

2.6 - OPERATION LIMITS**MANEUVER LIMITS**

This airplane is certified in the normal category.

The normal category is applicable to airplanes intended for non-aerobatic operations.

Non-aerobatic operations include any maneuvers incidental to normal flying, stalls (except whip stalls), lazy eights, chandelles, and steep turns in which the angle of bank is no more than 60°.

Aerobatic maneuvers, including spins, are not approved.

TEMPERATURE LIMITS

Minimum temperature at start and takeoff : - 40°C (- 40°F)

Maximum temperature at start and takeoff :

ISA + 37°C (+ 67°F) from 0 to 8000 ft pressure altitude

Maximum temperature in flight :

ISA + 37°C (+ 67°F) from 0 to 8000 ft pressure altitude

ISA + 30°C (+ 54°F) at 31000 ft pressure altitude

Linear decrease between 8000 and 31000 ft

FLIGHT LOAD FACTOR LIMITS**Flaps up**

Weight below 6579 lbs (2984 kg) :

$$- 1.5 \leq n \leq + 3.8 \text{ g}$$

Weight above 6579 lbs (2984 kg) :

$$- 1.5 \leq n \leq + 3.5 \text{ g}$$

Flaps down

$$- 0 \leq n \leq + 2.0 \text{ g}$$

CAUTION**INTENTIONAL NEGATIVE LOAD FACTORS PROHIBITED**

7.10 - EMERGENCY OXYGEN SYSTEM (Figure 7.10.1)

The gaseous oxygen system will be used by the crew and the passengers, when the cabin altitude is greater than 10000 ft following a loss of pressurization or in case of cabin air contamination.

■ Post-MOD70-0407-00D (V15.11 GARMIN software)

The "USE OXYGEN MASK" amber CAS message appears in the GDU 1500 MFD "CAS" window (in normal conditions) and the "USE OXYGEN MASK / USE OXYGEN MASK" aural warning alert sounds when the red warning CAS message "CABIN ALTITUDE" is ON.

All

The oxygen reserve is contained in an oxygen cylinder made of composite material and located outside of the pressurized cabin into the R.H. karman. Its capacity is 50.3 cu.ft (1425 litres) "STPD" (Standard Temperature Pressure Dry) and use limit pressures are :

- maximum pressure 1850 PSIG (127 bars) at 70° F (21° C).
Evolution of this pressure according to the outside temperature is given in Section 8, Figure 8.7.4, as well as on a placard on the inside of the cylinder service door,

- minimum pressure 217 PSIG (15 bars).

The oxygen cylinder head is equipped with :

- a hand-controlled isolation valve to permit cylinder installation and removal,
- a microswitch causing the "OXYGEN" CAS message to light on. This message lights on, when the isolation valve is closed,
- a graduated pressure gage,
- a charging valve - refer to the replenishment procedure in Section 8,
- an overpressure system consisting of a safety disc. This disc is designed to rupture between 2500 and 2775 PSIG (172 and 191 bars) discharging the cylinder contents outboard,
- a pressure reducing valve adjusting utilization pressure to a value comprised between 64 and 85 PSIG (4.4 and 5.9 bars),
- a low pressure safety valve calibrated to 116 PSIG (8 bars).

SECTION 7
DESCRIPTION

- 1) Microphone switch
- 2) OXYGEN switch
- 3) PASSENGERS OXYGEN switch

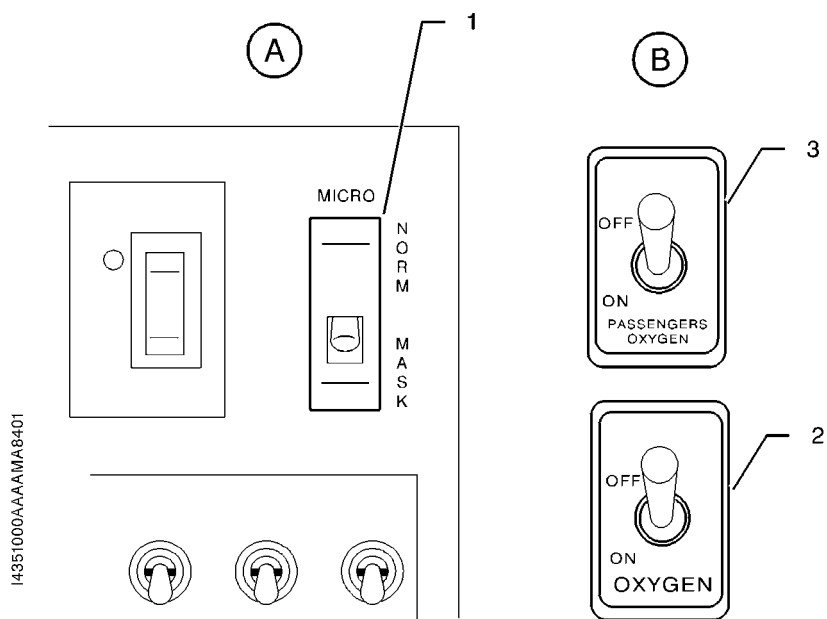
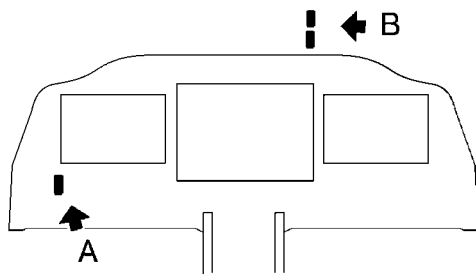


Figure 7.10.1 - EMERGENCY OXYGEN SYSTEM

A control panel located in the cockpit overhead panel at the disposal of the pilot includes :

- a two-position valve ON/OFF ("OXYGEN" switch) to permit the supply of the front seats occupiers masks,
- a two-position valve ON/OFF ("PASSENGERS OXYGEN" switch) with guard to permit the supply of the passengers four masks, when the first valve is open.

Oxygen pressure is displayed on the GDU 1500 MFD.

An altimetric valve provides an automatic passengers masks actuation function at a cabin altitude between 13000 and 14000 ft when "OXYGEN" switch is set to ON.

Two pressure-demand type masks allowing quick donning with only one hand, covering the nose and the mouth, as well as two pairs of smoke goggles are at disposal of the pilot and of the R.H. front seat occupier. Masks are installed in cups on the cabin walls aft of the front seats. Permanently connected to the oxygen system, they are equipped with a micro controlled by the switch ("NORMAL/MASK" micro inverter) under cover located on the instrument panel near the pilot's control wheel, with a three-position selector NORMAL, 100 % and EMERGENCY and with a push-button "PRESS TO TEST". The proper flow is signaled by a flow indicator (blinker) into the oxygen tubing.

The smoke goggles are stowed in the drawer of the cabinet at the rear of the pilot.

Four passengers constant-flow type masks, covering the nose and the mouth and permanently connected, are installed in two containers on the cabin ceiling. The opening of these containers and the descent of the masks are controlled by the pilot, when both switches at its disposal are set to ON, or automatically at a cabin altitude between 13000 and 14000 ft with the "OXYGEN" switch set to ON. The oxygen flow is obtained by pulling on the mask bounded by a lanyard cord to a pin. A proper flow is signaled by the filling of the green bag located on each passenger mask.