VERIFICATION DATA FOR WATER JACKET TESTING

Date: 04/27/2020 Time: 5:29: Serial No. of Calibrated Cylinder: 123 Operator's Name: 213

METHOD A

Verification procedure using the Expansion Indicating Decive (EID) against Pressure Indicating Device

Expansion Reading @ Corresponding PSI	Expected Pressure Reading (PSI) (A)	Actual Pressure Reading @ Corresponding Expansion (B)	Permanent Expansion	Elastic Expansion	% Deviation
From Calibrated Cylinder Chart of Expansions		Reading from P.I.D.	Reading on EID after release of pressure	Difference Between Total and Permanent Expansion	$\frac{A-B}{A} \times 100 = {}^{0}/_{0}$

Example:

54.0	3000	3020	0	54.0	0.66%

Formula for percentage: $3000 - 3020 = -20 \div 3000 = -0.0066 \times 100 = 0.66\%$

Formula for elastic expansion value: 54.0 (expansion) - 0 (permanent expansion) = 54.0 (elastic expansion)

METHOD B

Verification procedure using the Pressure Indicating Device (PID) against Expansion Indicating Device (EID)

Pressure Reading @ Corresponding Expansion	Expected Expansion Reading (cc's) (A)	Actual Expansion Reading @ Corresponding Pressure (B)	Permanent Expansion	Elastic Expansion	% Deviation
From Calibrated Cylinder Chart of Expansions		Reading from E.I.D.	Reading on EID after release of pressure	Difference Between Total and Permanent Expansion	$\frac{A-B}{A} \times 100 = {}^{0}/_{0}$

Example:

3000	54.0	53.8	0	53.8	0.37%

Formula for percentage: $54.0 - 53.8 = 0.2 \div 54.0 = 0.0037 \times 100 = 0.37\%$

Formula for elastic expansion value: 53.8 (actual expansion) - 0 (permanent expansion) = 53.8 (elastic expansion)

Note: *Those using burette tubes can use either method. Those using a digital scale (weigh bowl) should use Method B.*

This form meets the requirements for recording of cylinder re-qualification under CFR Title49 § 180.215