



Link Instrument Flying Trainer Type D4

The “Link Trainer” was invented in 1926 by Edwin Albert Link. It became widely used by many of the Allied air forces during World War II and helped to train thousands of pilots and navigators.

In the 1950s the Link Instrument Flying Trainer Type D4 was ground equipment used in teaching all phases of elementary and advanced instrument flying, including radio navigation, radio range and loop orientation, instrument landing systems, voice procedure, and flight and engine instrument familiarisation.

Instrument flying is the process of keeping an aircraft in the air, in normal flight position on a predetermined course, when conditions are such that the pilot has no visual contact with the earth. Instrument flying, as its name implies, depends entirely upon instrument indications to maintain normal flight positions and upon radio indications for navigation. The Type D4 trainer provided an effective, economical and safe means of pilot training under instrument conditions.

The complete equipment embodies the necessary controls, switches, instruments, and mechanisms to reproduce realistically all the major flight characteristics and instruments of the then (early 1950s) advanced training type aircraft. The cockpit is equipped with controls and instruments identical in appearance and function with the then standard aircraft instruments. In addition the “feel” of flying is reproduced so realistically that if the pilot feels at ease in the training aircraft, he will likewise feel at ease in the trainer.

The trainer was made of a system of pumps, valves and bellows which responded to the pilot’s controls. The inventor used his extensive knowledge in organ manufacturing to connect a motor to the trainer and mount it on a pedestal giving the pilot a range of motion. A student pilot could ‘pilot’ the trainer to pitch, dive, roll and climb. In training he relied on the instruments in the cockpit to ‘fly’ the device. The instrument readings in the cockpit are repeated to an instructor’s consol outside and used to guide the student. Another important feature is that the actual flight path the student navigates was ‘drawn’ on a map by a mechanical apparatus.

The **Link Trainer D4** was produced by **Air Trainers Ltd of Aylesbury** who manufactured several versions under licence from the US company, Link Aviation Devices Inc, founded and headed by Edwin Link.