

### Mid-Size

**Horizontal Directional Drills** 



# DD-110/DD-110S

AMERICAN AUGERS

**Horizontal Directional Drill** 

110,000 lbs. (50 Tonnes)
Thrust / Pullback

Pipe Loader available in:

20 ft. (6 m): DD-110

15 ft. (4.5 m): DD-110S

Adjustable thrust and torque for mud motor and air hammer operations

A Plumbing for using a steerable air hammer is standard

A Wireline capable components come standard

- Offers the right features for performance and reliability yet it is the simplest design in the 100,000 lb. (50 tonne) class
- Standard Quick Disconnect Anchor Plate for multiple drilling angles
- On-board Mud Pump
- Wiggle Steer when maneuvering in variable conditions becomes challenging
- Rear Thrust Stabilizers
- Mechanized pipe loading and removeable pipe baskets
- Rubber tracks
- Quiet-рак Noise Reduction System



## DD-155T

**Horizontal Directional Drill** 

AMERICAN AUGERS.

155,000 lbs. (70 Tonnes)
Thrust / Pullback

20 ft. (6 m) Drill Pipe

DD-155T

 Utilizes an off-board mud pump so all engine power goes to the thrust and rotation to ensure maximum production

• Advanced Q<sub>IIIET-PAK</sub>
Technology with variable cooling: hold a conversation next to the rig at full throttle!

 The off-board cabin increases operator visibility and reduces operator fatigue from vibration

• A large display screen provides vital readouts to monitor operational loads

• Equipped with an optional multi-pipe loader or single pipe operation

• 30,000 ft. lbs. (40,674 Nm) of Rotary Torque the floating carriage extends the thread life of the drill pipe

 Maximum rotary speeds developed to work with large HDD tooling

• 12° to 22° drilling angle

The Perfect Rig for Urban Areas

# DD-220T

**Horizontal Directional Drill** 



The Maximum Power in a Mid-Size Rigi



- Range II drill pipe reduces the number of pipe connection/wireline connections vs. 20 ft. pipe options
- The off-board cabin provides space for the drill operator as well as the steering operator
- Adjustable wrenches allow for proper wrench alignment
- Optional sectionalized thrust frame for 20' pipe or easy transport
- Off-board mud pump allows all the engine power to go down hole for maximum production

## Performance Specifications

|                                 | DD-110 / DD-110S   | DD-155T   | <b>DD-220T</b>  |
|---------------------------------|--|---|---|
| Power Train                     | Engine: Cummins QS5B6.7 Tier 4i or Tier 3 (depending on country of purchase) Rating: 260 HP (164 kW) @ 2200 RPM Fuel Capacity: 67 U.S. Gallons (254 L) Hydraulic Capacity: 107 U.S. Gallons (405 L) Battery: (2) Deka 908DME, 12 V, 1450 CCA-24 V System Quiet Pak Technology  | Engine: CAT C7, Tier 4i or CAT C6.6 Tier 3 (depending on country of purchase) Rating: 275 HP (205 kW) Fuel Capacity: 120 U.S. Gallons (454 L) Hydraulic Capacity: 145 U.S. Gallons (549 L) Hydraulic Filter: High Pressure Filtration to 6 micron ABS Advanced Quiet Pak Technology with Variable Cooling   | Engine: Cummins QSL9 Tier 3 or Tier 4i (depending on country of purchase) Rating: Tier 3 - 365 HP (272 kW), Tier 4i - 380 HP (283 kW) Fuel Capacity: 140 U.S. Gallons (530 L) Hydraulic Capacity: 140 U.S. Gallons (530 L) Hydraulic Filter: High Pressure Filtration to 6 micron ABS Quiet Pak Technology  |
| Carriage<br>System              | Carriage System: Rack & Pinion, (6) Pinion Drive with Adjustable Force Limiter Max. Thrust / Pullback: 110,000 lbs. (50 Tonnes) Max. Carriage Speed: 100 ft. (30.5 m) / minute Carriage Motors: (6) Hydraulic, LSHT, Dual Displacement Carriage Gearbox: (6) Planetary Drive-SGL SAE A   | Carriage System: Rack & Pinion, (4) Pinion Drive with Adjustable Force Limiter Max. Thrust / Pullback: 155,000 lbs. (70 Tonnes) Max. Carriage Speed: 150 ft. (45.7 m) / minute Carriage Motors: (4) Hydraulic 80cc Carriage Gearbox: (4) Planetary Drives   | Carriage System: Rack & Pinion, (6) Pinion Drive with Adjustable Force Limiter Max. Thrust / Pullback: 220,000 lbs. (100 Tonnes) Max. Carriage Speed: 90 ft. (29 m) / minute Carriage Motors: (6) Hydraulic 80cc Carriage Gearbox: (6) Planetary Drives   |
| Rotary<br>Drive                 | Rotary Drive: (2) Pinion and Gear Drive with Infinitely Variable Torque Max. Rotary Torque: 14,000 ft. lbs. (18,982 Nm) Max. Rotary Speed: 150 RPM Rotary Motor: (2) 80cc Variable Displacement Rotary Brakes: (1) Spring Applied/Hydraulic Release SAE C Rotary Gearbox: (2) Planetary Drive-SGL, SAE C Fluid Course: 2 in. (50 mm) Max. Flow: 250 U.S. Gallons (945 L) / minute Max. Pressure: 1,500 psi (103 bar) Side-Entry Sub: 2 % in. (73 mm) IF Slip Spindle: 2 % in. (73 mm) IF Misc: Wireline Commutator, Slip Ring  | Rotary Drive: (1) Pinion and Gear Drive with Infinitely Variable Torque Max. Rotary Torque: 30,000 ft. lbs. (40,674 Nm) Max. Rotary Speed: 100 RPM Rotary Motor: (1) Hydraulic 250cc Axial Piston / Variable Displacement Rotary Brakes: (1) Spring Applied/Hydraulic Release Fluid Course: 2 9/16 in. (65 mm) Max. Flow: 450 U.S. Gallons (1700 L) / minute Max. Pressure: 1,500 psi (103 bar) Mud Swivel: Rear Mounted 3 ½ in. IF L.H. x 3 in. NPT Slip Spindle: 4 ½ in. (114.3 mm) API-IF Pin (NC-50) Misc: Wiggle Steer®, Adjustable Torque Limiter, Digital Tachometer | Rotary Drive: (2) Pinion and Gear Drive with Infinitely Variable Torque Max. Rotary Torque: 30,000 ft. lbs. (40,674 Nm) @ 0-50 RPM Max. Rotary Speed: 95 RPM Rotary Motor: (2) Hydraulic 110cc Axial Piston / Variable Displacement Rotary Brakes: (2) Spring Applied/Hydraulic Release Fluid Course: 3 in. (76 mm) Max. Flow: 650 U.S. Gallons (2460 L) / minute Max. Pressure: 1,500 psi (103 bar) Mud Swivel: Rear Mounted 4 in. N.P.T.L.H. x 3 in. Slip Spindle: 4 ½ in. (114.3 mm) API-IF Pin Misc: Wiggle Steer®, Adjustable Torque Limiter, Digital Tachometer |
| Drill Rig,<br>Wrench &<br>Misc. | Wrench Design Open-Top Style Clamp/Grip Range: 2 <sup>7</sup> / <sub>8</sub> in 4 <sup>1</sup> / <sub>8</sub> in. (73-104.8 mm) Max. Breakout Torque: 32,000 ft. lbs. (43,390 Nm) Max. Makeup Torque: 26,000 ft. lbs. (35,250 Nm)  Pump: Triplex Piston Pump Max. Flow: 200 U.S. Gallons (757 L) / minute Max. Pressure: 1,100 psi (75.8 bar)  Outside Tube Diameter: 3 ½ in. (89 mm) Tool Joint Outside Diameter: 4 <sup>1</sup> / <sub>8</sub> in. (104.8 mm) Thread Type: 2 <sup>7</sup> / <sub>8</sub> in. (73 mm) IF Pin x Box Water Course: 1 ¾ in. (44.5 mm)  Drill Angle: Fixed at 15° / 27% Grade Drill Pipe Length: 20 ft. (6 m) or 15 ft. (4.5 m) Max. Pipe Basket Capacity: (9) Pieces of Drill Pipe Total Drill Pipe Length Per Basket: 180 ft. (55 m) or 135 ft. (41 m) Max. On-Board Pipe Baskets (Working): 2 Max. On-Board Pipe Baskets (Transport): 1 Drill Pipe in On-Board Staging Area: (3) Pieces Total Drill Pipe Length (Working): 420 ft. (128 m) or 315 ft. (96 m) | Wrench Design Open-Top with 10 in. (254 mm) Separation Clamp/Grip Range: 2 7/8 in 6 5/8 in. (73-168 mm) Full Hole Max. Breakout Torque: 60,000 ft. lbs. (81,350 Nm) Max. Makeup Torque: 35,000 ft. lbs. (47,500 Nm)  Crane: OPTIONAL Drill rig mounted with 4,300 lbs. (1950 kg) lift rating Drill Angle: 12° to 22°  Drill Pipe Length: 20 ft. (6 m)   | Wrench Design Open-Top with 10 in. (254 mm) Separation Clamp/Grip Range: 4 ½ in 6 ½ in. (114.3-165 mm) Full Hole Max. Breakout Torque: 60,000 ft. lbs. (81,350 Nm) Max. Makeup Torque: 25,000 ft. lbs. (33,900 Nm)  Crane: OPTIONAL Drill rig mounted with 4,300 lbs. (1950 kg) lift rating Drill Angle: 10° to 18° Drill Pipe Length: Range II, 34 ft. (10.4 m)  |



#### Break Old Habitsl

#### ESW-M

Exit Side Wrench: Mid-size

\*Note: All product performance specifications, components, weights, dimensions and other related information are subject to change without notice from the manufacturer

- Up to 60,000 ft. lbs. (81,350 Nm) of Break-Out Torque
- Up to 45,000 ft. lbs (61,000 Nm) of Make-Up Torque
- 2,000 ft. lbs. (2,700 Nm) of Torque on Spinner
- · Reduce labor and time when assembling a trail string on the exit side of the project
- Designed for 5 in. (127 mm) pipe stem, other sizes can be made available
- · Adjustable for varying exit angles of the drill pipe
- · Matches drill unit torque levels to ensure proper joint make up and/or break out when assembling or disassembling a pipe string
- Convenient wrench stand when not in use
- Lifting & tilting mechanisms use integrated counter balances

## Wireless control with backup tethered operation AMERICAN AUGERS 110" 2.8m **Patent Pending** 08/14

#### **AMERICAN AUGERS**