

# Troubleshooting

## Sudden Pressure Increase

- This may occur when the motor stalls. See *Stalling* on page 28 for instructions on how to correct this problem.
- The tool may be plugged internally, or the bit plugged requiring a trip out of the hole for bit or motor replacement.
- The bearing assembly may be seized. Test motor at surface.

## Low / No Penetration

- This may occur due to a worn bit, requiring a bit trip.
- Formation changes may require changes in bit weight and circulation rates.
- The stabilizer may be hanging up on the formation.
- The bit may be balled up requiring a different bit for the formation.
- The stator elastomer liner may be damaged requiring a trip out of the hole and motor replacement.

## Slow Pressure Decrease

- This may result from a wash out in the drill string or the dump sub.
- Lost circulation causes a decrease in pressure if there is no return and may be confirmed by checking the pit level.
- A gas kick causes a decrease in pressure and may be detected by an increase in ROP and confirmed by checking the pit level.

## Sudden Pressure Decrease

- This may result from a backoff in the drill string or on the motor. Penetration will cease.
- This may indicate fracture of the driveshaft assembly within the motor. Test motor at surface.

## Bit Box Does Not Spin While Circulating

- If flow comes out the bit, but it does not spin while circulating (i.e. during surface test), this may be an indication of a backed-off connection or fracture of the driveshaft assembly within the motor.

## Bit Box Does Not Spin, Minimal Flow When Circulating

- If minimal flow comes out the bit, and it does not spin while circulating (i.e. during surface test), this may be an indication of a seized bearing assembly or damaged stator elastomer liner.
- May also be an indication of partial plugging within the BHA