

Quiz # 3

ESM2204 Spring 2011

Instructor: R.D. Kriz

Which statement below is not true.

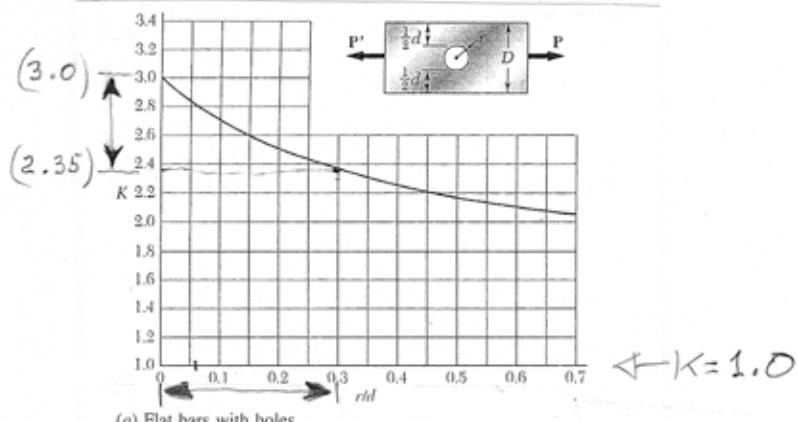
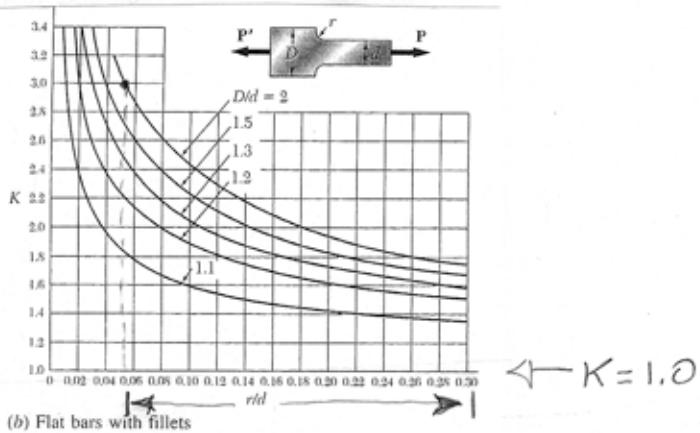


Fig. 2.64 Stress concentration factors for flat bars under axial loading[†]

BOTH 2) and 3)
are Not true

- 1) Unlike stress concentrations near holes and fillets, large stresses realized near loads applied at points are difficult to calculate or measure.

- 2) Over the same range of ratios of r/d , stress concentrations near holes are larger than near fillets.

$K^{'s}$ different
over same range

- 3) Stress concentrations below a value of one can be realized under special conditions because stress concentrations depend on the size of the part.

K must always
be greater than 1.

- 4) Predictions of stress concentrations are only accurate for stresses that exist below the proportional elastic limit.