

FOR BETTER NAVION FLYING

DOWN-DRAFT COOLING AND HIGHER HORSEPOWER CONTINENTAL ENGINE

In view of the numerous inquiries for information pertaining to the Continental E225-4 engine together with down-draft cooling kits, it seems appropriate that this issue of "Operating Tips" should be devoted entirely to these subjects.

The C.A.A. Aircraft Specification No. A-782 for the Navion aircraft was revised on November 12th, 1952 to include the approval of the Continental E225-4 engine with either the Fletcher or Symons down-draft cooling kit. It is to be specifically noted that one or the other of these down-draft kits is mandatory with the installation of a E225-4 engine, but either kit may be installed on the 185 horsepower or 205 horsepower Continental powered Navion if desired.

If the Fletcher kit is selected for installation your present exhaust system including the muffler heater combination and cowl flaps, if any, will be obsoleted and replaced with the Fletcher exhaust system which includes the "jet augments tubes".

If the Symons kit is selected a set of cowl flaps and cylinder head temperature gauge are mandatory items. No change to your present exhaust system regardless of type, will be required.

Installation of the E225-4 also carries as a mandatory requirement the installation of the following:

1. Hartzell -7C propeller which is the diaphragm actuated, heavy duty hub and metal blade configuration.
2. Romec-Adel fuel system.

No other equipment addition or deletion is required.

In view of the numerous Navion configurations in the field, it is impractical to attempt to quote definitely the cost of change over for each specific configuration. The following price list should, however, enable each individual owner to reasonably estimate the cost of converting his particular Navion to his personal requirements. Inasmuch as labor rates and shop efficiency varies in different localities, approximate labor hours are given rather than installation costs.

1. Continental E225-4 new engine exchange.	\$2660.00
2. Continental E225-4 factory remanufactured engine exchange.	\$2300.00
a. Freight charges on new engine, Muskegon to San Diego and old engine, San Diego to Muskegon, total approximately \$70.00.	
3. Fletcher down-draft cooling kit.	\$ 886.00
4. Symons down-draft cooling kit.	\$ 395.00
5. Symons cowl flap kit.	\$ 90.00
6. Hartzell 12x20-7C propeller with 8433 blades complete.	\$ 628.28
7. 8433 metal blades only.	\$ 300.00
8. Romec-Adel fuel system.	\$ 260.00

(California Sales Tax 3½ %)

SUMMARY - LABOR HOURS

1. Fletcher kit.	60 to 80 man hours
2. Symons kit.	20 to 40 man hours
3. Symons flap kit.	12 to 14 man hours
4. Propeller installation complete.	13 to 16 man hours
5. Metal blades only.	4 to 6 man hours
6. Romec-Adel fuel system.	30 to 36 man hours

Information has recently been received from Continental Motors Corporation to the effect that they have started production on a sizeable quantity of E225-4 engines and the Ryan Aeronautical Company has placed an order for these engines. However it has not been definitely established at what rate Continental can make deliveries and orders are necessarily being accepted and filled on a first come first served basis.