

Twin Disc - AP Style

Standard Power Take-Offs

Foley Engines

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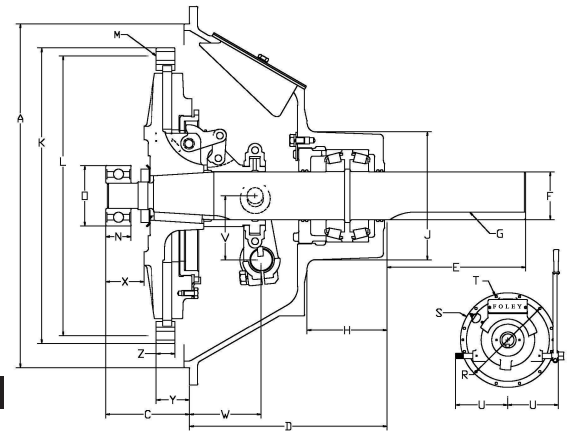
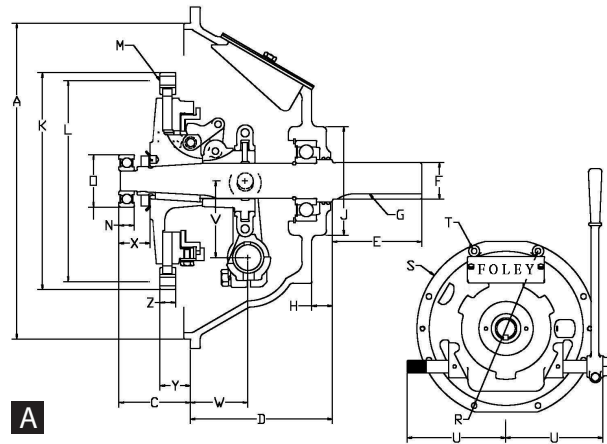
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Manufacturers names, symbols and numbers are for reference purposes only and do not imply manufacturing origin.

with **7.5"** ^{HE} Clutches



PTO Part Number	Illustration Reference	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
414565FO	A	Ball	6	7.5"	1	Inline/Limited	Organic	Bronze	175	10.500	2.81	5.56	3.50	1.437	3/8 x 3/16
414200FO	A	Ball	6	7.5"	1	Inline/Limited	Organic	Ball	175	10.500	2.81	5.56	3.50	1.437	3/8 x 3/16
411298FO	A	Ball	5	7.5"	1	Inline/Limited	Organic	Bronze	175	12.375	2.81	5.56	3.50	1.437	3/8 x 3/16
411298FO	B	Tapered	5	7.5"	1	Inline/Limited	Organic	Bronze	175	12.375	2.81	7.06	3.50	1.437	3/8 x 3/16
411298FO1	B	Tapered	5	7.5"	1	Both	Organic	Bronze	175	12.375	2.81	7.06	3.50	1.437	3/8 x 3/16
437300FO	B	Tapered	5	7.5"	1	Both	Organic	Ball	175	12.375	2.81	7.06	3.50	1.437	3/8 x 3/16
411298FO750	B	Tapered	5	7.5"	1	Both	Organic	Bronze	175	12.375	2.81	7.06	3.50	1.750	7/16 x 7/32
434194FO	B	Tapered	5	7.5"	1	Both	Organic	Ball	175	12.375	2.81	7.06	3.50	1.437	3/8 x 3/16
411238FO	A	Ball	4	7.5"	1	Both	Organic	Bronze	175	14.250	2.81	5.56	3.50	1.437	3/8 x 3/16
411238FO1	A	Ball	4	7.5"	1	Both	Organic	Bronze	175	14.250	2.81	5.56	2.81	1.437	3/8 x 3/16
411238FO	B	Tapered	4	7.5"	1	Inline/Limited	Organic	Bronze	175	14.250	2.81	7.06	3.50	1.437	3/8 x 3/16
411238FO1	B	Tapered	4	7.5"	1	Inline/Limited	Organic	Bronze	175	14.250	2.81	7.06	3.50	1.437	3/8 x 3/16
411238FO750	B	Tapered	4	7.5"	1	Both	Organic	Bronze	175	14.250	2.81	7.06	3.50	1.750	7/16 x 7/32
434193FO	A	Ball	4	7.5"	1	Both	Organic	Ball	175	14.250	2.81	5.56	3.50	1.437	3/8 x 3/16
434196FO	B	Tapered	4	7.5"	1	Both	Organic	Ball	175	14.250	2.81	7.06	3.50	1.437	3/8 x 3/16

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.						
414565FO	.81	4.25	9.50	8.750	8	.344	.5906	2.0472	11.250	12.12	8	.406	7.75	3.00	2.25	1.22	1.19	.62
414200FO	.81	4.25	9.50	8.750	8	.344	.5906	2.0472	11.250	12.12	8	.406	7.75	3.00	2.25	1.22	1.19	.62
411298FO	.81	4.25	9.50	8.750	8	.344	.5906	2.0472	13.125	14.00	8	.406	7.75	3.00	2.25	1.22	1.19	.62
411298FO	2.31	4.00	9.50	8.750	8	.344	.5906	2.0472	13.125	14.00	8	.406	7.75	3.00	2.25	1.22	1.19	.62
411298FO1	2.31	4.00	9.50	8.750	8	.344	.6260	1.3780	13.125	14.00	8	.406	7.75	3.00	2.25	1.22	1.19	.62
437300FO	2.31	4.00	9.50	8.750	8	.344	.6260	1.3780	13.125	14.00	8	.406	7.75	3.00	2.25	1.22	1.19	.62
411298T750	2.31	4.00	9.50	8.750	8	.344	.5906	2.0472	13.125	14.00	8	.406	7.75	3.00	2.25	1.22	1.19	.62
434194FO	2.31	4.00	9.50	8.750	8	.344	.5906	2.0472	13.125	14.00	8	.406	7.75	3.00	2.25	1.22	1.19	.62
411238FO	.88	4.25	9.50	8.750	8	.344	.5906	2.0472	15.00	15.88	12	.433	7.75	3.00	2.25	1.22	1.19	.62
411238FO1	.88	4.25	9.50	8.750	8	.344	.5906	2.0472	15.00	15.88	12	.433	7.75	3.00	2.25	1.22	1.19	.62
411238FO	2.81	4.00	9.50	8.750	8	.344	.5906	2.0472	15.00	15.88	12	.433	7.75	3.00	2.25	1.22	1.19	.62
411238TFO1	2.81	4.00	9.50	8.750	8	.344	.6260	1.3780	15.00	15.88	12	.433	7.75	3.00	2.25	1.22	1.19	.62
411238FO750	2.81	4.00	9.50	8.750	8	.344	.5906	2.0472	15.00	15.88	12	.433	7.75	3.00	2.25	1.22	1.19	.62
434193FO	.88	4.25	9.50	8.750	8	.344	.5906	2.0472	15.00	15.88	12	.433	7.75	3.00	2.25	1.22	1.19	.62
434196FO	2.81	4.00	9.50	8.750	8	.344	.5906	2.0472	15.00	15.88	12	.433	7.75	3.00	2.25	1.22	1.19	.62

with **7.5"** ^{HE} Clutches**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)

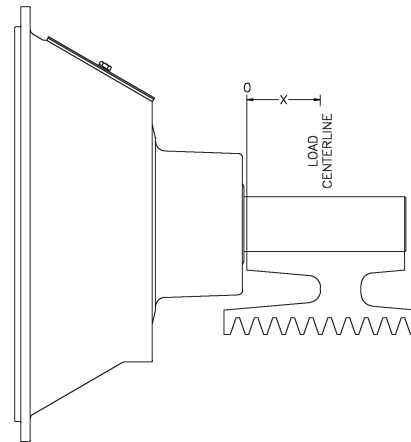
1.0 for chain

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.)



Power Take-Off Part Numbers **411238FO1, 411238FO, 411298FO, 414200FO, 414565FO, 434193FO**

RPM	X" Distance			
	0	1"	2"	3"
1600	904	804	724	658
1900	854	459	683	621
2200	813	723	651	592
2500	779	693	624	567
2800	750	667	601	546
3100	725	645	581	528

Power Take-Off Part Numbers **411298FO, 411298FO750, 411238FO, 411238FO750, 434194FO, 434196FO**

RPM	X" Distance			
	0	1"	2"	3"
1600	1350	1225	1030	820
1900	1300	1175	995	790
2200	1250	1125	960	760
2500	1200	1075	925	730
2800	1150	1025	890	700
3100	1100	975	855	670

Power Take-Off Part Numbers **437300FO, 411238FO, 411298FO1**

RPM	X" Distance		
	0	1"	2"
1600	1350	1100	800
1900	1300	1050	765
2200	1250	1000	730
2500	1200	950	695
2800	1150	900	660
3100	1100	850	625

Required Clutch Torque Capacity Calculation:

Required Clutch Torque = Maximum Engine Torque x Service Factor

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- 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 3.0

Mill Snow Blower 2.0

Wood Chipper, Saw Mill 3.0

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