

120-Ton Power Swivel

FEATURES

- Smooth, shock-free torque reduces drill string damage
- Fits many drilling and workover masts
- Allows use of longer drill string lengths
- Power unit torque limits can be set
- Separate rotary swivel is unnecessary
- Choice of diesel engines
- Increased environmental safety features on skids and trailers
- Easy to service



The newly engineered, hydraulic motor-driven, 120-Ton Power Swivel provides smooth, shock-free torque. It is rated to support tensile pipe loads of 120 tons at zero rpm and 65 tons of dynamic load at 100 rpm. The compact swivel head design weighs only 2,000 lbs. and fits into many drilling or workover masts.

The design incorporates a reliable, custom drive train with hardened steel gears. For most applications, the 120-Ton Power Swivel eliminates the use of dangerous spinning chains, tongs, and Kelly spinners. The Power Swivel facilitates drilling with longer drill string lengths before the rig must be shut down to add pipe. Stops and start-ups are thereby reduced —improving rig efficiency and reducing wear on the pump, drawworks, and other rig equipment.

The 120-Ton Power Swivel uses a closed loop hydraulic system with variable displacement, reversible over center pumps, and air,

electric, or electric wireless remote controls. Speed control is continuously variable over the entire operating range. Pressure compensating-type torque control overrides the speed control to maintain maximum torque. The power unit's torque limits can be set, thereby eliminating the potential danger of twist-offs or swollen boxes in the drill string. An integral rotary swivel bearing, floating washpipe assembly, and gooseneck connection eliminates the need for a separate rotary swivel.

A 2-3/4" bore gooseneck and washpipe assembly allows circulation through the 2-11/16" I.D. stem while rotating or in static mode. An access plug allows wireline to be run through the unit.

The complete 120-Ton Power Swivel package includes an elevator-type bail; a unit-sized washpipe packing box assembly; a fixed displacement, piston-type, hydraulic motor rated at 5,000 psi; a torque rein assembly; safety

cable; and 1-inch swivel joints. The components are available either trailer-mounted (gooseneck) or skid-mounted with powered hose reels to form a rugged unit. A swivel carrying stand is standard.

ORDERING INFORMATION

When ordering, please specify:

- (1) Engine choice *
- (2) Type of mount: trailer or skid
- (3) Type of controls: air or electric

Extra cost options include:

- Air- or hydro-start engine
- Special hydraulic motor
- Lifting frame
- Electric or hydraulic loading winch
- Dimetecote coating (inorganic zinc primer)
- Controls can be operated remotely or from the power unit
- Cold weather package

POWER SWIVEL SPECIFICATIONS

MODEL NO.	PS120
NOMINAL LOAD RATING (tons)	120
DYNAMIC LOAD RATING @ 100 RPM (tons)	65
MAXIMUM TORQUE (ft-lbs)	8,100
MAXIMUM SPEED (rpm)	150
MAXIMUM CIRCULATING PRESSURE	5,000
STANDARD STEM CONNECTION	3-1/2 IF
GOOSENECK CONNECTION	3" LP
SWIVEL HEAD ASSEMBLY WEIGHT (lbs)	2,000

POWER UNIT & CONTROL SPECIFICATIONS

MODEL NO.	PS120
DIESEL ENGINE *	B6.7
ENGINE CONT HP @ 2000 RPM	240
HYDRAULIC OUTPUT (max gpm/max psi)	89/5,000

* Choice of Cummins, Caterpillar/Perkins, or John Deere (Tier 3)

CAUTION: Before installing a 120-Ton Power Swivel on a rig, refer to the installation procedure in the instruction manual available. Failure to install the Power Swivel properly can result in injury to the operator.

85-Ton Power Swivel

Performance Data

10.12 cu in Pump, 5,000 psi max

