REQUEST FOR QUOTATION (RFQ) / INQUIRY
FOR TURBINE JOURNAL BEARING RE-BABBITING AT KMPCL SITE, CHHATTISGARH

Turbine Journal Bearing Re-Babbiting	
Plant: 6x600 MW KSK Mahanadi Thermal Power Plant (TPP), Chhattisgarh	
Company Name: KMPCL	**RFQ / Inquiry No:** 2023-24/KMPCL/HYD/246
Location: Janjgir-Champa Dist. Chhattisgarh	**Revision – 0**
Date of Tender	**2nd April 2024**

1.	Scope of Work	As per the attached Annexure – 1
2.	BOQ	As per the attached Annexure – 2
3.	Last date of Submission of offer	Within **15 days** from the date of Tender
4.	Working Period	
	a. Duration of Work	Duration of the Work - 1 month
	b. Mobilization	Not Applicable
	c. Date of Start of Work	After issuance of Order
	d. Notice to Proceed	Shall be intimated 7 days in advance from the date of visit.
	e. Completion of Work	Within 1 month
	f. Validity of work	One Year (as standard)
6.	Payment Terms	100% upon completion of works within 30 days upon the receipt of Commercial invoice duly certified by EIC & Plant Head.
7.	Correspondence Address for Inquiry	KSK MAHANADI POWER COMPANY LIMITED 8-2-293/82/A/431/A, Road No. 22, Jubilee Hills, Hyderabad – 500033, Telangana. (Offer Submission) Contact: Mr. GS Bajwa – 7728888516 Email: gurpreet.b@ksk.co.in Email: contracts@ksk.co.in
8.	Site/ Works Address	KSK MAHANADI POWER COMPANY LIMITED (KMPCL), Nariyara Village, Akaltara Tehsil, Janjgir - Chempa Dist - 495556, Chhattisgarh.
9.	Special Note	Please attach stamped and signed copy of all the inquiry / RFQ documents along with your offer.

A. SCOPE OF WORK : As per Annexure-1

B. BILL OF QUANTITY (BOQ): As per Annexure-2

C. QUALIFYING CRITERIA (EXPERIENCE):

1. The bidder must have its own setup of well-equipped workshop for executing the job. And the workshop address along with list of available equipment must be submitted along with offer.
2. Bidder should having minimum 3 to 5 years of experience in Turbine Bearing Re-babbiting Works.
3. Bidder should have executed similar work and should enclose proof of the same.
4. Bidder should have carried out similar jobs in 500MW & Above Units and relevant WO Copies should be submitted prior to finalizing the order.

The experience claimed by the bidder shall be considered, if the said experience is in the name of the bidder directly and not by subletting the contract. Firm to furnish satisfactory work completion certificate of executed orders, if not have worked with KMPCL earlier..

D. DEFECT LIABILITY PERIOD / WARRANTY CLAUSE: One Year

E. FQP / QAP: To be submitted by Agency along with the Drawing.

F. MANPOWER PLAN: Not Applicable.

G. ACCOMMODATION & FOOD FOR MANPOWER (if required): -

- Accommodation space for lodging of Engineer staff shall be provided by the Owner on "As is Where is" basis within/outside plant premises and at the nearest possible location.
- Food for manpower shall be available in the KMPCL Canteen on chargeable basis. However, to avail the facility, a prior intimation to the canteen manager to be given by the contractor in advance.

H. DEVIATION:

In case of any deviation during the submission of the offer, the bidder must fill the same in the below formats for technical & commercial deviations (if any).

- **Technical Deviation**

Sr.no	Reference Clause No.	Deviation Taken

- **Commercial Deviation**

Sr.no	Reference Clause No.	Deviation Taken

I. GENERAL CONDITIONS OF THE CONTRACT:

1. **General Scope of Contractor: Applicable only if the Vendor is working @ KMPCL Plant Site:**
   a. Contractor should deploy competent workers for the particular job and should authorize his workers for carrying out electrical works such as welding, grinding and other works carried out by electrical appliances.

b. The contractor should approach the EIC for electric supply point(s) and all electric connections and circuits shall be drawn with his approval. In case of non-compliance of the above, or in case of any mishap or accident the contractor shall be solely responsible for all the consequences.
c. All the portable tools are to be used with three plugs and three wires for single phase systems/ 3 phase four wire system for 3 phase system only, so as to avoid electrical shock while working. Proper earthing to be checked both at supply end at tools end.
d. Three wire sockets and properly insulated electrical boards with earth leakage circuit breakers (ELCB) are to be used by Contractor. ON/OFF switch should be connected in live wire and not in neutral wire. This should be ensured by qualified electrician.
e. Contractor shall submit the latest General Medical Test Report of the manpower deployed by the contractor along with the documents for issuance of necessary Gate Pass.
f. Special Tools supplied by the OEM's shall be issued by the Owner (as per availability basis) to the contractor on returnable basis. In case of some alternate arrangement is required against the Special Tool (non-availability) the same shall be supported by the contractor to save the time during overhauling.
g. The contractor shall maintain all the tools & tackles in healthy condition throughout the period of work. Contractor shall arrange all the required General Tools for execution of the scope of work including the testing equipment. The testing equipment and tools & tackles should be of reputed make.
h. All the consumables required for completion of work to be supplied by contractor, unless specified separately.
i. Scrap, Waste and Effluent disposal if any to be dumped at the designated place within the plant premises by the contractor as per the instruction of Engineer- in-charge.
j. As per the working plan the Supervisor should be available in all the working shifts for close monitoring.
k. The contractor shall make his own arrangement of Crane, Hydras, Tractor trailers, Trucks, Hand trolleys, manpower, lifting tools & tackles etc. for all types of material handling job inside KMPCL's plant area at his own cost. This includes loading, unloading and transportation of the material / spares inside plant working area for maintenance work, issue of materials / spares from stores to site of work, return of material back to stores, disposal of scrap & old unused material – from site of work to workshop - from site of work to stores - from the site to the scrap yard / place as specified by the Engineer-in-Charge.
l. Contractor shall ensure to possess all the required permits (PTW) and isolation form the EIC, prior to the start of the works.
m. Contractor shall ensure hot and height permits availability before start of job. Execution of job without hot and height permit will be the responsibility of Contractor and shall attract penalty as decided by KMPCL EIC.
n. Contractor shall ensure 100% illumination at the work place. Any hindrance caused shall attract penalty under unsafe conditions.
o. Any scaffolding required for doing the job shall have to be erected and dismantled by the contractor. Material for the same shall be arranged by Owner unless separately specified in the contract.
p. Proper housekeeping is a must during entire work period. Hazardous material and inflammable material should be handled so as not to cause harm to the plant or people.
q. In case of any ambiguity / dispute about any conditions of contract, Special Conditions of Contract will prevail over General Condition of Contract.
r. Work will be carried out on round the clock basis or agreed time.
s. Supervisor will be available on shift basis for close monitoring.
t. All the tests carried out at site must submit test reports in spiral binding from in 6 sets.
u. If any work/consumable/tools and tackles not mention above which is required for completion of the work is in the scope of contractor.
v. The decision of Engineer-in-Charge shall be final in regard to all matters relating to the scope of work.

2. **General Scope of Owner: Applicable only if the Vendor is working @ KMPCL Plant Site:**
a. Permits will be issued by the Owner as per the requirement and based on the documents.

b. All the available relevant drawing will be shared as per the requirement of scope of work.
c. Spares required against the activities will be provided by the Owner.
d. The electricity, water, compressed air etc., shall be provided at fixed points by KMPCL on the basis of 'as is where is" available in the plant. However, further extension cabling / hoses / piping etc. shall be arranged by the contractor.
e. Drinking water facility shall be made available by the Owner.
f. EOT Crane along with operators etc. under the scope of owner, if not specified separately.
g. Workshop facility for machining activities if not specified separately shall be provided by the Owner.

3. **Statutory Compliance: Applicable only if the Vendor is working @ KMPCL Plant Site:**
   a. Contractor has to produce WC policy/ESIC as applicable, before the commencement of work.
   b. All provisions of the Factory Act 1948, The Chhattisgarh Factory Rules 1950, Indian Electricity rules 1956, and other rules and regulations should be strictly adhered by the contractor.
   c. The contractor shall ensure compliance with all the Acts, Rules & Regulations pertaining to Health, Safety as applicable from time to time.
   d. If any of KMPCL safety officers finds that Contractor is not following the Safety Rules and regulations including use of personal protective equipment at site, he is authorized to stop your work immediately. In case of violation of rules after issue of warning letter contractor shall be liable to penalty as decided by the concerned / safety section.
   e. Safety of the workers to be engaged in the job is Contractor's responsibility and KMPCL will not be responsible for any type of compensation to Contractor's worker, if any accident occurs during the work and Contractor will be liable for all payments, maintenance etc. to the worker / workers' family as per statute or rule in force in the State or the Country as a whole.

4. **Insurance Of The Workmen: Applicable only if the Vendor is working @ KMPCL Plant Site:**
   a. The contractor shall insure all his workmen for payment of compensation in case of any accident under the provision of Workmen's Compensation Act. The supporting papers/documents in this regard shall have to be submitted before start of the work.
   b. The Contractor shall ensure that all their personnel and machinery are covered adequately under an appropriate insurance policy and shall keep Owner fully indemnified against any claims arising whatsoever during the execution of the work. Contractor shall produce necessary documentary proof before the commencement of work at Site.

5. **Safety: Applicable only if the Vendor is working @ KMPCL Plant Site:**
   a. Induction & Training: All the persons to be deployed by the contractor have to undergo safety induction before being engaged in any job and moreover they have also to undergo safety training regularly.
   b. Contractor should provide all safety equipment's to their workers such as safety shoes, helmets, goggles, aprons, welding screen, safety belts, appropriate hand gloves etc. Good and approved quality appliance shall be arranged and replaced by new ones as soon as worn out by Contractor at his own cost.
   c. Work should be carried out with all PPEs and under KMPCL safety guidelines
   d. If any of KMPCL safety officers finds that Contractor is not following the Safety Rules and regulations including use of personal protective equipment at site, he is authorized to stop the work immediately. In case of violation of rules after issue of warning letter, the contractor shall be liable to penalty as decided by the concerned / safety officer / EIC.
   e. Adequate supervision must be ensured during execution for compliance of safety measures.
   f. In case of injury to person, the incidence is to be reported to concerned section without delay and all legal formalities completed at earliest.
   g. Safety of the workers to be engaged in the job is Contractor's responsibility and KMPCL will not be responsible for any type of compensation to Contractor's worker, if any accident occurs during the work and Contractor will be liable for all payments, maintenance etc. to the worker / workers' family as per statute or rule in force in the State or the Country as a whole.

6. **Personal Conduct:**

Entering of any of contractor's person into the factory under influence of alcohol / drugs is strictly prohibited. Further, any act of sabotage to Owners resources with mala fide intentions shall be taken very seriously and immediate removal of the person(s) will be

7. **PAYMENT TERMS:**

100% along with applicable GST shall be released after completion of work and submission of Commercial Invoice & inspection clearance documents and delivery of material at site.

8. **TERMINATION**

The Work Order/Contract is subject to termination by the owner at any time before the contractor/agency commences mobilization of manpower and resources or initiate the work.

9. **QUALITY AND SAFETY**

You shall implement all applicable quality norms in relation to the performance of the Scope of Work by establishing a well-equipped laboratory and a dedicated quality engineer. You shall also comply with all safety norms and maintain industrial practices for safety of men, material and also cover them under insurance. KMPCL shall be completely indemnified from any obligations arise out of any accident, incident or loss of men, material and property.

10. **SPECIAL NOTE**

Kindly note, any payment made under this Work Order whether as advance or otherwise, is strictly for providing the services as per this Work Order. In any circumstances, any payment given under this Work Order shall not be adjusted against any outstanding dues, of whatsoever nature, towards KMPCL or any company of KSK Group. In case service is not provided within time stipulated in completion schedule or is not in accordance with the agreed quality, the party/contractor shall refund the entire advance amount within 7 days of intimation in this regard from KMPCL, without any prejudice.

11. **PROGRESS REPORTS**

You shall provide final report in mutually agreed formats for circulation among all the relevant parities.

12. **CONFIDENTIALITY:**

No party shall disclose this "WO" or any part thereof, without the written consent of the other party, except that such consent is not required when such disclosure must be made to a lender, Statutory Authority or in pursuance of any directive from a Regulatory Authority.

13. **INDEMNITY:**

Notwithstanding anything contained in this "WO", the Contractor hereby agrees and undertakes to indemnify and keep indemnified Owner from and against all and any claims, demands, action, charges, losses, reasonable costs (including without limitation the fees, disbursements and other charges of counsel), expenses, claims, damages, penalties and liabilities that Owner or its Directors or Officers may incur or suffer as a result of, arising out of or in connection with breach by the Contractor of any of its' obligations, undertakings or covenants contained in this 'WO".

14. **FORCE MAJEURE**

Neither of us shall be considered to have defaulted in the performance of our respective contractual obligations under this Contract, if such non-performance is as consequence of force majeure which shall mean any event beyond the reasonable control of the parties including but not limited to the acts of God, earthquake, typhoon or cyclone, floods, lightening, landslide, fire or explosions, environmental pollution, plague or epidemics, strike and lockouts, (lasting more than fourteen (14) consecutive calendar days except, sabotage, blockade, war, invasion, act of foreign enemies hostilities (whether war to be declare or not), civil war rebellion, revolution, insurrection / or military usurping power or confiscation or trade embargoes or destruction or requisition by order of any Government or any public authority. However, the affected party shall take all measures to mitigate the impact of such force majeure. Commercial difficulty shall not be force majeure.

15. **ARBITRATION**

All disputes or differences whatsoever arising out of this "WO" which cannot be settled through mutual negotiations shall finally be settled by arbitration through arbitration in accordance with the provisions of the Arbitration and Conciliation Act 1996. The venue of such arbitration shall be Hyderabad. The decision of the Arbitrator shall be final and binding on the Parties.

16. **JURISDICTION**

Parties agree that the courts at Hyderabad shall have the exclusive jurisdiction over all disputes and matters that arise under or pursuant to this 'WO".

17. **NOTICES**

Any notice, request or instruction permitted or required to be given hereunder by any party to the other shall be in writing and shall be deemed sufficiently given if delivered personally against receipt or sent by Registered Post A.D or by Speed Post / courier with A.D. at the address of the parties mentioned in the WO.

ANNEXURE - 1

SCOPE OF WORK FOR "**TURBINE JOURNAL BEARING RE-BABBITING**"

TECHNICAL SCOPE OF WORK:

1. Removal of old white material in controlled temperature conditions.
2. Tinning with virgin ultra-pure tin only.
3. Preparation of journal for re-babbitting.
4. Centrifugal re-babbitting of old journal while maintaining all parameters.
5. Virgin alloyed lead-free white metal i.e. lS 25 Grade 84 to enable optimum performance at high ambient temperatures.
6. To be ensure chemical composition of new white material as per (SnSb8Cu4)/lS 25 Grade 84.
7. All dimensions should meet drawing specifications and dimension inspection report to be submitted.
8. All NDT checks like UT, DPT as per ISO spec. 4386.
9. The developed drawings to be submitted along with formal inspection call on the readiness of the material.
10. The final Manufacturing Drawings and Sketches to be submitted along with the Invoice as integral part of important documents.

Annexure-2

BOQ for Turbine Journal Bearing Re-Babbiting

Sl.No	Description	UOM	Qty	Rate	Amount
1	Rebabbitting and finish machining of Bearing No. #01(Tilting pad), size : 381X 230 mm consisting of 5 pads (Bottom-2, Top-3) of 600MW Dongfang Turbine.	Nos.	1		0
2	Rebabbitting and finish machining of Bearing No. #02(Tilting pad), size : 431.8 X 254 consisting of 5 pads (Bottom-2, Top-3) of 600MW Dongfang Turbine.	Nos.	1		0
3	Rebabbitting and finish machining of Journal Bearing No. # 03, Size : 482.6 X 356 mm (consisting of Bottom & Top half) of 600MW Dongfang Turbine.	Nos.	1		0
4	Rebabbitting and finish machining of forward thrust pad of 600MW Dongfang Turbine.	Nos.	9		0
5	Rebabbitting and finish machining of reverse thrust pad of 600MW Dongfang Turbine.	Nos.	9		0
6	Rebabbitting and finish machining of Journal Bearing No. # 04, Size : 482.6 x 356 mm (consisting of Bottom & Top half) of 600MW Dongfang Turbine.	Nos.	1		0
7	Rebabbitting and finish machining of Journal Bearing No. # 06, Size : 508 x330mm (consisting of Bottom & Top half) of 600MW Dongfang Turbine.	Nos.	1		0
8	Rebabbitting and finish machining of Journal Bearing No. # 08, Size : 481.5 x 394mm (consisting of Bottom & Top half) of 600MW Dongfang Turbine.	Nos.	1		0
9	Rebabbitting of spare Turbine MOP Journal bearing size- Ø137 +0.025 mm. (consisting of bottom and top half)	Nos.	1		0
			Total		0
			GST @ 18%		0
			Total Value With GST		0

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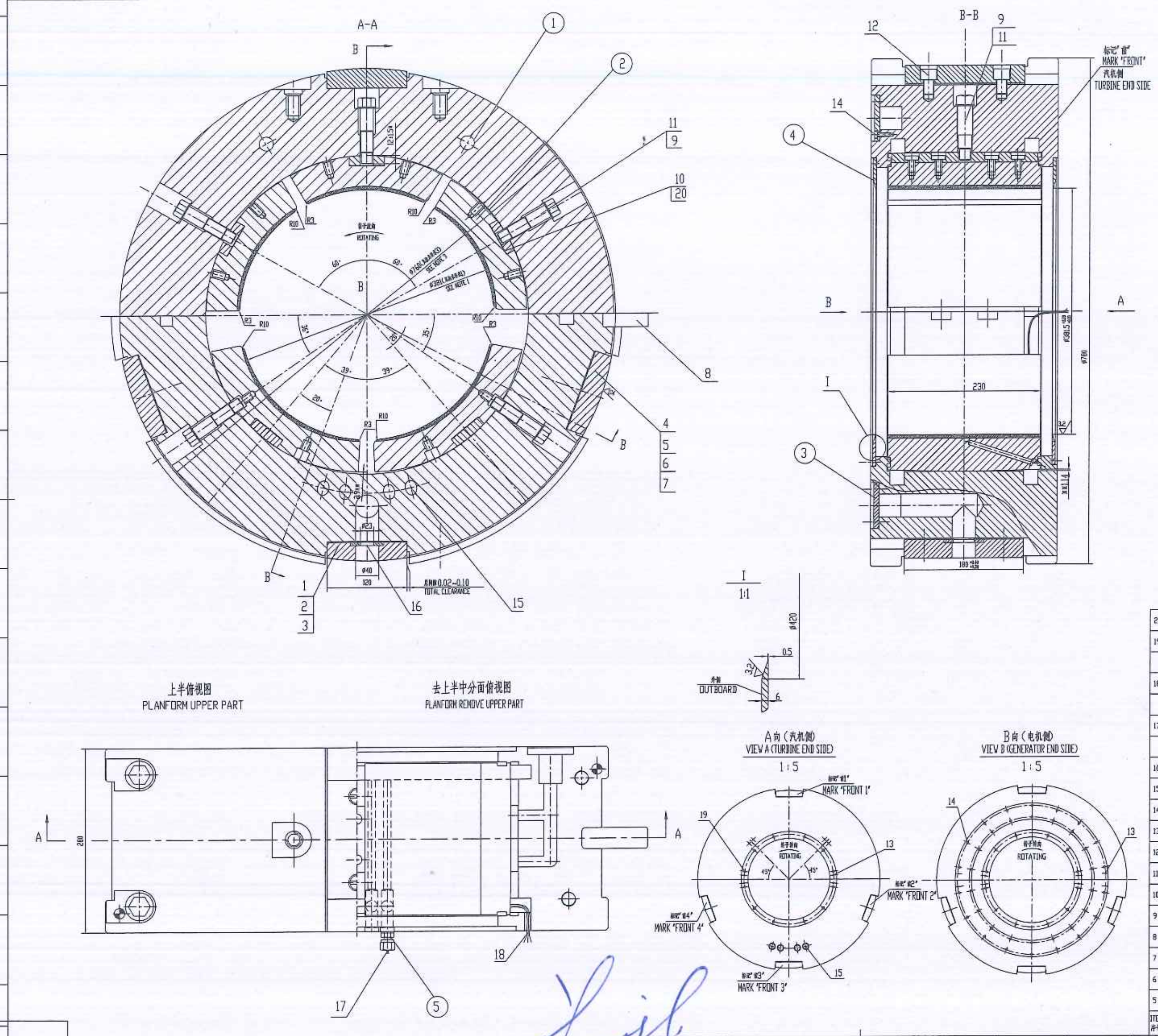
R-0 初次发布



其余 THE ORTHERS

技术要求
NOTES

1 轴承内孔安装尺寸(Ø381)由各瓦块的摆动调整垫块下垫钢带0.30（件10、件20）达到，当转子落入后，应保证顶隙0.57~0.67。

1 THE ASSEMBLY DIMENSION Ø381 OF BEARING HOLE IS OBTAINED BY USING STEEL BELT 0.3 (PART 10 AND PART 20) UNDERNEATH EVERY BLOCK OF TILTING PAD. THE TIP CLEARANCE IS 0.57~0.67 AFTER THE ROTOR HAS BEEN LOADED.

2 带"※"尺寸在瓦块装配前，把螺纹销（件9）试装入轴承体 保证其伸出量为12±1.5，总装时，在保证瓦块背部与瓦套接触状态下，螺纹销（件9）在瓦块销孔中四周应留有间隙。瓦块安装时瓦块标记"前"与轴瓦体标记"前"对应。

2 THE DIMENSION WITH "※" IS THE THREAD PIN'S EXSERTION, AND BE SURE THAT IT IS 12±1.5 AFTER THE THREAD PIN HAS BEEN INSERTED INTO THE BEARING SLEEVE BEFORE FIXES THE BEARING PADS. ALL AROUND OF THE THREAD PIN (PART 9) EXISTS CLEARANCE WHILE TILTING PAD BACK CONTACT WITH THE BEARING SLEEVE. THE MARK "FRONT" OF EVERY PAD IS CORRESPONDING WITH BEARING SLEEVE'S.

3 垫块外圆尺寸（Ø760）装入调整垫片（δ2.5）后按轴承座实测尺寸的±0.025配准，垫块（件1、7）作标记并与瓦体垫块槽位置对应。

3 AFTER THE ADJUSTING GASKETS (2.5mm THICK) HAVE BEEN FIXED, THE ADJUSTING BLOCKS OUTER DIAMETER (Ø760) ACCORDING TO ±0.025 OF PEDESTAL PRACTICAL SIZE. MARK ON THE ADJUSTING BLOCKS (PART 1 AND 7) WITH THE TILTING BLOCKS GROOVE.

4 将封油板标记"A"的面朝外安装。

4 THE SIDE MARKED "A" OF OIL SEAL RING PLATE IS OUTBOARD.

5 电厂安装时允许加备用垫片（件5、6），但每垫块下垫片不得超过2片。

5 IT IS PERMISSIBLE TO USE SPARE SHIMS (PART 5 AND 6) BUT NOT MORE THAN TWO PIECES WHILE BEARING IS MOUNTED IN POWER STATION.

6 垫块（件1、7）与轴承座接触面积不小于75%，轴承压盖与垫块外圆过盈量0.02~0.05，由上部加垫片获得。

6 THE CONTACT AREA BETWEEN ADJUSTING BLOCKS (PART 1 AND 7) AND PEDESTAL IS NOT LESS THAN 75%. THE SHRINK RANGE BETWEEN PEDESTAL AND ADJUSTING BLOCK OUTER DIAMETER IS 0.02~0.05 WHICH OBTAINED BY ADDING SHIM UNDERNEATH UPPER ADJUSTING BLOCK.

7 带"※※"尺寸（见I7、I17）为瓦块的摆动量。

7 THE DIMENSION WITH "※※" IS MOVEMENT OF TILTING PAD.

8 总装时，轴承顶隙(0.57~0.67)需要调整时的要求，

(1) 当实测值偏离设计间隙±0.05mm以内时，只需要在上半三块瓦块的摆动调整垫块下增加或减少相同厚度的钢带。

(2) 当实测值偏离设计间隙±0.05mm以上时，应在上、下半每块瓦块的摆动调整垫块下增加或减少相同厚度的钢带。

8 PERFORM AS THE FOLLOWING REQUIRES, WHEN THE TOP CLEARANCE (0.57~0.67) NEEDS TO BE ADJUSTED

① INCREASE OR DECREASE THE SAME THICKNESS OF STEELS WHICH ARE ASSEMBLED UNDER THE ADJUSTTED BLOCKS OF EACH UPPER PADS. WHEN THE DIFFERENCE BETWEEN THE DESIGN AND ACTUAL VALUE IS WITHIN ±0.05mm.

② INCREASE OR DECREASE THE SAME THICKNESS OF STEELS WHICH ARE ASSEMBLED UNDER THE ADJUSTTED BLOCKS OF EACH PADS. WHEN THE DIFFERENCE BETWEEN THE DESIGN AND ACTUAL VALUE IS WITHOUT ±0.05mm.

9. 总装时，轴承压盖与轴承箱体连接的螺栓的把紧力为70~80Kg.m。

9 WHEN ASSEMBLY, THE PRETIGHTENING FORCE OF THE SCREW BOLT WHICH JOINTING THE SHRINK DIMENSION AND BEARING HOUSE IS 70~80Kg.m.

10. 封油板（件③）与挡油环（件④）的中分面应与轴瓦体中分面同刮削，在自由状态下保证中分面间间隙小于0.03。

10 WHEN ASSEMBLY, THE JOINT OF THE OIL SEAL RING IN HALVES (PART ③) AND THE OIL SEAL RING PLATE IN HALVES (PART ④) MUST BE SCRAPED WITH THE JOINT OF BEARING SLEEVE AT THE SAME TIME, AND THE CLEARANCE BETWEEN UPPER JOINT AND LOWER JOINT MUST ASSURE TO BE WITHIN 0.03.

ITEM 序号	DRAWING NO 分图号	DESCRIPTION 名称	QUN 数量	MAT'L 材料	UWT 单重	TWT 总重	REMARKS 备注
20	D600B-241000A011	钢带220X48 STEEL BELT 220X48	5	研磨钢带0.1/1Cr13 GROUND STEEL #0.1/1Cr13	0.02	0.10	无图 NO FIG.
19	GB68-85	螺钉M6x12 SCREW M6X12	24	5.8级35 5.8GRADE OF 35	0.00	0.06	
18		双支铂热电阻 PLATINUM THERMOCOUPLE	2	WZP2-...	1.0	2.0	
				... L=... GRADE ...			
17		双支铂热电阻 PLATINUM THERMOCOUPLE	1	WZP2-...	1.0	1.0	
				...=45, ... L=45 GRADE ...			
16	D00.600.999	塑料盖Dw=Dn43 PLASTIC COVER Dw=Dn43	1	高压聚乙烯 HIGH PRESSURE POLYETHYLENE	0.01	0.01	
15	D00.600.999	塑料盖Dw=Dn36 PLASTIC COVER Dw=Dn36	4	高压聚乙烯 HIGH PRESSURE POLYETHYLENE	0.01	0.02	
14	GB65-85	螺钉M6x12 SCREW M6X12	36	5.8级35 5.8GRADE OF 35	0.00	0.14	
13	GB119/1-86	销A5x14 PIN A5x14	12	45	0.00	0.03	
12	GB70-85	螺钉M16x30 SCREW M16X30	8	8.8级45 8.8GRADE OF 45	0.08	0.66	
11	GB93-87	弹簧垫圈20 SPRING WASHER 20	5	65Mn或60Si2MnA 65Mn OR 60Si2MnA	0.01	0.03	
10	D600B-241000A010	钢带220X48 STEEL BELT 220X48	5	研磨钢带0.2/1Cr13 GROUND STEEL #0.2/1Cr13	0.04	0.28	无图 NO FIG.
9	D600B-241000A009	螺纹销 THREAD PIN	5	45-1	0.25	1.25	
8	D600B-241000A008	止动块 LOCKING BLOCK	1	45-1	0.27	0.27	
7	D600B-241000A007	调整垫块 ADJUSTING BLOCK	3	Q235-B	5.05	15.15	
6	D600B-241000A006	钢带178X118 STEEL BELT 178x118	8	研磨钢带0.05/1Cr13 GROUND STEEL #0.05/1Cr13	0.01	0.07	无图 NO FIG.
5	D600B-241000A005	钢带178X118 STEEL BELT 178x118	8	研磨钢带0.1/1Cr13 GROUND STEEL #0.1/1Cr13	0.03	0.21	无图 NO FIG.

ITEM 序号	DRAWING NO 分图号	DESCRIPTION 名称	QUN 数量	MAT L 材料	UWT 单重	TWT 总重	REMARKS 备注
4	D600B-241000A004	调整垫片 ADJUSTING GASKET	3	Q235-B	0.38	1.14	
3	D600B-241000A003	带孔调整垫片 ADJUSTING GASKET WITH HOLE	1	Q235-B	0.36	0.35	
2	D600B-241000A002	节流孔板 ORIFICE PLATE	1	Q235-B	0.07	0.07	
1	D600B-241000A001	带孔调整垫块 ADJUSTING BLOCK WITH HOLE	1	Q235-B	4.70	4.70	
(5)	D600B-241500A	THERMOCOUPLE CONDUIT THERMOMETRIC	1		1.08	1.08	
(4)	D600B-241400A	半挡油环 OIL SEAL RING IN HALVES	2		9.40	18.8	
(3)	D600B-241300A	半挡油板 OIL SEAL RING PLATE IN HALVES	1		15.16	15.16	
(2)	D600B-241200A	CARVE PAD ...	1+1		163.70	163.70	
(1)	D600B-241100A	轴瓦体 BEARING BUSH BODY	1		853.24	853.24	

OWNER: KSK Mahanadi Power Company Limited
6x600MW Thermal Power Project
Nariyara, Chhattisgarh, India

OWNER'S ENGINEERS: DEVELOPMENT CONSULTANTS PRIVATE LIMITED
CONSULTING ENGINEERS
KOLKATA · MUMBAI · CHENNAI NEW DELHI

CONTRACTOR: SEPCO Electric Power Construction Corporation
Jinan, China

NORTHEAST ELECTRIC POWER DESIGN INSTITUTE
(OF CHINA POWER ENGINEERING CONSULTING GROUP)
Changchun, China

VENDOR: DEC DONGFANG TURBINE Co.,Ltd.

KMPCL No.:

SYM 更改标记	NO 处数	REV AUTH DOC NO 文件代号	SIG 签字	DATE 日期

支持轴承
(ϕ381×230)
JOURNAL BEARING
(ϕ381x230)

(WAX)D600B-241000A

REV 版本号	WT 重量	SCALE 比例
A	1066.53	1:2

共 1 张 第 1 张
SHEET 1 OF 1

DEC 东方汽轮机有限公司
DONGFANG TURBINE Co.,Ltd.

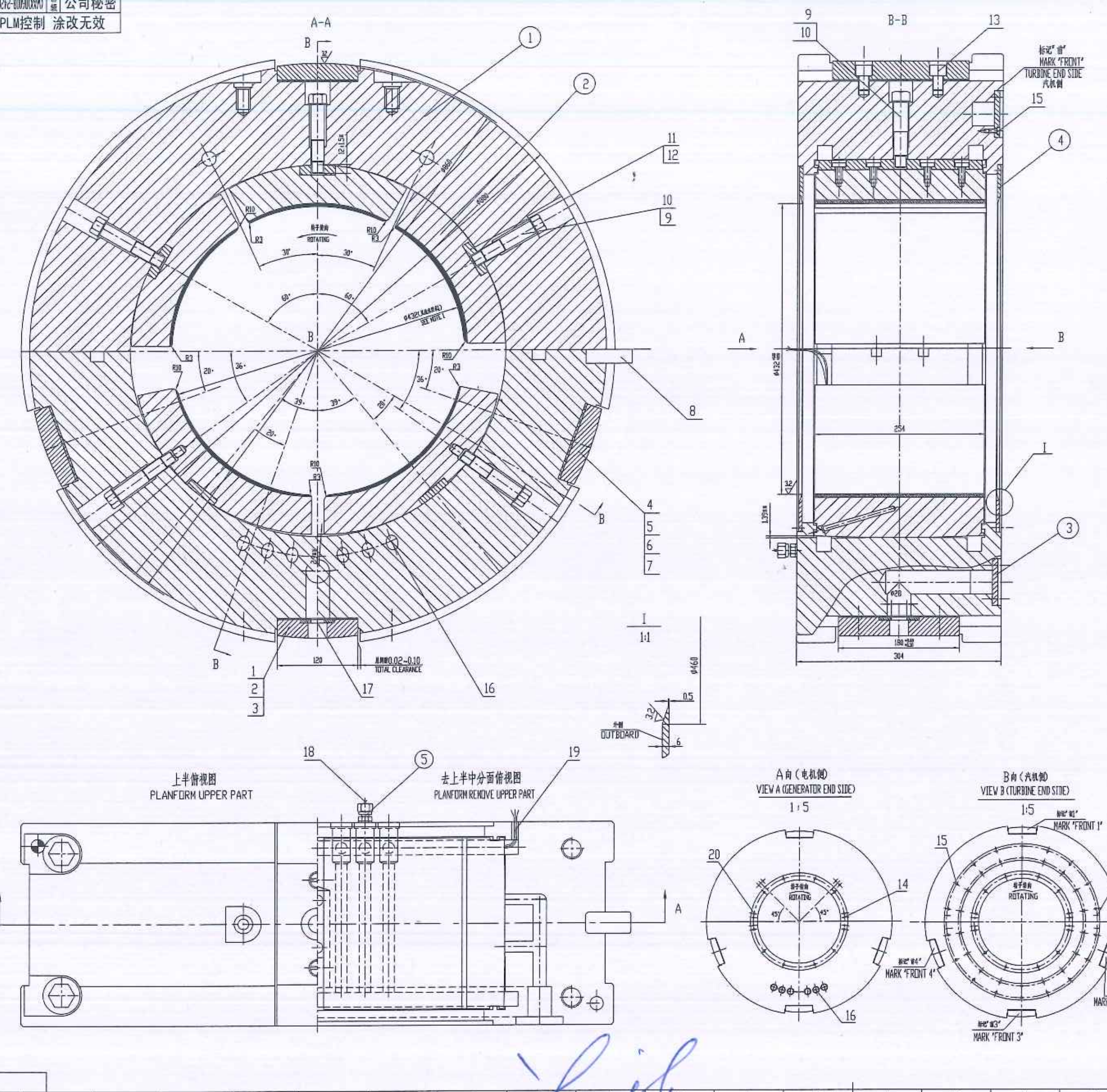
Bearing No. 01

Y00N2N2-00090CN(VAX) 密级 公司秘密
PLM控制 涂改无效

R-0 初次发布

其余 ∇/

∇/ THE ORTHER



技术要求
NOTE

1 轴承内孔安装尺寸(Ø432 $^{+0.45}_{+0.41}$)由各瓦块的摆动调整垫块下垫钢带0.30(件11、12)达到。当转子落入后，应保证顶隙0.65~0.75。

1 THE ASSEMBLY DIMENSION Ø432 OF BEARING HOLE IS OBTAINED BY USING STEEL BELT 0.30 (PART 11,12) UNDERNEATH EVERY BLOCK OF TILTING PAD.THE TOP CLEARANCE IS 0.65~0.75 AFTER THE ROTOR HAS BEEN LOADED.

2 带"※"尺寸在瓦块装配前，把螺纹销(件9)试装入轴承体 保证其伸出量为12±1.5，总装时，在保证瓦块背部与瓦套接触状态下，螺纹销(件9)在瓦块销孔中四周应留有间隙。瓦块安装时瓦块标记"前"与轴瓦体标记"前"对应。

2 BEFORE FIXES THE BEARING PADS,TRY TO FIX THE THREAD PIN (PART9) IN THE BEARING SLEEVE,THEN THE STRETCHING LENGTH WITH "※" IS 12±1.5,ALL AROUND OF THE THREAD PIN (PART9) EXISTS CLEARANCE WHILE TILTING PAD BACK CONTACT WITH THE BEARING SLEEVE.WHEN ASSEMBLY ,THE MARKED "前" OF EVERY PAD IS CORRESPONDING WITH BEARING SLEEVE'S.

3 垫块外圆尺寸(Ø860)装入调整垫片(δ2.5)后按轴承座实测尺寸的±0.025配准。垫块(件1、7)作标记并与瓦体垫块槽位置对应。

3 AFTER THE ADJUSTING GASKETS(2.5mm THICK) HAVE BEEN FIXED ,THE ADJUSTING BLOCKS OUTER DIAMETER (Ø860) ACCORDING TO ±0.025 OF PEDESTAL PRACTICAL SIZE.MARK ON THE ADJUSTING BLOCKS (PART1 AND 7) WITH THE TILTING BLOCKS GROOVE.

4 将封油板标记"A"的面朝外安装。

4 THE SIDE MARKED "A" OF OIL SEAL RING PLATE (PART③) IS OUTBOARD.

5 电厂安装时允许加备用垫片(件5、6)，但每垫块下垫片不得超过2片。

5 IT IS PERMISSIBLE TO USE SPARE SHIMS (PART 5 AND 6),BUT NOT MORE THAN TWO PIECES WHILE BEARING IS MOUNTED IN POWER STATION.

6 垫块(件1、7)与轴承座接触面积不小于75%，轴承压盖与垫块外圆过盈量0.02~0.05，由上部加垫片获得。

6 THE CONTACT AREA BETWEEN ADJUSTING BLOCKS (PART 1 AND 7) AND PEDESTAL IS NOT LESS THAN 75% , THE SHRINK RANGE BETWEEN PEDESTAL AND ADJUSTING BLOCK OUTER DIAMETER IS 0.02~0.05 WHICH OBTAINED BY ADDING SHIM UNDERNEATH UPPER ADJUSTING BLOCK.

7 带"※※"尺寸(见I7、I12)为瓦块的摆动量。

7 THE DIMENSION WITH "※※"(SEE I7 AND I12) IS MOVEMENT OF TILTING PAD.

8 总装时，轴承顶隙(0.65~0.75)需要调整时的要求，
(1)当实测值偏离设计间隙±0.05mm以内时，只需要在上半三块瓦块的摆动调整垫块下增加或减少相同厚度的钢带。
(2)当实测值偏离设计间隙±0.05mm以上时，应在上、下半每块瓦块的摆动调整垫块下增加或减少相同厚度的钢带。

8 PERFORM AS THE FOLLOWING REQUIRES, WHEN THE TOP CLEARANCE(0.57~0.67) NEEDS TO BE ADJUSTED
① INCREASE OR DECREASE THE SAME THICKNESS OF STEELS WHICH ARE ASSEMBLED UNDER THE ADJUSTED BLOCKS OF EACH UPPER PADS. WHEN THE DIFFERENCE BETWEEN THE DESIGN AND ACTUAL VALUE IS WITHIN ±0.05mm.
② INCREASE OR DECREASE THE SAME THICKNESS OF STEELS WHICH ARE ASSEMBLED UNDER THE ADJUSTED BLOCKS OF EACH PADS. WHEN THE DIFFERENCE BETWEEN THE DESIGN AND ACTUAL VALUE IS WITHOUT ±0.05mm.

9. 总装时，轴承压盖与轴承箱体连接的螺柱的把紧力为80~90Kg.m。

9 WHEN ASSEMBLY ,THE PRETIGHTENING FORCE OF THE SCREW BOLT WHICH JOINTING THE SHRINK DIMENSION AND BEARING HOUSE IS 80~90Kg.m.

10. 封油板(件③)与挡油环(件④)的中分面应与轴瓦体中分面同时刮，在自然状态下保证中分面间间隙小于0.03。

10 WHEN ASSEMBLY, THE JOINT OF THE OIL SEAL RING IN HALVES (PART 3) AND THE OIL SEAL RING PLATE IN HALVES (PART ④) MUST BE SCRAPED WITH THE JOINT OF BEARING SLEEVE AT THE SAME TIME, AND THE CLEARANCE BETWEEN UPPER JOINT AND LOWER JOINT MUST ASSURE TO BE WITHIN 0.03.

ITEM 序号	DRAWING NO 分图号	DESCRIPTION 名称	QUN 数量	MAT'L 材料	UWT 单重	TWT 总重	REMARKS 备注
20	GB68-85	SCREW M6X12	24	5.8 [illegible]	0.00	0.06	
19		PLATINUM THERMOCOUPLE	2	[illegible]	1.0	2.0	
				[illegible]			
18		PLATINUM THERMOCOUPLE	1	[illegible]	1.0	1.0	
				[illegible]			
17	D00600999	PLASTIC COVER Dw43=Dw43	1	[illegible]	0.01	0.01	
16	D00600999	PLASTIC COVER Dw36=Dw36	6	[illegible]	0.00	0.02	
15	GB65-85	SCREW M6X12	36	5.8 [illegible]	0.00	0.14	
14	GB119/1-86	PIN A5x14	12	45	0.00	0.03	
13	GB70-85	SCREW M16X30	8	8.8 [illegible]	0.08	0.66	
12	D600B-242000A006	STEEL BELT 224X48	5	[illegible]/1Cr13 GROUND STEEL [illegible]	0.01	0.05	NO FIG
11	D600B-242000A005	STEEL BELT 224X48	5	[illegible]0.2/1Cr13 GROUND STEEL [illegible]	0.06	0.30	NO FIG
10	GB93-87	SPRING WASHER 20	5	65Mn [illegible]	0.01	0.03	
9	D600B-242000A004	THREAD PIN	5	45-1	1.30	1.50	
8	D600B-241000A008	LOCKING BLOCK	1	45-1	0.27	0.27	
7	D600B-241000A007	ADJUSTING BLOCK	3	Q235-B	5.05	15.15	
6	D600B-242000A003	STEEL BELT 178x118	8	[illegible]0.05/1Cr13 GROUND STEEL [illegible]	0.01	0.07	NO FIG
5	D600B-242000A002	STEEL BELT 178x118	8	[illegible]/1Cr13 GROUND STEEL [illegible]	0.03	0.20	NO FIG

ITEM 序号	DRAWING NO 分图号	DESCRIPTION 名称	QUN 数量	MAT L 材料	UWT 单重	TWT 总重	REMARKS 备注
4	D600B-241000A004	ADJUSTING GASKET	3	Q235-B	0.38	1.14	
3	D600B-241000A003	ADJUSTING GASKET WITH HOLE	1	Q235-B	0.36	0.36	
2	D600B-242000A001	ORIFICE PLATE	1	Q235-B	0.07	0.07	
1	D600B-241000A001	ADJUSTING BLOCK WITH HOLE	1	Q235-B	4.70	4.70	
(5)	D600B-241500A	THERMOCOUPLE COMPONENT [illegible]	1		0.0	0.0	
(4)	D600B-242400A	OIL SEAL RING IN HALVES	2		8.40	16.8	
(3)	D600B-242300A	OIL SEAL RING PLATE IN HALVES	1		16.16	16.16	
(2)	D600B-242200A	CARVE PAD [illegible]	1		356.0	356.0	
(1)	D600B-242100A	BEARING [illegible] BODY	1		855.71	855.71	

OWNER:
KSK Mahanadi Power Company Limited
6x600MW Thermal Power Project
Nariyara, Chhattisgarh, India

OWNER'S ENGINEERS: DEVELOPMENT CONSULTANTS PRIVATE LIMITED
CONSULTING ENGINEERS
KOLKATA · MUMBAI · CHENNAI NEW DELHI

CONTRACTOR: SEPCO Electric Power Construction Corporation
Jinan, China

CONSULTANT ENGINEER: NORTHEAST ELECTRIC POWER DESIGN INSTITUTE
(OF CHINA POWER ENGINEERING CONSULTING GROUP)
Changchun, China

VENDOR: DEC DONGFANG TURBINE Co.,Ltd.

KMPCL No.: KMP-0-STG-V002-M-248

支持轴承
JOURNAL BEARING
(Φ431.8x254)

(VAX)D600B-242000A

REV	WT	SCALE
A	1209.43	1:2

SHEET 1 OF 1

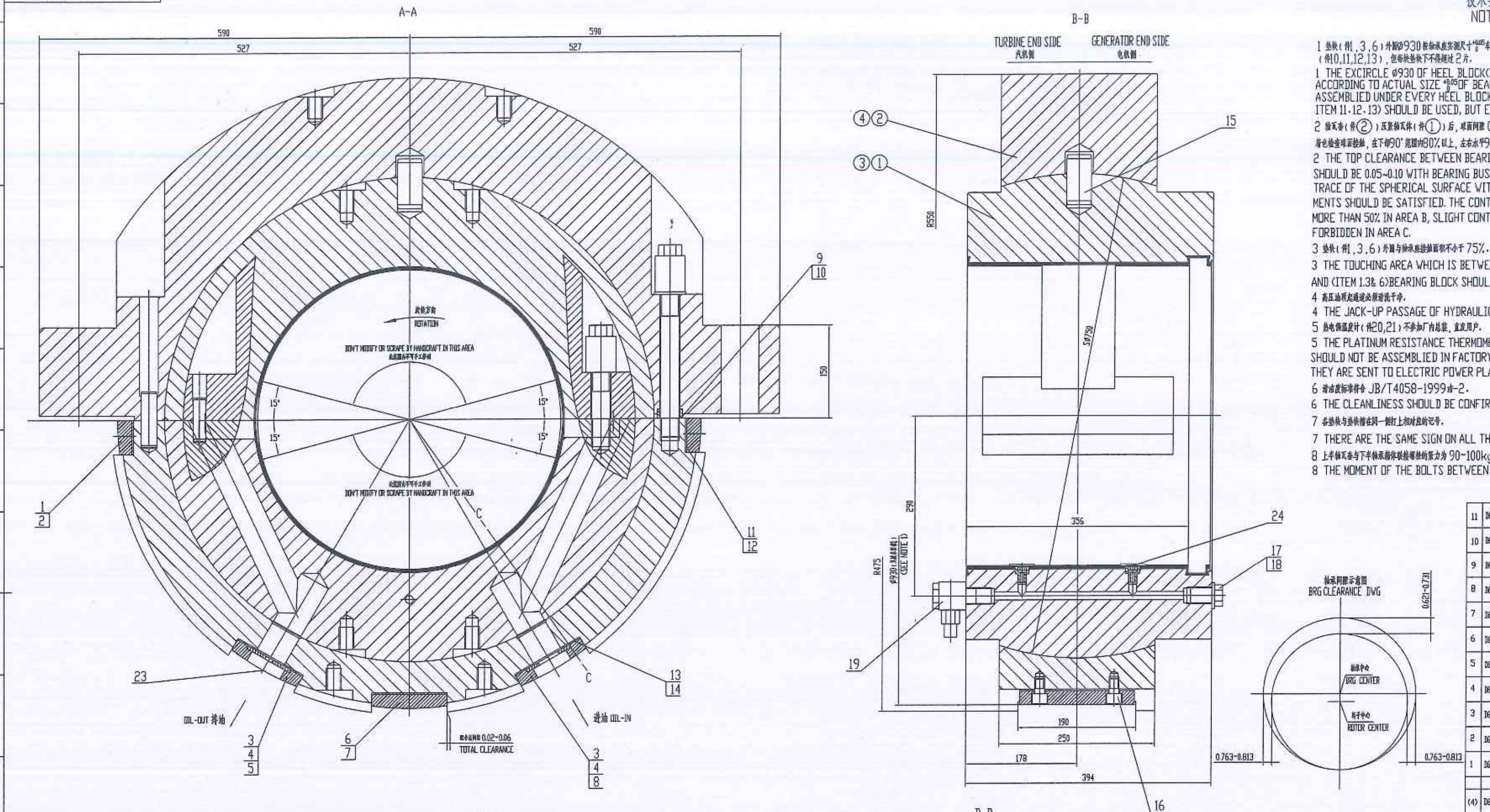
东方汽轮机有限公司
DONGFANG TURBINE Co.,Ltd.

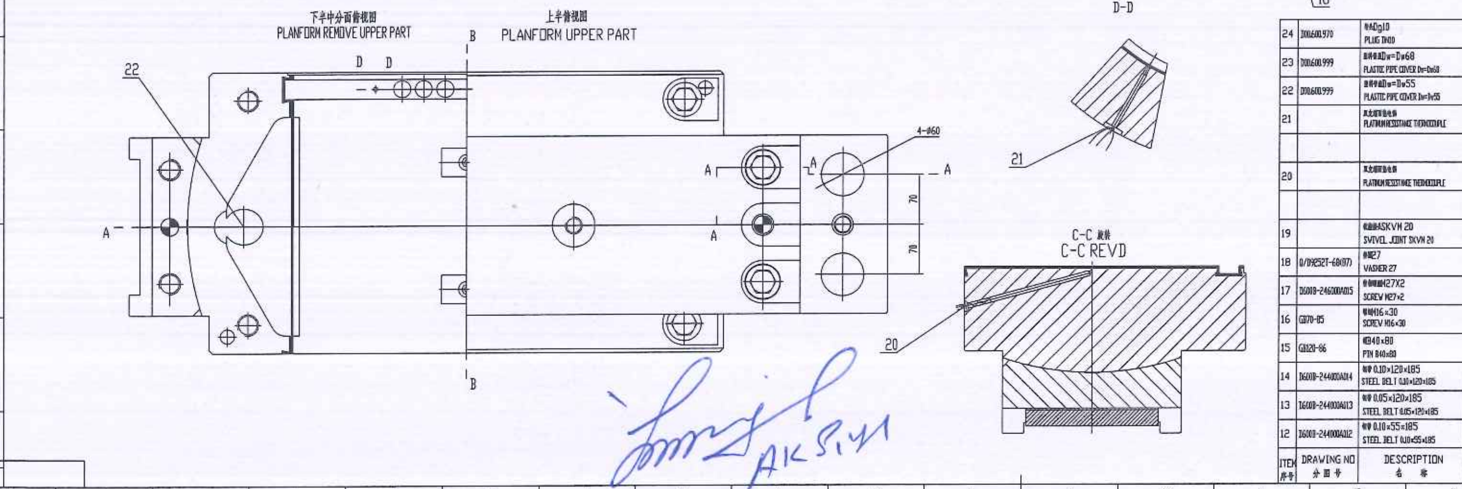
AKSH

Bearing No. 02

Y0001(2-0003D(XX)) 密级	公司秘密
PLM控制 涂改无效	

R-0 初次发布





技术要求
NOTE

1 垫块(件1,3,6)外圆ø930按轴承座实测尺寸$^{+0.05}_{0}$车准，每块垫块下只装一块垫片(件2,4,7)。电厂安装时允许加备用垫片(件10,11,12,13)，但每块垫块下不得超过2片。

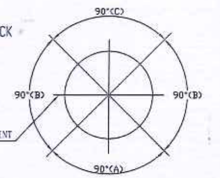
1 THE EXCIRCLE ø930 OF HEEL BLOCK(ITEM 1,3 AND 6) SHOULD BE MACHINED AND REGISTERED ACCORDING TO ACTUAL SIZE $^{+0.05}_{0}$ OF BEARING SEAT.ONE WASHER(ITEM2,4 AND 7) SHOULD BE ASSEMBLIED UNDER EVERY HEEL BLOCK. WHEN ASSEMBLING AT SITE, THE WASHER(ITEM 10 OR ITEM 11、12、13) SHOULD BE USED, BUT EVERY HEEL BLOCK HAVE NOT MORE THAN TWO WASHERES.

2 轴瓦套(件②)压紧轴瓦体(件①)后，球面间隙 0.05~0.10。允许在轴瓦套中分面加备用垫片(件9,10)达到(见A-A视图)。着色检查球面接触，在下部90°范围内80%以上，左右水平90°范围内50%以上，在上部90°范围内不接触或轻微接触，不可有局部硬接触。

2 THE TOP CLEARANCE BETWEEN BEARING BUSH SLEEVE (ITEM ②) & BEARING BODY (ITEM ①) SHOULD BE 0.05~0.10 WITH BEARING BUSH SLEEVE BEING TIGHTENED. CHECK THE CONTACT TRACE OF THE SPHERICAL SURFACE WITH RED LEAD POWDER AND THE FOLLOWING REQUIREMENTS SHOULD BE SATISFIED. THE CONTACT SURFACE SHOULD BE MORE THAN 80% IN AREA A, MORE THAN 50% IN AREA B, SLIGHT CONTACT OR NO CONTACT BUT HEAVILY CONTACT POINTS IN FORBIDDEN IN AREA C.

3 垫块(件1,3,6)外圆与轴承座接触面积不小于75%。

3 THE TOUCHING AREA WHICH IS BETWEEN EXCIRCLE OF HEEL BLOCK AND (ITEM 1.3& 6)BEARING BLOCK SHOULD BE MORE THAN 75%.



4 高压油顶起通道必须清洗干净。

4 THE JACK-UP PASSAGE OF HYDRAULIC OIL MUST BE CLEARED.

5 热电偶温度计(件20,21)不参加厂内总装，直发用户。

5 THE PLATINUM RESISTANCE THERMOMETER(ITEM 20 AND 21) SHOULD NOT BE ASSEMBLIED IN FACTORY, AND THEY ARE SENT TO ELECTRIC POWER PLANT AT FIRST HAND.

6 清洁度标准符合 JB/T4058-1999清-2。

6 THE CLEANLINESS SHOULD BE CONFIRMED WITH JB/T4058-1999 CLEAN-2.

7 各垫块与垫块槽在同一侧打上相对应的记号。

7 THERE ARE THE SAME SIGN ON ALL THE BLOCKS AND THE TILTING BLCOKS GROOVE.

8 上半轴瓦套与下半轴承箱体联接螺栓的紧力为 90~100kg.m。

8 THE MOMENT OF THE BOLTS BETWEEN BRG BEARING SLEEVE AND BRG BOX IS 90Kg.m~100Kg.m.

ITEM 序号	DRAWING NO 分图号	DESCRIPTION 名称	QUN 数量	MAT'L 材料	UWT 单重	TWT 总重	REMARKS 备注
11	D600B-244000A011	钢带 0.05×55×185 STEEL BELT 0.05×55×185	4	1Cr13	0.00	0.02	无图 NO FIG.
10	D600B-244000A010	钢带 0.10×40×250 STEEL BELT 0.10X40X250	2	1Cr13	0.00	0.01	无图 NO FIG.
9	D600B-244000A009	钢带 0.05×40×250 STEEL BELT 0.05X40X250	2	1Cr13	0.00	0.01	无图 NO FIG.
8	D600B-244000A008	THROTTLE PLATE(INLET)	1	Q235-B	0.18	0.18	
7	D600B-244000A007	垫片 GASKET	1	Q235-B	0.43	0.43	
6	D600B-244000A006	垫块 BLOCK	1	Q235-B	4.40	4.40	
5	D600B-244000A005	THROTTLE PLATE(OUTLET)	1	Q235-B	0.19	0.19	
4	D600B-244000A004	GASKET WITH HOLE	2	Q235-B	0.40	0.80	
3	D600B-244000A003	BLOCK WITH HOLE	2	Q235-B	4.30	8.6	
2	D600B-244000A002	垫片 GASKET	2	Q235-B	0.21	0.42	
1	D600B-244000A001	垫块 BLOCK	2	Q235-B	2.10	4.20	
(4)	D600B-244400A	BEARING BUSH SLEEVE	1		634.75	634.75	NOT FOR D600 NDJ-B AND D600 NDJ-5
(3)	D600B-244300A	BEARING BUSH BODY	1		776.26	776.26	
(2)	D600B-244200A	BEARING BUSH SLEEVE	1		634.75	634.75	ONLY FOR D600 NDJ-B AND D600 NDJ-5
(1)	D600B-244100A	BEARING BUSH BODY	1		776.26	776.26	

ITEM 序号	DRAWING NO 分图号	DESCRIPTION 名称	QUN 数量	MAT'L 材料	UWT 单重	TWT 总重	REMARKS 备注
24	D00.600.970	PLUG D10	2	PLASTIC	0.00	0.00	
23	D00.600.999	PLASTIC PIPE COVER Dw=Dø68	2	HIGH PRESSURE POLYETHYLENE	0.02	0.03	
22	D00.600.999	PLASTIC PIPE COVER Dw=Dø55	2	HIGH PRESSURE POLYETHYLENE	0.01	0.02	
21		PLATINUM RESISTANCE THERMOCOUPLE	1	[illegible]	1.0	1.0	
				[illegible]	1.0	1.0	
20		PLATINUM RESISTANCE THERMOCOUPLE	1	[illegible]	1.0	1.0	
				[illegible]			
19		SWIVEL JOINT SKVN 20	1		1.0	1.0	
18	Q/D9252T-68(97)	WASHER 27	1	(T4)T3	0.01	0.01	
17	D600B-246000A015	SCREW M27×2	1	35-1	0.04	0.04	
16	GB70-85	SCREW M16×30	10	8.8 GRADE8.8 OR 45	0.08	0.82	
15	GB120-86	PIN B40×80	1	45	0.43	0.43	
14	D600B-244000A014	钢带 0.10×120×185 STEEL BELT 0.10×120×185	6	1Cr13	0.02	0.11	无图 NO FIG.
13	D600B-244000A013	钢带 0.05×120×185 STEEL BELT 0.05×120×185	6	1Cr13	0.01	0.05	无图 NO FIG.
12	D600B-244000A012	钢带 0.10×55×185 STEEL BELT 0.10×55×185	4	1Cr13	0.01	0.03	无图 NO FIG.

OWNER: KSK Mahanadi Power Company Limited
6x600MW Thermal Power Project
Nariyara, Chhattisgarh, India

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CONTRACTOR: SEPCO Electric Power Construction Corporation
Jinan, China

NORTHEAST ELECTRIC POWER DESIGN INSTITUTE
(OF CHINA POWER ENGINEERING CONSULTING GROUP)
Changchun, China

VENDOR: DEC DONGFANG TURBINE Co.,Ltd.

KMPCL No.: KMP-0-STG-V002-M-250

(WAX)D600B-244000A

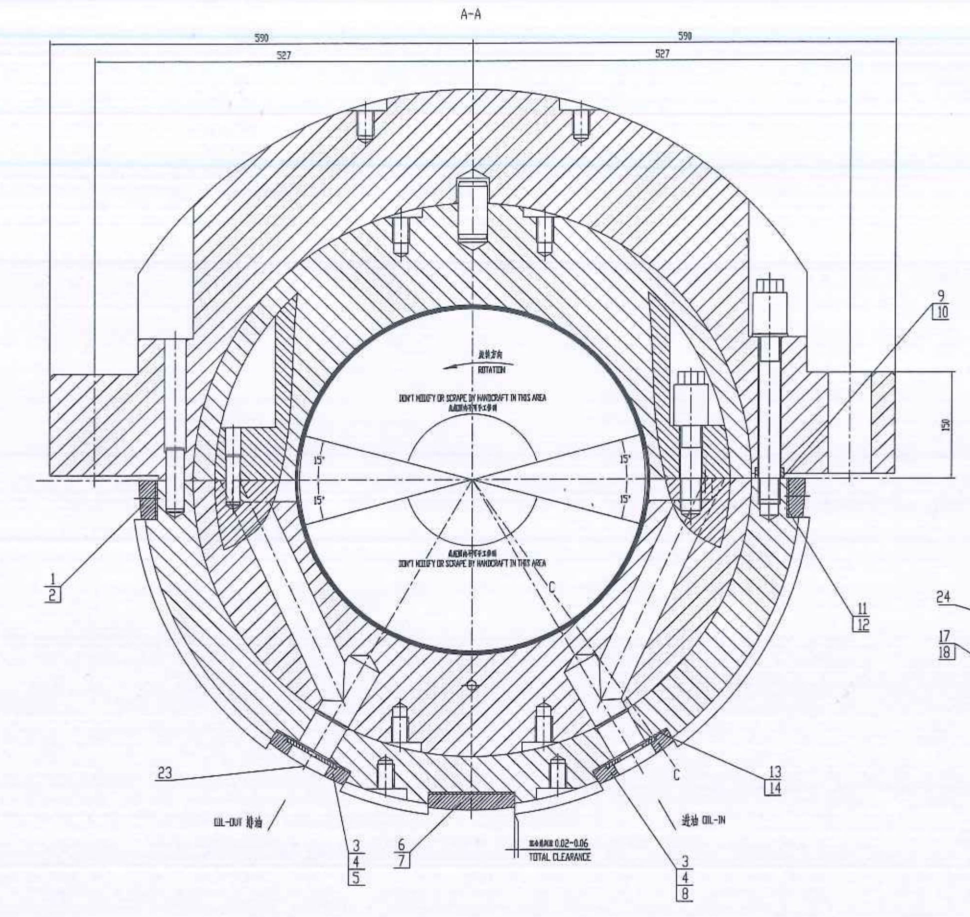
支持轴承ø482.6X356(3#,5#)
JOURNAL BEARING
(ø482.6X356(3#,5#))

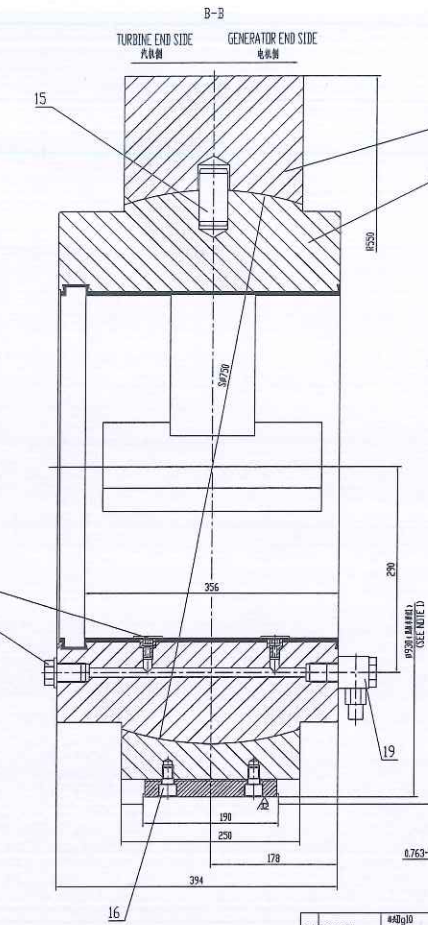
REV	WT	SCALE
A	1434.81	1:2.5

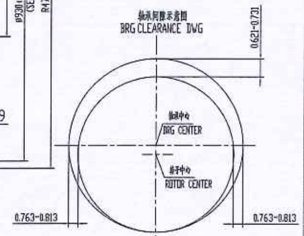
SHEET 1 OF 1

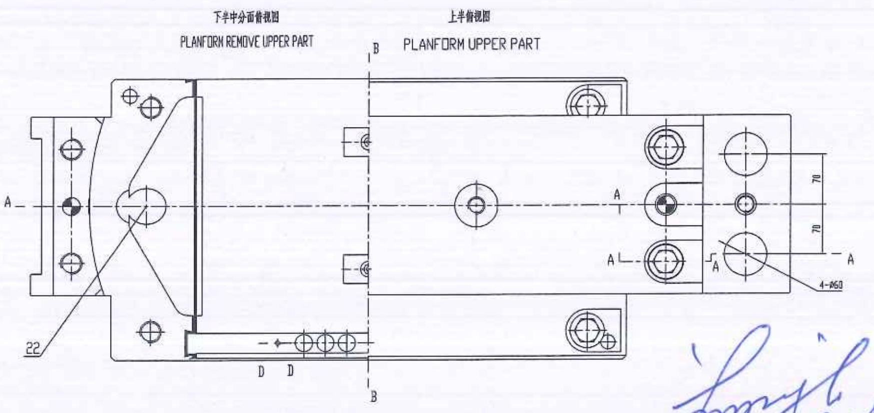
东方汽轮机有限公司
DONGFANG TURBINE Co.,Ltd.

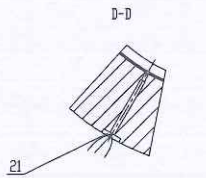
公司秘密	R-0 初次发布
PLM控制 涂改无效	

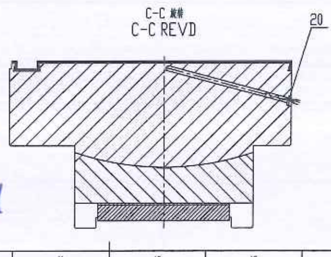












其余 ▽√

THE OTHERS ▽√

技术要求
NOTE

1 垫块(件1,3,6)外圆Ø930按轴承座实测尺寸$^{+0.05}_{0}$车准，每块垫块下只装一块垫片(件2,4,7)，电厂安装时允许加备用垫片(件9,10,11,12,13,14)，但每块垫块下不得超过2片。

1 THE EXCIRCLE Ø930 OF HEEL BLOCK(ITEM 1,3 AND 6) SHOULD BE MACHINED AND REGISTERED ACCORDING TO ACTUAL SIZE $^{+0.05}_{0}$ OF BEARING SEAT.ONE WASHER(ITEM2,4 AND 7) SHOULD BE ASSEMBLIED UNDER EVERY HEEL BLOCK. WHEN ASSEMBLING AT SITE, THE WASHER(ITEM 9 OR ITEM 10、11、12、13、14) SHOULD BE USED, BUT EVERY HEEL BLOCK HAVE NOT MORE THAN TWO WASHERES.

2 轴瓦套(件②)压紧轴瓦体(件①)后，球面间隙0.05~0.10，允许在轴瓦套中分面加备用垫片(件9,10)达到(见A-A视图)。着色检查球面接触，在下部90°范围内80%以上，左右水平90°范围内50%以上，在上部90°范围内不接触或轻微接触，不可有局部硬接触。

2 THE TOP CLEARANCE BETWEEN BEARING BUSH SLEEVE (ITEM ②) & BEARING BODY (ITEM①) SHOULD BE 0.05~0.10 WITH BEARING BUSH SLEEVE BEING TIGHTENED. CHECK THE CONTACT TRACE OF THE SPHERICAL SURFACE WITH RED LEAD POWDER AND THE FOLLOWING REQUIREMENTS SHOULD BE SATISFIED. THE CONTACT SURFACE SHOULD BE MORE THAN 80% IN AREA A, MORE THAN 50% IN AREA B, SLIGHT CONTACT OR NO CONTACT BUT HEAVILY CONTACT POINTS IN FORBIDDEN IN AREA C.

3 垫块(件1,3,6)外圆与轴承座接触面积不小于75%。

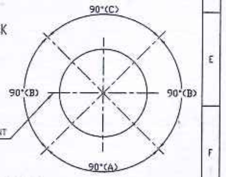
3 THE TOUCHING AREA WHICH IS BETWEEN EXCIRCLE OF HEEL BLOCK AND (ITEM 1.3& 6)BEARING BLOCK SHOULD BE MORE THAN 75%.

4 高压油顶起通道必须清洗干净。

4 THE JACK-UP PASSAGE OF HYDRAULIC OIL MUST BE CLEARED.

5 热电偶温度计(件20,21)不参加厂内总装，直发用户。

5 THE PLATINUM THERMOMETER(ITEM 20 AND 21) SHOULD NOT BE ASSEMBLIED IN FACTORY, AND THEY ARE SENT TO ELECTRIC POWER PLANT AT FIRST HAND.



6 清洁度标准符合JB/T4058-1999清-2。

6 THE CLEANLINESS SHOULD BE CONFIRMED WITH JB/T4058-1999 CLEAN-2.

7 各垫块与垫块槽在同一侧打上相对应的记号。

7 THERE ARE THE SAME SIGN ON ALL THE BLOCKS AND THE TILTING BLCOKS GROOVE.

8 上半轴瓦套与下半轴承箱体联接螺栓的紧力为90~100kg.m.

8 THE MOMENT OF THE BOLTS BETWEEN BRG BEARING SLEEVE AND BRG BOX IS 90Kg.m~100Kg.m.

ITEM 序号	DRAWING NO 分图号	DESCRIPTION 名称	QUN 数量	MAT'L 材料	UWT 单重	TWT 总重	REMARKS 备注
24	D00.600.970	堵头Dg10 PLUG Dn10	2	塑料 PLASTIC	0.00	0.00	
23	D00.600.999	塑料管盖Dw=Dw68 PLASTIC PIPE COVER Dw=Dw68	2	高压聚乙烯 HIGH PRESSURE POLYETHYLENE	0.02	0.03	
22	D00.600.999	塑料管盖Dw=Dw55 PLASTIC PIPE COVER Dw=Dw55	2	高压聚乙烯 HIGH PRESSURE POLYETHYLENE	0.01	0.02	
21		双支铂热电偶 PLATINUM THERMOCOUPLE	1	[illegible]	1.0	1.0	
				[illegible]	1.0	1.0	
20		双支铂热电偶 PLATINUM THERMOCOUPLE	1	[illegible]	1.0	1.0	
				[illegible]			
19		旋转接头SKVM 20 SWIVEL JOINT SKVM 20	1		1.0	1.0	
18	Q/D9252T-68(87)	垫圈27 WASHER 27	1	T3	0.01	0.01	
17	D600B-246000A015	专用螺塞M27X2 SPECIAL SCREW PLUG M27×2	1	35-1	0.04	0.04	
16	GB70-85	螺钉M16×30 SCREW M16×30	10	8.8级/45 GRADE8.8 OR 45	0.08	0.82	
15	GB120-86	销B40×80 PIN B40×80	1	45	0.43	0.43	
14	D600B-245000A006	钢带0.10×120×185 STEEL BELT 0.10×120×185	6	1Cr13	0.02	0.11	无图 NO FIG.
13	D600B-245000A005	钢带0.05×120×185 STEEL BELT 0.05×120×185	6	1Cr13	0.01	0.05	无图 NO FIG.
12	D600B-245000A004	钢带0.10×55×185 STEEL BELT 0.10×55×185	4	1Cr13	0.01	0.03	无图 NO FIG.
11	D600B-245000A003	钢带0.05×55×185 STEEL BELT 0.05×55×185	4	1Cr13	0.00	0.02	无图 NO FIG.
10	D600B-245000A002	钢带0.10×40×250 STEEL BELT 0.10X40X250	2	1Cr13	0.00	0.01	无图 NO FIG.
9	D600B-245000A001	钢带0.05×40×250 STEEL BELT 0.05X40X250	2	1Cr13	0.00	0.01	无图 NO FIG.
8	D600B-244000A008	进油节流块 THROTTLE PLATE(INLET)	1	Q235-B	0.18	0.18	
7	D600B-244000A007	垫片 GASKET	1	Q235-B	0.43	0.43	
6	D600B-244000A006	垫块 BLOCK	1	Q235-B	4.40	4.40	
5	D600B-244000A005	出油节流块 THROTTLE PLATE(OUTLET)	1	Q235-B	0.19	0.19	
4	D600B-244000A004	带孔垫片 GASKET WITH HOLE	4	Q235-B	0.40	1.60	
3	D600B-244000A003	带孔垫块 BLOCK WITH HOLE	4	Q235-B	4.30	17.2	
2	D600B-244000A002	垫片 GASKET	2	Q235-B	0.21	0.42	
1	D600B-244000A001	垫块 BLOCK	2	Q235-B	2.10	4.20	
(4)	D600B-244400A	轴瓦套 BEARING BUSH SLEEVE	1		634.75	634.75	NOT FOR D600B NCLl-8 AND D600D NCLl-5
(3)	D600B-245200A	轴瓦体 BEARING BUSH BODY	1		776.26	776.26	
(2)	D600B-244200A	轴瓦套 BEARING BUSH SLEEVE	1		634.75	634.75	ONLY FOR D600B NCLl-8 AND D600D NCLl-5
(1)	D600B-245100A	轴瓦体 BEARING BUSH BODY	1		775.76	775.76	

OWNER: KSK Mahanadi Power Company Limited
6x600MW Thermal Power Project
Nariyara, Chhattisgarh, India

OWNER'S ENGINEERS: DEVELOPMENT CONSULTANTS PRIVATE LIMITED
CONSULTING ENGINEERS
KOLKATA · MUMBAI · CHENNAI NEW DELHI

CONTRACTOR: SEPCO Electric Power Construction Corporation
Jinan, China

CONTRACTOR'S ENGINEERS: NORTHEAST ELECTRIC POWER DESIGN INSTITUTE
(OF CHINA POWER ENGINEERING CONSULTING GROUP)
Changchun, China

VENDOR: DEC DONGFANG TURBINE Co.,Ltd.

KMPCL No.: KMP-0-STG-V002-M-251

支持轴承
JOURNAL BEARING
(Ø482.6X356(4#)

(WAX)D600B-245000A

版本号 REV	重量 WT	比例 SCALE
A	1434.71	1:2.5

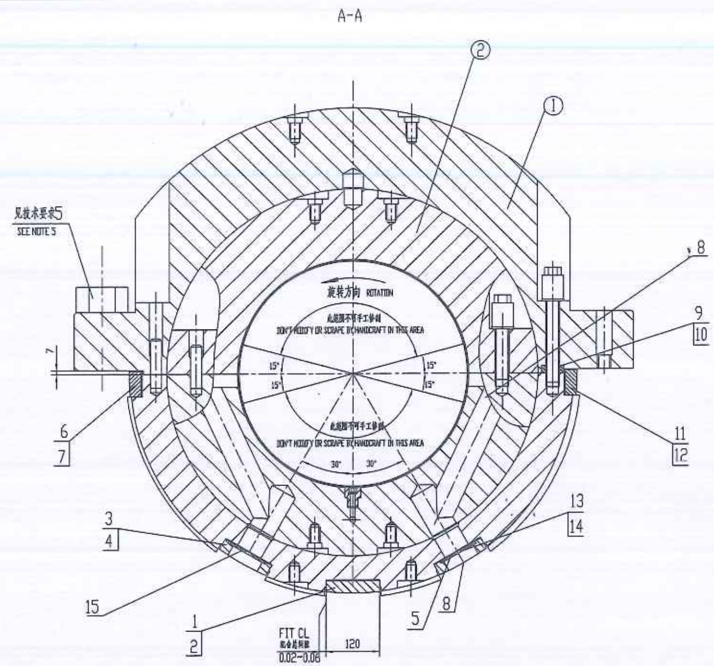
共 1 张 第 1 张 SHEET 1 OF 1

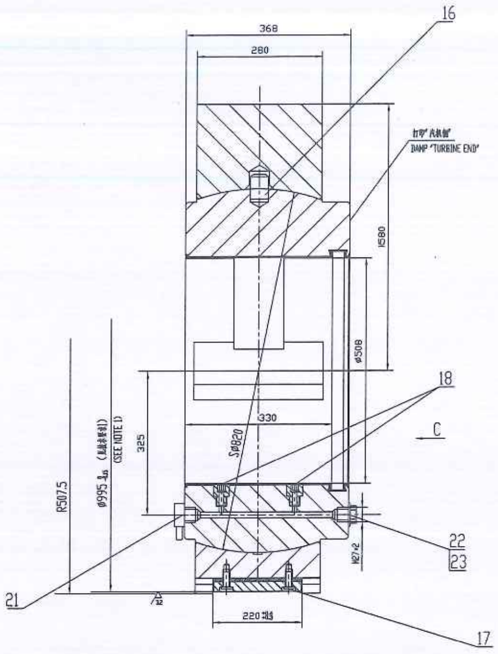
东方汽轮机有限公司
DONGFANG TURBINE Co.,Ltd.

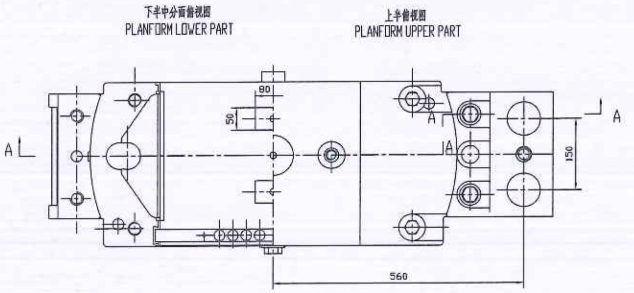
公司秘密

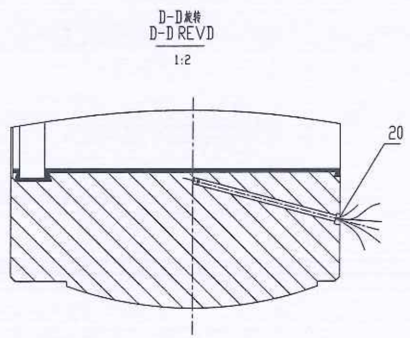
PLM控制 涂改无效

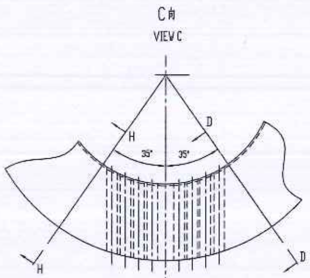
R-0 初次发布

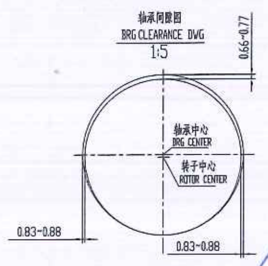


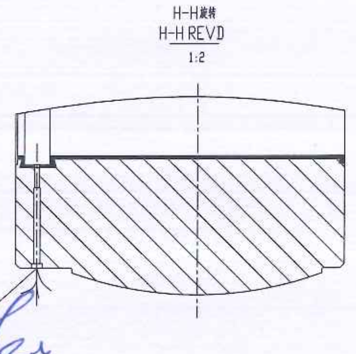












技术要求 NOTE

其余 THE OTHERS

1 垫块(件1、3、6)外圆ø995按轴承座实测尺寸 $^{+0.05}_{0}$ 车准，这时每垫块下总装一块垫片(件2、4、7 电厂安装允许加备用垫片(件10、11、12、13)，但每垫块下不得超过2片.

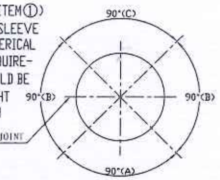
1 THE EXCIRCLE ø995 OF HEEL BLOCK(ITEM 1,3 AND 6) SHOULD BE MACHINED AND REGISTERED ACCORDING TO ACTUAL SIZE $^{+0.05}_{0}$ OF BEARING SEAT.ONE WASHER(ITEM2,4 AND 7) SHOULD BE ASSEMBLIED UNDER EVERY HEEL BLOCK. WHEN ASSEMBLING AT SITE, THE WASHER(ITEM 10 OR ITEM 11、12、13) SHOULD BE USED, BUT EVERY HEEL BLOCK HAVE NOT MORE THAN TWO WASHERES.

2 不参加总装的备件轴承垫块外圆ø995 $^{0}_{-0.15}$ 由厂内按技术要求1车准.

2 THE EXCIRCLE ø995 $^{0}_{-0.15}$ OF THE PARTS WHICH DON'T JOIN THE ASSEMBLING MACHING AT WORK ACORDING NOTE ONE.

3 轴瓦套(件①)压紧轴承后球面应有间隙0.05~0.10，允许在轴瓦套中分面加备用垫片(件9)达到(见A-A)。着色检查球面接触，在正下部90°范围内80%以上；左、右水平90°范围内50%以上；正上部90°范围内不接触或轻微接触，不可有局部硬接触.

3 THE TOP CLEARANCE BETWEEN BEARING BUSH SLEEVE (ITEM①) & BEARING BODY SHOULD BE 0.05~0.10 WITH BEARING BUSH SLEEVE BEING TIGHTENED. CHECK THE CONTACT TRACE OF THE SPHERICAL SURFACE WITH RED LEAD POWDER AND THE FOLLOWING REQUIREMENTS SHOULD BE SATISFIED. THE CONTACT SURFACE SHOULD BE MORE THAN 80% IN AREA A, MORE THAN 50% IN AREA B, SLIGHT CONTACT OR NO CONTACT BUT HEAVILY CONTACT POINTS IN FORBIDDEN IN AREA C.



4 垫块件1、3、6外圆与轴承座接触面积大于75%.

4 THE TOUCHING AREA WHICH IS BETWEEN EXCIRCLE OF HEEL BLOCK (ITEM 1,3& 6) AND BEARING BLOCK SHOULD BE MORE THAN 75%.

5 上半轴瓦套中分面与下半轴承箱中分面的联接螺栓的紧力为100Kg.m~110Kg.m.

5 THE MOMENT OF THE BOLTS BETWEEN BRG BEARING SLEEVE AND BRG BOX IS 100Kg.m~110Kg.m.

6 高压油顶起通道必须清洗干净.

6 THE JACK-UP PASSAGE OF HYDRAULIC OIL MUST BE CLEARED.

7 双支热电偶计(件19、20)不参加厂内总装，直发用户，用户安装时要求热电偶端面与轴承合金有良好接触，并配准衬套长度.

7 THE PLATINUM THERMOMETER(ITEM 19 AND 20) SHOULD NOT BE ASSEMBLIED IN FACTORY, AND THEY ARE SENT TO ELECTRIC POWER PLANT AT FIRST HAND.WHEN IT WAS ASSEMBLIED AT SITE,THE PLATINUM RESISTANCE THERMOMETER SHOULD BE TOUCHED WELL WITH BEARING ALLOY.

8 件8、18为封口零件，油道区封口后发货.

8 ITEM 8 & ITEM 18 ARE SEALING PARTS, AND THEY SHOULD BE SENT TO ELECTRIC POWER PLANT AFTER SEALING OIL-LINE.

ITEM 序号	DRAWING NO 分图号	DESCRIPTION 名称	QUN 数量	MAT L 材料	UWT 单重	TWT 总重	REMARKS 备注
8	D00600.999	PLASTIC PIPE COVER Dw=Dw68	4	HIGH PRESSURE POLYETHYLENE	0.02	0.07	
7	D600B-246000A007	GASKET	2	Q235-B	3.40	6.80	
6	D600B-246000A006	BLOCK	2	Q235-B	3.50	7.00	
5	D600B-246000A005	PLATE THROTTLE(INLET)	1	Q235-B	0.20	0.20	
4	D600B-246000A004	GASKET WITH HOLE	2	Q235-B	0.40	0.80	
3	D600B-246000A003	BLOCK WITH HOLE	2	Q235-B	5.20	10.40	
2	D600B-246000A002	GASKET	1	Q235-B	0.40	0.40	
1	D600B-246000A001	BLOCK	1	Q235-B	5.60	5.60	
(2)	D600B-246200A	BEARING BUSH BODY	1		1315.35	1315.35	
(1)	D600B-246100A	BEARING BUSH SLEEVE	1		1211.91	1211.91	

ITEM 序号	DRAWING NO 分图号	DESCRIPTION 名称	QUN 数量	MAT'L 材料	UWT 单重	TWT 总重	REMARKS 备注
23	Q/09252T-68(87)	垫圈27 WASHER 27	1	T3	0.00	0.00	
22	D600B-246000A015	螺塞M27×2 SCREW M27×2	1	35-I	0.04	0.04	
21		旋转接头SKVM 20 SWIVEL JOINT SKVM 20	1		1.0	1.0	
20		PLATINUM THERMOCOUPLE	1	[illegible]	1.0	1.0	
				L=155,GRADE D/[illegible]			
19		PLATINUM THERMOCOUPLE	1	[illegible]	1.0	1.0	
				L=55,GRADE D/[illegible]			
18	D00601.999	塑料管帽Dw=Dw23 PLASTIC PIPE COVER Dw=Dw23	2	HIGH PRESSURE POLYETHYLENE	0.00	0.00	
17	GB70-85	螺钉M16×25 SCREW M16×25	10	8.8级45 GRADE 8.8 OR 45	0.08	0.76	
16	GB120-86	销340×80 PIN 340×80	1	45	0.43	0.43	
15	D600B-246000A014	THROTTLE PLATE(OUTLET)	6	Q235-B	0.24	1.44	
14	D600B-246000A013	钢带 0.10×118×210 STEEL BELT 0.10×118×210	6	磨光钢带0.10/1Cr13 GROUND STEEL 0.10/1Cr13	0.02	0.09	无图 NO FIG.
13	D600B-246000A012	钢带 0.05×118×210 STEEL BELT 0.05×118×210	6	磨光钢带0.05/1Cr13 GROUND STEEL 0.05/1Cr13	0.01	0.05	无图 NO FIG.
12	D600B-246000A011	钢带 0.10×55×210 STEEL BELT 0.10×55×210	4	磨光钢带0.10/1Cr13 GROUND STEEL 0.10/1Cr13	0.01	0.03	无图 NO FIG.
11	D600B-246000A010	钢带 0.05×55×210 STEEL BELT 0.05×55×210	4	磨光钢带0.05/1Cr13 GROUND STEEL 0.05/1Cr13	0.005	0.02	无图 NO FIG.
10	D600B-246000A009	钢带 0.10×40×280 STEEL BELT 0.10X40X280	2	磨光钢带0.10/1Cr13 GROUND STEEL 0.05/1Cr13	0.01	0.02	无图 NO FIG.
9	D600B-246000A008	钢带 0.05×40×280 STEEL BELT 0.05X40X280	2	磨光钢带0.05/1Cr13 GROUND STEEL 0.05/1Cr13	0.005	0.01	无图 NO FIG.

OWNER: KSK Mahanadi Power Company Limited
6x600MW Thermal Power Project
Nariyara, Chhattisgarh, India

OWNER'S ENGINEERS: DEVELOPMENT CONSULTANTS PRIVATE LIMITED
CONSULTING ENGINEERS
KOLKATA · MUMBAI · CHENNAI NEW DELHI

CONTRACTOR: SEPCO Electric Power Construction Corporation
Jinan, China

CONTRACTOR'S ENGINEERS: NORTHEAST ELECTRIC POWER DESIGN INSTITUTE
(OF CHINA POWER ENGINEERING CONSULTING GROUP)
Changchun, China

VENDOR: DONGFANG TURBINE Co.,Ltd.

KMPCL No.: KMP-0-STG-V002-M-252

支持轴承
JOURNAL BEARING
ø508X330(6#)

(WAX)D600B-246000A

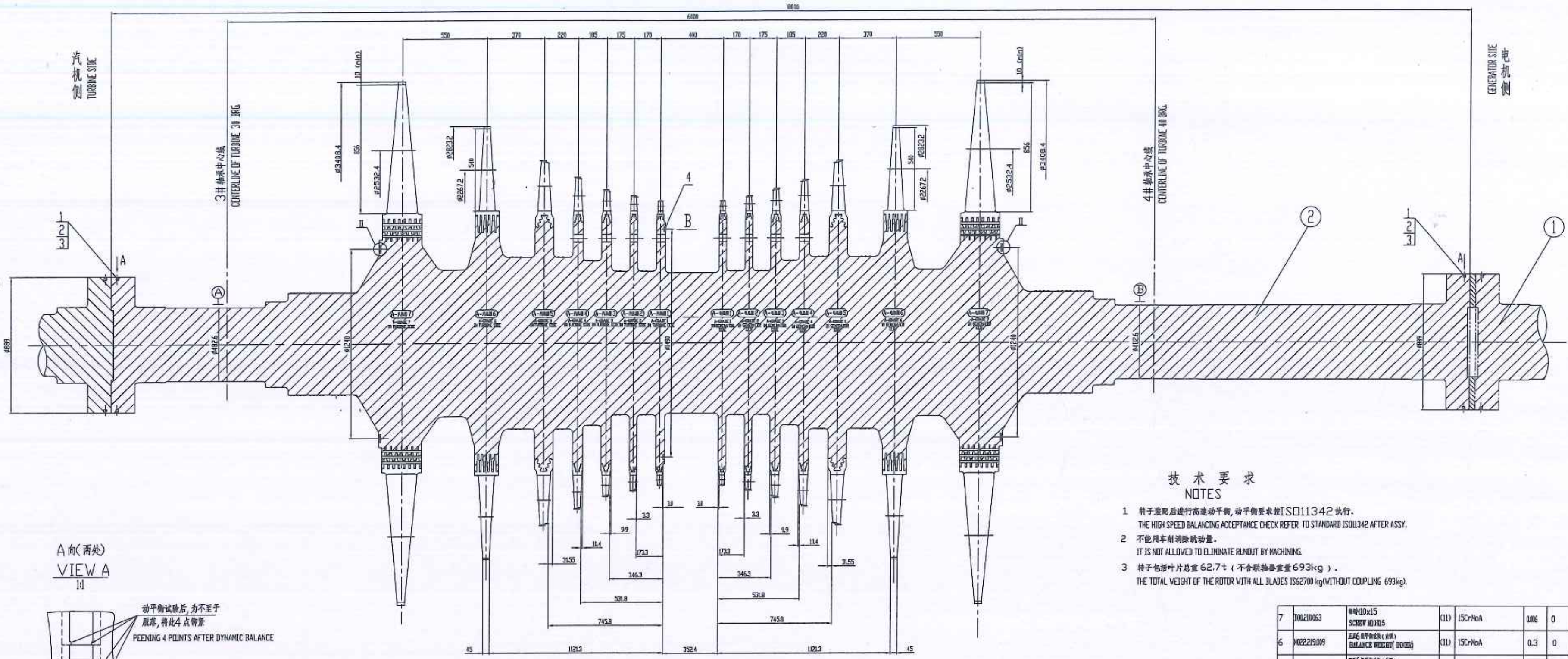
版本号 REV	重量 WT	比例 SCALE
A	2565.4	1:2.5

SHEET 1 OF 1

东方汽轮机有限公司
DONGFANG TURBINE Co.,Ltd.

300812-X009(KVA) 密级 公司秘密
PLM控制 涂改无效

R-0 初次发布



A向(两处)
VIEW A
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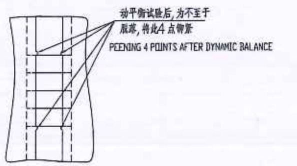

B向
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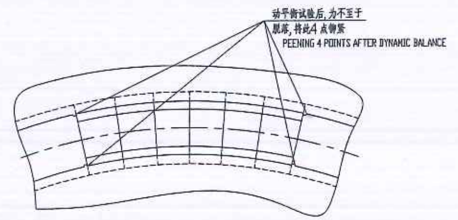

II
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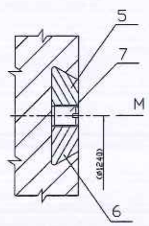

M向
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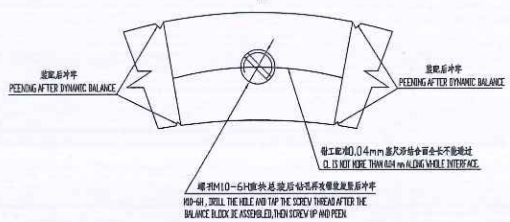


技 术 要 求
NOTES

1 转子装配后进行高速动平衡，动平衡要求按ISO11342执行。
THE HIGH SPEED BALANCING ACCEPTANCE CHECK REFER TO STANDARD ISO11342 AFTER ASSY.

2 不能用车削消除跳动量。
IT IS NOT ALLOWED TO ELIMINATE RUNOUT BY MACHINING.

3 转子包括叶片总重62.7t（不含联轴器重量693kg）。
THE TOTAL WEIGHT OF THE ROTOR WITH ALL BLADES IS62700 kg(WITHOUT COUPLING 693kg).

ITEM 序号	DRAWING NO 分图号	DESCRIPTION 名称	QUN 数量	MAT L 材料	UWT 单重	TWT 总重	REMARKS 备注
7	D00.210.063	M10x15 SCREW M10X15	(11)	15CrMoA	0.006	0	INDIVIDUAL
6	M022.219.009	BALANCE WEIGHT(INNER)	(11)	15CrMoA	0.3	0	INDIVIDUAL
5	M022.219.008	BALANCE WEIGHT(OUTER)	(11)	15CrMoA	0.33	0	INDIVIDUAL
4	D600B-210000A003	BALANCE WEIGHT(TYPE C)	(1)	1Cr12Mo	2.9	0	INDIVIDUAL
3	GB80B-85	M6x18 SCREW M6X18	(25)	35CrMoA	0.004	0	INDIVIDUAL
2	D600B-210000A004	BALANCE THREAD PLUG (IN FIELD)	(25)	1Cr12Mo	0.04	0	INDIVIDUAL
1	D600B-210000A001	BALANCE WEIGHT(TYPE A)	(4)	1Cr12Mo	2.51	0	INDIVIDUAL
(2)	D600F-219100A	A LP ROTOR MACHINING DWG	1		52200	52200	
(1)	(WAX)D600D-222000A	A LP-B LP COUPLING	(1)		(693)	(693)	INDIVIDUAL

OWNER:
KSK Mahanadi Power Company Limited
6x600MW Thermal Power Project
Nariyara, Chhattisgarh, India

OWNER'S ENGINEERS
DEVELOPMENT CONSULTANTS PRIVATE LIMITED
CONSULTING ENGINEERS
KOLKATA · MUMBAI · CHENNAI NEW DELHI

CONTRACTOR:
SEPCO Electric Power Construction Corporation
Jinan, China

CONTRACTOR'S ENGINEERS
NORTHEAST ELECTRIC POWER DESIGN INSTITUTE
(OF CHINA POWER ENGINEERING CONSULTING GROUP)
Changchun, China

VENDOR: DONGFANG TURBINE Co.,Ltd.

KMPCL No.:

SYM 更改标记	NO 处数	REV AUTH DOC NO 文件代号	SIG 签字	DATE 日期

A低压转子总图
A LP ROTOR ASSY DWG

(WAX)D600K-218000C

REV	WT	SCALE
A	52200kg	1:5

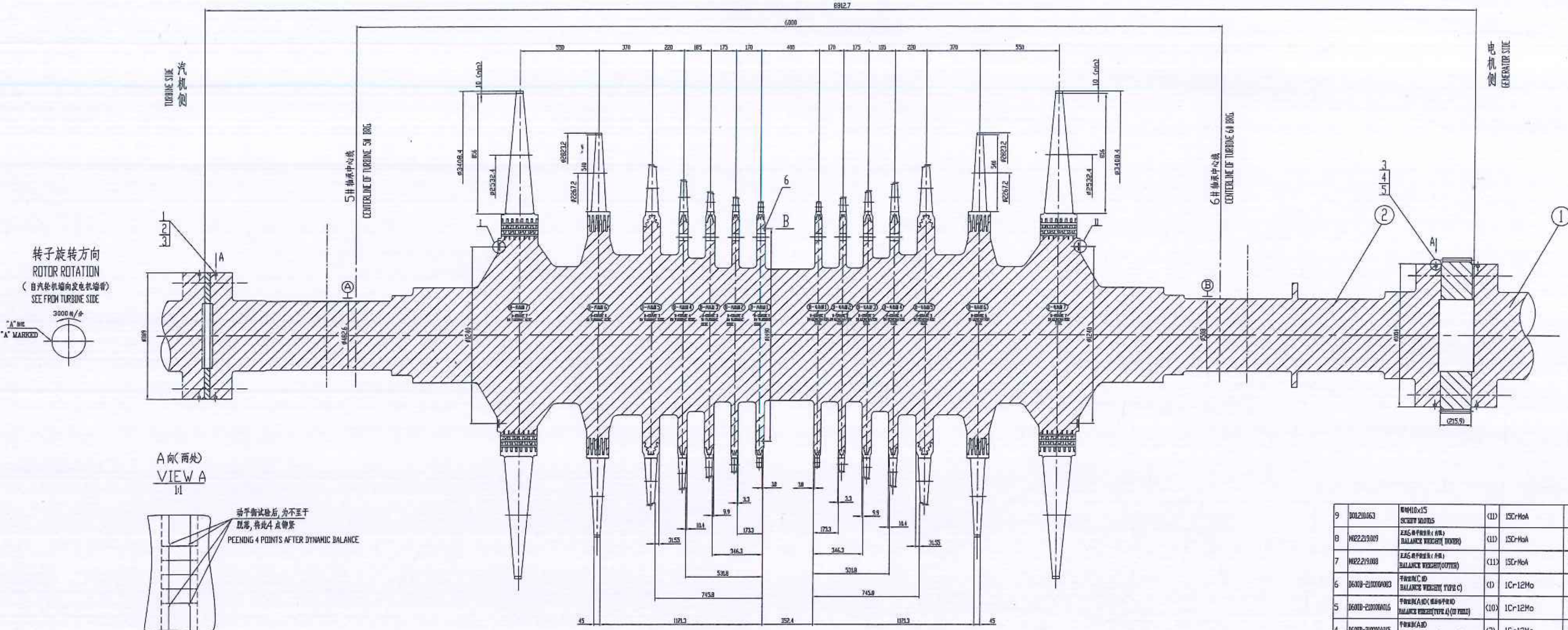
SHEET 1 OF 1

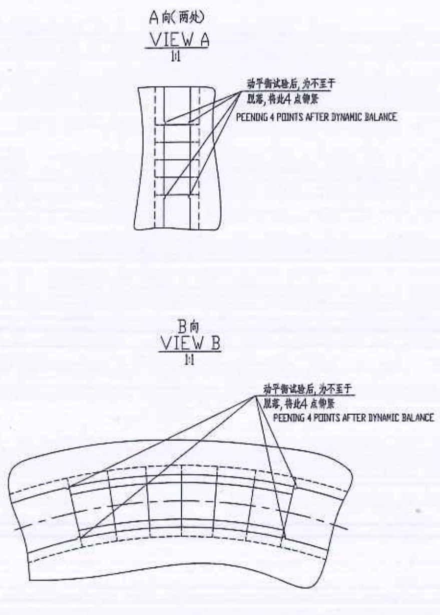
东方汽轮机有限公司
DONGFANG TURBINE Co.,Ltd.

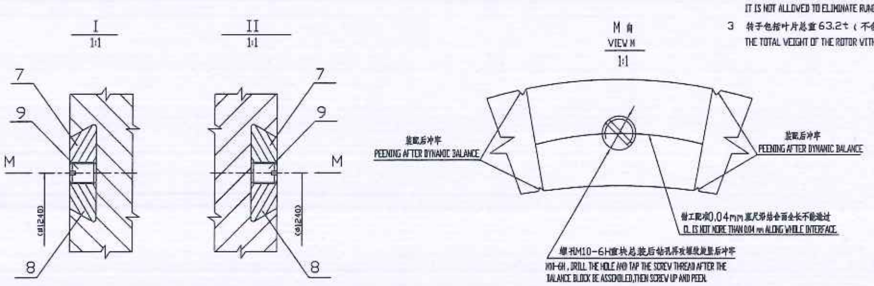
AK Singh

000612-X0090(WAX) 密级	公司秘密
PLM控制 涂改无效	

R-0 初次发布







技 术 要 求
NOTES

1. 转子装配后进行高速动平衡，动平衡要求按ISO11342执行。
   THE HIGH SPEED BALANCING ACCEPTANCE CHECK REFER ISO11342.
2. 不能用车削消除跳动量。
   IT IS NOT ALLOWED TO ELIMINATE RUNOUT BY MACHINING.
3. 转子包括叶片总重63.2t（不含联轴器重量885kg）。
   THE TOTAL WEIGHT OF THE ROTOR WITH ALL BLADES IS 63200 kg(WITHOUT COUPLING 885kg).

ITEM 序号	DRAWING NO 分图号	DESCRIPTION 名称	QUN 数量	MAT L 材料	UWT 单重	TWT 总重	REMARKS 备注
9	D0L210.063	螺钉M10x15 SCREW M10X15	(11)	15CrMoA	0.006	0	INDIVIDUAL
8	M022.219.009	BALANCE WEIGHT(INNER)	(11)	15CrMoA	0.3	0	INDIVIDUAL
7	M022.219.008	BALANCE WEIGHT(OUTER)	(11)	15CrMoA	0.33	0	INDIVIDUAL
6	D600B-210000A003	平衡块(C型) BALANCE WEIGHT(TYPE C)	(1)	1Cr12Mo	2.9	0	INDIVIDUAL
5	D600B-210000A016	平衡块(A型) BALANCE WEIGHT(TYPE A)(IN FIELD)	(10)	1Cr12Mo	0.04	0	INDIVIDUAL
4	D600B-210000A015	平衡块(A型) BALANCE WEIGHT(TYPE A)	(2)	1Cr12Mo	2.77	0	INDIVIDUAL
3	GB80B-85	螺钉M6x18 SCREW M6X18	(20)	35CrMoA	0.004	0	INDIVIDUAL
2	D600B-210000A004	平衡块(A型) BALANCE WEIGHT(TYPE A)(IN FIELD)	(10)	1Cr12Mo	0.04	0	INDIVIDUAL
1	D600B-210000A001	平衡块(A型) BALANCE WEIGHT(TYPE A)	(2)	1Cr12Mo	2.51	0	INDIVIDUAL
(2)	D600F-219100A	B低压转子加工图 B LP ROTOR MACHINING DWG	1		52700	52700	
(1)	(WAX)D600B-223000A	COUPLING OF B LP-G	(1)		(885)	(885)	INDIVIDUAL

OWNER: KSK Mahanadi Power Company Limited
6x600MW Thermal Power Project
Nariyara, Chhattisgarh, India

OWNER'S ENGINEER: DEVELOPMENT CONSULTANTS PRIVATE LIMITED
CONSULTING ENGINEERS
KOLKATA · MUMBAI · CHENNAI NEW DELHI

CONTRACTOR: SEPCO Electric Power Construction Corporation
Jinan, China

NORTHEAST ELECTRIC POWER DESIGN INSTITUTE
(OF CHINA POWER ENGINEERING CONSULTING GROUP)
Changchun, China

VENDOR: DEC DONGFANG TURBINE Co.,Ltd.

KMPCL No.:

B低压转子总图
B LP ROTOR ASSY DWG

(WAX)D600K-219000C

REV 版本号	WT 重量	SCALE 比例
A	52700	1:5

SHEET 1 OF 1

东方汽轮机有限公司
DONGFANG TURBINE Co.,Ltd.

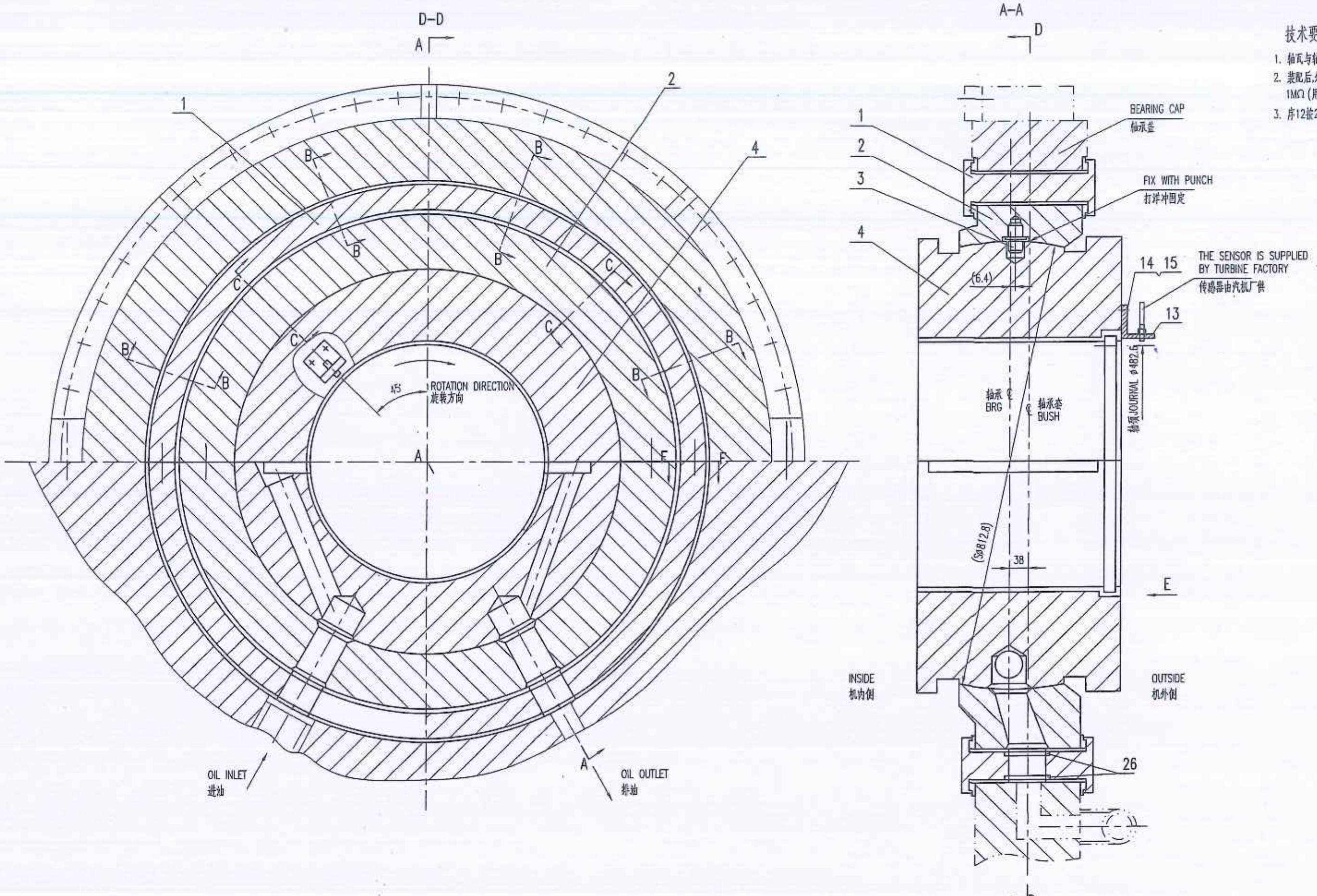
RELEASE STATUS	
Preliminary ☐	For Construction ☒
For Approval ☐	As Built Drawing ☐

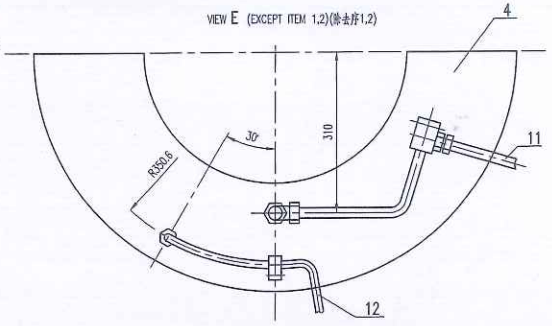
技术要求

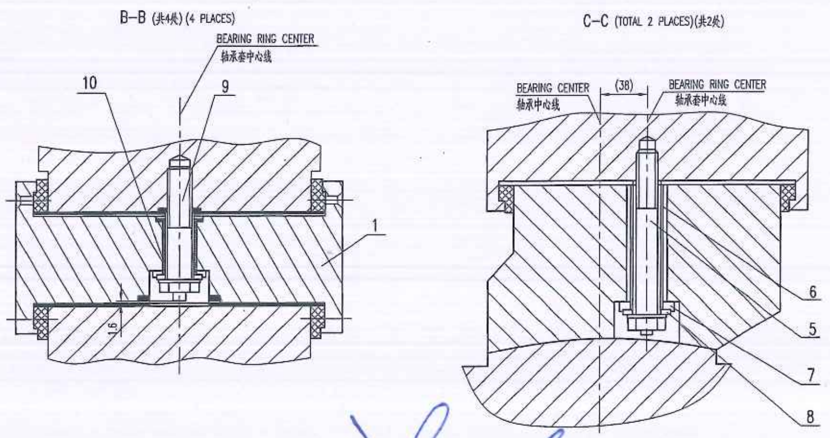
1. 轴瓦与轴颈之间的间隙:顶部为$0.64^{+0.10}_{0}$,侧面为$1.28^{+0.10}_{0}$(双侧之和).
2. 装配后,外轴承套(序1)对轴瓦(序4)及对轴承盖的绝缘电阻均不小于1MΩ (用1KV兆欧表测量).
3. 序12按2Q6360-S在现场安装.

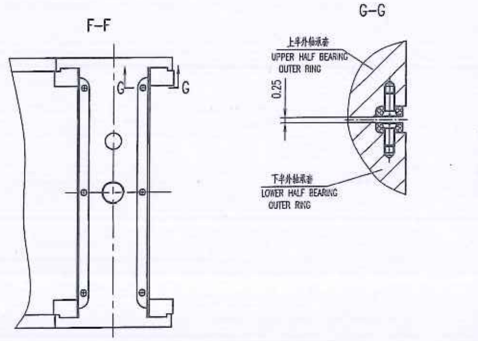
NOTES

1. THE GAP BETWEEN BEARING AND JOURNAL: TOP $0.64^{+0.10}_{0}$, LEFT+RIGHT $1.28^{+0.10}_{0}$.
2. THE INSULATION RESISTANCE SHOULD NOT LESS THAN 1MΩ (WITH 1KV MEGGER) BETWEEN THE FOLLOWING PARTS:
   (1) ITEM 1 & ITEM 4;
   (2) ITEM 1 & BEARING CAP.
3. ITEM 12 ASSEMBLED AT SITE ACCORDING TO 2Q6360-S.









序号 IT.	代 号 CODE NO.	名 称 NAME OF PART	材 料 MATL.	数量 REQD.	单件重 S.WT.	备 注 REMARKS
15	4B4622	止动垫圈6x25 LOCK WASHER		2		
14	GB5783	螺栓M6x12 BOLT		4		
13	4Q11521	支架 SUPPORT		2	0.06	
12	2Q6589	励端轴承测温装置 RTD FOR E.E BEARING		1	1.47	
11	2Q4602	励端高压油顶装置 OIL JACKING		1	56.7	
10	4Q7321	套管 INS. BUSH		4	0.023	
9	4Q7319	绝缘头螺栓 INSULATION BOLT		4	0.252	
8	4Q7311	垫圈 WASHER		6	0.04	
7	4Q7310	绝缘垫圈 INSULATION WASHER		6	0.01	
6	4Q7320	套管 INS. BUSH		2	0.023	
5	2Q7318	绝缘头螺栓 INSULATION BOLT		2	0.472	
4	1Q6768	轴瓦(励端) BEARING(E.E)		1	994	
3	4Q7332	销 PIN		1	0.5	
2	1Q1645	轴承内套装配(励端) BEARING INNER RING ASSEMBLY(E.E)		1	671	
1	1Q1675	轴承外套装配(励端) BEARING OUTER RING ASSEMBLY(E.E)		1	542	

OWNER:
KSK Manadi Power Company Limited
6 x 600 MW Thermal Power Project
at Nariyara, Chhattisgarh, India

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CONSULTING ENGINEERS
KOLKATA • MUMBAI • CHENNAI • NEW DELHI

CONTRACTOR:
SEPCO Electric Power Construction Corporation
Jinan, China

CONTRACTOR'S ENGINEERS:
NORTHEAST ELECTRIC POWER DESIGN INSTITUTE
(OF CHINA POWER ENGINEERING CONSULTING GROUP)
Changchun, China

东 方 电 机 有 限 公 司
DONG FANG ELECTRIC MACHINERY CO., LTD.

第 页 共 页 SHEET OF	重量 WT.(kg)	比例 SCALE		版本号 Rev.
		1:5	励端轴承装配 BEARING ASSEMBLY(E.E)	00

REV.	DATE	DESCRIPTIONS	PREPARED	CHECHED	APPROVED

业主编码 WPCL's DRG. No.: KMP-0-STG-V003-E-001

制造厂图号 CONTRACTOR's No.: 1Q6354-S

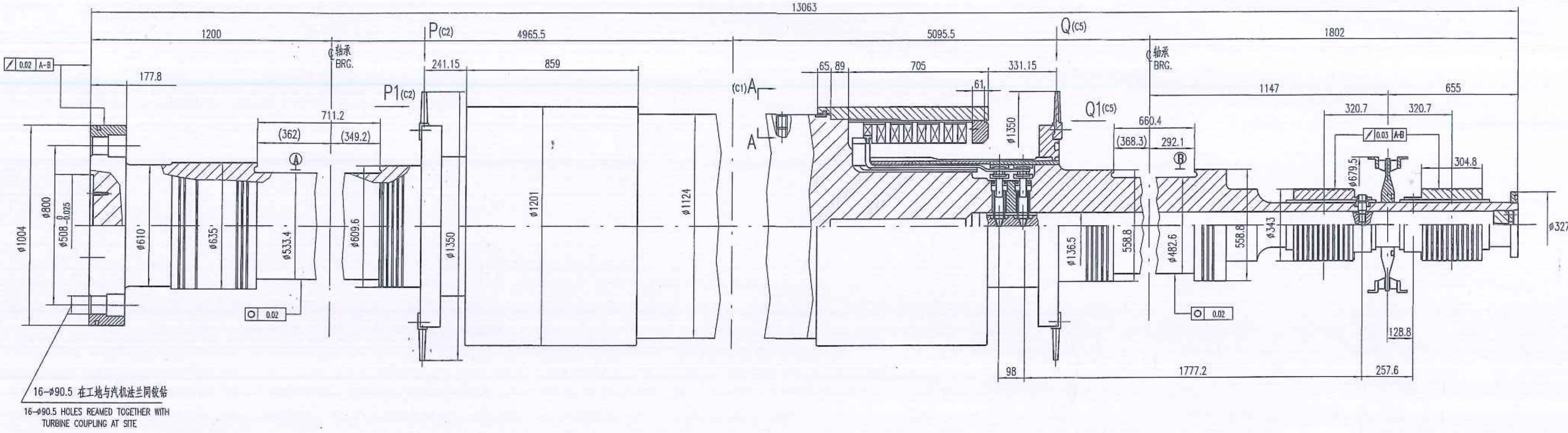
HD282

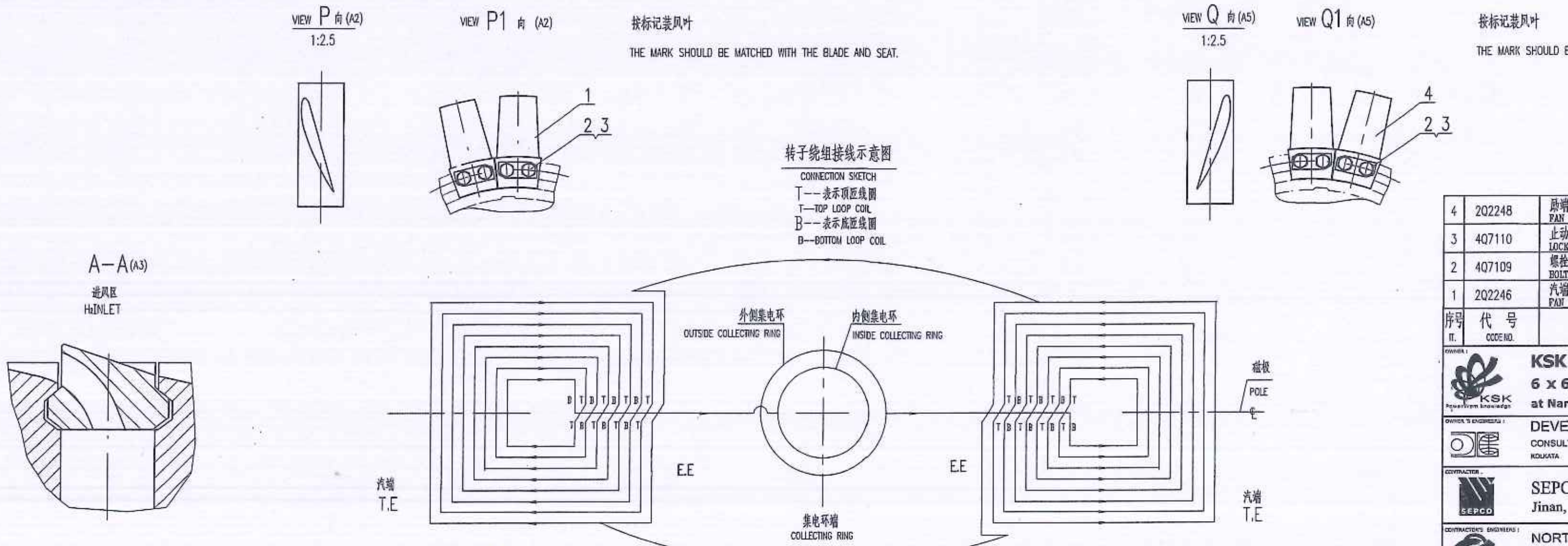
Bearing No. 08.

RELEASE STATUS			
Preliminary	☐	For Construction	☑
For Approval	☐	As Built Drawing	☐

转子转向:从汽端看反时针

ROTATING DIRECTION: COUNTER CLOCK WISE VIEWED FROM TE.





序号 IT.	代号 CODE NO.	名称 NAME OF PART	材料 MATL.	数量 REQD.	单件重 S.WT.	备注 REMARKS
4	2Q2248	励端风叶 FAN BLADE(E.E)		26	1.22	
3	4Q7110	止动垫片 LOCK SHIM		52	0.038	
2	4Q7109	螺栓M24 BOLT		104	0.34	
1	2Q2246	汽端风叶 FAN BLADE(T.E)		26	1.22	

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6 x 600 MW Thermal Power Project
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KOLKATA • MUMBAI • CHENNAI • NEW DELHI

CONTRACTOR: SEPCO Electric Power Construction Corporation
Jinan, China

CONTRACTOR'S ENGINEERS: NORTHEAST ELECTRIC POWER DESIGN INSTITUTE
(OF CHINA POWER ENGINEERING CONSULTING GROUP)
Changchun, China

东方电机有限公司
DONG FANG ELECTRIC MACHINERY CO., LTD.

第 页 共 页 SHEET OF	重量 WT.(kg)	比例 SCALE		版本号 Rev
	67500	1:10	转子装配 ROTOR	00

设计 DES.	会签 TECH.	业主编号 NPCL's DRG. No.	制造厂图号 CONTRACTOR's No.
主任设计 CODES	标准检查 SD.	KMP-0-STG-V003-E-001	1Q6342-S
校核 CHK.	审定 APPR.		
审查 REV.	日期 DATE		

REV.	DATE	DESCRIPTIONS	PREPARED	CHECKED	APPROVED

借(通)用件登记 HD282 第一次使用工作号

工艺会签

分发单位

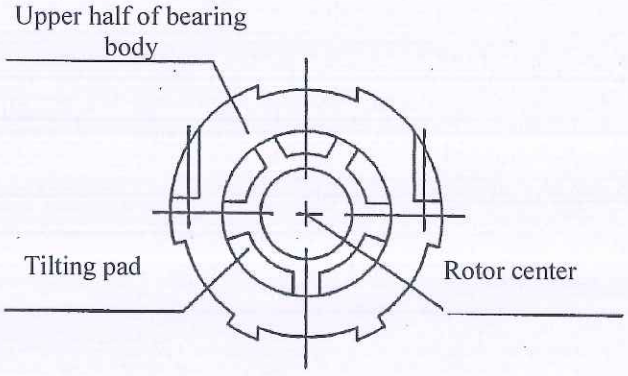
描图 描校

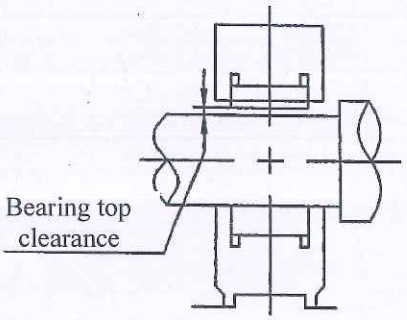
签收 日期

AK S[illegible]

15-1 #1, #2 bearings installation record

Bearing No. / Measuring position			1#		2#	
			Measured in general assembling	Measured in power plant	Measured in general assembling	Measured in power plant
Bearing top clearance record	Design value		0.57~0.67		0.65~0.75	
	Measured value	Turbine side				
		Generator side				
Throttling orifice diameter	Design value		∅23±0.1		∅23±0.1	
	Measured value					
Bolt tightening torque record (kgf·m)	Design value		70~80		70~80	
	1	2				
	3	4				





Technical requirements

1. Measured with rotor installed;

2. Bearing top clearance is measured with lead wire extrusion method (lead wire thickness ∅1).

3. When bearing top clearance is measured with lead wire, bolts should be tightened.

Shop No.		Inspector	Manufacturer		
Order No.			Power plant		

Compiled: Checked: Verified: Standard reviewed:

6. Tools: outside micrometer, torque wrench, micrometer, feeler gage.

7. Spherical clearance is measured after bolts ①② (shown) are tightened with normal torque wrench and its value is in the designated range. When bolt ① is tightened, measure the top, left and right points on the spherical clearance and after bolts ①② are tightened, only measure the top clearance.

Measuring items			Bearing No.	3#		4#		5#		6#	
				Measured in general assembling	Measured in power plant	Measured in general assembling	Measured in power plant	Measured in general assembling	Measured in power plant	Measured in general assembling	Measured in power plant
Top clearance	Design value			0.62~0.73		0.62~0.73		0.62~0.73		0.66~0.77	
	Measured value	Generator side									
		Turbine side									
Side clearance	Design value			0.763~0.813		0.763~0.813		0.763~0.813		0.83~0.88	
	Measured value	A									
		B									
Spherical clearance	Design value			0.05 ~ 0.10	0.05 ~ 0.10	0.05 ~ 0.10	0.05 ~ 0.10	0.05 ~ 0.10	0.05 ~ 0.10	0.05 ~ 0.10	0.05 ~ 0.10
	Measured value with bolts ① tightened										
	Measured value with bolts ① ②tightened										
Inlet oil throttling orifice diameter	Design value			$\varnothing 36^{+0.1}_{0}$		$\varnothing 36^{+0.1}_{0}$		$\varnothing 36^{+0.1}_{0}$		$\varnothing 39\pm 1$	
	Measured value										
Outlet oil throttling orifice diameter	Design value			$\varnothing 12^{+0.1}_{0}$		$\varnothing 12^{+0.1}_{0}$		$\varnothing 12^{+0.1}_{0}$		$\varnothing 13$	
	Measured value										
Tightening torque for bolt ② (kg.m)	Design value			90~100		90~100		90~100		100~110	
	Measured value										
Parallelism between journal and bush	Parallelism tolerance			0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Measured value	GL / GR									
		TL / TR									
		Parallelism									
Bearing spherical contact	Measured value	Underneath 90°									
		Left 90°									
		Right 90°									
Measured bearing pedestal bore											