



Crane Logistic & Transport Expert



Crane Logistic & Transport Expert



**Explosion-proof Wire Rope
Electric Hoist**

Specification

YUANTAI CRANE

Everything is for Customer - Yuantai Crane

Henan Yuantai Crane Machinery Import&Export Co.,Ltd.

Address: Henghua Business Building 712, Garden Road, Zhengzhou, Henan, China

Tel: 86-371-65760776 Fax: 86-371-65760775

Web: www.ytcrane.com

Email: yt@ytcrane.com

Henan Yuantai Crane Machinery Import&Export Co.,Ltd.

Part 1: Product Overview

1 The machine features



- 1.1 Compact structure, light, safe and reliable;
- 1.2 High universality component, can be easily interchanged
- 1.3 Light dead weight, small in size, large lifting capacity
- 1.4 Explosion-proof type
- 1.5 Hoist exposed parts are all adopt special no-spark materials, reliable explosion-proof performance
- 1.6 Explosion-proof mark is Exd II BT4 or Exd II Ct4, temperature class is explosive gas mixture of T1-T4 group (see table 1 and 2)
- 1.7 Pass the explosion-proof performance testing of ministry of machinery industry explosion-proof electric products quality supervision and inspection center Jiamusi branch center, and presented the flame-proof certification
- 1.8 In accordance with GB3836-2000 planning and design, manufacture and acceptance



2 Supply scope

Our company mainly produce hoist series with the lifting capacity of 0.25-63t, the lifting height of 1~100m, low working class M3. We also design and manufacture non-standard series products according to your demands.

3 Main application

Hanging on the I beam; moving in straight or curve line; can be installed in the fixed support to lift the heavy materials, using with the explosion-proof single or double beam crane.

Mainly applicable to class B and C of type I and type II, places explosive dangerous with the temperature group of T1-T4.

Appendix

Explosive-proof grade

There are two types of electrical equipments using in prescribed conditions will not cause an explosive

burning environment

Type I: electric equipment in underground coal mine

Type II: all others explosive environment using electric equipment except underground coal mine

Part 1: Product Overview

Type II can be divided into IIA/ IIB/ IIC.

Table 1

| | | | | | |
|--------|--------|-------|--------|--------|------|
| T1 | T2 | T3 | T4 | T5 | T6 |
| 450 °C | 300 °C | 200°C | 135 °C | 100 °C | 85°C |

Table 2

| temperature group | T1 | T2 | T3 | T4 | T5 | T6 |
|-------------------|---|---|---|------------------------------|---------------|---------------|
| class | | | | | | |
| II A | methane, toluene, methyl ester, ethane, propane, acetone, acrylic acid, benzene, styrene, carbon monoxide, acetic ether, acetic acid chlorobenzene, methyl acetate, ammonia | methanol, ethanol, ethyl benzene, propanol, propylene, butanol, butane, butyl acetate, amyl acetate, cyclopentane | Pentane, amyl alcohol, hexane, hexanol, heptane, octane, ring ethanol, turpentine, naphtha, petroleum, (including gasoline), fuel oil, amyl alcohol tetrachloro | Acetaldehyde, trimethylamine | | ethyl nitrite |
| II B | Propylene, dimethyl ether, town gas | Butadiene, propylene oxide, ethylene | Dimethyl ether, acrolein, and hydrocarbon | diethyl etherethyl oxide | | |
| II C | Hydrogen, water gas | Acetylene | | carbon disulfide | ethyl nitrate | |

Part 1: Product Overview

4 applicable scope and working conditions

This crane is used in ambient temperature of $-25^{\circ}\text{C}\sim+40^{\circ}\text{C}$, humidity $\leq 85\%$, elevation under 1000m, power supply is 3-ph, 380V,50HZ (can change as user demand).

5 classification and product specifications

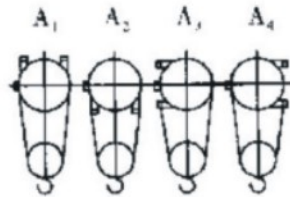
Explosion-proof single speed type and explosion-proof double speed type.

Note: single speed explosion-proof traveling electric hoist, with the capacity 5t and lifting height 9m, can be signed as BCD 5t-9m.

6 Structure Layout

Stationary type and operation type both included.

As shown on the right: A1、A2、A3、A4 separately fixed on the up, down, left and right side. A2 always used on the trolley of double beam crane with hoist. It is usually operation type without special explanation, traveling along with beams.



7 Main structure and characters

7.1 Lifting mechanism

Lifting motor

1. Adopt professional manufactured fully enclosed tapered rotor asynchronous explosion-proof series motor
2. Max torque is 2 or 3 times more than full-load torque, safe and reliable when using
3. Grade B or F insulation, motor protection degree IP44/IP54



Speed reducer

1. Adopt standard module cylindrical gear, easy for maintainance, all installed antifriction bearing
2. The gears and gear shaft made with heat treatment alloy steel, high strength
3. High quality cast iron shell, shaped by machining center, assembly rigor, dust proof
4. Reducer is a separate part, convenient for assemble and un-assemble.
5. Reliable driving, high efficiency



Part 1: Product Overview

Hook

1. Hook end uses card board type structure
2. When explosion-proof degree is DIIT4, hook head made of stainless steel.

7.2 Traveling mechanism

Traveling motor

1. Flameproof BZDY series conical rotor three-phase asynchronous motor, the brake part is flat brake, the braking torque is small, the braking process is slow to avoid parking hanging heavy objects shaking.
2. Motor working duty S4, benchmark load sustained rate of 25%, 120 times equivalent starting per hour.



Wheels

Explosion-proof handled wheel

7.3 electric equipment

- 7.3.1** Composed with explosion-proof type electric control box, explosion-proof type control board and explosion-proof limiting stopper
- 7.3.2** With explosion-proof dedicated up and down traveling protection of fire stopper limit device
- 7.3.3** With explosion-proof type overload limit
- 7.3.4** With explosion-proof type overload limit



Note: mechanical components take explosion-proof measures. In order to prevent electric hoist crash and impact cause high temperature spark when traveling, we should deal with some relevant parts.

- (1) Lifting and running reducer should be injected right amount of machine oil.
- (2) Reel, wire rope coated with grease.
- (3) Stop block in the limited rod and joint of limit apply made with bronze or stainless steel.

Part 2: Parameter

| BCD type explosion-proof electric hoist | | 3t | | | | | |
|---|-------|---------|-----|-----|-----|-----|-----|
| Lifting speed nominal speed(slow speed) | m/min | 8(0.8) | | | | | |
| Traveling speed | m/min | 10 | | | | | |
| Lifting motor | kw | 4.5/0.4 | | | | | |
| Traveling motor | kw | 0.4 | | | | | |
| Traveling rail | | 20a~32c | | | | | |
| Lifting height | m | 6 | 9 | 12 | 18 | 24 | 30 |
| Min curvature radius | m | 2.0 | 2.0 | 2.0 | 2.5 | 3 | 4 |
| Dead speed(single speed) | kg | 332 | 352 | 392 | 432 | 472 | 512 |
| Dead weight(double speed) | | 411 | 431 | 471 | 511 | 551 | 591 |

| BCD type explosion-proof electric hoist | | 5t | | | | | |
|---|-------|---------|-----|-----|-----|-----|-----|
| Lifting speed nominal speed(slow speed) | m/min | 8(0.8) | | | | | |
| Traveling speed | m/min | 10 | | | | | |
| Lifting motor | kw | 7.5/0.8 | | | | | |
| Traveling motor | kw | 0.8 | | | | | |
| Traveling rail | | 25a~63c | | | | | |
| Lifting height | m | 6 | 9 | 12 | 18 | 24 | 30 |
| Min curvature radius | m | 2.5 | 2.5 | 2.5 | 3 | 4.0 | 5.0 |
| Dead speed(single speed) | kg | 479 | 502 | 550 | 595 | 610 | 685 |
| Dead weight(double speed) | | 617 | 640 | 688 | 733 | 778 | 823 |

| BCD type explosion-proof electric hoist | | 10t | | | | | |
|---|-------|---------|------|------|------|------|------|
| Lifting speed nominal speed(slow speed) | m/min | 7(0.7) | | | | | |
| Traveling speed | m/min | 10 | | | | | |
| Lifting motor | kw | 13/1.5 | | | | | |
| Traveling motor | kw | 0.8 | | | | | |
| Traveling rail | | 25a~63c | | | | | |
| Lifting height | m | 6 | 9 | 12 | 18 | 24 | 30 |
| Min curvature radius | m | 2.5 | 3.5 | 4 | 6 | 7.5 | 9.0 |
| Dead speed(single speed) | kg | 794 | 914 | 1034 | 1234 | 1434 | 1634 |
| Dead weight(double speed) | | 1070 | 1190 | 1310 | 1510 | 1710 | 1910 |

YUANTAI CRANE

Everything is for Customer - Yuantai Crane



Network spread all over the world Service nearly around

Henan Yuantai Crane Machinery Import&Export Co.,Ltd.

Address: Henghua Business Building 712, Garden Road, Zhengzhou, Henan, China

Tel: 86-371-65760776

Fax: 86-371-65760775

Web: www.ytcrane.com

Email: yt@ytcrane.com

