



429-002/A

**BHARAT HEAVY ELECTRICALS LIMITED**

( A Government of India Undertaking )  
HIGH PRESSURE BOILER PLANT  
PURCHASE DEPARTMENT - FOSSIL BOILERS  
THIRUCHIRAPALLI - 620014  
TAMILNADU (INDIA)

Page  
1/2

PHONE :2577629  
GRAMS : BHARATELEC  
FAX NO: 2520719  
E-mail: srchandran@bheltry.co.in  
Web:

	<b>Enquiry No</b>	<b>Enquiry Date</b>	<b>Due Date for Quotation</b>
	2661400396 - 55	16.06.2014	15.07.2014
Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order			

Item	Description	Unit	Quantity	Delivery Quantity	Schedule Date
10	<b>7519A1302000</b> LONG SCREW CONVEYOR (LH AND RH) AS PER DRG NO. 3M-19A-13-14765-01 NOTE FOR SL.NO. 10 TO 20: 1.AFTER PLACEMENT OF PURCHASE ORDER ONE NUMBER OF SAMPLE IN EACH ITEMS HAS TO BE SUPPLIED FOR BHEL ACCEPTANCE PREFERABLY WITHIN 8 WEEKS. AFTER ACCEPTANCE OF SAMPLE ONLY BALANCE QUANTITY TO BE SUPPLIED.ACCEPTENCE BY BHEL IS TO BE GIVEN WITHIN 4 WEEKS.THIS PERIOD (8+4=12WEEKS) IS TO BE TAKEN INTO ACCOUNT FOR QUOTING DELIVERY PERIOD BY THE SUPPLIER. 2.THE OFFERER SHALL SUBMIT THE OFFER IN TWO PART BID. VENDOR QUALIFYING CRITERIA Only those vendors who satisfy the following conditions will get qualified to participate in the tender: 1.Vendor should have minimum 3 years experience in this field. 2.Previous PO details for supplying similar kind of items should be submitted along with offer.Otherwise offer will be rejected. 3.Company profile details has to be provided along with offer. 4.BHEL reserves the right to visit the vendor's works for verifying the manufacturing facilities and any other credential furnished by the vendor in case the information furnished with the offers found to be false /incorrect, the offer shall be rejected.	NO	4.000	4.00	25.08.14
20	<b>7519A1900200</b> CABIN ROLLER ASSEMBLY AS PER DRAWING NO. 3M-19A-19-14780, AND ITS SUB DRAWINGS NO. 3M-19A-19-14779, 4M-19A-19-29125, 4M-19A-19-29126, 4M-19A-19-29127, 4M-19A-19-29128, 4M-19A-19-29129, 4M-19A-19-29130, 4M-19A-19-29131, 4M-19A-19-29132, 4M-19A-19-29133.	NO	15.000	15.00	25.08.14

The offers should reach us 30 minutes before the time of opening of tenders.  
The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening.Late and delayed offers are liable to be rejected.

Yours faithfully,  
For **BHARAT HEAVY ELECTRICALS LIMITED**

MANAGER / PURCHASE  
(FOSSIL BOILERS)  
Yours faithfully,



# BHARAT HEAVY ELECTRICALS LIMITED

( A Government of India Undertaking )  
HIGH PRESSURE BOILER PLANT  
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THIRUCHIRAPALLI - 620014  
TAMILNADU (INDIA)

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2/2

PHONE :2577629  
GRAMS : BHARATELEC  
FAX NO: 2520719  
E-mail: srchandran@bheltry.co.in  
Web:

2661400396 / 16.06.2014

**General Note:**

PLEASE SUBMIT YOUR OFFER IN "TWO PART BID SYSTEM"  
AS PER ANNEXURE ENCLOSED.

**ENCLOSURES:**

ANNEXURE II,III,IV,V,VI,VII & DRAWINGS.

**Enclosures:**

"LD clause has to be confirmed without fail."

"Payment to vendors will be made only thro E-Payment mode"

The offers should reach us 30 minutes before the time of opening of tenders.  
The offers will be opened at 14.30 hrs on the due date of tender in the presence of  
tenderers who have submitted their offer and who may like to be present for the tender  
opening.Late and delayed offers are liable to be rejected.

Yours faithfully,  
For **BHARAT HEAVY ELECTRICALS LIMITED**

MANAGER / PURCHASE  
(FOSSIL BOILERS)  
Yours faithfully,

**CAPITAL PURCHASE**  
**COMMERCIAL TERMS AND CONDITIONS**

**1.0 QUOTATIONS**

The Bidders shall submit the offer in **TWO INNER ENVELOPES** as indicated below which shall be sealed in one outer envelope.

**Envelope I** This sealed envelope should contain all the copies of technical bid together with un-priced commercial bid & annexure III. This envelope should be clearly marked **'Part I - Technical and commercial bid'**,

Indicating Enquiry No., Due Date and Address & Reference of the Bidder.

**Envelope II** This sealed envelope should contain **price as per Annexure-IV format**. This envelope should be clearly marked **"Part II - Price bid"**, indicating **Enquiry No., Due Date and Address & Reference of the Bidder**.

Both the envelopes (Part I & II) shall be put in one cover (**Envelope III**), duly sealed, superscribing as Part I and Part II of Enquiry No., due date of opening and the address and reference of the Bidder

The above offer should reach this office on or before the due date by 14.00 hours (IST). Late offers will not be considered.

Tender should not be addressed to any individual's name but only by designation to

**SENIOR MANAGER /PURCHASE/ CP & SP/ MM / MFG  
BHARAT HEAVY ELECTRICALS LIMITED  
HIGH PRESSURE BOILER PLANT  
TIRUCHIRAPALLI - 620 014  
TAMIL NADU**

Tenders should be free from **CORRECTION AND ERASURES**, Corrections if any, must be attested. All Amounts shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.

Offers should be in **ENGLISH** and accompanied by detailed technical literature, catalogue and detailed dimensional drawings in **ENGLISH** or otherwise, the offers will not be considered.

**2.0 OPENING OF TENDERS**

The Part I - Technical & commercial bid alone would be opened on the Tender opening date.

The Part II - Price bid of technically suitable Bidders alone would be opened. The Technically Suitable Bidders would be informed about the tender opening date through e-mail.

Clarifications if any required by BHEL for Technical evaluation **would be** sought from Bidders before opening of Part II - price bid

**For any queries clarifications the bidders may contact us through our FAX NO. +91 431 2520719 or through e-mail < mmcpmfg1@bheltry.co.in > & < chells@bheltry.co.in>**

**MM: CP & SP**  
**Annexure For Techno Commercial Bid**  
 Check List - to be filled and submitted along with Technical Bid

BHEL Commercial Terms and Conditions for Indigenous Supplies	Vendor's Confirmation / Comments
Technical confirmation to BHEL's Specification as called for in BHEL Format shall be furnished. If needed additional sheets shall be used.	
Prices shall be <b>quoted item wise</b> only as per the model format enclosed	
Prices shall be quoted on " <b>FIRM PRICE</b> " basis only The prices should be only on <b>F.O.R / Despatching station</b> basis with <b>Packing &amp; Forwarding</b> charges if any. <b>Applicable % of ED &amp; Sales Tax, Freight &amp; Insurance, Installation &amp; Commissioning Charges should be clearly Indicated</b>	
<b>Validity of offer</b> shall be for a minimum period of 120 days from the date of Tender opening	
Delivery period from the date of Letter of Intent / Purchase order shall be clearly mentioned in the offer	
<b>Liquidated damages @ '0.5%</b> per week subject to a maximum of 10% of the order value shall be applicable for delay in deliveries <b>For Details Refer Annexure- v</b>	
<b>Following Risk Purchase clause</b> shall be applicable The purchaser at his option will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or dispatch within the time stipulated or if the same were not available, the best and the nearest available substitute therefore The supplier shall be liable for any loss which the Purchaser may sustain by reason of such risk purchases	
<b>Payment term for supply portion:</b> Payment term is 100% direct payment after 45 days from the date of receipt and acceptance of materials <b>For details refer Annexure- v</b>	
Erection / commissioning: (if applicable only) Erection / commissioning charges if any has been mentioned in the offer or else confirmation that Erection / commissioning shall be done at free of cost is available in the offer,	
The equipment shall be guaranteed for a period of 12 months from the date of commissioning	
Final inspection and acceptance of equipment will be after installation at BHEL, Trichy	
The vendor shall provide necessary drawings, Test Certificates and Operating Maintenance Manuals etc., as called for in the Technical Specification, in the required number of copies at no extra cost	
Any warranty replacement during warranty period shall be supplied free of charge on FOR BHEL, Trichy basis.	
Offers should be submitted only in <b>sealed cover super-scribing clearly the Enquiry reference and due date.</b>	
% of Excise Duty with cess	
% of TAX (CST/VAT) (INGST with FORM-17 or CST with C-FORM)	
Packing & Forwarding Charges ( if any in % only)	
Percentage of Freight& transit insurance charges, if any Freight charges from Dispatching station to BHEL, Tiruchirappalli • Supplier should quote for F.O.R-BHEL Trichy Stores.	
As per Commercial terms and conditions, acceptance for participation in Reverse auction (RA).Yes/No to be indicated	
Name of the person for participating reverse auction	
Land Line Number	
Fax Number	
Mobile Number	
E-mail ID	

## NOTE:-

- It is confirmed that all the terms and conditions stipulated in the Enquiry have been fully understood by us and all clarifications & details have been obtained.
- Your offer should be indicating applicable If any P&F Charges, % of ED, Sales Tax -CST or VAT, Service Tax), Freight, Insurance and Installation and Commissioning Charges etc., as per our Price Format
- Your specific acceptance to our Payment terms, LD & Risk Purchase Clause are essential for consideration of your offer. Other wise your offer is liable for rejection.
- No row shall be left blank. Please indicate NA, in case the item is "not applicable"

## Annexure For Price Bid

**Bharat Heavy Electricals Limited TIRUCHIRAPPALLI  
MODEL PRICE BID FORMAT FOR INDIAN BIDDERS**

CAPITAL PURCHASE

Annexure-IV

Enquiry No. & Date:

Bidder's Offer No. & Date:

SI No	Description of item	Unit	Quantity	Rate in Rs.	Value in Rs.
	<b>*FOR — TRICHY (BHEL-STORES) Rs.</b>				
	<b>Packing &amp; Forwarding charges in % if any</b>				
	<b>FREIGHT &amp; INSURANCE in %, if freight charges are not mentioned it will be considered as FOR-BHEL TRICHY.</b>				
	<b>Excise Duty (indicate in %)</b>				
	<b>A) TNGST — VAT (%)</b>				
	<b>B) CST with C-FORM — (%)</b>				
	<b>C) CST without C-Form — (%)</b>				
	<b>Approximate Net weight of the total consignment</b>				
	<b>Approximate Gross weight of the total consignment</b>				
	<b>Approximate Dimensions of the Consignment</b>				
	<b>The price indicated shall be inclusive of all accessories, spares etc. as given in the scope of supply. Individual item-wise break-up price shall be attached as an annexure to this price bid format.</b>				

**Signature & Seal of Vendor**

**NOTE:**

1. The price bid should be submitted only as per the above format. No row shall be left blank. Please indicate NA, in case the item is "not applicable"
2. Prices shall be quoted item-wise only as per the above format.
3. If Price quoted is Inclusive of ED, the included ED Value and Base Value shall be indicated item-wise.

<b>Payment Term (Indigenous)</b>	
<b>If materials are receivable at Stores/Trichy without PBG</b>	Payment term is 100% direct payment after 45 days from the date of receipt and acceptance of materials.
<b>If materials are receivable at Stores/Trichy with PBG</b>	Payment term is 100% direct payment after 45 days from the date of receipt and acceptance of materials and against 10% PBG valid for the warranty period.
Any deviation in the above payment term will attract loading as mentioned below. “Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders.	

Payment through Bank is not preferred. In case of Payment through Bank is opted by Supplier, BHEL prefers documents submission through bank with copy of LR and door delivery of Goods to Site/Stores with Consignee copy attached. In this case Loading will be 3% on the offered value.

Offers of indigenous Suppliers with payment terms as LC/Advance Payment are liable for rejection.

#### **Liquidated Damages / Penalty -**

Liquidated damages shall be 0.5% of the total order value per week or part thereof subject to a maximum of 10% of the total order value.

For staggered delivery schedule, LD shall be 0.5% of the undelivered portion per week of the delay or part thereof subject to a maximum of 10% of the total order value.

Any deviation from the above LD clause, loading will be applied to the extent to which it is not agreed by the bidder (at offered value).

#### **Guarantee / Warranty Period – (if applicable)**

Normally No deviation permitted and the deviated offers are liable for rejection.

#### **Ranking-**

BHEL will consider the ranking after the loading is applied as referred above wherever deviations are observed.

#### **Performance Bank Guarantee – (if applicable)**

Normally No deviation permitted and the deviated offers are liable for rejection.

#### **NOTE:-**

\* If the due date of tender opening happens to be a holiday, the tenders will be opened on the next working day.

**Special Provisions for Micro and Small Enterprises (MSE)**

1. 20% of the tendered quantity is earmarked for MSE suppliers in this tender.
2. Out of the 20% tendered quantity reserved for MSE suppliers, 4% shall be earmarked for procurement from MSE owned by SC/ST entrepreneurs.
3. In case MSE vendor participating in the tender quotes within the price band of L1+15%, they will be allowed to supply the portion of the requirement subject to acceptance of L1 price by MSE vendor. In case of more than one such MSE, the supply shall be shared proportionately.
4. "MSE suppliers can avail the intended benefits only if they submit along with the offer, attested copies of either EM II certificate having deemed validity (five years from the date of issue of acknowledgement in EM-II) or valid NSIC certificate or EM II certificate along with attested copy of a CA certificate (Format enclosed at Annexure -VII where deemed validity of EM II certificate of five Years has expired) applicable for the relevant financial year (latest audited). Date to be reckoned for determining the deemed validity will be the date of bid opening (Part 1 in case of two part bid). Non submission of such documents will lead to consideration of their bid at par with other bidders. No benefit shall be applicable for this enquiry if any deficiency in the above required documents are not submitted before price bid opening. If the tender is to be submitted through e-procurement portal, then the above required documents are to be uploaded on the portal. Documents should be notarized or attested by a Gazetted officer."

**Certificate by Chartered Accountant on letter head**

This is to Certify that MIS .....  
(hereinafter referred to as 'company') having its registered office at  
..... is registered under MSMED Act 2006, (Entrepreneur  
Memorandum No (Part—II) dtd. ....  
Category: .....,..... (Micro/Small)). (Copy enclosed).

Further verified from the Books of Accounts that the investment of the company  
as per the latest audited financial year as per MSMED Act 2006 is as follows:

For Manufacturing enterprises: Investment in plant and machinery (i,e original cost  
excluding land and building and the items specified by the Ministry of Small Scale Industries vide its  
notification No.S.0,1722(E) dated October 6. 2006:

Rs... ..Lacs

2. **For Service Enterprises:** Investment in equipment (original cost excluding land and building and  
furniture, fittings and other items not directly related to the service rendered Or as may be notified under the  
MSMED Act, 2006.

Rs..... Lacs

(Strike off whichever is not applicable)

The above investment of Rs .....Lacs is within permissible limit of  
Rs..... Lacs for ..... Micro I 6mall (Strike off which Is not applicable)  
Category under MSMED Act 2006.

Or

The company has been graduated from its original category (Micro/ Small) (Strike off which is not  
applicable) and the date of graduation of such enterprise from its original category is .....  
(dclimiyyyy) which is within the period of 3 years from the date of graduation of such  
enterprise from its original category as notified vide S.D. No. 3322(E) dated 01.11.2013  
published in the gazette notification dated 04.11.2013 by Ministry of MSME.

Date:

(Signature)

Name -

Membership number -

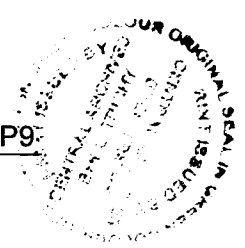
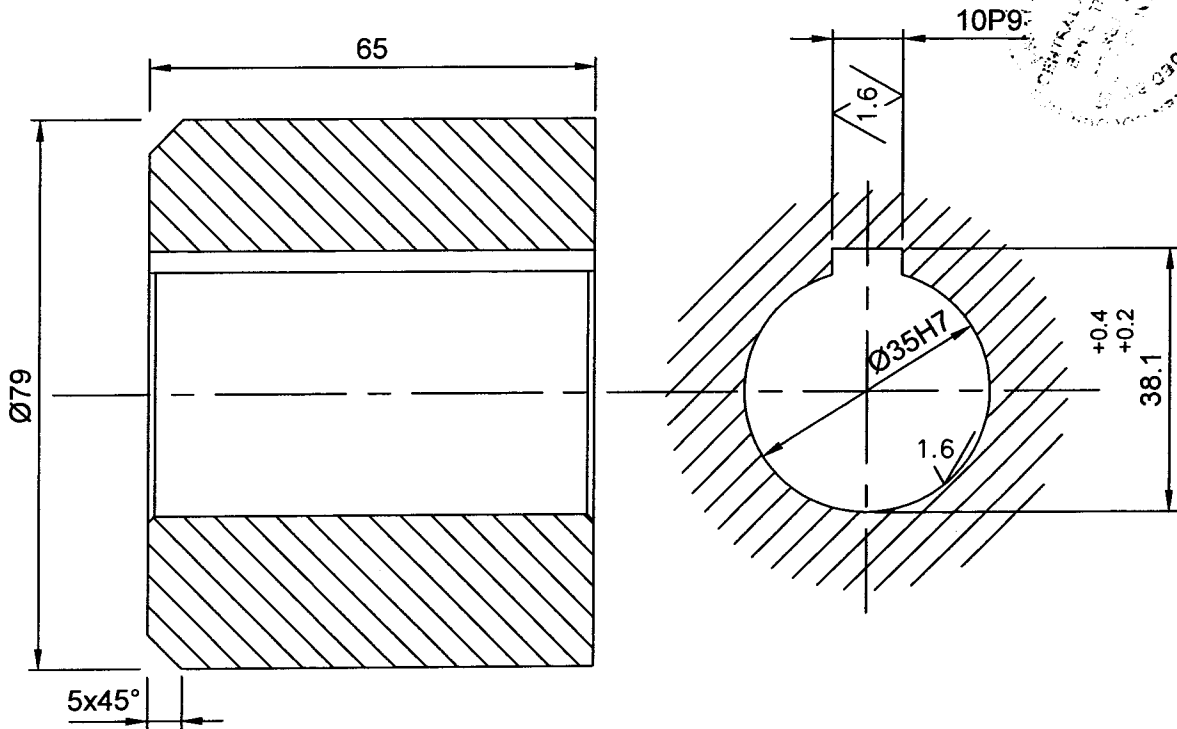
Seal of Chartered Accountant

CAUTION: THIS DRAWING IS OUR SOLE PROPERTY AND SHOULD NOT BE USED IN ANY FORM FOR ANY PURPOSE WITHOUT THE WRITTEN PERMISSION OF BHARAT HEAVY ELECTRICALS LIMITED TRICHIRAPPALLI - 620 014.

ALL DIMENSIONS ARE IN MM

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3.2//1.6



NOTE: -

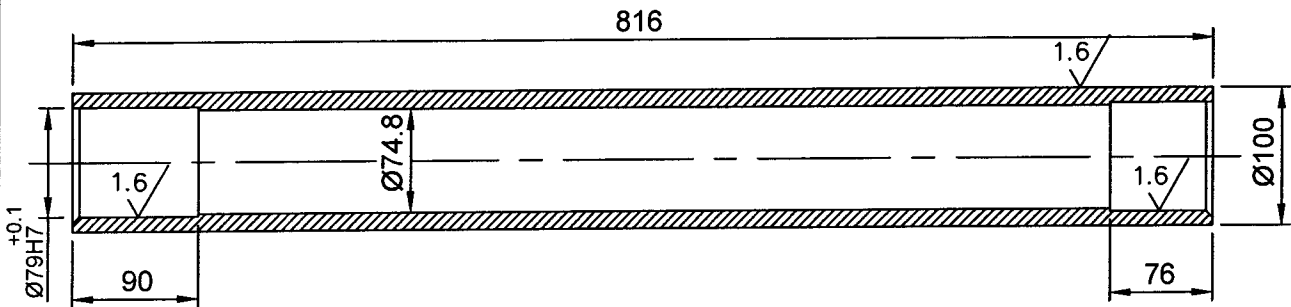
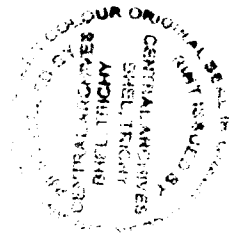
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REFERENCE:				ALTERATIONS:	DCN REF	DATE	SIGN.
SCALE	DRAWN	T.T.BALAKRISHNAN					
1:1	CHECKED	R.RAMAMOORTHY					
	APPROVED	C.S.JAYASHEELAN					
	DATE	08.08.2011					
	MACHINE: ROTO SHOTBLASTING			TYPE: NESCO LEAD-ROTO-2			
	TITLE: KEY BUSH OD79x65L (CABIN ROLLER ASSY.)			DRAWING No:		REV.	
	4M19A1929125		No. of Sheets:		Sheet No:		

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ALL DIMENSIONS ARE IN MM

3.2//1.6



**% CHEMICAL COMPOSITION**

Car	Chro	Ma	SI	Mo
2-3.45	14-18	2 Max	15 Max	3 Max

NOTE: -

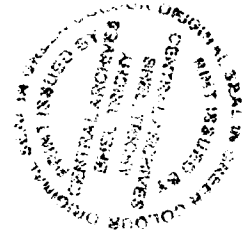
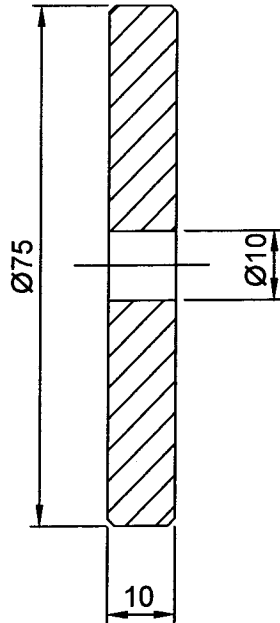
CHAMFER CORNERS FOR 1/45°

X		Ø100x816L		IS: 4771	28.26	3M19A1914780	03		
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REFERENCE:					ALTERATIONS:	DCN REF	DATE	SIGN.	INDEX
SCALE 1:5	DRAWN	T.T.BALAKRISHNAN	<i>T.T. Balakrishnan</i>						
	CHECKED	R.RAMAMOORTHY							
	APPROVED	C.S.JAYASHEELAN							
	DATE	08.08.2011							
		MACHINE: ROTO SHOTBLASTING			TYPE: NESCO LEAD-ROTO-2				
		TITLE: ROLLER ID75xOD100x816L (CYLINDER ROLLER ASSY.)			DRAWING No:		REV.		
					4M19A1929126				
					No. of Sheets:		Sheet No:		

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ALL DIMENSIONS ARE IN MM

3.2/



NOTE: -

CHAMFER CORNERS FOR 1/45°  
HARDNED TO HRC 60<sup>±2</sup>

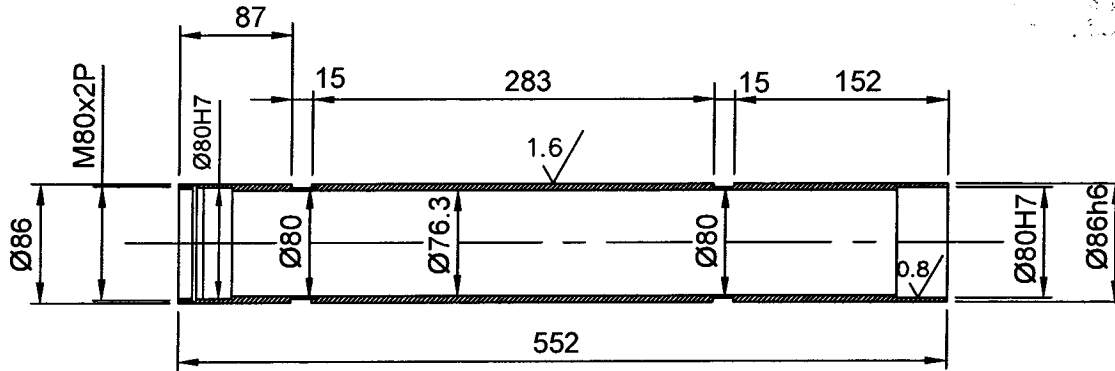
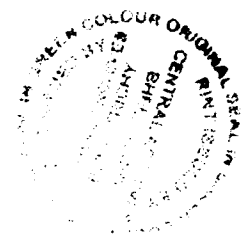
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REFERENCE:				ALTERATIONS:	DCN REF	DATE	SIGN.
SCALE 1:1	DRAWN	T.T.BALAKRISHNAN					
	CHECKED	R.RAMAMOORTHY					
	APPROVED	C.S.JAYASHEELAN					
	DATE	08.08.2011					
MACHINE: ROTO SHOTBLASTING			TYPE: NESCO LEAD-ROTO-2				
TITLE: LOCK PLATE (CABIN ROLLER ASSY.)			DRAWING No:		REV.		
			4M19A1929127				
			No. of Sheets:		Sheet No:		

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ALL DIMENSIONS ARE IN MM

ø86h6	-0.000	ø80H7	+0.030	3.2//1.6/0.8/
	-0.022		0.000	



**NOTE: -**

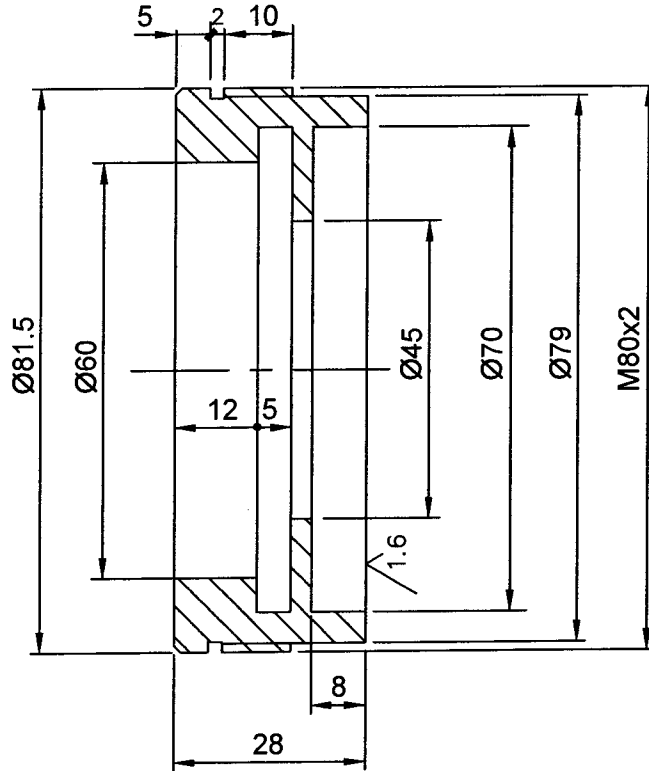
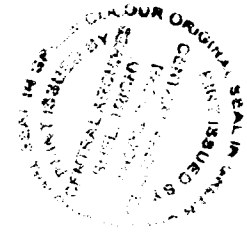
HARDNED TO HRC 35<sup>±2</sup>  
CHAMFER CORNERS FOR 1/45°

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1:5	CHECKED	R.RAMAMOORTHY					
	APPROVED	C.S.JAYASHEELAN					
	DATE	08.08.2011					
	MACHINE: ROTO SHOTBLASTING			TYPE: NESCO LEAD-ROTO-2			
	TITLE: BEARING HOUSING (CABIN ROLLER ASSY.)			DRAWING No:		REV.	
	4M19A1929128		No. of Sheets:		Sheet No:		

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ALL DIMENSIONS ARE IN MM

3.2//1.6



NOTE: -

CHAMFER CORNERS FOR 1/45°

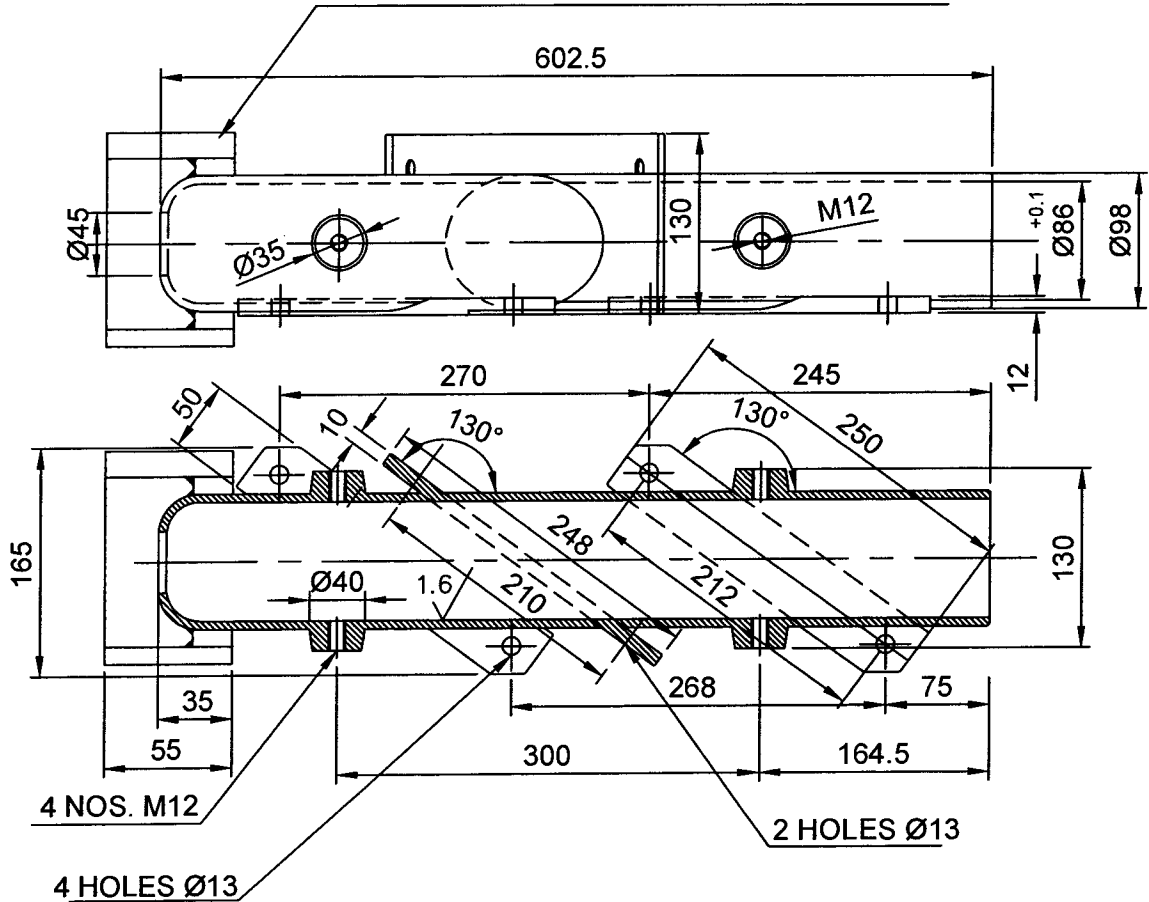
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SCALE								
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	CHECKED	R.RAMAMOORTHY						
	APPROVED	C.S.JAYASHEELAN						
	DATE	08.08.2011						
	MACHINE: ROTO SHOTBLASTING			TYPE: NESCO LEAD-ROTO-2				
	TITLE: BEARING LOCKING M80x2Px28t (CABIN ROLLER ASSY.)			DRAWING No: 4M19A1929129			REV.	
				No. of Sheets:		Sheet No:		

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ALL DIMENSIONS ARE IN MM

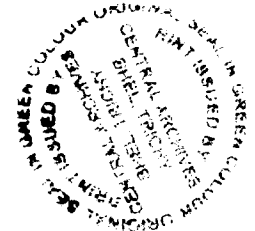
1.6/

SAFETY COVER REF.DRG.NO.4M19A1929133



% CHEMICAL COMPOSITION

C	Cr	Mn	Si	Mo
2-3.45%	14-18%	2% Max	1.5% Max	3% Max



NOTE: -

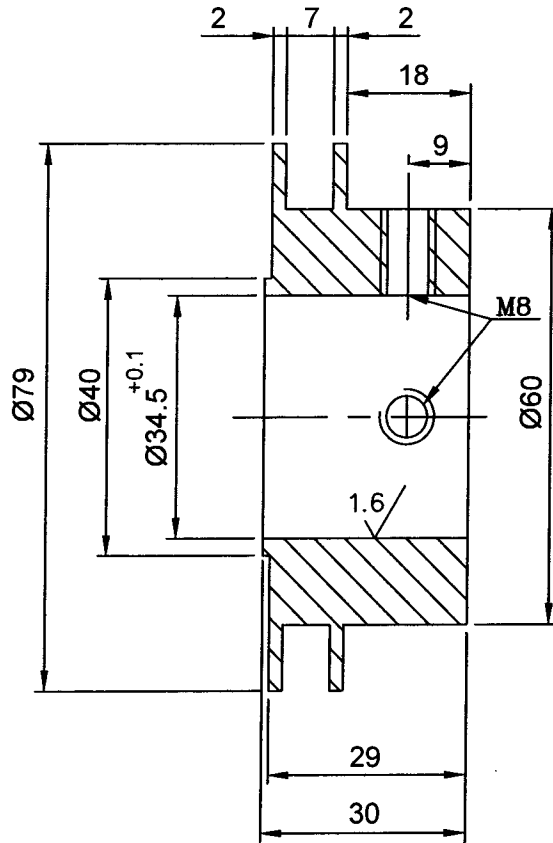
HARDNED TO HRC 60<sup>±2</sup>

IS: 4771		10.00		3M19A1914780		07	
No. of Pieces	DESCRIPTION	MATERIAL	STANDARD	NET.WT.IN KGS.	DRAWING No.	ITEM No.	
REFERENCE:	ALTERATIONS:		DCN REF	DATE	SIGN.	INDEX	
SCALE	DRAWN	T.T.BALAKRISHNAN					
	CHECKED	R.RAMAMOORTHY					
NTS	APPROVED	C.S.JAYASHEELAN					
	DATE	08.08.2011					
MACHINE: ROTO SHOTBLASTING			TYPE: NESCO LEAD-ROTO-2				
TITLE: ROLLER HOUSING (CABIN ROLLER ASSY.)			DRAWING No:		REV.		
			4M19A1929130				
			No. of Sheets:		Sheet No:		

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ALL DIMENSIONS ARE IN MM

3.2//1.6//



NOTE: -

HARDNED TO HRC 35<sup>±2</sup>  
CHAMFER CORNERS FOR 1/45°

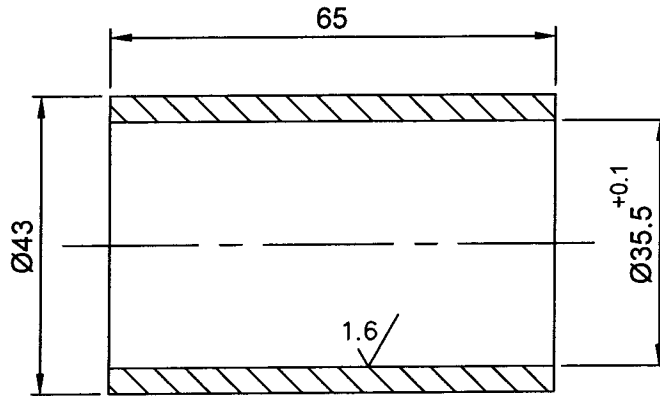
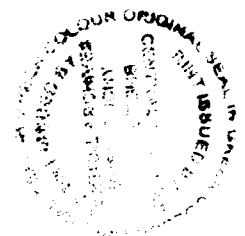
No. of Pieces	DESCRIPTION		MATERIAL	STANDARD	NET.WT.IN KGS.	DRAWING No.	ITEM No.	
	ø79x30L		55C8	IS: 5517	4.95	3M19A1914780	08	
REFERENCE:				ALTERATIONS:	DCN REF	DATE	SIGN.	INDEX
SCALE	DRAWN	T.T.BALAKRISHNAN		T.T. Balakrishnan				
1:1	CHECKED	R.RAMAMOORTHY						
	APPROVED	C.S.JAYASHEELAN						
	DATE	08.08.2011						
	MACHINE: ROTO SHOTBLASTING			TYPE: NESCO LEAD-ROTOTWO				
	TITLE: COVER (CABIN ROLLER ASSY.)			DRAWING No:		REV.		
	4M19A1929131		No. of Sheets:		Sheet No:			

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**CAUTION:**

ALL DIMENSIONS ARE IN MM

3.2//1.6//

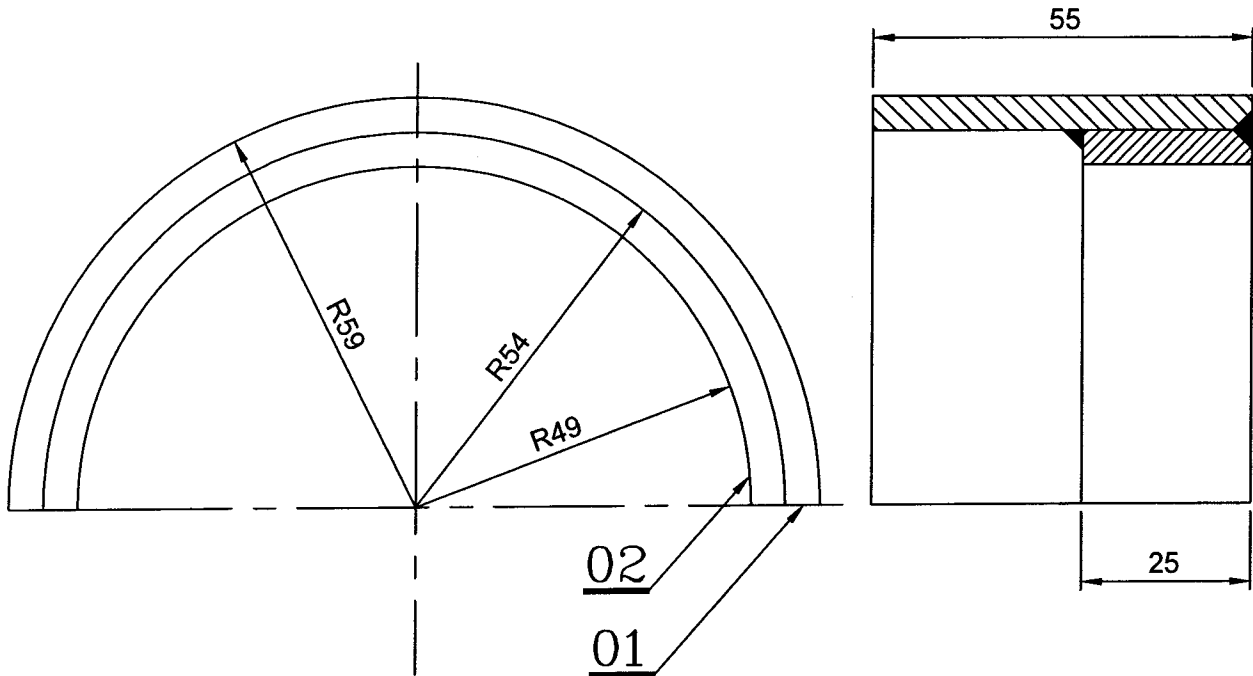


**NOTE: -**  
CHAMFER CORNERS FOR 1/45°

X		PCuSn7		IS: 28	0.24	3M19A1914780	09	
No. of Pieces	DESCRIPTION		MATERIAL	STANDARD	NET.WT.IN KGS.	DRAWING No.		ITEM No.
REFERENCE:				ALTERATIONS:	DCN REF	DATE	SIGN.	INDEX
SCALE 1:1	DRAWN	T.T.BALAKRISHNAN	T.T. Balakrishnan					
	CHECKED	R.RAMAMOORTHY						
	APPROVED	C.S.JAYASHEELAN						
	DATE	08.08.2011						
MACHINE: ROTO SHOTBLASTING			TYPE: NESCO LEAD-ROTOTWO					
TITLE: BUSH (ID35.5xOD43x65L) (CABIN ROLLER ASSY.)			DRAWING No:		REV.			
			4M19A1929132					
			No. of Sheets:		Sheet No:			

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ALL DIMENSIONS ARE IN MM

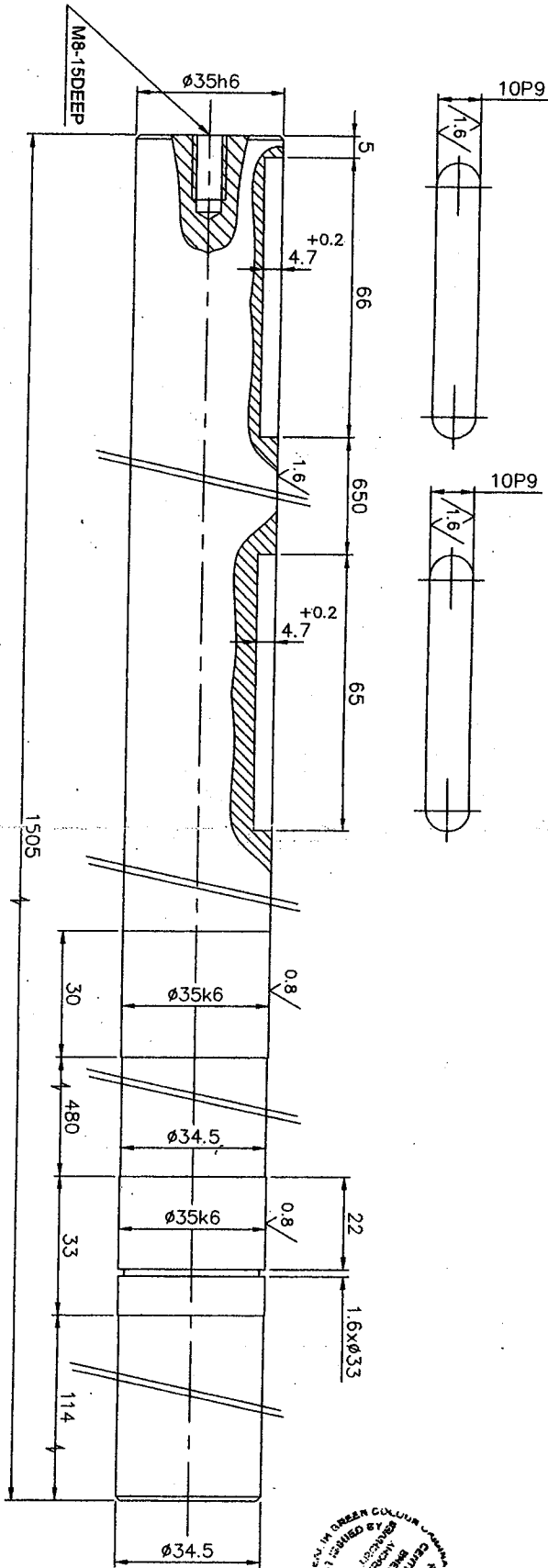


**NOTE: -**  
SHARP CORNERS TO BE REMOVED  
ALL WELDED CONSTRUCTIONS

1	PI.5txID98xOD108x25L(HALF)	Fe410WA	IS: 2062	0.16		02
1	PI.5txID108xOD118x55L(HALF)	Fe410WA	IS: 2062	2.34		01
X				2.50	3M19A1914780	10
No. of Pieces	DESCRIPTION	MATERIAL	STANDARD	NET.WT.IN KGS.	DRAWING No.	ITEM No.
REFERENCE:			ALTERATIONS:	DCN REF	DATE	SIGN.
SCALE	DRAWN	T.T.BALAKRISHNAN	T.T. Balakrishnan			
1:1	CHECKED	R.RAMAMOORTHY				
	APPROVED	C.S.JAYASHEELAN				
	DATE	08.08.2011				
	MACHINE:	ROTO SHOTBLASTING		TYPE:	NESCO LEAD-ROTO-2	
	TITLE:	SAFETY COVER (CABIN ROLLER ASSY.)		DRAWING No:		REV.
				4M19A1929133		
	No. of Sheets:		Sheet No:			

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ALL DIMENSIONS ARE IN MM



10P9	-0.012	35h6	-0.000	35k6	+0.018	32/1.6/0.8
	-0.042		-0.016		+0.002	

NOTE:-

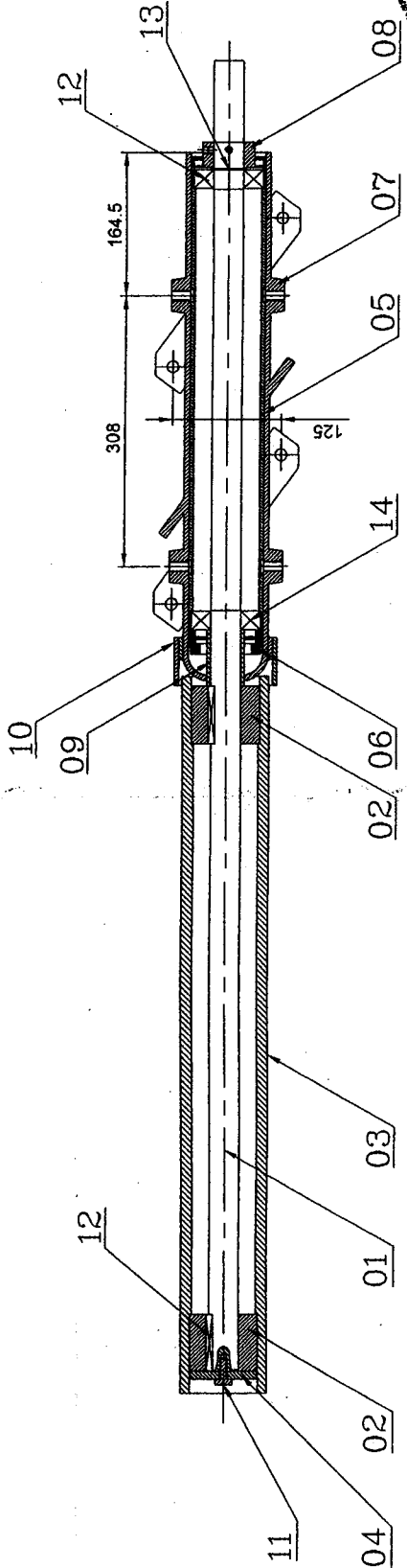
HARDENED TO HRC 35<sup>±</sup>  
CHAMFER CORNERS FOR 1/45°



NO. OF SHEETS	1	OF	1
SCALE	1:1	DRAWING NO.	3M19A1914780
CHECKED	R. RAMAKRISHNAN	DATE	08.08.2011
APPROVED	G. S. JAYASHEKAR		
DATE	08.08.2011		
MACHINE	ROTO SHOTBLASTING	TYPE	NESSCO-LEAD-ROTO-2
TITLE	DRIVE SHAFT Ø35x1505L (CABIN ROLLER ASSY.)		
REV.		REV.	
3M19A1914780		3M19A1914780	
Sheet No.		Sheet No.	

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QTY	DESCRIPTION	MATERIAL	STANDARD	NET WT. IN KGS.	DRIVING No.	REV.
1	BEARING LOCKING	45C8	IS:7283	0.38	4M19A1929129	06
1	BEARING HOUSING	55C8	IS:5517	3.35	4M19A1929128	05
1	LOCK PLATE	13Ni13Cr3	IS:4432	0.38	4M19A1929127	04
1	ROLLER ID 75xODx100x628L			28.26	4M19A1929126	03
2	KEY BUSH	45C8	IS:7283	4.02	4M19A1929125	02
1	DRIVE SHAFT Ø35x1505L	55C8	IS:5517	11.36	3M19A1914779	01

QTY	DESCRIPTION	MATERIAL	STANDARD	NET WT. IN KGS.	DRIVING No.	REV.
2	BALL BEARING ØD80xID35xZ11	6307 SEAL MASTER USA				
1	CIRCLIP A35	BPS:41902	IS:3075			
2	KEY 10x8x65L	BPS:41704	IS:2048			
1	HEX SCREW M8x25L	BPS:41222	IS:1363 PART-2			
1	SAFETY COVER					
1	BUSH	PCuSn7	IS:28	0.24	4M19A1929132	09
1	COVER	55C8	IS:5517	4.95	4M19A1929131	08
1	ROLLER HOUSING			10.00	4M19A1929130	07

CHECKED BY: T. BALAKRISHNAN APPROVED BY: S. JAYASHEELAN DATE: 08.08.2011	SCALE: 1:5 MACHINE: ROTID SHOTBLASTING TYPE: NESCO LEAD-ROTO-2
MATERIAL: 45C8 STANDARD: IS:7283 NET WT. IN KGS.: 0.38	DRAWING No.: 4M19A1929129 SIGN: [Signature]
DESCRIPTION: BEARING LOCKING REFERENCE:	ALTERATIONS:
TITLE: (CABIN ROLLER ASSY.) DRAWING No.: 3M19A1914780 Sheet No.: [Blank]	

