NACD®

Standard Power Take-Offs

with 11.5" HE Clutches

North American Clutch & Driveline

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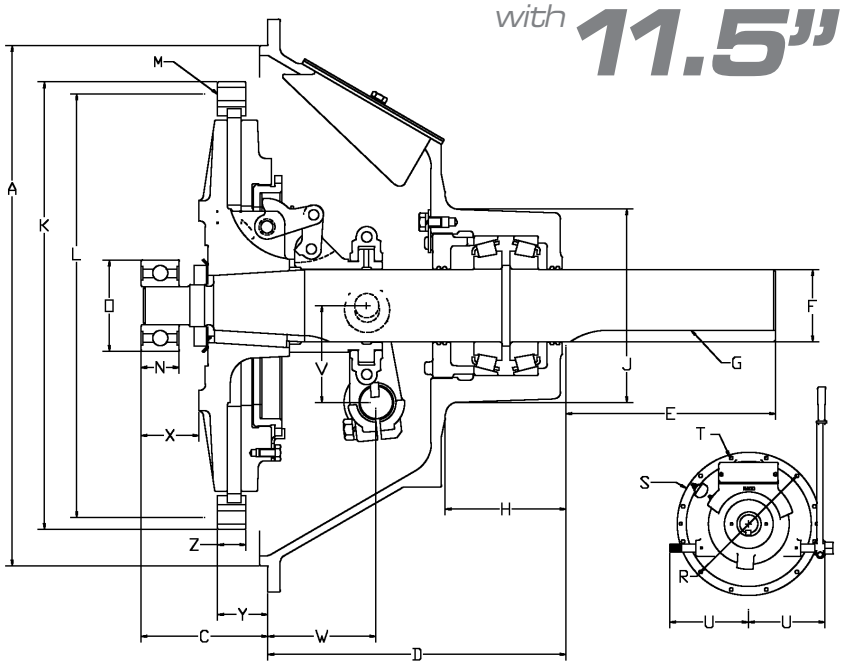


All dimensions are in inches unless otherwise specified. Listing subject to change without notice. * The figure listed below is torque capacity of the clutch. To determine the actual clutch torque capacity required for any given application the torque service factor must be considered. See the chart 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
434510AM	Tapered	3	11.5"	1	Both	Organic	Bronze	700	16.125	3.94	9.25	6.50	2.250	5/8 x 5/16
434510AM1	Tapered	3	11.5"	1	Both	Organic	Bronze	700	16.125	4.05	9.25	6.50	2.250	5/8 x 5/16
434200AM	Tapered	3	11.5"	1	Both	Organic	Ball	700	16.125	3.94	9.25	6.50	2.250	5/8 x 5/16
434511AM	Tapered	3	11.5"	1	Both	Feramic	Bronze	895	16.125	3.94	9.25	6.50	2.250	5/8 x 5/16
434845AM	Tapered	3	11.5"	2	Both	Organic	Bronze	1400	16.125	3.94	9.62	6.50	2.500	5/8 x 5/16
434220AM	Tapered	3	11.5"	2	Both	Organic	Ball	1400	16.125	3.94	9.62	6.50	2.500	5/8 x 5/16
434846AM	Tapered	3	11.5"	2	Both	Feramic	Bronze	1790	16.125	3.94	9.62	6.50	2.500	5/8 x 5/16
434514AM	Tapered	2	11.5"	1	Both	Organic	Bronze	700	17.625	3.94	9.25	6.50	2.250	5/8 x 5/16
434515AM	Tapered	2	11.5"	1	Both	Feramic	Bronze	895	17.625	3.94	9.25	6.50	2.250	5/8 x 5/16
411127AM	Tapered	2	11.5"	2	Both	Organic	Bronze	1400	17.625	3.94	9.62	6.50	2.500	5/8 x 5/16
434210AM	Tapered	2	11.5"	2	Both	Organic	Ball	1400	17.625	3.94	9.62	6.50	2.500	5/8 x 5/16
417778AM	Tapered	2	11.5"	2	Both	Feramic	Bronze	1790	17.625	3.94	9.62	6.50	2.500	5/8 x 5/16
411054AM	Tapered	1	11.5"	1	Both	Organic	Bronze	700	20.125	4.05	9.25	6.50	2.250	5/8 x 5/16
434516AM	Tapered	1	11.5"	1	Both	Organic	Bronze	700	20.125	3.94	9.25	6.50	2.250	5/8 x 5/16
434517AM	Tapered	1	11.5"	1	Both	Feramic	Bronze	895	20.125	3.94	9.25	6.50	2.250	5/8 x 5/16
411088AM	Tapered	1	11.5"	2	Both	Organic	Bronze	1400	20.125	3.94	9.62	6.50	2.500	5/8 x 5/16
427489AM	Tapered	1	11.5"	2	Both	Feramic	Bronze	1790	20.125	3.94	9.62	6.50	2.500	5/8 x 5/16

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.						
434510AM	3.75	6.00	13.875	13.125	8	.406	1.1875	2.8346	16.875	17.75	12	.433	9.75	3.00	3.35	1.81	1.56	.88
434510AM1	3.75	6.00	13.875	13.125	8	.406	N/S	N/S	16.875	17.75	12	.433	9.75	3.00	3.35	1.91	1.56	.88
434200AM	3.75	6.00	13.875	13.125	8	.406	1.1875	2.8346	16.875	17.75	12	.433	9.75	3.00	3.35	1.81	1.56	.88
434511AM	3.75	6.00	13.875	13.125	8	.406	1.1875	2.8346	16.875	17.75	12	.433	9.75	3.00	3.35	1.81	1.56	.88
434845AM	3.12	6.00	13.875	13.125	8	.406	1.1875	2.8346	16.875	17.75	12	.433	9.75	3.75	4.25	1.81	1.56	1.88
434220AM	3.12	6.00	13.875	13.125	8	.406	1.1875	2.8346	16.875	17.75	12	.433	9.75	3.75	4.25	1.81	1.56	1.88
434846AM	3.12	6.00	13.875	13.125	8	.406	1.1875	2.8346	16.875	17.75	12	.433	9.75	3.75	4.25	1.81	1.56	1.88
434514AM	3.75	6.00	13.875	13.125	8	.406	1.1875	2.8346	18.375	19.25	12	.433	9.75	3.00	3.25	1.81	1.56	.88
434515AM	3.75	6.00	13.875	13.125	8	.406	1.1875	2.8346	18.375	19.25	12	.433	9.75	3.00	3.25	1.81	1.56	.88
411127AM	3.12	6.00	13.875	13.125	8	.406	1.1875	2.8346	18.375	19.25	12	.433	9.75	3.75	4.25	1.81	1.56	1.88
434210AM	3.12	6.00	13.875	13.125	8	.406	1.1875	2.8346	18.375	19.25	12	.433	9.75	3.75	4.25	1.81	1.56	1.88
417778AM	3.12	6.00	13.875	13.125	8	.406	1.1875	2.8346	18.375	19.25	12	.433	9.75	3.75	4.25	1.81	1.56	1.88
411054AM	3.75	6.00	13.875	13.125	8	.406	N/S	N/S	20.875	21.75	12	.469	9.75	3.00	3.44	1.91	1.56	.88
434516AM	3.75	6.00	13.875	13.125	8	.406	1.1875	2.8346	20.875	21.75	12	.469	9.75	3.00	3.44	1.81	1.56	.88
434517AM	3.75	6.00	13.875	13.125	8	.406	1.1875	2.8346	20.875	21.75	12	.469	9.75	3.00	3.44	1.81	1.56	.88
411088AM	3.12	6.00	13.875	13.125	8	.406	1.1875	2.8346	20.875	21.75	12	.469	9.75	3.75	4.25	1.81	1.56	1.88
427489AM	3.12	6.00	13.875	13.125	8	.406	1.1875	2.8346	20.875	21.75	12	.469	9.75	3.75	4.25	1.81	1.56	1.88

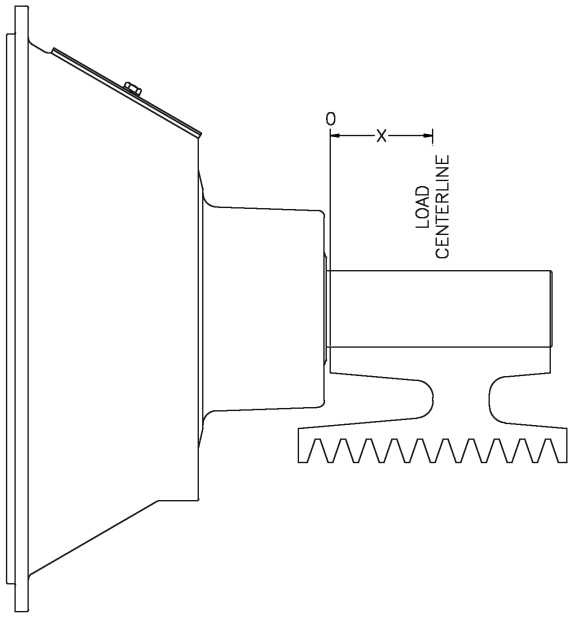
Allowable Side Load Pulls:

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

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

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
- Recriprocating 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

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.

Power Take-Off Part Numbers	434510AM, 434511AM, 434514AM, 434515AM, 434516AM, 434517AM, 434200AM						
	X" Distance						
RPM	0	1"	2"	3"	4"	5"	6"
2000	4860	4510	3890	3090	2570	2190	1910
2200	4730	4380	3770	3000	2490	2120	1850
2400	4610	4270	3660	2910	2410	2060	1800
2600	4500	4170	3560	2830	2350	2010	1750
2800	4400	4070	3480	2760	2290	1960	1710

Power Take-Off Part Numbers	411127AM, 411088AM, 417778AM, 427489AM, 434845AM, 434846AM, 434210AM, 434220AM						
	X" Distance						
RPM	0	1"	2"	3"	4"	5"	6"
2000	6820	5280	3940	3140	2610	2230	1950
2200	6630	5110	3810	3040	2530	2160	1890
2400	6460	4970	3710	2950	2460	2100	1840
2600	6300	4840	3610	2880	2390	2050	1790
2800	6170	4720	3520	2810	2330	2000	1740