

**JB**

**INDUSTRY STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA**

**JB/T 8853-2001**

Replacing JB/T 8853-1999

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**Cylindrical gear reducers**

圆柱齿轮减速器

**(English Translation)**

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### 1 Scope

This standard specifies basic parameters, types, dimensions, technical requirements, bearing capacity and selection method, etc. of reduction cylindrical gear units (hereinafter referred to as "reduction unit").

The reduction units specified in this standard are applicable to the driving of various mechanical equipment in metallurgy, mine, transport, cement, building, chemical, textile, light, energy, etc. industries.

The rotation speed of high speed shaft of the reduction unit shall not be larger than 1500r/min.

The circumferential velocity of the reduction unit gear drive shall not be larger than 20m/s.

The working ambient temperature of the reduction unit shall be -40+45°C. Where the working ambient temperature is less than 0°C, the lubricating oil before starting must be heated to above 0°C. Where the working ambient temperature is larger than 45°C, insulation and cooling measures must be taken.

### 2 Normative References

The following documents contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, all editions indicated are valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the latest edition of the standards

indicated below.

GB/T 1184-1996 "Geometrical Tolerancing-Geometrical Tolerances for Features without Individual Tolerance Indications"

GB/T 1356-1988 "Basic Rack Tooth Profile of Involute Cylindrical Gears"

GB/T 1357-1987 "Modules of Involute Cylindrical Gears"

GB/T 1569-1990 "Cylindrical Ends of Axles"

GB/T 9439-1988 "Grey Iron Castings"

GB/T 10095-1988 "Accuracy of Involute Cylindrical Gears"

JB/T 5000.13-1998 "Heavy Mechanical General Techniques and Standards-Packing"

JB/T 6395-1992 "Specification of Large Gear and Girth Gear Forgings"

JB/T 7929-1999 "Cleanliness for Gear Drive Units"

### **3.1 Types**

Reduction unit model is expressed with ZDY, ZLY and ZSY;

Reduction unit ZDY expresses reduction cylindrical gear unit with single stage driving;

Reduction unit ZDY expresses reduction cylindrical gear unit with double stage driving;

Reduction unit ZDY expresses reduction cylindrical gear unit with three stage driving.