

Product Information News

February 19, 2009

QUICK-FILL® SYSTEM AND URC COUPLING FUNCTION TEST

This PIN Article addresses the procedure for MSA certified SCBA repair technicians to inspect for damaged Quick-Fill System and URC (Universal Resource Connection) couplings and perform an annual function test.

Eaton Aeroquip Inc. recently examined several returned samples of coupling P/N 485070. The couplings had been in service for varying lengths of time.

Examination revealed damage that would make in-service connection impossible.

The pictures below show obvious damage external damage to the couplings. Damage to the dust cap probe can cut internal seals. Internal damage or debris that can adversely affect performance.



INSPECTION

1. Visually inspect the outside of the coupling and dust cap probe for damage.
2. Visually inspect the inside of the coupling for debris or damage.

Note: Replace damaged couplings before returning the air mask to service.

Note: Damage and debris due to normal wear and tear are not covered by warranty.

QUICK-FILL SYSTEM and URC COUPLING FUNCTION TEST

Only MSA certified repair persons are authorized to perform the annual function test. Couplings bearing the affected date codes that do not connect or leak during the test will be replaced free of charge. Please note that URC male coupling is a required component on all NFPA compliant air masks manufactured since 2002.

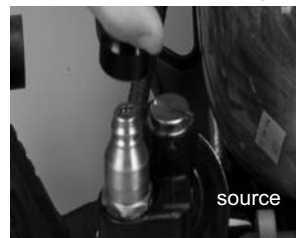
Testing Two 2216/4500 psig couplings
Transfill Hose P/N 488917

⚠ WARNING

DO NOT lose control of the transfill hose coupling while performing this test. Work in an open area away from walls or other structures that could cause injury if struck. High pressure air can cause couplings to release unexpectedly, striking you or propelling your limbs into nearby structures or objects. Failure to follow this warning can result in serious personal injury or death.

Testing the First Coupling

1. This procedure alternates between two air masks. After testing the Quick-Fill or URC couplings on one air mask, use it as a pressure source to test another air mask.
2. Ensure cylinders on both air masks are full.
3. Ensure that regulators on both air masks are closed.
4. Remove dust covers from Quick-Fill/URC couplings.
5. Fully open the cylinder valves on both air masks.
6. Connect one end of transfill hose to the source Quick-Fill or URC coupling.



7. Connect the other end of the transfill hose to the test fitting. Transfilling begins immediately.



8. Tug on the hose to verify a secure connection to the test coupling.
9. Immediately after verifying a secure connection, disconnect the transfill hose from the source.

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- a. To disconnect the transfill hose, pull back the gray sleeve.



Note: The coupling may hiss or pop as it separates and high pressure air flow stops.

10. Replace the test Quick-Fill coupling if:
 - Unable to make a secure connection because of air pressure resistance
 - Extreme or continuous air loss occurs.
11. Keep a record of, or mark, air masks that pass the test before returning them to service.

Testing the Next Air Mask

The last test coupling becomes the source coupling. The next fitting is the test coupling.

1. Connect the transfill hose to the next test fitting.



2. Tug on the hose to verify a secure connection to the test fitting.
3. Immediately after verifying a secure connection, disconnect the transfill hose from the test fitting.
4. Continue alternating test and source air masks until all couplings on all air masks have been tested.

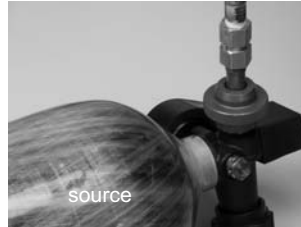
Procedure for Testing 3000 psig Couplings Quick-Fill Hose Assembly P/N 487428

⚠ WARNING

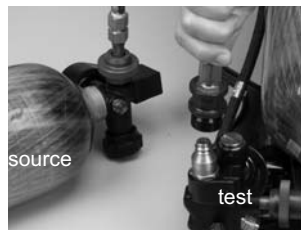
DO NOT lose control of the transfill hose coupling while performing this test. Work in an open area away from walls or other structures that could cause injury if struck. High pressure air can cause couplings to release unexpectedly, striking you or propelling your limbs into nearby structures or objects. Failure to follow this warning can result in serious person injury or death.

Note: This procedure uses a spare cylinder as a pressure source. To prevent the relief valve from venting, limit source pressure to 2400 psig.

1. Ensure both the air mask and spare cylinders are full.
2. Ensure that cylinders are closed.
3. Fully open both cylinder valves.
4. Remove dust covers from Quick-Fill/URC couplings.
5. Connect a Quick-Fill adapter hose to a spare 2400 psig source cylinder.



6. Slowly connect the Quick-Fill adapter hose to the test coupling.



7. Tug on the hose to verify a secure connection to the test coupling.
8. Immediately after verifying a secure connection, disconnect the Quick-Fill adapter hose from the source.
 - a. To disconnect the transfill hose, pull back the gray sleeve.



Note: The coupling may hiss or pop as it separates and high pressure air flow stops.

9. Replace the test Quick-Fill coupling if:
 - Unable to make a secure connection because of air pressure resistance
 - Extreme or continuous air loss occurs.
10. Keep a record of, or mark, air masks that pass the test before returning them to service.
11. Continue testing air masks until all couplings on all air masks have been tested.
12. Keep a record of, or mark, air masks that pass the test before returning them to service.