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SECTION 10

OPERATING TIPS

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**SECTION 10
OPERATING TIPS**

10.1 GENERAL

This section provides operating tips of particular value in the operation of the Warrior II.

10.3 OPERATING TIPS

- (a) Learn to trim for takeoff so that only a very light back pressure on the control wheel is required to lift the airplane off the ground.
- (b) The best speed for takeoff is about 55 KIAS under normal conditions. Trying to pull the airplane off the ground at too low an airspeed decreases the controllability of the airplane in the event of engine failure.
- (c) Flaps may be lowered at airspeeds up to 103 KIAS. To reduce flap operating loads, it is desirable to have the airplane at a slower speed before extending the flaps. The flap step will not support weight if the flaps are in any extended position. The flaps must be placed in the "UP" position before they will lock and support weight on the step.
- (d) Before attempting to reset any circuit breaker, allow a two to five minute cooling off period.
- (e) Before starting the engine, check that all radio switches, light switches and the pitot heat switch are in the off position so as not to create an overloaded condition when the starter is engaged.
- (f) Anti-collision lights should not be operating when flying through cloud, fog or haze, since the reflected light can produce spatial disorientation. Strobe lights should not be used in close proximity to the ground such as during taxiing, takeoff or landing.

- (g) The rudder pedals are suspended from a torque tube which extends across the fuselage. The pilot should become familiar with the proper positioning of his feet on the rudder pedals so as to avoid interference with the torque tube when moving the rudder pedals or operating the toe brakes.
- (h) In an effort to avoid accidents, pilots should obtain and study the safety related information made available in FAA publications such as regulations, advisory circulars, Aviation News, AIM and safety aids.
- (i) Prolonged slips or skids which result in excess of 2000 ft. of altitude loss, or other radical or extreme maneuvers which could cause uncovering of the fuel outlet must be avoided as fuel flow interruption may occur when tank being used is not full.
- (j) Hand starting of the engine is not recommended, however, should hand starting of the engine be required, only experienced personnel should attempt this procedure. The magneto selector should be placed to LEFT during the starting procedures to reduce the probability of "kick back." Place the ignition switch to BOTH position after the engine has started.

**PIPER AIRCRAFT CORPORATION
PA-28-161, WARRIOR II**

**SWITZERLAND
P.O.H. SUPPLEMENT**

SWITZERLAND SUPPLEMENT

2600 RPM LIMITATION

SECTION 1 - GENERAL

This supplement provides information necessary for operating the PA-28-161 in Switzerland. The information contained in this supplement is to be used in conjunction with the complete Handbook.

ENGINES

(a) Rated Speed (RPM) 2600

SECTION 2 - LIMITATIONS

POWER PLANT LIMITATIONS

(a) Maximum Rotation Speed (RPM) 2600

POWER PLANT INSTRUMENT MARKINGS

(a) Tachometer
Green Arc (normal operation range) 500-2600 RPM

Red Line (maximum continuous power) 2600 RPM

NOISE LEVEL

(a) The noise level of this aircraft is 70.5 dB(A).

SECTION 3 - EMERGENCY PROCEDURES

No Change

SECTION 4 - NORMAL PROCEDURES

No Change

SECTION 5 - PERFORMANCE

The performance charts in this P.O.H. supplement supersede the performance charts in report VB-1180.

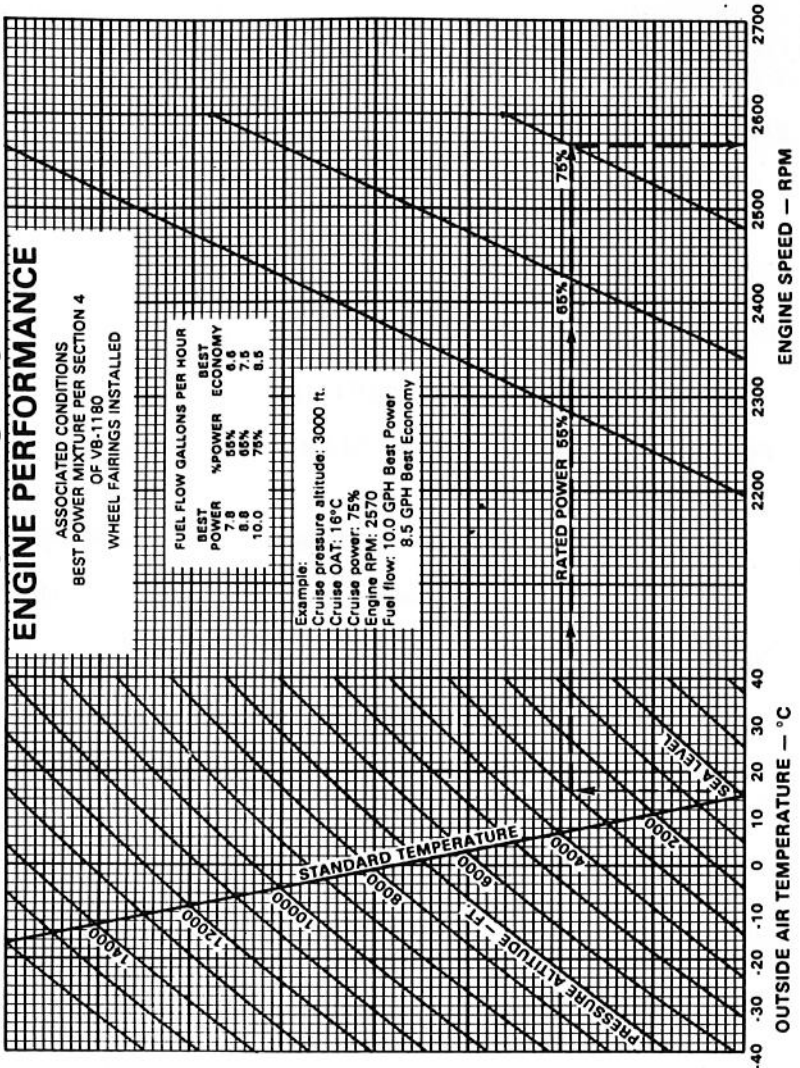
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ENGINE PERFORMANCE

ASSOCIATED CONDITIONS
BEST POWER MIXTURE PER SECTION 4
OF VB-1180
WHEEL FAIRINGS INSTALLED

FUEL FLOW GALLONS PER HOUR	
BEST POWER	7.8
55% ECONOMY	8.6
65% ECONOMY	7.5
75% ECONOMY	8.5

Example:
Cruise pressure altitude: 3000 ft.
Cruise OAT: 16°C
Cruise power: 75%
Engine RPM: 2570
Fuel flow: 10.0 GPH Best Power
8.5 GPH Best Economy



ENGINE PERFORMANCE

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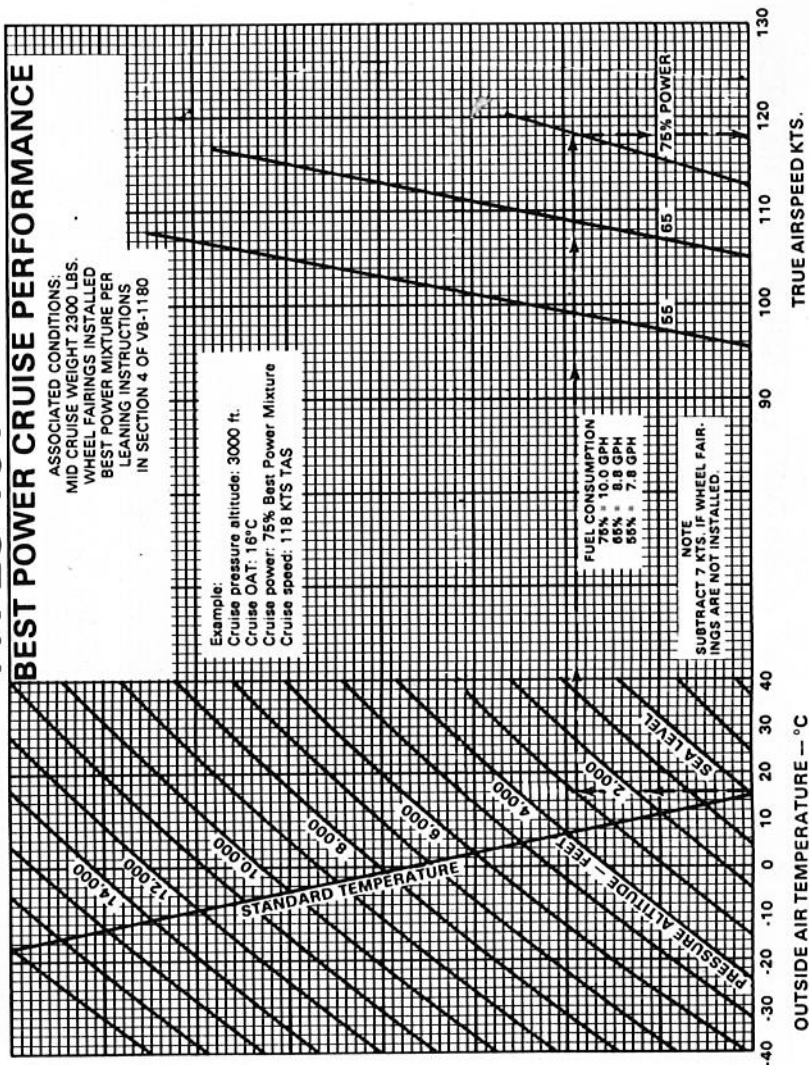
BEST POWER CRUISE PERFORMANCE

ASSOCIATED CONDITIONS:
MID CRUISE WEIGHT 2300 LBS.
WHEEL FAIRINGS INSTALLED
BEST POWER MIXTURE PER
LEANING INSTRUCTIONS
IN SECTION 4 OF VB-1180

Example:
Cruise pressure altitude: 3000 ft.
Cruise OAT: 16°C
Cruise power: 75% Best Power Mixture
Cruise speed: 118 KTS TAS

FUEL CONSUMPTION
75% = 10.0 GPH
85% = 8.8 GPH
55% = 7.8 GPH

NOTE
SUBTRACT 7 KTS. IF WHEEL FAIR-
INGS ARE NOT INSTALLED.



BEST POWER CRUISE PERFORMANCE

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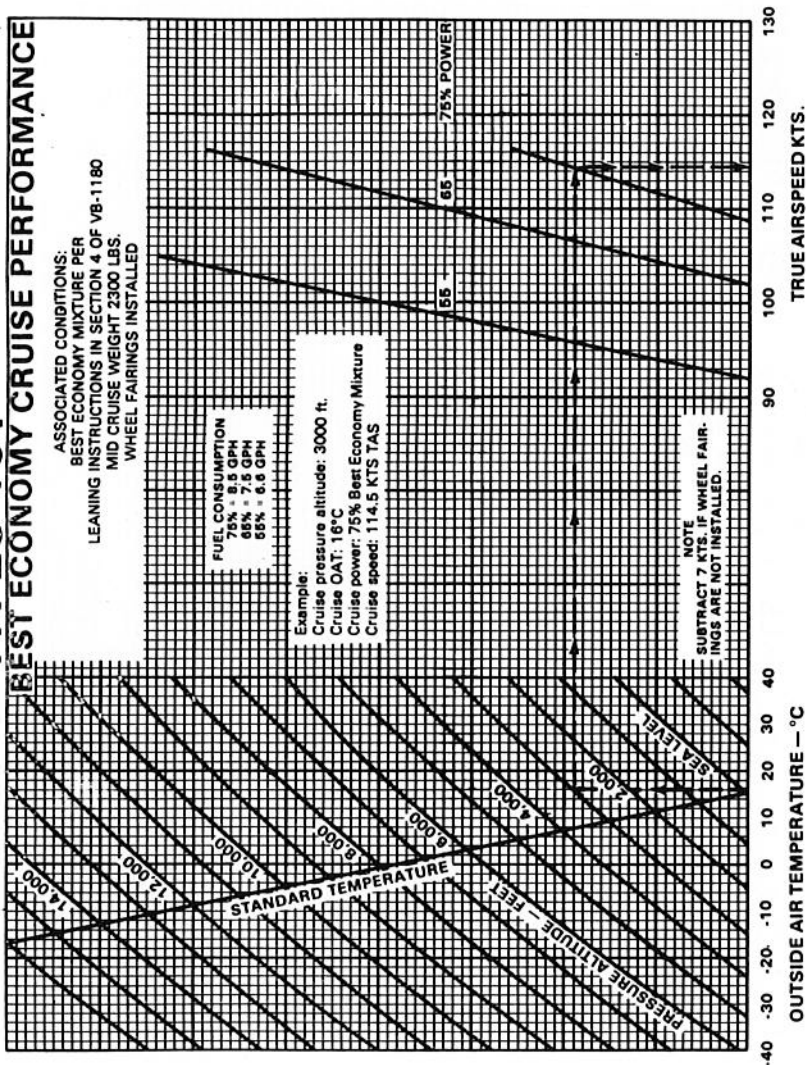
BEST ECONOMY CRUISE PERFORMANCE

ASSOCIATED CONDITIONS:
BEST ECONOMY MIXTURE PER
LEANING INSTRUCTIONS IN SECTION 4 OF VB-1180
MID CRUISE WEIGHT 2300 LBS.
WHEEL FAIRINGS INSTALLED

FUEL CONSUMPTION
75% - 9.5 GPH
85% - 10.5 GPH
95% - 11.5 GPH

Example:
Cruise pressure altitude: 3000 ft.
Cruise OAT: 18°C
Cruise power: 75% Best Economy Mixture
Cruise speed: 114.5 KTS TAS

NOTE
SUBTRACT 7 KTS. IF WHEEL FAIRINGS ARE NOT INSTALLED.



BEST ECONOMY CRUISE PERFORMANCE

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BEST POWER MIXTURE RANGE

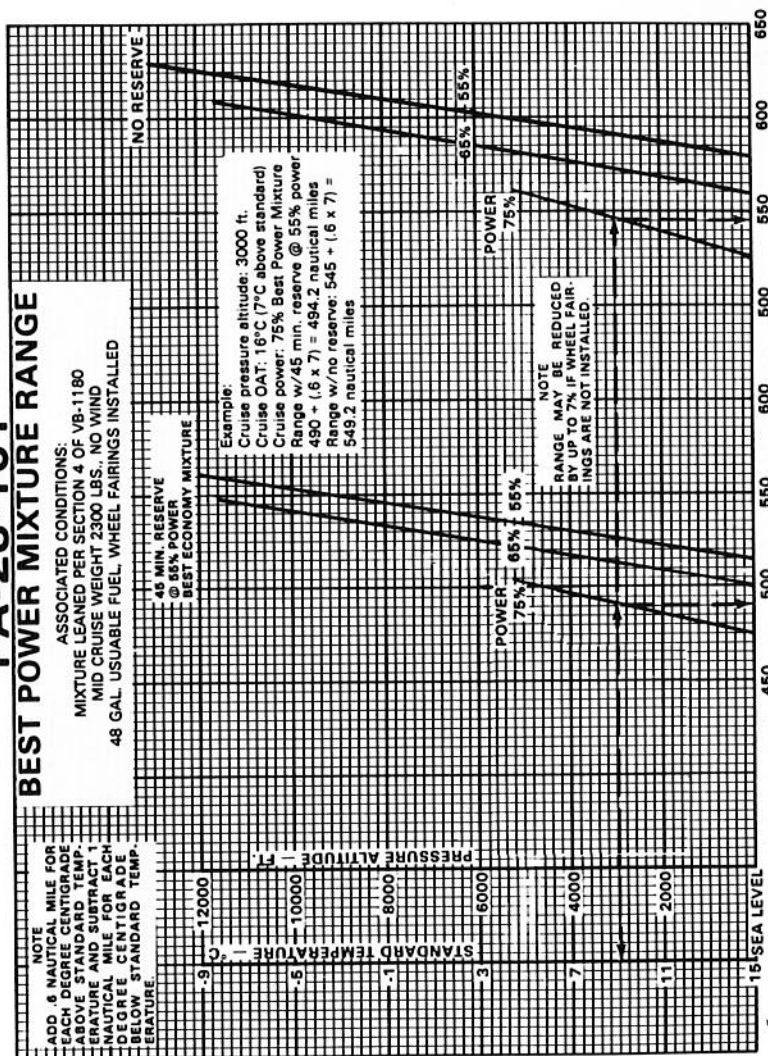
NOTE
ADD .6 NAUTICAL MILE FOR EACH DEGREE CENTIGRADE ABOVE STANDARD TEMP. CRUISE AND SUBTRACT .6 DEGREE CENTIGRADE BELOW STANDARD TEMP. CRUISE.

ASSOCIATED CONDITIONS:
MIXTURE LEARNED PER SECTION 4 OF VB-1180
MID CRUISE WEIGHT 2300 LBS., NO WIND
48 GAL. USUABLE FUEL, WHEEL FAIRINGS INSTALLED

45 MIN. RESERVE
@ 55% POWER
BEST ECONOMY MIXTURE

Example:
Cruise pressure altitude: 3000 ft.
Cruise OAT: 16°C (7°C above standard)
Cruise power: 75% Best Power Mixture
Range w/45 min. reserve @ 55% power:
 $490 + (6 \times 7) = 494.2$ nautical miles
Range w/no reserve: $545 + (6 \times 7) = 549.2$ nautical miles

NOTE
RANGE MAY BE REDUCED BY 10% IF WHEEL FAIRINGS ARE NOT INSTALLED



RANGE — NAUTICAL MILES
(INCLUDES DISTANCE TO CLIMB AND DESCEND)

BEST POWER MIXTURE RANGE

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BEST ECONOMY MIXTURE RANGE

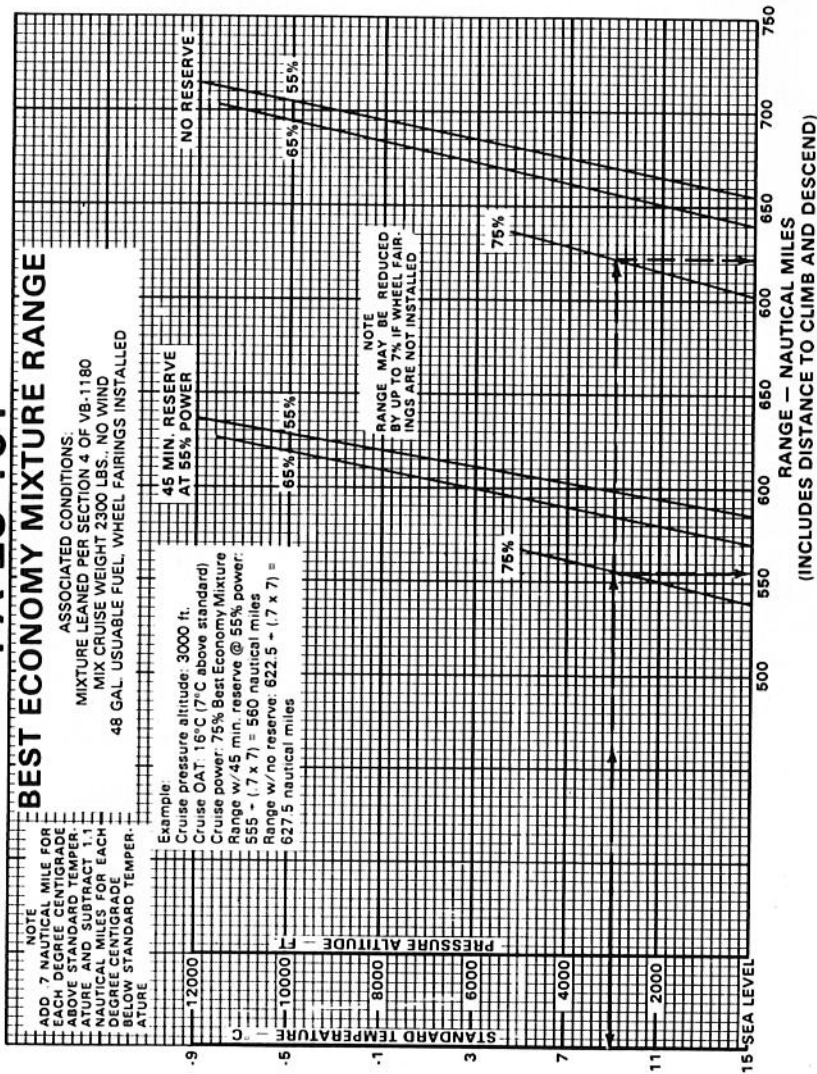
NOTE
ADD 7 NAUTICAL MILES FOR EACH DEGREE CENTIGRADE ABOVE STANDARD TEMPERATURE AND SUBTRACT 1.1 NAUTICAL MILES FOR EACH DEGREE CENTIGRADE BELOW STANDARD TEMPERATURE.

ASSOCIATED CONDITIONS:
MIXTURE LEANED PER SECTION 4 OF VB-1180
MIX CRUISE WEIGHT 2300 LBS., NO WIND
48 GAL. USUABLE FUEL, WHEEL FAIRINGS INSTALLED

Example:
Cruise pressure altitude: 3000 ft.
Cruise OAT: 16°C (17°C above standard)
Cruise power: 75% Best Economy Mixture
Range w/45 min. reserve @ 55% power:
 $555 - (7 \times 7) = 560$ nautical miles
Range w/no reserve: $622.5 - (7 \times 7) = 627.5$ nautical miles

45 MIN. RESERVE
AT 55% POWER

NOTE
RANGE MAY BE REDUCED BY UP TO 10% IF WHEEL FAIRINGS ARE NOT INSTALLED.



BEST ECONOMY MIXTURE RANGE

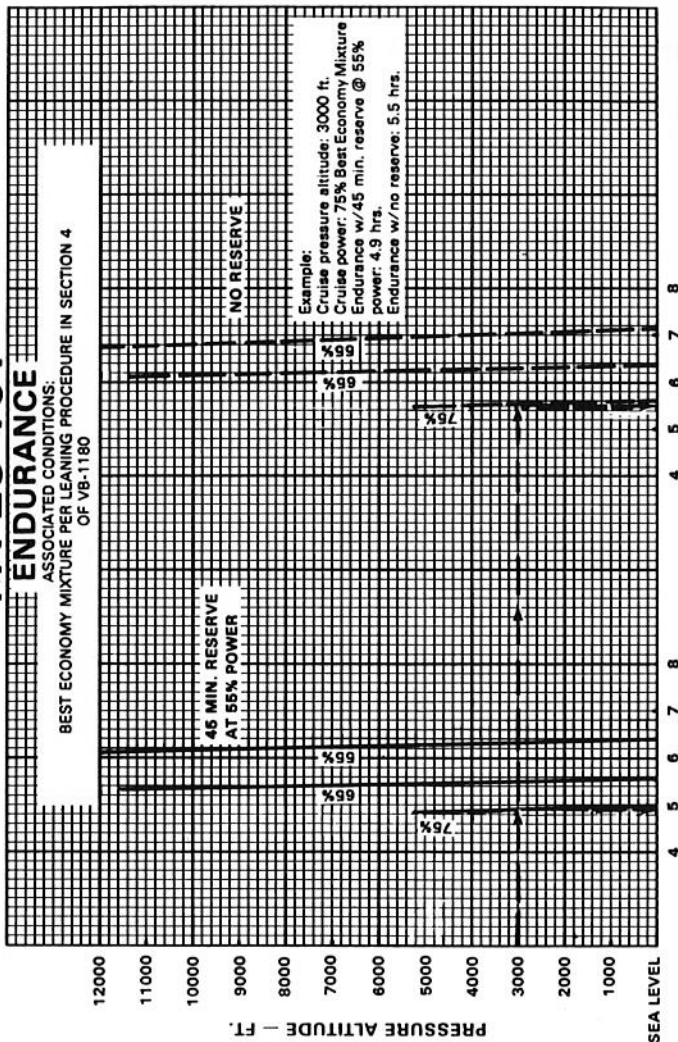
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ENDURANCE

ASSOCIATED CONDITIONS:

BEST ECONOMY MIXTURE PER LEANING PROCEDURE IN SECTION 4

OF VB-1180



ENDURANCE — HOURS
(INCLUDES TIME TO CLIMB & DESCEND)

ENDURANCE

SECTION 6 - WEIGHT AND BALANCE

No Change

SECTION 7 - DESCRIPTION AND OPERATION

No Change