
ERRATA

Design Concepts for Jib Cranes

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On page 77, the general equations for torsional moments in segments 1, 2 and 3 should be replaced with the following:

$$M_{T(1)} = M_{T(3)} = M_T \left[1 - \frac{1}{1 + (A+B)/C} - \frac{1}{1 + (B+C)/A} \right]$$

$$M_{T(2)} = M_T \left[\frac{1}{1 + (A+B)/C} - \frac{1}{1 + (B+C)/A} \right]$$

On page 80, at the bottom of the right column, in the second equation for $M_{T(2)}$ the “= $M_{T(3)}$ ” term should be removed. The expression should read as follows:

$$M_{T(2)} = M_T \left[\frac{1}{1 + (L_e + B)/C} - \frac{1}{1 + (B + C)/L_e} \right]$$

This could be replaced with the simpler form:

$$M_{T(2)} = M_T \left[\frac{(L_e + C)}{(L_e + B + C)} \right]$$

On page 81, the equation for $M_{T(1)}$ should read as follows:

$$\begin{aligned} M_{T(1)} &= M_{T(3)} \\ &= 300[1 - 1/(1 + (66.26 + 8)/8) - 1/(1 + (8 + 8)/66.26)] \\ &= 29.18 \text{ in.-kip} \end{aligned}$$

On page 82, the equation for the stress in the HSS wall should read as follows:

$$f_t = 0.5T_w / [t_T(w + 5t_T)] \leq 0.66 F_y$$