Hydraulics **Used in Natural Resources**

	Forestry	Mining	Oil Exploration	Marine
Gear Products	• S26, L2, GGP		• S26, L2, GGP	• S26, L2, GGP
Vane Products				•V10, V20, 25VQ
Open Circuit Piston	• PVH-M	• 420	• PVH-M	• ME Motors, 420 pumps
Closed Circuit Piston	• Lazer, 74200,	• Series 1+2	• Lazer, 74200, ME	• ME Motors
GG Motors	• Spool-Disc valve G-G	• Spool-Disc-VIS valve G-G	• Spool-Disc-VIS valve G-G	• 2K, VIS, Delta
Mobile Valves	• Ultronics, CMX, Priority, HRC, CM	• Ultronics, CMX, Priority, HRC, CM, 5 & 15 monoblock		• Ultronics, 5 & 15 monoblock, CM
Screw-in Cartridge Valves	 Broad Portfolio All Applicable Specifically - EPV, Proportional, 350 bar pressure 	 Broad Portfolio All Applicable Specifically - Explosion proof coils 	 Broad Portfolio All Applicable Specifically - Explosion proof coils, Stainless steel 	 Broad Portfolio All Applicable Specifically - Stainless steel
Cylinders		• N5 - Hydro-Line •TZ - Vickers	• XL Custom	• XL Custom • N5 - Hydro-Line •TZ - Vickers
Industrial Valves	• C-TOP2, DG, KDG	• DG, Slip-in, Stack valves, Explosion proof DG	• DG, Slip-in, Proportional Valves	• DG, Slip-in, Proportional Valves
Steering	• Series 20, VersaSteer	• Series 25 & 40		• Series 5
Fluid Conveyance	 Nitrile Tube Braided & Sprial Hose for Envi- ronmentally Friendly Fluid Compatability STC[®] EZ-Torque 	 MSHA Compliant Cover Materials High Pressure Braided & Spiral Hose STC[®] EZ-Torque 	 Long Length Braided & Spiral Hose High Pressure Hose, BOP Bundles STC[®] EZ-Torque 	• ABS & USCG Compliant Braided & Spiral Hose • Stainless Steel Fittings
Filtration	 Mobile-gate H20-gate Fluid Analysis Spin-On Filters 	• Mobile-gate • H20-gate • Fluid Analysis • Spin-On Filters	 Mobile-gate H20-gate Fluid Analysis Spin-On Filters 	 Mobile-gate H20-gate Fluid Analysis Spin-On Filters

System **Solutions** -Drilling **Application**

When it comes to drilling, manufacturers rely on hydraulics to transfer the power deep down.

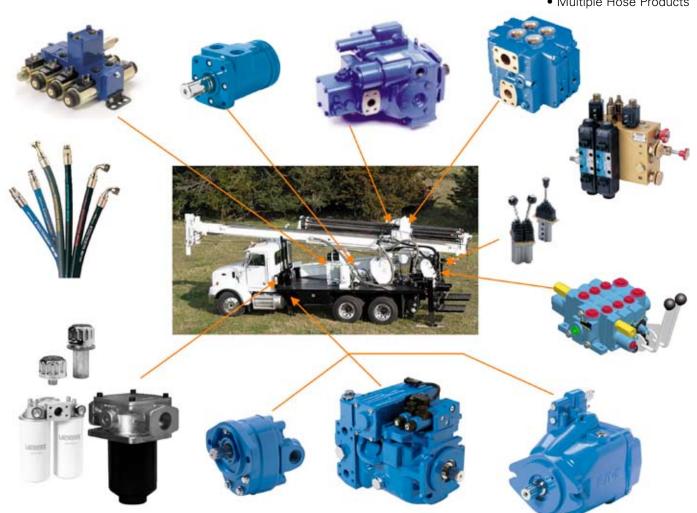
Equipment like drill rigs count on Eaton hydraulic components to carry out critical functions such as precise drill rotation with hydrostatic pump and motor, control the main feed cylinder, hydraulic hammer, hoists, mast slide, fan drive and others with auxiliary pumps and valves and ensure the optimum equipment reliability with high performance filters and fluid cleanliness practices.

With the use of appropriate transmission controls, the drilling speed is matched to the ever-changing ground conditions and is protected from the sudden reversal of mechanical energy stored in the drill's pipe length.

Feed control uses a precise variable meter-out loadsensing valve that allows lowering the load without the pump flow for energy saving. Long-term and reliable performances are ensured by the use of Eaton's Systemic **Contamination Control** program that defines and maintains a predetermined ISO fluid cleanliness code specifically tailored to the harsh drill rig operating conditions.

Eaton's product ranges for this market include:

- Axial Hydrostatic Variable Piston Pump and Motor
- Tandem Axial Open Circuit **Piston Pumps**
- Load Sensing Proportional Directional Valve (Hydraulic or Electronic Piloted)
- SICV Manifold Blocks
- Multiple Sections Solenoid Valve Bank
- Multiple Sections Manual Valve Bank
- Hydraulic or Electronic **Remote Controls**
- LSHT Motors
- High Performance Filters and Breather
- Gear Pump
- Multiple Hose Products



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