



## September 2023 Med Tips

**Don't miss out on our upcoming Virtual Service Schools!**

### CAIRE Service School Trainings and Webinars 2023

**CAIRE offers In-person and Virtual Service Schools covering both LOX and Concentrator lines.**

Each class is a comprehensive program that focuses on the technical and service aspects of the CAIRE family products. Class time is divided between lecture and hands-on workshops. The seminars will help the student develop a better understanding of how liquid oxygen equipment or concentrators work, how to identify the symptoms and causes of potential problems and how to use the technical information that is available in the Technical Manuals. Registration for CAIRE's Service Schools is mandatory. Registration forms must be received two weeks prior to the start of the class in order to guarantee availability and materials.

**Table 1 - Details of upcoming training.**

Type	Language	Location	Training Dates	Registration by	Training Type
LOX France	French	Toulouse, France	19-September-23	5-September	In person
Conc France	French	Toulouse, France	20-21 September-23	5-September	In person
LOX Italy	Italian	Padova, Italy	11-October-23	27-September	In person
LOX LATAM	Spanish	Latin America	17-October-23	3-October	Remote
Conc LATAM	Spanish	Latin America	18-19 October-23	3-October	Remote
LOX Germany	German	Langenfeld, Germany	8-November-23	25-October	In person
Conc USA	English	Ball Ground, GA USA	13-15 November-23	30-October	In person
LOX USA	English	Ball Ground, GA USA	16 November-23	30-October	In person
Conc Europe	English	Toulouse, France	21-22 November	8-November	Remote
LOX Europe	English	Toulouse, France	23 November	8-November	Remote

\*We reserve the right to cancel training seminars at short notice. Customers should ensure that they take necessary precautions to ensure costs are covered in case of cancellation.

\*\* Training will be in the form of a Webinar.

#### **Concentrator Service School Topics include:**

- Concentrator hazards and safety precautions
- Principles of pressure, flow, and saturation
- Functions of the major components of a portable/stationary concentrator
- Theory of operation
- Set up and use of test equipment



- Troubleshooting, repair and performance verification/testing procedures

**LOX Service School Topics include:**

- Liquid oxygen (LOX) hazards and safety precautions
- Principles of pressure, flow and liquid oxygen saturation
- Functions of the major components of a liquid oxygen system
- HELIOS™ system theory of operation
- Reservoir and portable filling procedures
- Set up and use of test equipment

**Please submit your registrations forms no later than the dates in Table 1 above. If you are interested in the service schools mentioned above, and it is past the registration date, please reach out to the registration emails below. Please note that as travel restrictions, and Covid-related guidelines evolve, we intend to restore CAIRE Service School to in person.**

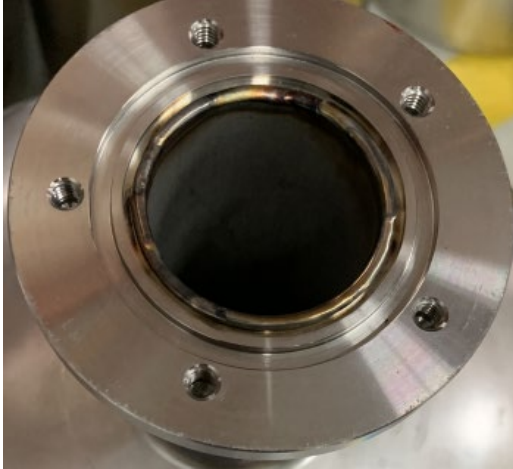
**To register for Service School, please email:**

[Techservice.global@caireinc.com](mailto:Techservice.global@caireinc.com) for USA Training or [jim.gibson@caireinc.com](mailto:jim.gibson@caireinc.com) for European Training.

## **PRODUCT UPDATES**

### **Liberator® 20, 30, 37 and 45 models change of design, Neck Tube**

CAIRE® would like to notify our valued customers that as part of our drive for continuous product improvements, we will change the design used for the neck tube on the above model Liberator Liquid Oxygen equipment's. The previous bellows neck tube assembly design will be replaced by a more robust all stainless-steel tube design. See Figure 1. below for details.



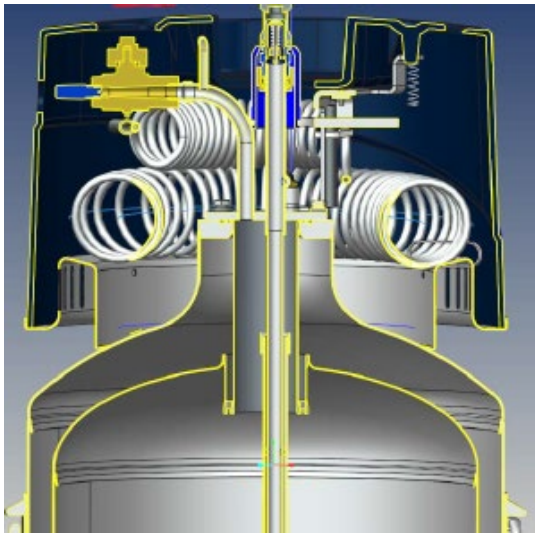
New style steel tube design



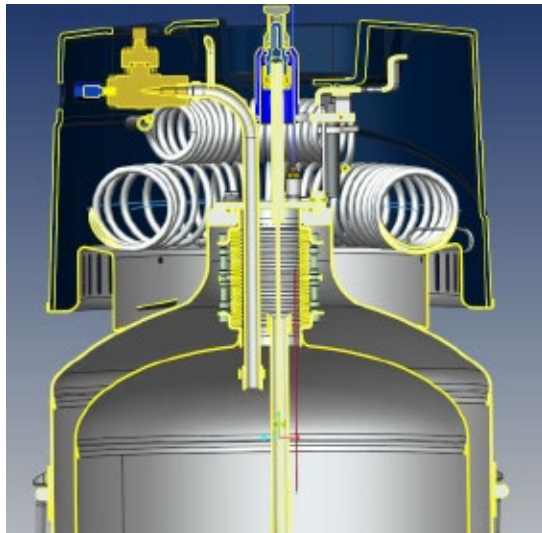
Old style bellows neck tube design

Figure 1.

As part of this design change, the manifold assembly will no longer require the extended vent tube and ullage will be controlled by the length of the neck tube. See Figure 2. below for details.



Section View robust all stainless steel tube design without extended vent tube



Section View bellows neck tube assembly with extended vent tube



Figure 2.

The first serial number affected by this change is CBB3023240481, units manufactured after this serial number will have the new neck design, and the new manifold design. For manifold part numbers, please check service bulletin.

**Note\* This design change will not affect Liberator 60 models.**

For further information please contact the Technical Service Team or refer to Service bulletin 21498112.



### CAIRE LOX Portables Backpack

CAIRE® would like to remind customers that we have specially design backpacks for the transport of our LOX portables models. We do not recommend the use of different backpacks as these may not have adequate ventilation. Please remember to always keep LOX portables in a upright position even if in the backpack failure to do so could possibly cause injury.

The excerpt from our accessory catalogue shows the part number of the Backpack we supply.



# CAIRE<sup>®</sup>

Niterra Group

COMPANION<sup>®</sup> C1000/T,  
STROLLER<sup>®</sup>,  
SPRINT<sup>™</sup>,  
SPIRIT<sup>™</sup> 600/1200,  
HI FLOW  
BACKPACK

**Item Number**

10018138



## Helpful Hints & FAQs

### **Companion 5 Outlet Pressure Test Procedure (units with Flowmeter # 15063266)**

- 1) Open up the unit.
- 2) Remove the cap from right side of the flow sensor.
- 3) Connect 5/32nd size tubing to the right side of the flow sensor (Picture 1).
- 4) Connect the other end of the tubing to a pressure analyzer.
- 5) Turn the power switch to the “ON” position.



Picture 1. Flow Sensor

- 6) Open flowmeter to 5 LPM.
- 7) Allow the unit to run for 10 minutes prior to testing the pressure.
- 8) Observe the reading on the pressure analyzer (Picture 2).
- 9) Acceptable range is 4.3 – 4.9 psig. If the outlet pressure is not within this range, the product regulator needs to be adjusted. (see manual 14940837 for procedure)
- 10) Turn the power switch to the “OFF” position.
- 11) Remove tubing from flow sensor and replace the cap.



Picture 2. Pressure Analyzer

## Document Update

We advise our valued customers to monitor and check that they are using the most recent revision of any documents for the model of equipment they have. Below is a list of documents that were released/updated during August 2023.

- Liberator User Manual MN234 Rev J
- Liberator User Manual MN234-C4 Rev J
- Liberator User Manual MN234-12 Rev J
- Liberator User Manual MN234-15 Rev J
- Liberator User Manual MN234-5 Rev J
- Spirit User Manual MN235 Rev D
- Spirit User Manual MN235-C4 Rev D
- Sprint/Stroller User Manual MN236 Rev E
- Sprint/Stroller User Manual MN236-C4 Rev E
- Sprint/Stroller User Manual MN236-5 Rev E

## Med Tips Distribution!

The CAIRE team is asking all current subscribers to CAIRE’s Med Tips Newsletter to register in order to continue receiving this monthly communication.

Please click this link - <http://go.pardot.com/l/710913/2022-01-17/2pgcj9> - and provide us with your current information. Thank you and we appreciate your support.

**CONTACT:** For technical questions or concerns, contact Technical Service:



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For ordering information or general inquiries, contact Customer Service:

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*Please consult the applicable product instructions for use for product indications, contraindications, warnings, precautions, and detailed safety information.*

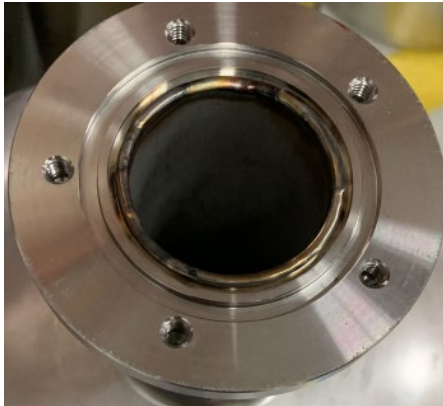
**PN 21498112A**

**RELEASE DATE:** November 11, 2022

**MODEL:** Liberator® 20, 30, 37 and 45 models

**ISSUE:** Change of design, Neck Tube.

**NOTES:** CAIRE® would like to notify our valued customers that as part of our drive for continuous product improvements, we will change the design used for the neck tube on the above model Liberator Liquid Oxygen equipment's. The previous bellows neck tube assembly design will be replaced by a more robust all stainless steel tube design. See Figure 1. below for details.



New style steel tube design

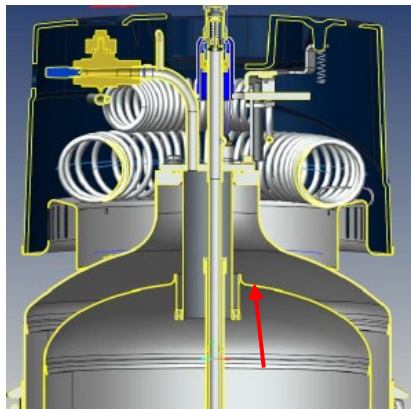


Old style bellows neck tube design

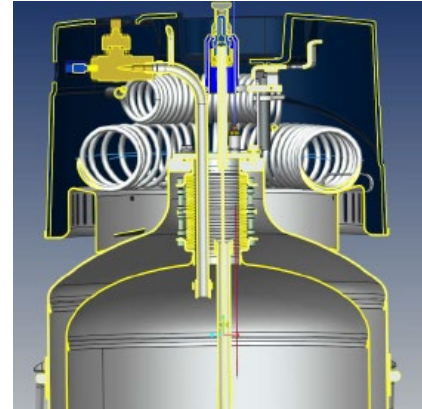
Figure 1.

As part of this design change, the manifold assembly will no longer require the extended vent tube and ullage will be controlled by the length of the neck tube. See Figure 2. below for details





Section View robust all stainless steel tube design without extended vent tube



Section View bellows neck tube assembly with extended vent tube

Figure 2.

Customers who fit a service Dewar with the solid neck tube can still use the older manifold and do not need to upgrade the manifold assembly. New style Manifolds without the extended vent tube cannot be used on older model Dewars fitted with the bellows neck tubes. Part numbers for the various types of manifolds are shown below in table 1.

Equipment Type	Manifold Old	Manifold New
Liberator 20	15096375	21497852
Liberator 30	15096164	21497851
Liberator 37	15096130	21497850
Liberator 45	15096113	21497841

Table 1. – Manifold Part Numbers

**Note\*** This design change will not affect Liberator 60 models.

For further information please contact the Technical Service Team.

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