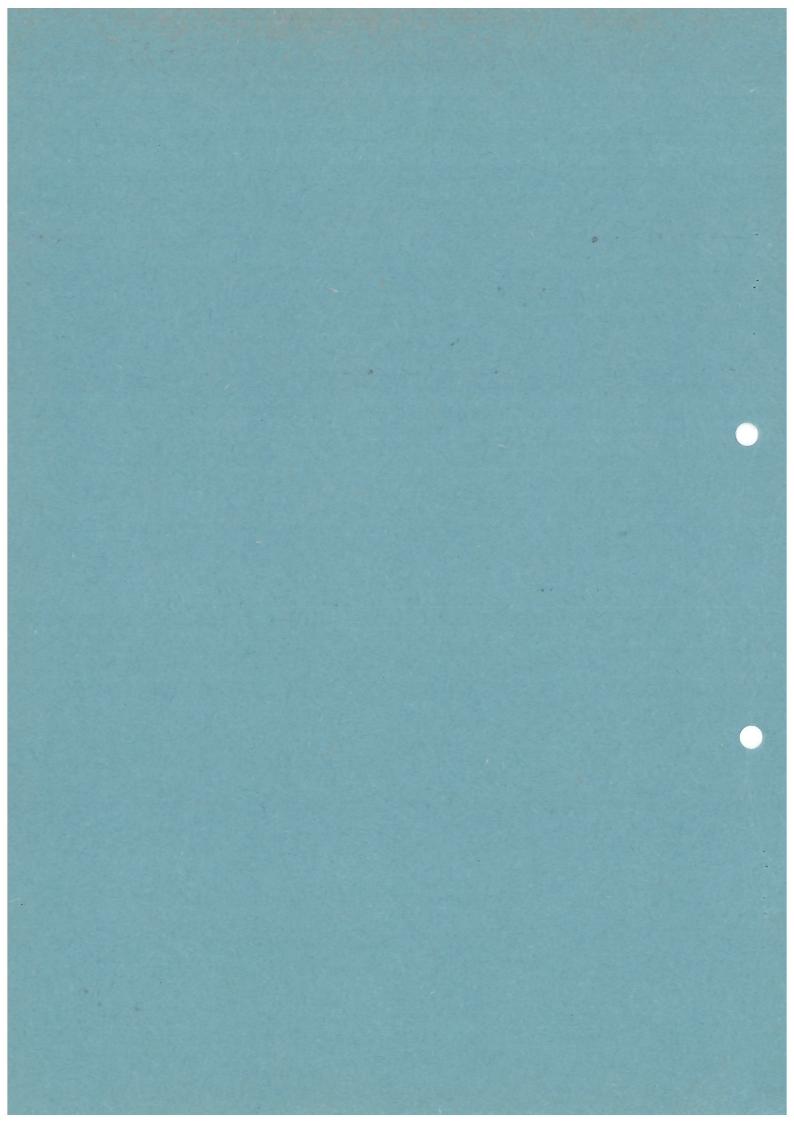
# British Railways Board

Mechanical & Electrical Engineer's Department

# **BODYSIDE WINDOW INSTALLATION**





PROCESS SPECIFICATION

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NO. CEPS 1029

BODYSIDE WINDOW INSTALLATION: PROCEDURE FOR

ASSEMBLY OF WINDOWS TO ALUMINIUM CLAD STEEL

FRAMED VEHICLES

June 1978

Issue 1

Chief Mechanical & Electrical Engineer British Railways Board Railway Technical Centre Derby

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The figure adjacent to the black line will indicate the amendment number registered.

#### GENERAL

This specification details the procedure to follow for the assembly of new bodyside windows and also their replacement after repairs.

#### REFERENCE

Framed window units should be supported when in transit and should be stored vertically, the edges protected by approved timber pallets.

### MATERIAL AND EQUIPMENT

- 1. Windows: Frames drilled by manufacturer to drilling template in accordance with applicable drawing dimensions.
- 2. Butyl rubber mastic, brushing grade, BR Catalogue 28/5313.
- 3. Fasteners to secure window frame to bodyside panels, as specified.
- 4. Suitable drilling machine and drill size to suit fastener.
- 5. Placing gun to suit type of fastener.

#### **PROCEDURE**

- 1. New Build.
- 2. Repair of damaged vehicles using new bodyside panels and existing window frame.
- 3. Replacement of damaged windows using existing bodyside panels and new window frames.
- Replacement of existing window in existing bodyside panels.
- 1. New Build
- 1.1 Select appropriate size window framed unit and remove any protective wrapping.
- 1.2 Prepare the panel aperture by fitting to suit window frame or master template, ensuring this is lined up correctly in the body.
- 1.3 The holes for securing the frame to the body are then drilled in the panel and body framing using the window frame, or drilling template if available, as drilling jig.
- 1.4 Remove window frame or drilling template and ensure that bodyside panels are free from burrs or loose drilling swarf.
- 1.5 Ensure that window frame is also free from burrs or any protrusions which could interfere with the bedding of frame to bodyside.

- 1.6 Apply coat of brushing grade mastic, BR Catalogue 28/5313, to bedding area around bodyside light aperture.
- 1.7 Place and clench the fasteners, ensuring that they are clean of compound. Any compound must be wiped off before attempting to clench the fastener.
- 1.8 Remove any surplus mastic from around the window frame and allow the mastic joint to become skin hard.
- 1.9 The complete assembly shall be painted in accordance with New Build Painting Schedule BR1.
- Repair of Damaged Vehicles using new bodyside panels and existing framing with existing window frame.
- 2.1 Before placing window frame in position and using the existing window securing holes in the bodyside framing, back drill these holes through the body panels.
- 2.2 Ensure that bodyside and window frame are free from burrs or any protrusion which could interfere with the bedding of frame to bodyside.
- 2.3 Apply a coat of brushing grade mastic, BR Catalogue No. 28/5313, to the bedding area around the light aperture.
- 2.4 Place and clench the fasteners ensuring that they are clean of mastic compound. Any compound must be wiped off before attempting to clench the fastener.
- 2.5 Remove any surplus mastic from around the window frame and allow the mastic joint to become skin hard.
- 2.6 The complete assembly shall then be painted in accordance with Maintenance Painting Schedule BR2.
- Repair of damage vehicles using existing bodyside panels and new window frames.
- 3.1 Temporarily secure the window frame in bodyside aperture through the existing fixing holes using 6 suitable bolts of appropriate length, and ensuring that the frame is set parallel in the body.
- 3.2a Where any misalignment of window frame holes to bodyside fixing holes exist which are less than 1 mm the holes may be lined up by using a nominal diameter reamer.
- 3.2b Where the misalignment is greater than 1 mm the hole in the window frame should be welded up, using approved BR processes, and the weld dressed flush. In these instances the holes plugged

- in the window frame should be back drilled through the holes in body frame and panel and countersunk to accept a nominal size fastener.
- 3.3 Remove the window frame and ensure that the bodyside panels are free from burrs or loose drilling swarf.
- 3.4 Ensure that the window frame is free from burrs or any protrusion which could interfere with the bedding of frame to bodyside.
- 3.5 Apply a coat of brushing grade mastic, BR Catalogue No. 28/5313, around the light aperture.
- 3.6 Place and clench the fasteners ensuring that they are clean of mastic compound. Any compound must be wiped off before attempting to clench the fastener.
- 3.7 Remove any surplus mastic from around the window frame and allow the mastic joint to become skin hard.
- 3.8 The complete assembly shall be repainted in accordance with Maintenance Painting Schedule BR2.
- 4. Replacement of Undamaged window in undamaged bodyside
- 4.1 Ensure that window frame and bodyside panel are free from burrs or any protrusion which could interfere with the bedding of frame to bodyside.
- 4.2 Apply a coat of brushing grade mastic, BR Catalogue 28/5313, around the light aperture.
- 4.3 Place and clench the fasteners ensuring that they are clean of mastic compound. Any compound must be wiped off before attempting to clench the fastener.
- 4.4 Remove any surplus mastic from around the window frame and allow the mastic joint to become skin hard.
- 4.5 The complete assembly shall be repainted in accordance with Maintenance Painting Schedule BR2.

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