

WESTERN TOW PLANES

by PETER M. BOWERS

Photographs by the Author

A major problem confronting individual glider owners and clubs not fortunate enough to have a home field suitable for auto towing is the availability of a suitable towplane. Few enough of us are able to own our own gliders, and those who can afford a towplane on top of that are rare indeed. A few clubs manage to keep planes of their own going, but the majority have to obtain the services of a towplane from the outside. It is not the purpose of this article to deal with the 'how' of getting a towplane. It is merely a survey of the types in most general use on the west coast, and a discussion of their good and bad points.

The most powerful ship known to be in use is the war-surplus Vultee BT-13A, a low-wing two seater with a 450 HP Wasp Jr. (If it happens to have a 420 HP Wright R-975, it is a BT-15). It is a big ship, and it will do a big job of towing if you have a big glider for it to work with. I saw one at the National Air Races once, towing *FOUR* ships, three L-K's and the L-21. The things that Gus Briegleb can do with one in the line of slow flight and fantastically low gallons-per-hour would amaze the designers. Apparently only Gus can do them, for in the hands of other pilots, it's not so good, at least for gliders with low redlines. Since Gus can tow Bowlus Babies at legal speeds with the BT, I accepted a tow from another pilot with a BT for my "Wolf," redlined at 62 MPH for zero tow. After taking off blind through the dust cloud that the BT

raised on a dirt runway, I stayed on tow just long enough to get altitude for a 180 back to the field. We had gone over the fence at the end of the 2500 foot strip at 90 MPH. On another takeoff behind the same ship, another pilot in a TG-2 was registering 110. Because of the short rough field, a quick takeoff was required, but once in the air, the BT got down to a legal 70 for the TG-2, but could never quite get down to the "Wolf's" 62. Rate-of-climb with the TG-2 on tow averaged about 750 feet per minute, which is not bad at all if you can afford the twenty-plus gallons per hour that go with it.



Piper J-3 Cub



1930 Davis, with 160 Kinner

The cost of fuel was the main reason that Gus got rid of his BT. He replaced it with a Fairchild PT-23, another war-surplus low wing two seater, but open cockpit and carrying a 220 HP Continental 7-cylinder radial uncowed in the nose. With this ship, he gets only about 150 FPM less climb than the BT with only half the fuel consumption. It can hang on at much lower speeds, too. In fact, he even complained that one new pilot nearly had him stalled out with a student in the BG-8!

Similar to the PT-23 in cost and performance is the well-known Stearman biplane, the PT-13, 17, or 18, depending whether it has the 220 Lycoming, Continental, or Jacobs radial installed. The Stearman is even better than the Fairchild in that it can get off quicker and can hang on at even lower speeds. Both, however, have one big advantage over most of the modern types used for towing in that they are



Tiger Moth



Piper Super Crusier

open cockpit types, in which the pilot has no trouble keeping his eye on the glider. They have the further advantage of having uncowed radial engines and with all the jugs out in the open, high cylinder head temperatures seldom become a problem.

Going down the scale in horsepower, we come next to the Cessna L-19A at 213 HP. This was discussed in detail in the July-August issue of *SOARING*, but since it is a military type not currently available to soaring activities, it will not be discussed here. Next is the Stinson L-5, a war-surplus liaison plane with a 185 HP flat-six Lycoming. There are quite a few of these on the coast, but I know of none used for towing. It is a good ship for the purpose, however, the Dayton Club uses one, getting a steady 500 feet per minute with an L-K on tow.

Down at the 165 HP level we find several ships. I have heard of Stinson Station Wagon with 165 Franklins being used as tugs, but have never seen any in operation. Three other ships in this horsepower range are all special conversions using 160 HP Kinner K-5 radials, and they make terrific towplanes.

The first is the prewar Meyers biplane, a two seater trainer originally produced with the 125 HP Kinner or the 145 HP Warner. The 125 is an adequate tug, the 145 is much better, and the 160 approaches perfection. The second is a 1930 model Fleet 2, originally a two seater biplane with a 100 HP Kinner. Installation of the heavier engine resulted in the ship becoming a single seater with an experimental license, and it is used only towing. The third ship in this category is another 1930 job, the Davis D-1K, a two seater parasol monoplane that



Vultee BT-13A



Fairchild PT-23