安装使用前,务请阅读使用说明书

Please read this manual before installation and operation

JZG41E 型死绳固定器

JZG41E Deadline Anchor

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Operation & Maintenance Manual

JZG41E Deadline Anchor is a mechanism that converts deadline load of drilling rig into hydraulic pressure. It is one of the important components of weight indicating system, which can be used with JZ500A.1.6 sensor to work as the primary instrument, and then forms a JZ500Q Weight Indicating System together with a weight indicator and a recorder.

Ⅰ Main technical specifications:

1. Maximum deadline load:410kN
2. Sensor：JZ500A.1.6
3. Output pressure of deadline anchor (Sensor)：6.83MPa.
4. Error of output pressure of deadline anchor (sensor) ：±1.0%FS.
5. Wire line size:Φ38mm, 35mm
6. Overall dimension: 1385mm×1270mm×490mm
7. Weight: 1200kg
8. The deadline anchor is wall mounted onto the connection board on the inner side of the derrick.
9. Environmental temperature: -40~50℃

Ⅱ structure and installation：

2.1 Structure:

JZG41E Deadline Anchor consists of a drum, a base and a load sensor, as shown in Figure 1.

Load sensor is one of the main parts of deadline anchor, and it converts deadline load into hydraulic signal by compressing the liquid in the sensor via the diaphragm. The hydraulic signal is then transmitted to weight indicator and recorder. On the sensor, a quick female connector, a self-sealing male connector and a preserved plug are installed.

2.2 Installation, operation and maintenance

1) Put the gibbous parts on the base of deadline anchor into the holes in the inner side of connection board on the derrick, and then fasten the deadline anchor tightly on the connection board with bolts, nuts and washers.

2) Wrap the deadline round the drum three turns along the grooves of the drum, then thread the deadline through the clamp, fasten it with bolts, nuts and press block. Attention: The deadline clamp and deadline must be put properly and tightly, in case slide of deadline. The wire line shall not touch any other thing on the derrick.

3) Connect a hand pump with the oil injection connector of sensor. Operate the hand pump to remove gas from and inject oil into the sensor. Pump hydraulic fluid into the sensor until the weight indicator indicates 20~30% full scale. Exhaust air at bleed plug. If there is air inside the sensor, the oil spouts from the sensor is uncontinuous and sounds puff-puff; if there no gas in, the oil spouts from the sensor is continuous with no puff-puff sound. Repeat the operation at least three times and make sure all the air in the sensor is exhausted and the sensor is fully filled. Please do not pump the sensor without oil in the hand pump or air will be pumped into the hydraulic system,

4) During oil injection and daily drilling process, check regularly if there is sufficient oil in the sensor (observe the gap between the upper press plate and the lower plate of rubber diaphragm inside the sensor and see if it is in accordance with the condition when the sensor if fully filled.). Re-fill oil into the sensor if necessary.

5) Seat the travelling block system onto the drill platform while injecting oil or refilling oil into the sensor and make sure there is no load on the deadline anchor sensor (weight indicator) (this is very important). Remove all the air and surplus liquid and have weight indicator pointer point to zero. Repeat the oil-injection and gas-removal operation at least three times till all the air in the hydraulic system is completely eliminated. This is one of the most important measures to be taken to ensure correct reading of the instrument.

6) Every day, before operation, clear debris, mud, and ice on the sensor, and check the gap between the upper and lower press plates. Check and see if

there is leakage at the connection place. Solve any possible problems in time.

7) Regularly (usually 12months) apply some lubricant from the oil injection port in the drum end cap with a grease gun to lubricate the bearing so that it can rotate freely. Lubricating grease shall be Great Wall 7023B low-temperature type.

8) Please use 45# transformer oil (M / D TOTCO W15-4 low-temperature fluid for the hydraulic system is recommended if the instrument is to be use din the environment with temperature below -40℃). The hydraulic oil used by the instrument should be clean and precipitation-free to prevent hose and connector from being clogged and ensure the reliable performance of the instrument.

Ⅲ**Attentions:**

1. JZG41E Deadline Anchor must be used with JZ500A.1.6 sensor of 6.83MPa and corresponding secondary instrument (weight indicator and recorder). Even for the same type of drilling rig, the wire line it uses may be different, please indicate in your order the size of wire line so that we can equipped the deadline with corresponding clamp.

2. According to the maximum deadline load, determine the type of drilling rig it can be used on.

3. Select a correct secondary instrument (weight indicator and recorder) against the number of lines of traveling block and the maximum deadline load.

4. Bolts, relevant nuts and washers that are used to install JZG41E Deadline Anchor should be equivalent to or above Grade 8.8. Tightening torque on M42 bolt (or stud) shall be: 1200±30n.m.

5. The design of installation board for deadline anchor should comply with Attached Figure 2. The detailed installation place should be determined by the rig manufacturer.

Ⅳ **Spare Part list**

No.	Part No.	Name	Unit	Quantity	Remarks
1	JY246.4B	Long connection hose	Piece	1	20m
2	SZT5A	Hand pump	Set	1	With a piece of 5-meter hose
3	JY248-10	Diaphragm	Piece	2	
4	JY250.2.1	Self-sealing female connector	Piece	2	
5	JY248.2	Self-sealing male connector	Piece	2	
6	JY246.4.1	Quick male connector	Piece	2	
7	JY248.6	Quick female connector	Piece	2	
8		45# transformer oil	Bottle	2	2kg/bottle
9		M/D W15-4 hydraulic oil	Bottle	1	3.8L/bottle
10	JZG42A-3	Clamp	Set	1	Φ38mm, or 35mm

NOTE: THE SPARE PARTS LISTED HERE ARE NOT WITHIN THE PACKING LIST OF THE EQUIPMENT. THEY CAN BE ORDERED AS NECESSARY.

Ⅴ. DECLARATION：

1. THE DEADLINE ANCHOR IS FORBIDDEN TO BE USED OVERLOAD. PARTS OF DIFFERENT TYPES MUST NOT BE MATCHED TOGETHER. AND WE WILL NOT BE LIABLE FOR ANY INSTRUMENT DAMAGE, HUMAN

HURTS, AND OTHER ACCIDENTS CAUSED BY IMPROPER USE!

2. WE WILL ALSO NOT BE RESPONSIBLE FOR THE QUALITY, TECHNICAL SPECIFICATIONS, TECHNICAL INTERFACE AND OTHER ASPECTS OF THE SECONDARY INSTRUMENT AND ITS SPARE PARTS THAT ARE NOT MANUFACTURED BY OUR COMPNAY!

Ⅵ ATTACHMENT:

1. STRUCTURAL DIAGRAM AND DETAILED PART LIST

2. INSTALLATION,OUTLINE DRAWING

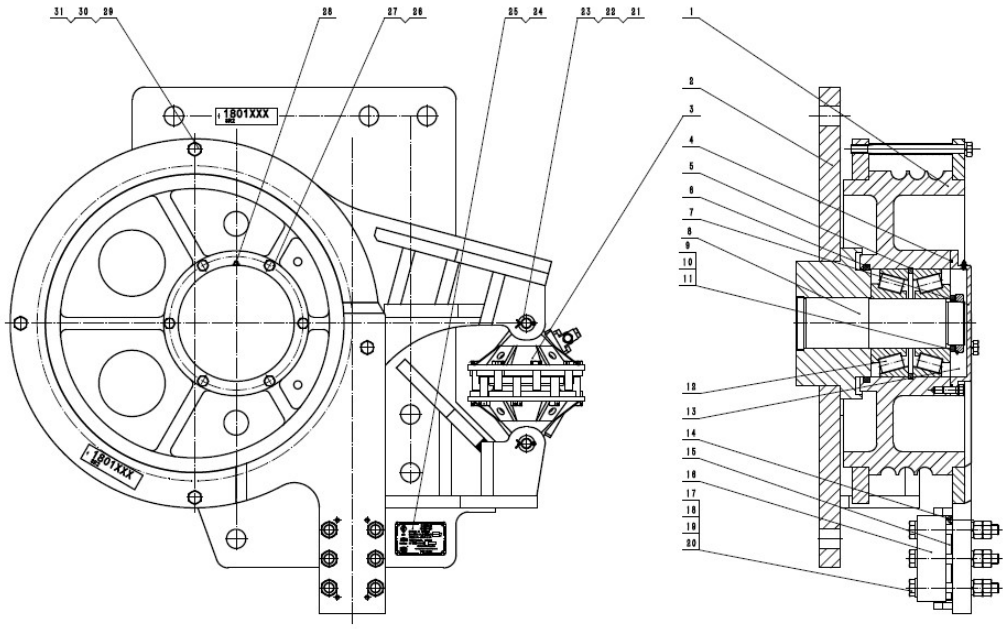

Figure 1 Structural Diagram

Detailed structural part list

No.	Part No.	Name	Qty	Remarks
1	JZG41E.1	Drum	1	
2	JZG41E.2	Base	1	
3	JZ500A.1.6	Sensor	1	
4		Φ4 rubber tape	1	
5	JZ500.1-5	Expansion ring	1	
6	JZ500.1-6	Oil seal	1	
7	JZG41E-3	End cap	1	

8	JZ500A.1-4	Shaft	1	
9	GB/T 886-1986	Shaft shoulder retainer ring 110x135	1	、
10	GB/T 858-1988	Check washer for round nut 105	1	
11	GB/T 812-1988	Round nut M105x2	1	
12	GB/T 297-1994	Tapered roller bearing 32324	2	
13		Low-temperature lubricatinggrease, Great Wall 7023B 号	2kg	
14	GB/T 119.1-2000	Cylindrical pin 10u8x50-A3	4	
15	JZG42A-3	Clamp	1	
16	JZ500.1-7	Press block	1	
17	GB/T 97.1-2002	Flat washer, Grade A, 24 200HV	6	
18	GB/T 5782-2000	Hexagonal head bolt, M24x200-8.8 polish rod≤110	6	
19	GB/T 93-1987	Standard spring washer 24	6	
20	GB/T 6170-2000	Type 1 Hex nut M24 -8	12	
21	JZ500A.1-3	Shaft pin	2	
22	GB/T 848-2002	Small washer Grade A 24 140HV	2	
23	GB/T 91-2000	Cotter pin 5x40	2	
24	JZG-MP-API8C-1	Deadline anchor monogram nameplate	1	
25	GB/T 827-1986	Nameplate rivet 3x10	4	
26	GB/T 93-1987	Standard spring washer 16	6	
27	GB/T 5783-2000	Hex. Head bolt, fully threaded, M16x40 -8.8	6	
28	JB/T 7940.1-1995	Straight-through oil forced cup M10x1	1	
29	GB/T 93-1987	Standard spring washer 20	4	
30	GB/T 5782-2000	Hexagonal head bolt M20x280 -8.8	4	
31	JZG42A-4	Sleeve	4	

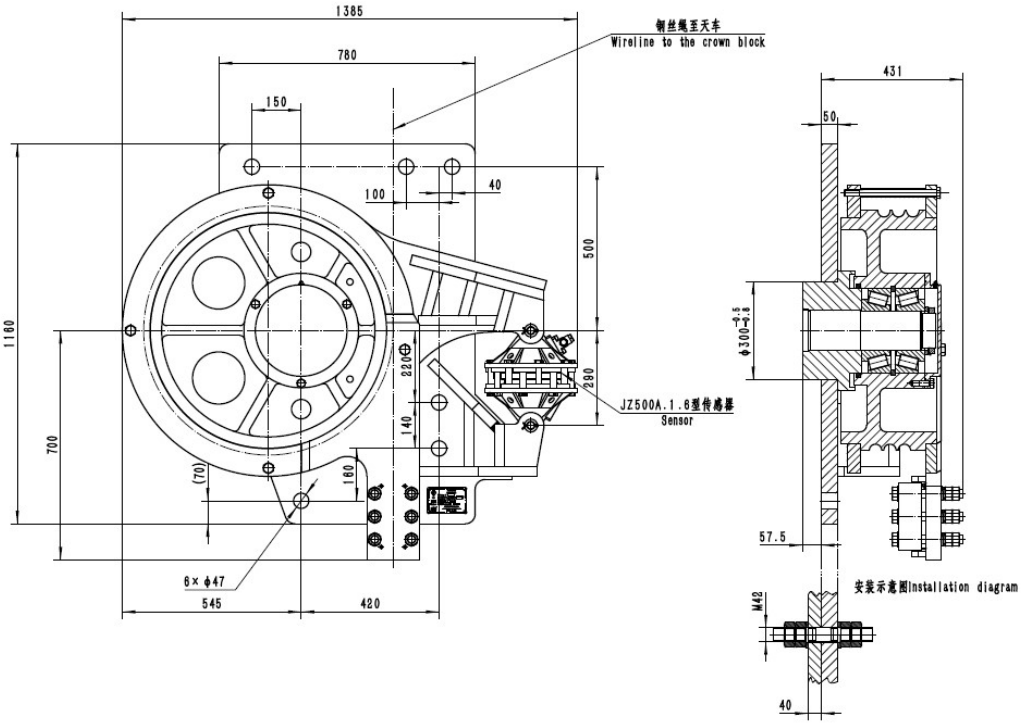

Figure 2 Outline and installation diagram