

$$-F_{A12} \cdot \frac{d_1}{2} - F_{R12} \cdot a + B_z \cdot (a + b) = 0 \text{ solve, } B_z \rightarrow \frac{1}{2} \cdot \frac{F_{A12} \cdot d_1 + 2 \cdot F_{R12} \cdot a}{a + b}$$

$$M_{\text{Nenn}} := 1018.59 \text{ N} \cdot \text{m} \quad M_{\text{Max}} := 1324.17 \text{ N} \cdot \text{m} \quad d_1 := 250 \text{ mm} \quad \alpha_n := 20 \text{ deg} \quad \beta := 30 \text{ deg}$$

$$F_{T12} := 2 \cdot \frac{M_{\text{Max}}}{d_1} \quad F_{A12} := F_{T12} \cdot \tan(\beta) \quad F_{R12} := F_{T12} \cdot \frac{\tan(\alpha_n)}{\cos(\beta)}$$

$$b_1 := 30 \text{ mm} \quad a := 25 \text{ mm} + \frac{b_1}{2} \quad b := 49.5 \text{ mm} + \frac{b_1}{2}$$

$$B_z := \frac{1}{2} \cdot \frac{F_{A12} \cdot d_1 + 2 \cdot F_{R12} \cdot a}{a + b} \quad B_z = 9020.053 \text{ N}$$