

North American Clutch & Driveline

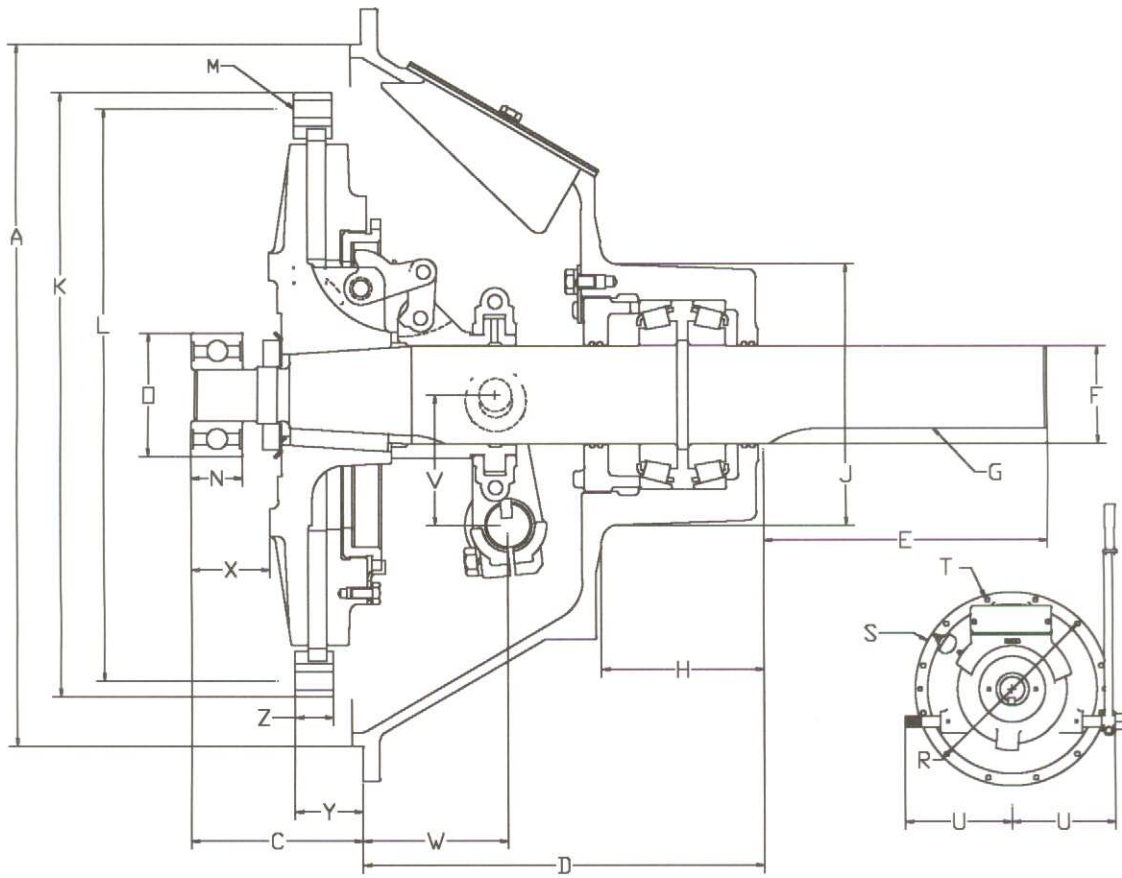
Shipping Address:
10901 North Second St.
Machesney Park, IL 61115

Mailing Address:
P.O. Box 5305
Rockford, IL 61125

Phone:
(815) 282-7960
(800) 383-9204

Fax:
(815) 282-9160

Email:
sales@naclutch.com



All dimensions are in inches unless otherwise specified. Listing subject to change without notice. * The figure listed below is torque capacity of the clutch. To determine the actual clutch torque capacity required for any given application the torque service factor must be considered. See the chart and formula on the back side of this sheet to calculate the proper clutch torque capacity for your application or contact your NACD sales representative for recommendations. ** Other pilot bearing sizes are available. The illustrations are shown for identification of dimensions only. They are not intended to necessarily depict the actual size, exact shape or internal configuration of the part numbers listed.

PTO Part Number	Ball or Tapered Roller Brng Type	Model			Application (in-line or side loaded)	Type of Facing	Type Release Bearing	Clutch Torque Capacity lb. Ft *	A	C	D	Shaft		
		SAE Hsg Size	Clutch Size	Qty. of Facings								E Length	F Dia. + .000-.001	G Keyway
430794AM	Tapered	5	8"	1	Both	Organic	Bronze	210	12.375	3.94	7.06	6.00	1.750	1/2 x 1/4
431026AM	Tapered	4	8"	1	Both	Organic	Bronze	210	14.250	3.94	7.06	6.00	1.750	1/2 x 1/4
430985AM	Tapered	3	8"	1	Both	Organic	Bronze	210	16.125	3.94	7.06	6.00	1.750	1/2 x 1/4

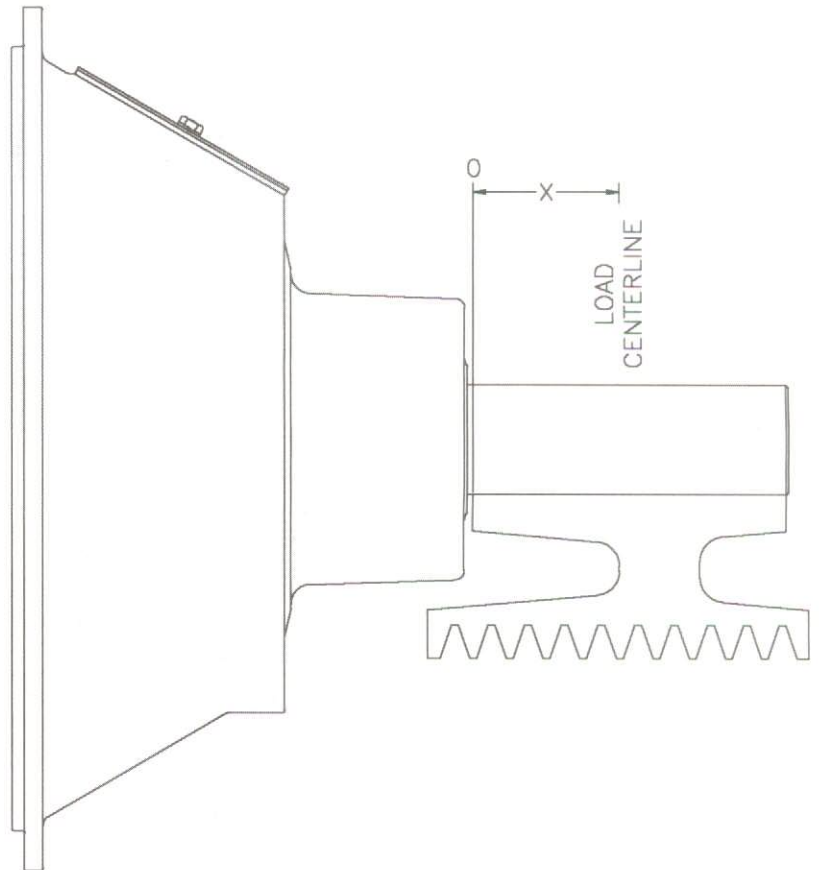
H	J	K	L	M (holes)		N	O see note**	R	S	T (holes)		U	V	W	X	Y	Z
				Qty.	Dia.					Qty.	Dia.						
2.31	4.00	10.375	9.625	6	.406	.6693	2.4409	13.125	14.00	8	.433	7.75	3.00	2.25	1.19	2.44	.62
2.75	4.00	10.375	9.625	6	.406	.6693	2.4409	15.000	15.88	12	.433	7.75	3.00	2.25	1.19	2.44	.62
2.31	4.50	10.375	9.625	6	.406	.6693	2.4409	16.875	17.75	12	.433	7.75	3.00	2.62	1.19	2.44	.62

Allowable Side Load Pulls:

The following formula can be used to calculate applied side load. Loads are calculated on proper tensioning of belts. If belts are tightened excessively, the resulting side load can exceed these limits

$$L = \frac{126000 \times \text{H.P.}}{N \times D} \times F \times A$$

- L** = Actual Applied Load (lbs.)
- N** = Shaft Speed (rev./min.)
- D** = Pitch Diameter of Sheaves, etc. (in.)
- F** = Load Factor (see below)
 - 1.0 for chain
 - 2.5 for V belt drive
 - 3.5 for flat belt drive
- A** = 1.0 for low & moderate duty drives
 - 1.4 for severe duty shock loads or large inertia loads (reciprocating compressors, crusher, chippers, planers, etc.)



Required Clutch Torque Capacity Calculation:

Required Clutch Torque = Maximum Engine Torque x Service Factor

Blower or Vacuum

- Centrifugal with free flow of air 1.7
- With high start-up inertia or subject to choking of air supply 4.0

Compressors

- Reciprocating, 1 or 2 cylinders 4.0
- Reciprocating, 3 or more cylinders 2.5
- Roto screw or turbine 2.0

Conveyor

- Fed uniformly 1.5
- Not fed uniformly 2.0
- Reciprocating 3.0

Drills 2.0

Generator 2.0

Pump

- Centrifugal or turbine 1.5
- Dredge 2.0
- Mud or reciprocating 3.0

Rock Crusher, Hammer Mill 3.0

Snow Blower 2.0

Wood Chipper, Saw Mill 3.0

Allowable Side Load (LBS) pulls for part numbers 430974AM, 431026AM, 430985AM

RPM	"X" Distance						
	0	1"	2"	3"	4"	5"	6"
2000	3220	1990	1440	1130	930	790	680
2400	3030	1870	1350	1060	870	740	640
2800	2800	1780	1290	1010	830	700	610
3200	2750	1700	1230	960	790	670	580

Rating: Shafts, bearings and clutch capacities are rated on a conservative basis. For unusually heavy starting loads, frequent engagement service, or if prime mover is engine of less than 4 cylinders, consult our sales representatives for recommendations. Extremely low speed engines require special consideration.