



GW系列液压绞车/GW Series Hydraulic Winch

概述/Overview

GW系列液压绞车由带单向平衡阀及控制制动器的高压梭阀组成的各种配流器, GW型液压马达、Z型制动器、C型齿轮减速器、卷筒、机架等部件组成(液压原理见图), 用户只需配备泵站和换向阀即可。由于绞车自带阀组, 它不但简化了液压系统而且提高了传动装置的工作可靠性。GW绞车自带的液压阀组成功解决了一般绞车中存在的空钩抖动和提升中的二次下滑问题, 使GW液压绞车在提升和下放工作中运转平稳。除此之外它还具有起动和工作时效率高、能耗少、噪音低、外形美观、尺寸紧凑、经济性好等特点, 它可应用于重力破碎牵引设备、履带和汽车起重机、吊管机、抓斗和具有破碎功能的钻机等设备中。

GW series hydraulic winch is composed with all sorts of distributors that consist of high pressure shuttle valve formed with one-way balance valve and control brake, GW type hydraulic motor, Z brake, C type gear reducer, reel and machine rack, etc. (please see the diagram for the hydraulic principium). Users only need to configure pump station and change valve. As the winch has valve sets, it not only simplified the hydraulic system, but also enhances the working reliability of the transmission equipments. The hydraulic valve set of the GW winch successfully solves the problem of other general type winch: empty hook vibration and secondary slide during hoisting, so GW hydraulic winch works stably during the hoisting and lowering. Besides this, it has some other features: high efficiency during startup and work, few energy consumption, low noise, beautiful appearance, compact size and perfect economics. It can be applied in gravity crushing traction equipment, pedrail and automobile crane, pipe hoist machine, grab bucket and the drilling machine that has crushing function.

型号举例/Example of Mode:

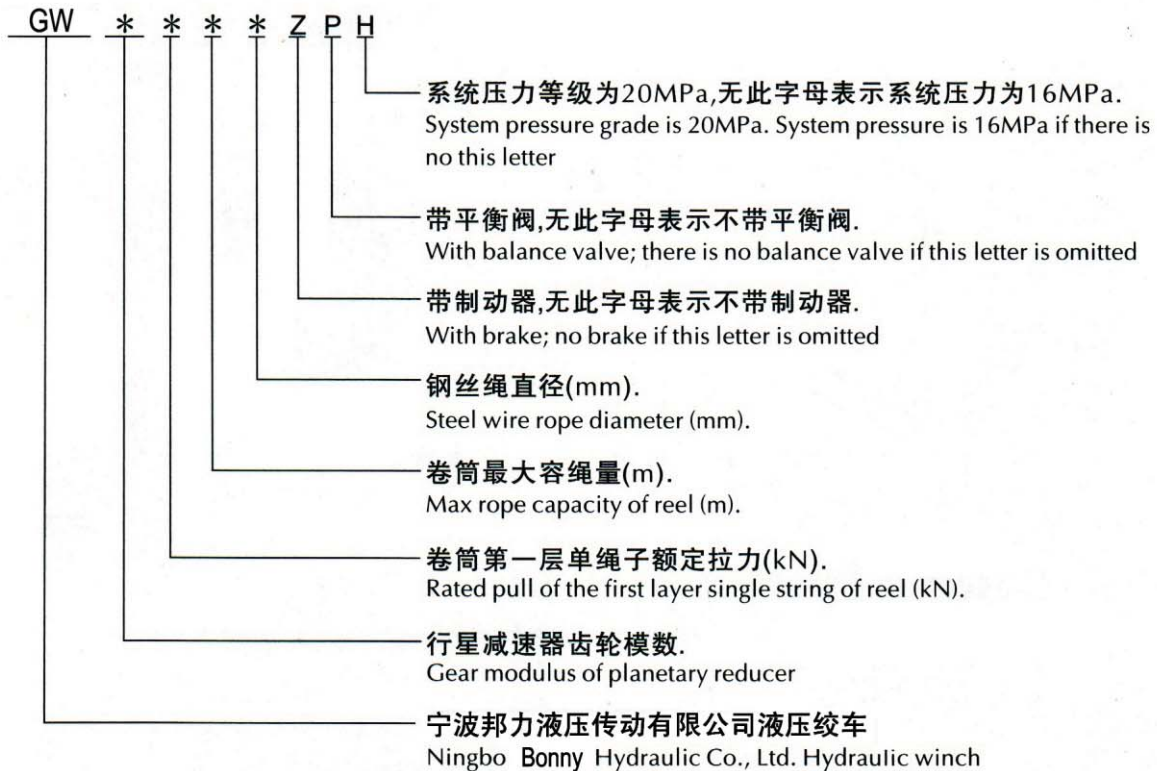
GW6-120-315-30-ZPH表示:

行星减速器模数为6, 钢丝绳的第一层拉力为120KN, 卷筒容绳量为315m, 钢丝绳直径 $\phi 30$, 带制动器及单向平衡阀, 压力等级为20MPa的液压绞车。

GW6-120-315-30 ZPH indicates:

The hydraulic winch with planetary reducer modulus of 6 and the pull force of 120KN at the first layer of steel wire rope; the wire capacity of the reel is 315m and the diameter of steel wire rope is $\phi 30$. It has brake and the one way balance valve and the pressure grade is 20MPa.

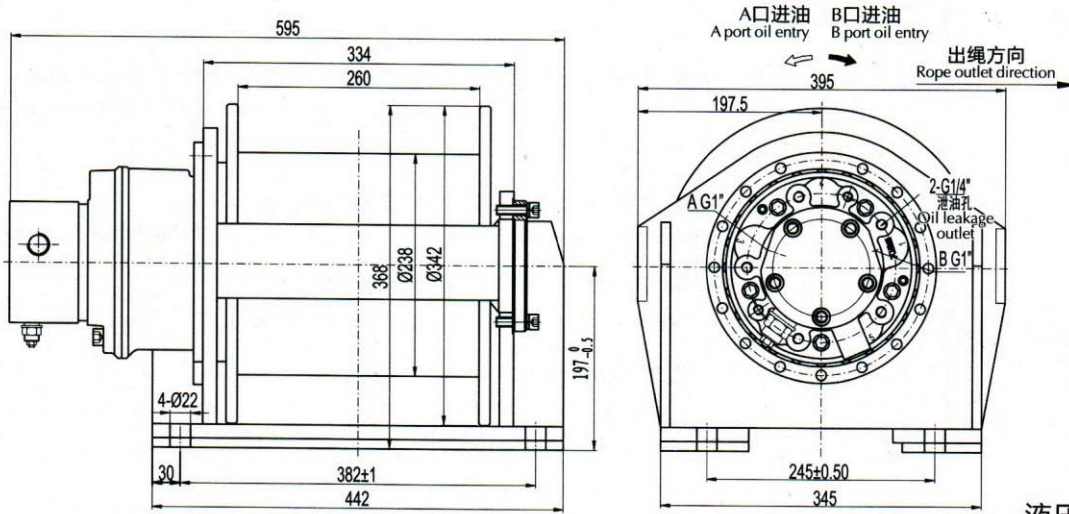
型号说明/Description of Model



参数说明/Description of parameters

- (1)、该系列绞车的总排量为卷筒每转一转的供油量。
 - (2)、供油量是泵站的理论流量，即在考虑系统效率90%的情况下所得的计算值。
 - (3)、容绳量为绞车的理论最大容绳量，实际允许的有效容绳量应考虑保留3圈钢丝绳不用，以防绳头脱出。
- (1). The total displacement of the series of winch is the oil supply quantity when the reel rotates one circle.
 - (2). The oil supply quantity is the theoretical flow of the pump station, namely, the calculated value of pump station under the conditions of considering the system efficiency of 90%.
 - (3). The rope capacity of reel is the theoretical max capacity to hold the rope. The actually allowable effective rope capacity should consider keeping 3 loops of steel wire rope unused to prevent the rope end from disengagement.

GW2.5系列绞车外型尺寸/Series Winch Dimension

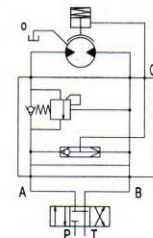


液压原理图

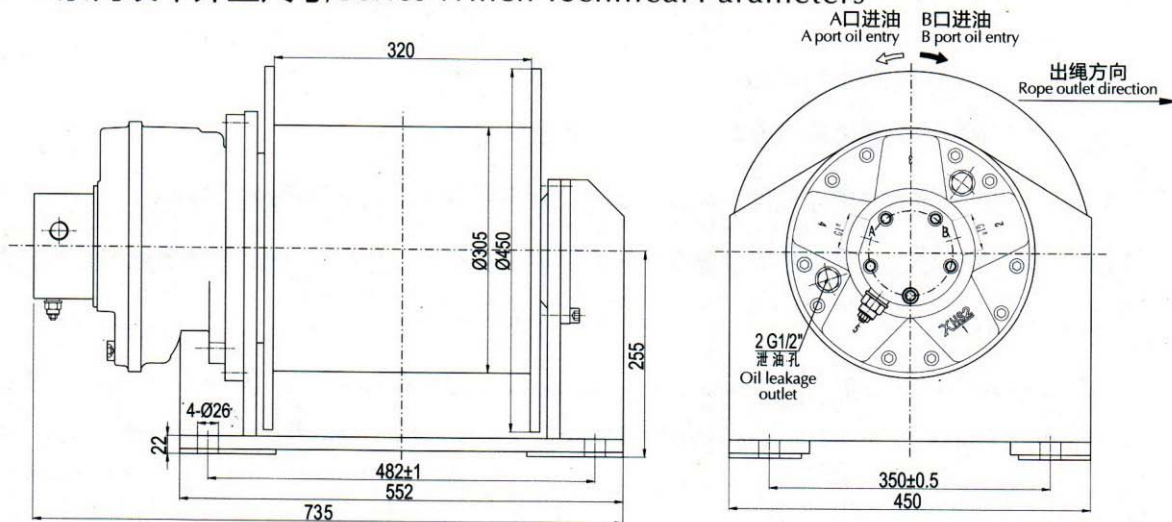
Diagram of Hydraulic Principium

GW2.5系列绞车技术参数/Series Winch Technical Parameters

型号 Model	第一层 First layer		卷筒底径 Reel Bottom Diamete (mm)	总排量 Total Displacement (ml/rev)	工作压差 Difference of Working Pressures (MPa)	钢丝绳直径 Steel Wire Diameter (mm)	容绳量 Rope Capacity (m)	液压马达型号 Model of Hydraulic Motor	行星减速器 型号 Model of Planetary Reducer
	拉力(KN) Pull force	绳速(m/min) Rope Speed							
GW2.5-10-60-10-ZP	10	0-30	238	575	15	10	60	GM05-110D51	C2.5-5
GW2.5-20-50-12-ZP	20	0-30	238	1050	15	12	50	GM05-200D51	C2.5-5.5



GW3系列绞车外型尺寸/Series Winch Technical Parameters

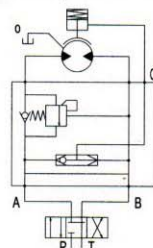


液压原理图

Diagram of Hydraulic Principium

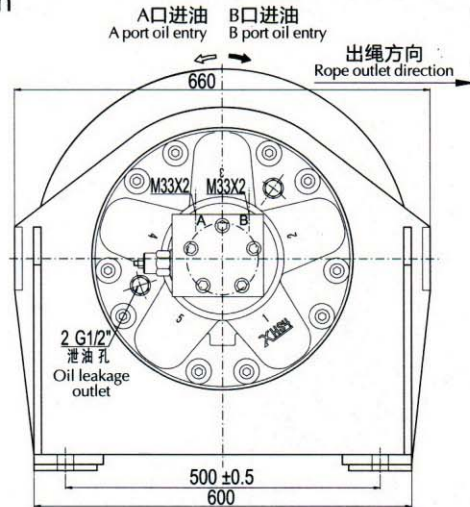
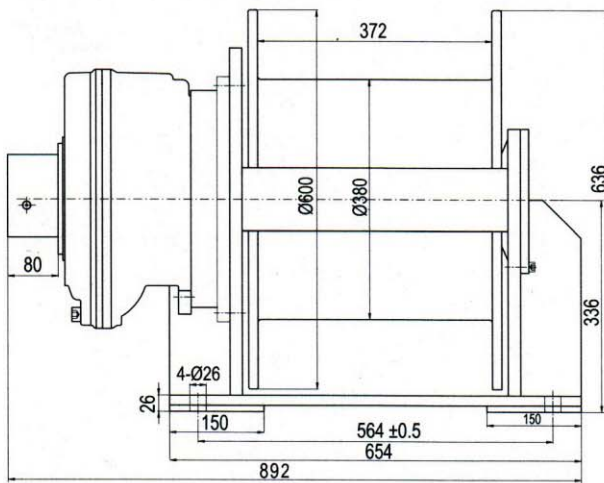
GW 3系列绞车技术参数/Series Winch Technical Parameters

型号 Model	第一层 First layer		卷筒底径 Reel Bottom Diamete (mm)	总排量 Total Displacement (ml/rev)	工作压差 Difference of Working Pressures (MPa)	钢丝绳直径 Steel Wire Diameter (mm)	容绳量 Rope Capacity (m)	液压马达型号 Model of Hydraulic Motor	行星减速器 型号 Model of Planetary Reducer
	拉力(KN) Pull force	绳速(m/min) Rope Speed							
GW3-30-65-15-ZP	30	0-35	305	2125	15.9	15	65	GM2-420D120101	C3-5
3-40-65-16-ZP	40	0-35	305	2711.5	16.6	16	65	GM2-500D120101	C3-5.5



注：1.工作压差为绞车工作时AB进出油口的压力差;2.容绳量指的是三层时的容绳量
Note: 1.the differential pressure at work and for the winch AB pressure oil mouths, 2 Rope capacity is three layers of rope capacity

GW4系列绞车外型尺寸/Series Winch Dimension

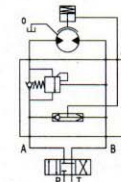


液压原理图

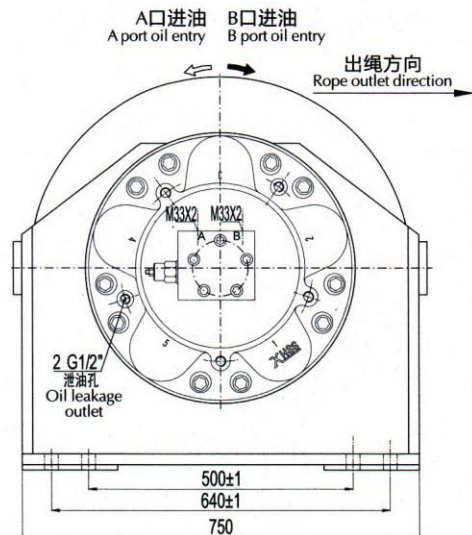
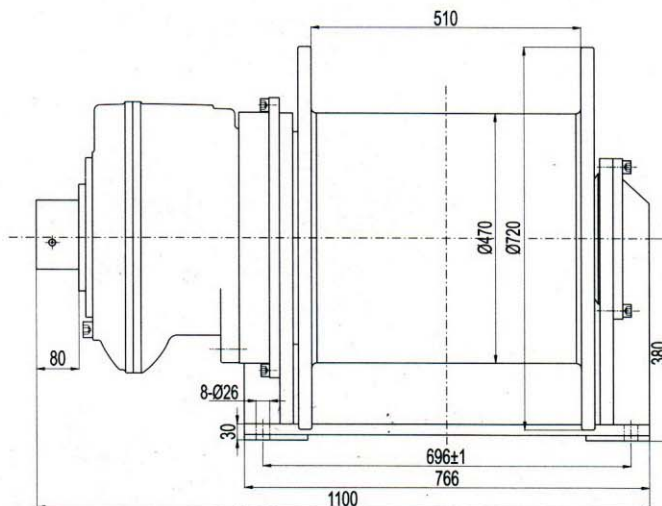
Diagram of Hydraulic Principium

GW4系列绞车技术参数/Series Winch Technical Parameters

型号 Model	第一层 First layer		卷筒底径 Reel Bottom Diamete (mm)	总排量 Total Displacement (ml/rev)	工作压差 Difference of Working Pressures (MPa)	钢丝绳直径 Steel Wire Diameter (mm)	容绳量 Rope Capacity (m)	液压马达型号 Model of Hydraulic Motor	行星减速器 型号 Model of Planetary Reducer
	拉力(KN) Pull force	绳速(m/min) Rope Speed							
GW4-50-87-20-ZP	50	0-40	380	4365	16.3	20	87	GM3-900D240101	C4-5
GW4-60-68-21.5-ZP	60	0-40	380	5428.5	16	21.5	68	GM3-1000D240101	C4-5.5



GW5系列绞车外型尺寸/Series Winch Dimension

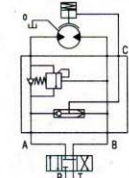


液压原理图

Diagram of Hydraulic Principium

GW5系列绞车技术参数/Series Winch Technical Parameters

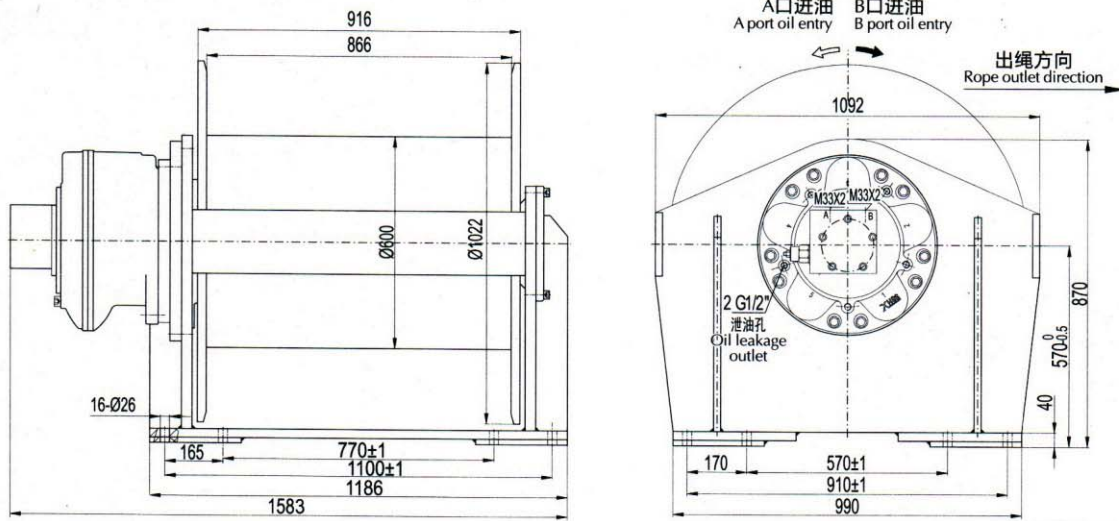
型号 Model	第一层 First layer		卷筒底径 Reel Bottom Diamete (mm)	总排量 Total Displacement (ml/rev)	工作压差 Difference of Working Pressures (MPa)	钢丝绳直径 Steel Wire Diameter (mm)	容绳量 Rope Capacity (m)	液压马达型号 Model of Hydraulic Motor	行星减速器 型号 Model of Planetary Reducer
	拉力(KN) Pull force	绳速(m/min) Rope Speed							
GW5-80-100-24-ZP	80	0-40	470	9080	15.6	24	100	GM5-1800D240101	C5-5
GW5-100-90-28-ZP	100	0-40	470	11039	16	28	90	GM5-2000D240101	C5-5.5



注：1.工作压差为绞车工作时AB进出口口的压力差；2.容绳量指的是三层时的容绳量

Note: 1.the differential pressure at work and for the winch AB pressure oil mouths, 2. Rope capacity is three layers of rope capacity

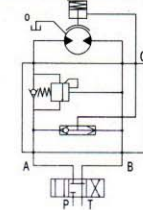
GW6系列绞车外型尺寸/Series Winch Dimension



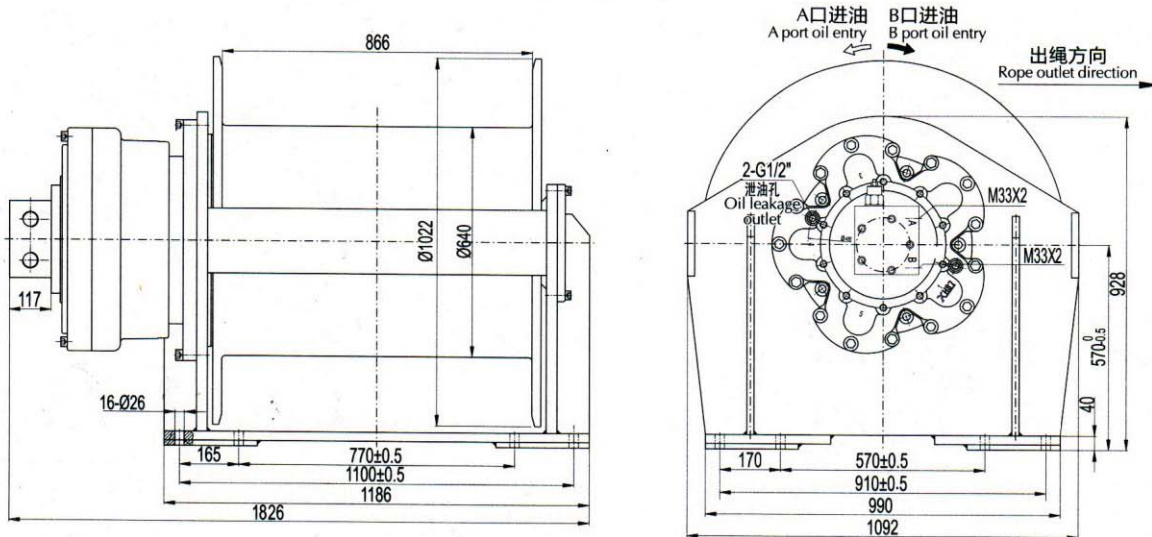
GW6系列绞车技术参数/Series Winch Technical Parameters

型号 Model	第一层 First layer		卷筒底径 Reel Bottom Diameter (mm)	总排量 Total Displacement (ml/rev)	工作压差 Difference of Working Pressures (MPa)	钢丝绳直径 Steel Wire Diameter (mm)	容绳量 Rope Capacity (m)	液压马达型号 Model of Hydraulic Motor	行星减速器 型号 Model of Planetary Reducer
	拉力(KN) Pull force	绳速(m/min) Rope Speed							
GW6-120-176-30-ZP	120	0-30	600	16725	17.0	30	175	GM6-3000D480101	C6-5.5
GW6-150-150-34-ZP	150	0-25	600	16725	19.8	34	150	GM6-3000D480101	C6-5.5

液压原理图
Diagram of Hydraulic Principium



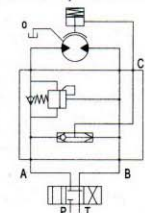
GW7系列绞车外型尺寸/Series Winch Dimension



GW7系列绞车技术参数/Series Winch Technical Parameters

型号 Model	第一层 First layer		卷筒底径 Reel Bottom Diameter (mm)	总排量 Total Displacement (ml/rev)	工作压差 Difference of Working Pressures (MPa)	钢丝绳直径 Steel Wire Diameter (mm)	容绳量 Rope Capacity (m)	液压马达型号 Model of Hydraulic Motor	行星减速器 型号 Model of Planetary Reducer
	拉力(KN) Pull force	绳速(m/min) Rope Speed							
GW7-180-143-38-ZP	180	0-30	640	23639	17.8	38	143	GM7-4300D480101	C7-5.5

液压原理图
Diagram of Hydraulic Principium



注：1.工作压差为绞车工作时AB进出油口的压力差;2.容绳量指的是三层时的容绳量
Note: 1.the differential pressure at work and for the winch AB pressure oil mouths, 2 Rope capacity is three layers of rope capacity