

Operating Tips . . .

FOR BETTER NAVION FLYING

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FACTORS TO BE CONSIDERED WHEN SELECTING A WINTER OIL

As stated in the Operation Manuals, the correct viscosity oil for winter use in the Continental E-185 Engine is aviation grade SAE 40, while Lycoming recommends SAE 30 for their GO-435-C2 Engine. Even so, there may be a tendency on the part of some operators to select an engine oil of lighter viscosity in an effort to obtain better circulation and pumpability just after starting, when the proper minimum operating temperature cannot be maintained. CAUTION must be used in this regard, as oil viscosity is not an indica-

tion of quality; therefore, a light viscosity oil may be "watery" at operating temperatures. Viscosity Index does usually indicate quality, as it denotes the change of viscosity over a given temperature range. High quality oils usually have a ~~high~~ viscosity index so do not thin unduly when normal operating temperature is reached. Aviation grade oils normally have a ~~low~~ *High* viscosity index, which explains why it is important to always use only aviation oil in your aircraft engine winter or summer.

THE PITFALLS OF COLD WEATHER COWLING CHANGES

Several letters have been received from Navion owners and operators asking our advice on the installation of auxiliary baffling or cowl restrictors for the purpose of raising the engine operating temperature during cold weather. The use of such baffling is not recommended because cylinder head temperatures are sometimes abnormally lowered by nose cowlings, modifications or attachments, due to misdirected concentrations and increased velocity of the air stream.

For those who feel some sort of airflow restriction is absolutely essential, we feel that best results will

be obtained by limiting any cowl changes to partially restricting the exhaust air openings. This should effectively reduce the volume of cooling air passing through the cowling without altering the general airflow pattern in any way. Such cowl changes should be made only on Navions equipped with cylinder head temperature indicators and particular attention should be paid to the reading of this instrument during take-off and climb so that maximum permissible head temperatures are not exceeded.

PRIMER OPERATING TECHNIQUE

During cold weather, the proper operation of the primer on your Navion becomes a more important part of the engine starting technique. The amount of priming is measured by the number of primer strokes. Three or four strokes should be sufficient to start any Navion in the coldest weather. More strokes may cause flooding, which will only make starting more difficult. To operate the primer, turn the fuel valve to "ON" and with the carburetor mixture control pulled out to Idle Cut-Off position, start the electric fuel booster pump. The primer plunger should then be pulled out slowly and held out long enough to be sure the cylinder is filled. When the primer cylinder is full, the plunger is forced in with a quick stroke to give a spray effect which will insure maximum vaporization of the fuel in the intake manifold or cylinder combustion chamber.

After priming it is very important that the primer pump plunger be locked in the "OFF" position or the engine may siphon fuel through the primer causing rough operation as from an over-rich mixture.

Over-priming must be avoided as it may cause cylinder flooding. This washes the lubrication off cylinder walls and piston rings causing loss of compression and exposing these parts to excessive wear during the first few seconds of engine operation after a start. When there is evidence of over-priming it is advisable to open the throttle wide and, with the ignition switch OFF, hand crank the propeller backward four or five complete revolutions to clear the cylinders and induction system of excess fuel. The engine should always be started as soon as possible after priming.

FACTORY FACILITIES STILL AVAILABLE

There have been indications that some owners are under the impression that with the cessation of Navion production all factory service facilities were likewise shut down. This is definitely not the case, as our Customer Service Hangar here at the factory is still operating on approximately the same scale as when the Navion was in full production.

It is the feeling of Ryan management that these service facilities have actually taken on new importance since production was stopped as it is hoped Owners, Distributors and Dealers in all parts of the

country will take advantage of this factory service for those rebuilding and modernization projects beyond the scope of local facilities. This department also has in stock a limited quantity of rebuilt major Navion components available on an exchange basis for the convenience of those owners who may not wish to hold their Navions out of commission while complicated repairs are being accomplished. Inquires regarding the services and parts available from our Customer Service Hangar should be addressed to Mr. Robert Stone, Supervisor of Customer Service.

