Abaco DRILLING TECHNOLOGIES

# POWER SECTION

## Model No: AT500783.7

Revised: 9/11/2019

| Rotor Specification | |
|---|---|
| Overall Length | 214.75 in. |
| Contour Length | 208.25 in. |
| Major Diameter | 3.122 in. |
| Eccentricity | 0.177 in. |
| Head Diameter | 3.250 in. |
| Thread Form | 1.375-6 SA |
| Weight | 377 lbs. |
| Material | 17-4 PH[1] |

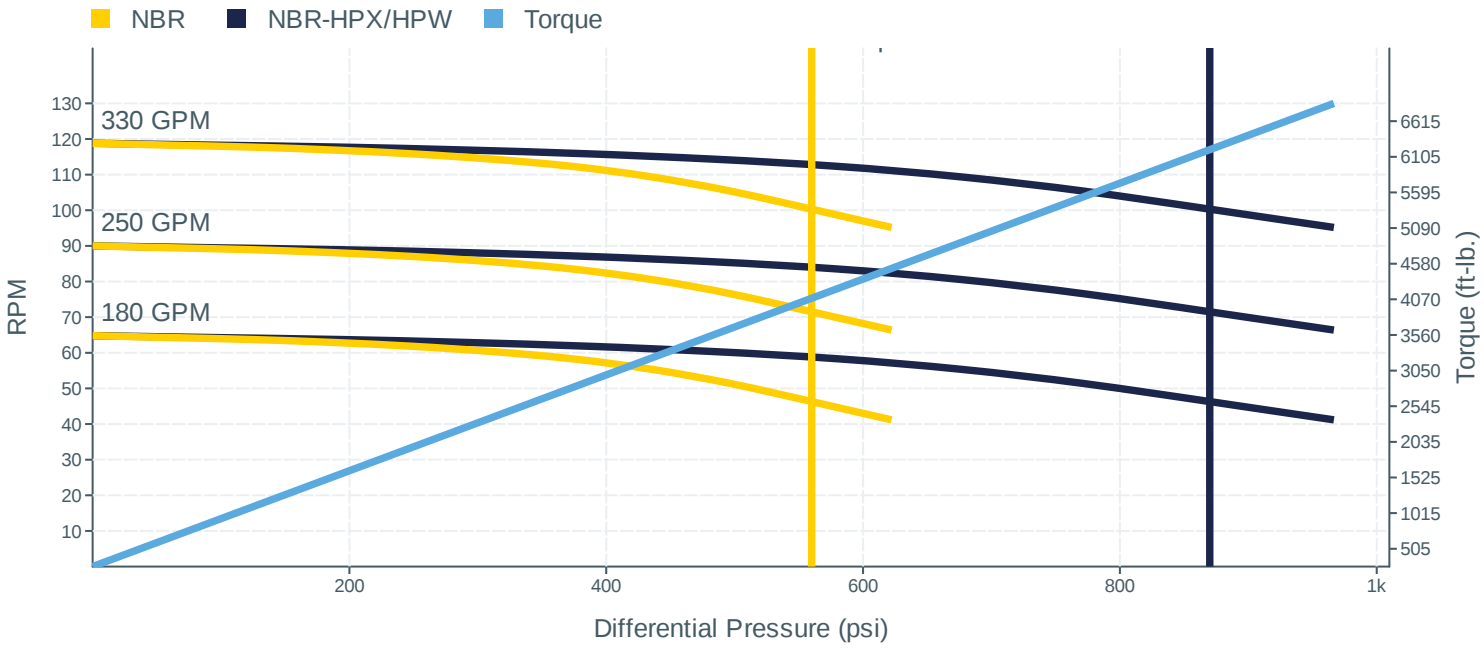
| Stator Specification | |
|---|---|
| Overall Length | 235.00 in. |
| Tube OD | 5.00 in. |
| Tube ID | 3.88 in. |
| Rubber Cutback Top/End | 8/15.5 in. |
| Weight | 555 lbs. |
| Number of Stages | 3.7 in. |
| Tube Material | 4140/4142 Alloy Steel |
| Rubber Options | NBR, NBR-HPX/HPW |

| NBR (in.) | | Fits (+Compression / -Loose) | | | | |
|---|---|---|---|---|---|---|
| Size | Minor[2] | 75°F | 125°F | 175°F | 250°F | 300°F[3] |
| 0.5 US | -- | -- | -- | -- | -- | -- |
| STD | 2.769 | 0.000 | 0.013 | 0.025 | 0.045 | 0.057 |
| 0.5 OS | 2.779 | -0.010 | 0.003 | 0.015 | 0.034 | 0.047 |
| 1 OS | 2.789 | -0.020 | -0.008 | 0.005 | 0.024 | 0.036 |
| 1.5 OS | 2.799 | -0.030 | -0.018 | -0.005 | 0.013 | 0.026 |
| 2 OS | -- | -- | -- | -- | -- | -- |
| 2.5 OS | -- | -- | -- | -- | -- | -- |

| NBR-HPX/HPW (in.) | | Fits (+Compression / -Loose) | | | | |
|---|---|---|---|---|---|---|
| Size | Minor[2] | 75°F | 125°F | 175°F | 250°F | 300°F[3] |
| 0.5 US | -- | -- | -- | -- | -- | -- |
| STD | 2.765 | 0.004 | 0.017 | 0.030 | 0.049 | 0.061 |
| 0.5 OS | 2.775 | -0.006 | 0.007 | 0.019 | 0.038 | 0.051 |
| 1 OS | 2.785 | -0.016 | -0.003 | 0.009 | 0.028 | 0.040 |
| 1.5 OS | 2.794 | -0.025 | -0.013 | 0.000 | 0.019 | 0.031 |
| 2 OS | -- | -- | -- | -- | -- | -- |
| 2.5 OS | -- | -- | -- | -- | -- | -- |

| Performance Specifications | |
|---|---|
| Flow Range | 180 - 330 GPM |
| Speed Range | 60 - 120 RPM |
| Torque Slope | 6.85 ft-lb./psi |
| Rotation | 0.360 rev/gal |
| Off Bottom Pressure | 60 psi |

| Performance Details | | |
|---|---|---|
| | NBR | NBR-HPX/HPW |
| Max Diff. Press. | 560 psi | 870 psi |
| Stall Diff. Press. | 840 psi | 1370 psi |
| Max Torque | 3810 ft-lb. | 5960 ft-lb. |
| Stall Torque | 5710 ft-lb. | 9390 ft-lb. |




[1] Coating options of chrome or tungsten carbide are available [2] Vector Gauge Readings at Room Temp 75°F [3] BHCT Exceeding 275°F will void warranty for NBR (320°F for HPW/HPX)

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 abacodrilling.com for the latest specification revisions.


LOCATIONS

| | | |
|---|---|---|
| US | Headquarters | 713 Northpark Central Dr., #400 Houston, TX 77073 - Tel: (281) 869-0700 - Fax: (281) 869-0701 |
| US | Sales & Distribution | 11308 West Interstate 20 East, Odessa, TX 79765 - Tel: (432) 248-1814 |
| CANADA | Stator Manufacturing | 6303-39th Street Leduc, Alberta T9E 0Z3 Canada - Tel: (780) 986-8947 - Fax: (780) 986-8842 |
| UAE | Sales & Distribution | Building #57 Oilfield Supply Center, PO Box 191909, JAFZA, Dubai, UAE - Tel: +971 4 8708600 |


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Abaco DRILLING TECHNOLOGIES

# POWER SECTION – METRIC

## Model No: AT500783.7

Revised: 9/11/2019

| Rotor Specification | |
|---|---|
| Overall Length | 5454.7 mm |
| Contour Length | 5289.5 mm |
| Major Diameter | 79.30 mm |
| Eccentricity | 4.50 mm |
| Head Diameter | 82.60 mm |
| Thread Form | 1.375-6 SA |
| Weight | 171 kgs |
| Material | 17-4 PH[1] |

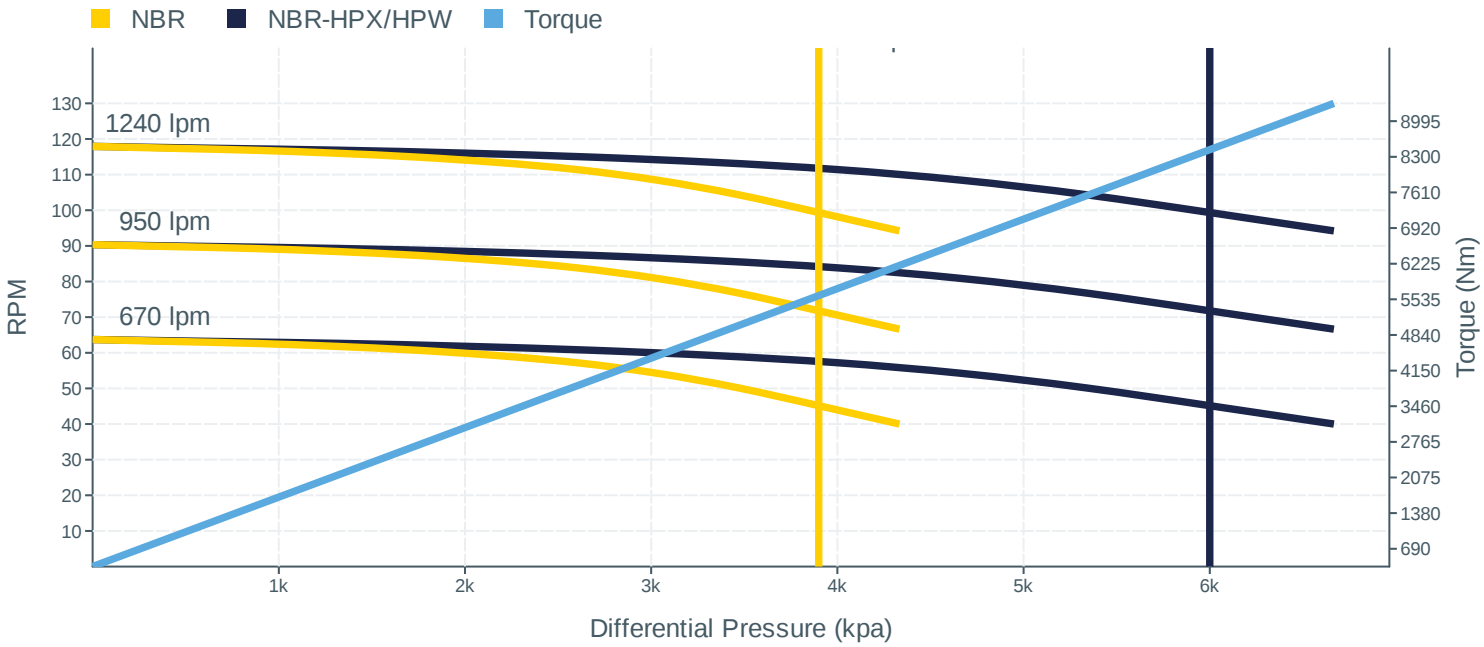
| Stator Specification | |
|---|---|
| Overall Length | 5969.0 mm |
| Tube OD | 127.0 mm |
| Tube ID | 98.6 mm |
| Rubber Cutback Top/End | 203.2/393.7 mm |
| Weight | 252 kgs |
| Number of Stages | 3.7 mm |
| Tube Material | 4140/4142 Alloy Steel |
| Rubber Options | NBR, NBR-HPX/HPW |

| NBR (mm) | | Fits (+Compression / -Loose) | | | | |
|---|---|---|---|---|---|---|
| Size | Minor[2] | 24°C | 52°C | 79°C | 121°C | 149°C[3] |
| 0.5 US | -- | -- | -- | -- | -- | -- |
| STD | 70.33 | 0.00 | 0.33 | 0.64 | 1.14 | 1.45 |
| 0.5 OS | 70.59 | -0.25 | 0.08 | 0.38 | 0.86 | 1.19 |
| 1 OS | 70.84 | -0.51 | -0.20 | 0.13 | 0.61 | 0.91 |
| 1.5 OS | 71.09 | -0.76 | -0.46 | -0.13 | 0.33 | 0.66 |
| 2 OS | -- | -- | -- | -- | -- | -- |
| 2.5 OS | -- | -- | -- | -- | -- | -- |

| NBR-HPX/HPW (mm) | | Fits (+Compression / -Loose) | | | | |
|---|---|---|---|---|---|---|
| Size | Minor[2] | 24°C | 52°C | 79°C | 121°C | 149°C[3] |
| 0.5 US | -- | -- | -- | -- | -- | -- |
| STD | 70.23 | 0.10 | 0.43 | 0.76 | 1.24 | 1.55 |
| 0.5 OS | 70.49 | -0.15 | 0.18 | 0.48 | 0.97 | 1.30 |
| 1 OS | 70.74 | -0.41 | -0.08 | 0.23 | 0.71 | 1.02 |
| 1.5 OS | 70.97 | -0.63 | -0.33 | 0.00 | 0.48 | 0.79 |
| 2 OS | -- | -- | -- | -- | -- | -- |
| 2.5 OS | -- | -- | -- | -- | -- | -- |

| Performance Specifications | |
|---|---|
| Flow Range | 670 - 1240 lpm |
| Speed Range | 60 - 120 RPM |
| Torque Slope | 1.35 Nm/kpa |
| Rotation | 0.0951 rev/liter |
| Off Bottom Pressure | 420 kpa |

| Performance Details | | |
|---|---|---|
| | NBR | NBR-HPX/HPW |
| Max Diff. Press. | 3900 kpa | 6000 kpa |
| Stall Diff. Press. | 5800 kpa | 9500 kpa |
| Max Torque | 5200 Nm | 8100 Nm |
| Stall Torque | 7800 Nm | 12800 Nm |




[1] Coating options of chrome or tungsten carbide are available [2] Vector Gauge Readings at Room Temp 25°C [3] BHCT Exceeding 135°C will void warranty for NBR (160°C for HPW/HPX)

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 abacodrilling.com for the latest specification revisions.


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