

SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)
Solutions for Human Flights in China (9-D6.2)

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HEAVY LAUNCH VEHICLE AND ITS APPLICATION

Abstract

This paper proposes the evolution principles of China's heavy launch vehicle, implements the configuration analysis to determine primary system schemes, diameter of the rocket and the thrust levels of engines preliminarily, lays two schemes based on the heavy liquid oxygen kerosene rocket engine and the heavy solid rocket engine. The key technology of the heavy rockets is affirmed. In addition, the analysis combined the features of heavy launch vehicle and its potential application, has been completed, which indicates developing heavy rocket as early as possible is of great significance to the promotion of China's manned lunar program, the upgrade of space entry capability and the acceleration of space exploration.