

North American Clutch & Driveline

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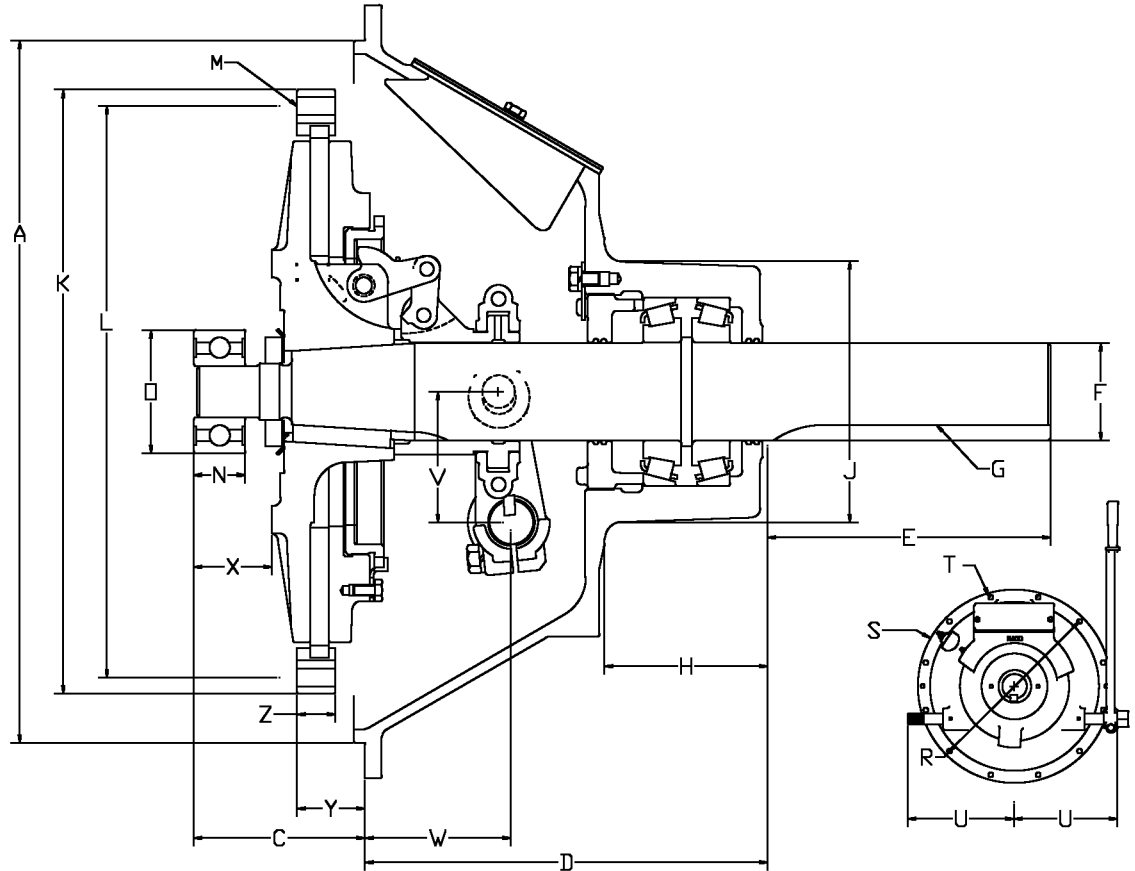
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All dimensions are in inches unless otherwise specified. Listing subject to change without notice. * The figure listed below is torque capacity of the clutch. To determine the actual clutch torque capacity required for any given application the torque 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. 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.

** Other pilot bearing sizes may be available.



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
430818AM	Tapered	5	8"	1	Both	Organic	Bronze	210	12.375	3.94	7.06	6.00	1.750	1/2 x 1/4
430974AM	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
438005AM	Tapered	4	8"	1	Both	Organic	Ball	210	14.250	3.94	7.06	6.00	1.750	1/2 x 1/4
434250AM	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

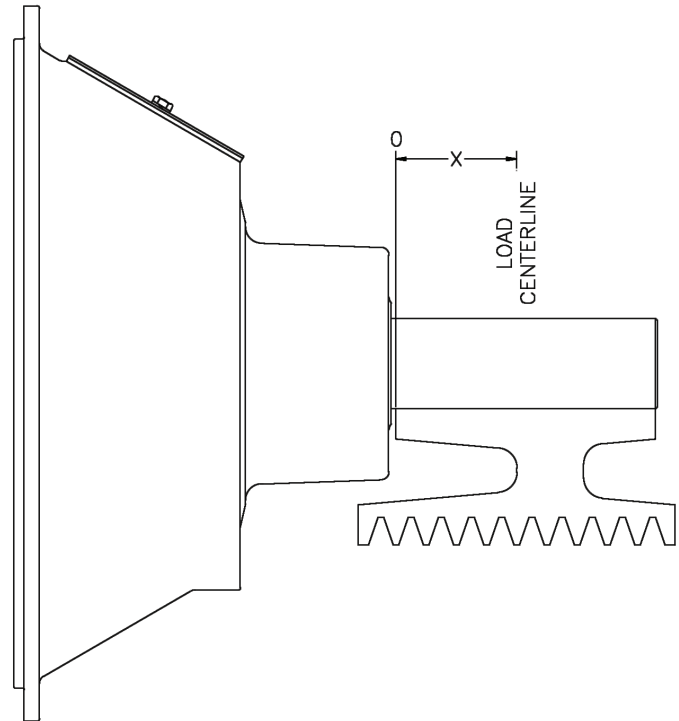
PTO Part Number	H	J	K	L	M (holes)		N	O see note**	R	S	T (holes)		U	V	W	X	Y	Z
					Qty.	Dia.					Qty.	Dia.						
430818AM	2.31	4.00	10.375	9.625	6	.406	.6875	1.574	13.125	14.00	8	.433	7.75	3.00	2.25	1.19	2.44	.62
430974AM	2.31	4.00	10.375	9.625	6	.406	.6693	2.4409	13.125	14.00	8	.433	7.75	3.00	2.25	1.19	2.44	.62
431026AM	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
438005AM	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
434250AM	2.75	4.00	10.375	9.625	6	.406	.6875	1.574	15.000	15.88	12	.433	7.75	3.00	2.25	1.19	2.44	.62
430985AM	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

Power Take-Off Part Numbers		430818AM, 434250AM				
RPM	X" Distance					
	0	1"	2"	3"	4"	
2000	2375	1475	1060	830	685	
2400	2225	1375	1000	780	640	
2800	2100	1320	940	740	610	
3200	2000	1260	900	710	580	

Power Take-Off Part Numbers		430974AM, 431026AM, 430985AM, 438005AM					
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

Ratings: 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.