LiquidPiston, Inc. Unveils Compact, Quiet X2 Rotary Diesel Engine
150% More Efficient than Conventional Diesel, Available for Partner Testing Q1 2013

BLOOMFIELD, Conn – October 17, 2012 – LiquidPiston, Inc., leader in advanced internal combustion engine design, today unveiled the new multi-fuel-capable rotary combustion engine, the X2. The X2 is a 40 horsepower rotary engine that requires no valves, cooling systems, radiators, mufflers, or other components.

The X2’s innovative design operates on LiquidPiston’s patent-pending “High-Efficiency Hybrid Cycle” (HEHC), an improved thermodynamic cycle that is optimized for fuel efficiency. The HEHC cycle increases average efficiency over conventional diesel engines from less than 20% to more than 50% under typical operating modes, reducing fuel consumption by as much as threefold over conventional diesel engines.

By combining its HEHC with a rotary engine architecture, LiquidPiston has created an engine that is up to ten times lighter, whisper quiet, and two to three times more efficient at part-load than conventional engines.

X2 Features and Benefits:
- Fixed volume combustion chamber permits very high temperatures and pressures
- Theoretical thermal cycle efficiency of 74%
- Expected realized brake efficiency of 58% (peak) and 50% at partial load
- Quiet operation: engine lacks poppet valves and over-expansion minimizes exhaust noise
- Power modulation by cycle skipping increases efficiency and recaptures heat
- Low heat signature from over-expansion and cycle skipping eliminates water cooling
- Power density of ~ 2 HP/Lb
- Low production cost - the engine has ¼ the mass and 85% fewer parts than small Diesel engines
- Scalable to serve a variety of applications

The X2 Engine design will officially be unveiled at the DEER Conference in Dearborn, Michigan on October 17th as well as at the Engine Expo, in Novi, Michigan, October 23-25, booth #E204. The company is currently test firing an alpha prototype of the X-series engine called the X1. The X2 engine will be available as a beta prototype for outside testing by the first quarter of 2013.

Click here for photos of the X2 Engine.

About LiquidPiston
LiquidPiston, Inc. develops rotary internal combustion engines based on an innovative thermodynamic cycle, increasing average-load efficiency to above 50%, which reduces fuel consumption by as much as threefold over conventional engines. LiquidPiston engines are quiet, compact and powerful, with a lower total carbon footprint for environmental sustainability. To learn more, visit www.liquidpiston.com.

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