/2" BHCS	4
70	K6795-01	Shifter Housing, Magnesium	1
71	7244	Seal	1
72	2667-01	Shift Shaft	1
73	2665	External Lever	1
74	4663	Internal Shift Arm	1
75	6738	Gasket, Shifter Housing	1
78	7454	O'Ring, Inspection Plug	1
79	6857-01	Inspection Plug 1-1/16-12 Thread (#12AN)	1
80	7280	Seal	1
82	12638	Steel Lower Shaft	1
83	7619	Retaining Ring	1
84	7531	Sealed Ball Bearing	1
85	2975	Swivel Coupler	1
86	7918	Core Plug	1
87	8337	Retaining Ring	1

*Part numbers in this list may vary depending on options ordered at time of purchase.
**Not included in assembly.

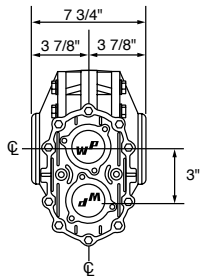
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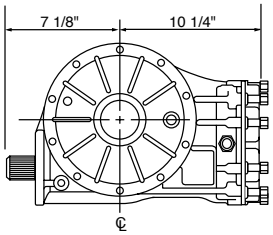
Thermal Dispersant Option 8208

While being 1/3 lighter than aluminum, magnesium acts as an insulator and holds in heat resulting in higher temperatures inside your rear. This very effective corrosion resistant coating helps cool your rear assembly by dispersing the heat, therefore resulting in cooler operating temperatures!

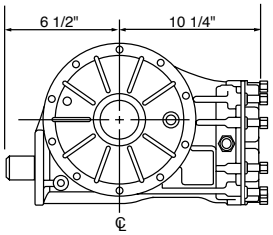
PRO ELIMINATOR MIDGET QUICK CHANGE



External



Internal



- **3.78 Ratio Ring & Pinion**
- **Integral Right Side Bell**
- **Race Proven Cast Magnesium Center**
- **Used By All The Top Race Teams**



Option 8218-RP
REM® Ring & Pinion

Option 8202-XXX
EDM Ultralight Ring Gear

XXX = Specify Ratio

The Winters Midget quick change is available in standard 31 spline (referred to as 2" axle) and also heavy duty 36 spline (referred to as 2-1/2" axle). The midget assembly uses 6 spline gears on 3" center distance.

PAGES OF INTEREST

Exploded View: 40-41
Ring & Pinion Options: 61-63
Optional Gear Covers: 58-59
Axles: 66-67
Set-Up Instructions: 117

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ASSEMBLY PART NO. K247S

ENHANCED SURFACE FINISH

rem® Process

P/N 8218-RP
(Ring & Pinion)

P/N 8218-BRG
(Bearings)



Looks Like Chrome, But Better!





ARP® RING GEAR BOLT KIT
Option 9147 Installed in Rear
KIT P/N 9381

POPULAR OPTIONS

CENTER

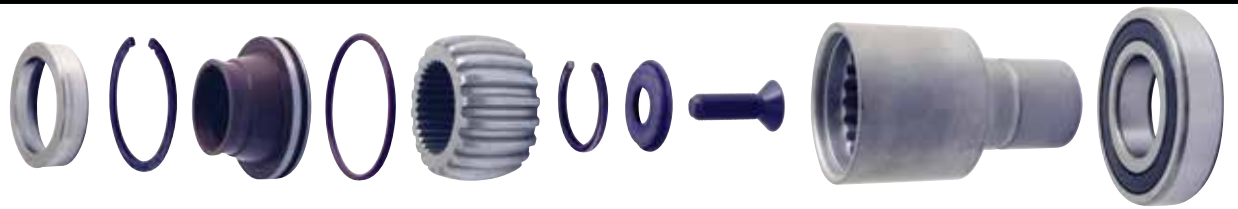
8106	Heat Treated Lower Shaft	8167	5.38 Ring & Pinion
8128	Titanium Lower Shaft	8202-XXX	EDM Ring Gear (Specify Ratio)
8163	Steel Internal 10-10 Coupler	8205	Titanium Center Studs
8163A	Aluminum Internal 10-10 Coupler	8208	Thermal Dispersant Coating
8163SS	Swivel Splined Coupler (Steel Shaft)	8218-BRG	REM® Bearing (# is per Bearing)
8164	4.33 Ring & Pinion	8218-RP	REM® Ring & Pinion
8165	4.88 Ring & Pinion	8225	Gear Cover w/Internal Brg Retainers
8166	5.13 Ring & Pinion		

AXLE

*8122-44-1	Aluminum Axle, 44-1, 1.188 ID	*8160UL	Ultralight Axle, 36 Spline, 1.625 ID
*8122-44-3	Aluminum Axle, 44-3, 1.188 ID	8160ASPC	Special HD Aluminum Axle, 36 Spline
*8122ASPC	Special Aluminum Axle	8224C-OTM	Low Drag Brgs., Axle, Ceramic Balls
*8160	HD Aluminum Axle, 36 Spline, 1.375 ID	8244S-OTM	Low Drag Brgs., Axle, Steel Balls

**Specify Offset*

SWIVEL SPLINED DRIVE LINE **OPTION 8163SS**

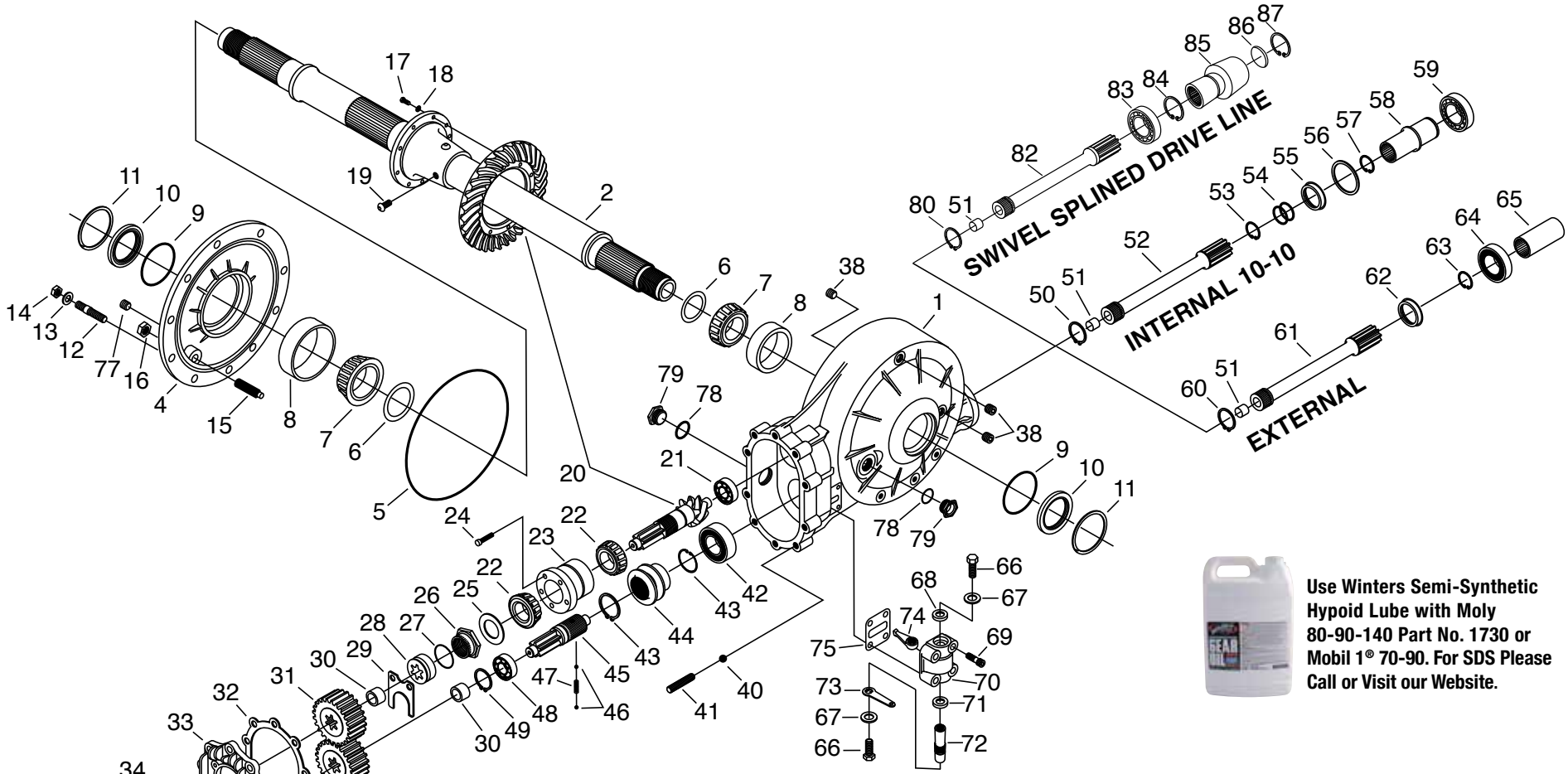


See pages 76-77 for more information.

THERMAL DISPERSANT COATING **OPTION 8208**

This very effective, corrosion resistant coating helps cool your rear end assembly by dispersing the heat, therefore resulting in cooler operating temperatures.

PRO ELIMINATOR MIDGET QUICK CHANGE



Use Winters Semi-Synthetic Hypoid Lube with Moly 80-90-140 Part No. 1730 or Mobil 1® 70-90. For SDS Please Call or Visit our Website.

MAGNESIUM CENTER



PART NO. K2226
Shown with Option 8208-01
Thermal Dispersant Coating

MAGNESIUM LEFT SIDE BELL W/ CALIPER MOUNT



PART NO. K6724-02
Shown with Option 8208-B
Thermal Dispersant Coating

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PLEASE NOTE: When ordering individual parts listed below, if the quantity listed is more than one, you must order that part number according to the quantity listed.

#	PART NO	DESCRIPTION	QTY
1*	K2226	Mag Pro Eliminator Midget Center	1
2*	6778A	31 Spline Aluminum Axle (Specify Offset)	1
2*	6760	36 Spline HD Aluminum Axle (Specify Offset)	1
4	K6724-02	Magnesium Left Side Bell	1
5	7451	O'Ring, Side Bell	1
6	6709	Bearing Shim Kit	1
7*	7301	Bearing Cone, Axle	2
8	7302	Bearing Cup, Side Bell	2
9	7450	O'Ring, Side Bell Seal	2
10	7243	Seal, Side Bell, Axle Seal	2
11	7654	Snap Ring, Side Bell	2
12*	7905	3/8-16 Stud, Side Bell	10
13	7916	3/8" Belleville Washer	10
14	7885	3/8-16 Locknut	10
15	7890	Adjusting Screw	1
16	7891	5/8-18 Jam Nut, Adjusting Screw	1
17	7852	3/8-24 Ring Gear Bolt (Threaded Ring Gear Only)	10
18	7815	3/8" Belleville Washer	10
19*	7805	1/2-20 x 1" BHCS	4
20*	6811	3.78 Ring & Pinion, Standard	1
21	7392	Ball Bearing, Pinion Nose	1
22*	7527	Bearing Cone, Pinion Shaft	2
23*	7525	Flanged Double Cup, Pinion Shaft	1
24	9308	3/8-16 x 1" BHCS, Torx®	5
25	6824	Bearing Washer, Pinion	1
26	6821	Pinion Nut 1-5/8-12 Thread (#20AN)	1
27	7455	O'Ring, Pinion Nut	1
28	6822	Retainer, Pinion Nut	1
29	6751	Bearing Retainer	1
30	1372	Gear Spacer (1" Wide Gears Only)	2
31**	4400	Quick Change Gear Set, 1" Wide	1
31**	4500	Quick Change Gear Set, 1-3/8" Wide	1

#	PART NO	DESCRIPTION	QTY
32	6703	Gasket, Gear Cover	1
33*	K6718	Magnesium Gear Cover, Less Bearings	1
34	7532	Ball Bearing w/Snap Ring, Gear Cover	2
35	7424	O'Ring, Bearing Caps	2
36	1950	Bearing Cap, Gear Cover	2
37	7850	1/4-20 x 5/8" BHCS, Bearing Cap	6
38	7874A	#6 Port Plug w/O'Ring 9/16-18 Thread (#6AN)	4
39	7794ASBK	3/8-16 Aluminum Short High Nut	10
40	7398	5/16" Steel Ball, Gear Cover Stud	10
41	7802	3/8-16 Stud, Gear Cover	10
42	7385	Ball Bearing, Lower Shaft (Rear)	1
43	7655	Snap Ring, Rear Bearings	2
44	6781	Sliding Coupler	1
45	6728	Stub Shaft	1
46	7347	1/4" Steel Detent Ball	2
47	6318	Detent Spring	1
48	7534	Shielded Ball Bearing, Stub Shaft	1
49	7658	Snap Ring, Stub Shaft	1
50	7659	Snap Ring, Lower Shaft (Rear)	1
51	7530	Bushing, Lower Shaft	1
52*	6731-01	Lower Shaft (Use w/Internal Coupler)	1
52*	6731-03	Heat Treated Lower Shaft (Use w/Internal Coupler)	1
52*	6731T	Titanium Lower Shaft (Use w/Internal Coupler)	1
53	7645	Snap Ring, Lower Shaft (Front)	1
54	7418	O'Ring, Lower Shaft	2
55*	7242	Seal, Internal Coupler	1
56	6680	Spacer, Front Bearing	1
57*	7664	Internal Snap Ring, Internal Coupler	1
58*	6732	Internal 10-10 Coupler, Steel	1
58*	6732A	Internal 10-10 Coupler, Aluminum	1
59*	7531	Ball Bearing, Internal Coupler	1
60*	7645	Snap Ring, Lower Shaft, Internal Coupler	1

#	PART NO	DESCRIPTION	QTY
61*	6912-01	Standard Lower Shaft	1
61*	6912-03	Heat Treated Lower Shaft	1
61*	6912T	Titanium Lower Shaft	1
62*	7245	Seal, Standard Lower Shaft	1
62*	7248	Seal, Titanium Shaft	1
63*	7610	Snap Ring, Lower Shaft, Standard Coupler	1
64	7383	Sealed Ball Bearing, Lower Shaft (Front)	1
65**	5987	10-10 Coupler	1
66	8880	1/4-24 x 1/2" HHCS	2
67	8878	Washer	2
68	8838	Seal, Shifter Housing	1
69	7795	3/8-16 x 1-1/2" 12pt	4
70	K6795-01	Shifter Housing, Magnesium	1
71	7244	Seal	1
72	2667-01	Shift Shaft	1
73	2665	External Lever	1
74	4663	Internal Shift Arm	1
75	6738	Gasket, Shifter Housing	1
78	7454	O'Ring, Inspection Plug	2
79	6857-01	Inspection Plug 1-1/16-12 Thread (#12AN)	2
80*	7610	Retaining Ring, Steel Lower Shaft	1
80*	7645	Retaining Ring, Titanium Lower Shaft	1
82*	3875	Steel Lower Shaft	1
82*	3875T	Titanium Lower Shaft	1
83	7531	Sealed Ball Bearing	1
84	7619	Retaining Ring	1
85	2975	Swivel Coupler	1
86	7918	Core Plug	1
87	8337	Retaining Ring	1

*Part numbers in this list may vary depending on options ordered at time of purchase.
**Not included in assembly.

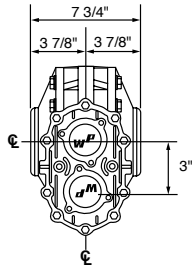
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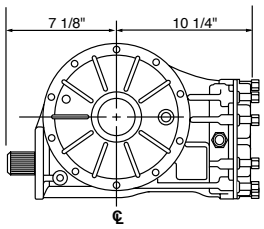
Thermal Dispersant Option 8208

While being 1/3 lighter than aluminum, magnesium acts as an insulator and holds in heat resulting in higher temperatures inside your rear. This very effective corrosion resistant coating helps cool your rear assembly by dispersing the heat, therefore resulting in cooler operating temperatures!

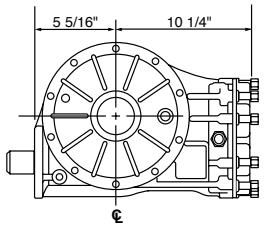
MIDGET QUICK CHANGE



External



Internal



- **3.78 Ratio Ring & Pinion**
- **One Piece Pinion Bearing with Posi-Lock**
- **Pinion Support Bearing**
- **Pinion Inspection Plug**



Option 8218-RP
REM® Ring & Pinion

Option 8202-XXX
EDM Ultralight Ring Gear

XXX = Specify Ratio



ARP® RING GEAR BOLT KIT
Option 9147 Installed in Rear
KIT P/N 9381

The <u>Winters</u> Midget quick change is available in standard 31 spline (referred to as 2" axle) and also heavy duty 36 spline (referred to as 2-1/2" axle). The midget assembly uses 6 spline gears on 3" center distance.

PAGES OF INTEREST

Exploded View: 44-45
Ring & Pinion Options: 61-63
Optional Gear Covers: 58-59
Axles: 66-67
Set-Up Instructions: 117

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AVAILABLE ASSEMBLIES



ENHANCED SURFACE FINISH

rem® Process

P/N 8218-RP
(Ring & Pinion)

P/N 8218-BRG
(Bearings)



Looks Like Chrome, But Better!

ASSEMBLY	PART NO.
Straight Rear, Bare	K237
Shifter Rear, Bare	K237S
Straight Rear with 6 Pin Hub Kit	K337
Shifter Rear with 6 Pin Hub Kit	K337S

POPULAR OPTIONS

CENTER

8106	Heat Treated Lower Shaft	8167	5.38 Ring & Pinion
8128	Titanium Lower Shaft	8202-XXX	EDM Ring Gear (Specify Ratio)
8163	Steel Internal 10-10 Coupler	8234	Titanium Center Studs
8163A	Aluminum Internal 10-10 Coupler	8208	Thermal Dispersant Coating
8164	4.33 Ring & Pinion	8218-BRG	REM® Bearing (# is per Bearing)
8165	4.88 Ring & Pinion	8218-RP	REM® Ring & Pinion
8166	5.13 Ring & Pinion	8225	Gear Cover w/Internal Brg Retainers

AXLE

*8122-44-1	Aluminum Axle, 44-1, 1.188 ID	*8160UL	Ultralight Axle, 36 Spline, 1.625 ID
*8122-44-3	Aluminum Axle, 44-3, 1.188 ID	8160ASPC	Special HD Aluminum Axle, 36 Spline
*8122ASPC	Special Aluminum Axle	8224C-OTM	Low Drag Brgs., Axle, Ceramic Balls
*8160	HD Aluminum Axle, 36 Spline, 1.375 ID	8244S-OTM	Low Drag Brgs., Axle, Steel Balls

**Specify Offset*

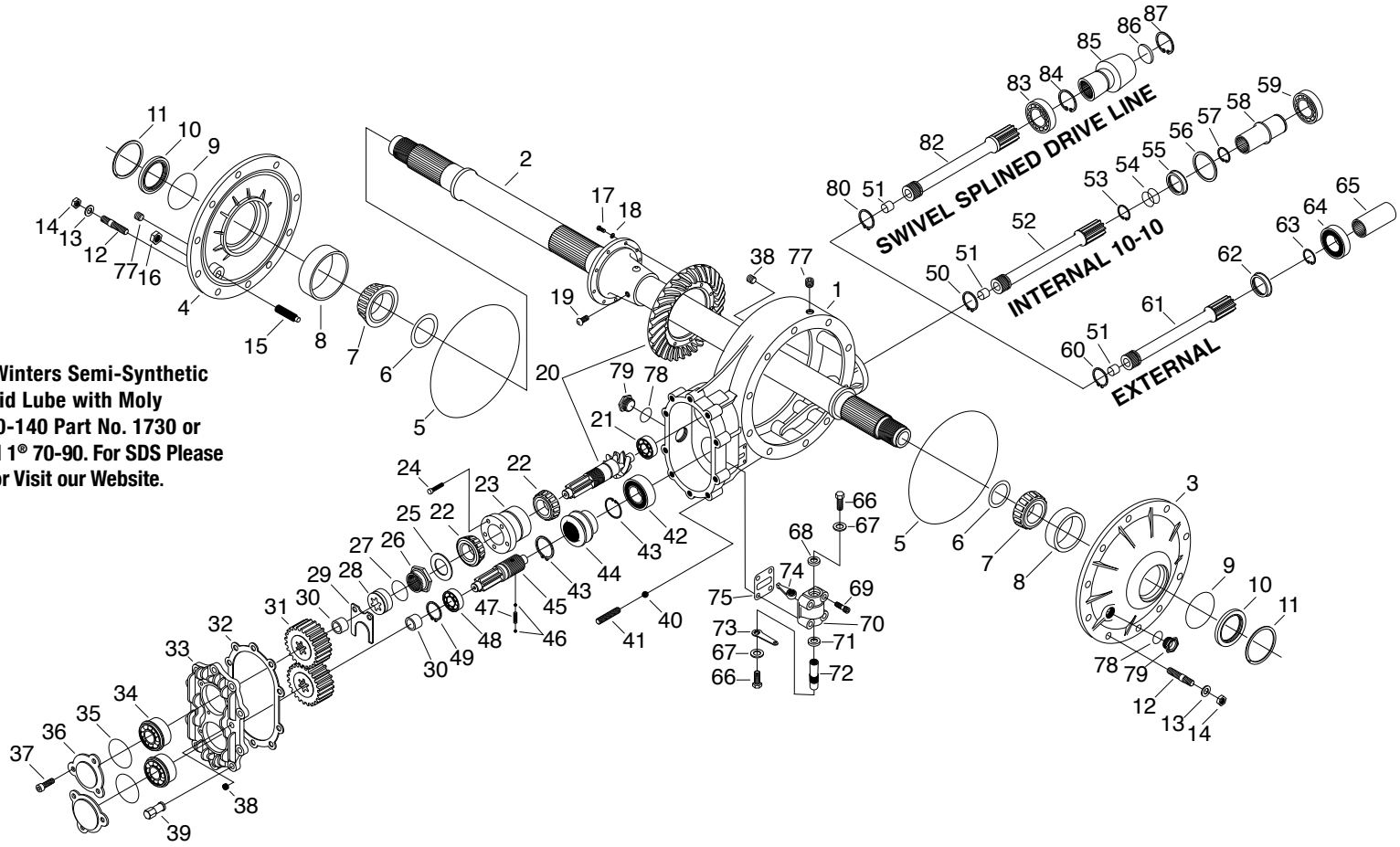
MIDGET NON-SHIFTER LOWER SHAFT



#	PART NO	DESCRIPTION
1	7558	Retaining Ring
2	6881-01	Standard Shaft, Non-Shifter
3	7390	Front Bearing



Use Winters Semi-Synthetic Hypoid Lube with Moly 80-90-140 Part No. 1730 or Mobil 1® 70-90. For SDS Please Call or Visit our Website.



MAGNESIUM CENTER



PART NO. K6727S

MAGNESIUM LEFT SIDE BELL W/ CALIPER MOUNT



PART NO. K6724-02
Shown with Option 8208-B Thermal Dispersant Coating

MAGNESIUM RIGHT SIDE BELL



PART NO. K6724-01

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PLEASE NOTE: When ordering individual parts listed below, if the quantity listed is more than one, you must order that part number according to the quantity listed.

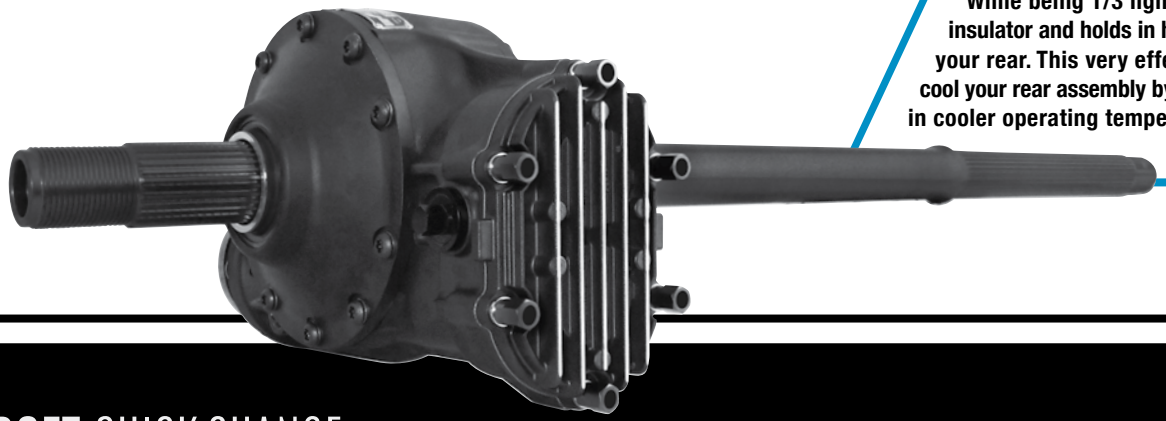
#	PART NO	DESCRIPTION	QTY
1*	K6727S	Magnesium Midget Center	1
2*	6778A	31 Spline Aluminum Axle (Specify Offset)	1
2*	6760	36 Spline HD Aluminum Axle (Specify Offset)	1
3	K6724-01	Magnesium Right Side Bell	1
4	K6724-02	Magnesium Left Side Bell	1
5	7451	O'Ring, Side Bell	2
6	6709	Bearing Shim Kit	1
7*	7301	Bearing Cone, Axle	2
8	7302	Bearing Cup, Side Bell	2
9	7450	O'Ring, Side Bell Seal	2
10	7243	Seal, Side Bell, Axle Seal	2
11	7654	Snap Ring, Side Bell	2
12*	7905	3/8-16 Stud, Side Bell	20
13	7916	3/8" Belleville Washer	20
14	7885	3/8-16 Locknut	20
15	7890	Adjusting Screw	1
16	7891	5/8-18 Jam Nut, Adjusting Screw	1
17	7852	3/8-24 Ring Gear Bolt (Threaded Ring Gear Only)	10
18	7815	3/8" Belleville Washer	10
19*	7805	1/2-20 x 1" BHCS	4
20*	6811	3.78 Ring & Pinion, Standard	1
21	7392	Ball Bearing, Pinion Nose	1
22*	7527	Bearing Cone, Pinion Shaft	2
23*	7525	Flanged Double Cup, Pinion Shaft	1
24	9308	3/8-16 x 1" BHCS, Torx®	5
25	6824	Bearing Washer, Pinion	1
26	6821	Pinion Nut 1-5/8-12 Thread (#20AN)	1
27	7455	O'Ring, Pinion Nut	1
28	6822	Retainer, Pinion Nut	1
29	6751	Bearing Retainer	1
30	1372	Gear Spacer (1" Wide Gears Only)	2
31**	4400	Quick Change Gear Set, 1" Wide	1
31**	4500	Quick Change Gear Set, 1-3/8" Wide	1

#	PART NO	DESCRIPTION	QTY
32	6703	Gasket, Gear Cover	1
33*	K6718	Magnesium Gear Cover, Less Bearings	1
34	7532	Ball Bearing w/Snap Ring, Gear Cover	2
35	7424	O'Ring, Bearing Caps	2
36	1950	Bearing Cap, Gear Cover	2
37	7850	1/4-20 x 5/8" BHCS, Bearing Cap	6
38	7874A	#6 Port Plug w/O'Ring 9/16-18 Thread (#6AN)	2
39	7794ASBK	3/8-16 Aluminum Short High Nut	10
40	7398	5/16" Steel Ball, Gear Cover Stud	10
41	7802	3/8-16 Stud, Gear Cover	10
42	7385	Ball Bearing, Lower Shaft (Rear)	1
43	7655	Snap Ring, Rear Bearings	2
44	6781	Sliding Coupler	1
45	6728	Stub Shaft	1
46	7347	1/4" Steel Detent Ball	2
47	6318	Detent Spring	1
48	7534	Shielded Ball Bearing, Stub Shaft	1
49	7658	Snap Ring, Stub Shaft	1
50	7659	Snap Ring, Lower Shaft (Rear)	1
51	7530	Bushing, Lower Shaft	1
52*	6731-01	Lower Shaft (Use w/Internal Coupler)	1
52*	6731-03	Heat Treated Lower Shaft (Use w/Internal Coupler)	1
52*	6731T	Titanium Lower Shaft (Use w/Internal Coupler)	1
53	7645	Snap Ring, Lower Shaft (Front)	1
54	7418	O'Ring, Lower Shaft	2
55*	7242	Seal, Internal Coupler	1
56	6680	Spacer, Front Bearing	1
57*	7664	Internal Snap Ring, Internal Coupler	1
58*	6732	Internal 10-10 Coupler, Steel	1
58*	6732A	Internal 10-10 Coupler, Aluminum	1
59*	7531	Ball Bearing, Internal Coupler	1
60*	7645	Snap Ring, Lower Shaft, Internal Coupler	1
61*	6912-01	Standard Lower Shaft	1

#	PART NO	DESCRIPTION	QTY
61*	6912-03	Heat Treated Lower Shaft	1
61*	6912T	Titanium Lower Shaft	1
62*	7245	Seal, Standard Lower Shaft	1
62*	7248	Seal, Titanium Shaft	1
63*	7610	Snap Ring, Lower Shaft, Standard Coupler	1
64	7383	Sealed Ball Bearing, Lower Shaft (Front)	1
65**	5987	10-10 Coupler	1
66	8880	1/4-24 x 1/2" HHCS	2
67	8878	Washer	2
68	8838	Seal, Shifter Housing	1
69	7795	3/8-16 x 1-1/2" 12pt	4
70	K6795-01	Shifter Housing, Magnesium	1
71	7244	Seal	1
72	2667-01	Shift Shaft	1
73	2665	External Lever	1
74	4663	Internal Shift Arm	1
75	6738	Gasket, Shifter Housing	1
77	7111B	3/8" NPT Pipe Plug	1
78	7454	O'Ring, Inspection Plug	2
79	6857-01	Inspection Plug 1-1/16-12 Thread (#12AN)	2
80*	7610	Retaining Ring, Steel Lower Shaft	1
80*	7645	Retaining Ring, Titanium Lower Shaft	1
82*	3875	Steel Lower Shaft	1
82*	3875T	Titanium Lower Shaft	1
83	7531	Sealed Ball Bearing	1
84	7619	Retaining Ring	1
85	2975	Swivel Coupler	1
86	7918	Core Plug	1
87	8337	Retaining Ring	1

*Part numbers in this list may vary depending on options ordered at time of purchase.
**Not included in assembly.

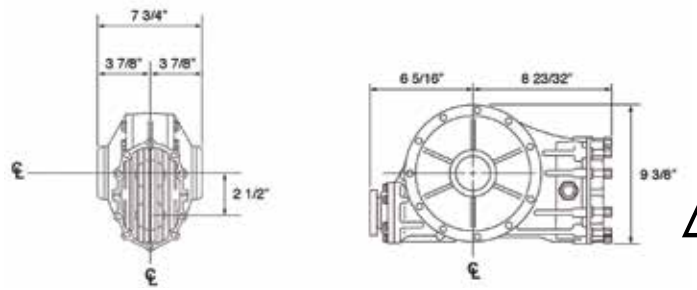
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Thermal Dispersant Option 8208

While being 1/3 lighter than aluminum, magnesium acts as an insulator and holds in heat resulting in higher temperatures inside your rear. This very effective corrosion resistant coating helps cool your rear assembly by dispersing the heat, therefore resulting in cooler operating temperatures!

TQ MIDGET QUICK CHANGE





Option 8218-RP
REM® Ring & Pinion
Option 8202-XXX
EDM Ultralight Ring Gear
XXX = Specify Ratio

- 7" Spiral Bevel, 3.78 Ratio Ring & Pinion
- Pinion Posi-Lock Assembly
- Gear Cover with Internal Bearing Retainers
- 3 Ring & Pinion Ratios + 24 Quick Change Gear Sets = 144 Gear Combinations Available
- Slide In Axle That Is Easily Replaceable Without Disassembling The Rear
- Splined Axle So Offset Can Be Easily Moved Left or Right

ENHANCED SURFACE FINISH

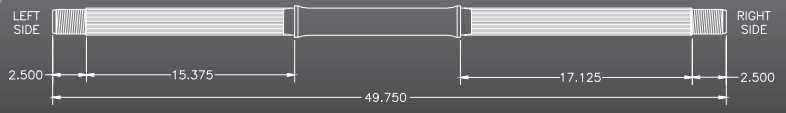
rem® Process

P/N 8218-RP
(Ring & Pinion)
P/N 8218-BRG
(Bearings)



Looks Like Chrome, But Better!

6917-TQ



6917

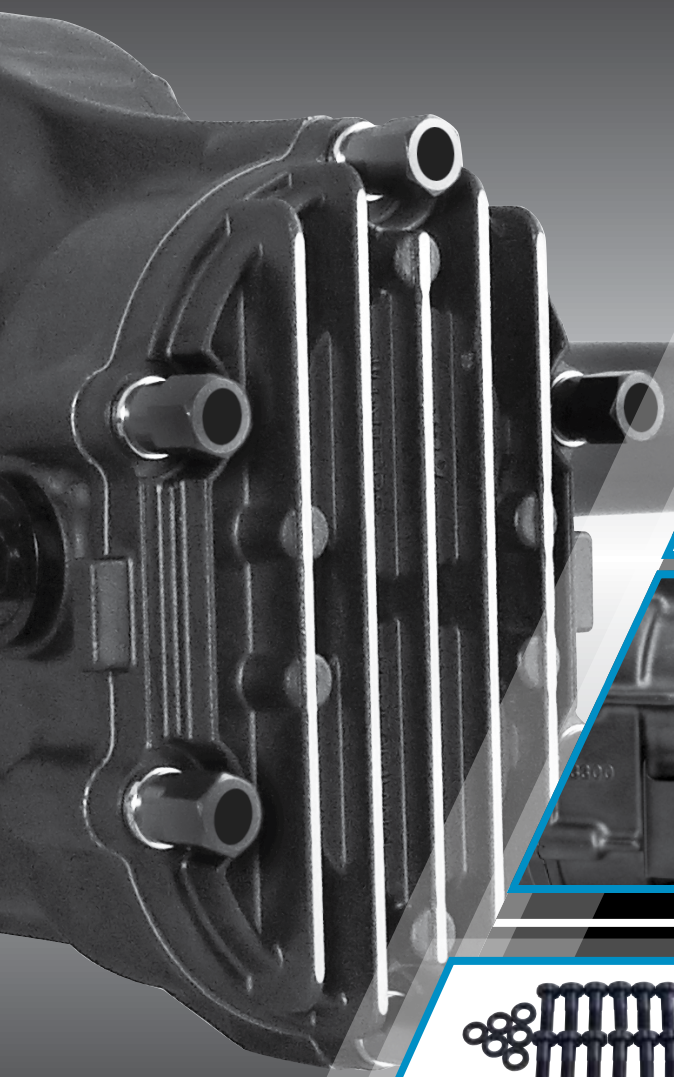


PAGES OF INTEREST

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Set-Up Instructions: 117

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AVAILABLE ASSEMBLIES



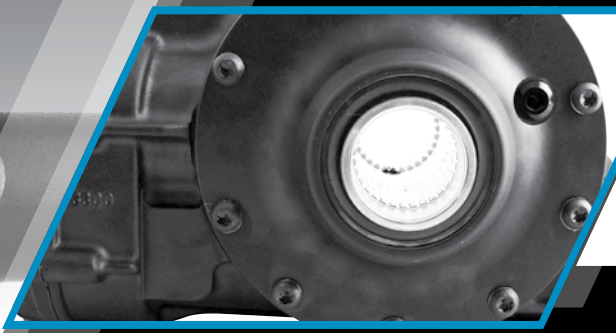




Option 8188L

Left Side Bell with Caliper Mount

ASSEMBLY	PART NO.
2” 31 Spline without Axle	127-2S
1-1/2” Bore Using 1/4” Keyway	127-150



ASSEMBLY PART NO. 127-2S

Spline Center Spool Assembly that accepts a 2”, 31 Spline Mini Sprint Axle, which is comparable in size to a Full Size Midget Axle.



ASSEMBLY PART NO. 127-150

1-1/2” Bore Assembly featuring a 1/4” Keyway for use with existing TQ Axles.

POPULAR OPTIONS



ARP® RING GEAR BOLT KIT

Option 9147 Installed in Rear

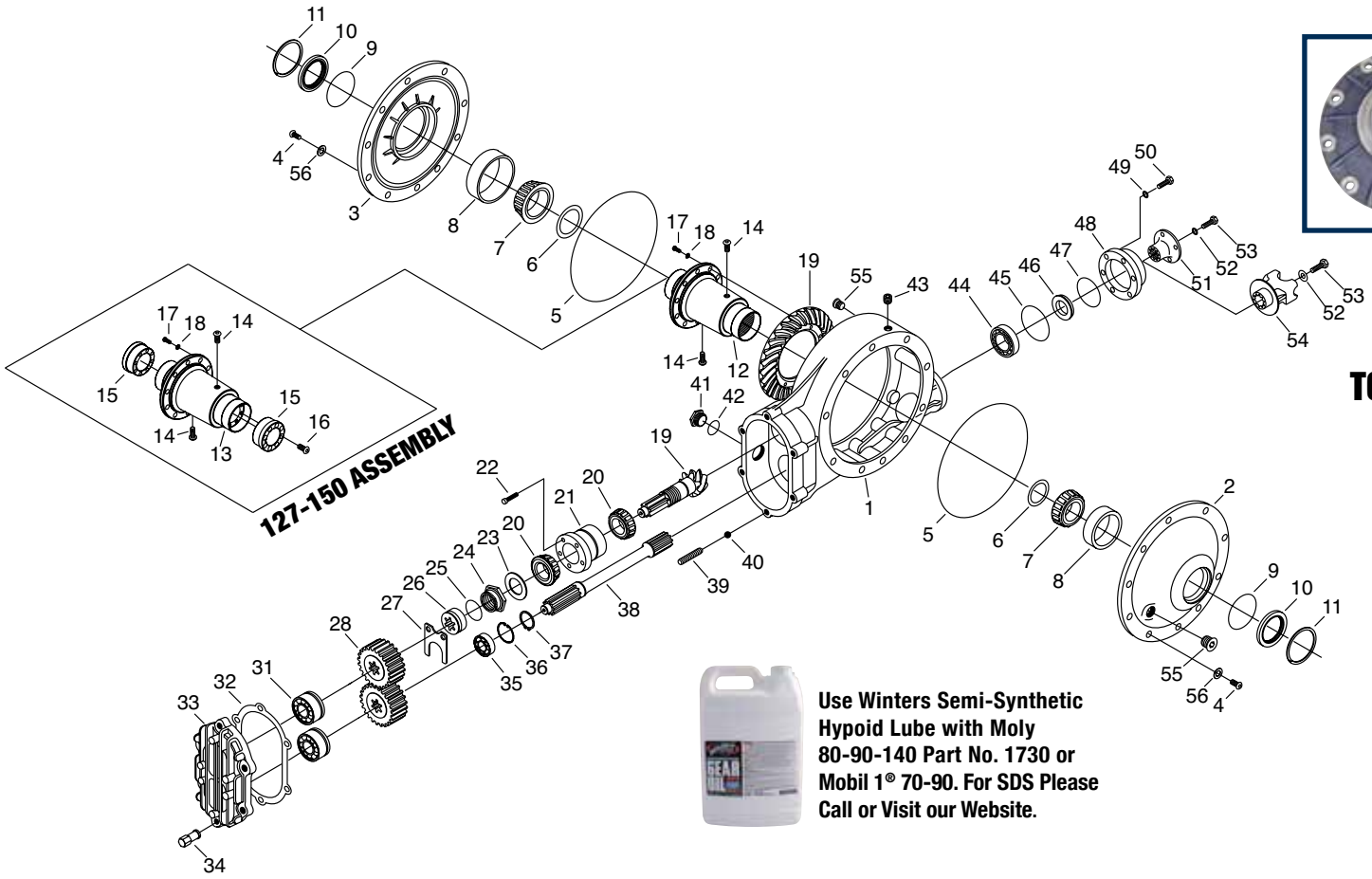
KIT P/N 9381

CENTER

81457-7	4.57 Ring & Pinion	8216	Magnesium Center
81513-7	5.13 Ring & Pinion	8218-BRG	REM® Bearing
8202-7-XXX	EDM Ring Gear	8218-RP	REM® Ring & Pinion
8208-TQ	Thermal Dispersant Coating	8227	1310 Series Yoke
8188L	Left Side Bell with Caliper Mount		

AXLE

8122-TQ	31 Spline Axle	8244S-OTM	Low Drag Brgs., Axle, Steel Balls





PART NO. 3344
Left Side Bell with Caliper Mount
Option 8188L

TOYOTA® STYLE FLANGE
26 Spline



P/N 3362
Steel
1-3/8-26 Spline Yoke

P/N 3362A
Aluminum
1-3/8-26 Spline Yoke

Use Winters Semi-Synthetic Hypoid Lube with Moly 80-90-140 Part No. 1730 or Mobil 1® 70-90. For SDS Please Call or Visit our Website.

ALUMINUM CENTER



PART NO. 3300

LEFT SIDE BELL



PART NO. 12060-02
Aluminum
PART NO. K12060-02
Magnesium

RIGHT SIDE BELL



PART NO. 12060-01
Aluminum
PART NO. K12060-01
Magnesium

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PLEASE NOTE: When ordering individual parts listed below, if the quantity listed is more than one, you must order that part number according to the quantity listed.

#	PART NO	DESCRIPTION	QTY
1	3300	Aluminum Center Section	1
2*	12060-01	Aluminum Right Side Bell	1
2*	K12060-01	Magnesium Right Side Bell	1
3*	12060-02	Aluminum Left Side Bell	1
3*	K12060-02	Magnesium Left Side Bell	1
4	7953	3/8-16 x 1-1/4" SHCS, Torx®	20
5	3351	O'Ring, Side Bell	2
6	6709	Bearing Shim Kit	1
7	7301	Bearing Cone, Axle	2
8	7302	Bearing Cup, Side Bell	2
9	7450	O'Ring, Side Bell Seal	2
10	7243	Seal, Side Bell	2
11	7654	Retaining Ring, Side Bell	2
12	12050	31 Spline Spool	1
13	12050-02	Key Way Spool	1
14	7805	1/2-20 x 1" BHCS	2
15	12097	Cap, Key Way Spool	2
16	9337	1/4-20 x 1-1/4" SHCS	16
17	7852	3/8-24 Ring Gear Bolt	10
18	7815	3/8" Belleville Washer	10

#	PART NO	DESCRIPTION	QTY
19	11378	3.78 Ring & Pinion (Standard)	1
20	8609	Bearing Cone, Pinion Shaft	2
21	3307	Flanged Double Cup, Pinion Shaft	1
22	9308	3/8-16 x 1" BHCS, Torx®	5
23	3308	Bearing Washer, Pinion	1
24	6821-03	Pinion Nut 1-1/8-18-2B Thread	1
25	7455	O'Ring, Pinion Nut	1
26	6822	Retainer, Pinion Nut	1
27	3349	Bearing Retainer, Pinion	1
28	3800	Quick Change Gear Set	1
31	7532	Bearing, Gear Cover	2
32	3343	Gasket, Gear Cover	1
33	3342	Gear Cover	1
34	7794ASR	Aluminum Short High Nut	6
35	8608	Bearing, Lower Shaft, Rear	1
36	8323	Retaining Ring, Rear Bearing	1
37	7634	Retaining Ring, Lower Shaft	1
38	3340	Standard Lower Shaft	1

#	PART NO	DESCRIPTION	QTY
39	7532	3/8-16 x 1-3/4" Stud	6
40	7398	5/16" Diameter Steel Ball	6
41	6857-01	Small Inspection Plug with O'Ring	1
42	7454	O'Ring, Inspection Plug	1
43	7111AL	3/8" NPT Aluminum Pipe Plug	1
44	3324	Bearing, Lower Shaft	1
45	7439	O'Ring, Seal Plate	1
46	3327	Seal, Seal Plate	1
47	7484	Internal O'Ring, Seal Plate	1
48	3325	Seal Plate	1
49	7114	3/8" Flatwasher	6
50	7110	3/8-16 x 1" HHCS	6
51	3362	Drive Yoke, Toyota® Steel	1
51	3362A	Drive Yoke, Toyota® Aluminum	1
52	5037	Retaining Washer, Drive Yoke	1
53	7109Y	3/8-24 x 1" HHCS	1
54	3328	Drive Yoke, Steel	1
55	7874A	AN Plug 9/16-18 Thread (#6AN)	2
56	7151	3/8" Flatwasher	20

*Part numbers in this list may vary depending on options ordered at time of purchase.
**Not included in assembly.

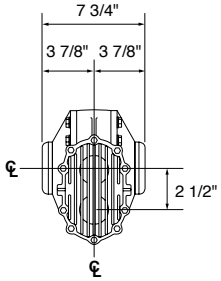
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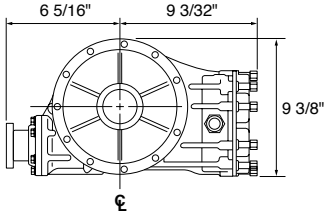


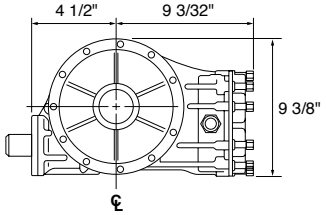
Thermal Dispersant Option 8208

While being 1/3 lighter than aluminum, magnesium acts as an insulator and holds in heat resulting in higher temperatures inside your rear. This very effective corrosion resistant coating helps cool your rear assembly by dispersing the heat, therefore resulting in cooler operating temperatures!

PRO ELIMINATOR 7" QUICK CHANGE







- **7", 3.78 Ratio Ring & Pinion**
- **Smaller, Compact & Less Rotating Weight**
- **27 Tooth, Fine Spline Internal Coupler**
- **Aluminum Bell for Added Strength**
- **Magnesium Center Section for Less Weight**



Option 8218-RP
REM® Ring & Pinion

Option 8202-XXX
EDM Ultralight Ring Gear

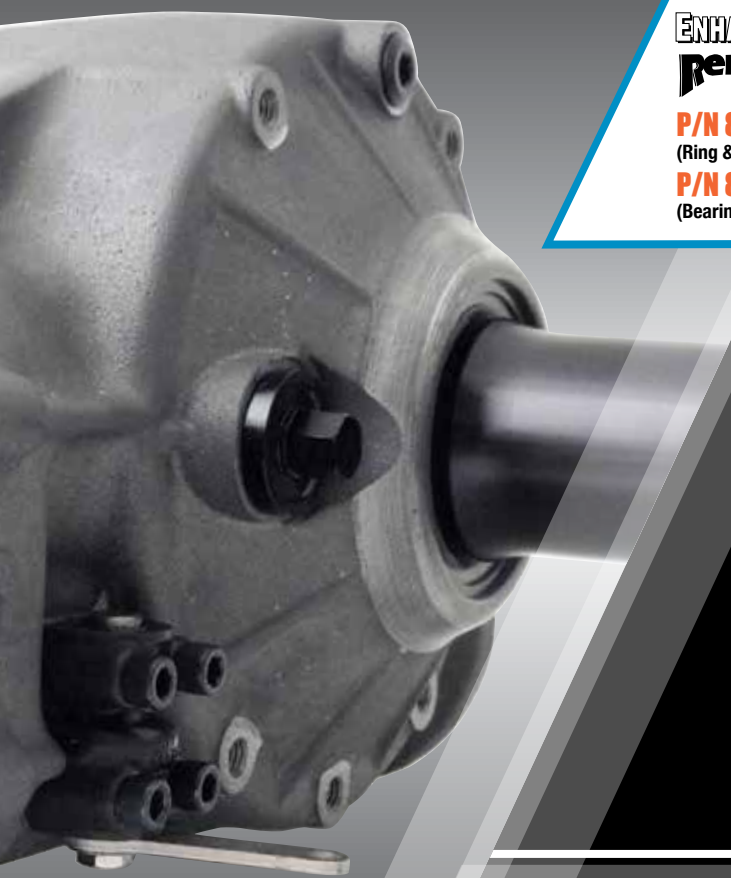
XXX = Specify Ratio

PAGES OF INTEREST

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Set-Up Instructions: 117

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AVAILABLE ASSEMBLIES



ENHANCED SURFACE FINISH

rem® Process

P/N 8218-RP
(Ring & Pinion)

P/N 8218-BRG
(Bearings)



Looks Like Chrome, But Better!

ASSEMBLY	PART NO.
Aluminum Non-Shifter Center Section	137
Magnesium Pro Eliminator Center Section Shifter	K147S

NOTE: ASSEMBLY PART NO. K147S REQUIRES THE FOLLOWING

DESCRIPTION	PART NO.
27 Spline Drive Shaft (Specify Length)	3313-27
27 Spline Slip Yoke	3494-27
7" Torque Tube & Collar Assembly	3314



TOYOTA® YOKE PART NO. 3362

For use with Assembly Part No. 137 Only.

THERMAL DISPERSANT COATING OPTION 8208

This very effective, corrosion resistant coating helps cool your rear end assembly by dispersing the heat, therefore resulting in cooler operating temperatures.



ARP® RING GEAR BOLT KIT

Option 9147 Installed in Rear
KIT P/N 9381

POPULAR OPTIONS

CENTER	
81378-7	3.78 Ring & Pinion (Standard)
81457-7	4.57 Ring & Pinion
81513-7	5.13 Ring & Pinion
8208	Thermal Dispersant Coating
8218-BRG	REM® Bearing (# is per Bearing)
8218-RP	REM® Ring & Pinion

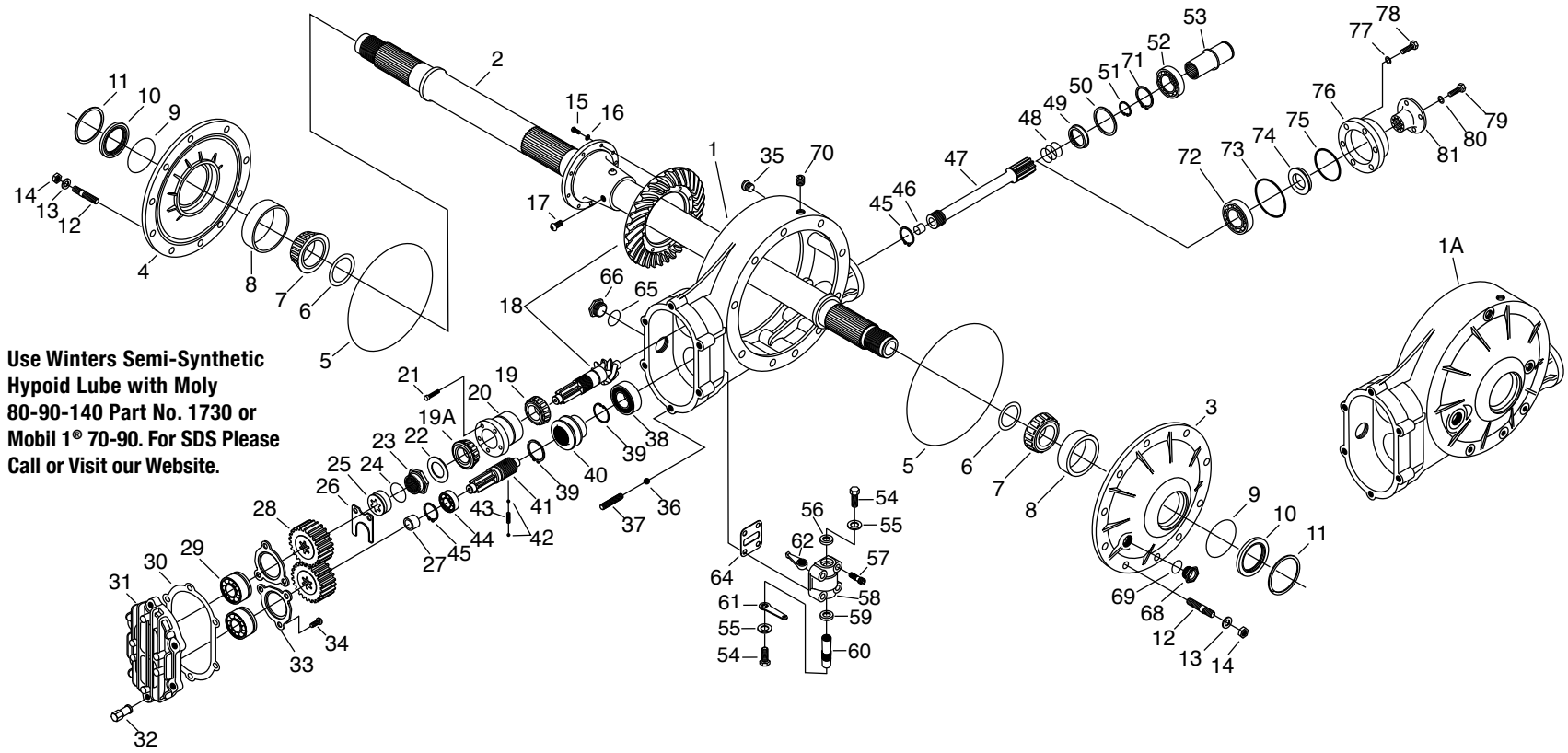
AXLE	
*8122	Aluminum Axle
*8122ASPC	Special Aluminum Axle
*8160	HD Aluminum Axle, 36 Spline
*8160UL	Ultralight Axle, 36 Spline
8160ASPC	Special HD Aluminum Axle, 36 Spline
8244S-OTM	Low Drag Brgs., Axle, Steel Balls

**Specify Offset*

PRO ELIMINATOR 7” QUICK CHANGE



Use Winters Semi-Synthetic Hypoid Lube with Moly 80-90-140 Part No. 1730 or Mobil 1® 70-90. For SDS Please Call or Visit our Website.



ALUMINUM CENTER



PART NO. 3300

ALUMINUM LEFT SIDE BELL W/ CALIPER MOUNT



PART NO. 3344

ALUMINUM RIGHT SIDE BELL



PART NO. 3304

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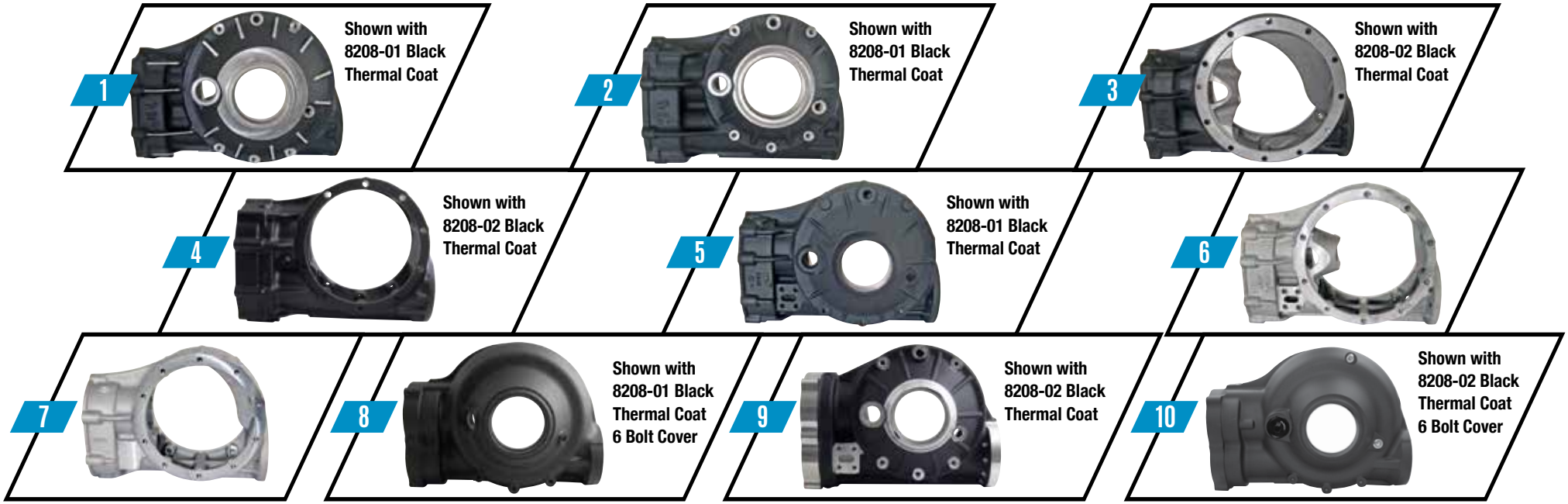
PLEASE NOTE: When ordering individual parts listed below, if the quantity listed is more than one, you must order that part number according to the quantity listed.

#	PART NO	DESCRIPTION	QTY
1	3300	Aluminum Center Section	1
1A	K2227	Pro Eliminator Magnesium Center Section	1
2*	6778A	31 Spline Aluminum Axle (Specify Offset)	1
2*	6760	31 Spline HD Aluminum Axle (Specify Offset)	1
3	3304	Aluminum Right Side Bell	1
4	3344	Aluminum Left Side Bell	1
5	3351	O’Ring, Side Bell	2
6	6709	Bearing Shim Kit	1
7*	7301	Bearing Cone, Axle	2
8	7302	Bearing Cup, Side Bell	2
9	7450	O’Ring, Side Bell Seal	2
10	7243	Seal, Side Bell	2
11	7654	Snap Ring, Side Bell	2
12*	7905	3/8-16 Stud, Side Bell	20
13*	7916	3/8” Belleville Washer	20
14*	7885	3/8-16 Locknut	20
15	7852	3/8-24 Ring Gear Bolt (Threaded Ring Gear Only)	10
16	7815	3/8” Belleville Washer	10
17*	7805	1/2-20 x 1” BHCS	4
18*	11378	3.78 Ring & Pinion, Standard	1
19	8609	Inner Bearing Cone, Pinion Shaft	1
19A	8610	Outer Bearing Cone, Pinion Shaft	1
20*	3307	Flanged Double Cup, Pinion Shaft	1
21	9308	3/8-16 x 1” BHCS, Torx®	5
22	3308	Bearing Washer, Pinion	1
23	6821-03	Pinion Nut 1-1/8-18-2B Thread	1
24	7455	O’Ring, Pinion Nut	1
25	12574	Steel Retainer, Pinion Nut	1
26	3349	Bearing Retainer	1
28	3800	Quick Change Gear Set	1
29	7532	Bearing, Gear Cover	2
30	3343	Gasket, Gear Cover	1
31	3342	Gear Cover	1
32	7794ASBK	3/8-16 Aluminum Short High Nut	6
33	2957	Bearing Retainer	2
34	8087	Bearing Retainer Screws, BHCS	6
35	7874	#6 Port Plug with O’Ring	1
36	7398	5/16” Diameter Steel Ball	6
37	7802	3/8-16 x 1-3/4” Stud	6
38	8608	Ball Bearing, Lower Shaft, Rear	1
39	8323	Snap Ring, Rear Bearings	2
40	3319	Sliding Coupler	1
41	3311	Stub Shaft	1
42	7347	1/4” Steel Detent Ball	2
43	3323	Detent Spring	1
44	8608	Ball Bearing, Stub Shaft	1
45	7634	Snap Ring, Stub Shaft	2
46	8612	Bushing, Lower Shaft	1
47*	3310-27	Lower Shaft (Use w/Internal Coupler)	1
48	7452	O’Ring, Lower Shaft	3
49*	3327-27	Seal, Internal Coupler	1
50	6680	Spacer, Front Bearing	1
51*	7657	External Snap Ring, Internal Coupler	1
52*	4389	Ball Bearing, Internal Coupler	1
53*	3312-27	Internal Coupler, Steel	1
54	8880	1/4-24 x 1/2” HHCS	2
55	8878	Washer	2
56	8838	Seal, Shifter Housing	1
57	7795	3/8-16 x 1-1/2” 12pt	4
58	K6795-01	Shifter Housing, Magnesium	1
59	7244	Seal	1
60	2667-01	Shift Shaft	1
61	2665	External Lever	1
62	4663	Internal Shift Arm	1
64	6738	Gasket, Shifter Housing	1
65	7454	O’Ring, Inspection Plug	1
66	6857-01	Small Inspection Plug with O’Ring	1
68	6857-01	Inspection Plug 1-1/16-12 Thread (#12AN)	2
69	7454	O’Ring, Inspection Plug	2
70	7111AL	3/8” NPT Pipe Plug, Aluminum	1
71	7664	Internal Snap Ring, Internal Coupler	1
72*	3324	Bearing, Lower Shaft (Yoke Input)	1
73	7439	O’Ring, Seal Plate	1
74	3327	Seal, Seal Plate	1
75	7484	Internal O’Ring, Seal Plate	1
76	3325	Seal Plate	1
77	7114	3/8” Flatwasher	6
78	7110	3/8-16 x 1” HHCS	6
79	7109Y	3/8-24 x 1” HHCS	1
80	5037	Retaining Washer, Drive Yoke	1
81*	3362	Drive Yoke, Toyota®	1

*Part numbers in this list may vary depending on options ordered at time of purchase.
**Not included in assembly.

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CENTER SECTIONS

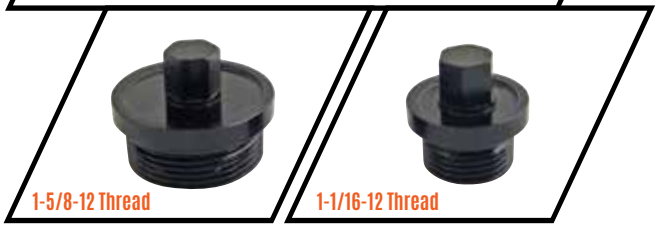


#	PART NO	DESCRIPTION	APPLICATION
1	K2225UHD	Ultra Heavy Duty Magnesium Pro Eliminator Center	Pro Eliminator Quick Change
2	K4085	Magnesium Center Section	Outlaw V8 Quick Change
3	5840	Aluminum Sprint Center	Sprint Quick Change, Super Modified Quick Change
3	5840S	Aluminum Sprint Shifter Center	Sprint Quick Change, Super Modified Quick Change
3	K5840	Magnesium Sprint Center	Sprint Quick Change, Super Modified Quick Change
3	K5840S	Magnesium Sprint Shifter Center	Sprint Quick Change, Super Modified Quick Change
4	K4085-02S	Magnesium Sprint Shifter Center	3 Piece Outlaw V8 Super Modified Quick Change
5	K2226	Magnesium Pro Eliminator Midget Center	Pro Eliminator Midget Quick Change
6	K6727S	Magnesium Midget Center	Midget Quick Change
7	3300	Aluminum Center Section	Pro Eliminator 7" Quick Change, TQ Midget Quick Change
7	K2227	Magnesium Pro Eliminator Center	Pro Eliminator 7" Quick Change
8	K12366	Magnesium Center Section	Outlaw V8-10 Quick Change 6 Bolt Cover
9	K12176	Magnesium Center Section	Pro Eliminator Midget-7 Quick Change
10	K12587	Magnesium Center Section	Pro Eliminator Quick Change 6 Bolt Cover

INSPECTION PLUGS

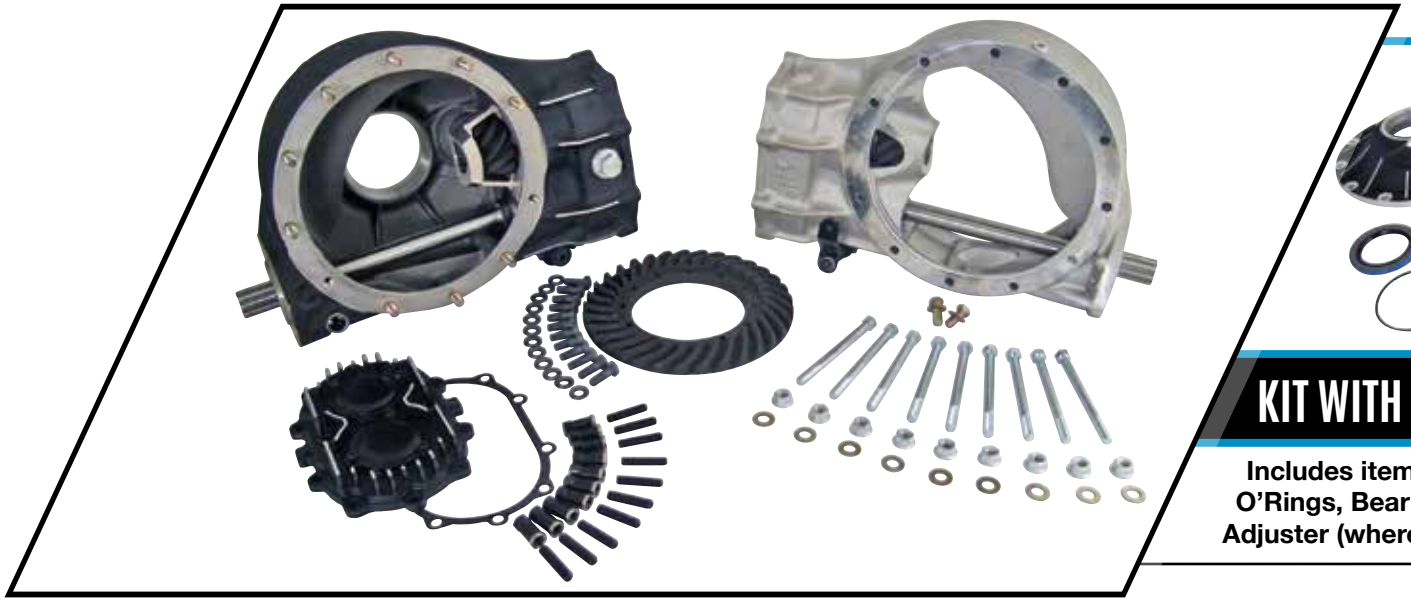
Fits 9/16" Hex Wrench. Standard on all Winters Rears.

1. Large Inspection Plug Part No. 5290-01
2. Small Inspection Plug Part No. 6857-01



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Shown with Option 8208-01 Black Thermal Dispersement Coating





KIT WITH BELLS

Includes items shown at left plus: Bells, Seals, O'Rings, Bearings, Shim Kit, Retaining Rings & Adjuster (where applicable).

KIT PART NO	WITH BELLS	DESCRIPTION
2096	2097	Aluminum Midget Center (8-3/8")
K2096	K2097	Magnesium Midget Center (8-3/8")
2098	2099	Aluminum Midget Shifter Center (8-3/8")
K2098	K2099	Magnesium Midget Shifter Center (8-3/8")
K2385S	K2390S	Magnesium Pro Eliminator Shifter Center (10")
K2385SUHD	K2390UHD	Magnesium Pro Eliminator UHD Shifter Center (10")
K2385SXHD	K2390XHD	Magnesium Pro Eliminator XHD Shifter Center (10")
2410	2395	Aluminum Midget Non-Quick Change Center (8-3/8")
K2845	K2840	Magnesium Pro Eliminator Midget Shifter Center (8-3/8")

KIT PART NO	WITH BELLS	DESCRIPTION
4085	4126	Aluminum Non-Quick Change Center (10")
K4058	K4126	Magnesium Non-Quick Change Center (10")
6170	6165	Aluminum Sprint Center (10")
6170S	6165S	Aluminum Sprint Shifter Center (10")
K6170	K6165	Magnesium Sprint Center (10")
K6170R	K6165R	Magnesium Sprint Center, Reverse Rotation (10")
K6170S	K6165S	Magnesium Sprint Shifter Center (10")
K6170SR	K6165SR	Magnesium Sprint Shifter Center, Reverse Rotation (10")

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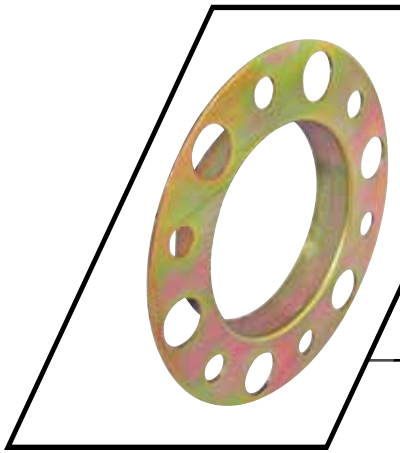


OVERHAUL KITS

Kits include all Bearings, Seals and O'Rings needed to rebuild your Rear End. Important: See pages 58-59 to identify Gear Cover. PLEASE NOTE: Actual parts may vary from picture shown, depending on application.

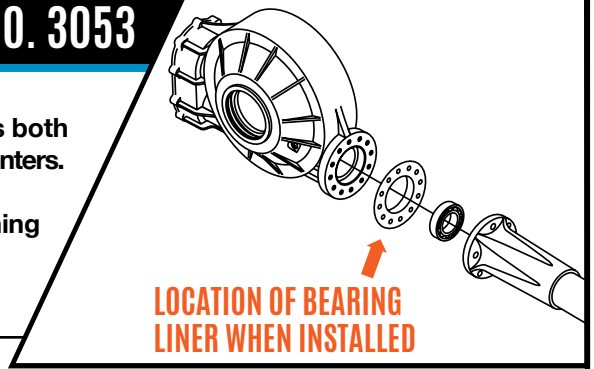
PART NO	APPLICATION	COVER
2256	Midget Non-Shifter Center	Midget
2256S	Midget Shifter Center	Midget
2955	Pro Eliminator Shifter Center	Tumbled
2955UHD	Pro Eliminator Shifter Center	Ultra Heavy Duty
2956	Pro Eliminator Midget Shifter Center	Midget

PART NO	APPLICATION	COVER
6354	Sprint Non-Shifter Center	Tumbled
6354HD	Sprint Non-Shifter Center	Heavy Duty
6354HDS	Sprint Shifter Center	Heavy Duty
6354S	Sprint Shifter Center	Tumbled
7065	7" Non-Shifter Center	Standard 7"



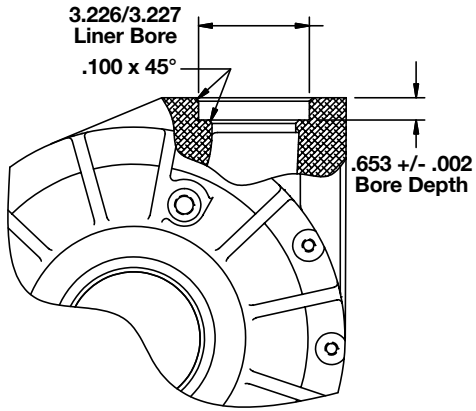
BEARING LINER **PART NO. 3053**

Older Sprint Center Section in a wreck? Hydroform sleeve repairs both over sized bearing bores and bent centers. Comes standard on all Sprint Car applications. PLEASE NOTE: Machining of Center required for installation.



LOCATION OF BEARING LINER WHEN INSTALLED

MODIFICATION TO USE BEARING LINER



INSPECTION PLUGS

1



1-5/8-12 Thread #20AN

Fits 9/16" Hex Wrench. Standard on all Winters Rears.

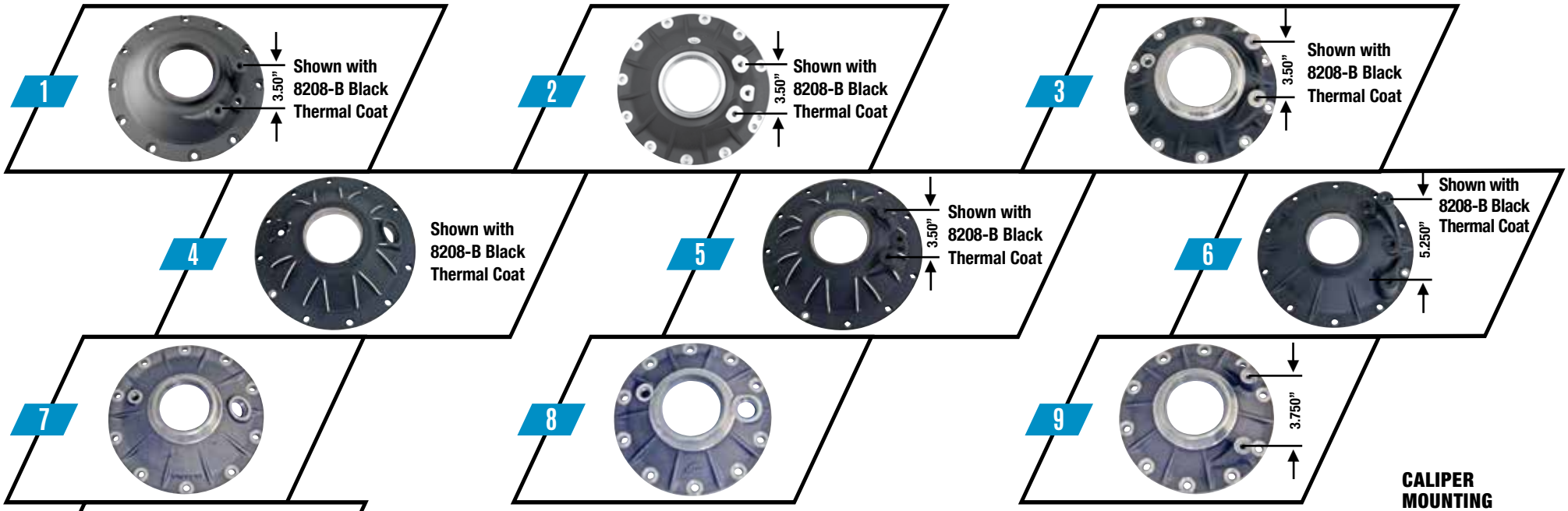
1. Large Inspection Plug Part No. 5290-01
2. Small Inspection Plug Part No. 6857-01



1-1/16-12 Thread #12AN

2

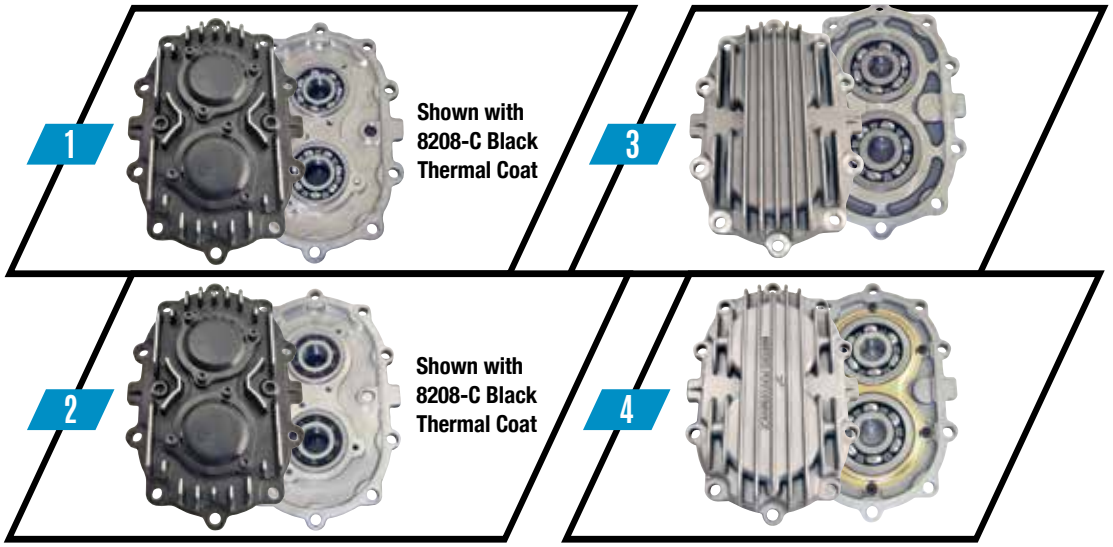
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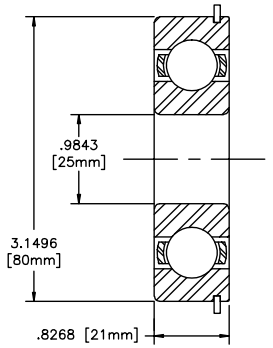


#	PART NO	DESCRIPTION	APPLICATION	CALIPER MOUNTING DISTANCE
1	6964-05	Aluminum Pro Eliminator Left Side Bell	Pro Eliminator Quick Change	3.50”
2	K6964-02	Magnesium Pro Eliminator Left Side Bell	Pro Eliminator Quick Change	3.50”
3	4094	Aluminum Left Side Bell	Outlaw V8 Quick Change, 3 Piece Outlaw V8 Super Modified	3.50”
3	K4094	Magnesium Left Side Bell	Outlaw V8 Quick Change, 3 Piece Outlaw V8 Super Modified, Outlaw V8-10	3.50”
4	K6745-01	Magnesium Right Side Bell	Sprint Quick Change, Super Modified Quick Change	
5	K6745-02	Magnesium Left Side Bell	Sprint Quick Change, Super Modified Quick Change	3.50”
6	K6724-02	Magnesium Left Side Bell	Pro Eliminator Midget Quick Change, Midget Quick Change	5.250”
7	K6724-01	Magnesium Right Side Bell	Midget Quick Change	
8	3304	Aluminum Right Side Bell	Pro Eliminator 7” Quick Change	
9	3344	Aluminum Left Side Bell	Pro Eliminator 7” Quick Change, TQ Midget Quick Change, Pro Eliminator Midget-7	3.750”
10	12060-02	Aluminum Left Side Bell	TQ Midget Quick Change	
10	K12060-02	Magnesium Left Side Bell	TQ Midget Quick Change	
11	12060-01	Aluminum Right Side Bell	TQ Midget Quick Change	
11	K12060-01	Magnesium Right Side Bell	TQ Midget Quick Change	

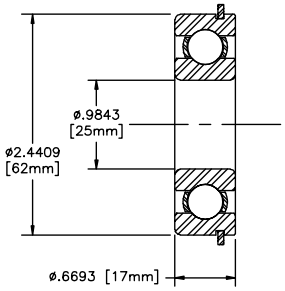
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GEAR COVERS

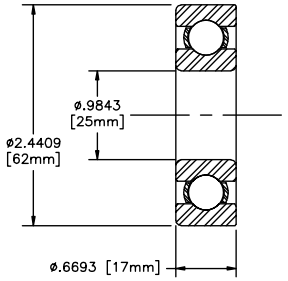




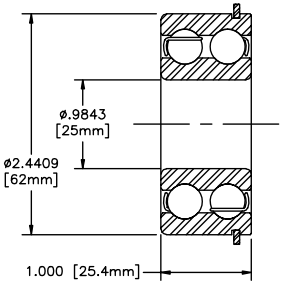
P/N 8659 / 7332



P/N 7524



P/N 7313



P/N 7521

#	PART NO W/ BRGS	PART NO W/O BRGS	DESCRIPTION	BEARING	BEARING CAP	CAP BOLT	CAP O'RING	RETAINER	RETAINER BOLT	GASKET	O'RING	OPTION
1	6746	6655	Standard Aluminum Sprint Cover, Tumbled	7524	1667	7842	7476	----------	----------	6729 or 6729HD	----------	8185
2	6630	6655HD	Heavy Duty Aluminum Sprint Cover, Tumbled	7521	1667	7955	7476	----------	----------	6729 or 6729HD	----------	8137
3	6508	6480	Aluminum Sprint Cover, Large Ball Bearing	7332	----------	----------	----------	----------	----------	6729 or 6729HD	----------	8168
3	K6508	K6480	Magnesium Sprint Cover, Large Ball Bearing	7332	----------	----------	----------	----------	----------	6729 or 6729HD	----------	8168
4	3736	6480-01	Aluminum Ultra HD Cover, Large Ball Bearing	8659	----------	----------	----------	3258	8087	6729 or 6729HD	----------	8252
4	K3736	K6480-01	Magnesium Ultra HD Cover, Large Ball Bearing	8659	----------	----------	----------	3258	8087	6729 or 6729HD	----------	8252
5	3792-01	2959	Aluminum Sprint Cover with Integral Pump	8659	----------	----------	----------	3258	8087	6729 or 6729HD	----------	8264
6	4873S	4872S	Billet Aluminum Cover with Skull Engraving	8659	----------	----------	----------	3258	8087	----------	8440	8252BS

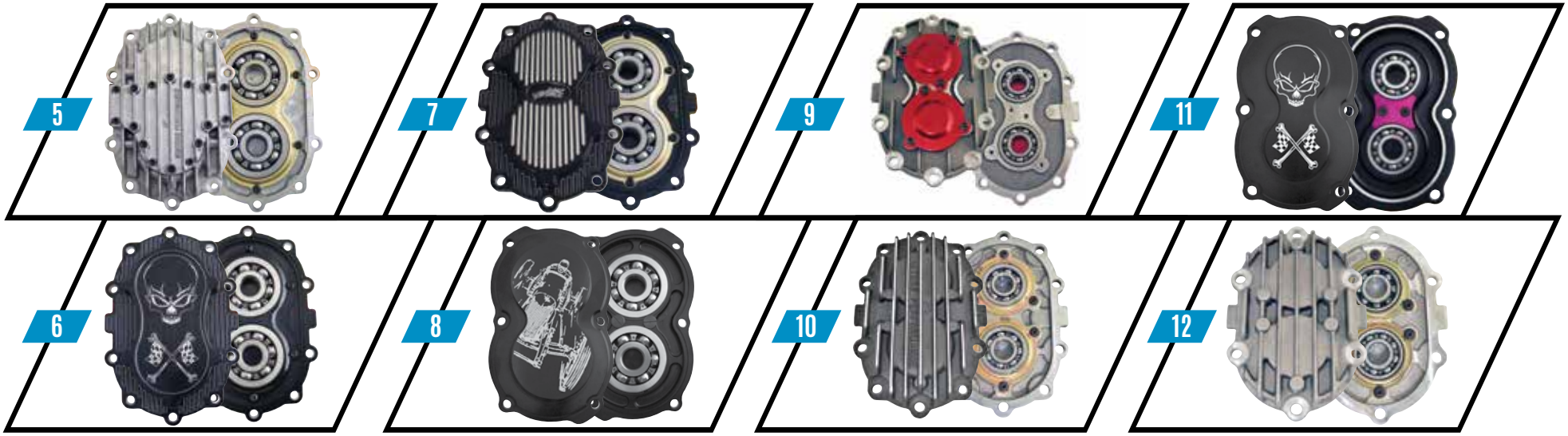
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CUSTOM ENGRAVING **PART NO. 4873L**

Option 8252BL

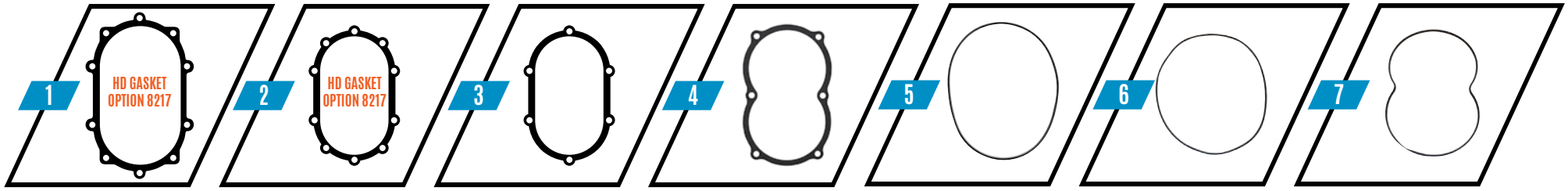
Tell us what you want on your cover - Sponsor Name/Logo, Driver Name, Car Number, etc. and we'll custom machine to your specs. Artwork files need to be sent in an Adobe Illustrator (.ai) File (Preferred), JPEG or PDF Format.

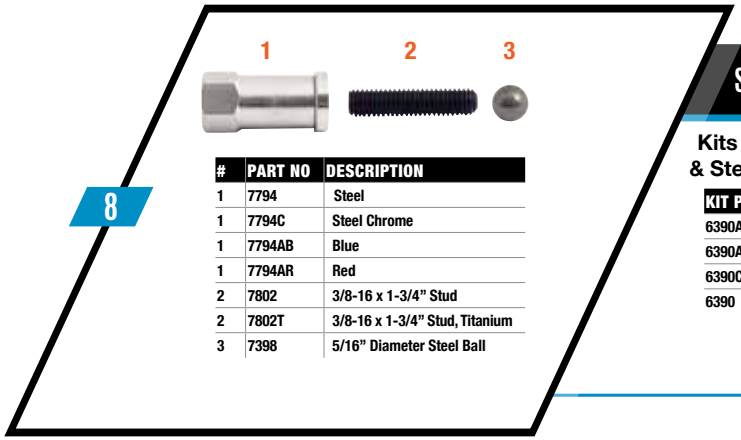


#	PART NO W/ BRGS	PART NO W/O BRGS	DESCRIPTION	BEARING	BEARING CAP	CAP BOLT	CAP O'RING	BACK-UP RING	RETAINER	RETAINER BOLT	GASKET	O'RING	OPTION
7	4873	4872	Billet Aluminum Outlaw V8 Cover, 1st Generation	8659	----------	----------	----------	----------	3258	8087	----------	8440	8252B
7	4873	4872	Billet Aluminum Outlaw V8 Cover, 2nd Generation	8659	----------	----------	----------	----------	3258	8087	----------	8478	8252B
7	4873L	4872L	Billet Aluminum Outlaw V8 Cover with Custom Engraving	8659	----------	----------	----------	----------	3258	8087	----------	8478	8252BL
8	12175	12175B	Billet Aluminum Sprint Cover, 6 Bolt, Large Ball Bearing	8659	----------	----------	----------	----------	----------	12417	12185	8447	--------
9	K6915	K6718	Magnesium Midget Cover	7532	1950	7850	7424	----------	----------	----------	6703 or 6703HD	----------	--------
10	3225	3056	Straight Finned Midget Cover with Bearing Retainers	7532	----------	----------	----------	----------	3059	8087	6703 or 6703HD	----------	8225
11	12612	12179	Billet Aluminum Midget Cover, 6 Bolt	7532	----------	----------	----------	----------	12178	7143	12212	12180	--------
12	3342	3342B	Seven Inch Cover, 2nd Generation, 2.0472" Bearing O.D.	7532	----------	----------	----------	----------	2957	8087	3343	----------	--------

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GEAR COVER COMPONENTS





#	PART NO	DESCRIPTION
1	7794	Steel
1	7794C	Steel Chrome
1	7794AB	Blue
1	7794AR	Red
2	7802	3/8-16 x 1-3/4" Stud
2	7802T	3/8-16 x 1-3/4" Stud, Titanium
3	7398	5/16" Diameter Steel Ball

STANDARD HIGH NUT KITS

Kits include High Nuts, Studs & Steel Balls (10 ea.)

KIT PART NO	DESCRIPTION
6390AB	Blue
6390AR	Red
6390C	Steel Chrome
6390	Steel

#	PART NO	DESCRIPTION
1	7794ASBK	Black
1	7794ASM	Metallic
1	7794ASR	Red
2	7802	3/8-16 x 1-3/4" Stud
2	7802T	3/8-16 x 1-3/4" Stud, Titanium
3	7398	5/16" Diameter Steel Ball

SHORT HIGH NUT KITS

Kits include High Nuts, Studs & Steel Balls (10 ea.)

KIT PART NO	DESCRIPTION
6390ASBK	Black
6390ASM	Metallic
6390ASR	Red



#	PART NO	DESCRIPTION
1	6729	Sprint Center Gear Cover Gasket
1	6729HD	Heavy Duty Sprint Center Gear Cover Gasket
2	6703	Midget Gear Cover Gasket
2	6703HD	Heavy Duty Midget Gear Cover Gasket
3	3343	7" Gear Cover Gasket
4	12185	6 Bolt Gear Cover Gasket
5	8440	O'Ring, Billet Aluminum Gear Cover Part No. 4873, 1st Generation
5	8478	O'Ring, Billet Aluminum Gear Cover Part No. 4873, 2nd Generation

#	PART NO	DESCRIPTION
6	8447	O'Ring, Billet Aluminum Sprint Cover Part No. 12175, 6 Bolt
7	12180	O'Ring, Billet Aluminum Midget Cover Part No. 12179, 6 Bolt
8*	6390A	Aluminum High Nut & Stud Kit
8*	6390AT	Aluminum High Nut & Titanium Stud Kit
9*	6390AS	Aluminum Short High Nut & Stud Kit
9*	6390AST	Aluminum Short High Nut & Titanium Stud Kit
10	7874S	Steel Level Plug

*Specify Color. See Above.

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10” STANDARD PINION BEARING, 12 BOLT





Posi-Lock Option 8104 greatly simplifies pinion installation and bearing preload maintenance adjustment, eliminating the need for special adjustment tools. Required on Sprint Center.

Part No. 6498R Right Hand Thread (Sold Separately) **Part No. 6498L** Left Hand Thread (Sold Separately) **Option 8104S** Steel Posi-Lock Nut

RATIO	PART NO. W/O BRGS	PART NO. W/BRGS
4.12	5714	5715
4.57	51457	52457
4.86	5400	5401

OPTIONS

Option 8202-XXX Ultralight EDM Ring Gear
Option 8218-RP REM® Process
Option 8218-BRG REM® Bearing

#	PART NO	DESCRIPTION
1	6484	Posi-Lock Retainer
2	7445	O’Ring
3	6485R	Posi-Lock Nut 1-5/16-20-2B Thread
4	5055	Washer
5	7308	Bearing
6	7307	Race
7	7312	Ball Bearing

8” 4.11 PINION BEARING, 12 BOLT





ASSEMBLY PART NO. 65411SB (1st Generation, Outlaw V8 Assembly)
ASSEMBLY PART NO. 65411SC (2nd Generation, Outlaw V8-10 Assembly)

WANT REAL LOW DRAG? STICK THIS IN YOUR REAR!
Our 8” Ring Gear is 20% smaller and 20% lighter than a 10”, thus reducing flywheel and unsprung weight. From a performance standpoint, this 8” Ring Gear will accelerate and de-accelerate quicker than a 10”. All cars will benefit, lower horsepower cars can expect more gain than higher horsepower cars.

#	PART NO	DESCRIPTION
1	1807	Posi-Lock Retainer
2	7445	O’Ring
3	1806	Posi-Lock Nut 1-5/16-20-2B Thread
4	5055	Washer
5	7527	Outer Roller Bearing
6	8622	Race
7	4871	Pinion Cup, 1st Generation
8	7308	Inner Roller Bearing
9	4871-01	Pinion Cup, 2nd Generation

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10” FLANGED PINION RACE, 10 BOLT





ASSEMBLY PART NO. 2380 (#’S 1-7)

Add **Option 8191 & Option 8104** to Standard Ring & Pinion

#	PART NO	DESCRIPTION
1	6484	Posi-Lock Retainer
2	7445	O’Ring
3	6485R	Posi-Lock Nut
4	5055	Washer
5	7308	Roller Bearing
6	7528	Flanged Bearing Race
7	7312	Ball Bearing

An improvement in pinion stability, assuring pinion alignment under the worst conditions. Can be used with standard 10”, 12 bolt ring & pinion ratios. One piece flanged bearing race eliminates the need for separate spacer ring and retaining plate.

LOCK TAB **PART NO. 2374**



Fits all 10” except 3.08

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8-3/8" FLANGED PINION BEARING, 10 BOLT





RATIO	PART NO. W/O BRGS	PART NO. W/BRGS
*3.78	*6811R	*6812R
3.78	6811	6812
4.11	21411	22411
4.33	6813	6814

RATIO	PART NO. W/O BRGS	PART NO. W/BRGS
4.88	6815	6816
5.13	6817	6818
5.38	6819	6820

#	PART NO	DESCRIPTION
1	6822	Posi-Lock Retainer
2	7455	O'Ring
3	6821	Posi-Lock Nut
4	6824	Washer
5	7527	Roller Bearing
6	7525	Flanged Bearing Race
7	7392	Roller Nose Bearing

P/N 7868S Short Ring Gear Bolt Kit

7" STANDARD PINION BEARING





ASSEMBLY PART NO. 12378

- Flanged bearing for critical support and retention of the bearing race to the center section.
- The roller bearings have 40% greater load capacity.
- This bearing set allows a mammoth radius at the juncture of the pinion shaft and pinion gear head.
- The pinion shaft was redesigned to eliminate stress risers at critical areas.
- Pinion bearings are spread to the max.
- Includes posi-lock.

#	PART NO	DESCRIPTION
1	12574	Steel Posi-Lock Retainer
2	7455	O'Ring
3	6821-03	Posi-Lock Nut
4	3308	Washer
5	8609	Roller Bearing
6	3307	Flanged Bearing Race

P/N 7868S Short Ring Gear Bolt Kit

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AXLES - 42 SPLINE

STANDARD ALUMINUM AXLE **PART NO. 5778A**



WEST COAST SUPER MODIFIED ALUMINUM AXLE **OPTION 8122ASPC**



SUPER MODIFIED ALUMINUM AXLE **OPTION 8122A-60-19**



PART NO	DESCRIPTION	HUB SPLINE	BRAKE MOUNT SPLINE	BORE	SPLINED BEARING SHOULDER
5778A	Standard Aluminum Sprint Live	42	46	1.750”	Yes
5778L	Lightweight Aluminum Sprint Live	42	46	1.875”	Yes
5778UL	Ultralight Aluminum Sprint Live	42	46	2.062”	Yes
5778A-54-4	Aluminum 54-4	42	46	1.750”	N/A
5778ASPC	Aluminum Custom Axle	42	46	----------	Yes
5778A-60-18	Aluminum Super Modified 60-18	42	N/A	1.188”	N/A
5778A-60-19	Aluminum Super Modified 60-19	42	N/A	1.188”	N/A
5778A-56K-18	Aluminum Super Modified 56K-18	42	46	1.625”	N/A

AXLE SEAL INSTALLATION TOOL

PART NO. 12134



Installing this on your axle before placing it into your center section will eliminate your axle from snagging on the side bell seal.





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IMPORTANT ORDERING INFORMATION

WHEN ORDERING

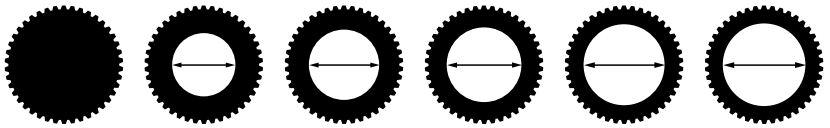
- Specify Axle Size, Offset & Material
- Use Relevant Axle Specification Form Found On Pages 118-121

WHEN RE-ORDERING

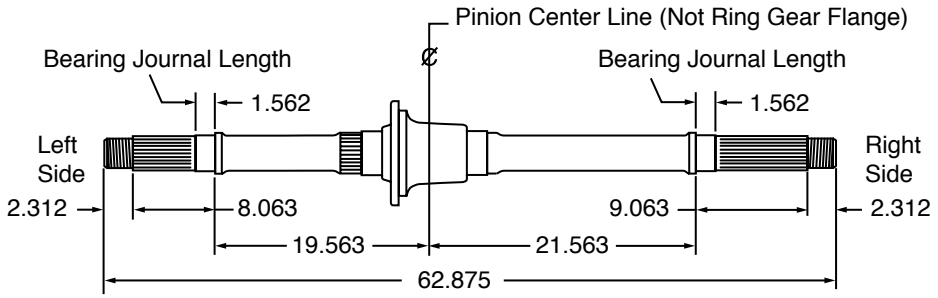
- Include The Axle Number Stamped By The Right Hand Bearing Journal

Winters does not make recommendations. Order axle I.D. and material relative to the type of car and type of racing, along with track conditions and the surface you race on. Weight of the car and speed are relative. See Machinery Handbook for strengths of metals, published by Industrial Press Inc., New York.

AXLES ARE GUNDRILLED TO YOUR SPECS



MOST POPULAR SPRINT OFFSET **52-1**



OPTIONS

8122	Aluminum Axle, Specify Offset
8122-52-1	Aluminum Axle, Sprint, 52-1
8122-52-2	Aluminum Axle, Sprint, 52-2
8122-54-4	Aluminum Axle, Sprint, 54-4
8122USAC	Aluminum Axle, USAC®
8122A-60-18	Aluminum Axle, Super Modified, 60-18
8122A-60-19	Aluminum Axle, Super Modified, 60-19
8122ASPC	Aluminum Axle, Special
8122AMOD-58-4	Aluminum Axle, Modified, 58-4
8122-Custom	Custom Aluminum Axle
8153	Lightweight Aluminum Axle
8153-52-1	Lightweight Aluminum Axle, 52-1
8153ASPC	Lightweight Aluminum Axle, Custom
8153UL	Ultralight Aluminum Axle
8158	Splined for Brake Mount, Right Side
9107	Solid Axle

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AXLES - 31 & 36 SPLINE

HEAVY DUTY 36 SPLINE MIDGET AXLE **OPTION 8160**



ULTRALIGHT 36 SPLINE MIDGET AXLE **OPTION 8160UL**



STANDARD 31 SPLINE MIDGET AXLE **OPTION 8122**



MINI TRACK 31 SPLINE AXLE **PART NO. 6917**



PART NO	DESCRIPTION	HUB SPLINE	BRAKE MOUNT SPLINE	BORE
**6760A	Aluminum Heavy Duty Midget Live Axle	36	38	1.375”
**6760AUL	Aluminum Ultralight Midget Live Axle	36	38	1.500”
6760ASPC	Aluminum Custom Heavy Duty Midget Live Axle	36	38	1.375”
**6778A	Aluminum Standard Midget Live Axle	31	38	1.188”
6778ASPC	Aluminum Custom Midget Live Axle	31	38	----------
6917	Aluminum Mini Track Axle	31	N/A	1.188”
6917-TQ	Aluminum Mini Track Axle, TQ Midget	31	N/A	1.188”

** Specify Offset 44-1, 44-3, 51-2

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IMPORTANT ORDERING INFORMATION

WHEN ORDERING

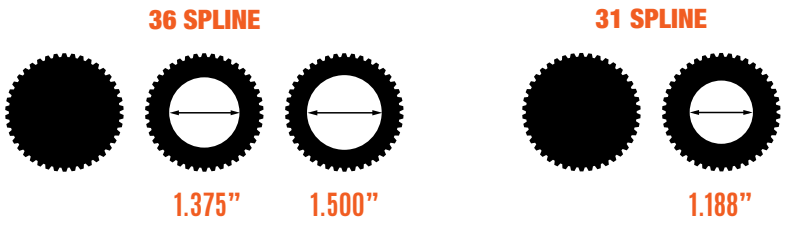
- Specify Axle Size, Offset & Material
- Use Relevant Axle Specification Form Found On Pages 118-121

WHEN RE-ORDERING

- Include The Axle Number Stamped By The Right Hand Bearing Journal

Winters does not make recommendations. Order axle I.D. and material relative to the type of car and type of racing, along with track conditions and the surface you race on. Weight of the car and speed are relative. See Machinery Handbook for strengths of metals, published by Industrial Press Inc., New York.

AXLES ARE GUNDRILLED TO YOUR SPECS

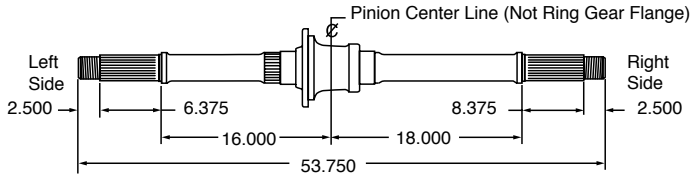


OPTIONS

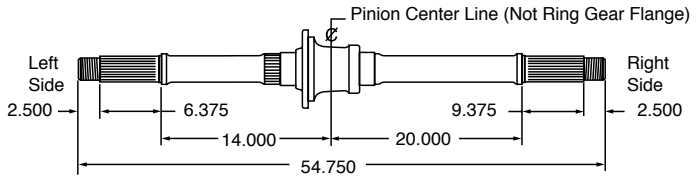
8122	Aluminum Axle, Specify Offset
8122-44-1	Aluminum Axle, Midget, 44-1
8122-44-3	Aluminum Axle, Midget, 44-3
8122ASPC	Aluminum Axle, Special
8122-TQ	Aluminum Axle, TQ Midget
8158	Splined for Brake Mount, Right Side
8160	Heavy Duty Aluminum Axle, 36 Spline
8160-44-1	Heavy Duty Aluminum Axle, 36 Spline, 44-1
8160-44-3	Heavy Duty Aluminum Axle, 36 Spline, 44-3
8160UL	Ultralight Axle, 36 Spline
8160ASPC	Custom Heavy Duty Aluminum Axle, 36 Spline
9107	Solid Axle

DIMENSIONAL INFORMATION

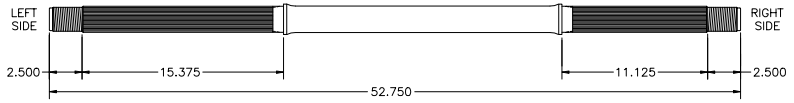
44-1, 31 SPLINE



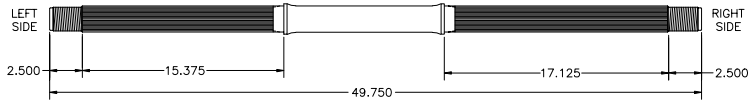
44-3, 31 SPLINE



MINI TRACK, 31 SPLINE



MINI TRACK, 31 SPLINE, TQ



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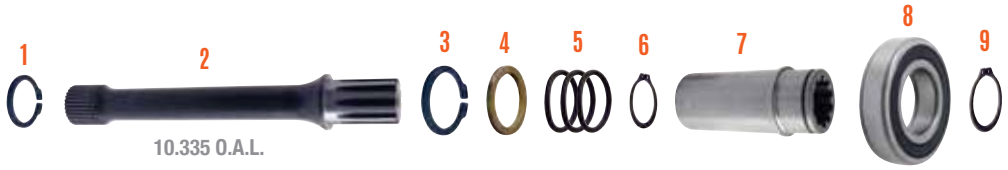
10” & V8 STUB SHAFT K837S K1037S-6 K848S-V8 K858S-V8



#	PART NO	DESCRIPTION
1	6250	Stub Shaft
1	6250VHD	Stub Shaft, VascoMax®
1	6250HD	Stub Shaft, Super Modified
2	7347	1/4” Diameter Steel Detent Ball
3	6318	Detent Spring
4	7637	External Snap Ring

#	PART NO	DESCRIPTION
5	6265	Sliding Coupler
6	7392	Small Bearing, Stationary Coupler
7	6252	Stationary Coupler
8	7391	Ball Bearing, Stationary Coupler
9	8313	Retaining Ring, Stationary Coupler

10” INTERNAL COUPLER **OPTION 8163, 8163A OR 8163-32** K837S K1037S-6



Reference Exploded View on Page 4

#	PART NO	DESCRIPTION
1	7660	Retaining Ring
2	6678-01	Steel Shaft
2	6678-03	Heat Treated Shaft
2	6678T	Titanium Shaft
3*	7645	Retaining Ring, Spacer
4*	1724	Spacer
5	7452	O’Ring (3 Needed)

#	PART NO	DESCRIPTION
6**	7664	Internal Snap Ring, Internal Coupler
7	6676	Steel Internal 10-10 Coupler
7	6676A	Aluminum Internal 10-10 Coupler
7	6676-32	Steel Internal 10-32 Coupler
8	7531	Bearing
9	7657	Retaining Ring
10	3054	Lower Shaft, Internal Coupler, Non-Shifter, 10” (Not Shown)

* For Use With Titanium Shaft (6678T) Only
** Not Used In 10-32 Coupler

10” SWIVEL LOWER SHAFT K837S K1037S-6



Reference Exploded View on Page 4

#	PART NO	DESCRIPTION
1	7660	Retaining Ring
2	2973	Steel Lower Shaft
2	2973T	Titanium Lower Shaft
3	7531	Sealed Ball Bearing

#	PART NO	DESCRIPTION
4	2975	Swivel Coupler
5	7918	Core Plug
6	8337	Retaining Ring

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10” EXTERNAL COUPLER **OPTION 8141**

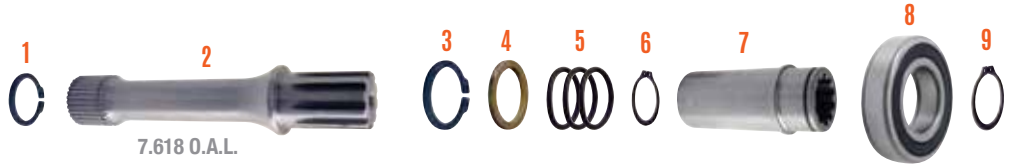


Reference Exploded View on Page 4

#	PART NO	DESCRIPTION
1	7605	Retaining Ring
2	6249	Standard Shaft, Shifter
2	6249HT	Heat Treated Shaft, Shifter
2	6249T	Titanium Shaft, Shifter

#	PART NO	DESCRIPTION
3	7383F	Front Bearing
4	5987	Steel 10-10 Coupler
4	5987A	Aluminum 10-10 Coupler

V8 INTERNAL COUPLER WITHOUT ADAPTER K848S-V8



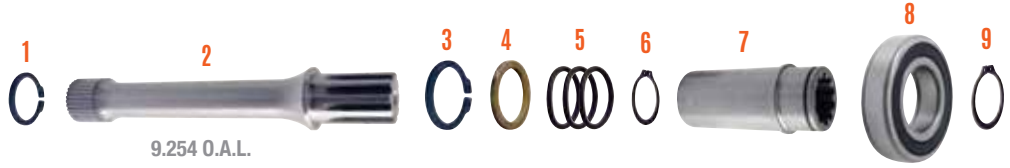
Reference Exploded View on Page 16

#	PART NO	DESCRIPTION
1	7660	Retaining Ring
2	4653-01	Steel Shaft
2	4653T-01	Titanium Shaft
3*	7618	Retaining Ring, Spacer
4*	1724	Spacer
5	7452	O’Ring (3 Needed)

#	PART NO	DESCRIPTION
6**	7664	Internal Snap Ring, Internal Coupler
7	6676	Steel Internal 10-10 Coupler
7	6676A	Aluminum Internal 10-10 Coupler
7	6676-32	Steel Internal 10-32 Coupler
8	7531	Bearing
9	7657	Retaining Ring

* For Use With Titanium Shaft (6678T) Only
** Not Used In 10-32 Coupler

V8 & OUTLAW V8-10 INTERNAL COUPLER WITH ADAPTER K848S-V8 K858S-V8



Reference Exploded View on Page 12 or 16

#	PART NO	DESCRIPTION
1	7660	Retaining Ring
2	4307-01	Steel Shaft
2	4307T-01	Titanium Shaft
3*	7618	Retaining Ring, Spacer
4*	1724	Spacer
5	7452	O’Ring (3 Needed)

#	PART NO	DESCRIPTION
6**	7664	Internal Snap Ring, Internal Coupler
7	6676	Steel Internal 10-10 Coupler
7	6676A	Aluminum Internal 10-10 Coupler
7	6676-32	Steel Internal 10-32 Coupler
8	7531	Bearing
9	7657	Retaining Ring

* For Use With Titanium Shaft (6678T) Only
** Not Used In 10-32 Coupler

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V8 SWIVEL LOWER SHAFT WITHOUT ADAPTER K848S-V8



Reference Exploded View on Page 16

#	PART NO	DESCRIPTION
1	7660	Retaining Ring
2	4653	Steel Lower Shaft
2	4653T	Titanium Lower Shaft
3	7531	Sealed Ball Bearing

#	PART NO	DESCRIPTION
4	7619	Retaining Ring
5	2975	Swivel Coupler
6	7918	Core Plug
7	8337	Retaining Ring

V8 & OUTLAW V8-10 SWIVEL LOWER SHAFT WITH ADAPTER K848S-V8 K858S-V8



Reference Exploded View on Page 12 or 16

#	PART NO	DESCRIPTION
1	7660	Retaining Ring
2	4307	Steel Lower Shaft
2	4307T	Titanium Lower Shaft
3	7531	Sealed Ball Bearing

#	PART NO	DESCRIPTION
4	7619	Retaining Ring
5	2975	Swivel Coupler
6	7918	Core Plug
7	8337	Retaining Ring

V8 EXTERNAL LOWER SHAFT



#	PART NO	DESCRIPTION
1	7605	Retaining Ring, Steel
1	7660	Retaining Ring, Titanium
2	4902	Standard Shaft, Shifter
2	4902T	Titanium Shaft, Shifter
3	7390	Front Bearing

8-3/8" STUB SHAFT K237S K247S



#	PART NO	DESCRIPTION
1	6728	Stub Shaft, Shifter
2	7347	1/4" Diameter Steel Detent Ball
3	6318	Detent Spring
4	6781	Sliding Coupler

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8-3/8" INTERNAL COUPLER (FOR USE WITH 3.78 & 4.33 RATIOS ONLY) K237S K247S



* Titanium Shaft Retaining Ring Part No. 7645

Reference Exploded View on Page 48

#	PART NO	DESCRIPTION
1	7530	Brass Bushing
2	7610	Retaining Ring, Steel
2	7645	Retaining Ring, Titanium
3	6731	Steel Shaft
3	6731-03	Heat Treated Shaft
3	6731T	Titanium Shaft

#	PART NO	DESCRIPTION
4	7418	O'Ring (2 Needed)
5	7664	Internal Snap Ring, Internal Coupler
6	6732	Steel Internal 10-10 Coupler
6	6732A	Aluminum Internal 10-10 Coupler
7	7531	Bearing

8-3/8" SWIVEL LOWER SHAFT K237S K247S



* Titanium Shaft Retaining Ring Part No. 7645

Reference Exploded View on Page 48

#	PART NO	DESCRIPTION
1	7530	Brass Bushing
2	7610	Retaining Ring, Steel
2	7645	Retaining Ring, Titanium
3	3875	Steel Lower Shaft
3	3875T	Titanium Lower Shaft

#	PART NO	DESCRIPTION
4	7531	Sealed Ball Bearing
5	7619	Retaining Ring
6	2975	Swivel Coupler
7	7918	Core Plug
8	8337	Retaining Ring

8-3/8" EXTERNAL LOWER SHAFT K237S K247S



Reference Exploded View on Page 48

#	PART NO	DESCRIPTION
1	7530	Brass Bushing
2	7605	Retaining Ring
3	6912-01	Standard Shaft, Shifter
3	6912-03	Heat Treated Shaft, Shifter

#	PART NO	DESCRIPTION
3	6912T	Titanium Shaft, Shifter
4	7610	Retaining Ring
5	7383F	Front Bearing

PRO ELIMINATOR MIDGET-7 INTERNAL LOWER SHAFT



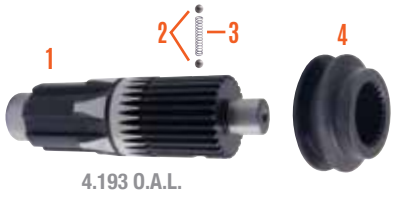
#	PART NO	DESCRIPTION
1	7530	Brass Bushing
2	7605	Retaining Ring
3	12182	Standard Shaft, Shifter
4	7418	O'Ring (2 Needed)

#	PART NO	DESCRIPTION
5	7664	Internal Snap Ring, Internal Coupler
6	6732	Steel Internal 10-10 Coupler
6	6732A	Aluminum Internal 10-10 Coupler
7	7531	Bearing

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STUB SHAFTS, LOWER SHAFTS & DRIVE SHAFTS

7" STUB SHAFT



#	PART NO	DESCRIPTION
1	3311	Stub Shaft
2	7347	1/4" Diameter Steel Detent Ball
3	3323	Detent Spring
4	3319	Sliding Coupler

TQ MIDGET & 7" NON-SHIFTER



#	PART NO	DESCRIPTION
1	7605	Retaining Ring
2	3340	Standard Shaft
3	7383F	Front Bearing

TQ MIDGET & 7" SHIFTER



#	PART NO	DESCRIPTION
1	8612	Brass Bushing
2	7634	Retaining Ring, Steel
3	12182	Steel Shaft
4	7418	O'Ring (2 Needed)

#	PART NO	DESCRIPTION
5	7664	Internal Snap Ring, Internal Coupler
6	6732	Steel Internal 10-10 Coupler
6	6732A	Aluminum Internal 10-10 Coupler
7	7531	Bearing

DRIVE SHAFTS



Made from solid stock, Winters Gundrilled Driveshafts are far superior to "tubular" or "hollow" driveshafts, which are made from tubing, not solid stock.

PART NO	DESCRIPTION
5988	Steel, Solid 10-16 Spline, 1.125" O.D.
5988G	Steel, Gundrilled 10-16 Spline, 1.125" O.D.
*5988-32G	Steel, Gundrilled 32-32 Spline, 1.338" O.D.
*5991TG	Titanium, Gundrilled 32-32 Spline, 1.338" O.D.

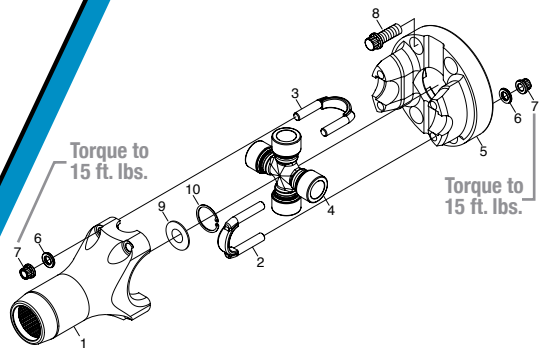
PART NO	DESCRIPTION
5988T	Titanium, 10-16 Spline, 1.240" O.D.
5988TG	Titanium, Gundrilled 10-16 Spline, 1.240" O.D.
5990	Steel, Solid 16-16 Spline

* Use with 10-32 Coupler Part No. 6676-32 & Seal Part No. 7280-32

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HERCULES HEAVY DUTY SLIP YOKE ASSEMBLY





ASSEMBLY PART NO. 4950-16 16 Spline
ASSEMBLY PART NO. 4950-32 32 Spline

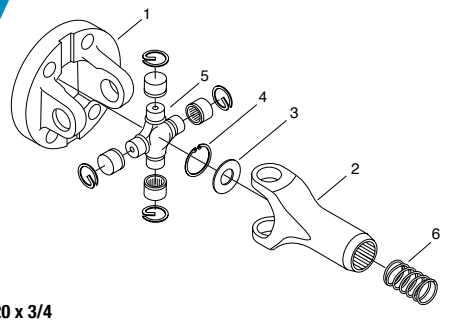
This heavy duty yoke and crank flange design capsulate's and centers joint assembly. U-bolts securely retain joint assembly eliminating c-clips. Five axis CNC machined from 7075 Billet Aluminum.

#	PART NO	DESCRIPTION	QTY
1	4865-16	Aluminum Slip Yoke, 16 Spline	1
1	4865-32	Aluminum Slip Yoke, 32 Spline	1
2	4935	U-Bolt, Long, Machined	2
3	3655M	U-Bolt, Short, Machined	2
4	6847	Journal Assembly, 1310 Series	1
5	4862	Aluminum Crank Flange	1

#	PART NO	DESCRIPTION	QTY
6	7760	Lockwasher	8
7	8884	5/16-24 12pt Nut	8
8	7739	7/16-20 x 1" FHCS	4
9	3696-32	Washer	1
10	8831	Retaining Ring	1

SLIP YOKE ASSEMBLIES





Bolts (4)
P/N 7740
12 pt, 7/16-20 x 3/4

All assemblies come complete with a Spicer® greaseable 5-153X U-Joint Cross and are available with a non-greaseable 5-625X Solid Heavy Duty U-Joint upon request.

AVAILABLE ASSEMBLIES

#	PART NO	DESCRIPTION
1	3700	Forged Aluminum Assembly
1	3700-2	Steel Slip Yoke & Forged Aluminum Crank Flange Assembly
1	3700-27	Midget Forged Aluminum Assembly, 27 Spline Slip Yoke
1	3700-32	Sprint Forged Aluminum Assembly, 32 Spline Slip Yoke
2	3700-1	Steel Slip Yoke & Forged Steel Crank Flange Assembly
2	3700-3	Forged Aluminum Slip Yoke & Forged Steel Crank Flange Assembly
2	3700-3-32	Sprint 32 Spline Slip Yoke & Steel Crank Flange Assembly
2	3700-3T-27	Midget 27 Spline Slip Yoke & Titanium Crank Flange Assembly
2	3700-3T-32	Sprint 32 Spline Slip Yoke & Titanium Crank Flange Assembly
2	3700-2T-32T	Sprint 32 Spline Titanium Slip Yoke & Titanium Crank Flange Assembly

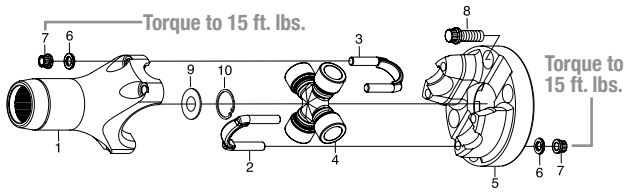
#	PART NO	DESCRIPTION	QTY
1	3453-01	Aluminum Flange	1
1	3702	Steel Flange	1
2	3494	Aluminum Slip Yoke	1
2	3494-32	Aluminum Slip Yoke 32 Spline	1
2	6133-1	Steel Slip Yoke	1
3	3696	Washer	1
3	3696-32	Washer, 32 Spline	1
4	7632	Retaining Ring	1
4	8831	Retaining Ring, 32 Spline	1
5	5382	Journal Assembly	1
6	5269	Drive Line Spring	1

HERCULES SUPER HEAVY DUTY 1350 SERIES SLIP YOKE ASSEMBLY



ASSEMBLY PART NO. 4950-1350 32 Spline

The Hercules 1350 Series U-Joint is at minimum 50% STRONGER when compared to a 1310 Series, making it the strongest sprint car u-joint ever built! U-Bolts securely retain the 1350 joint. The 32 spline slip yoke uses our large diameter, 32 spline drive shaft (page 60). Pair with our optional 10-1/2" Torque Ball (page 62) for increased contact surface.



#	PART NO	DESCRIPTION	QTY
1	12335	Aluminum Slip Yoke, 32 Spline	1
2	12342	U-Bolt, Long, Machined	2
3	12341	U-Bolt, Short, Machined	2
4	6997	Journal Assembly, 1350 Series	1

#	PART NO	DESCRIPTION	QTY
5	12334	Aluminum Crank Flange	1
6	7760	Lockwasher	8
7	8884	5/16-24 12pt Nut	8
8	7739	7/16-20 x 1" FHCS	4

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TORQUE BALL ASSEMBLIES

1



- Assembly Weighs 5 Lbs
- Cast Aluminum Firewall Housing
- Aluminum Torque Ball
- Rubber Torque Ball Boot
- Billet Aluminum Retaining Collar



OPTION 9144-105
P/N 12482 Longer Ball
5" Ball Diameter
10-3/8" Shank Length
13" Overall Length
Add Option when ordering.

2



- Assembly Weighs 4 Lbs 2 Oz
- Stamped Steel Firewall Housing
- Hydroformed Aluminum Torque Ball
- Rubber Torque Ball Boot
- Forged Aluminum Retaining Collar

5/16-18"x1-1/4" SHCS



OPTION 9144
P/N 12483 Longer Ball
4-1/2" Ball Diameter
10-3/4" Shank Length
13-1/8" Overall Length
Add Option when ordering.

3



- Assembly Weighs 4 Lbs 12 Oz
- Steel Firewall Housing
- Hydroformed Aluminum Torque Ball
- Rubber Torque Ball Boot
- Forged Aluminum Retaining Collar

5/16-18"x1/2" SHCS



OPTION 9144
P/N 12483 Longer Ball
4-1/2" Ball Diameter
10-3/4" Shank Length
13-1/8" Overall Length
Add Option when ordering.

4



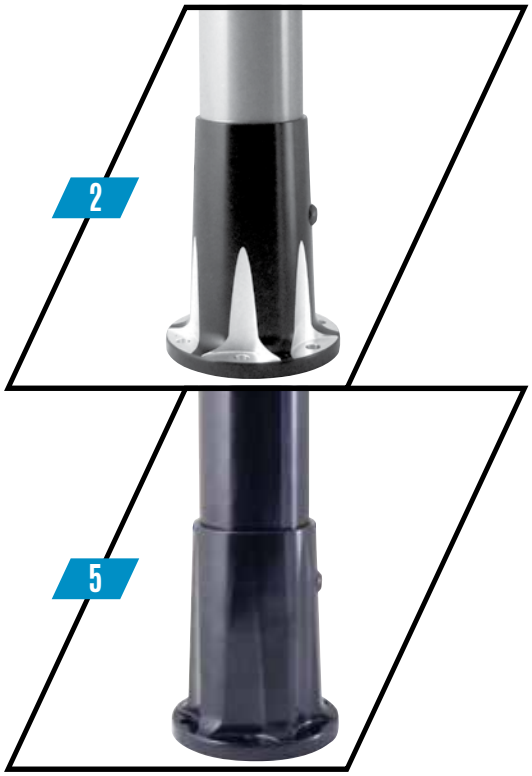
- Assembly Weighs 3 Lbs 6 Oz
- Stamped Steel Firewall Housing
- Hydroformed Aluminum Torque Ball
- Rubber Torque Ball Boot
- Forged Aluminum Retaining Collar

5/16-18"x1-1/4" SHCS

#	ASSEMBLY PART NO	DESCRIPTION	FIREWALL HOUSING	TORQUE BALL	TORQUE BALL DIA.	TORQUE BALL SHANK LENGTH	OVERALL TORQUE BALL LENGTH	TORQUE BALL BOOT	RETAINING COLLAR	HIGH NUT	STUD	Insert
1	12584	1350 Series Torque Ball Assembly	12340	12337	5"	6-3/8"	9"	12444	12339	----------	----------	
2	4605	1310 Series Torque Ball Assembly	12014	4064	4-1/2"	6-7/8"	9-1/8"	12481	4267	4321	7853 (Qty 4)	8814 (Qty 4)
3	4609	1310 Series Torque Ball Assembly	4326HD	4064	4-1/2"	6-7/8"	9-1/8"	12481	4089	----------	8715 (Qty 4)	
4	4605M	Midget Torque Ball Assembly	12014	4635	4-1/2"	6-1/2"	9-1/8"	4227-01	4267	4321	7853 (Qty 4)	8814 (Qty 4)

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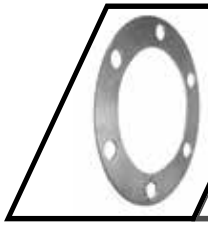




#	ASSEMBLY PART NO	DESCRIPTION	TUBE PART NO	COLLAR PART NO
1	6661-02	Aluminum Collar, 3" 6061-T6 Aluminum Tube - 27-3/4"	6660	6540
1	6661-07	Aluminum Collar, 3" 7075 Aluminum Tube - 27-3/4"	6660HD	6540
2	6661-02HT	Aluminum Collar, 3" Hard Teflon Aluminum Tube - 27-3/4"	6660HT	6540
3	6844SS	Midget Swivel Spline Tube	6832	3876
4	6844	Midget Aluminum Collar, Aluminum Tube - 22", 25", 27"	6832	6734
5	6844-300	Midget Aluminum Collar, 3" Aluminum Tube	6660	12272
6	3314	Aluminum Tube, 7" Quick Change	6832	3315

OPTION 8293
Torque Tube Bored for 2.625" I.D.
(I.D. Fit)

PART NO. 3627
Torque Tube Stud Kit
Includes: (6) Part No. 7151 Washer, (6) Part No. 7191 Stud & (6) Part No. 7882 Nut

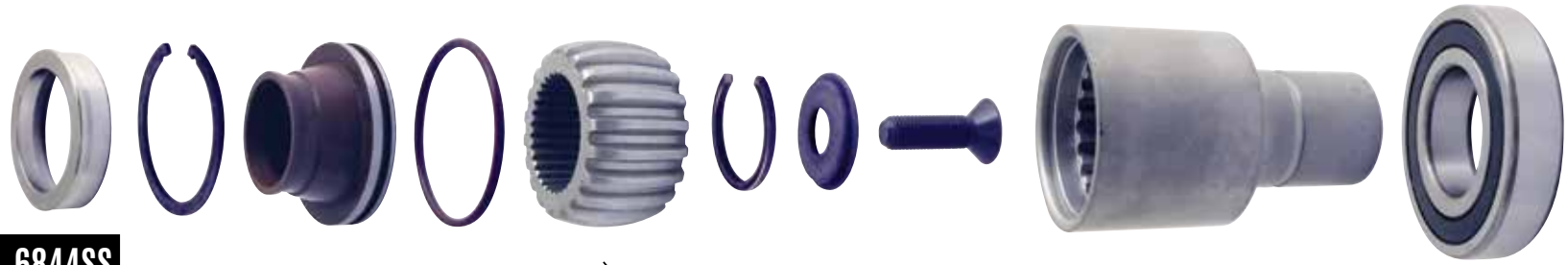


TORQUE TUBE SHIM

PART NO. 2724-XX (Sprint)
PART NO. 2726-XX (Midget)
Specify -36 for .036" Shim, -30 for .030" Shim or -24 for .024" Shim. Example: 2724-30 = .030" Sprint Shim

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SPRINT & MIDGET INSTALLATION KIT **PART NO. 4282** (INCLUDES #S 13-16)



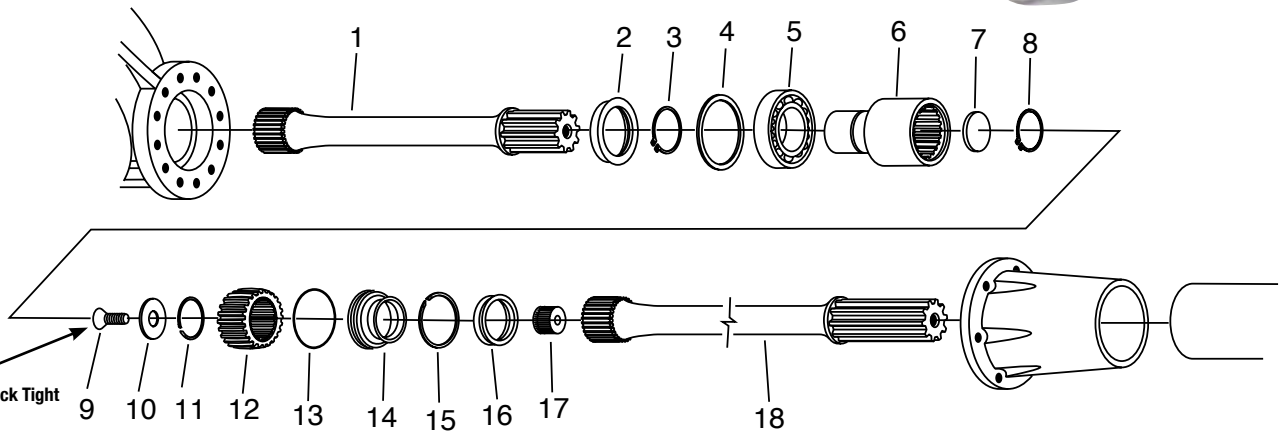
PART NO. 6844SS
Customer needs To Specify Length When Ordering



ALUMINUM MIDGET TORQUE TUBE
Must be used with Midget Swivel Spline Application.



Use T45 TORX 3/8" Drive Torque 45' Pounds with Red Lock Tight



32 SPLINE INSTALLATION KIT **PART NO. 4282-32** (INCLUDES #S 13-16)

These track tested assemblies eliminate drive line bind, improving spline wear and retrofit in all Winters 10" and 8-3/8" Shifter Rears. Improved spline wear: 28 Spline Lower Shaft replaces 10 Spline, 31-16 Spline Driveshaft replaces 10-16 Spline, or 32-32 Spline Driveshaft replaces 31-16 Spline.

IMPORTANT: As with any drive line, make sure drive shaft has proper clearance. Do not use a slip yoke spring with these assemblies.

NOTE: A 32 Spline Slip Yoke (page 73) must be used with the 32 Spline Driveshaft Assembly.

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#	SPRINT PART NO	MIDGET PART NO	32 SPLINE PART NO	DESCRIPTION	QTY
1*	2973	3875	2973	Steel Lower Shaft	1
1*	2973T	3875T	2973T	Titanium Lower Shaft	1
2	7280	7280	7280	Seal	1
3	7619	7619	7619	Retaining Ring	1
4	6680	6680	6680	Spacer	1
5	7531	7531	7531	Bearing	1
6	2975	2975	2975	Coupler	1
7	7918	7918	7918	Core Plug	1
8	8337	8337	8337	Retaining Ring	1
9	8723	8723	8723	3/8-24 x 1-1/4" FHCS T45 Torx Drive	1
10	2978	2978	2978	C-Sunk Washer	1
11	8336	8336	8336	Retaining Ring	1
12	2976	2976	2976-32	Swivel Insert	1
13	8416V	8416V	8416V	Viton O'Ring	1
14	7287V-01	7287V-01	7287V-02	Extended Viton Seal	1
15	8347	8347	8347	Retaining Ring	1
16	3564	3564	3564	Boot Retainer	1
17	6382	6382	6382-02	Core Plug	1
18*	2974G	3877G	4304G	Steel Gundrilled Drive Shaft	1
18*	2974TG	3877TG	4304TG	Titanium Gundrilled Drive Shaft	1

* Part No. May Vary Depending on Options Ordered

SWIVEL SPLINE CONVERSION KITS

ITEM #S	SPRINT PART NO	MIDGET PART NO	32 SPLINE PART NO	DESCRIPTION
1-8	3942-01	3942-01M	3942-01	Conversion Kit with Standard Lower Shaft
1-8	3942-02	3942-02M	3942-02	Conversion Kit with Titanium Lower Shaft
9-18	3942-03	3942-03M	3942-03-32	Conversion Kit with Gundrilled Steel Drive Shaft
9-18	3942-04	3942-04M	3942-04-32	Conversion Kit with Gundrilled Titanium Drive Shaft
1-18	3942-05	3942-05M	3942-05-32	Complete Conversion Kit with Gundrilled Steel Drive Shaft
1-18	3942-06	3942-06M	3942-06-32	Complete Conversion Kit with Gundrilled Titanium Drive Shaft

INTERNAL COUPLER CONVERSION KITS **OPTION 8163 OR 8163A**



This very popular Internal Coupler eliminates leaks at the Torque Tube over older External Lower Shaft Assembly. It ensures Coupler/Drive Shaft alignment and eliminates the need to pin Drive Shaft to the Coupler.

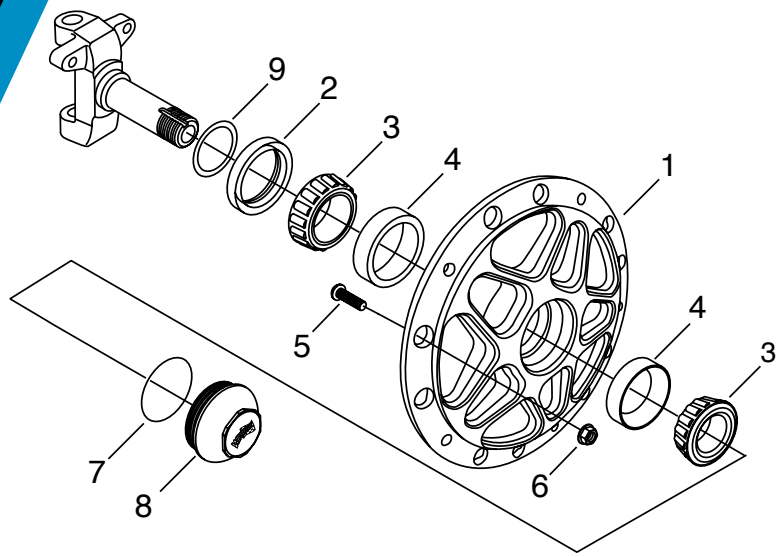
NOTE: When converting from External to Internal Coupler, a 3.5" longer Drive Shaft for a Sprint, or a 2.875" longer Drive Shaft for a Midget is required.

PART NO	DESCRIPTION
SPRINT	
6942-01	Conversion Kit with Standard Shaft
6942-02	Conversion Kit with Heat Treated Shaft
6942-03	Aluminum Conversion Kit with Titanium Shaft
6942-04	Conversion Kit with Titanium Shaft
6942-05	Aluminum Conversion Kit with Standard Shaft
6942-06	Aluminum Conversion Kit with Heat Treated Shaft
INTERNAL 32 SPLINE	
6942-01-32	Conversion Kit with Standard Shaft
6942-02-32	Conversion Kit with Heat Treated Shaft
6942-03-32	Conversion Kit with Titanium Shaft
MIDGET	
6942-01M	Conversion Kit with Standard Shaft
6942-02M	Conversion Kit with Heat Treated Shaft
6942-03M	Aluminum Conversion Kit with Titanium Shaft
6942-04M	Conversion Kit with Titanium Shaft
6942-05M	Aluminum Conversion Kit with Standard Shaft
6942-06M	Aluminum Conversion Kit with Heat Treated Shaft

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SPRINT DIRECT MOUNT FRONT HUBS





KIT PART NO. 3980 (Gold)
KIT PART NO. 3980B (Black)
3980B-2L Black (2 Lefts) / 3980-2L Gold (2 Lefts)
OPTION 8254S-DM (Includes Angular Contact Bearings & Oil Seals)

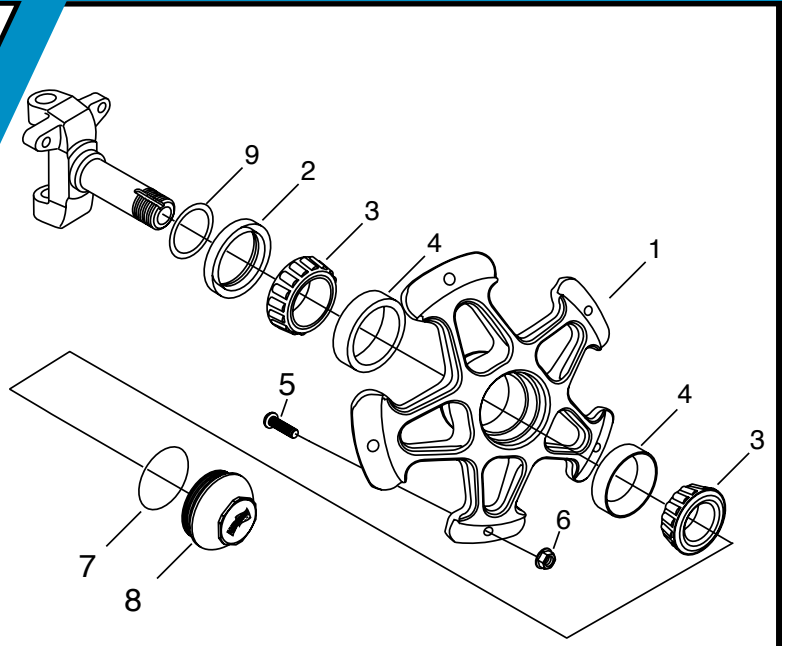
#	PART NO	DESCRIPTION	QTY
1	3783	Forged Aluminum Direct Mount Hub, Right	1
1	3783-01	Forged Aluminum Direct Mount Hub, Left	1
2	7297V	Single Lip Seal (Grease)	2
2A	7291V	Double Lip Seal (Oil)	2
3	8666	Inner Bearing Cone	4
4	8635	Inner Bearing Cup	4

#	PART NO	DESCRIPTION	QTY
5	8731	3/8-16 x 1-1/4" BHCS	10
6	8735	3/8-16 Hex Flange Nut	10
7	8419	O'Ring	2
8	3749-01	Screw In Dust Cap	2
9	3748	Shim, 0.09" (Use with Double Lip Seal)	2

- **Forged 2024-T3 Aluminum**
- **Gold or Black Anodized to Resist Corrosion**
- **Part No. 3783 with Races Weighs 4 lbs 4 oz**
- **Part No. 3783-01 with Races Weighs 4 lbs 6 oz**
- **Complete Kit Includes: Screw In Dust Caps, Wheel Studs, Nuts, Seals, Orings, Bearings & Races**

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KIT PART NO. 3980-5G (Gold)
3980-5G-2L (2 Lefts) 3980-5G-2R (2 Rights)

KIT PART NO. 3980-5B (Black)
3980-5B-2L (2 Lefts) 3980-5B-2R (2 Rights)

OPTION 8254S-DM (Includes Angular Contact Bearings & Oil Seals)

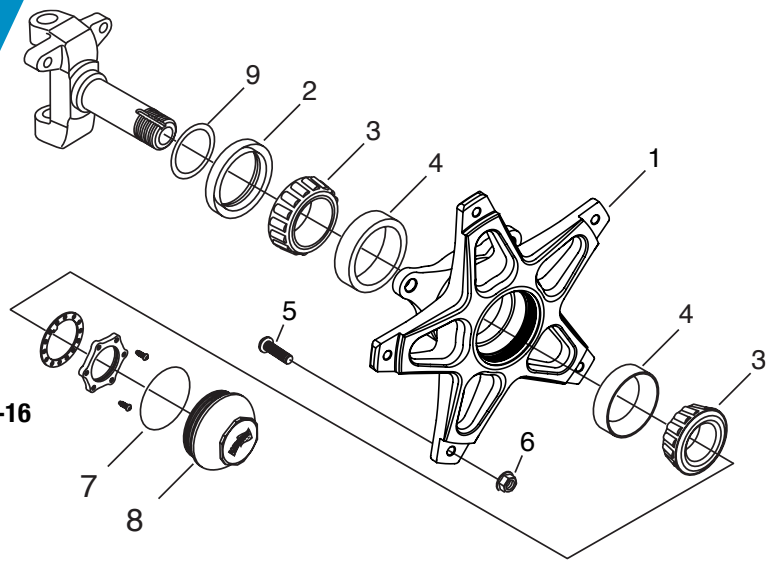
#	PART NO	DESCRIPTION	QTY
1	3783-5G	Forged Aluminum Direct Mount Hub, Right, Gold	1
1	3783-5B	Forged Aluminum Direct Mount Hub, Right, Black	1
1	3783-05G	Forged Aluminum Direct Mount Hub, Left, Gold	1
1	3783-05B	Forged Aluminum Direct Mount Hub, Left, Black	1
2	7297V	Single Lip Seal (Grease)	2
2A	7291V	Double Lip Seal (Oil)	2
3	8666	Inner Bearing Cone	4

#	PART NO	DESCRIPTION	QTY
4	8635	Inner Bearing Cup	4
5	8731	3/8-16 x 1-1/4" BHCS	10
6	8735	3/8-16 Hex Flange Nut	10
7	8419	O'Ring	2
8	3749-01	Screw In Dust Cap	2
9	3748	Shim, 0.09" (Use with Double Lip Seal)	2

- **Forged 2024-T3 Aluminum**
- **Gold or Black Anodized**
- **Reduces Flywheel & Rotating Weight**
- **Complete Kit Includes: Screw In Dust Caps, Wheel Studs, Nuts, Seals, Orings, Bearings & Races**
- **Part No. 3783-5G with Races Weighs 3 lbs 8 oz**
- **Part No. 3783-05G with Races Weighs 4 lbs**

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KIT PART NO. 3980-5BS (Black)

OPTION 8254S-DM (Includes Angular Contact Bearings & Oil Seals)

#	PART NO	DESCRIPTION	QTY
1	3783-5BS	Forged Aluminum Direct Mount Hub, Right, Black	1
1	3783-05BS	Forged Aluminum Direct Mount Hub, Left, Black	1
2	7297V	Single Lip Seal (Grease)	2
2A	7291V	Double Lip Seal (Oil)	2
3	8666	Inner Bearing Cone	4

#	PART NO	DESCRIPTION	QTY
4	8635	Inner Bearing Cup	4
5	8731	3/8-16 x 1-1/4" BHCS	10
6	8735	3/8-16 Hex Flange Nut	10
7	8419	O'Ring	2
8	3749-01	Screw In Dust Cap	2
9	3748	Shim, 0.09" (Use with Double Lip Seal)	2

- Forged 2024-T3 Aluminum
- Black Anodized
- Reduces Flywheel & Rotating Weight
- Complete Kit Includes: Screw In Dust Caps, Wheel Studs, Nuts, Seals, Orings, Bearings & Races
- Part No. 3783-5BS with Races & Studs Weighs 3 lbs 4 oz
- Part No. 3783-05BS with Races & Studs Weighs 3 lbs 6 oz

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SPRINT 10° FRONT SPINDLE



MIDGET 9° FRONT SPINDLE



****ASSEMBLY PART NO. 3622** (Sprint 10° Front Spindle with Polished Base)

****ASSEMBLY PART NO. 3622B** (Sprint 10° Front Spindle with Black Base)

***ASSEMBLY PART NO. 3622T** (Sprint 10° Front Spindle with Titanium Shaft)

***ASSEMBLY PART NO. 3622TB** (Sprint 10° Front Spindle with Black Base & Titanium Shaft)

****ASSEMBLY PART NO. 4125** (Midget 9° Front Spindle)

***ASSEMBLY PART NO. 4125T** (Midget 9° Front Spindle with Titanium Shaft)

- Forged 7075-T6 Aluminum
- Pins Are Centerless Ground & Heat Treated 4340 Steel
- Bronze Bushings Are Reamed For Exact Fit
- Radiused On Outer Edges

* Includes Trick Aluminum Locknut Kit

** Includes Trick Steel Locknut Kit

STEEL LOCKNUT KIT



ALUMINUM LOCKNUT KIT



SPINDLE ACCESSORIES



#	PART NO	DESCRIPTION
1	6476-02T	Hollow Titanium King Pin
2	6476-02	Hollow King Pin, Fits Part No. 3622
3	4082	Hollow Midget King Pin
4	1109-02A	Aluminum King Pin Cap, 5/8 x 18 Thread
5	1109-02	Steel King Pin Cap, 5/8 x 18 Thread
6	4084	Aluminum Midget King Pin Cap
7	7511-01	King Pin Shim Kit
8*	7511	Roller Thrust Bearing
9*	7512	.030" Thrust Race, Use with Part No. 7511

#	PART NO	DESCRIPTION
10*	7514	.005" Thick Shim, Thrust Bearing
11*	7513	HD Ball Thrust Bearing, OEM Style
12	7515	Replacement 10° Spindle Bushing
13	8694	Replacement 9° Spindle Bushing
14	2125	Steel Spindle Nut
15	2126	10-32 x 1/2" SHCS, Spindle Nut
16	2124	Washer, Spindle Nut
17*	3460	Aluminum Castellated Spindle Nut

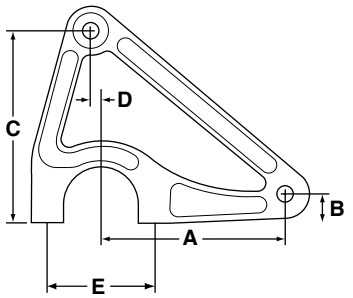
* Fits Sprint & Midget

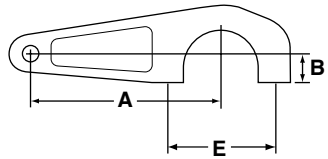
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STEERING ARMS & STEERING BOX SUPPORTS

STEERING ARMS







#	PART NO	DESCRIPTION	A	B	C	D	E
1	3452	Left Side Arm	5.737”	0.981”	6.000”	0.598”	3.250”
1	3452B	Left Side Arm, Black	5.737”	0.981”	6.000”	0.598”	3.250”
2	3652	Polished Left Side Arm	5.500”	0.625”	6.375”	0.500”	3.250”
2	3652B	Polished Left Side Arm Black	5.500”	0.625”	6.375”	0.500”	3.250”
3	4079	Polished Left Side Arm	5.625”	0.753”	5.635”	0.9755”	3.250”
3	4079B	Left Side Arm, Black	5.625”	0.753”	5.635”	0.9755”	3.250”
4	3451	Right Side Arm	5.737”	0.981”	N/A	N/A	3.250”
4	3451B	Right Side Arm, Black	5.737”	0.981”	N/A	N/A	3.250”
5	3651	Polished Right Side Arm	5.500”	0.625”	N/A	N/A	3.250”
5	3651B	Right Side Arm, Black	5.500”	0.625”	N/A	N/A	3.250”

A: Dimension from Tie Rod center line to King Pin

B: Dimension from Tie Rod center line to Spindle

C: Dimension from Drag Link center line to Spindle

D: Dimension from Drag Link center line to center line of King Pin

E: Dimension from Mounting Bolt to Mounting Bolt

STEERING BOX SUPPORTS



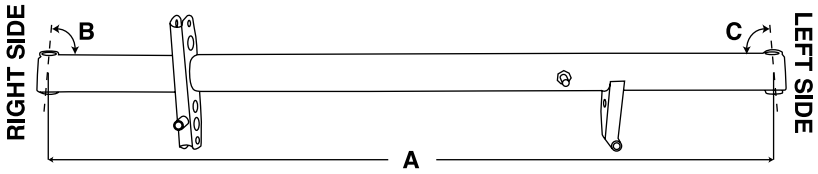
Accepts all popular Fuel Shutoffs.

#	PART NO	DESCRIPTION
1	SC4363	Steering Box Support with Left Hand Fuel Shut-Off
2	SC4364	Steering Box Support
3	SC4365	Steering Box Support with Bottom Fuel Shut-Off

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FRONT AXLES





PART NO. SC1712-C Chrome Plated
PART NO. SC1712-BK Black Powder Coat

1" Offset, 2-1/2" x 0.095" lightweight 4130 Chrome Moly Front Axle. Axle king pin bosses are reamed and honed for a good fit. Threaded panhard bar stud and shock mounts.

PART NO	DESCRIPTION	A	B	C
SC1712-C	2-1/2" Lightweight Chrome Plated	50"	12°	9°
SC1712-BK	2-1/2" Lightweight Black Powder Coat	50"	12°	9°

ROD ENDS



PART NO	DESCRIPTION
4241HDR	3 Piece 1/2" x 5/8" Alloy Steel Heavy Duty Shank, Right Hand
4241HDL	3 Piece 1/2" x 5/8" Alloy Steel Heavy Duty Shank, Left Hand
4241ATR	3 Piece 1/2" x 5/8" Right Hand Aluminum Rod End with Teflon
4241ATL	3 Piece 1/2" x 5/8" Left Hand Aluminum Rod End with Teflon
4242ATR	5/8" Aluminum Right Hand Jam Nut with 3/4" Hex
4242ATL	5/8" Aluminum Left Hand Jam Nut with 3/4" Hex
4256	1/2" Tall Aluminum Rod End Spacer

TIE RODS

PART NO. 4243-01 46"
PART NO. 4243-03 48"



Chrome Moly with welded (spud) ends. Available in Polished or Black, please specify.

RADIUS RODS



Precision made 6061-T6 Aircraft Aluminum with left and right hand threads. Left hand threaded end knurled for easy recognition. Uniform brushed finish with length marked on rod. Available in lengths of 8-54".

PART NO. 12670-XX 1" OD x 5/8" Thread
PART NO. 12671-XX 1-1/8" OD x 5/8" Thread

XX = Specify Length when ordering

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FRONT AXLE KIT

KIT PART NO. 4245-C-_

Specify for Black
Axles, Tie Rod, Spindles, Caliper Mount, Hubs and Steering Arm



OPTION 8290-5G Trackstar 5 Hubs (Gold)
OPTION 8290-5B Trackstar 5 Hubs (Black)
OPTION 8290T Titanium Spindle & King Pin
OPTION 8290-BC All Black Components
Includes - Front Axle, Tie Rod, Hub Kits, Spindles, Steering Arms & Caliper Mount

IMPORTANT ORDERING INSTRUCTIONS! PLEASE READ!

Refer to page 71 for Left Front Steering Arm style. Please add suffix "X" to Part No. 3652, "Y" to Part No. 3452 and "Z" to Part No. 4079.

Example: 4245-C-Z = 2-1/2" O.D. Front Axle Kit with Crome Moly Axle and Steering Arm Part No. 4079.

Note: Choice of Left Arm determines Right Arm.

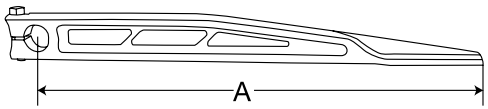
#	PART NO	DESCRIPTION	QTY
1	SC1712-C	Lightweight 4130 Chrome Moly Front Axle	1
2	4243-01	Steering Tie Rod	1
3	3622	10° Front Spindle	2
4	4241HDR	3 Piece 1/2" x 5/8" Alloy Steel Heavy Duty Shank, Right Hand	1
5	4241HDL	3 Piece 1/2" x 5/8" Alloy Steel Heavy Duty Shank, Left Hand	1
6	4242ATR	5/8" Aluminum Right Hand Jam Nut with 3/4" Hex	1
7	4242ATL	5/8" Aluminum Left Hand Jam Nut with 3/4" Hex	1
8	4256	1/2" Tall Aluminum Rod End Spacer	2
9	Specify	Left Side Combo Steering Arm	1
10	Specify	Right Side Steering Arm	1
11	6476-02	Hollow King Pin	2
12	1109-02A	Aluminum King Pin Cap	2

#	PART NO	DESCRIPTION	QTY
13	7511-01	King Pin Shim Kit	2
14	SC2810	Left Front Caliper Mount with Bolts	1
15	2125	Lock Nut, Steel	2
16	2126	10-32 x 1/2" SHCS	4
17	2124	Lock Washer, Steel	2
18	8731	3/8-16 x 1-1/4" SHCS	10
19	8735	3/8-16 Hex Flange Nut	10
20	8419	O'Ring	2
21	7297V	Single Lip Seal	2
22	8666	Bearing Cone	4
23	3783	Forged Aluminum Direct Mount Front Hub, Right	1
24	3783-01	Forged Aluminum Direct Mount Front Hub, Left	1

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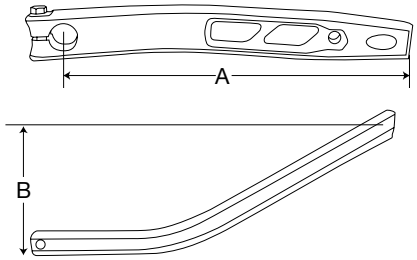


FRONT ARMS



- 2024-T3 Billet Aluminum
- Heavy Duty styles are for racers that "feel" the arms flex under load.
- 10° Angle Broach makes wheel rate stiffer.
- Contact Patch under the arm is rounded to prevent premature wear.

REAR ARMS



- 2024-T3 Billet Aluminum
- Solid from the bend to the back to help reduce flexing. Winters is the only one to offer this feature!
- Light press fit on the Shock Bolt mounting area. Winters is the only one to offer this feature!
- Most Popular Right Arm is Part No. SC2687R
- Most Popular Left Arm is Part No. SC2691L

FRONT ARMS

#	PART NO	DESCRIPTION	A	BROACH
1	SC2120L	Left Front	18-1/2"	---------
1	SC2120LB	Left Front, Black	18-1/2"	---------
2	SC2120L-HDB	Heavy Duty Left Front, Black	18-1/2"	---------
3	SC2130R	Right Front	16-3/4"	---------
3	SC2130RB	Right Front, Black	16-3/4"	---------
5	SC2125R	Right Front	16-3/4"	10°
5	SC2125R-HD	Heavy Duty Right Front	16-3/4"	10°
6	SC2115L	Left Front	18-1/2"	---------

REAR ARMS

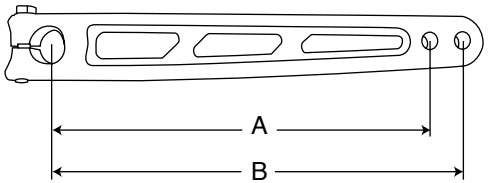
#	PART NO	DESCRIPTION	A	B
7	SC2686R	Right Rear	13-1/4"	4-1/2"
7	SC2686RB	Right Rear, Black	13-1/4"	4-1/2"
8	SC2687R	Right Rear	13-1/4"	5-1/4"
8	SC2687RB	Right Rear, Black	13-1/4"	5-1/4"
9	SC2688L	Left Rear	15"	2-1/2"
9	SC2688LB	Left Rear, Black	15"	2-1/2"
10	SC2689L	Left Rear	15"	3"
10	SC2689LB	Left Rear, Black	15"	3"
11	SC2691L-HDB	Heavy Duty Left Rear, Black	15"	3-1/4"

SC2691L-HD

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SPRINT PITMAN ARMS





- 2024-T3 Billet Aluminum
- Available in “Straight” or Angled Broach
- 10° Angle Broach for shorter Steering Arm Shaft, or for more Header Clearance.
- Lightweight Arms offer more protection for Steering Box.
- Most Popular Style is Part No. SC2260

#	PART NO	DESCRIPTION	BROACH	A	B
1	SC2230	Short Lightweight Arm	Straight	11”	---------
1	SC2230B	Short Lightweight Arm, Black	Straight	11”	---------
2	SC2240	Long Lightweight Arm	Straight	11”	12”
2	SC2240B	Long Lightweight Arm, Black	Straight	11”	12”
3	SC2250	Short Lightweight Arm	10°	10”	11”
3	SC2250B	Short Lightweight Arm, Black	10°	10”	11”
4	SC2260	Long Lightweight Arm	10°	11”	12”
5	SC2270	Short Heavy Duty Arm	Straight	11”	---------
5	SC2270B	Short Heavy Duty Arm, Black	Straight	11”	---------
6	SC2280	Long Heavy Duty Arm	Straight	11”	12”
6	SC2280B	Long Heavy Duty Arm, Black	Straight	11”	12”
7	SC2300	Long Heavy Duty Arm	10°	11”	12”
8	SC2290	Short Heavy Duty Arm	10°	11”	---------
8	SC2290B	Short Heavy Duty Arm, Black	10°	11”	---------

OPTION 8207-ARM
Polished Arm

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TITANIUM TORSION BARS



PART NO. 2594T-18 18" Standard Rate Hollow Titanium Bar

PART NO. 2594T-16 16" Standard Rate Hollow Titanium Bar

There is a difference when you combine the best material, superior machining and the finest heat treating in the world. Winters Hollow Torsion Bars out perform and out last all others! All Torsion Bars are available in various sizes. Please call for details.

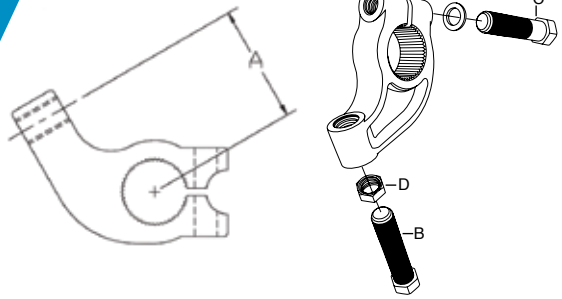
TORSION BAR BUSHINGS



#	PART NO	DESCRIPTION
1	4354	0.095" Tubing
2	4355	0.120" Tubing

TORSION STOPS





#	PART NO	DESCRIPTION	A	B	C	D	E
1	SC2140	1-3/4" 7075-T6 Forged Aluminum Stop	1-3/4"	8755	8756	8758	7151
2	SC2150	2" 7075-T6 Forged Aluminum Stop	2"	8755	8756	8758	7151
3	SC2160	1-3/4" Forged Steel Stop	1-3/4"	8755	8780	8758	7151
4	SC2160T	1-3/4" Forged Titanium Stop	1-3/4"	8825	8825-01	8826-01	7151
5	SC2170	2" Forged Steel Stop	2"	8755	8780	8758	7151
6	SC2170T	2" Forged Titanium Stop	2"	8825	8825-01	8826-01	7151
7	SC2160TB	1-3/4" Billet Titanium Stop	1-3/4"	8825	8825-01	8826-01	7151

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SPLINED WHEEL CENTERS & WIDE 5 REAR HUBS

SPLINED WHEEL CENTER



PART NO. 3784 Gold
PART NO. 3784B Black



1/4-20 Self Clinching Wheel Insert Part No. 3874

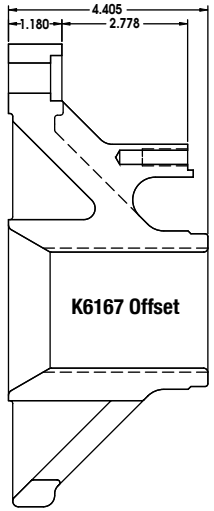
- **Forged 2024-T3 Aluminum**
- **100% CNC Machined**
- **Gold or Black Anodized**
- **This replacement fits most popular brands of wheels.**
- **Exceeds the strength of the original center.**

WIDE 5 REAR HUBS

Used to adapt splined rear axle to a standard Wide 5 Wheel.

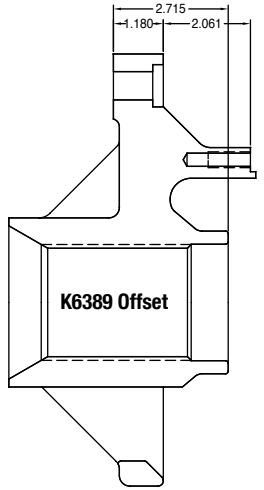


PART NO. K6167
Magnesium 5 on 10.25" Bolt Pattern



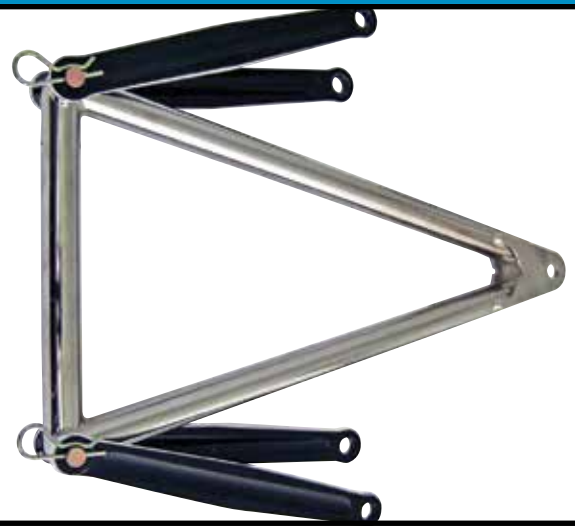


PART NO. K6389
Magnesium Sprint Offset 5 on 10.25" Bolt Pattern



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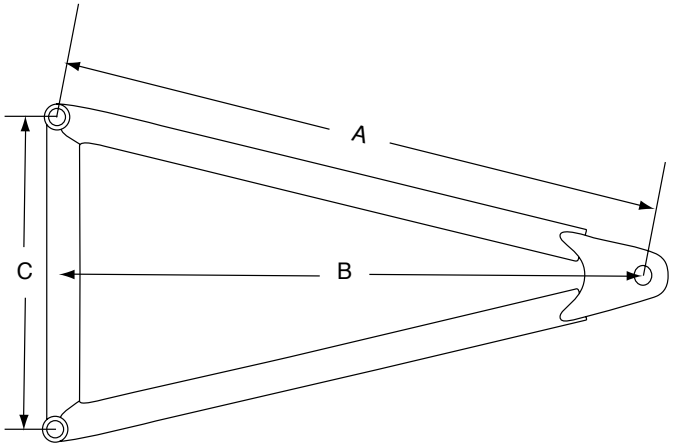
4130 CHROME MOLY BODY



PART NO	DESCRIPTION	A	B	C
SC2505	13-5/8" Ladder with Straps	13-5/8"	13 1/4"	7"
SC2510	14" Ladder with Straps	14"	13 1/2"	7"
SC2515	13-1/4" Ladder with Straps	13-1/4"	12 3/4"	7"
SC2520	14-3/8" Ladder with Straps	14-3/8"	14"	7"

REPLACEMENT ALUMINUM STRAPS PART NO. SC2505-01

7" Long, 6061-T6 Aluminum with 3/8" Hole



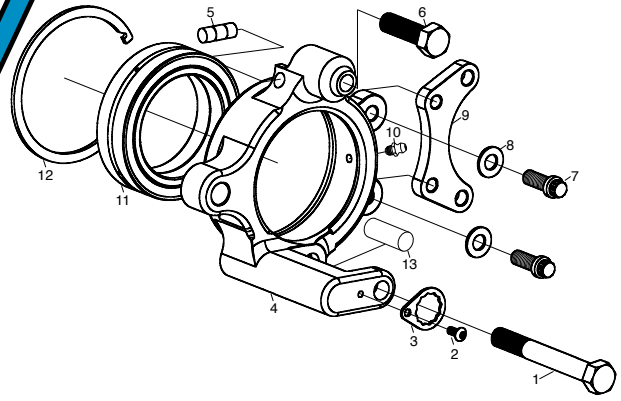
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FORGED ALUMINUM **SET PART NO. SC2575-9118**



SC2573L-9118

SC2571R-9118





BIRDCAGE CLEVIS P/N SC4356

•STEEL •5/8" WITH A 3/8" HOLE
(NOT INCLUDED IN BIRDCAGE ASSEMBLY)

- 7075-T6 Black Anodized Forged Aluminum
- Designed with strength in mind, but still emphasizes weight savings.
- Integral Timing Level Installed
- One Piece Birdcage Bearing
- Steel Hardware Included

ONE PIECE BIRDCAGE BEARING (PART NO. 8668-1)

#	PART NO	DESCRIPTION	QTY
1	8770	1/2-20 x 4" HHCS	1
2	9338	#10-32 x 7/16" BHCS	1
3	SC3597	Bolt Retainer	1
4	SC2571R	Double Bearing Right Birdcage	1
4	SC2573L	Double Bearing Left Birdcage	1
5	8779	3/8" Diameter x 1" Integral Level	1
6	8771	1/2-20 x 1-3/4" HHCS	1
7	8797	3/8-24 x 1" 12pt	2

#	PART NO	DESCRIPTION	QTY
8	7114	3/8" Flatwasher	2
9	SC2574	Birdcage Caliper Mount	1
10	7745	1/4-28 Grease Fitting	1
11	8668	Angular Contact Bearing, 28mm	1
11	8668-1	One Piece Birdcage Bearing	1
12	7693S	Retaining Ring	1
13	4060	Sleeve	1

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7075-T6 Aluminum





Steel Spacer for Splined Bearing Shoulder
Part No. 2269



Aluminum Brake Clamp Spacer for Floating 1 Piece Brake Mount
Part No. 2299



3/4" Aluminum Bearing Carrier, Large
Part No. 6154



3/16" Steel Bearing Carrier, Small
Part No. 6156



Midget Steel Bearing Carrier, Part No. 6761
Fits 36 Spline



Left Side Aluminum Axle Spline Saver
Part No. 12239

SPRINT PART NO	DESCRIPTION
6683*	3/8" Straight Spacer
6686*	7/8" Straight Splined Spacer
6684*	1-1/2" Tapered Splined Spacer
6687*	1-7/8" Straight Splined Spacer
6685*	2" Tapered Splined Spacer
6688*	2-3/8" Straight Splined Spacer
31 SPLINE MIDGET	
6801-01	1/2" Straight Spacer
6801-02	1-1/2" Straight Spacer
6801-03	2-1/2" Straight Spacer
6801-04	3-1/2" Straight Spacer
6802-01	1-1/4" Tapered Splined Spacer
6802-02	1-3/4" Tapered Splined Spacer
6802-03	2-3/4" Tapered Splined Spacer
6802-04	3-3/4" Tapered Splined Spacer
36 SPLINE MIDGET	
6922-01	1/2" Straight Spacer
6922-02	1-1/2" Straight Spacer
6922-03	2-1/2" Straight Spacer
6922-04	3-1/2" Straight Spacer
6921-01	1-1/4" Tapered Splined Spacer
6921-02	1-3/4" Tapered Splined Spacer
6921-03	2-3/4" Tapered Splined Spacer
6921-04	3-3/4" Tapered Splined Spacer

4 SPACER KIT PART NO. 6704 (SPRINT)	★	★	★	★																				
6 SPACER KIT PART NO. 6705 (SPRINT)	★	★	★	★	★	★																		
6 SPACER KIT PART NO. 6879 (31 SPLINE MIDGET)							★	★	★		★	★	★											
8 SPACER KIT PART NO. 6880 (31 SPLINE MIDGET)							★	★	★	★	★	★	★	★										
6 SPACER KIT PART NO. 6935 (36 SPLINE MIDGET)															★	★	★		★	★	★			
8 SPACER KIT PART NO. 6936 (36 SPLINE MIDGET)															★	★	★	★	★	★	★	★		

★ Denotes Sizes In Kit

ALUMINUM 10 PIECE SPRINT SPACER KIT **PART NO. 3558**



#	DESCRIPTION	QTY
1	3/8" Spacer	2
2	3/4" Spacer	2
3	1" Splined Spacer	2
4	2" Spacer	1
5	1-3/16" Tapered Splined Spacer	1
6	2" Tapered Splined Spacer	1
7	2-15/32" Tapered Splined Spacer	1

ALUMINUM HEX NUTS



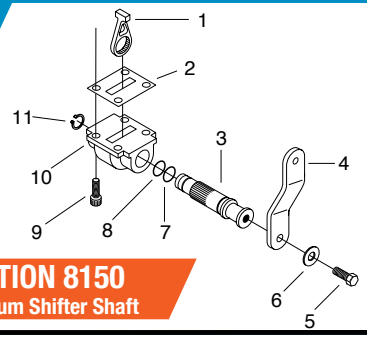
DESCRIPTION	LEFT	RIGHT
Sprint	6121L	6121R
Sprint, For Ultralight Axle	6121L-UL	6121R-UL
Midget, 2", 31 Spline	6799-02	6799-01
Midget, 2-1/2", 36 Spline	6735-02	6735-01

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REAR END SHIFTERS

SPRINT SHIFTER ASSEMBLY **PART NO. 3000-1**





OPTION 8150
Titanium Shifter Shaft

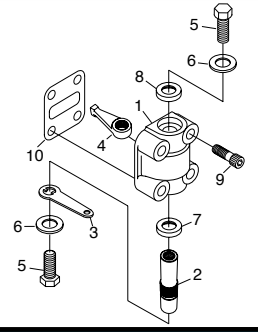
#	PART NO	DESCRIPTION	QTY
1	1524	Cast Shifter Arm	1
2	6515	Gasket, Shifter Housing	1
3*	6251	Shifter Shaft	1
3*	6251T	Titanium Shifter Shaft	1
4	6496	Shift Arm	1
5	7190S	3/8-24 x 3/4" HHCS	1

*Part numbers in this list may vary depending on options ordered at time of purchase.

#	PART NO	DESCRIPTION	QTY
6	7815	3/8" Belleville Washer	1
7	7442	O'Ring, Shifter Shaft	1
8	7443	O'Ring, Shifter Shaft	1
9	7795	5/16-18 x 7/8" 12pt	4
10*	6264	Shifter Housing, Aluminum	1
10*	12652	Shifter Housing, Billit Aluminum	1
11	7631	External Snap Ring	1

MIDGET SHIFTER ASSEMBLY **PART NO. 3000**





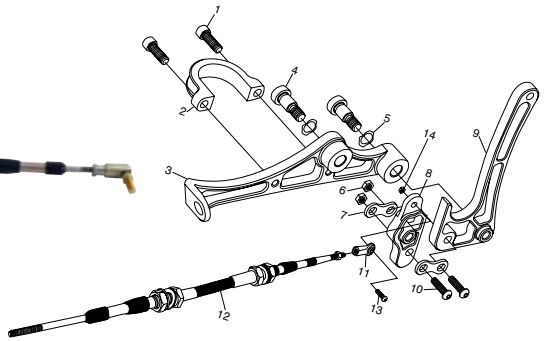
#	PART NO	DESCRIPTION	QTY
1	K6795-01	Magnesium Housing	1
2	2667-01	Shift Arm Shaft	1
3	2665	External Lever	1
4	4663	Internal Shift Arm	1
5	8880	1/4-24 x 1/2" HHCS	2

#	PART NO	DESCRIPTION	QTY
6	8878	Washer	2
7	7244	Seal	1
8	8838	Seal	1
9	7795	5/16-18 x 7/8" 12pt	4
10	6738	Gasket	1

SUPER SHIFTER ASSEMBLY **PART NO. 3232**

PART NO. 3817
Super Shifter Minus Cable

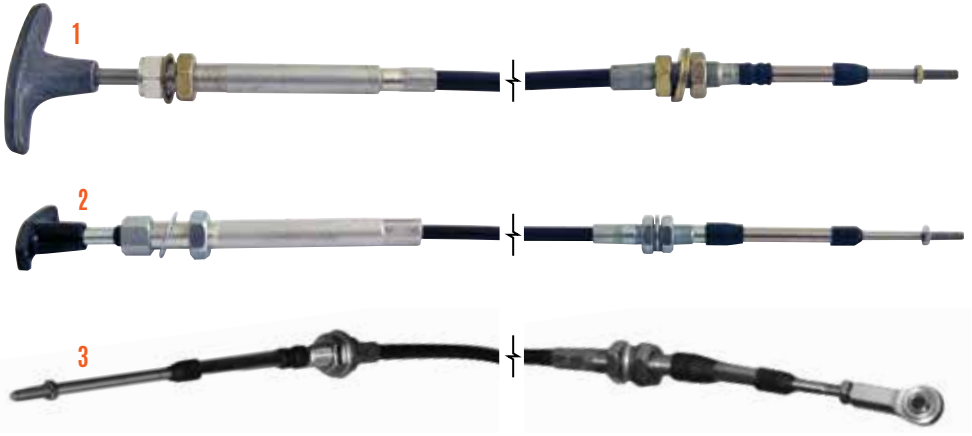




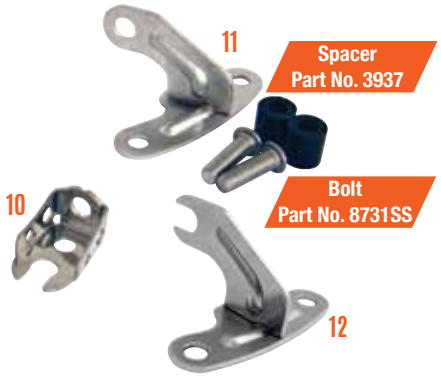
#	PART NO	DESCRIPTION	QTY
1	8751	1/4-20 x 3/4" Stainless SHCS	2
2	3176-01	Shifter Clamp	1
3	3174-01	Shifter Base Bracket	1
4	8750	5/16-18 x 1/2" Shoulder Screw, 3/8 Dia.	2
5	8747	Wave Washer	2
6	8753	1/4-28 Stainless Nylok Lock Nut	2
7	3175-01	Link	2

#	PART NO	DESCRIPTION	QTY
8	3173-01	Shifter Link	1
9	3172-01	Shifter Handle	1
10	8752	1/4-28 x 7/8" Stainless BHCS	2
11	8768	Rod End	1
12	3799	45" Standard Cable Assembly	1
13	8748	#10-24 x 3/4" Stainless BHCS	1
14	8749	#10-24 Stainless Nylok Lock Nut	1

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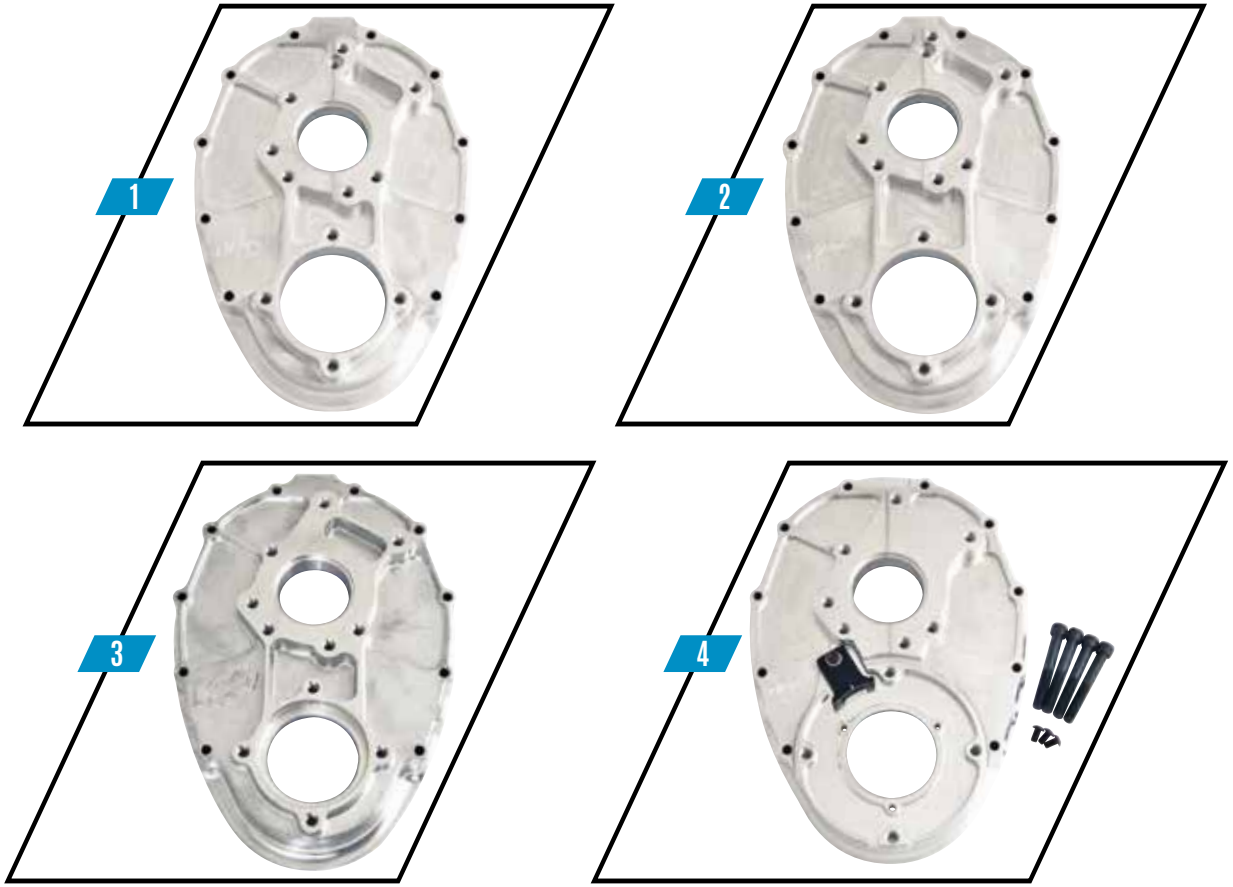


#	PART NO	DESCRIPTION
1	6689	Sprint 1/4-28 Push/Pull Cable with Twist Lock
2	1285	Midget #10-32 Push/Pull Cable with Twist Lock
3	3799-42	Sprint #10-32 Super Shifter Cable, 42”
3	3799-45	Sprint #10-32 Super Shifter Cable, 45”
3	3799-48	Sprint #10-32 Super Shifter Cable, 48”
4	6744-01	Slotted Anodized Aluminum Bracket for Large Sprint Cable
5	6744-02	Slotted Anodized Aluminum Bracket for Small Sprint/Midget Cable

#	PART NO	DESCRIPTION
6	6744	Anodized Aluminum Bracket for Large Sprint Cable
7	6787	1/4-28 Quick Disconnect, Fits 1/4-28 Sprint Cable
8	6883	1/4-28 Quick Disconnect, Fits #10-32 Sprint Super Shifter Cable
9	6843	#10-32 Quick Disconnect, Fits #10-32 Midget Cable
10	3067	Cable Bracket for Small Sprint Cable
11	4043	Shifter Bracket Kit for Super Shifter
12	4043-02	Shifter Bracket Kit for Outlaw V8-10

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TIMING GEAR COVERS



#	PART NO	DESCRIPTION
1	4182	Standard Offset
2	4182R	Raised Cam Style
3	4623	Standard Offset, Permanent Mold Aluminum
4	4183	For Crank Trigger

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ALUMINUM FRONT MOTOR PLATES





#	PART NO	DESCRIPTION
1	SC2825	Provides For More Secure Mounting Locations
2	SC2840	Same Features As Par No. SC2835 But With Oil Filter Mounting Location Added For Extra Strength

OIL TANK MOUNTS



PART NO. SC3982 Lower Mounts

- Mounts To All Style Motor Plates
- Holds Standard 6” Tank
- Top Mount Bolts To Cylinder Head

#	PART NO	DESCRIPTION
1	SC3982	Lower Mount

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SPRINT ROTOR MOUNTS

FLOATING ONE PIECE ROTOR MOUNT



PART NO. 6396S-1 (Aluminum)
PART NO. 6986-01 (Die-Cast Aluminum)

Use with all 8 on 7” Bolt Circle Rotors. CNC Machined for perfect alignment.

SPLIT DESIGN ROTOR MOUNT



PART NO. K6396S

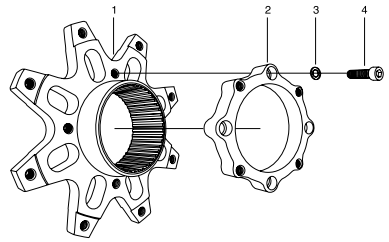
Fits all aluminum and steel 3” Axles with inboard spline. CNC machined for perfect rotor alignment.

Specify Magnesium or Aluminum

CLAMP ON MAGNESIUM INBOARD ROTOR MOUNT



1 lb 4.82 oz



PART NO. K6986-03

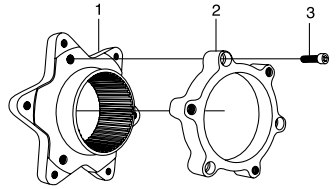
Use with all 8 on 7” Bolt Circle Rotors.

#	PART NO	DESCRIPTION	QTY
1	K6986-03	Magnesium Rotor Mount	1
2	1127LW	Retaining Collar	1
3	7904	5/16” Flatwasher	4
4	7853	5/16-18-2A x 1-1/4” SHCS	4

CLAMP ON ALUMINUM INBOARD ROTOR MOUNT



1 lb 7.2 oz



Easy on, easy off design. Can be used as a floater style by removing the retaining collar.

PART NO. 4767

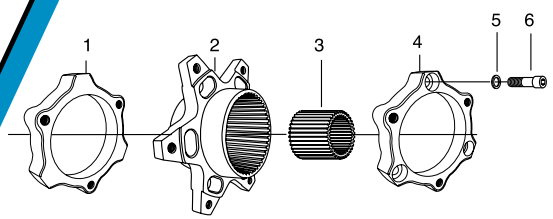
Use with all 6 on 5-1/2”” Bolt Circle Rotors.

#	PART NO	DESCRIPTION	QTY
1	4661	Forged Aluminum Rotor Mount	1
2	4662	Forged Aluminum Retaining Collar	1
3	7853	5/16-18-2A x 1-1/4” SHCS	3

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HEAVY DUTY 36 SPLINE INBOARD ROTOR MOUNT





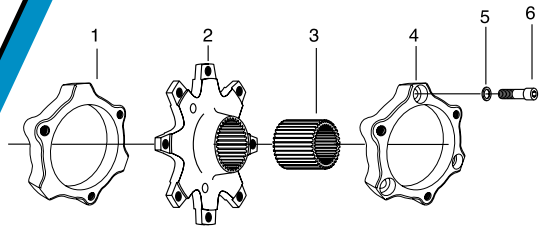
PART NO. 6989

Use with all 6 on 5-1/2” Bolt Circle Rotors.

#	PART NO	DESCRIPTION	QTY
1	1127	Inner Retaining Collar	1
2	K6981	Rotor Mounting Flange	1
3	1117	Split Splined Sleeve	1
4	1128	Outer Retaining Collar	1
5	7904	5/16” Flatwasher	3
6	7917	5/16-18 x 2-1/4” SHCS	3

HEAVY DUTY 36 SPLINE INBOARD ROTOR MOUNT





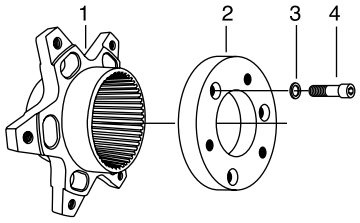
PART NO. 6990

Use with all 8 on 7” Bolt Circle Rotors.

#	PART NO	DESCRIPTION	QTY
1	1127	Inner Retaining Collar	1
2	K6986	Rotor Mounting Flange	1
3	1117	Split Splined Sleeve	1
4	1128	Outer Retaining Collar	1
5	7904	5/16” Flatwasher	3
6	7917	5/16-18 x 2-1/4” SHCS	3

31 SPLINE INBOARD ROTOR MOUNT





PART NO. 6902

Use with all 6 on 5 1/2” Bolt Circle Rotors.

#	PART NO	DESCRIPTION	QTY
1	K6804	Rotor Mounting Flange	1
2	6805	Retaining Collar	1
3	7196	Flatwasher	3
4	7901	5/16-18 x 1-3/4” SHCS	3

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ROTORS & BRAKE LININGS



#	PART NO	MATERIAL	THICKNESS	O.D.	BOLT CIRCLE	MOUNTING BOLT DIA.
1	2394-01	Cast Iron	0.810”	12-3/16”	8 on 7”	5/16”
2	2394	Cast Iron	0.810”	12-1/8”	8 on 7”	5/16”
3	5009T	Titanium	0.810”	10-1/2”	6 on 5 1/2”	5/16”
4	6607A	Aluminum	0.810”	12-1/8”	8 on 7”	5/16”
5	6773A	Aluminum	0.750”	10-1/4”	6 on 5 1/2”	5/16”
5	6773	Steel	0.750”	10-1/4”	6 on 5 1/2”	5/16”
6	SC2710	Steel	0.375”	10-3/4”	3 Bolt	1/2”

BRAKE LINING

For use with Winters Aluminum Rotors Only

#	PART NO	SIZE
7	1488	4-3/4” x 0.800”
8	1488GM	GM® Single Piston
9	1488-4S	4” x 0.640”

INBOARD BRAKE KIT



KIT PART NO. SC5009T-BK

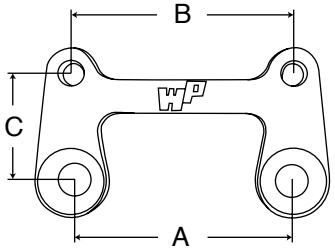
- Winters 10-3/4” 6AL4V Titanium Rotor. Slotted & drilled, this 24 vane, permanent mold, 0.810” vented rotor weighs 2 lbs 6 oz.
- 7075 Aluminum Inboard Rotor Mount design allows for easy on, easy off assembly. The clamp on the rotor mount can also be used as a floater style by simply removing the retaining collar.
- Willwood® Calipers & Pads. The most trusted brake company in the industry!

#	PART NO	DESCRIPTION
1	5009T	10-1/2” Titanium Rotor
2	4767	Aluminum Inboard Rotor Mount
3	WW4954	Willwood® Billet Dynalite Caliper
4	WW10290	Willwood® Pads
5	WW9595	Willwood® Caliper Bracket Kit

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LEFT FRONT CALIPER MOUNT





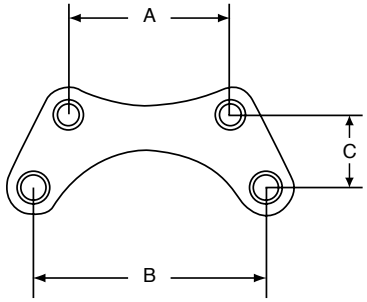
PART NO. SC2810

Also in Black
Use with 10-7/8” Rotor. Fits Spindle Part No. 3622 & 3622T.

A	B	C
3-1/4”	3-1/4”	1-9/16”

ALUMINUM BIRDCAGE CALIPER MOUNT



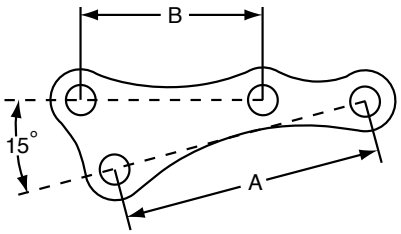


PART NO. SC2574

A	B	C
2-1/4”	3-1/4”	1.0187”

ALUMINUM BIRDCAGE CALIPER MOUNT





PART NO. 4789

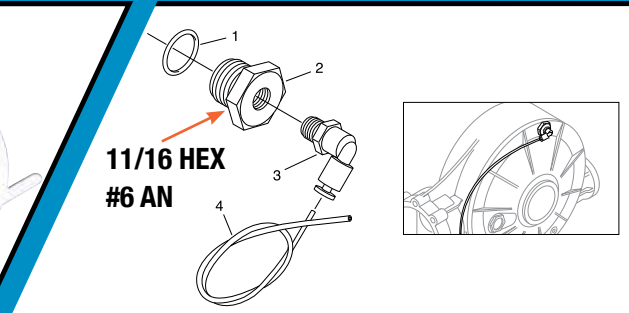
Use with 10” Rotor

A	B
3-1/4”	2-1/4”

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SIDE MOUNT BREATHER



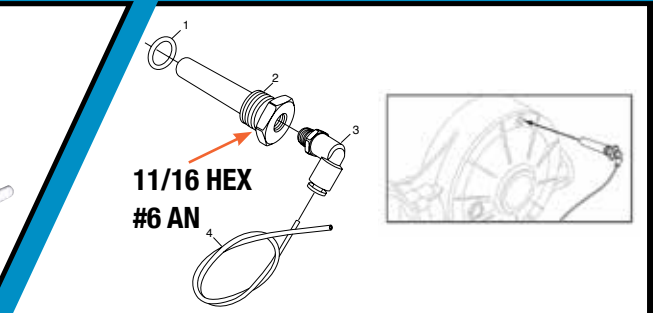


PART NO. 2966

#	PART NO	DESCRIPTION
1	8405	O'Ring
2	8070	AN Fitting
3	8074	Tube Elbow
4	8075	Poly Tubing, 16" Length

SIDE MOUNT BREATHER





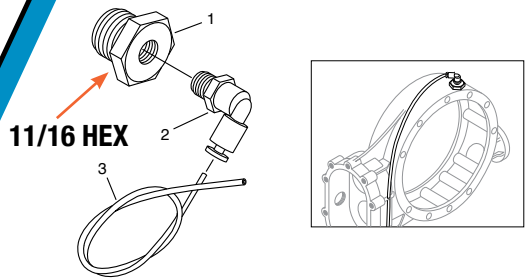
PART NO. 2966-01

Fits V8 Rear with some trimming.
Recommended on all other rears.

#	PART NO	DESCRIPTION
1	8405	O'Ring
2	8070-01	AN Fitting
3	8074	Tube Elbow
4	8075	Poly Tubing, 16" Length

TOP MOUNT BREATHER





PART NO. 2966T

Non AN O'Ring Port. Use on 3/8" Pipe Thread Applications.

#	PART NO	DESCRIPTION
1	8708	3/8" Pipe Fitting
2	8074	Tube Elbow
3	8075	Poly Tubing, 16" Length

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NOSE WING FRONT POSTS



PART NO	DESCRIPTION
12660	Standard Straight Aluminum Post, 1" O.D. x .125" x 13"
12661	Aluminum Post with 2" Forward Bend, 1" O.D. x .125" x 13"
12662	Plated Steel Post, 1" O.D. x .065" x 13"

NOSE WING REAR SUPPORTS



#	PART NO	DESCRIPTION
1	SC4369	Winters, Aluminum, 11"
2	12663	Hanks Performance®, Aluminum, Black, 1/4" x 3/4" x 12", 1 Pair
2	12664	Hanks Performance®, Aluminum, 1/4" x 3/4" x 12", 1 Pair

WING CYLINDER CLEVIS **PART NO. 4392**



WING VALVES



New Seal Design Guaranteed to never stick or bypass fluid!

#	PART NO	DESCRIPTION
1	4859	Winters Wing Valve
2	12665	Hanks Performance® Wing Valve

POWER STEERING PUMP MOUNT **PART NO. 12666**



This combo Standard/Raised Cam Pump Mount with **New Dirt Shield** protects the power steering pump front seal from dirt and oil. The back of the mount is closed off to only allow the cam spud through. No more dirt getting in to wreck your pump bearing!

CAM DRIVE SPUDS



#	PART NO	DESCRIPTION
1	12667	1-5/8" Cam Drive Spud
2	12668	1" Cam Drive Spud

TOOLS & LUBRICANTS



#	PART NO	DESCRIPTION
1	1730	Gear Oil, Semi-Synthetic 80-90-140 with Moly
2	3414	Grease, Swivel Spline Drive Line
3	1158	SHP Grease
4	4223	Moose® 6 Blade Siping Tool
5	4223-14	Moose® Mega-14, 14 Blade Siping Tool
8	4860	Moose® Blocks Contoured Delrin® Block Tops
9	3621	Wrench, Sprint Front Spindle Bearing Retaining Nut
10	12134	Axle Seal Installation Tool
11	2391	THING-A-MA-JIG, 10 Spline Pinion Holder
12	3153M	1/2" Square Drive Double Sided Socket, 1-3/8" & 1-7/8"
13	3697	T45 Torx® Plus Socket, 3/8" Drive, Fits Part No. 8723
14	12441	Rear Axle Alignment Tool, Sold As A Set

For SDS Please Call or Visit our Website.

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FLANGE YOKES/JOURNAL ASSEMBLIES







1

PART NO	ANGLE	SPLINES	SERIES	BRG. SIZE	LENGTH
2221	20°	27 Inv.	1310	1-1/16”	4-7/8”
5848	17°	16	1310	1-1/16”	6-3/4”
5850	20°	16	1310	1-1/16”	6”
6133	15°	16	1310	1-1/16”	5-3/8”
6997	20°	16	1350	1-3/16”	5.687”

2

PART NO	SIZE	SERIES
2508	1-3/16”, 3-5/8” Across Bearing Caps w/o Grease Fitting	1350
5382	1-1/16”, 3-7/32” Across Bearing Caps w/ Grease Fitting	1310
6847	1-1/16”, 3-7/32” Across Bearing Caps w/o Grease Fitting	1310
6996	1-3/16”, 3-5/8” Across Bearing Caps w/ Grease Fitting	1350

3

PART NO	BOLT CIRCLE	OFFSET	BRG. DIA.	BOLT DIA.	ANGLE	SERIES
3702*	3-37/64”	2-1/4”	1-1/16”	7/16”	12°	1310
5856	3-1/8”	1-3/8”	1-1/16”	3/8”	20°	1310
6320	3-3/4”	1-9/16”	1-3/16”	7/16”	20°	1350
6419	3-3/4”	1-3/8”	1-1/16”	7/16”	20°	1310
6874	3-1/8”	1-5/8”	1-1/16”	3/8”	30°	1310

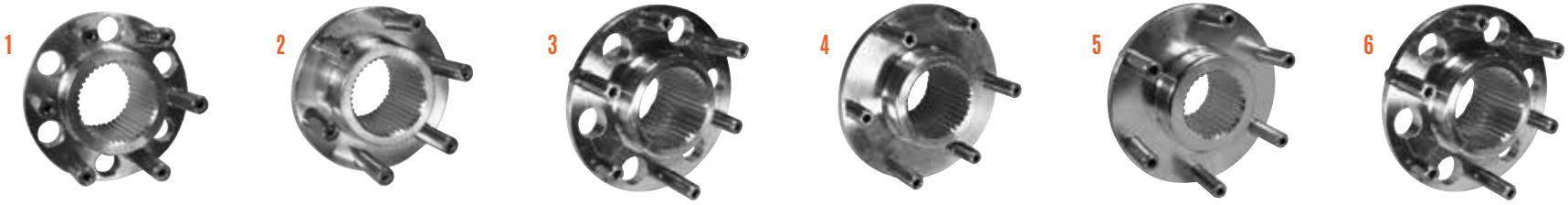
*When Ordering Part No. 3702 You Do Not Need To Order A Crank Flange

4

PART NO	THICKNESS	APPLICATION	YOKE	A DIA.
2721	1”	Late SB/BB Chevrolet® Steel Crank Flange	6419	2.375”
2721A	1”	Late SM/BB Chevrolet® Aluminum Crank Flange	6419	2.375”
2723	3/4”	Small Block Ford® Steel Crank Flange	6419	2.125”
2723A	3/4”	Small Block Ford® Aluminum Crank Flange	6419	2.125”
2727	3/4”	Big Block Ford® Steel Crank Flange	6419	2.125”
2727A	3/4”	Big Block Ford® Aluminum Crank Flange	6419	2.125”
5740	3/4”	Small Block Intermediate Steel Flange, Use Part No. 5741	--------	--------
5740A	3/4”	Small Block Intermediate Aluminum Flange, Use Part No. 5741A	--------	--------
5741	3/4”	Small Block Ford® Steel Crank Flange	5856	2.125”
5741	3/4”	Small Block Ford® Steel Crank Flange	6874	2.375”
5741A	3/4”	Small Block Ford® Aluminum Crank Flange	5856	2.125”
5741A	3/4”	Small Block Ford® Aluminum Crank Flange	6874	2.375”
5742	3/4”	Early SB/BB Chevrolet® Steel Crank Flange	5856	2.125”
5742	3/4”	Early SB/BB Chevrolet® Steel Crank Flange	6874	2.375”
5742A	3/4”	Early SB/BB Chevrolet® Aluminum Crank Flange	5856	2.125”
5742A	3/4”	Early SB/BB Chevrolet® Aluminum Crank Flange	6874	2.375”
5742A-02	1”	Early SB/BB Chevrolet® Aluminum Crank Flange	5856	2.375”
5742A-02	1”	Early SB/BB Chevrolet® Aluminum Crank Flange	6874	2.625”
5743	3/4”	Chrysler® Steel Crank Flange	5856	2.125”
5743	3/4”	Chrysler® Steel Crank Flange	6874	2.375”
6445	1”	Early SB/BB Chevrolet® Aluminum Crank Flange	6419	2.375”
6445	1”	Early SB/BB Chevrolet® Aluminum Crank Flange	6320	2.563

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SPLINED HUBS



#	PART NO	DESCRIPTION
1	6148L	Lightweight 6 Pin Hub w/Pins, Sprint Axle
1	5996L	Lightweight 6 Pin Hub w/o Pins, Sprint Axle
2	6148	6 Pin Hub w/Pins, Sprint Axle
2	5996	6 Pin Hub w/o Pins, Sprint Axle

#	PART NO	DESCRIPTION
3	6700L	Lightweight 6 Pin Hub w/Pins, 36 Spline Midget Axle
3	6700C	Lightweight 6 Pin Hub w/o Pins, 36 Spline Midget Axle
4	6700	6 Pin Hub w/Pins, 36 Spline Midget Axle
4	6700B	6 Pin Hub w/o Pins, 36 Spline Midget Axle

#	PART NO	DESCRIPTION
5	6800	6 Pin Hub w/Pins, 31 Spline Midget Axle
5	6800B	6 Pin Hub w/o Pins, 31 Spline Midget Axle
6	6800C	Lightweight 6 Pin Hub w/o Pins, 31 Spline Midget Axle
6	6800D	Lightweight 6 Pin Hub w/Pins, 31 Spline Midget Axle

PRESS PLATES



#	PART NO	DESCRIPTION
1	6210	Press Plate for Sprint 6 Pin Hub (Magnesium & Aluminum)
2	K6699-01	Press Plate for 31 Spline Midget 6 Pin Hub
3	K6699-02	Press Plate for 36 Spline Midget 6 Pin Hub

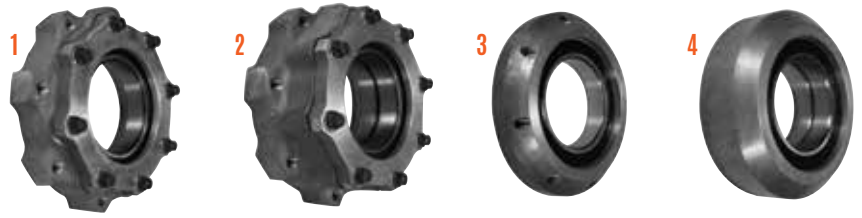
MIDGET OUTBOARD BRAKE ROTOR MOUNT



#	PART NO	DESCRIPTION	BOLT CIRCLE
1	1395-01	31 Spline Outboard Brake Rotor Mount	8 x 6-1/4”
2	1395-02	36 Spline Outboard Brake Rotor Mount	8 x 6-1/4”

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SPRINT BEARING CARRIERS



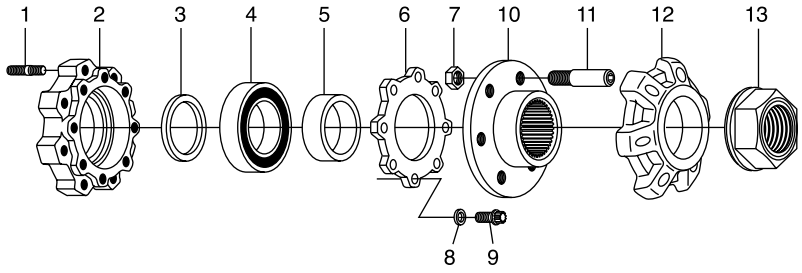
#	PART NO	BEARING	DESCRIPTION	OPTION
1	K6283	7387	Magnesium Single Bearing Carrier, Sprint Axle	8118S-1
2	K6342	7387	Magnesium Double Row Bearing Carrier, Sprint Axle	8118S-2
3	6720	7387	Aluminum Lightweight Single Bearing Carrier, Sprint Axle	8118-1
4	6721	7387	Aluminum Lightweight Double Row Bearing Carrier, Sprint Axle	8118-2

MIDGET BEARING CARRIERS



#	PART NO	BEARING	DESCRIPTION
1	6901	7535	Aluminum Bearing Carrier, 2-1/2" 36 Spline Midget Axle
2	6862	7533	Aluminum Bearing Carrier, 2" 31 Spline Midget Axle
3	6803	----------	Aluminum Spacer, Midget Bearing Carrier, 31 Spline Axle
3	6803S	----------	Steel Spacer, Midget Bearing Carrier, 31 Spline Axle

42 SPLINE SPRINT BEARING CARRIER & HUB

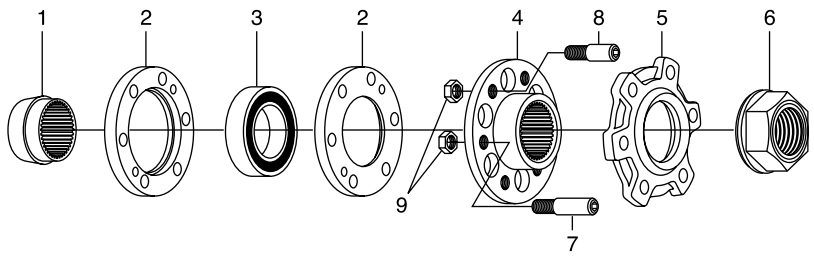


#	PART NO	DESCRIPTION	QTY
1	7775	Stud	8
2	K6213	Bearing Carrier	1
2	K6255	Double Bearing Carrier	1
3	6156	Small Steel Spacer	1
4	7387	Bearing	1
5	6154	Large Aluminum Spacer	1
6	6214	Bearing Carrier Cover	1
7	7766	1/2-20 Locknut	6
8	7196	5/16" Thin Collar Washer	8
9	7195	5/16-18 x 3/4" 12pt	8
10	6148	Aluminum 6 Pin Hub	1
11	5899	2" Drive Pins	6
12	K6210	Magnesium Press Plate	1
12	6210	Aluminum Press Plate	1
13*	6121R	Right Hand Hex Nut	1
13*	6121L	Left Hand Hex Nut	1

*Available in Magnesium. Add Prefix K to Part No. when ordering.

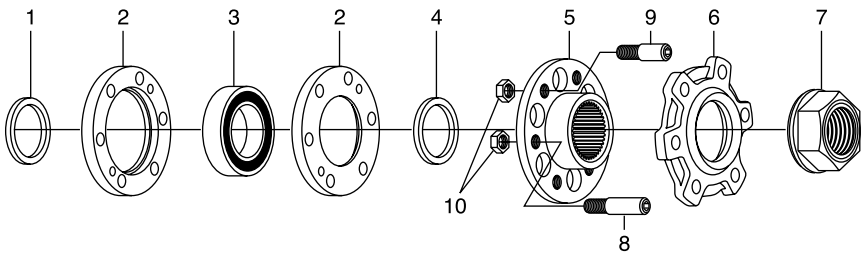
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2” 31 SPLINE MIDGET BEARING CARRIER & HUB



#	PART NO	DESCRIPTION	QTY	#	PART NO	DESCRIPTION	QTY
1	6803	Splined Bearing Insert	1	6	6799-01	Right Hand Axle Nut	1
2	6861	Bearing Carrier Housing	2	6	6799-02	Left Hand Axle Nut	1
3	7533	Bearing	1	7	6701	1-1/2” Drive Pins	3
4	6800C	Lightweight Aluminum Hub	1	8	6702	1” Drive Pins	3
4	6800B	Aluminum Hub	1	9	7883	Nylon Locknut	6
5	K6699-01	Magnesium Press Plate	1				

2-1/2” 36 SPLINE MIDGET BEARING CARRIER & HUB



#	PART NO	DESCRIPTION	QTY	#	PART NO	DESCRIPTION	QTY
1	6761	Steel Spacer	1	6	K6699-02	Magnesium Press Plate	1
2	6891	Bearing Carrier Housing	2	7	6735-01	Right Hand Axle Nut	1
3	7535	Bearing	1	7	6735-02	Left Hand Axle Nut	1
4	6762	Aluminum Spacer	1	8	6701	1-1/2” Drive Pins	3
5	6800C	Lightweight Aluminum Hub	1	9	6702	1” Drive Pins	3
5	6800B	Aluminum Hub	1	10	7883	Nylon Locknut	6

FORGED ALUMINUM KNOCK OFFS



IMPORTANT! PLEASE READ!

Right hand threads go on the left side of the car.
Left hand threads go on the right side of the car.

PART NO	DESCRIPTION	PART NO	DESCRIPTION
5961R	Left Front, 2-5/8” Right Hand Threads	5960R	Left Rear, 2-1/2” Right Hand Threads
5961L	Right Front, 2-5/8” Left Hand Threads	5960L	Right Rear, 2-1/2” Left Hand Threads

ALUMINUM FRONT SPINDLE & KING PIN

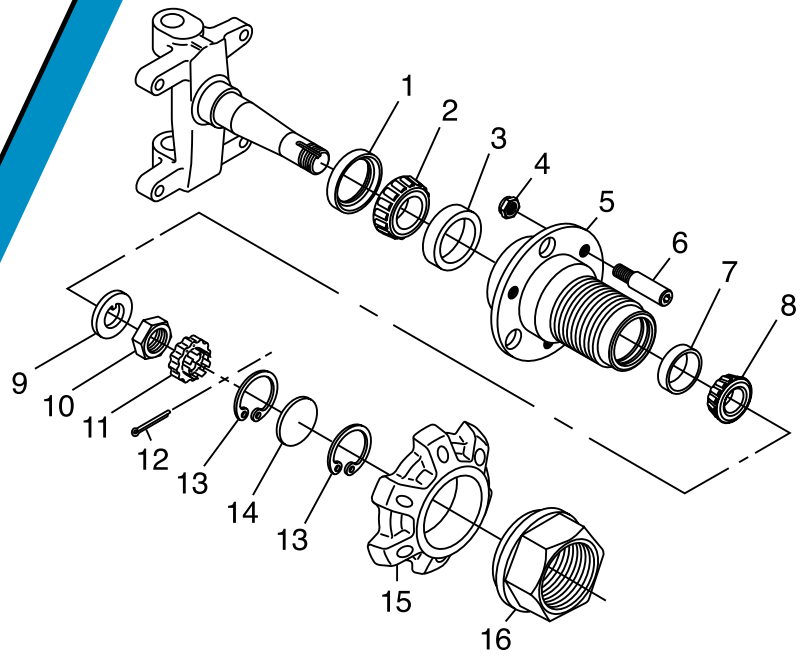


#	PART NO	DESCRIPTION
1	1982S	Shorty Aluminum Spindle w/Steel Snout
2	6476	Steel Hollow King Pin
3	1109	Steel King Pin Cap, 1/2-20 Thread

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HUB ASSEMBLY





BEARING KIT



KIT PART NO. 7539

For Standard Hub

PART NO	DESCRIPTION	QTY
7233	Seal	2
7502	Inner Bearing Cone	2
7504	Outer Bearing Cone	2

ASSEMBLY PART NO. 6388R (Right Hub)
ASSEMBLY PART NO. 6388L (Left Hub)

#	PART NO	DESCRIPTION	QTY
1	7233	Seal	1
2	7502	Inner Bearing Cone	1
3	7501	Inner Bearing Cup	1
4	7766	Locknut	3
5	6375R	Left Front Hub, Right Hand Thread	1
5	6375L	Right Front Hub, Left Hand Thread	1
6	5899	Wheel Stud	3
7	7503	Outer Bearing Cup	1
8	7504	Outer Bearing Cone	1

#	PART NO	DESCRIPTION	QTY
9	7798	Washer	1
10	7801	Spindle Nut	1
11	7797	Nut Lock	1
12	7799	Cotter Pin	1
13	7641	Snap Ring, Cap	2
14	6379	Dust Cap	1
15	6210	Press Plate	1
16	6122R	Left Front Nut, Right Hand Thread	1
16	6122L	Right Front Nut, Left Hand Thread	1

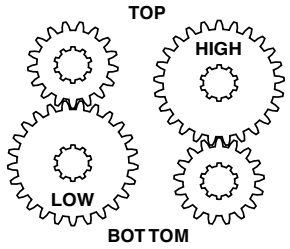
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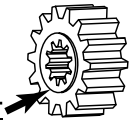


PART NO. 8500 SERIES 1-3/8" Wide

Machined from SAE 8620 Steel.
When ordering add Prefix 85 to Set #.
Example: Gear Set # 01 = 8501

REM GEARS
Option 8218 QCG





IMPORTANT
Install Quick Change Gears with the Shoulder facing toward Gear Cover Bearings. Remember to refill gear cavity with good quality gear lube after Quick Change Gear changes.

Numerical Ratio Listed

GEAR SET #	LOW SPUR RATIO	HIGH SPUR RATIO	# OF TEETH	4.12 R&P Ratio (8-33 Teeth) LOW	4.12 R&P Ratio (8-33 Teeth) HIGH	4.57 R&P Ratio (7-32 Teeth) LOW	4.57 R&P Ratio (7-32 Teeth) HIGH	4.86 R&P Ratio (7-34 Teeth) LOW	4.86 R&P Ratio (7-34 Teeth) HIGH
01	1.000	1.000	21/21	4.12	4.12	4.57	4.57	4.86	4.86
02	0.964	1.037	27/28	3.97	4.27	4.41	4.74	4.69	5.04
05	0.960	1.042	24/25	3.96	4.29	4.39	4.76	4.67	5.06
15A	0.955	1.048	21/22	3.93	4.32	4.36	4.79	4.64	5.09
15	0.950	1.053	19/20	3.91	4.34	4.34	4.81	4.62	5.11
26	0.931	1.074	27/29	3.84	4.43	4.26	4.91	4.53	5.22
06	0.920	1.087	23/25	3.79	4.48	4.20	4.97	4.47	5.28
25	0.909	1.100	20/22	3.75	4.53	4.16	5.03	4.42	5.34
12	0.897	1.115	26/29	3.69	4.60	4.10	5.10	4.36	5.42
07	0.885	1.130	23/26	3.65	4.66	4.04	5.17	4.30	5.49
07A	0.875	1.143	21/24	3.61	4.71	4.00	5.22	4.25	5.55
17	0.867	1.154	26/30	3.57	4.75	3.96	5.27	4.21	5.60
17A	0.857	1.167	24/28	3.53	4.81	3.92	5.33	4.17	5.67
08A	0.852	1.174	23/27	3.51	4.84	3.89	5.37	4.14	5.70
08	0.846	1.182	22/26	3.49	4.87	3.87	5.40	4.11	5.74
19	0.840	1.190	21/25	3.46	4.91	3.84	5.44	4.08	5.78
09A	0.833	1.200	25/30	3.43	4.94	3.81	5.48	4.05	5.83

Numerical Ratio Listed

GEAR SET #	LOW SPUR RATIO	HIGH SPUR RATIO	# OF TEETH	4.12 R&P Ratio (8-33 Teeth) LOW	4.12 R&P Ratio (8-33 Teeth) HIGH	4.57 R&P Ratio (7-32 Teeth) LOW	4.57 R&P Ratio (7-32 Teeth) HIGH	4.86 R&P Ratio (7-34 Teeth) LOW	4.86 R&P Ratio (7-34 Teeth) HIGH
09	0.826	1.211	19/23	3.40	4.99	3.78	5.53	4.02	5.88
11	0.815	1.227	22/27	3.36	5.06	3.72	5.61	3.96	5.96
03	0.806	1.240	25/31	3.32	5.11	3.69	5.67	3.92	6.02
13	0.800	1.250	20/25	3.30	5.15	3.66	5.71	3.89	6.07
18	0.793	1.261	23/29	3.27	5.20	3.62	5.76	3.85	6.12
18A	0.786	1.273	22/28	3.24	5.24	3.59	5.82	3.82	6.18
04A	0.783	1.278	18/23	3.22	5.26	3.58	5.84	3.80	6.21
20A	0.778	1.286	21/27	3.20	5.30	3.55	5.88	3.78	6.25
04	0.774	1.292	24/31	3.19	5.32	3.54	5.90	3.76	6.27
20	0.769	1.300	20/26	3.17	5.36	3.52	5.94	3.74	6.31
22	0.760	1.316	19/25	3.13	5.42	3.47	6.01	3.69	6.39
16	0.750	1.333	18/24	3.09	5.49	3.43	6.09	3.65	6.48
10	0.739	1.353	17/23	3.05	5.57	3.38	6.18	3.59	6.57
10A	0.733	1.364	22/30	3.02	5.62	3.35	6.23	3.56	6.62
34A	0.727	1.375	16/22	3.00	5.67	3.32	6.28	3.54	6.68
34	0.724	1.381	21/29	2.97	5.69	3.31	6.31	3.52	6.71
14	0.719	1.391	23/32	2.96	5.73	3.29	6.36	3.49	6.76

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10 SPLINE QUICK CHANGE CROWN CUT GEARS

QUICK CHANGE GEAR BOX



PART NO. 12024B Blue
PART NO. 12024BLK Black
PART NO. 12024R Red
PART NO. 12024W White

GEARING FORMULAS

$$\frac{\text{Ratio x MPH}}{\text{Tire Dia.}} \times 336 = \text{RPM} \quad \text{or} \quad \text{Ratio} = \frac{\text{RPM x Tire Dia.}}{\text{MPH x 336}}$$

TO DETERMINE GEAR RPM CHANGE
(RPM) ÷ (Gear Ratio) x (New Ratio) = (New RPM)
Example: 8000 ÷ 4.60 x 5.22 = 9078

TO DETERMINE FINAL DRIVE
(# Teeth Top Gear) ÷ (# Teeth Bottom Gear) x (R&P Ratio) = (Final Drive)

GEAR POSTER



PART NO. POSTER-10
A Full Size Poster of this chart for in your shop or race trailer. Measures 19" x 25"

Numerical Ratio Listed

GEAR SET #	LOW SPUR RATIO	HIGH SPUR RATIO	# OF TEETH	4.12 R&P Ratio (8-33 Teeth) LOW	4.12 R&P Ratio (8-33 Teeth) HIGH	4.57 R&P Ratio (7-32 Teeth) LOW	4.57 R&P Ratio (7-32 Teeth) HIGH	4.86 R&P Ratio (7-34 Teeth) LOW	4.86 R&P Ratio (7-34 Teeth) HIGH
14A	0.714	1.400	20/28	2.94	5.77	3.26	6.40	3.47	6.80
35	0.708	1.412	17/24	2.92	5.82	3.24	6.45	3.44	6.86
32	0.704	1.421	19/27	2.90	5.86	3.22	6.49	3.42	6.90
32A	0.697	1.435	23/33	2.87	5.91	3.19	6.56	3.39	6.97
24	0.690	1.450	20/29	2.84	5.97	3.15	6.63	3.35	7.04
36	0.680	1.471	17/25	2.80	6.06	3.11	6.72	3.31	7.14
37	0.677	1.476	21/31	2.79	6.08	3.10	6.75	3.29	7.17
23	0.667	1.500	22/33	2.75	6.18	3.05	6.86	3.24	7.29
21	0.655	1.526	19/29	2.70	6.29	2.99	6.98	3.18	7.41
21A	0.652	1.533	15/23	2.69	6.32	2.98	7.01	3.17	7.45
27	0.647	1.545	22/34	2.67	6.37	2.96	7.06	3.15	7.51
43	0.640	1.563	16/25	2.64	6.44	2.93	7.14	3.11	7.59
28	0.633	1.579	19/30	2.61	6.51	2.89	7.22	3.08	7.67
28A	0.630	1.588	17/27	2.59	6.54	2.88	7.26	3.06	7.71
29	0.625	1.600	15/24	2.58	6.59	2.86	7.31	3.04	7.77
39	0.621	1.611	18/29	2.56	6.64	2.84	7.36	3.02	7.83
30	0.615	1.625	16/26	2.54	6.70	2.81	7.43	2.99	7.89

Numerical Ratio Listed

GEAR SET #	LOW SPUR RATIO	HIGH SPUR RATIO	# OF TEETH	4.12 R&P Ratio (8-33 Teeth) LOW	4.12 R&P Ratio (8-33 Teeth) HIGH	4.57 R&P Ratio (7-32 Teeth) LOW	4.57 R&P Ratio (7-32 Teeth) HIGH	4.86 R&P Ratio (7-34 Teeth) LOW	4.86 R&P Ratio (7-34 Teeth) HIGH
40	0.613	1.632	19/31	2.53	6.72	2.80	7.46	2.98	7.93
41	0.607	1.647	17/28	2.50	6.81	2.76	7.53	2.95	8.00
31	0.600	1.667	21/35	2.47	6.87	2.74	7.62	2.92	8.10
33A	0.593	1.688	16/27	2.44	6.95	2.71	7.71	2.88	8.20
33	0.588	1.700	20/34	2.42	7.00	2.69	7.77	2.86	8.26
31A	0.583	1.714	21/36	2.40	7.06	2.67	7.83	2.84	8.33
30A	0.577	1.733	15/26	2.38	7.14	2.64	7.92	2.80	8.42
50	0.571	1.750	20/35	2.35	7.21	2.61	8.00	2.78	8.50
51	0.567	1.765	17/30	2.34	7.27	2.59	8.07	2.75	8.57
52	0.563	1.778	18/32	2.32	7.32	2.57	8.12	2.73	8.64
53	0.559	1.789	19/34	2.30	7.37	2.55	8.18	2.72	8.69
54	0.556	1.800	15/27	2.29	7.42	2.54	8.23	2.70	8.74
55	0.552	1.813	16/29	2.27	7.47	2.52	8.28	2.68	8.80
56	0.548	1.824	17/31	2.26	7.51	2.51	8.33	2.67	8.86
57	0.533	1.875	16/30	2.20	7.73	2.44	8.57	2.59	9.11
58	0.531	1.882	17/32	2.19	7.76	2.43	8.60	2.58	9.14

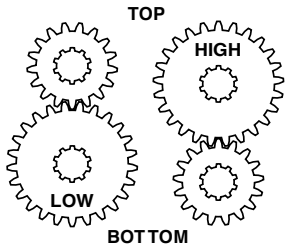
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PART NO. 4400 SERIES 1" Wide
PART NO. 4500 SERIES 1-3/8" Wide

Machined from SAE 8620 Steel.
When ordering 1" Wide Gears add Prefix 44 to Set #.
When ordering 1-3/8" Wide Gears add Prefix 45 to Set #.
Example: Gear Set # 01 = 4401 or 4501

REM GEARS
Option 8218 QCG





IMPORTANT
Install Quick Change Gears with the Shoulder facing toward Gear Cover Bearings. Remember to refill gear cavity with good quality gear lube after Quick Change Gear changes.

Numerical Ratio Listed

GEAR SET #	LOW SPUR RATIO	HIGH SPUR RATIO	# OF TEETH	3.78 R&P Ratio (9-34 Teeth) LOW	3.78 R&P Ratio (9-34 Teeth) HIGH	4.11 R&P Ratio (9-37 Teeth) LOW	4.11 R&P Ratio (9-37 Teeth) HIGH	4.33 R&P Ratio (9-39 Teeth) LOW	4.33 R&P Ratio (9-39 Teeth) HIGH
01	1.000	1.000	24/24	3.78	3.78	4.11	4.11	4.33	4.33
02	0.958	1.043	23/24	3.62	3.94	3.94	4.29	4.15	4.52
03	0.920	1.087	23/25	3.48	4.11	3.78	4.47	3.98	4.71
03B	0.895	1.118	17/19	3.38	4.22	3.68	4.59	3.87	4.84
03A	0.880	1.136	22/25	3.33	4.30	3.62	4.67	3.81	4.92
04	0.846	1.182	22/26	3.20	4.47	3.48	4.86	3.66	5.12
05	0.808	1.238	21/26	3.05	4.68	3.32	5.09	3.50	5.36
05A	0.792	1.263	19/24	2.99	4.77	3.25	5.19	3.43	5.47
06	0.778	1.286	21/27	2.94	4.86	3.20	5.28	3.37	5.57
24	0.767	1.304	23/30	2.90	4.93	3.15	5.36	3.32	5.65
25	0.750	1.333	18/24	2.84	5.04	3.08	5.48	3.25	5.77
07	0.741	1.350	20/27	2.80	5.10	3.04	5.55	3.21	5.85
23	0.727	1.375	16/22	2.75	5.20	2.99	5.65	3.15	5.95
08	0.714	1.400	20/28	2.70	5.29	2.94	5.75	3.09	6.06
22	0.704	1.421	19/27	2.66	5.37	2.89	5.84	3.05	6.15
09	0.696	1.438	16/23	2.63	5.43	2.86	5.91	3.01	6.22
10	0.682	1.467	15/22	2.58	5.54	2.80	6.03	2.95	6.35
11	0.667	1.500	18/27	2.52	5.67	2.74	6.17	2.89	6.50

Numerical Ratio Listed

GEAR SET #	LOW SPUR RATIO	HIGH SPUR RATIO	# OF TEETH	3.78 R&P Ratio (9-34 Teeth) LOW	3.78 R&P Ratio (9-34 Teeth) HIGH	4.11 R&P Ratio (9-37 Teeth) LOW	4.11 R&P Ratio (9-37 Teeth) HIGH	4.33 R&P Ratio (9-39 Teeth) LOW	4.33 R&P Ratio (9-39 Teeth) HIGH
12	0.655	1.526	19/29	2.48	5.77	2.69	6.27	2.84	6.61
13	0.652	1.533	15/23	2.47	5.80	2.68	6.30	2.82	6.64
14	0.636	1.571	14/22	2.41	5.94	2.62	6.46	2.76	6.80
15	0.625	1.600	15/24	2.36	6.05	2.57	6.58	2.71	6.93
16	0.615	1.625	16/26	2.33	6.14	2.53	6.68	2.66	7.04
17	0.600	1.667	18/30	2.27	6.30	2.47	6.85	2.60	7.22
18	0.591	1.692	13/22	2.23	6.40	2.43	6.96	2.56	7.33
18A	0.571	1.750	16/28	2.16	6.62	2.35	7.19	2.47	7.58
19	0.560	1.786	14/25	2.12	6.75	2.30	7.34	2.42	7.73
20	0.556	1.800	15/27	2.10	6.80	2.28	7.40	2.41	7.79
27	0.542	1.846	13/24	2.05	6.98	2.23	7.59	2.35	7.99
21	0.531	1.882	17/32	2.01	7.12	2.18	7.74	2.30	8.15
28	0.528	1.895	19/36	2.00	7.16	2.17	7.79	2.29	8.20
29	0.522	1.917	12/23	1.97	7.25	2.14	7.88	2.26	8.30
26	0.517	1.933	15/29	1.96	7.31	2.13	7.95	2.24	8.37
30	0.500	2.000	20/40	1.89	7.56	2.06	8.22	2.17	8.66
31	0.488	2.050	20/41	1.84	7.75	2.00	8.43	2.11	8.88
32	0.475	2.105	19/40	1.80	7.95	1.95	8.65	2.06	9.12

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6 SPLINE QUICK CHANGE CROWN CUT GEARS

GEARING FORMULAS

TO DETERMINE GEAR RPM CHANGE
(RPM) ÷ (Gear Ratio) x (New Ratio) = (New RPM)
Example: 8000 ÷ 5.45 x 6.37 = 9350

TO DETERMINE FINAL DRIVE
(# Teeth Top Gear) ÷ (# Teeth Bottom Gear) x (R&P Ratio) = (Final Drive)

GEAR POSTER



PART NO. POSTER-6
A Full Size Poster of this chart for in your shop or race trailer. Measures 19" x 25"

Numerical Ratio Listed

GEAR SET #	LOW SPUR RATIO	HIGH SPUR RATIO	# OF TEETH	4.88 R&P Ratio (8-39 Teeth) LOW	4.88 R&P Ratio (8-39 Teeth) HIGH	5.13 R&P Ratio (8-41 Teeth) LOW	5.13 R&P Ratio (8-41 Teeth) HIGH	5.38 R&P Ratio (8-43 Teeth) LOW	5.38 R&P Ratio (8-43 Teeth) HIGH
01	1.000	1.000	24/24	4.88	4.88	5.13	5.13	5.38	5.38
02	0.958	1.043	23/24	4.68	5.09	4.92	5.35	5.16	5.61
03	0.920	1.087	23/25	4.49	5.30	4.72	5.58	4.95	5.85
03B	0.895	1.118	17/19	4.37	5.45	4.59	5.73	4.81	6.01
03A	0.880	1.136	22/25	4.29	5.55	4.51	5.83	4.73	6.11
04	0.846	1.182	22/26	4.13	5.77	4.34	6.06	4.55	6.36
05	0.808	1.238	21/26	3.94	6.04	4.14	6.35	4.35	6.66
05A	0.792	1.263	19/24	3.86	6.16	4.06	6.48	4.26	6.80
06	0.778	1.286	21/27	3.80	6.27	3.99	6.60	4.18	6.92
24	0.767	1.304	23/30	3.74	6.37	3.93	6.69	4.12	7.02
25	0.750	1.333	18/24	3.66	6.51	3.85	6.84	4.04	7.17
07	0.741	1.350	20/27	3.61	6.59	3.80	6.93	3.99	7.26
23	0.727	1.375	16/22	3.55	6.71	3.73	7.05	3.91	7.40
08	0.714	1.400	20/28	3.49	6.83	3.66	7.18	3.84	7.53
22	0.704	1.421	19/27	3.43	6.93	3.61	7.29	3.79	7.65
09	0.696	1.438	16/23	3.39	7.02	3.57	7.37	3.74	7.73
10	0.682	1.467	15/22	3.33	7.16	3.50	7.52	3.67	7.89
11	0.667	1.500	18/27	3.25	7.32	3.42	7.70	3.59	8.07

Numerical Ratio Listed

GEAR SET #	LOW SPUR RATIO	HIGH SPUR RATIO	# OF TEETH	4.88 R&P Ratio (8-39 Teeth) LOW	4.88 R&P Ratio (8-39 Teeth) HIGH	5.13 R&P Ratio (8-41 Teeth) LOW	5.13 R&P Ratio (8-41 Teeth) HIGH	5.38 R&P Ratio (8-43 Teeth) LOW	5.38 R&P Ratio (8-43 Teeth) HIGH
12	0.655	1.526	19/29	3.20	7.45	3.36	7.83	3.52	8.21
13	0.652	1.533	15/23	3.18	7.48	3.35	7.87	3.51	8.25
14	0.636	1.571	14/22	3.11	7.67	3.26	8.06	3.42	8.45
15	0.625	1.600	15/24	3.05	7.81	3.21	8.21	3.36	8.61
16	0.615	1.625	16/26	3.00	7.93	3.16	8.34	3.31	8.74
17	0.600	1.667	18/30	2.93	8.13	3.08	8.55	3.23	8.97
18	0.591	1.692	13/22	2.88	8.26	3.03	8.68	3.18	9.10
18A	0.571	1.750	16/28	2.79	8.54	2.93	8.98	3.07	9.42
19	0.560	1.786	14/25	2.73	8.71	2.87	9.16	3.01	9.61
20	0.556	1.800	15/27	2.71	8.78	2.85	9.23	2.99	9.68
27	0.542	1.846	13/24	2.64	9.01	2.78	9.47	2.91	9.93
21	0.531	1.882	17/32	2.59	9.19	2.73	9.66	2.86	10.13
28	0.528	1.895	19/36	2.58	9.25	2.71	9.72	2.84	10.19
29	0.522	1.917	12/23	2.55	9.35	2.68	9.83	2.81	10.31
26	0.517	1.933	15/29	2.52	9.43	2.65	9.92	2.78	10.40
30	0.500	2.000	20/40	2.44	9.76	2.57	10.26	2.69	10.76
31	0.488	2.050	20/41	2.38	10.00	2.50	10.52	2.62	11.03
32	0.475	2.105	19/40	2.32	10.27	2.44	10.80	2.56	11.33

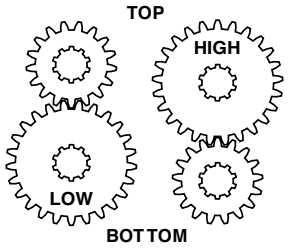
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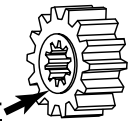


PART NO. 3800 SERIES 1” Wide

Machined from SAE 8620 Steel.
When ordering add Prefix 38 to Set #.
Example: Gear Set # 01 = 3801

REM GEARS
Option 8218 QCG





IMPORTANT
Install Quick Change Gears with the Shoulder facing toward Gear Cover Bearings. Remember to refill gear cavity with good quality gear lube after Quick Change Gear changes.

GEAR POSTER



PART NO. POSTER-7
A Full Size Poster of this chart for in your shop or race trailer. Measures 8-1/2” x 11”

GEARING FORMULAS

TO DETERMINE GEAR RPM CHANGE
(RPM) ÷ (Gear Ratio) x (New Ratio) = (New RPM)
Example: 8000 ÷ 5.58 x 5.35 = 7670

TO DETERMINE FINAL DRIVE
(# Teeth Top Gear) ÷ (# Teeth Bottom Gear) x (R&P Ratio) = (Final Drive)

Numerical Ratio Listed

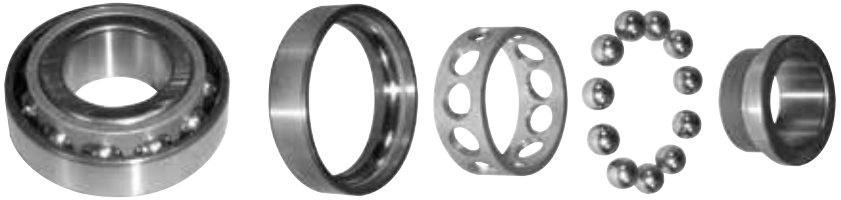
GEAR SET #	LOW SPUR RATIO	HIGH SPUR RATIO	# OF TEETH	3.78 R&P Ratio (9-34 Teeth) LOW	3.78 R&P Ratio (9-34 Teeth) HIGH	4.57 R&P Ratio (7-32 Teeth) LOW	4.57 R&P Ratio (7-32 Teeth) HIGH	5.13 R&P Ratio (8-41 Teeth) LOW	5.13 R&P Ratio (8-41 Teeth) HIGH
01	1.00	1.00	25/25	3.78	3.78	4.57	4.57	5.13	5.13
02	0.96	1.05	23/22	3.63	3.97	4.39	4.80	4.92	5.39
03	0.92	1.08	26/24	3.48	4.08	4.20	4.94	4.72	5.54
04	0.90	1.11	21/19	3.40	4.20	4.11	5.07	4.62	5.69
05	0.88	1.14	24/21	3.33	4.31	4.02	5.21	4.51	5.85
06	0.85	1.17	27/23	3.21	4.42	3.88	5.35	4.36	6.00
07	0.83	1.20	30/25	3.14	4.54	3.79	5.48	4.26	6.16
08	0.82	1.22	22/18	3.10	4.61	3.75	5.58	4.21	6.26
09	0.80	1.25	25/20	3.02	4.73	3.66	5.71	4.10	6.41
10	0.79	1.27	28/22	2.99	4.80	3.61	5.80	4.05	6.52
11	0.77	1.29	31/24	2.91	4.88	3.52	5.90	3.95	6.62
12	0.74	1.35	23/17	2.80	5.10	3.38	6.17	3.80	6.93

Numerical Ratio Listed

GEAR SET #	LOW SPUR RATIO	HIGH SPUR RATIO	# OF TEETH	3.78 R&P Ratio (9-34 Teeth) LOW	3.78 R&P Ratio (9-34 Teeth) HIGH	4.57 R&P Ratio (7-32 Teeth) LOW	4.57 R&P Ratio (7-32 Teeth) HIGH	5.13 R&P Ratio (8-41 Teeth) LOW	5.13 R&P Ratio (8-41 Teeth) HIGH
13	0.73	1.37	26/19	2.76	5.18	3.34	6.26	3.74	7.03
14	0.72	1.38	29/21	2.72	5.22	3.29	6.31	3.69	7.08
14A	0.71	1.40	21/15	2.70	5.29	3.26	6.40	3.66	7.18
14B	0.70	1.42	27/19	2.66	5.37	3.22	6.49	3.61	7.29
14C	0.69	1.44	23/16	2.62	5.44	3.18	6.57	3.57	7.37
14D	0.68	1.47	22/15	2.57	5.54	3.12	6.70	3.50	7.52
15	0.67	1.50	30/20	2.53	5.67	3.06	6.86	3.44	7.70
15B	0.64	1.57	36/23	2.42	5.92	2.92	7.15	3.28	8.03
15A	0.63	1.58	30/19	2.39	5.97	2.89	7.22	3.25	8.10
15C	0.62	1.61	37/23	2.35	6.08	2.84	7.35	3.19	8.25
15D	0.59	1.68	37/22	2.25	6.36	2.72	7.69	3.05	8.63

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LOW DRAG YOUR ENTIRE RACE CAR!



RACE-BRED TECHNOLOGY FROM WINTERS, LOW DRAG ANGULAR CONTACT BEARINGS AND SEALS!

Winters Low Drag Angular Contact Bearings generate less heat, resulting in less wear. Less lubrication is required and less energy is consumed, resulting in cooler operation. Available with steel or ceramic balls. Ceramic ball advantages include 40% reduction in weight which reduces centrifugal forces on the races. Reduced skidding allows 30-50% higher speeds with less lubrication. Silicon nitride balls have 50% higher modules of elasticity resistance to deformation and 15-20% increase in elasticity while having 3-4 times the service life of conventional bearings.

PART NO	DESCRIPTION	APPLICATION	OPTION#
7301AC	13/32" with 18 Steel Balls	Pro Eliminator Midget	8244S-OTM
7358AC	1/2" with 20 Steel Balls	Pro Eliminator Sprint	8244S-OT
8666AC	7/16" with 11 Steel Balls	Sprint Front Hub Kits	8254S-DM
8666ACC	7/16" with 11 Ceramic Balls	Sprint Front Hub Kits	8254C-DM
8668	28mm with 42 Steel Balls	Birdcages	----------
8668ACC	28mm with 42 Ceramic Balls	Birdcages	8292C

ANGULAR CONTACT BEARING PINION PRELOAD

After pinion is installed and case is cooled down to room temperature (68°F - 72°F), torque the pinion nut to 80-100 ft lbs (approximate). Pinion preload is set. 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 the next spline on the 10 spline shaft and re-install.

PLEASE NOTE: Whether using tapered roller bearings or angular contact bearings, side bell preload remains the same.

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OPTION	DESCRIPTION	SPRINT	V8	MIDGET	7"
8104	Pinion Posi-Lock Assembly	★			
8104S	Pinion Posi-Lock Assembly, Steel Nut	★			
8106	Heat Treated Lower Shaft	★		★	
8111	Ring & Pinion, 4.12	★			
8117-V8	Magnesium Left Side Bell		★		
8118S-1	Single Row Bearing Carrier	★			
8118S-2	Double Row Bearing Carrier	★			
8118-1	Single Row Bearing Carrier, Lightweight	★			
8118-2	Double Row Bearing Carrier, Lightweight	★			
8122	Aluminum Axle, Specify Offset	★	★	★	★
8122-44-1	Aluminum Axle, Midget, 44-1			★	★
8122-44-3	Aluminum Axle, Midget, 44-3			★	★
8122-52-1	Aluminum Axle, Sprint, 52-1	★	★		
8122-52-2	Aluminum Axle, Sprint, 52-2	★			
8122-54-4	Aluminum Axle, Sprint, 52-4	★	★		
8122USAC	Aluminum Axle, USAC®	★			
8122A-60-18	Aluminum Axle, Super Modified, 60-18	★			
8122A-60-19	Aluminum Axle, Super Modified, 60-19	★			
8122ASPC	Aluminum Axle, Special	★	★	★	★
8122AMOD-58-4	Aluminum Axle, 58-4 Modified	★			
8122-Custom	Custom Aluminum Axle	★	★		
8126	Titanium Thrubolts	★			
8127	Titanium Thrubolts, Shifter	★			
8128	Titanium Lower Shaft, Shifter	★		★	
8128-V8	Titanium Lower Shaft		★		
8137	Heavy Duty Gear Cover	★			
81378	Ring & Pinion, 8-3/8", 3.78			★	

OPTION	DESCRIPTION	SPRINT	V8	MIDGET	7"
81378-7	Ring & Pinion, 7", 3.78				★
8141	Special Front Bearing	★		★	
81412	Ring & Pinion, 4.12, Heavy Duty, Flanged Spread Bearing	★			
81412R	Ring & Pinion, 4.12, Reverse Rotation	★			
8143	Roller Bearing on Pinion Nose	★			
81457	Ring & Pinion, 10", 4.57	★			
81457-7	Ring & Pinion, 7", 4.57				★
8147	Lightweight Bell	★			
81486	Ring & Pinion, 4.86, Heavy Duty, Flanged Spread Bearing	★			
81486R	Ring & Pinion, 4.86, Reverse Rotation	★			
8150	Titanium Shifter Shaft	★			
8150-V8	Titanium Shifter Shaft		★		
81513-7	Ring & Pinion, 7", 5.13				★
8153	Lightweight Aluminum Axle	★			
8153-52-1	Lightweight Aluminum Axle, 52-1	★			
8153ASPC	Lightweight Aluminum Axle, Custom	★			
8153UL	Ultralight Aluminum Axle	★			
8158	Axle Splined for Brake Mount, Right Side	★		★	
8159	Open Drive	★		★	
8160	Heavy Duty Aluminum Axle, 36 Spline			★	
8160-44-1	Heavy Duty Aluminum Axle, 36 Spline, 44-1			★	
8160-44-3	Heavy Duty Aluminum Axle, 36 Spline, 44-3			★	
8160UL	Ultralight Axle, 36 Spline			★	
8160ASPC	Heavy Duty Aluminum Axle, 36 Spline, Custom			★	
8163	Steel Internal 10-10 Coupler	★		★	
8163-V8	Steel Internal 10-10 Coupler		★		
8163A	Aluminum Internal 10-10 Coupler	★		★	

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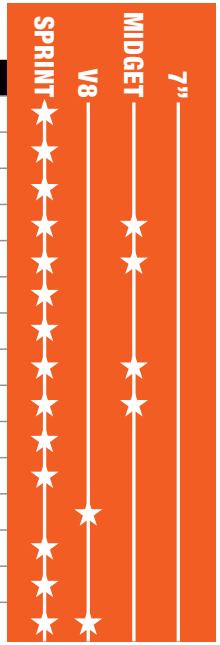
ASSEMBLY OPTIONS

OPTION	DESCRIPTION	SPRINT	V8	MIDGET	7"
8163A-V8	Aluminum Internal 10-10 Coupler		★		
8163SS	Swivel Splined Coupler, Steel Shaft, Pro Eliminator Only	★		★	
8163SS-V8	Swivel Spline Coupler, Steel Shaft		★		
8164	Ring & Pinion, 8-3/8", 4.33			★	
8165	Ring & Pinion, 8-3/8", 4.88			★	
8166	Ring & Pinion, 8-3/8", 5.13			★	
8167	Ring & Pinion, 8-3/8", 5.38			★	
8168	Big Bearing Gear Cover, Sprint Center	★			
8185	Standard Lightweight Aluminum Gear Cover, Tumbled	★			
8188	Right Side Bell with Caliper Mount	★		★	
8191	Flanged Bearing, Pinion	★			
8199	Seal Plate, Viton Seal	★		★	
8202-378	EDM Ring Gear, 3.78 Ratio			★	
8202-411	EDM Ring Gear, 4.11 Ratio			★	
8202-412	EDM Ring Gear, 4.12 Ratio	★			
8202-433	EDM Ring Gear, 4.33 Ratio			★	
8202-457	EDM Ring Gear, 4.57 Ratio	★			
8202-486	EDM Ring Gear, 4.86 Ratio	★			
8202-488	EDM Ring Gear, 4.88 Ratio			★	
8202-513	EDM Ring Gear, 5.13 Ratio			★	
8202-538	EDM Ring Gear, 5.38 Ratio			★	
8202-V8	EDM Ring Gear		★		
8205	Titanium Center Studs	★		★	★
8205-V8	Titanium Center Studs		★		
8206	Titanium Bolt Kit	★			
8206-V8	Titanium Bolt Kit		★		
8207	Polished Casting	★			★

OPTION	DESCRIPTION	SPRINT	V8	MIDGET	7"
8207A	Polished Aluminum Tubes or Axle	★		★	★
8207-ARM	Polished Torsion Arm or Pitman Arm	★		★	★
8208	Thermal Dispersant Coating, Rear End Assembly	★		★	★
8208-01	Thermal Dispersant Coating, Integral Center Section	★		★	★
8208-02	Thermal Dispersant Coating, Center Section	★		★	★
8208-B	Thermal Dispersant Coating, Bell	★		★	★
8208-BC	Thermal Dispersant Coating, Brake Clamp	★			
8208-C	Thermal Dispersant Coating, Cover	★		★	★
8210	Steel High Nuts, Gear Cover	★		★	★
8210-AC	Acorn Nuts, Gear Cover	★		★	★
8210-C	Steel High Nuts, Chrome, Gear Cover	★		★	★
8210-FL	Flanged Nuts, Gear Cover	★		★	★
8216M	Heavy Duty Center, Mini			★	
8217	Cover Gasket, Heavy Duty	★		★	
8218-BRG	REM® Finish, Bearing (# is per Bearing)	★	★		
8218-QCG	REM® Finish, Quick Change Gears	★		★	★
8218-RP	REM® Finish, Ring & Pinion	★		★	★
8222	Magnesium Hex Nuts	★			
8224	Bearing Liner	★			
8225	Internal Bearing Retainer, Gear Cover	★		★	
8227	Yoke, 1310 Series				★
8234	Side Bell Stud Kit, Titanium, 8-3/8"			★	
8244S-OT	Low Drag Bearings, Axle, Steel	★			
8244C-OTM	Low Drag Bearings, Axle, Ceramic			★	★
8244C-V8	Low Drag Bearings, Ceramic, Gear Cover or Lower Shaft Only		★		
8244S-OTM	Low Drag Bearings, Axle, Steel			★	★
8244S-P	Low Drag Bearings, Pinion, Steel	★			

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OPTION	DESCRIPTION
8252	Sprint Gear Cover, Big Bearing with Retainers
8252B	Billet Aluminum Gear Cover with Engraved Winters Logo
8252BL	Billet Aluminum Gear Cover with Custom Engraving
8254S-DM	Angular Contact Ball Bearing with Steel Balls, Sprint Front Hub
8254C-DM	Angular Contact Ball Bearing with Ceramic Balls, Sprint Front Hub
8264	Sprint Gear Cover Pump
8269	Accessory Package
8288	Castellated Nut, Front Spindle
8290	Magnesium Front Hub
8292C	Angular Contact Ball Bearing with Ceramic Balls, Birdcage
8293	Torque Tube Bored to 2.625" I.D.
9101-V8	Adapter, V8 Pro Sprint
9106	Swivel Spline for V8 Rear Conversion Kits
9106A	Swivel Spline for V8 Rear Conversion Kits with Adapter
9121	VascoMax® Stub Shaft



REM® PROCESS

REM® Chemicals, Inc. are innovators of the Isotropic Superfinish (ISF) Process. The ISF Process is a physicochemical process, using high density, non abrasive ceramic media and conventional vibratory finishing equipment. This process removes the surface asperities inherent in machining processes. By safely removing these microscopic peaks, the ISF Process leaves a highly uniform surface, which reduces friction and allows for increased lubrication capability. While the dimensional integrity remains intact, the result is an improved component that will operate at lower temps, have increased durability, quieter operation and increased time between maintenance.

REM BLACK ISF® PROCESS

REM Black® allows the oil to adhere to the surface of the component in severe operating conditions. Engines and transmissions run cooler, use less fuel, last longer and have reduced lubrication requirements.

These benefits all contribute to increased power and speed. The Black ISF® Process has become commonplace among some of the top motorsports racing series and has allowed for new designs in engines and transmissions without sacrificing durability.



EDM RING GEAR **OPTION 8202-XXX**

Reduce rotating and unsprung weight with this ultra-light option!

XXX = Specify Ratio

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MAGNESIUM CAN BE IGNITED! EXERCISE CAUTION!

NOTE: SET-UP PROCEDURE STAYS THE SAME IF USING ANGULAR CONTACT BEARINGS

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

Place the pinion in the freezer before attempting installation into the center. Using a cold pinion with a warm center makes it a snap! Make sure center is clean and free of chemicals or flammable materials. Heat center to 270°F - 300°F in an oven. DO NOT OVER HEAT AS LOSS OF HEAT TREATMENT OR DISTORTION WILL OCCUR! Remove heated center from oven, lubricate pinion bearing bore and bearings. Install "chilled" pinion using a soft hammer to ensure the pinion is seated.

TAPERED ROLLER BEARING PINION PRELOAD

After pinion is installed and case is cooled down to room temperature (68°F - 72°F), torque the pinion nut to 50-60 ft lbs (approximate).
Preload of New Pinion Bearings: 25 in lbs max
Preload of Used Pinion Bearings: 8-10 in lbs

ANGULAR CONTACT BEARING PRELOAD

After pinion is installed and case is cooled down to room temperature (68°F - 72°F), torque the pinion nut to 80-100 ft lbs (approximate). Pinion preload is set. 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 the next spline on the 10 spline shaft and re-install.

SHIM STARTING POINT

0.125 on Right, 0.100 on Left

SIDE BELL PRELOAD

0.010 - 0.012 without seals or o'rings. Whether using tapered roller bearings or angular contact bearings, side bell preload remains the same.

RING & PINION BACK LASH

0.004 - 0.006, no tight spots when rotated.

TORQUE SPECIFICATIONS

NOTE: All torque specs are the same for both steel and titanium unless specified otherwise.
Pinion Retainer Plate Bolts: 25 ft lbs
Heavy Duty Gear Cover Bearing Retaining Caps: 60 in lbs (5 ft lbs)
Seal Plate Bolts (when applicable): 20 ft lbs
Shifter Housing Bolts: 17 ft lbs
V8 Torque Collar Adapter: 25 ft lbs
*Slotted Ring Gear Bolt with Locknut: 35 ft lbs
*Threaded WP Ring Gear Bolts with Belleville Washers (use Thread Lock):
60 ft lbs (Steel), 40 ft lbs (Titanium)
*Thru Bolts: 35 ft lbs
*Pro Eliminator (with Studs) Side Bell Nuts: 35 ft lbs

* = Torque in an alternating criss-cross pattern, in steps, to specify final torque.

After ring gear is installed, back lash is of absolute minimum and the bolts/nuts are torqued, the total preload of the assembly should be:
Preload of New Pinion Bearings and Seals: 37-39 in lbs max
Preload of Used Pinion Bearings and Seals: 15-20 in lbs

To adjust the left bell adjustment screw, turn screw in until it bottoms out, with approximate force of 5 in lbs, then back it off 1/4 turn. Use Thread Lock and tighten aluminum nut.

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MAGNESIUM CAN BE IGNITED! EXERCISE CAUTION!

NOTE: SET-UP PROCEDURE STAYS THE SAME IF USING ANGULAR CONTACT BEARINGS

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

Place the pinion in the freezer before attempting installation into the center. Using a cold pinion with a warm center makes it a snap! Make sure center is clean and free of chemicals or flammable materials. Heat center to 270°F - 300°F in an oven. DO NOT OVER HEAT AS LOSS OF HEAT TREATMENT OR DISTORTION WILL OCCUR! Remove heated center from oven, lubricate pinion bearing bore and bearings. Install "chilled" pinion using a soft hammer to ensure the pinion is seated.

TAPERED ROLLER BEARING PINION PRELOAD

After pinion is installed and case is cooled down to room temperature (68°F - 72°F), torque the pinion nut to 40-50 ft lbs (approximate).
Preload of New Pinion Bearings: 20 in lbs max
Preload of Used Pinion Bearings: 8-10 in lbs

SHIM STARTING POINT

0.065 on Right, 0.065 on Left

SIDE BELL PRELOAD

0.008 - 0.010 without seals or o'rings. Whether using tapered roller bearings or angular contact bearings, side bell preload remains the same.

RING & PINION BACK LASH

0.004 - 0.006, no tight spots when rotated.

TORQUE SPECIFICATIONS

NOTE: All torque specs are the same for both steel and titanium unless specified otherwise.
Pinion Retainer Plate Bolts: 25 ft lbs
Heavy Duty Gear Cover Bearing Retaining Caps: 60 in lbs (5 ft lbs)
Seal Plate Bolts (when applicable): 20 ft lbs
Shifter Housing Bolts: 17 ft lbs
*Slotted Ring Gear Bolt with Locknut: 35 ft lbs
*Threaded WP Ring Gear Bolts with Belleville Washers (use Thread Lock):
60 ft lbs (Steel), 40 ft lbs (Titanium)
*Side Bell Nuts: 30 ft lbs

* = Torque in an alternating criss-cross pattern, in steps, to specify final torque.

After ring gear is installed, back lash is of absolute minimum and the bolts/nuts are torqued, the total preload of the assembly should be:
Preload of New Pinion Bearings and Seals: 27-29 in lbs max
Preload of Used Pinion Bearings and Seals: 15-20 in lbs

To adjust the left bell adjustment screw, turn screw in until it bottoms out, with approximate force of 5 in lbs, then back it off 1/4 turn. Use Thread Lock and tighten aluminum nut.

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SPRINT AXLE SPECIFICATION FORM

AXLES WILL BE MADE OUT OF STEEL UNLESS SPECIFIED OTHERWISE. X3 IS STRONGER THAN ALUMINUM. ALUMINUM AXLES ARE NOT RECOMMENDED. SEE MACHINERY HANDBOOK FOR STRENGTHS OF METALS PUBLISHED BY INDUSTRIAL PRESS INC., NEW YORK.

❑ Aluminum

Quantity_____

Color_____

Polished_____

FLOATING BRAKE SPLINE

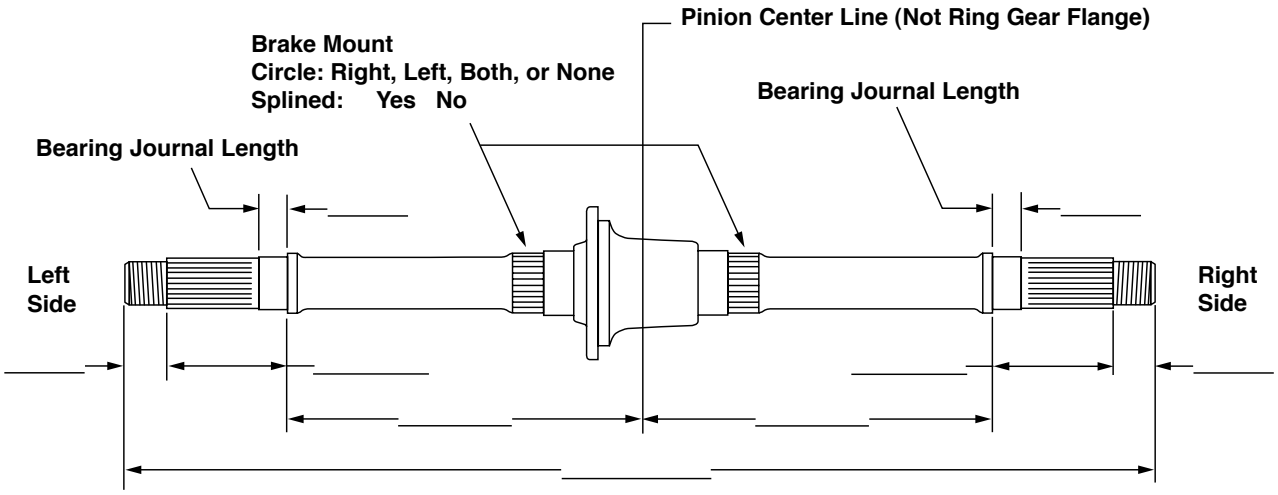
❑ Yes

❑ No

ADD OPTION 9107 FOR SOLID AXLE



❑ ❑ ❑ ❑ ❑



PLEASE VERIFY DIMENSIONS

Custom Axles are built to your specifications and require a 50% deposit.

As shown above, there are various dimensions needed to build an axle. It is essential that we are given the correct information in order to build your axle properly.

1. Please verify the above information and fill in all blanks.

2. Circle the correct side for brake mount- Left, Right, Both or None. Indicate whether mount is splined or not.

3. Mark material and bore desired.

4. Sign, Date and Return this form by FAX (717-764-0617) email (office@wintersperformance.com) or mail to Winters.

Customer Name_____ **Customer #**_____

Address_____

_____

Phone_____ **FAX**_____

Email_____

Signature_____ **Date**_____

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SUPER MODIFIED AXLE SPECIFICATION FORM

AXLES WILL BE MADE OUT OF STEEL UNLESS SPECIFIED OTHERWISE. X3 IS STRONGER THAN ALUMINUM. ALUMINUM AXLES ARE NOT RECOMMENDED. SEE MACHINERY HANDBOOK FOR STRENGTHS OF METALS PUBLISHED BY INDUSTRIAL PRESS INC., NEW YORK.

❑ Aluminum

Quantity_____

Color_____

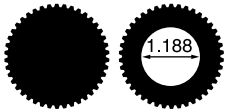
Polished_____

FLOATING BRAKE SPLINE

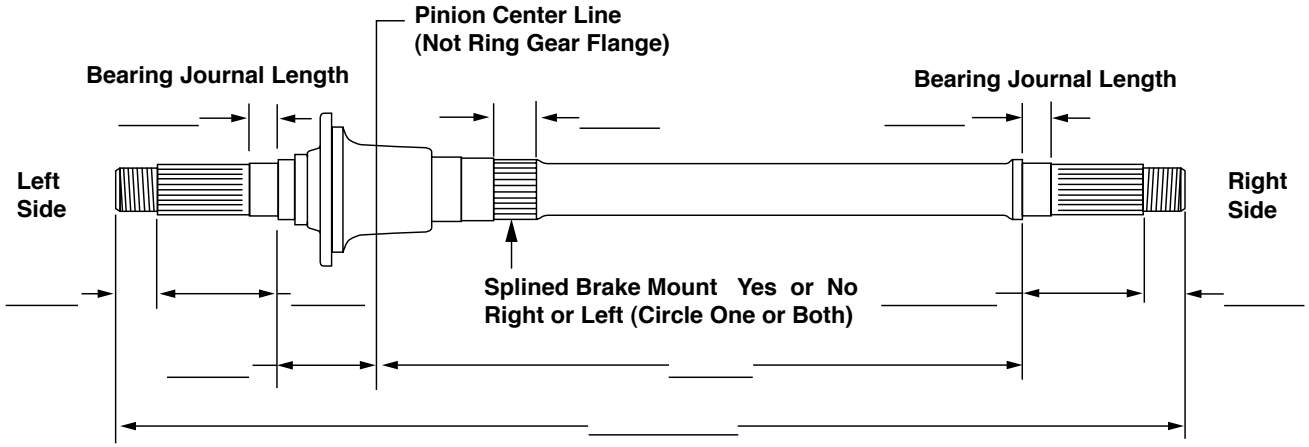
❑ Yes

❑ No

ADD OPTION 9107 FOR SOLID AXLE



❑ ❑



PLEASE VERIFY DIMENSIONS

Custom Axles are built to your specifications and require a 50% deposit.

As shown above, there are various dimensions needed to build an axle. It is essential that we are given the correct information in order to build your axle properly.

1. Please verify the above information and fill in all blanks.

2. Circle the correct side for brake mount- Left, Right, Both or None. Indicate whether mount is splined or not.

3. Mark material and bore desired.

4. Sign, Date and Return this form by FAX (717-764-0617) email (office@wintersperformance.com) or mail to Winters.

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_____

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Email_____

Signature_____ **Date**_____

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MIDGET AXLE SPECIFICATION FORM

AXLES WILL BE MADE OUT OF STEEL UNLESS SPECIFIED OTHERWISE. X3 IS STRONGER THAN ALUMINUM. ALUMINUM AXLES ARE NOT RECOMMENDED. SEE MACHINERY HANDBOOK FOR STRENGTHS OF METALS PUBLISHED BY INDUSTRIAL PRESS INC., NEW YORK.

❑ Aluminum

Quantity_____

Color_____

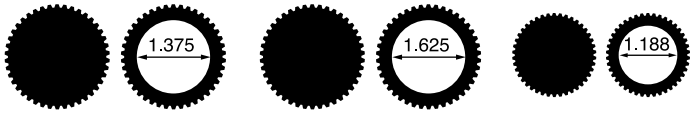
Polished_____

FLOATING BRAKE SPLINE

❑ Yes

❑ No

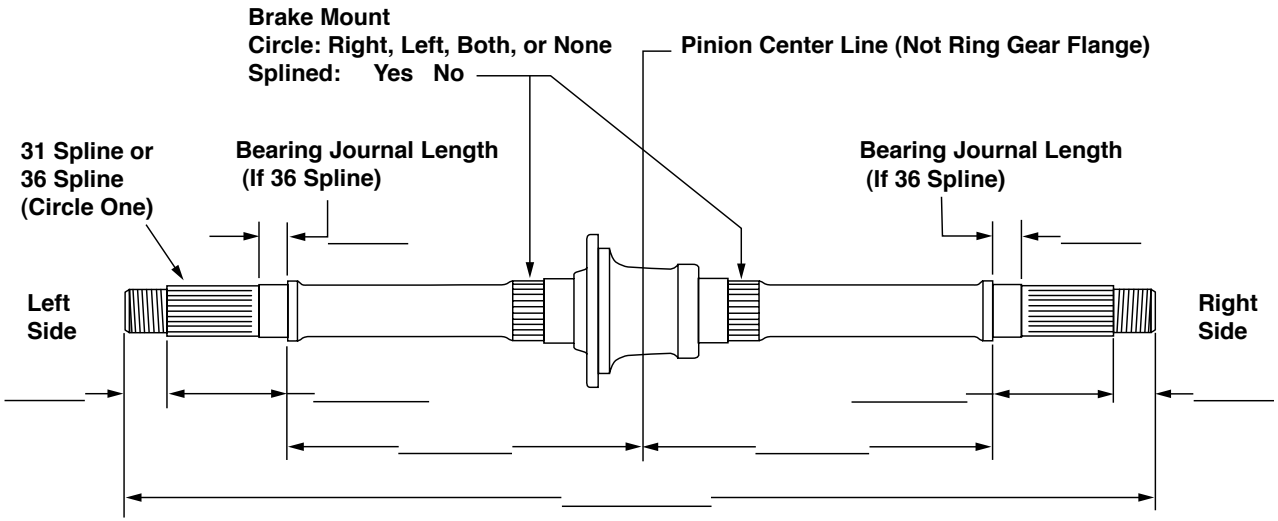
ADD OPTION 9107 FOR SOLID AXLE



❑ ❑ 36 Spline

❑ ❑ 36 Spline

❑ ❑ 31 Spline



PLEASE VERIFY DIMENSIONS

Custom Axles are built to your specifications and require a 50% deposit.

As shown above, there are various dimensions needed to build an axle. It is essential that we are given the correct information in order to build your axle properly.

1. Please verify the above information and fill in all blanks.

2. Circle the correct side for brake mount- Left, Right, Both or None. Indicate whether mount is splined or not.

3. Mark material and bore desired.

4. Sign, Date and Return this form by FAX (717-764-0617) email (office@wintersperformance.com) or mail to Winters.

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Address_____

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Email_____

Signature_____ **Date**_____

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RADICAL OFFSET AXLE SPECIFICATION FORM

AXLES WILL BE MADE OUT OF STEEL UNLESS SPECIFIED OTHERWISE. X3 IS STRONGER THAN ALUMINUM. ALUMINUM AXLES ARE NOT RECOMMENDED. SEE MACHINERY HANDBOOK FOR STRENGTHS OF METALS PUBLISHED BY INDUSTRIAL PRESS INC., NEW YORK.

❑ Aluminum

Quantity_____

Color_____

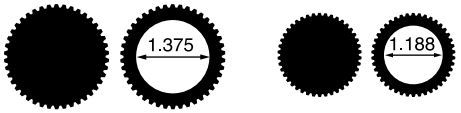
Polished_____

FLOATING BRAKE SPLINE

❑ Yes

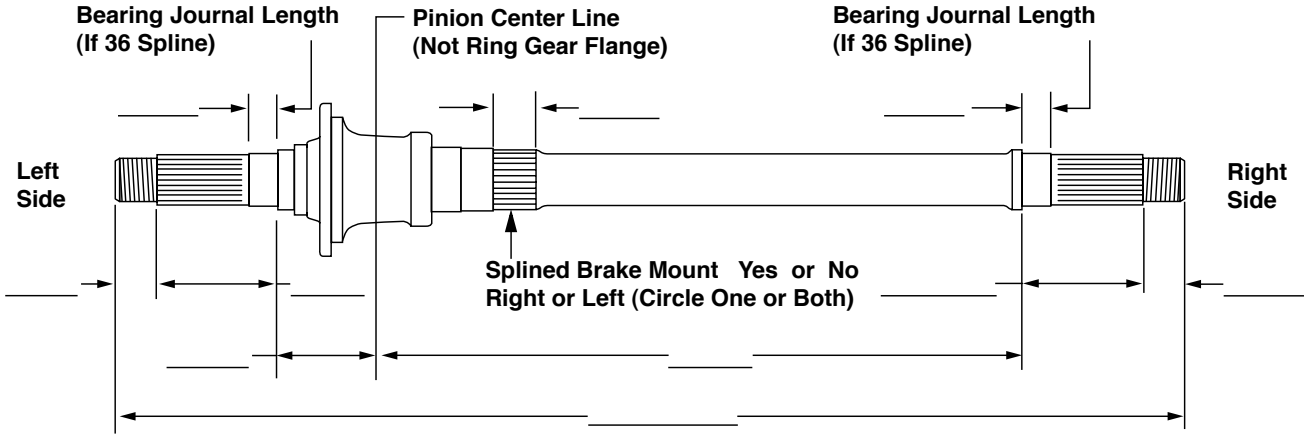
❑ No

ADD OPTION 9107 FOR SOLID AXLE



❑ ❑ 36 Spline

❑ ❑ 31 Spline



PLEASE VERIFY DIMENSIONS

Custom Axles are built to your specifications and require a 50% deposit.

As shown above, there are various dimensions needed to build an axle. It is essential that we are given the correct information in order to build your axle properly.

1. Please verify the above information and fill in all blanks.

2. Circle the correct side for brake mount- Left, Right, Both or None. Indicate whether mount is splined or not.

3. Mark material and bore desired.

4. Sign, Date and Return this form by FAX (717-764-0617) email (office@wintersperformance.com) or mail to Winters.

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Address_____

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Phone_____ **FAX**_____

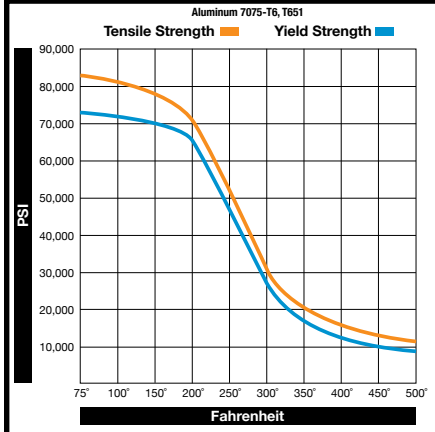
Email_____

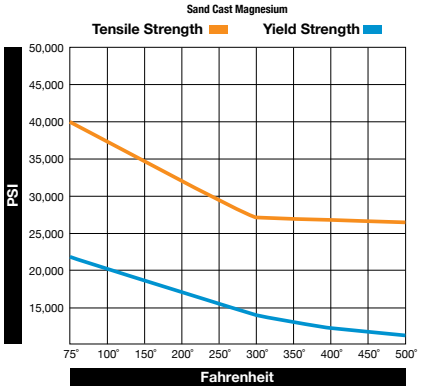
Signature_____ **Date**_____

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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.

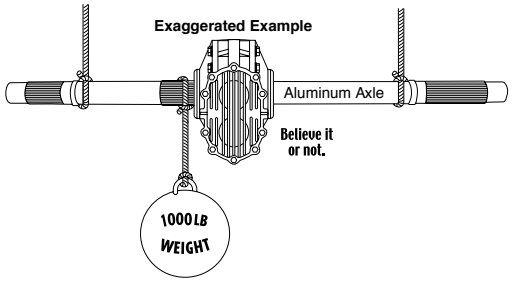
ALUMINUM	TENSILE STRENGTH	YIELD STRENGTH
7075-T6	83000	73000
2024-T3	70000	50000
6061-T6	45000	40000

FACT
Titanium is 60% the weight of Steel

FACT
Aluminum is approximately 33% the weight of Steel

FACT
Magnesium is 66% the weight of Aluminum

TIE DOWN PROCEDURE



IMPORTANT

Sooner or later this tube will break because it's being stressed in **one** direction, without being allowed to relax.

This is the nature of aluminum.

When transporting or storing your race car, prolong the life of your aluminum tube by supporting the frame of your car so your aluminum tube is hanging in the chassis and not being stressed.

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.
Return the car to the pits, 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.
If the car is equipped with an oil circulator pump, it is advisable to use an in-line filter. Change oil and filter after each event. Winters recommends the continued use of Winters Part No. 1730 Semi Synthetic Lubricant with Moly or Mobil 1® for the life of your rear end.

REM® PROCESS

REM® Chemicals, Inc. are innovators of the Isotropic Superfinish (ISF) Process. The ISF Process is a physicochemical process, using high density, non abrasive ceramic media and conventional vibratory finishing equipment. This process removes the surface asperities inherent in machining processes. By safely removing these microscopic peaks, the ISF Process leaves a highly uniform surface, which reduces friction and allows for increased lubrication capability. While the dimensional integrity remains intact, the result is an improved component that will operate at lower temps, have increased durability, quieter operation and increased time between maintenance.

CRYOGENIC PROCESSING

Cryogenic Processing is the process through which the material being treated is slowly lowered to -320°F, held for an extended period (20-40 hours), then slowly brought back to room temperature. This process is done in a computer controlled, vacuum insulated Cryoprocessor. The benefits of cryogenics are- Increased abrasive wear resistance (dimensional stability and durability), Homogenization of hardness over the entire structure, Transformation of retained austenite into martensite, Decreased residual stresses, Increased resistance to fatigue failure and chipping and Optimal microstructure alignment to increase strength.

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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 or Mobil 1® Hypoid 70-90 (GL5) Synthetic.

WHAT OIL LEVEL SHOULD I MAINTAIN IN MY WINTERS REAR END?

DO NOT OVER-FILL! TOO MUCH LUBE CAUSES EXCESSIVE HEAT! (SEE ILLUSTRATIONS BELOW)



Use Winters Semi-Synthetic Hypoid Lube with Moly 80-90-140 Part No. 1730 or Mobil 1® 70-90. For SDS Please Call or Visit our Website.

Full Size 10”

Always maintain oil level a 2” below axle center line. Make sure the rear is level when checking oil.

Midget 8-3/8” & 7”

Always maintain oil level at 1-3/4” below axle center line. Make sure the rear is level when checking oil.

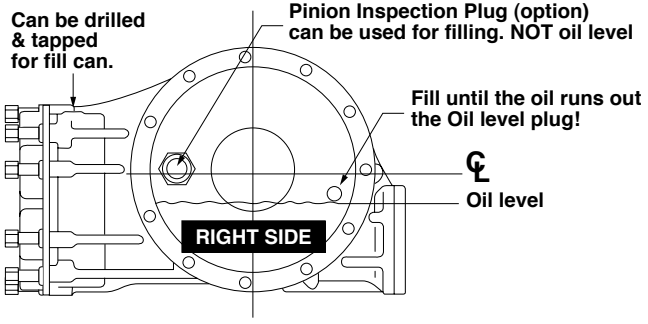
8”, 4.11

IMPORTANT: Always maintain oil level at 1.50” (Assembly Part No. 12366) and 1.73” (Assembly Part No. 4085) below axle center line. PROPER OIL LEVEL MUST ALWAYS BE MAINTAINED OR RING & PINON LIFE WILL BE DRASTICALLY REDUCED!

HOW DO I FILL MY WINTERS REAR END?

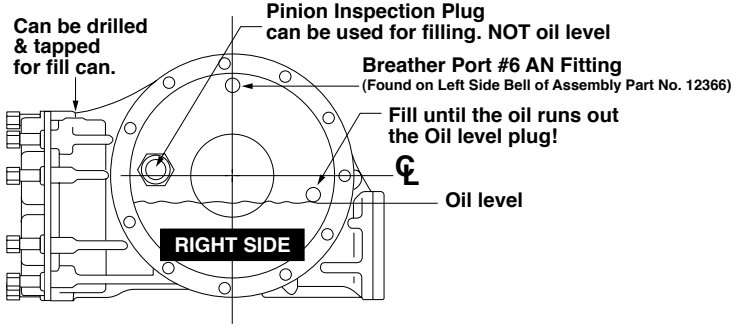
The fill plug is located on the left side bell. Optional pinion inspection plug, right bell, may be used to fill, however, DO NOT Use to determine fluid level. To determine fluid level, fill until the oil runs out the oil level plug in the front of the right side bell. (SEE ILLUSTRATIONS BELOW)

10”, 8-3/8” & 7” Rears



Make sure rear is level when checking oil.

8”, 4.11 Rear



Make sure rear is level when checking oil.

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FREQUENTLY ASKED QUESTIONS

RING GEAR TORQUE SPECIFICATIONS

Threaded Ring Gear Bolts: 60 ft lbs using red thread lock
Non-Threaded Ring Gear Bolt & Locknut: 35 ft lbs

SIDE BELL STUD TORQUE SPECIFICATIONS

10” Full Size Rears (7/16” Studs): 35 ft lbs
Midget 8-3/8”, 7” (3/8” Studs): 30 ft lbs

WHAT IS THE CORRECT WAY TO INSTALL QUICK CHANGE GEARS?

The machined lip faces out.

CAN I USE HELICAL GEARS IN MY WINTERS REAR END?

Not in extreme applications. Helical gears create excessive and destructive thrust loads on all shafts and bearings. Helical gears have their advantages, but not in this application.

FACT: Titanium is 60% the weight of Steel.
EXAMPLE: Part No. 2974G Drive Shaft weighs 6 lbs 2 oz. Same Drive Shaft in Titanium, Part No. 2974TG, weighs 3 lbs 6 oz.

FACT: Aluminum is approximately 33% the weight of Steel.
EXAMPLE: Part No. 5987 Steel 10-10 Coupler weighs 1 lb 4 oz. Same 10-10 Coupler in Aluminum, Part No. 5987A, weighs 4 oz.

FACT: Magnesium is 66% the weight of Aluminum.
EXAMPLE: Part No. 6121L-UL, 6121R-UL Aluminum Axle Nuts weigh 8oz. The same Axle Nuts in Magnesium, Part No. K6121L-UL, K6121R-UL, weigh 5 oz.

See Machinery Handbook for strengths of metals, published by Industrial Press, New York

CAN I USE WIDE GEARS IN MY WINTERS REAR END?

No. It’s a fact, wide quick change gears will cause over-heating in long races.

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. After two gears are paired, they must remain together.

HOW DO I REMOVE MY PINION?

Make sure the center is clean and free of chemicals or flammable materials. Use an oven to heat your center to 270°-300° F. Magnesium can be ignited - Exercise Caution! Torching your center will damage the casting and ring & pinion life will be adversely affected.

CAN I DETERMINE RING & PINION RATIO WITHOUT OPENING UP 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 equals 4.11/4.12 Ratio, four and one half revolutions equals 4.57 Ratio, almost five revolutions equals 4.86 Ratio.

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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

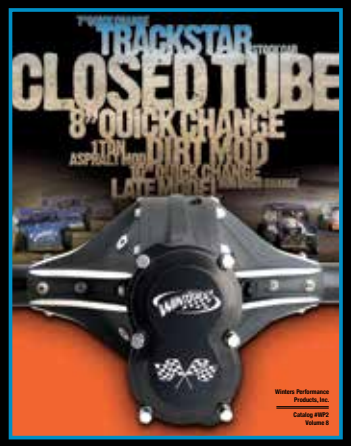
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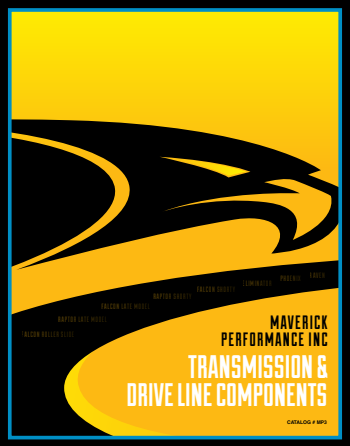
LONGSTANDING NAME!

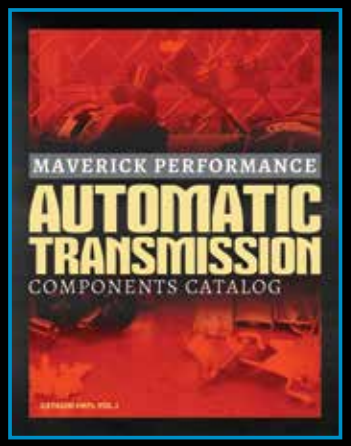
Proven Performance!

We invite you to explore our other winning product lines.











WINTERS

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