FLICHT International, 22 May 1975 819

Section removed &

Because little of the 747 fuselage is parallel-sided, cutting back has
required more than just removing plugs. Following extensive wind-
tunnel testing, Boeing appears confident that the noticeable changes in
contour aft of the upper lobe and beneath the fin will not result in any
drag problems

has been increased to take the higher rudder actuator loads and a new dorsal fin fitted. The lowering of the tail cone and the lengthening of the fin result in an overall height increase of two feet.
The wing planform of the SP is essentially the same as the 747-100/200, but weight has been pared down to match the lower loading by reducing the gauges of spars, ribs, skin and stringers in the wing box and centre section. The most noticeable change results from the replacement of the original triple-slotted flaps by simpli-fied single-slotted flaps with a new support structure (see

cutaway). Natural static and dynamic longitudinal stability and freedom from high-speed "tuck" has been ensured by extending the span of the tailplane by 10ft. The size of the elevator has not been increased but the company notes that control column sensitivity is comparable to that of the 747-100/200. Overall, the SP uses major sections of the existing 747 structure or similar structure that can be built on common tooling.
The undercarriage geometry has remained unchanged but a number of components have been redesigned to save weight. While it is possible to interchange complete under-carriage units, which results in restrictions to permitted gross weights, individual components have been designed to make it physically impossible to fit them to the wrong aircraft.

The deletion of the hot-stream spoiler from the power-continued after cutaway