

SCOTT MOBILE AIR SUPPLY CART P/N 805825-SERIES, 805826-SERIES, 805827-SERIES

THIS INSTRUCTION DESCRIBES THE OPERATION AND MAINTENANCE PROCEDURES FOR THE MOBILE AIR SUPPLY CART. READ AND UNDERSTAND THIS ENTIRE INSTRUCTION SHEET PRIOR TO ATTEMPTING THE USE OF THIS MOBILE AIR SUPPLY CART.

THESE INSTRUCTIONS SUPPLEMENT, BUT DO NOT REPLACE THE OPERATING AND MAINTENANCE INSTRUCTIONS SUPPLIED WITH RESPIRATORS OR ANY EQUIPMENT USED IN CONJUNCTION WITH THIS AIR SUPPLY CART. YOU MUST BE FAMILIAR WITH THE OPERATION, TESTING AND MAINTENANCE OF ANY RESPIRATOR OR OTHER EQUIPMENT USED IN CONJUNCTION WITH THIS AIR SUPPLY CART.



WARNING

IMPROPER USE OF THIS BREATHING AIR SUPPLY ALONE OR IN CONJUNCTION WITH A RESPIRATOR MAY RESULT IN SERIOUS INJURY OR DEATH. IMPROPER USE INCLUDES, BUT IS NOT LIMITED TO USE WITHOUT ADEQUATE TRAINING, DISREGARD OF THE WARNINGS AND INSTRUCTIONS CONTAINED HEREIN, AND FAILURE TO INSPECT AND MAINTAIN THE AIR SUPPLY OR RESPIRATOR. THIS AIR SUPPLY IS INTENDED TO BE USED ONLY IN CONJUNCTION WITH AN ORGANIZED RESPIRATORY PROTECTION PROGRAM WHICH COMPLIES WITH THE REQUIREMENTS OF "PRACTICES FOR RESPIRATORY PROTECTION," Z.88.2-1992 AVAILABLE FROM AMERICAN NATIONAL STANDARDS INSTITUTE, INC., 11 WEST 42ND STREET, NEW YORK, NY 10036 OR THE REQUIREMENTS OF OSHA SAFETY AND HEALTH STANDARD 29 CFR 1910 PARAGRAPH 134 AVAILABLE FROM THE US DEPT. OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, OR OTHER PERTINENT NATIONALLY RECOGNIZED STANDARDS, SUCH AS THOSE PROMULGATED BY THE US COAST GUARD OR DEPARTMENT OF DEFENSE.

GENERAL DESCRIPTION

The SCOTT Mobile Air Supply Cart can be used as a breathing air supply for up to four respirators that have an operating pressure range that can be maintained by this unit, such as the SCOTT AIR-PAK 2.2, 4.5, or 5.5 respirator or Industrial SCBA equipped with extended duration hose line option, or Type C air line respirators when used with combination Type C/Escape respirators such as the SCOTT SKA-PAK respirator.

The Mobile Air Supply Cart is available in configurations as follows:

- 805825-SERIES Two outlet breathing RESPIRATOR SUPPLY
- 805826-SERIES Four outlet breathing RESPIRATOR SUPPLY
- 805827-SERIES Four outlet breathing RESPIRATOR SUPPLY with a separate Two outlet TOOL SUPPLY to supply up to two air powered tools.

The Mobile Air Supply Cart can be fitted with two cylinders filled with clean breathing air. The two cylinders may be either 2216 psi, 3000 psi, 4500 psi, 5500 psi, or any combination of these. The minimum NIOSH duration of any cylinder shall be thirty (30) minutes. All units are fitted with a high pressure inlet which permits connection of the Mobile Air Supply Cart to a remote high pressure breathing air source for continuous service while saving the cylinders as reserve.

The Mobile Air Supply Cart consists of a wheeled frame unit containing the air supply cylinders with all controls. The cart handle extends to facilitate transport. Each cylinder supply connection has its own vent valve, allowing replacement of one cylinder while the other is in use. An inlet high pressure gauge on the high pressure manifold and low pressure gauges on the installed low pressure manifolds indicate the pressure at each stage of the system.

A low pressure warning alarm whistle indicates, along with the supply pressure gauge, when the selected cylinder supply is low or when the high pressure breathing air source has dropped to approximately 500 psi.

The standard RESPIRATOR SUPPLY outlets have an adjustable regulated outlet pressure between 0 and 100 psi as indicated by the outlet pressure gauge. The outlets are available in a number of quick disconnect configurations to match the various respirator air lines available from SCOTT. When installed, the separate TOOL SUPPLY has a dedicated pressure regulator and supplies up to two air powered tools.

MOBILE AIR SUPPLY CART OPERATION AND USE GUIDELINES

The operation instructions contained herein are intended only as guidelines. It is intended that an organized respiratory protection program be used in conjunction with this Mobile Air Supply Cart .

When the Mobile Air Supply Cart is supplying air to respirators, its operation and air supply must be monitored by an attendant. The attendant monitoring the Mobile Air Supply Cart must be familiar with the operation of the Mobile Air Supply Cart and all instructions in this document and must insure that replacement cylinders are available.

The attendant monitoring the Mobile Air Supply Cart must be ready to switch to the unused cylinder supply when the selected cylinder supply has reached the low cylinder point, the low cylinder warning alarm has been activated, or there is an indication on the supply pressure gauge that the supply pressure (whether from a cylinder or from a remote high pressure supply source) is low whether the alarm has gone off or not. After switching to the unused cylinder, the used cylinder should be immediately replaced with a fresh fully charged cylinder.

If a replacement cylinder is not available, the respirator users must be recalled from the hazardous environment until additional air supplies can be obtained or the cylinders on hand can be recharged. The attendant monitoring the air supply must have a means of communicating with the respirator users. Use of a two way communication system is recommended.

SERVICE LIFE

Each size of breathing air cylinder for use with a self-contained breathing apparatus (SCBA) is certified by NIOSH and assigned a “service life” classification for a duration time (30 minute, 45 minute, etc.). The service life duration time of each cylinder is determined by NIOSH using a breathing machine designed to simulate an average adult respirator user performing work at a “moderate work rate.”

This Mobile Air Supply Cart is to be used with two breathing air cylinders each with a minimum duration of 30 minutes. Do not expect to obtain the NIOSH rated service life duration time from any one cylinder. When used to supply breathing air to respirator users, the work being performed may be more or less strenuous than that used in the NIOSH test. Where work is more strenuous, the duration may be less than one half the NIOSH rated service life. The end of service indicator alarm actuates when approximately 500 psi pressure remains in the cylinder and valve assembly regardless of the total pressure of the cylinder when full. This does not necessarily correspond to the NIOSH requirement for an end of service indicator alarm that notifies the user of one quarter (25%) of the total cylinder capacity remaining. The end of service indicator alarm will continue to operate until the cylinder is nearly depleted. The duration time of the respirator will depend on such factors as:

1. the degree of physical activity of the user;
2. the physical condition of the user;
3. the degree to which the user’s breathing is affected by emotional factors;
4. the degree of training or experience which the user has with this or similar equipment;
5. loose or improperly fitting facepiece;
6. the condition of the respirator.
7. whether or not the cylinder is fully charged at the start of the work period;
8. the possible presence in the compressed air of carbon dioxide concentrations greater than .04% normally found in atmospheric air;
9. the atmospheric pressure; for example, if used in a pressurized tunnel or caisson at 2 atmospheres (15 psi gauge or approximately 30 psi absolute) the duration will be one-half as long as when used at 1 atmosphere; and at 3 atmospheres will be one-third as long;
10. the additional use of the air supply to power pneumatic tools.

See the OPERATION AND USE GUIDELINES section of this instruction for more information.

QUESTIONS OR CONCERNS

If you have any questions or concerns regarding use of this equipment, contact your authorized SCOTT distributor, or contact SCOTT at 1-800-247-7257 (or 704-291-8300 outside the continental United States).

WARNING

ACTUATION OF THE END OF SERVICE INDICATOR ALARM Warns that approximately 500 PSI remains in the air supply cylinder that is currently in use or that the remote high pressure air supply has dropped below approximately 500 PSI. After alarm actuation, a delay in correcting the problem or in notifying the respirator users to leave the area may result in serious injury or death.

AIR SUPPLY REQUIREMENTS

It is the responsibility of the organized respiratory protection program under which this unit is used to provide a source of air that is clean and safe for breathing and to ensure that all other requirements of the breathing air supply system stated herein are met.

The compressed air cylinders or hose line supply feeding the Mobile Air Supply Cart must contain or supply breathing air meeting the requirements of the Compressed Gas Association, Inc. (CGA) Commodity Specification for Breathing Air, G-7.1, grade D or better, available from the CGA, Inc., 1235 Jefferson Davis Highway, Arlington, Virginia 22202. In addition to meeting the requirements of Grade D or higher, the air must be dry to a dew point of -65° F (-54° C) or less. See SCOTT Specialist Level Maintenance Manual available upon request from SCOTT for additional information on refilling SCOTT breathing air cylinders.

NOTE

IF THE MOBILE AIR SUPPLY CART IS USED TO SUPPLY AIR FOR AIR TOOLS, THE AIR SUPPLY MUST STILL BE MAINTAINED TO THE ABOVE STANDARD. LUBRICATION FOR THE AIR TOOLS MUST BE ADDED AFTER THE MOBILE AIR SUPPLY CART OUTLETS TO PREVENT CONTAMINATION OF THE AIR PATHS OR DAMAGE TO INTERNAL SEALS WITHIN THE MOBILE AIR SUPPLY CART. HOSES USED FOR TOOL SUPPLY MUST BE CLEARLY IDENTIFIED AND NEVER USED FOR SUPPLY OF BREATHING AIR.

The two cylinders may be either 2216 psi, 3000 psi, 4500 psi, 5500 psi, or any combination of these. The minimum NIOSH duration of any cylinder shall be thirty (30) minutes.

Check the latest cylinder hydrostatic test date to ensure it is current. All cylinders used with SCOTT Mobile Air Supply Cart must be visually inspected and hydrostatically tested by a licensed cylinder retester in accordance with the appropriate US Department of Transportation (DOT) specification or the applicable DOT exemption. For a complete listing of retest date requirements, refer to the current revision of *Safety Precautions for Air-Pak Cylinders*, SCOTT P/N 89080-01, available on request from SCOTT Safety. Composite cylinders (those cylinders utilizing fiber over wrap) must be tested in accordance with the DOT exemption status up to the maximum life of fiber overwrapped cylinders which, at the time of the publication of this instruction, is 15 years from the date of manufacture. The date of manufacture marked on the cylinder is also the date of the first hydrostatic test. Undamaged Aluminum and Steel cylinders may be used indefinitely with regular retesting. It is the responsibility of your organized respiratory protection program to arrange for visual inspection and hydrostatic testing of cylinders by a licensed retester.

WARNING

DO NOT USE OXYGEN OR CONTAMINATED "SHOP" AIR SUPPLIES TO FEED THE SCOTT MOBILE AIR SUPPLY CART. USE ONLY BREATHING AIR FOR HUMAN RESPIRATION (CGA SPECIFICATION G-7.1, GRADE D OR BETTER). USE OF ANYTHING OTHER THAN BREATHING AIR MAY RESULT IN SERIOUS INJURY OR DEATH.

Visually inspect cylinder for physical damage such as dents or gouges in metal or in composite wrapping. Cylinders which show physical damage or exposure to high heat or flame, such as paint turned brown or black, decals charred or missing, pressure gauge lens melted or elastomeric bumper distorted, and cylinders which show evidence of exposure to chemicals such as discoloration, cracks in the cylinder or the composite wrapping, peeling of the outer layers of the composite wrapping and/or bulging of the cylinder wall, shall be removed from service and emptied of compressed air. Refer to current applicable publications on compressed gas cylinder inspection available from Compressed Gas Association Inc., 1725 Jefferson Davis Hwy., Suite 1004, Arlington, VA 22202, (703-412-0900) for a detailed explanation of cylinder inspection procedures.

The SCOTT Mobile Air Supply Cart is to be supplied only with clean breathing air from the compressed air cylinders or from a high pressure hose line supply. Always start with both cylinders fully charged. Keep the cylinder valves closed when they are not in use. Always have enough replacement cylinders to ensure there will be a backup cylinder available as long as the Mobile Air Supply Cart is in use.

The high pressure inlet will accept a high pressure hose line source of breathing air of up to 5500 psi. The high pressure hose line must have a shutoff at the outlet end. When used to supply the Mobile Air Supply Cart, the high pressure supply of breathing air must have the same flow capability as a cylinder supply at low pressure ranges down to approximately 500 psi. The minimum outlet pressures required by the respirator(s) when the respirator(s) are being breathed on, must be maintained throughout the range of pressures in the hose line feeding the Mobile Air Supply Cart at least to a point below the low pressure supply alarm turn on pressure. The minimum supply hose line pressure must be established in a clean breathing air area. If the high pressure hose supply cannot maintain the minimum supply pressure required by the respirator(s) as shown on the outlet gauge, DO NOT use the hose line supply to feed the Mobile Air Supply Cart.

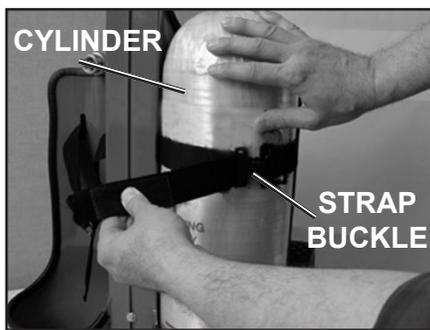
Two fully charged cylinders, one in the LEFT position and one in the RIGHT position should be kept as backup to the high pressure hose line supply.

NOTE

THE HIGH PRESSURE SUPPLY CANNOT BE USED TO RECHARGE THE INSTALLED CYLINDERS. THE MOBILE AIR SUPPLY CART IS EQUIPPED WITH CHECK VALVES TO ISOLATE AND PROTECT EACH OF THE CYLINDERS AND THE HIGH PRESSURE SUPPLY INPUT. USE OF A HIGH PRESSURE HOSE SUPPLY THAT IS RATED HIGHER THAN THE INSTALLED CYLINDERS WILL NOT AFFECT THE CYLINDERS.

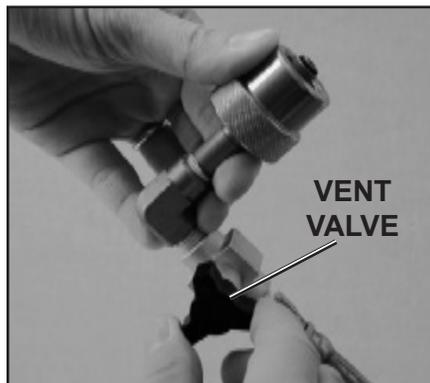
AIR CYLINDER INSTALLATION

1. Inspect the cylinders to be installed in accordance with the AIR SUPPLY REQUIREMENTS section of this instruction.
2. Set the RESPIRATOR OUTLET PRESSURE REGULATOR control knob to the full counterclockwise (decrease pressure) position.
3. On one side of the main frame assembly, open the cylinder retention strap fully by releasing the strap buckle and pulling it open to its widest setting.
4. Place a fully charged cylinder in the frame with the valve assembly at the top and with the air outlet fitting pointing toward the high pressure hose connection.
5. Hold the cylinder in place while pulling the end of the strap through the buckle until the strap is tight around the cylinder. The straps are equipped with hook-and-loop fasteners to secure the excess strap material. See FIGURE 2.



**FIGURE 2
CYLINDER INSTALLATION**

6. Check that the vent valve is closed, turned fully clockwise and tight. Do not overtighten. See FIGURE 3.



**FIGURE 3
VENT VALVE**



**FIGURE 4
HIGH PRESSURE
COUPLING GASKET**

7. Inspect the high pressure coupling to be certain the coupling gasket is present and undamaged. See FIGURE 4. If the gasket is present and undamaged, align the high pressure coupling with the outlet of the cylinder valve and hand tighten the coupling to the cylinder valve. Hand tighten only.
8. Repeat the Steps 1 through 7 above to install the second air cylinder.

WARNING

USE ONLY BREATHING AIR CYLINDERS WHICH ARE RETAINED SECURELY BY THE RETENTION STRAPS. DO NOT USE CYLINDERS WHICH ARE EITHER TOO SMALL OR TOO LARGE FOR THE RETENTION STRAPS. IF A SECURE FIT CANNOT BE ACHIEVED, DO NOT USE THE CYLINDER. USE OF IMPROPERLY FITTING CYLINDERS MAY RESULT IN DAMAGE TO THE CYLINDER, CYLINDER VALVE, OR HOSES WHICH COULD CAUSE SERIOUS INJURY OR DEATH.

CAUTION

WRENCHES SHALL NOT BE USED TO TIGHTEN THE HOSE COUPLING. OVER TIGHTENING THE HOSE COUPLING MAY DAMAGE THE COUPLING GASKET.

REGULAR OPERATIONAL INSPECTION

The following procedure shall be used when you first receive the Mobile Air Supply Cart and prior to use with any other type of equipment. If damage or discrepancies are noted during the inspection of the unit, remove it from service and tag for repair by authorized personnel. This procedure will consume air from both cylinders. A breathing air supply with shutoff valves or cylinders of at least 2000 psi may be used for this test. Cylinders used for testing must be replaced with full cylinders after testing or the cylinders must be topped off prior to use of the Mobile Air Supply Cart.

1. Visually inspect the unit for completeness, making sure the graphics and warning labels are readable.
2. Inspect the wheeled cart frame for damaged parts or loose hardware.
3. Inspect the valve outlet threads on each cylinder.
4. Inspect the Vent Valves for each cylinder. Vent Valves shall remain captive when screwed out (counterclockwise) and seat firmly when screwed in (clockwise).
5. The unit can now be fitted with cylinders or connected to a supply of air as described above. Inspect the high pressure coupling to be certain the coupling gasket is present and undamaged. See FIGURE 4. If the gasket is present and undamaged, align the high pressure coupling with the outlet of the cylinder valve and tighten the coupling to the cylinder valve by hand. Hand tighten only.
6. Ensure that both cylinder valves are closed (push in and rotate the cylinder valve knob fully clockwise).
7. Check all RESPIRATOR outlet connections for dirt or contamination. Clean as required. Care must be taken to remove any dirt accumulations or obstructions from the couplings. Do not allow anything to become lodged within the coupling. See FIGURE 5.

WARNING

IF DAMAGE OR DISCREPANCIES ARE NOTED DURING THE REGULAR OPERATIONAL INSPECTION OF THE UNIT, REMOVE IT FROM SERVICE AND TAG FOR REPAIR BY AUTHORIZED PERSONNEL. USE OF EQUIPMENT THAT DOES NOT PASS THE REGULAR OPERATIONAL INSPECTION MAY RESULT IN SERIOUS INJURY OR DEATH.

CAUTION

WRENCHES SHALL NOT BE USED TO TIGHTEN THE HOSE COUPLING. OVER TIGHTENING THE HOSE COUPLING MAY DAMAGE THE COUPLING GASKET.



FIGURE 5
RESPIRATOR OUTLETS
(FOUR OUTLET VERSION SHOWN)

9. On units with the TOOL SUPPLY, check both outlet connections for dirt or contamination. Clean as required. Care must be taken to remove any dirt accumulations or obstructions from the couplings. Do not allow anything to become lodged within the coupling. See FIGURE 6.



FIGURE 6
OPTIONAL TOOL OUTLETS P/N 805827-SERIES

10. Verify that the RESPIRATOR OUTLET PRESSURE REGULATOR is turned fully counter clockwise (set to the lowest possible setting).



FIGURE 7
RESPIRATOR OUTLET PRESSURE REGULATOR

NOTE

ALWAYS TURN THE RESPIRATOR OUTLET PRESSURE REGULATOR FULLY COUNTERCLOCKWISE TO THE LOWEST POSSIBLE SETTING BEFORE CHARGING THE SYSTEM WITH HIGH PRESSURE. CHARGING THE SYSTEM WITH HIGH PRESSURE WHILE THE RESPIRATOR OUTLET PRESSURE REGULATOR IS NOT TURNED FULLY COUNTER CLOCKWISE WILL CAUSE THE MANIFOLD RELIEF VALVE TO OPEN WITH A LOUD “POP”. IF THIS HAPPENS, SIMPLY CLOSE THE CYLINDER OR HIGH PRESSURE SUPPLY AND FULLY CLOSE THE REGULATOR.

11. Test the operation of the low pressure warning alarm with each of the cylinder supplies and, when installed, the high pressure supply as follows:

- a) Slowly open the cylinder valve or supply valve allowing the pressure indication on the RESPIRATOR INLET PRESSURE GAUGE to slowly increase to the full supply pressure. The low pressure warning alarm whistle shall actuate momentarily until the supply pressure increases beyond 1000 psi. See FIGURE 7.

NOTE

IF THE LOW PRESSURE WARNING ALARM DOES NOT ACTUATE OR THE REGULATED PRESSURE IS OUTSIDE THE INDICATED PRESSURE RANGE, REMOVE THE UNIT FROM SERVICE AND TAG FOR REPAIR BY AUTHORIZED PERSONNEL.

- b) Turn the RESPIRATOR OUTLET PRESSURE REGULATOR clockwise until the RESPIRATOR OUTLET pressure gauge reads between 60 and 100 psi for use with SCOTT respirators. Refer to the Operation and Maintenance instructions provided with other respirators for manufacturer's recommendations.
- c) When installed, turn the TOOL SUPPLY REGULATOR clockwise until the TOOL OUTLET pressure gauge reads the desired output pressure.

NOTE

THE TOOL OUTLET PRESSURE CAN BE LESS BUT CAN NEVER BE MORE THAN THE RESPIRATOR OUTLET PRESSURE.

- d) Check that the outlet configurations match those on the equipment intended to be used with this air supply. There are many different types of disconnects and some are similar. Test each outlet with a short length of hose line intended to be used with this unit, by connecting it to each of the outlets making sure that it is firmly connected and shows no leakage around the fittings.
 - e) Close the selected cylinder valve. Vent the trapped air in the Mobile Air Supply Cart by partially engaging a male quick disconnect plug into one of the RESPIRATOR OUTLET couplings. As the high pressure gauge reading drops, the low pressure warning alarm whistle shall actuate at approximately 500 psi and continue as the system is vented.
 - f) After testing, turn the RESPIRATOR OUTLET PRESSURE REGULATOR fully counterclockwise (set to the lowest possible pressure setting).
12. The supply of air for this test can now be removed. After disconnecting the air supply (either cylinder or remote high pressure line) there may be air pressure trapped within the system. Use a short length of air hose fitted with a male quick disconnect on one end to vent a RESPIRATOR outlet, and, if installed, a TOOL SUPPLY outlet. Verify that all pressure gauges are reading "zero" when done.
13. If the unit is to be stored with cylinders in place, install two fully charged cylinders of either 2216 psi, 3000 psi, 4500 psi, 5500 psi, or any combination of two pressures, or recharge the test cylinders to the full condition prior to use. The minimum NIOSH duration of any cylinder shall be thirty (30) minutes. Refer to the CYLINDER CHARGING PROCEDURE section of the SCOTT SPECIALIST LEVEL MAINTENANCE MANUAL.

WARNING

IF THE LOW PRESSURE WARNING ALARM DOES NOT ACTUATE. TAKE THE UNIT OUT OF SERVICE AND TAG FOR REPAIR BY AUTHORIZED PERSONNEL. USE OF EQUIPMENT THAT DOES NOT PERFORM AS SPECIFIED MAY RESULT IN SERIOUS INJURY OR DEATH.

WARNING

DO NOT STAND DIRECTLY IN FRONT OF THE AIR FLOW WHILE VENTING RESIDUAL PRESSURE FROM THE SYSTEM. THE RUSH OF HIGH PRESSURE AIR MAY CAUSE SERIOUS INJURY.

NORMAL OPERATION

USING THE MOBILE AIR SUPPLY CART TO SUPPLY AIR TO RESPIRATORS

The SCOTT Mobile Air Supply Cart, when properly configured, can be used as the breathing air supply for up to four extended duration respirators such as the SCOTT AIR-PAK 2.2, 4.5, or 5.5 respirator with extended duration option, for Type C respirators such as SCOTT hose line respirators or combination Type C/Escape respirators such as the SCOTT SKA-PAK respirator within the operating pressure range that can be maintained by this unit. Refer to the Users Instructions for the respirator for complete information about the use of the respirator with a remote breathing air supply.

1. When the Mobile Air Supply Cart is being used to supply respirators with breathing air, an attendant must monitor the cart at all times. This attendant must be provided with a means of alerting the respirator users (such as an air horn or similar device) in case of a problem with the air supply. Use of a two way communication system is recommended. See OPERATION AND USE GUIDELINES on page 3 of this instruction.
2. Set up the Mobile Air Supply Cart with the proper air supply. See the AIR SUPPLY REQUIREMENTS section of this instruction sheet.
 - a) Install two fully charged breathing air supply cylinders as instructed in the AIR CYLINDER INSTALLATION section of this instruction.
 - b) Provide sufficient additional fully charged air cylinders to supply the requirements of the application.
 - c) When available, connect the High Pressure Inlet to a remote high pressure breathing air supply.
3. Move the Mobile Air Supply Cart to the use position as prescribed in your respiratory protection program. The Mobile Air Supply Cart can be rolled into position by tipping it backwards onto the wheels. Adjust the handle to a comfortable height with the handle lock screw. The Mobile Air Supply Cart must only be moved when it is not being used to supply breathing air.
4. When in the use, the Mobile Air Supply Cart should be located on a firm flat surface. Stand the Mobile Air Supply Cart upright for easy access to the cylinder valves and controls
5. Refer to TABLE 1 for Limitations and Operating Instructions for the various hoses used to supply respirators. Refer to FIGURE 8 to identify the hose connectors available. There are specific restrictions regarding maximum length and/or number of hose segments that may be used to supply breathing air to respirators.

WARNING

DO NOT USE THE MOBILE AIR SUPPLY CART TO SUPPLY RESPIRATORS USED IN IDLH (IMMEDIATELY DANGEROUS TO LIFE AND HEALTH) ATMOSPHERES UNLESS THOSE RESPIRATORS ARE EQUIPPED WITH AN EMERGENCY BACKUP AIR SUPPLY OF SUFFICIENT DURATION TO PERMIT ESCAPE FROM THE IDLH ATMOSPHERE. FAILURE TO PROVIDE EMERGENCY BACKUP AIR SUPPLY IN SUCH SITUATIONS MAY RESULT IN SERIOUS INJURY OR DEATH.

WARNING

THE MOBILE AIR SUPPLY CART MUST BE MONITORED BY AN ATTENDANT WHILE RESPIRATORS ARE BEING SUPPLIED WITH BREATHING AIR. THE ATTENDANT MUST HAVE A MEANS OF ALERTING THE RESPIRATOR USERS OF A PROBLEM WITH THE AIR SUPPLY. USE OF A TWO WAY COMMUNICATION SYSTEM IS RECOMMENDED. FAILURE TO PROVIDE A PROPERLY TRAINED AND EQUIPPED ATTENDANT AT THE MOBILE AIR SUPPLY CART MAY RESULT IN SERIOUS INJURY OR DEATH TO THE RESPIRATOR USERS.

WARNING

THE NORMAL DURATION TIMES OF STANDARD BREATHING AIR CYLINDERS CANNOT BE EXPECTED WHEN SUPPLYING MULTIPLE USERS FROM THE MOBILE AIR SUPPLY CART. PROVIDING MULTIPLE RESPIRATORS WITH BREATHING AIR MAY QUICKLY DEplete THE AIR SUPPLIED BY CYLINDERS ALONE. THIS PROBLEM WILL BE MAGNIFIED WHEN USING HOSE LENGTHS GREATER THAN ONE HUNDRED FEET OR WHEN USING AIR POWERED TOOLS. A "SIXTY MINUTE" CYLINDER UNDER HEAVY USAGE MAY BE DEPLETED IN AS LITTLE AS FIVE MINUTES OR LESS. FAILURE TO PROVIDE SUFFICIENT AIR RESERVES FOR THE SITUATION WHERE THE MOBILE AIR SUPPLY CART IS BEING USED MAY RESULT IN SERIOUS INJURY OR DEATH TO THE RESPIRATOR USERS.

WARNING

IF THIS EQUIPMENT DOES NOT PERFORM AS DESCRIBED, REMOVE THE UNIT FROM SERVICE AND TAG FOR REPAIR BY AUTHORIZED PERSONNEL. USE OF EQUIPMENT THAT DOES NOT OPERATE PROPERLY MAY RESULT IN SERIOUS INJURY OR DEATH.

WARNING

THE USER OF THIS RESPIRATOR MAY HAVE TO DISCONNECT THE HOSE COUPLING SUDDENLY AND UNDER STRESSFUL CONDITIONS. THE USER MUST BE ABLE TO DISCONNECT THE COUPLING UNDER THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING USE, FOR EXAMPLE, WITHOUT BEING ABLE TO SEE THE COUPLING, WITH GLOVES ON, WITH ONE HAND, ETC. FAILURE OF THE USER TO ADEQUATELY PERFORM THESE TASKS UNDER STRESSFUL CONDITIONS MAY RESULT IN SERIOUS INJURY OR DEATH.

TABLE 1

LIMITATIONS AND OPERATING INSTRUCTIONS FOR SUPPLY HOSE

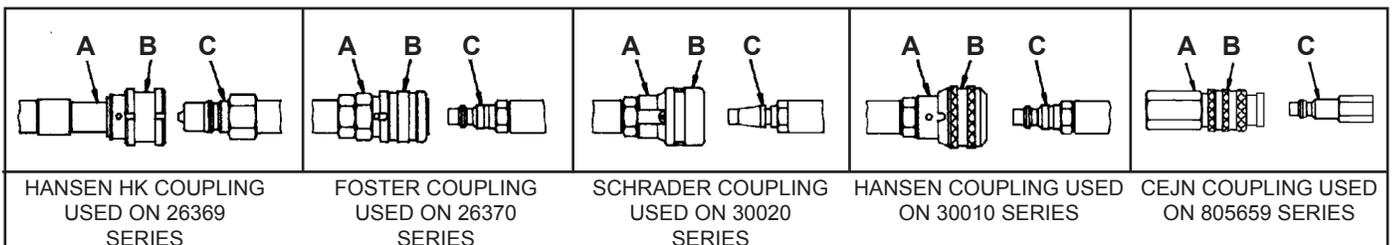
NOTE: THE AIR SUPPLY PRESSURE MUST BE MAINTAINED BETWEEN 60 PSIG AND 100 PSIG WHILE FLOWING AT LEAST 200 LITERS PER MINUTE (LPM) TO EACH USER.

Supply Hose ¹	Approved Total Lengths (ft) ²	Maximum Number of Segments Approved ³	INSTRUCTIONS FOR OPERATION OF COUPLINGS Note: The user shall practice and be able to disconnect the couplings quickly in an emergency situation.
26369 Series with stainless steel Hansen HK couplings	0 to 150	6 ³	1. To connect the coupling, rotate socket sleeve "B" until the alignment notch in the sleeve is in line with alignment peg in body "A". 2. Slide sleeve "B" toward the supply hose (away from plug "C") and insert plug "C" into socket "A". Release sleeve "B" while pushing the plug into the socket until engaged, as evidenced by a "click". Test for positive engagement by tugging on the plug. 3. Rotate sleeve "B" one-quarter to one-half turn to lock the plug against accidental release. 4. To disconnect the coupling, realign sleeve "B" with the body of socket "A" as described in step 1. Slide sleeve "B" away from the body (toward the supply hose) to release the plug fitting from the socket. IF IT IS NOT PRACTICAL TO SEE THE ALIGNMENT NOTCH IN THE SLEEVE, USE THE FOLLOWING PROCEDURE TO DISCONNECT THE COUPLING: 1. Grasp sleeve "B" with the right hand. 2. Simultaneously rotate and push the sleeve away from the plug until the alignment notch in the sleeve lines up with the alignment peg in the body and the socket separates from the plug.
26370 Series with stainless steel Foster couplings	0 to 300	12 ³	
30010 Series with brass Hansen couplings	0 to 300	12 ³	
30020 Series with steel Schrader couplings	0 to 300	12 ³	1. Insert plug fitting "C" into socket "A" and continue pushing until it is engaged as evidenced by a "click". 2. Test for positive engagement by tugging on the plug. 3. Disconnect the coupling by rotating sleeve "B" 1/8 turn in the clockwise direction as viewed from the female end of socket "A".
805659 Series with brass CEJN couplings	0 to 300	12 ³	1. Insert plug fitting "C" into socket "A" and continue pushing until it is engaged as evidenced by a "click". 2. Test for positive engagement by tugging on the plug. 3. Disconnect the coupling by pushing in on plug "C" while pulling back on sleeve "B". Plug "C" will separate.

¹ The female connectors on all supply hose series are checked to stop the flow of air when they are disconnected. Both male and female connectors are checked on 26369 series supply hose.

² "0" feet = direct connection to air supply source.

³ Segments of supply hose are commonly available in 25 ft, 50 ft, 75 ft, and 100 ft length segments.



**FIGURE 8
COUPLINGS USED ON SUPPLY HOSES**

6. If the Mobile Air Supply Cart is being used with **air cylinders only**, begin use as follows:
 - a) Check that both cylinder gauges indicate full and their valve are closed.
 - b) Verify that both Vent Valves are closed.
 - c) Verify that the RESPIRATOR OUTLET PRESSURE REGULATOR is turned fully counterclockwise (set to the lowest possible setting).
 - d) Select either the LEFT or RIGHT cylinder. Slowly open the cylinder valve allowing the pressure indication on the inlet pressure gauge to slowly increase to the full cylinder pressure. The low pressure warning alarm whistle shall actuate momentarily until the supply pressure increases beyond 1000 psi. Open the cylinder valve completely by turning valve knob fully counterclockwise.
 - e) Turn the RESPIRATOR OUTLET PRESSURE REGULATOR clockwise until it indicates a pressure of 60 to 100 psi with no respirator(s) attached. There shall be no sound of air flow or leakage.
7. If the Mobile Air Supply Cart is being used with **both remote high pressure breathing air supply and air cylinders** begin use as follows:
 - a) Check that both cylinder gauges indicate full and that their valves are closed.
 - b) Verify that both Vent Valves are closed.
 - c) Verify that the remote high pressure breathing air supply is attached to the high pressure inlet.
 - d) Verify that the RESPIRATOR OUTLET PRESSURE REGULATOR is turned fully counterclockwise (set to the lowest possible setting).
 - e) Slowly open the high pressure supply valve allowing the pressure indication on the inlet pressure gauge to slowly increase to the full supply pressure. The low pressure warning alarm whistle shall actuate momentarily until the inlet supply pressure increases beyond 1000 psi.
 - f) Turn the RESPIRATOR OUTLET PRESSURE REGULATOR clockwise until it indicates a pressure of 60 to 100 psi with no respirator(s) attached for use with SCOTT respirators. Refer to the Operation and Maintenance instructions provided with other respirators for manufacturer's recommendations. There shall be no sound of air flow or leakage.
8. The Mobile Air Supply Cart is now ready to supply respirators with breathing air. Connect each hose line to one of the RESPIRATOR outlets. Refer to the Operating and Maintenance Instructions for the respirator to verify the following:
 - a) Make sure the couplings are compatible between the respirator and the Mobile Air Supply Cart.
 - b) Make sure the couplings are operated properly. See TABLE 1 and FIGURE 8.

WARNING

IF THIS EQUIPMENT DOES NOT PERFORM AS DESCRIBED, REMOVE THE UNIT FROM SERVICE AND TAG FOR REPAIR BY AUTHORIZED PERSONNEL. USE OF EQUIPMENT THAT DOES NOT OPERATE PROPERLY MAY RESULT IN SERIOUS INJURY OR DEATH.

- c) Perform the respirator REGULAR OPERATIONAL INSPECTION as detailed in the Operation and Maintenance instructions for the respirator being used.

NOTE

THE OUTLET PRESSURE MUST NOT GO BELOW THE MINIMUM REQUIRED BY THE RESPIRATOR(S). THE ABILITY OF THE AIR SUPPLY TO PROVIDE THE REQUIRED AIR PRESSURE TO RESPIRATORS WHILE IN USE, MUST BE CONFIRMED IN A CLEAN BREATHING AIR AREA. REFER TO THE MINIMUM AND MAXIMUM AIR PRESSURE REQUIREMENTS SPECIFIED IN THE USER INSTRUCTIONS FOR THE RESPIRATOR.

9. If the low pressure warning alarm sounds or the inlet pressure gauge indicates a low supply pressure and the Mobile Air Supply Cart is being used with **air cylinders only**, switch to the unused cylinder as follows:
 - a) Open the cylinder valve on the unused cylinder.
 - b) When the inlet supply pressure rises above 1000 psi, the alarm shall reset itself. The outlet gauge pressure must return to the operating level as stated above.

NOTE

THE LOW PRESSURE WARNING ALARM CANNOT BE SILENCED. IF THE SYSTEM PRESSURE IS NOT RESTORED TO ABOVE 1000 PSI, THE ALARM WILL CONTINUE TO SOUND UNTIL ALL AIR IS DEPLETED FROM THE SELECTED CYLINDER.

- c) Fully close the valve on the used cylinder by pushing the knob in and turning clockwise.
 - d) Vent the line to the used cylinder by slightly opening the vent valve.
 - e) When the venting is complete, immediately replace the used cylinder with a fully charged cylinder in that position by removing the high pressure coupling from the valve of the used cylinder. Open the cylinder strap and remove the used cylinder.
 - f) Place a fully charged cylinder into this position orienting the valve outlet so the high pressure coupling can be attached. Check for the presence of the coupling gasket and that it is properly seated. Tighten the coupling to the cylinder outlet using hand tight pressure only. Hand tighten only. See the AIR CYLINDER INSTALLATION section of this instruction.
10. If the low pressure warning alarm whistle sounds or the inlet pressure gauge indicates a low inlet pressure from the remote high pressure breathing air supply and the Mobile Air Supply Cart is being used with **both remote high pressure breathing air supply and air cylinders**, switch to the cylinder supply as follows:
 - a) Fully open one of the cylinder valves.
 - b) When the inlet pressure rises above 1000 psi, the alarm shall reset itself. The outlet gauge pressure must return to the operating level as stated above.
 - c) Fully close the valve on the High Pressure supply hose.
 - d) Continue use as stated above for use with air cylinders only.

WARNING

THE OUTLET PRESSURE MUST NOT GO BELOW THE MINIMUM REQUIRED BY THE RESPIRATORS. MORE RESPIRATOR USERS AND LONGER SUPPLY HOSE LENGTHS MAY REQUIRE A HIGHER OUTLET PRESSURE SETTING TO MAINTAIN THE AIR SUPPLY TO ALL USERS. THIS MUST BE CHECKED OUT IN A CLEAN BREATHING AIR AREA. FAILURE TO PROVIDE SUFFICIENT AIR PRESSURE TO SUPPLY THE RESPIRATORS MAY RESULT IN SERIOUS INJURY OR DEATH TO THE RESPIRATOR USERS.

WARNING

IF THIS EQUIPMENT DOES NOT PERFORM AS DESCRIBED, REMOVE THE UNIT FROM SERVICE AND TAG FOR REPAIR BY AUTHORIZED PERSONNEL. USE OF EQUIPMENT THAT DOES NOT OPERATE PROPERLY MAY RESULT IN SERIOUS INJURY OR DEATH.

USING THE MOBILE AIR SUPPLY CART TO SUPPLY PNEUMATIC TOOLS

1. The Mobile Air Supply Cart may be equipped with optional separate TOOL SUPPLY outlets to provide air to operate a variety of pneumatic devices. The TOOL SUPPLY has an adjustable regulator that can be set to any output pressure equal to or less than the RESPIRATOR OUTLET PRESSURE REGULATOR. The TOOL SUPPLY is fitted with two outlets.
2. The Mobile Air Supply Cart must only be supplied with clean breathing air, see section on AIR SUPPLY REQUIREMENTS. When using the Mobile Air Supply Cart to supply air to pneumatic devices other than respirators, care must be taken not to contaminate the RESPIRATOR circuit of the Mobile Air Supply Cart. Any lubrication added for air tools must be added after the TOOL SUPPLY outlet. Hoses which are intended to supply air for respiratory protection must not be used to supply air for other purposes. Hoses used to supply air to tools must be clearly identified as not for respiratory use.
3. Test to be sure the Mobile Air Supply Cart will maintain the minimum outlet pressure needed for the desired air tool to run properly. If the Mobile Air Supply Cart can not maintain the required pressure, DO NOT use it to operate the tool. Damage or injury may result from operating some pneumatic tools without the proper supply pressure.
4. If any of the hoses used to supply pneumatic tools have an inside diameter which exceeds 1/2-inch (12.7 mm), those hoses must be equipped with a safety device to reduce pressure in case of hose failure according to OSHA Standard 29 CFR 1926. It is the user's responsibility to provide the safety device.

WARNING

USE OF AIR TOOLS WILL QUICKLY CONSUME THE AIR PROVIDED BY AIR CYLINDERS ALONE. OPERATORS OF THE MOBILE AIR SUPPLY CART MUST TAKE PRECAUTIONS TO PREVENT DANGER TO RESPIRATOR USERS FROM SUDDEN DEPLETION OF THE AIR SUPPLY. USING AIR TOOLS WHILE SUPPLYING BREATHING AIR TO RESPIRATOR USERS MAY CAUSE A SUDDEN DEPLETION OF THE AIR SUPPLY AND MAY RESULT IN SERIOUS INJURY OR DEATH TO THE RESPIRATOR USERS.

WARNING

TOOLS MUST BE CONNECTED ONLY TO THE TOOL SUPPLY OUTLETS. NEVER CONNECT TOOLS TO THE RESPIRATOR OUTLETS. CONTAMINATION FROM TOOL LUBRICANTS TO THE BREATHING AIR SUPPLY FROM THE RESPIRATOR OUTLETS MAY RESULT LEADING TO SERIOUS INJURY OR DEATH OF RESPIRATOR USERS.

TERMINATION OF USE

To discontinue use of the Mobile Air Supply Cart proceed as follows:

1. Verify that respiratory protection users of the Mobile Air Supply Cart are clear of the area requiring respiratory protection.
2. Users must have doffed (removed) their respiratory protection equipment and disconnected their air supply lines from the Mobile Air Supply Cart.
3. Fully close both air cylinders. Push in and turn the cylinder valve knobs clockwise to close.
4. When used, close the valve on the High Pressure supply hose and disconnect the remote high pressure breathing air source from the High Pressure Inlet.
5. Slowly open each of the two vent valves to vent remaining pressure in the system.
6. Vent the trapped air in the Mobile Air Supply Cart by partially engaging a Male Quick Disconnect plug into one of the RESPIRATOR OUTLET couplings
7. Close the RESPIRATOR OUTLET PRESSURE REGULATOR and, if installed, the TOOL SUPPLY REGULATOR by turning fully counterclockwise (set to the lowest possible setting).
8. Remove Mobile Air Supply Cart to a safe area and perform procedures as indicated in MAINTENANCE section of this instruction.

MAINTENANCE

No attempt shall be made to replace components or to make adjustments or repairs beyond the scope of this instruction manual without proper training.

1. Clean and inspect the Mobile Air Supply Cart after use.
2. Damp sponge dirt accumulations from the cart, cylinders, and fittings. Use care so as not to deface or damage the warnings and instructions printed on the Mobile Air Supply Cart.
3. After cleaning perform the REGULAR OPERATIONAL INSPECTION as described in this manual.
4. Install fully charged air cylinders as directed in AIR CYLINDER INSTALLATION section of this instruction.
5. Store the Mobile Air Supply Cart in a cool dry area after use.
6. If any damage or deterioration is noted during cleaning and inspection, remove the Mobile Air Supply Cart from service and tag it for repair by authorized personnel.
7. Prior to storing away any respirator used with the Mobile Air Supply Cart, clean and inspect it by following the MAINTENANCE or MAINTENANCE AND CLEANING procedure contained in the instruction manual supplied with each respirator.

WARNING

DO NOT STAND DIRECTLY OVER THE VENT VALVES WHILE VENTING. WHEN VENTING, HIGH PRESSURE AIR ESCAPES FROM THE VENT HOLE. THAT RUSH OF HIGH PRESSURE AIR MAY CAUSE SERIOUS INJURY.

WARNING

IF DAMAGE OR DISCREPANCIES ARE FOUND DURING THE REGULAR OPERATIONAL INSPECTION, REMOVE THE UNIT FROM SERVICE AND TAG FOR REPAIR BY AUTHORIZED PERSONNEL. USE OF EQUIPMENT THAT DOES NOT PASS THE REGULAR OPERATIONAL INSPECTION MAY RESULT IN SERIOUS INJURY OR DEATH.



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