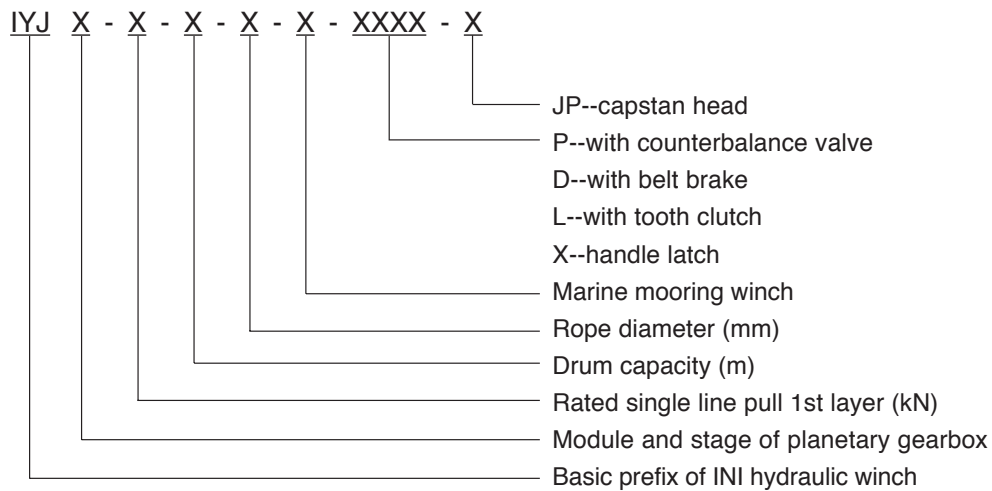


IYJ—C Hydraulic Mooring Winch Series

1. Brief Introduction

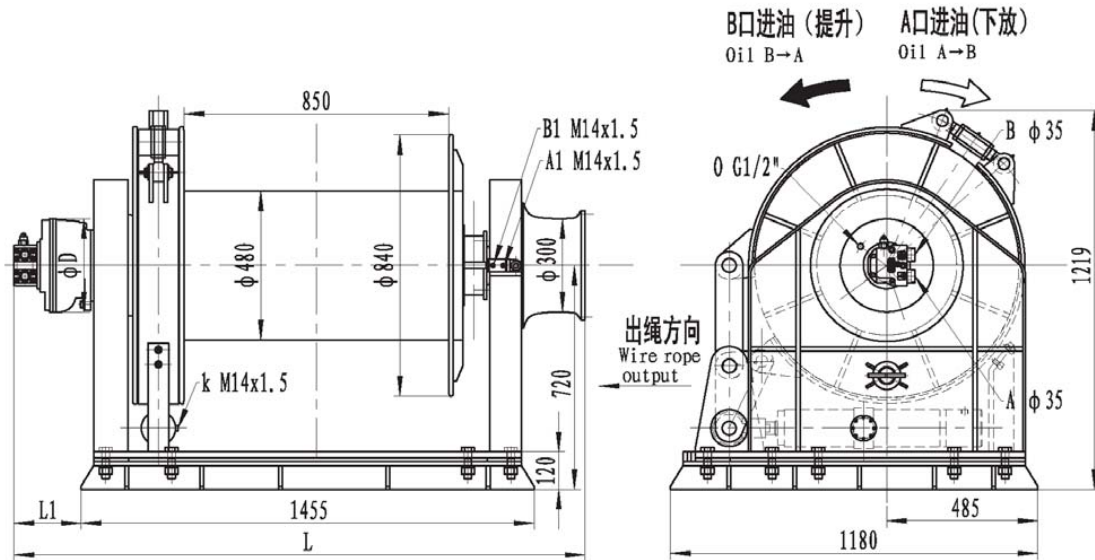
IYJ—C hydraulic mooring winch series are patent products of our company. They consist of valve blocks with function of brake and overload protection, hydraulic motor, planetary gearbox, belt brake, tooth clutch, drum, capstan head, frame and so on. Due to fit with valve block, not only simplified the design of hydraulic system but also improved the reliability of drives. And the winch series could have CT function if fitted with constant tension valve block. The series also have high startup efficiency and working efficiency. In addition, compared with traditional mooring winches, total transmission efficiency of the series is improved 6~10% and energy loss is lower because of closed planetary gearbox instead of open gear, and rolling bearing instead of tegular sliding bearing. These improvements bring to excellent features included compact design, lower noise, high economy and free daily lubrication maintenance. The series meet the national mooring winches standard of GB4446-84. Therefore they have been widely applied in domestic ship machinery and have been exported to Malaysia, Netherlands, Australia and so on.

2. Model Options

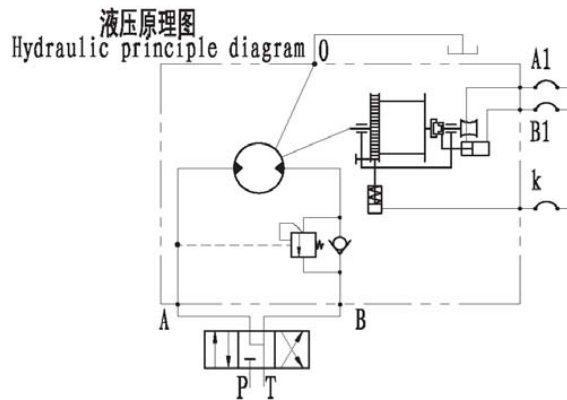


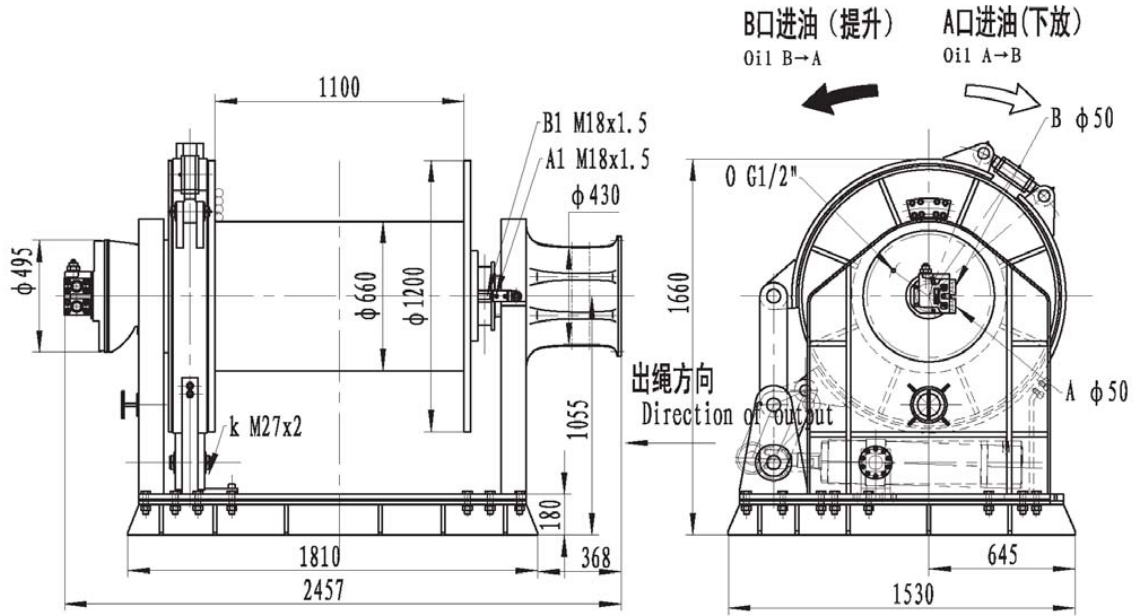
3. Options Example

IYJ45-80-180-26-C-PDLX-JP represents that the module of two stages planetary gearbox are 4 and 5 respectively, rated pulling force on 1st layer is 80kN, drum capacity is 180m, rope diameter is 26mm, and the winch fits with belt brake, counterbalance valve, and tooth clutch, handle latch and capstan head.

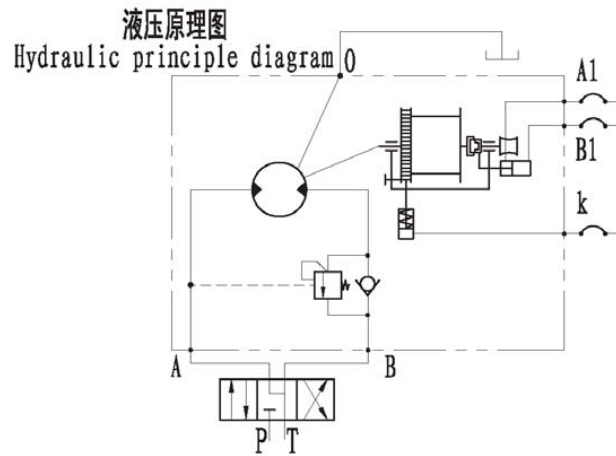


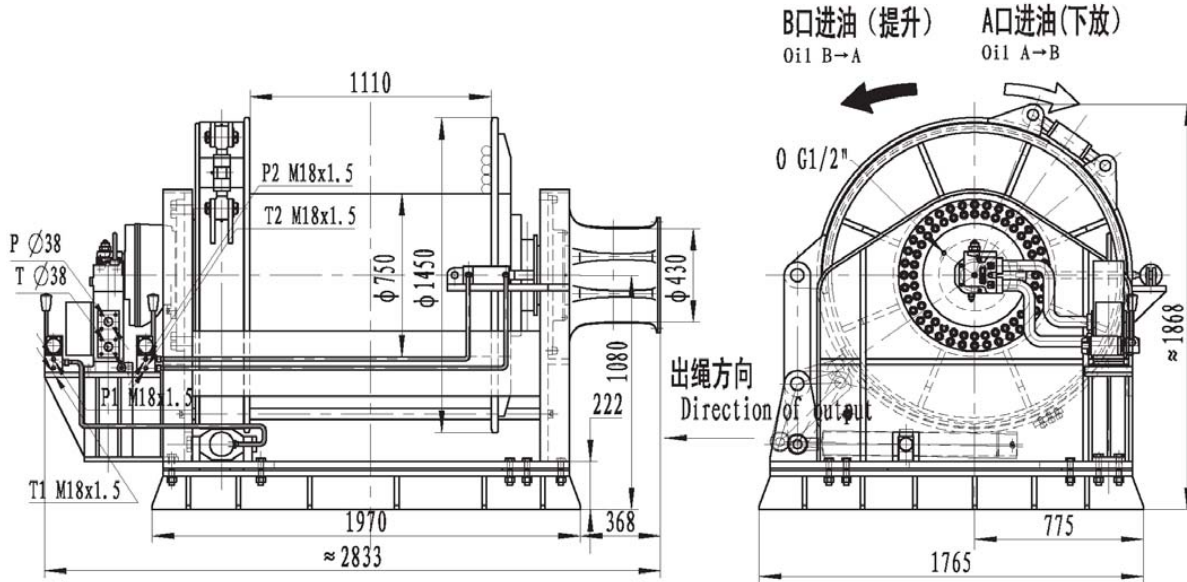
型号 Model	卷筒负载 Drum load (KN)	支持负载 Holding load (KN)	公称速度 Nominal Speed (m/min)	空载速度 Light-line Speed (m/min)	爬行速度 Creep Speed (m/min)	总排量 Total displacement (mL/r)	额定压力 Rated Pressure (MPa)	供油流量 Oil flow supply (L/min)	钢丝绳直径 Rope diameter (mm)	层数 Layer	容绳量 Wire rope capacity (m)	D (mm)	L1 (mm)	L (mm)
IYJ45-50-280-20-C-PDLX-JP	50	150	15	30	0.5	6804	16	69	20	4	280	242	191	1810
IYJ45-65-265-22-C-PDLX-JP	65	200	15	30	0.5	8792	16	89	22	4	265	242	191	1810
IYJ45-80-250-24-C-PDLX-JP	80	240	15	30	0.5	11900	15	120	24	4	250	304	216	1835
IYJ45-100-230-26-C-PDLX-JP	100	270	15	30	0.5	15820	14.5	158	26	4	230	304	216	1835
IYJ45-125-220-28-C-PDLX-JP	125	310	15	30	0.5	17444	16	174	28	4	220	304	216	1835
IYJ45-150-200-30-C-PDLX-JP	150	420	15	30	0.5	22176	15.6	219	30	4	200	380	239	1858





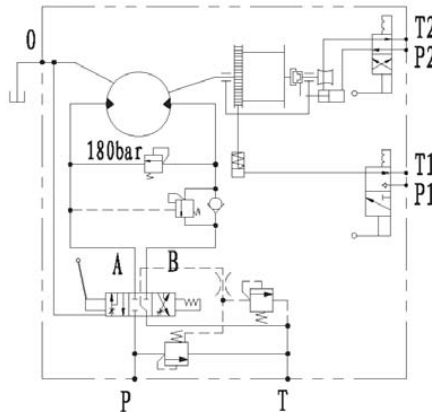
型号 Model	卷筒负载 Drum load (KN)	支持负载 Holding load (KN)	公称速度 Nominal Speed (m/min)	空载速度 Light-line Speed (m/min)	爬行速度 Creep Speed (m/min)	总排量 Total displacement (mL/r)	额定压力 Rated Pressure (MPa)	供油流量 Oil flow supply (L/min)	钢丝绳直径 Rope diameter (mm)	层数 Layer	容绳量 Wire rope capacity (m)
IYJ56-160-330-32-C-PDLX-JP	160	470	15	30	0.5	33180	15	252	32	4	330
IYJ56-180-310-34-C-PDLX-JP	180	520	13	30	0.5	37520	15	246	34	4	310
IYJ56-200-290-36-C-PDLX-JP	200	590	12	30	0.5	40936	15	248	36	4	290

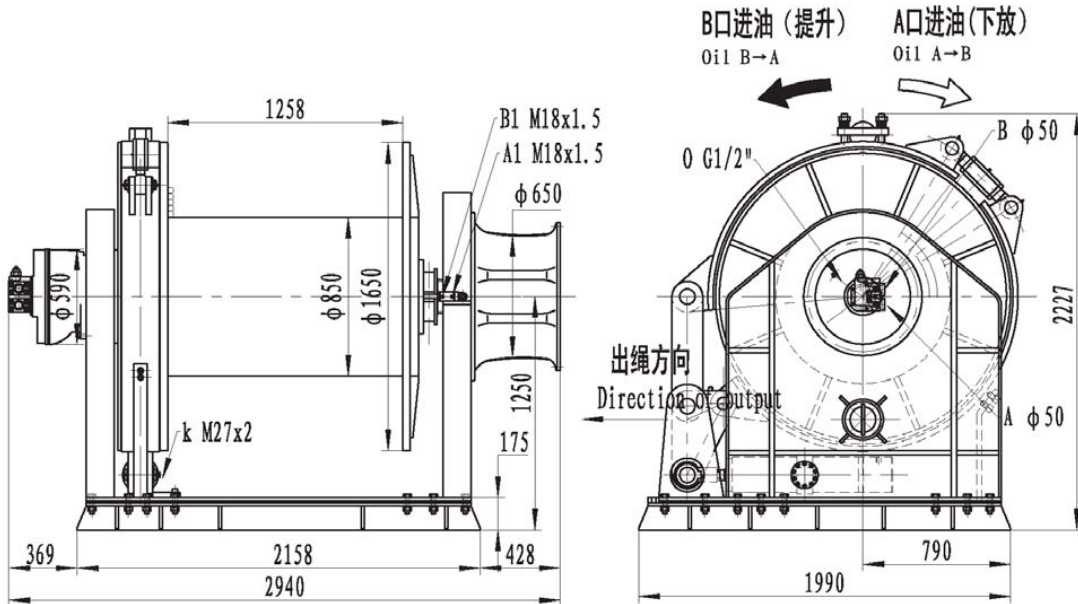




型号 Model	卷筒负载 Drum load (KN)	支持负载 Holding load (KN)	公称速度 Nominal Speed (m/min)	空载速度 Light-line Speed (m/min)	爬行速度 Creep Speed (m/min)	总排量 Total displacement (mL/r)	额定压力 Rated Pressure (MPa)	供油流量 Oil flow supply (L/min)	钢丝绳直径 Rope diameter (mm)	层数 Layer	容绳量 Wire rope capacity (m)
IYJ67-220-400-38-C-PDLX-JP	220	630	12	20	0.5	50848	15	273	38	5	400
IYJ67-250-390-40-C-PDLX-JP	250	720	12	20	0.5	59556	15	320	40	5	390
IYJ67-280-380-42-C-PDLX-JP	280	810	10	20	0.5	70364	14	314	42	5	380

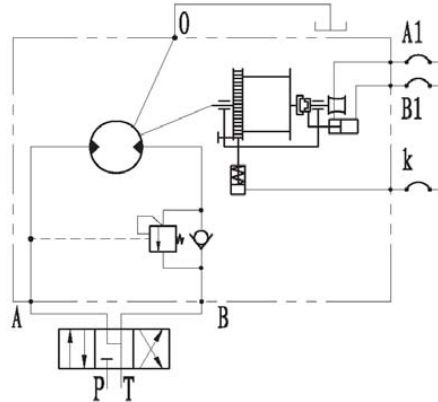
液压原理图
Hydraulic principle diagram

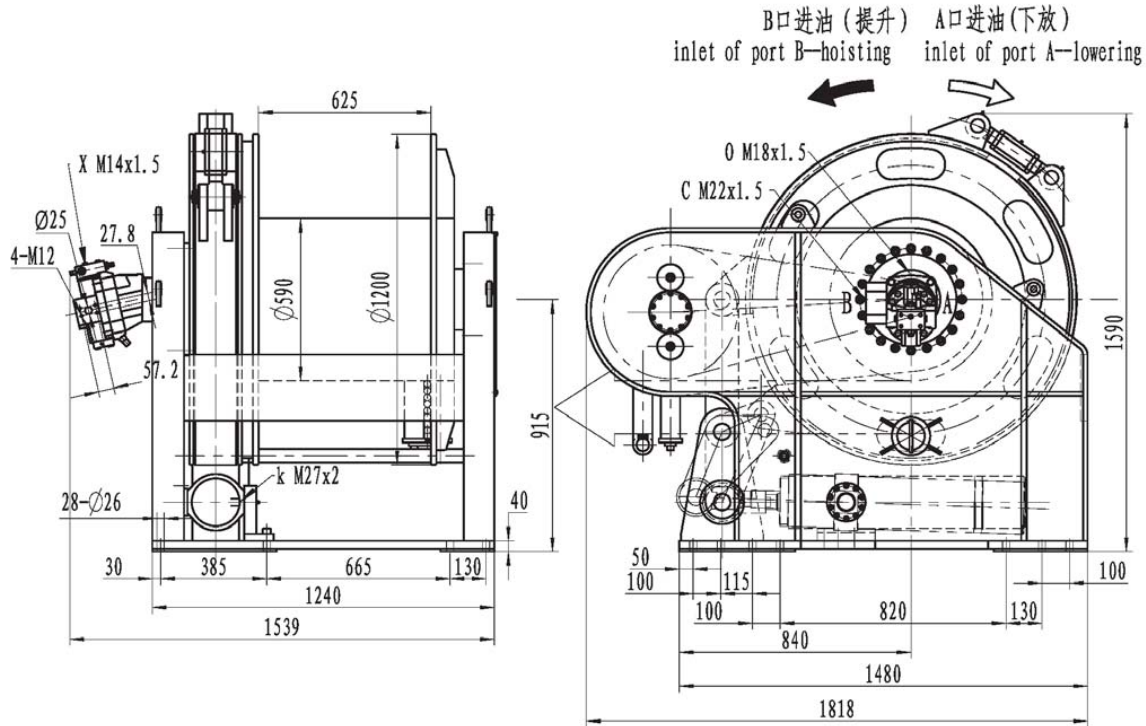




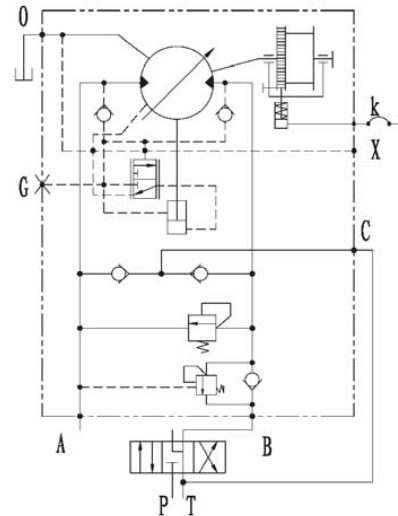
型号 Model	卷筒负载 Drum load (KN)	支持负载 Holding load (KN)	公称速度 Nominal Speed (m/min)	空载速度 Light-line Speed (m/min)	爬行速度 Creep Speed (m/min)	总排量 Total displacement (mL/r)	额定压力 Rated Pressure (MPa)	供油流量 Oil flow supply (L/min)	钢丝绳直径 Rope diameter (mm)	层数 Layer	容绳量 Wire rope capacity (m)
IYJ79-315-330-46-C-PDLX-JP	315	940	10	20	0.5	79442	16	313	46	4	330
IYJ79-400-310-50-C-PDLX-JP	400	1080	10	20	0.5	94556	17	370	50	4	310
IYJ79-500-300-52-C-PDLX-JP	500	1350	10	20	0.5	94556	21	370	52	4	300

液压原理图
Hydraulic principle diagram

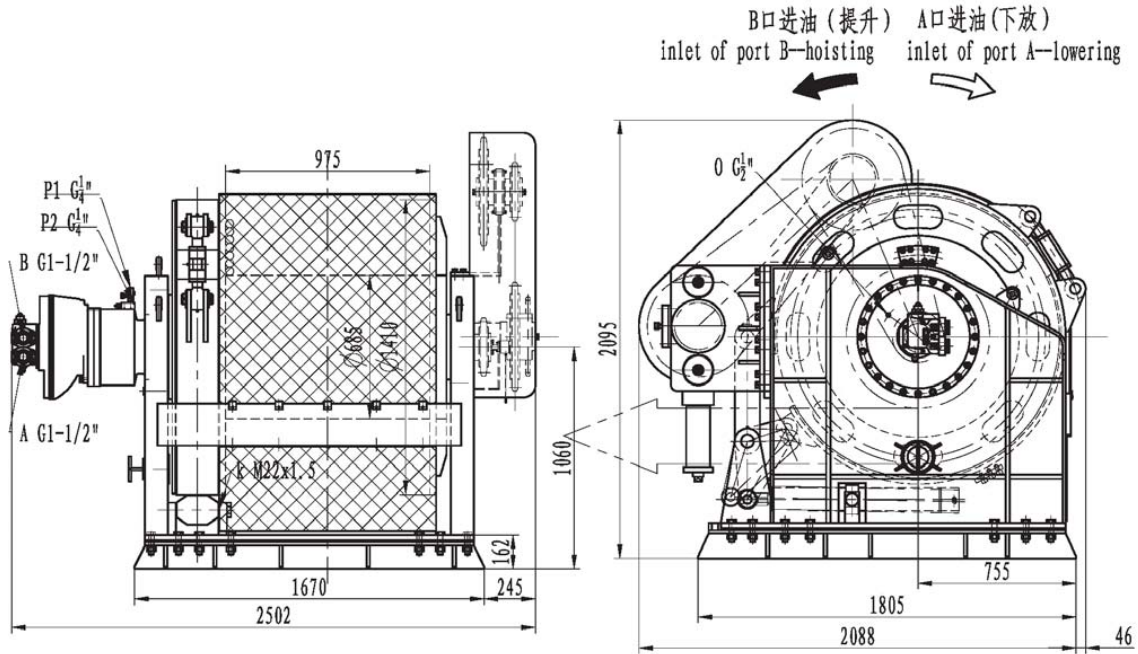


34.54.5-100/50-500-24-C-PDX

 主要技术参数
Main Specification

第一层拉力	Rated working pull 1st layer (kN)	100/50
第一层绳速	Speed 1st layer (m/min)	15/30
总排量	Drum displacement (mL/r)	10143.6/5119.2
系统压力	System rated pressure (MPa)	25
钢丝绳直径	Diameter of rope (mm)	$24^{+0.6}_0$
层数	Number of rope layers	8
容绳量	Capability of drum (m)	490
供油流量	Pump flow (L/min)	90 ($\eta_v=0.9$)
液压马达型号	Hydraulic motor type	A6V107HD22FZ2-054
行星减速器型号	Planetary gearbox type	IGT60W3-B95-A6V107 (i=94.8)

 液压原理图
Hydraulic principle diagram


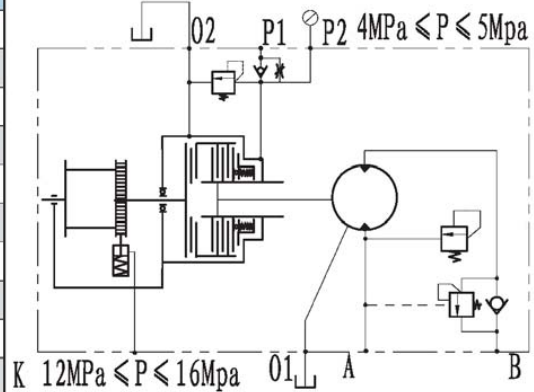
56-200-500-38-C-PDLX



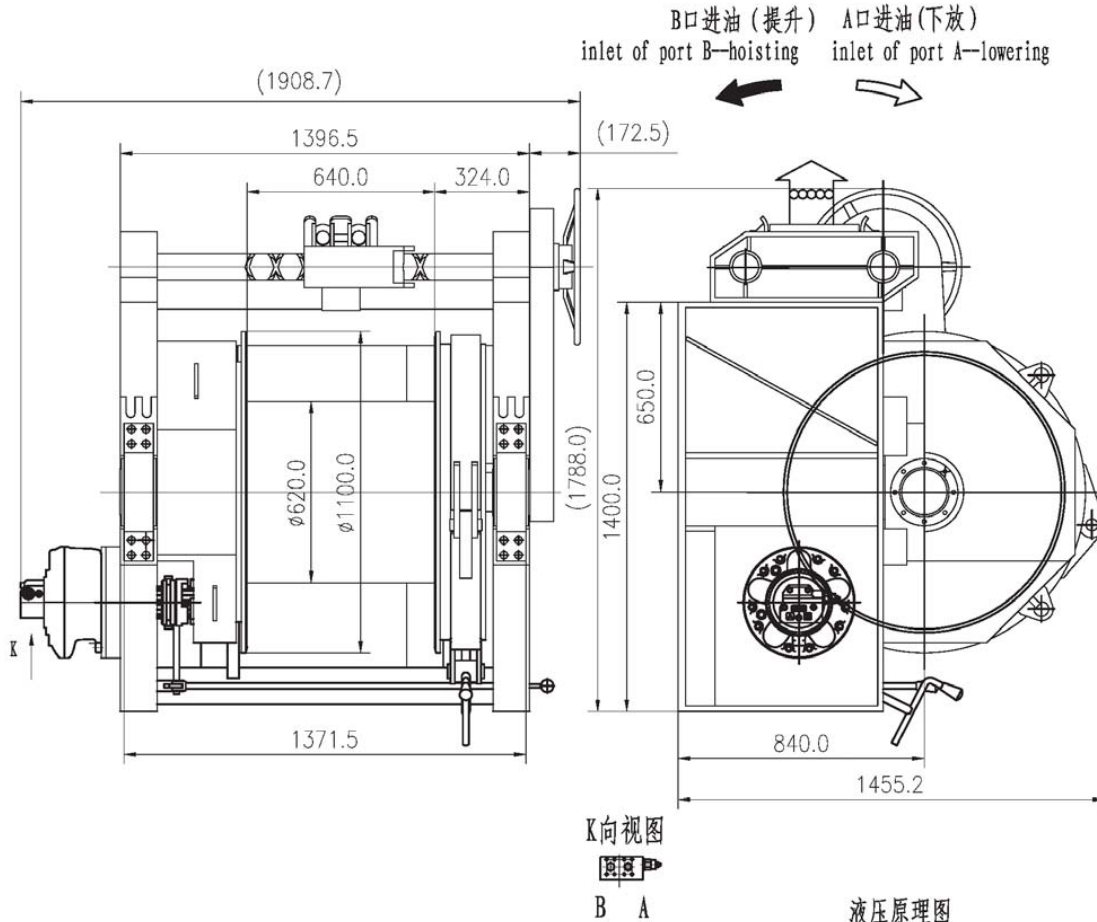
主要技术参数
Main Specification

第一层拉力	Rated working pull 1st layer (kN)	200
支持负载	Brake support load (KN)	600
第一层绳速	Speed 1st layer (m/min)	15.6
总排量	Drum displacement (mL/r)	40936
系统压力	System rated pressure (MPa)	16
钢丝绳直径	Diameter of rope (mm)	$38^{+0.75}_0$
层数	Number of rope layers	7
容绳量	Capability of drum (m)	500
供油流量	Pump flow (L/min)	300 ($\eta v=0.94$)
液压马达型号	Hydraulic motor type	INM5-1450D48011
行星减速器型号	Planetary gearbox type	C56 (i=28)

液压原理图
Hydraulic principle diagram



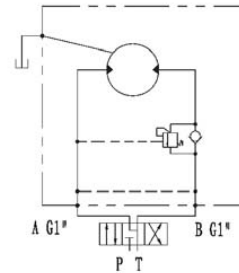
IYJ K12-150-250-30-C-PDL



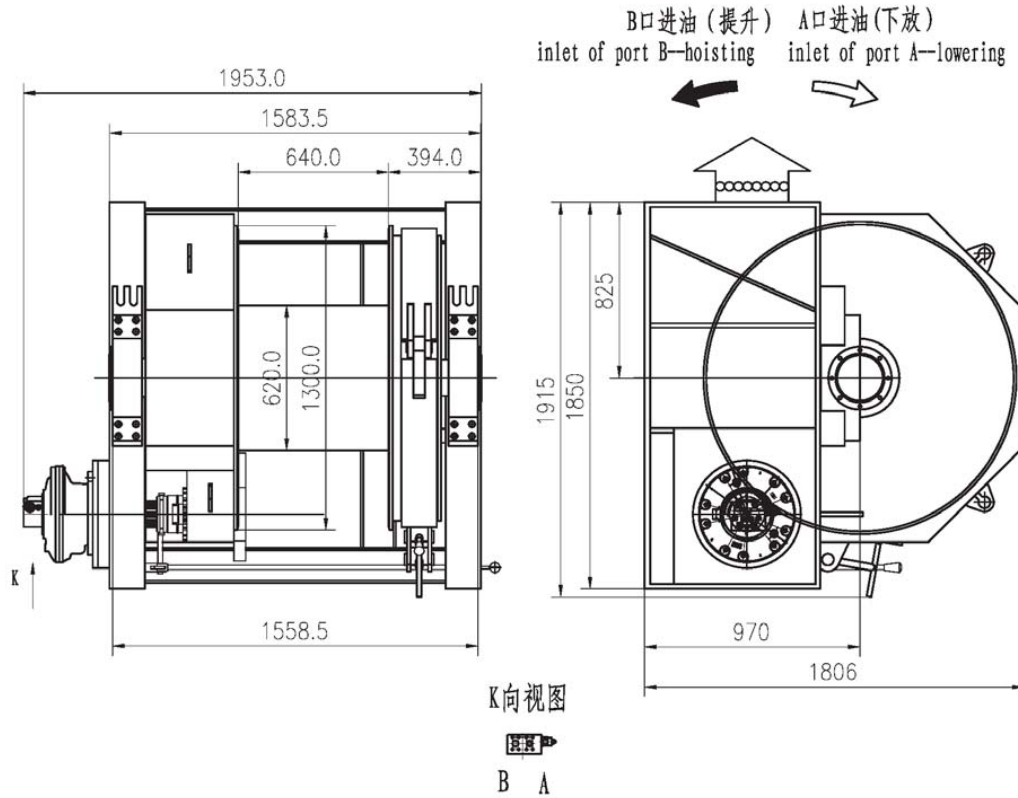
绞车主要技术参数
Winch main Specification

第三层拉力	Rated working pull 3rd layer (kN)	150
第六层绳速	Speed 6th layer (m/min)	10
支撑负载	Drum Brake Holding (T)	30T
总排量	Drum displacement (mL/r)	22000
系统压力	System rated pressure (MPa)	20
钢丝绳直径	Diameter of rope (mm)	30
层数	Number of rope layers	5
容绳量	Capability of drum (m)	250
供油流量	Pump flow (L/min)	122 ($\eta v=0.9$)
液压马达型号	Hydraulic motor type	INM3-600D2401

液压原理图
Hydraulic principle diagram



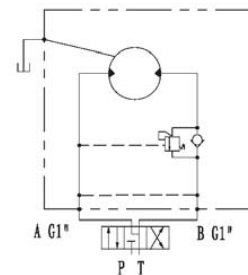
IYJ K12-250-350-38-C-PDL



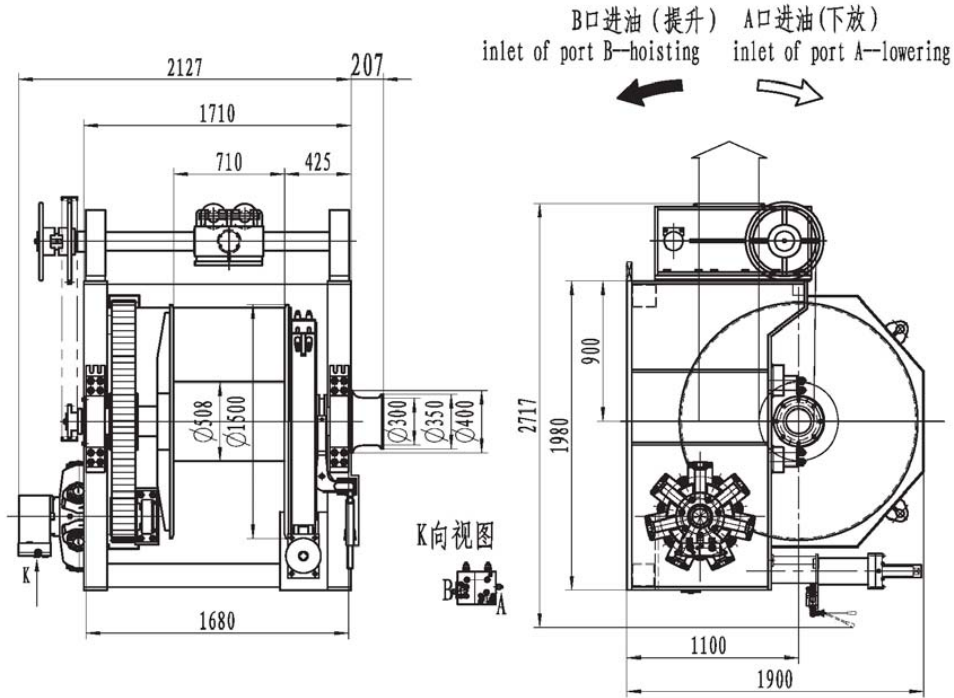
绞车主要技术参数
Winch main Specification

第一层拉力	Rated working pull 1st layer (kN)	250
第一层绳速	Speed 1st layer (m/min)	10
支撑负载	Drum Brake Holding (KN)	500 AT 1st Layer, Static
总排量	Drum displacement (mL/r)	40800
系统压力	System rated pressure (MPa)	20
钢丝绳直径	Diameter of rope (mm)	38
层数	Number of rope layers	8
容绳量	Capability of drum (m)	350
供油流量	Pump flow (L/min)	203 ($\eta v=0.9$)
液压马达型号	Hydraulic motor type	INM3-800D2401

液压原理图
Hydraulic principle diagram



IYJ K12-300-800-30-C-PDL



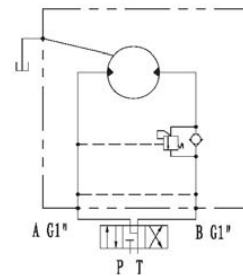
绞盘主要技术参数
Capstan main Specification

工作拉力	Working pull (KN)	30
工作绳速	Working speed (m/min)	0-20

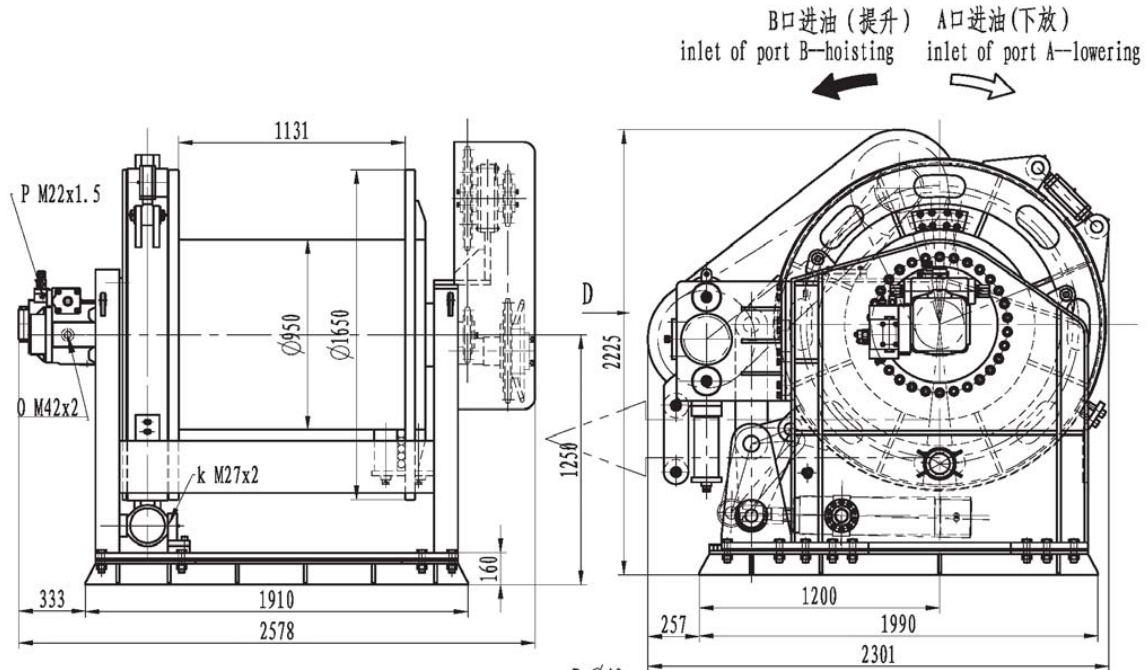
绞车主要技术参数
Winch main Specification

第一层拉力	Rated working pull 1st layer (kN)	300
第一层绳速	Speed 1st layer (m/min)	6
支撑负载	Drum Brake Holding (KN)	450 AT 1st Layer, Static
总排量	Drum displacement (mL/r)	33367.5
系统压力	System rated pressure (MPa)	25
钢丝绳直径	Diameter of rope (mm)	30
层数	Number of rope layers	14
容绳量	Capability of drum (m)	800
供油流量	Pump flow (L/min)	131.6 ($\eta v=0.9$)
液压马达型号	Hydraulic motor type	IMB325-5000-S1

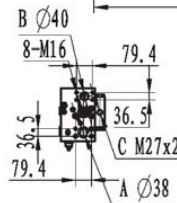
液压原理图
Hydraulic principle diagram



699-350/140-500-38-ZPGSDXB



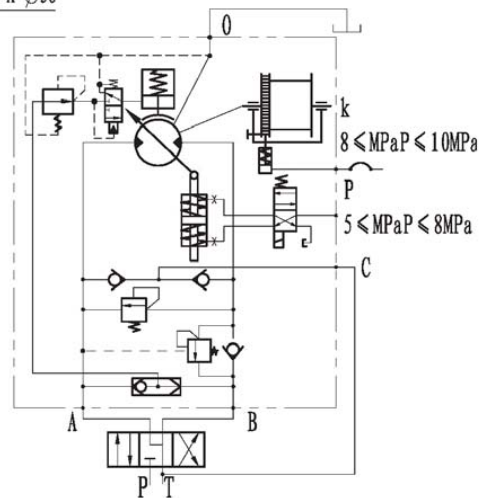
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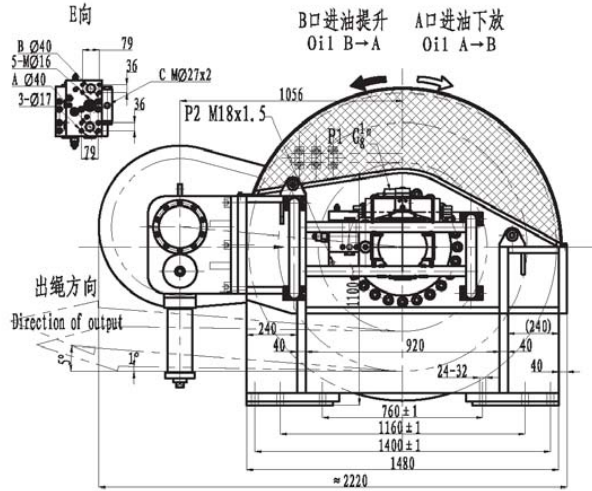
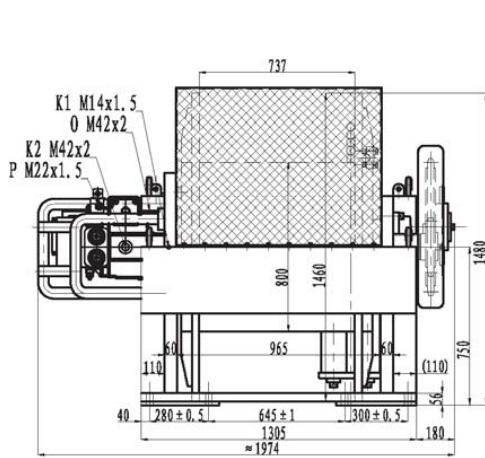


主要技术参数
Main Specification

第五层拉力	Rated working pull fifth layer (kN)	350/140
支持负载	Brake support load (KN)	500
第一层绳速	Speed 1st layer (m/min)	6/12
总排量	Drum displacement (mL/r)	75600/37800
系统压力	System rated pressure (MPa)	26/10.5
钢丝绳直径	Diameter of rope (mm)	$38^{+0.75}_0$
层数	Number of rope layers	5
容绳量	Capability of drum (m)	500
供油流量	Pump flow (L/min)	162 ($\eta v=0.9$)
液压马达型号	Hydraulic motor type	HLA4VSM2500Z-125
行星减速器型号	Planetary gearbox type	IGC330W3-B302-A4V250 (i=302.4)

液压原理图
Hydraulic principle diagram

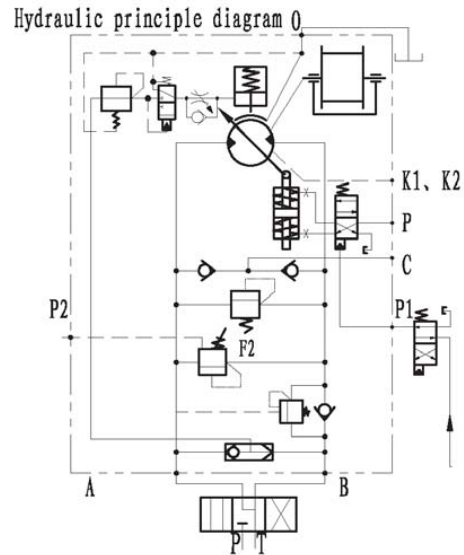




主要技术参数
Main Specification

型号	Model	IYJ488-500-250-38-ZPGF
第一层拉力	Rated Line pull on first layer (kN)	400 200
第一层绳速	Line speed on first layer (m/min)	12.2 24.4
总排量	Drum displacement (ml/r)	62750 31375
液压马达排量	Hydraulic motor displacement (ml/r)	250 125
第一层最大拉力	Max. Line pull on first layer (kN)	500
系统额定压力	System rated pressure (MPa)	24
系统最大压力	System max. pressure (MPa)	30
钢丝绳直径	Diameter of rope (mm)	38 ~ 38.38
层数	Number of rope layers	5
容绳量	Capability of drum (m)	250
供油流量	Flow (L/min)	324 (η=0.9)
液压马达型号	Hydraulic motor	HLA4VSM250DY30WVZB10N00
行星减速器型号	Planetary gearbox type	IGC220W3-B251-A4V250-F72011P1 (i=251)

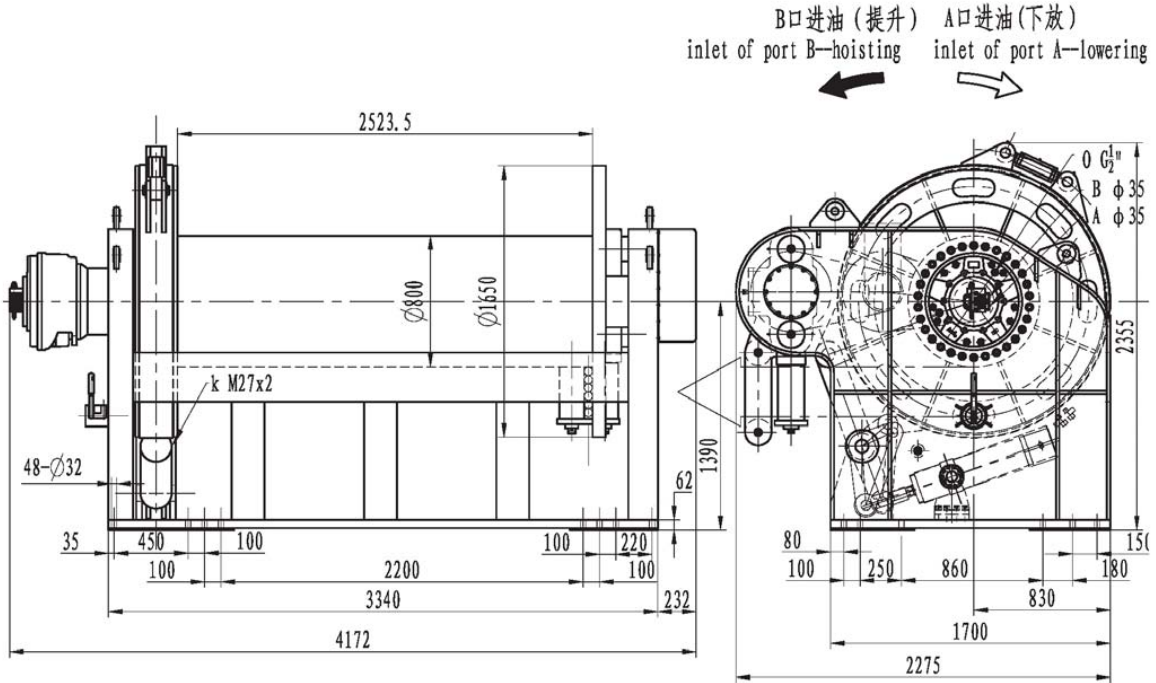
液压原理图



- 注: 1. 马达泄漏口“0”必须接回液压系统油箱, 不允许连接至主油路。
2. 换向阀中位机能必须为“Y”型或“H”型。
3. 液压绞车不允许载人。
4. 若有特殊要求请与我们销售部门联系

- Note: 1. The drain port of the hydraulic motor must be separately connected to the hydraulic reservoir.
2. The directional control valve should be of a “Y” or “H” type in neutral position to assure the brake and activated.
3. The winch is not designed for operation involving lifting or moving personnel.
4. When there is no winch type available which meets your requirements, we ask you to contact our sales department for a specific design.

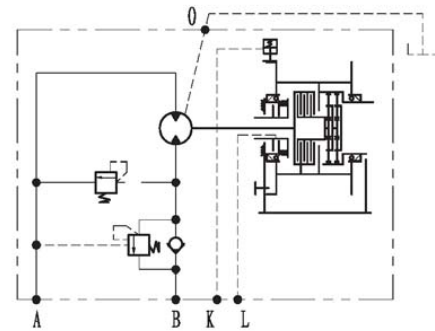
99-600-1000-50-C-PDLX

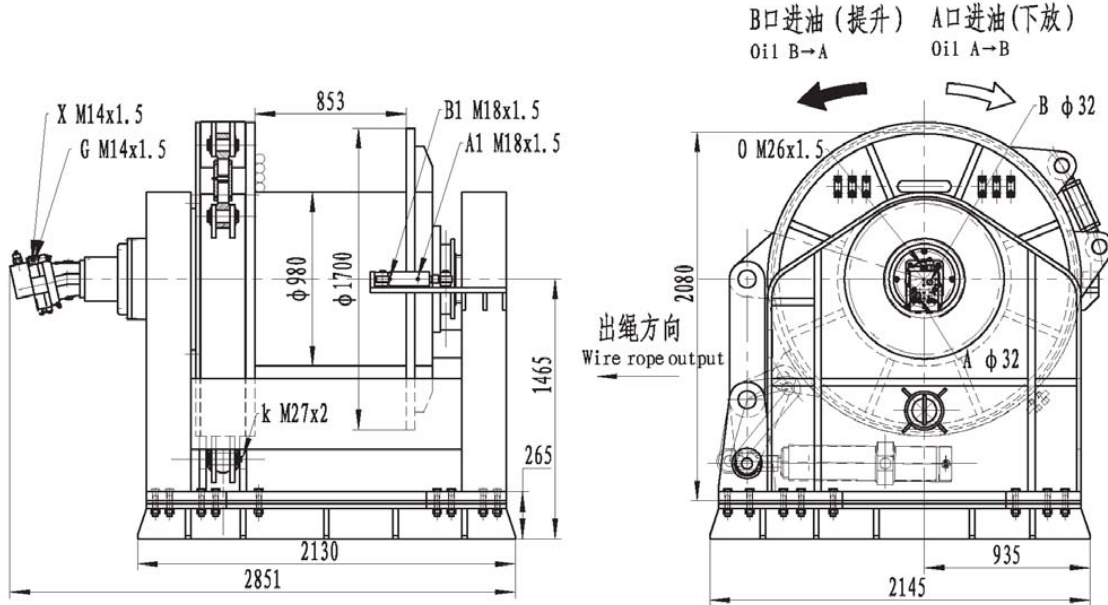


主要技术参数
Main Specification

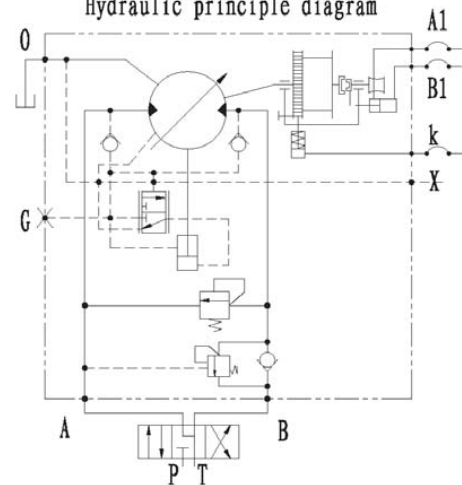
第一层拉力	Rated working pull 1st layer (kN)	600
支持负载	Brake support load (KN)	900
第四层绳速	Speed fourth layer (m/min)	5
总排量	Drum displacement (mL/r)	90744.43
系统压力	System rated pressure (MPa)	22
钢丝绳直径	Diameter of rope (mm)	50^{+1}_0
层数	Number of rope layers	6
容绳量	Capability of drum (m)	1000
供油流量	Pump flow (L/min)	139 ($\eta v=0.9$)
液压马达型号	Hydraulic motor type	INM7-3600D24011
行星减速器型号	Planetary gearbox type	IGC330W2-B25-INM7 (i=25.13)

液压原理图
Hydraulic principle diagram

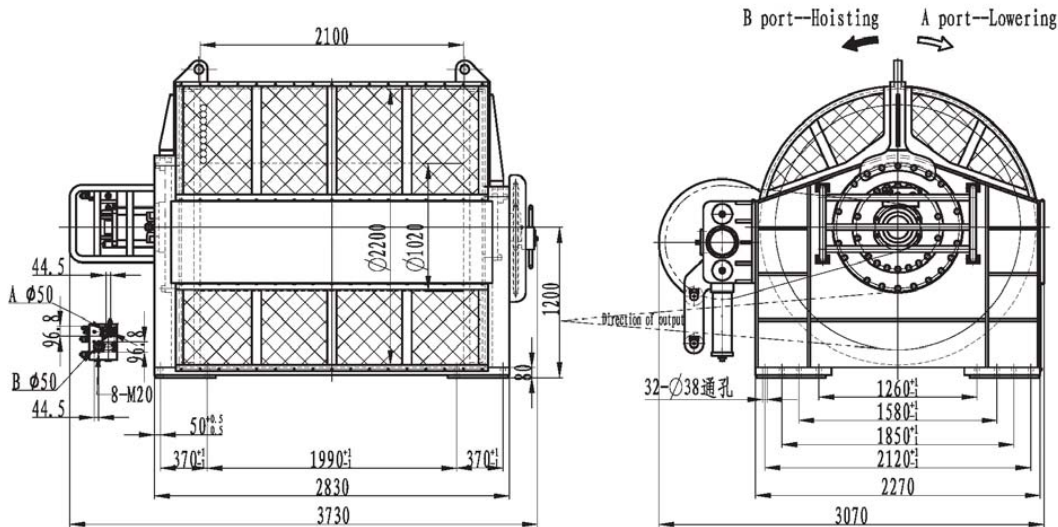


IYJ4611-750/150-240-54-C-PDLX

 主要技术参数
Main Specification

第一层拉力	Rated working pull 1st layer (kN)	750/150
支持负载	Brake support load (KN)	1250
第一层绳速	Speed 1st layer (m/min)	5/20
总排量	Drum displacement (mL/r)	103304.35/25826
系统压力	System rated pressure (MPa)	31/26
钢丝绳直径	Rope diameter (mm)	54
层数	Number of rope layers	4
容绳量	Wire rope capacity (m)	240
供油流量	Oil flow supply (L/min)	178 ($\eta v=0.9$)
液压马达型号	Hydraulic motor type	A6VM160HD1D/63W0400VZB080
行星减速器型号	Planetary gearbox type	C46611 ($i=645.65$)

 液压原理图
Hydraulic principle diagram


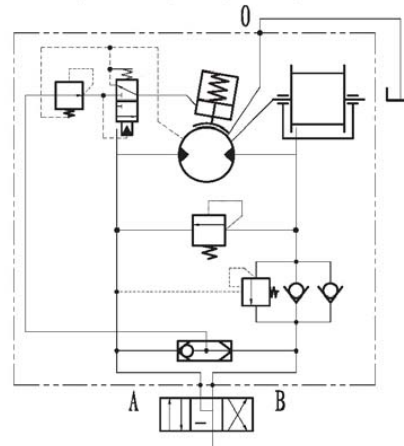
IYJ 61111-800-1600-52-ZP



Main Specification

Rated Line pull on the 1st layer (kN)	800
Line speed on the 1st layer(m/min)	20
Drum displacement (mL/r)	129650
Working pressure different (Bar)	260
System rated pressure (Bar)	280
Diameter of rope (mm)	52
Number of rope layers	9
Capability of drum (m)	1600
Flow (L/min)	856 ($\eta_v=0.9$)
Hydraulic motor	HLA4FM500
Planetary gearbox type	IGC550W3-B259-A4FM500 (i=259.3)

Hydraulic principle diagram



- 注: 1. 马达泄漏口“0”必须接回液压系统油箱, 不允许连接至主油路。
 2. 换向阀中位机能必须为“Y”型或“H”型。
 3. 液压绞车不允许载人。
 4. 若有特殊要求请与我们销售部门联系

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 2. The directional control valve should be of a “Y” or “H” type in neutral position to assure the brake and activated.
 3. The winch is not designed for operation involving lifting or moving personnel.
 4. When there is no winch type available which meets your requirements, we ask you to contact our sales department for a specific design.