Figure A-8

Detail Illustrations Showing Application of PG-48 and PFT-27 to the Staying of Boilers

Min. (see PW-13)

Fillet weld (see PFT-11.3)

Min. \( r = 3t \)

\( t \) = nominal thickness of tubesheet

\( P = 3.2 \times \frac{t^2 s}{p^2} \)

(a-1)

P/2 + 2 in.

Full penetration weld (see PFT-11.4)

(see PW-11)

(b-1)

Door ring

Screwed staybolt with end riveted over (see PG-47)

Min. (see PW-13)

Fillet weld (see PFT-11.3)

\( P = C \times \frac{t^2 s}{p^2} \)

Min. \( r = 3t \)

C = 2.1 or 2.2

(b-2)

Door ring

Welded staybolt heads (see PW-19)

Full penetration weld (see PW-11.4)

p/2 + 2 in. (50 mm)

Full penetration weld (see PFT-11.4)

C = 2.1 or 2.2

(c)

Combustion chamber head

Boiler head

Full penetration weld (see PW-19)

Full penetration weld (see PW-19)

Full penetration weld (see PW-11.4)

Full penetration weld (see PW-11.4)

Boiler shell

Screwed staybolt with end riveted over (see PG-47)

C = 2.1 or 2.2

Min. \( r = 3t \)

\( P = C \times \frac{t^2 s}{p^2} \)
Figure A-8
Detail Illustrations Showing Application of PG-48 and PFT-27 to the Staying of Boilers (Cont’d)

(g-1)

Staybolt
See PG-48

Top of mudring

P

Mudring rivets

Example where rivets support sheet; not for unsupported lap joint

(g-2)

(see PW-11)

Full penetration weld (see PW-11.4)

Screwed staybolt with end riveted over (see PG-47)

\[ P = 2.2 \times \frac{t^2}{\beta^2} \times \left[ \frac{80}{\beta} \right]^2 \]

\( \beta \) = angularity of tangent lines in degrees

(h)
Figure A-8
Detail Illustrations Showing Application of PG-48 and PFT-27 to the Staying of Boilers (Cont’d)

(i) Weld in shear (see PW-19.1)
(2) Maximum pitch 15 times stay diameter (see PFT-27.4)
(3) Min. \( r = 3t \)
\( t = \) nominal thickness of tubesheet

(j) Weld in shear (see PW-19.1)
(2) Maximum pitch 15 times stay diameter (see PFT-27.4)
(3) Min. \( r = 3t \)
\( t = \) nominal thickness of tubesheet

(k) Weld in shear (see PW-19.1)
(2) Maximum pitch 15 times stay diameter (see PFT-27.4)

(l) Door Opening

(m) Door Opening or Mud Ring

(n) Door Opening or Mud Ring

(o) Full penetration weld may be applied from either or both sides of tubesheet

(p) Full penetration weld may be applied from either or both sides of tubesheet
Figure A-8
Detail Illustrations Showing Application of PG-48 and PFT-27 to the Staying of Boilers (Cont’d)

(1) Provide stay cross-sectional area required by PG-48 based upon allowable stresses from Section II, Part D, Subpart 1, Table 1A.

(2) Provide the number of stays required to not exceed the maximum calculated pitch.

(3) Diagonal stay stresses must not exceed limits computed from PFT-32.

GENERAL NOTE: “p” is same as given in PG-46.