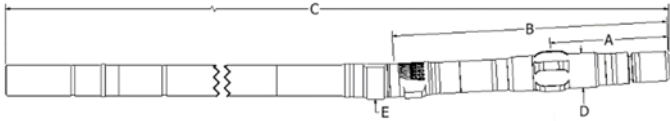


RVEN-86 : 4/5 Lobe 6.0 Stage

Dimensions

Bit to Stabilizer Center	A	NA in
Bit to Bend, Fixed	B	76 in
Bit to Top Sub	C	432 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

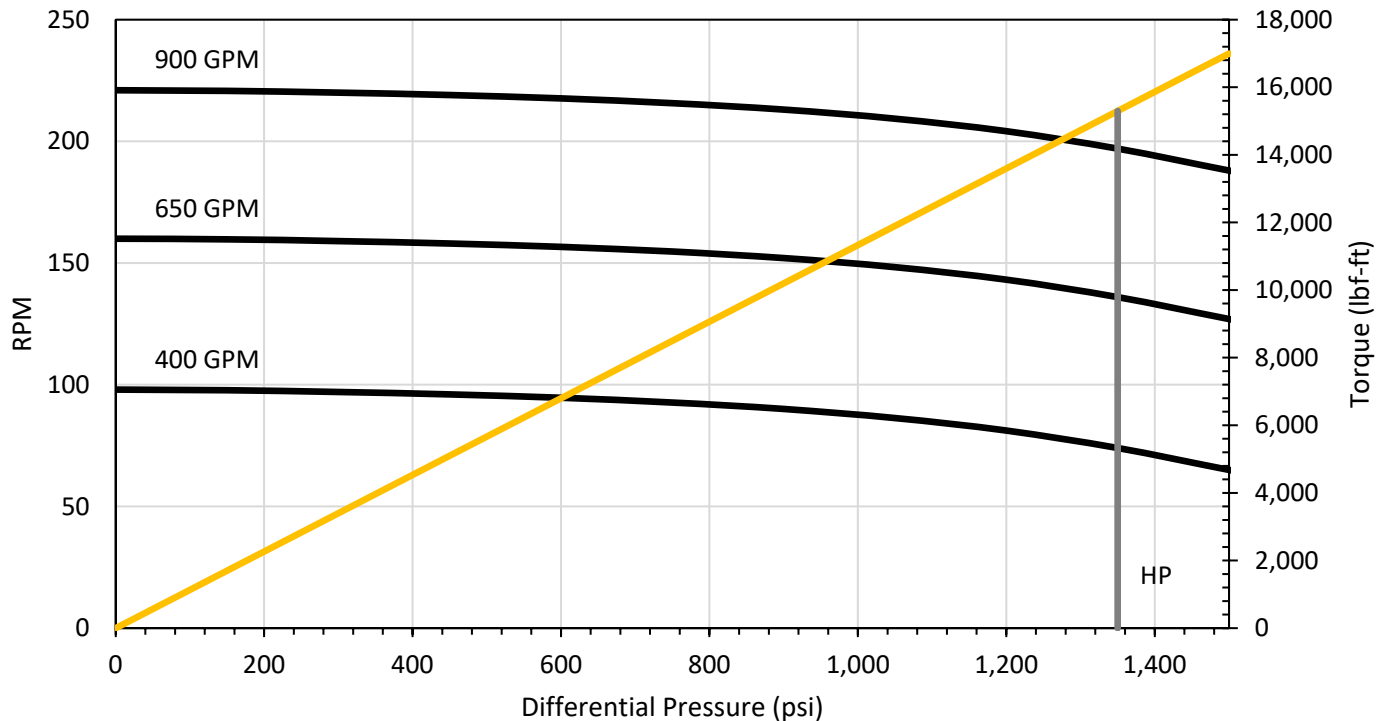
Predicted Build Rates (Fixed) – Degrees/100ft

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	2.1	0.8	1.9	3.6	3.9	4.5
1.15	4.1	2.8	0.1	5.3	5.6	6.2
1.50	6.0	4.7	1.9	6.9	7.2	7.8
1.75	7.3	6.0	3.3	8.1	8.4	9.0
1.83	7.7	6.5	3.7	8.4	8.7	9.3
2.00	8.6	7.4	4.6	9.2	9.5	10.1
2.12	9.3	8.0	5.3	9.8	10.0	10.6
2.25*	10.0	8.7	6.0	10.4	10.6	11.2
2.38*	10.7	9.4	6.7	11.0	11.2	11.8
2.50*	11.3	10.1	7.3	11.5	11.8	12.4

*Bend Setting not recommended for Rotary Drilling

Performance Details

Performance Details	HP
Max Diff Pressure	1,350 psi
Max Torque	15,300 lbf-ft
Stall Torque	22,950 lbf-ft
Rotation	0.246 rev/gal
Flow Range	400-900 gpm
Speed Range	98-221 rpm

Theoretical Performance Curve


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