500 North Field Drive Lake Forest, Illinois 60045

tenneco-automotive.com NYSE:TEN





## Corporate Profile

Tenneco Automotive is one of the world's largest designers, manufacturers and marketers of emission control and ride control products and systems for the automotive original equipment market and aftermarket. The company became an independent corporation in 1999, allowing singular focus on strategies to maximize global results.

Tenneco Automotive markets its products principally under the Monroe®, Walker®, Gillet®, and Clevite® Elastomer brand names. Leading manufacturers worldwide use our products in their vehicles, attracted principally by our groundbreaking advanced technologies. We are one of the top suppliers to the automotive aftermarket, offering exceptionally strong brand recognition among consumers and trade personnel.

Tenneco Automotive employs approximately 19,200 people worldwide

#### Mission

Tenneco Automotive's mission is to delight our customers as the numberone technology-driven, global manufacturer and marketer of valuedifferentiated ride control, emission control and elastomer products and systems. We will strengthen our leading position through a shared-value culture of employee involvement, where an intense focus on continued improvement delivers shareholder value in everything we do.

#### Values

**Teamwork** Seamless collaboration

**Integrity** Being honest, fair and never compromising our ethics

**Trust**Relying on and having faith in one another

#### Passion and a Sense of Urgency A consuming desire to win now

Promoting a balanced perspective in everything we do

Accepting responsibility for our actions

Relentless focus on achieving more with less

Execution and Discipline

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Investor Information

# TENNECO AUTOMOTIVE

Rest of World 12% Rest of World 18%



■ Modules & Systems 7% ■ Bushings

Original Equ	inment								
OPERATIONS	2003 SALES	MARKETS SERVED	PRODUCTS	BRANDS	COMPETITORS	KEY ADVANTAGES	TOP FIVE CUSTOMERS	TOP FIVE PLATFORMS 2003	MARKET OPPORTUNITIES
Emission Control	\$2,037 million	<ul> <li>Passenger cars</li> <li>Light trucks</li> <li>Commercial vehicles</li> <li>Industrial applications</li> <li>Motorbikes</li> </ul>	<ul> <li>Complete exhaust systems</li> <li>Fabricated manifolds</li> <li>Manifold-converter modules</li> <li>Catalytic converters</li> <li>Mufflers and resonators</li> <li>Diesel particulate filter systems</li> <li>NOx abatement systems</li> <li>Exhaust heat exchangers</li> <li>Exhaust isolators &amp; hanging systems</li> </ul>	((G)) Gillet' WIMETAL ((Q))) WALKER EXHAUST SYSTEMS	<ul><li>ArvinMeritor</li><li>Faurecia</li><li>Visteon</li><li>Delphi</li><li>Eberspächer</li></ul>	Emission and Ride Control  Leading technologies  Experienced team  Product/process quality  Global program management  Japanese alliances  Joint ventures in China, India, Thailand, and U.K.	<ul> <li>General Motors</li> <li>Ford</li> <li>Volkswagen</li> <li>DaimlerChrysler</li> <li>PSA Peugeot/Citroen</li> </ul>	<ul> <li>GM Envoy/Bravada/Trailblazer</li> <li>GM Silverado/Suburban/ Yukon XL/Escalade/Tahoe</li> <li>VW Bora/Golf/Leon/Jetta</li> <li>GM Opel Corsa/Chevrolet Corsa</li> <li>Dodge Ram Pickup</li> </ul>	<ul> <li>Additional content due to emission regulations</li> <li>Diesel aftertreatment</li> <li>Customized sound attenuation</li> <li>Demand for diesel/ hybrid/fuel cell</li> <li>Emerging markets</li> <li>Commercial vehicle segment</li> </ul>
Ride Control	\$800 million	<ul> <li>Passenger cars</li> <li>Light trucks</li> <li>Commercial vehicles</li> <li>Golf carts</li> <li>Off-road recreational</li> <li>Rail cars</li> </ul>	<ul> <li>Shocks &amp; struts</li> <li>Suspension bushings</li> <li>Coil, air &amp; leaf springs</li> <li>Torque rods</li> <li>Engine/body mounts</li> <li>Suspension modules/systems</li> <li>Control arms/bars/links</li> </ul>	TMONROET AXIOS.  CLEVITE Elastomers  Fric-Rot.	<ul><li>ArvinMeritor</li><li>Delphi</li><li>Tokico</li><li>ZF Sachs</li><li>Kayaba</li></ul>	<ul> <li>Customer relationships</li> <li>Broad product range</li> <li>Full service supplier</li> <li>Just In Time (JIT)         assembly</li> </ul>	<ul><li>Ford</li><li>General Motors</li><li>Volkswagen</li><li>DaimlerChrysler</li><li>Nissan</li></ul>	<ul> <li>GM Silverado/Suburban/ Yukon XL/Escalade/Tahoe</li> <li>DaimlerChrysler Town&amp;Country/ Voyager/Caravan</li> <li>VW Golf/Toledo</li> <li>DaimlerChrysler Sebring/Stratus</li> <li>Ford F-Series Super-Duty</li> </ul>	<ul> <li>Vehicle stability/ safety requirements</li> <li>Modular assembly</li> <li>New technologies</li> <li>Adjacent markets</li> <li>Electronic technologies</li> </ul>
Aftermarket									
OPERATIONS	2003 SALES	MARKETS SERVED	PRODUCTS	BRANDS	COMPETITORS	KEY ADVANTAGES	TOP FIVE CUSTOMERS	LEADING PRODUCTS	MARKET OPPORTUNITIES
Emission Control	\$350 million	<ul><li>Passenger cars</li><li>Light trucks</li><li>Commercial vehicles</li><li>Performance vehicles</li></ul>	<ul> <li>Manifolds</li> <li>Mufflers</li> <li>Pipes</li> <li>Tubing</li> <li>Mounting components</li> <li>Catalytic converters</li> <li>Performance mufflers</li> </ul>	FONO TRUBAL  Performance Exhaust	<ul><li>ArvinMeritor</li><li>OE Service</li><li>Bosal</li><li>Faurecia</li><li>Goerlich's Exhaust Systems</li></ul>	Emission and Ride Control  Brand dominance  Relationships with all major wholesale distributors/retailers  Global presence  Leading market shares  Product innovation	<ul> <li>NAPA</li> <li>Automotive Distribution International (ADI)</li> <li>TEMOT Autoteile</li> <li>Advance Auto Parts</li> <li>Independent Motor Trade Factors Association (IFA)</li> </ul>	<ul> <li>Quiet-Flow3® Mufflers/ Assemblies</li> <li>Dynomax® Ultra-Flo Stainless/ Welded Mufflers/Systems</li> <li>DNX™ performance exhaust systems</li> <li>SoundFX™ mufflers</li> <li>Clean Air™ catalytic converters</li> </ul>	<ul> <li>Growing number of vehicles on the road</li> <li>OE Service</li> <li>New technologies</li> <li>Emission regulations</li> <li>Performance product demand</li> </ul>
Ride Control	\$579 million	<ul><li>Passenger cars</li><li>Light trucks</li><li>Commercial vehicles</li><li>Trailers</li></ul>	<ul> <li>Shocks</li> <li>Struts</li> <li>Cartridges</li> <li>Mounting kits</li> <li>Performance shocks</li> <li>Torque rods</li> <li>Suspension bushings</li> <li>Engine mounts</li> </ul>	AXIOS.  RANCHO  LINCIC  SUPPRISIN SYSTEMS  I/A RIMSTRONG	<ul><li>ArvinMeritor</li><li>OE Service</li><li>ZF Sachs</li><li>Kayaba</li></ul>	<ul> <li>Product quality</li> <li>Extensive product and vehicle coverage</li> <li>Targeted marketing programs</li> <li>Introduction of service parts</li> </ul>	<ul> <li>NAPA</li> <li>TEMOT Autoteile</li> <li>Advance Auto Parts</li> <li>O'Reilly Auto Parts</li> <li>ADI</li> </ul>	<ul> <li>Reflex® shocks &amp; struts</li> <li>Sensa-Trac® shocks &amp; struts</li> <li>Rancho® shocks, struts and suspension lift kits</li> <li>Gas-Magnum® shocks</li> <li>DNX™ performance shocks and struts</li> <li>Monro-Matic Plus® shocks</li> <li>DuPont™ car care line</li> </ul>	<ul> <li>Growing number of vehicles on the road</li> <li>OE Service</li> <li>New technologies</li> <li>Unperformed maintenance</li> <li>Premium mix expansion</li> <li>Broader product coverage</li> <li>Heavy-duty truck penetration</li> <li>Safety/installer education</li> <li>Testing/diagnostic equipment</li> </ul>
	<b>2003</b> 2002	2003 Sales	2003 EBIT*		Broad Product Line Mix	Exhaust Management	Suspension Management		People: Approx. 19,200
Revenues (millions)	<b>\$3,766</b> \$3,459					Emission Control	Ride Control	Elastomer	Manufacturing &
Emission Control/ Ride Control Balance†  Original Equipment/ Aftermarket Balance†  †percentage of sales	<b>63/37</b> 65/35 <b>75/25</b> 74/26								Just-In-Time Facilities: 72 Engineering Centers: 14 Countries Served: 130
		North America 50% Europe 38%	North America 74% Europe 8%	* EBIT is income before interest expense, taxes, and minority interest.		Cold End 58% Hot End 42%	Shocks & Springs 61% Struts 32%		

#### **Investor Information**

#### **Corporate Headquarters**

Tenneco Automotive Inc. 500 North Field Drive Lake Forest, Illinois 60045 847.482.5000

#### Web Site

www.tenneco-automotive.com

#### Corporate Information

Individuals interested in receiving the company's latest quarterly earnings press release or other company literature should write the Investor Relations Department at the corporate headquarters address or call 847.482.5042.

Information about Tenneco Automotive is also available on the company's web site.<sup>†</sup>

#### Stock Listing

Tenneco Automotive's common stock is listed under the ticker symbol TEN.

TEN is traded primarily on the New York Stock Exchange and also on the following exchanges: Chicago, Pacific and London.

As of February 23, 2004, there were approximately 48,841 holders of record of the company's common stock, par value \$0.01 per share.

#### **Investor Inquiries**

Securities analysts, portfolio managers and representatives of financial institutions seeking information about the company should contact the Investor Relations department: 847.482.5042.

#### Stockholder Inquiries

For stockholder services such as exchange of certificates, issuance of certificates, lost certificates, change of address, change in registered ownership or share balance, write, call or e-mail the company's transfer agent:

Wachovia Bank, N.A.
Equity Services Group
1525 West W.T. Harris Blvd., 3C3
Charlotte, NC 28288-1153
866.839.3259 Toll Free
704.427.2602

www.wachovia.com/shareholderservices Click on "Access Accounts" Click on "FirstLink Equity"

#### Dividends

The company expects that for the foreseeable future it will follow a policy of retaining earnings in order to finance the continued development of its business. Additional information on the company's dividend policy and restrictions on the payment of dividends can be found in Management's Discussion and Analysis in the Annual Report on Form 10-K for the year ended December 31, 2003.

#### **Annual Meeting**

The Annual Meeting of Stockholders will be held at 10:00 a.m. Central Time on Tuesday, May 11, 2004, at Tenneco Automotive's headquarters, 500 North Field Drive, Lake Forest, Illinois.

### Stock Price Data

		004 Prices		<b>03</b> Prices		0 <mark>02</mark> Prices
	High	Low	High	Low	High	Low
irst Quarter*	\$14.88	\$6.73	\$4.32	\$2.01	\$4.10	\$1.90
econd Quarter			\$4.65	\$2.25	\$6.75	\$3.82
hird Quarter			\$7.45	\$3.61	\$8.32	\$3.50
ourth Quarter			\$7.32	\$4.66	\$5.97	\$3.28

<sup>&</sup>lt;sup>†</sup> The information on our web site is not part of this annual report

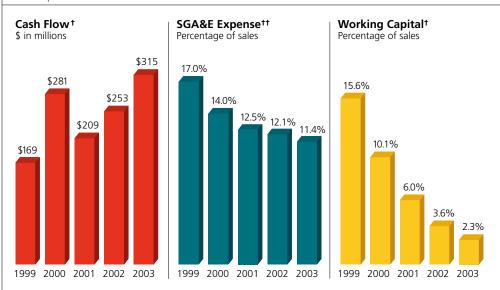
<sup>\* 2004</sup> First Quarter through March 4, 2004



## Financial Highlights

(dollars in millions except share and per share date	a)	2003		2002		2001		2000
Sales	\$	3,766	\$	3,459	\$	3,364	\$	3,528
Earnings before interest and taxes	\$	176	\$	169	\$	92	\$	120
Depreciation and amortization	\$	163	\$	144	\$	153	\$	151
EBITDA*	\$	339	\$	313	\$	245	\$	271
Net income (loss) before change in accounting principle	\$	27	\$	31	\$	(130)	\$	(42)
Earnings (loss) per share before change in accounting principle	\$	0.65	\$	0.74	\$	(3.43)	\$	(1.20)
Capital expenditures	\$	130	\$	138	\$	127	\$	146
Average diluted shares outstanding	41,76	7,959	41,66	7,815	38,00	01,248	34,90	06,825
Total debt	\$	1,430	\$	1,445	\$	1,515	\$	1,527
Cash and cash equivalents	\$	145	\$	54	\$	53	\$	35
Debt, net of cash balances	\$	1,285	\$	1,391	\$	1,462	\$	1,492

<sup>\*</sup>EBITDA represents income from continuing operations before cumulative effect of change in accounting principle, interest expense, income taxes, minority interest and depreciation and amortization. EBITDA is not a calculation based upon generally accepted accounting principles. The amounts included in the EBITDA calculation, however, are derived from amounts included in the historical statements of income data. In addition, EBITDA should not be considered as an alternative to net income or operating income as an indicator of our performance, or as an alternative to operating cash flows as a measure of liquidity. We have reported EBITDA because we believe EBITDA is a measure commonly reported and widely used by investors and other interested parties as an indicator of a company's performance. We believe EBITDA assists investors in comparing a company's performance on a consistent basis without regard to depreciation and amortization, which can vary significantly depending upon many factors. However, the EBITDA measure presented in this document may not always be comparable to similarly titled measures reported by other companies due to differences in the components of the calculation.



<sup>&</sup>lt;sup>†</sup>See 2003 Form 10K Item 6 for reconciliation to GAAP reporting measure.

<sup>&</sup>lt;sup>††</sup>Selling, general and administrative expense plus engineering, research and development expense.



Mark P. Frissora Chairman and Chief Executive Officer

#### To Our Shareholders

For Tenneco Automotive, 2003 was the most successful year since becoming a stand-alone company. Revenue, profitability, new business and debt reduction were all at record performance levels. This progress reflects our continued focus on a core strategy of generating cash to pay down debt by strengthening business relationships, controlling costs, lowering working capital and improving gross margins.

# Adhering to this strategic focus, in 2003 we achieved:

- A new high in revenues of \$3.8 billion, up 9 percent over 2002.
- The most new business booked in a single year.
- Our highest revenue per employee at \$196,771.
- A new low of 11.4 percent of sales for overhead expenses.
- Our highest operating income of \$176 million, a 4 percent year-overyear increase.
- A two-phased debt refinancing that improved flexibility and liquidity.
- Our lowest level of debt net of cash balances at \$1.285 billion.
- More than \$154 million in cash flow before financing activities due to a 16 percent improvement in cash flow from working capital.
- The highest increase in enterprise value—the market value of our debt and equity—at 34 percent.

As we pursue the strategies that generated this success, we are focusing on investments in proprietary technologies for growth markets, increasing the variability of our cost structure and improving our financial flexibility.

#### Investments in Growth

#### Higher Global Emission Standards Require Advanced Technology

Environmental regulators are tightening emission standards around the world, increasing the value of emission control content per vehicle. We have invested in technologies that meet more stringent requirements such as our diesel particulate filter, DeNOx converter and lightweight fabricated manifolds. These cutting-edge products, in demand by PSA, Audi, Mercedes Benz and other automakers, command higher margins.

#### Commercial Truck Recovery Suits Established Capability

The estimated 25 percent increase in commercial vehicle production projected for 2004 would mark a turnaround, driven by improvement in general economic conditions and higher freight volumes. Progressively tighter emission regulations affecting heavy-duty trucks will take effect throughout the decade, increasing the size of the global commercial truck exhaust market for the products we offer to an estimated \$2.3 billion in 2010 from \$173 million in 2003. Our technology investments, developed for light trucks, are transferable to the medium- and heavy-truck market. We have formed a new business. unit to concentrate on heavy duty and other commercial vehicles worldwide, which should allow us to capture an expanded share of this growing segment.

#### Number One in China

Our early investments in China and the forging of effective joint ventures have made us the country's leading OE emission control supplier. China's economy leads the world in growth as passenger car production rose 55 percent in 2003 over the previous year. Production is expected to increase about 10 percent annually through the decade, which would make China the world's second largest vehicle market in 2010. Our revenues in China have increased at a compounded annual growth rate of 60 percent since 1998.

#### **Targeting Japanese OEMs**

Japanese original equipment manufacturers (OEMs) have sharply increased their share of the North American automotive market. Through alliances with Futaba and Tokico, leading Japanese emission control and ride control suppliers, we have strengthened our relationships with these producers. We are the only North American supplier in our business segments to work with all of the Japanese Big Three—Toyota, Honda and Nissan—and have raised the share of our North America OEM revenues from Japanese automakers to 18 percent at 2003 year-end from 14 percent at the close of 2002.

#### **New Aftermarket Products**

We have a new aftermarket strategy to introduce service parts to our core offering of shocks, mufflers and associated "hard parts." Service parts are parts on a vehicle that are serviced regularly—like windshield wipers, filters and brakes.

In December, we signed an exclusive licensing agreement with DuPont to market a line of premium car care products in North America. The line, including car washes and waxes, capitalizes on DuPont's valuable Teflon® brand name. Our investment in this high-margin product line is minimal as we outsource manufacturing, while leveraging our distribution channels. We expect to introduce additional service parts in the next year in both North America and Europe.

#### Variable Cost Structure

We are implementing a number of measures to increase the variability of our cost structure, including outsourcing non-core production processes and select services to manufacturers or regions of the world that can render them most efficiently. These actions will give us the flexibility to respond faster and more effectively to changes in the marketplace.

We are expanding our use of Six Sigma and employing Lean manufacturing and other initiatives to improve our production capability, streamline operations and reduce costs

- Six Sigma generated \$27 million in cost savings in 2003 by reducing defects and waste. An additional \$20 million in savings is expected this year.
- Our Lean manufacturing initiatives, modeled on the Toyota Production
   System, are reducing costs, inventories and lead times, while improving on-time delivery.
- Our Project Genesis restructuring program has improved capacity utilization by closing underutilized manufacturing facilities and improving workflow at remaining plants. Genesis yielded \$17 million in incremental savings in 2003 in addition to the \$12 million saved in 2002. Now that the program is complete, we will benefit from the full \$30 million of cost reductions that have been achieved over the past two years.
- Additionally, we are among our industry's best-in-class in plant safety performance, which further enhances our global manufacturing position. Safety performance is based on a total case rate measure, which is calculated by the number of injuries per 100 employees. Our total case rate was 3.5 last year, which is 65 percent lower than the industry average.

#### Go East

In Europe, we are more closely aligning with our customers and lowering costs

by expanding more of our operations to Eastern Europe. We now operate six facilities in Poland, Russia and the Czech Republic and these plants were responsible for most of the 2003 launches in Europe.

## Improved Financial Flexibility

Last year, we executed a very successful two-phased debt refinancing transaction that improved our flexibility in the application of our cash flow and created greater liquidity. The new agreements extended nearly all debt maturities out to 2009 and beyond.

When Tenneco Automotive became a stand-alone company in 1999, our debt totaled approximately \$1.7 billion. We reduced this by nearly \$300 million and are further improving our capital structure by debt reduction through higher earnings and cash flow, as well as opportunistic debt management in an environment of low interest rates and strong capital markets.

#### Looking Ahead

We will continue to strive toward improved performance, focusing on additional cost and capacity reductions, greater flexibility and investments in technology that fuel new business growth.

Our book of new business is at a peak with revenues from OEMs in 2004 estimated to climb 3 percent over 2003. In 2005, we expect our OEM book of business to increase 11 percent over 2003, with strong potential for additional growth.

The continued success of Tenneco Automotive ultimately will be driven by uncompromising integrity—in the way we deal with our customers, manage our employees and report to our stakeholders—and a corporate culture committed to world-class performance through execution and discipline.

At Tenneco Automotive, we believe our people are our most valuable asset. They design our products, manufacture our products and sell our products. Recognizing this, we invest in a culture that provides opportunities for employee development, which results in greater job satisfaction as exemplified by our salaried-employee turnover rate, which we believe is well below the industry average. This distinguishes Tenneco Automotive and reflects a unique advantage, both in serving our customers and in allowing us to retain and recruit the best and brightest employees.

In the end, our overall objective is clear and unchanging. We are determined to build on the fundamentals that enable our business to succeed and will continue to invest in opportunities that strengthen our position in key growth areas.

york P. frima

Mark P. Frissora
Chairman and
Chief Executive Officer

April 2004

# THE POWER OF



We are a global company, operating from established markets in North America to areas of explosive growth such as China.

These distinct markets provide strength, as does the balance between our original equipment and aftermarket businesses,

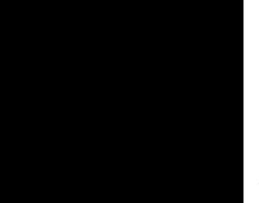
market-leading ride control and emission control products, and our varied customer base.

From this foundation, we grow revenues by investing in technologies for expanding markets, and reduce debt by increasing the variable structure of our

costs and maximizing financial flexibility. However, the diversity of our geographic coverage, products, markets, businesses and customers requires strategies tailored to specific needs.

Diversity combined with unity of purpose: the Power of TEN.









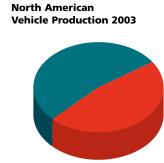
# NORTH AMERICA

2003's hottest-selling vehicles incorporate our products, boosting our original equipment revenues and offsetting declines in overall automotive production. We are countering adversity in the aftermarket business by broadening our customer base, extending our product lines and entering new product categories.

#### Our Results

North American consumers maintained a preference for SUVs, minivans and light trucks over passenger cars in 2003. Our significant presence on these top-selling vehicle platforms was beneficial as we generated revenues that outpaced overall production rates. Our original equipment (OE) revenues in North America increased 1 percent last year compared with a 3 percent decline in industry production. Sales of new autos and light trucks, while about 1 percent lower than 2002 levels at 16.8 million units, marked the fifth best year in the history of the industry.

Competition intensified for domestic vehicle manufacturers as Japan-based automakers increased their market share in North America. Our global alliances with Tokico and Futaba, leading Japanese ride control and emission control suppliers, provided us with a competitive advantage and helped to further expand our business with Japanese original equipment manufacturers. Revenue generated from these manufacturers increased to about 18 percent of our

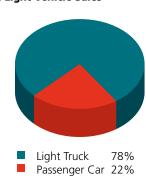


Light Truck 53%
Passenger Car 47%
Source: Automotive News

total North American OE revenue at year-end 2003 from just 14 percent one year earlier. Our products are on strong-selling platforms and new launches including Honda's Accord, Pilot, Odyssey and Acura MDX; Nissan's Titan, Frontier, Pathfinder, Armada, Xterra, Infiniti, and Altima; and Toyota's Sienna, Sequoia and Lexus RX 330.

The North American launch of the Lexus RX 330 was especially noteworthy in 2003. This was the first launch of a Lexus vehicle outside of Japan. Tenneco is supplying the exhaust system on this





vehicle. Our team executed a virtually flawless launch—a performance that Toyota referred to as a benchmark in delivering Lexus quality. Our high marks for production processes and efficiency were underscored when we received Toyota's Excellence Award for Lexus Launch as well as an Excellence Award for Value Improvement, reflecting our overall support to Toyota in 2003. We will continue to build our relationships with the Japanese OEMs, pursuing more of their business in North America, which represents a strong growth opportunity for us.



We successfully launched the exhaust system on Toyota's Lexus RX 330, the first Lexus vehicle to be sourced in North America.



Tenneco
Automotive has
one or more products on each of
the top 10 light
vehicles produced
in North America
in 2003.

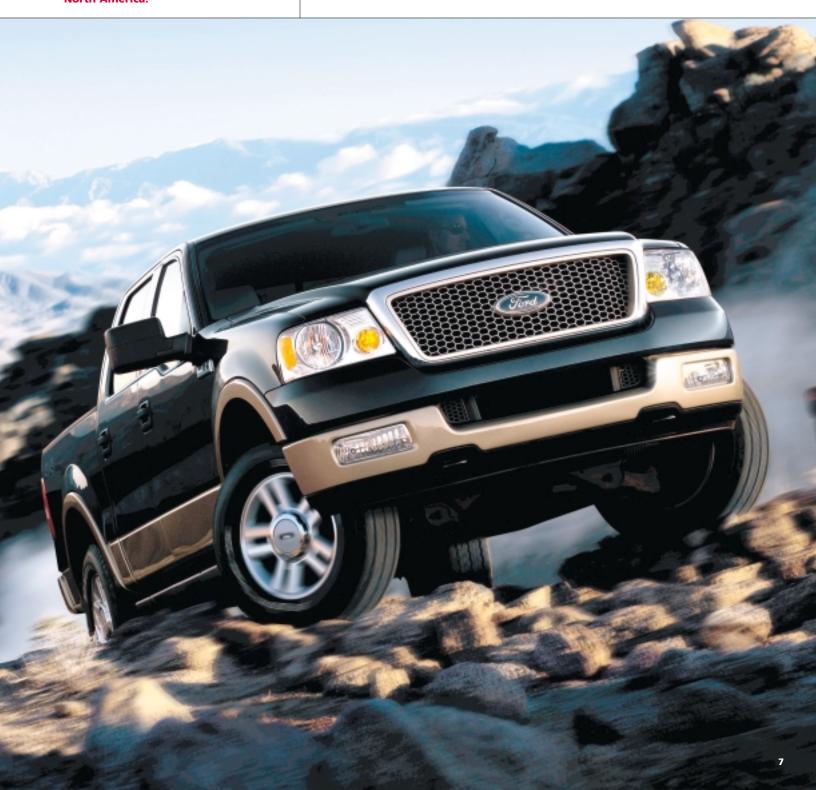
We supply emission control and elastomer products for the Ford F150 pickup, one of the best-selling light trucks in North America.

## THE POWER OF TEN

## Top Ten 2003 North American Light Trucks

1 GM	Chevy Silverado
2 Ford	F-Series Truck
3 DaimlerChrysler	Dodge Ram Pickup
4 Ford	Explorer
5 Ford	F-Series Super-Duty

6	GM	Chevy Trailblazer
7	DaimlerChrysler	Dodge Caravan
8	GM	GMC Sierra
9	DaimlerChrysler	Jeep Liberty
10	GM	Chevy Tahoe



#### THE POWER OF TEN

#### Ten Key Improvements in Lean—Smithville, TN Plant

	Measurement	1999 Pre-Lean	2003 Post-Lean	% Improvement
1	Revenue	\$82mm	\$99mm	21%
2	Process capability	50%	95%	90%
3	Inventory	\$13mm	\$8mm	37%
4	Productivity	37%	58%	58%
5	Headcount	511	304	41%
6	Scrap percent	2.5%	1.2%	52%
7	Revenue/floor space	\$390,000	\$695,700	78%
8	Travel distance (ft.)	2,100	675	67%
9	Revenue/employee	\$161,000	\$325,000	101%
10	Open floor space (sq. ft.)	0	70,000	30%

We are also targeting the commercial and specialty vehicle markets by introducing innovative products such as our LiteningRod torque rod, Magnum FS shock line, integrated muffler/converter technology and diesel particulate filters for heavy-duty trucks. These markets represent additional growth opportunities as new emission standards take effect and demand increases for improved vehicle handling and ride comfort. We formed a new business unit in 2004 to capture these opportunities, leveraging our diesel emission control technologies and value-added ride control product offerings.

Our ability to transfer technology across our global organization is a

powerful tool to leverage our advanced engineering capabilities. For example, our Semi-Active Muffler, which uses unique valve technology, was developed in Europe but is finding potential applications for more fuel-efficient engines in North America. We are also applying our technology to help our customers differentiate their vehicles with consumers. Our acoustics expertise helped General Motors engineers duplicate the sound quality of the 1960era Pontiac GTO muscle car in a 2004 version, while incorporating a more sophisticated emission control system to meet today's stiffer environmental requirements. Similarly, our exhaust and elastomer engineering teams collaborated to develop an award-winning

exhaust isolator, which is a product using our elastomeric rubber compounds that provides more design flexibility and better performance in reducing noise, vibration and harshness in the exhaust system assembly.

Overall, our superior technology, business relationships and high-quality manufacturing combined in 2003 to attract more than \$575 million in total North American new business, expected to launch between 2004 and 2008.

In the aftermarket, we maintained our leading market share positions in emission and ride control products. This was despite a prolonged decline in the traditional "hard-parts" sectors, driven by a longer product replacement cycle, especially for stainless steel exhaust systems. We added new customers in both product segments to offset persistent weakness in the overall market. We also continued our efforts to

We are targeting growth opportunities in the heavyduty truck and specialty vehicle markets by investing in technologies that provide more effective emission

control and enhanced safety. These opportunities will expand as the scheduled tightening of environmental requirements take effect.



generate increased replacement sales by educating consumers through our Safety Triangle campaign about the importance of inspecting shock absorbers as regularly as brakes and other equipment. In addition, we added new products by launching DNX, a new brand of niche exhaust and ride control products for the tuner market—where car owners modify their vehicles, typically small, imported passenger cars, for sound and appearance.

We are extending beyond our traditional "hard-parts" product lines with the introduction of a DuPont-branded line of car care products. Recently we signed an exclusive licensing agreement with DuPont to develop, manufacture and market appearance, performance, maintenance and accessory products. The initial customer response has been overwhelmingly positive. We are shipping these products to more than 10,000 retail outlets throughout the U.S. and Canada for customers including Advance Auto Parts, NAPA and O'Reilly Auto Parts.

#### Outlook

The economic recovery appears to be gaining strength in North America, which would help improve new vehicle sales. Besides targeting passenger cars and light trucks—our traditional areas of strength—we are stepping up efforts to increase our share of the heavy-duty truck and specialty vehicle markets.

There are also signs that the exhaust aftermarket's deterioration may be ending. And the average number of vehicles on the road is increasing.

Regardless of market conditions, we will continue to create our own opportunities in the aftermarket by expanding our customer base, introducing new products and extending our product lines

In addition to increasing sales, we will continue to emphasize stringent cost management and quality improvement in all our operations through our Lean manufacturing and Six Sigma initiatives.

We are uncovering growth opportunities in the aftermarket by extending traditional product other products lines with new offerings, such as the DuPont line of car care products.

**Under an exclusive** licensing agreement, we are marketing waxes, car washes and under the DuPont label through more than 10,000 retail outlets in the U.S. and Canada.

into new service parts areas.





2004 addition of Pep Boys, which becomes our fifth largest aftermarket customer in North America, we now do business with four of the top five automotive aftermarket retail chains, as well as all of the nation's leading wholesale distributors.

With the early-





# EUROPE

Our state-of-the-art technology is attracting techno-savvy consumers, while our shift of production to low-cost countries is increasing efficiency and lowering costs. On the horizon: higher vehicle content due to stricter vehicle emission standards, the continuing success of diesel powertrains in Europe and rising consumer demands for advanced suspension systems.

#### **Our Results**

A record number of launches in our original equipment ride control business contributed to increased OE revenues in 2003, despite a weak year for Western Europe light vehicle production. The concentration of OE launches in Eastern Europe demonstrated the success of our "Go East" manufacturing strategy, with OEMs such as Ford, General Motors, Volkswagen, Fiat and Renault awarding major new platforms to our plants in Poland and the Czech Republic. Measures taken over the last two years to improve our OE emission control business showed results with year-overyear improvement in profitability, despite lower volumes. Moreover, our presence on popular PSA, BMW, DaimlerChrysler, Audi and Ford platforms boosted our performance over the industry trends.

Tenneco's growing reputation for advanced design, superior technology, quality and flexible delivery helped attract more than \$167 million in total new business contracts in 2003 that are expected to launch between 2004 and 2008. This new business included orders

### THE POWER OF TEN

#### Tenneco Automotive's Top Ten 2004 European Launches

1	vw	Altea
2	Mercedes Benz	E-Class
3	Ford	Focus
4	Audi	A6
5	Porsche	911

6	Porsche	Boxster
7	Opel	Astra
8	vw	Golf
9	vw	Octavia
10	Paccar	Heavy-duty truck

for our advanced Computerized Electronic Suspension technology, which sells at a significant premium to a standard set of shocks. And our position as a leading supplier of diesel particulate filters was reinforced by an agreement with Audi to supply filters for its four-cylinder A4 and A6 passenger cars. Besides Audi, we also won contracts to supply filters for Mercedes Benz six-cylinder C-Class and E-Class vehicles as well as the new-generation Citroen C5 and Peugeot 407 passenger cars. Based on booked business, we anticipate that

our annual production of diesel particulate filters will double to 600,000 units by 2006. In 2003, we also started production of our Semi-Active Muffler technology, and sound-engineered the exhaust for one of Europe's most exciting new launches in 2004.

Original equipment manufacturers continue to demand that suppliers deliver high-quality products on time, while holding the line on costs. We made significant operational improvements, including implementing Lean manufacturing techniques and expanding the Six Sigma program. Our greater efficiency facilitated our record number of successful new product launches, 13 in emission control and 17 in ride control, during 2003.

Our strategy of shifting more manufacturing to low-cost countries—to locate near our customers and to take advantage of lower labor costs—is also improving our efficiency. We increased production by 230 percent at our

Our reach in Europe extends to Russia, and in 2003 we opened an exhaust manufacturing plant in Togliatti, located in the country's automotive heartland.

- Emission Control Manufacturing
- Ride Control Manufacturing
- ▲ Emission Control Engineering Center
- ▲ Ride Control Engineering Center



Gliwice, Poland and Hodkovice, Czech Republic, ride control plants during the year as a result of new launches. We gained first entrant advantage in Russia as the first global supplier to open an exhaust facility, which will supply the Chevrolet Niva, manufactured by a General Motors/AvtoVAZ joint venture. This operation will grow as more OEMs move to the region, and as we leverage our presence in Russia to expand our ride control business further east. A new Inline Sequence (ILS) plant was opened in Poznan, Poland, to supply Volkswagen's new Golf. A second ILS plant was commissioned in Ingolstadt, Germany, to supply the new Audi A3.

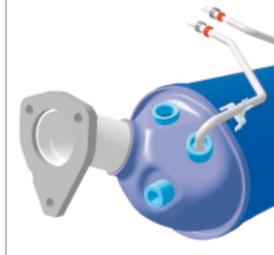
European aftermarket sales for exhaust products declined during the year due to reduced demand industry-wide. We partially countered this market softness by increasing sales of catalytic converters by 47 percent over 2002, as increased emission regulations improved the replacement cycle. This growth included about \$4 million of sales to a leading OEM for its original equipment service business. We were also able to grow our share of the ride control market with new customers including Kwik-Fit in the United Kingdom.

Besides signing new aftermarket customers, we entered an important adjacent market by winning Wabco's heavy-duty shock business that enabled us to add new heavy-duty distributors in the United Kingdom. Brand awareness for Monroe ride control products was further increased through our Safety Triangle campaign.

Our Gliwice. Poland ride control plant is an example of our growing presence in Eastern Europe. We now operate six plants in the region to cost effectively serve growing markets. **Gliwice reached** record production in 2003 for such customers as Ford, Fiat and Renault.

Tenneco
Automotive's
use of Computer
Aided Design
(CAD) technology
cuts time and
costs from design
to finished
product. CAD
technology
increases the
speed, accuracy
and repeatability
of production.

This CAD model of a diesel particulate filter for Audi passenger cars is done at our worldwide emission control engineering center in Edenkoben, Germany.





On the cost side, we are streamlining our aftermarket emission control manufacturing capacity to bring it in line with market demand. During 2003, we announced that we will close our Birmingham, England exhaust plant, which, by shifting production to remaining plants, will help increase efficiency.

#### Outlook

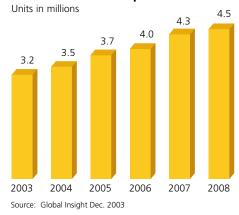
Forecasts call for no more than a modest increase in European automotive production in 2004 with some strengthening in the second half of the year. We will continue to streamline our operations and improve efficiency in preparation for the significant platform launches we have slated for 2005.

At the same time, we will be aggressively seeking new business, based on our technological leadership, particularly through our diesel emission control products and electronic suspension systems.

We will also apply our strong brands, superior service and innovative marketing and distribution strategies to continue to attract additional aftermarket business. We will overcome some of the aftermarket weakness by launching product extensions including Monroe cabin shocks and steering parts, and entering new categories. The DNX range of branded performance exhaust, brake, suspension, ignition and filter products that target the European youth market will be contract manufactured to maximize the profitability of this exciting new line.

Our emphasis on further improving operating efficiency will increase as we elevate our efforts to enhance our European performance and reputation, and position ourselves to take greater advantage of the opportunities offered by manufacturing in low-cost areas of the region.

#### Well Positioned for Vehicle Production Growth in Eastern Europe



Our investments in high-technology growth products are attracting customers such as PSA, which selected our newest-generation additive diesel particulate filter and exclusive Semi-Active Muffler (SAM) for this Peugeot 407.

The filter helps meet more stringent environmental requirements and the SAM uses innovative valve designs to economically provide sound silencing at low engine speeds, while minimizing backpressure at higher engine RPMs.



# AUSTRALIA and SOUTH AMERICA

We are Australia's leading original equipment emission control and ride control supplier and Monroe is the country's leading aftermarket brand. In South America, manufacturing operations are among the most efficient in our global organization, opening opportunities for increased intercompany and export sales.

#### Our Results Australia

We have achieved the leading market share for both OEM sales of emission control and ride control products, serving all four of the Australian manufacturers: Ford, Toyota, General Motors and Mitsubishi. Our expanding presence on export platforms allows us to generate revenue growth. And, we expect the introduction of vehicles with higher value content, such as the V-8 Pontiac coupe, requiring a split exhaust system with two catalytic converters and more rigorous noise control, to contribute as well to higher revenues. In the aftermarket, the strength of our Monroe brand name, along with the 2003 introduction of our premium Reflex shock absorber helped maintain our market share in replacement parts.

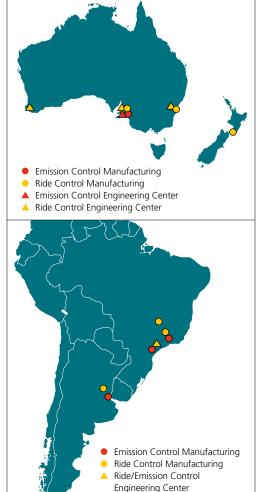
We've overcome competitive pressures in Australia with our strong customer base and product offerings, and by applying Six Sigma and Lean manufacturing processes to control costs and boost efficiency.

#### Outlook Australia

Australia's economy remains strong, which helped boost the nation's currency by more than 34 percent in 2003 versus the U.S. Its automotive production is expected to grow 13 percent by 2006. Increasing export sales, particularly to the Middle East, U.S. and Asia, a strong market position and efficient operations will help us capture a significant portion of this growth.

#### Our Results south America

In South America, we operate some of the most efficient manufacturing facilities in the Tenneco Automotive organization.



As a result, we have maintained profitability despite challenging economic conditions in recent years. During 2003, economies in the region generally showed improvement, and we were able to increase OEM sales year-over-year due to new incremental business.

We are benefiting from a strong aftermarket, resulting from longer vehicle ownership with a greater need for replacement parts. High brand recognition for Monroe and our elastomer brand, Axios, coupled with our status as a low-cost producer, have made this aftermarket operation a steady source of increasing revenue and growing profitability.

#### Outlook South America

The improving economic conditions in South America aided by incremental OEM business awarded in 2003 provide a basis for revenue growth. Combined with our low-cost manufacturing facilities and leading brands, this will help us achieve greater profitability, while serving as a spring-board for higher export sales.

#### THE POWER OF TEN

### Top Ten 2003 Achievements

#### Australia

- 1 Increased revenues 34 percent in 2003
- 2 Improved operating income 33 percent
- 3 Awarded major contract for 2006 General Motors Holden VE Commodore
- 4 Introduced new premium Reflex shock absorber to aftermarket
- 5 Won Automotive Aftermarket Association's Excellence in Marketing Award

#### South America

- 1 Generated \$20 million of new incremental OEM business during 2003
- 2 Named first domestic ride control supplier to Toyota in Argentina
- 3 Reduced salaried headcount by 15 percent
- 4 Reduced inventory Days on Hand by 25 percent
- 5 Achieved all-time record for cash flow generated

# ASIA

As an early entrant, our five majority-owned joint ventures give us a solid foothold in China, whose economic growth continues to lead the world. We are also well positioned to serve other Asian markets through our established production in Thailand and operations in India.

#### Our Results

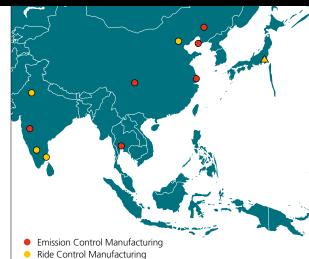
China's economy is maintaining its robust growth, with increases in automotive production that place it on course to become the world's second largest producer within a decade. The government is encouraging consolidation among the roughly 100 OEMs and several thousand automotive suppliers, with the survivors being those with the strongest customer relationships, manufacturing capabilities, technologies and product quality. In addition to consolidation, the Chinese government continues to put regulations in place to grow the domestic auto market including encouraging technology transfers, increasing the availability of credit to consumers and reducing the reliance on imported components.

During 2003, we expanded operations to keep pace with the booming automotive market by entering into agreements for two new joint ventures in China, one with Chengdu Lingchuan Mechanical Plant to provide emission control products and systems to

Changan Ford Ltd, and another with German-based Eberspächer International GmbH to provide similar products to BMW and Audi in China. We also have exhaust joint ventures in Shanghai and Dalian, and a ride control joint venture in Beijing, which brings the total to five since beginning operations in China in 1995. Our joint venture strategy allows us to minimize our capital investment, while still keeping pace with the tremendous growth. Today, we are the largest OE exhaust supplier in China.

We continue to expand our customer base and win significant new business from existing customers like Nissan, Volkswagen, Ford, BMW and General Motors. Our product launches in 2004 include exhaust systems for the Volkswagen Santana, China's best-selling vehicle with annual production of between 80,000 and 100,000 units.

In Thailand, our joint venture is supplying emission control products for the Isuzu I-190 global platform. This JV represents a potential entry into the



developing markets of Malaysia and Indonesia, among others. During 2003, we took sole ownership of our exhaust production facility in India. Additionally, our ride control business in India expanded during the year to export shock absorbers for specialty markets in North America.

Ride/Emission Control Engineering Center

#### Outlook

We will continue to grow in China, possibly adding new joint ventures to expand geographically, add new customers and increase our ride control capacity. We also plan to establish an engineering center in China within two years. In addition, we are evaluating the start-up of an elastomer operation to serve that country's light truck and passenger car market, and potentially its large heavy-duty market. Another longer-term opportunity may be exporting from our operations in Thailand, as well as expanding our existing exports from India and extending our programs to increase operational efficiency in the region.

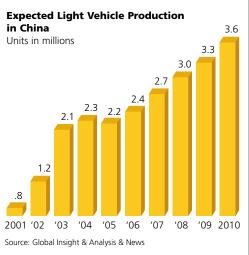
#### THE POWER OF TEN

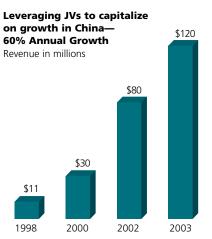
#### Tenneco Automotive's Top Ten Vehicle Platforms in China

1	VW	Bora and Golf
2	vw	Passat
3	vw	Santana
4	PSA	Citroen ZX
5	Isuzu	D-Max

6	GM	J200
7	vw	Touran
8	Audi	A4
9	Toyota	Hiace
10	Nissan	Blue Bird







We now have five joint ventures in China. The latest, with partner **Eberspächer** International **GmbH, will provide General Motors** emission control systems for the

Audi A4. This adds to our rapidly expanding business in China that also includes Volkswagen, Ford, and Nissan.



#### **Board of Directors**

Seated, left to right:

David B. Price, Jr.<sup>2,3</sup>

Consultant, Former President BF Goodrich Performance Materials

#### Charles W. Cramb<sup>1</sup>

Senior Vice President and Chief Financial Officer The Gillette Company

Standing, left to right:

Frank E. Macher<sup>1</sup>

Retired Chairman and Chief Executive Officer Federal-Mogul Corporation

#### Roger B. Porter<sup>2,3</sup>

IBM Professor of Business and Government Harvard University

#### Mark P. Frissora

Chairman and Chief Executive Officer Tenneco Automotive Inc.

#### Dennis G. Severance<sup>1</sup>

Accenture Professor of Computer and Information Systems University of Michigan Business School

#### M. Kathryn Eickhoff<sup>1,3</sup>

President and Chief Executive Officer Eickhoff Economics, Inc.

#### Paul T. Stecko<sup>2,3</sup>

Chairman and Chief Executive Officer Packaging Corporation of America

#### Sir David Plastow<sup>2</sup>

Retired Chairman and Chief Executive Officer Vickers plc

Not pictured:

#### Timothy R. Donovan

Executive Vice President and General Counsel Managing Director, International Group Tenneco Automotive Inc.

- 1 Audit Committee
- 2 Compensation/Nominating/Governance Committee
- 3 Three-Year Independent Director Evaluation Committee Red numbers indicate the committee chair

### Officers

#### Mark P. Frissora

Chairman and Chief Executive Officer

#### Timothy R. Donovan

Executive Vice President and General Counsel Managing Director, International Group

#### Hari N. Nair

Executive Vice President and Managing Director, Europe

#### Kenneth R. Trammell

Senior Vice President and Chief Financial Officer

#### Richard P. Schneider

Senior Vice President, Global Administration

#### Timothy E. Jackson

Senior Vice President, Global Manufacturing and Engineering

#### Paul Schultz

Senior Vice President Global Supply Chain Management

#### Brent J. Bauer

Senior Vice President and General Manager North America Original Equipment Emission Control

#### Neal A. Yanos

Senior Vice President and General Manager North America Ride Control and Aftermarket

#### Lois Boyd

Vice President and General Manager Commercial Vehicle Segment and Global Program Management

#### Alex Drysdale

Vice President and Managing Director Australia and New Zealand

#### Josep Fornos

Vice President and General Manager Europe Original Equipment Ride Control

#### Ulrich Mehlmann

Vice President and General Manager Europe Original Equipment Emission Control

#### Don Miller

Vice President and General Manager Europe Aftermarket

#### William M. Churchill

Vice President, Global Engineering Ride Control

#### Herman Weltens

Vice President, Global Engineering Emission Control

#### Theo Bonneu

Vice President and Controller, Europe

#### H. William Haser

Vice President and Chief Information Officer

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#### James Perkins

Vice President and Controller

#### James K. Spangler

Vice President, Global Communications