Quick Connect Cylinder Coupling
Self contained breathing apparatus

1 Approvals
The Dräger quick connect cylinder coupling is approved and certified by NIOSH, and by SEI and meets the requirements of NFPA 1981:2007.

Refer to the User Instructions for the associated self contained breathing apparatus for full details of the Approvals.

2 For your safety
2.1 General safety statements
- Strictly follow this User Instruction and the User Instruction supplied with the associated breathing apparatus.
- Use of this apparatus requires wearer training, knowledge, observance of these User Instructions, and compliance with National Regulations, Laws and Standards, governing the use of respiratory apparatus in the country of use.
- Use the apparatus only for the purpose specified in this User Instruction, or as confirmed in writing by Dräger.
- Only trained and competent personnel should carry out the charging of the compressed air cylinders.
- Use only original Dräger Spare Parts for service and maintenance.
- Notify Dräger in the event of component fault or failure.

2.2 Definitions of alert icons
Alert icons are used in this document to provide and highlight text that requires a greater awareness by the user. A definition of the meaning of each icon is as follows:

**WARNING**
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION**
Indicates a potentially hazardous situation which, if not avoided, could result in physical injury or damage to the product or environment. It may also be used to alert against unsafe practices.

**NOTICE**
Indicates additional information on how to use the product.

3 Warranty and liability statement
Terms and Conditions of warranty, for the Dräger Quick Connect Coupling can be found in the original Dräger Invoice Document, or can be obtained from Dräger on request.

Responsibility for reliable function of the unit transfers to the owner or operator when assembled, serviced, or repaired by untrained personnel, (not employed or authorised by Dräger) or when used in a manner not conforming to its intended use.

The liability for the proper function of the compressed air cylinders is irrevocably transferred to the owner or operator to the extent that the compressed air cylinders are serviced or repaired by personnel not employed or authorised by Dräger Service or if the cylinders are used in a manner not conforming to its intended use.

Dräger Safety cannot be held responsible for damage caused by non-compliance with the recommendations given above. The warranty and liability provisions of the terms of sale and delivery of Dräger Safety are likewise not modified by the recommendations given above.

4 Description and intended use
The Dräger Quick Connect Coupling is designed to replace the conventional threaded connection between the first stage pressure regulator of the Dräger PSS® Series self contained breathing apparatus and the associated cylinder valve.

The unit functions as a single action ‘press to connect’ feature that secures the first stage pressure regulator of the Dräger PSS with Dräger Quick Connect Coupling is supplied with the first stage pressure regulator.

The Dräger Quick Connect Coupling is available in a choice of two pressure variants, i.e. 2216 psig or 4500 psig.

The following technical data — High pressure connections

The following self contained breathing apparatus high pressure Quick Connect Couplings are available for associated and suitably modified valves of compressed air cylinder assemblies.

- 2216 psig
- 4500 psig

5 Use
5.1 Fitting the male adaptor to the valve

**Tools Required**
- Torque Handle c/w 24 mm spanner 3356172

**NOTICE**
Adjust the torque handle to a setting of 14-15 lbf ft (18-20 Nm)

Refer to Figure 1.

1. Select a fully charged cylinder and inspect and check that the external thread of the cylinder valve port is clean and not damaged. Ensure that the bore of the valve port is clean and free from dirt and contamination.
2. Inspect and check that the internal thread and internal bull nose of the male adaptor (supplied) is clean and not damaged. Ensure that the back-up ring and O-ring are in place in the small bore and that the bore is clean and free from dirt and contamination.
3. Screw the male adaptor to the external thread of the cylinder valve port. Securely hold the cylinder assembly and then using the torque handle, c/w spanner, tighten the male adaptor to the valve to a torque of 14-15 lbf ft (18-20 Nm).
4. Assembly complete.

5.2 Fitting the cylinder to the breathing apparatus

Refer to Figure 2.

1. Lay the carrying frame of the breathing apparatus horizontal and fully extend the cylinder support strap. Insert the cylinder (valve end first) through the loop of the support strap, from the top end of the backplate, and then slide the cylinder aligning the valve with the latching mechanism with handgrip of the first stage pressure regulator.

2. Pivot the pressure regulator to align the valve to the bore of the latching mechanism.

Refer to Figure 3.

3. Push the valve port (male adaptor) into the bore of the latching mechanism until a positive ‘click’ is heard. The handgrip will rapidly rotate approx. 45° counter clockwise indicating that the valve is connected to the pressure regulator.

4. Assembly complete.

This User Instruction describes the assembly of the male adaptor to the cylinder valve and the subsequent use of the Dräger Quick Connect Coupling.
5. Spray 3M Citrus Base Cleaner liberally on to the inner surfaces and the rotating spigot that carries the airflow as it could enter the breathing air supply. A blanking plug to prevent the agents from entering the central spigot is provided in the cleaning kit available from Dräger.

5.3 Removing the cylinder from the breathing apparatus

**CAUTION**

The cylinder valve must be closed and the system vented of pressure before any attempt is made to remove the cylinder.

Refer also to the Routine Maintenance section of the User Instructions for the Dräger PSS Series breathing apparatus.

1. Lift the free end of the cylinder strap from the Velcro and lift the strap against the camlock buckle to open and release the buckle tension. Loosen the strap. Refer to Figure 7, Figure 8 and Figure 9.

2. Turn the handgrip fully clockwise until it stops (Fig 7) – hold in position. Push down on the handgrip (Fig 8) and then lift the valve from the latching mechanism (Fig 9).

3. Lift and carefully slide the cylinder away from first stage pressure regulator towards the top of the backplate. Remove the cylinder from the apparatus.

4. Arrange for the cylinder to be inspected and recharged.

6 Maintenance

6.1 Charging Cylinders

**Tools Required**

2216 psig Dräger Quick Connect Coupling Charging Adaptor 3357113
4500 psig Dräger Quick Connect Coupling Charging Adaptor 3357116

Select the adaptor as required and fit to the existing appropriate charging hose.

**WARNING**

Air quality for compressed air cylinders must conform to the minimum grade requirements for Type 1 gaseous air as defined in the Compressed Gas Association Commodity Specification for Air, G-7.1 (Grade D or higher quality), and where appropriate be in accordance with NFPA1989 Standard on Breathing Air Quality for Fire and Emergency Services Respiratory Protection.

To prevent ingress of moisture into the cylinder, ensure that the cylinder valve remains ‘closed’ until connected to the charging unit. Dräger recommends that the moisture content in charged cylinder should not exceed the following:

- 2216 psig Units: 50 mg/cubic meter (4.99 x 10^-5 ounce/cubic foot).
- 4500 psig Units: 35 mg/cubic meter (3.49 x 10^-5 ounce/cubic foot).

**WARNING**

If the moisture content exceeds the recommended levels, ice particles can form, reducing or blocking the airflow. Water content of the breathing air must be checked.

Recharge to the indicated pressure stamped on the neck or shoulder of the cylinder.

6.2 Cleaning

**CAUTION**

The cleaning and lubricating agents must not be sprayed into the central spigot that carries the airflow as it could enter the breathing air supply. Products other than the recommended cleaning and lubricating agents are not tested and may damage the equipment. Contact Dräger before using any other cleaning or lubricating agent.

Before using the cleaning and lubricating agents, refer to the manufacturers’ instructions for health and safety information.

When required, clean the quick connect coupling using the procedure below and the products provided in the cleaning kit (Dräger part number 3359396).

1. Connect a male adaptor to the quick connect coupling and fit the blanking plug (Fig 10).
2. Spray 3M Citrus Base Cleaner liberally on to the outside surfaces of the coupling.
3. Wait a few minutes to allow maximum penetration and loosening action and then wipe off with a clean damp cloth, or blow off with an airline.
4. Remove the male adaptor and then fit the blanking plug to the female coupling (Fig 11).
5. Spray 3M Citrus Base Cleaner liberally on to the inner surfaces and the rotating section of the connector (Fig 12).