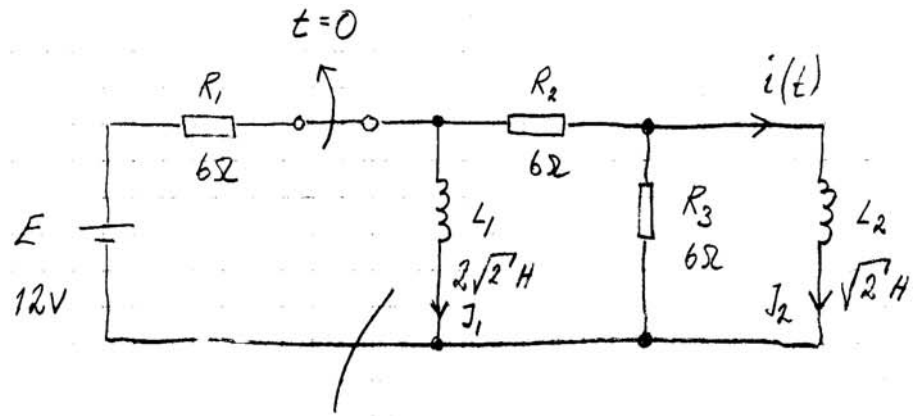


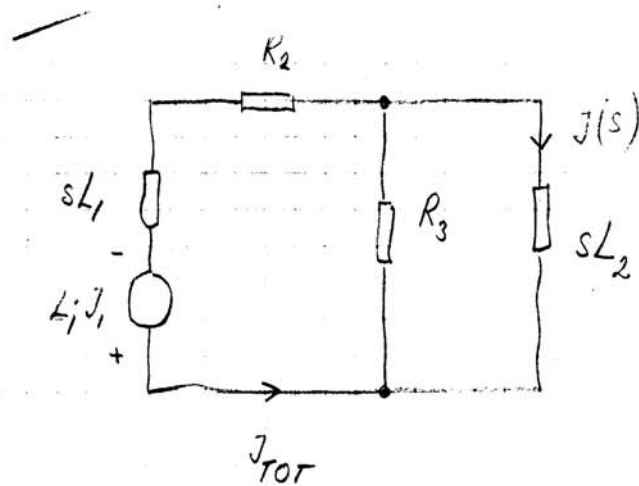
C15



$$NL_1 = 0 \Rightarrow I_2 = 0 \text{ d\aa } t < 0$$

$$J_1 = \frac{E}{R_1} \Rightarrow J_1 = 2 \text{ A}$$

OPERATORSCHEMA



$$J_{TOT} = \frac{L_i J_1}{\frac{sL_2 R_3}{sL_2 + R_3} + R_2 + sL_1}$$

$$J_{TOT} = \frac{2\sqrt{2} \cdot 2}{\frac{6\sqrt{2}s}{\sqrt{2}s + 6} + 6 + 2\sqrt{2}s}$$

$$= \frac{8s + 24\sqrt{2}}{6\sqrt{2}s + 6\sqrt{2}s + 36 + 4s^2 + 12\sqrt{2}s}$$

$$= \frac{2s + 6\sqrt{2}}{s^2 + 6\sqrt{2}s + 9} = \frac{2(s + 3\sqrt{2})}{(s + 3\sqrt{2} - 3)(s + 3\sqrt{2} + 3)}$$

"STRÖMDELNINGS - 7

LAGEN :

$$J(s) = -J_{TOT} \cdot \frac{R_3}{R_3 + sL_2}$$

$$J(s) = - \frac{2 \cdot (s + 3\sqrt{2}) \cdot 6}{(s + 3\sqrt{2} - 3)(s + 3\sqrt{2} + 3) \underbrace{(6 + \sqrt{2}s)}_{(s + 3\sqrt{2}) \cdot \sqrt{2}}}$$

$$= - \frac{6\sqrt{2} \cancel{(s + 3\sqrt{2})}}{(s + 3\sqrt{2} - 3)(s + 3\sqrt{2} + 3) \cancel{(s + 3\sqrt{2})}}$$

$$= \frac{A}{(s + 3\sqrt{2} - 3)} + \frac{B}{(s + 3\sqrt{2} + 3)}$$

$$= \frac{As + A(3\sqrt{2} + 3) + Bs + B(3\sqrt{2} - 3)}{(s + 3\sqrt{2} - 3)(s + 3\sqrt{2} + 3)}$$

$$s^1: A+B=0 \Rightarrow B=-A$$

$$s^0: A(3\sqrt{2}+3)+B(3\sqrt{2}-3)=-6\sqrt{2}$$

$$\Rightarrow A(3\sqrt{2}+3)-A(3\sqrt{2}-3)=-6\sqrt{2}$$

$$\Rightarrow A=-\sqrt{2} \Rightarrow B=\sqrt{2}$$

ALLT SÄ

$$J(s) = \frac{-\sqrt{2}}{(s+3\sqrt{2}-3)} + \frac{\sqrt{2}}{(s+3\sqrt{2}+3)}$$

$$i(t) = -\sqrt{2} \cdot e^{(-3\sqrt{2}+3)t} + \sqrt{2} \cdot e^{(-3\sqrt{2}-3)t}$$

$$= -2\sqrt{2} \cdot e^{-3\sqrt{2}t} \left[\frac{e^{3t} - e^{-3t}}{2} \right]$$

$$\downarrow$$
$$\sinh(3t)$$