Introduction

The time calculations in this publication indicate the length of working time in connection with painting Volvo cars. The calculated time is expressed in such a way that it reflects as clearly as possible the repair in question and can be handled individually or in other connections, entirely depending on the repair work concerned.

The times presented in the list are expressed as periods (1 h = 10 periods).

The time needed for removing and refitting is not included in this working time length and should be added to it. The job values (JV) are based on the use of the Volvo service manual for painting.

Operations such as for example rustproofing and sealing/filling new spare parts must not be used. Rustproofing and sealing/filling shall only be used with a welded part or when surface straightening a part.

VOLVO
Volvo Car Corporation
Göteborg, Sweden
Conditions

The job values (JV) presented in this service manual are based on the following:

- high-quality bodywork repairs
- a spray booth and drying oven are available in the repair shop
- satisfactory working conditions
- satisfactory equipment for repair work
- well-equipped repair areas
- satisfactory ventilation

The following temperatures are recommended:
- repair shop: 18°C
- spray booth: 20-24°C
- drying oven: 80°C

Air humidity should not exceed 60%.

Recommended repair shop equipment
- Spray booth: with fresh-air intake and a working temperature of 20-24°C.
- Drying oven: with a capacity of one vehicle per hour.
- Compressor: with sufficient capacity for supplying multi-jet spray guns.
- Air filter: must be capable of separating oil and water even when forced spray liquids are used.
- Grinder: for coarse grinding, sanding, smoothing, etc.
- Polishing machines: for polishing.
- Heater: for increasing the viscosity of the paint.
- Surface grinder: with abrasive paper of different grades.
- Rack: for abrasive paper of different sizes.

Type codes

The sixth digit in the operation number is the type code. It is used for identifying the operating method when claims are processed.

Coding:

<table>
<thead>
<tr>
<th>Type code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Used in connection with exterior paint jobs. Comprises a complete job of work and can be used as a separate measure or in combination with other normal jobs and other supplementary measures.</td>
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<tr>
<td>3</td>
<td>Used for interior paint jobs. Not normally carried out as an individual measure. Used in combination with type code 2.</td>
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</tbody>
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Types of work

Type 1 (JV 1)
Surface layer – touch-up repairs.
Defects like thin paint, fogging, patchiness, inaccurate colour match, substandard touch-up repairs.

Work operations:
H Sanding
I Masking
K Application of finish paint
L Removal of masking, touching-up

Type 2 (JV 2)
Touching up: when the damaged area covers between 5% and 40% of the total surface.

Work operations:
M Unpacking material
A Sanding or buffing
B Primer
C Sanding (primer)
I Masking
K Application of finish paint
L Removal of masking, touching-up

Type 3 (JV 3)
Damage which necessitates grinding right down to the bare metal and where filler is needed to cover less than 25% of the surface. Also includes touch-up repairs that cover more than 40% of the total surface.

Work operations:
M Washing with oxalic acid
B Primer
C Sanding (primer)
D Filler, for coarsely sanded surfaces
E Sanding out light filler
F Application of primer
G Sanding out edges and primer
I Masking
K Application of finish paint
L Removal of masking, touching-up

Type 4 Parts (JV 4R)
Painting of new parts that have been damaged in transit and through handling. Damage that covers less than 5% of the surface. JV 4R also includes all necessary interior painting.

Work operations:
A Sanding or buffing
B Primer
C Sanding (primer)
D Filler, for coarsely sanded surfaces
E Sanding out light filler
F Application of primer
G Sanding out edges and primer
H Sanding
I Masking
K Application of finish paint
L Removal of masking, touching-up
Types of work

**Type 4 Welded parts (JV 4W)**

Painting of new parts that have been damaged in transit and through handling. Damage that covers less than 5% of the surface. JV 4W also includes all necessary interior painting.

Work operations:
A  Sanding or buffing  
B  Primer  
C  Sanding (primer)  
D  Filler, for coarsely sanded surfaces  
E  Sanding out light filler  
F  Application of primer  
G  Sanding out edges and primer  
H  Sanding  
I  Masking  
K  Application of finish paint  
L  Removal of masking, touching-up
Work description

A Sanding or Buffing

Work time
• Masking
• Sanding of body edges and other damage due to rust and flying stones
• Washing, drying and removal of sanding residue
• Primer

Contingency allowance:
• Moving vehicles
• Cleaning tools and equipment used for performing the repair. Also cleaning the workplace on completion of the repair work

Equipment:
• Masking with paper and tape
• Abrasive paper, no. 60-100
• Abrasive paper, no. 180-320
• Primer

B Primer

Work time
• Inspection/Drying
• Inspection/adjustment of masking
• Spray primer (twice)
• Drive vehicle into drying oven

Contingency allowance:
• Moving vehicles
• Cleaning tools and equipment used for performing the repair. Also cleaning the workplace on completion of the repair work

Equipment:
• Masking with paper and tape
• Primer
• Thinning

C Sanding, primer

Work time
• Drive vehicle out of drying oven
• Inspection/sanding out filler
• Sanding
• Drying and blowing clean
• Primer on all sanded surfaces
• Cleaning/drying of surrounding surfaces

Contingency allowance:
• Moving vehicles
• Cleaning tools and equipment used for performing the repair. Also cleaning the workplace on completion of the repair work

Equipment:
• Abrasive paper, no. 400-600
• Quick-drying primer
• Filler
**Work description**

**D Filler, for coarsely sanded surfaces**

**Work time**
- Masking
- Filling
- Sanding after each application
- Drying and blowing clean

**Contingency allowance:**
- Moving vehicles
- Cleaning tools and equipment used for performing the repair. Also cleaning the workplace on completion of the repair work

**Equipment:**
- Masking paper and tape
- Filler
- Abrasive paper, no. 180-240

**E Sanding out light filler**

**Work time**
- Inspection and application of light filler
- Sanding out
- Drying and blowing clean
- Application of primer on sanded surfaces
- Cleaning/drying of surrounding surfaces

**Contingency allowance:**
- Moving vehicles
- Cleaning tools and equipment used for performing the repair. Also cleaning the workplace on completion of the repair work

**Equipment:**
- Abrasive paper, no. 180-400
- Quick-drying primer
- Filler

**F Application of undercoat (primer)**

**Work time**
- Inspection/drying, surface
- Inspection/adjustment of masking
- Spray (twice)
- Drive vehicle into drying oven

**Contingency allowance:**
- Moving vehicles
- Cleaning tools and equipment used for performing the repair. Also cleaning the workplace on completion of the repair work

**Equipment:**
- Masking paper and tape
- Primer
- Thinning
G Flatting down, sealing compound

Work time
• Drive vehicle out of drying oven
• Inspection/sanding out of edges
• Sanding
• Drying and blowing clean
• Primer on all sanded surfaces
• Cleaning/drying of surrounding surfaces

Contingency allowance:
• Moving vehicles
• Cleaning tools and equipment used for performing the repair. Also cleaning the workplace on completion of the repair work

Equipment:
• Abrasive paper, no. 400-600
• Quick-drying primer
• Filler

H Sanding

Work time
• Masking
• Washing
• Sanding of surface or sanding of primer on new parts
• Drying and blowing clean

Contingency allowance:
• Moving vehicles
• Cleaning tools and equipment used for performing the repair. Also cleaning the workplace on completion of the repair work

Equipment:
• Masking paper and tape
• Abrasive paper, no. 60-100
• Abrasive paper, no. 320-400
• Petrol
• Cleaning agent (detergent)

I Masking

Work time
• Cleaning, drying and removal of sanding residue and scraps
• Masking and covering the vehicle in a suitable manner

Contingency allowance:
• Moving vehicles
• Cleaning up after completed repair

Equipment:
• Solvents
• Masking paper and tape
**Work description**

**K Application of finish paint**

**Work time**
- Inspection, surface
- Inspection/adjustment of masking
- Blow the vehicle clean, removing impurities with compressed air
- Drive the vehicle into the spray booth
- Cleaning, drying and removal of sanding residue and scraps
- Filling and filtering, paint
- Apply the prescribed number of paint coats
- Drive vehicle into drying oven
- Thoroughly clean the equipment and put it in the right place

**Contingency allowance:**
- Moving vehicles
- Fetch/return equipment
- Cleaning tools and equipment used for performing the repair. Also cleaning the workplace on completion of the repair work
- Adjust paint colour

**Equipment:**
- Masking paper and tape
- Petrol
- Clean rag
- Paint
- Thinning

**L Removal of masking, touching-up**

**Work time**
- Drive vehicle out of drying oven
- Inspect paint and colour
- Removal of masking
- Suitable touching-up repairs
- Inspect/clean tyres, windows and chromium-plated parts

**Contingency allowance:**
- Moving vehicles
- Cleaning tools and equipment used for performing the repair. Also cleaning the workplace on completion of the repair work

**Equipment:**
- Solvents
- Paint
M Washing with oxalic acid

Work time
- Masking
- Application, oxalic acid
- Sand paint and primer
- Washing (thinning)
- Sand-buffing
- Washing, drying and blowing clean

Contingency allowance:
- Moving vehicles
- Fetch/return equipment
- Cleaning tools and equipment used for performing the repair. Also cleaning the workplace on completion of the repair work

Equipment:
- Masking paper and tape
- Oxalic acid
- Thinning
- Abrasive paper, no. 60-100
- Abrasive paper, no. 180-240
- Petrol