### General Engine Data

<table>
<thead>
<tr>
<th>Metric [U.S. Customary]</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>4 cycle, Inline, 4 cylinder</td>
</tr>
<tr>
<td>Bore &amp; Stroke</td>
<td>102 [4.02] x 119 [4.72]</td>
</tr>
<tr>
<td>Displacement</td>
<td>3.9 [239]</td>
</tr>
<tr>
<td>C.G. Distance from Front Flywheel Housing Mounting Face (Engine Only)</td>
<td>269 [10.6]</td>
</tr>
<tr>
<td>C.G. Distance above Crankshaft Centerline (Engine Only)</td>
<td>168 [6.6]</td>
</tr>
</tbody>
</table>

### Engine Mounting

- Maximum Allowable Bending Moment at Rear Face of Block: 1356 [1000] N•m [lb-ft]
- Minimum/Maximum Static Installation Angle for In-line Drives (Front Up): 0 / 12 Degrees
- Minimum/Maximum Static Installation Angle for V drives (Front Up): 3 / 12 Degrees

Note: Front up refers to front of engines. In V-Drives it faces the back of the boat.

### Fuel System

- Maximum Allowable Restriction to Fuel Pump - With Clean Filter: 63.5 [2.5] mm Hg [in. Hg]
- Maximum Allowable Restriction to Fuel Pump - With Dirty Filter: 100 [4] mm Hg [in. Hg]
- Maximum Allowable Return Line Pressure 4B/BT: 259 [10.2] mm Hg [in. Hg]
- Maximum Allowable Return Line Pressure 4BTA: 517 [20.4] mm Hg [in. Hg]

### Exhaust System

- Maximum Allowable Back Pressure: 75 [3] mm Hg [in. Hg]

### Air Induction System

- Maximum Allowable Intake Restriction

### Lubrication System

- Oil Pressure
  - At Idle Speed-Minimum: 69 [10] kPa [PSI]
  - Normal Operating Range: 207 - 448 [30 - 65] kPa [PSI]
- Maximum Allowable Oil Temperature (Sump): 120 [250] °C [°F]
- Maximum Operational Angularity of Oil Pan (See Engine Mounting)
  - Front Down: 20 Degrees
  - Front Up: 45 Degrees
  - Side-to-Side: 45 Degrees

### Cooling System

- Coolant Capacity - Engine Only: 8.3 [8.8] litre [U.S. qts]
- Maximum Static Pressure of Coolant (exclusive of Pressure Cap): 103 [15] kPa [PSI]
- Maximum Coolant Temperature: 96 [205] °C [°F]
- Minimum Allowable Coolant Expansion Space: 5 % of System Capacity
- Minimum Coolant Makeup Capacity: 1.7 [1.8] litre [U.S. qts]
- Maximum Sea Water Pressure: 103 [15] kPa [PSI]

### CUMMINS ENGINE COMPANY, INC.
COLUMBUS, INDIANA

All Data is Subject to Change Without Notice - consult the following Cummins intranet site for most recent data:
### Electrical System

<table>
<thead>
<tr>
<th>Minimum Recommended Battery Capacity</th>
<th>12V</th>
<th>24V</th>
</tr>
</thead>
<tbody>
<tr>
<td>4B/4BT Cold Soak at -18°C (0°F)</td>
<td>800</td>
<td>400</td>
</tr>
<tr>
<td>Cold Soak at 0°C (32°F)</td>
<td>1000</td>
<td>500</td>
</tr>
<tr>
<td>4BTA Cold Soak at -18°C (0°F)</td>
<td>1100</td>
<td>500</td>
</tr>
<tr>
<td>Cold Soak at 0°C (32°F)</td>
<td>1375</td>
<td>625</td>
</tr>
</tbody>
</table>

| Reserve Capacity                      | 160 | 160 |
| Voltage Drop                           | 0.2 | 0.2 |
| Maximum Allowable Resistance of Starting Circuit | 0.0012 | 0.004 |

| Wiring Diagram Number 4B/BT           | 3920181 |
| Wiring Diagram Number 4BTA             | TBD    |