Blue Origin fires up the engine of its future Moon lander for the first time

For the first time, aerospace company Blue Origin has fired up a brand-new engine the company developed for its future Moon lander. The engine, dubbed the BE-7, ignited for a full 35 seconds during a test at NASA's Marshall Space Flight Center. It's a big step for the company as it prepares to build its lander, named Blue Moon, and eventually send it to the lunar surface.

Blue Origin founder Jeff Bezos tweeted out a video of the test last night. The recording shows flames coming from the engine horizontally, first appearing bright green and then turning clear for the rest of the test. The green flames can be attributed to the fluid that the BE-7 uses to start the ignition of the engine. Once that fluid burns away, the flames become clear since the engine runs on liquid oxygen and hydrogen – both byproducts of water.

> *First hotfire of our #BE7 lunar landing engine just yesterday at Marshall Space Flight Center. Data looks great and hardware is in perfect condition. Test went full planned duration – 35 seconds. Kudos to the whole @BlueOrigin team and grateful to @NASA_Marshall for all the help! pic.twitter.com/cTjjrngumY*
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> *– Jeff Bezos (@JeffBezos) June 20, 2019*

The news comes just over a month after Bezos revealed that the company had been developing the Blue Moon lander and this new

engine for the last three years. The Blue Moon lander will use one BE-7 engine to lower itself down to the surface of the Moon. Bezos claims the lander is capable of carrying robotic rovers to the Moon or even a separate spacecraft with people that can take off and transport astronauts away from the Moon. And because of BE-7 runs on liquid oxygen and hydrogen, it could potentially be fueled by water mined from the lunar surface.

When Bezos unveiled the BE-7 during his presentation, he made it clear that Blue Origin is very interested in using the Blue Moon lander to help with NASA's plans to return humans to the surface of the Moon. And that opportunity may come very soon. NASA will send out a finalized call for lander designs this summer and will pick one or two companies to develop these spacecraft before the end of the year. Given how far along Blue Origin seems to be, the company may be a very serious contender.

https://www.theverge.com/2019/6/20/18692707/blue-origin-moon-lander-be7-engine-hot-fire-test-ignition