



ROXY 40 recent incidents

MHSC's TTC Dissemination workshop
Presenter: Yuriy Spivak
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Background

- ✓ DEZEGA is present in South Africa since 2011 with its SABS 1737 approved rescue pack ROXY 40
- ✓ ROXY 40 was and still is the only 40 minutes approved rescue pack on the market
- ✓ Since 2011 DEZEGA delivered to RSA and Bigger Africa more than 180K rescue packs
- ✓ More than 40K delivered between 2011 and 2015 have successfully passed their designated service life of 10 years, last of those units have expired several months ago
- ✓ Since its market entry DEZEGA works in close cooperation with Schauenburg, its sole distributor in SA

Problem description

While performing laboratory testing of ROXY 40s in terms of the 2025 annual monitoring program CSIR has identified faulty units which was reported to the OEM, DMPR and employers

All units malfunctioned due to the destructed rubber parts on the breathing bag, the details were provided in the OEM report submitted to DMPR and further communicated to the industry in the Newsflash from 30.10.25

CSIR test data (926 units tested – last upd. 17.02.26)

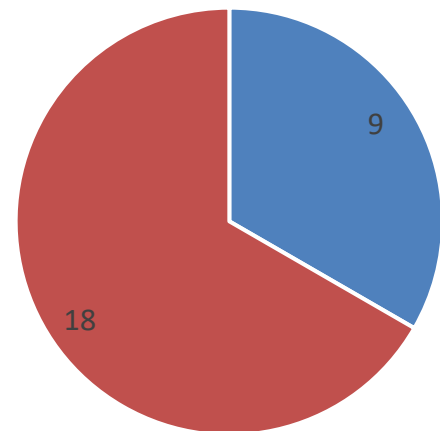
- As of 17.11.25, **26** units failed out of 393 units tested:
 - 2016 – 2018 - 24 units
 - 2019 – 1 unit
 - 2020 – 1 unit
 - 2021-2025 – 0 units

Failure rate 6,6%

- As of 17.02.26, **1** unit failed out of 533 units tested:
 - 2016 – 2018 - 0 units
 - 2019 – 0 units
 - 2020 – 1 unit
 - 2021-2025 – 0 units

Failure rate 0,18%

Cause of failure, 27 units total



■ PRV Failure ■ BB Rubber Torn

OEM Inspections in December 2025

DEZEGA HQ employee visited South Africa in order to conduct the inspections of the deployed ROXY 40 and develop an action plan for inspection or servicing if the units manufactured in 2017-2020.

169 units from 15 shafts were inspected

The findings of the inspections were communicated to the industry in the letter dated 19.12.26

Findings of the Inspections

- ✓ Number of the units which did not pass the inspection is significant (approx. 50%)
- ✓ Zero "not passed" units manufactured in 2021 or after were identified which correlates with the CSIR findings
- ✓ Some shafts have significantly higher number of affected units, however, there is no method to guarantee that there are shafts where the problem does not exist;
 - *there are no alternative recommendations to any particular customer based on its fleet of ROXY 40*
- ✓ Inspections and servicing cannot be performed onsite; they can be done only in DEZEGA service facilities in SA

Reconciling CSIR and OEM Findings

	CSIR Findings	OEM Findings
Ratio	2.8% failures	50% 'not passed'
Method	Actual breathing simulator test	Visual and tactile inspection, application of excessive force
Criterion	Breathing circuit is broken, impossible to use	Traces of degradation: changing rubber color and hardness
Interpretation	Would a unit have failed if used right now	Would a unit safely last for the remaining service life

Action plan

- 2016, 2017 and 2018 units to be removed from operation - *ongoing*
 - Customers received a trade-in proposal with the compensation of economic loss for each year of decreased service life
 - Currently we have orders for 45% of the decommissioned units, some units have already been delivered to the mines and the program is ongoing
- 2019-2020 units can remain in operation only after the service performed by OEM
- Service facilities will be ready by 05.26, target capacity – 1000 units per month
- DEZEGA and Schauenburg will continue to support the industry until all 2016-2018 units have been removed, and 2019-2020 units - serviced

Lessons Learned

1

The CSIR monitoring program works efficiently and the problem was discovered and addressed before someone got injured

2

Costly experience for the OEM but we are trying to do our best to compensate the loss and keep the future business

3

The mine specific factor definitely exists as some shafts have significantly higher number of affected units than others

- We do not blame the mines as units have to be designed to withstand the worst condition
- We will work keep further cooperation with CSIR and work with the data to find out what the mine specific factor is to prevent potential problems in the future



Thank you for your attention!