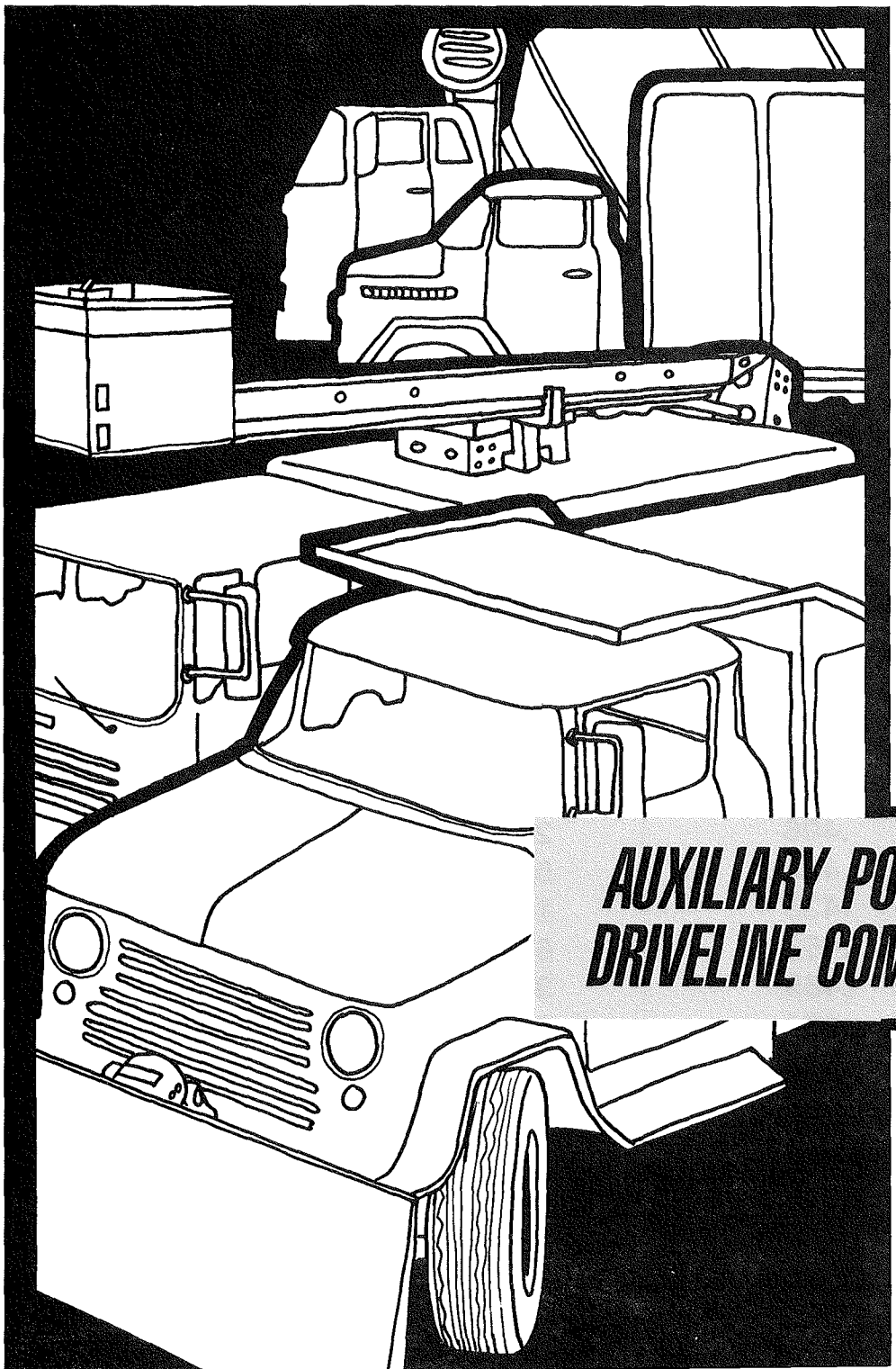
SPICER®

Weatherly Index 090

U330

Auxiliary Power
Driveline Components
August 1988

Supersedes U330
Catalog dated 5-77



AUXILIARY POWER DRIVELINE COMPONENTS

SPICER®

DANA

FRACTIONS AND DECIMAL EQUIVALENTS

Fractions	Decimals	Fractions	Decimals
1/64	.016	33/64	.516
1/32	.031	17/32	.531
3/64	.047	35/64	.547
1/16	.062	9/16	.562
5/64	.078	37/64	.578
3/32	.094	19/32	.594
7/64	.109	39/64	.609
1/8	.125	5/8	.625
9/64	.141	41/64	.641
5/32	.156	21/32	.656
11/64	.172	43/64	.672
3/16	.188	11/16	.688
13/64	.203	45/64	.703
7/32	.219	23/32	.719
15/64	.234	47/64	.734
1/4	.250	3/4	.750
17/64	.266	49/64	.766
9/32	.281	25/32	.781
19/64	.297	51/64	.797
5/16	.312	13/16	.812
21/64	.328	53/64	.828
11/32	.344	27/32	.844
23/64	.359	55/64	.859
3/8	.375	7/8	.875
25/64	.391	57/64	.891
13/32	.406	29/32	.906
27/64	.422	59/64	.922
7/16	.438	15/16	.938
29/64	.453	61/64	.953
15/32	.469	31/32	.969
31/64	.484	63/64	.984
1/2	.500	1	1.000

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SAFETY PRECAUTIONS

WARNING

Rotating shafts can be dangerous. You can snag clothes, skin, hair, hands, etc. This can cause serious injury or death.

Do not go under the vehicle when the engine is running.

Do not work on a shaft (with or without a guard) when the engine is running.

Do not engage or disengage driven equipment by hand from under the vehicle when the engine is running.

In order to avoid becoming entangled, install the shaft behind the frame rail, tanks, battery box, etc.

If the shaft is still exposed after installation, install a guard.

Install a support strap when servicing a driveshaft to prevent personal injury.

A serious or fatal injury can occur . . .
- ▲ if you lack proper training
- ▲ if you fail to follow proper procedures
- ▲ if you do not use proper tools and safety equipment
- ▲ if you assemble driveline components improperly
- ▲ if you use incompatible driveline components
- ▲ if you use worn-out or damaged driveline components
- ▲ if you use driveline components in a non-approved application

This manual contains detailed safety instructions. Read, understand and follow this manual.
- ▲ Get proper training
- ▲ Learn and follow safe operating procedures
- ▲ Use proper tools and safety equipment
- ▲ Use proper components in good condition

Refer to Spicer service manual #3264 for more detailed instructions concerning:
- ▲ Inspection and Lubrication—
- ▲ Servicing the Driveshaft—
- ▲ Straightening and Balancing

This symbol warns of possible personal injury.

FUNCTION OF AUXILIARY POWER SHAFTS

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An auxiliary power shaft transmits torque from the power source to the driven accessory. The shaft must be capable of transmitting the maximum torque and R.P.M. required of the accessory, plus any shock loads which may develop. See page 3.

An auxiliary power shaft operates through constantly changing relative angles between the power source and the driven accessory, therefore, the length of the auxiliary power shaft must be capable of changing while transmitting torque. This length change, commonly called "slip movement", is caused by movement of the power train due to torque reactions and chassis deflections.

Joint operating angles are very important in an auxiliary power joint application. In many cases, the longevity of a joint is dependent on the operating angles. See chart below.

This catalog is limited to 1000 through 1310 series applications. For applications requiring a series larger than 1310, refer to Spicer's IJ900 catalog.

UNIVERSAL JOINT OPERATING ANGLES

PROP. SHAFT RPM	MAX. NORMAL OPER. ANGLE	PROP. SHAFT RPM	MAX. NORMAL OPER. ANGLE
3000	5° 50'	1500	11° 30'
2500	7° 0'	1000	11° 30'
2000	8° 40'	500	11° 30'

Above based on angular acceleration of 100 RAD/SEC^2

DETERMINING SHAFT TYPE

1. Solid or tubular shaft?

   a. In applications requiring more than 1000 R.P.M., or where the application necessitates a highly balanced auxiliary power shaft, a tubular shaft should be used.

   b. Spicer's solid shafting auxiliary power joints are designed for 1000 or less R.P.M. intermittent service such as:

      Driving small hydraulic pumps
      Driving winches
      Driving low speed product pumps

2. Joint Series should be determined using the chart

UNIVERSAL JOINT ENGINEERING DATA QUICK REFERENCE CHART

JOINT SERIES	1000	1110	1280	1310
TORQUE RATING				
Automotive (Gas or Diesel Engine) lbs. ft.				
Continuous	50	54	95	130
TORQUE RATING				
Industrial (Electric Motor) lbs. ft.				
Continuous	75	81	140	195
Short Duration	310	331	570	800
Torsional Elas. Lmt.	420	670	1250	1600
TUBING				
Diameter	1.750	1.250	2.500	3.000
Wall Thickness	.065	.095	.083	.083
	W	S	W	W

JOINT SERIES	1000	1110	1280 & 1310
FLANGE DIAMETER (Swing Dia.)			
Rectangular Type ...	3.500	3.500	3.875
BOLT HOLES – Flange Yoke			
Circle	2.750	2.750	3.125
Diameter	.312	.312	.375
Number	4	4	4
Male Pilot Dia.	2.250	2.250	2.375
DISTANCE ACROSS LUGS			
Snap Ring Constr. ..	2.188	2.656	3.469
BEARING			
DIAMETER	.938	.938	1.062

MAXIMUM OPERATING SPEED* BY TUBE SIZE, SOLID SHAFT SIZE, AND LENGTH
*(For speed below 500 RPM or over 6000 RPM, contact Dana Corporation)

TUBING	MAXIMUM INSTALLED LENGTH IN INCHES FOR GIVEN R.P.M.											
Diameter & Wall Thickness W – Welded S – Seamless	Centerline to Centerline of Joints For a Two Joint Assembly or Centerline of Joint to Centerline of Center Bearing For a Joint & Shaft											
	RPM – Revolutions per Minute											
	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
1.750" x .065" W	117"	82"	67"	58"	52"	–	–	–	–	–	–	–
1.250" x .095" S	91"	64"	52"	45"	40"	37"	34"	32"	–	–	–	–
2.500" x .083" W	122"	87"	70"	62"	55"	50"	45"	43"	41"	39"	37"	35"
3.000" x .083" W	–	–	–	85"	76"	70"	64"	60"	57"	54"	51"	49"
SOLID SHAFT Diameter												
.750"	60"	42"	35"	30"	27"	25"	–	–	–	–	–	–
.812"	62"	44"	36"	31"	28"	26"	–	–	–	–	–	–
.875"	65"	46"	37"	32"	29"	27"	–	–	–	–	–	–
1.000"	69"	49"	40"	35"	31"	28"	–	–	–	–	–	–
1.250"	77"	55"	45"	39"	35"	32"	–	–	–	–	–	–

COMPANION FLANGES
Rectangular Type

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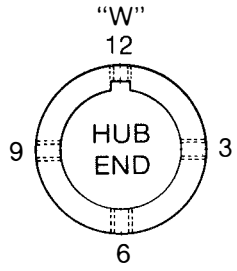
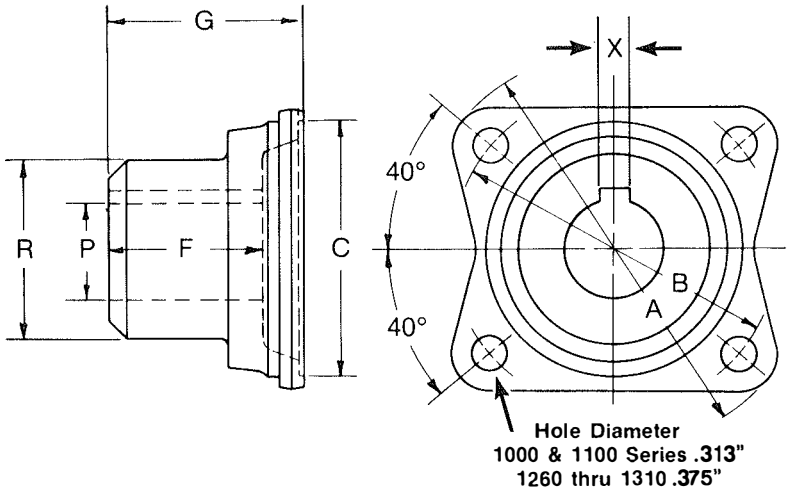
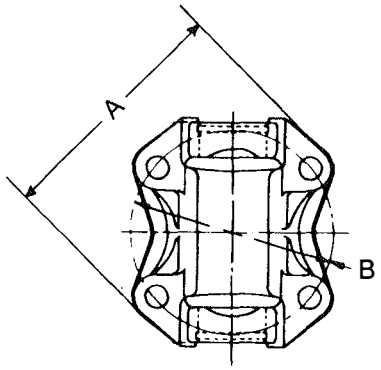
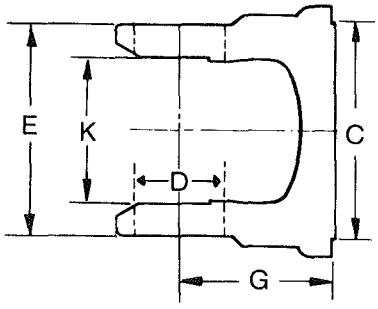




P	C	X	W			R	F	G	
Round Hole Diameter	Female Pilot Diameter	SAE Keyway Width	Set Screw Location in Relation to Keyway			Hub Diameter	Length Thru Hole	Flange Face to End of Hub	COMPANION FLANGE PART NUMBER (Round Hole)
			Thread Diameter	Location					
				Keyway	Set Screw				
1000 & 1110 Series ..... A = 3.500 ..... B = 2.750									
.875	2.250	.250	.375	12	6	1.875	1.500	2.125	**1-1-293**
1.000	2.250	.250	.375	12	6	1.875	1.500	2.125	**1-1-143**
1.125	2.250	.250	.375	12	6 & 9	1.875	1.500	2.125	**1-1-153**
1.250	2.250	.312	.375	12	3	1.875	1.500	2.125	**1-1-653**
1.250	2.250	.312	.375	12	6	1.875	1.500	2.125	**1-1-273**
1.375	2.250	.312	.375	12	6	2.125	1.500	2.125	**1-1-473**
1280/1310 Series ..... A = 3.875 ..... B = 3.125									
.969	2.375	.188	.375	12	6	1.875	1.500	2.062	**2-1-623**
.984	2.375	.250	.375	12	6	1.875	1.500	2.062	**2-1-513**
1.000	2.375	.250	.375	12	6	1.875	1.500	2.062	**2-1-283**
1.125	2.375	.250	.375	12	6 & 9	1.875	1.500	2.062	**2-1-293**
1.125	2.375	.312	.375	12	6	1.875	1.500	2.062	**2-1-303**
1.250	2.375	.250	.375	12	6	1.875	1.500	2.062	**2-1-323**
1.250	2.375	.312	.375	12	6	1.875	1.500	2.062	**2-1-333**
1.375	2.375	.312	.375	12	6	Tapered	1.500	2.062	**2-1-903**
1.500	2.375	.375	.375	12	6	2.375	2.000	2.625	**2-1-933**





A	B – BOLT HOLES			C		G	FLANGE YOKE
Flange or Swing Diameter	Circle Diameter	Bolt Hole Diameter	Number of Bolt Holes	Male Pilot Diameter	JOINT ANGLE	Flange Face to Centerline	PART NUMBER
1000 Series ..... K = 1.500 D = .938 ..... Use Kit 5-170X							
3.500	2.750	.312	4.000	2.250	–	1.562	**10-2-29**
1110 Series ..... E = 2.656 D = .938 ....Use Kits 5-101X & 5-111X							
3.500	2.750	.312	4.000	2.250	18°	1.188	**1-2-39**
1280 / 1310 Series ..... E = 3.469 D = 1.062 ...Use Kits 5-200X & 5-153X							
3.875	3.125	.375	4.000	2.375	20°	1.375	**2-2-329**

K — Dimension for Inside Snap Ring Design 

E — Dimension for Outside Snap Ring Design 

SLIP YOKE ASSEMBLIES
With Spline Hole

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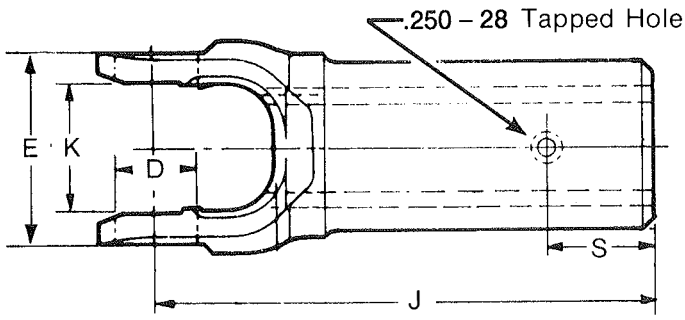

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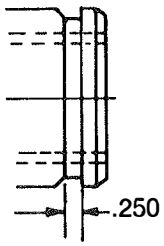

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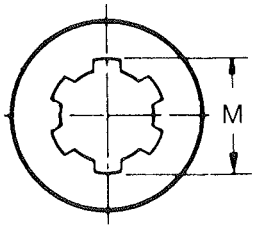
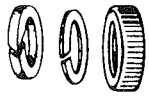




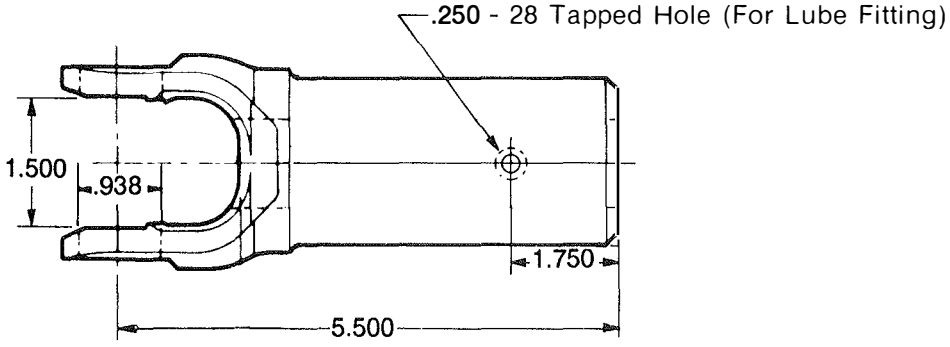
Dust Cap & Washer Kit

M – Spline Hole		J	S	Type	SLIP YOKE ASSEMBLY		
Major Dia. & Number of Splines	Spline Width	Centerline To End of Hub	End of Hub To Centerline of Lube Hole		Lube Fitting Part Number	Dust Cap & Washer Kit	ASSEMBLY PART NUMBER
1000 Series ..... K = 1.500					**D = .938 ..... Use Kit 5-170X**		
1.000 – 6	.250	5.500	1.750	1	500174-1	–	**10-3-131X**
1.250 – 6	.312	5.500	1.750	1	500174-1	–	**10-3-51X**
1.125 – 10	.172	5.500	1.750	1	500174-1	–	**10-3-81X**
1.250 – 16	.125	4.438	.938	2	500174-1	D2A	**10-3-121KX**
1.250 – 16	.125	5.500	3.625	2	500174-1	D2A	**10-3-18KX**
1.156 – 26 Inv.	.078	5.500	3.625	2	500174-1	D2L	**10-3-291KX**
1110 Series ..... E = 2.656					**D = .938 ....Use Kits 5-101X & 5-111X**		
1.062 – 16	.109	2.875	–	–	500174-1	D1A	**1-3-88KX**
1.062 – 16	.109	4.312	–	–	500174-1	D1A	**1-3-18KX**
1280 / 1310 Series ..... E = 3.469					**D = 1.063 ...Use Kits 5-200X & 5-153X**		
1.375 – 16	.125	5.375	3.562	–	500174-1	D2C①	**2-3-128KX**

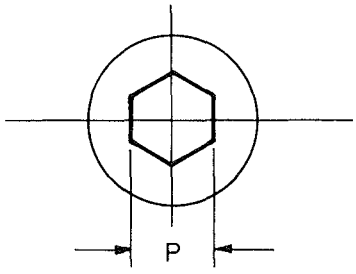
① — D3E Kit Used With Midship Tube Shaft

K — Dimension for Inside Snap Ring Design 

E — Dimension for Outside Snap Ring Design 

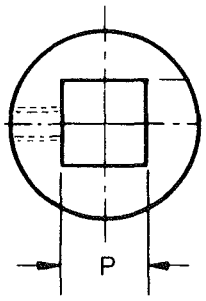


With Hex Hole



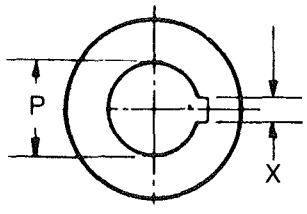
P Hex Hole (Across Flats)	Lube Fitting Part No.	SLIP YOKE ASSEMBLY PART NUMBER
1000 Series ..... Use Kit 5-170X		
.875	500174-1	**10-3-162X**
1.125	500174-1	**10-3-32X**

With Square Hole



P Square Hole (Across Flats)	Lube Fitting Part No.	SLIP YOKE ASSEMBLY PART NUMBER
1000 Series ..... Use Kit 5-170X		
.750	500174-1	**10-3-12X**
.875	500174-1	**10-3-22X**
1.000	500174-1	**10-3-122X**

With Straight Round Hole



P Round Hole Diameter	X SAE Keyway Width	Lube Fitting Part No.	SLIP YOKE ASSEMBLY PART NUMBER
1000 Series ..... Use Kit 5-170X			
.750	.188	500174-1	**10-3-13X**
.812	.250	500174-1	**10-3-23X**
.875	.250	500174-1	**10-3-33X**
.938	.250	500174-1	**10-3-203X**
1.000	.250	500174-1	**10-3-83X**
1.125	.312	500174-1	**10-3-183X**
1.250	.312	500174-1	**10-3-163X**

END YOKES
With Spline Hole

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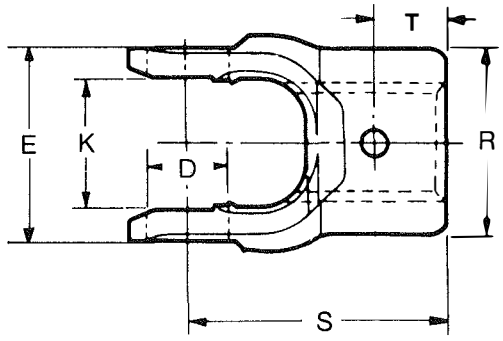
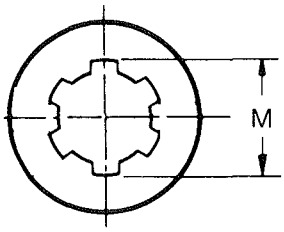
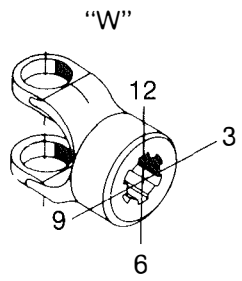






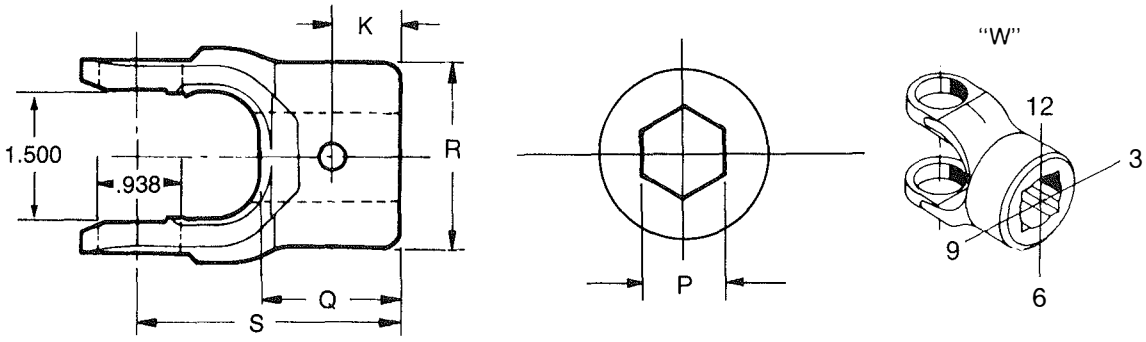
M – SPLINE HOLE		R	W – Set Screw or Pin Hole			T	S		END YOKE
Major Diameter and Number of Splines	Spline Width	Ground Hub Diameter	Set Screw Thread Diameter	Pin Hole Diameter	Location (Viewed from Hub End)	End of Hub To Centerline of Set Screw or Pin Hole	Centerline To End of Hub	Joint Angle	PART NUMBER
1000 Series .....K = 1.500 D = .938 ..... Use Kit 5-170X									
1.000 – 6	.250	1.625	.375	–	3 or 9	.625	2.500	–	**10-4-101**
1.125 – 6	.281	1.625	–	.328	Thru Hub	.438	2.500	①	**10-4-11**
1.250 – 6	.312	1.625	–	.328	Thru Hub	.438	2.500	"	**10-4-21**
1.375 – 6	.344	2.000	–	.328	Thru Hub	.438	2.500	–	**10-4-31**
.875 – 13 Inv.	.094	1.500	.250	–	6 or 12	.438	3.812	–	**10-4-641**
.875 – 13 Inv.	.094	1.625	.375	–	6 or 12	.625	2.500	①	**10-4-481**
1110 Series .....E = 2.656 D = .938 ..... Use Kits 5-101X & 5-111X									
.875 – 13 Inv.	.094	2.000	–	–	–	–	2.250	30°	**1-4-1201**
1280 / 1310 Series ..... E = 3.469 D = 1.063 ..... Use Kits 5-200X & 5-153X									
.875 – 13 Inv.	.094	2.000	.375	–	6 or 12	.625	2.562	–	**2-4-3331**
1.266 – 14 Inv.	.125	2.000	–	–	–	–	2.562	–	**2-4-1741**

① — 90° Hinge - 60° Operating Joint Angles

K — Dimension for Inside Snap Ring Design 

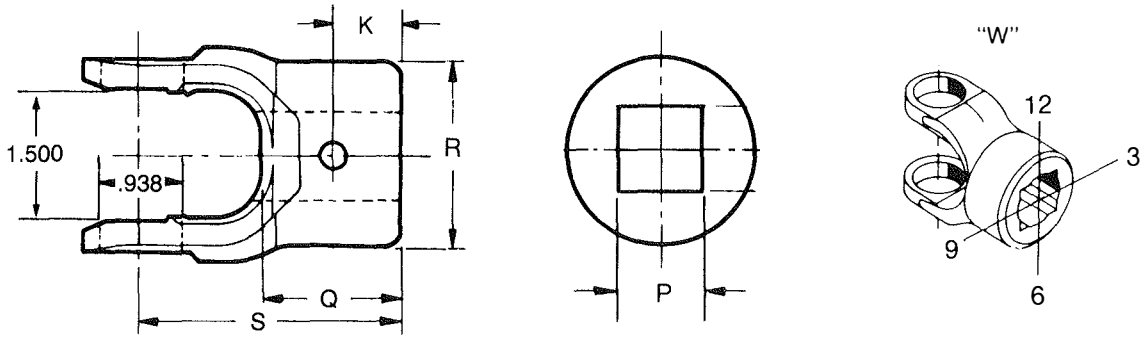
E — Dimension for Outside Snap Ring Design 

END YOKES
With Hex and Square Holes



With Hex Hole

P	R	W		K	Q	S	END YOKE PART NUMBER
Hex Hole (Across Flats)	Ground Hub Diameter	Set Screw Hole Viewed from Hub End		End of Hub to Centerline of Set Screw Hole	Length Thru Hole	Centerline to End of Hub	
		Hole Diameter	Location				
1000 Series ..... **Use Kit 5-170X**							
.875	2.000	.375	3 or 9	.625	1.125	2.500	**10-4-282**
1.125	2.000	.375	3 or 9	.625	1.125	2.500	**10-4-32**



With Square Hole

P	R	W		K	Q	S	END YOKE PART NUMBER
Square Hole (Across Flats)	Ground Hub Diameter	Set Screw Hole Viewed from Hub End		End of Hub to Centerline of Set Screw Hole	Length Thru Hole	Centerline to End of Hub	
		Hole Diameter	Location				
1000 Series ..... **Use Kit 5-170X**							
.750	1.625	.375	3 or 9	.625	1.125	2.500	**10-4-22**
.812	1.969	.375	3 or 9	.625	1.125	2.500	**10-4-42**
.875	1.969	.375	3 or 9	.625	1.125	2.500	**10-4-12**
.875	1.625	.375	3 or 9	.625	1.500	2.875	**10-4-62**
1.000	2.000	.375	3 or 9	.625	1.125	2.500	**10-4-52**

END YOKES
With Straight Round Holes

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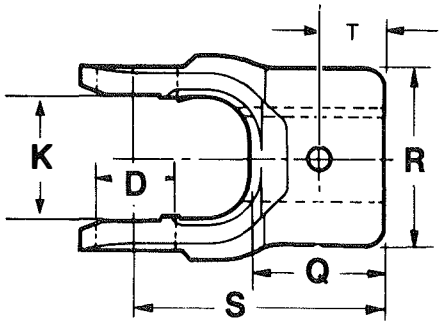
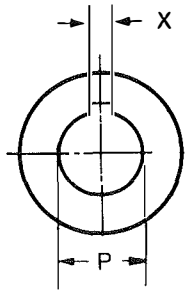
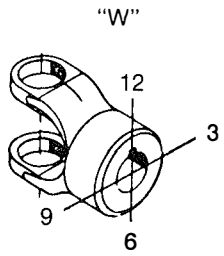
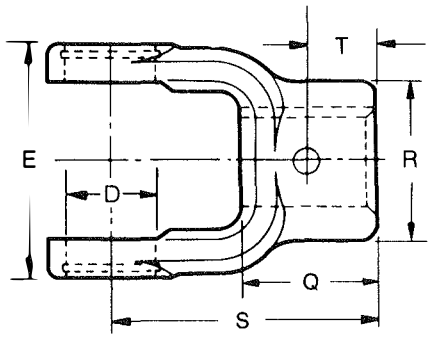








1000 Series End Yoke

1110 Series End Yoke

P	X	W			T	R	Q	S		END YOKE
Round Hole Diameter	SAE Keyway Width	Set Screw Location in Relation to Keyway			End of Hub To Centerline of Set Screw Hole	Hub Diameter	Length Thru Hole	C/L to End of Hub	Joint Angle	PART NUMBER
		Thread Diameter	Location							
			Keyway	Set Screw						
1000 Series ..... K = 1.500 D = .938 ..... Use Kit 5-170X										
.625	NONE	NONE	—	—	—	1.625	1.125	2.500	—	10-4-333
.625	.188	.375	12	6	.625	1.625	—	2.500	—	10-4-373
.750	NONE	NONE	—	—	—	1.625	1.125	2.500	—	10-4-303
.750	.188	.375	3	3 & 9	.625	1.625	1.125	2.500	①	10-4-133
.750	.188	.375	3	6	.625	1.625	—	2.500	—	10-4-13
.750	.188	.375	12	9	.562	—	—	1.812	15°	10-4-693
.750	.250	.375	3	6	.625	1.625	1.125	2.500	—	10-4-23
.812	.188	.375	3	6	.625	1.625	1.125	2.500	—	10-4-33
.812	.250	.375	12	9	.562	—	—	1.812	15°	10-4-713
.812	.250	.375	3	6	.625	1.625	—	2.500	—	10-4-43
.812	.250	.375	3	9	.625	1.625	1.125	2.500	①	10-4-173
.875	NONE	.438	—	3 & 9	.500	1.625	—	2.500	—	10-4-203
.875	.188	.375	3	6	.625	1.625	1.125	2.500	①	10-4-53
.875	.188	.375	3	6	.438	1.625	—	2.500	—	10-4-943
.875	.250	.375	12	9	.562	—	—	1.812	15°	10-4-703
.875	.250	.375	3	6	.625	1.500	4.125	5.500	①	10-4-1043
.875	.250	.375	3	6	.625	1.625	—	2.500	—	10-4-63
.875	.250	.375	3	3 & 9	.625	1.625	1.125	2.500	①	10-4-253
.875	.250	.375	3	9	.625	1.625	—	2.500	—	10-4-453

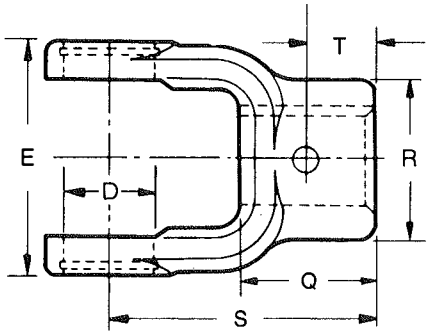
① — 90° Hinge - 60° Operating Joint Angles

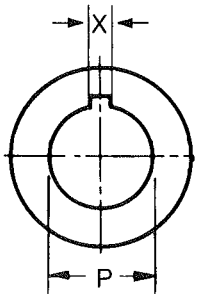
P	X	W			T	R	Q	S		
Round Hole Diameter	SAE Keyway Width	Set Screw Location in Relation to Keyway			End of Hub To Centerline of Set Screw Hole	Hub Diameter	Length Thru Hole	C/L to End of Hub	Joint Angle	END YOKE PART NUMBER
		Thread Diameter	Location: Keyway	Location: Set Screw						
1000 Series (Cont'd.) ..... K = 1.500 D = .938 .....Use Kit 5-170X										
.938	NONE	②	—	Thru Hub	.500	1.625	—	2.500	—	**10-4-643**
.938	.250	.375	12	9	.562	—	.922	1.812	15°	**10-4-683**
.938	.250	.375	3	6	.625	1.625	1.125	2.500	①	**10-4-73**
1.000	NONE	.375-Drill	—	Thru Hub	.625	1.625	1.125	2.500	①	**10-4-443**
1.000	.188	.375	3	6	.625	1.625	1.125	2.500	—	**10-4-83**
1.000	.250	.375	12	9	.562	—	—	1.812	15°	**10-4-723**
1.000	.250	.375	3	6	.625	2.000	1.125	2.500	—	**10-4-93**
1.000	.250	.375	3	9	.625	1.625	—	2.500	—	**10-4-573**
1.000	.250	.375	9	12	.625	1.625	—	2.500	—	**10-4-493**
1.062	.250	.375	9	6	.625	2.000	1.125	2.500	—	**10-4-163**
1.125	NONE	.375-Drill	—	Thru Hub	.625	2.000	1.125	2.500	—	**10-4-473**
1.125	.312	.375	3	6	.625	2.000	1.125	2.500	—	**10-4-113**
1.125	.250	.375	3	6	.625	2.000	—	2.500	—	**10-4-103**
1.125	.250	.375	3	9	.625	2.000	1.125	2.500	—	**10-4-143**
1.125	.312	.375	3	9	.625	2.000	—	2.500	—	**10-4-1473**
1.188	.312	.375	3	6	.625	2.000	1.125	2.500	—	**10-4-153**
1.250	.250	.375	3	9	.625	2.000	1.125	2.500	—	**10-4-183**
1.250	.312	.375	3	9	.625	2.000	1.125	2.500	—	**10-4-193**
1.250	.312	.375	3	6	.625	2.000	—	2.500	—	**10-4-123**
1.375	.312	.375	3	6	.625	—	1.125	2.500	—	**10-4-293**
1.375	.375	.375	3	6	.625	2.250	1.125	2.500	—	**10-4-213**
1.438	.375	.375	3	6	.625	2.250	—	2.500	—	**10-4-383**
1.500	.375	.375	3	6	.625	2.250	1.125	2.500	—	**10-4-223**
1110 Series .....E = 2.656 D = .938 ..... Use Kits 5-101X & 5-111X										
.625	NONE	NONE	—	—	—	2.000	—	2.250	30°	**1-4-1793**
.750	.188	.375	**12**	3 & 9	.375	1.688	—	2.250	—	**1-4-783**
.750	.188	.375	12	6	.375	1.688	—	2.250	—	**1-4-1383**
.875	.188	.375	9	3	.375	2.000	—	2.250	—	**1-4-803**
.875	.250	.375	9	3	.500	2.000	—	2.250	—	**1-4-1293**
1.000	.250	.375	9	3	.500	2.000	—	2.250	30°	**1-4-823**
1.125	.250	.375	9	**12**	.500	2.000	—	2.250	—	**1-4-1043**
1.125	.312	.375	3	9	.500	2.000	—	2.250	30°	**1-4-943**
1.188	.312	.375	3	9	.500	2.000	—	2.250	—	**1-4-953**
1.250	.250	.375	3	6	.500	2.000	—	2.250	—	**1-4-1133**
1.250	.312	.375	3	9	.500	2.000	—	2.250	—	**1-4-933**

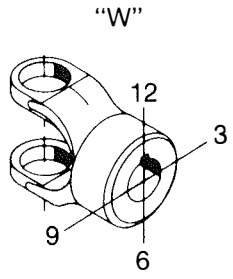
① —90° Hinge - 60° operating Joint Angles
② —Drill Hole .302" for #6 Tapered Pin

END YOKES
With Straight Round Holes

SPICER® DANA



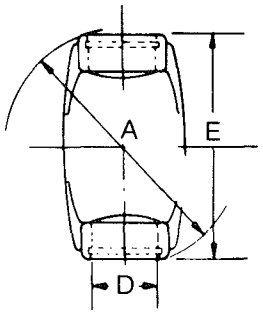


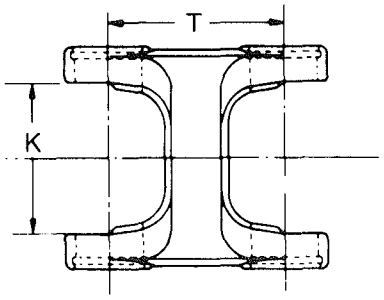


P	X	W			T	R	Q	S		
Round Hole Diameter	SAE Keyway Width	Set Screw Location in Relation to Keyway			End of Hub To Centerline of Set Screw Hole	Hub Diameter	Length Thru Hole	C/L to End of Hub	Joint Angle	END YOKE PART NUMBER
		Thread Diameter	Location							
			Keyway	Set Screw						
1280/1310 Series ..... E = 3.469 D = 1.062 ..... Use Kits 5-200X & 5-153X										
.750	NONE	—	—	—	.625	2.125	1.625	2.562	17°	**2-4-177**
.750	.188	.375	12	6	.625	2.125	1.625	2.562	17°	**2-4-433**
.812	.250	.375	12	6	.625	2.125	1.625	2.562	17°	**2-4-443**
.875	.188	.375	12	6	.625	2.125	1.625	2.562	17°	**2-4-453**
.875	.250	.375	12	6	.625	2.125	1.625	2.562	17°	**2-4-583**
.875	.250	.375	12	6 & 12	.625	2.000	1.625	2.562	—	**2-4-913**
.938	.250	.375	12	6	.625	2.000	1.625	2.562	—	**2-4-463**
1.000	.188	.375	12	6	.625	2.000	1.625	2.562	17°	**2-4-483**
1.000	.250	.375	12	6	.625	2.125	1.625	2.562	17°	**2-4-473**
1.125	.250	.375	12	6	.625	2.125	1.625	2.562	17°	**2-4-503**
1.125	.312	.375	12	6	.625	2.125	1.625	2.562	17°	**2-4-523**
1.188	.312	.375	12	6	.625	2.125	1.625	2.562	17°	**2-4-553**
1.250	.250	.375	12	6	.625	2.125	1.625	2.562	17°	**2-4-573**
1.250	.312	.375	12	3	.625	2.125	1.625	2.562	17°	**2-4-613**
1.250	.312	.375	12	6	.625	2.125	1.625	2.562	17°	**2-4-533**
1.250	.312	.500	12	6	.625	2.125	1.625	2.562	17°	**2-4-663**
1.250	NONE	.375	12	6	.625	2.000	1.625	2.562	—	**2-4-2043**
1.250	.312	.375	12	12, 3, & 6	.625	2.125	1.625	2.562	—	**2-4-2613**
1.250	NONE	—	—	—	.625	2.125	1.625	2.562	17°	**2-4-853** ④
1.375	.375	.375	12	6	.625	2.000	1.625	2.562	17°	**2-4-803**
1.375	.312	.375	12	3	.625	2.000	1.625	2.562	17°	**2-4-1103**
1.500	.375	.375	12	6	.625	2.125	1.625	2.562	17°	**2-4-1233** ③
1.500	NONE	—	—	—	.500	2.000	1.625	2.562	—	**2-4-883** ⑥
1.688	.375	.375	12	12	.625	—	1.625	2.562	17°	**2-4-2013** ③
1350 Series ..... E = 3.875 D = 1.188 ..... Use Kit 5-178X										
1.000	.250	—	12	—	—	2.000	1.812	2.688	—	**3-4-33**
1.125	.250	—	12	—	—	2.000	1.812	2.688	—	**3-4-43**
1.250	.312	.375	12		.938	2.000	1.875	2.750	—	**3-4-13** ⑥
1.250	.312	—	12	—	—	2.000	1.875	2.750	—	**3-4-53**
1.250	.312	.375	12	6	.938	2.062	2.125	3.000	—	**3-4-103**
1.250	.312	—	12	—	—	2.000	1.812	2.688	—	**3-4-93**

③ Hub Diameter Not Ground
④ .312" Drilled Hole Thru Hub
⑥ .375" Drilled Hole Thru Hub

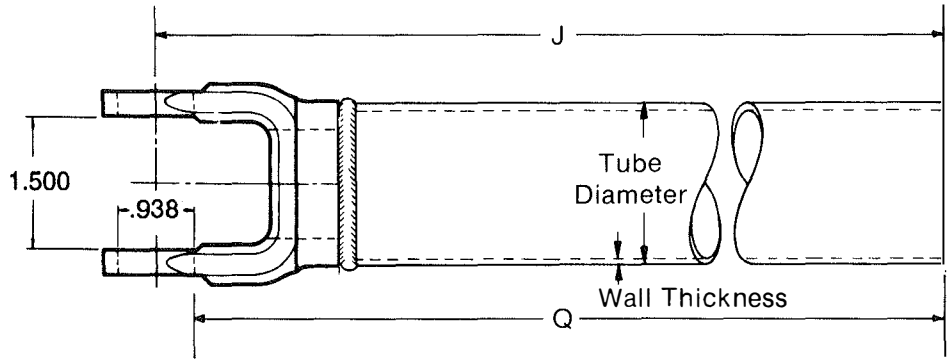
⑥ Two Set Screw Holes 135° Right & Left of Keyway, Hub Diameter is Ground





T	A	D		CENTER YOKE PART NUMBER
Centerline to Centerline	Swing Diameter	Bearing Diameter	Joint Angle	
1000 Series .....K = 1.500 .....Use Kit 5-170X				
2.125	2.500	.938	12°	**10-26-47**
1280 / 1310 Series ..... E = 3.469 ..... Use Kits 5-200X & 5-153X				
2.750	2.750	1.062	18°	**2-26-177**

TUBE & YOKE ASSEMBLIES



TUBING			Q	J	Tube Yoke Part Number	TUBE & YOKE ASSEMBLY PART NUMBER
Diameter & Wall W – Welded	Base Part Number	Tube Length	Bottom of Cross Hole to End of Tube	Centerline to End of Tube		
1000 Series ..... Use Kit 5-170X						
1.750 X .065" W	14-30-12	45.906	47.438	47.906	10-28-17	**10-27-1-4529**
1.750 X .065" W	14-30-12	57.906	59.438	59.906	10-28-17	**10-27-1-5729**

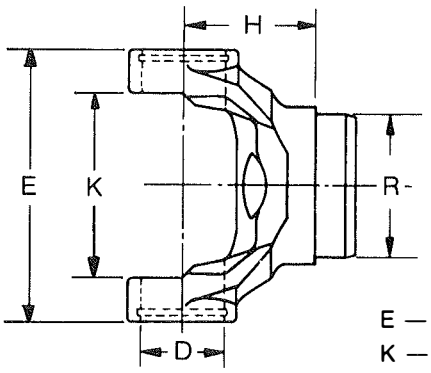
K — Dimension for Inside Snap Ring Design

E — Dimension for Outside Snap Ring Design

YOKE
DIMENSIONS

TUBE YOKES

SPICER® DANA

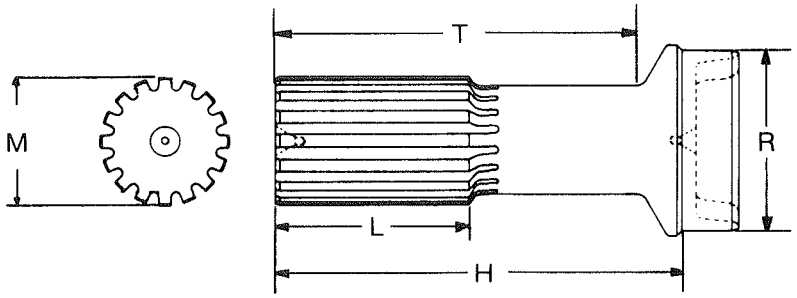


NOTE— If necessary to machine the Butt Diameter "R" to fit a Tube, machine Butt .007" to .010" larger than the Inside Diameter of the Tube.

E — Dimension for Outside Snap Ring Design
K — Dimension for Inside Snap Ring Design

For Use With Tubing Diameter & Wall S – Seamless W – Welded	R Butt Diameter	Type of Butt Ho – Hollow So – Solid	H Centerline to Point of Weld	Angle	Used In Tube Yoke & Tube Assembly	TUBE YOKE PART NUMBER
1000 Series .....K = 1.500 .... D = .938 .....Use Kit 5-170X						
1.250 X .095" W	1.250	So	2.125	60°	10-27-2	**10-28-107**
1.750 X .065" W	1.625	So	2.000	60°	10-27-1	**10-28-17**
1110 Series .....E = 2.656 .... D = .938 ..... Use Kits 5-101X & 5-111X						
1.250 X .095" S	1.094	So	1.688	–	–	**1-26-27**
2.000 X .065" W	1.875	Ho	1.500	20°	–	**1-28-107**

SLIP TUBE SHAFTS



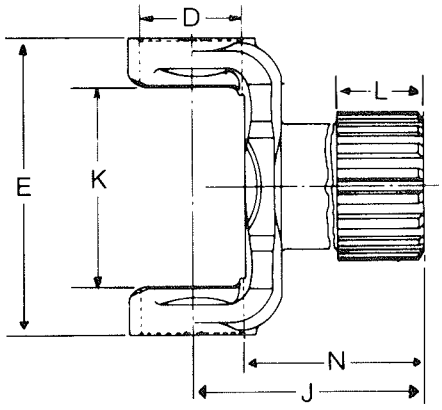
NOTE— If necessary to machine the Butt Diameter "R" to fit a Tube, machine Butt .007" to .010" larger than the Inside Diameter of the Tube.

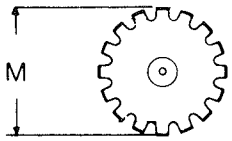
M – SPLINE DIMENSIONS		L	For Use With Tubing Diameter & Wall S – Seamless W – Welded	R	T	H	SLIP TUBE SHAFT PART NUMBER
Diameter & Number	Width	Length of Spline		Butt Diameter	End of Spline To Point of Radius	End of Spline to Point of Weld	
1000 Series							
1.125 – 26 Inv.	.062	2.000	1.750 X .095" W	1.062	4.188	4.438	**10-40-11**
1110 Series							
1.062 – 16	.109	1.750	1.250 X .095" W	1.062	4.000	4.281	**1-42-31**
1.062 – 16	.109	2.000	1.250 X .095" S	1.094	5.000	5.344	**1-42-101**

SLIP TUBE SHAFTS Continued

M – SPLINE DIMENSIONS		L	For Use With Tubing Diameter & Wall S – Seamless W – Welded	R	T	H	SLIP TUBE SHAFT PART NUMBER
Diameter	Width	Length of Spline		Butt Diameter	End of Spline To Point of Radius	End of Spline to Point of Weld	
1280 Series							
1.375 – 16	.125	2.250	2.000 X .083" W	1.844	4.625	5.188	**2-40-1031**
1.250 – 16	.109	2.000	1.750 X .065" W	1.625	3.938	4.469	**2-40-971**

YOKE SHAFTS





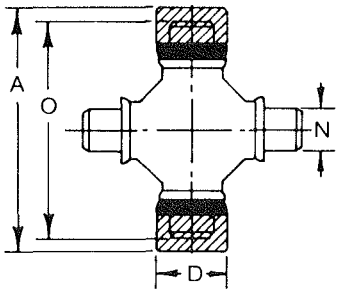
M – SPLINE DIMENSIONS		L	N	J		YOKE SHAFT PART NUMBER
Diameter & Number	Width	Length of Spline	Bottom of Cross Hole to End of Spline	Centerline to End of Spline	Angle	
1000 Series			**K = 1.500**	**D = .938**		**Use Kit 5-170X**
1.250 – 16	.109	1.625	5.094	5.562	–	**10-82-21**
1110 Series			**E = 2.656**	**D = .938**	**Use Kits 5-101X & 5-111X**	
1.062 – 16	.109	1.438	3.375	3.844	–	**1-82-21**

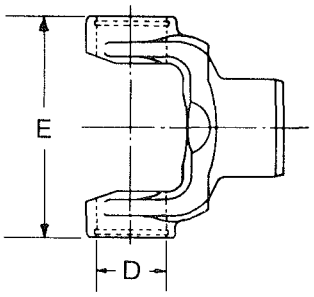
K — Dimension for Inside Snap Ring Design 

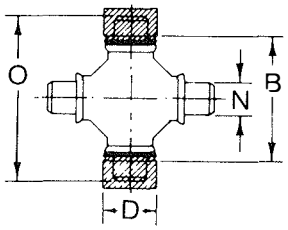
E — Dimension for Outside Snap Ring Design 

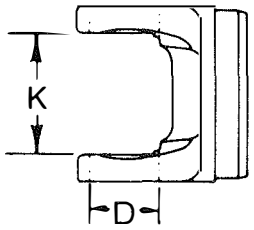
KITS AND SMALL PARTS
Cross & Bearing Kits

SPICER® DANA









OUTSIDE SNAP RINGS — INSIDE SNAP RINGS

A	B	N	O		D	E or K		SPICER CROSS & BEARING KIT PART NUMBER
Overall Dimensions (Outside Snap Ring)	Distance Between Snap Ring Grooves (Inside Snap Ring)	Trunnion Diameter	Overall Cross Dimensions	Lube Fitting	Bearing Diameter	End Yoke Dimension	Series	
–	2.188	.500	2.078	Yes	.938	K=2.188	1000	**5-170X**
–	2.188	.500	2.078	No	.938	K=2.188	1000	**5-110X**
–	2.188	.500	2.078	Yes	.938	K=2.188	1000–SG	**5-103X**
3.188	–	.500	2.203	No	.938	E=2.656	1110	**5-101X**
2.406	–	.500	2.203	Yes	.938	E=2.656	1110	**5-111X§**
2.406	–	.500	2.203	Yes	.938	E=2.656	1100–SG	**5-102X§**
3.219	–	.609	2.969	Yes	1.062	E=3.469	1280	**5-200X**
3.219	–	.656	2.969	Yes	1.062	E=3.469	1310	**5-153X**

SG = Steering Gear Applications

§ 5-102X or 5-111X Kits must be so assembled in 1110 Series Joint to prevent Zerk Nipple from interfering with the end of the driving or driven shaft.

Flange Bolt  Lock Washer  Nut 

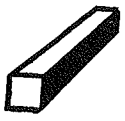
FLANGE BOLTS, LOCK WASHERS AND NUTS

Note: These are SPECIAL HEAT TREATED BOLTS – Do Not Substitute

Diameter and Length Under Head	Used On Series	FLANGE BOLT PART NUMBER	USED WITH		
			Lockwasher	Nut	Rectangular or Circular Flange
.312 – 24 X .875	1000–1110	**5-73-414**	500357-10	231421-2	Rectangular
.375 – 24 X 1.000	1280–1310	**6-73-316**	500357-11	231421-3	Rectangular

Woodruff Keys 

Width	Part Number	
	Woodruff	Spicer
.188	11	**500007-19**
.188	13	**500007-22**
.250	15	**500007-24**
.250	A	**500007-21**
.312	B	**500007-25**

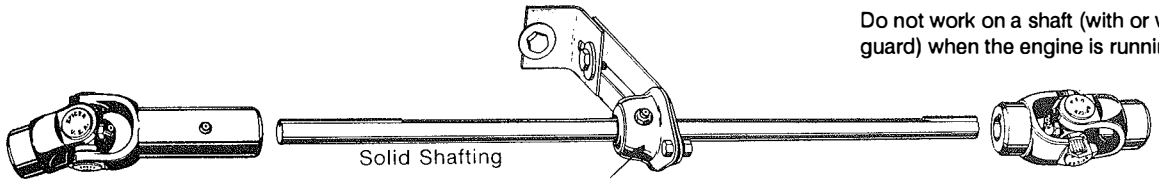
Square Keys 

Width	Length	Part Number
.188	2.000	**378484-18**
.188	4.000	**378485-18**
.250	2.000	**378484-25**
.250	4.000	**378485-25**
.312	2.000	**378484-31**
.312	4.000	**378485-31**

SOLID SHAFTING (Standard 72" Lengths)

Warning: Rotating shafts can be dangerous. You can snag clothes, skin, hair, hands, etc. This can cause serious injury or death.

Do not work on a shaft (with or without a guard) when the engine is running.

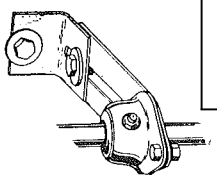


Shaft Type	Shaft Diameter	KEYWAY Width	KEYWAY Length 2" Part No.	KEYWAY Length 4" Part No.	Shaft Length	SPICER SHAFT PART NUMBER
Round	.750	.188	**378484-18**	**378485-18**	72.00	**12-91-72**
Round	.812	.250	**378484-25**	**378485-25**	72.00	**13-91-72**
Round	.875	.250	**378484-25**	**378485-25**	72.00	**14-91-72**
Round	1.000	.250	**378484-25**	**378485-25**	72.00	**16-91-72**
Round	1.250	.312	**378484-31**	**378485-31**	72.00	**20-91-72**
Square	.750	None	–	–	–	**230590**
Square	.875	None	–	–	–	**230575**
Hex	1.125	None	–	–	–	**230591**

Adjustable Bearing Hangers

The Adjustable Bearing Hanger simplifies installations requiring support of auxiliary power drive shafts due to length or stability problems.

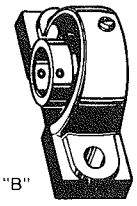
The bronze bushing in the hanger is self-aligning and may be lubricated through a zerk fitting which is a standard feature of the unit.



Fits Shaft Diameter	A: Adjustable Bearing Hanger Part Number	B: Midship Bearing Part Number
.750	**210330-1X**	**99-42**
.812	**210330-7X**	**99-43**
.875	**210330-2X**	**99-44**
.938	**210330-3X**	**99-45**
1.000	**210330-4X**	**99-46**
1.250	**210330-6X**	**99-48**

Midship Bearings

These Midship Bearings or Pillow Blocks are for use, with a Connecting Shaft made from Round Bar Stock, in making Driveline Extensions.



Set Screws

Diameter	Length	Type: Head	Type: Point	Part Number
.375 – 16	.500	Allen	Cup	**500541-7**
.375 – 16	.750	Square Drilled For Lock Wire	Cup	**449-D**

WARNING: If you choose a square head set screw you should be aware that it will protrude above the hub of the yoke and may be a point where clothes, skin, hair, hands, etc. could be snagged. **THIS COULD RESULT IN SERIOUS INJURY OR DEATH. DO NOT WORK ON A SHAFT WHILE THE ENGINE IS RUNNING.** An allen head set screw, which may not protrude above the hub of the yoke, does not permit the same amount of torquing as does a square head set screw. Also, a square head set screw, if used with a lock wire, will prevent loosening of the screw caused by vibration. Regardless of the choice you make with respect to a set screw, an accessory shaft must be guarded by its location or by a shield. You should consider these factors as well as other factors relating to the use of the auxiliary shaft to meet your needs. Refer to the section of this catalog on Safety Precautions on page 1 for further safety information.

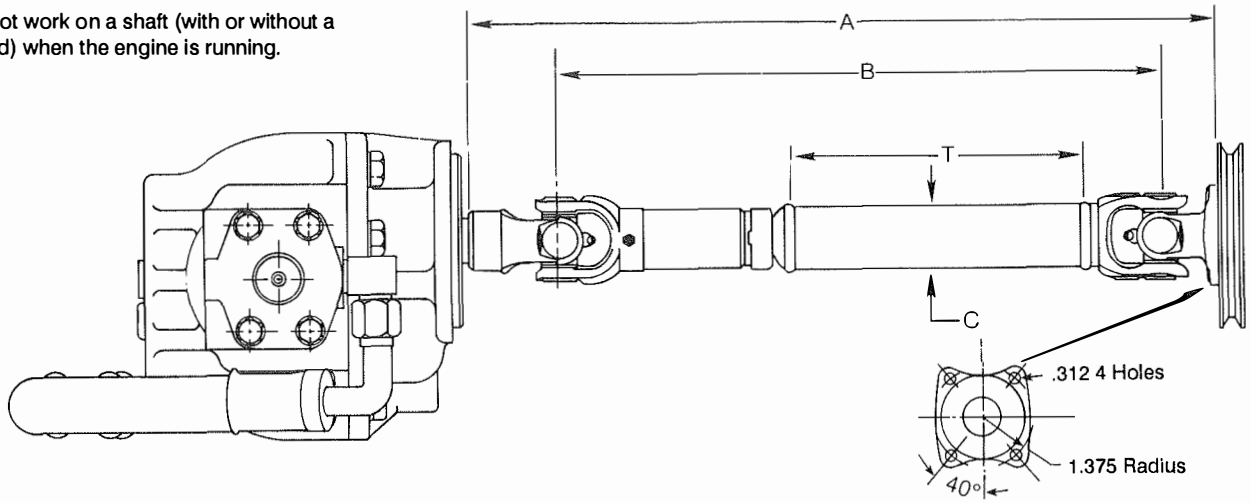
AUXILIARY POWER DRIVESHAFT ASSEMBLY

SPICER® DANA

Warning: Rotating shafts can be dangerous. You can snag clothes, skin, hair, hands, etc. This can cause serious injury or death.

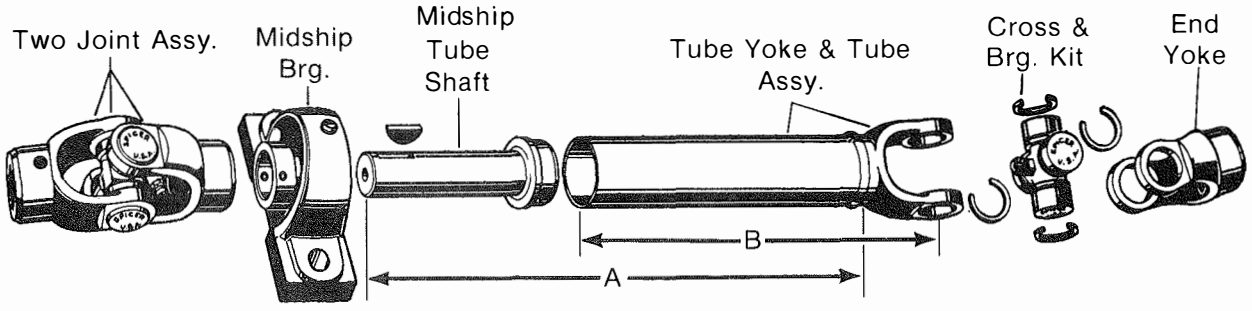
Do not work on a shaft (with or without a guard) when the engine is running.

FOR CRANKSHAFT DRIVEN EQUIPMENT



Driveshaft Assembly Part Number	Minimum Length Collapsed		SLIP END			TIGHT END			FLANGE YOKE PART NUMBER
							TUBING		
	A End of Hub to Face of Flange	B Centerline to Centerline	End Yoke Part Number	Slip Yoke Assembly (Includes Dust Cap & Washer Kit D2A)	Slip Tube Shaft Part Number	Tube Yoke Part Number	C Tube Size W – Welded	T Tube Length	
1000 Series .....M = 1.250 – 16 Spline ..... L = 2.000 ..... S = 1.750 ..... Use Kit 5-170X									
902171-1	29.125	25.062	**10-4-93**	10-3-18KX	**2-40-971**	**10-28-17**	1.750 X .065"W	16.844	**10-2-29**

Typical Auxiliary Power Drive Shaft With Midship Bearing



(Order One (1) Each of the Parts Listed Below)

Joint Series	Two Joint Assembly	Midship Bearing♦ Type	Midship Bearing♦ Part No.	Midship Tube Shaft Assembly	Tube & Yoke Assembly	Cross & Bearing Kit	End Yoke at Permanent Joint	A End of Hub To End of Tube Shaft (Max. Length)	B Centerline To End of Tube (Max. Length)
1000	10242-7SF	Ball ..... Adjustable	99-46 210330-4X	10-53-18X	10-27-1-4529	5-170X	See Pages 8 thru 12	64.375	60.062

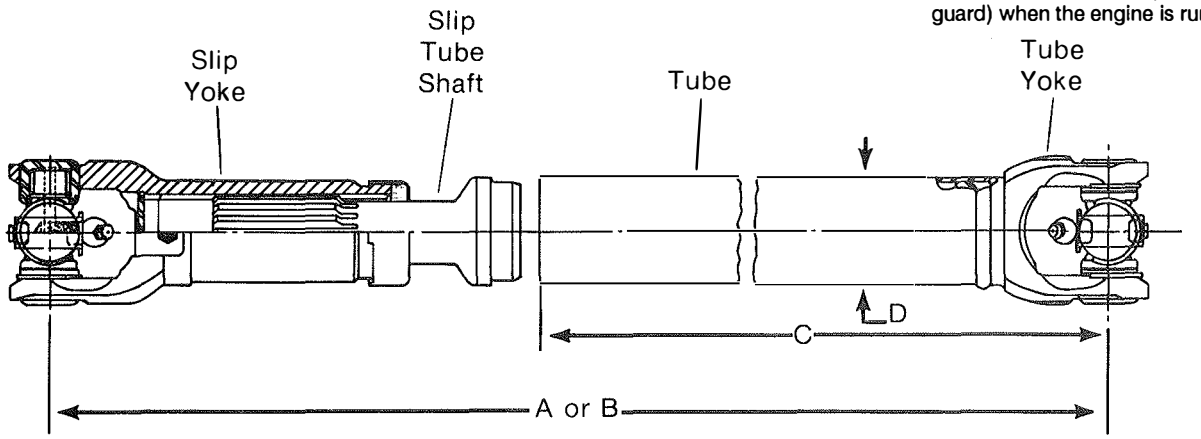
M = Spline Diameter & Number
L = Spline Length
S = Total Slip

♦ Other Midship Bearings are listed on page 17.

SPICER® UNWELDED DRIVESHAFT ASSEMBLIES For Use with End Yokes

Warning: Rotating shafts can be dangerous. You can snag clothes, skin, hair, hands, etc. This can cause serious injury or death.

Do not work on a shaft (with or without a guard) when the engine is running.



(Dimensions and Component Parts)

UNWELDED SLIP JOINT ASSEMBLY			Slip Tube Shaft Part Number	TUBE YOKE & TUBE ASSEMBLY				COLLAPSED		
Assembly Part Number	Slip Joint Assembly Part Number	Slip Yoke Assembly Part Number (Includes Dust Cap & Washer Kit)		Assembly Part Number	Tube Part Number	D Tube Diameter S–Seamless W–Welded	Tube Yoke Part Number	Centerline to Centerline of Crosses A Max. Length	Centerline to Centerline of Crosses B Min. Length	C Centerline to Point of Weld
1000 Series .....M = 1.250 – 16 Spline ..... L = 2.000 ..... S = 1.750 .....Use Kit 5-170X										
(Dust Cap & Washer Kit D2A)										
10270-5729	1001-101X	10-3-18KX	2-40-971	10-27-1-5729	14-30-12	1.750 X .065"W	10-28-17	66.125	9.250	59.906
1000 Series .....M = 1.156 – 28 Involute Spline .. L = 2.000 ..... S = 1.875 .....Use Kit 5-170X										
(Dust Cap & Washer Kit D2A)										
907123-4000	—	10-3-291KX	10-40-11	10-27-2-4Q00	10-30-62	1.250 X .095"W	10-28-107	49.125	10.312	42.125
1110 Series ..... M = 1.062 – 16 Spline ..... L = 1.750 ..... S = 1.750 .... Use Kits 5-101X & 5-111X										
(Dust Cap & Washer Kit D1A)										
8487-SF	1101-101X	1-3-18KX	1-42-31	—	10-30-42	1.250 X .095"W	1-26-297	46.625	8.188	41.531
8487-1SF	1101-101X	1-3-18KX	1-42-31	—	10-30-42	1.250 X .095"W	1-26-297	59.000	8.188	53.906
1310 Series ..... M = 1.375 – 16 Spline ..... L = 2.250 ..... S = 2.000 .....Use Kit 5-153X										
(Dust Cap & Washer Kit D2C)										
9553-4724	1381-101X	2-3-128KX	2-40-1031	2-27-7-4724	16-30-62	2.000 X .083"W	2-28-357	55.750	9.500	49.438

M = Spline Diameter and Number L = Spline Length S = Total Slip

UNWELDED TELESCOPING DRIVESHAFT ASSEMBLIES

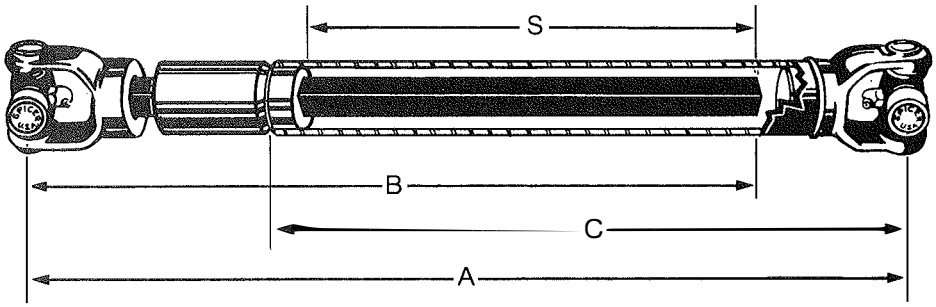
SPICER® DANA

(For Continuous or Intermittent Service–Output Shaft Not to Exceed 1750 R.P.M.)

ASSEMBLIES 202337-1 & 202337-2

Warning: Rotating shafts can be dangerous. You can snag clothes, skin, hair, hands, etc. This can cause serious injury or death.

Do not work on a shaft (with or without a guard) when the engine is running.



DRIVESHAFT ASSEMBLY Part Number	DIMENSIONS A Centerline to Centerline Extended	A Centerline to Centerline Collapsed	B Centerline to End of Shaft	C Centerline to End of Tube	S Slip Movement	COMPONENT PARTS Cross & Bearing Kit	Yoke Shaft Assembly	Tube & Yoke Assembly	Weld Sleeve
202337-1	41.312	25.812	23.062	18.750	15.500	**5-170X**	**10-82-18-2X**	–	**230138**
202337-2	71.312	40.812	38.062	33.750	30.500	**5-170X**	**10-82-18-3X**	**10-27-1-4529**	**230138**

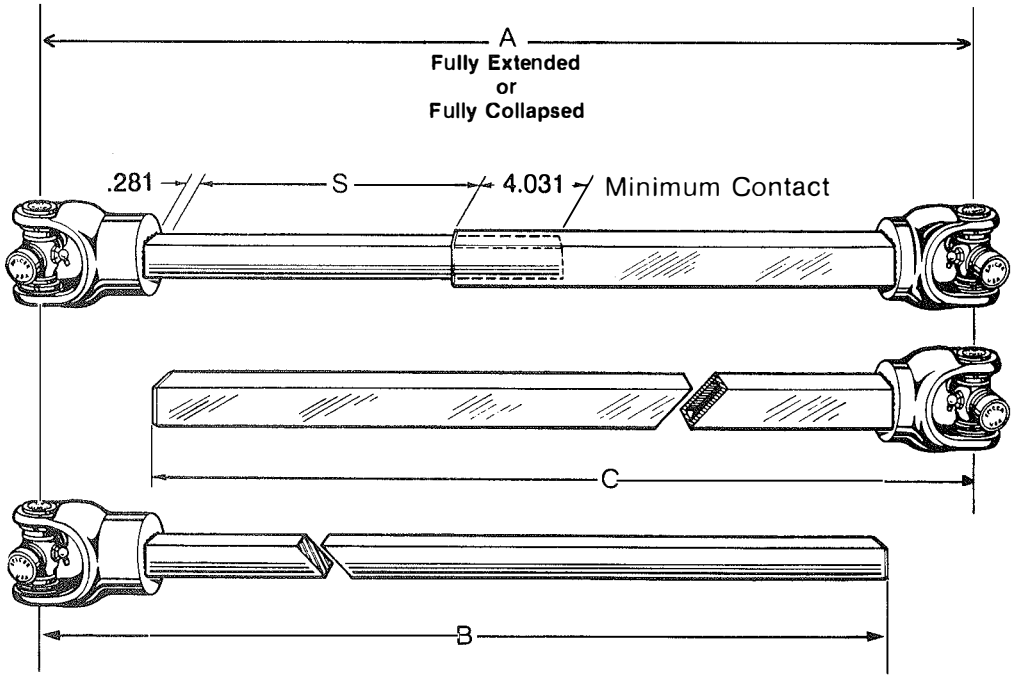
TELESCOPING DRIVESHAFT ASSEMBLY

(For Continuous or Intermittent Service–Output Shaft Not to Exceed 1000 R.P.M.)

ASSEMBLY 204192-1

Warning: Rotating shafts can be dangerous. You can snag clothes, skin, hair, hands, etc. This can cause serious injury or death.

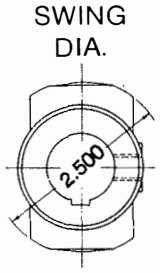
Do not work on a shaft (with or without a guard) when the engine is running.

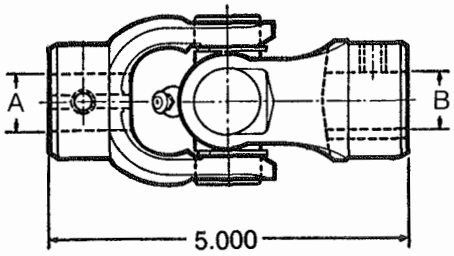


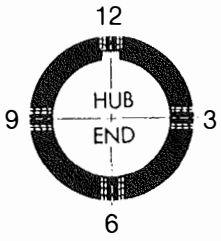
DRIVESHAFT ASSEMBLY Part Number	DIMENSIONS A Centerline to Centerline Extended	A Centerline to Centerline Collapsed	C Centerline to End of Tube	B Centerline to End of Shaft	S Slip Movement	COMPONENT PARTS Cross & Bearing Kit	Yoke Shaft Assembly	Tube & Yoke Assembly
204192-1	70.625	40.000	37.156	37.500	30.625	**5-170X**	**10-82-38-1X**	**10-82-48-1X**

END YOKE ASSEMBLIES
1000 Series

(For Installations Not Requiring Slip Movement)







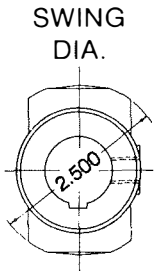
END YOKE ASSEMBLY PART NUMBER	END YOKE "A" (Round, Square or Hex Hole)					END YOKE "B" (Round or Hex Hole)				
	Part Number	Hole Diameter	SAE Keyway Width	Set Screw Hole Viewed From Hub End & Keyway at 12		Part Number	Hole Diameter	SAE Keyway Width	Set Screw Hole Viewed From Hub End & Keyway at 12	
				Diameter	Location				Diameter	Location
"A" – Round Hole ..... "B" – Round Hole ..... Use Kit 5-170X										
10242-5SF	10-4-133	.750	.188	.375	3 & 9	10-4-133	.750	.188	.375	3 & 9
10242-47SF	10-4-133	.750	.188	.375	3 & 9	10-4-63	.875	.250	.375	6
10242-13SF	10-4-133	.750	.188	.375	3 & 9	10-4-83	1.000	.188	.375	6
10242-18SF	10-4-13	.750	.188	.375	6	10-4-13	.750	.188	.375	6
10242-101SF	10-4-13	.750	.188	.375	6	10-4-63	.875	.250	.375	6
10242-24SF	10-4-13	.750	.188	.375	6	10-4-93	1.000	.250	.375	6
10242-4SF	10-4-23	.750	.250	.375	6	10-4-23	.750	.250	.375	6
10242-50SF	10-4-23	.750	.250	.375	6	10-4-63	.875	.250	.375	6
10242-52SF	10-4-23	.750	.250	.375	6	10-4-93	1.000	.250	.375	6
10242-20SF	10-4-33	.812	.188	.375	6	10-4-133	.750	.188	.375	3 & 9
10242-30SF	10-4-173	.812	.250	.375	9	10-4-173	.812	.250	.375	9
10242-48SF	10-4-173	.812	.250	.375	9	10-4-63	.875	.250	.375	6
10242-3SF	10-4-43	.812	.250	.375	6	10-4-43	.812	.250	.375	6
10242-45SF	10-4-43	.812	.250	.375	6	10-4-63	.875	.250	.375	6
10242-21SF	10-4-43	.812	.250	.375	6	10-4-93	1.000	.250	.375	6
10242-2SF	10-4-53	.875	.188	.375	6	10-4-53	.875	.188	.375	6
10242-110SF	10-4-53	.875	.188	.375	6	10-4-93	1.000	.250	.375	6
10242-115SF	10-4-253	.875	.250	.375	3 & 9	10-4-63	.875	.250	.375	6
10242-57SF	10-4-253	.875	.250	.375	3 & 9	10-4-253	.875	.250	.375	3 & 9
10242-114SF	10-4-253	.875	.250	.375	3 & 9	10-4-93	1.000	.250	.375	6
10242-101SF	10-4-63	.875	.250	.375	6	10-4-13	.750	.188	.375	6
10242-7SF	10-4-63	.875	.250	.375	6	10-4-133	.750	.188	.375	3 & 9
10242-50SF	10-4-63	.875	.250	.375	6	10-4-23	.750	.250	.375	6
10242-15SF	10-4-63	.875	.250	.375	6	10-4-43	.812	.250	.375	6
10242-16SF	10-4-63	.875	.250	.375	6	10-4-63	.875	.250	.375	6
10242-115SF	10-4-63	.875	.250	.375	6	10-4-253	.875	.250	.375	3 & 9
10242-62SF	10-4-63	.875	.250	.375	6	10-4-73	.938	.250	.375	6
10242-42SF	10-4-63	.875	.250	.375	6	10-4-93	1.000	.250	.375	6
10242-92SF	10-4-63	.875	.250	.375	6	10-4-103	1.125	.250	.375	6
10242-63SF	10-4-63	.875	.250	.375	6	10-4-113	1.125	.312	.375	6
10242-64SF	10-4-63	.875	.250	.375	6	10-4-123	1.250	.312	.375	6
10242-62SF	10-4-73	.938	.250	.375	6	10-4-63	.875	.250	.375	6
10242-6SF	10-4-73	.938	.250	.375	6	10-4-73	.938	.250	.375	6
10242-12SF	10-4-73	.938	.250	.375	6	10-4-93	1.000	.250	.375	6
10242-56SF	10-4-73	.938	.250	.375	6	10-4-103	1.125	.250	.375	6
10242-29SF	10-4-73	.938	.250	.375	6	10-4-113	1.125	.312	.375	6
10242-13SF	10-4-83	1.000	.188	.375	6	10-4-133	.750	.188	.375	3 & 9
10242-102SF	10-4-83	1.000	.188	.375	6	10-4-53	.875	.188	.375	6
10242-1SF	10-4-83	1.000	.188	.375	6	10-4-83	1.000	.188	.375	6

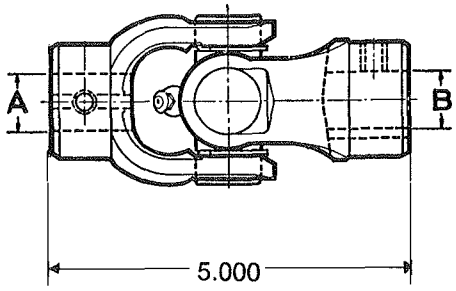
NOTE: Assembly numbers are shown for reference only. Order components if an SF assembly is needed.

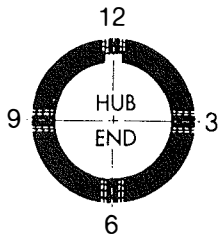
END YOKE ASSEMBLIES
1000 Series

SPICER® DANA

(For Installations Not Requiring Slip Movement) Continued







END YOKE ASSEMBLY PART NUMBER	END YOKE "A" (Round, Square or Hex Hole)					END YOKE "B" (Round or Hex Hole)				
	Part Number	Hole Diameter	SAE Keyway Width	Set Screw Hole Viewed From Hub End & Keyway at 12		Part Number	Hole Diameter	SAE Keyway Width	Set Screw Hole Viewed From Hub End & Keyway at 12	
				Diameter	Location				Diameter	Location
"A" – Round Hole ..... "B" – Round Hole ..... Use Kit 5-170X										
10242-24SF	10-4-93	1.000	.250	.375	6	10-4-13	.750	.188	.375	6
10242-52SF	10-4-93	1.000	.250	.375	6	10-4-23	.750	.250	.375	6
10242-21SF	10-4-93	1.000	.250	.375	6	10-4-43	.812	.250	.375	6
10242-110SF	10-4-93	1.000	.250	.375	6	10-4-53	.875	.188	.375	6
10242-42SF	10-4-93	1.000	.250	.375	6	10-4-63	.875	.250	.375	6
10242-12SF	10-4-93	1.000	.250	.375	6	10-4-73	.938	.250	.375	6
10242-7SF	10-4-93	1.000	.250	.375	6	10-4-93	1.000	.250	.375	6
10242-94SF	10-4-93	1.000	.250	.375	6	10-4-103	1.125	.250	.375	6
10242-43SF	10-4-93	1.000	.250	.375	6	10-4-113	1.125	.312	.375	6
10242-25SF	10-4-93	1.000	.250	.375	6	10-4-123	1.250	.312	.375	6
10242-14SF	10-4-163	1.062	.250	.375	9	10-4-163	1.062	.250	.375	9
10242-15SF	10-4-143	1.125	.250	.375	9	10-4-143	1.125	.250	.375	9
10242-92SF	10-4-103	1.125	.250	.375	6	10-4-63	.875	.250	.375	6
10242-56SF	10-4-103	1.125	.250	.375	6	10-4-73	.938	.250	.375	6
10242-94SF	10-4-103	1.125	.250	.375	6	10-4-93	1.000	.250	.375	6
10242-22SF	10-4-103	1.125	.250	.375	6	10-4-103	1.125	.250	.375	6
10242-108SF	10-4-103	1.125	.250	.375	6	10-4-123	1.250	.312	.375	6
10242-63SF	10-4-113	1.125	.312	.375	6	10-4-63	.875	.250	.375	6
10242-29SF	10-4-113	1.125	.312	.375	6	10-4-73	.938	.250	.375	6
10242-43SF	10-4-113	1.125	.312	.375	6	10-4-93	1.000	.250	.375	6
10242-9SF	10-4-113	1.125	.312	.375	6	10-4-113	1.125	.312	.375	6
10242-23SF	10-4-113	1.125	.312	.375	6	10-4-123	1.250	.312	.375	6
10242-10SF	10-4-153	1.188	.312	.375	6	10-4-153	1.188	.312	.375	6
10242-85SF	10-4-153	1.188	.312	.375	6	10-4-123	1.250	.312	.375	6
10242-31SF	10-4-183	1.250	.250	.375	9	10-4-183	1.250	.250	.375	9
10242-64SF	10-4-123	1.250	.312	.375	6	10-4-63	.875	.250	.375	6
10242-25SF	10-4-123	1.250	.312	.375	6	10-4-93	1.000	.250	.375	6
10242-108SF	10-4-123	1.250	.312	.375	6	10-4-103	1.125	.250	.375	6
10242-23SF	10-4-123	1.250	.312	.375	6	10-4-113	1.125	.312	.375	6
10242-85SF	10-4-123	1.250	.312	.375	6	10-4-153	1.188	.312	.375	6
10242-8SF	10-4-123	1.250	.312	.375	6	10-4-123	1.250	.312	.375	6
10242-32SF	10-4-123	1.250	.312	.375	6	10-4-193	1.250	.312	.375	9
10242-32SF	10-4-193	1.250	.312	.375	9	10-4-123	1.250	.312	.375	6
10242-152SF	10-4-293	1.375	.312	.375	6	10-4-293	1.375	.312	.375	6
10242-119SF	10-4-223	1.500	.375	.375	6	10-4-223	1.250	.375	.375	6

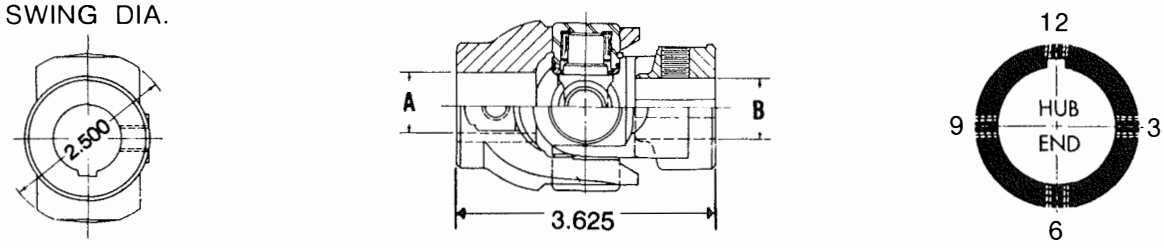
 NOTE: Assembly numbers are shown for reference only. Order components if an SF assembly is needed.

END YOKE ASSEMBLIES
1000 Series

(For Installations Not Requiring Slip Movement)

END YOKE ASSEMBLY PART NUMBER	END YOKE "A" (Round, Square or Hole)					END YOKE "B" (Round or Hex Hole)				
	Part Number	Hole Diameter	SAE Keyway Width	Set Screw Hole Viewed From Hub End & Keyway at 12		Part Number	Hole Diameter	SAE Keyway Width	Set Screw Hole Viewed From Hub End & Keyway at 12	
				Diameter	Location				Diameter	Location
"A" – Square Hole ..... "B" – Round Hole ..... Use Kit 5-170X										
10242-27SF	10-4-22	.750	–	.375	–	10-4-43	.812	.250	.375	6
10242-65SF	10-4-22	.750	–	.375	–	10-4-63	.875	.250	.375	6
10242-67SF	10-4-22	.875	–	.375	–	10-4-93	1.000	.250	.375	6
10242-130SF	10-4-12	.875	–	.375	–	10-4-173	.812	.250	.375	9
10242-28SF	10-4-12	.875	–	.375	–	10-4-63	.875	.250	.375	6
10242-70SF	10-4-12	.875	–	.375	–	10-4-93	1.000	.250	.375	6
10242-75SF	10-4-12	.875	–	.375	–	10-4-163	1.062	.250	.375	9
10242-112SF	10-4-12	.875	–	.375	–	10-4-113	1.128	.312	.375	6
10242-158SF	10-4-12	.875	–	.375	–	10-4-123	1.250	.312	.375	6
10242-72SF	10-4-52	1.000	–	.375	–	10-4-93	1.000	.250	.375	6
10242-73SF	10-4-52	1.000	–	.375	–	10-4-113	1.125	.312	.375	6
10242-77SF	10-4-52	1.000	–	.375	–	10-4-153	1.188	.312	.375	6
10242-78SF	10-4-52	1.000	–	.375	–	10-4-123	1.250	.312	.375	6
10242-118SF	10-4-52	1.000	–	.375	–	10-4-293	1.375	.312	.375	6
202078-1	10-4-62†	.875	–	.375	–	10-4-173	.188	.250	.375	9
"A" – Hex Hole ..... "B" – Round Hole ..... Use Kit 5-170X										
10242-82SF	10-4-32	1.125	–	.375	–	10-4-93	1.000	.250	.375	6
10242-37SF	10-4-32	1.125	–	.375	–	10-4-103	1.125	.250	.375	6
10242-84SF	10-4-32	1.125	–	.375	–	10-4-113	1.125	.312	.375	6
10242-36SF	10-4-32	1.125	–	.375	–	10-4-123	1.250	.312	.375	6
"A" – Hex Hole ..... "B" – Hex Hole ..... Use Kit 5-170X										
10242-106SF	10-4-32	1.125	–	.375	–	10-4-32	1.125	–	.375	–

† – Special End Yoke 2.875" instead of 2.500"



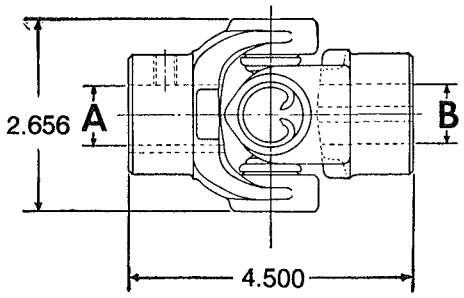
"A" – Round Hole ..... "B" – Round Hole ..... Use Kit 5-110X										
(For Chevrolet & GMC Trucks – With 4-Speed Synchro-Mesh Transmission Between P.T.O. & Duo-Grip Brake (Maximum Angle 15°)										
207056-3	10-4-693	.750	.188	.375	9	10-4-693	.750	.188	.375	9
207056-5	10-4-693	.750	.188	.375	9	10-4-703	.875	.250	.375	9
207056-12	10-4-693	.750	.188	.375	9	10-4-723	1.000	.250	.375	9
904018	10-4-693	.750	.188	.375	9	10-4-103	1.125	.250	.375	6
207056-2	10-4-713	.812	.250	.375	9	10-4-713	.812	.250	.375	9
207056-4	10-4-713	.812	.250	.375	9	10-4-703	.875	.250	.375	9
207056-5	10-4-703	.875	.250	.375	9	10-4-693	.750	.188	.375	9
207056-4	10-4-703	.875	.250	.375	9	10-4-713	.812	.250	.375	9
207056-1	10-4-703	.875	.250	.375	9	10-4-703	.875	.250	.375	9
207056-10	10-4-703	.875	.250	.375	9	10-4-723	1.000	.250	.375	9
207056-12	10-4-723	1.000	.250	.375	9	10-4-693	.750	.188	.375	9
207056-10	10-4-723	1.000	.250	.375	9	10-4-703	.875	.250	.375	9
207056-14	10-4-723	1.000	.250	.375	9	10-4-723	1.000	.250	.375	9

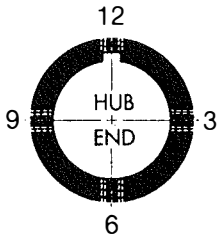
NOTE: Assembly numbers are shown for reference only. Order components if an SF assembly is needed.

END YOKE ASSEMBLIES 1110 & 1280 Series

SPICER® DANA

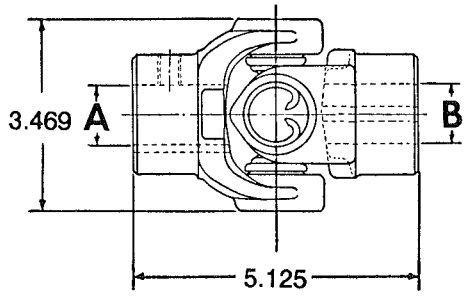
(For Installations Not Requiring Slip Movement)

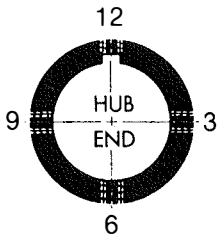




END YOKE ASSEMBLY PART NUMBER	END YOKE "A" (Round Hole)					END YOKE "B" (Round Hole)				
	Part Number	Hole Diameter	SAE Keyway Width	Set Screw Hole Viewed From Hub End & Keyway at 12		Part Number	Hole Diameter	SAE Keyway Width	Set Screw Hole Viewed From Hub End & Keyway at 12	
				Diameter	Location				Diameter	Location
"A" – Round Hole ..... "B" – Round Hole ..... Use Kits 5-101X & 5-111X										
6857-5SF	1-4-783	.750	.188	.375	3 & 9	1-4-783	.750	.312	.375	3 & 9
6857-23SF	1-4-1383	.750	.188	.375	6	1-4-1383	.750	.312	.375	6
6857-51SF	1-4-1383	.750	.250	.375	6	1-4-823	1.000	.250	.375	6
6857-56SF	1-4-823	1.000	.250	.375	6	1-4-933	.750	.312	.375	6
6857-30SF	1-4-1043	1.125	.250	.375	6	1-4-1043	1.250	.250	.375	6
6857-34SF	1-4-933	1.125	.312	.375	6	1-4-933	1.250	.312	.375	6
6857-10SF	1-4-953	1.188	.312	.375	6	1-4-953	1.188	.312	.375	6
6857-56SF	1-4-933	1.250	.312	.375	6	1-4-823	1.000	.250	.375	6
6857-34SF	1-4-933	1.250	.312	.375	6	1-4-943	1.125	.312	.375	6
6857-8SF	1-4-983	1.250	.312	.375	6	1-4-933	1.250	.312	.375	6
6857-51SF	1-4-823	1.000	.250	.375	6	1-4-1383	.750	.188	.375	6

1280 SERIES



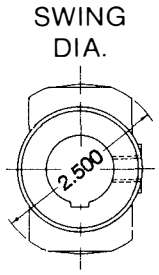


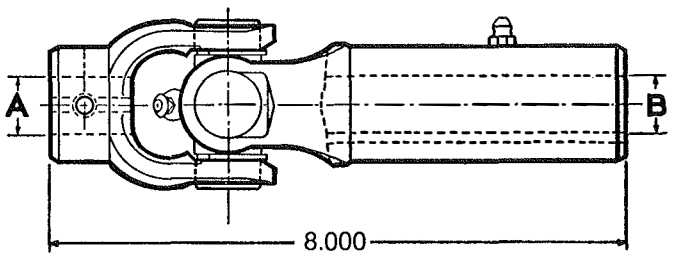
"A" – Round Hole ..... "B" – Round Hole ..... Use Kit 5-200X										
9003-11SF	2-4-533	1.250	.312	.375	6	2-4-533	1.250	.312	.375	6

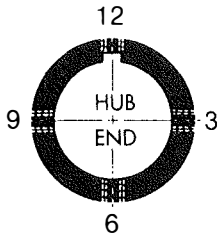
 NOTE: Assembly numbers are shown for reference only. Order components if an SF assembly is needed.

END YOKE & SLIP YOKE ASSEMBLIES
1000 Series

(For Installations Requiring Slip Movement)







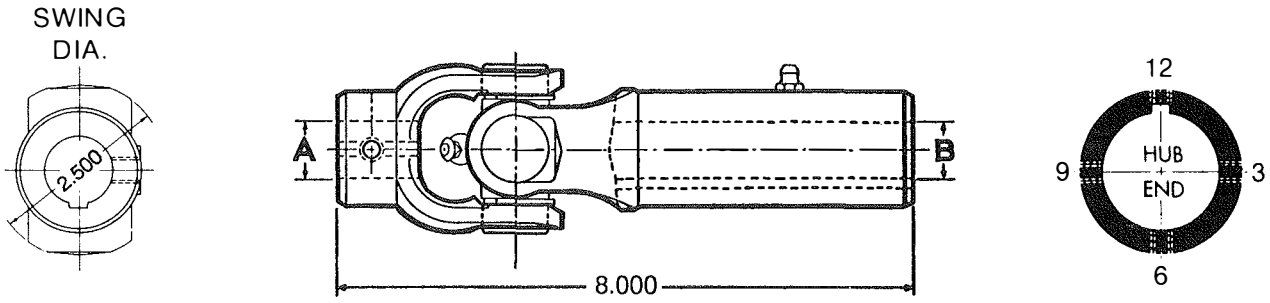
END YOKE & SLIP YOKE ASSEMBLY PART NUMBER	END YOKE "A" (Round Hole)					SLIP YOKE ASSEMBLY "B" (Round, Square or Hex Hole)			
	Part Number	Hole Diameter	SAE Keyway Width	Set Screw Hole Viewed From Hub End & Keyway at 12		Part Number	Hole Diameter	SAE Keyway Width	Lube Fitting Part Number
				Diameter	Location				
"A" – Round Hole ..... "B" – Round Hole ..... Use Kit 5-170X									
10243-1SF	10-4-13	.750	.188	.375	6	10-3-13X	.750	.188	500174-1
10243-20SF	10-4-63	.875	.250	.375	6	10-3-13X	.750	.188	500174-1
10243-2SF	10-4-43	.812	.250	.375	6	10-3-23X	.812	.250	500174-1
10243-16SF	10-4-63	.875	.250	.375	6	10-3-23X	.812	.250	500174-1
10243-3SF	10-4-13	.750	.188	.375	6	10-3-33X	.875	.250	500174-1
10243-24SF	10-4-43	.812	.250	.375	6	10-3-33X	.875	.250	500174-1
10243-25SF	10-4-63	.875	.250	.375	6	10-3-33X	.875	.250	600174-1
10243-26SF	10-4-93	1.000	.250	.375	6	10-3-33X	.875	.250	500174-1
10243-72SF	10-4-103	1.125	.250	.375	6	10-3-33X	.875	.250	500174-1
10243-57SF	10-4-113	1.125	.312	.375	6	10-3-33X	.875	.250	500174-1
10243-77SF	10-4-123	1.250	.312	.375	6	10-3-33X	.875	.250	500174-1
10243-62SF	10-4-43	.812	.250	.375	6	10-3-83X	1.000	.250	500174-1
10243-56SF	10-4-63	.875	.250	.375	6	10-3-83X	1.000	.250	500174-1
10243-18SF	10-4-93	1.000	.250	.375	6	10-3-83X	1.000	.250	500174-1
10243-41SF	10-4-143	1.125	.250	.375	9	10-3-83X	1.000	.250	500174-1
10243-32SF	10-4-113	1.125	.188	.375	6	10-3-83X	1.000	.250	500174-1
10243-34SF	10-4-123	1.250	.188	.375	6	10-3-83X	1.000	.250	500174-1
10243-95SF	10-4-63	.875	.250	.375	6	10-3-163X	1.250	.312	500174-1
10243-[illegible]1SF	10-4-93	1.000	.250	.375	6	10-3-163X	1.250	.312	500174-1
10243-93SF	10-4-113	1.125	.312	.375	6	10-3-163X	1.250	.312	500174-1
10243-92SF	10-4-123	1.250	.312	.375	6	10-3-163X	1.250	.312	500174-1
"A" – Round Hole ..... "B" – Square Hole ..... Use Kit 5-170X									
10243-6SF	10-4-43	.812	.250	.375	6	10-3-12X	.750	–	500174-1
10243-4SF	10-4-63	.875	.250	.375	6	10-3-12X	.750	–	500174-1
10243-8SF	10-4-93	1.000	.250	.375	6	10-3-12X	.750	–	500174-1
10243-27SF	10-4-13	.750	.312	.375	6	10-3-22X	.875	–	500174-1
10243-28SF	10-4-43	.312	.750	.375	6	10-3-22X	.875	–	500174-1

NOTE: Assembly numbers are shown for reference only. Order components if an SF assembly is needed.

END YOKE & SLIP YOKE ASSEMBLIES 1000 Series

SPICER® DANA

(For Installations Requiring Slip Movement)

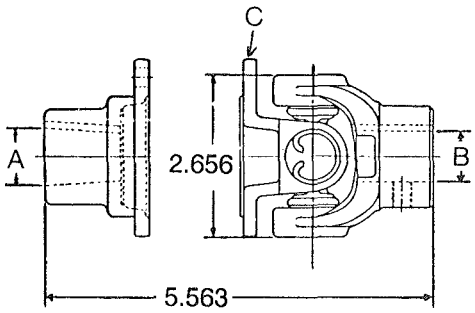


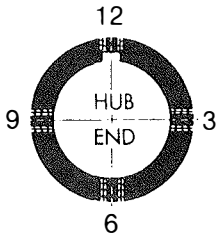
END YOKE & SLIP YOKE ASSEMBLY PART NUMBER	END YOKE "A" (Round Hole)					SLIP YOKE ASSEMBLY "B" (Round, Square or Hex Hole)			
	Part Number	Hole Diameter	SAE Keyway Width	Set Screw Hole Viewed From Hub End & Keyway at 12		Part Number	Hole Diameter	SAE Keyway Width	Lube Fitting Part Number
				Diameter	Location				
"A" – Round Hole ..... "B" – Square Hole ..... Use Kit 5-170X									
10243-47SF	10-4-173	.812	.250	.375	9	10-3-22X	.875	–	500174-1
10243-71SF	10-4-53	.875	.188	.375	6	10-3-22X	.875	–	500174-1
10243-7SF	10-4-63	.875	.250	.375	6	10-3-22X	.875	–	500174-1
10243-13SF	10-4-93	1.000	.250	.375	6	10-3-22X	.875	–	500174-1
10243-14SF	10-4-113	1.125	.312	.375	6	10-3-22X	.875	–	500174-1
10243-94SF	10-4-123	1.250	.312	.375	6	10-3-22X	.875	–	500174-1
"A" – Round Hole ..... "B" – Hex Hole ..... Use Kit 5-170X									
10243-65SF	10-4-63	.875	.250	.375	6	10-3-32X	1.125	–	500174-1
10243-36SF	10-4-93	1.000	.250	.375	6	10-3-32X	1.125	–	500174-1
10243-49SF	10-4-103	1.125	.250	.375	6	10-3-32X	1.125	–	500174-1
10243-38SF	10-4-113	1.125	.312	.375	6	10-3-32X	1.125	–	500174-1
10243-9SF	10-4-123	1.250	.312	.375	6	10-3-32X	1.125	–	500174-1

END YOKE & SLIP YOKE ASSEMBLY PART NUMBER	END YOKE "A" (Round Hole)					SLIP YOKE ASSEMBLY "B" (Spline Hole)		
	Part Number	Hole Diameter	SAE Keyway Width	Set Screw Hole Viewed From Hub End & Keyway at 12		Part Number	Hole Diameter & Number of Spline	Lube Fitting Part Number
				Diameter	Location			
"A" – Round Hole ..... "B" – Spline Hole ..... Use Kit 5-170X								
10243-82SF	10-4-63	.875	.250	.375	6	10-4-51X	1.250 – 6B Spline	500174-1
10243-85SF	10-4-93	1.000	.250	.375	6	10-4-51X	1.250 – 6B Spline	500174-1
10243-44SF	10-4-253	.875	.250	.375	3 & 9	10-4-81X	1.125 – 10C Spline	500174-1
10243-46SF	10-4-93	1.000	.250	.375	6	10-4-81X	1.125 – 10C Spline	500174-1

 NOTE: Assembly numbers are shown for reference only. Order components if an SF assembly is needed.

(For Installations Not Requiring Slip Movement)





COMPANION FLANGE, FLANGE YOKE, & END YOKE ASS'Y PART NO.	COMPANION FLANGE "A" (Round Hole)					END YOKE "B" (Round Hole)					"C" FLANGE YOKE PART NUMBER
	Part Number	Hole Diameter	SAE Keyway Width	Set Screw Hole Viewed From Hub End & Keyway at 12		Part Number	Hole Diameter	SAE Keyway Width	Set Screw Hole Viewed From Hub End & Keyway at 12		
				Diameter	Location				Diameter	Location	
1110 Series ..... Use Kit 5-111X (With Lubrication Fittings) to replace 5-101X											
8106-3SF	**1-1-273**	1.250	.312	.375	6	**1-4-933**	1.250	.312	.375	6	**1-2-39**

NOTE: Assembly numbers are shown for reference only. Order components if an SF assembly is needed.

Dana Corporation
Toledo, Ohio 43697

SPICER®

DANA