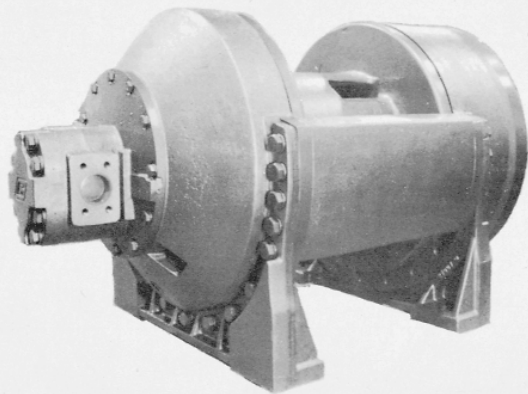


# M50

PLANETARY, HYDRAULIC WINCH



**EQUAL SPEED  
EEDS TANDS**

**pull**

**MASTER**

**THE LOGICAL CHOICE**

# MODEL M50 PLANETARY HYDRAULIC WINCH

## DESCRIPTION

The **PULLMASTER** Model M50 is a high performance, high efficiency, planetary hydraulic winch having equal speed in both forward and reverse rotation. The automatic, multi-disc brake of this unit is effective in one direction only and achieves an exceptionally smooth lowering control of the maximum rated load in a stepless operation. The **PULLMASTER** Model M50 planetary winch is powered by a hydraulic gear motor and the required reduction ratio of 116:1 is established by three planetary reduction stages. In forward rotation (hoisting) the hydraulic motor drives direct into planetary reductions without affecting the brake assembly. When forward rotation is stopped, an over-running clutch between the brake assembly and the motor drive shaft will lock and the multi-disc brake will safely hold the maximum load. The multi-disc brake is spring applied and pressure released, requiring no calibration for fail-safe operation. When the hydraulic motor is powered for reverse rotation (lowering) the brake is released automatically and is then modulated for the desired lowering speed by a single control lever. A counter-balance valve or brake valve is not required for dynamic braking. All moving parts of the **PULLMASTER** Model M50 planetary winch are totally enclosed and run in an oil bath, assuring long, trouble free service with a minimum requirement for maintenance.

- SPECIAL DRUM SIZE • FREESPOOLING • EXTERNAL BRAKE RELEASE • HYDRAULIC PISTON MOTORS • DRUM GROOVING

## PERFORMANCE

- Maximum operating volume = 115 (US) gpm (435 l/min)
- Maximum operating pressure = 2500 psi (172 bar)
- Drum rpm at maximum volume in both directions = 17.4
- Drum torque at maximum pressure = 381250 lb-in (43075 Nm)

MODEL NUMBER	BARE DRUM		MEAN DRUM (THEORETICAL)		FULL DRUM	
	LINE PULL	LINE SPEED	LINE PULL	LINE SPEED	LINE PULL	LINE SPEED
M50-7-86-1	50000 lb	69 fpm	42533 lb	84 fpm	35065 lb	99 fpm
	222.4 kN	21 m/min	189.1 kN	26 m/min	155.9 kN	30 m/min
M50-7-86-2	39610 lb	88 fpm	33465 lb	107 fpm	27320 lb	127 fpm
	176.2 kN	27 m/min	148.9 kN	33 m/min	121.5 kN	39 m/min

The volumetric requirement for the **PULLMASTER** Model M50 is the recommended maximum and should not be exceeded. When the **PULLMASTER** Model M50 is installed in existing hydraulic circuits with a lesser volume or lower pressure, the performance will change.

Performance graphs for line speed vs. oil volume and line pull vs. hydraulic pressure are available upon request.

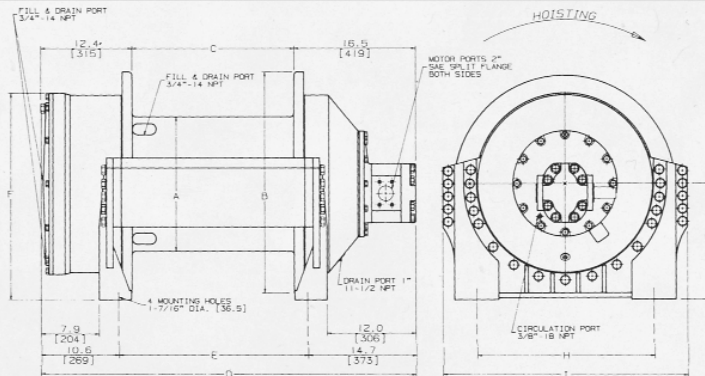
## CABLE STORAGE

### DRUM CABLE STORAGE CAPACITY FOR WIRE ROPE

MODEL NUMBER	DRUM SIZE			WIRE ROPE DIAMETER*						
	BARREL	FLANGE	LENGTH	9/16 in	5/8 in	3/4 in	7/8 in	1 in	1 1/8 in	1 1/4 in
M50-7-86-1	14 in	23.75 in	14 in	854 ft	691 ft	519 ft	375 ft	276 ft	195 ft	177 ft
	356 mm	603 mm	356 mm	260 m	211 m	158 m	114 m	84 m	59 m	54 m
M50-7-86-2	18 in	30 in	22 in	2309 ft	1725 ft	1341 ft	860 ft	654 ft	605 ft	440 ft
	457 mm	762 mm	559 mm	704 m	526 m	409 m	262 m	199 m	184 m	134 m

\* Standard cable anchor is suitable for 3/4 - 1 1/2 inch diameter wire rope. For safety, 3 - 4 wraps of wire rope must be maintained at all times.

## DIMENSIONS



MODEL NUMBER	A	B	C	D	E	F	G	H	I
M50-7-86-1	14 in	23.75 in	14 in	43 in	17.63 in	26.75 in	14.63 in	21 in	27.50 in
	356 mm	603 mm	356 mm	1089 mm	448 mm	680 mm	372 mm	533 mm	699 mm
M50-7-86-2	18 in	30 in	22 in	51 in	25.63 in	30.5 in	15.5 in	24 in	33.13 in
	457 mm	762 mm	559 mm	1290 mm	651 mm	775 mm	394 mm	610 mm	841 mm

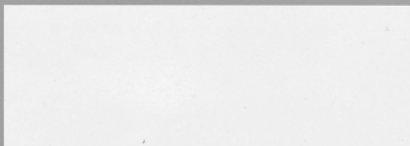
**PULLMASTER** planetary winches are covered by a liberal warranty. Parts and repair service are available from authorized **PULLMASTER** distributors throughout Canada, the United States and most overseas areas.

### IMPORTANT

**PULLMASTER** planetary winches are neither designed nor intended for installation on equipment used in lifting or moving of personnel.

Other **PULLMASTER** winch models are available in capacities from 1000 lb to 50000 lb (4.4 kN to 222.4 kN) line pull.

## DISTRIBUTOR



For more information write to:

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