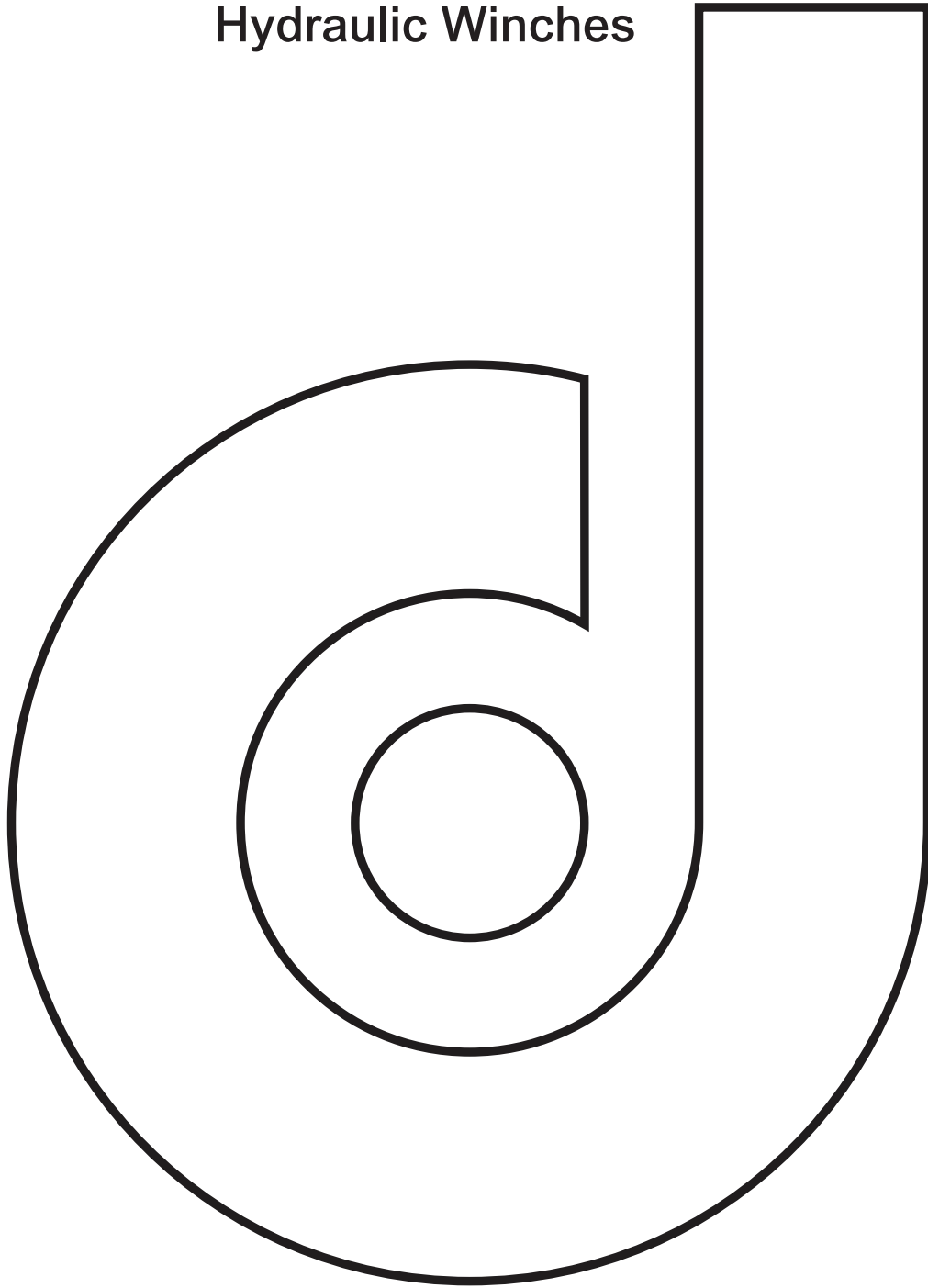


Hydraulic Winches



MAIN COMPONENTS

1 Hydraulic Motor:

Orbit, gear or optional piston motor on some models.

2 Negative Static Multi Disc Brake:

Is connected to the motor shaft and winch body. Pressurized oil from the hydraulic circuit opens the brake, and the springs automatically re-apply when pressured is released. The brake is automatically controlled by the hydraulic brake valve and is opened and closed by starting and stopping the motor.

3 Planetary Reduction Stage:

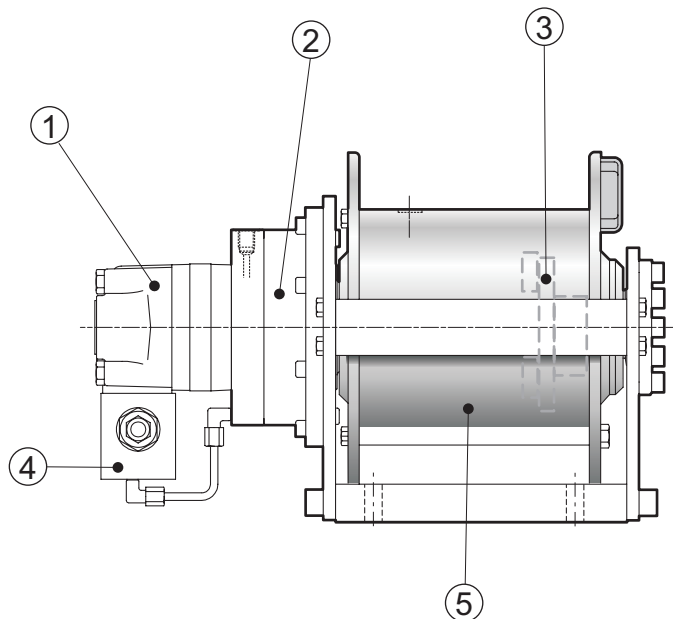
The overall dimensional size of the winch is very compact. Gear ratios of each model are selected to maximize line speed and line pull performance.

4 Brake Control Valve:

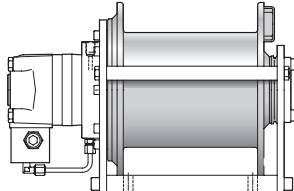
The brake control valve is a critical safety device that provides dynamic braking and is mounted directly onto the motor.

5 Drum and Winch Frame:

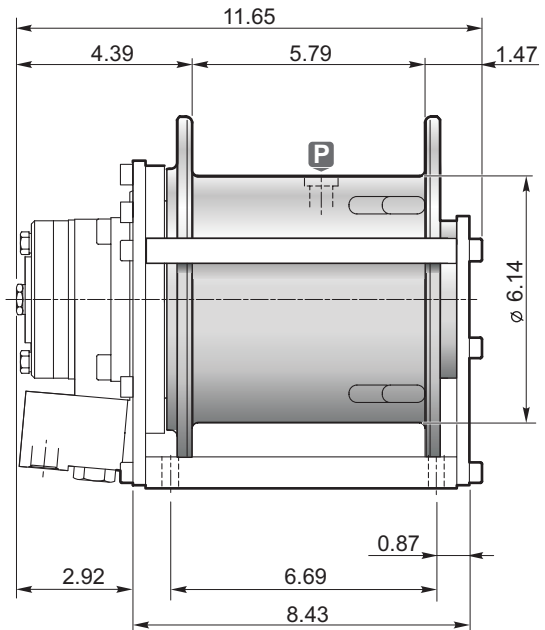
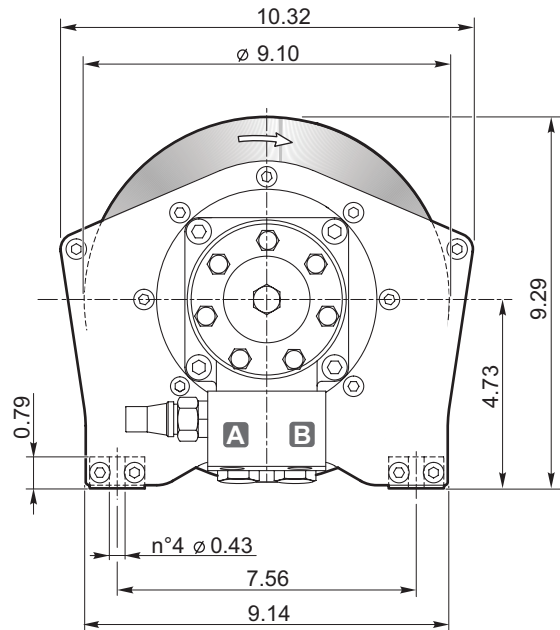
Our drums and frames are manufactured from structural steel or ductile iron castings to provide a durable and compact winch. The design of our compact winch family provides maximum flexibility for use in a wide variety of applications.



TECHNICAL DATA AND DIMENSIONS

Size	Line pull last rope layer (with layer comply with ANSI spec.B30.7) [lbs]	
A 11	890	<div>Series A</div>  <div>Line pull last rope layer (with layer comply with ANSI spec.B30.7) [lbs]</div> <div>ISO 4301/1 F.E.M. 1.001</div> <div>890 ÷ 10900</div> <div>M5 - M6</div>
A 18	1450	
A 24	2000	
A 30	2500	
A 44	3350	
A 55	4300	
A 60	4900	
A 62-3	3600	
A 62-4	3600	
A 80	6000	
A 81-5	5500	
A 81-6	5500	
A 120-4	8720	
A 150-5	10900	

A11



Performance info: 5.23:1 ratio - 3.05 cu.in. disp. - 2250 PSI

Layer	n	1	2	3	4	5
Line pull	[lbs]	1100	1000	950	890	840
Line speed @ 7.7 GPM	[fpm]	164	176	189	200	214

Above specifications based on 1/4" wire rope diameter

A	Hoisting port	9/16" 18-UNF
B	Lowering port	

P	Lubrication oil plug	3/8" BSP
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 Weight	75
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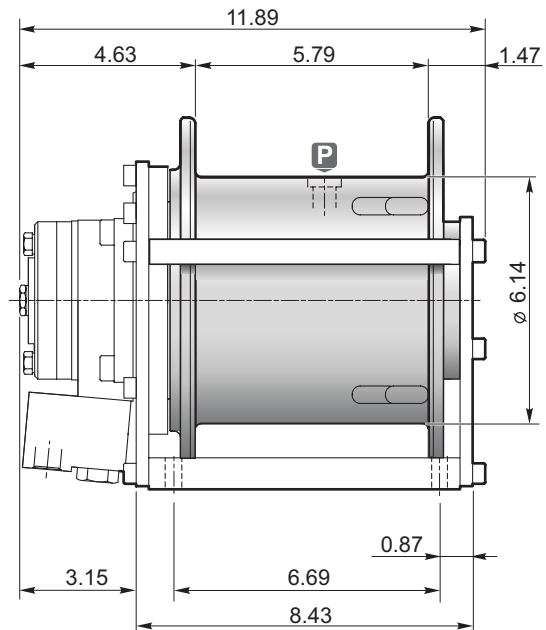
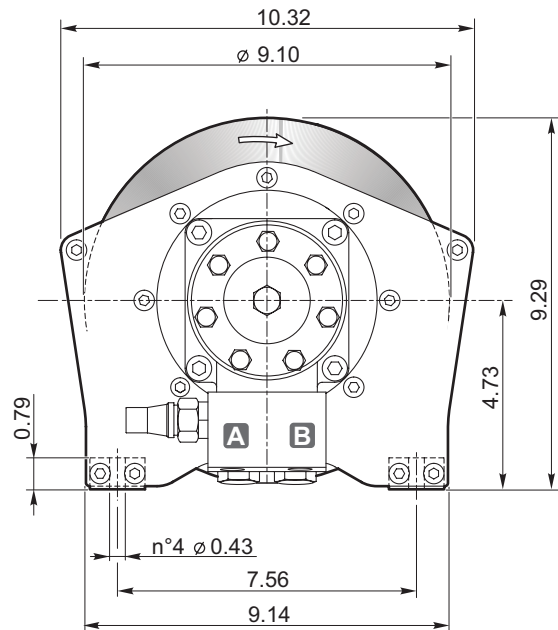
Rope Dia. [in]	Rope storage capacity [FT]				
	Layer				
	1	2	3	4	5
1/4"	37	77	120	165	214*
5/16"	30	62	97	135*	—

D/d
25.5
20.6

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is clockwise (counterclockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 310 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.20 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

THE PRESENT EQUIPMENT CAN'T BE USED TO LIFT PEOPLE



Performance info: 5.23:1 ratio - 4.88 cu.in. disp. - 2300 PSI

Layer	n	1	2	3	4	5
Line pull	[lbs]	1800	1650	1550	1450	1350
Line speed @ 7.7 GPM	[fpm]	102	110	118	125	132

Above specifications based on 1/4" wire rope diameter

A	Hoisting port	9/16" 18-UNF
B	Lowering port	

P	Lubrication oil plug	3/8" BSP
----------	----------------------	-------------

 Weight	75
--	----

Rope Dia. [in]	Rope storage capacity [FT]				
	Layer				
	1	2	3	4	5
1/4"	37	77	120	165	214*
5/16"	30	62	97	135*	—

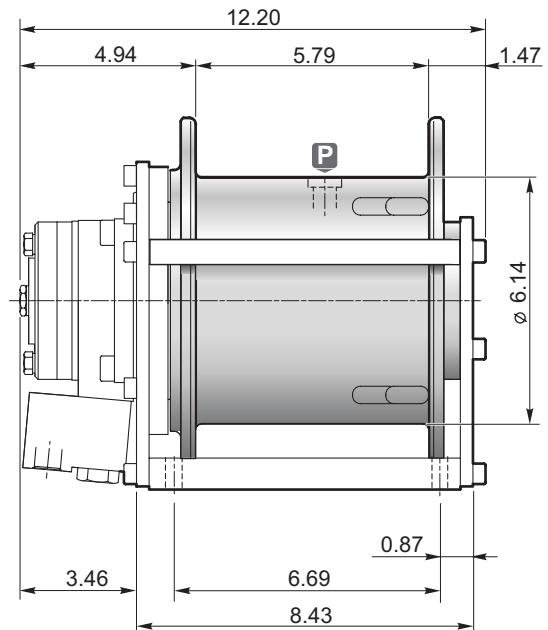
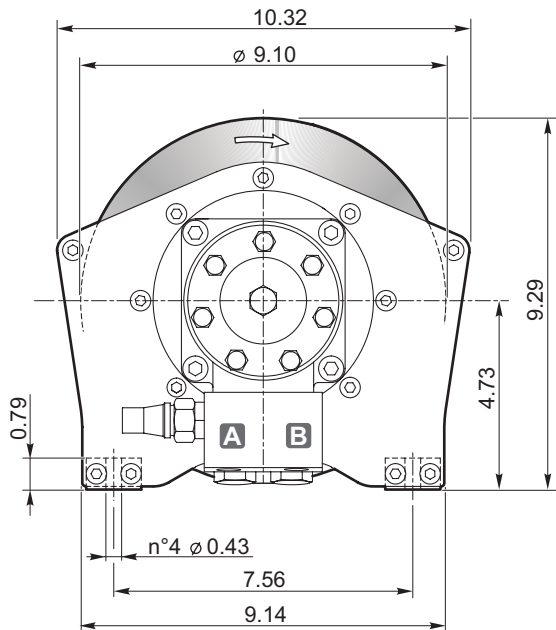
D/d
25.5
20.6

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is clockwise (counterclockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 310 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.20 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

THE PRESENT EQUIPMENT CAN'T BE USED TO LIFT PEOPLE

A24



Performance info: 5.23:1 ratio - 6.10 cu.in. disp. - 2450 PSI

Layer	n	1	2	3	4
Line pull	[lbs]	2400	2190	2000	1860
Line speed @ 7.7 GPM	[fpm]	82	90	98	106

Above specifications based on 5/16" wire rope diameter

A	Hoisting port	9/16" 18-UNF
B	Lowering port	

P	Lubrication oil plug	3/8" BSP
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 Weight	75
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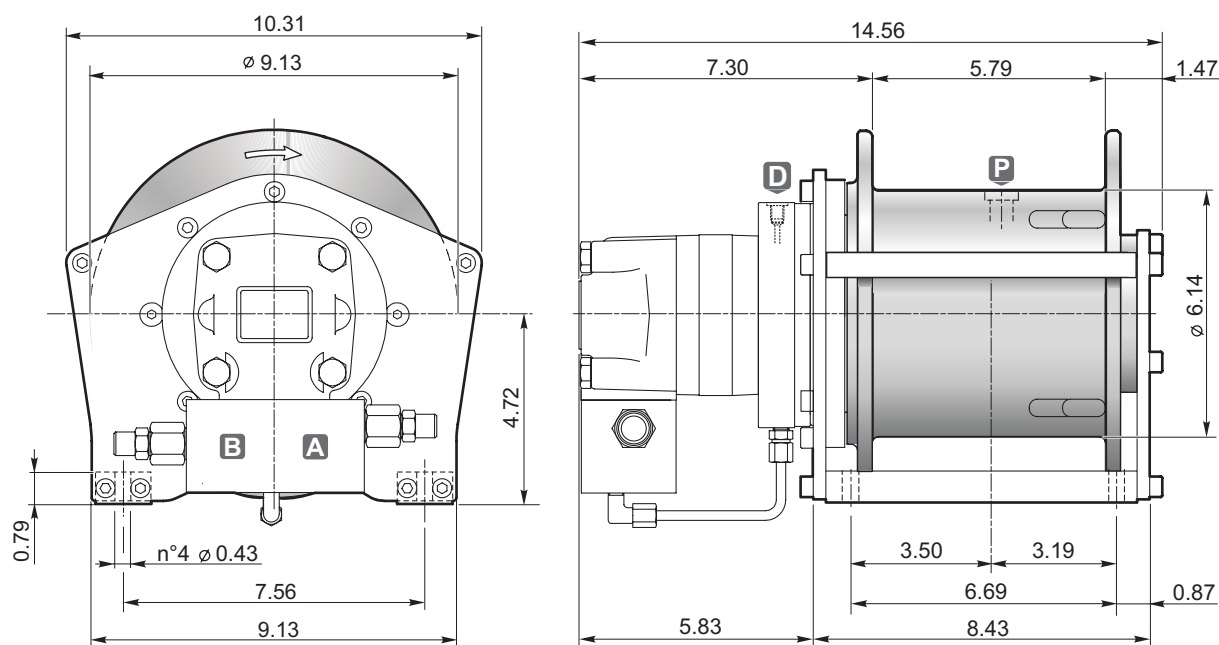
Rope Dia. [in]	Rope storage capacity [FT]			
	Layer			
	1	2	3	4
5/16"	30	62	97	135*
3/8"	25	52	82*	—

D/d
20.5
17.4

*** This layer does not comply with ANSI spec. B30.7**

- Standard hoisting drum rotation is clockwise (counterclockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 310 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.20 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

THE PRESENT EQUIPMENT CAN'T BE USED TO LIFT PEOPLE



Performance info: 5.23:1 ratio - 7.63 cu.in. disp. - 2250 PSI

Layer	n	1	2	3	4
Line pull	[lbs]	3000	2730	2500	2320
Line speed @ 15 GPM	[fpm]	140	153	167	180

Above specifications based on 5/16" wire rope diameter

A	Hoisting port	7/8"
B	Lowering port	14-UNF

D	Motor case drain	1/4" BSP
P	Lubrication oil plug	3/8" BSP

lbs	Weight	100
------------	--------	-----

Rope Dia. [in]	Rope storage capacity [FT]			
	Layer			
	1	2	3	4
5/16"	30	62	97	135*
3/8"	25	52	82*	—

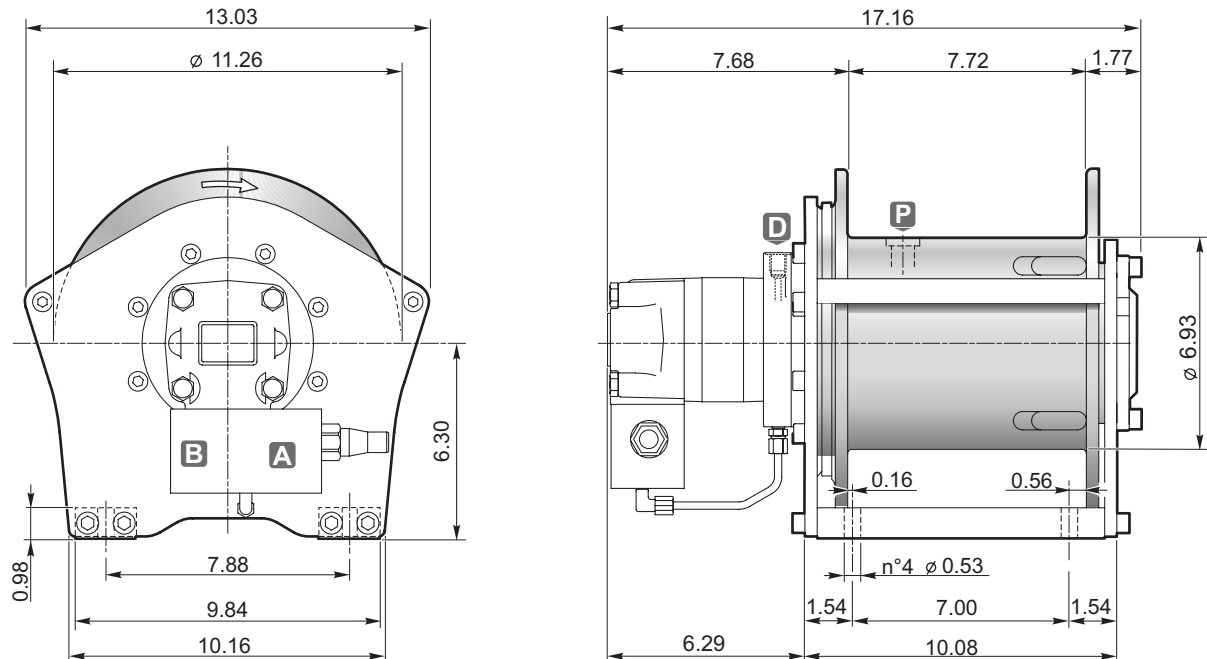
D/d	
20.5	
17.4	

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is clockwise (counterclockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 310 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.20 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

THE PRESENT EQUIPMENT CAN'T BE USED TO LIFT PEOPLE

A44



Performance info: 4.77:1 ratio - 12.2 cu.in. disp. - 2450 PSI

Layer	n	1	2	3	4	5*
Line pull	[lbs]	4400	4000	3650	3350	3100
Line speed @ 20 GPM	[fpm]	141	155	170	184	200

Above specifications based on 3/8" wire rope diameter

A	Hoisting port	7/8"
B	Lowering port	14-UNF

D	Motor case drain	1/4" BSP
P	Lubrication oil plug	3/8" BSP

 Weight	110
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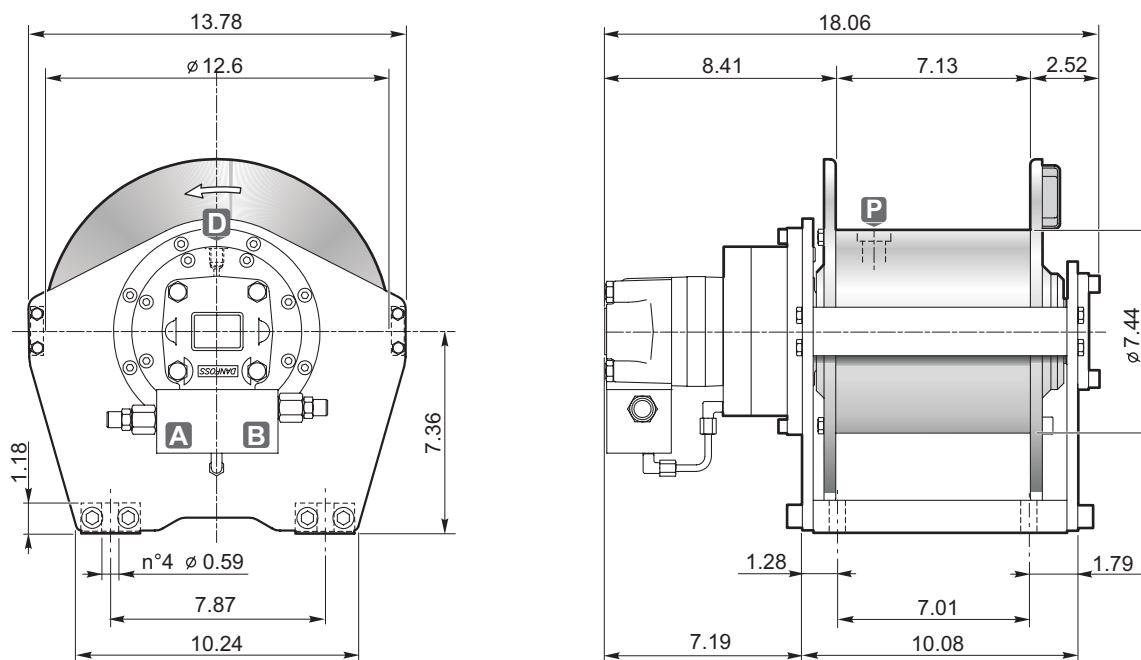
Rope Dia. [in]	Rope storage capacity [FT]				
	Layer				
	1	2	3	4	5
3/8"	37	78	124	173	225*
7/16"	32	68	108	151*	—

D/d
19.5
16.8

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is clockwise (counterclockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 455 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.25 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.


THE PRESENT EQUIPMENT CAN'T BE USED TO LIFT PEOPLE



Performance info: 12.28:1 ratio - 6.1 cu.in. disp. - 2550 PSI

Layer	n	1	2	3	4
Line pull	[lbs]	5500	4800	4300	3850
Line speed @ 10 GPM	[fpm]	61	69	78	86

Above specifications based on 9/16" wire rope diameter

A Hoisting port	7/8" 14 UNF	D Motor case drain	1/4" BSP	 Weight	180
B Lowering port		P Lubrication oil plug	3/8" BSP		

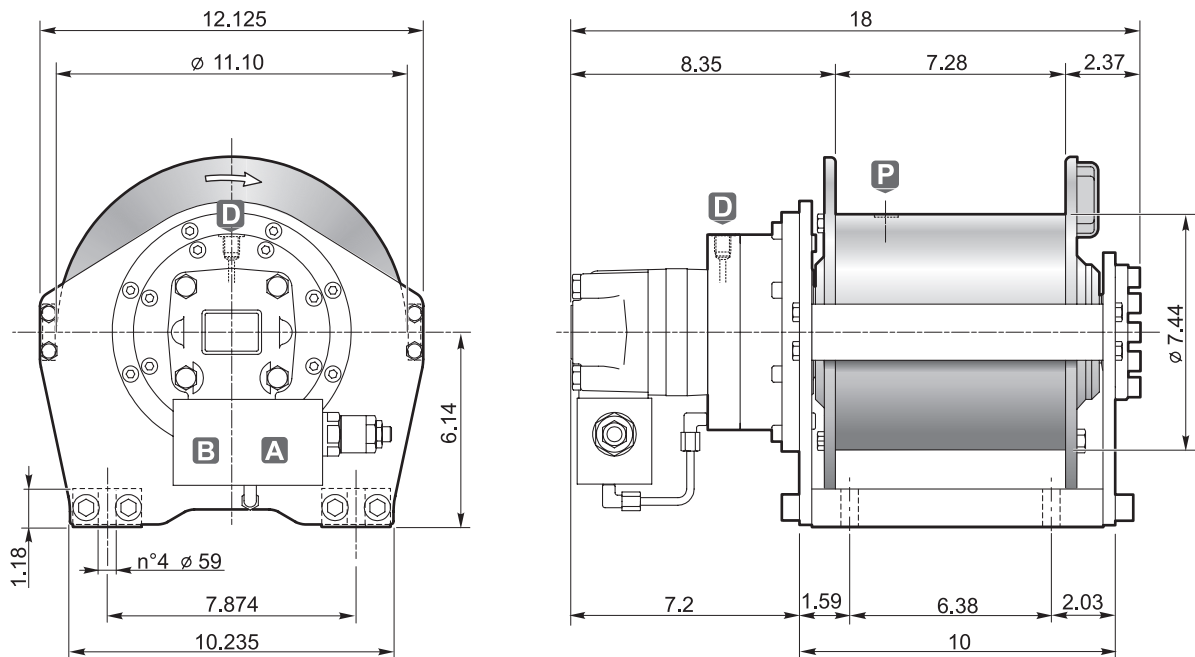
Rope Dia. [in]	Rope storage capacity [FT]			
	Layer			
	1	2	3	4
1/2"	28	59	93	131
9/16"	24	52	84	118*

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is counterclockwise (clockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 545 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 3 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.25 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

THE PRESENT EQUIPMENT CAN'T BE USED TO LIFT PEOPLE

A60



Performance info: 12.28:1 ratio - 6.10 cu.in. disp. - 2650 PSI

Layer	n	1	2	3	4*
Line pull	[lbs]	6000	5400	4900	4500
Line speed @ 17 GPM	[fpm]	103	114	126	137

Above specifications based on 3/8" wire rope diameter

A	Hoisting port	7/8"
B	Lowering port	14-UNF

D	Motor case drain	1/4" BSP
P	Lubrication oil plug	3/8" BSP

	Weight	165
---	--------	-----

Rope Dia. [in]	Rope storage capacity [FT]			
	Layer			
	1	2	3	4
3/8"	38	79	124	172*
7/16"	32	68	108	151*

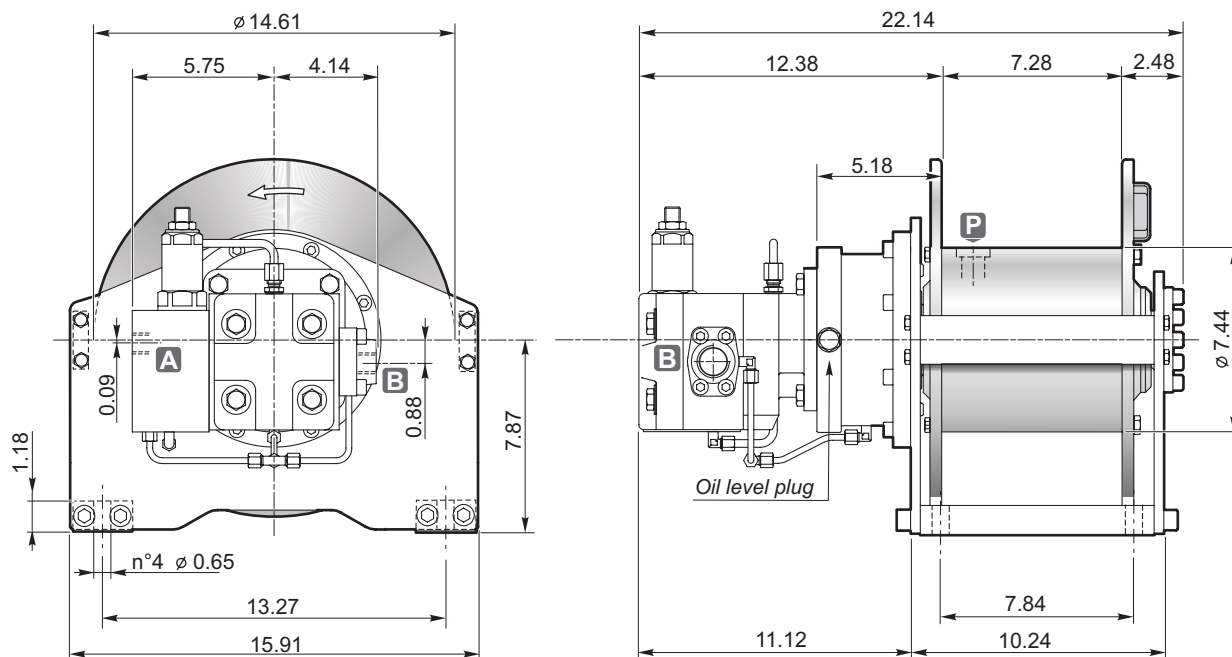
D/d
20.8
18.0

*** This layer does not comply with ANSI spec. B30.7**

- Standard hoisting drum rotation is clockwise (counterclockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 545 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 3 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.37 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

THE PRESENT EQUIPMENT CAN'T BE USED TO LIFT PEOPLE

A62-3



Performance info: 26.5:1 ratio - 3.5 cu.in. disp. - 2450 PSI

Layer	n	1	2	3	4	5	6	7	8
Line pull	[lbs]	6000	5400	4920	4510	4160	3860	3600	3380
Line speed @ 21 GPM	[fpm]	90	100	110	120	130	140	150	160

Above specifications based on 7/16" wire rope diameter

A	Hoisting port	1" 5/16-12 THD SAE-16 ORB
B	Lowering port	

P	Lubrication oil plug	3/8" BSP
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 Weight	200
--	-----

Rope Dia. [in]	Rope storage capacity [FT]								
	Layer								
	1	2	3	4	5	6	7	8	9
3/8"	38	79	124	172	225	280	340	403	470*
7/16"	32	68	108	151	197	248	302	360*	—

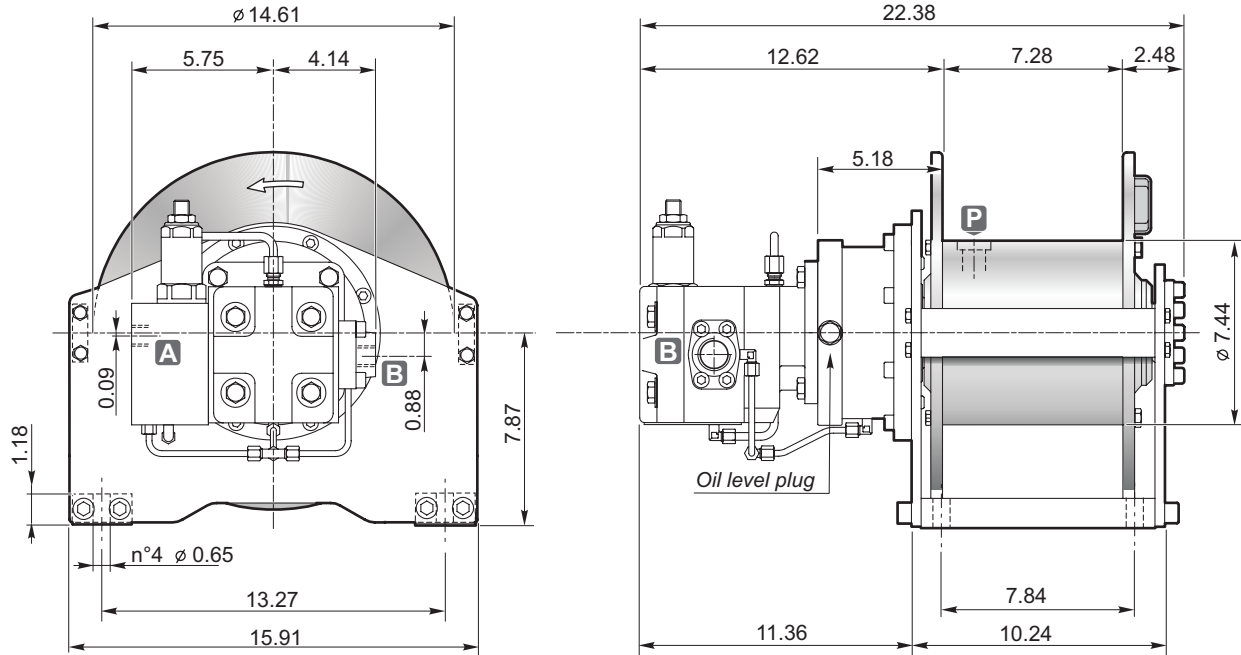
D/d
20.8
18.0

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is counterclockwise (clockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 361 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.40 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

PERSONNEL HANDLING APPLICATIONS ON REQUEST

A62-4




Performance info: 26.5:1 ratio - 4.0 cu.in. disp. - 2100 PSI

Layer	n	1	2	3	4	5	6	7	8
Line pull	[lbs]	6000	5400	4920	4510	4160	3860	3600	3380
Line speed @ 27 GPM	[fpm]	100	112	123	134	145	156	167	179
Line speed @ 60 GPM	[fpm]	223	248	273	297	322	346	371	396

Above specifications based on 7/16" wire rope diameter

A	Hoisting port	1" 5/16-12 THD SAE-16 ORB
B	Lowering port	

P	Lubrication oil plug	3/8" BSP
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 Weight	200
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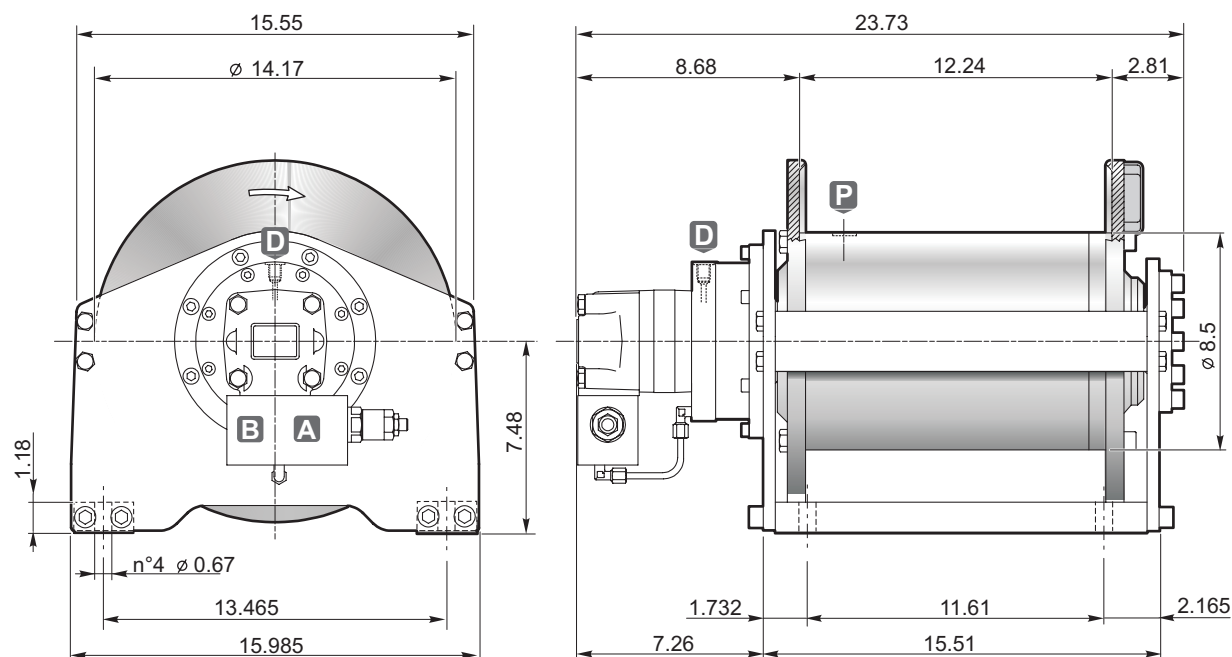
Rope Dia. [in]	Rope storage capacity [FT]								
	Layer								
	1	2	3	4	5	6	7	8	9
3/8"	38	79	124	172	225	280	340	403	470*
7/16"	32	68	108	151	197	248	302	360*	—

D/d
20.8
18.0

*** This layer does not comply with ANSI spec. B30.7**

- Standard hoisting drum rotation is counterclockwise (clockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 361 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.40 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

PERSONNEL HANDLING APPLICATIONS ON REQUEST



Performance info: 15.26:1 ratio - 7.67 cu.in. disp. - 2650 PSI

Layer	n	1	2	3	4	5
Line pull	[lbs]	8000	7200	6500	6000	5500
Line speed @ 17 GPM	[fpm]	76	84	93	101	110

Above specifications based on 1/2" wire rope diameter

A	Hoisting port	7/8" 14-UNF
B	Lowering port	

D	Motor case drain	1/4" BSP
P	Lubrication oil plug	3/8" BSP

 Weight	290
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Rope Dia. [in]	Rope storage capacity [FT]				
	Layer				
	1	2	3	4	5
1/2"	55	117	184	258	338*

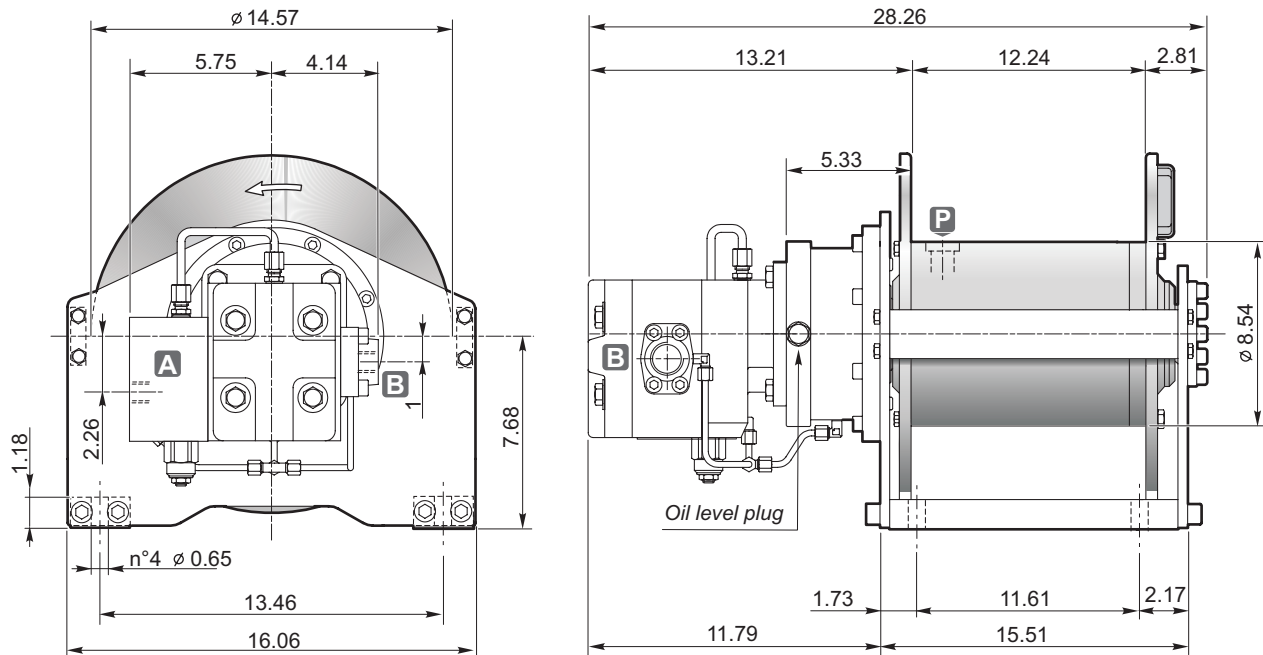
D/d
18

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is clockwise (counterclockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 545 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.75 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

THE PRESENT EQUIPMENT CAN'T BE USED TO LIFT PEOPLE


A81-5



Performance info: 21:1 ratio - 5.14 cu.in. disp. - 3000 PSI

Layer	n	1	2	3	4	5	6
Line pull	[lbs]	8000	7200	6500	6000	5500	5100
Line speed @ 45 GPM	[fpm]	195	216	238	260	281	303
Line speed @ 65 GPM	[fpm]	282	313	344	376	407	438

Above specifications based on 1/2" wire rope diameter

A Hoisting port	1" 5/16-12 THD SAE-16 ORB	P Lubrication oil plug	3/8" BSP	 Weight	330
B Lowering port					

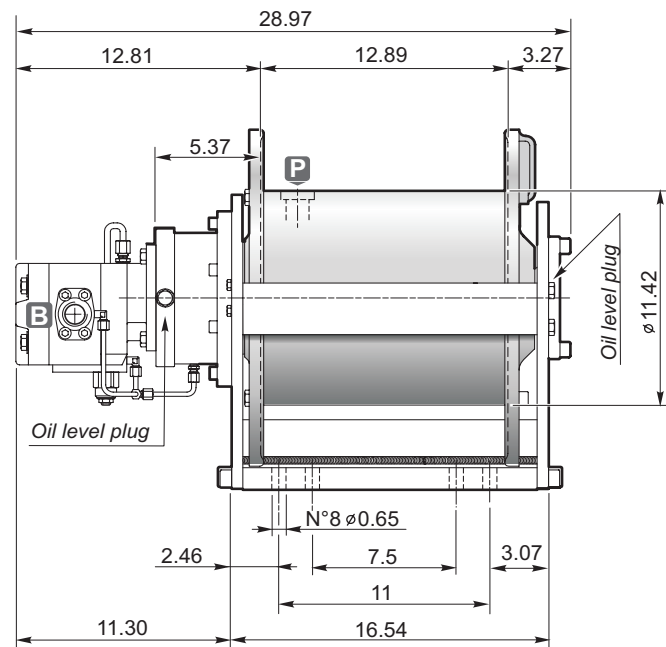
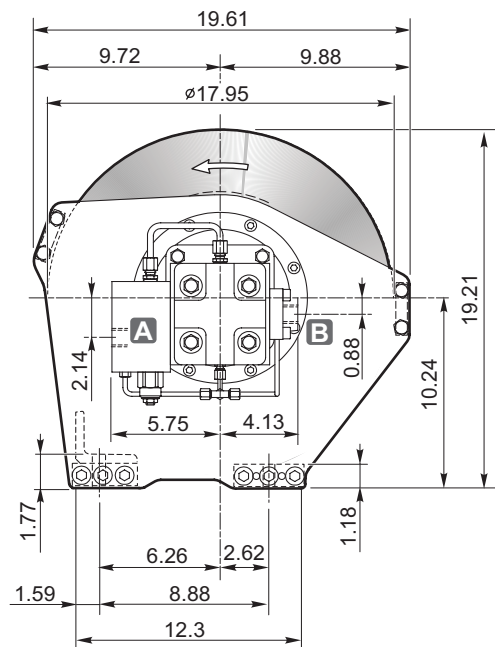
Rope Dia. [in]	Rope storage capacity [FT]						D/d
	1	2	3	4	5	6	
7/16"	63	132	208	290	377	472*	20.4
1/2"	55	117	184	258	338	424*	18.0

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is counterclockwise (clockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 361 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.75 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

PERSONNEL HANDLING APPLICATIONS ON REQUEST


A120-4



Performance info: 64.1 :1 ratio - 4.0 cu.in. disp. - 2570 PSI

Layer	n	1	2	3	4	5	6
Line pull	[lbs]	12000	10970	10100	9360	8720	8160
Line speed @ 45 GPM	[fpm]	114	125	135	146	157	168
Line speed @ 65 GPM	[fpm]	165	180	196	211	227	242

Above specifications based on 9/16" wire rope diameter

A Hoisting port	1" 5/16-12 THD SAE-16 ORB	P Lubrication oil plug	3/8" BSP	 Weight	520
B Lowering port					

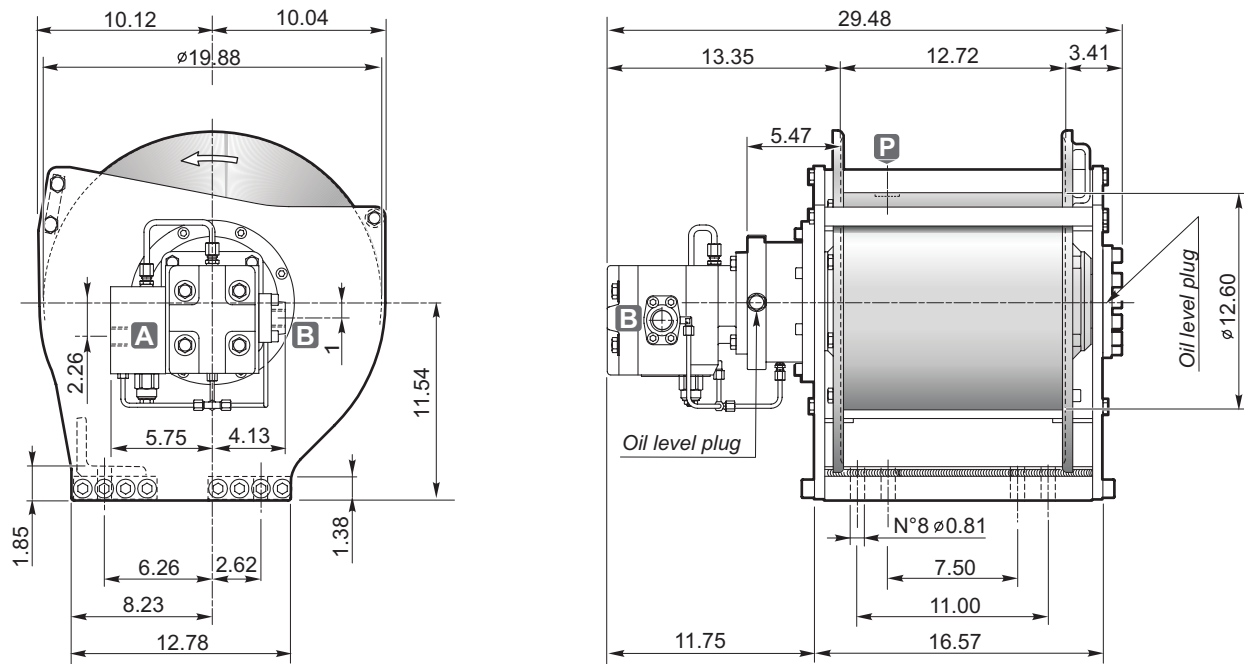
Rope Dia. [in]	Rope storage capacity [FT]						D/d
	Layer						
	1	2	3	4	5	6	
1/2"	77	161	251	349	450	550*	23.8
9/16"	68	143	225	313	407	508*	21.3
5/8	62	130	205	285	373*		19.2

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is counterclockwise (clockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 361 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 1.8 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

PERSONNEL HANDLING APPLICATIONS ON REQUEST


A150-5



Performance info: 62.7:1 ratio - 5.14 cu.in. disp. - 2550 PSI

Layer	n	1	2	3	4	5	6
Line pull	[lbs]	15000	13700	12600	11700	10900	10200
Line speed @ 45 GPM	[fpm]	103	113	123	133	143	153
Line speed @ 80 GPM	[fpm]	185	202	220	237	255	272

Above specifications based on 5/8" wire rope diameter

A Hoisting port	1" 5/16-12 THD SAE-16 ORB	P Lubrication oil plug	3/8" BSP	 Weight	730
B Lowering port					

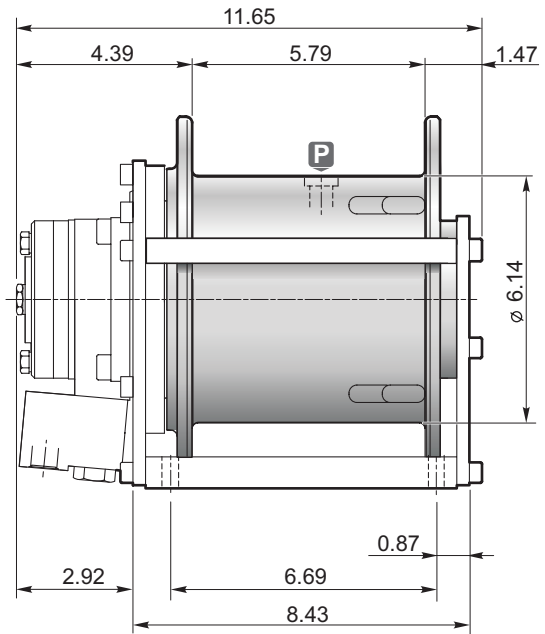
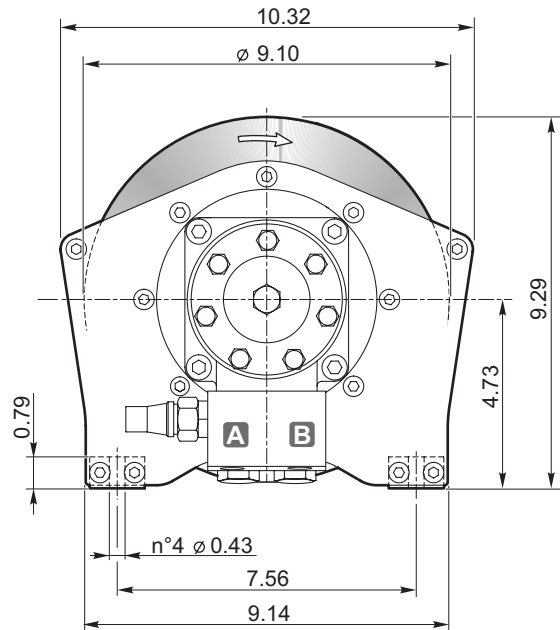
Rope Dia. [in]	Rope storage capacity [FT]						D/d
	Layer						
	1	2	3	4	5	6	
9/16"	75	155	242	336	436	542*	23.8
5/8"	67	140	220	306	400	498*	21.3

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is counterclockwise (clockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 361 ft-lbs.
- Maximum back pressure on the return line: 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 2.5 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

PERSONNEL HANDLING APPLICATIONS ON REQUEST

A11



Performance info: 5.23:1 ratio - 3.05 cu.in. disp. - 2250 PSI

Layer	n	1	2	3	4	5
Line pull	[lbs]	1100	1000	950	890	840
Line speed @ 7.7 GPM	[fpm]	164	176	189	200	214

Above specifications based on 1/4" wire rope diameter

A	Hoisting port	9/16" 18-UNF
B	Lowering port	

P	Lubrication oil plug	3/8" BSP
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 Weight	75
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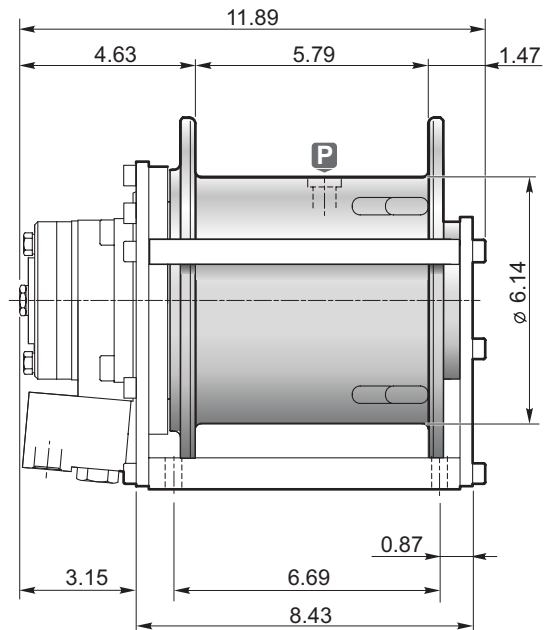
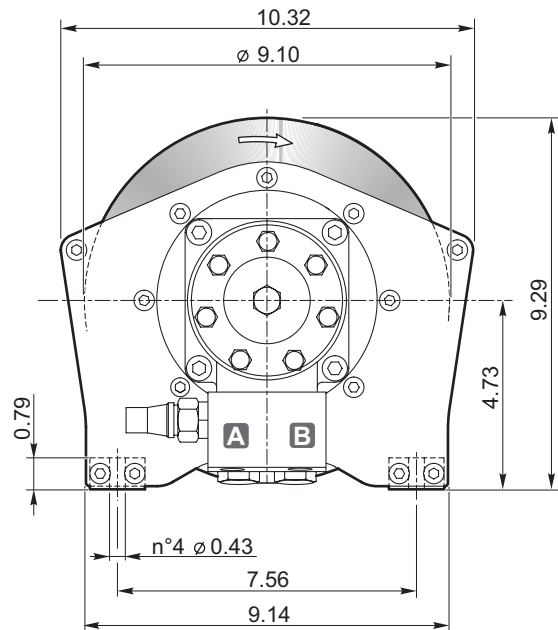
Rope Dia. [in]	Rope storage capacity [FT]				
	Layer				
	1	2	3	4	5
1/4"	37	77	120	165	214*
5/16"	30	62	97	135*	—

D/d
25.5
20.6

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is clockwise (counterclockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 310 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.20 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

THE PRESENT EQUIPMENT CAN'T BE USED TO LIFT PEOPLE



Performance info: 5.23:1 ratio - 4.88 cu.in. disp. - 2300 PSI

Layer	n	1	2	3	4	5
Line pull	[lbs]	1800	1650	1550	1450	1350
Line speed @ 7.7 GPM	[fpm]	102	110	118	125	132

Above specifications based on 1/4" wire rope diameter

A	Hoisting port	9/16" 18-UNF
B	Lowering port	

P	Lubrication oil plug	3/8" BSP
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 Weight	75
--	----

Rope Dia. [in]	Rope storage capacity [FT]				
	Layer				
	1	2	3	4	5
1/4"	37	77	120	165	214*
5/16"	30	62	97	135*	—

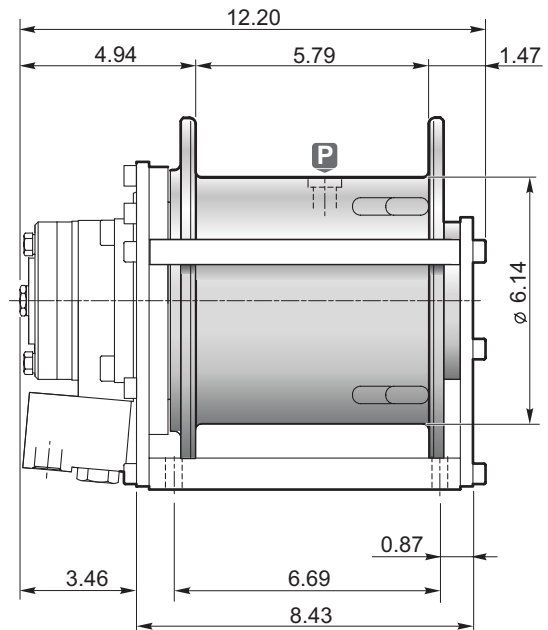
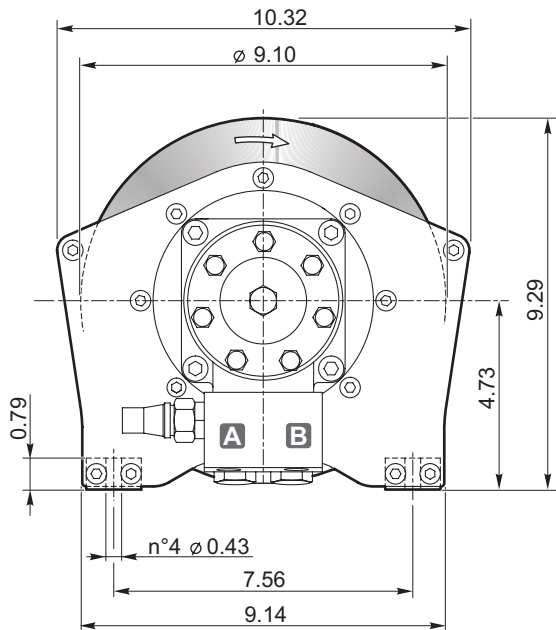
D/d
25.5
20.6

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is clockwise (counterclockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 310 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.20 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

THE PRESENT EQUIPMENT CAN'T BE USED TO LIFT PEOPLE

A24



Performance info: 5.23:1 ratio - 6.10 cu.in. disp. - 2450 PSI

Layer	n	1	2	3	4
Line pull	[lbs]	2400	2190	2000	1860
Line speed @ 7.7 GPM	[fpm]	82	90	98	106

Above specifications based on 5/16" wire rope diameter

A	Hoisting port	9/16" 18-UNF
B	Lowering port	

P	Lubrication oil plug	3/8" BSP
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 Weight	75
--	----

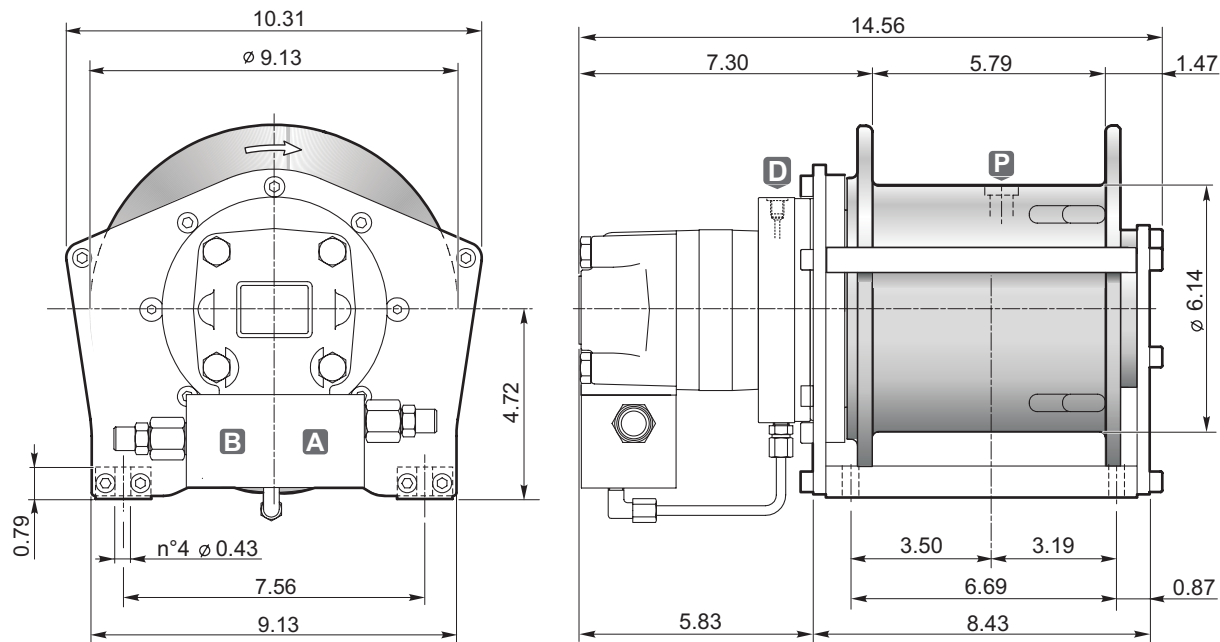
Rope Dia. [in]	Rope storage capacity [FT]			
	Layer			
	1	2	3	4
5/16"	30	62	97	135*
3/8"	25	52	82*	—

D/d
20.5
17.4

*** This layer does not comply with ANSI spec. B30.7**

- Standard hoisting drum rotation is clockwise (counterclockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 310 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.20 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

THE PRESENT EQUIPMENT CAN'T BE USED TO LIFT PEOPLE



Performance info: 5.23:1 ratio - 7.63 cu.in. disp. - 2250 PSI

Layer	n	1	2	3	4
Line pull	[lbs]	3000	2730	2500	2320
Line speed @ 15 GPM	[fpm]	140	153	167	180

Above specifications based on 5/16" wire rope diameter

A	Hoisting port	7/8"
B	Lowering port	14-UNF

D	Motor case drain	1/4" BSP
P	Lubrication oil plug	3/8" BSP

lbs	Weight	100
------------	--------	-----

Rope Dia. [in]	Rope storage capacity [FT]			
	Layer			
	1	2	3	4
5/16"	30	62	97	135*
3/8"	25	52	82*	—

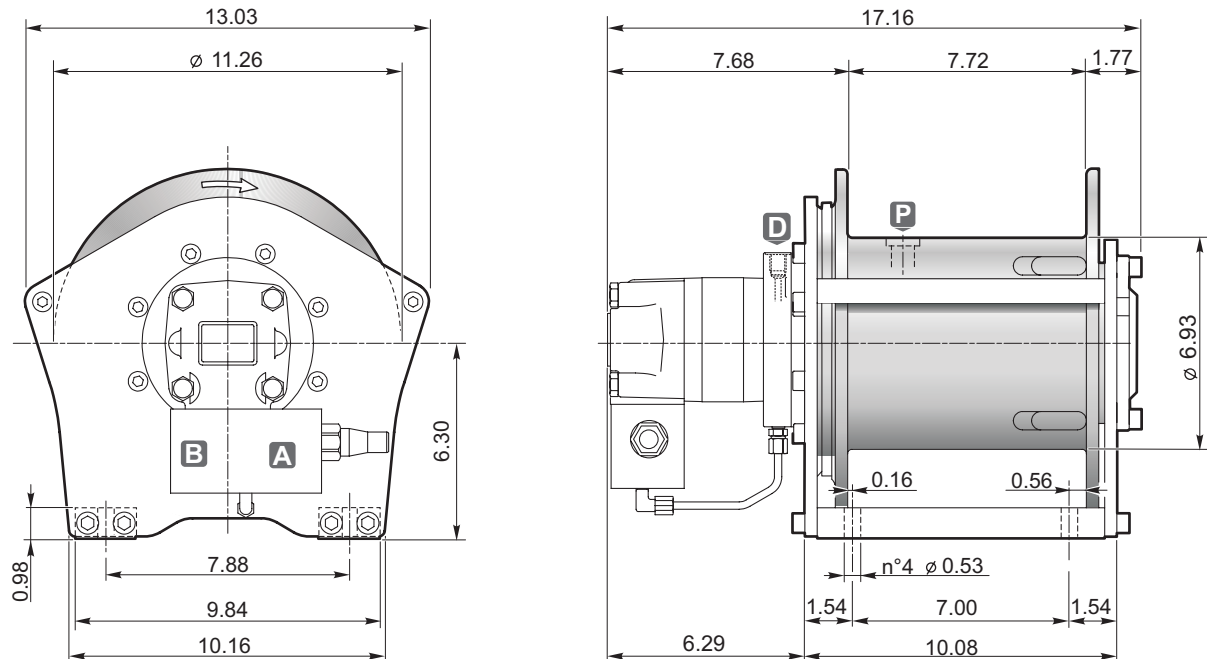
D/d	
20.5	
17.4	

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is clockwise (counterclockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 310 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.20 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

THE PRESENT EQUIPMENT CAN'T BE USED TO LIFT PEOPLE


A44



Performance info: 4.77:1 ratio - 12.2 cu.in. disp. - 2450 PSI

Layer	n	1	2	3	4	5*
Line pull	[lbs]	4400	4000	3650	3350	3100
Line speed @ 20 GPM	[fpm]	141	155	170	184	200

Above specifications based on 3/8" wire rope diameter

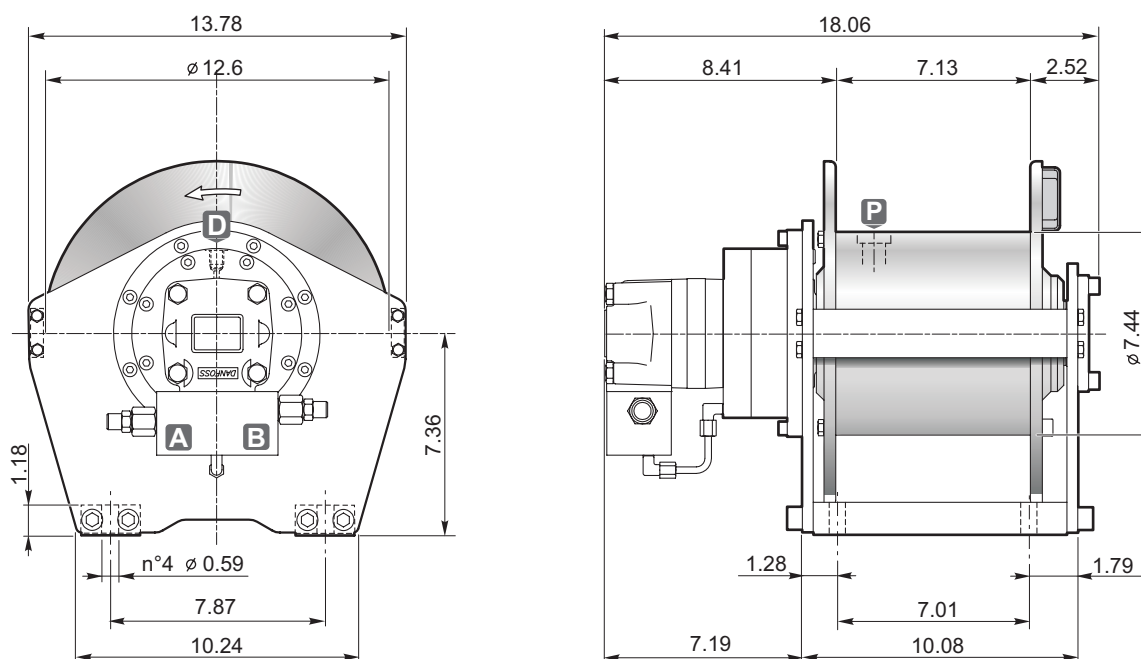
A Hoisting port	7/8" 14-UNF	D Motor case drain	1/4" BSP	 Weight	110
B Lowering port		P Lubrication oil plug	3/8" BSP		

Rope Dia. [in]	Rope storage capacity [FT]					D/d
	1	2	3	4	5	
3/8"	37	78	124	173	225*	19.5
7/16"	32	68	108	151*	—	16.8

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is clockwise (counterclockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 455 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.25 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.


THE PRESENT EQUIPMENT CAN'T BE USED TO LIFT PEOPLE



Performance info: 12.28:1 ratio - 6.1 cu.in. disp. - 2550 PSI

Layer	n	1	2	3	4
Line pull	[lbs]	5500	4800	4300	3850
Line speed @ 10 GPM	[fpm]	61	69	78	86

Above specifications based on 9/16" wire rope diameter

A Hoisting port	7/8" 14 UNF	D Motor case drain	1/4" BSP	 Weight	180
B Lowering port		P Lubrication oil plug	3/8" BSP		

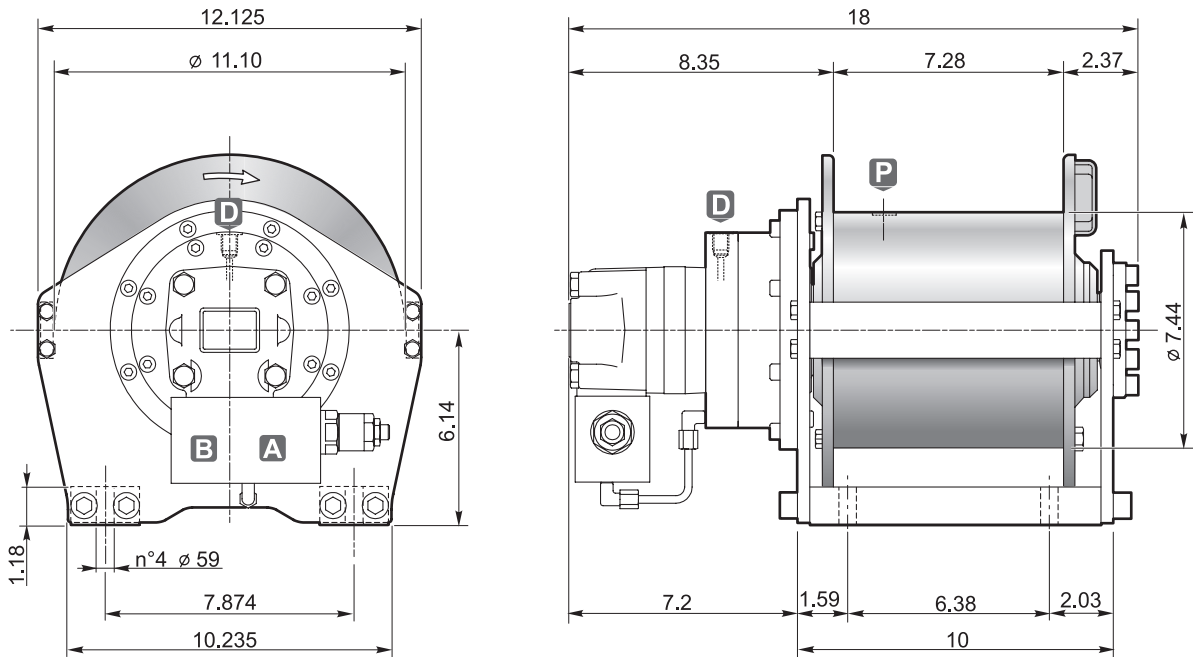
Rope Dia. [in]	Rope storage capacity [FT]			
	Layer			
	1	2	3	4
1/2"	28	59	93	131
9/16"	24	52	84	118*

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is counterclockwise (clockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 545 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 3 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.25 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

THE PRESENT EQUIPMENT CAN'T BE USED TO LIFT PEOPLE

A60



Performance info: 12.28:1 ratio - 6.10 cu.in. disp. - 2650 PSI

Layer	n	1	2	3	4*
Line pull	[lbs]	6000	5400	4900	4500
Line speed @ 17 GPM	[fpm]	103	114	126	137

Above specifications based on 3/8" wire rope diameter

A	Hoisting port	7/8"
B	Lowering port	14-UNF

D	Motor case drain	1/4" BSP
P	Lubrication oil plug	3/8" BSP

 Weight	165
--	-----

Rope Dia. [in]	Rope storage capacity [FT]			
	Layer			
	1	2	3	4
3/8"	38	79	124	172*
7/16"	32	68	108	151*

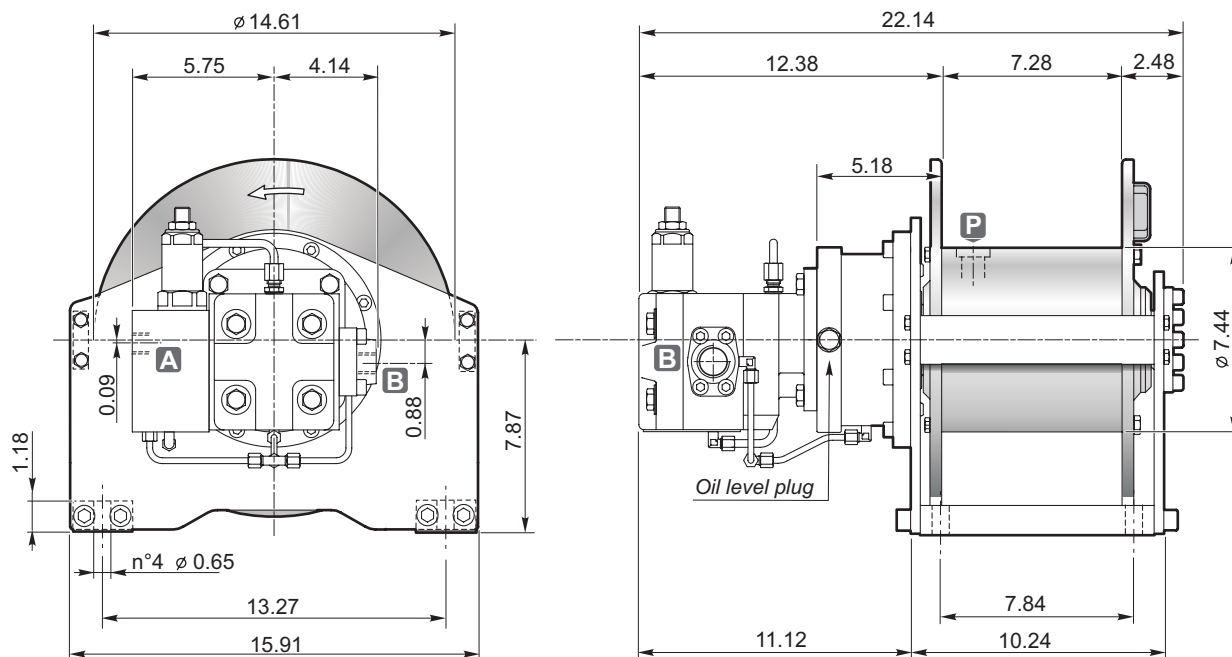
D/d
20.8
18.0

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is clockwise (counterclockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 545 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 3 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.37 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

THE PRESENT EQUIPMENT CAN'T BE USED TO LIFT PEOPLE

A62-3



Performance info: 26.5:1 ratio - 3.5 cu.in. disp. - 2450 PSI

Layer	n	1	2	3	4	5	6	7	8
Line pull	[lbs]	6000	5400	4920	4510	4160	3860	3600	3380
Line speed @ 21 GPM	[fpm]	90	100	110	120	130	140	150	160

Above specifications based on 7/16" wire rope diameter

A	Hoisting port	1" 5/16-12 THD SAE-16 ORB
B	Lowering port	

P	Lubrication oil plug	3/8" BSP
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 Weight	200
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Rope Dia. [in]	Rope storage capacity [FT]								
	Layer								
	1	2	3	4	5	6	7	8	9
3/8"	38	79	124	172	225	280	340	403	470*
7/16"	32	68	108	151	197	248	302	360*	—

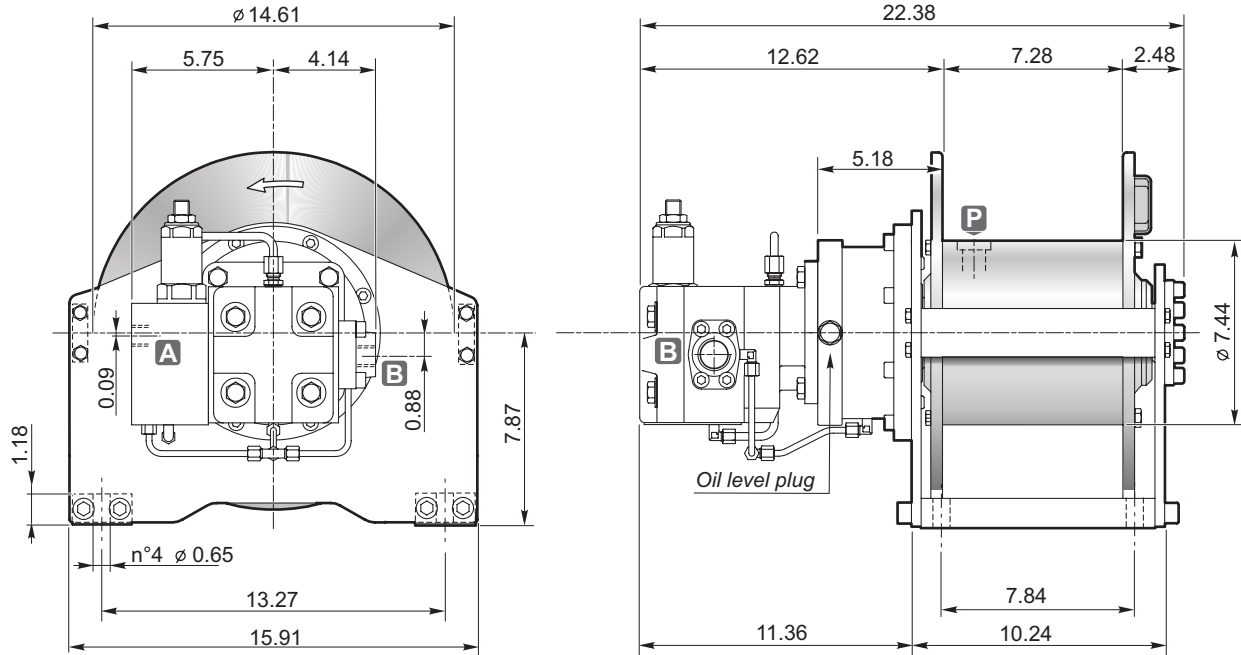
D/d
20.8
18.0

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is counterclockwise (clockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 361 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.40 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

PERSONNEL HANDLING APPLICATIONS ON REQUEST


A62-4



Performance info: 26.5:1 ratio - 4.0 cu.in. disp. - 2100 PSI

Layer	n	1	2	3	4	5	6	7	8
Line pull	[lbs]	6000	5400	4920	4510	4160	3860	3600	3380
Line speed @ 27 GPM	[fpm]	100	112	123	134	145	156	167	179
Line speed @ 60 GPM	[fpm]	223	248	273	297	322	346	371	396

Above specifications based on 7/16" wire rope diameter

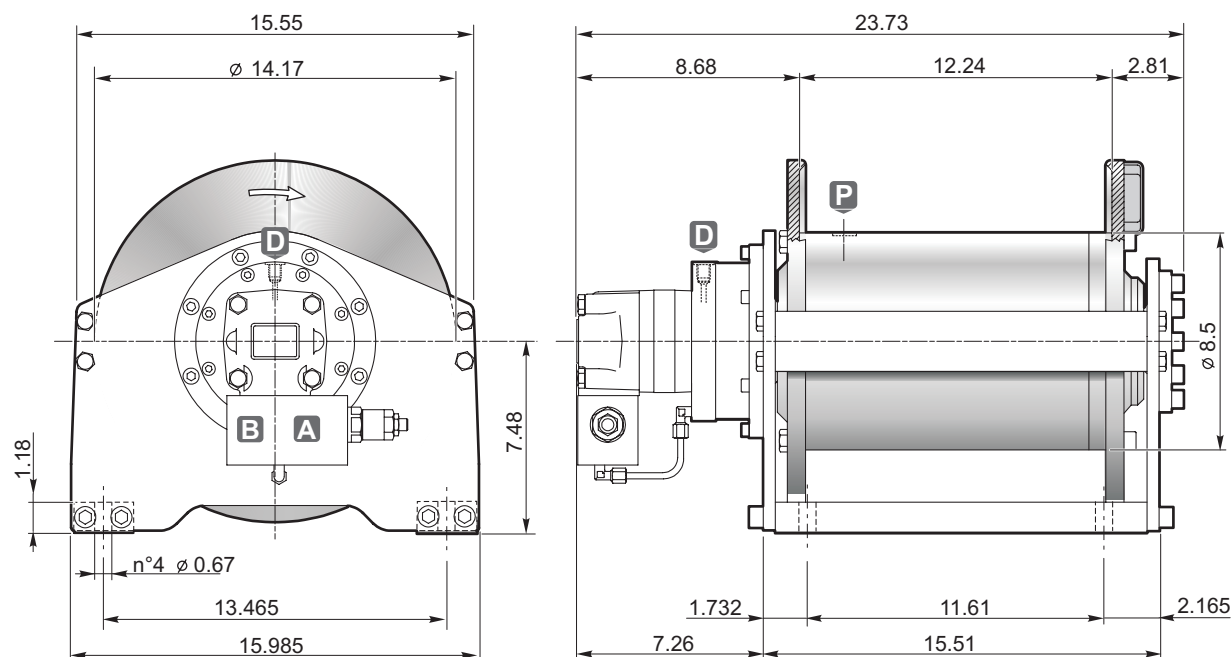
A Hoisting port	1" 5/16-12 THD SAE-16 ORB	P Lubrication oil plug	3/8" BSP	 Weight	200
B Lowering port					

Rope Dia. [in]	Rope storage capacity [FT]									D/d
	Layer									
	1	2	3	4	5	6	7	8	9	
3/8"	38	79	124	172	225	280	340	403	470*	20.8
7/16"	32	68	108	151	197	248	302	360*	—	18.0

*** This layer does not comply with ANSI spec. B30.7**

- Standard hoisting drum rotation is counterclockwise (clockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 361 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.40 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

PERSONNEL HANDLING APPLICATIONS ON REQUEST



Performance info: 15.26:1 ratio - 7.67 cu.in. disp. - 2650 PSI

Layer	n	1	2	3	4	5
Line pull	[lbs]	8000	7200	6500	6000	5500
Line speed @ 17 GPM	[fpm]	76	84	93	101	110

Above specifications based on 1/2" wire rope diameter

A	Hoisting port	7/8" 14-UNF
B	Lowering port	

D	Motor case drain	1/4" BSP
P	Lubrication oil plug	3/8" BSP

 Weight	290
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Rope Dia. [in]	Rope storage capacity [FT]				
	Layer				
	1	2	3	4	5
1/2"	55	117	184	258	338*

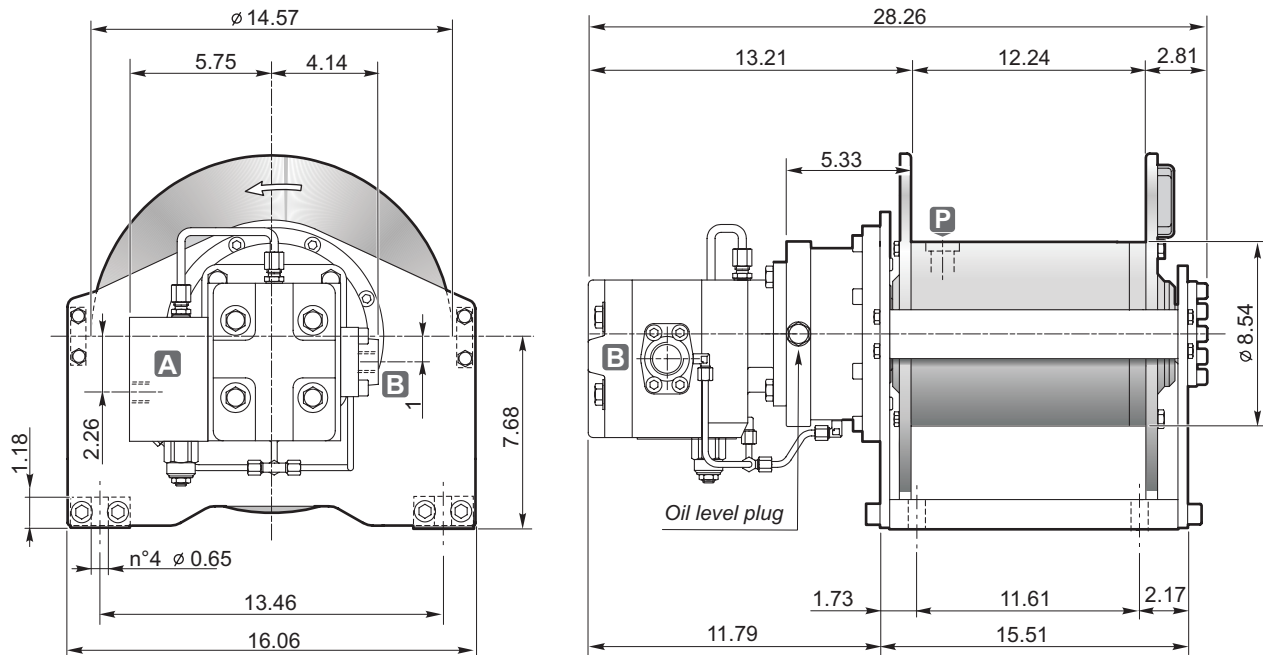
D/d
18

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is clockwise (counterclockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 545 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.75 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

THE PRESENT EQUIPMENT CAN'T BE USED TO LIFT PEOPLE

A81-5



Performance info: 21:1 ratio - 5.14 cu.in. disp. - 3000 PSI

Layer	n	1	2	3	4	5	6
Line pull	[lbs]	8000	7200	6500	6000	5500	5100
Line speed @ 45 GPM	[fpm]	195	216	238	260	281	303
Line speed @ 65 GPM	[fpm]	282	313	344	376	407	438

Above specifications based on 1/2" wire rope diameter

A Hoisting port	1" 5/16-12 THD SAE-16 ORB	P Lubrication oil plug	3/8" BSP	Weight 330
B Lowering port				

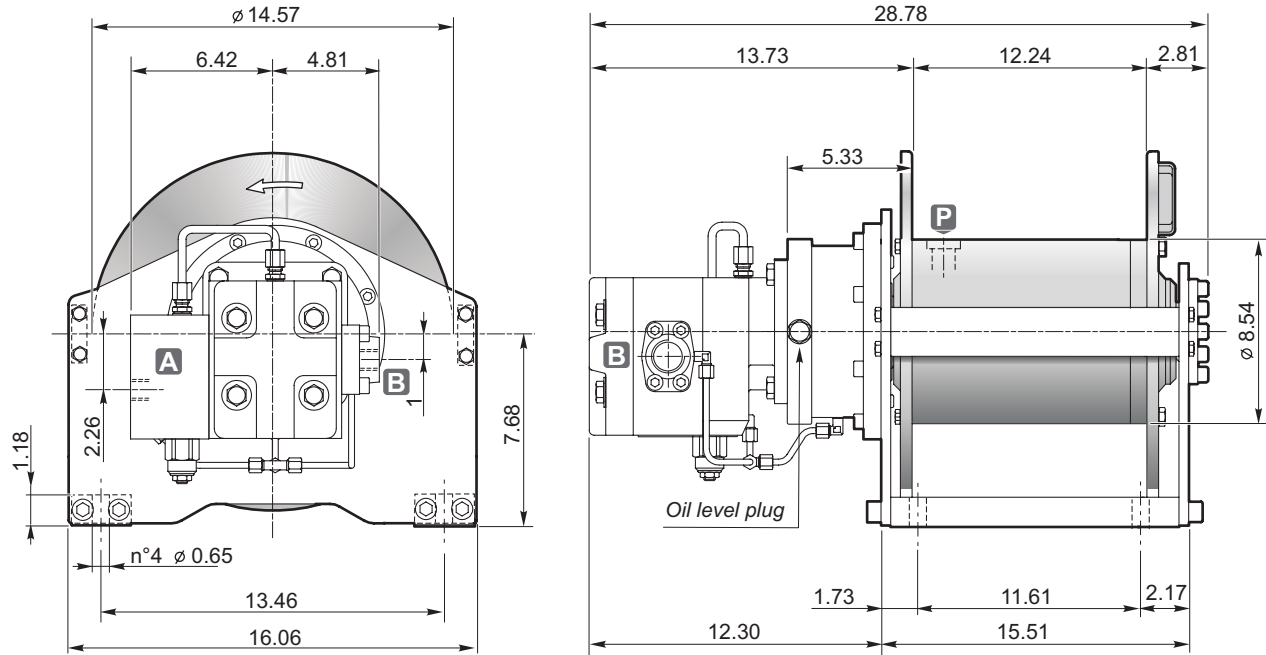
Rope Dia. [in]	Rope storage capacity [FT]						D/d
	1	2	3	4	5	6	
7/16"	63	132	208	290	377	472*	20.4
1/2"	55	117	184	258	338	424*	18.0

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is counterclockwise (clockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 361 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.75 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

PERSONNEL HANDLING APPLICATIONS ON REQUEST


A81-6



Performance info: 21:1 ratio - 6.42 cu.in. disp. - 2500 PSI

Layer	n	1	2	3	4	5	6
Line pull	[lbs]	8000	7200	6500	6000	5500	5100
Line speed @ 45 GPM	[fpm]	163	181	199	217	236	254
Line speed @ 65 GPM	[fpm]	235	262	289	315	340	367

Above specifications based on 1/2" wire rope diameter

A Hoisting port	1" 5/16-12 THD SAE-16 ORB	P Lubrication oil plug	3/8" BSP	 Weight	330
B Lowering port					

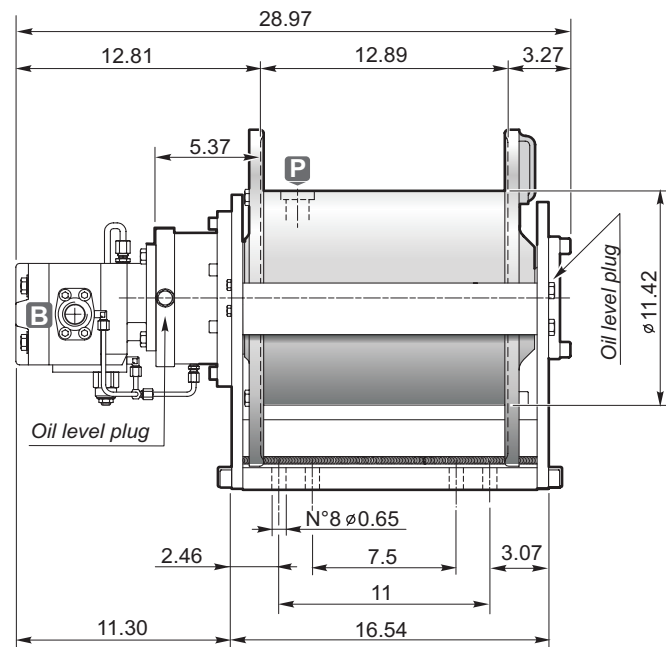
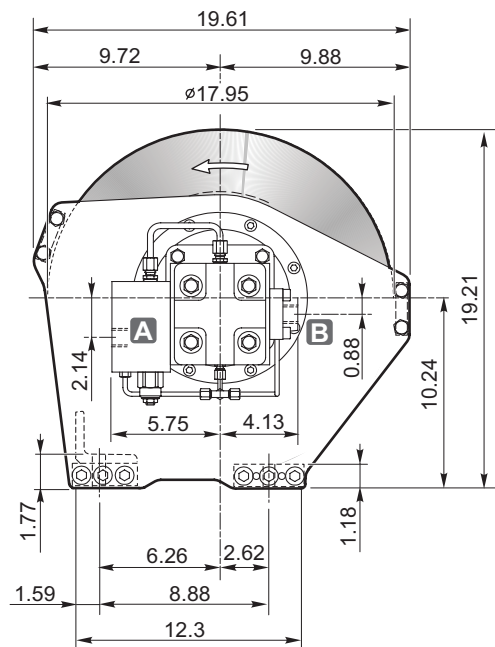
Rope Dia. [in]	Rope storage capacity [FT]						D/d
	Layer						
	1	2	3	4	5	6	
7/16"	63	132	208	290	377	472*	20.4
1/2"	55	117	184	258	338	424*	18.0

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is counterclockwise (clockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 361 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 0.75 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

PERSONNEL HANDLING APPLICATIONS ON REQUEST


A120-4



Performance info: 64.1 :1 ratio - 4.0 cu.in. disp. - 2570 PSI

Layer	n	1	2	3	4	5	6
Line pull	[lbs]	12000	10970	10100	9360	8720	8160
Line speed @ 45 GPM	[fpm]	114	125	135	146	157	168
Line speed @ 65 GPM	[fpm]	165	180	196	211	227	242

Above specifications based on 9/16" wire rope diameter

A Hoisting port	1" 5/16-12 THD SAE-16 ORB	P Lubrication oil plug	3/8" BSP	 Weight	520
B Lowering port					

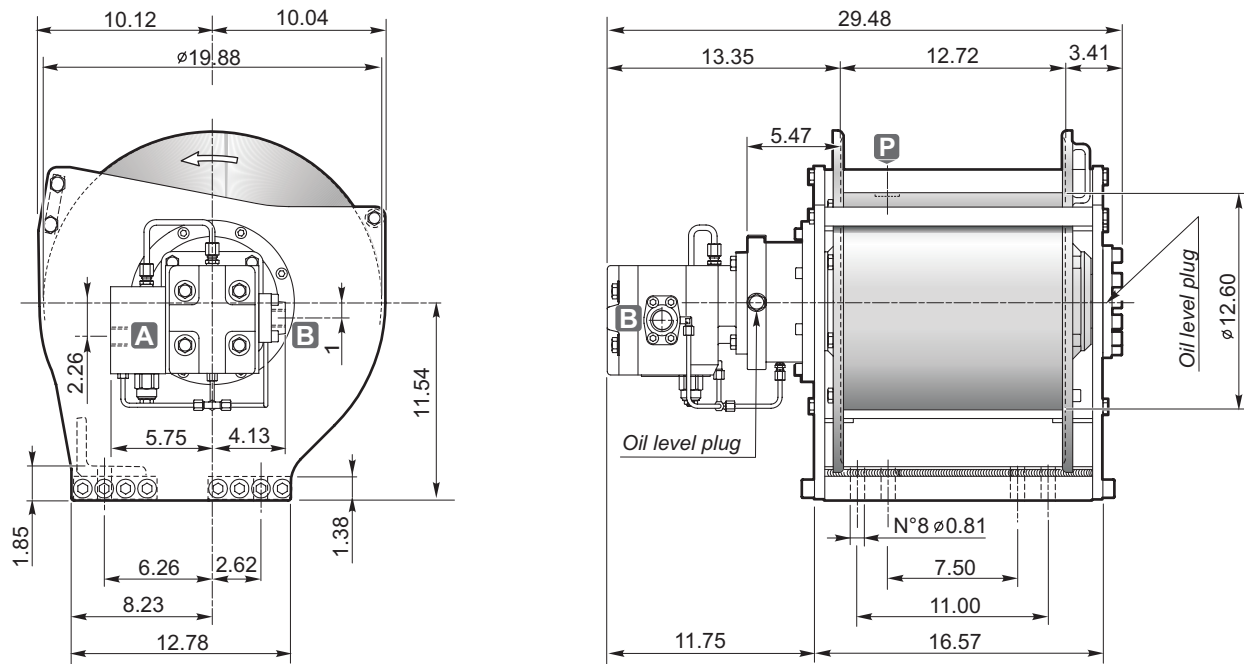
Rope Dia. [in]	Rope storage capacity [FT]						D/d
	Layer						
	1	2	3	4	5	6	
1/2"	77	161	251	349	450	550*	23.8
9/16"	68	143	225	313	407	508*	21.3
5/8	62	130	205	285	373*		19.2

* This layer does not comply with ANSI spec. B30.7

- Standard hoisting drum rotation is counterclockwise (clockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 361 ft-lbs.
- Maximum back pressure on the return line : 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 1.8 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

PERSONNEL HANDLING APPLICATIONS ON REQUEST


A150-5



Performance info: 62.7:1 ratio - 5.14 cu.in. disp. - 2550 PSI

Layer	n	1	2	3	4	5	6
Line pull	[lbs]	15000	13700	12600	11700	10900	10200
Line speed @ 45 GPM	[fpm]	103	113	123	133	143	153
Line speed @ 80 GPM	[fpm]	185	202	220	237	255	272

Above specifications based on 5/8" wire rope diameter

A Hoisting port	1" 5/16-12 THD SAE-16 ORB	P Lubrication oil plug	3/8" BSP	 Weight	730
B Lowering port					

Rope Dia. [in]	Rope storage capacity [FT]						D/d
	Layer						
	1	2	3	4	5	6	
9/16"	75	155	242	336	436	542*	23.8
5/8"	67	140	220	306	400	498*	21.3

* This layer does not comply with ANSI spec. B30.7

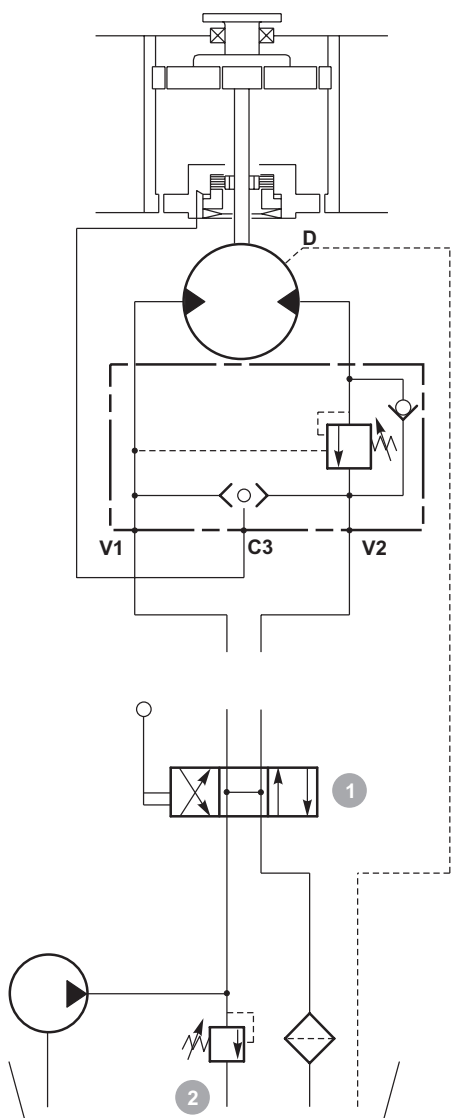
- Standard hoisting drum rotation is counterclockwise (clockwise on request). Winch rotation is defined when viewing the motor.
- Load control when lowering is achieved by the overcentre brake valve to ensure smooth performance.
- Operation of the internal negative static multi disc brake is automatic. Static brake torque is: 361 ft-lbs.
- Maximum back pressure on the return line: 72.5 PSI.
- Always keep at least 4 wraps of cable on the drum for safety reasons.
- Gear lubrication is achieved by splash oil bath.
- Gear lubricant - hydraulic oil 2.5 gal.
- Technical Specifications are subject to change without prior notice from manufacturer.

PERSONNEL HANDLING APPLICATIONS ON REQUEST

HYDRAULIC WINCH SYSTEM

V1 Lowering Line
V2 Hoisting Line
C3 Brake Connection
D Drain line Connection

1 Open Center Control Valve
2 Max Pressure Relief Valve

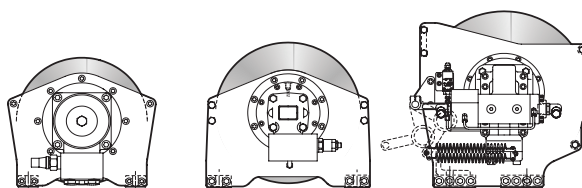


INSTALLATION

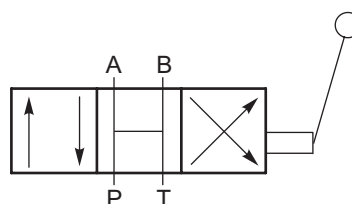
- 1) Mount the winch on a surface of adequate thickness and flatness and shim if over 0.020" out.
- 2) Select the delivery, return and drain line sizes proportional to the oil flow.
- 3) Connection ports on the valve are marked as follows:

A V2 = Hoisting Line

B V1 = Lowering Line; max. allowable back pressure must be > 14.5 PSI and < 72.5 PSI.



- 4) Hoisting rotation must be specified on your order. It is forbidden and dangerous to invert the A and B lines to adjust the hoisting rotation.
- 5) **D** D = drain line where stated, must always be connected directly to tank.
- 6) To ensure correct cable installation onto the drum, follow the instructions in the installation manual.
- 7) Use only open centre control valves to operate the winch. If a stack valve is used, use the valve closest to the return line to tank to control the winch. Connect V2 to the A port on the open centre control valve (as shown in the picture). V1 connects to the B port.



- 8) Proper hydraulic oil filtration must be provided to ensure correct winch operation. (suggested oil filtration 10 micron, max 25).
- 9) It is recommended to operate the winch, without load for 5 minutes with max flow and no cable during the start up period. Carry out the first lift under load to a max height of 3 feet.
- 10) Follow technical data stated in DINAMIC OIL documentation.
- 11) The system pressure relief valve must be set 435 PSI over the working pressure value shown on the technical data sheet for each winch.
- 12) Winches are not intended to lift people.
- 13) If the specifications and recommendations above are not adhered to, we will decline all warranty claims.

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All information in this catalogue has been checked; in case of possible mistakes, we decline all responsibility.

Dinamic Oil reserves the right to amend the technical data of this catalogue without prior notice.

For all further information please contact Dinamic Oil S.p.A. Commercial Department.



dinamic oil

dinamicoil.com

Dinamic Oil S.p.A.

Via Togliatti,15
41030 Bomporto - MO - Italy
T: +39 059 812611
F: +39 059 812603
E: info@dinamicoil.it
dinamicoil.com

Dinamic Oil France

ZI Montbertrand BP 3612
38236 Charvieu Cedex - France
T: +33 (0) 472 462 318
F: +33 (0) 472 462 327
E: dinamicoil@orange.fr

Dinamic Oil Deutschland GmbH

Frankfurter Straße 151 b
D - 63303 Dreieich-Sprendlingen
T: +49 (0) 6103 2024593
F: +49 (0) 6103 8077239
E: verkauf@dinamicoil.de

Dinamic Oil Norway A/S

Lindebergveien, 3
2016 Frogner - Norway
T: +47 63 82 50 40
F: +47 63 82 50 41
E: DinamicOil.Norway@dinamicoil.com

Dinamic Oil North America Inc.

511 Eagleton Downs Drive
Charlotte - NC
28134 - USA
T: +1 704 587 4600
F: +1 980 939 6297
E: info.usa@dinamicoil.com

Dinamic Oil Asia Pacific Pte. Ltd.

47L Tuas South Avenue,1
637249 - Singapore
T: +65 6791 0802
F: +65 6791 2661
E: sales@dinamicoilap.com.sg

Dinamic Oil India Pvt. Ltd.

Sales Office:
909 (9th Floor) Devika Tower
6-Nehru Place
110019 New Delhi - India
T: +91 (11) 40166567
E: india@dinamicoil.com

**Dinamic Oil (Shanghai)
Machinery Co. Ltd.**

Building 2, N°128 Lane 168 Dieqiao Rd.
Kangqiao Industry Park Pudong
201319 Shanghai – China
T: 0086 21 6818 7100
F: 0086 21 6818 7107
E: info@dinamicoil.com.cn

戴纳密克（上海）机械有限公司

中国上海浦东康桥工业园区
叠桥路168弄128号2栋1楼
邮编：201319
电话：0086 21 6818 7100
传真：0086 21 6818 7107
邮件：info@dinamicoil.com.cn