

Doc. no: 0045-0001 V00	Doc. Type: <b>Course Outline</b>	Page: <b>1 of 4</b>
Created: 2012-11-29	Description: <b>Repair of Blades Level 3</b>	Language: GB
Reviewed: 2015-04-12	Blade type: All types in service	Issued by: OS

## Attendant profile

Attendant profile: WTG Service technicians

## Course duration

10 days, 74 lessons

## Pre-requisites for participation

To attend training course the participant must hold a certificate from one of the following:

- Global Blade Service Level 2
- Vestas basic training M7000
- Siemens Blade B

Alternatively same level of qualification gained from blade service in the field or from blade production.

Knowledge and skills must be proven by a qualification test prior to joining the course.

## Course outcome

To qualify and certify knowledge and skills of technicians to undertake service and repair work on various types of WTG blades in accordance to:

- Global Blade Service Standard
- Service instructions from OEM.

## Objectives

After the training, the participant will be able to:

- Define common root causes for defects, damages' and wear and tear.
- Understand information for service from:
  - Service Work Instructions
  - Technical Data Sheet
  - Production drawings
- Carry out repairs according to OEM service and repair work instructions
- Carry out repairs on blade structure for various types of blades Including:
  - Shell laminate and core all positions
  - Structural shell laminate
  - Spar and web laminate
  - Bonding of blade structure

- Reconstruction of lightning protection system
- Document service and repair work

## Training method

Theoretical training  
Practical exercises

## Success criteria

Minimum 80% correct answers on theoretical test  
Approval of practical test

## Training modules

### 1 Training information

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- Practical information on the training course
- Presentation of participants
- Reason for training
- Objectives for training course
- Success criteria

### 2 Blade construction

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- Materials for blades
- Stress on blades
- Various blade structures
- Test of materials and blades
- Terms and definitions

### 3 Prepreg

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## 4 Materials for blades

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## 5 Health and safety

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- Health risk from prepreg
- Health risk from fibre glass and carbon dust
- Personnel protective equipment
- Handling and storing chemicals on site
- Handling of waste

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## 6 Bonding

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## 7 Defects and damages

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## 8 Inspection and categorizing

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## 9 Documentation

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## 10 Repair technique

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## 11 Field repair

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## 12 Handling of blades

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## 13 Practical exercises

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## 14 Tests

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- Theoretical test representing objectives for training course
- Practical test representing skill level for training course