

IDS-350PE

Top Drive

The IDS-350PE (Performance Enhanced) Integrated Drilling System is a modular top drive designed specifically for the land rig market.

Innovative design - The IDS-350PE is our first permanent magnet motor top drive. The top drive creates maximum power in a compact package, enhancing performance and marketability of existing and new-build drilling platforms. The IDS-350PE utilizes a modular design, which increases durability and ease of operation. Its unique design allows the mud to flow through the center of the motor. This feature reduces the footprint by using a liquid-cooled hollow shaft and a 1,000 hp permanent magnet drilling motor.

Power capability - The IDS-350PE provides 37,000 ft-lbs of continuous drilling torque at 143 rpm. The high power density of the permanent magnet motor, coupled with proven advantages in AC drilling technology, allow smaller profile rigs to incorporate this improved performance with minimal or no changes to existing structures.

Pipe handling - The IDS-350PE uses a PH-65 pipe-handler, which is a variant of the TDS-11's reliable and popular PH-75 pipe-handler, capable of backing up 65,000 ft-lbs at intermittent torque. The simplified design follows the same pipe-handler design philosophy of the TDS models. The modular design of the link tilt, grabber assembly, IBOP actuation, and the back-up clamp increase durability while reducing maintenance costs.



IDS-350PE Top Drive

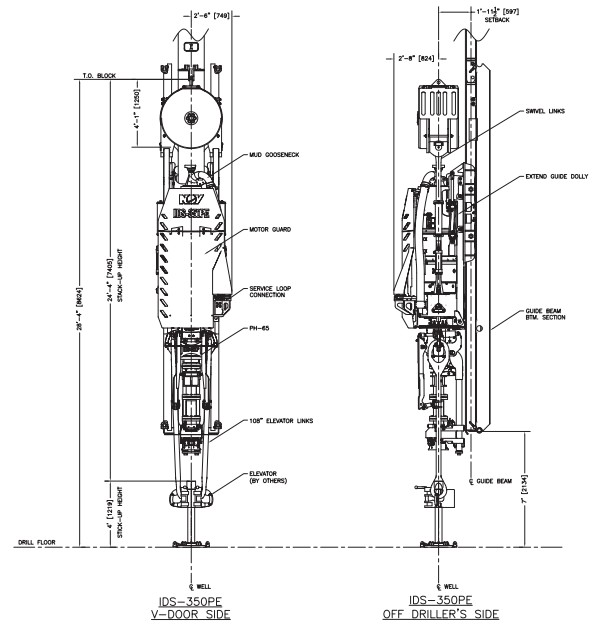
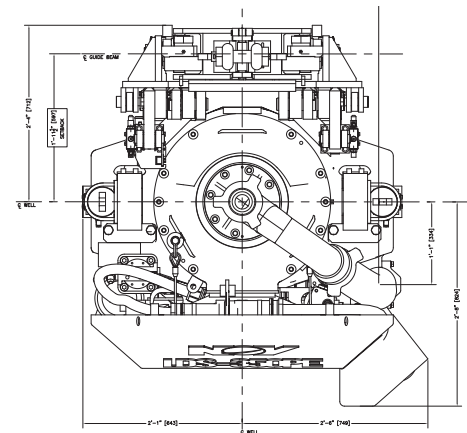
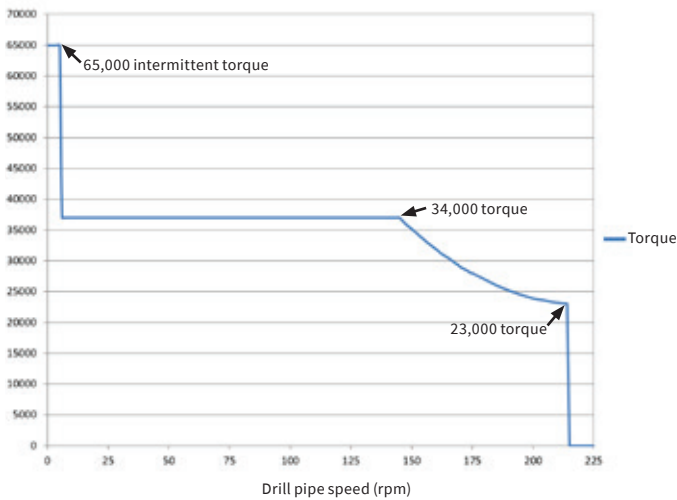
Features and Benefits

- Provides 37,000 ft-lbs of continuous drilling torque @ 143 rpm
- Utilizes permanent magnet motor for increased power density and durability
- The motor rating is UL Class 1, Div 2, hazardous area operations
- The pipe-handler is capable of backing up 65,000 ft-lbs at intermittent torque
- Easily installs onto smaller land rigs and drilling platforms with minimal or no retrofit
- Streamlined hydraulic and electronic systems reduce maintenance costs
- The liquid-cooled, hollow shaft promotes mud flow and reduces the overall footprint
- Modular design increases durability and reduces downtime

Enhancements

The IDS-350PE utilizes a combined 12.6:1 planetary gearbox and motor assembly. This new gear-motor combination increases durability and life expectancy in challenging drilling environments. Streamlined hydraulic and electronic systems increase uptime and reduce maintenance costs. The IDS-350PE Top Drive is a complete drilling package that incorporates 30 years of NOV experience in design and manufacturing.

Torque curve chart



Technical specifications

Transmission	
Gear ratio	12.6:1 planetary
Lube	Wet sump
Drilling parameters	
Drilling speed range	0 to 212 rpm
Drilling torque	37,000 ft-lbs continuous @ rpm
Drilling horsepower	1,000 hp
Ratings	
Hoisting load	350 ton, API-8C, PSL-1 Dual load paths
Drilling load	350 ton API
Water course	3.00 in. @ 5,000 psi CWP
Environmental	-40° to +45° C
Drilling Motor	
Type	Baldor PM motor/Dodge gearbox
HP rating	1,100 hp (1,000 hp for drilling – 100 hp for axillary)

Pipe handler (Type PH-65)	
Torque capacity	65,000 ft-lbs
Drill pipe range	3½ to 6% in.
Upper IBOP	6% in. API
Lower IBOP	6% in. API
IBOP's rating pressure	15,000 psi CWP
Elevator Links	250, 250 ton, and 500 ton accepted
Rotating head swing	Infinite (360°)
Special features	
Extend dolly	Optional
Maintenance platform	Integrated, central services access
Casing running tool ready	Integrated services