

Breaking Ground, Building Trust.

Casing Rotator Operation





20" Casing Shoe





Tooling Preferred Straight Rig Stabilizer 12" Hammer and 18-1/2" Bit for 20" Casing





Loaded Casing

Forklift is used to feed drill pipe into casing before loading on pipe system





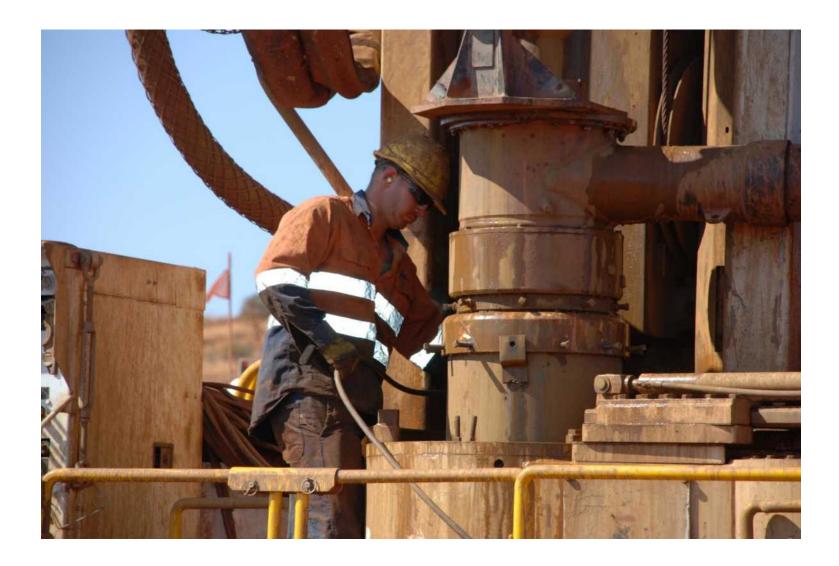
Prepare for Next Connection

Install Dog Collar to secure casing





Disconnecting Diverter with Air Wrench





Engaged Diverter Retainer

Raise tophead to align drill string with holding wrench





Engage Hydraulic Wrench

Break connection with tophead





Pick Up Process

Tilt tophead to align with loading system





Pick Up Continued





Thread Connection

Insure that tool joint is mated before lifting





Engage Diverter

Be sure that casing is fully seated before anchor connections are made





Install Retainer Tab

Tab will insure that casing is secure during lifting operations





Weld Retainer Tabs





Pick Up Connection





Pick Up Continued





Align Drill Pipe Connection





Make Connection





Retract Holding Wrench





Align & Weld Casing





Drilling Casing Rotated CCW





Air and Cutting Diverted to Cyclone





Breakout on Swing Arm Required When Tripping Out



SCHRAMM

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Thank You

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