Improving Workforce Efficiency
• Standard factory certifications improve worksite safety
  - ATEX Directive (2014/34/EU) Group IIA
  - Category 3G (Zone 2) Temperature Class T3.
• Certified flameproof intake system to prevent any internal explosions from propagating to external atmosphere
• ATEX-designed and tested exhaust system, compliant to EN 1834-1

Making Your Investment Work Harder
• Maintains high power over broad range of operating speeds, improving performance
• Steady torque rise provides superior load acceptance
• Optimized ambient and altitude capabilities for operating flexibility

PACKAGE SPECIFICATIONS
I-4, 4-Stroke-Cycle Diesel
Emissions .......................... Non-regulated
Peak Torque at Speed
  (with fan) ............... 477 N•m (352 lb-ft) @ 1800 rpm
Bore .......................... 105 mm (4.13 in)
Stroke ............................. 127 mm (5 in)
Displacement .................... 4.4 L (268.5 in³)
Aspiration ..................... Turbocharged-Aftercooled
Governor and Protection .......... Woodward
Weight, Net Dry (approx) ........ 1118.5 kg (2465lbs)
Capacity for Liquids
  Lube System (refill) ........... 9 L (9.5 U.S. qts)
  Cooling System ............... 24.6 L (26.0 U.S. qts)
Oil Change Interval .............. 500 hours
Rotation (from flywheel end) .......... Counterclockwise
Flywheel and Flywheel Housing .......... SAE No. 3
Flywheel Teeth .................... 126

FEATURES
Improving Workforce Efficiency
• Improved serviceability versus the competition
• 350 hour* exhaust flame arrestor interval option

Driving Down Total Cost of Ownership
* Dependent on duty cycle and fuel quality
HAZPAK SOLUTION

- Matched exhaust and inlet systems
- Take the risk out of specification and procurement of individual parts
- All skin temperatures and exhaust gas < 200°C (T3)
- Certified to maintain T3 skin temperatures for up to 45°C ambient applications

Class-leading safety
- ATEX 2014/34/EU
- Machinery Safety Directive 2006/42/EC
- IECEx

STANDARD PACKAGE EQUIPMENT

Air Inlet System
ATEX-designed and tested inlet system, compliant to EN 1834-1; stainless steel flame arrestor; integrated air shutdown valve, activates on overspeed and emergency stop; available in hydraulic or pneumatic configurations; air cleaner, single element canister type with service indicator and rain cap

Cooling System
Closed cooling system with air blast radiator and charge air cooling, marine radiator with full solder-dipped core, radiator cooled packages sized for 45°C ambient air temp, gear-driven centrifugal jacket water pump, de-aeration expansion tank, exhaust gas heat exchanger, additional heat load from exhaust heat exchanger included in cooling circuit

Exhaust System
ATEX-designed and tested exhaust system, compliant to EN 1834-1; comprised of exhaust gas heat exchanger; stainless steel flame arrestor; stainless steel spark arrestor; water-cooled exhaust manifold, water-cooled turbocharger

Flywheel and Flywheel Housing
SAE 3 flywheel housing, 126 tooth flywheel

Fuel System
Mechanical fuel injection, primary fuel filter/water separator with 1/4” BSPP connectors (LH), secondary fuel filter (LH), fuel priming pump manual, fuel shutoff valve

General
Package ambient capability is -20°C to 45°C; designed for Gas Group IIA; all systems meet temperature class T3 (200°C limit); includes a declaration of conformity for the entire package scope; radiator package, engine, and exhaust system fitted to sub-frame; air filter, fuel/water separator, remote oil filter installed and mounted; earth bonding per standard EN 60079-14

Lube System
Oil filter (LH), locking dipstick (LH), locking oil filler, flame trap breather

OPTIONAL EQUIPMENT

Air Compressor
Single cylinder, 225 CC with head unloader

Charging System
12V, 45A alternator with 75AH battery pack
24V 16A alternator with 75AH battery pack
24V 25A alternator with 75AH battery pack

Control System
Local panel at side of engine, includes: coolant temperature gauge, lube oil pressure gauge, exhaust gas temperature gauge, exhaust gas backpressure gauge, engine speed gauge, stop switch

Exhaust System
18 dBA spark arrestor/muffler, ATEX-approved

Shutdown System
Pneumatic and hydraulic solutions

Starting System
Pneumatic, electric, and hydraulic starters
PERFORMANCE DATA

Turbocharged-Aftercooled — 2200 rpm

General Performance Data Including Fan

<table>
<thead>
<tr>
<th>Engine Speed rpm</th>
<th>Engine Power</th>
<th>Engine Torque</th>
<th>BSFC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>bkW  bhp</td>
<td>N•m  lb-ft</td>
<td>g/bkW-hr</td>
</tr>
<tr>
<td>2200</td>
<td>91 122</td>
<td>395 291</td>
<td>244.9 .403</td>
</tr>
<tr>
<td>2100</td>
<td>92 123</td>
<td>418 308</td>
<td>238.2 .392</td>
</tr>
<tr>
<td>2000</td>
<td>92 123</td>
<td>439 324</td>
<td>232.7 .383</td>
</tr>
<tr>
<td>1900</td>
<td>91 122</td>
<td>457 337</td>
<td>227.5 .374</td>
</tr>
<tr>
<td>1800</td>
<td>90 121</td>
<td>477 352</td>
<td>221.2 .364</td>
</tr>
<tr>
<td>1700</td>
<td>84 113</td>
<td>472 348</td>
<td>224.7 .369</td>
</tr>
<tr>
<td>1600</td>
<td>78 105</td>
<td>466 344</td>
<td>226.2 .372</td>
</tr>
<tr>
<td>1500</td>
<td>74 99</td>
<td>471 347</td>
<td>223.0 .367</td>
</tr>
<tr>
<td>1400</td>
<td>68 91</td>
<td>464 342</td>
<td>224.1 .368</td>
</tr>
<tr>
<td>1300</td>
<td>62 83</td>
<td>455 336</td>
<td>223.9 .368</td>
</tr>
<tr>
<td>1200</td>
<td>56 75</td>
<td>446 329</td>
<td>221.3 .364</td>
</tr>
<tr>
<td>1100</td>
<td>47 63</td>
<td>408 301</td>
<td>236.7 .389</td>
</tr>
<tr>
<td>1000</td>
<td>39 52</td>
<td>372 274</td>
<td>252.6 .415</td>
</tr>
</tbody>
</table>
C4.4 (TA) HazPak®
91 bkW ± 3% (122 bhp ± 3%)
@ 2200 rpm

DIMENSIONS

**Typical dimension shown. Height will increase if silenced spark arrestor is chosen.**

<table>
<thead>
<tr>
<th>DIMENSIONS*</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>mm (in)</td>
<td>1571 (61.9)</td>
</tr>
<tr>
<td>Width</td>
<td>mm (in)</td>
<td>1253 (49.3)</td>
</tr>
<tr>
<td>Height</td>
<td>mm (in)</td>
<td>1627 (64.0)</td>
</tr>
<tr>
<td>Shipping Weight</td>
<td>kg (lb)</td>
<td>970 (2138)</td>
</tr>
</tbody>
</table>