TECHNICAL INFORMATION

UNIVERSAL JOINT DIMENSIONS

TYPE	DIMENSION "	DIMENSION mm
1310	1.062" x 3.225"	Ø26.97mm x 81.91mm
1330	1.062" x 3.625"	Ø26.97mm x 92.07mm
3R	1.125" x 3.625"	Ø28.57mm x 92.07mm
1350	1.185" x 3.625"	Ø30.01mm x 92.07mm

AXLE TORQUE CAPACITIES FLANGED AXLES

PART #	DESCRIPTION	MAX. TORQUE
A9-23S-AXLE	23 SPLINE ALLOY AXLE	2875 FT-LB
A9-25S-AXLE	25 SPLINE ALLOY AXLE	3750 FT-LB
A9-26S-AXLE	26 SPLINE ALLOY AXLE	4050 FT-LB
A9-28S-AXLE	28 SPLINE ALLOY AXLE	4800 FT-LB
A9-29S-AXLE	29 SPLINE ALLOY AXLE	5200 FT-LB

PART #	DESCRIPTION	MAX. TORQUE
A9-30S-AXLE	30 SPLINE ALLOY AXLE	6000 FT-LB
A9-31S-AXLE	31 SPLINE ALLOY AXLE	7000 FT-LB
A9-33L-AXLE	33 SPLINE ALLOY AXLE	8200 FT-LB
A9-35L-AXLE	35 SPLINE ALLOY AXLE	9600 FT-LB
A9-40XL-AXLE	40 SPLINE ALLOY AXLE	12000 FT-LB

AXLE TORQUE CAPACITIES FLOATER AXLES

PART #	DESCRIPTION	MAX. TORQUE
A9-31FL-AXLE	31 SPLINE ALLOY AXLE	5500 FT-LB
A9-35FL-AXLE	35 SPLINE ALLOY AXLE	7000 FT-LB

AXLE TORQUE FORMULAE

MAX TORQUE OF YOUR CAR (FT-LB) x GEARBOX 1st GEAR RATIO x DIFF RATIO x 90% EFFICIENCY = TOTAL AXLE TORQUE

Each axle should be able to handle all the maximun torque of your car this will create a 200% safety factor

AXLE SPECIFICATIONS

The first consideration in creating a high quality axle shaft is the raw material. There are a number of choices in axle shaft steel and many serve well enough for average applications. A9 axles, however are designed and built with steel intended for true heavy duty applications.

OEM axles use 1040 & 1050 steel to produce axle shafts. 1040 steel is less than optimal when it comes to strength and overall quality. 1050 steel has a considerably higher carbon content than 1040 steel, which makes it approximately 18% stronger than 1040 axle shafts.

For most high performance applications, 1541H is the preferred steel. 1541H contains significantly more maganese than 1040 & 1050 steels. This extra manganese increases strength and aids the deep heat treatment process. Deeper heat treating and greater strength are only two of the reasons 1541H is used for high performance and custom axle shafts. This steel when heat treated correctly also delivers durabilty. 1541H steel is approximately 20% stronger than 1040 steel used in OEM axle shafts.

For extreme high performance use where torque load ability is important and bending stresses are limited, 4140 chrome moly steel works well. 4140 provides approximately 28% more strength than 1040 steel. This translates into huge gains in twisting strength, assuming bending will not be an issue.

Hardness is perhaps the most important property affecting material strength. Hardness is related to a materials resistance to deformation or penetration. A well made axle shaft with the right alloy and the proper hardness is less likely to wear, bend, twist, break or deteriorate as a result of the pressures and forces it sustains. The hardness of quality axle shafts is achieved by controlling several processes, using the right alloys, tempering, normalizing and proper heat treating. All are necessary in order to produce strength.

A9 axle shafts are 100% U.S.A made. Stud patterns, lengths and splines are machined in Australia.