

ENGINEERING

YOUR TOMORROWS

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ANNUAL REPORT 2001 - 2002

By harnessing the power of technology and teamwork, we make our products better. Better in terms of safety, comfort, economy and ecology.

For we believe that the purpose of technology is to enhance the quality of life. Today and tomorrow.

By satisfying the customer through better technology options, we are able to forge abiding relationships with our stakeholders - our customers, business associates, shareholders and our people. And make these relationships rewarding.

We also bridge distances - we help move people and products. Aiding life and lifestyle changes.

We are engineering your tomorrows.

ENGINEERING
YOUR TOMORROWS



In January 2002, Ashok Leyland launched India's first ever 'Hybrid Electric Vehicle', yet again taking the Indian commercial vehicle industry into another frontier technology. The concept may not hit the roads tomorrow, but the breakthrough surely heralds the arrival of an alternative power source for vehicles a few years from now.

Anticipating the future and working on the technology-of-tomorrow is what enables us to pursue our mission of "Engineering Your Tomorrows". Our past is replete with instances of pioneering technologies and product innovations that eventually became industry standards.

We are determined to maintain our technological leadership by closely monitoring and anticipating trends to position products to meet emerging demands. We are happy to share with you here a snapshot of the industry trends that shape our future product plans which includes the six vehicle models featured in these pages.

Early-mover advantage in a changing scenario

The rapid rise in the use of road transportation, and the increasingly competitive environment in which companies operate, have witnessed a new paradigm. Customers of commercial vehicle services are now aggressively seeking ways and means to cut waste and improve efficiencies. This is leading to a critical re-appraisal of the entire supply chain. The implication for commercial vehicle operators is both immediate and worrisome: a squeeze on their margins. In response, they are demanding model options that improve their viability and profitability. This has led to a dramatic shift from the ubiquitous 16T, 4x2 haulage vehicles to higher capacity tractor-trailers and multi-axle trucks. This transition has been speeded up by a palpable improvement in the road infrastructure, allowing better commercial speed. In turn, higher-powered higher capacity vehicles are now making greater economic sense. Ashok Leyland had foreseen this development years ago, by pioneering tractor trailers and multi-axle vehicles in the



Artik 3518 - Artik 3518 is a higher-powered successor to the popular 3516 Tusker Turbo, developed in anticipation of modern highways across India. Artik combines the economy of a modern engine with the comfort of a factory-built air-conditioned sleeper cabin. Artik's high torque, in conjunction with an upgraded gearbox enhances driveability and durability. Integral power steering and sonar reversing guidance system are standard, with anti-skid braking system (ABS) optional.



A 9-tonner from the 'Ecomet' range - The forthcoming range code-named 'Ecomet' combines the legendary values of Comet with the proven economy of a modern engine and the comforts of a modern aesthetic cabin. It anticipates the evolving hub-and-spoke logistic model, where economical, medium-sized trucks will have a definite role in the distribution from the hubs.

country. As a result, the Company is today in a position to offer a variety of vehicle options to cater to specific requirements. Equally important, perhaps, is the fact that Ashok Leyland has constantly raised the bar on the quality of its aggregates - making them sturdier and extremely reliable.

This ongoing transition will eventually lead to the internationally prevalent hub-and-spoke model of transportation, wherein high-tonnage vehicles traverse long distances, while small-capacity vehicles complete the task of up-stream feeding and down-stream distribution. Not only is this system more cost-efficient, it also ensures better urban traffic management - a matter of urgent concern for governmental bodies, reflected in the restrictions placed on the entry of large vehicles into high density urban zones.

Again, the hub-and-spoke model demands a range of product offerings to suit various cargo requirements. We offer a range

of primary, secondary and tertiary movers with options of model configurations and body variants. The role of specialised models is slowly but surely getting defined. Work is underway at Ashok Leyland to position a new range of appropriate products including the Artik 3518 and a whole new range of mid-capacity vehicles code-named 'Ecomet'

Society's concerns mirrored in design and manufacture

Ecology, for long, has been Ashok Leyland's R&D focus. Anticipatory developmental work to harness alternative fuels and energy forms, way back in the 1980s, was instrumental in the launch of India's first CNG bus in 1997. Early this year came the breakthrough of the hybrid electric bus. Developed in collaboration with the Department of Scientific and Industrial Research (DSIR) and the Electronics Research & Development Centre (ER & DCI) of the Ministry of Information Technology, this futuristic product holds out the



Enviro - a breath of fresh air. Ultra clean CNG technology meets the commuter-friendly features of a modern city bus. Enviro is a low floor (63 cms) bus with the first step at 40 cms - kneeling can reduce it to 33.5 cms. India's first low floor CNG bus with cylinders mounted on the roof and engine at the rear, Enviro comes with automatic transmission, integral power steering, air suspension, driver-controlled wide pneumatic twin doors and non-slip floor.



Hybrid Electric Vehicle - the new frontier of technology. Powered in series by a downsized diesel engine and a battery pack, HEV is patently eco-friendly with emissions cut by 20~30%. Clutchless and gearless transmission and rear-mounted engine add to comfort. Full torque even at near zero speed enhances control. Speed limit can be programmed. Effective recovery of regenerative energy during braking saves energy and brake liner life.

promise of eco-friendly commuting in cities where CNG is not available.

fatigue-free experience, thus keeping him more alert and in control, at the same time enhancing road safety.

Safety consciousness is another moulding influence on the industry. Many safety-enhancing technologies such as air brakes and power steering that have become regular features of the commercial vehicle today were indeed Ashok Leyland introductions dating back to the 1960s. Higher engine power and higher speed of vehicles will demand more safety features including ABS and electronic sensor devices. Factory-built cabins will become mandatory. We have built the necessary capabilities to meet these demands.

Ashok Leyland is proud of the fact that it successfully combines enhanced vehicle efficiency with enhanced operator efficiency. This is apparent in the Company's accent on designing car-class cabins for unparalleled comfort, giving the driver a

Elevating travel from a necessity to a pleasurable experience

Passenger transportation, likewise, is undergoing a metamorphosis. There has been for long a marked segmentation of inter-city and intra-city travel, each with its unique characteristics. Urban transportation, for instance, demands reliable vehicles with a high uptime, buses which can decongest roads with more carrying capacity, and those that can ply on the often less-than-ideal roads of our large cities. Ashok Leyland retains its head start in this segment, having been the very first to introduce - and as yet the only Indian manufacturer of - double deckers (1967) and articulated buses (1982). Ashok Leyland's domination of the urban transport market is seen in the fact that eight out of ten STU buses in



Limo RE - in-flight comfort on wheels. International class air-conditioned luxury coach. Huge underslung luggage cabin leaves the saloon free to carry 37 passengers in airline comfort, with a spacious aisle, fridge and coffee maker. Unique retractable step at 25 cms height. Front and rear air suspension for passenger comfort. High-power, turbo-charged engine is rear mounted. Power steering and co-driver's sleeping compartment for driver comfort.



Limo - super luxury on wheels. Limo retains most of the welcome features of Limo RE. Limo has rubber-ended front suspension and full air rear suspension. Its engine is mounted in the front.

Limo RE and Limo are the shape of things to come from IRIZAR-TVS, Ashok Leyland's joint venture for international class bus body building, with IRIZAR, the globally reputed coach builder from Spain and Sundaram Industries

the metros carry the Company's marque. In response to growing expectations in respect of commuter comfort and safety, the Company has the capabilities to offer modern metro buses.

Inter-city travel, in contrast, demands a greater degree of luxury without any compromise on vehicle reliability or operating economies. Air suspension and rear engine are two concepts Ashok Leyland pioneered two decades ago. The Company has leadership position in this segment too, with an unmatched range of inter-city buses catering to the need for speedy and comfortable long-distance travel.

Irizar-TVS, Ashok Leyland's JV with the internationally acclaimed luxury bus manufacturer, Irizar of Spain and Sundaram Industries, will roll out international class luxury buses on India's roads. An indication of which were the Limo RE and Limo launched early this year, signalling a new era in inter-city travel.

By continuously seeking customer insight and innovating for customer satisfaction, by studying the evolving context and mastering future technology, Ashok Leyland is confident of reaping success in its business of Engineering Your Tomorrows.

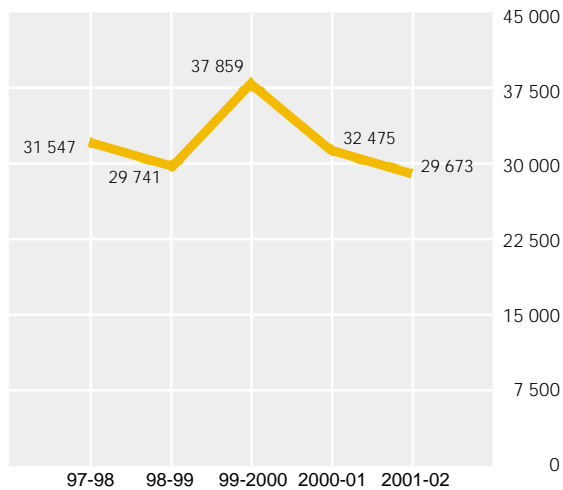


Contents	Board of Directors	1
	Highlights of Performance	2
	Directors' Report	5
	Report on Corporate Governance	8
	Management Discussion and Analysis Report	18
	Directors' Responsibility Statement	23
	Auditors' Report to the Members	24
	Balance Sheet	26
	Profit and Loss Account	27
	Statement on Significant Accounting Policies	28
	Schedules to Balance Sheet	30
	Schedules to Profit and Loss Account	36
	Notes to the Accounts	39
	Cash Flow Statement	45
	Balance Sheet Abstract and Company's General Business Profile	47

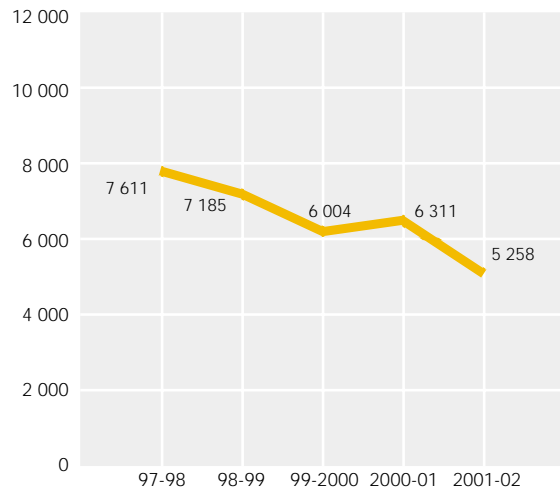
Board of Directors	R J Shahaney, <i>Chairman</i>
	D J Balaji Rao
	P A Balasubramanian (<i>Nominee of LIC</i>)
	P K Choksey
	A K Das
	D G Hinduja
	H Klingele
	E A Kshirsagar
	F Sahami (<i>Alternate : B D Punjabi</i>)
	R Sorce
	R Seshasayee, <i>Managing Director</i>
	R Jagannath, <i>Deputy Managing Director</i>
Executive Directors	J N Amrolia
	T Anantha Narayanan
	K K S Bhalla
	A S Mundkur
	S Nagarajan
	M Natraj
Secretary	N Sundararajan
Auditors	M S Krishnaswami & Rajan
	Price Waterhouse
Cost Auditor	Geeyes & Co.
Bankers	Bank of America
	Bank of Baroda
	Bank of India
	Canara Bank
	Central Bank of India
	Citibank N.A.
	ICICI Bank Limited
	Punjab National Bank
	Standard Chartered Bank
	Standard Chartered Grindlays Bank
	State Bank of India
	The Hongkong and Shanghai Banking Corporation Limited
Registered Office	19, Rajaji Salai, Chennai 600 001
Plants	Chennai
	Hosur, Tamil Nadu
	Bhandara, Maharashtra
	Alwar, Rajasthan
	Hyderabad

Highlights of Performance

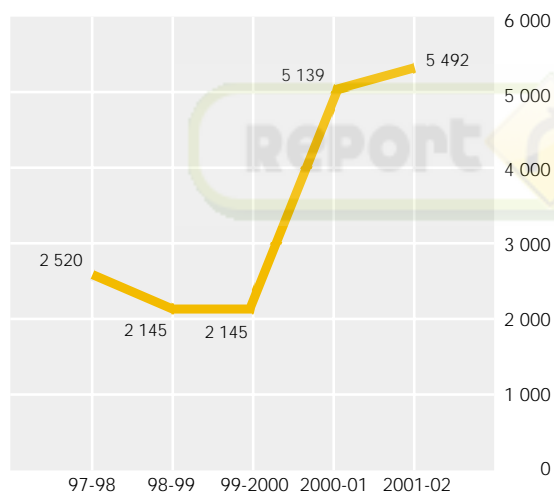
Vehicle Sales (Nos.)



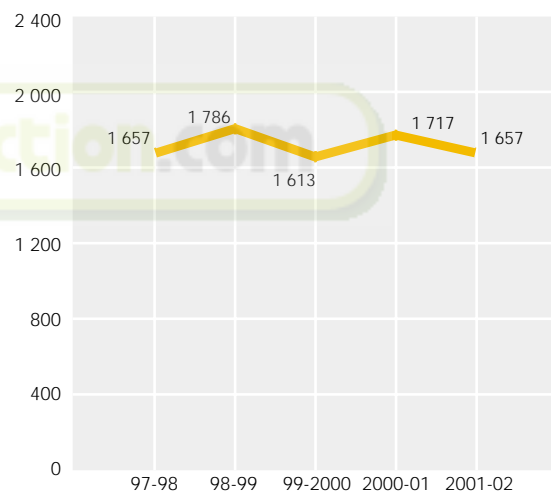
Engine Sales (Nos.)



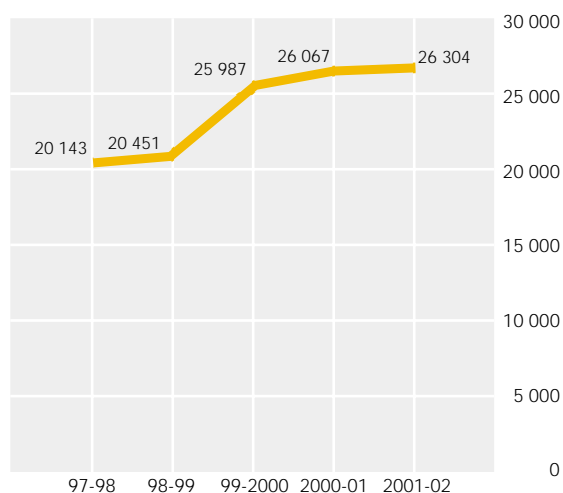
Spare Parts & Others (Rs. million)



Foreign Exchange Earnings (Rs. million)



Sales Value (Rs. million)



Profit (Rs. million)

