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OIL INDIA LIMITED

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Tender No. & Date : KID7120P08/03 07.11.2007

Tender Fee : INR 1,000.00
 Bid Security Amount : INR 60,000.00

Bidding Type : Single Bid (Composite Bid)

Bid Closing On : 11.01.2008 at 13:00 hrs. (IST)
 Bid Opening On : 11.01.2008 at 13:00 hrs. (IST)

Performance Guarantee : Applicable

OIL INDIA LIMITED invites Press tenders for items detailed below:

Item No./ Mat. Code	Material Description	Quantity	UOM
10 99029667	<p>REPLACEMENT OF COOLER SECTIONS FOR AERIAL COOLERS FOR ATLAS COPCO GAS COMPRESSOR :</p> <p>Replacement of Engine Jacket Water (EJW) & Compressor Cooling Water (CCW) including additional area as per following specifications :</p> <p>Retrofit replacement cooler sections with enhanced cooling capacity for Aerial Coolers of Atlas Copco Gas Compressors packages.</p> <p>Description of the existing Aerial Cooler for GAS BOOSTER COMPRESSOR :</p> <p>a) Make : Air - X- Changer, USA; Model- 60 F5</p> <p>b) The Aerial cooler have following four cooling sections-</p> <ul style="list-style-type: none"> - Gas Inter Cooler Section(After 1st stage compression) - Gas After Cooler Section (After 2nd stage compression) - Compressor Jacket Water Cooling Section (CCW) and - Engine Jacket Water Cooling Section (EJW). <p>c) Retrofit replacement cooler section (i.e. engine jacket water section and compressor jacket water section) with enhanced cooling capacity for Ariel Coolers of Atlas Copco make compressor of 5.0 MMSCFD Capacity.</p> <p>d) Each cooling section comprises bundles of finned tubes with box type headers and nozzles at both ends. These are mounted over steel under carriage. Ariel fans are mounted in vertical planes and within the steel under carriage.</p> <p>e) Now, it is required to replace the EJW & CCW sections with following design and constructional criteria.</p> <ul style="list-style-type: none"> - The sections are to be retrofit so that these can be mounted on the under carriage in place of the old sections. The orientation, sizing and position of header and its nozzles will remain same so as to facilitate easy connection to pipings. - The cooling capacity of the two sections is to be enhanced as much as 	2	NO

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	<p>possible.</p> <p>- Desired heat load capacities are as below :</p> <p>1) For EJW : 3304755 BTU/Hr. or more.</p> <p>2) For CCW : 167400 BTU/Hr. or more.</p> <p>In order to achieve such enhanced cooling efficiency , vendor may design the sections with more number of rows. For this, the dimension of the header with tube bundles in the vertical direction may be increased freely.</p> <p>REFERENCE PERFORMANCE SHEET FOR ARIEL COOLERS:</p> <p>1 Flow : EJW 441GPM, CCW 33 GPM</p> <p>2 Fluid : EJW WATER, CCW WATER</p> <p>3 Temperatures in Deg. F : EJW 180, CCW 145</p> <p>4 Temperature out Deg F : EJW 165, CCW 135</p> <p>5 Pressure Drop, PSI : EJW 3.9, CCW 1.7</p> <p>6 Heat Load BTU/HR : EJW 3304755, CCW 167400</p> <p>7 Fouling Factor : EJW 0.0005, CCW 0.005</p> <p>8 Total surface area Sq. Ft.: EJW 7137, CCW 870</p> <p>9 Tube surface area Sq. Ft. : EJW 479, CCW 58</p> <p>10 Sections No. of : EJW Combined, CCW Combined</p> <p>11 Connected : EJW singly, CCW singly</p> <p>12 No. of passes : EJW 1, CCW 1</p> <p>13 Design Temp. Deg. F : EJW 300/ 50, CCW 300/ 50</p> <p>14 Design Pressure, PSIG : EJW 150, CCW 150</p> <p>15 Test Pressure, PSIG : EJW 225, CCW 225</p> <p>16 Nozzles : EJW 6-STUB, CCW 3-STUB</p> <p>17 Tubes, OD * BWG : EJW- 3/4" * 16, CCW 3/4" * 16</p> <p>18 Materials : EJW SA214 STEEL, CCW SA214 STEEL</p> <p>19 No. Section, Length Ft. : EJW 82,30, CCW 10,30</p> <p>20 No. rows : EJW 4, CCW 4</p> <p>21 Fins Type : EJW wheel, CCW wheel</p> <p>22 Material : EJW AL, CCW AL</p> <p>23 Headers Type : EJW Box, CCW Box</p> <p>24 Material : EJW Steel, CCW Steel</p> <p>25 Plug Type : EJW Shoulder, CCW Shoulder</p> <p>26 Material : EJW Steel, CCW Steel</p> <p>27 Code Pressure Part Thermal TEMA R or IS 2825, API 661</p> <p>28 Mechanical equip. structure-</p> <p>(a) No. of Fans- 05</p> <p>(b) HP / Fan - 10.3</p> <p>(c) RPM - 889</p> <p>(d) DIA - 60"(1524 mm)</p> <p>(e) No. of Blade - 6</p> <p>(f) Fan Material - Aluminium</p> <p>(g) Make -AEROVENT</p> <p>(h)Draft type - FORCED</p> <p>(i) Dia of fins -1 3/4"(44.45 mm)</p> <p>(j)Fins per inch -12</p> <p>(k)Elevation - 492 ft (150 mtr)</p> <p>29. Overall Width X Length X Height- 3 ft 4 " X 31 ft 3 " X 8" (Approx) (1016 mm X 9525 mm X 203 mm)</p> <p>30. Accessories -</p>		

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	Bug screen over fan intakes, shaft extension, API-661 on structure & gas sections. **PS- EJW- Engine Jacket Water, CCW- Compressor Cooling Water		

Special Notes : a) Reference performance sheet only provided and the GA Drawing is not available. However, approx. dimensional details necessary for header and nozzles is provided .
 b) Presently the engine jacket and compressor jacket water sections has common box type header with partition inside the header. You may consider separate header for both the sections.
 c) GA Drawing cannot be provided. For estimation and bidding, if the bidders wishes they may visit Duliajan, Assam for inspection and assessment of the coolers on their own.

Note:-

1) The scope of supply includes design, supply, installation and commissioning of Fin type Heat Exchangers for Aerial Coolers at site. Heat exchangers must be designed, manufactured as per data sheet.

2) Installation and commissioning charges, if any, to be quoted separately indicating the applicable service tax.

3) The bidder must have requisite experience in supplying / manufacturing, erection and commissioning of aerial cooler and supporting document to be submitted along with the offer for our scrutiny and acceptance.

4) The bidder may select different tube sizes, fins etc for best efficiency. The indicated enhanced cooling capacity is just arbitrary and these may not be achievable within limited dimension available. Bidder to indicate the best possible cooling capacity achievable with optimum increase in height of headers/number of rows of tubes etc.

5) Bidder shall have to provide the drawing /design data/performance sheet etc. of newly design sections.

6) Design of the Cooler section should be as per API 661.

7) Fabrication of the coolers section should be as per ASME SEC VIII Div. 1 & TEMA code or IS 2825 and Thermal TEMA R.

8) It may please be noted that the quantity of the items may vary at the time of actual execution of the work.

9) OIL will depute Engineer to the successful bidder's works for stage inspection of the Cooler section. Bidder shall have to intimate OIL at least 15 days in advance for the inspection call.

10) The finished Cooler Section shall have to be coated with anti corrosive paint, and to be packed properly in wooden box with proper support etc. to avoid any transit damage. Vendor's name and order no. etc. are required to be embossed / stenciled at a suitable location on the body the Cooler section.

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11) The bidder will have to stand guarantee of the performance, fabrication, workmanship of the finished goods for a period of 18 months from the date of despatch or 12 months from the date of commissioning, whichever ever is earlier. For any damage / abnormality observed, the party will be responsible for free repair along with its transportation if any.