



# WARN Industrial Winch

Model	Part Number	Motor Type
<b>Series 30XL Hydraulic Winch Manual Clutch</b>	<b>77890</b>	Hydraulic 10.4 ci (170cc)



The Warn Series XL product line combines durable cast iron construction, high efficiency hydraulic motor, and a robust 2X rated load braking system with a permanently lubricated and hardened 2-stage planetary gear train for superior intermittent-duty performance for loads up to 30,000 lbs. Winches are also available with manual or air clutches and 2 drum widths. A roller tension plate is standard along with bi-directional operation and a variety of mounting options to fit a variety of applications.

Warn Series XL winches are not suitable for hoisting applications or movement of persons.

### Accessories

Description:	Part Number
Fairlead SRS-XL-LONG	77869
Wire Rope Assembly 5/8"x245' EIPS	77454
Snatch Block XL-60K LB	80858

Engineering Data			
Rated Pulling Force:	30000	lbf	13608 kgf
Drum Barrel Diameter:	6.25	in	159 mm
Drum Flange Diameter:	13.50	in	343 mm
Distance Between Flanges:	14	in	356 mm
Recommended Maximum Wire Rope Diameter:	5/8	in	15.9 mm
Recommended Minimum Wire Rope Breaking Strength:	41200	lbf	18688 kgf
Approximate Shipping Weight:	361	lb	164 kg
Duty Cycle (intermittent per SAE J706 section 6.2):	1000	ft	304.8 m
Mounting Bolt Torque:	159	ft*lbf	216 N*m
Maximum Layers of Wire Rope:	5		
Gear Reduction:	36:1		
Brake Type:	Spring Applied Disk		
Contact / Remote Type:	N/A		

### Drum Rotation

Viewed from Motor End

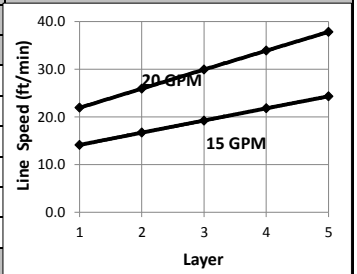
### Standards Compliance

- SAE J706
- CE Machinery Directive 98/37/EC and 2006/42/EC

### Performance By Layer- 5/8" (15.9 mm) dia. rope

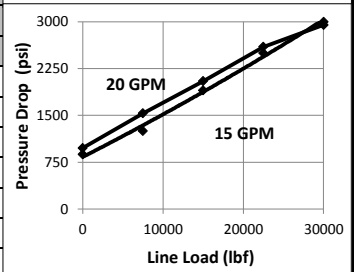
Drum Layer	Line Load *			Line Speed 15 GPM		Line Speed 20 GPM		Drum Capacity	
	lbf	kgf	kN	ft/min	m/min	ft/min	m/min	ft	m
1	30000	13608	133.4	14.1	4.3	21.9	6.7	36	11.0
2	25385	11514	112.9	16.7	5.1	25.9	7.9	78	23.8
3	22000	9979	97.9	19.2	5.9	29.9	9.1	127	38.7
4	19412	8805	86.3	21.8	6.6	33.9	10.3	183	55.8
5	17368	7878	77.3	24.3	7.4	37.8	11.5	245	74.7

\* Never exceed the Rated Pulling Force. Installation of a Rated Capacity Limiter is recommended.



### First Layer Performance

Line Load		Pressure Drop at 15 GPM		Pressure Drop at 20 GPM		Duty Cycle
lbf	kgf	psi	BAR	psi	BAR	min/10min
0	0	875	60.3	975	67.2	N/A
7500	3402	1250	86.2	1533	105.7	N/A
15000	6804	1900	131.0	2050	141.3	N/A
22500	10206	2500	172.4	2600	179.3	N/A
30000	13608	3000	206.8	2950	203.4	N/A



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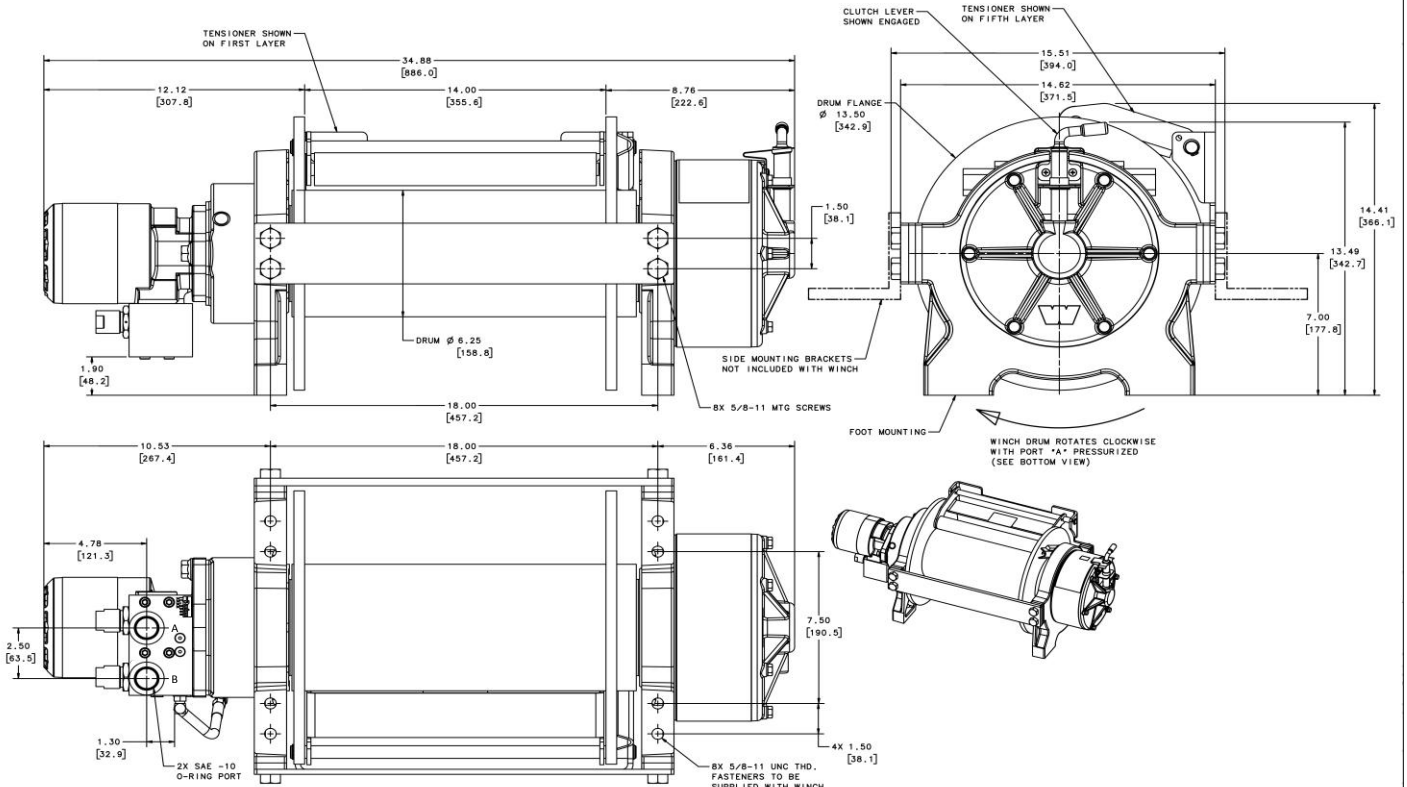
Customer Service (North America): 1.800.543.9276  
Customer Service (International): 1.503.722.3008  
FAX: 1.503.722.3000 www.warn.com

12900 S.E. Capps Road,  
Clackamas, OR USA 97015



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Motor / Contactor may be rotated in 90 degree increments. Clutch housing may be rotated in 60 degree increments.

Units are given in inches [millimeters], unless otherwise specified

Recommended Mounting- Always Observe Correct Drum Rotation			Hydraulic System Specifications	
Pull from bottom of winch	Pull from bottom of winch	Pull from top of winch	Maximum System Pressure:	3000 psi   207 BAR
			Maximum Motor Pressure Drop:	3000 psi   207 BAR
Feet down	Feet forward	Feet forward	Maximum Rated Input Flow:	20 GPM   76 LPM
Pull from top of winch	Pull from top of winch	Pull from top of winch	Control Valve Type:	3-position, 4-way, open center, spring return (motor spool)
			<b>Control Valve Schematic</b>	
Feet down without angle brace	Feet down with angle brace	Angle Braces Only		
			Note: Drum rotates clockwise with Port A pressurized when viewed from gearbox end.	

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