

Industrial Technology Virtual Learning

:measuring a bolt(part 2 of 2)

May 1, 2020



Lesson: May1, 2020 Objective/Learning Target:

Students will properly measure a bolt and be able to identify different grades of bolts, both standard and metric.



SAE Strength

Lines on head of bolt

 Add 2 to the number of lines to determine grade (strength)

- Grade 2
- Grade 5
- Grade 8

SAE Grade or Strength



ADD 2

None = Grade 2

Three = Grade 5

Six = Grade 8

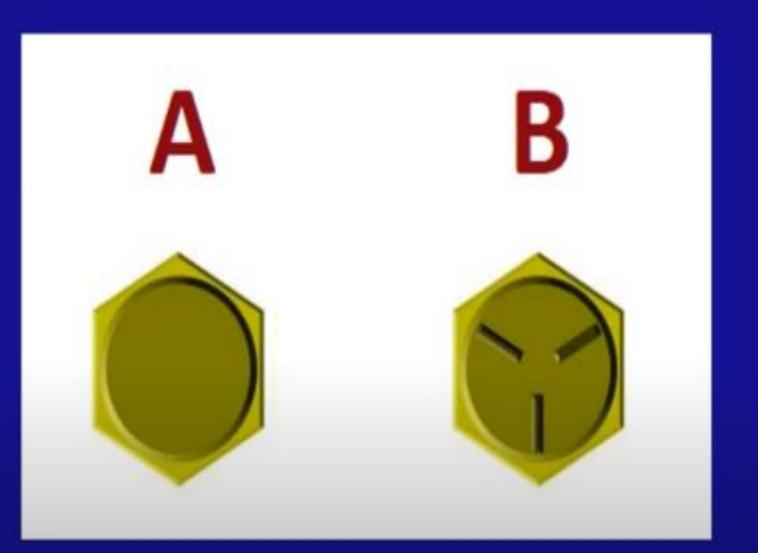






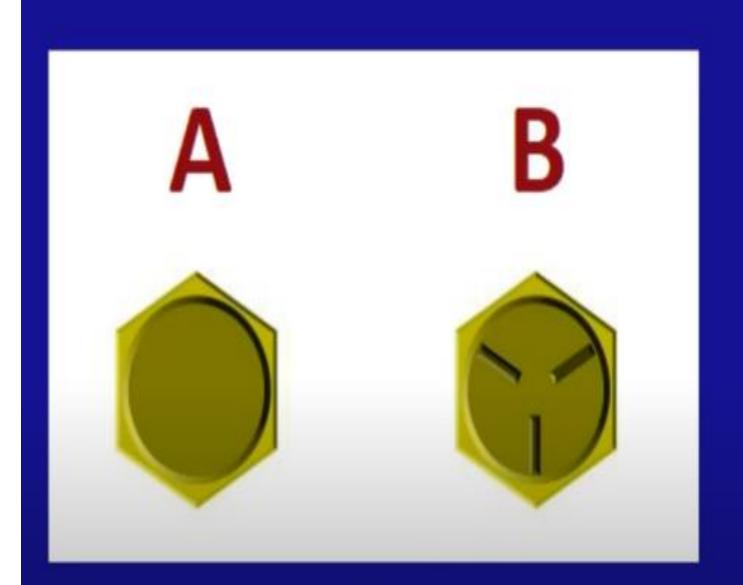
Grade 5

Which Bolt is Stronger?





Which Bolt is Stronger?



В

Metric Strength

Numbers

Uses a decimal

Higher number = Stronger bolt



Metric Grade or Strength



5.8

8.8

9.8

10.9

12.9







Grade 10.9







Grade 8.8

Which Bolt is Stronger?



Which Bolt is Stronger?



C

Which is the Metric Bolt?

B



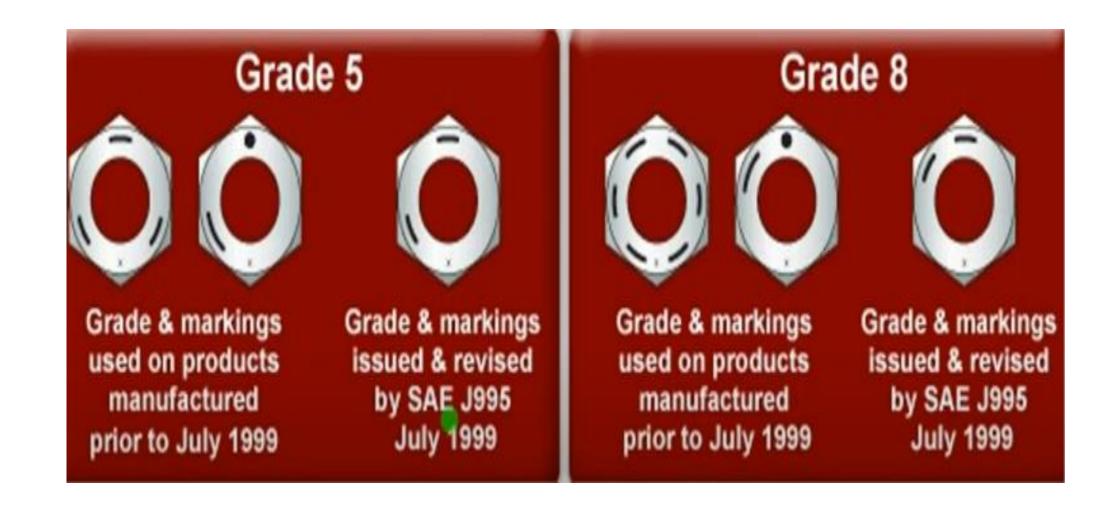


Which is the Metric Bolt?

В

Nut Markings

SAE









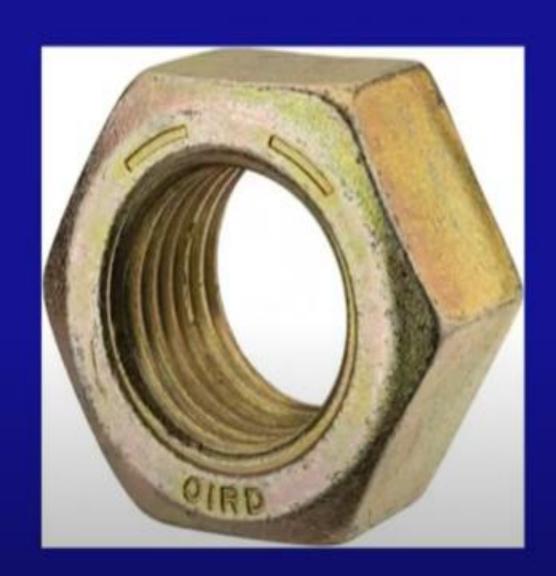
Grade 8



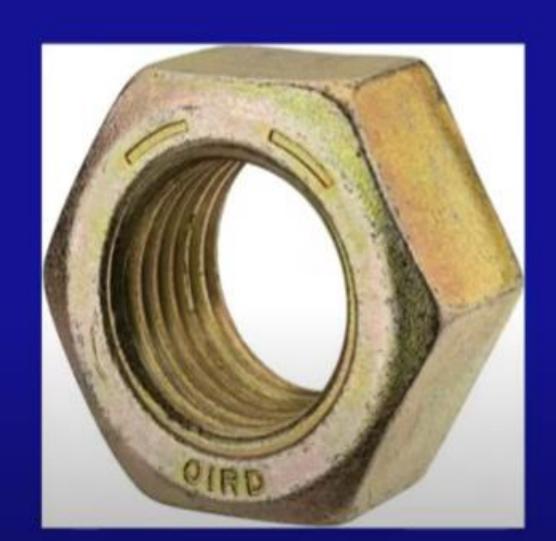




Grade 5







Grade 8

Metric Nut Markings





