

ICATT	APPRENTICESHIP PROGRAM TRAIN.RETAIN.GROW.	Information
Date:	Analysis of the standard designation and strength class	

Exercise 1:

You are given a bolt. The bolthead says ISO 4017 – M8 x 30 – 5.6



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- a) Review the description of the bolt ISO 4017 – M8 x 30 – 5.6
- b) Explain in detail what 5.6 means
- c) In addition, explain the property class 8.8

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TB page 468, DIN ISO 4017 – check on page 217

- ISO = Type of standard and short title (International Organization for Standardization)

- 4017 = # standard => Hexagon head bolts with coarse threads, fully threaded

- M8 x 30 = Metric thread with a diameter $d=8\text{mm}$ and a thread length of 30mm

- 5.6 = Property Class (see also page 216)

a) Explain in detail what 5.6 means

Page 216:

5 = Tensile strength $R_m = 5 \cdot 100 \text{N/mm}^2 = 500 \text{N/mm}^2$

6 = Yield strength = $R_e = 5 \cdot 6 \cdot 10 \text{N/mm}^2 = 300 \text{N/mm}^2$

a) In addition, explain the property class 8.8

Page 216, if possible, read from the table:

Tensile strength $R_m = 800 \text{N/mm}^2$

Yield strength $R_e = 640 \text{N/mm}^2$

Elongation at Fracture = 12%