

ANNEXURE - 6

NON-DISCLOSURE AND PROPRIETARY INFORMATION AGREEMENT

BETWEEN

_____(Name of the Vendor),, having its registered offices in
_____(Address of Vendor), registered under the no.
of the Companies' register of _____(Name of Place and Country),
capital stock of _____(Value), with a place of business in
_____(Name of Place and Country) (hereinafter referred to as
"_____(Name of Vendor)");

AND

Bharat Heavy Electricals Ltd a company incorporated under the Indian Companies Act 1956 having its registered offices at BHEL House, Siri Fort, New Delhi -110 049 and having one of its works at Heavy Electrical Equipment Plant, Ranipur, Haridwar-249403 (Uttarakhand), India registered under the No. 4281 of 1964-65 of the companies register of Delhi, capital stock of Rs 4895.2 million with a place of registered office in New Delhi (hereinafter referred to as “BHEL”) hereinafter also referred to individually as “the Party” or collectively as “the Parties”.

BACKGROUND

This Agreement sets forth the rights and obligations of the Parties with respect to the use, handling, protection and safeguarding of Proprietary Information that is disclosed by and between the Parties.

WHEREAS

A) the Parties wish to pursue exploratory discussions concerning a possible collaboration between them in relation to the Program defined in Exhibit 1;

B) during the ensuing discussions and negotiations it may occur that either Party discloses to the other technical, financial or business information of a proprietary or confidential nature, which the Parties intend to protect against, making it available, by any means to any third person, and other unauthorized use and/or further disclosure by the recipient, in accordance with the terms and conditions set forth herein;

NOW, THEREFORE, the Parties have agreed as follows:

1. The term “Proprietary Information” shall mean any information or data of whatsoever kind of a confidential or proprietary nature, including but not limited to, commercial information, know how and technical information in the form of designs, drawings, concepts, requirements, specifications, software, interfaces, components, processes, or the like, that have been or will be disclosed by either Party to the other pursuant to this Agreement, either in writing, orally or other form, which is designated as “Proprietary” or “Confidential” by the disclosing Party by means of formal declaration or an appropriate stamp, legend or any other written or orally notice .
2. Proprietary Information may be conveyed, without limitation, through any written or printed documents, samples, models, electronic form on disk, tape, other storage media or any other means of disclosing such Proprietary Information that either Party may elect to use during the life of this Agreement, but if an originating Party originally discloses information orally or visually, the receiving Party will protect such information as Proprietary Information to the extent that the originating Party :
 - identifies the Information as Proprietary at the time of original disclosure,
 - summarizes the Proprietary Information in writing .

Information stored in electronic form on disk, tape, other storage media will be adequately marked if a proprietary legend displays when the information originally runs on a computer system and when the information is printed from its data file.

Proprietary Information also includes any information which can be obtained by examination, testing or analysis of any hardware or material substance or any component part of such hardware or material substance provided by the Disclosing Party even though the requirements in Clause 1 for marking and designation have not been fulfilled.

3. Each Party, to the extent of its rights to do so, shall disclose to the other only the Proprietary Information which the disclosing Party deems appropriate to fulfil the objectives of this Agreement. The Parties hereby represent that the disclosure of Proprietary Information by and between themselves shall be made in compliance with, and subject to the laws and regulations of the Disclosing Party's country.
4. The receiving Party hereby agrees and covenants that, from the effective date of this Agreement until the expiry date as per article 11 and the following period as per article 12, the Proprietary Information that either Party receives from the other shall:
 - a) be protected and kept in strict confidence by the receiving Party which must use the same degree of care it uses to protect its own confidential information and in no case less than a reasonable care;
 - b) be only disclosed to and used by those persons within the receiving Party's organization or that of its parent or controlled companies who have a need to know and solely for the purposes specified in this Agreement, and be treated by such persons or entities with the same degree of care and subject to the same restrictions;
 - c) to procure that each third party to whom Proprietary Information is disclosed under this Agreement is made aware of the provisions of this Agreement prior to such disclosure to it and that each such third party is

bound by obligations of confidentiality which are no less onerous than those contained in this Agreement;

- d) neither be disclosed nor caused to be disclosed or made available, either directly or indirectly, to any third Party or persons other than those mentioned in subparagraph b) above or other persons upon which both of the contractual Parties shall agree in an amendment to this Agreement;
- e) not to copy, reproduce or reduce to writing any part of such Proprietary Information except as may be reasonably necessary for the purpose referred to in the Recitals of this Agreement

PROVIDED THAT the Receiving Party shall be entitled to make any disclosure required by court order or government or regulatory requirement of the Disclosing Party's Proprietary Information subject to notifying the Disclosing Party as soon as possible of such requirement

- 5. Any Proprietary Information and copies thereof disclosed by either Party to the other shall remain the property of the disclosing Party and shall be immediately returned or destroyed by the receiving Party upon request.
- 6. The receiving Party shall have no obligations or restrictions with respect to any Proprietary Information for which the receiving Party can prove that:
 - a) is in or which comes into the public domain otherwise than as a result of a breach of this Agreement by any person to whom a disclosure of Proprietary Information is made as permitted under this Agreement or of any other duty of confidentiality relating to the Proprietary Information of which the Receiving Party has knowledge; or
 - b) it has been in its possession without restriction at the time of the disclosure, as evidenced by written documentation in its files; or
 - c) it has been lawfully received from a third Party without breach of this Agreement; or

- d) it has been or is published without violation of this Agreement; or
 - e) it has been independently developed in good faith by employees of the receiving Party who did not have access to the Proprietary Information; or
 - f) it has not been properly declared, designated or confirmed as Proprietary or Confidential; or
 - g) the protection period has expired according to articles 11 and 12 of this Agreement.
7. With respect to any exchange of Proprietary Information which may occur as a result of this Agreement, it is expressly understood and agreed that the persons listed in Exhibit 2 shall, on behalf of the respective Parties, be the exclusive individuals authorized to receive from and transmit to the other Party Proprietary Information under this Agreement. Each Party may replace at any time its respective authorized individuals identified in such Exhibit 2, within its own organization. Any such new designation by a Party shall be made by written notice to the other at the address indicated in such Exhibit 2.
8. Any Proprietary Information which is identified as "Classified Information", or whose export is subject to an export license, shall be identified as such by the disclosing Party at the time of disclosure and the disclosure, protection, use and handling thereof, shall remain subject to the security procedures and restrictions imposed by the disclosing Party's Government.
9. The disclosure of Proprietary Information under this Agreement by either Party to the other shall not be construed as granting to the receiving Party any right, whether express or implied by licence or otherwise, on the matters, inventions or discoveries to which such information pertains, or as granting any trademark, patents, copyrights, trade secret right or other form of intellectual property right.

10. Nothing in this Agreement may be construed as an obligation of either Party to disclose any Proprietary Information to the other, or to enter into any subsequent contractual relationship with such other Party.
11. This Agreement covers the exchange of Proprietary Information which may be made by either Party to the other until ten years from signing of the agreement or any extension thereto which may be agreed upon by the Parties in writing. Proprietary information relevant to the Program detailed in Exhibit 1, already made available to the other contractual Party before the effective date, shall also be protected under this Agreement.

It is understood by the parties that, prior to disclosure, the Disclosing Party shall have obtained any government authorisation needed for the export of the Proprietary Information

12. The expiry of the period contemplated in Article 11 of this Agreement shall not relieve the receiving Party from complying with the obligations imposed by Article 4 here above with respect to the use and protection of the Proprietary Information, received prior the date of such expiry, for a period of ten (10) years after such expiry.
13. The Parties are independent contractors. Each will bear all costs and expenses in connection with this Agreement. This Agreement is intended to facilitate only the exchange of Proprietary Information and is not intended to be, and shall not be construed to create a teaming agreement, joint venture, association, partnership, or other business organisation or agency arrangement and no Party shall have the authority to bind the other without the other Party's separate prior written agreement .
14. This Agreement shall be governed by and shall be interpreted in accordance with the substantive federal laws of Switzerland excluding it's choice of law rules.

Irrespective of the foregoing each Party shall remain bound by the provisions of its own national laws and regulations with respect to the transfer or use of Classified Information or information whose export is subject to an export license.

15. All disputes among the Parties, in connection with or arising out of the existence, validity, construction, performance and termination of this Agreement (or any terms thereof), which the Parties are unable to resolve among themselves, shall be finally settled by an Arbitration. The Arbitration shall be held in Geneva (CH) in English language, in accordance with the rules of the ICC – International Chamber of Commerce by three arbitrators appointed in accordance with said rules.
16. The foregoing constitutes the entire Agreement among the Parties with respect to the subject matter hereof and supersedes and cancels all prior representations, negotiations, commitments, undertakings, communications, either oral or written, acceptances, understandings and agreements among the Parties with respect to or in connection with any of the matters to which such Agreement applies or refers.
17. Notices to _____ (**Name of Vendor**) shall be made at the following address:

(Complete Address of Vendor)

Attention: Mr. _____ (**Name of the Authorised Person of Vendor**)

Notices to BHEL shall be made at the following address:

BHARAT HEAVY ELECTRICALS LIMITED,

HEAVY ELECTRICAL EQUIPMENT PLANT,

Ranipur, Haridwar-249403 (Uttarakhand), India

Attention: Shri B.M.Bansal, General Manager- Materials Management

18. The effective date of this Agreement shall be the date of the last signature appearing herein.

IN WITNESS WHEREOF, each of the Parties has caused this Agreement, to be executed by its duly authorized officer.

Date :

Signed for and on behalf of

Signed for and on behalf of

(Name of Vendor)

BHEL

By:

By:

Title:

Title:

Signature:

Signature:

EXHIBIT 1

to the

NON-DISCLOSURE AGREEMENT

between

_____ **(Name of Vendor)**

and

BHARAT HEAVY ELECTRICALS LIMITED

dated:

The Non Disclosure Agreement covers the exchange of Proprietary Information which may occur during the discussions and negotiations in view of a possible cooperation between the Parties in the following programs:

-Description of Material or Services for which the order is placed

_____ **(Name of Vendor)** list of products that require an exchange of Proprietary Information which may be occur during the discussions and negotiations in view of a possible cooperation for the above programs :

**BHARAT HEAVY ELECTRICALS LIMITED****HEEP HARIDWAR INDIA-PIN 249403****FAX NO: 0091 1334 226462****PHONE NO: 0091 1334 284593**

Tender No.: L/6433/16/2604D/1

Sub: BHEL-HEEP/OPEN-TENDER (TL)/2016

Dear Sir,

The Heavy Electricals Equipment Plant (HEEP) located in Haridwar, India is one of the major manufacturing plants of Bharat Heavy Electricals Ltd. The core business of HEEP includes design and manufacture of large steam and gas turbines, turbo generators and so on.

Sealed tenders with the Tender No. and opening date clearly super scribed on the cover are invited from the manufacturers (registered as well as unregistered) for the supply of the following items:-

S. No.	Tender No.	Description of Item	Qty Nos.	Delivery Schedule	Opening Date
1	L/6433/16/2604D/1	TLMW62779460 L-TYPE RH FACE GROOVING TOOL HAVING INTEGRAL KM80 COUPLING WITH WEDGE TYPE HOLDING OF INDEX.CARBIDE INSERT W=10MM, OTHER CONSUMABLES FOR ROUGH & FINISH GROOVIN OF T-PORTION OF T TYPE BLADE GROOVE ON ROTOR. TOOL SHANK WITH FACE GROOVING GEOMETRY FOR FACE GROOVING B/W DIA1000-1680MM,REF.ANNEX-A SL1	1 SET	30.04.17	06.03.2017
2.		TLMW62779508 L-TYPE LH FACE GROOVING TOOL HAVING INTEGRAL KM-80 COUPLING WITH WEDGE TYPE HOLDING OF INDEX.CARBIDE INSERT W=10MM, OTHER CONSUMABLES FOR ROUGH & FINISH GROOVIN OF T-PORTION OF T TYPE BLADE GROOVE ON ROTOR. TOOL SHANK WITH FACE GROOVING GEOMETRY FOR FACE GROOVING B/W DIA1000-1680MM,REF.ANNEX-A SL2	1 SET	30.04.17	
3.		TLMW62779516 L-TYPE RH FACE GROOVING TOOL HAVING INTEGRAL KM80 COUPLING WITH WEDGE TYPE HOLDING OF INDEX. CARBIDE INSERT W=8MM, OTHER CONSUMABLES FOR ROUGH & FINISH GROOVIN OF T-PORTION OF T TYPE BLADE GROOVE ON ROTOR. TOOL SHANK WITH FACE GROOVING GEOMETRY FOR FACE GROOVING B/W DIA675-1010MM.REF ANNEX-A* SL 1	1 SET	30.04.17	

4.	TLMW62779524 L-TYPE LH FACE GROOMING TOOL HAVING INTEGRAL KM80 COUPLING WITH WEDGE TYPE HOLDING OF INDEX CARBIDE INSERT W=8MM OTHER CONSUMABLES FOR ROUGH & FINISH GROOVING OF T-PORTION OF T TYPE BLADE GROOVE ON ROTOR TOOL SHANK WITH FACE GROOMING GEOMETRY FOR FACE GROOMING B/W DIA675-1010MM. REF ANNEX-A* SL 2	1 SET	30.04.17	
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FOR ITEM CODE ITEM CODE TLMW62779460 & TLMW62779508

1. ITEM CODE TLMW62779460 & TLMW62779508 ARE TO BE PROCURED FROM SAME SOURCE
2. SCOPE OF SUPPLY, TECHNICAL REQUIREMENTS, ACCEPTANCE CRITERIA, SKETCH & PQR AS PER ENCLOSED ANNEXURE A & ANNEXURE B. VENDOR TO QUOTE ACCORDINGLY.
3. EARLY DELIVERY IS ALSO ACCEPTABLE
4. PAYMENT SHALL BE AS PER ENCLOSED ANNEXURE-A.

FOR ITEM CODE ITEM CODE TLMW62779516 & TLMW62779524

1. ITEM CODE TLMW62779516 & TLMW62779524 ARE TO BE PROCURED FROM SAME SOURCE
2. SCOPE OF SUPPLY, TECHNICAL REQUIREMENTS, ACCEPTANCE CRITERIA, SKETCH & PQR AS PER ENCLOSED ANNEXURE A* AND ANNEXURE B*. VENDOR TO QUOTE ACCORDINGLY.
3. Early delivery is also acceptable.
4. PAYMENT SHALL BE AS PER ENCLOSED ANNEXURE-A*.

The tender documents can be downloaded from our web site www.bhel.com or www.bhelhwr.co.in or www.tenders.gov.in, after downloading the tender documents from web site, while submitting the tender as detailed in "Instruction to Bidders", intending vendors must remit tender fee of Rs. 2,000.00 for indigenous vendors (or equivalent amount in foreign currency for foreign vendors) against each tender if documents (in hard copies) are required from BHEL. Vendors must also remit the requisite EMD Rs 40,000/- (Rupees Forty thousand only) in the form of Cash (as permissible under Income Tax Act) / Pay Order / Demand draft. **If EMD is not submitted along with offer, then the offer may not be considered.**

As per notification reference no. NSIC/HO/GP/15(4)/2013-14 dated 07.07.2013 Micro & Small Enterprises (MSEs) are not required to submit EMD & tender fees. A certificate issued from competent authority shall be submitted in support of Micro & Small Enterprises (MSEs). BHEL will not be responsible for any type of postal delay / incomplete information from vendor.

Amendments/ Corrigendum, if any, will be hosted on our web site only. Other terms and conditions will be as per tender documents.

Central / State – PSUs / Government departments are exempted from submission of EMD subject to approval by BHEL management.

The date for opening of tender shall be 06.03.2017 Tenders will be received up to **1.45 P.M.** on **06.03.2017** and opened on the same day at 2.00 P.M. in the Tender Room. **Please note that tender received after due date & time (1.45 PM on 06.03.2017) will not be REPEAT will not be opened.** BHEL will not be responsible for any type of postal / courier delay.

Splitting of items to the MSE vendor is not applicable in this tender.

Foreign and Indigenous bidders against open tender will necessarily have to obtain class – III DSCs. Procedure for application is available on www.bhel.com.

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The total quantity may undergo change at the time of ordering.

Documents submitted with the offer/ bid by the bidder (original registered supplier) shall be signed and stamped in each page by authorized representative of the bidder. Documents not signed and stamped in each page by the authorized signatory of the bidder, shall neither be accepted nor considered for evaluation of the bid.

Any vendor who is under hold (for the item)/ delisted/ banned with BHEL on date of opening of Part – 1 will not be allowed to quote for this tender. In case their offer is received, it may be outrightly rejected.

Please submit your offer only for the above requirement subject to our **GENERAL INSTRUCTIONS AND STANDARD TERMS & CONDITIONS (GISTC)**. Please visit our site www.bhelhwr.co.in for General Instructions and Standard Terms & Conditions (GISTC) for Tender Enquiries. **All the bidders/vendors must ensure compliance of these GISTC.**

BIDS shall be opened at 2.00 PM on the due date in the presence of authorized representative of the bidders who may like to be present. The authorized representative should bring authority letter from their parent company (Manufacturer) for the specific tender no. attending the bid opening.

BHEL will forfeit the EMD if, the successful bidder / vendor refuses to honor the order after award of the same on him and / or withdraws his bid and / or unilaterally changes the offer and / or any of its terms & conditions within the validity period.

Unregistered vendors may please visit our site www.bhel.com for filing up the Supplier Registration Form. Copy of filled Supplier Registration Form may be submitted along with the offer.

KINDLY READ "INSTRUCTIONS TO BIDDERS." QUOTATION NOT IN ACCORDANCE WITH THE INSTRUCTIONS ARE LIABLE TO BE DISQUALIFIED AND IGNORED.

INSTRUCTIONS TO BIDDERS FOR OPEN TENDER

DEFINITION

Registered Vendors - Are those who are registered with BHEL, Haridwar for Megawatt rating/ Size/ Weight of tendered items in respective material grade or machining of such items.

Un-registered Vendors - Are those who are not registered with BHEL, Haridwar for Megawatt rating/ Size/ Weight of tendered items in respective material grade or machining of such items.

ESSENTIAL INSTRUCTIONS

* Un-registered vendors may be approved by BHEL, if found suitable, on the basis of data furnished by them in Supplier Registration Form (SRF) for Foreign Vendors or Indigenous Vendors (as applicable).

* BHEL team may visit the vendor (s) works for verification of capability and capacity claimed in tender documents/ offer (s).

* The tenders shall be submitted in three parts in separate sub-envelopes clearly super scribing type of bid, tender no., due date and the name of vendor with full contact details.

- ❖ **Part I** – Tender fee (if hard copy insisted from BHEL) and Earnest Money Deposit OR NSIC certificate for exemption of tender fee and Earnest Money Deposit, Supplier Registration Form (As applicable), Non Disclosure Agreement & Prequalifying conditions.
- ❖ **Part II** – Techno- Commercial Bid - it should be replica of price bid (copy of price bid without price part).
- ❖ **Part III** – Price Bid.

All the sub-envelopes (Part-I, Part- II & Part-III) to be put in a single covering envelope indicating tender no., due date and the name of vendor, e-mail id, with full contact details. Offer should be complete in all respect (i.e. Part-I, Part- II & Part-III).

* Please submit your offer according to **General Instructions and Standard Terms & Conditions (GISC)** for Tender Enquiries. Please visit our site www.bhelhwr.co.in for GISC. **All the bidders/ vendors must ensure compliance of these GISC (VERSION: APRIL-16, REV. 00).**

GISC (VERSION: APRIL-16, REV. 00) can also be referred by login to B2B Portal for Vendors.

Annexure - 20160254

for Item code TLMW62779460 & TLMW62779508

MPR No. 20160254		Annexure-20160254	
PRE QUALIFYING CONDITIONS		REQUIRED	OFFERED
01.00	Only those vendors to quote who are Original tool manufacturer or authorized dealer/distributor of Original tool manufacturer. Authorization certificate from Original tool manufacturer to be furnished by the vendor with the offer.	Vendor to accept/agree & submit details as applicable	
02.00	Vendor should have supplied KM-80/Capto/modular quick change type Holder . In support of it, copies of relevant pages of Original tool manufacture is required to be submitted. Vendor should have supplied grooving tool with coated carbide grooving inserts of width 4mm or more with KM-80/Capto/modular quick change type/equivalent tooling system	— " —	
02.01	Name and address of the customer/company where such tool have been supplied	Vendor to submit details	
02.02	Name, designation, phone no. & email address of the contact person of the customer	Vendor to submit details	
02.03	Month & year of tool supply	Vendor to submit details	
02.04	Basic details of supplied tool like insert width, working length and grooving depth of the tool etc.	Vendor to submit details	
02.05	The participating vendor should confirm satisfactory performance of tool supplied to referred customer	Vendor to submit details	
NOTE:	BHEL reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false/incorrect, their offers are liable to be rejected.	VENDOR TO ACCEPT	

✓
 (Vinay Kishore)
 Sr. Mgr / RCT

Supply and successful establishment of Tooling package consisting of Left & Right hand L-Type Face Grooving Tools of 10mm width having integral KM-80 coupling with Indexable carbide Inserts & other consumables for rough & finish grooving of T-portion (left & right side) of T-type Blade Grooves in Steam Turbine Rotor on CNC Lathe as per details given below :

1. Face grooving operation (rough & finish grooving on both left & right sides) on T-portion of T- type Blade Grooves in Steam Turbine Rotor are to be carried out on CNC Lathe.
2. All dimensions/surfaces of Blade Grooves except T-portion shall be finish machined by BHEL prior to machining of T-portion of T-type Blade Grooves.
3. Schematic drawing of a T-type Blade Groove showing hatched/shaded area (T-portion) to be machined and an Iso-metric view of Rotor are enclosed for reference at Fig. 6.3 & 6.4.
4. Tooling package shall be as per Table no. 6.2 (Total 6 tools – 3 LH and 3 RH)
5. Quantity of items in one set shall consists of following :
 - 5.1) For Item code TLMW627.79460 - 1 Set consists of

Tool holder RH	-03 Nos. (Lot-1: 01 Nos., Lot-2: 02 Nos.)
Insert	-50 Nos. (Lot-1: 10 Nos., Lot-2: 40 Nos.)
Shim/clamp/screw	-3 Nos.of each type (Lot-1:01 No.,Lot-2: 02 No.)
Screw driver/wrench	-3 Nos.of each type (Lot-1:01No.,Lot-2: 02 No.)
 - 5.2) For Item code TLMW627.79508 - 1 Set consists of

Tool holder LH	-03 Nos. (Lot-1: 01 Nos., Lot-2: 02 Nos.)
Insert	-50 Nos. (Lot-1: 10 Nos., Lot-2: 40 Nos.)
Shim/clamp/screw	-3 Nos.of each type (Lot-1:01 No.,Lot-2: 02 No.)
Screw driver/wrench	-3 Nos.of each type (Lot-1:01No.,Lot-2: 02 No.)
6. All tool holders shall have integral KM-80 coupling similar to schematic diagram shown in figure 6.0 & 6.1. Sizes shall be as per Table no. 6.2. The Tool should be capable to hold Insert of **width 10mm** , Insert clamping system should be wedge type not top lever type for roughing and finish machining.
7. All items i.e. tool holders, inserts, consumables/spares etc. of all types shall be purchased from a same vendor. L1 shall be decided on price of total package.
8. Tool holders shall be mounted on existing KM-80 adapter. KM-80 adapter shall be clamped on machine's Plate type tool carrier. The arrangement is shown in Fig. 6.5 for reference.
9. Insert design shall be as per recommendation & design of vendor. The insert geometry & grade should be suitable for smooth chip flow ,chip breaking and productive machining.

10. The offer should be complete having list & quantity of each item offered with item wise price, technical details, drgs of special items . & catalogue pages of standard items etc. for clear understanding of the offer. In case, vendor requires any clarification, they may discuss with BHEL prior to submission of their offer to avoid any gaps at later stage.

11. Acceptance by BHEL :

A.

- Acceptance by BHEL for each type of tool supplied in LOT-1 shall be on successful trial machining at BHEL, Haridwar on existing machine with Job & CNC program provided by BHEL and as specified below at point "B", "C" & "D", in presence of vendor.
- After successful trial of RH and LH tool supplied in LOT-1 & it's acceptance by BHEL, the payment shall be made Lot 1 tool independently and it's clearance for LOT-2 supply shall be given by BHEL. The vendor will be accordingly intimated by BHEL for supply of LOT-2.
- The payment for tool in LOT-2 shall be made independently after receipt of tools at BHEL Haridwar.
- During machining and acceptance of RH and LH tool supplied of tool of LOT-1 at BHEL, if the process & tools could not be established in one go, the vendor will be given one additional chance to improve upon and establish the machining through change of tool/insert grade/process. In case of failure even in additional chance, all items supplied for that type of tool in LOT-1 shall be declared as rejected. There shall not be any LOT-2 supply for that type of tool.
- In case of additional quantity of any items for any type of tool or replacement of any items, if so required by vendor for successful establishment of required machining, the same shall be done by vendor without any financial implications to BHEL to complete acceptance of LOT-1. Further, LOT-2 supply shall consist of items which has been successfully established in LOT-1.

B. Successful machining of both rough & finish grooving operations in at least 4 nos. of T-type Blade Grooves on a Rotor on a CNC Lathe by Left and Right hand of each type of tool supplied in LOT-1 using minimum cutting speed of 70m/min and cutting feed of 0.2mm/rev.

Successful machining shall also meet following :

- a. Rough grooving operation without vibrations & bending of tools and with smooth chip flow/chip breaking.
- b. Finish grooving/turning operation without vibrations & bending of tools and with smooth chip flow to achieve required size tolerance and surface finish of 3.2 microns Ra or better with no chatter marks on surface.

C. The Rotor Shaft material shall be as below:

Forging of Steel Grade X12CrMoWVNbN1011
Tensile Strength 1000 N/mm²,
0.2% Yield Strength 700-800 N/mm²,
Impact Strength 30-J min.

pg. 2/5

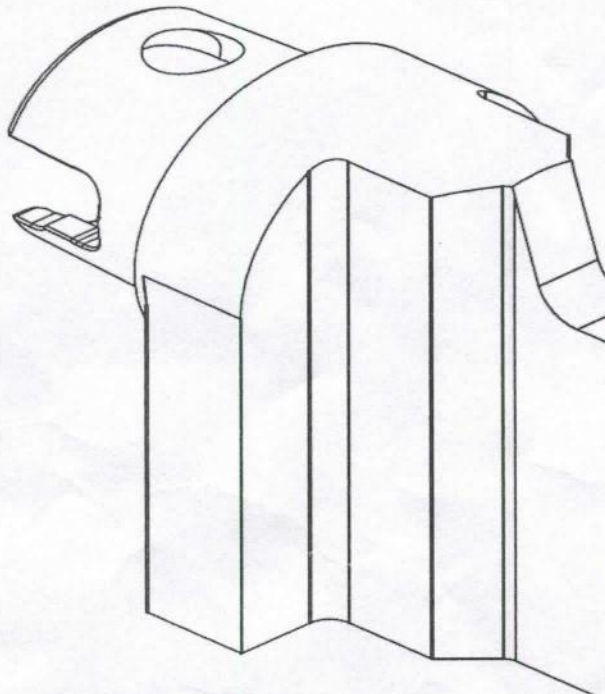
(Signature)
(Vinay Kishore)
Sr. mgr/NCT

Composition :

C 0.11-0.13 %, Si. 0.12%, Mn 0.40-0.50 %, P Mn 0.40-0.50%,
 P max. 0.012%, S max. 0.005%, Cr 10.2-10.6%, Mo 1.0-1.10%
 Ni 0.7-0.8%, W 0.95-1.05, V 0.15-0.25, Al 0.010%, N 0.045-0.05, Nb 0.04-0.06

- D. Machining shall be carried out using CNC programs provided by BHEL on a CNC Lathe having major specifications as below:
 Make: Safop ,Italy
 Swing Over Diameter: 1800mm
 Weight Capacity: 80 Tons
 Center Distance: 10m
 Spindle Power: 132 kw
 RPM: 0.54 -250 in 3 steps
 Maximum Feed: 1-5000mm/min,
 Maximum permissible cutting force: Z axis 8500 daN , X axis 1100daN
 Tool Post: Tool Post has Plate type tool carrier (width 120mm) using VDI cassettes having provision for clamping of square shank tools.
 Coolant: Flood Coolant available using water mixed emulsion.

Figure 6.0 (Isometric View of KM-80 Tool Holder to be supplied)



Pg. 3/5

low
 (vinay kishore)
 Sr. mgr/NCT

Figure 6.1

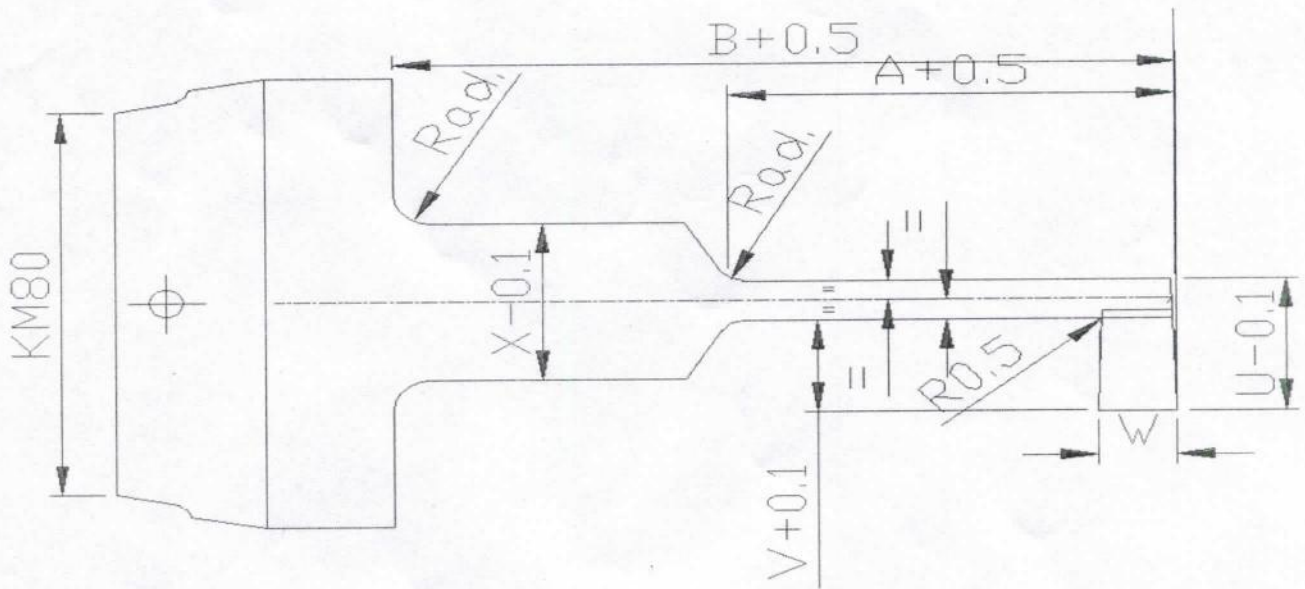


Table 6.2 (All dimensions are in mm w.r.t figure 6.1)

SNO	TLMW	U	V	W	X	A	B	Dia for Face Grooving		Qty.
								Dia(Min.)	Dia(Max.)	
1	TLMW62779460	35.5	18.0	10	55	100	120	675	1680	RH- 1 set
2	TLMW62779508	35.5	18.0	10	55	100	120	675	1680	LH- 1 set

Radius (Rad.) - vendor's choice (any suitable radius)

1

benus

Indent 20162604

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Figure 6.3

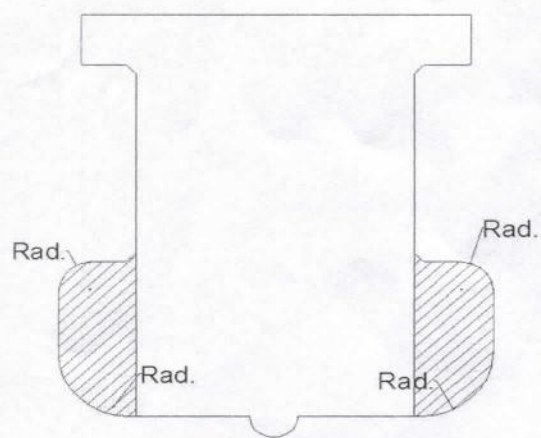


Figure 6.4

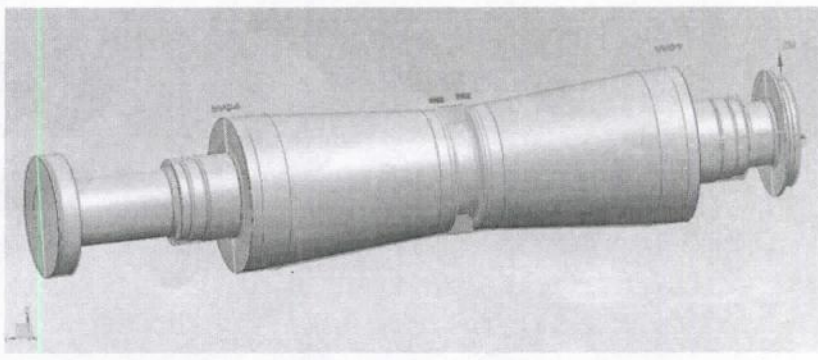
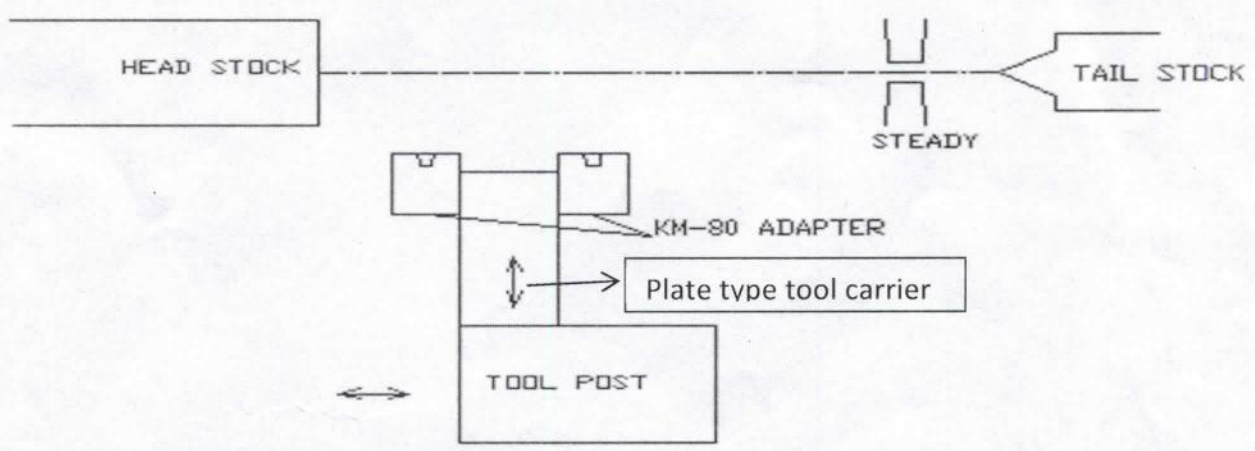


Figure 6.5



Handwritten signature
(Vinay Kuthare)
Sr. mgr/NCI

Annexure - B*

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Indent 20162605

Annexure 20160255

For item code TLMW62779516 & TLMW62779524

MPR No. 20160255		Annexure-20160255	
	PRE QUALIFYING CONDITIONS	REQUIRED	OFFERED
01.00	Only those vendors to quote who are Original tool manufacturer or authorized dealer/distributor of Original tool manufacturer. Authorization certificate from Original tool manufacturer to be furnished by the vendor with the offer.	Vendor to accept/agree & submit details as applicable	
02.00	Vendor should have supplied KM-80/Capto/modular quick change type Holder . In support of it, copies of relevant pages of Original tool manufacture is required to be submitted. Vendor should have supplied grooving tool with coated carbide grooving inserts of width 4mm or more with KM-80/Capto/modular quick change type/equivalent tooling system	— ' —	
02.01	Name and address of the customer/company where such tool have been supplied	Vendor to submit details	
02.02	Name, designation, phone no. & email address of the contact person of the customer	Vendor to submit details	
02.03	Month & year of tool supply	Vendor to submit details	
02.04	Basic details of supplied tool like insert width , working length and plunging depth of the tool etc.	Vendor to submit details	
02.05	The participating vendor should confirm satisfactory performance of tool supplied to referred customer	Vendor to submit details	
NOTE:	BHEL reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false/ incorrect, their offers are liable to be rejected.	VENDOR TO ACCEPT	

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Supply and successful establishment of Tooling package consisting of Left & Right hand L-Type Face Grooving Tools of 8mm width having integral KM-80 coupling with Indexable carbide Inserts & other consumables for rough & finish grooving of T-portion (left & right side) of T-type Blade Grooves in Steam Turbine Rotor on CNC Lathe as per details given below :

1. Face grooving operation (rough & finish grooving on both left & right sides) on T-portion of T-type Blade Grooves in Steam Turbine Rotor are to be carried out on CNC Lathe.
2. All dimensions/surfaces of Blade Grooves except T-portion shall be finish machined by BHEL prior to machining of T-portion of T-type Blade Grooves.
3. Schematic drawing of a T-type Blade Groove showing hatched/shaded area (T-portion) to be machined and an Iso-metric view of Rotor are enclosed for reference at Fig. 6.3 & 6.4.
4. Tooling package shall be as per Table no. 6.1 (Total 6 tools – 3 LH and 3 RH)
5. Quantity of items in one set shall consists of following :
 - 5.1) For Item code TLMW627.79516 - 1 Set consists of

Tool holder RH	-03 Nos. (Lot-1: 01 Nos., Lot-2: 02 Nos.)
Insert	-50 Nos. (Lot-1: 10 Nos., Lot-2: 40Nos.)
Shim/clamp/screw	-3 Nos.of each type (Lot-1:01 No.,Lot-2: 02 No.)
Screw driver/wrench	-3 Nos.of each type (Lot-1:01No.,Lot-2: 02 No.)
 - 5.2) For Item code TLMW627.79524 - 1 Set consists of

Tool holder LH	-03 Nos. (Lot-1: 01 Nos., Lot-2: 02 Nos.)
Insert	-50 Nos. (Lot-1: 10 Nos., Lot-2: 40Nos.)
Shim/clamp/screw	-3 Nos.of each type (Lot-1:01 No.,Lot-2: 02 No.)
Screw driver/wrench	-3 Nos.of each type (Lot-1:01No.,Lot-2: 02 No.)
6. All tool holders shall have integral KM-80 coupling similar to schematic diagram shown in figure 6.0 & 6.1. Sizes shall be as per Table no. 6.2. The Tool should be capable to hold Insert of **width 8mm** , Insert clamping system should be wedge type not top lever type for roughing and finish machining.
7. All items i.e. tool holders, inserts, consumables/spares etc. of all types shall be purchased from a same vendor. L1 shall be decided on price of total package.
8. Tool holders shall be mounted on existing KM-80 adapter. KM-80 adapter shall be clamped on machine's Plate type tool carrier. The arrangement is shown in Fig. 6.5 for reference.
9. Insert design shall be as per recommendation & design of vendor. The insert geometry & grade should be suitable for smooth chip flow ,chip breaking and productive machining.

[Signature]
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M. C. Tech

10. The offer should be complete having list & quantity of each item offered with item wise price, technical details, drgs of special items . & catalogue pages of standard items etc. for clear understanding of the offer. In case, vendor requires any clarification, they may discuss with BHEL prior to submission of their offer to avoid any gaps at later stage.

11. Acceptance by BHEL :

A.

- Acceptance by BHEL for each type of tool supplied in LOT-1 shall be on successful trial machining at BHEL, Haridwar on existing machine with Job & CNC program provided by BHEL and as specified below at point "B", "C" & "D", in presence of vendor.
- After successful trial of RH and LH tool supplied in LOT-1 & it's acceptance by BHEL, the payment shall be made Lot 1 tool independently and it's clearance for LOT-2 supply shall be given by BHEL. The vendor will be accordingly intimated by BHEL for supply of LOT-2.
- The payment for tool in LOT-2 shall be made independently after receipt of tools at BHEL Haridwar.
- During machining and acceptance of RH and LH tool supplied of tool of LOT-1 at BHEL, if the process & tools could not be established in one go, the vendor will be given one additional chance to improve upon and establish the machining through change of tool/insert grade/process. In case of failure even in additional chance, all items supplied for that type of tool in LOT-1 shall be declared as rejected. There shall not be any LOT-2 supply for that type of tool.
- In case of additional quantity of any items for any type of tool or replacement of any items, if so required by vendor for successful establishment of required machining, the same shall be done by vendor without any financial implications to BHEL to complete acceptance of LOT-1. Further, LOT-2 supply shall consist of items which has been successfully established in LOT-1.

B. Successful machining of both rough & finish grooving operations in at least 4 nos. of T-type Blade Grooves on a Rotor on a CNC Lathe by Left and Right hand of each type of tool supplied in LOT-1 using minimum cutting speed of 70m/min and cutting feed of 0.2mm/rev.

Successful machining shall also meet following :

- a. Rough grooving operation without vibrations & bending of tools and with smooth chip flow/chip breaking.
- b. Finish grooving/turning operation without vibrations & bending of tools and with smooth chip flow to achieve required size tolerance and surface finish of 3.2 microns Ra or better with no chatter marks on surface.

C. The Rotor Shaft material shall be as below:

Forging of Steel Grade X12CrMoWVNbN1011

Tensile Strength 1000 N/mm²,

0.2% Yield Strength 700-800 N/mm²,

Impact Strength 30-J min.

(Signature)
 (May 11/2016)
 S. M. G. / NCT

Composition :

C 0.11-0.13 %, Si. 0.12%, Mn 0.40-0.50 %, P Mn 0.40-0.50%,
 P max. 0.012%, S max. 0.005%, Cr 10.2-10.6%, Mo 1.0-1.10%
 Ni 0.7-0.8%, W 0.95-1.05, V 0.15-0.25, Al 0.010%, N 0.045-0.05, Nb 0.04-0.06

- D. Machining shall be carried out using CNC programs provided by BHEL on a CNC Lathe having major specifications as below:

Make: Safop ,Italy

Swing Over Diameter: 1800mm

Weight Capacity: 80 Tons

Center Distance: 10m

Spindle Power: 132 kw

RPM: 0.54 -250 in 3 steps

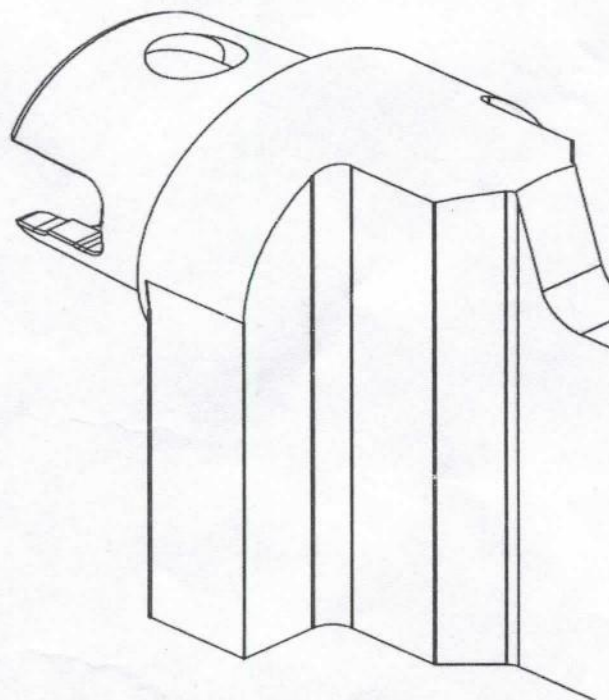
Maximum Feed: 1-5000mm/min,

Maximum permissible cutting force: Z axis 8500 daN , X axis 1100daN

Tool Post: Tool Post has Plate type tool carrier (width 120mm) using VDI cassettes having provision for clamping of square shank tools.

Coolant: Flood Coolant available using water mixed emulsion.

Figure 6.0 (Isometric View of KM-80 Tool Holder to be supplied)



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Figure 6.1

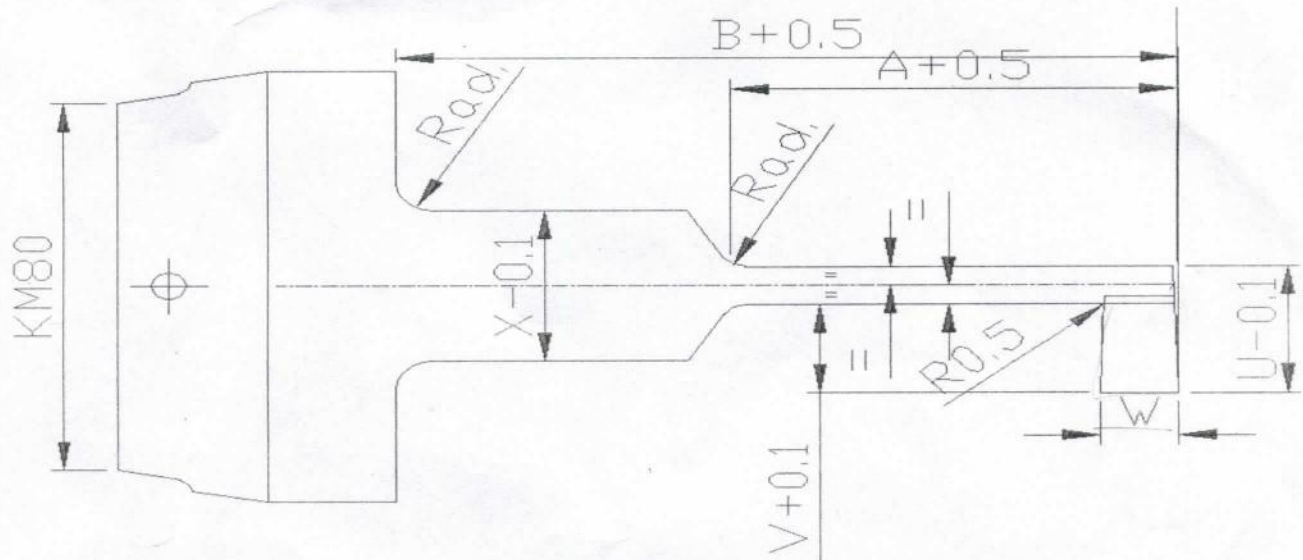


Table 6.2 (All dimensions are in mm w.r.t figure 6.1)

SNO.	TLMW	U	V	W	X	A	B	Dia for Face Grooving		Qty.
								Dia(Min.)	Dia(Max.)	
1	TLMW62779516	26	11.5	8	30	75	100	525	1010	RH- 1 set
2	TLMW62779524	26	11.5	8	30	75	100	525	1010	LH- 1 set

Radius (Rad.) - vendor's choice (any suitable radius)

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Figure 6.3

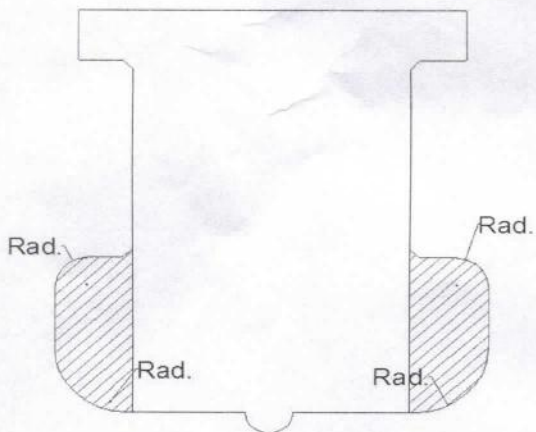


Figure 6.4

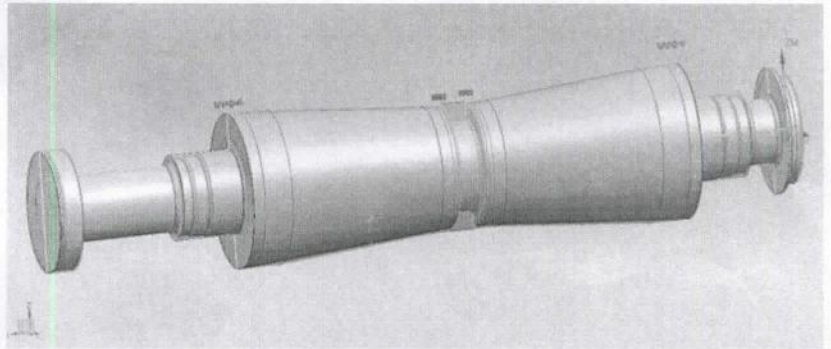
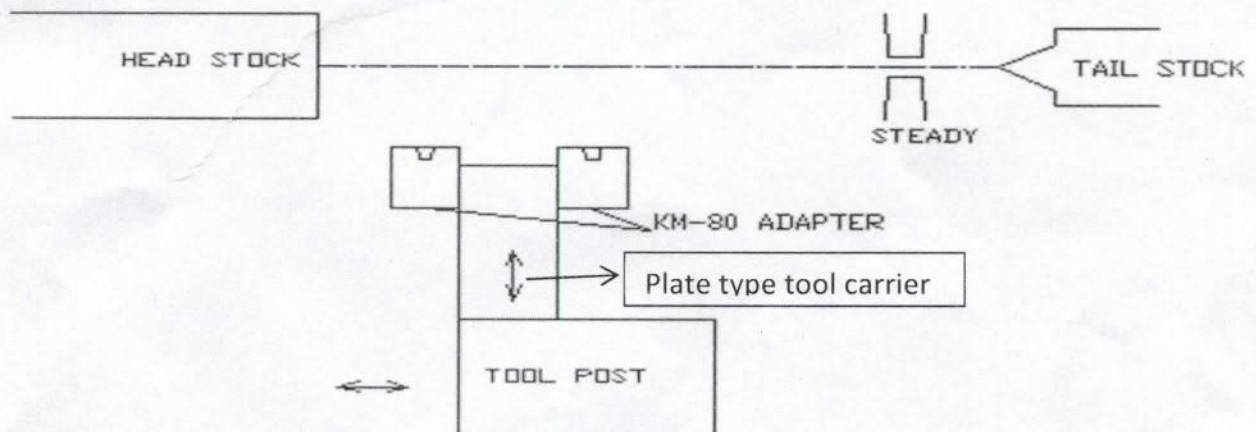


Figure 6.5



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