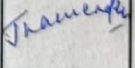
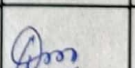
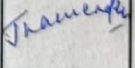
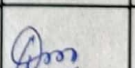
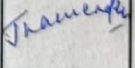
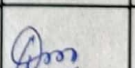
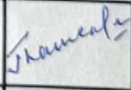
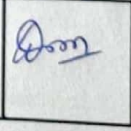
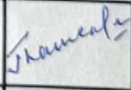
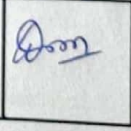
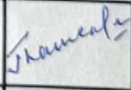
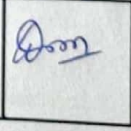


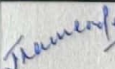
दिनांक एवं हस्ताक्षर SIGN & DATE		PRODUCT STANDARD HEAT EXCHANGER ENGINEERING	HE 57075																																																
SUPERSEDES INVENTORY NO.	पृष्ठ 13 का 1 Page 1 of 13																																																		
TURBINE OIL COOLER (Plate Type Heat Exchanger)																																																			
COPYRIGHT AND CONFIDENTIAL 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	1.0 Objective: This standard is prepared to purchase turbine oil cooler (Plate Type Heat exchanger) The nozzle location of same fluid shall be parallel i.e. the inlet and outlet of turbine oil shall be on the same vertical line. (refer sketch 01 & 02).																																																		
स्वत्वाधिकार एवं गोपनीय इस दस्तावेज में दी गई सूचना भारत हेवी इलेक्ट्रिकल्स लिमिटेड की सम्पत्ति है, इसका प्रयोग एवं प्रकाशन के बिना कम्पनी के हित में हानिकारक हो न सके।	2.0 Scope of supply: 2.1 Plate Type Heat Exchanger complete with following accessories and auxiliaries. (i) Suitable drain and vent connections on both stream side (Turbine oil) and secondary (DM water) with isolation valves. (ii) Supporting arrangement complete with foundation plate channels, anchor bolts, nuts, sleeves, inserts etc. (iii) Lifting arrangement complete with lifting lugs, eye bolts etc. (iv) Other accessories as required to make PHE's complete in all respects. (v) 1 set of gasket as deemed fit with commissioning spares, if any. (vi) Matching piece (reducer/expander) with coatings (as required) to match the PHE nozzle connection with connecting pipe size as indicated in data sheet. (vii) Mandatory spares as applicable for each projects. 2.2 Finish paints in sealed containers for touch up of equipment after erection at Site 2.3 Equipment GA drawings, datasheets, test reports/certificates, instruction manuals for erection operation and maintenance etc.																																																		
दिनांक एवं हस्ताक्षर SIGN & DATE	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> </tr> <tr> <td style="text-align: center;">QAX</td> <td style="text-align: center;">Manindra kn</td> <td style="text-align: center;">[Signature]</td> <td style="text-align: center;">DRAWN</td> <td style="text-align: center;">[Signature]</td> <td style="text-align: center;">[Signature]</td> </tr> <tr> <td style="text-align: center;">TSX</td> <td style="text-align: center;">[Signature]</td> <td style="text-align: center;">[Signature]</td> <td style="text-align: center;">WORKED</td> <td style="text-align: center;">JHAMENDER KUMAR</td> <td style="text-align: center;">[Signature]</td> </tr> <tr> <td style="text-align: center;">महामत विभाग AGREED DEPTT.</td> <td style="text-align: center;">नाम NAME</td> <td style="text-align: center;">दिनांक एवं हस्ताक्षर DATE & SIGNATURE</td> <td style="text-align: center;">CHECKED</td> <td style="text-align: center;">D K YADAV</td> <td style="text-align: center;">[Signature]</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">SUPERVISED BY</td> <td style="text-align: center;">D K YADAV</td> <td style="text-align: center;">[Signature]</td> </tr> <tr> <td colspan="3"></td> <td colspan="3" style="text-align: center;"> स्वीकृति APPROVED: NAVEEN PRAKASH, AGM (HXE) </td> </tr> <tr> <td style="text-align: center;">REV. NO. 00</td> <td></td> <td></td> <td colspan="3" style="text-align: center;">[Signature]</td> </tr> <tr> <td style="text-align: center;">DL 20-12-21</td> <td></td> <td></td> <td style="text-align: center;">निर्माण PREPARED: HXE</td> <td style="text-align: center;">जारी ISSUED: TSX</td> <td style="text-align: center;">दिनांक DATE:</td> </tr> </table>									QAX	Manindra kn	[Signature]	DRAWN	[Signature]	[Signature]	TSX	[Signature]	[Signature]	WORKED	JHAMENDER KUMAR	[Signature]	महामत विभाग AGREED DEPTT.	नाम NAME	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	CHECKED	D K YADAV	[Signature]				SUPERVISED BY	D K YADAV	[Signature]				स्वीकृति APPROVED: NAVEEN PRAKASH, AGM (HXE)			REV. NO. 00			[Signature]			DL 20-12-21			निर्माण PREPARED: HXE	जारी ISSUED: TSX	दिनांक DATE:
QAX	Manindra kn	[Signature]	DRAWN	[Signature]	[Signature]																																														
TSX	[Signature]	[Signature]	WORKED	JHAMENDER KUMAR	[Signature]																																														
महामत विभाग AGREED DEPTT.	नाम NAME	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	CHECKED	D K YADAV	[Signature]																																														
			SUPERVISED BY	D K YADAV	[Signature]																																														
			स्वीकृति APPROVED: NAVEEN PRAKASH, AGM (HXE)																																																
REV. NO. 00			[Signature]																																																
DL 20-12-21			निर्माण PREPARED: HXE	जारी ISSUED: TSX	दिनांक DATE:																																														

SIGNATURE & DATE SIGN & DATE		PRODUCT STANDARD HEAT EXCHANGER ENGINEERING		HE 57075	
				पृष्ठ 13 का 4 Page 4 of 13	
SUPERSEDES INVENTORY NO.	नामकी सूची संख्या की अधिकतम संख्या है	Frame for each of heat exchanger shall have extra capacity to accommodate the additional plates. The upper carrying bar and lower guide bar shall be rigid in construction without any risk of sagging or buckling and shall facilitate easy guiding of the plates. The nozzle sizes of primary/secondary streams of PHE's shall be of adequate size within acceptable range of velocity. The size selection shall be subject to approval in the event of order If necessary, relief valves shall be provided on both the streams. 5.3 Technical Data Material plates and connection : ASTM A240TYPE as per enquiry Material gasket : Neoprene, Non-glued Data Sheet : <i>AS PER PROJECT SPECIFIC DESIGN INPUT</i>			
COPYRIGHT AND CONFIDENTIAL 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		स्वत्वाधिकार एवं गोपनीय इस दस्तावेज में दी गई जानकारी भारत भारती लिमिटेड की सम्पत्ति है इसका प्रयोग एवं प्रकाशक रूप में किसी भी तरह प्रयोग को कि कंपनी के हित में हानिकारक हो न किता जाय।			
SIGNATURE & DATE SIGN & DATE	REV. NO: .00				
INVENTORY NO.	नामकी सूची संख्या INVENTORY NO.	निर्माणकर्ता WORKED BY	JHAMENDER KUMAR	<i>Jhamender</i>	20.12.21
		जांचकर्ता CHECKED BY	D K YADAV	<i>DK</i>	20.12.21

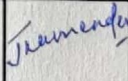
दिनांक एवं हस्ताक्षर SIGN & DATE			PRODUCT STANDARD HEAT EXCHANGER ENGINEERING		HE 57075 पृष्ठ 13 का 5 Page 5 of 13						
मासगी सूची संख्या INVENTORY NO.		SUPERSEDES INVENTORY NO.	6.0 Quality Assurance, Inspection and Testing 6.1 The Manufacturer shall conduct all tests required to ensure that all the major component of the cooler offered confirm to the requirements of the specification and is in compliance with requirements of applicable codes and standards. 6.2 The bidder shall submit quality plan along with his offer. 6.3 The particular of proposed shop tests and procedures for the test shall be Submitted to BHEL/owner for approval along with quality plan. 6.4 The minimum tests /checks to be carried out on the cooler as envisaged by BHEL are given below. This is however not intended to form a comprehensive testing program, as it is supplier responsibility to prepare the detailed quality plan, which also include tests/checks carried out by supplier as a part of his normal practice. This quality plan is subject to the approval of BHEL /owner and BHEL/owner reserve to right to ask for any more checks at the time of quality plan finalization. 6.4.1 Testing of material: The material of major component shall be tested as per relevant specification for its chemical composition and mechanical properties viz. Y.S, UTS, Impact, % age elongation. Suitable NDT to ensure freedom from surface and subsurface defect shall be carried out. Plate material used for pressing shall be furnished with mill test report showing chemical and physical properties and heat treatment records. The following tests shall be carried out during various stages of manufacturing at Manufacturer's works. 6.4.1.1 All the component parts of the cooler including assembly shall be subjected to dimensional and visual inspection. After pressing visual and dimensional checks on the plates shall be made in the presence of BHEL's inspector, on sampling basis.								
COPYRIGHT AND CONFIDENTIAL 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											
स्वत्वधिकार एवं गोपनीय यस प्रत्येक में बी.एल. भारत भारती एल.एल.सी. लिमिटेड की संपत्ति है। इसका प्रयोग एवं प्रसारण के बिना बी.एल. भारत भारती एल.एल.सी. लिमिटेड की अनुमति के बिना न किया जाय।											
दिनांक एवं हस्ताक्षर SIGN & DATE											
मासगी सूची संख्या INVENTORY NO.		REV. NO: .00		निर्माणकर्ता WORKED BY जांचकर्ता CHECKED BY	<table border="1"> <tr> <td>JHAMENDER KUMAR</td> <td><i>Jhamender</i></td> <td>20.12.21</td> </tr> <tr> <td>D K YADAV</td> <td><i>Dk</i></td> <td>20.12.21</td> </tr> </table>	JHAMENDER KUMAR	<i>Jhamender</i>	20.12.21	D K YADAV	<i>Dk</i>	20.12.21
JHAMENDER KUMAR	<i>Jhamender</i>	20.12.21									
D K YADAV	<i>Dk</i>	20.12.21									

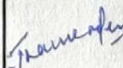
दिनांक एवं हस्ताक्षर SIGN & DATE	 PRODUCT STANDARD HEAT EXCHANGER ENGINEERING HE 57075 पृष्ठ 13 का 6 Page 6 of 13											
सामग्री सूची संख्या INVENTORY NO.	SUPERSEDES INVENTORY NO.											
COPYRIGHT AND CONFIDENTIAL The information on this document is the property of Bharat Heavy Electricals Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company.	6.4.1.2 Heat transfer plates shall be subjected to light box test/ vacuum test as per agreed procedure. 6.4.1.3 Fillet welds shall be subjected to 100% DPT as per ASME Section VIII. Butt welds if any shall be subjected to 10% RT as per ASME Section VIII. 6.4.1.4 Hydraulic test for PHE's shall be performed at 1.5 times the design pressure with 30 minutes holding time for each side. No leak is permitted. The pressing of HT plates shall be carried out in one operation. 100% PMI inspection for material grade of PHE heat transfer plates from BHEL nominated third party and certificate shall be submitted for review of BHEL. BHEL reserves the right to conduct random and independent PMI inspection on PHE'S heat transfer plates to ascertain the plate material. 6.5 Bidder shall furnish the procedure for white light scanning method during detailed engineering viz. after award of contract which shall be subjected to BHEL/ customer approval. Inspection of plate area measurement for one heat transfer plate per PHE by white light scanning shall be from BHEL nominated third party, same shall also be witnessed by BHEL. No type test certificates are acceptable to BHEL for same.											
स्वत्वाधिकार एवं गोपनीयता इस दस्तावेज में दी गई सूचना भारत हेवी इलेक्ट्रिकल्स लिमिटेड की संपत्ति है। इसका प्रयोग एवं प्रसारण के बिना या इस दस्तावेज के बिना किसी भी तरह से प्रयोग, जो कि स्वतंत्रता के हित में हानिकारक हो सके, किया जाये।												
दिनांक एवं हस्ताक्षर SIGN & DATE												
सामग्री सूची संख्या INVENTORY NO.	<table border="1" style="width: 100%;"> <tr> <td data-bbox="165 1957 333 2002" rowspan="2">REV. NO: .00</td> <td data-bbox="389 1868 836 1935"></td> <td data-bbox="836 1868 1003 1935">निर्माणकर्ता WORKED BY</td> <td data-bbox="1003 1868 1227 1935">JHAMENDER KUMAR</td> <td data-bbox="1227 1868 1362 1935"></td> <td data-bbox="1362 1868 1498 1935">20.12.27</td> </tr> <tr> <td data-bbox="389 1935 836 2002"></td> <td data-bbox="836 1935 1003 2002">जांचकर्ता CHECKED BY</td> <td data-bbox="1003 1935 1227 2002">D K YADAV</td> <td data-bbox="1227 1935 1362 2002"></td> <td data-bbox="1362 1935 1498 2002">20.12.21</td> </tr> </table>	REV. NO: .00		निर्माणकर्ता WORKED BY	JHAMENDER KUMAR		20.12.27		जांचकर्ता CHECKED BY	D K YADAV		20.12.21
REV. NO: .00			निर्माणकर्ता WORKED BY	JHAMENDER KUMAR		20.12.27						
		जांचकर्ता CHECKED BY	D K YADAV		20.12.21							

दिनांक एवं हस्ताक्षर SIGN & DATE			PRODUCT STANDARD HEAT EXCHANGER ENGINEERING		HE 57075							
सामग्री सूची संख्या INVENTORY NO			Bidder to note that heat transfer area measured by white light scanning during contract stage should not have negative tolerance more than 3% w.r.t to the heat transfer area indicated by bidder against the offered mode of PHE. However, in the case of negative tolerance (limited to maximum 3%). Bidder has to provide additional plates proportionately, as free issue assembled into all the applicable PHE'S before the final inspection and as built certificate shall be issued by the bidder accordingly. Bidder to note that negative tolerance beyond three percent shall not be accepted.	पृष्ठ 13 का 7 Page 7 of 13								
COPYRIGHT AND CONFIDENTIAL 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			6.6 The heat transfer plates from each lot of the plates shall be tested by liquid/dye penetrant test in order to check for cracks and other surface defects in presence BHEL/BHEL nominated third party If any defect is detected in any of these plates, the whole lot shall be tested and plates without defects only shall be accepted. Plate cleaning agent, liquid penetrant and developer shall not contain any halogen. 6.7 The heat transfer plates shall be tested by light box in order to check for cracks and other surface defects in presence of BHEL/BHEL nominated Third party. The plates without defects only shall be accepted.									
स्वत्वाधिकार एवं गोपनीय इस प्रलेख में दी गई सूचना भारत के विद्युत विनिर्माण निगम की संपत्ति है इसका प्रयोग एवं अवलोकन केवल से निगम के अधिकारियों के द्वारा ही किया जा सकता है।			Gaskets: Certificate on chemical composition of the gasket material shall be furnished to prove the quality sample testing in presence of BHEL's inspector, if desired. Shore hardness test shall be conducted on the gasket and certificate shall be furnished. Visual and dimensional check on a sampling basis shall be done. Plates and gaskets assembled together will be inspected for proper assembly. Frame assembly: All materials for various components of frame assembly viz. frame plate, pressure plate, carrying bar, guide bar, tightening/clamping bolts and nuts etc. shall be tested quality and test certificates for chemical composition and physical properties shall be furnished									
दिनांक एवं हस्ताक्षर SIGN & DATE												
सामग्री सूची संख्या INVENTORY NO.	REV, NO: ,00		<table border="1"> <tr> <td data-bbox="352 1877 847 1966">निर्माणकर्ता WORKED BY</td> <td data-bbox="847 1877 1201 1966">JHAMENDER KUMAR</td> <td data-bbox="1201 1877 1361 1966">  </td> <td data-bbox="1361 1877 1493 1966">20.12.21</td> </tr> <tr> <td data-bbox="352 1966 847 2096">जांचकर्ता CHECKED BY</td> <td data-bbox="847 1966 1201 2096">D K YADAV</td> <td data-bbox="1201 1966 1361 2096">  </td> <td data-bbox="1361 1966 1493 2096">20.12.21</td> </tr> </table>	निर्माणकर्ता WORKED BY	JHAMENDER KUMAR		20.12.21	जांचकर्ता CHECKED BY	D K YADAV		20.12.21	
निर्माणकर्ता WORKED BY	JHAMENDER KUMAR		20.12.21									
जांचकर्ता CHECKED BY	D K YADAV		20.12.21									

दिनांक एवं हस्ताक्षर SIGN & DATE			PRODUCT STANDARD HEAT EXCHANGER ENGINEERING		HE 57075
सामग्री सूची संख्या INVENTORY NO.		SUPERSEDES INVENTORY NO.	If the thickness of the plates used for frame and pressure plates is 40mm or more the same shall be checked ultrasonically to demonstrate the absence of lamination and lack of fusion etc. All weld joints used for fabrication of heat exchangers shall be subjected to suitable nondestructive examination. This shall include 100% magnetic particle examination or other suitable NDT of all welds.		
COPYRIGHT AND CONFIDENTIAL 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.		7.0 <u>INSPECTION</u>	The cooler shall be inspected by BHEL/CUSTOMER representative at the supplier works and stamped with BHEL/CUSTOMER QC seal.		
स्वत्वधिकार एवं गोपनीय इस दस्तावेज में दी गई सूचना भारत हेवी इलेक्ट्रिकल्स लिमिटेड की संपत्ति है। इसका प्रयोग एवं प्रसारण केवल ही उसी उद्देश्य के लिए किया जा सकता है जो कि दस्तावेज में निर्दिष्ट है। अन्यथा इसका प्रयोग अवैध है।		8.0 <u>TESTS AND GUARANTEE CERTIFICATES</u>	Five copies of the following certificates shall be furnished for each cooler along with the supply. a) Hydro test certificates including hydraulic test result as per clause 6.0 above. b) Material test certificates of body sealing, pipe and all other major component. This shall include chemical composition, mechanical properties etc. c) Dimensional report and NDT reports. d) The supplier shall guarantee the satisfactory operation of the cooler for a period of 18 month of operation after commissioning or 36 month of date of supply whichever is later.		
दिनांक एवं हस्ताक्षर SIGN & DATE					
सामग्री सूची संख्या INVENTORY NO.		REV. NO: .00		निर्माणकर्ता WORKED BY JHAMENDER KUMAR	 20.12.21
				जांचकर्ता CHECKED BY D K YADAV	 20.12.21

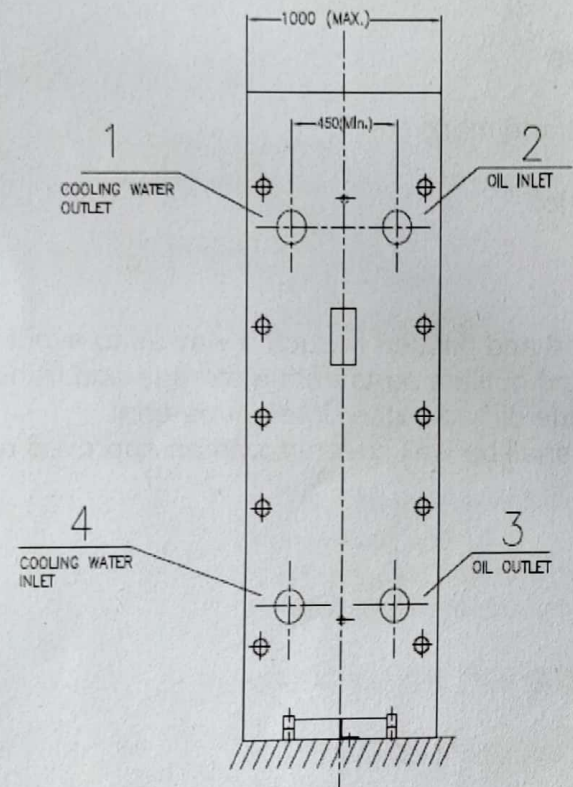
दिनांक एवं हस्ताक्षर SIGN & DATE			PRODUCT STANDARD HEAT EXCHANGER ENGINEERING		HE 57075				
सामग्री सूची संख्या को संश्लेषित करता है SUPERSEDES INVENTORY NO		9.0 <u>SUPPLY OF TECHNICAL DOCUMENTATION</u> 9.1 The following documents shall be submitted along with quotation for technical scrutiny in 2 copies each a) Catalogue and detailed literature including cross-sectional and assembly drawing of the cooler stating all necessary dimensions, design and test Pressure details, material details of all component parts etc. b) Calculation for cooler sizing. Technical data like element capacity, total number of plates, heat exchanger area, cooling water flow rate, cooling water pressure drop, cooling water outlet temperature, oil pressure drop etc shall be furnished. c) O & M manual of the cooler giving complete description installation, operation, maintenance feature including trouble shooting. d) List of recommended spares along with item wise price. The tenderer shall submit during contract stage a curve showing expected Turbine Oil (primary side) temperature at heat exchanger outlet for each one-degree centigrade variation in DM water (secondary stage) temperature, all other parameters remaining unchanged. Similar curve for expected Oil temperature outlet temperature for variation of DM water flow rate with DM water inlet temperature remaining unaltered shall also be furnished. The bidder shall also furnish various curves to enable apply corrections during site PG testing in the event of any data variation from the stipulated design parameters Bidder shall also furnish thermal design calculations at contract stage to justify the no. of plates offered.							
COPYRIGHT AND CONFIDENTIAL 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									
स्वत्वाधिकार एवं गोपनीयता इस दस्तावेज में दी गई सूचना भारत हेवी एलेक्ट्रिकल्स लिमिटेड की सम्पत्ति है, इसका प्रयोग एवं प्रकाशन अन्य से किसी भी तरह प्रयोग जो कि सम्पत्ती के हित में हानिकारक हो सकेगा, नहीं किया जायेगा।									
दिनांक एवं हस्ताक्षर SIGN & DATE									
सामग्री सूची संख्या INVENTORY NO.	REV. NO: .00		निर्माणकर्ता WORKED BY	JHAMENDER KUMAR	<i>Jhamender</i> 20.12.21				
			जांचकर्ता CHECKED BY	D K YADAV	<i>DKY</i> 20.12.21				

दिनांक एवं हस्ताक्षर SIGN & DATE		PRODUCT STANDARD HEAT EXCHANGER ENGINEERING		HE 57075	
				पृष्ठ 13 का 10 Page 10 of 13	
मासिकी सूची संख्या को INVENTORY NO.	SUPERSEDES INVENTORY NO.	9.2 10 copies of Operation & Maintenance Manual of the Cooler giving complete description, installation operation and maintenance features including trouble shooting, conservation list of spares etc. and assembly drawing of the cooler. This shall be in bound form and shall be supplied with in four weeks' after placement of order.			
COPYRIGHT AND CONFIDENTIAL 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		10.0 PAINTING Unless otherwise specified the cooler shall be painted as per supplier's standard. Total paint thickness shall be between 120-150 micron.			
स्वत्वाधिकार एवं गोपनीय इस दस्तावेज में दी गई सूचना भारत भारती एलेक्ट्रिकल्स लिमिटेड की संपत्ति है। इसका प्रयोग एवं प्रसारण अन्य से किसी भी तर्क प्रयोग को बिना अनुमति के हानिकारक हो न किताब करता।		11.0 MARKING 11.1 BODY MARKING The following markings shall be integral with the body. a) Manufacturer's name or trade mark. b) Design heat load c) Design pressure (NP) d) Nominal flow e) Inlet/ outlet marking for primary & secondary flows. f) Body material designation.			
दिनांक एवं हस्ताक्षर SIGN & DATE		11.2 MARKING ON THE NAME PLATE A nameplate giving the following detail shall be suitably fixed to the cooler. a) Manufacturer's name or trade mark b) SI. No. of cooler c) Year of manufacture d) Material specification of body e) Nominal flow f) Nominal pressure g) No. of element h) B.H.E.L material code no.			
मासिकी सूची संख्या INVENTORY NO.	REV. NO.: 00	निर्माणकर्ता WORKED BY	JHAMENDER KUMAR		20.12.21
		जांचकर्ता CHECKED BY	D K YADAV		20.12.21

दिनांक एवं हस्ताक्षर SIGN & DATE		PRODUCT STANDARD HEAT EXCHANGER ENGINEERING		HE 57075	
				पृष्ठ 13 का 11 Page 11 of 13	
सामग्री सूची संख्या को SUPERSEDES INVENTORY NO.					
11.3 A tag bearing the material code of BHEL shall be attached to each cooler. 11.4 Marking of the packing case a) Manufacturer's name or trade mark b) B.H.E.L order No. c) BHEL product standard No. 12.0 PACKING Each cooler shall be drained, cleaned and packed in such a way as to avoid the possibility of damage to inside and outside parts during storage and transit. Opening should be covered to exclude dirt and other foreign material. Threaded and mechanical surfaces shall be well covered with an approved rust preventive material					
COPYRIGHT AND CONFIDENTIAL 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					
स्वत्वाधिकार एवं गोपनीय इस प्रलेख में दी गई सूचना भारत भारती एलेक्ट्रिकल्स लिमिटेड की संपत्ति है, इसका प्रयुक्त एवं प्रसारण अन्य से किसी भी तरह प्रयोग, जो कि संपत्ति के हित में हानिकारक हो न सके।					
दिनांक एवं हस्ताक्षर SIGN & DATE					
सामग्री सूची संख्या INVENTORY NO.	REV. NO: .00	निर्माणकर्ता WORKED BY	JHAMENDER KUMAR		20.12.21
		जांचकर्ता CHECKED BY	D K YADAV		20.12.21

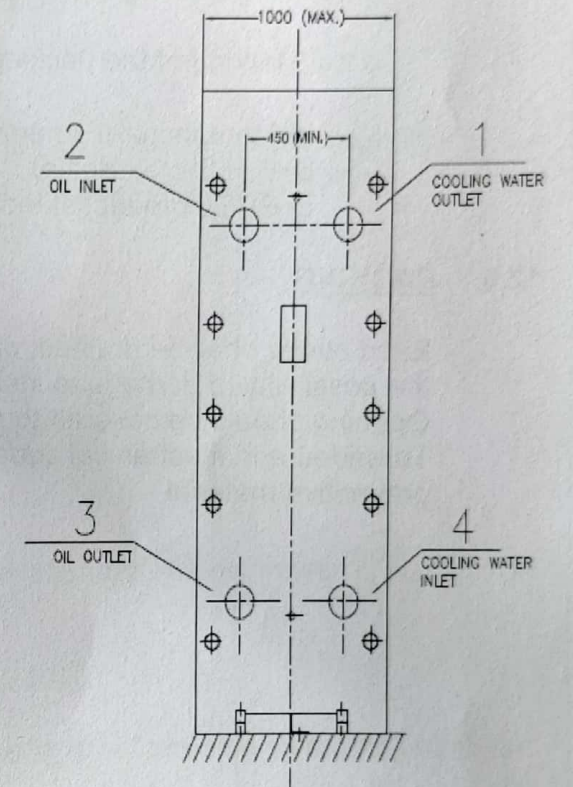
view-A

OIL COOLER LEFT



VAR 00

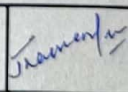
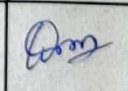
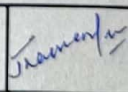
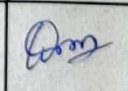
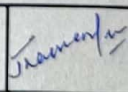
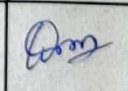
OIL COOLER RIGHT

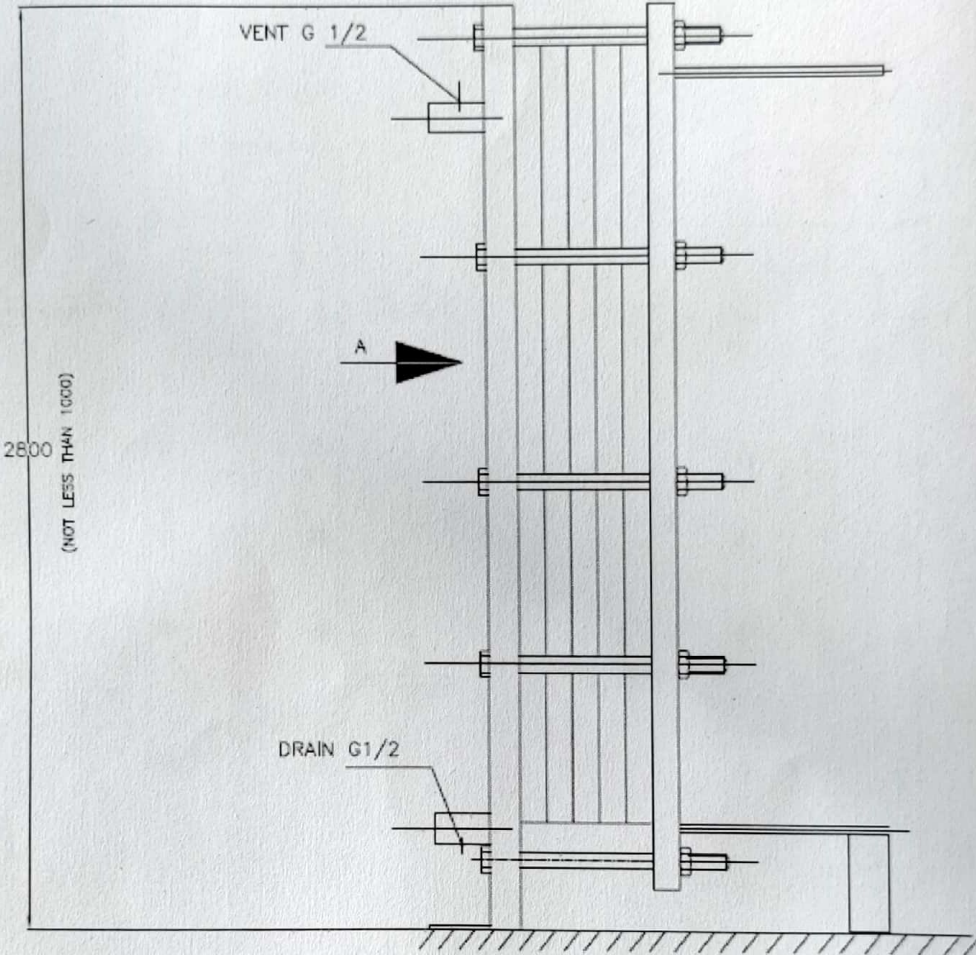
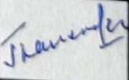


VAR 01

SKETCH -01

Dimensions shown in sketch 1 are of Indicative nature only

दिनांक एवं हस्ताक्षर SIGN & DATE		स्वत्वधिकार एवं गोपनीय इस प्रलेख में दी गई सूचना भारत हेवी एलेक्ट्रिकल्स लिमिटेड की सम्पत्ति है इसका प्रयोग एवं प्रसारण अन्य से किसी भी तरह प्रयोग की बिना से हानिकारक हो न किता भारत									
सामग्री सूची संख्या INVENTORY NO.	REV. NO: 00		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">निर्माणकर्ता WORKED BY</td> <td style="width: 25%;">JHAMENDER KUMAR</td> <td style="width: 15%; text-align: center;">  </td> <td style="width: 45%; text-align: center;">20.12.21</td> </tr> <tr> <td>जांचकर्ता CHECKED BY</td> <td>D K YADAV</td> <td style="text-align: center;">  </td> <td style="text-align: center;">20.12.21</td> </tr> </table>	निर्माणकर्ता WORKED BY	JHAMENDER KUMAR		20.12.21	जांचकर्ता CHECKED BY	D K YADAV		20.12.21
निर्माणकर्ता WORKED BY	JHAMENDER KUMAR		20.12.21								
जांचकर्ता CHECKED BY	D K YADAV		20.12.21								

साक्षर एवं हस्ताक्षर SIGN & DATE			PRODUCT STANDARD HEAT EXCHANGER ENGINEERING		HE 57075 पृष्ठ 13 का 13 Page 13 of 13	
साक्षर एवं हस्ताक्षर SIGN & DATE		SUPERSEDES INVENTORY				
साक्षर एवं हस्ताक्षर SIGN & DATE		COPYRIGHT AND CONFIDENTIAL 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				
साक्षर एवं हस्ताक्षर SIGN & DATE		स्वत्वाधिकार एवं गोपनीय इस दस्तावेज में दी गई सूचना भारत भारती एलेक्ट्रिकल्स लिमिटेड की सम्पत्ति है, इसका प्रत्यक्ष एवं अप्रत्यक्ष रूप से किसी भी तरह प्रयोग, जो कि कंपनी के हित में हानिकारक हो न सके।	SKETCH - 02 Dimensions shown are of indicativie nature only			
साक्षर एवं हस्ताक्षर SIGN & DATE		REV. NO: .00		निर्माणकर्ता WORKED BY	JHAMENDER KUMAR	 20.12.21
साक्षर एवं हस्ताक्षर SIGN & DATE				जांचकर्ता CHECKED BY	D K YADAV	 20.12.21