



ISO/TC 142/WG 9 "Particulate air filter intake systems for rotary machinery and stationary internal combustion engines"

Convenorship: SIS

Convenor: Johansson Ulf Mr



Meeting minutes 25th meeting December 14 2022

Document type	Related content	Document date	Expected action
Meeting / Minutes	Meeting: VIRTUAL 14 Dec 2022 Project: ISO/CD 29461-3.2	2022-12-19	INFO

Description

Meeting minutes, ISO 29461-3 DIS draft discussions



ISO TC142/WG9

Minutes of meeting - December 14, 2022, 15.00h – 17.00h

1. Opening of the meeting

Ulf opened the meeting at 15.00 hrs

2. Roll call of experts

There were totally 9 delegates, 9 experts documented at the meeting.

See separate attendee list, N291

3. Adoption of agenda + last meeting minutes

The agenda was adopted, no comments to the meeting minutes.

4. ISO/DIS 29461-3, Air filter intake systems for rotary machinery – Test methods — Part 3: Mechanical Integrity of filter elements

Report by project leader Steffan Trnetschek

Not much have been done since the last update of draft (after the Delft meeting) due to lack of time.

Review and discussion

The ISO 29461-3 draft was reviewed (N282). Most of the comments discussed were sent in by the experts prior to the meeting (N289) and a few was raised during the meeting.

G1 Technical comments - 8.5 Fail/ Pass Criteria

(Relevant for comment 9, 10, 11, 12 and 13 in N289)

The pass and fail criteria was discussed. The main question was if the “8.5.3 Failure by visual inspection” and its corresponding table (*Table 3*) was clear enough and if not the “fail criteria” should be updated.

Some experts suggested that the first item in the table do consist of “*the release of parts*” which is the main failure concerning turbine safety, but the rest of the items are not really representing such risk and should therefore be regarded as a “*filter performance issue/failure*”. The following items in the table needs to be verified by 8.5.4 when not having the an obvious leak and should not be in the same table.

The suggestion that finally was agreed upon was to divide the Pass/Fail criteria into two parts:



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- 1) Failure due to Visual inspection (8.5.1) or (8.5.2) pressure drop decrease
- 2) Failure due to filter performance decay - if the dust loaded filter efficiency is compromised to a lower level compared to the efficiency of the clean filter.

Concerning the filter performance failure it was decided to change the limit from current *“If the tested filter has a lower efficiency rating than the new filter according to ISO 29461-1”* to become *“If the tested filter has a lower efficiency than the new filter according to ISO 29461-1”*. Therefore also the test filter needs to be measured in advance by the laboratory to get the actual initial efficiencies (test report) to compare with. This was based on the testing that had been conducted previously, showing that even with rather large damages a filter may still hold its filter its ISO 29641-1 class, see N288 “test of leakage with dust loaded filter”.

The conclusion from the discussions was that the Pass/Fail criteria should be updated according to above:

- Update Pass/fail criteria as above
- The table 3 should be rewritten
- Add test of clean filter to be mandatory

G2 Editorial comments

All the editorial comments were accepted to be corrected as suggested, see N292.

G3 Other comments

One expert raised the question on how to address filters that are installed vertically would have other characteristics (typically pulse filters) compared to horizontally mounted static filters.

It was agreed that this may be the fact, although the magnitude of the difference is with current knowledge hard to define. In general will pulse filters likely show other characteristics due to its installation and operation (a damage pulse filter may show other performance decay than a static filter with similar damage). However it is not feasible describe a vertical set up in this document and therefore it was decided to incorporate information about this within the document as a note and no further changes in the main body.

For detailed response on N282 from the experts: See document N292



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Decision:

- A. Update Pass/fail criteria into two parts as above as per above,
- B. The table 3 should be rewritten
- C. Add test of clean filter to be mandatory
- D. Add a note about vertically filters (pulse filters)

Actions:

- i. Ulf/Steffan to rewrite the check list table 3
- ii. Update filter performance testing (test needs to be done on new filter)
- iii. Change the editorial comments according to N292
- iv. Ulf to distribute the updated document for DIS ballot in January
- v. Ulf to call for a final meeting end of January if needed

5. Work Plan for WG9

The project (ISO/DIS 29461-3) is within time frame if a DIS ballot can be deployed in January.

6. Action points

See above.

7. Any other business

No additional business

8. Next meetings for WG9

TBD by the Convener

9. Closure of meeting

Ulf closed the meeting at 17:05 hrs

Minutes of meeting submitted by

Ulf Johansson

2022-12-14