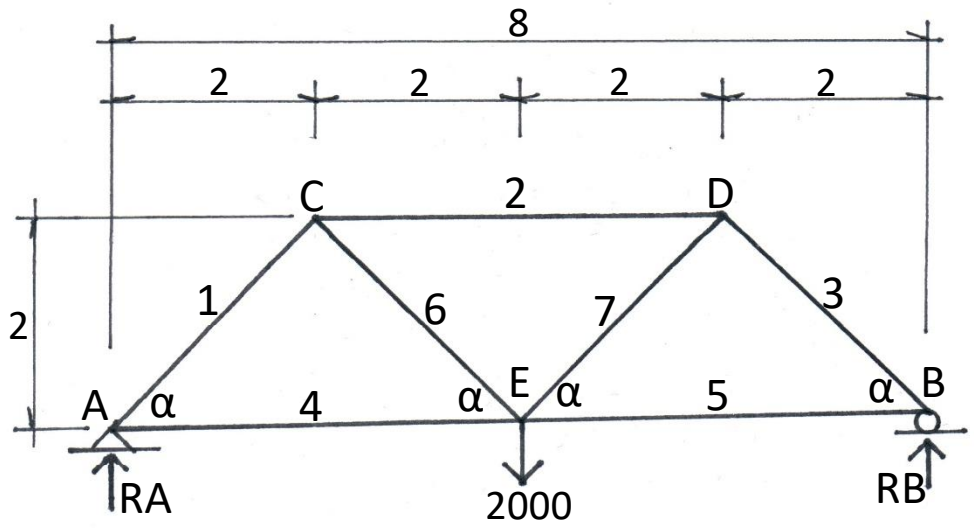
8.3 Metode “RITER”

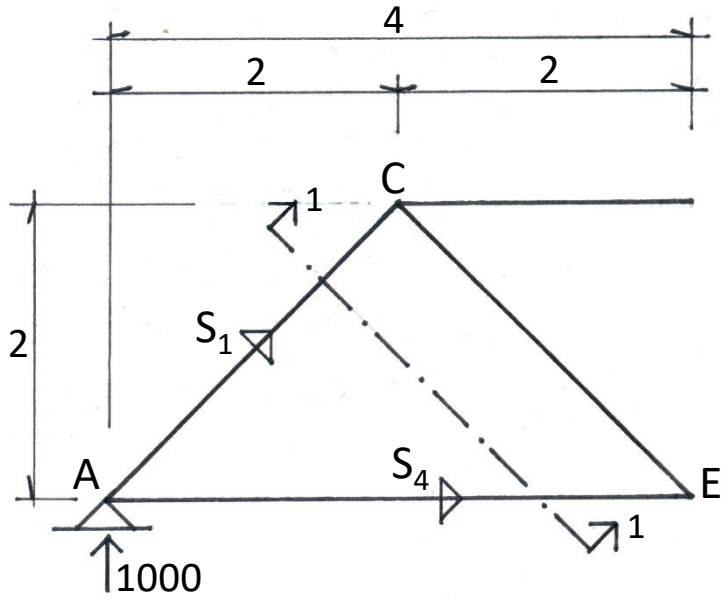
8.3.1 Hitung gaya-gaya batang dengan metode riter.



α = 45°

RA = RB = 0,5. 2000 = 1000 kg

Potongan : 1 - 1

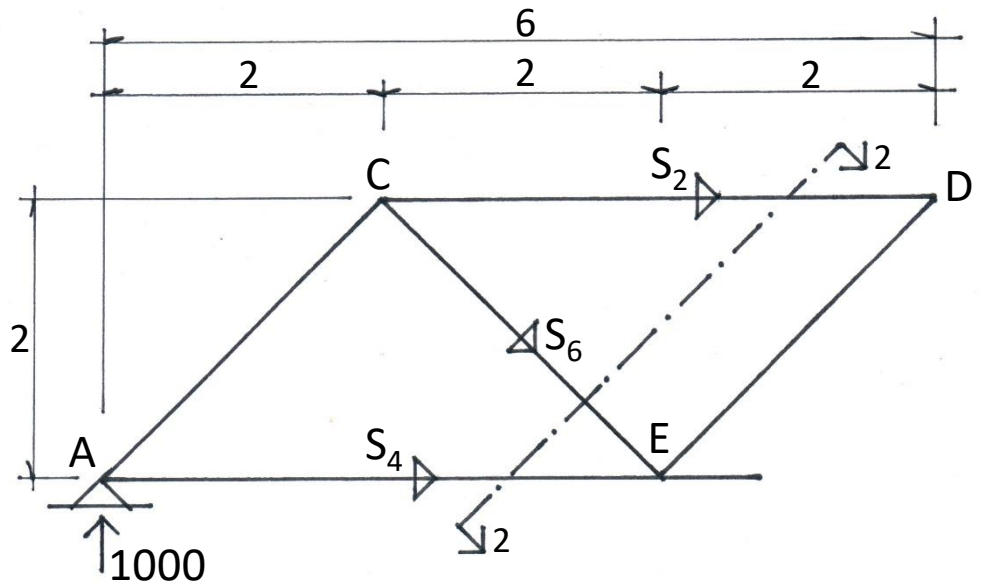


$\Sigma ME = 0 \rightarrow 1000.\ 4 + S_1.\ 2{,}8 = 0$

$2{,}8\ S_1 = -\ 4000 \rightarrow$ **$S_1 = -\ 1429$ kg (tekan)**

$\Sigma MC = 0 \rightarrow 1000.\ 2 - S_4.\ 2 = 0$

$2\ S_4 = 2000 \rightarrow$ **$S_4 = 1000$ kg (tarik)**



Potongan : 2 - 2

$\Sigma ME = 0 \rightarrow 1000.\ 4 + S_2.\ 2 = 0$

$2\ S_2 = -\ 4000$

S_2 = - 2000 kg (tekan)

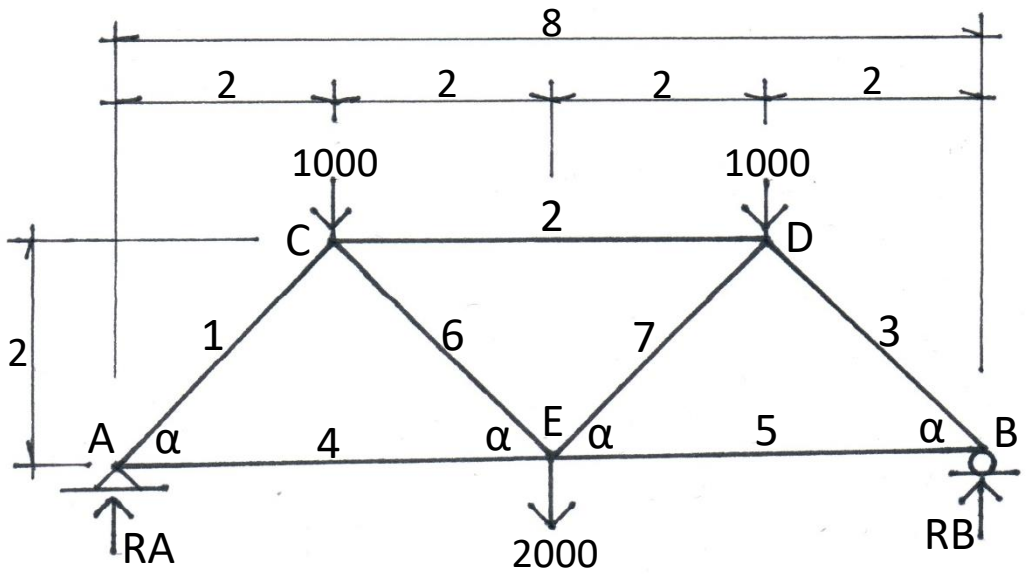
$\Sigma MD = 0 \rightarrow 1000.\ 6 - S_4.\ 2 - S_6.\ 2{,}8 = 0$

$6000 - 1000.\ 2 - 2{,}8\ S_6 = 0$

$2{,}8\ S_6 = 4000$

S_6 = 1429 kg (tarik)

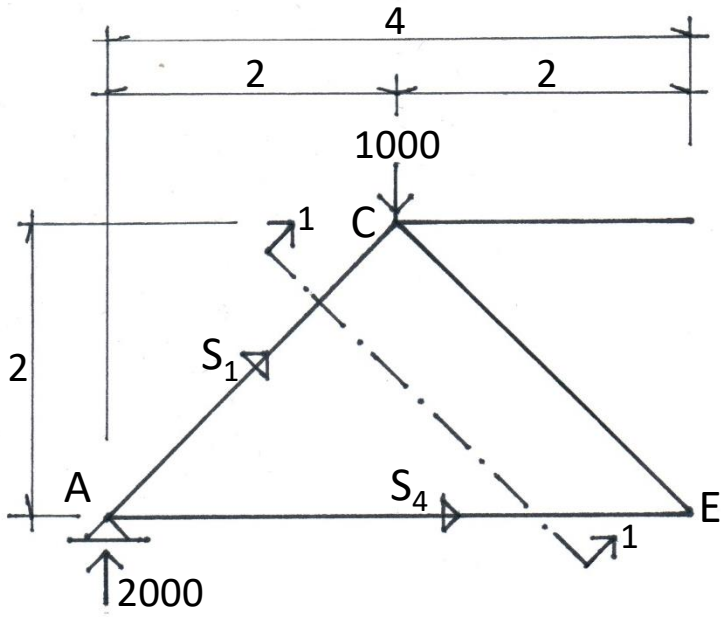
8.3.2 Hitung gaya-gaya batang dengan metode Riter.



$\alpha = 45^o$

RA = RB = 1000 + 0,5. 2000 = 2000 kg

Potongan : 1 - 1



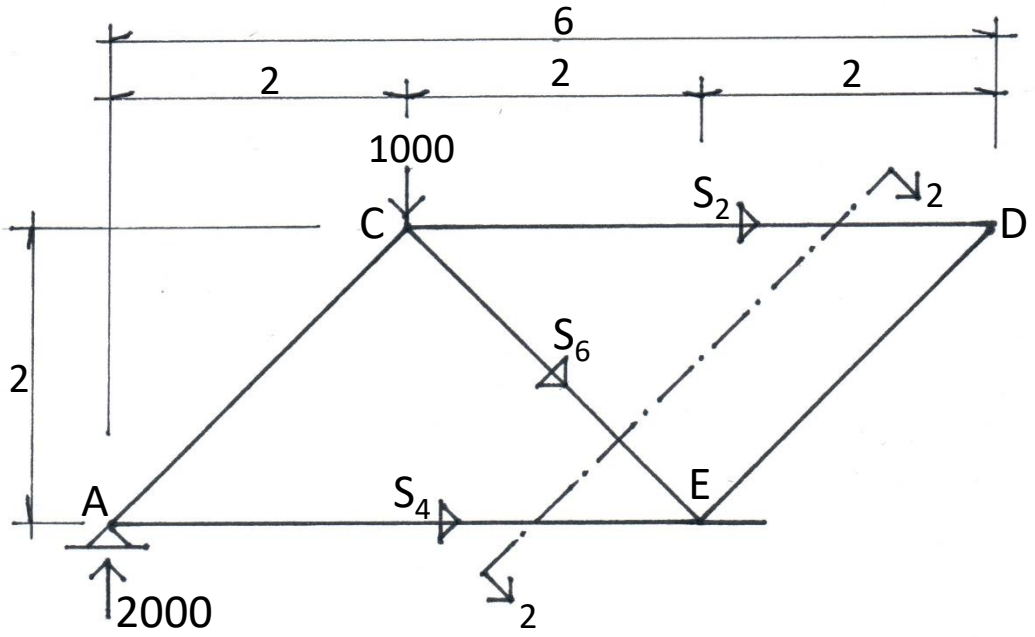
$\Sigma ME = 0 \rightarrow 2000.\ 4 + S_1.\ 2{,}8 = 0 \rightarrow 2{,}8\ S_1 = -\ 8000$

S_1 = - 2857 kg (tekan)

$\Sigma MC = 0 \rightarrow 2000.\ 2 - S_4.\ 2 = 0 \rightarrow 2\ S_4 = 4000$

S_4 = 2000 kg (tarik)

Potongan : 2 – 2



$\Sigma ME = 0 \rightarrow 2000.\ 4 + S_2.\ 2 - 1000.\ 2 = 0$

$8000 + 2\ S_2 - 2000 = 0$

$2\ S_2 = -\ 6000$

S_2 = - 3000 kg (tekan)

$\Sigma MD = 0 \rightarrow 2000.\ 6 - 1000.\ 4 - S_4.\ 2 - S_6.\ 2{,}8 = 0$

$12000 - 4000 - 2000.\ 2 - 2{,}8\ S_6 = 0$

$2{,}8\ S_6 = 4000$

S_6 = 1428 kg (tarik)

DAFTAR ISI