Schlumberger

i-Power

Integrated motor-bit modeling service

APPLICATIONS

- Failure analysis
- Extended-reach wells
- Power section design and selection
- Elastomer recommendation
- Bit selection
- Well roadmap motor design and parameter selection

BENEFITS

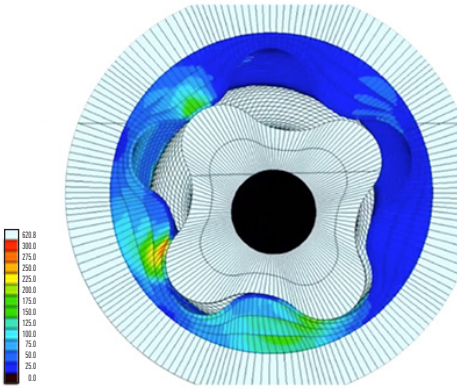
- Prolonges motor and bit life
- Enables shoe-to-shoe success drilling
- Reduces relines
- Improves ROP and overall performance
- Optimizes BHA thru bit and motor pairing
- Decreases design time
- Performs postjob failure analysis

FEATURES

- Motor and bit modeling and simulation
- Virtual prototyping of multiple designs
- Dyna-Drill power section catalogue
- IDEAS* integrated dynamic design and analysis platform incorporation

Optimize the BHA and operating parameters to reduce trips, time, and costs

i-Power* integrated motor-bit modeling service uses detailed mechanical, hydraulic, and material inputs to determine the true power section output downhole while also providing an improved understanding of the power section elastomer's remaining life at these conditions. This information enables the driller to adjust drilling parameters to increase the likelihood of completing an interval in a single run. For example, modeling may show that a driller can double footage drilled by simply reducing power by 18%, saving tripping time and tool costs.



Using inputs from real-world conditions provides accurate predictions of heat and wear, enabling adjustments to power levels to achieve desired performance outputs.

Integrate models to increase performance and reliability

The IDEAS platform is integral to bit design and selection process. i-Power modeling service enhances the IDEAS platform to increase overall BHA performance and reliability. Smith Bits, a Schlumberger company, and Dyna-Drill are able to collaborate on designing fit-for-purpose drilling solutions by creating virtual prototypes of motors and bits, optimizing performance for given applications.

The i-Power service enables better elastomer and power section selection by incorporating data from the entire BHA including the bit and cutting elements, along with formation data.

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