Dutch Hydraulic Consultants

HANSA · TMP srl

HYDRAULIC COMPONENTS
HYDROSTATIC TRANSMISSIONS
GEARBOXES - ACCESSORIES

HT 11 / A / 102 / 1205 / E

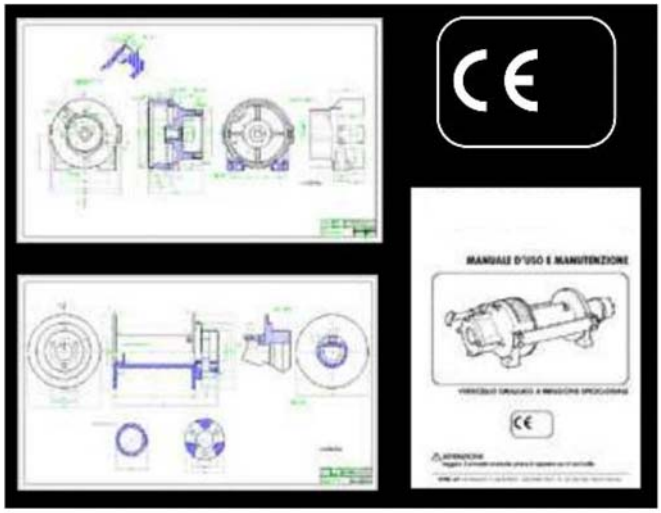
Electric and Hydraulic Pulling Winches

Contents

Electric and Hydraulic pulling Winches
General informations

CE

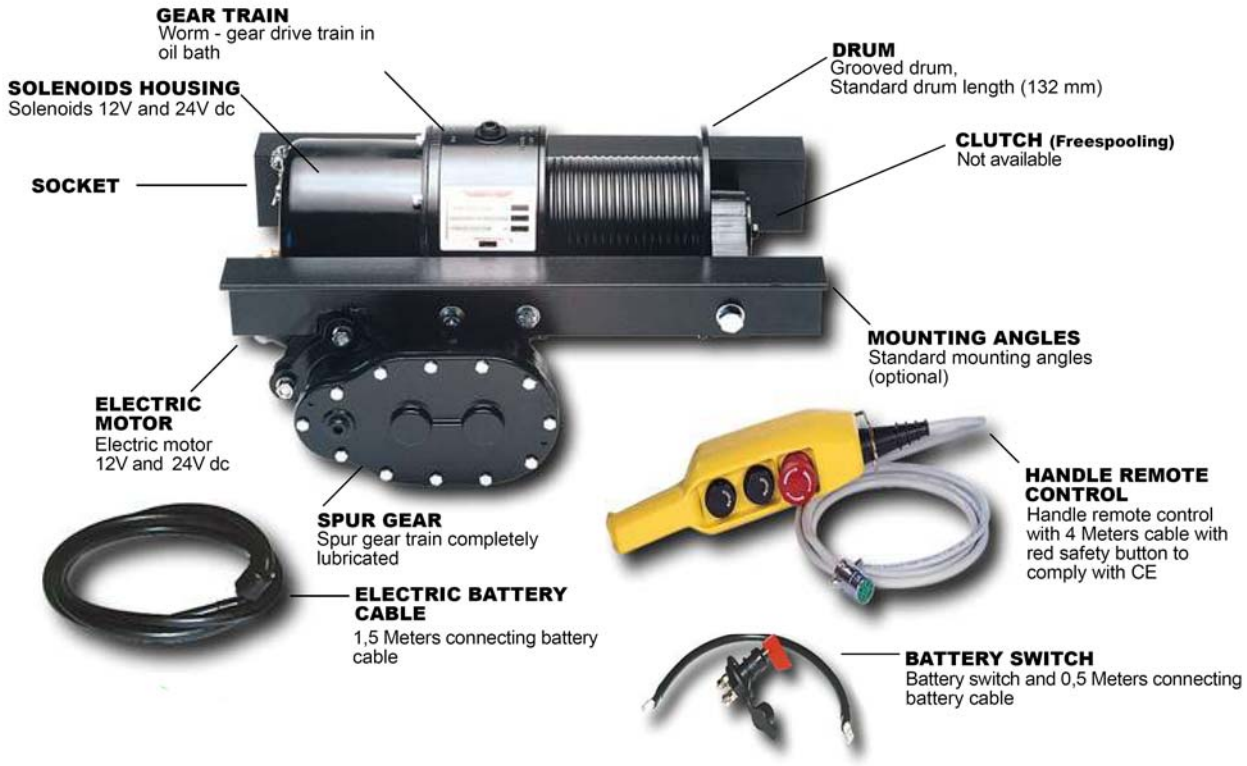
HANSA-TMP has certified its winches to comply with CE 89 / 392 and each winch is delivered with an instruction and maintenance manual and a Declaration of Conformity.
The winch is fitted with an identification plate and warning symbols.



TÜV - GS

HANSA-TMP has a long-standing committent to producing quality winches throughout it range. To ensure that the company's production quality system is mantained HANSA-TMP has applied for and been granted the German GS approvals which comply with DIN 15020 and this certifications has been achieved through TÜV product Service of Munchen.
The annual system audit carried out by TÜV-GS engineers will ensure the maintenance of these production standard.

Electric Winch JES 1.300 - 1.000
Electric worm gear and spur gear winch



SPECIFICATIONS

- Rated line pull • for model JES 1.000 : **1.000 kg**
  • for model JES 1.300 : **1.300 kg**
- Electric motor d.c. : **12 V d.c. / 24 V d.c.**
- Worm and gear train with spur gear reduction.
- (CE) Industrial remote control includes cable (4 m. long).
- Weight without cable = **34 kg**

⚠ **· DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Electric Winch JES 1.300 - 1.000
Electric worm gear and spur gear winch

Technical data

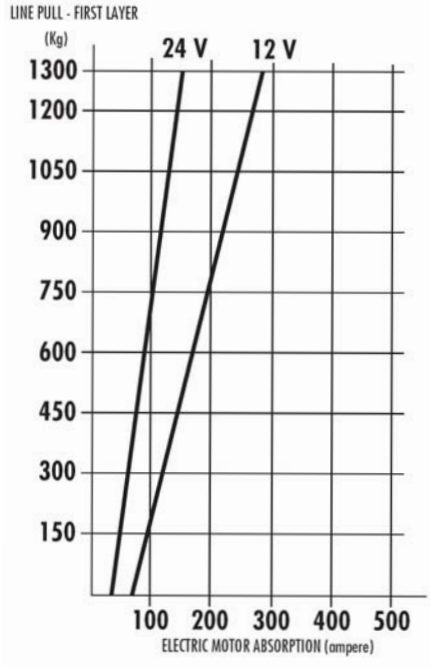
MODEL - RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
JES 1.300 - 1:470	6	1	1300
		2	1190
		3	1100
		4	1020
		5	-
JES 1.000 - 1 : 360	6	1	1000
		2	915
		3	845
		4	785
		5	-

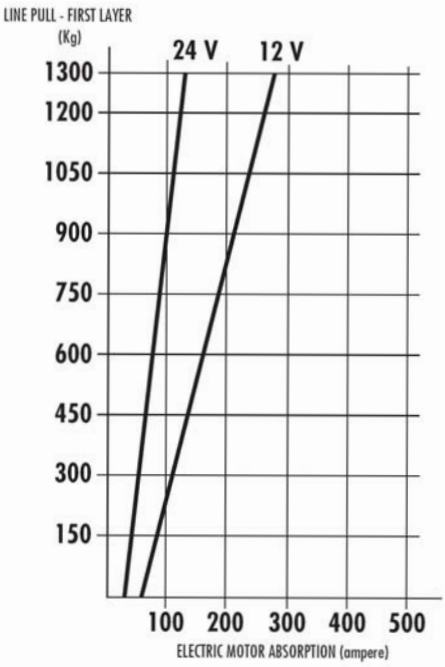
DRUM	WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY	MAX. WIRE ROPE CAPACITY
		m	m
	kg	6 mm.	6 mm.
	34	20	30

VOLT	RATIO	NO LOAD		1000 kg		1300 kg	
		SPEED m/min.	AMP.	SPEED m/min.	AMP.	SPEED m/min.	AMP.
12	1 : 360	7.5	65	2.5	270	-	-
	1 : 470	6.5	70	-	-	2.1	280
24	1 : 360	7.5	32	2.5	135	-	-
	1 : 470	6.5	35	-	-	2.1	140

These performance data are based on line pull-first layer.

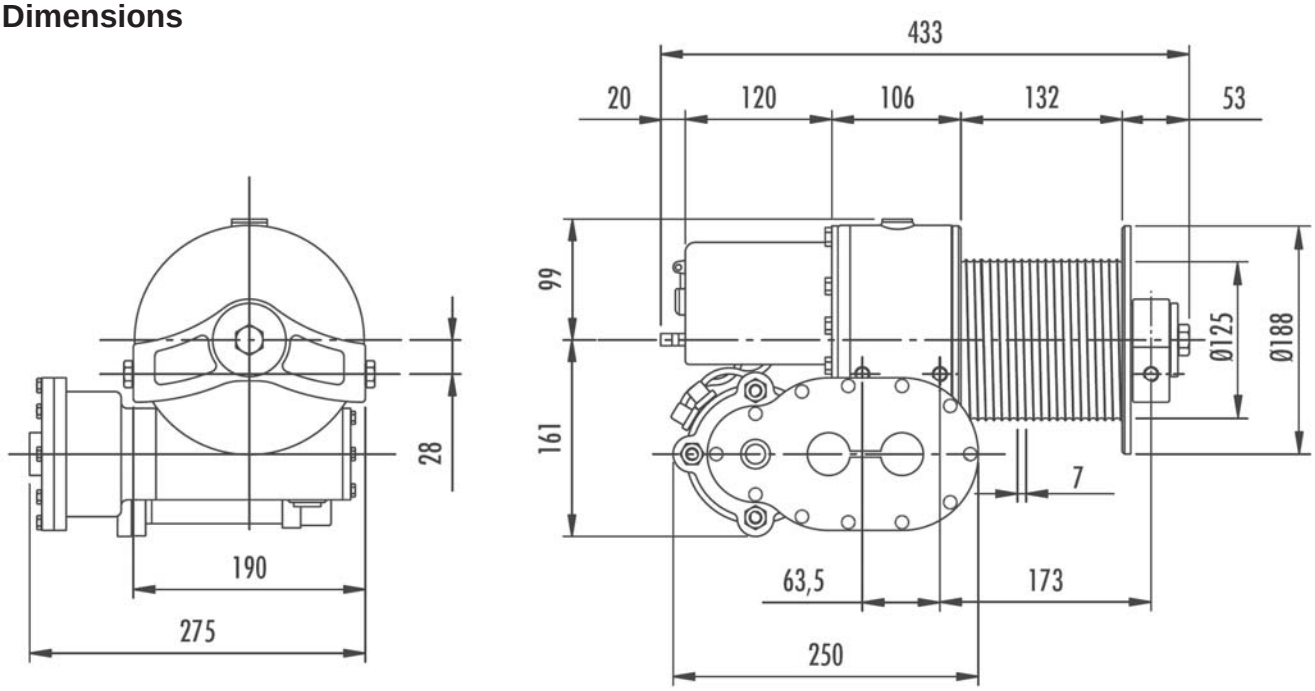
Performance charts at the 1° layer



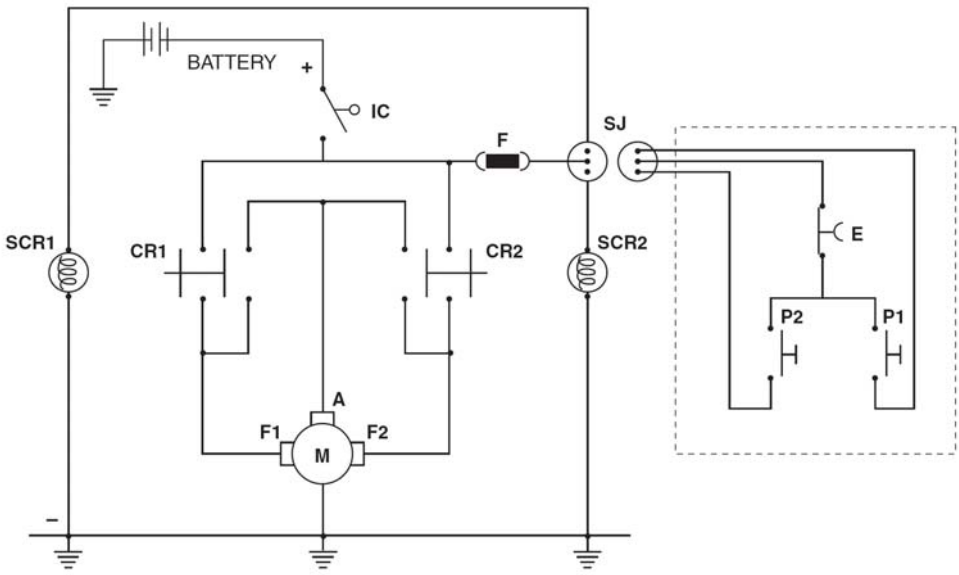


Electric Winch JES 1.300 - 1.000
Electric worm gear and spur gear winch

Dimensions



Electric wiring diagram



IC = BATTERY MAIN SWITCH
CR1 = SOLEDOID
1CR2 = SOLEDOID 2
M = ELECTRIC MOTOR
E = SAFETY STOP BUTTON

P1-P2 = "WINDING/UNWINDING" BUTTONS
SCR1 = SOLENOID COIL CR1
SCR2 = SOLENOID COIL CR2
F = FUSIBLE PLUG 15A
SJ = SELF-LOCKING PLUG

Electric Winch JE 3.000 - 2.300
JE 3.600 - 2.700
Electric worm gear and spur gear winch

SPECIFICATIONS

- Rated line pull : • for model JE 3.000 = **3.000 kg**
  • for model JE 2.300 = **2.300 kg**
  • for model JE 3.600 = **3.600 kg**
  • for model JE 2.700 = **2.700 kg**
- Electric motor d.c. : **12 V d.c. / 24 V d.c.**
- Worm and gear train with spur gear reduction.
- (CE) Industrial remote control includes cable (4 m. long).
- Manual clutch shifter
- Weight without cable : • for model JEC (short) = **42 kg**
  • for model JEM (medium) = **44kg**
  • for model JEL (long) = **50 kg**

⚠ **· DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Electric Winch JE 3.000 - 2.300
Electric worm gear and spur gear winch

Technical data

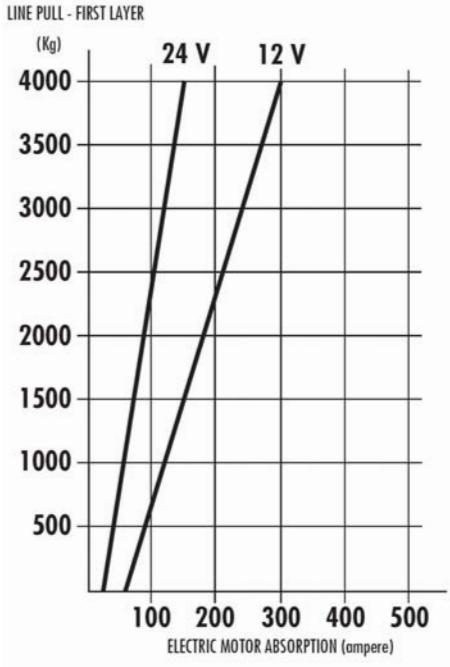
MODEL - RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
JE 3.000 - 1 : 470	11	1	3000
		2	2450
		3	2060
		4	1780
		5	1580
JE 2.300 - 1: 360	10	1	2300
		2	1900
		3	1620
		4	1410
		5	1250

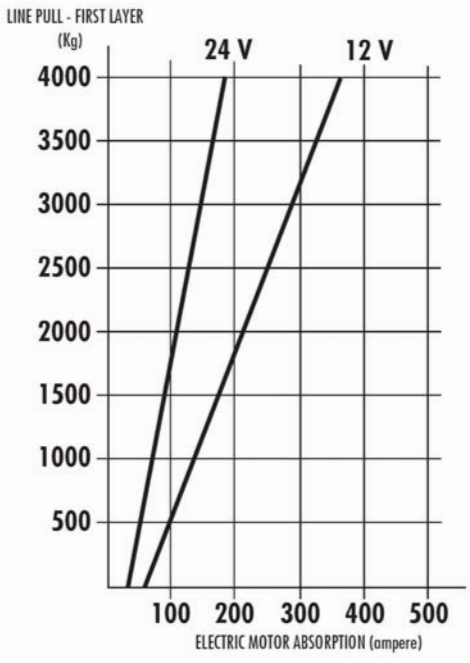
DRUM	WEIGHT WITHOUT CABLE kg	WIRE ROPE CAPACITY m		MAX. WIRE ROPE m	
		10 mm.	11 mm.	10 mm.	11 mm.
SHORT JEC	42	25	20	30	27
MEDIUM JEM	44	35	30	42	38
LONG JEL	50	50	50	71	65

These performance data are based on line pull-first layer.

VOLT	RATIO	NO LOAD		900 kg		1800 kg		2300 kg		3000 kg	
		SPEED m/min.	AMP.	SPEED m/min.	AMP.	SPEED m/min.	AMP.	SPEED m/min.	AMP.	SPEED m/min.	AMP.
12	1 : 360	5.2	70	2.8	140	2.1	200	1.8	225	–	–
	1 : 470	4.5	65	2.4	110	1.9	180	1.5	205	1.2	260
24	1 : 360	5.2	35	2.8	70	2.1	100	1.8	125	–	–
	1 : 470	4.5	30	2.4	50	1.9	90	1.5	115	1.2	130

Performance charts at the 1° layer





Electric Winch JE 3.600 - 2.700
Electric worm gear and spur gear winch

Technical data

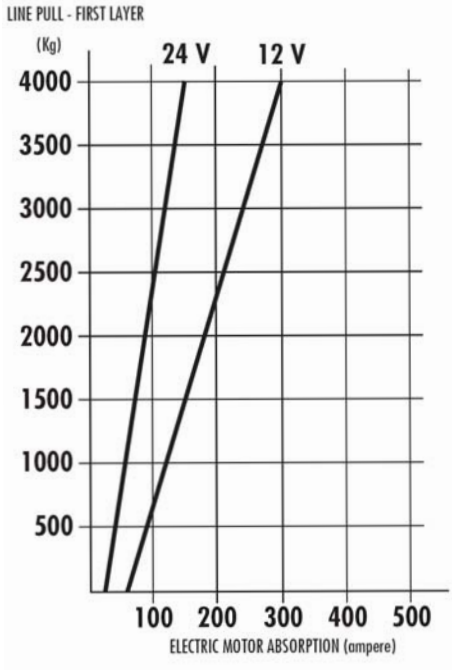
MODEL - RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
JE 3.600 - 1 : 470	10	1	3600
		2	2970
		3	2550
		4	2230
		5	1980
JE 2.700 - 1 : 360	8	1	2700
		2	2300
		3	2000
		4	1800
		5	1630

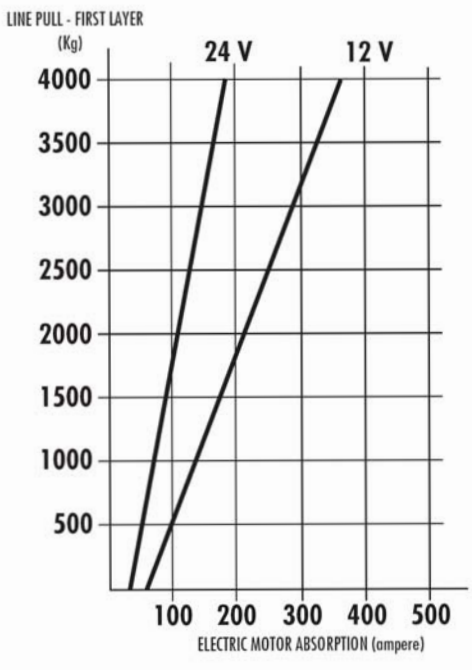
DRUM	WEIGHT WITHOUT CABLE kg	WIRE ROPE CAPACITY m		MAX. WIRE ROPE m	
		8 mm.	10 mm.	8 mm.	10 mm.
SHORT JEC	42	30	20	38	25
MEDIUM JEM	44	40	28	48	32
LONG JEL	50	50	40	85	55

These performance data are based on line pull-first layer.

VOLT	RATIO	NO LOAD		900 kg		1800 kg		2700 kg		3600 kg	
		SPEED m/min.	AMP.	SPEED m/min.	AMP.	SPEED m/min.	AMP.	SPEED. m/min.	AMP.	SPEED m/min.	AMP.
12	1 : 360	5.2	70	2.8	140	2.1	200	1.4	270	1.2	330
	1 : 470	4.5	65	2.4	110	1.9	180	1.2	220	1.1	280
24	1 : 360	5.2	35	2.8	70	2.1	100	1.4	135	1.2	165
	1 : 470	4.5	30	2.4	50	1.9	90	1.2	110	1.1	140

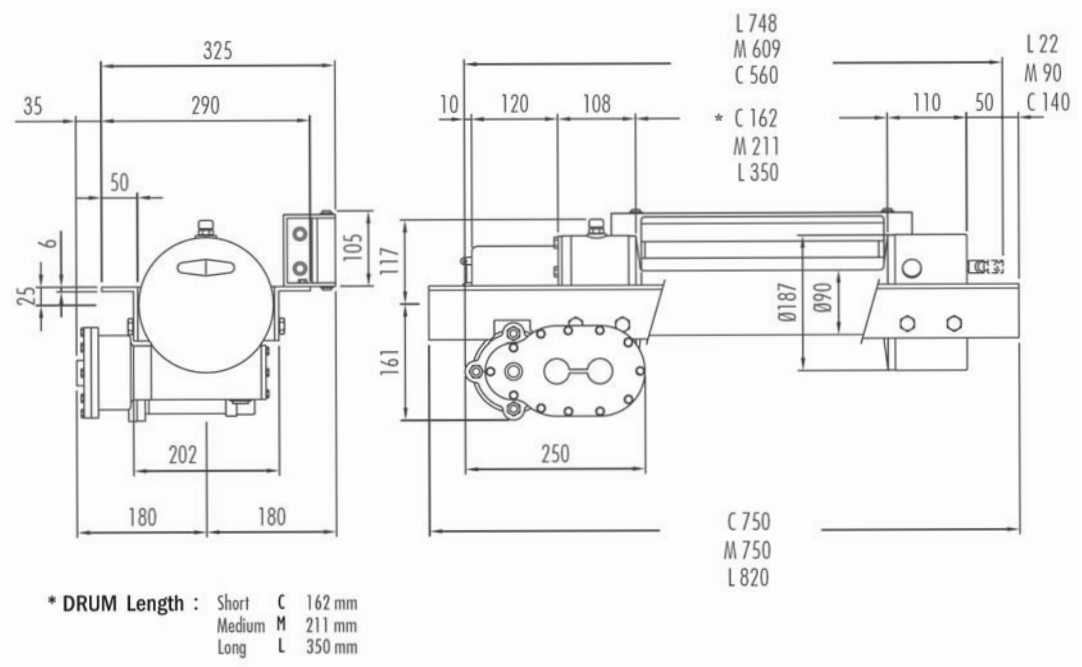
Performance charts at the 1° layer



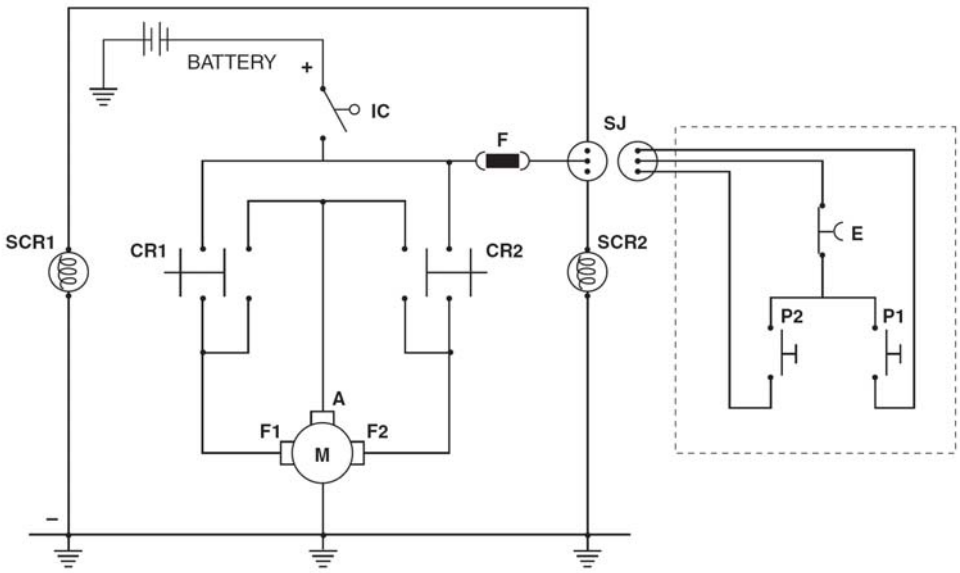


Electric Winch JE 3.000 - 2.300
JE 3.600 - 2.700
Electric worm gear and spur gear winch

Dimensions



Electric wiring diagram



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SCR2 = SOLENOID COIL CR2
F = FUSIBLE PLUG 15A
SJ = SELF-LOCKING PLUG

Electric Winch ZE 4.000
Electric worm gear and spur gear winch

SPECIFICATIONS

- Rated line pull : **4.000 kg**
- Electric motor d.c. : **12 V d.c. / 24 V d.c.**
- Worm and gear train with spur gear reduction.
- Manual clutch shifter
- (CE) Industrial remote control includes cable (4 m. long).
- Weight without cable : • for model ZEC (short) = **40,5 kg**
  • for model ZEL (long) = **44,5 kg**

⚠ **- DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Electric Winch ZE 4.000
Electric worm gear and spur gear winch

Technical data

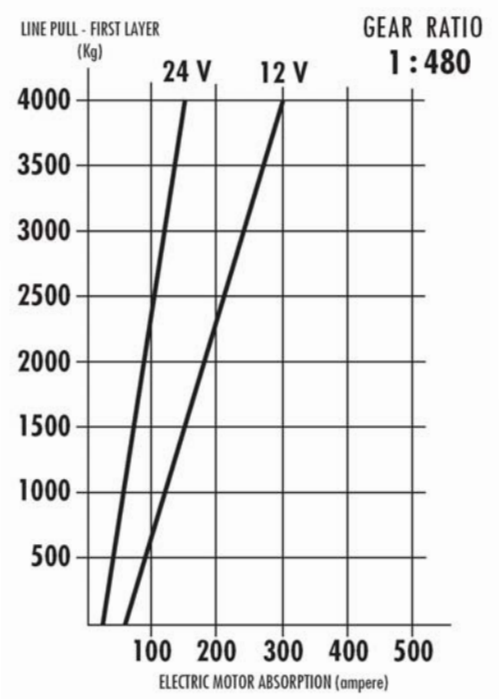
RATIO	WIRE ROPE SIZE	LAYER	LINE PULL
	mm.		kg
1:480	10	1	4000
		2	3560
		3	2930
		4	2490

DRUM	WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY m		MAX. WIRE ROPE m	
	kg	8 mm.	10 mm.	8 mm.	10 mm.
SHORT ZEC	40.5	25	18	28	21
LONG ZEL	44.5	35	30	40	35

These performance data are based on line pull-first layer.

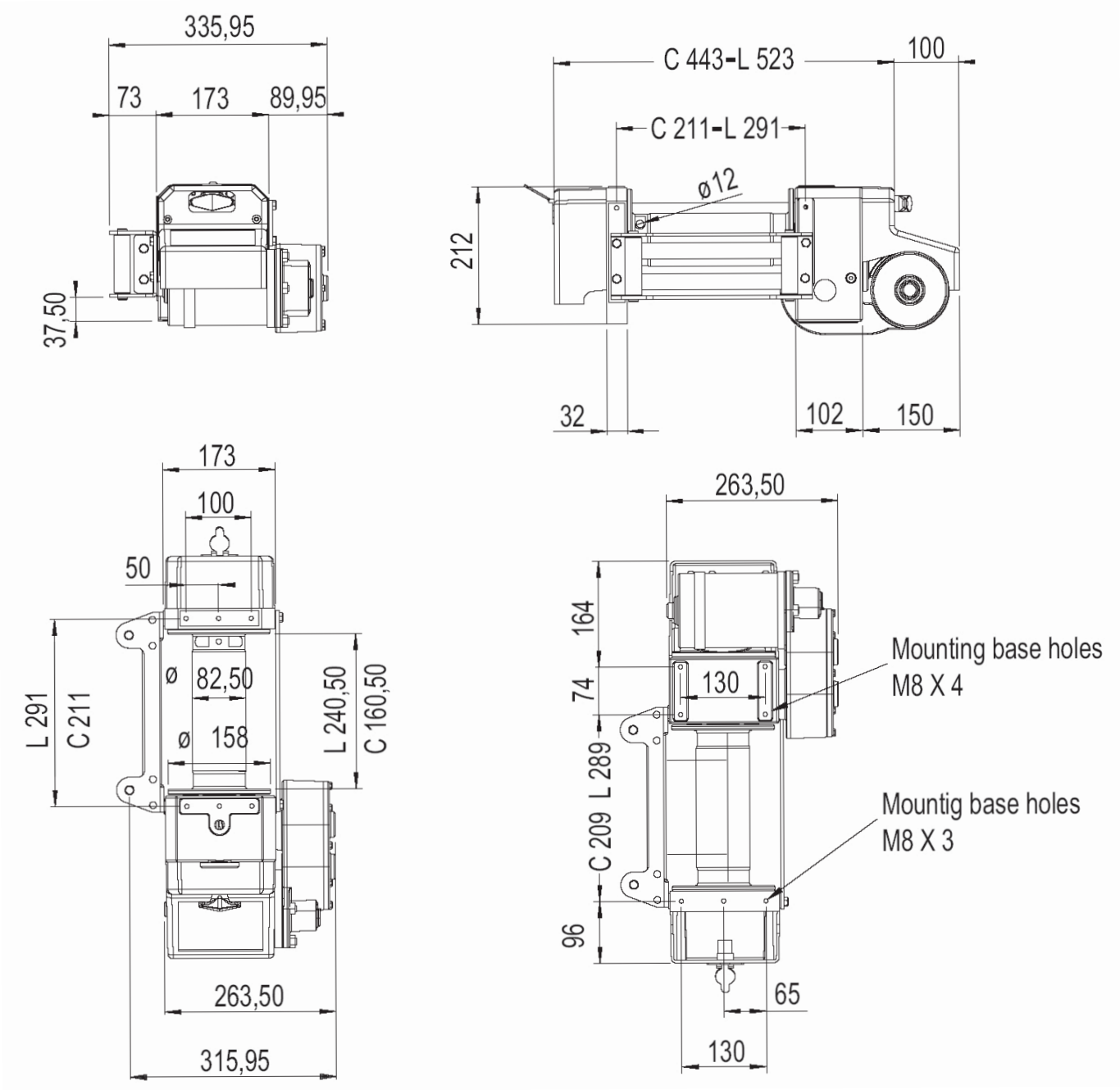
VOLT	RATIO	NO LOAD		900 kg		1800 kg		2700 kg		3600 kg		4000 kg	
		SPEED m/min.	AMP.	SPEED m/min.	AMP.	SPEED m/min.	AMP.	SPEED. m/min.	AMP.	SPEED m/min.	AMP.	SPEED m/min.	AMP.
12													
	1 : 480	4.5	65	2.4	110	1.9	180	1.2	220	1.1	280	0.6	300
24													
	1 : 480	4.5	30	2.4	50	1.9	90	1.2	110	1.1	140	0.6	150

Performance charts at the 1° layer



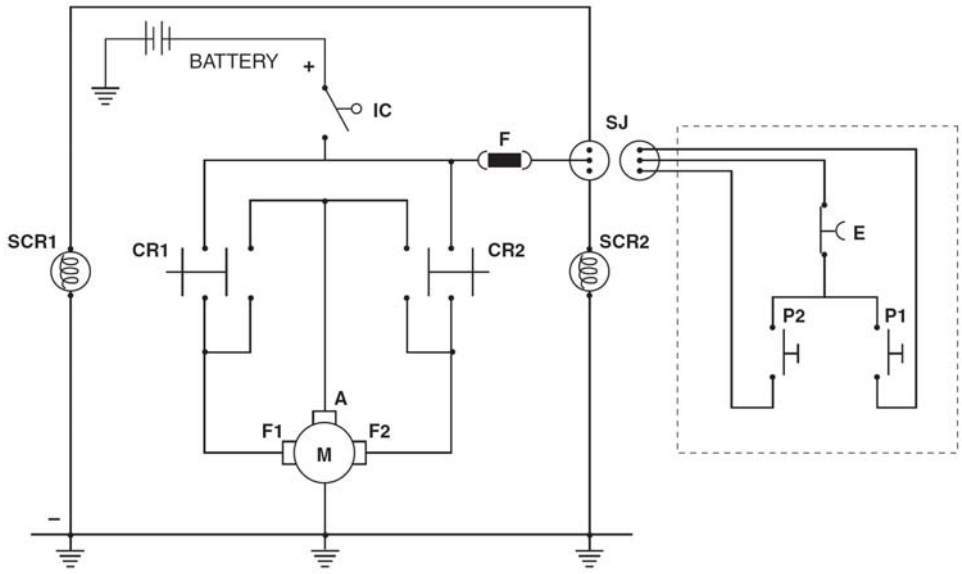
Electric Winch ZE 4.000
Electric worm gear and spur gear winch

Dimensions



Electric Winch ZE 4.000
Electric worm gear and spur gear winch

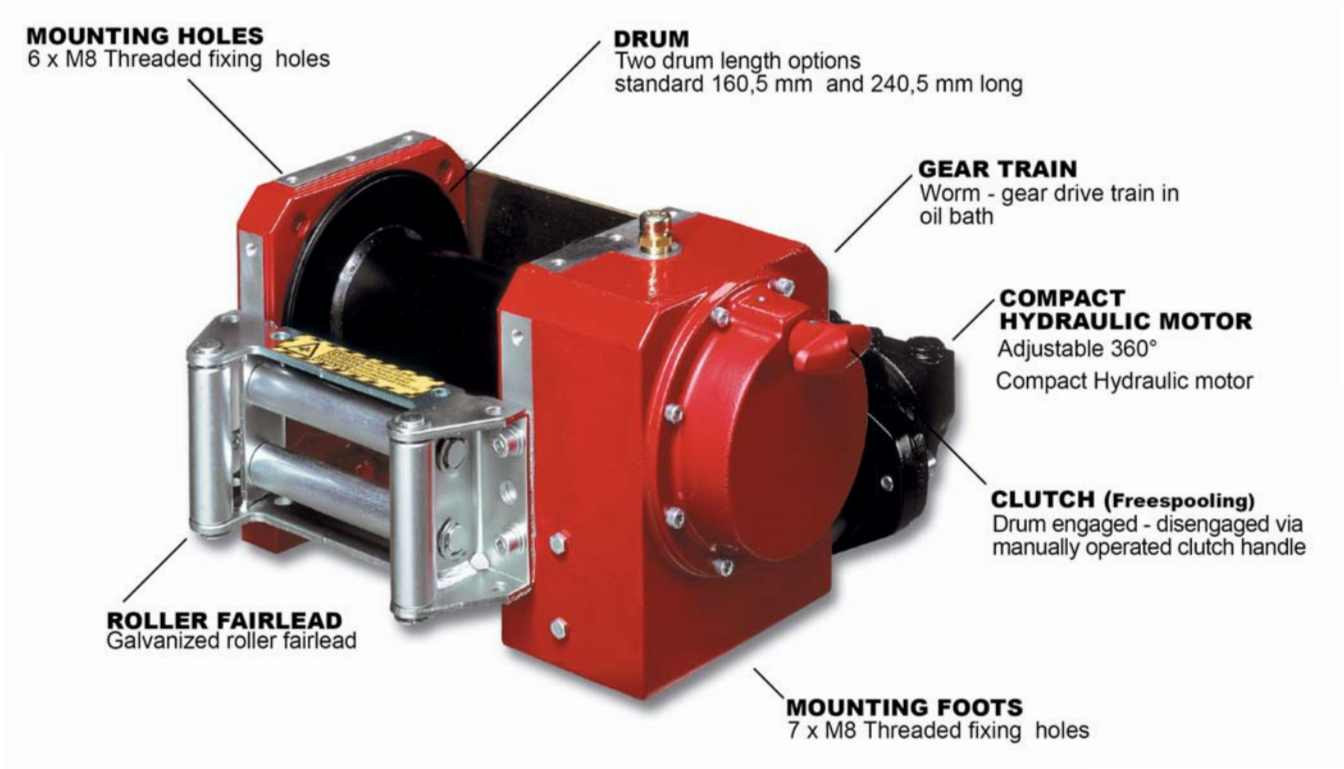
Electric wiring diagram



IC = BATTERY MAIN SWITCH
CR1 = SOLEDOID
1CR2 = SOLEDOID 2
M = ELECTRIC MOTOR
E = SAFETY STOP BUTTON

P1-P2 = "WINDING/UNWINDING" BUTTONS
SCR1 = SOLENOID COIL CR1
SCR2 = SOLENOID COIL CR2
F = FUSIBLE PLUG 15A
SJ = SELF-LOCKING PLUG

Hydraulic Winch ZH 3.000 - ZH 2.200
Hydraulic worm gear winch



SPECIFICATIONS

- Rated line pull (1° layer) : • for model ZH 2.200 = **2.200 kg**
  • for model ZH 3.000 = **3.000 kg**
- Hydraulic orbit motor
- Working pressure : = 130 bar
- Worm gear .
- Weight without cable • Short model **ZH = 26 kg**
  • Long model **ZH / L = 29 kg**

⚠ · **DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Hydraulic Winch ZH 3.000 - ZH 2.200
Hydraulic worm gear winch

Technical data

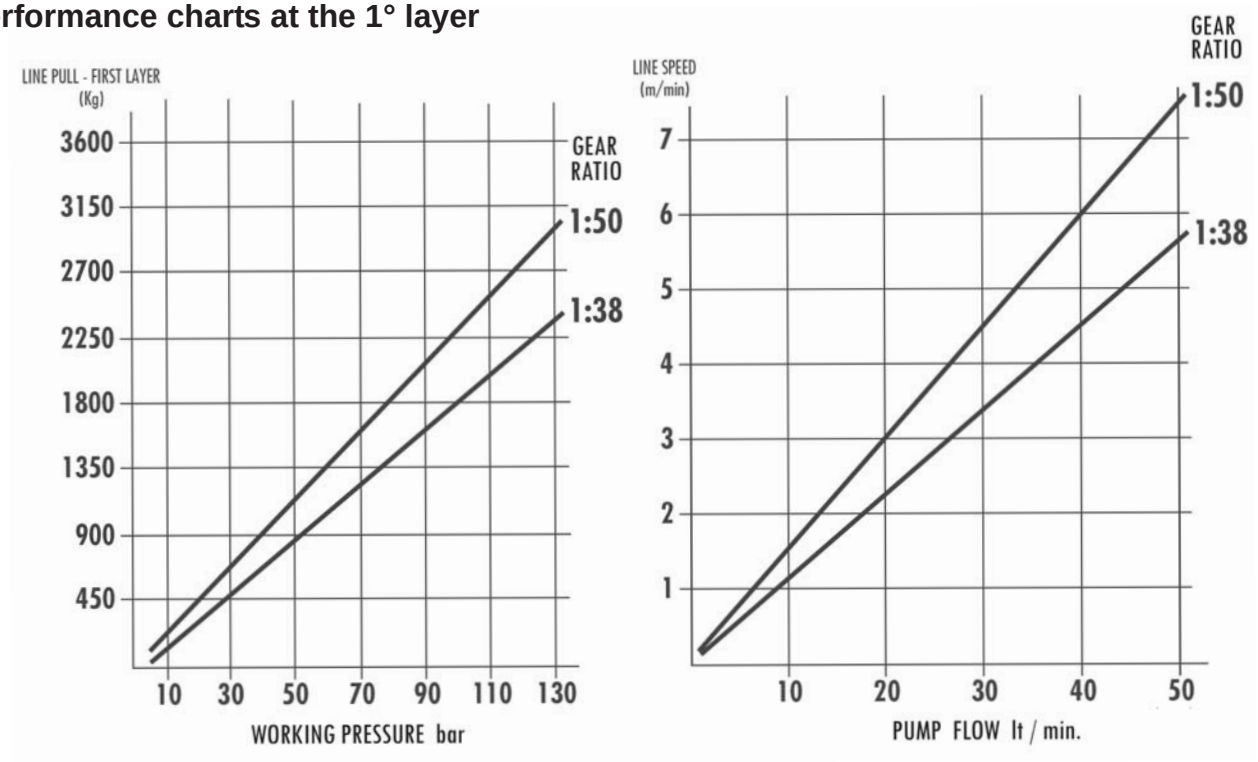
RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1:38	8	1	2200
		2	1860
		3	1620
		4	1435
		5	-
1:50	10	1	3000
		2	2460
		3	2090
		4	1820
		-	-

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
20	10.5	2.98	3.51	4.03	4.57	-
30	15.8	4.48	5.28	6.07	6.87	-
40	21.0	5.96	7.02	8.07	9.13	-

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
20	8.2	2.38	2.89	3.41	3.93	-
30	12.4	3.60	4.38	5.16	5.94	-
40	16.5	4.79	5.82	6.87	7.90	-

DRUM	WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY m		MAX. WIRE ROPE CAPACITY m	
	kg	8 mm.	10 mm.	8 mm.	10 mm.
STANDARD ZH	26	25	18	28	21
LONG ZH/L	29	40	24	50	30

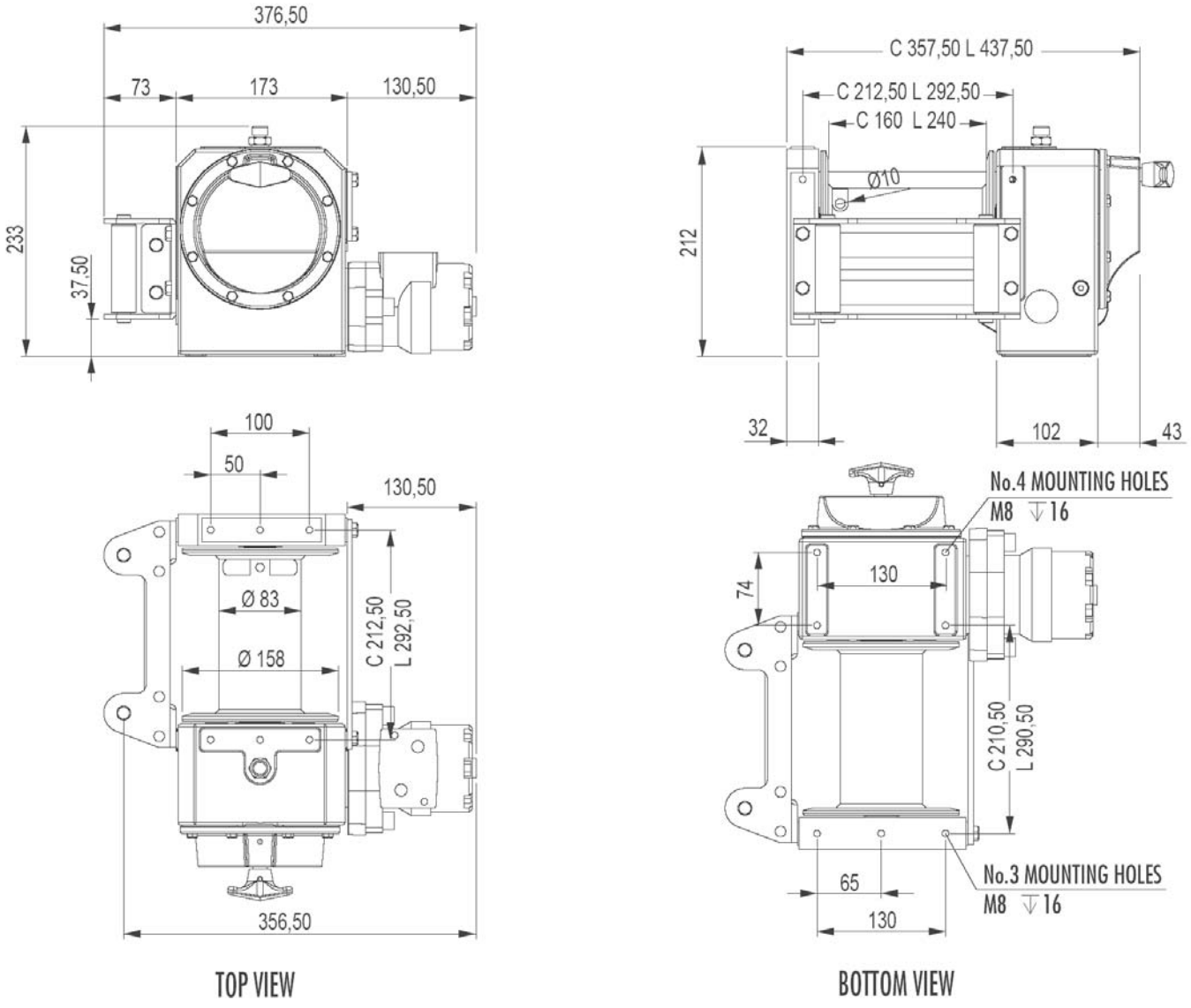
Performance charts at the 1° layer



Hydraulic Winch ZH 3.000 - ZH 2.200 (compact hydraulic motor)
Hydraulic worm gear winch

Dimensions

MANUAL CLUTCH SHIFTER



TOP VIEW

BOTTOM VIEW

DRUM DIMENSIONS
ZHC = Short 160 mm
ZHL = Long 240 mm

Hydraulic Winch ZH 3.000 - ZH 2.200
Hydraulic worm gear winch

⚠ IMPORTANT

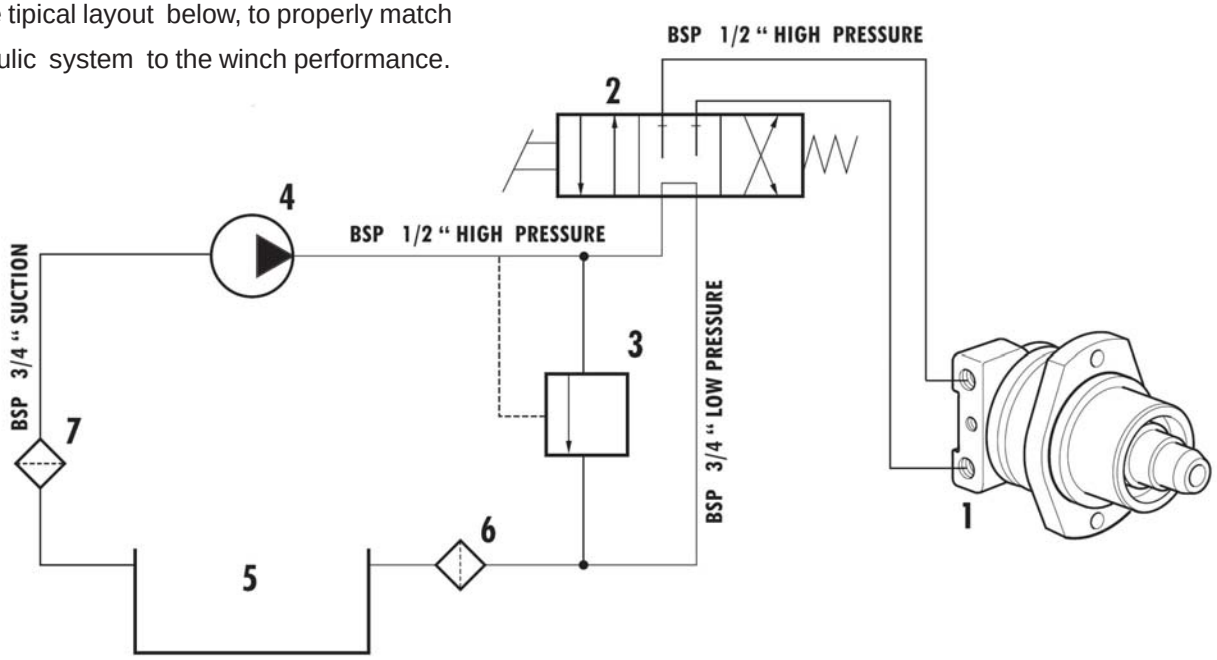
It is most important that this winch be mounted securely so that the motor end, the cable drum and the gear housing end are properly aligned.
Disassemble the first tie plate (at least one tie plate must remain mounted to maintain alignement) and attached it to the mounting feet at the bottom of the winch to maintain the alignement.
Then disassemble the second tie plate. It is always desiderable to use both tie plates in the final installed configuration. At the end check if alignement is still maintained.

⚠ IMPORTANT

Excessive bushing wear and difficulty in freespooling are usually symptoms of misalignement.

Hydraulic wiring diagram

Refer to the tipical layout below, to properly match your hydraulic system to the winch performance.

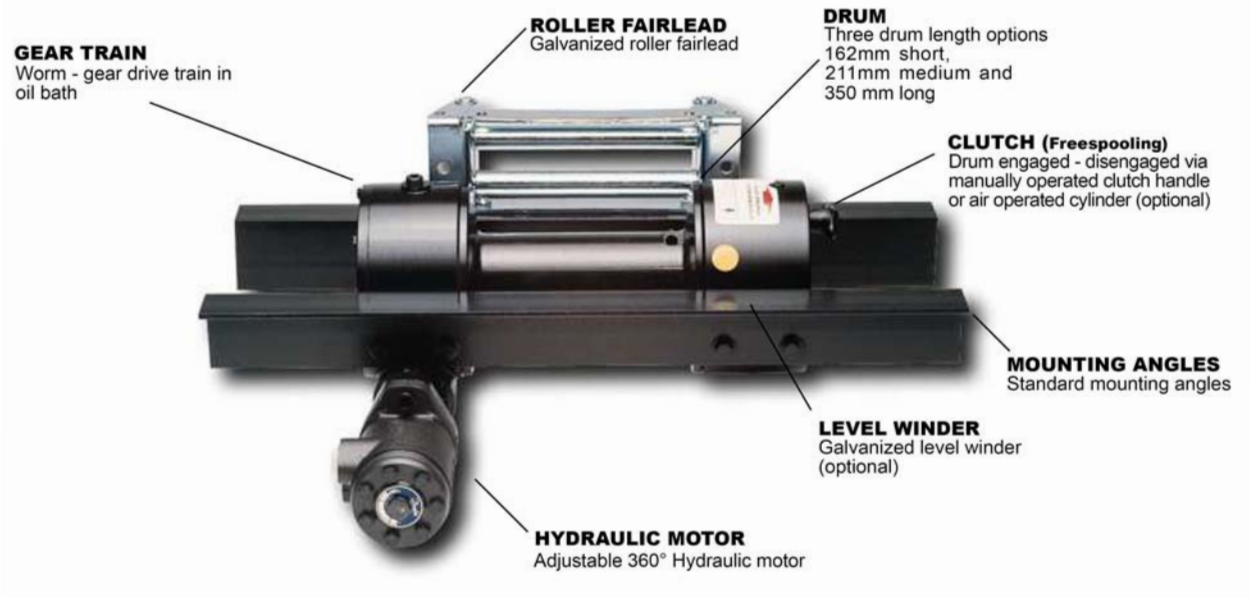


1 = HYDRAULIC ORBIT MOTOR
2 = DIRECTIONAL CONTROL VALVE
3 = RELIEF VALVE
4 = HYDRAULIC PUMP
5 = FLUID RESERVOIR
6 = RETURN FLUID FILTER (10 microns)
7 = SUCTION FLUID FILTER

⚠ WARNING :
Before operating check the oil level and add if necessary.

⚠ WARNING :
Do not exceed 40 lt / min.
If exceeded the hydraulic motor may be damaged.

Hydraulic Winch JH 3.600 - 2.700
Hydraulic worm gear winch



SPECIFICATIONS

- Rated line pull (1° layer) : • for model JH 3.600 = **3.600 kg**
  • for model JH 2.700 = **2.700 kg**
- Hydraulic orbit motor
- Working pressure = **130 bar**
- Worm gear .
- Manual clutch shifter (air-cylinder clutch shifter on request)
- Weight without cable : • for model JHC (short) = **30 kg**
  • for model JHM (medium) = **35kg**
  • for model JHL (long) = **45 kg**

⚠ **- DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Hydraulic Winch JH 3.600 - 2.700
Hydraulic worm gear winch

Technical data

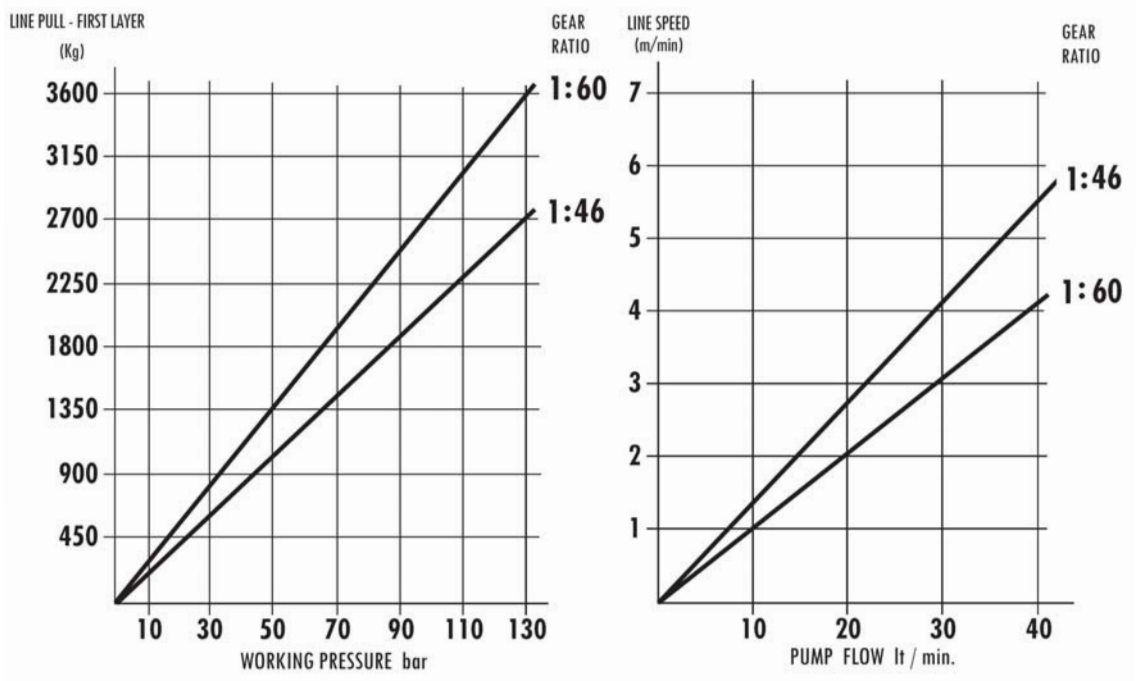
MODEL - RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
JH 2.700 - 1 : 46	8	1	2700
		2	2300
		3	2000
		4	1780
		5	1600
JH 3.600 - 1 : 60	10	1	3600
		2	2950
		3	2500
		4	2200
		5	1950

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min	n / min.	1°	2°	3°	4°	5°
20	9	2.7	3.1	3.6	4.1	4.5
30	14	4.2	4.9	5.6	6.3	7.0
40	18	5.4	6.3	7.2	8.1	9.0

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
20	7	2.1	2.6	3.0	3.5	3.9
30	11	3.3	4.0	4.7	5.4	6.1
40	14	4.2	5.1	6.0	6.9	7.7

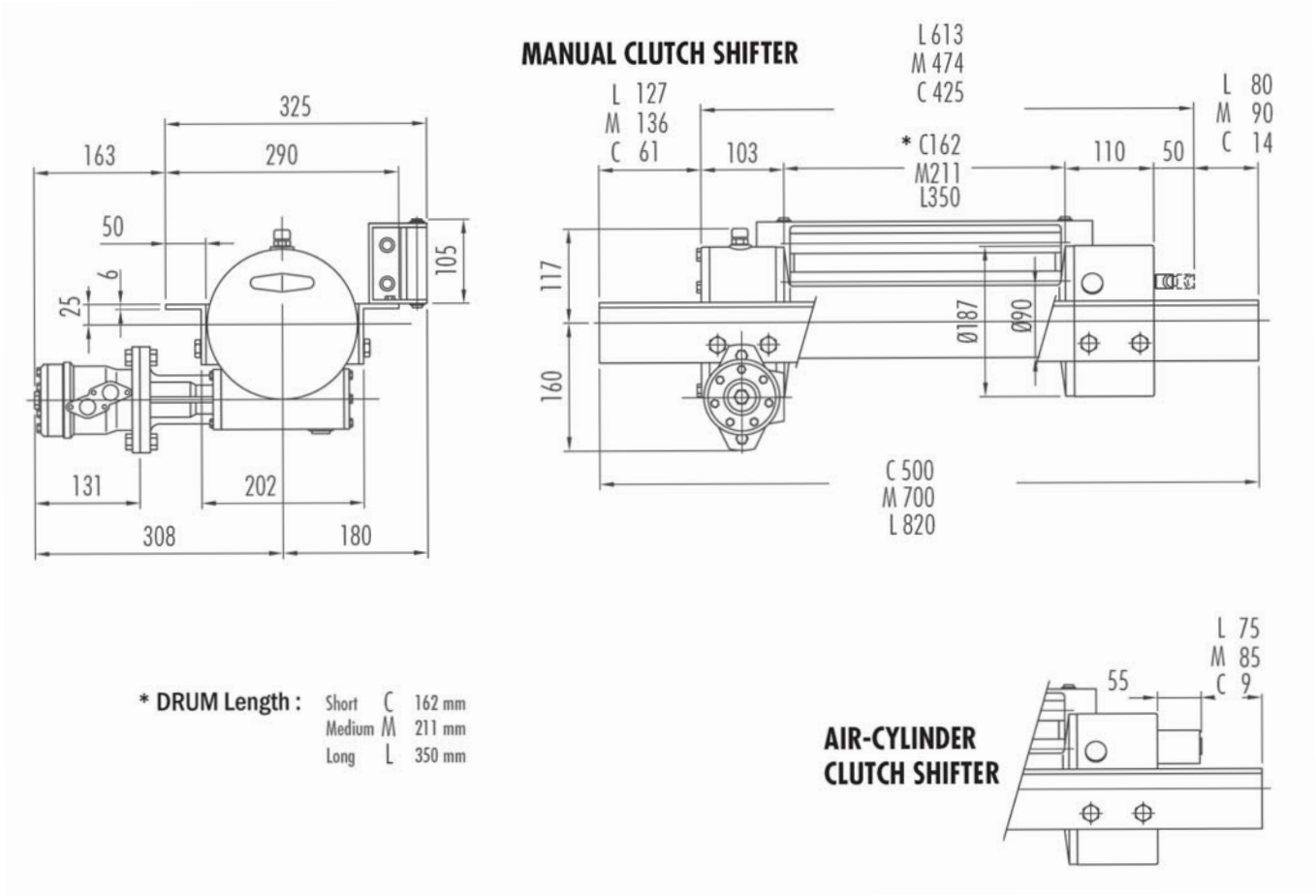
MODEL JH	WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY m		MAX. WIRE ROPE CAPACITY m	
	kg	8 mm.	10 mm.	8 mm.	10 mm.
JHC (short drum)	30	30	20	38	25
JHM (medium drum)	35	40	28	48	32
JHL (long drum)	45	50	40	85	55

Performance charts at the 1° layer



Hydraulic Winch JH 3.600 - 2.700
Hydraulic worm gear winch

Dimensions



Hydraulic Winch JH 3.600 - 2.700
Hydraulic worm gear winch

Hydraulic wiring diagram

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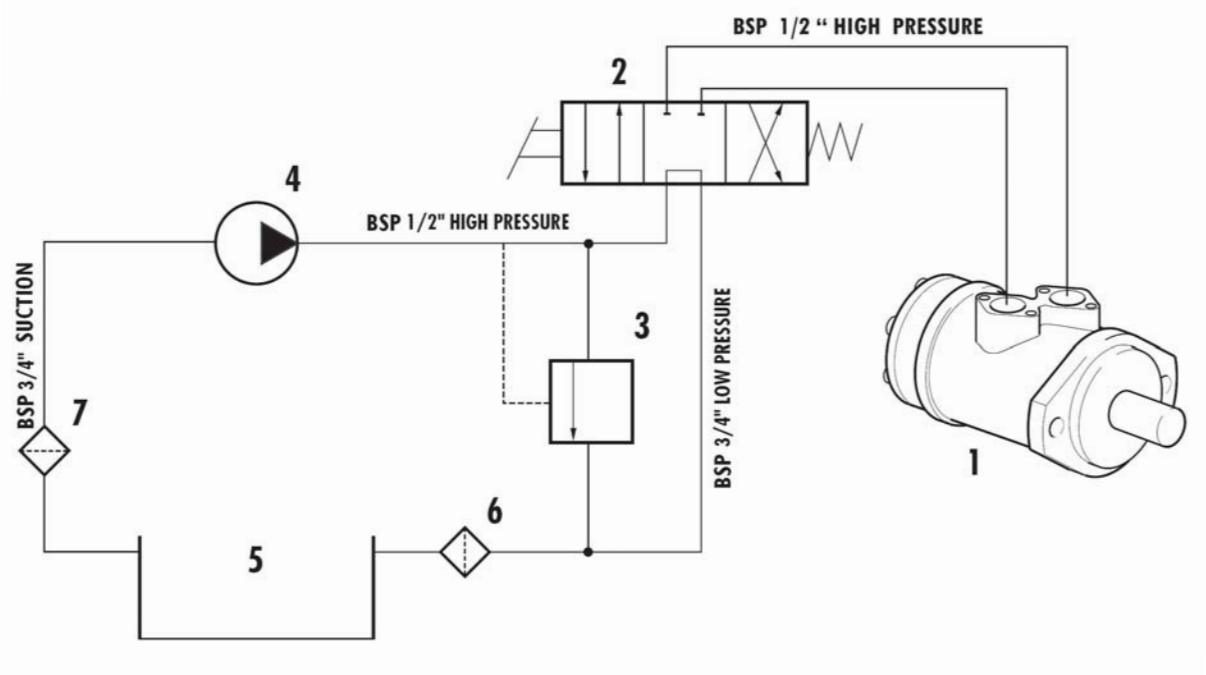

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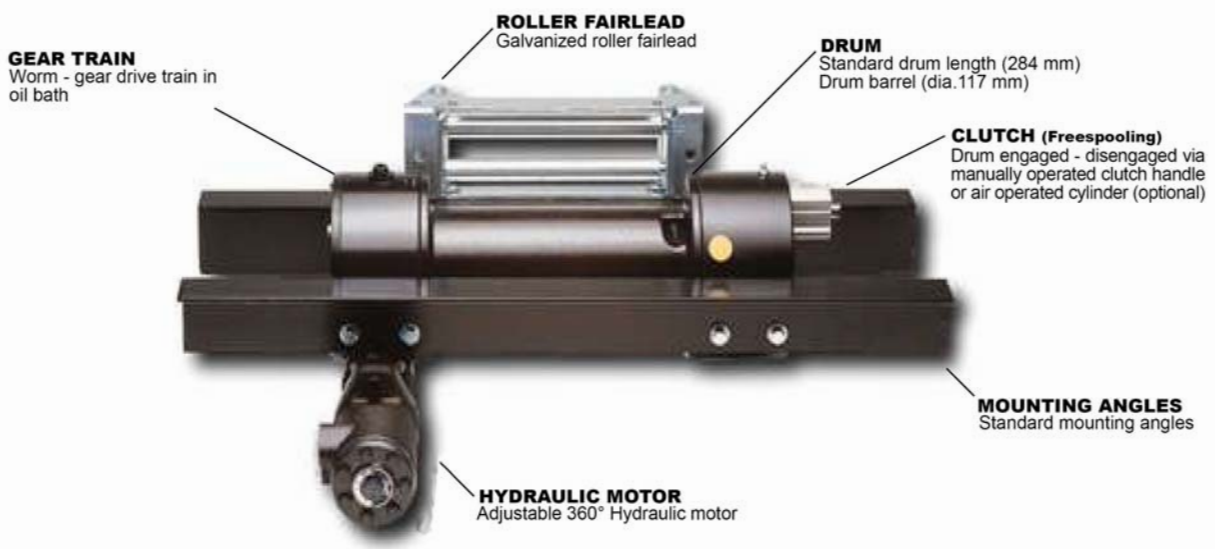
7 = SUCTION FLUID FILTER

⚠ **WARNING :**
Before operating check the oil level and add if necessary.

⚠ **WARNING :**
Do not exceed 40 lt / min.
If exceeded the hydraulic motor may be damaged.

Hydraulic Winch JHD 2.300 - 2.000
Hydraulic worm gear winch



SPECIFICATIONS

- Rated line pull (1° layer) : • for model JHD 2.300 **= 2.300 kg**
  • for model JHD 2.000 = **2.000 kg**
- Hydraulic orbit motor
- Working pressure = **120 bar**
- Worm gear .
- Manual clutch shifter (air-cylinder clutch shifter on request)
- Weight without cable = **39 kg**

⚠ · **DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Hydraulic Winch JHD 2.300 - 2.000
Hydraulic worm gear winch

Technical data

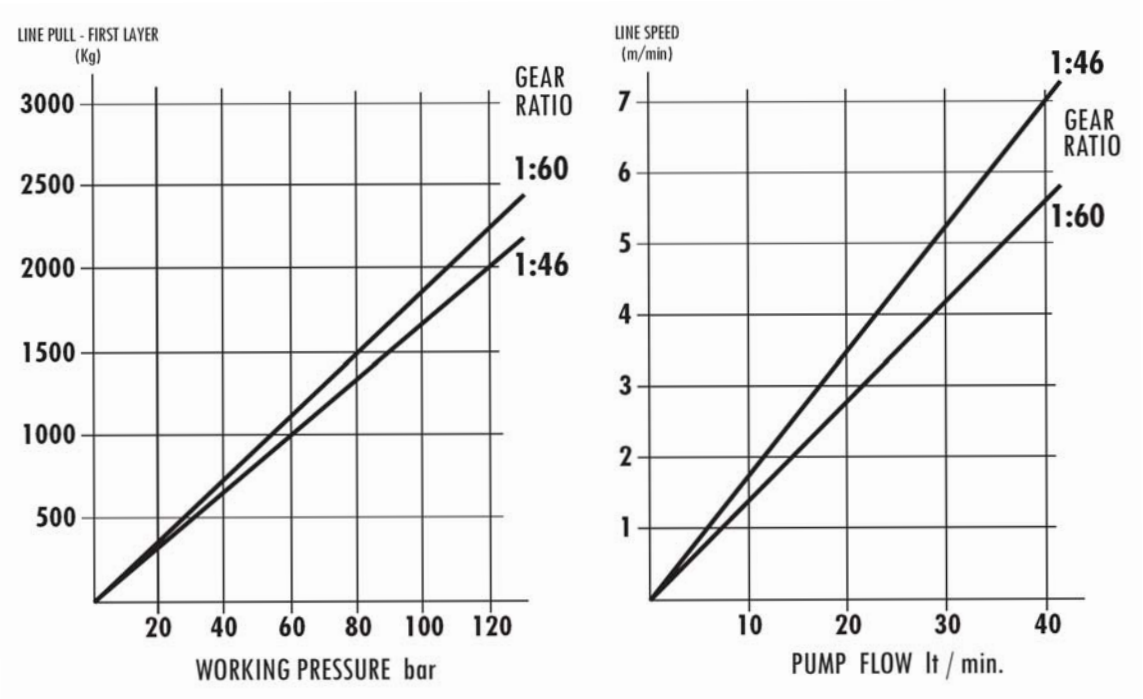
MODEL - RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
JHD 2.000 - 1 : 46	9	1	2.000
		2	1.740
		3	1.540
		4	1.380
		5	–
JHD 2.300 - 1 : 60	10	1	2.300
		2	2.000
		3	1.750
		4	1.550
		5	–

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
20	9	3,5	4,0	4,5	5,0	–
30	14	5,4	6,2	7,0	7,2	–
40	18	6,9	7,9	8,9	10,0	–

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
20	7	2,7	3,2	3,6	4,0	–
30	11	4,3	4,9	5,6	6,3	–
40	14	5,4	6,3	7,2	8,0	–

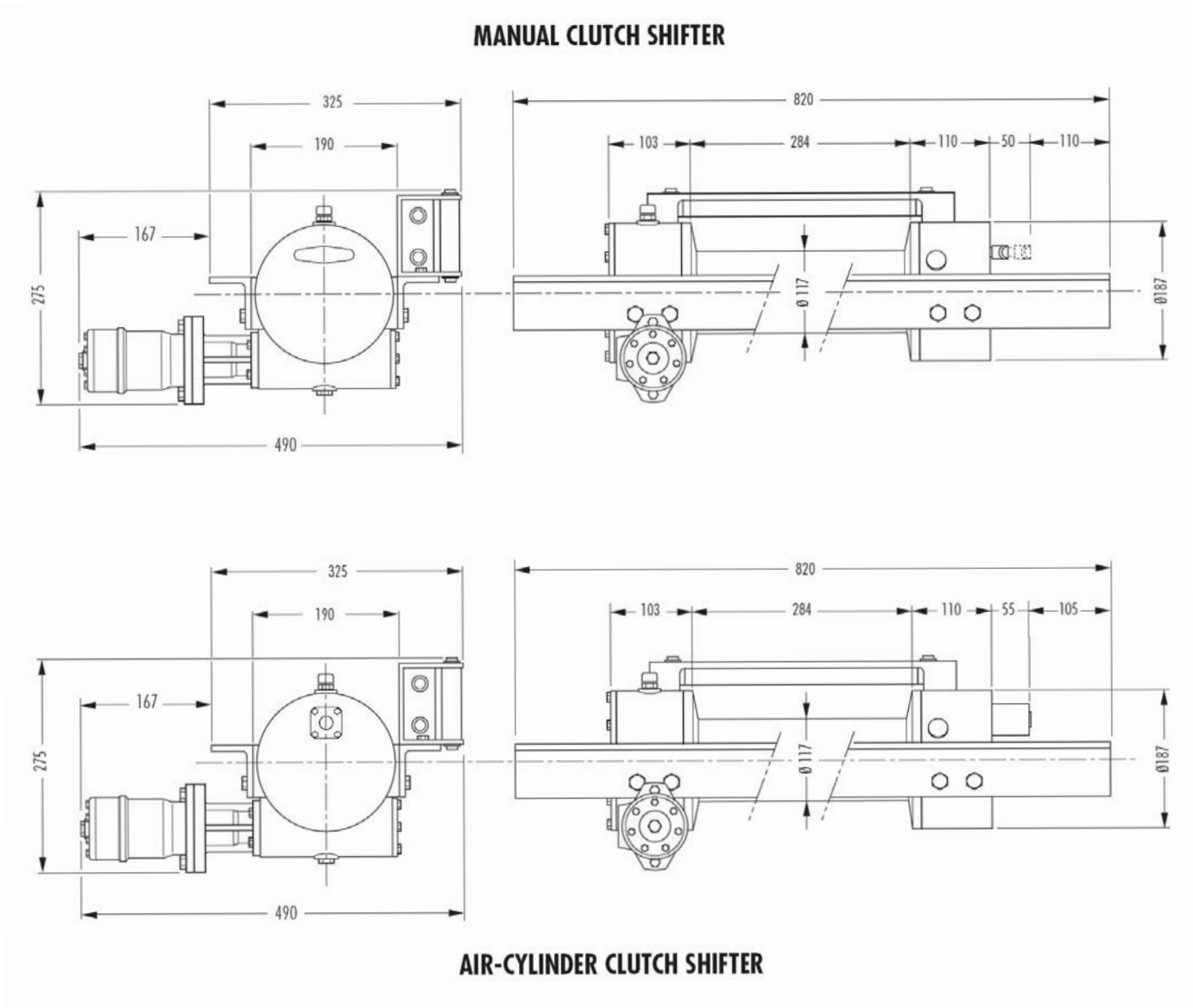
WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY m		MAX. WIRE ROPE CAPACITY m	
kg	10 mm	9 mm.	10 mm	9 mm.
39	30	35	50	55

Performance charts at the 1° layer



Hydraulic Winch JHD 2.300 - 2.000
Hydraulic worm gear winch

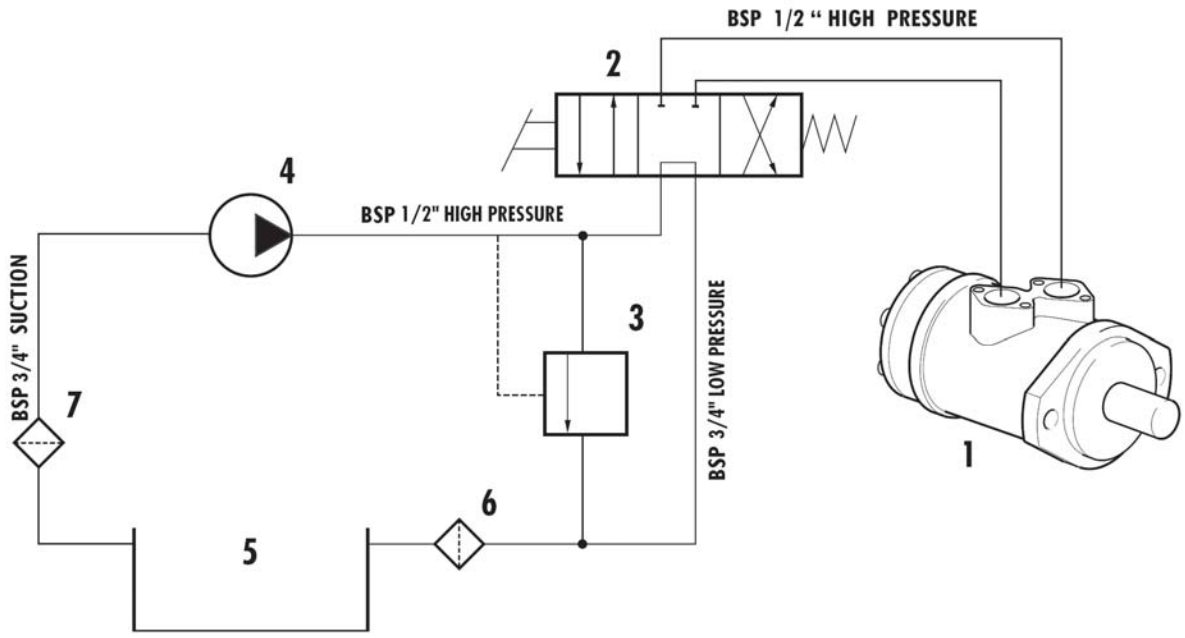
Dimensions



Hydraulic Winch JHD 2.300 - 2.000
Hydraulic worm gear winch

Hydraulic wiring diagram

Refer to the tipical layout below, to properly match your hydraulic system to the winch performance.

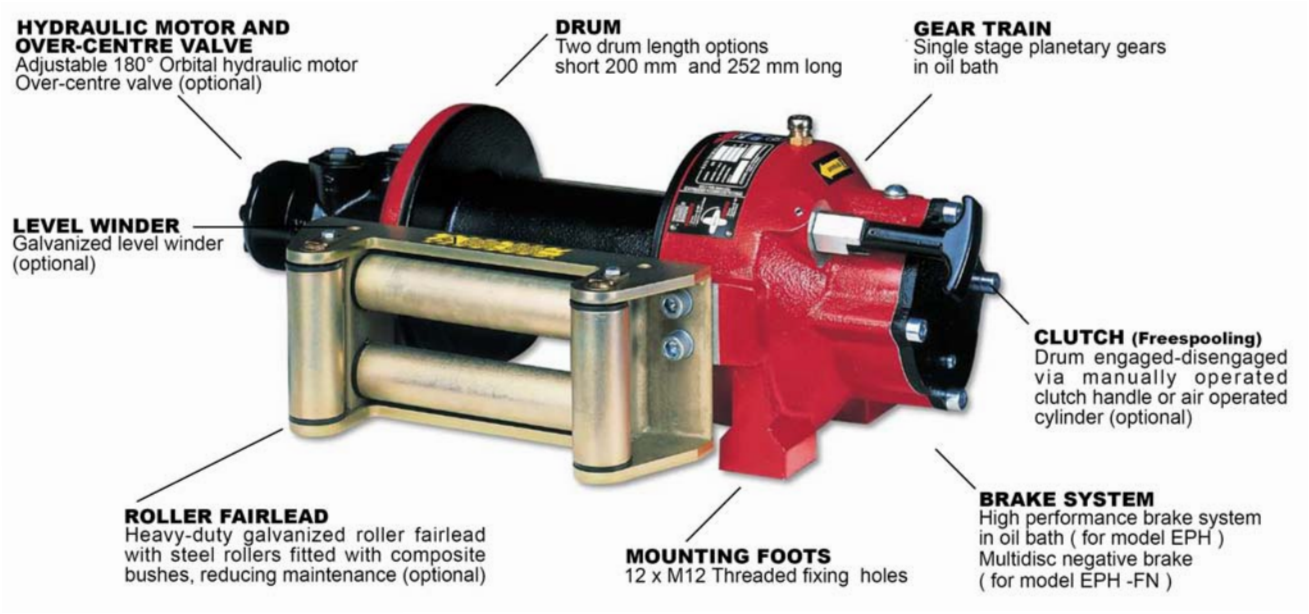


1 = HYDRAULIC ORBIT MOTOR
2 = DIRECTIONAL CONTROL VALVE
3 = RELIEF VALVE
4 = HYDRAULIC PUMP
5 = FLUID RESERVOIR
6 = RETURN FLUID FILTER (10 microns)
7 = SUCTION FLUID FILTER

⚠ **WARNING :**
Before operating check the oil level and add if necessary.

⚠ **WARNING :**
Do not exceed 40 lt / min.
If exceeded the hydraulic motor may be damaged.

Hydraulic Winch EPH 3.600 - EPH 3.600 FN
Hydraulic planetary gear winch



SPECIFICATIONS

- Rated line pull (1° layer) • **3.600 kg**
- Hydraulic orbit motor
- Working pressure with over-centre valve (optional) = **160 bar**
- Automatic safety brake (oil bath - no needs adjusting) (for model **EPH**)
- Multidisc negative brake (for model **EPH FN**)
- Hardened steel one stage planetary gear train .
- Manual clutch shifter (air-cylinder clutch shifter on request)
- Pressure line for clutch shifter air-cylinder (on request) = **6 bar**
- Weight without cable : EPH = **39 kg**
  EPH / L = **44 kg**
  EPH FN = **49 kg**
  EPH FN / L = **50 kg**

⚠ · **DANGER:**
Do not use winch to lift support or otherwise transport personnel.

Hydraulic Winch EPH 3.600 - EPH 3.600 FN
Hydraulic planetary gear winch

Technical data

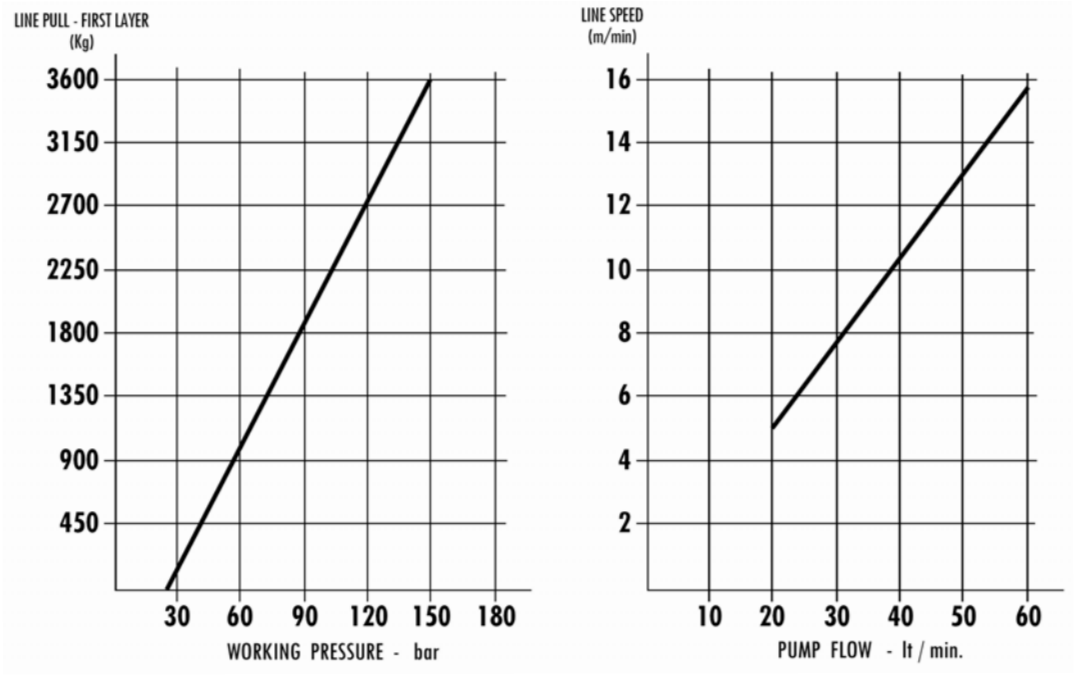
RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1 : 5,3	10	1	3600
		2	3050
		3	2650
		4	2350
		5	2100
1 : 5,3	12 DIN 15020	1	3600
		2	2970
		3	2530
		4	2200
		5	–

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
40	30.56	10.74	12.66	14.58	16.50	18.42
50	38.67	13.59	16.02	18.45	20.88	23.31
60	47.16	16.58	19.54	22.50	25.47	28.43

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
40	30.56	10.93	13.24	15.54	17.84	–
50	38.67	13.84	16.75	19.67	22.58	–
60	47.16	16.88	20.43	23.98	27.54	–

DRUM	WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY m		MAX. WIRE ROPE CAPACITY m	
	kg	10 mm.	12 mm	10 mm.	12 mm
EPH	39	35	25	45	30
EPH/L LONG	44	45	30	55	35

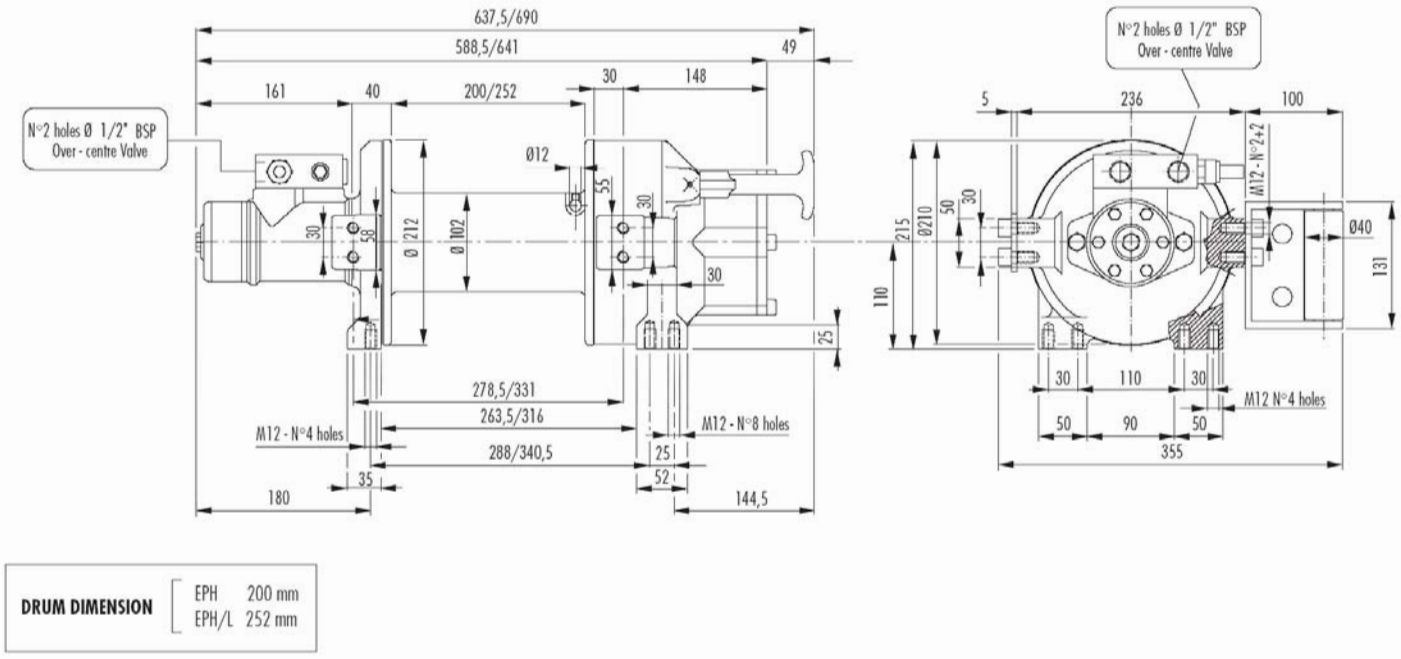
Performance charts at the 1° layer



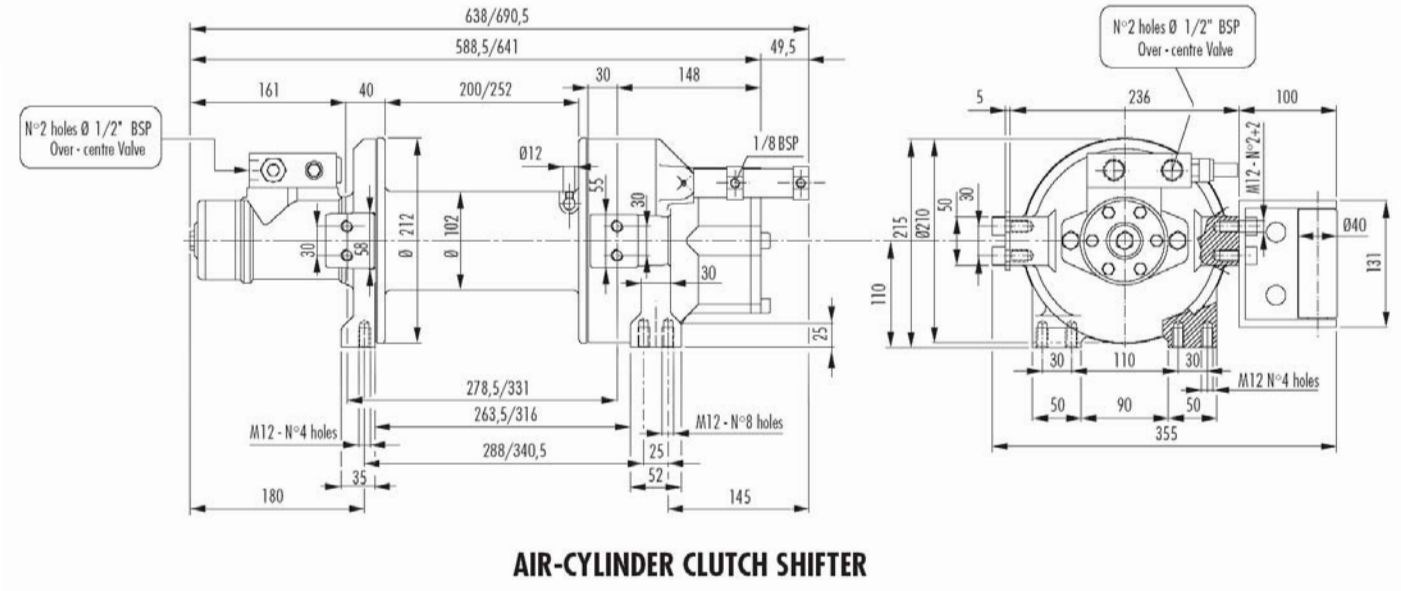
Hydraulic Winch EPH 3.600
Hydraulic planetary gear winch

Dimensions

MANUAL CLUTCH SHIFTER



DRUM DIMENSION		
	EPH	200 mm
	EPH/L	252 mm

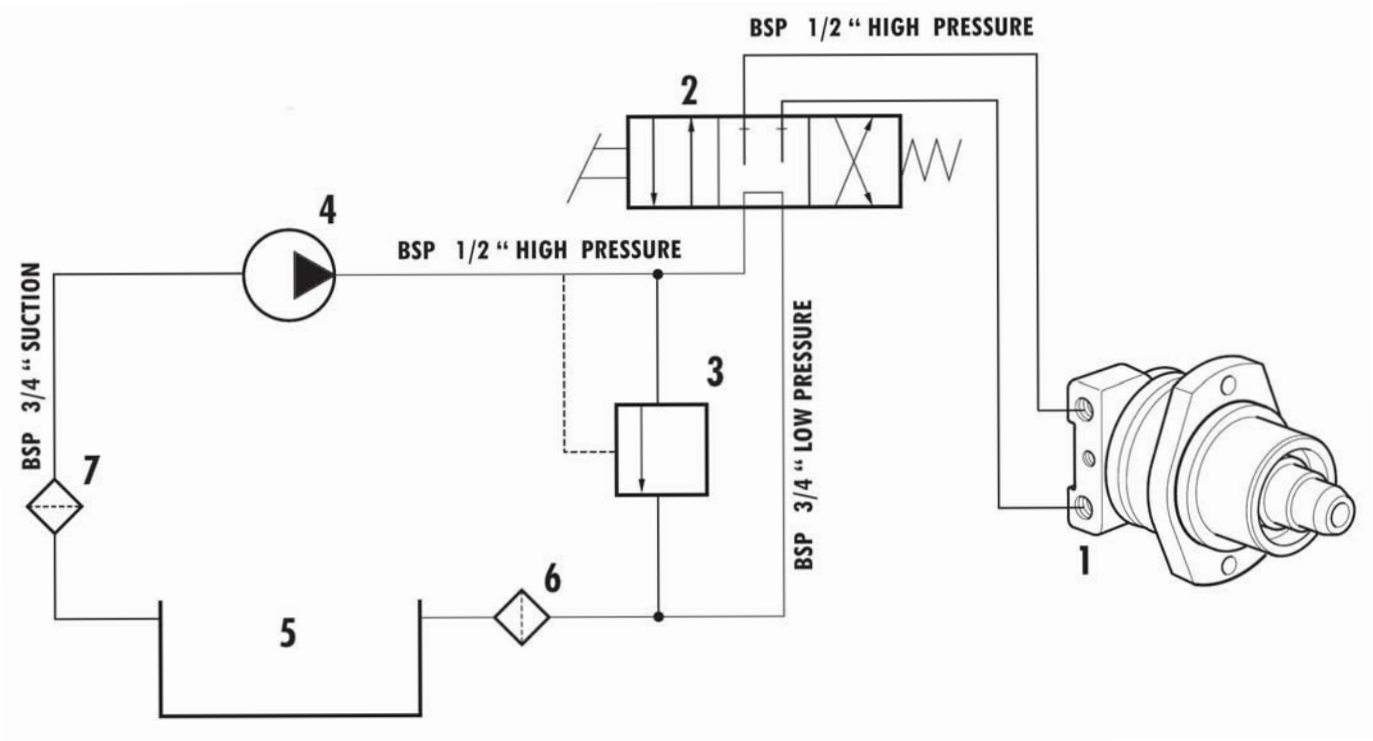


AIR-CYLINDER CLUTCH SHIFTER

Hydraulic Winch EPH 3.600
Hydraulic planetary gear winch

Hydraulic wiring diagram

Refer to the tipical layout below, to properly match your hydraulic system to the winch performance.



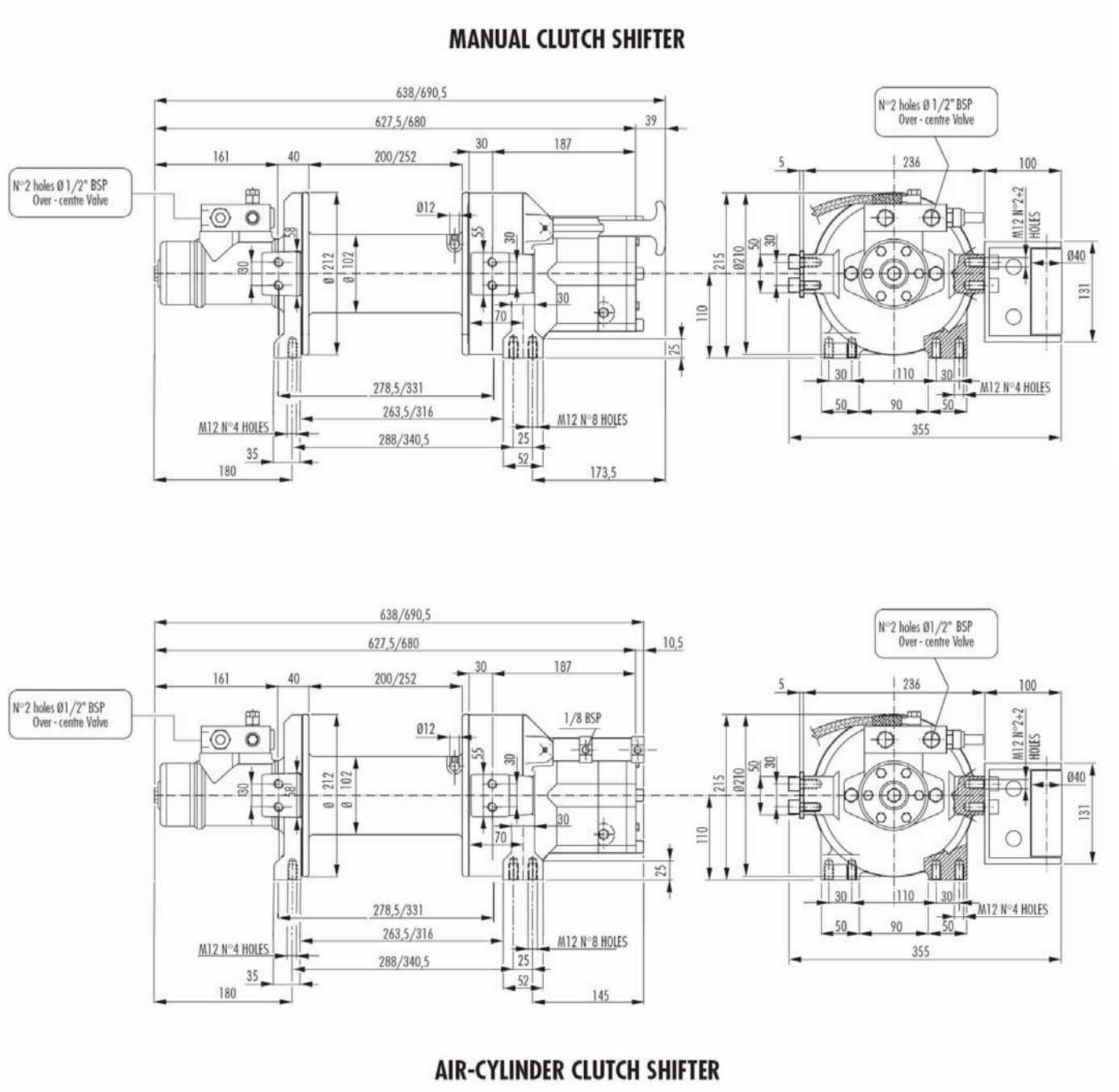
1 = HYDRAULIC ORBIT MOTOR
2 = OVER-CENTRE VALVE (optional)
3 = DIRECTIONAL CONTROL VALVE
4 = RELIEF VALVE
5 = HYDRAULIC PUMP
6 = FLUID RESERVOIR
7 = RETURN FLUID FILTER (10 microns)
8 = SUCTION FLUID FILTER

⚠ **WARNING :**
Before operating check the oil level and add if necessary.

⚠ **WARNING :**
Do not exceed 60 lt / min.
If exceeded the hydraulic motor may be damaged.

Hydraulic Winch EPH 3.600 FN
Hydraulic planetary gear winch with multidisc negative brake

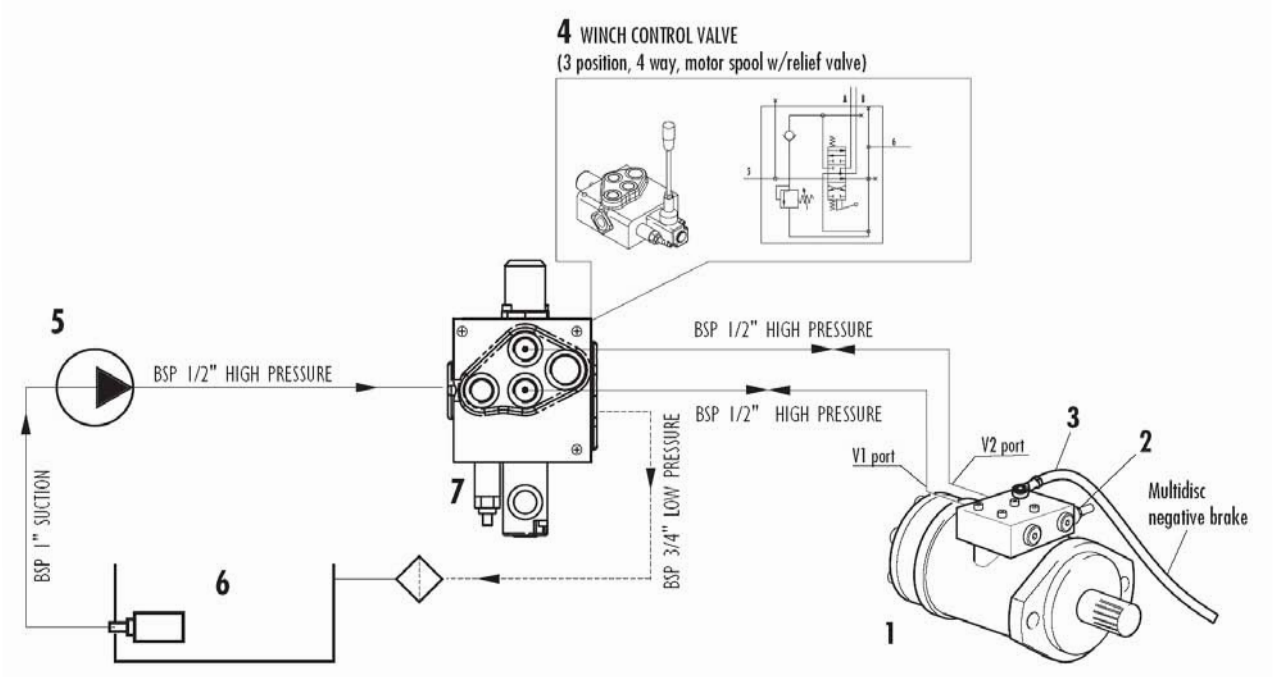
Dimensions



Hydraulic Winch EPH 3.600 FN
Hydraulic planetary gear winch with multidisc negative brake

Hydraulic wiring diagram

Refer to the tipical layout below, to properly match
your hydraulic system to the winch performance.



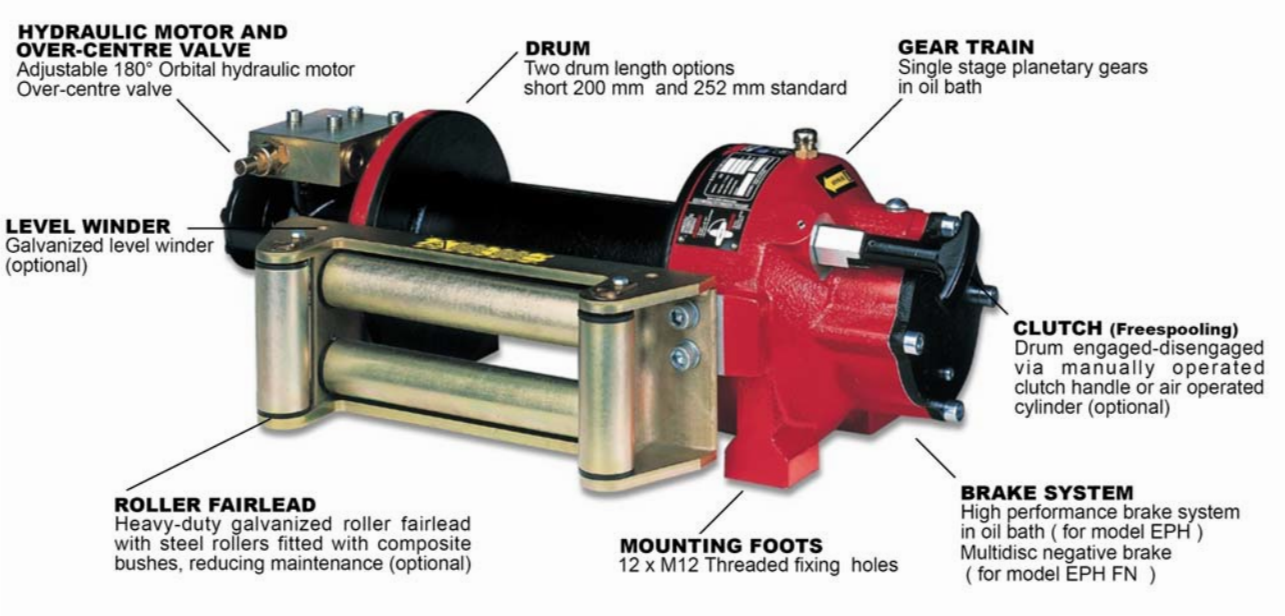
1 = HYDRAULIC MOTOR
2 = OVER-CENTRE VALVE
3 = HYDRAULIC PIPE TO NEGATIVE BRAKE
4 = CONTROL VALVE
5 = HYDRAULIC PUMP
6 = FLUID RESERVOIR
7 = RELIEF VALVE

Technical data:
- Minimum pressure for the brake release **= 30 bar**.
- Max. pressure in the return line with stopped winch measured at the control valve exhaust manifold **= 5 bar**.

⚠ **WARNING :**
Before operating check the oil level and add if necessary.

⚠ **WARNING :**
Do not exceed 60 lt / min.
If exceeded the hydraulic motor may be damaged.

Hydraulic Winch EPH 4.500 - EPH 4.500 FN
Hydraulic planetary gear winch



SPECIFICATIONS

- Rated line pull (1° layer) • **4.500 kg**
- Hydraulic orbit motor
- Working pressure with over-centre valve (optional) = **150 bar**
- Automatic safety brake (oil bath - no needs adjusting) (for model **EPH**)
- Multidisc negative brake (for model **EPH FN**)
- Hardened steel one stage planetary gear train .
- Manual clutch shifter (air-cylinder clutch shifter on request)
- Pressure line for clutch shifter air-cylinder (on request) = **6 bar**
- Weight without cable : EPH/C = **42,5 kg**
  EPH = **47,5 kg**
  EPH FN /C = **49 kg**
  EPH FN = **50 kg**

⚠ **- DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Hydraulic Winch EPH 4.500 - EPH 4.500 FN
Hydraulic planetary gear winch

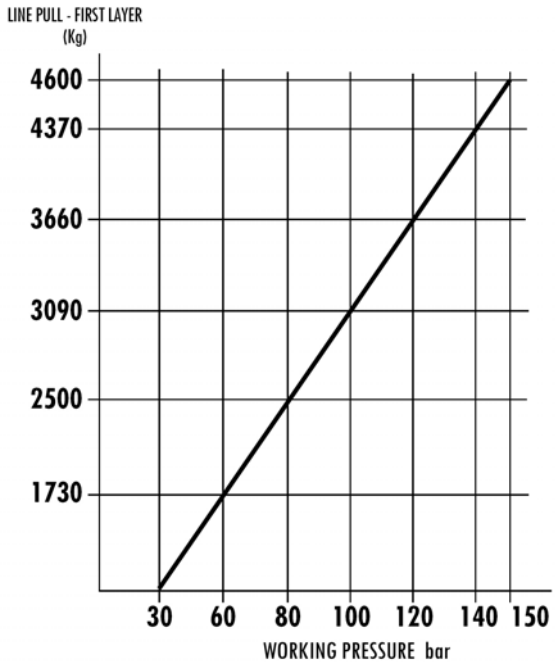
Technical data

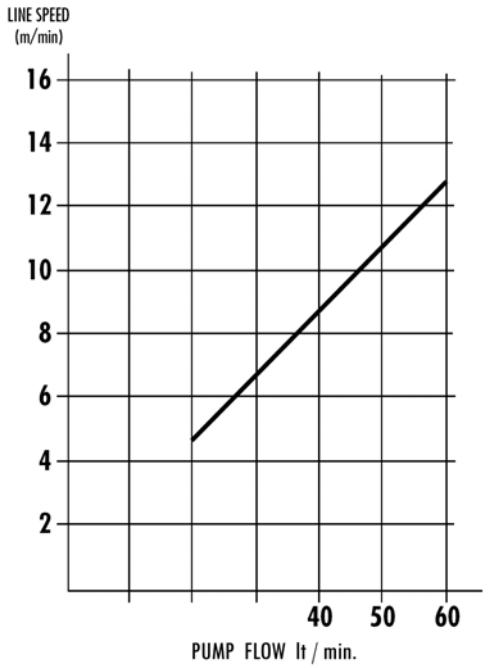
RATIO	WIRE ROPE SIZE	LAYER	LINE PULL
	mm.		kg
1 : 5,3	12	1	4500
		2	3700
		3	3165
		4	2760
		5	-

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
40	24.7	8.8	10.7	12.5	14.4	-
50	31.1	11.1	13.4	15.8	18.1	-
60	37.1	13.3	16.0	18.8	21.6	-

DRUM	WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY m	MAX. WIRE ROPE CAPACITY m
	kg	12 mm.	12 mm.
EPH/C SHORT	42.5	25	35
EPH	47.5	30	35

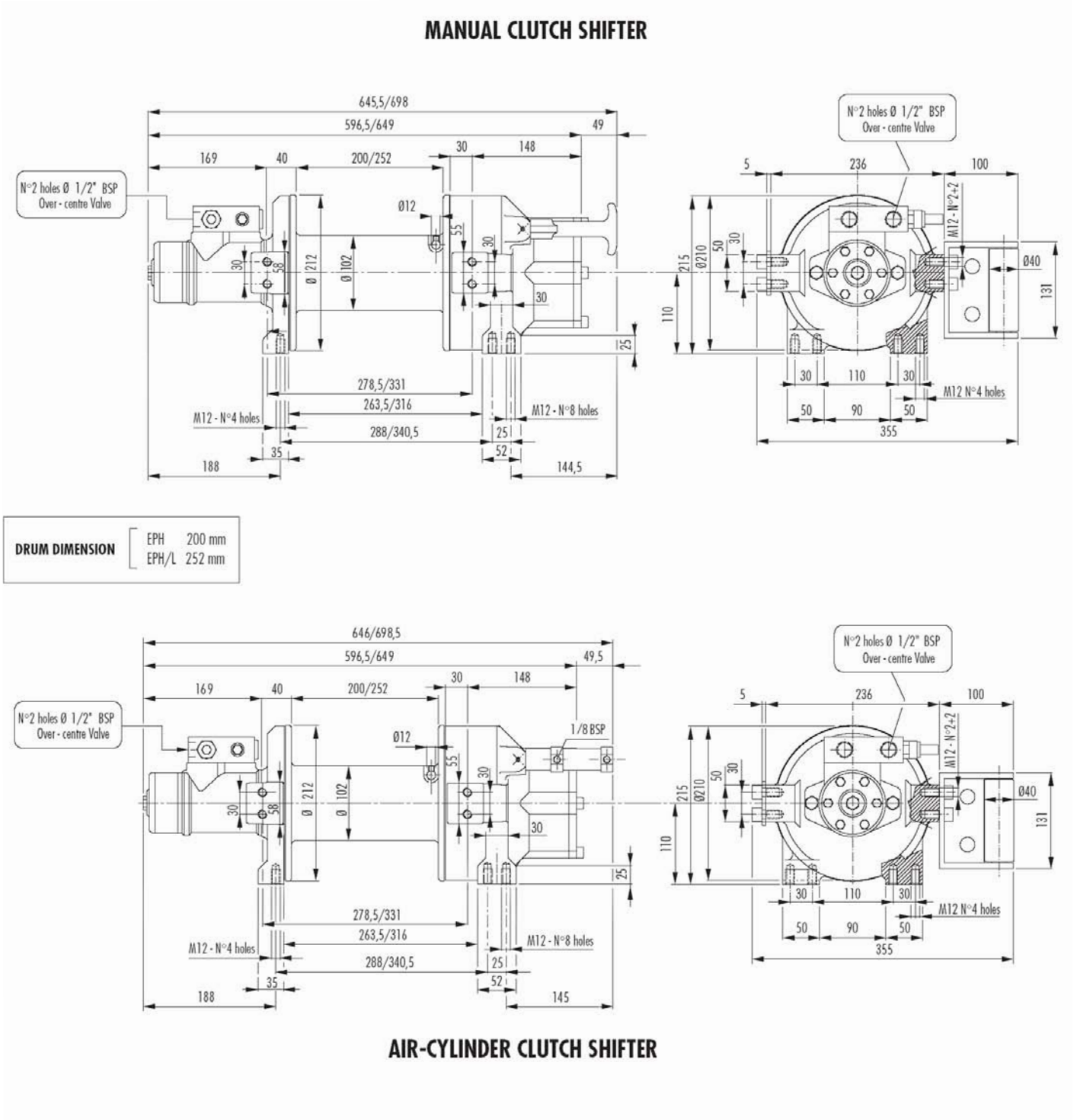
Performance charts at the 1° layer





Hydraulic Winch EPH 4.500
Hydraulic planetary gear winch

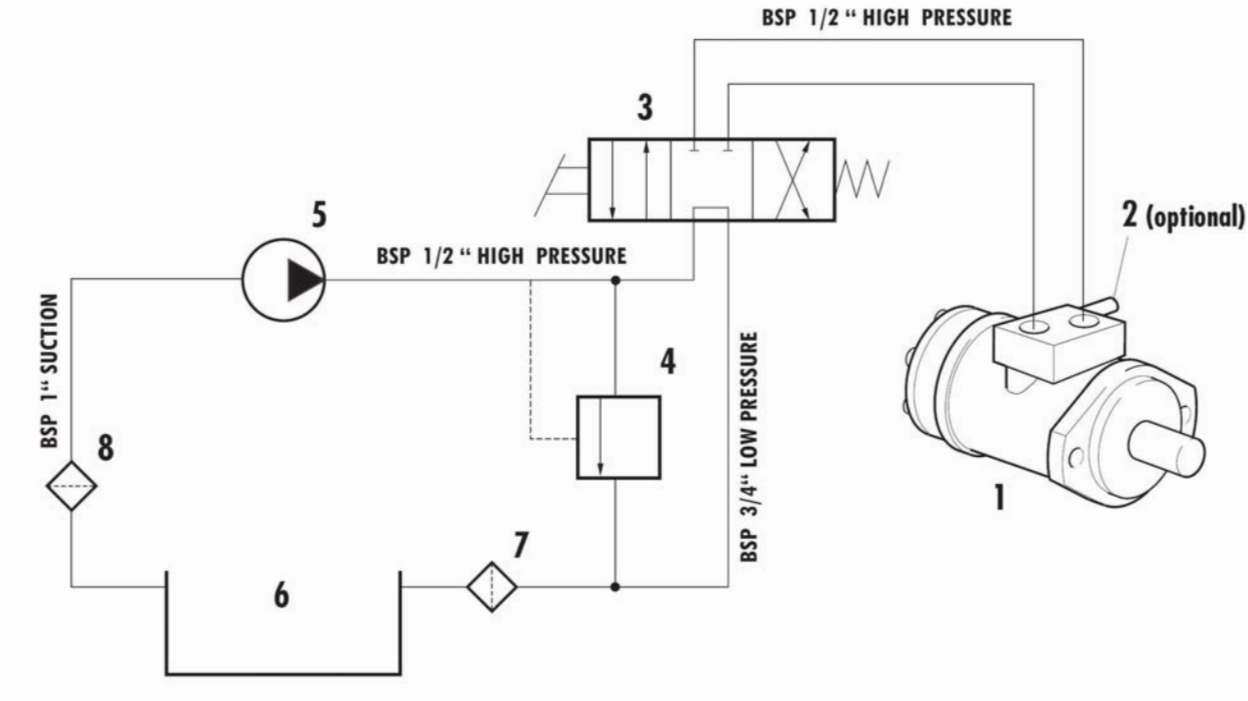
Dimensions



Hydraulic Winch EPH 4.500
Hydraulic planetary gear winch

Hydraulic wiring diagram

Refer to the tipical layout below, to properly match your hydraulic system to the winch performance.



1 = HYDRAULIC ORBIT MOTOR
2 = OVER-CENTRE VALVE (optional)
3 = DIRECTIONAL CONTROL VALVE
4 = RELIEF VALVE
5 = HYDRAULIC PUMP
6 = FLUID RESERVOIR
7 = RETURN FLUID FILTER (10 microns)
8 = SUCTION FLUID FILTER

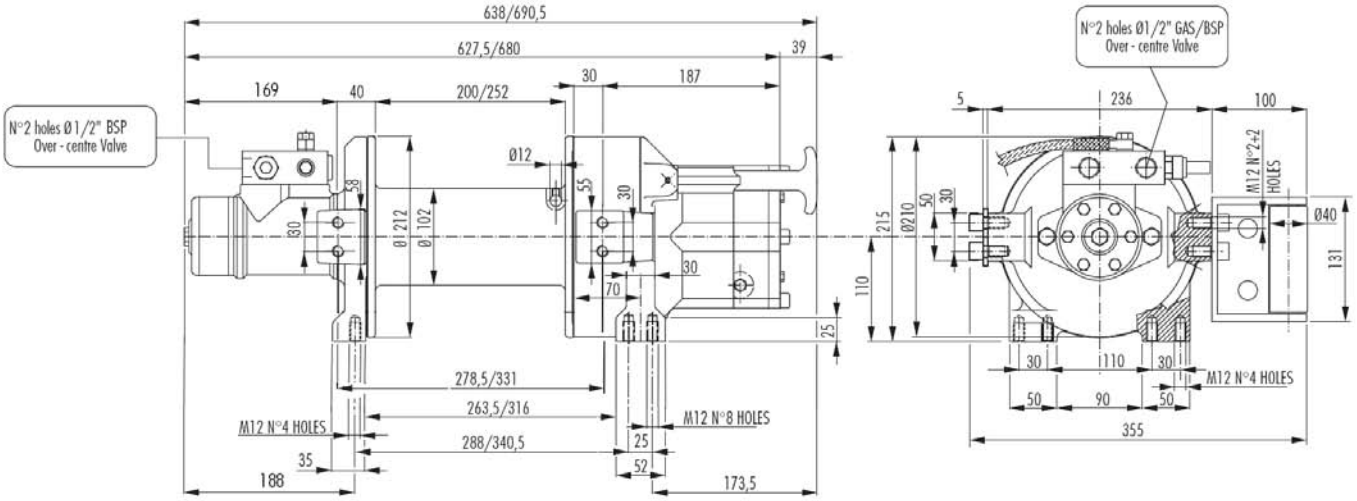
⚠ **WARNING :**
Before operating check the oil level and add if necessary.

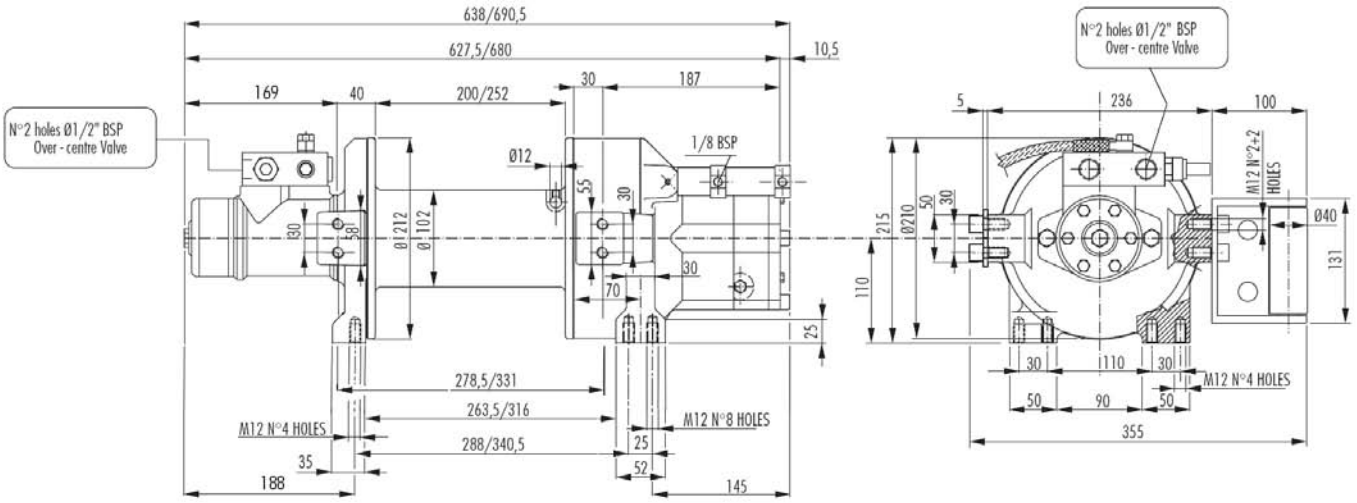
⚠ **WARNING :**
Do not exceed 60 lt / min.
If exceeded the hydraulic motor may be damaged.

Hydraulic Winch EPH 4.500 FN
Hydraulic planetary gear winch with multidisc negative brake

Dimensions

MANUAL CLUTCH SHIFTER



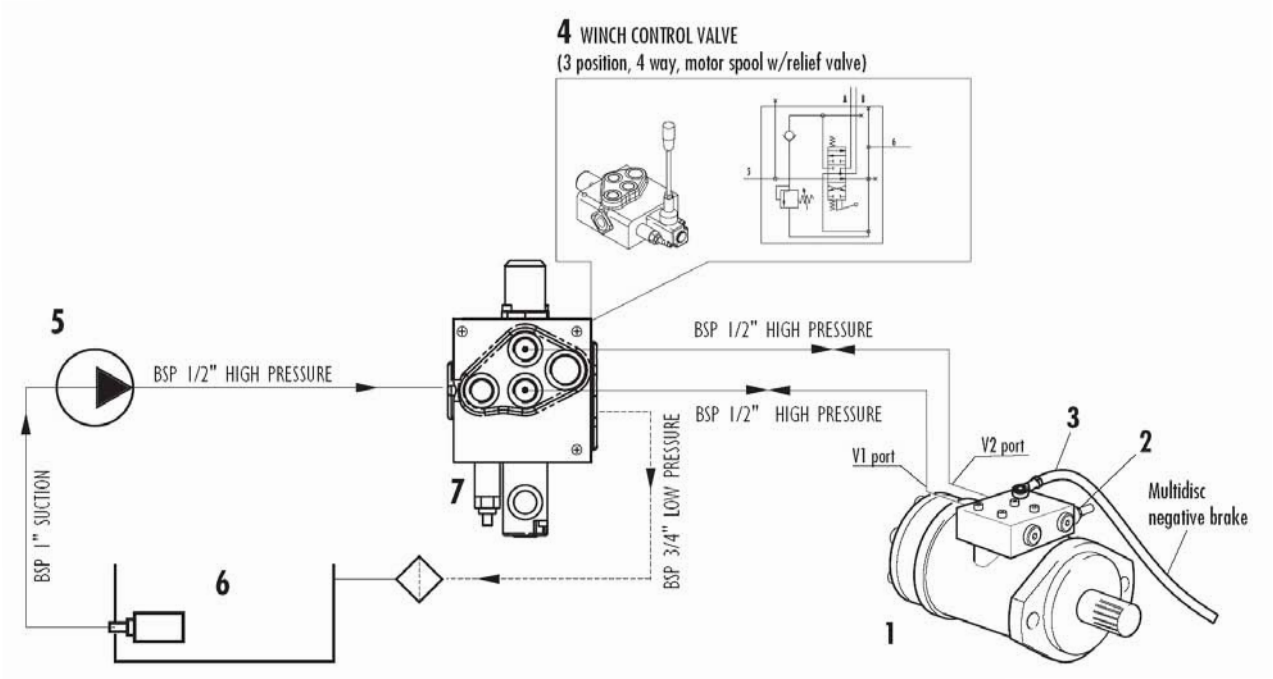


AIR-CYLINDER CLUTCH SHIFTER

Hydraulic Winch EPH 4.500 FN
Hydraulic planetary gear winch with multidisc negative brake

Hydraulic wiring diagram

Refer to the tipical layout below, to properly match
your hydraulic system to the winch performance.



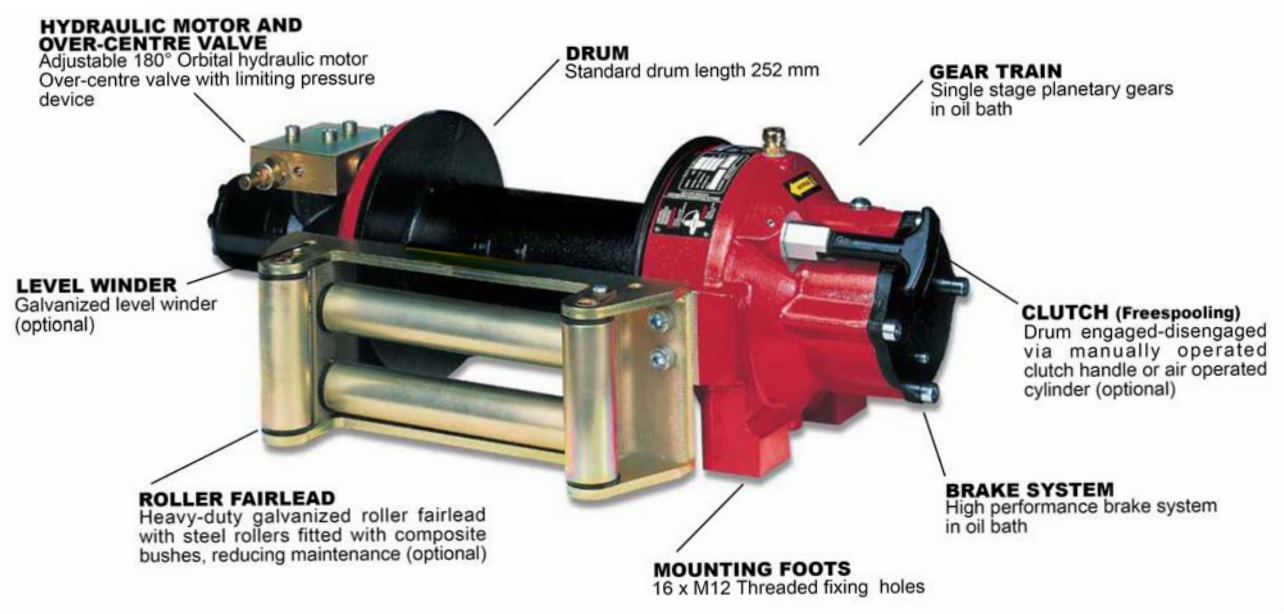
1 = HYDRAULIC MOTOR
2 = OVER-CENTRE VALVE
3 = HYDRAULIC PIPE TO NEGATIVE BRAKE
4 = CONTROL VALVE
5 = HYDRAULIC PUMP
6 = FLUID RESERVOIR
7 = RELIEF VALVE

Technical data:
- Minimum pressure for the brake release **= 30 bar**.
- Max. pressure in the return line with stopped winch measured at the control valve exhaust manifold **= 5 bar**.

⚠ **WARNING :**
Before operating check the oil level and add if necessary.

⚠ **WARNING :**
Do not exceed 60 lt / min.
If exceeded the hydraulic motor may be damaged.

Hydraulic Winch EPH 5.200
Hydraulic planetary gear winch



SPECIFICATIONS

- Rated line pull (1° layer) = **5.200 kg**
- Hydraulic orbit motor
- Working pressure with over-centre valve (optional) = **130 bar**
- Automatic safety brake (oil bath - no needs adjusting)
- Hardened steel one stage planetary gear train .
- Manual clutch shifter (air-cylinder clutch shifter on request)
- Pressure line for clutch shifter air-cylinder (on request) = **6 bar**
- Weight without cable = **49 kg**

⚠ **DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Hydraulic Winch EPH 5.200
Hydraulic planetary gear winch

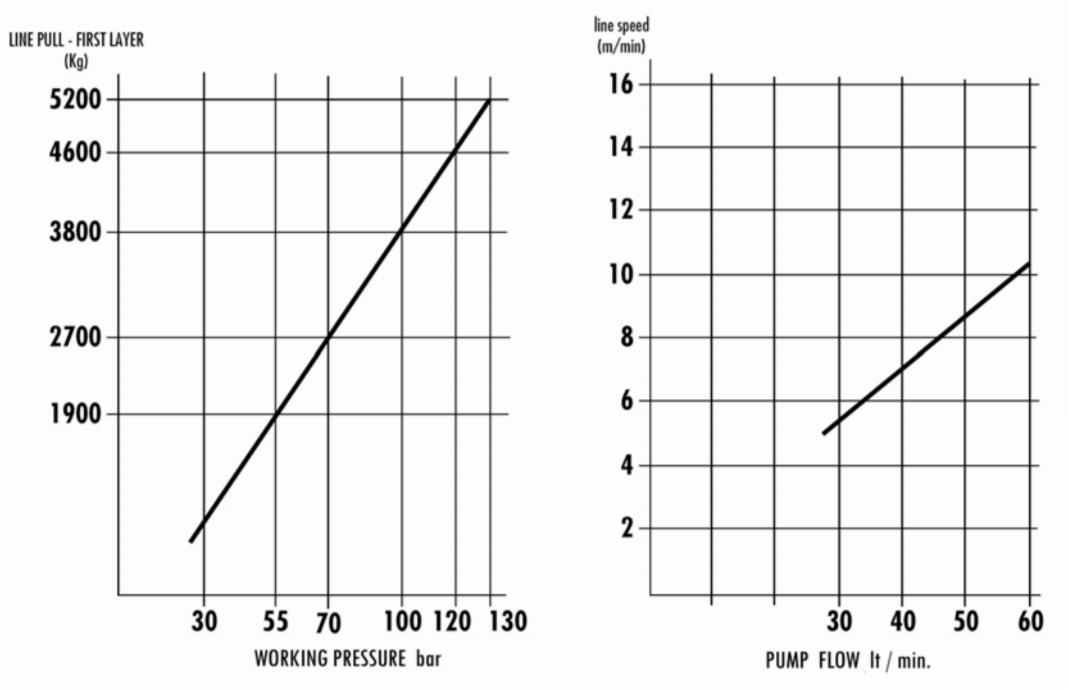
Technical data

RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1:5,3	12	1	5.200
		2	4.300
		3	3.650
		4	3.200
		5	2.800

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
40	19,8	7,1	8,6	10,1	11,6	13,0
50	24,5	8,7	10,6	12,5	14,3	16,1
60	29,2	10,4	12,7	14,9	17,0	19,3

WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY	MAX. WIRE ROPE CAPACITY
kg	12 mm.	12 mm.
49	35	40

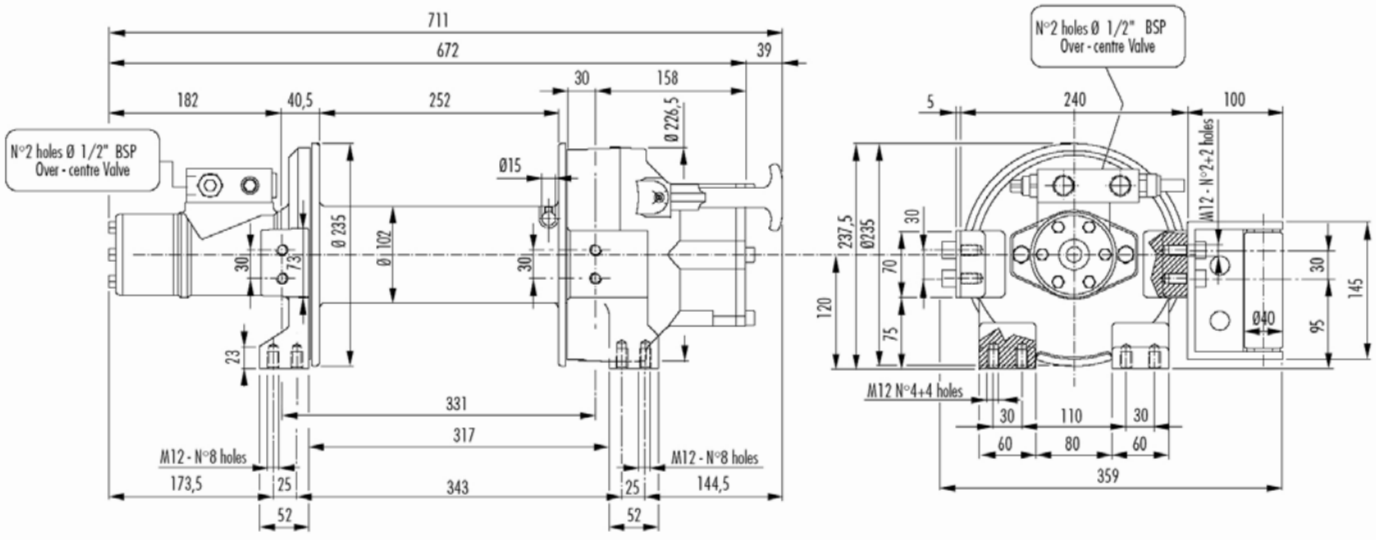
Performance charts at the 1° layer

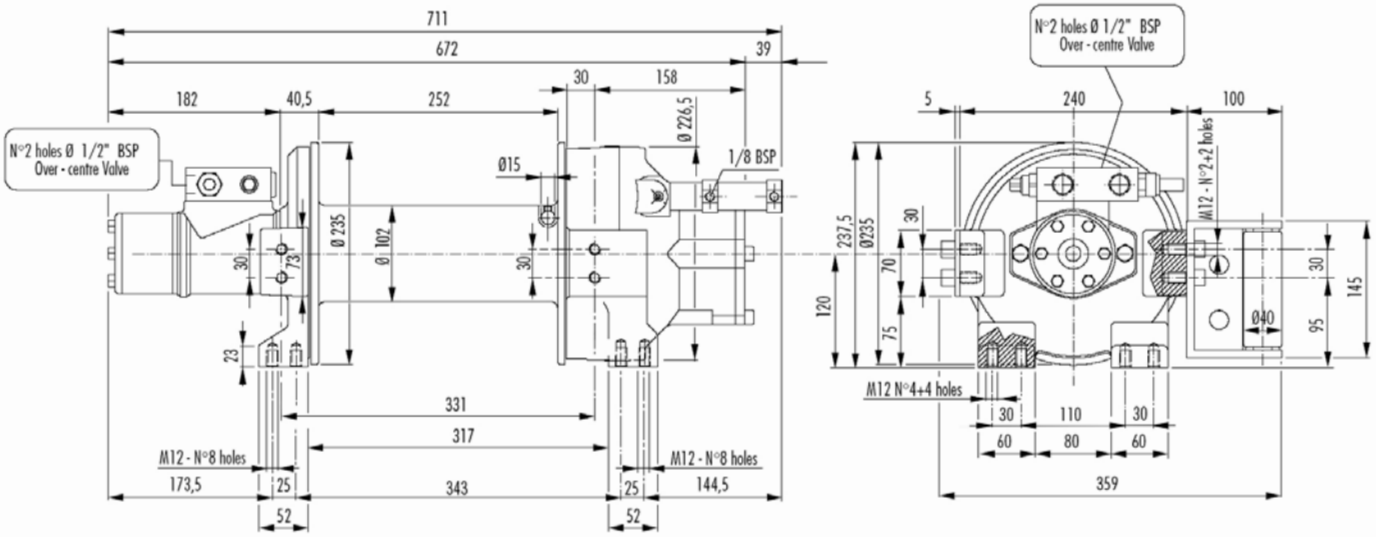


Hydraulic Winch EPH 5.200
Hydraulic planetary gear winch

Dimensions

MANUAL CLUTCH SHIFTER



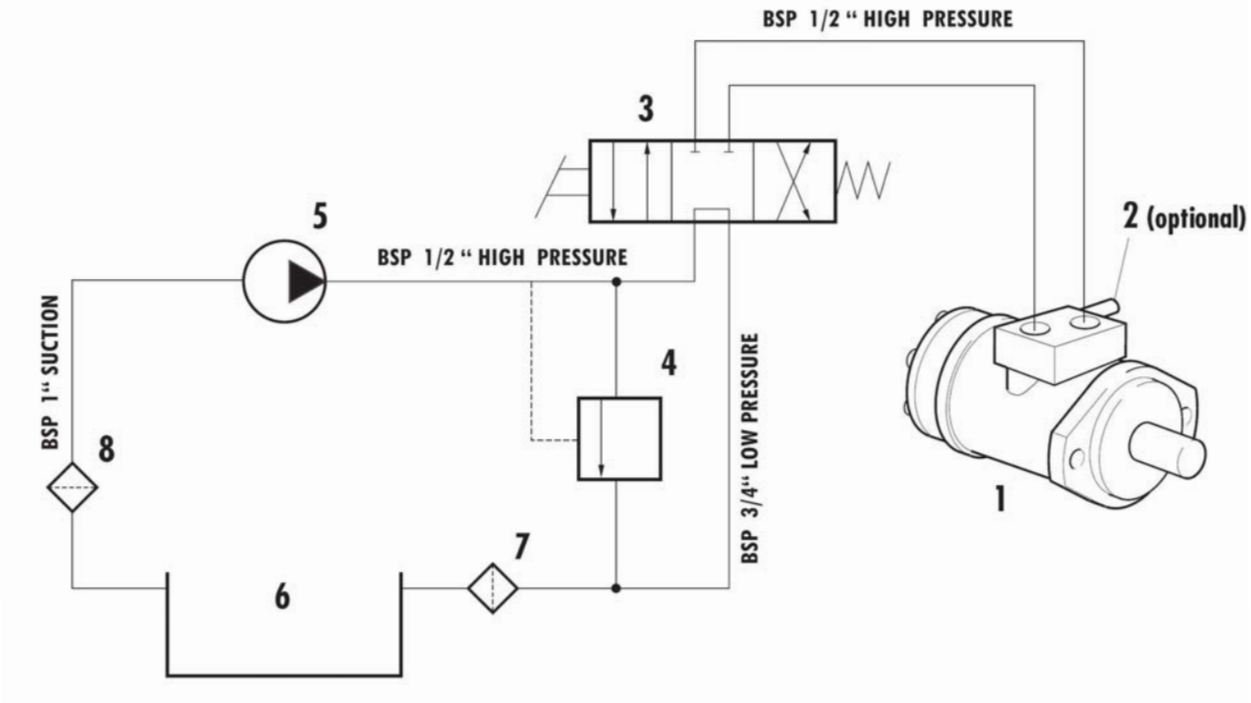


AIR-CYLINDER CLUTCH SHIFTER

Hydraulic Winch EPH 5.200
Hydraulic planetary gear winch

Hydraulic wiring diagram

Refer to the tipical layout below, to properly match your hydraulic system to the winch performance.

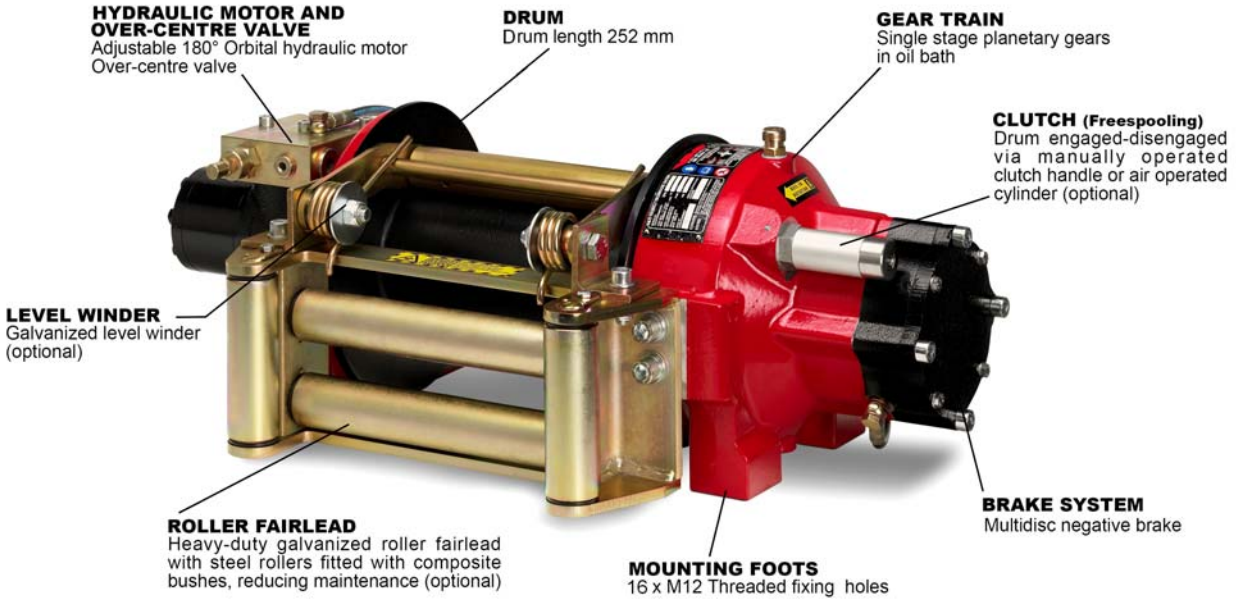


1 = HYDRAULIC ORBIT MOTOR
2 = OVER-CENTRE VALVE (optional)
3 = DIRECTIONAL CONTROL VALVE
4 = RELIEF VALVE
5 = HYDRAULIC PUMP
6 = FLUID RESERVOIR
7 = RETURN FLUID FILTER (10 microns)
8 = SUCTION FLUID FILTER

⚠ **WARNING :**
Before operating check the oil level and add if necessary.

⚠ **WARNING :**
Do not exceed 60 lt / min.
If exceeded the hydraulic motor may be damaged.

Hydraulic Winch EPH 6.000 FN
Hydraulic planetary gear winch with multidisc negative brake



SPECIFICATIONS

- Rated line pull (1° layer) = **6.000 kg**
- Hydraulic orbit motor
- Working pressure with over-centre valve = **160 bar**
- Multidisc negative brake
- Hardened steel one stage planetary gear train .
- Manual clutch shifter (air-cylinder clutch shifter on request)
- Pressure line for clutch shifter air-cylinder (on request) = **6 bar**
- Weight without cable = **54 kg**

⚠ **DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Hydraulic Winch EPH 6.000 FN
Hydraulic planetary gear winch with multidisc negative brake

Technical data

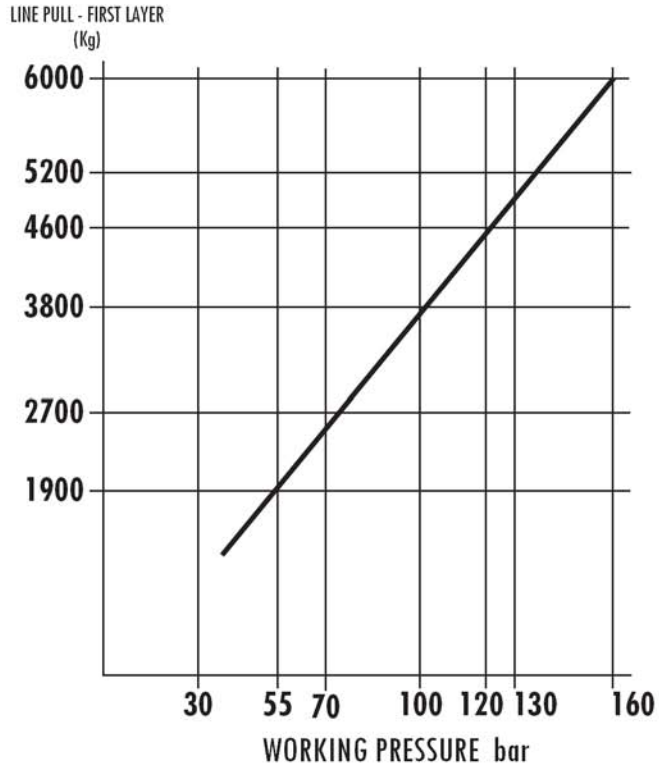
RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1 : 5,3	13	1	6000
		2	4900
		3	4200
		4	3575
		5	3150
1 : 5,3	14	1	6000
		2	4900
		3	4100
		4	3500
		5	–

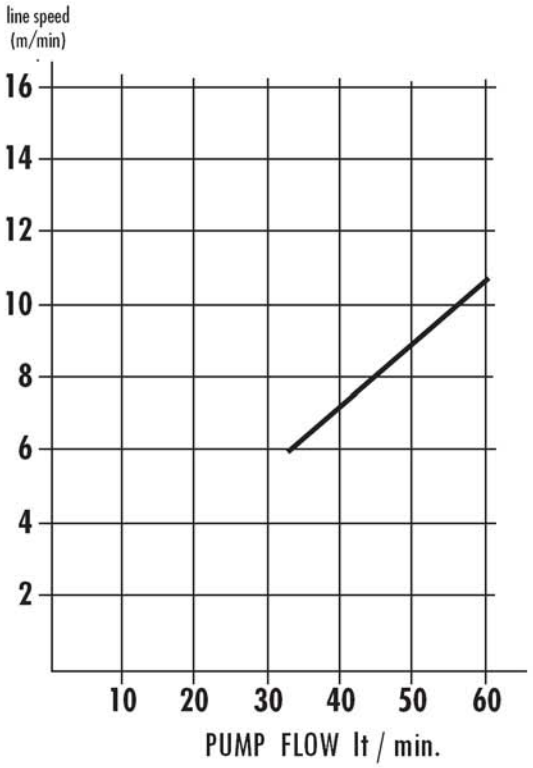
OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m / min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
40	18.8	7.1	8.7	10.3	12.0	13.6
50	24.5	8.8	10.8	12.8	14.8	16.8
60	29.2	10.5	12.9	15.3	17.7	20.0

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m / min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
40	18.8	7.2	8.9	10.7	12.4	–
50	24.5	8.9	11.0	13.2	15.3	–
60	29.2	10.6	13.2	15.7	18.3	–

DRUM	WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY m		MAX. WIRE ROPE CAPACITY m	
	kg	13 mm	14 mm	13 mm	14 mm
	54	35	25	40	30

Performance charts at the 1° layer

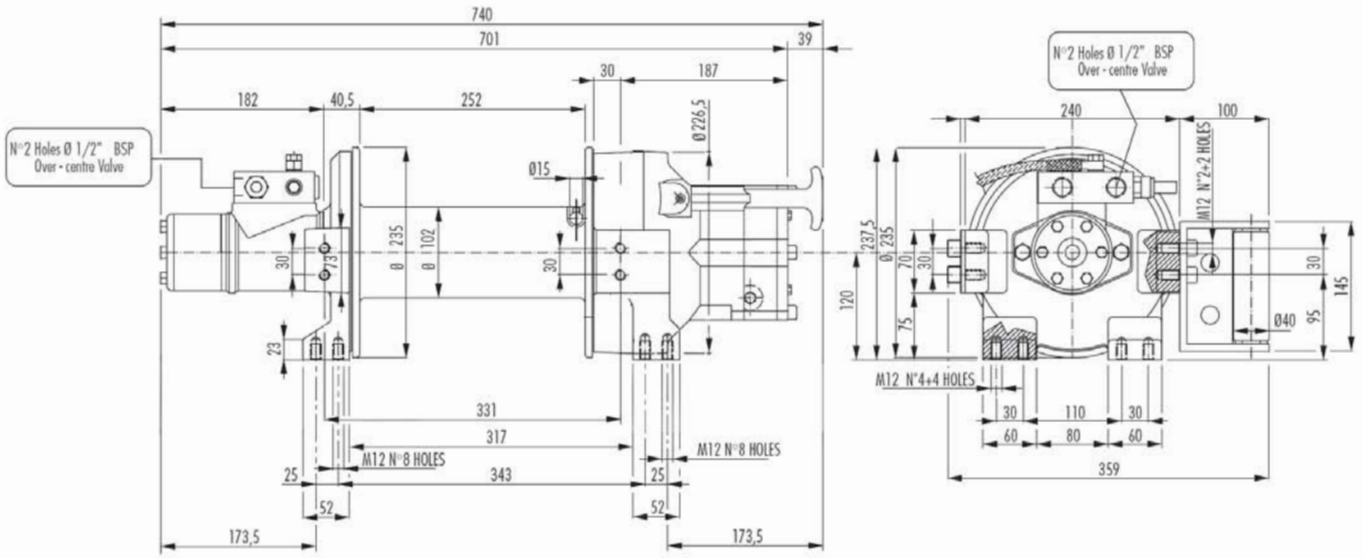


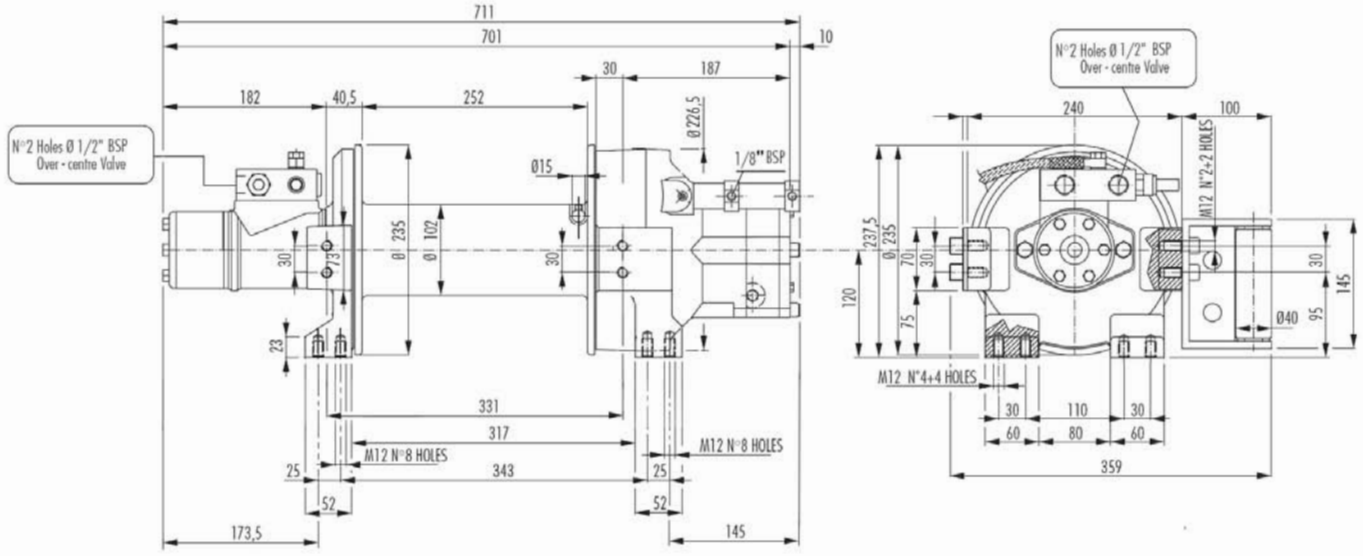


Hydraulic Winch EPH 6.000 FN
Hydraulic planetary gear winch with multidisc negative brake

Dimensions

MANUAL CLUTCH SHIFTER



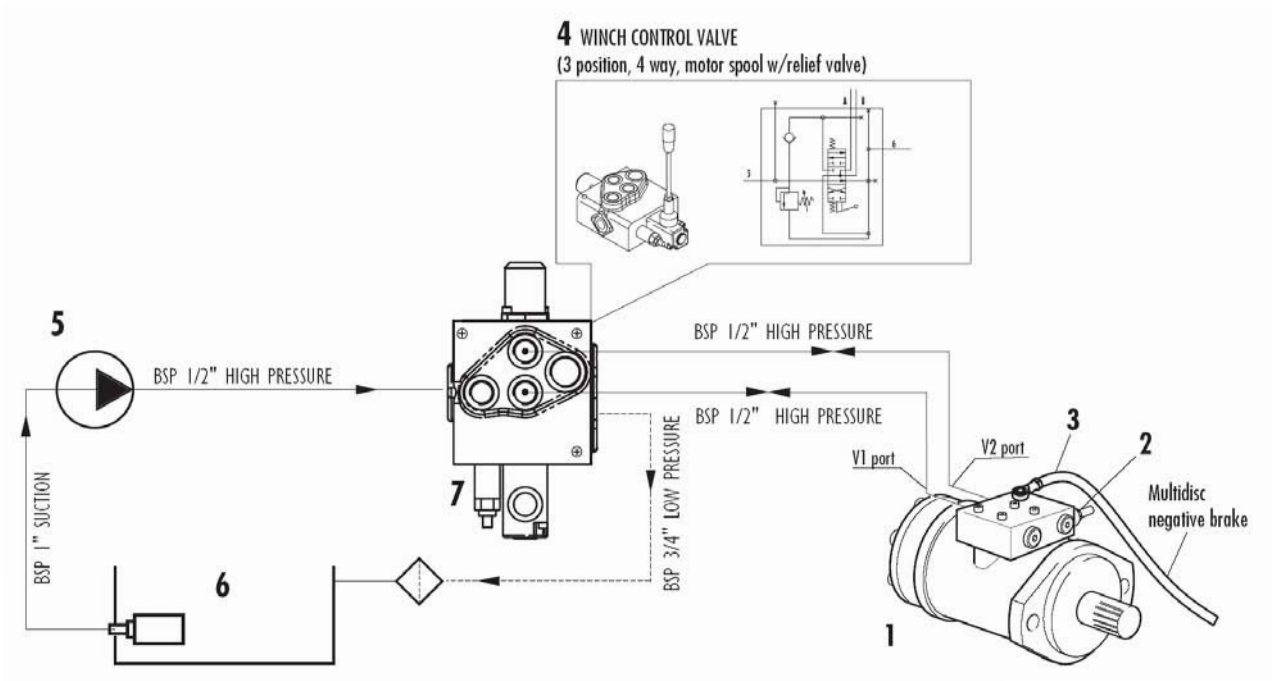


AIR-CYLINDER CLUTCH SHIFTER

Hydraulic Winch EPH 6.000 FN
Hydraulic planetary gear winch with multidisc negative brake

Hydraulic wiring diagram

Refer to the tipical layout below, to properly match
your hydraulic system to the winch performance.



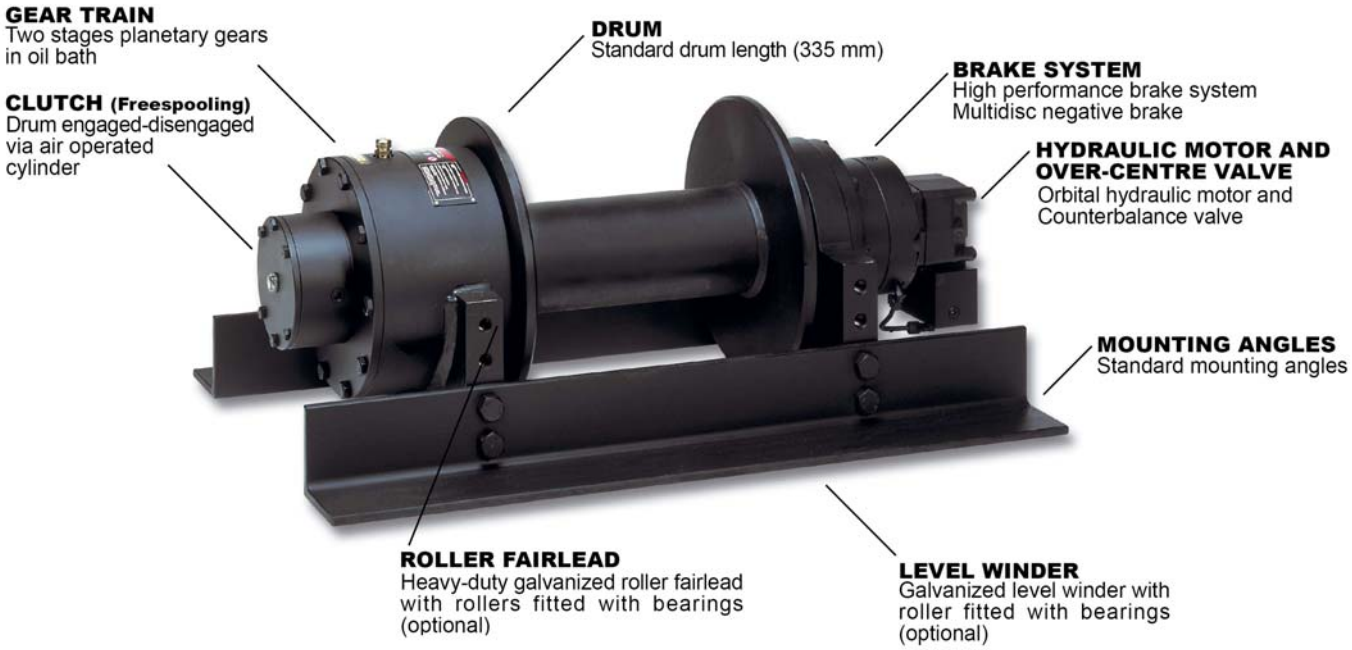
1 = HYDRAULIC MOTOR
2 = OVER-CENTRE VALVE
3 = HYDRAULIC PIPE TO NEGATIVE BRAKE
4 = CONTROL VALVE
5 = HYDRAULIC PUMP
6 = FLUID RESERVOIR
7 = RELIEF VALVE

Technical data:
- Minimum pressure for the brake release **= 30 bar**.
- Max. pressure in the return line with stopped winch measured at the control valve exhaust manifold **= 5 bar**.

⚠ **WARNING :**
Before operating check the oil level and add if necessary.

⚠ **WARNING :**
Do not exceed 60 lt / min.
If exceeded the hydraulic motor may be damaged.

Hydraulic Winch EPH 10.000
Hydraulic planetary gear winch



SPECIFICATIONS

- Rated line pull (1° layer) • **10.000 kg**
- Hydraulic orbit motor **OMSU 160**
- Working pressure = **190 bar**
- Multidisc negative brake
- Hardened steel two stage planetary gear train .
- Air-cylinder clutch shifter
- Pressure line for clutch shifter air-cylinder = **6 bar**
- Weight without cable = **190 kg**

⚠ · **DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Hydraulic Winch EPH 10.000
Hydraulic planetary gear winch

Technical data

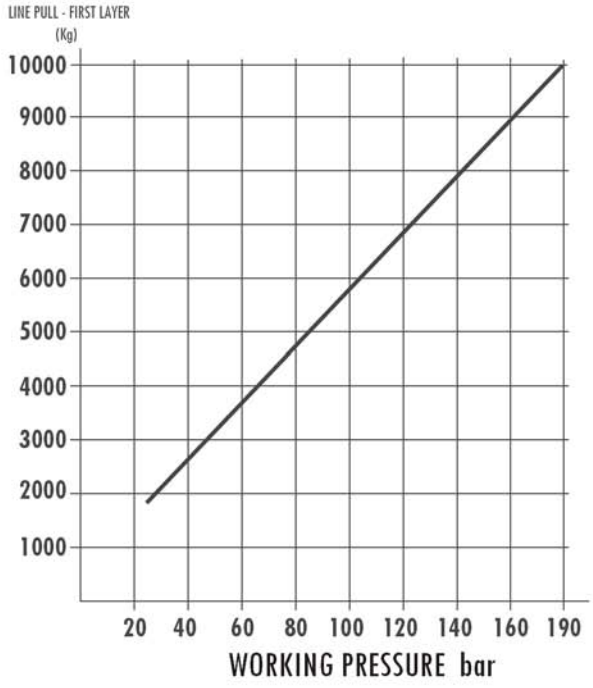
RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1:22,1	15	1	10.000
		2	8.250
		3	7.030
		4	6.120
		5	5.420
		6	4.860
	16	1	10.000
		2	8.170
		3	6.900
		4	5.980
		5	5.270
		-	-

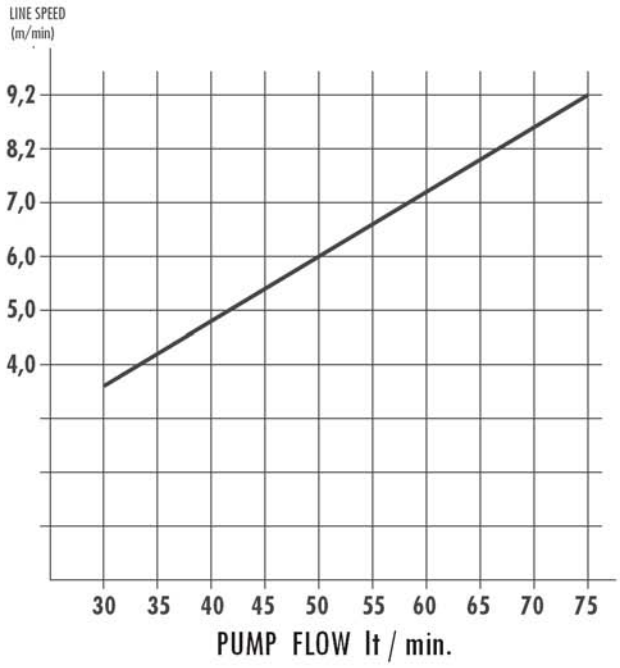
OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.					
		LAYERS					
lt / min.	n / min.	1°	2°	3°	4°	5°	6°
40	10,5	4,7	5,7	6,7	7,7	8,7	9,7
60	16,2	7,2	8,8	10,3	11,8	13,3	14,9
75	20,4	9,1	11,1	13,0	14,9	16,8	18,8

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.					
		LAYERS					
lt / min.	n / min.	1°	2°	3°	4°	5°	6°
40	10,5	4,7	5,8	6,9	7,9	9,0	-
60	16,2	7,3	8,9	10,5	12,2	13,8	-
75	20,4	9,0	11,0	13,0	15,0	17,0	-

DRUM	WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY m		MAX. WIRE ROPE CAPACITY m	
	kg	15 mm	16 mm	15 mm	16 mm
	190	67	47	87	64

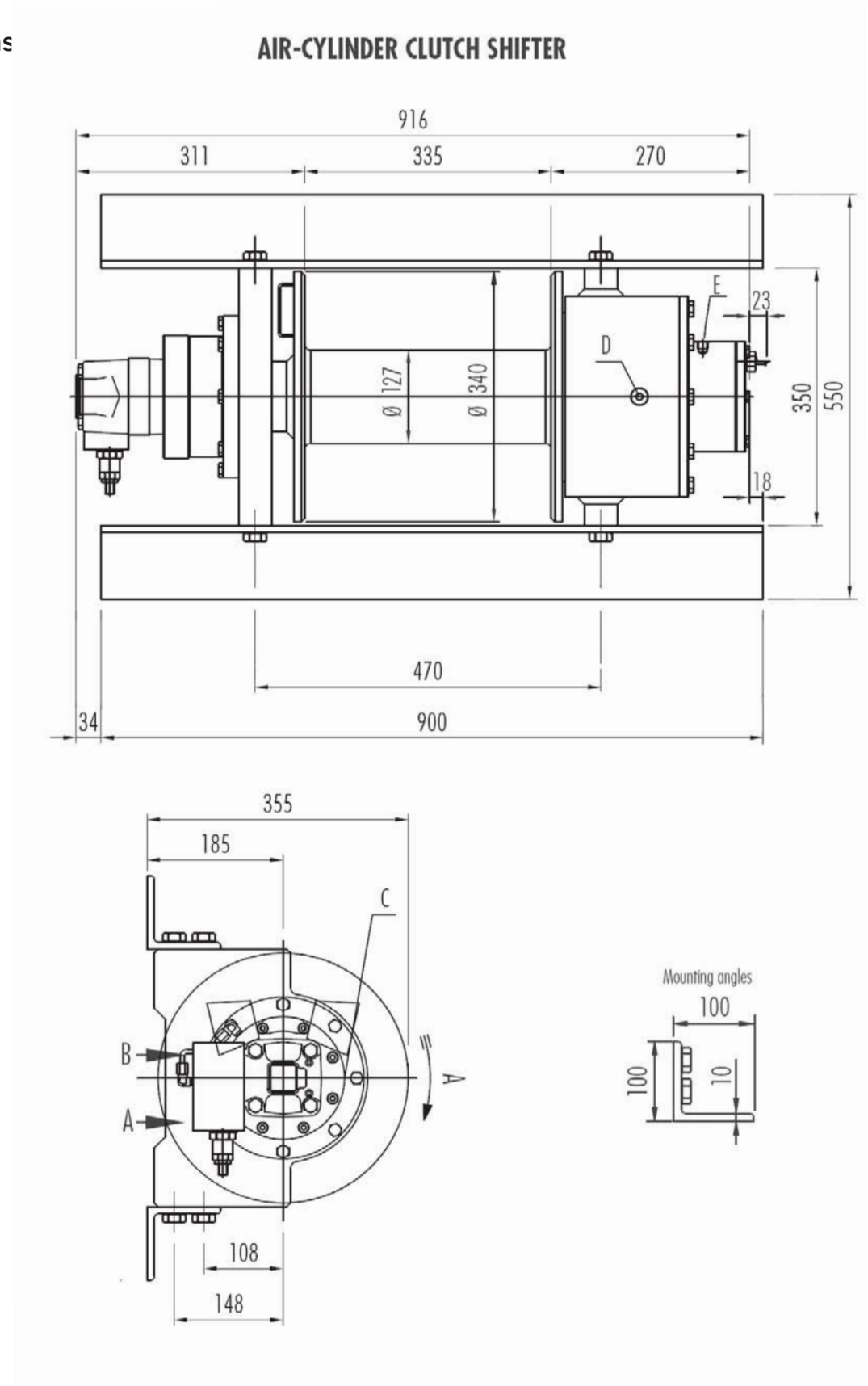
Performance charts at the 1° layer





Hydraulic Winch EPH 10.000
Hydraulic planetary gear winch

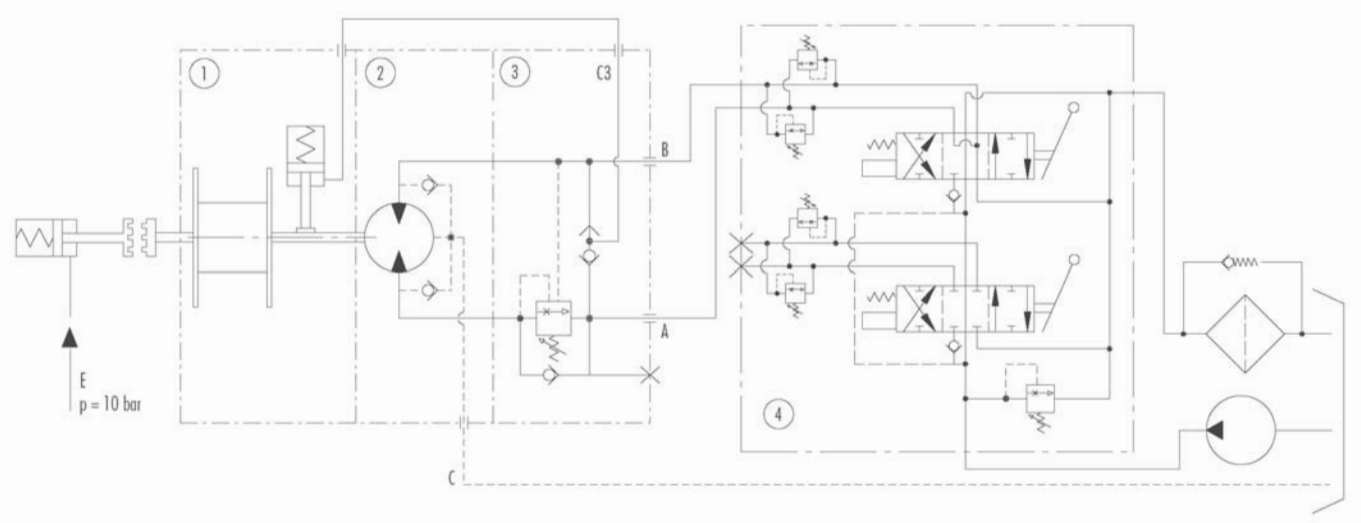
Dimensions



Hydraulic Winch EPH 10.000
Hydraulic planetary gear winch

Hydraulic wiring diagram

Refer to the tipical layout below, to properly match your hydraulic system to the winch performance.



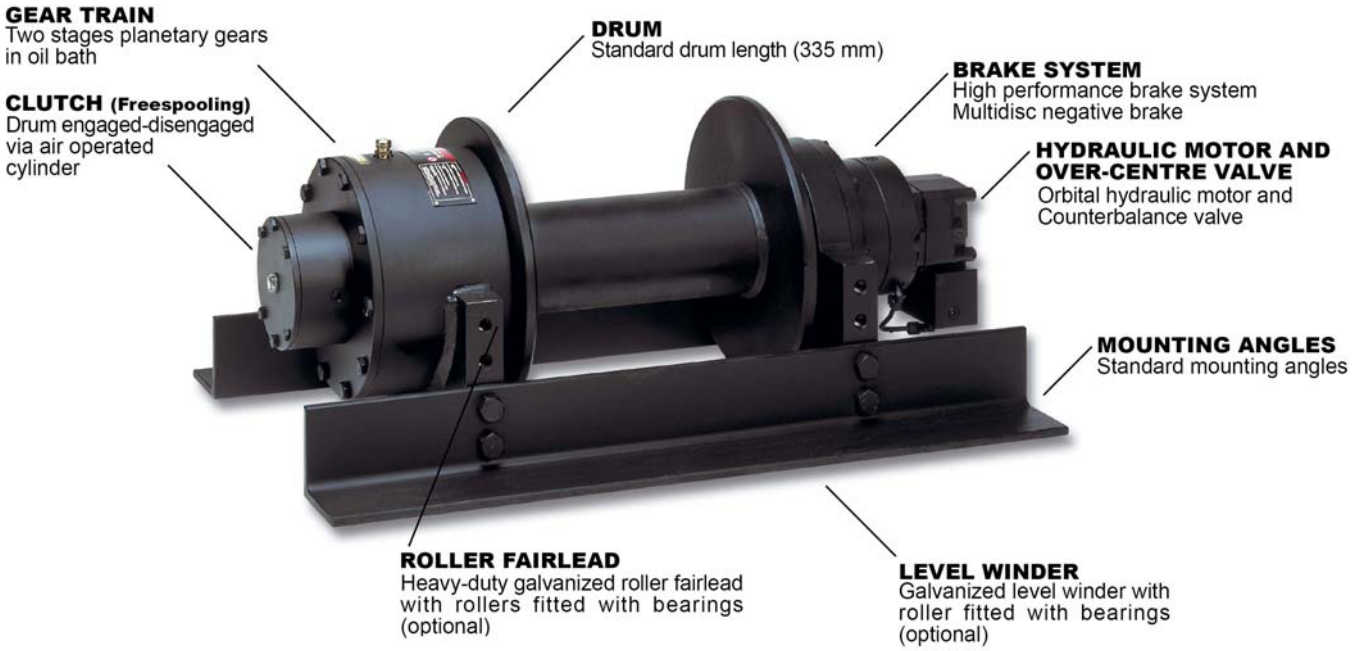
1 = WINCH
2 = HYDRAULIC ORBIT MOTOR
3 = OVER-CENTRE VALVE (optional)
4 = DIRECTIONAL CONTROL VALVE
A = WINDING OPERATION

B = UNWINDING OPERATION
C = DRAINAGE
C3 = BRAKE
E = DRUM ENGAGED / DISENGAGED
VIA AIR OPERATED CYLINDER

⚠ WARNING :
Before operating check the oil level and add if necessary.

⚠ WARNING :
Do not exceed 75 lt / min.
If exceeded the hydraulic motor may be damaged.

Hydraulic Winch EPH 12.200
Hydraulic planetary gear winch



SPECIFICATIONS

- Rated line pull (1° layer) • **12.200 kg**
- Hydraulic orbit motor **OMSU 250**
- Working pressure = **175 bar**
- Multidisc negative brake
- Hardened steel two stage planetary gear train .
- Air-cylinder clutch shifter
- Pressure line for clutch shifter air-cylinder = **6 bar**
- Weight without cable = **190 kg**

⚠ · **DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Hydraulic Winch EPH 12.200
Hydraulic planetary gear winch

Technical data

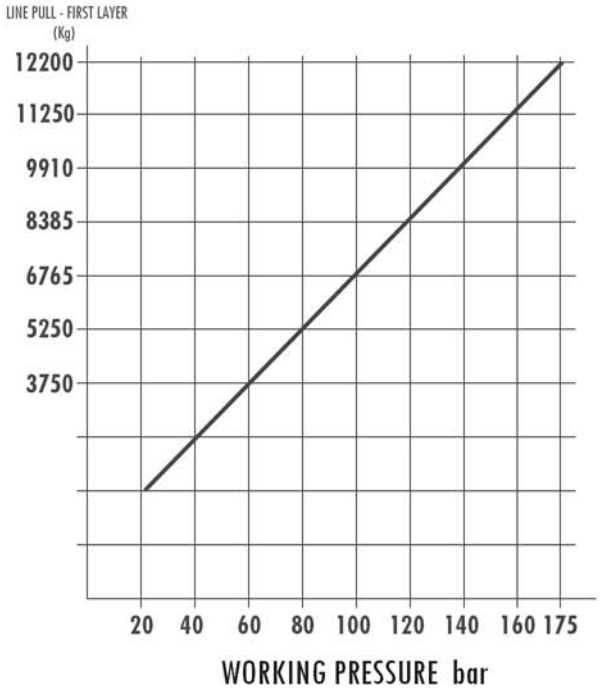
RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1:16,68	16	1	12.200
		2	9.970
		3	8.430
		4	7.300
		5	6.440
		-	-
	18	1	12.200
		2	9.770
		3	8.150
		4	6.990
		5	6.120
		-	-

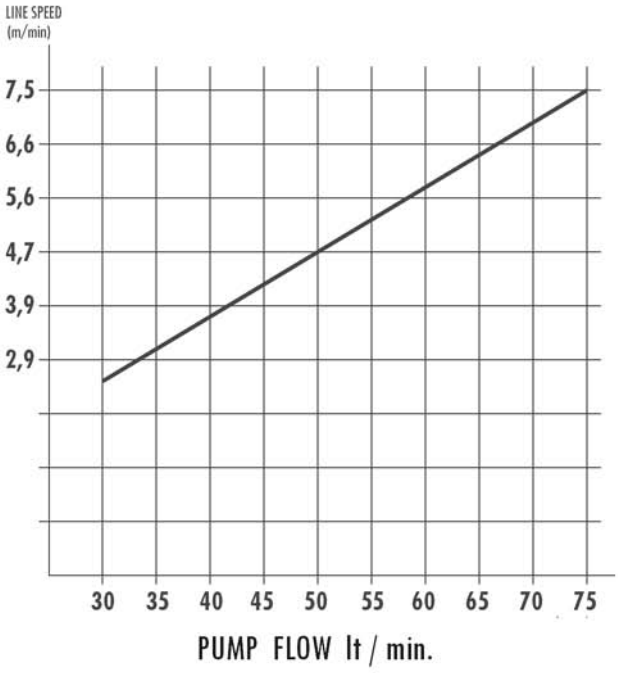
OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.					
		LAYERS					
lt / min.	n / min.	1°	2°	3°	4°	5°	6°
40	8,0	3,6	4,4	5,2	6,0	6,8	-
60	12,8	5,8	7,1	8,3	9,6	10,9	-
75	16,4	7,4	9,0	10,7	12,3	14,0	-

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.					
		LAYERS					
lt / min.	n / min.	1°	2°	3°	4°	5°	6°
40	8,0	3,6	4,6	5,5	6,4	7,3	-
60	12,8	5,8	7,3	8,7	10,2	11,6	-
75	16,4	7,5	9,3	11,2	13,0	14,9	-

DRUM	WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY m		MAX. WIRE ROPE CAPACITY m	
	kg	16 mm	18 mm	16 mm	18 mm
	190	47	43	64	59

Performance charts at the 1° layer

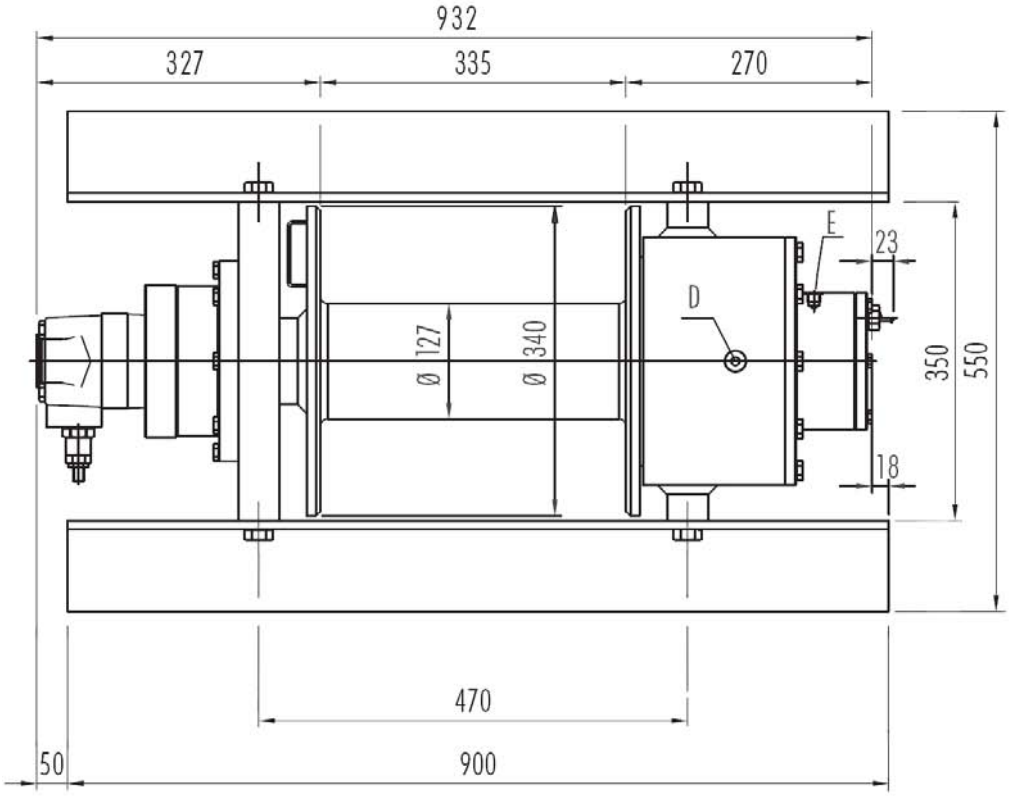


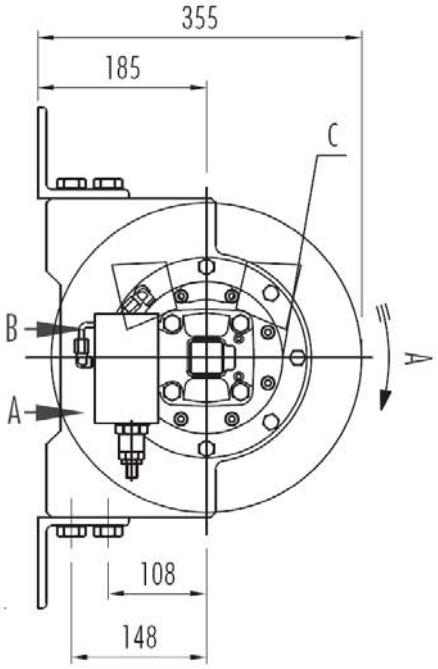


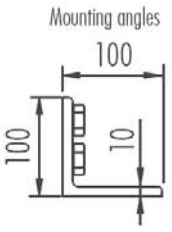
Hydraulic Winch EPH 12.200
Hydraulic planetary gear winch

Dimensions

AIR-CYLINDER CLUTCH SHIFTER



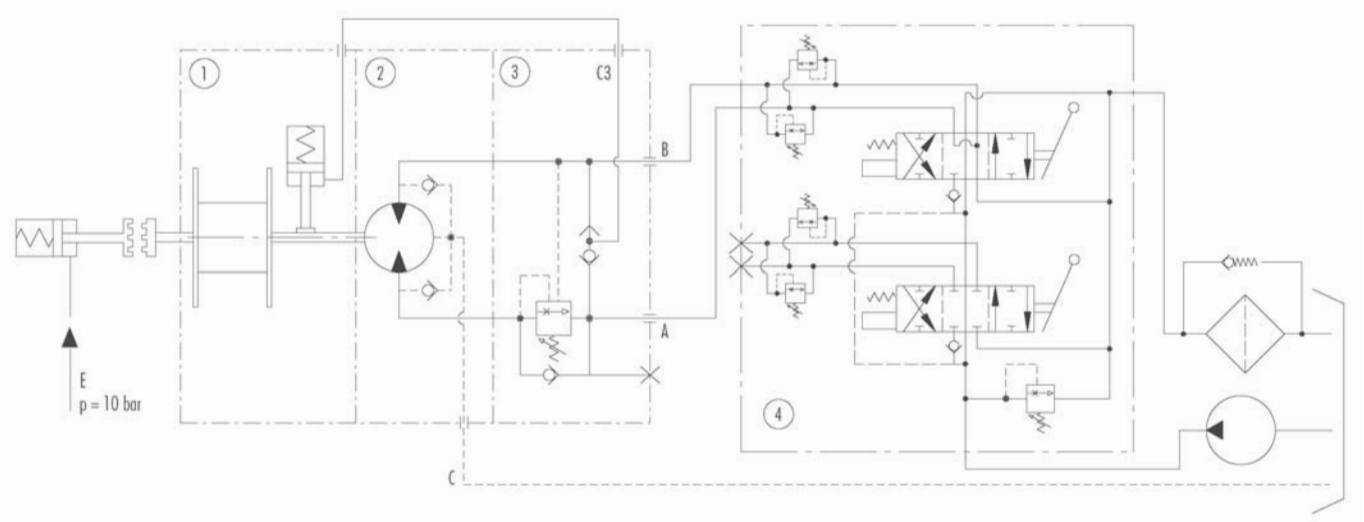




Hydraulic Winch EPH 12.200
Hydraulic planetary gear winch

Hydraulic wiring diagram

Refer to the tipical layout below, to properly match your hydraulic system to the winch performance.



1 = WINCH
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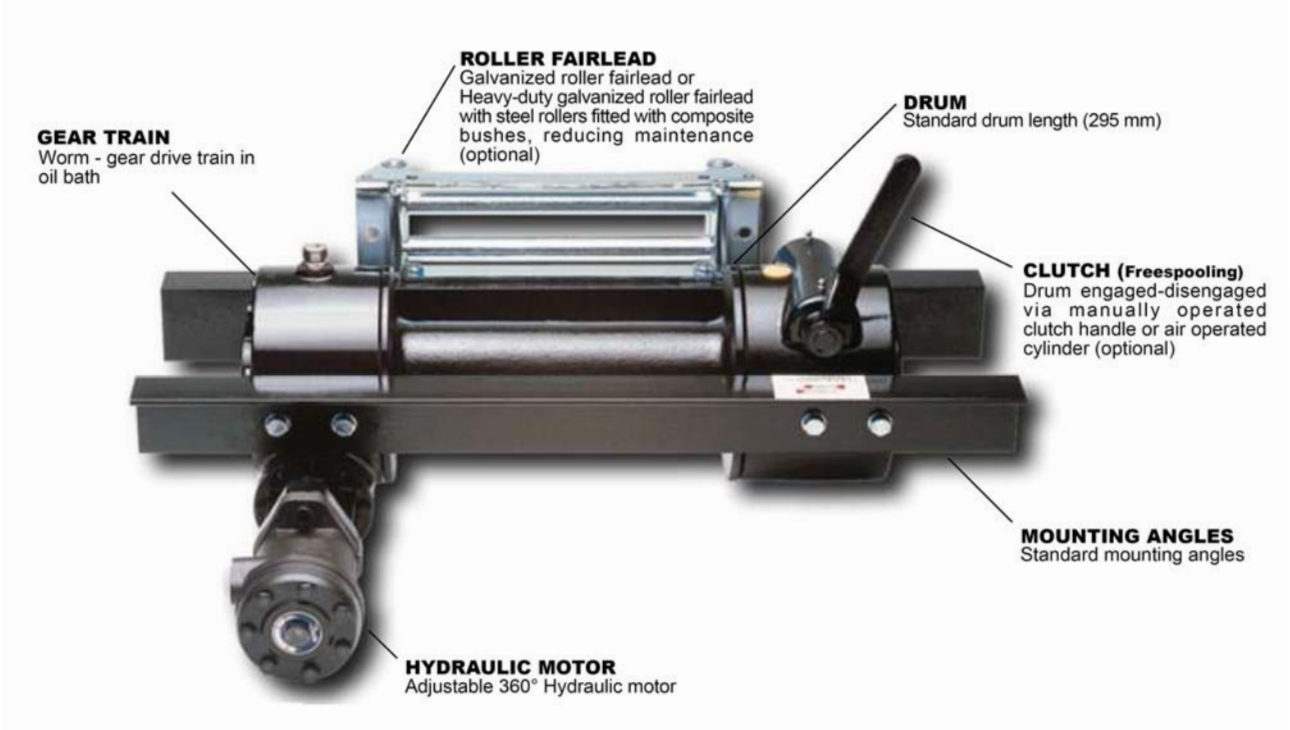
3 = OVER-CENTRE VALVE (optional)
4 = DIRECTIONAL CONTROL VALVE
A = WINDING OPERATION

B = UNWINDING OPERATION
C = DRAINAGE
C3 = BRAKE
E = DRUM ENGAGED / DISENGAGED VIA AIR OPERATED CYLINDER

⚠ WARNING :
Before operating check the oil level and add if necessary.

⚠ WARNING :
Do not exceed 75 lt / min. If exceeded the hydraulic motor may be damaged.

Hydraulic Winch RNH 5.400 - RNH 4.500
Hydraulic worm gear winch



SPECIFICATIONS

- Rated line pull (1° layer) : • for model RNH 4.500 = **4.500 kg**
  • for model RNH 5.400 = **5.400 kg**
- Hydraulic orbit motor
- Working pressure : • for model RNH 4.500 = **140 bar**
  • for model RNH 5.400 = **145 bar**
- Worm gear .
- Manual clutch shifter (air-cylinder clutch shifter on request)

⚠ **DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Hydraulic Winch RNH 4.500
Hydraulic worm gear winch

Technical data

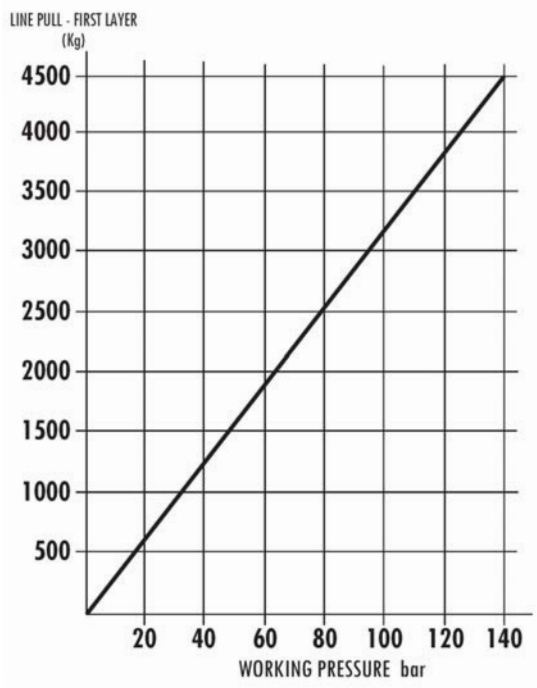
RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1 : 29	12	1	4500
		2	3680
		3	3100
		4	2700
		5	–
1 : 29	13 DIN 15020	1	4500
		2	3600
		3	3000
		4	2600
		5	–

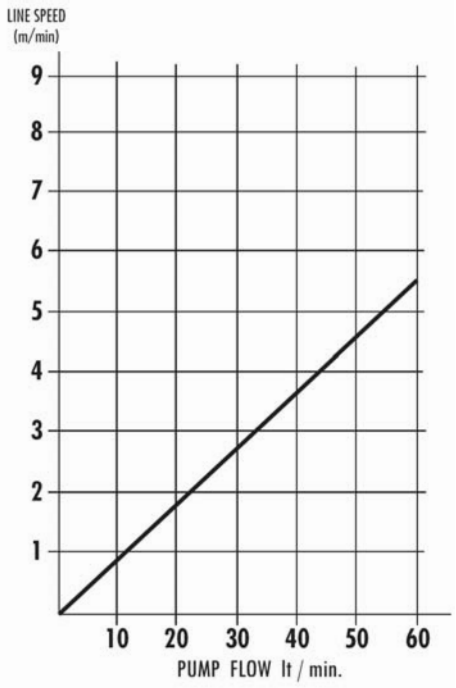
OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
30	8.2	2.6	3.2	3.8	4.5	–
40	11.0	3.5	4.3	5.2	6.0	–
60	16.4	5.2	6.5	7.7	8.9	–

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
30	8.2	2.7	3.3	4.0	4.7	–
40	11.0	3.6	4.5	5.4	6.2	–
60	16.4	5.3	6.6	8.0	9.3	–

WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY		MAX. WIRE ROPE CAPACITY	
kg	12 mm.	13 mm.	12 mm.	13 mm.
60	35	25	40	30

Performance charts at the 1° layer





Hydraulic Winch RNH 5.400
Hydraulic worm gear winch

Technical data

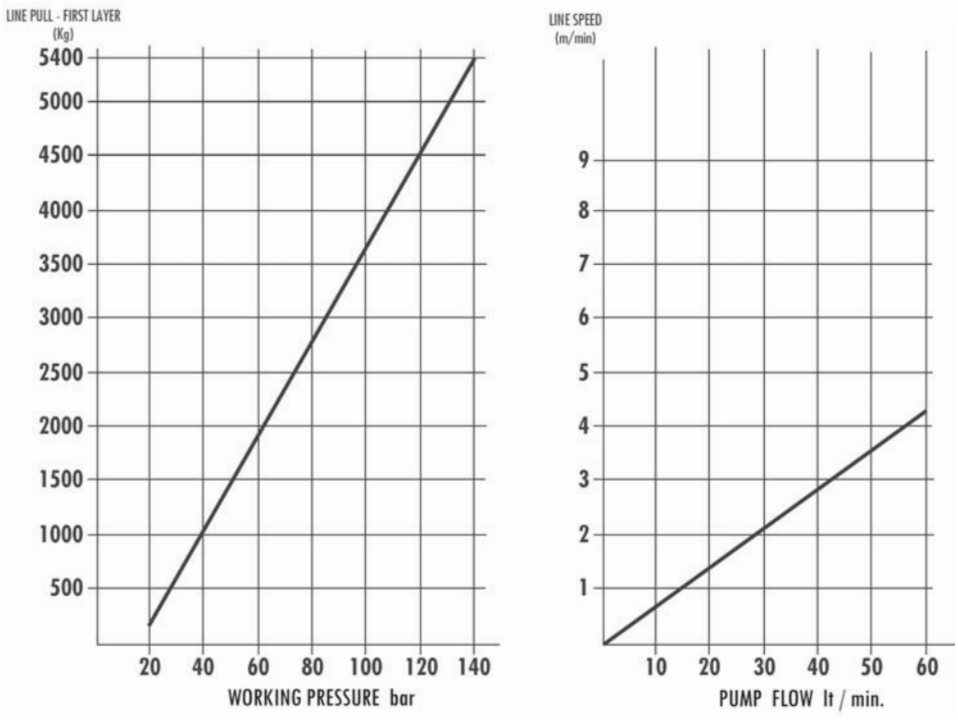
RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1 : 29	12	1	5400
		2	4400
		3	3730
		4	3230
		5	–
1 : 29	13 DIN 15020	1	5400
		2	4350
		3	3640
		4	3130
		5	–

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
30	6.2	2.1	2.6	3.0	3.5	–
40	8.6	2.9	3.6	4.2	4.8	–
60	13	4.4	5.4	6.3	7.3	–

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
30	6.2	2.1	2.6	3.1	3.6	–
40	8.6	2.9	3.6	4.3	5.0	–
60	13	4.4	5.5	6.5	7.5	–

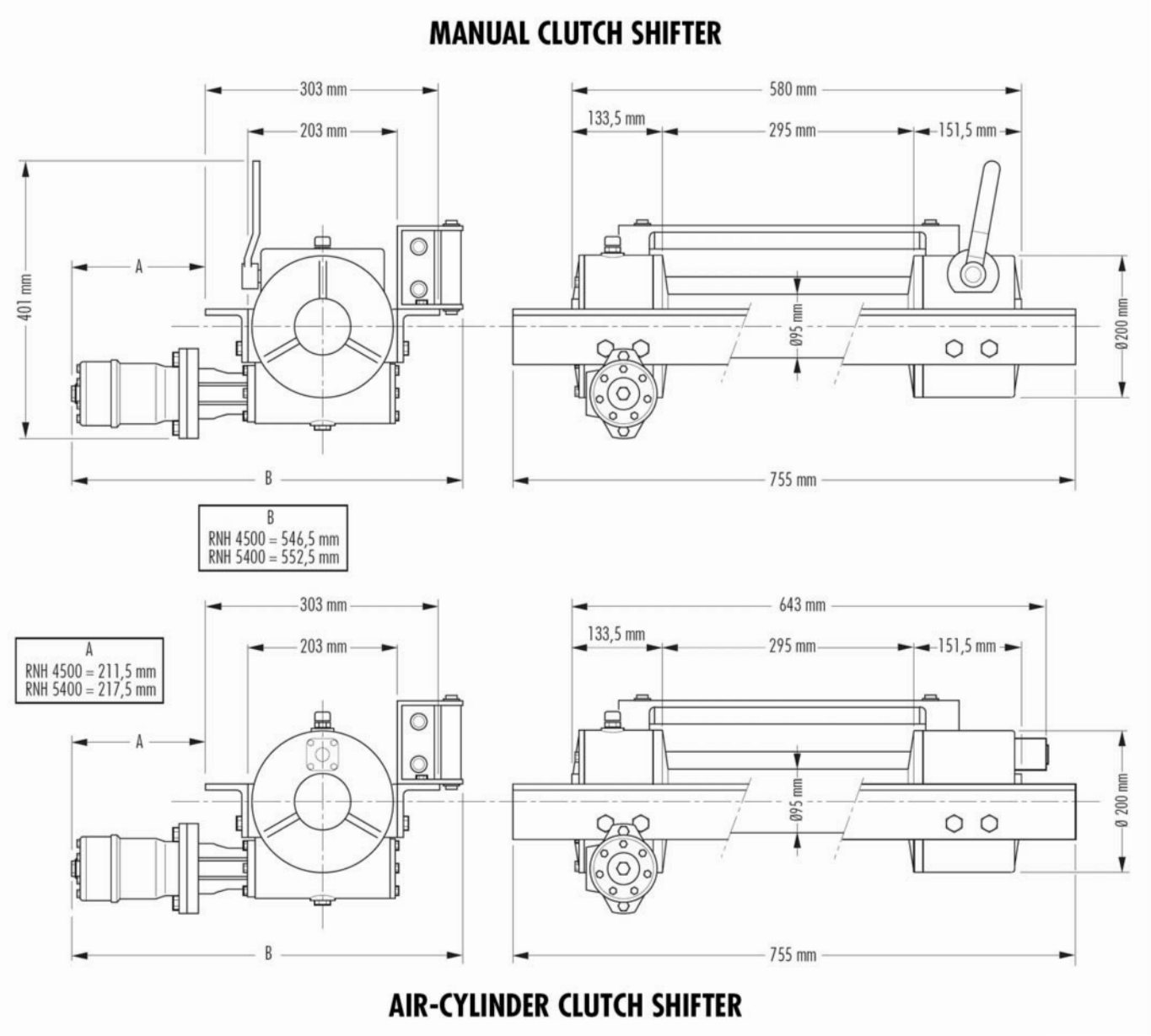
WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY		MAX. WIRE ROPE CAPACITY	
kg	12 mm.	13 mm.	12 mm.	13 mm.
60	35	25	40	30

Performance charts at the 1° layer



Hydraulic Winch RNH 5.400 - RNH 4.500
Hydraulic worm gear winch

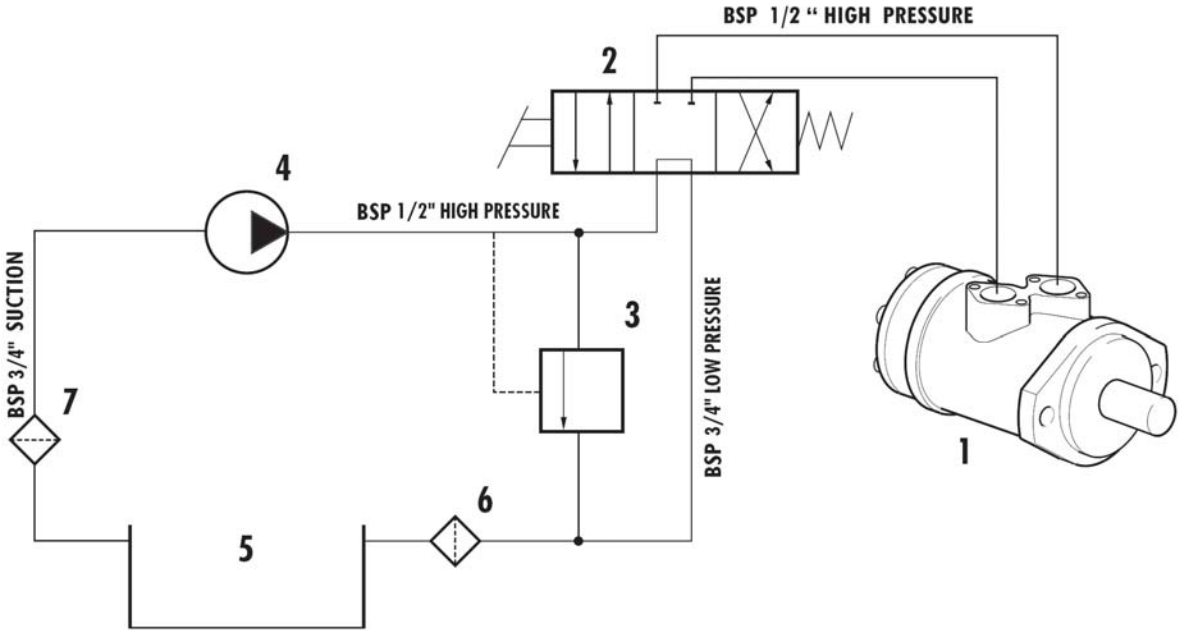
Dimensions



Hydraulic Winch RNH 5.400 - RNH 4.500
Hydraulic worm gear winch

Hydraulic wiring diagram

Refer to the tipical layout below, to properly match your hydraulic system to the winch performance.

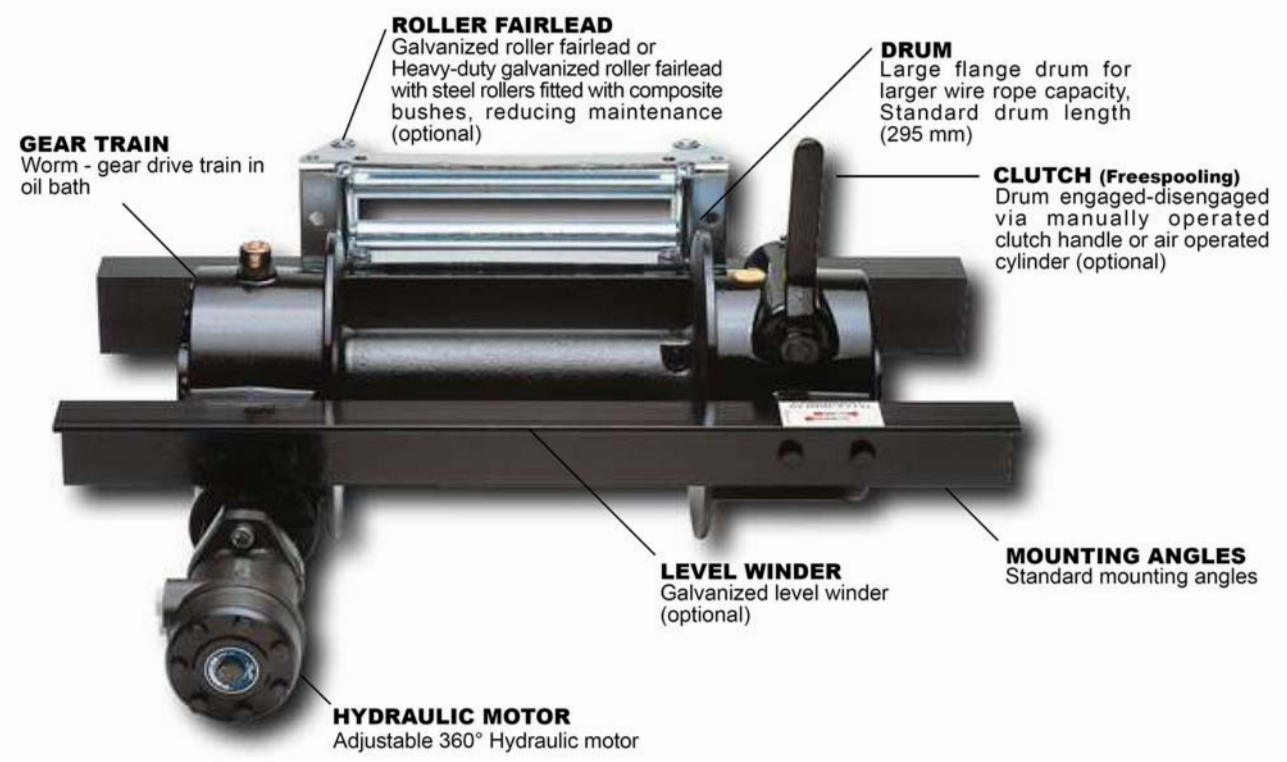


1 = HYDRAULIC ORBIT MOTOR
2 = DIRECTIONAL CONTROL VALVE
3 = RELIEF VALVE
4 = HYDRAULIC PUMP
5 = FLUID RESERVOIR
6 = RETURN FLUID FILTER (10 microns)
7 = SUCTION FLUID FILTER

⚠ **WARNING :**
Before operating check the oil level and add if necessary.

⚠ **WARNING :**
Do not exceed 60 lt / min.
If exceeded the hydraulic motor may be damaged.

Hydraulic Winch RSH 5.400 - RSH 4.500
Hydraulic worm gear winch



SPECIFICATIONS

- Rated line pull (1° layer) : • for model RSH 4.500 = **4.500 kg**
  • for model RSH 5.400 = **5.400 kg**
- Hydraulic orbit motor
- Working pressure : • for model RSH 4.500 = **140 bar**
  • for model RSH 5.400 = **145 bar**
- Worm gear .
- Manual clutch shifter (air-cylinder clutch shifter on request)

⚠ **- DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Hydraulic Winch RSH 4.500
Hydraulic worm gear winch

Technical data

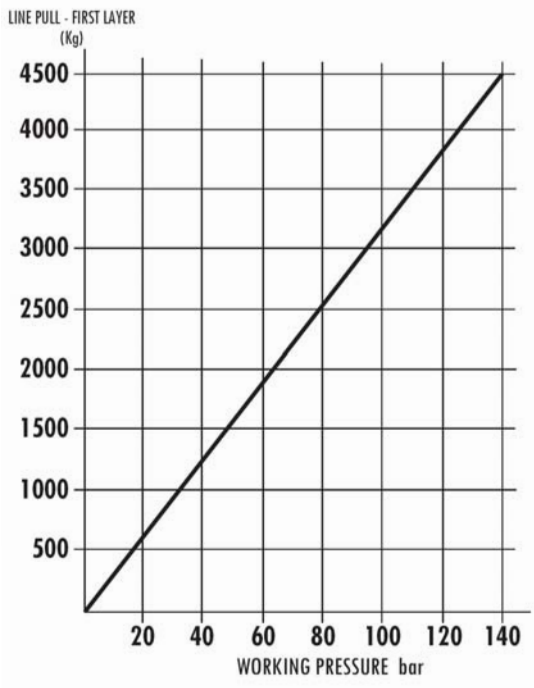
RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1 : 29	12	1	4500
		2	3680
		3	3100
		4	2700
		5	–
1 : 29	13 DIN 15020	1	4500
		2	3600
		3	3000
		4	2600
		5	–

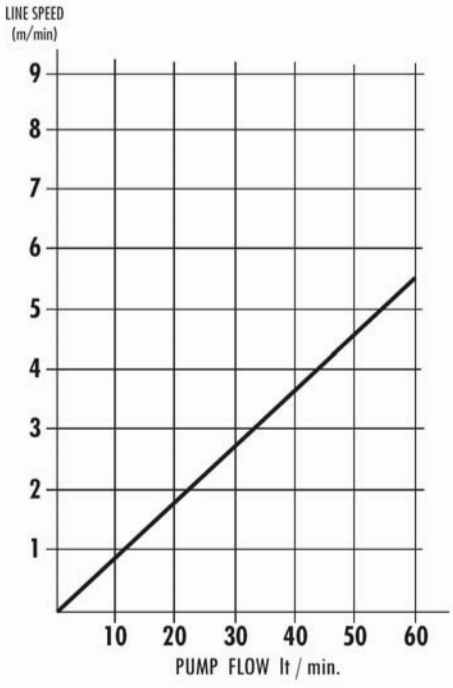
OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
30	8.2	2.6	3.2	3.8	4.5	–
40	11.0	3.5	4.3	5.2	6.0	–
60	16.4	5.2	6.5	7.7	8.9	–

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
30	8.2	2.7	3.3	4.0	4.7	–
40	11.0	3.6	4.5	5.4	6.2	–
60	16.4	5.3	6.6	8.0	9.3	–

WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY		MAX. WIRE ROPE CAPACITY	
kg	12 mm.	13 mm.	12 mm.	13 mm.
60	35	25	40	30

Performance charts at the 1° layer





Hydraulic Winch RSH 5.400
Hydraulic worm gear winch

Technical data

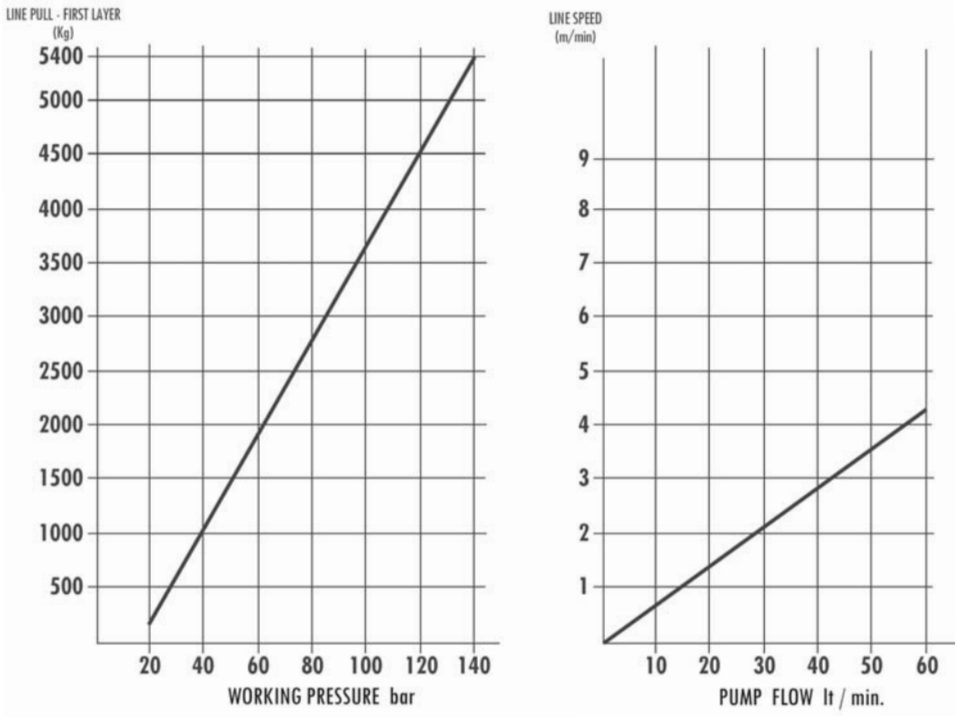
RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1 : 29	12	1	5400
		2	4400
		3	3730
		4	3230
		5	–
1 : 29	13 DIN 15020	1	5400
		2	4350
		3	3640
		4	3130
		5	–

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
30	6.2	2.1	2.6	3.0	3.5	–
40	8.6	2.9	3.6	4.2	4.8	–
60	13	4.4	5.4	6.3	7.3	–

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
30	6.2	2.1	2.6	3.1	3.6	–
40	8.6	2.9	3.6	4.3	5.0	–
60	13	4.4	5.5	6.5	7.5	–

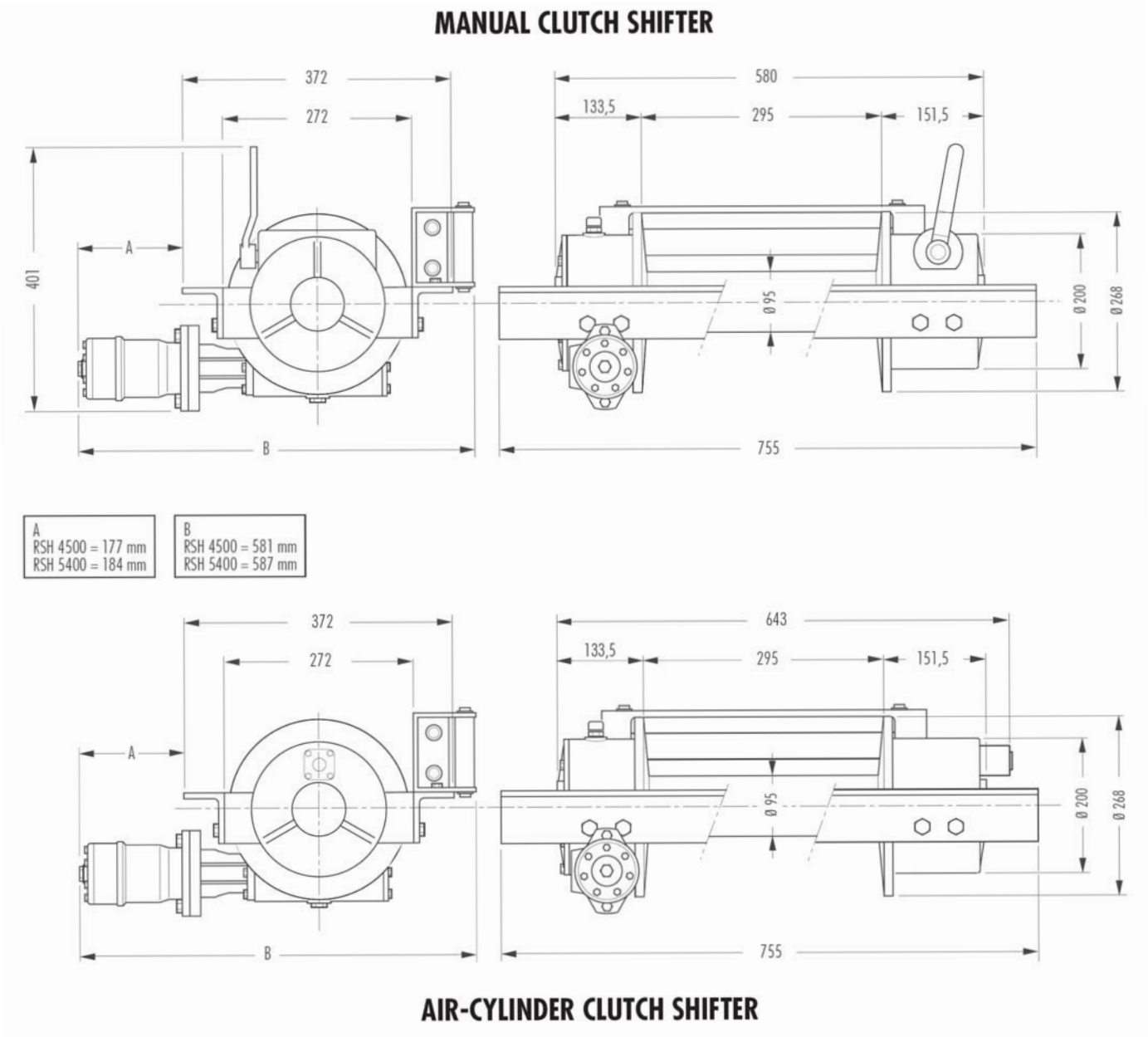
WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY		MAX. WIRE ROPE CAPACITY	
kg	12 mm.	13 mm.	12 mm.	13 mm.
60	35	25	40	30

Performance charts at the 1° layer



Hydraulic Winch RSH 5.400 - RSH 4.500
Hydraulic worm gear winch

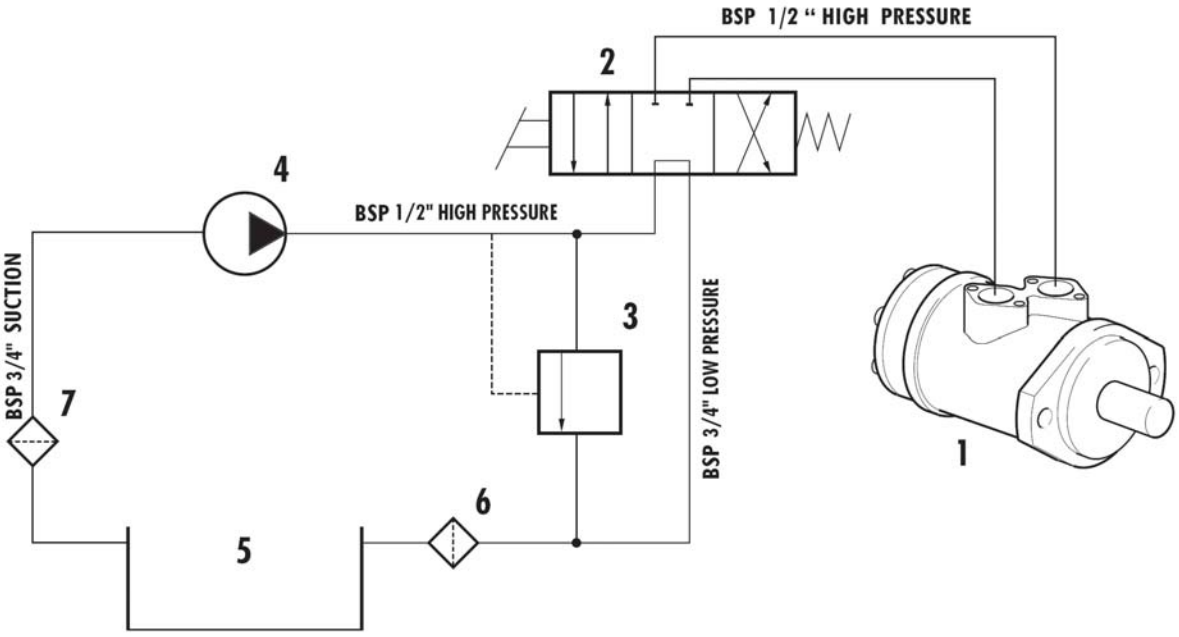
Dimensions



Hydraulic Winch RSH 5.400 - RSH 4.500
Hydraulic worm gear winch

Hydraulic wiring diagram

Refer to the tipical layout below, to properly match your hydraulic system to the winch performance.

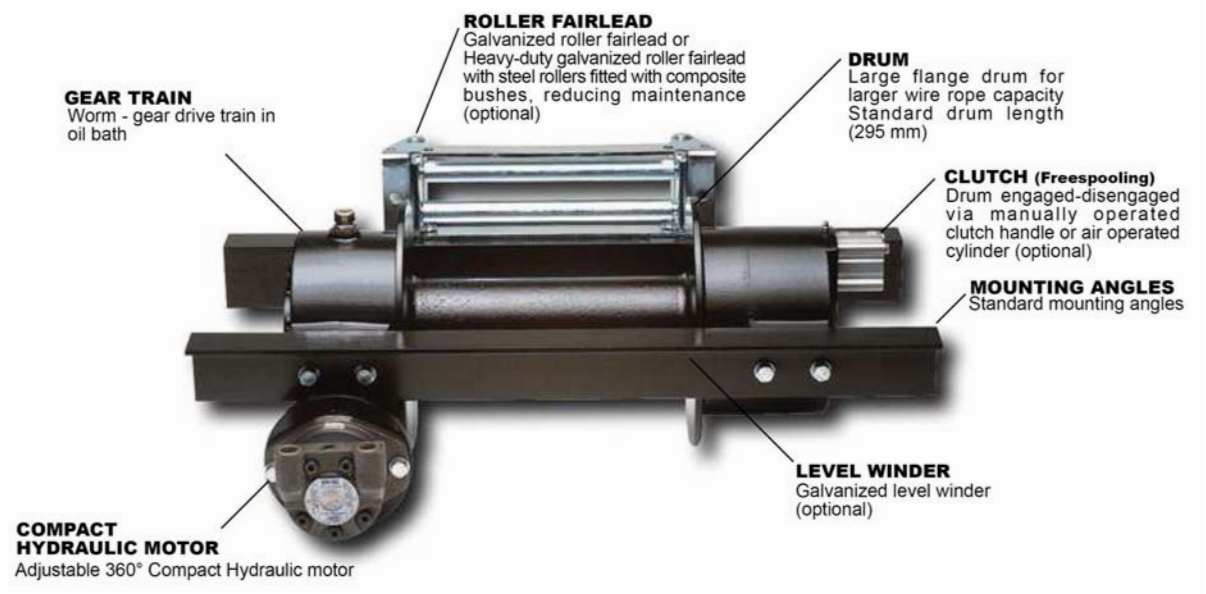


1 = HYDRAULIC ORBIT MOTOR
2 = DIRECTIONAL CONTROL VALVE
3 = RELIEF VALVE
4 = HYDRAULIC PUMP
5 = FLUID RESERVOIR
6 = RETURN FLUID FILTER (10 microns)
7 = SUCTION FLUID FILTER

⚠ **WARNING :**
Before operating check the oil level and add if necessary.

⚠ **WARNING :**
Do not exceed 60 lt / min.
If exceeded the hydraulic motor may be damaged.

Hydraulic Winch RCH 5.400 - RCH 4.500
Hydraulic worm gear winch



SPECIFICATIONS

- Rated line pull (1° layer) : • for model RCH 4.500 = **4.500 kg**
  • for model RCH 5.400 = **5.400 kg**
- Hydraulic orbit motor
- Working pressure = **150 bar**
- Worm gear .
- Manual clutch shifter (air-cylinder clutch shifter on request)
- Pressure line for clutch shifter air-cylinder = **6 bar**
- Weight without cable = **62,5 kg**

⚠ **- DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Hydraulic Winch RCH 4.500
Hydraulic worm gear winch

Technical data

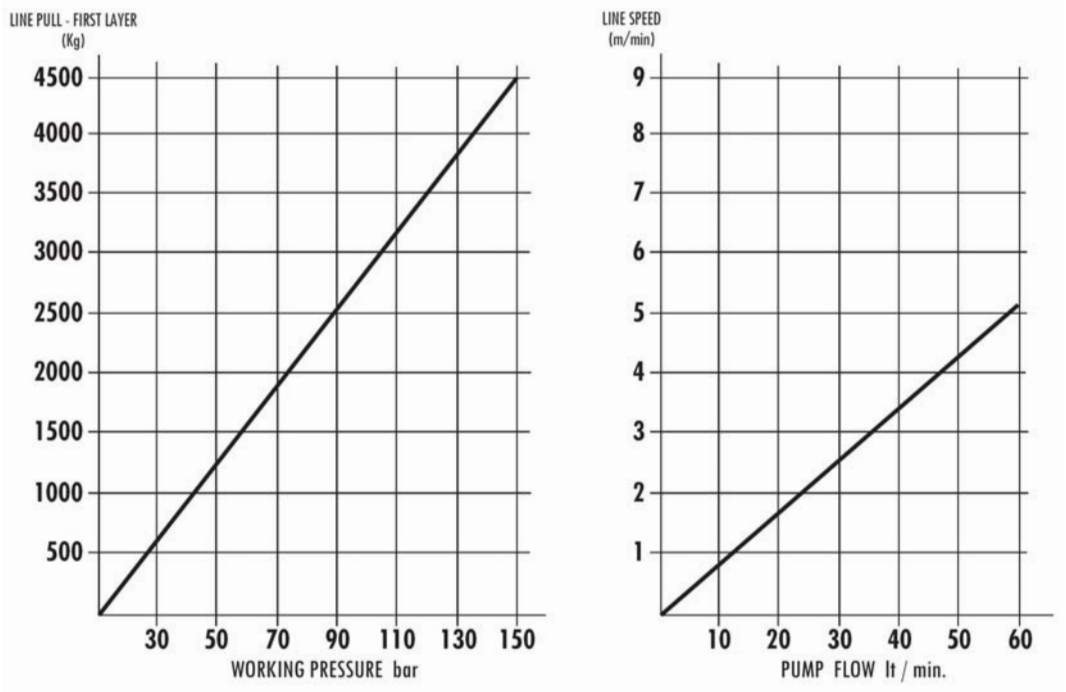
RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1:29	12	1	4500
		2	3650
		3	3100
		4	2700
		5	2350
1:29	13 DIN 15020	1	4500
		2	3600
		3	3000
		4	2600
		5	2300

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
30	7.9	2.5	3.1	3.7	4.3	4.9
40	10.5	3.3	4.1	4.9	5.7	6.5
60	15.9	5.0	6.3	7.5	8.7	9.9

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
30	7.9	2.6	3.2	3.9	4.5	5.1
40	10.5	3.4	4.3	5.1	6.0	6.2
60	15.9	5.1	6.7	7.7	9.0	10.3

WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY		MAX. WIRE ROPE CAPACITY	
kg	12 mm.	13 mm.	12 mm.	13 mm.
62,5	55	50	75	70

Performance charts at the 1° layer



Hydraulic Winch RCH 5.400
Hydraulic worm gear winch

Technical data

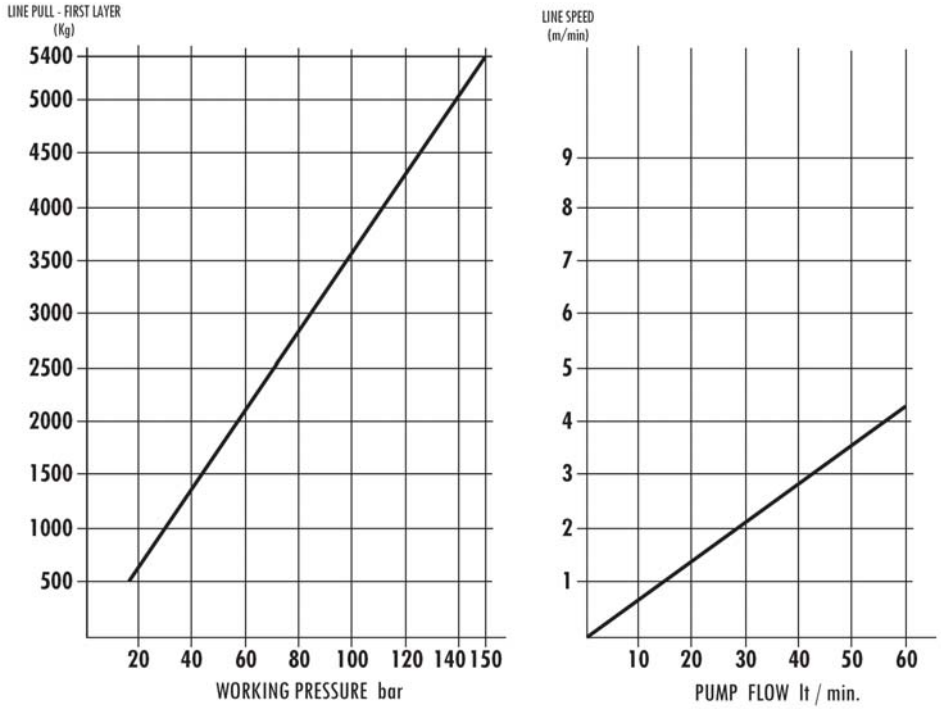
RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1:29	12	1	5400
		2	4400
		3	3730
		4	3230
		5	2850
1:29	13	1	5400
		2	4350
		3	3640
		4	3130
		5	2750

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
30	6.2	2.1	2.6	3.0	3.5	4.0
40	8.6	2.9	3.6	4.2	4.8	5.5
60	13	4.4	5.4	6.3	7.3	8.3

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
30	6.2	2.1	2.6	3.1	3.6	4.1
40	8.6	2.9	3.6	4.3	5.0	5.7
60	13	4.4	5.5	6.5	7.5	8.7

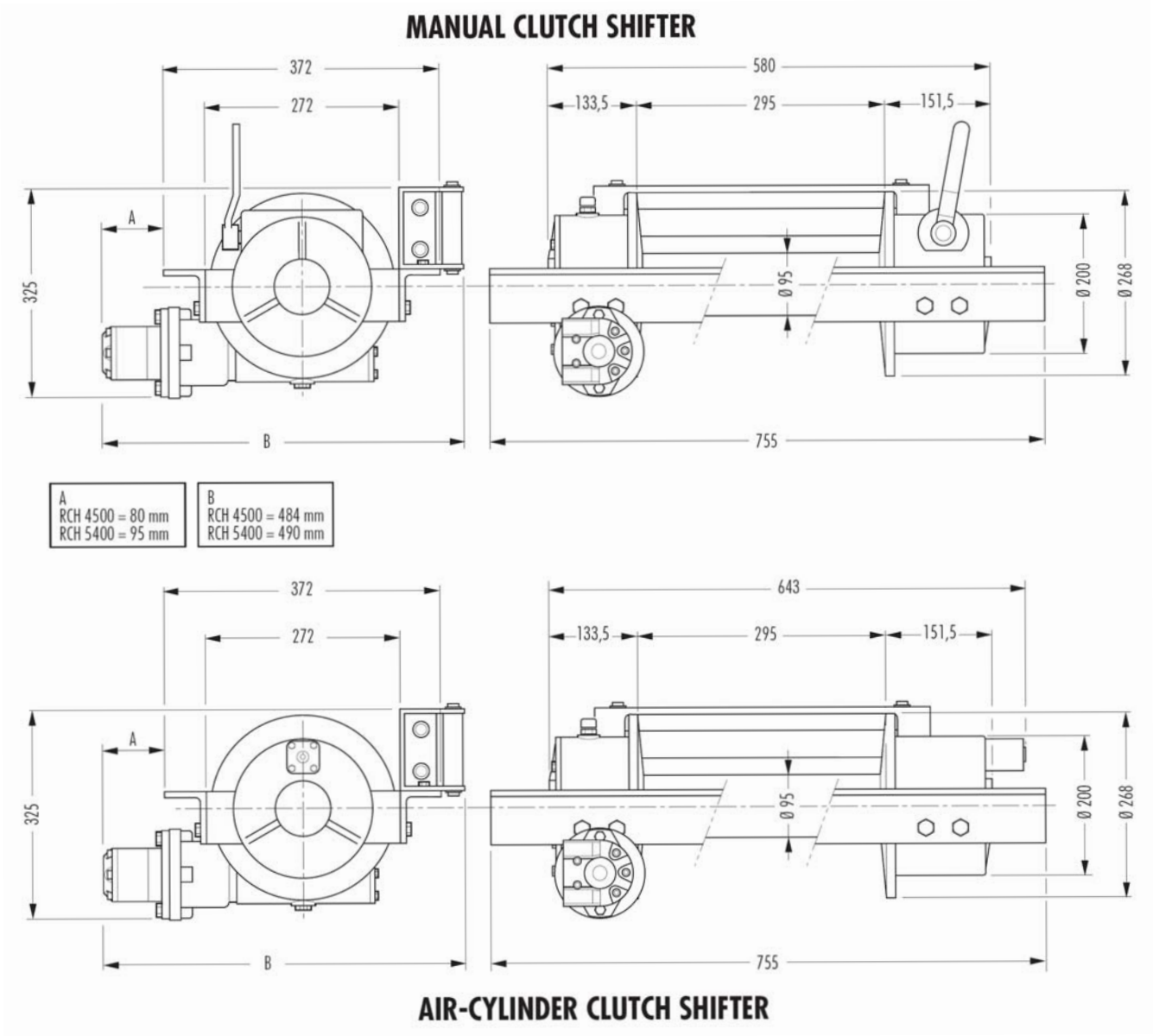
WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY		MAX. WIRE ROPE CAPACITY	
kg	12 mm.	13 mm.	12 mm.	13 mm.
62,5	55	50	75	70

Performance charts at the 1° layer



Hydraulic Winch RCH 5.400 - RCH 4.500
Hydraulic worm gear winch

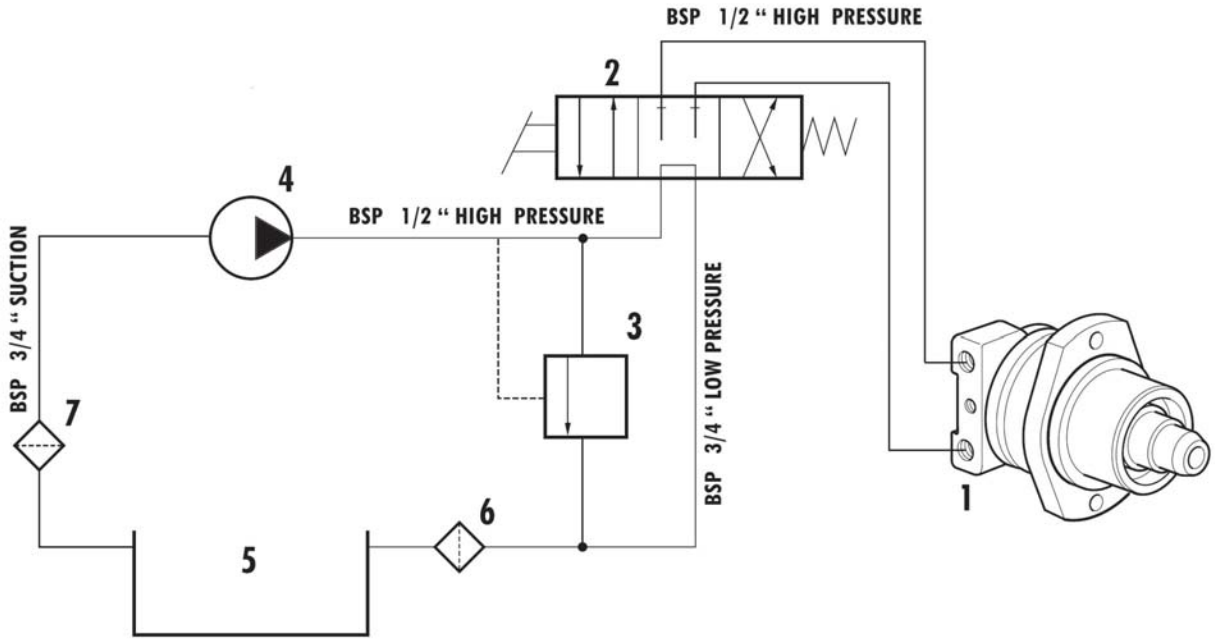
Dimensions



Hydraulic Winch RCH 5.400 - RCH 4.500
Hydraulic worm gear winch

Hydraulic wiring diagram

Refer to the tipical layout below, to properly match your hydraulic system to the winch performance.

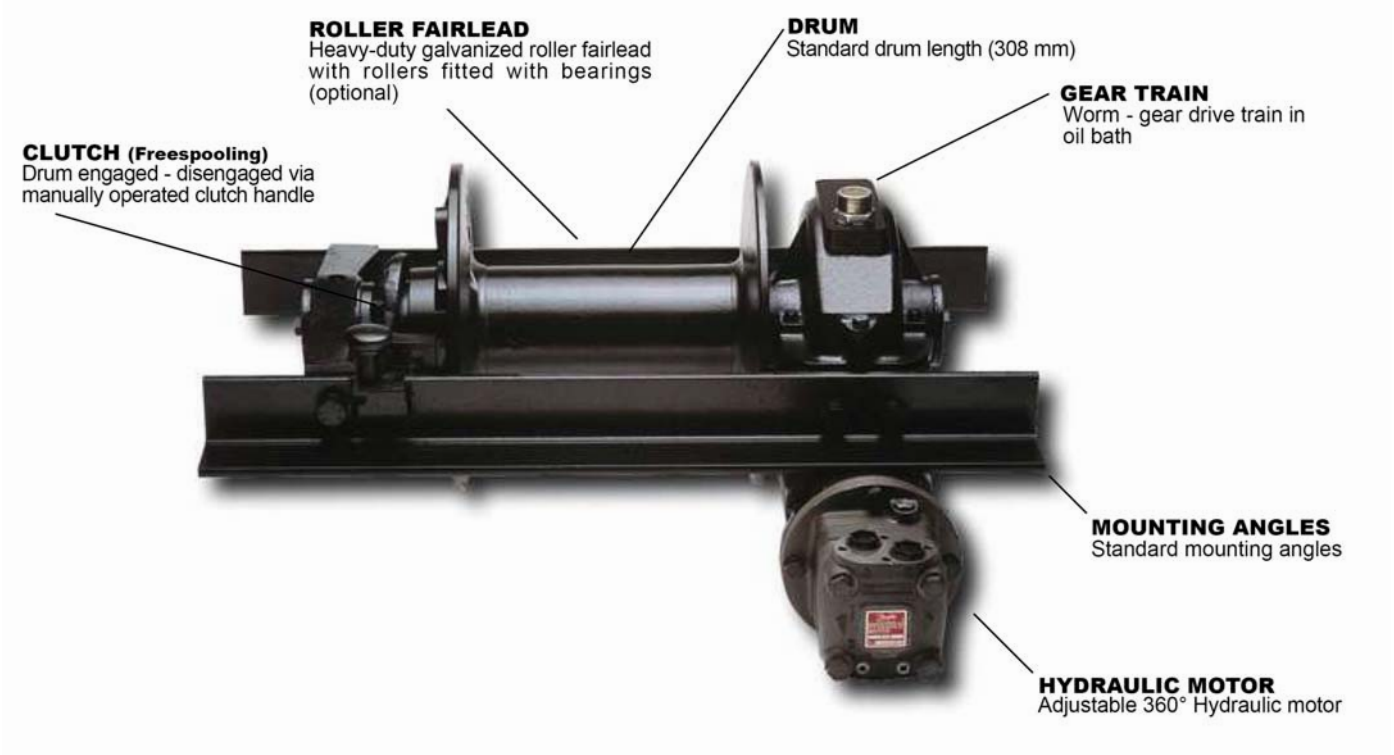


1 = HYDRAULIC ORBIT MOTOR
2 = DIRECTIONAL CONTROL VALVE
3 = RELIEF VALVE
4 = HYDRAULIC PUMP
5 = FLUID RESERVOIR
6 = RETURN FLUID FILTER (10 microns)
7 = SUCTION FLUID FILTER

⚠ **WARNING :**
Before operating check the oil level and add if necessary.

⚠ **WARNING :**
Do not exceed 60 lt / min.
If exceeded the hydraulic motor may be damaged.

Hydraulic Winch TH 6.000
Hydraulic worm gear winch



SPECIFICATIONS

- Rated line pull (1° layer) = **6.000 kg**
- Hydraulic orbit motor
- Working pressure = **120 bar**
- Worm gear .
- Manual clutch shifter
- Heawy-duty roller fairlead on request
- Weight without cable = **158 kg**

⚠ **- DANGER :**

Do not use winch to lift support or otherwise transport personnel.

Hydraulic Winch TH 6.000
Hydraulic worm gear winch

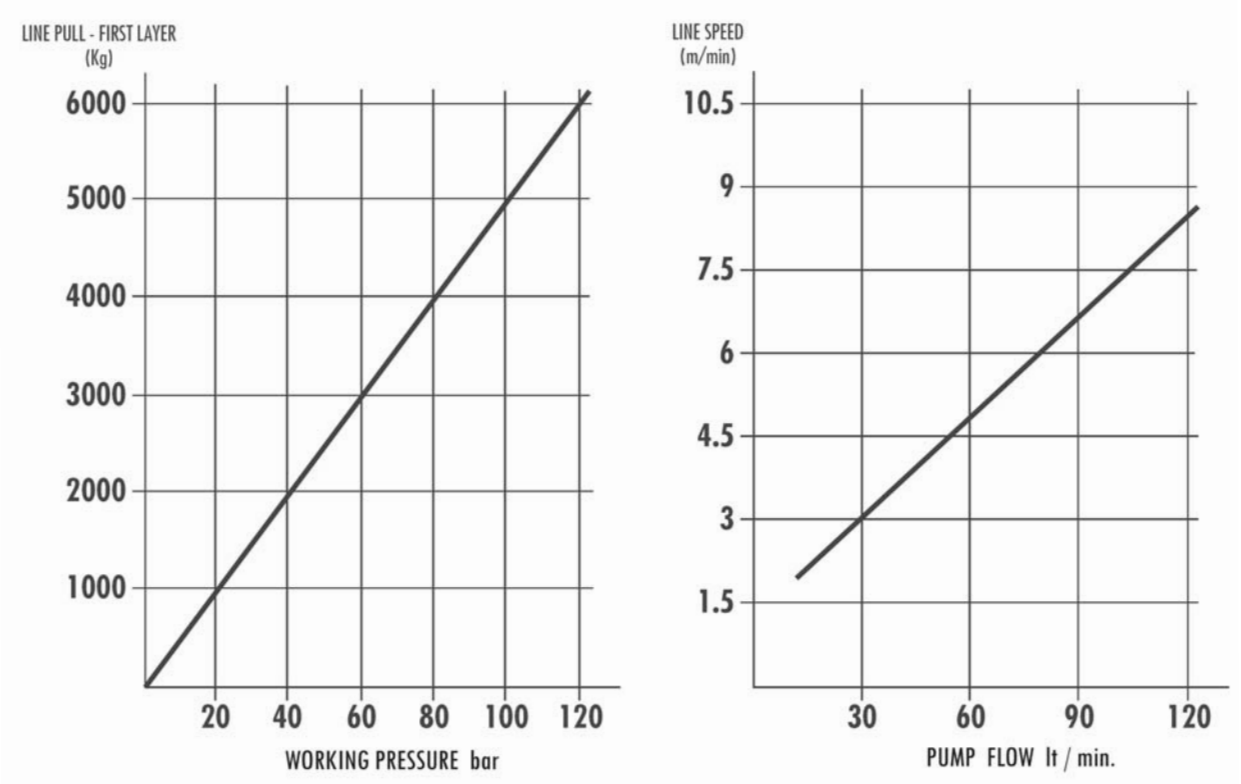
Technical data

RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1:29	16	1	6000
		2	4850
		3	4100
		4	3500
		5	3100

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
60	10.4	4.5	5.5	6.5	7.5	8.6
80	13.8	5.9	7.3	8.7	10.0	11.4
100	16.9	7.2	8.9	10.6	12.3	14.0

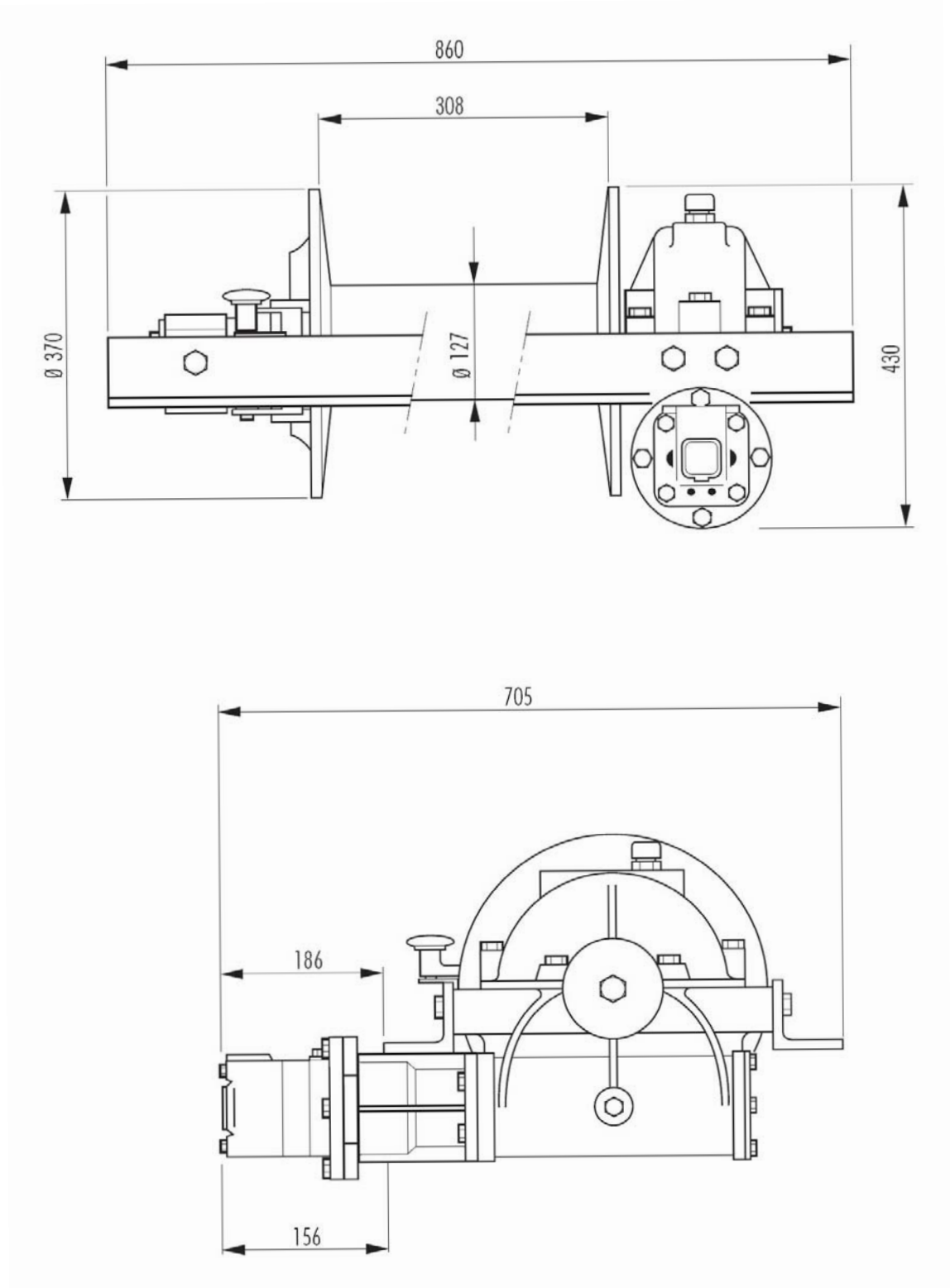
WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY m	MAX. WIRE ROPE CAPACITY m
kg	16 mm.	16 mm.
158	60	115

Performance charts at the 1° layer



Hydraulic Winch TH 6.000
Hydraulic worm gear winch

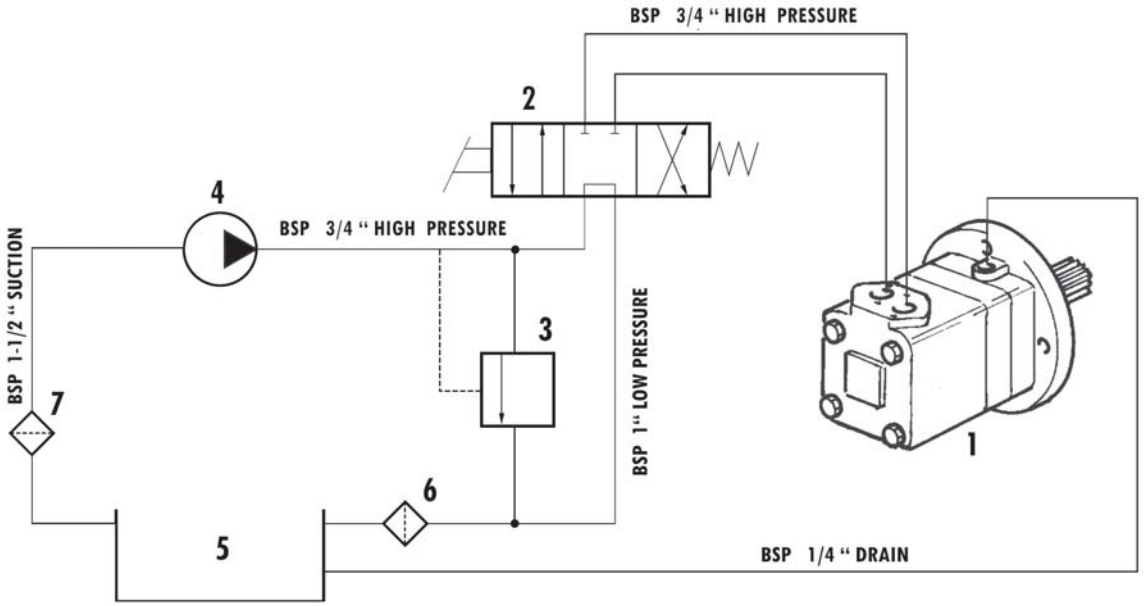
Dimensions



Hydraulic Winch TH 6.000
Hydraulic worm gear winch

Hydraulic wiring diagram

Refer to the tipical layout below, to properly match your hydraulic system to the winch performance.



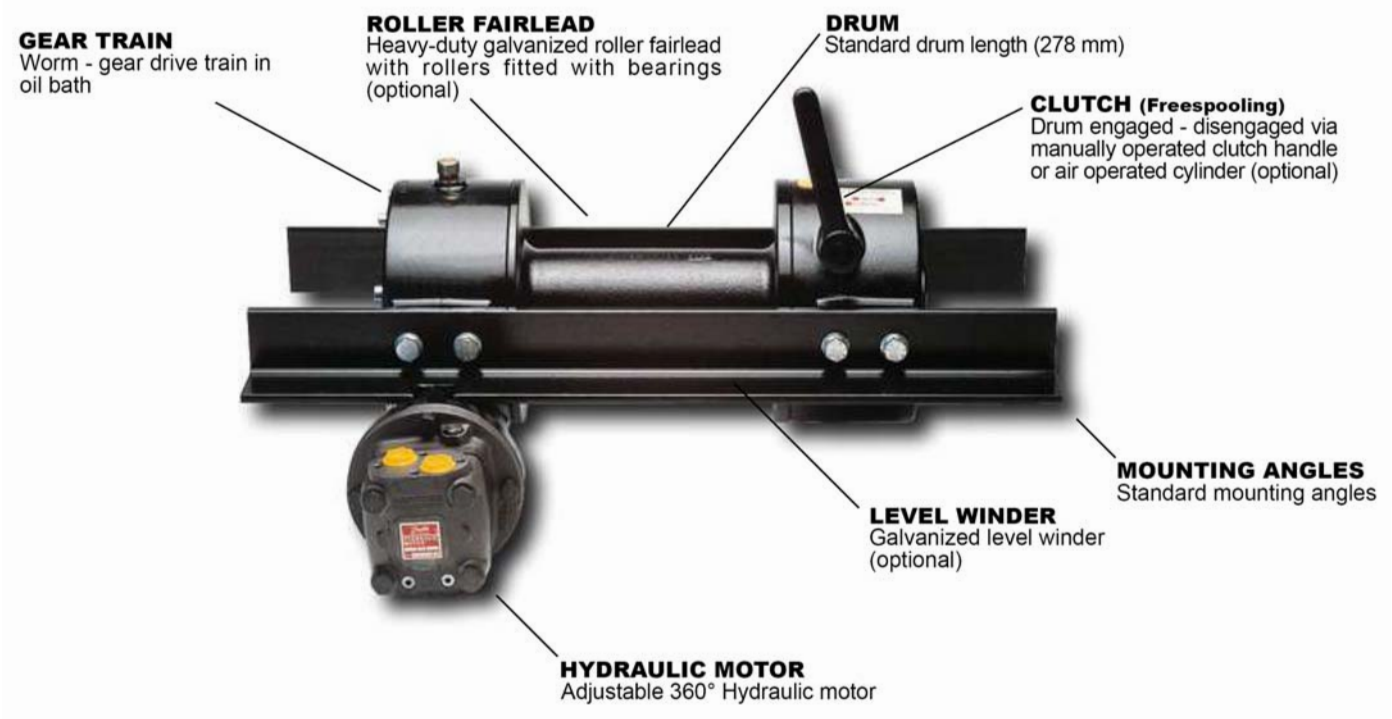
1 = HYDRAULIC ORBIT MOTOR
2 = DIRECTIONAL CONTROL VALVE
3 = RELIEF VALVE
4 = HYDRAULIC PUMP
5 = FLUID RESERVOIR
6 = RETURN FLUID FILTER (10 microns)
7 = SUCTION FLUID FILTER

⚠ **WARNING :**
Before operating check the oil level and add if necessary.

⚠ **WARNING :**
Hydraulic motor drainage will be connected with return line to the reservoir.

⚠ **WARNING :**
Do not exceed 100 lt / min. If exceeded the hydraulic motor may be damaged.

Hydraulic Winch MH 8.000 - MH 6.500
Hydraulic worm gear winch



SPECIFICATIONS

- Rated line pull (1° layer) : • for model MH 6.500 = **6.500 kg**
  • for model MH 8.000 = **8.000 kg**
- Hydraulic orbit motor
- Working pressure : • for model MH 6.500 = **130 bar**
  • for model MH 8.000 = **150 bar**
- Worm gear .
- Manual clutch shifter (air-cylinder clutch shifter on request)
- Heawy-duty roller fairlead on request
- Weight without cable = **112 kg**

⚠ **- DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Hydraulic Winch MH 6.500
Hydraulic worm gear winch

Technical data

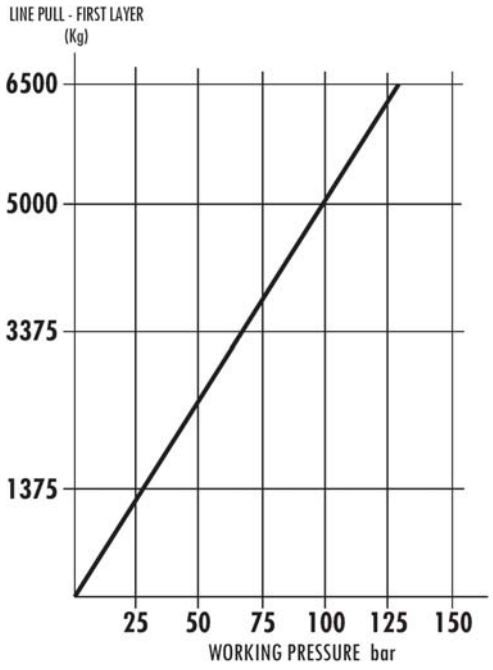
RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1:35	15	1	6500
		2	5300
		3	4450
		4	3850
		5	3400
1:35	16 DIN 15020	1	6500
		2	5200
		3	4300
		4	3700
		-	-

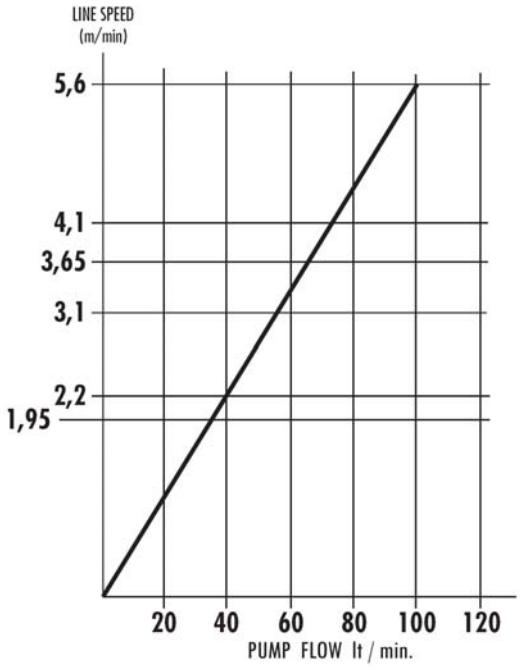
OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
60	8.6	3.3	4.1	4.9	5.7	6.5
80	11.5	4.4	5.5	6.6	7.7	8.7
100	14.3	5.5	6.8	8.2	9.5	10.9

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
60	8.6	3.3	4.2	5.1	6.0	-
80	11.5	4.4	5.6	6.8	8.0	-
100	14.3	5.5	7.0	8.4	9.9	-

WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY m		MAX. WIRE ROPE CAPACITY m	
kg	15 mm.	16 mm.	15 mm.	16 mm.
112	35	30	40	35

Performance charts at the 1° layer





Hydraulic Winch MH 8.000
Hydraulic worm gear winch

Technical data

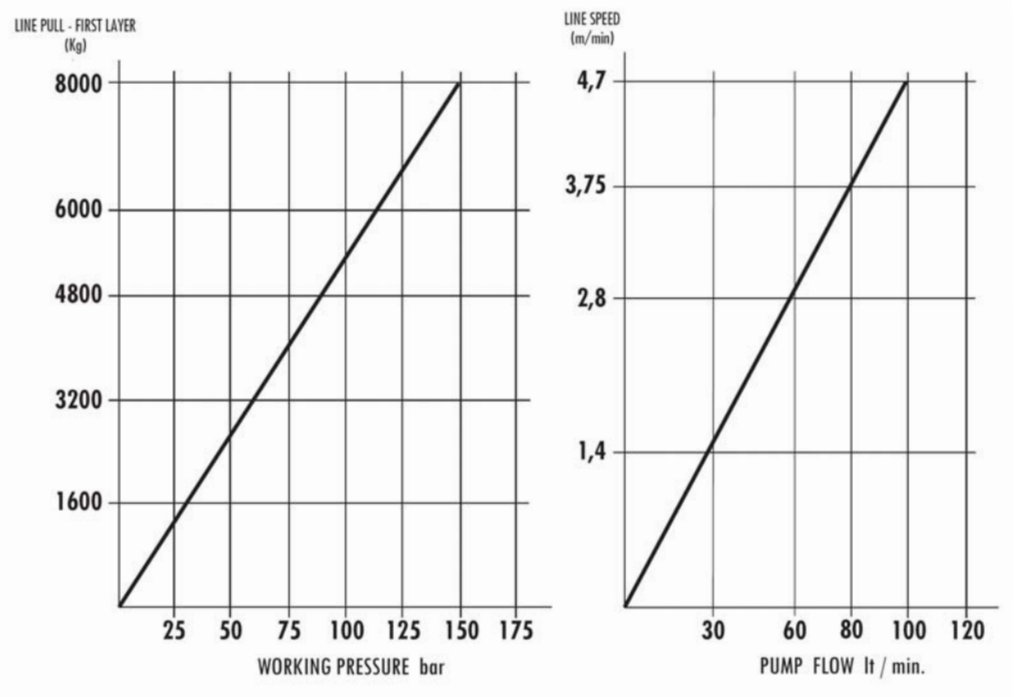
RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1:35	15	1	8.000
		2	6.500
		3	5.470
		4	4.725
		5	-
1:35	16	1	8.000
		2	6.430
		3	5.380
		4	4.620
		-	-

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
60	6,85	2,80	3,44	4,09	4,73	-
80	9,14	3,73	4,59	5,45	6,31	-
100	11,42	4,66	5,73	6,81	7,89	-

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
60	6,85	2,81	3,50	4,19	4,88	-
80	9,14	3,75	4,68	5,60	6,51	-
100	11,42	4,70	5,84	6,99	8,13	-

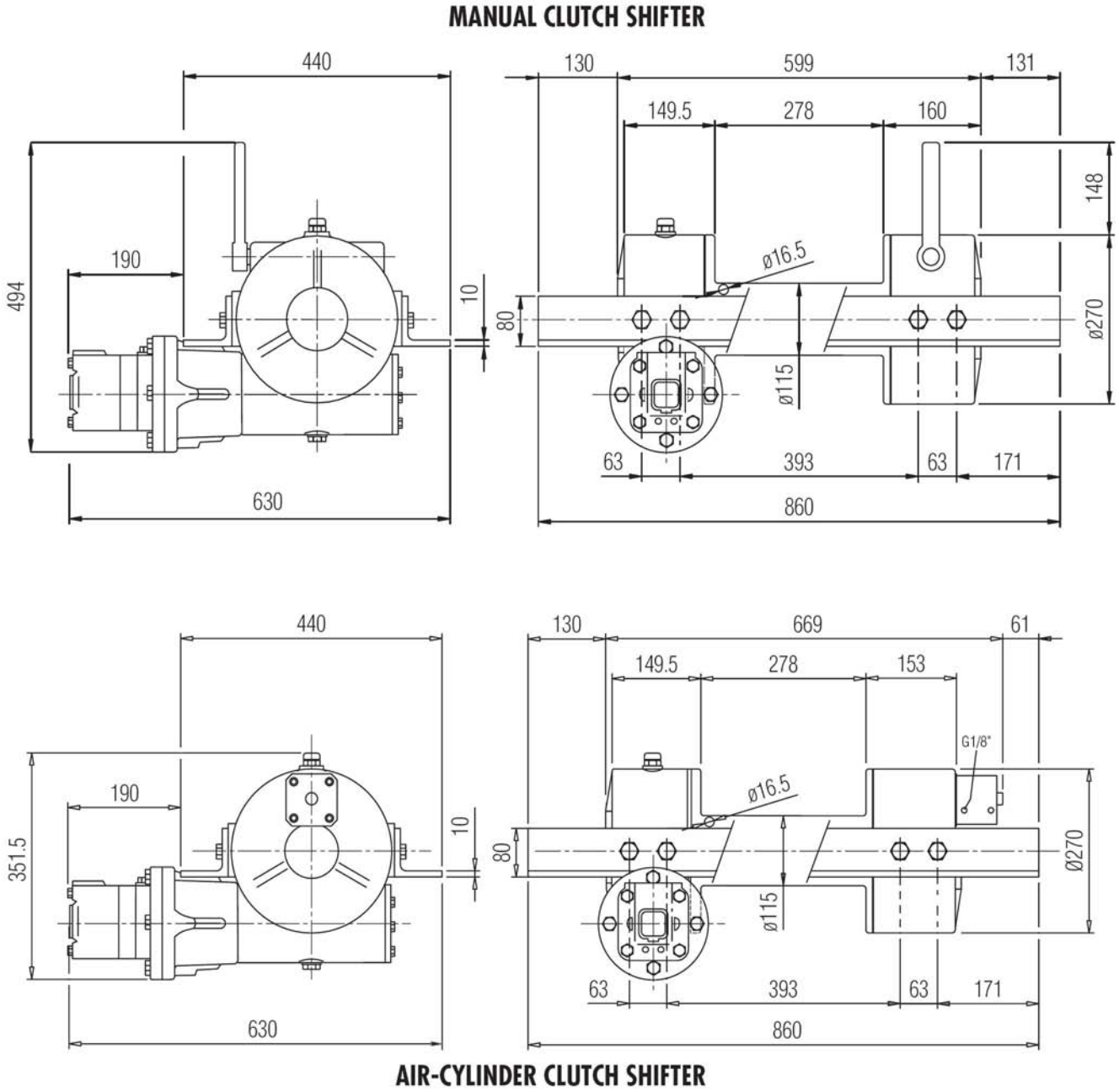
WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY m		MAX. WIRE ROPE CAPACITY m	
kg	15 mm.	16 mm.	15 mm.	16 mm.
-	35	30	40	35

Performance charts at the 1° layer



Hydraulic Winch MH 8.000 - MH 6.500
Hydraulic worm gear winch

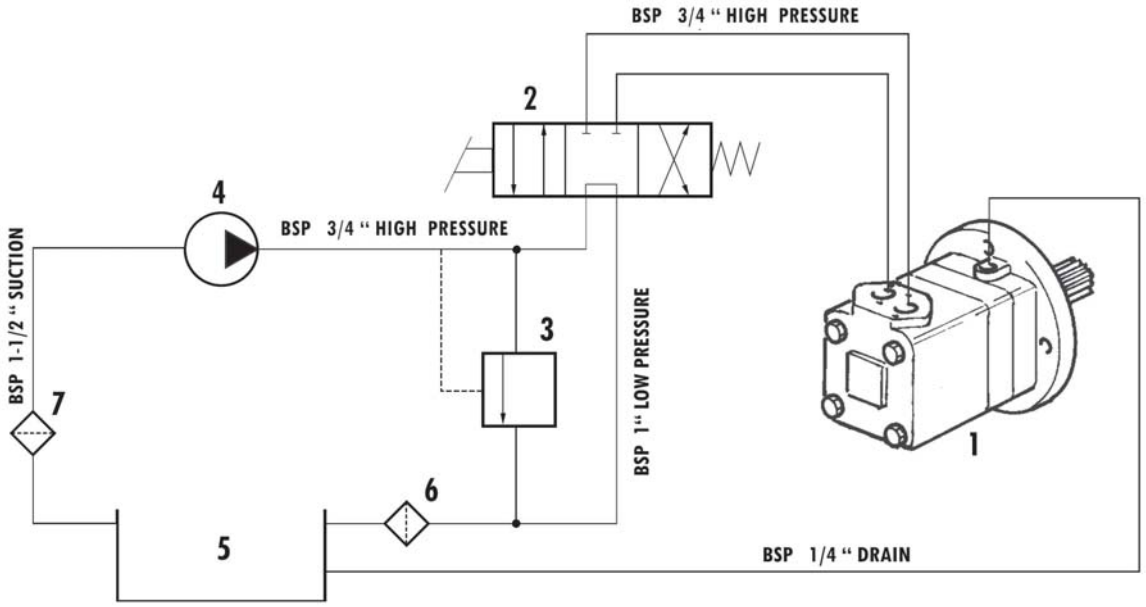
Dimensions



Hydraulic Winch MH 8.000 - MH 6.500
Hydraulic worm gear winch

Hydraulic wiring diagram

Refer to the tipical layout below, to properly match your hydraulic system to the winch performance.



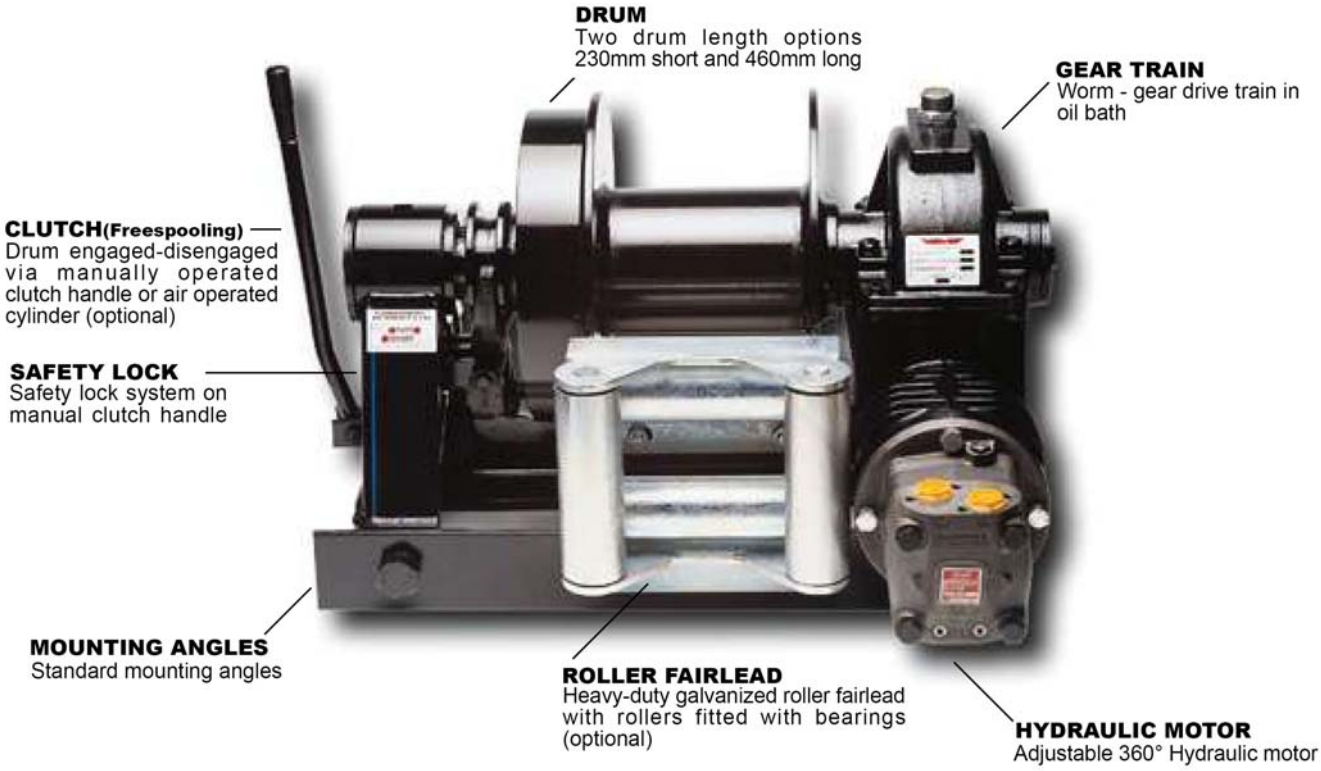
1 = HYDRAULIC ORBIT MOTOR
2 = DIRECTIONAL CONTROL VALVE
3 = RELIEF VALVE
4 = HYDRAULIC PUMP
5 = FLUID RESERVOIR
6 = RETURN FLUID FILTER (10 microns)
7 = SUCTION FLUID FILTER

⚠ **WARNING :**
Before operating check the oil level and add if necessary.

⚠ **WARNING :**
Hydraulic motor drainage will be connected with return line to the reservoir.

⚠ **WARNING :**
Do not exceed 100 lt / min. If exceeded the hydraulic motor may be damaged.

Hydraulic Winch WH 15.000 - WH 12.500
Hydraulic worm gear winch



SPECIFICATIONS

- Rated line pull (1° layer) : • for model WH 12.500 = **12.500 kg**
  • for model WH 15.000 = **15.000 kg**
- Hydraulic orbit motor
- Working pressure : • for model WH 12.500 = **140 bar**
  • for model WH 15.000 = **160 bar**
- Worm gear .
- Clutch with safety lock into engaged position
- Weight without cable • Short model **= 266 kg**
  • Long model **= 290 kg**

⚠ **- DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Hydraulic Winch WH 12.500
Hydraulic worm gear winch

Technical data

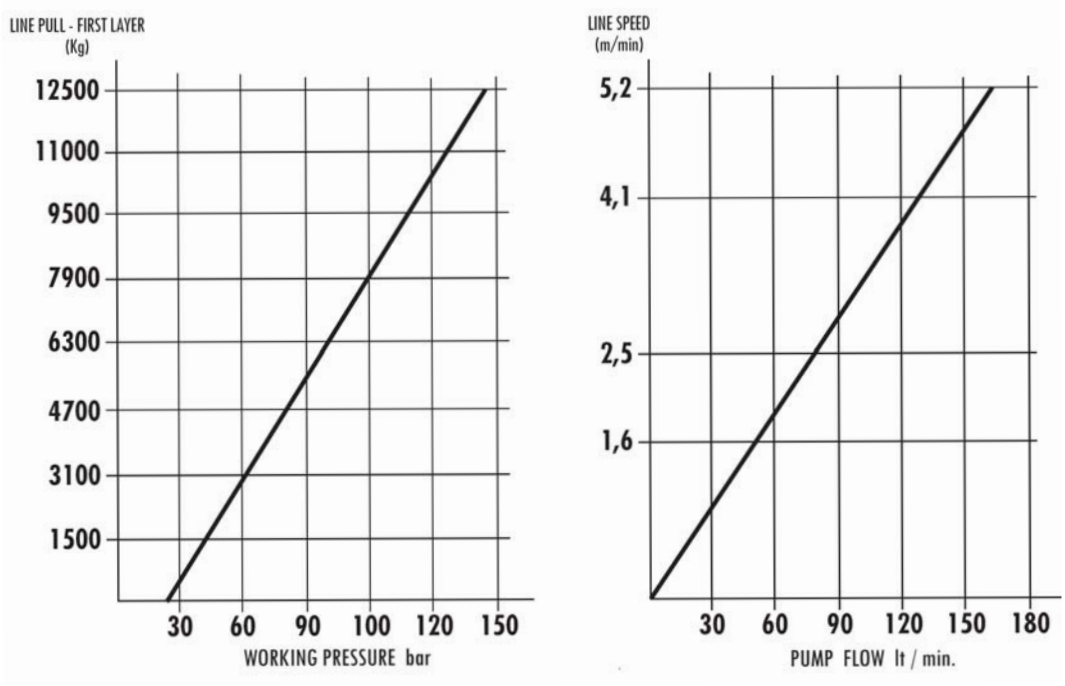
RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1:35	20	1	12500
		2	10300
		3	8700
		4	7500
		5	6650
1:35	22 DIN 15020	1	12500
		2	10100
		3	8500
		4	7300
		5	6400

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n/ min.	1°	2°	3°	4°	5°
75	4.3	2.5	3.0	3.5	4.0	4.6
125	7.2	4.1	5.0	5.9	6.8	7.7
160	9.2	5.2	6.4	7.5	8.7	9.8

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n/ min.	1°	2°	3°	4°	5°
75	4.3	2.5	3.4	3.7	4.3	4.9
125	7.2	4.1	5.1	6.1	7.1	8.1
160	9.2	5.2	6.5	7.8	9.1	10.3

DRUM		WEIGHT WITHOUT CABLE kg	WIRE ROPE CAPACITY m		MAX. WIRE ROPE CAPACITY m	
			20 mm.	22 mm.	20 mm.	22 mm.
SHORT	WHC	266	30	30	54	50
LONG	WHL	290	60	60	110	100

Performance charts at the 1° layer



Hydraulic Winch WH 15.000
Hydraulic worm gear winch

Technical data

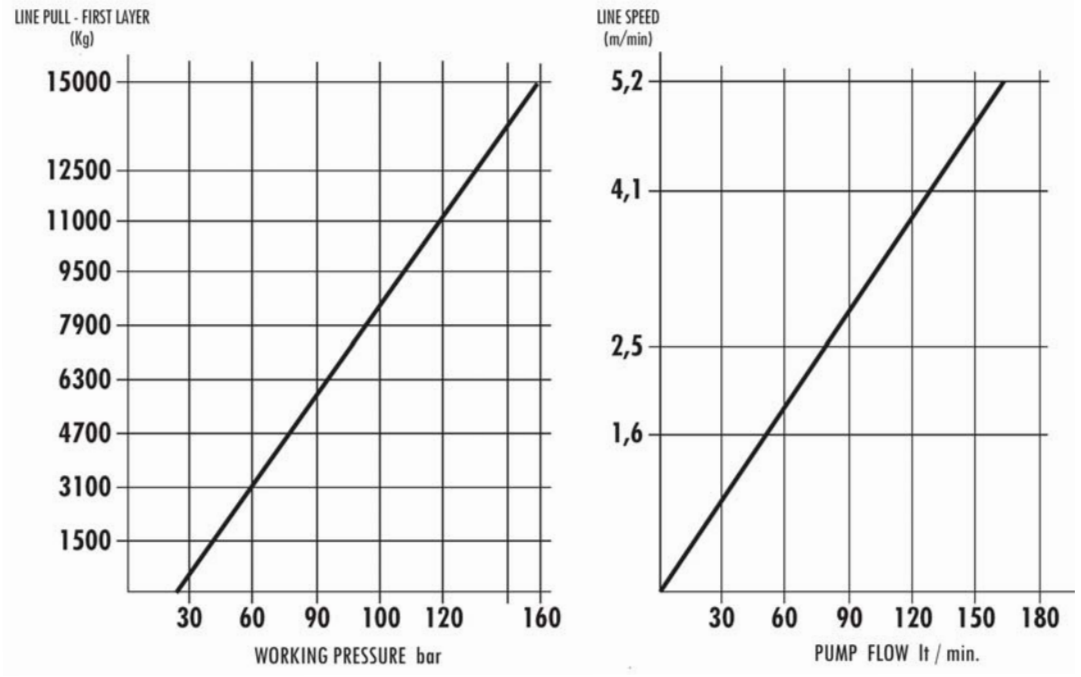
RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1:35	20	1	15000
		2	12270
		3	10380
		4	9000
		5	7950
1:35	22 DIN 15020	1	15000
		2	12000
		3	10100
		4	8670
		5	7600

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n/ min.	1°	2°	3°	4°	5°
75	4.3	2.5	3.0	3.5	4.0	4.6
125	7.2	4.1	5.0	5.9	6.8	7.7
160	9.2	5.2	6.4	7.5	8.7	9.8

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n/ min.	1°	2°	3°	4°	5°
75	4.3	2.5	3.4	3.7	4.3	4.9
125	7.2	4.1	5.1	6.1	7.1	8.1
160	9.2	5.2	6.5	7.8	9.1	10.3

DRUM	WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY m		MAX. WIRE ROPE CAPACITY m	
	kg	20 mm.	22 mm.	20 mm.	22 mm.
SHORT WHC	266	30	30	54	50
LONG WHL	290	60	60	110	100

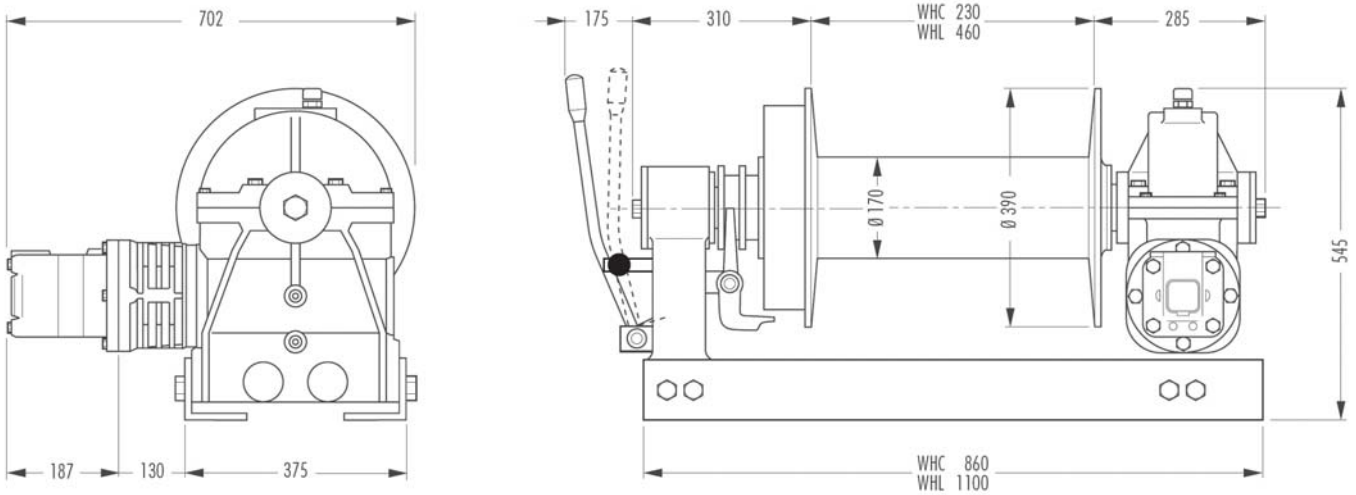
Performance charts at the 1° layer

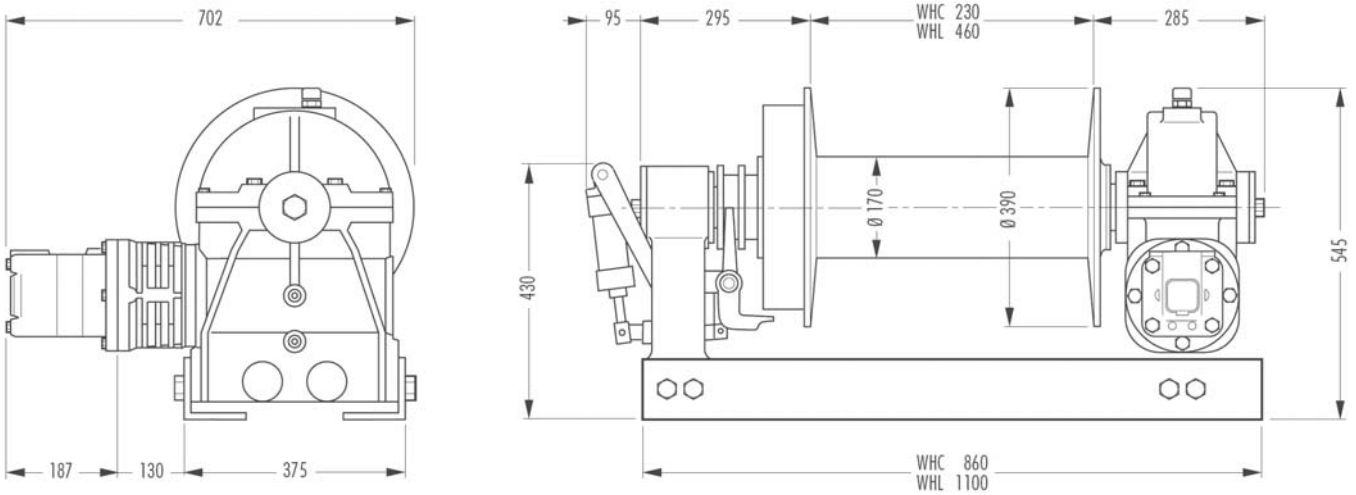


Hydraulic Winch WH 15.000 - WH 12.500
Hydraulic worm gear winch

Dimensions

MANUAL CLUTCH SHIFTER



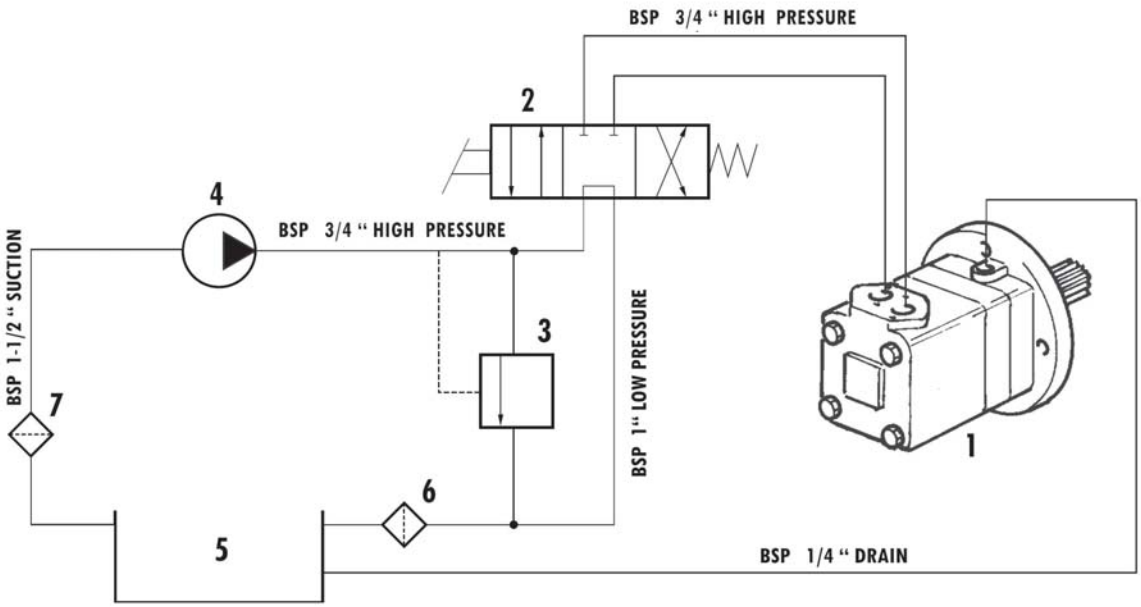


AIR-CYLINDER CLUTCH SHIFTER

Hydraulic Winch WH 15.000 - WH 12.500
Hydraulic worm gear winch

Hydraulic wiring diagram

Refer to the tipical layout below, to properly match your hydraulic system to the winch performance.



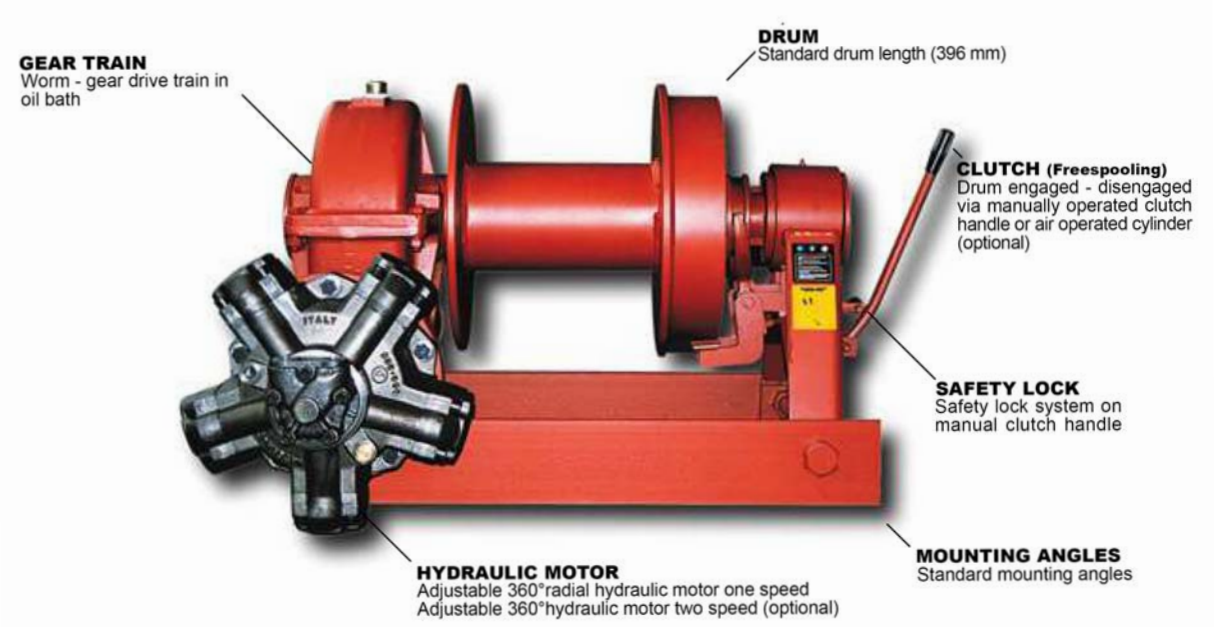
1 = HYDRAULIC ORBIT MOTOR
2 = DIRECTIONAL CONTROL VALVE
3 = RELIEF VALVE
4 = HYDRAULIC PUMP
5 = FLUID RESERVOIR
6 = RETURN FLUID FILTER (10 microns)
7 = SUCTION FLUID FILTER

⚠ **WARNING :**
Before operating check the oil level and add if necessary.

⚠ **WARNING :**
Hydraulic motor drainage will be connected with return line to the reservoir.

⚠ **WARNING :**
Do not exceed 160 lt / min. If exceeded the hydraulic motor may be damaged.

Hydraulic Winch NH 20.000
Hydraulic worm gear winch



SPECIFICATIONS

- Rated line pull (1° layer) : = **20.000 kg**
- Hydraulic radial piston motor
- Working pressure = **170 bar**
- Worm gear .
- Clutch with safety lock into engaged position
- Weight without cable = **530 kg**

⚠ · **DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Hydraulic Winch NH 20.000
Hydraulic worm gear winch

Technical data

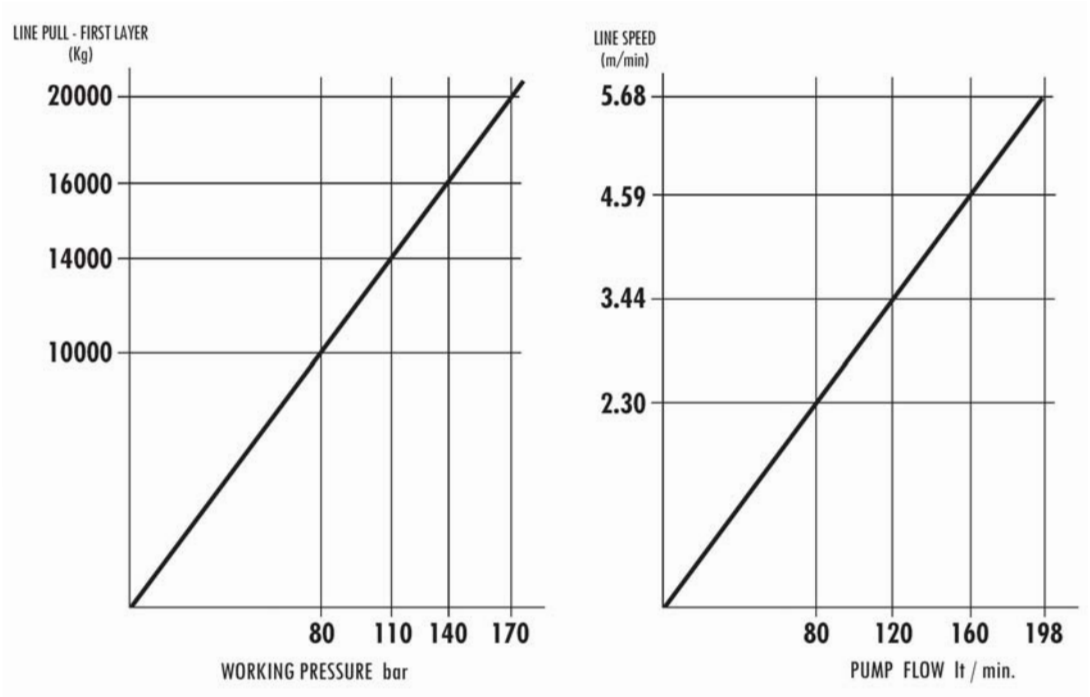
RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1:30	22	1	20000
		2	16650
		3	14250
		4	12450
		5	11000
1:30	24	1	20000
		2	16400
		3	13900
		4	12000
		5	10650

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n/ min.	1°	2°	3°	4°	5°
79	3.33	2.27	2.73	3.19	3.65	4.11
158	6.66	4.54	5.46	6.38	7.30	8.22
198	8.33	5.68	6.83	7.98	9.13	10.28

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n/ min.	1°	2°	3°	4°	5°
79	3.33	2.29	2.80	3.30	3.80	4.30
158	6.66	4.58	5.59	6.59	7.60	8.60
198	8.33	5.73	6.99	8.24	9.50	10.75

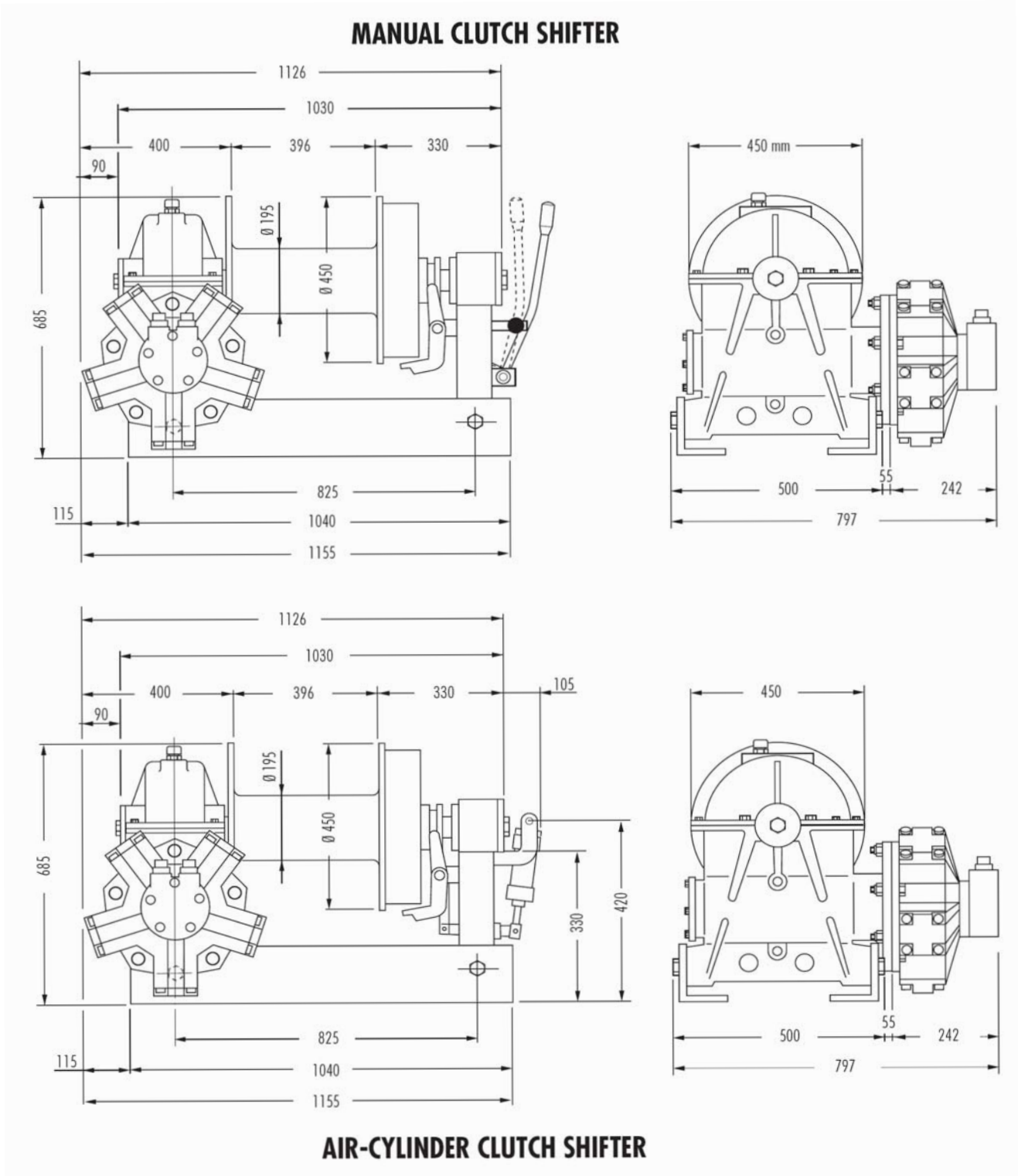
WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY m		MAX. WIRE ROPE CAPACITY m	
kg	22 mm.	24 mm.	22 mm.	24 mm.
530	70	60	-	-

Performance charts at the 1° layer



Hydraulic Winch NH 20.000
Hydraulic worm gear winch

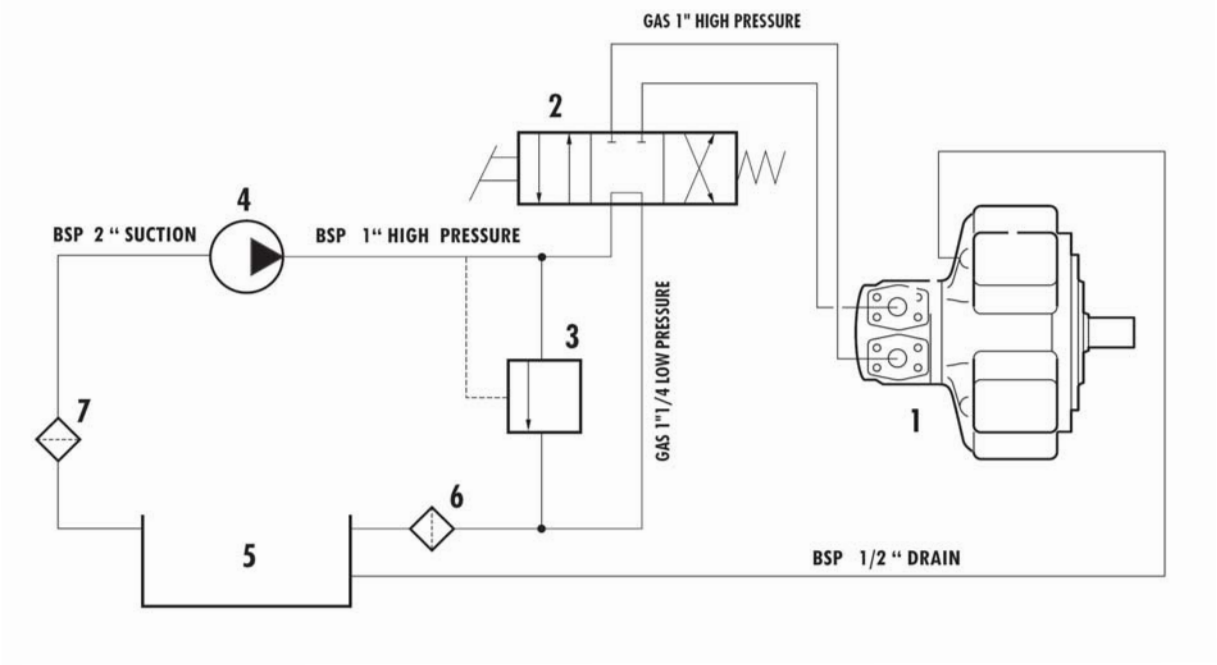
Dimensions



Hydraulic Winch NH 20.000
Hydraulic worm gear winch

Hydraulic wiring diagram

Refer to the tipical layout below, to properly match your hydraulic system to the winch performance.



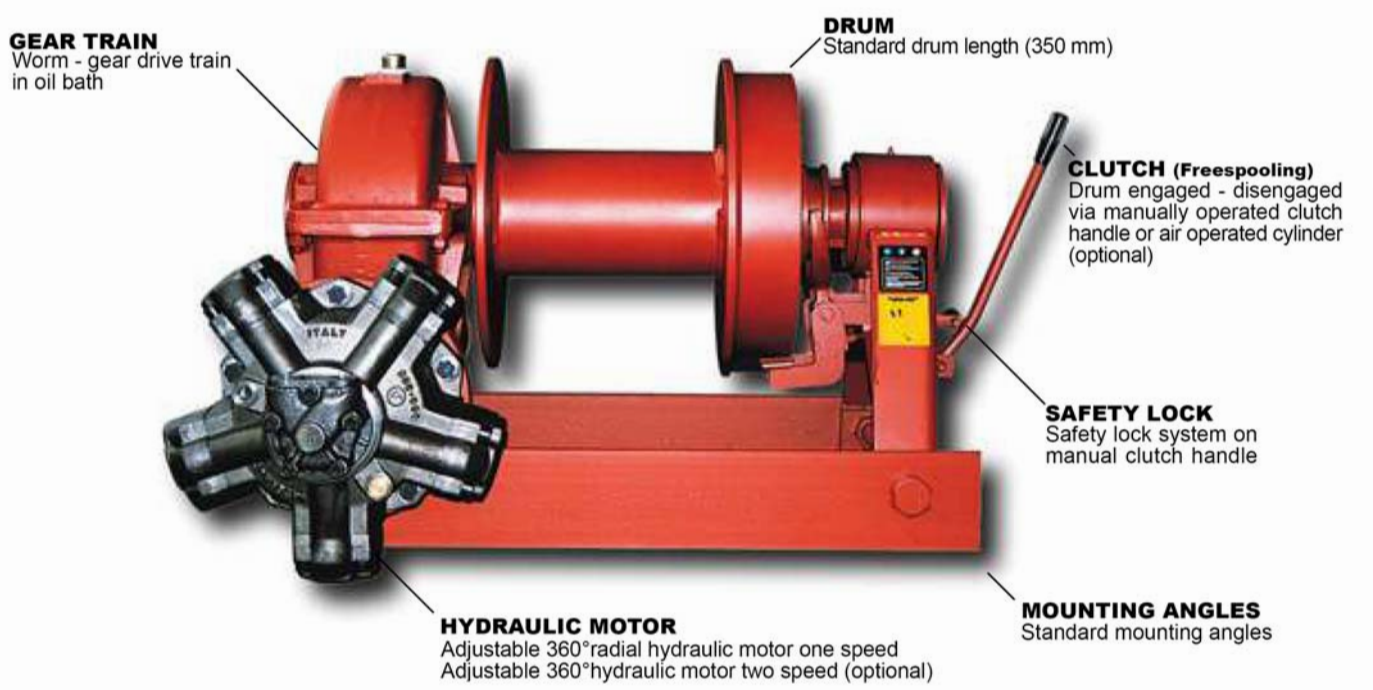
1 = HYDRAULIC RADIAL PISTON MOTOR
2 = DIRECTIONAL CONTROL VALVE
3 = RELIEF VALVE
4 = HYDRAULIC PUMP
5 = FLUID RESERVOIR
6 = RETURN FLUID FILTER (10 microns)
7 = SUCTION FLUID FILTER

⚠ **WARNING :**
Before operating check the oil level and add if necessary.

⚠ **WARNING :**
Hydraulic motor drainage will be connected with return line to the reservoir.

⚠ **WARNING :**
Do not exceed 200 lt / min.
If exceeded the hydraulic motor may be damaged.

Hydraulic Winch PH 30.000
Hydraulic worm gear winch



SPECIFICATIONS

- Rated line pull (1° layer) : = **30.000 kg**
- Hydraulic radial piston motor
- Working pressure = **180 bar**
- Worm gear .
- Clutch with safety lock into engaged position
- Weight without cable = **630 kg**

⚠ · **DANGER :**
Do not use winch to lift support or otherwise transport personnel.

Hydraulic Winch PH 30.000
Hydraulic worm gear winch

Technical data

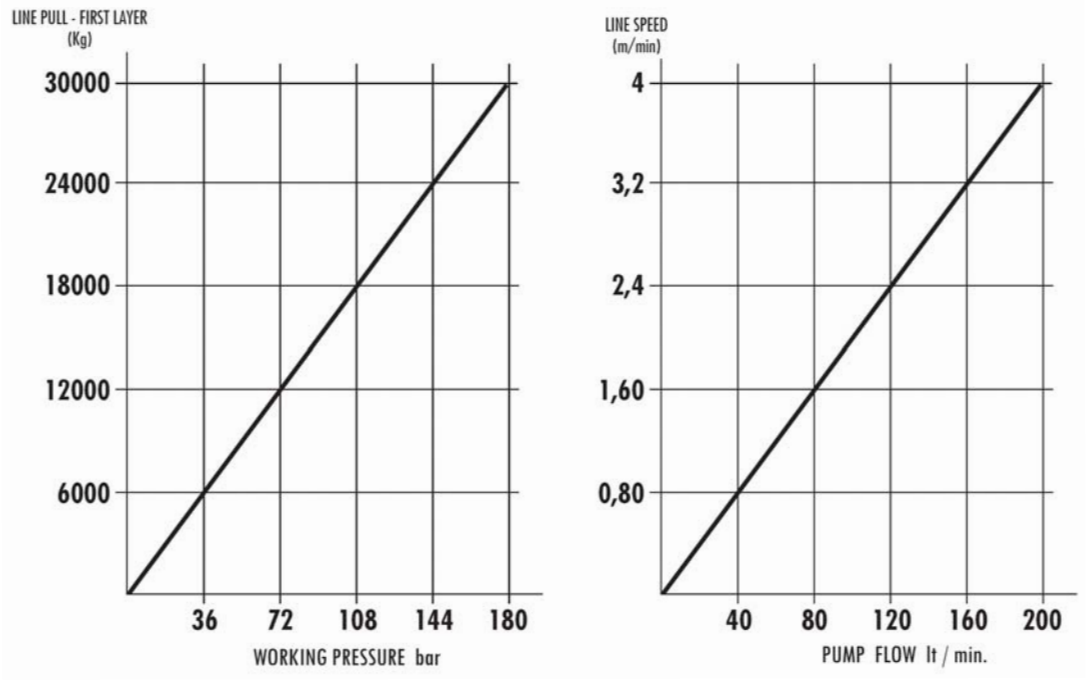
RATIO	WIRE ROPE SIZE mm.	LAYER	LINE PULL kg
1:37	24	1	30000
		2	24900
		3	21300
		4	18600
		5	16500
1:37	26	1	30000
		2	24600
		3	20900
		4	18100
		5	-

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
100	2.8	2.0	2.4	2.8	3.2	3.6
150	4.0	3.0	3.6	4.2	4.8	5.4
200	5.4	4.0	4.8	5.6	6.4	7.3

OIL SUPPLY	DRUM REVOLUTION	LINE SPEED m/min.				
		LAYERS				
lt / min.	n / min.	1°	2°	3°	4°	5°
100	2.8	2.0	2.6	3.0	3.5	-
150	4.0	3.0	3.7	4.3	5.0	-
200	5.4	4.0	4.9	5.8	6.7	-

WEIGHT WITHOUT CABLE	WIRE ROPE CAPACITY m		MAX. WIRE ROPE CAPACITY m	
kg	24 mm.	26 mm.	24 mm.	26 mm.
630	50	50	72	68

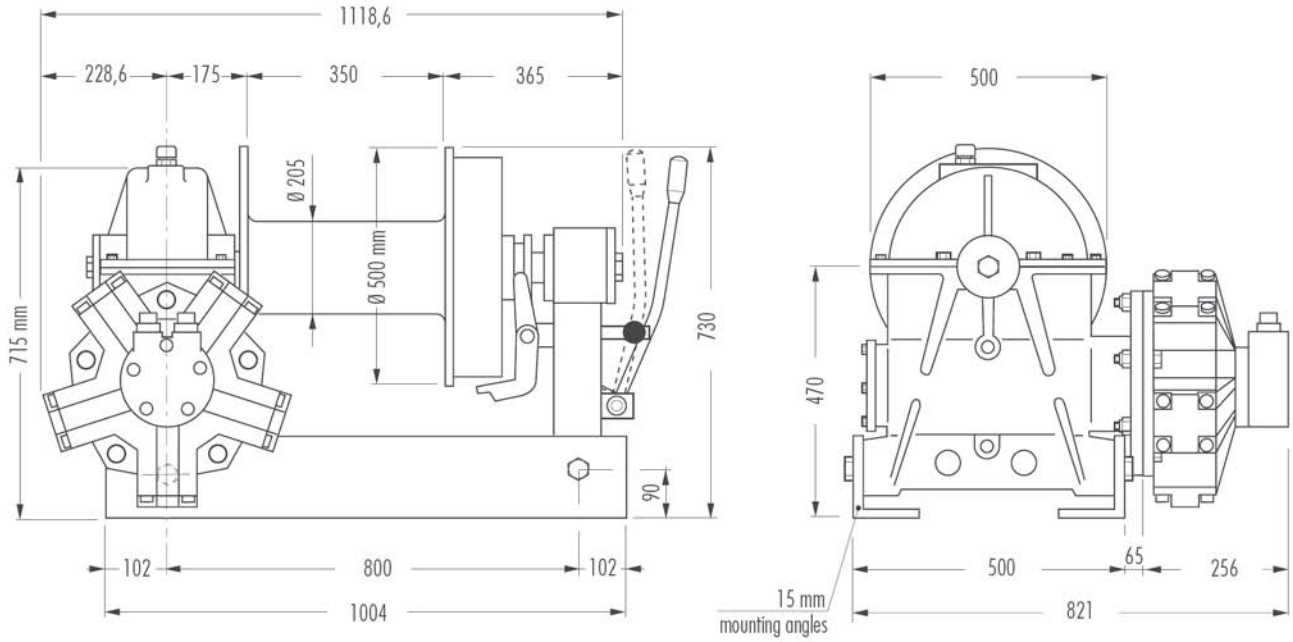
Performance charts at the 1° layer

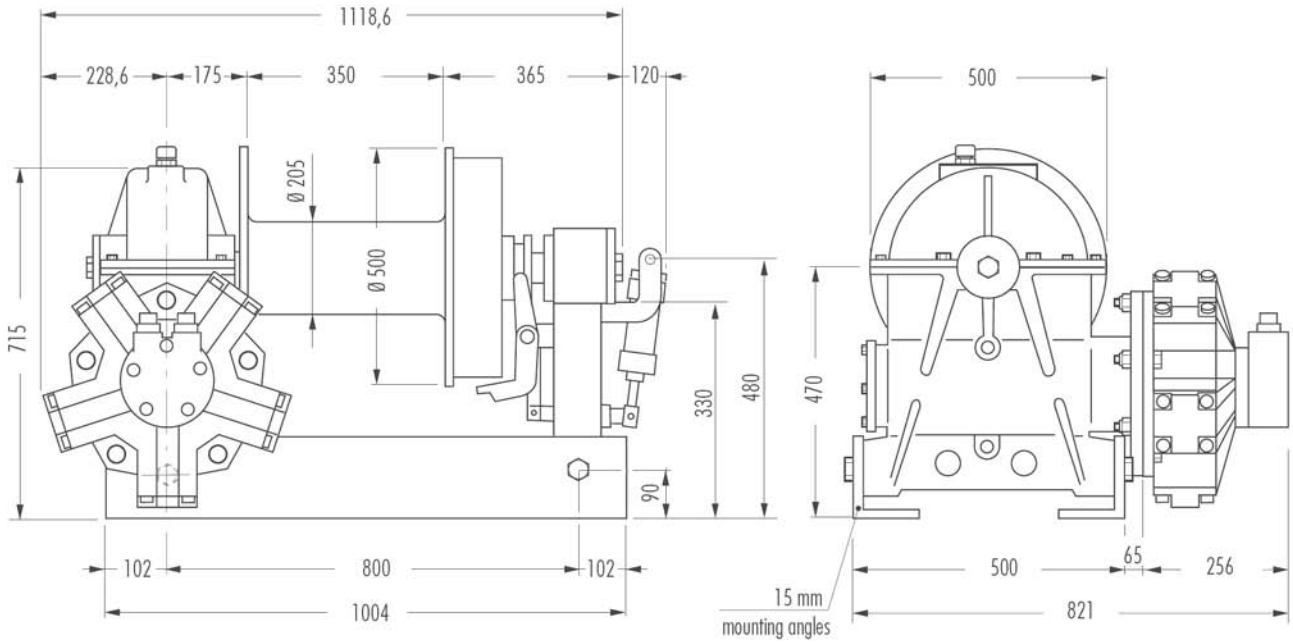


Hydraulic Winch PH 30.000
Hydraulic worm gear winch

Dimensions

MANUAL CLUTCH SHIFTER





AIR-CYLINDER CLUTCH SHIFTER

Hydraulic Winch PH 30.000
Hydraulic worm gear winch

Hydraulic wiring diagram

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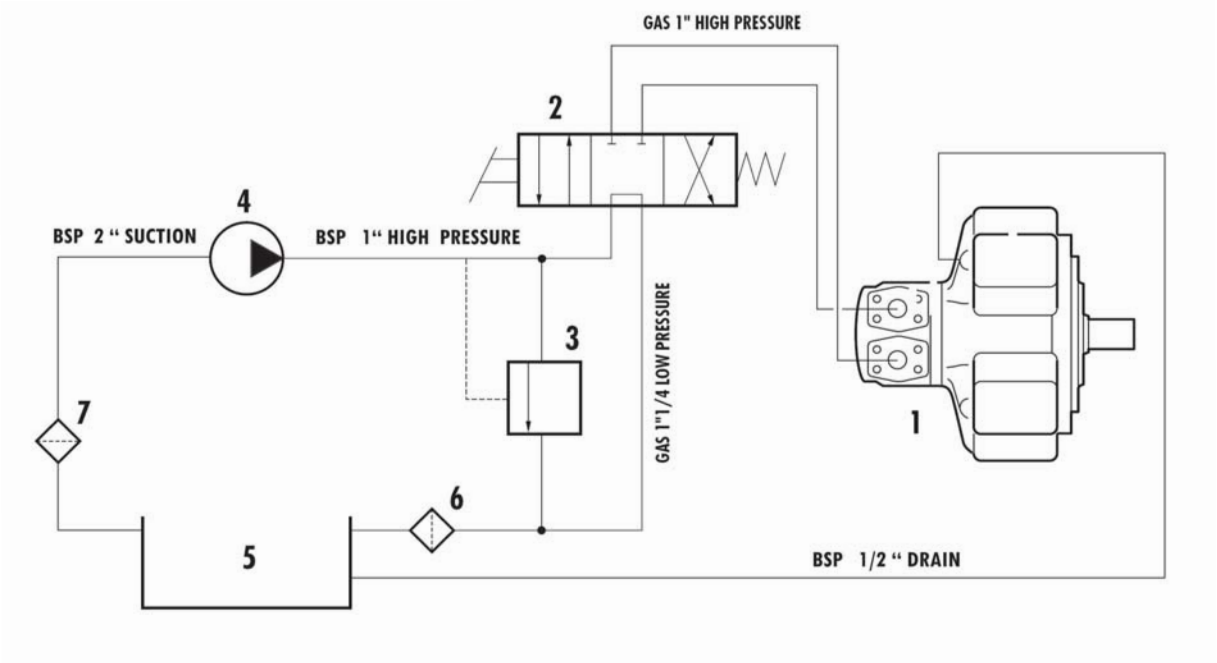

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⚠ **WARNING :**
Before operating check the oil level and add if necessary.

⚠ **WARNING :**
Hydraulic motor drainage will be connected with return line to the reservoir.

⚠ **WARNING :**
Do not exceed 200 lt / min. If exceeded the hydraulic motor may be damaged.

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Dutch Hydraulic Consultants BV	Tel. : +31-(0)6-83695868
Achterweg ZZ 8	Mail : info@dhc-hydraulic.nl
3216 AB Abbenbroek	Web : www.dhc-hydraulic.nl
Nederland	