



Case Use History SLS Artemis II-A (Left) Booster

Fwd Dome 55		STS-111, 120, 131, QM-2
Cylinder 89		TEM-9, STS-73, 94, STS-100, 115, 127, QM-1
Capture Feature Cylinder 43		STS-111, 120, DM-2, QM-1
Cylinder 104		TEM-6, STS-51, 69, STS-94, 101, 124, FSM-1, FVM-1
Capture Feature Cylinder 64		STS-48, 60, 73, 89, STS-100, 123, 134, FSM-10
Cylinder 37		STS-8, 23, TEM-10
Capture Feature Cylinder 92		STS-107, 123, 134
Cylinder 31		STS-8, 23, TEM-10
Capture Feature Cylinder 88		STS-110, 120, DM-2
Stiffener 77		QM-1
Stiffener 76		QM-1
Attach 60		STS-126, QM-1
Aft Dome 42		QM-1

Frustum 16		STS-35, STS-50, 51, 51G, 66, 75, STS-85, 101, 110, 119
Fwd Skirt 16		STS-31, 30, STS-38, 42, 54, 61B, 62, STS-69, 81, 89, 99, STS-105, 120, 129
Aft Skirt 21		STS-39, 51G, 52, 59, STS-72, 83, 95, 108, STS-132

Shuttle Flights
47
Static Tests
9

DM — Demonstration Motor • **FSM** — Flight Support Motor
FVM — Flight Verification Motor • **STS** — Space Transportation System
TEM — Technical Evaluation Motor • **QM** — Qualification Motor

Key Facts:

- The twin boosters contribute 3.6 million pounds of thrust each, providing more than 75% of the SLS's total thrust at launch.
- Only one never-flown component is part of the SLS boosters for Artemis II.
- Artemis II booster hardware has supported 14 static tests.
- Artemis II booster hardware has supported 84 total Space Shuttle Program missions.
- The most flown components of the Artemis II boosters are the left and right-hand forward skirts with 14 total flights each that supported the maiden flight of Endeavour (STS-49) and the last space shuttle night launch (STS-131) among other missions.



Case Use History SLS Artemis II-B (Right) Booster

Fwd Dome 56		STS-113
Cylinder 86		STS-5, 20, TEM-10, FSM-17
Capture Feature Cylinder 46		FSM-11, STS-113, 119
Cylinder 82		STS-26, 27, 38, 52, STS-68, 85, 98, QM-1
Capture Feature Cylinder 89		STS-110, 120, FSM-17, QM-1
Cylinder 33		STS-8, 48, TEM-11
Capture Feature Cylinder 72		STS-52, 68, 85, 106 TEM-13, STS-131
Cylinder 61		STS-14, TEM-7, STS-75 STS-88, 110, 122, 132
Capture Feature Cylinder 56		STS-37, 53, 70, 86, STS-92, 114, 126, DM-2
Stiffener 78		New
Stiffener 36		STS-66, 82, 103, STS-134, FVM-2
Attach 53		STS-126, QM-1
Aft Dome 45		STS-26, 32, 48, 57, STS-71, 83, 101, 130, TEM-13

Frustum 22		STS-27, 34, 48, 52, STS-61, 67, 80, 95, STS-102, 107, 116, 128
Fwd Skirt 19		STS-27, 30, 35, 49, STS-51, 67, 76, 94, STS-93, 100, 107, 116, STS-124, 131
Aft Skirt 29		STS-27, 32, 44, 51, STS-71, 82, 93, 108, STS-127

Shuttle Flights
64

Static Tests
9

New
1

DM — Demonstration Motor • **FSM** — Flight Support Motor
FVM — Flight Verification Motor • **STS** — Space Transportation System
TEM — Technical Evaluation Motor • **QM** — Qualification Motor

Key Facts:

- The SLS booster is the largest solid rocket booster ever built for human spaceflight.
- The component with the earliest shuttle flight is cylinder 86 that supported STS-5 in 1982. Cylinder 64 and stiffener 36 are the most recently used components, supporting STS-134, the final flight of Endeavour, in 2011.
- Components from the first (STS-49) and last (STS-134) flight of Endeavour support Artemis II.
- Four different components that flew with Northrop Grumman executive Rick Mastracchio on his space shuttle missions will fly on Artemis II.
- Seven different components that will fly on Artemis II supported Northrop Grumman executive Dan Tani on his space shuttle flights, STS-108 and STS-120.
- Cylinder 19 and aft skirt 29 supported Northrop Grumman executive Doug Hurley on his first space shuttle mission, STS-127.

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