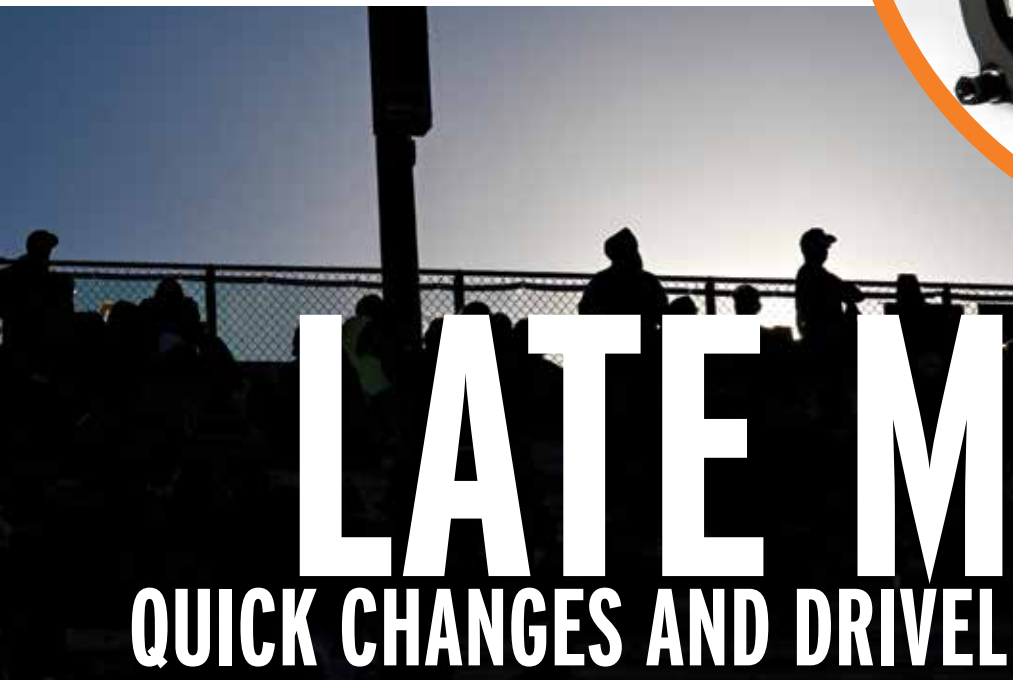




# LATE MODEL

QUICK CHANGES AND DRIVELINE COMPONENTS



# In 1958

Winters founder Vaughn Winter Sr. rebuilt his first racing transmission on the kitchen table of his home while stationed in Wyoming with the U.S. Air Force. It was the start of a legacy of designing and manufacturing the highest quality transmissions, rear ends, and driveline components available to the racing community.

Today, over 65 years later, Winters is still family owned and operated, and the Winters name is still synonymous with quality, durability, and innovation.

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# THE PERMANENT MOLD ADVANTAGE

NOW AVAILABLE IN BOTH 10" AND 8" CENTERS



We're raising the bar with all-new 10-inch and 8-inch rears that are the **strongest production quick changes on the market.**

Racers are achieving unheard of levels of mechanical grip and stressing driveline components more than ever. To ensure our rears continue landing in victory lane, our new center sections have been **structurally reinforced to strengthen high-stress areas without adding weight** to the final assembly.

But the most significant improvement is in the A356-T6 aluminum castings. **Permanent Mold casting is a state-of-the-art process** that achieves **stronger mechanical properties** (tensile, yield, and elongation), **tighter tolerances**, and **better density and grain structure** than is possible with the sand casting process used for all other quick change centers on the market. **The result is the strongest quick change available.**

## REINFORCED CENTER SECTION FEATURES

- **Thicker and longer internal ribs** extending into the front snout and rear gear cavity
- **Dual support ribs** between the change gear cavity and the ring gear cavity
- **Larger fillets (thicker metal) at the bell mounting flanges** for added torsional strength
- **New center section weighs the same as** our previous race-winning rears



Scan QR code or click Video #03 on [wintersperformance.com](http://wintersperformance.com) to watch our new Permanent Mold center sections being cast

## MECHANICAL PROPERTY COMPARISON

Sand Cast ASTM A356-T6 Alum	Sand Cast ASTM AZ91E-T6 Mag	Permanent Mold A356-T6 Alum (lab tested)	% Increase vs Sand Cast Alum	% Increase vs Sand Cast Mag
Tensile: 34,000	Tensile: 34,000	Tensile: 38,400	+ 13%	+ 13%
Yield: 24,000	Yield: 16,000	Yield: 32,400	+ 35%	+ 103%
Elongation: 3.5%	Elongation: 3%	Elongation: 5%	+ 43%	+ 67%

\*ASTM – American Society for Testing and Materials

\*\*Permanent Mold center sections tested by an independent lab (report available on request).



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

[WWW.WINTERSPERFORMANCE.COM](http://WWW.WINTERSPERFORMANCE.COM)

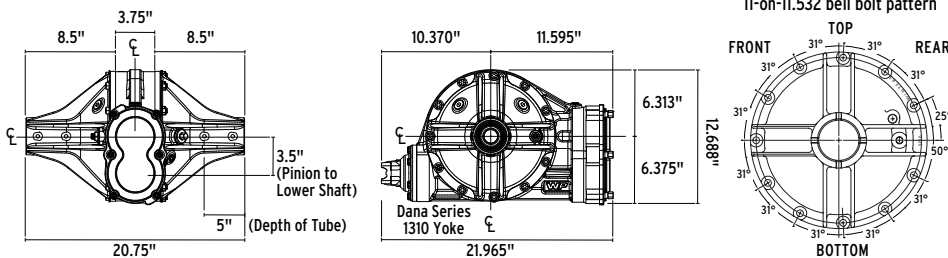
# PERMANENT MOLD 6-BOLT CENTER

**SUPER LATE MODEL REAR**  
BUILT WITH OUR INDUSTRY-EXCLUSIVE  
**PERMANENT MOLD**  
QUICK CHANGE CENTER SECTION

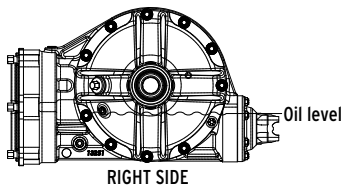
**ASSEMBLY P/N 5270PM**

Over nearly seven decades making speed equipment, racers have relied on Winters components for their unmatched durability and performance under even the harshest conditions. Our brand new Super Late Model quick changes build on that reputation, using an industry-exclusive Permanent Mold center section and bells coupled with the same tried-and-true internals that have equipped race-winning cars for years, including ARP® ring gear bolts, heat treated steel or optional 350M lower shaft, posi-lock retainer, roller nose bearings, and 1-piece drop-in race, to name a few.

## DIMENSIONAL DATA



## IMPORTANT QUICK CHANGE OILING INFO



Make sure rear is level when checking oil

**PROPER OIL LEVEL IS CRITICAL!** Always maintain oil level at 1-1/2" below axle center line as indicated (3 quarts/2.8 liters).

Use Winters High Performance Supreme 80W-90 semi-synthetic hypoid lube with Moly P/N 1730 or Mobil-1® 70W-90 full-synthetic.

All 10-inch rears include Posi-Lock, Roller Nose Bearings, 1-piece drop-in race, Viton seals and ARP® ring gear bolts. Standard equipment includes a 4.86 ring & pinion and 31-spline aluminum spool. See additional options below.  
*Center must be used with one-piece pinion bearing cup P/N 7528.*

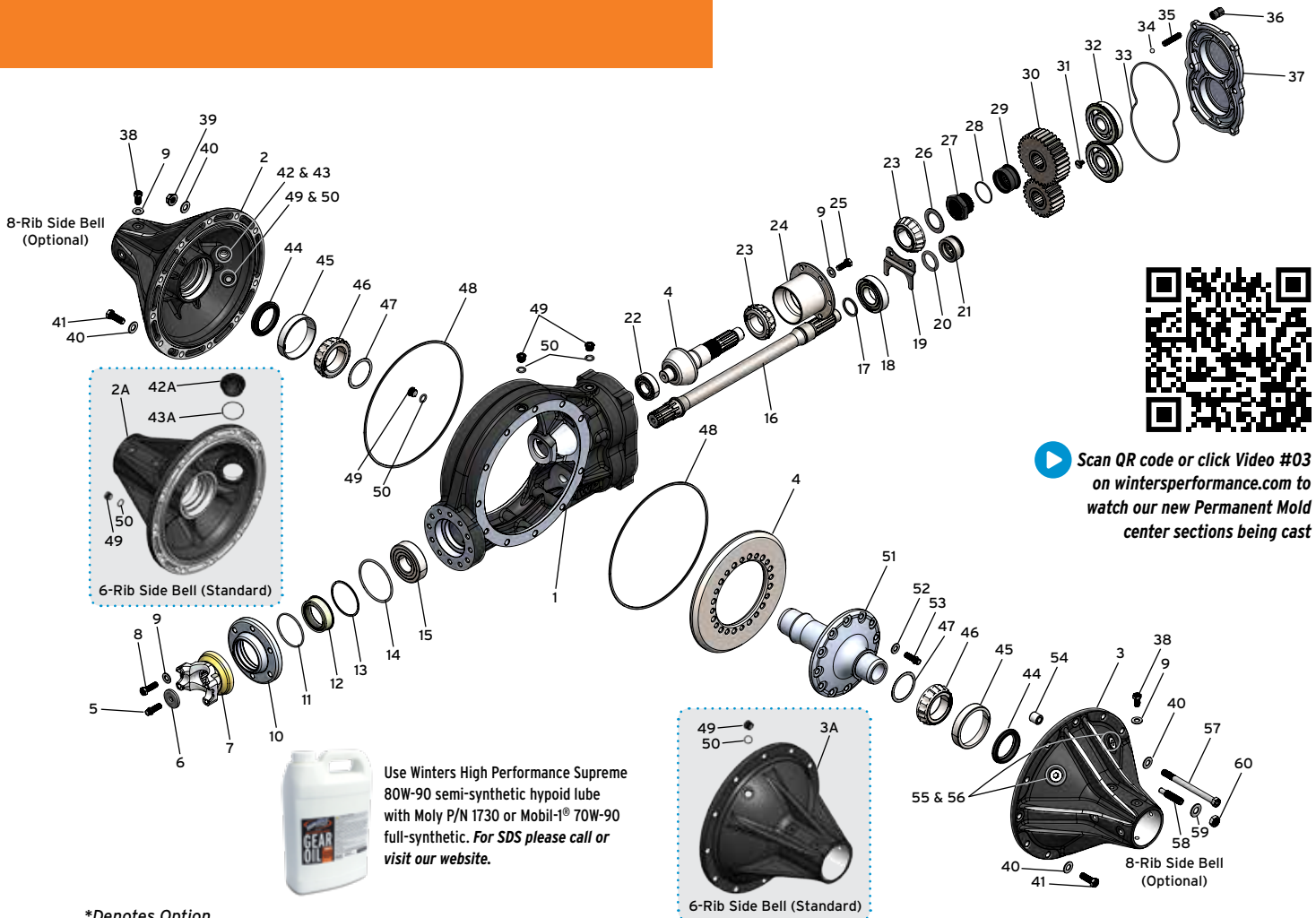
## OPTIONS

Blue indicates popular options

OPTION #	MOST POPULAR OPTIONS
8111	4.12 Ring & Pinion
8208	Thermal Dispersant Coating
8218-RP	REM® Ring & Pinion
8218-BRG	REM® Bearing (# is per bearing)
8140-1TON	Wide-5 Alum Tubes, 1-Ton
8155PMHD	Heavy Duty 8-Rib Bell, Perm. Mold
8140	1-Piece Alum Tubes
9116	Delete Seal Plate
8106V	350M Lower Shaft, 10-Spline
8106V-32	350M Lower Shaft, 32-Spline
8249	Long Thru-Bolts, 6"
8249L	Extra-Long Thru-Bolts, 6-1/2"
OPTION #	CENTER OPTIONS
8126	Titanium Thru-Bolts
81457	4.57 Ring & Pinion
8202-XXX	EDM Ring Gear (specify ratio)
8264	Gear Cover w/Pump
8275	1350-Series Yoke
OPTION #	DIFFERENTIAL OPTIONS
8121W	Winters Track (pg. 19)
8130	Ultralight Alum Spool
8171	Alum Locker (pg. 20)
8171L	Lightweight Alum Locker (pg. 20)
8231-01	Trackstar (pg. 19)
OPTION #	TUBE OPTIONS
8138	Alum Tubes w/Steel Spindles
8181L	Camber, Specify Up or Down & Degree
8181R	Camber, Specify Up or Down & Degree
8190A*	Thin-Flanged Alum 8-Bolt Tubes
8201	Internal Alum Tube Seal
8237	Tube & Bell Locknut Assy., 6-Rib
8237-8	Tube & Bell Locknut Assy., 8-Rib

Click Video #30 on [wintersperformance.com](http://wintersperformance.com) to watch a video explaining oil specs and showing oil check and fill locations for 8" and 10" center sections





\*Denotes Option

#	DESCRIPTION	P/N	QTY	#	DESCRIPTION	P/N	QTY
1	6-Bolt Center Section, Permanent Mold	13251	1	29	Posi-Lock Retainer, Pinion Shaft	6484	1
2*	Aluminum 8-Rib Right Side Bell	12083PM	1	30	Quick Change Gear Set (Not included)	8500	1
2A	Aluminum 6-Rib Right Side Bell (Standard)	1663-01PM	1	31	Retainer Bolt	12417	2
3*	Aluminum 8-Rib Left Side Bell	12080PM	1	32	Ball Bearing, Gear Cover	8659	2
3A	Aluminum 6-Rib Left Side Bell (Standard)	1663-02PM	1	33	O-Ring, Billet Aluminum 6-Bolt Gear Cover	8447	1
4	4.86 Ratio Ring & Pinion, 10-Spline (Standard)	5400	1	34	5/16" Diameter Steel Ball, Gear Cover	7398	6
4*	4.12 Ratio Ring & Pinion, 10-Spline	5714	1	35	3/8-16 x 1-3/4" Stud, Gear Cover	7802	6
5	3/8-24 x 1" HHCS, Drive Yoke, ARP®	7852S-ARP	1	36	3/8-16 Aluminum High Nut	7794ASBK	6
6	Retaining Washer, Drive Yoke	5037	1	37	Billet Aluminum 6-Bolt Gear Cover	12175B	1
7	Drive Yoke, Steel w/Integral Spacer, 10-Spline	3533	1	38	3/8-24 x 3/4" HHCS, 6 & 8-Rib Side Bell	7109S	16
7*	Drive Yoke, Steel w/Integral Spacer, 32-Spline	3536	1	39	7/16-20 Flanged Locknut, Thru-Bolt	7177	10
8	3/8-16 x 1 1/4" HHCS, Seal Plate	7107	6	40	7/16" SAE Flatwasher, Thru-Bolt	7178	22
9	3/8" SAE Flatwasher	7114	28	41	7/16-14 x 1-1/4" HHCS	7117	2
10	Seal Plate, .750" Seal	5018-01M	1	42*	Inspection Plug, 8-Rib Side Bell	6857-01	1
11	O-Ring, Seal	7474	1	42A	Inspection Plug, 6-Rib Side Bell (Std)	3261	1
12	Seal, Seal Plate, .750" Seal	7204V	1	43*	O-Ring, Inspection Plug, 8-Rib Bell, -12 AN	7454	1
13	Retaining Ring, Seal Plate, .750" Seal	7652	1	43A	O-Ring, Inspection Plug, 6-Rib Bell -20 AN (Std)	7453	1
14	O-Ring, Seal Plate	7413	1	44	Seal, Side Bell	7283V	2
15	Front Ball Bearing, Lower Shaft	7390	1	45	Bearing Cup, Side Bell	7310	2
16	Standard Lower Shaft, Heat Treated (Std)	5003	1	46	Bearing Cone, Aluminum Spools & Differentials	7340	2
16*	Lower Shaft, 350M, 10-Spline	5003-V	1	47	Shim Kit, Aluminum Spools & Differentials	5295	1
16*	Standard Lower Shaft, Heat Treated, 32-Spline	5003-32	1	48	O-Ring, 4 & 6-Rib Bell	7403T	2
16*	Lower Shaft, 350M, 32-Spline	5003-32V	1	49	-6 AN Plug	7874S	4
17	Retaining Ring, Lower Shaft	7610	1	50	O-Ring	8405	4
18	Shielded Ball Bearing, Lower Shaft	7339	1	51	31-Spline Aluminum Spool	5034-11A	1
19	Bearing Retainer	12062	1	52	Washer, Ring Gear, ARP®	7815ARP	12
20	Lower Shaft Spacer O-Ring	9405	1	53	Bolt, Ring Gear, ARP®	7852ARP	12
21	Spacer, Splined, 10" / 8"	12885	1	54	Thrustblock, Adjusting Screw	5010	1
22	Roller Bearing, Pinion Nose	7331	1	55	-10 AN Plug	8035	2
23	Bearing Cone, Pinion Shaft	7308	2	56	O-Ring	8406	2
24	Bearing, Flanged Double Cup, Pinion	7528	1	57	7/16-20 x 5-1/2" Thru-Bolt	7176	10
25	3/8-16 x 1" HHCS, Retaining Plate	7110	6	58	1/2-13 Adjusting Screw, Ring Gear	6149	1
26	Bearing Washer	5055	1	59	1/2" SAE Flatwasher, Adjusting Screw	7167A	1
27	Posi-Lock Nut, Pinion Shaft (15/16-20-2B Thread)	6485R	1	60	1/2-13 Jam Nut, Adjusting Screw	7137A	1
28	O-Ring, Posi-Lock	7445	1				

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

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

# 8-INCH / 4.12 RING & PINION

## THE ULTIMATE CRATE REAR WITH AN 8" RING GEAR IN AN ALL NEW PERMANENT MOLD CENTER

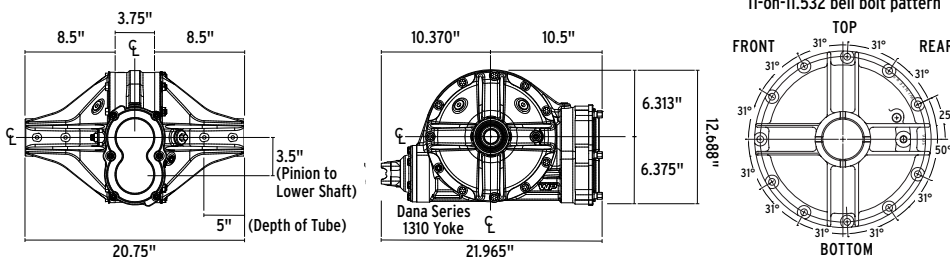


All 8-inch rears include Posi-Lock, 1-piece drop-in race and ARP® ring gear bolts. Standard equipment includes a 4.12 ring & pinion and 31-spline aluminum spool. See additional options below. Center must be used with one-piece pinion bearing cup P/N 12852-01.

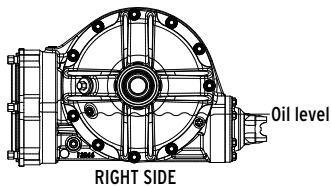
### ASSEMBLY P/N 5270PM-8

This quick change uses our tried-and-true 8" / 4.12 ring gear. It's 20% smaller and 20% lighter, reducing flywheel weight and unsprung weight. Reduced rotational force means quicker acceleration and deceleration than is achievable with a 10" ring gear. All cars can benefit from this racer's edge, though lower horsepower cars can expect more gain than higher horsepower cars. As with our full-size 10" rears, this is based on our all-new, industry-exclusive Permanent Mold A356-T6 aluminum 8" center section and side bells.

### DIMENSIONAL DATA



### IMPORTANT QUICK CHANGE OILING INFO



Make sure rear is level when checking oil

**PROPER OIL LEVEL IS CRITICAL!** Always maintain oil level at 1-1/2" below axle center line as indicated (3 quarts/2.8 liters).

Use Winters High Performance Supreme 80W-90 semi-synthetic hypoid lube with Moly P/N 1730 or Mobil-1® 70W-90 full-synthetic.

### OPTIONS

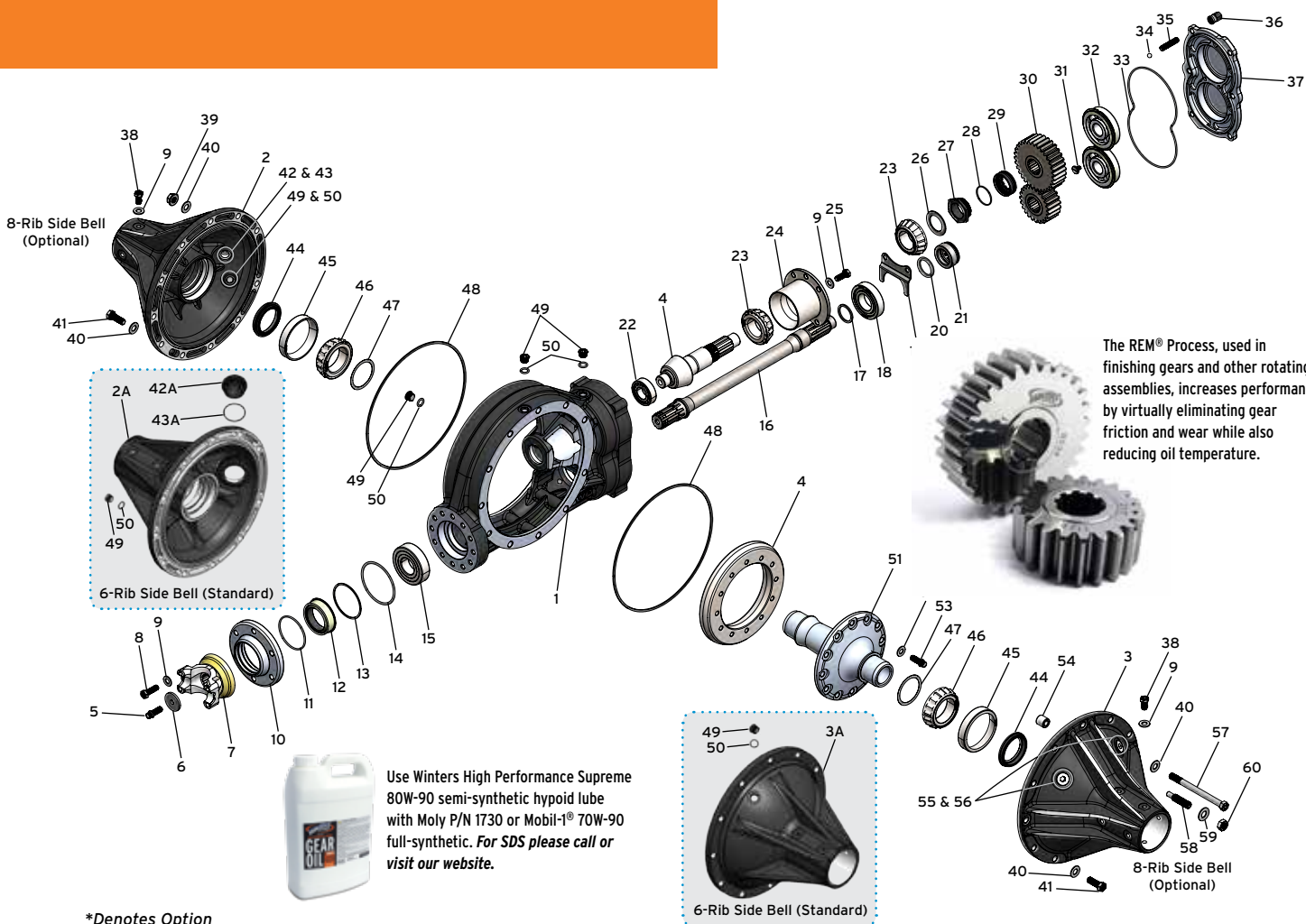
Blue indicates popular options

OPTION #	MOST POPULAR OPTIONS
8208	Thermal Dispersant Coating
8218-RP	REM® Ring & Pinion
8218-BRG	REM® Bearing (# is per bearing)
8202-V8	EDM Ring Gear (specify ratio)
8182B	Aluminum Drive Yoke
8184	HT Gun-Drilled Lower Shaft
8299	Gun-Drilled Pinion Shaft
8155PMHD	Heavy Duty 8-Rib Bell, Perm. Mold
8130	Ultralight Alum Spool
8140-1TON†	1-Piece Alum Tubes, 1-Ton
8140	1-Piece Alum Tubes
9116	Delete Seal Plate
8106V	350M Lower Shaft, 10-Spline
8249	Long Thru-Bolts, 6"
8249L	Extra-Long Thru-Bolts, 6-1/2"
OPTION #	CENTER OPTIONS
8126	Titanium Thru-Bolts
8199	Viton Seal, Seal Plate
8275	1350-Series Yoke
OPTION #	DIFFERENTIAL OPTIONS
8121W†	Winters Track (pg. 19)
8171†	Alum Locker (pg. 20)
8171L†	Lightweight Alum Locker (pg. 20)
8231-01†	Trackstar (pg. 19)
OPTION #	TUBE OPTIONS
8138	Alum Tubes w/Steel Spindles
8181L	Camber, Specify Up or Down & Degree
8181R	Camber, Specify Up or Down & Degree
8201	Internal Alum Tube Seal
8237	Tube & Bell Locknut Assy., 6-Rib
8237-8	Tube & Bell Locknut Assy., 8-Rib

†Only for cases with no nose support



Scan QR code or click Video #30 on [wintersperformance.com](http://wintersperformance.com) to watch a video explaining oil specs and showing oil check and fill locations for 8" and 10" center sections



Use Winters High Performance Supreme 80W-90 semi-synthetic hypoid lube with Moly P/N 1730 or Mobil-1® 70W-90 full-synthetic. For SDS please call or visit our website.

\*Denotes Option

#	DESCRIPTION	P/N	QTY
1	Aluminum 8" Center Section, Permanent Mold	13266	1
2*	Aluminum 8-Rib Right Side Bell	12083PM	1
2A	Aluminum 6-Rib Right Side Bell (Standard)	1663-01PM	1
3*	Aluminum 8-Rib Left Side Bell	12080PM	1
3A	Aluminum 6-Rib Left Side Bell (Standard)	1663-02PM	1
4	4.12 Ratio Ring & Pinion, 10-Spline (Standard)	65411S	1
5	3/8-24 x 1" HHCS, Drive Yoke, ARP®	7852SARP	1
6	Retaining Washer, Drive Yoke	5037	1
7	Drive Yoke, Steel w/Integral Spacer, 10-Spline	3533	1
7*	Drive Yoke, Steel w/Integral Spacer, 32-Spline	3536	1
7*	Yoke, Aluminum, 10-Spline	5038AS	1
7*	Yoke, Aluminum, 32-Spline	5038AS-32	1
8	3/8-16 x 1-1/4" HHCS, Seal Plate	7107	6
9	3/8" SAE Flatwasher	7114	28
10	Seal Plate, .750" Seal	5018-01M	1
11	O-Ring, Seal	7474	1
12	Seal, Seal Plate, .750" Seal, Viton	7204V	1
13	Retaining Ring, Seal Plate, .750" Seal	7652	1
14	O-Ring, Seal Plate	7413	1
15	Front Ball Bearing, Lower Shaft	7390	1
16	Standard Lower Shaft, Heat Treated (Std)	4951-HT	1
16*	Lower Shaft, Heat Treated, Gun-Drilled	4951-GD	1
16*	Lower Shaft, 350M, 10-Spline	4951-V	1
17	Retaining Ring, Lower Shaft	7610	1
18	Shielded Ball Bearing, Lower Shaft	7339	1
19	Bearing Retainer	12026	1
20	Lower Shaft Spacer O-Ring	9405	1
21	Spacer, Splined, 10" / 8"	12885	1
22	Roller Bearing, Pinion Nose	7331	1
23	Bearing Cone, Pinion Shaft	7308	2
24	Double Bearing Cup, Pinion Shaft	12852-01	1
25	3/8-16 x 1" HHCS	7110	6
26	Bearing Washer	5055	1
27	Posi-Lock Nut, Pinion Shaft (15/16-20-2B Thread)	1806	1
28	O-Ring, Posi-Lock	7455	1

#	DESCRIPTION	P/N	QTY
29	Posi-Lock Retainer, Pinion Shaft	1807	1
30	Quick Change Gear Set (Not included)	8500	1
31	Bearing Retainer, Bolt	12417	2
32	Ball Bearing, Gear Cover	8659	2
33	O-Ring, Billet Aluminum 6-Bolt Gear Cover	8447	1
34	5/16" Diameter Steel Ball, Gear Cover	7398	6
35	3/8-16 x 1-3/4" Stud, Gear Cover	7802	6
36	3/8-16 Aluminum High Nut	7794ASBK	6
37	Billet Aluminum 6-Bolt Gear Cover	12175B	1
38	3/8-24 x 3/4" HHCS, 6 & 8-Rib Side Bell	7109S	16
39	7/16-20 Flanged Locknut, Thru-Bolt	7177	10
40	7/16" SAE Flatwasher, Thru-Bolt	7178	22
41	7/16-14 x 1-1/4" HHCS	7117	2
42*	Inspection Plug, 8-Rib Side Bell	6857-01	1
42A	Inspection Plug, 6-Rib Side Bell (Std)	3261	1
43*	O-Ring, Inspection Plug, 8-Rib Bell, -12 AN	7454	1
43A	O-Ring, Inspection Plug, 6-Rib Bell -20 AN (Std)	7453	1
44	Seal, Side Bell	7283V	2
45	Bearing Cup, Side Bell	7310	2
46	Bearing Cone, Aluminum Spools & Differentials	7340	2
47	Shim Kit, Aluminum Spools & Differentials	5295	1
48	O-Ring, 4 & 6-Rib Bell	7403T	2
49	-6 AN Plug	7874S	4
50	O-Ring	8405	6
51	31-Spline Aluminum Spool (Std)	5034-11A	1
51*	31-Spline Aluminum Spool, Ultralite	5034-11UL	2
52	Washer, Ring Gear, ARP®	7815ARP	12
53	Bolt, Ring Gear, ARP®, Short	7852SARP	12
54	Thrustblock, Adjusting Screw	5010	1
55	10-AN Plug	8035	2
56	O-Ring	8406	2
57	7/16-20 x 5-1/2" Thru-Bolt	7176	10
58	1/2-13 Adjusting Screw, 4 & 6-Rib Side Bell	6149	1
59	1/2" SAE Flatwasher, Adjusting Screw	7167A	1
60	1/2-13 Jam Nut, Adjusting Screw	7137A	1

Part Numbers in this list may vary depending on options ordered at time of purchase. Please check the assembly tag included with your rear. See inside back cover of catalog or visit website for limited warranty and venue provision.



# ALUMINUM WIDE-5 HUB KITS

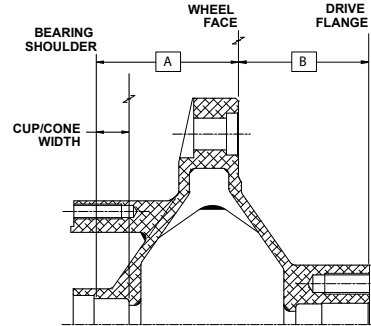
## OPTIONS

P/Ns included for components that are available for individual purchase

OPTION #	PART #	HUB OPTIONS
8254-1TON*		1-Ton Bearing, Race & Lock Kit Installed
9141*		1-Ton Bearing & Race Installed
8238X8*	1279A	Aluminum Crown Spline Drive Flange (pg. 15)
8284X8*	2266T	Titanium Drive Flange Studs
9165-8*	12682-8	Steel-Lined Drive Flange, 8-Bolt
8218S-W5		REM®-Finished Tapered Bearings
8208-H		Thermal Dispersant Coating
8204	5688T	Titanium Wheel Studs
8204H	5688TH	Titanium Wheel Studs, Gun-Drilled
8204LS	6522	Long Wheel Studs, Steel

\*Only available for rear hub kits

## HUB BEARING-TO-WHEEL DIMENSIONAL OFFSET INFO

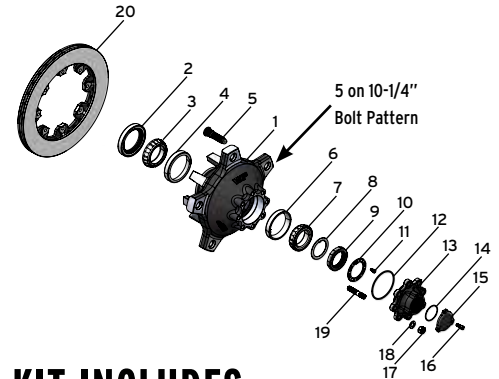


KIT	HUB	A	B
3754	6690	3"	2.75"
3754F	6690	3"	2.75"
3755	6606-X5	3"	2.75"
3756	6606-X5	3"	2.75"
3755F	6606-FX5	3"	2.75"

## REAR KIT • 8-BOLT P/N 3754

Kit includes Permanent Mold aluminum hub, 8-bolt 7075-T6 aluminum drive flange, bearings and seal kit with aluminum lock nut.

Kit P/N 3754 weighs 10 lbs. 6 oz.  
Lug nuts not included



## KIT INCLUDES

#	DESCRIPTION	P/N	QTY
1	Hub	6690	1
2	Seal	7210	1
3	Inner Cone	7324	1
4	Inner Bearing Cup	7322	1
5	Wheel Stud, Solid	5688	5
6	Outer Bearing Cup	7323	1
7	Outer Cone	7325	1
8	Washer	1664	1
9	Nut, Aluminum	5101AT	1
10	Lockwasher	1665	1
11	10-24 x 3/8" SHCS	7938	2
12	O-Ring	7490	1
13	Aluminum Drive Flange	3230-55X8	1
14	O-Ring	7417	1
15	Flat Cap	3117	1
16	1/4-20 x 5/8" SHCS	7850	3
17	Nut	7177N	8
18	Washer	7811	8
19	Stud	2266	8
20	Rotor Options	See Pg. 9	



**STEEL-LINED DRIVE FLANGE**  
P/N 12682-8 • OPTION 9165-8

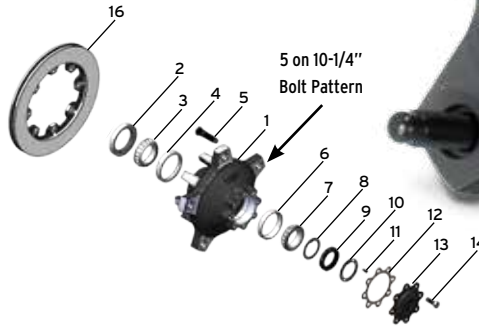
## FRONT KIT • 8-BOLT P/N 3754F

Kit includes Permanent Mold aluminum hub, 8-bolt aluminum front dust cap, bearings and seal kit with aluminum lock nut.

Kit P/N 3754F weighs 9 lbs. 6 oz.  
Lug nuts not included

### KIT INCLUDES

#	DESCRIPTION	P/N	QTY
1	Hub	6690	1
2	Seal	7210	1
3	Inner Cone	7324	1
4	Inner Bearing Cup	7322	1
5	Wheel Stud, Solid	5688	5
6	Outer Bearing Cup	7323	1
7	Outer Cone	7325	1
8	Washer	1664	1
9	Nut, Aluminum	5101AT	1
10	Lockwasher	1665	1
11	10-24 x 3/8" SHCS	7938	2
12	Gasket	5144	1
13	Cap	5094BK	1
14	7/16-14 x 1-1/4" HHCS	7117	8
15	Rotor Options	Below	



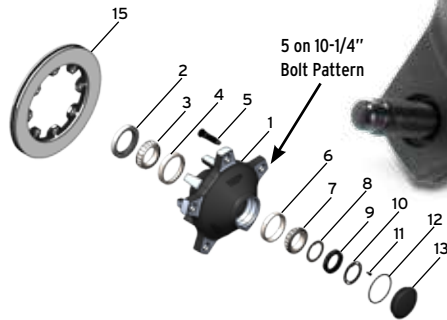
## FRONT KIT P/N 3755F

Kit includes Permanent Mold aluminum hub, push-in aluminum dust cap, bearings and seal kit with aluminum lock nut.

Kit P/N 3755F weighs 9 lbs.  
Lug nuts not included

### KIT INCLUDES

#	DESCRIPTION	P/N	QTY
1	Front Hub	6606-FX5	1
2	Seal	7210	1
3	Inner Cone	7324	1
4	Inner Bearing Cup	7322	1
5	Wheel Stud, Solid	5688	5
6	Outer Bearing Cup	7323	1
7	Outer Cone	7325	1
8	Washer	1664	1
9	Nut, Aluminum	5101AT	1
10	Lockwasher	1665	1
11	10-24 x 3/8" SHCS	7938	2
12	O-Ring	7471	1
13	Cap	1614-01	1
14	Rotor Options	Below	



## ROTOR OPTIONS

Choose Option # below to purchase rotor with hub assembly. Use P/N for individual rotor purchase.

OPTION #	ROTOR P/N	DIMENSION
8240	2394	.810 x 12-1/8"
8241	2394GM	.810 x 11-3/4"
8243	6608GM	1-1/4" x 11-3/4"

OPTION #	ROTOR P/N	DIMENSION
*8243L	6608GML	1-1/4" x 11-3/4"
*8241L	2394GML	.810 x 11-3/4"

\*Drilled Rotor

Scan QR code or click Video #01 on [wintersperformance.com](http://wintersperformance.com) to see a tour of our manufacturing plant in York, PA.



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

# TRACKSTAR 10 WIDE-5 HUB KITS

- Aluminum 2024-T3 Forged Construction
- Accepts Standard or Super Free Angular Contact Bearings

- Oil or Grease Friendly
- Solid or Gun-Drilled Studs Available in Steel or Titanium

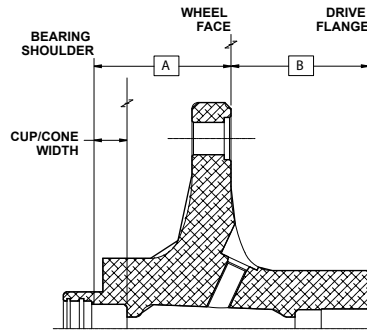
## OPTIONS

P/Ns included for components that are available for individual purchase

OPTION #	PART #	HUB OPTIONS
8283X5*	1279AX5	Aluminum Crown Spline Drive Flange (Pg. 15)
8284X5*	2266T	Titanium Drive Flange Studs
9165-8*	12682-8	Steel-Lined Drive Flange, 8-Bolt
8218S-W5		REM®-Finished Tapered Bearings
8204	5688T	Titanium Wheel Studs
8204H	5688TH	Titanium Wheel Studs, Gun-Drilled
8254S-W5	7324ACS 7325ACS	Angular Contact Bearings w/Steel Balls, Hub
8204LS	6522	Long Wheel Studs (3.13"), Steel

\*Only available for rear hub kits

## HUB BEARING-TO-WHEEL DIMENSIONAL OFFSET INFO



KIT	HUB	A	B
12242	12253	2-7/8"	2-7/8"
12240	12254	2-7/8"	2-7/8"
12241	12253	2-7/8"	2-7/8"

## REAR KIT • 5-BOLT

### COMPLETE HUB KIT

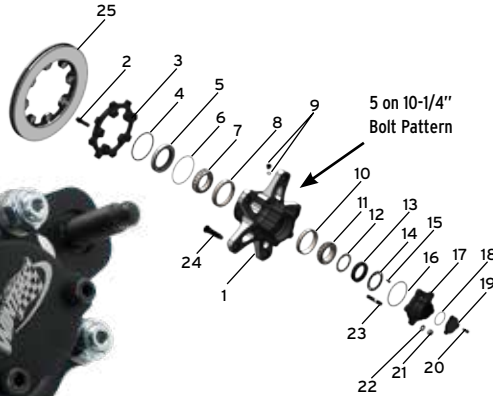
Kit P/N 12242HD Gun-Drilled Studs  
Kit P/N 12242HDS Solid Studs

### HUB WITH RACES, STUDS & ROTOR MOUNT

P/N 12261 Gun-Drilled Studs  
P/N 12261S Solid Studs

## KIT INCLUDES

#	DESCRIPTION	P/N	QTY
1	Hub, Aluminum	12253HD	1
2	7/16-14 x 1-1/2" 12pt	8997	5
3	Rotor Mount	12255	1
4	Retaining Ring	8328	1
5	Seal	7210V	1
6	O-Ring	8430	1
7	Inner Cone	7324	1
8	Inner Bearing Cup	7322	1
9	Plug	8757	1
10	Outer Bearing Cup	7323	1
11	Outer Cone	7325	1
12	Washer	1664	1
13	Nut, Aluminum	5101AT	1
14	Lockwasher	1665	1
15	10-24 x 3/8" SHCS	7938	2
16	Flange Locator O-Ring	7490	1
17	Drive Flange	5102-55	1
18	O-Ring	7417	1
19	Flat Cap	3117	1
21	Nut	7177N	5
22	Washer	7811	5
23	Stud	2266	5
24	Wheel Stud, Gun-Drilled	5688H	5
25	Rotor Options	See Pg. 9	



Kit P/N 12242HD weighs 11 lbs. 6 oz.  
Lug nuts not included

### FLOATING ROTOR MOUNTING PLATE P/N 4811



### T-NUT KIT P/N 5820

Includes (8) bolts P/N 3663 and (8) T-nuts P/N 3662



### LOW DRAG Purchase separately P/N 7325ACS Outer PN 7324ACS Inner



▶ Scan QR code or click Video #19 on [wintersperformance.com](http://wintersperformance.com) showcasing our latest Trackstar 10 hubs



## FRONT KIT



Kit P/N 12240 weighs 8 lbs. 2 oz.  
Lug nuts not included

## COMPLETE HUB KIT

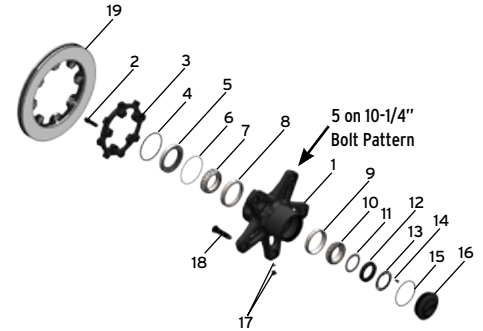
Kit P/N 12240 Gun-Drilled Studs  
Kit P/N 12240S Solid Studs

## KIT INCLUDES

#	DESCRIPTION	P/N	QTY
1	Hub, Aluminum	12254	1
2	7/16-14 x 1-1/2" 12pt	8997	5
3	Rotor Mount	12255	1
4	Retaining Ring	8328	1
5	Seal	7210V	1
6	O-Ring	8430	1
7	Inner Cone	7324	1
8	Inner Bearing Cup	7322	1
9	Outer Bearing Cup	7323	1
10	Outer Cone	7325	1
11	Washer	1664	1
12	Nut, Aluminum	5101AT	1
13	Lockwasher	1665	1
14	10-24 x 3/8" SHCS	7938	2
15	O-Ring	7439	1
16	Screw-On Cap	3929	1
17	Plug	8757	1
18	Wheel Stud, Gun-Drilled	5688H	5
19	Rotor Options	See Pg. 9	

## HUB WITH RACES, STUDS & ROTOR MOUNT

P/N 12260 Gun-Drilled Studs  
P/N 12260S Solid Studs



## FRONT KIT • 5-BOLT

## KIT INCLUDES

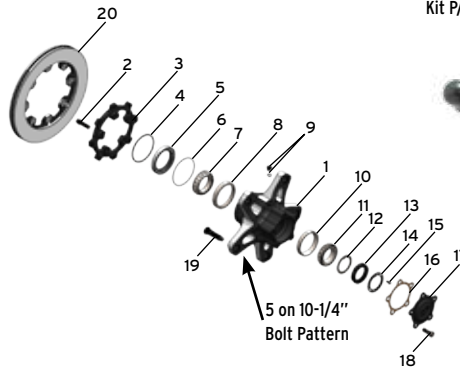
#	DESCRIPTION	P/N	QTY
1	Hub, Aluminum	12253	1
2	7/16-14 x 1-1/2" 12pt	8997	5
3	Rotor Mount	12255	1
4	Retaining Ring	8328	1
5	Seal	7210V	1
6	O-Ring	8430	1
7	Inner Cone	7324	1
8	Inner Bearing Cup	7322	1
9	Plug	8757	1
10	Outer Bearing Cup	7323	1
11	Outer Cone	7325	1
12	Washer	1664	1
13	Nut, Aluminum	5101AT	1
14	Lockwasher	1665	1
15	10-24 x 3/8" SHCS	7938	2
16	Gasket	3177	1
17	Bolt-On Cap	5094-5	1
18	7/16-14 x 1-1/4" HHCS	7117	5
19	Wheel Stud, Gun-Drilled	5688H	5
20	Rotor Options	See Pg. 9	

## COMPLETE HUB KIT

Kit P/N 12241HD Gun-Drilled Studs  
Kit P/N 12241HDS Solid Studs

## HUB WITH RACES, STUDS & ROTOR MOUNT

P/N 12261HD Gun-Drilled Studs  
P/N 12261HDS Solid Studs



Kit P/N 12241HD weighs 8 lbs. 2 oz.  
Lug nuts not included



## HUB OIL LEVEL-IMPORTANT!

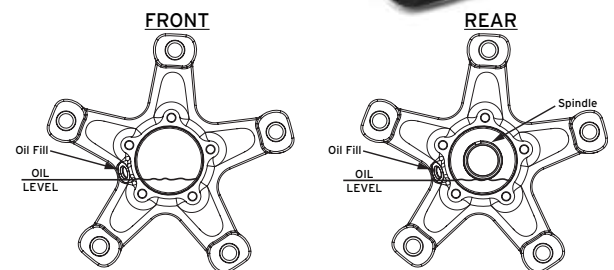
Proper oil level is critical to the performance of these hubs. To fill, rotate the hub so the Oil Fill/Level Plug is positioned at 8 o'clock.

**FRONT:** Fill until oil level reaches the bottom of the Oil Fill/Level Plug.

**REAR:** Fill until oil level reaches the bottom of the Spindle.

Over-filling will result in oil entering your side tubes.

Front and rear both use approximately 5-1/2 to 6 oz. We recommend Winters P/N 1730 SAE 80W/90 or Mobil 1® 75-90 Oil.



NOTE: Positive & Negative Camber Will Effect Fluid Level.

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

# 007 WIDE-5 HUB KITS

Hub Kit includes hub, 7075-T6 aluminum drive flange (rear) or dust cap (front), bearings and seal kit with aluminum lock nut.

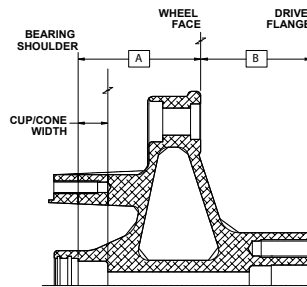
## OPTIONS

P/Ns included for components that are available for individual purchase

OPTION #	PART #	HUB OPTIONS
8254-1TON*		1-Ton Bearing, Race & Lock Kit Installed
9141*		1-Ton Bearing & Race Installed
8238X8*	1279A	Aluminum Crown Spline Drive Flange (pg. 15)
8284X8*	2266T	Titanium Drive Flange Studs
9165-8*	12682-8	Steel-Lined Drive Flange, 8-Bolt
8218S-W5		REM®-Finished Tapered Bearings
8208-H		Thermal Dispersant Coating
8204	5688T	Titanium Wheel Studs
8204H	5688TH	Titanium Wheel Studs, Gun-Drilled
8254S-W5	7324ACS 7325ACS	Angular Contact Bearings w/Steel Balls, Hub
8204LS	6522	Long Wheel Studs, Steel

\*Only available for rear hub kits

## HUB BEARING-TO-WHEEL DIMENSIONAL OFFSET INFO



KIT	HUB	A	B
K4045X8	K007X8	3"	2.75"
K4045	K007	3"	2.75"
K4045F	K007F	3"	2.75"
K4045FBO	K007	3"	2.75"

## REAR KIT • 8-BOLT

### COMPLETE HUB KIT

Kit P/N K4045X8 Mag Hub, Gun-Drilled Studs  
Kit P/N K4045SX8 Mag Hub, Solid Studs

### HUB WITH RACES & WHEEL STUDS

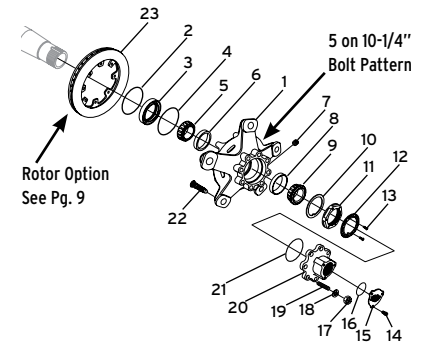
P/N K007X8 Mag Hub, Gun-Drilled Studs  
P/N K007SX8 Mag Hub, Solid Studs



Kit P/N 4045X8 weighs 9 lbs. 6 oz.  
Lug nuts not included

## KIT INCLUDES

#	DESCRIPTION	P/N	QTY
1	Hub, Magnesium	K007X8	1
2	Retaining Ring	8328	1
3	Seal	7210V	1
4	O-Ring	8430	1
5	Inner Cone	7324	1
6	Inner Bearing Cup	7322	1
7	Plug	7874S	1
8	Outer Bearing Cup	7323	1
9	Outer Cone	7325	1
10	Washer	1664	1
11	Nut, Aluminum	5101AT	1
12	Lockwasher	1665	1
13	10-24 x 3/8" SHCS	7938	2
14	1/4-20 x 5/8" SHCS	7850	3
15	Flat Cap	3117	1
16	O-Ring	7417	1
17	Nut	7177N	8
18	Washer	7811	8
19	Stud	2266	8



#	DESCRIPTION	P/N	QTY
20	Drive Flange	5102-02	1
21	Flange Locator O-Ring	7490	1
22	Wheel Stud, Gun-Drilled	5688H	5
23	Rotor Option	See Pg 9	

## REAR KIT • 5-BOLT

### COMPLETE HUB KIT

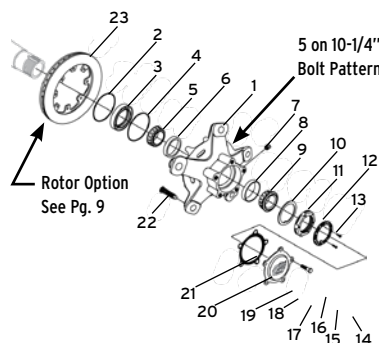
Kit P/N K4045X Mag Hub, Gun-Drilled Studs  
Kit P/N K4045S Mag Hub, Solid Studs

### HUB WITH RACES & WHEEL STUDS

P/N K007 Mag Hub, Gun-Drilled Studs  
P/N K007S Mag Hub, Solid Studs

## KIT INCLUDES

#	DESCRIPTION	P/N	QTY
1	Hub, Magnesium	K007	1
2	Retaining Ring	8328	1
3	Seal	7210V	1
4	O-Ring	8430	1
5	Inner Cone	7324	1
6	Inner Bearing Cup	7322	1
7	Plug	7874S	1
8	Outer Bearing Cup	7323	1
9	Outer Cone	7325	1
10	Washer	1664	1
11	Nut, Aluminum	5101AT	1
12	Lockwasher	1665	1
13	10-24 x 3/8" SHCS	7938	2
14	1/4-20 x 5/8" SHCS	7850	3
15	Flat Cap	3117	1
16	O-Ring	7417	1
17	Nut	7177N	5
18	Washer	7811	5
19	Stud	2266	5



#	DESCRIPTION	P/N	QTY
20	Drive Flange	5102-55	1
21	Flange Locator O-Ring	7490	1
22	Wheel Stud, Gun-Drilled	5688H	5
23	Rotor Option	See Pg 9	

Kit P/N 4045 weighs 9 lbs.  
Lug nuts not included



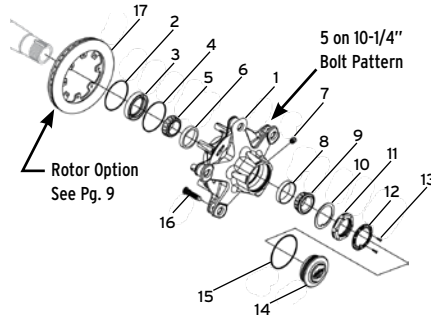
## FRONT KIT • SCREW-ON CAP

### COMPLETE HUB KIT

Kit P/N K4045F Mag Hub, Gun-Drilled Studs  
Kit P/N K4045FS Mag Hub, Solid Studs

### KIT INCLUDES

#	DESCRIPTION	P/N	QTY
1	Hub, Magnesium	K007F	1
2	Retaining Ring	8328	1
3	Seal	7210V	1
4	O-Ring	8430	1
5	Inner Cone	7324	1
6	Inner Bearing Cup	7322	1
7	Plug	7874S	1
8	Outer Bearing Cup	7323	1
9	Outer Cone	7325	1
10	Washer	1664	1
11	Nut, Aluminum	5101AT	1
12	Lockwasher	1665	1
13	10-24 x 3/8" SHCS	7938	2
14	Screw-On Cap	3929	1
15	O-Ring	7439	1
16	Wheel Stud, Gun-Drilled	5688H	5
17	Rotor Option	See Pg 9	



Kit P/N 4045F weighs 7 lbs. 8 oz.  
Lug nuts not included



**DUST CAP SOCKET**  
P/N 3153M

## FRONT KIT • 8-BOLT

### COMPLETE HUB KIT

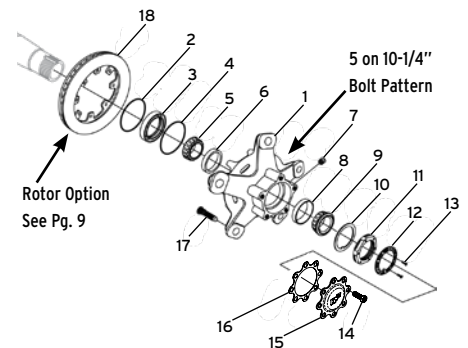
Kit P/N K4045FBO Mag Hub, Gun-Drilled Studs  
Kit P/N K4045FSBO Mag Hub, Solid Studs

### KIT INCLUDES

#	DESCRIPTION	P/N	QTY
1	Hub, Magnesium	K007	1
2	Retaining Ring	8328	1
3	Seal	7210V	1
4	O-Ring	8430	1
5	Inner Cone	7324	1
6	Inner Bearing Cup	7322	1
7	Plug	7874S	1
8	Outer Bearing Cup	7323	1
9	Outer Cone	7325	1
10	Washer	1664	1
11	Nut, Aluminum	5101AT	1
12	Lockwasher	1665	1
13	10-24 x 3/8" SHCS	7938	2
14	7/16-14 x 1-1/4" HHCS	7117	8
15	Bolt-On Cap	5094BK	1
16	Gasket	5144	1
17	Wheel Stud, Gun-Drilled	5688H	5
18	Rotor Option	See Pg 9	



Kit P/N 4045FBO  
weighs 8 lbs. 4 oz.  
Lug nuts not included



**LOW DRAG** Purchase separately  
P/N 7325ACS Outer  
PN 7324ACS Inner



Oil-filled hub design increases bearing life, reduces friction & drag, spins freer & runs cooler. Closed Core hub design along with centrifugal force keeps oil exactly where it needs to be. **PROPER OIL LEVEL IS CRITICAL!** See 11 for important information about proper oiling.



# HUB ACCESSORIES & AXLES

## FLANGED WHEEL STUDS

#	DESCRIPTION	P/N	A	B	C	KNURL OD	THREAD
1	Titanium, Gun-Drilled	5688TH	2.64	2.17	0.67	0.691	5/8-11
2	Titanium, Solid	5688T	2.64	2.17	0.44	0.691	5/8-11
3	Steel, Gun-Drilled	5688H	2.64	2.17	0.44	0.691	5/8-11
4	Steel, Solid	5688	2.64	2.17	0.40	0.691	5/8-11
5	Steel, Solid, Long	6522	3.13	2.66	0.75	0.691	5/8-11



## BEARING AND LOCK KITS

**1-TON BEARING AND LOCK KITS** Retaining Ring P/N 8328 for Seal is not included  
 Kit P/N 6105-1TON 1-Ton Alum Lock Kit w/Seal & Bearings (#'s 1-7)  
 Kit P/N 12549 Spindle Nut/Washer Kit (#'s 1-4)

#	DESCRIPTION	P/N	QTY
1	Nut, Aluminum	12309	1
2	Lock Washer	12307	1
3	10-24 x 3/8" BHCS	8740	2
4	Tab Washer	12308	1
5	Seal	12537	1
6	Tapered Roller Bearing & Race, Inner	12305	1
7	Tapered Roller Bearing & Race, Outer	12306	1



Note: Bearing & Race are a set and can not be sold separately

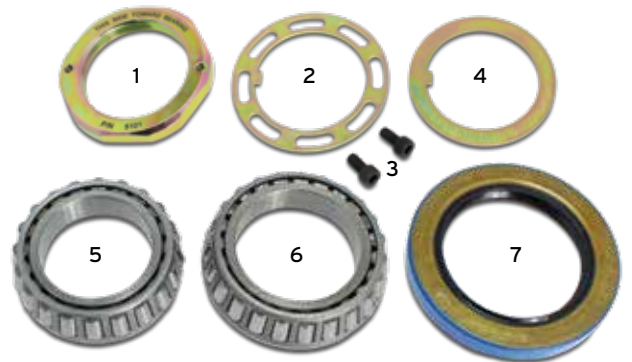
**1-TON SPINDLE NUT SOCKET**  
 P/N 12542 2-5/8" Hex

## 3/4-TON BEARING AND LOCK KITS

Kit P/N 6105 Steel Nut  
 Kit P/N 6105AT Aluminum Nut

Note: Retaining Ring P/N 8328 for Seal is not included

#	DESCRIPTION	P/N	QTY
1	Nut, Steel	5101T	1
1	Nut, Aluminum	5101AT	1
2	Slot Washer	1665	1
3	10-24 x 3/8" SHCS	7938	2
4	Tab Washer	1664	1
5	Outer Bearing	7325	1
6	Inner Bearing	7324	1
7	Seal	7210	1



## LOCK NUT KITS



P/N 1865A-2 (shown)  
 Aluminum Nut,  
 Button Head Screws

P/N 1865A  
 Aluminum Nut,  
 Socket Head Screws



P/N 1865-2  
 Steel Nut,  
 Button Head Screws

P/N 1865 (shown)  
 Steel Nut,  
 Socket Head Screws

## DRIVE FLANGES



### STEEL-LINED DRIVE FLANGE Assembly P/N 12862-8

DESCRIPTION	P/N
Aluminum Drive Flange	12816-8
O-Ring	7464
Steel Bushing	12817
Splined Steel Insert	12818
Retaining Ring	12819
Flat Cap	12826
1/4-20 x 1/2" 12-Pt Screw	7158
O-Ring	7462

Our new steel-lined drive flange delivers the quality you can rely on from Winters parts with improvements racers have asked for, like splined steel drive inserts and steel-lined bolt holes.



### ALUMINUM DRIVE FLANGE • 5-BOLT Assembly P/N 3230-55 Extended Locator Lip

DESCRIPTION	P/N
Flat Cap	3117
Flange	5102-55
Flange HHCS (Need 5)	7117
SHCS for Cap	7850
O-Ring	7417
Flange Locator O-Ring	7490

These forged 7075-T6 aluminum drive flanges work on all Wide-5 hubs. Extended locator lip with O-ring helps keep drive flange from loosening up and eliminates the need for gaskets or seals.



### ALUMINUM DRIVE FLANGE • 8-BOLT Assembly P/N 3230-55X8 Extended Locator Lip

DESCRIPTION	P/N
Flat Cap	3117
Flange	5102-02
Flange HHCS (Need 8)	7117
SHCS for Cap	7850
O-Ring	7417
Flange Locator O-Ring	7490

## FULL FLOATING DOUBLE-SPLINED AXLES

### WINTERS TITANIUM AXLES

Lighter than gun-drilled steel axles, titanium axles have four times the elasticity of steel. Their ability to wind up gives you a performance edge. Excellent for dirt and asphalt.

### WINTERS PREMIUM STEEL AXLES

Made from the finest material and CNC machined using an automatic double-roller steady rest assuring that all axles run true and concentric. Finished with state-of-the-art heat treat and available solid or gun-drilled.

AXLE TYPE	SPLINE	STYLE	P/N
Double-Spline	31/24	Gun-Drilled	5067G
Double-Spline	31/24	Solid	5067
Double-Spline	31/24	Gun-Drilled Titanium	5067TG
Double-Spline	31/24	Solid Titanium	5067T



### LENGTHS AVAILABLE WIDE-5 & GN

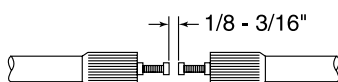
Add length from chart to P/N (Ex. P/N 5067G-35)

*14"	23"	*26-1/4"	28"	29-1/2"	31"	32-1/2"	34"	35-1/2"	37"	39"	42"
*15"	24"	26-1/2"	28-1/4"	29-3/4"	*31-1/4"	*32-1/4"	*34-1/4"	*35-3/4"	*37-1/4"	*39-1/2"	42-1/2"
*16"	25"	27"	28-1/2"	30"	31-1/2"	33"	34-1/2"	36"	37-1/2"	40"	43"
*17"	*25-1/4"	27-1/4"	*28-3/4"	30-1/4"	*31-3/4"	33-1/4"	34-3/4"	36-1/4"	*37-3/4"	40-1/2"	†44"
*18"	*25-1/2"	27-1/2"	29"	30-1/2"	32"	33-1/2"	35"	36-1/2"	38"	41"	†45"
*19"	26"	27-3/4"	*29-1/4"	*30-3/4"	*32-1/4"	*33-3/4"	35-1/4"	*36-3/4"	38-1/2"	41-1/2"	

\*Available Gun-Drilled Only † Not Available in Gun-Drilled

### AXLE SPREADER BOLT KIT P/N 4607

Axles are to be positioned by means of spreader bolts as shown below. Use Grade 8 (minimum) spec. bolt with jam nut. Install into opposing ends of axles and adjust for 1/8"-3/16" total clearance with both axle retaining plates installed.



#### TORQUE SPEC

Torque jam nuts to 30 ft.-lbs.

### DIFFERENTIAL LOCK-UP PLUG KITS

P/N 6789L  
31-Spline



P/N 6789  
31-Spline



P/N 6382  
Gun-Drilled Axle Plug



Ext. Threads: 3/4-16  
Int. Threads: 3/8-24

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

# CENTER KITS & QUICK CHANGE

**SPRINT CENTER, ALUM, 10-INCH**  
**P/N 6170PM** Center Kit Only  
**P/N 2745PM** Kit w/Bells

Winters manufactures all centers to exacting tolerances. However, when replacing your center, check the side bell preload and backlash making sure that it is an exact replacement.

## OPTIONS

OPTION #	MOST POPULAR OPTIONS
8111	4.12 Ring & Pinion
8218-RP	REM® Ring & Pinion
8218-BRG	REM® Bearing (# is per bearing)
8202-V8	EDM Ring Gear (specify ratio)
8299	Gun-Drilled Pinion Shaft
8184	HT Gun-Drilled Lower Shaft
8106V	350M Lower Shaft, 10-Spline
8106V-32	350M Lower Shaft, 32-Spline
8155PMHD	Heavy Duty 8-Rib Bell, Perm. Mold
8208-02	Thermal Dispersant Coating, Center Only
8208	Thermal Dispersant Coating, Center & Bells
8182B	Aluminum Drive Yoke
9116	Delete Seal Plate
OPTION #	CENTER OPTIONS
8126	Titanium Thru-Bolts
8275	1350-Series Yoke



**OPTIONS** To order any Full-Size 10" Center Kit with an 8" Ring & Pinion, add:

OPTION #	2nd GENERATION DESCRIPTION
8111-8S	4.12 Ring & Pinion Short
9139	Pinion Nose Support, 8", Spool Only
8133-8S-6	w/6-Bolt Cover

## CENTER SECTIONS

Center sections and bells are cast using our industry exclusive Permanent Mold process for the strongest production centers and bells available. See page 3 for detailed information and mechanical properties. For black Thermal Dispersant Coating on any center section, add Option 8208-02.



15 lbs.

For use with differential or spool

**8" 6-BOLT COVER** w/o Nose Support  
P/N 113266



16 lbs.

For use with aluminum spool only

**8" 6-BOLT COVER** w/Support Bearing  
P/N 13266



17 lbs.

**10" 6-BOLT COVER**  
P/N 13251

## BREATHERS

7/8-14  
#10-AN



**Assembly P/N 12793-01**

#	DESCRIPTION	P/N
1	O-Ring	8406
2	Plug 7/8-14	12793
3	Tube Adapter	9397
4	Poly Tubing, 16" Length	9409

Breather assembly for use with 8-Rib Permanent Mold bells

9/16-18  
#6-AN



**Assembly P/N 2966**

#	DESCRIPTION	P/N
1	O-Ring	8405
2	#6-AN Fitting	8070
3	Tube Adapter	8074
4	Poly Tubing, 16" Length	8075

Breather assembly for use with 6-Rib Permanent Mold bells and centers



# E COMPONENTS

## TUBES & BELLS



### 8-RIB TUBES & BELLS (Shown on Left)

Bells shown with Option 8208-B Thermal Dispersant Coating

DESCRIPTION	P/N
8-Rib PM Alum Bell, Steel Tube, Left	5147PM
8-Rib PM Alum Bell, Steel Tube, Right	5146PM
8-Rib PM Alum Bell, Alum Tube, Left	5147PMA
8-Rib PM Alum Bell, Alum Tube, Right	5146PMA
8-Rib PM Alum Bell, Alum Tube, 1-Ton, Left	5147PMA-1TON
8-Rib PM Alum Bell, Alum Tube, 1-Ton, Right	5146PMA-1TON

### 6-RIB TUBES & BELLS (Shown on Right)

Bells shown with Option 8208-B Thermal Dispersant Coating

DESCRIPTION	P/N
6-Rib PM Alum Bell, Steel Tube, Left	4147PM
6-Rib PM Alum Bell, Steel Tube, Right	4146PM
6-Rib PM Alum Bell, Alum Tube, Left	4147PMA
6-Rib PM Alum Bell, Alum Tube, Right	4146PMA
6-Rib PM Alum Bell, Alum Tube, 1-Ton, Left	4147PMA-1TON
6-Rib PM Alum Bell, Alum Tube, 1-Ton, Right	4146PMA-1TON

## GEAR COVER



P/N 12175 Forged Aluminum,  
Custom Logo Lasering Available on Request  
P/N 8447 O-Ring  
P/N 12185 Gasket



### 8-RIB BELLS, PERMANENT MOLD ALUMINUM

P/N 12080PM 8-Rib, Left

P/N 12083PM 8-Rib, Right, w/Inspection Plug

Shown with Option 8208-B Thermal Dispersant Coating

### 6-RIB BELLS, PERMANENT MOLD ALUMINUM

P/N 1663-02PM 6-Rib, Left

P/N 1663-01PM 6-Rib, Right, w/Inspection Plug

Shown with Option 8208-B Thermal Dispersant Coating

## OVERHAUL KITS

Kits include all bearings, seals, and O-rings needed to rebuild your rear end

APPLICATION	BELL	COVER	P/N
Sprint Center	4 or 6-Rib	Tumbled Cover	1209-02A
Sprint Center	8-Rib	Tumbled Cover	1209-01A
Sprint Center	4 or 6-Rib	Heavy Duty Cover	1209HD-02A
Sprint Center	8-Rib	Heavy Duty Cover	1209HD-01A
Sprint Center	4 or 6-Rib	Small Brg Cover	1209SC-02A
Sprint Center	8-Rib	Small Brg Cover	1209SC-01A
Sprint Center	4 or 6-Rib	Big Brg Cover	1209BC-02A
Sprint Center	8-Rib	Big Brg Cover	1209BC-01A
8" Ring & Pinion, No Pinion Support, 2nd Generation	4, 6, or 8-Rib	Big Brg Cover	12756
8" Ring & Pinion w/Pinion Support, 2nd Generation	4, 6, or 8-Rib	Big Brg Cover	12757

P/Ns for assemblies with an aluminum carrier with 2.031" brg. journals



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

# TUBES & SPINDLES

## 3" WIDE-5 SIDE TUBES & SPINDLES

Aluminum and steel tubes and spindles for standard 3/4-Ton and 1-Ton applications



## OPTIONS

Heavy Wall Tube

OPTION #	DESCRIPTION
9151-150	1-1/2" Tube I.D. Adds Approx. 16 lbs./Side
9151-175	1-3/4" Tube I.D. Adds Approx. 13 lbs./Side
9151-200	2" Tube I.D. Adds Approx. 10 lbs./Side

## WALL THICKNESS COMPARISON

1-TON WIDE-5  
P/N 12313 & 12313L



STANDARD 3/4-TON WIDE-5  
P/N 12313 & 12313L



## INSTALLATION INSTRUCTIONS

When installing a tube in a bell, place the tube in a 5-gallon bucket of ice. Heat the bell in an oven to 270°-300°F. Lubricate the bell bore and drop the tube into the bell. **DO NOT TORCH!** Annealing and/or cracking will occur.

See page 34 for Dimensional Data  
See chart at left for Camber Options  
See page 14 for Socket Nuts and Lock Nut Kits

#	DESCRIPTION	CAMBER	P/N ASSEM	P/N SPINDLE	P/N TUBE
1	Wide-5 One Piece Aluminum Tube & Spindle, 1 Ton	Straight	12313	One Piece	One Piece
1*	Wide-5 One Piece Aluminum Tube & Spindle, 1 Ton	Straight	12313L	One Piece	One Piece
2	Wide-5 One Piece Aluminum Tube & Spindle	Straight	6672	One Piece	One Piece
2*	Wide-5 One Piece Aluminum Tube & Spindle	Straight	6672L	One Piece	One Piece
3	Wide-5 Steel Tube & Spindle Assembly	Straight	5145-1Ton	5151-1Ton	5110
4	Wide-5 Steel Tube & Spindle Assembly	Straight	5145	5151	5110
4	Wide-5 Steel Tube & Spindle Assembly	0.5°	1405	1380-05	5110
4	Wide-5 Steel Tube & Spindle Assembly	1.0°	1410	1380-10	5110
4	Wide-5 Steel Tube & Spindle Assembly	1.5°	1415	1380-15	5110
5	Wide-5 Aluminum Tube with Steel Spindle	Straight	6631	6598	6597
5	Wide-5 Aluminum Tube with Steel Spindle	0.5°	1405A	1379-05	6597
5	Wide-5 Aluminum Tube with Steel Spindle	1.0°	1410A	1379-10	6597
5	Wide-5 Aluminum Tube with Steel Spindle	1.5°	1415A	1379-15	6597

\*For Tube Lengths 23-1/2" and Longer, Using 'B' Dimension or 29" + End-to-End Dimension



## PLEASE ORDER TUBES USING EITHER THE "A" OR "B" DIMENSION

**A: End-to-End Dimension:** Measure from end of tube to edge of bell, then add 5" to account for the portion of the tube inside the bell. Specify "end-to-end" measurement when ordering.

**B: Inner Bearing Shoulder-to-End Dimension:** Inner bearing shoulder locates hub assemblies. Remove hub assembly and measure from inner bearing shoulder to edge of bell, then add 5" to account for the portion of the tube that's in the bell. Specify "inner bearing shoulder-to-end" measurement when ordering.

# DIFFERENTIALS

## TRACKSTAR LIMITED SLIP DIFFERENTIAL

**P/N 3224-01** 2nd Generation Trackstar Differential  
w/Tri-Lock Bronze Thrust Washer System  
**OPTION 8231-01** Differential installed in rear

Winters Trackstar differential uses friction generated by thrust forces from the crossed-axis gear assembly, coupled with the Tri-Lock Bronze Thrust Washer System, to multiply torque from the loose wheel and apply it to the wheel that's still biting. It's encased in a heat treated 4140 center housing that eliminates flex and maintains close-tolerance gear meshing under load.

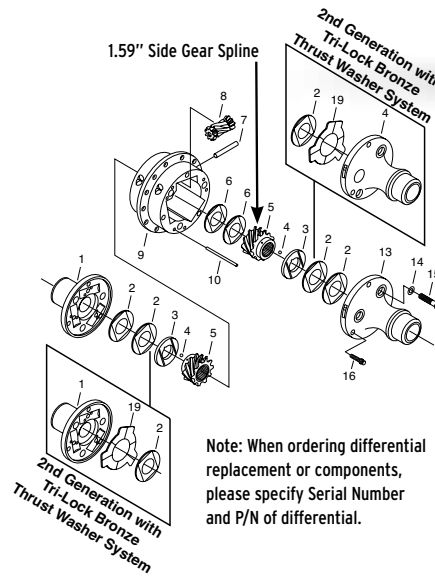
### ASSEMBLY INCLUDES

#	DESCRIPTION	P/N	QTY
1*	Side Housing	3185	1
2	Grooved Thrust Washer	7547-03	4
3	Keyed Thrust Washer, .245 Thick	3205	2
3*	Keyed Thrust Washer, .270 Thick	3205-01	2
4	Steel Ball	7399	2
5	Side Gears	3204	2
6	Grooved Thrust Washer	7570-03	2
7	Axle Pin	3214	6
8	Pinion Gear	1709	6
9*	Center Housing	3158	1
10	Retainer Pin	3216	6
13*	Side Housing	3184	1
14	Washer	8719	6
15	1/2-20 x 1-1/2" HHCS	8058	6
16	5/16-18 x 1-1/4" 12pt	7162	6
17*	Oil Scoop	3206	3
18*	Screws, Oil Scoop	7938	6
2ND GEN SET-UP			
1*	Side Housing	3185	1
2	Grooved Thrust Washer	7547-03	2
4*	Side Housing	3184	1
19	Tri-Lock Bronze Thrust Washer, .091 Thick	12367	1
19*	Tri-Lock Bronze Thrust Washer, .100 Thick	12367-01	1

\* For rebuild purposes only

† Must be purchased as a complete unit

Note: Axle lengths may vary when changing from a spool to a differential. Refer to page 15.



Note: When ordering differential replacement or components, please specify Serial Number and P/N of differential.



## WINTERS TRACK LIMITED SLIP DIFFERENTIAL

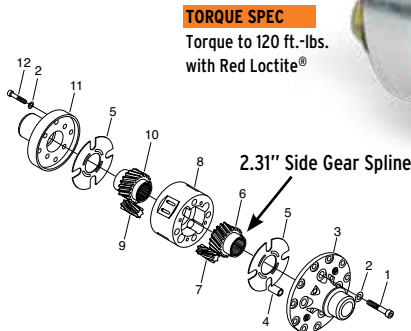
**P/N 6513-31** Winters Track Differential  
**OPTION 8121W** Differential installed in rear

CNC-machined to exacting tolerances. This virtually unbreakable, parallel design automatically senses wheel spin and delivers positive traction.

### ASSEMBLY INCLUDES

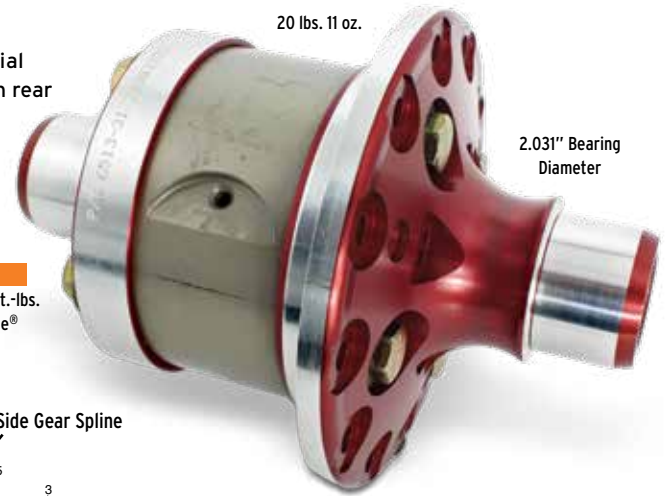
#	DESCRIPTION	P/N	QTY
1	1/2-20 x 2" HHCS	7113	4
2	Spring Washer	7773	8
3*	Left Side Housing	6359	1
4	Bushing	1459	4
5	Wear Plates	6315	2
6	Left Side Gear	6330-02	1
7	Left Pinion Gear	6329-01	4
8*	Center Housing	6361	1
9	Right Pinion Gear	6329-02	4
10	Right Side Gear	6330-01	1
11*	Right Side Housing	6360	1
12	1/2-20 x 1-1/2" HHCS	8058	4

† Must be purchased as a complete unit



#### TORQUE SPEC

Torque to 120 ft.-lbs. with Red Loctite®



Note: When ordering differential replacement or components, please specify Serial Number and P/N of differential.

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



# LOCKERS & COMPONENTS

## LIGHTWEIGHT BILLET ALUMINUM LOCKER

P/N 5114-01L

OPTION 8171L Locker installed in rear

OPTION 8128-LIA REM® Finish Locker Internal Assembly

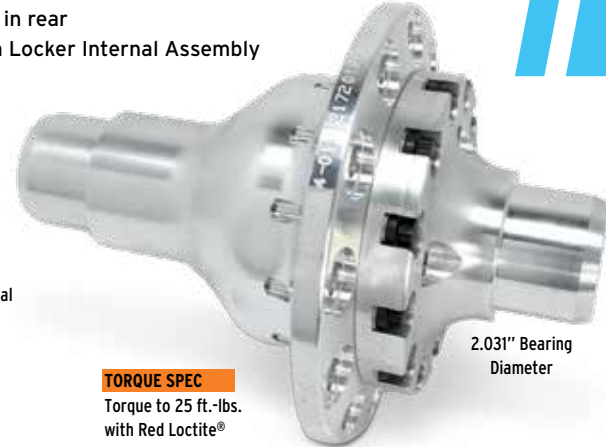
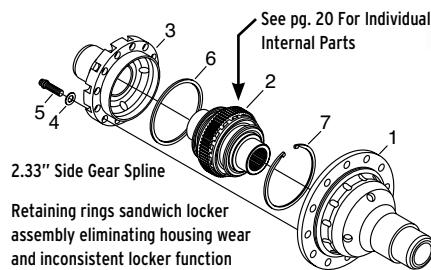
10 lbs. 13 oz.

Winters Lightweight Aluminum Locker reduces rotating and unsprung weight. At 10 lbs. 13 oz. nothing comes close! This assembly requires a 1" longer right axle and a 1" shorter left axle than the standard locker assembly. Comes standard with 78 lb factory calibrated springs installed. Locker spring rates are laser etched on the housing. Other spring rates are available (see options below).

### ASSEMBLY INCLUDES

#	DESCRIPTION	P/N	QTY
1*	Main Housing	2880	1
2	Locker Internal Assembly	1390	1
3*	Cover	2881	1
4	Washer	7151	12
5	3/8-16 x 1-1/4" 12pt	7713	12
6	Retaining Ring	3066	1
7	Retaining Ring	8329	1

\*Must be purchased as a set



Locker assemblies are speed sensitive, not torque sensitive. Whichever wheel travels faster is going to unlock.

## BILLET ALUMINUM LOCKER

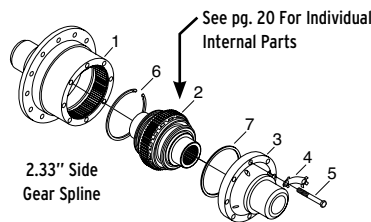
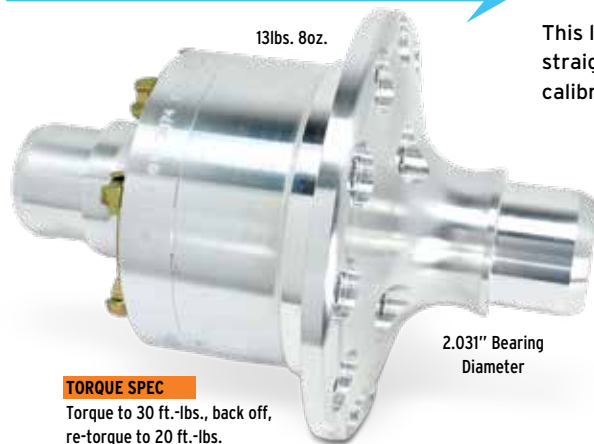
P/N 5114-01

OPTION 8171 Locker installed in rear

OPTION 8128-LIA REM® Finish Locker Internal Assembly

13lbs. 8oz.

This locker is a full automatic locking differential. It delivers spool-type traction on the straightaways yet automatically unlocks in the corners. Comes standard with 78-lb. factory-calibrated springs installed. Other spring rates are available (see options below).



### ASSEMBLY INCLUDES

#	DESCRIPTION	P/N	QTY
1*	Main Housing	6910	1
2	Locker Internal Assembly	1390	1
3*	Cover	6911	1
4	Lock Tab	1589	4
5	3/8-16 x 3-1/4" HHCS	7823	8
6	Retaining Ring	8329	1
7	Retaining Ring	3066	1

\*Must be purchased as a set

## SPOOL & LOCKER COMPONENTS

### LOCKER INTERNAL ASSEMBLY • P/N 1390

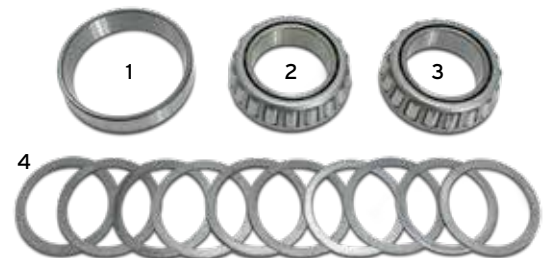
OPTION 8218-LIA REM® Finish Locker Internal Assembly



### LOCKER SPRINGS

All Winters springs are tested to ensure accuracy within 2 lbs. of rated category

DESCRIPTION	APPLICATION	P/N	OPTION
Side Gear Spring, Orange, 58 lb.	10" QC, 8-3/8" QC	12800	8214-58
Side Gear Spring, Blue, 68 lb.	10" QC, 8-3/8" QC	1280B	8214-68
Side Gear Spring, Yellow, 78 lb.	10" QC, 8-3/8" QC	1280Y	Standard
Side Gear Spring, Red, 90 lb.	10" QC, 8-3/8" QC	1280R	8214-90



### SPOOL BEARINGS & SHIMS • 2.031" JOURNAL

#	DESCRIPTION	P/N	QTY
1	Carrier Bearing Race	7310	2
2	Carrier Bearing Cone (2.031")	7340	2
3	Checking Bearing Cone (2.031")	5294	2
4	Carrier Shim Kit, 12 Shims (2.031" ID)	5295	1

# RINGS & PINIONS

## OPTIONS

For both 10" and 8" Ring & Pinions

OPTION #	MOST POPULAR OPTIONS
8218-RP	REM® Ring & Pinion
8218-BRG	REM® Bearing (# is per bearing)
8202-XXX	EDM Ring Gear (specify ratio)
8299	Gun-Drilled Pinion Shaft

## RING & PINION QUICK CHANGE ASSEMBLIES

### 10" STANDARD PINION BEARING, 12-BOLT

Assembly includes Pinion Posi-Lock Nut, Roller Nose Bearing, ARP® Ring Gear Bolt Kit, and one-piece race.



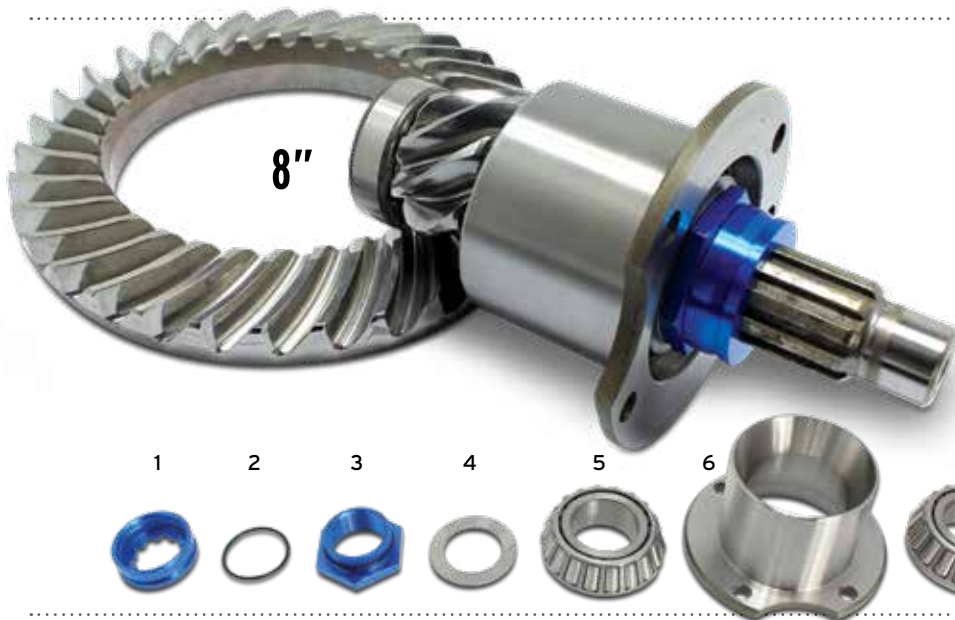
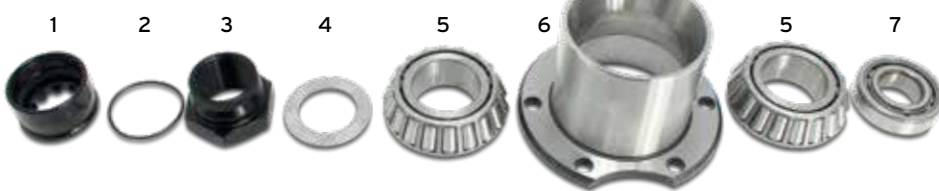
P/N 5400 4.86 R&P w/o Bearings  
P/N 5401 4.86 R&P w/Bearings

P/N 5714 4.12 R&P w/o Bearings  
P/N 5715 4.12 R&P w/Bearings

P/N 51457 4.57 R&P w/o Bearings  
P/N 52457 4.57 R&P w/Bearings

### ASSEMBLY INCLUDES

#	DESCRIPTION	P/N	QTY
1	Posi-Lock Retainer	6484	1
2	O-Ring	7445	1
3	Posi-Lock Nut (15/16-20-2B Thread)	6485R	1
4	Washer	5055	1
5	Tapered Roller Bearing	7308	2
6	Flanged Bearing Race	7528	1
7	Roller Bearing	7331	1



### 8" 2nd GENERATION RING & PINION

For Pinion Nose Support add OPTION 8143-8S

P/N 65411SB-CT 4.12 R&P w/Bearings

P/N 65411SS 4.12 R&P w/o Bearings

### ASSEMBLY INCLUDES

#	DESCRIPTION	P/N	QTY
1	Posi-Lock Retainer	1807	1
2	O-Ring	7455	1
3	Posi-Lock Nut (15/16-20-2B Thread)	1806	1
4	Washer	5055	1
5	Tapered Roller Bearing	7308	2
6	Pinion Cup	4871-01	1
7	Roller Bearing (only with nose support)	7331	1



### POSI-LOCK

P/N 6498R (Shown in black)

For 10" R&P, right hand thread, standard

P/N 1493 (Shown in blue)

For 8" R&P, right hand thread, standard  
Assemblies contain one each of parts 1-3 above



### ARP® RING GEAR BOLT KIT

KIT P/N 9381 For 10" R&P

KIT P/N 9381S (Shown) For 8" R&P

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

# LOWER SHAFTS & YOKES

## HEAT TREATED STEEL & 350M LOWER SHAFTS



19.69" End-to-End



19.48" End-to-End 32-Spline 45° P.A.



19.69" End-to-End



19.69" End-to-End

#	DESCRIPTION	P/N
1	Heat Treated Shaft, Open Drive	5003
2	Gun-Drilled Shaft, Open Drive	1550
3	Heat Treated Shaft, 32 Spline	5003-32
4	350M Lower Shaft, 10-Spline	5003-V

All use Retaining Ring P/N 7610



19.69" End-to-End



18.59" End-to-End 32-Spline 45° P.A.



18.59" End-to-End



18.59" End-to-End

#	DESCRIPTION	P/N
5	350M Lower Shaft, 32-Spline w/Spacer	5003V-32
6	Heat Treated Shaft	4951HT
7	350M Lower Shaft, 10-Spline	4951V
8	Gun-Drilled Shaft	4951GD

8" SHORT QUICK CHANGE

## ALUMINUM & STEEL YOKES



Stainless Steel Sleeve

### P/N 5038AS • ALUMINUM, 10-SPLINE

Machined from high strength 7075-T6 aluminum, this yoke is fitted with a stainless steel sleeve at seal contact area. Uses series 1310 (1-1/16") joint and requires Spacer P/N 6532.



Must use seal P/N 7204-32-01 (included)

### P/N 5038AS-32 • ALUMINUM, 32-SPLINE

Machined from high strength 7075-T6 aluminum, this yoke is fitted with a stainless steel sleeve at seal contact area. Uses series 1310 (1-1/16") joint. **NOTE:** Use seal P/N 7204-32-01



Length of Splines = 1.735"

### P/N 3533 • STEEL w/INTEGRAL SPACER, 10-SPLINE

1-1/4 10-Spline Yoke • Use Dana®-Series 1310, 1-1/16" Joint



### P/N 3536 • STEEL w/INTEGRAL SPACER, 32-SPLINE

1-1/4 10-Spline Yoke • Use Dana®-Series 1310, 1-1/16" Joint



## TOOLS & ACCESSORIES



**1-TON SPINDLE NUT SOCKET**  
P/N 12542 2-5/8" Hex (One Socket)

## DUST CAP SOCKET

P/N 3153M (One Socket)

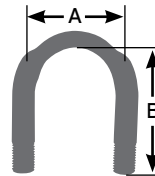


## U-BOLT KITS

Kits Includes:  
2 - U-Bolts  
4 - Lock Washers  
4 - Hex Nuts  
Torque: 15 Ft.-Lbs.



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



## CHECKING BEARINGS

P/N 5138 2.00 Bearing Journal, Steel  
P/N 5294 2.031 Bearing Journal, Alum.

Slip-fit bearings for ease of installation/removal during set-up. Checking Bearings are replaced with standard press-fit bearings prior to using rear end.

## GEAR OIL

### HIGH PERFORMANCE SUPREME GEAR OIL P/N 1730

Using the correct gear oil is critical to the performance and longevity of your quick change rear end. Our High Performance Supreme Gear Oil is an 80W/90 semi-synthetic with Moly that will keep your rear properly lubricated and running cool race after race.

For SDS, please call or visit our website.



Scan QR code or click Video #30 on [wintersperformance.com](http://wintersperformance.com) to watch a video explaining oil specs and showing oil check and fill locations for 8" and 10" center sections



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

# FALCON ROLLER SLIDE



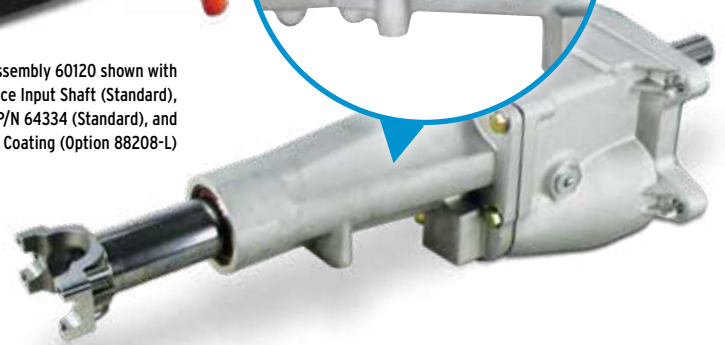
10-Spline, One-Piece Input Shaft Comes Standard

Cutaway shows telescoping rear yoke assembly, which allows for 5 1/2" of travel

**ASSEMBLY P/N 60120**  
47 lbs. with options

Assembly 60120 shown with 10-Spline, One-Piece Input Shaft (Standard), Bellhousing Filler Shim P/N 64334 (Standard), and Thermal Dispersant Coating (Option 88208-L)

Gliding on roller bearings, the Falcon Roller Slide transmission telescopes 5 1/2" at the rear yoke, allowing your driveline and suspension the freedom to move forward and backward without inducing or limiting roll steer. The Roller Slide has all the advantages of more driveline travel and less maintenance, while being durable enough to handle the tough environment of today's racing. As with all Falcon transmissions, the Roller Slide provides two speeds forward, neutral, and reverse, with an integral hydraulically-applied clutch operating low and reverse. High gear is a direct-drive 1-to-1 ratio. Well-lubricated, frictionless bearings support all rotating components for superior durability. The Falcon Roller Slide also features an ARP® yoke bolt and, as with all Winters transmissions, rotating internals from gears to shafts are REM®-finished.



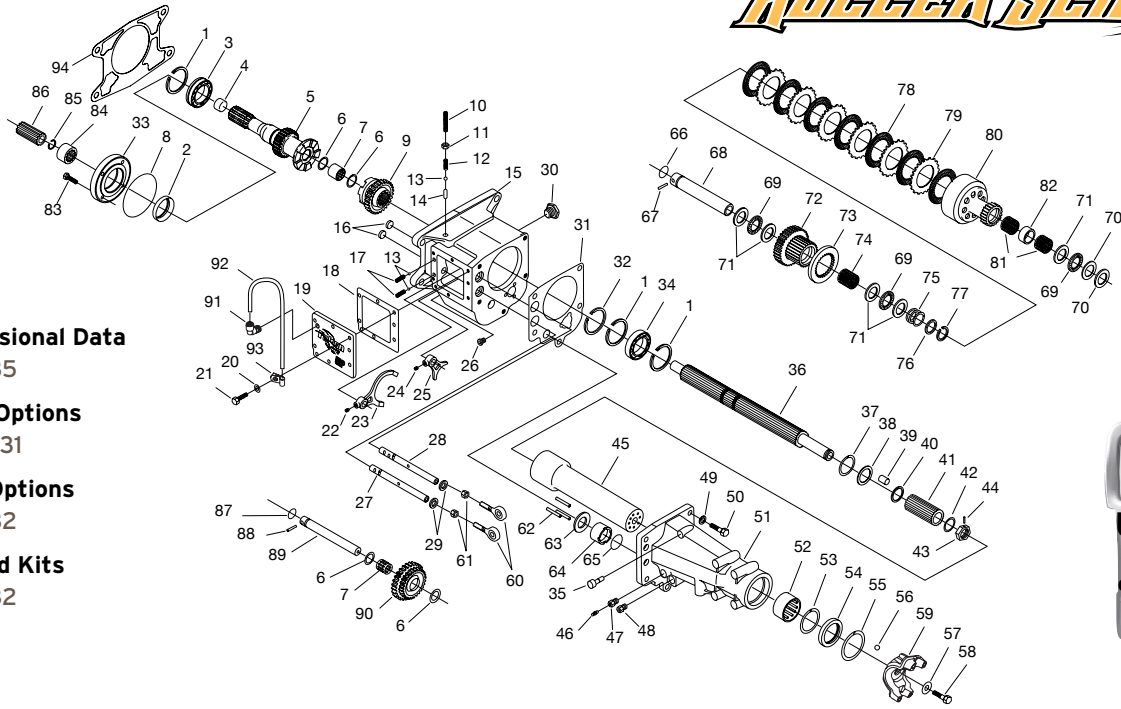
Assembly P/N 60120 shown with 18-Spline, Three-Piece Floating Input Shaft (Option 80111-18-3) Also requires Counterbore Spacer (P/N 62705)

Floating input shaft and crank coupler contributes to the most positive high gear retention in the industry 18/10-spline intermediate shaft (Option 8251-62348-10) and other crank coupler options available (see page 31 for details)

## OPTIONS

P/Ns included for components that are available for individual purchase

OPTION #	PART #	HUB OPTIONS
80109	67256V	Front Seal, Viton
80111-18		18-Spline, 1-Piece Input Shaft
80111-18-3		18-Spline, 3-Piece Floating Input Shaft
88208-L		Thermal Dispersant Coating, Late Model
8251-XX		Crank Coupler Options (See page 31)



**Dimensional Data**  
Page 35

**Input Options**  
Pages 31

**Yoke Options**  
Page 32

**Rebuild Kits**  
Page 32

#	P/N	DESCRIPTION	QTY REQ'D
1	67682	Snap Ring	3
2	67256	Seal, Seal Plate	1
3	67555	Bearing, Input Shaft	1
4	68026	Core Plug	1
4*	67860	1" Core Plug, 1-Piece, Main Shaft	1
4*	67860-1	1/2" Core Plug, 1-Piece, Main Shaft	1
5	62879-10	Main Shaft, 1-Piece, 10-Spline	1
5*	62879	Main Shaft for 3-Piece Input Shaft	1
6	68303	Snap Ring	4
7	67563	Needle Bearing	2
8	67483	O-Ring, Seal Plate	1
9	62878	Slider Gear	1
10	68030	3/8-16 x 1" Detent Screw	1
11	68031	3/8-16 Jam Nut, Detent Screw	1
12	62333	Detent Spring, Top	1
13	67398	Detent Ball	3
14	62105	Shutter Pin	1
15	61745	Transmission Case	1
16	68052	Case Plug	2
17	62332-S	Detent Spring	2
18	62156	Gasket, Side Cover	1
19	62158	Side Cover	1
20	67172	5/16" Washer	8
21	68034	5/16-18 x 3/4" HHCS	8
22	67837	5/16-24 x 1/2" SHSS	1
23	61911	Shift Yoke, Main	1
24	68027	1/4-28 x 1/2" SHSS	1
25	61691	Shift Yoke, Reverse	1
26	67874	Drain Plug	1
27	62212	Shift Shaft, Reverse	1
28	63491	Shift Shaft, Low / Neutral / Direct	1
29	67259	Seal, Shift Shaft	2
30	68035	Fill Plug	1
31	62155	Gasket	1
32	68331	Snap Ring	1
33	61744	Seal Plate	1
34	68662	Bearing	1
35	67772	1/8" NPT Plug	1
36	62872	Fixed Sliding Shaft	1
37	68347	Retaining Ring	1
38	62877	Retainer	1
39	68721	1" Dowel	6
40	62920	Washer	1
41	62921	Splined Spacer	1
42	62922	Washer	1
43	62923	Nut	1
44	68729	3/32 x 7/8" Spring Pin	1
45	62873	Sliding Shaft Assembly	1
46	65313	Bleeder	1
47	65314	Adapter, Bleeder	1
48	68042	Compression Fitting	1

#	P/N	DESCRIPTION	QTY REQ'D
49	67811	Washer	5
50	67117	7/16-14 x 1 1/4" HHCS	5
51	62871	Extension Housing	1
52	68660	Needle Bearing	1
53	67653	Snap Ring	1
54	67282V	Seal, Extension Housing	1
55	67678	Retaining Ring, Seal	1
56	67347	Steel Ball	15
57	68372	ARP Washer	1
58	68373	ARP 5/8-18 x 1" HHCS	1
59	62874	Rear Yoke	1
60	67580	Heim End	2
61	68032	Jam Nut, Heim End	2
62	61845	Push Rod	3
63	61906	Piston Thrust Washer	1
64	61844	Piston	1
65	67482	O-Ring, Piston	1
66	67480	O-Ring	1
67	67991	Roll Pin, Counter Shaft	1
68	61737	Counter Shaft	1
69	67562	Thrust Bearing	3
70	67585	Thrust Washer, .063"	1
70*	68840	Thrust Washer, .070"	1
70*	68842	Thrust Washer, .080"	1
71	67560	Thrust Washer, .093"	5
72	61734	Clutch Pack Hub	1
73	61736-1	Clutch Pack Spacer, Steel	1
73*	61736	Clutch Pack Spacer, Aluminum	1
74	67591	Needle Bearing	1
75	61912	Clutch Spring	1
76	61847	Clutch Spring Spacer	1
77	67687	Retaining Ring	1
78	61853RS-7E	Clutch Disk, Friction	7
79	61852RS-6A	Clutch Disk, Steel	6
80	61735	Clutch Gear	1
81	67559	Needle Bearing	2
82	62354	Spacer	1
83	67195	5/16-18 x 3/4" 12pt.	4
84*	62407	Collar	1
85*	67639	Snap Ring, Collar	1
86*	62901	Input Shaft, 18/18 Splines	1
87	67481	O-Ring, Reverse Shaft	1
88	67992	Roll Pin, Reverse Shaft	1
89	61743	Reverse Counter Shaft	1
90	61742	Reverse Idler Gear	1
91	68961	Breather Elbow	1
92	68962	Breather Tube / Per Inch	2 ft.
93	68973	Clamp, Breather Tube	2
94	64334	Bellhousing Filler Plate	1
	69399	ARP Ultra Torque Lube	1

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



# FALCON LATE MODEL



**ASSEMBLY P/N 60100**  
45 lbs. with options

Extension housing includes a sturdy roller bearing to accommodate 1 1/2" diameter slip yokes

Output shaft spline length is long enough to accommodate 9" yoke

Assembly comes standard with Chevy SB and BB 18-Spline Crank Coupler (P/N 62348-18) and Bellhousing Filler Shim (P/N 64334)

18/10-Spline Intermediate Shaft (Option 8251-62348-10) and other crank coupler options available (see page 31 for details)

The Falcon Late Model transmission has two forward speeds, neutral, and reverse, with an integral hydraulically-applied clutch operating low and reverse gears. High gear is a direct-drive 1-to-1 ratio with minimal rotating mass. With its aluminum case and extension housing, the transmission weighs just 45 pounds.

The Falcon Late Model comes with the correct crank coupler for easy installation—even to a stock flywheel housing. Frictionless bearings support all rotating components for unmatched durability, and, as with all Winters transmissions, all rotating internals from gears to shafts are REM®-finished.



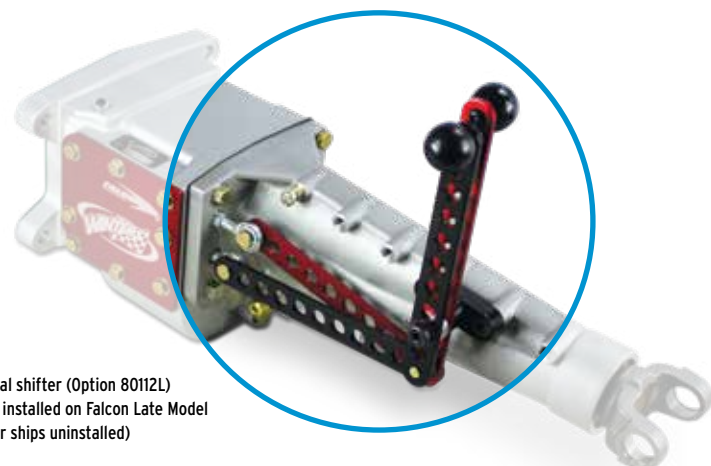
Oil Level Inspection Plug

Assembly P/N 60100 shown with Thermal Dispersant Coating (Option 88208-L)

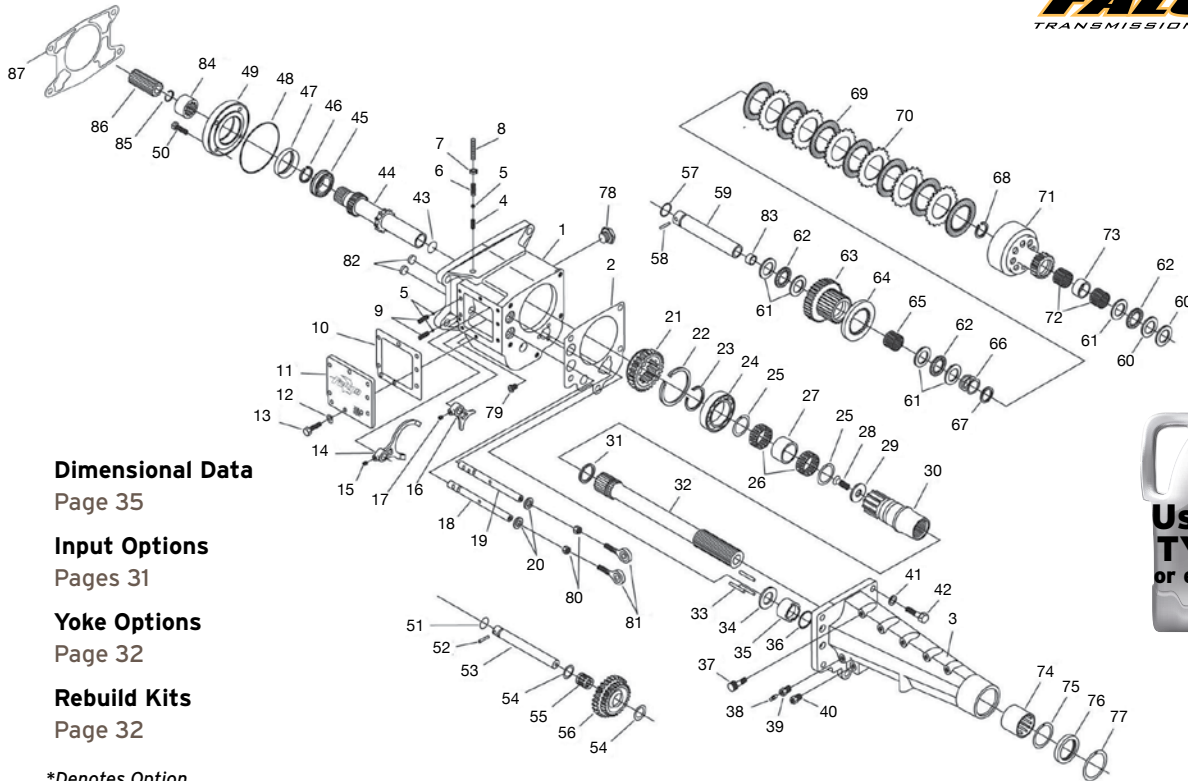
## OPTIONS

P/Ns included for components that are available for individual purchase

OPTION #	PART #	HUB OPTIONS
80109	67256V	Front Seal, Viton
80110L	67257V	Rear Seal, Viton
80112L		Shifter (ships uninstalled)
80120	62598	Shorty Extension Housing
80119-6	62946-6	6" Heat Treated Yoke
80119-7	62946-7	7" Heat Treated Yoke
80119-8	62946-8	8" Heat Treated Yoke
80119-9	62946-9	9" Heat Treated Yoke
88208-L		Thermal Dispersant Coating, Late Model
8251-XX		Crank Coupler Options (See page 31)



Optional shifter (Option 80112L) shown installed on Falcon Late Model (shifter ships uninstalled)



**Dimensional Data**

Page 35

**Input Options**

Pages 31

**Yoke Options**

Page 32

**Rebuild Kits**

Page 32

\*Denotes Option

#	P/N	DESCRIPTION	QTY REQ'D
1	61745	Transmission Case, Aluminum	1
2	62155	Gasket	1
3	61877	Extension Housing, Aluminum	1
3*	62598	Extension Housing, Shorty	1
4	62105	Shuttle Pin	1
5	67398	Detent Ball	3
6	62333	Detent Spring, Top	1
7	68031	3/8-16 Jam Nut, Detent Screw	1
8	68030	3/8-16 x 1" Detent Screw	1
9	62332	Detent Spring, Side	2
10	62156	Gasket, Side Cover	1
11	62158	Side Cover, Late Model	1
12	67127	5/16" Washer	8
13	68034	5/16-18 x 3/4" HHCS	8
14	61911	Shift Yoke, Main	1
15	67837	5/16-24 x 1/2" SHSS	1
16	61691	Shift Yoke, Reverse	1
17	68027	1/4-28 x 1/2" SHSS	1
18	62212	Shift Shaft, Reverse	1
19	62211	Shift Shaft, Low / Neutral / Direct	1
20	67259	Seal, Shift Shaft	2
21	61741	Sliding Gear	1
22	67686	Retaining Ring, Rear Bearing	1
23	67685	Retaining Ring, Rear Shaft	1
24	67556	Bearing, Rear Shaft	1
25	67695	Retaining Ring	2
26	67568	Needle Bearing	2
27	61921	Aluminum Spacer	1
28	67149	3/8-24 x 7/8" 12pt., Output Shaft	1
29	61907	Washer, Output Shaft	1
30	61897	Rear Shaft	1
31	67694	Retaining Ring, Output Shaft	1
32	61903	Output Shaft	1
32*	62597	Output Shaft, Shorty	1
33	61845	Push Rod	3
34	61906	Piston Thrust Washer	1
35	61844	Piston	1
36	67482	O'Ring, Piston	1
37	68024	Breather	1
38	65313	Bleeder	1
39	65314	Adapter, Bleeder	1
40	68042	Compression Fitting	1
41	67811	Washer	5
42	67117	7/16-14 x 1 1/4" HHCS	5
43	68026	Core Plug	1
44	61991	Main Shaft	1
45	67555	Bearing, Input Shaft	1

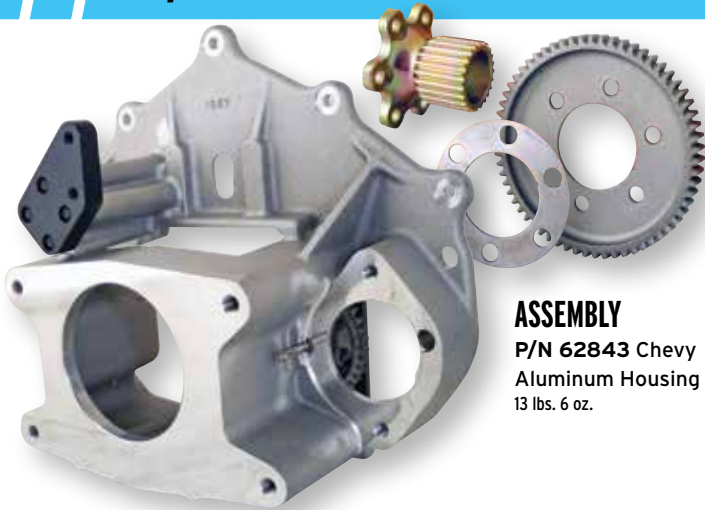
#	P/N	DESCRIPTION	QTY REQ'D
46	67682	Retaining Ring, Input Bearing	1
47	67256	Seal, Seal Plate	1
47*	67256V	Seal, Viton, Seal Plate	1
48	67483	O-Ring, Seal Plate	1
49	61744	Seal Plate	1
50	67195	5/16-18 x 3/4" 12pt	4
51	67481	O-Ring, Reverse Shaft	1
52	67992	Roll Pin, Reverse Shaft	1
53	61743	Reverse Counter Shaft	1
54	68303	Retaining Ring	2
55	67563	Needle Bearing	1
56	61742	Reverse Idler Gear	1
57	67480	O-Ring	1
58	67991	Roll Pin, Counter Shaft	1
59	61737	Counter Shaft	1
60	67560	Thrust Washer, .063"	1
60*	68840	Thrust Washer, .070"	1
60*	68842	Thrust Washer, .080"	1
61	67585	Thrust Washer, .093"	5
62	67562	Thrust Bearing	3
63	61734-36	Clutch Pack Hub	1
64	61736-1	Clutch Pack Spacer	1
64*	61736	Clutch Pack Spacer, Aluminum	1
65	67591	Needle Bearing	1
66	61912	Clutch Spring	1
67	61847	Clutch Spring Spacer	1
68	67687	Retaining Ring	1
69	61853RS-7E	Clutch Disk, Friction	7
70	61852RS-6A	Clutch Disk, Steel	6
71	61735	Clutch Gear	1
72	67559	Needle Bearing	2
73	62354	Spacer	1
74	67574	Bearing, Extension Housing	1
75	67602	Retaining Ring, Bearing	1
76	67257	Seal, Extension Housing	1
76*	67257V	Seal, Viton, Extension Housing	1
77	67691	Retaining Ring, Seal	1
78	68035	Fill Plug	1
79	67874	Drain Plug	1
80	68032	Jam Nut, Heim End	2
81	67580	Heim End	2
82	68052	Case Plug	2
83	68025	Cap Plug	1
84	62407	Collar	1
85	67639	Snap Ring, Collar	1
86	62901	Input Shaft, 18/18 Splines	1
87	64334	Bellhousing Filler Plate	1

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

# BELLHOUSINGS & STARTER R

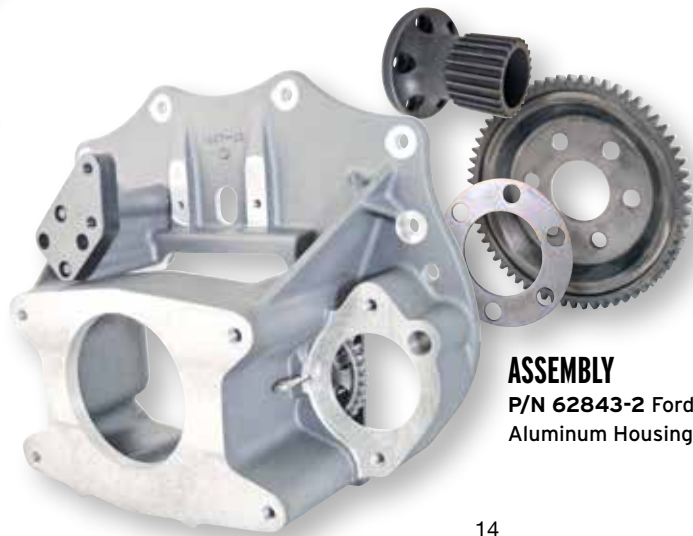
May Be Used With Motor Plates

## 6 1/4" DEEP BELLHOUSING ASSEMBLY

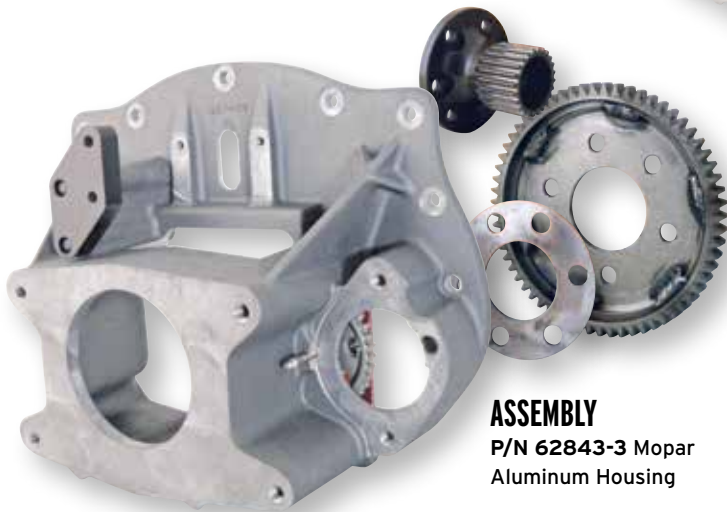


**ASSEMBLY**  
P/N 62843 Chevy  
Aluminum Housing  
13 lbs. 6 oz.

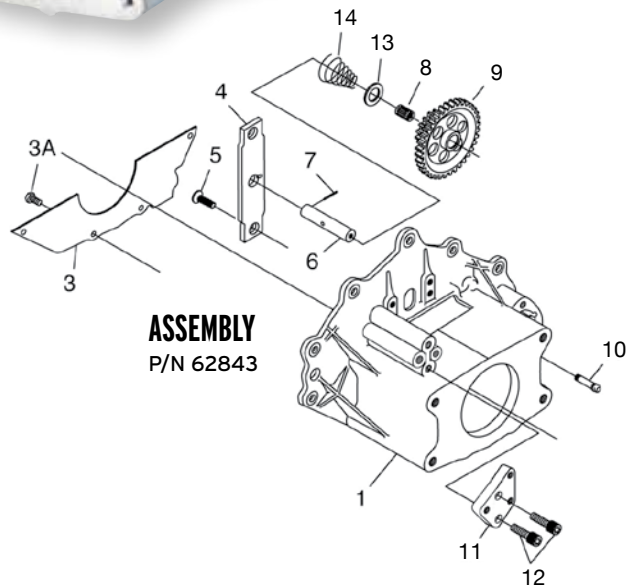
This assembly, with reverse starter mount, features mounting location for a belt-driven pump. Accepts Falcon transmissions and other popular internal clutch late model transmissions. Assembly includes idler gear, 63-tooth starter ring gear, crank coupler with HTD gear, and spacer shims. Use Winters Hi-Torque starter P/N 69408 (page 30).



**ASSEMBLY**  
P/N 62843-2 Ford  
Aluminum Housing



**ASSEMBLY**  
P/N 62843-3 Mopar  
Aluminum Housing



**ASSEMBLY**  
P/N 62843

\*Denotes Option

#	P/N	DESCRIPTION	QTY REQ'D
1	61967	Bellhousing, Chevy, Late Model, Aluminum	1
1	61967-2	Bellhousing, Ford, Late Model, Aluminum	1
1	61967-3	Bellhousing, Mopar, Late Model, Aluminum	1
3*	61997	Cover	1
3A	67179	5/16-18 x 1/2" HHCS	2
4	62277	Idler Mounting Plate, Late Model	1
5	67120	5/16-18 x 3/4" FHCS	2
6	62278	Idler Shaft, Late Model	1

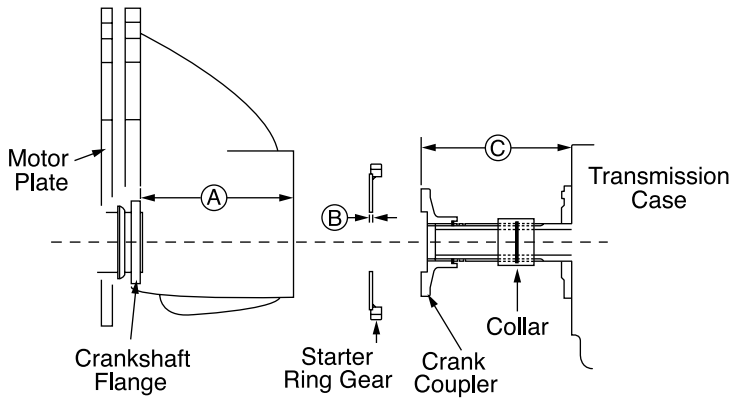
#	P/N	DESCRIPTION	QTY REQ'D
7	68015	Roll Pin, Idler Shaft	1
8	62204	Bushing	1
9	62344	Idler Gear	1
10	62816	Grease Fitting, Long	1
11	62681	Adapter Block	1
12	67162	5/16-18 x 1 1/4" 12pt	4
13	62815	Thrust Washer	1
14	62341	Return Spring	1



# NG GEARS

## LATE MODEL BELLHOUSING INSTALLATION

Using 18-Spline Input Shaft and Coupler with Winters Bellhousing



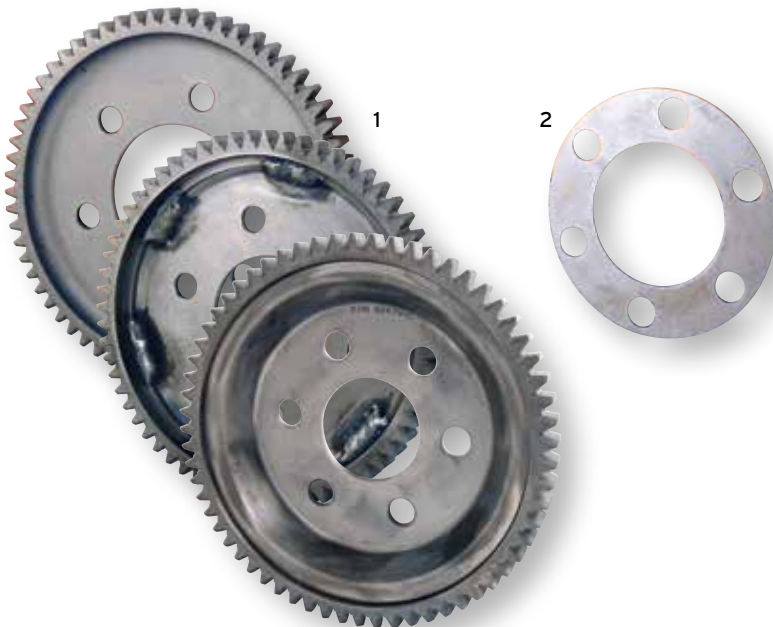
When using a motor plate, it must be in place before making measurements. With motor plate in place, accurately measure from rear face of crankshaft flange to rear face of bellhousing (A). Subtract thickness of starter flex plate (B) and also subtract .125" for required input shaft end clearance. Use your measurements and follow the example to find your coupler measurement (C). It is also advisable to grease the drive splines in the crank coupler and collar before assembly.

**Example:**  
**Flex Plate Thickness** (A) 6.000  
**Clearance** (B) - .125  
**Coupler Measurement** (C) 5.750

Install 1/2"-13 x 2 1/2" studs at these two locations

P/N 62444  
P/N 68039  
P/N 68727 Stud and Nut Kit (2 each)

Dowel pins and pilot bushings must be lengthened to compensate for motor plate thickness. Install studs and nuts to retain transmission to flywheel housing on left side (optional at four locations).



APPLICATION	#1 RING GEAR 6-1/2" DIAMETER 63-TOOTH	#2 SHIM
Chevy SB & BB	P/N 62479-A	P/N 62320
Chevy Late SB	P/N 62479-D	P/N 62321
Ford SB	P/N 62479-C	P/N 62322
Ford BB	P/N 62479-E	P/N 62322-BB
Mopar 6-Bolt	P/N 62479-B	P/N 62323
Mopar 8-Bolt	P/N 62479-F	P/N 62324

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



P/N 63844-18  
Late Chevy 18-Spline Bell,  
External Balance



P/N 62479D-1  
Late Chevy Counter Weight,  
External Balance

## CHEVY LS-SERIES ADAPTER

Adapts LS1, LS2, LS3 (CT525), LS6, LS7 and L92 engines to original Chevy bolt pattern and location



P/N 64976  
Adapter

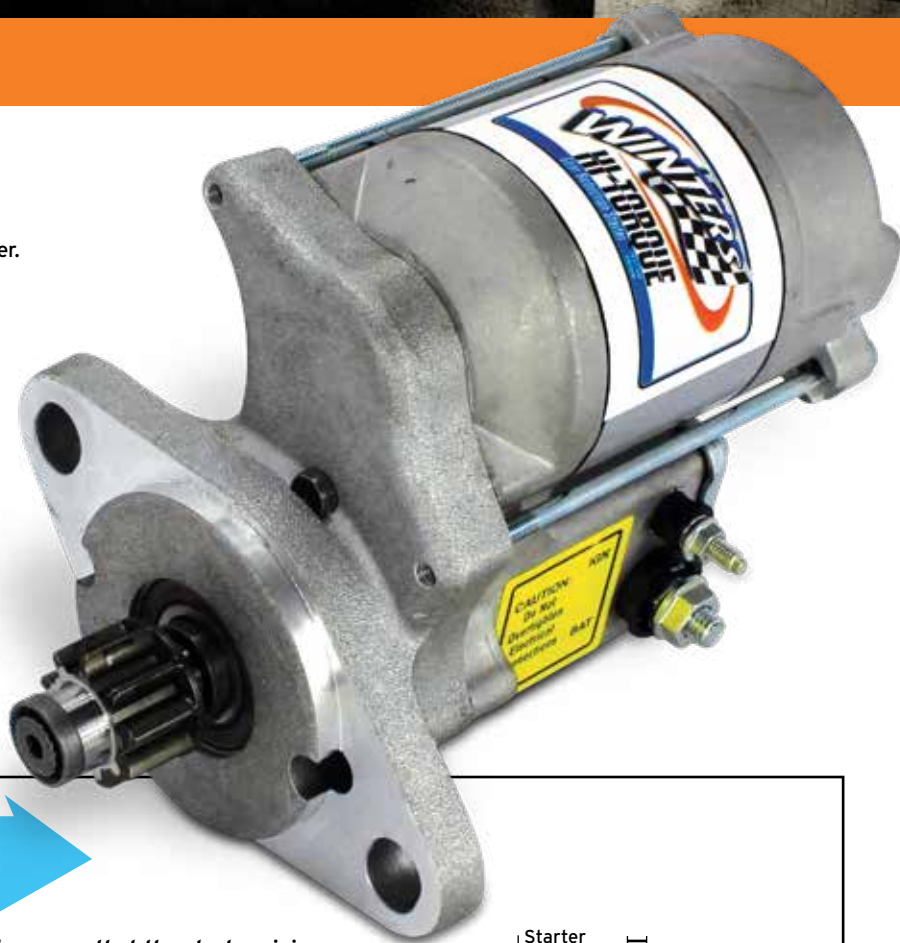
LS Bolt Pattern  
Original Chevy Bolt Pattern



P/N 68938  
11mm Bolt (6 required)

# STARTERS

Introducing the Winters Hi-Torque gear reduction starter. The first available starter (P/N 69408) is designed for use with our Chevy bellhousing (P/N 62843). Engineered with dirt and asphalt Late Models, left-steer Modifieds, and other racing applications in mind, the 1.4kw Winters Hi-Torque starter uses 4.4:1 gear reduction to produce 200 ft.-lbs. of torque and 1.8 horsepower—powerful enough to start engines with up to 18:1 compression! And weighing just 7.5 pounds, it's one of the lightest starters available!



## STARTER INSTALLATION

*Proper mounting of the starter is important because it ensures that the starter pinion will engage with the ring gear without binding and subsequently damaging the starter pinion and/or ring gear.*

- **MOUNT STARTER**, making sure the mounting surface of the engine block is smooth, flat, and free of paint build up. Torque starter mounting bolts to engine manufacturer's specifications (typically 32 ft.-lbs.)
- **CHECK PINION CLEARANCE**. There should be 1/8" (.125") minimum from the backside of the ring gear to the front edge of the starter pinion teeth (Figure A). Check in at least three locations on the ring gear. If not in spec, verify that the ring gear is properly installed. **\*When using an idler gear**, ensure the same .125" minimum from the backside of the ring gear to the front edge of the idler gear.
- **PULL PINION OUT TO CHECK ENGAGEMENT** with the ring gear. This can be done by either using a tool to pry the pinion out of the starter, or connect 12 VDC to the "Switch" terminal ONLY (DO NOT connect battery cable to "BAT" terminal on the starter solenoid). This engages the solenoid but does not spin the starter. **CAUTION—DO NOT leave the solenoid engaged like this for more than 3 to 5 seconds at a time or the solenoid will overheat.** After releasing the solenoid, the pinion may stay engaged in the ring gear until the engine is started. This is normal for gear reduction starters and does NOT require shimming to correct.

Insert a wire gauge to check for proper clearance between the ring gear and starter pinion. There should be .020" to .035" clearance from the root of the starter pinion to the tip of the ring gear tooth (Figure B). Check clearance in at least three places on the ring gear. If the clearance is too small, add one shim at a time between the starter and the engine block to bring it into spec. In many installations no shims are necessary.

- **ATTACH BATTERY CABLE AND SWITCH WIRE**. The switch wire should be capable of handling 15A (typically 14AWG wire). The battery cable must be the proper size for the length of the cable (Figure C). All connections should be clean and tight, and terminals should be soldered if possible. The ground cable to the frame should be the same size as the starter cable, and a ground strap must be installed from the frame to the engine.

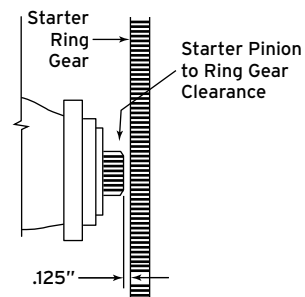


Figure A

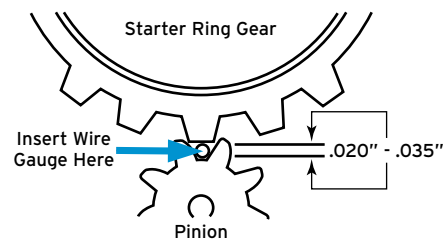
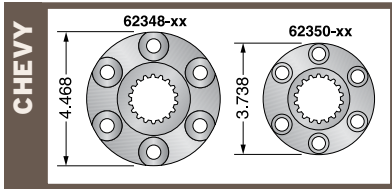


Figure B

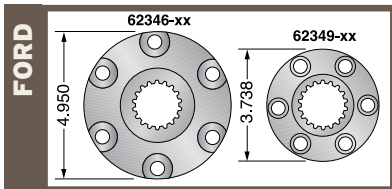
Distance	3'	5'	7'	10'	+10'
AWG	4	2	1	0	00

Figure C

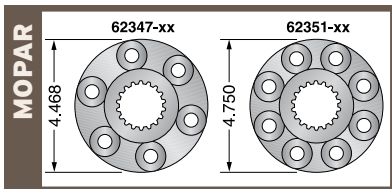
# CRANK COUPLERS & INPUT SHAFTS



P/N 62348-XX Big Block & Early Smallblock  
P/N 62350-XX Late Smallblock



P/N 62346-XX Big Block  
P/N 62349-XX Smallblock

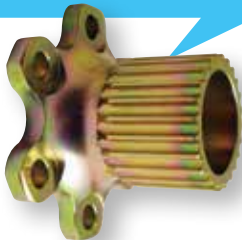


P/N 62347-XX 6-Bolt  
P/N 62351-XX 8-Bolt, Hemi

P/N	DESCRIPTION
62447	Chevy 10-Spline w/HTD Pulley, Steel
62446	Chevy 18-Spline w/HTD Pulley, Steel
62890	Chevy Late 18-Spline w/HTD Pulley, Steel
62348-18	Chevy SB & BB 18-Spline, Standard, Steel
62350-18	Chevy Late SB 18-Spline, Standard, Steel
62887	Ford 18-Spline w/HTD Pulley, Steel
62349-18	Ford SB 18-Spline, Standard, Steel
62888	Mopar 6-Bolt 18-Spline w/HTD Pulley, Steel
62889	Mopar 8-Bolt 18-Spline w/HTD Pulley, Steel
62347-18	Mopar 6-Bolt 18-Spline, Standard, Steel
62351-18	Mopar 8-Bolt 18-Spline, Standard, Steel

Add prefix 8251- to any crank coupler part number when substituting in bellhousing assemblies Example: 8251-62447 substitutes a 62887 Ford 18-spline w/HTD pulley crank coupler for the standard crank coupler.

## 18-SPLINE INPUT SHAFTS



See 10 and 18-Spline Couplers with HTD Above



See 18-Spline Coupler Options Above



P/N 62901 18/18-Spline Input Shaft



P/N 67696 18-Spline Input Shaft Retaining Ring



P/N 62406 18/18-Spline Input Shaft



P/N 62407 Collar

P/N 67639 Replacement Collar Snap Ring (not shown)

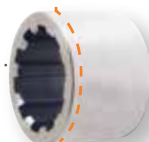
Can be trimmed on end opposite retaining ring recess



P/N 62705 Crankshaft Bore Spacer



See 10-Spline Coupler Options Above



P/N 64825 Splined Spacer



P/N 68317 18/10-Spline Input Shaft Retaining Ring



P/N 62409 18/10-Spline Input Shaft

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



# YOKES

## 1310-SERIES



P/N 62221  
1310-series 20° angle,  
27-spline, 1 1/16" bridge, 4 7/8" length  
Standard



6" Heat Treated Yoke P/N 62946-6  
1310-series 20° angle, 27-spline, 1 1/16" bridge  
Option 80119-6



7" Heat Treated Yoke P/N 62946-7  
1310-series 20° angle, 27-spline, 1 1/16" bridge  
Option 80119-7



8" Heat Treated Yoke P/N 62946-8  
1310-series 20° angle, 27-spline, 1 1/16" bridge  
Option 80119-8



9" Heat Treated Yoke P/N 62946-9  
1310-series 20° angle, 27-spline, 1 1/16" bridge  
Option 80119-9



P/N 65382 • 1310-series, caps with grease fittings  
1 1/16" Journal Assembly, 3 7/32" across bridge

P/N 66847 • 1310-series, HD caps without grease fittings  
1 1/16" Journal Assembly, 3 7/32" across bridge

P/N 66996 • 1310-Series 1 3/16" Journal Assembly  
3 5/8" across bearing caps

P/N 65855 (Torque 15 ft.-lbs.)  
1310-Series U-Bolt Assembly with nuts and lockwashers

P/N 66999 (Torque 15 ft.-lbs.)  
1350-Series U-Bolt Assembly with nuts and lockwashers



## 1350-SERIES



8 1/2" Heat Treated Yoke P/N 63830-1350  
1350-series 20° angle, 32-spline, 1 3/16" bridge

# REBUILD KITS

**Complete Kit (shown)** includes clutches, O-rings, gaskets, seals and bearings

**Basic Kit** includes clutches, O-rings, gaskets, and seals **but no bearings**



## BASIC REBUILD KIT *(without bearings)*

P/N 62822-2 Falcon Late Model • P/N 63476-2 Falcon Roller Slide

## COMPLETE REBUILD KIT *(includes bearings)*

P/N 62823-2 Falcon Late Model • P/N 63477-2 Falcon Roller Slide

# WINTERS MERCHANDISE



**FOR THE WIN T-SHIRT**  
P/N SR13



**LATE MODEL T-SHIRT**  
P/N SR14



**VINTAGE TRANSMISSION T-SHIRT**  
P/N SR10



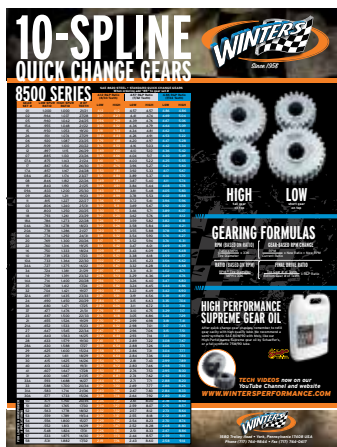
**TEAM COLORS HOODIE**  
P/N S1GY



**RACING DIVISION HOODIE**  
P/N S2BK



**CIRCLE TRACK DECAL**  
5" x 2 1/2"  
P/N WINTERS-DW



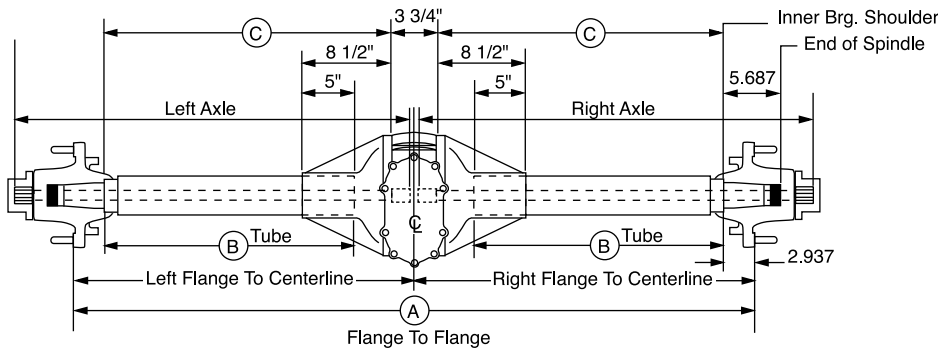
**10-SPLINE GEAR CHART**  
18" x 24" • Heavy-Duty w/Grommets  
P/N POSTER10



**SHOP BANNER**  
36" x 24" • Full-Color Vinyl Banner w/Grommets  
P/N BANNER1

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

# AXLE & TUBE DIMENSIONS



## AXLE LENGTH FORMULAS

**Aluminum Locker, Winters Track & Triple Track**  
 Right Axle =  $\frac{\text{Flange to Flange}}{2} + 3.6875'' + \text{Offset}$

Left Axle =  $\frac{\text{Flange to Flange}}{2} + 3.6875'' - \text{Offset}$

**Lightweight Aluminum Locker**  
 Right Axle =  $\frac{\text{Flange to Flange}}{2} + 4.9375'' + \text{Offset}$

Left Axle =  $\frac{\text{Flange to Flange}}{2} + 2.4375'' - \text{Offset}$

**Spool**  
 Right Axle =  $\frac{\text{Flange to Flange}}{2} + 3.1875'' + \text{Offset}$

Left Axle =  $\frac{\text{Flange to Flange}}{2} + 3.1875'' - \text{Offset}$

**Urethane Differential**  
 Right Axle =  $\frac{\text{Flange to Flange}}{2} + 4.1875'' + \text{Offset}$

Left Axle =  $\frac{\text{Flange to Flange}}{2} + 2.1875'' - \text{Offset}$

**Track Star**  
 Right Axle =  $\frac{\text{Flange to Flange}}{2} + 5.6875'' + \text{Offset}$

Left Axle =  $\frac{\text{Flange to Flange}}{2} + 1.6875'' - \text{Offset}$

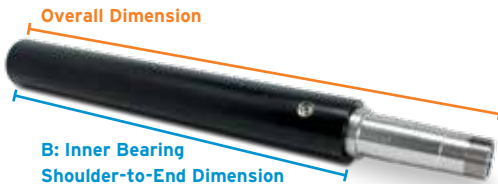
## POPULAR DIMENSIONS

Tubes and axles made to order. All dimensions available.

A	B	C	DOUBLE-SPLINED AXLE LENGTH (w/SPOOL)	TUBE END-TO-END LENGTH (FOR REFERENCE ONLY)
69-5/8	26.500	30.000	38	32.187
67-5/8	25.500	29.000	37	31.187
65-5/8	24.500	28.000	36	30.187
63-5/8	23.500	27.000	35-1/8	29.187
61-5/8	22.500	26.000	34-1/8	28.187
59-3/8	21.375	24.875	33	27.062
58-5/8	21.000	24.500	32-5/8	26.687
57-3/8	20.375	23.875	32	26.062
55-3/8	19.375	22.875	31	25.062
52-7/8	18.125	21.625	29-3/4	23.812
49-7/8	16.625	20.125	28-1/4	22.312

## STANDARD DIMENSIONS BY MANUFACTURER

CHASSIS MANUFACTURER	A	LEFT B (DRIVER'S)	OVERALL LEFT (DRIVER'S)	RIGHT B (PASSENGER'S)	OVERALL RIGHT (PASSENGER'S)
ROCKET	61-1/8 w/ 2-1/4 OFFSET	20	25-11/16	24-1/2	30-3/16
LONGHORN	62-1/8 w/ 1-3/4 OFFSET	21	26-11/16	24-1/2	30-3/16
MARS	62-1/8 w/ 1/4 OFFSET	22-1/2	28-3/16	23	28-11/16
BMF (HEDGECOCK)	61-1/2 w/ 2-1/16 OFFSET	20-3/8	26-1/16	24-1/2	30-3/16
KRYPTONITE	61-1/2 w/ 1-1/16 OFFSET	21-3/8	27-1/16	24-1/2	29-3/16



## QUICK CHANGE TORQUE SPECS

For 10" and 8" quick change rears

Ring Gear Bolts.....	60 ft.-lbs.
Pinion Retainer Bolts.....	25 ft.-lbs.
Seal Plate Bolts.....	25 ft.-lbs.
Yoke Bolt.....	40 ft.-lbs.
Tube and Bell Bolts.....	25 ft.-lbs.
Side Bell Thru-Bolts.....	35 ft.-lbs.
Gear Cover High Nuts.....	20 ft.-lbs.

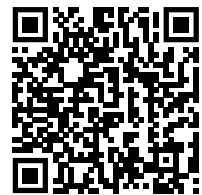
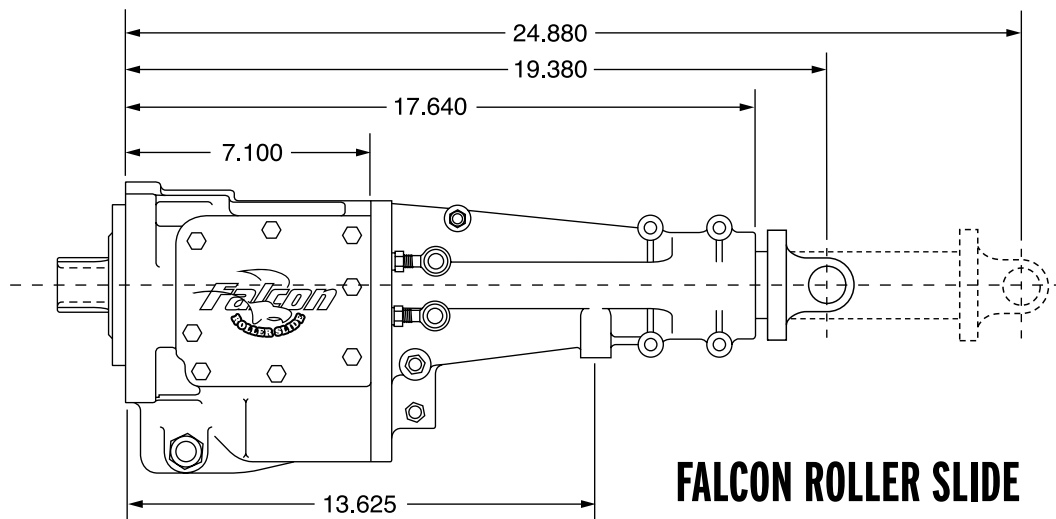
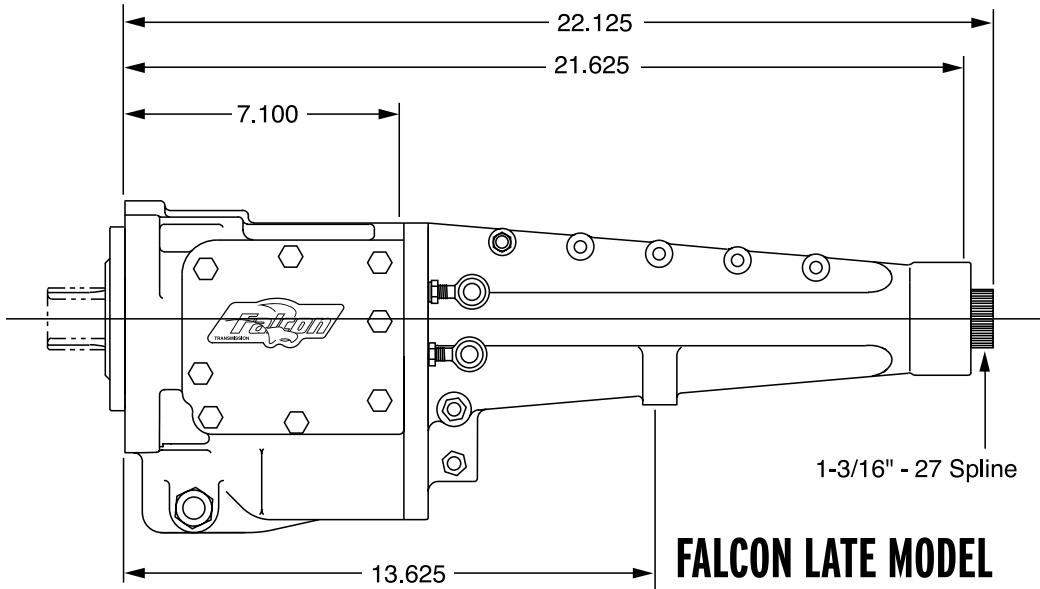
## FALCON TRANSMISSION TORQUE SPECS

For Late Model and Roller Slide transmissions

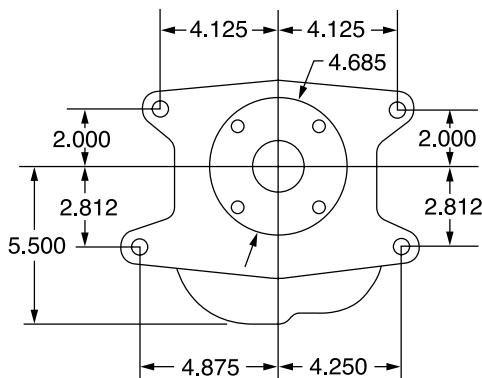
Side Plate.....	15 ft.-lbs.
Seal Plate.....	15 ft.-lbs.
Extension Housing to Case Bolts.....	35 ft.-lbs.
Yoke Bolt.....	65 ft.-lbs.
ARP® Yoke Bolt (Roller Slide).....	240 ft.-lbs.



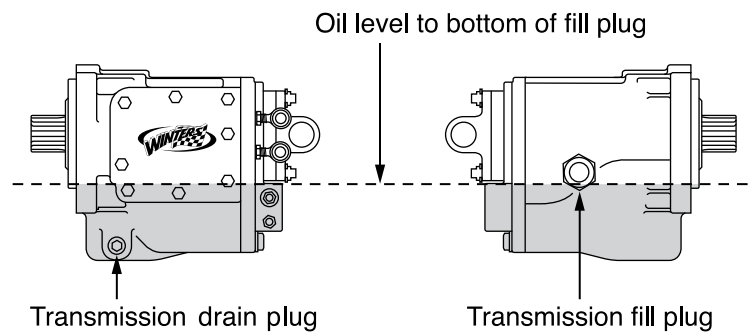
# FALCON DIMENSIONS



Scan QR code or click Video #31 on [wintersperformance.com](http://wintersperformance.com) to watch a video showing step-by-step assembly of a Falcon Roller Slide transmission



**FALCON (ALL)**



**FALCON (ALL) OIL LEVEL**

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

# 10-SPLINE QUICK CHANGE GEARS

## 8500 SERIES

SAE 8620 STEEL • STANDARD QUICK CHANGE GEARS  
When ordering add "85" to gear set # (example 8501)

GEAR SET #	LOW SPUR RATIO	HIGH SPUR RATIO	# OF TEETH	4.12 R&P Ratio (8/33 Teeth)		4.57 R&P Ratio (7/32 Teeth)		4.86 R&P Ratio (7/34 Teeth)	
				LOW	HIGH	LOW	HIGH	LOW	HIGH
01	1.000	1.000	21/21	4.12	4.12	4.57	4.57	4.86	4.86
02	.964	1.037	27/28	3.97	4.27	4.41	4.74	4.69	5.04
05	.960	1.042	24/25	3.96	4.29	4.39	4.76	4.67	5.06
15A	.955	1.048	21/22	3.93	4.32	4.36	4.79	4.64	5.09
15	.950	1.053	19/20	3.91	4.34	4.34	4.81	4.62	5.11
26	.931	1.074	27/29	3.84	4.43	4.26	4.91	4.53	5.22
06	.920	1.087	23/25	3.79	4.48	4.20	4.97	4.47	5.28
25	.909	1.100	20/22	3.75	4.53	4.16	5.03	4.42	5.34
12	.897	1.115	26/29	3.69	4.60	4.10	5.10	4.36	5.42
07	.885	1.130	23/26	3.65	4.66	4.04	5.17	4.30	5.49
07A	.875	1.143	21/24	3.61	4.71	4.00	5.22	4.25	5.55
17	.867	1.154	26/30	3.57	4.75	3.96	5.27	4.21	5.60
17A	.857	1.167	24/28	3.53	4.81	3.92	5.33	4.17	5.67
08A	.852	1.174	23/27	3.51	4.84	3.89	5.37	4.14	5.70
08	.846	1.182	22/26	3.49	4.87	3.87	5.40	4.11	5.74
19	.840	1.190	21/25	3.46	4.91	3.84	5.44	4.08	5.78
09A	.833	1.200	25/30	3.43	4.94	3.81	5.48	4.05	5.83
09	.826	1.211	19/23	3.40	4.99	3.78	5.53	4.02	5.88
11	.815	1.227	22/27	3.36	5.06	3.72	5.61	3.96	5.96
03	.806	1.240	25/31	3.32	5.11	3.69	5.67	3.92	6.02
13	.800	1.250	20/25	3.30	5.15	3.66	5.71	3.89	6.07
18	.793	1.261	23/29	3.27	5.20	3.62	5.76	3.85	6.12
18A	.786	1.273	22/28	3.24	5.24	3.59	5.82	3.82	6.18
04A	.783	1.278	18/23	3.22	5.26	3.58	5.84	3.80	6.21
20A	.778	1.286	21/27	3.20	5.30	3.55	5.88	3.78	6.25
04	.774	1.292	24/31	3.19	5.32	3.54	5.90	3.76	6.27
20	.769	1.300	20/26	3.17	5.36	3.52	5.94	3.74	6.31
22	.760	1.316	19/25	3.13	5.42	3.47	6.01	3.69	6.39
16	.750	1.333	18/24	3.09	5.49	3.43	6.09	3.65	6.48
10	.739	1.353	17/23	3.05	5.57	3.38	6.18	3.59	6.57
10A	.733	1.364	22/30	3.02	5.62	3.35	6.23	3.56	6.62
34A	.727	1.375	16/22	3.00	5.67	3.32	6.28	3.54	6.68
34	.724	1.381	21/29	2.97	5.69	3.31	6.31	3.52	6.71
14	.719	1.391	23/32	2.96	5.73	3.29	6.36	3.49	6.76
14A	.714	1.400	20/28	2.94	5.77	3.26	6.40	3.47	6.80
35	.708	1.412	17/24	2.92	5.82	3.24	6.45	3.44	6.86
32	.704	1.421	19/27	2.90	5.86	3.22	6.49	3.42	6.90
32A	.697	1.435	23/33	2.87	5.91	3.19	6.56	3.39	6.97
24	.690	1.450	20/29	2.84	5.97	3.15	6.63	3.35	7.04



## GEAR CHART POSTERS

This complete list of quick change gears is available in an 18" x 24" poster printed on grease-resistant, heavy-duty paper with grommets for easy hanging in your shop or rig  
**P/N POSTER10** (see page 33)

### STANDARD QUICK CHANGE GEARS (continued) When ordering add "85" to gear set #

GEAR SET #	LOW SPUR RATIO	HIGH SPUR RATIO	# OF TEETH	4.12 R&P Ratio (8/33 Teeth)		4.57 R&P Ratio (7/32 Teeth)		4.86 R&P Ratio (7/34 Teeth)		
				LOW	HIGH	LOW	HIGH	LOW	HIGH	
36	.680	1.471	17/25	2.80	6.06	3.11	6.72	3.31	7.14	
37	.677	1.476	21/31	2.79	6.08	3.10	6.75	3.29	7.17	
23	.667	1.500	22/33	2.75	6.18	3.05	6.86	3.24	7.29	
21	.655	1.526	19/29	2.70	6.29	2.99	6.98	3.18	7.41	
21A	.652	1.533	15/23	2.69	6.32	2.98	7.01	3.17	7.45	
27	.647	1.545	22/34	2.67	6.37	2.96	7.06	3.15	7.51	
43	.640	1.563	16/25	2.64	6.44	2.93	7.14	3.11	7.59	
28	.633	1.579	19/30	2.61	6.51	2.89	7.22	3.08	7.67	
28A	.630	1.588	17/27	2.59	6.54	2.88	7.26	3.06	7.71	
29	.625	1.600	15/24	2.58	6.59	2.86	7.31	3.04	7.77	
39	.621	1.611	18/29	2.56	6.64	2.84	7.36	3.02	7.83	
30	.615	1.625	16/26	2.54	6.70	2.81	7.43	2.99	7.89	
40	.613	1.632	19/31	2.53	6.72	2.80	7.46	2.98	7.93	
41	.607	1.647	17/28	2.50	6.81	2.76	7.53	2.95	8.00	
31	.600	1.667	21/35	2.47	6.87	2.74	7.62	2.92	8.10	
33A	.593	1.688	16/27	2.44	6.95	2.71	7.71	2.88	8.20	
33	.588	1.700	20/34	2.42	7.00	2.69	7.77	2.86	8.26	
31A	.583	1.714	21/36	2.40	7.06	2.67	7.83	2.84	8.33	
30A	.577	1.733	15/26	2.38	7.14	2.64	7.92	2.80	8.42	
FOR LIMITED HORSEPOWER APPLICATIONS	50	.571	1.750	20/35	2.35	7.21	2.61	8.00	2.78	8.50
	51	.567	1.765	17/30	2.34	7.27	2.59	8.07	2.75	8.57
	52	.563	1.778	18/32	2.32	7.32	2.57	8.12	2.73	8.64
	53	.559	1.789	19/34	2.30	7.37	2.55	8.18	2.72	8.69
	54	.556	1.800	15/27	2.29	7.42	2.54	8.23	2.70	8.74
	55	.552	1.813	16/29	2.27	7.47	2.52	8.28	2.68	8.80
	56	.548	1.824	17/31	2.26	7.51	2.51	8.33	2.67	8.86
	57	.533	1.875	16/30	2.20	7.73	2.44	8.57	2.59	9.11
	58	.531	1.882	17/32	2.19	7.76	2.43	8.60	2.58	9.14

**HIGH**  
tall gear  
on top



**LOW**  
short gear  
on top

## GEARING FORMULAS

### RPM (BASED ON RATIO)

$$\frac{\text{Ratio} \times \text{MPH}}{\text{Tire Diameter}} \times 336$$

### GEAR-BASED RPM CHANGE

$$\frac{\text{RPM}}{\text{Current Ratio}} \times \text{New Ratio} = \text{New RPM}$$

### RATIO (BASED ON RPM)

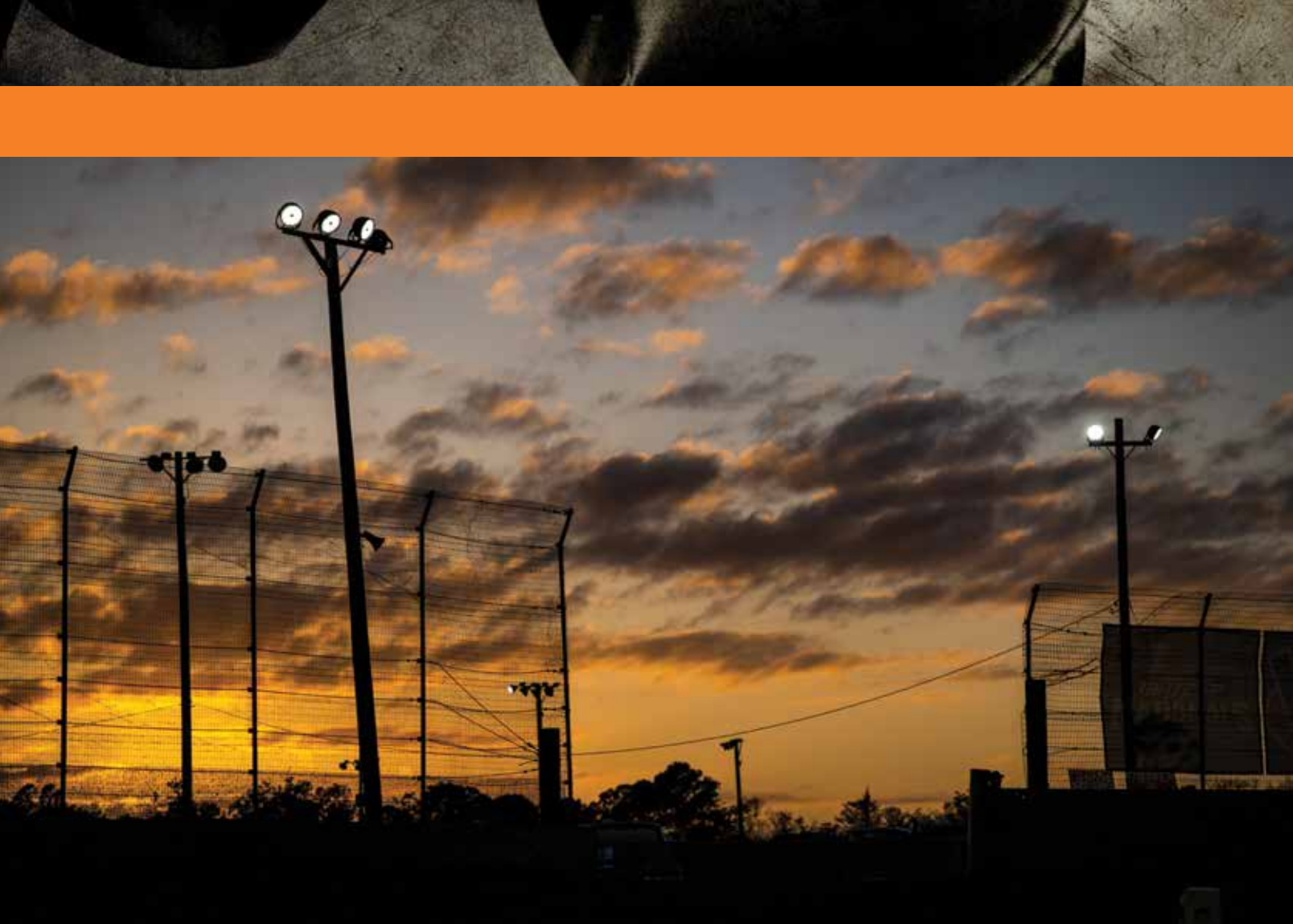
$$\frac{\text{RPM} \times \text{Tire Diameter}}{\text{MPH} \times 336}$$

### FINAL DRIVE RATIO

$$\frac{\text{Top Gear \# of Teeth}}{\text{Bottom Gear \# of Teeth}} \times \text{R\&P Ratio}$$

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





# ORDERS & RETURNS

## ORDER POLICY

- Please provide your customer number. If you are a new customer, one will be provided.
- Order by part number. Winters will not be responsible for incorrect orders placed by description only.
- Specify shipping instructions - otherwise use our discretion.
- Refused orders will have a \$25.00 handling charge and applicable freight charges billed to the customer's account.
- Special orders cannot be canceled after the order is in process.
- PLEASE NOTE: Part numbers are listed showing required quantity. If two or more quantities are listed, you must order two or more of that part number.

## RETURN POLICY

All returns must include a Return Authorization Number (RA#). Issuing of an RA# does not constitute a guarantee of credit or replacement. Credit, refund or replacement will only be issued after an inspection and determination at our discretion. No returns are accepted on special order merchandise, obsolete products, damaged, used or altered merchandise. Returns will not be accepted after six (6) months from date of purchase.

### ALL RETURNED MERCHANDISE MUST INCLUDE:

- RA# clearly written on outside of box/boxes
- Customer number, name & phone number
- Copy of invoice
- Written explanation of reason for return
- Specify Credit, Refund or Replacement
- Except for seller's error, returned merchandise is subject to a 15% restocking fee up to 90 days from date of purchase, and a 25% restocking fee from 91 days to 6 months.
- Returns must be freight pre-paid (except seller's error).
- Returned parts must be packaged properly to avoid damage in transit.
- SHIPPING DAMAGES MUST BE REPORTED IMMEDIATELY TO YOUR CARRIER.
- SHORTAGE CLAIMS MUST BE REPORTED IMMEDIATELY.
- SAVE YOUR PACKAGING.

# LIMITED WARRANTY

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

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

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

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

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

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

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

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1580 Trolley Road • York, Pennsylvania 17408 USA

Phone (717) 764-9844

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