

روش گریسنامورقی برای محاسبه ضعیف‌ترین ورق

$$M = 37 \text{ Ton-m} \quad V = 10 \text{ Ton}$$

$$T = 3700 / 71.2 = 52 \text{ Ton}$$

(H.S.B) 8.8 جی =

$$A_b = 52000 / (0.38 \times 80000) = 17 \text{ cm}^2$$

4M24 (A = 18.1 cm²) Top

2M24 Bot.

$$f_t = 52000 / 18.1 = 2873 \text{ Kg/cm}^2$$

$$f_v = 10000 / (6 \times 4.52) = 369 \text{ Kg/cm}^2$$

$$F'_v = 0.55 F_u \left(1 - \frac{f_t}{0.55 F_u} \right)$$

$$F'_u = 1200 \left(1 - \frac{2873}{4400} \right) = 416 \text{ Kg/cm}^2$$

$$369 < 416 \text{ Kg/cm}^2 \therefore \text{O.K.}$$

محاسبه ورق (تنها با روش گریسنامورقی):

$$c_b = \sqrt{250 / 285} = 0.94$$

$$C_a = 1.13$$

$$b' = 5 - \frac{1}{4} (2.4) = 4.4 \text{ cm}$$

$$d_m = 1.13 \times 0.94 \left(\frac{25 \times 1.2}{70 \times 8} \right)^{1/3} \left(\frac{4.4}{2.4} \right)^{1/4} = 1$$

$$M_e = 1 \times 52000 \times 4.4 / 4 = 57200 \text{ Kg-cm}$$

$$t_p = \sqrt{\frac{6 \times 57200}{28.5 \times 1800}} = 2.6 \text{ cm} \quad \text{USE } \angle 850 \times 250 \times 25 \text{ mm}$$

