

Annexure B

TECHNICAL DELIVERY CONDITION

SL No	ITEM DESCRIPTION	QTY (Nos)	VENDOR COMMENTS
1	Refurbishment Of Push Bench Rack Guide Below Ring Bed Segments As Per Annexure D	1	
2	Refurbishment Of Push Bench Rack Guide Wear Strips , Oil trough & Cover plates Below Ring Bed Segments & Exit frame As Per Annexure E	1	
3	Refurbishment Of Push Bench Rack Guide Wear Strips Below Fixed & Moving Covers As Per Annexure F	1	

ANNEXURE D/ SUPPLY, DISMANTLING AND ERECTION OF PUSH BENCH RACK GUIDE FRAME BELOW RING BED SEGMENTS

SL No	ITEM DESCRIPTION	SCOPE OF SUPPLY	VENDOR COMMENTS
1	Rack Bed Frame	1.1 Supply , dismantling and erection of subassemblies (General assy drawing :0-7-1127-05-10025) i)1-7-1127-05-01369 (Length - 3130 mm) - 1 No ii)2-7-1127-05-00967(Length - 3130 mm) - 1 No iii)2-7-1127-05-00968 (Length - 3720 mm) - 4 Nos iv) 2-7-1127-05-00969(Length - 4560 mm) - 2 Nos v) 2-7-1127-05-00970 (Length 4200 mm) - 2 Nos vi)2-7-1127-05-00971 (Length 4200 mm) - 2 Nos along with machined shims required for levelling of subassemblies . The following shall be adhered in manufacturing of beams i)Matching filler shall be E7018-1 and the hardness value shall be in the range of 200-275 HV ii) Welding Procedure & Specification (WPS) shall be submitted by vendor and approved by BHEL before manufacturing .The welder shall be qualified for above WPS. iii) Visual inspection & Liquid Penetrant Testing of weld joints shall be carried out . iii)Dimensions of above beams shall be verified with field dimensions before completion of final machining	
		1.2 Supply of Anchoring bed fasteners : Supply , dismantling and erection of fasteners M 42 x 160 mm as per IS1364 with 1 no of machined washer as per IS2016, 1 no of spring washer as per IS 3063 & 1 no of nut as per IS 1364 - 80 sets Grade : 10.9 Make TVS /Unbrako	
		1.3 Partition bed fasteners : Supply , dismantling and erection of fasteners M 36x 80 mm as per IS1364 with 1 no of machined washer as per IS2016, 1 no of spring washer as per IS 3063 & 1 no of nut as per IS 1364 - 70 sets Grade : 10.9 Make TVS /Unbrako	
		1.4 Centre Plates and with Locating pins: Supply , dismantling and erection of locating pins with plates part No . 32,34 & 45 as per Drg 0-7-1127-05-10025	

ANNEXURE E/ SUPPLY, DISMANTLING AND ERECTION OF PUSH BENCH RACK GUIDE WEAR STRIPS , COVER PLATE , OIL TROUGHS BELOW RING BED SEGMENTS & EXIT FRAME

SL No	ITEM DESCRIPTION	SCOPE OF SUPPLY	VENDOR COMMENTS
1	Oil Trough Assembly	Supply of oil troughs (General Assy Drawing : 0-7-1127-08-10028 Rev 00 & Part Drg : 3-7-1127-08-03133) i) Part No.21 - 1 No ii) Part No. 12 - 1 No iii) Part No.29 - 1 No Dismantling & Assembling of Oil troughs : i) Part No. 12 - 1 No ii)Part No.29 - 1 No ii) Part No. 43 - 7 Nos iii) Part No.37 - 1 No with pipeline of Dia 114.3 X 4.5 mm 15 metres (Pipeline will be provided by BHEL) Note : TIG welding shall be carried out for trough joints .Liquid Penetrant Test shall be carried out for all site weld joints.	

2	Bottom Wear Strips beneath Ring Bed	Supply , dismantling and erection of wear strips as per General Assy Drawing (0-7-1127-07-11122 Rev 00) i) 3-7-1127-07-03725 Rev 03 (Length -3000 mm , Position 15 to 23 on either sides) - 18 Nos ii)3-7-1127-07-10073 Rev 03 (Length - 2880 mm , Position 24 on either sides) - 2 Nos iii) Hex cap Screw fasteners (M20 x 40 mm as per IS 2269 , 10.9 grade - 220 Nos) & dowel pin (Dia 16 x 55 mm , 80 Nos)required for fixing wear strips	
3	SS plate with extension	Fabrication, Dismantling & erection of Cover plates as per General Assy Drg (1-7-1127-11-00667 Rev 00) i)Item No. 1 , Cover Plate as per Drg 3-7-1127-11-03135 - 1 No ii)Item No. 5 , Cover as per Drg 2-7-1127-11-00949 - 1 No iii)Item No .17, Strip as per Drg 4-7-1127-11-02110 - 1 No iii) Item No.18 , Strip as per Drg 4-7-1127-11-02111 - 7 Nos iv)Item No. 20 , Cover as per Drg 3-7-1127-11-03111 - 7 Nos NOTE : i) SS plates width shall be 1050 mm inplace of 820 mm to meet the site requirements . ii) For fabrication of above items - SS plate raw material will be in BHEL scope .	
		Supply , dismantling , erection of Gaskets & Fasteners as below i)Item No .32 , Gaskets as per Drg 4-7-1127-11-05966 - 1 No ii) Item No. 33 , Gaskets as per Drg 3-7-1127-11-04394 - 2 Nos iii)Item No. 34 , Gaskets as per Drg 3-7-1127-11-04395 - 16 Nos iv) Item No.35 , Gaskets as per Drg No 3-7-1127-11-04396 - 1 No v)Item No.36 , Gaskets as per Drg No 4-7-1127-11-05965 - 7 Nos vi) SS 304 grade Hex Head Screw M12 x 30 - 170 Nos ,Hex Soc Counter sunk head screw M12 x 30 - 40 Nos , Hex Soc Counter sunk head screw M12 x 20 - 40 Nos	
4	Water Trough	Dismantling and erection of water trough assy with drain boxes as per General Assy Drg 0-7-1127-09-10029 Rev 01 i) 1-7-1127-09-01256 Rev 02 - 2 Nos ii)1-7-1127-09-01257 Rev 02 - 1 No iii) 1-7-1127-09-01258 Rev 02 - 1 No iv)2-7-1127-09-01962 Rev 00 - 3 Nos v) 2-7-1127-09-01963 Rev 00 - 1 No vi)Supply of Hex Screw M 16 X 30 - 60 Nos , M16 X 35 - 40 Nos & M16 x 45 - 20 Nos along with 1 no plain & 1 no spring washer and 1 no nut for each screw	
5	Exit Top Frame	Supply , Dismantling and erection of Exit Support Frame : i) Supply , dismantling & erection of exit support frame I as per drg No . 0-7-1134-00-00090 Rev 01 - 1 nos (Part No.19 of Reference assy drawing : 0-7-1134-01-00089) ii) Supply , dismantling & erection of exit support frame I as per drg No . 0-7-1134-00-00315 Rev 01 - 1 nos (Part No.41 of Reference assy drawing : 0-7-1134-01-00089) iii) 7 Nos of roller conveyors , Part No. 50 - height adjustment mechanism (2 Nos) indicated in the assembly drawing shall be dismantled and erected back in the above exit support frames.	

ANNEXURE F/SUPPLY, DISMANTLING AND ERECTION OF WEAR STRIPS FOR PUSH BENCH RACK GUIDE BELOW FIXED & MOVING COVERS			
SL No	ITEM DESCRIPTION	SCOPE OF SUPPLY	VENDOR COMMENTS
1	Rack Guide Bottom Wear Strips (Fixed & Moving Covers area)	Supply , dismantling and erection of wear strips as per General Assy Drawing (0-7-1127-07-11122 Rev 00) i) 3-7-1127-07-00523 Rev 02 (Length -1745 mm , Position 1 on either sides) - 2 Nos ii)3-7-1127-07-03725 Rev 03 (Length -3000 mm , Position 02 to 12 & 14 on either sides) - 24 (22+ 2) Nos iii) Wear Strip - Profile as per 3-7-1127-07-03725 Rev 03 (Length - 2040 mm , Position 13 on either sides -) 2 Nos . iv) Hex Head cap Screw M20 X 40 mm /10.9 grade - 290 Nos , Dowel Pin Dia 16 X 55 mm - 110 Nos required for fixing wear strips	
2	Rack Guide Top wear strips (Fixed & Moving Covers area)	Supply , dismantling and erection of wear strips as per General Assy Drawing (0-7-1127-07-11122 Rev 00) i)3-7-1127-07-00522 Rev 02 (Length -3330 mm , Position 1 on either sides) - 2 Nos ii)3-7-1127-07-00535 Rev 02 (Length -4700 mm , Position 2 to 6 on either sides) - 10Nos iii) 3-7-1127-07-00536 Rev 02 (Length -3930 mm , Position 7 on either sides) - 2 Nos iv) 3-7-1127-07-00537 Rev 02 (Length -4120 mm , Position 8 on either sides) - 2 Nos v)Hex Head cap Screw M 24 x 70 mm /10.9 grade -190 Nos with 1 no plain and 1 no spring washer required for fixing wear strips	

3	Oil Trough Assembly	Supply of Oil trough as per General Assy Drawing : 0-7-1127-08-10028 Rev 00 & Part Drg : 3-7-1127-08-03133 : i) Part No.21 - 1 No ii) Part No.43 - 5 Nos Dismantling & Assembling of Oil troughs : i) Part No. 21 - 1 No ii) Part No. 43 - 5 Nos with pipeline of Dia 114.3 X 4.5 mm 15 metres (Pipeline will be provided by BHEL) . Note : TIG welding shall be carried out for trough joints .Liquid Penetrant Test shall be carried out for all site weld joints .	
GENERAL TECHNICAL REQUIREMENTS FOR ANNEXURES D,E & F :			VENDOR COMMENTS
1		Horizontal & vertical axis of all sub assemblies wrt to reference line shall be established with assistance of total station levelling instrument .	
2		All fasteners above M24 size shall be tightened with hydraulic torque wrench .	
3		All structural material to be shot blasted and painted with Zinc Silicate Primer -1 coat as base layer , Mistious Iron Oxide - 1 coat as mid layer & Opaline Green/ Black Epoxy Coating - 1 coat as final layer .	
BHEL SCOPE			VENDOR COMMENTS
1		i) EOT crane of 10 MT capacity , Pneumatic Air Supply @ 6 bar , Electric Power Supply 230 V -3 Phase , Cutting gas & Inert Gas for TIG welding only will be provided by BHEL . ii)Ring bed segments , Fixed and moving covers will be dismantled by BHEL for approaching the assemblies as mentioned in Annexure D & E . iii)Other facilities required for above scope shall be arranged by vendor.	
DOCUMENTS TO BE SUBMITTED			VENDOR COMMENTS
1		Before Manufacturing : i)Welding Procedure & Specifications for items in SL No. 1 of Annexure D ii)Welder qualification documents for the above WPS	
2		Before Dispatch: i)Test Certificate on material chemistry from NABL laboratory shall be provided for items in SI No.1 of Annexure D ii)Liquid Penetrant Test Report and visual inspection report of all weld joints for items in SL No.1 of Annexure D , E &F iii) Dimensional inspection report of all items in Annexure D,E&F iv) Test Certificate on material chemsitry & hardness from NABL laboratory shall be provided for all wear strips in Annexure E & F	