



# BHARAT HEAVY ELECTRICALS LIMITED

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

Page 1/3  
PHONE :2577331  
GRAMS : BHARATELEC  
FAX NO: 2520719  
E-mail: srchandran@bheltry.co.in  
Web:

429-002/A

	<b>Enquiry No</b>	<b>Enquiry Date</b>	<b>Due Date for Quotation</b>
	2661500431 - 55	16.10.2015	13.11.2015
<p>Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order. <b>Bid should be submitted in two parts. 1.Techno-commercial bid (Part-I) and 2.Price bid(Part-II) in a separate sealed cover and both covers must be placed in a third cover and sealed. Our Enquiry No., Enq. date &amp; Enq. Due date must be written on all three covers.</b></p>			

Item	Description	Unit	Quantity	Delivery Quantity	Schedule Date
10	HELICAL GEAR AS PER BHEL DRG-3-M-02F39-15500	NO	1.000	1.00	30.01.16
20	GEAR WHEEL AS PER BHEL DRG-3-M-02F39-15502	NO	1.000	1.00	30.01.16
30	GEAR WHEEL AS PER BHEL DRG 3-M-02F39-15503	NO	1.000	1.00	30.01.16
40	PINION SHAFT AS PER BHEL DRG 3-M-02G24-15501	NO	1.000	1.00	30.01.16
50	SPUR GEAR AS PER BHEL DRG 3-M-02G24-15499	NO	1.000	1.00	30.01.16
60	INPUT SHAFT AS PER BHEL DRG 3-M-02H23-15481	NO	2.000	2.00	30.01.16
70	PINION SHAFT AS PER BHEL DRG 3-M-02H23-15482	NO	2.000	2.00	30.01.16
80	SPUR GEAR# AS PER BHEL DRG 3-M-02H23-15483	NO	2.000	2.00	30.01.16
90	SPUR GEAR AS PER BHEL DRG 3-M-02H23-15484	NO	2.000	2.00	30.01.16
100	PINION SHAFT AS PER BHEL DRG 3-M-02H23-15485	NO	2.000	2.00	30.01.16
110	HELICAL SHAFT AS PER BHEL DRG 3-M-02H23-15486	NO	2.000	2.00	30.01.16
120	HELICAL GEAR AS PER BHEL DRG 3-M-02H23-15487	NO	2.000	2.00	30.01.16

NOTE:  
1. For item no. 60, 70, 80, 90 ,100, 110 and 120 are mating components.  
Hence these items should be procured from single source only.  
COMMON NOTE FOR SL.NO. 10 TO 120:

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,  
SRINIVASAN



# BHARAT HEAVY ELECTRICALS LIMITED

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

Page  
2/3  
PHONE :2577331  
GRAMS : BHARATELEC  
FAX NO: 2520719  
E-mail: srchandran@bheltry.co.in  
Web:

2661500431 / 16.10.2015

23505

1. For all helical gears, spur gears, pinion shafts, Supplier to provide the certificates from NABL approved lab for material composition and hardness values. The hardness values shall be noted down after heat treatment only.
  2. For input shaft, Supplier to provide the certificate from NABL approved lab for material compositions.
  3. Supplier shall punch the given drawing no. against each item.
- VENDOR QUALIFYING CRITERIA:**  
Only those vendors who satisfy the following conditions will get qualified to participate in the tender:
- (1) Vendor should have minimum 2 years of experience in gear manufacturing.
  - (2) Company profile details has to be provided along with offer.
  - (3) 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.
  - (4) Vendors who have not supplied the ordered items beyond the delivery schedule against our previous PO placed on them from 01.04.2014 are liable for rejection / May not be considered for evaluation. Hence only the vendors who are all regularly supplying to our POs shall quote for these items

**General Note:**

GENERAL NOTE:PLEASE SUBMIT YOUR OFFER IN "TWO PART BID SYSTEM" AS PER THE ANNEXURES ENCLOSED.

ENCLOSURES:ANNEXURE II,III,IV,V,VI,VII

All the tenders may be addressed to the following address:


**The Tender Opening Cell / MM  
Room No: 26, Building 24, Ground Floor  
Bharat Heavy Electricals Limited  
TIRUCHIRAPALLI 620014**

In case personal delivery of the offer, it shall be dropped into the respective box kept in Room No: 26, after duly entering the data in the system.

Offers will be accepted only up to 14.00 Hrs on the due date. Therefore, vendors shall ensure to submit the offers well before this time. All due date extension requirements should be addressed to the respective

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  
PURCHASE DEPARTMENT - FOSSIL BOILERS  
THIRUCHIRAPALLI - 620014  
TAMILNADU (INDIA)

PHONE :2577331  
GRAMS : BHARATELEC  
FAX NO: 2520719  
E-mail: srchandran@bheltry.co.in  
Web:

2661500431 / 16.10.2015

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Purchase mail IDs. All the due date extension requests from vendors will be considered only up to 48 hours before the due date and time.

Vendors are requested to avoid submission of offers through e mail / fax. In case of any unavoidable situation, offers shall be sent through e mail to the following mail ID only tender\_cell@bheltry.co.in.

As tenders are being opened by Common Tender Opening Cell, offer covers should be sealed with tenderer's distinctive seal and super scribed with correct Tender No. item of supply and due date of opening.

The offers will be opened at 14.30 hrs on the due date of the 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.

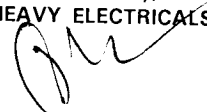
The bidder along with its associate/ collaborators/ sub-contractors/ sub-vendors/ consultants/ service providers shall strictly adhere to BHEL fraud prevention policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice.

**Enclosures:**

"LD clause has to be confirmed without fail."

The offers should reach us 30 minutes before the time of opening of tenders.  
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Yours faithfully,  
For BHARAT HEAVY ELECTRICALS LIMITED

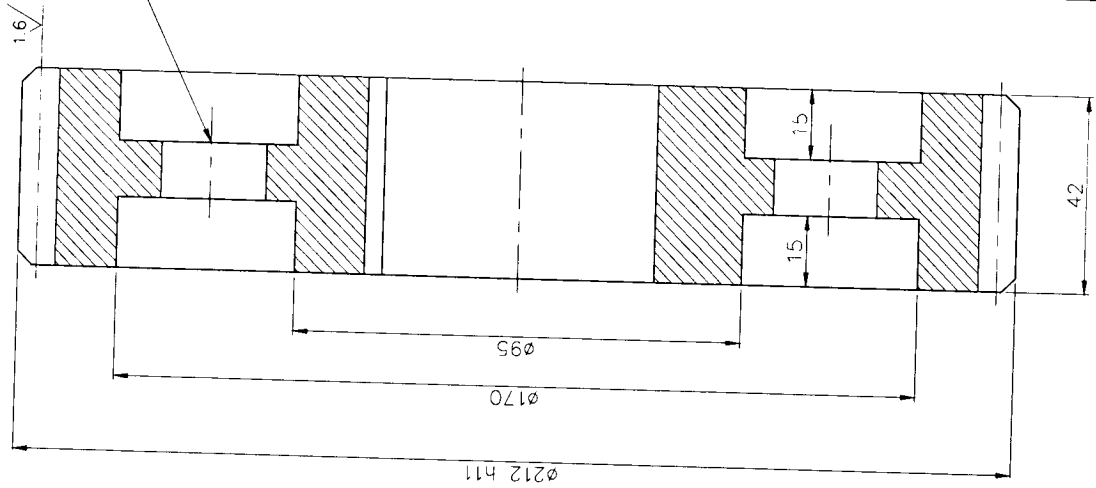
  
V. S. MANAGER, PURCHASE  
(FOSSIL BOILERS)  
Purchase  
Yours faithfully,  
V. S. MANAGER, PURCHASE  
(FOSSIL BOILERS)  
Purchase



ALL DIMENSIONS ARE IN MILLIMETRES

16 P9	-0.018 -0.061	Ø212 h11	-0.000 -0.290	Ø58 H7	+0.030 +0.000
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DRAWING NO: 3-M-02H23-15483



2 HOLES Ø22  
ON PCD 130

Sl. NO.	GEAR DATA	
1	NO OF TEETH	= 51
2	MODULE	= 4
3	Pr. ANGLE	= 20°
4	WIDTH A/C 6 TEETH	$\begin{matrix} -0.178 \\ -0.237 \end{matrix}$ = 67.80
5	CORRECTION FACTOR	= NIL
6	QTY. ZONE & TOLERANCE	= 9C DIN 3967
7	MATING GEAR NO OF TEETH	= 14
8	MATING GEAR DRG. NO.	= 3-M-02H23-15482
9	CENTRE DISTANCE	= 130

NOTE:

1. EDGE CHAMFER TO BE CONSIDER 1x45° UNLESS OTHERWISE SPECIFIED
2. HARDNESS TO HRC 35<sup>±2</sup>

CAUTION: THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DEETRIMENTAL TO THE INTEREST OF THE COMPANY.

ITEM NO	00212 x ID58 x 42L	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT	QTY
				55 C8	1	7.00
EQUIP: SEMICENTURY CRANE / MEGA - 3T - 14M						
DEPT	M/S	GRADE OF UNTOOL DIM	SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO	ITEM
	2587	Ø/M/F IS:2102	1:1	7.00	REF TO OLD DWG NO	
REV	DATE	ALTERED	CHECKED	APPROVED		
TITLE			DRAWING NO :			
SPUR GEAR Ø212 x 51T (LT GEAR BOX ASSY.)			3-M-02H23-15483			
CARD CODE			REV			
U 01			00			



Bharat Heavy Electricals Ltd  
HIGH PRESSURE BOILER PLANT  
TIRUCHIRAPALLI - 620014

NAME	SIGNATURE	DATE
C.PONNUSAMY	<i>C. Ponnusamy</i>	13/08/15
G.GOVINDARAJ	<i>G. Govindaraj</i>	14/08/15
G.THAGARAJAN	<i>G. Thagarajan</i>	17/08/15

A3-SIZE

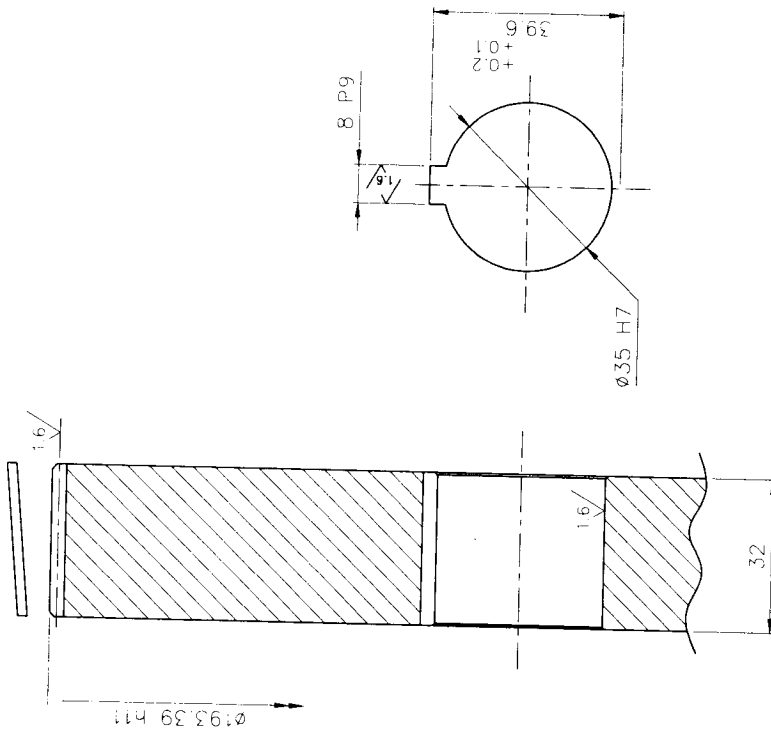
00951-68-20-M-3-M-02F39-15500

DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

8 P9	-0.015 -0.051	Ø193.39h11	-0.000 -0.290	Ø35 H7	+0.025 +0.000
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3.2/1.6/



NO OF TEETH	125
MODULE	1.5
Pr. ANGLE	20°
HELIX ANGLE	10°
HAND OF HELIX	LH
WIDTH ACROSS 14 TEETH	62.52 <sup>-0.141</sup> <sub>-0.188</sub>
CORRECTION FACTOR	-
QlTY. & TOLERANCE	9c DIN 3967
MATING GEAR NO OF TEETH	18
MATING GEAR DRG. NO.	3M02F3915265
CENTRE DISTANCE	-

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01	Ø194 x 32L	DESCRIPTION	DRAWING NO	IS 5517	7.15
ITEM NO				55 C8	1
EOPT: PRODUCTION FACILITY / ASRS /2T/ BUILDG.-6					
Bharat Heavy Electricals Ltd HIGH PRESSURE BOILER PLANT TIRUCHIRAPALLI - 620014					
DEPT	M&S	GRADE OF UNTO. DIM	SCALE	WEIGHT (Kg)	ITEM
	2587	Ø/M/f IS:2102	1:1	7.15	
REF TO ASSY DWG NO	REF TO OLD DWG NO		DRAWING NO :		
			3M02F3915266		
TITLE		CARD CODE	REV		
HELICAL GEAR Ø193.39x125T (INPUT SHAFT)		U 01	00		

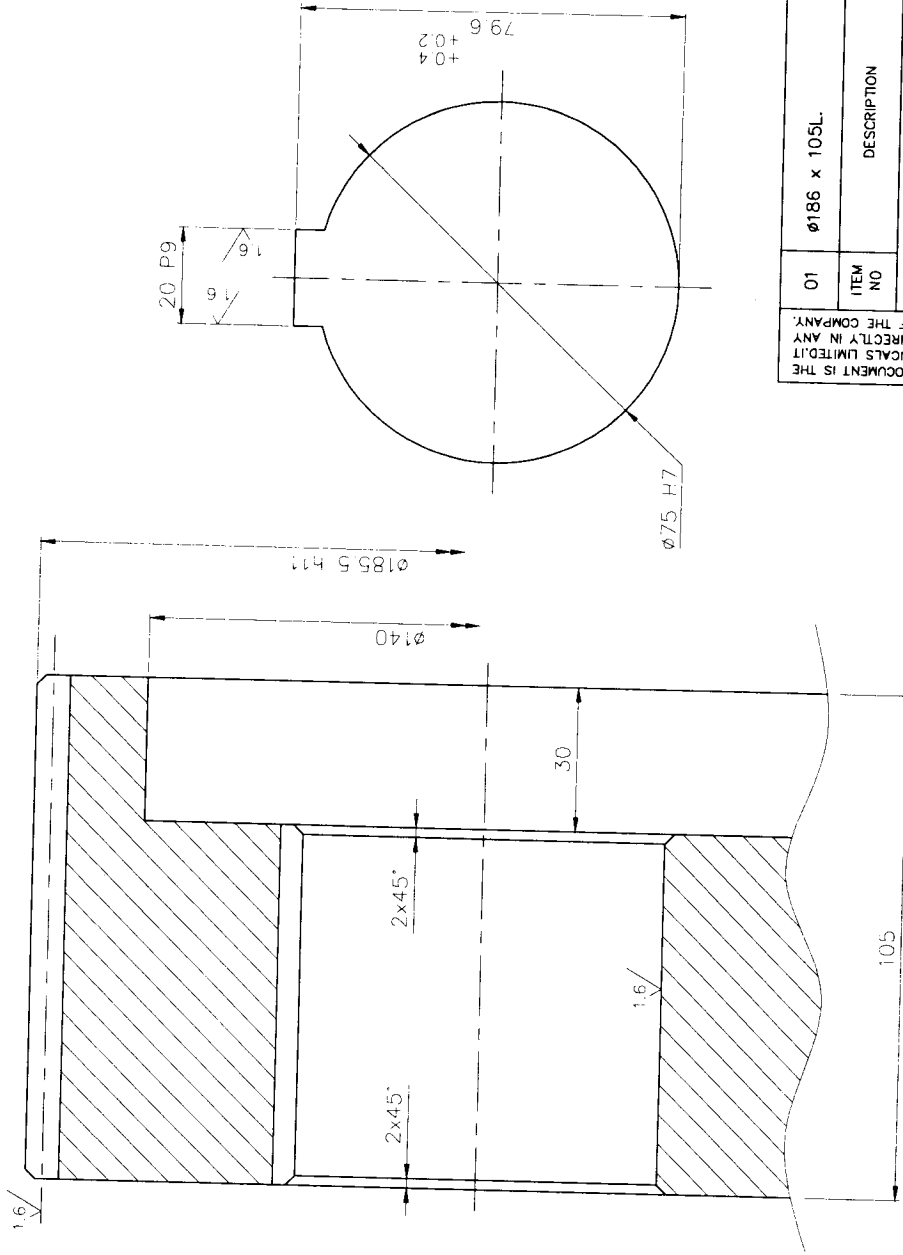
- NOTE:
1. AVOID ALL SHARP CORNERS
  2. HARDENED TO HRC 35 ±2

ALL DIMENSIONS ARE IN MILLIMETRES

DRAWING NO: 3-M-02F39-15502

20 P9	-0.022	±0.030	±0.030	0.000
	-0.074	+0.000	+0.000	-0.290

3.2/1.6



NO. OF TEETH	51
MODULE	3.5
PRESSURE ANGLE	20°
WIDTH ACROSS 6 TEETH	59.32
CORRECTION FACTOR	-0.141
	-0.188
Q.L.T.Y. & TOL. ZONE	9c DIN 3967
MATING GEAR NO. OF TEETH	22
MATING GEAR DRAWING NO.	3M02F3915267
CENTRE DISTANCE	-

NOTE:  
AVOID ALL SHARP CORNERS  
HARDENED TO HRC 35 ±2

CAUTION: THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

01	φ186 x 105L				IS 5517	15.00
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT		
EOP: PRODUCTION FACILITY / ASRS / 2T / BUILDG-6						
Bharat Heavy Electricals Ltd HIGH PRESSURE BOILER PLANT TRUCHIRAPALLI - 620014						
DEPT	M/S	GRADE OF UNTOL DM	SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO	ITEM
CODE	2597	φ/M/F IS: 2102	1:1	15.00	3M02F3915270	
TITLE		GEAR WHEEL Ø185.5x51T (OUTPUT)		CARD CODE	DRAWING NO :	REV
				U 01	3-M-02F39-15502	00

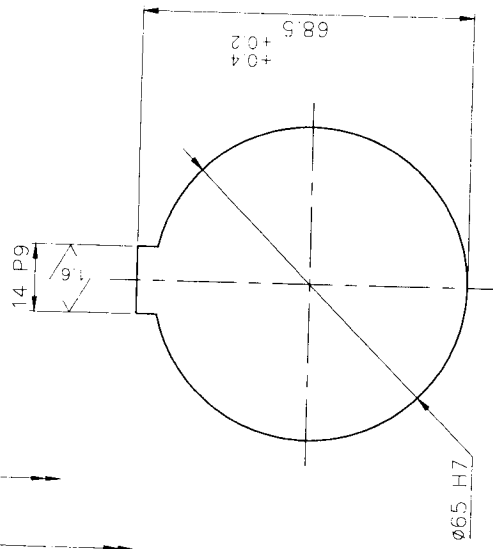
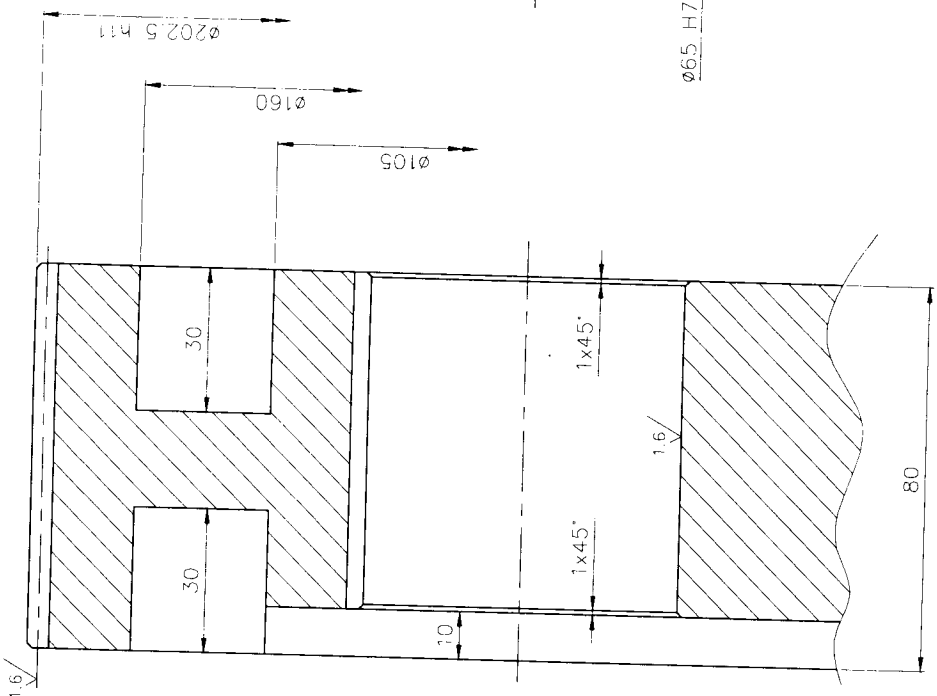
A3-SIZE

ALL DIMENSIONS ARE IN MILLIMETRES

DRAWING NO: 3-M-02F39-15503

14 P9	-0.018	φ65 H7	+0.030	φ202.5h11	-0.000
	-0.061		+0.000		-0.290

3.2/1.6



NO. OF TEETH	88
MODULE	2.25
PRESSURE ANGLE	20°
WIDTH ACROSS - TEETH	-0.141 -0.188
CORRECTION FACTOR	-
QTY. & TOL. ZONE	9c DIN 3967
MATING GEAR NO. OF TEETH	18
MATING GEAR DRAWING NO:	3M02F3915272
CENTRE DISTANCE	-

NOTE:  
AVOID ALL SHARP CORNERS  
HARDENED TO HRC 35±2

CAUTION: THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY MANNER DETRIMENTAL TO THE INTEREST OF THE COMPANY.

01	φ203 x 80L.			IS 5517	10.00
ITEM NO	DESCRIPTION	DRAWING NO	MATL SPEC	MATL CODE	UNIT WT
EOPIT: PRODUCTION FACILITY / ASRS / 2T / BUILDG-6					
Bharat Heavy Electricals Ltd HIGH PRESSURE BOILER PLANT TRUCHIRAPALLI - 620014					
DEPT CODE	M/S CODE	GRADE OF UNTOL DIM	SCALE	WEIGHT (kg)	ITEM
2597	φ/M/F IS:2102	1:1	10.00	REF TO ASSY DWG NO	REF TO OLD DWG NO
TITLE: GEAR WHEEL Ø205.5x88T (INTERMEDIATE)					
REV	DATE	ALTERED	CHECKED	APPROVED	ZONE
DRAWING NO: 3-M-02F39-15503				CARD CODE	REV
				U 01	00

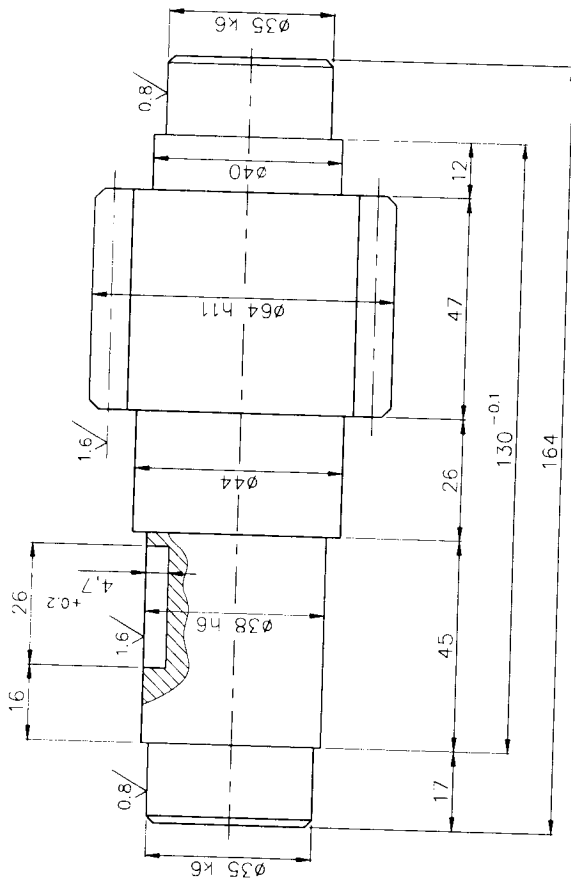
A3-SIZE





ALL DIMENSIONS ARE IN MILLIMETRES

DRAWING NO: 3-M-02H23-15482



Sl. NO.	GEAR DATA	
1	NO OF TEETH	= 14
2	MODULE	= 4
3	Pr. ANGLE	= 20°
4	WIDTH A/C 2 TEETH	= 18.49 -0.14 -0.16
5	CORRECTION FACTOR	= NIL
6	QTY. ZONE & TOLERANCE	= 9C DIN 3967
7	MATING GEAR NO OF TEETH	= 51
8	MATING GEAR DRG. NO.	= 3-M-02H23-15843
9	CENTRE DISTANCE	= 130

10 P9	-0.015	φ38 h6	-0.000
	-0.051		-0.016
φ35 k6	+0.018	φ64 h11	-0.000
	+0.002		-0.190

3.2 / 1.6 / 0.8

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ITEM NO	ROD φ64 x 164L	ASME	1.83
DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT
EQPT:	SEMI-GANTRY CRANE / MEGA - JT - 14M	MATL_SPEC	QTY

NOTE: EDGE CHAMFER TO BE CONSIDER 1x45° UNLESS OTHERWISE SPECIFIED

DEPT	M&S CODE	2587	SCALE	1:1	WEIGHT (Kg)	1.83
GRADE OF UNTOL DIM	φ/M/f	IS:2102	REF TO ASSY DWG NO			
APPRD	C.PONDUSAMY	15/08/15	SIGNATURE			
CHKD	G.GOVINDARAJ	14/08/15	SIGNATURE			
DRN	C.THAGARAJAN	17/08/15	SIGNATURE			

TITLE	PINION SHAFT φ64 x 14T (LT GEAR BOX ASSY.)		DRAWING NO :	3-M-02H23-15482
REV	ZONE	CARD CODE	REV	00
		U 01		

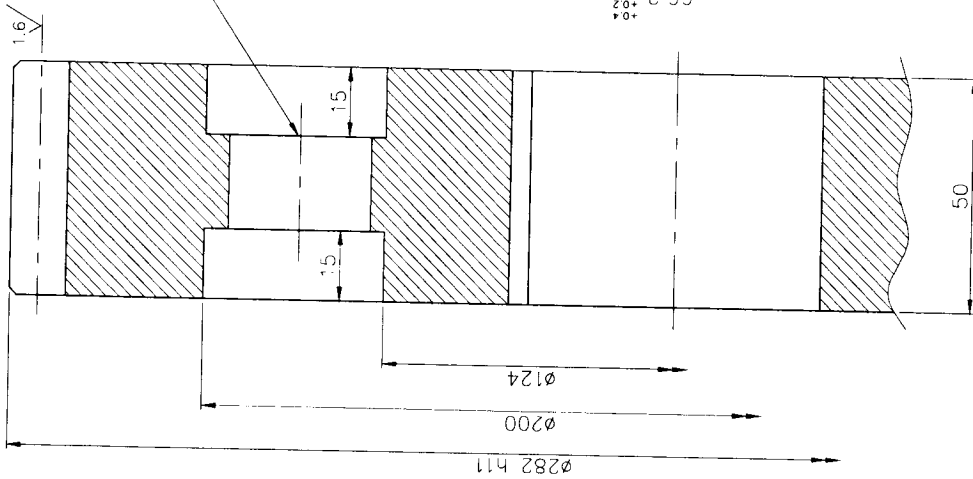
A3-SIZE

ALL DIMENSIONS ARE IN MILLIMETRES

DRAWING NO. 3-M-02H23-15484

18 P9	-0.018 -0.061	ø282 h11	-0.000 -0.290	ø62 H7	+0.030 +0.000
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3.2 / 1.6



SI. NO.	GEAR DATA	
1	NO OF TEETH	= 46
2	MODULE	= 6
3	Pr. ANGLE	= 20°
4	WIDTH A/C 6 TEETH	= 101.2B -0.200 -0.267
5	CORRECTION FACTOR	= -0.5
6	QTY. ZONE & TOLERANCE	= 9C DIN 3967
7	MATING GEAR NO OF TEETH	= 14
8	MATING GEAR DRG. NO.	= 3-M-02H23-15485
9	CENTRE DISTANCE	= 180

NOTE:

1. EDGE CHAMFER TO BE CONSIDER 1x45° UNLESS OTHERWISE SPECIFIED
2. HARDNESS TO HRC 35 ±2

ITEM NO	OD282 x ID62 x 50L	DESCRIPTION	DRAWING NO	MATL SPEC	UNIT WT	QTY																																				
				55 C8	1	18.00																																				
EQUIP: SEMICANTARY CRANE / MEGA - 3T - 14M																																										
<table border="1"> <tr> <td colspan="2">Bharat Heavy Electricals Ltd</td> <td>NAME</td> <td>C.PONNUSAMY</td> <td>SIGNATURE</td> <td>DATE</td> </tr> <tr> <td colspan="2">HIGH PRESSURE BOILER PLANT</td> <td>DRK</td> <td>G.GOVINDARAJ</td> <td><i>G. Govindaraj</i></td> <td>17/08/15</td> </tr> <tr> <td colspan="2">TIRUCHIRAPALLI - 620014</td> <td>CHK</td> <td>G.GOVINDARAJ</td> <td><i>G. Govindaraj</i></td> <td>18/08/15</td> </tr> <tr> <td colspan="2"></td> <td>APPO</td> <td>G.THAGARAJAN</td> <td><i>G. Thagarajan</i></td> <td>19/08/15</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">REF TO ASSY DWG NO</td> <td></td> <td>ITEM</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">REF TO OLD DWG NO</td> <td></td> <td></td> </tr> </table>							Bharat Heavy Electricals Ltd		NAME	C.PONNUSAMY	SIGNATURE	DATE	HIGH PRESSURE BOILER PLANT		DRK	G.GOVINDARAJ	<i>G. Govindaraj</i>	17/08/15	TIRUCHIRAPALLI - 620014		CHK	G.GOVINDARAJ	<i>G. Govindaraj</i>	18/08/15			APPO	G.THAGARAJAN	<i>G. Thagarajan</i>	19/08/15			REF TO ASSY DWG NO			ITEM			REF TO OLD DWG NO			
Bharat Heavy Electricals Ltd		NAME	C.PONNUSAMY	SIGNATURE	DATE																																					
HIGH PRESSURE BOILER PLANT		DRK	G.GOVINDARAJ	<i>G. Govindaraj</i>	17/08/15																																					
TIRUCHIRAPALLI - 620014		CHK	G.GOVINDARAJ	<i>G. Govindaraj</i>	18/08/15																																					
		APPO	G.THAGARAJAN	<i>G. Thagarajan</i>	19/08/15																																					
		REF TO ASSY DWG NO			ITEM																																					
		REF TO OLD DWG NO																																								
DEPT CODE	M&S CODE	GRADE OF UNTOOL DIM	SCALE	WEIGHT (Kg)																																						
2597	15-2102	ø/M/f	1:1	18.00																																						
REV	DATE	ALTERED	CHECKED	APPROVED																																						
TITLE				CARD CODE	REV																																					
SPUR GEAR ø282 x 46T (LT GEAR BOX ASSY.)				U 01	00																																					

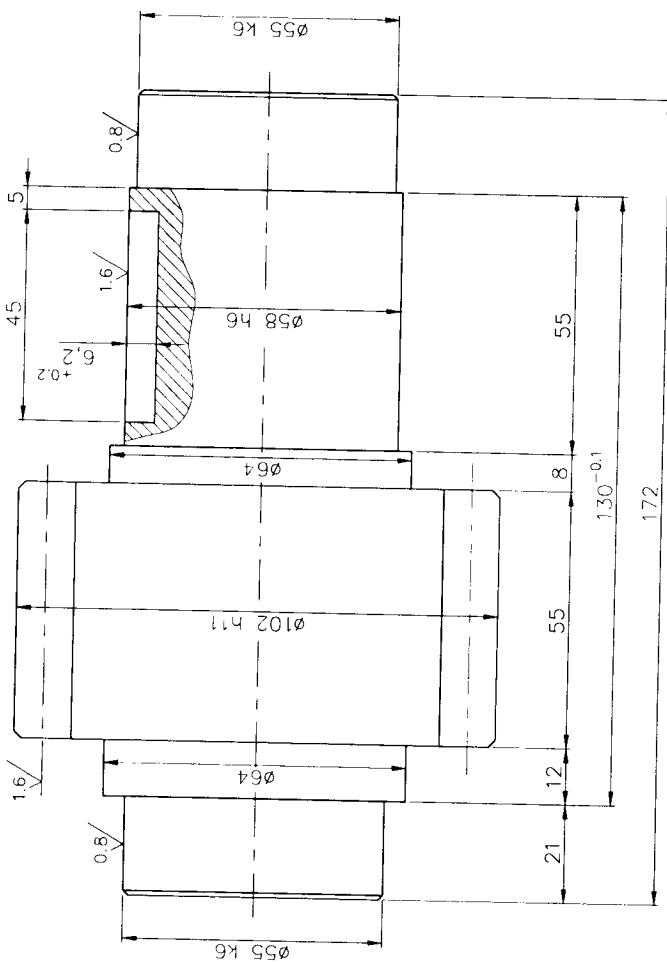
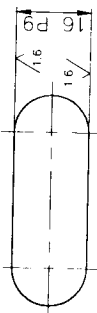
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A3-SIZE

ALL DIMENSIONS ARE IN MILLIMETRES

DRAWING NO: 3-M-02H23-15485

16 P9	-0.018	ø58 h6	-0.000
ø55 k6	-0.061	ø102 h11	-0.019
	+0.021		-0.000
	+0.002		-0.220



Sl. NO.	GEAR DATA
1	NO OF TEETH = 14
2	MODULE = 6
3	Pr. ANGLE = 20°
4	WIDTH A/C 2 TEETH = 27.74 -0.158 -0.210
5	CORRECTION FACTOR = +0.5
6	QLTY. ZONE & TOLERANCE = 9C DIN 3967
7	MATING GEAR NO OF TEETH = 46
8	MATING GEAR DRG. NO. = 3-M-02H23-15484
9	CENTRE DISTANCE = 180

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ITEM NO	ROD ø102 x 172L	ASME	5.80
DESCRIPTION		MATL CODE	1
		MATL SPEC	
DEPT	SEMIGANTRY CRANE / MEGA - 3T - 14M	DRAWING NO	
M&S CODE		UNIT WT	
DEPT CODE		QTY	

Bharat Heavy Electricals Ltd		NAME	SIGNATURE	DATE
HIGH PRESSURE BOILER PLANT		C.PONNUSAMY	G. Ponnusamy	17/08/15
TIRUCHIRAPALLI - 620014		C.GOVINDARAJ	G. Govindaraj	18/08/15
		G. THAGARAJAN	G. Thagarajan	19/08/15
SCALE	1:1	REF TO ASSY DWG NO		ITEM
WEIGHT (Kg)	5.80	REF TO OLD DWG NO		

REV	DATE	ALTERED	ZONE
		CHECKED	
		APPROVED	

TITLE	PINION SHAFT ø102 x 14T (LT GEAR BOX ASSY.)	
CARD CODE	U 01	REV
DRAWING NO :	3-M-02H23-15485	
		00

NOTE: EDGE CHAMFER TO BE CONSIDER 1x45° UNLESS OTHERWISE SPECIFIED

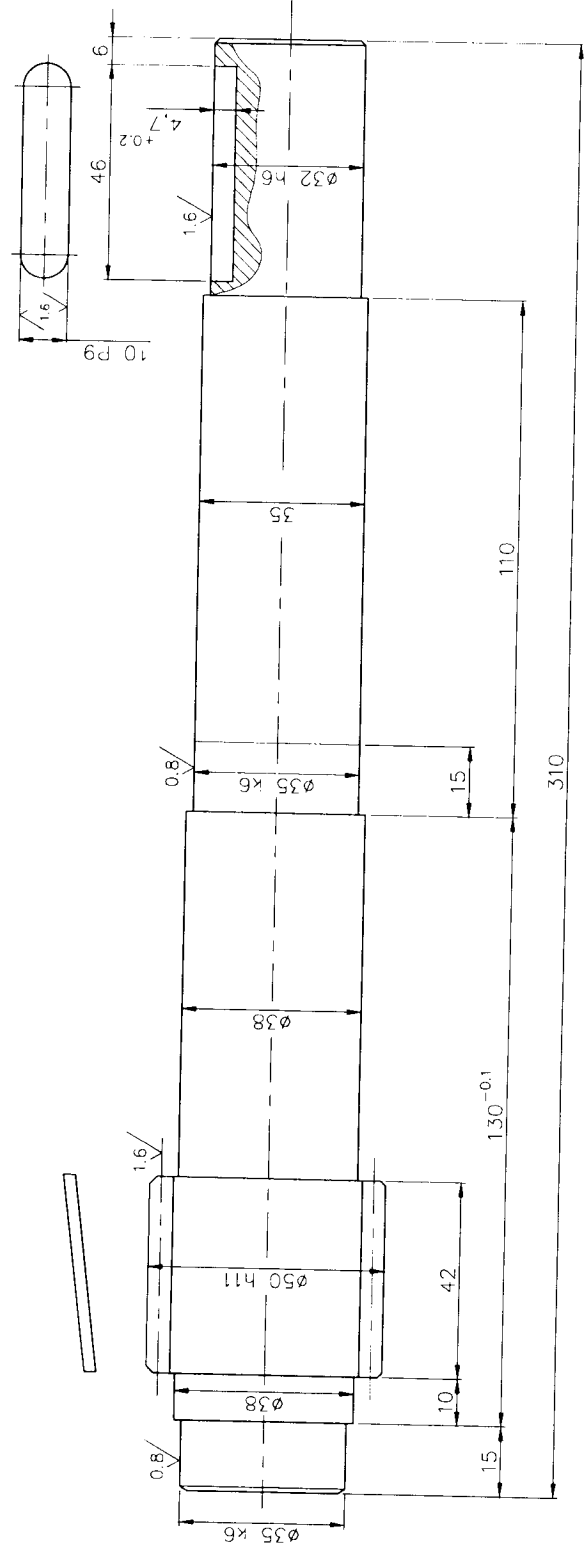
A3-SIZE

ALL DIMENSIONS ARE IN MILLIMETRES

DRAWING NO: 3-M-02H23-15486

$\phi 35 \text{ k6}$	$+0.018$	$+0.002$	10 P9	$-0.015$	$-0.051$	$\phi 50 \text{ h11}$	$-0.000$	$-0.160$	$\phi 32 \text{ h6}$	$-0.000$	$-0.016$
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3.2 / 1.6 / 0.8 /



Sl. NO.	GEAR DATA	
1	NO OF TEETH	= 17
2	MODULE	= 2.5
3	Pr. ANGLE	= 20°
4	HELIX ANGLE	= 5° 33' 36"
5	HAND OF THE HELIX	= LH
6	WIDTH A/C 3 TEETH	= 19.73 <small><math>-0.127</math> <math>-0.169</math></small>
7	CORRECTION FACTOR	= +0.39
8	QTY. ZONE & TOLERANCE	= 9C DIN 3967
9	MATING GEAR NO OF TEETH	= 54
10	MATING GEAR DRG. NO.	= 3-M-02H23-15487
11	CENTRE DISTANCE	= 88.75

- NOTE:
1. EDGE CHAMFER TO BE CONSIDER 1x45° UNLESS OTHERWISE SPECIFIED
  2. HARDNESS TO HRC 35 ±2

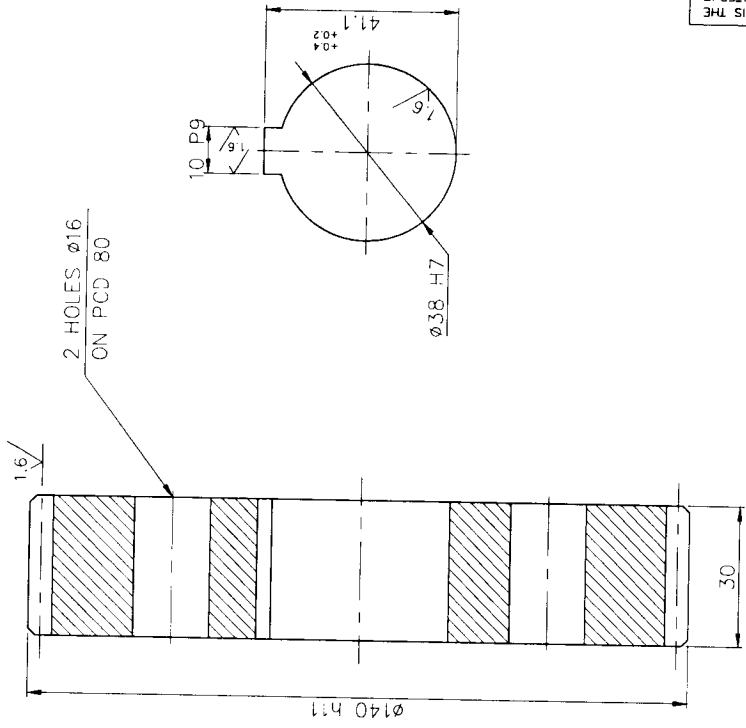
ITEM NO		DESCRIPTION		DRAWING NO		MATERIAL SPEC		ASME		UNIT WT	
-		ROD 50 x 310L				SA 105		1		2.70	
EQUIP: SEMICENTRICAL CRANE / MEGA - 3T - 14M											
Bharat Heavy Electricals Ltd											
HIGH PRESSURE BOILER PLANT											
TIRUCHIRAPALLI - 620014											
DEPT		M&S		SCALE		WEIGHT (Kg)		DATE		SIGNATURE	
2597		IS:2102		1:1		-		17/08/15		G. Ponnusamy	
REV		DATE		ALTERED		CHECKED		APPROVED		DATE	
ZONE										18/08/15	
<p>CAUTION: THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTERESTS OF THE COMPANY.</p>											
TITLE				HELVICAL SHAFT 50 x 17T				DRAWING NO :			
(LT GEAR BOX ASSY.)				U 01				3-M-02H23-15486			
REV				REV				REV			
00				00				00			

A3-SIZE

ALL DIMENSIONS ARE IN MILLIMETRES

10 P9	-0.015 -0.051	Ø140 h11	-0.000 -0.250	Ø38 H7	+0.025 +0.000
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DRAWING NO:  
**3-M-02H23-15487**



Sl. NO.	GEAR DATA	
1	NO OF TEETH	= 54
2	MODULE	= 2.5
3	Pr. ANGLE	= 20°
4	HELIX ANGLE	= 5° 33' 36"
5	HAND OF THE HELIX	= RH
6	WIDTH A/C 7 TEETH	= 49.32 <sup>+0.14</sup> <sub>-0.10</sub>
7	CORRECTION FACTOR	= -0.36
8	Q.LTY. ZONE & TOLERANCE	= 9C DIN 3967
9	MATING GEAR NO OF TEETH	= 17
10	MATING GEAR DRG. NO.	= 3-M-02H23-15486
11	CENTRE DISTANCE	= 88.75

NOTE:  
1. EDGE CHAMFER TO BE CONSIDER 1x45° UNLESS OTHERWISE SPECIFIED  
2. HARDNESS TO HRC 35 ±2

CAUTION: THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT	IS 5517	2.25
	OD140 x ID38 x 30L		55 C8	1		
EQUIP: SEMICENTRITY CRANE / MEGA - 3T - 14M		MATERIAL SPEC		QTY		
Bharat Heavy Electricals Ltd HIGH PRESSURE BOILER PLANT TIRUCHIRAPALLI - 620014		NAME	SIGNATURE	DATE		
		C. PONNUSAMY	<i>C. Ponnusamy</i>	17/08/15		
		G. GOVINDARAJ	<i>G. Govindaraj</i>	18/08/15		
		G. THIAGARAJAN	<i>G. Thiagarajan</i>	19/08/15		
DEPT	M&S	CODE	2597	REF TO ASSY DWG NO		
GRADE OF UNTO. DM	φ/M/f	IS:2102		REF TO OLD DWG NO		
SCALE	1:1	WEIGHT (kg)	2.25			
TITLE	HELICAL GEAR Ø140 x 54T (LT GEAR BOX ASSY.)		CARD CODE	U 01	REV 00	
DRAWING NO : 3-M-02H23-15487						

A3-SIZE

**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

**The Tender Opening Cell/MM**  
**Room No-26 , Building – 24 , Ground Floor**  
**Bharat Heavy Electrical Limited**  
**Tiruchirapalli- 620014 .**

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 <arunachal@bheltry.co.in >&< chells@bheltry.co.in>**

**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 F.O.R / Despatching station 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"



<b>Payment Term (Indigenous)</b>	
<b>If materials are receivable at Stores/Trichy <u>without PBG</u></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 <u>with PBG</u></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.	

Offers of indigenous Suppliers with any other Payment terms will be rejected.

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

The delivery of the goods specified in the purchase order should be made within the time prescribed. LD for delay in 'Supply' and/or 'E&C' will be applicable to the delays attributed to vendor. LD will be considered separately for 'Delivery' and 'E&C'. Where the seller supplies or dispatches the goods, beyond the delivery period Liquidated damages shall be applicable 0.5% of the total order value per week or part thereof subject to a maximum of 10% of the total order value.

**Material Despatched after Due date:** Once the delivery due date is crossed, bills have to be clubbed till final despatch and forwarded for processing of payment as a single bunch. LD percentage will be calculated from Delivery due date to final despatch date.

The rate of LD for delayed E&C shall be @ 0.5% per week of delay of total PO value (Supply + E&C) in E&C subject to a maximum of 10% of total PO value (Supply + E&C).

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).

For the purpose of Imposing LD, the FOB delivery (B/L date) shall be considered.

#### **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.

**Fraud prevention clause:** The bidder along with its associate/collaborator/sub-contractor/sub-vendor/consultants/service providers shall strictly adhere to BHEL fraud prevention policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice.

#### **NOTE:-**

1. If the due date of tender opening happens to be a holiday, the tenders will be opened on the next working day.
2. BHEL reserves the right to go for a reverse auction (RA) instead of opening the submitted sealed bid which will be decided after technical evaluation. Information and general terms and conditions covering RA are given in commercial terms and conditions.
3. Corrigendum if any, with respect to this tender will be hosted only in the website <http://www.bhel.com> or <http://tenders.gov.in>. You are requested to visit the website regularly for updates.

**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 M/S .....  
(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 on  
date..... as per MSMED Act 2006 is as follows:

1. **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.O.1722(E) dated October 5, 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

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

Date:

(Signature)

Name -

Membership number -

Seal of Chartered Accountant