ASTRONOMERS SAY PLANET HAS DIAMETRE THAT IS ABOUT FIVE TIMES THAT OF EARTH

Germany, Britain and the US — first detected an unusual star, called a pulsar, and followed up their discovery using a telescope. It led the scientists to discover the gravitational pull of a small companion planet orbiting the pulsar, the Daily Mail reported.

Pulsars are small spinning stars more than ten miles in diameter — the size of a small city — that emit a beam of radio waves. The researchers think that the “diamond planet” is all that remains of the original star, most of whose matter was siphoned off towards the pulsar. The companion planet is small, at less than 40,000 miles wide — about five times the diameter of Earth.

But it is so close to the pulsar that it would have been ripped apart by the gravitational force of the star, which rotates more than 10,000 times per minute and has a mass of about 1.4 times that of the sun.

“This remnant is likely to be largely carbon and oxygen, because a star made of lighter elements like hydrogen and helium would be too big to fit the measured orbiting times,” said research team member Dr Michael Keith of the Commonwealth Scientific and Industrial Research Organisation in Australia.

The density means that this material is certain to be crystalline, that is, a large part of the star may be similar to a diamond, the researchers said.

The pulsar, dubbed PSR J1719-1438, and its planet are part of the Milky Way’s plane of stars and lie 4,000 light-years away in the constellation of Serpens.