

RE Series

Medium Duty Hydraulic Motor



RE (All Series)
For Medium Duty Applications

OVERVIEW

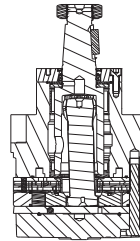
RE Series motors offer the perfect compromise between price and performance by producing work horse power at a reasonable cost. Although these motors perform well in a wide range of applications, they are especially suited for low flow, high pressure applications. During startup, pressure causes the balance plate to flex toward the rotor, vastly improving volumetric efficiency. As the motor reaches operating pressure, the balance plate relaxes, allowing the rotor to turn freely which translates into higher mechanical efficiencies. Transmitting this power to the output shaft is the most durable drive link in its class. Four bearing options, combined with standard mounting flanges and output shafts, allow the motor to be configured to suit nearly any application.

FEATURES / BENEFITS

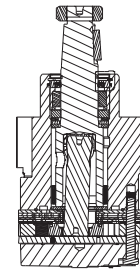
- High Pressure Shaft Seal offers superior seal life and performance and eliminates need for case drain.
- Three Bearing Options allow load carrying capability of motor to be matched to application.
- Heavy-Duty Drive Link is the most durable in its class and receives full flow lubrication to provide long life.
- Valve-In-Rotor Design provides cost effective, efficient distribution of oil and reduces overall motor length.
- Pressure-Compensated Balance Plate improves volumetric efficiency at low flows and high pressure.

SERIES DESCRIPTIONS

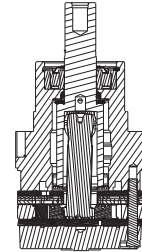
505/506 - Hydraulic Motor
Standard



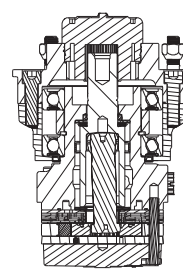
530/531 - Hydraulic Motor
With Heavy Duty Bearing



520/521 - Hydraulic Motor
With Medium Duty Bearing



540/541 - Hydraulic Motor
With Wheel Hub



TYPICAL APPLICATIONS

Medium-duty wheel drives, augers, mixers, winch drives, swing drives, grapple heads, feed rollers, broom drives and more

SPECIFICATIONS

CODE	Displacement cm ³ [in ³ /rev]	Max. Speed rpm		Max. Flow lpm [gpm]		Max. Torque Nm [lb-in]		Max. Pressure bar [psi]		
		cont.	inter.	cont.	inter.	cont.	inter.	cont.	inter.	peak
120	121 [7.4]	360	490	45 [12]	61 [16]	327 [2900]	383 [3400]	207 [3000]	241 [3500]	276 [4000]
160	162 [9.9]	370	470	61 [16]	76 [20]	475 [4200]	542 [4800]	207 [3000]	241 [3500]	276 [4000]
200	204 [12.4]	300	370	68 [18]	83 [22]	542 [4800]	633 [5600]	207 [3000]	241 [3500]	276 [4000]
230	232 [14.2]	260	320	68 [18]	83 [22]	644 [5700]	712 [6300]	207 [3000]	241 [3500]	276 [4000]
260	261 [15.9]	260	350	76 [20]	91 [24]	712 [6300]	791 [7000]	207 [3000]	241 [3500]	276 [4000]
300	300 [18.3]	250	320	83 [22]	95 [25]	825 [7300]	938 [8300]	207 [3000]	241 [3500]	276 [4000]
350	348 [21.2]	220	270	83 [22]	95 [25]	921 [8150]	1045 [9250]	207 [3000]	241 [3500]	276 [4000]
375	375 [22.8]	200	250	76 [20]	91 [24]	1006 [8900]	1158 [10250]	207 [3000]	241 [3500]	276 [4000]
470	465 [28.3]	160	200	76 [20]	91 [24]	1096 [9700]	1184 [10475]	172 [2500]	189 [2750]	207 [3000]
540	536 [32.7]	140	170	76 [20]	91 [24]	983 [8700]	1243 [11000]	138 [2000]	173 [2500]	207 [3000]
620	631 [38.5]	120	150	76 [20]	91 [24]	1014 [8976]	1291 [11421]	121 [1750]	155 [2250]	173 [2500]
750	748 [45.6]	100	130	76 [20]	91 [24]	1062 [9400]	1237 [10950]	103 [1500]	121 [1750]	138 [2000]

► Performance data is typical. Performance of production units varies slightly from one motor to another. Running at intermittent ratings should not exceed 10% of every minute of operation.

RE Series

Medium Duty Hydraulic Motor



RE (All Series)

For Medium Duty Applications

DISPLACEMENT PERFORMANCE

		Pressure - bar [psi]						Max. Cont.	Max. Inter.		
120		17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500]	207 [3000]	241 [3500]		
121 cm ³ [7.4 in ³] / rev											
Flow - lpm [gpm]	Torque - Nm [lb-in], Speed rpm	Intermittent Ratings - 10% of Operation								Theoretical rpm	
	2 [0.5]	21 [187] 14	51 [448] 13	97 [859] 11	140 [1239] 8						16
	4 [1]	24 [215] 26	54 [474] 25	111 [986] 25	162 [1429] 20	225 [1991] 13					32
	8 [2]		57 [500] 58	118 [1043] 53	176 [1554] 51	226 [1997] 44	271 [2400] 40	302 [2673] 35	343 [3036] 27		63
	15 [4]		54 [479] 111	116 [1030] 106	186 [1642] 97	237 [2094] 93	278 [2459] 89	335 [2964] 85	359 [3179] 79		125
	23 [6]		49 [433] 174	116 [1023] 167	168 [1483] 155	232 [2051] 150	279 [2467] 144	328 [2903] 139	360 [3185] 137		188
	30 [8]			111 [984] 245	169 [1497] 214	223 [1973] 205	283 [2505] 200	326 [2884] 197	385 [3404] 188		250
	38 [10]			104 [923] 294	166 [1469] 281	218 [1930] 269	272 [2411] 261	325 [2878] 250	385 [3404] 242		313
	45 [12]			99 [872] 358	161 [1428] 344	217 [1918] 331	276 [2444] 326	321 [2839] 321	385 [3403] 304		375
	53 [14]			91 [807] 415	155 [1372] 413	208 [1845] 398	267 [2363] 391	338 [2992] 369			438
61 [16]			84 [745] 487	145 [1283] 475	211 [1864] 457	272 [2403] 447	327 [2897] 427		500		
Rotor Width		Overall Efficiency - 70 - 100% ☐ 40 - 69% ☐ 0 - 39% ☐									
13.8 [542]		Theoretical Torque - Nm [lb-in]									
mm [in]		33 [295]	67 [589]	133 [1178]	200 [1768]	266 [2357]	333 [2946]	399 [3535]	466 [4124]		
Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]											



RE (All Series)
For Medium Duty Applications

DISPLACEMENT PERFORMANCE

		Pressure - bar [psi]						Max. Cont.	Max. Inter.
200		17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500]	207 [3000]	241 [3500]
204 cm ³ [12.4 in ³] / rev									
		Torque - Nm [lb-in], Speed rpm						Intermittent Ratings - 10% of Operation	
Flow - lpm [gpm]	2 [0.5]	40 [358] 7	91 [808] 4	133 [1181] 4	294 [2602] 4	375 [3323] 3			10
	4 [1]	43 [376] 16	85 [753] 13	200 [1769] 12	276 [2442] 11	373 [3304] 10	442 [3915] 9	526 [4656] 6	19
	8 [2]	44 [385] 34	93 [851] 31	195 [1727] 29	299 [2646] 27	374 [3311] 27	461 [4079] 25	542 [4792] 23	38
	15 [4]	39 [347] 72	94 [834] 69	198 [1752] 67	305 [2701] 63	401 [3549] 60	477 [4222] 58	544 [4818] 55	75
	23 [6]		82 [724] 111	191 [1694] 109	284 [2518] 107	389 [3446] 103	463 [4098] 100	553 [4894] 99	112
	30 [8]		80 [704] 148	188 [1661] 145	285 [2518] 141	402 [3556] 136	458 [4053] 134	543 [4802] 130	150
	38 [10]		66 [581] 185	180 [1592] 181	276 [2445] 176	364 [3224] 173	458 [4051] 170	535 [4737] 164	187
	45 [12]			165 [1462] 221	261 [2312] 214	362 [3200] 210	450 [3982] 207	535 [4731] 198	224
	53 [14]			150 [1328] 257	273 [2413] 256	368 [3253] 247	449 [3975] 244	558 [4936] 241	261
	61 [16]			134 [1183] 296	253 [2242] 292	335 [2969] 284	435 [3850] 277	524 [4639] 273	299
Max. Inter.	68 [18]		121 [1068] 334	232 [2056] 330	339 [3003] 327	416 [3686] 320	512 [4532] 313	599 [5299] 308	336
	76 [20]		110 [970] 372	206 [1823] 372	308 [2725] 365	401 [3552] 357	507 [4484] 352		373
	83 [22]			191 [1689] 407	285 [2520] 403	379 [3353] 397	486 [4303] 388		410
Rotor Width									
17.3 [.682]									
mm [in]									
		Overall Efficiency - 70 - 100% 40 - 69% 0 - 39%							
		Theoretical Torque - Nm [lb-in]							
		56 [494]	112 [987]	223 [1975]	335 [2962]	446 [3949]	558 [4936]	669 [5924]	781 [6911]
Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]									

DISPLACEMENT PERFORMANCE

Theoretical partTheoretical rpt

► Performance data is typical. Performance of production units varies slightly from one motor to another. Operating at maximum continuous pressure and maximum continuous flow simultaneously is not recommended. For additional information on product testing please refer to page 7.



RE (All Series)
For Medium Duty Applications

DISPLACEMENT PERFORMANCE

		Pressure - bar [psi]							Max. Cont.	Max. Inter.
		17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500]	207 [3000]	241 [3500]	
350										
348 cm ³ [21.2 in ³] / rev										
Flow - lpm [gpm]		Torque - Nm [lb-in], Speed rpm							Intermittent Ratings - 10% of Operation	
		64 [566]	134 [1183]	272 [2404]	399 [3532]					
Max. Cont.	2 [0.5]	4	4	3	2					6
	4 [1]	10	9	8	8					11
	8 [2]	21	20	19	18	600 [5308]	742 [6571]	855 [7569]		22
	15 [4]	42	41	40	39	630 [5577]	772 [6834]	889 [7869]	993 [8785]	44
	23 [6]	64	63	62	60	630 [5577]	768 [6796]	925 [8182]	1032 [9137]	66
	30 [8]	86	85	84	82	626 [5537]	768 [6793]	928 [8210]	1051 [9300]	88
	38 [10]	108	108	108	108	601 [5317]	745 [6593]	910 [8056]	1062 [9399]	109
	45 [12]	130	129	128	125	581 [5144]	740 [6552]	891 [7889]	1044 [9237]	131
	53 [14]	152	151	150	147	570 [5044]	723 [6398]	881 [7794]	1031 [9126]	153
	61 [16]	173	173	172	170	549 [4859]	720 [6375]	850 [7522]	1012 [8952]	175
Max. Inter.	68 [18]					571 [5054]	693 [6134]	839 [7428]	986 [8727]	197
	76 [20]					513 [4544]	683 [6044]	835 [7385]	975 [8632]	218
	83 [22]					554 [4906]	685 [6064]	813 [7198]	958 [8482]	240
	91 [24]					534 [4724]	666 [5890]			262
	95 [25]					529 [4682]	647 [5730]			273
						271	270	265		
Overall Efficiency - 70 - 100% ☐ 40 - 69% ☐ 0 - 39% ☐										
Theoretical Torque - Nm [lb-in]										
		95 [844]	191 [1688]	381 [3376]	572 [5064]	763 [6752]	954 [8439]	1144 [10127]	1335 [11815]	
Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]										
Rotor Width										
39.4 [1.553]										
mm [in]										

		Pressure - bar [psi]							Max. Cont.	Max. Inter.
		17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500]	207 [3000]	241 [3500]	
375										
375 cm ³ [22.8 in ³] / rev										
Flow - lpm [gpm]		Torque - Nm [lb-in], Speed rpm							Intermittent Ratings - 10% of Operation	
		76 [674]								
Max. Cont.	2 [0.5]	3								6
	4 [1]	8	162 [1432]	329 [2911]	490 [4337]	639 [5652]	763 [6756]			11
	8 [2]	18	171 [1510]	361 [3196]	537 [4754]	689 [6095]	836 [7399]	955 [8449]		21
	15 [4]	39	163 [1439]	358 [3164]	537 [4756]	695 [6151]	857 [7587]	989 [8750]	1121 [9923]	41
	23 [6]	60	158 [1398]	354 [3130]	527 [4661]	695 [6155]	864 [7642]	1011 [8951]	1168 [10334]	61
	30 [8]	80	149 [1321]	340 [3010]	510 [4512]	695 [6154]	845 [7476]	1009 [8930]	1156 [10229]	82
	38 [10]	100	134 [1187]	322 [2849]	495 [4383]	681 [6024]	836 [7399]	1007 [8913]	1157 [10235]	102
	45 [12]	121	115 [1013]	301 [2661]	480 [4249]	645 [5711]	809 [7159]	980 [8674]	1141 [10098]	122
	53 [14]	141	93 [819]	280 [2475]	477 [4218]	633 [5602]	795 [7036]	949 [8402]	1117 [9887]	142
	61 [16]	161	73 [646]	261 [2314]	429 [3797]	598 [5296]	770 [6817]	934 [8267]	1085 [9605]	163
Max. Inter.	68 [18]									183
	76 [20]									203
	83 [22]									223
	91 [24]									244
Overall Efficiency - 70 - 100% ☐ 40 - 69% ☐ 0 - 39% ☐										
Theoretical Torque - Nm [lb-in]										
		103 [908]	205 [1815]	410 [3631]	615 [5446]	821 [7261]	1026 [9076]	1231 [10892]	1436 [12707]	
Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]										
Rotor Width										
31.8 [1.252]										
mm [in]										

► Performance data is typical. Performance of production units varies slightly from one motor to another. Operating at maximum continuous pressure and maximum continuous flow simultaneously is not recommended. For additional information on product testing please refer to page 7.

RE Series

Medium Duty Hydraulic Motor



RE (All Series)

For Medium Duty Applications

DISPLACEMENT PERFORMANCE

		Pressure - bar [psi]					Max. Cont.	Peak
		17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500]	207 [3000]
470								
465 cm ³ [28.3 in ³] / rev								
		Torque - Nm [lb-in], Speed rpm					Intermittent Ratings - 10% of Operation	
Flow - lpm [gpm]	2 [0.5]	93 [823]	185 [1635]					5
	4 [1]	97 [857]	203 [1794]	409 [3618]	610 [5402]	815 [7209]		9
	8 [2]	98 [865]	209 [1845]	435 [3851]	659 [5836]	855 [7563]	1025 [9071]	1196 [10586]
	15 [4]	94 [834]	200 [1774]	444 [3932]	659 [5829]	886 [7836]	1066 [9434]	1250 [11062]
	23 [6]	86 [759]	193 [1704]	438 [3880]	673 [5955]	872 [7715]	1073 [9499]	1258 [11128]
	30 [8]	73 [643]	179 [1587]	424 [3752]	663 [5863]	857 [7586]	1098 [9718]	1279 [11317]
	38 [10]	52 [464]	164 [1455]	407 [3597]	627 [5550]	851 [7533]	1067 [9444]	1276 [11288]
	45 [12]		141 [1248]	379 [3350]	630 [5575]	832 [7363]	1067 [9441]	1273 [11264]
	53 [14]		114 [1006]	350 [3094]	580 [5133]	802 [7101]	1013 [8964]	1222 [10817]
	61 [16]		83 [736]	322 [2846]	545 [4819]	796 [7040]	965 [8538]	1190 [10528]
	68 [18]		56 [497]	275 [2434]	526 [4657]	737 [6519]	956 [8464]	1166 [10317]
	76 [20]			235 [2078]	479 [4239]	706 [6249]	917 [8117]	1122 [9933]
Max. Cont.	83 [22]			202 [1790]	460 [4075]	669 [5920]	883 [7811]	
	91 [24]			157 [1392]	385 [3410]	620 [5484]	843 [7464]	
				195	194	190	186	
Rotor Width								
39.4 [1.553]								
mm [in]								
		Overall Efficiency - 70 - 100% 40 - 69% 0 - 39%						
		Theoretical Torque - Nm [lb-in]						
		127 [1127]	255 [2253]	509 [4506]	764 [6760]	1018 [9013]	1273 [11266]	1528 [13519]
		Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]						

		Pressure - bar [psi]					Max. Cont.	Max. Inter.
		17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500]	
540								
536 cm ³ [32.7 in ³] / rev								
		Torque - Nm [lb-in], Speed rpm					Intermittent Ratings - 10% of Operation	
Flow - lpm [gpm]	2 [0.5]	104 [921]	197 [1748]					4
	4 [1]	126 [1111]	230 [2031]	467 [4136]	699 [6183]	939 [8310]	1149 [10165]	8
	8 [2]	134 [1189]	240 [2120]	501 [4436]	755 [6679]	977 [8646]	1185 [10484]	15
	15 [4]	120 [1058]	232 [2055]	510 [4510]	757 [6697]	988 [8740]	1223 [10827]	29
	23 [6]	97 [859]	224 [1984]	505 [4469]	783 [6930]	993 [8787]	1225 [10838]	43
	30 [8]	78 [692]	213 [1887]	484 [4285]	750 [6635]	983 [8698]	1251 [11075]	57
	38 [10]	59 [523]	190 [1678]	455 [4026]	728 [6445]	959 [8487]	1244 [11008]	71
	45 [12]		176 [1554]	438 [3879]	719 [6360]	945 [8360]	1203 [10646]	85
	53 [14]		139 [1233]	418 [3703]	682 [6035]	952 [8421]	1183 [10467]	99
	61 [16]		109 [963]	385 [3407]	668 [5908]	899 [7957]	1163 [10290]	114
	68 [18]		83 [736]	356 [3154]	612 [5417]	869 [7694]	1116 [9876]	128
	76 [20]			323 [2861]	603 [5333]	829 [7335]	1109 [9816]	142
Max. Cont.	83 [22]			297 [2629]	537 [4753]	792 [7011]		156
	91 [24]			215 [1905]	491 [4349]	750 [6639]		170
				169	168	168		
Rotor Width								
45.5 [1.791]								
mm [in]								
		Overall Efficiency - 70 - 100% 40 - 69% 0 - 39%						
		Theoretical Torque - Nm [lb-in]						
		147 [1302]	294 [2604]	588 [5207]	883 [7811]	1177 [10414]	1471 [13018]	
		Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]						

► Performance data is typical. Performance of production units varies slightly from one motor to another. Operating at maximum continuous pressure and maximum continuous flow simultaneously is not recommended. For additional information on product testing please refer to page 7.



RE (All Series)
For Medium Duty Applications

DISPLACEMENT PERFORMANCE

		Pressure - bar [psi]				Max. Cont.	Max. Inter.
		17 [250]	35 [500]	69 [1000]	104 [1500]	121 [1750]	155 [2250]
620							
631 cm ³ [38.5 in ³] / rev							
		Torque - Nm [lb-in], Speed rpm				Intermittent Ratings - 10% of Operation	
Flow - lpm [gpm]	2 [0.5]	120 [1060]	228 [2021]				3
	4 [1]	136 [1202]	264 [2332]	535 [4733]	796 [7048]	935 [8275]	6
	8 [2]	142 [1256]	276 [2445]	571 [5055]	853 [7550]	985 [8717]	12
	15 [4]	131 [1159]	269 [2379]	581 [5141]	870 [7696]	1008 [8920]	24
	23 [6]	111 [982]	260 [2300]	575 [5087]	883 [7811]	1014 [8976]	36
	30 [8]	91 [809]	247 [2184]	555 [4914]	855 [7570]	1000 [8853]	48
	38 [10]	67 [595]	220 [1943]	526 [4655]	833 [7372]	972 [8602]	60
	45 [12]		203 [1794]	504 [4456]	815 [7208]	953 [8437]	72
	53 [14]		160 [1419]	476 [4213]	778 [6888]	930 [8233]	84
	61 [16]		124 [1095]	439 [3885]	753 [6666]	895 [7917]	96
	68 [18]		91 [801]	407 [3599]	703 [6223]	852 [7537]	108
	76 [20]			358 [3172]	675 [5974]	815 [7215]	120
Max. Cont.	83 [22]			328 [2901]	614 [5431]	759 [6715]	132
	91 [24]			247 [2185]	556 [4922]	706 [6249]	144
				143	142	141	
Rotor Width							
54.0							
[2.125]							
mm [in]							
		Overall Efficiency - 70 - 100% ☐ 40 - 69% ☐ 0 - 39% ☐					
		Theoretical Torque - Nm [lb-in]					
		173 [1532]	346 [3064]	692 [6127]	1039 [9191]	1212 [10729]	1559 [13794]
		Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]					

		Pressure - bar [psi]				Max. Cont.	Peak
		17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	
750							
748 cm ³ [45.6 in ³] / rev							
		Torque - Nm [lb-in], Speed rpm				Intermittent Ratings - 10% of Operation	
Flow - lpm [gpm]	2 [0.5]	147 [1299]	281 [2487]				3
	4 [1]	156 [1379]	322 [2852]	652 [5768]	967 [8554]	1308 [11571]	6
	8 [2]	158 [1403]	339 [3003]	693 [6134]	1027 [9088]	1360 [12033]	11
	15 [4]	153 [1350]	331 [2933]	705 [6241]	1064 [9419]	1416 [12534]	21
	23 [6]	135 [1194]	321 [2840]	697 [6166]	1059 [9373]	1408 [12462]	31
	30 [8]	114 [1008]	304 [2690]	678 [6002]	1039 [9197]	1421 [12573]	41
	38 [10]	82 [722]	271 [2395]	648 [5733]	1015 [8980]	1371 [12130]	51
	45 [12]	54 [477]	249 [2207]	616 [5452]	983 [8699]	1345 [11902]	61
	53 [14]		197 [1739]	577 [5104]	946 [8372]	1311 [11600]	71
	61 [16]		150 [1325]	533 [4718]	905 [8008]	1271 [11249]	82
	68 [18]		105 [927]	494 [4374]	860 [7614]	1225 [10843]	92
	76 [20]		62 [552]	423 [3741]	805 [7123]	1173 [10385]	102
Max. Cont.	83 [22]			385 [3404]	747 [6608]		112
	91 [24]			302 [2669]	670 [5932]		122
				121	120		
Rotor Width							
63.5							
[2.501]							
mm [in]							
		Overall Efficiency - 70 - 100% ☐ 40 - 69% ☐ 0 - 39% ☐					
		Theoretical Torque - Nm [lb-in]					
		205 [1815]	410 [3631]	821 [7261]	1231 [10892]	1641 [14522]	
		Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]					

► Performance data is typical. Performance of production units varies slightly from one motor to another. Operating at maximum continuous pressure and maximum continuous flow simultaneously is not recommended. For additional information on product testing please refer to page 7.

RE Series

Medium Duty Hydraulic Motor

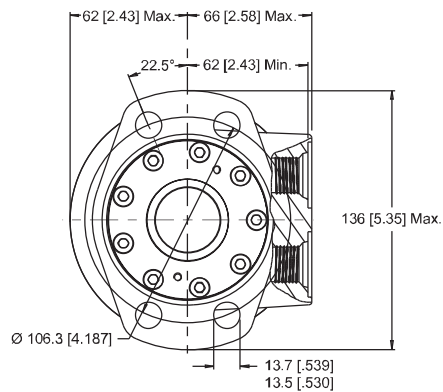


RE (505/506 Series) Medium Duty Hydraulic Motor

HOUSINGS

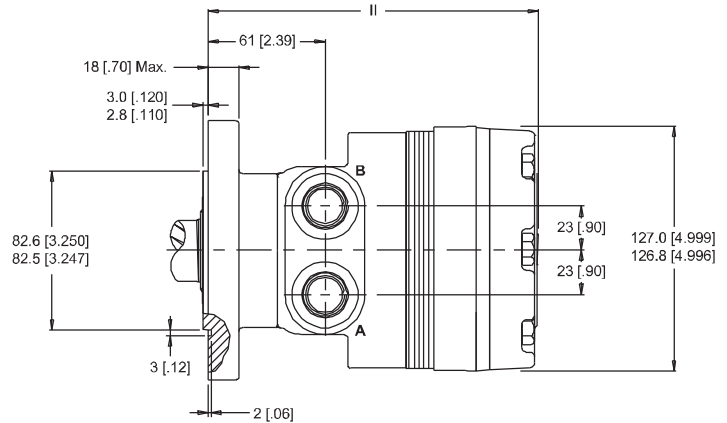
4-HOLE, MAGNETO MOUNT, ALIGNED PORTS

STANDARD

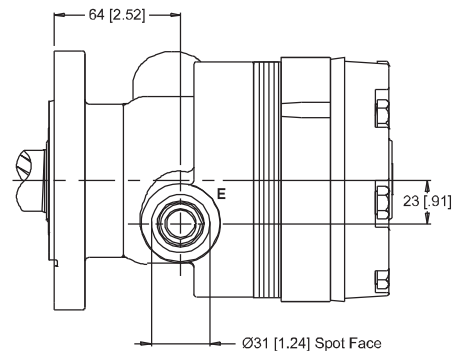
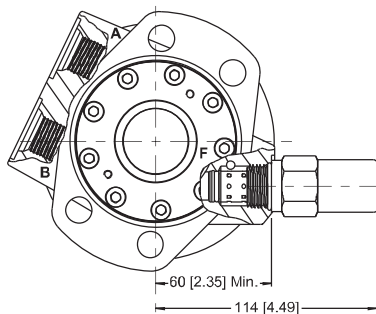


► Dimensions shown are without paint. Paint thickness can be up to 0.13 [.005].

A31 7/8-14 UNF **A38** G 1/2



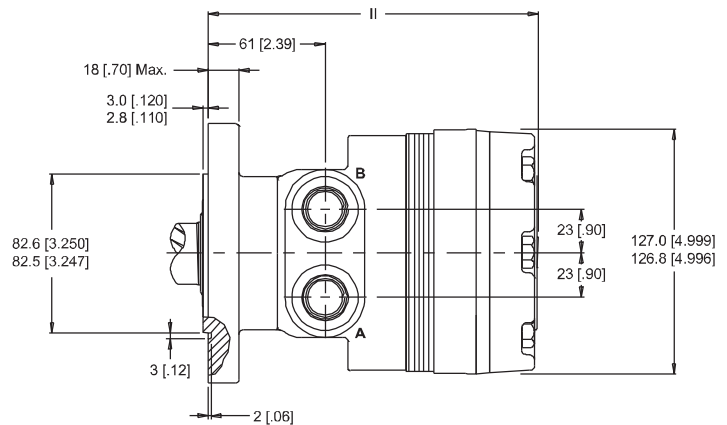
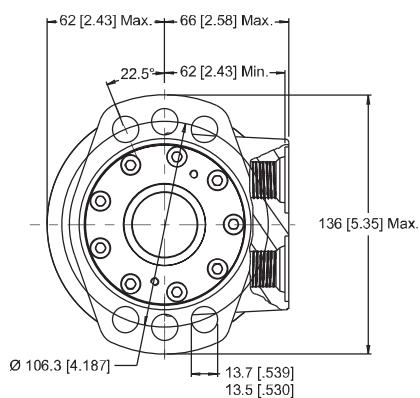
OPTIONAL VALVE CAVITY



E: 10 Series/2-Way Valve Cavity 7/8-14 UNF **F:** Valve Cartridge Installed

6-HOLE, SAE A MOUNT, ALIGNED PORTS

A51 7/8-14 UNF **A58** G 1/2



► Dimension II is charted on page 76.

RE Series

Medium Duty Hydraulic Motor



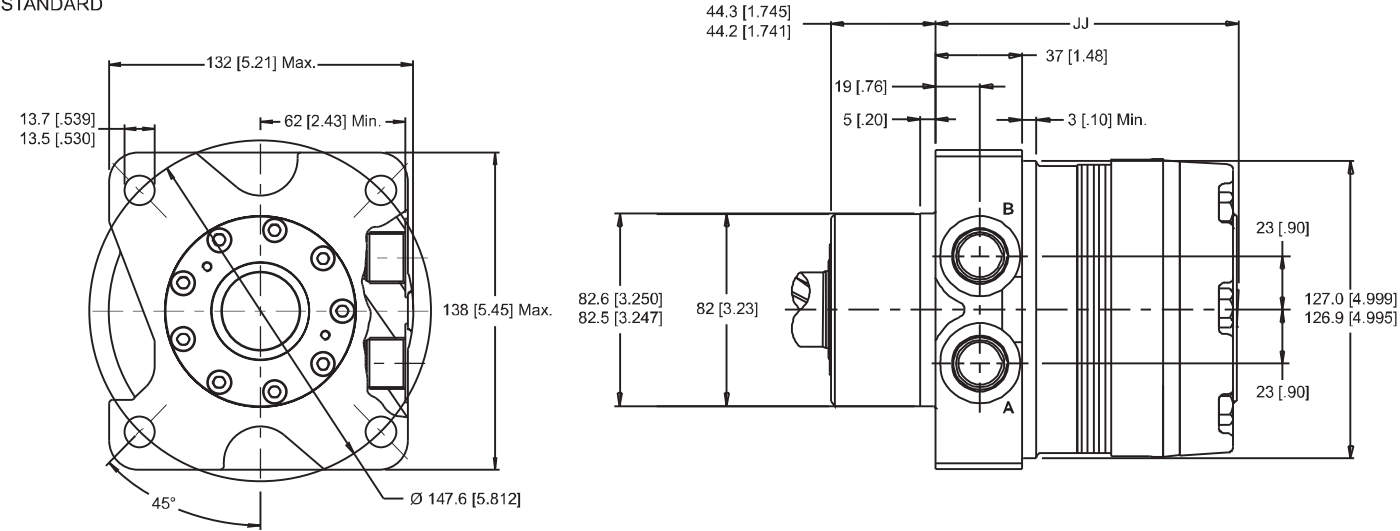
RE (505/506 Series) Medium Duty Hydraulic Motor

HOUSINGS

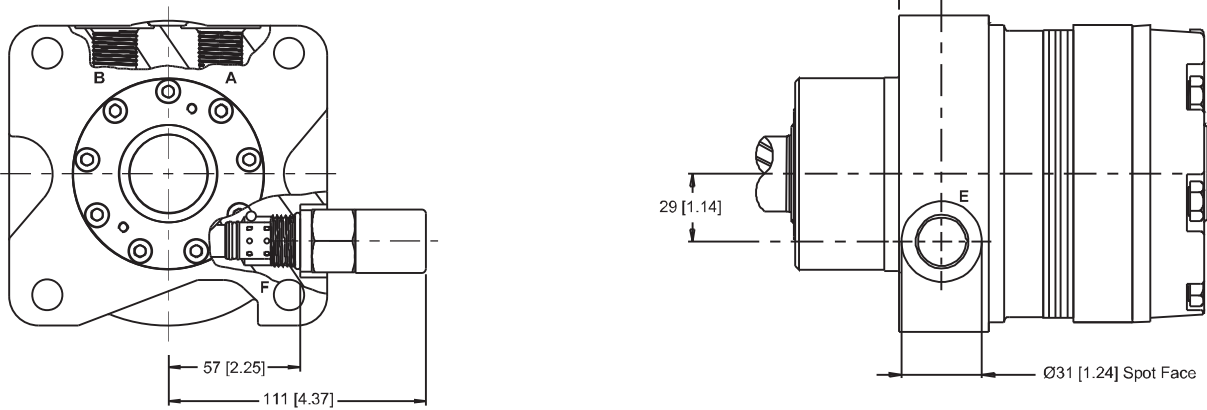
4-HOLE, WHEEL MOUNT, ALIGNED PORTS

W31 7/8-14 UNF **W38** G 1/2

STANDARD



OPTIONAL VALVE CAVITY



E: 10 Series/2-Way Valve Cavity 7/8-14 UNF F: Valve Cartridge Installed

► Dimension JJ is charted on page 76.

RE Series

Medium Duty Hydraulic Motor



RE (505/506 Series)

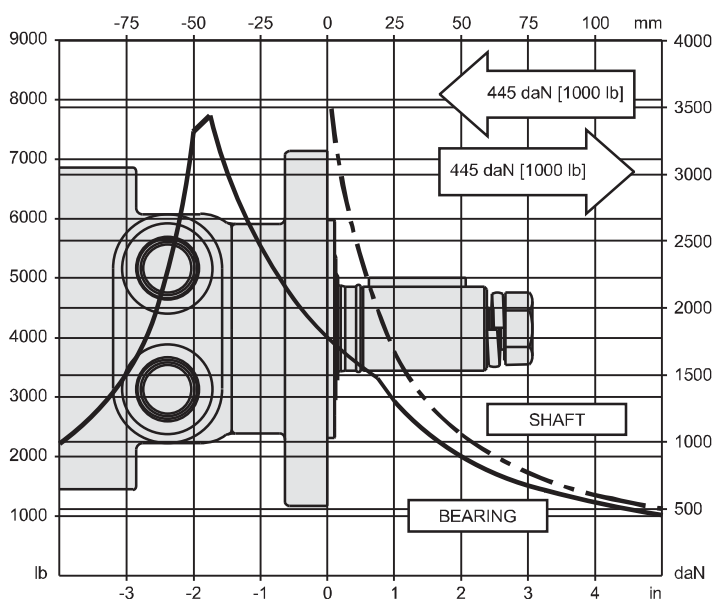
Medium Duty Hydraulic Motor

TECHNICAL INFORMATION

ALLOWABLE SHAFT LOAD / BEARING CURVE

The bearing curve represents allowable bearing loads based on ISO 281 bearing capacity for an L_{10} life of 2,000 hours at 100 rpm. Radial loads for speeds other than 100 rpm may be calculated using the multiplication factor table on page 8.

MAGNETO & SAE A MOUNTS



LENGTH & WEIGHT CHART

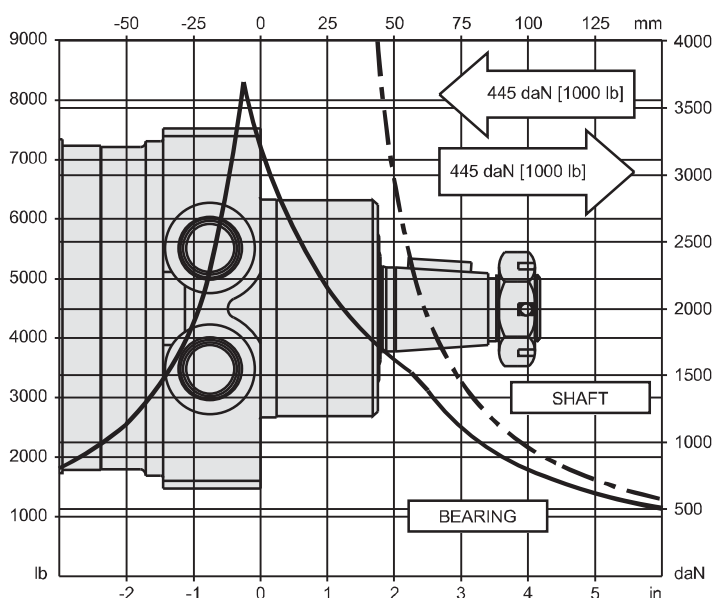
Dimensions II & JJ are the overall motor lengths from the rear of the motor to the mounting flange surface and are referenced on detailed housing drawings listed on pages 74 & 75.

II	Length	Weight
#	mm [in]	kg [lb]
120	162 [6.37]	10.6 [23.4]
160	162 [6.37]	10.6 [23.4]
200	165 [6.51]	11.0 [24.2]
230	168 [6.61]	11.1 [24.4]
260	170 [6.70]	11.3 [25.0]
300	174 [6.83]	11.7 [25.8]
350	187 [7.38]	12.8 [28.2]
375	180 [7.08]	12.2 [27.0]
470	187 [7.38]	12.8 [28.2]
540	194 [7.62]	13.3 [29.4]
620	202 [7.95]	14.1 [30.9]
750	212 [8.33]	14.8 [32.5]

JJ	Length	Weight
#	mm [in]	kg [lb]
120	120 [4.72]	11.7 [25.8]
160	120 [4.72]	11.7 [25.8]
200	123 [4.86]	12.1 [26.6]
230	126 [4.95]	12.2 [26.8]
260	128 [5.05]	12.4 [27.4]
300	132 [5.18]	12.8 [28.2]
350	146 [5.73]	13.9 [30.6]
375	138 [5.43]	13.3 [29.4]
470	146 [5.73]	13.9 [30.6]
540	152 [5.97]	14.4 [31.8]
620	161 [6.35]	15.1 [33.4]
750	170 [6.68]	15.8 [34.9]

► All RE series motor weights can vary ± 0.5 kg [1 lb] depending on model configurations such as housing, shaft, endcover, options etc.

WHEEL MOUNTS



RE Series

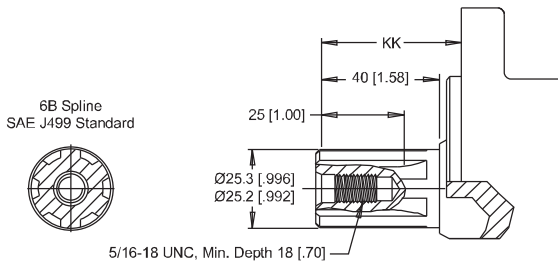
Medium Duty Hydraulic Motor



RE (505/506 Series) Medium Duty Hydraulic Motor

SHAFTS

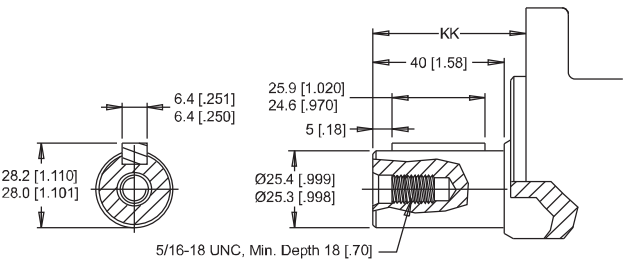
02 1" 6B Spline



Max. Torque: 678 Nm [6000 lb-in]

03 1" 6B Spline Extended

10 1" Straight

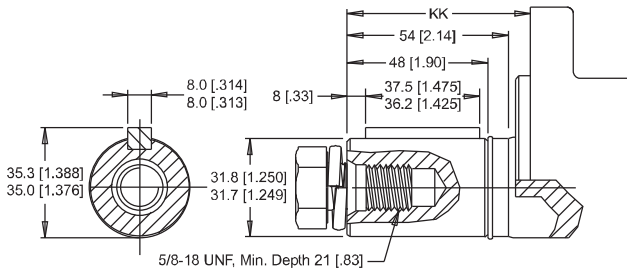


Max. Torque: 655 Nm [5800 lb-in]

15 1" Straight Extended

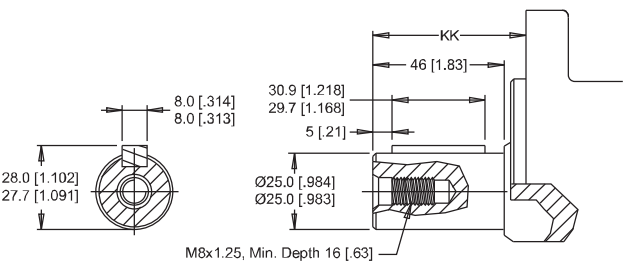
07 1-1/4" Straight Extended

20 1-1/4" Straight



Max. Torque: 1200 Nm [10600 lb-in]

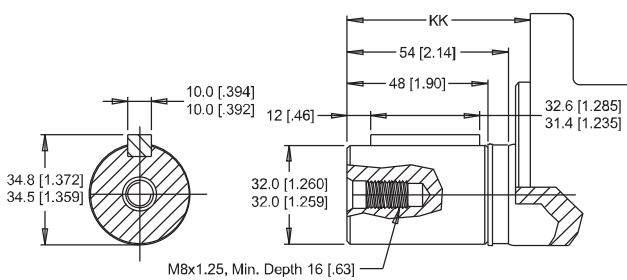
12 25mm Straight



Max. Torque: 678 Nm [6000 lb-in]

08 32mm Straight Extended

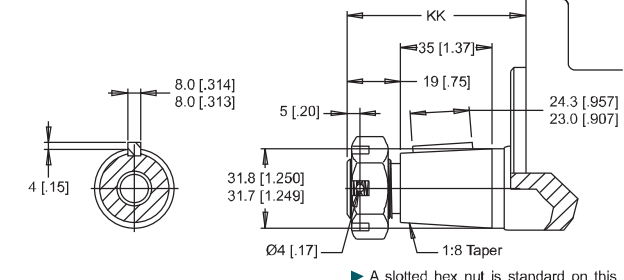
21 32mm Straight



Max. Torque: 1200 Nm [10600 lb-in]

22 1-1/4" Tapered

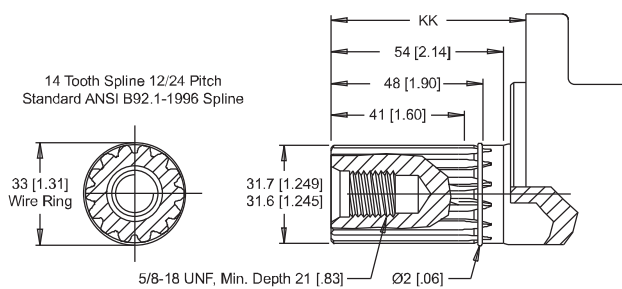
25 1-1/4" Tapered Extended



Max. Torque: 1200 Nm [10600 lb-in]

09 14 Tooth Spline Extended

23 14 Tooth Spline



Max. Torque: 1200 Nm [10600 lb-in]

MOUNTING / SHAFT LENGTH CHART

Dimension KK is the overall distance from the motor mounting surface to the end of the shaft and is referenced on detailed shaft drawings above.

KK	Magneto & A Mounts	Wheel Mounts
#	mm [in]	mm [in]
02	50 [1.97]	91 [3.60]
03	76 [3.01]	118 [4.64]
07	88 [3.45]	129 [5.09]
08	88 [3.45]	129 [5.09]
09	88 [3.45]	129 [5.09]
10	50 [1.97]	91 [3.60]
12	56 [2.21]	98 [3.84]
15	76 [3.01]	118 [4.64]
20	61 [2.41]	103 [4.05]
21	61 [2.41]	103 [4.05]
22	66 [2.58]	107 [4.22]
23	61 [2.41]	103 [4.05]
25	92 [3.62]	134 [5.26]

► Shaft lengths vary ± 0.8 mm [.030 in.]

RE Series

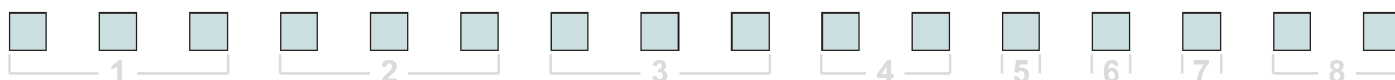
Medium Duty Hydraulic Motor



RE (505/506 Series)

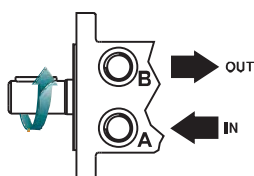
Medium Duty Hydraulic Motor

ORDERING INFORMATION

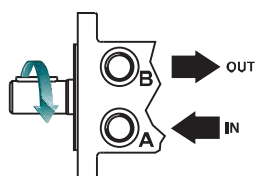


1. CHOOSE SERIES DESIGNATION

505 Standard Rotation



506 Reverse Rotation



► The 505 & 506 series are bi-directional. For applications requiring the motor to rotate in only one direction, shaft seal life may be prolonged by pressurizing the A port of the motor.

2. SELECT A DISPLACEMENT OPTION

120	121 cm ³ /rev [7.4 in ³ /rev]	350	348 cm ³ /rev [21.2 in ³ /rev]
160	162 cm ³ /rev [9.9 in ³ /rev]	375	375 cm ³ /rev [22.8 in ³ /rev]
200	204 cm ³ /rev [12.4 in ³ /rev]	470	465 cm ³ /rev [28.3 in ³ /rev]
230	232 cm ³ /rev [14.2 in ³ /rev]	540	536 cm ³ /rev [32.7 in ³ /rev]
260	261 cm ³ /rev [15.9 in ³ /rev]	620	631 cm ³ /rev [38.5 in ³ /rev]
300	300 cm ³ /rev [18.3 in ³ /rev]	750	748 cm ³ /rev [45.6 in ³ /rev]

3. SELECT A MOUNT & PORT OPTION

A31	4-Hole, Magneto Mount, Aligned Ports, 7/8-14 UNF
A38	4-Hole, Magneto Mount, Aligned Ports, G 1/2
A51	6-Hole, SAE A Mount, Aligned Ports, 7/8-14 UNF
A58	6-Hole, SAE A Mount, Aligned Ports, G 1/2
W31	4-Hole, Wheel Mount, Aligned Ports, 7/8-14 UNF
W38	4-Hole, Wheel Mount, Aligned Ports, G 1/2

► Speed sensor option is not available with wheel mounts

4. SELECT A SHAFT OPTION

02	1" 6B Spline	15	1" Straight Extended
03	1" 6B Spline Extended	20	1-1/4" Straight
07	1-1/4" Straight Extended	21	32mm Straight
08	32mm Straight Extended	22	1-1/4" Tapered
09	14 Tooth Spline Extended	23	14 Tooth Spline
10	1" Straight	25	1-1/4" Tapered Extended
12	25mm Straight		

► Extended shafts are designed for use with one of the speed sensor options listed in STEP 7.

5. SELECT A PAINT OPTION

A	Black
B	Black, Unpainted Mounting Surface
Z	No Paint

6. SELECT A VALVE CAVITY / CARTRIDGE OPTION

A	None	E	104 bar [1500 psi] Relief
B	Valve Cavity Only	F	121 bar [1750 psi] Relief
C	69 bar [1000 psi] Relief	G	138 bar [2000 psi] Relief
D	86 bar [1250 psi] Relief		

► Valve cavity is not available on the A51 & A58 housings.

7. SELECT AN ADD-ON OPTION

A	Standard
B	Lock Nut
C	Solid Hex Nut
W	Speed Sensor, Dual, 4-Pin Male Weatherpack Connector
X	Speed Sensor, Dual, 4-Pin M12 Male Connector
Y	Speed Sensor, Single, 3-Pin Male Weatherpack Connector
Z	Speed Sensor, Single, 4-Pin M12 Male Connector

8. SELECT A MISCELLANEOUS OPTION

AA	None
AC	Freeturning Rotor
AE	Hydraulic Declutch With Freeturning Rotor