

JOB ROLE – AUTOMOTIVE SERVICE TECHNICIAN

Sector: Automotive
(Qualification Pack Code : **ASC/Q01402**)



PSS Central Institute of Vocational Education
Shyamla Hills, Bhopal – 462013, Madhya Pradesh, India

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UNIT 2 : Fasteners
Session 2: Automotive Nuts

Content

Title	Slide No.
Session Objective	4
Introduction	5
Thread profile in nut	6
Material of nuts	7
Summary	8

Session Objectives

1. The student will be able to understand importance of bolts as fasteners
2. Able to identify different types of nuts.
3. Able to loosen and tighten different types of nuts using hand tools .

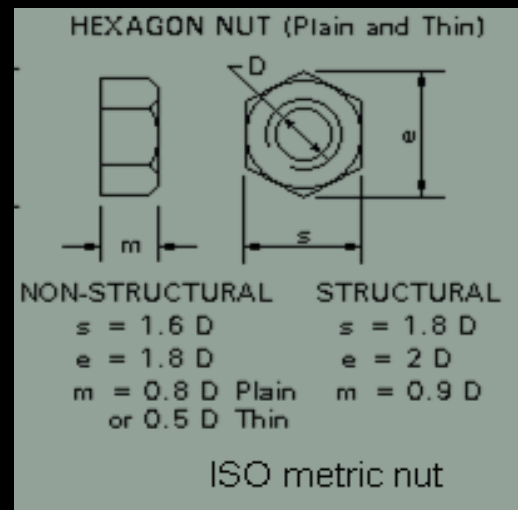
Introduction

A nut is a type of fastener with a threaded hole. Nuts are almost always used opposite a mating bolt to fasten a stack of parts together. The two partners are kept together by a combination of their threads' friction, a slight stretch of the bolt, and compression of the parts. In applications where vibration or rotation may work a nut loose, various locking mechanisms may be employed.



Thread profile in nut

For joining two metal part the nut is screwed on the bolt. Therefore the thread profile of bolt and nut must match. Since in the country we use metric threads, the nut being used in conjunction with bolt have metric threads as well. The pitch of the bolt and nut must be same else the nut can not be screwed on the bolt. Mismatching of the profile and forcible screwing will damage the thread profiles of nut and bolt and nut will be loose on the bolt. The nut can have left hand or right hand internal threads.



Material of nuts

The nuts are made of the same material as bolts which can be aluminium, brass, copper alloy, plastic, steel, hardened steel, stainless steel, super alloys, titanium etc.

Summary

In this session you have learnt about, A nut is a type of fastener with a threaded hole. Nuts are almost always used opposite a mating bolt to fasten a stack of parts together. Automotive nuts can be of different types such as simple nuts, collar nuts, locking nuts, t-nuts, hex nuts, jam nuts, lug nuts, plate nuts, self locking nuts, stainless steel nuts etc.

Material of nuts

The nuts are made of the same material as bolts which can be aluminium, brass, copper alloy, plastic, steel, hardened steel, stainless steel, super alloys, titanium etc.

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