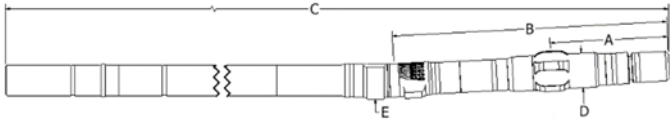


RVEN-86 : 9/10 Lobe 3.0 Stage

Dimensions

Bit to Stabilizer Center	A	NA in
Bit to Bend, Fixed	B	76 in
Bit to Top Sub	C	406 in
Body OD, Slick	D	8.62 in
Pad Radius, Fixed	E	4.25 in
Bottom Connection	4-1/2 REG Box 6-5/8 REG Box 4-1/2 IF Pin	
Top Connection	4-1/2 IF Box 4-1/2 XH Box	
Top Sub Float Bore	4R	

Recommended Operating Limits

Max WOB	158,000 lbf
Max Overpull, Backream	228,000 lbf
Max Overpull, Re-Run	286,000 lbf
Max Overpull, POOH	847,000 lbf

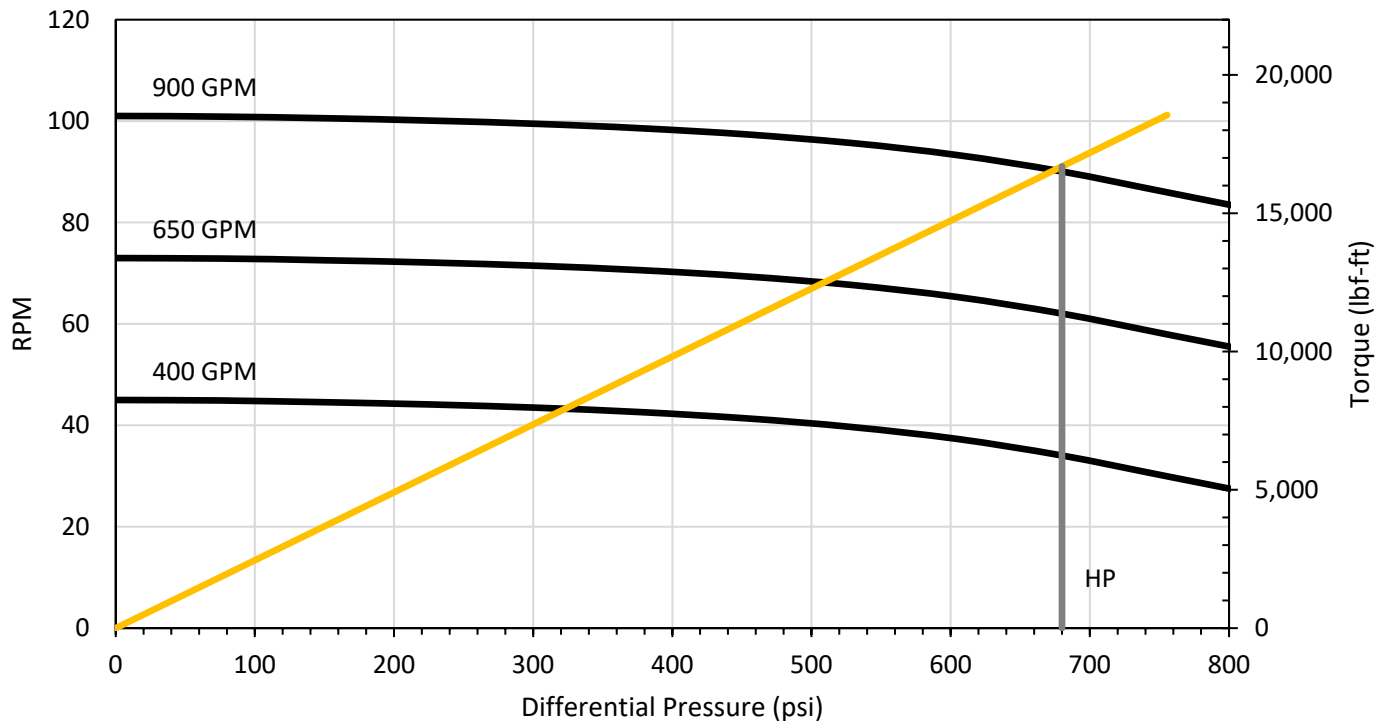
Predicted Build Rates (Fixed) – Degrees/100ft

Bend Setting	Slick Hole Size			Stabilized Hole Size		
	Deg	9 7/8	10 5/8	12 1/4	9 7/8	10 5/8
0.78	2.2	0.9	2.0	3.8	4.2	4.8
1.15	4.3	3.0	0.1	5.6	5.9	6.6
1.50	6.3	5.0	2.1	7.3	7.6	8.3
1.75	7.8	6.4	3.5	8.5	8.8	9.5
1.83	8.2	6.9	4.0	8.9	9.2	9.9
2.00	9.2	7.8	4.9	9.7	10.0	10.7
2.12	9.9	8.5	5.6	10.3	10.6	11.3
2.25*	10.6	9.3	6.3	10.9	11.2	11.9
2.38*	11.4	10.0	7.1	11.6	11.9	12.6
2.50*	12.0	10.7	7.8	12.1	12.5	13.1

*Bend Setting not recommended for Rotary Drilling

Performance Details

	HP
Max Diff Pressure	680 psi
Max Torque	16,580 lbf-ft
Stall Torque	24,860 lbf-ft
Rotation	0.112 rev/gal
Flow Range	400-900 gpm
Speed Range	45-101 rpm

Theoretical Performance Curve


Performance curves based on testing at 70°F. Actual field performance may vary with field operation conditions.