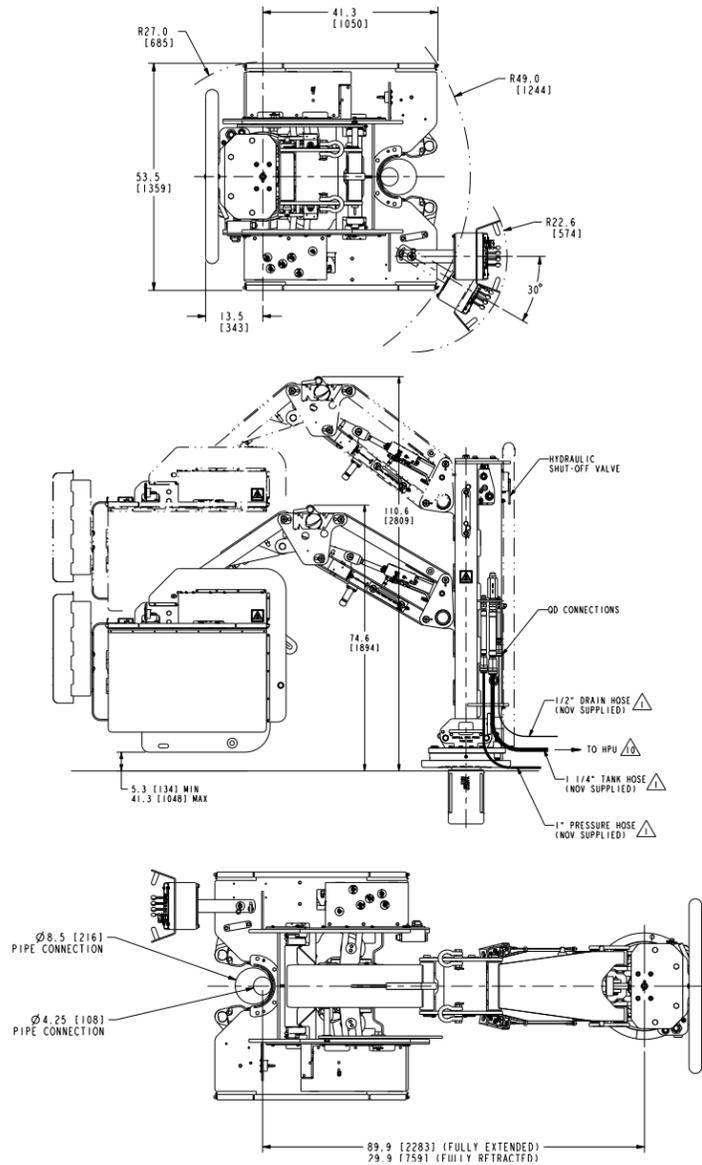


ST-80C²

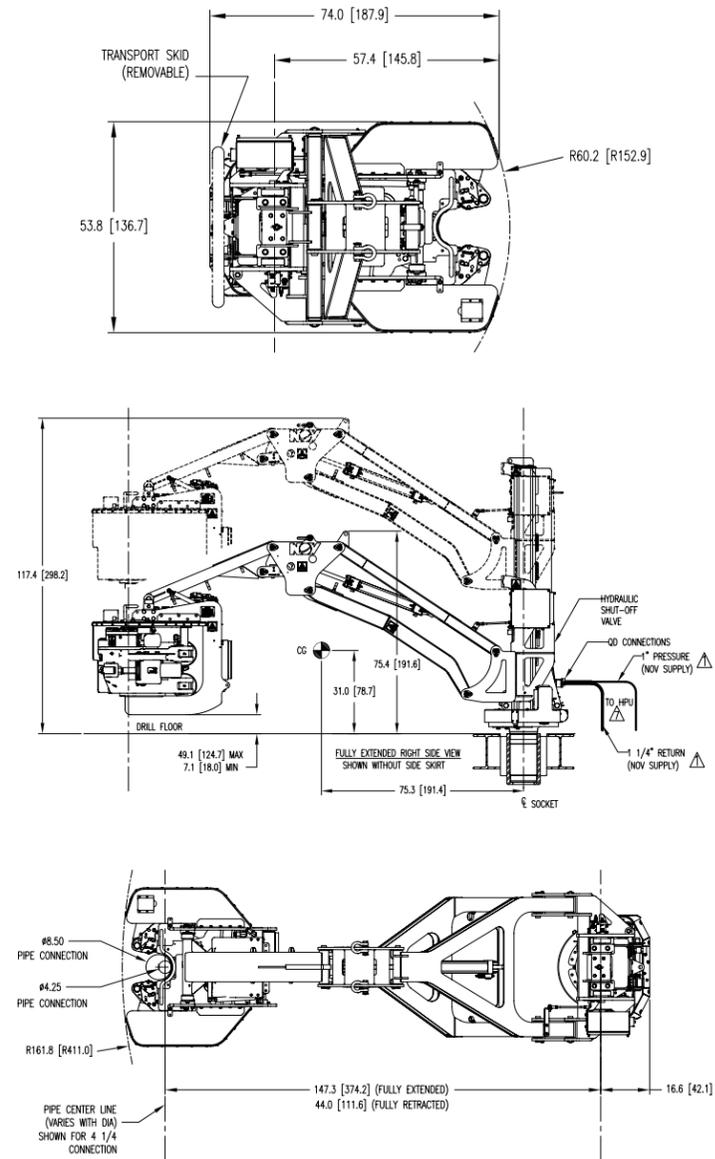


Technical Specifications

Controls	Local manual
Mount	Pedestal with floor mounted socket
Pedestal Rotation	±90° (manual)
Hydraulic Requirements (min)	28 GPM @ 2,100 psi (106 LPM @ 145 bar)
Hydraulic Requirements (max)	40 GPM @ 3,000 psi (151 LPM @ 207 bar)
Assembly Weight	7,800/8,320 lbs (3,538/3,773 kg)
Tool Joint Connection (OD) Range	*4 1/8" to 8 1/2"
Spin Speed	75 RPM with 5" DP, 35 GPM
Spin Torque	1,750 ft-lbs (2,373 N-m) with 5" DP, 35 GPM
Maximum Makeup Torque	60,000 ft-lb (81,349 N-m)
Maximum Breakout Torque	80,000 ft-lb (108,465 N-m)
Connection Height	23" to 59" (584 mm to 1,498 mm)
Horizontal Travel**	60" (1,524 mm) ***Optional 15" to 25" added reach
Vertical Adjustment	36" (914 mm) or 72" (1,828 mm)
Casing Ready	No
Torque Wrench Angle	30°

* ST-80 and ST-100 can make/break certain tool joints on 2 7/8" drill pipe
 ** NOV classifies total horizontal travel as the distance between points A and B. Point A is defined as the centerline of the jaw dies when the iron roughneck is fully retracted. Point B is defined as the centerline of the jaw dies when the iron roughneck is fully extended.
 *** Horizontal travel may be increased upon request with use of an extender plate.

ST-80CL

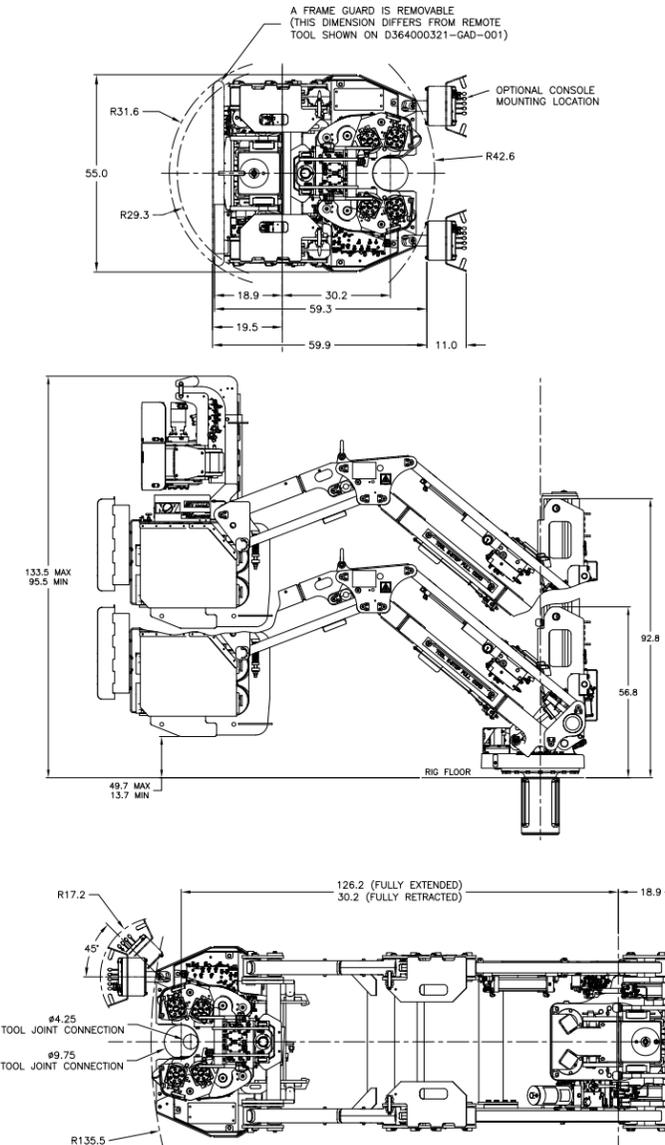


Technical Specifications

Controls	Local manual, Hard-wired remote console, Integrated NOV driller's control
Mount	Pedestal with floor mounted socket
Pedestal Rotation	±90° (manual and power slew)
Hydraulic Requirements (min)	28 GPM @ 2,100 psi (106 LPM @ 145 bar)
Hydraulic Requirements (max)	40 GPM @ 3,000 psi (151 LPM @ 207 bar)
Assembly Weight	Approximately 9,400 lbs (4,263 kg)
Tool Joint Connection (OD) Range	*4 1/8" to 8 1/2"
Spin Speed	75 RPM with 5" DP, 35 GPM
Spin Torque	1,750 ft-lbs (2,373 N-m) with 5" DP, 35 GPM
Maximum Makeup Torque	60,000 ft-lb (81,349 N-m)
Maximum Breakout Torque	80,000 ft-lb (108,465 N-m)
Connection Height	23" to 65" (584 mm to 1,651 mm)
Horizontal Travel**	100" (2,540 mm)
Vertical Adjustment	42" (1,067 mm)
Casing Ready	No
Torque Wrench Angle	30°

* ST-80 and ST-100 can make/break certain tool joints on 2 7/8" drill pipe
 ** NOV classifies total horizontal travel as the distance between points A and B. Point A is defined as the centerline of the jaw dies when the iron roughneck is fully retracted. Point B is defined as the centerline of the jaw dies when the iron roughneck is fully extended.

ST-100

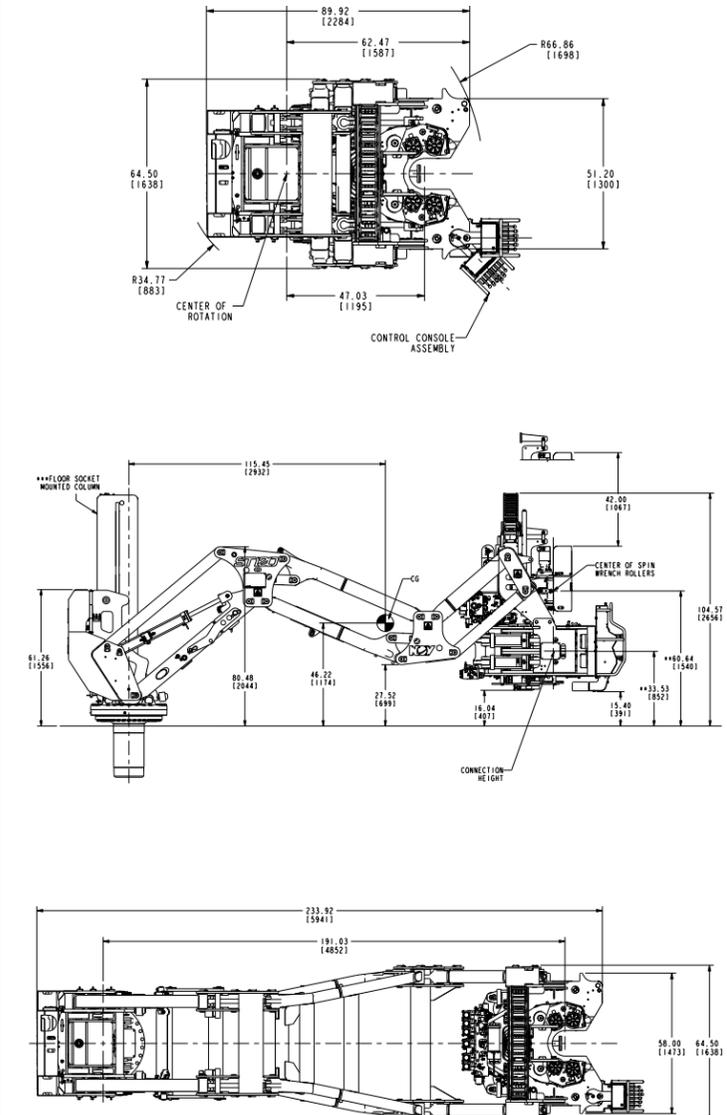


Technical Specifications

Controls	Local manual, Hard-wired remote console, Integrated NOV driller's control
Mount	Pedestal with floor mounted socket
Pedestal Rotation	±90° (power slew)
Hydraulic Requirements (min)	45 GPM @ 2,500 psi (170 LPM @ 172 bar)
Hydraulic Requirements (max)	55 GPM @ 3,000 psi (208 LPM @ 207 bar)
Assembly Weight	11,500 lbs (5,216 kg)
Tool Joint Connection (OD) Range	*3 1/2" to 9 3/4"
Spin Speed	80 RPM with 5" DP, 45 GPM
Spin Torque	3,000 ft-lbs (4,067 N-m) with 5" DP, 45 GPM
Maximum Makeup Torque	100,000 ft-lb (135,582 N-m)
Maximum Breakout Torque	120,000 ft-lb (162,698 N-m)
Connection Height	30" to 66" (762 mm to 1,676 mm)
Horizontal Travel**	60" (1,524 mm) or 96" (2,438 mm)
Vertical Adjustment	36" (914 mm)
Casing Ready	No
Torque Wrench Angle	60°

* ST-80 and ST-100 can make/break certain tool joints on 2 7/8" drill pipe
 ** NOV classifies total horizontal travel as the distance between points A and B. Point A is defined as the centerline of the jaw dies when the iron roughneck is fully retracted. Point B is defined as the centerline of the jaw dies when the iron roughneck is fully extended.

ST-120



Technical Specifications

Controls	Local manual, Hard-wired remote console, Integrated NOV driller's control
Mount	Pedestal with floor mounted socket
Pedestal Rotation	±90°
Hydraulic Requirements (min)	45 GPM @ 2,500 psi (170 LPM @ 172 bar)
Hydraulic Requirements (max)	65 GPM @ 3,000 psi (246 LPM @ 207 bar)
Assembly Weight	19,800 lbs (8,981 kg) installed weight
Tool Joint Connection (OD) Range	3 7/8" to 10"
Spin Speed	80 RPM (nominal on 5" DP)
Spin Torque	3,000 ft-lbs (4,067 N-m)
Maximum Makeup Torque	100,000 ft-lb (135,582 N-m)
Maximum Breakout Torque	120,000 ft-lb (162,698 N-m)
Connection Height	31.5" to 73.4" (800 mm to 1,864 mm)
Horizontal Travel*	144" (3,658 mm)
Vertical Adjustment	42" (1,067 mm)
Casing Ready	No
Torque Wrench Angle	60°

* NOV classifies total horizontal travel as the distance between points A and B. Point A is defined as the centerline of the jaw dies when the iron roughneck is fully retracted. Point B is defined as the centerline of the jaw dies when the iron roughneck is fully extended.