

## **Guide for the Radiography of Welder Qualification Test Assemblies**

This guide provides basic instructions for the radiography of welder qualification test assemblies.

### **Test Assemblies**

Each test assembly consists of two steel plates joined longitudinally by a complete penetration groove weld.

### **Qualifications of Inspection Organizations**

Organizations performing radiography must be either:

- Certified to CSA Standard W178.1 in the Structural Product Category, which includes buildings, bridges, and/or industrial structures, machinery, cranes, and R & R vehicles, and in the Radiographic test method; or
- Accredited by the Standards Council of Canada as a testing laboratory in the radiographic test method.

### **Test Assembly Delivery**

Each shipment of test assemblies will be sent to the radiographer's facility prepaid and accompanied by CWB Form 624, "Laboratory Information". The "Form 624" contains an area marked "Lab Use Only". The radiographer need not complete this portion of the form.

Radiographers are responsible for receiving the test assemblies including the documentation to show date of receipt, quantity and type of plates as well as the original shipper and the plate markings.

### **Testing Procedure**

The radiographic procedure shall comply with clause 8.1.3 of CSA Standard W59-1989. The full test assembly length shall be radiographed.

The following identification must be placed on the test plates at the locations shown in Figure 1:

- company identification;
- welder's identification number;
- test assembly position;
- date of X-Ray;
- penetrameter(s) and shims when required.

The identification markings must appear on the radiograph. The company's identification, welder's identification number and test assembly position are obtained from the completed CWB Form 624 or from the test assembly. The backing and reinforcement are not to be removed unless the reinforcement surface irregularities or its juncture with the base metal would cause objectionable weld defects to be obscured in the radiograph.

The radiographer is responsible for the technique used in the exposure and the quality of the processed film.

## Disposal of Test Assemblies

The test assemblies are the property of the Canadian Welding Bureau and must be kept by the radiographer for a minimum of 30 days after exposure.

## Interpretation

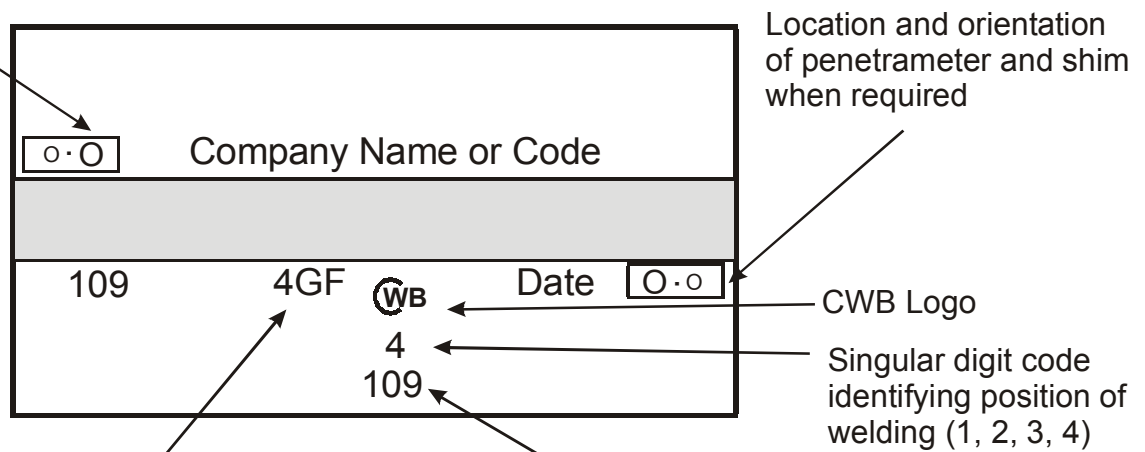
The radiographer is not responsible for film interpretation as this will be performed by the Canadian Welding Bureau.

## Documentation

The radiographer shall individually wrap each film and insert it in an envelope which is clearly marked on the outside with the number of films it contain, the identification numbers of each film, and the name of the source of the test plates.

Delivery of the films to the Canadian Welding Bureau is the responsibility of the radiographer.

Alternate location and orientation of penetrameter and shim when required



The position identification must be followed by the letter 'GF' except when indicated by the number 2, in which case the letter 'G' is used

3 or 4 digit numeric or alpha/numeric welder I.D. code

### **Test Plate Identification**

Note: All identification is stamped on square edge side of test assembly

\*\* If multiple test assemblies are together on a single film, the date identification may be placed on 1 test assembly

**FIGURE 1**