



DAYCO®

MOVE FORWARD. ALWAYS.™

DY16

Driving belt

ISO10664



different angle

Free Arm Position



As a brand, Dayco is comprised of many inter-related elements that work together. From values to stories to individual employees, to products every piece counts.

At Dayco, our mission is to improve how the world moves, every day.

We pride ourselves on our values as One Dayco: to be responsive to customer needs; meet challenges with ingenuity; collaborate with peers; possess foresight; and behave with integrity.

Dayco is a company with more than 4,500 talented, hard-working associates who help people around the world move, travel and work ever-more efficiently. We're a company in motion — always creating the essential products and improving the drive systems of engines that drive the global economy — helping our partners give their customers a level of service second to none.

Let's continue to improve how the world moves.



DAYCO COMPANY AND ITS HISTORY

Dayco is a global leader in the research, design, manufacturing and distribution of essential engine products, drive systems and services for automobiles, trucks, construction, agriculture and industrial. Dayco's contributions are integral to how people get from place to place, goods are transported, food is harvested, and infrastructure is built. The company operates according to long-held values — keeping promises, delivering on time all the time, and an intense commitment to service no matter what the obstacles. For more than a century, Dayco has overcome challenges, emerging stronger and smarter at every turn.

Dayco improves how the world moves by creating products, systems and relationships that endure. Move Forward. Always.™.

1950s

Developed cold rubber material



1905

Founded as Dayton Rubber Manufacturing Co.

1920s

First raw edge V-Belt developed





1970s

Launched the first accessory drive belt application



1993

Acquired Pirelli belt business



2005

Recognized for 100 years in business

2016

Launched ACTIVAC™ Vacuum Generation System



1960-70

DRMC renamed to "Dayco", exits tire business



1990s

introduces "No Slack" automatic belt tensioner, aftermarket kits



2000s

Introduced Timing Belt component kits in North America



2007

First to launch automotive Timing Belt-In-Oil (TBIO) system



2018

OE Innovation: BSG 48 V system for mild Hybrid vehicle applications



GLOBAL FOOTPRINT

42 LOCATIONS ACROSS 21 COUNTRIES

- Manufacturing facilities
- Distribution Centers
- Sales & Administration Office
- Research, development & Engineering Centers



Canada

Concord

United States

- Hillsdale, MI
- Memphis, TN
- Mt. Pleasant, MI
- Roseville, MI
- Springdale, AR
- Troy, MI
- Williston, SC

Argentina

- Buenos Aires
- Córdoba



LIGHT DUTY PRODUCTS

As a global automobile manufacturer, you demand higher quality standards from your suppliers – and Dayco is committed to building strong relationships to collaborate on product development to design and provide products to meet these quality standards. Dayco has invested to keep our manufacturing facilities among the best in the world, and our extensive knowledge of drive systems allows us to develop the innovative products and solutions that are vital to peak engine performance. With more than 40 locations in 21 countries, Dayco continues to take the steps necessary to globalize our operations to provide a seamless service experience, from manufacturing to delivery to technical support. With an instinct for pushing the boundaries of endurance and on the strength of more than 110 years of experience, our essential engine products and drive system solutions improve how the world moves, delivering engine economy, efficiency and exceptional performance.

THE PREFERRED PARTNER OF THE WORLD'S LEADING VEHICLE MANUFACTURERS:

Alfa Romeo, Audi, BMW, Chrysler, Citroen, Ferrari, FIAT, Ford, Jaguar, Jeep, Lamborghini, Land Rover, Lancia, Maserati, Mazda, Mitsubishi, Mercedes-Benz, Nissan, Peugeot, Porsche, Renault, Saab, Seat, Skoda, Suzuki, Toyota, Volvo, Volkswagen, Vauxhall, Opel, GM and Isuzu.







TIMING BELTS

Toothed belts (or timing belts) are designed for diesel engines and for petrol engines as well; they are installed on vehicles and commercial vehicles. Thanks to the use of increasingly innovative materials, belts can be produced with different structures and tooth profiles to meet the performance of modern engines.

Available structures:

- NR: first generation belts: working temperature 80°C-90°C/175°F-195°C.
- HSN: offer superior resistance to high working temperatures, even up to 110°C/230°F and to pulsating loads.

- HDT: are foreseen for some particularly heavy applications: working temperature up to 115°C/240°F.
- HT: with tooth tissue coated with a PTFE film: working temperature up to 120°C/250°F.
- HK: latest generation product, equipped with aramid-based fibers: working temperature up to 120°C/250°F.
- BIO: distribution belts designed to work in an oil bath. They resist the action of additives and the high temperatures of the engine oil.



TIMING BELT KITS

Quality requirements of maintenance activities on accessory and transmission controls do not require single items anymore, rather complete systems allowing the installation technician to guarantee reliable replacement operations.

The wide range of Dayco Kits to control the timing system is the reply to the requests coming from a continuously developing market.

The offer is divided into:

- KTB - Timing control kit
- KTBWP - Timing control kits complete with water pump
- All the range guarantees complete systems and the perfect technical compatibility of the components, for the top quality.



TIMING BELT IN OIL KITS

The BIO system has been a real revolution in the automotive field. By creating a belt able to work inside the engine like a chain (lubricated area), it has been possible to combine the best of both technologies, preserving the advantages that the chain guarantees in terms of compactness of the engine architecture and adding synergistically those of the belt transmission.

Main advantages and features of the BIO Dayco KIT:

- Use of innovative and cutting-edge materials

- High robustness and proven reliability on test benches and vehicle fleets
- Reduced coefficient of friction with relative reduction of energy losses (reduction of consumption and pollution)
- Optimization of the belt and pulley profile for noise reduction (maximum acoustic comfort)
- Synergic design of the entire BIO transmission system (belt, guides, tensioners, idler pulleys, pulleys) and not of the single component.



WATER PUMP

The engine cooling system is designed to stabilize the temperature, limiting its rise within the set limits. The cooling fluid is circulated by the water pump, which must guarantee the correct flow at every engine rotation speed.

Failures in the system can cause significant damage to the engine. For this reason, it is extremely important that the water pump be systematically checked.

The main elements that guarantee the quality of our pumps are:

- The bearing, which supports the rotor on one side and the pulley on the other side.

- The rotor, which can be a synthetic material is reinforced with glass fiber, steel or cast iron.
- The seal, fitted between the rotor and the bearing.
- The pump body, usually in plastic or aluminium depending on the vehicle manufacturer.
- The water pumps in our kits are OE equivalent and provide maximum safety and service life.



POLY-V BELTS

The Poly-V belts are produced for accessory transmissions of cars, commercial vehicles, heavy duty vehicles and buses. The increase in the number of accessories (air conditioning, power steering pumps, alternators, water pumps, vacuum pumps, etc.) and the operating conditions with temperatures up to 130°C have made it essential to upgrade the materials and construction technology.

The main features are:

- Highly flexible for use on small diameter pulleys

- Power transmission also with the back of the belts, in particular in the case of the "DPK" (Double Poly-V)
- Resistance to high operating temperatures for longer service life

In line with the demands of the sector, Automotive Dayco has also developed for the Aftermarket the latest generation of Poly-V belts capable of handling high workloads, while maintaining constant high performance.



RAW EDGE V-BELTS

These belts have a trapezoidal section with edges cut and are highly performing. They may be serrated. Available in AV10 - AV13 - AV17 types, Dayco V-belts are all made of high quality materials in order to guarantee:

- Excellent resistance to repeated flexing
- Low weight
- Use on small diameter pulleys

- High transmission ratios
- Greater friction, less slippage
- Energy saving
- Longer belt life
- Good resistance to heat
- High friction coefficient
- Good resistance to oils, greases, chemicals, ozone



TENSIONERS AND PULLEYS

The increase in engine performance and the continuous increase in accessory components have required considerable development in the design and choice of materials, even for rigid components.

The fundamental types of rigid components are:

FIXED TENSIONERS: the final tension on the belt is applied through the correct setting of the tensioner and remains constant over time.

AUTOMATIC TENSIONERS: they are able to continuously adapt to the operating conditions of the engine and optimise the belt tension

according to the different stresses received from the engine, in all operating conditions.

IDLER PULLEYS: they are pulleys with or without support that help the belt circuit, effectively contributing to the restraint of misalignment and noise reduction.



DAMPERS

The torsional damper (or vibration damper, more commonly called damper) is a device that absorbs vibrations produced by the crankshaft. It is widely used on cars to prevent damage and failure caused by vibration.

It is generally also used as a guide pulley for Poly-V belts and to move accessory components (water pump, power steering, alternator, compressor, etc.).

Damper replacement is required when the rubber absorber is no longer able to reduce vibration due to wear and tear. In this regard Dayco recommends to check that the rubber ring of the damper has not stiffened too much by checking the aging of the rubber: it must not have excessive hardening, crystallization or cracking of any kind.



POLY-V BELT KITS

Dayco's continuous research and consistent collaboration with all car manufacturers, has given Dayco the opportunity to create complete systems that meet all technical and application needs. A diverse range of kits are available to meet the needs of a market that is continuously evolving.

Dayco kits offer:

- Components of original or equivalent quality for both passenger cars and heavy duty vehicles
- Complete replacement of all wear parts (belts, rigid components)
- Continuous update of components according to the instructions of the manufacturer.



TIMING CHAINS

Dayco's long tradition and renowned expertise in the field of power transmission, together with our understanding of the importance of quality, testing and reliability, have led to the successful creation of a range of Timing Chains.

Features and benefits of the Dayco timing chains:

- High strength and reliability proven in testing and on fleet vehicles

Use of state-of-the-art technology:

- Chains: use of high-grade steel and expert know-how on the three types of chain used in automotive applications.



TIMING CHAIN KITS

In designing the chain kits, a "system" logic was followed, to ensure all the elements of the kit (chain, hydraulic tensioner, sprockets, guides) were included. Additionally, it is important all elements comply with the technical requirements of the single component. This guarantees maximum functionality, silence and a longer life of the transmission.

Main advantages and features of the Dayco chain KITS:

- Synergic design of the entire KIT (chain, guides, tensioner, gears, seals)
- High robustness and proven reliability on test benches and vehicle fleets.

Use of the best technologies available today:

- Chains: use of high-strength steel and know-how of the various types of chain used in the automotive sector:
- Tensioners: precision machining in order to obtain reduced internal clearances for the best control and optimal management of the chain tension
- Guides: use of high-strength plastics loaded with glass fibres
- Gears: high-strength moulding steel or sintered steel, both with specific heat treatments for surface hardening of the toothed areas.

HEAVY DUTY PRODUCTS

THE PREFERRED PARTNER OF THE MOST IMPORTANT OE TRUCK BRANDS AND ENGINE EQUIPMENT:

Cat, Cummins, Daf, Detroit Diesel, Freightliner, International/
Navistar, Irisbus, Iveco, Kamaz, Kassbohrer, Man, Mercedes-
Benz, Mitsubishi/Fuso, Renault Trucks, Scania, Setra, Volvo,
and Komatsu.





WATER PUMPS HEAVY DUTY VEHICLES

The engine cooling system stabilizes the engine operating temperature by limiting the rise above the expected limits. The coolant is circulated by the water pump, which must ensure the correct flow at each engine speed.

The major elements that characterize the quality of Dayco water pumps are:

- The bearing: supports the impeller on one side and the pulley on the other side. This element must ensure constant smoothness and withstand the loads generated by the system. It can be a double ball bearing or a ball bearing (impeller side) and a roller bearing (pulley side). The determination of the bearing geometry is made by the engine manufacturer according to the loads generated by the system.
- The impeller: made of synthetic material reinforced with fibreglass, steel or cast iron. It is important that the profile of the impeller blades ensure the correct flow in order to avoid cavitation effects. The complex design of the impeller accommodates the constant flow of liquid at all engine speeds.
- The seal: mounted between the impeller and the bearing. At all operating temperatures and speeds, the bearing must guarantee the seal of the liquid to prevent it from entering the bearing, compromising the lubricated grease qualities and causing irreversible damage to the pump.



ACCESSORY POLY-V BELT KITS HEAVY DUTY VEHICLES

Quality requirements of maintenance activities on auxiliary and drive controls do not require single items anymore, rather complete systems allowing the installation technician to guarantee reliable replacement operations.

Our continuous research in cooperation with all automotive companies allowed us to re-release complete systems that can satisfy all technical and application needs. Our program can achieve differentiated selections for the same application, from those envisaged by the manufacturer to the most complete ones. The wide range of Dayco kits to control the auxiliary components providing simple solutions for a continuously developing market. Our offer includes over 130 kits.

Our wide range of product guarantees complete systems and the perfect technical compatibility of top quality components.

Dayco kits offer:

- Genuine or OEM quality components
- Complete replacement of all wear parts (belts, metal parts)
- Continuous update of components according to the instructions of the car manufacturer
- Assembly instructions



TENSIONER AND PULLEYS HEAVY DUTY VEHICLES

The increase in engine performance and the continuous increase in accessory components have required considerable development in the design and choice of materials for all rigid components.

The fundamental types of rigid components are:

- **FIXED TENSIONERS:** the final tension on the belt is applied through the correct setting of the tensioner and remains constant over time.
- **AUTOMATIC TENSIONERS:** they are dynamic tensioners because once properly installed, they are able to adapt to the operating conditions of the engine and optimise the belt tension according to the stresses received from the engine, in all operating conditions.
- **IDLER PULLEYS:** they are pulleys with or without support that help the belt circuit, effectively contributing to the restraint of misalignment and noise reduction.
- Dayco supplies components of original quality or equivalent to the original for its range for Heavy duty vehicles.

POLY-V BELTS HEAVY DUTY VEHICLES

The Poly-V belts are produced for accessory transmissions of cars, commercial vehicles, heavy duty vehicles and buses. The increase in the number of accessories (air conditioning, power steering pumps, alternators, water pumps, vacuum pumps, etc.) and the operating conditions with temperatures up to 130°C have made it essential to upgrade the materials and construction technology. The main features are:

- Highly flexible for use on small diameter pulleys
- Power transmission also with the back of the belts, in particular in the case of the "DPK" (Double Poly-V)
- Resistance to high operating temperatures for longer service life.

V-BELTS HEAVY DUTY VEHICLES

These belts have a trapezoidal section with edges cut and are highly performing. They may be serrated.

Available in AV10 - AV13 - AV17 types, Dayco V-belts are all made of high quality materials in order to guarantee:

- Excellent resistance to repeated flexing
- Low weight
- Use on small diameter pulleys
- High transmission ratios
- Greater friction, less slippage
- Energy saving
- Longer belt life
- Good resistance to heat
- High friction coefficient
- Good resistance to oils, greases, chemicals, ozone.

OE INNOVATIONS





DAYCO BSG 48 V SYSTEM FOR MILD HYBRID VEHICLE APPLICATIONS

Functional technical advantages:

- Full system approach - Dayco can design and manufacture all products:
 - BSG tensioner
 - Crank shaft decoupler
 - Special Poly-V belt
- Fast tensioner movement (very stiff arm)
- Less power losses
- Belt tension reduction
- Weight reduction
- Fuel economy
- Excellent robustness against misalignment noise
- High durability
- Arc tensioner patented



DAYCO DOUBLE SIDED TIMING BELT IN OIL

Functional technical advantages:

- Improved drive efficiency
- Architecture flexibility
- Improved NVH (Noise Vibration Harshness)
- Lower weight
- Integration of functions (Oil pump & Balance shaft drive)
- Lower peak of forces (damping)



DAYCO DDCS LD CRANK SHAFT SPRING DECOUPLER

Functional technical advantages:

Integrated functions (Torsional vibration damper + Decoupler)

- Robust design: rubber replaced by steel springs
- Smooth transmission functionality
- Increased lifetime of accessory drive components
- Reduce system NVH (Noise Vibration Harshness)
- DDCS LD Patented



DAYCO DDCS HD

Functional technical advantages:

Integrated functions (Torsional vibration damper + Decoupler)

- Robust design: rubber replaced by steel springs
- Smooth transmission functionality
- Increased lifetime of accessory drive components
- Reduce system NVH (Noise Vibration Harshness)
- DDCS HD Patented

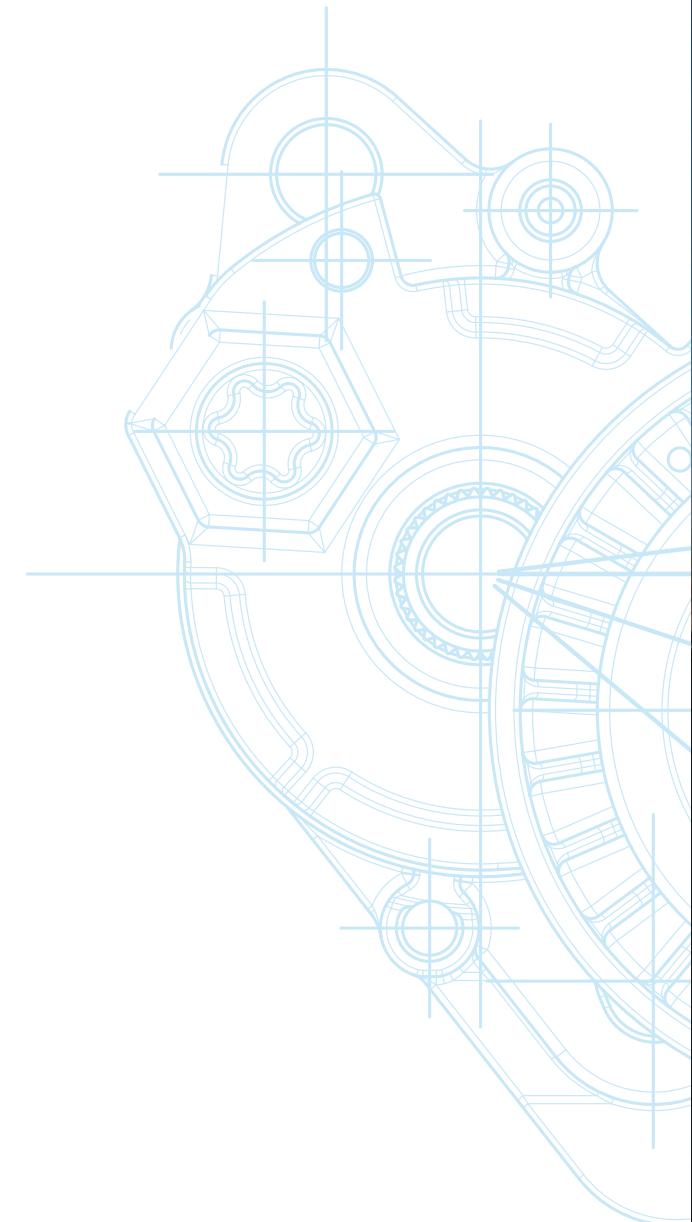


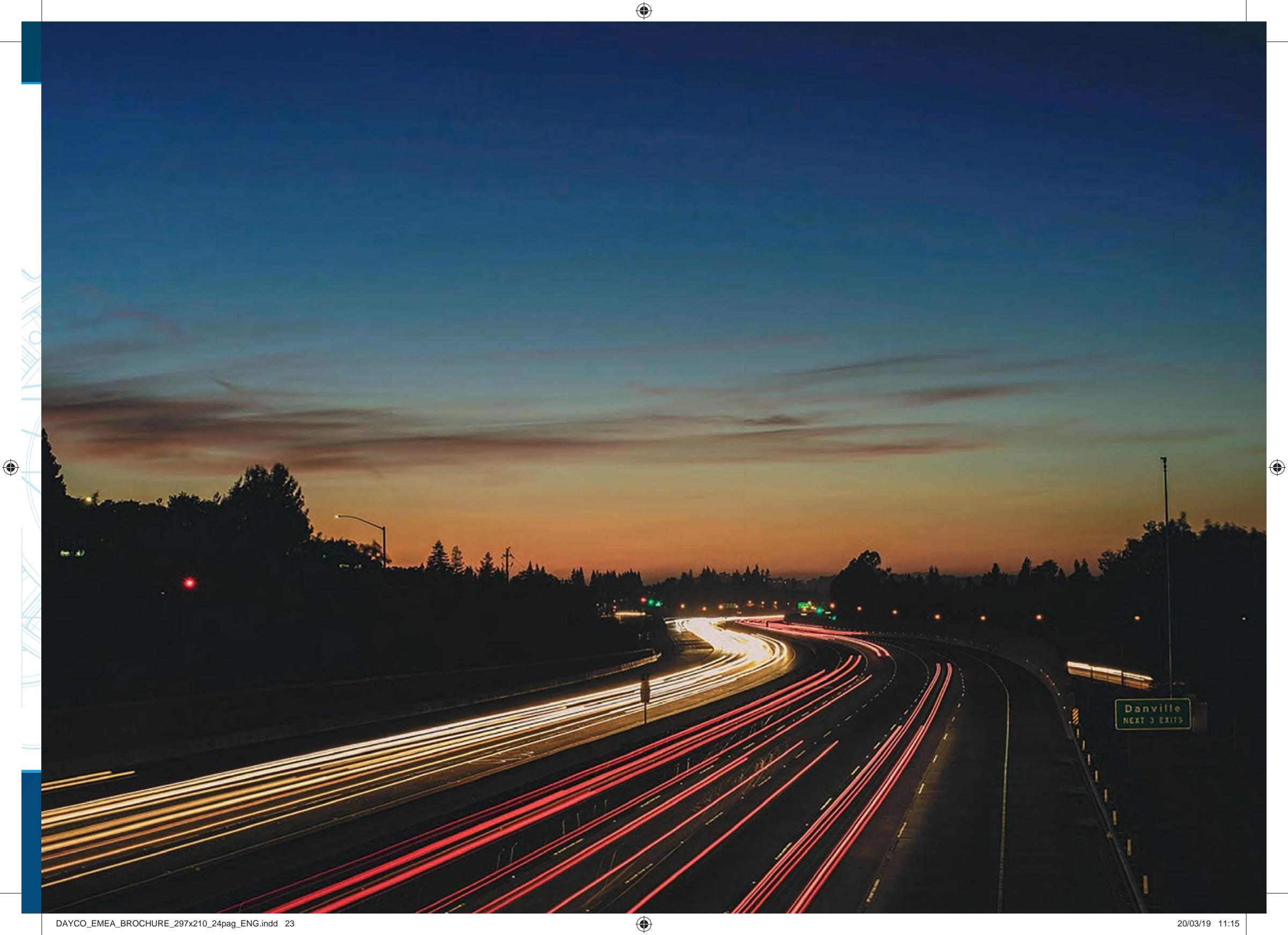
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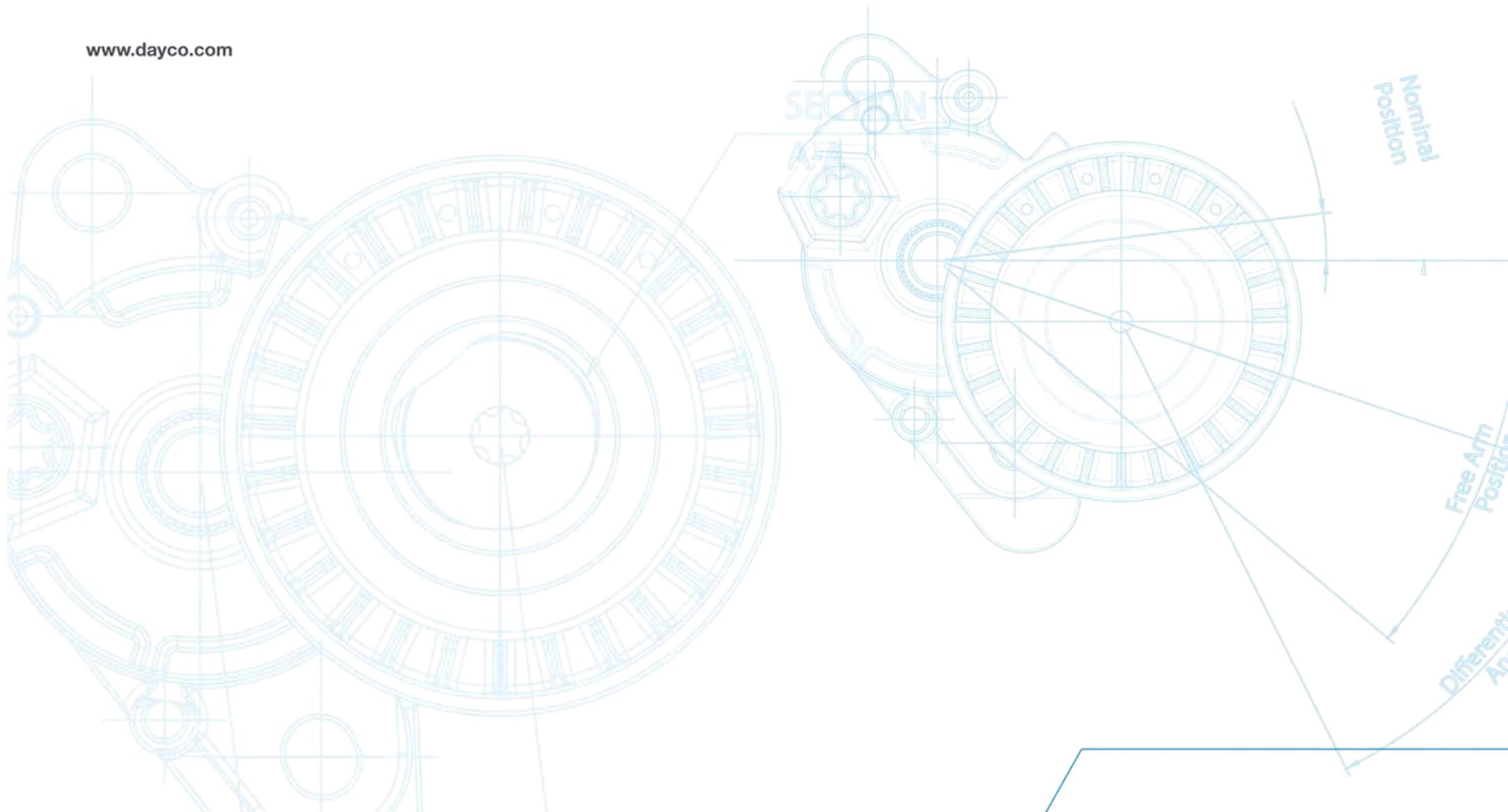
Tensioner for heavy duty applications (TFL)

Functional technical advantages:

- Very high durability
- Completely protected and sealed
- Friction bushings replaced by a roll bearing
- Very high torque
- Asymmetrical Damping (higher in winding condition)
- High grade aluminium casting







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