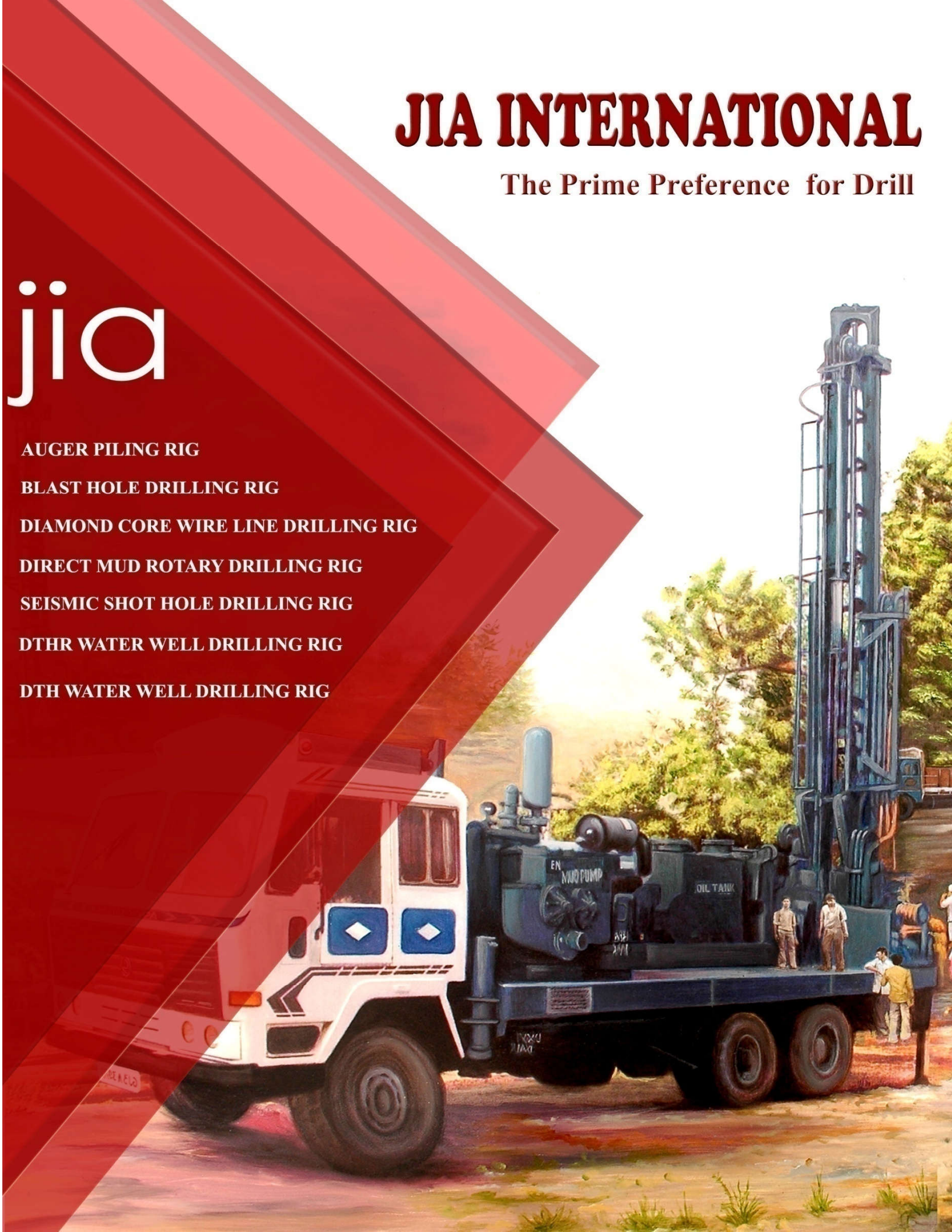
JIA INTERNATIONAL

The Prime Preference for Drill

jia

- AUGER PILING RIG
- BLAST HOLE DRILLING RIG
- DIAMOND CORE WIRE LINE DRILLING RIG
- DIRECT MUD ROTARY DRILLING RIG
- SEISMIC SHOT HOLE DRILLING RIG
- DTHR WATER WELL DRILLING RIG
- DTH WATER WELL DRILLING RIG



ABOUT US

Jia International is a multidisciplinary technology, engineering, manufacturing and trading company. Jia international offers independent services to its clients all over the world based on the knowledge and experience of its highly skilled and dedicated professionals. It is one of the fastest growing companies in India.

Since 2005, a strong, customer focused approach and the continuous quest for world class quality have enabled it to attain and sustain leadership in all its major lines of business.

Jia International has an international presence, with office spread in African country. A thrust on international business has seen overseas earnings grow significantly. It continues to grow its global footprint, with office in East Africa.

The company's businesses are supported by a wide marketing network, and have established a reputation for strong customer support.

In response to changing market dynamics, Jia International has gone through a phased process of redefining its organization model to facilitate growth through greater levels of empowerment. The new structure is built around multiple businesses that serve the needs of different industries.

Jia International believes that progress must be achieved in harmony with the environment. A commitment to community welfare and environmental protection are an integral part of the corporate vision.

About DTH Drilling Method

No particular water well drilling methods are applicable under all various drilling conditions. Due to wide geological conditions range such as hard rock, like granite and dolomite to completely unconsolidated sediments such as alluvial sand and gravels, various well drilling techniques have been developed. Specific drilling techniques have become popular in certain areas because these techniques are more effective in drilling the local aquifer at lowest cost. In many cases, however the usual drilling procedure depends on the depth and diameter of the well, type of formation, principal use of the well and sanitation requirement. Hence it is very clear that no single drilling technique is suitable for all geological conditions and well installation.

The Down the Hole (DTH) hammer or Hole Hammer drill a pneumatic drill at the end of drill pipes rapidly stakes the rock while drill pipe rotated slowly. The percussive effect at the bottom of the end of the hole is similar to the blows delivered by the cable tool bit. The hammer is constructed from alloy steel with tungsten carbide inserts that provide the cutting or chipping hole powered by compressed air flowing down the center of the drill string into the hammer. Tungsten carbide is extremely resistant to abrasion.

Rotation of the bit with percussive action helps to assures even penetration and therefore straighter holes even in extremely abrasive or resistant rock types. It is used for fast and economical penetration results from the air piston blows are transmitted directly to the bit without losing energy through drill pipes of medium to extremely hard formation higher than those obtained by other drilling methods or other type of tools.

As the cuttings is removed out continuously of the formation by the air used to drive the hammer. Bit that is constantly striking previously broken rock fragments, the air coming out of the bottom of the bit lifts these chips and carries them back to the surface on the outside of the hammer and drill pipe. The bit on the air hammer always strikes a clean surface. So, the huge quantity of air is allowed to flush out from a small hole hence flushing of the cutting material is also very high. The lifting capacity of the air can be enhanced by adding a small amount of surfactant and water solution to the air. Foam also reduces loss of air to t he formation. Thus the air hammer is highly efficient.

The Down the Hole hammer method is widely used to drill long holes, because the deviation is less, hammering cost is less, so it is not only used for blasting, but also used for water well drilling and shallow well drilling.

The strike frequency of DTH hammer is usually kept between 600 to 1600 strikes per minutes, the air pressure is used between 10 to 24 bar and rotation speed of the drill stem is about 25 to 100 rpm is kept to drill a smooth wall circular bore.

The JST – 10 is a Tractor Mounted Seismic Shot Hole Drilling Rig especially designed for single pass seismic shot hole drilling up to 262 foot (80 Meters) for a drill diameter 3½" to 4⅛" (89 mm to 105 mm). It is capable of rotary drilling with 2700 Kg pull up force and 0 – 60 RPM or may be used with down the hole drills when equipped with a high pressure air compressor. The same drilling rig can also be utilized for blast hole drilling and shallow domestic water well drilling also.

TECHNICAL SPECIFICATIONS - JST-10 TRACTOR MOUNTED SEISMIC SHOT HOLE DRILLING RIG	
DRILLING DEPTH	Maximum 4 ⅛" Dia. Bore Holes, 80 Meter (262 Foot) by using 2" / 2 ½" Drill Rods
PRIME MOVER	Power required for the rig hydraulic is drawn from the tractor engine through the output PTO Shaft, Suitable Tractor 45 Hp and above
WORK METHOD	**DTH Drilling**
MAST	5" Channel Structure Mast, Maximum Capacity – 8 Tons, Height – 2.75 Meter (9 Foot), Rod Handling – 60", Centralized Opening – 7"
PULL UP SPEED	6.5 Meter / Min (22 Foot/Min)
PULL UP FORCE	2700 Kg / 59400 lbs @140 Bar
PULL DOWN SPEED	10.5 Meter / Min (34 Foot/Min)
PULL DOWN FORCE	1600 Kg / 3520 lbs @ 140 Bar
HYDRAULIC SYSTEM	140 Kg/cm² (2000 psi)
REEVING RATIO	1:2
ROTARY HEAD	Maximum Torque 146 Kg-Meter (12 740 lbs-inch)
ROTARY HEAD SPEED	0 to 60 rpm
WATER INJECTION PUMP	36 LPM , 40 Kg/cm² water pump driven by hydraulic motor
OTHER OPTIONS	The same mast can be mounted on small truck for easy approach of difficult site condition. This can also be altered to drill horizontal bores up to 262 Foot
SUITABLE COMPRESSOR	450 CFM/150 psi, 450 CFM/175 psi, 600 CFM/ 200 psi
LEVELLING JACK	Four Hydraulic Leveling Jack for accurate leveling drill point having separate lever

The JSP – 10 is a Portable Seismic Shot Hole Drilling Rig especially designed for single pass seismic shot hole drilling up to 262 foot (80 Meters) for a drill diameter 3 ½" to 4 ⅛" (89 mm to 105 mm). It is capable of rotary drilling with 2700 Kg pull up force and 0 – 60 RPM or may be used with down the hole drills when equipped with a high pressure air compressor. The same drilling rig can also be utilized for blast hole drilling and shallow domestic water well drilling also.

TECHNICAL SPECIFICATIONS - JSP-10 PORTABLE SEISMIC SHOT HOLE DRILLING RIG	
DRILLING DEPTH	Maximum 4 ⅛" Dia. Bore Holes, 80 Meter (262 Foot) by using 2" / 2 ½" Drill Rods
PRIME MOVER	Power required for the rig hydraulic is drawn from the Hydraulic Power Pack attached with engine or tractor engine through the output PTO Shaft, Suitable Tractor 45 Hp and above
WORK METHOD	DTH Drilling
MAST	5" Channel Structure Mast, Maximum Capacity – 8 Tons, Height – 2.75 Meter (9 Foot), Rod Handling – 60", Centralized Opening – 7"
PULL UP SPEED	6.5 Meter / Min (22 Foot/Min)
PULL UP FORCE	2700 Kg / 59400 lbs @140 Bar
PULL DOWN SPEED	10.5 Meter / Min (34 Foot/Min)
PULL DOWN FORCE	1600 Kg / 3520 lbs @ 140 Bar
HYDRAULIC SYSTEM	140 Kg/cm² (2000 psi)
REEVING RATIO	1:2
ROTARY HEAD	Maximum Torque 146 Kg-Meter (12 740 lbs-inch)
ROTARY HEAD SPEED	0 to 60 rpm
WATER INJECTION PUMP	36 LPM , 40 Kg/cm² water pump driven by hydraulic motor
OTHER OPTIONS	The same mast can be mounted on small truck for easy approach of difficult site condition. This can also be altered to drill horizontal bores up to 262 Foot
SUITABLE COMPRESSOR	450 CFM/150 psi, 450 CFM/175 psi, 600 CFM/ 200 psi
LEVELLING JACK	Four Hydraulic Leveling Jack for accurate leveling drill point having separate lever

The JBT – 10 is a Tractor Mounted Blast Hole Drilling Rig especially designed for single pass blast hole drilling up to 262 foot (80 Meters) for a drill diameter 3½" to 4⅛" (89 mm to 105 mm). It is capable of rotary drilling with 2700 Kg pull up force and 0 – 60 RPM or may be used with down the hole drills when equipped with a high pressure air compressor. The same drilling rig can also be utilized for seismic shot hole drilling and shallow domestic water well drilling also.

TECHNICAL SPECIFICATIONS - JBT-10 TRACTOR MOUNTED BLAST HOLE DRILLING RIG	
DRILLING DEPTH	Maximum 4 ⅛" Dia. Bore Holes, 80 Meter (262 Foot) by using 2" / 2 ½" Drill Rods
PRIME MOVER	Power required for the rig hydraulic is drawn from the tractor engine through the output PTO Shaft, Suitable Tractor 45 Hp and above
WORK METHOD	DTH Drilling
MAST	5" Channel Structure Mast, Maximum Capacity – 8 Tons, Height – 2.75 Meter (9 Foot), Rod Handling – 60", Centralized Opening – 7"
PULL UP SPEED	6.5 Meter / Min (22 Foot/Min)
PULL UP FORCE	2700 Kg / 59400 lbs @140 Bar
PULL DOWN SPEED	10.5 Meter / Min (34 Foot/Min)
PULL DOWN FORCE	1600 Kg / 3520 lbs @ 140 Bar
HYDRAULIC SYSTEM	140 Kg/cm² (2000 psi)
REEVING RATIO	1:2
ROTARY HEAD	Maximum Torque 146 Kg-Meter (12 740 lbs-inch)
ROTARY HEAD SPEED	0 to 60 rpm
WATER INJECTION PUMP	36 LPM , 40 Kg/cm² water pump driven by hydraulic motor
OTHER OPTIONS	The same mast can be mounted on small truck for easy approach of difficult site condition. This can also be altered to drill horizontal bores up to 262 Foot
SUITABLE COMPRESSOR	450 CFM/150 psi, 450 CFM/175 psi, 600 CFM/ 200 psi
LEVELLING JACK	Four Hydraulic Leveling Jack for accurate leveling drill point having separate lever

The JBR – 20 is a Crawler Mounted Blast Hole Drilling Rig especially designed for single pass blast hole drilling up to 650 foot (200 Meters) for a drill diameter 3½" to 4⅛" (89 mm to 105 mm). It is capable of rotary drilling with 9200 Kg pull up force and 0 – 100 RPM or may be used with down the hole drills when equipped with a high pressure air compressor.

TECHNICAL SPECIFICATIONS - JBR-20 CRAWLER MOUNTED BLAST HOLE DRILLING RIG	
DRILLING DEPTH	Maximum 4⅛" Dia. Bore Holes, 200 Meter (650 Foot) by using 2" / 2 ½" Drill Rods Odex Dia. – 5" to 8" – 350 foot depth
PRIME MOVER	Power required for the rig hydraulic is drawn from the crawler engine through the output PTO Shaft or from extra deck engine.
WORK METHOD	DTH Drilling
MAST	6" Channel Structure Mast, Height – 5.5 Meter (18 Foot), Rod Handling – 120", Centralized Opening – 8"
PULL UP SPEED	37 Meter / Min (122 Foot/Min)
PULL UP FORCE	9 200 Kg / 20 240 lbs
PULL DOWN SPEED	55 Meter / Min (181 Foot/Min)
PULL DOWN FORCE	6 318 Kg / 13 900 lbs
HYDRAULIC SYSTEM	210 Kg/cm² (3 000 psi) Oil Tank – 350 Liters, Oil Filters - SC²-100 - 01 no., SC²-75 – 01 no. Double super system
REEVING RATIO	1:3
ROTARY HEAD	Maximum Torque 303 Kg-Meter (26 400 lbs-inch)
ROTARY HEAD SPEED	0 to 100 rpm
WATER INJECTION PUMP	36 LPM , 40 Kg/cm² water pump driven by hydraulic motor
ADDITIONAL FEATURES	Night Lights, Tool Box
SUITABLE COMPRESSOR	450 CFM/150 psi, 450 CFM/175 psi, 600 CFM/ 200 psi
AIR LINE LUBRICATOR	Standard – 3 Liters
LEVELLING JACK	Four Hydraulic Leveling Jack for accurate leveling drill point having separate lever
HYDRAULIC CYLINDERS	Hydraulic Cylinders for Oscillation, Boom Raise, Boom Swing, Mast Raise, Mast Swing and Break Out Operation.

The JAT – 12 is a Tractor Mounted Auger Piling Rig especially designed for construction piling for rotary mud drilling up to 98 foot (30 Meters) for a drill diameter 12" (305 mm). Auger drilling is suitable for soft unconsolidated formation such as clay and sands. It is also capable of Rotary drilling with 4700 Kg pull up force and 0 – 80 RPM or may be used with down the hole drills of 6 ½" when equipped with a high pressure air compressor up to depth 400 Foot (122 Meter). The same rig can also be utilize for domestic water well drilling, exploration and solar panel piling work

TECHNICAL SPECIFICATIONS - JAT-12 TRACTOR MOUNTED AUGER PILING RIG	
DRILLING DEPTH	Maximum 6½" Dia. Bore Holes, 122 Meter (400 Foot) by using 2 ½" Drill Rods Odex Dia. – 5" – 350 foot depth
PRIME MOVER	Rig hydraulic system is powered from the tractor engine through the output PTO Shaft. – Tractor Horse Power – 60 or above
WORK METHOD	Auger Drilling / Rotary Mud Drilling
MAST	6" Channel Structure Mast, Height – 5.5 Meter (18 Foot), Rod Handling – 120", Centralized Opening – 8"
PULL UP SPEED	37 Meter / Min (122 Foot/Min)
PULL UP FORCE	4 700 Kg / 10 360 lbs
PULL DOWN SPEED	50 Meter / Min (164 Foot/Min)
PULL DOWN FORCE	2 600 Kg / 5 732 lbs
HYDRAULIC SYSTEM	210 Kg/cm² (3 000 psi) Oil Tank – 300 Liters, Oil Filters - SC²-75 – 02 no. Double super system
REEVING RATIO	1:3
ROTARY HEAD	Maximum Torque 303 Kg-Meter (26 400 lbs-inch), OMT-315 Orbital Motor
ROTARY HEAD SPEED	0 to 100 rpm
WATER INJECTION PUMP	36 LPM , 40 Kg/cm² water pump driven by hydraulic motor
ADDITIONAL FEATURES	Night Lights, Tool Box
SUITABLE COMPRESSOR	450 CFM/150 psi, 450 CFM/175 psi, 600 CFM/ 200 psi
AIR LINE LUBRICATOR	Standard – 3 Liters
LEVELLING JACK	Four Hydraulic Leveling Jack for accurate leveling drill point having separate lever
BREAKOUT WRENCH	Hydraulic operated breakout wrench for fast breaking of rod joints
OPTIONAL ATTACHMENTS	• Welding Machine • Auxiliary Winch – 1 Ton • Single Rod Changer • Centrifugal Mud Pump – 3" x 3"

The JWT – 10 is a Tractor Mounted Water Well Drilling Rig especially designed for DTH Water Well drilling up to 262 foot (80 Meters) for a drill diameter 3½" to 4⅛" (89 mm to 105 mm). It is capable of rotary drilling with 2700 Kg pull up force and 0 – 60 RPM or may be used with down the hole drills when equipped with a high pressure air compressor. The same drilling rig can also be utilized for blast hole drilling and seismic shot hole drilling also.

TECHNICAL SPECIFICATIONS - JWT-10 TRACTOR MOUNTED DTHR WATER WELL DRILLING RIG	
DRILLING DEPTH	Maximum 4⅛" Dia. Bore Holes, 80 Meter (262 Foot) by using 2" / 2 ½" Drill Rods
PRIME MOVER	Power required for the rig hydraulic is drawn from the tractor engine through the output PTO Shaft, Suitable Tractor 45 Hp and above
WORK METHOD	DTH Drilling
MAST	5" Channel Structure Mast, Maximum Capacity – 8 Tons, Height – 2.75 Meter (9 Foot), Rod Handling – 60", Centralized Opening – 7"
PULL UP SPEED	6.5 Meter / Min (22 Foot/Min)
PULL UP FORCE	2700 Kg / 59400 lbs @140 Bar
PULL DOWN SPEED	10.5 Meter / Min (34 Foot/Min)
PULL DOWN FORCE	1600 Kg / 3520 lbs @ 140 Bar
HYDRAULIC SYSTEM	140 Kg/cm² (2000 psi)
REEVING RATIO	1:2
ROTARY HEAD	Maximum Torque 146 Kg-Meter (12 740 lbs-inch)
ROTARY HEAD SPEED	0 to 60 rpm
WATER INJECTION PUMP	36 LPM , 40 Kg/cm² water pump driven by hydraulic motor
OTHER OPTIONS	The same mast can be mounted on small truck for easy approach of difficult site condition. This can also be altered to drill horizontal bores up to 262 Foot
SUITABLE COMPRESSOR	450 CFM/150 psi, 450 CFM/175 psi, 600 CFM/ 200 psi
LEVELLING JACK	Four Hydraulic Leveling Jack for accurate leveling drill point having separate lever

The JWP – 10 is a Portable Water Well Drilling Rig especially designed for DTH Water Well drilling up to 262 foot (80 Meters) for a drill diameter 3½" to 4⅛" (89 mm to 105 mm). It is capable of rotary drilling with 2700 Kg pull up force and 0 – 60 RPM or may be used with down the hole drills when equipped with a high pressure air compressor. The same drilling rig can also be utilized for blast hole drilling and seismic shot hole drilling also.

TECHNICAL SPECIFICATIONS - JWP-10 PORTABLE DTH WATER WELL DRILLING RIG	
DRILLING DEPTH	Maximum 4⅛"Dia. Bore Holes, 80 Meter (262 Foot) by using 2" / 2 ½" Drill Rods
PRIME MOVER	Power required for the rig hydraulic is drawn from the Hydraulic Power Pack attached with engine or tractor engine through the output PTO Shaft, Suitable Tractor 45 Hp and above
WORK METHOD	DTH Drilling
MAST	5" Channel Structure Mast, Maximum Capacity – 8 Tons, Height – 2.75 Meter (9 Foot), Rod Handling – 60", Centralized Opening – 7"
PULL UP SPEED	6.5 Meter / Min (22 Foot/Min)
PULL UP FORCE	2700 Kg / 59400 lbs @140 Bar
PULL DOWN SPEED	10.5 Meter / Min (34 Foot/Min)
PULL DOWN FORCE	1600 Kg / 3520 lbs @ 140 Bar
HYDRAULIC SYSTEM	140 Kg/cm² (2000 psi)
REEVING RATIO	1:2
ROTARY HEAD	Maximum Torque 146 Kg-Meter (12 740 lbs-inch)
ROTARY HEAD SPEED	0 to 60 rpm
WATER INJECTION PUMP	36 LPM , 40 Kg/cm² water pump driven by hydraulic motor
OTHER OPTIONS	The same mast can be mounted on small truck for easy approach of difficult site condition. This can also be altered to drill horizontal bores up to 262 Foot
SUITABLE COMPRESSOR	450 CFM/150 psi, 450 CFM/175 psi, 600 CFM/ 200 psi
LEVELLING JACK	Four Hydraulic Leveling Jack for accurate leveling drill point having separate lever

JWC-10 TROLLEY MOUNTED DTHR WATER WELL DRILLING RIG

The JWC – 10 is Trolley Mounted DTHR Water Well Drilling Rig especially designed for water well drilling up to 330 foot (100 Meters) for a drill diameter 6 ½" (165 mm). It is also capable of Rotary drilling with 4700 Kg pull up force and 0 – 80 RPM or may be used with down the hole drills of 6 ½" when equipped with a high pressure air compressor. The same rig can also be utilize for exploration and micro piling work

TECHNICAL SPECIFICATIONS - JWC-10 TROLLEY MOUNTED DTHR WATER WELL DRILLING RIG	
DRILLING DEPTH	Maximum 6 ½" Dia. Bore Holes, 100 Meter (330 Foot) by using 2 ½" Drill Rods Odex Dia. – 5" – 300 foot depth
PRIME MOVER	Rig hydraulic system is powered from the deck engine – 75 Hp
WORK METHOD	DTH and Rotary Mud Drilling
MAST	5" Channel Structure Mast, Maximum Capacity – 8 Tons, Height – 3.65 Meter (12 Foot), Rod Handling – 60", Centralized Opening – 7"
PULL UP SPEED	37 Meter / Min (122 Foot/Min)
PULL UP FORCE	4 700 Kg / 10 360 lbs
PULL DOWN SPEED	50 Meter / Min (164 Foot/Min)
PULL DOWN FORCE	2 600 Kg / 5 732 lbs
HYDRAULIC SYSTEM	210 Kg/cm² (3 000 psi) Oil Tank – 300 Liters, Oil Filters - SC²-75 – 02 no.
REEVING RATIO	1:3
ROTARY HEAD	Maximum Torque 303 Kg-Meter (26 400 lbs-inch), OMT-315 Orbital Motor
ROTARY HEAD SPEED	0 to 100 rpm
WATER INJECTION PUMP	36 LPM , 40 Kg/cm² water pump driven by hydraulic motor
ADDITIONAL FEATURES	Night Lights, Tool Box
SUITABLE COMPRESSOR	450 CFM/150 psi, 450 CFM/175 psi, 600 CFM/ 200 psi
AIR LINE LUBRICATOR	Standard – 3 Liters
LEVELLING JACK	Four Hydraulic Leveling Jack for accurate leveling drill point having separate lever
BREAKOUT WRENCH	Hydraulic operated breakout wrench for fast breaking of rod joints
OPTIONAL ATTACHMENTS	• Welding Machine • Auxiliary Winch – 1 Ton • Single Rod Changer • Centrifugal Mud Pump – 3" x 3"

JWT-15 TRACTOR MOUNTED DTHR WATER WELL DRILLING RIG

The JWT – 15 is Tractor Mounted DTHR Water Well Drilling Rig especially designed for water well drilling up to 450 foot (137 Meters) for a drill diameter 6 ½" (165 mm). It is also capable of Rotary drilling with 4 700 Kg pull up force and 0 – 100 RPM or may be used with down the hole drills of 6 ½" when equipped with a high pressure air compressor. The same rig can also be utilize for exploration and micro piling work

TECHNICAL SPECIFICATIONS - JWT-15 TRACTOR MOUNTED DTHR WATER WELL DRILLING RIG	
DRILLING DEPTH	Maximum 6 ½" Dia. Bore Holes, 100 Meter (330 Foot) by using 3 ½" Drill Rods Odex Dia. – 5" – 300 foot depth
PRIME MOVER	Rig hydraulic system is powered from the tractor engine through the output PTO Shaft. – Tractor Horse Power – 60 or above
WORK METHOD	DTH and Rotary Mud Drilling
MAST	5" Channel Structure Mast, Maximum Capacity – 8 Tons, Height – 3.65 Meter (12 Foot), Rod Handling – 60", Centralized Opening – 7"
PULL UP SPEED	37 Meter / Min (122 Foot/Min)
PULL UP FORCE	4 700 Kg / 10 360 lbs
PULL DOWN SPEED	50 Meter / Min (164 Foot/Min)
PULL DOWN FORCE	2 600 Kg / 5 732 lbs
HYDRAULIC SYSTEM	210 Kg/cm² (3 000 psi) Oil Tank – 300 Liters, Oil Filters - SC²-75 – 02 no. Double super system
REEVING RATIO	1:3
ROTARY HEAD	Maximum Torque 303 Kg-Meter (26 400 lbs-inch), OMT-315 Orbital Motor
ROTARY HEAD SPEED	0 to 100 rpm
WATER INJECTION PUMP	36 LPM , 40 Kg/cm² water pump driven by hydraulic motor
ADDITIONAL FEATURES	Night Lights, Tool Box
SUITABLE COMPRESSOR	450 CFM/150 psi, 450 CFM/175 psi, 600 CFM/ 200 psi
AIR LINE LUBRICATOR	Standard – 3 Liters
LEVELLING JACK	Four Hydraulic Leveling Jack for accurate leveling drill point having separate lever
BREAKOUT WRENCH	Hydraulic operated breakout wrench for fast breaking of rod joints
OPTIONAL ATTACHMENTS	• Welding Machine • Auxiliary Winch – 1 Ton • Single Rod Changer • Centrifugal Mud Pump – 3" x 3"

The JWC – 15 is Trolley Mounted DTHR Water Well Drilling Rig especially designed for water well drilling up to 490 foot (150 Meters) for a drill diameter 6 ½" (165 mm). It is also capable of Rotary drilling with 7 900 Kg pull up force and 0 – 100 RPM or may be used with down the hole drills of 6 ½" when equipped with a high pressure air compressor. The same rig can also be utilize for exploration and micro piling work.

TECHNICAL SPECIFICATIONS - JWC-15 TROLLEY MOUNTED DTHR WATER WELL DRILLING RIG	
DRILLING DEPTH	Maximum 6 ½" Dia. Bore Holes, 150 Meter (490 Foot) by using 3 ½" Drill Rods Odex Dia. – 5" – 300 foot depth
PRIME MOVER	Rig hydraulic system is powered from Deck Engine – 90 Hp
WORK METHOD	DTH and Rotary Mud Drilling
MAST	6" Channel Structure Mast, Height – 5.5 Meter (18 Foot), Rod Handling – 120", Centralized Opening – 10 ⅝" (270 mm)
PULL UP SPEED	37 Meter / Min (122 Foot/Min)
PULL UP FORCE	7 900 Kg / 17 420 lbs
PULL DOWN SPEED	50 Meter / Min (164 Foot/Min)
PULL DOWN FORCE	5 400 Kg / 11 900 lbs
HYDRAULIC SYSTEM	210 Kg/cm² (3 000 psi) Oil Tank – 350 Liters, Oil Filters - SC²-75 – 02 no. Double super system
REEVING RATIO	1:3
ROTARY HEAD	Maximum Torque 303 Kg-Meter (26 400 lbs-inch), OMT-315 Orbital Motor
ROTARY HEAD SPEED	0 to 100 rpm
WATER INJECTION PUMP	36 LPM , 40 Kg/cm² water pump driven by hydraulic motor
ADDITIONAL FEATURES	Night Lights, Tool Box
SUITABLE COMPRESSOR	450 CFM/150 psi, 450 CFM/175 psi, 600 CFM/ 200 psi
AIR LINE LUBRICATOR	Standard – 3 Liters
LEVELLING JACK	Four Hydraulic Leveling Jack for accurate leveling drill point having separate lever
BREAKOUT WRENCH	Hydraulic operated breakout wrench for fast breaking of rod joints
OPTIONAL ATTACHMENTS	• Welding Machine • Auxiliary Winch – 1 Ton • Single Rod Changer • Centrifugal Mud Pump – 4" x 4"

JWT-20 TRACTOR MOUNTED DTHR WATER WELL DRILLING RIG

The JWT – 20 is Tractor Mounted DTHR Water Well Drilling Rig especially designed for water well drilling up to 650 foot (200 Meters) for a drill diameter 6 ½" (165 mm). It is also capable of Rotary drilling with 7 900 Kg pull up force and 0 – 100 RPM or may be used with down the hole drills of 6 ½" when equipped with a high pressure air compressor. The same rig can also be utilize for exploration and micro piling work.

TECHNICAL SPECIFICATIONS - JWT-20 TRACTOR MOUNTED DTHR WATER WELL DRILLING RIG	
DRILLING DEPTH	Maximum 6 ½" Dia. Bore Holes, 200 Meter (650 Foot) by using 3 ½" Drill Rods Odex Dia. – 5" – 400 foot depth
PRIME MOVER	Rig hydraulic system is powered from the tractor engine through the output PTO Shaft. – Tractor Horse Power – 90 Hp
WORK METHOD	DTH and Rotary Mud Drilling
MAST	6" Channel Structure Mast, Height – 5.5 Meter (18 Foot), Rod Handling – 120", Centralized Opening – 10 ⅝" (270 mm)
PULL UP SPEED	37 Meter / Min (122 Foot/Min)
PULL UP FORCE	7 900 Kg / 17 420 lbs
PULL DOWN SPEED	50 Meter / Min (164 Foot/Min)
PULL DOWN FORCE	5 400 Kg / 11 900 lbs
HYDRAULIC SYSTEM	210 Kg/cm² (3 000 psi) Oil Tank – 350 Liters, Oil Filters - SC²-75 – 02 no. Double super system
REEVING RATIO	1:3
ROTARY HEAD	Maximum Torque 303 Kg-Meter (26 400 lbs-inch), OMT-315 Orbital Motor
ROTARY HEAD SPEED	0 to 100 rpm
WATER INJECTION PUMP	36 LPM , 40 Kg/cm² water pump driven by hydraulic motor
ADDITIONAL FEATURES	Night Lights, Tool Box
SUITABLE COMPRESSOR	450 CFM/150 psi, 450 CFM/175 psi, 600 CFM/ 200 psi
AIR LINE LUBRICATOR	Standard – 3 Liters
LEVELLING JACK	Four Hydraulic Leveling Jack for accurate leveling drill point having separate lever
BREAKOUT WRENCH	Hydraulic operated breakout wrench for fast breaking of rod joints
OPTIONAL ATTACHMENTS	• Auxiliary Winch – 1 Ton • Single Rod Changer • Centrifugal Mud Pump – 4" x 4"

The JWC – 25 is Trolley Mounted DTHR Water Well Drilling Rig especially designed for water well drilling up to 650 foot (200 Meters) for a drill diameter 6 ½" (165 mm). It is also capable of Rotary drilling with 9 200 Kg pull up force and 0 – 100 RPM or may be used with down the hole drills of 6 ½" when equipped with a high pressure air compressor. The same rig can also be utilized for exploration and micro piling work.

TECHNICAL SPECIFICATIONS - JWC-25 TROLLEY MOUNTED DTHR WATER WELL DRILLING RIG	
DRILLING DEPTH	**6 ½"** Dia. – 8" Dia. Bore Holes, 200 Meter (650 Foot) by using 3 ½" Drill Rods Odex Dia. – 5" to 8" – 350 foot depth
PRIME MOVER	Rig hydraulic system is powered from Deck Engine – 110 Hp
WORK METHOD	DTH and Rotary Mud Drilling
MAST	6" Channel Structure Mast, Height – 5.5 Meter (18 Foot), Rod Handling – 120", Centralized Opening – 8"
PULL UP SPEED	37 Meter / Min (122 Foot/Min)
PULL UP FORCE	9 200 Kg / 20 240 lbs
PULL DOWN SPEED	55 Meter / Min (181 Foot/Min)
PULL DOWN FORCE	6 318 Kg / 13 900 lbs
HYDRAULIC SYSTEM	210 Kg/cm² (3 000 psi) Oil Tank – 350 Liters, Oil Filters - SC²-100 - 01 no., SC²-75 – 01 no. Double super system
REEVING RATIO	1:3
ROTARY HEAD	Maximum Torque 303 Kg-Meter (26 400 lbs-inch)
ROTARY HEAD SPEED	0 to 100 rpm
WATER INJECTION PUMP	36 LPM , 40 Kg/cm² water pump driven by hydraulic motor
ADDITIONAL FEATURES	Night Lights, Tool Box
SUITABLE COMPRESSOR	450 CFM/150 psi, 450 CFM/175 psi, 600 CFM/ 200 psi
AIR LINE LUBRICATOR	Standard – 3 Liters
LEVELLING JACK	Four Hydraulic Leveling Jack for accurate leveling drill point having separate lever
BREAKOUT WRENCH	Hydraulic operated breakout wrench for fast breaking of rod joints
OPTIONAL ATTACHMENTS	• Welding Machine • Auxiliary Winch – 1 Ton • Single Rod Changer • Centrifugal Mud Pump – 4" x 4"

JWL-20 MINI TRUCK MOUNTED DTHR WATER WELL DRILLING RIG

The JWC – 20 is Mini Truck Mounted DTHR Water Well Drilling Rig especially designed for water well drilling up to 650 foot (200 Meters) for a drill diameter 6 ½" (165 mm). It is also capable of Rotary drilling with 9 200 Kg pull up force and 0 – 100 RPM or may be used with down the hole drills of 6 ½" when equipped with a high pressure air compressor. The same rig can also be utilized for exploration and micro piling work.

TECHNICAL SPECIFICATIONS - JWL-20 MINI TRUCK MOUNTED DTHR WATER WELL DRILLING RIG	
DRILLING DEPTH	6 ½" Dia. – 8" Dia. Bore Holes, 200 Meter (650 Foot) by using 3 ½" Drill Rods Odex Dia. – 5" to 8" – 350 foot depth
PRIME MOVER	Rig hydraulic system is powered from Deck Engine – 110 Hp
WORK METHOD	DTH and Rotary Mud Drilling
MAST	6" Channel Structure Mast, Height – 5.5 Meter (18 Foot), Rod Handling – 120", Centralized Opening – 8"
PULL UP SPEED	37 Meter / Min (122 Foot/Min)
PULL UP FORCE	9 200 Kg / 20 240 lbs
PULL DOWN SPEED	55 Meter / Min (181 Foot/Min)
PULL DOWN FORCE	6 318 Kg / 13 900 lbs
HYDRAULIC SYSTEM	210 Kg/cm² (3 000 psi) Oil Tank – 350 Liters, Oil Filters - SC²-100 - 01 no., SC²-75 – 01 no. Double super system
REEVING RATIO	1:3
ROTARY HEAD	Maximum Torque 303 Kg-Meter (26 400 lbs-inch)
ROTARY HEAD SPEED	0 to 100 rpm
WATER INJECTION PUMP	36 LPM , 40 Kg/cm² water pump driven by hydraulic motor
ADDITIONAL FEATURES	Night Lights, Tool Box
SUITABLE COMPRESSOR	450 CFM/150 psi, 450 CFM/175 psi, 600 CFM/ 200 psi
AIR LINE LUBRICATOR	Standard – 3 Liters
LEVELLING JACK	Four Hydraulic Leveling Jack for accurate leveling drill point having separate lever
BREAKOUT WRENCH	Hydraulic operated breakout wrench for fast breaking of rod joints
OPTIONAL ATTACHMENTS	• Welding Machine • Auxiliary Winch – 1 Ton • Single Rod Changer • Centrifugal Mud Pump – 4" x 4"
TRUCK OPTION	• Ashok Leyland 4 x 2 • Ashok Leyland Stallion 4 x 4 • 12 Ton GVW Truck

SOLID 30 TRUCK MOUNTED DTHR WATER WELL DRILLING RIG

The SOLID 30 is Truck Mounted DTHR Water Well Drilling Rig especially designed for water well drilling up to 1000 foot (300 Meters) for a drill diameter 6 ½" – 10". It is also capable of Rotary drilling with 14 100 Kg pull up force and 0 – 100 RPM or may be used with down the hole drills when equipped with a high pressure air compressor. SOLID-30 is very hot sale product in water well drilling sector, especially in African continent. This model has two variants are available. One is single truck mounted in which hydraulic operations are driven by truck engine and another variant is double truck mounted in which hydraulic operations are driven by deck engine.

TECHNICAL SPECIFICATIONS - SOLID 30 TRUCK MOUNTED DTHR WATER WELL DRILLING RIG	
DRILLING DEPTH	6 ½" Dia.- 10" Dia. Bore Holes, 300 Meter (1000 Foot) by using 4 ½" Drill Rods Odex Dia. – 5" to 8" – 750 foot depth
PLATFORM	8" Section welded steel structure covered with chequered plate.
PRIME MOVER	For single truck mounting, rig hydraulic system is powered from Truck Engine For double truck mounting, rig hydraulic system is powered from deck engine
WORK METHOD	DTH and Rotary Mud Drilling
MAST	8" Channel Structure Mast, Height –8230 mm (27 Foot), Rod Handling – 15 Foot / 20 Foot Rod, Rotary Head Travel – 6230 mm, Centralized Opening – 16" (406 mm), 18 mm single wire rope
MAST RAISING CYLINDER	Single hydraulic cylinder for mast raising and lowering
PULL UP SPEED	30 Meter / Min (99 Foot/Min)
PULL UP FORCE	14 100 Kg / 31 020 lbs
PULL DOWN SPEED	50 Meter / Min (164 Foot/Min)
PULL DOWN FORCE	8 600 Kg / 18 920 lbs
HYDRAULIC SYSTEM	210 Kg/cm² (3 000 psi) Oil Tank – 650 Liters, Oil Filters - SC²-100 - 02 no. Double super system, Hydraulic Oil Cooler – Standard Fin Type 95 GPM
REEVING RATIO	Double acting hydraulic cylinder with 1:3 rope reeving ratio
ROTARY HEAD	Standard Torque 51 500 lbf.in (594 kg.m) at 0-100 rpm. Other options are available on request
HYDRAULIC OPERATION	Fixed displacement pump for feed and rotation – 2 Fixed displacement pump for mud pump – 1 Fixed displacement pump for auxiliary operations and micro feed-2 Fixed displacement pump for auto rod handling - 2
WATER INJECTION PUMP	Triplex reciprocating pump of up to 50 lpm and pressure up to 565 psi (39 Kg/cm²) powered by hydraulic motor
ADDITIONAL FEATURES	Night Lights, Tool Box and hammer box
SUITABLE COMPRESSOR	1100 CFM – 300 psi (21 BAR), 1200 CFM – 330 psi (24 BAR)
AIR LINE LUBRICATOR	Standard
LEVELLING JACK	Four Hydraulic Leveling Jack for accurate leveling drill point having separate lever
SUITABLE TRUCK OPTION	Ashok Leyland – 2518, 2523 Tata – 2518
WINCH	Standard, 2 Ton Capacity
AUTO ROD CHANGER (OPIONAL)	Hydraulically operated Automatic Rod Handling system provided with the rig for loading and unloading of drill pipes from the deck.
CONTROL PANEL	Centralized control panel, left side of the drill table with all necessary gauges and control system

SOLID 45 TRUCK MOUNTED DTHR WATER WELL DRILLING RIG

The SOLID 45 is Truck Mounted DTHR Water Well Drilling Rig especially designed for water well drilling up to 1500 foot (450 Meters) for a drill diameter 6 ½" –12". It is also capable of Rotary drilling with 18 000 Kg pull up force and 0 – 100 RPM or may be used with down the hole drills when equipped with a high pressure air compressor. SOLID-45 is also very hot sale product in water well drilling sector, especially in African continent. This model has two variants are available. One is single truck mounted in which hydraulic operations are driven by truck engine and another variant is double truck mounted in which hydraulic operations are driven by deck engine.

TECHNICAL SPECIFICATIONS - SOLID 45 TRUCK MOUNTED DTHR WATER WELL DRILLING RIG	
DRILLING DEPTH	6 ½" Dia.- 12" Dia. Bore Holes, 450 Meter (1500 Foot) by using 4 ½" Drill Rods Odex Dia. – 5" to 8" – 1 000 foot depth
PLATFORM	8" Section welded steel structure covered with chequered plate.
PRIME MOVER	For single truck mounting, rig hydraulic system is powered from Truck Engine For double truck mounting, rig hydraulic system is powered from deck engine
WORK METHOD	DTH and Rotary Mud Drilling
MAST	10" Channel Structure Mast, Height –9 Meter (29.5 Foot), Rod Handling – 15 Foot / 20 Foot Rod, Rotary Head Travel – 7 940 mm, Centralized Opening – 16" (406 mm), 18 mm single wire rope
MAST RAISING CYLINDER	Single hydraulic cylinder for mast raising and lowering
PULL UP SPEED	50 Meter / Min (164 Foot/Min)
PULL UP FORCE	18 000 Kg / 39 600 lbs
PULL DOWN SPEED	72 Meter / Min (236 Foot/Min)
PULL DOWN FORCE	11 800 Kg / 26 960 lbs
HYDRAULIC SYSTEM	210 Kg/cm² (3 000 psi) Oil Tank – 650 Liters, Oil Filters - SC²-100 - 02 no. Double super system, Hydraulic Oil Cooler – Standard Fin Type 95 GPM
REEVING RATIO	Double acting hydraulic cylinder with 1:3 rope reeving ratio
ROTARY HEAD	Standard Torque 51 500 lbf.in (594 kg.m) at 0-100 rpm. Other options are available on request
HYDRAULIC OPERATION	Fixed displacement pump for feed and rotation – 2 Fixed displacement pump for mud pump – 1 Fixed displacement pump for auxiliary operations and micro feed-2 Fixed displacement pump for auto rod handling - 2
WATER INJECTION PUMP	Triplex reciprocating pump of up to 50 lpm and pressure up to 565 psi (39 Kg/cm²) powered by hydraulic motor
ADDITIONAL FEATURES	Night Lights, Tool Box and hammer box
SUITABLE COMPRESSOR	1100 CFM – 300 psi (21 BAR), 1200 CFM – 330 psi (24 BAR)
AIR LINE LUBRICATOR	Standard
LEVELLING JACK	Four Hydraulic Leveling Jack for accurate leveling drill point having separate lever
SUITABLE TRUCK OPTION	Ashok Leyland – 2518, 2523 Tata – 2518
WINCH	Standard, 2 Ton Capacity
AUTO ROD CHANGER	Hydraulically operated Automatic Rod Handling system provided with the rig for loading and unloading of drill pipes from the deck.
CONTROL PANEL	Centralized control panel, left side of the drill table with all necessary gauges and control system

SOLID 60 TRUCK MOUNTED DTHR WATER WELL DRILLING RIG

The SOLID 60 is Truck Mounted DTHR Water Well Drilling Rig especially designed for water well drilling up to 2 000 foot (600 Meters) for a drill diameter 6 ½" –12". It is also capable of Rotary drilling with 36 000 Kg pull up force and 0 – 100 RPM or may be used with down the hole drills when equipped with a high pressure air compressor. The SOLID 60 is double truck version DTHR Drilling Rig in which rig construction on one truck, in which hydraulic operations are driven by deck engine whereas carrier truck is utilized for compressor mounting.

TECHNICAL SPECIFICATIONS - SOLID 60 TRUCK MOUNTED DTHR WATER WELL DRILLING RIG	
DRILLING DEPTH	6 ½" Dia. – 12" Dia. Bore Holes, 600 Meter (2000 Foot) by using 4 ½" Drill Rods Odex Dia. – 5" to 8" – 1 500 foot depth
PLATFORM	10" Section welded steel structure covered with chequered plate.
PRIME MOVER	Rig hydraulic system is powered from deck engine
WORK METHOD	DTH and Rotary Mud Drilling
MAST	10" Channel Structure Mast, Height –9 Meter (29.5 Foot), Rod Handling – 15 Foot / 20 Foot Rod, Rotary Head Travel – 7 940 mm, Centralized Opening – 16" (406 mm), 20 mm double wire rope
MAST RAISING CYLINDER	Single hydraulic cylinder for mast raising and lowering
PULL UP SPEED	50 Meter / Min (164 Foot/Min)
PULL UP FORCE	36 000 Kg / 79 366 lbs
PULL DOWN SPEED	72 Meter / Min (236 Foot/Min)
PULL DOWN FORCE	26 000 Kg / 57 320 lbs
HYDRAULIC SYSTEM	210 Kg/cm² (3 000 psi) Oil Tank – 1 000 Liters, Oil Filters - SC²-100 - 04 no. Double super system, Hydraulic Oil Cooler – Standard Fin Type 95 GPM
REEVING RATIO	Double acting hydraulic cylinder with 1:3 rope reeving ratio
ROTARY HEAD	Standard Torque 66 000 lbf.in (760 kgf.m) at 0-100 rpm. Other options are available on request
HYDRAULIC OPERATION	Fixed displacement pump for feed and rotation – 2 Fixed displacement pump for mud pump – 1 Fixed displacement pump for auxiliary operations and micro feed-2 Fixed displacement pump for auto rod handling - 2
WATER INJECTION PUMP	Triplex reciprocating pump of up to 110 lpm and pressure up to 565 psi (39 Kg/cm²) powered by hydraulic motor
ADDITIONAL FEATURES	Night Lights, Tool Box and hammer box
SUITABLE COMPRESSOR	1350 CFM – 425 psi (29.30 BAR) Atlas Copco
AIR LINE LUBRICATOR	Standard
LEVELLING JACK	Six Hydraulic Leveling Jack for accurate leveling drill point having separate lever
SUITABLE TRUCK OPTION	Ashok Leyland – 2523 MAN – 25300
WINCH	Standard, 2 Ton Capacity
AUTO ROD CHANGER	Hydraulically operated Automatic Rod Handling system provided with the rig for loading and unloading of drill pipes from the deck.
CONTROL PANEL	Centralized control panel, left side of the drill table with all necessary gauges and control system

SOLID 75 TRUCK MOUNTED DTHR WATER WELL DRILLING RIG

The SOLID 75 is Truck Mounted DTHR Water Well Drilling Rig especially designed for water well drilling up to 2 500 foot (750 Meters) for a drill diameter 6 ½" –12". It is also capable of Rotary drilling with 42 000 Kg pull up force and 0 – 100 RPM or may be used with down the hole drills when equipped with a high pressure air compressor. The SOLID 75 is double truck version DTHR Drilling Rig in which rig construction on one truck, in which hydraulic operations are driven by deck engine whereas carrier truck is utilized for compressor mounting.

TECHNICAL SPECIFICATIONS - SOLID 75 TRUCK MOUNTED DTHR WATER WELL DRILLING RIG	
DRILLING DEPTH	6 ½" Dia. – 12" Dia. Bore Holes, 750 Meter (2500 Foot) by using 4 ½" / 5 ½" Drill Rods Odex Dia. – 5" to 8" – 1 800 foot depth
PLATFORM	10" Section welded steel structure covered with chequered plate.
PRIME MOVER	Rig hydraulic system is powered from 430 Hp deck engine
WORK METHOD	DTH and Rotary Mud Drilling
MAST	12" Channel Structure Mast, Height –9 Meter (29.5 Foot), Rod Handling – 15 Foot / 20 Foot Rod, Rotary Head Travel – 7 940 mm, Centralized Opening – 16" (406 mm), 20 mm double wire rope
MAST RAISING CYLINDER	Single hydraulic cylinder for mast raising and lowering
PULL UP SPEED	24.4 Meter / Min (80 Foot/Min)
PULL UP FORCE	42 000 Kg / 92 594 lbs
PULL DOWN SPEED	36 Meter / Min (118 Foot/Min)
PULL DOWN FORCE	30 600 Kg / 67 460 lbs
HYDRAULIC SYSTEM	210 Kg/cm² (3 000 psi) Oil Tank – 1 200 Liters, Oil Filters - SC²-100 - 04 no. Double super system, Hydraulic Oil Cooler – Standard Fin Type 95 GPM
REEVING RATIO	Double acting hydraulic cylinder with 1:3 rope reeving ratio
ROTARY HEAD	Standard Torque 66 000 lbf.in (760 kgf.m) at 0-100 rpm. Other options are available on request
HYDRAULIC OPERATION	Fixed displacement pump for feed and rotation – 2 Fixed displacement pump for mud pump – 1 Fixed displacement pump for auxiliary operations and micro feed-2 Fixed displacement pump for auto rod handling - 2
WATER INJECTION PUMP	Triplex reciprocating pump of up to 110 lpm and pressure up to 565 psi (39 Kg/cm²) powered by hydraulic motor
ADDITIONAL FEATURES	Night Lights, Tool Box and hammer box
SUITABLE COMPRESSOR	1350 CFM – 425 psi (29.30 BAR) Atlas Copco
AIR LINE LUBRICATOR	Standard
LEVELLING JACK	Six Hydraulic Leveling Jack for accurate leveling drill point having separate lever
SUITABLE TRUCK OPTION	Ashok Leyland – 2523 MAN – 25300
WINCH	Standard, 2 Ton Capacity
AUTO ROD CHANGER	Hydraulically operated Automatic Rod Handling system provided with the rig for loading and unloading of drill pipes from the deck.
CONTROL PANEL	Centralized control panel, left side of the drill table with all necessary gauges and control system

About Diamond Core Drilling

Diamond core drilling differs from other drilling method, uses a rapidly rotating (150 – 1000+ rpm) thin walled drill string and an annular bit to cut and extract a solid sample (generally 27 to 85 mm diameter but can be maximum up to 200 mm) from depth. Core drilling is useful for determination of and study of stratigraphic sequence and types of lithology. For geotechnical purposes, the competency of a rock is determined to check if it could withstand engineering structures such as tunnels, buildings etc. In mineral exploration, a drilled core helps in exposing the rock of interest and the depth at which is located for further analysis of the grade of the minerals of interest in the rock.

The basic principle of diamond core drilling is that a drilling is that a drilling rig generates high rotation and a force that drives tools consisting of a bit, core barrel assembly and a series of drill rods in to the earth. As the drill bit advances, a cylindrical core of rock progressively fills a double tube core barrel immediately above the drill bit. Core samples are periodically recovered by lowering a cable with an over shot down the drill string attaching it to the top of the inner tube (inner barrel) of the core barrel and winching it to the surface. The inner barrel is fitted with a core lifter mechanism to prevent core from dropping out during recovery. Water is the usual circulation fluid used to remove the cuttings and cool the drill bit. The core sections are being removed from the inner tube and placed in core trays, a replacement inner tube is lowered into the hole so that drilling can recommence. This is referred to as wire line system.

Rotation speeds during diamond core drilling can vary from 150 to 400 rpm for surface set bit, to more than 1 000 rpm using impregnated bits. An unusual feature of diamond coring is that the annulus (i.e. distance between the rod and wall of the hole) is typically only 3 to 4 mm. Drilling depth greater than 1500 meter can be achieved with diamond core drilling. In diamond core drilling, penetration is much slower than other drilling methods because of the hardness of the rocks usually encountered and the time involved in retrieving core at depth. Under average conditions, the rig can produce 30 to 40 m of core per shift, with samples having a high integrity.

We at Jia International, manufacture the diamond core drilling rig, a truck mounted rig, a support truck to carry items such as the rods, casing, fuel and water, small version of diamond core rig we manufacture on trolley and tractor mounted also.

Designation	AQ	BQ	NQ	NQ2	NX	HQ	PQ
Dia. (mm)	27	36.5	47.6	50.5	54.7	63.5	85.0

JCT-200 TRACTOR MOUNTED DIAMOND CORE WIRE LINE DRILLING RIG

The JCT – 200 is a Tractor Mounted Diamond Core Wire Line Drilling Rig especially designed for surface core drilling up to 656 foot (200 Meters) for a NQ Size. High speed top head rotary head can do various HQ, PQ and NQ drill sizes. It is also capable of Rotary drilling with 4700 Kg pull up force and 150 – 1000 RPM. The rig is especially designed for surface exploration.

TECHNICAL SPECIFICATIONS - JCT-200 TRACTOR MOUNTED DIAMOND CORE WIRE LINE DRILLING RIG	
DRILLING DEPTH	PQ – 40 Meter, HQ – 100 Meter, NQ – 200 Meter
DRILLING ANGLE	45° TO 90°
PRIME MOVER	Rig hydraulic system is powered from the tractor engine through the output PTO Shaft. – Tractor Horse Power – 60 or above
MAST	6" Channel Structure Mast, Height – 5.5 Meter (18 Foot), Rod Handling – 120", Centralized Opening – 8"
PULL UP SPEED	21 Meter / Min (69 Foot/Min)
PULL UP FORCE	4 700 Kg / 10 360 lbs
PULL DOWN SPEED	42 Meter / Min (137 Foot/Min)
PULL DOWN FORCE	2 600 Kg / 5 732 lbs
HYDRAULIC SYSTEM	210 Kg/cm² (3 000 psi) Oil Tank – 300 Liters, Oil Filters - SC²-75 – 02 no. Variable Displacement Pump for Feed, Rotation and Winches – 01 No. Fixed Displacement Pump for Water Pump – 01 No. Tractor Oil Pump utilized for hydraulic oil cooler Hydraulic oil cooler – 70 GPM
FEED SYSTEM	Hydraulic Cylinder with 1:1 Ratio
ROTARY HEAD	Maximum Torque 303 Kg-Meter (26 400 lbs-inch), OMT-315 Orbital Motor Rotary Head Sliding Guide for wire line winch operation.
ROTARY HEAD SPEED	150 to 1000 rpm
WATER PUMP	117 LPM , 39 Kg/cm² Triplex Piston Pump driven by hydraulic motor
FOOT CLAMP	Mechanical Rod Clamp has gripping range of PQ, HQ and NQ Rods
WINCH	Main Winch – 3 Ton, Line Speed – 45 Meter/Min Wire Line Winch – 0.5 Ton, Line Speed – 70 Meter/Min
ADDITIONAL FEATURES	Night Lights, Tool Box
LEVELLING JACK	Four Hydraulic Leveling Jack for accurate leveling drill point having separate lever
CONTROL PANEL	All necessary control and monitoring valves and gauges are installed at control panel located nearer to drilling point for driller convenience.
OPERATOR PLATFORM	Detachable working platform for operator.

JCC-300 TROLLEY MOUNTED DIAMOND CORE WIRE LINE DRILLING RIG

The JCC – 300 is a Trolley Mounted Diamond Core Wire Line Drilling Rig especially designed for surface core drilling up to 984 foot (300 Meters) for a NQ Size. High speed top head rotary head can do various HQ, PQ and NQ drill sizes. It is also capable of Rotary drilling with 4700 Kg pull up force and 150 – 1000 RPM. The rig is especially designed for surface exploration.

TECHNICAL SPECIFICATIONS - JCC-300 TROLLEY MOUNTED DIAMOND CORE WIRE LINE DRILLING RIG	
DRILLING DEPTH	PQ – 50 Meter, HQ – 150 Meter, NQ – 300 Meter
DRILLING ANGLE	45° TO 90°
PRIME MOVER	Rig hydraulic system is powered from 110 Hp deck engine
MAST	6" Channel Structure Mast, Height – 5.5 Meter (18 Foot), Rod Handling – 120", Centralized Opening – 8"
PULL UP SPEED	21 Meter / Min (69 Foot/Min)
PULL UP FORCE	6 300 Kg / 13 890 lbs
PULL DOWN SPEED	42 Meter / Min (137 Foot/Min)
PULL DOWN FORCE	3 700 Kg / 8 157 lbs
HYDRAULIC SYSTEM	210 Kg/cm² (3 000 psi) Oil Tank – 400 Liters, Oil Filters - SC²-75 – 02 no. Variable Displacement Pump for Feed, Rotation and Winches – 01 No. Fixed Displacement Pump for Water Pump – 01 No. Fixed Displacement Pump for Oil Cooler – 01 No. Hydraulic oil cooler – 70 GPM
FEED SYSTEM	Hydraulic Cylinder with 1:1 Ratio
ROTARY HEAD	Maximum Torque 303 Kg-Meter (26 400 lbs-inch), OMT-315 Orbital Motor Rotary Head Sliding Guide for wire line winch operation.
ROTARY HEAD SPEED	150 to 1000 rpm
WATER PUMP	117 LPM , 39 Kg/cm² Triplex Piston Pump driven by hydraulic motor
FOOT CLAMP	Mechanical Rod Clamp has gripping range of PQ, HQ and NQ Rods
WINCH	Main Winch – 3 Ton, Line Speed – 45 Meter/Min Wire Line Winch – 0.5 Ton, Line Speed – 70 Meter/Min
ADDITIONAL FEATURES	Night Lights, Tool Box
LEVELLING JACK	Four Hydraulic Leveling Jack for accurate leveling drill point having separate lever
CONTROL PANEL	All necessary control and monitoring valves and gauges are installed at control panel located nearer to drilling point for driller convenience.
OPERATOR PLATFORM	Detachable working platform for operator.

DIRECT MUD ROTARY DRILLING RIG

COOL AND CLEAN WATER is a precious gift of nature. Not only human, but all living being depends on it. Except underground water, no water anywhere is cool and clean. Nor is any other supply of fresh water is plentiful. More than 97% of earth's fresh water is ground water. Generally, drilled wells can protect the purity of underground water more easily and more securely. Today's water well driller is both the provider and protector of ground water resources.

Different drilling methods are used to tap different ground water formations. Due to earth's different geologic formations, the formation under our feet differs from one place to the next. Hence, drilling problems provide the challenges of water well work. To start the work with, then, driller must know something about the places and soil formation, where ground water occurs and how it got there in order to make it available for proper use.

Rotary Mud Drilling

The principle of Rotary Mud Drilling is based upon a rotating hollow drill stem and has a fluid of mud or other substance flowing through it. The purpose of circulating the fluid through drill stem is for the removal of the cutting, cooling of the drill stem rotating in the bore hole and sealing of formation walls to prevent caving and water loss.

The Rotary Mud Drilling Rig, which consist of a mast with sheave pulley mounted at the top for the purpose of operating a hoist mechanism. A square or keyed drive called a Kelly, hanging in the mast by a block assembly. A water swivel is connected at the top of the Kelly, which is connected a rubber hose or steel with flexible joints as pressure dictates. This Kelly is driven by a rotary table drive assembly which has inserts or blocks to fit the Kelly. The length of the Kelly is larger than the drill rods in order to drill down a few feet below to enable a section of drill pipe to be added as the hole drilled deeper. Hollow drill rods and rotary bit are attached by the use of sub at the bottom of the Kelly. Additional drilling rods are added to the string just below the Kelly, as drill goes deeper. The drill bit has holes in the bottom through which the fluid can flow. Draw works, which is attached on the rotary table drive, which operates the hoisting mechanism. Mud pump mounted on the rig, which forces the drilling fluid through the lines to the swivel down the Kelly and out the bottom of the bit.

Various types of drill bits are used for Rotary Mud Drilling. Star type drag bit is used in soft unconsolidated formation such as clay and sands. It has fluid courses which tend to jet the formations and the blades are very effective for sticky clays. The cone type roller bits have two to four cone type cutters mounted on the roller bearings, which have teeth in varying lengths. The bits having long teeth cutters are use for soft formation to short intermeshing cutters which tend to chip in very hard material. Harder the formations,

JDMR - 300 DIRECT MUD ROTARY DRILLING RIG

The JDMR 300 is Trailer Mounted Direct Mud Rotary Water Well Drilling Rig especially designed for shallow water well drilling up to 300 foot (100 Meters) for a drill diameter up to 12" in soft unconsolidated formation such as clay and sands. It is fitted with 12" drum rotary table with 3 000 Kg pull down force. The JDMR 300 is trailer mounted and designed especially to carry or move the rig on narrow passages or narrow roads. The same rig can be mounted on mini truck also. The JDMR 300 is very popular for slim hole drilling for hand pump well drilling as well as shallow well drilling for domestic water well drilling application.

RATED CAPACITY	• 12" Dia. Hole drilling - 300 Feet using 2 ⅞" Dia. Drill Rods – 10 Foot (3 Meter) Long, Direct Rotary Mud Circulation Method.
MAST	• Construction – Heavy Duty Electric Welded Tubular Construction • Height – 27 Foot (8.23 Meter) • Gross Load Capacity – 5 000 Kgs. By using Single Sheave Travelling Block • Raising & Lowering – By Hydraulic Cylinder – 01 No.
DRILL HEAD	• Totally Enclosed Oil Bath Type Rotary Head with Kelly Drive Bushing suitable for 3" Square Hollow Kelly • Pull Down – 3 000 Kgs. • Opening – 3" (76.2 mm)
DRAW WORKS	• 12" Hoisting and Sand Reel Double Drum • Hoisting Drum – 113 mm Dia. x 154 mm • Sand Reel Drum – 113 mm Dia. x 154 mm • Clutch – Disc Type Friction Clutch • Brake – High Leverage Mechanical • Drive – Roller Chain
PRIME MOVER	• Tata -407 Diesel Engine, Engine – 498 Turbo Intercooled • Cylinders – 4, Clutch – 280 mm • Fuel Tank Capacity – 150 Liters • Horse Power – 55.2 KW @ 3050 RPM
CENTRIFUGAL PUMP	• Size – 3" x 3", RPM – 1500 • Prime Mover – Pulley Drive connected with the main engine • Discharge in LPS – 10 Meter – 23 LPS, Max 17 Meter – 11 LPS
TRANSMISSION	• 4 Forward & 1 Reverse
KELLY	• 3" Square Pipe Kelly
LEVELLING JACKS	• Mechanical Screw – 4 Nos.
LIGHTING	• From Engine Battery
TRAILER DIMENSIONS	• Chassis Dimensions – Length 5.5 Meter x Width – 1.83 Meter x Height – 3.28 Meter (Mast Down) • Trailer Axle – 3" • Tire – 7.50 x 16 – 2 Nos. • Suitable trailer hook to fix at the tractor end • Option of rig mounting on mini truck is also available
OTHER ATTACHMENTS	• Pipe Rack for Drill Rods • Tool Box • Water Swivel – Heavy Duty Ball Bearing Type • Main Base Water Deflector Shield

JDMR - 500 DIRECT MUD ROTARY DRILLING RIG

The JDMR 500 is Trailer Mounted Direct Mud Rotary Water Well Drilling Rig especially designed for shallow water well drilling up to 500 foot (153 Meters) for a drill diameter up to 12" in soft unconsolidated formation such as clay and s ands. It is fitted with 14" drum rotary table with 4 500 Kg pull down force. The JDMR 500 is trailer mounted and designed especially to carry or move the rig on narrow passages or narrow roads. The same rig can be mounted on mini truck also. The JDMR 500 is very popular for shallow well drilling for water well drilling application for irrigation purpose in farms and for domestic water well drilling applications.

RATED CAPACITY	• 12" Dia. Hole Drilling - 500 Foot using 2⅞" Dia. Drill Rods – 10 Foot (3 Meter) Long, Direct Rotary Mud Circulation Method.
MAST	• Construction – Heavy Duty Electric Welded Tubular Construction. • Height – 27 Foot (8.23 Meter) • Gross Load Capacity – 7 500 Kgs. By using Single Sheave Travelling Block • Raising & Lowering – By Hydraulic Cylinder – 01 No. • Crown Block – Sheaves
DRILL HEAD	• Totally Enclosed Oil Bath type Rotary Head with Kelly Drive Bushing suitable for 3" Kelly • Pull Down – 4 500 Kgs. • Opening – 3" (76.2 mm) / 3-C" (89 mm) • Retraction – 21" (533 mm)
DRAW WORKS	• 14" Hoisting and Sand Reel Double Drum • Hoisting Drum – 7" (178 mm) Dia. x 10-⅜" (263.5 mm), Single Line Pull – 4 500 Kgs. • Sand Reel – 7" (178 mm) Dia. x 10-⅜" (263.5 mm), Single Line Pull – 4 500 Kgs. • Clutch – Multi Disc Friction Type • Brake – High Leverage Mechanical, Mechanical, Single / Double on Drum • Drive – Multi Link Roller Chain
HYDRAULIC SYSTEM	• Pump – Fixed displacement, vane type • Discharge & Pressure – 21 GPM (80 LPM) @ 1 500 psi (105 Kg/cm²) • Hydraulic Control Valve - - Rexroth SM-12 or Equivalent
PRIME MOVER	• For Trailer Mounted Rig – Deck Engine - 110 Hp (Other options are available) • For Truck – Deck Engine – ALU 400 – 110 Hp (Other options are available)
CENTRIFUGAL PUMP	• Size – 4" x 4", RPM – 1500 • Prime Mover – Pulley Drive connected with the main engine • Discharge in LPS – 14 Meter – 28 LPS, Max 35 Meter – 3 LPS
TRANSMISSION	• 4 Forward & 1 Reverse
KELLY	• 3-⅜" (85.7 mm) Dia. x 15 Foot long three fluted Kelly.
LEVELLING JACKS	• Mechanical Screw – 4 Nos. / 04 Nos. Hydraulic Jack
CONTROL	• Centralized
LIGHTING	• From Engine Battery / Dynamo (Optional & separate 2.5 KVA Generator)
TRUCK/TRAILER DIMENSIONS	• For Trailer Mount - Chassis Dimensions – Length 20 Foot x Width – 6 Foot x Height – 11' 6" (Mast Down) • Trailer Axle – 3" • Tire – 7.50 x 16 – 4 Nos. • Suitable trailer hook to fix at the tractor end • Mini Truck - Chassis Dimensions – Length 20 Foot x Width – 6 Foot x Height – 11' 6" (Mast Down) (Many options are available for Mini Truck)
OTHER ATTACHMENTS	• Pipe Rack for Drill Rods, Tool Box • Water Swivel – Heavy Duty Ball Bearing Type • Main Base Water Deflector Shield

JDMR - 750 DIRECT MUD ROTARY DRILLING RIG

The JDMR 750 is Trailer Mounted Direct Mud Rotary Water Well Drilling Rig especially designed for shallow water well drilling up to 750 foot (230 Meters) for a drill diameter up to 14" in soft unconsolidated formation such a s clay and sands. It is fitted with 16" drum rotary table with 5 500 Kg pull down force. The same rig can be mounted on truck also. The JDMR 750 is very popular for water well drilling application for irrigation purpose in farms and for domestic water well drilling applications. The same rig can also be utilized for piling application by using Direct Mud Rotary Drilling Method.

RATED CAPACITY	• 14" Dia. Hole Drilling up to 750 Foot using 3- ½" Dia. Drill Rods – 15 Foot (4.5 Meter) long, Direct Rotary Mud Circulation Method.
MAST	• Construction – Heavy Duty Electric Welded Tubular Construction. • Height – 35 Foot (10.67 Meter) high above ground level during drilling. • Gross Load Capacity – 20 000 Kgs. By using Double Sheave Travelling Block • Raising & Lowering – By Hydraulic Cylinder – 02 No. • Crown Block – Sheaves
DRILL HEAD	• Totally Enclosed Oil Bath type Rotary Head with Kelly Drive Bushing suitable for 3-⅜" / 4- ⅛¿ Three Fluted Kelly • Pull Down – 5 500 Kgs. • Opening – 3-⅜" (85.7 mm) / 4-⅛" (104.7 mm) • Retraction – 21" (533 mm)
DRAW WORKS	• 18" Hoisting and Sand Reel Double Drum • Hoisting Drum – 7" (178 mm) Dia. x 10-⅜" (263.5 mm), Single Line Pull – 5 500 Kgs. • Sand Reel – 7" (178 mm) Dia. x 10-⅜" (263.5 mm), Single Line Pull – 5 500 Kgs. • Clutch – Multi Disc Friction Type • Brake – High Leverage Mechanical • Drive – Multi Link Roller Chain
HYDRAULIC SYSTEM	• Pump – Fixed displacement, vane type • Discharge & Pressure – 21 GPM (80 LPM) @ 1 500 psi (105 Kg/cm²) • Hydraulic Control Valve – Rexroth SM-12 or Equivalent
PRIME MOVER	• For Trailer Mounted Rig – Deck Engine – 110 Hp (Other options are available) • For Truck – Deck Engine – ALU 400 – 110 Hp (Other options are available)
CENTRIFUGAL PUMP / MUD PUMP	• Size – 4" x 4" • RPM – 1500 • Prime Mover – Pulley Drive connected with the main engine • Discharge in LPS – 14 Meter – 28 LPS, Max 35 Meter – 3 LPS • Option Available for Reciprocating Piston Pump – 6 x 6, Stroke – 150 mm, Working Pressure – 17.46 Kg / cm² - 676 LPM
TRANSMISSION	• 4 Forward & 1 Reverse
KELLY	• 3-⅜" (85.7 mm) Dia. / 4-⅛" (104.7 mm) Dia. - 20 Foot long three fluted Kelly.
LEVELLING JACKS	• Mechanical Screw – 4 Nos. • Hydraulic Jack – 4 Nos. 125 mm x 70 mm x 610 mm Stroke
CONTROL	• All Control Grouped together at the Left Side of the Driller's Station, near Rotary Table
LIGHTING	• From Engine Battery / Dynamo (Optional & separate 2.5 KVA Generator)
RIG CARRIER	• Make – Ashok Leyland, Model – 1616 – 6x4 Drive • Torque – 550 Nm @ 1500-1700 RPM, Wheel Base – 4902 mm • Hp – 160 @ 2400 RPM • Complete with Driver Cabin, Platform, Base Frame to Mount Drill Module and Mud Pump
OTHER ATTACHMENTS	• Water Swivel – Heavy Duty Ball Bearing Type • Tool Box, Main Base Water Deflector Shield

JDMR - 1500 DIRECT ROTARY MUD DRILLING RIG

The JDMR 1500 is Truck Mounted Direct Mud Rotary Water Well Drilling Rig especially designed for water well drilling up to 1500 foot (450 Meters) for a drill diameter up to 14" in soft unconsolidated formation such as clay and sands. It is fitted with 18" drum rotary table with 7 272 Kg pull down force. The JDMR 1500 is very popular for deep water well drilling application for irrigation purpose in farms and for domestic water well drilling applications. The same rig can also be utilized for piling application by using Direct Mud Rotary Drilling Method.

RATED CAPACITY	• 12" Dia. Hole Drilling - 1650 Foot using 3 ½" Dia. Drill rods, 14" Dia. Hole Drilling - 1500 Foot using 3- ½" Dia. Drill Rods, 17" Dia. Hole Drilling – 1000 Foot using 4 ½" Drill Rods, Drill Rod Length – 15' / 20', Direct Rotary Mud Circulation Method.
CASING LOAD	• 9 000 Kgs by using Single Sheave Travelling Block • 18 000 Kgs by using Double Sheave Travelling Block
MAST	• Construction – Heavy Duty Electric Welded Tubular Construction. • Height – 46 Foot (14.0 Meter) high above ground level during drilling • Gross Load Capacity – 31 000 Kgs. By using Double Sheave Travelling Block • Raising & Lowering – By Hydraulic Cylinder – 02 No. with safety check valve • Crown Block – 5 Sheaves + 1 Cat line Sheave / 6 Sheaves + 1 Cat Line Sheave
DRILL HEAD	• Totally Enclosed Oil Bath type Rotary Head with Kelly Drive Bushing suitable for 3- ½" / 4-⅛" Three Fluted Kelly • Pull Down – 7 272 Kgs. • Opening – 3- ½"(89 mm) / 4-⅛" (104.7 mm) • Clutch – Disc Type Friction Clutch • Retraction – 21" (533 mm)
DRAW WORKS	• 18" Hoisting and Sand Reel Double Drum • Hoisting Drum – 7" (178 mm) Dia. x 10-⅜" (263.5 mm), Single Line Pull – 6 800 Kgs. • Sand Reel – 7" (178 mm) Dia. x 10-⅜" (263.5 mm), Single Line Pull – 6 800 Kgs. • Clutch – Multi Disc Friction Type • Brake – High Leverage Mechanical, Single/Double on Drum • Drive – Multi Link Roller Chain
HYDRAULIC SYSTEM	• Pump – Fixed displacement, vane type pump • Discharge & Pressure – 21 GPM (80 LPM) @ 1 500 psi (105 Kg/cm²) • Hydraulic Control Valve – Rexroth SM-12 or Equivalent
PRIME MOVER	• Deck Engine – 160 Hp (Other options are available)
RECIPROCATING PISTON PUMP	• Type and Size – 8" X 6" Mechanically Driven Duplex, Double Acting Reciprocating Piston Pump • Stroke Length – 200 mm • Prime Mover – Pulley Driven / Chain Driven • Pressure and Discharge – 19 Kg/cm², 1210 LPM
TRANSMISSION	• 4 Forward & 1 Reverse
KELLY	• 3-½" (89 mm) - 4-⅛" (104.7 mm) Dia. x 28 Foot (8.53 Meter) long three fluted Kelly.
LEVELLING JACKS	• Mechanical Screw – 4 Nos. • Hydraulic Jack – 4 Nos. – 125 mm x 70 mm x 610 Stroke
CONTROL	• All Control Grouped together at the Left Side of the Driller's Station, near Rotary Table
LIGHTING	• From Engine Battery / Dynamo (Optional & separate 2.5 KVA Generator)
RIG CARRIER	• Make – Ashok Leyland, Model – 2516 – 6x4 Drive • Torque – 550 Nm @ 1500-1700 RPM, Wheel Base – 4902 mm • Hp – 160 @ 2400 RPM • Complete with Driver Cabin, Platform, Base Frame to Mount Drill Module and Mud Pump
OTHER ATTACHMENTS	• Water Swivel – Heavy Duty Ball Bearing Type • Tool Box, Main Base Water Deflector Shield

JDMR - 2500 DIRECT ROTARY MUD DRILLING RIG

The JDMR 2500 is Truck Mounted Direct Mud Rotary Water Well Drilling Rig especially designed for water well drilling up to 2500 foot (750 Meters) for a drill diameter up to 17" in soft unconsolidated formation such as clay and sands. It is fitted with 20" drum rotary table with 7 272 Kg pull down force. The JDMR 2500 is very popular for deep water well drilling application for irrigation purpose in farms and for domestic water well drilling applications. The same rig can also be utilized for piling application by using Direct Mud Rotary Drilling Method.

RATED CAPACITY	• 14" Dia. Hole Drilling - 2500 Foot using 3-½" Dia. Drill Rods, 17" Dia. Hole Drilling – 1500 Foot using 5 ½" Drill Rods, Drill Rod Length – 15' / 20', direct rotary mud circulation method.
CASING LOAD	• 12 500 Kgs by using Single Sheave Travelling Block • 25 000 Kgs by using Double Sheave Travelling Block
MAST	• Construction – Heavy Duty electric welded tubular construction. • Height – 46 Foot (14.0 Meter) high above ground level during drilling • Gross Load Capacity – 41 000 Kgs. By using Double Sheave Travelling Block • Raising & Lowering – By Hydraulic Cylinder – 02 No. with safety check valve • Crown Block – 5 Sheaves + 1 Cat line Sheave / 6 Sheaves + 1 Cat Line Sheave
DRILL HEAD	• Totally Enclosed Oil Bath type Rotary Head with Kelly Drive Bushing suitable for 4-⅛" Three Fluted Kelly • Pull Down – 7 272 Kgs. • Opening – 4-⅛" (104.7 mm) • Clutch – Disc Type Friction Clutch • Retraction – 21" (533 mm)
DRAW WORKS	• 20" Hoisting and Sand Reel Double Drum • Hoisting Drum – 7" (178 mm) Dia. x 10-⅜" (263.5 mm), Single Line Pull – 7 272 Kgs. • Sand Reel – 7" (178 mm) Dia. x 10-⅜" (263.5 mm), Single Line Pull – 7 272 Kgs. • Clutch – Multi Disc Friction Type • Brake – High Leverage Mechanical, Single/Double on Drum • Drive – Multi Link Roller Chain
HYDRAULIC SYSTEM	• Pump – Fixed displacement, vane type pump • Discharge & Pressure – 21 GPM (80 LPM) @ 1 500 psi (105 Kg/cm²) • Hydraulic Control Valve – Rexroth SM-12 or Equivalent
PRIME MOVER	• Deck Engine – 230 Hp (Other options are available)
RECIPROCATING PISTON PUMP	• Type and Size – 10" X 7.5" Mechanically Driven Duplex, Double Acting Reciprocating Piston Pump, Stroke Length – 250 mm • Prime Mover – Pulley Driven / Chain Driven • Pressure and Discharge – 19 Kg/cm², 1361 LPM
TRANSMISSION	• 4 Forward & 1 Reverse
KELLY	• 4-⅛" (104.7 mm) Dia. x 28 Foot (8.53 Meter) long three fluted Kelly.
LEVELLING JACKS	• Mechanical Screw – 4 Nos. • Hydraulic Jack – 4 Nos. – 125 mm x 70 mm x 610 Stroke
CONTROL	• All Control Grouped together at the Left Side of the Driller's Station, near Rotary Table
LIGHTING	• From Engine Battery / Dynamo (Optional & separate 2.5 KVA Generator)
RIG CARRIER	• Make – Ashok Leyland, Model – 2518 – 6x4 Drive • Torque – 550 Nm @ 1500-1700 RPM, Wheel Base – 4902 mm • Hp – 180 @ 2400 RPM • Complete with Driver Cabin, Platform, Base Frame to Mount Drill Module and Mud Pump
OTHER ATTACHMENTS	• Water Swivel – Heavy Duty Ball Bearing Type • Tool Box, Main Base Water Deflector Shield

DTH DRILLING ACCESSORIES

DTH HAMMER WISE

DRILL ROD CARRIER

M.T ADAPTER

DTH HAMER WISE

ROD GUIDE

NRV

DRILL BIT SPANNER

RING SLOGGING SPANNER

ROD ADAPTER

DRILL BIT SPANNER

DRILL ROD SPANNER

DRILLING ACCESSORIES

BUTTON BIT

OVERBURDON

DTH HAMMER

CLUSTER HAMMER

ROCK ROLLER BIT

DRAG BIT

DRILLING RODS

CORE DRILLING ROD

DTH DRILLING ROD

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