

Dated: 08-07-2020



Bid Document

Bid Document				
Bid Details				
Bid End Date/Time	23-07-2020 17:00:00			
Bid Opening Date/Time	23-07-2020 17:30:00			
Bid Life Cycle (From Publish Date)	90 (Days)			
Bid Offer Validity (From End Date)	60 (Days)			
Ministry/State Name	Madhya Pradesh			
Department Name	Public Health Engineering Department Madhya Pradesh			
Organisation Name	N/a			
Office Name	Office Of The Engineer In Chief			
Total Quantity	4			
Item Category	Drilling Rigs Combination type DTH cum Rotary			
Experience Criteria	3 Year (s)			
MSE Exemption for Years of Experience and Turnover	No			
Startup Exemption for Years of Experience and Turnover	No			
Document required from seller	Experience Criteria, Past Performance, Bidder Turnover, OEM Authorization Certificate, OEM Annual Turnover *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			
Past Performance	50 %			
Bid to RA enabled	No			
Inspection Required	Yes			
Inspection to be carried out by Buyers own empanelled agency	Yes			
Type Of Inspection	Post Dispatch			
Name of the Empanelled Inspection Agency/ Authority	RITES			

EMD Detail

Advisory Bank	State Bank of India

EMD Percentage(%)	1.00
EMD Amount	1534320

ePBG Detail

Required	No
11 -	

- (a). EMD EXEMPTION: The bidder seeking EMD exemption, must submit the valid supporting document for the relevant category as per GeM GTC with the bid. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible for exemption from EMD. Traders are excluded from the purview of this Policy.
- (b). EMD & Performance security should be in favour of Beneficiary, wherever it is applicable.

Beneficiary:

Executive Engineer

Office Of The Executive Engineer Public Health Engineering Department E&M Division , Bhopal (Udit Garg)

Splitting

Bid splitting not applied.

- 1. Experience Criteria: In respect of the filter applied for experience criteria, the Bidder or its OEM {themselves or through reseller(s)} should have regularly, manufactured and supplied same or similar Category Products to any Central / State Govt Organization / PSU / Public Listed Company for number of years as indicated in the bid document before the bid opening date. Copies of relevant contracts to be submitted along with bid in support of having supplied some quantity during each of the year. In case of bunch bids, the category of primary product having highest value should meet this criterion.
- 2. Past Performance: The Bidder or its OEM {themselves or through re-seller(s)} should have supplied same or similar Category Products for 50% of bid quantity, in at least one of the last three years before the bid opening date to any Central / State Govt Organization / PSU / Public Listed Company. Copies of relevant contracts (proving supply of cumulative order quantity in any one year) to be submitted along with bid in support of quantity supplied in the relevant year. In case of bunch bids, the category related to primary product having highest bid value should meet this criterion.

Drilling Rigs Combination Type DTH Cum Rotary (4 pieces)

Technical Specifications

* As per GeM Category Specification

Specification Specification Name V	/alues	Bid Requirement
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			(Allowed Values)
Performance Parameters	Purpose	Water well drilling rig unit (Combination Type) heavy duty Truck Mounted Mobile Hydraulic operated capable of drilling deep tube wells with down the hole hammer /Button bit in hilly terrain /Alluvial Boulders formation and drilling with rock roller bits in soft formations using Mud, Foam ,Air or combination as circulatory medium .The rigs should also have odex drilling system with eccentric drilling system with simultaneous casing lowering attachment for drilling in boundary formation	Water well drilling rig unit (Combination Type) heavy duty Truc Mounted Mobile Hydraulic operated capable of drilling deep tube wells with down the hole hammer /Button bit in hilly terrain /Alluvial Boulders formation and drilling with rock roller bits in soft formations using Mud, Foam ,Air of combination as circulatory medium .The rigs should also have odex drilling system with eccentric drilling system with simultaneous casing lowering attachment for drilling in boundary formation
	Design of Rig	It shall be the responsibility of the seller to design the rig to give required performance as per specification parameters. The rating of the compressor, torque of the top head rotary drive and pull up and pull down force of the feed system as well as other parameter values are to be complied and in case for any component higher ratings than specified are required as per their design to deliver the required performance same may be done with prior consent of order placing authority	It shall be the responsibility of the seller to design the rig to give required performance as per specification parameters . The ratin of the compressor, torque of the top head rotary drive and pull up and pull down force of the feed system as we as other parameter values are to be complied and in case for any component higher ratings than specified are required as per their design to deliver the required performance same made done with prior consent of order placing authority
	Mud Rotary System Diameter in Inches	12,14 & 16	12,14 & 16
	DTH Drilling Diameter in inches	5,6 & 8	5,6 & 8
	Maximum Drilling Capacity of Mud	180	180

	Rotary system and DTH Drilling in meters		
	Odex Drilling System Diameter in inches	4.5 & 6.5	4.5 & 6.5
	Maximum Drilling capacity of Odex Drilling System in meters	80	80
	Components of Drilling module	Drillling rig module should consist of Derrick(Mast) ,Deck Engine,Mud pump,Rotary Head Drive,levelling jack,derrick raising cylinder,swing out centralize,break out wrench,drill pipes,casing handling system,auxilary hoist,water injection system,Hydraulically operated welding generator set,hammer oil lubricator, feed system,complete hydraulic system,complete control system,drilling platform ,tool box and other drilling accessories etc	Drillling rig module should consist of Derrick(Mast) ,Deck Engine,Mud pump,Rotary Head Drive,levelling jack,derrick raising cylinder,swing out centralize,break out wrench,drill pipes,casing handling system,auxilary hoist,water injection system,Hydraulically operated welding generator set,hammer oil lubricator, feed system,complete hydraulic system,complete control system,drilling platform ,tool box and other drilling accessories etc
	Mounting	The entire drilling rig unit complete with water injection pump, hydraulic system, mud pump, deck engine, hydraulically operated mast with pull down and pull up arrangement mounted on suitable truck chassis.	The entire drilling rig unit complete with water injection pump, hydraulic system, mupump, deck engine, hydraulically operated mast with pull down and pull up arrangement mounted on suitable truck chassis.
	Mounting of Compressor	On Auxiliary Truck	On Auxiliary Truck
Mast Assembly Parameters	The mast should be rugged welded steel structure capable of withstanding drilling loads with adequate safety factors and shall be heavy duty ,suitable for all weather	Yes	*

conditions		
Length of drill rod which can be handled by Mast assembly in meters	6.09	6.09
Overall Dimensions of Mast Assembly (Length x Width x Depth) in mm x mm x mm(Hint The dimensions are approximate taking in to account of truck size etc and minor variations upto ± 1 percent shall be permitted)	10500 x 552 x 725	*
Type of Construction of Mast Assembly	Structural Channel	*
Top Head Travel of Mast Assembly in meters	7.05	7.05
Maximum Casing length that can be handled in mast assembly in meters	6.09	6.09
Controlling Mechanism of mast Assembly	Hydraulically Based Control	*
Material of Mast Assembly	Conforming to IS 2062 with Latest amendment	*
Mast shall be provided with water proof lighting arrangement with console mounted switch for night operation having electrical power from truck batteries	Yes	*
Mast should have a suitable ladder	Yes	*
Mast shall be raised or lowered by 2 hydraulically cylinder and shall be appropriate cushioned / using over centre valve to reduce shock head and controls should be provided for reduction in the lifting speed in the final stages of rising	Yes	*

Hydraulically operated rotation motor heavy duty coupled to a single reduction gear box and designed to withstand drilling stresses and strains upto the rated capacity and with suitable mud swivel to prevent ingress of dirt in most dirty conditions	Yes	*
Type of Top Head Rotary Head Drive	Gear Drive Based	*
Torque Produced by Top Head Rotary Head Drive	225 kg -m @ 0-150 rpm in series mode and 450 kg -m @ 0-75 rpm in parallel mode	225 kg -m @ 0-150 rpm in series mode and 450 kg -m @ 0-75 rpm in parallel mode
Type of Swivel of Head Rotary System	Mud Swivel	*
Gear Ratio of Rotary System	-	*
Opening Through Spindle of Head Rotary System in mm	45	*
Output Threading Details of Head Rotary System	2 7/8 inch API IF Box	*
Number off Top Head Rotary Drive motor	2	*
Make and Model of Head Rotary Drive motor	Danfos	*
Heavy duty Feed system which is hydraulically operated by hydraulic cylinder with multiple wire rope and pulley combination to transmit force evenly to drill pipe and on the drill bit while drilling	Yes	*
Bore of Cylinder and Rod size of Feeding System in mm	140 & 100	*
Stroke of Cylinder of Feeding System in mm	2350	*
Hoist Capacity of Feed System in tonn	35	*
	rotation motor heavy duty coupled to a single reduction gear box and designed to withstand drilling stresses and strains upto the rated capacity and with suitable mud swivel to prevent ingress of dirt in most dirty conditions Type of Top Head Rotary Head Drive Torque Produced by Top Head Rotary Head Drive Type of Swivel of Head Rotary System Gear Ratio of Rotary System Gear Ratio of Head Rotary System in mm Output Threading Details of Head Rotary System Number off Top Head Rotary System Number off Top Head Rotary Drive motor Make and Model of Head Rotary Drive motor Heavy duty Feed system which is hydraulically operated by hydraulic cylinder with multiple wire rope and pulley combination to transmit force evenly to drill pipe and on the drill bit while drilling Bore of Cylinder and Rod size of Feeding System in mm Stroke of Cylinder of Feeding System in mm Hoist Capacity of Feed	rotation motor heavy duty coupled to a single reduction gear box and designed to withstand drilling stresses and strains upto the rated capacity and with suitable mud swivel to prevent ingress of dirt in most dirty conditions Type of Top Head Rotary Head Drive Torque Produced by Top Head Rotary Head Drive Torque Foswivel of Head Rotary System Gear Ratio of Rotary System Gear Ratio of Rotary System Opening Through Spindle of Head Rotary System Output Threading Details of Head Rotary Drive motor Make and Model of Head Rotary Drive motor Make and Model of Head Rotary Drive motor Heavy duty Feed system which is hydraulically operated by hydraulic cylinder with multiple wire rope and pulley combination to transmit force evenly to drill pipe and on the drill bit while drilling Bore of Cylinder and Rod size of Feeding System in mm Stroke of Cylinder of Feeding System in mm Hoist Capacity of Feed Signal Action Sear Drive Based Gear Drive Based Gear Drive Based Gear Drive Based ### 0-150 rpm in series mode and 450 ### Mud Swivel ### 45 ### 27/8 inch API IF Box 2 7/8 inch API IF Box Danfos #### 2 7/8 inch API IF Box 1 2 7/8 inch API IF Box 1 45 1 45 1 45 1 45 1 46 1 40 1 40 1 40 1 40 3 50 3 50 4 50 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6

	Hoist /Pull Down Slow Speed in mtrs/min	5	*
	Hoist /Pull Down Rapid Speed in mtrs /min	20	*
	Hoist /Pull up Speed in mtrs /min	15	*
	Pull Down & Pull Up Capacity in tonn	6 & 12	*
	Reeving ratio of Feed System	1:3	*
Hydraulic System Unit	Functions of hydraulic system	Raising and lowering of the mast, Leveling of the rig, For driving the rotary head, For operation of feed and pull down system, For operation of breakout wrench, For driving water injection pump, For driving auxiliary hoist, For driving casing handling through feed cylinder, For driving weld gen. set motor, For driving the mud pump, For driving the cooler etc.	*
	The hydraulic system is powered by deck engine	Yes	*
	Hydraulic system material	Cast iron	*
	Type of hydraulic system	Open loop system	*
	Hydraulic pump make	-	*
	The hydraulic system should have strainers, hydraulic pumps, valves and return line filters suitably designed	Yes	*
	Hydraulic tank Capacity in liters	600	*
	Filtration of return line of hydraulic system in micron	10 to 25	*
	Hydraulic tank Pressure in psi	0.8	*
	Make of Hydraulic system	Parker	*

	Pump Drive	Mounted on PTO	Hydraulic mounted directly on bell housing, Mounted on PTO
	Hydraulic sytem shall be provided With a hydraulic oil cooler for cooling of the hydraulic oil	Yes	Yes
	Type of Hydraulic Oil cooler	Copper Fin Type	*
	Heat load capacity of hydraulic oil cooler in Kcal/hour	9000	*
	Hydraulic oil cooler flow capacity in liters per minute	300	*
Compressor Unit	Type of compressor	Screw Type air Compressor driven by Diesel engine	*
	Make of Compressor	ATLAS COPCO	*
	Max Free Air Delivery of Compressor	1100 CFM @ 300 PSI	1100 CFM @ 300 PSI
	Compressor Engine Make and Model	Cummins NTA 855	*
	The compressor shall complete with air receiver, oil separator, oil cooler, with adequate capacity filter control system including safely shut down device, blow down device, automatic control system to match air output to demand by throttling ,air inlet valve and air filters	Yes	*
	Safety Control and monitoring gagues provided for Compressor system	Yes	*
	Compressor unit should have efficent cooling syatem work in all weather conditions	Yes	*
	Warranty for the compressor in years	3	*

	The complete compressor package shall be enclosed with lockable doors	Yes	*
Deck Engine or Prime	Make of Deck engine	Ashok Layland	*
Mover	Type of engine cooling	Water cooled	*
	Power Developed by Deck engine HP @ rpm (Minimum)	169 @ 2100 RPM	169 @ 2100 RPM
	The power unit should develop adequate horse power to drive hydraulic system smoothly with adequate reserve power	Yes	*
	The break-up of power requirement for individual components of the system and total power available from the deck diesel engine should be provided	Yes	*
	The deck diesel engine shall be complete with required gauges and instruments such as lube oil,fuel oil, temperature and pressure gauge, volt meter, hour meter,start and shut off switch etc all mounted on the control panel	Yes	*
	Deck engine should be further complete with low oil pressure, low coolant level,high coolant temperature safety controls,electric staring system complete with batteries, starter,alternator etc	Yes	*
	Capacity of fuel tank of engine for continuous running in hours	8	*
	All the prime movers should conform to latest pollution control norms laid down by government of India	Yes	*

	Warranty for deck engine in years	3	*
	It shall be the responsibility of seller to obtain pollution control clearance certificate if necessary	Yes	*
Mud Pump Unit	Type of Mud Pump	Reciprocating Double Acting Type	*
	Make of Mud Pump	Laxmi	*
	Max Discharge by Mud Pump in LPM	1021	*
	Max working Pressure of mud pump in kg/cm2	20	*
	Mud pump is required to be supplied with accessories like surge chamber ,piping pressure gauge ,relief valve suction hose ,discharge hose ,tools etc	Yes	*
	Warranty for Mud pump in years	3	*
	Mud pump shall be suitable for clear water,mud and bentonite solutions	Yes	*
Water and Foam Injection Pump	Type of Foam Injection pump	Triplex type	*
	Max Flow of Water & foam pump in LPM	50	50
	Water tank capacity of Water Foam pump System in liters to be provided	1000	*
	Water injection pump pressure in psi	400	*
Main Truck Unit - Rig Carrier	Main Truck make and Model-Rig Carrier	Ashok Leyland 2518	Ashok Leyland 2518
	Max Power of main truck in HP	180 @ 2400 RPM	*
	Max Torque of main truck in N-m	660	*
	Dimension of main Truck (Length x Width) mm x mm	9444 x 2432	*

	Wheel base of main Truck in mm	4902	*
	Max Pay Laod of main truck in Tonnes	20	*
	Type of Suspension system of main truck unit	Semi- elliptic multileaf at front and non reactive suspension with equalizer link rod at the rear	*
	Gross Vehicle Weight of main truck unit in tonn	28	*
	Truck wheel drive	6 x 4	*
	Number of tyres provided	11	*
	Size of Tyre	1000 X 20 - 16PR radial	*
	Comfortable 4 person cabin with superior levels of seating and ride for the operator and having foldable rear seat for rest purpose fully air cooled with thick cabin insulation	Yes	*
	ARAI Certification Number of main truck and Date	-	*
	Seller shall ensure that combination of mounting are within the pay load capacity	Yes	*
	The vehicles should comply with the pollution control norms of government	Yes	*
	Vehicles should be registered under motor vehicle act to support rig requirement	Yes	*
	Warranty for main truck in years	3	*
	It shall be responsibility of seller to take temporary regstration while moving truck from manufacturing unit to consignee	Yes	*
Leveling Jack Unit	Hydraulic leveling jacks of suitable capacity are required with suitable	Yes	*

	arrangements for lowering, raising and leveling of the rig before drilling and check valve and locking device are required for safety operation		
	Number of levelling jack Number of leveling jack	4	*
	Position of leveling jack	Two in front and two at the rear integral with the truck chassis	*
	Size of jack pad of leveling jack in mm	300	*
	Type of Jack Pad of leveling jack	Swivel type	*
	Bore of leveling jack in mm	125	*
	Stroke length of leveling jack in mm	610	*
	Rod Size of Front outrigger of leveling jack in mm	70	*
Air Line Lubricator Unit	Type of airline lubricator	Ventury type	*
	Make of airline lubricator	-	*
	Max oil flow in air line lubricator in liters / hr	1.625	*
	Max pressure in air line lubricator in kg /cm2	21	*
	Reservoir capacity of air line lubricator in liters	18	*
Auxiliary Truck Unit- Compressor Carrier	Number of Auxiliary truck units supplied	1	*
	Make of Auxiliary truck supplied	Ashok Leyland	Ashok Leyland
	Whether compressor shall be mounted on Auxiliary Truck	Yes	*
	Auxiliary truck chassis to have cabin	Yes	*
	Make and Model of auxiliary truck	Ashok Leyland 2518	Ashok Leyland 2518
	Warranty for auxiliary	3	*

	truck in years		1
	ARAI Certification No of Auxiliary truck model supplied	-	*
Mast Raising cylinder Unit	No of mast raising cylinder	2	*
	Size and stroke of mast raising cylinder unit	100 x 63 x 800	*
Break out Wrench	The unit shall be supplied suitable capacity breakout wrench for breaking tool joints of hammer, drill tubes etc for coupling and de coupling	Yes	*
	Cylinder Bore Diameter in mm of break out wrench	100	*
	Stroke in mm of break out wrench	300	*
	Torque in kg-m of break out wrench	900	*
Auxiliary Winch	Auxilary winch for handling drills rods and other drilling accessories is provided	Yes	*
	Cable type of auxiliary winch	Steel Cable	*
	Type of drive of Auxiliary Winch	Hydraulically	*
	Capacity of auxiliary winch in tonnes	1	*
	Hoisting speed of auxiliary winch in meters/min	30	*
	Down /Lowering speed of auxiliary winch in meters/min	30	*
Welding Generator Unit	Make of DC Welding Generator	Parkash	*
	Model No of welding generator	-	*
	The welding unit shall be light weight and suitable for mounting on truck	Yes	*
	welding unit should	Yes	*

	include welding screen electrode holder ,earth clamp,cables(5 meters),one packet of electrodes and one chipping hammer		
	4 numbers of Welding accessories such as gloves, gumboats,helm et,apron,welding glass etc shall be supplied for drilling staff for the rig	Yes	*
	Capacity of Welding Generator	400 @ 60 % duty cycle	400 @ 60 % duty cycle
	Diameter of electrode	upto 6 Gauge	*
	Provision of light arrangement during night operation from welding generator set	Yes	*
	Warranty for welding generator in years	3	*
	Separate mode selector for welding and lighting	Yes	*
Drilling Pipe	Drilling Pipe OD in mm	101.3 & 89.0	*
	The mechanical properties such as yield strength ,tensile strength,elongation percentage ,cross sectional areato be as per API drill pipe standard	Yes	*
	Material of tool joints of drill pipe	EN 19	*
	Drill pipes shall be duly heat treated ,threaded	Yes	*
	Type of welding for drill pipe	Friction welding	*
	Drill tube	Shall be seamless grade ASTM A - 106	*
	Drill Pipe threads	27/8 API Regular	*
	Thickness of drill pipe in mm	7.5 mm for 101.3 mm dia rod & 6.5 mm for 89.0 mm dia rod	*
	Weight of drilling pipe in kg	95	*
DTH Hammer Unit	Make and Model of DTH Hammer	EPIROCK	*

I	Warranty for DTH	2500	*
	Hammer in meter	2300	
	Size of DTH Hammer to be supplied with rigs in inch	4,6,8	*
	Number of DTH Hammer to be supplied with rigs for each size	2	*
Button Bits	Availability of various size of button Bits with Rig System	120 mm, 178 mm,200 mm, 150 mm, 165 mm, 279 mm 04 Nos. of each	*
	Make of Various Button Bits	EPIROC	*
	Rig should be provided with a heavy duty tool kit having all necessary tools for maintenance of various assemblies components in the field	Yes	*
	The accessories for drill pipe handling such as a hydraulic break out wrench,lockable tool box,pipe handling sling,brea out wrench spanner ,centralizer for chuck,greasegun,allen key set,rod loading sling and bit opener of different sizes to be supplied	Yes	*
	A floating sub should be provided to prevent thread damage of drill rods,DTH hammer etc	Yes	*
	Control provided to drill rig	Slow feed control, Rapid feed control,Breakout assembly control,Air pressure gauge,Hold back pressure gauge,Emergency stop, Rotation control,Winch control,Feed pressure control,Feed pressure gauge,Hour meter/ RPM counter,Engine speed control,Panel light, Air main control, Controls for hydraulic jacks,Mast raising control,Water injection control,Other	*

	controls if any	
All necessary control and monitoring valves and gauges o be ergonomically placed and installed at control panel located near to driller console point for operators convenience and efficient operation ,Conveniently located control panel on the rear of rig to enable the operator to safely and efficiently control operation in sight of bore hole	Yes	*
All levers, valves and gauges should be ergonomically designed and carefully and have lockable doors for access to the hoses valves etc with folding type of working platform	Yes	*
Comfortable 4 person cabin with superior levels of seating and ride for the operator and having foldable rear seat for rest purpose fully air cooled with thick cabin insulation shall be provided	Yes	*
Hand grinder shall be provided along 200 number of grinding wheel	Yes	*
Technical literature regarding the drilling rig, Technical literature on all broughtout components to be supplied with drilling machine(3 copies)	Yes	*
4 copies of Operator's manul, Maintenance Manual ,Parts catalogue should supplied with machine	Yes	*
The supplier will submit necessary certificate on	Yes	*

pollution norm lead by Govt from competent authority for all engines and vehicles wherever applicable		
System shall be suitable for operation in tropical climate having ambient temperature of 48 degree	Yes	*
The air compressor and prime mover shall be provided with suitable canopy/ cover to protect it from dust/storm etc	Yes	*
An automatic safety shut down device by cutting of fuel supply in case of high discharge air temperature, high engine coolant temperature and low engine oil pressure shall be provided	Yes	*
Working lights and steel panel cover to protect gauges,controls shall be provided, an emergency shut down system shall be provided at control panel, an upper guard shall be provided to prevent the operator from falling of store /cutting and splashing of water during drilling or blowing out	Yes	*
Two panels one for operator and one for helper shall be mounted on the frame (these platforms shall be hinged and folded up during transport and serve as protection for control panel when unit is idel)	Yes	*
All the operating controls and instruments shall be conveniently placed on	Yes	*

	a control panel and protected by a locable cover (All controls for positioning of the rig shall be mounted on a separate panel in order to prevent accidental operation during drilling)		
	The carrier shall have provision of pipe racks to hold at least 10 nos of pipe on each side of the board without causing inconvenience	Yes	*
	The rig is provided with a level indication for proper leveling of the machine	Yes	*
	A rubberized curtain (Dust curtain) is provided to protect the operator from falling of stone cuttings or splashing of water during drilling or blowing	Yes	*
	Warranty of Drilling	1	1
	rigs combination type with DTH cum Rotary in years		
	type with DTH cum	-	*
Standards accessories	type with DTH cum Rotary in years Gross weight and dimensions of the rig	- 50	*
Standards accessories	type with DTH cum Rotary in years Gross weight and dimensions of the rig are to be provided Number of 101 mm diameter drill pipe with	- 50 50	
Standards accessories	type with DTH cum Rotary in years Gross weight and dimensions of the rig are to be provided Number of 101 mm diameter drill pipe with 15 feet length provided Number of 89 mm diameter drill pipe with		*
Standards accessories	type with DTH cum Rotary in years Gross weight and dimensions of the rig are to be provided Number of 101 mm diameter drill pipe with 15 feet length provided Number of 89 mm diameter drill pipe with 10 feet length provided 5" Valveless hammer	50	*
Standards accessories	type with DTH cum Rotary in years Gross weight and dimensions of the rig are to be provided Number of 101 mm diameter drill pipe with 15 feet length provided Number of 89 mm diameter drill pipe with 10 feet length provided 5" Valveless hammer complete assembly 5" Button bit suitable for valveless hammer	2	* *
Standards accessories	type with DTH cum Rotary in years Gross weight and dimensions of the rig are to be provided Number of 101 mm diameter drill pipe with 15 feet length provided Number of 89 mm diameter drill pipe with 10 feet length provided 5" Valveless hammer complete assembly 5" Button bit suitable for valveless hammer 5" 6" Valveless hammer	5023	* * *

complete assembly		
8 " Button bit suitable for valveless hammer	2	*
7 7/8" Main stabilizer x 8 feet long	1	*
9 7/8" Main stabilizer x 8 feet long	1	*
12 1/4" Main stabilizer x 8 feet long	1	*
14" Main stabilizer x 8 feet long	1	*
16" Main stabilizer x 8 feet long	1	*
7 7/8" Intermediate stabilizer x 4 feet long	2	*
9 7/8" Intermediate stabilizer x 4 feet long	2	*
6 " Button Bits	6	*
8 " Button Bits	6	*
12 1/4" Intermediate stabilizer x 4 feet long	2	*
14" Intermediate stabilizer x 4 feet long	2	*
16" Intermediate stabilizer x 4 feet long	2	*
7 7/8" Baker float suitable for 4" rod	1	*
9 7/8" Baker float suitable for 4" rod	1	*
12 1/4" Baker float suitable for 4" rod	1	*
14" Baker float suitable for 4" rod	1	*
16" Baker float suitable for 4" rod	1	*
7 7/8" R R bit (Steel tooth)	2	*
9 7/8" R R bit (Steel tooth)	6	*
10 5/8" R R bit (Steel tooth)	6	*
12 1/4" R R bit (Steel tooth)	6	*
14" R R bit (Steel tooth)	4	*

	T	
16" R R bit (Steel tooth)	2	*
7 7/8" R R Bit (Tungusten Carbide)	2	*
9 7/8" R R Bit (Tungusten Carbide)	2	*
10 5/8" R R Bit (Tungusten Carbide)	2	*
12 1/4" R R Bit (Tungusten Carbide)	4	*
14" R R Bit (Tungusten Carbide)	4	*
16" R R Bit (Tungusten Carbide)	2	*
7 7/8" Drag bit	4	*
9 7/8" Drag bit	4	*
12 1/4" Drag bit	4	*
14" Drag bit	4	*
16" Drag bit	4	*
Subs	2	*
Floating Subs	2	*
Fishing tool for 4" drill rod male	1	*
Fishing tool for 4" drill rod female	1	*
Backer float suitable foe 4" rod	4	*
4 1/2" Odex Spares kit	Guide device -1, Guide Sleeve -4, Reamer bit -4, Pilot bit -2, Casing shoe -10, Discharge head -1, Duct Hose -1, Casing pipe welding fixture - 1, Spanners -1, Casing Clamp of suitable Sizes able to hold 80 Mtrs. long seamless Casing Pipes - 2 sets	*
6 1/2" Odex Spares kit	Guide device -1, Guide Sleeve -4, Reamer bit -4, Pilot bit -2, Casing shoe -10, Discharge head -1, Duct Hose -1, Casing pipe welding fixture - 1, Spanners -1, Casing Clamp of suitable Sizes able to hold 80 Mtrs. long	*

		seamless Casing Pipes - 2 sets	
Standard tools to be	Rod guide	-	*
provided	Hammer guide	1	*
	Rod carrier with pin	1	*
	Drill rod spanner	1	*
	Set of bit spanners	1	*
	DTH hammer spanners	1	*
	Motor tube adaptor	1	*
	Centralizer fork chuck	1 Set	*
	Metric allen Key	1 Set	*
	Tower lock spanner	1 Set	*
	Spanner Set	1 set	*
	Lifting bail	1	*
	Break out wrench spanner	1	*
	Heavy duty Pipe wrenches 12 " 24",36" 48"	1 set	*
	Grease gun	1	*
	Bushing centralizer	1	*
	Fishing tool magnate	1	*
	Spintate wrench	1	*
	Chain tounge 6" and 8" heavy duty	1	*
	Fishing male and female tap	1	*
	Crow bar	1	*
	Spade	1	*
	Steel funnel	1	*
	Bucket 13"	1	*
	Hammer vice 6" and 4"	1	*
	D E Spanners 6-32, DE Spanner 32-36,DE Spanner 36-41,DE Spanner 41-46,DE Spaner 46-50,DE Spanner 50-55	1 set each	*
	Adjustable spanner 12'',adjustable spanner 14",ring spanner	1 each and ring spanner 1 set	*
	8",screw driver	1 each	*

	18"cutting player,scre driver 8",screw driver 18 ",iron scale,Outside caliper 8",out side caliper 12"		
	10 meter tape	1	*
	Oil can	1	*
	2 hammer (20 pound and 5 pound)	1 each	*
	Chain wrench 4" ,chain wrench 6", inner circlip plier 8" and outer circlip plier 8",nose plier,hack saw frame with blade,chisel,flat file, half round file	1 each	*
	Tool box	1	*
	Pneumatic baby grinder with hose	1	*
	Grinding stones 1/4",Grinding stones 1/2",grinding stones 3/4 '	1 each	*
	Spirit Level	1	*
Warranty	Warranty of Drilling rigs combination type in years with various accessories other than consumables like drill pipe, button bits etc	3	3
Reports and certifications	ISO certification of manufacturer	ISO 9001 2015	*
	ISO certification number and date	-	*
	Any other certifications available with manufacturer(May specify the certificate type)	-	*
	Certification number and date	-	*
	Copies of all certifications and reports to be provided	Yes	*
	to buyer on demand at time of supplies		

Parameters	installations and successful running of drilling rigs of similar drilling depth capacities by same OEM to govt sector in last 5 years (Certificate of satisfactory installation and successful drilling to be submitted to buyer when demanded)		installations done
	Operating manuals, Warranty certificate,User Manulas etc of all major componentswell as entire drilling rig assembled need to be submitted to buyer at time of supplies	Yes	*
	Standard Tool Kit for maintananace and Trouble Shooting to be provided with Machine	Yes	*
	Genaral Demonstration of drilling equipment parts and accessories to be provided at time of reciept of stores and test drilling and training in field to be demonstrated by at least completing drilling in 2 test sites	Yes	*

^{*} Specifications highlighted in bold are the Golden Parameters.

Additional Specification Documents

Consignees/Reporting Officer and Quantity

S.No.	Consignee/Reporti ng Officer	Address	Quantity	Delivery Days
1	Sunil Shakargaye	462003,Office of Assistant Engineer, P.H.E. Fairs Sub Division, Opposite Patrakar Colony, Link Road Number 3	4	180

^{*} Bidders may note that In respect of non-golden Parameters, the specifications 'Values' chosen by Buyer will generally be preferred over 'Bid requirement (allowed Values) by the Buyer.

Special terms and conditions for category Drilling Rigs Combination type DTH cum Rotary

- 1. After Sales serviceDuring warranty period Seller should undertake to render free service, training supervision and technical guidance as may be required by the buyer departmental officers for proper running of drill unit supplied without any charge The service engineer/technician should report to consignee within 3 to 5 days of receipt of complaint from the consignee and the complaint shall be resolved taking least possible time thereafter.
- 2. Correctness and completeness of the StoresThe stores shall be completed in every aspect with mountings and fitting, fixtures and standard accessories which are normally supplied even though not specifically detailed in the specification. Seller shall not be eligible for payment in respect of such fittings fixtures and accessories which are not needed for safe operation of the equipment .Seller shall be responsible for the completeness of the equipment and satisfactory working of same at site.
- 3. Drawing and details Seller shall immediately, on receipt of order submit a detailed technical specification report of drilling rigs and its components to the buyer/consignee within ten days and buyer/consignee shall furnish their inputs within ten days time, If no further inputs received from buyer/consignee in this period of time, seller may go ahead with fabrication of the rig. In case consignee needs any clarifications same should be furnished by the seller. If buyer/consignee ask for any changes without adding more components than specified in order same shall be accordingly taken in to account by seller.
- 4. Details of all bought out components:For all major components like Truck, Compressor, Engines, DTH Hammer, Bits etc. Full specification along, source of supply, OEM catalogues, warranty details, parts list and other details must be furnished to the buyer/consignee as well as to inspection team For all hydraulic pumps and motors details shall be furnished regarding source of supply, Make model, type, OEM catalogues, warranty details, part list, HP/Torque Pressure, fluid delivery. Necessary certificate regarding pollution norms for all engines and vehicles etc shall also be submitted.
- 5. GuaranteeThe Rig unit / vehicles supplied should be guaranteed for period as offered by seller in terms of options available in category parameters from the date of satisfactory commissioning of the complete unit, for any manufacturing defects. If during the guarantee period any defect in the unit is noticed the same has to be set right or replaced by the seller at his own risk and cost within maximum period of 15 days, failing which the period of guarantee will be extended to that extent the whole unit remained idle beyond a period of 15 days. If no response is received within stipulated period the Engineer-in-charge of the drilling unit can make alternate arrangement for replacement / repair of the defective parts to avoid idle of the complete unit. In that case the cost- involved for repair / replacement shall be responsibility of seller and necessary deductions can be made from performance security. The guarantee period will get shifted to the extent the time taken for repair of the unit or any of the component beyond the schedule time.
- 6. INSPECTIONThe drilling rig being fabricated item with large number of broughtout components mounted on truck chassis is required to be inspected at different stages during fabricationThe inspection can be undertaken by team of officials nominated by the buyer/consignee. Services of third party can also be availed for third party inspection at sellers end. However in the third party inspection also representatives of buyer/consignee shall be associated .The inspection fee if any payable for the 3rd party shall be borne by the buyer/consignee. The constitution of inspection committee consisting of buyer/consignee representatives or by third party along with representatives of buyer/consignee shall be discretion of the buyer. It shall be the responsibility of the seller to give sufficient advance notice for inspection team to plan their visit for inspection and shall facilitate the inspection by providing copies of specifications, test reports or copies of standards, technical literature and manuals of brought out items etc. . In case buyer feels it necessary the services of same pre dispatch inspection committee can be availed for physical verifications after receipt of stores at consignee end before allowing 90% payment and also at time of final inspection as part of test drilling before allowing balance 10% payment., Alternatively buyer can make use of internal committee if any constituted for acceptance of stores at consignee end and

final inspection with test drilling.

- 7. PAYMENTa) 90% payment will be made only after receipt of complete units in full, physical verification of the equipment and acceptance .At time of receipt of equipment nominated committee shall verify the items supplied as indicated in scope of inspection and shall satisfy themselves regarding materials supplied. The 90% payment release shall be also only after submission of performance guarantee which shall be to the tune of 10% of the value of contract.b) Balance 10% payment shall be released after test drilling at 2 different test sires to the required capacity using all attachments. Buyer shall ensure that test rigging at 2 site are scheduled within a period of 1 month after acceptance of drilling rig and accessories and release of 90% payment and in case the test drilling is not scheduled within a maximum period of 2 months by buyer/consignee the balance payment shall be released without any test drilling.
- 8. Performance SecurityThe performance security should be in the form of bank guaranty. It should not be less than ten percent of contract value. The performance guarantee shall be applicable as specified in contract and same shall remain valid till completion of warranty period or extended warranty period as the case may be .In case of any failure of the rig to perform as per required levels during warranty period or seller not honouring the warranty obligations etc performance security shall be forfeited .In case of any failure to replace any defective part during guarantee period or not attending to service request the cost of same shall be adjustable from performance security amount. Further all conditions related to performance security in terms of GTC shall also be applicable.
- 9. Receipt of Stores, Demonstration and commissioning: After delivery, verification of all components shall be carried out by buyer/consignee representatives/committee constituted for purpose also associating representatives of seller. The demonstration of the operation of equipment at 02[Two] different sites for best satisfaction of the buyer/consignee is required by test drilling. This sites shall be indicated by buyer/consignee immediately after stores received are accepted. If satisfactory demonstrations of the operation of the equipment in field conditions by test drilling are not given at site buyer shall have right to reject the material and seller shall have to take back the equipment at his own risk and cost and refund the 90% payment received with 18% interest from date of receipt of 90% payment besides any other administrative and legal action as decided by buyer/consignee as well as GeM. The designated officials or committee of buyer/consignee shall examine the report of physical verification of the equipments, demonstration & commissioning of the equipments& accessories at sites. Based on the committee report, balance 10% payment shall be made.
- 10. Scope of Inspection The following shall be the different stages of inspection:(a) Stage inspection at pre assembly stageAll major sub-assemblies and systems shall be offered for stage inspection assembly and same shall include following checks: Stage inspection at pre assembly stage shall include following checks Constructional and dimensional details of all fabricated structures including mast as per manufacturers drawing which will be provided to inspecting officer before inspectionQuality of fabrication and raw material test reports for the main structural membersDye penetration test for welded joints on mast and main frame of the rigMakes, models, capacities, year of manufacture of brought out items like compressor, engine, truck chassis, hydraulic motors and pumps, valves etcVerification of OEM certifications and test reports for compressor, engine etc.(b) Pre dispatch inspection at post assembly stageRigs shall be offered for inspection after assembly at supplier's works by seller. This Pre despatch inspection shall involve the following: Re verification of components and individual units as per the stage inspection recordMake model, capacity and year of manufacture etc for accessoriesOperation of the rig under no load condition and checking of the sub system like leveling jack ,mast raising /lowering ,pull down /pull up system,working of gauges, engine RPM, Pressure and temperature conditions, painting etc. These checks shall include free movement of rotary head on mast, alignment of rotary head with mast table alignment of drill rod with mast table, operation of mast locking system, opening of air below, down valve when the machine is switched off. Correctness of rotation feed and stacker operations with respect o visual indications/ signs, leakage in hydraulic systems, working of water injection system.(c) Receipt and checking for release of 90% paymentAt the time of receipt and acceptance of the rig with accessories following shall be undertakenPhysical Checking of all components supplied Verification of pre despatch inspection details and

matching with pre inspection stamps etc in received materialChecking of copies of all certifications and reportsSatisfactory physical checking and inspection by the representatives of buyer/consignee regarding rig and accessories fulfilling the requirements excepting actual drilling in field(d) Final inspection at site before release of balance 10% payment Final inspection at site shall include the following:Checking of all components suppliedVerification of pre despatch inspection detailsComplete two trial drill bore to rated capacity to satisfaction of inspection team constituted for the purposeRecord abnormalities if any in operation of rig and rectification to be made by seller

- 11. RATESThe prices are inclusive of all incidental charges, handling, packing & forwarding charges, loading & unloading charges, transit Insurance charges, Excise duty, freight charges for delivery by Road Transport from factory point to consignee's end, Temporary Registration charges for the trucks. The prices are also inclusive of cost of inspection that may occurfor conducting inspection at the sellers end before dispatching material to consignee.
- 12. Technical Literature and safety equipments Technical literature includes the catalogue of drilling rig, Operation manual of engine, compressor & other components in three sets. Maintenance manual and spare parts catalogue shall also be provided in same nos.
- 13. TRAININGThe supply package for the Rig unit besides the equipment delivery, technical support spares availability and all support services shall also be comprised of imparting training to the staff of buyer/consignee Department . The training can be during completion of 2 test sites to the requisite depth by using all attachments or at consignee end. The number of persons to be trained on each rig shall be 4 for each unit of rig supplied . The duration of training at the site during the trial bore to be made at test sites shall be specified by buyer/consignee. Duration of training shall be minimum 10 days.
- 14. Testing of componentsAll the important components of the Rig & other accessories shall be tested as per relevant IS specification or any other specification as per its manual at cost and risk of the supplier. The test certificate of the equipment shall be supplied to the buyer/consignee along with equipments and shall also be furnished to inspection team. In case buyer/consignee representatives or inspection team desires testing & assembling shall be witnessed their representative for which the supplier shall intimate the time well in advance.

Bid Specific Additional Terms and Conditions

- 1. Bidder Turn Over Criteria: The minimum average annual financial turnover of the bidder during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the bidder is less than 3 year old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.
- 2. OEM Turn Over Criteria: The minimum average annual financial turnover of the OEM of the offered product during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the OEM is less than 3 year old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria. In case of bunch bids, the OEM of CATEGORY RELATED TO primary product having highest bid value should meet this criterion.
- 3. For fulfilling the experience criteria any one of the following documents may be considered as valid proof for meeting the experience criteria:
 - a. Purchase Order copy along with Invoice(s) with self-certification by the bidder that supplies against the invoices have been executed.
 - b. Execution certificate by client with order value.
 - c. Any other document in support of order execution like Third Party Inspection release note,

etc.

- 4. The Bidder / OEM {themselves or through reseller(s)}, should have executed project for supply and installation / commissioning of same or similar Category Products during preceding 3 financial years (i.e. current year and three previous financial years) as on opening of bid, as per following criteria:
 - (i) Single order of at least 35% of estimated bid value; or
 - (ii) Two orders of at least 20% each of estimated bid value; or
 - (iii) Three orders of at least 15% each of estimated bid value.
 - Satisfactory Performance certificate issued by respective Buyer Organization for the above Orders should be uploaded with bid. In case of bunch bids, the Category related to primary product having highest bid value should meet this criterion
- 5. 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.
- 6. The bidder is required to upload, along with the bid, all relevant certificates such as BIS licence, type test certificate, approval certificates and other certificates as prescribed in the Product Specification given in the bid document.
- 7. Bidders can also submit the EMD with Fixed Deposit Receipt made out or pledged in the name of Executive Engineer P.H.E.D. Mechanical Division Bhopal A/C (Name of the Seller). The bank should certify on it that the deposit can be withdrawn only on the demand or with the sanction of the pledgee. For release of EMD, the FDR will be released in favour of bidder by the Buyer after making endorsement on the back of the FDR duly signed and stamped along with covering letter.
 - Bidder has to upload scanned copy / proof of the FDR along with bid and has to ensure delivery of hardcopy to the Buyer within 5 days of Bid End date / Bid Opening date.
- 8. Warranty period of the supplied products shall be 2 years from the date of final acceptance of goods or after completion of installation, commissioning & testing of goods (if included in the scope of supply), at consignee location. OEM Warranty certificates must be submitted by Successful Bidder at the time of delivery of Goods. The seller should guarantee the rectification of goods in case of any break down during the guarantee period. Seller should have well established Installation, Commissioning, Training, Troubleshooting and Maintenance Service group in INDIA for attending the after sales service. Details of Service Centres near consignee destinations are to be uploaded along with the bid

This Bid is also governed by the General Terms and Conditions

---Thank You---