

## Portable Oxygen Generating System (POGS33C)

On 9 May 2008, On Site Gas Systems, Inc. of Newington, CT, the manufacture of the Portable Oxygen Generating System (POGS33C) released the following Technical Bulletins: [TB5-9-08-1](#), Generator Motor Pulley for POGS33C Feed Air Compressor (103 systems affected) and [TB5-9-08-2](#), Scroll Compressor to Heat Exchanger Hose Assembly for POGS33C Feed Air Compressor (19 systems affected). These bulletins address both performance and reliability of the system. These are not safety recalls but are essential because the performance and reliability of these systems directly affects patient care.

[TB5-9-08-1](#) addresses the fact that there can be a slight decline in oxygen pressure at higher elevations when at maximum flow for the elevation. Oxygen purity is not affected but a drop in pressure could cause alarms on ventilators or anesthesia units. To correct this issue the compressor motor pulley is being changed from a 4.5" to a 5" outer diameter pulley. Not all units will need this change so follow TB instructions carefully.

[TB5-9-08-2](#) addresses an issue with hose deterioration when operating the system at elevated temperatures. To correct this issue the hose between the scroll compressor and heat exchanger is being changed to a material which is more tolerant of extreme temperatures. Not all units require corrective actions so follow TB instructions carefully.

Included in the TBs are the serial numbers of affected systems, instructions on inspection and correction of the issues, and manufacture contact information. The manufacture will provide parts kits and instructions at no charge. Inspections and/or corrections will be performed by qualified Biomedical Equipment Repairers (MOS 68A). After completion of these actions, BMER personnel should contact USAMMA, National Maintenance Point, 301-619-4376. Please provide contact information as well as serial numbers of inspected and/or corrected systems.

# O<sub>2</sub>N<sub>2</sub> SITE On Site Gas Systems, Inc.

Manufacturers / Designers of Oxygen & Nitrogen Generating Equipment

## Technical Bulletin

**Technical Bulletin Number:** TB 5-9-08-1

**Technical Bulletin Date:** 5/9/08

**Reference:** Generator Motor Pulley for POG 33C Feed Air Compressors

**Type of Change:** Manufacturer Engineering Change #ECO 06-36

**Reason for Change:** To ensure oxygen pressure is maintained, while at the rated flow, at altitude. A design change to the PowerEx scroll compressor (part number SLAE05E) affects the compressor's output curve (RPM to Output). There is NO IMPACT TO OXYGEN PURITY OF 93% +/- 3% OR FLOW RATE. There may be a slight decline in oxygen pressure from the specified 50 +/- 2 PSI to between 45-47 PSI, at higher elevations when at maximum flow for the elevation. This lower pressure does not affect oxygen for patient delivery via cannula or cylinder filling. It may cause ventilators or anesthesia units operated using oxygen as the driving gas to alarm due to low pressure.

### **Systems/ Machine/ Model Affected:**

- POGS33C serial numbers 3650-4114 are suspect and should be inspected to ensure they have the 5" pulley.

### **Identifying Affected Systems:**

- 1) Open the Feed Air Compressor and verify that the PowerEx is part number SLAE05E. If no, your system requires no further action.
- 2) If yes, verify that the compressor motor pulley is 4.5" outer diameter. If your pulley is 5", your system requires no further action.
- 3) If yes, change the pulley to the 5" diameter pulley, part number 2-3V5.0.

**Details of Change:** Compressor motor pulley size changed from 4.5" to 5".

<b>Part No:</b>	<b>Description</b>	<b>Quantity</b>	<b>Comments</b>
2-3V4.50	Pulley (4.5")	One	Replaced with 2-3V5.0 (5")

**Update to Manual Required:** No

**Pages Affected:** None

**Corrective Action:** Kits will be sent to affected Commands. Contact Customer Service at 860-667-8888 ext 262 if you have any questions or to request a kit and installation instructions.

## **On Site Gas Systems, Inc.**

35 Budney Road, Budney Industrial Park, Newington, CT 06111 U.S.A.

Telephone: 860.667.8888 • Fax: 860.667.2222

Website: [www.onsitegas.com](http://www.onsitegas.com) • Email: [info@onsitegas.com](mailto:info@onsitegas.com)

A BUSINESS INCORPORATED IN THE STATE OF CONNECTICUT, U.S.A.

# O<sub>2</sub>N<sub>2</sub> SITE On Site Gas Systems, Inc.

Manufacturers / Designers of Oxygen & Nitrogen Generating Equipment

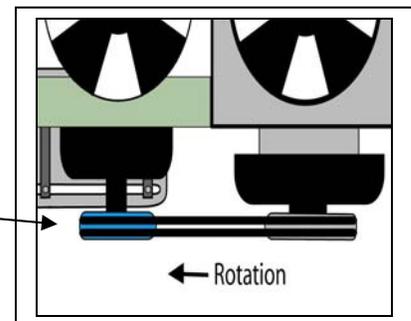
**Replacement Procedure:** Before performing any inspections or adjustments shutdown the Feed Air Compressor and disconnect power.

## Removal of 4.5" pulley

- Open the Compressor Interior Cover.
- Using a  $\frac{9}{16}$ " wrench, loosen the four mounting nuts securing the Compressor Motor mounted to the frame.
- Using a  $\frac{3}{4}$ " wrench, turn the bolt on the lower left of the frame counterclockwise to loosen the belts.
- Remove the belts.
- Using a  $\frac{1}{8}$ " Allen wrench loosen the set screw on the pulley.
- Remove the bolts on the pulley one at a time and place them in the threaded hole that is to the right of the one just exited.
- Do this for all 3 bolts.
- Tighten the bolts one at a time until the shaft hub separates from the pulley. Remove the shaft hub, shaft key, and the pulley.
- Remove the three bolts from the shaft hub.

## Install the 5" pulley

- Trial fit the pulley to the shaft hub, this is a tapered shaft and the pulley must be installed with the larger hole against the shaft hub.
- Slide the pulley and shaft hub with shaft key onto shaft leaving  $\frac{1}{2}$ " of shaft showing.
- Install the 3 bolts in the non-thread hole of the shaft hub, align to the threaded hole in the pulley, and tighten.
- Install the belts and the check belt alignment and adjust pulley as necessary.
- Tighten the set screw on the pulley.
- Using a  $\frac{3}{4}$ " wrench, turn the bolt on the lower left of the frame clockwise to tighten the belts.
- Apply approximately 10 pounds of force at the mid-span of the belt between the pulleys. The belt should deflect  $\frac{1}{2}$ " to  $\frac{3}{4}$ ".
- Adjust belt tension to  $\frac{1}{2}$ " to  $\frac{3}{4}$ " deflection and tighten the four mounting nuts.
- Close the Compressor Interior Cover.
- Connect the power and start the feed air compressor.



## On Site Gas Systems, Inc.

35 Budney Road, Budney Industrial Park, Newington, CT 06111 U.S.A.

Telephone: 860.667.8888 • Fax: 860.667.2222

Website: [www.onsitegas.com](http://www.onsitegas.com) • Email: [info@onsitegas.com](mailto:info@onsitegas.com)

A BUSINESS INCORPORATED IN THE STATE OF CONNECTICUT, U.S.A.

# O<sub>2</sub>N<sub>2</sub> SITE On Site Gas Systems, Inc.

Manufacturers / Designers of Oxygen & Nitrogen Generating Equipment

---

## Technical Bulletin

**Technical Bulletin Number:** TB 5-9-08-2

**Technical Bulletin Date:** 5/9/08

**Reference:** Scroll Compressor to Heat Exchanger Hose Assembly for POG 33C Feed Air Compressors

**Type of Change:** Manufacturer Engineering Change #ECO 08-13

**Reason for Change:** Hose hardening at elevated temperature operation.

### **Systems/ Machine/ Model Affected:**

- POGS33C compressors, serial numbers 4073FA – 4151FA and 4581FA require replacement.

### **Identifying Affected Systems:**

- POGS33C Compressor serial number plate is located on the right side exterior side of the feed air compressor.
  - old hose material is “Parker Hi-Temp Push-Lok 836.8 WP 1.7 MPa (250 psi) MSHA IC-40/2212.5 mm (1/2) 9-3006“, due to the length of the hose you will only see a portion of this identification number
  - New hose material is “Federal Hose Heater Hose 5526-060 0.500 IN. ID”
  - This does not apply to units with copper tubing

**Details of Change:** Scroll compressor to heat exchanger hose assembly material change.

**Update to Manual Required:** No

**Pages Affected:** None

**Corrective Action:** Kits will be sent to affected Commands. Contact Customer Service at 860-667-8888 ext 262 if you have any questions or to request a kit and installation instructions.

---

## **On Site Gas Systems, Inc.**

35 Budney Road, Budney Industrial Park, Newington, CT 06111 U.S.A.

Telephone: 860.667.8888 • Fax: 860.667.2222

Website: [www.onsitegas.com](http://www.onsitegas.com) • Email: [info@onsitegas.com](mailto:info@onsitegas.com)

A BUSINESS INCORPORATED IN THE STATE OF CONNECTICUT, U.S.A.

# O<sub>2</sub>N<sub>2</sub> SITE On Site Gas Systems, Inc.

---

Manufacturers / Designers of Oxygen & Nitrogen Generating Equipment

**Replacement Procedure:** Before performing any inspections or adjustments shutdown the Feed Air Compressor and disconnect power.

Removal of hose assembly

- Open the Compressor Interior Cover.
- Using a  $1\frac{5}{16}$ " wrench, loosen the two ends of the hose assembly; hold the fitting on the heat exchange to avoid damaging the copper tubing on the heat exchanger.

Install the new hose assembly

- Ensure the washers are installed in both ends of the new hose assembly.
- Install the new hose and tighten both ends until the snug, hose will stop rotating freely
- Ensure hose is not twisted or kinked, if so, loosen, turn hose to remove and re-snug
- Tighten each side approximately a half turn to seat the washer; hold the fitting on the heat exchange to avoid damaging the copper tubing on the heat exchanger

---

**On Site Gas Systems, Inc.**

35 Budney Road, Budney Industrial Park, Newington, CT 06111 U.S.A.

Telephone: 860.667.8888 • Fax: 860.667.2222

Website: [www.onsitegas.com](http://www.onsitegas.com) • Email: [info@onsitegas.com](mailto:info@onsitegas.com)

A BUSINESS INCORPORATED IN THE STATE OF CONNECTICUT, U.S.A.