General Atomics AeroTec Systems GmbH

Technical Support DO228

SERVICE PROBLEM REPORT GUIDELINE

CONTENT / REASON

1.1 Reason of Damage Reporting

General Atomics AeroTec Systems GmbH Customer Service aims to simplify and expedite the reporting of damages and incidents by introducing a simple damage reporting form, known as the Service Problem Report (SPR-Form) for its aircraft. The following guideline will give clear instructions on how to use this form.

SPRs must be created for all known incidents, faults or defects that have led or could lead to unsafe conditions on an individual aircraft or the fleet.

An SPR must also be drawn up if the problem requires the involvement of authorities or suppliers.

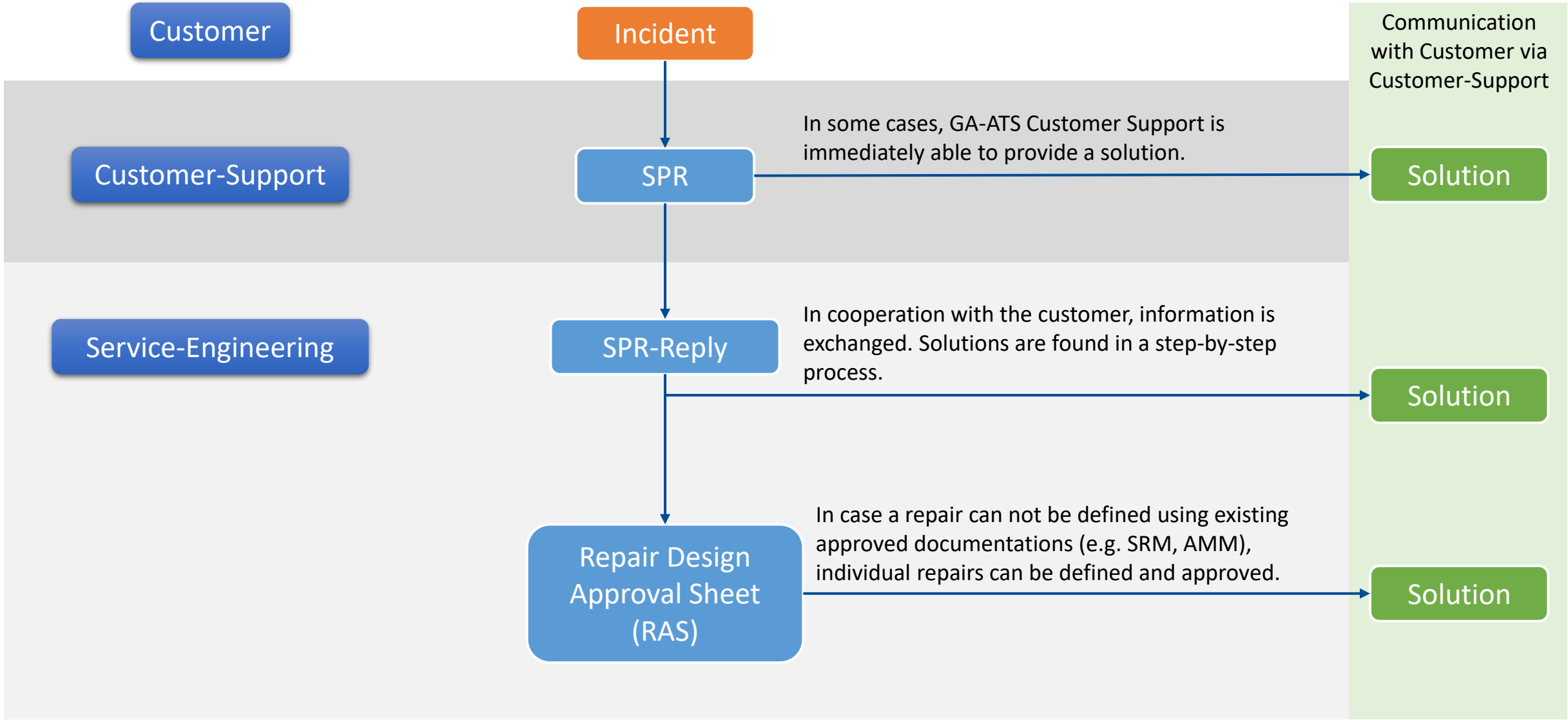
Generally, the principle applies: If in doubt, always create an SPR!

The correct, complete and detailed damage information is mandatory for Customer Support to be able to take care of the problem as soon as possible.

1.2 Required Documents

AIPC (Aircraft Illustrated Parts Catalog)
AMM (Aircraft Maintenance Manual)
CMM (Component Maintenance Manual)
CSM (Customer Support Manual)
LCM (List of Consumable Materials, included in AMM)
SRM (Structural Repair Manual)
NDTM (Non-Destructive Test Manual)

OVERVIEW OF THE SPR-SYSTEM



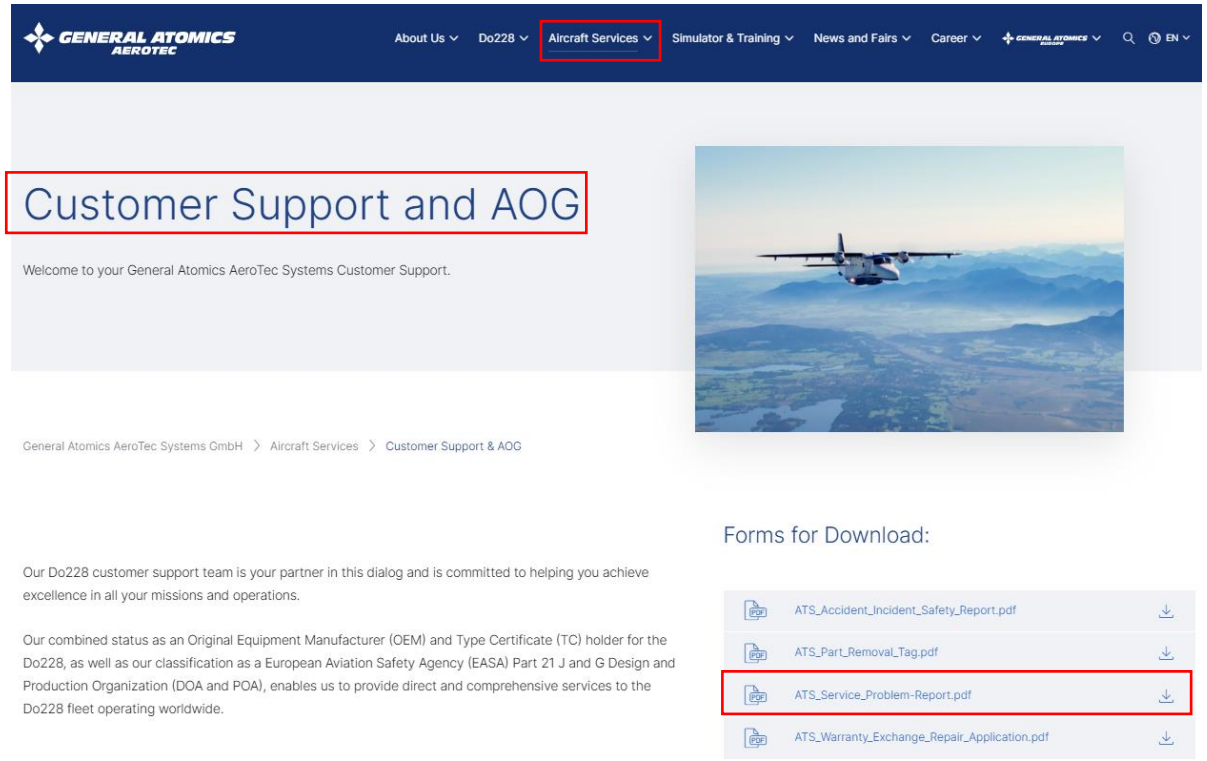
FINDING AND INTRODUCTION OF THE SPR-FORM

2.1 Finding the SPR-Form

The form is found in Appendix 3 of the Customer Support manual (CSM) and on the ga-ats.com website:

Aircraft Service → Customer Support & AOG → Forms for Downloads → ATS_Service_Problem-Report.pdf

…or by alternatively clicking on the image below:



2.2 Interpreting the Service Problem Report (SPR)

The Service Problem Report, duly completed by the operator, contains all necessary information for our Costumer Support from General Atomics AeroTec Systems GmbH to determine:

- Whether a part can be repaired and if so, with the appropriate repair
- Whether temporary remedy (fly-on) or temporary repair is possible
- Whether a repeat inspection is necessary and at what frequency
- Whether the airplane is unairworthy until the repair is completed

→ The following data is required for all types of defect or damage reports!

OVERVIEW OF THE SPR-FORM

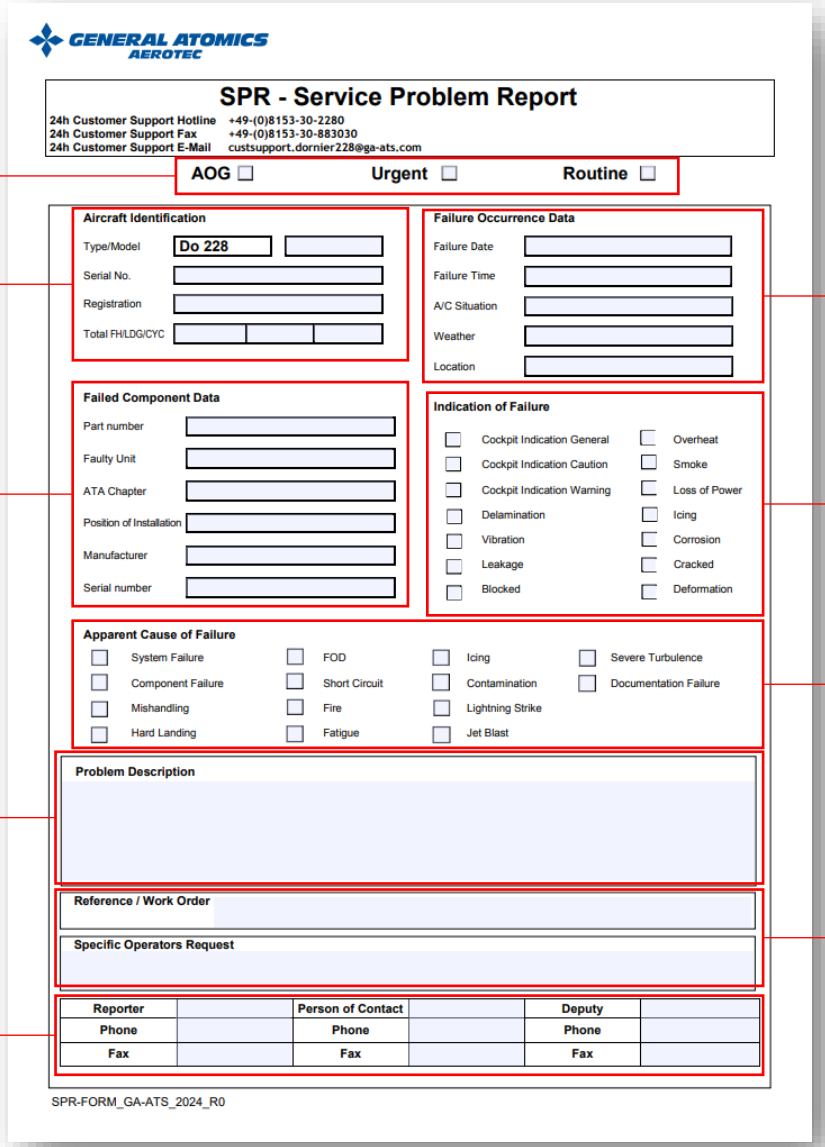
Classification of the incident (AOG/Urgent/Routine)

Aircraft Identification Data (Serial Number, Registration, FHs and FCs)

Details of the affected component (Part Number, ATA Chapter, Serial Number)

Detailed Incident-Description (Location on airframe, damage-description, performed steps, dimensions, pictures, drawings)

Contact Information



GENERAL ATOMICS AEROTEC

SPR - Service Problem Report

24h Customer Support Hotline +49-(0)8153-30-2280
24h Customer Support Fax +49-(0)8153-30-883030
24h Customer Support E-Mail custsupport.dornier228@ga-ats.com

AOG ☐ Urgent ☐ Routine ☐

Aircraft Identification

Type/Model	Do 228
Serial No.	
Registration	
Total FH/LDG/CYC	

Failure Occurrence Data

Failure Date	
Failure Time	
A/C Situation	
Weather	
Location	

Failed Component Data

Part number	
Faulty Unit	
ATA Chapter	
Position of Installation	
Manufacturer	
Serial number	

Indication of Failure

☐ Cockpit Indication General	☐ Overheat
☐ Cockpit Indication Caution	☐ Smoke
☐ Cockpit Indication Warning	☐ Loss of Power
☐ Delamination	☐ Icing
☐ Vibration	☐ Corrosion
☐ Leakage	☐ Cracked
☐ Blocked	☐ Deformation

Apparent Cause of Failure

☐ System Failure	☐ FOD	☐ Icing	☐ Severe Turbulence
☐ Component Failure	☐ Short Circuit	☐ Contamination	☐ Documentation Failure
☐ Mishandling	☐ Fire	☐ Lightning Strike	
☐ Hard Landing	☐ Fatigue	☐ Jet Blast	

Problem Description

Reference / Work Order

Specific Operators Request

Reporter		Person of Contact		Deputy	
Phone		Phone		Phone	
Fax		Fax		Fax	

SPR-FORM_GA-ATS_2024_R0

External Data (Time of occurrence, Location, Weather)

How was the incident discovered? (Warnings, Symptoms)

What is the apparent cause of the incident?

Optional specific operators request Reference / Work Order if available

Click on the section for a more detailed explanation

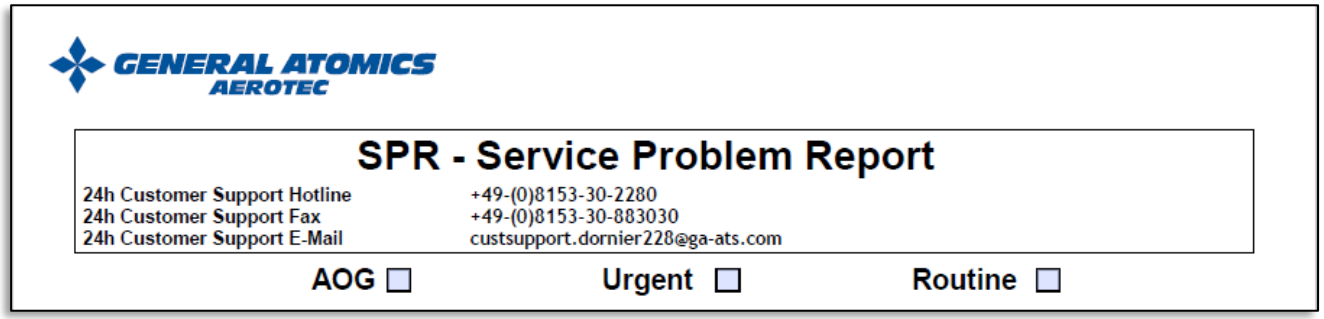
Classification of the incident

The classification of the SPR is carried out by the customer. Three categories are available, according to which the SPR response times are based:

- **AOG**
  Highest priority. This is always the case if an aircraft is grounded due to technical problems or if flight safety is directly endangered.

- **URGENT**
  High priority during processing. An aircraft runs the risk of remaining on the ground unplanned or work cannot be completed as planned.

- **ROUTINE**
  Does not affect flight operations, but maintenance costs, reliability or convenience may be affected.



GENERAL ATOMICS AEROTEC

SPR - Service Problem Report

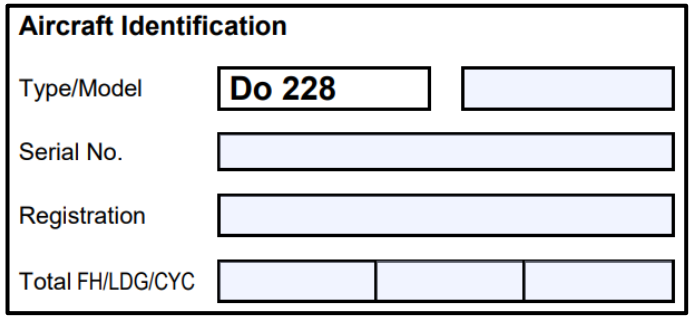
24h Customer Support Hotline	+49-(0)8153-30-2280
24h Customer Support Fax	+49-(0)8153-30-883030
24h Customer Support E-Mail	custsupport.dornier228@ga-ats.com

AOG ☐ Urgent ☐ Routine ☐

Aircraft Identification

The following items should be specified:

- Type/Model
- Serial number
- Registration
- Total FH/LDG/CYC



Aircraft Identification

Type/Model	Do 228	
Serial No.		
Registration		
Total FH/LDG/CYC		

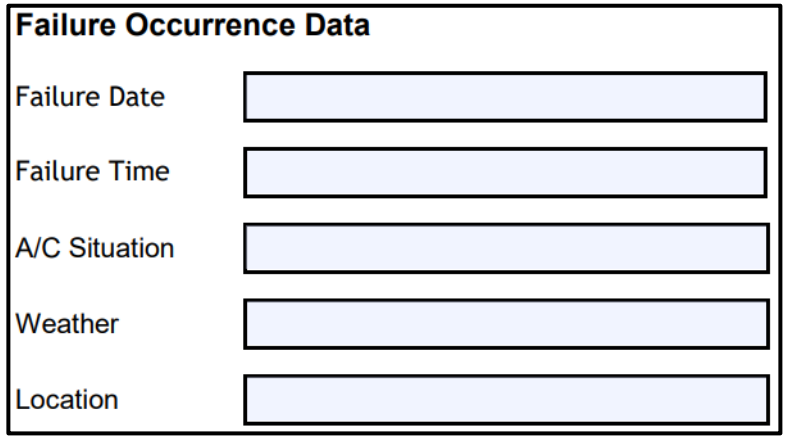
RETURN TO OVERVIEW

Failure Occurrence Data

In this section, the following items should be specified:

- Failure Date
- Failure Time
- A/C Situation
  Flight condition in which the damage occurred or was discovered (e.g. taxiing, take-off, flight, landing, maintenance etc.)
- Weather
- Location - indicates the exact location (e.g. RH, LH, TOP, BOTTOM etc.)

If damage or defects occur during flight condition or aircraft operation, please include the Failure Time and Weather during the flight.

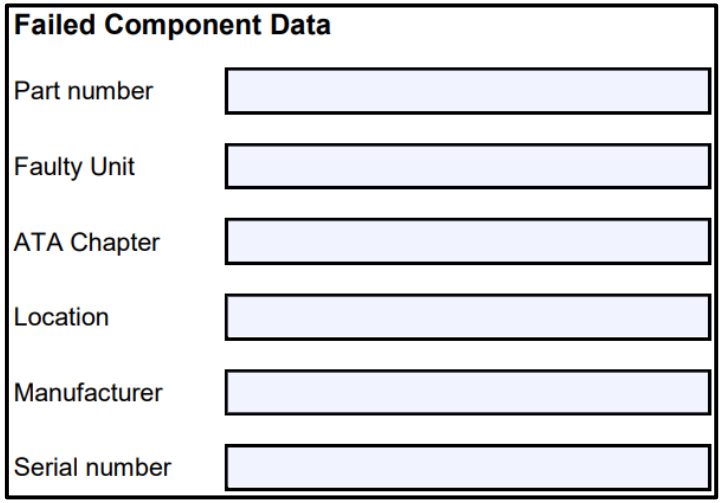


Failed Component Data

In this section, the following items should be identified:

- Part number
- Faulty Unit
- ATA Chapter
- Location
- Manufacturer
- Serial Number

Note: Please use SRM, AMM, AIPC, CMM, etc. to identify the data above.



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Indication of Failure

Please select the failure indication from the list:

Cockpit Indication General, Cockpit Indication Caution, Cockpit Indication Warning, Delamination, Vibration, Leakage, Blocked, Overheat, Smoke, Loss of Power, Icing, Corrosion, Cracked and/or Deformation.

If the type is not available in this list, please add in field Problem Description.

Indication of Failure

☐ Cockpit Indication General	☐ Overheat
☐ Cockpit Indication Caution	☐ Smoke
☐ Cockpit Indication Warning	☐ Loss of Power
☐ Delamination	☐ Icing
☐ Vibration	☐ Corrosion
☐ Leakage	☐ Cracked
☐ Blocked	☐ Deformation

Apparent Cause of Failure

Please select the apparent cause of failure from the list:

System Failure, FOD, Icing, Severe Turbulence, Component Failure, Short Circuit, Contamination, Documentation Failure, Mishandling, Fire, Lightning Strike, Hard Landing, Fatigue and/or Jet Blast.

If the type is not available in this list, please add in field Problem Description.

Apparent Cause of Failure

☐ System Failure	☐ FOD	☐ Icing	☐ Severe Turbulence
☐ Component Failure	☐ Short Circuit	☐ Contamination	☐ Documentation Failure
☐ Mishandling	☐ Fire	☐ Lightning Strike	
☐ Hard Landing	☐ Fatigue	☐ Jet Blast	

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Problem Description

The Problem Description is the key element of the Service Problem Report.

The problem description should be as detailed and clear as possible to avoid inquiries and to enable our customer support to solve your problem as soon as possible.

Please follow the instructions listed below: (also see examples pages 11-16)

1. Damage Location

Identify the damaged component and its location, with the use of SRM, AMM, AIPC, CMM, etc.
Determine the details of the damage site (FS, WS, STR, etc.), using visual aids such as pictures, hand sketches or photographs to show exactly where the damage is.
Identify adjacent structure, such as fuselage stations (FS), wing stations (WS), stringers (STR), ribs (R), spars (S), etc., and indicate their distance from the damage.
If pictures are taken (preferred), mark the positions of the fasteners near the damage and include a scale for dimensions.
If multiple damages (e.g., hail or lightning) occur in the same area, indicate the distance between damages.

2. Damage Type and Measurement

Always define the type of inspection (visual, detailed visual, NDT (refer to NDT-Manual).

For corrosion, furrows, scratches, nicks, burn marks from lightning:
- For accurate depth measurements (NDT preferred), remove paint and primer, remove raised edges, remove damaged material (i.e. corrosion, burned material, etc.). Sharp furrows and scratches may require local trimming to measure depth. All procedures in accordance with the applicable SRM chapters.

For cracks:
- Locate the hole (if applicable) from which the crack originates (provide drawing, sketch, or picture)
- Details of the crack: length, direction, distance from existing rivet lines and edges.

For dents:
- Marking of limits of dent, location of maximum depth, dent profile (whether smooth or wrinkled).

For dents with scratches/furrows:
- Indication about depth of dent and scratches.

→ For the allowable damage in the affected areas, please refer to the relevant chapter of the Structural Repair Manual .

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Problem Description

Suggested methods to provide proper illustration of the damage:

Illustrations (sketches):
- Ensure dimensional accuracy of sketches and completeness of all relevant dimensions.

Photography:
- When taking pictures of the damage, take both general (distant) **and** close-up pictures of the defect.
- Use a marking pen or masking tape, to mark adjacent structures such as ribs, frames or stringers in the photos.
- Clarify dimensions by adding a scale or e.g. place a steel scale next to the damage for close-up photos.
- Provide information on analysis of the cause of damage. Conduct a thorough analysis before beginning restoration activities to ensure that no important indicators are lost.

Note: Please make sure that the photos clearly show which component is involved and from which perspective the picture was taken!

Specific Operators Request

If the operator has a specific request, they are welcome to insert it in the field "Specific Operators Request". This area is free to be filled in by the operator and is not a mandatory field.

Specific Operators Request

Contact information

Please provide the contact information requested in the SPR below so that our customer support can contact you with any questions.

Reporter		Person of Contact		Deputy	
Phone		Phone		Phone	
Fax		Fax		Fax	

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EXAMPLE 1 - CORROSION:

Registration X-XXXX, Do228-XXXXX, S/N XXXX
R/H Wing Lower Panel Aft, Adjacent to Rib 2 – Evidence of External Corrosion

FH = XXXX FC = XXXX S/N WING XXXX

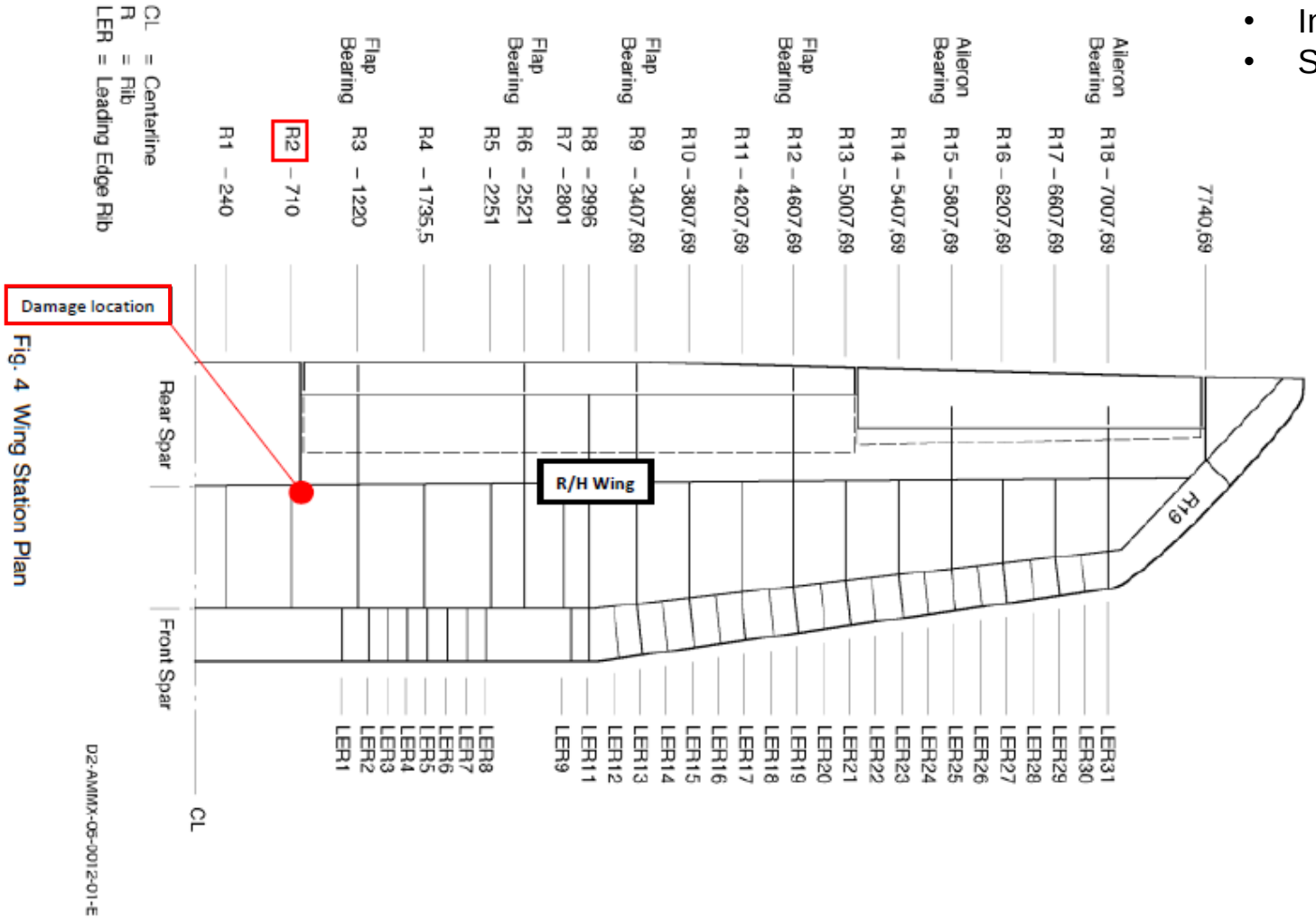
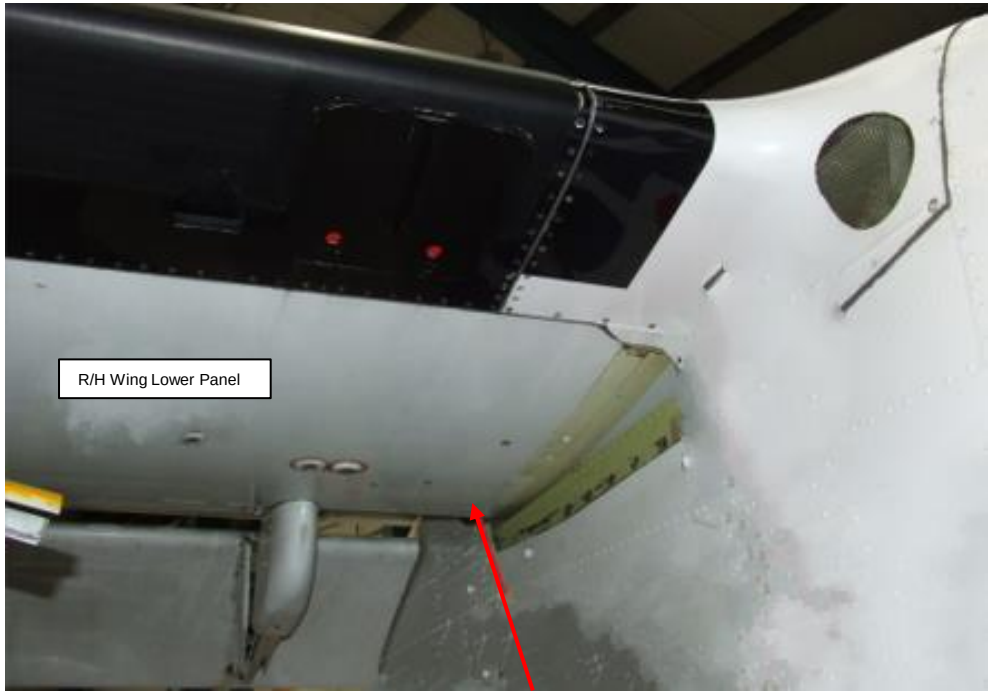


Fig. 4 Wing Station Plan

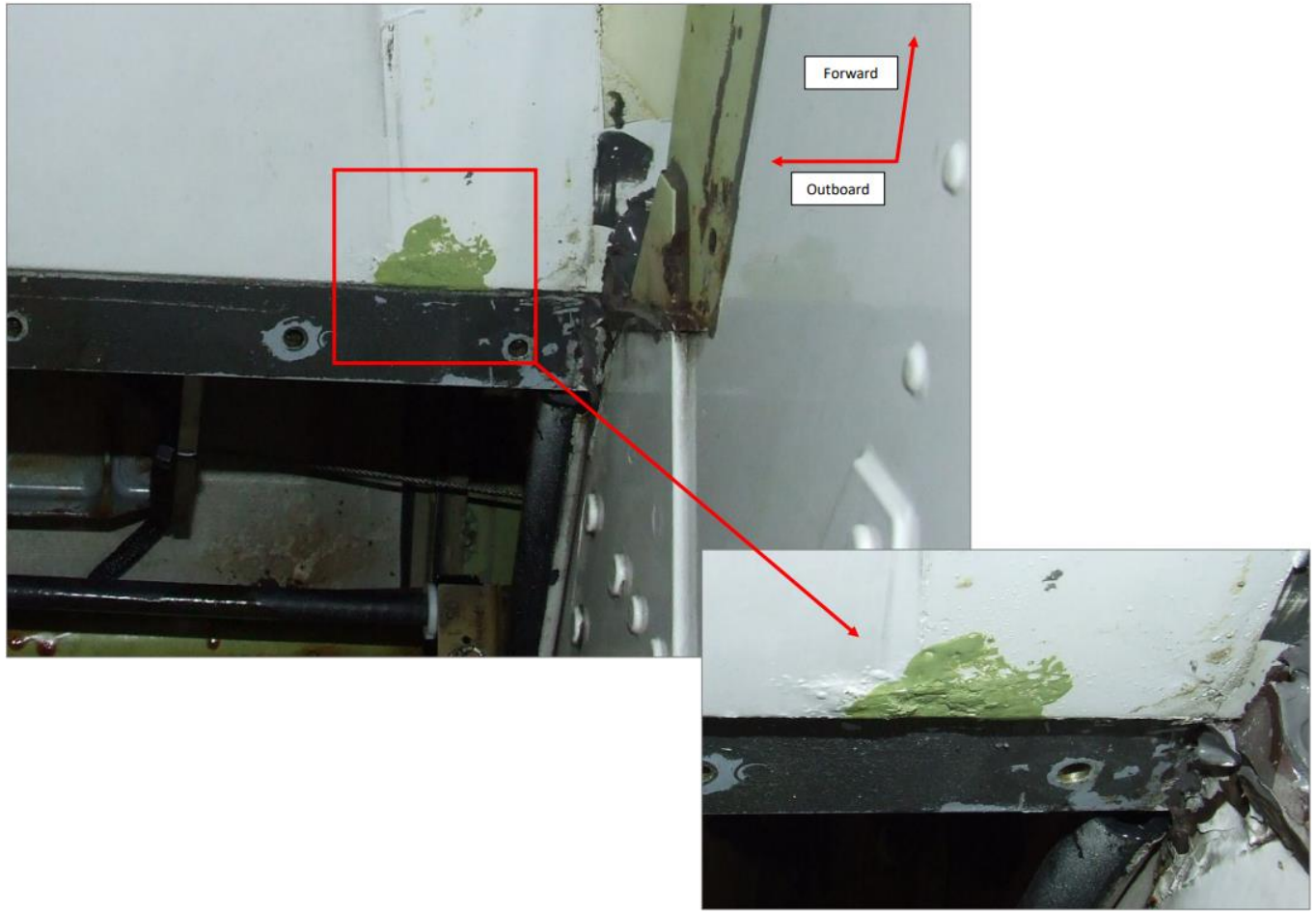
- Indicate the exact location (LH, RH, etc.)
- Indicate the position of the damage
- Stringers, Ribs, etc. are well identified

EXAMPLE 1 - CORROSION:

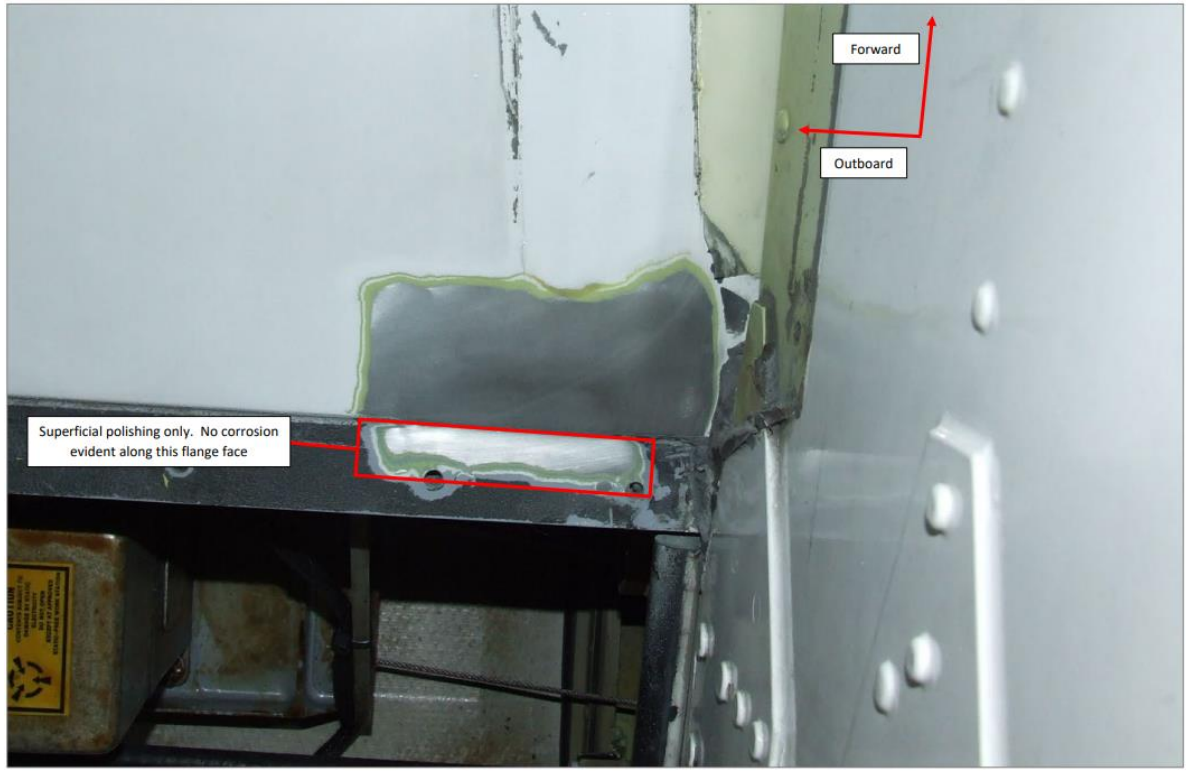
Damage location, photo taken from far

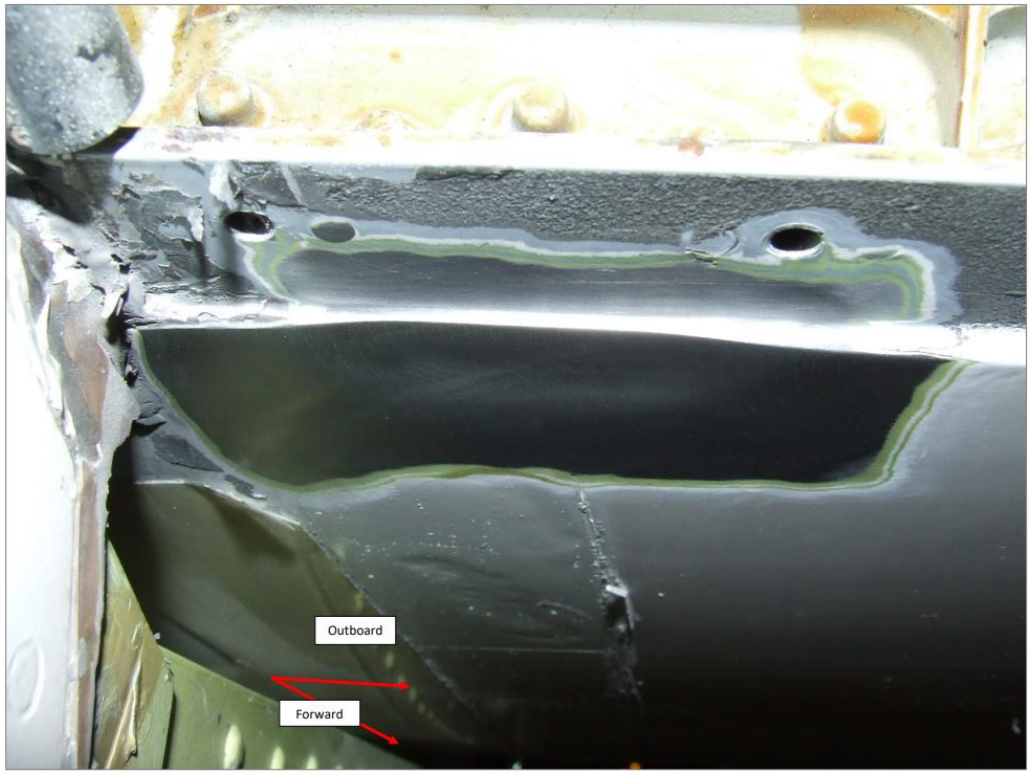


Damage location, close up

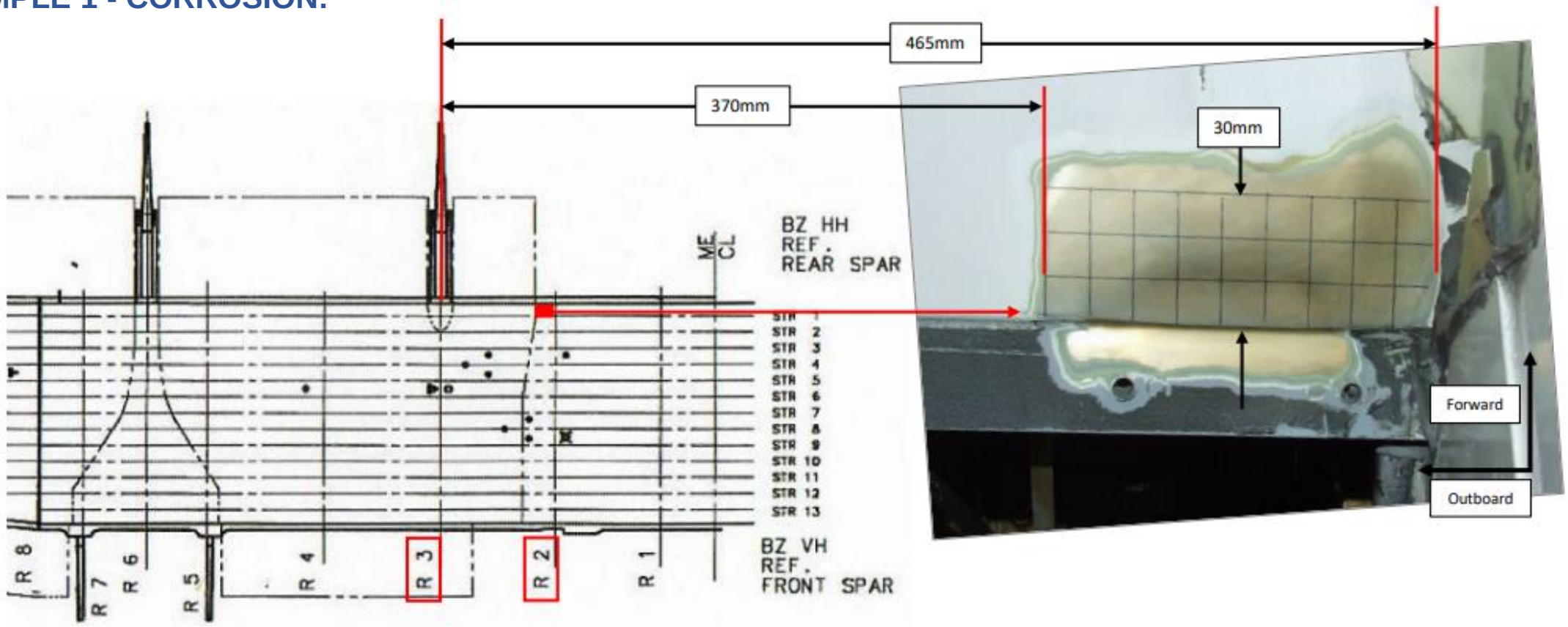


EXAMPLE 1 - CORROSION:





EXAMPLE 1 - CORROSION:

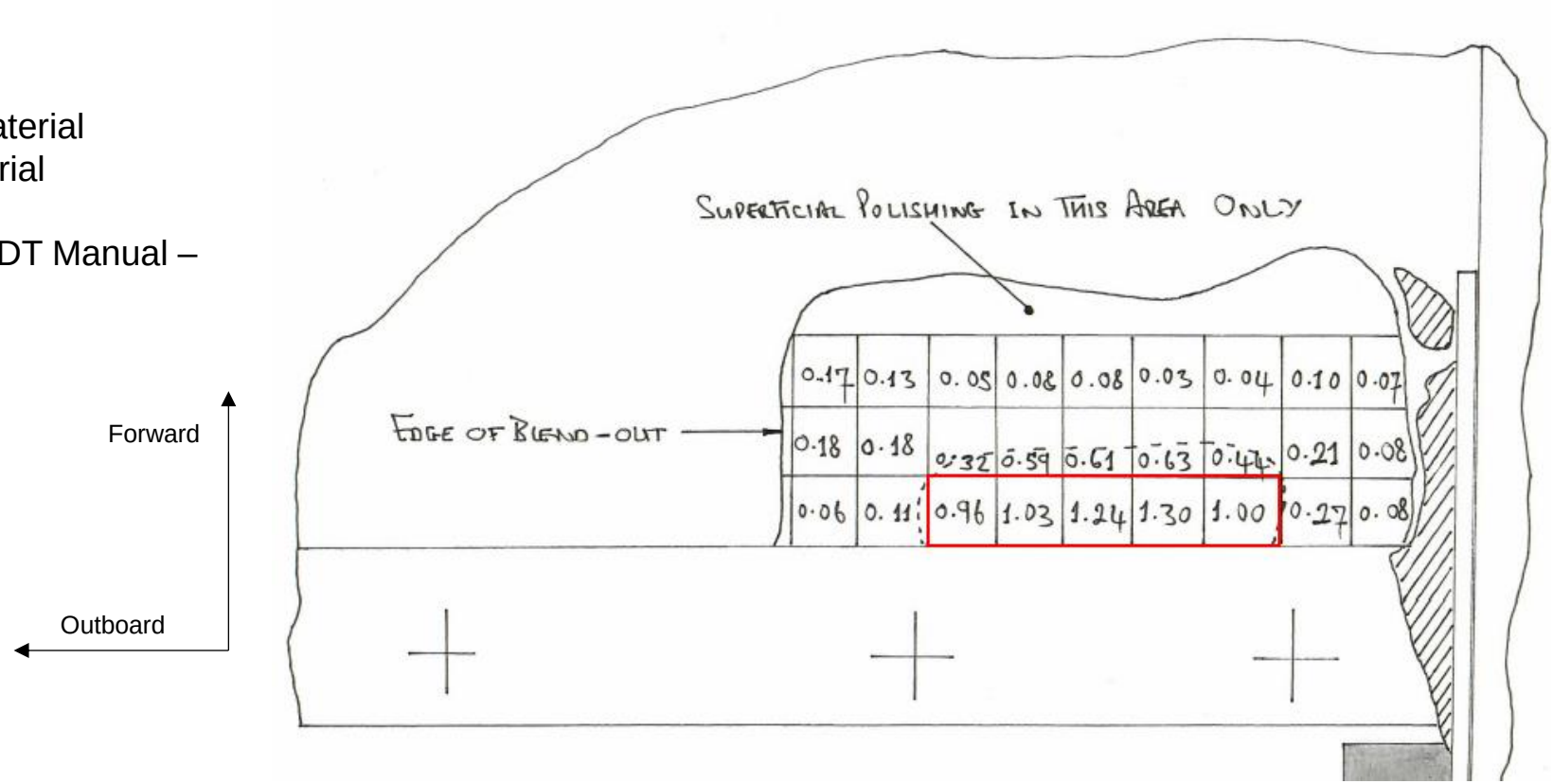


- Stringers, Ribs, etc. are well identified
- Indicate distance between damaged points
- include a scale for dimensions

EXAMPLE 1 - CORROSION

X-XXXX, DO228-XXX, S/N XXXX, S/N WING XXXX
R/H Wing Lower Panel, Adjacent to Rib 2 – Evidence of External Corrosion

- Indicate the significance of the measurements, e.g. remaining Material (recommended) or removed Material
- Include a scale for dimensions
- Indicate type of Inspection (see NDT Manual – ultrasonic inspection preferred)

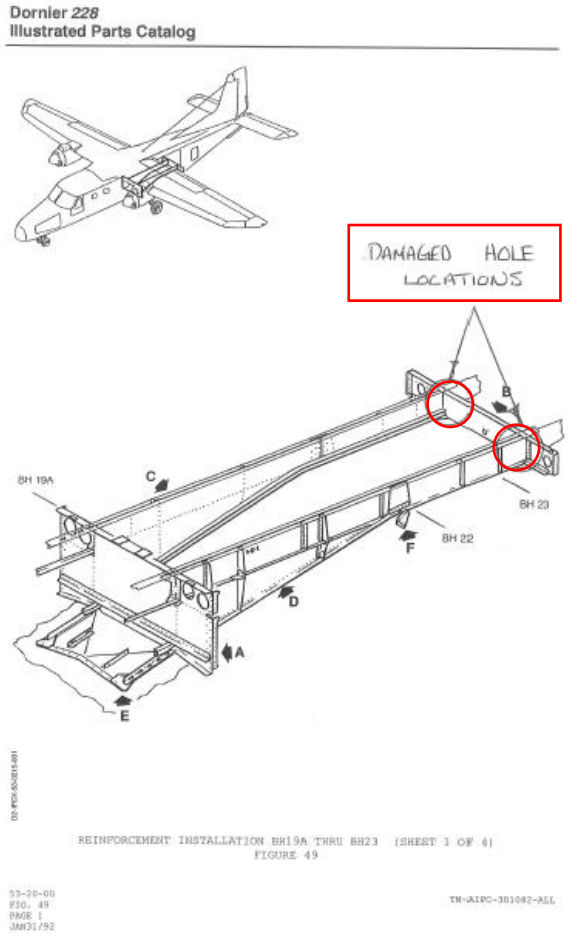


Depth Measurement performed with Digital Depth Micrometer
Dimensions in mm = **Material Removed**

EXAMPLES OF DAMAGE REPORTS

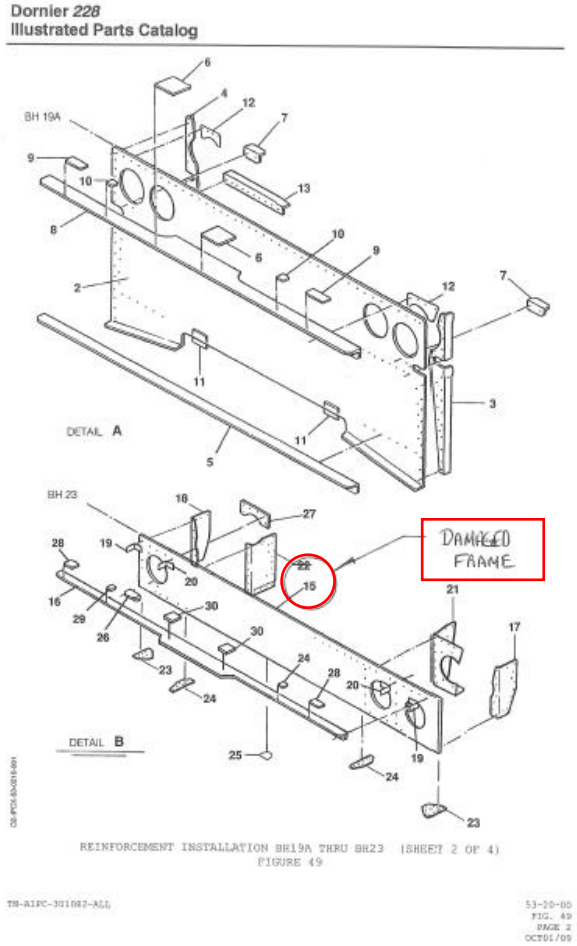
EXAMPLE 2 – CRACK / HOLE:

Damage location using AIPC

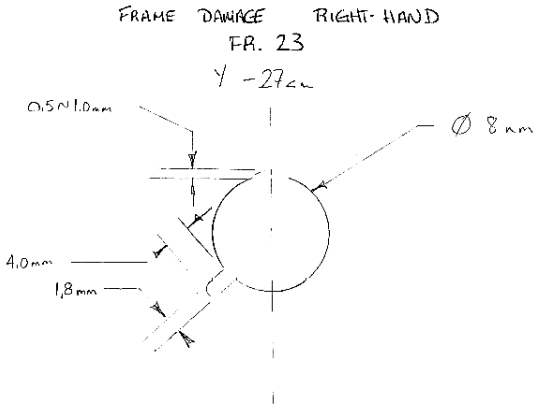


Registration X-XXXX, S/N XXXX

P/N _____



Damage location and size, close up



WE ARE READY TO SUPPORT YOUR MISSION:

ga-ats.com

SPR Guideline Rev. A – 20.03.2025