6.70 $F_{Ax} = -7$ kN, $F_{Ay} = 0$, $F_{Az} = -6$ kN, $M_{Ax} = 210$ kN·cm, $M_{Ay} = 540$ kN·cm,

         $M_{Az} = 0$, $M_{x1} = 0$, $T_2 = M_{x2} = 210$ kN·cm, $M_{Dy1} = -210$ kN·cm,

         $M_{Cy2} = -300$ kN·cm, $M_{z3} = -210$ kN·cm, $M_{x3} = 0$, $M_{By3} = 180$ kN·cm

         $M_{z4} = 0$, $T_4 = M_{x4} = -210$ kN·cm, $M_{By4} = -180$ kN·cm, $M_{Ay4} = -540$ kN·cm.

6.71 $F_{Ax} = -2F$, $F_{Ay} = -F$, $F_{Az} = -2F$, $M_{Ax} = 2Fa$, $M_{Ay} = 3Fa$, $M_{Az} = -2Fa$.

         $M_{x1} = 0$, $T_2 = M_{x2} = Fa$, $M_{By2} = 2Fa$, $T_3 = M_{x3} = 2Fa$, $M_{By3} = Fa$,

         $M_{Bz2} = M_{Bz3} = 0$, $M_{Cy1} = -Fa$, $M_{Cz1} = Fa$, $M_{Cy2} = -Fa$, $M_{Cz2} = 0$.

6.72 $F_{Ax} = -167$ kN, $F_{Ay} = -15$ kN, $F_{Az} = -7$ kN, $M_{Ax} = 1470$ kN·cm,

         $M_{Ay} = 1400$ kN·cm, $M_{Az} = -1320$ kN·cm , $M_{x1} = 0$, $T_2 = M_{x2} = 560$ kN·cm,

         $M_{Cy1} = -1050$ kN·cm, $M_{Cz1} = -560$ kN·cm, $M_{By2} = -1470$ kN·cm,

         $M_{Bz2} = -480$ kN·cm, $T_3 = M_{x3} = -1470$ kN·cm, $M_{By3} = -560$ kN·cm,

         $M_{Bz3} = -480$ kN·cm, $M_{Ay3} = -1400$ kN·cm, $M_{Az3} = 1320$ kN·cm.

6.73 $F = 12$ kN, $F_{Ay} = 8$ kN, $F_{Az} = -8$ kN, $F_{By} = 4$ kN, $F_{Bz} = -16$ kN,

         $T = M_{Ex} = M_{Bx} = M_{Dx} = M_{Cx} = 1200$ N·m, $M_{Cz} = -2400$ N·m, $M_{Dz} = -1200$ N·m,

         $M_{Cy} = 2400$ N·m, $M_{Dy} = 4800$ N·m.

6.74 $F_{Ax} = 10$ kN, $F_{Ay} = 1{,}333$ kN, $F_{Az} = -1{,}333$ kN, $F_{By} = -1{,}333$ kN ,

         $F_{Bz} = -6{,}667$ kN , $T = M_{Cx} = M_{Bx} = M_{Dx} = 1200$ N·m, $M_{Ax} = 0$,

         $M_{Dz} = M_{Bz} = 600$ N·m , $M_{By} = -1200$ N·m ,

         $\left(M_{Cz}\right)_L = -400$ N·m, $\left(M_{Cz}\right)_D = 200$ N·m, $M_{Cy} = 400$ N·m.

6.75 $F_{Ax} = 185$ N, $F_{Ay} = 257$ N, $F_{Az} = -604{,}5$ N, $F_{By} = -737$ N, $F_{Bz} = -865{,}5$ N,

         $F_{o2} = 1{,}28$ kN, $T_{C-D} = M_{Cx} = M_{Dx} = 160$ N·m, $M_{Cz} = -36$ N·m,

         $\left(M_{Cy}\right)_L = 84{,}63$ N·m, $\left(M_{Cy}\right)_D = 47{,}63$ N·m, $M_{Dy} = 130$ N·m, $M_{Dz} = 111$ N·m.

6.76 $F = 10$ kN, $F_{Ay} = 13{,}333$ kN, $F_{Az} = 1{,}667$ kN, $F_{Ax} = 10$ kN,

         $F_{By} = 6{,}667$ kN, $F_{Bz} = 8{,}333$ kN, $T = M_{Ex} = M_{Bx} = M_{Cx} = M_{Dx} = 1500$ N·m,

         $M_{Ax} = 0$, $M_{Cz} = -4000$ N·m, $M_{Dz} = -2000$ N·m,

         $\left(M_{Cy}\right)_L = -500$ N·m, $\left(M_{Cy}\right)_D = -2000$ N·m, $M_{Dy} = -2500$ N·m.

7.1 TEŽIŠTE

7.1 $V = 7{,}75$ m³, $x_S = 1{,}839$ m, $y_S = 0{,}875$ m, $z_S = 0{,}637$ m.

7.2 $V = 18720$ cm³, $x_S = 12$ cm, $y_S = 13{,}85$ cm, $z_S = 13{,}23$ cm.

7.3 $V = 0{,}245$ m³, $x_S = 0{,}773$ m.

7.4 $h = r\sqrt{3}$.

7.5 $h = \dfrac{r}{3}\left(4 - \sqrt{7}\right) \approx 0{,}4514r$.