

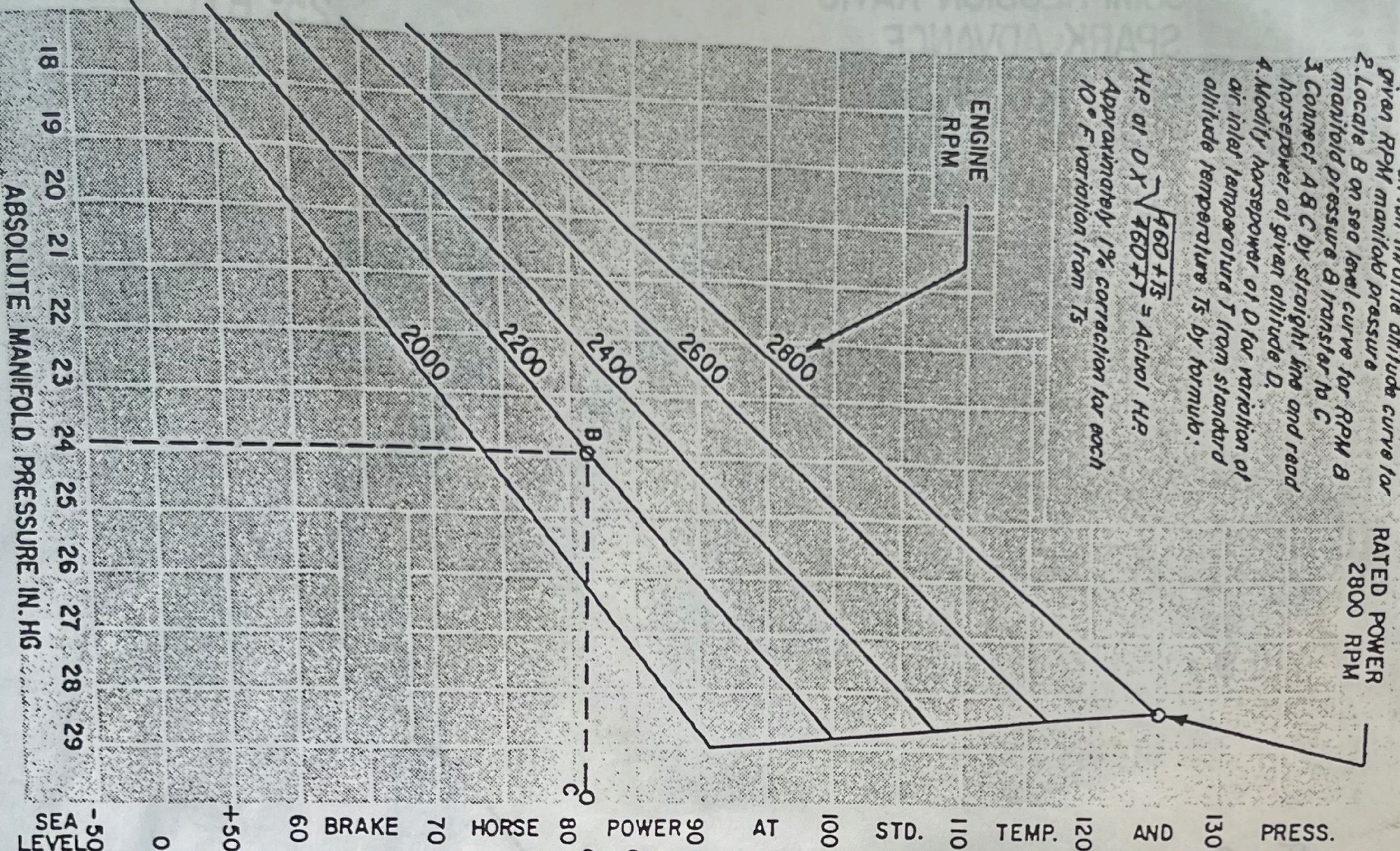
TO FIND ACTUAL HORSEPOWER FROM ALTITUDE, RPM, MANIFOLD PRESSURE AND AIR INLET TEMPERATURE.

1. Locate A on full throttle altitude curve for given RPM manifold pressure.
2. Locate B on sea level curve for RPM & manifold pressure & transfer to C.
3. Connect A & B by straight line and read horsepower at given altitude D.
4. Modify horsepower of D for variation of air inlet temperature T from standard altitude temperature T_s by formula:

$$HP \text{ at } D \times \sqrt{\frac{T_s + 460}{T + 460}} = \text{Actual HP}$$

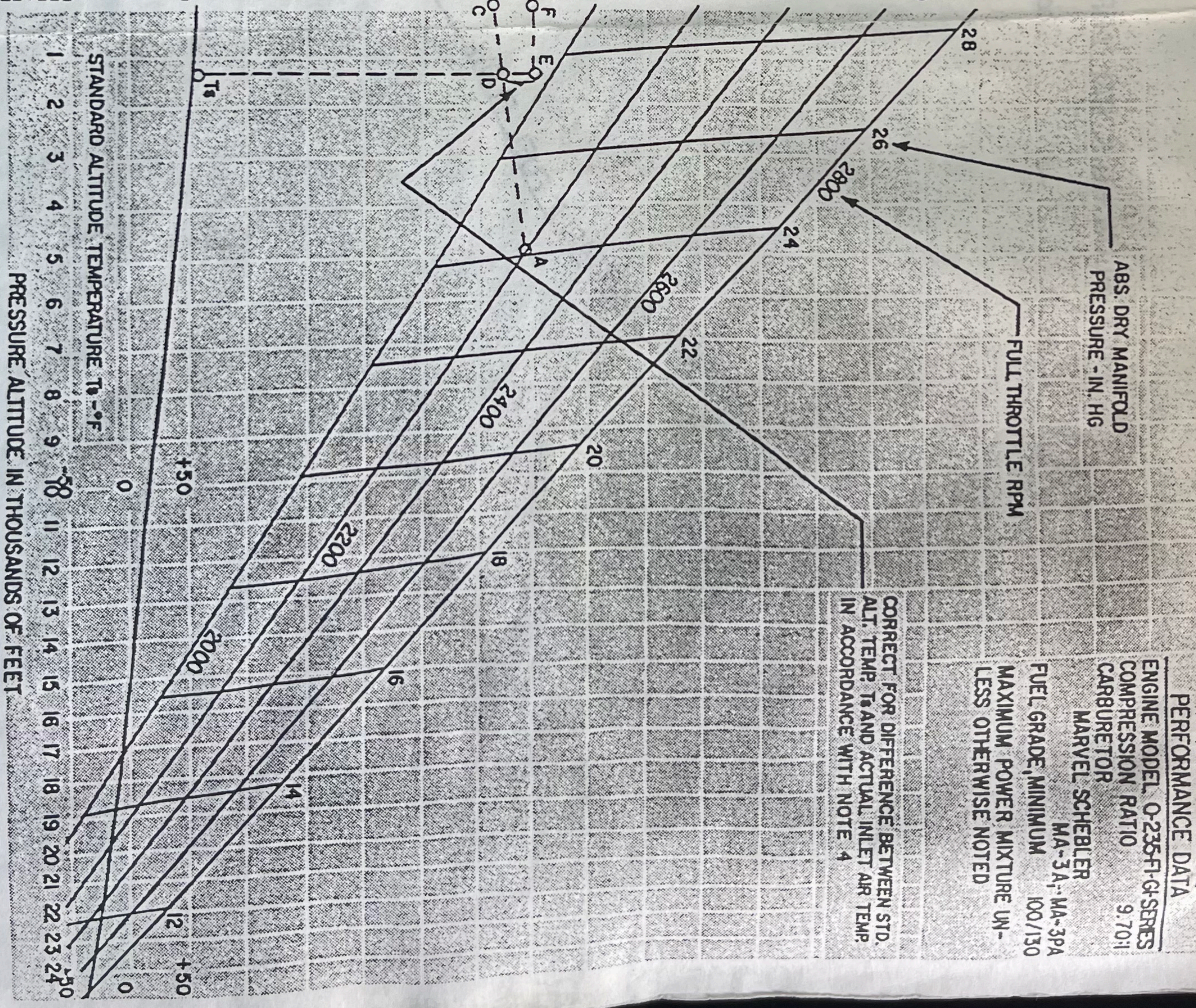
Approximately 1% correction for each 10°F variation from T_s

SEA LEVEL PERFORMANCE



For reference only.

Use IEGT gauge for setting curve NO. 13182
ZERO RAM ALTITUDE PERFORMANCE



CORRECT FOR DIFFERENCE BETWEEN STD. ALT. TEMP. T_s AND ACTUAL INLET AIR TEMP. IN ACCORDANCE WITH NOTE 4

AVCO L. A11NG AIRCRAFT ENGINE PERFORMANCE DATA
ENGINE MODEL O-235-F1-G-SERIES
COMPRESSION RATIO 9.70:1
CARBURETOR MARVEL SCHEBLER
FUEL GRADE, MINIMUM MA-3A, MA-3PA
MAXIMUM POWER MIXTURE UN-
LESS OTHERWISE NOTED

Figure 3-11. Sea Level and Altitude Performance - O-235-F1, -G1 Series

For reference Only, use EGT gauge for settings CURVE NO. 13181

FUEL FLOW VS PERCENT RATED POWER
AVCO LYCOMING MODEL O-235-FI-G1 SERIES

COMPRESSION RATIO

9.70:1

SPARK ADVANCE

25° BTC

CARBURETOR, MARVEL SCHEBLER

FUEL GRADE, MINIMUM

MA-3A OR MA-3PA

100/130

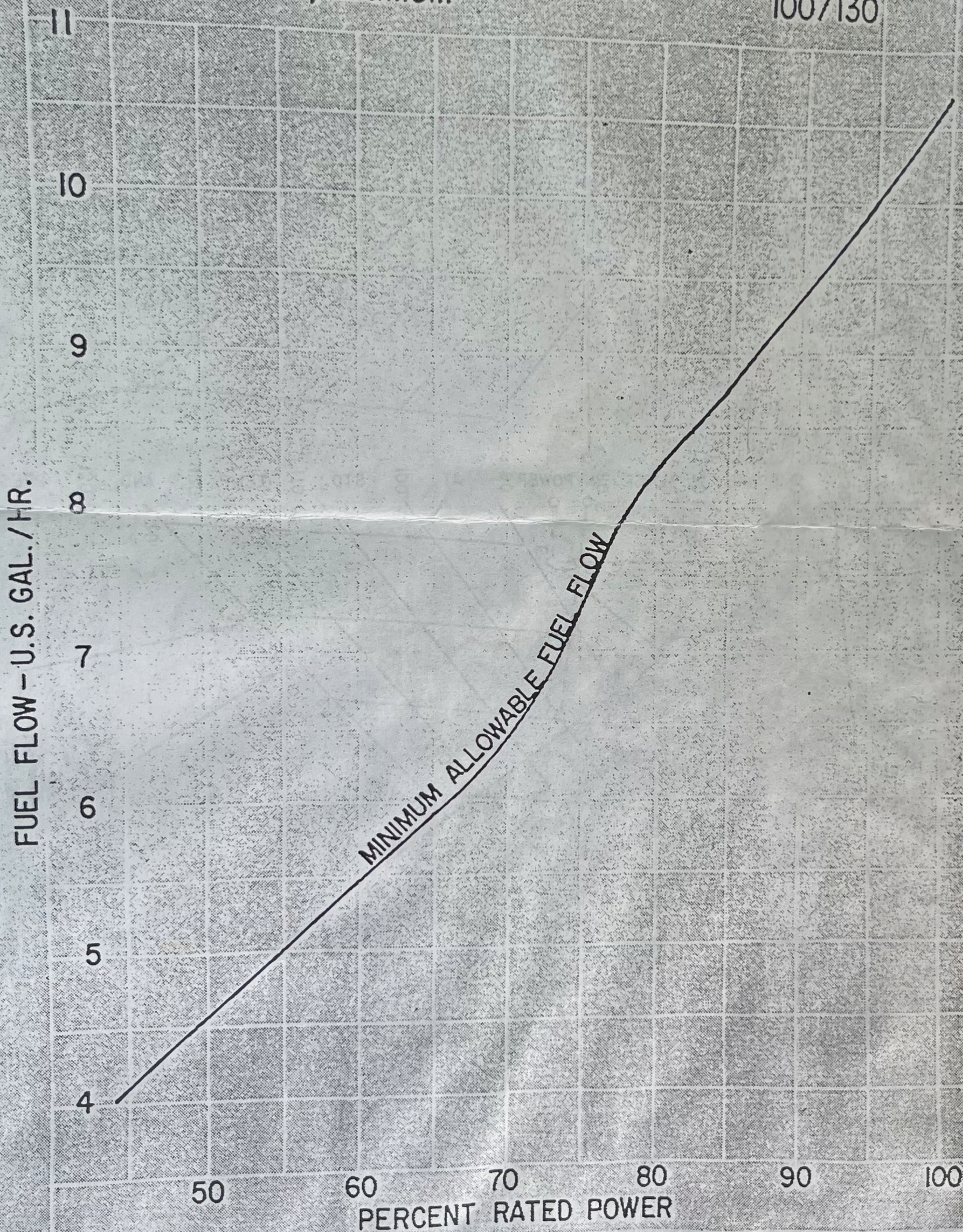


Figure 3-10. Fuel Flow vs Percent Rated Power -
O-235-F1, -G1 Series

SUPPLEMENTAL TYPE CERTIFICATE DATA

STC SA1000NW

Supplement to Cessna C-152 / A-152 Pilots

Operating Handbook

1. This aircraft has been modified by increasing the horsepower of the engine through raising the compression ratio (and maximum continuous RPM limitation with Sensenich Propeller installed).
2. The performance of this aircraft will equal, or exceed, the figures given in the standard Pilot Operating Handbook.
3. All individual airplanes will differ, slightly, in performance. It is advisable for the pilot to compare given figures with actual experienced performance prior to any operations which would allow little or no safety margin.
4. The increased compression ratio causes the engine to be more susceptible to detonation. For this reason, follow the following procedures closely:
 - A. If 80/87 octane fuel is inadvertantly pumped into this aircraft, DO NOT operate engine. Drain ALL contaminated fuel and completely fill tanks with proper fuel, minimum 100 octane, prior to starting engine.
 - B. Avoid prolonged steep climbs (below 75 knots IAS) of more than three minutes duration unless all cylinders can be monitored for cylinder head temperature. If CHT is installed, identify the "Hottest Cylinder" in climb AND cruise, monitor that cylinder during each phase of operation.
 - C. If detonation is suspected, immediately reduce power and lessen the climb angle. Richen the fuel/air mixture ratio and gradually increase power.
 - D. Follow Lycoming recommended procedure for leaning of mixture during all phases of operation.
5. Maximum cylinder head temperature is 500° F. although many CHT indicators have a "red line" beginning at 450° F. It is not advisable to operate above 450° F. for extended periods, therefore it is recommended that the guage not be remarked and the pilot observe this as a guideline for safe operation.
6. Avoid sudden radical power changes which cause rapid rises and drops in cylinder head temperature. Increasing and reducing power slowly reduces the possibility of engine damage or engine failure.

Revised - August 24, 1981

KENNIS G. BLACKMAN
FAA APPROVED AIRPLANE FLIGHT MANUAL SUPPLEMENT
FOR

CESSNA MODELS 152 AND A152

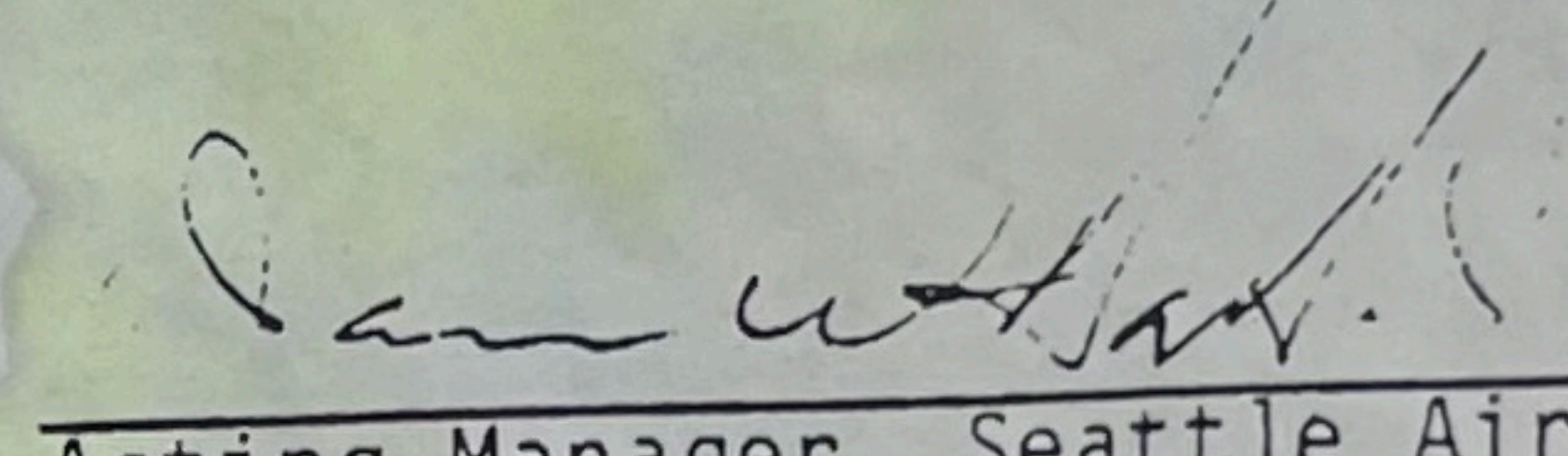
FAA APPROVED AIRPLANE FLIGHT MANUAL

II. PROCEDURES

No change.

III. PERFORMANCE

Performance with the above engine and propeller combination installed is equal to or better than the data in the FAA Approved Airplane Flight Manual.

FAA APPROVED: 

Acting Manager, Seattle Aircraft
Certification Office, ANM-100S

DATE: February 10, 1981

AMENDED DATE: March 24, 1981

AMENDED DATE: January 21, 1983

KENNIS G. BLACKMAN
FAA APPROVED AIRPLANE FLIGHT MANUAL SUPPLEMENT
FOR

CESSNA MODELS 152 AND A152

FAA APPROVED AIRPLANE FLIGHT MANUAL

The information in this document is FAA approved material which, together with the appropriate basic CAA/FAA Approved Airplane Flight Manual, is applicable and must be carried in the basic manual when the airplane is modified by the installation of a Sensenich 72CK-S6-0-52, -54, or -56 propeller on the Lycoming O-235-L2C engines in accordance with STC SA1008NW.

The information in this document supersedes the basic manual only where covered in the items contained herein. For limitations, procedures, and performance not contained in this Supplement, consult the manual proper.

I. LIMITATIONS:

Engine and
Engine Limits:

Lycoming O-235-L2C or O-235-L2C(M) (STC SE792NW)
Rated RPM: 2700 (115 Hp) (-L2C) or
2800 (125 Hp) (-L2C(M))
FOR ALL OPERATIONS (SEE PLACARDS)

Propeller and
Propeller Limits:

Sensenich 72CK-S6-0-52, -54, or -56
Diameter: 72" maximum; 70" minimum

STATIC RPM

PROPELLER	MAXIMUM RPM		MINIMUM RPM	
	(-L2C)	(-L2C(M))	(-L2C)	(-L2C(M))
72CK-S6-0-52	2325	2350	2125	2175
72CK-S6-0-54	2300	2325	2100	2150
72CK-S6-0-56	2275	2300	2075	2125

C.G. Range:

Same as Type Certificate Data Sheet 3A19.

Placards:

Place these placards in full view of the pilot:

1. With the O-235-L2C engine installed:

MAXIMUM CONTINUOUS OPERATION
2700 RPM

2. With the O-235-L2C(M) engine installed:

MAXIMUM CONTINUOUS OPERATION
2800 RPM

(C-152)

(A-152)

- 3.

AIRSPEED LIMITS

Vc: 111 KIAS
Vne: 149 KIAS

or

AIRSPEED LIMITS

Vc: 125 KIAS
Vne: 172 KIAS

FAA APPROVED: February 10, 1981
AMENDED DATE: March 24, 1981
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