

**India's First** 

Horizontal Directional Drill (HDD) Machines



A100R

**R Series** Models

The Apollo A800 R is designed to cater small to medium size underground infrastructure construction projects, equipped to face tough hard ground and difficult jobsite conditions. The equipment is constructed with a quality rack-pinion system and powered by a 160hp Ashok Leyland engine. Along with this powerful engine, thrust / pullback force has increased to 19.810 tons with a rotational torque rating of 6500 Nm that is ideal for longer distance jobs and larger diameter applications.

The R-series is equipped with advanced electricals and powerful hydraulics, which helps to deliver optimum performance in various soil conditions. The equipment offers a rod loading system with a set of drill rods on board to reduce manpower requirement and increase job efficiency. For error-free operations, the R-series also features 3 selectable rotation speeds for different ground conditions. To help ensure smooth drilling operations, two joysticks are integrated into the ergonomically crafted operator cabin, which equipped with 10" DCI Aurora remote display panel that is compatible with any DCI locating system. The joystick control is designed to match natural wrist and arm positioning during operation to reduce operator fatigue. Air-conditioned cabin with rotating operator seat provides surround view for maximum comfort to monitor the operations.

The R-series uses sealed & lubricated track rollers, carrier rollers and idlers that provide excellent service life, which help to keep the equipment working longer in the field. Additional features like, auto-drill and half-rotation, which enhance the ease, flexibility and performance in harder soil conditions.

Apollo single piece forged drill rods provide the optimal range of strength and more flexibility with finished threads.

















# **Technical Specifications**

Dimensions & Weights	R Series Models	A100R HDD	A200R HDD	A600R HDD	A800R HDD
Length					
Word	•	4450 mm	5250 mm	5995 mm	5810 mm
Height   2020 mm   2020 mm   2450 mm   2400 mm   2300 lbs (4676 kg)   10891 lbs (4940 kg)   16688 lbs (7570 kg)   19797 lbs (9890 kg)   17080 lbs (4676 kg)   12342 lbs (5598 kg)   26677 lbs (9370 kg)   23765 lbs (10780 kg)   17080 lbs (4676 kg)   12342 lbs (5598 kg)   26677 lbs (9370 kg)   23765 lbs (10780 kg)   17080 lbs (4676 kg)   1.50 km / hour   2.5 km / hour   2.50 km / hour   2.5 km / hour   2.50 km / h					
Weight (without drill pipe)         9569 lbs (d340 kg)         10891 lbs (4940 kg)         16688 lbs (7570 kg)         19797 lbs (8980 kg)           Weight (with drill pipe)         10300 lbs (4676 kg)         12342 lbs (5598 kg)         26677 lbs (9370 kg)         19797 lbs (8980 kg)           Tavelling Speed         1.50 km / hour         1.50 km / hour         1.50 km / hour         1.50 km / hour         2.55 km / hour           Engine         Ashok Leyland AL H3CTIC3R23 BS III         Ashok Leyland AL H3CTIC3R23 BS III         Ashok Leyland AL H3CTIC3R23 BS III         Ashok Leyland H4CTINE524/1 AC         Ashok Leyland H6ETIC3R523/1 CEV3AC           Maximum Engine Speed         2300 RPM         2300 RPM         2400 RPM         2300 RPM         2600 RPM					
Weight (with drill pipe)   10300 lbs (4676 kg)   12342 lbs (5598 kg)   20677 lbs (9370 kg)   23765 lbs (10780 kg)   Travelling Speed   1.50 km / hour   1.50 km / hour   2.5					
Travelling Speed		` 3,	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Make & Model	<u> </u>	` ",	, ,	, ,,	· · · · · · · · · · · · · · · · · · ·
Make & Model         Ashok Leyland AL H3CTIC3R23 BS III         Ashok Leyland AL H3CTIC3R23 BS III         Ashok Leyland H6ETIC3R523/1 CEV3AC           Fuel Type         Diesel	<u> </u>	,	,	,	
Maximum Engine Speed   2300 RPM   2300 RPM   2300 RPM   2400 RPM   2300 RPM   3 Cylinders with Turbo Charger Sep N M Sep No Pipes So Pipes S	-				
Number of Cylinders with Turbo Charger with Turbo C	Fuel Type	Diesel	Diesel	Diesel	Diesel
Number of Cylunders         with Turbo Charger         with Turbo Charger         with Turbo Charger         with Turbo Charger           Horse-Power Rating         65 HP (48 kW)         65 HP (48 kW)         130 HP (97 kW)         160 HP (119 kW)           Maximum Torque         245 Nm @ 1900 RPM         245 Nm @ 1900 RPM         589 Nm @ 1800 RPM           Drill Pipe         1829 mm (1.8 m)         3048 mm (3 m)         3048 mm (3 m)         3048 mm (3 m)           Weight (Each Pipe)         12 kg         23.5 kg         35 kg         36 kg           Rod Box Capacity         28 Pipes         28 Pipes         50 Pipes         50 Pipes           Minimum Bend Radius         89 feet         100 feet         110 Feet         110 Feet           Pipe Diameter         48 mm         54 mm         66.7 mm         70 mm           Water Pump System         1000 PSI         1200 PSI         1200 PSI         1000 PSI           Flow         26.45 GPM (100 LPM)         26.45 GPM (100 LPM)         52.83 GPM (200 LPM)         80 GPM (300 LPM)           Pressure         100 PSI         1200 PSI         1200 PSI         1000 PSI         1000 PSI           Technical Parameter         Maximum Spindle Speed         216 RPM         185 RPM         258 RPM         234 RPM	Maximum Engine Speed	2300 RPM	2300 RPM	2400 RPM	2300 RPM
Maximum Torque   245 Nm @ 1900 RPM   245 Nm @ 1900 RPM   3048 mm (3 m)   304	Number of Cylinders	'	, ,	'	'
Drill Pipe   Length   1829 mm (1.8 m)   3048 mm (3 m)   3068 plos plos plos plos plos plos plos plos	Horse-Power Rating	65 HP (48 kW)	65 HP (48 kW)	130 HP (97 kW)	160 HP (119 kW)
Length         1829 mm (1.8 m)         3048 mm (3 m)         3048 mm (3 m)         3048 mm (3 m)         3048 mm (3 m)           Weight (Each Pipe)         12 kg         23.5 kg         35 kg         36 kg           Rod Box Capacity         28 Pipes         28 Pipes         50 Pipes         50 Pipes           Minimum Bend Radius         89 feet         100 feet         110 Feet         110 Feet           Pipe Diameter         48 mm         54 mm         66.7 mm         70 mm           Water Pump System         70 mm         66.7 mm         70 mm           Flow         26.45 GPM (100 LPM)         26.45 GPM (100 LPM)         52.83 GPM (200 LPM)         80 GPM (300 LPM)           Pressure         1000 PSI         1000 PSI         1200 PSI         1000 PSI         1000 PSI           Technical Parameter         1000 PSI         185 RPM         258 RPM         234 RPM           Maximum Spindle Speed         216 RPM         185 RPM         258 RPM         234 RPM           Maximum Spindle Torque         3800 Nm         4900 Nm         6000 Nm         6500 Nm           Minimum Bore Diameter         3.5°         3.5°         3.5°         3.5°         3.5°           Thrust Force         11023 lbs (5000 kg)         21715 lbs (9850 kg)	Maximum Torque	245 Nm @ 1900 RPM	245 Nm @ 1900 RPM	460 Nm @ 1400 RPM	589 Nm @ 1800 RPM
Weight (Each Pipe)         12 kg         23.5 kg         35 kg         36 kg           Rod Box Capacity         28 Pipes         28 Pipes         50 Pipes         50 Pipes           Minimum Bend Radius         89 feet         100 feet         110 Feet         110 Feet           Pipe Diameter         48 mm         54 mm         66.7 mm         70 mm           Water Pump System         70 mm         26.45 GPM (100 LPM)         52.83 GPM (200 LPM)         80 GPM (300 LPM)           Flow         26.45 GPM (100 LPM)         26.45 GPM (100 LPM)         52.83 GPM (200 LPM)         80 GPM (300 LPM)           Pressure         1000 PSI         1000 PSI         1200 PSI         1000 PSI         1000 PSI           Technical Parameter         1000 PSI         1000 PSI         1200 PSI         1000 PSI         1000 PSI           Maximum Spindle Torque         3800 Nm         4900 Nm         6000 Nm         6500 Nm         6500 Nm           Maximum Spindle Torque         3800 Nm         4900 Nm         6000 Nm         5500 Nm         3.5"         3.5"         3.5"         3.5"         3.5"         3.5"         3.5"         3.5"         43673 lbs (19810 kg)         43673 lbs (19810 kg)         43673 lbs (19810 kg)         43673 lbs (19810 kg)         424 V         Drillin	Drill Pipe				
Weight (Each Pipe)         12 kg         23.5 kg         35 kg         36 kg           Rod Box Capacity         28 Pipes         28 Pipes         50 Pipes         50 Pipes           Minimum Bend Radius         89 feet         100 feet         110 Feet         110 Feet           Pipe Diameter         48 mm         54 mm         66.7 mm         70 mm           Water Pump System         70 mm         66.7 mm         70 mm           Flow         26.45 GPM (100 LPM)         26.45 GPM (100 LPM)         52.83 GPM (200 LPM)         80 GPM (300 LPM)           Pressure         1000 PSI         1000 PSI         1200 PSI         1000 PSI         1000 PSI           Technical Parameter         Waximum Spindle Speed         216 RPM         185 RPM         258 RPM         234 RPM           Maximum Spindle Torque         3800 Nm         4900 Nm         6000 Nm         6500 Nm           Maximum Spindle Torque         3800 Nm         4900 Nm         6000 Nm         5500 Nm           Mainimum Bore Diameter         3.5"         3.5"         3.5"         3.5"         3.5"         3.5"         3.5"         3.5"         3.5"         3.5"         3.5"         3.5"         3.5"         3.5"         43673 lbs (19810 kg)         43673 lbs (19810 kg)	Length	1829 mm (1.8 m)	3048 mm (3 m)	3048 mm (3 m)	3048 mm (3 m)
Minimum Bend Radius         89 feet         100 feet         110 Feet         110 Feet           Pipe Diameter         48 mm         54 mm         66.7 mm         70 mm           Water Pump System         70 mm         66.7 mm         70 mm           Flow         26.45 GPM (100 LPM)         52.83 GPM (200 LPM)         80 GPM (300 LPM)           Pressure         1000 PSI         1000 PSI         1200 PSI         1000 PSI           Maximum Spindle Speed         216 RPM         185 RPM         258 RPM         234 RPM           Maximum Spindle Torque         3800 Nm         4900 Nm         6000 Nm         65000 Nm           Minimum Bore Diameter         3.5°         3.5°         3.5°         3.5°         3.5°           Thrust Force         11023 lbs (5000 kg)         21715 lbs (9850 kg)         34689 lbs (15735 kg)         43673 lbs (19810 kg)           Pull-Back Force         11023 lbs (5000 kg)         21715 lbs (9850 kg)         34689 lbs (15735 kg)         43673 lbs (19810 kg)           Features         12 V         12 V         12 V         24 V           Drilling Lights         YES         YES         YES         YES         YES         YES         YES (AC Cabin)         YES (AC Cabin)         YES (AC Cabin)         YES (AC Cabin)	Weight (Each Pipe)	12 kg	23.5 kg	35 kg	36 kg
Pipe Diameter   48 mm	Rod Box Capacity	28 Pipes	28 Pipes	50 Pipes	50 Pipes
Flow   26.45 GPM (100 LPM)   26.45 GPM (100 LPM)   52.83 GPM (200 LPM)   80 GPM (300 LPM)	Minimum Bend Radius	89 feet	100 feet	110 Feet	110 Feet
Flow   26.45 GPM (100 LPM)   26.45 GPM (100 LPM)   52.83 GPM (200 LPM)   80 GPM (300 LPM)	Pipe Diameter	48 mm	54 mm	66.7 mm	70 mm
Pressure   1000 PSI   1000 PSI   1200 PSI   1200 PSI   1000 PSI	Water Pump System				
Technical Parameter   Maximum Spindle Speed   216 RPM   185 RPM   258 RPM   234 RPM	Flow	26.45 GPM (100 LPM)	26.45 GPM (100 LPM)	52.83 GPM (200 LPM)	80 GPM (300 LPM)
Maximum Spindle Speed     216 RPM     185 RPM     258 RPM     234 RPM       Maximum Spindle Torque     3800 Nm     4900 Nm     6000 Nm     6500 Nm       Minimum Bore Diameter     3.5"     3.5"     3.5"     3.5"     3.5"       Thrust Force     11023 lbs (5000 kg)     21715 lbs (9850 kg)     34689 lbs (15735 kg)     43673 lbs (19810 kg)       Pull-Back Force     11023 lbs (5000 kg)     21715 lbs (9850 kg)     34689 lbs (15735 kg)     43673 lbs (19810 kg)       Features     8     43673 lbs (19810 kg)     43673 lbs (19810 kg)       Features     9     43673 lbs (19810 kg)       Features     12 V     12 V     12 V     24 V       Drilling Lights     YES     YES     YES     YES       Operator Cabin (Optional)     NA     NA     YES (AC Cabin)     YES (AC Cabin)       Stake-Down System (Auto-Anchoring)     YES     YES     YES     YES       Rod-Loader System     NA     NA     YES     YES     YES       Hydraulic Systems     NA     NA     YES     YES     YES       Hydraulic Systems     3000 PSI     3000 PSI     3000 PSI     3000 PSI     3000 PSI     6000 PSI     6000 PSI       Thrust / Pull-Back Pump Relief Pressure     3750 PSI     3750 PSI     6000 PSI <td>Pressure</td> <td>1000 PSI</td> <td>1000 PSI</td> <td>1200 PSI</td> <td>1000 PSI</td>	Pressure	1000 PSI	1000 PSI	1200 PSI	1000 PSI
Maximum Spindle Torque       3800 Nm       4900 Nm       6000 Nm       6500 Nm         Minimum Bore Diameter       3.5"       3.5"       3.5"       3.5"         Thrust Force       11023 lbs (5000 kg)       21715 lbs (9850 kg)       34689 lbs (15735 kg)       43673 lbs (19810 kg)         Pull-Back Force       11023 lbs (5000 kg)       21715 lbs (9850 kg)       34689 lbs (15735 kg)       43673 lbs (19810 kg)         Features         Electrical System       12 V       12 V       12 V       24 V         Drilling Lights       YES       YES       YES       YES       YES         Operator Cabin (Optional)       NA       NA       YES (AC Cabin)       YES (AC Ca	Technical Parameter				
Minimum Bore Diameter       3.5"       34689 lbs (15735 kg)       43673 lbs (19810 kg)       42 V       24 V       24 V       24 V	Maximum Spindle Speed	216 RPM	185 RPM	258 RPM	234 RPM
Thrust Force	Maximum Spindle Torque	3800 Nm	4900 Nm	6000 Nm	6500 Nm
Pull-Back Force         11023 lbs (5000 kg)         21715 lbs (9850 kg)         34689 lbs (15735 kg)         43673 lbs (19810 kg)           Features         Electrical System         12 V         12 V         12 V         24 V           Drilling Lights         YES         YES         YES         YES         YES           Operator Cabin (Optional)         NA         NA         YES (AC Cabin)         YES (AC Cabin)         YES (AC Cabin)           Stake-Down System (Auto-Anchoring)         YES         YES         YES         YES         YES           Rack-Pinion System         Single         Single         Double         Double         NA         YES         YES           Hydraulic Systems         NA         NA         YES         YES         YES         YES           Hydraulic Systems         NA         NA         YES         YES         YES         YES           Hydraulic Systems         3000 PSI         3000 PSI         3000 PSI         3000 PSI         6000 PSI         6000 PSI           Relief Pressure         3350 PSI         3750 PSI         6000 PSI         6000 PSI         6000 PSI           Fluid Capacities         Engine Oil Capacity         10 L         10 L         12 L         19 L	Minimum Bore Diameter	3.5"	3.5"	3.5"	3.5"
Features         Image: Comparison of the pressure of the pres	Thrust Force	11023 lbs (5000 kg)	21715 lbs (9850 kg)	34689 lbs (15735 kg)	43673 lbs (19810 kg)
Electrical System	Pull-Back Force	11023 lbs (5000 kg)	21715 lbs (9850 kg)	34689 lbs (15735 kg)	43673 lbs (19810 kg)
Drilling Lights YES YES YES YES YES YES Operator Cabin (Optional) NA NA NA YES (AC Cabin) YES YES YES YES YES YES YES YES YES ACK-Pinion System Single Single Single Double NA NA YES	Features				
Operator Cabin (Optional)  NA  NA  YES (AC Cabin)  YES (AC Cab	Electrical System	12 V	12 V	12 V	24 V
Stake-Down System (Auto-Anchoring) Rack-Pinion System Single Single Single Single Soundle Rod-Loader System NA NA YES  Hydraulic Systems Auxiliary Pump Relief Pressure Relief Pressure Rotational Pump Relief Pressure Fluid Capacities Engine Oil Capacity 120 L 120 L 130 L 168 L	Drilling Lights	YES	YES	YES	YES
(Auto-Anchoring)         TES         TES         TES           Rack-Pinion System         Single         Single         Double           Rod-Loader System         NA         NA         YES         YES           Hydraulic Systems         Single         Single         Double           Auxiliary Pump Relief Pressure         3000 PSI         3000 PSI         3000 PSI           Thrust / Pull-Back Pump Relief Pressure         3350 PSI         3350 PSI         6000 PSI         6000 PSI           Rotational Pump Relief Pressure         3750 PSI         3750 PSI         6000 PSI         6000 PSI           Fluid Capacities         To L         10 L         12 L         19 L           Diesel Tank Capacity         120 L         120 L         130 L         168 L	Operator Cabin (Optional)	NA	NA	YES (AC Cabin)	YES (AC Cabin)
Rod-Loader System         NA         NA         YES         YES           Hydraulic Systems         Sample of Pressure         3000 PSI         6000 PSI	Stake-Down System (Auto-Anchoring)	YES	YES	YES	YES
Rod-Loader System         NA         NA         YES         YES           Hydraulic Systems         3000 PSI         6000 PSI         FILID PSI         FILID PSI         FILID PSI         FILID PSI         10 L         10 L         12 L         19 L         10 L         10 L         120 L         130 L         168 L	Rack-Pinion System	Single	Single	Single	Double
Auxiliary Pump Relief Pressure       3000 PSI       3000 PSI       3000 PSI       3000 PSI         Thrust / Pull-Back Pump Relief Pressure       3350 PSI       3350 PSI       6000 PSI       6000 PSI         Rotational Pump Relief Pressure       3750 PSI       3750 PSI       6000 PSI       6000 PSI         Fluid Capacities       Fluid Capacity       10 L       10 L       12 L       19 L         Diesel Tank Capacity       120 L       120 L       130 L       168 L	Rod-Loader System	NA	NA	YES	YES
Thrust / Pull-Back Pump Relief Pressure         3350 PSI         3350 PSI         6000 PSI         6000 PSI           Rotational Pump Relief Pressure         3750 PSI         3750 PSI         6000 PSI         6000 PSI           Fluid Capacities         Engine Oil Capacity         10 L         10 L         12 L         19 L           Diesel Tank Capacity         120 L         120 L         130 L         168 L	Hydraulic Systems				
Thrust / Pull-Back Pump Relief Pressure         3350 PSI         3350 PSI         6000 PSI         6000 PSI           Rotational Pump Relief Pressure         3750 PSI         3750 PSI         6000 PSI         6000 PSI           Fluid Capacities         Engine Oil Capacity         10 L         10 L         12 L         19 L           Diesel Tank Capacity         120 L         120 L         130 L         168 L	Auxiliary Pump Relief Pressure	3000 PSI	3000 PSI	3000 PSI	3000 PSI
Relief Pressure       3750 PSI       6000 PSI       6000 PSI         Fluid Capacities         Engine Oil Capacity       10 L       10 L       12 L       19 L         Diesel Tank Capacity       120 L       120 L       130 L       168 L	Thrust / Pull-Back Pump Relief Pressure	3350 PSI	3350 PSI	6000 PSI	6000 PSI
Engine Oil Capacity         10 L         10 L         12 L         19 L           Diesel Tank Capacity         120 L         120 L         130 L         168 L	Rotational Pump Relief Pressure	3750 PSI	3750 PSI	6000 PSI	6000 PSI
Engine Oil Capacity         10 L         10 L         12 L         19 L           Diesel Tank Capacity         120 L         120 L         130 L         168 L	Fluid Capacities				
Diesel Tank Capacity         120 L         120 L         130 L         168 L	Engine Oil Capacity	10 L	10 L	12 L	19 L
	Diesel Tank Capacity	120 L	120 L		168 L
	Hydraulic Oil Tank Capacity	182 L	182 L	224 L	239 L

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