DIRECTORATE GENERAL
FIRE SERVICES, HOME GUARDS & CIVIL DEFENCE,
ODISHA

TENDER CALL NOTICE

1. Sealed tenders are invited from the fabricators having own fabrication unit for fabrication of Mini Motor Fire Engine and Towing Tenders for Fire Service Organization during the year 2019-20.

<table>
<thead>
<tr>
<th>Sl No</th>
<th>List of Items</th>
<th>Approximate requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fabrication of Mini Motor Fire Engine on chassis model: - Tata LPT-709 EX2/38 Tilt Cab Chassis BS-IV with Best-in-Class 125 HP CRDi Engine, Dual Circuit Full Air S-Cam Brakes and PTO Provision. (The chassis/ vehicle shall be supplied by the Department)</td>
<td>08 Nos</td>
</tr>
<tr>
<td>2</td>
<td>Fabrication of Towing Tender on vehicle model: - Tata SFC-407 EX2/33 Cab &amp; 10 Feet High Deck Load Body with Power Steering, Radial Tyres, Anti-Rull Bar at Front, Mobile Charger Socket &amp; Heat-Resistant Vinyl Fabric Seats BS-IV. (The chassis/ vehicle shall be supplied by the Department)</td>
<td>19 Nos</td>
</tr>
</tbody>
</table>

2. Name of the items along with detail Technical Specifications, probable requirements against each item may seen from the website www.odisha.gov.in and www.odishafshgscd.gov.in. The quantity may vary during indent of the items depending upon budgetary allocation.

3. The tender document may be obtained:
   a). On payment of `500/- (Rupees five hundred) only between 11.00 a.m to 5.30 p.m on each working day form the office of the under signed at the address given below.
   b). By downloading from Govt. of Odisha website i.e. www.odisha.gov.in and Odisha Fire Service website i.e. www.odishafshgscd.gov.in.

4. The tender document shall be submitted in the office of the under signed duly signed by the authorized signatory in each page and duly authenticated with seal in token of having read, understood and accepted the terms and conditions of the contract. However in case of downloading tender documents, a non A/C payee Demand Draft `500/- (Rupees five hundred) only payable at SBI, Cuttack in favour of D.D.O, Directorate General of Fire Service, Odisha, Cuttack towards cost of Tender document shall be enclosed. Bids submitted otherwise than in the manner prescribed in the tender document shall be rejected.
5. Tender calling authority has the right to accept or reject the tender(s) with the assigning any reason there off.

6. Date of issue of Tender document - 26-12-2019.

7. Last date for issue of tender document - 15-01-2020, up to 5.30 p.m.

8. Last date for receipt of tender document - 15-01-2020, up to 5.30 p.m.

9. Date of opening of Tender/ Technical Bids - 16-01-2020 at 11.00 a.m onwards.

10. The bidders are required to depute their representatives to remain present during opening of Tender/ Technical Bid as per dates mentioned above.

11. The tenders received after the stipulated date shall not be taken in to consideration and liable for rejection.

12. The tender calling authority has the right to cancel or alter quantity of any of above item without assigning any reason thereof.

13. Address.
   Directorate General of F.S, H.Gs & C.D,
   At-3"d Floor of Vigilance Directorate,
   Nuapatna, Cuttack, Pin-753001
   FAX-0671-2300201/ 2303387.

I.G of Police, Fire Service,
Home Guards & Civil Defence,
Odisha, Cuttack.
DIRECTORATE GENERAL F.S., H.Gs & C.D., ODISHA, CUTTACK.

DIRECTORATE GENERAL
FIRE SERVICES, HOME GUARDS & CIVIL DEFENCE,
ODISHA


To

M/s


FABRICATION OF MINI MOTOR FIRE ENGINE AND TOWING
TENDER FOR ODISHA FIRE SERVICE ORGANIZATION DURING

DIRECTORATE GENERAL
FIRE SERVICES, HOME GUARDS & CIVIL DEFENCE,
ODISHA

Certified that the book contains page- 1 to 23.

1. Sale of tender document w.e.f - 26-12-2019
2. Last date for sale of tender document - 15-01-2020, 5.30 p.m
3. Last date for receipt of tender document - 15-01-2020, 5.30 p.m
4. Date of opening of sealed Tender/Technical Bids. - 16-01-2020, 11.00 a.m
DIRECTORATE GENERAL F.S., H.Gs & C.D., ODISHA, CUTTACK.

TENDER DOCUMENT NO-(I)

GENERAL CONDITIONS OF THE CONTRACT.

1. The bidder/supplier should have an own fabrication unit for fabrication of Fire Tenders. The latest authenticated documentary proof of this shall be submitted. The proof submitted earlier in some other context shall not be treated as valid and sufficient.

2. All the information as called for in the tender document should be submitted truly, clearly, legibly, transparently, unambiguously and without the use of abbreviations. It shall be submitted in English.

3. All the crucial figures, like, rates and amount should written in figures followed by words in a bracket.

4. There shall be no over writing in the tender document and other papers submitted. All the addition, alterations, deletions and cuttings should be initialed with rubber stamp (or seal) by the same person, who signs the tender document. Failing so, the tender may be rejected.

5. The tenders (also call bids) not submitted in prescribed format or in the prescribed manner, shall be rejected at the risk and responsibility of the bidder.

6. All the rates and amounts shall be quoted in Indian Rupees (IR) and shall be presumed to be in Indian Rupees unless specifically permitted to be quoted otherwise in these tender documents.

7. The rates quoted shall be valid for a period of one year counted from last date of receipt of bids/ tenders.

8. Each page of this tender document should be signed by the bidder with seal in token of having read, understood and accepted the terms and conditions of this contract.

9. For the Companies and Corporation making the bids, the tender document shall be signed by the Managing Director. If it is otherwise, the authority to sign the tender papers on behalf of the Company/Corporation shall be enclosed. In case of partnership Firm, it shall be signed by the active partner. In case of a Proprietary Firm, the tender document shall be signed by the proprietor.

10. "Legal Status" of a bidder shall mean either proprietorship or partnership of private/Public limited Company or otherwise (to be specified) as the case may be.

11. All the documents and papers submitted with the bid should either be in English or in Oriya and shall be authenticated under the seal and signature of the bidder unless specified otherwise in this tender document. If the documents are in any other language, a true translation in English, duly certified by an independent person of repute, shall be submitted.
DIRECTORATE GENERAL F.S., H.Gs & C.D., ODISHA, CUTTACK.

12. All the promotional and technical literature of the products intended to be supplied should be submitted for proper appreciation of the bid, whether or not specifically call for in this tender document. This literature should also be in English.

13. Submission of more than one competitive bid by the same firm in response to the tender call notice is prohibited. All such bids, except one, will be cancelled at the discretion of the authority calling the bids. A bidder may, however, offer in his bid more than one product of the same Original Equipment Manufacturer (OEM) if in his opinion, all such products meet the prescribed technical specifications. In that case, he should submit “Technical Bid” of all such products separately but in the same prescribed format, in the same sealed single cover. Separate “Financial Bids” should also be submitted similarly in the same sealed single cover (see below for the meaning of sealed cover).

14. The bidder may use separate piece of paper, where the space provided in the formats in this tender document for submission of information, is not sufficient. The information in the separate sheet of paper shall be prescribed format and each page should be serial numbered and duly authenticated.

15. All the information submitted or supplied in the formats in this tender document shall be presumed to be true to the best of knowledge of the bidder.

16. No firm/Company without valid Value GST Registration number and PAN shall be eligible for submitting bids. Firms blacklisted shall also not be eligible for participating in the bid.

17. Copy of Valid Registration Certificate issued by competent Authorities under the GST Act and copy of PAN shall be enclosed to the Tender document. In no case other certificates issued by authorities in lieu of such certificates shall be accepted.

18. Copies of income Tax return and Annual VAT and CST returns of previous year along with copies of Audited Balance Sheets, P/L a/c and Trading a/c of previous year where ever applicable need also be enclosed to the Tender document by the Original Equipment Manufacturer / Authorised Agent of OEM.

19. Earnest Money Deposit (EMD) shall either be in the form of Demand Draft/Banker’s Cheque of a scheduled Bank payable at Cuttack or by pledging of NSC/FDR/Postal Saving Pass Book all in favour of D.D.O, Directorate General of F.S, H.Gs & C.D, Odisha, Cuttack. EMD shall be returned immediately after the rejection of a Bid. The DD/Banker’s Cheque/NSC/FDR/Postal Saving Pass Book etc. shall be returned in original with or without reverse endorsement as required for the refund. EMD of the successful bidders shall be retained till the supplied materials/articles are successfully delivered as ordered. After that it shall be returned in the same manner as in the case of unsuccessful bidders.

20. This tender document has prescribed a two bid format for submitting the offers. It contains the “TECHNICAL” and ‘FINANCIAL’ bid formats. Both the bids shall be submitted in separate sealed cover identified as ‘TECHNICAL’ or ‘FINANCIAL’
bid after detaching their formats from this tender document. Both the sealed covers, the remaining part of this tender document and all the other papers/documents should be put inside a bigger sealed cover and shall be delivered as per conditions published in the tender call notice. All the sealed covers shall have boldly written with the name of the supplier/bidder, the tender call notice number and the last date for submission.

21. The tenders or the bids can be sent by post or courier as well. However, the authorities shall not be responsible for the postal and other delays in receipt of bids.

22. If the last date for submission of the tender/bid turns out to be a holiday, it will automatically be extended to next working day.

23. The tender calling authority shall make arrangements in his office for issuing a written acknowledgement, under proper seal and signature of the filled in tenders, provided those are submitted on or before the due date. The acknowledgement shall be issued even if the tenders are required to be dropped in a sealed box. The acknowledgement receipt shall mention, among others, the tender call notice number.

24. A bid submitted can not be withdrawn. The bidder or his authorized representative (one person only) will be allowed to be present at the time of opening of tenders. They will not participate in the discussions. Clarifications sought, if any, may be provided by them.

25. All or any of the tenders (or bid) submitted can be rejected without assigning any reason thereof. No claim, whatsoever, shall be admissible for; the alleged loss/damage suffered by the bidders on account of such rejections.

26. The sealed Tenders and Technical Bids shall be opened by the Technical Committee in 1st stage. The documents like EMDs, VAT clearance certificate etc shall be verified to ensure that the bidders have been found to have fulfilled all the prescribed criteria and conditions of this tender document other than technical specifications of the products.

27. All the products, failing to fulfill the prescribed technical specifications, will be rejected. Decision of the Technical Committee in this respect shall be final and binding. A bidder can improve the technical specifications of the product offered before the opening of 'Financial Bid'. Decision of the Technical Committee on, whether or not, the revised specification is an improvement, shall be final. Improvement in the technical specifications offered as above, may be accepted or rejected at the discretion of the tender call authority.

28. Not withstanding an offered product meeting the prescribed technical specifications, it may be rejected, if it has not been tried and tested or used in Orissa Fire Service with satisfaction. It may also be rejected if the bidder fails to successful demonstration before the Technical Committee.

29. 'Financial Bids' shall be opened only in those cases, where one or more of the offered products have fulfilled the prescribed technical specifications. No
preference or extra payment shall be admissible for the superior technical specifications or quality of the like if any.

30. All the prices quoted shall be FOR Cuttack, Odisha. This means that the prices shall include the cost of delivery at Cuttack.

31. The authorities are not bound to accept the lowest Financial Bid.

32. The order for supply may be placed on the successful bidders but the technical specifications (or quality requirements) for the purpose of supply shall be those, which were offered and accepted by the Technical Committee and not those specified in the tender document.

33. On delivery, the supplies or products shall be inspected to verify the quantity and to see whether those are in accordance with the technical specifications (or quality requirements) for which the order was placed. If it turns out to be otherwise the acceptance of delivery shall be refused at the risk and responsibility of the supplier. Further, the articles found damaged shall not be counted as accepted until repaired or replaced to the satisfaction of the authority.

34. Short deliveries may not be accepted. All the items ordered must be supplied in full for claiming even the part payment.

35. All the transit risks shall be the responsibility of the supplier.
   a). No way bill, C/D form will be supplied by the indenter to the supplier of outside Odisha for supply of goods. However they may obtain necessary declaration form in required format. A from the concerned Sales Tax Authority on their own.
   b). The supplier would make suitable arrangement on his own for passing the border, check gates of Odisha.

36. User manuals of the product shall be supplied without being asked for or even if it is not mentioned in the supply order. Moreover, it should be in English.

37. Failure to supply the order in full within the stipulated period or supply of substandard goods may lead to forfeiture of EMD and blacklisting of the suppliers. If at all the delivery is allowed to be accepted after the due date, Liquidated Damages (LD) @ 0.5% of the total amount of order (excluding taxes) per week or part thereof shall be charged from the bidder, however, that the L.D. shall not exceed 5% of the amount of order.

38. The supplier shall submit an undertaking given by him or the OEM committing to supply spare parts for the maintenance of the supplied items for a period at least 18 months from the date of supply.

39. The supplier shall give a performance warranty for a minimum period mentioned in the special condition or one year of the contract. 5% of the amount of the order (excluding taxes) as mentioned in the special conditions of the contract shall be deposited in shape of FDR/Irrevocable Bank Guarantee duly pledged in favour of Tender Calling Authority and shall be returned after the performance warranty period is over. The said amount may be forfeited partially or fully for failure to
fulfill the terms and condition of supply and post sales commitment/obligations. The Bank Guarantee should be enforceable and payable at Cuttack.

Conditions of the contract shall be deposited in shape of FDR/Irrevocable Bank Guarantee duly pledged in favour of Tender Calling Authority and shall be returned after the performance warranty period is over. The said amount may be forfeited partially or fully for failure to fulfill the terms and condition of supply and post sales commitment/obligations. The Bank Guarantee should be enforceable and payable at Cuttack.

40. The bidder must submit in a separate paper mentioning “complied or not complied” against each column of the Tender Specification given in the Tender document.

41. Terms and conditions of this tender document can not be negotiated for variation without obtaining the prior approval of the Govt.

42. All the clarifications sought from the bidders/suppliers on technical specifications of the products or otherwise shall be promptly submitted in a transparent and unambiguous manner.

43. Entire tender document duly filled in shall be treated as part of the contract agreement for supplies in case of the successful bidders.

44. All the disputes shall be subject to jurisdiction of Civil Courts situated at Cuttack.

45. The bidder shall submit all required documents along with tender. Under no circumstances a bidder would be allowed to make any addition/ alteration if any, related to tender or to submit required documents after receipt of the tender by the tender calling authority.

Seal & Signature of the Bidder

I.G of Police, Fire Service,
Home Guards & Civil Defence,
Odisha, Cuttack.
TECHNICAL BID

<table>
<thead>
<tr>
<th>SL.NO.</th>
<th>NAME OF THE ITEMS</th>
<th>WHETHER OFFERED PRODUCTS FULFILLS THE DETAILED TECHNICAL SPECIFICATIONS KINDLY ANSWER YES OR NO ONLY.</th>
<th>OFFERED SPECIFICATIONS AND DETAILS OF VARIATIONS IF ANY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
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<tr>
<td>2</td>
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<td>3</td>
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<tr>
<td>4</td>
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<td></td>
</tr>
</tbody>
</table>

Signature & Seal of the Bidder.
DIRECTORATE GENERAL F.S., H.Gs & C.D., ODISHA, CUTTACK.
FINANCIAL BID

NAME OF THE ITEMS............................................ PER UNIT IN INDIAN RUPEES

1. Price including all the duties & levies :  
2. Basic Unit Price : 
3. IGST @ - % - : 
4. CGST @ - % - : 
5. OGST @ - % - : 

6. Other Charges (To be specified) 
7. Total Unit price of the Item : 
8. Total amount payable for supply of 
   entire quantity of the item mentioned 
   in the tender document. : 
9. Name of the Original Manufacturers and 
   The brand name or trademark of the item :

Signature & Seal of the Bidder.
DIRECTORATE GENERAL F.S., H.Gs & C.D., ODISHA, CUTTACK.
GENERAL BID FORM
(TENDER CALL NOTICE NO.-3/2019-20)

1. Name, Full Address, Fax No. Telephone No. & E-Mail of the firm:  
2. Legal status of the firm:  
3. Items for which you have submitted the Bid:  
4. For which of the items above you are the ORIGINAL EQUIPMENT MANUFACTURER (OEM):  
5. Give the location and address of your Factory:  
6. For the items listed at (3) above and where you have submitted the bid but you are not the O.E.M, indicate against each the names of the O.E.M:  
7. Kindly confirm by writing 'yes' or 'no' only that you have been authorized by the respective O.E.Ms either as dealer or as sale, supply and servicing agent in respect of the items you are not the (OEM):  
8. Which of the items, you have submitted the bids for, will be fully or substantially imported. Indicate the country to be imported from:  
9. Have you enclosed the EMD? If yes, mention the amount and its identifying details:  
10. Have you enclosed all the documents and papers called for in this tender document? Kindly enclose a list (use a separate sheet of paper):  
11. If the answer to (10) above is 'No' which is the documents/document have not been enclosed. (Kindly enclose a list of such documents/papers). Use a separate sheet of paper if necessary:  
12. Do you have a post sales servicing center in Odisha? If yes, give its name, full address, Fax and Telephone numbers:  

Seal & Signature of the Bidder

I.G of Police, Fire Service, Home Guards & Civil Defence, Odisha, Cuttack.
DIRECTORATE GENERAL F.S., H.Gs & C.D., ODISHA, CUTTACK.

SPECIAL CONDITION OF THE CONTRACT.


TENDER DOCUMENT NO. (II)

1. The Special Conditions given here shall prevail over the General Conditions.
2. The tender document shall accompany with Earnest Money Deposit (EMD) at the rate quoted at Col-5 without which tender shall be rejected. The EMD deposited instrument should be available outside the sealed covers of “Technical” and “Financial” Bid. (EMDs available in the Technical Bid also be accepted)
3. Sealed Bids in this tender document have been invited for the supply of the items listed below. The approximate quantity required has been mentioned against each. The detailed technical specifications of each item are available in the Annexure-‘A’: to the “Special Conditions” of the contract.

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Name of the equipment/ appliances.</th>
<th>Approximate Quantity</th>
<th>Technical Specification</th>
<th>E.M.D Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Fabrication of Mini Motor Fire Engine on chassis model: - Tata LPT-709 EX2/38 Tilt Cab Chassis BS-IV with Best-in-Class 125 HP CRDi Engine, Dual Circuit Full Air S-Cam Brakes and PTO Provision. (The chassis/ vehicle shall be supplied by the Department)</td>
<td>08 Nos</td>
<td>Technical Specification as Annexure-A</td>
<td>`2,11,000/-</td>
</tr>
<tr>
<td>(2)</td>
<td>Fabrication of Towing Tender on vehicle model: - Tata SFC-407 EX2/33 Cab &amp; 10 Feet High Deck Load Body with Power Steering, Radial Tyres, Anti-Rull Bar at Front, Mobile Charger Socket &amp; Heat-Resistant Vinyl Fabric Seats BS-IV. (The chassis/ vehicle shall be supplied by the Department)</td>
<td>19 Nos</td>
<td>-- do --</td>
<td>`76,000/-</td>
</tr>
</tbody>
</table>

4. The quantities mentioned above are tentative and subject to change. The rates quoted per Unit shall continue to be valid even if the quantities of items mentioned above are varied.
5. It shall be necessary to bid the items separately. The firm quoted a single item out of the items mentioned above is also accepted.
DIRECTORATE GENERAL F.S., H.Gs & C.D., ODISHA, CUTTACK.

6. The bidder shall submit along with this tender document a list of names, complete address, Telephone/FAX number of the customers to whom, the item, for which the bid has been submitted, have been supplied and installed in last three year, if any. A clear, unambiguous statement shall be made if an item has not been sold anywhere in India so far.

7. The supplies shall be delivered at Cuttack.

8. Working of the equipment shall also be demonstrated and the expenditure incurred thereof shall be borne by the supplier.

9. The supplier shall train at their cost our employees.

10. The selected firm shall have to deposit 5% of the cost of stores excluding taxes in shape of FDR/irrevocable Bank Guarantee duly pledged to the Tender Inviting Authority which will be returned back after performance warranty period is over.

11. All the supplies made shall be subject to have a minimum period of one year warranty for all items from the date of acceptance.

12. The supplier shall repair or replace at his cost any component of the supplies that may go out of order during the warranty period. The repair and replacement shall as far as possible be carried within the premises, where the equipment has been kept. If, however, it is necessary to take the equipments to the workshop of the supplier, it must be repaired and reinstalled successfully in its premises within a period of 3 days.

13. Other things being equal, preference shall be given to a bidder, who has opened his sale and service center in Odisha. If an equipment or supply goes out of order within the warranty period and the supplier is informed about it, it must be attended to within 48 hours counted from the time the service call is placed.

14. The Bidders will have to produce the past experience records for manufacturing Motor Fire Engine, Towing Tender. The bidder Workshop also must have sufficient space to keep the vehicle safely.

15. No advance shall be paid. 100% of the payment will be made on delivery of supplies after successful installation and demonstration.

16. The bidder must submit attested copy of the manufacturers Trade certificate issued by concerned Transport Authority for fabrication of Fire Service Motor Vehicles/ Fire Tenders.

17. The bidder must submit attested copy of certificate issued by the concerned Industrial Authority for manufacturing the Fire Service Motor vehicles/ Fire Tenders.

18. The firms located outside the State of Odisha should include their transportation charges with the basic price. The department will not pay any transportation charges for taking delivery of the chassis and for giving delivery of the appliances after fabrication.
19. Entry Taxes, if any should be clearly indicated in the tender i.e. in the Price-Bid. The amount if paid by the party should be supported with documentary evidence, failing which the said amount shall be deposited by way of Treasury Challan.

20. Successful tenders have to collect chassis from Fire Service Training Institute, Baramunda, Bhubaneswar at his own risk on production of Transit Insurance Certificate on the total value of the chassis. During period of fabrication work the fabricators workshop have to be insured against theft, fire and damage on the total value of chassis. The rate quoted should be inclusive of insurance claim. No chassis will be delivered without Insurance papers.

21. The selected tenderers will have to enter in to agreement with the tender calling authority. The agreement bond form duly filled in indicating the amount of “Performance Security” at the required rate as mentioned in the General Condition and signed by the tenderers with the attestation and common seal affixed with special adhesive stamp (Non Judicial) not less than worth of Rs.0.75 paisa should be submitted within 7 days of receipt of information from Directorate of Fire Service, Odisha, Cuttack.

22. The fabrication work of Water Tanker (15,000 Ltrs Capacity) and Mini Motor Fire Engine will be completed within 120 (one hundred twenty) days from the date of receipt of chassis and entering the agreement.

23. The bidder shall utilize the load body (dala) portion of the chassis/ vehicle for fabrication and accordingly quote his Price-Bid.

24. The warranty period for the fabrication work (Mini Motor Fire Engine & Towing Tender) will be 12 months from the date of acceptance.

25. The test i.e. Road Test, Tilting test, Gredebility test, Endurance Test, Deep Lift test shall be carried out as per ISI Specification -950/1980.

26. Detail design/drawing with load distribution chart of the appliance must be accompanied with the tender.

27. Inspection of the fabrication work will be carried out in three different stages.

28. No cutting welding and drilling of chassis shall be done and also manufacturer will ensure that fabrication will not affect technical parameters of the chassis.

29. All equipment specified in technical specification shall be supplied by fabricator as per latest IS standard/ branded items of reputed firms.

30. The workshop shall be of highest order for which strict quality control shall be maintained during the fabrication.

31. The actual gross vehicle weight (i.e. weight of fully staffed loaded and equipped vehicle) shall not exceed the maximum permissible limit of chassis by manufacturer. The distribution of load shall conform to the specifications laid down by the original manufacturer.
DIRECTORATE GENERAL F.S., H.Gs & C.D., ODISHA, CUTTACK.

32. The manufacturer will have to provide test certificates and bill at the time of stage inspection according to the requirement of Technical Committee.
   (A). Channel and mechanical test certificate of M.S. channel, square tube, M.S. angle, aluminum sheet and chequered plate, Gun metal, stainless steel, bronze.
   (B). Bills of all type of raw materials, important bought out items, bought out accessories, Ladders, shall be deposited at the time of delivery.

33. Please note that, the Technical Committee /Purchase Committee will visit your unit to verify the testing facilities available as per ISI-950/1980 prior to selection of the firms and placing the supply order which is binding.

34. The fabricated vehicle shall meet all the regulation in respect to Motor Vehicle Act/ R.T.O. regulation in force including stickering of reflecting tapes at both sides of the vehicles (front to end) as per requirement of R.T.O for registration of the vehicles.

I.G of Police, Fire Service,
Home Guards & Civil Defence,
Odisha, Cuttack.

Seal & Signature of the Bidder
TECHNICAL SPECIFICATION FOR FABRICATION OF MINI MOTOR FIRE ENGINE AND TOWING TENDER FOR ODISHA FIRE SERVICE ORGANIZATION DURING 2019-20.

I). SPECIFICATION FOR FABRICATION OF MINI MOTOR FIRE ENGINE.

1.0. GENERAL.

Fabrication of Mini Motor Fire Engine shall be made on: - Tata LPT-709 EX2/38 Tilt Cab Chassis BS-IV with Best-in-Class 125 HP CRDi Engine, Dual Circuit Full Air S-Cam Brakes and PTO Provision.

2.0. STRUCTURE.

The structure will be fabricated having 5 mm thickness channel of 75×40 mm size providing suitable padding in between chassis & cross bearer and shall be tightened with 'U' bolt having nyloc lock nut and washer. The body structure shall be made out of 14 gauge thick up to 32 mm square pipe. In the frame of body structure, the vertical and horizontal distance between two such pipes shall not be more than 30 cm. Four leg made out of MS Plate of suitable size should be provide to hold the weight of the filled tank. Other MS angle and flat if necessary should not be less than 3 mm thickness and the complete structure should be painted with epoxy paint.

3.0 WATER TANK.

The water Tank should have capacity of maximum 3000 liters capacity and would be fabricated from 3.15 to 4 mm gauge thickness good quality Stainless Steel Sheet or 5 MM or above gage thickness FRP sheets including baffle plates. The water tank should be semi-elliptical and to avoid corrosion the inside of the tank should be adequately painted with plastic paint, preferably by epoxy coating coat. Full breadth of the tank should be welded to the oracle and mounted with suitable plates on the chassis. The inside of the tank should be suitably baffled (at least 4 nos) with 3 mm SS Plate to prevent surge while the vehicle is accelerating, retarding and also cornering during apply of brake. The design of the baffles will provide access to all compartments so as to allow full contents to flow to the pump and for repair and maintenance. Adequate care should be taken for mounting of the water tank so that there will be proper load distribution on the axles. For proper distribution of the load of water additional spring leaves (two Nos. auxiliary
DIRECTORATE GENERAL F.S., H.Gs & C.D., ODISHA, CUTTACK.

spring leaves) on each side of the rear and additional spring leaves (One No. auxiliary spring leaves) on each side of the front Axles should also be provided.

The tank should be fitted with a filling orifice and bolted manhole of 560 mm dia on the top of the tank for cleaning. There should be suitable eyes fitted on the sheet of the tank to enable the tank to be lifted off the vehicle for repair/maintenance etc as and when required. Anti corrosive treatment shall be given to all sheet used in the tank. The overflow pipe will be taken down to a point well below the chassis without reducing ground clearance and would be behind the rear axle. There should be provision for fitting of one male coupling at the top of the tank for loading of water.

4.0. BODY AND STOWAGE.

The top of the tank and rear portion of the vehicle would be covered completely with aluminum chequered plate of 18 gauge with beading all around the tank over. The base plates of the lockers should be of 16 gauge aluminum chequered plate with adequate reinforcement under the lockers. The external body should be of 18 gauge aluminum sheet. Superior quality door and window locks and heavy duty chromium plated stainless steel handle should be fitted for easy opening of doors and lockers. There should be six lockers suitably placed in the body, three on each side with compartment. Proper locker arrangement as mentioned below shall be provided for storage and easy handling of equipment at the time of operation. Each piece of equipment shall have its designed location so that at the time of Emergency the required equipment can be very easily located and removed for use. Location of equipment (Labels) shall be provided in lockers for immediate identification. Each equipment would be properly clamped and strapped in the lockers to prevent shifting of the equipment while the vehicle is in motion. The lockers shall have smooth operation. The size of the lockers for placement of equipments are as follows:-

<table>
<thead>
<tr>
<th>Left (Officer's side)</th>
<th>Size of Draws/ Lockers</th>
<th>Provision for placement of Equipment</th>
<th>Provision for placement of Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>L-I</strong> Size- 48”(H) x 28”(L) x 18”(W)</td>
<td>Delivery Hose 5 Nos (30 Mtrs Length)</td>
<td>Fireman helmet 6 Nos. Gum Boot 6 pairs, Rescue line 2 length.</td>
<td></td>
</tr>
<tr>
<td><strong>L-II</strong> Size- 29”(H) x 48”(L) x 20”(W)</td>
<td>i). Delivery Hose-5 nos (30 mtrs each) ii). Portable Fire Extinguisher-2 Nos.</td>
<td>Metal Strainer -1 No Basket Strainer-1 No FB2 Branch pipe with pick up tube Aluminum Short Branch Pipe</td>
<td></td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Right (Driver's side)</th>
<th>L-I Size-54&quot;(H)x28&quot;(L)x20&quot;(W)</th>
<th>Equipment like Crow Bar and Pick Axe etc.</th>
<th>Hose Ramp-2 prs</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-II Size- 48&quot;(H) x 28&quot;(L) x 20&quot;(W)</td>
<td>Fireman Axe-2Nos Concrete Cutter-1 No Spade-2 Nos</td>
<td>Combi Tools-1 No Mechanical Saw-1 No</td>
<td></td>
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</tbody>
</table>

Top Floor

| Aluminum Extension Ladder at left side of the appliance. Stretcher Fire Hook (in the left side of the roof top of the vehicle). |
|----|----|

The door locks shall be good quality, outer handle subject to approval by the department. Hose tunnels should be provided at the top to carry 4 nos Suction Hose (8 feet long each). One small ladder shall be fitted at the rear, made out of iron in inclined position to mount to the tank top by crew members and provision of water indicator also be provided at the rear side.

5.0. CABIN:

Just behind the driver's cabin seating accommodation shall be provided for Crew Members (at least 4 members). The seat shall be made of superior quality foam cushion covered with good quality and durable foam nylon textile fabrics subject to approval by the department. The back side of the Crew seats shall be curved type provided with 2" foam cushion. The lower side of the crew seats should be provided with iron sheet of 16 gauge thickness instead of wooden planks. Heat resistant material i.e. thermo cool should be provided conveniently in the ceiling to protect heat. Two hinged doors shall be provided on each side on this cabin for the crew members. The doors should be hinged opening outwards and would be hanged forward and will have catch locks flush type handles. The cabin would be paneled externally with 16 gauge aluminum sheets and internally with aluminum chequered plates. The two doors will be fitted with toughened glasses and winding type regulators. Grab rails and non-slippery steps would be provided. Rear view mirrors would be provided on the outside of the cabin on both sides. One Fire Bell of 250 mm dia Gun Metal (As per Indian Standard) would be provided on the top of the cabin in an appropriate place and arrangement so made for smooth running of the bell from inside the cabin. Riot proof guard of wired mess shall be
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provided against the front wind shield glass, cabin doors and head and back lights and with clearance for stretching out one's hand through each side door guards. The window glasses should be retractable type. The seat shall be properly cushioned and upholstered with good quality nylon textile fabrics. Flooring shall be made of 2 mm thick aluminum panels.

<table>
<thead>
<tr>
<th>Inside the Crew Seat</th>
<th>Size of Draw</th>
<th>Provision for placement of Equipment</th>
<th>Provision for placement of Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Size-68&quot; (L) x 18&quot; (W) x 14&quot; (H)</td>
<td>L-I Provision for battery Size-34&quot;(L) x 17&quot;(H) x 17&quot;(W)</td>
<td>R-I Provision for B.A Set with spare cylinder Size-34&quot;(L) x 17&quot;(H) x 17&quot;(W)-</td>
</tr>
</tbody>
</table>

Besides, a first aid box also be provided inside the cabin just behind the officer's seat.

6.0. P.T.O.
1.0. A Full torque, drive line heavy duty P.T.O will be provided for fitting to the appliance.
2.0. A leaver for engaging the PTO shall be provided in the driver's cabin with proper locking arrangement.
3.0. The PTO shall be mounted on heavy duty cross members and support brackets between the longitudinal members of the chassis frame.
4.0. Provision of drain plug shall be made at the bottom of the PTO.

7.0. PUMP.
1.0. The Centrifugal pump shall be of reputed make preferable of Fire Fly/Rosen Bauer/Kirlosker/Godiva make with 'CE' mark and having the proper capacity.
2.0. The Pump unit having 250-300 GPM (1125 to 1350 LPM) at 7 Kg/Cm² for fitting at the rear of the appliance.
3.0. It shall be coupled with main engine with pump control panels at the rear, connected to PTO by propeller shaft and universal slip joints with sufficient number of bearing supports.

8.0. COOLING SYSTEM:
   An appropriate closed circuit indirect cooling system shall be given to cool the engine.

9.0. HOSE REEL.
   One first aid Hose Reel of 60 mts length and 20 mm dia with good quality single pipe shall be provided and mounted at the rear of the appliance. It shall be fitted with a shut off nozzle having out let of 10 mm. The reel shall be provided with suitable arrangement to prevent over run of tubing without affecting its easy
10.0. LADDER GALLOW:

Ladder Gallow at the top of the water Tank of the appliance (in the left side) shall be provided to carry 10.5 mtrs aluminum extension ladder. The design shall be such that the ladder can be released without difficulty from a reasonably accessible position and shall embody rollers to permit easy withdrawal by one man. Means shall also be provided for locking of the ladder when stowed.

11.0. PAINTING:

The vehicle shall be painted with Red colour. The paint would confirm to IS-2932-1974 suitably painted internally and externally with one coat of zinc-Chromate and under coat two finishing coats. The finishing external coat would be P.O. Red “ODISHA FIRE SERVICE” (Ph. No.-101) and “I Wjû@Wge ûia” to be lettered in golden yellow on both sides of the vehicle and ‘FIRE’ painted in front at the top of the wind shield glass in red colour over yellow colour. The name of the Fire Service/ Organization shall be painted on both side of vehicle in letter of suitable size in golden yellow radium stickering.

12.0. WORKMANSHIP.

All part of the appliance shall be good workmanship and shall have streamline finish. All mechanical and other part shall be such that parts normally required to be replaced can be supplied and fit correctly.

13.0. MANUFACTURE GUARANTEE CERTIFICATE.

The manufacture shall furnish a guarantee for the material, workmanship and performance of the appliance for period of 1 year from the date of receipt/testing. The manufacture shall be responsible for replacing any part which may become unserviceable during the above period due to substandard/ bad workmanship free of all charges.

14.0. CONTROL PANEL.

The following control shall be provided at the rear operating panel.

A. Pressure Gauge - 0 to 10 Kgf/Cm²
B. Compound Gauge
   i). Pressure 0 to 7Kgf/Cm² (In black)
   ii). Vacuum 0 to 75 cm fig (In red)
C. Engine Throttle Control.

15.0. ACCESSORIES:

The following Accessories will be supplied by the fabricator.
1. Suction Hose of 4" dia 8' long fitted with good quality Gun Metal coupling conforming to IS:902. - 4 Nos.
2. Metal Strainer of 4" dia Gun Metal - 1 No.
3. Basket Strainer for 4" dia Metal Strainer made of Cane with canvas having tieing Facility with IS - 3582/66 - 1 No.
4. Suction Key - 2 Nos.
5. Grand type emergency light bar (Red & Blue revolving light) with public address system amplifier and siren capable of 1 Km audible range. It should be covered with stainless steel frame. - 1 No.
6. Alarm Bell pendulum (Gun Metal) 250 mm dia-10 kg weight. - 1 No.
7. Rear light for pump - 1 No.
8. Search light with tripod stand fitted with 30 meters wire mounted on a reel adjustable type. - 1 No.
10. Spot light at the top - 1 No.
11. Cabin and locker light - 1 each
12. One Aluminum Extension Ladder of Simplex/ Kings Ladder or similar good quality of noted manufactures shall be provided with the appliances. The ladder shall be 10.5 mtrs with non skid rubber boots at both ends and conforming to IS-4571. The ladder should be strong enough to hold 3 (three) persons without abnormal bend. - 1 Set
13. Riot proof guard shall be provided at officer's and Driver's window to protect glass of the driver's and officer's window.
14. One male instantaneous coupling to be fitted at the Top of the tank (rear side) for loading of water by Delivery Hose.

16.0. **TOOLS (TAPARIA or JALANI)**

2. Hammer (2 Lbs) - 1 No.
3. Screw Driver (Big) - 1 No.
4. Screw Driver (Small) - 1 No.
5. Insulated Cutting Pliers - 1 No.
6. Inspection Lamp (Reputed make) - 1 No.
7. Grease Gun (Heavy duty) - 1 No.
8. Slide wrench 12" - 1 No.
9. Nose plier - 1 No.
10. Chisel - 1 No.
11. Monkey Plier - 1 No.
12. Ring Spanner - 1 Set (12 Nos.)
13. Metallic Tool Box for keeping above tools - 1 No.

17.0. ACCEPTANCE TEST:

The Pump fitted on the vehicle shall be subjected to various tests as detailed below.

i) The Pump with all its fitment shall be subjected to Hydrostatic testing on pressure of 21 Kgs/Cm².

ii) The Pump shall be run dry for a period of minimum two minutes at 2000 RPM to check the integrity of mechanical carbon seal. After this test there shall not be any leakage of water through carbon seal.

iii) The Pump performance test shall be carried out by running the Pump at constant RPM at 2600 and measuring the discharge at various pressures.

iv) The Pump shall be subjected to Endurance test for a period of four hours continuous running. Rated output 1125-1350 LPM at 7 Kg/Cm².

v) The reciprocating primer shall be capable for lifting of water from 7 mtr depth within 30 second.

vi) During the endurance test the water shall not be replenished in the cooling system and the temperature of the cooling water and engine oil should not exceed the manufacturers recommended standards for the continuous operation and engine should not show sign of stresses.

vii) Grad ability test, Rain test, Tilting test of the vehicle and Hydraulic test of the tank shall be done as per IS-950/1980 (Second revision).

viii) The required fuel and lubricant for testing will be borne by the fabricator.

ix) Trial Test of vehicles, be run on road for around 40 Kms and POL to be borne by the fabricator.

18.0. FITTING OF PUMP & PTO.

It is the risk and responsibility of the fabricator for fitting of Pump and PTO to the appliance for successful testing/ acceptance of the Mini Motor Fire Engine.

FIRE FIGHTING EQUIPMENT.

1. Delivery Hose. - 6 Nos.
2. Portable Extinguisher. - 6 Nos. (D.C.P, CO² & ABC)
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5. FB2 Branch pipe. - 1 No
6. Foam Compound. - 60 Lts
7. Metal Strainer. - 1 No
8. Basket Strainer. - 1 No

(All equipments except SI-7 & 8 will be provided by the Department)

DISASTER EQUIPMENT.
1. Lifebuoy - 2 Nos.
2. Life Jacket - 2 Nos.
4. B.A Set with spare cylinder - 1 No
5. Combitools - 1 No
6. Mechanical Saw - 1 No
7. Extension Ladder (at the top) - 1 No
8. Stretcher for adult - 1 No
9. First Aid Box - 1 Set
10. Concrete Cutter - 1 No

(All equipments will be provided by the Department)

II). SPECIFICATION FOR FABRICATION OF TOWING TENDER.

Fabrication of Towing Tender as per specification shall be made on Tata SFC-407 EX2/33 Cab & 10 Feet High Deck Load Body with Power Steering, Radial Tyres, Anti-Rull Bar at Front, Mobile Charger Socket & Heat-Resistant Vinyl Fabric Seats BS-IV.

The detail specifications are as follows.
1. Ladder Gallows for carrying 17' Extension Ladder (10' When folded) shall be fabricated on this type of vehicle with 1 ¾ " dia G.I pipe frame connected at the centre with tie rod with suitable locking device for carrying the ladder.
2. The gradation of the ladder when placed on gallows and rollers shall be maximum 3" to the rear i.e. the height of the ladder gallows will be 64" at the front and 60" at the rear.
3. A heavy duty towing attachment to be fitted behind the vehicle at suitable height for towing a trailer pump which to be made on 6” channel frame along with suitable supports and with provision of towing hooks (i.e. Pental Hook). The towing hook shall be fitted to the towing attachment with a rubber pad of ½” thickness in between to act as shock absorber.
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The towing attachment should be suitably placed according to the height of the trailer pump being used in Odisha Fire Service Organization.

4. A space to hold 30 nos of Delivery Hose each of 30 mtrs length in two rows in vertical position within metal frame cradle to be provided behind driver's cabin. Just behind the driver's cabin a suitable rack/ stand shall be provided for storage of OBM (Out Board Motor) rigidly.

5. On both side of the rear compartment seating arrangement to be made for six persons on metal box which leads to accommodate tools and accessories inside. The M.S sheet to be used for the box shall be of 16 gauge thickness. The width of the seats shall not be less than 18” and length 4’4” ft. The back portion of the seats above the Load Body shall be paneled with G.I sheet of 4’4” length and 2’2” width on which the back rest shall be fitted. The rest portion from the crew seats on the cabin above the Load Body shall be fitted with M.S Grill. The rest portion of both sides of the crew compartment remained un-paneled shall be fitted with strong wire mesh which shall be covered by good quality canvas to protect the rain water entering the crew compartment. The compartment shall be made over the frame structure provide the company. Fabricator use more frame in the same height to strengthen the canopy.

6. The rear crew seats (both side) shall be provided with 4” thickness cushion of size long - 4’4”, width-15”. The back rest (both side) shall be 3” cushion of size long-4’4”, width-10”. High quality cushions and nylon textile fabrics shall be used in the seats.

7. Rear body (Crew Compartment) will be covered with a canopy made out of 32X32X2.6 mm M.S square tube. The supporting frame of canopy will be made out of 2” G.I Pipe. Paneling of canopy will made out of 16 gauge M.S sheet. At the edges required curve should be maintained. The inner portion of the canopy shall have good quality fiber/ Aluminum ceiling. The covering shall be so arranged that, it will prevent rain water/ sun rays entering crew compartment.

8. The vehicle has to be painted with P.O. red and to be lettered as "ODISHA FIRE SERVICE" (Ph. No.-101) and “I ᵀᴡûaMṳc ŭi aû” in golden yellow radium stickering on both side of the vehicle behind the backrest of the seats provided for crew members.

9. Grand type Blinker light shall be provided on the top of the driver’s cabin with hooter and P.A system by making a box to avoid damage.
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10. Two nos. of foot steps of suitable size made of M.S. angle and chequered plate with folding provision be provide in the suitable place of the vehicle for easy climbing of the crews.

11. Provision be made for fitting of Alarm Bell in the left side above cabin/Canopy.

12. Riot proof guard shall be provided above the front wind shield glass with heavy gauge wire mesh to protect the glass which must be coupled with hinges welded properly with the cabin. Back light and head light protector should be provided against damage.

13. Necessary arrangement for mounting an inflated rubber boat on the canopy has to be made by fixing wooden planks over the canopy provided with canvas belts to tie the boat. Three numbers hooks should be provided on both sides of the canopy to tie the boat. The system be made of detachable type.

14. The crew compartment and cabin shall be joined aerodynamically by one Aluminum plate.

15. All parts of the appliances shall have good workmanship.

16. One Ladder in the rear portion of the body be provided to approach to the roof of the vehicle.

17. The floor of the Towing Tender should be of Aluminum Chequered plate.

18. Two numbers Fog Light in the front of the Towing Tender and three numbers light inside the crew cabin should be provided.

19. One ladder 17’ Extension Ladder (10’ when folded) of Simplex/Kings or similar quality of noted manufacturer shall be provided by the fabricator.

20. Back side Hat-Rack should be provided inside the crew cabin made out of MS angle and iron mess for keeping additional rescue equipment.

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