

EXPERIMENT ON TIGHTNESS WITH NUT AND BOLTS

(Prepared 11 Jan 2008)

Principle:

The errors in the pitch diameter of a screw thread determine to a large extent the amount of "play" between assembled screw threads.

Procedure:

1. Try the nut with all the available bolts paying attention to the feel of tightness between the nut and bolt
2. Keep the bolts in the increasing order of tightness and record the order.
3. Identify the order of increasing major diameter
4. Identify the order of increasing minor diameter
5. Identify the order of increasing effective diameter
6. Compare the orders and identify the thread parameter which best matches the order of tightness
7. Give your conclusions

Observations:

Sl No	Parameter	Order
1	Increasing tightness	5<1<3<2<4
2	increasing major diameter	...
3	increasing minor diameter	
4	increasing effective diameter	