

Crack Inspection

An inspection for cracks must be conducted after the weld zones of the aluminum alloy have been welded and after any bucking in aluminum alloy body frames has been straightened out.

A color contrast penetrant examination method is used for crack inspection.

- The penetrant method utilizes the capillary phenomenon of liquids. The test itself uses a liquid with a powerful penetration capability to check out the location of minute defects which are not visible to the naked eye.
- The color contrast penetrant method is a type of penetrant test which uses a penetrant solution containing coloring. A penetrant solution which contrasts strongly with the color of the developing solution is used to enable the lighter locations to be observed.

Method of application

Items used: penetrant solution, developing solution, washer

1. Wash the inspection surface with the washer.
2. Apply penetrant solution to the surface and allow the solution ample time to soak down inside the cracks.
3. Wash off any excess penetrant solution remaining on the surface.
4. Spread the developing solution and cracks will be clearly indicated.

NOTE:

- During these operations, be sure to follow the instructions for use given by the manufacturer of the color contrast penetration agent.
- Be careful of ventilation.

