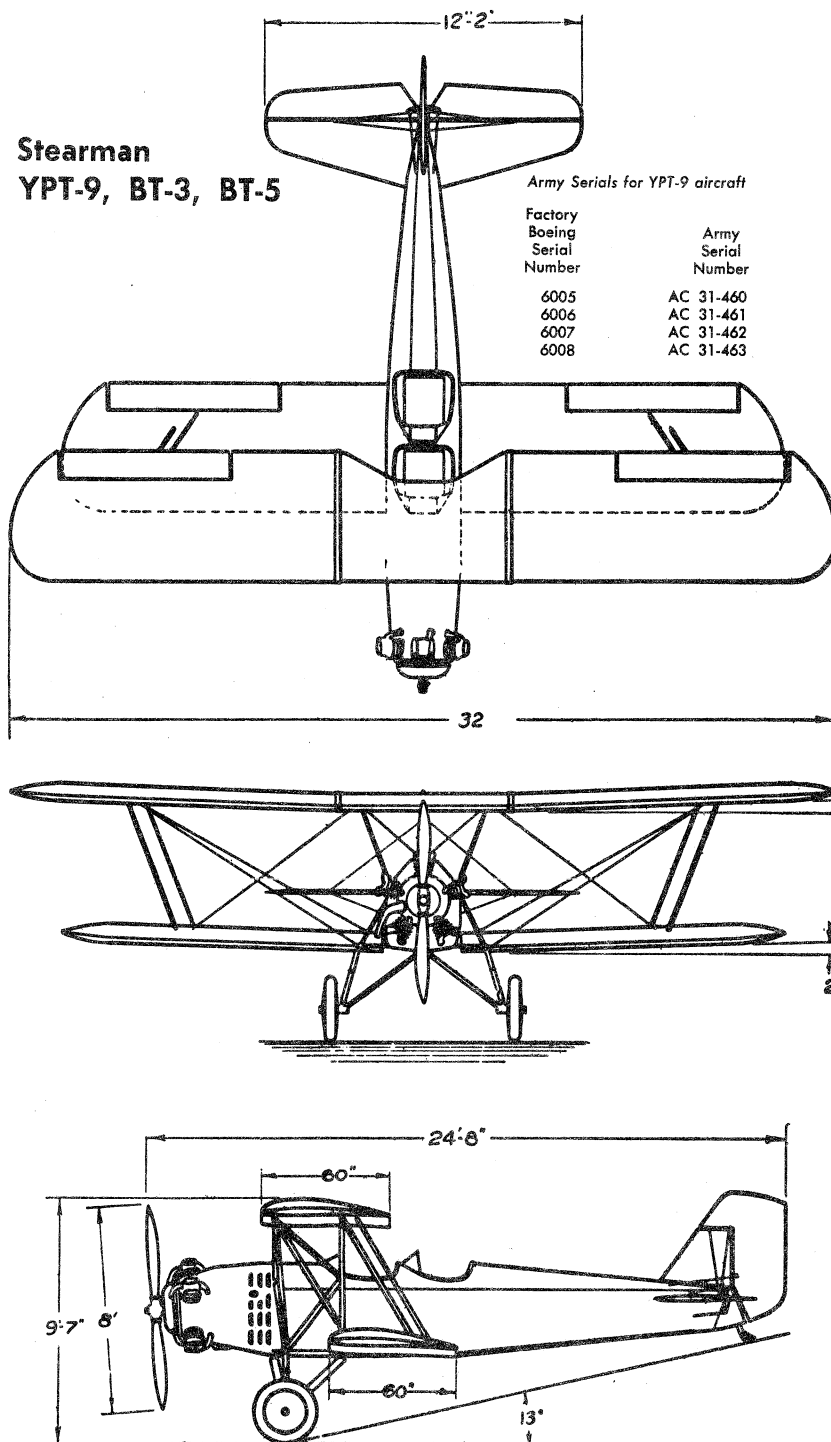


YPT-9 STEARMAN

Stearman
YPT-9, BT-3, BT-5



In 1931, Army interest in replacements for the obsolete 180 hp PT-1 and its direct successor, the 220 hp PT-3, resulted in a flurry of new designs developed for lower horsepowers, starting with the 100 hp Fleet PT-6 and ranging to the 165 hp Consolidated PT-11. Stearman was awarded a contract for four service test YPT-9s (31-459/462), powered with the 165 hp Wright R-540-1 (J-6-5) five cylinder radial engines. The aeroplane was structurally identical with Stearman's commercial Model 6, known as the "Cloudboy." Although the J-6-5 engine was widely used in commercial aviation, it proved unsuitable for military use, and all were removed from the YPT-9s.

Since the Army was also interested in new basic trainers that were built as such instead of being converted observation types, and the Stearman airframe was rugged enough to take increased power without structural reinforcement, a 300 hp Wright R-975-1 (J-6-9) was installed in the YPT-9 31-461, which then became YBT-3, and a 300 hp Pratt & Whitney R-985-1 Wasp Junior was fitted in 31-462, which became the YBT-5. On both machines, the engine was enclosed in a Townsend anti-drag ring. A service test Continental YR-545-1 engine of 165 hp was tried in the YPT-9 31-459 converted as YPT-9A. This was soon replaced by a 200 hp Lycoming R-680-3 and this aeroplane, along with 31-460 which was fitted with the same engine, became YPT-9B. The YBT-3 underwent a further engine change to become a primary trainer again with a 7-cylinder 170 hp Kinner YR-720-1, as the YPT-9C.

The same shuffle of low-powered engines took place with the four plane YPT-10 and YPT-11 orders, and convinced the Army that 200 hp was the minimum for a satisfactory trainer. Consequently, the production order went to Consolidated for the PT-11D which was basically a cleaned-up PT-3 with the 200 hp Lycoming R-680-3.