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冷却塔专用减速机2号本

# HUADONG REDUCER

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## 泰州市华东减速机械制造有限公司

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- BLJ-W型冷却塔专用减速机
- T型、B型冷却塔专用减速机

Model BLJ-W Extra-low Noise Cooling-tower Reducer  
Model T、Model B Extra-low Noise Cooling-tower Reducer



## 泰州市华东减速机械制造有限公司

TAIZHOUCITY HUADONG REDUCER MANUFACTURE CO., LTD

2015版

# 公司简介

## INTRODUCTON

中国著名品牌—泰州市华东减速机械制造有限公司是定点生产各种减速机、电机滚筒、冷却塔专用减速机的国家大型企业。系列产品荣获“中国减速机名优品牌”、“中国知名品牌”、“全国AAA级诚信单位”、“江苏省重合同守信用企业”、“江苏省优质产品”称号。企业通过ISO9001-2000质量体系认证。“华泰”牌产品连续三年被中国中轻产品质量保障中心评为“质量、信誉双保障示范单位”和“安全放心购物·用户首选品牌”称号。

“华泰”经过几十年的发展，已拥有先进的生产经验，一流的生产设备，齐全的检测手段，完善的管理体系。

企业本着“质量是生命、服务是灵魂”的宗旨，实行“比质量、比价格、比信誉、比品种、比服务”的经营方针。以独特的思路，雄厚的实力，齐全的品种，优质的质量，合理的价格，良好的信誉，完善的售后服务，灵活的经营机制，开放的外交往来赢得了广大用户的一致好评。

主要产品：硬齿面、中硬齿面减速机、摆线针轮减速机及机架、起重机专用减速机、圆柱、圆弧、斜齿、伞齿、锥齿、轴装式、齿轮减速机、圆弧、圆柱蜗杆及升降机、油冷、风冷、油浸、外装式、电动滚筒、冷却塔专用减速机及非标设计。

公司坚持实施品牌推进战略。坚持以质量创品牌，以名牌拓市场，积极推行全新的质量管理理念。确定了“创中国优秀品牌、建中国优秀企业”的发展目标，发扬“团结、敬业、高效、创新”的企业精神。不断创新、永不满足是华泰企业发展的准则。新的世纪华泰人正以严谨、务实、稳健、创新、求实的作风，秉承“不是最好，但会更好”的诚心经营理念，以过硬的质量、优良的服务，造就了今日的辉煌。

我们愿与各界同仁携手共进、相互合作，加强交流，共同发展。

浩瀚星空，繁星点点，华泰人正以往行业化方向发展为不懈追求的目标，播洒生命的光辉。

您的光临是华泰的荣幸，欢迎广大客商亲临本公司洽谈业务。

**我们宗旨：追求卓越品质，真诚为您服务！**

## 使用注意事项

1. 适用范围：工作周围环境温度为 $-40^{\circ}\text{C} \sim +50^{\circ}\text{C}$ ，海拔不超过1000米。
2. 额定电压：380V 50Hz，工作方式：连续使用。
3. 整机按装好后，启动前应加入100#机械油至油标或油位指示器高度中心线。试运行10~15天后，应清洗齿轮箱内各传动部件及轴承，并更换新油。隔三个月应定期添加足润滑油。
4. 需空载启动，待运转平稳后方可淋水。
5. 在运转过程中，若减速器有异常声响应立即停车检查。

### Points for Attention in Application

1. Applicable Range:the ambient temperature in the working environment should be  $-40^{\circ}\text{C} \sim +50^{\circ}\text{C}$ , and the elevation height not higher than 1000m.
2. Rated voltage: 380V, Rated frequency: 50Hz; Working style: continuous application.
3. When the whole machine is installed,fill 100# double-hyperbolic gear oil or 100#mechanic oil up to oil level depending on the view window of the oil ruler before starring the machine.After running for 10 to 15 days, clean gears and all driving parts and bearings inside the gearbox, replace with new oil and fill enough lubrication oil regularly every three months.
4. When starting the machine under unload condition,pouring water only after it is running stably.
5. If abnormal sound is hearing during the running period,stop the machine immediately and check reasons.

## 订货须知

1. 订货时须写明减速器型号、电动机功率及输出轴锥度。
2. 特殊规格的减速器可写明上述参数要求另行设计制造。
3. 本厂可提供全部零配件，便于维修、保养。

### Notice When Making Order

1. Clearly specify the model,power,speed and the conicity of output shaft when making ordr.
2. For special sizes,design and manufacture are available upon your data.
3. All spare parts can be provided by out company for easy repair and maintenance.

**其它冷却塔行星减速机：LFJ系列、HTJ系列、CFD系列、TDQ系列、TCJ系列、NGW系列、LHJ系列等型号资料详见综合样本五。**

## 2. BLJ-B1型号 (BLJ-B1 Type)

机座 Base	配套电机 (KW) Motor(kw)	转速r/min R.Sr/min	AB × AB	M × M	A	B	N-ΦS	重量(kg)
B1 型 减 速 器  速比 4.56	Y132S-4-5.5	320			大于	590	4-Φ23	188
	Y132M-4-7.5	320				630		201
	Y132M2-6-5.5	210				680		204
	Y160M-4-11	320	300	360	680	243		
	Y160M-6-7.5	210	×	×	680	239		
	Y160L-6-11	210	300	360	420	720		267
	Y160M1-8-4	165			680	238		
	Y160M2-8-5.5	165			720	239		
	Y180L-8-7.5	165			785	265		
	Y180L-8-11	165				320		

选用Y132B35电机时, 电机底脚需垫高28mm。选用Y180B35电机时, 减速器底座需垫高20mm。  
 When Y132B35 motor is chosen, the base of motor shall be heightened in 28mm and when Y180B35 motor is chosen, the base of reducer shall be heightened in 20mm.

## 3. BLJ-B2型号 (BLJ-B2 Type)

机座 Base	配套电机 (KW) Motor(kw)	转速r/min R.Sr/min	AB × AB	M × M	A	B	N-ΦS	重量(kg)
B2 型 减 速 器  速比 5.83	Y160L-4-15	250	360	460	大于	750	4-Φ23	317
	Y180M-4-18.5	250				780		377
	Y180L-6-15	165				825		390
	Y180L-8-11	125	×	×	500	379		
	Y200L1-6-18.5	165	360	460	415			
	Y200L-8-15	125			445			

选用Y180B35电机时, 电机底脚需垫高20mm。选用Y160B35电机时, 电机底脚需垫高40mm。  
 When Y180B35 motor is chosen, the base of motor shall be heightened in 20mm and when Y160B35 motor is chosen, the base of motor shall be heightened in 40mm.

## 4. BLJ-B3型号 (BLJ-B3 Type)

机座 Base	配套电机 (KW) Motor(kw)	转速r/min R.Sr/min	AB × AB	M × M	A	B	N-ΦS	重量(kg)
B3 型 减 速 器  速比 6.33	Y180L-4-22	230			大于	1000	4-Φ26	510
	Y200L-4-30	230						570
	Y200L1-6-18.5	150						547
	Y200L2-6-22	150	450	580	550			
	Y225S-4-37	230	×	×	650	1020		584
	Y225M-6-30	150			1040	592		
	Y225S-8-18.5	120	450	580	650	1020		566
	Y225M-8-22	120			1040	592		
	Y250M-6-37	150			1100	708		
	Y250M-8-30	120				705		

选用Y200B35电机时, 电机底脚需垫高25mm。用Y250B35电机时, 减速器底座需垫高25mm。  
 When Y200B35 motor is chosen, the base of motor shall be heightened in 25mm, When Y250B35 motor is chosen, the base of motor shall be heightened in 25mm.

 目 录  
 CONTENTS

一、概述.....	( 2 )
I. General Introduction.....	( 2 )
二、结构.....	( 2 )
II. Structure.....	( 2 )
三、安装要求及开机步骤.....	( 3 )
III. Requirement of Installation and Procedures of Start.....	( 3 )
四、维护及检修.....	( 3 )
IV. Maintenance and Repair.....	( 3 )
五、减速器齿轮箱结构总图及易损件目录.....	( 5 )
V. Structure Drawing of Gearbox and List of Spare Parts.....	( 5 )
六、齿轮箱输入传动轴结构.....	( 13 )
VI. Structure Drawing of Input Driving Part.....	( 13 )
七、齿轮箱外接油管及油位指示器.....	( 13 )
VII. The Outer Oil Pipe of Gearbox and Oil Level Indicator.....	( 13 )
八、基础安装尺寸图表.....	( 14 )
VIII. Drawing of Installation size of Foundation.....	( 14 )
(一) W1~W4型减速器基础安装尺寸.....	( 14 )
Foundation installation size of model W1~W4 reducer.....	( 14 )
(二) W5型减速器基础安装尺寸.....	( 15 )
Foundation installation size of model W5 reducer.....	( 15 )
(三) W5D型减速器基础安装尺寸.....	( 16 )
Foundation installation size of model W5D reducer.....	( 16 )
(四) W5B型减速器基础安装尺寸.....	( 17 )
Foundation installation size of model W5B reducer.....	( 17 )
(五) W5BD型减速器基础安装尺寸.....	( 18 )
Foundation installation size of model W5BD reducer.....	( 18 )
(六) W6、W7、W8型减速器基础安装尺寸.....	( 19 )
Foundation installation size of model W6、W7、W8 reducer.....	( 19 )
(七) W9型减速器基础安装尺寸.....	( 20 )
Foundation installation size of model W9 reducer.....	( 20 )
九、减速器输出转速及电机功率参数.....	( 21 )
IX. Output Speed and Data of Motor.....	( 21 )
十、T型、B型冷却塔专用减速器说明书.....	( 22 )
X. Model T、Model B Extra-low Noise Cooling-tower Reducer Operation Manual.....	( 22 )

 使用注意事项及订货须知  
 Use Attentive Matters and Order Notice

## 一、概述

BLJ-W型冷却塔专用减速器是华东公司与科研单位共同研制的新产品,吸收了国内外减速器的成功经验,并通过更进一步改进而设计的。引用了现代先进的传动技术,精心制造的一种理想的冷却塔专用减速器。经各地用户单位使用,具有性能良好、运转平稳、效率高、寿命长、噪音小、温升低等特点。各项指标均达到国内先进水平。该减速器广泛用于石油、化工、电力、纺织、冶金、宾馆等行业。

### I. General Instruction

Model BLJ-W cool-tower reducer is a new product researched and manufactured by our company and scientific and research unit. Adopted successful experiences of domestic and foreign reducers, after further improvement and design and combined with advanced technique, it is meticulously manufactured and has become an ideal and special cool-tower reducer. After applied by customers in various places, it is proved that it has features of good performances, stable running, high efficiency, long service life, small noise and low temperature rising etc., all its index can reach domestic advanced level. The said reducer can be widely used in industries such as petroleum, chemical, power supply, textile, metallurgy and hotel and so on.

## 二、结构

### 1. 电动机部分

采用当前我国统一设计的最新系列-Y系列三相异步电动机。具有高效、节能、性能好、噪音低、振动小、运行安全可靠以及使用维护方便等优点。电动机的功率等级和安装尺寸完全符合IEC标准。

### 2. 传动部分

联轴器采用双排链条联轴器,其适用于高温、潮湿的条件下,允许两轴线有较大的安装偏差(考虑钢结构塔体运行后对两轴线的影 响,允许两轴线夹角 $\leq 1^\circ$ )。并有一定的补偿两轴线相对位移的能力,具有安装、维护方便的特点。传动轴经过严格的动平衡校验,因此,传动运行过程中振动小,运转平稳,减少了对钢结构塔体稳定性的影响。

### 3. 齿轮箱部分

齿轮箱为二级齿轮减速传动方式,采用一对弧齿螺旋锥齿轮副和一对斜齿圆柱齿轮副组成。齿轮材料选用强度高、韧性好的优质合金结构钢,并经过正火、调质、渗碳淬火等热处理工艺,具有能承受高速、重载、抗冲击以及耐磨等特点。

齿轮箱内润滑系统采用油池浸浴和甩油流动润滑相结合的方式。在运行过程中甩油盘将润滑油送至箱体各储油槽内,通过各流道送到各个轴承来保证各轴承得到充分润滑。

齿轮箱的输入端和输出端均有可靠的密封装置,严格杜绝渗漏现象。

### 4. 油标油管部分

油标由钢管引到风管外边,便于经常观察油位,方便放油和加油工作。

## II. Structure

### 1. Motor

The Y series three-phase asynchronous motor, the latest series unified designed by our country is adopted, which has advantages of high efficiency, energy saving, good performance, low noise, small vibration, high reliability, power class and installation sizes in accordance with IEC standard and easy for operation and maintenance.

### 2. Driving Part

The double-row chain coupling is adopted, which is suitable for larger installation tolerance between two axles under high temperature and moisture conditions (considering that the affection upon two axial lines after running of the steel structure tower, it is allowed the included angle between two axial lines  $\leq 1^\circ$ ). With features of easy installation and maintenance, the driving shaft should pass through strict balance test, therefore it has small vibration and smooth running in driving course, so as to reduce the affection upon the stability of the steel structure tower.

### 3. Gearbox

The driving style adopts a pair of arc teeth bevel gears and a pair of bevel spur gear. The quality alloy structure steel with high strength and good toughness is adopted as materials of gears, which is heat treated by normalizing, modification, carbonized quench etc. and has features of enduring high speed, heavy load, anti-shock and wear resisting and so on.

The thin oil lubrication in circulation is adopted in the gearbox, and all oil splashed during the running course is collected at all oil grooves which can make all rolling bearings to be lubricated fully through all oil channels.

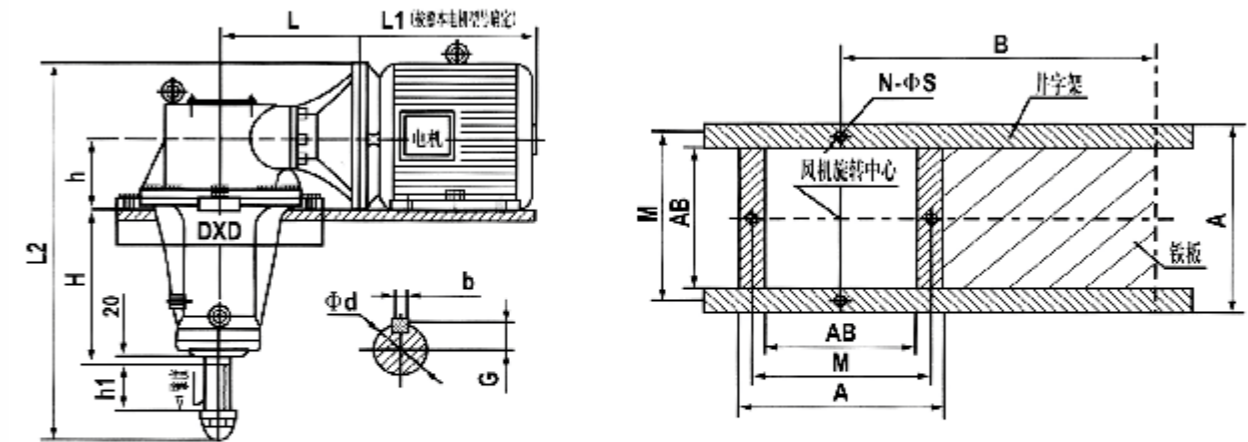
The input end and output end of the gearbox have reliable sealing device which can strictly avoid any leakage.

### 4. Oil Pipe with Mark

The oil mark is set outside the air tunnel by the steel pipe so as to facilitate the oil observation, draining and filling.

## B型内置式超低噪声专用减速器: Type-B Integral Extra-low noise Reducer:

### (一)、安装简图: (Installation Drawing):



### (二)、减速器外形尺寸及轴伸尺寸: (Overall Size of Reducer):

机座号 Type of Base	B0	B1	B2	B3			
L2	690	825	1020	1068			
h	134	162	202	227			
L	275	325	349.5	527			
L1	按电动机尺寸(According to size of motor)						
D×D	350×350	420×420	500×500	650×650			
H	260	320	420	450			
h1	80	100	115	118	120	105	
φd	φ45	φ55	φ54	φ65	φ70	φ85	
轴伸锥度	1:10	1:10	1:20	1:10	1:20	1:10	1:20
b×长度	12×60	16×80	18×100	20×100	24×80		
G	23.5	29	33.5	38	45		

### (三)、技术参数、底座安装尺寸及井字架尺寸: (Technical Parameter and Installation Size of Base and "井" shape frame):

#### 1. BLJ-B0型号 (BLJ-B0 Type)

机座 Base	配套电机 (KW) Motor (kw)	转速 r/min R. Sr/min	AB×AB	M×M	A	B	N-φS	重量 (kg)
B0 型 减 速 器  速 比 4.5	Y100L1-4-2.2	320	240	290	大于 350	540	4-φ18	104
	Y100L2-4-3	320						108
	Y112M-4-4	320						113
	Y112M-6-2.2	210						115
	Y132S-6-3	210						133
Y132M1-6-4	210	143						
Y100、Y112选配B5型电动机, Y132选配B35型电动机。 Model Y100 and Y112 reducer are equipped with Type-B5 motor; Y132 equipped with Type-B35.								

2. BLJ-T1型号 (BLJ-T1 Type)

机座 Base	配套电机 (KW) Motor(kw)	转速r/min R.St./min	AB	BB	F	C	e	A	B	N-ΦK	重量(kg)		
T1 型 减 速 器  速 比 4.56	Y132S-4-5.5	320		775	200	399	42	216	140	4-Φ16	185		
	Y132M-4-7.5	320	400	810					178		200		
	Y132M2-6-5.5	210		810					178		205		
	Y160M-4-11	320		860						210	240		
	Y160M-6-7.5	210	420	860					418	210	240		
	Y160L-6-11	210		905						254	265		
	Y180L-8-11	165	450	950					431	279	279	4-Φ18	315
	Y160M1-8-4	165		860						210	240		
	Y160M2-8-5.5	165	420	860					418	254	210	240	
Y160L-8-7.5	165		905		254	265							

选用Y132B35电机时,电机底脚需垫高28mm。选用Y180B35电机时,减速器底座需垫高20mm。  
When Y132B35 motor is chosen, the base of motor shall be heightened in 28mm and when Y180B35 motor is chosen, the base of reducer shall be heightened in 20mm.

3. BLJ-T2型号 (BLJ-T2 Type)

机座 Base	配套电机 (KW) Motor(kw)	转速r/min R.St./min	AB	BB	F	C	e	A	B	N-ΦK	重量(kg)		
T2 型 减 速 器  速 比 4.5	Y160L-4-15	250		975	225	470	30	279	241	4-Φ18	290		
	Y180M-4-18.5	250	450	1015							350		
	Y180L-6-15	165		1015							365		
	Y180L-8-11	125		1015						355			
	Y200L1-6-18.5	165	460	1050					482	318	305	4-Φ22	390
	Y200L-8-15	125		1050						420			

选用Y180B35电机时,电机底脚需垫高20mm。选用Y160B35电机时,电机底脚需垫高40mm。  
When Y180B35 motor is chosen, the base of motor shall be heightened in 20mm and when Y160B35 motor is chosen, the base of motor shall be heightened in 40mm.

4. BLJ-T3型号 (BLJ-T3 Type)

机座 Base	配套电机 (KW) Motor(kw)	转速r/min R.St./min	AB	BB	F	C	e	A	B	N-ΦK	重量(kg)				
T3 型 减 速 器  速 比 7.35	Y180L-4-22	230			275	648	38	318	305	4-Φ22	480				
	Y200L-4-30	230	550	1388								548			
	Y200L1-6-18.5	150		1388								510			
	Y200L2-6-22	150		1388								540			
	Y225S-4-37	230		1260								591			
	Y225M-6-30	150	550	1285							667	356	286	311	594
	Y225S-8-18.5	120		1260								591			
	Y225M-8-22	120		1285								619			
	Y250M-6-37	150	570	1350							695	406	349	4-Φ26	683
	Y250M-8-30	120		1350								683			

选用Y180B35电机时,电机底脚需垫高45mm。  
选用Y200B35电机时,电机底脚需垫高25mm。  
选用Y250B35电机时,减速器底座需垫高25mm。  
When Y180B35 motor is chosen, the base of motor shall be heightened in 45mm.  
When Y200B35 motor is chosen, the base of motor shall be heightened in 25mm.  
When Y250B35 motor is chosen, the base of reducer shall be heightened in 25mm.

三、安装要求及开机步骤

1. 齿轮箱在纵、横方向水平误差不大于0.12/1000。
2. 齿轮箱输入轴线与电动机轴线的同轴度允差0.12mm。
3. 链轮联轴器两端平面的间隙误差不大于0.10~0.15mm。
4. 外接油标进油钢管中心线和齿轮箱放油孔中心线应在同一水平线上。
5. 整机安装完毕后,用手空盘动传动轴,应转动轻重均匀。最后装上链轮罩壳并注满黄油。
6. 从风筒外加油孔向齿轮箱内加入100#机械油至油标高度中心线。
7. 点动电动机,检查风机叶片旋转方向是否正确。
8. 连续运行一小时,同时测量电动机电流是否正常,检查齿轮箱是否有不正常响声及其他异常现象。
9. 停机检查各部件安装位置有无变动,各联接件、紧固件是否松动,检查各密封部分是否渗漏油,检查齿轮箱的油温及高速级轴承处的温度。经检查符合要求后,方可正式开机。

III. Requirement of Installation and Procedures of Start

1. The leveling tolerance in vertical and horizontal directions of the gearbox should be not larger than 0.12/1000.
2. The allowed tolerance of the coaxiality of the input axle line of the gearbox and that of the motor is 0.12mm.
3. The clearance error between the two end planes of the sprocket coupling should not be larger than 0.1-0.15mm.
4. The central line of the steel pipe of the oil mark and the central hole of the drain hole of the gearbox should be on the same horizontal line.
5. After installation of the whole machine, turning the driving shaft by hand, it should be turned evenly. Mount the cover of the sprocket and fill grease.
6. Filling 100#mechanic oil into the gearbox from the fill hole outside the air tunnel to the central line of the height of the oil mark.
7. Start the motor to see if the rotation direction of blades is correct.
8. Running continuously for one hour, measure current of the motor and check the gearbox to see if any abnormal sound or phenomena exist.
9. Stop the machining and check installing position of all parts to see if they are changed, if all connecting pieces and fasteners are loose and if all sealing parts are leaked. Check oil temperature in the gearbox and the temperature at the high speed class of bearings. Only all check items are in accordance with the requirement, can the machine be started formally.

四、维护及检修

1. 应设专人维护、检修。每天观察减速器运行情况。
2. 新安装的减速器或更换新齿轮后运行10~15天,应清洗齿轮箱内各传动部件及轴承,并更换新油。
3. 正常运行时经常检查油位,并及时加添油至油标高度中心线。在连续运行每半年应更换新油一次。该减速器使用100#机械油。
4. 齿轮箱每年大修一次,检查各齿轮、轴承、油封等易损件,需更换的零部件应符合要求。弧齿锥齿轮应对称更换,并将其啮合位置调整到恰到好处。
5. 大修后应按安装要求及开机步骤开机。
6. 长期停止运行,齿轮箱内应灌满润滑油。重新启用前需对整机进行全面检查,无异常情况方可开机。
7. 使用单位应有合理的维护制度,对检修中发现的问题应作详细记录。
8. 发生故障参考附表进行检查修理。

IV. Maintenance and Repair

1. Appoint special person to make maintenance and repair. Observe running conditions everyday.
2. After running 10 to 15 days for new installed reducer or when new gears are changed, clean all driving parts and bearings in the gearbox and replace with new oil.
3. Regularly check oil level in normal operation, and fill oil timely to the height on the oil mark. Replace with new oil once for every half year of continuous operation. The reducer should be filled with 100#mechanical oil.
4. The gearbox should be overhauled once every half year. Check all gears, bearings, oil seal and other spare parts. The replaced parts should meet requirements. Arc teeth bevel gears should be replaced in pair and their mesh position should be adjusted well.
5. After overhauling, start the machine according to requirement of installation and procedures of start.
6. If stop the machine for long time, the gearbox should be filled with lubrication oil. The overall check should be made if restart the machine and the machine can be started only in case no abnormality exists.
7. The customer unit should have reasonable application and maintenance system and any problems found in repairing course should be recorded in detail.
8. Troubles if found can be removed in reference with following table.

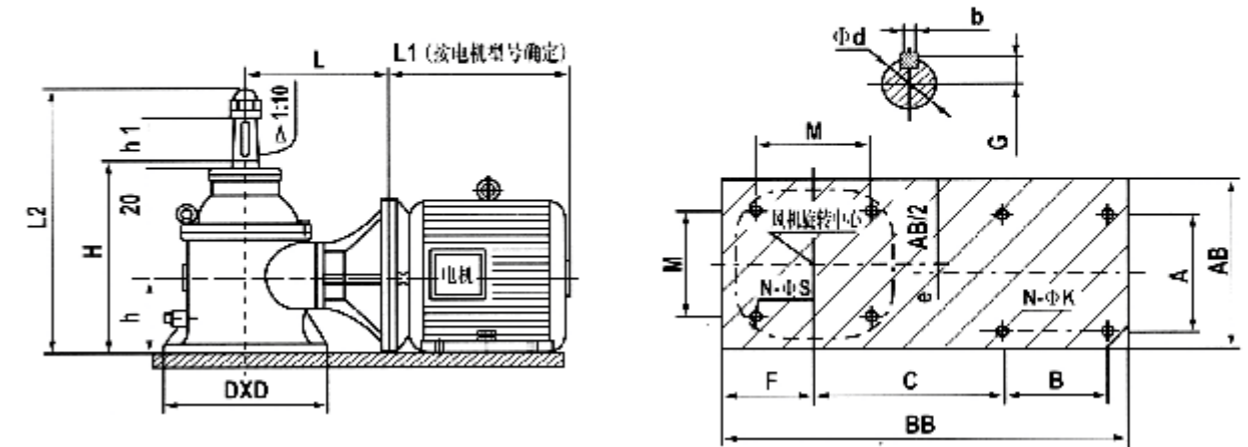
附表：故障及其排除方法

Attached list: The trouble and method of getting rid of

故障 Trouble	产生原因 Causes	排除方法 Remedy	
振动现象 Vibration exists	卸去叶轮后无振动现象 No vibrationre if moving propeller	叶轮不平衡 Propeller unbalanced  叶轮重新校对平衡 Readjust the balance	
		叶轮轴孔锥度与输出轴锥度配合不符 Axle hole of propeller not in accordance with conicity of output shaft  核对锥度，刮修叶轮轴孔，保证孔与轴紧密配合 Scrpe axle hole of propeller to ensure tight match	
	卸去叶轮后仍有振动现象 Vibration still exists if removing propeller	传动轴不平衡 Driving shaft unbalanced	传动轴重新校动平衡 Readjust the balance
		齿轮箱轴线与电动机轴线不重合 Axle line of gearbox no coincidence with axle line of motor	重新调整 Readjust
		钢结构搭体与基础刚度不够 Rigidity of steel structure tower and foundation not enough	钢结构补强，基础加固 Reinforco steel structure and foundation
		紧固件松动 Fasteners loose	检查并拧紧各紧固件 Check and tighten all fasteners
	齿轮严重损坏 Gear severely damaged	更换新齿轮 Replace with new gear	
轴承处温度突然升高 Temperature at bearings rises up in a sudden	润滑油油路堵塞 Channle of lubrication oil blocked	畅通油路 Get oil channel through	
	油面线过低，飞溅量少 Lower level of oil and less splash	补加油到规定油位线 Fill oil to specified level	
	轴承游隙不正确 Play of bearings incorrect	重新调整轴承游隙 Readjust play of bearings	
	轴承严重损坏 Bearings severely damaged	更换新轴承 Replace with new bearings	
	安装错误 Wrong inStallaton	重新校正 Readjust	

T型内置式超低噪声减速器：Type-T Integral Extra-low noise Reducer:

(一)、安装简图：(Installation Drawing):



(二)、减速器外形尺寸及轴伸尺寸：(Overall Size of Reducer):

机座号 Type of Base	T0	T1	T2	T3
L2	580	655	700	765
H	382	458	525	630
h1	132	160	200	225
L	275	310	349.5	527
L1	按电动机尺寸(According to size of motor)			
D×D	226×226	350×350	400×400	500×500
h1	80	100	118	105
φd	φ45	φ55	φ65	φ85
轴伸锥度	1:10	1:10	1:10	1:10
b×长度	12×60	16×80	18×100	20×100
G	23.5	29	33.5	38
M×M	160×160	248×248	283×283	354×354
N-φS	4-φ18	4-φ22		4-φ26

(三)、技术参数、底座安装尺寸：(Technical Paramotor and Installation Size of Base):

1. BLJ-T0型号 (BLJ-T0 Type)

机座 Base	配套电机 (KW) Motor(Kw)	转速r/min R.Sr/min	AB	BB	F	C	e	A	B	N-φK	重量(kg)
T0 型 减 速 器	Y100L1-4-2.2	320	260	630	130	364	18	216	140	4-φ16	91
	Y100L2-4-3	320									97
	Y112M-4-4	320									104
	Y112M-6-2.2	210	100								
	Y132S-6-3	210	320	750	364	18	216	178	124		
Y132MI-6-4	210								132		

速比 4.5  
Type-T0 Reducer Speed Ratio 4.5  
Y100、Y112选配B5型电动机，Y132选配B35型电动机。  
Model Y100 and Y112 reducer are equipped with Type-B5 motor, Y132 equipped with Type-B35.

4. After the reducer operates continuously for one year (accumulated number), it is necessary to replace lubricating oil. It is strictly prohibited to operate without oil (oil short of oil). The oil seal mounted on the driving shaft of reducer should be replaced one time one year. The grease should be replaced on the bearing for every half year.

5. In winter, before starting reducer, the inlet water valve of cooling tower is open at first so as to preheat the reducer and decrease the viscosity of lubricating oil in reducer for reducer's starting.

6. If the reducer is not operation for a long time, the motor should be covered with waterproof cloth or protection cover to avoid the moisture.

7. Wearable Parts List of Model T, Model B Extra-low Noise Cooling-tower Reducer.

(1) 轴承类: (每台各一套) Bearings(A set for each reducer)

机座号 Type of Base	输出轴上轴承 Up bearing of output shaft	输出轴下轴承 Down bearing of output shaft	锥齿轴前轴承 Front bearing of bevel gear shaft	锥齿轴后轴承 Rear bearing of bevel gear shaft
T 型 系 列	T0	30211 (7211)	30211 (7211)	30306 (7306)
	T1	30211 (7211)	30311 (7311)	30309 (7309)
	T2	30213 (7213)	30313 (7313)	32309 (7609)
	T3	32217 (7517)	32318 (7618)	32311 (7611)
B 型 系 列	B0	32212 (7512)	30211 (7211)	30306 (7306)
	B1	32313 (7613)	30312 (7312)	30309 (7309)
	B2	32316 (7616)	30315 (7315)	32309 (7609)
	B3	32319 (7619)	32218 (7518)	32311 (7611)

(2) 油封类: (型号/数量) Oil Seal(Model/quantity)

机座号 Type of Base	骨架/2只 (输出轴) Frame-2 Output shaft	骨架/1只 (输出轴) Frame/1 Output shaft	O型/2只 (输出轴) O-2 Output shaft	O型/1只 (输出轴) O-1 Output shaft	O型/1只 (齿轴座) O-1 Gear base	骨架/1只 (齿轴座) Frame/1 Gear base	O型/1只 (齿轴座) O-2 Output shaft
T 型 系 列	T0	55×80×12	60×85×12	105×3.1	105×3.1	95×3.1	25×45×10
	T1	55×80×12	65×90×12	105×3.1	125×3.1	125×3.1	35×60×10
	T2	65×90×12	75×95×12	125×3.1	145×3.1	125×3.1	35×60×10
	T3	85×110×12	95×120×12	155×3.1	200×5.7	160×3.1	50×75×12
B 型 系 列	B0	45×70×12	180×5.7	65×3.1	105×3.1	95×3.1	25×45×10
	B1	55×80×12	250×5.7	105×3.1	135×3.1	125×3.1	35×60×10
	B2	70×95×12	280×5.7	105×3.1	165×3.1	125×3.1	35×60×10
	B3	85×110×12	415×8.6	105×3.1	165×3.1	160×3.1	50×75×12

### 五、订货须知:

1. 订货时, 必须说明减速器型号、电动机功率、输出转速及输出轴锥度等。
2. 特殊规格型号减速器特殊订货, 订货前请惠予联系或面洽。

### V. Notice to Order

1. When ordering, it is necessary to indicate the model of reducer, power of motor, and output revolution speed and taper of output shaft.
2. When ordering the special size or model of reducer, please contact with us or make negotiation in factory before ordering.

### 五、减速器齿轮箱结构总图及易损件目录 V. Structure Drawing of Gearbox and List of Spare Parts

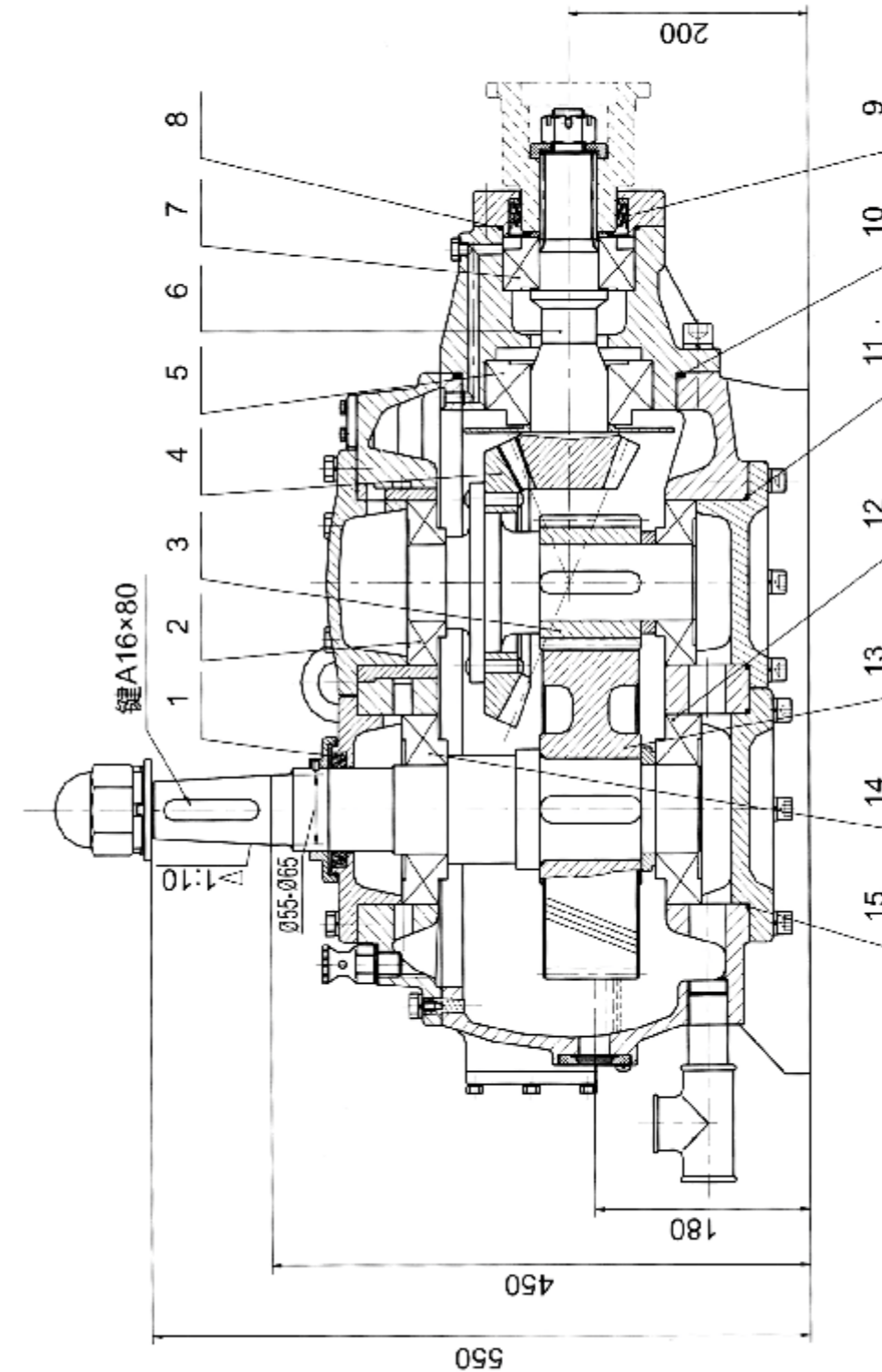


图1 W1~W4型减速器齿轮箱结构图

Figure 1 Drawing of Gears of Model W1-W4 Reducer

表1 标准件及易损件目录表(W1~W4型)

Table 1 List Standard Pieces and Spare Parts(W1-W4)

序号 S/N	代号 Code	名称 Name	数量 Qty	材料 Material	备注 Remarks
1	G4-692-67	骨架油封PD55×90×12 Sealing Ring PD55×90×12	1		
2	GB/T297-94	轴承30312 Bearings 30312	2		旧型号7312
3	W1-15	小齿轮 Pinion	1	20CrMnTi	
4	W1-11	大锥齿轮 Major Beve Gear Shaft	1	20CrMnTi	
5	GB/T297-94	轴承32313 Bearings 32313	1		旧型号7613
6	W1-19	小锥齿轮轴 Minor Bevd Gear Shaft	1	20CrMnTi	
7	GB/T297-94	轴承32310 Bearings 32310	1		旧型号7610
8	GB1235-76	O型油封115×3.1 O-oil Seal 115×3.1	1		
9	HG-692-67	骨架油封PG80×100×12 Sealing Ring PG80×100×12	2		
10	GB1235-76	O型油封190×5.7 O-oil Seal 190×5.7	1		
11	GB1235-76	O型油封140×5.7 O-oil Seal 140×5.7	1		
12	GB/T297-94	轴承30314 Bearings 30314	1		旧型号7314
13	W1-02	大齿轮 Major Gear	1	40Cr	
14	GB/T297-94	轴承30314 Bearings 30314	1		旧型号7314
15	GB1235-76	O型油封160×5.7 O-oil Seal 160×5.7	1		
I-1	W1-21-01	花键链轮 Spline Sprocket	1	45	见图5(P12)
I-2	GB/T281-94	轴承1208(旧型号1208) Bearings 1208	2		见图5(P12)
I-3	BG1243-97	双排滚子链 12A-2-22 Double-Row Roller Chain 12A-2-22	2		见图5(P12)
I-4	W1-21-03	传动轴链轮 Driving Shaft Sprocket	2	45	见图5(P12)
I-5	W1-21-06	电机链轮 Motor Sprocket	1	45	见图5(P12)

### III. Installation and Trial-operation:

1. The output shaft of reducer shall be mounted outside the center of lower body. A rubber cushion in 10-15mm thickness shall be mounted between reducer and base and both of reducer and base are connected and fastened with bolts.

2. The reducer should be equipped with blower. The vanes are assembled according to their sequence and are balanced so as to decrease the vibration when the blower operates. After assembly, it is necessary to check that no friction and no dragging exists between vanes when rotating vane with hand.

3. Before trial-operation, Caution: Feed with 18# or 22# hypoid gear oil (i.e. lubricating oil used for rear axle of automobile). Any other engine oil or gear oil are not permitted to be fed. Keep oil level in middle position.

4. Before connecting the power wire, it is necessary to check the power, motor and electrical apparatus are in conformity with the regulation of reducer operation. The cables used for connection outside should conform to the related regulations. It should be grounded to earth. The motor above 11kw used for reducer should be started up with reduced voltage starter. After three-phase cable is connected with the motor, the terminal box of motor should be sealed.

5. Before starting up with switching on the power, it is necessary to make inching operation to determine the rotation direction of vanes of blower. When the trial-operation is made, it is necessary to check that the reducer operates normally without any noise and the current of three-phase motor is stable. The maximum current is no more than the rated current. If the current exceeds over the rated current, it is necessary to adjust the angle of blower or replace the blower until it operates normally.

6. After the reducer and blower are installed, if the cooling tower is not temporarily brought into operation, the motor should be covered with waterproof cloth to prevent the motor from moisture outside door for a long time, or it shall affect the insulation resistance.

### 四、维护和保养:

1. 使用单位必须有专人负责, 并建立冷却塔、减速器的操作规程和维护保养制度。
2. 新安装的减速器, 壹年内不需要换润滑油。试运行一周后, 应停车检查一次油位, 如润滑油低于油位线应及时补注18#或22#准双曲面齿轮油。
3. 新安装的或大修后的减速器, 在开始运行的第一个月, 每周应停车检查一次油位, 并检测减速器的负荷(即测量电动机的电流)是否正常, 并作记录。如有问题应及时通知厂方进行处理。以后每半月检查一次油位, 并及时补注润滑油。
4. 减速器连续(或累计)运行壹年, 应更换一次润滑油, 应把减速器内的润滑油排放干净, 加入柴油清洗后重新加注18#或22#准双曲面齿轮油。严禁无油(或缺油)开车。减速器的油封每一年更换一次。电动机轴承每半年更换一次黄油。
5. 在冬季注意启动减速器前, 需先将冷却塔进水阀开启, 为减速器预热一定时间, 降低机内润滑油粘度, 以利减速器启动。
6. 减速器较长时间停机, 应在电动机上加盖防水布或防护罩, 防止受潮。
7. T型、B型系列专用减速器易损件一览表:

### IV. Service and Maintenance:

1. It should be borne by the special person and the operation and maintenance regulations should be setup.
2. After the reducer is installed, it should operate one year. After trial operation, the lubricating oil should be drained out and cleaned, and the new 18# or 22# hypoid gear oil shall be fed again.
3. After the reducer is installed or hauled, during the period of first-month operation, the oil level shall be checked for one time one week in stopping operation and it is necessary to test that the load of reducer is normal (i.e. to measure the current of motor) and to make the records. If there is some problem happened, it is necessary to notify the factory to handle. The oil level should be checked for each half month and shall be added on time.



## T型、B型系列超低噪声冷却塔专用减速器 Model T, Model B Extra-low Noise Cooling-tower Reducer

### 一、概述:

T型、B型系列超低噪声冷却塔专用减速器,是运用准双曲面齿轮传动原理,结合玻璃钢冷却塔结构的特点和传动要求而设计的新型系列冷却塔专用减速器。

T型、B型系列超低噪声专用减速器,由于采用近代先进的准双曲面齿轮传动方式,因而,它具有运转平稳、噪声超低、效率高、承载能力大和高传动比的优越性。并且,减速器性能可靠、结构紧凑。

配套选用T型、B型系列超低噪声专用减速器的玻璃钢冷却塔,其塔体本身不承受减速器的重量,可使塔壁减薄、节约材料、降低成本。同时,塔体风筒具有屏蔽作用,大大减少了冷却塔运行噪声对环境的污染。

延陵牌T型、B型系列超低噪声专用减速器的玻璃钢冷却塔最理想的伴侣。

#### I. General

Model T, Model B Extra-low Noise Cooling-tower Reducer is a newly-designed reducer specialized for cooling tower based on the principle of hypoid gear transmission and combined with the characteristic and transmission requirements for fiberglass reinforced plastic cooling tower structure.

Model T, Model B Extra-low Noise Cooling-tower Reducer, with the updated hypoid gear transmission, has the advantages of stable operation, extra-low noise, high efficiency, heavy bearing capability and large drive ratio and it features reliable performance and compact structure.

The fiberglass reinforced plastic cooling tower equipped with Model T, Model B Extra-low Noise Cooling-tower Reducer can reduce the wall thickness of itself without bearing the weight of the reducer. Therefore, it saves materials and lowers the cost of cooling tower. Meanwhile, the air-shaft of tower has a shielding action and it reduces the operating noise of cooling tower.

Yeanling Brand Model T, Model B Extra-low Noise Cooling-tower Reducer is the best supporting equipment for fiberglass reinforced plastic cooling tower.

### 二、安装尺寸和技术参数: (见附图表)

#### II. Installation Size and Technical Parameters (details are shown in the attached drawing)

### 三、安装和试车:

1. 减速器输出轴应处于塔体中心。减速器与机架间应加10-15mm的抗震橡胶垫,其与机架联接螺栓的防松措施必需可靠。

2. 减速器配套安装相应的风机,叶片对号入座,保持风叶的平衡,减少风机运行时的震动。手盘转动风机,不允许风机叶片有擦塔现象。同时,减速器运动应灵活无卡滞现象。

3. 试车前, **必须注意加油。加注18#或22#准双曲面齿轮油**(即汽车后桥用润滑油)。千万不可加注一般的机械油和齿轮油,油位控制在油标中间位置。

4. 连接电源线时,应检查电源、电动机和电器必须符合减速器运行规范的要求。外接电缆线应符合有关规定,并注意严格接地。凡是功率在11KW以上的减速器电机应采用降压起动。三相电缆线接入电动机后,电动机的出线盒必须做严格的密封处理。

5. 通电运行前,首先采用点动,确定风机旋转为设计转向。试运行,检查减速器是否有异常声音,检查电动机三相电流是否平衡,并最大电流不能超过电动机的额定电流。如电流超过额定电流,则应调整风机的安装角,或者更换风机,直到运行正常为止。

6. 减速器和风机安装好后,如冷却塔暂不投入运行,应该用防水布遮盖电动机部分,防止电动机长期露天放置而受潮,影响电动机的绝缘电阻。

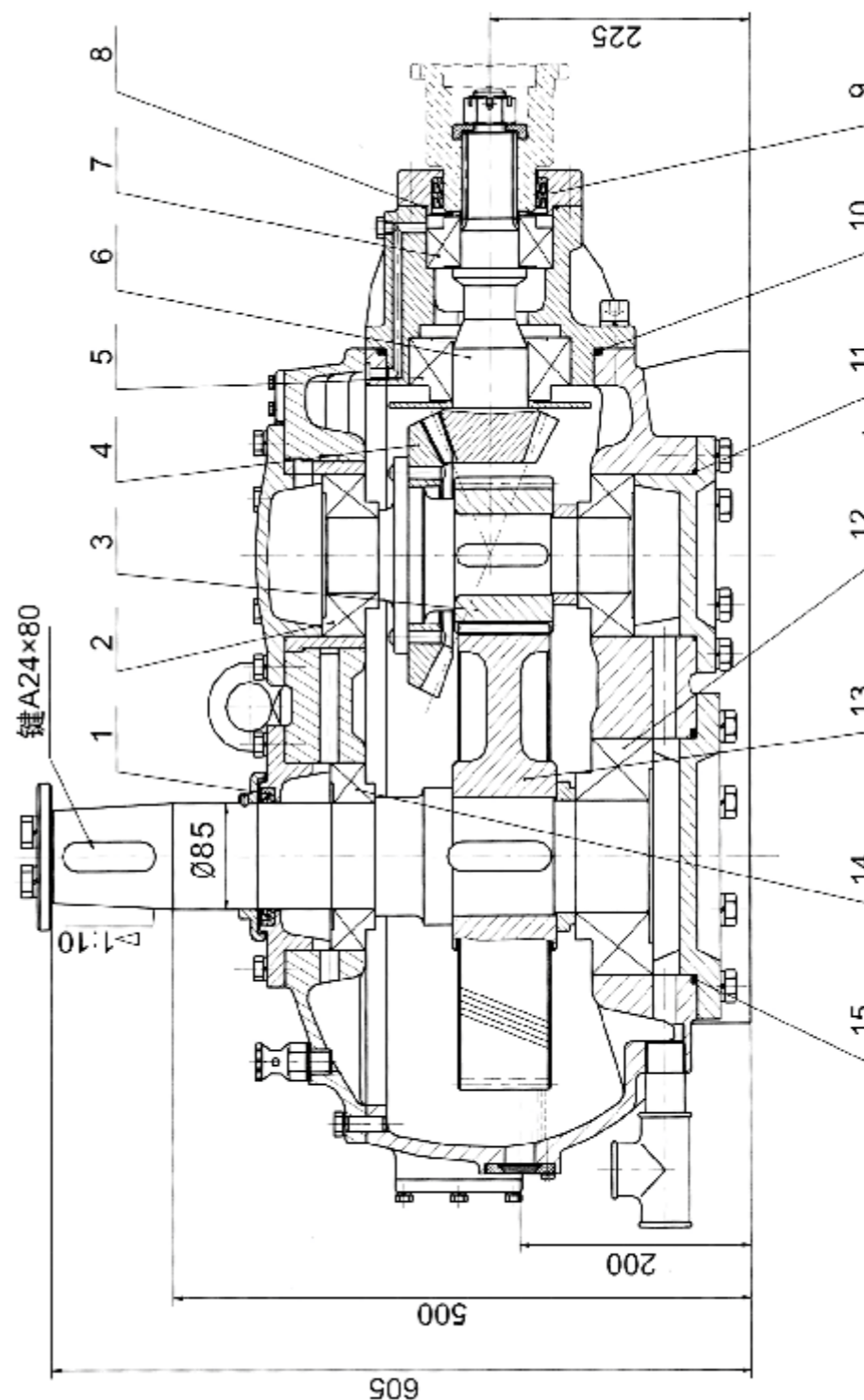


图2 W5、W5D、W5B、W5BD型减速器齿轮箱结构图  
 Figure 2 Structure Drawing of Gears of Model W5, W5D, W5B, W5BD Reducer

表2 标准件及易损件目录表(W5、W5D、W5B、W5BD型)  
 Table 2 List Standard Pieces and Spare Parts (W5、W5D、W5B、W5BD)

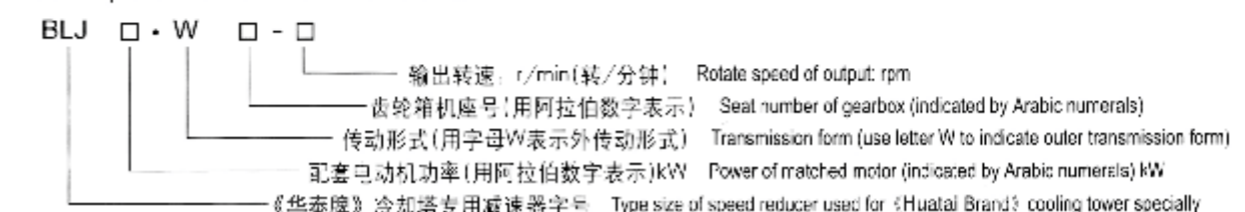
序号 S/N	代号 Code	名称 Name	数量 Qty	材料 Material	备注 Remarks
1	HG4-692-67	骨架油封PD85×110×12 Sealing Ring PD55×110×12	1		
2	GB/T297-94	轴承32312 Bearings 32312	2		旧型号7612
3	W5(W5B)-15	小齿轮 Pinion	1	20CrMnTi	
4	W5-11	大锥齿轮 Major Beve Gear Shaft	1	20CrMnTi	
5	GB/T297-94	轴承32313 Beariflgs 31313	1		旧型号7613
6	W5-19	小锥齿轮轴 Minor Bevd Gear Shaft	1	20CrMnTi	
7	GB/T297-94	轴承32310 Bearings 32310	1		旧型号7610
8	GB1235-76	O型油封115×3.1 O-oil Seal 115×3.1	1		
9	HG-692-67	骨架油封PG80×100×12 Sealing Ring PG80×100×12	2		
10	GB1235-76	O型油封190×5.7 O-oil Seal 190×5.7	1		
11	GB1235-76	O型油封135×3.1 O-oil Seal 135×3.1	1		
12	GB/T297-94	轴承32318 Bearings 32318	1		旧型号7618
13	W5(W5B)-02	大齿轮 Major Gear	1	40Cr	
14	GB/T297-94	轴承32217 Bearings 32217	1		旧型号7517
15	GB1235-76	O型油封200×5.7 O-oil Seal 200×5.7	1		
I-1	W5(W5B)-21-01	花键链轮 Spline Sprocket	1	45	见图5(P12)
I-2	GB/T281-94	轴承1208(旧型号1208) Bearings 1208	2	W5B、W5BD选用轴承1210	
I-3	BG1243-97	双排滚子链 12A-2-22 Double-Row Roller Chain 12A-2-22	2	W5B、W5BD选用16A-2-18	
I-4	W5(W5B)-21-03	传动轴链轮 Driving Shaft Sprocket	2	45	见图5(P12)
I-5	W5(W5B)-21-06	电机链轮 Motor Sprocket	1	45	见图5(P12)

九、减速器输出转速及电机功率参数  
 IX. Output Speed and Data of Motor

序号 S/N	型号 Model	功率(kW) Power(kW)	输出转速(r/min) Output Speed(r/min)	机座号 No. of Motor Seat
1	BLJ 5.5 • W1-165/200/220	5.5	165/200/220	W1
2	BLJ 7.5 • W1-165/200/220	7.5	165/200/220	W1
3	BLJ 11 • W2-165/200/220	11	165/200/220	W2
4	BLJ 15 • W2-165/200/220	15	165/200/220	W2
5	BLJ18.5 • W3-165/200/220	18.5	165/200/220	W3
6	BLJ18.5 • W4-250	18.5	250	W4
7	BLJ 22 • W4-200/220	22	200/220	W4
8	BLJ 22 • W5-165/200/220	22	165/200/220	W5 (W5D)
9	BLJ 22 • W5-250	22	250	W5 (W5D)
10	BLJ 30 • W5-165/200/220	30	165/200/220	W5 (W5D)
11	BLJ 30 • W5-250	30	250	W5 (W5D)
12	BLJ 37 • W5-165/200/220	37	165/200/220	W5 (W5D)
13	BLJ 37 • W5-250	37	250	W5 (W5D)
14	BLJ 37 • W5B-165/200	37	165/200	W5B (W5BD)
15	BLJ 45 • W5B-165/200	45	165/200	W5B (W5BD)
16	BLJ 55 • W5B-165/200	55	165/200	W5B (W5BD)
17	BLJ 37 • W6-136	37	136	W6
18	BLJ 37 • W6-165	37	165	W6
19	BLJ 45 • W7-136/157	45	136/157	W7
20	BLJ 55 • W8-136/157	55	136/157	W8
21	BLJ 55 • W8-165	55	165	W8
22	BLJ 75 • W8-136/157	75	136/157	W8
23	BLJ 75 • W8-165	75	165	W8
24	BLJ 90 • W8-136/157	90	136/157	W8
25	BLJ 90 • W8-165	90	165	W8
26	BLJ110 • W8-136/157	110	136/157	W8
27	BLJ132 • W8-136/157	132	136/157	W8
28	BLJ160 • W9-96	160	96	W9
29	BLJ160 • W9-149	160	149	W9
30	BLJ185 • W9-96	185	96	W9
31	BLJ185 • W9-149	185	149	W9

注：特殊规格可注明以上参数要求另行设计制造  
 NOTE: Special size can be designed and manufactured according to customer's data

注：减速器型号、代号表示方法  
 Note: representation of reducer model and code



(七) W9型减速器基础安装尺寸

Foundation installation size of model W9 reducer

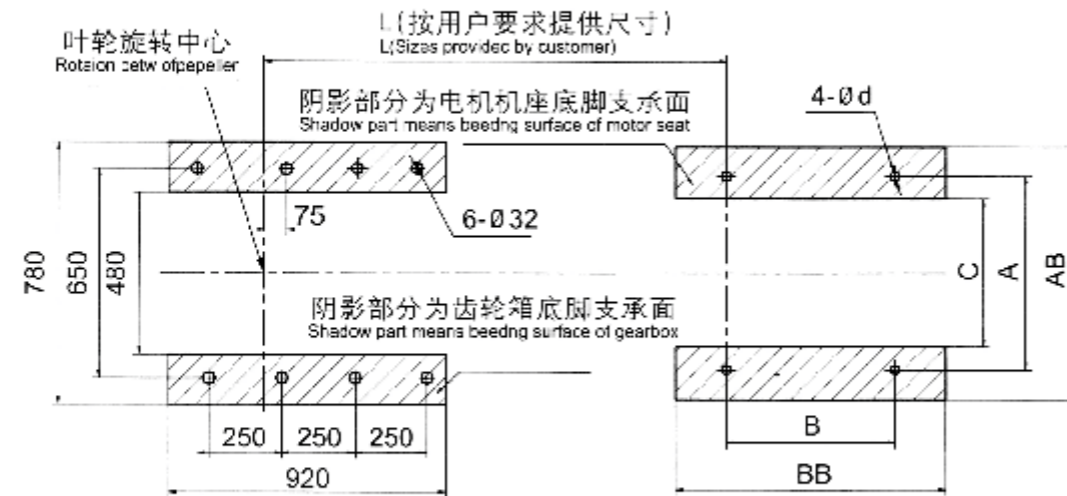


图13 W9型减速器、电动机基础安装尺寸图  
Figure 13 Installation Sizes of Foundation of W9 Reducer and Motor

■ 配套电动机型号及基础安装尺寸表

List of matched motor model and foundation installation size

电机型号及功率(kW) Model and power of Motor(kW)	A	C	AB	B	BB	Φd
Y315L1-4-160kW	508	380	780	508	750	Φ28
Y315L-4-185kW	508	380	780	508	750	Φ28
Y355M1-6-160kW	610	450	800	560	780	Φ28
Y355M2-6-185kW	610	450	800	560	780	Φ28

附注: ● W9型减速器齿轮箱中心高为315mm  
● 当选用Y355电机时,电机基础需低于减速器基础40mm

Note: ● The Center Hight of W9 Reducer is 315mm.  
● In case Y355 motor is used, the foundation of motor should be 40mm lower than that of motor.

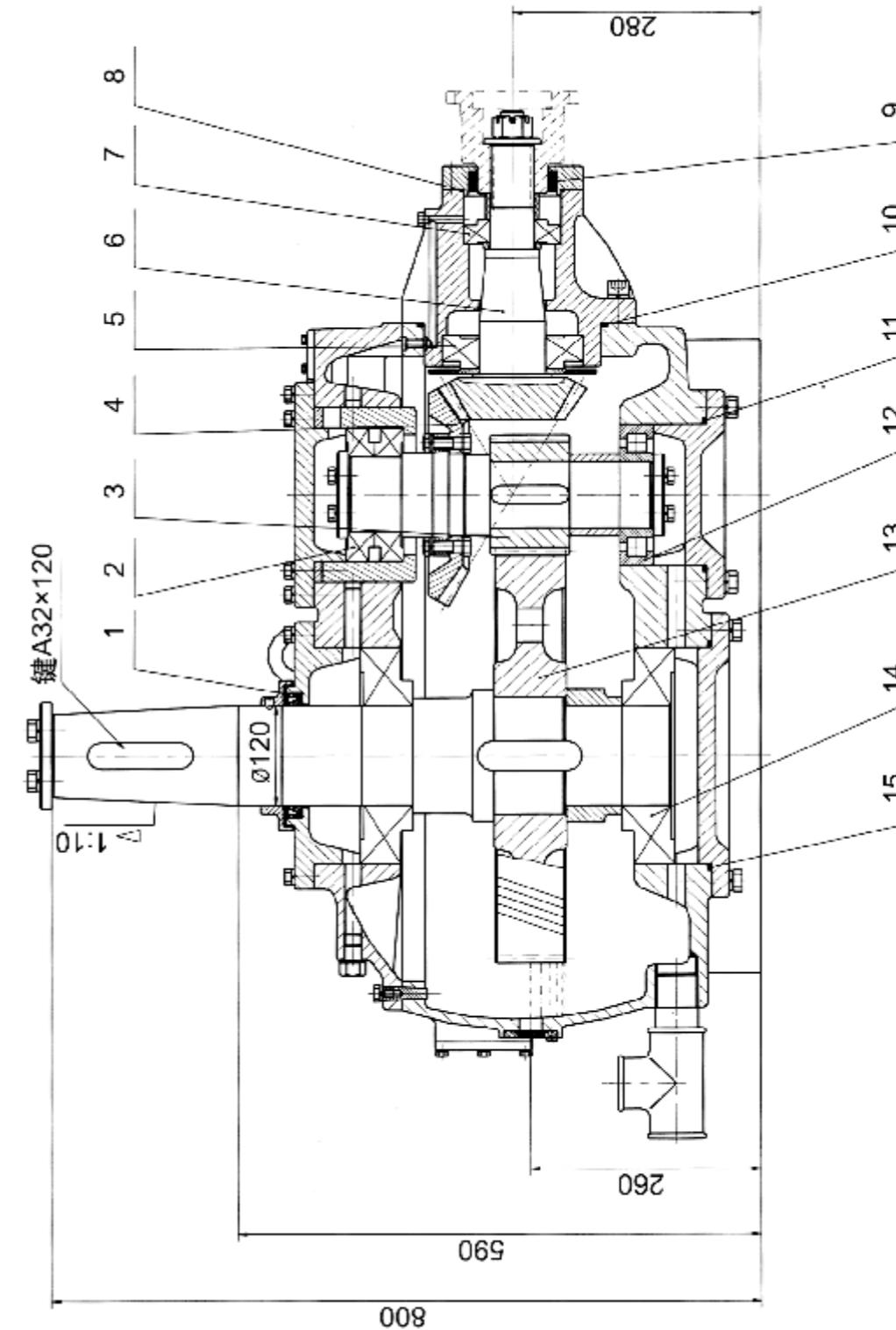


图3 W6、W7、W8型减速器齿轮箱结构图  
Figure 3 Structure Drawing of Gears of Model W6、W7、W8 Reducer

表3 标准件及易损件目录表(W6、W7、W8型)

Table 3 List Standard Pieces and Spare Parts (W6、W7、W8)

序号 S/N	代号 Code	名称 Name	数量 Qty	材料 Material	备注 Remarks
1	HG4-692-67	骨架油封PD120×150×14 Sealing Ring PD120×150×14	1		
2	GB/T297-94	轴承30218 Bearings 30218	2		旧型号7218
3	W7-15	小齿轮 Pinion	1	20CrMnTi	
4	W7-11	大锥齿轮 Major Beve Gear Shaft	1	20CrMnTi	
5	GB/T297-94	轴承30315 Bearings 30315	1		旧型号7315
6	W7-19	小锥齿轮轴 Minor Bevd Gear Shaft	1	20CrMnTi	
7	GB/T297-94	轴承32310 Bearings 32310	1		旧型号7610
8	GB1235-76	O型油封115×3.1 O-oil Seal 115×3.1	1		
9	HG-692-67	骨架油封PG80×100×12 Sealing Ring PG80×100×12	2		
10	GB1235-76	O型油封210×5.7 O-oil Seal 210×5.7	1		
11	GB1235-76	O型油封180×5.7 O-oil Seal 180×5.7	1		
12	GB/T283-94	轴承NJ316 Bearings NJ316	1		旧型号42316
13	W7-02	大齿轮 Major Gear	1	40Cr	
14	GB/T297-94	轴承30324 Bearings 30324	2		旧型号7324
15	GB1235-76	O型油封275×8.6 O-oil Seal 275×8.6	1		
I-1	W7-21-01	花键链轮 Spline Sprocket	1	45	见图5(P12)
I-2	GB/T281-94	轴承1210(旧型号1210) Bearings 1210	2		见图5(P12)
I-3	BG1243-97	双排滚子链 16A-2-18 Double-Row Roller Chain 16A-2-18	2		见图5(P12)
I-4	W7-21-03	传动轴链轮 Driving Shaft Sprocket	2	45	见图5(P12)
I-5	W7-21-06	电机链轮 Motor Sprocket	1	45	见图5(P12)

## (六) W6、W7、W8型减速器基础安装尺寸

Foundation installation size of model W6、W7、W8 reducer

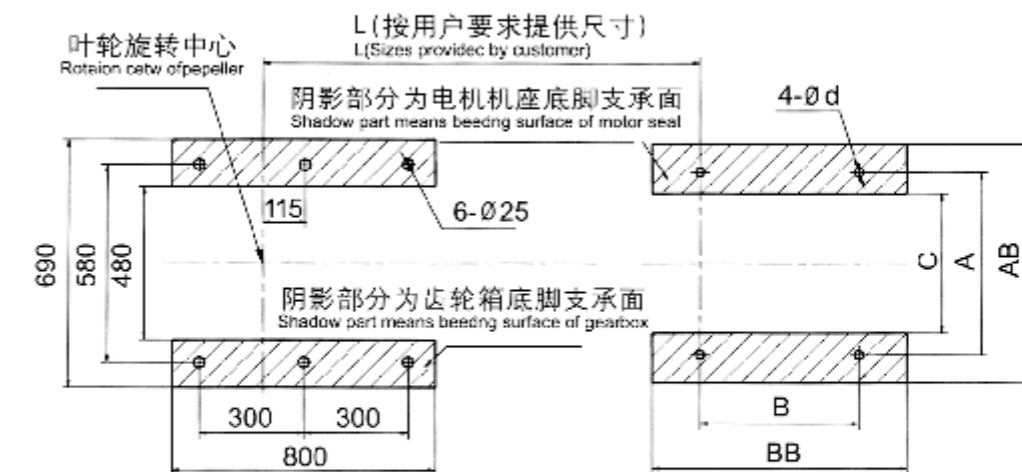


图12 W6、W7、W8型减速器、电动机基础安装尺寸图

Figure 12 Installation Sizes of Foundation of W6、W7、W8 Reducer and Motor

## ■ 配套电动机型号及基础安装尺寸表

List of matched motor model and foundation installation size

电机型号及功率(kW) Model and power of Motor(kW)	A	C	AB	B	BB	Φd
Y250M -6-37kW	406	310	530	349	560	Φ24
Y280S -6-45kW	457	360	560	368	580	Φ24
Y280M -6-55kW	457	360	560	419	600	Φ24
Y315S -6-75kW	508	380	780	406	670	Φ28
Y315M -6-90kW	508	380	780	457	720	Φ28
Y315L1-6-110kW	508	380	780	508	750	Φ28
Y315L2-6-132kW	508	380	780	508	750	Φ28

- 附注:
- W6、W7、W8型减速器齿轮箱中心高为280mm
  - 当选用Y250电机时,电机基础需高于减速器基础30mm
  - 当选用Y315电机时,电机基础需低于减速器基础35mm

- Note:
- The Center Hight of W6、W7、W8 Reducer is 280mm.
  - In case Y250 motor is used,the foundation of motor should be 30mm higher than that of motor.
  - In case Y315 motor is used,the foundation of motor should be 35mm lower than that of motor.

**(五) W5BD型减速器基础安装尺寸**

Foundation installation size of model W5BD reducer

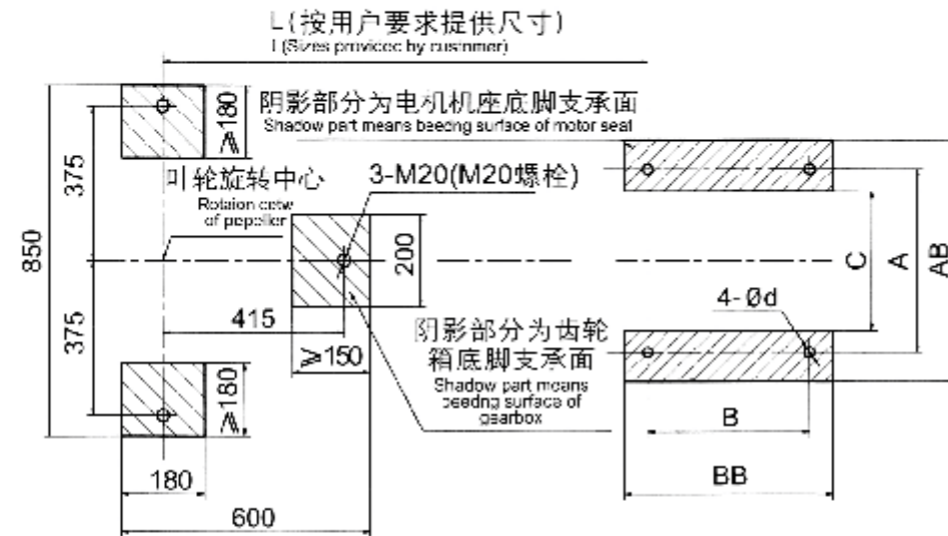


图11 W5BD型减速器、电动机基础安装尺寸图

Figure 11 Installation Sizes of Foundation of W5BD Reducer and Motor

**配套电动机型号及基础安装尺寸表**

List of matched motor model and foundation installation size

电机型号及功率(kW) Model and power of Motor(kW)	A	C	AB	B	BB	Φd
Y225S-4-37kW	356	270	470	286	400	Φ19
Y225M-4-45kW	356	270	470	311	450	Φ19
Y250M-4-55kW	406	310	530	349	560	Φ24
Y280S-6-45kW	457	360	560	368	580	Φ24
Y280M-6-55kW	457	360	560	419	600	Φ24

附注: ● W5BD型减速器齿轮箱中心高为225mm

● 当选用Y250电机时,电机基础需低于减速器基础25mm

● 当选用Y280电机时,电机基础需低于减速器基础55mm

Note: ● The Center Height of W5BD Reducer is 225mm.

● In case Y250 motor is used,the foundation of motor should be 25mm lower than that of motor.

● In case Y280 motor is used,the foundation of motor should be 55mm lower than that of motor

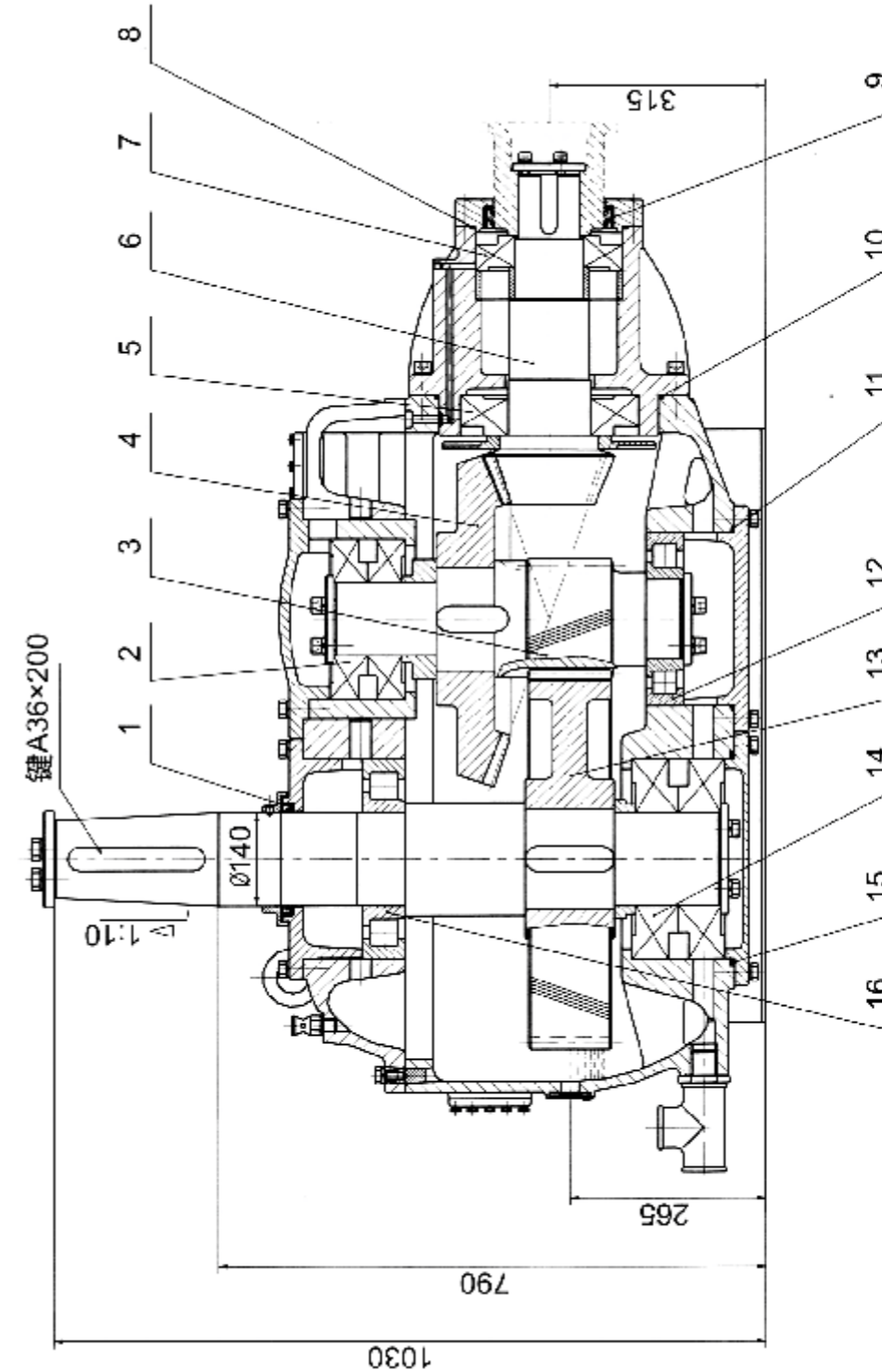


图4 W9型减速器齿轮箱结构图

Figure 3 Structure Drawing of Gears of Mode W9 Reducer

表4 标准件及易损件目录表(W9型)

Table 4 List Standard Pieces and Spare Parts (W9)

序号 S/N	代号 Code	名称 Name	数量 Qty	材料 Material	备注 Remarks
1	HG4-692-67	骨架油封PD140×170×16 Sealing Ring PD140×170×16	1		
2	GB/T297-94	轴承30322 Bearings 30322	2		旧型号7322
3	W9-16	小齿轮 Pinion	1	20CrMnTi	
4	W9-11	大锥齿轮 Major Beve Gear Shaft	1	20CrMnTi	
5	GB/T297-94	轴承30324 Beariflgs 30324	1		旧型号7324
6	W9-19	小锥齿轮轴 Minor Beve Gear Shaft	1	20CrMnTi	
7	GB/T297-94	轴承30320 Bearings 30320	1		旧型号7320
8	GB1235-76	O型油封225×5.7 O-oil Seal 225×5.7	1		
9	HG4-692-67	骨架油封PG160×200×16 Sealing Ring PG160×200×12	2		
10	GB1235-76	O型油封335×8.6 O-oil Seal 335×8.6	1		
11	GB1235-76	O型油封270×5.7 O-oil Seal 270×5.7	1		
12	GB/T283-94	轴承NJ324 Bearings NJ324	1		旧型号42324
13	W9-02	大齿轮 Major Gear	1	40Cr	
14	GB/T297-94	轴承30328 Bearings 30328	2		旧型号7328
15	GB1235-76	O型油封315×8.6 O-oil Seal 315×8.6	1		
16	GB/T283-94	轴承NJ328 Bearings NJ328	1	45	旧型号42328
I-1	W7-21-01	减速器链轮 Reducer Sprocket	1	45	见图5(P12)
I-2	GB/T281-94	轴承1213(旧型号1213) Bearings 1213	2		见图5(P12)
I-3	BG1243-97	双排滚子链 16A-2-24 Double-Row Roller Chain 16A-2-24	2		见图5(P12)
I-4	W9-21-03	传动轴链轮 Driving Shaft Sprocket	2	45	见图5(P12)
I-5	W9-21-06	电机链轮 Motor Sprocket	1	45	见图5(P12)

## (四) W5B型减速器基础安装尺寸

Foundation installation size of model W5B reducer

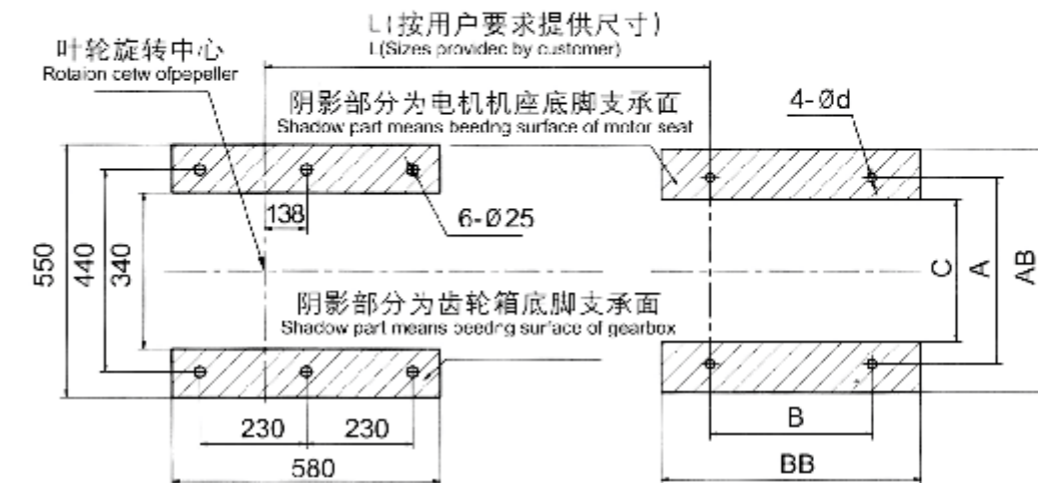


图10 W5B型减速器、电动机基础安装尺寸图

Figure 10 Installation Sizes of Foundation of W5B Reducer and Motor

## 配套电动机型号及基础安装尺寸表

List of matched motor model and foundation installation size

电机型号及功率(kW) Model and power of Motor(kW)	A	C	AB	B	BB	Φd
Y225S-4-37kW	356	270	470	286	400	Φ19
Y225M-4-45kW	356	270	470	311	450	Φ19
Y250M-4-55kW	406	310	530	349	560	Φ24
Y280S-6-45kW	457	360	560	368	580	Φ24
Y280M-6-55kW	457	360	560	419	600	Φ24

附注: ● W5B型减速器齿轮箱中心高为225mm

● 当选用Y250电机时,电机基础需低于减速器基础25mm

● 当选用Y280电机时,电机基础需低于减速器基础55mm

Note: ● The Center Hight of W5B Reducer is 225mm.

● In case Y250 motor is used,the foundation of motor should be 25mm lower than that of motor.

● In case Y280 motor is used,the foundation of motor should be 55mm lower than that of motor.

### (三) W5D型减速器基础安装尺寸

Foundation installation size of model W5D reducer

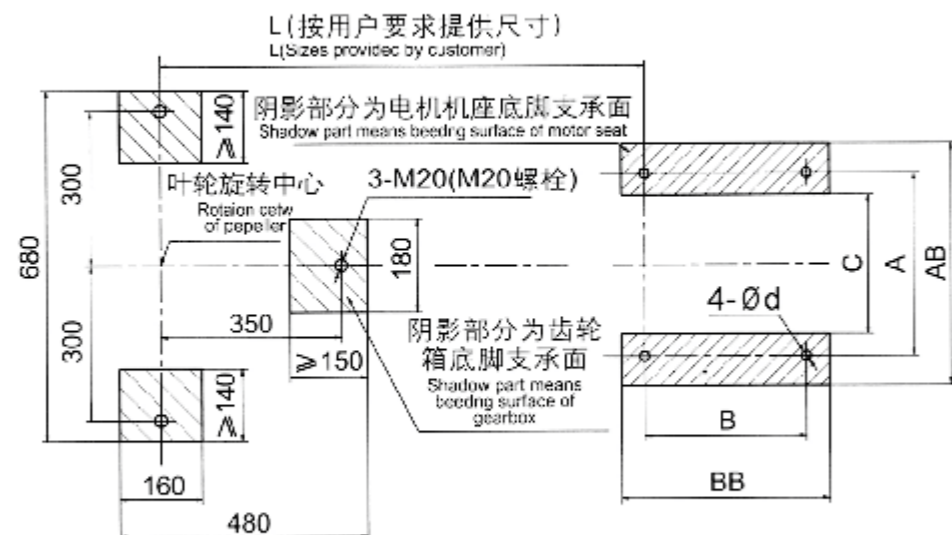


图9 W5D型减速器、电动机基础安装尺寸图  
Figure 9 Installation Sizes of Foundation of W5D Reducer and Motor

### ■ 配套电动机型号及基础安装尺寸表

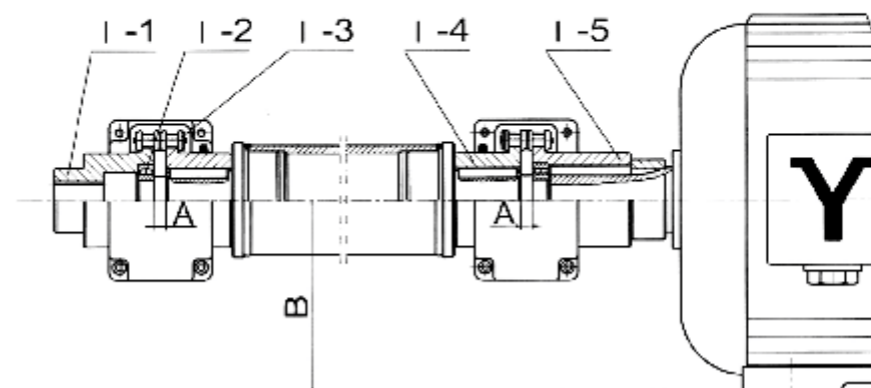
List of matched motor model and foundation installation size

电机型号及功率(kW) Model and power of Motor(kW)	A	C	AB	B	BB	Φd
Y200L -4-30kW	318	230	435	305	400	Φ19
Y200L2-6-22kW	318	230	435	305	400	Φ19
Y225M -6-30kW	356	270	470	311	450	Φ19
Y225S -4-37kW	356	270	470	286	420	Φ19
Y250M -6-37kW	406	310	530	349	560	Φ24

- 附注:
- W5D型减速器齿轮箱中心高为225mm
  - 当选用Y200电机时,电机基础需高于减速器基础25mm
  - 当选用Y250电机时,电机基础需低于减速器基础25mm
- Note:
- The Center Height of W5D Reducer is 225mm.
  - In case Y200 motor is used,the foundation of motor should be 25mm higher than that of motor.
  - In case Y250 motor is used,the foundation of motor should be 25mm lower than that of motor.

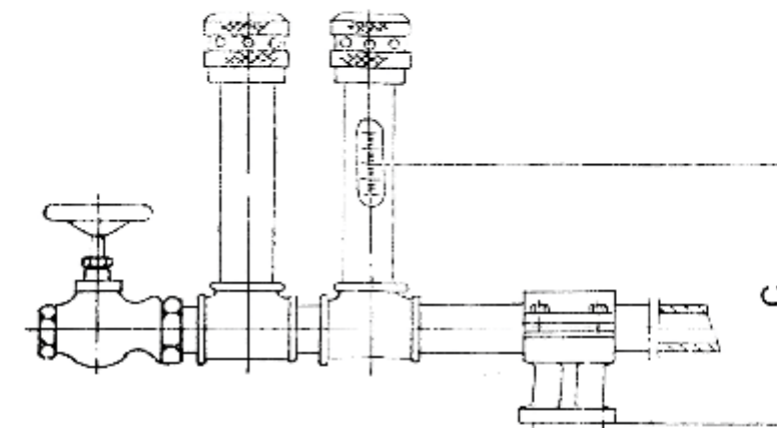
### 六、齿轮箱输入传动轴结构(图5)

VI. Structure drawing of Input Driving Part(Figure 5)



### 七、齿轮箱外接油管结构图及油位高度(图6)

VII. Oil Height and Oil Pipe Structure of Reducer (Figure 6)



附表:

减速器机座号 No. of Motor Seat	电机功率范围 Range of power	A(mm)	B(mm)	C(mm)
W1~W4	≥5.5~22kW	11.5	200	180
W5、W5D	≥22~37kW	11.5	225	200
W5B、W5BD	≥37~55kW	15.5	225	200
W6、W7、W8	≥45~132kW	15.5	280	260
W9	≥160~185kW	15.5	315	265

### 八、基础安装尺寸图表

#### VIII. Drawing of Installation size of Foundation

##### (一) W1~W4型减速器基础安装尺寸

Foundation installation size of model W1~W4 reducer

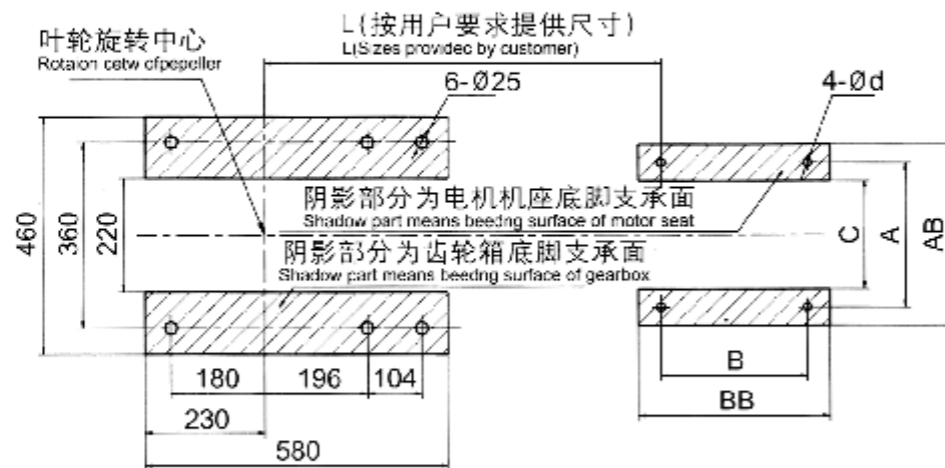


图7 W1~W4型减速器、电动机基础安装尺寸图

Figure 7 Installation Sizes of Foundation of W1~W4 Reducer and Motor

##### ■ 配套电动机型号及基础安装尺寸表

List of matched motor model and foundation installation size

电机型号及功率(kW) Model and power of Motor(kW)	A	C	AB	B	BB	Φd
Y132M1-6-5.5kW	216	170	320	178	260	Φ12
Y160M -6-7.5kW	254	200	370	210	300	Φ16
Y160L -6-11kW	254	200	370	254	335	Φ16
Y180L -6-18.5kW	279	210	395	279	365	Φ16
Y200L1-6-18.5kW	318	230	435	305	400	Φ19
Y200L2-6-22kW	318	230	435	305	400	Φ19

- 附注:
- W1~W4型减速器齿轮箱中心高为200mm
  - 当选用Y132电机时,电机基础需高于减速器基础68mm
  - 当选用Y160电机时,电机基础需高于减速器基础40mm
  - 当选用Y180电机时,电机基础需高于减速器基础20mm

- Note:
- The Center Hight of W1~W4 Reducer is 200mm.
  - In case Y132 motor is used,the foundation of motor should be 68mm higher than that of motor.
  - In case Y160 motor is used,the foundation of motor should be 40mm higher than that of motor.
  - In case Y180 motor is used,the foundation of motor should be 20mm higher than that of motor.

##### (二) W5型减速器基础安装尺寸

Foundation installation size of model W5 reducer

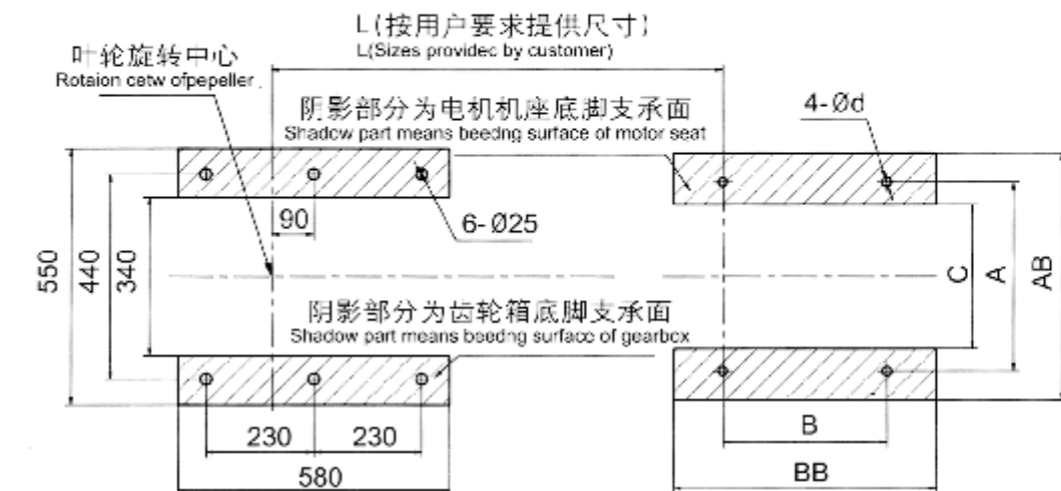


图8 W5型减速器、电动机基础安装尺寸图

Figure 8 Installation Sizes of Foundation of W5 Reducer and Motor

##### ■ 配套电动机型号及基础安装尺寸表

List of matched motor model and foundation installation size

电机型号及功率(kW) Model and power of Motor(kW)	A	C	AB	B	BB	Φd
Y200L -4-30kW	318	230	435	305	400	Φ19
Y200L2-6-22kW	318	230	435	305	400	Φ19
Y225M -6-30kW	356	270	470	311	450	Φ19
Y225S -4-37kW	356	270	470	286	420	Φ19
Y250M -6-37kW	406	310	530	349	560	Φ24

- 附注:
- W5型减速器齿轮箱中心高为225mm
  - 当选用Y200电机时,电机基础需高于减速器基础25mm
  - 当选用Y250电机时,电机基础需低于减速器基础25mm

- Note:
- The Center Hight of W5 Reducer is 225mm.
  - In case Y200 motor is used,the foundation of motor should be 25mm higher than that of motor.
  - In case Y250 motor is used,the foundation of motor should be 25mm lower than that of motor.