

Belts and Components The product range

Power Transmission Group Automotive Aftermarket ContiTech

Contents

Page Subject

- 4 Timing Belts, V-Belts, Multi V-Belts: Technology and design
- 6 5-year guarantee

Timing drive: Timing Belts + kits

- 8 Our timing drive solutions
- 10 The Timing Belt
- 12 Timing Belt Kit
- 14 Timing Belt Kit + Water Pump

Accessory drive: V-Belts, Multi V-Belts + kits

- 16 Our accessory drive solutions
- 18 The V-Belt
- 20 The Multi V-Belt
- 22 Multi V-Belt Elast
- 24 Multi V-Belt Elast + Tools
- 26 Multi V-Belt Kit
- 28 Multi V-Belt + Torsional Vibration Damper

Components: torsional vibration damper,

- water pumps, overrunning alternator pulley
- 30 Torsional Vibration Damper
- 30 Mounting Set
- 32 Water Pumps
- 34 Overrunning Alternator Pulley

Tools: measuring devices and tool box

- 36 Tools and sets
- 38 General tools
- 39 TOOL BOXES
- 40 Accessory drive tools

Expertise: training, service videos and assembly instructions

- 42 Practical notes
- 44 Practical notes and service videos
- 46 Our PIC offers free fitting information and more
- 48 Professional training sessions

Liquid fuel. Cold steel. A spark. Explosion. Motion. Automobile engines have an enduring fascination. Those wishing to turn this fascination into everyday driving pleasure expect only the very best, especially when it comes to replacement parts.

Technology and Design Timing Belts, V-Belts and Multi V-Belts in Detail

Black, circular and hidden away in the engine compartment: Belts are boring. But only at first glance, because the interior of a ContiTech Timing Belt contains a lot of high-tech.

Timing Belts

Fiber-glass tensile members provide excellent traction and longitudinal stability, thus ensuring that the force of even the most powerful engine is reliably transmitted. Premium-quality polyamide fabric ensures perfect grip, enabling the harmonious interplay of crankshaft, camshaft and valves. High-performance polymers make the belt so resistant that it also runs smoothly and reliably in temperature ranges from -30°C to +140°C. These belts are made of a basic material for which our materials developers have recourse to 400 of our company's own formulae.

V-Belts and Multi V-Belts

Auto repair shops have to be prepared for everything, including vehicles with conventional V-belts as well as normal or elastic multi V-belts. ContiTech provides accessory drive belts for every eventuality: Made of high-performance materials – for example fiber-reinforced EPDM (ethylene propylene diene rubber) rubber compounds – they provide total flexibility and optimum grip over a long lifespan. High-tech polyester tensile members provide the necessary strength and durability.

In the production of Multi V-Belts ContiTech almost exclusively uses the molding process: The rubber is vulcanized in molds with a special profile which gives the belt its shape. This produces less waste than the conventional grinding process, and additional coatings can be applied. These may not be visible on the finished belt, but can be experienced in the form of smoother engine run and reduced wear and tear.



Accessory drive 5

ALLER TRADE



Clarity instead of blah, blah, blah: The product guarantee from ContiTech.

Workshop professionals don't need empty promises. They need quality they can rely on. That's why we offer registered partners a 5-year guarantee on all Power Transmission Group products for the automotive aftermarket. With no ifs or buts. www.contitech.de/5



The premier choice: Our timing drive solutions

The engine can only run smoothly and reliably if all components are fully synchronized, which is why automobile manufacturers rely on Timing Belts from ContiTech for their original equipment.

We supply independent parts distributors on the basis of a simple principle: No differentiation between their products and OE parts. Our power transmission belts and components for the aftermarket are produced to the same production standards as OE components. In this way we supply workshops with the products they need while at the same time providing the dependability they want. As a supplier with a complete product range we also maintain a production and sales network which offers our independent parts retailers fast and comprehensive product availability.



The way it's done



More information available in the PIC.

> Timing belts should never be kinked! If the sensitive fiber-glass tensile member in the interior breaks, the belt can tear while the engine is running.

- > Instructions on fitting, storage and replacement intervals should always be followed (please see the 'Know-how' section).
- > The product name indicates the number of teeth: For example, a belt designated 158 Z therefore has 158 teeth.

Securely powerful: The Timing Belt

Top-quality polyamide fabric and special HNBR (hydrogenated nitrile butadiene rubber) synthetic rubber make Timing Belts by ContiTech highly durable and resistant to extreme temperatures. The fiber-glass tensile member ensures optimum tensile strength. The tensile members are twisted in opposing directions (anti-clockwise/clockwise), which ensures that the belt can't twist out of shape. The three basic profiles (trapezoidal, HTD, STD) enable synchronous power transmission.

Always available: The 'Smart Sticker', our improved replacement sticker. It is made of a high-quality foil material which protects the lettering against moisture, dirt and premature fading. In addition to indicating the mileage and replacement date you can tick the other components which have been replaced. As a result the replacement data remains clear for a long time - a small measure which creates a lot of clarity and satisfaction.

Benefits

- > Hard-wearing polyamide fabric, partly covering the belt on the back, too.
- > Top-quality synthetic rubber, in part fiber-reinforced
- > Fiber-glass tensile member twisted anti-clockwise/clockwise
- > 5-year guarantee: www.contitech.de/5

Trapezoid Timing Belt





Profile	d (mm)	h _s (mm)	h _t (mm)	Profile	d (m
LA	9.525	4.1	1.9	HTD 9.525 M	9.52
LAH	9.525	4.5	2.3		

Timing drive complete: Timing Belt Kit

No half measures: For maximum safety, when the timing belt is replaced all other parts of the timing drive subject to wear and tear should be replaced at the same time. This is why Timing Belt Kits from ContiTech contain all the parts required for professional belt replacement. In addition to the tensioning and idler pulleys this means - depending on the vehicle - the tensioning damper and any minor parts which may need replacing such as screws, nuts, springs and washers. This is practical and saves time because all the necessary parts are at hand.

Workshops only need to place a single order to receive all the individual components which are required, ideally matched. One-stop shopping – which also applies to questions on fitting, handling and warranty, because in ContiTech you have a single source for all components.

Contents

- > Timing Belt
- Tensioning pulleys, idler/guide pulleys, tensioning dampers
- Small parts such as screws, nuts and springs
- Hard-wearing replacement sticker (please see 'Know-how' section)

Benefits

- > All the required parts in one box
- The full range available for more than 95% of all European vehicle types
- At a glance: The sticker on the packaging uses pictograms to display all the elements of the kit
- > Timing Belt made of top-quality synthetic rubber and hard-wearing polyamide fabric with fiberglass tensile member twisted anticlockwise/clockwise
- > 5-year guarantee: www.contitech.de/5

$\overset{\circ}{\amalg}$ The way it's done

- > Timing belts should never be kinked! If the sensitive fiberglass tensile member in the interior breaks, the belt can tear while the engine is running.
- > Instructions on fitting, storage and replacement intervals should always be followed (please see the 'Know-how' section).



Ontinental

Zahnriemen Kit Timing Belt Kit



More information available in the PIC.

Everything's included: Timing Belt Kit + Water Pump

The experts know that in the case of engines in which the timing belt also drives the water pump, the pump should also be replaced when the timing belt is changed. The Timing Belt Kit + Water Pump makes this job easier, because it contains all the parts needed for the replacement - belt, water pump, pulleys and whatever small parts are required by the relevant vehicle type.

In the long run a water pump can only achieve reliable performance with top-quality components. This is why Water Pumps by ContiTech feature mechanical seals made of carbon and silicon carbide and long-lasting integral shaft bearings. The precisely shaped tooth profile of the toothed pulley conserves the timing belt and ensures that it can transmit power synchronously.

Contents

- > Timing Belt
- > Water Pump, if necessary with seal
- > Tensioning pulleys, idler/guide pulleys, tensioning damper
- > Small parts such as screws, nuts and springs
- > Hard-wearing replacement sticker (please see 'Know-how' section)

Benefits

- > All the necessary parts in one box
- > One contact for all components
- > Timing Belt made of top-quality synthetic rubber and hard-wearing polyamide fabric with fiberglass tensile member twisted anti-clockwise/clockwise
- > 5-year guarantee: www.contitech.de/5

Pump wheel with impeller

- Mechanical seal made of carbon and silicon carbide
- Integral bearing with pulleys and ball bearings
- Toothed pulley with precisely formed tooth profile





ĵ The way it's done

- > Timing belts should never be kinked! If the sensitive fiberglass tensile member in the interior breaks, the belt can tear while the engine is running.
- > Instructions on fitting, storage and replacement intervals should always be followed (please see the 'Know-how' section).





More information available in the PIC.

Making it easy Our accessory drive solutions

The replacement of belts for the accessory drive is becoming more and more complicated. Because the modern engine contains an increasing number of components such as the fan, air-conditioning compressor and power steering all concentrated within a small space, belt drives are becoming increasingly complex.

It's therefore good if somebody relieves you of some of the work, and that's why in our kits we provide you with all the necessary parts. Everything which mechanics need for efficient assembly is immediately at hand, ensuring fast and efficient fitting operations. And the administrative work involved also decreases: One order, one delivery, one storage location. And because everything comes from a single source there is only one contact person for all questions and follow-up deliveries.

Do you prefer to order belts and components separately rather than complete kits? No problem. In this case, too, ContiTech provides you with exactly the same quality which the automobile manufacturers rely on for their OE components. Our TÜV-certified production and quality assurance processes ensure that this will remain unchanged. We make things easy for you - not for ourselves.



Our classic: The V-Belt

The accessory drive transmits the power of the engine to the alternator, fan, water pump, air-conditioning compressor and power steering. In drives with only two or three pulleys classical V-belts are used for this purpose, in particular with older vehicles.

V-Belts from ContiTech are produced in raw-edged form. With their precisely ground edges they are an exact fit for the pulleys. This reduces vibrations and wear and tear on the engine components – while ensuring greater customer satisfaction.

To ensure that everything runs smoothly with multiple pulley drives, belts of exactly the same length are vital. The decisive advantage offered by V-Belt sets from ContiTech: All the belts in a set not only have the same length but also the same tolerance. This guarantees that the power to be transmitted is distributed equally.

Benefits

- > Hard-wearing, long-lasting quality
- > Edges with precision grinding
- > Belts in a set have the same length and tolerance
- > 5-year guarantee: www.contitech.de/5

$\overset{\circ}{\amalg}$ The way it's done

- Instructions on fitting, storage and replacement intervals should always be followed (please see the 'Know-how' section).
- > The article number defines the width and length of the belt.



The V-Belt Our classic: The little black number.



More information available in the PIC.

Serious power in a compact space: The Multi V-Belt

Not to be neglected – multi V-belts drive all auxiliary components: Alternator, fan, water pump, air-conditioning compressor and power steering. Because of their structure featuring a number of adjacent ribs they have a greater contact area than conventional V-belts. At the same time they have the compact dimensions of a flat belt. This ensures maximum power transmission and outstanding flexibility.

As a rule, ContiTech Multi V-Belts are not ground but are produced by the molding process. That ensures optimal dimensional stability, a long service life and smooth running. They retain their full flexibility throughout their operational life even in serpentine drives, which place an especially great strain on the belt with their frequent bending cycles. And this enables you to provide peak service.

Benefits

- > Top-quality synthetic rubber, in part fiber-reinforced
- > Polyester tensile member
- Excellent bending cycle durability and flexibility
- > 5-year guarantee: www.contitech.de/5

$\underline{\tilde{\mathbb{I}}}$ The way it's done

- > Instructions on fitting, storage and replacement intervals should always be followed (please see the 'Know-how' section).
- > The article number defines the number of ribs and length of the belt
- > Double V-Belts (DPK) with profiles on both sides are also available.

Multi V-Belts For all-round performance.

Como



More information available in the PIC.

Accessory drive 21



Never-ending tension: The Multi V-Belt Elast

Multi V-belts transmit the power of the engine to the auxiliary units. In drives with fixed axial distances automobile manufacturers often apply elastic multi V-belts. These make additional tensioning pulleys unnecessary because they maintain the tension themselves, which places great demands on the structure and material of the belt.

These challenges are easily mastered by the Multi V-Belt Elast from ContiTech with its STC (Self Tensioning Cord) technology. With this technology the elastic polyester tensile member is embedded in synthetic rubber which is partly fiber-reinforced, supplemented by a textured finish on the back of the belt - all features which ensure the force-fit transmission of torque in drives without tensioning pulleys.

Benefits

- > Structuring on back of belt
- > Top-quality synthetic rubber, in part fiber-reinforced
- > Elastic polyester tensile member
- > Uniform product designation: No differentiation between production length and effective length
- > 5-year guarantee: www.contitech.de/5



More information available in the PIC.

- Volvo engines.

- >> UNI-TOOL-ELAST

Multi V-Belt Elast Always the right tension.

$\stackrel{\circ}{\amalg}$ The way it's done

> Must only be used in vehicles factory-fitted with elastic belts.

> Special tools are absolutely necessary for fitting. ContiTech offers a range of solutions, depending on vehicle.

> For many belt drives ContiTech provides practical sets consisting of an elastic belt and disposable assembly tools.

> Further elements of the program: The UNI TOOL ELAST universal toolset, which is suitable for fitting most elastic multi V-belts, and the ELAST TOOL F01 for specific Ford and

> Instructions on fitting, storage and replacement intervals should always be followed (please see the 'Know-how' section).

> With Multi V-Belts we differentiate between the effective length and production length. The indicated length of an elastic multi V-belt is always its length in a fitted condition. The belt itself and TecDoc also indicate the production length in brackets. Example: 6PK1019 (1004) ELAST

> Tip: Application examples can be found online at www.contitech.de/aam >> Measuring and Fitting Tools







More information available in the PIC.

All you need for fast fitting: Multi V-Belt Elast + Tool

The replacement of an elastic multi V-belt always requires special assembly tools, so that the belt can be fitted correctly and without damage. Often even two elastic multi V-belts have to be replaced at the same time. ContiTech's complete packages provide workshops with the greatest possible convenience, because in addition to the belt they also contain the necessary tools. There is no longer any need for a time-consuming search for the right belt and tools, or for the purchase of expensive special tooling. In addition, fitting is exactly in accordance with OE specifications.

Benefits

- > Application-specific fitting tools supplied
- > No re-tensioning of the belt required
- > 5-year guarantee: www.contitech.de/5

$\breve{1}$ The way it's done

> Only for use in vehicles factory-fitted with elastic belts.

> Complete sets with disposable fitting tools are available for many vehicles. For the remaining vehicles ContiTech offers other tools, such as the UNI TOOL ELAST universal toolkit or the ELAST TOOL F01 for Ford and Volvo models

> Instructions on fitting, storage and replacement intervals should be observed (please see the 'Know-how' section).

> With Multi V-Belts we differentiate between the effective length and production length. The indicated length of an elastic multi V-belt is always its length in a fitted condition. The belt itself and TecDoc also indicate the production length in brackets. Example: 6PK1019 (1004) ELAST

> The article numbers (T1, T2, T3 ...) indicate identical belts with varying tooling - enabling customers to find the right tool for their specific application



> Check alignment of belt pulleys using the LASER TOOL.

> Check belt wear with the Belt Wear Tester.

Always maintaining the right tension The Multi V-Belt Kit

Workshops which replace all wear parts of the belt drive system at the same time are always on the safe side. This is why ContiTech offers professionals its Multi V-Belt Kit as an allround repair solution, ensuring they have all the parts they need at hand. The kit contains a Multi V-Belt and - depending on vehicle application - all the required additional components such as tensioning and idler pulleys, tensioning dampers and fitting material.

The quality of the kit is demonstrated by its detail, for example by the grooved ball bearings of the tensioning pulley: Because of their high rating these longlife bearings have an extensive load capacity, while their increased lubrication volume ensures especially low-noise operation and reliability. Perfectly matched components in OE quality backed up by ContiTech service.

Contents

- > Multi V-Belt
- > Tensioning and idler pulleys
- > Tensioning dampers
- > Fixing material

Benefits

- Precise allocation to specific vehicles
- > Perfectly matched components
- > Original quality
- > 5-year guarantee: www.contitech.de/5

Baseplate (mounting flange)

Made of die-cast aluminum.

Sliding bearing

Enables rotation of the tensioning arm.

Friction lining

With steel friction ring (outer).

Torsion spring

Generates pretensioning.



More information available in the PIC.





Multi V-Belt + **Torsional Vibration Damper** Low-noise allround solution. **Teamwork for the** accessory drive: Multi V-Belt + Torsional Vibration Damper

Multi V-belts and torsional vibration dampers work in close harmony, driving all auxiliary units together. The torsional vibration damper neutralises the vibrations and rotational irregularities of the crankshaft and ensures a smooth belt drive. In other words: Smooth Running Technology from ContiTech.

When the torsional vibration damper is replaced, the belt should be replaced at the same time. For this purpose ContiTech provides all the required parts in a practical complete set - screws and washers included. For you this means: No time-consuming searches, fast and complete delivery, easy application. Everything smoothly coordinated and from a single source. And of course in ContiTech's tried-and-tested OE quality.

Contents

- > Multi V-Belt
- > Torsional Vibration Damper or decoupled Torsional Vibration Damper
- > Special screws and washers

Benefits

- > No need to order individual parts
- > Fitting materials included
- > 5-year guarantee: www.contitech.de/5

ň

- be checked, too.



More information available in the PIC.

The way it's done

> For vehicles with a manual tensioning pulley the BTT Hz from ContiTech can be used as a tension tester.

> Check alignment of belt pulleys using the LASER TOOL.

> Check belt wear with the Belt Wear Tester.

> Tip: Checking the front of the rubber for damage is not sufficient. The pulley should be removed so that the back can

> The torsional vibration damper should be replaced in good time, because a faulty damper can also lead to problems with the dual mass flywheel on the other side of the engine.

> Instructions on fitting, storage and replacement intervals should always be followed (please see the 'Know-how' section).

Absorbing vibrations, where they're generated: The Torsional Vibration Damper

The crankshaft generates vibrations and rotational irregularities which can be transmitted via the belt pulley and the belt to the entire belt drive, which places a strain on all engine units. ContiTech's Smooth Running Technology puts an end to this: Torsional Vibration Dampers suppress vibrations with their integrated rubber track, which removes the strain from the belt and related engine units. Decoupled Torsional Vibration Dampers isolate the belt drive with a second rubber track, which suppresses the rotational irregularities of the crankshaft.

Benefits

- > Greater safety for both engine and driver
- > Perfectly matched for power transmission belts from ContiTech
- > Exceptionally smooth running and low noise
- > Optimizes the operating life of all belt drive components
- > 5-year guarantee: www.contitech.de/5

Mounting Set

When the torsional vibration damper is replaced the fitting material should also be changed. For its Torsional Vibration Dampers ContiTech therefore provides a matching Mounting Set, with all the required small parts neatly organised in one set.

Benefits

- > No time-consuming searches
- > Significant time savings
- > All parts in OE quality





ĭ The way it's done

- > Torsional vibration dampers are subject to wear and tear. They should be checked with every belt change and replaced if necessary.
- > Perfectly matched components: Multi V-Belt and Torsional Vibration Damper from ContiTech in a practical kit with all the required parts.
- > Tip: Checking the front of the rubber for damage is not sufficient. The pulley should be removed so that the back can be checked, too.
- > The torsional vibration damper should be replaced in good time, because a faulty damper can also lead to problems with the dual mass flywheel on the other side of the engine.

Mounting Set Smooth-running long player...



More information available in the PIC.

Keep cool Water Pumps

There are two different repair requirements for faulty water pumps. ContiTech has the right solution for both.

Case 1: The water pump is driven by a multi V-belt or E-motor. In this case, the belt and water pump are relatively easy to access. And where installation effort is low, the motto is: only replace what is really defective. That's why ContiTech offers separate water pumps and belts for this type of repair.

Case 2: The water pump is driven by a timing belt. Replacing a timing belt is a much more complex repair. Therefore, it makes sense to replace all the components at once. In other words, the water pump as well. This applies regardless of whether the water pump is defective or not. For these types of repairs, ContiTech offers all the parts required – water pump, timing belt, and consumables - in practical kits.

No matter which type of repair is required - with the water pumps from ContiTech, auto repair shops can rely on premium-quality original equipment.



More information available in the PIC.

Full range:

Thanks to the range of water pumps that can be ordered separately from ContiTech, auto repair shops can meet all repair requirements in a practical manner. The range comprises 25 pump types and thus covers around 40 million vehicles in Europe. In addition, it even includes special types for engines where the water pump works completely decoupled from the en-

the consumables required for installation, including seals and screws. With this product group, ContiTech makes it possible for auto repair shops to obtain all drive belt components from a single source. Full range - in the customary quality.

At a glance

- > 25 versions for 40 million vehicles
- > Types for multi V-belt drives and electric drives
- > Includes installation parts
- > Very smooth and quiet running due to integral bearing with roller and ball bearings
- > High air-tightness due to axial face seal made of carbon and silicon carbide
- > Pulley made of sintered steel with precisely shaped ribbed profile
- > Simple referencing via TecDoc
- > Free installation tips and services: www.contitech.de/pic
- > 5-year guarantee: www.contitech.de/5

$\stackrel{\circ}{\mathbb{1}}$ The way it's done

> Do not use any additional sealing paste for the water pump installation. Sealing paste can dissolve during operation, soil the coolant, and damage the system.





Gentle decoupling: Overrunning Alternator Pulley

Alternators react more slowly than engines to changes in revolution speed. They have a high inertia level and in combination with a rigid belt pulley tend to prevent a rapid reduction in engine speed. In other words: If engine revolutions are to be reduced fast, the sluggish alternator also has to be slowed down via the belt and then speeded up once more when the engine accelerates. This leads to irregular running, wear and tear within the entire belt drive and increased energy consumption.

The solution: With the aid of its integrated overrruning coupling the overrunning alternator pulley transmits torque in a single direction only. This enables fast reduction of engine speed while the alternator can continue to run unobstructed for a short while. This reduces the strain on the entire drive system during braking and gear changes and enables more efficient acceleration.

And it can be done even more smoothly: For some drives an alternator decoupler is provided. Thanks to its integrated spring/damper system the overrunning alternator decoupler also dampens vibrations from the alternator, thereby enabling it to suppress resonance more effectively. In this way the Overrunning Alternator Pulley and the Overrunning Alternator Decoupler provided by ContiTech in OE quality ensure smooth and efficient belt drive operations.



Benefits

- > Avoiding vibrations and slip in the belt drive
- > Exceptionally smooth running and low noise
- > Also available decoupled
- > Ensures the optimum operational life of belts and belt drive components
- > 5-year guarantee: www.contitech.de/5



$\breve{1}$ The way it's done

- necessary.





More information available in the PIC.

> If the multi V-belt makes a whistling or flapping noise: Check the overrunning alternator pulley and replace it if

> Normal belt pulley or overrunning alternator pulley? Overrunning alternator pulleys and overrunning alternator decouplers can be identified by their cover caps. Rigid belt pulleys have no cover caps.

> Instructions on fitting, storage and replacement intervals should always be followed (please see the 'Know-how' section).

> The TOOL BOX OAP from ContiTech contains all the requisite tools across manufacturers for OAP replacement.

Making hard work easy: Tools and sets

Always a good fit: Tools from ContiTech are specially adapted to the maintenance and replacement of power transmission belts. In addition to individual measuring devices and special tools, such as the LASER TOOL for alignment testing or the BTT Hz Tension Tester, our range also features toolsets specifically designed for belt replacement.

Regardless of whether your workshop is specialized or covers all vehicle types - with tools from ContiTech you have all the required tools at hand in a wellorganized selection – and at a favorable price for the complete set.



General tools

BTT Hz

Reliable tension testing and setting using the frequency measurement method. Especially reliable thanks to Double Microphone Technology. The device only provides a measurement value if measuring has been successful, thus actively preventing faulty measurements.



TOOL BOXES

These robust cases contain all the tools you need to enable you to work safely and guickly on a belt drive. From a locking tool to the appropriate tensioning tool. Made in Germany using high-grade steel. We have put together the tools in the individual cases so that they precisely meet the requirements of different vehicle types. Only ContiTech supplies sets in this form. They simplify operations and save a great deal of time.



Art. No. 65 03 700 000 TOOL BOX V01 for Audi, Seat, Škoda and Volkswagen

Exclusive tool kit for the professional changing of timing belts specifically for Audi, Seat, Škoda and Volkswagen engines. This high-quality tooling is only offered in such a set by ContiTech and guarantees that the timing belt can be changed professionally in accordance with the manufacturer's specifications.



Art. No. 67 58 824 000 TOOL BOX V03 for Citroën und Peugeot.

If you intend servicing a Citroën or Peugeot engine, special requirements have to be met, particularly with regard to the timing gear. There are also a lot of freewheels. That means that the crankshaft and camshaft can only be locked and released using special tools. TOOL BOX V03 offers everything you need for a fast, safe repair to ensure that the engine runs exactly in accordance with the manufacturer's specifications after the repair.

Art. No. 67 58 825 000 TOOL BOX V04 for Ford und Opel.

Belt Tension Tester Mini (BTT Mini)



With the Belt Tension Tester BTT Mini, auto repair shops can check the belt tension of all conventional timing belts quickly and easily. The tension is measured in fC (ContiTech unit of frequency) at the touch of a button. This is shown on an LCD display and can be converted using a smartphone. Background noises do not affect the measurement. The device weighs only 7.5 g and can be recharged at any USB port. The corresponding charging cable and the appropriate O-rings are included with the equipment.

Art. No. 67 00 416 000



Art. No. 67 58 823 000 **TOOL BOX V02 for Renault**

Renault engines are reliable - and therefore in widespread use. In the workshop, however, they have their quirks. When changing the multi V-belt with some engines, for example, it is essential for the belt tensioner also to be changed. That can be carried out quickly and reliably using the special tools in TOOL BOX V02 for all common Renault models.



Cars from Ford and Opel have a reputation for solid quality. To ensure that this lasts throughout the car's lifetime, details are important when changing the timing belt – for example, precise locking of the high-pressure fuel injection pump. You need special tools when performing this operation with Ford and Opel vehicles. All of these are contained in TOOL BOX V04.

Accessory drive tools

LASER TOOL



Correct alignment in multi V-belt operations can be checked simply by means of the laser device, which is placed on the belt pulley. Bracket without magnet - suitable for plastic pulleys, too.

Art. No. 67 57 610 000

TOOL BOX OAP



Art. No. 65 03 999 000

UNI TOOL ELAST



High-quality universal tool for fitting and removing elastic multi V-belts. Its unique design enables professional replacement of a range of elastic belt drives, irrespective of vehicle make.

Art. No. 67 76 956 000

Length gauge



ELAST TOOL F01



The elastic multi V-belts of some Ford and Volvo models can only be replaced with this special tool, which fills the gap in the tool cupboard.

Vehicles involved: Ford Focus, Ford C-Max, Ford Mondeo 1.4/1.6-I gasoline, Volvo S40, Volvo C30, Volvo V50 1.6-I gasoline

Art. No. 67 57 240 000

Belt Wear Tester



Toolset for the expert maintenance and fitting of OAPs and OADs for all standard alternators.

Gauge for checking the belt length of V-belts and

Easy and fast identification of belt wear: The wear tester is placed in the grooves of the multi V-belt when it is at rest to detect potential wear of the

The way it's done Practical tips

Changing power transmission belts is an everyday part of workshop operations, but there are a number of things to keep in mind. We've summarized the main points.

Timing drive

- > Tensioning and idler pulleys are also subject to wear and tear and should be replaced when the belt is changed.
- > Instructions for installation should always be followed.
- > Make sure the right type of profile is used.
- > In the case of engines in which the timing belt also drives the water pump, the pump should also be replaced when the timing belt is changed.
- > The timing belt should only be changed when the engine has cooled.
- > Timing belts, tensioning/idler pulleys and water pumps are sensitive precision parts. Never use force - if it doesn't fit, it doesn't fit.
- > Screws should always be tightened with the correct torque.
- > Do not use any sprays or chemicals to reduce belt noise.

- > Only turn the engine with the timing belt fitted.
- > Use Belt Tension Tester BTT Hz for testing tension.
- > Never change the relative position of the crankshaft to the camshaft
- > Before switching on the engine check the operation of the timing belt for: - misalignment
 - offset
 - tilting
- > Even 'automatic' tensioning pulleys are often only semi-automatic, which means that manual setting of the tension is required during installation.
- > Timing belts should never be kinked! If the sensitive fiberglass tensile member in the interior breaks, the belt can tear while the engine is running.

Accessory drive

- > Accessory power transmission belts, overrunning alterna-> ContiTech offers a number of solutions for the fitting of tor pulleys and torsional vibration dampers are subject to elastic multi V-belts: wear and tear. They should be checked with every belt - Complete package: Multi V-Belt Elast + Tool or change and replaced if necessary. - various universal and special tools.
- > Instructions for fitting should always be followed.
- > If the V-belt makes a squealing noise the alignment of the pulleys should be checked and the belt changed if necessary.
- > When rotating parts are fitted, the direction and location of all pulleys should be taken into account.
- > Do not use any sprays or chemicals to reduce belt noise.
- > Never replace a normal multi V-belt by an elastic multi V-belt - and vice versa! Check belt wear on multi V-belts with the Belt Wear Tester.
- > Elastic multi V-belts can be re-used if they have been removed without damage.
- > Elastic multi V-belts are self-tensioning no belt tensioner is required.
- > Elastic belts are fitted under load.

Aid for the wall:

Workshop poster

Recognizing frequent defects and reliably identifying their causes: For a quick overview of typical defects and replacement intervals ContiTech provides practical workshop posters on timing belts, multi V-belts and torsional vibration dampers.

Order from: http://apps.contitech-online.com/mediaservice

View cases of typical defects and their cause:



Timing Belts





Multi V-Belts

Video guides:



V-Belts

> Use Belt Tension Tester BTT Hz for testing tension.

- > Overrunning alternator pulleys and overrunning alternator decouplers must only be operated with cover caps.
- > In the event of noises or damage during belt operations the overrunning alternator pulley should always be checked.
- > If there is visible damage to the rubber track, the torsional vibration damper/torsional vibration damper isolator always has to be replaced at the same time. Warning: It is possible for the damage to the torsional vibration damper to appear only on the back.
- > Check alignment of belt pulleys using the LASER TOOL.
- > The right tools for changing belts and components in the accessory drive are described in the 'Measuring and fitting tools' brochure.



Change sticker: 'Smart Sticker'

Knowing at a glance when the timing belt was replaced – the change sticker is not only practical but important. However, it can get hot in the engine compartment, not to mention damp and dirty. This often affects the lettering, and an unreadable sticker is of very little use.

For this reason the ContiTech change sticker consists of premium-quality foil which gives the lettering long-term protection. The improved change sticker is included with all ContiTech Timing Belts and Timing Belt Kits.



Replacement intervals

Replacement intervals are prescribed by the automobile manufacturer and are mandatory. They must not be extended. If no replacement interval has been prescribed by the vehicle manufacturer, ContiTech recommends changing the belt at the latest after 120,000 km or after 7 years, whichever occurs first. Detailed information on changing belts is available in the brochure "Belts and Components - Technology. Know-how. Tips" and the "Technical News / Technical Info" newsletter. You can subscribe right now at: www.aam-europe.contitech.de >> Support >> Technical Info/News

Storage

All belts and accessories should be stored until use in their original packaging. The storage location should be dry, free from dust, cool (15 to 25°C) and without direct sunlight. They should not be stored near highly flammable, aggres-

sive media such as acids or ozone-generating facilities. Avoid contact with all liquids. Maximum storage period: 5 years from date of production (see packaging).

Know How Things Work Watch and Work service videos

Practical and easy to understand: Watch and Work service videos by ContiTech. In just a few minutes, trainer Stefan Meyer explains the most important tips and tricks for professionals when installing belts. Every episode focuses on a different engine. Stefan also regularly examines the principles of the everyday activities performed in auto repair shops. The videos are normally produced in German and English and the content is also translated into other languages. Watch and Work is available on YouTube at www.contitech.de/aam-yt-en and our Facebook page www.contitech.de/aam-fb or the ContiTech homepage www.contitech.de/aam-video They can also be found on PIC.





Finding instead of searching: Our PIC offers free fitting information and more

Need data, instructions or other information on a particular article? Use our Product Information Center (PIC). Here you'll find useful supplementary information on all belts and kits.

Available round the clock, always up-to-date and free of charge: At www.contitech.de/pic you will receive technical data such as parts lists, images, fitting advice and detailed fitting instructions. You can search the data by product name and select what you require.

Our PIC is also available for your smartphone or tablet: simply scan the QR code on the product packaging and the relevant page of the PIC will open up.







Technical data/ parts list





> Automotive application

Fitting instructions

> Download fitting instructions



- > Technical instructions
- > "Watch and Work" videos

> Automotive applications for the specific article

Vehicles

Fitting information

- > Technical information
- > FAQs and instructions





General information



- > General information on replacement intervals
- > Problem and diagnosis cases

Knowing what gets the job done: Professional training sessions

ContiTech supports workshops not just with products but also with the necessary expertise. Our training focuses both on theory and on practice: Regardless of whether you just wish to refresh your know-how or want hands-on experience – our experts are ready to provide all the help you need.

Product and sales training

- > Topics: Continental corporation, product, sales support
- > For: internal sales and sales force of partners

Warranty

- > **Topics:** warranty, guarantee, goodwill
- > For: warranty employees of sales partners

Technical training I (theory)

- > **Topic:** drive belt expertise
- For: senior automotive mechanics, mechanics and apprentices

Technical training II (practical training)

- > **Topics:** changing timing belts on various engines, drive belt expertise
- > For: senior automotive mechanics, mechanics and apprentices

Mechanics club

 For: all senior automotive mechanics, mechanics and apprentices, who have successfully completed technical training I and II.

Train the trainer: Trainer basics I (theory)

 For: disseminators, technical instructors, trainers and vocational teachers

Train the trainer: Trainer basics II (practical)

 For: disseminators, technical instructors, apprentices and vocational teachers, who have successfully passed trainer basics I

Trainer club

 For: disseminators, technical instructors, apprentices and vocational teachers, who have successfully passed trainer basics I and II



Training sessions 49



Contact

Online: www.contitech.de/aam aam@ptg.contitech.de

Technical hotline: +49 (0)511 938-5178

Facebook: www.facebook.com/contitech.aam

FAQ Corner:



Technical queries:



Ordering print and digital media: http://apps.contitech-online.com/mediaservice



Sign up for newsletter:



Download information material:







ContiTech

Power Transmission Group

Market segment Automotive Aftermarket

Contact ContiTech Antriebssysteme GmbH Philipsbornstrasse 1 Hanover, Germany Tech. hotline +49 (0)511 938-5178 aam@ptg.contitech.de www.contitech.de/aam





Data, instructions and other technical information available from the PIC at www.contitech.de/pic or simply scan the QR code.

Certified in accordance with:





ContiTech. Smart Solutions Beyond Rubber

The ContiTech division of the Continental Corporation is one of the world's leading industry specialists. As a technology partner, our name is synonymous with expertise in development and materials for components made of natural rubber and plastics and also in combination with other materials such as metal, fabrics or silicone. By integrating electronic components, we are also generating solutions for the future.

Beyond products, systems and services we also provide holistic solutions and have a formative influence on the industrial infrastructure. We see digitalisation and current trends as an opportunity to work with our customers to add sustainable value – for both sides and for good.



The content of this publication is not legally binding and is provided as information only. The trademarks displayed in this publication are the property of Continental AG and/or its affiliates. Copyright © 2017 ContiTech AG. All rights reserved. For complete information go to: www.contitech.de/discl_en