



2024 PRODUCT GUIDE

**WE RACE.
YOU RACE.**

Let's Race Together



DIVERSIFIED MACHINE, INC.

Phone 717.397.5347 | Fax 717.397.7470

430 N. Franklin Street Lancaster, PA 17602 USA

diversifiedracing.com | bulldogrears.com

Hours: 9am - 5pm EST

Monday - Friday



Owners:

Jim & Tammy Haines



Sales Manager:

Dave Ely

Customer Service:

Jennifer Ely

davee@diversifiedracing.com
jenne@diversifiedracing.com



**Quick Change Rear Manager
& Tech Support:**

Adrian Shaffer

adrian@diversifiedracing.com



Operations Manager:

John Flory

johnf@diversifiedracing.com



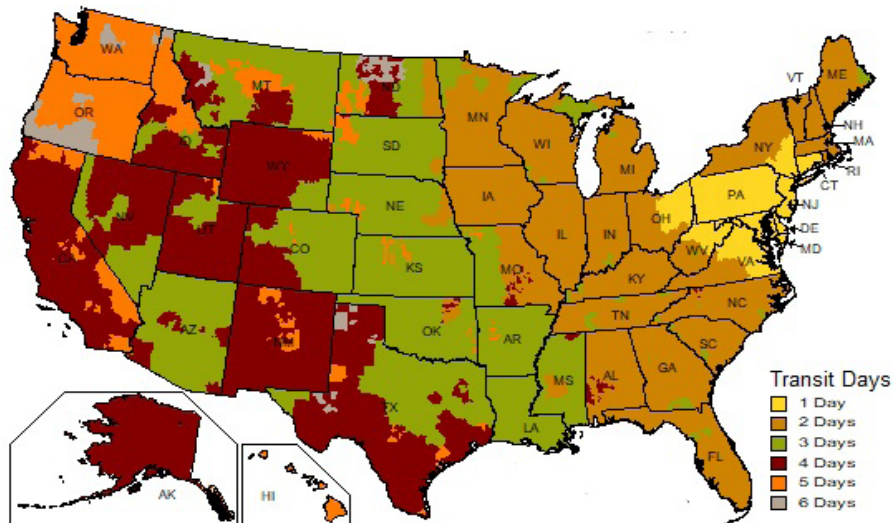
**Media Relations
Manager:**

Mande Pauch
Mahaney

mandee@diversifiedracing.com

VISION STATEMENT

At DMI our vision is to create a relationship with our customers where they know not only are they a valued customer but a part of the DMI family. We want the customer to know that their successes are our successes. We will do everything we can to prove to the customer that they made the right choice entrusting DMI with their safety, providing them a fair value and offering the highest performing components available in motorsports today, tomorrow and in the future.



Shipping Information—DMI ships UPS daily. We offer all UPS services including next-day, second-day and three-day air. All air orders must be placed prior to 1:00 pm EST. DMI charges the appropriate fees for C.O.D. and air shipments. DMI also charges a \$5.50 handling charge to all packages. DMI works in accordance with current shipping rate policies. DMI reserves the right to change shipping rates in accordance with rate increases by the shipping provider. DMI also ships via common carrier upon request. Common carrier shipments must be paid in full, including freight charges, prior to the order being sent. Always check the contents of your shipment immediately upon receipt. Should any damage be evident, immediately notify the freight company. To insure prompt replacement of goods, notification of damages should be given within three days.

Hello again and welcome to the 2024 Diversified Machine Inc. Product Guide.

Welcome to the 2024 Diversified Machine Inc. (DMI) Product Guide. I always enjoy writing this intro for the catalog because it gives me an opportunity to reflect on our past 24 months as well as look ahead on our upcoming plans. Being a manufacturer in motorsports doesn't differ much from being a competitor. No matter how many races you've won you must have a constant desire and drive to improve.

The last 24 months at DMI has seen unprecedented growth in sales and manufacturing production. After a tumultuous start to the roaring 2020's due to COVID and global supply issues the world has had to accept a "new normal." To thrive today requires increased inventory on raw materials, learning to remain efficient and productive with a smaller workforce and an ability to remain fluid with whatever curve ball gets thrown your direction. We've seen an explosion in the popularity of motorsports while watching the sport transform over the last two years to a level most never envisioned possible. In recent months we purchased a new pallet pool Haas CNC mill that will enable us to produce parts faster and more efficiently. The machine was one of the very first produced by Haas. In addition, we added machines and tooling to speed up and improve many processes including splining, turning and rear assembly. New product development was very aggressive throughout 2023. We are releasing three new quick change rears for 2024. The rears feature new precision castings produced from the latest in pattern and core technology. From start to finish the rears were engineered to be stronger, truer and the best quick change rears ever manufactured. All design was completed with the assistance of Finite Element Analysis. Using the latest F.E.A. software, we are able to simulate the stresses and loads encountered by the center sections. In addition, we fixture and machine the centers in a manner that make them the most accurate quick change ever. Make a close comparison of a DMI Bulldog Quick Change Rear to any of our competitor's and you'll see not all rears are created equal. We're currently investing in additional forgings which will help control costs and improve machine times of many of our components. Additionally, we're exploring alternative packaging to provide better shipping solutions and are awaiting delivery of machinery to aid in the handling of the world's greatest components.

Motorsports has always been an integral part of my life. It's really in the fabric of my being. I started working at my family's racing speed shop at an early age with an eye on making a life's living in the sport. Additionally, after driving sprint cars for 20+ years I now enjoy the sport supporting my son Nash's sprint car efforts. Most weekends you'll find me at a racetrack somewhere. I am one of many DMI employees who not only participate in the sport but have had a lifetime in it. Our team is full of experienced 2nd and 3rd generation racers. It's many years of knowledge that supports every DMI and Bulldog component that goes out the door. Many manufacturers visit races... WE RACE!

We Race. You Race. Let's Race Together. That's more than a slogan. That's an invitation. You aren't going to find another manufacturer in our market segments that have the hands on, at the track experience that we do. Period. That's difficult to place a price on and it's the difference between purchasing parts from a company and investing in parts with a teammate like DMI. As always, thank you to the countless racers who have already made the decision to be a part of the DMI family. If you haven't done so yet I encourage you to give us an opportunity to exceed your expectations and improve your racing efforts. Have a safe and successful racing season!



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SS1

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BULLDOG
Quick Change

CT-2

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XR4

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XR2

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BULLDOG
Quick Change



XR3

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BB-1

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EZ
SERIES

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EZ Series

EZ SERIES



The Bulldog EZ Series rears are the premier Quick Change Rear in motorsports. Any CT-2, SS-1 or MOD series rear can utilize the ingenious EZ bell and tube system. Released late in 2018, The EZ Series of rears have been overtaking the closed tube rear market over the last six seasons. The innovative time saving design benefits touring professionals and weekly racers alike. The modular concept offers superior strength, unmatched versatility, and simplifies tube replacement.

Superior Strength:

Shallow aluminum side bells increase side bell rigidity by almost 75%! Less flex = more traction. Heavy duty tube collars remain straight and true in the hardest of crashes. Tubes are held to the bell by (6) Grade L9 hardened 7/16" studs. The EZ system adds 8 lbs to the overall weight of the unit.

Unmatched Versatility:

Want to try a different tube? Is a tube swap required to comply with a different sanctioning body's rule? Loosen the nuts, remove the tube and install the new tube in under ten minutes. The spare tube can be a complete assembly. Brakes, hub, and birdcage can be mounted prior to tube swap. So easy a caveman can do it!

Simple Tube Replacement:

The rear does not even need to be removed from the car. The rear is sealed in the side bell. When the tube assembly is removed it is a dry process. No more fighting with a large bell at the press removing the old tube. Press availability an issue? No problem. Carry a spare tube and collar assembly and get back on track... fast!

EZ Series



EZCT2 - 4.12
Shown with
BRP Quadlock Tubes
(OPT-9002)



**EZMOD 4.86 -
PRO**
Shown with
2 1/2" GN Tubes
(OPT-9009)

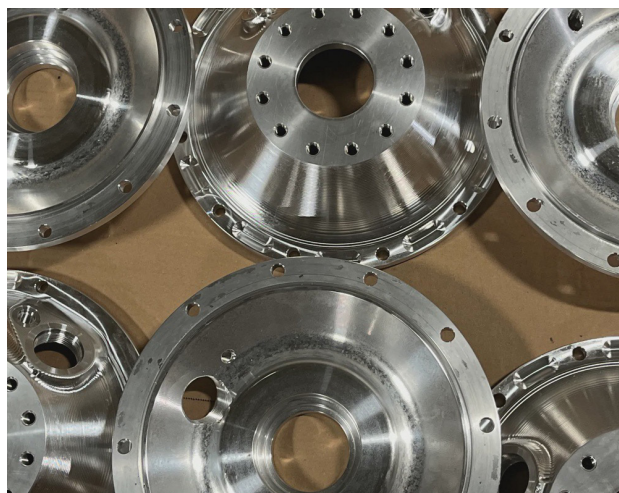


EZCT2 - 4.86
Shown with
Aluminum Wide 5 tubes
(OPT-9005)

EZ Series is available on CT-2 or SS-1 Quick Change Rears. See the CT-2 or SS-1 rear information in the catalog for more details on rear features, specifications, and available options. All MOD series rears are also available with the EZ bells and tubes.



Innovative rear design allows for UPS ground shipping and offers substantial savings in freight costs. Additionally, this method of shipping and stocking rears saves dealers money while offering more inventory options. Stock the center box and multiple styles of tubes in various lengths. Cover all the classes with one rear center.



DMI's proprietary domestic forgings on the left and finished side bells ready for anodize on the right.

SS-1

SS1-4.12

Bulldog SS-1 4.12
Complete Rear
(Less Tubes)

68 lbs.

SS
1



BULLDOG
Quick Change



**BLACK THERMAL
COATING STANDARD**

The Bulldog SS-1 features a lightweight 8" 4.12 ring and pinion. We started with a blank screen and put over two years of design and development into producing the shortest, quickest and strongest full size appearing rear. The rear features reduced rotating and unsprung weight and additional fuel cell clearance. Ultralight 8" ring gear and mini pinion assembly is over 2 ½ lbs. lighter straight out of the box than a standard 10" gear set. The Bulldog Super Short -1 is the shortest rear available from any manufacturer. The rear is more than 1.5" shorter than our already industry leading CT-1 or 2 rears. The rear utilizes our standard side bells and tubes as well as standard 10 spline quick change gears. The pinion is supported by one piece pinion bearing cup and revolutionary pinion nose support. Crate cars and lower horsepower applications will see the largest difference in acceleration and deceleration. There are short rears and then there is Bulldog Super Short! Also available with EZ bells.

Standard Features Include:

- O-Ringed Aluminum Gear Cover
- 100% Magnesium Castings
- Breather Assembly
- Bell to Tube Thru Bolts
- 8" Ring and Pinion produced by the finest Italian Gear Manufacturer
- Correct Length Thru Bolts for Your Application
- All Rears Built Standard with Low Drag Seals
- Heat Treated Super Short Lower Shaft
- 5 qts Bulldog Blood Oil



The 8" ring and pinion is 2.5 lbs. lighter and will accel and decel faster than a 10" ring and pinion. The 10" ring has more leverage behind it and will turn the pinion over with less effort as well as carry momentum better. There isn't a bad choice for your crate or lower H.P. application... both will get the job done!

Popular SS-1 Options

More options available - contact your DMI sales associate for a complete listing.

Ring & Pinion Options

EDM 8" 4.12 OPT-2002

REM® 8" 4.12 OPT-2005

EDM/REM® 8" 4.12 OPT-2008

Super G 8" 4.12 OPT-2011

Lower Shaft Options

Alum. end yoke OPT-3000

Heavy Duty Lower Shaft OPT-3003

Gun Drilled Lower Shaft OPT-3004

No end yoke OPT-3005

Ultra Duty Billet Steel End Yoke -1310 Series OPT-3006

Seal Plate Options

Counterbored Front Seal Plate OPT-4000

Standard Front Seal Plate OPT-4001

Side Bell Options

No Side Bells OPT-5000

No Side Bells EZ Series OPT-5001

8 Rib Bells OPT-5002

Bearing Options

Severe Duty Bearings OPT-6000

Severe Duty Bearings M2 Treated OPT-6001

Hardware Options

Northeast Dirt Mod Thru Bolts OPT-7000

Spool Options

No Spool OPT-8000

No Spool - EZ Series OPT-8001

Bulldog BITE Locker OPT-8002

Ultralight Alum. Spool OPT-8003

Ultralight Alum. Spool EZ Series OPT-8004

Tube Options

Alum. Smart Tube Style Tubes OPT-9000

Alum. Splined Smart Tube Style Tubes OPT-9001

Alum. BRP Quadlock Tubes OPT-9002

Alum. Splined Deuce 'N Half Wide 5 Tubes OPT-9003

Alum. 3/4 Ton Wide 5 Tubes OPT-9005

Alum. 8 Bolt Tubes OPT-9006

Alum. Thin Flange 8 Bolt Tubes OPT-9007

Alum. Camber 3/4 Ton Wide 5 Tubes OPT-9008

Steel 2.5" GN Tubes OPT-9009

Steel 3/4 Ton Wide 5 Tubes OPT-9010

Steel Smart Tube Style Tubes OPT-9011

Steel Thin Flange 8 Bolt Tubes OPT-9012

Steel Camber 3/4 Ton Wide 5 Tubes OPT-9013

Heavy Left Rear Tube OPT-9014

Mid Weight Left Rear Tube OPT-9015



CT-2

CT2-4.86

Bulldog CT-2
4.86 Complete
Rear (Less Tubes)

72 lbs.

CT2-4.12

Bulldog CT-2
4.12 Complete Rear (Less Tubes)

72 lbs.



The Bulldog CT-2 is the newest closed tube rear offered by DMI. The CT-1 had unbelievable alignment accuracy but the CT-2 takes it to another level. The snout, tubes and rear cover are 100% perpendicular to the lower shaft and side bell faces. Absolutely perfect. Every casting. Every time. Our proprietary machining process and fixturing places the CT-2 in uncharted territory. The new center section was designed with the latest Finite Element Analysis software and is being produced by the foremost magnesium foundry in the United States. There has never been another rear that featured the engineering, manufacturing quality or precision as the NEW CT-2. The new rear cover six bolt pattern eliminates the twelve and six o'clock stud locations. The front of the rear has measure-flat technology to ensure the rear location in the car is where you want it. The CT-1 was a great unit in many different arenas. Modifieds, Late Models, the Trans-Am Series. It won every major race and championship in the sport on both dirt and asphalt. The CT-2 looks to build on that success and continue the winning tradition. Also available with EZ bells.

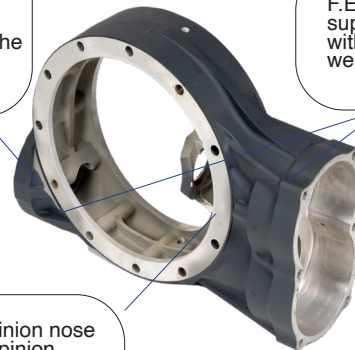
Standard Features Include:

- O-Ringed Aluminum Gear Cover
- 100% Magnesium Castings
- Breather Assembly
- Bell to Tube Thru Bolts
- Correct Length Thru Bolts for Your Application
- Highest Quality Pinion Bearings
- Heat Treated Lower Shaft
- Three Side Bell Studs per Side Allow for Easy Bell Removal without Complete Disassembly
- 5 qts Bulldog Blood Oil
- All Rears Built Standard with Low Drag Seals

Measure-Flat Technology
Flats on each side of
snout provide an accurate
measuring point ensuring the
rear is where you want it.

F.E.A. designed external
support ribs provide strength
without adding excessive
weight

Top and bottom pinion nose
support prevents pinion
deflection increasing pinion
life and reduces drag under
load.



Popular CT-2 Options More options available- contact your DMI sales associate for a complete listing.

Ring & Pinion Options

- EDM 4.12 [OPT-2000](#)
- EDM 4.86 [OPT-2001](#)
- REM® 4.12 [OPT-2003](#)
- REM® 4.86 [OPT-2004](#)
- EDM/REM® 4.12 [OPT-2006](#)
- EDM/REM® 4.86 [OPT-2007](#)
- Super G 4.12 [OPT-2009](#)
- Super G 4.86 [OPT-2010](#)

Lower Shaft Options

- Alum. End Yoke [OPT-3000](#)
- Heavy Duty Lower Shaft [OPT-3001](#)
- Gun Drilled Lower Shaft [OPT-3002](#)
- No End Yoke [OPT-3005](#)
- Ultra Duty Billet Steel End Yoke -1310 Series [OPT-3006](#)
- Lower Shaft For Rear End Pump [OPT-3007](#)
- TA Lower Shaft [OPT-3008](#)
- No Lower Shaft [OPT-3009](#)

Seal Plate Options

- Counterbored Front Seal Plate [OPT-4000](#)
- Standard Front Seal Plate [OPT-4001](#)

Side Bell Options

- No Side Bells [OPT-5000](#)
- No Side Bells EZ Series [OPT-5001](#)
- 8 Rib Bells [OPT-5002](#)

Bearing Options

- Severe Duty Bearings [OPT-6000](#)
- M2 Treated Severe Duty Bearings [OPT-6002](#)

Hardware Options

- Northeast Dirt Mod Thru Bolts [OPT-7000](#)

Spool Options

- No Spool [OPT-8000](#)
- No Spool EZ Series [OPT-8001](#)
- Bulldog BITE Locker [OPT-8002](#)
- Ultralight Alum. Spool [OPT-8003](#)
- Ultralight Alum. Spool EZ Series [OPT-8004](#)

Tube Options

- Alum. Smart Tube Style Tubes [OPT-9000](#)
- Alum. Splined Smart Tube Style Tubes [OPT-9001](#)
- Alum. BRP Quadlock Tubes [OPT-9002](#)
- Alum. Splined Deuce 'N Half Wide 5 Tubes [OPT-9003](#)
- Alum. Deuce 'N Half Wide 5 Tubes [OPT-9004](#)
- Alum. 3/4 Ton Wide 5 Tubes [OPT-9005](#)
- Alum. 8 Bolt Tubes [OPT-9006](#)
- Alum. Thin Flange 8 Bolt Tubes [OPT-9007](#)
- Alum. Camber 3/4 Ton Wide 5 Tubes [OPT-9008](#)
- Steel 2.5" GN Tubes [OPT-9009](#)
- Steel 3/4 Ton Wide 5 Tubes [OPT-9010](#)
- Steel Smart Tube Style Tubes [OPT-9011](#)
- Steel Thin Flange 8 Bolt Tubes [OPT-9012](#)
- Steel Camber 3/4 Ton Wide 5 Tubes [OPT-9013](#)
- Heavy Left Rear Tube [OPT-9014](#)
- Mid Weight Left Rear Tube [OPT-9015](#)



DMI center section castings are produced from AZ91C-T6 magnesium. Some others in the industry utilize aluminum or Almag 535 because they are cheaper and easier to source. 100% magnesium is lighter, offers better characteristics for this application and further exhibits our "no compromise" approach to creating the best products.



IMCA / UMP / USMTS MODIFIED REARS

The **SATURDAY NIGHT SPECIAL**

- 100% MAGNESIUM CENTER SECTION & BELLS • O-RINGED REAR COVER
- INSPECTION PLUG & FILL LEVEL PLUG • BREATHER ASSEMBLY • ALUMINUM SPOOL
- CORRECT LENGTH CENTER HARDWARE • BELL TO TUBE HARDWARE
- -10 AN FITTING FOR FILL CAN • PRECISION GROUND HEAT TREATED LOWER SHAFT
- BLACK THERMAL COATING • BULLDOG BLOOD GEAR OIL • LOW DRAG SEALS



ALSO AVAILABLE
WITH EZ BELLS

PRO SERIES

In addition to the standard features of a Saturday Night Special. All PRO Series rears include:

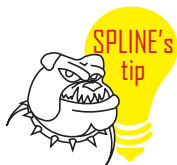


Bulldog has always tried to make things as easy as possible. When IMCA legalized quick changes we took the opportunity to create two rears to simplify the ordering process. Additionally, the rears can be ordered with the new EZ bells and tubes found on page eight and nine. We offer the rears without tubes or with tubes so you can use the hubs and rotors from your Ford® 9" or complete with tubes, hubs and rotors. All the rears are available with solid or hollow axles. The Saturday Night Special is the rear geared to the no frills racer. The Professional Series features the most popular options chosen by racers looking to leave no stone un-turned. Either rear is more than capable of winning the sports biggest races.

Make the rear a complete assembly. Include DMI's Billet Steel GN Hubs, hollow or solid axles and 11 3/4" x .810 Vented Rotors.



The myth that quick change rears rob horsepower is just that...a myth! A 9" rear utilizes a hypoid ring and pinion. Hypoid ring and pinions run hotter and consume more power than the spiral bevel ring and pinions used in a quick change. Some efficiency is lost through the quick change gears but it doesn't surpass the inefficiency of the 9". When the ability to fine tune your gear ratio is taken into account the choice is obvious – quick change all the way!



Consider using steel Smart Tube style tubes in place of 2.5" GN. The hub uses an inverted drive flange requiring shorter axles- Smart Tube style is lighter, stronger and cheaper!

2.5" GN 5 on 5 Tube to Axle conversion

Tube Length	Axle Length
22"	28.5"
23"	29.5"
24"	30.5"
25"	31.5"
26"	32.5"
27"	33.5"
29"	35.5"

A 60" centered Rear utilizes two 24" tubes. A rear with 2" offset would use a 22" and 26" for its tube lengths.

Important Closed Tube Information

Tube To Axle Conversions

2-½ GN Tube	Overall Tube Length + 6.5" = Axle Length.
SmartTube Style Tube	Overall Tube Length + 5.44" = Axle Length.
Wide 5 Tube	Overall Tube Length + 6.5" = Axle Length.
8 Bolt Tube	Overall Tube Length + 13.5" = Axle Length.

Popular Wide 5 Tube Lengths

Chassis	LS Tube	RS Tube
2020-2023 Capital	26.625"	29.125"
XR1 Rocket	25.625"	30.125"
2024 Capital, Longhorn, Pre XR1 Rocket, Pre 2014 Lazer, Pre 2020 Capital	26.625"	30.125"
Lazer, Pre 2020 Capital Lazer, Pre 2024 Barry Wright	27.125"	29.125"
2024 Barry Wright	27.125"	30.125"

Popular SmartTube Style Tube Lengths

	LS Tube	RS Tube
Northeast DIRT Modified, Bicknell, Troyer, Hig	20.060"	28.060"
Teo, PMC	22.188"	28.060"

Wide 5 vs. SmartTube Style

Axle Length	Smart Tube Style Axle Length = Wide 5 Axle Length - 3"
Tube Length	Smart Tube Style Tube Length = Wide 5 Tube Length - 2"

2 1/2" GN Snout vs. SmartTube Style

Axle Length	SmartTube Style Axle Length=2.5" GN Axle Length-1"
Tube Length	SmartTube Style Tube Length= 2.5" GN Tube Length+.25"

IMPORTANT!!

EZ Series rears feature a narrower spool than a conventional rear. We recommend butting axles end to end without a bolt between them. Accomplish this by running a 1" longer axle in the left rear than the above formula suggests.

HEAVY TUBES

The old adage of reducing unsprung weight to make more speed became a thing of the past in recent years. Changing technology has opened our eyes to the benefits of heavier suspension components. Racers have seen increased control and traction with heavier birdcages, wheel spacers, rotors and wheels. More specific to our involvement has been the use of heavy tubes in the rears. Many racers are using heavy left and right rear tubes! We offer tubes of varying weights as well as concealed tube inserts. Verify with your track rules or sanctioning body rules the legality of heavy tubes and inserts. Who has seen the biggest benefit of heavy tubes? IMCA-Style Mods! Late Models and Northeast Dirt Modifieds have seen mixed results. But almost all the IMCA-Style Mods that have experimented with heavy tubes have been pleased with the results. Talk to your DMI sales associate for more information.

Important Specs

- Side Bell Nuts – 35 ft/lbs.
- Threaded Ring Gear – 60 ft/lbs. w/ Red Threadlocker
- Pinion Retainer Bolts – 35 ft/lbs.
- Front Seal Plate Bolts – 35 ft/lbs.
- Front Yoke Bolt – 35 ft/lbs. w/ minimum Blue Threadlocker
- Pinion Backlash - .004”-.006”
- Rotational Pinion Preload (No Spool) – 25 in/lbs. @70°F (new bearings)
10-15 in/lbs. @70°F (used bearings)
- Rotational Pinion Preload (W/ Spool) – 35-40 in/lbs. @70°F (new bearings)
15-20 in/lbs. @70°F (used bearings)
- Starting recommendations for Shims CT-1 & CT-2 Left .024” Right .055”
- Starting recommendations for Shims SS-1 Left .035” Right .035”
- Starting recommendations for Shims EZCT-1 & EZCT-2 Left .032” Right .038”
- Starting recommendations for Shims EZSS-1 Left .045” Right .040”

*There is NOT a torque spec for the bolts utilized to fasten the tubes to the side bell or tubes to the EZ bell. Additionally, there is not a torque spec for the (6) EZ bell nuts utilized to fasten the EZ tube assy. to the side bell.
*Always make sure the front yoke bolt is achieving maximum thread engagement. Different yokes may require a different length bolt. One or two threads make a BIG difference!!

Approximate Tube Weights (Weights may vary by tube length)

Description	Weight
SmartTube Steel	11.5 lbs.
Steel 2.5 GN	13.5 lbs.
Moly 2.5 GN	11 lbs.
SmartTube Alum	5 lbs.
Steel Wide 5	12.5 lbs.
Aluminum Wide 5	6 lbs.
Aluminum Deuce N’ Half	6.5 lbs.
Heavy Steel Deuce N’ Half	38.5 lbs.
Heavy Steel 2.5 GN	31.5 lbs.
Steel Mid Wt. Wide 5	20 lbs.

Weight Savings of Some Popular Options

CT-2 4.86 w/o tubes = 72 lbs.

Description	Savings
4.12 Ring & Pinion	.75 lbs.
EDM Ring Gear	.80 lbs.
Aluminum Yoke	1.37 lbs.
Gundrilled Lower Shaft	1.10 lbs.
Ultra-Light Aluminum Spool	.57 lbs.

All SmartTube Style Axle Tubes Built for Northeast DIRT Modified that require the birdcage timing set are installed at 0° unless requested otherwise.

All tubes insert into bell 5". When determining tube length, measure from end of tube to face of tube opening in bell and add 5". This is true for both conventional and EZ Series rears.



Important Closed Tube Information

EDM Ring Gear

EDM ring gears decrease weight and increase flex. Ring gear bolts should be replaced and torqued to 60ft. lbs. using blue threadlocker every 500 laps when using an EDM ring gear. EDM ring gears are not recommended in high horsepower (800+) applications.

Angular Contact Pinion Pack

Angular contact pinion packs are available in place of standard issue tapered roller bearings. Angular contact pinion packs offer a 33% reduction in drag when NEW. After two races tapered rollers are just as free and offer superior strength. Angular contact pinion bearings require frequent inspection. Check play by grabbing pinion shaft, if play is present the bearing pack needs to be replaced. Tapered roller bearings are perfect for this application and virtually bullet proof. Angular contact bearings WILL need to be replaced sometime. Choose the pinion bearing that's best for you.

WARNING! DMI/Bulldog recommends using an oven to heat center section. Heat 15-20 minutes @450°F. If a torch has to be used *DO NOT CONCENTRATE THE HEAT IN ONE AREA*. Keep torch moving at all times.

Loaded Pinion Removal

Heat center section until the pinion is able to freely be removed. DO NOT concentrate heat around the pinion nose bearing. Concentrated heat in the nose support area will cause the center section to crack.

Loaded Pinion Installation

Load pinion with bearings, pinion washer and pinion posi-lock nut. Tighten assembly as tight as possible by hand to ensure bearings are fully seated on pinion. Heat center section until the assembled pinion freely drops in to the center. Hit back of pinion with rubber mallet ensuring pinion is fully seated in the center section and install pinion retainer bolts. Allow center section to return to room temperature (70°F). Torque pinion retainer bolts to 35 ft/lbs.

Closed Tube Rear Set-Up

Back off pinion nut and re-tighten the nut until a 25 in/lbs. rotational pinion preload is achieved without the spool if using new bearings. If using old bearings 10-15 in/lbs. rotational pinion preload is desired. ALWAYS keep in mind you are measuring the rotational pinion preload. *NOT the breakaway number.* This is particularly evident when working with used bearings. The pinion nut can be tightened down increasing the initial torque required to turn the pinion but it will not increase the rotational preload.

Lubricate posi-lock retainer o-ring and install posi-lock retainer on pinion nut using finger pressure only. Rotate retainer if needed to align locking splines. Attach right side bell to center using three installed studs. Torque nuts to 35 ft/lbs. Rotate right side down and install ring gear/spool assembly with recommended starting shims (see important specs @ the bottom of the closed tube rear set-up) and check bearings. Install left side bell with three studs and torque nuts to 35ft/lbs. Check pinion backlash using the small dial indicator. Install holder on top left rear cover stud and secure with gear nut. Place indicator on tooth of pinion and measure. We prefer a pinion backlash of .004"- .006". Adjust spool shims accordingly until desired amount of backlash is achieved. Once desired amount of pinion backlash is achieved, verify rotation pinion preload of the complete assembly. New bearings should be 35-40 ft/lbs. Used bearings will be 15-20 ft/lbs.

Once set-up is complete, remove side bells. Install side bell o-rings and install side bell/spool seals using red thread locker on o.d. of seal. Remove spool check bearings carefully while maintaining shim stacks. Install spool bearings using press. Re-install right side bell. Grease ends of spool at seal diameter and drop spool into center. Install left side bell carefully with ring gear backstop thrust block in place on rears that utilize the thrust block. Torque side bell/center section hardware to 35 ft/lbs. Tighten ring gear backstop until it touches the ring gear. If the ring gear backstop stud is fine thread back off 3/8 of a turn. If the backstop stud is coarse thread back off 1/8 of a turn. Jam ring gear backstop jam nut.

IF YOU DON'T KNOW – CALL!!!!

RRC-6000

REAR REBUILD TOOL KIT

PROFESSIONAL SERIES



THE FIRST STEP IN REBUILDING A QUICK CHANGE REAR IS HAVING THE RIGHT TOOLS. DMI/BULLDOG HAS PRODUCED THE INDUSTRY'S FIRST COMPLETE TOOL KIT TO REBUILD ALL BRANDS OF QUICK CHANGE REARS. PRECISION DIAL INDICATOR TO MEASURE RING GEAR BACKLASH, MADE IN THE USA TORQUE WRENCH FOR ROTATIONAL PINION PRELOAD AND ALL THE SOCKETS, WRENCHES AND FIXTURES TO REBUILD LIKE THE PROS! COMPLETE WITH INSTRUCTIONS. KIT INCLUDES 6 AND 10 SPLINE PINION SOCKETS.

CLOSED TUBE REARS

2024 PRODUCT GUIDE

Closed Tube Center Sections | Side Bells | Components

Center Sections



RRC-1000
Magnesium
Center Section
RRC-0900
Magnesium SS-1
Center Section



RRC-5502
Magnesium
CT-2 Center Section

Side Bells



RRC-1102
Magnesium Left Side
6-Rib Bell



RRC-1103
Magnesium Right Side
6-Rib Bell



RRC-1107
Magnesium Left Side
8-Rib Bell



RRC-1108
Magnesium Right Side
8-Rib Bell



RRC-5001
EZ Series Forged
Left Side Bell



RRC-5000
EZ Series Forged
Right Side Bell



RRC-5400
EZ Series
Tube Base

Center and Side Bell Components



RRC-1034
90 degree Breather
Assembly

RRC-1041
Straight Breather Assembly

RRC-5508
Sintered Bronze Breather



RRC-1010
Large Inspection Plug
O-Ring

RRC-1015
Large Inspection Plug
O-Ring



RRC-1016
Fill Level Plug
O-Ring

RRC-1017
Fill Level Plug O-Ring



RRC-1031
Magnetic 3/8" NPT
Drain Plug

RRC-1029
-6 AN Steel Port Plug



RRC-1032
-8 Port to -10 Union



RRC-4150
EZ Ring Gear
Backstop Jam

RRC-0940
EZ Ring Gear
Backstop



RRC-1037
-8 Port Plug

RRC-1038
O-Ring for -8
Port Fitting



RRC-1105
Side Bell O-Ring



RRC-1110
Side Bell Stud
RRC-1116
Steel XL Sidebell Stud
for Panhard Mount
RRC-1127
Side Bell Flange Nut
RRC-1130
Side Bell Washer



CRC-2100
Deluxe GN
Tube Seal for
Moly Tube



RRC-1104T
Side Bell Axle
Seal - Teflon Lip



RRC-1170
Side Bell Race

**Center / Side
Bell Thru Bolts**
RRC-1124 5"
RRC-1125 5.5"
RRC-1126 6"
RRC-1128 6.5"
RRC-1129 7"



RRC-1117
Bolt Kit for 6 Rib Bell
to Tube

RRC-1119
Bolt Kit for EZ
Bell to Tube



RRC-1136
Ring Gear
Back Stop
Assy.



RRC-1118
Bolt Kit for 8 Rib Bell
to Tube

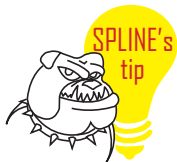
RRC-1145
Back Stop
Washer

RRC-1140
Back Stop
Set Screw

RRC-1135
Ring Gear
Back Stop



RRC-1180
Detent for
CT-1 Side Bell
to Tube



To remove a bent tube from a bell, press tube out from back side. Ensure bell is free from any defects. To install new tube, heat bell until tube slips freely into place. Drill tube and install bolts. If specific tube orientation is required due to birdcage placement, utilize DMI's tube detent system. It makes proper placement a snap! We recommend using an old axle to push the tube out. Weld a strap to an old tube nut and press against it to make removal a snap.

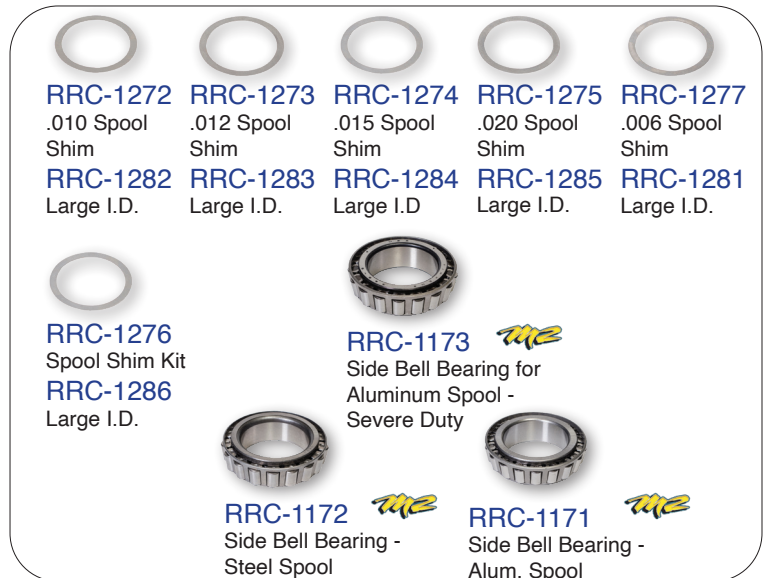
Closed Tube Spools | Components

Spools & Lockers



All spools were redesigned in 2020 with industry leading radiuses increasing strength. The spools require the large I.D. spool shims. The spools are produced from a domestic forging proprietary to DMI.

Spool Bearings & Shims

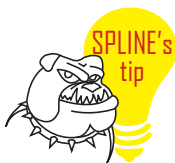


Front Seal Plate Assembly



All bearings are available with M2 Metal Treatment. M2 Metal Treatment was formerly known as PROglide. An ownership change early in 2021 brought a new name but the same great benefits and unmatched results in reducing friction and increased service life. Utilizing nano particles that act as sponges for oil, M2 is a revolutionary process with limitless possibilities. DMI chooses M2 treatment over REM® polished bearings. While DMI does have in-house REM® capabilities we believe they are best suited on gear sets or other “solid” items as opposed to bearings. REM® utilizes fine media as part of the polishing process. In bearings that fine media can be left behind as debris and potentially create an issue. Shiny is nice, but if you want to eliminate friction than M2 is for you!

Look for the *me* icon throughout the catalog for availability.



Never use an EDM lightened ring gear and ultralight aluminum spool. Ultralight spools need to be carefully monitored for cracking between the holes and EDM ring gears have increased flex. The combination of the two can result in premature failures.

Closed Tube Rear Covers | Lower Shafts | Components

Rear Covers and Components










 <p>RRC-1386B Aluminum Rear Cover w/ Bearings & Sealing Ring</p>	 <p>RRC-1350 <i>ME</i> Rear Cover Bearing</p>	 <p>RRC-1355 Rear Cover Stud</p>	 <p>RRC-1361 Rear Cover Nut - Black</p>
 <p>RRC-1390 Gear Cover Bearing Retainer</p>	 <p>RRC-1350HD <i>ME</i> H.D. Rear Cover Bearing</p>	 <p>RRC-1345 Silicone Sealing Ring for Gear Cover</p>	 <p>RRC-1361B Rear Cover Nut - Blue</p>
	 <p>RRC-1391 Bolt for Gear Cover Bearing Retainer</p>	 <p>RRC-1340 Steel Insert Rear Cover Gasket</p>	 <p>RRC-1361G Rear Cover Nut - Gold</p>
			 <p>RRC-1039 6 Port Plug</p>
			 <p>RRC-1037 8 Port Plug</p>
 <p>RRC-1373 Vault Lock Quick Change Rear Cover</p>	 <p>RRC-5545 Aluminum Gen2 Rear Cover - includes Bearings & O-Ring</p>	 <p>RRC-5543 Aluminum Gen2 Rear Cover w/ Ports - includes Bearings & O-Ring</p>	



Bulldog Rear Cover Nuts are the shortest in the industry and provide more fuel cell clearance than any other manufacturer.



Lower Shaft and Components Assembly

 <p>RRC-1482 Front Yoke Bolt</p>	 <p>RRC-1481 Front Yoke Washer</p>	 <p>RRC-1479 Front Yoke w/ built in Spacer</p>	 <p>RRC-1411 Lower Shaft Bearing</p>	 <p>RRC-1427A Washer for Lower Shaft</p>	 <p>RRC-1427HD Steel Lower Shaft - Heavy Duty</p>	 <p>RRC-0927 SS-1 Steel Lower Shaft - Heavy Duty</p>	 <p>RRC-1620 Stub Shaft Snap Ring</p>	 <p>RRC-1412 <i>ME</i> Lower Shaft Bearing - Severe Duty</p>
			<p>RRC-1412 <i>ME</i> Lower Shaft Bearing Severe Duty</p>		<p>RRC-1427HDG Steel Lower Shaft - Gun Drilled</p>	<p>RRC-0927HDG SS-1 Steel Lower Shaft - Gun Drilled</p>		

*See page 62 for NEW billet steel & aluminum front yokes



Bulldog CT Lower Shafts are now precision ground. Standard lower shafts are heat treated and rated To 700 HP. If you're looking to save weight- go Gun-Drilled!

Closed Tube Ring & Pinions | Components

10" Ring & Pinion Assembly

RRC-1366 Posi-Lock Retainer
RRC-1367 Posi-Lock O-Ring
RRC-1369 Posi-Lock Nut - Right Hand
RRC-1368 Pinion Washer
RRC-1311 Timken® Big Pinion Bearing
RRC-1311A Superior Big Pinion Bearing
RRC-1312 Big Pinion Bearing Race
RRC-1311 Timken® Big Pinion Bearing
RRC-1311A Superior Big Pinion Bearing
RRC-1310 Small Pinion Bearing
RRC-1301 Ring Gear Bolt
RRC-1301X ARP Super Strength Ring Gear Bolt
RRC-1302 Ring Gear Washer

Angular Contact
RRC-1313 Angular Contact Pinion Bearing Assembly

RRC-1300	4.12 Ring & Pinion - 12.75 lbs.	RRC 1305	4.86 Ring & Pinion - 13.55 lbs.
RRC-1300-02	4.12 EDM Ring & Pinion	RRC-1305-02	4.86 EDM Ring & Pinion
RRC-1300-02-05	4.12 EDM / REM® Ring & Pinion	RRC-1305-02-05	4.86 EDM / REM® Ring & Pinion
RRC-1300-05	4.12 REM® Ring & Pinion	RRC-1305-05	4.86 REM® Ring & Pinion
RRC-1300SG	4.12 Ring & Pinion - Super G Finish	RRC-1305SG	4.86 Ring & Pinion - Super G Finish

8" Ring & Pinion Assembly

RRC-0966 Posi-Lock Retainer
RRC-1367 Posi-Lock O-Ring
RRC-0969 Posi-Lock Nut - Right Hand
RRC-1368 Pinion Washer
RRC-1311 Timken® Big Pinion Bearing
RRC-1311A Superior Big Pinion Bearing
RRC-0912 Big Pinion Bearing Race
RRC-1311 Timken® Big Pinion Bearing
RRC-1311A Superior Big Pinion Bearing
RRC-0910 Small Pinion Bearing
RRC-1301S Ring Gear Bolt
RRC-1302 Ring Gear Washer

8" ring gear with light weight option 5.3 lbs.

RRC-1303	4.12 Ring & Pinion - 10.12 lbs.
RRC-1303-02	4.12 EDM Ring & Pinion
RRC-1303-02-05	4.12 EDM / REM® Ring & Pinion
RRC-1303-05	4.12 REM® Ring & Pinion
RRC-1303-SG	4.12 Super G Ring & Pinion

R & P Components

RRC-1330 2 Bolt Locking Tab
RRC-1315 Pinion Bearing Spacer
RRC-1320 Pinion Retainer Flange

RRC-1300SG, RRC-1303SG AND RRC-1305SG RING & PINION FEATURE THE SUPER G Treatment. SUPER G treatment dramatically increases ring and pinion life in mega horsepower 410 winged sprint cars. SUPER G ring and pinions are highly recommended for any application that sees severe abuse. For more ring & pinion information see page 18. For weight-saving information see page 17.

Closed Tube Wide 5 Tubes & Accessories

Aluminum 3/4 Ton Wide 5 Tubes



RRC-2275- (length)
Spindle Style Aluminum Axle Tube

Approximate Weight - 6 lbs.

Stocking Lengths*

25.625"	28.125"
26.625"	29.125"
27.125"	30.125"

RRC-2277- (length) - (degrees)
Aluminum Wide 5 Cambered Tube

*All tubes stocked in black- other colors available on special request



Aluminum Deuce 'N Half Wide 5 Tubes



Deuce 'N Half Tubes provide the largest snout of any tube on the market and still utilize a conventional Wide 5 Hub with no modifications needed other than swapping out races. Deuce 'N Half tubes offer a remarkable 62% increase in strength. Do NOT confuse Deuce 'N Half tubes with other company's 1 ton tubes – Deuce 'N Half are a ton better!

RRC- 2279- (length)
Deuce 'N Half Spindle Style Aluminum Axle Tube

Approximate Weight - 6.5 lbs.

Stocking Lengths*

25.625"	28.125"
26.625"	29.125"
27.125"	30.125"



RRC- 2240- (length)
Deuce 'N Half Spindle Style Aluminum Axle Tube - Splined

All tubes stocked in black – other colors available on special request.

Steel Wide 5 Style Tubes



RRC- 2290- (length)
Steel Wide 5 Tube

Approximate Weight - 12.5 lbs.

Stocking Lengths

25.625"	26.625"
27.12"	27.25"
29.25"	

RRC-2292- (length) - (degrees)
Steel Wide 5 Cambered Tube

RRC- 2295- (length)

Steel Wide 5 Tube - Mid Wt.

Approximate Weight - 20 lbs.

Closed Tube Wide 5 Tubes & Accessories

Steel Deuce 'N Half Wide 5 Tubes



RRC-2279- (length) H
Deuce 'N Half Spindle Style
HEAVY Steel Axle Tube

Stocking Lengths

25.625" 26.625" 27.125"

Approximate Weight - 38.5 lbs.

Wide 5 Hub - Rear Assembly



CRC-3004
Wide 5 Hub
Seal



CRC-3001
Inner Bearing
Wide 5 Hub



CRC-3000
Inner Race -
Wide 5 Hub



WIL-270-6513BC
Wilwood Starlite
55 Hub - 5 Bolt
Black



CRC-3002
Outer Race -
Wide 5 Hub



CRC-3003
Outer Bearing -
Wide 5 Hub



BRP-320
Wide 5 Lock-
Nut Kit



WIL-270-6732
Wilwood 5 Bolt
Drive Flange for
Wide

CRC-3005
Wide 5 Hub Seal -
O-Ring Style



Deuce 'N Half (DNH) Wide 5 Hub - Rear Assembly



CRC-3006
DNH Wide 5 Hub
Seal



CRC-3009
DNH Inner
Bearing Wide
5 Hub



CRC-3008
DNH Inner
Race - Wide
5 Hub



CRC-3020
Wilwood Starlite
55 Hub - 5 Bolt -
Black -DNH
Races Installed



CRC-3010
DNH Outer
Race - Wide
5 Hub



CRC-3011
DNH Outer
Bearing -
Wide 5 Hub



CRC-3014
DNH Wide 5
Lock-Nut Kit

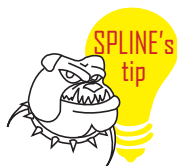


CRC-3015
Wrench for
Deuce n' a
Half Trick Nut



WIL-270-6732
Wilwood 5 Bolt
Drive Flange for
Wide

CRC-3007
DNH Wide 5
Hub Seal - O-Ring
Style



Order CRC-3020 to slide directly onto Deuce 'N Half Tubes. We've already swapped the races out for you. The Deuce 'N Half snout is slightly larger than competitor's 1 ton tubes.

Closed Tube SmartTube Style Tubes & Accessories

Aluminum SmartTube Style Tubes



RRC-2200- (length)
SmartTube Style Axle Tube

Stocking Lengths*

20.188"	26.060"
22.188"	27.060"
24.125"	28.060"
24.625"	30.125"



RRC-2250- (length)
Splined SmartTube Style Axle Tube

All DMI SmartTube style tubes require RRC-2205 and RRC-2206.



RRC-2205
Steel Sleeve for Seal on SmartTube



RRC-2206
O-Ring for SmartTube Steel Sleeve

Quadlock SmartTube Style Axle Tube



RRC-2225- (length)
Quadlock SmartTube Style Axle Tube

Bicknell Racing Products Quadlock SmartTube Style Axle Tubes have revolutionized DIRT modified tubes. No slip design works well on rough race tracks, with coil overs and withstands the hardest abuse. Tubes require RRC-2205 & 2206

Stocking Lengths*

20.060"	28.060"
21.060"	29.060"
22.060"	30.060"

All tubes stocked in black – other colors available on special request.

SmartTube Style Hub Assembly

CRC-1003 O-Ring Style Seal for DMI Style SmartTube w/ Steel Ring
CRC-1004 O-Ring Style Seal for Bert SmartTube

CRC-1001 Bearing for SmartTube Style Hubs - Bert I.D.

CRC-1005 Race for SmartTube Style Hubs

BER-CTD-001 Bert SmartTube Style Hub

CRC-1005 Race for SmartTube Style Hubs

CRC-1001 Bearing for SmartTube Style Hubs - Bert I.D.

BRP-6230 BRP Locknut for SmartTube Style Tube

BRP-345 Bicknell Drive Wrench for Flange

BRP-6231 BRP Lock-Nut



All Bulldog SmartTube Style Tubes utilize the RRC-2205 Steel Ring. The steel ring provides many benefits. One, it keeps hubs tight preventing brake fade. Two, it provides steel surface for the seal to ride. All Bulldog Smart Tube Style Tubes utilize 73 mm I.D. Bearings (2.874015").
DO NOT USE WINTERS 2.875" BEARINGS ON DMI TUBES!

Closed Tube Steel SmartTube Style Tubes & Accessories

Steel SmartTube Style Tubes



Stocking Lengths

22.25"	25.25"
23.25"	26.25"
24.25"	

RRC-2201- (length)
SmartTube Style Axle Tube – Steel

Approximate Weight - 11.5 lbs.

RRC-2201- (length) H
SmartTube Style Axle Tube – HEAVY Steel

Approximate Weight - 36.5 lbs.

All DMI SmartTube style tubes require RRC-2205 and RRC-2206.



RRC-2205
Steel Sleeve for Seal on SmartTube



RRC-2206
O-Ring for SmartTube Steel Sleeve

Ultimate SmartTube Style Large Bearing 5 on 5" Hub

CRC-1003 O-Ring Style Seal for DMI Style SmartTube w/ Steel Ring
CRC-1004 O-Ring Style Seal for Bert SmartTube

CRC-1001 Bearing for SmartTube Style Hubs - Bert I.D.

CRC-1005 Race for SmartTube Style Hubs

CRC-2057A Brake Adaptor

CRC-2050 Ultimate SmartTube Style Hub

CRC-2058-5 Wheel Stud for Billet Hub -5pk

CRC-2056A Steel Drive Flange
CRC-2059 Alum. Drive Flange

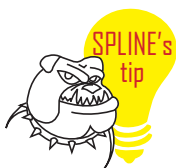
CRC-1005 Race for SmartTube Style Hubs

CRC-1001 Bearing for SmartTube Style Hubs - Bert I.D.

BRP-6230 BRP Locknut for SmartTube Style Tube

BRP-6231 Wrench for BRP Lock-Nut

Ultimate SmartTube Style Large Bearing 5 on 5" Hub is produced from billet steel. The inverted drive flange saves weight and adds strength. Billet fast start tapered studs offer enough length for wheel spacers. Modular brake rotor mount is strong and true. Racers including Terry Phillips and Jordan Grabouski choose SmartTube Style on their race cars.



If you're looking to save weight on your modified then SmartTube is a great choice. SmartTube style saves over 3.25 lbs. of rotating weight between the billet hubs, inverted drive flanges and shorter axles. The tubes save an additional 4 lbs. The total weight savings by going SmartTube is almost 8 lbs. of unsprung weight! Additionally, when utilizing a heavy left side tube to increase bite more gain percentage can be achieved with SmartTube Style tubes.

Closed Tube 2.5" GN Style Tubes & Accessories

Steel 2.5" GN Style Tubes



RRC-2285- (length)
GN Steel Tube

Approximate Weight - 13.5 lbs.

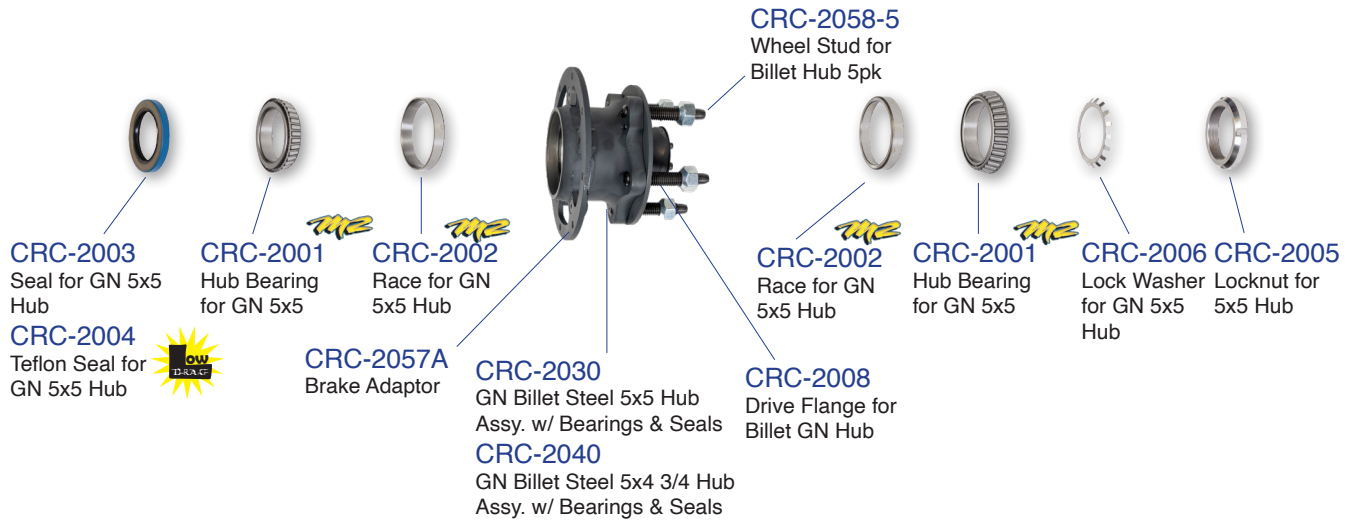
RRC-2285- (length) H
GN HEAVY Steel Tube

Approximate Weight - 31.5 lbs.

Stocking Lengths

22"	26"
23"	27"
24"	29"
25"	

2.5" GN 5 on 5" and 5 on 4 3/4" Hub Assembly



The Ultimate Billet Steel 5 on 5" and 5 on 4 3/4" Hubs for 2.5" GN Snouts were born out of necessity. The industry stopped when imported hub supplies ground to a halt. Facing the reality of racers being unable to compete, DMI rose to the occasion and showcased what an American company can do when their focus is products Made in the USA. The super strong billet hubs feature a modular brake rotor mount, fast start studs, a steel billet drive flange universal to both bolt patterns and an easy to use 1/4 turn drive flange cap. You just can't beat Made in the USA.



Closed Tube Miscellaneous Rear Tubes

8 Bolt Tubes



[RRC-2280-_\(length\)_](#)
Aluminum 8 Bolt Tube
[RRC-2260-_\(length\)_](#)
Aluminum Thin Flange 8 Bolt Tube



[RRC-2259-_\(length\)_](#)
Steel Thin Flange 8 Bolt Tube
[RRC-2295-_\(length\)_](#)
Steel 8 Bolt Tube

Steel 8 Bolt Spindles

[RRC-2261](#)
8 Bolt Steel Spindle - .5 Camber
[RRC-2262](#)
8 Bolt Steel Spindle - 1.0 Camber
[RRC-2263](#)
8 Bolt Steel Spindle - 1.5 Camber
[RRC-2264](#)
8 Bolt Steel Spindle - No Camber



[RRC-2261 BB](#)
8 Bolt Steel Spindle - .5 Camber
for Tiger Brake Bracket
[RRC-2262 BB](#)
8 Bolt Steel Spindle - 1.0 Camber
for Tiger Brake Bracket
[RRC-2263 BB](#)
8 Bolt Steel Spindle - 1.5 Camber
for Tiger Brake Bracket
[RRC-2264 BB](#)
8 Bolt Steel Spindle - No Camber
for Tiger Brake Bracket



DMI can produce or get any style tube you desire. If you don't see the tube you require please ask your sales associate. Need a special length? Not a problem. Camber tubes? Not an issue. If it's the tube you need to win - DMI will make it happen!



EZ Tube & Base Kits

EZ Tube & Base Kits



Want to make life easier? Order your replacement tube with the EZ base already installed. Simply loosen the six nuts holding the tube to the bell, remove the damaged tube and install the new assembly. No press - no mess. Totally dry process that saves hours of valuable time.

RRC-EZKIT2200	RRC-2200 Tube w/ EZ Base Installed - Specify Length
RRC-EZKIT2201	RRC-2201 Tube w/ EZ Base Installed - Specify Length
RRC-EZKIT2225	RRC-2225 Tube w/ EZ Base Installed - Specify Length
RRC-EZKIT2250	RRC-2250 Tube w/ EZ Base Installed - Specify Length
RRC-EZKIT2275	RRC-2275 Tube w/ EZ Base Installed - Specify Length
RRC-EZKIT2279	RRC-2279 Tube w/ EZ Base Installed - Specify Length
RRC-EZKIT2285	RRC-2285 Tube w/ EZ Base Installed - Specify Length
RRC-EZKIT2290	RRC-2290 Tube w/ EZ Base Installed - Specify Length

THE INDUSTRY'S FINEST 2 1/2" GN HUB



DMI BILLET STEEL 5 ON 5" AND 5 ON 4 3/4"



DMI'S BILLET STEEL HUB NOT ONLY PULLED THE NATION OUT OF A HUB SHORTAGE, IT RAISED THE BAR IN THE PROCESS. HEAT TREATED QUICK START THREADED STUDS ARE LONG ENOUGH FOR WHEEL SPACERS. PROFILED STEEL DRIVE FLANGE IS LIGHTWEIGHT BUT STRONG. EASY TO REMOVE 1/4 TURN DUST CAP ALLOWS FOR EASY AXLE REMOVAL WITHOUT LOSING SMALL HARDWARE. MODULAR ROTOR MOUNT IS REPLACEABLE IN THE EVENT OF DAMAGE AND MAINTAINS THE SAME OFFSET AS PREVIOUSLY USED CAST HUBS.

CLOSED TUBE REARS

2024 PRODUCT GUIDE

Closed Tube 31 Spline Axles

Hollow 31 Spline Axles



RRC-2300- [\(length\)](#)

32.5" Axle Weight - 7.4 lbs

Stocking Lengths

25.5"	32.5"
26.5"	33.5"
27.5"	34.5"
28.5"	35.5"
29.75"	36.5"
30.5"	38.5"
31.5"	

DMI Hollow axles are produced from Made in the USA 4340 that is milled and heat treated to our exact specifications. All axles are turned to the correct outside dimensions for optimum traction and reliability. Don't be fooled by black magic axles that make false promises. Trust DMI axles for the best in reliability and performance.

Hollow 31 Spline Axles - Ultralight Crate



DMI Hollow Ultralight Axles are designed exclusively for the crate engine market. Using the same Made in the USA 4340 as our standard hollow axles, the ultralight axles feature a weight reducing smaller O.D. Get that crate to jump off the corner using the "NEW" ultralight hollow axles.

RRC-2325- [\(length\)](#)

32.5" Axle Weight - 6.4 lbs

Stocking Lengths

25.5"	32.5"
26.5"	33.5"
27.5"	34.5"
28.5"	35.5"
29.75"	36.5"
30.5"	38.5"
31.5"	

Solid 31 Spline Axles

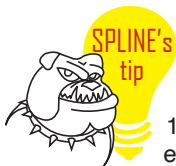


RRC-2350- [\(length\)](#)

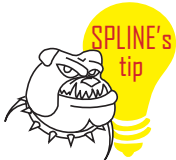
32.5" Axle Weight - 10.2 lbs

Stocking Lengths

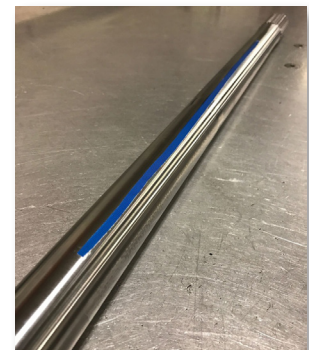
25.5"	32.5"
26.5"	33.5"
27.5"	34.5"
28.5"	35.5"
29.75"	36.5"
30.5"	
31.5"	



Spline recommends all EZ rear axles to butt up face to face without utilizing a bolt to set gap. End play should remain 1/8". EZ spools are narrower but still require full engagement to properly perform.



Spline recommends replacing axles every 800-1000 laps. Paint a line on the axle when new and watch for twisting.



Closed Tube Frequently Asked Questions

Q What is the proper oil level for a Bulldog Rear and how do I fill it?

A The proper oil level varies dependant on the model. Below is a guide (all capacities are approximate)

EZ Series Rears - 2-2.5 qts.

CT-1, CT-2 & SS-1 - 3.5-4 qts.

CT-1 & CT-2 w/ 9" Ring Gear - 4.5 qts.

(Must maintain max level in this unit or pinion life will be drastically reduced)

The correct method of filling the rear is through a fill can attached to the -10 AN fitting on the left side bell or through the large inspection plug on the right side bell. Remove the fill level plug on the right side bell located below the large inspection plug. Install fluid until oil runs out of fill level port. Re-install the fill level plug and add an additional 4-6 ounces of fluid. Re-install inspection plug. Both plugs only need to be "snug". Over-tightening will cause the plug(s) to stick.

Q What is the best oil for a Bulldog Rear?

A We highly recommend Bulldog Blood (see page. 38) We do not re-package someone else's oil. We spent a lot of time and effort testing different formulations. Our oil is blended to our proprietary specs. If Bulldog Blood isn't for you, we see good, consistent results from Driven 75w-110.

Q What type of quick change gears will work in a Bulldog Rear?

A Any 10 spline quick change gear will work in the standard Bulldogs. Bulldog recommends only quick change gears produced from 9310 steel. Inexpensive gears made using 8620 steel will fail. We do not recommend using helical cut gears. Always use gears with the machined lip facing out. Always install gears the same way. Never mix gear sets. Sets are machined as matched units.

Q How do I tell what ratio ring and pinion I have?

A You can call us (717)397-5347 with the serial number and we can see what the rear was built with. If it's a used rear, we strongly suggest checking the ratio and not relying on the build sheet. The easiest way to verify ring and pinion ratio is to remove the quick change gears. Install a mark on the tire at the 12 o'clock position. Install a mark on the pinion at the 12 o'clock position. Rotate the tire by hand 1 complete revolution. Count the pinion rotation as your turning the tire. If the pinion rotates just over four times, you have a 4.12. If the pinion rotates almost five times, you have a 4.86.

Q How often should a ring and pinion be replaced?

A The inspection plug in the right side bell is placed there for a reason. Weekly inspection of the pinion should occur. Ring gears seldom show wear. Rotate the pinion slowly while inspecting the pinion through the hole. Look at the drive side of the tooth. Small pits need to be monitored. Once you determine the pinion pits are excessive, replace the ring and pinion. As long as the unit looks pit-free, there isn't a life cycle. Use it!

Q What is the service life of a Bulldog Rear?

A Bulldog recommends a thorough inspection every 1,000 laps. Remove the left side bell and inspect spool and pinion. Spools should be replaced every 2,000 laps. Lower shafts should be replaced every 1,800-2,000 laps. Incorrect axle length as well as axles that provide increased twist effect service life. If a driveshaft failure occurs, the lower shaft, end yoke, and bolt should be replaced immediately.

Friction Fighter Sportsman Series Quick Change Gears

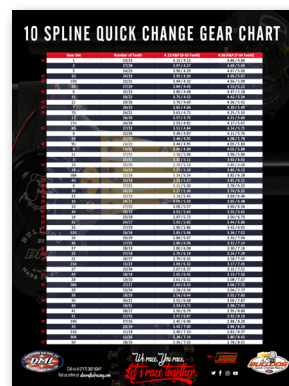


Friction Fighter Sportsman Series 10 Spline Quick Change Gears are produced from high strength 9310 alloy steel and precision hobbed. The gears are lightened and REM® polished. There isn't a nicer gear set available for the money.

FFSSQCG - set#
Friction Fighter Quick
Change Gears



GEARCHART
Laminated
Gear Charts are
available



#20 gear set weighs 4.74 lbs.

To Determine Final Drive: $(\# \text{ top teeth}) / (\# \text{ bottom teeth}) \times \text{R\&P Ratio} = \text{Final Drive}$

To Determine RPM Change: $(\text{Current RPM}) / (\text{Gear Ratio}) \times (\text{New Gear Ratio}) = \text{New RPM}$

Example: 8200 5.42 5.56 8400

FFSSQCG 10 SPLINE GEAR RATIOS				
Gear Set	No. of Teeth	4.12 Ring & Pinion (8-33 Teeth)		4.86 Ring & Pinion (7-34 Teeth)
1	23/23	4.12 / 4.12		4.86 / 4.86
2G	24/23	3.95 / 4.30		4.66 / 5.07
15G	22/21	3.94 / 4.32		4.64 / 5.09
6	25/23	3.80 / 4.48		4.47 / 5.28
12	29/26	3.70 / 4.60		4.36 / 5.42
7	26/23	3.65 / 4.66		4.30 / 5.49
7G	24/21	3.61 / 4.71		4.25 / 5.55
8G	27/23	3.51 / 4.84		4.14 / 5.71
9G	24/20	3.44 / 4.95		4.05 / 5.83
11	27/22	3.36 / 5.06		3.96 / 5.96
13	25/20	3.30 / 5.16		3.89 / 6.08
4G	23/18	3.23 / 5.27		3.81 / 6.21
4	27/21	3.21 / 5.30		3.78 / 6.25
20	26/20	3.17 / 5.36		3.74 / 6.32
22	25/19	3.14 / 5.43		3.69 / 6.40
16	28/21	3.09 / 5.50		3.65 / 6.48
10	27/20	3.06 / 5.57		3.60 / 6.56
34	26/19	3.02 / 5.64		3.55 / 6.65
14	25/18	2.97 / 5.73		3.50 / 6.75
35	24/17	2.92 / 5.82		3.44 / 6.86
32	27/19	2.90 / 5.86		3.42 / 6.91
32G	26/18	2.85 / 5.96		3.36 / 7.02
37	28/19	2.80 / 6.08		3.30 / 7.16
23	27/18	2.75 / 6.19		3.24 / 7.29
21	26/17	2.70 / 6.31		3.18 / 7.43
43	28/18	2.65 / 6.42		3.13 / 7.56
28G	27/17	2.60 / 6.55		3.06 / 7.72
30	34/21	2.55 / 6.68		3.00 / 7.87
41	28/17	2.50 / 6.79		2.95 / 8.00
33G	27/16	2.45 / 6.96		2.88 / 8.20
31G	31/18	2.40 / 7.10		2.82 / 8.37
50	28/16	2.36 / 7.22		2.78 / 8.51

Friction Fighter Quick Change Gears

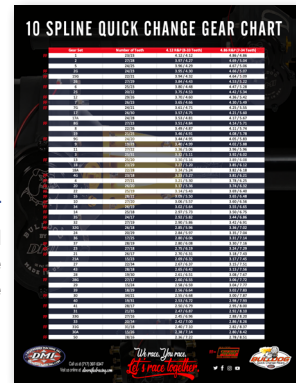


Simply stated Friction Fighter 10 Spline Quick Change Gears are the strongest, lightest, highest quality gears available. 9310 Ultra high strength steel, stone ground, cryogenic processed and REM® finished - The gear mesh area is only 1" wide eliminating friction.

FFQCG- set#
Friction Fighter Quick Change Gears



GEARCHART
Laminated Gear Charts are available



#20 gear set weighs 4.23 lbs.

To Determine Final Drive $(\# \text{ top teeth}) / (\# \text{ bottom teeth}) \times \text{R\&P Ratio} = \text{Final Drive}$

To Determine RPM Change $(\text{Current RPM}) / (\text{Gear Ratio}) \times (\text{New Gear Ratio}) = \text{New RPM}$

Example: 8200 5.42 5.56 8400

FFQCG 10 SPLINE GEAR RATIOS			
Gear Set	No. of Teeth	4.12 Ring & Pinion (8-33 Teeth)	4.86 Ring & Pinion (7-34 Teeth)
1	23/23	4.12 / 4.12	4.86 / 4.86
2G	24/23	3.95 / 4.30	4.66 / 5.07
15G	22/21	3.94 / 4.32	4.64 / 5.09
6	25/23	3.80 / 4.48	4.47 / 5.28
12	29/26	3.70 / 4.60	4.36 / 5.42
7	26/23	3.65 / 4.66	4.30 / 5.49
7G	24/21	3.61 / 4.71	4.25 / 5.55
8G	27/23	3.51 / 4.84	4.14 / 5.71
9G	24/20	3.44 / 4.95	4.05 / 5.83
11	27/22	3.36 / 5.06	3.96 / 5.96
13	25/20	3.30 / 5.16	3.89 / 6.08
4G	23/18	3.23 / 5.27	3.81 / 6.21
4	27/21	3.21 / 5.30	3.78 / 6.25
20	26/20	3.17 / 5.36	3.74 / 6.32
22	25/19	3.14 / 5.43	3.69 / 6.40
16	28/21	3.09 / 5.50	3.65 / 6.48
10	27/20	3.06 / 5.57	3.60 / 6.56
34	26/19	3.02 / 5.64	3.55 / 6.65
14	25/18	2.97 / 5.73	3.50 / 6.75
35	24/17	2.92 / 5.82	3.44 / 6.86
32	27/19	2.90 / 5.86	3.42 / 6.91
32G	26/18	2.85 / 5.96	3.36 / 7.02
37	28/19	2.80 / 6.08	3.30 / 7.16
23	27/18	2.75 / 6.19	3.24 / 7.29
21	26/17	2.70 / 6.31	3.18 / 7.43
43	28/18	2.65 / 6.42	3.13 / 7.56
28G	27/17	2.60 / 6.55	3.06 / 7.72
30	34/21	2.55 / 6.68	3.00 / 7.87
41	28/17	2.50 / 6.79	2.95 / 8.00
33G	27/16	2.45 / 6.96	2.88 / 8.20
31G	31/18	2.40 / 7.10	2.82 / 8.37
50	28/16	2.36 / 7.22	2.78 / 8.51

BULLDOG FIRST AID KIT

THE BULLDOG FIRST AID KIT IS A MUST HAVE IN YOUR RACECAR TRAILER.



RRC-7050



RRC-7051

BULLDOG FIRST AID KIT INCLUDES:

RRC-7050 BULLDOG FIRST AID KIT:

RRC-1010 LARGE INSPECTION PLUG W/ O-RING
RRC-1034 90 DEGREE BREATHER ASSEMBLY
RRC-1016 FILL LEVEL PLUG W/ O-RING
(3) RRC-1361 REAR COVER TALL NUTS
RRC-1345 SILICONE REAR COVER SEALING RING

RRC-7051 BULLDOG FIRST AID KIT:

RRC-1010 LARGE INSPECTION PLUG W/ O-RING
RRC- 1041 STRAIGHT BREATHER ASSEMBLY
RRC-1016 FILL LEVEL PLUG W/ O-RING
(3) RRC-1361 REAR COVER TALL NUTS
RRC-1345 SILICONE REAR COVER SEALING RING

WP Cross Reference - Open Tube & Closed Tube

Open Tube

DMI #	Description	WINTERS #	DMI #	Description	WINTERS #
RRC-1005	Magnesium Rear Center Section	K2225XHD	RRC-1330	2 Bolt Locking Tab	2374
RRC-1010	Large Inspection Plug	5290	RRC-1335	Pinion Retainer Bolt	7110
RRC-1015	Large Inspection Plug O-Ring	7453	RRC-1340	Rear Cover Gasket	6729HD
RRC-1020	Small Inspection Plug	6857	RRC-1355	Rear Cover Stud	7802
RRC-1025	Small Inspection Plug O-Ring	7454	RRC-1361	Rear Cover High Nut	7794A
RRC-1030	3/8" NPT Allen Drain Plug	7111B	RRC-1366	Posi-Lock Retainer	6484
RRC-1100	Magnesium Side Bell w/Brake Mount	K6964-02	RRC-1367	Posi-Lock O-Ring	7445
RRC-1105	Side Bell O-Ring	7403T	RRC-1368	Pinion Washer	5055
RRC-1110	Side Bell Stud	2266	RRC-1369	Posi-Lock Nut - RH	6485R
RRC-1120	Side Bell Locknut	7177N	RRC-1400	Internal 10-10 Coupler	6676
RRC-1125	Side Bell Bolt - Long	7117	RRC-1401	Aluminum Internal 10-10 Coupler	6676A
RRC-1126	Side Bell Bolt - Short	7787	RRC-1405	10-10 External Snap Ring	7657
RRC-1130	Side Bell Washer	7178	RRC-1410	10-10 Front Bearing	7531
RRC-1135	Ring Gear Back Stop	5010	RRC-1415	Internal 10-10 Seal	7242
RRC-1140	Back Stop Set Screw	6149	RRC-1420	Internal 10-10 Bearing Spacer	6680
RRC-1145	Back Stop Washer	7167	RRC-1425	10-10 Internal Snap Ring	7664
RRC-1150	Back Stop Aluminum Nut	7137A	RRC-1430	Internal 10-10 Lower Shaft	6678-01
RRC-1200	Aluminum Axle 2" I.D. Long Splines w/ Spool	5778UL	RRC-1431	Internal 10-10 Lower Shaft - Titanium	6678T
RRC-1201	Aluminum Axle - Beast Style 54-4	5778A-54-4	RRC-1435	Lower Shaft O-Ring	7452
RRC-1205	Aluminum Axle 1.875" I.D. Long Splines w/Spool	5778L	RRC-1440	Lower Shaft Snap Ring	7660
RRC-1210	Axle Bearing	7358	RRC-1444	External 10-10 Bearing	7383F
RRC-1215	Axle Bearing Race	7357	RRC-1445	External 10-10 Lower Shaft	6249
RRC-1217	Axle Seal	7224	RRC-1447	External 10-10 Coupler	5987
RRC-1220	Axle O-Ring	7433	RRC-1500	Female Splined Shifter Coupler	6252
RRC-1225	Axle Seal Spiral Lock	7626	RRC-1505	O.D. Shifter Bearing	7391
RRC-1229	Rear Axle Shim Kit	6115	RRC-1510	I.D. Shifter Bearing	7392
RRC-1300	4.12 Ring and Pinion w/ Posi Lock	5715	RRC-1515	O.D. Shifter Coupler Snap Ring	7673
RRC-1301	Ring Bolt	7852	RRC-1520	Housing Bore Snap Ring	7636
RRC-1302	Ring Bolt Washer	7815	RRC-1600	Male Splined Shifter Coupler	6265
RRC-1305	4.86 Ring and Pinion w/ Posi Lock	5401	RRC-1605	Detent Spring	6318
RRC-1310	Small Pinion Bearing	7331	RRC-1610	Detent Ball	7347
RRC-1311	Big Pinion Bearing	7308	RRC-1615	Lower Stub Shaft	6250
RRC-1312	Big Pinion Bearing Race	7307	RRC-1616	Stub Shaft - Titanium	6250T
RRC-1315	Pinion Bearing Spacer	5020	RRC-1620	Stub Shaft Snap Ring	7637
RRC-1320	Pinion Retainer Flange	6296A	RRC-1625	Stub Shaft Bearing	7390
RRC-1325	Stub Shaft Bearing Retainer	6267			

Closed Tube

DMI #	Description	WINTERS #	DMI #	Description	WINTERS #
RRC-1000	CT-1 Magnesium Center Section	K5840	RRC-1172	CT-1 Side Bell Bearing for Steel Spool	7309
RRC-1001	Front Seal Plate for CT-1	5018-01ML	RRC-1270	CT-1 Aluminum Spool	5034-11A
RRC-1002	Front Seal for CT-1 Seal Plate	7204V	RRC-1271	CT-1 Aluminum Spool - Ultralight	5034-11UL
RRC-1002T	Front Seal Plate Teflon for CT-1	7204	RRC-1300	4.12 Ring & Pinion	5714
RRC-1003	Seal O-Ring for CT-1 Seal Plate	7474	RRC-1301	Ring Gear Bolt	7852
RRC-1004	O-Ring for CT-1 Seal Plate Flange	7413	RRC-1302	Ring Bolt Washer	7815
RRC-1007	Spirallock for Seal Plate	7652	RRC-1305	4.86 Ring & Pinion	5400
RRC-1010	Large Inspection Plug	5290	RRC-1310	Small Pinion Bearing	7331
RRC-1015	Large Inspection Plug O-Ring	7453	RRC-1311	Big Pinion Bearing - Timken	7308
RRC-1011	Bolt for CT-1 Seal Plate to Center	7110	RRC-1312	Big Pinion Bearing Race	7307
RRC-1011A	Bolt for CT-1 Seal Plate to Center - NCB	7101	RRC-1315	Pinion Bearing Spacer	5020
RRC-1012	Washer for CT-1 Seal Plate to Center	7114	RRC-1320	Pinion Retainer Flange	6296A
RRC-1102	CT-1 Magnesium Left Side Bell - 6 Rib	K1663-02	RRC-1330	2 Bolt Locking Tab	2374
RRC-1103	CT-1 Magnesium Right Side Bell - 6 Rib	K1663-01B	RRC-1335	Pinion Retainer Bolt	7110
RRC-1104	CT-1 Side Bell Axle Seal	7205	RRC-1355	Rear Cover Stud	7802
RRC-1105	Side Bell O-Ring	7403T	RRC-1361B	Rear Cover High Nut - Blue	7794ASB
RRC-1107	CT-1 Magnesium Left Side Bell - 8 Rib	K5016-02M	RRC-1366	Posi-Lock Retainer	6484
RRC-1108	CT-1 Magnesium Right Side Bell - 8 Rib	K5016-05	RRC-1367	Posi-Lock O-Ring	7445
RRC-1125	CT-1 5.5" Center / Side Bell Thru Bolt	7176	RRC-1368	Pinion Washer	5055
RRC-1127	CT-1 Side Bell Flange Nut	7177	RRC-1369	Posi-Lock Nut - RH	6485R
RRC-1130	Side Bell Washer	7178	RRC-1411	CT-1 Lower Shaft Bearing	7390
RRC-1135	Ring Gear Back Stop	5010	RRC-1427	CT-1 Steel Lower Shaft	5003
RRC-1140	Back Stop Set Screw	6149	RRC-1440	Lower Shaft Snap Ring	7660
RRC-1145	Back Stop Washer	7167	RRC-1480	CT-1 Front Yoke	5038
RRC-1150	Back Stop Aluminum Nut	7137A	RRC-1481	CT-1 Front Yoke Washer	5037
RRC-1170	CT-1 Side Bell Race	7310	RRC-1482	CT-1 Front Yoke Bolt	71094
RRC-1171	CT-1 Side Bell Bearing for Aluminum Spool	7340	RRC-1485	Aluminum Spacer for under CT-1 Front Yoke	6532

Bulldog Blood High-Performance Gear Oil & Lubricants



DMI-SWILUBE

Hi-Temp Grease for Splines
10 oz.

DMI-DAYLUBE

DMI DayLube Grease for BC
& Hub Bearings - Ultra Low
Friction

Bulldog Blood 75-90w Synthetic Racing Gear Oil is track tested to meet the high demands placed on today's ring and pinions. Bulldog Blood is a proprietary formula that features extreme pressure additives that aid in the prevention of micro-pitting and excessive wear. Bulldog Blood's non-foaming formula lowers operating temperature and is the only choice when it comes to high performance gear oil. The special additives in Bulldog Blood treat the metal and dramatically increases gear life.

As Spline says, "I NEED MY BLOOD!"

Bulldog1

Bulldog Blood - 1 Gal.

Bulldog5

Bulldog Blood - 5 Gal.

Bulldog5QT

Bulldog Blood - 5 QT.

BulldogCASE

Bulldog Blood - Case 12 QTS.

BulldogQT

Bulldog Blood - QT.



The color of Bulldog Blood will vary based of available particle size of many of the ingredients. Rest assured it's the same proven formula regardless of color.



We are frequently asked about the service life of Bulldog Blood. Quick change gears should be inspected weekly. If you replace the used fluid with new fluid everytime you have the rear cover off, you never need to do a complete oil change. If you are going to re-use the drained fluid we recommend doing a complete drop every 300 laps. If you do re-use the fluid NEVER strain it with a paint strainer. Ensure the fluid is clean of large debris and pour it back into the rear. Paint strainers remove the solid ingredients from the additive pack.



We always set a page aside in our catalog to honor somebody who has left a mark not only on us but the sport. Sadly, we've had to reflect at times on someone we've lost but decided with our last catalog that the proper way to honor an individual is to do it while they're still with us. I consider myself the most fortunate racer on the planet. I was born in to the sport and so far have spent every one of my 46 years on this earth devoted to racing. As a kid it was waiting for the next race to come so I could be mesmerized by the things I saw happening. The drivers doing their thing, the crews doing their thing, watching a track get prepared, the sights, the sounds, the smells absolutely captivated me. And they fed every dream I had. I wanted to drive racecars and I wanted to earn a living in the sport I love. I've done both. They each have required a tremendous amount of energy, time and commitment. I have given a lot to the sport but the sport has rewarded me with a lot more in return. At the top of the list are the relationships and friendships that I have forged with some of the smartest, friendliest, honest and most caring people to grace our planet. People have shared with me their knowledge, given their time and attention and provided me with guidance and support when they didn't have to. It's my honor to recognize, French Grimes.

Madison, Virginia's French Grimes has contributed an awful lot to motorsports and sprint car racing. To many he's just a hillbilly to gawk at. From his iconic Mack Truck (pictured above) to the wild creations he'd drag to Central PA tracks trying to compete against the fiercest competitors at the time like Smokey Snellbaker and Lynn Paxton, everyone couldn't help but look French's way when he arrived on the scene. But there was and continues to be so much more behind the beard, gruff exterior and eccentric execution. It was French that scribed the Stock Car Racing Magazine article educating the sport about 4130 condition N chromoly tubing following Toby Tobias's fatal crash in 1978. From that article thousands of lives have been saved. In conjunction he taught proper welding techniques to further advance the safety of the sport. He worked on ignitions, he tuned fuel injections and he became a confidant, sound board and respected peer to industry giants like Earl Gaerte, Doug Wolfgang, Keith Dorton, JV Brotherton and Smokey Yunick. He also had a vision to create a sprint car division where the "dinner bucket Joe" could compete on a level playing field with the ultra-wealthy. Today the RaceSaver® 305 sprint car series is the largest division of sprint cars in America. The success, growth and sustainability of the series is because French created ironclad rules and enforced them like only he could. As a driver, French won quite a few races at the 305 level. He was a young'un who saw a sprint car on the cover of Hot Rod Magazine and said to himself "one day". He turned his dreams into reality and competed from Williams Grove to Knoxville. And from the Chili Bowl to Old Dominion.

The above accomplishments and accolades are what French has given the sport. However it's the person French that I think deserves a nod. He's honest. Brutally F'n honest. It's the only way to put it. He's fierce. The man is determined. Really determined. He's had some serious health issues that would certainly have landed a lesser man in a box, but French's thirst for life and learning keeps him trucking. He's taught me to be happy and that happiness only comes from one's self. So long as you're not intentionally hurting someone, other people's opinions, thoughts and feelings don't matter. He's taught me that the mirror knows all and you best like what you see. Don't stop learning. Be loyal. Treat people the way you expect to be treated. Be authentic. Simple thoughts from a complex individual. He's absolutely the most stubborn person I know. To a fault, if I'm being honest. But nobody is perfect and he'd be upset with me if I didn't call it like I see it. Besides, I don't want him to get too big of an ego. Thank you French for your contributions to the industry, your advice, assistance and guidance. Most importantly thanks for being French.

Dave Ely

XR4

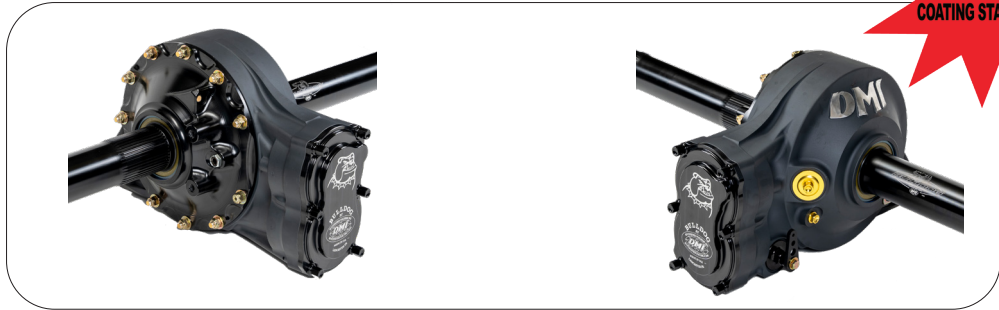


XR4-4.86

Bulldog XR-4
4.86 Complete Rear
82 lbs.

XR4-4.12

Bulldog XR-4
4.12 Complete Rear
82 lbs.



The Bulldog XR-4 is the newest open tube rear offered by DMI. It's predecessor, the XR-1 set the benchmark for what an open tube rear should be. Strong, true and ready to win! Alignment in a closed driveline application is critical to the car's handling. If the torque ball isn't free of bind an array of issues arise. DMI Bulldog Quick Change Rears have always been the truest rears in the industry. Now, the XR-4 takes that to another level. The snout, axle and rear cover are 100% perpendicular to the lower shaft and side bell face. Absolutely perfect. Every casting. Every time. Our proprietary machining process and fixturing places the XR-4 in uncharted territory. The new center section was designed with the latest Finite Element Analysis software and is being produced by the foremost magnesium foundry in the United States. There has never been another open tube rear that featured the engineering, manufacturing quality or precision as the XR-4. The new rear cover six bolt pattern eliminates the twelve and six o'clock stud locations. The front of the rear has measure-flat technology to ensure the rear location in the car is where you want it. One bolt shifter bracket features extra clearance at the W-Link that makes cable placement a snap. Dirt. Asphalt. Winged Sprint Car. Non Wing Sprint Car. Silver Crown. 410. 360. 305. Crate. There are many classes. But if you're looking for the best Quick Change Rear there is one option. The NEW Bulldog XR-4.

Standard Features Include:

- O-Ringed Aluminum Gear Cover
- Heat Treated Lower Shaft
- Breather Assembly
- Highest Quality Pinion Bearings
- Non Twist One Bolt Shifter Mount
- 3 quarts Bulldog Blood Oil
- Torque Tube Studs
- Ease-Align Shifter Arm

Magnesium AZ91C-T6 castings produced by the nation's premier foundry. 100% magnesium is lighter, features the best characteristics for the application and makes it the obvious choice for a manufacturer devoted to producing the best components.

F.E.A. designed external support ribs provide strength without adding excessive weight



Measure Flat Technology
Flats on each side of snout provide an accurate measuring-point ensuring the rear is where you want it.

Popular XR-4 Options

More options available-contact your DMI sales associate for a complete listing.

Ring & Pinion Options

EDM 4.12 OPT-2000

EDM 4.86 OPT-2001

REM® 4.12 OPT-2003

REM® 4.86 OPT-2004

EDM/REM® 4.12 OPT-2006

EDM/REM® 4.86 OPT-2007

Super G 4.12 OPT-2009

Super G 4.86 OPT-2010

Lower Shaft Options

Titanium Lower Shaft Internal 10-10 OPT-3021

Steel Lower Shaft - Swivel Coupler OPT-3022

Titanium Lower Shaft - Swivel Coupler OPT-3023

Aluminum Internal 10-10 OPT-3040

DMI Style Swivel Coupler OPT-3042

Winters Style Swivel Coupler OPT-3043

Internal 32 Spline OPT-3044

Aluminum Internal 32 Spline OPT-3045

Side Bell Options

Supreme Braking Aluminum Side Bell OPT-5010

Bearing Options

Severe Duty Bearings OPT-6010

M2 Treated Severe Duty Bearings OPT-6011

Hardware Options

Titanium Bolt Kit OPT-7010

Axle Options

Ultralight Rear Axle OPT-9050

Split Bearing Rear Axle OPT-9052

Ultra Light Split Bearing Rear Axle OPT-9054

Rear Axle For 31" RR Bar OPT-9056

Ultralight Rear Axle For 31" RR Bar OPT-9058

Split Bearing Rear Axle For 31" RR Bar OPT-9060

Ultralight Split Bearing Rear Axle For 31" RR Bar OPT-9062

Beast 54-4 Pavement Axle OPT-9064

Custom Axle OPT-9066

Weight Savings of Some Popular Options

XR-4 4.86 Std Rear = 82 lbs.

Description	Savings
4.12 Ring & Pinion	.75 lbs.
EDM Ring Gear	.80 lbs.
Titanium Lower Shaft (Internal 10-10)	1.18 lbs.
Titanium Hardware	.89 lbs.
2" I.D. Axle	2.27 lbs.



ELIMINATE BELL FLEX AND STOP BETTER!

New supreme braking aluminum side bell. CNC sculpted not only looks cool but provides unmatched strength. As brake systems in the industry have improved it has placed increased stress on the bell. Brake efficiency is lost if the bell flexes.

Important Driveline Lengths when using XR-1 with a 40" Engine Setback

Internal 10-10 Driveshaft – 29" w/ U-Joint Spring

DMI Style Swivel Coupler Driveshaft – 26.5" w/ U-Joint Spring

Winters Style Swivel Coupler Driveshaft – 27.5" w/o a U-Joint Spring

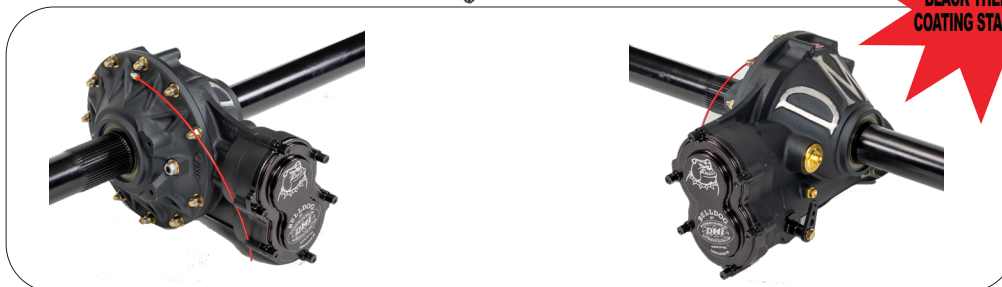
Torque Tube – 27"

XR2



XR2-4.86
Bulldog XR-2
4.86 Complete
Rear
78 lbs.

XR2-4.12
Bulldog XR-2
4.12 Complete Rear
78 lbs.



The Bulldog XR-2 was introduced for the 2009 Season. The XR-2 uses the same proven internal components as the XR-1. The weight savings of the XR-2 comes from its unique futuristic housing design. The snout area is strengthened by the addition of internal casting material and external ribs. The XR-2 is the clear cut choice for the weight conscious racer who still demands reliability. All axles feature 1" increased left side spline length to accomodate deeper offset wheels.

Standard Features Include:

- O-Ringed Aluminum Gear Cover
- Heat Treated Lower Shaft
- Breather Assembly
- Highest Quality Pinion Bearings
- Non Twist One Bolt Shifter Mount
- 3 quarts Bulldog Blood Oil
- Torque Tube Studs
- Ease-Align Shifter Arm
- Aluminum Front Snout Spacer for Internal 10-10

Weight Savings of Some Popular Options

XR-2 4.86 Std Rear = 78 lbs.

Description	Savings
4.12 Ring & Pinion	.75 lbs.
EDM Ring Gear	.80 lbs.
Titanium Lower Shaft (Internal 10-10)	1.18 lbs.
Titanium Hardware	.89 lbs.
2" I.D. Axle	2.27 lbs.



Popular XR-2 Options More options available-contact your DMI sales associate for a complete listing.

Ring & Pinion Options

EDM 4.12 OPT-2000

EDM 4.86 OPT-2001

REM® 4.12 OPT-2003

REM® 4.86 OPT-2004

EDM/REM® 4.12 OPT-2006

EDM/REM® 4.86 OPT-2007

Super G 4.12 OPT-2009

Super G 4.86 OPT-2010

Lower Shaft Options

Titanium Lower Shaft Internal 10-10 OPT-3021

Steel Lower Shaft - Swivel Coupler OPT-3022

Titanium Lower Shaft - Swivel Coupler OPT-3023

Steel Lower Shaft - Internal Swivel Coupler OPT-3024

Titanium Lower Shaft - Internal Swivel Coupler OPT-3025

Aluminum Internal 10-10 OPT-3040

DMI Style Swivel Coupler OPT-3042

Winters Style Swivel Coupler OPT-3043

Internal 32 Spline OPT-3044

Aluminum Internal 32 Spline OPT-3045

Side Bell Options

Supreme Braking Aluminum Side Bell OPT-5010

Bearing Options

Severe Duty Bearings OPT-6010

M2 Treated Severe Duty Bearings OPT-6011

Hardware Options

Titanium Bolt Kit OPT-7011

Axle Options

Ultralight Rear Axle OPT-9051

Split Bearing Rear Axle OPT-9053

Ultra Light Split Bearing Rear Axle OPT-9055

Rear Axle for 31" RR Bar OPT-9057

Ultralight Rear Axle for 31" RR Bar OPT-9059

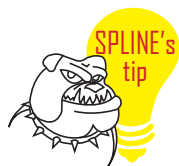
Split Bearing Rear Axle for 31" RR Bar OPT-9061

Ultralight Split Bearing Rear Axle for 31" RR Bar OPT-9063

Beast 54-4 Pavement Axle OPT-9065

Custom Axle OPT-9066

Bobby "Scruffy" Allen has always been the sport's most weight conscious racer. He learned that being light made a difference on his way to winning the Karting World Championships in the early 60's. It's no surprise that Scruffy chooses XR-2 rears for his Shark Racing Team. If you want light - you want a Bulldog XR-2



Order it "Scruffy - Style"

OPT - 2009 OPT - 3043 OPT - 7011

OPT - 3025 OPT - 6010 OPT - 9057



Important Driveline Lengths when using XR-2 with a 40" Engine Setback

Internal 10-10 Driveshaft – 29" w/ U-Joint Spring

DMI Style Swivel Coupler Driveshaft w/ Snout Spacer – 26.5" w/ U-Joint Spring

Winters Style Swivel Coupler Driveshaft w/ Snout Spacer – 27.5" w/o a U-Joint Spring

Torque Tube w/ Snout Spacer – 27"

Internal DMI Style Swivel Coupler Driveshaft w/o Snout Spacer – 29.25" w/ U-Joint Spring

Internal Winters Style Swivel Coupler Driveshaft w/o Snout Spacer – 30.5" w/o a U-Joint Spring

Torque Tube w/o Snout Spacer – 28"

XR-3



XR3-4.12
Bulldog XR-3
4.12 Complete Rear
78 lbs.



The Bulldog XR-3 utilizes an 8" 4.12 ring and pinion that saves more than 2.5lbs compared to a conventional 10" gear. The XR-3 was developed using the latest computer F.E.A. technology to develop and engineer the rear. The rear is a direct replacement utilizing standard 10 spline quick change gears commonly used in full size rears along with conventional length driveline components. The rear offers an additional 2" of fuel cell clearance and 1.75" of seat clearance. The ring and pinion has been used successfully in applications up to 800 horsepower on both dirt and pavement. This rear is an excellent choice for RaceSaver®, 305 or 360 sprint car competitors. All axles feature 1" increased left side spline length to accommodate deeper offset wheels.

Standard Features Include:

- O-Ringed Rear Cover
- Jack Pad
- Increased Oil Reservoir
- Temperature Reducing Cooling Fins
- Billet Aluminum Front Bearing Housing
- Heat Treated Lower Shaft
- Breather Assembly
- Non Twist One Bolt Shifter Mount
- 3 quarts Bulldog Blood Oil

Weight Savings of Some Popular Options

XR-3 4.12 Std Rear = 78 lbs.

Description	Savings
EDM Ring Gear	1.75 lbs.
Titanium Lower Shaft (Internal 10-10)	1.18 lbs.
Titanium Hardware	.89 lbs.
2" I.D. Axle	2.27 lbs.



The 8" ring and pinion is 2.5 lbs. lighter and will accel and decel faster than a 10" ring and pinion. The 10" ring has more leverage behind it and will turn the pinion over with less effort as well as carry momentum better. There isn't a bad choice for your crate or lower H.P. application... both will get the job done!

Popular XR-3 Options More options available- contact your DMI sales associate for a complete listing.

Ring & Pinion Options

EDM Ring Gear [OPT- 2002](#)

REM® Ring & Pinion [OPT- 2005](#)

REM® / EDM Ring and Pinion [OPT- 2008](#)

Super G Ring and Pinion [OPT- 2011](#)

Lower Shaft Options

Titanium Lower Shaft [OPT-3026](#)

Steel Lower Shaft for Swivel Coupler [OPT-3027](#)

Titanium Lower Shaft for Swivel Coupler [OPT-3028](#)

Aluminum Internal 10-10 [OPT-3040](#)

DMI Style Swivel Coupler [OPT-3042](#)

Winters Style Swivel Coupler [OPT-3043](#)

32 Spline Internal Coupler [OPT-3044](#)

32 Spline Internal Coupler [OPT-3045](#)

Bearing Options

Severe Duty Bearings [OPT-6010](#)

M2 Treated Severe Duty Bearings [OPT-6012](#)

Hardware Options

Titanium Bolt Kit [OPT-7011](#)

Axle Options

2" I.D. Axle-7068 Material [OPT-9050](#)

Split Bearing Style Axle [OPT-9052](#)

Ultralight Split Bearing Rear Axle [OPT-9054](#)

Rear Axle for 31" RR Bar [OPT-9056](#)

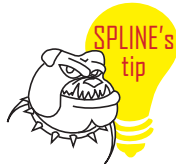
Ultralight Rear Axle for 31" RR Bar [OPT-9058](#)

Split Bearing Rear Axle for 31" RR Bar [OPT-9060](#)

Ultralight Split Bearing Rear Axle for 31" RR Bar [OPT-9062](#)

Beast 54-4 Pavement Axle [OPT-9064](#)

Custom Axle [OPT-9066](#)



Really want a trick piece? *m2* it. Option [OPT-6012](#)

During the "build season" rears usually take 6-8 weeks to be completed. However, during race season we do our best to have popular rears in stock to ship.



Important Driveline Lengths when using XR-3 with a 40" Engine Setback

Internal 10-10 Driveshaft – 29" w/ U-Joint Spring

DMI Style Swivel Coupler Driveshaft – 26.5" w/ U-Joint Spring

Winters Style Swivel Coupler Driveshaft – 27.5" w/o a U-Joint Spring

Torque Tube – 27"

BB-1



BB-3.78

Baby Bulldog 3.78
Complete Magnesium
Rear w/ 31 Spline
44-3 Axle
55 lbs.

BB-4.33

Baby Bulldog 4.33
Complete Magnesium
Rear w/ 31 Spline
44-3 Axle
55 lbs.



The Baby Bulldog is the strongest rear made for midget racing. Compared to other rears on the market, the Baby Bulldog offers strength, reliability, is user friendly and doesn't leak. 7068 aircraft aluminum makes a Baby Bulldog axle the strongest available - period! Take a walk through the pits and see that the BB-1 is the quick change midget rear chosen by more teams than any other brand.

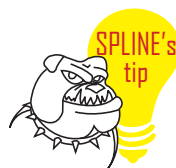
Standard Features Include:

- Breather Assembly
- Heat Treated Lower Shaft
- Non-Twist One Bolt Shifter Mount
- O-Ringed Aluminum Gear Cover
- 3 Quarts Bulldog Blood Oil
- Torque Tube Studs

Weight Savings of Some Popular Options

BB-1 4.33 = 55 lbs.

Description	Savings
EDM Ring Gear	.48 lbs.
Titanium Lower Shaft (Internal 10-10)	.81 lbs.
Titanium Hardware	.75 lbs.
36 Spline Axle	2.5 lbs.



Racers with pushrod engines tend to choose 3.78 Ring & Pinions. 4.33 is the more common choice for racers with overhead cams.

Popular BB-1 Options

More options available-contact your DMI sales associate for a complete listing.

Ring & Pinion Options

EDM 3.78 OPT-2020

EDM 4.33 OPT-2021

REM® 3.78 OPT-2022

REM® 4.33 OPT-2023

EDM/ REM® 3.78 OPT-2024

EDM/ REM® 4.33 OPT-2025

Lower Shaft Options

Titanium Lower Shaft-Internal 10-10 OPT-3029

Steel Lower Shaft-Swivel Coupler OPT-3030

Titanium Lower Shaft-Swivel Coupler OPT-3031

Alum. Internal 10-10 OPT-3041

DMI Style Swivel Coupler OPT-3042

Winters Style Swivel Coupler OPT-3043

Bearing Options

M2 Treated Bearings OPT-6013

Hardware Options

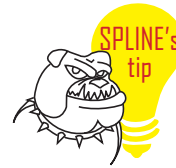
Titanium Bolt Kit OPT-7012

Axle Options

Custom Axle OPT-9066

51-2 Beast Axle 36 Spline OPT-9067

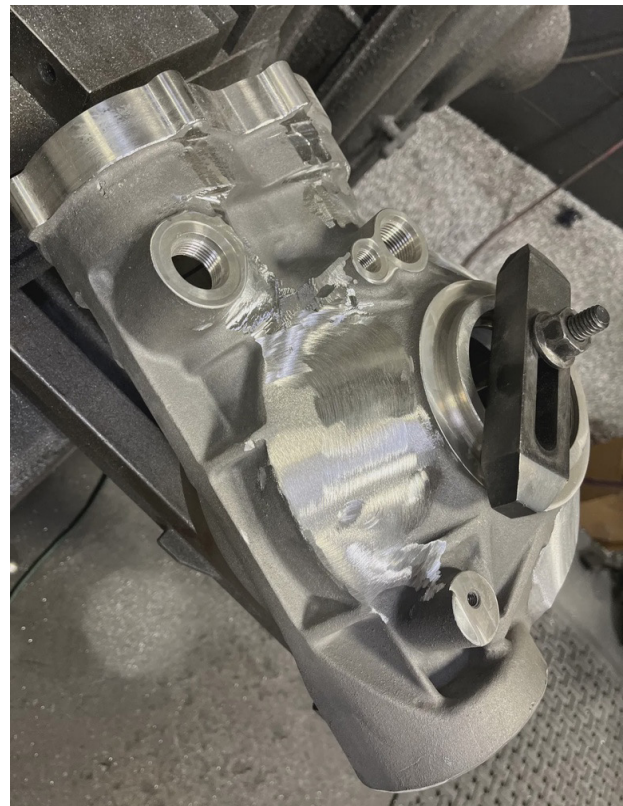
44-3 36 Spline OPT-9068



Order it "Keith-Style"
OPT - 2024 OPT-3029



The Baby Bulldog Rear won the first race it ever ran. In December 2011 in DuQuoin, IL at the Battle at the Center Bryan Clauson drove to victory with the first Baby Bulldog we produced. This victory along with many other memories of Bryan's wins, his first start in the Indy 500 and his efforts in helping us develop products made Bryan an important part of the DMI family. Of course we miss seeing Bryan on the track but more importantly we miss the joy of working with him, growing with him and having a relationship with such a respectful and humble young man. #BCFOREVER



"CHILI SPECIAL" A Baby Bulldog Center Section gets put on a diet for indoor use only.

Important Driveline Lengths when using BB-1 with a 33.5" Engine Setback

10-10 Driveshaft - 23.5" w/ U-joint Spring

Torque Tube - 22.5"

SM XR-1



SMXR1-4.12
Bulldog XR-1 4.12
Complete Rear
Super Mod Style

SMXR1-4.86
Bulldog XR-1 4.86
Complete Rear
Super Mod Style



The SMXR-1 is available for the ultra-tough supermodifieds. It's the first integral side bell rear available for Super Mods. The aircraft quality 7068 aluminum 60-19 axle offers superior strength over the competition. This rear was developed in conjunction with ACME Racing, many time MSA champions!

Standard Features Include:

- O-Ringed Aluminum Gear Cover
- Breather Assembly
- Non-Twist Shifter Mount
- 3 Quarts Bulldog Blood
- Ease-Align Shifter Arm
- Front Seal Plate



Bulldog Quick Change Rears released the XR-1 rear at the 2004 Performance Racing Industry Show in Indianapolis. The XR-2 was introduced at the 2008 PRI Show in Orlando. 2009 saw the introduction of the CT-1 at IMIS in Indy. The Baby Bulldog made its debut in 2012 at IMIS and the BO5 was released in PRI's return to Indy in December 2013. The SS-1 was released at the Parts Peddler Trade Show in Syracuse, NY in 2015. The XR-3 was debuted at PRI in 2016. EZ Series Closed Tube rears were launched in 2018 at the Northeast Racing Products Show.

Popular SMXR-1 Options More options available-contact your DMI sales associate for a complete listing.

Ring & Pinion Options

EDM Ring Gear 4.12 OPT-2000

EDM Ring Gear 4.86 OPT-2001

REM® Ring & Pinion 4.12 OPT-2003

REM® Ring & Pinion 4.86 OPT-2004

REM® / EDM Ring and Pinion 4.12 OPT-2006

REM®/ EDM Ring & Pinion 4.86 OPT-2007

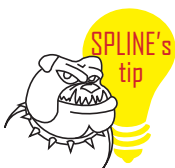
Custom Axle OPT-9066

Severe Duty Bearings OPT-6010

M2 Treated Severe Duty Bearings OPT-6011



All bearings are available with M2 Metal Treatment. M2 Metal Treatment was formerly known as PROglide. An ownership change early in 2021 brought a new name but the same great benefits and unmatched results in reducing friction and increased service life. Utilizing nano particles that act as sponges for oil, M2 is a revolutionary process with limitless possibilities. DMI chooses M2 treatment over REM® polished bearings. While DMI does have in-house REM® capabilities we believe they are best suited on gear sets or other “solid” items as opposed to bearings. REM® utilizes fine media as part of the polishing process. In bearings that fine media can be left behind as debris and potentially create an issue. Shiny is nice, but if you want to eliminate friction than M2 is for you!



When changing gears it's a perfect time to inspect rear cover bearings, pinion bearings and stub shaft bearings for wear or damage.

Important XR-1, XR-2, XR-3, XR-4 & BB-1 Information

Important Open Tube Rear Specs

Side Bell Nuts – 30 ft/lbs.

Threaded Ring Gear – 60 ft/lbs. w/ Red Threadlocker

Pinion Retainer Bolts – 35 ft/lbs.

Pinion Backlash - .004”-.006”

Rotational Pinion Preload (No Spool) – 25 in/lbs. @70°F (new bearings)

10-15 in/lbs. @70°F (used bearings)

Rotational Pinion Preload (With Spool) – 35-40 in/lbs. @70°F (new bearings)

15-20 in/lbs. @70°F (used bearings)

Starting recommendations for Shims XR-1 & XR-4 Left .080” Right .160”

Starting recommendations for Shims XR-2 Left .060” Right .060”

Starting recommendations for Shims XR-3 Left .062” Right .062”

Starting recommendations for Shims BB-1 Left .065” Right .055”

Swivel Couplers

DMI style swivel couplers and Winters style swivel couplers must be serviced frequently. Higher HP cars (410) should be serviced more frequently (2-4 races) than lesser HP cars. 360 and 305's require service every 6-8 races. Disassemble, clean thoroughly, inspect and replace worn components. Pack liberally with DMI Swivel Coupler Lube (Part# DMI-SWILUBE) and install in coupler, insert seal and install snap ring ensuring engagement. On a Winters style the seal should be zip tied or safety wired to the driveshaft.

Shifter Mechanism

Proper shifter engagement / disengagement is critical to the service life of your Bulldog open tube rear. Bulldog highly suggests using DMI Strato Shifter Assembly SRC-2400. Strato Shifter releases all tension off rear internals when locked in gear. To set cable, place the rear in gear. Lock shifter in gear. Adjust nuts on cable until cable falls onto shifter arm quick disconnect with NO tension. Tighten jams. Lift handle to disengage rear. Remove cable from quick disconnect and ensure that shifter arm is fully out of gear. Reinstall cable onto arm and lock back in gear ensuring one last time the shifter is properly locked in gear.



If you don't feel comfortable rebuilding your own quick change rear DMI can do it for you. For \$124.95 plus parts we'll rebuild any brand open tube quick change rear. Need help with shipping? Skid up your rear and contact us to schedule a freight pickup. We'll share our carrier discount with you to keep your freight costs minimal. Allow two weeks in most cases. Faster turnaround available in emergency situations.



Use spray or dry graphite on axle nuts prior to installation. The graphite prevents sticking and doesn't attract dirt. When the car comes off the track, loosen axle nuts. Failure to loosen nuts on a 'hot' axle may result in axle nuts sticking.

Important XR-1, XR-2, XR-3, XR-4 & BB-1 Information

For specific information on each model quick change rear please refer to the pages featuring that specific rear. There you will find torque specs, starting recommendations for shims along with other pertinent information to properly maintain, rebuild and use your Bulldog Quick Change Rear.

WARNING! DMI/Bulldog recommends using an oven to heat center section. Heat 15-20 minutes @450°F. If a torch has to be used * DO NOT CONCENTRATE THE HEAT IN ONE AREA*. Keep torch moving at all times.

Loaded Pinion Removal

Heat center section until the pinion is able to freely be removed. DO NOT concentrate heat around the pinion nose bearing. Concentrated heat in the nose support area will cause the center section to crack.

Loaded Pinion Installation

Load pinion with bearings, pinion washer and pinion posi-lock nut.

Tighten assembly as tight as possible by hand to ensure bearings are fully seated on pinion. Heat center section until the assembled pinion freely drops in to the center. Hit back of pinion with rubber mallet ensuring pinion is fully seated in the center section and install pinion retainer bolts. Allow center section to return to room temperature (70°F). Torque pinion retainer bolts to 35 ft/lbs.

Open Tube Rear Set-Up

Back off pinion nut and re-tighten the nut until a 25 in/lbs. rotational pinion preload is achieved without the axle if using new bearings. If using old bearings 10-15 in/lbs. rotational pinion preload is desired. ALWAYS keep in mind you are measuring the rotational pinion preload. *NOT the breakaway number.* This is particularly evident when working with used bearings. The pinion nut can be tightened down increasing the initial torque required to turn the pinion but it will not increase the rotational preload. Lubricate posi-lock retainer o-ring and install posi-lock retainer on pinion nut using finger pressure only. Rotate retainer if needed to align locking splines. Install axle with starting shim recommendations (see important specs @ the bottom of the open tube rear set-up) and install side bell with 4 nuts located across from each other and tightened to 30 ft/lbs. Check pinion backlash using the small dial indicator. Install holder on top left rear cover stud and secure with gear nut. Place indicator on tooth of pinion and measure. We prefer a pinion backlash of .004”-.006”. Adjust spool shims accordingly until desired amount of backlash is achieved. Once desired amount of pinion backlash is achieved, verify rotation pinion preload of the complete assembly. New bearings should be 35-40 ft/lbs. Used bearings will be 15-20 ft/lbs. Once set-up is complete, remove side bell and axle. Install side bell o-ring, seals and seal o-rings. Grease seal diameter on axle. Re-install axle and side bell. Install side bell carefully with ring gear backstop thrust block in place on rears that utilize the thrust block. Torque side bell/center section hardware to 30 ft/lbs. Tighten ring gear backstop until it touches the ring gear. If the ring gear backstop stud is fine thread back off 3/8 of a turn. If the backstop stud is coarse thread back off 1/8 of a turn. Jam ring gear backstop jam nut. IF YOU DON'T KNOW – CALL!!!!



DMI didn't guess when creating the specs every quick change rear is built to and we didn't copy the competitors. We rented racetracks, did extensive R&D and tested many different rotational pinion preloads and pinion backlash settings until we found the perfect one. DMI Bulldog Quick Changes are produced from 100% aircraft magnesium and that is a major factor in the specification we developed. We know our quick changes feel tight when new but trust us: They need to be that way to perform at their maximum potential.

Open Tube Center Sections | Side Bells | Components

Center Sections



RRC-1005
XR-1 Magnesium
Center Section



RRC-5501
XR-4 Magnesium
Center Section



RRC-1006
XR-2 Magnesium
Center Section



RRC-0902
XR-3 Magnesium
Center Section



RRC-4000
Baby Bulldog Magnesium
Center Section

Side Bells



RRC-5300
XR-1, XR-2 and XR-4 Supreme
Braking Aluminum Side Bell
w/ Brake Mount



RRC-1100
XR-1, XR-2 and XR-4 Magnesium
Side Bell w/ Brake Mount



RRC-0970
XR-3 Magnesium Side Bell



RRC-4050
Baby Bulldog Magnesium
Side Bell

XR-1, XR-2, XR-3 and XR-4 Center and Side Bells Components



RRC-1034
90° Breather Assembly
RRC-1041
Straight Breather
Assembly
RRC-5508
Sintered Bronze
Breather



RRC-1010
Large Inspection Plug
RRC-1015
Large Inspection Plug
O-Ring



RRC-1016
Fill Level Plug
RRC-1017
Fill Level Plug O-Ring



RRC-1020
Small Inspection Plug
RRC-1025
Small Inspection Plug
O-Ring



RRC-1030
3/8 Oil Drain Plug



RRC-1029
-6 AN Steel Port
Plug



RRC-1105
Side Bell O-Ring



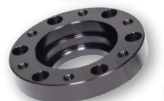
RRC-1109
Short Side Bell Stud



RRC-1215
Axle Bearing Race



RRC-1210
Axle Bearing



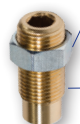
RRC-1008
XR-2 Snout Spacer
RRC-1008A
Washer for Alum. Snout
Spacer
RRC-1008B
Bolt for Alum. Snout Spacer



RRC-1009
Silicone O-Ring for
XR-2 Snout



RRC-1120
Side Bell Locknut
RRC-1120A
Side Bell Locknut -
Titanium



RRC-4150
Ring Gear
Backstop Jam
RRC-0940
Aluminum Side
Bell Ring Gear
Backstop



RRC-1150
Back Stop Aluminum
Nut
RRC-1146
Back Stop Washer



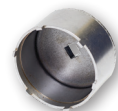
RRC-1220
Axle Seal O-Ring
RRC-1217
Axle Seal
RRC-1225
Axle Seal Spiralox



RRC-1130
Side Bell Washer

RRC-1140
Back Stop Set Screw
RRC-1135
Ring Gear Back Stop



Tool



RRC-1900
Snout Locking
Ring Wrench

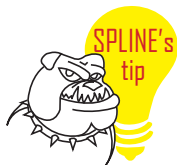
Open Tube Components | Rear Covers

Baby Bulldog Center and Side Bell Components

	RRC-4150 Baby Bulldog Ring Gear Backstop Jam		RRC-4215 <i>ME</i> Baby Bulldog Axle Bearing Race		RRC-1475 Baby Bulldog Side Bell Stud		RRC-1735 Washer for Shift Arm
	RRC-4140 Baby Bulldog Ring Gear Backstop		RRC-4220 Baby Bulldog Axle Seal O-Ring		RRC-4210 <i>ME</i> Baby Bulldog Axle Bearing		RRC-4120 Baby Bulldog Side Bell Locknut
			RRC-4217 Baby Bulldog Axle Seal		RRC-4998 Baby Bulldog Gear Spacer for 1" Wide Gears		RRC-4120A Baby Bulldog Side Bell Locknut Aluminum
							RRC-4105 Baby Bulldog Side Bell O-Ring

Rear Covers and Components

	RRC-1386B Aluminum Rear Cover w/ Bearings & Sealing Ring		RRC-1350 <i>ME</i> Rear Cover Bearing		RRC-1355 Rear Cover Stud		RRC-1361 Rear Cover Nut - Black
	RRC-1390 Gear Cover Bearing Retainer		RRC-1350 HD <i>ME</i> H.D. Rear Cover Bearing		RRC-1345 Silicone Sealing Ring for Gear Cover		RRC-1361B Rear Cover Nut - Blue
	RRC-4386 Baby Bulldog and BO5 Rear Cover w/ Bearings		RRC-1391 Bolt for Gear Cover Bearing Retainer		RRC-1340 Steel Insert Rear Cover Gasket		RRC-1361G Rear Cover Nut - Gold
			RRC-4390 Baby Bulldog and BO5 Rear Cover Bearing Retainer				RRC-4340 Baby Bulldog and BO5 Silicone Sealing Ring for Gear Cover
					RRC-4350 <i>ME</i> Baby Bulldog and BO5 Rear Cover Bearing		RRC-1039 6 Port Plug
							RRC-1037 8 Port Plug
	RRC-1373 Vault Lock Quick Change Rear Cover		RRC-5545 Aluminum Gen2 Rear Cover - includes Bearings & O-Ring		RRC-5543 Aluminum Gen2 Rear Cover w/ Ports - includes Bearings & O-Ring		



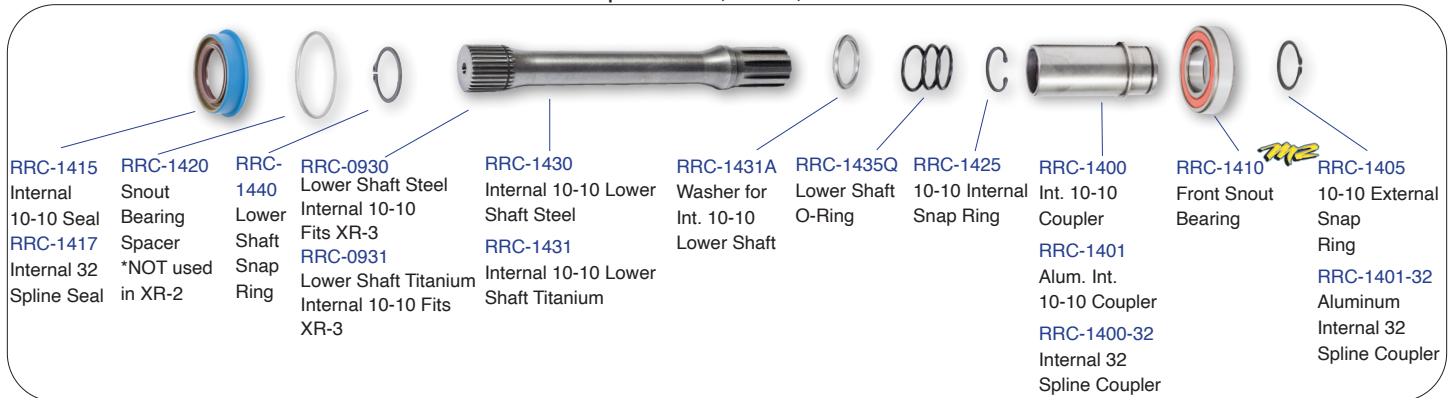
When changing gears it's a perfect time to inspect rear cover bearings, pinion bearings and stub shaft bearings for wear or damage.



Bulldog was the first to utilize an o-ring to seal the rear cover. The high temp silicone o-ring lasts forever and provides a leak-free, positive seal.

Open Tube Lower Shaft Assemblies

Internal Coupler XR-1, XR-2, XR-3 and XR-4



WP Style Swivel XR-1, XR-3, XR-4 and XR-2 with Snout Adapter



XR-2 Internal WP Style Swivel with Locking Ring



New For 2024

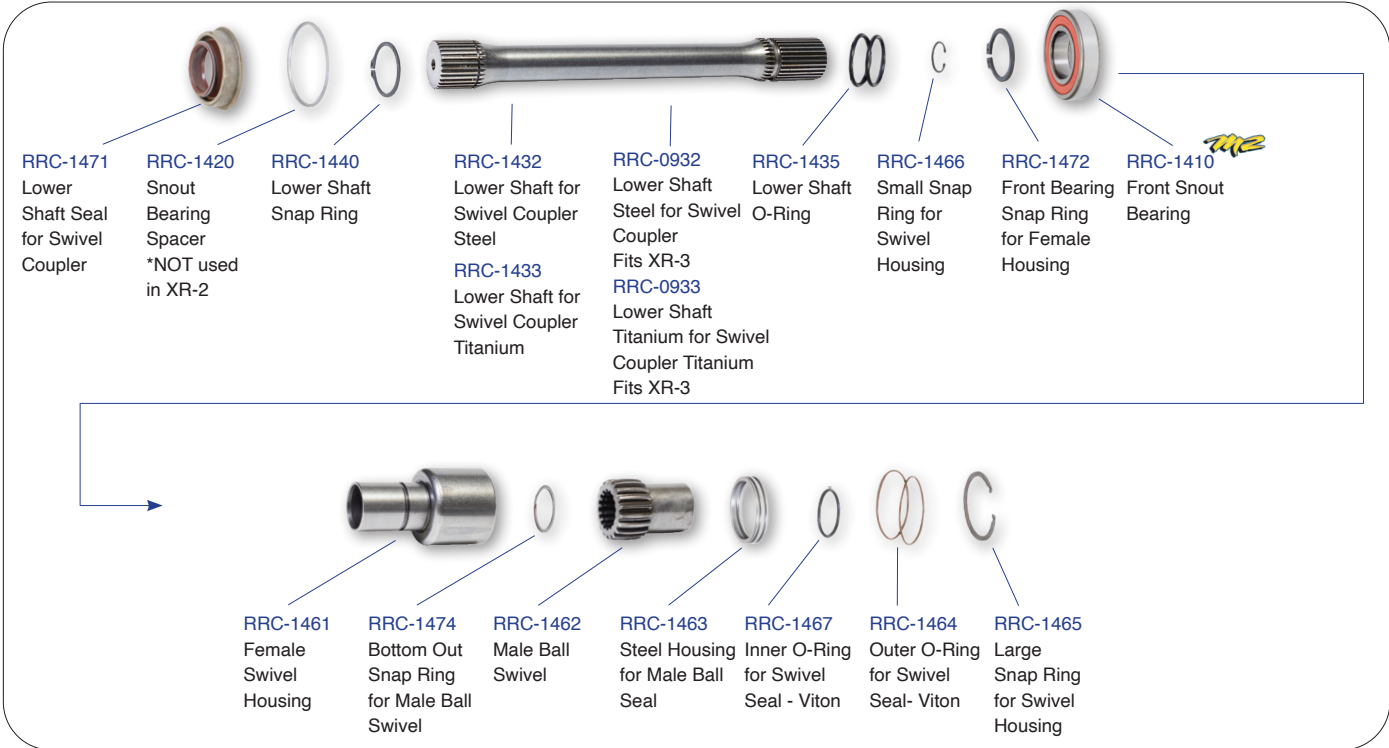


ULTIMATE3two

In a swivel coupler application there is only a small area of the tooth being driven. The 16 tooth crown spline normally sees a concentrated amount of pressure because of so little engagement area between the housing and ball drive. The new ULTIMATE3two 32 spline doubles the drive surface area. The result? A better performing, longer lasting assembly. Track proven in 2023!

Open Tube Lower Shaft Assemblies

DMI Style Swivel XR-1, XR-3, XR-4 and XR-2 with Snout Adapter

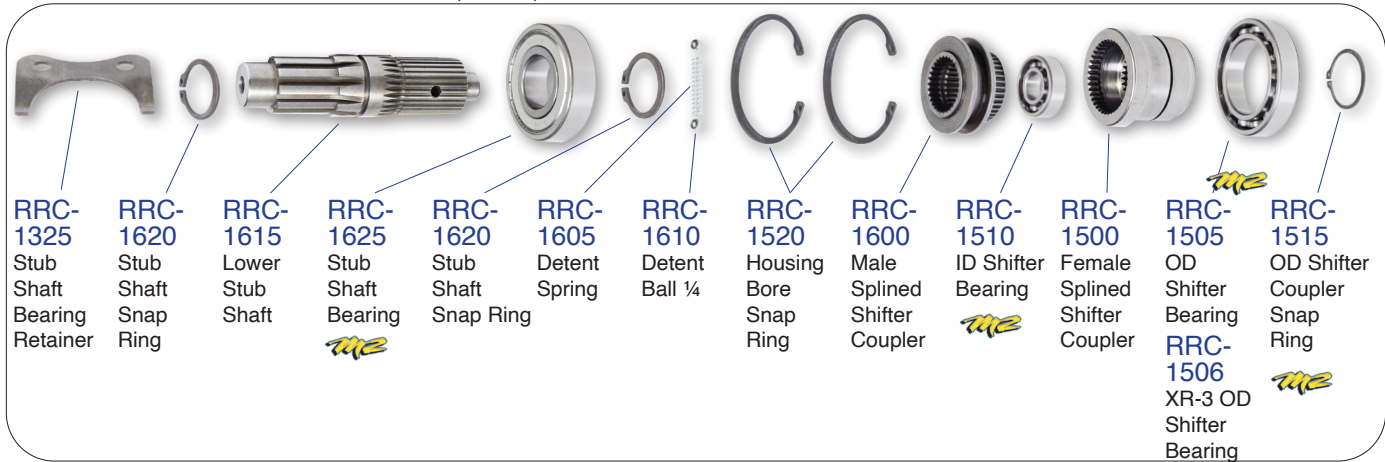


XR-2 Internal DMI Style Swivel with Locking Ring

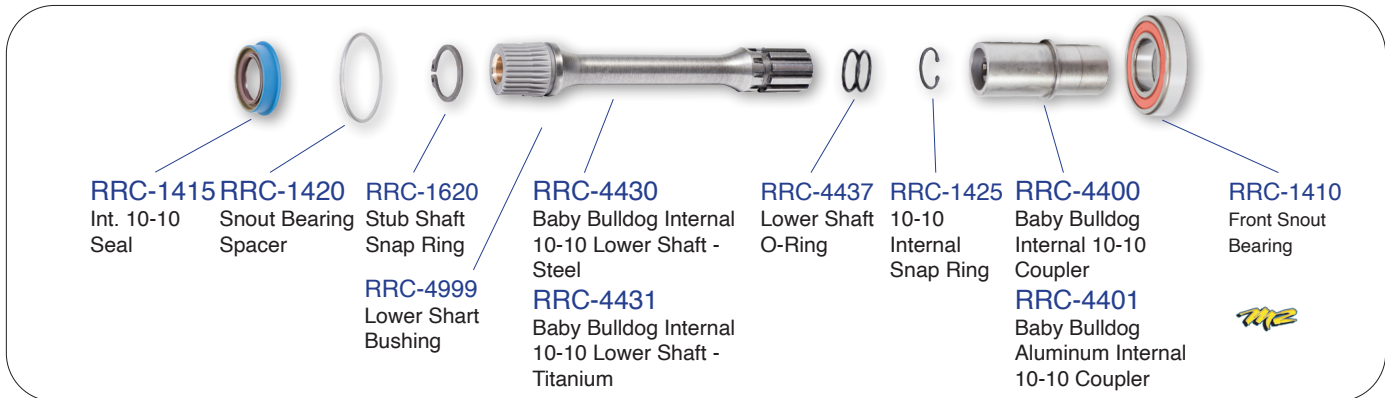


Open Tube Lower Shaft, Stub Shaft & Shifter Assemblies

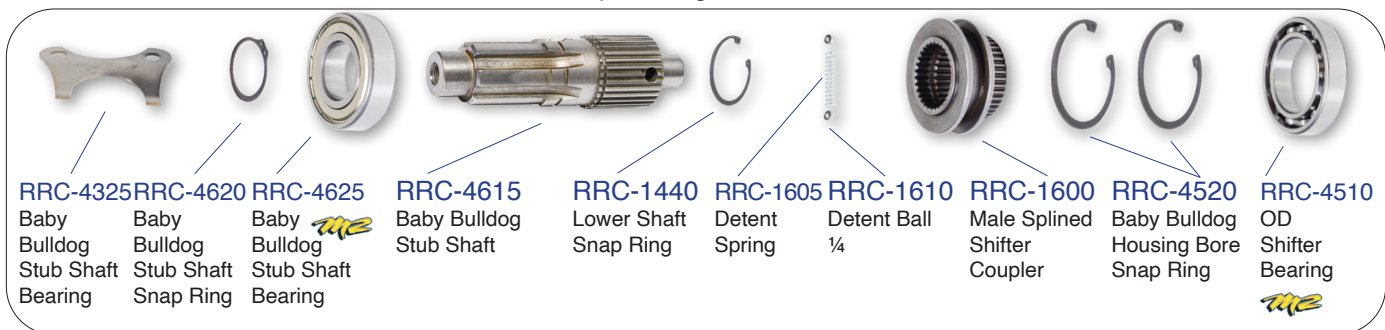
XR-1, XR-2, XR-3 and XR-4 Stub Shaft and Shifter



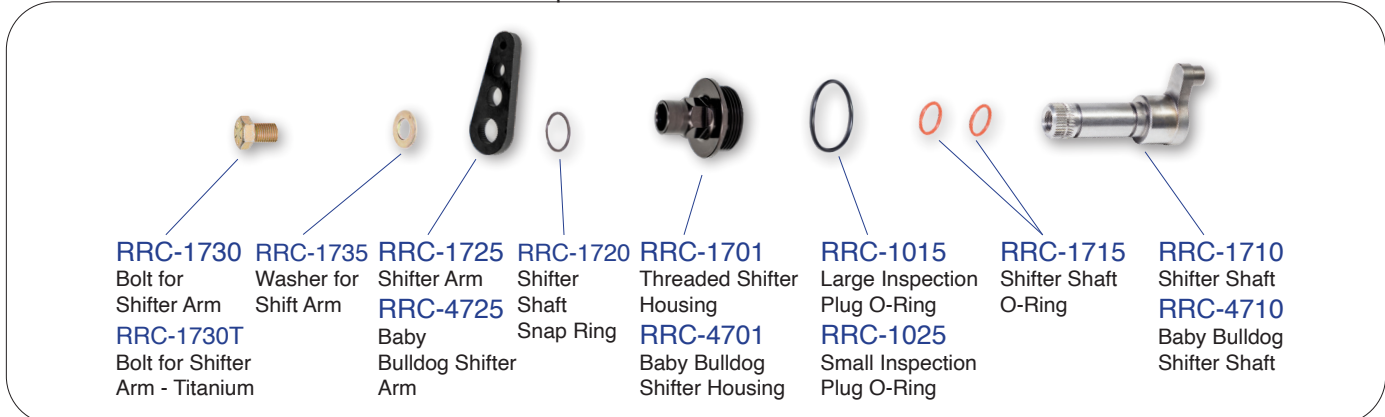
Baby Bulldog Internal 10-10



Baby Bulldog Stub Shaft

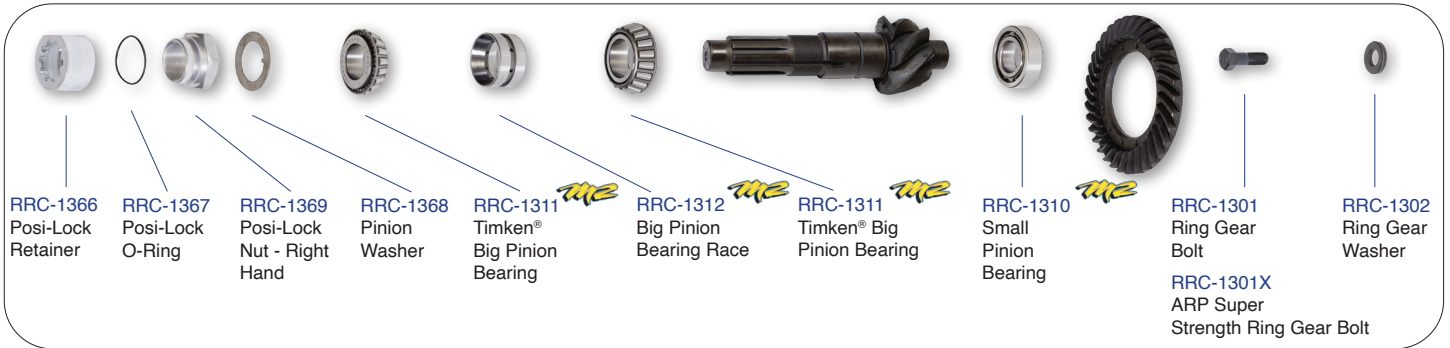


All Open Tube Shifter Assemblies



Open Tube Ring & Pinions

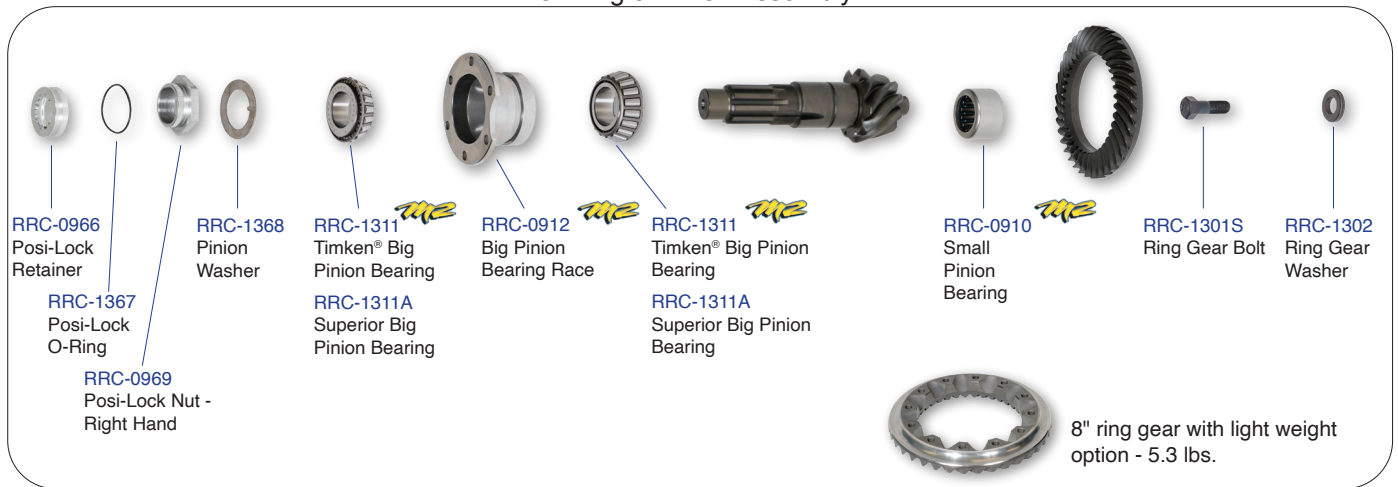
10" Ring & Pinion Assembly



RRC-1300	4.12 Ring & Pinion - 12.75 lbs	RRC-1305	4.86 Ring & Pinion - 13.55 lbs
RRC-1300-02	4.12 EDM Ring & Pinion	RRC-1305-02	4.86 EDM Ring & Pinion
RRC-1300-02-05	4.12 EDM / REM® Ring & Pinion	RRC-1305-02-05	4.86 EDM / REM® Ring & Pinion
RRC-1300-05	4.12 REM® Ring & Pinion	RRC-1305-05	4.86 REM® Ring & Pinion
RRC-1300SG	4.12 Ring & Pinion - Super G Finish	RRC-1305SG	4.86 Ring & Pinion - Super G Finish

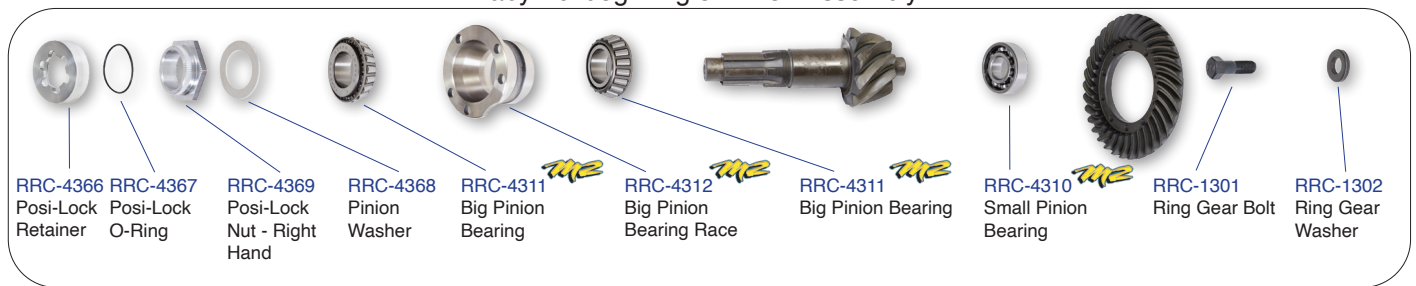
RRC-1300SG AND RRC-1305SG RING & PINION FEATURE THE SUPER G Treatment. SUPER G treatment dramatically increases ring and pinion life in mega horsepower 410 winged sprint cars. SUPER G ring and pinions are highly recommended for any application that sees severe abuse. For more ring & pinion information see pages 50 & 51

8" Ring & Pinion Assembly



RRC-1303	4.12 Ring & Pinion - 10.12 lbs	RRC-1303-05	4.12 REM® Ring & Pinion
RRC-1303-02	4.12 EDM Ring & Pinion	RRC-1303-SG	4.12 Super G Ring & Pinion
RRC-1303-02-05	4.12 EDM / REM® Ring & Pinion		

Baby Bulldog Ring & Pinion Assembly



RRC-4300	3.78 Baby Bulldog Ring and Pinion	RRC-4305	4.33 Baby Bulldog Ring and Pinion
RRC-4300-02	3.78 Baby Bulldog Ring and Pinion - EDM	RRC-4305-02	4.33 Baby Bulldog Ring and Pinion - EDM
RRC-4300-02-05	3.78 Baby Bulldog Ring and Pinion - EDM / REM®	RRC-4305-02-05	4.33 Baby Bulldog Ring and Pinion - EDM / REM®
RRC-4300-05	3.78 Baby Bulldog Ring and Pinion - REM®	RRC-4305-05	4.33 Baby Bulldog Ring and Pinion - REM®

Open Tube Axles | Components

Axle Bearings & Shims



RRC-1230
.010 Axle Shim
RRC-4230
.010 Axle Shim for Baby Bulldog



RRC-1235
.012 Axle Shim
RRC-4235
.012 Axle Shim for Baby Bulldog



RRC-1240
.015 Axle Shim
RRC-4240
.015 Axle Shim for Baby Bulldog



RRC-1245
.020 Axle Shim
RRC-4245
.020 Axle Shim for Baby Bulldog



RRC-1250
.075 Axle Shim



RRC-1229
Axle Shim Kit

RRC-4229
Baby Bulldog Shim Kit



RRC-1210 *me*
Open Tube Axle Bearing
RRC-4210 *me*
Open Tube Axle Bearing - Baby Bulldog

Open Tube Axles

Only DMI sprint car axles are produced with 1" more left side spline to accommodate deeper offset wheels



RRC-1203

RRC-1212

RRC-1201

RRC-1200

RRC-4200

RRC-4202

GR-901
Dry Graphite for Axles



XR-1, XR-3 & XR-4 utilize the same rear axles

RRC-1200	Aluminum Axle 2" I.D. Long Splines w/ Spool	RRC-1212HD-31	Aluminum Axle 1.875" I.D. Long Splines w/ Spool - Split Bearing Style - 31" RS Torsion Bar
RRC-1200-31	Aluminum Axle 2" I.D. Long Splines w/ Spool	RRC-1212-31	Aluminum Axle 2" I.D. Long Splines w/ Spool - Split Bearing Style - 31" RS Torsion Bar
RRC-1201	Aluminum Axle - Beast Style 54-4 w/ Spool	RRC-1213	XR-2 Aluminum Axle 2" I.D. Long Splines w/ Spool - Split Bearing Style
RRC-1202	XR-2 Aluminum Axle 2" I.D. Long Splines w/ Spool	RRC-1213-31	XR-2 Aluminum Axle 2" I.D. Long Splines w/ Spool - Split Bearing Style - 31" RS Torsion Bar
RRC-1202-31	XR-2 Aluminum Axle 2" I.D. Long Splines w/ Spool - 31" RS Torsion Bar	RRC-1213HD	XR-2 Aluminum Axle Long Splines w/ Spool - Split Bearing Style
RRC-1203	Super 60-19 Axle	RRC-1213HD-31	XR-2 Aluminum Axle 1.875" I.D. Long Splines w/ Spool - Split Bearing Style - 31" RS Torsion Bar
RRC-1204	Aluminum Axle - Beast Silver Crown Axle	RRC-4200	31 Spline 44-3 Baby Bulldog Axle
RRC-1205	Aluminum Axle 1.875" I.D. Long Splines w/ Spool	RRC-4202	36 Spline 44-3 Baby Bulldog Axle
RRC-1205-31	Aluminum Axle 1.875" I.D. Long Splines w/ Spool - 31" RS Torsion Bar	RRC-4203	36 Spline 51-2 Baby Bulldog Axle
RRC-1207	XR-2 Aluminum Axle - Beast Style 54-4 w/ Spool	RRC-1200 XS	Aluminum Axle 2" I.D. Long Splines w/ Spool - Non Splined LS BC Shoulder
RRC-1208	XR-2 Aluminum Axle 1.875" I.D. Long Splines w/ Spool	RRC-1205 HD	Aluminum Axle 1.875" I.D. Long Splines w/ Spool - Heavy Duty 7068 Aluminum
RRC-1211	Aluminum Axle 1.875" I.D. Long Splines w/ Spool - Split Bearing Style - Heavy Duty 7068 Aluminum	RRC-1205 HD-31	Aluminum Axle 1.875" I.D. Long Splines w/ Spool - 31" RS Torsion Bar - Heavy Duty 7068 Aluminum
RRC-1212	Aluminum Axle 2" I.D. Long Splines w/ Spool - Split Bearing Style	RRC-1208-31	XR-2 Aluminum Axle 1.875" I.D. Long Splines w/ Spool - 31" RS Torsion Bar
RRC-1212HD	Aluminum Axle Long Splines w/ Spool - Split Bearing Style	RRC-1208 HD	XR-2 Aluminum Axle 1.875" I.D. Long Splines w/ Spool Heavy Duty 7068 Aluminum

Open Tube Frequently Asked Questions

Q What is the proper oil level for a Bulldog Rear and how do I fill it?

A The proper oil level varies dependant on the model. Below is a guide (all capacities are approximate)

XR-1, XR-2, XR-3 and XR-4 - 2-2.5 qts.

Baby Bulldog - 1.5-2 qts.

The correct method of filling the rear is to remove the pinion inspection plug and the fill level plug located directly below the inspection plug. On all rears, both plugs are on the right side bell. Fill the rear until the fluid runs out the fill level hole. Re-install the fill level plug and add an additional 4-6 ounces of fluid. Re-install inspection plug. Both plugs only need to be "snug". Over-tightening will cause the plug(s) to stick.

Q What is the best oil for a Bulldog Rear?

A We highly recommend Bulldog Blood (see page 38) We do not re-package someone else's oil. We spent a lot of time and effort testing different formulations. Our oil is blended to our proprietary specs. If Bulldog Blood isn't for you, we see good, consistent results from Driven 75w-110.

Q What type of quick change gears will work in a Bulldog Rear?

A Any 10 spline quick change gear will work in the standard Bulldogs. Bulldog recommends only quick change gears produced from 9310 steel. Inexpensive gears made using 8620 steel will fail. We do not recommend using helical cut gears. Always use gears with the machined lip facing out. Always install gears the same way. Never mix gear sets. Sets are machined as matched units.

Q How do I tell what ratio ring and pinion I have?

A You can call us (717) 397-5347 with the serial number and we can see what the rear was built with. If it's a used rear, we strongly suggest checking the ratio and not relying on the build sheet. The easiest way to verify ring and pinion ratio is to remove the quick change gears. Install a mark on the tire at the 12 o'clock position. Install a mark on the pinion at the 12 o'clock position. Rotate the tire by hand 1 complete revolution. Count the pinion rotation as your turning the tire. If the pinion rotates just over four times, you have a 4.12. If the pinion rotates almost five times, you have a 4.86.

Q How often should a ring and pinion be replaced?

A The inspection plug in the right side bell is placed there for a reason. Weekly inspection of the pinion should occur. Ring gears seldom show wear. Rotate the pinion slowly while inspecting the pinion through the hole. Look at the drive side of the tooth. Small pits need to be monitored. Once you determine the pinion pits are excessive, replace the ring and pinion. As long as the unit looks pit-free, there isn't a life cycle. Use it!

Q How often should axles be replaced?

A Open tube aluminum axles should be replaced every 1000 laps.

600 Micro Rear Axles | Wheel Spacers | Axle Nuts

B = Also available in black

600 Micro Rear Axles



All Micro Axles are Black Anodized		Splines Length	
		Left	Right
LRC-1251	50" Universal Micro Axle - 1.75" Spline - Black Anodized	18.75"	10.75"
LRC-1254	53" Universal Micro Axle - 2" Spline - Black Anodized	18.5"	9.25"
LRC-1255	53" Universal Micro Axle - 2" Spline - Black Anodized	18.375"	17.375"
LRC-1256	55.5" Universal Micro Axle - 1.75" Spline - Black Anodized	18.5"	18.5"
LRC-1257	57" Universal Micro Axle - 2" Spline - Black Anodized	16"	19.5"
LRC-1260	54.5" Universal Micro Axle - 1.75" Spline - Black Anodized	18.375"	18.375"

*See page 79 for 7/8" Spline Hollow Torsion Bars. The choice of 600 micro sprint racing's top racers.



DMI axles have always featured the industry's first large radius at the axle transition point. The radius provides extra strength where it's needed most. LRC-2598 radius spacers for axle shoulder are required before installing any other spacers.



DMI HUBS AND SPINDLES

**THERE ARE MANY CHOICES WHEN SHOPPING FOR FRONT HUBS AND SPINDLES
IT'S A CROWDED MARKET AND IT'S IMPORTANT TO BE AN INFORMED BUYER.**



WHILE MANY OF THE OFFERINGS ARE LOW COST IMPORTS, YOU CAN REST ASSURED DMI HUBS AND SPINDLES ARE NOT. DMI HUBS ARE PRODUCED FROM A DOMESTIC ROTARY FORGING. THE HUBS FEATURE THE INDUSTRY'S FIRST THREADED DUST CAP AND BRILLIANT BLACK ANODIZING. SPINDLES ARE MANUFACTURED FROM A 7075-T6 ALUMINUM DOMESTIC FORGING. THE SPINDLE SNOOT IS MANUFACTURED IN-HOUSE AS WELL AND FEATURE A NO-SPIN DESIGN.

WOULD YOU TRUST RUNNING IN THE CORNER WITH ANYTHING ELSE?

Northeast Dirt Modified Components

29" Torsion Bar



SRC- [\(rate\)](#) -29S Solid 29"

SRC- [\(rate\)](#) -29 Hollow 29"

Rates in Stock for 29" Solid

<u>.875</u>	<u>.950</u>
<u>.900</u>	<u>.975</u>
<u>.925</u>	<u>1.000</u>

Rates in Stock for 29" Hollow

<u>.900</u>	<u>.950</u>
<u>.925</u>	<u>.975</u>

DMI Solid Torsion Bars are produced from Made in the USA 4340 milled and heat treated to our specifications. No Black Magic. No Voodoo. Just a great high performing bar that handles the highly stressed DIRT Mod application. Want to increase traction and forward grip? Install a hollow bar in the left rear. The hollow bar provides a faster reaction producing increased drive.

Northeast Dirt Modified Driveline

The Northeast Dirt Modified Driveline requirements have changed drastically in recent years. With the advent of short rod, left side panhard suspension, the demands on driveline components have increased greatly. The driveline sees substantially more travel during the accel and decel phases. Proper shaft to yoke engagement and ability to misalign are significantly more important than with previous suspension systems. With the latest technology, DMI decided it was time to redesign the entire driveline unit. Manufactured from billet steel and aluminum, yokes now feature increased length to maintain proper engagement even with shorter length driveshafts that are now required because of left rear travel.

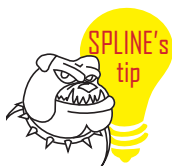
RRC-8000



RRC-8001



RRC-8000	Billet Quick Change End Yoke
RRC-8000A	Billet Aluminum Quick Change End Yoke
RRC-8001	Billet 1310 Bert Transmission
RRC-8002	Billet Yoke Strap
RRC-8002A	Billet Aluminum Yoke Strap



Good record keeping is a must if you want your torsion bars to perform properly. The ultra soft spring rates of Northeast Dirt Modifieds coupled with the heavy weight of the cars really stress the torsion bars. Bars should be installed at least one day before set-up and scaling to ensure proper "break-in." Every 700-800 laps bars should be replaced.

Northeast Dirt Modified Driveline

Open Tube Driveline



CRC-2316	7075 Aluminum U-Joint Yoke - X-Long
SRC-2335	Greaseable U-Joint Cross
SRC-2336	Gladiator U-Joint Cross
SRC-2339CT	Lightweight Steel U-Joint Yoke - No Spring/Washer
CRC-2342	Steel Billet U-Joint Yoke - X-Long
CRC-2466	Hollow Steel Driveshaft 16-16 Spline - 17.5"
CRC-2467	Hollow Steel Driveshaft 16-16 Spline - 19.5"
CRC-2468	Hollow Steel Driveshaft 16-16 Spline - 21.5"

32 Spline Open Tube Driveline



CRC-2316-32	7075 Aluminum U-Joint Yoke - 32 Spline - X-Long
SRC-2335	Greaseable U-Joint Cross
SRC-2336	Gladiator U-Joint Cross
CRC-2342-32	Steel Billet U-Joint Yoke - 32 Spline - X-Long
CRC-2466-32	Hollow Steel Driveshaft 32 Spline - 17.5"
CRC-2467-32	Hollow Steel Driveshaft 32 Spline - 19.5"
CRC-2468-32	Hollow Steel Driveshaft 32 Spline - 21.5"

THE WINNER'S CHOICE





TORSION BARS



DMI'S TORSION BARS ARE THE MOST CONSISTENT TORSION BARS PRODUCED TODAY. USING THE SAME MATERIAL SUPPLIER AND HEAT TREATER SINCE 2001, YOU CAN COUNT ON DMI TORSION BARS FOR RELIABILITY AND REPEATABILITY. PRECISION TURNED TO TIGHT TOLERANCES ENSURES CONSISTENCY. PERFECTLY HOBBED SPLINES ALLOW ARMS AND STOPS TO SLIDE ON AND OFF WITH EASE. LASER ENGRAVING SHOWS BAR SIZE AND THE DMI LOGO BACKED BY MADE IN THE USA PRIDE. DMI HOLLOW TORSION BARS ARE STOCKED IN 30" AND 31". NEW FOR 2024 BARS ARE OFFERED IN TRADITIONAL 23" EFFECTIVE LENGTH AS WELL AS 24" EFFECTIVE LENGTH. FINE TUNING HAS REACHED ANOTHER LEVEL. BAR INCLUDES BLACK PLASTIC PROTECTIVE TUBE. SEE WHY DMI TORSION BARS ARE THE MOST POPULAR BAR IN THE WORLD!

Splined Rear Wheel Centers | Wheel Spacers | Axle Nuts

Splined Rear Wheel Centers



MRC-1979	Midget Black Widow Splined Rear Wheel Center - 2" 31 Spline
SRC-1979A	Black Widow Splined Rear Center for Weld/Sanders/Keizer
SRC-1980	Tetris Splined Rear Center for Weld/Sanders/Keizer

Sprint Car Wheel Spacers & Axle Nuts

SRC-2589	3/8" Aluminum Axle Spacer - Tapered	SRC-2650	Rear Magnesium Axle Nut for All Axles - RH Thread
SRC-2590	10 pc. Aluminum Spacer Kit	SRC-2660	Rear Magnesium Axle Nut for All Axles - LH Thread
SRC-2590B	10 pc. Aluminum Spacer Kit - Black	SRC-2670	Rear Magnesium Axle Nut w/ Spacer for All Axles - RH Thread
SRC-2600	Magnesium 10 pc. Spacer Kit	SRC-2680	Rear Magnesium Axle Nut w/ Spacer for All Axles - LH Thread
SRC-2610	Rear Aluminum Axle Nut for All Axles - RH Thread B		
SRC-2620	Rear Aluminum Axle Nut for All Axles - LH Thread B		
SRC-2630	Rear Aluminum Axle Nut w/ Spacer for All Axles - RH Thread B		
SRC-2640	Rear Aluminum Axle Nut w/ Spacer for All Axles - LH Thread B		

SRC-2590 10pc. Spacer Kits include:

(2) SRC-2582	3/8" Aluminum Axle Spacer	(1) SRC-2586	3/4" Aluminum Axle Spacer - Tapered
(2) SRC-2583	3/4" Aluminum Axle Spacer	(1) SRC-2587	1 1/2" Aluminum Axles Spacer - Tapered
(2) SRC-2584	1" Aluminum Axle Spacer	(1) SRC-2588	2" Aluminum Axle Spacer - Tapered
(1) SRC-2585	2" Aluminum Axle Spacer		

*All aluminum sprint car spacers now anodized black



SRC-2590



Always make sure ALL your tapered outer spacers have splines in them. Years ago, un-splined outer spacers worked ok. They no longer work and WILL allow the wheel to come loose.

Wheel Spacers | Axle Nuts



MRC-2590

MRC-2590 14pc. Spacer Kits include:

- (2) MRC-2580 1/2" Straight 31 Spline Spacer
- (2) MRC-2581 1 1/2" Straight 31 Spline Spacer
- (2) MRC-2582 2 1/2" Straight 31 Spline Spacer
- (1) MRC-2583 3 1/2" Straight 31 Spline Spacer



MRC-2620B

MRC-2610B

- (2) MRC-2585 1" Tapered 31 Spline Spacer
- (2) MRC-2586 1 1/2" Tapered 31 Spline Spacer
- (2) MRC-2587 2 1/2" Tapered 31 Spline Spacer
- (1) MRC-2588 3 1/2" Tapered 31 Spline Spacer

MRC Wheel Spacers & Axle Nuts

MRC-2500	Magnesium 1/4" Straight 36 Spline Spacer	MRC-2566	Magnesium 1 1/2" Tapered 31 Spline Spacer
MRC-2501	Magnesium 1/2" Straight 36 Spline Spacer	MRC-2567	Magnesium 2 1/2" Tapered 31 Spline Spacer
MRC-2502	Magnesium 1 1/2" Straight 36 Spline Spacer	MRC-2568	Magnesium 3 1/2" Tapered 31 Spline Spacer
MRC-2503	Magnesium 2 1/2" Straight 36 Spline Spacer	MRC-2569	Magnesium 1/2" Tapered 31 Spline Spacer
MRC-2504	Magnesium 3 1/2" Straight 36 Spline Spacer	MRC-2579	1/4" Straight 31 Spline Spacer
MRC-2505	Magnesium 1" Tapered 36 Spline Spacer	MRC-2580	1/2" Straight 31 Spline Spacer
MRC-2506	Magnesium 1 1/2" Tapered 36 Spline Spacer	MRC-2581	1 1/2" Straight 31 Spline Spacer
MRC-2507	Magnesium 2 1/2" Tapered 36 Spline Spacer	MRC-2582	2 1/2" Straight 31 Spline Spacer
MRC-2508	Magnesium 3 1/2" Tapered 36 Spline Spacer	MRC-2583	3 1/2" Straight 31 Spline Spacer
MRC-2509	Magnesium 1/2" Tapered 36 Spline Spacer	MRC-2584	1/2" Tapered 31 Spline Spacer
MRC-2520	1/4" Straight 36 Spline Spacer - Alum	MRC-2585	1" Tapered 31 Spline Spacer
MRC-2521	1/2" Straight 36 Spline Spacer	MRC-2586	1 1/2" Tapered 31 Spline Spacer
MRC-2522	1 1/2" Straight 36 Spline Spacer	MRC-2587	2 1/2" Tapered 31 Spline Spacer
MRC-2523	2 1/2" Straight 36 Spline Spacer	MRC-2588	3 1/2" Tapered 31 Spline Spacer
MRC-2524	3 1/2" Straight 36 Spline Spacer	MRC-2590	Midget 14pc. 31 Spline Spacer Kit
MRC-2525	1/2" Tapered 36 Spline Spacer	MRC-2598	Midget Axle Radius Spacer
MRC-2526	1" Tapered 36 Spline Spacer	MRC-2600	Midget 14pc. 31 Spline Spacer Kit Magnesium
MRC-2527	1 1/2" Tapered 36 Spline Spacer	MRC-2610	Midget Axle Nut- Right
MRC-2528	2 1/2" Tapered 36 Spline Spacer	MRC-2610B	Right Hand 31 Spline Axle Nut
MRC-2529	3 1/2" Tapered 36 Spline Spacer	MRC-2620	Midget Axle Nut- Left
MRC-2530	Midget 14pc. 36 Spline Spacer Kit	MRC-2620B	Left Hand 31 Spline Axle Nut- Black
MRC-2540	Midget 14pc. 36 Spline Spacer Kit Magnesium	MRC-2630	Magnesium Right Hand 31 Spline Axle Nut
MRC-2560	Magnesium 1/4" Straight 31 Spline Spacer	MRC-2640	Magnesium Left Hand 31 Spline Axle Nut
MRC-2561	Magnesium 1/2" Straight 31 Spline Spacer	MRC-2650	Right Hand 36 Spline Axle Nut - Black
MRC-2562	Magnesium 1 1/2" Straight 31 Spline Spacer	MRC-2660	Left Hand 36 Spline Axle Nut- Black
MRC-2563	Magnesium 2 1/2" Straight 31 Spline Spacer	MRC-2670	Right Hand 36 Spline Axle Nut - Magnesium
MRC-2564	Magnesium 3 1/2" Straight 31 Spline Spacer	MRC-2680	Left Hand 36 Spline Axle Nut - Magnesium
MRC-2565	Magnesium 1" Tapered 31 Spline Spacer		

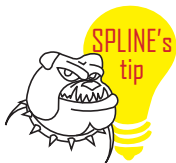
Front Hubs



DMI front hubs are produced from a domestic rotary forging. Rotary forging draws the grain of the material around the hub. Perfect for hubs and wheels because of the increased strength it provides. DMI - there is a difference

SRC-1962LW	Tetris Flyweight Right Front Hub	<i>ME</i>	SRC-1990	Bearing Kit 2 ea. Bearings, Races 1 Seal for Straight Snout Spindle
SRC-1963LW	Tetris Flyweight Left Front Hub	<i>ME</i>	SRC-1991	Bearing Kit 2 ea. Bearings, Races 1 Seal for Step Snout Spindle
SRC-1964LW	Tetris Flyweight Front Hub Set	<i>ME</i>	SRC-1993	Front Rotor Bolt Kit
SRC-1968LW	L.W. Black Widow Right Front Hub	<i>ME</i>	SRC-1994A	O-Ring for Front Hub
SRC-1969LW	L.W. Black Widow Left Front Hub	<i>ME</i>	SRC-1995B	Threaded Front Hub Dust Cap
SRC-1971LW	L.W. Black Widow Front Hub Set	<i>ME</i>	SRC-1998	Spindle Nut Wrench
SRC-1984	Hub Bearing Race - Small		SRC-1999	Front Hub Bolt Kit
SRC-1984PG	Hub Bearing Race - Small	<i>ME</i>		
SRC-1985	Hub Bearing Race - Large			
SRC-1986	Hub Bearing - Small			
SRC-1986PG	Hub Bearing - Small	<i>ME</i>		
SRC-1987	Hub Bearing - Large			
SRC-1988	Hub Seal for Straight Snout			

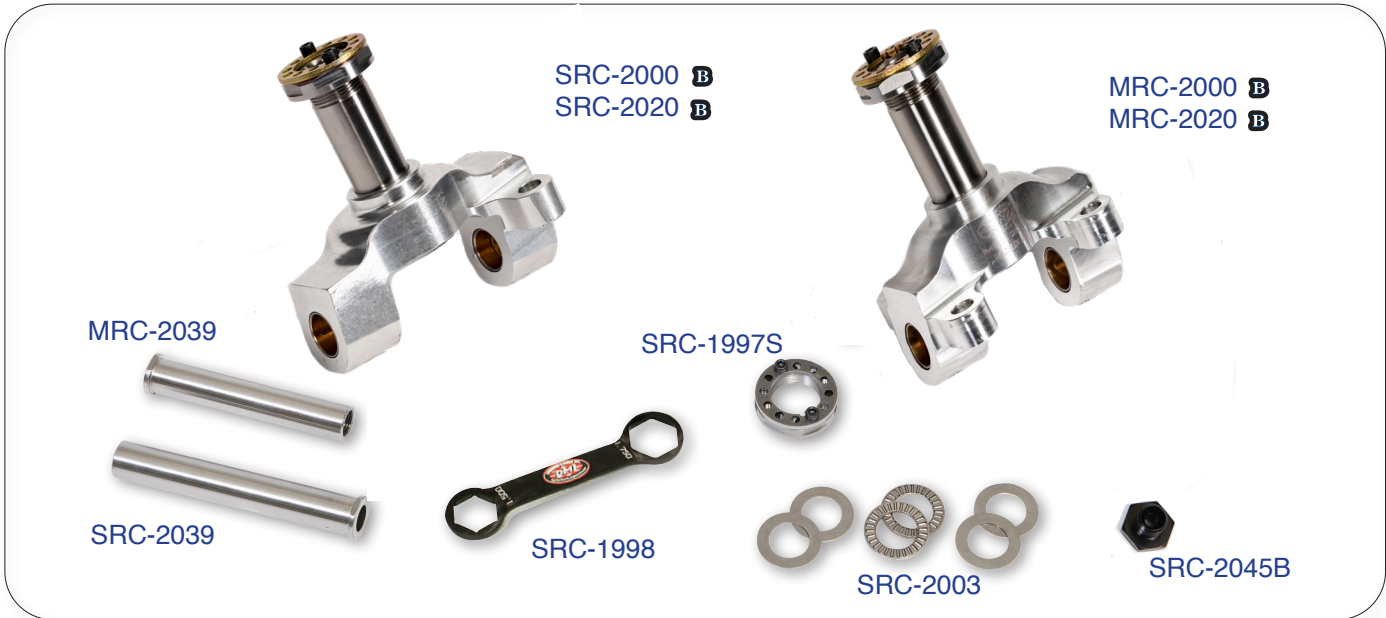
All bearings are available with M2 Metal Treatment. M2 Metal Treatment was formerly known as PROglide. An ownership change early in 2021 has brought a new name but the same great benefits and unmatched results in reducing friction and increased service life. Utilizing nano particles that act as sponges for oil, M2 is a revolutionary process with limitless possibilities. DMI chooses M2 treatment over REM® polished bearings. While DMI does have in-house REM® capabilities we believe they are best suited on gear sets or other “solid” items as opposed to bearings. REM® utilizes fine media as part of the polishing process. In bearings that fine media can be left behind as debris and potentially create an issue. Shiny is nice, but if you want to eliminate friction than M2 is for you!



Front spindle nuts should be checked after the first race. Bearings should be checked every six races to ensure proper lubrication. DMI recommends using DMI-DAYLUBE (found on pg.38) when packing bearings. Prefer to run your hubs in an oil bath? Supplied seals work with grease or oil.

Spindles

B = Also available in black



DMI front spindles are the industry's benchmark for quality and performance. Sprint car spindles are manufactured using a Made in the USA 7075-T6 forging. Midget sprindles are produced from billet 2024-T3 aluminum. Both steel and titanium snouts are machined in house.

MRC-2000	Aluminum Midget Spindle w/ Straight Steel Snout	SRC-2003	Kingpin Bearing and Race Kit
MRC-2020	Aluminum Midget Spindle w/ Titanium Snout	SRC-2020	Aluminum Spindle w/ Straight Titanium Snout
MRC-2035B	Midget Bottom King Pin Bushing	SRC-2035	King Pin Bushing
MRC-2035T	Midget Top King Pin Bushing	SRC-2039	Steel King Pin -.859
MRC-2039	Midget Steel King Pin - .812	SRC-2045B	King Pin Cap - Short
MRC-2059	Midget Titanium King Pin - .812	SRC-2055	King Pin Cap - Long
SRC-1997S	Spindle Locknut Kit "Trick"	SRC-2059	Titanium King Pin -.859
SRC-2000	Aluminum Spindle w/ Straight Steel Snout	SRC-1998	Spindle Nut Wrench



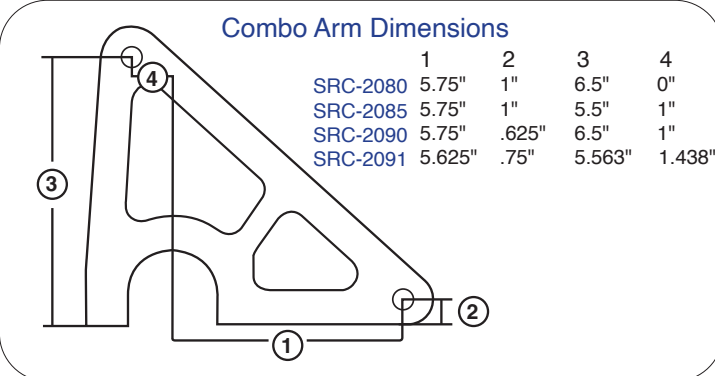
Steering Arms | Pitman Arms

B = Also available in black

Steering Arms



MRC-2080	Midget Combo Steering Arm
MRC-2085	Midget Wishbone Steering Arm
MRC-2100	Midget Single Steering Arm
SRC-2080	Combo Steering Arm - Standard
SRC-2085	Combo Steering Arm - 5.5" x 1" Forward
SRC-2090	Combo Steering Arm - 6.5" x 1" Forward
SRC-2091	Combo Steering Arm - Maxim Style
SRC-2095	.5" x .5" Aluminum Tapered Spacer
SRC-2100	Single Steering Arm for SRC-2080 & SRC-2085
SRC-2101	Single Steering Arm for SRC-2091
SRC-2110	Single Steering Arm for SRC-2090



Pitman Arms & Steering Mounts

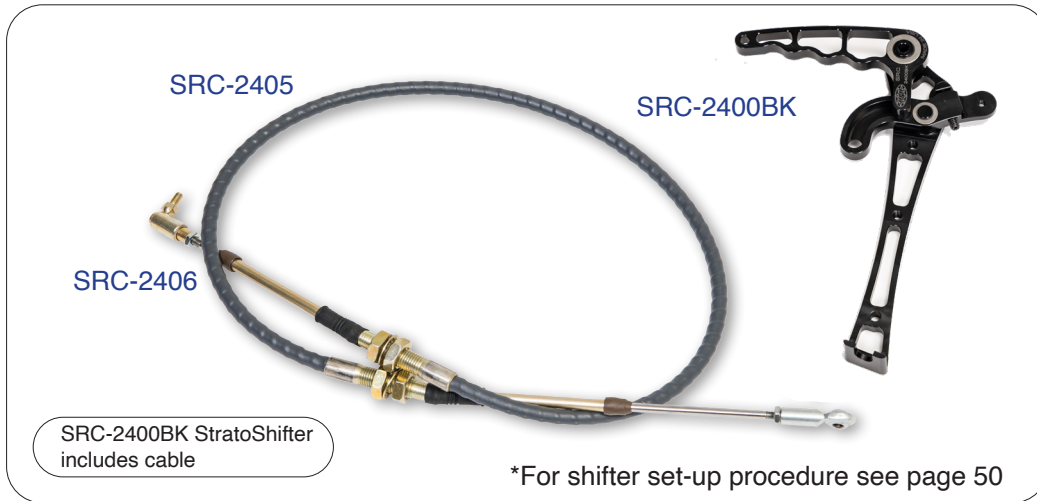


SRC-2075	Aluminum Mount for Half Steering	SRC-2255	X-Short Lightweight Pitman Arm - Angle Broach - 9"/10"
SRC-2240	Long Lightweight Pitman Arm	SRC-2260	Long Lightweight Pitman Arm - Angle Broach
SRC-2253	X-Long Lightweight Pitman Arm - Angle Broach		

StratoShifter | Motor Plates

B = Also available in black

StratoShifter



SRC-2400BK	StratoShifter Assembly- Assembly includes cable, quick disconnect and all hardware.
SRC-2405	45" Shifter Cable for StratoShifter/ Shurlock/Robison

SRC-2405XL	48" Shifter Cable for StratoShifter/ Shurlock/Robison
SRC-2406	Shifter Cable Quick Disconnect
SRC-2407	10/32 Female Rod End

Motor Plates



SRC-2830	Aluminum Front Motor Plate - Lightened
SRC-2831	2 pc. Aluminum Motor Mount - 1 Side
SRC-2831-2	2 pc. Aluminum Motor Mount - Set
SRC-2832	2 pc. Aluminum Motor Mount w/ Dry Sump Tank Mounts
SRC-2836	Dry Sump Tank Mounts - Set
SRC-2840	Aluminum Rear Motor Plate - Lightened
SRC-2850	Aluminum Rear Motor Plate
SRC-2860	Magnesium Rear Motor Plate
SRC-2890	Alum. Rear Motor Plate - Lightened - Maxim/Eagle Style Raised Rail
SRC-2895	Mag Rear Motor Plate - Lightened - Maxim/Eagle Style Raised Rail



Torque Balls | Tubes | Housings

B = Also available in black

Torque Balls



MRC-2380	Midget Torque Ball
SRC-2370XL	Aluminum Torque Ball - Extra Long
SRC-2380	Lightweight Aluminum Torque Ball



All Torque Tubes are available with black anodized tubes to prevent wear. New improved hard-anodizing prevents torque ball galling.

Torque Tubes & Torque Ball Housings



MRC-2390	Midget Torque Tube
MRC-2395	Midget Torque Tube - Sprint Car Style
RRC-1490	.015 Torque Tube Shim
RRC-1491	.030 Torque Tube Shim
RRC-1492	.060 Torque Tube Shim
RRC-2006	Torque Tube Stud Kit
SEALSIT-TBS1A-07	Seals-It Driveline Seal - Mag Housing
SEALSIT-TBS2A-07	Seals-It Driveline Seal - Steel Housing
SRC-2305	Body Armor Steel Torque Ball Housing w/ Inserts
SRC-2307	Torque Ball Housing Stud and Highnut Kit for SRC-2305
SRC-2308	Aluminum Torque Ball Housing w/ Inserts
SRC-2309	Aluminum Hard Anodized Torque Ball Inserts

SRC-2387	Big Unit XL Torque Tube Assy - 28"
SRC-2388	Big Unit XL Torque Tube Assy - 32"
SRC-2389	Big Unit XL Torque Tube Assy - 35"
SRC-2390	Aluminum Torque Tube w/H.D. Base - 28"
SRC-2391	Aluminum Torque Tube w/H.D. Base - 32"
SRC-2392	Aluminum Torque Tube w/H.D. Base - 35"
SRC-2393	Aluminum Torque Tube w/L.W. Base - 28"
SRC-2394	Aluminum Torque Tube w/L.W. Base - 32"
SRC-2395	Aluminum Torque Tube w/L.W. Base - 35"
SRC-2396	3" (MPD Style) Torque Tube w/L.W. Base - 28"
SRC-2397	3" (MPD Style) Torque Tube w/H.D. Base - 28"
SRC-2398	3" (MPD Style) Torque Tube w/L.W. Base - 32"
SRC-2399	3" (MPD Style) Torque Tube w/H.D. Base - 32"

U-Joint Assemblies | Components



MRC-2320	Toyota Aluminum / Steel U-Joint Assy.
MRC-2321	Toyota Aluminum / H.D. Billet Steel U-Joint Assy.
MRC-2322	Toyota Aluminum U-Joint Assy.
MRC-2323	Esslinger Aluminum / Steel U-Join Assy.
MRC-2324	Esslinger Aluminum / H.D. Billet Steel U-Joint Assy.
MRC-2325	SR-11x Aluminum / Steel U-Joint Assy.
MRC-2326	SR-11x Aluminum/H.D. Billet Steel U-Joint Assy.
MRC-2327	SR-11x All Aluminum U-Joint Assy.
MRC-2328	Esslinger Aluminum U-Joint Assy.
SRC-2354	2K11 H.D. Aluminum U-Joint Assy. - Chevy & Mopar - Greasable Cross
SRC-2355	2K11 H.D. Alum. U-Joint Assy. - Chevy & Mopar Gladiator Cross
SRC-2356	2K11 H.D. Steel/Alum. U-Joint Assy. - Chevy & Mopar - Greasable Cross

SRC-2357	2K11 H.D. Steel/Alum. U-Joint Assy. - Chevy & Mopar - Gladiator Cross
SRC-2358	2K11 H.D. Billet Steel/Alum. U-Joint Assy. Greasable Cross
SRC-2359	2K11 H.D. Billet Steel/Alum. U-Joint Assy. Gladiator Cross

U-Joints Components



SRC-2315	7075 Aluminum U-Joint Base
SRC-2316	7075 Aluminum U-Joint Yoke
SRC-2327	U-Joint Spring, Washer & Snap Ring for all yokes
SRC-2335	Greaseable U-Joint Cross
SRC-2336	Gladiator U-Joint Cross
SRC-2339	Lightweight Steel U-Joint Yoke
SRC-2342	Steel Billet U-Joint Yoke - Long
SRC-2352	2K11 H.D. Aluminum U-Joint Base
MRC-2310	Toyota U-Joint Base
MRC-2311	Esslinger U-Joint Base
MRC-2312	SR-11x U-Joint Base



DMI started using non-greasable crosses in 2002.

32 Spline Driveshafts | U-Joint Assemblies

Driveshafts



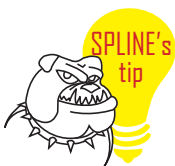
Ultra thin wall driveshaft with large OD provides strength and performance.

RRC-1455	WP Style Swivel Coupler Seal	SRC-2443	Titanium Washer for Ball Spline WP Style Driveshaft w/ Bolt
SRC-2430-32	4340 Steel Tubular Driveshaft - 29" for 32 Spline Yoke	SRC-2444-32	Replacement Ball for WP Style Driveshaft - 32 Spline
SRC-2431-32	4340 Steel Tubular Driveshaft - 29" for 32 Spline Yoke and 32 Spline Coupler	SRC-2481-3232	4340 Steel Tubar Driveshaft for DMI Style Swivel Coupler - 26.5" - 32 Spline Yoke and Rear Coupler
SRC-2432-32	4340 Steel Tubular Driveshaft - 32" for 32 Spline Yoke and 32 Spline Coupler	SRC-2482-3232	4340 Steel Tubular Driveshaft for DMI Style Swivel Coupler - 31" -32 Spline Yoke and Rear Coupler
SRC-2440-32	4340 Steel Tubular Driveshaft - 32" for 32 Spline Yoke	SRC-2483-3232	4340 Steel Tubular Driveshaft for DMI Style Swivel Coupler - 34.5" - 32 Spline Yoke and Rear Coupler
SRC-2442-29-32	Hollow 29" WP Style Swivel Driveshaft w/ Ball for 32 Spline Yoke		

U-Joint Assemblies



SRC-2316-32	7075 Aluminum U-Joint Yoke - 32 Spline
SRC-2342-32	Steel Billet U-Joint Yoke - Long - 32 Spline
SRC-2354-32	2K11 H.D. Alum. U-Joint Assy - Chevy&Mopar - Greasable Cross - 32 Spline
SRC-2355-32	2K11 H.D. Alum. U-Joint Assy - Chevy&Mopar - Gladiator Cross - 32 Spline
SRC-2359-32	2K11 H.D. Billet Steel/Alum. U-Joint Assy. - Gladiator Cross - 32 Spline
MRC-2321-32	Toyota Aluminum / H.D. Billet Steel U-Joint Assy. 32 Spline
MRC-2322-32	Toyota Aluminum U-Joint Assy. - 32 Spline
MRC-2324-32	Esslinger Aluminum / H.D. Billet Steel U-Joint Assy. -32 Spline
MRC-2326-32	SR-11x Aluminum / H.D. Billet Steel U-Joint Assy. - 32 Spline



The SRC-2442-29-32 Driveshaft and SRC-2355-32 yoke is an excellent combination on a 410 winged sprint car. The increased o.d. of the shaft provides the strength. The extra large 1" i.d. provides the weight savings. When coupled with the SRC-2355-32 u-joint harmonics are limited, strength is increased and performance is achieved.

Aluminum Driveshafts

MRC-2430A	Aluminum Tubular Driveshaft - 24" 10-16 Spline
SRC-2430A	Aluminum Tubular Driveshaft - 29" 10-16 Spline
SRC-2431A-32	Aluminum Tubular Driveshaft - 29" 32 Spline
SRC-2442A-29	Aluminum Tubular Driveshaft for WP Style Swivel - 29"
SRC-2442A-29-32	Aluminum Tubular Driveshaft for WP Style Swivel - 29" - 32 Spline
RRC-1401	Aluminum Int. 32 Spline Coupler
RRC-1401-32	Aluminum Int. 10-10 Coupler

DMI is the only manufacturer to offer ultralight aluminum driveshafts. Developed for 305's, the driveshafts have been used in strong ASCS 360's without issue in certain situations. 305 - any track - any time. 360 - consult the experts at DMI and see if your situation could benefit from an aluminum driveshaft

Weight Comparison:

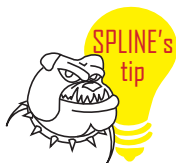
Description	Weight
Steel 10-16 Driveshaft with steel coupler	5.76 lbs.
Alum. 10-16 Driveshaft with alum. coupler	3.33 lbs.
Steel 32-32 Driveshaft with steel coupler	6.05 lbs.
Alum. 32-32 Driveshaft with alum. coupler	3.21 lbs.



Are you looking to save some rotating weight on your RaceSaver® 305?

Stop looking. This is the ultimate driveline combination.

WARNING: THIS DRIVELINE MAY CAUSE YOUR HEAD TO SNAP BACK UNDER ACCELERATION!



DMI recommends replacing aluminum driveshafts every 30 races.

44 Spline Driveshafts | U-Joint Assemblies



Fabricated Steel
Fabricated Titanium
Billet 7075 Aluminum



SRC-2415A	Aluminum 44 Spline DMI Style Swivel Driveshaft
SRC-2354-44	2K11 H.D. Alum. U-Joint Assy. - Chevy & Mopar - Greasable Cross - 44 Spline
SRC-2355-44	2K11 H.D. Alum. U-Joint Assy. - Chevy & Mopar - Gladiator Cross - 44 Spline
SRC-2413	Steel 44 Spline WP Style Driveshaft for 40" Car - 5.84 lbs.
SRC-2413T	Titanium 44 Spline WP Style Driveshaft for 40" Car - 3.99 lbs.
SRC-2413A	Aluminum 44 Spline WP Style Driveshaft for -40" car - 3.99 lbs.

DMI's 44 Bulldog Drive Shaft is the only choice for racers looking for an extra-large drive shaft.

Originally tested during the 2016 racing season the 44 Bulldog is an ideal choice for teams looking to keep weight to a minimum but increase the strength of the driveline. We further tested throughout the 2017 season assuring the performance and dependability you've come to expect from DMI. The fabricated shaft is offered in titanium and a very affordably priced steel version. New for 2020 is a 7075-T6 billet aluminum version. Tested successfully during the 2019 season, the aluminum version offers an affordable choice and excellent durability. Precision turned to zero runout. High horsepower 410? No problem. This aluminum driveshaft will handle it with ease. All U-Joint assemblies come with our very strong Aluminum 2k11 base and yoke.

Standard Driveshafts | Fabricated Driveshafts



RRC-1455	WP Style Swivel Coupler Seal
SRC-2429	4340 Steel Tubular Driveshaft - 26.5"
SRC-2430	4340 Steel Tubular Driveshaft - 29"
SRC-2440	4340 Steel Tubular Driveshaft - 32"
SRC-2441-29	Hollow 29" WP Style Swivel Driveshaft w/ Ball - Titanium
SRC-2442-29	Hollow 29" WP Style Swivel Driveshaft w/ Ball - Steel
SRC-2443	Titanium Washer for Ball Spline WP Style Driveshaft w/ Bolt
SRC-2444	Replacement Ball for WP Style Driveshaft - 16 Spline
SRC-2444-32	Replacement Ball for WP Style Driveshaft - 32 Spline
SRC-2445-28	Fab. Tubular D-Shaft for Int. 10-10 - 28"
SRC-2445-28.5	Fab. Tubular D-Shaft for Int. 10-10 - 28.5"
SRC-2445-29	Fab. Tubular D-Shaft for Int. 10-10 - 29"
SRC-2445-29.5	Fab. Tubular D-Shaft for Int. 10-10 - 29.5"
SRC-2445-30	Fab. Tubular D-Shaft for Int. 10-10 - 30"
SRC-2445-31.5	Fab. Tubular D-Shaft for Int. 10-10 - 31.5"
SRC-2445-32	Fab. Tubular D-Shaft for Int. 10-10 - 32"

SRC-2446-25.5	Fab. Tubular D-Shaft for Swivel - 25.5"
SRC-2446-26.5	Fab. Tubular D-Shaft for Swivel - 26.5"
SRC-2446-27.5	Fab. Tubular D-Shaft for Swivel - 27.5"
SRC-2446-29.25	Fab. Tubular D-Shaft for Swivel - 29.25"
SRC-2446-30.5	Fab. Tubular D-Shaft for Swivel - 30.5"
SRC-2450	4340 Steel Tubular Driveshaft - 35"
SRC-2470	6AL-4V Tubular Titanium Driveshaft - 32"
SRC-2480	6AL-4V Tubular Titanium Driveshaft - 29"
SRC-2481	4340 Steel Tubular Driveshaft for DMI Style Swivel Coupler - 26.5"
SRC-2482	4340 Steel Tubular Driveshaft for DMI Style Swivel Coupler - 31"
SRC-2483	4340 Steel Tubular Driveshaft for DMI Style Swivel Coupler - 34.5"
SRC-2485	6AL-4V Ti Tubular driveshaft for DMI Style Swivel Coupler - 26.5"
SRC-2486	6AL-4V Ti Tubular Driveshaft for DMI Style Swivel Coupler - 31"
SRC-2487	6AL-4V Ti Tubular Driveshaft for DMI Style Swivel Coupler - 34.5"



A Titanium Driveshaft saves 1.21 lbs.
over a Steel Driveshaft.



Driveline Frequently Asked Questions

Q What is the best U-Joint for me?

A It really depends on the class. Our all aluminum U-Joints are used successfully in all classes. Steel vs. aluminum yokes is just a personal preference.

Q How many races can I use my U-Joint assembly?

A With 410, 360 and midgets we recommend replacing U-Joint assemblies every engine freshen. 305's should not exceed fifty races with their assemblies. Our recommendations apply to all U-Joint assemblies.

Q How does the non-greasable crosses work?

A Excellent. We began using them in 2002. They offer many advantages. They are maintenance free. They keep the grease where it belongs. The cross is so well sealed the grease remains in the cross. The solid forged cross features much more strength than the cast hollow joints.

Q What is the best driveline grease?

A On the torque ball assembly a #2 high temp works well. Also 20-50 motor oil works well and doesn't attract as much grease. On the splines of the Driveshaft we recommend the DMI Swivel Coupler Lube (Part # DMI-SWILUBE). DO NOT USE NEVER-SEIZE.

Q How many races should I run on my driveshaft?

A Driveshafts should be replaced every thirty races under normal racing conditions. We recommend checking the driveshaft run out every five races. Run out should be less than .003". In the event of a violent crash or catastrophic engine failure the driveshaft should be replaced immediately.

Q How critical is driveshaft length?

A Driveshaft length is extremely critical. We have seen as little as .250" be a contributing factor in driveline and u-joint failures. Close is not going to get it done when cutting a driveshaft. Measure twice and cut once!! Do not think that a driveshaft cut for a 40" car will be ok to try in a 40.5" car. YOU WILL HAVE PROBLEMS!!! Recommended driveshaft lengths can be found on the pages featuring that specific quick change rear.

Q What is the proper torque on the U-Joint Bolts?

A U-Joint Bolts should be torqued to 65 ft/lbs. and blue threadlocker should be applied. Begin by torquing in an "X" pattern at 45 ft/lbs. and increase torque by 10 ft/lbs. until 65 ft/lbs. is achieved.

Rods & Rod Ends

Rods & Rod Ends



AF-3	Aluminum Female 10/32 Rod End	HDML8-10	3 pc. 1/2 x 5/8 H.D. LH Rod End
AF-5	Aluminum Female 5/16 Rod End	JAM10	5/8 Steel Jam Nut RH - 3/4" Hex
ALRSM8B	FK Made in the USA 1/2 x 5/8 Aluminum RH Rod End	JAM10L	5/8 Steel Jam Nut LH - 3/4" Hex
ALRSM8L	FK Made in the USA 1/2 x 5/8 Aluminum LH Rod End	MM8-10	3 pc. 1/2 x 5/8 Moly RH Rod End
AMT8-10	3 pc. 1/2 x 5/8 Aluminum RH Rod End	MML8-10	3 pc. 1/2 x 5/8 Moly LH Rod End
AMTL8-10	3 pc. 1/2 x 5/8 Aluminum LH Rod End	RSM8	FK Made in the USA 1/2 x 5/8 HD RH Rod End
HDM8-10	3 pc. 1/2 x 5/8 H.D. RH Rod End	RSML8	FK Made in the USA 1/2 x 5/8 HD LH Rod End
		RSMX8	FK Made in the USA 1/2 x 5/8 Moly RH Rod End



Superior Bearings has been servicing and producing bearings for the motorsports industry for over 30 years. Superior is known for their commitment to quality and fair pricing. Their SBS Rod Ends are a trusted name in the industry.



FK Rod Ends produce the highest quality Made in the USA Rod Ends in motorsports. Top Teams across the globe rely on the performance of FK to reach victory lane.

Torsion Bars

T-REX (Torsion Restraint EXpress) System

7/8" Spline Torsion Bars

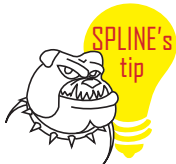


- LRC- (rate) - 26 Standard Rate Hollow 7/8" Torsion Bar - 26"
- LRC- (rate) - 14.5 Standard Rate Solid 7/8" Torsion Bar - 14.5"
- LRC-1500 - T-Rex Locking End Plug for 7/8" Bar

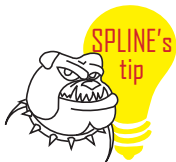
Stocking Rates

26" Hollow	14.5" Solid
.600	.550
.625	.575
.650	.600
.675	
.700	
.712	
.725	
.737	
.750	
.775	
.800	

You asked for it... DMI delivered. The #1 requested NEW product over the last five years. DMI 7/8" Spline Torsion Bars are produced from the same high quality Made in the USA material as their big brother 1 1/8" spline bars. Using the same manufacturing processes, DMI has developed and proven over the last 20 years ensure you that a DMI T-Rex Torsion Bars are the most consistent, high performing springs on the planet. Buy DMI T-Rex Torsion Bars. Buy confidence.



Grease the bearing shoulders on each end of the bar with a water resistant #2 grease. Due to the twist of the bar it is also recommended that grease be applied to the center of the bar,



Always put the arm on the side of the bar that shows the size. Also, bars should only be twisted in one direction. Therefore, a bar used in the right rear corner could only ever be used in the left front corner. Left rear bars could also be used in the right front.

Torsion Bars

T-REX (Torsion Restraint EXpress) System



The T-Rex Torsion Restraint System is designed to prevent arms or stops from being pulled off the bar. It is the safest system available. A World of Outlaws approved torsion restraining device.

SRC-_-18	Standard Rate Hollow Torsion Bar - 18"
SRC-_-29	Standard Rate Hollow Torsion Bar - 29"
SRC-_-30	Standard Rate Hollow Torsion Bar - 30"
SRC-_-3024	Standard Rate Hollow Torsion Bar - 30" w/ 24" effective length
SRC-_-3024TRES	Standard Rate Hollow Torsion Bar - 30" w/ 24" effective length - T-Rex
SRC-_-30TRES	Standard Rate Hollow Torsion Bar - 30" - T-Rex

SRC-_-31	Standard Rate Hollow Torsion Bar - 31"
SRC-_-3124	Standard Rate Hollow Torsion Bar - 31" w/ 24" effective length
SRC-_-3124TRES	Standard Rate Hollow Torsion Bar 31" w/ 24" effective length - T-Rex
SRC-_-31TRES	Standard Rate Hollow Torsion Bar - 31" - T-Rex
SRC-1500	T-Rex Locking End Plug

Spring Rate Chart

30" & 31" HOLLOW BAR 23" EFFECTIVE LENGTH

Arm Length	12"	12.5"	13"	13.5"	14"	14.5"	15"	15.5"	16"	16.5"	17"
.950	288	265	245	227	211	197	184	173	162	152	143
.975	319	294	272	252	235	219	204	191	180	169	159
.987	336	309	286	265	247	230	215	201	189	178	167
1.000	352	325	300	279	259	241	226	211	198	186	176
1.015	373	344	318	295	274	256	239	224	210	197	186
1.025	388	357	330	306	285	265	248	232	218	205	193
1.037	406	374	346	321	298	278	260	243	228	215	202
1.050	425	391	362	336	312	291	272	255	239	225	212
1.065	444	409	378	351	326	304	284	266	250	235	221

DMI T-Rex Torsion Bars are the industry leader in quality performance and consumer confidence. Our 4340 domestic material is supplied by the same producer for the last 20 years. Same for our heat treater. The manufacturing process hasn't changed at DMI. No different grade bars here... That makes no sense. DMI Makes one grade - the best. DMI bars - consistent from bar to bar and year to year. NEW for 2024! DMI offers 24" effective length torsion bars. Put some spring in your step - choose DMI T-Rex Torsion Bars

Spring Rate Chart

30" & 31" HOLLOW BAR 24" EFFECTIVE LENGTH

Arm Length	12"	12.5"	13"	13.5"	14"	14.5"	15"	15.5"	16"	16.5"	17"
.950	276	254	235	218	203	189	177	165	155	146	137
.975	306	282	261	242	225	210	196	183	172	162	152
.987	322	296	274	254	236	220	206	193	181	170	160
1.000	338	311	288	267	248	231	216	202	190	179	168
1.015	358	330	305	283	263	245	229	214	201	189	178
1.025	371	342	317	293	273	254	238	223	209	196	185
1.037	389	358	331	307	286	266	249	233	219	206	194
1.050	407	375	347	322	299	279	260	244	229	215	203
1.065	426	392	363	336	313	291	272	255	239	225	212

Rates in Stock

30" Hollow	31" Hollow
.900	.950
.925	.975
.950	.987
.975	1.000
.987	1.015
1.000	1.025
1.015	1.037
1.025	1.050
1.037	
1.050	
1.065	

THE WORLD'S LEADER IN TORSION BARS



At DMI we pride ourselves on being the leading supplier of torsion bars to the sprint car industry. It's no accident that we've earned that title. Our choices in materials, service providers and the knowledge we've accrued over a lifetime in the sport have helped us to achieve the status. It's a fair statement that torsion bars will always have more questions associated to them than answers. We certainly lay no claim to knowing everything there is to know about them. However, below we'll use this opportunity to share with you some of what we've learned over the years. Too many today buy a piece of test equipment and envision themselves an expert on the subject. We cringe at some of the information we hear people spewing about torsion bars. As Honest Abe said, "Better to remain silent and be thought a fool than to speak out and remove all doubt."

EFFECTIVE LENGTH

The turned down section in the middle of the torsion bar is the effective length. Commonly our 30" and 31" torsion bars have a 23" effective length. In 2023 we began offering and stocking 30" and 31" bars with 24" effective length. By increasing the effective length a few things are accomplished. It changes the resonance frequency of the bar. Consequently, it provides a smoother feel to the driver in certain conditions. Secondly the spring rate is softened as the effective length increases. Looking at the charts on the opposing page you will see that a 24" effective length bar is 10-15 lbs. softer spring rate than a 23" effective length bar of the same diameter. Effective length changes make a difference. Some of JJ Yeley's 2003 record breaking year in USAC sprint car racing could be attributed to some uncharacteristic effective lengths and I personally have raced cars with effective lengths from 14" to 27". While this technology is fairly new to market, we have had plenty of experience with it over the last 20+ years.

LIFE EXPECTANCY OF TORSION BARS

Lots of myths surround the life expectancy of torsion bars. There are many companies that offer testing services. We have no lack of experience testing bars ourselves. Personally, my family's Kreitz Oval Track Parts took delivery of one of the first three Intercomp Torsion Bar Dynos ever produced in the mid to late 90's. I worked closely with the late Bruce Rhoe of Intercomp to develop the testing method that became their standard. Fast forward 10 years or so and my father and I successfully manufactured and sold an economical torsion bar checker utilizing a person's existing scale pad. And I'm familiar with all the modern-day testers and I have to say that my opinion is while they will compare bars to verify sizing and consistency, I don't believe there has ever been a tester to tell us the "whole story". Just like a shock, torsion bars have compression and rebound. Having the aid of something to make that cycle (air or electricity) doesn't represent the actual service of the bar. If a bar starts to change, I'm confident it's on the rebound side. It probably loses some "bounce energy". As for a bar going bad, I've almost never seen it. It's a common justification that people make for simply missing the set-up. In addition, I've seen bars that flipped the race before, were bent and straightened, win the next event. Easiest thing to do at home is pay attention to ride heights. If they are maintained the bar is fine. I believe if you wanted to be extra diligent replacing bars every 20-25 races would be a safe practice.

WHAT IS THE SPRING RATE

The spring rate is the combination of the bar size, the effective length and the arm length. The bar size is the outside diameter. One thing that we hear is people refer to a bar as 1000 lb. for example. THIS IS WRONG!! A 1000 torsion bar is the o.d. of the bar if the bar was solid. (1.000") A 1025 would be 1.025". However, because we use hollow bars the o.d. must be adjusted for the hole. Consequently, as an example the o.d. of a 1000 hollow torsion bar is 1.078". However, the bar is still referred to as an inch bar, thousand or 1.000. We've already went over the effective length in a previous section. The arm length is the distance from the center of the bar to the pickup point on the axle. On the front it would be where the torsion arm rides on the axle. On the rear it would be where the bottom birdcage bolt slides through the arm rod end. Commonly, using a Maxim 87-40 car as an example the RF arm length is 14" or if the wheel base is pushed to 87.5" 13.5". The right rear is 14.688".

Torsion Arms | Stops

B = Also available in black

Front Torsion Arms & Stops



Titanium Midget Torsion Stop

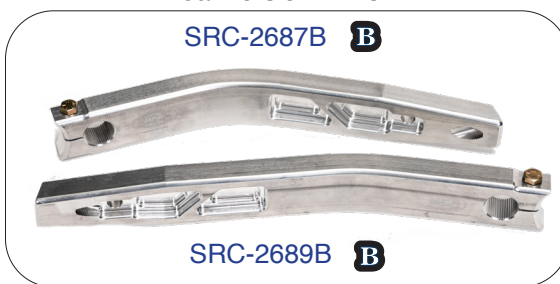
SRC-2115	Left Front Torsion Arm - "S" Bend
SRC-2120	Front Torsion Arm - Long
SRC-2121	Anti-Rollbar Stop
SRC-2122	Anti-Rollbar Left Front Arm (No Splines)
SRC-2122A	Anti-Rollbar Right Front Arm
SRC-2123	Heavy Duty Front Torsion Arm - Long
SRC-2124	Right Front Torsion Arm - 2" Bend
SRC-2125	Right Front Torsion Arm - 10° Broach
SRC-2130	Front Torsion Arm - Short
SRC-2140	Aluminum Torsion Stop - 1.75" Split
SRC-2150	Aluminum Torsion Stop - 2" Split

SRC-2160	Steel Torsion Stop - 1.75" Split
SRC-2170	Steel Torsion Stop - 2" Split
SRC-2180	6AL-4V Titanium Torsion Stop - 1.75" Split
SRC-2190	6AL-4V Titanium Torsion Stop - 2" Split
SRC-2210	Bronze Torsion Bushing for .095 Tubes
SRC-2211	Bronze Torsion Bushing for .120 Tubes
SRC-2220	Plastic Torsion Bushing for .095 Tubes
SRC-2221	Plastic Torsion Bushing for .120 Tubes

Rear Torsion Arms



The counterbore in the torsion bushings provides extra clearance for the bar splines during twist.



*See page 89 for Custom Arm Form

SRC-2685	LW RR Torsion Arm - Custom Dimensions + Labor	SRC-2689R	LW LR Torsion Arm - L.W. Eagle/Maxim - Reverse Tube
SRC-2685XL	LW RR Torsion Arm XL - Custom Dimensions + Labor	SRC-2689W	LW LR Torsion Arm - L.W. Woodring Sportsman
SRC-2686	LW RR Torsion Arm - Std. Eagle/Maxim	SRC-2690	LW LR Torsion Arm - Custom Dimensions + Labor
SRC-2687	LW RR Torsion Arm - L.W. Eagle/Maxim	SRC-2690XL	LW LR Torsion Arm XL - Custom Dimensions + Labor
SRC-2687R	LW RR Torsion Arm - L.W. Eagle/Maxim - Reverse Tube	SRC-2694	LW RR Torsion Arm - J&J 15"
SRC-2688	LW LR Torsion Arm - Std. Eagle/Maxim	SRC-2695	LW LR Torsion Arm - J&J 17"
SRC-2689	LW LR Torsion Arm - L.W. Eagle/Maxim		

Birdcages

B = Also available in black

Birdcages



SRC-2575 **B**



SRC-2570 **B**

SRC-2553	6014 Birdcage Bearing
SRC-2554	Birdcage Spirallock for 6014
SRC-2570	Small Double Bearing Birdcage Set - Non Wing Dual Pickup
SRC-2571	Small Double Bearing Right Birdcage - Non Wing Dual Pickup
SRC-2572	Small Double Bearing Left Birdcage - Non Wing Dual Pickup
SRC-2574	Replacement Birdcage Level
SRC-2575	Small Double Bearing Birdcage Set
SRC-2576	Small Double Bearing Right Birdcage
SRC-2577	Small Double Bearing Left Birdcage

SRC-2578	5914 Birdcage Bearing - 32mm
SRC-2578A	5914 Birdcage Bearing - 28mm
SRC-2578AV	5914 Birdcage Bearing - 28mm VMAC Style
SRC-2578V	5914 Birdcage Bearing - 32mm VMAC Style
SRC-2578PG	5914 Birdcage Bearing - 32mm M2 Treated
SRC-2579	Birdcage Spirallock for 5914
SRC-2581	Birdcage Caliper Mount

M2 treated birdcage bearings increase bearing life by more than 800%! SRC-2578PG is the treated replacement birdcage bearing. All birdcages and birdcage sets are available with M2 bearings. Ask your sales associate for more details.



			SRC-2580	Steel Spacers to Convert Split Brg. Axle to Std.
SRC-2598	SRC-2599	SRC-2601	SRC-2598	Right Birdcage Spacer
			SRC-2599	Left Birdcage Spacer - Spline Saver
			SRC-2601	Splined Left Side Birdcage Spacer
			SRC-2602	Birdcage Spacer for 31" Torsion Bar
				
SRC-2602	SRC-2580			



SRC-2601 Left Birdcage Spacer is splined to prevent axle wear on the splined bearing shoulder.

Fabricated Components

B = Also available in black

Front Axles



Redesigned in 2020, DMI cornerSPEED front axles use proven caster/camber settings to optimize speed at corner entry and through the apex. Adjustable front shock locations allow shock travel to be increased or decreased to maximize lateral and longitudinal traction.

SRC-1910	2.5" x 50" cornerSPEED Front Axle - Black
SRC-1930	2.25" x 53" cornerSPEED Front Axle - Black

Jacobs Ladders



DMI is the first in the industry to offer different length Jacobs ladder straps. Varying length ladder straps have long been a secret adjustment teams make to change the rear roll centers and adjust the handling. Now it's available to everybody.

Heavy Duty Ladder Straps are perfect for tracks where you have to run the fence. Beat the fence and don't worry about breaking your straps.

A must have to run the wall at Eldora!!!

SRC-2505	4130 Steel Jacobs Ladder w/ Straps - 13.625"
SRC-2510	4130 Steel Jacobs Ladder w/ Straps - 14"
SRC-2515	4130 Steel Jacobs Ladder w/ Straps - 13.25"

Jacobs Ladder Straps



SRC-2545HD **B**

SRC-2545L **B**
7.25" Ladder Strap

SRC-2545 **B**
7" Ladder Strap
(standard)

SRC-2545S **B**
6.75" Ladder Strap



Wing Valve | Components | Fuel Valve

Wing Valve and Components

B = Also available in black

**WING CYLINDER
NOW INCLUDES
ROD WIPER**



SRC-2900	Straight Front Wing Post	SRC-2921	10" Wing Cylinder w/Heim
SRC-2910	Bent Front Wing Post	SRC-2922	12" Wing Cylinder w/Heim
SRC-2915S	Front Wing Straps - Bolt Style (set)	SRC-2923	Wing Cylinder Rod End
SRC-2916	Front Wing Straps - Dzus Style (set)		
SRC-2920	Hotwing Valve		

Fuel Valve



FRC-1000
Fuel Shut-Off
Valve



DMI HotWing Valve features 20% more flow than conventional wing valves on the market. The valve remains a closed circuit when not in use eliminating potential problems.

Brake Rotor Mounts | Inboard Brake Rotors

B = Also available in black

Brake Rotor Mounts

SRC-2932



SRC-2931 **B**



SRC-2930 **B**
MRC-2930



SRC-2701

MRC-2930	Floater Style Splined Rear Inboard Hub – 31 Spline Midget
SRC-2701	Splined Adaptor for 6 Pin
SRC-2930	Floater Style Splined Rear Inboard Hub - Sprint Car
SRC-2931	Inboard Brake Spacer for .810 vented rotor
SRC-2931T	Inboard Brake Spacer for Ben Cook titanium rotor

SRC-2931XL	Inboard Brake Spacer Extra Long for Custom Fit
SRC-2932	Clamp Style Splined Inboard Rotor Mount for 8 on 7" B.C.
SRC-2938	42 Spline Adaptor for 8 on 7" B.C. Rotor

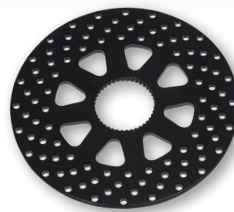
Inboard Brake Rotors



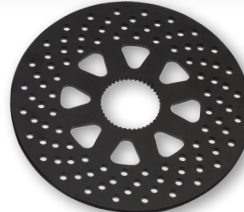
SRC-0810



SRC-0811



SRC-2780



SRC-2785



WIL-160-13373

SRC-0810	12" Inboard Steel Rotor - .810 Width
SRC-0810S	11.75" Vented Steel Rotor 8 on 7" B.C. - .810 Width
SRC-0811	12" Inboard Steel Rotor - .810 Width - Lightened

SRC-0811S	11.75" Cast Steel Rotor - .810 Width - Lightened
SRC-2780	Splined Right Rear Rotor 10.125" w/ Holes
SRC-2785	Splined Right Rear Rotor 10.75" w/ Holes
WIL-160-13373	Wilwood Super Alloy Inboard Rotor

Front Brake Rotors | Single Caliper Mounts | Brake Guards

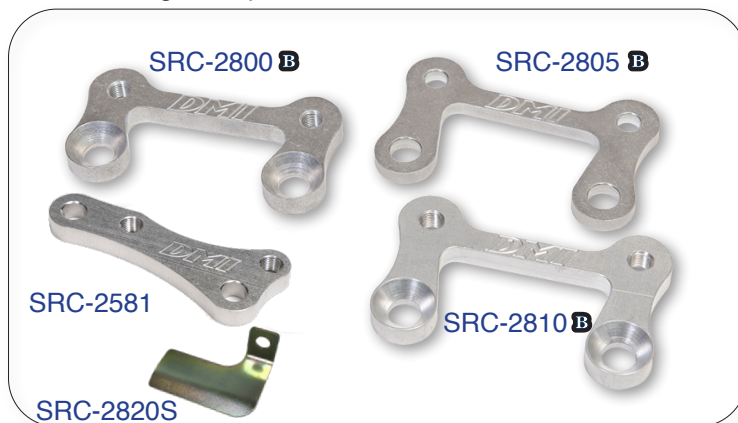
Front Brake Rotors

B = Also available in black



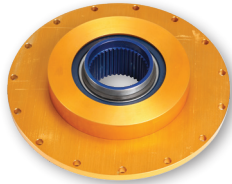
SRC-2700	Front 3-Lug Rotor Aluminum 10.125" w/ Holes	SRC-2710	Front 3-Lug Rotor Aluminum 10.875" w/ Holes
SRC-2704	Front 3-Lug Rotor Steel 10.25"	SRC-2730	Front 3-Lug Rotor Aluminum 10.875" w/o Holes
SRC-2705	Front 3-Lug Rotor Steel 10.75"		

Single Caliper Mounts & Brake Guards

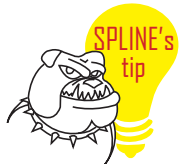


MRC-2800	Midget Left Front Caliper Mount for 10.125" Rotor w/Allen Bolts	SRC-2810	Left Front Caliper Mount for 10.875" Rotor w/ Allen Bolts
SRC-2581	Birdcage Caliper Mount	SRC-2811	Same as SRC-2805 but for 3.75" Spindles
SRC-2800	Left Front Caliper Mount for 10.125" Rotor w/ Allen Bolts	SRC-2820	Brake Line Rock Guard
SRC-2805	Left Front Caliper Mount for 10.875" Rotor - Non Countersunk	SRC-2820B	Brake Line Rock Guard - Black
		SRC-2820S	Brake Line Guard - Steel

Tools



EZ Push Wheel makes moving your car a one man job.

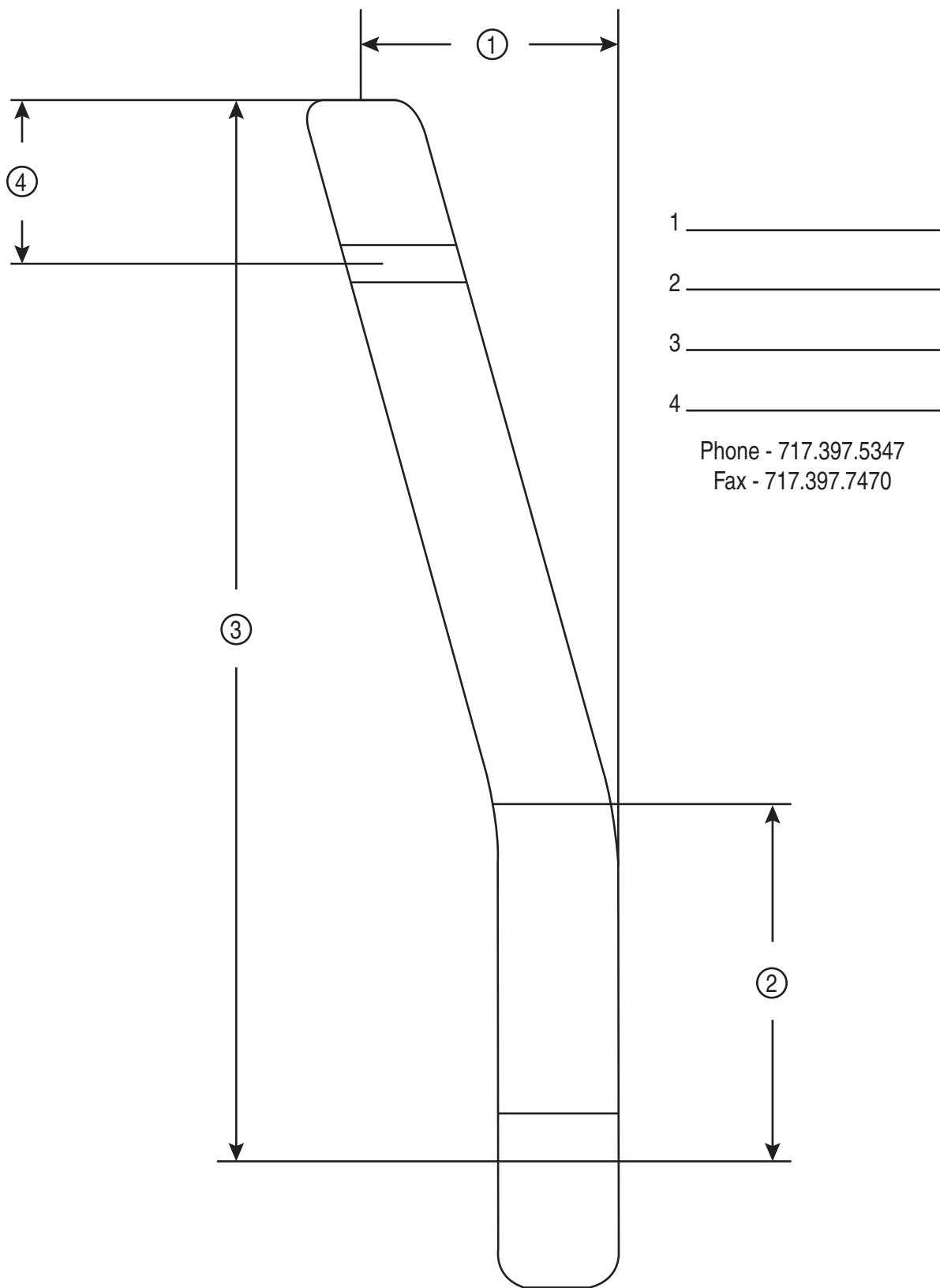


Always remember to remove the spark plugs before using the engine rotator turn over tool.

RRC-1900	Snout Locking Ring Tool
SRC-1998	Spindle Nut Wrench
SRC-2607	Rear Axle Nut Wrench w/ L.W. Adaptor
SRC-2608	3" Aluminum Hex Socket
SRC-3000	Engine Rotator Tool - Sprint
MRC-3000	Engine Rotator Tool - Midget - 31 Spline
MRC-3001	Engine Rotator Tool - Midget - 36 Spline



Rear Arm Diagram



Tech Specs

86-40 Maxim/Eagle/XXX/JJ 1.75 Split		87-40 Maxim/Eagle/XXX/JJ 1.75 Split
RF	RR-21.5-1.125	RR-22.5-1.125
LF	RR-21-1.125	RR-22-1.125
RR	RR-24-1.000	RR-24-1.00
LR	RR-23.5-1.000	RR-23.5-1.00
Panhard	RR-18.5-1.125	RR-18.5-1.125
TieRod	RR-46.0-ST	RR-46-ST
DragLink	RR-48-ST	RR-49-ST
RR Arm	SRC-2687	SRC-2687
LR Arm	SRC-2689	SRC-2689
Jacobs Ladder	SRC-2515/2505	SRC-2515/2505

Squaring the Rear Axle:

There are many different ways to square the rear end depending upon mechanical preference and comfort. This is one popular technique utilized by many professional teams. Place the rear end in the chassis and bolt up the torque tube. Set the axles on 6" blocks if it's a standard chassis, 5" on the left side and 6" on the right if it's a raised rail car. Secure the birdcages with spacers and the wheel nuts. Measure the distance from the rear round machined portion of the torque tube to the outer edge of the chassis by placing a straight edge vertically against the frame. Center the rear end by equalizing this distance on both sides of the car. This distance should measure between 10.125" and 10.25". Now with the rear centered side-to-side, start with the right side and measure from the leading edge of the rear axle to the front edge of the motor plate. On a 39" car this measurement is 37.625", 38.625" on a 40" car. Roll the axle forward or back on the blocks to achieve the correct distance. Once you have secured that distance on the right side check the left side. Ensuring that the rear is still centered in the frame and the right side measures correct, the left side may vary by as much as .125". This is generally left to lie as is. With the radius rods connected, place a level on the flat bottom portion of each bird cage and adjust the rods so that each cage is level with the bottom frame rail. Now bring your rear arms up to each bird cage flag and adjust each rod end so that the lower bird cage bolts slide freely through the cage and the rod end. Having completed this, recheck all of your measurements to ensure that nothing was moved during the previous processes. If all measures correct bring your jacobs ladder to the rod end or clevis and adjust the rod end or clevis in or out so that the bolt also slides freely. With these operations complete check your work by ensuring the torque ball is free and the jacobs ladder is not bound. Now you are ready for race height setup blocks and stops.



Tech Specs

Squaring the Front Axle:

Set the front axle on 4" set-up blocks, or 3" and 4" if it is a raised rail car. Offset the axle 1" to the left side by adjusting the sway bar. This gives clearance to the left front torsion arm and combo steering arm. Measure 14" from the center of the right front torsion tube to the center of the axle on both sides. After roughing in the radius rods to this measurement, measure from the leading edge of the rear axle (still on 6" blocks) to the rear edge of the front axle on the rightside. After having gained this measurement we will set the lead. Check the left side the same way and adjust the rod length so that the left measurement is equal to or up to .25" set back depending upon driver preference and size of track. With the axle now square we can adjust the caster. Place an angle finder on the right front steering arm. Adjust the top right front radius rod so that the angle reads anywhere from 6 to 10°. Again this is driver preference, some drivers like more positive feel in the front end than others. With this complete you can drop the axle down to race height set-up blocks and adjust the stops. Don't forget to set the tow. An .125" of tow out is generally the norm.

(Information provided by Maxim Chassis)



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Terms of Service

Form of Payment—Initial orders with Diversified Machine Incorporated (DMI) will be Credit Card or C.O.D. Approved business checks or certified checks are an acceptable form of C.O.D. payment. Money orders are also acceptable. If credit has been established, payment shall meet the terms and conditions of DMI. Applicable sales tax will be charged on every item which sales tax exemption certification has not been provided. If an open account has been established, failure to comply with these terms and conditions will result in penalties and possible termination of your open account status. Returned check fees will be in compliance with bank charges assessed to DMI.

Order Information—DMI requires a \$50.00 minimum order. All custom or special orders are subject to an additional fee. Custom orders also require a 50% deposit at time of ordering. Orders may be placed 7 days a week, 24 hours a day via fax line 717.397.7470. Phone orders will be taken during normal business hours 8:00 am–5:00 pm EST Monday thru Friday. Please order using DMI assigned part numbers. All orders will be shipped F.O.B. warehouse.

Foreign Orders—All foreign orders must be paid in advance, in full, in U.S. currency. Additional shipping documentation and insurance costs may be applied and are paid for by customer.

Returns and Back orders—The invoice enclosed in your shipment will notify you of any items DMI had to backorder. DMI will backorder items unless requested otherwise. Backorders will usually ship within 30 days. If you wish to cancel a backorder, please contact a sales representative. The customer is responsible for a 20% restocking fee and freight charges if the backorder is cancelled after it has already shipped. Products may be exchanged for refund, credit, or exchange within 30 days of receipt. All returned items are subject to a 20% restocking fee. Should you need to return an item, please contact a sales representative for a return goods authorization number.

THINKING...

IF YOU THINK YOU ARE BEATEN, YOU ARE.
IF YOU THINK YOU DARE NOT, YOU DON'T.
IF YOU LIKE TO WIN, BUT YOU THINK YOU
CAN'T, IT IS ALMOST CERTAIN YOU WON'T.

IF YOU THINK YOU'LL LOSE, YOU'VE LOST.
FOR OUT IN THE WORLD WE FIND, SUCCESS
BEGINS WITH A FELLOW'S WILL
IT'S ALL IN THE STATE OF MIND.

IF YOU THINK YOU ARE OUTCLASSED, YOU ARE.
YOU'VE GOT TO THINK HIGH TO RISE.
YOU'VE GOT TO BE SURE OF YOURSELF
BEFORE YOU CAN EVER WIN A PRIZE.

LIFE'S BATTLES DON'T ALWAYS GO
TO THE STRONGER OR FASTER MAN, BUT
SOONER OR LATER THE MAN WHO WINS IS
THE MAN WHO THINKS HE CAN!



Notes

Notes

"YOU MISS 100% OF THE SHOTS YOU DON'T TAKE."

-WAYNE GRETZKY

"Always make a total effort, even when the odds are against you." -Arnold Palmer

"IF YOU'RE SO AFRAID OF FAILURE, YOU WILL NEVER SUCCEED. YOU HAVE TO TAKE CHANCES."

-MARIO ANDRETTI

"MOST PEOPLE HAVE THE WILL TO WIN, FEW HAVE THE WILL TO PREPARE TO WIN."

- BOBBY KNIGHT

"Attitude is a little thing that makes a big difference." -Winston Churchill

"Innovation distinguishes between a leader and a follower."
-Steve Jobs

"THE COMPETITOR TO BE FEARED IS ONE WHO NEVER BOTHERS ABOUT YOU AT ALL, BUT GOES ON MAKING HIS OWN BUSINESS BETTER ALL THE TIME. "

-HENRY FORD

"Excellence is the unlimited ability to improve the quality of what you have to offer."
-Rick Pitino

"ONCE YOU REPLACE NEGATIVE THOUGHTS WITH POSITIVE ONES, YOU'LL START HAVING POSITIVE RESULTS."

-WILLIE NELSON

"DRIVING A RACE CAR IS LIKE DANCING WITH A CHAIN SAW."

-CALE YARBOROUGH

"Auto racing, bull fighting and mountain climbing are the only real sports... all others are games."
-Ernest Hemingway

"THE WINNER AIN'T THE ONE WITH THE FASTEST CAR. IT'S THE ONE WHO REFUSES TO LOSE."

-DALE EARNHARDT SR.

"IF YOU'RE IN CONTROL, YOU'RE NOT GOING FAST ENOUGH."

-PARNELLI JONES

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