

C = 65 for stays fitted with nuts inside and outside the plate and with washers securely riveted to the outside of the plate (washers of a diameter of two-thirds the pitch of the stays are to have a thickness of not less than two-thirds the thickness of the plate, and washers of a diameter of half the pitch of the stays are to have a thickness not less than that of the plate);

C = 45 for that portion of a riveted end plate, or the portion of a riveted and flanged end plate, adjoining the rivets or flange. The support of a riveted seam shall be assumed to be at the line through the centres of the rivets, and that of a flange at the commencement of curvature: Provided that, in the latter case, the support shall not be assumed to be at a greater distance from the inner side of the flange than two and a half times the thickness of the end plate.

The above values for C are to be used when the stays are pitched in squares, or nearly so.

Where the stays are irregularly pitched, or where only from one to three stays are fitted to a circular end plate, d^2 is to be used instead of p^2 , d being the diameter of the largest circle which can be drawn passing through the points of support. In such cases the value of C given for stays arranged in squares is to be doubled.

When portions of a plate are supported by stays secured in different ways, the value of C is to be taken as the mean of the values appropriate to the method of securing the stays.

23. *Flat Plates supported at the Edges only.*—The working-pressure to be allowed on flat plates supported at the edges only is to be calculated by the following formula:—

$$\text{W.P.} = \frac{120 \times t^2}{D^2}$$

where W.P. is the working-pressure in pounds per square inch;

t is the thickness of the end plate in thirty-seconds of an inch;

D is the diameter in inches of the circle passing through the centres of rivets or bolts securing the end to the shell, or, when the end is flanged, through the commencement of curvature.

The inside radius of curvature of the flange of flanged end plates must not be less than four times the thickness of the end plate, and in no case less than $2\frac{1}{2}$ in. Flat end plates exceeding 30 in. in diameter or 1 in. in thickness must be supported by stays.

24. *Flat End Plates welded into Cylindrical Shells.*—The working-pressure for flat end plates welded into cylindrical shells shall be calculated by the following formula:—

$$\text{W.P.} = \frac{72.5 \times t^2}{D^2}$$

where W.P. is the working-pressure in pounds per square inch;

t is the thickness of the flat plate in thirty-seconds of an inch;

D is the internal diameter in inches of the cylindrical shell.

Hemispherical End Plates.—The working-pressure for end plates completely hemispherical and not stayed shall be determined as follows:—

$$\text{W.P.} = \frac{t \times S \times J}{C \times R}$$

where t is the thickness of the end plate in thirty-seconds of an inch;

S is the minimum tensile strength of the steel end plates in tons per square inch;

J is the least calculated percentage strength of the riveted seams in the end plates;

C is a coefficient with the same values as given in Rule 13;

R is the inner radius of curvature of the end in inches.

25. *Dished End Plates.*—For ends of air-receivers dished to partial spherical form the following formula shall be used:—

$$\text{W.P.} = \frac{C \times t}{R}$$

where W.P. is the working-pressure in pounds per square inch;

C is a coefficient which is equal to 430 for ends with the pressure on the concave side and 340 for ends subject to pressure on the convex side;