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Correction

Correction: Wang et al. Parametric Formula for Stress Concentration Factor of Fillet Weld Joints with Spline Bead Profile. *Materials* 2020, *13*, 4639

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The authors wish to revise the following from pages 16–18 in the text of Appendix B [1] due to the presence of incorrect information.

The correct text is shown below:

Appendix B

Formulas for calculating SCFs for T-shape welded joint and cruciform welded joint under tensile and bending stress.

(1) T-shape welded joint under tensile stress:

$$K_t = 1 + 1.39418 \cdot f(r_1/t) \cdot f(\theta_1) \cdot f((r_1/t) \cdot (\theta_1)) \tag{A5}$$

where:

$$f(r_1/t) = 1.824174 \cdot (r_1/t)^{-0.145045} + 6.400210 \cdot (r_1/t)^3 - 6.802011 \cdot (r_1/t)^2 + 3.277059 \cdot (r_1/t) - 2.692331$$

$$f(\theta_1) = -2.778232 \times 10^{-1} \cdot (\pi - \theta_1)^3 + 1.531999 \cdot (\pi - \theta_1)^2 - 3.394907 \cdot (\pi - \theta_1) + 4.967130$$

$$f((r_1/t) \cdot (\theta_1)) = -1.001612 \times 10^1 \cdot ((r_1/t) \cdot (\pi - \theta_1))^3 + 1.279269 \times 10^1 \cdot ((r_1/t) \cdot (\pi - \theta_1))^2 + 5.761117 \cdot ((r_1/t) \cdot (\pi - \theta_1)) + 1.181649$$

(2) T-shape welded joint under bending stress:

$$K_t = 1 - 1.129553 \cdot f(T/t) \cdot f(r_1/t) \cdot f(\theta_1) \cdot f((r_1/t) \cdot (\theta_1)) \cdot f(L_1/t) \cdot f(L_2/t) \cdot f((L_1/t) \cdot (L_2/t)) \cdot f(H/t) \tag{A6}$$

where:

$$f(T/t) = -9.622916 \times 10^{-3} \cdot (T/t)^3 - 3.157009 \times 10^{-2} \cdot (T/t)^2 + 1.848086 \times 10^{-1} \cdot (T/t) + 2.433139$$

$$f(r_1/t) = 6.477191 \times 10^{-1} \cdot (r_1/t)^{-0.258620} + 2.860640 \cdot (r_1/t)^3 - 3.689862 \cdot (r_1/t)^2 + 2.089786 \cdot (r_1/t) - 1.238719$$

$$f(\theta_1) = 3.450624 \times 10^{-3} \cdot (\pi - \theta_1)^3 - 3.531382 \times 10^{-2} \cdot (\pi - \theta_1)^2 + 6.008736 \times 10^{-2} \cdot (\pi - \theta_1) + 8.576512 \times 10^{-2}$$

$$f((r_1/t) \cdot (\theta_1)) = 3.532021 \cdot ((r_1/t) \cdot (\pi - \theta_1))^{5.127981} - 8.442514 \cdot ((r_1/t) \cdot (\pi - \theta_1))^3 + 8.645182 \cdot ((r_1/t) \cdot (\pi - \theta_1))^2 + 1.481668 \cdot ((r_1/t) \cdot (\pi - \theta_1)) + 3.814145 \times 10^{-1}$$

$$f(L_1/t) = -1.140609 \times 10^1 \cdot (L_1/t)^{3.036113} + 7.436459 \times 10^{-2} \cdot (L_1/t)^4 + 1.188223 \times 10^1 \cdot (L_1/t)^3 - 8.150334 \times 10^{-1} \cdot (L_1/t)^2 + 2.933742 \times 10^{-1} \cdot (L_1/t) + 2.718308 \times 10^{-2}$$

$$f(L_2/t) = 1.919634 \times 10^1 \cdot (L_2/t)^{-0.1508265} - 7.315526 \times 10^{-1} \cdot (L_2/t)^4 + 4.967357 \cdot (L_2/t)^3 - 8.382442 \cdot (L_2/t)^2 - 5.482638 \cdot (L_2/t) + 4.359819 \times 10^1$$

$$f((L_1/t) \cdot (L_2/t)) = -1.823407 \times 10^{-1} \cdot ((L_1/t) \cdot (L_2/t))^3 + 1.469586 \cdot ((L_1/t) \cdot (L_2/t))^2 - 5.862377 \cdot ((L_1/t) \cdot (L_2/t)) - 8.301064$$

$$f(H/t) = -1.913752 \times 10^1 \cdot (H/t)^3 + 7.690410 \cdot (H/t)^2 - 5.994878 \times 10^{-1} \cdot (H/t) + 1.201826$$

(3) Cruciform welded joint under tensile stress:

$$K_t = 1 + 9.355385 \times 10^{-1} \cdot f(T/t) \cdot f(r_1/t) \cdot f(\theta_1) \cdot f((r_1/t) \cdot (\theta_1)) \cdot f(L_1/t) \cdot f(L_2/t) \cdot f((L_1/t) \cdot (L_2/t)) \cdot f(H/t) \quad \text{(A7)}$$

where:

$$f(T/t) = -4.241098 \times 10^{-1} \cdot (T/t)^3 + 1.392836 \cdot (T/t)^2 - 1.072866 \cdot (T/t) + 5.223873$$

$$f(r_1/t) = -2.214616 \cdot (r_1/t)^{0.5081972} + 3.365455 \cdot (r_1/t)^3 - 4.439046 \cdot (r_1/t)^2 + 3.726006 \cdot (r_1/t) + 4.033244 \times 10^{-1}$$

$$f(\theta_1) = -7.886656 \times 10^{-1} \cdot (\pi - \theta_1)^3 + 2.966534 \cdot (\pi - \theta_1)^2 - 5.878541 \cdot (\pi - \theta_1) + 1.772818 \times 10^1$$

$$f((r_1/t) \cdot (\theta_1)) = 1.557408 \cdot ((r_1/t) \cdot (\pi - \theta_1))^{-0.1158765} + 3.821716((r_1/t) \cdot (\pi - \theta_1))^3 - 5.354226 \cdot ((r_1/t) \cdot (\pi - \theta_1))^2 + 7.153383 \cdot ((r_1/t) \cdot (\pi - \theta_1)) - 1.529427$$

$$f(L_1/t) = 8.158610 \cdot (L_1/t)^{1.944849} - 1.90075 \times 10^{-2} \cdot (L_1/t)^4 + 2.021235 \times 10^{-1} \cdot (L_1/t)^3 - 7.977936 \cdot (L_1/t)^2 - 4.569099 \times 10^{-1} \cdot (L_1/t) + 1.108427 \times 10^{-1}$$

$$f(L_2/t) = 1.020926 \times 10^1 \cdot (L_2/t)^{0.09585178} + 3.856400 \times 10^{-1} \cdot (L_2/t)^4 - 2.432551 \cdot (L_2/t)^3 + 6.069561 \cdot (L_2/t)^2 - 8.045796 \cdot (L_2/t) - 5.364472$$

$$f((L_1/t) \cdot (L_2/t)) = -2.421137 \times 10^{-1} \cdot ((L_1/t) \cdot (L_2/t))^3 + 5.706142 \times 10^{-1} \cdot ((L_1/t) \cdot (L_2/t))^2 - 2.159502 \times 10^1 \cdot ((L_1/t) \cdot (L_2/t)) - 2.240262$$

$$f(H/t) = 4.996101 \cdot (H/t)^3 - 1.461031 \cdot (H/t)^2 - 1.874919 \times 10^{-1} \cdot (H/t) - 1.083093$$

(4) Cruciform welded joint under bending stress:

$$K_t = 1 + 1.20077 \cdot f(r_1/t) \cdot f(\theta_1) \cdot f((r_1/t) \cdot (\theta_1)) \cdot f(L_1/t) \cdot f(L_2/t) \cdot f((L_1/t) \cdot (L_2/t)) \quad \text{(A8)}$$

where:

$$f(r_1/t) = 1.245919 \cdot (r_1/t)^{-0.1788861} + 5.187295 \cdot (r_1/t)^3 - 5.888376 \cdot (r_1/t)^2 + 2.948041 \cdot (r_1/t) - 2.024161$$

$$f(\theta_1) = 4.518553 \times 10^{-1} \cdot (\pi - \theta_1)^3 - 4.169720 \cdot (\pi - \theta_1)^2 + 6.471859 \cdot (\pi - \theta_1) + 1.232356 \times 10^1$$

$$f((r_1/t) \cdot (\theta_1)) = 6.195167 \cdot ((r_1/t) \cdot (\pi - \theta_1))^{1.958767} + 2.102936 \times 10^{-1} \cdot ((r_1/t) \cdot (\pi - \theta_1))^3 - 6.258362 \cdot ((r_1/t) \cdot (\pi - \theta_1))^2 + 4.307112 \times 10^{-2} \cdot ((r_1/t) \cdot (\pi - \theta_1)) + 1.578839 \times 10^{-2}$$

$$f(L_1/t) = 1.069048 \times 10^{-1} \cdot (L_1/t)^3 + 4.896665 \times 10^{-1} \cdot (L_1/t)^2 - 3.181390 \cdot (L_1/t) + 1.187674 \times 10^1$$

$$f(L_2/t) = 6.217977 \cdot (L_2/t)^{2.938345} + 8.220848 \times 10^{-2} \cdot (L_2/t)^4 - 5.872895 \cdot (L_2/t)^3 - 5.835022 \times 10^{-1} \cdot (L_2/t)^2 + 1.809699 \times 10^{-1} \cdot (L_2/t) + 2.220297 \times 10^{-2}$$

$$f((L_1/t) \cdot (L_2/t)) = -9.639892 \times 10^{-2} \cdot ((L_1/t) \cdot (L_2/t))^3 - 2.213564 \times 10^{-1} \cdot ((L_1/t) \cdot (L_2/t))^2 + 5.660853 \cdot ((L_1/t) \cdot (L_2/t)) + 3.300823 \times 10^1$$

The previously given text is shown below:

Appendix B

Formulas for calculating SCFs for T-shape welded joint and cruciform welded joint under tensile and bending stress.

(1) T-shape welded joint under tensile stress:

$$K_t = 1 + 1.394 \cdot f(r_1/t) \cdot f(\theta_1) \cdot f((r_1/t) \cdot (\theta_1)) \tag{A5}$$

where:

$$f(r_1/t) = 1.824 \cdot (r_1/t)^{-0.145} + 6.400 \cdot (r_1/t)^3 - 6.802 \cdot (r_1/t)^2 + 3.277 \cdot (r_1/t) - 2.692$$

$$f(\theta_1) = -0.278 \cdot (\pi - \theta_1)^3 + 1.532 \cdot (\pi - \theta_1)^2 - 3.395 \cdot (\pi - \theta_1) + 4.967$$

$$\begin{aligned} f((r_1/t) \cdot (\theta_1)) = \; & -10.016 \cdot ((r_1/t) \cdot (\pi - \theta_1))^3 + 12.793 \cdot ((r_1/t) \cdot (\pi - \theta_1))^2 + \\ & 5.761 \cdot ((r_1/t) \cdot (\pi - \theta_1)) + 1.182 \end{aligned}$$

(2) T-shape welded joint under bending stress:

$$\begin{aligned} K_t = \; & 1 - 1.130 \cdot f(T/t) \cdot f(r_1/t) \cdot f(\theta_1) \cdot f((r_1/t) \cdot (\theta_1)) \cdot f(L_1/t) \cdot f(L_2/t) \cdot \\ & f((L_1/t) \cdot (L_2/t)) \cdot f(H/t) \end{aligned} \tag{A6}$$

where:

$$f(T/t) = -0.010 \cdot (T/t)^3 - 0.032 \cdot (T/t)^2 + 0.185 \cdot (T/t) + 2.433$$

$$f(r_1/t) = 0.648 \cdot (r_1/t)^{-0.259} + 2.861 \cdot (r_1/t)^3 - 3.690 \cdot (r_1/t)^2 + 2.090 \cdot (r_1/t) - 1.239$$

$$f(\theta_1) = 0.003 \cdot (\pi - \theta_1)^3 - 0.035 \cdot (\pi - \theta_1)^2 + 0.060 \cdot (\pi - \theta_1) + 0.086$$

$$\begin{aligned} f((r_1/t) \cdot (\theta_1)) = \; & 3.532 \cdot ((r_1/t) \cdot (\pi - \theta_1))^{5.128} - 8.443 \cdot ((r_1/t) \cdot (\pi - \theta_1))^3 + \\ & 8.645 \cdot ((r_1/t) \cdot (\pi - \theta_1))^2 + 1.482 \cdot ((r_1/t) \cdot (\pi - \theta_1)) + 0.381 \end{aligned}$$

$$f(L_1/t) = -11.406 \cdot (L_1/t)^{3.036} + 0.074 \cdot (L_1/t)^4 + 11.882 \cdot (L_1/t)^3 - 0.815 \cdot (L_1/t)^2 + 0.293 \cdot (L_1/t) + 0.027$$

$$f(L_2/t) = 19.196 \cdot (L_2/t)^{-0.151} - 0.732 \cdot (L_2/t)^4 + 4.967 \cdot (L_2/t)^3 - 8.382 \cdot (L_2/t)^2 - 5.483 \cdot (L_2/t) + 43.598$$

$$f((L_1/t) \cdot (L_2/t)) = -0.182 \cdot ((L_1/t) \cdot (L_2/t))^3 + 1.470 \cdot ((L_1/t) \cdot (L_2/t))^2 - 5.862 \cdot ((L_1/t) \cdot (L_2/t)) - 8.301$$

$$f(H/t) = -19.138 \cdot (H/t)^3 + 7.690 \cdot (H/t)^2 - 0.599 \cdot (H/t) + 1.202$$

(3) Cruciform welded joint under tensile stress:

$$\begin{aligned} K_t = \; & 1 + 0.936 \cdot f(T/t) \cdot f(r_1/t) \cdot f(\theta_1) \cdot f((r_1/t) \cdot (\theta_1)) \cdot f(L_1/t) \cdot f(L_2/t) \cdot \\ & f((L_1/t) \cdot (L_2/t)) \cdot f(H/t) \end{aligned} \tag{A7}$$

where:

$$f(T/t) = -0.424 \cdot (T/t)^3 + 1.393 \cdot (T/t)^2 - 1.073 \cdot (T/t) + 5.224$$

$$f(r_1/t) = -2.215 \cdot (r_1/t)^{0.508} + 3.365 \cdot (r_1/t)^3 - 4.439 \cdot (r_1/t)^2 + 3.726 \cdot (r_1/t) + 0.403$$

$$f(\theta_1) = -0.789 \cdot (\pi - \theta_1)^3 + 2.967 \cdot (\pi - \theta_1)^2 - 5.879 \cdot (\pi - \theta_1) + 17.728$$

$$\begin{aligned} f((r_1/t) \cdot (\theta_1)) = \; & 1.557 \cdot ((r_1/t) \cdot (\pi - \theta_1))^{-0.116} + 3.822 \cdot ((r_1/t) \cdot (\pi - \theta_1))^3 - 5.354 \cdot ((r_1/t) \cdot (\pi - \theta_1))^2 + \\ & 7.153 \cdot ((r_1/t) \cdot (\pi - \theta_1)) - 1.529 \end{aligned}$$

$$f(L_1/t) = 8.159 \cdot (L_1/t)^{1.945} - 0.019 \cdot (L_1/t)^4 + 0.202 \cdot (L_1/t)^3 - 7.978 \cdot (L_1/t)^2 - 0.457 \cdot (L_1/t) + 0.111$$

$$f(L_2/t) = 10.209 \cdot (L_2/t)^{0.096} + 0.386 \cdot (L_2/t)^4 - 2.433 \cdot (L_2/t)^3 + 6.070 \cdot (L_2/t)^2 - 8.046 \cdot (L_2/t) - 5.364$$

$$f(H/t) = 4.996 \cdot (H/t)^3 - 1.461 \cdot (H/t)^2 - 0.187 \cdot (H/t) - 1.083$$

$$f((L_1/t) \cdot (L_2/t)) = -0.242 \cdot ((L_1/t) \cdot (L_2/t))^3 + 0.571 \cdot ((L_1/t) \cdot (L_2/t))^2 - 21.595 \cdot ((L_1/t) \cdot (L_2/t)) - 2.240$$

(4) Cruciform welded joint under bending stress:

$$K_t = 1 + 1.201 \cdot f(r_1/t) \cdot f(\theta_1) \cdot f((r_1/t) \cdot (\theta_1)) \cdot f(L_1/t) \cdot f(L_2/t) \cdot f((L_1/t) \cdot (L_2/t)) \quad \text{(A8)}$$

where:

$$f(r_1/t) = 1.246 \cdot (r_1/t)^{-0.179} + 5.187 \cdot (r_1/t)^3 - 5.888 \cdot (r_1/t)^2 + 2.948 \cdot (r_1/t) - 2.024$$

$$f(\theta_1) = 0.452 \cdot (\pi - \theta_1)^3 - 4.170 \cdot (\pi - \theta_1)^2 + 6.472 \cdot (\pi - \theta_1) + 12.324$$

$$f((r_1/t) \cdot (\theta_1)) = 6.195 \cdot ((r_1/t) \cdot (\pi - \theta_1))^{1.959} + 0.210 \cdot ((r_1/t) \cdot (\pi - \theta_1))^3 - 6.258 \cdot ((r_1/t) \cdot (\pi - \theta_1))^2 + 0.043 \cdot ((r_1/t) \cdot (\pi - \theta_1)) + 0.016$$

$$f(L_1/t) = 0.107 \cdot (L_1/t)^3 + 0.490 \cdot (L_1/t)^2 - 3.181 \cdot (L_1/t) + 11.877$$

$$f(L_2/t) = 6.218 \cdot (L_2/t)^{2.938} + 0.082 \cdot (L_2/t)^4 - 5.873 \cdot (L_2/t)^3 - 0.584 \cdot (L_2/t)^2 + 0.181 \cdot (L_2/t) + 0.022$$

$$f((L_1/t) \cdot (L_2/t)) = -0.096 \cdot ((L_1/t) \cdot (L_2/t))^3 - 0.221 \cdot ((L_1/t) \cdot (L_2/t))^2 + 5.661 \cdot ((L_1/t) \cdot (L_2/t)) + 33.008$$

The authors would like to apologize for any inconvenience caused to the readers by these changes.

Reference

1. Wang, Y.; Luo, Y.; Tsutsumi, S. Parametric Formula for Stress Concentration Factor of Fillet Weld Joints with Spline Bead Profile. *Materials* **2020**, *13*, 4639. [CrossRef]