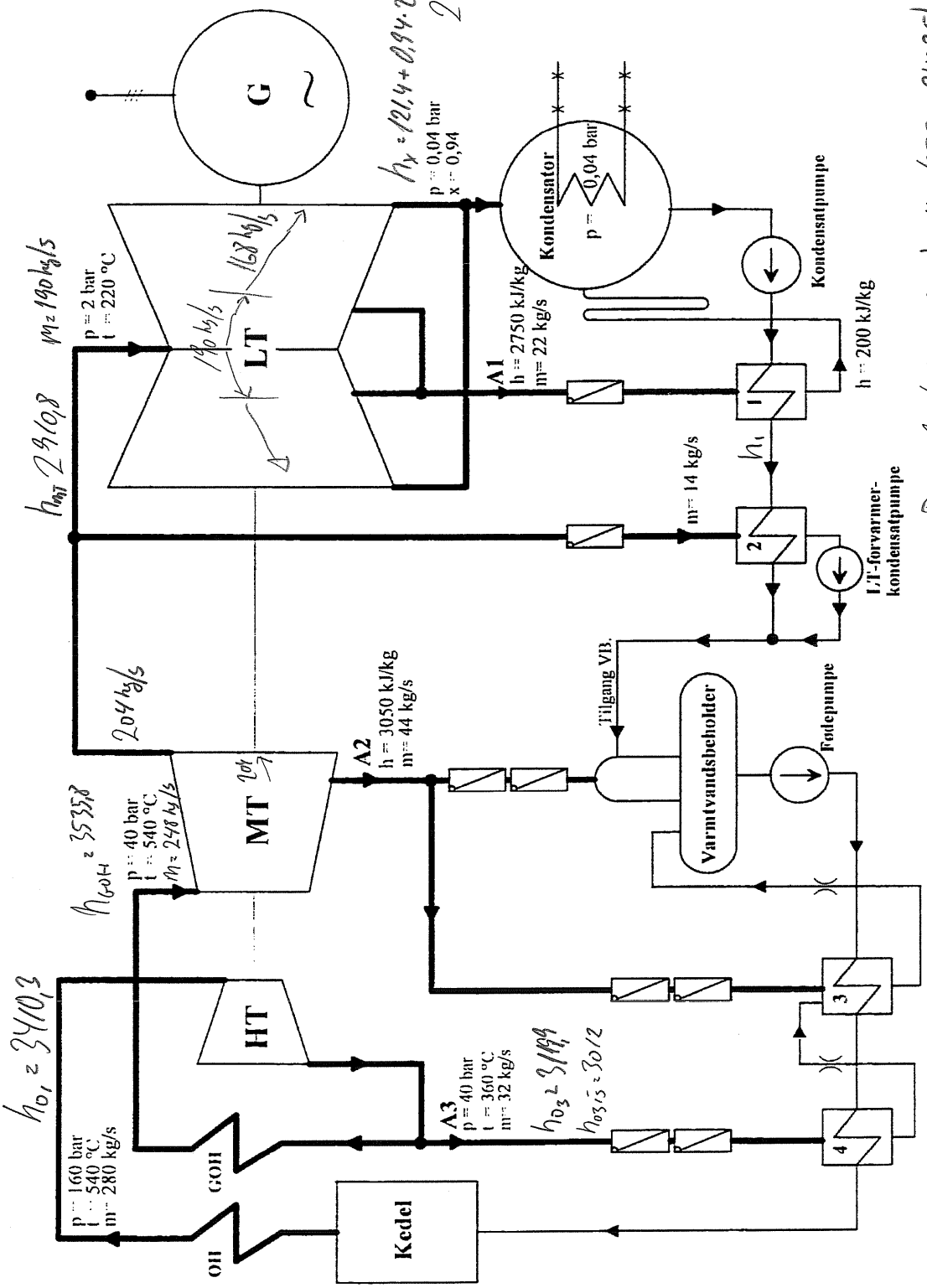
42.



$P_{HT} = 280 \cdot (3410,3 - 3149) = 81312 \cdot 0,96 \cdot 0,98 = 76498$ kW

$P_{MT} = 248 \cdot (3537,8 - 3050) + 204 \cdot (3050 - 2910,8) = 149875 \cdot 0,96 \cdot 0,98 = 140062$ kW

$P_{LT} = 190 \cdot (2910,8 - 2750) + 168 \cdot (2750 - 2408,5) = 87424$

$87424 \cdot 0,96 \cdot 0,98 = 82719$ kW

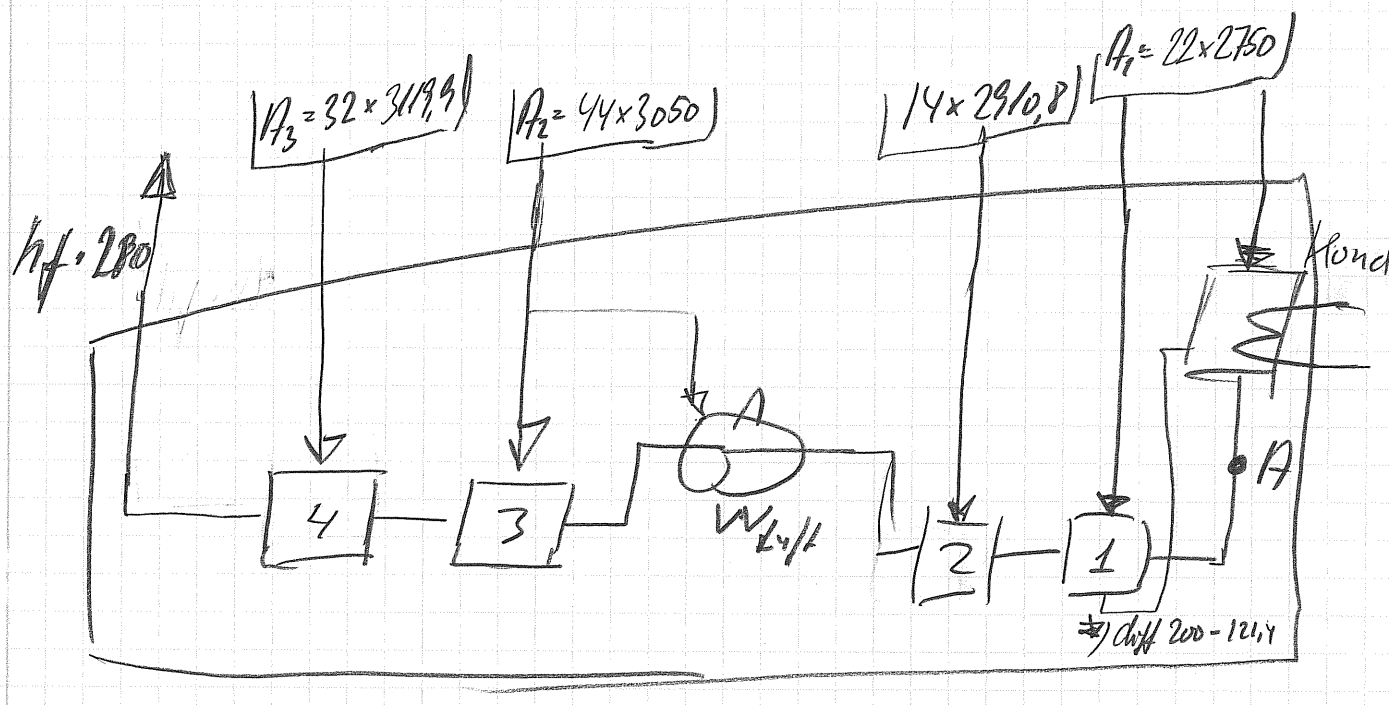
$P = 299279$ kW

42.2

Q2.3

$$280 \cdot h_f = \underbrace{190 \cdot 121{,}4 + 22 \cdot (2750 - 200) + 14 \cdot 2910{,}8 + 44 \cdot 3050 + 32 \cdot 3119{,}3}$$

$$h_f = \frac{\quad}{280} = \underline{1264 \text{ kJ/kg}}$$



A = Kendt 168 + 22 kg/s à 121,4 kJ/kg

*) diff for A_1 200 kJ/kg - 121,4 kJ/kg (fjernes i kondensator)

42.4

$$P_{indfyr} = \frac{M_d \cdot \lambda}{\eta_k}$$

$$P_{tindf.} = \frac{280 \cdot (3410,3 - 1264,1) + 248 \cdot (3535,8 - 3119,9)}{0,91}$$

$$P_{indfyr} = 773713\,kW \sim 773,7\,MW$$

$$Ny\ h_{01} = 3382,7\,kJ/kg$$

$$h_{02} = 3490,4\,kJ/kg \qquad h_{04\,Ny} = 3090\,kJ/kg$$

$$\eta_k = \frac{280(3382,7 - 1264,1) + 248 \cdot (3490,4 - 3094)}{773713} = \underline{0,89}$$