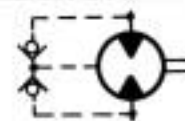




HYDRAULIC MOTORS

GEAR MOTORS 40 SERIES Specification Sheet



The CROSS series 40 hydraulic gear type motors feature advanced design concepts which produce long service life and high reliability when operated up to rated speeds and pressures. Improved gear tooth design and pressure-balanced loading plates provide for a high volumetric and overall efficiency, while operating at a low noise level.

GENERAL SPECIFICATIONS

Displacement sizes

0.50	0.75	1.00	1.25	1.50	1.80	cu.in./Rev.
8.2	12.3	16.4	20.5	24.6	29.5	cc/Rev.

Rated working pressure (Max. relief valve setting at full flow) 3000 psi (207 bar)
 Maximum shock and surge pressure 3500 psi (242 bar)
 Maximum flow rate (input) 20.45 gpm (77.4 l/m)
 Maximum speed (continuous) up to 4000 rpm
 Maximum horsepower (at rated speed and pressure) 49 hp (36.5 Kw)
 Mounting (any position) SAE "A" size, 2-bolt
 Weight Approx. 7 lbs. (3.2 Kg)

MATERIAL SPECIFICATIONS

Body and end covers Die cast aluminum alloy
 Gears Sintered metal
 Shaft Hardened steel
 Bearings Pressure lubricated, Teflon impregnated sleeve
 Seals Buna N

STANDARD FEATURES

- Rotation: Bi-directional (Dual Rotation)
- Ports: 3/4" SAE #12 straight thread o-ring (1 1/16 - 12) • 1/4" NPTF Drain port
- Internal check valves (no external drain required if back pressure is below shaft seal rating)
- Shaft: 5/8" dia. Woodruff keyed (short) • Shaft Seal: 250 psi (17 bar)

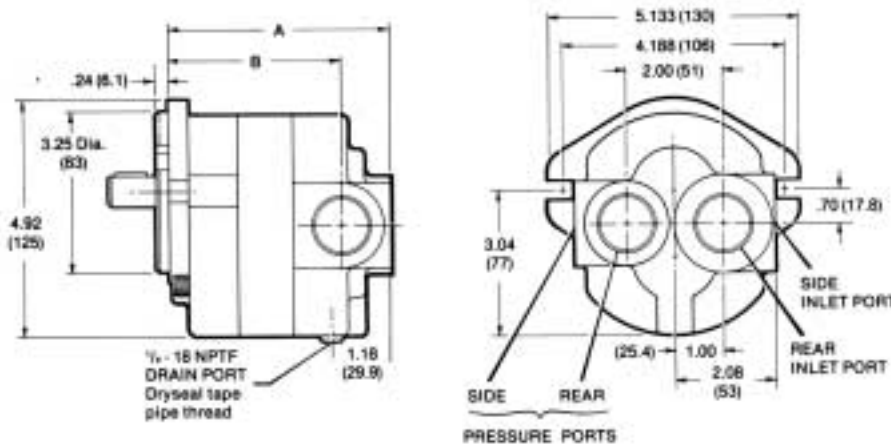
OPTIONAL FEATURES AVAILABLE

- Rotation: Right hand (clockwise); Left hand (counterclockwise)
- Ports: Rear inlet and outlet location
- Shafts: 5/8" dia. splined (9 tooth); 5/8" dia. keyed (long); 3/4" dia. keyed (long)

NOTE: Refer to CROSS pump and motor technical/service sheet for side and end load limitations, oil and filter recommendations, start-up procedures, etc.

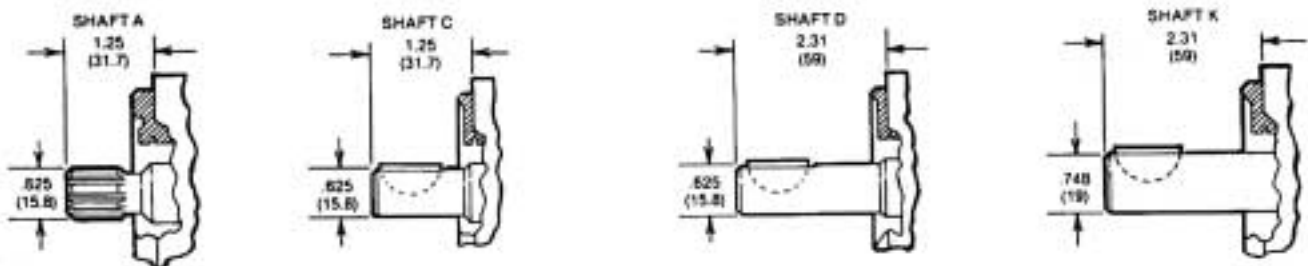


DIMENSIONAL DATA in inches and (millimeters)



Displacement cu.in./Rev. (cc/Rev.)	Dim. "A" Inches (mm)	Dim. "B" Inches (mm)
.50 (8.2)	4.25 (107)	3.23 (82)
.75 (12.3)	4.44 (112)	3.42 (86)
1.00 (16.4)	4.62 (117)	3.60 (91)
1.25 (20.5)	4.81 (122)	3.79 (96)
1.50 (24.6)	4.99 (126)	3.97 (100)
1.80 (29.5)	5.22 (132)	4.20 (106)

OUTPUT SHAFT



SHAFT "A": 9 tooth, 16/32 pitch, 30° pressure angle, flat root side fit, Class 1.
 SHAFT "C", "D" and "K" : Woodruff key - 1/4" dia. x 1/32.

ORDERING DATA

Series	Type	Special Options	Size cu.in./R x 10	Rotation	Mounting	Shaft Size & Type		PORTS LOCATION and SIZE				
						A	K	Inlet	Outlet			
40	M motor	H 250 psi shaft seal	5	D dual	SAE "A" 2-bolt	1/4" spline	3/4" dia. keyed (long)	SC	1 1/16	1 1/16	SIDE PORTS	
			7									
			10									
			12									L left
			15									R right
18	RD	1 1/16	1 1/16	REAR PORTS								

EXAMPLE: 40MH12DACSC

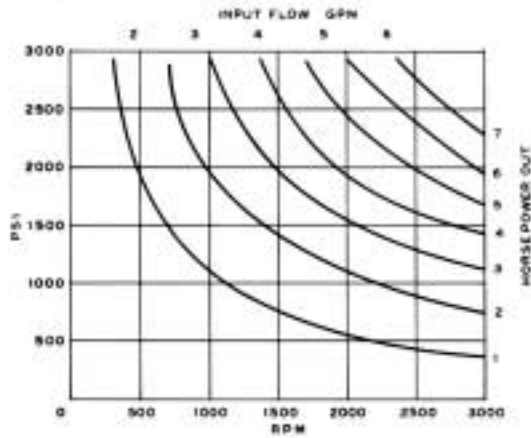
Describes a Series 40 Gear Motor, 250 psi shaft seal, displacement of 1.2 cu. in. per revolution; bi-directional rotation; SAE "A" 2-Bolt Mount; 1/4" dia. keyed shaft and 1 1/16-12 side ports.



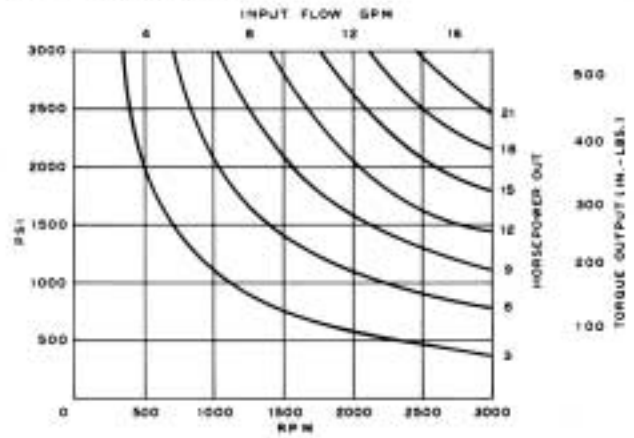
TYPICAL PERFORMANCE DATA

(FOR SPECIFIC PERFORMANCE DATA,
CONTACT CROSS ENGINEERING)

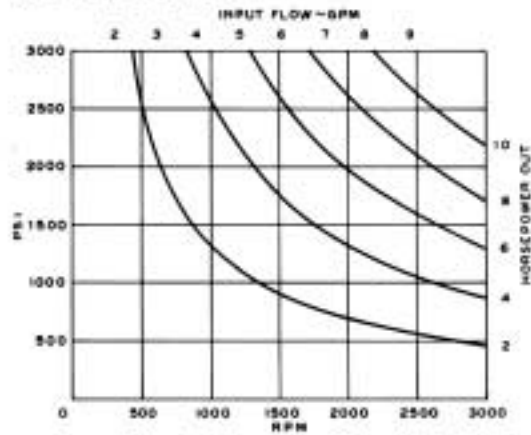
MODEL 40M005



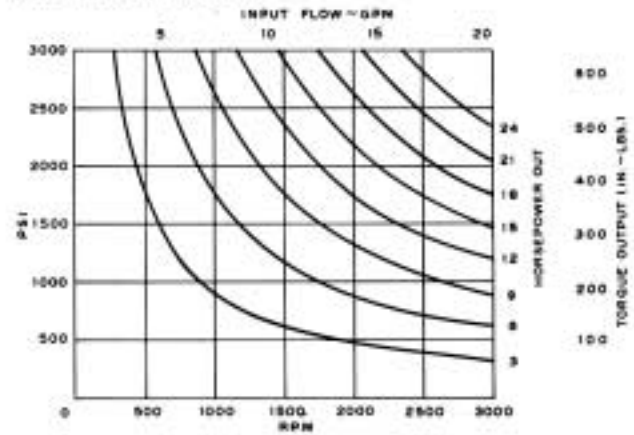
MODEL 40M012



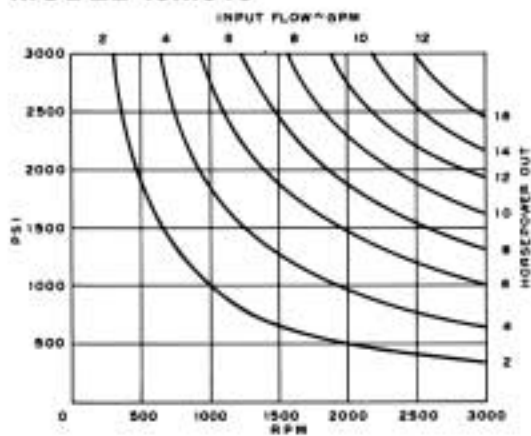
MODEL 40M007



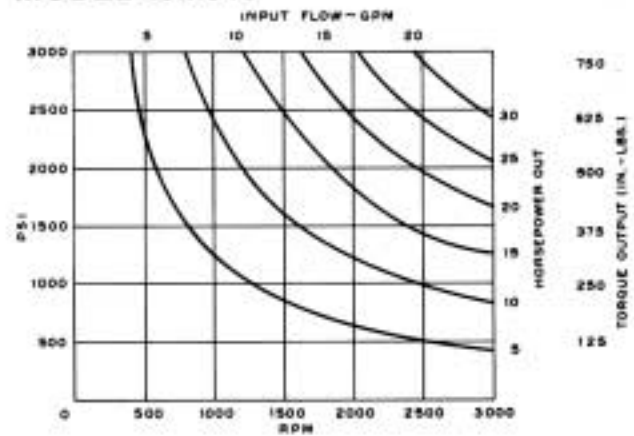
MODEL 40M015



MODEL 40M010



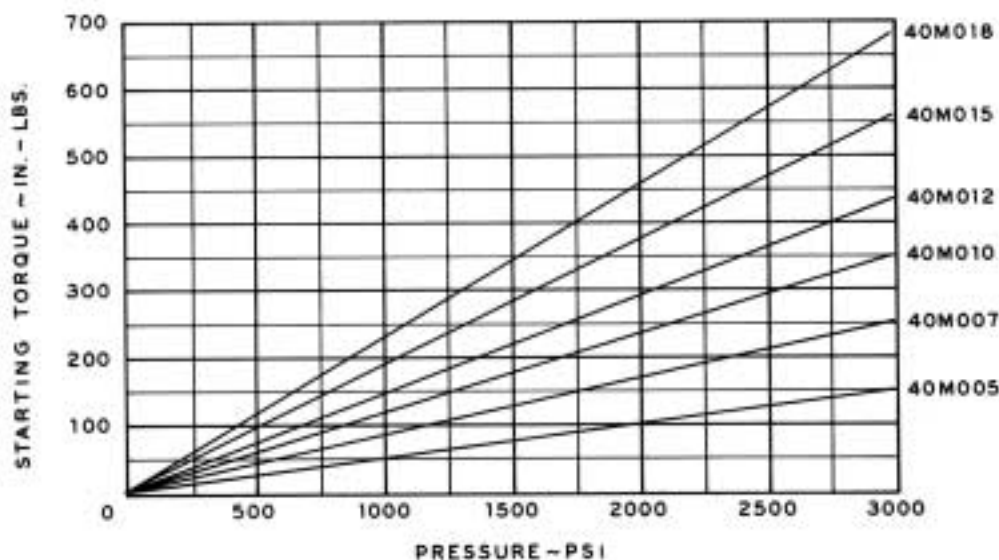
MODEL 40M018



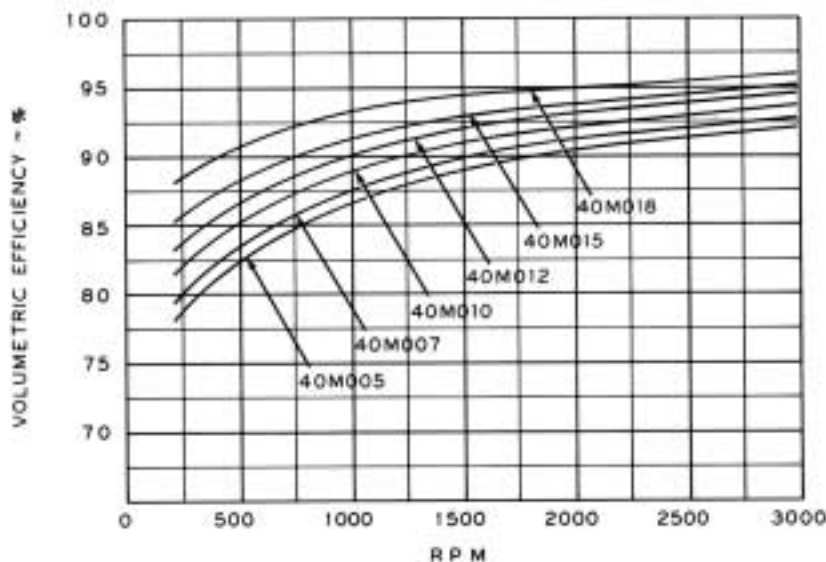


TYPICAL PERFORMANCE DATA

STARTING ENGINE TORQUE (in.-lbs.) vs. PRESSURE (PSI)



VOLUMETRIC EFFICIENCY (%) vs. RPM (TYPICAL)



(FOR SPECIFIC PERFORMANCE DATA, CONTACT CROSS ENGINEERING)



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