

Bid Document

Bid Details	
Bid End Date/Time	23-06-2021 11:00:00
Bid Opening Date/Time	23-06-2021 11:30:00
Bid Life Cycle (From Publish Date)	90 (Days)
Bid Offer Validity (From End Date)	55 (Days)
Ministry/State Name	Ministry Of Petroleum And Natural Gas
Department Name	Oil India Limited
Organisation Name	Oil India Limited
Office Name	Oil India Limited
Total Quantity	10
Item Category	PIG Launcher 8 in 600 class , PIG Receiver 8 in 600 class , PIG Launcher 8 in 300 class , PIG Receiver 8 in 300 class , PIG Launcher 6 in 600 class , PIG Receiver 6 in 600 class
MSE Exemption for Years of Experience and Turnover	No
Startup Exemption for Years of Experience and Turnover	No
Document required from seller	Compliance of BoQ specification and supporting document *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
Bid to RA enabled	No
Primary product category	PIG Launcher 8 in 600 class
Time allowed for Technical Clarifications during technical evaluation	3 Days
Inspection Required (By Empanelled Inspection Authority / Agencies pre-registered with GeM)	No
Estimated Bid Value	8976234
Evaluation Method	Total value wise evaluation

EMD Detail

Required	No
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ePBG Detail

Advisory Bank	HDFC Bank
ePBG Percentage(%)	3.00
Duration of ePBG required (Months).	20

(a). EMD & Performance security should be in favour of Beneficiary, wherever it is applicable.

Beneficiary:

GM (F&A)

Oil India Limited, Duliajan, Assam 786602. Email : tuhin_roy@oilindia.in; Details of Beneficiary : OIL INDIA LIMITED
Bank Name :HDFC BANK LIMITED Branch Name :Duliajan Bank Account No. :21182320000016 Type of Account
:Current Account IFSC Code :HDFC0002118 MICR Code :786240302 SWIFT Code :HDFCINBBCAL
(Oil India Limited)

Splitting

Bid splitting not applied.

MII Purchase Preference

MII Purchase Preference	Yes
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MSE Purchase Preference

MSE Purchase Preference	Yes
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1. Preference to Make In India products (For bids < 200 Crore):Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. The minimum local content to qualify as a Class 1 local supplier is denoted in the bid document. If the bidder wants to avail the Purchase preference, the bidder must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall be granted. In case the bid value is more than Rs 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the OEM is a company and by a practicing cost accountant or a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in -India) order 2017 dated 04.06.2020. Only Class-I and Class-II Local suppliers as per MII order dated 4.6.2020 will be eligible to bid. Non - Local suppliers as per MII order dated 04.06.2020 are not eligible to participate. However, eligible micro and small enterprises will be allowed to participate .In case Buyer has selected Purchase preference to Micro and Small Enterprises clause in the bid, the same will get precedence over this clause.

2. Purchase preference to Micro and Small Enterprises (MSEs): Purchase preference will be given to MSEs as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail the Purchase preference, the bidder must be the manufacturer of the offered product in case of bid for supply of goods. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service. If L-1 is not an MSE and MSE Seller (s) has/have quoted price within L-1+ 15% (Selected by Buyer)of margin of purchase preference /price band defined in relevant policy, such Seller shall be given opportunity to match L-1 price and contract will be awarded for 100%(selected by Buyer) percentage of total QUANTITY.

3. Estimated Bid Value indicated above is being declared solely for the purpose of guidance on EMD amount and for determining the Eligibility Criteria related to Turn Over, Past Performance and Project / Past Experience etc. This has no relevance or bearing on the price to be quoted by the bidders and is also not going to have any

impact on bid participation. Also this is not going to be used as a criteria in determining reasonableness of quoted prices which would be determined by the buyer based on its own assessment of reasonableness and based on competitive prices received in Bid / RA process.

PIG Launcher 8 In 600 Class (2 pieces)

(Minimum 50% Local content required for MII compliance)

Brand Type	Unbranded
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Technical Specifications

Buyer Specification Document	Download
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Consignees/Reporting Officer and Quantity

S.No.	Consignee/Reporting Officer	Address	Quantity	Delivery Days
1	Krishna Mohan Kumar	786602,Oil India Limited, Duliajan, Assam	2	150

PIG Receiver 8 In 600 Class (2 pieces)

(Minimum 50% Local content required for MII compliance)

Brand Type	Unbranded
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Technical Specifications

Buyer Specification Document	Download
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Consignees/Reporting Officer and Quantity

S.No.	Consignee/Reporting Officer	Address	Quantity	Delivery Days
1	Krishna Mohan Kumar	786602,Oil India Limited, Duliajan, Assam	2	150

PIG Launcher 8 In 300 Class (2 pieces)

(Minimum 50% Local content required for MII compliance)

Brand Type	Unbranded
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Technical Specifications

Buyer Specification Document	Download
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Consignees/Reporting Officer and Quantity

S.No.	Consignee/Reporting Officer	Address	Quantity	Delivery Days
1	Krishna Mohan Kumar	786602,Oil India Limited, Duliajan, Assam	2	150

PIG Receiver 8 In 300 Class (2 pieces)**(Minimum 50% Local content required for MII compliance)**

Brand Type	Unbranded
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Technical Specifications

Buyer Specification Document	Download
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Consignees/Reporting Officer and Quantity

S.No.	Consignee/Reporting Officer	Address	Quantity	Delivery Days
1	Krishna Mohan Kumar	786602,Oil India Limited, Duliajan, Assam	2	150

PIG Launcher 6 In 600 Class (1 pieces)**(Minimum 50% Local content required for MII compliance)**

Brand Type	Unbranded
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Technical Specifications

Buyer Specification Document	Download
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Consignees/Reporting Officer and Quantity

S.No.	Consignee/Reporting Officer	Address	Quantity	Delivery Days
1	Krishna Mohan Kumar	786602,Oil India Limited, Duliajan, Assam	1	150

PIG Receiver 6 In 600 Class (1 pieces)

(Minimum 50% Local content required for MII compliance)

Brand Type	Unbranded
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Technical Specifications

Buyer Specification Document	Download
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Consignees/Reporting Officer and Quantity

S.No.	Consignee/Reporting Officer	Address	Quantity	Delivery Days
1	Krishna Mohan Kumar	786602,Oil India Limited, Duliajan, Assam	1	150

Buyer added Bid Specific Additional Scope of Work

S.No.	Document Title	Description	Applicable i.r.o. Items
1	SCOPE View	SCOPE	PIG Launcher 8 In 600 Class(2)

The uploaded document only contains Buyer specific Additional Scope of Work and / or Drawings for the bid items added with due approval of Buyer's competent authority. Buyer has certified that these additional scope and drawings are generalized and would not lead to any restrictive bidding.

Buyer Added Bid Specific Additional Terms and Conditions

- Bidder financial standing:** The bidder should not be under liquidation, court receivership or similar proceedings, should not be bankrupt. Bidder to upload undertaking to this effect with bid.
- Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC and Corrigendum if any.
- Buyer Organization specific Integrity Pact shall have to be complied by all bidders. Bidders shall have to upload scanned copy of signed integrity pact as per Buyer organizations policy along with bid. [Click here to view the file](#)
- Bidder shall submit the following documents along with their bid for Vendor Code Creation:
 - Copy of PAN Card.
 - Copy of GSTIN.

c. Copy of Cancelled Cheque.

d. Copy of EFT Mandate duly certified by Bank.

5. OPTION CLAUSE: The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 percent of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity by up to 25% of the contracted quantity during the currency of the contract at the contracted rates. Bidders are bound to accept the orders accordingly.
6. The buyer organization is an institution eligible for concessional rates of GST as notified by the Government of India. The goods for which bids have been invited fall under classification of GST concession and the conditions for eligibility of concession are met by the institution. A certificate to this effect will be issued by Buyer to the Seller after award of the Contract. Sellers are requested to submit their bids after accounting for the Concessional rate of GST.
Applicable Concessional rate of GST : 5%
Notification No.and date : 3/2017 dated 28/06/2017
7. Scope of supply (Bid price to include all cost components) : Only supply of Goods
8. Whereever Essentiality Certificate is applicable (PEL/ML), successful bidder should provide Proforma Invoice for processeing for EC application and material should be dispatche after receiving of EC rom DGH. In view of the same, an ATC may be incorporated in GeM, viz, "BIDDER/OEM must provide Proforma Invoice for processeing for EC application within 30 days from date of issue of GeM Contract and material should be dispatche after receiving of EC rom DGH."

Disclaimer

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization. Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specification and / or terms and conditions governing the bid. Any clause incorporated by the Buyer such as demanding Tender Sample, incorporating any clause against the MSME policy and Preference to make in India Policy, mandating any Brand names or Foreign Certification, changing the default time period for Acceptance of material or payment timeline governed by OM of Department of Expenditure shall be null and void and would not be considered part of bid. Further any reference of conditions published on any external site or reference to external documents / clauses shall also be null and void. If any seller has any objection / grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

[This Bid is also governed by the General Terms and Conditions](#)

In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws.

---Thank You---

INTEGRITY PACT

Between

Oil India Limited (OIL) hereinafter referred to as "The Principal"

And

(Name of the bidder).....hereinafter referred to as "The Bidder/Contractor"

Preamble:

The Principal intends to award, under laid down organizational procedures, contract/s for **GeM Bid No.....**The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s and Contractor/s.

In order to achieve these goals, the Principal cooperates with the renowned international Non-Governmental Organization "Transparency International" (TI). Following TI's national and international experience, the Principal will appoint an external independent Monitor who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section: 1 -Commitments of the Principal

(1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:

1. No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for him/herself or third person, any material or immaterial benefit which he/she is not legally entitled to.
2. The Principal will, during the tender process treat all Bidders with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidders the same information and will not provide to any Bidder confidential/additional information through which the Bidder could obtain an advantage in relation to the tender process or the contract execution.
3. The Principal will exclude from the process all known prejudiced persons.

(2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the relevant Anti-Corruption Laws of India,

or if there be a Page 2 of 6 substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section: 2 -Commitments of the Bidder/Contractor

(1) The Bidder/Contractor commits itself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

1. The Bidder/Contractor will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or immaterial benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

2. The Bidder/Contractor will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, Subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

3. The Bidder/Contractor will not commit any offence under the relevant Anticorruption Laws of India; further the Bidder/Contractor will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

4. The Bidder/Contractor will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

(2) The Bidder/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.

(3) The Bidder/Contractor signing Integrity Pact shall not approach the Courts while representing the matters to IEMs and he/she will await their decision in the matter.

Section 3 -Disqualification from tender process and exclusion from future Contracts

If the Bidder, before contract award has committed a transgression through a violation of Section 2 or in any other form such as to put his reliability or risibility as Bidder into question, the Principal is entitled to disqualify the Bidder from the tender process or to terminate the contract, if already signed, for such reason.

1. If the Bidder/Contractor has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal is entitled also to exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressions within the company hierarchy of the Bidder and the amount of the damage. The exclusion will be imposed for a minimum of 6 months and maximum of 3 years.

2. The Bidder accepts and undertakes to respect and uphold the Principal's Absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.

3. If the Bidder/Contractor can prove that he has restored/recouped the Damage caused by him and has installed a suitable corruption prevention system, the Principal may revoke the exclusion prematurely.

4. A transgression is considered to have occurred if in light of available evidence no reasonable doubt is possible.

5. Integrity Pact, in respect of a particular contract, shall be operative from the date Integrity Pact is signed by both the parties till the final completion of the contract **or as mentioned in Section 9- Pact Duration whichever is later**. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings

Section 4 -Compensation for Damages

1. If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover from the Bidder liquidated damages equivalent to Earnest Money Deposit / Bid Security.

(2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to Security Deposit / Performance Bank Guarantee.

3. The bidder agrees and undertakes to pay the said amounts without protest or demur subject only to condition that if the Bidder/Contractor can prove and establish that the exclusion of the Bidder from the tender process or the termination of the contract after the contract award has caused no damage or less damage than the amount or the liquidated damages, the Bidder/Contractor shall compensate the Principal only to the extent of the damage in the amount proved.

Section 5 -Previous transgression

1. The Bidder declares that no previous transgression occurred in the last 3 years with any other Company in any country conforming to the TI approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.

2. If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section: 6 -Equal treatment of all Bidders/Contractor/Subcontractors

1. The Principal will enter into Pacts on identical terms with all bidders and contractors.

2. The Bidder / Contractor undertake(s) to procure from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the provisions laid down in this agreement/Pact by any of its sub-contractors/sub-vendors.

3. The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section: 7 -Criminal charges against violating Bidders/Contractors/Subcontractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor, which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

Section: 8 -External Independent Monitor/Monitors

1. The Principal appoints competent and credible external independent Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairperson of the Board of the Principal.
3. The Contractor accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder/Contractor/Subcontractor with confidentiality.
4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or heal the violation, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action. However, the Independent External Monitor shall give an opportunity to the bidder / contractor to present its case before making its recommendations to the Principal.
6. The Monitor will submit a written report to the Chairperson of the Board of the Principal within 8 to 10 weeks from the date of reference or intimation to him by the 'Principal' and, should the occasion arise, submit proposals for correcting problematic situations.
7. If the Monitor has reported to the Chairperson of the Board a Substantiated suspicion of an offence under relevant Anti-Corruption Laws of India, and the Chairperson has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
8. The word 'Monitor' would include both singular and plural.

Section:9 -Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the respective contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made/ lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by Chairperson of the Principal.

Section:10 -Other provisions

- 1. This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. New Delhi. The Arbitration clause provided in the main tender document / contract shall not be applicable for any issue / dispute arising under Integrity Pact.
- 2. Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- 3. If the Contractor is a partnership or a consortium, this agreement must be, signed by all partners or consortium members.
- 4. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intensions.

Sd-
(TUHIN ROY)
Chief Manager Materials (FD)

.....
For the Principal

.....
For the Bidder/Contractor

Witness 1:
Witness 2:

Place. Duliajan
Date .

Item 10- PIG Launcher 8 in 600 class. Qty = 1 Nos.

Scrapper Launcher of Size 8"x12" NB ANSI Class 600#,
System along with accessories.

Barrel Material API 5L GR.X46;

Reducer Material: ASTM A 234 GR.WPB;

Certificate : EN 10204 3.1;

Quick Opening Closure: Type;

Horizontal;

seal: Viton;

Material: SA 105/SA 516 Gr.70, ;

Design Calculation: ASME sec VIII Div.I and Pig signaller (Intrusive type);

Type of indication: Visual, Mechanical;

Mounting Base: Flange base welded (CS);

Material of Construction :SS316;

Plug: Bi-Directional, without valve & limit switch The following specifications to be followed:-

(1) Type of Scrapper Trap: Scrapper Launcher.

(2) Operating Pressure: 70 kg/cm²

(3) Hydro test

Pressure: 105 kg/cm²

(4) Corrosion allowance: 1 mm (min.)

(5) Body: Pipe-

12" NB API 5L Grade X-46, W/T-6.4 mm (min.)

(6) Reducer: Eccentric type, size- 12" X 8"

(7) Kicker connection: Weldonet with flange (RTJ), 600 Class, size- 6" NB

(8) Flange: Weld neck RF 600 class.

(9) Door Closure: Quick opening type

(10) Drain Connection: Weldonet with flange (RTJ), 600 Class, size-4" NB.

(11) Utility Connection: Weldonet with flange (RTJ), 600 Class, size-4" NB .

(12) Vent Connection: Weldonet with flange (RTJ), 600 Class, size-2" NB

(13) Pressure Gauge Connection: Weldonet with flange (RTJ), 600 Class, size-1" NB.

(14) TSV Connection: Nippolet, size: 3/4"

(15) Pig Handling System: As per standard.

Item 20 - PIG Receiver 8 in 600 class. Qty = 1 Nos.

Scrapper Receiver of Size 8"x14" NB ANSI Class 600#,
System along with accessories.

Barrel Material API 5L GR.X46;

Reducer Material: ASTM A 234 GR.WPB;

Certificate : EN 10204 3.1;

Quick Opening Closure: Type;

Horizontal;

seal :Viton;
 Material: SA 105/SA 516 Gr.70, ;
 Design Calculation: ASME sec VIII Div.I and Pig signaller (Intrusive type);
 Type of indication: Visual, Mechanical;
 Mounting Base: Flange base welded (CS);
 Material of Construction :SS316;
 Plug: Bi-Directional, without valve & limit switch.
 The following specifications to be followed:-
 (1) Type of Scraper Trap: Scraper Receiver.
 (2) Operating Pressure: 70 kg/cm²
 (3) Hydro test Pressure: 105 kg/cm²
 (4) Corrosion allowance: 1 mm (min.)
 (5) Body: Pipe- 14" NB API 5L Grade X-46, W/T-6.4 mm (min.) (6) Reducer:
 Concentric type, size- 14" X 8"
 (7) Kicker connection: Weldonet with flange (RTJ), 600 Class, size- 6" NB
 (8) Flange: Weld neck RF 600 class.
 (9) Door Closure: Quick opening type
 (10) Drain Connection: Weldonet with flange (RTJ), 600 Class, size-4" NB.
 (11) Utility Connection: Weldonet with flange (RTJ), 600 Class, size-4" NB .
 (12) Vent Connection: Weldonet with flange (RTJ), 600 Class, size-2" NB
 (13) Pressure Gauge Connection: Weldonet with flange (RTJ), 600 Class, size-1" NB.
 (14) TSV Connection: Nippolet, size: 3/4"
 (15) Pig Handling System: As per standard.

Item 30 - PIG Launcher 8 in 300 class. Qty = 1 Nos.

Scraper Launcher of Size 8"x12" NB ANSI Class 300#,
 System along with accessories.
 Barrel Material API 5L GR.X60;
 Reducer Material: ASTM A 234 GR.WPB;
 Certificate : EN 10204 3.1;
 Quick Opening Closure: Type;
 Horizontal;
 Seal: Viton;
 Material: SA 105/SA 516 Gr.70, ;
 Design Calculation: ASME sec VIII Div.I and Pig signaller (Intrusive type);
 Type of indication: Visual, Mechanical;
 Mounting Base: Flange base welded (CS);
 Material of Construction :SS316;
 Plug: Bi-Directional, without valve & limit switch The following specifications to be followed:-
 (1) Type of Scraper Trap: Scraper Launcher.
 (2) Operating Pressure: 30 kg/cm²
 (3) Hydro test Pressure: 50 kg/cm²
 (4) Corrosion allowance: 1 mm (min.)
 (5) Body: Pipe-12" NB API 5L Grade X-60, W/T-6.4 mm (min.)
 (6) Reducer: Eccentric type, size- 12" X 8"

- (7) Kicker connection: Weldonet with flange (RF), 300 Class, size- 6" NB
- (8) Flange: Weld neck RF 300 class.
- (9) Door Closure: Quick opening type
- (10) Drain Connection: Weldonet with flange (RF), 300 Class, size-4" NB.
- (11) Utility Connection: Weldonet with flange (RF), 300 Class, size-4" NB .
- (12) Vent Connection: Weldonet with flange (RF), 300 Class, size-2" NB
- (13) Pressure Gauge Connection: Weldonet with flange (RF), 300 Class, size-1" NB.
- (14) TSV Connection: Nippolet, size: 3/4"
- (15) Pig Handling System: As per standard.

Item 40 - PIG Receiver 8 in 300 class. Qty = 1 Nos.

Scrapper Receiver of Size 8"x14" NB ANSI Class 300#,
 System along with accessories.
 Barrel Material API 5L GR.X60;
 Reducer Material: ASTM A 234 GR.WPB;
 Certificate : EN 10204 3.1;
 Quick Opening Closure: Type;
 Horizontal;
 seal :Viton;
 Material: SA 105/SA 516 Gr.70, ;
 Design Calculation: ASME sec VIII Div.I and Pig signaller (Intrusive type);
 Type of indication: Visual, Mechanical;
 Mounting Base: Flange base welded (CS);
 Material of Construction :SS316;
 Plug: Bi-Directional, without valve & limit switch.
 The following specifications to be followed:-
 (1) Type of Scrapper Trap:
 Scrapper Receiver.
 (2) Operating Pressure: 30 kg/cm²
 (3) Hydro testPressure: 50 kg/cm²
 (4) Corrosion allowance: 1 mm (min.)
 (5) Body: Pipe- 14" NB API 5L Grade X-60, W/T-6.4 mm (min.) (6) Reducer:
 Concentric type, size- 14" X 8"
 (7) Kicker connection: Weldonet with flange (RF), 300 Class, size- 6" NB
 (8) Flange: Weld neck RF 300 class.
 (9) Door Closure: Quick opening type
 (10) Drain Connection: Weldonet with flange (RF), 300 Class, size-4" NB.
 (11) Utility Connection: Weldonet with flange (RF), 300 Class, size-4" NB .
 (12) Vent Connection: Weldonet with flange (RF), 300 Class, size-2" NB
 (13) Pressure Gauge Connection: Weldonet with flange (RF), 300 Class, size-1" NB.
 (14) TSV Connection: Nippolet,size:3/4"
 (15) Pig Handling System: As per standard.

Item 50 - PIG Launcher 6 in 600 class. Qty = 1 Nos.

Scrapper Launcher of Size 6"x10" NB ANSI Class 600#,
 System along with accessories.

Barrel Material API 5L GR.X46;
 Reducer Material: ASTM A 234 GR.WPB;
 Certificate : EN 10204 3.1;
 Quick Opening Closure: Type;
 Horizontal;
 seal: Viton;
 Material: SA 105/SA 516 Gr.70, ;
 Design Calculation: ASME sec VIII Div.I and Pig signaller (Intrusive type);
 Type of indication: Visual, Mechanical;
 Mounting Base: Flange base welded (CS);
 Material of Construction :SS316;
 Plug: Bi-Directional, without valve & limit switch

The following

specifications to be followed:-

- (1) Type of Scrapper Trap: Scrapper Launcher.
- (2) Operating Pressure: 70 kg/cm²
- (3) Hydro test
Pressure: 105 kg/cm²
- (4) Corrosion allowance: 1 mm (min.)
- (5) Body: Pipe-
10" NB API 5L Grade X-46, W/T-6.4 mm (min.)
- (6) Reducer: Eccentric type, size- 10" X 6"
- (7) Kicker connection: Weldonet with flange (RTJ), 600 Class, size- 4" NB
- (8) Flange: Weld neck RF 600 class.
- (9) Door Closure: Quick opening type
- (10) Drain Connection: Weldonet with flange (RTJ), 600 Class, size-4" NB.
- (11) Utility Connection: Weldonet with flange (RTJ), 600 Class, size-4" NB .
- (12) Vent Connection: Weldonet with flange (RTJ), 600 Class, size-2" NB
- (13) Pressure Gauge Connection: Weldonet with flange (RTJ), 600 Class, size-1" NB.
- (14) TSV Connection: Nippolet, size: 3/4"
- (15) Pig Handling System: As per standard.

Item 60 -PIG Receiver 6 in 600 class. Qty = 1 Nos.

Scrapper Receiver of Size 6"x12" NB ANSI Class 600#,
 System along with accessories.
 Barrel Material API 5L GR.X46;
 Reducer Material: ASTM A 234 GR.WPB;
 Certificate : EN 10204 3.1;
 Quick Opening Closure: Type;
 Horizontal;
 seal :Viton;
 Material: SA 105/SA 516 Gr.70, ;
 Design Calculation: ASME sec VIII Div.I and Pig signaller (Intrusive type);
 Type of indication: Visual, Mechanical;
 Mounting Base: Flange base welded (CS);
 Material of Construction :SS316;
 Plug: Bi-Directional, without valve & limit switch.
 The following specifications to be followed:-

- (1) Type of Scraper Trap: Scraper Receiver.
- (2) Operating Pressure: 70 kg/cm²
- (3) Hydro test Pressure: 105 kg/cm²
- (4) Corrosion allowance: 1 mm (min.)
- (5) Body: Pipe- 12" NB API 5L Grade X-46, W/T-6.4 mm (min.) (6) Reducer: Concentric type, size- 12" X 6"
- (7) Kicker connection: Weldonet with flange (RTJ), 600 Class, size- 4" NB
- (8) Flange: Weld neck RF 600 class.
- (9) Door Closure: Quick opening type
- (10) Drain Connection: Weldonet with flange (RTJ), 600 Class, size-4" NB.
- (11) Utility Connection: Weldonet with flange (RTJ), 600 Class, size-4" NB .
- (12) Vent Connection: Weldonet with flange (RTJ), 600 Class, size-2" NB
- (13) Pressure Gauge Connection: Weldonet with flange (RTJ), 600 Class, size-1" NB.
- (14) TSV Connection: Nippolet, size: 3/4"
- (15) Pig Handling System: As per standard.

Special conditions –

NOTE-1: STANDARD SPECIFICATION FOR SCRAPER TRAPS (ONSHORE)

CONTENTS

- 1.0 SCOPE
- 2.0 REFERENCE DOCUMENTS
- 3.0 MATERIALS
- 4.0 DESIGN AND CONSTRUCTION
- 5.0 INSPECTION AND TESTS
- 6.0 TEST CERTIFICATES
- 7.0 PAINTING, MARKING AND SHIPMENT
- 8.0 SPARES AND ACCESSORIES
- 9.0 DOCUMENTATION
- 1.0 SCOPE :

This specification covers the basic requirements for design, manufacture and testing of scraper launching and receiving traps to be installed in pipeline system transporting non-sour hydrocarbons in liquid or gaseous phase including Liquefied Petroleum Gas (LPG).

2.0 REFERENCE DOCUMENTS :

2.1 Reference has been made in this specification to the latest edition of the following codes, standards and specifications :

- a) ASME B 31.4 - Pipeline Transportation System for liquid hydrocarbons and other Liquids.
- b) ASME B 31.8 - Gas Transmission and Distribution Piping Systems.

- c) ASME B 16.5 - Steel Pipe Flanges and Flanged Fittings
- d) ASME B 16.9 - Factory made Wrought Steel Butt Welding Fittings.
- e) ASME B 16.11 - Forged Steel Fittings, Socket # Welding and Threaded.
- f) ASME B 16.25 - Butt-welding Ends.
- g) ASME B 16.47 - Large Diameter Steel Flanges
- h) MSS-SP-53 - Quality Standard for steel Castings and Forgings for Valves, Flanges and Fittings and other Piping Components # Magnetic Particle Examination Method.
- i) MSS-SP-75 - Specification for High Test Wrought Welding Fittings.
- j) MSS-SP-97 - Integrally Reinforced forged Branch outlet Fittings Socket Welding Threaded Butt Welding Ends.
- k) SSPC-VIS-I - Steel Structures Painting Council-Visual Standard.
- l) ASME SEC.VIII and IX - Boiler and Pressure Vessels Code.
- m) API 1104 - Specification for Welding Pipeline and Related Facilities.
- n) ASTM A 23 A - Specification for Piping Fittings of Wrought Steel and Alloy Steel for Moderate and Elevated Temperature.
- o) ASTM A 370 - Mechanical testing of steel products

2.2 In case of conflict between the requirements of this specification and the Codes, Standards and Specifications referred to in this specification, the requirements of this specification shall govern.

3.0 MATERIALS

3.1 Materials and thickness of main components used in manufacture of traps shall be indicated by Manufacturer and shall be suitable for the service conditions indicated in the data sheets. These shall be subject to approval by Purchaser. [The steel used shall have specified Minimum Yield Strength (SMYS) of 60,000 psi (Minimum) for 8" NB gas pipelines against Line Item No 30,40,50 & 60 and 46000 psi (minimum) for 8" NB COD pipeline against Line Item No 10,20,70,80 and for 6" NB COD pipeline against Line Item No 90 & 100.

3.2 Fully killed carbon steel shall be used.

3.3 Materials of the ends to be field welded by Purchaser shall have carbon equivalent less than or equal to 0.45, based on check analysis for each heat of steel, calculated according to the following formula :

$$CE = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15$$

3.4 For Scraper Traps, specified to be used for Gas service or High Vapour Pressure (HVP) liquid service, Charpy V-notch test shall be conducted on each heat of steel used in the manufacture of pressure containing parts of Scraper Traps. The test procedure shall conform to ASTM A 370. Unless specified otherwise, the Charpy V-notch test shall be conducted at 0o C. The Charpy V-notch test specimens shall be taken in the direction of principal grain flow and notched perpendicular to the original surface of the plate or forging.

The minimum average absorbed impact energy values of three full-sized specimens of base metal, weld metal and HAZ shall be 27 joules, unless otherwise indicated in the Data Sheet. The minimum impact energy value of any one specimen of the three specimens analyzed as above shall not be less than 80% of the above mentioned average value.

For Scraper Traps, specified to be used for other hydrocarbon service, the Charpy V-notch test requirements as stated above are not applicable.

3.5 For Scraper Traps, specified to be used for Gas service or High Vapour Pressure (HVP) liquid service, hardness test shall be carried out as per ASTM A 370 for each heat of steel used. A full thickness cross section shall be taken for this purpose and the maximum hardness of base metal, weld metal and HAZ of all the pressure containing parts shall not exceed 248 HV10.

The maximum difference in hardness of Base Metal, Weld Metal and Heat Affected Zone (HAZ) of pressure containing parts of the traps shall less than 80 points Vicker's HV10.

For Scraper Traps, specified to be used for other hydrocarbon services, the hardness requirements stated above are not applicable.

4.0 DESIGN AND CONSTRUCTION

4.1 The cylindrical portion of the trap shall be designed as per design code and design factor indicated in the data sheets. Quick end closure shall be designed as per ASME Sec. VIII Div. I for design conditions indicated in data sheets. A corrosion allowance, as provided for the pipeline (refer data sheets) shall be considered in design of the traps also. Quality of welding shall be such that weld efficiency factor of 1.0 is achieved.

4.2 The trap shall be suitable for handling instrumented pigs and shall conform to the dimensions given in scraper trap data sheets. Dimensions not shown specifically shall however be as per manufacture's standard. Circumferential weld on scraper trap body and neck shall not be permitted.

4.3 Concentric or eccentric reducer, as indicated in data sheets, used in the manufacture of traps shall conform to MSS-SP-75.

4.4 Vents and drains shall be provided on each trap. The traps shall be provided with a suitable slope and the drain location shall be such that complete drainage of the trap is possible. Location and sizes for vents and drains shall be as indicated in data sheets.

4.5 All branch connections shall be made by weldolet / nipple or by extrusion as indicated in Scraper Trap Data Sheet. All weldolets shall conform to MSS-SP-97 and all nipples shall be as per Manufacturer's Standard. The extruded openings shall be adequately heat-treated and stress relieved.

4.6 End connections of traps shall be flanged or butt-welded as indicated in data sheets.

c) Flanged ends, if specified, shall have dimensions as per ASME B 16.5 for sizes upto 24 and above. Flange facing shall be as indicated in data sheets.

d) Butt weld ends, if specified, shall have ends prepared as per ASME B 16.25. However, end preparation for butt-welding ends having unequal thicknesses with respect to connecting pipe shall be as per ASME B 31.4, as applicable.

4.7 The quick opening end closure shall be of clamp ring / band-lock type or equivalent design and shall consist of a safety system allowing the opening only when there is no pressure in the trap. End closure shall be hand operated and operable by one operator. End closures of size 24 NB and above shall be fitted with work gear operator for the opening of the closure. Hinge of the closure shall be so designed that the weight of the end closure is fully supported without sagging. Screwed type or plug-in type of end closures is not permitted.

4.8 Launching and Receiving traps shall be provided with a pig indicator at a location indicated in the Scraper Trap Data Sheet. Pig indicator shall be suitable for bi-directional operation and shall have visual flag and manual reset. The same shall also have provision for remote indication as indicated in Pig Signaler Data Sheet. The pig indicator shall conform to the relevant pig indicator specification and data sheet.

4.9 When specified in the data sheet, handling system for retracting the scraper and instrumented pigs from the trap shall be provided with each trap. The system shall be of self contained complete with handling devices.

4.10 Fabricated steel supports, minimum two numbers at suitable spacing shall be provided with traps for mounting on concrete blocks. These supports will not

be subjected to pipeline anchorage forces. The material of support shall be compatible with trap material for welding purposes. All welds shall be examined by magnetic particle method.

4.11 Completed assembly shall be stress relieved as per the provisions of the design codes.

4.12 All welds shall be made by welders and welding procedures qualified in accordance with the provisions of ASME Sec. IX. The procedure qualification shall also include impact test and hardness test when required as per Clause 3.4 and 3.5 of this specification and shall meet the requirements as specified therein.

4.13 Repair by welding on parent metal is not allowed. Repair of welds shall be carried out only after specific approval by Purchaser's Inspector for each repair. The repair welding shall be carried out by the welders and welding procedures duly qualified as per ASME Sec. IX and records for each repair shall be maintained. The repair welding procedure qualification shall also include impact test and hardness test when required as per Clause 3.4 and 3.5 of this specification and shall meet the requirements as specification.

4.14 The traps shall be equipped with a half internal removable filtering basket consisting of a punched plate with at least five rows of drain holes.

4.15 The tolerance on internal diameter and out of roundness at the ends for the welding end of the neck (at the end where connecting pipeline will be welded) shall be as per applicable connected pipe specification as indicated in the Data Sheet.

5.0 INSPECTION AND TESTS

5.1 The manufacturer shall perform all inspection and tests as per the requirements of this specification and the relevant codes, prior to shipment at his works. Such inspections and tests shall be, but not limited to, the following.

5.1.1 All traps shall be visually inspected.

5.1.2 Dimensional check shall be carried out as per the approved drawings.

5.1.3 Chemical composition and mechanical properties shall be checked as per relevant material standards and this specification, for each heat of steel used.

5.1.4 Hydrostatic test shall be conducted for all scraper traps complete in all respects including mounting of pig indicators at a pressure as indicated in the data sheets. The test pressure shall be maintained and held for a minimum period of the hour.

5.1.5 All butt welds shall be 100% radio graphically inspected. Procedure and acceptance criteria shall be as per API 1104.

5.1.6 Ultrasonic or magnetic particle inspection shall be carried out on all welds, which in Purchaser Inspector's opinion cannot be radio graphically inspected. Procedure and acceptance criteria shall be as per ASME Sec. VIII, Appendix U and Appendix VI respectively.

5.1.7 All finished wrought weld ends shall be 100% ultrasonically inspected for lamination type defects for a distance of 50 mm from the end. Any laminations larger than (1/4") 6.35 mm shall not be acceptable.

5.1.8 All forgings shall be wet magnetic particle examined on 100% of the forged surfaces. Method and acceptance shall comply with MSS-SP-53.

5.1.9 A minimum of two closing and opening cycles shall be performed and correct operation of both quick opening closure and safety system shall be ascertained.

5.2 Purchaser's Inspector reserves the right to perform stage wise inspection and witness tests, including hydrostatic test, as indicated in specification at Manufacturer's Works prior to shipment. Manufacturer shall give reasonable notice of time and shall provide without charge reasonable access and facilities required for inspection, to the Purchaser's Inspector.

Inspection and tests performed / witnessed by Purchaser's Inspector shall in no way relieve the Manufacturer's obligation of specific integrity of the scraper traps.

6.0 TEST CERTIFICATES

Manufacturer shall furnish the following certificates:

- a) Test certificates relevant to the chemical and mechanical properties of the materials used for manufacture of trap as per relevant standards and this specification.
- b) Hydrostatic test certificates.
- c) Test Reports on radiography, ultrasonic inspection and magnetic particle examination.
- d) Test Reports on heat treatment carried out, if any.

The certificates shall be considered valid only when signed by Purchaser's Inspector.

7.0 PAINTING, MARKING AND SHIPMENT

7.1 After all inspection and tests required have been carried out; all external surfaces shall be thoroughly cleaned to remove grease, dust and rust. Surface preparation shall be carried out by shot blasting to SP-6 in accordance with #Steel Structures Painting Council Visual Standard-SSPC-VIS-1#. Machined parts shall be coated with anti-rust removable paint and non-machined parts

shall be applied with two coats of protective paint. Manufacturer shall indicate the type of paint used in the drawings submitted for approval.

7.2 Marking shall be done on a stainless steel plate and affixed to the trap body by means of corrosion resistant fasteners. Marking shall include the following:

- a) Manufacturer's Name
- b) Trap / Neck diameter, thickness
- c) ASME Class Rating
- d) Tag Number
- e) Design pressure
- f) Design Pressure & Design Temperature
- g) Year of manufacture
- h) Empty weight of the trap assembly.

7.3 Before shipment, traps shall be properly packed against damage during transportation. All machined surfaces subject to corrosion during transit shall be well protected by coat of grease or other suitable material. All traps shall be provided with suitable protectors, for flange faces, securely attached to the traps. Bevel ends shall be protected with metallic or high impact plastic bevel protectors.

7.4 Only those traps, which have been inspected and certified by the Purchaser's Inspector, shall be shipped.

8.0 SPARES

8.1 Manufacturer shall furnish list of recommended spares and accessories for Scraper Traps required during start up and commissioning. As a minimum, the commissioning spares shall include 200% extra consumable spares viz. gaskets / o-rings / seals etc. for each trap. Cost of such spares shall be loaded by the Manufacturer in the item rates quoted by them.

8.2 Manufacturer shall furnish separately a list of recommended spares and accessories required for two years of normal operation and maintenance of Scraper Traps. **However, the cost of these spares will not be considered for bid evaluation purpose.**

9.0 DOCUMENTATION

9.1 Manufacturer shall furnish at the time of bidding, the following documents:

a) General arrangement drawing of scraper trap, quick opening end closure and pig signalers with overall dimensions.

b) Clause wise list of deviations from these specifications, if any, listed at one place in the document, with specific declaration if none.

c) Reference list of similar supplies for the past five years including project, client, and years of supply and contract person.

d) Quality assurance plan.

e) List of recommended spares and accessories for scraper traps required during start up and commissioning.

f) List of recommended spares and accessories required for two years of normal operation and maintenance of scraper traps.

9.2 Within three weeks of placement of order, the Manufacturer shall submit for copies of but not limited to, the following drawings, documents and specifications for approval:

a) Calculations according to the relevant codes for the body and neck including branch connections and quick end closure.

b) Trap assembly and sectional drawings showing all parts and accessories with materials and dimensions.

c) Support Assembly drawing.

d) Arrangement & details of foundation bolts for pig handling and lifting system, where applicable.

e) Welding procedure and method of manufacture.

f) Record of successful proof test in accordance with provisions of ASME B 16.9, MSS-SP 75, MSS-SP 97 as applicable.

Manufacturing of traps shall commence only after approval of above mentioned documents. Once the above mentioned documents have been approved by the Purchaser, any changes in design, material and method of manufacture shall be notified to the Purchaser, whose approval in writing of all changes shall be obtained before the traps are manufactured.

9.3 Within four weeks from the approval date Manufacturer shall submit one reproducible and six copies of all approved drawings, documents and specifications as listed in clause 9.2 above.

9.4 Prior to shipment, the Manufacturer shall submit one reproducible and six copies of the following:

- a) Test certificate as listed in clause 6.0 of this specification.
- b) Manual for installation, erection instructions, maintenance and operations instructions.

9.5 All documents shall be in English Language.

NOTE-2: STANDARD SPECIFICATION FOR PIG SIGNALLERS

CONTENTS

- 1.0 SCOPE
- 2.0 MATERIALS
- 3.0 DESIGN AND CONSTRUCTION REQUIREMENTS
- 4.0 INSPECTION AND TESTS
- 5.0 TEST CERTIFICATES
- 6.0 PAINTING, MARKING AND SHIPMENT
- 7.0 SPARES AND ACCESSORIES
- 8.0 DOCUMENTATION

1.0 SCOPE

This specification covers the minimum requirements for the design, manufacture, testing and supply of Pig Signalers, used for the detection of passage of scraper and instrumented gauging pigs, to be installed in pipeline systems handling hydrocarbons in liquid or gaseous phase including Liquefied Petroleum Gas (LPG).

This specification does not cover pig signalers for sour hydrocarbons (liquid / gas) service as defined in NACE Standard MR 0175-98.

2.0 MATERIALS

2.1 The material used in manufacture of the main components of the Pig Signaler shall be as under :

- a. All metallic parts except scar fed welding base: SS316
- b. Scar fed welding base : CS, ASTM A 105
- c. Soft Seats : PTFE / VITON

Other components shall be as per Manufacturer's Standard, suitable for the service conditions indicated in Data Sheet, which will be subject to approval by Purchaser.

2.2 Scar fed welding base shall have Carbon Equivalent (CE) not greater than 0.45 on check analysis, calculated as per the following formula:

$$CE = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15$$

2.3 Carbon steel used in the manufacture of pig signaler shall be fully killed.

3.0 DESIGN AND CONSTRUCTION REQUIREMENTS

3.1 Pig Signalers shall be designed to meet the requirements of pipeline material, diameter, wall thickness and service conditions indicated in the Data Sheet.

3.2 Pig Signaler shall be bi-directional type, having pivot-less tumbler mechanism and laminated trigger blades.

3.3 Design of Pig Signalers shall be such that any possibility of Signaler being operated by line pressure is eliminated. Also design of Pig Signalers shall be such that repair and installation of internal / accessories are possible under pressure, without removing the unit from the line.

3.4 Pig Signaler shall be provided with a visual indicator to indicate the passage of pigs, by means of spring loaded metal shaft. The arm shall lock in down position when manually reset.

3.5 All welds shall be made by welders and welding procedures qualified in accordance with the provision of ASME Section IX.

4.0 INSPECTION AND TESTS

4.1 Manufacturer shall perform all inspection and tests required to supply the Pig Signaler as per requirements of this specification.

4.2 Hydrostatic tests shall be conducted at a pressure as indicated in the data sheets.

4.3 All welds shall be non destructively examined.

4.4 The welding end shall be inspected ultrasonically over the entire circumference for lamination type defects. Any lamination larger than 6.35 mm shall not be acceptable.

4.5 Manufacturers shall perform functional tests to establish satisfactory performance of both manual.

4.6 All Pig Signallers shall be visually inspected.

4.7 Chemical composition and mechanical properties shall be checked as per relevant materials standards and this specification, for each heat of steel used.

4.8 All forgings shall be wet magnetic particle examined on 100% of the forged surfaces. Method and acceptance shall comply with MSS-SP-53.

5.0 TEST CERTIFICATES

Manufacturer shall submit the following test certificates :

5.1 Test certificates for material compliance as per the relevant material standards.

5.2 Certificate for hydrostatic test and functional tests.

5.3 Test reports of ultrasonic / magnetic particle inspection.

6.0 PAINTING, MARKING AND SHIPMENT

6.1 Exterior surface of the Pig Signaler shall be thoroughly cleaned, freed from rust and grease and applied with sufficient coats of corrosion resistant paint. In case of Pig Signalers with extension, the buried portion shall be coated with three coats of coal tar epoxy resin. The minimum dry film thickness shall be 300 microns.

6.2 A corrosion resistant metal tag shall be permanently attached with each unit, with the following marking :

i) Manufacturer's name.

ii) Suitable for installation in _____ dia. pipeline

iii) ANSI Rating

iv) Tag No.

6.3 Each unit shall be suitably protection to avoid any damage during transit Care shall be exercised during packing to prevent any damage to the welding ends. All machined surfaces subject to corrosion shall be well protected by a coat of grease or other suitable materials.

7.0 SPARES AND ACCESSORIES

7.1 Manufacturer shall furnish list of recommended spares and accessories for Pig Signalers required during start up and commissioning. Cost of such spares shall be loaded by the Manufacturer in the item rates indicated in quotation.

7.2 Manufacturer shall furnish separately a list of recommended spares and accessories required for two years of normal operation and maintenance of Pig Signalers. **However, the cost of these spares will not be considered for bid evaluation purpose.**

8.0 DOCUMENTATION

8.1 At the time of bidding, Manufacturer shall submit the following documents:

a. General arrangement drawings with overall dimensions and cross sectional drawings.

b. Reference list of similar supplies of Pig Signaler shall be furnished including project, Year of supply, Client, Size, Rating and service for the last five years.

c. Clause wise list of deviations from this specification, if any.

8.2 Within three weeks of placement of order, the Manufacturer shall submit four copies, but not limited to, the following drawings, documents and specifications for approval.

a. Fabrication drawing / sectional arrangement drawings showing all parts with reference numbers and material specification.

- b. Assembly drawing with overall dimension.
- c. Welding and testing procedure.
- d. Quality Assurance Plan.

Once, the approval has been given by Purchaser, any change in design, material, etc. shall be notified to Purchaser whose approval in writing of all such changes shall be obtained before Pig Signalers are manufactured.

8.3 Within four weeks from approval date, Manufacturer shall submit one reproducible and six copies of the drawings, documents and specifications as listed in clause 8.2 of this specification.

8.4 Prior to shipment, Manufacturer shall submit one reproducible and six copies of the following :

- a. Test Certificate as per clause 5.0 of this specification.
- b. Manual for installation, erection instructions, maintenance and operation instructions.

8.5 All documents shall be in English language.

9.0 Delivery :

Maximum allowable delivery period after receipt of PO is 5 months.

NOTE-3: Third Party Inspection :

1. Independent third party inspection by international reputed agency will be required. OIL's clearance has to be obtained prior to engagement except for M/s. Lloyds, M/s. Rites, M/s. I.R.S., M/s DNV, M/s. BV and M/s. Tuboscope Vetco). All inclusive charges for third party inspection to be indicated separately.

2. Scope of TPIA.

a) TPIA shall review (if necessary witness) and certify all the inspections and tests carried out as per Note 1 para 5.0 and Note2 para 4.0 of the tender.

b) TPIA may carry our additional tests or inspection he may feel deemed necessary within the scope of the referred codes and standards.

NOTE-4: Recommended spares and accessories required for two years of normal operation and maintenance

Bidder(OEM) should forward a list of recommended spares and accessories required for two years of normal operation and maintenance with unit price for trouble free operations indicating part numbers, quantity & unit price separately and categorically confirm the same in the technical bid (price should not be mentioned in the technical bid). **However, the cost of these spares will not be**

considered for bid evaluation purpose. The price should remain valid for at least two (02) years.

The "Recommended spare price list" shall be submitted in a sealed envelope in physical form (hard copy) to reach us on or before the Bid Closing date of the GeM Tender at following address:

GM-MATERIALS, Materials Department, Oil India Limited, Duliajan - 786602, Assam.

The envelope should be properly marked as mentioned below. The Bid submitted through GeM shall be rejected without further reference, if the sealed envelope is not received strictly as above on or before the Bid Closing date of the GeM Tender.

The sealed envelope of only the Techno commercially acceptable bidders shall be opened along with priced bid. The sealed envelope shall only contain "Recommended spare price list" or any other attachment mentioned in the tender, however they shall not be considered for bid evaluation purpose. No other price details shall be submitted in the envelope as those shall not be considered for bid evaluation.

(Procedure for marking of physical envelope) -

1.0 The Recommended spare price list" mentioned in the tender shall be submitted in bidders own original letterhead duly signed by authorized signatory and stamped. It should be put in a sealed envelope bearing the following details on the left hand top corner:

- i) GEM Bid No.
- ii) Bid closing date
- iii) Brief Description of materials
- iv) Bidder's Name, official address with Phone Nos. & Email address.
- v) Recommended spare price list" or any other attachment (as applicable).

The above sealed envelope should then be put in another envelope bearing the following address:

**GM-MATERIALS,
Materials Department,
Oil India Limited,
Duliajan -786602, Assam.**

NOTE-5: The products shall be manufactured and supplied as per the "Data sheet". Therefore, the "Data sheet" is for the information to the bidders/suppliers to comply with the same.

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

BID REJECTION CRITERIA (BRC):

The bids shall broadly conform to the specifications and terms and conditions given in this bid document. Bids shall be rejected in case the items offered do not conform to 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 particularly met by the Bidders without which the same will be considered as non-responsive and rejected.

A) BRC- TECHNICAL:

1.0 Experience

1.1 In case the bidder is an Original Equipment Manufacturer (OEM) of the tendered item(s),

1.1.1 The bidder shall have experience of successful execution of past supply for minimum 50% quantity (to be rounded off to next higher integer) of each tender item of same or higher size as indicated in the tender, against valid purchase order/ contract awarded in last 5 years preceding the original bid closing date of the tender to upstream, midstream and downstream Oil & Gas Industry or Service Provider to an E&P company, either by themselves or through their Dealer/ Distributor / Agent for their own (OEM) products.

1.2 In case the bidder is an authorized Dealer / Distributor/ Agent

1.2.1 The OEM shall fulfil the experience criteria mentioned in clause 1.1.1 mentioned above.

1.2.2 Additionally, the bidder himself shall have experience of successful execution of past supply for minimum 50% quantity (to be rounded off to next higher integer) of each tender item of same or higher size as indicated in the tender, against valid purchase order/ contract awarded in last 5 years preceding the original bid closing date of the tender to upstream, midstream and downstream Oil & Gas Industry or service provider to an E&P company, provided either from the same OEM or from any other OEM.

1.2.3 The bidder shall obtain authorization certificate from the OEM (in original on manufacturer's letter head) and submit along with the technical bid. This certificate should be valid at the time of bidding and should remain valid during the entire execution period of the order.

1.2.4 The bidder shall furnish undertaking from the manufacturer (in original on manufacturer's letter head) guaranteeing supply of items to the bidder in the event of an order on the bidder. This certificate should be valid at the time of bidding and should remain valid during the entire execution period of the order.

1.2.5 The bid shall be rejected in case of any change of the proposed Original Equipment Manufacturer after submission of the bid.

1.3 Submission of documents.

1.3.1 The bidder shall submit documents in support of successful execution of past supply experience and of the OEM, as applicable under clause 1.1.1, 1.2.1 & 1.2.2, as below:

- (i) Copy(ies) of detail Purchase Order(s) / Contract document(s) containing Technical specification, etc. and,
- (ii) Performance Bank Guarantee Release Document / Performance Report / Successful completion of order certificate from Client of the corresponding executed supply and,
- (iii) Any one or combination of the following documents,
 - a) Commercial invoice or
 - b) Bill of lading or
 - c) Final inspection release note from Third Party Inspection.

1.3.2 If the bidder is a manufacturer and has supplied the tendered items (of same or higher capacity and same or higher sizes) to OIL during last 5 (five) years as on original bid closing date of the tender either by themselves or through their sole selling agent/ distributor/ dealer/ supply house and whose past performance has been satisfactory, the bidder need not submit documents as per Clause 1.3.1. In this situation the bidder shall have to indicate the Purchase Order (P.O.) Nos. of OIL in their technical bid against each item of the Tender.

1.3.3 If the bidder is sole selling agent / distributor / dealer / supply house of any manufacturer and has submitted bid of the manufacturer who has supplied the tendered items (of same or higher capacity and same or higher sizes)' to OIL during last 5 (five) years as on original bid closing date of the tender either by themselves or through their sole selling agent/ distributor/ dealer/ supply house and whose past performance has been satisfactory, the manufacturer need not submit documents as per Clause 1.3.1. In this situation the bidder shall have to indicate the Purchase Order (P.O.) Nos. of OIL in their technical bid against each item of the Tender, executed by that manufacturer.

2.0 The bidder should categorically confirm in the technical bid that the tendered items will be supplied within the delivery period, if mentioned in the tender, without which the bid will be rejected.

3.0 Bidder must 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) Guarantee of material

- iii) Arbitration / Resolution of Dispute
- iv) Force Majeure
- v) Applicable Laws.

4.0 It is the bidder's responsibility to submit all the relevant valid documents along with the bid, which categorically complies the requisite criteria mentioned above from Clause 1.0 thru 3.0.

5.0 In a tender, authorized Dealer / Distributor / Agent on behalf of the OEM or OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.

6.0 If authorized Dealer / Distributor / Agent submits bid on behalf of the OEM, the same Dealer / Distributor / Agent shall not submit a bid on behalf of another OEM in the same tender for the same item/product.

B). BRC -FINANCIAL:

- 1.0 **Annual Turnover** - The bidder shall have annual financial turnover of minimum **INR 44.90 Lakhs** during any of the preceding 3 (Three) financial/accounting years reckoned from the original bid closing date of the tender.
- 2.0 "Net Worth" of the bidder must be positive for the financial/accounting year just proceeding to the original Bid Closing Date of the Tender.
- 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 (**ref. Proforma-6**) certifying that 'the balance sheet/Financial Statements for the preceding financial year 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 technical 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 **Proforma-7**.

- OR
- ii) Audited Balance Sheet along with Profit & Loss account.
 - 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\$, then 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\$.
- 5.0 In case the Bidder is subsidiary company (should be 100% owned subsidiary of the parent/ultimate parent/holding company) who does not meet financial criteria by itself and submits its bid based on the strength of parent/ ultimate parent/ holding company, then following documents need to be submitted:
- i) Turnover of the parent/ ultimate parent/ holding company should be in line with Para 1.0 above.
 - ii) Net Worth of the parent/ultimate parent/ holding company should be positive in line with Para 2.0 above.
 - iii) Corporate Guarantee (as per Proforma-8) on parent / ultimate parent/ holding company's company letter head signed by an authorised official undertaking that they would financially support their wholly owned subsidiary company for executing the project/ job in case the same is awarded to them.
 - iv) Document of subsidiary company being 100% owned subsidiary of the parent/ ultimate parent/ holding company.
-

SPECIAL NOTES TO BIDDERS:

1.0 The items covered in this Tender shall be used by Oil India Limited in the PEL/ML areas and hence concessional GST @5% (for indigenous bidder) will be applicable as per Govt. Policy in vogue.

2.0 Successful bidder shall arrange to provide all necessary documents (invoice etc.) to OIL for applying Essentiality Certificate atleast 2 months prior to stipulated Delivery date. Further, Successful bidder shall affect dispatch only on receipt of relevant certificates/ shipment clearance from OIL, failing which all related liabilities shall be to Supplier's account.

3.0 Ministry of Finance under "Aatma Nirbhar Bharat Abhiyaan" to make India Self Sufficient and Self Reliant, vide notification no. 12/17/2019-PPD . dated 15.05.2020 amended clause no. 161(iv) of the GFR 2017 disallowing Global Tenders up to Rs. 200 Crore.

3.1 Department for Promotion of Industry & Internal Trade (DPIIT) Make in India (MII) policy is applicable in the GeM tender.

3.2 As per MII policy, local vendors shall be defined as under:

i). 'Class-I local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50%. They will be allowed Purchase Preference as per PP-LC policy.

ii). 'Class-II local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%. But in this case Purchase Preference shall not be extended.

iii). 'Non-local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than or equal to 20%. This vendor shall be considered as Foreign Vendor.

3.3 DETERMINATION OF LC:

i) Goods : LC of goods shall be computed on the basis of the cost of domestic components in goods, compared to the total cost of product.

ii) Service : LC of Service shall be calculated on the basis of the ratio of service cost of domestic component in service to the total cost of service.

iii) EPC : LC of EPC contracts shall- be the ratio of the total cost of domestic components in the combination of goods and services to the total combined cost of goods and services.

4.0 Verification of local content:

a. The 'Class-I local supplier'/ 'Class-II local supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement

for 'Class-I local supplier' / 'Class-II local supplier', as the case may be. They shall also give details of the location(s) at which the local value addition is made.

b. In cases of procurement for a value in excess of Rs. 10 crores, the 'Class-I local supplier' / 'Class-II local supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

4.1 As per Eligibility criteria (3) of Make in India (MII) policy, in National tenders only Class 1 and Class 2 Local suppliers shall be eligible to bid. Non-local suppliers are not eligible to bid in National tenders.

5.0 Bidder to categorically confirm under which policy i.e. PP-LC or MSME or DPIIT-MII, they want to avail the benefit and to submit requisite document/certificate in support to avail this benefit. The bids will be evaluated based on their declaration. No benefit will be given if the bid is submitted without any above declaration along with supporting document as per the respective policies.

In case of tenders for Iron & Steel products as per DMI & SP policy, only the eligible bidders meeting the requisite criteria as per the DMI & SP policy shall be considered for further technical evaluation. Availing the benefit of Purchase Preference and awarding of eligible tendered quantity after price matching shall be considered based on Bidder's declaration of availing of PP-LC or MSME policy only.

6.0 OIL's Reference No. PR = 1421860.

7.0 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/ dispatch or 12 months from the date of receipt of the items, 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.

8.0 Bidders shall submit their offer mentioning pointwise compliance / non-compliance to all the terms & conditions, BEC/BRC, Specifications etc. Any deviation(s) from the tender terms & conditions, BEC/BRC, Specifications etc. should be clearly highlighted specifying justification in support of deviation.

9.0 Tax Collectible at Source (TCS) applicable under the Income-tax Law and charged by the SUPPLIER shall also be payable by OIL along with consideration for procurement of goods/materials/equipment. If TCS is collected by the SUPPLIER, a TCS certificate in prescribed Form shall be issued by the SUPPLIER to OIL within the statutory time limit.

Payment towards applicable TCS u/s 206C (1H) of Income Tax Act,1961 will be made to the supplier provided they are claiming it in their invoice and on submission of following undertaking along with the invoice stating that:

- a. TCS is applicable on supply of goods invoiced to OIL as turnover of the supplier in previous year was more than Rs. 10 Cr. and
- b. Total supply of goods to OIL in FY ... exceeds Rs. 50 Lakh and
- c. TCS as charged in the invoice has already been deposited (duly indicating the details such as challan No. and date) or would be deposited with Exchequer on or before the due date and
- d. TCS certificate as provided in the Income Tax Act will be issued to OIL in time.

However, Performance Security deposit will be released only after the TCS certificate for the amount of tax collected, is provided to OIL. Supplier will extend the performance bank guarantee (PBG), wherever required, till the receipt of TCS certificate or else the same will be forfeited to the extent of amount of TCS, if all other conditions of Purchase order are fulfilled.

The above payment condition is applicable only for release of TCS amount charged by supplier u/s 206C (1H) of Income tax Act, 1961.

B. COMMERCIAL CHECKLIST:

Sl No.	REQUIREMENT	COMPLIANCE
1.0	Whether quoted as manufacturer?	Yes / No
2.0	Whether quoted as OEM Dealer / Supply House etc. To Specify-	Yes / No
2.1	If quoted as OEM Dealer / Supply House. (a) Whether submitted valid and proper authorization letter from manufacturer confirming that bidder is their authorized Dealer / supply House for the product offered ?	Yes / No
2.2	(b) Whether manufacturer's back-up Warranty/Guarantee certificate submitted?	Yes / No
2.3	Whether all documents have been submitted as required for fulfilling Experience criteria clause of BRC-Technical.	Yes / No
2.3.1	Name and details of the Upstream, midstream and downstream Oil & Gas Industry or service provider to an E&P company to whom the bidder has successfully executed orders / contracts for atleast 50% of the tendered quantity as per Experience criteria clause of BRC-Technical.	
2.3.2	Whether submitted the profile and other documents of the Upstream, midstream and downstream Oil & Gas Industry or service provider to an E&P company for verification (viz. Annual reports, Memorandum of Association, Article of Association etc.)	Yes / No
3.0	Name of Manufacturer.	
4.0	Place of Despatch.	
5.0	Local content amount and percentage. Details of locations at which the local value addition is made.	
6.0	Whether you are quoting under PP-LC or MSME policy.	
7.0	Name, Address, Phone No & E-mail id of Bidder.	

7.1	Bank details of Bidder.	

.....

PROFORMA – 6

FORMAT FOR CERTIFICATE OF COMPLIANCE OF FINANCIAL CRITERIA

Ref: **Clause No. B - Financial Criteria of the BEC**

Tender No.: _____

I the authorized signatory(s) of
..... (Company or firm name with address) do hereby solemnly
affirm and declare as under:-

The balance sheet/Financial Statements for the financial year
_____ (as the case may be) has actually not been audited as on the
Original Bid closing Date.

Place :.....

Date :.....

Signature of the authorized signatory

Note: This certificate are to be issued only considering the time required for preparation of Financial Statements i.e. if the last date of preceding financial / accounting year falls within the preceding six months reckoned from the original bid closing date.

PROFORMA - 7

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

NOTE: As per the guidelines of ICAI, every practicing CA is required to mention Unique Document Identification Number (UDIN) against each certification work done by them. Documents certified by CA without UDIN shall not be acceptable.

PROFORMA – 8

**PARENT/ ULTIM ATE PARENT/ HOLDING COMPANY'S CORPORATE
GUARANTEE TOWARDS FINANCIAL STANDING (Delete whichever not
applicable)**

(TO BE EXECUTED ON COMPANY'S LETTER HEAD)

DEED OF GUARANTEE

THIS DEED OF GUARANTEE executed at this day of by M/s(mention complete name) a company duly organized and existing under the laws of (insert jurisdiction/country), having its Registered Office atherein after called "the Guarantor" which expression shall, unless excluded by or repugnant to the subject or context thereof, be deemed to include its successors and permitted assigns.

WHEREAS M/s. Oil India Limited (hereinafter referred to as OIL) has invited offers vide their Tender No..... for.....and M/s.....(Bidder) intends to bid against the said tender and desires to have Financial support of M/s..... [Parent / Ultimate Parent/Holding Company(Delete whichever not applicable)] and whereas Parent/Ultimate Parent/Holding Company(Delete whichever not applicable) represents that they have gone through and understood the requirements of subject tender and are capable and committed to provide the Financial support as required by the bidder for qualifying and successful execution of the contract, if awarded to the bidder.

Now, it is hereby agreed by the Guarantor to give this Guarantee and undertakes as follows:

1. The Guarantor confirms that the Bidder is a 100% subsidiary of the Guarantor.
2. The Guarantor agrees and confirms to provide the Audited Annual Reports of any of the preceding 03(three) financial/accounting years reckoned from the original bid closing date.
3. The Guarantor have an annual financial turnover of minimum INR..... Cr or USD during any of the preceding 03(three) financial/ accounting years reckoned from the original bid closing date.
4. Net worth of the Guarantor is positive for preceding financial/ accounting year.
5. The Guarantor undertakes to provide financial support to the Bidder for executing the project/job, in case the same is awarded to the Bidder.
6. The Guarantor represents that:

(a) this Guarantee herein contained shall remain valid and enforceable till the satisfactory execution and completion of the work (including discharge of the warranty obligations)

awarded to the Bidder.

(b) the liability of the Guarantor, under the Guarantee, is limited to the 100% of the order value between the Bidder and OIL. This will, however, be in addition to the forfeiture of the Performance Guarantee furnished by the Bidder.

(c) this Guarantee has been issued after due observance of the appropriate laws in force in India.

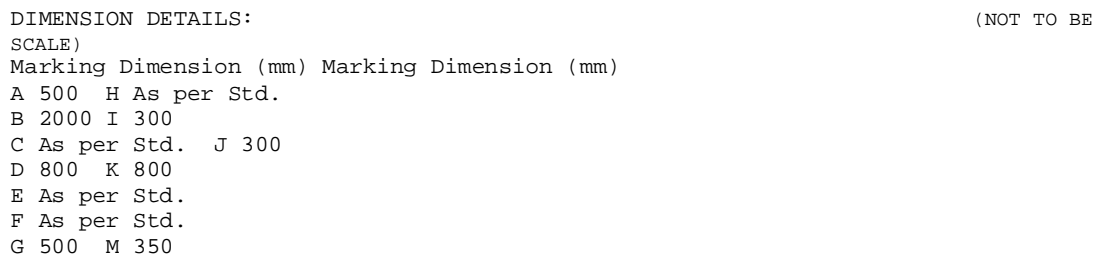
(d) this Guarantee shall be governed and construed in accordance with the laws in force in India and subject to the exclusive jurisdiction of the courts of New Delhi, India.

(e) this Guarantee has been given without any undue influence or coercion, and that the Guarantor has fully understood the implications of the same.

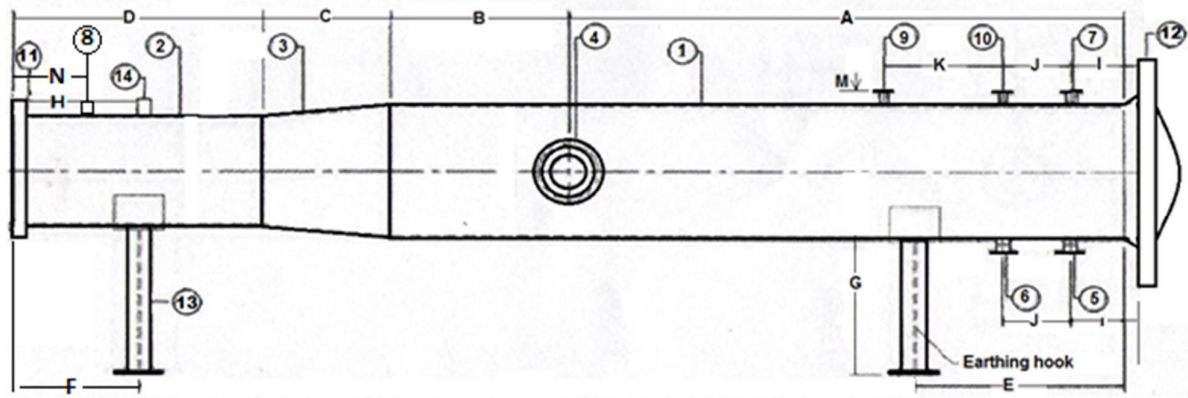
(f) the Guarantor has the legal capacity, power and authority to issue this Guarantee and that giving of this Guarantee and the performance and observations of the obligations hereunder do not contravene any existing laws.

for and on behalf of (Parent/Ultimate Parent/ Holding Company) (Delete whichever not applicable)	for and on behalf of (Bidder)
Witness: 1. 2.	Witness: 1. 2.

DRAWING NO.-1 (Launching Trap)- Pipeline Nominal Diameter= 200 mm



DRAWING NO. -2 (RECEIVING TRAP)- Pipeline Nominal Diameter= 200 mm



ELEVATION

(NOT TO BE

SCALE)

DIMENSION DETAILS:

Marking Dimension (mm) Marking Dimension (mm)

A 2000 H 800

B 500 I 300

C As per Std. J 300

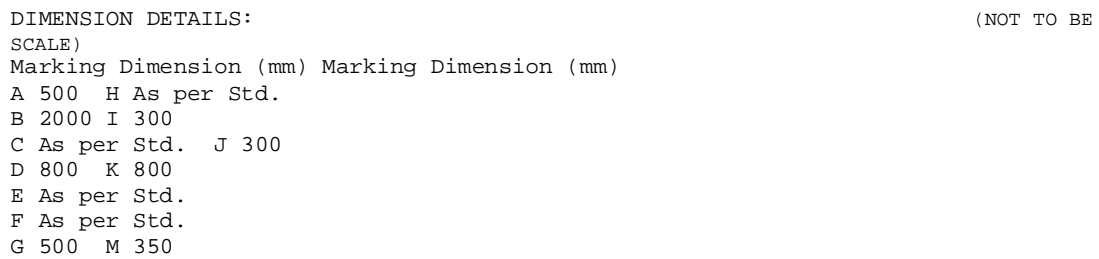
D 1500 K 800

E As per Std.

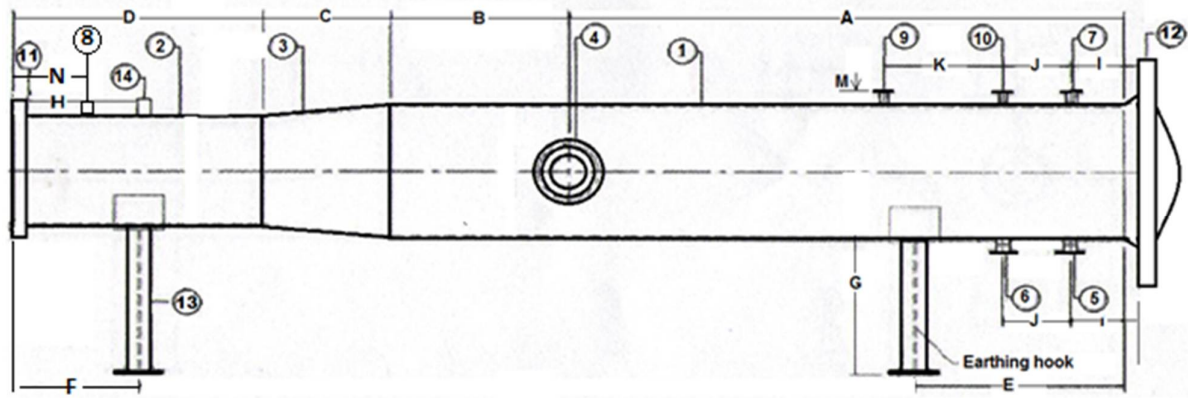
F As per Std. M 200

G 500 N 400

DRAWING NO.-1 (Launching Trap)- Pipeline Nominal Diameter= 150 mm



DRAWING NO. -2 (RECEIVING TRAP)- Pipeline Nominal Diameter= 150 mm



ELEVATION

(NOT TO BE

SCALE)

DIMENSION DETAILS:

Marking Dimension (mm) Marking Dimension (mm)

A 2000 H 800

B 500 I 300

C As per Std. J 300

D 1500 K 800

E As per Std.

F As per Std. M 200

G 500 N 400

DATA SHEET FOR ITEM 10 & 20

DATA SHEET-1						
PIPELINE DETAILS						
Nominal Diameter,mm(inch)	200(8")NB	Wall Thickness, mm	6.4			
Material	API 5L Gr.X-46,PSL-2, ERW/LSAW/HSAW					
Design Temperature (deg C)	Max	65	Service	CRUDE OIL		
	Min	-28	Design code	ASME B 31.4	ANSI rating	600 class
SCRAPER DETAILS						
Type of Scraper Trap	Scraper Launcher					
Corrosion Allowance	3.0 mm					
Design Factor	0.72					
Joint Efficiency	1					
Operating Pressure	80kg/cm2 g					
Hydrotest pressure	120kg/cm2 g					
Hydro Static Test (Duration)	1 Hour					
Part No.	Description	Item	End/Type	Material(Eqv./Superior)	Nom.Dia.mm(inch) / Thk.,mm(inch) or Schedule	Class
1	Body(Major)	Pipe	BE	API 5L Gr.X-46	300(12")	--
2	Neck(Minor)	Pipe	BE	API 5L Gr.X-46	200(8")	--
3	Eccentric Reducer	Fitting	BW	MSS-SP-75 Gr. WPHY 46	200(8") x 300(12") /XXS	600
4	Kicker Conn.	Flange+Pipe +R.F.Pad	WN RTJ	ASTM A 105+API 5L Gr.46 or Eqv.	150 (6")/XXS	600
5	Drain Conn.	Flange + Weldolet	WN RTJ+BW	ASTM A 105	100 (4")/XXS	600
6	Utility Conn.	Flange + Weldolet	WN RTJ+BW	ASTM A 105	100 (4")/XXS	600
7	Vent	Flange + Weldolet	WN RTJ+BW	ASTM A 105	50 (2")/XXS	600
8	Pressure balancing not required					
9	Pr. Gauge conn.	Nippolet Forged	PE	ASTM A 105	20 (3/4")/XXS	3000
10	TSV conn.	Nippolet Forged	PE	ASTM A 105	20 (3/4")/XXS	3000
11	End Flange	Flange	WN RTJ	ASTM A 105	200(8")	600
12	End Closure Quick Opening	Forged	BW	ASTM A 694GR.F.46/ASTM A 516 GR.70	300(12")	600
13	Support Plate	Welded part	BW	ASTM A 36	As per design	
14	Pig Signaler As per note 2 and data sheet-3					

DATA SHEET-2

PIPELINE DETAILS						
Nominal Diameter,mm(inch)	200(8")NB	Wall Thickness, mm	6.4			
Material	API 5L Gr.X-46,PSL-2, ERW/LSAW/HSAW					
Design Temperature (deg C)	Max	65	Service	CRUDE OIL		
	Min	-28	Design code	ASME B 31.4	ANSI rating	600 class
SCRAPER DETAILS						
Type of Scraper Trap	Scraper Receiver					
Corrosion Allowance	3.0 mm					
Design Factor	0.72					
Joint Efficiency	1					
Operating Pressure	80kg/cm2 g					
Hydrotest pressure	120kg/cm2 g					
Hydro Static Test (Duration)	1 Hour					
Part No.	Description	Item	End/Type	Material(Eqv./Superior)	Nom.Dia.mm(inch) / Thk.,mm(inch) or Schedule	Class
1	Body(Major)	Pipe	BE	API 5L Gr.X-46	350(14")	--
2	Neck(Minor)	Pipe	BE	API 5L Gr.X-46	200(8")	--
3	Concentric Reducer	Fitting	BW	MSS-SP-75 Gr. WPHY 46	200(8") x 350(14") /XXS	600
4	Kicker Conn.	Flange+Pipe +R.F.Pad	WN RTJ	ASTM A 105+API 5L Gr.46 or Eqv.	150 (6")/XXS	600
5	Drain Conn.	Flange + Weldolet	WN RTJ+BW	ASTM A 105	100 (4")/XXS	600
6	Utility Conn.	Flange + Weldolet	WN RTJ+BW	ASTM A 105	100 (4")/XXS	600
7	Vent 1	Flange + Weldolet	WN RTJ+BW	ASTM A 105	50 (2")/XXS	600
8	Vent 2	Flange + Weldolet	WN RTJ+BW	ASTM A 105	50 (2")/XXS	600
9	Pr. Gauge conn.	Nippolet Forged	PE	ASTM A 105	20 (3/4")/XXS	3000
10	TSV conn.	Nippolet Forged	PE	ASTM A 105	20 (3/4")/XXS	3000
11	End Flange	Flange	WN RTJ	ASTM A 105	200(8")	600
12	End Closure Quick Opening	Forged	BW	ASTM A 694GR.F.46/ASTM A 516 GR.70	350(14")	600
13	Support Plate	Welded part	BW	ASTM A 36	As per design	
14	Pig Signaler As per note 2 and data sheet-3					

DATA SHEET-3						
PIPELINE DETAILS						
Nominal Diameter,mm(inch)	200(8")NB	Wall Thickness, mm	6.4			
Material	API 5L Gr.X-46,PSL-2, ERW/LSAW/HSAW					
Design Temperature (deg C)	Max	65	Service	CRUDE OIL		
	Min	-28	Design code	ASME B 31.4	ANSI rating	600 class
Pig Signaler Specification						
Part Specified Material Body ASTM A 105 or Eqv. Internals SS-316 Type Mechanical / Visual, Manual reset flag						

DATA SHEET FOR ITEM 30 & 40.

DATA SHEET-1						
PIPELINE DETAILS						
Nominal Diameter,mm(inch)	200(8")NB	Wall Thickness, mm	6.4			
Material	API 5L Gr.X-60,PSL-2, ERW/LSAW/HSAW					
Design Temperature (deg C)	Max	65	Service	CRUDE OIL		
	Min	-28	Design code	ASME B 31.8	ANSI rating	300 class
SCRAPER DETAILS						
Type of Scraper Trap	Scraper Launcher					
Corrosion Allowance	3.0 mm					
Design Factor	0.72					
Joint Efficiency	1					
Operating Pressure	33kg/cm2 g					
Hydrotest pressure	50kg/cm2 g					
Hydro Static Test (Duration)	1 Hour					
Part No.	Description	Item	End/Type	Material(Eqv./Superior)	Nom.Dia.mm(inch) / Thk.,mm(inch) or Schedule	Class
1	Body(Major)	Pipe	BE	API 5L Gr.X-60	300(12")	--
2	Neck(Minor)	Pipe	BE	API 5L Gr.X-60	200(8")	--
3	Eccentric Reducer	Fitting	BW	MSS-SP-75 Gr. WPHY 60	200(8") x 300(12") /S 160	300
4	Kicker Conn.	Flange+Pipe +R.F.Pad	WN RTJ	ASTM A 105+API 5L Gr.60 or Eqv.	150 (6")/ S 160	300
5	Drain Conn.	Flange + Weldolet	WN RTJ+BW	ASTM A 105	100 (4")/ S 160	300
6	Utility Conn.	Flange + Weldolet	WN RTJ+BW	ASTM A 105	100 (4")/ S 160	300
7	Vent	Flange + Weldolet	WN RTJ+BW	ASTM A 105	50 (2")/ S 160	300
8	Pressure balancing not required					
9	Pr. Gauge conn.	Nippolet Forged	PE	ASTM A 105	20 (3/4")/ S 160	3000
10	TSV conn.	Nippolet Forged	PE	ASTM A 105	20 (3/4")/ S 160	3000
11	End Flange	Flange	WN RTJ	ASTM A 105	200(8")	300
12	End Closure Quick Opening	Forged	BW	ASTM A 694GR.F.46/ASTM A 516 GR.70	300(12")	300
13	Support Plate	Welded part	BW	ASTM A 36	As per design	
14	Pig Signaler As per note 2 and data sheet-3					

DATA SHEET-2						
PIPELINE DETAILS						
Nominal Diameter,mm(inch)	200(8")NB	Wall Thickness, mm	6.4			
Material	API 5L Gr.X-60,PSL-2, ERW/LSAW/HSAW					
Design Temperature (deg C)	Max	65	Service	CRUDE OIL		
	Min	-28	Design code	ASME B 31.8	ANSI rating	300 class
SCRAPER DETAILS						
Type of Scraper Trap	Scraper Receiver					
Corrosion Allowance	3.0 mm					
Design Factor	0.72					
Joint Efficiency	1					
Operating Pressure	33kg/cm2 g					
Hydrotest pressure	50kg/cm2 g					
Hydro Static Test (Duration)	1 Hour					
Part No.	Description	Item	End/Type	Material(Eqv./Superior)	Nom.Dia.mm(inch) / Thk.,mm(inch) or Schedule	Class
1	Body(Major)	Pipe	BE	API 5L Gr.X-46	350(14")	--
2	Neck(Minor)	Pipe	BE	API 5L Gr.X-46	200(8")	--
3	Concentric Reducer	Fitting	BW	MSS-SP-75 Gr. WPHY 46	200(8") x 350(14") / S 160	300
4	Kicker Conn.	Flange+Pipe +R.F.Pad	WN RTJ	ASTM A 105+API 5L Gr.46 or Eqv.	150 (6")/ S 160	300
5	Drain Conn.	Flange + Weldolet	WN RTJ+BW	ASTM A 105	100 (4")/ S 160	300
6	Utility Conn.	Flange + Weldolet	WN RTJ+BW	ASTM A 105	100 (4")/ S 160	300
7	Vent 1	Flange + Weldolet	WN RTJ+BW	ASTM A 105	50 (2")/ S 160	300
8	Vent 2	Flange + Weldolet	WN RTJ+BW	ASTM A 105	50 (2")/ S 160	300
9	Pr. Gauge conn.	Nippolet Forged	PE	ASTM A 105	20 (3/4")/ S 160	3000
10	TSV conn.	Nippolet Forged	PE	ASTM A 105	20 (3/4")/ S 160	3000
11	End Flange	Flange	WN RTJ	ASTM A 105	200(8")	300
12	End Closure Quick Opening	Forged	BW	ASTM A 694GR.F.46/ASTM A 516 GR.70	350(14")	300
13	Support Plate	Welded part	BW	ASTM A 36	As per design	
14	Pig Signaler As per note 2 and data sheet-3					

DATA SHEET-3						
PIPELINE DETAILS						
Nominal Diameter,mm(inch)	200(8")NB	Wall Thickness, mm	6.4			
Material	API 5L Gr.X-60,PSL-2, ERW/LSAW/HSAW					
Design Temperature (deg C)	Max	65	Service	CRUDE OIL		
	Min	-28	Design code	ASME B 31.8	ANSI rating	300 class
Pig Signaler Specification						
Part Specified Material Body ASTM A 105 or Eqv. Internals SS-316 Type Mechanical / Visual, Manual reset flag						

DATA SHEET FOR ITEM 50 & 60

DATA SHEET-1						
PIPELINE DETAILS						
Nominal Diameter,mm(inch)	150(6")NB	Wall Thickness, mm	6.4			
Material	API 5L Gr.X-46,PSL-2, ERW/LSAW/HSAW					
Design Temperature (deg C)	Max	65	Service	CRUDE OIL		
	Min	-28	Design code	ASME B 31.4	ANSI rating	600 class
SCRAPER DETAILS						
Type of Scraper Trap	Scraper Launcher					
Corrosion Allowance	3.0 mm					
Design Factor	0.72					
Joint Efficiency	1					
Operating Pressure	80kg/cm ² g					
Hydrotest pressure	120kg/cm ² g					
Hydro Static Test (Duration)	1 Hour					
Part No.	Description	Item	End/Type	Material(Eqv./Superior)	Nom.Dia.mm(inch) / Thk.,mm(inch) or Schedule	Class
1	Body(Major)	Pipe	BE	API 5L Gr.X-46	250(10")	--
2	Neck(Minor)	Pipe	BE	API 5L Gr.X-46	150(6")	--
3	Eccentric Reducer	Fitting	BW	MSS-SP-75 Gr. WPHY 46	150(6") x 250(10") /XXS	600
4	Kicker Conn.	Flange+Pipe +R.F.Pad	WN RTJ	ASTM A 105+API 5L Gr.46 or Eqv.	100 (4")/XXS	600
5	Drain Conn.	Flange + Weldolet	WN RTJ+BW	ASTM A 105	100 (4")/XXS	600
6	Utility Conn.	Flange + Weldolet	WN RTJ+BW	ASTM A 105	100 (4")/XXS	600
7	Vent	Flange + Weldolet	WN RTJ+BW	ASTM A 105	50 (2")/XXS	600
8	Pressure balancing not required					
9	Pr. Gauge conn.	Nippolet Forged	PE	ASTM A 105	20 (3/4")/XXS	3000
10	TSV conn.	Nippolet Forged	PE	ASTM A 105	20 (3/4")/XXS	3000
11	End Flange	Flange	WN RTJ	ASTM A 105	150(6")	600
12	End Closure Quick Opening	Forged	BW	ASTM A 694GR.F.46/ASTM A 516 GR.70	250(10")	600
13	Support Plate	Welded part	BW	ASTM A 36	As per design	
14	Pig Signaler As per note 2 and data sheet-3					

DATA SHEET-2						
PIPELINE DETAILS						
Nominal Diameter,mm(inch)	150(6")NB	Wall Thickness, mm	6.4			
Material	API 5L Gr.X-46,PSL-2, ERW/LSAW/HSAW					
Design Temperature (deg C)	Max	65	Service	CRUDE OIL		
	Min	-28	Design code	ASME B 31.4	ANSI rating	600 class
SCRAPER DETAILS						
Type of Scraper Trap	Scraper Receiver					
Corrosion Allowance	3.0 mm					
Design Factor	0.72					
Joint Efficiency	1					
Operating Pressure	80kg/cm2 g					
Hydrotest pressure	120kg/cm2 g					
Hydro Static Test (Duration)	1 Hour					
Part No.	Description	Item	End/Type	Material(Eqv./Superior)	Nom.Dia.mm(inch) / Thk.,mm(inch) or Schedule	Class
1	Body(Major)	Pipe	BE	API 5L Gr.X-46	300(12")	--
2	Neck(Minor)	Pipe	BE	API 5L Gr.X-46	150(6")	--
3	Concentric Reducer	Fitting	BW	MSS-SP-75 Gr. WPHY 46	150(6") x 300(12") /XXS	600
4	Kicker Conn.	Flange+Pipe +R.F.Pad	WN RTJ	ASTM A 105+API 5L Gr.46 or Eqv.	100 (4")/XXS	600
5	Drain Conn.	Flange + Weldolet	WN RTJ+BW	ASTM A 105	100 (4")/XXS	600
6	Utility Conn.	Flange + Weldolet	WN RTJ+BW	ASTM A 105	100 (4")/XXS	600
7	Vent 1	Flange + Weldolet	WN RTJ+BW	ASTM A 105	50 (2")/XXS	600
8	Vent 2	Flange + Weldolet	WN RTJ+BW	ASTM A 105	50 (2")/XXS	600
9	Pr. Gauge conn.	Nippolet Forged	PE	ASTM A 105	20 (3/4")/XXS	3000
10	TSV conn.	Nippolet Forged	PE	ASTM A 105	20 (3/4")/XXS	3000
11	End Flange	Flange	WN RTJ	ASTM A 105	150(6")	600
12	End Closure Quick Opening	Forged	BW	ASTM A 694GR.F.46/ASTM A 516 GR.70	300(12")	600
13	Support Plate	Welded part	BW	ASTM A 36	As per design	
14	Pig Signaler As per note 2 and data sheet-3					

DATA SHEET-3						
PIPELINE DETAILS						
Nominal Diameter,mm(inch)	150(6")NB	Wall Thickness, mm	6.4			
Material	API 5L Gr.X-46,PSL-2, ERW/LSAW/HSAW					
Design Temperature (deg C)	Max	65	Service	CRUDE OIL		
	Min	-28	Design code	ASME B 31.4	ANSI rating	600 class
Pig Signaler Specification						
Part Specified Material Body ASTM A 105 or Eqv. Internals SS-316 Type Mechanical / Visual, Manual reset flag						
