

SpaceX's reusable Starship

The first orbital flight of SpaceX's Starship – the most powerful rocket ever built – could come within months. NASA has picked the fully reusable Starship to return astronauts to the moon

May 2021: SN15 (Serial No. 15) prototype makes six-minute flight, performs manoeuvres and lands safely

Heat shield: *Starbrick* thermal tiles protect craft as it re-enters Earth's atmosphere at up to 1,650°C

Starship SN20:
45.7m tall

Liquid methane tank

Liquid oxygen tank

Super Heavy Booster 4:

69m tall, 9m wide.

Assembled out of stainless steel rings

Engines: Three sea-level Raptor engines for atmospheric flight, three large vacuum-optimized Raptors for high performance in space

Booster:

29 sea-level Raptors, each generating 3,050 kilonewtons of thrust

