

### **Sr. Test Engineer Screening Questions**

Have you lead Junior test/development engineers?

Have you worked for a startup?

Have you tested a prototype (of any machine) which you helped to develop? Did you design the tests, order the equipment?

Describe how you would select engine mounts and a dyno coupling for a new engine project:

Have you written End of Test reports? Were you responsible for troubleshooting and debugging failed components?

Explain a time when you have modified a test strategy based on an unexpected result:

Describe how you motivate a "difficult" but important technician:

Describe the most complicated test equipment you've used, and how you learned to use it:

Have you measured engine cylinder pressure, friction, heat transfer, vibration? Which engine measurements have you found the most challenging?

What is your favorite method of measuring crankshaft position, and why?

Could you calculate heat release, given a pressure trace and volume profile? What are the challenges to doing this for a rotary engine? What software would you use? Have you done it before?

Have you reported results to non-engineers?

What is the greatest achievement of your career, from an innovation perspective?

Do you have an M.S. or PH.D. ?

From 1(novice) to 10(industry expert), rate your understanding of:

- a) thermodynamics
- b) heat transfer
- c) mechanical design
- d) Diesel Engines
- e) SI engines.

Do you have a deep understanding of modern efficiency improvement technologies such as boosting, HCCI, friction reduction, or other?

What is your expertise (1-10) in engine simulation tools such as:

- a) Solidworks
- b) GT-Suite
- c) CONVERGE CFD
- d) Thermal and structural FEA?

Are you, personally, capable of making modifications to:

- a) A Diesel engine calibration for maximum efficiency
- b) A Matlab program to automatically generate test reports?
- c) A steel bracket which needs to be cut, welded, and tapped for a Kistler sensor?

Do you enjoy getting your hands dirty:

- a) Do you assemble or inspect hardware for your current job?
- b) Do you know how to operate manual or CNC equipment?
- c) Have you ever rebuilt an engine?
- d) Made major modification to a personal engine or vehicle?

Do you have any research experience? What is the minimum ratio of (work related) good to bad days can you tolerate without getting depressed?

Do you have a permit to work in the US?

What do you want to accomplish in the next 5 years of your career?

What do you think are the biggest technical challenges faced by Liquid Piston?

What do you think are the biggest non-technical challenges faced by Liquid Piston?

What do you like about LiquidPiston's design?

In one sentence - why do you want to work for LiquidPiston?