



**DYNATECH**

**DYNATECH INDUSTRIES PVT LTD**

**RC – SERIES**

**Heavy Duty Reverse Circulation Drill**

**MODEL – RC30**

**TECHNICAL SPECIFICATIONS**

# Dynatech Industries Pvt Ltd

Reverse Circulation Drill - RC30

Technical Specifications

## Product Introduction

Dynatech Industries Reverse Circulation Drill-RC30 is a heavy duty Hydraulic Reverse Circulation drill in compact frame size for surface mineral exploration

Applications where the sites are located at remote places & hard to access. The drills are built with long experience and knowledge which

## Features

The Drills are fitted on crawler tracks powered from rig hydraulics OR Mounted on Heavy Truck which makes it more versatile and Greater maneuverability and easy to relocate between sites.

Drills are built with well market proven components which providing more Durability, easy to service, user friendly, improved power factor with Highly efficient hydraulics.

Slide/Dump mast lowers the working height dramatically which helps to Have more stable working platform

Long stroke mast with powerful feed system with fine control option Improves bit life and production rated at higher depth of drilling. Drills open design makes easy accessibility to Daily checks and for minor And major maintenance works.

## Drilling Depth Capacity

Method of drilling

**Reverse Circulation – Down Hole Hammer**

Depth 4 ½” rod - 300 meters (984 ft)

**Rotary - Down Hole hammer**

Depth 4 ½” rod (130kgs/4.5meterRod) - 450 meters (1476 ft)

Note: Drilling Depth is based on Straight, Vertical, Clean fluids fill holes. / The depth capacities mentioned above are calculated by field experience. Actual drilling capacity depends on conditions, drilling techniques, In-the whole tools and equipment used.

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## Prime Mover

Engine	Cummins.
Model	6CTA8.3L
Power	158.8 Kw / 213 HP
Speed	1800Rpm
Engine type	Diesel Turbo charged
Cooling	water
Emission Norms	Non Certified
Enclosure	Fully covered steel enclosure with Lockable Door

## Mast & HEAD TRAVERSE SYSTEM

Box type construction fully welded RHS lattice with cross Bracing  
Designed for drilling angles between vertical to 45 Degree  
Mast is fitted with safety guards and adjustable roller for rod handling,  
Tie rod supports in angle degree drilling.

Type	Hydraulic cylinder over ropes 2:1.
Head travel length	7,5 m (24.6 ft)
Mast length	11,8 m (app), (38.7 ft)
Rod length	6,0 m (19.68 ft)
Retract force	141.53 KN (31807.5 lb)
Pull down force	70.75 KN (15903.76 lb)
Pull up speed	40 meters/min (131.2 ft/min)
Pull down speed	30meters/min (98.5 ft/min)
Fine feed speed	4.5metres/min

## Dump

Stroke	2200 MM
Mechanism	Hydraulic cylinder with locking valves.
Drilling Angle	90 degrees vertical down to 45 degrees Horizontal
Mast raising	Two independent hydraulic cylinders with lock Valves.

## ROTATION HEAD

Model	Top Drive
Speed change	Parallel – series manifold
Drive Motor	Hydraulic –Fixed displacement
Spindle bore	62mm
Lubrication	Slash lubrication
Mounting	Fixed to slide plate

## TORQUE AND SPEED RATINGS

Hydraulic motor at minimum/maximum, engine at 2100 rpm.

Mode	Speed		Torque	
	Rpm	Nm	(lbft)	
Parallel	60	10108	(7454 )	
Series	120	5054	(3727 )	

**Note:** Rotary Head torques and speeds are infinitely variable in each gear range as indicated  
Output Speeds & torques are on 100% efficiency, Actual rotation speed is effected by  
Engine Rpm and motor displacement settings

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## Slip Table

Opening Spanners Casing dia	355mm (14" inch) For slotted drill rods Up to 10"inch
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## Power Break out

Force Type	26200Nm (19324 ft-lbf) Cylinder actuated ,Mounted on lower side of mast
Size of spanner	89mm(31/2"inch) to 203mm (8'inch) With optional spanner
Tool	wrap around spanner (optional)

## Hydraulics

Main pump

Type Controller Working pressure Make	Variable displacement Load sensing 280 Bar SauerDanfoss
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Auxiliary pump (auto feed & Cooler)

Type Working pressure	Fixed displacement 210 Bar
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## Hydraulic Valve Group

Mail control valve

SauerDanfoss / Equivalent  
Rotation, Main Winch, Wire line Winch, Feed.

Auxiliary valves

Walvoil / Equivalent  
Auxiliaries, Auto feed, Water Pump

Water Pump

Walvoil / Equivalent  
Corse control/Fine control

Hydraulic Filters

Return Line filter, lubrication oil filter for Rotation head.  
10 Micron absolute. Mechanical Clogging Indicator.  
Hydraulic oil fills up filter & hand pump.  
Air breather assembly fitted on tank.

MICRO FEED

Separate control valves for Hold Back and Thrust.  
Separate valve for regulating Travel Speed of rotary head while drilling.

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## Control panel

Gauges	Hold back, pull down, main pressure.
Engine speed Stop	lockable control handle for controlling engine RPM. Emergency engine stop
Pilot controls	Hydraulic operated Joysticks For Rotation/Feed.

## Hydraulic/Gear oil cooler

Type	Air to Oil
Heat Rejection	45KW
Drive	Hydraulic
Construction	Aluminum

## Additional safety features

Emergency	Guards on all couplings ,winches and fans High density plastic Spiral Guard for sliding Hoses. Safety Signs ,Ladder to access on to the rig base. Emergency stop fitted on two different locations to Switch of the engine.
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## Rig Lighting

Tower mounted flood lights 2nos Control panel 1no
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## Fuel Filter

High capacity Water separator cum fuel Filter fitted in engine fuel system. Make	Racor
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## Lubricator

Type	Venture
Tank	Pressurized by air
Capacity	1200CFM@500PSI

## Air / Mud lines

Type	Air/Mud lines
Rating	3000PSI
Valves	Air valve , Air vent
Type of Operation	Hydraulic

## Base frame assembly

Length	7meters app (25.58ft)
Width	2.5 meter (8.2ft)
Top Covering	Covered with 4mm chequered sheet.

## JACK LEGS

Style	Box type construction Bolted to base frame
Qty	4Nos
Fixing	Welded to Main Base Frame
Locking valves	pilot operated check valves
Stroke	900mm
Lifting Capacity	245.0 KN (55115.5 lb) Each

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## Driver Cab (Option)

Mounted in front of the Rig with control valves for trimming, Suitable for ROPS complaint. ( only for Track version)

## Approximate Weight/Dimensions.

Bare Drill Rig without Carrier rested on Jack frame.

Weight	12000Kgs
Length	12000mm - long Mast In horizontal when rested And Straight.
Width	2400mm.
Height	2500mm. Without Carrier rested on Jack frame

## Options

### Safety

Extinguisher	Dry type Fire Extinguisher fitted on the machine For easy handling.
FOPS	Falling Objects Protective Structure

### Water Pump

Type	Triplex Piston Pump
Power	Hydraulic operated
Max flow	50 LPM
Max pressure	6.895 MPa (1000 PSI)

### Engine

Emission Norms	Tier III certified
Power	220HP(164.0KW)@2200Rpm

### Lighting & Horn

Beacon Flash Light, Drive lights for CAB.  
Horn & Reverse Horn

### Float Sub

Type	Spline construction
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### Tramming Controls

Crawler controls	Wireless Remote Control up to 20 meters Distance Foot operated Dead man switch
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### Rod Winch & Boom

Type	Fully variable hydraulic rod handling boom
Angle	Vertical to 45 degree
Winch	3.43KN (771.6 lb)

### Hydraulic and Diesel tanks

Type of construction	Stainless Steel.
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### Ladder

Mounted on side of mast with side guard.

# Dynatech Industries Pvt Ltd

Reverse Circulation Drill - RC30  
DTH Drilling Accessories

Technical Specifications

Guide for Hammer.  
Guide for Drill rod any one size  
Break out spanner 1no  
Conversion Sub spindle to rods

## Swivels

Swivel for Air/Mud drilling

## Reverse circulation Package

Swivel	Dual Swivel OR Inlet Swivel Discharge Swivel
Discharge Kit	Blow down/Blow back assembly Deflector box assembly Discharge Hose 20 meter long Discharge hose socks Hose tail clamps Knout nuts
Cyclone	In volute cyclone For wet and dry condition
Interval Box	Pneumatically operated 60liters capacity Slide door opening.
Splitter	Cone type splitter for dry sampling Fixed type / Adjustable. Riffle type splitter for wet and dry sampling
Rods	Reverse Circulation Drill rods of different size, Length and different thread types available on request. Starter rods of different size and length Available on request
Subs	Saver Subs Dig out Subs Blank subs

Note: the above mentioned list or Reverse Circulation is primary sizes and qty will be varying according to the depth of the machine. For detailed recommended list please contact Sales representative.

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## Air Compressor

Make ELGI.

1100CFM – 350PSI

Other Compressor options are available on request.

## Carrier

### Truck

6X4 rigid truck chassis.

Pay load capacity of 25000Kgs.

## Track (Crawler) assembly

Grouser construction	Triple Grouser
Total length of track	4250
Total width of track	2500
Gradeability – Degree	25
Travel speed - Kmph	2.5

Specifications are subjected to modify or change ,Which are made time to time by DynatechIndustries Pvt Ltd and their suppliers according to their polices for upgrade their products. All Dimensions and weights are approximate and are subjected to change without notice.



DYNATECH

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