PATTERSON-KELLEY CO.

P-K MACH SERIES C-750 BOILER

SEISMIC ANCHORAGE

WEIGHT = 650 LBS
HORIZONTAL FORCE (Eh) = 0.90W = 585 LBS
VERTICAL FORCE (Ev) = 0.40W = 260 LBS

BOLT FORCES:

TENSION (T)

\[
T_{\text{MAXIMUM}} = \left[ \frac{585 \times (28\% \times 15\%)}{38.6 \times 31\%} \right] \times 0.3 + \left[ \frac{585 \times (28\% \times 22.7\%)}{31 \times 38.6\%} \right] = \frac{(650 \times 0.9) - (260 \times 15\%)}{31 \times 38.6\%} = 281 \text{ LBS/BOLT (MAX)}
\]

SHEAR (V)

\[
V_{\text{MAXIMUM}} = \frac{585 \times (22.7\%)}{2 \times \text{bols}(38.6\%)} = 172 \text{ LBS/BOLT (MAX)}
\]

NOTE:
ENGINEER OF RECORD SHALL PROVIDE WALL STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN.
WEIGHT = 650 LBS
HORIZONTAL FORCE (E_h) = 144W = 936 LBS
VERTICAL FORCE (E_v) = 0.40W = 260 LBS

BOLT FORCES:

TENSION (T)

$$T_{\text{MAXIMUM}} = \left[ \frac{936\#(28''/15'')}{38.6''(31'')} \times (0.3) \right] + \frac{936\#(28''/22.7'')}{31''(38.6'')} - \frac{(650\#(0.9) - 260\#(15'')(22.7'')}{31''(38.6'')} = 504 \text{ LBS/BOLT (MAX)}$$

SHEAR (V)

$$V_{\text{MAXIMUM}} = \frac{936\#(22.7'')}{2\text{bolts}(38.6'')} = 275 \text{ LBS/BOLT (MAX)}$$

NOTE:
ENGINEER OF RECORD SHALL PROVIDE WALL STRUCTURE DESIGN TO SUPPORT WEIGHTS AND FORCES SHOWN.