

*Perkins*  
**phaser**

*A Great Team.*



**INTERNATIONAL TRUCKS**

**MORE DRIVE FOR YOUR BUSINESS**

## International/ Perkins

- With the new **ACCO 1850D** International now offers up to date technology with new power and drivetrain in a proven chassis.
- ACCO 1850D** leads the field with the introduction of the first intercooled (or "air to air charge cooled") engine in the 6 litre truck class. The Perkins Phaser offers a fine balance between fuel economy, performance and reliability.
- A new drivetrain combination of clutch, transmission and two speed axle, have a proven durability record over millions of miles of operation in the North American market.



- This new combination along with proven power steering system provides low effort controls, ensuring greater operator comfort.
- With these new features, International's **ACCO 1850D** has retained its re-reinforced straight chassis sidemembers, 6 tonne rated front axle, 5 Cam full air brakes and now, double-sided zinc plated cab panels for improved corrosion resistance.
- International and Perkins – a partnership that gives us the Aussie power to take the Road.

## Phaser 160T/180Ti

- Perkins' advanced diesel engineering has resulted in two new six cylinder diesel engines. The **Phaser 160** is a tough turbocharged engine delivering 119kW (160 bhp) with 516Nm (381 lbft) of torque. The **Phaser 180 Ti** with turbocharging and air-to-air intercooling, produces a reliable 134kW (180bhp), with 581Nm (429 lbft) torque.
- The flexible Phaser series has been developed, specifically, for the medium truck market. Perkins quality design features mean better performance, rugged reliability and a longer working life. The engines are economic to run and thanks to **Quadram**, an improved combustion system, they're cleaner and quieter.
- Because the engines are more efficient, Phaser powered **ACCO 1850D** trucks are easier to drive, more responsive and have plenty of power to spare.
- The Phaser 160T and 180Ti come from the world's largest diesel engine manufacturer. Through advanced design, they are setting the standards for tomorrow's diesel technology.

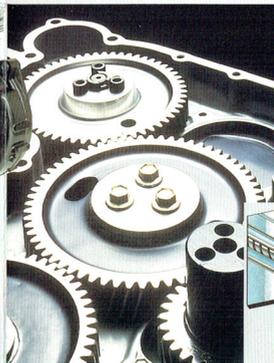
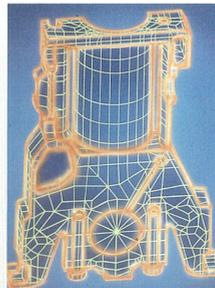
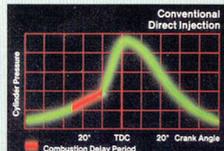
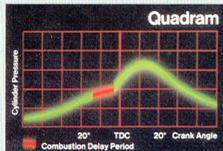


### The Quadram System

- At the heart of the Phaser diesel engines is the unique Quadram combustion system. The piston head has a four lobe chamber to control air movement in the cylinder. It optimises the balance between air swirl and turbulence, resulting in better fuel/air mixing and that means more efficient fuel.

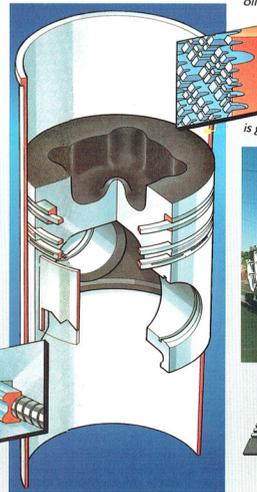
Quadram increases power and torque. It reduces fuel consumption. The engine is quiet and emissions are lower.

- Because combustion is precisely controlled, the time between the start of fuel injection and the start of combustion is shorter. The rate of pressure rise, in the cylinder, is lower and that means less noise. It also improves reliability and engine life.



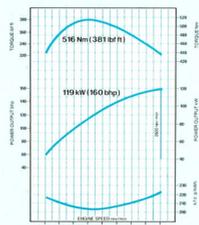
## Premium Design Features

- All Perkins diesel engines are designed and built to the highest standards of quality. And the Phaser series has many features, normally found only on larger power units.
- The cast iron cylinder block, with integral crankcase, was developed with the help of sophisticated finite element analysis. This cut down the weight while still providing rigid support for the crankshaft.
- Controlled expansion pistons which feature an internal steel skirt and low friction three ring pack, are matched precisely to the liners. With a more consistent clearance, between bore and piston, it makes cold starting easier and reduces piston slap.
- The oil system uses a compact, integral plate oil cooler with a bypass valve for start up safety. On the turbo version, pistons are oil spray cooled by jets incorporating safety valves. This ensures that there is always enough oil supplied to key bearing surfaces.
- Helically cut steel timing gears provide precision drive for the fuel pump and camshaft. The water pump is gear driven too, making it more reliable.



**Perkins  
phaser**  
TRUCK ENGINE

### Phaser 160T

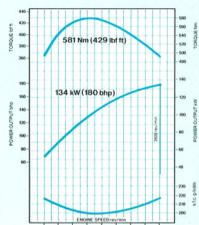


Conforming standards BS AU 141a, 1971 SAE J1363 A 2\*

- The dry cylinder liners are silicon carbide honed. This gives the right surface finish for high performance and returns low oil consumption over a long working life.



### Phaser 180Ti



Conforming standards BS AU 141a, 1971 SAE J1363 A 2\*

## Perkins Today

Perkins Engines Group Limited is an international company with over 50 years experience in the design and manufacture of high speed diesel engines. As the world's largest diesel engine manufacturer, its engines are assembled in over 16 countries and sold in more than 160.



The Phaser range is produced at the main factory, based at the company headquarters in Peterborough. With over 182,000 square metres, it is by far the largest diesel engine facility in the world.



Through continuous investment into advanced research, development and manufacturing techniques, Perkins has maintained its position at the forefront of diesel technology.



Phaser is part of Perkins range of automotive engines which power the ACCO 1850D series in a wide range of applications including municipal, urban/country delivery, fire fighting and State authorities.



 **Perkins**  
Engines

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All information given in this leaflet is substantially correct at the time of printing but may be altered subsequently by the Company. Intending purchasers should therefore check for current data at time of purchase.

## International Today

International Harvester first entered the Australian truck market in 1907 with imported fully assembled products. Local manufacture commenced in 1950 and since that time, more than 180,000 trucks have been produced.



International's proving ground, covering over 1000 hectares, is located at Anglesea, Victoria, and enables comprehensive testing and evaluation of vehicles under typical load and applications faced in Australia.



The truck assembly plant, located in Dandenong, Victoria, is the largest truck plant in Australia, covering a total of 57 acres with over 8 acres under roof and features sheetmetal stamping plant, automatic paint processes, hi-rise warehouses and allows for every vehicle leaving the factory to have



been designed, tested and inspected to meet specific application criteria.

 **INTERNATIONAL TRUCKS**

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