

# MUD MOTOR GAGES

## *Mud Motor Power Section Gages*

### Rotor **and** Stator Gages



Ensure a proper fit between the rotor and the stator in the power section...

Optimize performance of the power section through stringent inspection...

Evaluate stator wear life with successive accurate measurements between field runs...



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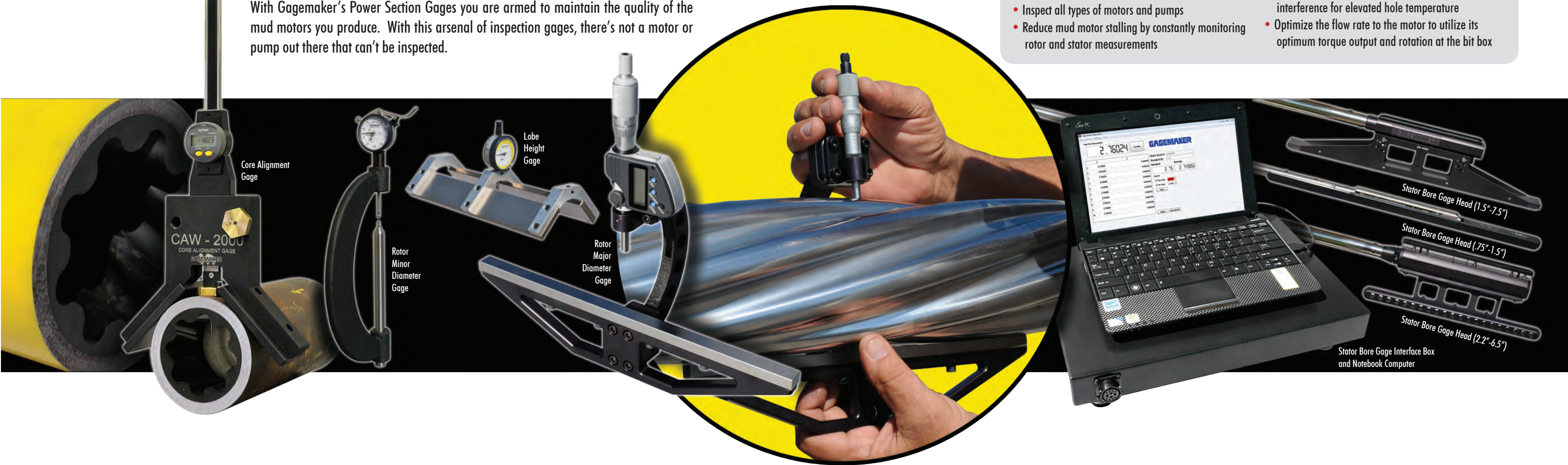
## Maximize the Performance of Your Power Section

Drilling faster without stalls is critical to any drilling operation. The demands placed on the drilling motor to achieve optimum performance require the proper fit between the rotor and the stator in the power section. Gagemaker's **Power Section Gages** ensure this fit meets these specifications.

With Gagemaker's Power Section Gages you are armed to maintain the quality of the mud motors you produce. With this arsenal of inspection gages, there's not a motor or pump out there that can't be inspected.

### Trust Gagemaker Rotor and Stator Gages to Maximize the Performance of Your Power Section

- Determine the initial Rotor/Stator interference for quality assurances
- Avoid damage and excessive repair costs from stalls
- Inspect all types of motors and pumps
- Reduce mud motor stalling by constantly monitoring rotor and stator measurements
- Maintain the quality of the power section
- Extend the overall life of the motor
- Extend stator life through monitoring and adjusting interference for elevated hole temperature
- Optimize the flow rate to the motor to utilize its optimum torque output and rotation at the bit box



### ENSURE THE MOLDING CORE IS CENTERED

Verification that the core was properly placed when the stator was molded is easily checked using the Core Alignment Gage. The gage is supplied with brass alignment inserts that match the thread of the injection ports. The digital gage plunges a needle through the rubber to contact the core. Measurements are made at 180° locations to verify that the core is indeed centrally located to the OD of the stator.

### ACCURATE STATOR BORE MEASUREMENTS

Inspection of the stator's elastomer minor diameter requires a gage that is sensitive enough to capture the minor diameter without deforming surface of the material. The design of the Stator Bore Gages take this into consideration by minimizing gage weight and measuring force. The gage exerts just the right amount of contact force to achieve an accurate measurement without deforming the surface of the elastomer. By taking multiple measurements through the stator's bore, the electronic gage's software records and averages the readings and displays an average diameter that is then compared to the rotor to achieve the necessary mated fit.

### HOLD LOBE RELATIONSHIPS TO SPECIFICATION

The last weapon in the inspection arsenal is the Lobe Height Gage. This gage sets on top of the spiral lobes of the rotor and measures the variation in lobe height. Sliding the gage along the length of the rotor detects variation in root to crest height of all the lobes. Measurements can be taken at 90° or 180° intervals to provide an accurate dimensional map of the relationship between lobes. This inspection aids in manufacturing the rotor to specification.

### ACCURATELY MEASURE THE MAJOR DIAMETER OF THE ROTOR

The unmatched structural integrity of the Rotor Major Diameter Gages provides repeatable measurements of the major diameter of the spiral rotor. This gage is available with several lengths of base and diameter ranges to bridge across the broadest variety of rotor configurations.

### VERIFY ROTOR MINOR DIAMETERS ARE CONSISTENT

Inspect variation in the minor diameter of the rotor with the Rotor Minor Diameter Gage. This gage has a measuring range of 0"-6" and places opposing carbide ball contacts in the root of the spiral to check for deviation from one end of the rotor to the other. This hand held gage easily sweeps to locate the minor diameter.



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## Computerized Accuracy

Each of Gagemaker's electronic Stator Bore Gages provides data collection and data storage options of bore measurements. The gage is supplied with your choice of a light duty netbook or a heavy duty notebook computer. Both provide the ability to enter a serial number and store inspection data to a database for future reference. The data can also be ported through a wireless link to a network printer or central computer for further processing. An optional printer is available to document field measurements.

Durable, accurate, easy to use, the Gagemaker Stator Bore Gages ensure your quality remains at the highest level possible.



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