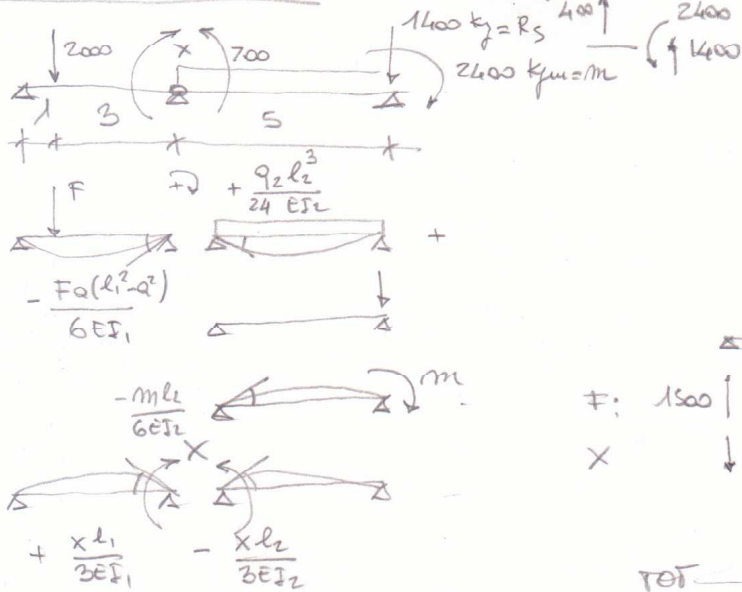


ISOSTATICA ASSOCIATA



EQUAZIONE DI CONGRUENZA

$\phi_{BS} = \phi_{BD}$

$$\frac{-Fa(l_1^2 - a^2)}{6EI_1} + \frac{x l_1}{3EI_1} = \frac{+q_2 l_2^3}{24EI_1} - \frac{m l_2}{6EI_2} - \frac{x l_2}{3EI_2}$$

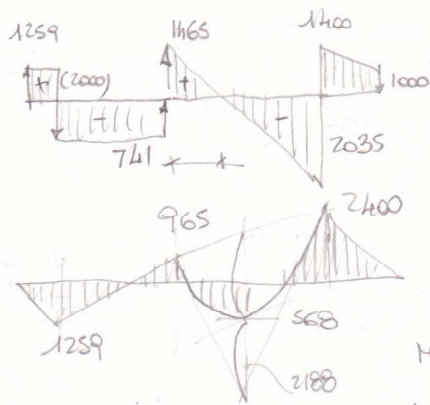
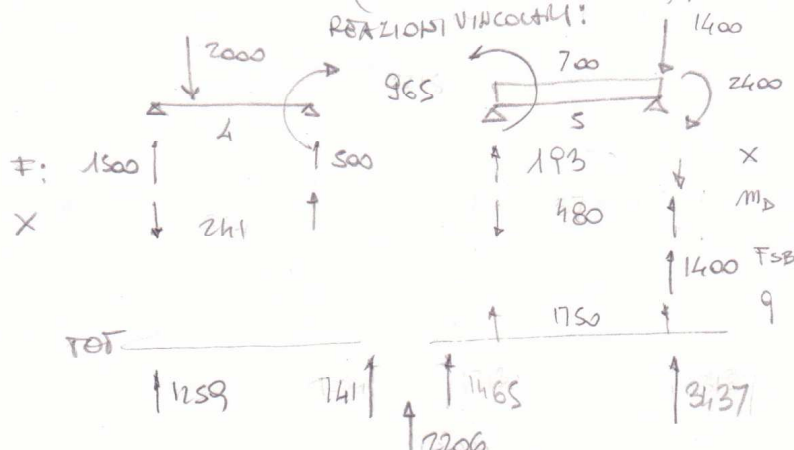
$EI_1 = EI_2 = EI$

$$-\frac{2000(16 - 1)}{24} + x \cdot 4 = \frac{700 \cdot 5^3}{8} - \frac{2400 \cdot 5}{2} - x \cdot 5$$

$$9x = \frac{700 \cdot 125}{8} - 1200 \cdot 5 + \frac{15000}{4}$$

$$x = \frac{(10938 - 6000 + 3750)}{9} = 965 \text{ gmm}$$

REAZIONI VINCOLATI:

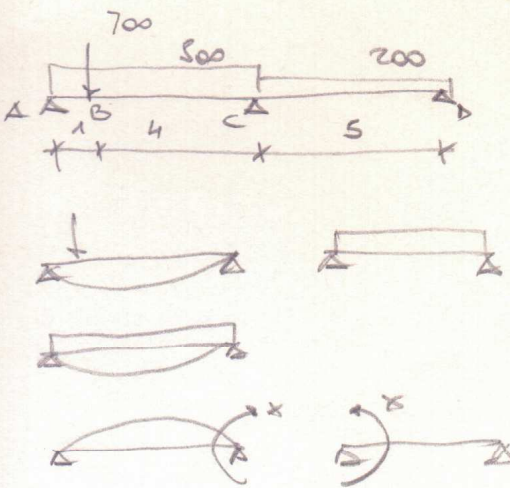


$x_T = 0 = \frac{1465}{700} = 2.09 \text{ m}$

$M_{MAX} = \frac{1165^2}{1400} - 965 = 568 \text{ kgm}$

$M(x) = -965 + 1465x - 350x^2$

$M(2.09) = 568 \text{ kgm}$



EQUAZIONE DI CONGRUENZA

$$\phi_{CS} = \phi_{CD}$$

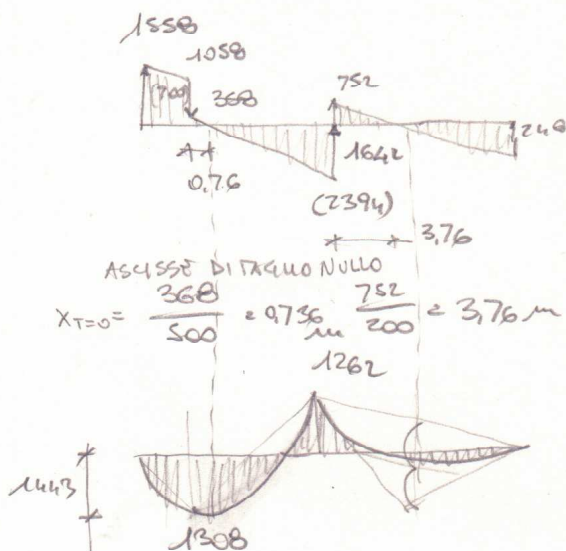
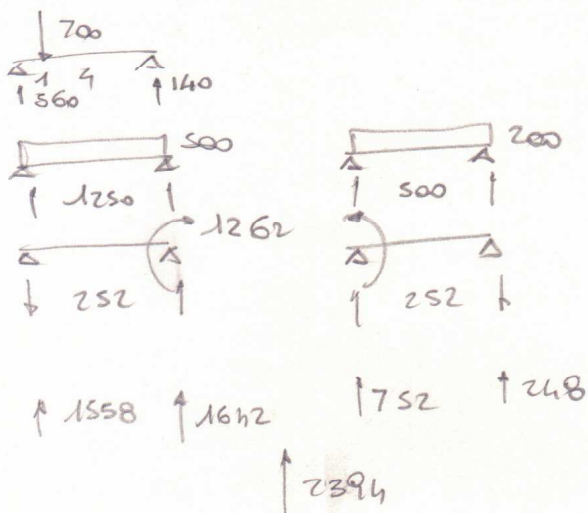
$$\phi_{CS} = -\frac{700 \times 1(2s-1)}{6 \times s} - \frac{500 \times s^3}{24} + \frac{x \cdot s}{3}$$

$$\phi_{CD} = +\frac{200 \times 5^3}{24} - \frac{x \cdot 5}{3}$$

$$-560 - 2604 + \frac{x \cdot 5}{3} = +1042 - \frac{x \cdot 5}{3}$$

$$x \cdot \frac{10}{3} = 4206$$

$$x = \frac{4206 \times 3}{10} = 1262 \text{ kgm}$$



$$M_B = 1558 \times 1 - 500 \times 1^2 / 2 = 1308 \text{ kgm}$$

$$M_{MAX1} = +1308 + 368 \times 0.76 - 500 \times 0.76^2 / 2 = 1443 \text{ kgm}$$

$$= \frac{368^2}{1000} + 1308 = 1443 \text{ kgm}$$

$$M_{MAX2} = -1262 + \frac{752^2}{400} = 152 \text{ kgm}$$