OXYGEN SYSTEM - SERVICING

EFFECTIVITY: ACFT MODEL(S) EMB-135

1. General

A. This section gives the procedure to fill the oxygen system.

WARNING: OBEY THESE SAFETY PRECAUTIONS DURING THE FILLING OPERATIONS:

- **THE PERSONS WHO WILL DO THE PROCEDURE MUST OBEY THE SAFETY CONDITIONS GIVEN IN AMM TASK 35-10-00-910-801-A/200.**
- **KEEP ALL SOURCES OF IGNITION (HOT EXHAUSTS, SPARKS, FLAMES, SMOKING) AWAY FROM THE OXYGEN SERVICING AREA.**
- **BE CAREFUL TO PREVENT CONTAMINATION FROM OILS, GREASES, DUST, OR WATER.**
- **DO THE SERVICING IN AN OPEN AREA OR WHERE THERE IS A GOOD FLOW OF AIR.**
- **DO NOT FILL THE OXYGEN CYLINDER WHILE YOU DO THE FUEL, HYDRAULIC FLUID, AND OIL SERVICING. DURING THE OXYGEN SERVICING, DO NOT DO TESTS FOR WHICH THE AIRCRAFT MUST BE ENERGIZED.**
- **MAKE ALL GROUNDING CONNECTIONS BETWEEN THE AIRCRAFT AND THE OXYGEN SOURCE (AMM TASK 20-40-02-910-801-A/200).**
- **DO NOT FILL THE OXYGEN CYLINDER DURING LIGHTNING DISCHARGES.**
- **DO NOT PERMIT PERSONS TO STAY IN THE AIRCRAFT INTERIOR OR IN THE ADJACENT AREA DURING THE OXYGEN SYSTEM SERVICING.**
- **KEEP THE CREW OXYGEN CYLINDER PRESSURE REGULATOR IN THE OFF POSITION DURING THE CYLINDER CHARGING.**

B. The aircraft has fixed oxygen cylinders and portable oxygen cylinder. Do the servicing/ maintenance on the portable oxygen cylinder in a workshop.

C. The minimum oxygen pressure in the crew oxygen system for dispatchability is:

- 1100 psi at 21°C (70°F) for flight crew made up of pilot and copilot.
- 1500 psi at 21°C (70°F) for flight crew made up of pilot, copilot, and observer.

D. (AIRCRAFT FOR 16 PASSENGERS) The minimum oxygen pressure in the passenger oxygen system for dispatchability is 1150 psi at 21°C (70°F).

E. For aircraft dispatchability, the minimum pressure in the portable oxygen cylinder installed in the passenger cabin near the cabin attendant station and below the last single seat is 1200 psi at 21°C (70°F).

F. The oxygen servicing panel is installed on the right side of the nose section and it has a pressure gage and a charging valve.

G. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

TASK NUMBER	DESCRIPTION	EFFECTIVITY
12-14-00-600-801-A	FILL THE OXYGEN SYSTEM - SERVICING	ACFT MODEL(S) EMB-135

TASK 12-14-00-600-801-A
EFFECTIVITY: ACFT MODEL(S) EMB-135

2. FILL THE OXYGEN SYSTEM - SERVICING

A. General

(1) This task gives the procedure to fill the oxygen system.

B. References

REFERENCE	*DESIGNATION*
AMM MPP 06-41-01/100	-
AMM MPP 06-41-03/100	- COMPONENT LOCATION
AMM TASK 35-10-08-000-801-A/400	-
AMM TASK 35-10-08-400-801-A/400	-

C. Zones and Accesses

ZONE	*PANEL/DOOR*	*LOCATION*
124	124AR	Right side of the aircraft nose section

D. Tools and Equipment

ITEM	*DESCRIPTION*	*PURPOSE*	*QTY*
GSE 034	Adapter, oxygen charger	To adapt the connection of the hose to the charging valve	
GSE 029	Oxygen service regulator	To fill the oxygen cylinder of the aircraft	
Commercially available	Oxygen cylinder with sufficient pressure	Fill the oxygen cylinder of the aircraft	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	*DESCRIPTION*	*QTY*
MIL-PRF-27210	Oxygen	AR
MIL-L-25567	Leak Tec No. 16OX	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	*FUNCTION*	*PLACE*
1	Does the task	Nose-section right side

I. Fill the Oxygen System (Figure 301) (Figure 303)

SUBTASK 610-018-B

(1) Remove the access panel to gain access to the oxygen cylinder pressure regulator (AMM MPP 06-41-03/100).

(2) Turn the oxygen cylinder pressure regulator to the OFF position.

(3) Open access door 124AR (AMM MPP 06-41-01/100).

WARNING: OPERATE ALL OXYGEN CONTROL VALVES SLOWLY TO KEEP TO A MINIMUM THE RISK OF FIRE AND PREVENT A SUDDEN TEMPERATURE INCREASE.

(4) Remove the protection cap.

(5) Connect the oxygen charger adapter to the hose of the oxygen service regulator.

(6) Connect the oxygen service regulator to the oxygen source.

NOTE: For aircraft under the FAA configuration, fill the system with ABO only.

(7) Connect the oxygen charger adapter to the charging valve and make sure that there is no leakage.

WARNING: THE SYSTEM FILLING PRESSURE IS 1850 PSI AT A TEMPERATURE OF 21°C (70°F). FOR OTHER TEMPERATURE VALUES, REFER TO FIGURE 303.

(8) Immediately after you close the oxygen service regulator, open the oxygen-cylinder shutoff valve.

NOTE: Fill the system slowly and gradually in increments of 100 psi to prevent heating in the system and, thus, an incorrect pressure indication.

(9) Slowly open the oxygen service regulator and let the system fill up to the recommended pressure. Monitor the pressure gages of the oxygen servicing panel and the oxygen service regulator.

(10) Close the oxygen-cylinder shutoff valve.

(11) Carefully remove the oxygen charger adapter from the charging valve to release the remaining pressure in the hose.

(12) Turn the oxygen cylinder pressure regulator to the ON position.

(13) Install the access panel to close the access to the oxygen cylinder pressure regulator (AMM MPP 06-41-03/100.

J. Fill the Crew Oxygen System (Figure 302) (Figure 303)

SUBTASK 610-019-A

EFFECTIVITY: AIRCRAFT FOR 16 PASSENGERS

(1) Remove the access panel to gain access to the oxygen cylinder pressure regulator (AMM MPP 06-41-03/100).

(2) Turn the oxygen cylinder pressure regulator to the OFF position.

WARNING: OPERATE ALL OXYGEN CONTROL VALVES SLOWLY TO KEEP TO A MINIMUM THE RISK OF FIRE AND PREVENT A SUDDEN TEMPERATURE INCREASE.

(3) Remove the protection cap from the crew system charging valve.

(4) Connect the oxygen charger adapter to the hose of the oxygen service regulator.

(5) Connect the oxygen service regulator to the oxygen source.

(6) Connect the oxygen charger adapter to the passenger system charging valve and make sure that there is no leakage.

WARNING: THE SYSTEM FILLING PRESSURE IS 1850 PSI AT A TEMPERATURE OF 21°C (70°F). FOR OTHER TEMPERATURE VALUES, REFER TO FIGURE 303.

(7) Immediately after you close the oxygen service regulator, open the oxygen-cylinder shutoff valve.

NOTE: Fill the system slowly and gradually in increments of 100 psi to prevent heating in the system and, thus, an incorrect pressure indication.

(8) Slowly open the oxygen service regulator and let the system fill up to the recommended pressure. Monitor the pressure gage of the passenger oxygen servicing panel and the oxygen service regulator.

(9) Close the oxygen-cylinder shutoff valve.

(10) Carefully remove the oxygen charger adapter from the passenger system charging valve to release the remaining pressure in the hose.

(11) Turn the oxygen cylinder pressure regulator to the ON position.

(12) Install the access panel to close the access to the oxygen cylinder pressure regulator (AMM MPP 06-41-03/100.

K. Fill the Passenger Oxygen System (Figure 302) (Figure 303)

SUBTASK 610-020-A

EFFECTIVITY: AIRCRAFT FOR 16 PASSENGERS

WARNING: OPERATE ALL OXYGEN CONTROL VALVES SLOWLY TO KEEP TO A MINIMUM THE RISK OF FIRE AND PREVENT A SUDDEN TEMPERATURE INCREASE.

(1) Remove the protection cap from the passenger system charging valve.

(2) Connect the oxygen charger adapter to the hose of the oxygen service regulator.

(3) Connect the oxygen service regulator to the oxygen source.

NOTE: For aircraft under the FAA configuration, fill the system with ABO only.

(4) Connect the oxygen charger adapter to the passenger system charging valve and make sure that there is no leakage.

WARNING: THE SYSTEM FILLING PRESSURE IS 1850 PSI AT A TEMPERATURE OF 21°C (70°F). FOR OTHER TEMPERATURE VALUES, REFER TO FIGURE 303.

(5) Immediately after you close the oxygen service regulator, open the oxygen-cylinder shutoff valve.

NOTE: Fill the system slowly and gradually in increments of 100 psi to prevent heating in the system and, thus, an incorrect pressure indication.

(6) Slowly open the oxygen service regulator and let the system fill up to the recommended pressure. Monitor the pressure gage of the passenger oxygen servicing panel and the oxygen service regulator.

(7) Close the oxygen-cylinder shutoff valve.

(8) Carefully remove the oxygen charger adapter from the passenger system charging valve to release the remaining pressure in the hose.

L. Follow-on

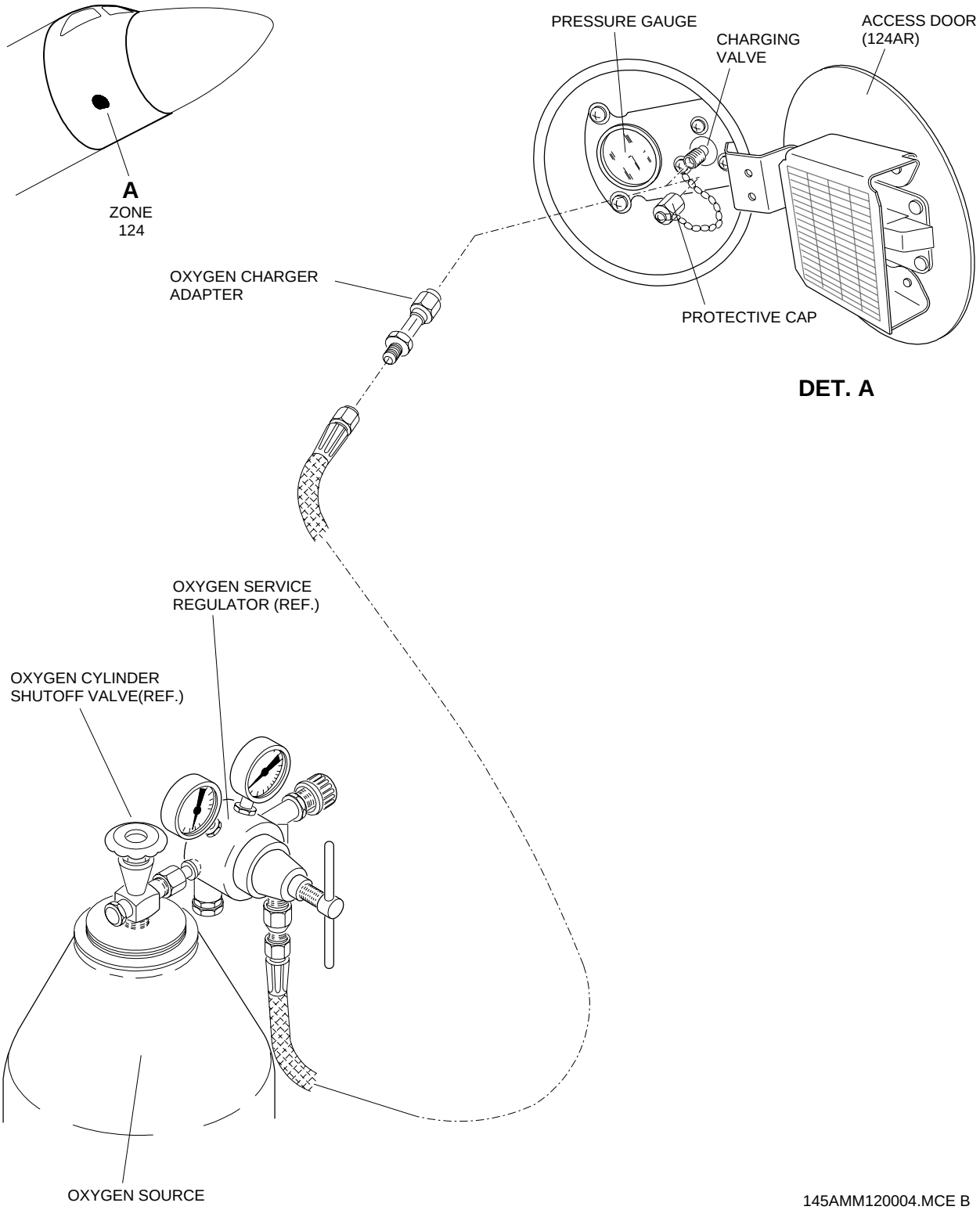
SUBTASK 842-012-B

(1) Do a test on the charging valve for leaks with Leak Tec No. 16OX. If there are leaks, replace the charging valve (AMM TASK 35-10-08-000-801-A/400) (AMM TASK 35-10-08-400-801-A/400).

(2) Install the protection cap and close access door 124AR (AMM MPP 06-41-01/100).

(3) Remove the oxygen charger adapter from the hose of the oxygen service regulator. Keep the equipment in a correct location, where there are the cleaning conditions necessary for the oxygen system.

EFFECTIVITY:: ACFT MODEL(S) EMB-135
Oxygen Filling
Figure 301



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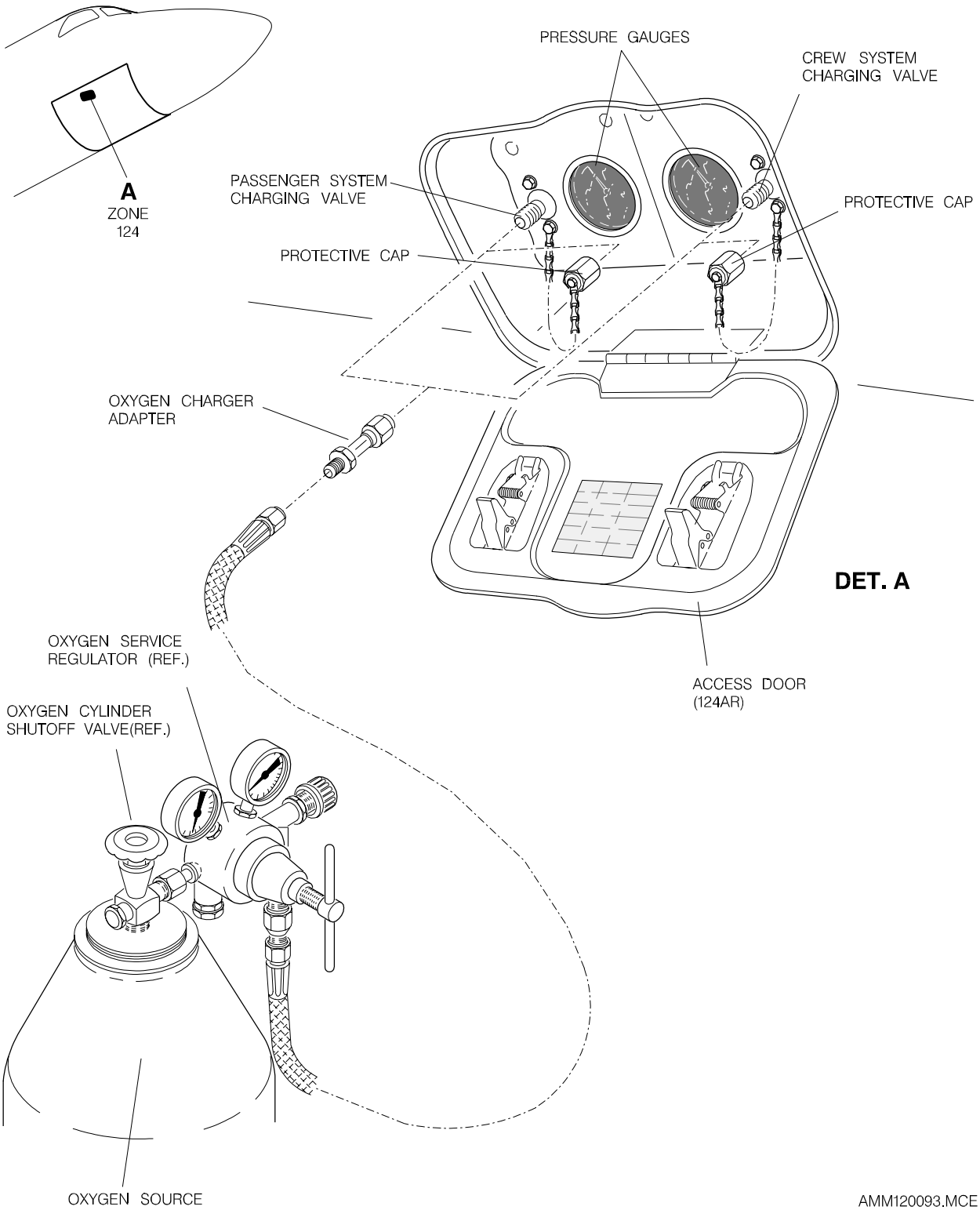
EFFECTIVITY:: AIRCRAFT FOR 16 PASSENGERS

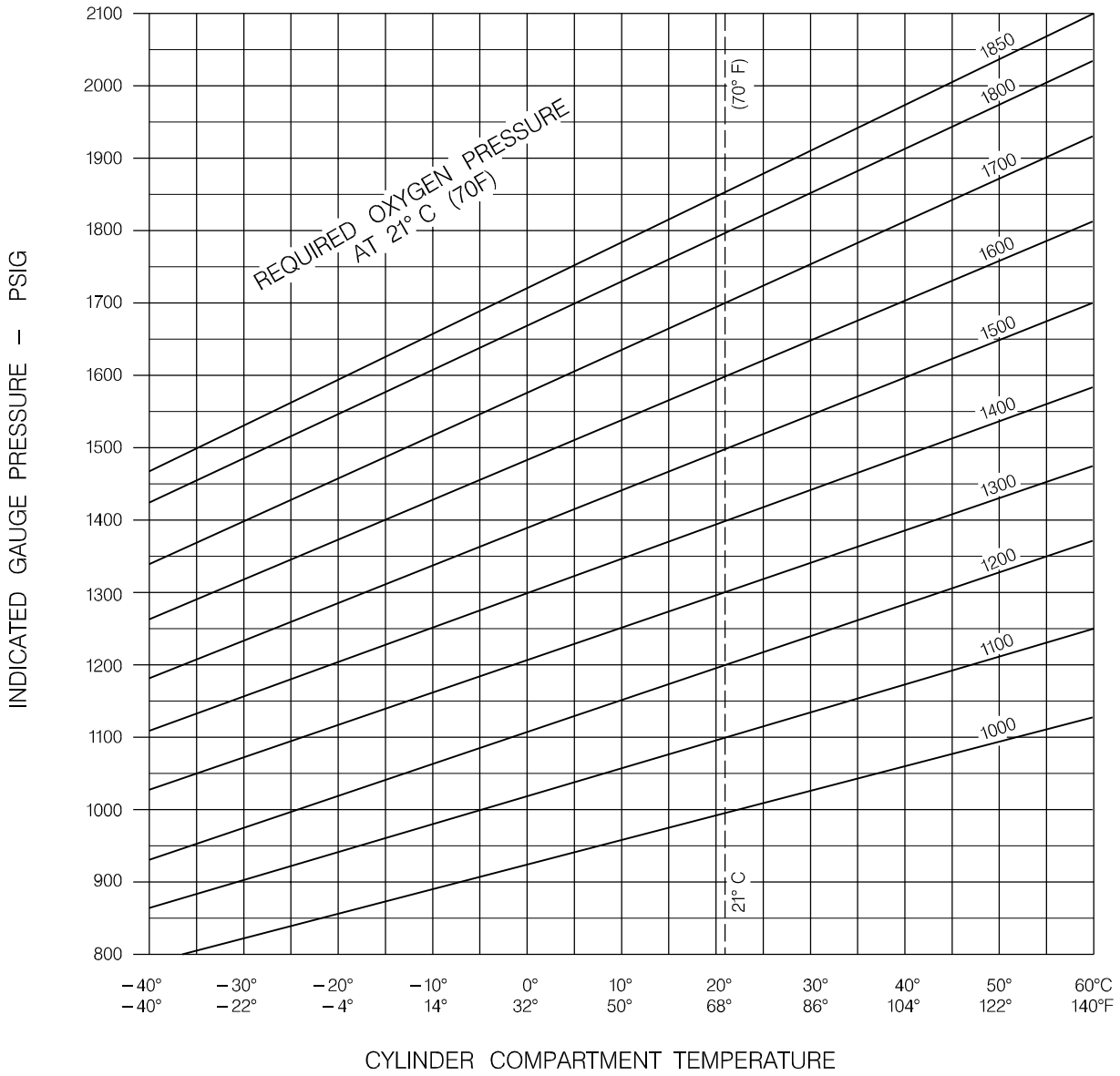
Oxygen Filling

Figure 302



EFFECTIVITY:: ACFT MODEL(S) EMB-135

Oxygen Pressure Correction as a Function of Temperature
Figure 303



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