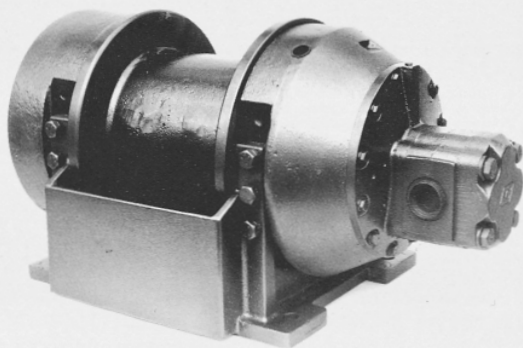


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Hydraulic Service, Inc.

H12

PLANETARY, HYDRAULIC WINCH



 pull

MASTER
THE LOGICAL CHOICE

RAPID REVERSE

MODEL

DESCRIPTION

The **PULLMASTER** Model H12 is a high performance, high efficiency planetary winch with a "Rapid Reverse" feature. The reversing or lowering line speed is 4.3 times faster than forward or hoisting speed. In reverse rotation (lowering) the maximum load can be positively controlled at a line speed equal to the hoisting line speed. When lowering loads at maximum reversing speed, the load must be reduced by a ratio of 4.3 of the winch maximum capacity.

The **PULLMASTER** Model H12 planetary winch is powered by a hydraulic gear motor and the required reduction ratio of 41:1 (Forward Rotation) is established by two planetary reduction stages. In forward rotation (hoisting) the hydraulic motor drives direct into the planetary reductions without affecting the brake assembly. When forward rotation is stopped, an over-running clutch, installed between the brake assembly and the motor drive shaft will lock and the brake hold the load safely. The multi-disc brake is spring applied - pressure released and has static and dynamic function. When the hydraulic motor is powered for reverse rotation (lowering) the brake is released and is then modulated for the desired lowering speed by a single control lever. During reverse rotation the primary planetary reduction is locked out, resulting in the fast reversing speed.

A counter-balance valve or brake valve is not required for dynamic braking.

All moving parts of the PULLMASTER Model H12 planetary winch are totally enclosed and run in an oil bath, assuring a long, trouble free service with minimum requirement for maintenance.

OPTIONS

DRUM SIZES: A wide range of drum sizes is available to provide for larger cable storage capacities.

RATCHET & PAWL: For a positive lock of the cable drum a ratchet and pawl assembly can be supplied as an integral part of the winch.

DRUM GROOVING: When required, the Model H12 can be supplied with grooved drums.

REDUCTION RATIOS: The performance can be adapted for high pressure hydraulic systems

HYDRAULIC MOTORS: Hydraulic piston motors can be adapted for high pressure hydraulic systems.

EXTERNAL BRAKE RELEASE: This option offers the facility of an independent brake release.

PERFORMANCE

Based on a hydraulic volume of 50 (US) gpm (189 l/min) at 2200 psi (152 bar) hydraulic pressure.

Drum rpm at maximum oil volume = 48 rpm in forward rotation and 208 rpm in reverse rotation.

Drum torque at a maximum pressure = 5000 lb-in (5649 Nm).

MODEL NUMBER	BARE DRUM			MEAN DRUM			FULL DRUM		
	LINE PULL	LINE SPEED		LINE PULL	LINE SPEED		LINE PULL	LINE SPEED	
		FORWARD	REVERSE		FORWARD	REVERSE		FORWARD	REVERSE
H12-3-97-1	12121 lb	104 fpm	449 fpm	9362 lb	140 fpm	606 fpm	7143 lb	176 fpm	762 fpm
	589 kN	32 m/min	137 m/min	42.6 kN	43 m/min	185 m/min	31.8 kN	54 m/min	232 m/min

The volumetric requirement for the PULLMASTER Model H12 winch are recommended maximums and should not be exceeded. When the PULLMASTER Model H12 is installed in existing hydraulic circuits with a lesser volume and/or lower pressure, the performance will change accordingly. Performance graphs for line speed vs. oil volume and line pull vs. hydraulic pressure are available upon request.

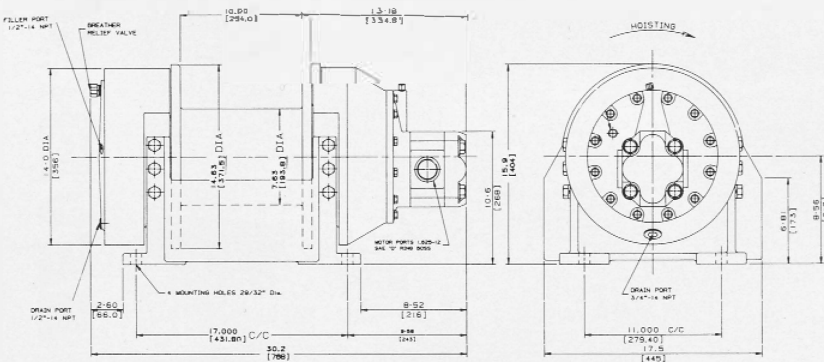
CABLE STORAGE

CABLE STORAGE CAPACITY FOR WIRE ROPE

MODEL NUMBER	DRUM SIZE			WIRE ROPE DIAMETERS								
	BARREL	FLANGE	LENGTH	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"
H12-3-97-1	7-5/8"	14-5/8"	10'	5103 ft	2333 ft	1260 ft	793 ft	569 ft	458 ft	307 ft	267 ft	222 ft
	194 mm	371 mm	254 mm	1555 m	711 m	390 m	242 m	173 m	140 m	94 m	87 m	68 m

The cable anchor of the PULLMASTER Model H12 planetary winch is not designed to hold the rated maximum load. The cable drum requires 3 - 4 loops of wire rope for security.

DIMENSIONS



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 in most overseas areas.

IMPORTANT

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

DISTRIBUTOR

