



# Introduction to Timing Belts and Systems Questionnaire

After reading Gates Timing Belts 101 - Introduction to Timing Belts and Systems, print out this questionnaire, fill in your details and fax to Gates Australia on 03 9797 9600. For your efforts Gates will reward you with an item from their merchandise range!

Complete the questions by circling the correct answers and GOOD LUCK!

NAME: .....

BUSINESS NAME: .....

ADDRESS: .....

PHONE: ..... FAX: .....

**1. What is the function or purpose of a timing belt?**

- A - Balance the engine at high rpms
- B - Drives accessories such as the alternator and fan
- C - Rotates the cam pulleys in synchronization with the crankshaft

**2. Which of the following are advantages of toothed belt drives?**

- A - simplify drives
- B - flexible belt routing
- C - cost savings
- D - all of the above

**3. What component drives the timing belt?**

- A - Camshaft pulleys
- B - Water pump
- C - Crankshaft

**4. Toothed belt drives lower fuel consumption and emissions.**

True or False?

**5. In which decade was the automotive timing belt developed?**

- A - 50's
- B - 60's
- C - 70's

- 6. Tensioners and idlers are critical components that work hand-in-hand with the timing belt.**  
True or False?
- 7. How much friction loss can a belt drive system reduce?**  
A - 2.5 horsepower  
B - 3.5 horsepower  
C - 4.5 horsepower  
D - 5.5 horsepower
- 8. What rubber compound was used on the first automotive timing belt?**  
A - Neoprene  
B - HSN  
C - HTN
- 9. At what kilometer interval does Gates and most vehicle manufactures recommend replacing a timing belt?**  
A - 50,000 klms  
B - 60,000 klms  
C - 75,000 klms  
D - 100,000 klms
- 10. What is the temperature rating for HSN?**  
A - 105°C  
B - 115°C  
C - 140°C
- 11. Which type of engine does not have enough clearance between the valves and pistons to prevent contact if the belt fails?**  
A - Free-running  
B - Interference
- 12. What shape was the first generation of tooth profiles?**  
A - Curvilinear  
B - Square  
C - Modified Curvilinear
- 13. What element of a timing belt provides it with non stretch characteristics?**  
A - Compound  
B - Tooth profile  
C - Tensile cords

**14. Which one of these elements should not be exposed to a belt in storage?**

- A - Cold temperatures
- B - Flurescent light
- C - Oil

**15. The condition of a belt can simply be determined by a visual inspection.**

True or False?

**16. How often should belts be inspected?**

- A - Every year
- B - Every time a vehicle is serviced
- C - Every four years
- D - Every 100,000 klms

**17. Gates timing belts match the OEM fit, form and function in regards**

- A - Tooth profile
- B - Physical dimensions
- C - Materials
- D - Timing marks
- E - Manufacturing requirements
- F - All of the above

**18. It is important that timing marks line up properly to ensure that camshaft is in time with the crankshaft.**

True or False?

**19. Typical belt warranty returns can be traced as being caused by which of the following?**

- A - Using the incorrect belt for the application
- B - Improper installation
- C - other component failure
- E - Timing components used beyond their recommended life
- F - All of the above



**Thank you!**

