



OIL INDIA LIMITED
(A Govt. of India Enterprise)
P.O. Duliajan – 786602, Assam

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Tender No. & Date	:	SDG 7623 P19/08 dated: 03.04.2018
Tender Fee	:	INR 30,000.00 OR USD 500.00
Bid Security Amount	:	INR 4,57,400.00 OR USD 7,040.00
Bidding Type	:	SINGLE STAGE TWO BID SYSTEM
Period of Sale of Bid Documents	:	From 17.05.2018 to 20.06.2018; 15:30 Hrs (IST)
Bid Closing on	:	27.06.2018 (at 11.00 Hrs. IST)
Bid Opening on	:	27.06.2018 (at 14.00 Hrs. IST)
Bid Validity	:	Bid Should be valid for 120 days from bid closing date.
Bid Bond Validity	:	Bid Bond Should be valid up to 27.01.2019
Performance Guarantee	:	Applicable @ 10% of Order value
Integrity Pact	:	Applicable
List of Annexures Applicable	:	Annexure - I: Specifications, General notes to bidders Annexure- II: Bid evaluation & Rejection Criteria Annexure- III: Check List (Commercial) Annexure- IV: Certificate of Annual Turnover & Net Worth Annexure- V: Technical Evaluation Matrix (Bidder's Response Sheet) Annexure - VI: Technical Evaluation Matrix (BEC)

AA:: SPECIFICATION& QUANTITY OF THE ITEMS TO BE PROCURED

A. BRIEF DESCRIPTION Gas Engine Driven Horizontal Piston type Reciprocating Pumps for Fresh Water Pumping.

B. QUANTITY Two (02) Nos.

C. NOTE TO BIDDERS

1. Bidders are to submit their offer(Technical) by duly filling up the "Bidder's Offer" column of the attached Bidder's Response Sheet. Additional sheets may be used as and where necessary and the same to be clearly marked as: " Annexure No: _____, for Point No_____.
2. Offers submitted in other form than filling up of the "Bidder's Offer" column of the attached Bidder's Response Sheet shall not be accepted for evaluation.
3. All the Annexures / Attachments are to be suitably marked and a list of the same to be submitted alongwith the offer.

D. PUMP

1. Pump Type Horizontal Piston type Reciprocating Pumps.
2. Standards API - 674 or ANSI Hydraulic Institute Standards
3. Duty Continuous Duty (Note : "Continuous duty" means pump having service operation on full load for a period of 8 hours to 24 hours per day as per Hydraulic Institute Standard application .)
4. Rated Capacity 45 KLPH to 55 KLPH
5. Rated Discharge Pressure (Minimum) 10 Kg/cm²
6. Liquid to be Handled Fresh Water
7. Suction Condition 4 Meters Negative Suction

(NB: Charge pump / booster pump should not be used to meet the negative suction conditions)

8. Design Features The guiding salient points are detailed below:

(a) Fluid End Features:

- i. Mono Block Fluid End with bolt on type valve covers.
- ii. Suction and Discharge on either side of the fluid end.
- iii. Suction and discharge shall be flanged and suitable for the working pressure as specified.
- iv. Any connection welded on to the fluid cylinder shall have to meet the material requirement of the fluid cylinder rather than the requirements of the connected pipings.
- v. Should be provided with liners and the details of the same to be furnished alongwith the offer.
- vi. Surfaces of piston rods & cylinders in contact with packing shall have to be hardened or coated or shall have a minimum surface hardness of Rockwell C35. Surface finish shall have to be 16Ra or better.
- vii. Piston rods, both liquid and drive end, shall be of corrosion resistant material.
- viii. Design of the pistons should match the mentioned service condition.
- ix. Pistons to be fastened and locked with rod and cross head as suitable for the specified service conditions.
- x. Interchangeable valve assemblies with replaceable tapered valve seats pressed onto mono block fluid end.

(b) Power End Features:

- i. The Power end frame shall be a cast enclosure that will house crank shaft, connecting rods, crossheads and bearings.
- ii. Flooded sump Splash / Lift gravity Lubrication for power end.
- iii. Crankshaft shall have to be wrought or cast or forged alloy steel in one piece.
- iv. The crank pin bearings shall be two piece precision type (preferably steel backed, precision type, Aluminum alloy/ Tin &babbit lined)
- v. Sealing to be provided at all openings in the power frame to prevent contamination of the power end lubricant.
- vi. The power end shall have to be provided with a filtered vent and a NPS ¼ (minimum) connection for purging. An accessible drain (NPS ¼ minimum) shall have to be provided at the lowest point of the sump.

(c) Lubrication:

- i. The power end lubrication system to be splash or lift gravity type. (Type of lubrications method offered to be indicated.) A sight glass, gauge or oil level dipstick to be provided.
- ii. Bearing oil temperature shall not exceed 700C (1600F) anywhere in the system.

9. Material of Construction (MoC)

(a) The material of construction (MOC)of following Fluid End and Power End components shall have to be suitable for operating conditions as mentioned in the tender. The bidder shall have to mention in their offer the MOC of the following Fluid end and Power end components of the offered pump with the applicable ASTM, AISI, ASME or SAE numbers, including material grade. When no such designation is available, the bidder's material specification, giving physical properties, chemical compositions, and test requirements, shall be included in the offer. Bidder furnish the MoC the followings in details:

(b) Fluid end components:

- i. Fluid End Block
- ii. Valve cover/valve
- iii. Hard coated Pistons
- iv. Valve seats
- v. Valve spring

(c) Power end components:

- i. Power frame
- ii. Crank shaft
- iii. Connecting rod
- iv. Crosshead
- v. Crosshead pin
- vi. Crosshead pin bushing
- vii. Extension rod
- viii. Crank pin bearing (two piece)

(d) Testing of Materials:

- i. The bidder shall specify the ASTM optional tests and inspection procedures that may be necessary to ensure that materials are satisfactory for the service. Such test shall have to be mentioned in the bidder's offer. The bidder shall have to submit detail test certificates for the material testing mentioned in their offer prior to pre- dispatch inspection of the pump sets.
- ii. The bidder shall have to provide undertaking along with the offer that the offered materials of construction of the pump are suitable for the specified operating conditions (as mentioned in the tender).

10. Name plate and Rotation Arrows

(a) A nameplate shall be securely attached at a readily visible location wherein the manufacturer's name, purchaser name and purchase order number, machine serial number, maximum and minimum design limits and rating data, maximum allowable working pressure and temperatures, hydrostatic test pressure etc. should be clearly indicated.

(b) Rotation arrows indicating direction of rotation of major items should be cast in

11. Accessories Following Accessories are required to be supplied along with each pump set:

(a) Accessories in discharge line:

i. Full flow, suitably sized and rated, spring loaded, Reset Relief Valve, mounted on the discharge piping. (Make : Preferably OTECO/ BAIRD / CAMERON) - Qty. - 01 no per pump

N.B: The relief valve is to be set at 110% of our maximum pressure requirement at the time of delivery.

ii. Liquid filled discharge pressure gauge having a range up to 100 Kg/ Sq.cm, with built in dampening mechanism to minimize fluctuations for accurate response to pressure changes.

(Make : Preferably OTECO/ CAMERON / MARTIN DECKER) - Qty. - 01 no per pump

iii. Suitably designed Maintenance Free Discharge Pulsation Dampener with no replaceable parts whatsoever. The working principle of the same to be forwarded along with the offer for review at our end. The maximum peak to peak pressure fluctuations should not exceed 5% of the maximum operating pressure. - Qty. - 01 no per pump

iv. Discharge Valve: Gate or Ball Valve with RTJ Flanged end of suitable size and pressure rating conforming to API 600 with a pair of companion RTJ flanges (weld neck) conforming to ANSI B16.5 (latest edition) complete with two no RTJ gaskets and requisite no of studs and nuts. - Qty. - 01 no per pump

v. Bypass valve: Gate or Ball Valve with RTJ Flanged end of suitable size and pressure rating conforming to API 600 with a pair of companion RTJ flange (weld neck) conforming to ANSI B16.5 (latest edition) complete with two no RTJ gaskets and requisite no of studs and nuts . The size of the bypass valve should be same as discharge valve. - Qty. - 01 no per pump

vi. Check Valve of suitable size and pressure rating, full opening/full bore type conforming to API 600 specification with bolted cover, renewable seat, RTJ Flanged ends along with a pair of companion RTJ flanges (weld neck) conforming to ANSI B16.5 (latest edition) complete with two no RTJ gaskets and requisite no of studs and nuts . The size of the Check valve should be same as discharge valve. - Qty. - 01 no per pump

vii. Drain valve of suitable size and pressure rating (to depressurize the system when carrying out maintenance of the unit). - Qty. - 02 nos per pump

viii. Complete set of fittings, interconnection piping and companion flanges with proper bolting, gaskets, dampener brackets, blind flanges etc. required for mounting all items mentioned above.

(b) Accessories in Suction lines:

i. Foot Valve to facilitate the requisite negative suction. - Qty. - 01 no per pump

ii. Maintenance free suction stabilizer (volume bottle type) - Qty. - 01 no per pump

iii. Pressure gauge

iv. Suction Valve: Flanged end Gate/ Ball valve of suitable size and pressure rating conforming to API 600 specification, with a pair of companion flanges, gaskets nuts and bolts. - Qty. - 01 no per pump

- v. Complete set of fittings, interconnection piping and companion flanges with proper bolting, gaskets, dampener brackets, blind flanges etc. required for mounting all items mentioned above.

(c) NB:

- i. All the pipes valves and fitting of the discharge and suctions lines should be designed to work satisfactorily for the fluid(s) to be handled as specified above.
- ii. All the pipes valves and fitting of the discharge and suctions lines should be of same size.
- iii. All valves should be individual. Combo valves are not acceptable.
- iv. Dampeners should be of Carbon Steel, construction built to ASME pressure vessel codes and code stamped.

E.SPEED REDUCTION GEAR BOX

- (a) The speed reduction from the prime mover (gas engine) at its rated rpm to the desired rpm of pump shall be effected by means of a separate external foot mounted gear box installed between the prime mover and the pump.
- (b) The Gear Box should be parallel shaft speed reducer with a gear rated to designed HP from an engine at 1500 rated RPM to the pump at desired RPM, with a suitable Gear ratio . The gear unit shall conform to AGMA 6010 (latest editions). The service factor should not be less than that as required by AGMA 6010 (latest editions), the same to be mentioned in the offer for evaluation at our end.
- (c) The unit design includes cast housing, helical gear elements, anti-friction roller bearings on all shafts, and a self-contained splash lubrication system and suitable cooling system.

F.PRIME MOVER (GAS ENGINE)

General Description: The Prime Mover should be a four stroke, spark-ignited, stoichiometric (Air-Fuel Ratio), naturally aspirated or turbo-charged, radiator cooled Gas Engine, rated for continuous power capable of developing the requisite horse power to power the reciprocating pump at rated load conditions.

Conforming Standards Rated for continuous power in accordance with ISO 3046/BS5514/IS10000 standards and capable of developing the requisite horse power to power the reciprocating pump at rated load conditions.

Rated RPM 1500 RPM (Max)

Limiting Compression Ration 12:1 (Max)

BHP The selected Gas Engine should be capable of developing the requisite horse power to power the reciprocating pump at rated load conditions at 1500 rpm with a maximum compression ratio of 12:1 and rated for continuous power in accordance with ISO 3046/BS5514/IS10000 standards.

NB: The bidder has to furnish the basis and detailed calculation wrt the selection of the offered Engine wrt the offered Pump for the specified operating conditions alongwith the offer.

Fuel Natural Gas.

Composition of Fuel Gas :

The engine should be capable of developing required BHP as detailed in Clause F.1. above with fuel gas composition given below-

CONSTITUTION	Range by % VOLUME
Methane	93.50
Ethane	3.56
Propane	1.11
Nitrogen	0.20
Carbon-dioxide	0.42
Iso-Butane	0.23

N-Butane	0.37
Iso-Pentane	0.15
N-Pentane	0.11
Hexane+	0.35
Gas Gravity	0.6089
Gross Calorific Value	9462.8 Kcal/SCUM
Net Calorific Value	8706.3 Kcal/SCUM
Moisture content: 21.0 - 120.0 LB/MMCFT(336.0 - 1992.0 KG/MMSCM)	

NB: Bidder has to include required gas conditioning & fuel supply system in the scope of work to suit the requirement of the engine offered.

Site Condition The prime mover of pump should be suitable for operation at the following site condition :

Maximum Temperature	:	48 DEG C
Minimum Temperature	:	05 DEG C
Maximum Humidity at 21 DEG C	:	100 %
at 35 DEG C	:	95 %
at 41 DEG C	:	70 %
Maximum Altitude above sea level	:	150 mt
Aspiration	Naturally aspirated or Turbo-charged	
Engine Cooling	Radiator Cooled (Blower type)	

Details of Engine Sub – Systems: The engine should comprise of the following sub systems:

i) Cooling System

- a)The cooling system of water cooled engine should comprise of an engine mounted water pump, an industrial type heavy duty radiator suitable for operation in ambient temperature of 48 Deg C and a blower fan.
- b)The engine jacket water cooling system should be a closed circuit design with provision for filling, expansion, and de-aeration. The cooling pump should be driven by the engine. Coolant temperature should be internally regulated to disconnect external cooling system until operating temperature is achieved.
- c)Radiator, Engine Mounted: Heat rejected to the engine jacket water shall be discharged to the atmosphere through a close coupled radiator. The radiator shall be sized to cool the engine continuously while operating at full rated load and at site conditions of 48 Deg C ambient.
- d)Blower Fan: The radiator cooling fan shall be a blower type driven from the engine. Air shall be drawn from the engine side and exhausted through the radiator core with no more than 12.7 mm(0.5 Inch) of water external restriction in addition to core restrictions.
- e)Fan and Belt guarding: The fan, fan drive, and fan belts shall be covered with punched steel mesh guarding for personnel protection.

ii.Air Intake System

The air intake system should comprise of a heavy duty engine air cleaner mounted on the engine with a vacuum indicator and air intake manifold with dry element requiring replacement no more frequently than 500 hours or once each year. Level of suspended particulate matter in ambient air at site is 75µg/m³ (maxm.)

iii. Electric Starting System

The engine should have an electric starting system comprising of a Maintenance Free Heavy Duty Battery pack of reputed make having a minimum capacity 180 ampere hours with a alternator mounted on the engine for a battery charging and a 24 Volt starter (preferably of LUCAS TVS/DELCO REMY make), starter relay,

and automatic reset circuit breaker to protect against butt engagement. Batteries shall be maintenance free, lead acid type mounted near the alternator. Batteries should be housed in a hard rubber or polypropylene case with provision for venting. Required cables should be furnished and sized to satisfy circuit requirements.

- iv. Battery Charger The battery charger is to be a solid-state device with adjustable float voltage control. It is to be a constant voltage device with current limit.
- v. Ignition System The ignition system should be a Non-shielded ignition comprising Altronic III/V Engine driven ignition timer, Ignition Coil, High Tension and Low Tension Wiring Harness, Transformer and Spark Plugs shall incorporate gold palladium electrodes for reliability and life (Preferably STITT/ CHAMPION make)
- vi. Exhaust System
 - a)The exhaust system should comprise of water cooled exhaust manifold, stainless steel exhaust flexible connection, residential type exhaust silencer, spark arrestor and piping connections.
 - b)Heavy walled piping of schedule 40 with radii of 90 Degbend at least 1½ times the pipe diameter. Piping should be installed with appropriate insulation and shielding.
 - c)Piping should be supported and braced to prevent weight or thermal growth being transferred to the engine and flexible expansion fittings provided to accommodate thermal growth.
- vii. Fuel System The fuel system should comprise of:
 - a)Governor (Preferably WOODWARD make).The engine governor shall be Mechanical- Hydraulic / Electronic Speed Control with EG Electro-Hydraulic actuator or Barber Coleman Equal. Speed drop shall be extremely adjustable from 0 (isochronous) to 10% from no load to full rated load.
 - b) Carburetor (Preferably IMPCO make),
 - c)Gas pressure regulators (preferably VANAZ/FISHER) to regulate gas pressure from 50 PSIG-20 PSIG to the required pressure at carburetor intake point. 50 PSIG- 20 PSIG fuel gas shall be available at site for tapping
 - d)Gas Filter and related linkages. The gas Filtration unit should be place on a separate skid for convenience of operators.
 - e) Fuel inlet line to the engine shall be having stainless steel flexible connection to take care of vibration/shock if any, in the system.
- viii. Lubricating System
 - a) The lubricating system should comprise of lubricating oil pump, lubricating oil filter with a replaceable paper element, lubricating oil cooler, lubricating oil pan and crankcase breather.
 - b) The lubricating oil pump shall be a positive displacement type that is integral with the engine and gear driven from the engine gear train. The system shall incorporate full flow filtration with bypass valve to continue lubrication in the event of filter clogging.
 - c) The bypass valve must be integral with the engine filter base of receptacle.
- ix. Instrument Panel The engine mounted instrument panel shall consist of a shock-mounted formed and welded enclosure. Provide Metric marked gauges as above. The instrument panel should include the following :
 - a) Lubricating Oil pressure gauge
 - b) Lubricating oil temperature gauge
 - c) Water temperature gauge
 - d) Starting Switch
 - e) Ignition Switch
 - f) Mechanical/Digital tachometer and hour meter
 - g) Ampere meter
- x. Engine Safety Controls Engine mounted safety shut off/trip system for tripping the engine in the event of:

- a) Low lubricating oil Pressure
- b) High cooling water temperature
- c) Engine over speed
- d) Over crank
- xi. Other Features
 - a) flexible coupling / direct coupling
 - b) flywheel with housing
 - c) lifting eyes
 - d) coupling guard if applicable
 - e) guards over belt drives (blower fan, water pump drive pulley, timing pulley)
 - f) standard painting
 - g) suitable hand throttle control
 - h) mechanical hour meter
 - i) SAE standard rotation.

N.B: Provision of guards over belt drives and couplings has become mandatory as per recommendation of OISD (Oil Industry Safety Directorate) & DGMS (Director General of Mines & Safety).

xii. General Notes On Engine a) The engine shall conform to ISO : 3046 specifications and shall be rated for continuous power with an over load power rating of 110% of the continuous power corresponding to engine application for a period of 1 hr within a period of 12 hrs operation.

b) The engine governing should be in accordance with Class A Governing specified in BS : 3109 : 1985 (or latest)

c) The bidder should submit the following information along with relevant performance rating Curves and engine product catalogue:

- i. Gross HP developed at rated RPM
- ii. Deduction for fan and other ancillary equipment.
- iii. Net HP developed at rated RPM
- iv. Specific fuel consumption at rated power as well as at 110%, 75%, 50% and 25% of rated load.

d) The fuel gas system shall consists of a minimum of following components but shall not be limited to these :

- i. Main line pressure regulator.
- ii. Pressure relief safety valve.
- iii. Gas scrubber tank.
- iv. Gas fuel filter.
- v. Interconnecting gas piping from main line pressure regulator to engine.
- vi. The gas conditioning & piping should be carried out in such a way as to prevent condensate carry over to engine .

e) The bidder must undertake and confirm from OEM's that the equipment to be supplied are not going to become obsolete for the next 10 years and provisioning of spares can be continued.

G. DRIVE ARRANGEMENT i. The drive arrangement will involve flow of prime mover power through a flywheel mounted clutch PTO to the input shaft of an external foot mounted gearbox and finally to the crankshaft of the reciprocating pump.

ii. Suitably selected Flexible Disc with taper lock bushing should be incorporated to transfer power from the prime mover to the reciprocating pump through the transmission , as illustrated in the Sketch of "General Arrangement of Engine Driven Reciprocating Pumping unit".

iii. All rotating parts should be covered by suitable non sparking guards.

H. PUMP PACKAGE UNITIZATION (i) The pump set is to be supplied with all components and accessories fitted and mounted on an oilfield type three runner portable master skid as shown on the attached indicative drawing, Drawing No: FE/PROJ&TF/CKD/MP-GA/01-14 (NB: The drawing is indicative only but should not be

treated as exhaustive, any addition as per the design considerations of the pump package may be incorporated by the manufacturer). The floor of the skid should be covered with anti skid steel plates. While unitizing the pump set, easy approach to various components should be kept in mind, to facilitate operational and maintenance requirements. The skid should be fabricated out of properly sized beams to withstand loading / unloading and transfer in oil field trucks.

The skid shall be sized to contain the entire pump and engine unit and should include the following components:

- a) Drip pan for cradle/fluid area of pump and packing area complete with threaded drain
- b) Dip lip for cradle / fluid area of pump and packing area
- c) Grouting holes
- d) Radiator bumper guard
- e) Exhaust tubing and supports
- f) Horizontal adjustment screws for minor adjustment
- g) Two grouting bosses on skid
- h) Interconnection piping spool pieces on suction and discharge with ancillary components
- i) Non sparking Aluminum safety guards.
- j) One set of proper size foundation bolts and nuts with each pump sets. The foundation Bolt for the skid is to be in accordance with ASTM #A193 and nut as per ASTM # A193.

(ii) N.B.:

Paint / finish specifications shall consist of wire brushing structural pieces and piping, solvent cleaning of components, one coat of red oxide alkyd primer 2.0 to 2.5 mils dry film thickness. The top coat shall be one coat of gloss sarkyd national blue enamel 1.0 to 2.0 mils dry film thickness.

I. PRE DESPATCH INSPECTION AND TESTING (a) The pump set shall be inspected by OIL's deputed engineer at manufacturers / assembler's works / factory prior to dispatch. However, such inspection will not relieve the supplier of his responsibility to ensure that the equipment supplied conforms to the correct specifications and is free from manufacturing and all other defects.

(b) The supplier shall carry out full load performance test on the pump set, at duty conditions, in the presence of OIL's deputed representative.

(c) N.B. :

(i) The QAP (Quality Assurance Plan) for the Pump sets shall have to be submitted to OIL for approval prior to Pre despatch inspection at supplier's works.

(ii) Charges for carrying out the above tests at the manufacturer's facility should be included in the purview of the offer. However, cost of travelling, boarding, lodging of OIL's engineers will be to OIL's account.

(d) A draft copy of the composite operation manual of the complete pump packages including control panel shall be submitted to representative of OIL during pre-despatch inspection at supplier's works for approval. Three (03) copies of the approved copy of the composite operation manual to be supplied along with the documents as mentioned under Clause J.4

J. CERTIFICATES AND DOCUMENTS TO BE FORWARDED 1. Documents should be forwarded along with the quotations: a) Product line catalogue, specifying materials of construction and constructional features of the offered pump and technical literatures of all ancillary equipment.

b) Performance chart of the piston pump including all technical calculations such as hydraulic horse power, volumetric efficiency, mechanical efficiency, RPM, gear ratio, maximum piston load, NPSH requirement, etc.

c) Detail calculation to justify that BHP of the offered prime mover engine is suitable to meet the pumping requirement as specified in the tender. The power losses

or mechanical efficiency of each component of the drive system such as coupling , gear box etc. are to be mentioned clearly.

2. The following documents shall have to be forwarded within a month of issue of LOI or placement of firm order a) A foundation diagram for the complete pump set indicating the static and dynamic loads of the package.

b) Pump Package Unitization plan/ drawing.

3. Material test (MOC) certificate of the fluid end components and power end components must be forwarded along with the pre-despatch inspection notice from supplier.

4. The following documents must be forwarded along with the supply of equipment

a) Certified test results

b) Certificate of hydrostatic testing

c) Manufacturers certificate of authenticity

d) Certificate of test / conformance of pump and associated ancillaries like relief valves, pressure gauges, dampeners, Flexible Metallic braided hose etc.

e) Two sets of operation and maintenance manuals including trouble shooting, parts catalogue of pump, engine , gear box and all other accessory equipment for each set.

f) Three (03) sets of composite operational manual per pump set for the complete pump package including control panel consist of clear cut simple instruction for start, stop, restart , significance of various display in the control panel, and negotiation of alarms etc.

g) Parts Catalogues for Pump, Engine and Gear Box.

NOTE: All the above mentioned document Under Clause J.4 shall have to be packed separately with a packing list and prominently labeled with

OIL's Purchase order No:_____ and to be dispatched to:

To,

Head- Field Engineering

OIL INDIA LIMITED

DULIAJAN- 786602

ASSAM, INDIA

K. INSTALLATION & COMMISSIONING a) The pump set is to be supplied in assembled condition, ie: coupled with gear box, prime mover (engine) and all valves , accessories , engine exhaust silencer etc fitted and mounted on an oilfield type three runner portable master skid. The pump set to be so supplied that, after construction of recommended foundation and completion of necessary grouting, the pump set can be run by simply connecting the engine fuel and pump suction - discharge pipings. Necessary Civil work and engine fuel and pump suction - discharge pipings shall be done by OIL.

b) Installation and Commissioning of the Pump set shall be carried out by the bidder in the presence of OIL representatives at its fields at Duliajan, Assam (India). Services of qualified and competent personnel from equipment manufacturer is essential during installation and commissioning of the pump sets. OIL will provide necessary statutory permits in classified areas as and when required. Arc welding / Gas Cutting services if required shall be provided by OIL.

c) Installation / commissioning charges should be quoted separately which shall be considered for evaluation of the offers. These charges should included amongst others to and fro fares, boarding/ lodging and other expenses of the commissioning engineers during their stay at Duliajan, Assam (India). All Personal, Income and Service Tax etc. towards the services provided by the supplier shall be borne by the supplier and will be deducted at source. Bidders should also confirm about installation/ commissioning in the Technical Bid.

d) The pump set shall be treated as commissioned only after successful completion of a trial run on available load for a minimum period of 72 hrs and on satisfactory performance shall be subsequently handed over to OIL.

L. WARRANTY The warranty period for the engine, pump set and all ancillary equipment shall be a minimum of 18 months from the date of dispatch / shipment or 12 months from the date of commissioning.

M. SPARE PARTS AND SPECIAL TOOLS (a) Bidders has to provide the price , along with the part numbers , of the following spares [as detailed under clause nos: M. (b) , (c) & (d)] that we envisage shall be required for maintenance of the pump set for two years . THE PRICES OF THESE SPARES SHALL BE CONSIDERED FOR COMMERCIAL EVALUATION OF THE OFFER.

(b) Piston PUMP :

- i. SUCTION VALVE ASSEMBLY : 6 NOS PER PUMP
- ii. DELIVERY VALVE ASSEMBLY : 6 NOS PER PUMP
- iii. VALVE COVER GASKET : 6 NOS PER PUMP
- iv. VALVE SEAT (SUCTION) : 6 NOS PER PUMP
- v. VALVE SEAT (DELIVERY) : 6 NOS PER PUMP
- vi. ROD WIPER : 6 SETS PER PUMP
- vii. PISTON : 3 NOS PER PUMP
- viii. PISTON PACKING : 6 SETS PER PUMP
- ix. CRANK PIN BEARING : 4 SETS PER PUMP
- x. Foot Valve : 02 Nos per Pump

(c) GAS ENGINE :

- i. SPARK PLUG : 1 SET PER ENGINE
- ii. IGNITION TRANSFORMER : 1 SET PER ENGINE
- iii. LUB OIL FILTER ELEMENT : 6 NOS PER ENGINE
- iv. SET OF VEE BELTS : 2 SETS PER ENGINE
- v. AIR FILTER ELEMENT : 4 NOS PER ENGINE
- vi. SET OF GASKETS : 1 SET PER ENGINE

(d) The following special tools / spares (one set against each pump set) should also be quoted separately which shall be considered for evaluation of the offers. Moreover commissioning spares, if any shall be quoted separately which shall also be considered for evaluation of the offers

i) A set of each type and size of coupling installed in the pump set

ii) A valve seat puller and special wrenches for tightening stuffing box glands, studs etc.

All the above mentioned Spares/ tools [as detailed under clause nos: M. (b) , (c) & (d)], shall have to be packed separately indicating OIL's Purchase order No with packing list and to be supplied along with the supply of the pump packages addressed to :

Head- Field Engineering

OIL INDIA LIMITED

DULIAJAN- 786602

ASSAM, INDIA

N. AFTER SALES SERVICE a) The nature of after sales service, which can be offered by the bidder during initial commissioning and also subsequently should be clearly stated.

b) Bidders should also confirm that spares , both regular consumable ones as well as vital / insurance spares, for engine, pump and all accessories quoted, shall be available for at least 10 years after the delivery of the material.

O. DATA SHEETS

(a) . DATA SHEET FOR PUMP:

- 1. MAKE
- 2. MODEL
- 3. TYPE
- 4. SIZE (PISTON DIAMETER X STROKE LENGTH)
- 5. LIMITING PRESSURE AND VOLUME AT OFFERED SIZE
- 6. OFFERED SPEED
- 7. DISCHARGE VOLUME @ OFFERED SPEED (? vol = 95%)

8. HHP REQUIREMENT AS PER NIT PARAMETERS
9. MAKE AND MODEL OF EXTERNAL GEAR BOX
10. GEAR RATIO OF EXTERNAL FOOT MOUNTED GEAR BOX
11. TYPE AND SIZE OF COUPLING BETWEEN CLUTCH PTO AND GEAR BOX INPUT SHAFT
12. TYPE AND SIZE OF COUPLING BETWEEN GEAR BOX OUTPUT SHAFT AND PUMP INPUT SHAFT
- (b) . DATA SHEET FOR ENGINE:
 1. MAKE
 2. MODEL
 3. NUMBER OF CYLINDERS
 4. ASPIRATION
 5. COMPRESSION RATIO
 6. SIZE (BORE X STROKE)
 7. DISPLACEMENT
 8. RATED SPEED
 9. DUTY
 10. GROSS HP AT RATED RPM
 11. DEDUCTION FOR FAN, ALTITUDE , TEMPERATURE
 12. NETT HP AVAILABLE AT 1500 RPM
 13. SPECIFIC FUEL CONSUMPTION AT
 14. # 110% LOAD
 15. # 100% LOAD
 16. # 75% LOAD
 17. # 50% LOAD
 18. LUBRICATING OIL CONSUMPTION (LT / HR)
 19. ENGINE SUMP CAPACITY (LTS)
 20. ENGINE RADIATOR CAPACITY (LTS)
 21. MAKE AND TYPE OF GOVERNOR
 22. MAKE OF CLUTCH PTO
 23. MODEL OF CLUTCH PTO
 24. MAKE OF STARTER
 25. MAKE AND MODEL OF COUPLING BETWEEN CLUTCH PTO AND GEARBOX

P. TECHNICAL CHECK LIST FOR PUMP PACKAGES (Please tick YES or NO)

1. Whether the bidder has submitted their offer(Technical) by duly filling up the "Bidder's Offer" column of the attached Bidder's Response Sheet. (YES / NO)
2. Whether quoted as OEM of Pump and whether documentary evidences submitted ? (YES / NO)
3. Whether quoted as authorised dealer of Pump and whether documentary evidences submitted ? (YES / NO)
4. Whether quoted as OEM recommended assembler of Pump sets and whether documentary evidences submitted ? (YES / NO)
5. Whether the offered Pump is a horizontal, piston Pump ? (YES / NO)
6. Whether the Pump is designed for continuous service duty ? (YES / NO)
7. Whether the offered engine conforms to ISO3046 / BS 5514 / IS 10000 specifications ? (YES / NO)
8. Whether the Minimum Net HP of the engine is as per NIT requirement ? (YES / NO)
9. Whether the engine is rated for continuous power ? (YES / NO)
10. Whether the engine is water cooled ? (YES / NO)
11. Whether the speed reduction gear box is external foot-mounted ? (YES / NO)

12. Whether the floor of the three runner skid shall be covered by checkered plates ? (YES / NO)
13. Whether Flexible disc / grid member couplings have been incorporated in the transmission ? (YES / NO)
14. Whether guards shall be provided over couplings and belt drives ? (YES / NO)
15. Whether the two years spares for the packages indicated have been quoted ? (YES / NO)
16. Whether special tools and commissioning spares have been included in the scope of supply ? (YES / NO)
17. Whether spares shall be available for 10 years after supply of equipment? (YES / NO)
18. Whether separately highlighted any deviation from the technical specifications ? (YES / NO)
19. Whether the Pre-despatch inspection of the Pump packages shall include Full Load Performance test of the Pump Sets ? (YES / NO)
20. Whether the bidder has submitted the undertaking that the offered materials of construction of the pump are suitable for the specified operating conditions (as mentioned in the tender)? (YES / NO)
21. If the bidder is an OEM (pump) or authorized dealer of OEM of the pump or an OEM(pump) recommended assembler of pump sets, whether the bidder has submitted undertaking that bidder will purchase the engine from OEM of Engine or their authorized dealer? (YES / NO)
22. If the bidder is an OEM (pump) recommended assembler of pump sets, whether the bidder has submitted undertaking that the bidder will purchase the Engine and the pump from OEM or their authorized dealer? (YES / NO)
23. If the bidder is other than OEM of pump, whether the bidder has submitted undertaking from OEM that, Date of manufacture, make, model, serial no, test certificate, literatures and parts book of the pump will be supplied if order is placed on the bidder? (YES / NO)
24. Whether the bidder has submitted undertaking that the offered engine shall develop required BHP to meet pump requirement suitably and its overall performance shall be satisfactory with the natural fuel gas composition as specified in this tender? (YES / NO)
25. Whether the bidder has submitted undertaking that in case the order is placed on the bidder, the pump packages will be supplied (including major component and all its accessories), will be manufactured after the bid closing date of this tender? (YES / NO)

BB:: GENERAL NOTES TO BIDDERS:

Sl No	Clause description
1.0	Tender Fee – Tender fee must be paid online through OIL’s payment gateway only and no other instrument (Cash/DD/Cheques/Cashier Cheque, etc) will be acceptable.
2.0	Bid Security/EMD/Performance Bank Guarantee – Must be paid either through online mode or Submission of Bank Guarantee/LC only. No DD/Cheques/Cashier Cheque or any other mode will be acceptable.
3.0	The tender will be governed by “General Terms & Conditions” for e-Procurement as per Booklet No. MM/GLOBAL/E-01/2005 for E-procurement (ICB Tenders) including Amendments & Addendum to “General Terms & Conditions” for e-Procurement.
4.0	Bid must be submitted online through OIL’s e-procurement portal. Bid submitted in any other form will be rejected.
5.0	<p>Please note that all tender forms and supporting documents are to be submitted through OIL’s e-Procurement site only except following documents which are to be submitted manually in sealed envelope super scribing tender no. and due date to The DGM Materials, Materials Department, Oil India Limited, Duliajan- 786602, Assam on or before 13:00 hrs (IST) on the Bid Closing Date mentioned in the Tender.</p> <p>a) Original Bid Security along with two duplicate copies of Bid Security. b) Any other documents which have been particularly asked for in this tender for submission.</p>
6.0	Bidders must ensure that their bid is uploaded in the system before the tender closing date and time. Also, they must ensure that above documents which are to be submitted in a sealed envelope are also submitted at the above mentioned address before the bid closing date and time, failing which the offer shall be rejected.
7.0	<p>The tender is invited under SINGLE STAGE-TWO BID SYSTEM. The bidder has to submit both the “TECHNO-COMMERCIAL UNPRICED BID” and “PRICED BID” through electronic form in the OIL’s e-Tender portal within the Bid Closing Date and Time stipulated in the e-Tender. The “Techno-commercial Unpriced Bid” shall contain all technical and commercial details except the prices which shall be kept blank. Details of prices as per Bid format / Commercial bid to be uploaded as attachment in the Attachment Tab “Notes and Attachments”. Any offer not complying with above submission procedure will be rejected as per Bid Rejection Criteria mentioned in the tender.</p> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="border: 1px solid black; padding: 5px; width: 25%;">Notes and Attachments</div> <div>→ Only Price Details Should Be Uploaded</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px; width: 25%;">Technical attachments</div> <div>→ All technical bid documents except price details</div> </div>

Please do refer “NEW INSTRUCTION TO BIDDER FOR SUBMISSION” for the above two points and also please refer “ New Vendor Manual (effective 12.04.2017) ” available in the login Page of the OIL’s E-tender Portal.



8.0	In Technical Bid opening, only Technical Rfx will be opened. Therefore, the bidder should ensure that “TECHNO-COMMERCIAL UNPRICED BID should contain details as mentioned in the technical specifications as well as BEC/ BRC and upload the same in the Technical RFx Response-> User - > Technical Bid. <u>No price should be given in above Technical Rfx otherwise the offer will be rejected.</u> Please go through the help document in details before uploading the document and ensure uploading of technical bid in the Technical RFx Response-> User - > Technical Bid only. The “PRICE BID” must contain the price schedule and the bidder’s commercial terms and conditions. Details of prices as per Bid format / Commercial bid can be uploaded as Attachment under the attachment option under “Notes & Attachments”.
9.0	PRICED BIDS OF ONLY THOSE BIDDERS WILL BE OPENED WHOSE OFFERS ARE FOUND TO BE TECHNO-COMMERCIALLY ACCEPTABLE.
10.0	Bidders are requested to examine all instructions, forms, terms and specifications in the bid. Failure to furnish all information required as per the bid or submission of offers not substantially responsive to the bid in every respect will be at the bidders risk and may result in rejection of its offer without seeking any clarifications.
11.0	Please mention clearly in your quotation the Net. Weight, Gross Weight & Volume, Indian Agent's Name and its Commission, Payment Terms, Ocean Freight/Air Freight Charges, Port of Loading, Delivery period, Country of origin with manufacturer's name, etc.
12.0	To ascertain the substantial responsiveness of the bid, OIL reserves the right to ask the bidder for clarification in respect of clauses covered under BRC also and such clarifications fulfilling the BRC clauses in toto must be received on or before the deadline given by OIL, failing which the offer will be summarily rejected.
13.0	Other terms and conditions of the tender shall be as per “General Terms

	&Conditions” for e- Procurement as per Booklet No. MM/GLOBAL/E-01/2005 for E-procurement (ICB Tenders). However, if any of the Clauses of the Bid Rejection Criteria (BRC) / Bid Evaluation Criteria (BEC) mentioned here contradict the Clauses in the “General Terms & Conditions” for e-Procurement as per Booklet No. MM/GLOBAL/E-01/2005 for E-procurement (ICB Tenders) of the tender and/or elsewhere, those mentioned in this BEC / BRC shall prevail.
14.0	All the Bids must be Digitally Signed using “Class 3” digital certificate (e-commerce application) only as per Indian IT Act obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India. The bid signed using other than “Class 3” digital certificate, will be liable for rejection.
15.0	Please do refer the User Manual provided on the portal on the procedure How to create Response for submitting offer.
16.0	Bidders to note that Govt. of India under Micro, Small and Medium Enterprises Development (MSMED) Act 2006, has proclaimed the Public Procurement Policy, 2012 with effect from 1st April, 2012 in respect of procurement of goods and services, produced and provided by micro and small enterprises, by its Ministries, Departments and Public Sector Undertakings for promotion and development of Micro and Small Enterprises. A new Clause on applicability of Public Procurement Policy for procurement of goods from Micro and Small Enterprises (MSE) in the tender is furnished vide Amendment to General Terms and Conditions for Global Tender (MM/GLOBAL/E-01/2005). Bidders are requested to take note of the same and to submit their offers accordingly.
17.0	The items shall be brand new, unused & of prime quality. The manufacturer shall warrant (in the event of an order) that the product supplied will be free from all defects & fault in material, workmanship & manufacture and shall be in full conformity with ordered specifications. This clause shall be valid for 18 months from date of shipment or 12 months from date of commissioning and handing over to OIL, whichever is earlier. The defective materials, if any, rejected by OIL shall be replaced by the supplier at their own expense. Bidders must confirm the same in their quotations.
18.0	Quantity of Individual item may be increased or decrease at the time of final placement of order. The minimum FOB/FCA charges in case of partial order for reduced quantity/enhanced quantity shall have to be indicated by the bidder. In case, this is not indicated specifically, the charges quoted would be pro-rata calculated and the same will be binding on the bidder.
19.0	Any deviation(s) from the tender specification should be clearly highlighted specifying justification in support of deviation.
20.0	The Integrity Pact is applicable against this tender .OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide Annexure XII of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL’s competent signatory. The proforma has to be returned by the bidder (along with the technical bid) duly signed (digitally) by the same signatory who signed the bid, i.e., who is duly authorized to sign the bid.

	<p>Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder's authorized signatory who sign the Bid. If any bidder refuses to sign Integrity Pact or declines to submit Integrity Pact with the offer, their bid shall be rejected straightway.</p> <p>OIL's Independent External Monitors at present are as under:</p> <p>SHRI RAJIV MATHUR, IPS (Retd.), Former Director (IB) Govt. of India e-Mail ID : rajivmathur23@gmail.com</p> <p>SHRI SATYANANDA MISHRA, IAS(Retd.) Former Chief Information Commissioner & Ex-Secretary, DOPT, Govt. of India E-mail Id : satyanandamishra@hotmail.com</p> <p>SHRI JAGMOHAN GARG, Ex-Vigilance Commissioner, CVC e-Mail id : jagmohan.garg@gmail.com</p>
21.0	Original Bid Closing Date shall be considered by OIL for evaluation of BRC Criteria in case of any extension of the original bid closing date.
22.0	<p>Performance Security clause (Clause No. 10.0 of Section-A) of "General Terms & Conditions for Global Tenders (MM/GLOBAL/01/2005)" has been amended and the new clause is detailed in the Amendment dated 25.04.2016 issued to MM/GLOBAL/E-01/2005. Successful bidder will be required to furnish a Performance Bank Guarantee @10% of the order value. Bidders to note the same and to confirm its acceptance in their offers.</p> <p>The Bank Guarantee issued by bank must be routed through SFMS platform as per following details:</p> <p>a. (i) "MT760/ MT760 COV for issuance of bank guarantee (ii) MT767/ MT767 COV for amendment of bank guarantee</p> <p>The above message/intimation shall be sent through SFMS by the BG issuing bank branch to Axis Bank, Duliajan Branch, IFS Code: UTIB0001129. Branch Address: Axis Bank Ltd., DuliajanBranch, Daily Bazar, Jyotinagar, Duliajan, Dist-Dibrugarh, Pin- 786602.</p> <p>b. The vendor shall submit to OIL the copy of the SFMS message as sent by the issuing bank branch along with the original bank guarantee.</p>
23.0	Bidder to sign and submit completely filled up Technical & Commercial check list and Technical Evaluation Matrix for Bid evaluation criteria and Technical specification failing which their offer will be rejected.
24.0	Payment terms: Refer to "General Terms & Conditions" for e-Procurement as per Booklet No. MM/GLOBAL/E-01/2005 for E-procurement (ICB Tenders)

25.0	Liquidated Damage: Refer to “General Terms & Conditions” for e-Procurement as per Booklet No. MM/GLOBAL/E-01/2005 for E-procurement (ICB Tenders). In case of deduction of LD, LD amount will be deducted along with applicable rate of GST.
26.0	<p>The items covered by this enquiry shall be used by Oil India Limited in the PEL/ML areas which are issued/renewed after 01/04/99 and hence Nil Customs Duty during import will be applicable. Indigenous bidder shall be eligible for concessional rate of GST against Essentiality Certificate for invoice valuing 10 lakh and above.</p> <p>In the event of an order on indigenous bidder, OIL will issue Project Authority Certificate (PAC) under Deemed Export, where import content is declared by the bidder for availing Custom Duty benefit on the import content.</p> <p>Supplier shall arrange to provide all necessary documents to apply for the essentiality certificate on receipt of request from OIL, if any. Further, supplier shall affect dispatch only on receipt of relevant certificates from OIL, failing which all related liabilities shall be to Supplier’s account.</p>
27.0	Bidders to note that Ministry of Petroleum & Natural Gas, Government of India implemented PPLC Policy to provide Purchase Preference (linked with local content) by notification no. Ref. O-27011/44/2016-ONG-II/FP dtd.25.04.2017. A new Clause on applicability of Purchase Preference (linked with local content) policy in the tender is furnished vide addendum dated 21.08.2017 to General Terms and Conditions for Global Tender (MM/GLOBAL/E-01/2005). Bidders are requested to take note of the same and to submit their offers accordingly wherever applicable.
28.0	<p><u>Clauses related to GST</u></p> <ol style="list-style-type: none"> For the purposes of levy and imposition of GST, the expressions shall have the following meanings: <ol style="list-style-type: none"> GST - means any tax imposed on the supply of goods and/or services under GST Law. Cess – means any applicable cess, existing or future on the supply of Goods and Services as per Goods and Services Tax (Compensation to States) Act, 2017. GST Law - means IGST Act 2017, CGST Act 2017, UTGST Act, 2017 and SGST Act, 2017 and all related ancillary Rules and Notifications issued in this regard from time to time. The rates quoted by the bidders shall be inclusive of all taxes, duties and levies. However, bidders are required to provide separately the rate and amount of all types of taxes, duties and levies. In case, the quoted information related to various taxes, duties & levies subsequently proves wrong, incorrect or misleading, OIL will have no liability to reimburse the difference in the duty/tax, if the finally assessed amount is on the higher side and OIL will have to right to recover the difference in case the rate of duty/ taxes finally assessed is on the lower side. Further, bidders have to clearly show the amount of GST separately in the Tax Invoices. Further, it is the responsibility of the bidders to make all possible efforts to make their accounting / IT system GST compliant

	<p>in order to ensure availability of Input Tax Credit (ITC) to Oil India Ltd.</p> <p>3. Offers without giving any of the details of the taxes (Including rates and amounts) as specified above will be considered as inclusive of all taxes including GST. When a bidder mentions taxes as extra without specifying the rates & amount, the offer will be loaded with maximum value towards taxes received against the tender for comparison purposes. If the bidder emerges as lowest bidder after such loading, in the event of order on that bidder, taxes mentioned by OIL on the Purchase Order/ Contracts will be binding on the bidder.</p> <p>4. Bidders are required to pass on the benefit arising out of introduction of GST, including seamless flow of Input Tax Credit, reduction in Tax Rate on inputs as well as final goods by way of reduction of price as contemplated in the provision relating to Anti-Profiteering Measure vide Section 171 of the CGST Act, 2017. Accordingly, for supplies made under GST, the bidders should confirm that benefit of lower costs has been passed on to OIL by way of lower prices/taxes and also provide details of the same as applicable. OIL reserves the right to examine such details about costs of inputs/input services of the bidders to ensure that the intended benefits of GST have been passed on to OIL.</p> <p>5. Oil India Ltd. shall declare the value of free issue of materials and services, if any, involved in the execution of the contract. The Contractor should consider the same while working out the GST liability, if any. Further in cases where GST is leviable on any facilities provided by OIL and used by bidders and the consideration for which is recovered by OIL in the form of reduction in the invoice raised by bidders then OIL will raise GST invoices on such transactions and the same will be reimbursed by bidders.</p> <p>6. When Input tax credit is available for Set Off Evaluation of L-1 prices shall be done based on Quoted price after deduction of Input Tax Credit (ITC) of GST, if available to OIL. OIL shall evaluate the offers on the basis of the quoted rates only and any claim subsequently by the bidders for additional payment/liability shall not be admitted and has to be borne by the bidders</p> <p>When Input tax credit is NOT available for Set Off Evaluation of L-1 prices shall be done based on Quoted price only. OIL shall evaluate the offers on the basis of the quoted rates only and any claim subsequently by the bidders for additional payment/liability shall not be admitted and has to be borne by the bidders</p> <p>7. Bidders agree to do all things not limited to providing GST compliant Tax Invoices or other documentation as per GST law relating to the supply of goods and/or services covered in the instant contract like raising of and /or acceptance or rejection of credit notes / debit notes as the case may be, payment of taxes, timely filing of valid statutory Returns for the tax period on the Goods and Service Tax Network (GSTN), submission of general information as and when called for by OIL in the customized format shared by OIL in order to enable OIL to update its database etc. that may be necessary to match the invoices on GSTN common portal and enable OIL to claim input tax credit in relation to any GST payable under this Contract or in respect of any supply under this Contract.</p> <p>8. In case Input Tax Credit of GST is denied or demand is recovered from OIL by the Central / State Authorities on account of any non-compliance by bidders, including non-payment of GST charged and recovered, the Vendor/Supplier/Contractor shall indemnify OIL in respect of all claims of tax, penalty and/or interest, loss, damages, costs, expenses and liability that may arise due to such non-compliance. OIL, at its discretion, may also withhold/recover such disputed amount from the pending payments of the bidders.</p>
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DD :: Purchase preference policy (linked with Local Content) (PP-LC)

Bidders to note that Ministry of Petroleum & Natural Gas, Government of India implemented **PPLC Policy** to provide Purchase Preference (linked with local content) by notification no. Ref. O-27011/44/2016-ONG-II/FP dtd.25.04.2017. **PPLC Policy** is applicable to this tender, and a new Clause on applicability of Purchase Preference (linked with local content) policy in the tender is furnished vide Annexure -VII. Bidders are requested to take note of the same and to submit their offers accordingly wherever applicable.

BID EVALUATION CRITERIA (BEC)/BID REJECTION CRITERIA (BRC)

In addition to BRC/BEC criteria vide SECTION – 'D' of General Terms and Conditions for Global Tender (MM/ GLOBAL/E-01/2005), the following clause will be applicable against this tender.

BID REJECTION CRITERIA

A.1 Technical:

The bids shall conform generally to the specifications and terms as well as conditions laid out in the tender. Bids will be rejected in case the items offered do not conform to the required parameters stipulated in the technical specifications and to the respective international/national standards wherever stipulated. Notwithstanding the general conformity of the bids to the stipulated specifications and terms and conditions, the following requirements will have to be met by the bids, without which, the same shall be considered as non-responsive and stand rejected.

1.0 The bidder should be an OEM of pump or authorized dealer of OEM of the pump or an OEM (of pump) recommended assembler of pump sets. Bidders other than OEM must furnish valid authorization certificate from OEM (of pump) clearly stating whether the bidder is an authorized dealer of OEM (of pump) or an OEM (of pump) authorized assembler of pumpset. In all cases the bidder has to purchase the engine from an OEM of Engine or their Authorized Dealer. Undertaking from the bidder in this regard must be enclosed with the offer.

2.0 If the bidder is an OEM (of pump) recommended assembler of pump sets, he must purchase the pump and the engine from OEM or their authorized dealer. Undertaking from the bidder in this regard must be enclosed with the offer. Bidders other than the OEM must furnish the following undertaking from the OEM:

"Date of manufacture, make, model, serial no, test certificate, literatures and parts book of the pump and also the operation & maintenance manual of pump will be supplied if order is placed on the bidder."

3.0 Bidders should have the experience of successfully executing at least 1(one) similar order for total minimum order value of **Rs. 1,14,35,000.00** in preceding 5(five) years from the bid closing date (technical) of the tender against supply of continuous duty pump sets of similar nature for water or water flood or formation water disposal or hydrocarbon service applications in PSUs, State/ Central Govt. Undertakings, Public Limited Companies. Copies of purchase orders along with performance certificates from the clients indicating the supply, commissioning and successful deployment of such equipment are to be forwarded with the offer.

The bidder shall submit documentary evidence in support of his previous supply experience as follows :

i) Copy (ies) of Purchase Order(s) clearly mentioning the Gross value of the order,

AND

ii) Any one or combination of the following documents that confirms the successful execution of each of the purchase order(s).

a) Signed and Sealed Satisfactory supply / Completion / Installation report (in Original on User's Letter Head).

b) Bill of lading, Invoice etc.

c) Consignee receipt delivery challan

- d) Central Excise Gate Pass/Tax Invoices
- e) Commercial Invoice/Payment Invoice

Note:

- (a) Similar nature pump means reciprocating horizontal piston pumps of Capacity minimum 40 KLPH or above.
- (b) A job executed by a bidder for its own organization / subsidiary cannot be considered as experience for the purpose of meeting BEC.

4.0 The model of pump offered as per NIT should be one that has a successful proven track record for continuous duty water or water flood or formation water disposal or hydrocarbon service applications. The model should be one that has been successfully deployed for any of the continuous duty applications, viz: water or water flood or formation water disposal or hydrocarbon service applications, for a minimum period of 2900 hours or one year from its date of commissioning. In this regard satisfactory performance certificate of the offered model pump from the end users has to be enclosed along with the offer.

Note:

- a) "Continuous duty" means pump having service operation on full load for a period of 8 hours to 24 hours per day as per Hydraulic Institute Standard application.
- b) Hydrocarbon Service Application of continuous duty Piston pumps in the context of our tender refers to applications where such pumps are deployed for duties such as crude oil transfer, condensate injection, polymer injection, glycol injection, Well Stimulation Services etc in the E & P Sector and also continuous duty handling of petroleum and petrochemical products in the Refining & Distribution Sector of the Oil & Gas Industry.

5.0 The model of the engine of the offered Pump set should have :

- (i) Successful proven track record for pump applications in Central/State PSUs or Central Govt. Organizations of India or any other Public Limited Company.
- (ii) Should have logged minimum 2900 hours or one year from its date of commissioning prior to the bid closing date (technical) of this tender.
- (iii) The bidder shall have to provide the undertaking that the offered engine shall develop required BHP to meet pump requirement suitably and its overall performance shall be satisfactory with the natural fuel gas composition as specified in this tender.

Note: Relevant documentary evidences from the end users in support of the above conditions [(i) & (ii)] mentioned above should be enclosed with the offer.

6.0 The bidder shall have to provide undertaking that in case the order is placed on the bidder, the pump packages to be supplied (including major component and all its accessories), will be manufactured after the bid closing date of this tender.

7.0 Delivery Period:

- a. Maximum allowable delivery period for supply: 06 (six) months.
(Note: The delivery period shall be reckoned from the date of issue of PO for indigenous bidder and from the date of opening of LC for foreign bidders)
- b. Maximum allowable delivery period after receipt of site clearance from OIL for Installation/Commissioning : 01 (one) month

A.2 FINANCIAL CRITERIA:

- 1.0 **Annual Turnover:** The bidder shall have an annual financial turnover of minimum **US\$ 1,75,920.00or Rs.114.35 Lakhs** during any of the preceding 03 (three) financial years reckoned from the original bid closing date of the tender.
- 2.0 "Net Worth" of the bidder should be positive for the financial/accounting year just preceding to the original bid closing date of the tender (i.e. FY 2016-17).
- 3.0 Considering the time required for preparation of Financial Statements, if the last date of preceding financial / accounting year falls within the preceding six months reckoned from the original bid closing date and the Financial Statements of the preceding financial / accounting year are not available with the bidder, then the financial turnover of the previous three financial / accounting years excluding the preceding financial / accounting year will be considered. In such cases, the Net worth of the previous financial / accounting year excluding the preceding financial / accounting year will be considered. However, the bidder has to submit an affidavit/undertaking certifying that 'the balance sheet/Financial Statements for the financial year 2016 (As the case may be) has actually not been audited so far'.

Note:

- a) For proof of Annual Turnover & Net worth any one of the following document must be submitted along with the bid:-
 - i) A certificate issued by a practicing Chartered/Cost Accountant (with Membership Number and Firm Registration Number), certifying the Annual turnover & Net worth as per format prescribed in ANNEXURE IV.
 - OR
 - ii) Audited Balance Sheet along with Profit & Loss account. In case of Foreign bidders, self-attested/digitally signed printed published accounts are also acceptable
 - b) In case the bidder is a Central Govt. Organization/PSU/State Govt. Organization/Semi-State Govt. Organization or any other Central/State Govt. Undertaking, where the auditor is appointed only after the approval of Comptroller and Auditor General of India and the Central Government, their certificates may be accepted even though FRN is not available. However, bidder to provide documentary evidence for the same.
- 4.0 In case the Audited Balance Sheet and Profit & Loss Account submitted along with the bid are in currencies other than INR or US\$, the bidder shall have to convert the figures in equivalent INR or US\$ considering the prevailing conversion rate on the date of Balance Sheet and Profit & Loss Account. A CA certificate is to be submitted by the bidder regarding converted figures in equivalent INR or US\$.

A.3 COMMERCIAL

Commercial Bid Rejection Criteria will be as per Section D of General Terms & Conditions of Global Tender (MM/GLOBAL/E-01/2005) with following Special Bid Rejection Criteria.

- 1.0 Bids are invited under **Single Stage Two Bid System**. Bidders shall quote accordingly under Single Stage Two Bid System. **Please note that no price details should be furnished in the Technical (i.e. Unpriced) bid.** The "Unpriced Bid" shall contain all techno-commercial details except the prices, which shall be kept blank. The "Price Bid" must contain the price schedule and the bidder's commercial terms and conditions. Bidder not complying with above submission procedure will be rejected.

- 2.0 The prices offered shall have to be firm through delivery and not subject to variation on any account. A bid submitted with an adjustable price will be treated as non-responsive and rejected.
- 3.0 Bids received in physical form against online invitation through e-portal shall be rejected (except the documents specifically called for in hard copies, if any). Similarly, Bids received after the bid closing date and time shall be rejected. Also, modifications to bids received after the bid closing date & time shall not be considered.
- 4.0 Bids containing incorrect statement shall be rejected.
- 5.0 Validity of the bid shall be minimum 120 days from the date of Bid Closing Date. Bids with lesser validity will be straightway rejected.
- 6.0 Bid security of **US \$ 7040.00 or Rs. 4,57,400.00** shall be furnished as a part of the **Techno-Commercial Unpriced Bid. Any bid not accompanied by a proper bid security in ORIGINAL will be rejected without any further consideration.** A bid shall be rejected straightway if Original Bid Security is not received within the stipulated date & time mentioned in the Tender and/or if the Bid Security validity is shorter than the validity indicated in Tender and/or if the Bid Security amount is lesser than the amount indicated in the Tender.
- 6.1 For exemption for submission of Bid Security please refer Clause No. 9.8 (Section A) of "General Terms & Conditions" for e-Procurement as per Booklet No. MM/GLOBAL/E-01/2005 for E-procurement (ICB Tenders).
- 7.0 Successful bidder shall be required to furnish a Performance Security equivalent to ten (10%) of total evaluated value of Order as per Clause No. 10 (Section A) of "General Terms & Conditions" as per Booklet No. MM/GLOBAL/E-01/2005. The successful bidder shall submit Performance Security within 30 days of award, failing which OIL reserves the right to cancel the order and forfeit their Bid Security. Bidders should undertake in their bids to submit Performance Security as stated above.
- 8.0 Offers should be submitted along with Integrity Pact duly signed by the authorized signatory of the bidder. If any bidder refuses to sign Integrity Pact or declined to submit Integrity Pact with the offer, their bid shall be rejected straightway.
- 9.0 Bidder shall accept and comply with the following clauses as given in the Bid Document, failing which bid shall be liable for rejection:
- i) Liquidated Damages
 - ii) Warranty/Guarantee of material
 - iii) Arbitration / Resolution of Dispute
 - iv) Force Majeure
 - v) Applicable Laws
- 10.0 Bidders are required to submit the summary of the prices in their price bids as per bid format (Summary), given below.

i) **Price Bid Format (SUMMARY) for Foreign Bidders:**

1.	
A)	Unit cost of Gas Engine Driven Horizontal Piston type Reciprocating Pump
1.	Total cost of 2 Nos. of Gas Engine Driven Horizontal Piston type Reciprocating Pump
B)	
1.	
C)	Third Party Inspection Charges (for 2 Nos. Reciprocating Pump), If any
1.	
D)	Pre Despatch Inspection Charges (for 2 Nos. Reciprocating Pump), If any
2	Total cost of supply (1A+1B+1C+1D)
3	Packing & FOB Charges
4	FOB Value (2+3)
5	Ocean Freight Charges upto Kolkata, India
6	Insurance Charges @ 0.5 % of Total FOB Value vide (4) above
7	Banking Charges @ 1% of Total FOB Value vide (4) above in case of payment through Letter of Credit. If confirmed L/C at buyer's account is required, 1.5% of Total FOB Value will be loaded)
8	CIF Value (4+5+6+7)
9	Landing Charges 1% on(8)
10	CIF Landed Value (8+9)
11	Basic Custom Duty on (10)
12	CIF +CD Landed Value (10+11)
13	IGST (including cess, if any) on (12)
14	Compensatory Cess on 13, If any
15	CIF +CD+GST Landed Value (12+13+14)
16	Training Charges, If any
17	GST on Training Charges
18	Installation and commissioning Charges (For 30 nos.), if any
19	GST on Installation & Commissioning Charges
20	Total Value (15+16+17+18+19)
21	Total Value in words :
22	Gross Weight :
23	Gross Volume :

ii) **Price Bid Format (SUMMARY) for Indigenous Bidders:**

1.	
A)	Unit cost of Gas Engine Driven Horizontal Piston type Reciprocating Pump
1.	Total cost of 2 Nos. of Gas Engine Driven Horizontal Piston type Reciprocating Pump
B)	
1.	
C)	Third Party Inspection Charges (for 2 Nos. Reciprocating Pump), If any
1.	
D)	Pre Despatch Inspection Charges (for 2 Nos. Reciprocating Pump), If any
2	Total cost of supply (1A+1B+1C+1D)
3	Packing & Forwarding Charges, if any
4	Total Ex works Value (2+3)
5	GST on (4)

6	Compensatory Cess, If any
7	Total FOR Despatching Station value(4+5+6)
8	Inland freight Charges upto Duliajan, Assam
9	GST on (8)
10	Insurance Charges @ 0.5 % on (7)
11	Training Charges, If any
12	GST on Training Charges
13	Installation and commissioning Charges (For 30 nos.), if any
14	GST on Installation & Commissioning Charges
15	Total FOR Duliajan Value (7+8+9+10+11+12+13+14)
16	Total Value in words :
17	Gross Weight :
18	Gross Volume :
19	Import Content, if any

B) BID EVALUATION CRITERIA

The bids conforming to the specifications, terms and conditions stipulated in the enquiry and considered to be responsive after subjecting to the Bid Rejection Criteria will be considered for further evaluation as per General Terms and Conditions for Global Tender and the Bid Evaluation Criteria given below:

B1. COMMERCIAL

1.0 The evaluation of bids will be done as per the Commercial Bid Format (SUMMARY) detailed vide of BRC.

2.0 If there is any discrepancy between the unit price and the total price, the unit price will prevail and the total price shall be corrected. Similarly, if there is any discrepancy between words and figure, the amounts in words shall prevail and will be adopted for evaluation.

3.0 For conversion of foreign currency into Indian currency, B.C. selling (Market) rate declared by State Bank of India, one day prior to the date of price bid opening shall be considered. However, if the time lag between the opening of the bids and final decision exceed 3(three) months, then B.C. Selling(Market) rate of exchange declared by SBI on the date prior to the date of final decision shall be adopted for conversion and evaluation.

4.0 To ascertain the inter-se-ranking, the comparison of the responsive bids will be made as under, subject to corrections / adjustments given herein.

- a) When only foreign bidders are involved: Comparison will be done on Total value vide Sl.No. 20 of 11 (i) of BRC Commercial
- b) When both foreign & Domestic bidders are involved: Comparison will be done on total value vide Sl no 20 of 10 (i) of BRC Commercial of foreign bidder and total value vide SlNo. 15(excluding Sl no 8,9 & 10) of 10 (ii) of domestic bidder
- c) When only domestic bidders are involved: Comparison will be done on Total value vide Sl no 15 of 10 (ii) of BRC Commercial of Domestic bidder

- d) Domestic bidders must quote inland freight charges upto Duliajan. In case bidder fails to quote inland freight charges, highest freight quoted by domestic bidder against this tender shall be loaded to their offer for comparison purpose.
- e) The items covered under this enquiry shall be used by OIL in the PEL/ML areas issued/renewed after 01/04/99 and hence, applicable Customs Duty for import of goods shall be ZERO. However, IGST @ 5% shall be applicable. IGST @ 5% shall be applicable for Indigenous bidders also under deemed export benefit.

Note: If the Government of India revises these evaluation criteria the same as applicable on the bid closing date will be adopted for evaluation of the offers.

5.0 Other terms and conditions of the enquiry shall be as per General Terms and Conditions for Global Tender. However, if any of the Clauses of the Bid Rejection Criteria / Bid Evaluation Criteria (BEC / BRC) mentioned here contradict the Clauses in the General Terms & Conditions of Global Tender of the tender and/or elsewhere, those mentioned in this BEC / BRC shall prevail.

COMMERCIAL CHECK LIST

THE CHECK LIST MUST BE COMPLETED AND RETURNED WITH YOUR OFFER. PLEASE ENSURE THAT ALL THESE POINTS ARE COVERED IN YOUR OFFER. THESE WILL ENSURE THAT YOUR OFFER IS PROPERLY EVALUATED. PLEASE SELECT "Yes" OR "No" TO THE FOLLOWING QUESTIONS, IN THE RIGHT HAND COLUMN.

A.

Sl#	REQUIREMENT	COMPLIANCE
1.0	Whether bid submitted under Single Stage Two Bid System?	Yes / No
2.0	Whether quoted as manufacturer?	Yes / No
2.1	Whether quoted as OEM Dealer / Supply House. To Specify-	Yes / No
2.2	If quoted as OEM Dealer / Supply House	Yes / No
	(a) Whether submitted valid and proper authorization letter from manufacturer confirming that bidder is their authorized Dealer / supply House for the product offered ?	
	(b) Whether manufacturer's back-up Warranty/Guarantee certificate submitted?	
3.0	Whether ORIGINAL Bid Bond (not copy of Bid Bond) as per Revised Format(Annexure VII Revised) Sent separately? If YES, provide details	Yes / No
	(a) Amount :	
	(b) Name of issuing Bank :	
	(c) Validity of Bid Bond :	
4.0	Whether offered firm prices ?	Yes / No
4.1	Whether quoted offer validity of 120 days from the bid closing date of tender?	Yes / No
4.2	Whether quoted a firm delivery period?	Yes / No
4.3	Whether agreed to the NIT Warranty clause?	Yes / No
4.4	Whether confirmed acceptance of Payment Terms as per NIT general terms and conditions covered under "MM/GLOBAL/E-01/2005"?	Yes / No
5.0	Whether confirmed to submit PBG as asked for in NIT?	Yes / No
5.1	Whether agreed to submit PBG within 30 days of placement of order?	Yes / No
6.0	Whether Price submitted as per Price Schedule (refer Para 12.0 of BRC vide Annexure - II)?	Yes / No
6.1	Whether cost of Recommended Spares for 2 years of operations quoted?	YES/NO
7.0	Whether quoted as per NIT (without any deviations)?	Yes / No
7.0	Whether quoted any deviation?	Yes / No
7.1	Whether deviation separately highlighted?	Yes / No
8.0	Whether indicated the country of origin for the items quoted?	Yes / No
8.1	Whether technical literature / catalogue enclosed?	Yes / No
8.2	Whether weight & volume of items offered indicated?	Yes / No
9.0	For Foreign Bidders - Whether offered FOB / FCA port of despatch including sea / air worthy packing & forwarding?	Yes / No

9.1	For Foreign Bidders - Whether port of shipment indicated. To specify:	Yes / No
9.2	For Foreign Bidders only - Whether indicated ocean freight up to Kolkata port (Excluding marine insurance)?	Yes / No
9.3	Whether Indian Agent applicable?	Yes / No
	If YES, whether following details of Indian Agent provided?	
	(a) Name & address of the agent in India - To indicate	
	(b) Amount of agency commission - To indicate	
	(c) Whether agency commission included in quoted material value?	
10.0	For Indian Bidders - Whether indicated the place from where the goods will be dispatched. To specify :	Yes / No
10.1	For Indian Bidders - Whether road transportation charges up to Duliajan quoted?	Yes / No
10.2	For Indian Bidders only - Whether offered Ex-works price including packing/forwarding charges?	Yes / No
10.3	For Indian Bidders only - Whether indicated import content in the offer?	Yes / No
10.4	For Indian Bidders only - Whether offered Deemed Export prices?	Yes / No
10.5	For Indian Bidders only - Whether all applicable Taxes & Duties have been quoted?	Yes / No
11.0	Whether all BRC/BEC clauses accepted?	Yes / No
12.0	Whether Integrity Pact with digital signature uploaded?	Yes / No
12.1	Whether all the clauses in the Integrity Pact have been accepted?	Yes / No

B. TO BE FILLED UP IN DETAIL:

Sl No	Requirement	Bidder's Reply
01	Make and Model of the Items	
02	Bid validity	
03	Payment Terms	
04	Guarantee/Warranty Terms	
05	Delivery Period	
08	Port of Despatch / Despatching Station	
09	Confirm submission Integrity pact, if required as per NIT	

10	Confirm submission PBG, if required as per NIT	
11	Compliance to: a) Liquidated Damage b) Warranty/Guarantee c) Arbitration/Resolution of Dispute d) Force Majeure e) Applicable laws	
12	Exception/Deviations quoted, if any, to be given in details or refer to respective page of the bid documents	

Signature _____

Name _____

Designation _____

CERTIFICATE OF ANNUAL TURNOVER & NET WORTH

TO BE ISSUED BY PRACTISING **CHARTARD ACCOUNTANTS' FIRM** ON THEIR LETTER HEAD

TO WHOM IT MAY CONCERN

This is to certify that the following financial positions extracted from the audited financial statements of M/s.....(Name of the bidder) for the last three (3) completed accounting years upto..... **(as the case may be)** are correct

YEAR	TURN OVER In INR (Rs.) Crores/ US \$ Million) *	NET WORTH In INR (Rs.) Crores / US \$ Million) *

*Rate of conversion (if used any): USD 1.00 = INR

Place:

Date:

Seal

Membership No:

Registration Code:

Signature

***Applicable only for GLOBAL tenders**

BIDDER'S RESPONSE SHEET			
Description	OIL's Specification		Bidder's Offer
A. BRIEF DESCRIPTION	Gas Engine Driven Horizontal Piston type Reciprocating Pumps for Fresh Water Pumping.		
B. QUANTITY	Two (02) Nos.		
C. NOTE TO BIDDERS	<p>1. Bidders are to submit their offer (Technical) by duly filling up the "Bidder's Offer" column of the attached Bidder's Response Sheet. Additional sheets may be used as and where necessary and the same to clearly marked as: "Annexure No: _____, for Point No ____.</p> <p>2. Offers submitted in other form than filling up of the "Bidder's Offer" column of the attached Bidder's Response Sheet shall not be accepted for evaluation.</p> <p>3. All the Annexures / Attachments are to be suitably marked and a list of the same to be submitted alongwith the offer.</p>		
D. PUMP	1. Pump Type	Horizontal Piston type Reciprocating Pumps.	
	2. Standards	API – 674 or ANSI Hydraulic Institute Standards	
	3. Duty	Continuous Duty (Note : "Continuous duty" means pump having service operation on full load for a period of 8 hours to 24 hours per day as per Hydraulic Institute Standard application .)	
	4. Rated Capacity	45 KLPH to 55 KLPH	
	5. Rated Discharge Pressure (Minimum)	10 Kg/cm ²	
	6. Liquid to be Handled	Fresh Water	
	7. Suction Condition	4 Meters Negative Suction (NB: Charge pump / booster pump should not be used to meet the negative suction conditions)	
	8. Design Features	The guiding salient points are detailed below:	
		(a) Fluid End Features:	
i. Mono Block Fluid End with bolt on type valve covers.			
	ii. Suction and Discharge on either side of the fluid end.		

BIDDER'S RESPONSE SHEET		
Description	OIL's Specification	Bidder's Offer
	iii. Suction and discharge shall be flanged and suitable for the working pressure as specified.	
	iv. Any connection welded on to the fluid cylinder shall have to meet the material requirement of the fluid cylinder rather than the requirements of the connected pipings.	
	v. Should be provided with liners a and the derails of the same to be furnished alongwith the offer.	
	vi. Surfaces of piston rods & cylinders in contact with packing shall have to hardened or coated or shall have a minimum surface hardness of Rockwell C35. Surface finish shall have to be 16R _a or better.	
	vii. Piston rods, both liquid and drive end, shall be of corrosion resistant material.	
	viii. Design of the pistons should match the mentioned service condition.	
	ix. Pistons to be fastened and locked with rod and cross head as suitable for the specified service conditions.	
	x. Interchangeable valve assemblies with replaceable tapered valve seats pressed onto mono block fluid end.	
	(b) Power End Features:	
	i. The Power end frame shall be a cast enclosure that will house crank shaft, connecting rods, crossheads and bearings.	
	ii. Flooded sump Splash / Lift gravity Lubrication for power end.	
	iii. Crankshaft shall have to be wrought or cast	

BIDDER'S RESPONSE SHEET			
Description	OIL's Specification		Bidder's Offer
		or forged alloy steel in one piece.	
		iv. The crank pin bearings shall be two piece precision type (preferably steel backed, precision type, Aluminum alloy/ Tin & babbitt lined)	
		v. Sealing to be provided at all openings in the power frame to prevent contamination of the power end lubricant.	
		vi. The power end shall have to be provided with a filtered vent and a NPS ¼ (minimum) connection for purging. An accessible drain (NPS ¼ minimum) shall have to be provided at the lowest point of the sump.	
		(c) Lubrication:	
		i. The power end lubrication system to be splash or lift gravity type. (Type of lubrications method offered to be indicated.) A sight glass, gauge or oil level dipstick to be provided.	
		ii. Bearing oil temperature shall not exceed 70 ⁰ C (160 ⁰ F) anywhere in the system.	
	9. Material of Construction (MoC)	(a) The material of construction (MOC)of following Fluid End and Power End components shall have to be suitable for operating conditions as mentioned in the tender. The bidder shall have to mention in their offer the MOC of the following Fluid end and Power end components of the offered pump with the applicable ASTM, AISI, ASME or SAE numbers, including material grade. When no such designation is available, the bidder's material specification, giving physical properties, chemical compositions, and test requirements, shall be included in the offer.	

BIDDER'S RESPONSE SHEET			
Description	OIL's Specification		Bidder's Offer
		Bidder furnish the MoC the followings in details:	
		(b) Fluid end components: i. Fluid End Block ii. Valve cover/valve iii. Hard coated Pistons iv. Valve seats v. Valve spring	
		(c) Power end components: i. Power frame ii. Crank shaft iii. Connecting rod iv. Crosshead v. Crosshead pin vi. Crosshead pin bushing vii. Extension rod viii. Crank pin bearing (two piece)	
		(d) Testing of Materials: (i)The bidder shall specify the ASTM optional tests and inspection procedures that may be necessary to ensure that materials are satisfactory for the service. Such test shall have to be mentioned in the bidder's offer. The bidder shall have to submit detail test certificates for the material testing mentioned in their offer prior to pre- dispatch inspection of the pump sets. (ii)The bidder shall have to provide undertaking along with the offer that the offered materials of construction of the pump are suitable for the specified operating conditions (as mentioned in the tender).	
	10. Name plate and Rotation Arrows	(a) A nameplate shall be securely attached at a readily visible location wherein the manufacturer's	

BIDDER'S RESPONSE SHEET			
Description	OIL's Specification		Bidder's Offer
		name, purchaser name and purchase order number, machine serial number, maximum and minimum design limits and rating data, maximum allowable working pressure and temperatures, hydrostatic test pressure etc. should be clearly indicated.	
		(b) Rotation arrows indicating direction of rotation of major items should be cast in	
	11. Accessories	Following Accessories are required to be supplied along with each pump set:	
		(a) Accessories in discharge line:	
		i. Full flow, suitably sized and rated, spring loaded, Reset Relief Valve, mounted on the discharge piping. (Make : Preferably OTECO/ BAIRD / CAMERON) – Qty. – 01 no per pump N.B: The relief valve is to be set at 110% of our maximum pressure requirement at the time of delivery.	
		ii. Liquid filled discharge pressure gauge having a range up to 100 Kg/ Sq.cm, with built in dampening mechanism to minimize fluctuations for accurate response to pressure changes. (Make : Preferably OTECO/ CAMERON / MARTIN DECKER) – Qty. – 01 no per pump	
		iii. Suitably designed Maintenance Free Discharge Pulsation Dampener with no replaceable parts whatsoever. The working principle of the same to be forwarded along with the offer for review at our end. The maximum peak to peak pressure fluctuations	

BIDDER'S RESPONSE SHEET		
Description	OIL's Specification	Bidder's Offer
		should not exceed 5% of the maximum operating pressure. – Qty. – 01 no per pump
	iv.	Discharge Valve: Gate or Ball Valve with RTJ Flanged end of suitable size and pressure rating conforming to API 600 with a pair of companion RTJ flanges (weld neck) conforming to ANSI B16.5 (latest edition) complete with two no RTJ gaskets and requisite no of studs and nuts. – Qty. – 01 no per pump
	v.	Bypass valve: Gate or Ball Valve with RTJ Flanged end of suitable size and pressure rating conforming to API 600 with a pair of companion RTJ flange (weld neck) conforming to ANSI B16.5 (latest edition) complete with two no RTJ gaskets and requisite no of studs and nuts . The size of the bypass valve should be same as discharge valve. – Qty. – 01 no per pump
	vi.	Check Valve of suitable size and pressure rating, full opening/full bore type conforming to API 600 specification with bolted cover, renewable seat, RTJ Flanged ends along with a pair of companion RTJ flanges (weld neck) conforming to ANSI B16.5 (latest edition) complete with two no RTJ gaskets and requisite no of studs and nuts . The size of the Check valve should be same as discharge valve. – Qty. – 01 no per pump
	vii.	Drain valve of suitable size and pressure rating (to depressurize the system when carrying out maintenance of the unit). – Qty.

BIDDER'S RESPONSE SHEET		
Description	OIL's Specification	Bidder's Offer
	– 02 nos per pump	
	viii. Complete set of fittings, interconnection piping and companion flanges with proper bolting, gaskets, dampener brackets, blind flanges etc. required for mounting all items mentioned above.	
	(b) Accessories in Suction lines:	
	i. Foot Valve to facilitate the requisite negative suction. – Qty. – 01 no per pump	
	ii. Maintenance free suction stabilizer (volume bottle type) – Qty. – 01 no per pump	
	iii. Pressure gauge	
	iv. Suction Valve: Flanged end Gate/ Ball valve of suitable size and pressure rating conforming to API 600 specification, with a pair of companion flanges, gaskets nuts and bolts. – Qty. – 01 no per pump	
	v. Complete set of fittings, interconnection piping and companion flanges with proper bolting, gaskets, dampener brackets, blind flanges etc. required for mounting all items mentioned above.	
	(c) NB: i. All the pipes valves and fitting of the discharge and suctions lines should be designed to work satisfactorily for the fluid(s) to be handled as specified above. ii. All the pipes valves and fitting of the discharge and suctions lines should be of same size. iii. All valves should be individual. Combo valves are not acceptable. iv. Dampeners should be of Carbon Steel,	

BIDDER'S RESPONSE SHEET			
Description	OIL's Specification		Bidder's Offer
		construction built to ASME pressure vessel codes and code stamped.	
E. SPEED REDUCTION GEAR BOX	(a)The speed reduction from the prime mover (gas engine) at its rated rpm to the desired rpm of pump shall be effected by means of a separate external foot mounted gear box installed between the prime mover and the pump.		
	(b) The Gear Box should be parallel shaft speed reducer with a gear rated to designed HP from an engine at 1500 rated RPM to the pump at desired RPM, with a suitable Gear ratio . The gear unit shall conform to AGMA 6010 (latest editions). The service factor should not be less than that as required by AGMA 6010 (latest editions), the same to be mentioned in the offer for evaluation at our end.		
	(c) The unit design includes cast housing, helical gear elements, anti-friction roller bearings on all shafts, and a self-contained splash lubrication system and suitable cooling system.		
F. PRIME MOVER (GAS ENGINE)	General Description:	The Prime Mover should be a four stroke, spark-ignited, stoichiometric (Air-Fuel Ratio), naturally aspirated or turbo-charged, radiator cooled Gas Engine, rated for continuous power capable of developing the requisite horse power to power the reciprocating pump at rated load conditions.	
	Conforming Standards	Rated for continuous power in accordance with ISO 3046/BS5514/IS10000 standards and capable of developing the requisite horse power to power the reciprocating pump at rated load conditions.	
	Rated RPM	1500 RPM (Max)	
	Limiting Compression Ration	12:1 (Max)	
	BHP	The selected Gas Engine should be capable of developing the requisite horse power to power the reciprocating pump at rated load conditions at 1500 rpm with a maximum compression ratio of 12:1 and rated for continuous power in accordance with	

BIDDER'S RESPONSE SHEET			
Description	OIL's Specification		Bidder's Offer
		ISO 3046/BS5514/IS10000 standards. NB: The bidder has to furnish the basis and detailed calculation wrt the selection of the offered Engine wrt the offered Pump for the specified operating conditions alongwith the offer.	
	Fuel	Natural Gas. Composition of Fuel Gas : The engine should be capable of developing required BHP as detailed in Clause F.1. above with fuel gas composition given below- <div style="display: flex; justify-content: space-between;"> <div>CONSTITUTION</div> <div>Range by %</div> </div> VOLUME <div style="display: flex; justify-content: space-between;"> <div>Methane</div> <div>93.50</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Ethane</div> <div>3.56</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Propane</div> <div>1.11</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Nitrogen</div> <div>0.20</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Carbon-dioxide</div> <div>0.42</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Iso-Butane</div> <div>0.23</div> </div> <div style="display: flex; justify-content: space-between;"> <div>N-Butane</div> <div>0.37</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Iso-Pentane</div> <div>0.15</div> </div> <div style="display: flex; justify-content: space-between;"> <div>N-Pentane</div> <div>0.11</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Hexane+</div> <div>0.35</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Gas Gravity</div> <div>0.6089</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Gross Calorific Value</div> <div>9462.8 Kcal/SCUM</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Net Calorific Value</div> <div>8706.3 Kcal/SCUM</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Moisture content:</div> <div>21.0 - 120.0</div> </div> LB/MMCFT(336.0 - 1992.0 KG/MMSCM) NB: Bidder has to include required gas conditioning & fuel supply system in the scope of work to suit the requirement of the engine offered.	
	Site Condition	The prime mover of pump should be suitable for	

BIDDER'S RESPONSE SHEET			
Description	OIL's Specification		Bidder's Offer
		operation at the following site condition : ➤ Maximum Temperature : 48 DEG C ➤ Minimum Temperature : 05 DEG C ➤ Maximum Humidity at 21 DEG C : 100 % ➤ at 35 DEG C : 95 % ➤ at 41 DEG C : 70 % ➤ Maximum Altitude above sea level : 150 mt	
	Aspiration	Naturally aspirated or Turbo-charged	
	Engine Cooling	Radiator Cooled (Blower type)	
	Details of Engine Sub - Systems	The engine should comprise of the following sub systems:	
	i. Cooling System	a) The cooling system of water cooled engine should comprise of an engine mounted water pump, an industrial type heavy duty radiator suitable for operation in ambient temperature of 48 Deg C and a blower fan.	
		b) The engine jacket water cooling system should be a closed circuit design with provision for filling, expansion, and de-aeration. The cooling pump should be driven by the engine. Coolant temperature should be internally regulated to disconnect external cooling system until operating temperature is achieved.	
		c) Radiator, Engine Mounted: Heat rejected to the engine jacket water shall be discharged to the atmosphere through a close coupled radiator. The radiator shall be sized to cool the engine continuously while operating at full rated load and at site conditions of 48 Deg C ambient.	
		d) Blower Fan: The radiator cooling fan shall be a blower type driven from the engine. Air shall be drawn from the engine side and exhausted	

BIDDER'S RESPONSE SHEET			
Description	OIL's Specification		Bidder's Offer
		through the radiator core with no more than 12.7 mm(0.5 Inch) of water external restriction in addition to core restrictions.	
		e) Fan and Belt guarding: The fan, fan drive, and fan belts shall be covered with punched steel mesh guarding for personnel protection.	
	ii. Air Intake System	The air intake system should comprise of a heavy duty engine air cleaner mounted on the engine with a vacuum indicator and air intake manifold with dry element requiring replacement no more frequently than 500 hours or once each year. Level of suspended particulate matter in ambient air at site is 75µg/m³ (maxm.)	
	iii. Electric Starting System	The engine should have an electric starting system comprising of a Maintenance Free Heavy Duty Battery pack of reputed make having a minimum capacity 180 ampere hours with a alternator mounted on the engine for a battery charging and a 24 Volt starter (preferably of LUCAS TVS/DELCO REMY make), starter relay, and automatic reset circuit breaker to protect against butt engagement. Batteries shall be maintenance free, lead acid type mounted near the alternator. Batteries should be housed in a hard rubber or polypropylene case with provision for venting. Required cables should be furnished and sized to satisfy circuit requirements.	
	iv. Battery Charger	The battery charger is to be a solid-state device with adjustable float voltage control. It is to be a constant voltage device with current limit.	
	v. Ignition System	The ignition system should be a Non -shielded ignition comprising Altronic III/V Engine driven ignition timer, Ignition Coil, High Tension and Low	

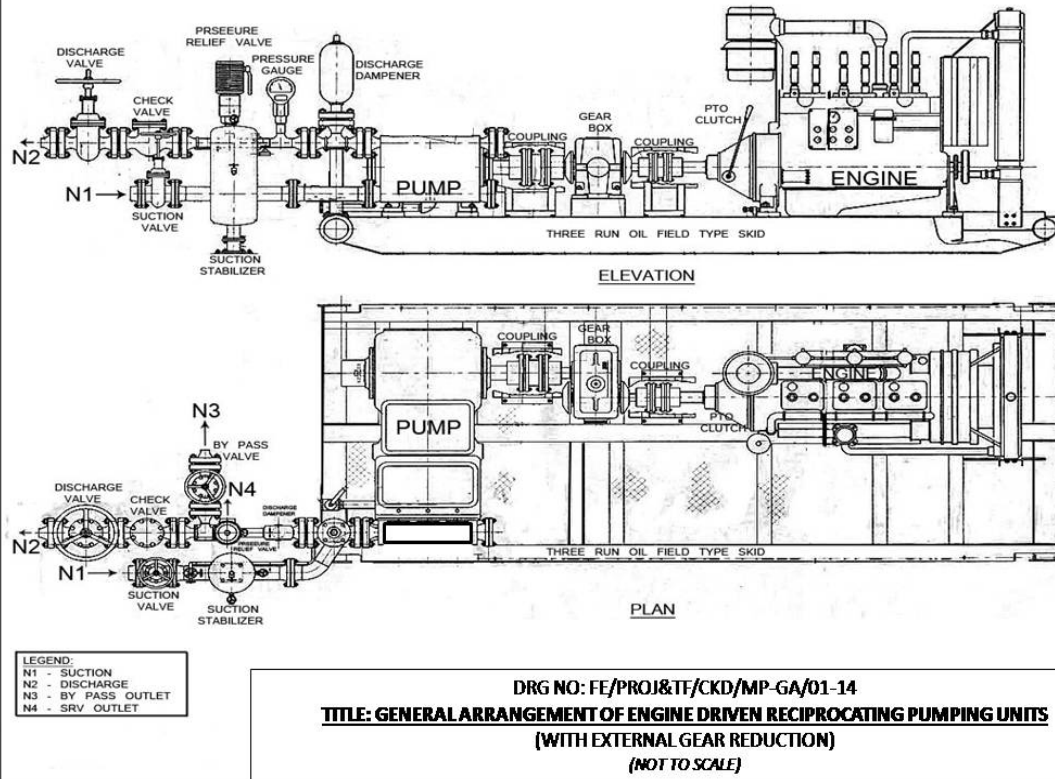
BIDDER'S RESPONSE SHEET			
Description	OIL's Specification		Bidder's Offer
		Tension Wiring Harness, Transformer and Spark Plugs shall incorporate gold palladium electrodes for reliability and life (Preferably STITT/ CHAMPION make)	
	vi. Exhaust System	a) The exhaust system should comprise of water cooled exhaust manifold, stainless steel exhaust flexible connection, residential type exhaust silencer, spark arrestor and piping connections.	
		b) Heavy walled piping of schedule 40 with radii of 90 Degbend at least 1½ times the pipe diameter. Piping should be installed with appropriate insulation and shielding.	
		c) Piping should be supported and braced to prevent weight or thermal growth being transferred to the engine and flexible expansion fittings provided to accommodate thermal growth.	
	vii. Fuel System	The fuel system should comprise of:	
		a) Governor (Preferably WOODWARD make).The engine governor shall be Mechanical- Hydraulic / Electronic Speed Control with EG Electro-Hydraulic actuator or Barber Coleman Equal. Speed drop shall be extremely adjustable from 0 (isochronous) to 10% from no load to full rated load.	
		b) Carburetor (Preferably IMPCO make),	
		c) Gas pressure regulators (preferably VANAZ/FISHER) to regulate gas pressure from 50 PSIG-20 PSIG to the required pressure at carburetor intake point. 50 PSIG- 20 PSIG fuel gas shall be available at site for taping	
		d) Gas Filter and related linkages. The gas	

BIDDER'S RESPONSE SHEET			
Description	OIL's Specification		Bidder's Offer
		Filtration unit should be place on a separate skid for convenience of operators.	
		e) Fuel inlet line to the engine shall be having stainless steel flexible connection to take care of vibration/shock if any, in the system.	
	iii. Lubricating System	a) The lubricating system should comprise of lubricating oil pump, lubricating oil filter with a replaceable paper element, lubricating oil cooler, lubricating oil pan and crankcase breather.	
		b) The lubricating oil pump shall be a positive displacement type that is integral with the engine and gear driven from the engine gear train. The system shall incorporate full flow filtration with bypass valve to continue lubrication in the event of filter clogging.	
		c) The bypass valve must be integral with the engine filter base of receptacle.	
	ix. Instrument Panel	The engine mounted instrument panel shall consist of a shock-mounted formed and welded enclosure. Provide Metric marked gauges as above. The instrument panel should include the following :	
		a) Lubricating Oil pressure gauge	
		b) Lubricating oil temperature gauge	
		c) Water temperature gauge	
		d) Starting Switch	
		e) Ignition Switch	
		f) Mechanical/Digital tachometer and hour meter	
		g) Ampere meter	
	x. Engine Safety Controls	Engine mounted safety shut off/trip system for tripping the engine in the event of:	
		a) Low lubricating oil Pressure	

BIDDER'S RESPONSE SHEET			
Description	OIL's Specification		Bidder's Offer
		b) High cooling water temperature	
		c) Engine over speed	
		d) Over crank	
	xi. Other Features	a) flexible coupling / direct coupling	
		b) flywheel with housing	
		c) lifting eyes	
		d) coupling guard if applicable	
		e) guards over belt drives (blower fan, water pump drive pulley, timing pulley)	
		f) standard painting	
		g) suitable hand throttle control	
		h) mechanical hour meter	
		i) SAE standard rotation.	
		N.B: Provision of guards over belt drives and couplings has become mandatory as per recommendation of OISD (Oil Industry Safety Directorate) & DGMS (Director General of Mines & Safety).	
	xii. General Notes On Engine	a) The engine shall conform to ISO : 3046 specifications and shall be rated for continuous power with an over load power rating of 110% of the continuous power corresponding to engine application for a period of 1 hr within a period of 12 hrs operation.	
		b) The engine governing should be in accordance with Class A Governing specified in BS : 3109 : 1985 (or latest)	
		c) The bidder should submit the following information along with relevant performance rating Curves and engine product catalogue:	

BIDDER'S RESPONSE SHEET			
Description	OIL's Specification		Bidder's Offer
		i. Gross HP developed at rated RPM ii. Deduction for fan and other ancillary equipment. iii. Net HP developed at rated RPM iv. Specific fuel consumption at rated power as well as at 110%, 75%, 50% and 25% of rated load.	
		d) The fuel gas system shall consists of a minimum of following components but shall not be limited to these : i. Main line pressure regulator. ii. Pressure relief safety valve. iii. Gas scrubber tank. iv. Gas fuel filter. v. Interconnecting gas piping from main line pressure regulator to engine. vi. The gas conditioning & piping should be carried out in such a way as to prevent condensate carry over to engine .	
		e) The bidder must undertake and confirm from OEM's that the equipment to be supplied are not going to become obsolete for the next 10 years and provisioning of spares can be continued.	
G. DRIVE ARRANGEMENT	i.	The drive arrangement will involve flow of prime mover power through a flywheel mounted clutch PTO to the input shaft of an external foot mounted gearbox and finally to the crankshaft of the reciprocating pump.	
	ii.	Suitably selected Flexible Disc with taper lock bushing should be incorporated to transfer power from the prime mover to the reciprocating pump through the transmission , as illustrated in the Sketch of “General Arrangement of Engine Driven Reciprocating Pumping unit”.	
	iii.	All rotating parts should be covered by suitable non sparking guards.	
H. PUMP	(i)	The pump set is to be supplied with all components and accessories fitted and	

BIDDER'S RESPONSE SHEET		
Description	OIL's Specification	Bidder's Offer
PACKAGE UNITIZATION	<p>mounted on an oilfield type three runner portable master skid as shown on the attached indicative drawing, Drawing No: FE/PROJ&TF/CKD/MP-GA/01-14 (NB: The drawing is indicative only but should not be treated as exhaustive, any addition as per the design considerations of the pump package may be incorporated by the manufacturer). The floor of the skid should be covered with anti skid steel plates. While unitizing the pump set, easy approach to various components should be kept in mind, to facilitate operational and maintenance requirements The skid should be fabricated out of properly sizes beams to withstand loading / unloading and transfer in oil field trucks.</p> <p>The skid shall be sized to contain the entire pump and engine unit and should include the following components:</p> <ol style="list-style-type: none"> Drip pan for cradle/fluid area of pump and packing area complete with threaded drain Dip lip for cradle / fluid area of pump and packing area Grouting holes Radiator bumper guard Exhaust tubing and supports Horizontal adjustment screws for minor adjustment Two grouting bosses on skid Interconnection piping spool pieces on suction and discharge with ancillary components Non sparking Aluminum safety guards. One set of proper size foundation bolts and nuts with each pump sets. The foundation Bolt for the skid is to be in accordance with ASTM #A193 and nut as per ASTM # A193. <p>(ii) N.B.: Paint / finish specifications shall consist of wire brushing structural pieces and piping, solvent cleaning of components, one coat of red oxide alkyd primer 2.0 to 2.5 mils dry film thickness. The top coat shall be one coat of gloss sakyd national blue enamel 1.0 to 2.0 mils dry film thickness.</p>	

BIDDER'S RESPONSE SHEET		
Description	OIL's Specification	Bidder's Offer
	 <p>LEGEND: N1 - SUCTION N2 - DISCHARGE N3 - BY PASS OUTLET N4 - SRV OUTLET</p> <p>DRG NO: FE/PROJ&TF/CKD/MP-GA/01-14 TITLE: GENERAL ARRANGEMENT OF ENGINE DRIVEN RECIPROCATING PUMPING UNITS (WITH EXTERNAL GEAR REDUCTION) (NOT TO SCALE)</p>	
I. PRE DESPATCH INSPECTION AND TESTING	(a)The pump set shall be inspected by OIL's deputed engineer at manufacturers / assembler's works / factory prior to dispatch. However, such inspection will not relieve the supplier of his responsibility to ensure that the equipment supplied conforms to the correct specifications and is free from manufacturing and all other defects.	
	(b)The supplier shall carry out full load performance test on the pump set ,at duty conditions , in the presence of OIL's deputed representative .	

BIDDER'S RESPONSE SHEET		
Description	OIL's Specification	
	(c) N.B. : (i) The QAP (Quality Assurance Plan) for the Pump sets shall have to be submitted to OIL for approval prior to Pre despatch inspection at supplier's works. (ii) Charges for carrying out the above tests at the manufacturer's facility should be included in the purview of the offer. However, cost of travelling, boarding, lodging of OIL's engineers will be to OIL's account.	
	(d) A draft copy of the composite operation manual of the complete pump packages including control panel shall be submitted to representative of OIL during pre-despatch Inspection at supplier's works for approval. Three (03) copies of the approved copy of the composite operation manual to be supplied along with the documents as mentioned under Clause J.4	
J. CERTIFICATES AND DOCUMENTS TO BE FORWARDED	1. Documents should be forwarded along with the quotations:	a) Product line catalogue, specifying materials of construction and constructional features of the offered pump and technical literatures of all ancillary equipment.
		b) Performance chart of the piston pump including all technical calculations such as hydraulic horse power, volumetric efficiency, mechanical efficiency, RPM, gear ratio, maximum piston load, NPSH requirement, etc.
		c) Detail calculation to justify that BHP of the offered prime mover engine is suitable to meet the pumping requirement as specified in the tender. The power losses or mechanical efficiency of each component of the drive system such as coupling , gear box etc. are to be mentioned clearly.

BIDDER'S RESPONSE SHEET		
Description	OIL's Specification	Bidder's Offer
	2. The following documents shall have to be forwarded within a month of issue of LOI or placement of firm order	a) A foundation diagram for the complete pump set indicating the static and dynamic loads of the package. b) Pump Package Unitization plan/ drawing.
	3. Material test (MOC) certificate of the fluid end components and power end components must be forwarded along with the pre-despatch inspection notice from supplier.	
	4. The following documents must be forwarded along with the supply of equipment	a) Certified test results b) Certificate of hydrostatic testing c) Manufacturers certificate of authenticity d) Certificate of test / conformance of pump and associated ancillaries like relief valves, pressure gauges, dampeners, Flexible Metallic braided hose etc. e) Two sets of operation and maintenance manuals including trouble shooting, parts catalogue of pump, engine , gear box and all other accessory equipment for each set. f) Three (03) sets of composite operational manual per pump set for the complete pump package including control panel consist of clear cut simple instruction for start, stop, restart , significance of various display in the control panel, and negotiation of alarms etc. g) Parts Catalogues for Pump, Engine and Gear Box.
	NOTE: All the above mentioned document Under Clause J.4 shall have to be packed separately with a packing list and prominently labeled with	

BIDDER'S RESPONSE SHEET		
Description	OIL's Specification	Bidder's Offer
	OIL's Purchase order No: _____ and to be dispatched to: To, Head- Field Engineering OIL INDIA LIMITED DULIAJAN- 786602 ASSAM, INDIA	
K. INSTALLATION & COMMISSIONING	a) The pump set is to be supplied in assembled condition, ie: coupled with gear box, prime mover (engine) and all valves , accessories , engine exhaust silencer etc fitted and mounted on an oilfield type three runner portable master skid. The pump set to be so supplied that, after construction of recommended foundation and completion of necessary grouting, the pump set can be run by simply connecting the engine fuel and pump suction – discharge pipings. Necessary Civil work and engine fuel and pump suction – discharge pipings shall be done by OIL.	
	b) Installation and Commissioning of the Pump set shall be carried out by the bidder in the presence of OIL representatives at its fields at Duliajan, Assam (India). Services of qualified and competent personnel from equipment manufacturer is essential during installation and commissioning of the pump sets. OIL will provide necessary statutory permits in classified areas as and when required. Arc welding / Gas Cutting services if required shall be provided by OIL.	
	c) Installation / commissioning charges should be quoted separately which shall be considered for evaluation of the offers. These charges should included amongst others to and fro fares, boarding/ lodging and other expenses of the commissioning engineers during their stay at Duliajan, Assam (India). All Personal, Income and Service Tax etc. towards the services provided by the supplier shall be borne by the supplier and will be deducted at source. Bidders should also confirm about installation/ commissioning in the Technical Bid.	
	d) The pump set shall be treated as commissioned only after successful completion of a trial run on available load for a minimum period of 72 hrs and on satisfactory performance shall be subsequently handed over to OIL.	

BIDDER'S RESPONSE SHEET		
Description	OIL's Specification	Bidder's Offer
L. WARRANTY	The warranty period for the engine, pump set and all ancillary equipment shall be a minimum of 18 months from the date of dispatch / shipment or 12 months from the date of commissioning.	
M. SPARE PARTS AND SPECIAL TOOLS	(a) Bidders has to provide the price , along with the part numbers , of the following spares [as detailed under clause nos: M. (b) , (c) & (d)] that we envisage shall be required for maintenance of the pump set for two years . THE PRICES OF THESE SPARES SHALL BE CONSIDERED FOR COMMERCIAL EVALUATION OF THE OFFER.	
	(b) Piston PUMP : i. SUCTION VALVE ASSEMBLY : 6 NOS PER PUMP ii. DELIVERY VALVE ASSEMBLY : 6 NOS PER PUMP iii. VALVE COVER GASKET : 6 NOS PER PUMP iv. VALVE SEAT (SUCTION) : 6 NOS PER PUMP v. VALVE SEAT (DELIVERY) : 6 NOS PER PUMP vi. ROD WIPER : 6 SETS PER PUMP vii. PISTON : 3 NOS PER PUMP viii. PISTON PACKING : 6 SETS PER PUMP ix. CRANK PIN BEARING : 4 SETS PER PUMP x. Foot Valve : 02 Nos per Pump	
	(c) GAS ENGINE : i. SPARK PLUG : 1 SET PER ENGINE ii. IGNITION TRANSFORMER : 1 SET PER ENGINE iii. LUB OIL FILTER ELEMENT : 6 NOS PER ENGINE iv. SET OF VEE BELTS : 2 SETS PER ENGINE v. AIR FILTER ELEMENT : 4 NOS PER ENGINE vi. SET OF GASKETS : 1 SET PER ENGINE	
	(d) The following special tools / spares (one set against each pump set) should also be quoted separately which shall be considered for evaluation of the offers. Moreover commissioning spares, if any shall be quoted separately which shall also be considered for evaluation of the offers i) A set of each type and size of coupling installed in the pump set ii) A valve seat puller and special wrenches for tightening stuffing box glands,	

BIDDER'S RESPONSE SHEET		
Description	OIL's Specification	Bidder's Offer
	<p>studs etc.</p> <p>All the above mentioned Spares/ tools [as detailed under clause nos: M. (b) , (c) & (d)], shall have to be packed separately indicating OIL's Purchase order No with packing list and to be supplied along with the supply of the pump packages addressed to :</p> <p>Head- Field Engineering OIL INDIA LIMITED DULIAJAN- 786602 ASSAM, INDIA</p>	
N. AFTER SALES SERVICE	a) The nature of after sales service, which can be offered by the bidder during initial commissioning and also subsequently should be clearly stated.	
	b) Bidders should also confirm that spares , both regular consumable ones as well as vital / insurance spares, for engine, pump and all accessories quoted, shall be available for at least 10 years after the delivery of the material.	
O. BID REJECTION CRITERIA (Technical)	The bids shall conform generally to the specifications and terms as well as conditions laid out in the tender. Bids will be rejected in case the items offered do not conform to the required parameters stipulated in the technical specifications and to the respective international/national standards wherever stipulated. Notwithstanding the general conformity of the bids to the stipulated specifications and terms and conditions, the following requirements will have to be met by the bids, without which, the same shall be considered as non-responsive and stand rejected.	
	1.0 The bidder should be an OEM of pump or authorized dealer of OEM of the pump or an OEM (of pump) recommended assembler of pump sets. Bidders other than OEM must furnish valid authorization certificate from OEM (of pump) clearly stating whether the bidder is an authorized dealer of OEM (of pump) or an OEM (of pump) authorized assembler of pumpset. In all cases the bidder has to purchase the engine from an OEM of Engine or their Authorized Dealer. Undertaking from the bidder in this regard must be enclosed with the offer	
	2.0 If the bidder is an OEM (of pump) recommended assembler of pump sets, he must purchase the pump and the engine from OEM or their authorized dealer. Undertaking from the bidder in this regard must be enclosed with the offer. Bidders other than the OEM must furnish the following undertaking from the OEM: "Date of manufacture, make, model, serial no, test certificate, literatures and	

BIDDER'S RESPONSE SHEET		
Description	OIL's Specification	Bidder's Offer
	<p>parts book of the pump and also the operation & maintenance manual of pump will be supplied if order is placed on the bidder.”</p> <p>3.0 Bidders should have the experience of successfully executing at least 1(one) similar order for total minimum order value of Rs. 1,14,35,000.00 in preceding 5(five) years from the bid closing date (technical) of the tender against supply of continuous duty pump sets of similar nature for water or water flood or formation water disposal or hydrocarbon service applications in PSUs, State/ Central Govt. Undertakings, Public Limited Companies. Copies of purchase orders along with performance certificates from the clients indicating the supply, commissioning and successful deployment of such equipment are to be forwarded with the offer.</p> <p>The bidder shall submit documentary evidence in support of his previous supply experience as follows :</p> <p>i) Copy (ies) of Purchase Order(s) clearly mentioning the Gross value of the order,</p> <p>AND</p> <p>ii) Any one or combination of the following documents that confirms the successful execution of each of the purchase order(s).</p> <ul style="list-style-type: none"> - Completion report / performance certificate from the clients, - Consignment note. - Delivery challan / invoice etc. - Any other documentary evidence that can substantiate the successful execution of each of the Purchase Orders(s) cited above. <p>Note:</p> <p>(a) Similar nature pump means reciprocating horizontal piston pumps of Capacity minimum 40 KLPH or above.</p> <p>(b) A job executed by a bidder for its own organization / subsidiary cannot be considered as experience for the purpose of meeting BEC.</p> <p>4.0 The model of pump offered as per NIT should be one that has a successful proven track record for continuous duty water or water flood or formation water disposal or hydrocarbon service applications. The model should be one that has</p>	

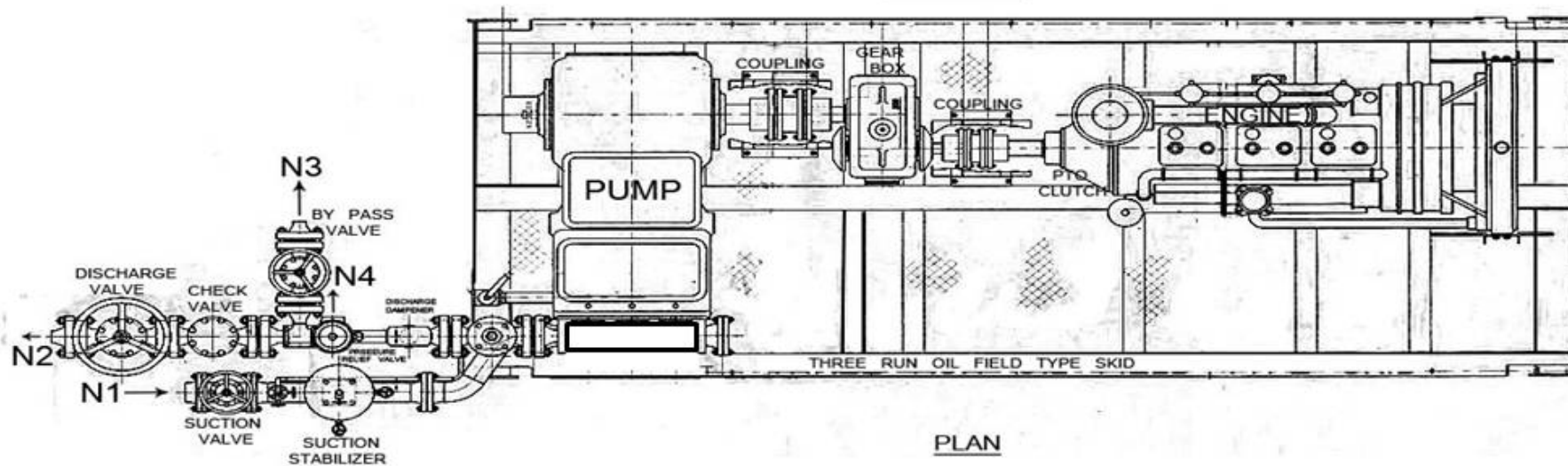
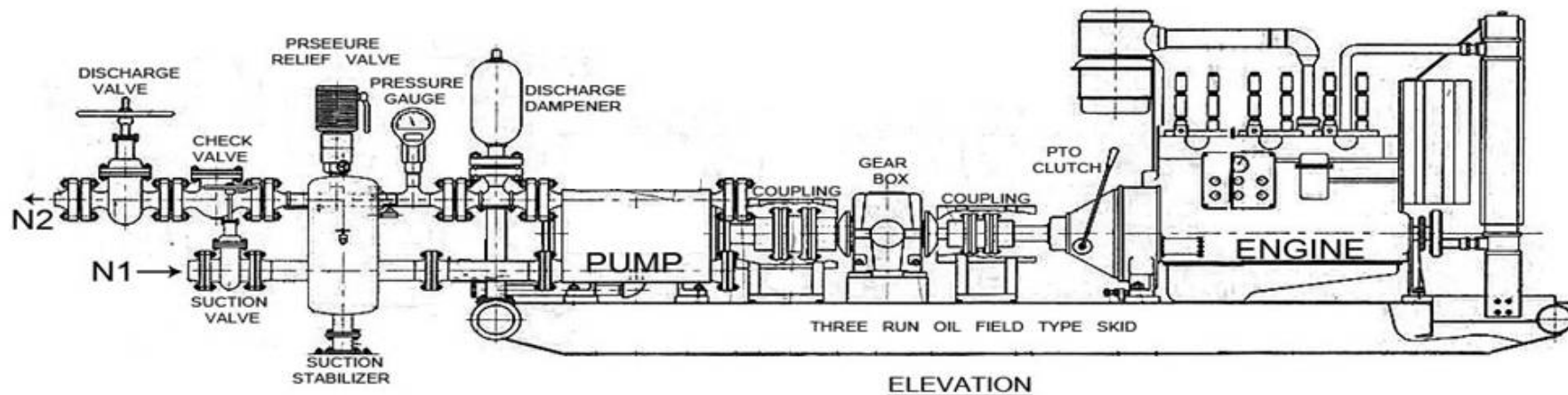
BIDDER'S RESPONSE SHEET		
Description	OIL's Specification	Bidder's Offer
	<p>been successfully deployed for any of the continuous duty applications, viz: water or water flood or formation water disposal or hydrocarbon service applications, for a minimum period of 2900 hours or one year from its date of commissioning. In this regard satisfactory performance certificate of the offered model pump from the end users has to be enclosed along with the offer.</p> <p>Note :</p> <p>a) "Continuous duty" means pump having service operation on full load for a period of 8 hours to 24 hours per day as per Hydraulic Institute Standard application.</p> <p>b) Hydrocarbon Service Application of continuous duty Piston pumps in the context of our tender refers to applications where such pumps are deployed for duties such as crude oil transfer, condensate injection, polymer injection, glycol injection, Well Stimulation Services etc in the E & P Sector and also continuous duty handling of petroleum and petrochemical products in the Refining & Distribution Sector of the Oil & Gas Industry.</p>	
	<p>5.0 The model of the engine of the offered Pump set should have :</p> <p>(i) Successful proven track record for pump applications in Central/State PSUs or Central Govt. Organizations of India or any other Public Limited Company.</p> <p>(ii) Should have logged minimum 2900 hours or one year from its date of commissioning prior to the bid closing date (technical) of this tender.</p> <p>(iii) The bidder shall have to provide the undertaking that the offered engine shall develop required BHP to meet pump requirement suitably and it's overall performance shall be satisfactory with the natural fuel gas composition as specified in this tender.</p> <p>Note: Relevant documentary evidences from the end users in support of the above conditions [(i) & (ii)] mentioned above should be enclosed with the offer.</p>	
	<p>6.0 The bidder shall have to provide undertaking that in case the order is placed on the bidder, the pump packages to be supplied (including major component</p>	

BIDDER'S RESPONSE SHEET		
Description	OIL's Specification	Bidder's Offer
	and all it's accessories), will be manufactured after the bid closing date of this tender.	
P. DATA SHEETS	A. DATA SHEET FOR PUMP:	
	1. MAKE	
	2. MODEL	
	3. TYPE	
	4. SIZE (PISTON DIAMETER X STROKE LENGTH)	
	5. LIMITING PRESSURE AND VOLUME AT OFFERED SIZE	
	6. OFFERED SPEED	
	7. DISCHARGE VOLUME @ OFFERED SPEED	
	8. HHP REQUIREMENT AS PER NIT PARAMETERS	
	9. MAKE AND MODEL OF EXTERNAL GEAR BOX	
	10. GEAR RATIO OF EXTERNAL FOOT MOUNTED GEAR BOX	
	11. TYPE AND SIZE OF COUPLING BETWEEN CLUTCH PTO AND GEAR BOX INPUT SHAFT	
	12. TYPE AND SIZE OF COUPLING BETWEEN GEAR BOX OUTPUT SHAFT AND PUMP INPUT SHAFT	
	B. DATA SHEET FOR ENGINE:	
	1. MAKE	
	2. MODEL	
	3. NUMBER OF CYLINDERS	
	4. ASPIRATION	
	5. COMPRESSION RATIO	
	6. SIZE (BORE X STROKE)	
	7. DISPLACEMENT	
	8. RATED SPEED	
	9. DUTY	
	10. GROSS HP AT RATED RPM	
	11. DEDUCTION FOR FAN, ALTITUDE , TEMPERATURE	
	12. NETT HP AVAILABLE AT 1500 RPM	
	13. SPECIFIC FUEL CONSUMPTION AT	

BIDDER'S RESPONSE SHEET			
Description	OIL's Specification	Bidder's Offer	
	14. # 110% LOAD		
	15. # 100% LOAD		
	16. # 75% LOAD		
	17. # 50% LOAD		
	18. LUBRICATING OIL CONSUMPTION (LT / HR)		
	19. ENGINE SUMP CAPACITY (LTS)		
	20. ENGINE RADIATOR CAPACITY (LTS)		
	21. MAKE AND TYPE OF GOVERNOR		
	22. MAKE OF CLUTCH PTO		
	23. MODEL OF CLUTCH PTO		
	24. MAKE OF STARTER		
	25. MAKE AND MODEL OF COUPLING BETWEEN CLUTCH PTO AND GEARBOX		
Q. CHECK LIST	TECHNICAL CHECK LIST FOR PUMP PACKAGES (Please tick YES or NO)		
		YES	NO
	1. Whether the bidder has submitted their offer(Technical) by duly filling up the "Bidder's Offer" column of the attached Bidder's Response Sheet.		
	2. Whether quoted as OEM of Pump and whether documentary evidences submitted ?		
	3. Whether quoted as authorised dealer of Pump and whether documentary evidences submitted ?		
	4. Whether quoted as OEM recommended assembler of Pump sets and whether documentary evidences submitted ?		
	5. Whether the offered Pump is a horizontal, piston Pump ?		
	6. Whether the Pump is designed for continuous service duty ?		
	7. Whether the offered engine conforms to ISO3046 / BS 5514 / IS 10000 specifications ?		
	8. Whether the Minimum Net HP of the engine is as per NIT requirement ?		
	9. Whether the engine is rated for continuous power ?		
	10. Whether the engine is water cooled ?		
	11. Whether the speed reduction gear box is external foot-mounted ?		
	12. Whether the floor of the three runner skid shall be covered by checkered plates ?		
	13. Whether Flexible disc / grid member couplings have been incorporated in the transmission ?		

BIDDER'S RESPONSE SHEET			
Description	OIL's Specification	Bidder's Offer	
	14. Whether guards shall be provided over couplings and belt drives ?		
	15. Whether the two years spares for the packages indicated have been quoted ?		
	16. Whether special tools and commissioning spares have been included in the scope of supply ?		
	17. Whether spares shall be available for 10 years after supply of equipment?		
	18. Whether separately highlighted any deviation from the technical specifications ?		
	19. Whether the Pre-despatch inspection of the Pump packages shall include Full Load Performance test of the Pump Sets ?		
	20. Whether the bidder has submitted the undertaking that the offered materials of construction of the pump are suitable for the specified operating conditions (as mentioned in the tender)?		
	21. If the bidder is an OEM (pump) or authorized dealer of OEM of the pump or an OEM(pump) recommended assembler of pump sets, whether the bidder has submitted undertaking that bidder will purchase the engine from OEM of Engine or their authorized dealer?		
	22. If the bidder is an OEM (pump) recommended assembler of pump sets, whether the bidder has submitted undertaking that the bidder will purchase the Engine and the pump from OEM or their authorized dealer?		
	23. If the bidder is other than OEM of pump, whether the bidder has submitted undertaking from OEM that, Date of manufacture, make, model, serial no, test certificate, literatures and parts book of the pump will be supplied if order is placed on the bidder?		
	24. Whether the bidder has submitted undertaking that the offered engine shall develop required BHP to meet pump requirement suitably and its overall performance shall be satisfactory with the natural fuel gas composition as specified in this tender?		
25. Whether the bidder has submitted undertaking that in case the order is placed on the bidder, the pump packages will be supplied (including major component and all its accessories), will be manufactured after the bid closing date of this tender?			
Signature			
Name			
Designation			
Contact Number			
E-mail ID			

BIDDER’S RESPONSE SHEET		
Description	OIL’s Specification	Bidder’s Offer
Name of Company / Organization		
Stamp / Seal of Company / Organization		



LEGEND:
 N1 - SUCTION
 N2 - DISCHARGE
 N3 - BY PASS VALVE
 N4 - SRV OUTLET

DRG NO: FE/PROJ&TF/CKD/MP-GA/01-14
TITLE: GENERAL ARRANGEMENT OF ENGINE DRIVEN RECIPROCATING PUMPING UNITS
(WITH EXTERNAL GEAR REDUCTION)
(NOT TO SCALE)

Technical evaluation matrix for BEC/BRC for Gas Engine Driven Horizontal Piston type Reciprocating Pumps for Fresh Water Pumping

Srl No	Clause No of Tender Document/ BEC/BRC Technical Specification/ Scope of Work	Description	Bidders Remarks Complied/ Not Complied/ Deviation	Bidder to indicate Relevant Page No of their Bid to support the remarks/ compliance
1.		1.0 The bidder should be an OEM of pump or authorized dealer of OEM of the pump or an OEM (of pump) recommended assembler of pump sets. Bidders other than OEM must furnish valid authorization certificate from OEM (of pump) clearly stating whether the bidder is an authorized dealer of OEM (of pump) or an OEM (of pump) authorized assembler of pumpset. In all cases the bidder has to purchase the engine from an OEM of Engine or their Authorized Dealer. Undertaking from the bidder in this regard must be enclosed with the offer.		
2.		2.0 If the bidder is an OEM (of pump) recommended assembler of pump sets, he must purchase the pump and the engine from OEM or their authorized dealer. Undertaking from the bidder in this regard must be enclosed with the offer. Bidders other than the OEM must furnish the following undertaking from the OEM: “Date of manufacture, make, model, serial no, test certificate, literatures and parts book of the pump and also the operation & maintenance manual of pump will be supplied if order is placed on the bidder.”		
3.		3.0 Bidders should have the experience of successfully executing at least 1(one) similar order for total minimum order value of Rs. 1,14,35,000.00 in preceding 5(five) years from the bid closing date (technical) of the tender against supply of continuous duty pump sets of similar		

		<p>nature for water or water flood or formation water disposal or hydrocarbon service applications in PSUs, State/ Central Govt. Undertakings, Public Limited Companies. Copies of purchase orders along with performance certificates from the clients indicating the supply, commissioning and successful deployment of such equipment are to be forwarded with the offer.</p> <p>The bidder shall submit documentary evidence in support of his previous supply experience as follows :</p> <p>i) Copy (ies) of Purchase Order(s) clearly mentioning the Gross value of the order,</p> <p>AND</p> <p>ii) Any one or combination of the following documents that confirms the successful execution of each of the purchase order(s).</p> <ul style="list-style-type: none"> - Completion report / performance certificate from the clients, - Consignment note. - Delivery challan / invoice etc. - Any other documentary evidence that can substantiate the successful execution of each of the Purchase Orders(s) cited above. <p>Note:</p> <p>(a) Similar nature pump means reciprocating horizontal piston pumps of Capacity minimum 40 KLPH or above.</p> <p>(b) A job executed by a bidder for its own organization / subsidiary cannot be considered as experience for the purpose of meeting BEC.</p>		
4.		<p>4.0 The model of pump offered as per NIT should be one that has a successful proven track record for continuous duty water or water flood or formation water disposal or hydrocarbon service applications. The model should be one that has been successfully deployed for any of the</p>		

		<p>continuous duty applications, viz: water or water flood or formation water disposal or hydrocarbon service applications, for a minimum period of 2900 hours or one year from its date of commissioning. In this regard satisfactory performance certificate of the offered model pump from the end users has to be enclosed along with the offer.</p> <p>Note :</p> <p>a) "Continuous duty" means pump having service operation on full load for a period of 8 hours to 24 hours per day as per Hydraulic Institute Standard application.</p> <p>b) Hydrocarbon Service Application of continuous duty Piston pumps in the context of our tender refers to applications where such pumps are deployed for duties such as crude oil transfer, condensate injection, polymer injection, glycol injection, Well Stimulation Services etc in the E & P Sector and also continuous duty handling of petroleum and petrochemical products in the Refining & Distribution Sector of the Oil & Gas Industry.</p>		
5.		<p>5.0 The model of the engine of the offered Pump set should have :</p> <p>(i) Successful proven track record for pump applications in Central/State PSUs or Central Govt. Organizations of India or any other Public Limited Company.</p> <p>(ii) Should have logged minimum 2900 hours or one year from its date of commissioning prior to the bid closing date (technical) of this tender.</p> <p>(iii) The bidder shall have to provide the undertaking that the offered engine shall develop required BHP to meet pump requirement suitably and it's overall performance shall be satisfactory with the natural fuel gas composition</p>		

		as specified in this tender. Note: Relevant documentary evidences from the end users in support of the above conditions [(i) & (ii)] mentioned above should be enclosed with the offer.		
6.		6.0 The bidder shall have to provide undertaking that in case the order is placed on the bidder, the pump packages to be supplied (including major component and all it's accessories), will be manufactured after the bid closing date of this tender.		
