

CESSNA 185 SKYWAGON



CESSNA 185 SKYWAGON ON PK C3500

FLOAT SPECIFICATIONS

PK C3500

Displacement	3500 lbs.	Length	233.7"
Max. Design Weight	3890 lbs.	Max Beam	33.0"
Installation Weight	442 lbs.	Max Height	30.1"
Reserve Buoyancy on Cessna 185	109 %		

AIRCRAFT PERFORMANCE

AIRCRAFT SPECIFICATIONS

Top Speed	135 kts.	Gross Weight	3350 lbs.
Cruise Speed (75% power)	129 kts.	Empty Weight	2010 lbs.
Stall Speed	56 kts.	Useful Load	1340 lbs.
Rate of Climb	940 fpm	T.O. Horse Power	300 h.p.
Takeoff Time(theoretical)	21 sec.	Wing Area	174 sq. ft.



PK FLOATS INC.

PO Box 309 Lincoln, ME 04457 (207) 794-0180 Phone (207) 794-0181 Fax www.pkfloats.com



CESSNA 185 SKYWAGON

PK C3500

FLOAT STRUCTURE

The structural configuration is of conventional aluminum sheet metal design, the side panels are .032" thick with .040 thick bottom and deck skins. There are eight full bulkheads stiffened with bulb angles and hat sections. The forebody bottom is further stiffened by longitudinal extruded hydroboosters. These are effective hat sections riveted on the outside of the skin and greatly increase the strength of the float bottom. In addition, there are partial bulkheads and skin stiffeners fastened at strategic points throughout the entire structure. The keel section is a "Y" shaped extrusion, the bottom of which is 1/2" thick by 1/2" wide running the full length of both forebody and afterbody. This keel section, together with associated structure, is strong enough so that more than one half of the aircraft weight can be supported at one point between bulkheads.

CORROSION PROTECTION

Because of the requirement to use different metals in contact with each other, electrolytic corrosion is a prime enemy of any water-based structure, therefore particular attention is given to the protective finishing materials and procedures to prevent corrosion. All aluminum skins, bulkheads and individual detail parts of the floats are chemically treated and epoxy primed. The faying surfaces of all watertight seams are coated with a urethane adhesive sealant. Following this, the exterior of the floats are cleaned and painted with two coats of aluminum pigmented lacquer. All aluminum alloy machined parts and extrusions are etched and epoxy primed prior to painting. All steel parts are cadmium plated. Because of the low beam loading and the installation of forward shields, spray heights are comparatively low. Airframe corrosion is, therefore, kept at a lower level than competing installations. For the same reason, propeller blade tip erosion is also kept to a minimum.

MAINTENANCE & REPAIR C3500

The basic C3500 design is completely free of any stretched skins or compound curvatures. The float skins and bulkheads can, therefore, be repaired in the field under emergency conditions with ordinary hand tools.

PERFORMANCE

The hydrodynamic configuration of the float variable deadrise. The float is almost completely free of either upper or lower limit porpoising. The high sternpost angle permits short radius turns and sufficient freedom of aircraft rotation at takeoff without dragging the float transoms. The beam (width) of each float is 33.0 inches, which, with the addition of the forward bottom hydroboosters, produces low beam loading. This results in lower spray heights and less drag due to spray impingement on the airframe during takeoff. Rough water operations in are unsurpassed because of the basic deep "V" design of the float. Takeoff from smooth water, under adverse temperature and altitude conditions is superior because of the variable deadrise design and the sharp edged hydroboosters which effectively reduce the beam, and therefore the drag of the wetted area. The forward end of the hydroboosters also are open, permitting air to enter and flow through their full length where it vents the float step and helps break the suction during takeoff.

FEATURES

STOWAGE COMPARTMENT-An optional hatch cover kit converts the center compartment into a roomy storage area.

BILGE PUMP-A high quality brass bilge pump is supplied with each set of floats.

CLEATS-At the request of users who wanted a clear deck, cleats were moved to the sides. (They can be relocated to the top by the user, if he/she so desires.

REDESIGNED SKEG-New rounded heel permits aircraft to slide backwards into the water from a ramp without digging in.

FLAT DECKS-The distinguishing flat decks are one of PK's most popular and appreciated features.

HYDRODYNAMICS-Variable deadrise bottom; sharp and air-vented hydroboosters discussed above under performance, are unique to PK's innovative design.