

Information Bulletin No. IB23-029

June 30, 2023

INTERPRETATION Permanent Tack Welds

This Information Bulletin replaces IB17-021 which is hereby withdrawn.

This Information Bulletin includes editorial corrections and changes to the tack welding limitation. The changes to the tack welding limitations align with the limitations in the AB-250 Pressure Tack Welder Examination Syllabus, and with ASME Section IX.

Subject

This Information Bulletin provides Interpretations of Sections 2(1), 3(4.1), 6 and 23 of the Pressure Welders Regulation (169/2002) with respect to tack welds which are not completely removed prior to the completion of construction of a boiler, pressure vessel, pressure piping system or fitting.

Information Bulletin IB23-028 provides interpretations regarding tack welds that are to be completely removed prior to the completion of welding.

Interpretations

Interpretation Section 2(1)

Section 2(1) “No person shall weld a boiler, pressure vessel, pressure piping system or fitting by any method, unless the person holds a certificate of competency, including a performance qualification card, that specifically authorizes the person to weld the pressure vessel, boiler, pressure piping system or fitting and authorizes the method used by the person.”

Tack welding on a boiler, pressure vessel, pressure piping system or fitting is considered as welding under Section 2(1), when the tack welds are not completely removed prior to depositing the final weld on the boiler, pressure vessel, pressure piping system or fitting. Tack welding that is not completely removed may be performed by a person holding a Pressure Welder Certificate of Competency and a performance qualification card that meets the additional requirements of ASME IX as required by the governing construction code.

The Pressure Tack Welder Certificate of Competency will be issued upon successful completion of the tack welding test described in ABSA’s Pressure Tack Welder Examination Syllabus (AB-250). An initial performance qualification card will be issued with the Pressure Tack Welder Certificate of Competency.

The holder of a Pressure Tack Welder Certificate of Competency may take additional qualifications tests, administered by a Testing Organization authorized under Section 21 of the Pressure Welders Regulation, in order to qualify in accordance with ASME Section IX as required by the governing construction code to deposit tack welds that may be incorporated into the final weldment.

Interpretation Section 3(4.1)

Section 3(4.1) “A Pressure Tack Welder Certificate of Competency permits the holder to engage in pressure tack welding subject to the limitations prescribed in this Regulation and described on the performance qualification card held by the holder.”

The following shall be indicated on the Pressure Tack Welder Certificate of Competency:

Welding is limited to:

- 1) Individual tack welds that do not exceed 3 Inches (76mm) in length.
- 2) The aggregate length of the root tack welds on circumferential joints in pipe and tube shall not exceed 25% of the weld circumference.

Interpretation Section 6

Section 6 “A performance qualification card must show all information required by the Administrator, including but not limited to: [items (a) through (I)]”

In addition to all of the information specified in Section 6 (a) through (I):

A performance qualification card issued to a Pressure Tack Welder Certificate of Competency holder must state “Tack Welds Only”.

Interpretation Section 23

Section 23 addresses identification of weldments.

Section 23(4) “For greater certainty, this section does not apply in respect of pressure tack welders”

To avoid conflict with the ASME Code, in lieu of unique tack weld identification, the manufacturer’s quality management system must include a procedure to permit inspectors to verify that tack welds that remain in place were made by a qualified welder.

Implementation

All Certificate of Authorization Permit (CAP) holders, whose scope of authorization includes welding, are required to have their quality management system adequately describes the control of persons who make temporary tack welds and permanent tack welds.

A CAP holder, who intends to use a Pressure Tack Welder, must obtain ABSA acceptance of their quality management system which shall include: the processes for managing the supervision and development of individuals performing tack welding; and a procedure to permit inspectors to verify that tack welds that remain in place were made by a qualified welder.

Background

Tack welds are small welds used to hold the parts in alignment in preparation for welding.

The Pressure Tack Welder Certificate of Competency has been established in recognition of the need to provide a more representative certification for persons, in the welding and fitter trades listed in the Pressure Welders Regulation, who only deposit tack welds that are incorporated into the final weld joint. The Pressure Tack Welder Examination Syllabus (AB-250) details a weld test that more closely represents the work tack welders perform. Pressure Tack Welders so qualified are authorized to continue developing their permanent tack welding skills and obtain additional qualifications per ASME IX as required by the governing construction code and as described in their employers registered quality management system.

A Pressure Tack Welder Certificate of Competency holder is permitted to take any type of performance qualification test that conforms to the requirements of ASME Section IX as required by the governing construction code and, once qualified, may weld within the limits of the qualified variables. However, the holder is limited to making welds that do not exceed the dimension limits stated on the certificate of competency.

<Original signed by>

Djordje Sronic, M.SC., P.Eng.
Administrator, Province of Alberta Pressure Equipment Safety
Chief Inspector, ABSA the pressure equipment safety authority