SpaceX Starship

Prelims – *Current events of National and International importance| Science & Technology.*

Why in News?

Recently, The Starship mega rocket lifts off on its 10th test flight from the SpaceX Starbase in Texas, August 26, 2025.

- **Starship spacecraft** - It consists of two components of **starship spacecraft** and **super heavy rocket**, developed by the American corporation Space x.
- It is the fully reusable transportation system designed to carry both crew and cargo_to Earth orbits, the Moon, Mars and beyond.
- **Capacity** - It is the World's most powerful launch vehicle developed, capable of carrying up to 150 metric tonnes fully reusable and 250 metric tonnes expendable.
- **Technical highlights –** It is ***379 feet tall***, powered by a formidable **33 Raptor engines**, producing 16.5 million pounds of thrust—designed for ultra-heavy payloads and deep-space missions
- **Super Heavy Booster –** It is the first stage or booster of the starship launch system powered by 33 raptor engines using sub cooled liquid methane (CH4) and liquid oxygen.
- It is fully reusable and will re enter Earth atmosphere to land back at the launch site.



- **Raptor Engines –** It is a methane oxygen staged combustion engine that powers the starship system and has twice the thrust of the Falcon 9 Merline engine.



References

1. The Hindu| SpaceX Starship
2. Space X| Starship overview

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