



<b>SCREW BOLTS TIGHTENED APPLYING A TIGHTENING TORQUE .....</b>	<b>2</b>
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## SCREW BOLTS TIGHTENED APPLYING A TIGHTENING TORQUE

### Identification example (GME and GMA)

The screw head bears the HR letter symbol followed by the 10.9. class or 12.9.

Additional information are the manufacturer letter symbol and the batch number.



### Dimensions of the screw head

Nominal diameter of thread (mm)	a: width across flats
16	27
20	32
22	36
24	41
27	46
30	50

### Table of torque values – Class 10.9

Nominal diameter (mm)	Nominal tightening torque (m.daN)	Checking torque (m.daN)
20	52	42
22	72	58
24	92	74
27	135	108
30	182	146

### Table of torque values – Class 12.9

Nominal diameter (mm)	Nominal tightening torque (m.daN)	Checking torque (m.daN)
30	250	200



**Use a torque wrench of  $\pm 10$  % minimum precision.**



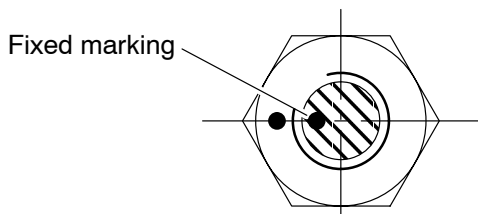
## Checking procedure



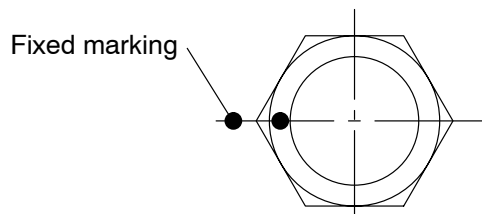
**One screw bolt out of six on each slewing ring part must be checked.**

- According to accessibility mark the position of the nut with respect to the screw or the screw head in relation to the support:

Screw bolt (nut side)

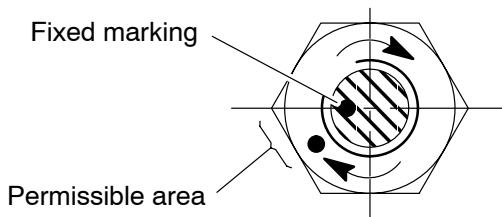


Screw bolt (screw head side)

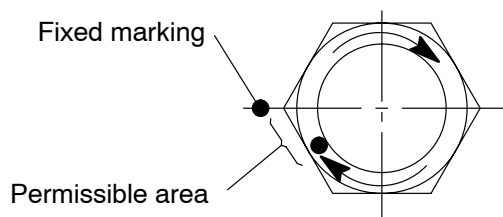


- Unscrew the nut by about 1/4 revolution (pay attention to lock the screw head) or unscrew the screw head by about 1/4 revolution (pay attention to lock the nut).
- By means of the torque wrench tighten the nut (or the screw head) applying the **checking torque** (value according to the column "checking torque" of the previous table).
  - **Satisfactory check:** the nut (or screw head) marking remains behind the fixed marking:

Screw bolt (nut side)



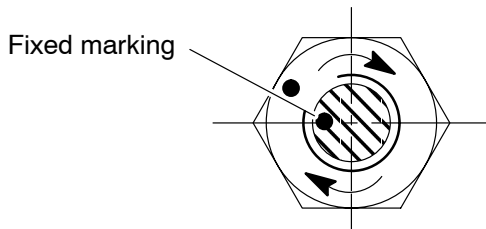
Screw bolt (screw head side)



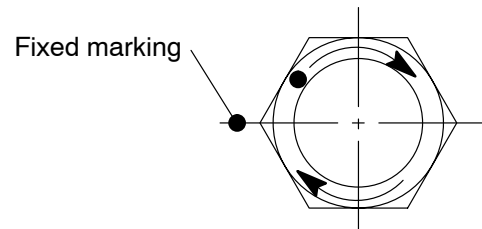
**By means of the torque wrench, tighten the nut (or the screw head) applying the nominal torque** (value of the column "Nominal tightening torque" of the preceding table).

- **Unsatisfactory check:** the nut (or screw head) marking exceeds the fixed marking:

Screw bolt (nut side)



Screw bolt (screw head side)



**Faulty screw bolt: replace this screw bolt as well as the 2 adjacent screw bolts.**



**If 3 screw bolts are damaged, replace all the screw bolts of the ring.**