

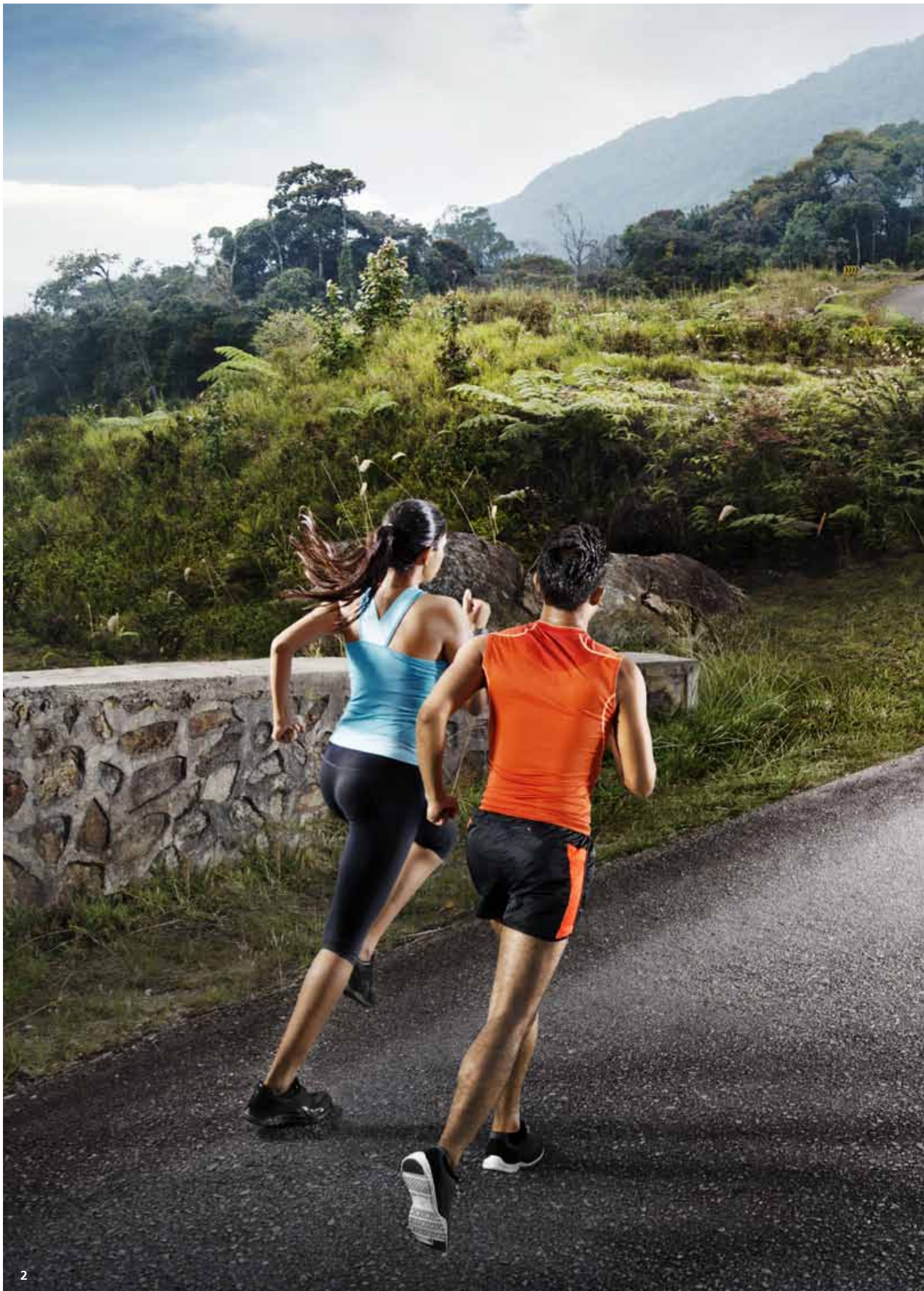


UD TRUCKS

# Quester

Made to go the extra mile







# Made to go the extra mile.

At UD Trucks we have a passion for Ultimate Dependability. To always run the extra mile in everything we do. We leave nothing to chance, making sure you get an optimal transport solution for your business. Quester is a great example of this approach. It's a reliable heavy-duty hero on the road and a champion on saving money for your business.

Quester is the first in a new generation of UD Trucks specifically developed for the world of heavy-duty transportation. It derives from our Japanese quality heritage and insights from our local markets. And it's the first to be developed with the global resources of the Volvo Group, of which UD Trucks now is a part.

Our passion is to make your working day simpler and more productive. Whatever your line of business, whether it's long haulage, distribution, construction or mining we have a complete solution for you.

Quester is UD's most cost-efficient truck ever. Not only when you buy it, but also when you drive it. It cuts fuel costs and maximizes uptime, giving you quick dependable payback that will help you succeed with your business.

Our aim is to help you to reach your goals. That is why Quester is designed to be enduring like a long-distance runner. And like the best runners it's built to deliver the extra mile, to run further.

It's a truck that excels on durability. Robust and easy to maintain, the Quester is a vehicle, a tool that can handle tough daily use, from the highway to the off-road. It stands for great quality that lasts over a long time. This is backed up by a wide range of configurations with easy body mounting offering you a tailored, purpose-built solution for all types of applications.

Quester is the optimum transport solution for businesses that want to grow. And we at UD Trucks are your most committed partners.

***Let's get ready, set and go!***

# Excelling on the essentials.

Quester focuses on the features and benefits that make your business grow. Benefits such as higher productivity, extended uptime and increased fuel-efficiency. And it excels on it!

## **Leading in fuel-saving economy**

Quester is a truly economical vehicle on the road. Every element, from the inside out, is carefully designed to contribute to class-leading fuel-efficiency.

*Pages 6–9*

## **Aerodynamic design**

Curving lines and smooth surfaces that save fuel. The high roof design of the Quester is designed for low air drag. It not only looks good, it will save you fuel every mile down the road.

*Page 6*

## **Fuel-efficiency training**

We are sharing our global experience and expertise in cutting fuel consumption with all Quester customers. See how much you can save by changing driver behavior.

*Pages 8–9*

## **Cabin for efficient driving**

Climb in and discover a workplace made for the long run. Everything is within sight, within reach and easy to control. There are two bunks and plenty of storage for personal belongings.

*Pages 18–19*

## **Heavy-duty durability**

Rugged. Robust. Reliable. You need a truck that keeps going, no matter what. Quester is fit for hard work in challenging conditions.

*Pages 14–15*





### **High payload capacity**

Due to the robust chassis and strong axles Quester has a competitive load carrying capacity.

*Pages 16–17*

### **Service and support**

We are always prepared and constantly working to ensure that everything runs smoothly at your end. We have the parts, the people and the knowledge for the extra mile.

*Pages 20–21*

### **Proven technology**

Quester is tried and tested. Each component is the result of years of experience and extensive quality control tests conducted by UD Trucks and the Volvo Group. This will give you a competitive advantage.

*Pages 22–27*

### **A powertrain to rely on**

At UD Trucks we are part of one of the worlds largest producers of heavy diesel engines. So our powertrains are real-life tested and built of components with proven reliability and durability.

*Pages 24–25*

### **Wide model range**

Quester provides a platform for a wide range of long haul, distribution, construction and mining applications. It can easily be adapted to mount different superstructures.

*Pages 10–11*

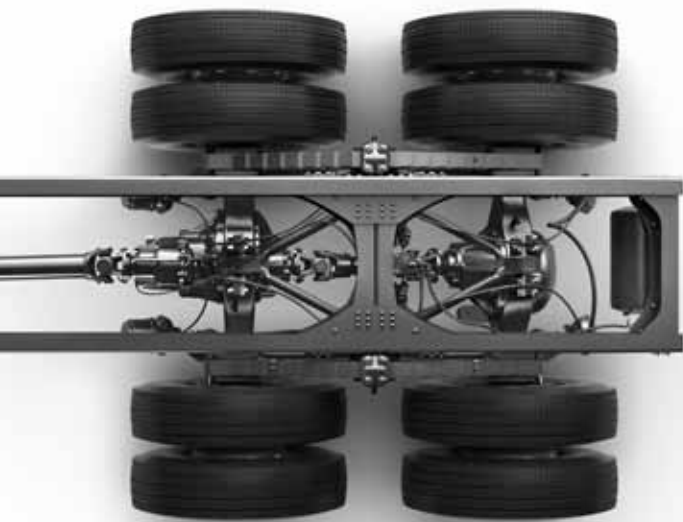
### **Easy to maintain**

We've made maintenance both time-saving and convenient. Quester gives the driver easy access to everything, from oil check to fault codes on the driver information display.

*Pages 14–15*

# First-rate fuel economy.

Quester has built-in fuel-efficiency. The wide driveline offer gives the ability to optimize the powertrain with respect to power output, transmission and rear axle ratio. A well specified powertrain ensures that the engine operates at its peak efficiency at all times, enabling good fuel consumption and high average speeds.



## Less fuel per ton carried

Quester has a wide range of different product types such as 6×2T and 8×4R which combined with well dimensioned components and axles offers high GCWs and GVWs. This maximizes the payload and reduces the fuel consumption per ton carried.



## Reduced air resistance

Minimizing aerodynamic drag is important since it decreases the wind resistance, leading to better fuel consumption. To reduce drag Quester has the option of fitting roof and side air deflectors. In addition the on-road cab comes as standard with side air vents which also keep the dirt of the side of the cab.



## Optimized powertrain

The Quester powertrain delivers best-in-class fuel economy. The two engine alternatives – 8 liters and 11 liters – include a well-balanced combination of features that matter most for fuel-efficiency. You get flexibility to select the powertrain combination that best suits your needs. No matter what you choose, you get a trouble-free driveline with high-capacity components.

# Get 100% control. Save up to 30% fuel.

The driver is the key to vehicle performance. Pilot studies show a fuel saving of between 5 and 30% when drivers adopt more fuel-efficient driving techniques. In fact, you will see that effective driver training pays off almost immediately.

Actually it's very simple. In the Quester's display the driver gets real-time tips on how to operate the engine for best fuel economy. A telematics system will also be available in the future which collects all the operating data, which will be easily transferred to a computer for analysis. This opens up unique possibilities for better driver management, higher fuel-efficiency and pro-active cost control.



## Fuel coaching system

Quester comes with a real-time Fuel Coach. The display shows the driver when to shift, brake or accelerate for maximum time in the engine's optimum fuel-efficient rev range, the so called sweet spot. The system is simple to understand and easy to use.



## Fuel-efficiency training

UD Trucks' fuel-efficiency training is an additional service. Our courses in economical driving also teach you how to use the truck's fuel coaching system to get the most out of the engine for smarter, more cost-efficient driving.



## Prepared for the future

The telematics system is prepared for real-time GPS positioning including fuel consumption reports which give the ability to propose additional driver training and coaching. This also opens up future possibilities for fleet management and logistics planning.



## Handover introduction

We help you to take full advantage of your Quester from the very beginning. Our experts will help drivers become familiar with all the functions and demonstrate how to operate the truck under optimal conditions.



## Driving analysis

Quester's Fuel coaching system is equipped with a telematics system that stores trip data such as distance travelled, fuel consumption and engine operating time in the optimum rev range. Download data and review the logs to improve your transport efficiency even further.



## Road Speed Limiter

Maximum road speed is one of the most important factors with regards to fuel economy. Quester can be ordered with a set speed limiter which can help you reduce fuel consumption by an additional setting in the display.



# “Quester is a sure winner on the bottom line”

Per Hansen is Driver Development Manager at UD Trucks. In Quester he sees a unique opportunity for fleet owners to optimize their business performance.

“This is our first full-size cabin. Quester is a full-grown truck with a superior engine. It’s got unheard of levels of torque, hub reduction and a superior engine brake that will not only save the brake linings, but also give the vehicle a high average speed on steep downhill gradients all of which is unusual in Asia”, says Per Hansen.

## A forerunner in fuel coaching

Most of all Per Hansen is excited by the fuel coaching system, which gives feedback to the driver on how to operate it in a fuel-efficient way.

“Drivers who use the fuel coaching system will get great fuel savings. I’ve seen improvements between 5–30 percent, but I would say that at least 10 percent is achievable for any driver who follows the instructions.”

*“We teach the operators a new way of thinking – to plan ahead...”*

The fuel coaching system is the first level in improving fuel economy. Level two is fuel-efficiency training. There we give the drivers knowledge and skills on how to change bad accelerating and braking habits that cost more in fuel.

“We teach the operators a new way of thinking – to plan ahead, scan the scene and make visual assessments that will keep the truck rolling at a constant pace”, says Per Hansen.

## Putting a brake on costs

Even small fuel savings matter over long distances. But fuel-efficient driving also reduces costs in other areas that benefit construction and mining companies in a big way.

“Defensive driving also means longer tyre life and less driveline breakdowns – and that can make a big difference in operating costs”, says Per Hansen.

UD Trucks’ ambition is that all operators should get the best out of their truck. Therefore we tailor the handover process to each customer’s specific needs. We train drivers and the customer’s in-house driver trainers in order to convey the knowledge and know-how to all end-users.





# The widest range of possibilities.

The secret of Quester lies in its versatility. With Quester, UD Trucks offers a vehicle that allows customization for any transport requirement. So we can provide you as truck owner, or bodybuilder, with great freedom of choice at a competitive price.

## Bodywork made easy

The Quester is designed for ease of superstructure installation with comprehensive bodybuilder instructions and drawings. The parallel side members, designed bodybuilder mounts and a range of power take-offs add to the ease of installation.

## Eight different configurations

Quester offers ideal axle positioning, being available in 4×2R/T, 6×2R/T, 6×4R/T, 8×2R and 8×4R configurations for distribution and long haul, and 6×4R/T and 8×4R for construction and mining work.

## Optimized wheelbase range

The correct wheelbase and overhang is necessary to optimize the body length and payload. Quester is available with a large wheelbase range direct from the factory – from 3.2. up to 5.6 meters – and in addition the length of the rear overhang can be ordered in different intervals.



### Long haul

If you want to run further in long-haul transport, Quester shifts your transport performance up a gear and steps on the brakes in terms of cost.

#### **Advantages for long haul:**

- Spacious comfortable sleeper cab designed for long haul applications with high roof and twin bunks
- Leading in fuel economy due to optimized powertrain, fuel coaching system and aerodynamic design
- Composite aerodynamic bumper with front underrun protection (FUP)
- Durable and reliable driveline
- Available as 6×2T, 6×4T, 6×4R and 8×4R

### Distribution

Reliable, manoeuvrable and economical – these are the essential characteristics of Quester for short-haul and distribution.

#### **Advantages for distribution:**

- Wide product offer designed for ease of superstructure installation
- Ease of maintainability with low maintenance cost for driveline and chassis
- Ergonomic and functional workplace
- Easy entry and exit
- Available as 4×2T/R, 6×2T/R and 6×4T/R

### Construction and mining

Quester is especially adapted for the construction and mining industries. It is strong, reliable and designed for handling high payloads.

#### **Advantages for construction and mining:**

- Reliable chassis for rough and hilly conditions
- Hub reduction available on the tandem axles with the tried and tested T-Ride rear suspension
- Steel offroad bumper with high ground clearance and excellent approach angle
- Rolling form frame suitable for both vertical and torsion stress
- Available as 6×4T/R and 8×4R

*For more information, please refer to separate segment brochures.*

# Stay up and running.

You know the reality. Transportation faces rising fuel prices and increasing customer demands. The real winners are the ones who keep on running. Consistently and reliably, mile after mile, year after year. Uptime has become a key for successful companies – that's why Quester excels at it.

Thanks to Quester's durability and easy maintainability, together with the coverage and professionalism of the UD Trucks dealer network, you can relax. Unexpected stops will be short and dealt with effectively.

The last thing you need is hassles when you have a problem. Every Quester comes with the peace of mind that our service network offers. The driver's call for help is answered by a UD Trucks specialist trained to diagnose and troubleshoot problems, so your truck can keep running.

The difference lies in the complete offer. From the heavy-duty durability and the easy replaceable spare parts to the people at UD Trucks who are dedicated to helping you.

We understand your unique needs, and can commit assets and people to serve as an extension of your company.



# Built to last. Designed to save time.

With Quester we have created a reliable and productive truck, built with proven quality components. Simply put, an enduring and more serviceable truck made for the long run – so you'll spend less time on maintenance and more time working.

Ultimately it all comes to down to the details. Everything in and around the Quester is developed to create a strong overall solution. It's built with refined, tried and tested technology based on insights about our customers' day-to-day needs and cutting-edge know-how gained from our global network. The result: a truck made to go the extra mile.



## Anti-corrosion protection

Quester has high quality anti-corrosion protection using the Volvo Group manufacturing standard. Phosphatizing dipping of the entire cab followed by three paint layers all of which are oven hardened. This secures protection for a long truck life.



## Three-piece bumper

On both bumpers, steel and composite the exposed corners are easily exchangeable. The headlamps are positioned on the side panel for better protection against damage.



## Ease of daily service

Engine service points are located behind the grill for ease of service. Here it's possible to check the clutch fluid, washer reservoir and air conditioning filter. The oil dipstick is conveniently located at the back of the cab.



## Proven quality mudguards

The modern style of rear fenders are manufactured from black ABS plastic. They are a stable design, age resistant and easy to disassemble if necessary.



## In-vehicle diagnostics

Speed up daily inspections and increase safety. Quester introduces an advanced driver's display with tell-tale and self-diagnosis function. The indicators alert to issues that may require attention from the driver or a technician. In addition a service alert is given when the time is due.



## Service and support

Genuine Service and Genuine Parts are there to make sure that everything runs smoothly at your end. It is essential support for your Quester, so you always get maximum uptime – wherever your truck travels.



### UD Extra Engine Brake (UD EEB)

The 11-liter engine is available with the optional engine brake (UD EEB). This provides powerful braking that is quick to engage. Improved braking safety results in higher average speeds especially in hilly landscapes. In addition it results in decrease in brake lining wear.



### Long-life S-cam brakes

S-cam high performance drum brakes are proven quality and recognised as the industry benchmark for many years. They are trouble-free and easy to service resulting in low maintenance costs and minimized downtime.



### Reliable chassis suspension

Want to go the extra mile? If so, it's vital to have reliable chassis suspensions. Quester has long-life and lightweight parabolic front springs that offer a smooth ride. The rear suspensions consist of multileaf springs giving high load capacity and higher rolling rigidity.



### Long-life hub reduction

Quester has robustly designed rear axles with high capacity. The 6x4T, 6x4R and 8x4R configurations also have optional hub reduction, where the stresses are split between the hub and the axle. It's fitted with inter-axle and inter-wheel differential locks, giving excellent grip and traction for extended vehicle availability.





# Delivers more than you expect.

A heavy-duty chassis with high flexibility and quality is one of Quester's main characteristics. The design of components comes from UD Trucks' and Volvo Group's proven commercial-vehicle technology. The entire chassis is subject to extensive tests in accordance with our global standards. This guarantees high reliability, good economy and a long life.

## Strong and flexible frame

The Quester frame is robust and handles tough demands. The side rail section is made from strong and durable rolling form steel and is available in thicknesses of 7.0 or 8.0 mm. Rolling form is a torsional flexible frame with uniform stiffness, good for vertical stress and torsion stress when rolling and pitching happen together. This reduces stress from uneven road surfaces, loads with high center of gravity and unevenly distributed loads, making it suitable for many different conditions.

## The toughest rear suspension

The T-ride rear suspension on the 6×4T/R is designed for rough conditions and particularly suitable for construction where durability and high reliability are of the highest importance. Rubber springs between the springs and rear axles contribute to good comfort under all axle loads. Rubber journalled V-stays and reduction rods give a smooth operation.





### **Cab suspension for greater comfort**

A system of coil springs supports the entire cab, absorbing road shocks and vibrations. It's a reliable and hassle-free system, keeping maintenance costs to a minimum.

# Room for efficient driving.

It's all about space. Quester's cab reduces driver's fatigue in long distance operations. But a well-planned driver's environment also results in safer and more fuel-efficient driving. After all, only a driver in top form can also produce top performances behind the steering wheel.

You immediately get a sense of quality when climbing into the driver's seat. Quester has a large fully transparent illuminated instrument cluster, the seats are upholstered with high-quality textiles and the switches are placed exactly where you want them. This is a place for long hours of work. Catering exactly to the driver's needs, making it easy to work with great precision in any situation.



### Ergonomic dashboard

The ergonomic layout of the dashboard increases the safety on the road. The most important controls and switches are within easy reach of the driver, clearly marked and easily recognizable.

### Driver's information display

A large 4.5" display in the instrument makes the information easy for the driver to read. It delivers bright and sharp contrast with quick and easy recognition of information. The display also gives information on the fuel coaching system.

### In-vehicle diagnostics

Monitor the performance of the engines and get an early warning of malfunctions through pop-up messages and warning lamps. With early warning, you can identify minor problems before they become major repair bills.

### Plenty of storage space

The Quester has the option of under bunk storage of 151 liters on the high roof cab and 104 liter on the standard sleeper cab. This makes it possible to stow away belongings on a long trip.

### Big bunk size

Well-rested drivers do a better job. The high roof cab versions have bunks that are extra wide and extra long to ensure a good night's sleep.

### Bright driver environment

Side windows are available as an option. They create a bright in-cab environment, making the driver's work easier and more efficient.

### Safety tested cab

The Quester cab has passed the ECE R29/ AIS029 crash safety test, which includes a front impact test and a simulated roof strength test. This shows that the cab is able to withstand impact and provide a safety space for the driver.

### Ergonomic driver seat

Either air suspended or mechanical suspended drivers seats are available. They are an ergonomic design with good adjustment and well-shaped seat cushion and backrest which reduces fatigue during long trips.

### Auxiliary passenger seat

Do you sometimes need an extra hand on the road? A foldable auxiliary passenger seat is available as an option, which gives the possibility to carry an extra worker.

### Roof hatch emergency escape

Sleep tighter and work safer. In case of fire or road accidents the high roof cab has a roof hatch which can also be used as an emergency escape.





# Solutions and people you can trust.

Quester is a complete offer where product features and service support are tightly integrated. From bumper to tail lights, the experienced staff of our authorized UD Trucks dealer network know your UD trucks inside out. Enjoy total peace of mind knowing your truck is in the hands of real professionals.

## **Global strength**

Quester is a truck designed by specialists from the worldwide Volvo Group network of which UD Trucks is a part. We are one of the world's largest manufacturers of heavy-duty trucks and a leading manufacturer of heavy-duty diesel engines. Our company performance has been honed all over the world.

## **Japanese quality heritage**

At UD Trucks we have a long tradition of continuously improving our manufacturing, engineering, and business management processes. As all our products, Quester has been developed with a Japanese hands-on, field-oriented approach that starts from a customer and factory floor perspective.

## **Product integrity**

When you choose a Quester you get a product that performs superbly, provides good value and satisfies your expectations in every respect. All parts of the truck are exclusively developed and designed to work together, to be reliable, robust and safe on the road.

## Strong local support

With the launch of Quester, UD Trucks is getting even closer to our customers. We are expanding our service network to support this great new product. UD Genuine Service and UD Genuine Parts are the foundation of UD Trucks' uptime offer. These are carefully designed concepts for efficiently keeping your vehicle on the road.

## Breakdown assistance

The telematics system enables breakdown assistance. If a vehicle breaks down, our service technicians perform remote diagnostics and identify the vehicle's exact location. Our UD Trucks aftermarket technicians remotely identify the cause of the breakdown and start up a proactive repair process. This approach reduces the truck's downtime and gets you back on the road more quickly.

## Preventive maintenance analysis

Through Quester telematics, you avoid costly repairs. UD Trucks monitors each vehicle's condition and detects service needs before a potential emergency occurs. When your vehicle needs servicing, we contact you well in advance to schedule a service.



# Proven technology. Solid performance.

Empower your business. Our two engine alternatives are designed with proven fuel-efficiency and superior performance for medium-duty to heavy-duty applications. We are a step ahead in providing lower operating costs and increased productivity – making it easier for you to stay one step ahead of the competition.

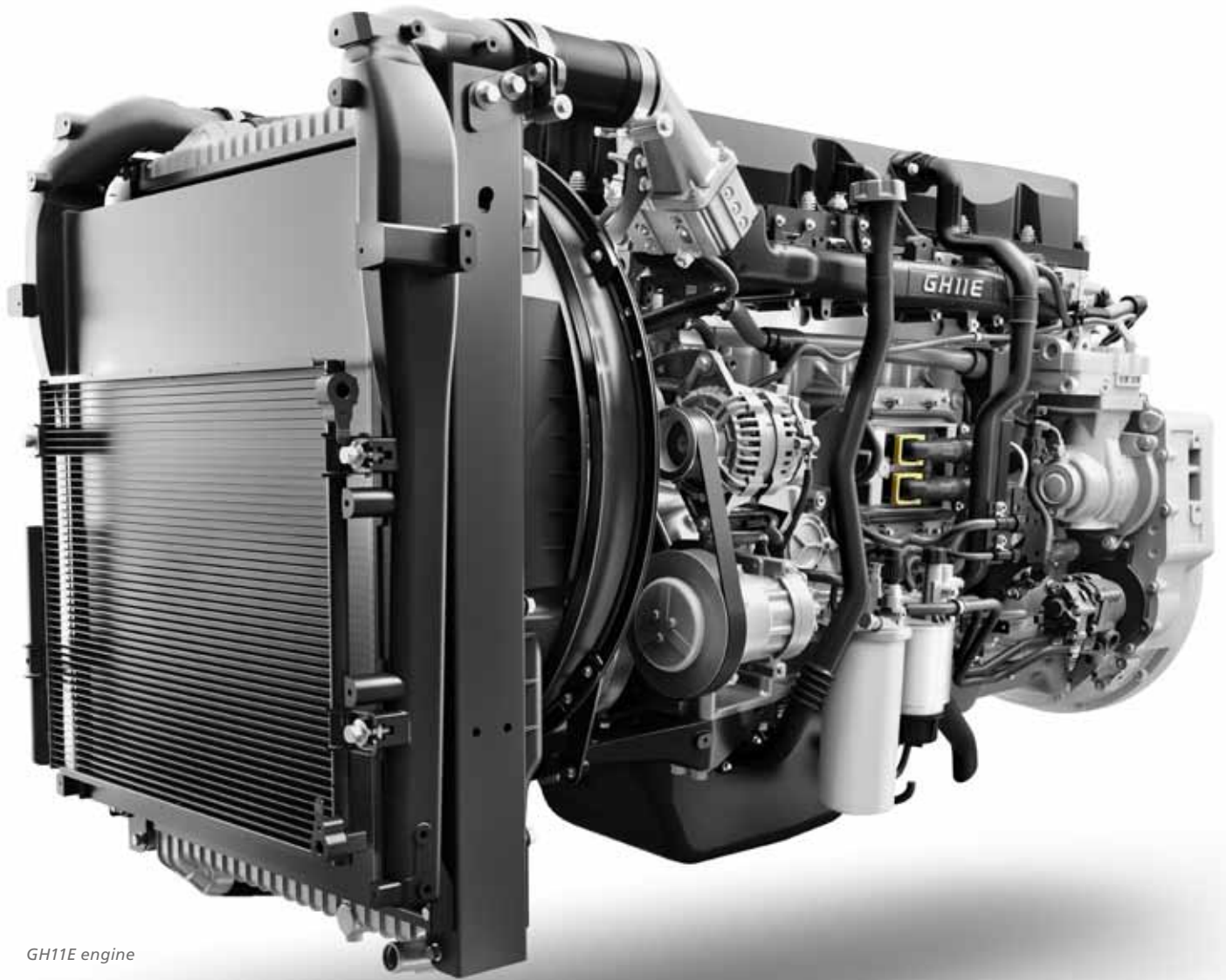


*GH8E engine*

## The 8-liter engine – balanced and dynamic efficiency

The GH8E is based on UD Trucks' GH7 engine, which has established a good reputation for its performance and fuel consumption. The GH8E offers excellent performance and is ideal for distribution and construction work.

- 8-liter diesel engine
- Low operating cost through reduced maintenance and long service intervals
- Turbocharging with air-to-air intercooler
- Power/torque: 220 hp/850 Nm, 250 hp/950 Nm, 280 hp/1050 Nm, 330 hp/1200 Nm



GH11E engine

## The 11-liter engine – better value for every mile

The GH11E was developed to provide the best possible performance in actual operation. It is based on advanced Volvo Group technology in combination with UD Trucks' manufacturing quality. The low fuel consumption is due to the wide rev range with high thermal efficiency.

- Fuel-efficient with good driveability
- Good torque at low revs results in quick response to acceleration
- Maximum torque within a wide rev range
- Optional UD Extra Engine Brake (UD EEB) for enhanced braking
- Electronically controlled cooling fan reduces losses
- Turbocharging with air-to-air intercooler
- Engine driven power take-off with high torque output of maximum 650 Nm
- Low noise and vibration at idling
- Power/torque: 420 hp/2 000 Nm, 390 hp/1 800 Nm, 370 hp/1 700 Nm

## Auxiliary brake

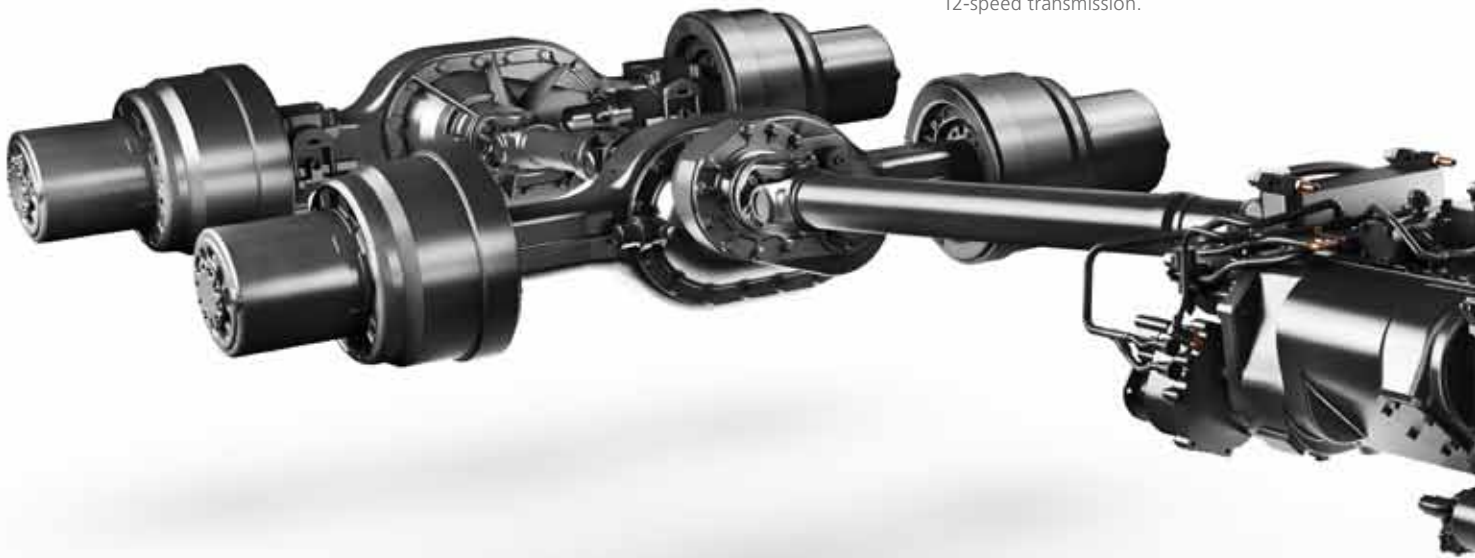
The UD Extra Engine Brake (UD EEB) is a powerful engine brake that is optional with the 11-liter engine. The UD EEB is a means of using the engine as an auxiliary braking device. This is done by back pressuring the cylinders within the engine, using exhaust pressure and a patented ingenious valve system. There is no generation of heat or extra wear and tear on equipment.

### Hub reduction for tough jobs

For rough and hilly operation Quester offers hub reduction for the 6×4R, 8×4R and 6×4T configurations.

### High power transmission

Quester has a very high input torque – up to 2 000 Nm with the 9-speed and 12-speed transmission.



# A powertrain for the long run.

The heart of every Quester is our integrated powertrains that perform optimally because they're specially designed and manufactured to work together. They combine the efficiency and durability of a Quester engine with a first class selection of globally proven drivetrain components.

## Made to work together

You get durability to go the distance. The Quester driveline is carefully balanced to optimize performance under varying conditions. It gives excellent fuel economy at cruising speed due to the possibility of matching the driveline with the correct rear axle ratio.

## A transmission excelling on the essentials

A locally sourced and popular transmission based on well-proven technology. We have further developed it to withstand tough conditions and meet our customers' demands. After rigorous testing we have obtained first-rate results for reliability and durability. For the 11-liter engine you have a choice of 9 or 12 speed. For the 8-liter engine you can have 6 or 9 speed.



### Great engine driveability

The GH11E engine boasts a sturdy, dependable design featuring an overhead camshaft, four valves per cylinder and precisely controlled electronic unit injector. Driveability is excellent thanks to the broad torque range.



### High payload capacity axle

You want a rear axle that lasts and requires little maintenance. The Quester will fill your needs. Its housing is made from fabricated steel to effortlessly handle heavy loads – a simple choice for most heavy-duty applications. There is also a hub-reduction axle for more demanding applications.

### Bogie lifting axle

The 6×2T and 6×2R configurations can be provided with a bogie lifting axle which is used to lift the axle in the unladen condition. The lifting function on the third axle gives the truck more traction when activated. It also gives you better fuel consumption, extended tyre life and a smaller turning radius. It can be supplied with bogie press which is used when higher traction is required.

# Chassis to build your business on.

## Strong and flexible frame

The chassis frame forms the backbone of Quester. It is dimensioned to provide stability, payload capacity and long-life performance.

## Wide wheelbase range

By having a wide product range and many available wheelbases, Quester is able to maximize the payload depending on your business needs.



## High axle load capacity

Due to the robust design of axles Quester is designed to operate at high GVWs and GCWs to give a competitive load carrying capacity. For the toughest conditions hub reduction is also available which maximizes the ground clearance.

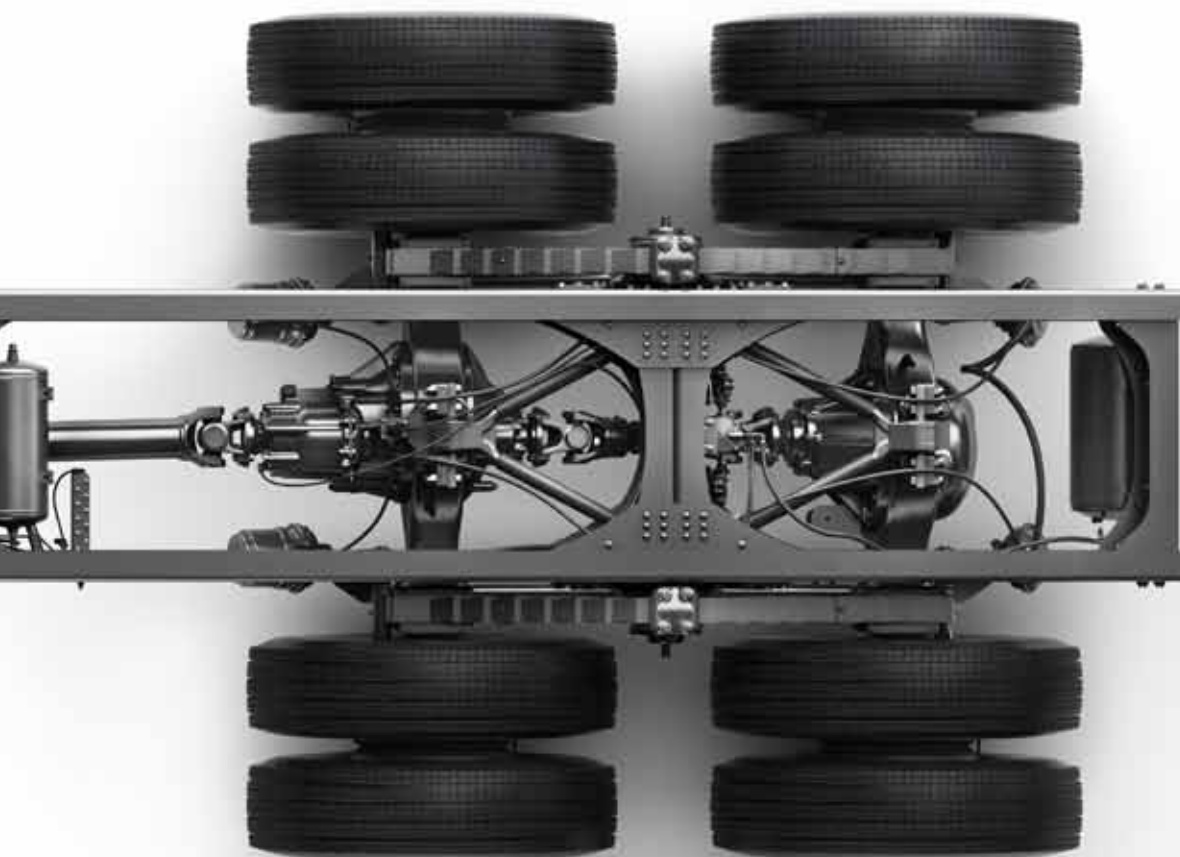
Are you looking for new ways to transport more cargo every run? Or are you worried that your trucks don't have the capacity that your customers really require in order for you to guarantee safe and secure transport? With the Quester you can feel confident that you have a truck with payload capacity suited for your operation – whatever your business. It begins with a durable and rugged frame that provides a stable basis on which to build on.

### **Superior strength steel**

The frame is made from cold-formed steel that combines high strength with light weight. For Quester it is produced in a rolling form process that gives the chassis extended strength and flexibility.

### **Reliable rear suspension**

Multileaf springs for high capacity and easy maintenance. Designed to deliver the best ride under the worst conditions. The rear suspension on the 6x4T/R and 8x4R features trunnion-mounted springs and rubber towers for excellent traction in off-road conditions.



### **ADR for hazardous transport**

Do you transport petro chemicals or other dangerous goods? The Quester chassis is factory prepared for ADR as an optional feature. The ADR 1 package includes a two-stage battery safety switch and insulated terminal and lamps.

(This feature will become available at a later date)

# Technical specifications – the Quester Range

## Configuration overview

Configuration	Max GVW/GCW (tons)	Engine type	Engine power (hp)	Transmission speed	Rear axle	CAB
4x2 Tractor	GCW 56	8L	280/330	9S	Single reduction	Standard roof High roof
		11L	370/390/420	9/12S		
4x2 Rigid	GVW 21	8L	220/250/280/330	6/9S	Single reduction	
6x2 TAG Tractor	GCW 56	8L	280/330	9S	Single reduction	
		11L	370/390/420	9/12S		
6x2 TAG Rigid	GVW 31	8L	250/280/330	6/9S	Single reduction	
6x4 Tractor	GCW 80	8L	280/330	9S	Single reduction/ Hub reduction	
		11L	370/390/420	9/12S		
6x4 Rigid	GVW 34	8L	280/330	9S	Single reduction/ Hub reduction	
		11L	370/390/420	9/12S		
8x4 Rigid	GVW 41	8L	280/330	9S	Single reduction/ Hub reduction	
		11L	370/390/420	9/12S		

Emission level: standard is EU3. 11L engine (420 hp, 390 hp, 370 hp) available as EU4. 8x2 Rigid is also available for India.

## Wheelbases

Tractor	3200 mm		3400 mm		3500 mm		3600 mm		3700 mm		4000 mm	
4x2					•					•		•
6x2			•							•		
6x4	•		•					•				

Rigid	3200	3400	3500	3600	3700	3900	4000	4300	4600	4700	4900	5100	5200	5600
4x2			•		•		•	•	•	•	•	•	•	
6x2		•			•	•		•	•			•		•
6x4	•	•		•	•	•		•	•		•		•	•
8x4								•	•	•	•	•		•

## Load capacity

### Tractor Product Range

Product	REAR SUSPENSION		FRONT SUSPENSION		DRIVELINE	
	Type	RAL	Type	FAL	Engine	Rear axle
GKE 4x2T	Multileaf	13t	Parabolic	7.5/8.0t	GH11E/GH8E	Single Reduction
GDE 6x2T	Multileaf	23t	Parabolic	7.5/8.0t	GH11E/GH8E	Single Reduction
GWE 6x4T	Multileaf	26t	Parabolic	7.5/8.0t	GH11E/GH8E	Single/Hub Reduction

### Rigid Product Range

Product	REAR SUSPENSION		FRONT SUSPENSION		DRIVELINE	
	Type	RAL	Type	FAL	Engine	Rear axle
CKE 4x2R	Multileaf	13t	Parabolic	7.5/8.0t	GH8E	Single Reduction
CDE 6x2R	Multileaf	23t	Parabolic	7.5/8.0t	GH8E	Single Reduction
CWE 6x4R	Multileaf	26t	Parabolic	7.5/8.0t	GH11E/GH8E	Single/Hub Reduction
CGE 8x4R	Multileaf	26t	Parabolic	15t	GH11E/GH8E	Single/Hub Reduction

## Chassis

The chassis is designed to provide very high vehicle strength and reliability.

Large offer of chassis layouts to give a flexible packing arrangement including different wheelbases, range of fuel tank sizes and different exhaust directions.

Large range of options to meet legal requirements on some markets such as side and rear under-run protection, propeller shaft catcher, rear reflectors.

Range of optional extras such as wheel chocks, spare wheel carrier, towing member and couplings.

### Maintenance

Engine Service points are located behind the grill for ease of service.

The oil dipstick is conveniently located at the back of the cab.

Cab tilt angle 58 degrees for ease of access to the engine.

### Frame

Roll formed high-tensile steel frame providing strength, elasticity and excellent durability thanks to high resistance against both vertical loads and torsional stress. Frame in either 7 or 8 mm thickness with strength 590 N/mm<sup>2</sup>. Different length of 5 mm inner liner available as options for additional strength.

### Fuel tanks

Round shaped steel fuel tanks mounted either LHS or RHS.

Low profile 560 mm in size 210 or 315 liters.

High profile 710 mm in sizes 210, 315, 405 or 610 liters.

Fuel cap lock offered as option.

### Exhaust

Horizontal muffler with exhaust directions rear, left, right or vertical.

The muffler is fitted behind the right hand side front mudguard.

All systems galvanic surface treated for long durability.

### Bumper

Two options available:

- Three piece moulded composite bumper designed for on-road use. Aerodynamic design and low ride height contributes to better fuel economy. Front under-run protection as Standard (FUP). Fog lamps available as option.
- Sturdy three piece steel bumper designed for construction and off-road applications. High ride height contributes to high ground clearance and good approach angle.

### Rear wings and mudguards

Made of durable plastic as standard on tractors. Rear quarter wings are available as an option. Fenders are an option on rigid vehicles.

### Fully built tractors

4x2/6x2/6x4 fully built tractors directly from the factory.

SAF-Holland cast low maintenance fifth wheel.

Different fifth wheel positions can be ordered.

High trailer connection arch for convenient trailer coupling.

Reduces risk of damage to cables and air hoses.

Catwalk with anti-slip coating as option.

Steel footstep on the battery box.

Trailer brake connections.

Working lamp as standard.

## Suspension

### Front suspension

Front parabolic springs provide high strength combined with low weight. Front axle load is either 7.5 tons or 8 tons. On the 8x4R the front axle load is 15 tons.

### Rear suspension 6x4T/R and 8x4R

This is specified with the rear suspension with a maximum bogie load of 26 tons.

Multileaf spring with 11 leaves for rigids and 9 leaves for tractors.

Load distribution 50/50.

Designed for rough conditions and particularly suitable for construction. Rubber springs between the springs and rear axles contribute to good comfort under all axle loads.

Rubber journalled V-stays and reduction rods take up both longitudinal and transverse forces to give a smooth operation.

Available for high chassis height with both single and hub reduction axles.

Stabilizer as option for construction applications.

### Rear suspension 6x2T/R

This is specified with the rear suspension with a maximum bogie load of 23 tons.

Multileaf spring with 9 leaves for rigids and 8 leaves for tractors.

Load distribution 50/50. Available with different options depending upon the market requirements:

- Bogie lift (BOGLIFT)
- Bogie press (BOGPRESS)
- Without lift (ULIFT)

Rubber springs between the springs and rear axles contribute to good comfort under all axle loads. Rubber journalled V-stays and reduction rods take up both longitudinal and transverse forces to give a smooth operation. Available for chassis height medium with single reduction axles.

### Rear suspension 4x2T/R

This is specified with the rear suspension with a maximum axle load of 13 tons.

Sixteen (16) leaf dual stage multileaf spring.

Designed for high strength with good comfort.

The main spring works when the vehicle is partially loaded and the helper spring comes into action at full load.

Available for chassis height medium with single reduction axles.

Spring length 1370 mm, width 90 mm.

Sliding type attachment.

## Brakes

### Brake system

Pneumatically controlled.

Full air brake system with S-cam drum brakes.

Automatic slack adjuster.

ABS anti-lock braking system is available as option.

Different options for brake cylinder position depending upon the operating conditions.

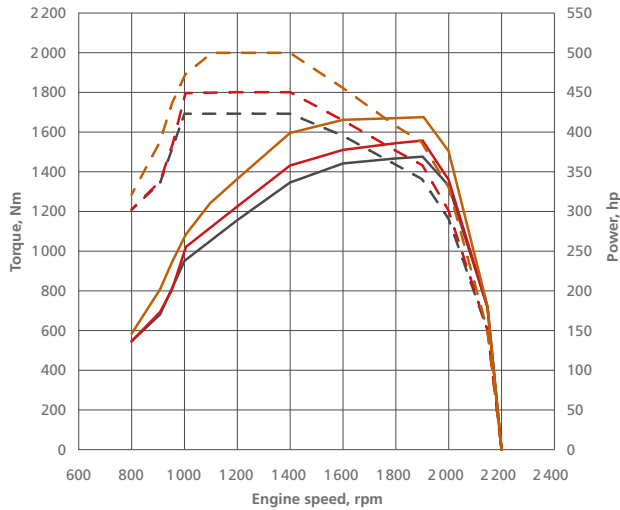
Auxiliary parking brake chamber as option intended for heavier gross combination weights to fulfill the requirements of added parking brake power in this segment.

### Auxiliary brakes

Exhaust engine brake. The GH11E engine can be specified with the optional UD Extra Engine Brake (UD EEB).

## Driveline

### Engine GH11E, EU3



<b>370 hp/1700 Nm</b>	<b>390 hp/1800 Nm</b>	<b>420 hp/2000 Nm</b>
- - Torque, Nm	- - Torque, Nm	- - Torque, Nm
— Power, hp	— Power, hp	— Power, hp

#### GH11E general description

In-line 6-cylinder four-stroke diesel engine with unit injector high-pressure direct injection. 4 valves per cylinder. Turbocharging with air-to-air intercooler.

Displacement	10.8 liters
Bore	123 mm
Stroke	152 mm
Compression ratio	18.3:1
Exhaust brake effect at 2400 r/min	218 hp (160 kW)
UD Extra Engine Brake (UD EEB) at 2400 r/min	395 hp (290 kW)
Economy rev range	900–1400 r/min
Optimum rev range	1100–1300 r/min
Oil-change volume, including oil filters	approx. 33 liters
Oil filters, no.	2 full-flow, 1 bypass
Cooling system, total volume	approx. 36 liters
Dry weight (base engine)	approx. 983 kg
Emission level	EUR3 (except China)

#### GH11E 370

Max Power at 1900 r/min	370 hp (273 kW)
Max Torque at 1000–1400 r/min	1700 Nm

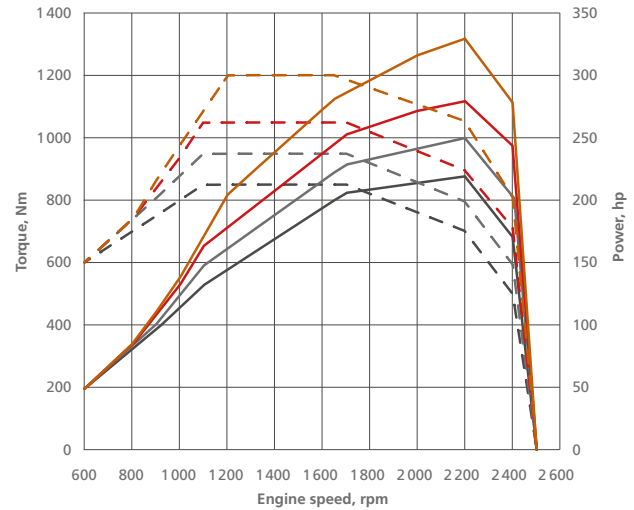
#### GH11E 390

Max Power at 1900 r/min	390 hp (287 kW)
Max Torque at 1000–1400 r/min	1800 Nm

#### GH11E 420

Max Power at 1900 r/min	420 hp (309 kW)
Max Torque at 1100–1400 r/min	2000 Nm

### Engine GH8E



<b>220 hp/850 Nm</b>	<b>250 hp/950 Nm</b>	<b>280 hp/1050 Nm</b>	<b>330 hp/1200 Nm</b>
- - Torque, Nm	- - Torque, Nm	- - Torque, Nm	- - Torque, Nm
— Power, hp	— Power, hp	— Power, hp	— Power, hp

#### GH8E general description

In-line 6-cylinder four-stroke diesel engine with common rail high-pressure direct injection. 4 valves per cylinder. Turbocharging with air-to-air intercooler.

Displacement	7.7 liters
Bore	110 mm
Stroke	135 mm
Compression ratio	17.5:1
Exhaust brake effect at 2500 r/min	145 hp (107 kW)
Economy rev range	900–1600 r/min
Oil-change volume, including oil filters	approx. 20 liters
Oil filters, no	1 full-flow
Dry weight (base engine)	approx. 712 kg
Cooling system, total volume	approx. 37 liters

#### GH8E 220

Max Power at 2200 r/min	220 hp (162 kW)
Max Torque at 1100–1700 r/min	850 Nm

#### GH8E 250

Max Power at 2200 r/min	250 hp (184 kW)
Max Torque at 1100–1700 r/min	950 Nm

#### GH8E 280

Max Power at 2200 r/min	280 hp (206 kW)
Max Torque at 1100–1700 r/min	1050 Nm

#### GH8E 330

Max Power at 2200 r/min	330 hp (243 kW)
Max Torque at 1200–1650 r/min	1200 Nm

## Transmission

### Manual Transmission

Type	Top gear	Input torque	Gears	8L	11L
ST1006	Directdrive	1 000 Nm	6 (220/250 hp)	•	
ST1306	Directdrive	1 300 Nm	6 (280 hp)	•	
ST1199	Directdrive	1 190 Nm	9 (250/280 hp)	•	
ST1509	Directdrive	1 500 Nm	9 (330 hp)	•	
STO2009	Overdrive	2 000 Nm	9 (370/390/420 hp)		•
STO2012	Overdrive	2 000 Nm	12 (370/390/420 hp)		•

### Clutch

Hydraulically operated single-disc clutch.

### Transmission ratio

GH8E: 8.71–1.00 (6-speed); 12.11–1.00/12.65–1.00 (9-speed)

GH11E: 13.95–0.73 (9-speed); 12.10–0.78 (12-speed)

### Rear axle ratios

A wide range of ratios is available, so that the driveline can be optimized in order to get the maximum driveability and best fuel economy in the required application.

Single reduction axle	Max. engine torque	Reduction
Hypoid gear	2 000 Nm	Tandem: 3.73, 4.11, 4.63, 5.14, 5.57, 6.17 Solo: 3.90, 4.33, 4.88, 5.57

The tandem single reduction axle is equipped with a reliable and robustly dimensioned inter axle differential lock.

Hub reduction axle	Max. engine torque	Reduction
Spiral gear + Planetary gear	2 000 Nm	4.87, 5.24, 5.79, 6.37

The tandem hub reduction axle is equipped with reliable and robustly dimensioned 2 stage differential lock as standard. Stage 1 is inter-axle and stage 2 is between axles.

### Power Take-Off (PTO) system

3 types of engine mounted PTO units available, with flange or Spline connection. Max torque 650 Nm. Two types of transmission PTO units are available. Max torque 700 Nm (9-/12-speed); 400 Nm (6-speed).

## Cabin

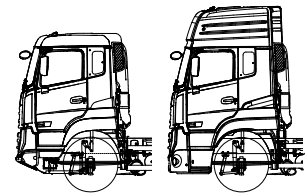
### Exterior

Two newly designed UD trucks cabs:

- Standard roof cab with option of on-road or construction bumper
- High roof cab with on-road bumper

Modern styling with robust look on the construction truck:

- Front under-run protection as standard on the on-road bumper
- Low running costs due to aerodynamic design and option of air deflectors
- Coil spring suspension for high comfort, durability and easy maintenance
- Cab tilting 58 degrees for easy servicing access
- Step height on tractor chassis 510 mm, bar type steel step



Interior dimensions	Standard roof	High roof
Length, mm (front window to back panel)	1830	2030
Width, mm (inner door trim to door trim)	2090	2090
Height, mm (floor to roof above driver's head)	1445	2000

### Dashboard

Ergonomically designed to ensure that the most important controls and switches are within easy reach of the driver and also that the switches are marked so easily recognizable. The steering column has easily adjustable angular and telescopic adjustment to give the driver the best driving position.

### Driver's information display

With a large, easy-to-read 4.5-inch screen integrated in the instrument cluster. Providing a wide range of vehicle, diagnostic and trip information, as well as fuel coaching and data logging.

### Fuel coaching system

A real-time driving guidance tool displaying actions required to achieve optimized fuel economy operation.

### Cruise Control

Two variants available:

- Constant speed cruise control
- S3 cruise control SOFT (3 km/h uphill and flat conditions)

### Seats

Two variants of interior layout – 3-seater or 2-seater.

High-quality textile upholstery.

Ergonomically designed driver's seat with integrated headrest.

Fore-aft adjustment 130 mm.

Seat cushion tilting 60 mm front/rear.

Option of air suspended or mechanical suspended driver's seat.

Height adjustment of 100 mm on the air suspended seat.

### Climate system

Four variants available:

- Air conditioning and heater
- Air conditioning only
- Heater unit only
- Ventilation unit only

### Audio system

With AM/FM radio and USB port for MP3 player.

### Bunks

Double bunk for high roof. Single bunk for standard.

### Storage compartments

Under bunk space 151 liters (High roof), 104 liters (Standard roof).

Head shelf 90 liters (High roof), 20 liters (Standard roof).

### Roof hatch

For increased safety in high roof cab.

### Rear window

Fixed glass as standard.

Sliding glass as option (With ventilation unit in Climate unit).



**UD TRUCKS**

Article number: 201306VB1001-ENG. Printed in Xxxxx (country). © Copyright UD Trucks 2013. All rights reserved.  
Please note that equipment shown may be optional and may vary from one country to another.  
We retain the right to alter product specifications without prior notification.

**UD Trucks Corporation**

1-1, Ageo-shi, Saitama 362-8523, Japan  
[udtrucks.com](http://udtrucks.com)