

POWER SECTION

Model No: AT515784.1 HT OPTI

Revised: 8/16/2022

Rotor Specifications	
	inches
Overall Length	244.00
Contour Length	238.00
Major Diameter	3.422
Eccentricity	
Head diameter	3.400
Thread Form	2.875 HEF Modified
Weight	485 lbs
Material	17-4 PH ¹

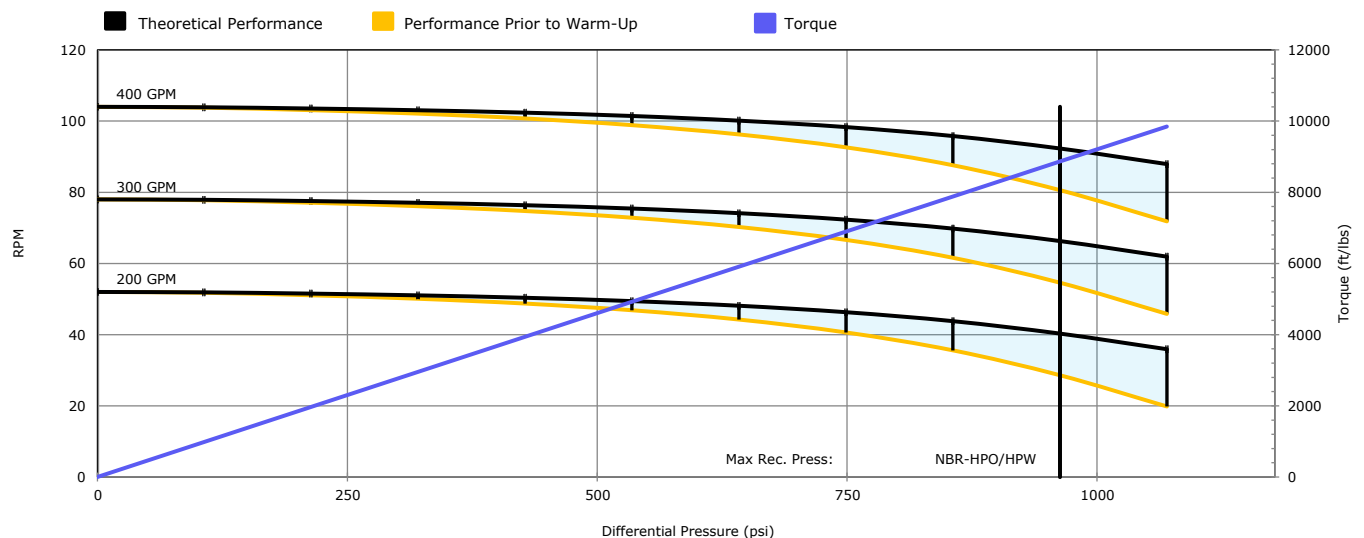
Stator Specifications	
	inches
Overall Length	250.00
Tube OD	5.15
Tube ID	4.00
Rubber Cutback Top/End	8.00 / 8.00
Weight	487 lbs
Number of Stages	4.1
Tube Material	4140/4142 Alloy Steel
Rubber Options	NBR-HPO/NBR-HPW

Performance Specifications	
Flow Range (gpm)	200 - 400
Speed Range (rpm)	50 - 100
Torque Slope (ft-lb/psi)	9.20
Rotation (rev/gal)	0.260
Off Bottom Pressure (psi)	60

Performance Details	
	NBR-HPO/NBR-HPW
Max Diff Press (psi)	970
Stall Diff Press (psi)	1520
Max Torque (ft-lb)	8870
Stall Torque (ft-lb)	13970

Size	Minor ²	Fit @ 75°F	Stator Sizing and Fit Chart ³	
.5 US	-	-	-	Fit Not Available
STD	-	-	-	Fit Not Available
.5 OS	3.006	-0.011	140°F	170°F OPTIMAL RANGE 250°F 280°F
1.0 OS	3.016	-0.021	170°F	210°F OPTIMAL RANGE 290°F 320°F
1.5 OS	-	-	-	Fit Not Available
2.0 OS	-	-	-	Fit Not Available
2.5 OS	-	-	-	Fit Not Available

Minor Diameter Change = 0.001" per 3.5 °F ΔFit = 0.00028" per 1°F



¹ Coating options of chrome or tungsten carbide are available ² Vector Gauge Readings at Room Temp 75°F (measured from the top end) ³ Chart temp shows potential of the individual fit and not necessarily the elastomer. BHCT Exceeding 320°F will void warranty for NBR-HPO/NBR-HPW. Performance curves are based on new rotor and stator dimensions and for reference only. Actual performance may vary depending on fit and drilling conditions. The stall torque may exceed that specified for the connected components. Operating over the recommended limits may result in damage to the power section and connected components. Please visit www.AbacoDrilling.com for the latest specification revisions.

LOCATIONS

US: Headquarters
 US: Sales & Distribution
 CANADA: Stator Manufacturing
 DUBAI UAE: Stator Manufacturing

713 Northpark Central Dr., #400 Houston, TX 77073 - Tel: (281) 869-0700 - Fax: (281) 869-0701
 11308 West Interstate 20 East, Odessa, TX 79765 - Tel: (432) 248-1814
 6303-39th Street Leduc, Alberta T9E 0Z3 Canada - Tel: (780) 986-8947 - Fax: (780) 986-8842
 Oilfields Supply Center B#57, Jebel Ali, Dubai UAE, P.O. Box 19909 - Tel: 971-4-870-8600

POWER SECTION - METRIC

Model No: AT515784.1 HT OPTI

Revised: 8/16/2022

Rotor Specifications	
	mm
Overall Length	6197.6
Contour Length	6045.2
Major Diameter	86.92
Eccentricity	
Head diameter	86.36
Thread Form	2.875 HEF Modified
Weight	220 kg
Material	17-4 PH ¹

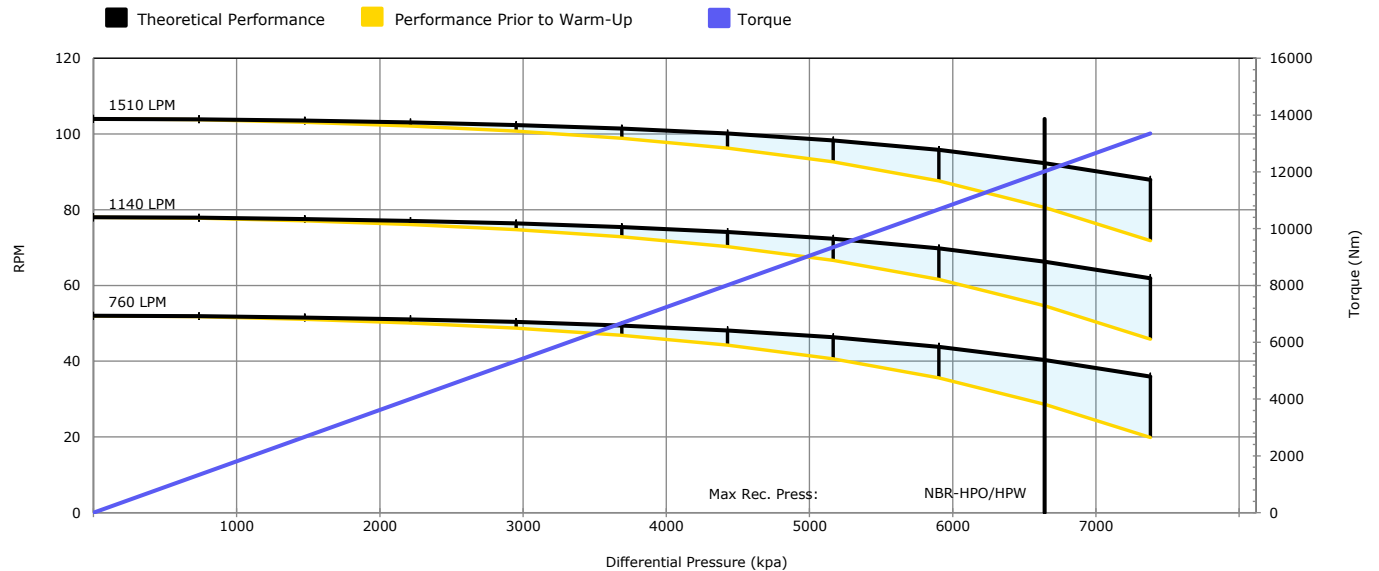
Stator Specifications	
	mm
Overall Length	6350.0
Tube OD	130.8
Tube ID	101.6
Rubber Cutback Top/End	203.0 / 203.0
Weight	221 kg
Number of Stages	4.1
Tube Material	4140/4142 Seamless Alloy Steel
Rubber Options	NBR-HPO/NBR-HPW

Performance Specifications	
Flow Range (lpm)	760 - 1510
Speed Range (rpm)	50 - 100
Torque Slope (Nm/kpa)	1.81
Rotation (rev/Liter)	0.0687
Off Bottom Pressure (kpa)	420

Performance Details	
	NBR-HPO/NBR-HPW
Max Diff Press (kpa)	6700
Stall Diff Press (kpa)	10500
Max Torque (Nm)	12100
Stall Torque (Nm)	19000

Size	Minor ²	Minor ²	Stator Sizing and Fit Chart ³	
.5 US	-	-	-	Fit Not Available
STD	-	-	-	Fit Not Available
.5 OS	76.352	-0.292	60°C	80°C OPTIMAL RANGE 120°C 140°C
1.0 OS	76.606	-0.546	80°C	100°C OPTIMAL RANGE 140°C 160°C
1.5 OS	-	-	-	Fit Not Available
2.0 OS	-	-	-	Fit Not Available
2.5 OS	-	-	-	Fit Not Available

Minor Diameter Change = 0.025 mm per 1.97 °C ΔFit = 0.0129 mm per 1°C



¹ Coating options of chrome or tungsten carbide are available ² Vector Gauge Readings at Room Temp 25°C (measured from the top end) ³ Chart temp shows potential of the individual fit and not necessarily the elastomer. BHCT Exceeding 160°C will void warranty for NBR-HPO/NBR-HPW.

Performance curves are based on new rotor and stator dimensions and for reference only. Actual performance may vary depending on fit and drilling conditions. The stall torque may exceed that specified for the connected components. Operating over the recommended limits may result in damage to the power section and connected

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