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## UNIVERSAL TENSIONING GAUGE FOR CAMBELTS

This tensioning gauge can be used to adjust the tension on the cam belts where the movement of the timing belt is measured by load (Nm). Suitable for use on Cam belts with various belt thickness (For belts other than 5mm thickness see Cam Belt Size below)

- Easy to use
- Clear incremental marking with knurled knob for precise measurement
- Dual scale allows reading from top or bottom of tool (Large and small numbers for compatibility)

ALWAYS USE MANUFACTURERS' RECOMMENDATIONS FOR CAM BELT TENSION AND POSITION OF MEASUREMENT. (E.g. between the timing gear and the water pump pulley).



## INSTRUCTIONS

### To check tension

1. Select correct position for tension measurement as recommended by the manufacturer's instructions.
2. Attach tensioner to Cam belt with Internal Slide visible from either side. (If using the reverse of the tool make sure the smaller increments are used for precision setting)
3. Check the manufacturer's details for Cam belt tension including Cam Belt Deflection (mm) and Cam Belt load (daN)
4. Using the grid below find the appropriate tension setting (as shown)
5. Rotate the knurled knob until the beveled edge is on the required tension setting. Use the increments on the knob for precise setting.
6. Read the actual tension from the internal slide and compare it with the Optimum Tension on the Grid. (If the internal slide is not visible it is likely it has been covered by the knurled knob and is the Cam Belt is too tight – by slackening the tensioning pulley the internal slide should appear)
7. Adjust as necessary

### To adjust tension

1. Using tensioning tool (as appropriate) apply sufficient force to the tensioning pulley until the sliding scale indicates the correct value.
2. Tighten the locking bolt on the tensioning pulley with the appropriate tool

### Cam Belt Size

For belts thicker than 5mm – add the difference to the Tension Setting and Optimum Tension

### For example

If Cam Belt thickness is 6mm  
and Cam Belt Load is 4.5daN  
Cam Belt Deflection is 3.5mm  
Then  
Tension Setting = 16.0mm +1mm = 17.0mm  
Optimum Tension = 13.0mm +1mm = 14.0mm

## LOAD ON THE CAM BELT (daN)

Shown by vehicle manufacturer

Cam Belt Deflection (mm)	0.0	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	7.9
0.0																
Tension Setting	23.5															
Optimum Tension	16.5															
Tension Setting							19.9	19.5	19.0	18.6	18.1	17.7	17.2	16.8	16.4	16.0
Optimum Tension							16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
Tension Setting						19.8	19.4	19.0	18.5	18.1	17.6	17.2	16.7	16.3	15.9	15.5
Optimum Tension						15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
Tension Setting					19.8	19.3	18.9	18.5	18.0	17.6	17.1	16.7	16.2	15.8	15.4	15.0
Optimum Tension					15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Tension Setting					19.7	19.3	18.8	18.4	18.0	17.5	17.1	16.6	16.2	15.7	15.3	14.9
Optimum Tension					14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5
Tension Setting					19.7	19.2	18.8	18.3	17.9	17.5	17.0	16.6	16.1	15.7	15.2	14.8
Optimum Tension					14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Tension Setting		19.6	19.2	18.7	18.3	17.8	17.4	17.0	16.5	16.1	15.6	15.2	14.7	14.3	13.9	13.5
Optimum Tension		13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
Tension Setting		19.1	18.7	18.2	17.8	17.3	16.9	16.5	16.0	15.6	15.1	14.7	14.2	13.8	13.4	13.0
Optimum Tension		13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Tension Setting		18.6	18.2	17.7	17.3	16.8	16.4	16.0	15.5	15.1	14.6	14.2	13.7	13.3	12.9	12.5
Optimum Tension		12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
Tension Setting		18.1	17.7	17.2	16.8	16.3	15.9	15.5	15.0	14.6	14.1	13.7	13.2	12.8	12.4	12.0
Optimum Tension		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Tension Setting		17.6	17.2	16.7	16.3	15.8	15.4	15.0	14.5	14.1	13.6	13.2	12.7	12.3	11.9	11.5
Optimum Tension		11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
Tension Setting		17.1	16.7	16.2	15.8	15.3	14.9	14.5	14.0	13.6	13.1	12.7	12.2	11.8	11.4	11.0
Optimum Tension		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Tension Setting		16.6	16.2	15.7	15.3	14.8	14.4	14.0	13.5	13.1	12.6	12.2	11.7	11.3	10.9	10.5
Optimum Tension		10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
Tension Setting		16.1	15.7	15.2	14.8	14.3	13.9	13.5	13.0	12.6	12.1	11.7	11.2	10.8	10.4	10.0
Optimum Tension		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0

Values shown by vehicle manufacturer