

Fitz's Atlas<sup>TM</sup> of coating defects



A comprehensive visual guide to  
coatings and application defects

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### PREFACE

The aim of this Atlas is to illustrate the range of coating and surface defects likely to be encountered, and give advice on probable causes, prevention and repair, it is not intended as a complete 'Do it yourself manual' for failure analysis. Use of this Manual will not make the user an "Instant Expert" on coating failures. Many coating failures need further evaluation and analyses to be carried out in conjunction with a qualified Chemist or Coating Specialist, often using specialised laboratory equipment.

With any coating failure, a process of elimination should be considered as the first course of action. This should take into account the type of failure; the environmental conditions; any unusual or unexpected variations from normal operating conditions; a check on application conditions to ensure these were within the accepted range for the coating system applied; was the surface preparation suitable for the type of coating system applied. The list of questions to be asked will depend on the type of failure and whether it occurred shortly after application of the coating system or much later in the life of the coating.

The first section of this Atlas includes a number of welding faults which may be encountered and which need to be addressed or corrected before application of any coating system. This is followed by a section on pre-surface conditions. Section four and five deal with surface preparation, giving guidance notes on dry abrasive blast cleaning and high pressure water "jetting" respectively.

Section six is the main pictorial reference of coating defects and includes a description of each defect, its probable causes, prevention and repair.

Section seven illustrates various types of marine fouling and finally, an appendix gives details of breakdown scales which will be useful to users in assessing the degree of breakdown and the potential areas, in need of repair. It also includes a quick reference guide to the characteristics of certain types of paint and paint compatibility.

Each of these sections have been compiled by coating specialists who understand paint coatings and their application and as such will provide a useful pictorial reference to all who use and encounter paint coatings/their defects and failures. We would welcome any other suggestions for future modules and any constructive criticisms of the present volume. All photographs and information contained within this document are intended for guidance. Where standards are referred to/these should be taken as the authoritative documents on the relevant subject matter. No responsibility can be taken for any problems which may arise as a result of the use of any information contained within this document.

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