



40JP

Hydraulic Winch Instruction Manual



Assembly & Operating instructions

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Introduction

JP Hydraulic Winches are our company's newly developed products with a pulling force from 10ton to 40ton.

They are structured by hydraulic motors, normally-closed hydraulic multi-plate brakes, planetary gear reducer mechanisms, reel, and a framework. The hydraulic motors we chose exhibit high mechanical efficiency. With the characteristics of starting torque and low speed, they are able to meet the requirements of converters with different flow rates according to different situations.

Also, valves sets, such as a balancing valve, overload valve, high pressure shuttle valve, speed control valve or other valves, can be directly installed on the oil distributor of the motor according to users' needs.

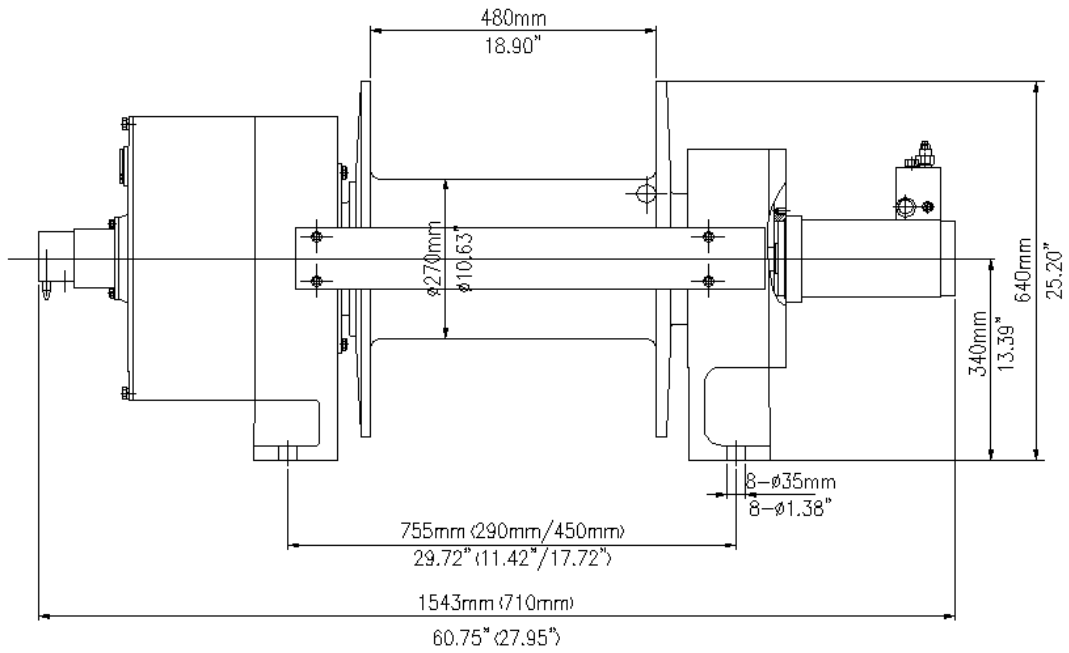
Brake and planetary gear reducer is directly installed on the reel. The reel, carrying shaft, and the rack are designed according to the mechanical requirements, making the overall construction compact but with enough intensity and rigidity.

With its compact structure, small size, low weight, beautiful appearance, and with high security, high efficiency, large starting torque, stability of low speed, low noise, and reliable operation, the JP series of winches has solved the problems of second gliding and chattering of the empty hook found in ordinary winches, providing a stable process of hoisting, descending, and braking.

The integrated valve set installed in the valve plate effectively simplifies the user's hydraulic system.

Due to the above advantages, the JP series of winches are widely used in industries such as shipping, railway, construction machinery, petroleum, geological exploration, and metallurgy etc.

Technical Parameters



Appearance

Rated line pull	88000 lbs	
Motor:	310ml/L	
Gear reduction ratio	95:1	
Cable (Dia. \times L)	$\varnothing 1.417$ " \times 196 FT ($\varnothing 36\text{mm} \times 60\text{m}$)	
Drum size (Dia. \times L)	$\varnothing 10.63$ " \times 18.9 " ($\varnothing 270\text{mm} \times 480$ mm)	
Mounting bolt pattern	29.72 " \times $11.42/17.72$ "	8- $\varnothing 1.38$ "
	$755\text{mm} \times 290/450\text{mm}$	8- $\varnothing 35$
Overall dimensions (L \times W \times H)	60.75 " \times 33.86 " \times 25.2 "	
	$1543\text{mm} \times 860\text{mm} \times 640\text{mm}$	

Pull & Speed

Layer of Cable	1	2	3	4	5
Rated Line Pull Per Layer	88000 LBS [390 KN]	73000 LBS [325 KN]	63000 LBS [280 KN]	55000 LBS [245 KN]	49000 LBS [215 KN]
Maximum Line Speed Per Layer	11.3 FPM [3.44 m/min]	13.5 FPM [4.12 m/min]	15.7 FPM [4.78 m/min]	18 FPM [5.48 m/min]	20.2 FPM [6.16 m/min]

Characteristic

Rated Torque	40418 LBF-FT [54800 Nm]	Wire Rope Capacity	196 FT [60 m]
Wire Rope	Ø36 mm, Optional Item	Design Standard	ISO 4301 & SAE J706
Hydraulic Motor	Sauer Danfoss OMT 310	Hydraulic Operating Pressure	2465 PSI [17 MPa]
Free Spooling Clutch	Pneumatic	Pneumatic Clutch Pressure	0.4 ~ 0.8 MPa
Air Rope Tensioner	Standard Item	Rope Roller Fairlead	Optional Item
Oil	Industrial Gear Oil 220	Oil Capacity	0.4 Gallon [1.5 Liter]
Mounting Bolts	8×M33, Class 10.9	Gross Weight	1598 LBS [725 kg]

Maintenance Precautions

Overhaul

When the hydraulic winch does not work or where the malfunction is identified and confirmed, the user can check and repair. Under conditions that the user is not able to identify the problem then do not dismantle or attempt repair. Contact our company or ask another professional repair department to overhaul. Be careful when dismantling the machine, do not make scratches or dents on precision parts, especially to prevent the surface of moving and sealed parts from damaging. Repair the

damaged parts. Replace those that can't be repaired. Before assembly all parts must be cleaned, and if necessary, coat the parts with lithium grease.

Lifting and Storage

Lifting

When lifting, put the wire rope with sufficient hardness around the proper position of the reel of the hydraulic winch, and pay attention to fixation and reliability.

Storage

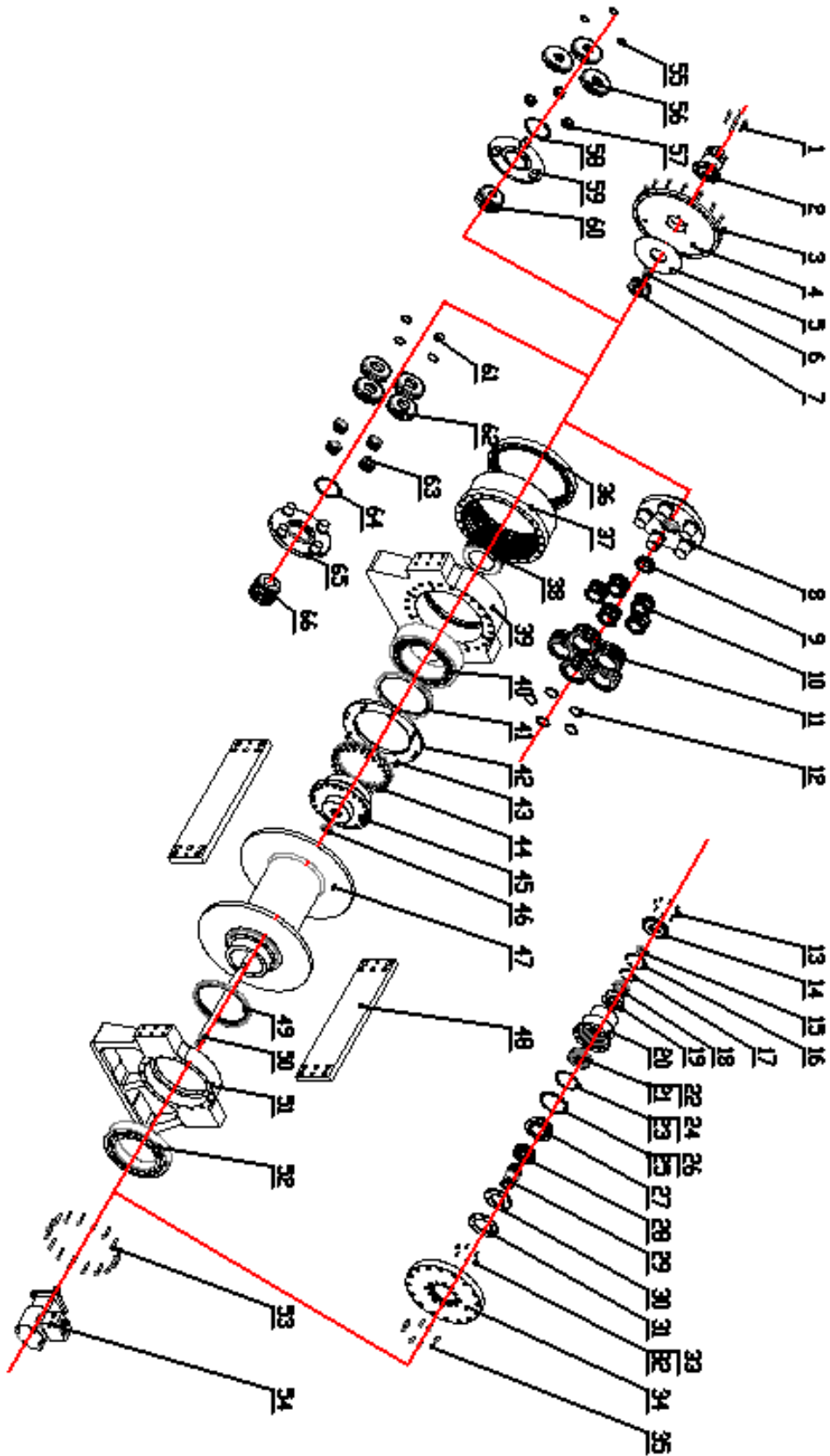
(1) The Hydraulic winch should be stored in the warehouse where the air is dry and no corrosive gas. Do not put it under high temperature or at a -20 °C environment for long-term storage, in case the aging of sealing parts is accelerated.

(2) If the Hydraulic winch is in a long-term storage, the user should drain all the oil from it, and fill the machine fully with Turbine Oil with a low acid value.

Packing list

- 1.IYJ Hydraulic Winch
- 2.IYJ series Hydraulic Winches Manual
- 3.Manufacturer Certificate
- 4.Test Records of Product (users for special product requirements)

Explosive View



No.	Code	Name	No.
1	GB70-85	Screw M8*55	4
2	IYJ250.4	Cylinder	1
3	GB70-85	Screw M10*80	16
4	IYJ400A-3	End Cover	1
5	IYJ400A-12	Wear Pads	1
6	IYJ250.4-3	Associator	1
7	IYJ400A-2	Sun gear	1
8	IYJ400A.2-1	Planet Carrier	1
9	IYJ400A.2-2	Ring	1
10	RSL182212	Bearing	5
11	IDKN100B214S.1-02	Planet Gear	5
12	GB894.1-86	External Circlips ϕ 60	5
13	GB5783-86	Bolt M6*20	8
14	IYJ400A-10	End Cover	1
15	GB/T13871-92	Oil Seal35*55*8	1
16	GB893.1-86	Internal Circlips ϕ 80	1
17	JB/ZQ4341-1997	Internal Circlips ϕ 102*4	1
18	GB276-89	Bearing6010	1
19	IYJ250.3-5	Bearing Seat	1
20	IYJ250.3-2	Break Shell	1
21	HS70K-10	Outside Friction Disc	10
22	HS70K-11	Inside Friction Disc	9
23	GB3452.1-86	O-ring 112*5.3	1
24	GB3452.1-86	Ring 121.32*112*2	1
25	GB3452.1-86	O-ring 136*7	1
26	GB3452.1-86	Ring 136*148.32*2	1
27	IQKN10B38E.1-04	Piston	1
28	Z30A-16	Spring	16
29	IYJ250.3-3	Splined Hub	1
30	IQKN3B21EA.1-06	Platen	1
31	IQKN10B38E.1-17	Baffle	1
32	GB859-87	Spring Washer ϕ 6	6
33	GB5783-86	BoltM6*16	6
34	IYJ400A.3-1	Motor Seat	1
35	GB70-85	ScrewM12*25	8
36	IDKN100B214S-08	Gear Ring	1
37	IYJ400A-4	Gear Ring	1
38	IYJ400A-11	Axle	1
39	IYJ400A-5	Support	1
40	GB276-89	Bearing144	1
41	GB/T13871-92	Oil Seal260*300*20	1
42	IYJ400A-3	End Cover	1
43	GB5783-86	Bolt M8*30	8

44	GB70-85	Screw M12*65	24
45	IYJ400A-9	Seat	1
46	GB/T13871-92	Oil Seal32*52*8	2
47	IYJ400A-6	Drum	1
48	IYJ400A-1	Side Plate	2
49	GB/T13871-92	Oil Seal260*300*20	1
50	IYJ400A-8	Axle	1
51	IYJ400A-7	Support	1
52	GB288-87	Bearing3053148	1
53	GB70-85	ScrewM10*80	16
54	IYJ400A. 6	Hydraulic System	1
55	GB894. 1-86	External Circlips ϕ 35	3
56	IYJ400A. 1-2	Planet Gear	3
57	F-208098	Bearing	3
58	GB894. 1-86	External Circlips ϕ 125	1
59	IYJ400A. 1-1	Planet Carrier	1
60	IYJ400A. 1-3	Sun gear	1
61	GB894. 1-86	External Circlips ϕ 45	4
62	IYJ400A. 4-2	Planet Gear	4
63	RNN3009*3V	Bearing	4
64	GB894. 1-86	External Circlips ϕ 125	1
65	IYJ400A. 4-1	Planet Carrier	1
66	IDKN100B214S. 2-3	Sun gear	1