Practical Application of Safety Risk Management at SR Technics

SR Technics Switzerland Ltd, Quality & Safety

May 16, 2014

SMICG Industry Day, Bern

SR Technics

Agenda

1. Safety policy and objectives
   - Our SMS
   - Key functions of our SMS
2. Safety risk management
   - Indicators and standard classification
   - Cluster
   - Top 5 RC classification – Risk / Frequency
   - Root cause classification – Trend
3. Safety assurance
   - Analyze Risk Portfolio
   - Gaining awareness in organization - Preservation of product
4. Safety promotion
   - Communication & Training

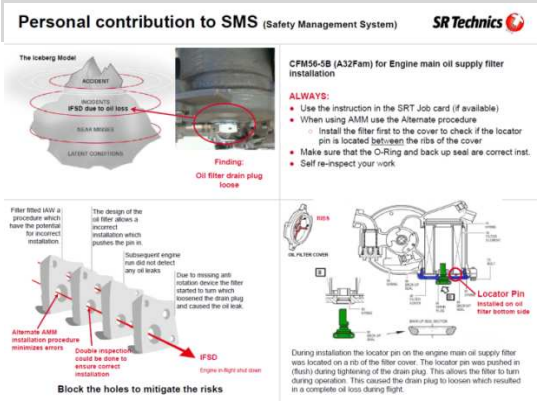
1. Safety policy and objectives

Our SMS

Occupational Safety
Audit Finding
Occurrence
Hazard etc.

Investigation, RCA, Actions

„SMS One-Pager“



SRB

Risk Log

Database

SAG

Form 4 Holder Meeting

Quality & Safety

Action Plan

Risk Portfolio

Campaigns

Feedback

Training

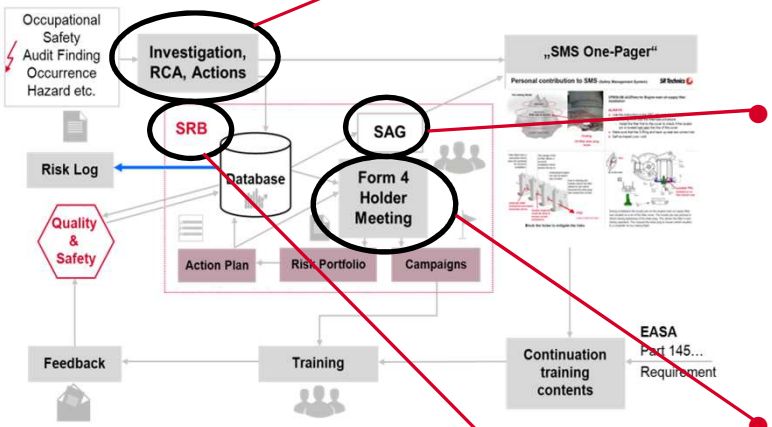
Continuation training contents

EASA
Part 145…
Requirement

SR Technics

1. Safety policy and objectives

Key functions of our SMS



Investigation, Root Cause Analyse (RCA), Actions

- Initial risk assessment done by Quality Manager representing all Business Units and the Safety & Risk Officer
- Final risk assessment verified and confirmed by Root Cause Analyze Team

Safety Action Group (SAG)

- Review and challenge of moderate and high risk items regarding corrective and preventive actions
- Ensure Safety Risk Management standards are applied throughout the company

Form 4 Holder Meeting

- Quarterly review meeting represented by Form 4 Holder of each Business Unit and the Safety & Risk Officer
- Evaluation of items in the risk portfolio for which action plans have to be defined

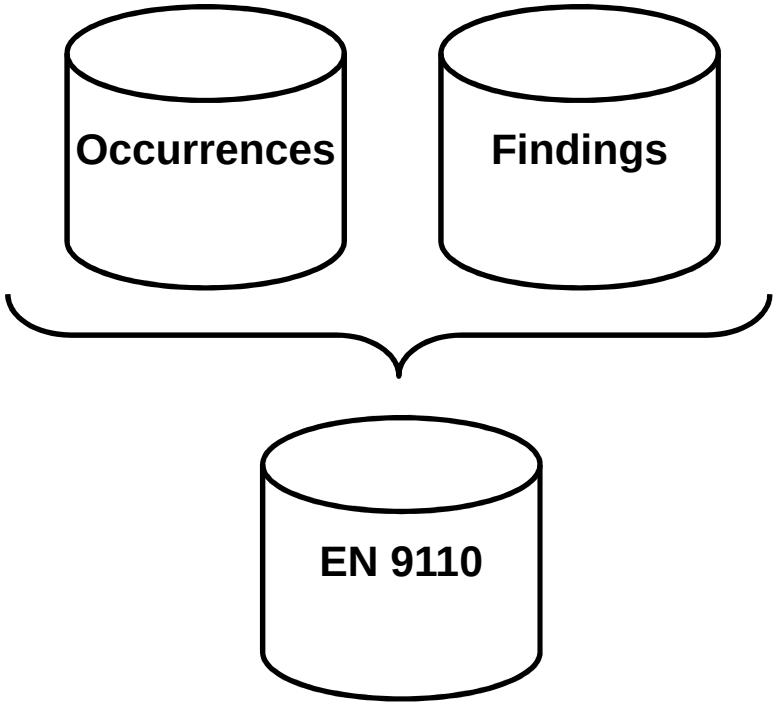
Safety Review Board (SRB)

- Challenge completed investigations and request further actions if deemed necessary

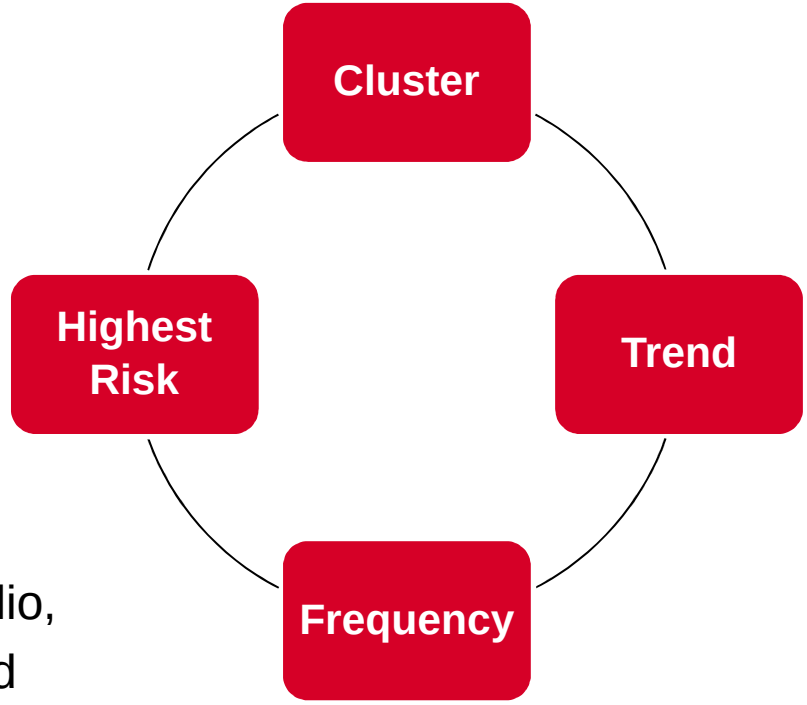
SR Technics

2. Safety Risk Management

Indicators and standard classification



Root causes of the items are allocated to a combined standard

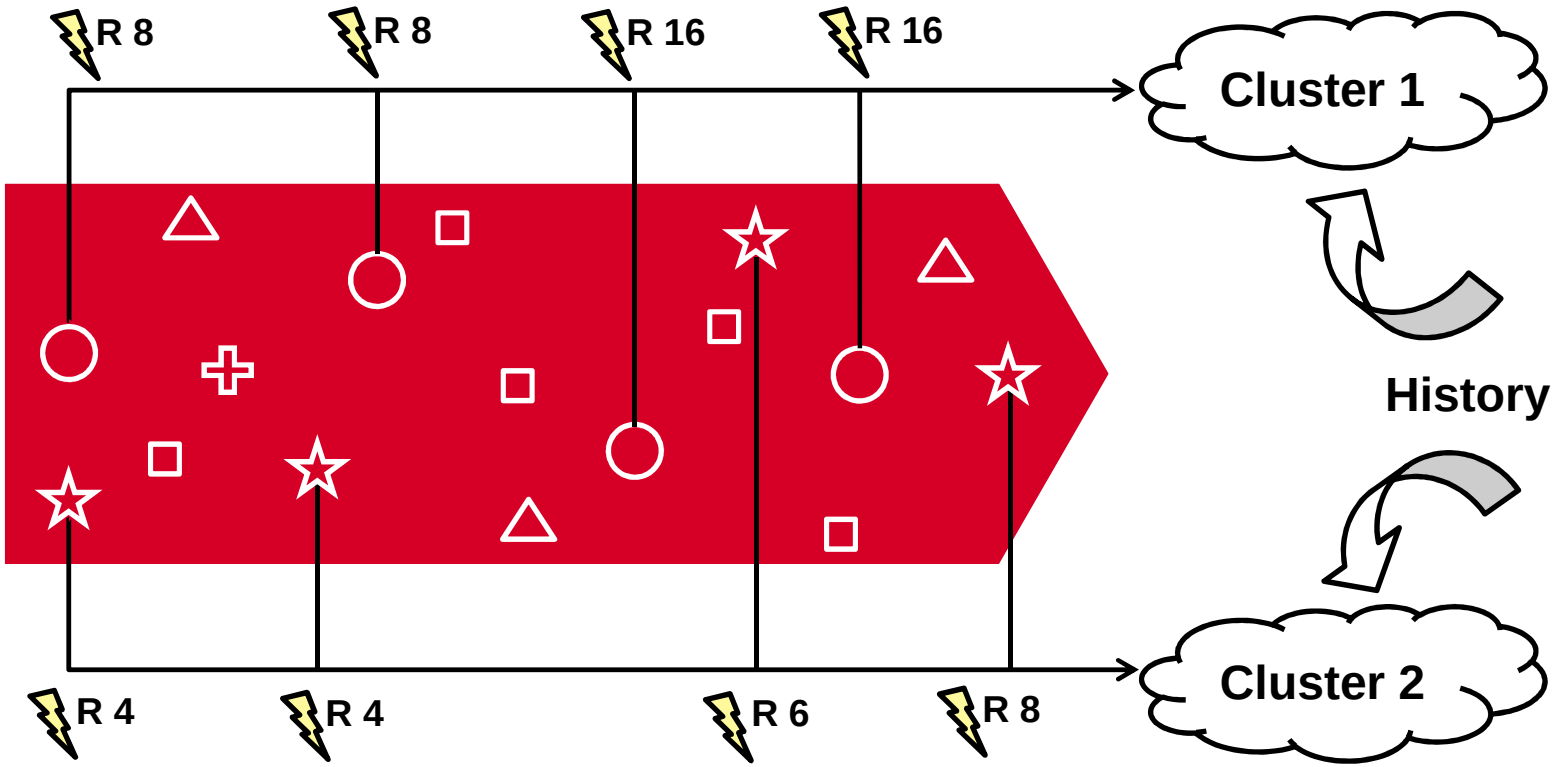


To define the Risk Portfolio,
4 indicators are assessed

2. Safety Risk Management

Cluster

- Occurrence Reports
  - Internal
  - External
  - Mandatory
- Hazard Reports
- Audit Findings
- Accident Reports
- Potential Risks



R = Risk of item

○ ☆ □ ✚ △ = Items

Summarize and combine preventive actions of same or similar occurrences and findings

2. Safety Risk Management

Top 5 RC classification – Risk / Frequency

All items in the Safety Risk Management are classified and assessed based on EN 9110.

- Root cause classification with highest average **risk**
  - Customer focus
  - Resource management (human resource / infrastructure)
  - Product realization (planning, performing, managing)
  - Control of non-conforming product
  - Purchasing (verification)

	2013			2014	Grand Total
Row Labels	2	3	4	1	
EN5.2		4.0	4.0	4.0	4.0
EN6		4.0	4.0		4.0
EN7.1	3.6	3.6	3.8	3.8	3.7
EN8.3	3.3	3.5	5.0	3.0	3.6
EN7	3.0	3.6	3.6	3.4	3.5
EN7.4	3.8	3.4	3.5	3.5	3.5
Grand Total	**3.5**	**3.5**	**3.6**	**3.6**	**3.6**

- Highest **frequency**
  - Product and service provision (preservation and control)
  - Competence, training and awareness
  - Control of documents / records
  - Customer related process (incl. communication)
  - Purchasing (verification)

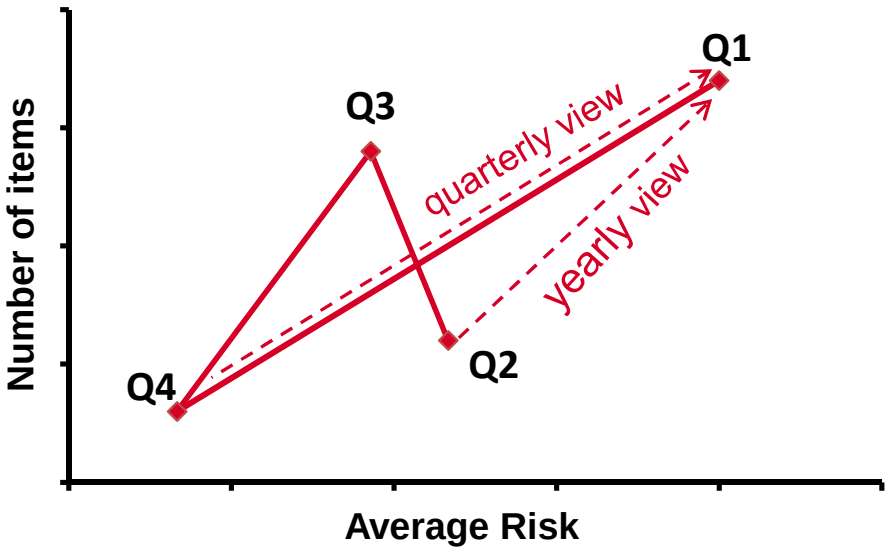
	2013			2014	Grand Total
Row Labels	2	3	4	1	
EN7.5	62	83	116	68	329
EN6.2	64	54	83	69	270
EN4.2	57	53	39	27	176
EN7.2	22	26	50	36	134
EN7.4	8	36	46	21	111
Grand Total	**213**	**252**	**334**	**221**	**1020**

2. Safety Risk Management

Root cause classification – Trend

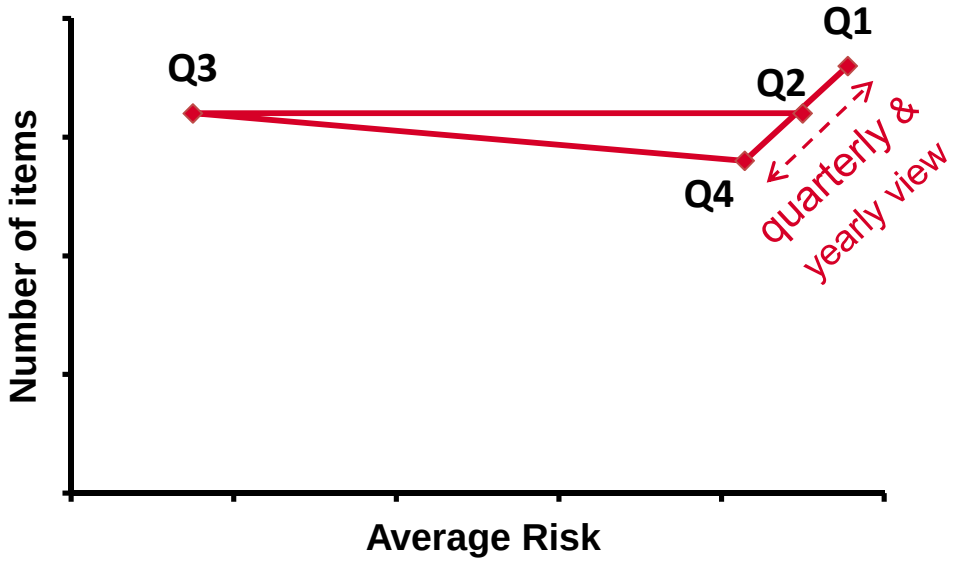
EN9110 6.3

Infrastructure



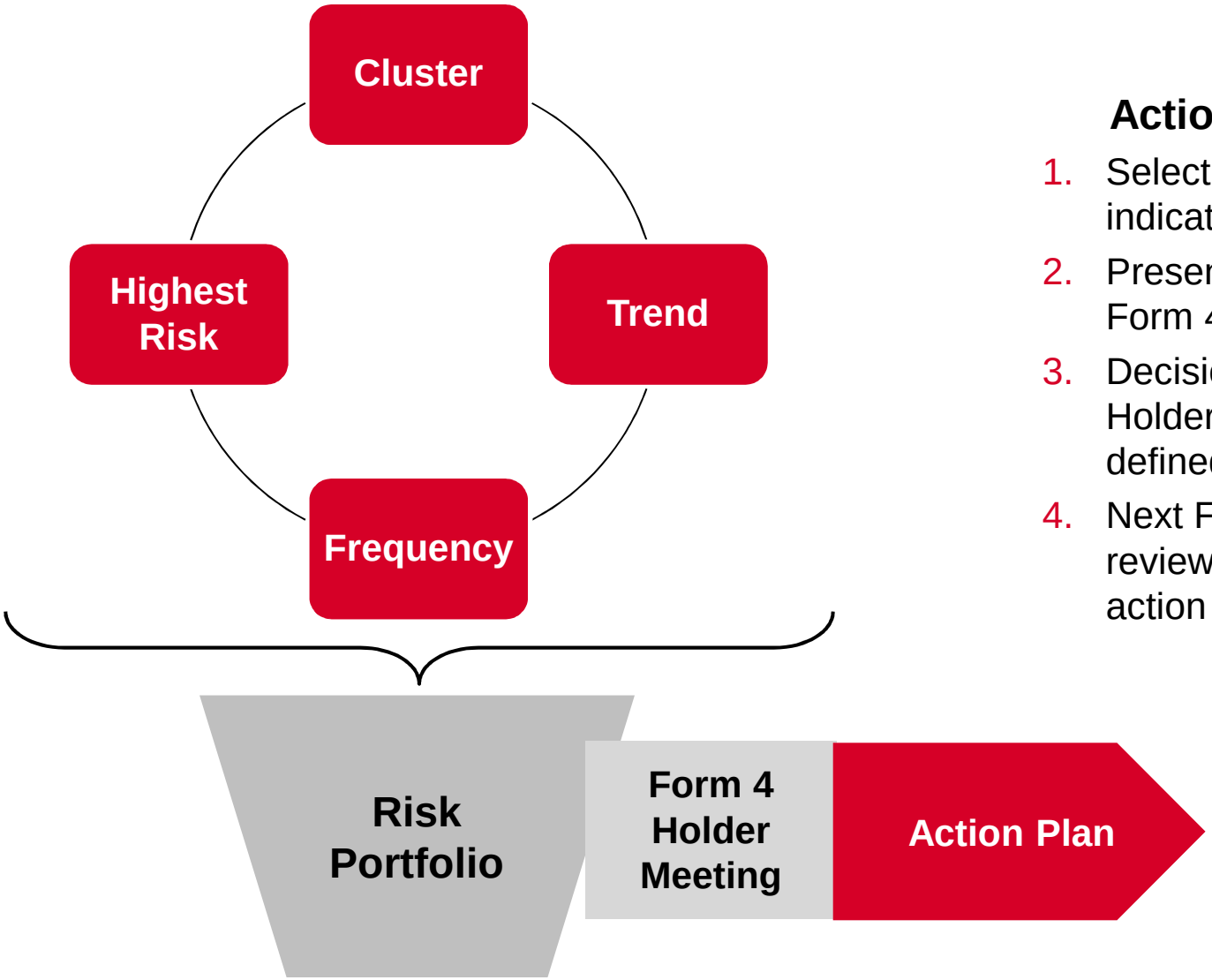
EN9110 7.1

Planning of product realization



3. Safety Assurance

Analyze Risk Portfolio



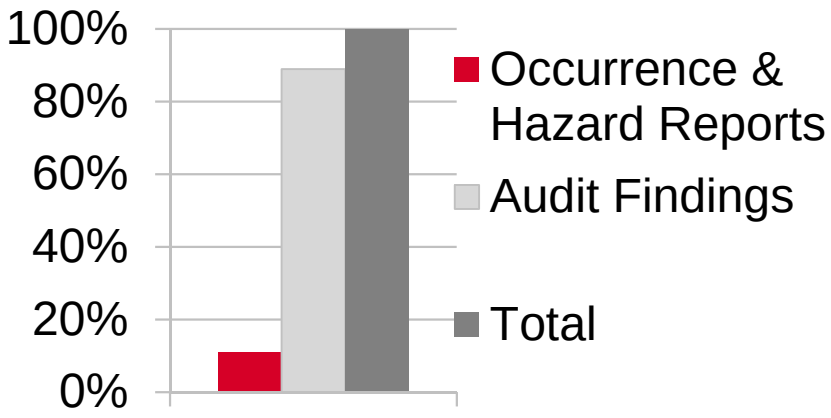
Action Plan

1. Selection of top risks per indicators
2. Presentation of risk portfolio on Form 4 Holder Meeting
3. Decision made during Form 4 Holder Meeting and action plan defined
4. Next Form 4 Holder Meeting review results of previous action plan

3. Safety Assurance

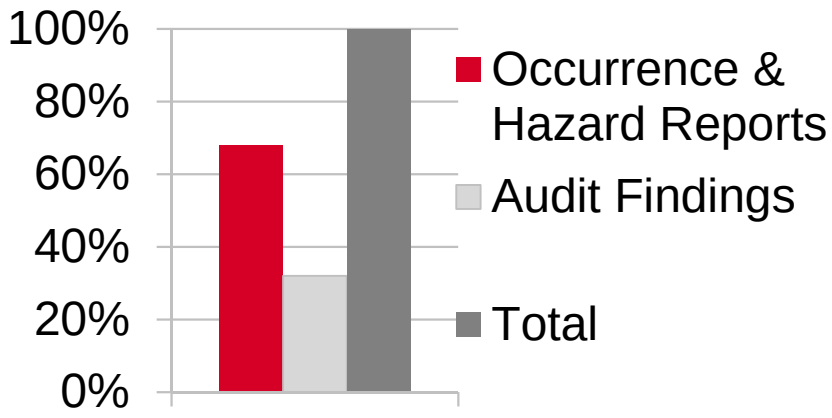
Gaining awareness in organization - Preservation of product

Q1 – Q2 2013



Campaign

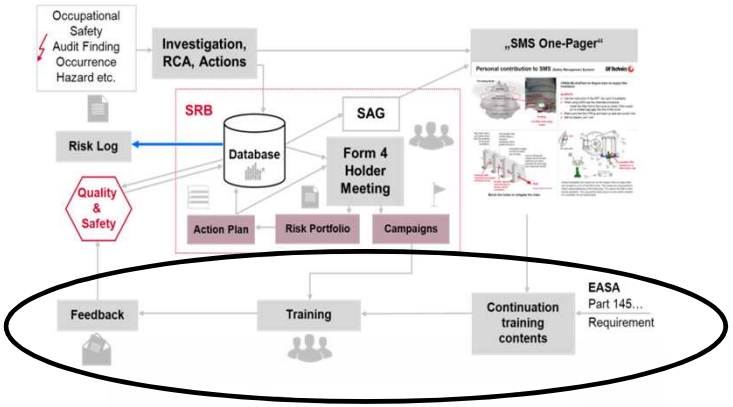
Q3 – Q4 2013



Based on EN 9110 and Risk

4. Safety Promotion

Communication & Training - From WBT to classroom



old approach = WBT

new approach =
interactive classroom

SR Technics

4. Safety Promotion

Communication & Training

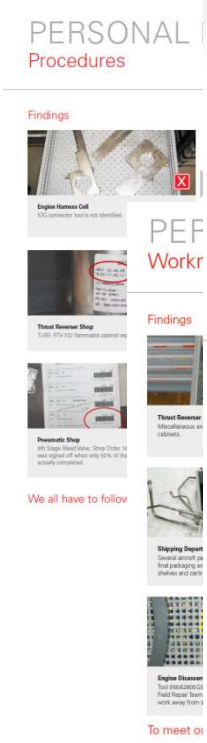
Feedbac

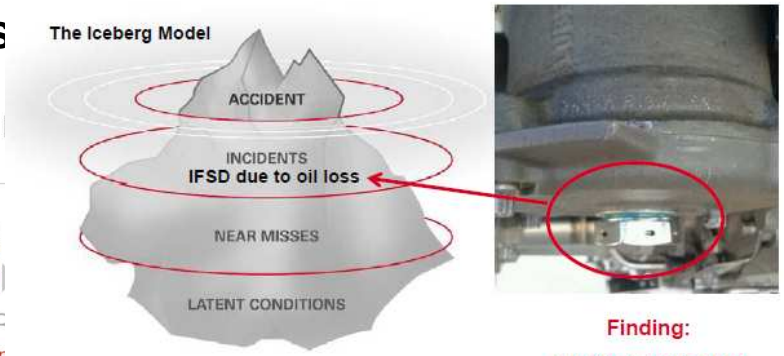
Findings

Personal contribution to SMS (Safety Management System)

SR Technics

er"





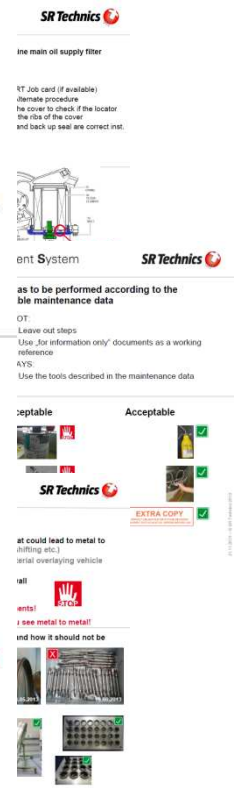
Finding:

Oil filter drain plug loose

CFM56-5B (A32Fam) for Engine main oil supply filter installation

ALWAYS:

- Use the instruction in the SRT Job card (if available)
- When using AMM use the Alternate procedure
  - Install the filter first to the cover to check if the locator pin is located between the ribs of the cover
- Make sure that the O-Ring and back up seal are correct inst.
- Self re-inspect your work

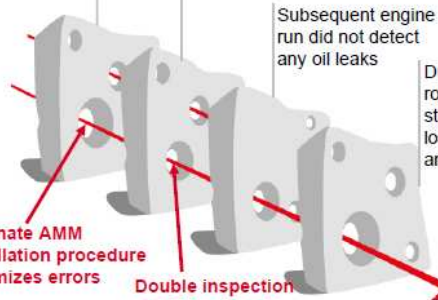


Filter fitted IAW a procedure which have the potential for incorrect installation.

The design of the oil filter allows a incorrect installation which pushes the pin in.

Subsequent engine run did not detect any oil leaks

Due to missing anti rotation device the filter started to turn which loosened the drain plug and caused the oil leak.



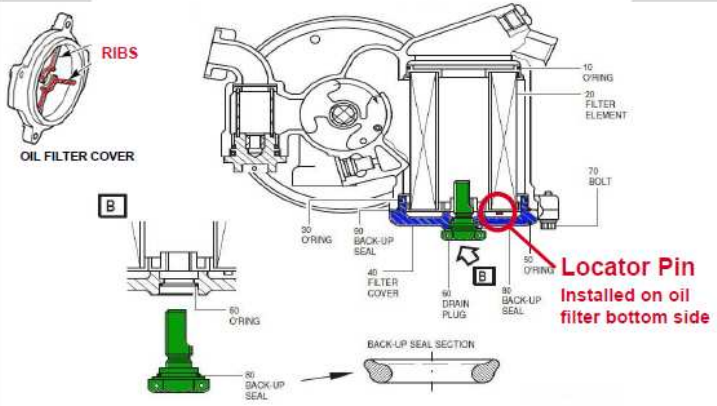
Alternate AMM installation procedure minimizes errors

Double inspection could be done to ensure correct installation

IFSD

Engine in-flight shut down

Block the holes to mitigate the risks

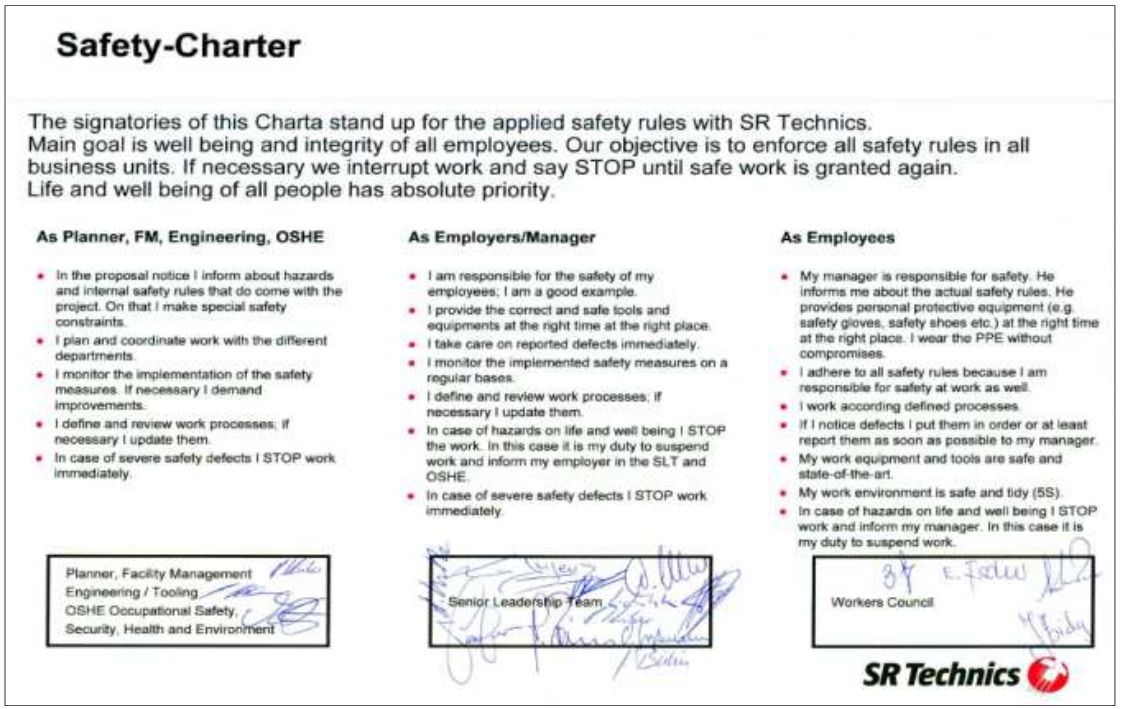


During installation the locator pin on the engine main oil supply filter was located on a rib of the filter cover. The locator pin was pushed in (flush) during tightening of the drain plug. This allows the filter to turn during operation. This caused the drain plug to loosen which resulted in a complete oil loss during flight.

SR Technics

4. Safety Promotion

Communication & Training – STOP Campaign



Safety-Charter

The signatories of this Charta stand up for the applied safety rules with SR Technics.
Main goal is well being and integrity of all employees. Our objective is to enforce all safety rules in all business units. If necessary we interrupt work and say STOP until safe work is granted again.
Life and well being of all people has absolute priority.

As Planner, FM, Engineering, OSHE

- In the proposal notice I inform about hazards and internal safety rules that do come with the project. On that I make special safety constraints.
- I plan and coordinate work with the different departments.
- I monitor the implementation of the safety measures. If necessary I demand improvements.
- I define and review work processes; if necessary I update them.
- In case of severe safety defects I STOP work immediately.

Planner, Facility Management
Engineering / Tooling
OSHE Occupational Safety,
Security, Health and Environment

As Employers/Manager

- I am responsible for the safety of my employees; I am a good example.
- I provide the correct and safe tools and equipments at the right time at the right place.
- I take care on reported defects immediately.
- I monitor the implemented safety measures on a regular bases.
- I define and review work processes; if necessary I update them.
- In case of hazards on life and well being I STOP the work. In this case it is my duty to suspend work and inform my employer in the SLT and OSHE.
- In case of severe safety defects I STOP work immediately.

Senior Leadership Team

As Employees

- My manager is responsible for safety. He informs me about the actual safety rules. He provides personal protective equipment (e.g. safety gloves, safety shoes etc.) at the right time at the right place. I wear the PPE without compromises.
- I adhere to all safety rules because I am responsible for safety at work as well.
- I work according defined processes.
- If I notice defects I put them in order or at least report them as soon as possible to my manager.
- My work equipment and tools are safe and state-of-the-art.
- My work environment is safe and tidy (5S).
- In case of hazards on life and well being I STOP work and inform my manager. In this case it is my duty to suspend work.

Workers Council

SR Technics

SR Technics

Thank you for your attention.

SR Technics