



"Front" Axle Ordering Defined

1250 E. Piper Ct. Meridian, Idaho 83642

Phone: 503.257.6604 Fax 503.253.6564

Front End Type:

Inner shafts: This is the make and model of the front end you are working on.

Example: Dana 44, Dana 60, or Ford 9"-high pinion.

Outer shafts: This is the make of the spindle.

Example: Ford, GM, Jeep / Dodge / Chrysler or aftermarket (like Dynatrac)

Hybrid Custom Front End:

This section is only filled out if you are building a custom front end using the center from one housing and the knuckles from another.

Example: A Ford 9" or 14 bolt center & Dana 60 or aftermarket knuckles (like Dynatrac).

NOTE: Although the factory splines of a 9" and a Dana 60 center may fit the same, the seal positions are very different and so it is critical to let us know exactly what you are using.

S: Spline Count, Diameter and Carrier

This is the number of splines the axle has. Either count them or measure the diameter of the splines with a dial caliper. Use the reference chart of some common spline and seal combinations.

Also, list the type or manufacturer of the differential or spool. (Not all splines fit the same)

Example: Detroit locker, ARB locker, Strange or Mark Williams spool.

Make/Model	Splines	Spline Dia.	Seal Dia.	Seal Surface
Dana 30	27	1.167	1.185	About 3.5"
Dana 35	27	1.167	1.315	About 4.5"
GM Corporate	28	1.205	1.315	About 4.5"
Dana 44	30	1.290	1.315	About 3.5"
GM 14B [Hybrid]	30	1.530	1.562	Must measure
Dana 50	30	1.290	1.562	About 4"
Ford 9" [Hybrid]	31	1.325	1.325	Must measure
Dana 60	35	1.500	1.562	About 4"

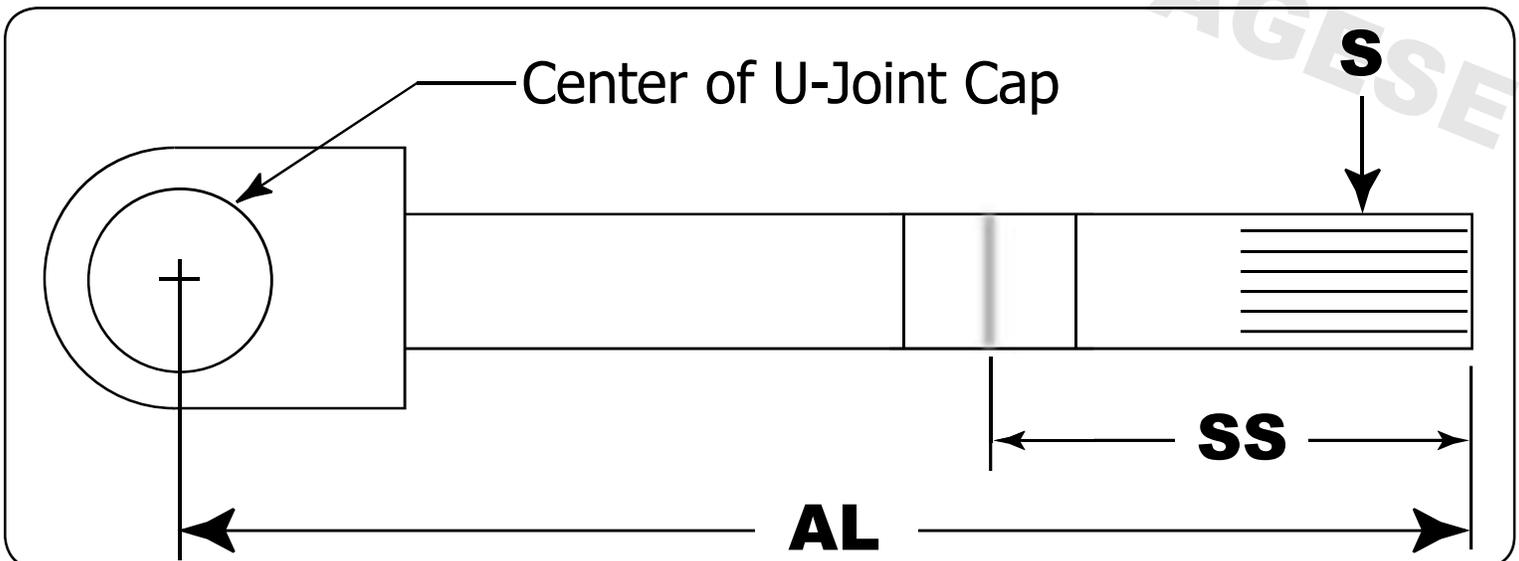
SS: Seal Surface / Seal Diameter

This section is only filled out if you are building a custom or hybrid front end or rear steer housing. Use the reference chart of some common spline and seal combinations.

Most factory Dana seal diameters and positions are known but in the world of aftermarket housings and hybrid front ends, we have found that it is important to double check these dimensions to make sure that we are custom making the shafts correctly.

This should be measured from the end of the shaft to the witness mark on the shaft where the seal was running. If you don't have a shaft to measure, you will have to confirm the seal position from your housing by measuring the distance between the edge of the seal and the inside of the spider gear.

NOTE: In some cases the seal position will need to be different for the left hand and the right hand inner axle shafts.





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AL: Center of the U-Joint Cap to the End of the Splines

Front axles should be measured with a tape measure from the U-Joint center to the end of the splines. Dana 44 U-Joint caps measure 1 3/16" diameter & Dana 60 measures 1 3/8". The center point of the cap/bore is half of the diameter.

Half of 1 3/16" = .593 or a little less than 5/8" | Half of 1 3/8" = .687 or 11/16"

Alternate Measuring:

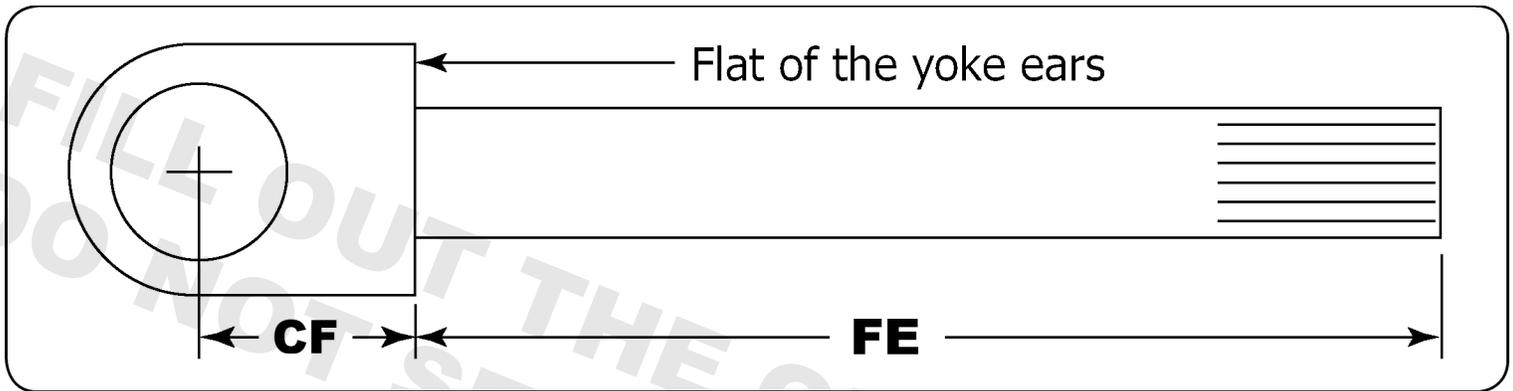
IF you don't know your front axle lengths, another way to provide them is with a tape measure from the end of the spider gear in the differential, out to the end of the face of the knuckle or C.

This measurement is known as the "Flat to End" (FE) and can be converted to the "U-Joint center to end of splines" (AL) by adding one of the following "Center of U-Joint to Flat" (CF) measurements.

Dana 44 axles = 2" | Warn Dana 44 axles = 1 7/8" | Dana 60 axles = 2 1/2"

Example: You're ordering Dana 60 inner shafts and your tube end to end of spline is 25 1/4"

$$25 \frac{1}{4} + 2 \frac{1}{2} = 27 \frac{3}{4} \text{ [FE + CF = AL]}$$



U-Joint Tech

We make replacement and custom front shafts that utilize industry standard size U-Joints for most open knuckle style front ends. Our shafts will NOT work with closed knuckle front ends.

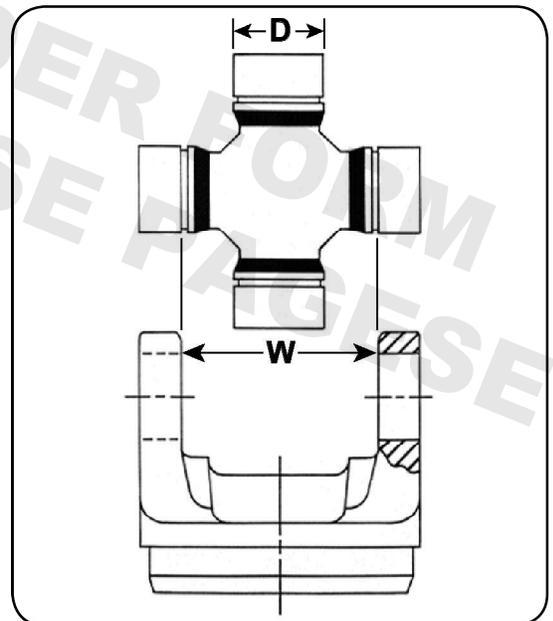
NOTE: We recommend using a super duty joint like CTM with your new chromoly shafts. If you insist on using Spicer joints, you should use the solid body, non greasable joints.

The following chart lists the U-Joint series as well as the dimensions of the two axle yoke sizes we manufacture.

"W" = The inside width between the yoke ears

"D" = The U-Joint cap diameter

Make/Model	Series	"W"	"D"
Dana 30, 35, 44	1310	2 3/16"	1 3/16" [1.187]
GM Corporate	1310	2 3/16"	1 3/16" [1.187]
Dana 50 & 60	1480	3"	1 3/8" [1.375]



Birfield Tech: The alternative to U-Joints

Birfield type front shafts have been designed as direct replacements for the U-Joints in your solid front axle and have been tested to be twice as strong as OEM. They are just as strong at low angles as they are at high angles when U-Joints are weakest; The design eliminates U-Joint binding to allow smooth power transfer and eradicate steering wheel shimmy. If you're running big tires with big power and are having trouble keeping joints from popp'in on you...this is the answer you've been looking for in your Dana 30, 44, 60 GM and AAM applications.