

Installation: STC SA02450CH

Univair (ERCO) Model 415-C or Model 415-CD

#1320 GROSS WEIGHT INCREASE

This STC authorizes the increase of the allowable gross weight of Univair (ERCO) 415-C and -CD aircraft from the present 1260 pounds to a 1320-pound maximum weight.

This 60-pound increase in gross weight will provide the operator with a greater margin of safety, through the ability of the average aircraft to carry a full fuel load (24 Gallons) and two 170-pound occupants.

Airframe Qualification

The following criteria must be met prior to the application of STC SA02450CH and the use of the increased gross weight that it authorizes.

The aircraft is a Univair (ERCO) Model 415-C or Model 415-CD.

The aircraft has not been converted to a Car 03, TCDS A-787 aircraft.

The aircraft must be in compliance with CAR, Part 4a, approved TCDS A-718.

The aircraft is to have a standard airworthiness certificate.

The airworthiness certificate is in the Normal Category.

The aircraft is powered by one of the following approved engines:

TCM: C75-12; C75-12F; C85-12 or C85-12F

The installed propeller is approved in combination with the installed engine.

Previous modifications or applied STC's do not preclude the installation of this STC.

Determine that an acceptable longitudinal control system is installed or can be installed.

Elevator and Trim Tab Requirements –

The subject 415-C and CD Aircraft must incorporate a longitudinal control system meeting the following:

Elevator - Full span elevator (ERCO Drawing 415-22017, with a moveable 1 3/8” trim tab cut into the right trailing edge. (ERCO Drawing 415-22031)

Or

Elevator - Split elevator assembly (ERCO Drawing 415- 22037)

And

Trim control - Cabin wall (415-C) or console mounted control. (415-CD)

Discussion –

There are three styles of elevators that may be found installed on Model 415-C and 415-CD aircraft.

415-C Aircraft were originally equipped with a full span elevator (ERCO Drawing 415-22001), without a moveable trim tab.

Elevators, per drawing 415-22001 do not fulfill the requirements of this STC.

Later 415-C Aircraft were equipped with a full span elevator (ERCO Drawing 415-22017), with a moveable 3/4” trim tab, cut into the right trailing edge. (ERCO Drawing 415-22027)

Aircraft with 3/4” trim tabs per ERCO Drawing 415-22027 will need to be updated with the installation of PN 415-22031-4, 1 3/8” trim tab blade, per ERCO Drawing 415- 22031.

415-CD Aircraft were equipped with a full span elevator (ERCO Drawing 415-22017, with a moveable 1 3/8” trim tab cut into the right trailing edge. (ERCO Drawing 415-22031).

These installation conform to the requirements of STC SA02450CH.

415-C and 415-CD Aircraft, Model E split elevator.

An unknown number of 415-C and 415-CD aircraft have been field modified and FAA approved to incorporate the split elevator assembly (ERCO Drawing 415- 22037), first seen on Model 415-E aircraft.

It has been determined that a properly rigged E model elevator assembly satisfies the requirements of this STC.