

# YT Series Hydraulic Lifting winch

## Operation & Maintenance Manual



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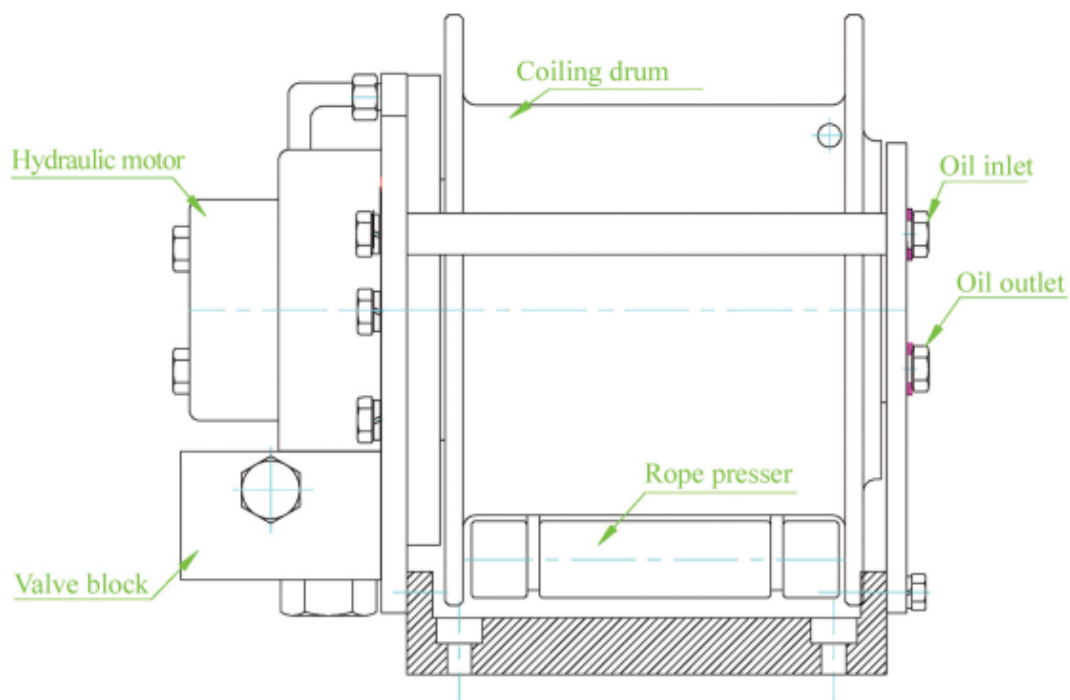
# YT Series Hydraulic Lifting Winch Operation & Maintenance Manual

## I. Brief introduction

YT series hydraulic lifting winch produced by us adopts foreign advanced structure and this product series is developed by us. Nowadays, it is widely used in special vehicles such as high altitude work vehicles and trucks with crane all over the world.

## II. Characteristics

YT series hydraulic lifting winch mainly consists of hydraulic motor, planet-gear decelerator, multi-piece friction normally-closed brake, coiling drum, valve block (including balance valve and shuttle valve), rope presser, etc. The product has characteristics of small volume, compact structure and high drive efficiency.

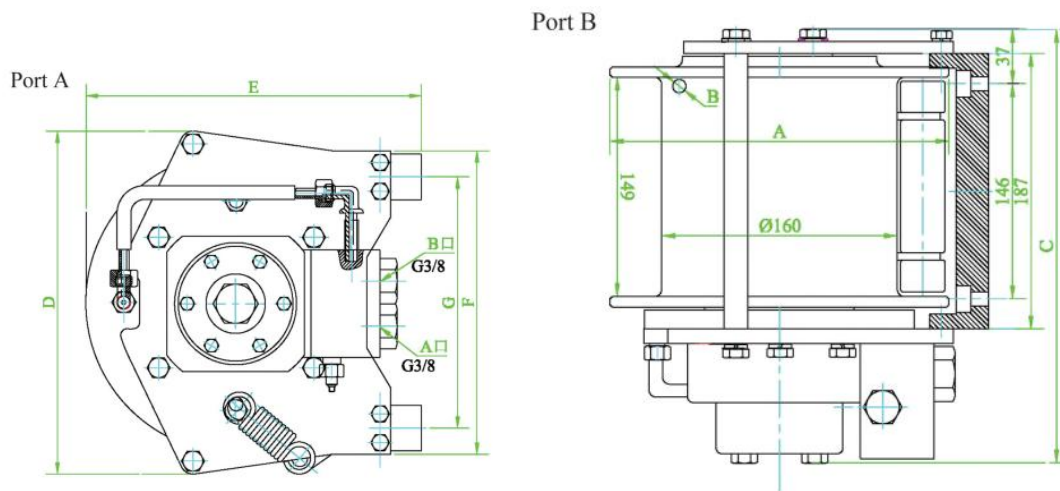


### III. Performance parameters sheet

Model	YT-08	YT-11	YT-15
Pull force(N)	8000	11000	15000
Rope speed(M / min)	40	39	38
pressure of hydraulic system(Mpa)	16	16	16
Flux(L / min)	35	42	55
Drive ratio(i)	5.23	5.23	5.23
Layers number	4	4	4
Rope capacity(M)	43	35	31
Size of coiling drum(mm)	230×160×149	245×160×149	265×160×149
Diameter of steel wire rope(mm)	Φ8	Φ10	Φ12

### IV. Outline installation size

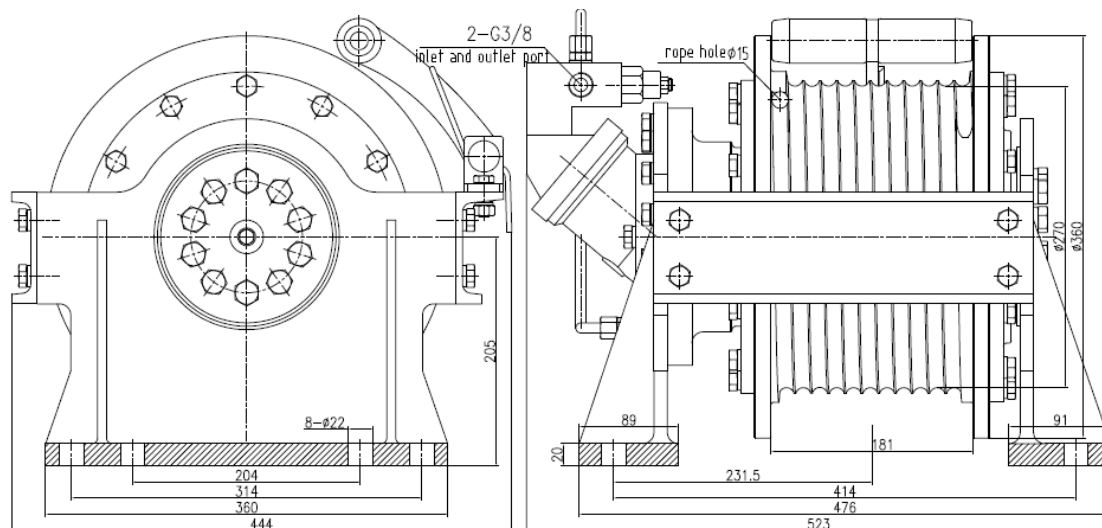
Model	A	B	C	D	E	F	G
YT 08	Φ230	Φ9	295	262	257	232	192
YT 11	Φ245	Φ11	300	277	272	247	207
YT 15	Φ265	Φ13	305	297	292	267	227



## YT30 Performance

Rated line pull (1st layer)	KN / kgs / lbs	30 / 3000 / 6620
Line speed (1st layer)	m/min	30
Response pressure of brake	MPa / Bar	2.5 / 25
Oil pressure	MPa	20/ 200
Oil flow	L/min	54
Drum diameter x Bottom diameter x Length (internal)	mm	360x270x181
Drum capacity	m	33
Suggested high-intensity wire rope diameter	mm	Φ 13
Net weight	Kg	151

## YT30 Product structural drawing



## V. Installation

1. First check the conformity certificate of the product before installation.
2. The hydraulic lifting winch should be installed on the vehicle with high-intensity bolts of grade 10.9 to ensure the connection intensity.
3. The lubricant of decelerator is 18# double-curve gear oil,

which is changed every 200 hours or half a year, the volume is 0.2-0.3L. The hydraulic oil is HT-30 machinery oil. In winter of cold region, YH-10 aviation hydraulic oil is used, the oil complement volume of oil tank is larger than 80L, and the oil is to be changed every year or every 100 hours. When changing the oil, first clean the oil tank and then add the oil while filtering.

4. Install the hydraulic pipelines according to the working principle diagram of hydraulic system(see attached diagram).
5. After the installation is finished, first check whether the installing bolts are tightened, whether each oil tube is connected according to the diagram and whether the tube joints are tightened, and then open the switch of oil tank to do the commissioning. In order to make the hydraulic motor run stably and prevent the air from entering, it is suggested to run the machine under no-load state for 5-10 minutes when commissioning or restarting after a long-time stop.

## VI. Notices

1. This equipment can not load the person.
2. Before lifting the heavy substance, first evaluate whether its weight is within the working scope of winch to avoid overload and accidents.

3. When the lifting mechanism is running, no person is allowed to stand within certain space at either side of the steel wire rope. The operator should work at a safe position to avoid danger.

4. When the lifting mechanism runs continuously, the operator should pay attention to the temperature of hydraulic oil at any time. When the temperature surpasses 80°C stop the machine to cool.

5. When the lifting winch is running, the residual part of steel wire rope at bottom layer should not be less than 5 circles to ensure the safety.

6. After the work is finished, check whether the steel wire rope is broken or abraded or deformed. If any, replace it timely to ensure the safety.

## **VII. Others**

We will repair and change the spare parts freely within one year after the delivery if the damages are due to quality issues and are not caused by the user who operates and uses the machine according to the instructions in this manual.

We reserve the right to modify the product due to technical improvement without further notice.

## Working Principle Diagram of Hydraulic System

