Oil India Limited
(A Govt. of India Enterprise)
P.O. Duliajan – 786602, Assam , India

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Tender No. & Date : **SDG 3374 P15/08 of 28.04.2014**

Tender Fee : INR 4,500.00 OR USD 100.00

Bid Security : Applicable

Bidding Type : **SINGLE STAGE TWO BID SYSTEM**

Bid Closing on : As mentioned in the Basic Data of the tender in OIL's e-portal.

Bid Opening on : As mentioned in the Basic Data of the tender in OIL's e- portal.

Performance Guarantee : Applicable

OIL INDIA LIMITED invites Global Tenders for item detailed below:

Item No. / Mat. Code	**Material Description**	QTY.	UOM
1.	Supply , installation and Commissioning of Horizontal, single acting , triplex plunger pump (70 KG/ SQ.CM and 60 CUM/HR) conforming to API Standard 674 as per the following Annexure: a) Detailed specification- Annexure -AA . b) Bid Rejection Criteria (BRC) and Bid Evaluation Criteria- Annexure-BB .	12	No.

Special Notes :

1.0 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.

2.0 Technical Check list and Commercial Check list are furnished . Please ensure that both the check lists are properly filled up and uploaded along with Technical bid.

3.0 The item qualifies for Nil duty / Deemed Export benefits. For Deemed Export benefits, please refer Addendum to the General terms and conditions for Global tender.

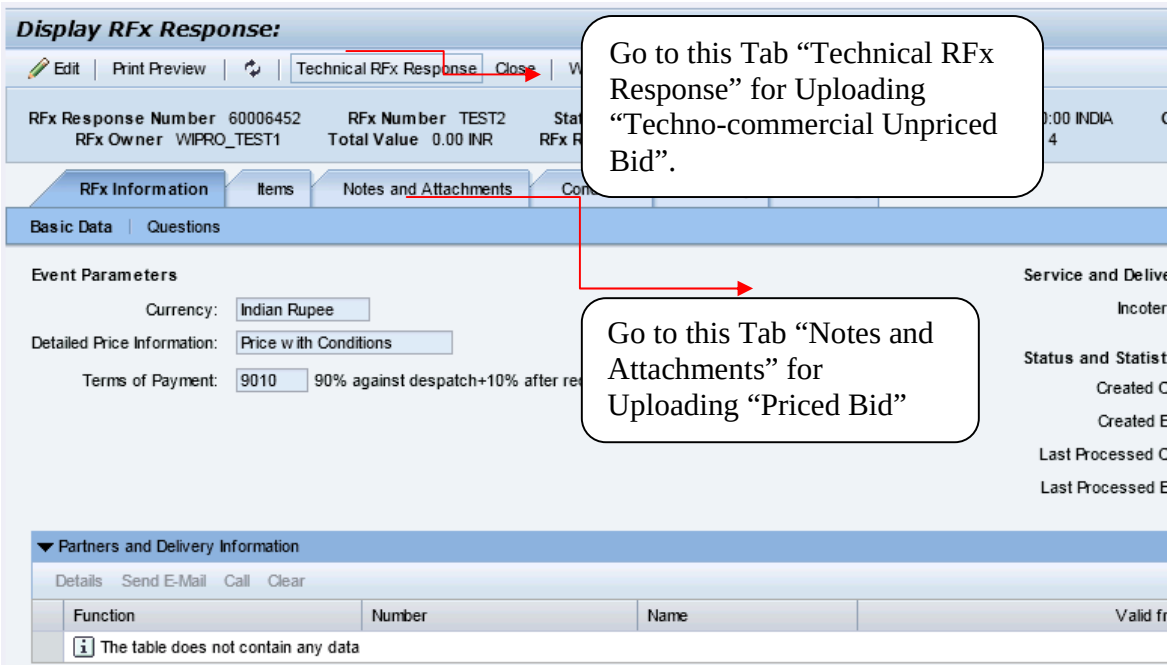
4.0 Please note that all tender forms and supporting documents are to be submitted through OIL's e-Procurement site only except following documents which are to be submitted manually in sealed envelope super scribed with tender no. and due date to The **Head Materials, Materials Department, Oil India Limited, Duliajan- 786602, Assam** on or before the Bid Closing Date and Time mentioned in the Tender.

a) Original Bid Security.
b) Detailed Catalogue and any other document which have been specified to be submitted in original.

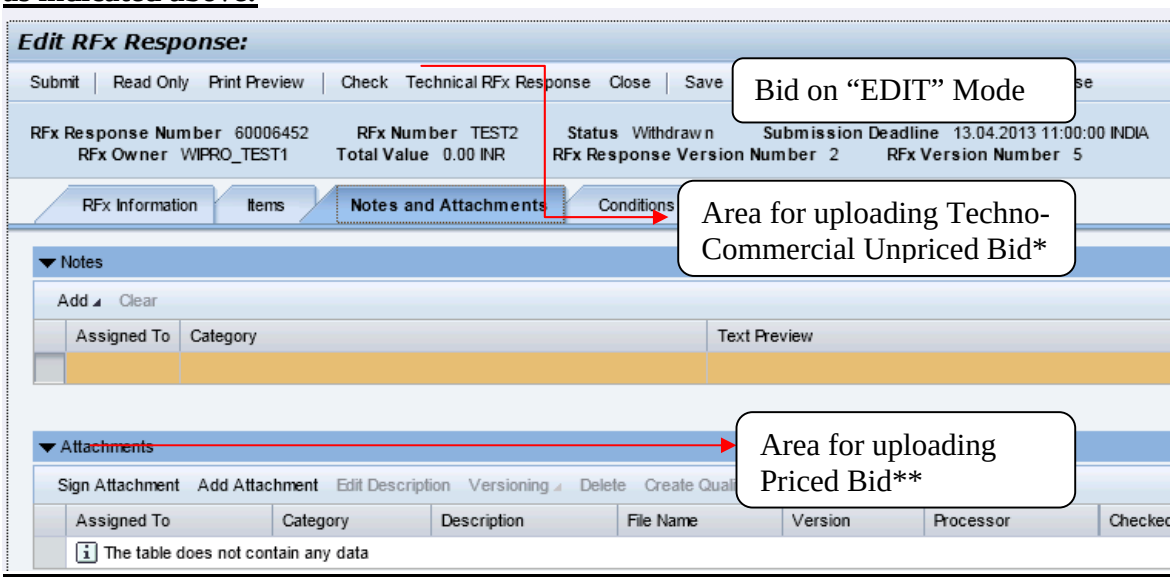
5.0 In case of SINGLE STAGE-TWO BID SYSTEM, bidders shall prepare the "Techno-commercial Unpriced Bid" and "Priced Bid" separately and shall upload through electronic form in the OIL's e-Tender portal within the Bid Closing Date and Time stipulated in the e-Tender. The "Techno-commercial Unpriced Bid" 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".

A screen shot in this regard is given below.

Any offer not complying with above submission procedure will be rejected as per Bid Rejection Criteria mentioned in the tender.



On "EDIT" Mode- The following screen will appear. Bidders are advised to Upload "Techno-Commercial Unpriced Bid" and "Priced Bid" in the places as indicated above:



Note :

* The "Techno-Commercial Unpriced Bid" shall contain all techno-commercial details **except the prices**.

** The "Price bid" must contain the price schedule and the bidder's commercial terms and conditions. For uploading Price Bid, first click on Sign Attachment, a browser window will open, select the file from the PC and click on Sign to sign the Sign. On Signing a new file with extension .SSIG will be created. Close that window. Next click on Add Atachment, a browser window will open, select the .SSIG signed file from the PC and name the file under Description, Assigned to General Data and clock on OK to save the File.

6.0 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 the rejection of its offer without seeking any clarifications.

7.0 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 X 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. Any bid not accompanied by Integrity Pact Proforma duly signed (digitally) by the bidder shall be rejected straightway. 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.

OIL's Independent External Monitors at present are as under:

(I) SHRI N. GOPALASWAMI,I.A.S (Retd) ,
Former Chief Election Commissioner of India
E-mail Id : gopalaswamin@gmail.com

(II) SHRI RAMESH CHANDRA AGARWAL , IPS(Retd)
Former Director General of Police
E-mail Id : rcagarwal@rediffmail.com

GAS ENGINE DRIVEN CRUDE OIL DESPATCH PUMPSET . Qty. = 12 Nos.

A. PUMP:

1. Type

Horizontal, single acting , triplex plunger pump conforming to API Standard 674 .

2. Capacity and Discharge

The plunger size selected should be adequate to meet the pressure and volume requirements of 70 KG/ SQ.CM and 60 CUM/HR respectively.

3. Pump Speed

The speed limit of the offered pump shall be governed by the maximum allowable speed ratings for single acting plunger type pumps in continuous service conforming to API 674 standards .

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. DESIGN FEATURES:

Pump shall be manufactured in conformation with API 674 / Hydraulic Institute Standard. Following shall be the inbuilt design features of the pump for quick maintenance.
-Large power end access covers and doors.
-Separate cross head and plunger shank construction.
-Open frame cradles
-Interchangeable valve assemblies
-Removable stuffing boxes
-Cover at non driving end.
-Bolted valve covers, cylinder head and stuffing boxes.
-Horizontal design eliminates number of maintenance problems caused by vibration.

5. Fluid end features

a) Mono Block Fluid End with bolt on type valve covers
b) Suitably designed valves with tapered valve seats pressed onto mono block fluid end
c) Three feed belt driven packing lubricator, to drip feed (Make : preferably PREMIER / MEGA)
d) Suction and Discharge on either side

6. Power End features:

a) The Power end frame shall be single piece that will house crank shaft, connecting rods, crossheads and bearings.
b) Flooded sump Splash Lubrication for power end
c) Sight glass gauge or oil level dipstick
d) The crank pin bearing shall be two piece precision type (preferably steel backed, precision type, Aluminum alloy/ Tin & babbit lined)
e) Heavy duty Taper Roller crankshaft bearings

7. MATERIAL OF CONSTRUCTION (MOC):

The material of construction (MOC)of following Fluid End and Power End components shall be in accordance to API 674 Standard and 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.

Fluid end components:

i. Fluid End Block
ii. Valve cover/valve
iii. Stuffing box
iv. Hard coated plungers
v. General service packing
vi. Valve seats
vii. Valve spring

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)

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) and as required by API 674 Standard . The materials prohibited by the API 674 Standard are not used in the offered pump.

8. Accessories:

Following Accessories are required to supply along with each pump set:

(i)Accessories in discharge line:

" Full flow , suitably sized and rated , spring loaded , Reset Relief Valve, mounted on the discharge piping. (Make : Preferably OTECO/ BAIRD / CAMERON)

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

" 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)

" Suitably designed Maintenance Free Discharge Pulsation Dampener

" Discharge Valve: Gate or Ball Valve with RTJ Flanged end of suitable size and pressure rating conforming to API 6D 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.

" Bypass valve: Gate or Ball Valve with RTJ Flanged end of suitable size and pressure rating conforming to API 6D 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.

" Check Valve of suitable size and pressure rating, full opening/full bore type conforming to API 6D 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.

" Drain valve of suitable size and pressure rating (to depressurize the system when carrying out maintenance of the unit).

" Suitably designed flexible Metallic Braided hose of suitable pressure rating with companion flanges and fitting.

" 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

NB:

All the pipes valves and fitting of the discharge line should be of same size.

All valves should be individual. Combo valves are not acceptable.

Dampeners should be of Carbon Steel construction built to ASME pressure vessel codes and code stamped.

(ii)Accessories in Suction lines:

" Maintenance free suction stabilizer (volume bottle type)

" Pressure gauge

" 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.

" Suitably designed flexible Metallic Braided hose of suitable pressure rating with companion flanges and fittings.

" 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.

NB:
All the pipes valves and fitting of the suction line should be of same size.

Suction Stabiliser should be of Carbon Steel construction built to ASME pressure vessel codes and code stamped.

(iii). A continuous duty Foot mounted horizontal type single suction single stage Centrifugal Charge Pump conforming to API 610 Std/ IS 15657 / ISO 13709(Pump Design) , direct driven by a flameproof(FLP) Electrical Motor , suitably sized to provide 1.5 times the input flow volume requirement of the triplex plunger pump should be provided against each pumping unit. Bidders to confirm the same categorically in their bid.

The basic requirements of the Charge Pump system shall be as follows :

1.00 Pump :

1.01 Service: Continuous.
Continuous duty means pump having service operation on full load for a period of 8 hours to 24 hours per day
1.02 Capacity
Discharge: 1.5 times the input flow volume requirement of the triplex plunger pump
Discharge Pressure - Suitable for the Main Triplex Plunger Pump
RPM - 1500 (Max.)
1.03 Suction condition: Flooded

1.04 Liquid to be handled: Crude oil (detail characteristics is same as given under Clause 10)
1.05 Pumping temperature: 35 to 40 Degree Centigrade
1.06 Lubrication: Oil lubricated
1.07 Impeller shall to be closed type
1.08 Cooling Gland: Internal gland cooling

1.09 MATERIAL OF CONSTRUCTION:

The MOC of the booster pump should conform to:

(i) API 610: Clause 5.12 with special attention on Appendix-G and Appendix-H.
OR
(ii) IS-15657: Clause 5.12 with special attention on Annex - G and Annex-H.

(iii) The bidder has to mention MOC of following parts of the offered charge pump in applicable international standard like IS,ASTM, ISO, EN, JIS etc. including the material grade. Where international standard material are not available internationally recognized national or other standard may be used. If no such designations are available, the vendor's material specification, giving physical properties, chemical compositions and test requirements shall be included in the offer

a) Pressure Casing
b) Impeller
c) Wear ring
d) Shaft
e) Sleeve

1.10 Material testing & inspection:

a) The bidder shall have to specify the optional tests and inspection procedure that are necessary to ensure that materials are satisfactory for the service.
b) The bidder shall have to provide undertaking along with the offer that the offered materials of construction of the charge pumps are suitable for the specified operating conditions & conforming to the standard(as mentioned in the tender).

2.00 Charge pump Motor :

I. The electric motor shall be totally enclosed flameproof (explosion proof) Ex-d type, squirrel cage induction motor, horizontal foot mounted with bi-directional cooling fan at NDE, suitable for operation on 415 V, 3 phase, 50 Hz AC

supply with 45 Degree C Ambient and altitude less than 1000 m MSL.
II. The motor shall be suitable for use in Gas group IIA & IIB, Zone 1 Hazardous areas of oil mines/process installations.
III. Make: M/s Bharat Bijlee, Crompton Greaves, Kirloskar (in case of Indian manufacturers)
IV. Rated voltage: 415 V AC, 3 phase
V. HP/KW: As per pump/ load requirement
VI. Frequency: 50 Hz
VII. Speed: As per pump requirement
VIII. Insulation class: Class F, temperature rise limited to class B
IX. Rating: Continuously rated, S1 duty
X. Enclosure: Flameproof enclosure as per IS: 2148
XI. Protection: IP 55 Minimum
XII. Frame size: As per load requirement
XIII. The motor shall conform to the following Indian standards: IS: 2148-2004, IS: 5572-1994, IS: 9570-1980, IS: 325-1996, IS: 4722
XIV. Connection: Six terminals brought out to terminal box (for connection in star/delta configuration; however, suitably rated brass links shall be supplied if the motor is desired to be run in delta) Motor should have single shaft extension with standard flat key.
XV. Painting: Epoxy DA grey
XVI. Terminal box: Motor terminal box (Flameproof) with six nos. of terminal studs of adequate current carrying capacity, suitable for use in oil and gas mines, fitted with 02 (two) nos. double compression FLP cable glands. The glands shall be suitable for entry of suitably sized (as per motor rating) 4 core PVC insulated, PVC sheathed, multi-stranded aluminum cable armoured with GI strip/wire.
XVII. Earthing: 1 (one) no. inside terminal box and 2 (two) nos. on the body of the Motor
XVIII. DGMS Approval: A metal plate embossed with DGMS approval no. and DGMS logo shall be riveted on the motor body at a conspicuous place.
XIX. Guarantee: The motor shall be guaranteed (besides manufacturer's standard guarantee) for a period of twelve months from the date of commissioning. Any repair/ replacement during the guarantee period will be done free of cost by the supplier including to and fro transportation from OIL site.
Notes:
a) MOTOR, CABLE GLAND AND ANY OTHER ACCESSORIES SHALL BE APPROVED BY DGMS (INDIA) FOR OPERATION IN HAZARDOUS AREA ZONE 1 AND ZONE 2, GAS GROUPS II A AND IIB OF OIL MINES. DGMS approval shall have validity for minimum 6 (six) months at the time of supply of the equipment.

b) COPIES OF VALID DGMS (India) APPROVAL LETTER AND CIMFR (or any other Government approved, NABL accredited test laboratory for Indian origin motors) TEST CERTIFICATES (in case of foreign suppliers, certificates from equivalent competent certifying authorities from the country of origin) FOR THE MOTOR SHALL BE SUBMITTED ALONG WITH THE OFFER FOR SCRUTINY.

Specifications for the starter:

A. General notes on the starter:

I. The starter shall be placed inside safe area and hence is not required with FLP enclosure. Neutral shall not be used, as the source (generator) shall be grounded with high resistance.
II. Starter shall be fully automatic star-delta type starter. It shall be non draw out type.
III. Starter shall be self mounting on sturdy angle iron frame. Mounting frame and enclosure of the starter panel shall have specifications as follows:
a) Panel shall be sheet steel clad, cubicle type, made of 2.0 mm thick MS CR sheet. It shall be suitable for operation from the front. Panel shall be dust /vermin proof and weatherproof (IP 55). Ventilation louvers shall be provided on both sides; however, louvers shall be shielded with fine wire mesh (inside the panel). Special non-deteriorating Neoprene rubber gaskets shall be provided between all joints. Panel door shall be provided with single turn latches for opening / closing and locking arrangement. Danger plates shall be fitted on front and back of the panel. Bottom detachable gland plates made from 2.0 mm thick MS CR sheet shall be provided for all cable entries. Height of bottom detachable gland plate shall be 450 mm from floor level.

b) The entire metal work shall be treated with minimum nine tank anti-rust/anti-corrosion treatment as per IS and then powder coated in DA Grey color. Painting thickness shall be minimum 50 micron.
c) Internal earthing shall be provided for all equipment having earthing terminal and panel doors with suitably rated, PVC insulated, flexible copper earth wires or copper braids of suitable rating as per IS. Earthing terminals of the components shall be suitably connected to an earth bus inside the panel. The earth bus shall be connected to the panel at two places with suitable GI hardware. Double earthing studs on two sides(both inside and outside) complete with suitably sized zinc plated & passivated

double nuts and spring washers shall be provided on the panel.
d) The size of the panel shall not be more than 400mm (W) x 400mm (D) x 600mm (H). Total height of the starter including stand shall not exceed 1200 mm.
e) The frame of the panel shall be sufficiently strong, welded structure of suitably sized MS angle/channel of sufficient strength with vibration dampers. The frame shall be mounted on a bottom structure made from suitably sized MS channel, with provision for grouting.
f) Panel shall be designed for Ambient of 45°C (Max)/ 5°C (Min) and Humidity-95% (Max).
g) Panel shall conform to IS: 8623 and IS: 13947.
IV. Bus bars/bus links of main power connections shall be 100 A tinned copper bars.
V. The starter control shall have remote start/stop capability (with push button station near the motor). However, one local/remote selector switch shall also be provided in the starter so that the pump can be started in local mode, if required. The remote starter supply voltage shall not be more than 30 V. (As per CEA Regulations, 2010).
VI. Starter shall have adequate nos. of potential free NO/NC contacts for interlocking/instrumentation.
VII. Starter shall have Type '2' Co-ordination, breaking capacity 50 kA at 415 V, 3Ø, 50 Hz as per Standards IEC 60947-4-1, IS: 13947 (Part 4/Sec. 1), EN 60947-4-1
VIII. Protection: The starter shall have the following minimum (but not limited to) protections:
a. Short Circuit (in-built in the MCCB)
b. Overload through Thermal bi-metallic overload relay
c. Earth-leakage: EL protection shall be provided with separate CBCT & ELR. The EL relay shall have indication LEDs, test push button, reset push button and shall be duly wired up to trip starter in case of earth leakage.
IX. Metering & indication: The panel shall have meters and indication for the following information. HRC Instrument Fuse Holders with suitably rated HRC fuses shall be used for the circuitry:
a. Motor current (through Y phase only) in single phase digital ammeter with properly rated CT
b. Indications: LED type indicating lamps with complete fittings, with legend plate for "Motor On", "Motor Off", "Motor Trip on Fault".
X. Control cable size shall be 2.5 mm2 for CT circuits, 1.5 mm2 for others. Cable terminals shall be provided with suitably sized crimping lugs. All cables shall be 660/1100 V graded PVC insulated multistranded copper cable. Wires shall be properly marked with coloured and numbered

ferrules. All wires shall have ferrule numbers for proper identification.

XI. Tinned copper brought out terminals shall be provided for all cable connections including terminals for remote push buttons and shall be supplied with tinned copper crimping lugs for each conductor of all cables.

XII. Legend plates (engraved aluminum, riveted) for the indication lamps, meters, control switches / buttons and labels for the terminals shall be provided.

XIII. Sufficient space shall be provided in the starter for cable termination, dressing and connecting cable leads to the brought out terminals.

XIV. Suitable cable entry arrangement with detachable gland plates and adequate nos. of single compression, heavy duty nickel plated brass glands shall be provided for terminating of 1 no. incoming (4x25 sq mm) and 2 nos. outgoing (size as per capacity of motor) 4 core, PVCA, aluminum cables including cables for remote push buttons (3x2.5 sq mm, PVCA Cu.). All cable entries shall be from bottom and detachable gland plate for all cable entries shall be at a min. height of 450 mm from floor level. The sides of the cable entry box shall be parallel and not tapered.

B. Components:

I. Incomer MCCB, (rating shall be according to motor rated power) with electronic trip unit (adjustable long time and short time with instantaneous trip, with individual time settings), 3P, 415 V AC, 36 kA breaking capacity with direct rotary handle- 01 no.

II. 3 Pole contactors, AC3 normal life rating (shall be according to motor rating), with 415/240 VAC coil & 4NO+4NC contacts- 03 nos.

III. Mechanical interlock for star/delta contactors

IV. Thermal overload relay, range as per motor rating, direct mounting on MC contactor (as per manufacturer's listed product)

V. Auxiliary contactor for energization by push button (start/stop) station, with sufficient NO/NC contacts, 30 VAC coil (or any specific design, so that PBS supply does not exceed 30 V) with sufficient VA capacity (rated/inrush)

VI. Single phase Control transformer for PBS supply, 415 (or 240 V)/30 VAC (or any specific design, so that PBS supply does not exceed 30 V) with sufficient VA capacity (rated/inrush)

VII. Electronic Timer with 1 NO + 1 NC Contacts, (0-20) seconds

VIII. Single phase digital ammeter, CT operated

IX. CT for ammeter 50/5- 01 no. in yellow phase

X. Fuse holder 1 pole- as required, for control transformer, ELCB
XI. HRC Fuse link cylindrical 415 VAC, 80 KA fault level- Qty. as required
XII. RCCB 2 pole for motor control circuit including PBS earth leakage protection, rating 25 A, 100 mA
XIII. O/L lamp LED type - Yellow size 22.5 mm
XIV. ON lamp LED type - Red Size 22.5mm
XV. OFF lamp LED type- Green Size 22.5 mm
XVI. Core balance current transformer in the outgoing cable from MCCB
XVII. RCD for earth leakage tripping- Trip setting 0 mA to 3 Amps adjustable in preferred steps of 50/100mA steps. Time delay setting 0 to 5 s adjustable in preferred steps of 50/100ms. RCD trip signal will be connected in series with the motor overload circuit, so that in case of earth leakage, contactor will trip.
XVIII. Power/ Control cable- as required
XIX. Cable terminals & accessories- as required
XX. Control TB: DIN Channel mounted
XXI. Power TB: Stud type 4 pole

C. Makes of Components:
I. MCCB: Merlin Gerin / Legrand / Siemens/ABB
II. HRC Fuses / Fuse Holders: GE
III. Contactors: Siemens / GE India / Telemechanique (Schneider Group)/ABB
IV. OLR: Siemens / GE India /Telemechanique (Schneider Group)
V. Electronic Time Delay Relay: Siemens / GE India / Telemechanique (Schneider Group)/ABB
MCCB, Contactors, overload relay and timer shall be of same make and shall be properly coordinated for maximum protection.
VI. PBS: Siemens / L&T
VII. Ammeter: Automatic Electric/Conzerv Pvt Ltd.
VIII. LED Type Indication Lamps: Vinay / Technik/Siemens/L&T
IX. CTs: Kappa/ AE
X. Earth Leakage Relay: Merlin Gerin / Legrand
XI. Local/Remote selector switch: Siemens / L&T/ Kaycee/ Salzer
XII. RCBOs /MCBs /RCCBs: Legrand /Merlin Gerin /Siemens
XIII. Terminal Blocks / DIN Channel: Connectwell /Tosha
XIV. Wiring Cables: Finolex /Havell/other reputed brands
XV. Lugs: Dowell

D. Documents:

I. Bidder shall furnish details of the electrical items in their offer as per the above specifications IN THE SAME ORDER. All of the above shall form part of the offer acceptability. Specific type and make of components should be mentioned clearly. No deviation shall be allowed at the time of supply and in such case the order will be cancelled without any liability to OIL. In case of such cancellation OIL may recover from the bidder the cost incurred by OIL in processing the tender till the time of cancellation.

II. The following documents shall be submitted with the offer:

a. GA and dimensional drawing of the starter panel.
b. Component layout diagram
c. Power and control circuit diagrams
d. Bill of materials and technical details of various components of the Starter Control Panel.

III. The successful bidder shall obtain OIL's approval for the following drawings within a month of issue of LOI or placement of firm order:

a. GA and dimensional drawing of all equipment
b. Power and control circuit diagrams
c. BOM

Manufacturing of the unit is to be started only after written approval of the drawings by OIL.

IV. Four bound sets of the following documents shall be submitted with the supply:

a. Approved GA and dimensional drawing of all equipment
b. Approved Power and Control circuit diagrams
c. Bill of materials with technical details of various components of the Starter Control Panel
d. List of recommended spares
e. All test certificates
f. Guarantee Certificates

V. One laminated copy of the approved power & control circuit drawing shall be pasted inside of the front door of the Starter Control Panel.

E. Inspection and Testing:

I. The starter shall be inspected & tested at the manufacturers' premises before dispatch.
II. The starter shall be guaranteed for 1 (one) year from the date of supply. Guarantee certificates shall be duly

signed and stamped by the supplier and shall be provided along with the supply.

F. Transportation:
During transportation all electrical equipment are to be suitably packed to avoid water ingress or transit damage.

Name plate and rotation arrows: A nameplate shall be securely attached at a readily visible location wherein the manufacturers name, 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.
Rotation arrows indicating direction of rotation of major items should be cast in or attached.

9. Duty / Service

The pump should be designed for continuous duty application. Necessary credentials in this regard, in the form of product catalogues / brochures from OEM should be furnished.
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.

10.Liquid to be handled :

The pumping unit should be suitable for pumping crude oil . Recent Test reports of a typical sample is provided to assist the selection process :

API Gravity at 60 Deg F	: 30
PH	: 7.2
Salinity (ppm)	: 4400
CO3	: NIL
HCO3	: 305
Pour Point (Deg C)	: 27
Water Content (% v / v)	: 21
Pumping Temp	: 34 to 35 Deg C
Viscosity	:13 cp @ 26 Deg C, 17 cp @ 24 Deg C, 29 cp @ 22 Deg C
Sp Gravity	: 0.8574 @ 35 Deg C and 0.8718 @ 15 Deg C

11. Suction condition :Positive suction

12. Name plate, rotation arrows and Marking of OIL's Purchase Order

A nameplate shall be securely attached at a readily visible location wherein the manufacturers name, 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.

Rotation arrows indicating direction of rotation of major items should be cast in or attached.

OIL's Purchase Order to be permanently embossed/ engraved/ punched on the body of each pump

13. Certificates and Documents to be forwarded:

I. The following documents should be forwarded along with the quotations:

i. Product line catalogue, specifying materials of construction and constructional features of the triplex plunger pump and technical literatures of all ancillary equipment.

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

iii) 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.

II. The following documents shall have to be forwarded within a month of issue of LOI or placement of firm order

i. A foundation diagram for the complete pump set indicating the static and dynamic loads of the package.

ii) Pump Package Unitization plan/ drawing.

III. 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.

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

i. certified test results
ii. certificate of hydrostatic testing
iii. manufacturers certificate of authenticity
iv. certificate of test / conformance of pump and associated ancillaries like relief valves, pressure gauges, dampeners, Flexible Metallic braided hose etc.
v. 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.
vi. One set 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.

NOTE: All the above mentioned document (Under Clause 13-IV) shall have to be packed separately with packing list and labeled with following
OIL's Purchase order No:_____

To,
Head- Field Engineering
OIL INDIA LIMITED
DULIAJAN- 786602
ASSAM, INDIA

B. SPEED REDUCTION GEAR BOX :

The speed reduction from the 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.

The Gear Box should be preferably SHANTI/GREAVES Make 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, and a minimum 1.75 AGMA SF. The unit design includes cast iron housing, helical gear elements, anti-friction roller bearings on all shafts, and a self-contained splash lubrication system and suitable cooling system.

C. PRIME MOVER (Gas Engine) :

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 in accordance with ISO 3046/BS5514/IS10000

standards and capable of developing a net minimum BHP in the range of 190-210 HP at 1500 rpm with a maximum compression ratio of 12:1.

The engine should comprise of the following sub systems ` :

a) Cooling System

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.

(i) 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.

(ii) 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.

(iv) 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.

(v) Fan and Belt guarding: The fan, fan drive, and fan belts shall be covered with punched steel mesh guarding for personnel protection.

b) 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/m^3 (maxm.).

c) 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.

d) 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, and it is to include an equalize switch which will allow the battery to be overcharged for maintenance purpose.

e) Ignition System :

The ignition system should be a 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)

f) Exhaust System :

(i)The exhaust system should comprise of water cooled exhaust manifold, stainless steel exhaust flexible connection, residential type exhaust silencer, spark arrestor and piping connections

(ii) Heavy walled piping of schedule 40 with radii of 90 Deg bend at least 1½ times the pipe diameter. Piping should be installed with appropriate insulation and shielding.

(iii) 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.

g) Fuel System : The fuel system should comprise of

(i) 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.

(ii) Carburetor (Preferably IMPCO make),

(iii) 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
(iv) Gas Filter and related linkages. The gas Filtration unit should be place on a separate skid for convenience of operators.
(v) Fuel inlet line to the engine shall be having stainless steel flexible connection to take care of vibration/shock if any, in the system.

h) Lubricating System :

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.
(i) 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.
(ii) The bypass valve must be integral with the engine filter base of receptacle.

i) 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) Circuit Breaker
h) Ampere meter
i) Electric service meter

j) 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

k) 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.
j) Gas shut off valve for engine fuel gas line should close automatically when the engine is stopped.

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)

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 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

e) Composition of Fuel Gas :

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

CONSTITUTION	Range by % VOLUME
Methane	85.7 - 93.52
Ethane	2.45 - 6.55
Propane	1.28 - 3.12
Nitrogen	0.53 - 1.21
Carbon-dioxide	0.01 - 0.57
Iso-Butane	0.31 - 0.75
N-Butane	0.4 - 1.14
Iso-Pentane	0.19 - 0.47
N-Pentane	0.17 - 0.38
Hexane	0.34 - 1.16
Gravity	0.6204 -0.6919
Gross Calorific Value	9636.8- 10590.8 Kcal/SCUM
Net Calorific Value	8704.3- 9595.4 Kcal/SCUM

Moisture content:21.0 - 120.0 LB/MMCFT(336.0 - 1992.0 KG/MMSCM)

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

f) 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 .

g) 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.

D. INSTRUMENTATION FOR CODP:

1. The CODP shall be controlled by a Programmable Logic Controller (PLC) with Panel view facility for display & alarm of critical parameters and safety shutdown.

2. It shall also be provided with an Ethernet communication module for remote monitoring of the CODP parameters from control room.

3. The Control panel shall be designed for installation in the Engine side (behind the Fire Wall) of the CODP. In case, it is designed to install the panel in pump side then the PLC shall be intrinsically safe and housed in an explosion proof enclosure with a glass window for viewing the CODP parameters. The Control panel shall be certified by DGMS to use in Zone1, Zone2, Gas group IIA & IIB (Division 1, Division 2, Gas group Class I, Group C&D) environment.

4. The following minimum instruments shall be provided for CODP:

Pump Suction Pressure Transmitter
Pump Discharge Pressure Transmitter
Pump Vibration Switch
Oil level switch for Pump sump
Oil level switch for Gear Box
Oil Level switch for Engine sump
Engine Oil Pressure Transmitter
Engine Water Temperature Transmitter
Engine Speed Transmitter
Pump Outlet Flow Transmitter

5. All the electronic field instruments placed on the Pump side shall be certified for use in Zone1, Zone2, Gas group IIA & IIB (Division 1, Division 2, Gas group Class I, Group C&D) environment and should have valid DGMS (Director General of Mines Safety) approval.

NOTE: If DGMS certified instruments are not available in the market during submission of tender, then, party has to confirm the following:

(i) Field trial permission from DGMS for the same to be provided during inspection/ before dispatch.

(ii) Valid DGMS certificate to be provided during commissioning.

(iii)The commissioning shall be considered incomplete till the valid DGMS certificate provided by the supplier.

6. The supplier has to provide 3 (THREE) sets each of the following documentation along with the supply:
Operation and maintenance manual of each field Instrument
Instrument list and Instrument data sheets
Test & Calibration reports
As built & Hook up drawings
Wiring diagram of the control panel
Detailed operation and maintenance manuals of the PLC system
Ladder logic developed for the PLC

7. The supplier has to provide ONE Lap-top computer for Programming the PLC. The minimum technical specification for the Lap-top shall be as follows: Processor-3rd Gen core-i5 33170, Ram-4GB DDR3, HDD-500, 14 inch HD LED Display, OS-Windows-8, 1 year anti-virus license with carry case for comfortable handling. It shall be loaded with the relevant PLC software and PANEL VIEW software. The Lap-top computer shall have to be Packed separately with following Label and packing list

OIL's Purchase order No:_____
To,
Head- Field Engineering
OIL INDIA LIMITED
DULIAJAN- 786602
ASSAM, INDIA

8. The Technical Specification of the Instruments for CODP is as given below:

Technical specification for Instruments:

i). PUMP SUCTION PRESSURE TRANSMITTER
MAKE : DRUCK MODEL-PTX1240 or Equivalent
RANGE : 0 TO 200 PSI
OUTPUT : 4 TO 20mA

ii). PUMP DISCHARGE PRESSURE TRANSMITTER
MAKE : DRUCK MODEL-PTX1240 or Equivalent
RANGE : 0 TO 3000 PSI
OUTPUT : 4 TO 20mA

iii). PUMP VIBRATION SWITCH
MAKE : MURPHY MODEL VS2EX or Equivalent
To detect vibration / Shock in 3 places of motion
Fully adjustable
Manual / Electrical reset

iv). OIL LEVEL SWITCH (PUMP SUMP, GEAR BOX, ENGINE)

MAKE : MURPHY MODEL EL150X or Equivalent
Float : Brass
Contact rating : 2A, 30 VDC
Max Working Pressure: 25 PSI

v). ENGINE OIL PRESSURE TRANSMITTER
MAKE : DRUCK MODEL -PTX1240 or Equivalent
RANGE : 0 TO 200 PSI
OUTPUT : 4 TO 20mA

vi). ENGINE WATER TEMPERATURE TRANSMITTER
MAKE : MATE MODEL- 4100 or Equivalent
RANGE : 0 TO 300 DEG F

vii). ENGINE SPEED TRANSMITTER
MAKE : ELECTRONIC DATA DEVICES MODEL-FTC 4.02420 or Equivalent
RANGE : 0 TO 2000 RPM
OUTPUT : 4 TO 20mA

viii). TURBINE FLOWMETER
MAKE : NU FLO MODEL- MC II PLUS EXP or Equivalent
POWER SUPPLY: MAX 30 VDC
OUTPUT : 4 TO 20 mA
LCD DISPLAY: FLOW RATE & TOTAL FLOW

9. CONTROL PANEL:
The PLC based control panel with Panel View shall have the following features:

All normal operational functions should be available using panel mounted push buttons. Set points can be adjusted using the Panel view function keys.

Digital readout with shutdown and alarm annunciation for the following:
i). Pump discharge pressure
ii. Pump suction pressure
iii). Engine oil pressure
iv). Engine water temperature
v). Engine speed (rpm)
vi). Pump outlet flow

The following discrete alarms/shutdowns should also be provided:
i). Pump crank case oil level
ii). Gear reducer oil level
iii). Pump vibration
iv). Engine radiator jacket water level 1/2

v). Engine low oil level
vi). Emergency shutdown push button

24 VDC control power supply shall be provided for the following devices:
i). Pump discharge pressure transducer
ii). Pump suction pressure transducer
iii). Engine oil pressure transducer
iv). Engine water temperature transducer
v). Engine rpm transducer
vi). Pump discharge flow meter

N.B.: A fuel gas solenoid valve should additionally be incorporated in the fuel gas line of the engine to cut off the fuel supply and protect the engine in the event of an engine over speed situation.

SPECIAL NOTES (For Charge pump electric motor and any other FLP accessories under Clause A 8. Accessories 2.00 and all the electronic field instruments and control panel placed on the pump side under clause no D. Instrumentation For CODP):

i. Electrical/ electronic equipment shall be CIMFR (or equivalent) certified and DGMS approved. The CIMFR certificate no. and DGMS approval No. shall be affixed or embossed on each piece of equipment.

ii. In case DGMS approved electrical/electrical/electronic equipment is not available, the same shall be supplied with DGMS field trial permission certification. Details of obtaining DGMS field trial permission are available at the web site of DGMS. The field trial may be carried in any E&P Company operating in India or during the commissioning of the project for which it is procured.

E. DRIVE ARRANGEMENT:

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 triplex pump. An extension shaft supported by pedestal bearings should be incorporated between the output shaft of the clutch PTO and the input shaft of the external foot mounted gear box to facilitate construction of a fire brick wall for adherence of safety norms associated with deployment of such equipment within hazardous areas . The length of the extension shaft as well as it's diameter and material should be suitably designed

to match the power torque requirements of the transmission and facilitate construction of brick wall by OIL as mentioned.

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

N.B. : All rotating parts should be covered by suitable non sparking guards.

F. PUMP PACKAGE UNITISATION:

The pump set is to be supplied with all components and accessories fitted and mounted on an oilfield type three runner portable master skid. 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 and also utmost care shall be taken to keep provision for construction of a fire brick wall across the extension shaft between Clutch PTO & speed reduction gear box and therefore sufficient space shall to be kept free across the extension shaft and no accessories shall be placed in this area/line. The supplier shall have to mark this area/line across the extension shaft with suitable permanent paint on the skid where fire brick wall can be constructed by OIL at Installation site. The skid should be fabricated out of properly sizes 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.

N.B.:

a) The unitization process shall include supply and fitting of miscellaneous electrical instrumentation including:

i) Engine oil level switch
ii) Pump oil level switch
iii) Vibration switch mounted on pump and engine
iv) Gas volume Regulator
v) Termination of all skid mounted end devices to the control panel

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.

G. INSPECTION AND TESTING :

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.

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

Pre-despatch inspection call for carrying out the Inspection of the pump sets at Supplier's Works shall be given by the supplier to OIL at least (Seventy Five) 75 days in advance for making all necessary arrangements for deputing OIL personnel. OIL in turn, would confirm the scheduled date of visit of their personnel at least Seven (7) days in advance.

N.B. :

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.

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.

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. The approved copy of the composite manual shall to be supplied along with the documents as mentioned under Clause 13-IV.

H. INSTALLATION & COMMISSIONING :

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. Only competent service personnel shall be engaged for installation, testing and commissioning of pump sets. OIL will provide necessary statutory permits in classified areas as and when required.

OIL will give Installation & Commissioning call to the supplier at least 15 days in advance. The supplier shall have to send their competent personnel for Installation & Commissioning job at OIL's Installation within Fifteen (15) days after receiving the Installation and commissioning call.

Installation / commissioning charges should be quoted separately which shall be considered for evaluation of the offers. These charges should include 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.

Note : Once commissioned at designated site the pump set will be subjected to a trial run on available load for a minimum period of 72 hrs and on satisfactory performance shall be subsequently handed over to OIL.

I. 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.

J. SPARE PARTS AND SPECIAL TOOLS :

a. Bidders have to provide the price , along with the part numbers , of the following spares that we envisage shall be required for maintenance of the pump set for two years . The prices of these spares shall be considered during commercial evaluation of the offer.

TRIPLEX PLUNGER PUMP :

i.	SUCTION VALVE ASSEMBLY	: 3 NOS PER PUMP
ii.	DELIVERY VALVE ASSEMBLY	: 3 NOS PER PUMP
iii.	VALVE COVER GASKET	: 12 NOS PER PUMP
iv.	VALVE SEAT (SUCTION)	: 3 NOS PER PUMP
v.	VALVE SEAT (DELIVERY)	: 3 NOS PER PUMP
vi.	ROD WIPER	: 6 SETS PER PUMP
vii.	PLUNGER	: 3 NOS PER PUMP
viii.	PLUNGER PACKING	: 6 SETS PER PUMP
	(EACH SET ADEQUATE TO CATER FOR 3 PLUNGERS)	
ix.	CRANK PIN BEARING	: 3 SETS PER PUMP

NOTE: All the above mentioned Pump spares (Under Clause J.) shall have to be packed separately with packing list and labeled with following
OIL's Purchase order No:_____
To,
Head- Field Engineering
OIL INDIA LIMITED
DULIAJAN- 786602
ASSAM, INDIA

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

NOTE: All the above mentioned Gas Engine Spares (Under Clause J.) shall have to be packed separately with packing list and labeled with following
OIL's Purchase order No:_____
To,
Head- Field Engineering
OIL INDIA LIMITED

DULIAJAN- 786602
ASSAM, INDIA

SPARES FOR Instrumentation system:

Bidders have to provide the price, along with the part numbers, of the following Instruments spares that we envisage shall be required for trouble free maintenance of the control system for two years. The prices of these spares shall be considered during commercial evaluation of the offer.

1. PUMP SUCTION PRESSURE TRANSMITTER-2Nos
2. PUMP DISCHARGE PRESSURE TRANSMITTER-2Nos.
3. PUMP VIBRATION SWITCH-2Nos.
4. OIL LEVEL SWITCH (PUMP SUMP, GEAR BOX, ENGINE)-2 Nos each.
5. ENGINE OIL PRESSURE TRANSMITTER-2nos.
6. ENGINE WATER TEMPERATURE TRANSMITTER-2 nos.
7. ENGINE SPEED TRANSMITTER-2Nos.
8. PICK-UP COIL FOR TURBINE FLOWMETER-2nos.
9. RTD FOR TEMPERATURE MEASUREMENT-2Nos
10. PANEL VIEW-2No
11. SPARES FOR PLC BASED CONTROL SYSTEM-1Set.
(PLC, I/O card, Power Supply, Fuse, Isolators etc.)

NOTE: All the above mentioned Instruments spares (Under Clause J.) shall have to be packed separately with packing list and labeled with following:
OIL's Purchase order No:_____
To,
Head- Field Engineering
OIL INDIA LIMITED
DULIAJAN- 786602
ASSAM, INDIA

b. Bidders shall have to provide the unit price, along with the part numbers , of the following insurance spares . The cost of these spares shall however not be considered during commercial evaluation of the offer.

TRIPLEX PLUNGER PUMP :

i. FLUID END
ii. STUFFING BOX ASSEMBLY
iii. GLAND NUT
iv. EXTENSION ROD
v. CRANKSHAFT
vi. CROSS HEAD
vii. CONNECTING ROD ASSEMBLY

GAS ENGINE :

i. CYLINDER HEAD INCLUDING HEAD GASKET
ii. CYLINDER LINER
iii. PISTON ASSEMBLY INCLUDING PISTON RINGS
iv. BIG END BEARING SET
v. CRANKSHAFT
vi. CAMSHAFT
vii. GOVERNOR
viii. CARBURETTOR
ix. ALTRONIC III/V

c. The following special accessories/tools should be included [one set against each pump set] in the scope of supply , as commissioning spares . The prices of these spares shall be considered during commercial evaluation of the offer.

i. One set of each type and size of coupling installed in the pump set per pump set.
ii. A valve seat puller and special wrenches for tightening stuffing box glands, studs etc per pump set.

iii. Companion Flanges for suction and discharge ends of each pump with gasket and fasteners per pump set.

K. AFTER SALES SERVICE :

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

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.

L. General Notes :

1.0 Payment clause :

Payment shall be released as follows:

a) Pump packages supplied with valid DGMS Approval of the components requiring DGMS approval :

i) 80 % value shall be released on supply against proof of despatch/shipment of the goods and submission of valid DGMS certificate.

ii) Remaining 20% along with installation & commissioning charges shall be paid after successful commissioning and acceptance by OIL at site.

OIL may consider making 100 % payment towards supply of the Pump against proof of dispatch/shipment provided bidders agree to pay interest @ 1% above prevailing Bank Rate (CC rate) of State Bank of India for 20 % of the Pump value and also submit Bank Guarantee for the equivalent amount plus interest valid till successful commissioning of at site. This is in addition to the 10 % of the order value towards Performance Security as per the tender requirement.

b) Pump packages supplied without DGMS approval of the components, but with Field Trial Permissions only:

In case DGMS approved electrical/electronic equipment is not available, the same shall be supplied with DGMS field trial permission certification. Details of obtaining DGMS field trial permission are available at the web site of DGMS. The field trial may be carried in any E&P Company operating in India or during the commissioning of the project for it is procured.

i) Payment for pump packages supplied with DGMS field trial permission for components shall be as under –

(aa) 50% of the cost against dispatch/shipping documents.

(bb) 30% of the cost upon submission of DGMS approval only.

(cc) Balance 20 % along with installation & commissioning charges shall be paid after successful commissioning and acceptance by OIL at site.

A system will be considered as successfully commissioned only after obtaining valid DGMS approval for all the constituent equipment/instruments of the system.

Note : (I) The price of each electronics/electrical equipment/instrument wherever DGMS approval is required as per technical specifications shall be quoted separately.

2.0 The items covered by this enquiry shall be used by Oil India Limited in the PEL/ML areas which re issued/renewed after 01/04/99 and hence Nil Customs Duty during import will be applicable. Indigenous bidder shall be eligible for Deemed Export Benefit against this purchase. Details of Deemed Export are furnished vide Addendum to MM/GLOBAL/E-01/2005 enclosed.

ANNEXURE:I

Tender No:

Attachment to BRC Clause No.5.0 :
Documentary evidence / Supply Details for Single Acting

SL NO	Client / customer Name and Address with contact e-mail id	Order No / Contract No.	Date of order	Pump specification: Make, Model, Capacity (Discharge in CUM /HR & Pressure in KSC of pump) & Quantity supplied	Completion date	Supporting document enclosed
1						
2						
3						
4						
5						
6						
7						
8						
9						

ANNEXURE-II
TECHNICAL CHECK LIST FOR PUMP PACKAGES;
TENDER NO_____

Srl No	Description	Yes	No
1.	Whether quoted as OEM of Pump and whether documentary evidences submitted ?		
2.	Whether quoted as authorised dealer of Pump and whether documentary evidences submitted ?		
3.	Whether quoted as OEM recommended assembler of Pump sets and whether documentary evidences submitted ?		
4.	Whether the offered Pump is a horizontal, triplex plunger Pump conforming to API 674 standard ?		
5.	Whether the Pump is designed for continuous service duty ?		
6.	Whether the offered engine conforms to ISO3046 / BS 5514 / IS 10000 specifications ?		
7.	Whether the Minimum Net HP of the engine is as per NIT requirement ?		
8.	Whether the engine is rated for continuous power ?		
9.	Whether the engine is water cooled ?		
10.	Whether Instrumentation for CODP & Technical Specification for Instruments is as per NIT requirement ?		
11.	Whether Electronic Instruments placed on the pump side is approved by DGMS ?		
12.	Whether the speed reduction gear box is external foot-mounted ?		
13.	Whether the floor of the three runner skid shall be covered by checkered plates ?		
14.	Whether Flexible disc / grid member couplings have been incorporated in the transmission ?		
15.	Whether guards shall be provided over couplings and belt drives ?		
16.	Whether the two years spares for the packages indicated have been quoted ?		
17.	Whether special tools and commissioning spares have been included in the scope of supply ?		
18.	Whether spares shall be available for 10 years after supply of equipment?		
19.	Whether separately highlighted any deviation from the technical specifications ?		
20.	Whether the Pre-despatch inspection of the Pump packages shall include Full Load Performance test of the Pump Sets ?		
21.	Whether the bidder has submitted the undertaking that		

Srl No	Description	Yes	No
	the offered materials of construction of the pump are suitable for the specified operating conditions (as mentioned in the tender) and as required by API 674 Standard and the materials prohibited by the API 674 Standard are not used in the offered pump?		
22.	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?		
23.	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?		
24.	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?		
25.	Whether the bidder has submitted 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?		
26.	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 it's accessories), will be manufactured after the bid closing date of this tender?		

OIL#s Tender No.----------

Signed----------

For & behalf of ----------

Designation----------

DATA SHEET

DATA SHEET (ENGINE)

MAKE
MODEL
NUMBER OF CYLINDERS
ASPIRATION
COMPRESSION RATIO
SIZE (BORE X STROKE)
DISPLACEMENT
RATED SPEED
DUTY
GROSS HP AT RATED RPM
DEDUCTION FOR FAN, ALTITUDE , TEMPERATURE
NETT HP AVAILABLE AT 1500 RPM
SPECIFIC FUEL CONSUMPTION AT
110% LOAD
100% LOAD
75% LOAD
50% LOAD
LUBRICATING OIL CONSUMPTION (LT / HR)
ENGINE SUMP CAPACITY (LTS)
ENGINE RADIATOR CAPACITY (LTS)
MAKE AND TYPE OF GOVERNOR
MAKE OF CLUTCH PTO
MODEL OF CLUTCH PTO
MAKE OF STARTER
MAKE AND MODEL OF COUPLING BETWEEN CLUTCH PTO AND GEARBOX

DATA SHEET (PUMP)

MAKE
MODEL
SIZE (PLUNGER DIAMETER X STROKE LENGTH)
LIMITING PRESSURE AND VOLUME AT OFFERED SIZE
OFFERED SPEED
LIMITING SPEED AS PER RELEVANT STANDARD
DISCHARGE VOLUME@OFFERED SPEED (n vol = 95%)
HHP REQUIREMENT AS PER NIT PARAMETERS
MAKE AND MODEL OF EXTERNAL GEAR BOX
GEAR RATIO OF EXTERNAL FOOT MOUNTED GEAR BOX
TYPE AND SIZE OF COUPLING BETWEEN CLUTCH PTO AND EXTENSION SHAFT
TYPE AND SIZE OF COUPLING BETWEEN EXTENSION SHAFT AND GEAR BOX INPUT SHAFT
TYPE AND SIZE OF COUPLING BETWEEN GEAR BOX OUTPUT SHAFT AND TRIPLEX PUMP INPUT SHAFT

ANNEXURE- BB

BID REJECTION CRITERIA & BID EVALUATION CRITERIA

(I) BID REJECTION CRITERIA:

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.

(A) TECHNICAL:

1.0 The offered pump should be a horizontal, single acting, triplex plunger pump conforming to API 674 standards, suitable for meeting the delivery parameters (Volume and Pressure) mentioned in the tender.

2.0 The gas engine should be a four stroke, spark-ignited, stoichiometric(Air-Fuel Ratio), naturally aspirated or turbo-charged, radiator cooled engine, rated for continuous power in accordance with ISO 3046/BS5514/IS10000 standards and capable of developing a net BHP in the range as mentioned in the tender with limiting rpm 1500 and limiting compression ratio 12:1.

3.0 The bidder should be an OEM or authorized dealer of OEM of the pump or an OEM(of pump) recommended assembler of pump sets . 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 failing which the offer will be rejected.

4.0 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 failing which the offer will be rejected. The assembler should indicate that necessary infrastructural facilities for fabrication and load testing of the pump sets are available with them. 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.

5.0 Bidders should have the experience of completing three orders in the last ten years preceding the bid closing date (technical) of the tender against supply

of continuous duty pump sets of similar nature for water flood / formation water disposal / hydrocarbon service applications in PSUs, Central Govt. Undertakings, Public Limited Companies in the Oil & Gas sector . Copies of purchase orders from the clients indicating the supply of such equipment are to be forwarded with the offer. The offers are to be further substantiated by satisfactory performance certificates from the customer.

Note:

The bidder shall submit documentary evidence/details of the previous supply of such pump set in a tabular format along with the bid. The copy of such format is attached with the tender (ANNEXURE-I).

Similar nature pump means horizontal, single acting, triplex plunger pump conforming to API 674 standards.

6.0 The model of pump offered as per NIT (both Volume & pressure) should be one that has a proven track record for continuous duty water flood / formation water disposal / hydrocarbon service applications. The model should be one that has been successfully deployed for any of the continuous duty applications, viz: water flood / formation water disposal / hydrocarbon service, for a minimum period of 6000 hours or one year from its date of commissioning. In this regard satisfactory performance certificate of the offered model pump from the end users shall 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 plunger 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 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.

7.0 The engine of the offered Pump set should have :

(i) 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 6000 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 it's

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 three conditions mentioned above should be enclosed with the offer failing which the offer shall be summarily rejected.

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

(B) COMMERCIAL :

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 "Priced 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 Bid security of US $ 83,750.00 or Rs. 37,68,000.00 shall be furnished as a part of the TECHNICAL BID. Any bid not accompanied by a proper bid security in ORIGINAL will be rejected without any further consideration. For exemption for submission of Bid Security, please refer Clause No. 9.8 (Section A) of General Terms and Conditions for Global Tender. The Bid Security shall be valid till 15/07/2015 (dd/mm/yy).

3.0 Bidders must confirm that Goods, materials or plant(s) to be supplied shall be new of recent make and of the best quality and workmanship and shall be guaranteed for a period of twelve months from the date of commissioning of the complete package at site against any defects arising from faulty materials, workmanship or design. Defective goods/materials or parts rejected by OIL shall be replaced immediately by the supplier at the supplier's expenses at no extra cost to OIL.

4.0 Successful bidder will be required to furnish a Performance Bank Guarantee @10% of the order value. The Performance Bank Guarantee must be valid for one year from the date of successful commissioning of the complete package at site. Bidder must confirm the same in their Technical Bid. Offers not complying with this clause will be rejected.

5.0 The prices offered will 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.

6.0 Validity of the bid shall be minimum 180 days. Bids with lesser validity will be rejected.

7.0 Bids received after the bid closing date and time will be rejected. Similarly, modifications to bids received after the bid closing date & time will not be considered.

8.0 Bidders shall quote directly and not through Agents in India. Offers made by Indian Agents on behalf of their foreign principals will be rejected. Similarly offers from unsolicited bidders will be rejected.

9.0 Bids containing incorrect statement will be rejected.

10.0 Offers received without Integrity Pact duly signed by the authorised signatory of the bidder will be rejected.

11.0 No offers should be sent by Telex, Cable, E-mail or Fax. Such offers will not be accepted.

12.0 Bidders are required to submit the summary of the prices in their commercial bids as per bid format (Summary), given below :

(i) <u>Commercial Bid Format (Summary) for Foreign Bidders</u> :

(A) Total material cost of Pump (other than Sl. No. B to C below)
(B) Cost of Spares of Triplex Plunger Pump and Instrumention system (refer Para J (a) of Technical Specification)
(C) Cost of commisioning Spares (refer Para J(c) of Technical specification)
(D) Grand Total Material Cost, (A + B + C)
(E) Packing & FOB Charges
(F) Total FOB Port of Shipment value, (D + E) above
(G) Ocean Freight Charges upto Kolkata, India
(H) Insurance Charges
(I) Total CIF Kolkata value, (F + G + H)
(J) Pre-shipment Inspection charges, if any .
(K) Installation & Commissioning charges
(L) Total Value, (I + J + K) above
(M) Total value in words :
(N) Gross Weight :
(O) Gross Volume :

(iii) <u>Commercial Bid Format (SUMMARY) for Indigenous Bidders</u> :

(A) Total material cost of Pump (other than Sl. No. B to C below)

(B) Cost of Spares of Triplex Plunger Pump and Instrumentation system (refer Para J (a) of Technical Specification)
(C) Cost of commissioning Spares (refer Para J(c) of Technical specification)
(D) Grand Total Material Cost, (A + B + C)
(E) Packing and Forwarding Charges
(F) Total Ex-works value, (D + E) above
(G) Excise Duty including Cess, (Please indicate applicable rate of Duty & Cess)
(H) Sales Tax, (Please indicate applicable rate of Tax)
(I) Total FOR Despatching station price, (F + G + H) above
(J) Road Transportation charges to Duliajan
(K) Insurance Charges
(L) Total FOR Duliajan value, (I + J + K) above
(M) Pre-shipment Inspection charges, if any .
(N) Installation & Commissioning charges
(O) Total Value, (L + M + N) above
(P) Total value in words :
(Q) Gross Weight :
(R) Gross Volume :

NOTES :

1. The pumps covered under this tender will be used by OIL in the PEL/ML areas issued/renewed after 01/04/99, applicable Customs Duty for import of goods shall be ZERO. Indigenous bidders shall be eligible for Deemed Export and should quote Deemed Export prices. Excise Duty under Deemed Export exempted.

3. Installation/Commissioning charges must be quoted separately on lumpsum basis which shall be considered for evaluation of the offers. These charges should include amongst others to and fro fares, boarding/lodging, local transport at Duliajan and other expenses of supplier's commissioning personnel during their stay at Duliajan, Assam(India). All Income, Service, Corporate Taxes etc. towards the services provided under installation / commissioning shall be borne by the supplier and will be deducted at source at the time of releasing the payment. Bidder should also confirm about providing all these services in the Technical Bid.

4. Successful bidder shall offer the pumps for Pre-despatch/shipment Inspection by OIL's executives. Pre-despatch/Shipment Inspection charges, if any, must be quoted separately on lumpsum basis which shall be considered for evaluation of the offers. The to and fro fares, boarding/lodging and other enroute expenses of OIL's personnel shall be borne by OIL.

Bidders must categorically indicate the Installation / Commissioning and Pre-despatch/Shipment Inspection charges in their offers and must confirm about providing the same in their Technical bids.

(II) 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 the Bid Evaluation Criteria given below:

A. COMMERCIAL :

1.0 The evaluation of bids will be done as per the Commercial Bid format (SUMMARY) detailed vide Para 12.0 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 Offers not complying with the payment terms indicated in the tender shall be loaded with one percent above the prevailing Bank rate (CC rate) of State Bank of India for duration of commissioning time indicated in the tender plus transit time (3 months) for evaluation purpose.

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

6.1 **When only foreign bidders are involved :**

Comparison of bids will be done on the basis of "TOTAL VALUE" which is estimated as under :

(A) Total material cost of Pump (other than Sl. No. B to C below)
(B) Cost of Spares of Triplex Plunger Pump and Instrumentation system (refer Para J (a) of Technical Specification)

(C) Cost of commissioning Spares (refer Para J(c) of Technical specification)
(D) Grand Total Material Cost, (A + B + C)
(E) Packing & FOB Charges
(F) Total FOB Port of Shipment value, (D + E) above
(G) Ocean Freight Charges upto Kolkata, India
(H) Insurance Charges @ 1% of Total FOB Value vide (F) above
(I) Banking Charges @ 0.5% of Total FOB Value vide (F) 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)
(J) Total CIF Kolkata Value, (F + G + H + I) above
(K) Pre-shipment Inspection charges, if any .
(L) Installation & Commissioning charges
(M) Total Value, (J+ K + L) above

NOTE : Banking charge in the country of the foreign bidder shall be borne by the bidder.

6.2 When only domestic bidders are involved or when more than one domestic bidders are in contention in case of mixed response :

Comparison of bids will be done on the basis of "TOTAL VALUE" which is estimated as under :

(A) Total material cost of Pump (other than Sl. No. B to below)
(B) Cost of Spares of Triplex Plunger Pump and Instrumentation system (refer Para J (a) of Technical Specification)
(C) Cost of commissioning Spares (refer Para J(c) of Technical specification)
(D) Grand Total Material Cost, (A + B + C)
(E) Packing and Forwarding Charges
(F) Total Ex-works value, (D + E) above
(G) Excise Duty including Cess
(H) Sales Tax
(I) Total FOR Despatching station price, (F + G + H) above
(J) Road Transportation charges to Duliajan
(K) Insurance Charges @0.5% of Total FOR Despatching Station Value (I) above
(L) Total FOR Duliajan value, (I + J + K) above
(M) Pre-shipment Inspection charges, if any.
(N) Installation & Commissioning charges
(O) Total Value, (L + M + N) above
(P) Total value in words :

NOTE: **Excise Duty in case of the indigenous bidder is EXEMPTED.**

6.3 **When both foreign and domestic bidders are involved :**

The Total Value of domestic bidder (inclusive of customs duty on imported raw material and components etc, and applicable terminal excise duty on the finished products and Sales Tax) excluding inland transportation to destination and Insurance charges worked out as per Para 6.2 above and Total Value of the foreign bidder worked out as per Para 6.1 above excluding inland transportation to destination will be compared. No price preference will be allowed to indigenous bidders except that for capital goods, the domestic manufacturers would be accorded a price preference to offset CST to the extent of 4 % or actuals, which ever is less subject to 30 % local content norms as stipulated for World Bank Funded project to the satisfaction of OIL. When more than one domestic bidders fall within price preference range, inter-se-ranking will be done on Total Value basis.

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.

7.0 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 MARK 'YES' OR 'NO' OR SPECIFY AGAINST THE FOLLOWING QUESTIONS, IN THE RIGHT HAND COLUMN.

1	Whether bid submitted under Two Bid System ?	
2	Whether ORIGINAL Bid Bond(not copy of Bid Bond) submitted? If YES, provide details	
	(a) Amount :	
	(b) Name of issuing Bank :	
	(c) Validity of Bid Bond :	
	(d) Whether Bid Bond is valid till	
3	Whether offered firm prices ?	
4	Whether quoted offer validity of six months from the date of closing of tenders ?	
5	Whether quoted a firm delivery period?	
6	Whether quoted as per tender (without any deviations) ?	
7	Whether quoted any deviation ?	
8	Whether deviation separately highlighted ?	
9	Whether agreed to the Warranty clause ?	
10	Whether Price Bid submitted as per Price Schedule (refer Para 12.0 of BRC)	
11	Whether confirmed availability of spares for at least 10 years after delivery of the material?	
12	Whether quoted all the items of tender ?	
13	Whether indicated the country of origin for the items quoted?	
14	Whether technical literature / catalogue enclosed?	

15	Whether confirmed to carry out installation & Commissioning at Duliajan (Assam)?	
16	Whether installation & Commissioning charges applicable?	
17	If installation & Commissioning charges applicable, whether separately quoted on lump sum basis?	
18	Whether to & fro air fares, boarding/lodging of the commissioning personnel for installation & commissioning at Duliajan, Assam (India) included in the quoted charges ?	
19	Whether confirmed that all Service, Income, Corporate tax etc. applicable under installation & Commissioning are included in the prices quoted?	
20	Whether confirmed acceptance of tender Payment Terms .	
21	For Foreign Bidders - Whether offered FOB / FCA port of despatch including sea / air worthy packing & forwarding?	
22	For Foreign Bidders – Whether port of shipment indicated. To specify:	
23	For Indian bidders – Whether indicated the place from where the goods will be dispatched. To specify :	
24	For Indian bidders – Whether road transportation charges up to Duliajan quoted ?	
25	For Indian Bidders only - Whether offered Ex-works price including packing/forwarding charges ?	
26	Whether Indian Agent applicable ?	
27	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?	
28	Whether weight & volume of items offered indicated ?	
29	Whether charges towards Pre-despatch/shipment inspection & testing of the Pump applicable?	
30	If Pre-despatch/shipment inspection & testing charges applicable, whether quoted separately?	

31	Whether confirmed to submit PBG as asked for in tender ?	
32	Whether agreed to submit PBG within 30 days of placement of order ?	
33	For Indian Bidders only - Whether indicated import content in the offer ?	
34	For Indian Bidders only - Whether deemed export quoted?	
35	For Indian Bidders only – Whether all applicable Taxes & Duties have been quoted ?	
36	Whether all BRC/BEC clauses accepted and supporting documents submitted as applicable ?	
37	Whether Integrity pact as per enclosed format with digital signature uploaded and whether all clauses of the pact has been accepted?	

OFFER REF	

NAME OF THE BIDDER	