

V O L V O



Volvo Rigid Haulers 55.0 t 771 hp

R60

Volvo Construction Equipment



Welcome to our world

Welcome to a world of industry leading machinery. A world where imagination, hard work and technological innovation will lead the way towards developing a future which is cleaner, smarter, and more connected. A world supported by the enduring values of the Volvo Group. A world of stability, sustainability and innovation. A world which we put our customers at the heart of.

Welcome to the world of Volvo Construction Equipment – we think you're going to like it here.

Working harder, working smarter

For over 180 years Volvo has been a pioneer in the design and manufacture of machines which set the standard for efficiency, performance and uptime. Across our range of excavators, wheel loaders and haulers, our reputation for engineering excellence is unrivalled, which means whatever your operation or application, we can provide a total fleet solution to help you succeed.

Building on our proud history, the Volvo Concept Lab continues to create cutting-edge ideas and innovative concepts, to ensure we offer customers machines which work harder and smarter long into the future.



Solutions for you

Our industry leading machines are just the start of your relationship with Volvo. As your partner, we have developed an extensive range of additional solutions to help you improve uptime, boost productivity and reduce costs.

Designed for your business

Structured across nine blocks, our portfolio of products and services are designed to complement your machine's performance and boost your profitability. Simply put, we offer some of the best guarantees, warranties and technological solutions in the industry today.

There when you need us

Whether you're buying new or used, our global network of dealers and technicians offer around-the-clock support, including machine monitoring and world-class parts availability. It's the basis of everything offered by Volvo Services, so you can be confident we've got you covered right from the start.



BUILDING TOMORROW

Driving profits forward

Boost your profits in the Volvo R60 rigid hauler, the perfect partner for all mining and quarrying applications. The efficient, hardworking and hard-wearing machine is packed with technology found on its 100t counterpart which has been proven on jobsites throughout the world.

Balance and stability

Conquer challenging conditions with the optimally balanced R60. Offering a low center of gravity and even weight distribution the machine provides rock-solid stability, spreading the load impacts and structural stresses equally across the truck. The outcome is a superb machine and tire longevity leading to significantly reduced operating costs.



Go the distance

Keep working without interruption in the heavy-duty R60, with 500hr service intervals helping to optimize uptime and reduce maintenance costs.



Long life components

The reliable R60 has been rigorously tested under extreme working conditions to meet the highest industry standards of component lifecycles. This includes a proven frame design and two retardation systems as standard which safeguard the primary brake life.





BIG ON EFFICIENCY

Move more using less fuel in the R60 rigid hauler. With Volvo Dynamic Shift Control the gear selection automatically adapts to varying conditions, and with Eco mode the hauler will default to the most efficient gear shifting schedule. Auto engine idle shut down eliminates unnecessary fuel consumption and engine wear.

Move more, earn more

Take productivity to the next level in the Volvo R60 rigid hauler. From the outstanding body and drivetrain engineering through to ancillary equipment and complementary services, this is a machine designed to get the absolute most out of every working day.

Fast cycle times

Effortlessly take on steep gradients thanks to the drivetrain with high torque capabilities and high drive axle multiplication, delivering impressive tractive force and high levels of rimpull. A fast body tipping system further contributes to short cycle times.



The perfect payload

Make sure you haul the optimum amount of material with the optional On-Board Weighing system, providing real-time payload insight via the on-board display. The system helps to eliminate both underloading for peak productivity, and overloading for reduced fuel consumption and machine wear.



Optimum match

The R60 rigid hauler is the perfect match for a 90-tonne excavator, helping to optimize fleet use. With the additional support of Volvo Site Simulation, your Volvo dealer can work with you to advise on the optimum fleet configuration and site set-up for your operation.





LOADS OF PRODUCTIVITY

Move more with every cycle in the high-capacity V-shaped body, which ensures optimal load retention and minimal material carry-back – further enhanced with the exhaust-heated option. For long lasting performance, the body is manufactured from high impact and high abrasion resistant steel. Enhance productivity with our 10-10-20 payload profile policy (please ask your local dealer for more detailed information).

For your comfort and safety

The R60 has been designed to keep operators safe, comfortable and working at their best, delivering outstanding levels of visibility, controllability and comfort.

Always in control

The R60 features two standard retardation systems for enhanced downhill machine control. The transmission retarder limits wheel lock-up while the modulating rear brake retarder, with automatic apply function, helps to maintain a controlled engine speed. Other protective features include transmission overspeed protection, neutral coast inhibitor, fail-safe braking and secondary steering systems.



Total access

Gain straightforward entry to the ROPS/FOPS certified cab from both sides using anti-slip steps and secure walkways.



Smooth operation

Enjoy superior ride quality in the robust R60, equipped with responsive MacPherson strut with lower wishbone connection and viscous-mounted cab, minimizing the transfer of impact and vibrations from the ground to the operator. The responsive low-effort steering system and geometry, combined with the suspension, optimizes maneuverability by minimizing lean on tight corners.



Comfortably productive

A host of comfort enhancing features including climate control, ergonomically positioned displays, responsive fingertip controls and adjustable air-suspended seat and steering wheel combine to keep operators working at their best. With the Bluetooth enabled audio system operators can choose the soundtrack to their working day.





EVERY ANGLE IN VIEW

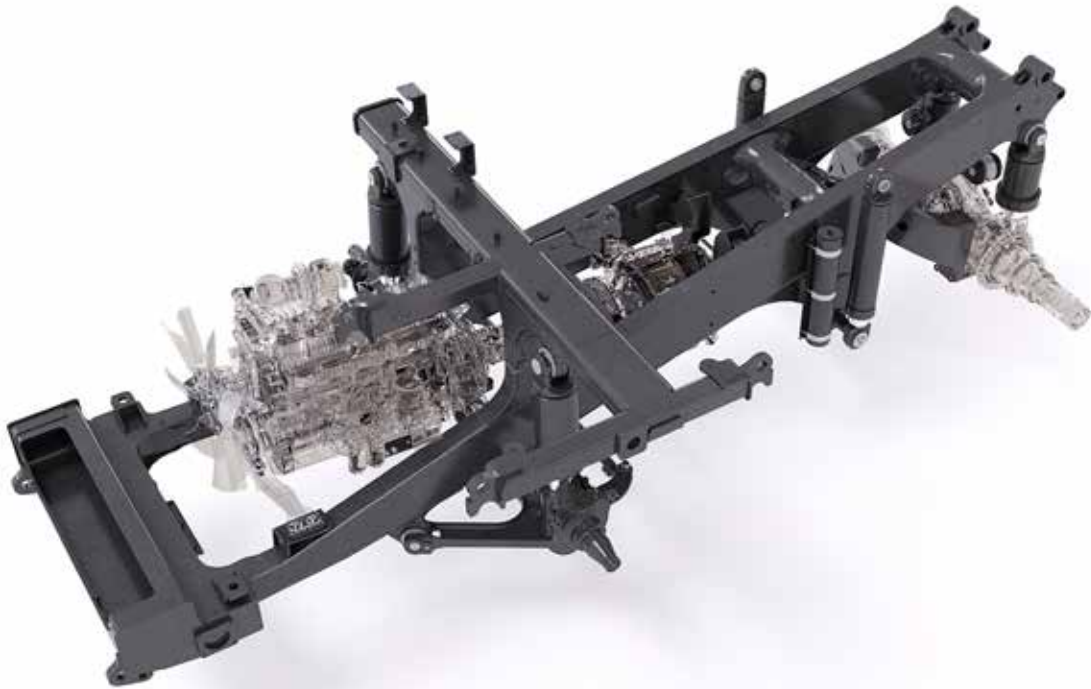
Operators benefit from unrivalled visibility in the R60 cab. The left-positioned operator station provides an unobstructed view of the surrounding area and aids safe passing, while forward visibility is enhanced by the large windscreen. Take visibility to new heights with the optional Volvo Smart View, giving operators a 360° bird's-eye-view of the work zone.

Access more uptime

Robust, reliable and with an uncomplicated design, you can count on the R60 to keep your operation moving.

Strength and durability

Durable by design, the R60 is built to last. The high strength, flexible chassis structure and responsive MacPherson strut with lower wishbone connection absorb potentially damaging shocks and vibrations that can occur during operation. Regardless of environmental conditions, you can depend on the hydraulic filtration system to protect against contamination, for optimum machine availability.





EASE OF SERVICEABILITY

All service points are conveniently grouped and within easy reach from the ground level or wide platform, helping to keep uptime to a maximum. To simplify mechanical servicing, the hauler features common-sized bearings. Inside the cab, access top-level diagnostic data using the operator-friendly dashboard for fast analysis and solutions.

Drive up your profits

Fuel efficiency

- Volvo Dynamic Shift Control: automatic adaptive gear selection
- Eco mode
- Auto engine idle shut down

Operator's choice

- Cab access from both sides
- Left-hand side positioned operator station, Air-suspended seat
- Low-effort steering, adjustable steering wheel
- Powerful Heating, Ventilation and Air-Conditioning system
- Bluetooth
- Volvo Smart View: 360° visibility (Option)

Safety at the center

- Pressurized ROPS/FOPS-certified cab
- Anti-slip steps, secure walkways
- Selectable transmission retarder, Automatic brake retarder (Option)
- Fail-safe braking and secondary steering systems
- Neutral coast inhibitor
- Transmission overspeed protection
- Integral safety locks
- Easily accessible emergency shutdown switches

Access more uptime

- 500 hr service intervals
- Common-sized bearings
- Straightforward service access
- On-board service diagnostic



Move more, earn more

- 55-tonne payload, 36.04 m³ capacity
- V-shape body for optimum load retention
- High drive multiplication: high levels of rimpull
- Fast body-tipping system
- On-Board Weighing system (Option): real-time payload insight
- Perfect match to a 90-tonne excavator

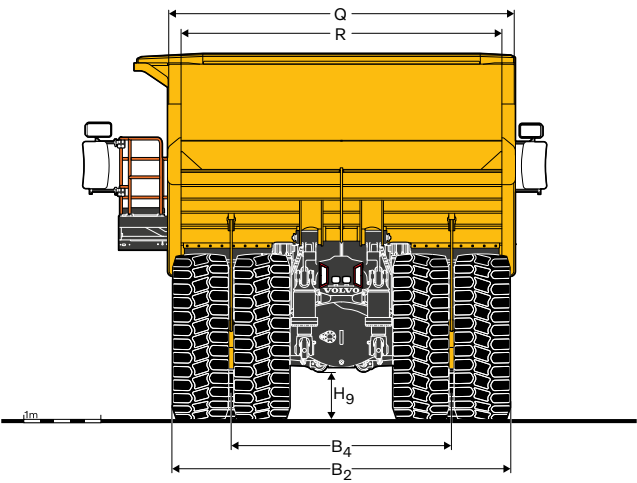
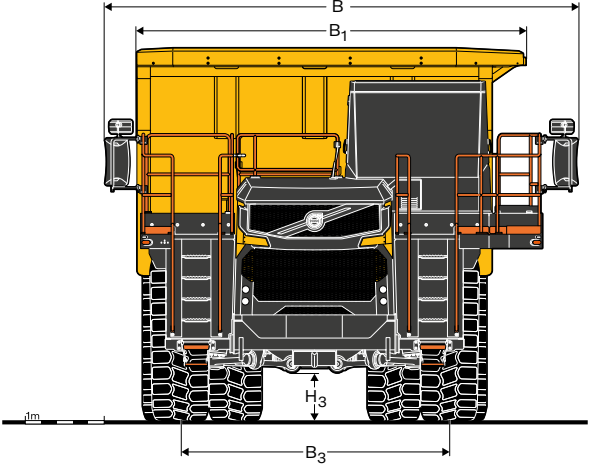


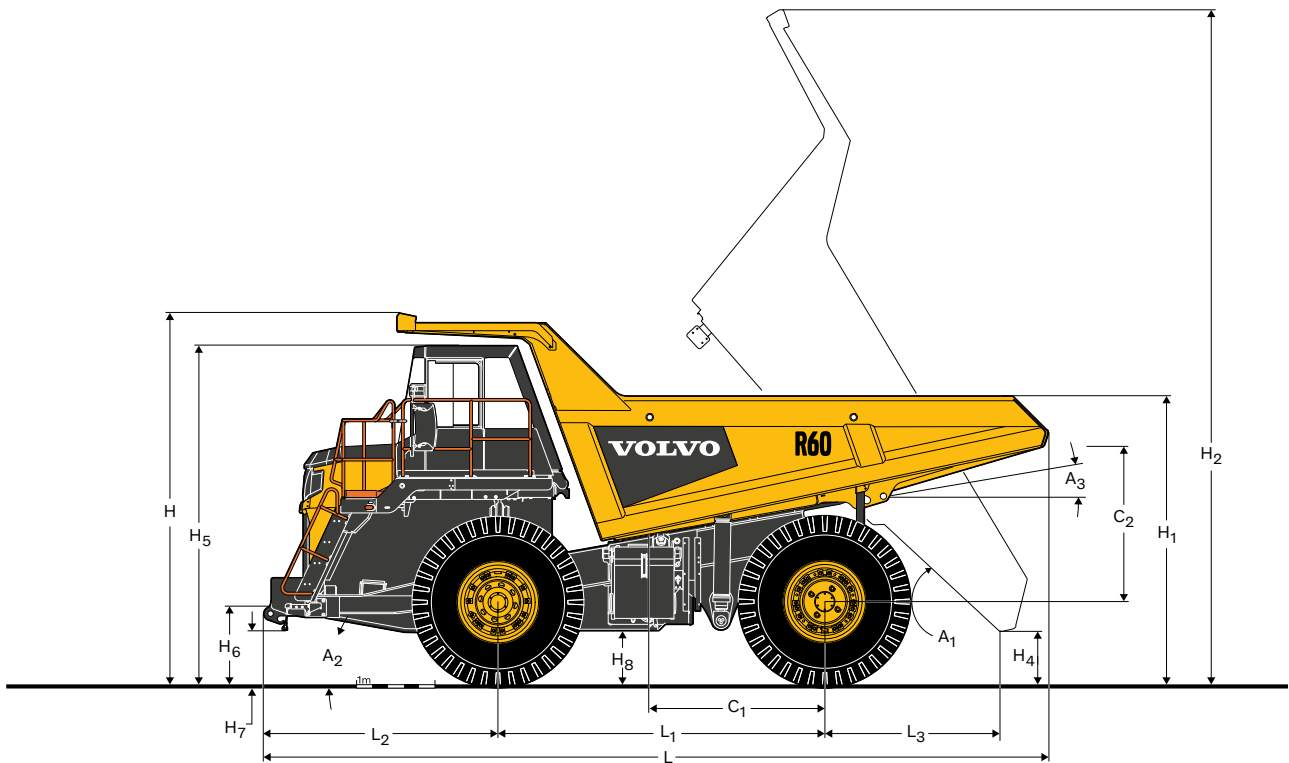
Volvo R60 in detail

Engine		
Model	CumminsQSK 19, CAC, Tier2 , 567kW	
Type	Electronic control, four cycle, direct injection, turbo charged and charge air cooled, high-speed electronic control module (ECM) isolated from detrimental vibration loading, fully sealed wiring harness, with fail-safe connectors integrates the ECM with engine sensors for optimised engine performance, monitoring and protection.	
Cylinder/configuration	In line 6 cylinder	
Displacement	l	19
Bore x Stroke	mm	159
Max. power at	r/min	2 100
Gross power (SAE J1995)	kW	567
	hp	771
Net power	kW	526
	hp	715
Max. torque at	r/min	1 500
Gross torque	Nm	3 084
Engine emissions	USA EPA 40 CFR 1039 Tier 2 and EU Stage II emissions standards	
Electrical	24v negative ground, Two 12volt 170Ah batteries, 70Amp alternator	
Steering System		
Primary steering pressure is supplied by a pressure compensating piston pump supported by an independant nitrogen charged hydraulic accumulator. The accumulator circuit provides instant, uniformed steering response regardless of engine speed, Pilot operated remote mounted orbitrol control valve delivers light, responsive steering control. Secondary steering is provided by an independant nitrogen charged hydraulic accumulator.		
SAE turning radius	mm	20 400
Clearing radius	mm	22 500
Axles		
The rear wheels are driven through single reduction drive axle. Torque multiplication takes place through the beveled gear differential, then transmitted through fully floating shafts to the planetary reduction gears in the wheel hubs.		
Differential ratio	3.73:1	
Planetary reduction	5.8:1	
Overall drivetrain reduction	21.63:1	
Frame		
Fabricated from box-section steel rails with high strength steel castings in key stress locations absorbing the worksite impacts for long durable life cycles. The closed "horse collar" allows for flexibility in the frame to dissipate twists and loads while incorporating a reserve of structural strength well in excess of that required to absorb the stresses imposed by impact loading when travelling on uneven, high rolling resistance applications. Fuel and hydraulic tanks suspended mounts off the frame.		
Body		
V-shaped that provides excellent centre of gravity for load profile stability on all hauling conditions. Manufactured from high abrasion resistant steel (Hardox 400) for superior lifecycles. Horizontal side stiffeners dissipate shock loads across the entire side plate. Mounted on floating pins for minimal structural stress during empty and full transportation. NB: Hardox 400 specification Body steel 360-440 BHN Body yeils strength 1000 Mpa Body tensile strenght 1,250 N/mm2		
Floor	mm	19
Sides	mm	10
Front	mm	10
Stuck	m ³	25
Heaped 2:1 (SAE)	m ³	36
Tires and Rims		
Tires type	24:00-35	
Rims	17	
Sound Level		
L _{pA}	dB	77
L _{WA}	dB	120

Drivetrain		
Transmission		Allison 6620 ORS
Assembly		Planetary gear type transmission with intergral torque convertor and hydraulic fluid retarder. Electronic controlled connected to engine system via CANBUS. Automatic lockup in all ranges. Mounted mid chassis for ease of access and excellent weight distribution.
Electronic control		CEC5
1st gear	km/h	10
2nd gear	km/h	16
3rd gear	km/h	21
4th gear	km/h	32
5th gear	km/h	43
6th gear	km/h	60.6
Suspension		
Front: Independent self contained Macpherson type, variable rate (Nitrogen/oil) suspension strut with lower wishbone. Wide spaced wheel track for high levels of machine stability and easy machine manoeuvrability.		
Rear: Independent self contained variable rate (Nitrogen/oil) suspension struts. The strut is mounted between the chassis and axle. The axle is mounted via trailing A frame and lateral stabilizing bar.		
Maximum front strut stroke	mm	242
Maximum rear strut stroke	mm	140
Brake system		
Fulfills ISO 3450:2011, Braking - Wheeled or High-Speed Rubber Tracked Machinery		
Front brakes type		Independent hydraulic apply, dry single caliper, Incorporating independent nitrogen/hydraulic pressure accumulator for instant response and reserve pressure.
Front brake diameter	mm	711
Front brakes lining area	cm ²	1 394
Rear brakes type		Independent force cooled, oil emmersed, multi-disc enclosed brakes. Two piston service and park/emergency brakes. Emergency brake spring-applied hydraulic release (SAHR). Service brake is also used for rear brake retardation for safe machine control.
Rear brake lining area	cm ²	47 151
Hoist		
Fulfills ISO 4413:2010, Fluid Power Systems - Safety - Hydraulics		
System relief pressure	MPa	19
Pump output flow rate	l/min	336
at	r/min	2 100
Body raise time	s	10
Body lower time	s	15
Service Refill		
Engine crankcase and filters	l	65
Transmission and filters	l	90
Cooling system	l	160
Fuel tank	l	880
Steering hydraulic tank	l	302
Steering hydraulic system (total)	l	380
Planetaries (total)	l	58
Differential	l	95
Front ride strut (each)	l	12.4
Rear ride strut (each)	l	7.2
Power take off	l	2
Weights		
Chassis with hoists	kg	34 829
Body standard	kg	9 991
Net weight	kg	44 280
Maximum payload	kg	55 000
Maximum gross weight*	kg	99 280
Weight distribution (axles)		
- Empty	%	48 / 52
- Loaded	%	32/68

Specifications





DIMENSIONS

Description	Unit	R60	
H	Overall height	mm	4 606
H ₁	Loading height	mm	3 675
H ₂	Raise height	mm	8 591
H ₃	Front axle ground clearance	mm	662
H ₄	Tail clearance	mm	675
H ₅	Cab height	mm	4 315
H ₆	Bumper ground clearance (no TH)	mm	971
H ₇	Ladder ground clearance	mm	417
H ₈	Frame ground clearance (hoist)	mm	690
H ₉	Rear axle ground clearance	mm	665
B	Overall width (outside of mirrors)	mm	5 921
B ₁	Body width	mm	4 496
B ₂	Rear over tires	mm	4 381
B ₃	Front track	mm	3 384
B ₄	Rear track	mm	2 856
L	Overall length	mm	9 992
L ₁	Wheel base	mm	4 170
L ₂	Center front axle to bumper	mm	2 986
L ₃	Center rear axle to tipped tail	mm	2 426
SAE _{TR}	SAE turning radius	mm	20 400
C _{TR}	Clearance turning radius	mm	22 500
A ₁	Body dump angle	°	47
A ₂	Approach angle	°	21 (to guard)
A ₃	Frame angle	°	10
C ₁	C of G (horizontal) unladen	mm	Dim from body pin 1 400
C ₂	C of G (vertical) unladen	mm	Dim from body pin 567
C ₁	C of G (horizontal) laden	mm	Dim from body pin 1 204
C ₂	C of G (vertical) laden	mm	Dim from body pin 1 036

Vehicle measurements assumptions / variables

Measurements to be taken on flat ground

Truck should be unladen

Bridgestone VRLS Tires should be used

Tire pressure should be set as per manual

Suspension should be set at normal operating height

Equipment

STANDARD EQUIPMENT

Engine

Air cleaner with aspirator (vacuum)
 Turbocharged and charge air cooler
 Direct drive fan
 Electronically controlled with Shift Energy Management (SEM)
 Engine safe mode
 Fuel filter/water separator
 Sump guard
 Engine idle shut down
 Engine enclosures (rubber)

Tires

Standard tires 24:00-35

Drivetrain

Full automatic transmission with manual override
 Shift Energy Management
 Torque converter with automatic lockup
 Volvo Dynamic Shift

Electrical system

Alternator
 Batteries
 Battery disconnect switch (tag lock out)
 Emergency engine shutdown (ground level)
 Direction indicators and hazard warning
 Lights - side, tail, stop and headlights
 LED tail lamps
 Power ports - 12V and 24V
 Reverse alarm
 Reverse lights
 ECO mode
 Auto retard

Brake system

Hydraulically operated system with independent front and rear control systems
 Park brake - electric switch, spring applied hydraulic release
 Retardation - finger tip control of transmission retarder or lever mounted on the steering column giving modulated pressure control of the rear oil cooled brakes

Body

Rock ejectors

STANDARD EQUIPMENT

Safety

Anti-slip steps and platforms
 Body down indicator
 Body - operator guard LHS
 Body - up locking pins
 Body - up reverse to neutral inhibitor
 Body - up shift inhibitor
 Brakes - independent front and rear systems
 Emergency SAHR brake
 Battery disconnect switch (tag lock out)
 Engine disconnect switch (Tag lock out)
 Emergency engine shutdown (ground level)
 Cab - ROPS and FOPS
 Electro magnetic compatibility
 Handrails on steps and platform
 Horn
 Neutral start inhibitor
 Engine overspeed protection
 Neutral coast inhibit
 Programmable max. travel speed
 Operator safety belt
 Operator's field of view
 Rear view mirrors
 Retarder - transmission
 Retarder - rear brake
 Secondary steering
 Instructor's seat with safety belt
 Vibration 2002/44/EC
 Windscreen washers
 Windscreen wipers

Comfort

Air suspended seat
 Heating, Ventilation and Air Conditioning - HVAC
 Interior lights
 Radio - Bluetooth
 USB power take-off
 Cup holder
 Insulation thermal and acoustic
 Storage compartments
 Sun visor
 Tilt/telescopic steering wheel
 Tinted glass
 Operator information interface
 MacPherson type front suspension with lower wishbone

Exterior

Mud flaps
 Diagnostic terminal
 Front and rear tow points

Service and maintenance

Pressure check points

OPTIONAL EQUIPMENT

Engine

Fast fuel

Inline fuel heater

Tires

Bridgestone

VMTP

VZTS

VRLS

Michelin tires

XDTA-4

XKD1-A

E4RTL

Goodyear

RL4J

23775

Belshina

FBEL 150

BEL 202

BEL 122

Techking

ETDT2

Magna

MAO4A

Drivetrain

Transmission sump guard

Drive line guard

Traction bias differential

OPTIONAL EQUIPMENT

Electrical system

Heated and adjustable electrical mirrors

LED headlamps

Froward work lamps

Rear work lamps

Care track telematics

Cab

Amber flashing beacon

HEPA filter

Body

Onboard Weighing System

Pay load indicator lights

Body Exhaust Heating

Spill guard

Body Extensions upon request

Body liner plates (available with full weight or half weight)

RHS canopy extension

Safety

Fire suppression system

Smart view (360 degree camera system)

Orange flashing beacon

Service and maintenance

Quick oil drain kit

Central autolube

Service lights

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