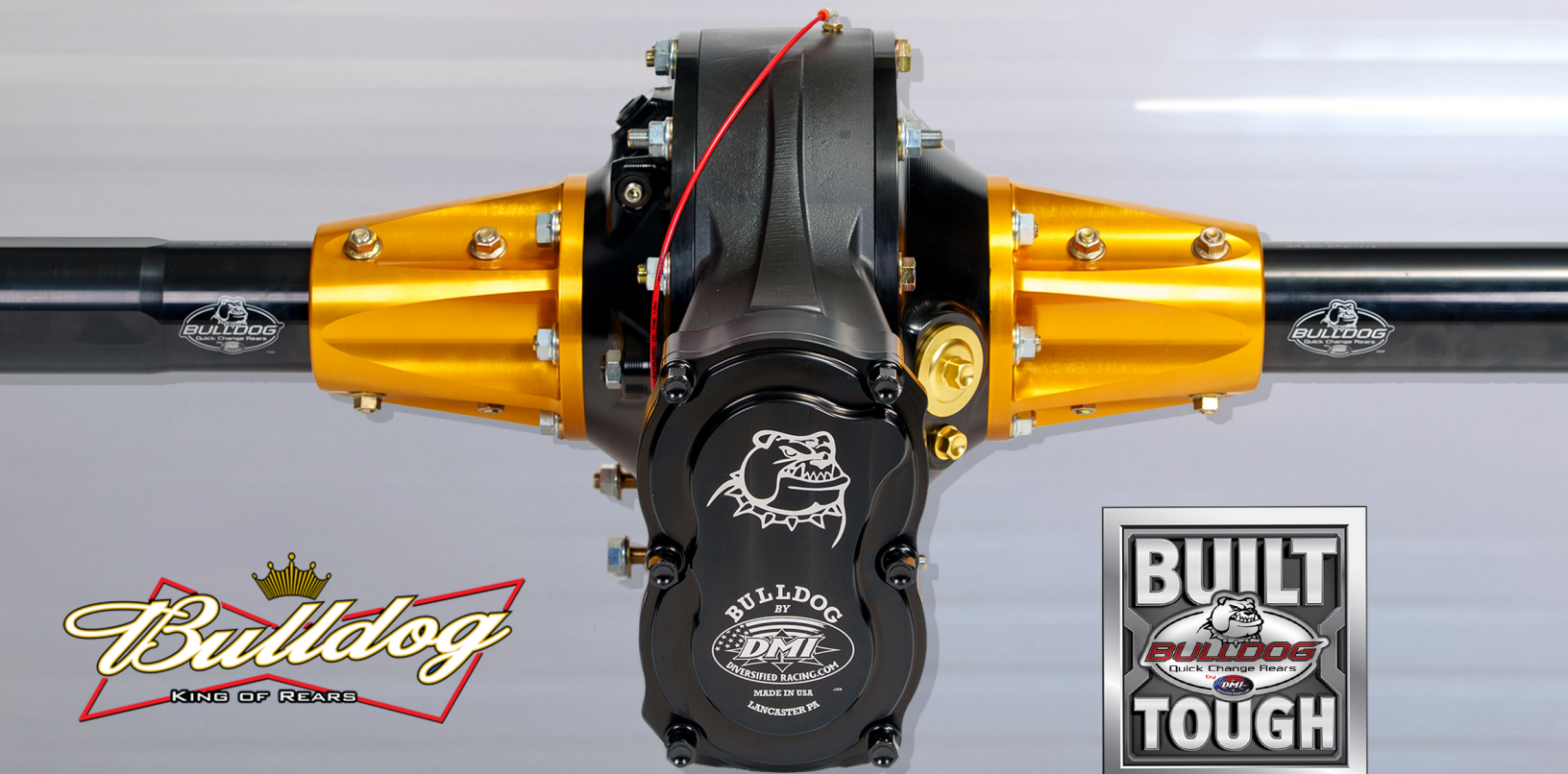




2026 PRODUCT SHOWCASE

NORTHEAST DIRT MODIFIED



THE KING OF REARS FOR THE BEASTS OF THE NORTHEAST
#1 CHOICE OF DIRT MOD RACERS AND
TEAMS BY AN OVERWHELMING MAJORITY



VISIT OUR WEBSITE



WHY CHOOSE



CT-2

CLOSED TUBE QUICK CHANGE



BULLDOG IS THE PROUD SUPPLIER TO THE LEADING
DIRT MODIFIED CHASSIS BUILDER IN NORTH AMERICA



CT-2 WITH EZ SERIES BELLS

CENTER

THE **BULLDOG CT-2** QUICK CHANGE IS THE NEWEST CLOSED TUBE REAR FROM **DMI**. USING THE LATEST COMPUTER AIDED SOFTWARE, THE REAR WAS DESIGNED TO BE STRONG AND LIGHTWEIGHT. THE HIGHEST QUALITY MAGNESIUM SAND CASTINGS OFFER A SUBSTANTIAL WEIGHT SAVINGS OVER THE COMPETITION WHILE MAINTAINING STRENGTH. THE SAND CAST PROCESS REMAINS THE CHOICE OF THE AEROSPACE INDUSTRY. ENGINE HOUSINGS, TURBINE BLADES, LANDING GEAR AND STRUCTURAL FRAMES RELY ON THE SAND CAST PROCESS FOR COMPLEX, RELIABLE AND HIGH STRENGTH COMPONENTS. THE PROCESS AND AZ91 MAGNESIUM IS THE PERFECT CHOICE TO PRODUCE THE **BULLDOG CT-2** CENTER SECTION.

BELLS

BULLDOG CT-2 UNITS ARE AVAILABLE WITH CONVENTIONAL 8 RIB MAGNESIUM SIDE BELLS OR FORGED ALUMINUM EZ BELLS. WHILE BOTH CONFIGURATIONS FEATURE **DMI**'S TRU-TUBE ALIGNMENT, THE EZ SERIES FEATURES UNMATCHED VERSATILITY AND TUBE REPLACEMENT. IN ADDITION, EZ BELLS ARE ALMOST 75% STRONGER THAN CONVENTIONAL BELLS. LESS FLEX = MORE TRACTION. HEAVY DUTY TUBE COLLARS REMAIN STRAIGHT AND TRUE IN THE HARDEST CRASHES. L9 HARDENED STUDS PROVIDE MAXIMUM EZ BELL TO SIDE BELL CLAMP. IN ADDITION, SPARE EZ TUBE ASSEMBLIES CAN BE OUTFITTED COMPLETE WITH HUBS, BRAKES AND BIRDCAGES. REPLACE A BENT TUBE ASSEMBLY IN UNDER 10 MINUTES AND GET BACK ON TRACK. NO NEED TO REMOVE TORQUE ARMS. NO NEED TO TAKE THE REAR OUT OF THE CAR. NO NEED TO DRAIN FLUID. WHETHER YOU'RE A PROFESSIONAL RACER OR A WEEKEND WARRIOR, THE **BULLDOG EZ CT-2** QUICK CHANGE REAR IS THE PROVEN CHOICE FOR PERFORMANCE, RELIABILITY AND THE WINNING EDGE.



CT-2 WITH
CONVENTIONAL 8 RIB BELLS



NEW FOR 2026



TAPERED SHIMS FOR EZ TUBE BELL TO SIDE BELL. WANT TO RUN CAMBER? HOW ABOUT MANIPULATE TOE? THE SECRET IS OUT! ONLY DMI EZ SERIES QUICK CHANGE REARS ALLOW YOU TO FINE TUNE YOUR TUBE ALIGNMENT FOR MAXIMUM LATERAL AND LONGITUDINAL TRACTION.

(1) TAPERED SHIM = APPROXIMATELY $\frac{1}{4}$ " TOE OR .33 DEGREES OF CAMBER

***IT IS HIGHLY RECOMMENDED TO UTILIZE STRANGE PERFORMANCE CAMBER DRIVE FLANGES WHEN USING THE TAPERED SHIMS.**



GIGANTORAPTOR LOWER SHAFT IS THE STRONGEST LOWER SHAFT EVER PRODUCED FOR THE BEASTS OF THE NORTHEAST. INCREASED O.D. MAKES THE SHAFT VIRTUALLY INDESTRUCTIBLE. WORRIED ABOUT FRONT YOKE BOLT FAILURE? NOT WITH THIS BEHOMETH. 1/2-20 THREADS BURIED DEEP IN THE SHAFT OFFERS A STRONG SOLUTION TO A HIGHLY STRESSED COMPONENT. UTILIZING AN L9 BOLT THIS YOKE ASSEMBLY IS READY FOR BIG SMOKE AND MAXIMUM TRACTION. STRANGE PERFORMANCE OFFERS 31 SPLINE 1310 AND 1350 YOKES TO FIT THE SHAFT.



IS PROUD TO ENDORSE THE USE OF **StrangeOval** DRIVELINE COMPONENTS INCLUDING DRIVE FLANGES AND BILLET YOKES.



SABERTOOTH POSI LOCK PINION NUT OFFERS ALMOST 3X'S THE TOOTH ENGAGEMENT OF OUR PREVIOUS POSI LOCK ASSEMBLY. INCREASED TRACTION HAS PLACED A GREATER DEMAND ON THE PINION NUT. THE NEW DESIGN ENSURES THE PINION REMAINS TIGHT AND PERFORMING AT MAXIMUM EFFICIENCY AND INCREASED RELIABILITY.



LOCK-ATOR TUBE WASHERS. TODAY'S DIRT MODIFIEDS PLACE A HEIGHTENED DEMAND ON THE TUBE TO BELL TORSIONAL STRESS. LOCK-ATOR CONTOURED WASHERS INSIDE THE TUBE ASSEMBLY ENSURES THE TUBE LOCKS IN AND BIRDCAGE TIMING REMAINS CONSTANT.

THE



QUADLOCK

SMART TUBE



ALUMINUM SMART TUBES WERE DESIGNED AND MANUFACTURED BY BERT ROBIDOUX OVER 20 YEARS AGO. THE TIME TESTED DESIGN REVOLUTIONIZED THE SPORT OF NORTHEAST DIRT MODIFIED RACING. PRIOR TO BERT'S INVENTION, RACERS WERE FORCED TO UTILIZE BULKY 8 BOLT TUBES WITH BOLT ON STEEL SPINDLES. ALUMINUM SPINDLE STYLE TUBES WOULD NOT WITHSTAND THE DEMANDS OF MODIFIED RACING. THE SNOOTS WERE TOO WEAK AND THAT WAS PRIOR TO THE SUSPENSIONS AND TECHNOLOGICAL ADVANCEMENTS OF TODAY'S DIRT MOD. BERT'S 73MM BEARING END ALLOWED FOR THE USE OF 7075-T6 ALUMINUM TUBING. AS AN ADDED BONUS THE SYSTEM UTILIZED A 2" SHORTER TUBE AND 3" SHORTER AXLE. THE END RESULT... GAME CHANGER!

THANK YOU

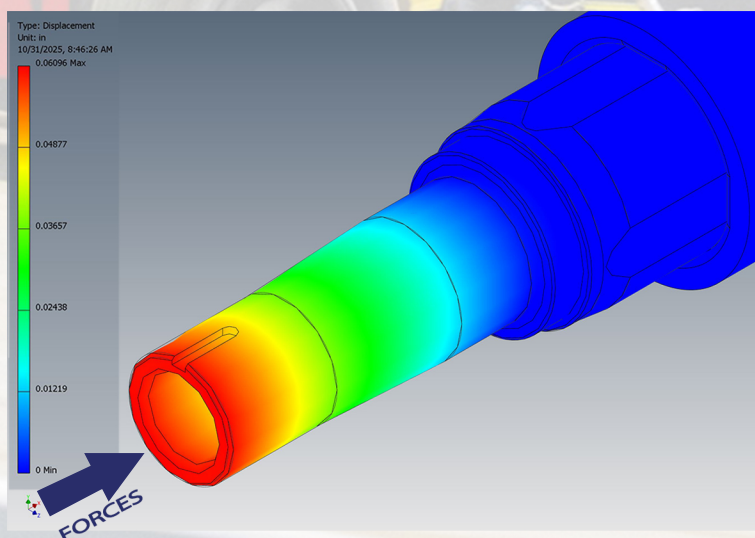


AS THE DEMANDS ON KEEPING BIRDCAGES LOCKED IN PLACE INCREASED, BICKNELL RACING PRODUCTS RESPONDED WITH THE BRP QUADLOCK. THE BRAINCHILD OF BOB SLACK, THE FOUR SIDED TUBE WHEN MATCHED TO THE MATING BIRDCAGE ELIMINATED SLIPPAGE AND MOVEMENT. IN A SHORT AMOUNT OF TIME, THE MAJORITY OF DIRT MODIFIEDS WERE TAKING THE GREEN FLAG WITH **BICKNELL QUADLOCK SMART TUBES** UNDER THEIR CARS. OVER THE LAST 15 YEARS **NO TUBE HAS BEEN TESTED MORE. AND NO TUBE HAS PERFORMED BETTER.** SMART TUBES GOT SMARTER!

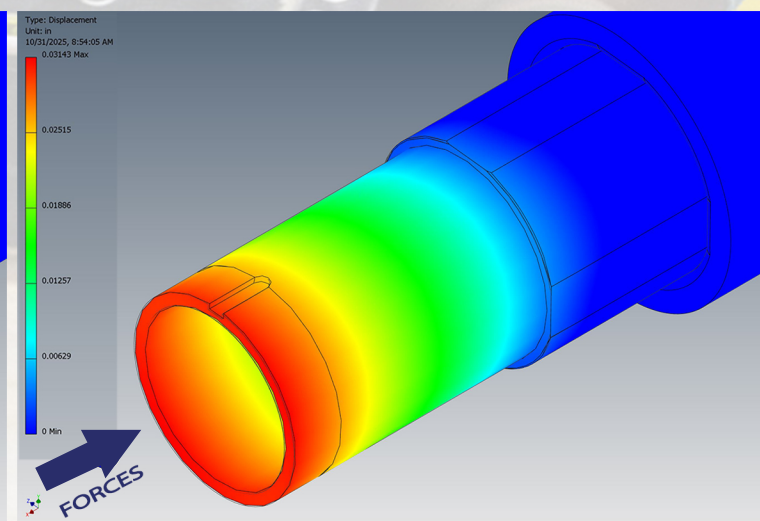


IS PROUD TO OFFER AUTHENTIC BICKNELL RACING PRODUCTS
QUADLOCK SMART TUBES PRODUCED IN BRP'S ONTARIO MANUFACTURING FACILITY.

TEST 1 SNOUT DISPLACEMENT & DEFLECTION



4 SIDED 1 TON TUBE



DMI/BICKNELL QUADLOCK SMART TUBE

THE TEST SHOWS THE DMI/QUADLOCK SMART TUBE IS TWICE AS STRONG IN THE SNOOT AREA OFFERING HALF (.0314") THE DISPLACEMENT OF THE 1 TON TUBE (.0610")



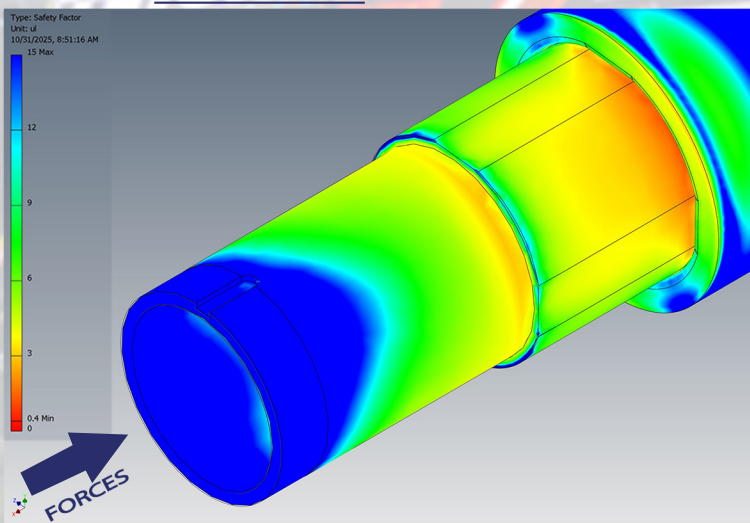
THIS IS NOT A SMART TUBE

(THERE'S ACTUALLY NOTHING SMART ABOUT IT)

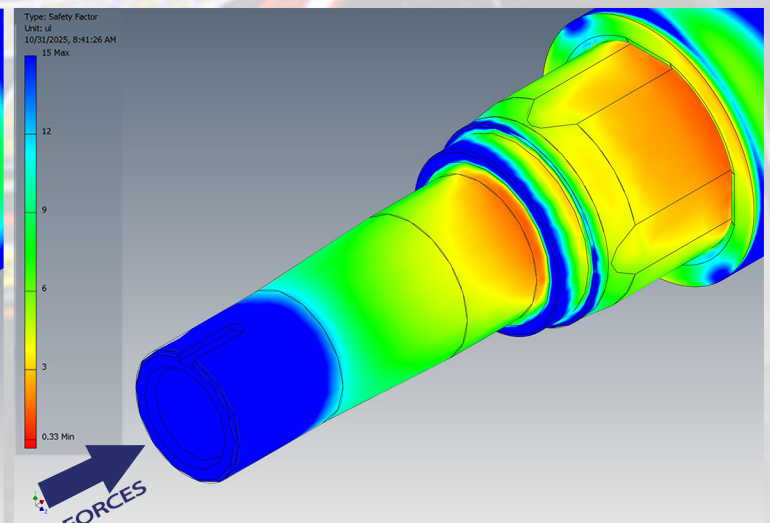
IF YOU READ ABOUT THE HISTORY OF SMART TUBES ON THE PREVIOUS PAGE, YOU'LL REMEMBER WE MENTIONED THE INABILITY OF ALUMINUM WIDE 5 SPINDLE STYLE TUBES TO WITHSTAND THE HARSH DEMANDS OF NORTHEAST DIRT MODS. IT WAS TRIED BEFORE, AND IT JUST DIDN'T WORK. THE SNOOT AREA WAS TOO WEAK. IN ADDITION, BECAUSE THE SNOOT IS SO MUCH SMALLER THAN THE TUBE DIAMETER, IT IS REQUIRED TO GUN DRILL THE CENTER HOLES. THE I.D. STEP THAT OCCURS ALSO CREATES A WEAK SPOT AND FRACTURE POINT FROM THE INSIDE OF THE TUBE. OVER THE YEARS, THE COMMON $\frac{3}{4}$ TON WIDE 5 TUBE EVOLVED AND A 1 TON VERSION WAS OFFERED FEATURING A SLIGHTLY LARGER SNOOT. THE 1 TON SNOOT, WHILE LARGER IS STILL SUBSTANTIALLY SMALLER IN SIZE COMPARED TO A SMART TUBE SNOOT. **DUE TO THE NEGATIVES ASSOCIATED WITH THE DESIGN, DMI DOES NOT OFFER A 4 SIDED, 1 TON TUBE.** SURPRISINGLY HOWEVER, THERE ARE 4 SIDED, 1 TON SPINDLE STYLE TUBES AVAILABLE FROM OTHER COMPANIES FOR THE DIRT MODIFIED MARKET. WE THOUGHT WE WOULD SHARE THE RESULTS OF SOME RECENT TESTING WE COMPLETED COMPARING THE 4 SIDED, 1 TON TUBE TO THE BENCHMARK OF DIRT MODIFIED TUBES, THE DMI/BICKNELL QUADLOCK SMART TUBE. FOR BOTH TESTS WE PLACED A SLEEVE OVER THE 4 SIDED AREA OF THE RESPECTIVE TUBE AND USED IT AS A FIXED POINT TO SIMULATE THE FORWARD LOCATING ROD FROM THE BIRDCAGE TO THE CHASSIS. WE EXERTED FORCES AT AN ANGLE FROM THE GROUND REPRESENTING THE FORCES SEEN BY THE WHEEL, HUB AND TUBE SNOOT AREA DURING RACING CONDITIONS. IN ADDITION TO THE DATA NUMBERS, IT IS IMPORTANT TO PAY CLOSE ATTENTION TO THE COLORS AND THEIR TRANSITIONS. THE PREVIOUS PAGE SHOWS THE TEST RESULTS MEASURING DISPLACEMENT AND DEFLECTION. THE SAFETY FACTOR AND POINTS OF FAILURE TESTS CAN BE FOUND BELOW.



TEST 2 SAFETY FACTOR & POINTS OF FAILURE



DMI/BICKNELL QUADLOCK SMART TUBE



4 SIDED 1 TON TUBE

THE TEST SHOWS THE DMI QUADLOCK SMART TUBE TRANSITIONS THE LOADS AND STRESSES SMOOTHLY AND EVENLY. THE 1 TON TUBE SHOWS AREAS OF CONCERN INDICATED BY THE RED AREAS. THOSE AREAS SHOW AN INCREASE LIKELIHOOD OF FAILURE. DUE TO THE DIAMETER TRANSITIONS ON THE O.D. AND I.D. OF THE TUBE THE 1 TON VERSION SHOWS "HOT SPOTS." THE SMOOTH BORE OF THE SMART TUBE TUBING HELPS WITH ITS SUPERIOR STRENGTH.

HOLLOW AXLES & QUICK CHANGE GEARS

HOLLOW AXLES



32.5" AXLE = 7.4 LBS.

DMI HOLLOW AXLES ARE PRODUCED FROM MADE IN THE USA 4340 THAT IS MILLED AND HEAT TREATED TO OUR EXACT SPECIFICATIONS. ALL AXLES ARE TURNED TO THE CORRECT DIMENSIONS FOR OPTIMUM TRACTION AND RELIABILITY. TRUST DMI AXLES FOR THE BEST IN RELIABILITY AND PERFORMANCE.



ULTRALIGHT

32.5" AXLE = 6.4 LBS.

DMI HOLLOW ULTRALIGHT AXLES ARE DESIGNED EXCLUSIVELY FOR THE CRATE ENGINE MARKET. USING THE SAME MADE IN THE USA 4340 AS OUR STANDARD HOLLOW AXLES, THE ULTRALIGHT AXLES FEATURE A WEIGHT REDUCING SMALLER O.D. GET THAT CRATE TO JUMP OFF THE CORNER.



FRICITION FIGHTER QUICK CHANGE GEARS

SIMPLY STATED FRICITION FIGHTER 10 SPLINE QUICK CHANGE GEARS ARE THE STRONGEST, LIGHTEST, HIGHEST QUALITY GEARS AVAILABLE. 9310 HIGH STRENGTH STEEL, STONE GROUND, REM® FINISHED, AND FEATURE A REDUCED 1" GEAR MESH AREA ELIMINATING FRICTION.

#20 GEAR SET WEIGHS 4.23 LBS.



FRICITION FIGHTER SPORTSMAN SERIES QUICK CHANGE GEARS

FRICITION FIGHTER SPORTSMAN SERIES 10 SPLINE QUICK CHANGE GEARS ARE PRODUCED FROM HIGH STRENGTH 9310 ALLOY STEEL AND PRECISION HOBBED. THE GEARS ARE LIGHTENED AND REM® FINISHED. THERE ISN'T A NICER GEAR SET AVAILABLE FOR THE MONEY.

#20 GEAR SET WEIGHS 4.74 LBS.



THE PROFESSIONAL GEAR DRAIN PAN

GEAR CHART

10 SPLINE QUICK CHANGE GEAR CHART

Gear Set	Number of Teeth	4.12 RHP (8-32 Teeth)	4.86 RHP (17-34 Teeth)
1	20/10	4.12/4.12	4.86/4.86
2	20/12	3.43/3.43	4.05/4.05
3	20/14	2.94/2.94	3.47/3.47
4	20/16	2.58/2.58	3.04/3.04
5	20/18	2.29/2.29	2.71/2.71
6	20/20	2.06/2.06	2.43/2.43
7	20/22	1.85/1.85	2.18/2.18
8	20/24	1.67/1.67	1.96/1.96
9	20/26	1.51/1.51	1.77/1.77
10	20/28	1.37/1.37	1.61/1.61
11	20/30	1.25/1.25	1.47/1.47
12	20/32	1.14/1.14	1.35/1.35
13	20/34	1.05/1.05	1.24/1.24
14	20/36	0.97/0.97	1.15/1.15
15	20/38	0.90/0.90	1.07/1.07
16	20/40	0.84/0.84	1.00/1.00
17	20/42	0.78/0.78	0.94/0.94
18	20/44	0.73/0.73	0.88/0.88
19	20/46	0.68/0.68	0.83/0.83
20	20/48	0.64/0.64	0.78/0.78
21	20/50	0.60/0.60	0.74/0.74
22	20/52	0.57/0.57	0.70/0.70
23	20/54	0.54/0.54	0.66/0.66
24	20/56	0.51/0.51	0.63/0.63
25	20/58	0.48/0.48	0.60/0.60
26	20/60	0.46/0.46	0.57/0.57
27	20/62	0.44/0.44	0.54/0.54
28	20/64	0.42/0.42	0.51/0.51
29	20/66	0.40/0.40	0.49/0.49
30	20/68	0.38/0.38	0.46/0.46
31	20/70	0.36/0.36	0.44/0.44
32	20/72	0.35/0.35	0.42/0.42
33	20/74	0.33/0.33	0.40/0.40
34	20/76	0.32/0.32	0.38/0.38
35	20/78	0.31/0.31	0.36/0.36
36	20/80	0.30/0.30	0.35/0.35
37	20/82	0.29/0.29	0.33/0.33
38	20/84	0.28/0.28	0.32/0.32
39	20/86	0.27/0.27	0.31/0.31
40	20/88	0.26/0.26	0.30/0.30
41	20/90	0.25/0.25	0.29/0.29
42	20/92	0.24/0.24	0.28/0.28
43	20/94	0.23/0.23	0.27/0.27
44	20/96	0.22/0.22	0.26/0.26
45	20/98	0.21/0.21	0.25/0.25
46	20/100	0.20/0.20	0.24/0.24

TO DETERMINE FINAL DRIVE

(# TOP TEETH) / (# BOTTOM TEETH) X RP RATIO = FINAL DRIVE

TO DETERMINE RPM CHANGE

(CURRENT RPM) / (GEAR RATIO) X (NEW GEAR RATIO) = NEW RPM

EXAMPLE: 8200 / 5.42 X 5.56 = 8400



**RACING WITH A PURPOSE
REQUIRES PURPOSE-BUILT
COMPONENTS AND LUBRICANTS**

OUR **75-90 GEAR OIL** OFFERS UNMATCHED PROTECTION, LOWERING OPERATING TEMPERATURE, REDUCING BLOW BY AND INCREASING GEAR LIFE. THE OIL WITHSTANDS THE INCREASED TRACTION DEVELOPED BY THE LATEST TECHNOLOGY IN DIRT MODIFIEDS.

THE **657 MULTIPURPOSE GREASE** WITHSTANDS TEMPERATURES UP TO 657°F. THE ABILITY TO HANDLE HIGH TEMPERATURES, HIGH RESISTANCE TO WATER WASHOUT AND EXCELLENT ADHESION MAKE IT A GREAT CHOICE FOR TORSION BARS, HUB BEARINGS, ETC.

THE **777 EXTREME PRESSURE SPLINE GREASE** IS THE BEST CHOICE FOR DRIVESHAFT SPLINES. WITHSTANDING TEMPERATURES UP TO 777°F, THE GREASE FORMS A CERAMIC FILM ON THE COMPONENTS PROTECTING AGAINST HIGH SHOCK LOADS AND EXTREME PRESSURES COMMONLY SEEN IN DRIVELINE APPLICATIONS.



IMPORTANT INFORMATION
OIL

THE PROPER OIL LEVEL VARIES FOR DIFFERENT MODEL REARS. BELOW ARE APPROXIMATE CAPACITIES.

EZ SERIES- 2-2.5 QTS CT-1, CT-2 & SS-1- 3-3.5 QTS

THE FILL LEVEL PLUG IS LOCATED ON THE RIGHT SIDE BELL BELOW THE LARGE INSPECTION PLUG. REMOVE FILL LEVEL PLUG AND FILL THE UNIT UNTIL OIL RUNS OUT OF FILL LEVEL HOLE. RE-INSTALL FILL LEVEL PLUG AND ADD AN ADDITIONAL 4-6 OZ OF FLUID. THE REAR GEAR AREA DOES NOT REQUIRE FILLING.

TORQUE SPECS

SIDE BELL NUTS - 35 FT/LBS

3/8-24 FRONT YOKE BOLT - 35 FT/LBS W/ BLUE THREADLOCKER

1/2-20 FRONT YOKE BOLT - 90FT/LBS W/ BLUE THREADLOCKER

FRONT SEAL PLATE BOLTS - 35 FT/LBS

PINION RETAINER BOLTS - 35 FT/LBS

THREADED RING GEAR - 60 FT/LBS W/ RED THREADLOCKER

NEVER RE-USE RING GEAR BOLTS

VISION STATEMENT

AT DMI OUR VISION IS TO CREATE A RELATIONSHIP WITH OUR CUSTOMERS WHERE THEY KNOW NOT ONLY ARE THEY A VALUED CUSTOMER BUT ALSO A PART OF THE DMI FAMILY. WE WANT THE CUSTOMER TO KNOW THAT THEIR SUCCESSES ARE OUR SUCCESSES. WE WILL DO EVERYTHING WE CAN TO PROVE TO THE CUSTOMER THAT THEY MADE THE RIGHT CHOICE ENTRUSTING DMI WITH THEIR SAFETY, PROVIDING THEM A FAIR VALUE AND OFFERING THE HIGHEST PERFORMING COMPONENTS AVAILABLE IN MOTORSPORTS TODAY, TOMORROW AND IN THE FUTURE.

DIVERSIFIED MACHINE INC.

430 N. FRANKLIN STREET
LANCASTER, PA 17602 USA
PH: (717) 397-5347 FAX: (717) 397-7470
DIVERSIFIEDRACING.COM
EMAIL: INFO@DIVERSIFIEDRACING.COM



OWNERS, DAVE & JENNIFER ELY

NOTES



thank you

TO THE BEST CUSTOMERS IN
THE SPORT FOR BELIEVING IN
OUR PRODUCTS, TRUSTING US
WITH YOUR SUCCESS AND
A GREAT 25 YEARS.

Dave Ely