

# Bosch Limited

## Annual Report 2009



# BOSCH

Invented for life



Energy efficiency at Bosch

## **Bosch Limited – Our vision**

### Creating values – sharing values

If we want to work successfully as a team in a global and complex world, then we need a common image of the future for our Company. This image and vision will help us bring our strategic thinking into clear alignment.

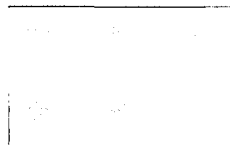
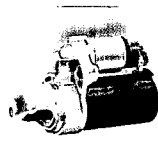
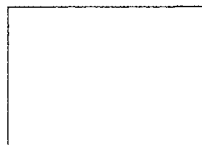
We are the flagship Company of Bosch in India. We take advantage of opportunities for an accelerated growth. We focus on our core competencies in automotive and industrial technologies as well as in products and services for professional and private use.

We strive for sustained economic success and a leading market position in our business areas guided by a long-term perspective. We are the preferred business partner to our customers and vendors, based on our leadership in technology, innovation, reliability, response and quality.

We set ambitious goals and we are determined to jointly achieve them. We value our associates who accept challenges and are committed to continuous improvement. Together we enhance the quality of life.

In all our actions, we are committed to environment, society and all stakeholders. We live by Bosch Values that provide us a strong common bond and orientation. We are proud to be part of the Bosch family.

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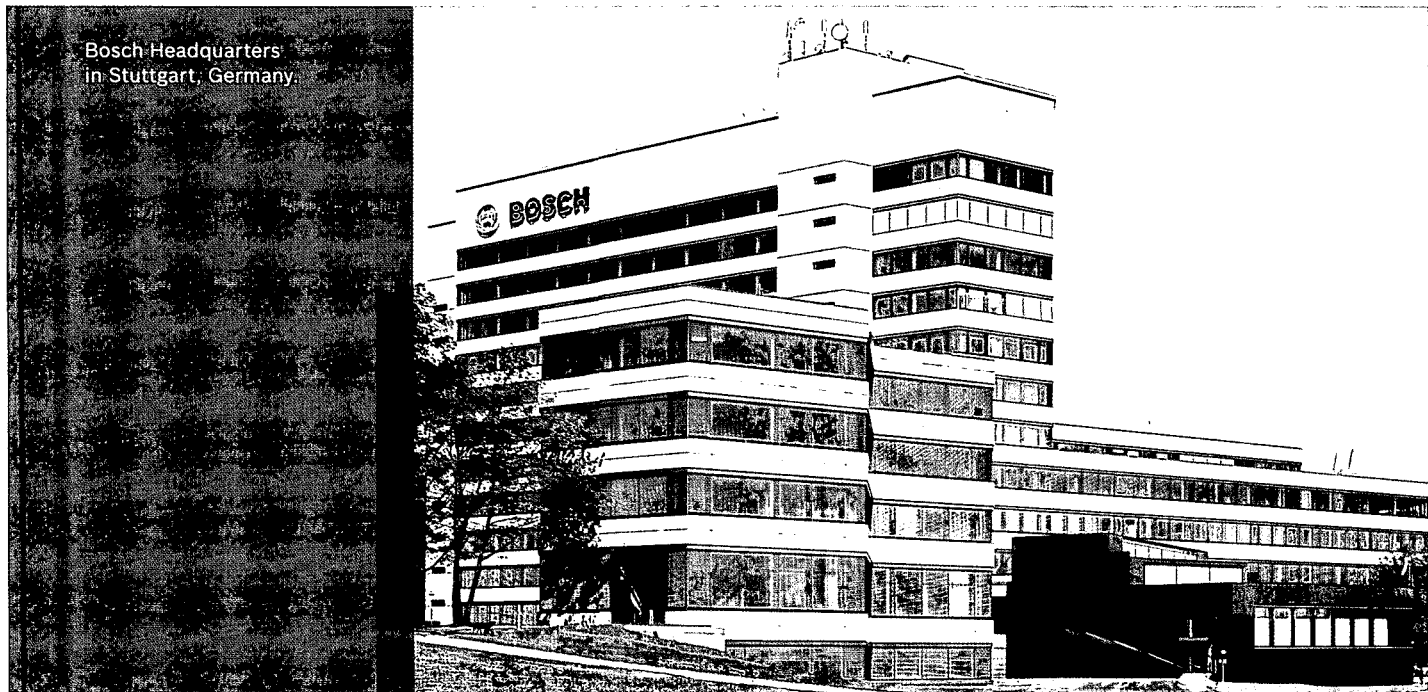


## Cover Page

Ecological globalization calls for the economical use of resources and the prevention of pollution on all continents. As we see it, anyone who thinks ecologically has to act technologically. Bosch has always been an advocate of efficient energy conversion – converting diesel or gasoline into mechanical energy in cars, or oil and gas into heat for the home. We were quick to see how our automotive technology in particular could be used to help protect the environment and conserve resources. In the wake of the first oil crisis in 1973, we developed our 3-S program to make driving safer, cleaner, and more economical. This program has culminated in our current slogan “Invented for life.” But our activities to protect the environment and the climate do not stop at automobiles. Our expertise in the area of metering, governing, and control means that we can help save energy and reduce emissions not only in automotive technology, but also in industrial technology and in consumer goods and building technology.

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## About Bosch Group



The Bosch Group is a leading global supplier of technology and services. In the areas of automotive and industrial technology, consumer goods, and building technology, some 275,000 associates generated sales of 38.2 billion euros in fiscal 2009. The Bosch Group comprises Robert Bosch GmbH and its more than 300 subsidiaries and regional companies in over 60 countries. If its sales and service partners are included, then Bosch is represented in roughly 150 countries. This worldwide development, manufacturing, and sales network is the foundation for growth. Each year, Bosch spends more than 3.5 billion euros for research and development, and applies for some 3,800 patents worldwide. With all its products and services, Bosch enhances the quality of life by providing solutions which are both innovative and beneficial.

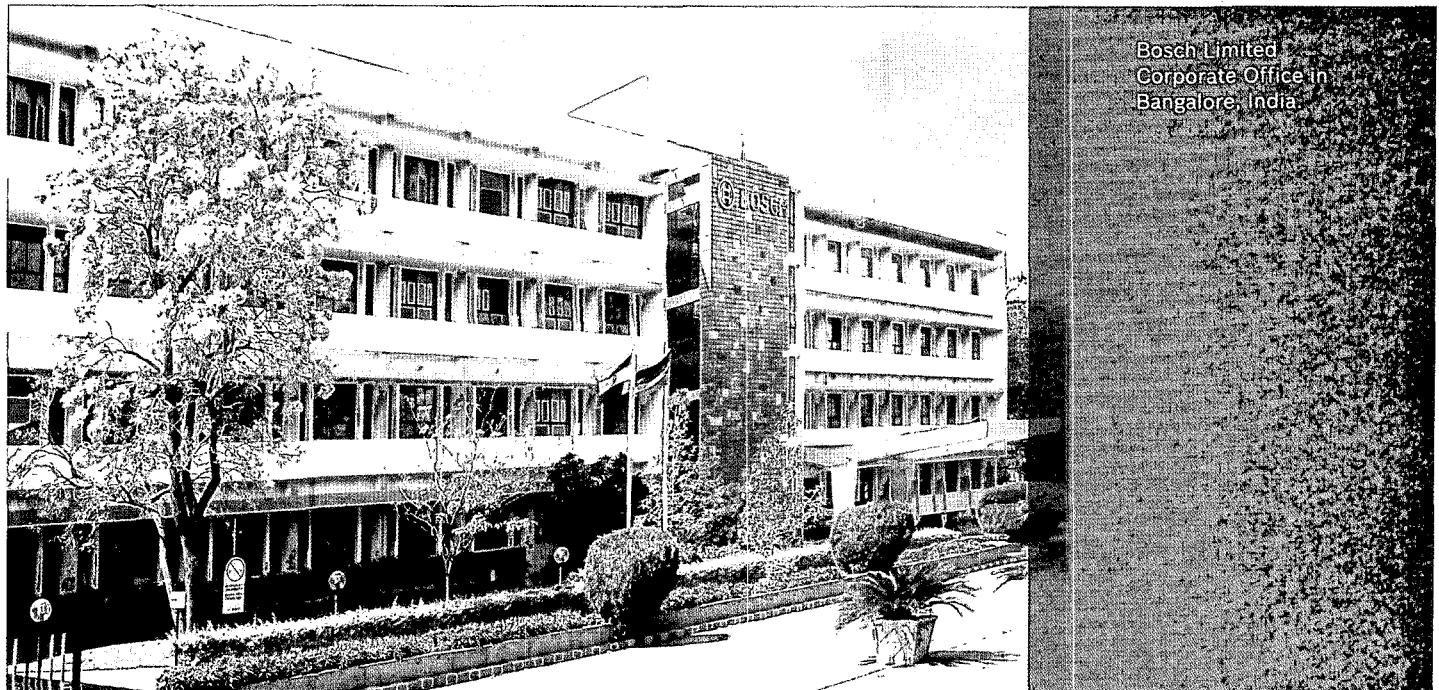
The company was set up in Stuttgart in 1886 by Robert Bosch (1861-1942) as “Workshop for

Precision Mechanics and Electrical Engineering”. The special ownership structure of Robert Bosch GmbH guarantees the entrepreneurial freedom of the Bosch Group, making it possible for the company to plan over the long term and to undertake significant up-front investments in the safeguarding of its future. Ninety-two percent of the share capital of Robert Bosch GmbH is held by Robert Bosch Stiftung GmbH, a charitable foundation. The majority of voting rights are held by Robert Bosch Industrietreuhand KG, an industrial trust. The entrepreneurial ownership functions are carried out by the trust. The remaining shares are held by the Bosch family and by Robert Bosch GmbH.

The Bosch slogan ‘Invented for Life’ is part of its long tradition, through which it communicates the Group’s core competencies and vision, that include technological leadership, modernity, dynamics, quality and customer orientation.



## About Bosch Limited



Bosch has been present in India for more than 80 years - first via a representative office in Calcutta since 1922, and then from 1951 via its subsidiary Bosch Limited (then Motor Industries Company Limited).

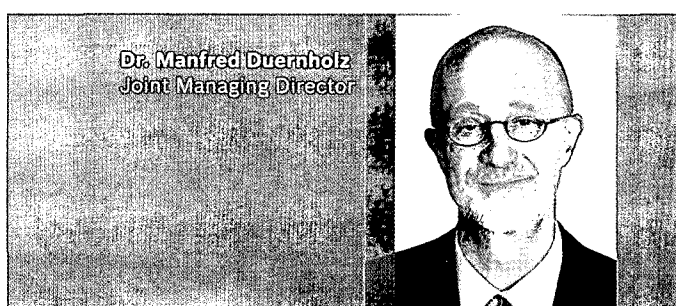
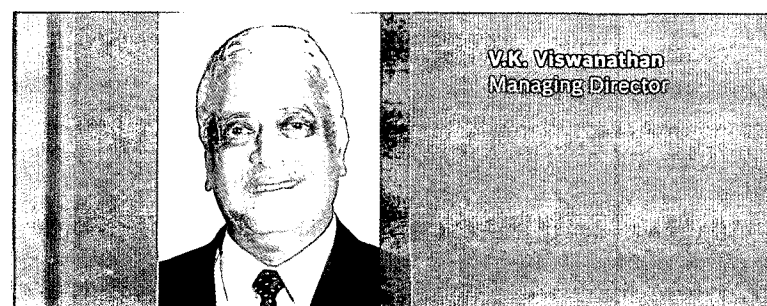
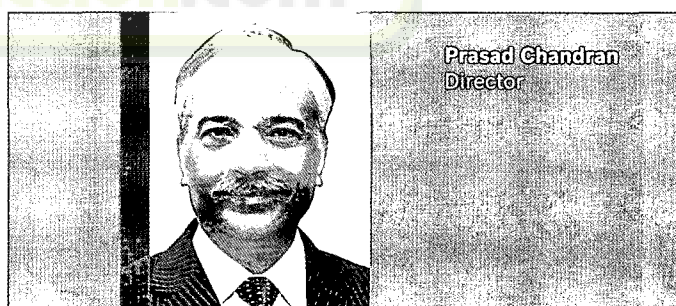
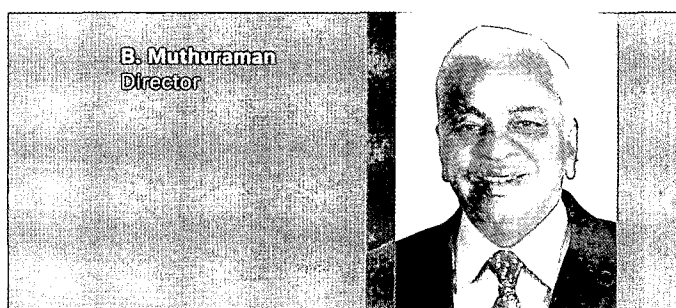
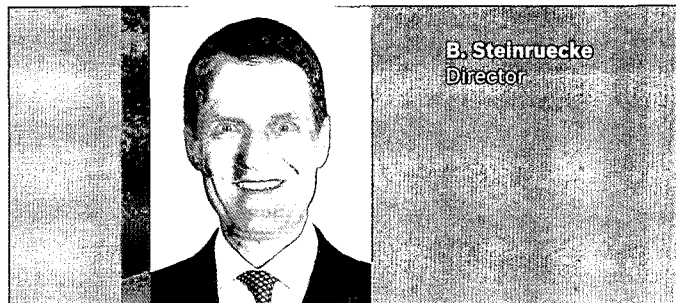
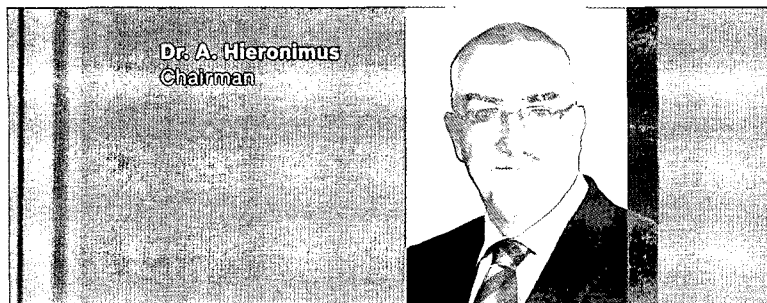
Robert Bosch GmbH holds 71.18% stake in Bosch Limited. The Company is headquartered in Bangalore having its manufacturing facilities at Bangalore, Nashik, Naganathapura, Jaipur and Goa. These Plants are TS 16949 and ISO 14001 certified. Bosch Limited has its presence across automotive technology, industrial technology and consumer goods and building technology, with a strength of over 10,300 associates. It manufactures and trades products as diverse as diesel and gasoline fuel injection systems, automotive aftermarket products, auto electricals, special purpose machines, packaging machines, electric power tools and security systems. The Company touched a turnover of Rs. 4750 crores in the year 2009.

The Company has developed excellent R&D and manufacturing capabilities and a strong customer base. Its market leadership is testimony to the high quality and technology of its products. It also has a strong presence in the Indian automotive services sector. Bosch's service network spans across 1,000 towns and cities with over 4,000 authorised representatives who ensure widespread availability of both products and services.

Bosch is also represented by five other group companies in India. Robert Bosch Engineering and Business Solutions Limited, a 100% subsidiary of Robert Bosch GmbH, which is present in India since 1998, has emerged as one of the largest Bosch development centers outside Germany. It provides end to end engineering and technology solutions for all the business sectors of automotive technology, industrial technology, consumer goods and building technology. Bosch Rexroth India Ltd., established in 1974 in India, serves customers through its manufacturing facilities and service centers in Ahmedabad and Bangalore. Bosch Chassis Systems India Ltd., established in 1982 as Kalyani Brakes Limited in India, is amongst the leading manufacturers of brakes in the country. It currently manufactures Hydraulic Brake Systems and Anti Lock Braking Systems meeting the stringent quality norms of many leading Indian and international vehicle manufacturers. Bosch Automotive Electronics India Private Limited, is a 100% subsidiary of Bosch Group and is engaged in the manufacture and sale of electronic devices and electronic control units. The Company is based at Naganathapura in Bangalore. Bosch Electrical Drives India Private Limited is a joint venture company. It is based near Chennai and manufactures and sells electrical drives for various automotive applications such as window lift drive, wiper system, engine cooling fans etc.



## Board of Directors, Committees, etc.



**Company Secretary**

A. Vijay Shankar

**Auditors**

Price Waterhouse & Co.

**Bankers**

State Bank of India

Canara Bank

Citibank, N.A.

Deutsche Bank AG

**Registered Office**

Hosur Road

Adugodi

Bangalore - 560 030

**Stock Exchanges**

*(where the shares of the Company are listed)*

Bombay Stock Exchange Limited

Phiroze Jeejeebhoy Towers

Dalal Street

Mumbai - 400 001

National Stock Exchange of India Limited

Exchange Plaza, Bandra-Kurla complex

Bandra (E),

Mumbai - 400 051

**Registrar & Transfer Agent**

Alpha Systems Private Limited

No. 30, Ramana Residency

4<sup>th</sup> Cross, Sampige Road

Malleswaram

Bangalore - 560 003

**Audit Committee**

Renu S. Karnad, *Chairperson*

Dr. A. Hieronimus

B. Steinruecke

B. Muthuraman

Prasad Chandran

**Shareholders'/Investors' Grievance Committee**

B. Steinruecke, *Chairman*

Renu S. Karnad

Dr. A. Hieronimus

V.K. Viswanathan

Prasad Chandran

**Remuneration Committee**

Dr. A. Hieronimus

B. Muthuraman

B. Steinruecke

Prasad Chandran

**Investment Committee**

B. Muthuraman

Renu S. Karnad

Dr. Manfred Duernholz

V.K. Viswanathan

**Property Committee**

Dr. A. Hieronimus

Renu S. Karnad

V.K. Viswanathan

Dr. Manfred Duernholz

**Share Transfer Committee**

B. Muthuraman

B. Steinruecke

V. K. Viswanathan

Prasad Chandran



## Energy efficiency at Bosch

### The need for energy efficiency

Integrating and improving energy efficiency is seen as one of the most critical actions for businesses to achieve sustainable growth today. With cost effectiveness becoming a key factor, companies are globally focusing on innovative solutions to achieve resource efficiency and adopting green steps to control emission levels and reduce the impact on environment.

There are two major challenges for countries today – reducing Green House Gas (GHG) emissions and adopting sustainable solutions for environment protection. While the Government and Society play a key role here, the industry too has shown a proactive approach by adopting responsible actions. This has been through both innovative products as well as environment friendly ways of producing them.

We are already seeing tougher emission guidelines being implemented globally to achieve this objective. The Indian Government too has rolled out some ambitious climate change programmes over the last couple of years to proactively bring about a shift in the country's sustainability goals. Vision has been to create and sustain a prosperous economy but mindful of their responsibility towards our future generation. As part of its commitment to adopt sustainable solutions and reduce emission, one of the measures India has proposed is the introduction of BS III and BS IV norms in 2010.

In short, achieving energy efficiency has become a key for reducing carbon footprint and conserving our scarce natural resources.

Your Company is committed to enhancing the quality of life through its products, services and initiatives taken at the manufacturing Plants towards achieving energy efficiency.

### Energy efficiency philosophy in Bosch Group

The foundation for Bosch's strong commitment to environment sustainability was laid by its founder Robert Bosch.

The personality of the Company founder, Robert Bosch, with his principles and guidelines, continues to be a defining influence for the Company. Carrying forward the founder's vision and legacy, Bosch today applies for more than 15 patents each working day. Each year the Company spends more than seven percent of its sales revenue for research and development. Much of this investment goes toward protecting the environment and conserving resources.





His strong belief in entrepreneurial responsibility and shaping a meaningful social reality is today part of the Bosch legacy. This shared culture of values and beliefs has helped shape Bosch's commitment towards green technology even in challenging economic times.

The very first example of this was the approach taken by Bosch when the first oil crisis hit the world in 1973. Bosch adopted the 3S (Sicher-safe, Sauber-clean, Sparsam-economical) initiative for driving a cleaner and more economical practice into the auto industry and this continues to be its overriding philosophy even today.

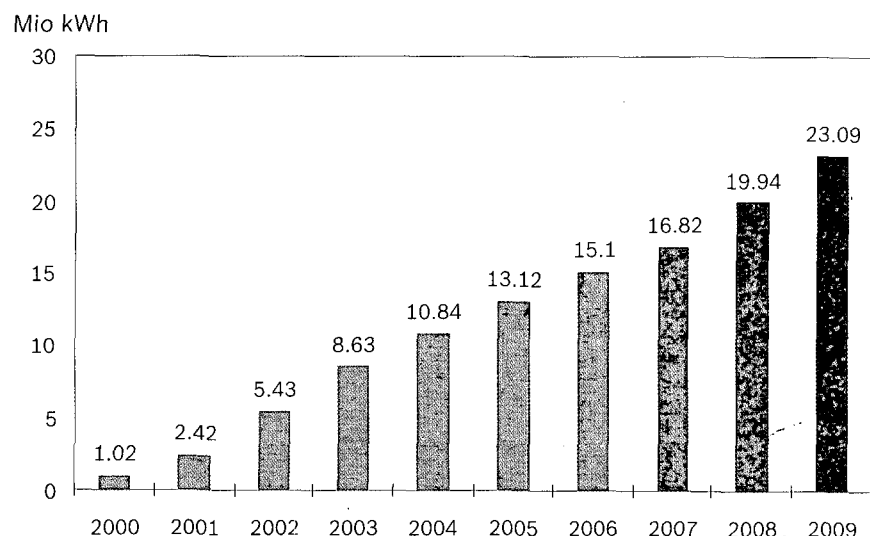
Today, Bosch worldwide is focused on creating products that conserve natural resources and protect the environment. Nearly one-third of sales for the Bosch Group are powered by technology based on clean energy. Bosch has a commitment towards climate protection and has set a goal of reducing relative CO<sub>2</sub> emissions by 15% by 2012 and by 25% by 2020.

As a leading technology player, Bosch is using its principle to promote technologies for harnessing renewable energies. The Bosch slogan 'Invented for life' serves as the common denominator for all Bosch Group activities and as an innovation program for all business sectors - Making life easier, safer and sustainable.

#### Products and services from Bosch with 'future in mind'

Bosch employs efficient manufacturing processes while designing products for the market. Currently, more than 40% of Bosch's research and development budget goes into products that conserve natural resources and protect the environment. In automotive technologies, Bosch is the leader in the fuel injection systems markets. Both technologies- diesel and gasoline, offer consumers substantially improved fuel economy as well as reduced CO<sub>2</sub> emissions. As part of our sustainability goals, we are designing and manufacturing engine management systems and injection components compatible with alternative fuels. Also conservation has been achieved by improvements done in manufacturing Plants i.e. heat treatment lines, energy efficient pumps, compressed air pressure optimization etc.

The graph shows the annual cumulative energy conservation at Bosch Limited during the last ten years. At an average percapita consumption of ~700 kWh, we could support a town with a population of 32,000 for a year.  
Source: Indiatat.com, 07-08



**Diesel Systems:**

Bosch in India is committed to develop diesel fuel injection products and provide services to meet the stringent emission norms of the future. For instance, Bosch's in-line fuel injection pumps could cater to the full spectrum of diesel engines till BS II. They are used in a range of engines starting from small fixed installations to large earth movers. By increasing pressure capability, improving timing control along with combustion optimization, the in-line pump is able to meet the next level of emission norms of BS III in major parts of the country, thereby reducing carbon monoxide (CO) emissions by 50%.

With the proposed introduction of BS IV in 13 cities across India, requirement of reduced emissions and quieter engines are making greater demands on the engine and the fuel-injection systems. These demands can be met by the Common Rail fuel injection system that delivers fuel at a high pressure, precise quantity, precise timing and split in to multiple injections. Moreover, electronic control in the Common Rail diesel fuel injection system increases flexibility making the vehicles less polluting, more fuel efficient and capable of meeting future emission norms.

**Gasoline Systems:**

The Gasoline systems division of the Company offers a wide range of product portfolio such as Sensors, Fuel Injection, Fuel Supply module, Air management etc, for building fuel efficient and low carbon engine management systems. Other products supporting the low carbon output of engine include Electronic and Mechanical Throttle bodies, Accelerated Pedal Modules, Canister Purge valves, Injectors etc.

**Starter Generators Division:**

The Starter Generator division developed the Start-stop system, which is a cost effective answer to the increasing fuel prices, ever stricter emission limits, and the need to reduce CO<sub>2</sub> emissions. The system switches the engine off when the vehicle is stationary. So, whether you are waiting for the traffic signal to turn green or stuck in a jam, you can save energy.

An excellent cost-benefit ratio apart, the starter's improved-performance electric motor, low-noise, stronger pinion-engaging mechanism makes it a choice that is reliable, quick and quiet. Despite the increased number

