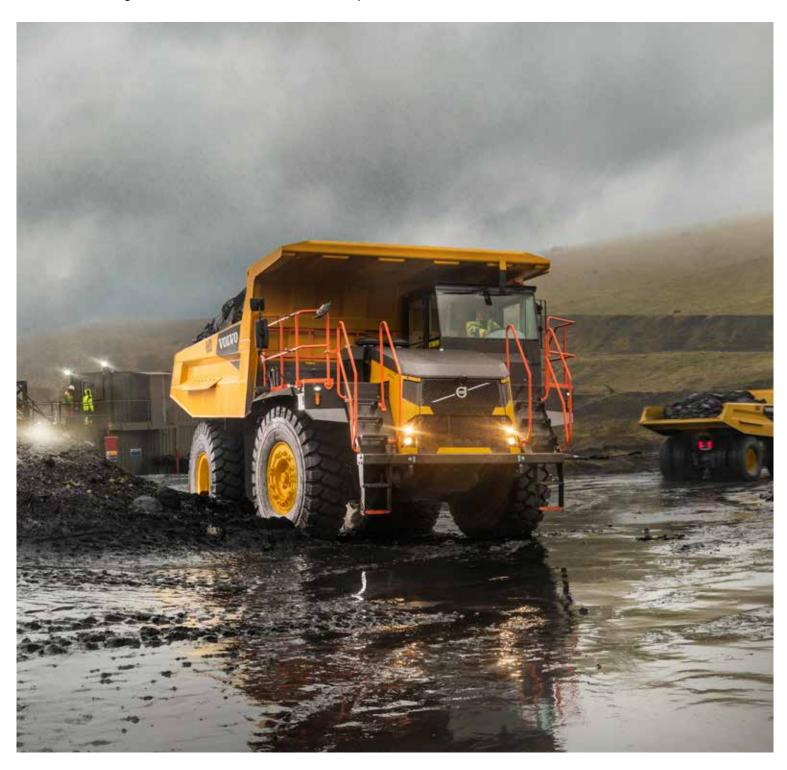


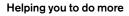
R45D, R60D, R70D

Volvo Rigid Haulers 40.8-65.0 t 533-771 hp



A passion for performance

At Volvo Construction Equipment, we're not just coming along for the ride. Developing products and services that raise productivity – we are confident we can lower costs and increase profits for industry experts. Part of the Volvo Group, we are passionate about innovative solutions to help you work smarter – not harder.



Doing more with less is a trademark of Volvo Construction Equipment. High productivity has long been married to low energy consumption, ease of use and durability. When it comes to lowering life-cycle costs, Volvo is in a class of its own.

Designed to fit your needs

There is a lot riding on creating solutions that are suited to the particular needs of different industry applications. Innovation often involves high technology – but it doesn't always have to. Some of our best ideas have been simple, based on a clear and deep understanding of our customers' working lives.





You learn a lot in 180 years

Over the years, Volvo has advanced solutions that have revolutionized the use of construction equipment. No other name speaks Safety louder than Volvo. Protecting operators, those around them and minimizing our environmental impact are traditional values that continue to shape our product design philosophy.

We're on your side

We back the Volvo brand with the best people. Volvo is truly a global enterprise, one that is on standby to support customers quickly and efficiently – wherever they are.

We have a passion for performance.













Volvo Trucks

Renault Trucks

































Volvo Penta

Volvo Financial Services

UD Trucks

Volvo Construction Equipment

Drive your costs down

Get the most out of your long-term investment with a low-cost solution. At Volvo, we're committed to driving your operating costs down. That's why we've designed our rigid haulers to reduce fuel consumption and optimize machine availability. Drive your operating costs down with the D-Series rigid haulers, your partner for all mining and quarrying applications.

Selectable shift patterns

Keep performance high and costs low with the integrated shift patterns. Choose the best mode for the task at hand by selecting from Power or Economy. Adapting to varying loads and jobsite conditions, the selectable shift pattern system delivers smooth, consistent gearshifts and low fuel consumption.



The right weight

Go the extra mile with the rigid haulers, featuring a centrally mounted transmission for optimum machine weight distribution. And with a low center of gravity, the well-balanced machines equally disperse all load impacts and structural stresses across the tires. The outcome is superb machine longevity and significantly reduced operating costs. Leave it to Volvo to find the right balance.



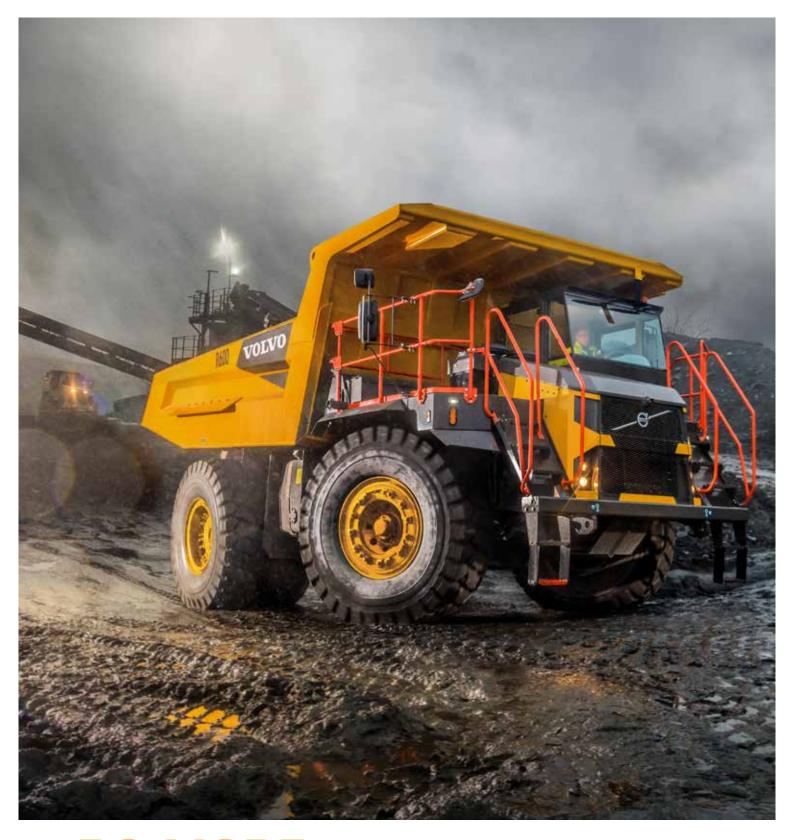
Key to a low cost operation

Drive your operating costs with component longevity. To ensure your machine maintains lasting performance, all components undergo rigorous testing under extreme working conditions. Do more in the long haul with proven components from Volvo, durably designed to withstand the test of time.

Designed for distance

Achieve unbeatable long-term value with uptime-enhancing components, such as the transmission retarder. The standard feature reduces the machine's speed, eliminating any unnecessary use of the service brakes. As a result, the life of the primary braking system is extended, enhancing overall machine availability.





DO MORE With less fuel

Reduce your number one operating cost with the proven technology built into the D-Series haulers. The electronic integration between the engine and transmission achieve premium drivetrain performance, resulting in smooth gearshift quality and consistent machine momentum. To reduce power losses on the powertrain, the load sensing hydraulics supply hydraulic flow when required.



MOVE MORE -FASTER

Propel your profits with the D-Series haulers, engineered to move material faster and more efficiently. Combining a competitive power-to-weight ratio, effective gearing, and optimum weight distribution, the heavy-duty haulers cut cycle times.

Born to perform

Count on Volvo to get the job done. The all-new D-Series rigid haulers are born to perform. The optimally balanced machines haul more tonnes per hour thanks to the winning combination of power, class-leading tractive force, comfort and productivity-enhancing systems. Meet production targets faster and boost the profitability of your business with Volvo.

Profitable payload

Haul it all with the D-Series rigid haulers from Volvo. The heavyduty haulers ensure optimum load retention and are fitted with an exhaust-headed body to minimize material carry-back. Thanks to its durable body, manufactured from high impact, abrasion-resistant steel, the D-Series haulers achieves maximum production per operating hour, so you can do more – and earn more.



No feat too steep

No terrain is too deep or steep for the D-Series rigid haulers, offering impressive tractive effort generated by the complete drivetrain design and configuration. By enhancing torque to the low-geared rear axle, the high capacity torque converter supplies high levels of rimpull so you can scale slopes effortlessly.



No compromises on comfort

At Volvo, we believe that a comfortable operator equals a happy operator. That's why we've designed the Volvo cab with convenient and responsive features. The steering accumulator provides uniform steering regardless of engine speed. Customize your comfort with the HVAC feature and operate confidently using light controls that fall easy to hand.



Smart systems

Take your productivity to the next level with a variety of smart systems, expertly designed to optimize job site efficiency, while minimizing your operational costs. To increase the productivity of your existing and future projects, utilize Volvo Site Simulation, which provides valuable information about your machinery, fleet choices and site configuration.



Protection to perfection

Even though they're built to work hard, all Volvo machines are packed full of features designed to make the job safer and easier – and the D-Series rigid haulers are no exception. Safe from the inside out, the rigid haulers come factory-fit with a ROPS-certified body canopy, superb visibility and unrestricted access to all essential service points. With safety built into every design aspect of the all-new haulers, you can rest assured we've got you – and your crew – covered.

Safety as standard

Protect you and your crew thanks to a full spectrum of safety systems. Body hoist inhibitor, for example, ensures the transmission prevents upshifts, while the optional engine overspeed protection automatically slows the machine down to within safe operating limits. Other features include the optional neutral coast inhibitor, which protects the hauler in downhill operations, as well as fail-safe braking and secondary steering systems.



Safe and responsive braking system

Experience fast and safe hauling with the transmission or brake retarder. The standard feature gives you more control of your rigid hauler when traveling up or down steep gradients. When operating downhill or slowing down before crossroads, the system can be activated instantly, for excellent productivity and high levels of safety. Rain or shine, know no limits with the D-Series rigid haulers.



Total access

Whether operating or servicing your rigid haulers, gain safe, simple and straightforward entry to the machine using anti-slip steps and secure walkways. From the wide platform or ground level, safely complete essential planned maintenance. For added protection and peace of mind – particularly during servicing – use integral safety locks to isolate the machine system.



The sound of safety

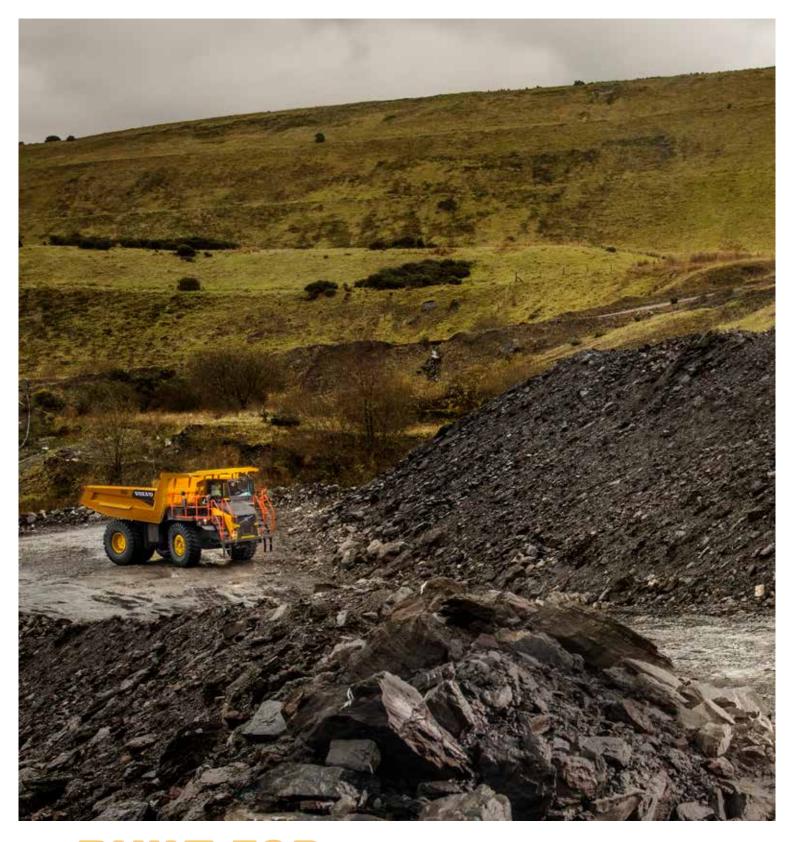
Stay informed of job site activity at all times thanks to a variety of visible and audible safety warnings, communicated via the operator dashboard. Essential machine warning alerts include engine faults, low pressure, temperature, and working outside of safe parameters.





SAFE FROM THE INSIDE OUT

Stay safe in the FOPS-certified Volvo cab, fitted with the ROPS body canopy. But safety doesn't stop there. Inside the cab, benefit from a host of visibility-enhancing details, including the operator seat – located on the left of the two-person cab – and Volvo Smart View. The standard feature combines three exterior-mounted camera views to create a bird's eye view of the machine, displayed via the on-board monitor.



BUILT FOR THE LONG HAUL

Meet the demands of tough job sites with durable D-Series rigid haulers, proven to provide long-lasting performance. The frame assembly incorporates a reserve of structural strength well beyond the industry's requirements. Strong and robust, haulers are engineered with uptime in mind, offering swift and easy maintenance access thanks to a simple and uncomplicated machine design.

Upscale your uptime

Access more uptime with the strong and reliable D-Series rigid haulers. The straightforward and uncomplicated machine design is durably designed to meet the demands of tough job site conditions. Built with industry-leading components and supported by the exclusive Volvo dealer network, the next-generation rigid haulers are proven to achieve unparalleled uptime.

Get back to work fast

Ease of access not only secures safety, but also enhances machine uptime. To simplify servicing, all essential checkpoints points are conveniently grouped and easily reached with minimal tooling. The centrally mounted transmission provides ease of access to the transmission without the need to remove other components. Inside the cab, access top-level diagnostic data for fast analysis and solutions via the operator-friendly dashboard.



Here to support you

The exclusive Volvo dealer network is here to support you whenever you need it. Volvo offers a number of services, local knowledge and global mining experience, including superb parts availability. Speak to your local Volvo dealer for more information about uptimeenhancing solutions, such as Volvo Services Agreements (VSA) and extended warranties.



Durable by design

Count on the D-Series rigid haulers to maintain peak performance thanks to a collection of durable components. No matter how harsh the terrain, the high-strength chassis is proven to absorb typical shocks and vibrations from road conditions and loading processes. Meanwhile, the hydraulics are protected to ensure they remain clean against environmental contamination.



Robust protection

Working in challenging conditions means that every component must be protected. With the engine protection derate system, you can say goodbye to unplanned machine downtime. In the event that the engine enters an unsafe operating parameter, the engine control system will send a signal, alerting the operator via a warning lamp on the display. If warnings are ignored, the engine will automatically enter a safe mode, derating on power to prevent further use. Other component protection features include height temperatures, throttle pedal outputs and low coolant level.



Get up close and personal



Combining power, effective gearing, and optimum weight distribution, our rigid haulers cut cycle times.

No compromises on comfort

Get comfortable with doing more in the Volvo cab, offering HVAC, responsive steering accumulator and easy-to-use controls.

Robust protection

Ensure long component lifecycle with engine protection derate system.

Get back to work fast

Simplify servicing with conveniently grouped essential checkpoints, centrally mounted transmission and operator-friendly dashboard.



DO MORE WITH LESS FUEL

Reduce your number one operating cost thanks to the electronic integration between the engine and transmission, and load sensing hydraulics.

Safe and responsive braking system

Experience fast and safe hauling with the standard transmission and brake retarder, providing total control when operating on steep gradients.



Selectable shift patterns

Haul it all thanks to two integrated payload sensitive transmission gearshift patterns: Power and Economy.

No feat too steep

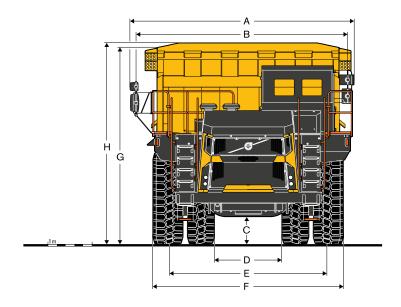
Navigate gradients with ease thanks to superb tractive efforts offered by the complete drivetrain design and configuration.

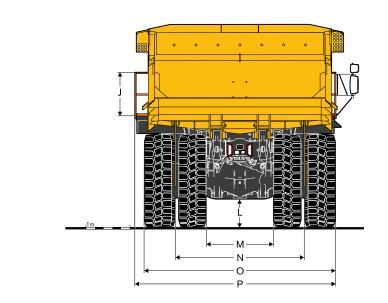
Volvo R45D, R60D, R70D in detail

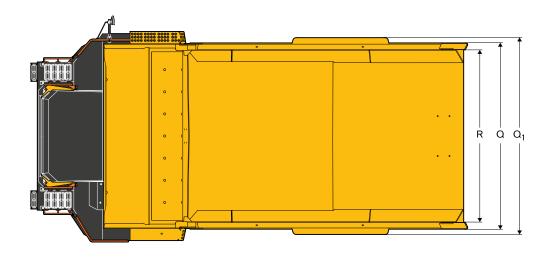
| Engine | | | | |
|--|---|--|--|--|
| | | R45D | R60D | R70D |
| Model | | Cummins QSK19-C525 | Cummins QSK19-C700 | MTU-2000TA |
| Туре | | Four cycle, emission certified, high pressure common rail, direct injection diesel, water cooled, turbo charged and charge air cooled | Four cycle, emission certified, high pressure common rail, direct injection diesel, water cooled, turbo charged and charge air cooled | Four cycle, emission certified, direct injection diesel, water cooled, turbo charged and charge air cooled |
| Cylinder/configuration | | 6 in line | 6 in line | V12 |
| Displacement | | 19 | 19 | 24 |
| Bore x Stroke | mm | 159 x 159 | 159 x 159 | 130 x 150 |
| Max. power at | r/min | 2 000 | 2 000 | 2 100 |
| Gross power (SAE J1995) | kW | 392 | 522 | 567 |
| Citoto porrei (Cita 11000) | hp | 533 | 710 | 771 |
| Net power | kW | 370 | 481 | 511 |
| Net power | | | 654 | |
| | hp | 503 | | 695 |
| Max. torque at | r/min | 1 500 | 1 500 | 1 350 |
| Gross torque | Nm | 2 407 | 2 981 | 3 323 |
| Engine emissions | | Meets USA EPA Tier 3/CARB MOH 40 CFR 89 non-road mobile machinery directive, stage 3 | Meets USA EPA Tier 3/CARB MOH 40 CFR 89 non-road mobile machinery directive, stage 3 | Meets USA EPA Tier 2/CARB MOH 40 CFR 89 and EU MOHroads mobil machinery directive, stage 2 |
| Electrical | | 24 volt negative ground electrical system. Two 12 volt 180 Ah batteries. 9 kW (12 hp) electric starter. Neutral start. 70 A alternator with integral voltage regulator. | 24 volt negative ground electrical system. Two 12 volt 180 Ah batteries. 9 kW (12 hp) electric starter. Neutral start. 70 A alternator with integral voltage regulator. | 24 volt negative ground electrical syste Two 12 volt 200 Ah batteries. 7.7 kW (10 hp) electric starter. Neutral start 100 A alternator. |
| Altitude - electronic derate | m | 2 743 | 1 524 | 3 100 |
| Steering System | | - | - | |
| Steering conforms to ISO 5010 | dicator ligh | it warns of system pressure below 82 bar | loss of engine power the accumulator pro (1,190 psi). | race creening or approximately the loo |
| | dicator ligh | | | R70D 42 |
| Steering conforms to ISO 5010 Maximum tire steering angle | dicator ligh). | it warns of system pressure below 82 bar | (1,190 psi). R60D | R70D |
| Steering conforms to ISO 5010 Maximum tire steering angle SAE turning radius | dicator ligh). | R45D 39 | (1,190 psi). R60D 39 | R70D 42 |
| Steering conforms to ISO 5010 Maximum tire steering angle SAE turning radius Clearing radius | dicator ligh). ° mm | R45D 39 9 475 | R60D 39 9 540 | R70D 42 9 760 |
| Steering conforms to ISO 5010 Maximum tire steering angle SAE turning radius Clearing radius Axles | dicator ligh). o mm mm | R45D 39 9 475 10 500 | R60D 39 9 540 10 600 | R70D 42 9 760 11 200 |
| Steering conforms to ISO 5010 Maximum tire steering angle SAE turning radius Clearing radius Axles | dicator ligh). o mm mm | R45D 39 9 475 10 500 fts, single reduction spiral bevel gear diffe | R60D 39 9 540 10 600 rential, and planetary reduction at each w | R70D 42 9 760 11 200 |
| Steering conforms to ISO 5010 Maximum tire steering angle SAE turning radius Clearing radius Axles Heavy duty axle with full floating | dicator ligh). o mm mm | R45D 39 9 475 10 500 | R60D 39 9 540 10 600 | R70D 42 9 760 11 200 |
| Maximum tire steering angle SAE turning radius Clearing radius Axles Heavy duty axle with full floating Standard | dicator ligh). o mm mm | R45D 39 9 475 10 500 its, single reduction spiral bevel gear difference of the spiral bevel gear diff | R60D 39 9 540 10 600 rential, and planetary reduction at each w | R70D 42 9 760 11 200 |
| Steering conforms to ISO 5010 Maximum tire steering angle SAE turning radius Clearing radius Axles Heavy duty axle with full floating Standard Differential ratio | dicator ligh). o mm mm | R45D 39 9 475 10 500 fts, single reduction spiral bevel gear differences. R45D 39 3 475 30 500 | R60D 39 9 540 10 600 rential, and planetary reduction at each w R60D 3.73:1 | R70D 42 9 760 11 200 heel R70D |
| Maximum tire steering angle SAE turning radius Clearing radius Axles Heavy duty axle with full floating Standard Differential ratio Planetary reduction | dicator ligh). o mm mm | R45D 39 9 475 10 500 fts, single reduction spiral bevel gear difference R45D 3.15:1 5.66:1 | R60D 39 9 540 10 600 rential, and planetary reduction at each w R60D 3.73:1 5.80:1 | R70D 42 9 760 11 200 heel R70D 3.73:1 5.80:1 |
| Steering conforms to ISO 5010 Maximum tire steering angle SAE turning radius Clearing radius Axles Heavy duty axle with full floating Standard Differential ratio Planetary reduction Overall drivetrain reduction | dicator ligh). o mm mm | R45D 39 9 475 10 500 fts, single reduction spiral bevel gear differences. R45D 39 3 475 30 500 | R60D 39 9 540 10 600 rential, and planetary reduction at each w R60D 3.73:1 | R70D 42 9 760 11 200 heel R70D |
| Maximum tire steering angle SAE turning radius Clearing radius Axles Heavy duty axle with full floating Standard Differential ratio Planetary reduction Overall drivetrain reduction Frame Full box section frame rails, inter Crossmember connections are in Body Longitudinal V' type floor with in | dicator light). mm mm g axle share | R45D 39 9 475 10 500 its, single reduction spiral bevel gear difference R45D 3.15:1 5.66:1 17.83:1 bumper, closed-loop crossmember and to (95 000 lbf/in²) steel castings. | R60D 39 9 540 10 600 rential, and planetary reduction at each w R60D 3.73:1 5.80:1 21.63:1 rque tubes of 290 MPa yield strength ste | R70D 42 9 760 11 200 heel R70D 3.73:1 5.80:1 21.63:1 el. |
| Maximum tire steering angle SAE turning radius Clearing radius Clearing radius Axles Heavy duty axle with full floating Standard Differential ratio Planetary reduction Overall drivetrain reduction Frame Full box section frame rails, integroessmember connections are in Gody Longitudinal 'V' type floor with in | dicator light). mm mm g axle share | R45D 39 9 475 10 500 its, single reduction spiral bevel gear difference R45D 3.15:1 5.66:1 17.83:1 bumper, closed-loop crossmember and to (95 000 lbf/in²) steel castings. | R60D 39 9 540 10 600 rential, and planetary reduction at each w R60D 3.73:1 5.80:1 21.63:1 rque tubes of 290 MPa yield strength ste | R70D 42 9 760 11 200 heel R70D 3.73:1 5.80:1 21.63:1 el. |
| Maximum tire steering angle SAE turning radius Clearing radius Axles Heavy duty axle with full floating Standard Differential ratio Planetary reduction Overall drivetrain reduction Frame Full box section frame rails, inter Crossmember connections are in Body Longitudinal V' type floor with in | dicator light). mm mm g axle share | R45D 39 9 475 10 500 its, single reduction spiral bevel gear difference R45D 3.15:1 5.66:1 17.83:1 bumper, closed-loop crossmember and to (95 000 lbf/in²) steel castings. | R60D 39 9 540 10 600 rential, and planetary reduction at each w R60D 3.73:1 5.80:1 21.63:1 rque tubes of 290 MPa yield strength ste s exhaust heated and rests on resilientim tant steel of yield strength 1 000 MPa (1 | R70D 42 9 760 11 200 heel R70D 3.73:1 5.80:1 21.63:1 el. pact absorption pads. 45 000 lbf/in²) |
| Maximum tire steering angle SAE turning radius Clearing radius Clearing radius Axles Heavy duty axle with full floating Standard Differential ratio Planetary reduction Overall drivetrain reduction Frame Full box section frame rails, intercrossmember connections are to Goody Longitudinal V' type floor with in Body floor wear surface: Are hig | dicator light). mm mm g axle share | R45D 39 9 475 10 500 its, single reduction spiral bevel gear difference R45D 3.15:1 5.66:1 17.83:1 bumper, closed-loop crossmember and to (95 000 lbf/in²) steel castings. | R60D 39 9 540 10 600 rential, and planetary reduction at each w R60D 3.73:1 5.80:1 21.63:1 rque tubes of 290 MPa yield strength ste s exhaust heated and rests on resilientim tant steel of yield strength 1 000 MPa (1 | R70D 42 9 760 11 200 heel R70D 3.73:1 5.80:1 21.63:1 el. pact absorption pads. 45 000 lbf/in²) |
| Maximum tire steering angle SAE turning radius Clearing radius Axles Heavy duty axle with full floating Standard Differential ratio Planetary reduction Overall drivetrain reduction Frame Full box section frame rails, intercrossmember connections are 63 andy Longitudinal 'V' type floor with in Body floor wear surface: Are higher thickness Floor | o mm mm g axle sha | R45D 39 9 475 10 500 its, single reduction spiral bevel gear difference reduction spiral beve | R60D 39 9 540 10 600 rential, and planetary reduction at each w R60D 3.73:1 5.80:1 21.63:1 rque tubes of 290 MPa yield strength ste s exhaust heated and rests on resilientim tant steel of yield strength 1 000 MPa (1 | R70D 42 9 760 11 200 heel R70D 3.73:1 5.80:1 21.63:1 el. pact absorption pads. 45 000 lbf/in²) R70D |
| Maximum tire steering angle SAE turning radius Clearing radius Axles Heavy duty axle with full floating Standard Differential ratio Planetary reduction Overall drivetrain reduction Frame Full box section frame rails, intercrossmember connections are 63 andy Longitudinal 'V' type floor with in Body floor wear surface: Are higher thickness Floor | or light). mm mm g axle shate | R45D 39 9 475 10 500 its, single reduction spiral bevel gear difference of the spiral bevel gear dif | R60D 39 9 540 10 600 rential, and planetary reduction at each w R60D 3.73:1 5.80:1 21.63:1 rque tubes of 290 MPa yield strength ste s exhaust heated and rests on resilientim tant steel of yield strength 1 000 MPa (1 R60D | R70D 42 9 760 11 200 heel R70D 3.73:1 5.80:1 21.63:1 el. pact absorption pads. 45 000 lbf/in²) R70D |
| Maximum tire steering angle SAE turning radius Clearing radius Axles Heavy duty axle with full floating Standard Differential ratio Planetary reduction Overall drivetrain reduction Frame Full box section frame rails, intectorssmember connections are 6 3ody Longitudinal 'V' type floor with ir Body floor wear surface: Are hig Plate thickness Floor Sides Front | ogal front 655 Mpa mm g hardne: | R45D 39 9 475 10 500 its, single reduction spiral bevel gear difference R45D 3.15:1 5.66:1 17.83:1 bumper, closed-loop crossmember and to (95 000 lbf/in²) steel castings. nsverse box-section stiffeners. The body is selected by the second stiffeners and to (95 000 lbf/in²) and the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. | R60D 39 9 540 10 600 rential, and planetary reduction at each w R60D 3.73:1 5.80:1 21.63:1 rque tubes of 290 MPa yield strength ste s exhaust heated and rests on resilientim tant steel of yield strength 1 000 MPa (1 R60D | R70D 42 9 760 11 200 heel R70D 3.73:1 5.80:1 21.63:1 el. pact absorption pads. 45 000 lbf/in²) R70D |
| Maximum tire steering angle SAE turning radius Clearing radius Axles Heavy duty axle with full floating Standard Differential ratio Planetary reduction Overall drivetrain reduction Frame Full box section frame rails, inte Crossmember connections are of the standard Longitudinal 'V' type floor with in Body floor wear surface: Are higher the standard of the standard | ogal front 655 Mpa mm g hardne: | R45D 39 9 475 10 500 its, single reduction spiral bevel gear difference of the spiral bevel gear dif | R60D 39 9 540 10 600 rential, and planetary reduction at each w R60D 3.73:1 5.80:1 21.63:1 rque tubes of 290 MPa yield strength ste s exhaust heated and rests on resilientim tant steel of yield strength 1 000 MPa (1 R60D | R70D 42 9 760 11 200 heel R70D 3.73:1 5.80:1 21.63:1 el. pact absorption pads. 45 000 lbf/in²) R70D |
| Maximum tire steering angle SAE turning radius Clearing radius Axles Heavy duty axle with full floating Standard Differential ratio Planetary reduction Overall drivetrain reduction Frame Full box section frame rails, inte Crossmember connections are in Body Longitudinal 'V' type floor with in Body floor wear surface: Are hig Plate thickness Floor Sides Front Body volume Stuck | orgral front 655 Mpa magh hardness mm mm mm mm g axle sha | R45D 39 9 475 10 500 its, single reduction spiral bevel gear difference R45D 3.15:1 5.66:1 17.83:1 bumper, closed-loop crossmember and to (95 000 lbf/in²) steel castings. nsverse box-section stiffeners. The body is selected by the second stiffeners and to (95 000 lbf/in²) and the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. The body is selected by the second stiffeners are second stiffeners. | R60D 39 9 540 10 600 rential, and planetary reduction at each w R60D 3.73:1 5.80:1 21.63:1 rque tubes of 290 MPa yield strength ste s exhaust heated and rests on resilientim tant steel of yield strength 1 000 MPa (1 R60D | R70D 42 9 760 11 200 heel R70D 3.73:1 5.80:1 21.63:1 el. Pact absorption pads. 45 000 lbf/in²) R70D 19 10 10 |
| Maximum tire steering angle SAE turning radius Clearing radius Axles Heavy duty axle with full floating Standard Differential ratio Planetary reduction Overall drivetrain reduction Frame Full box section frame rails, interest of the consumer of the cons | egral front 655 Mpa mtegral tragh hardne: mm | R45D 39 9 475 10 500 its, single reduction spiral bevel gear difference of the spiral bevel gear dif | R60D 39 9 540 10 600 rential, and planetary reduction at each w R60D 3.73:1 5.80:1 21.63:1 rque tubes of 290 MPa yield strength ste s exhaust heated and rests on resilientim tant steel of yield strength 1 000 MPa (1 R60D | R70D 42 9 760 11 200 heel R70D 3.73:1 5.80:1 21.63:1 el. pact absorption pads. 45 000 lbf/in²) R70D 19 10 10 |
| Maximum tire steering angle SAE turning radius Clearing radius Axles Heavy duty axle with full floating Standard Differential ratio Planetary reduction Overall drivetrain reduction Frame Full box section frame rails, interest of the consumer of the cons | egral front 655 Mpa mtegral tragh hardne: mm | R45D 39 9 475 10 500 its, single reduction spiral bevel gear difference of the spiral bevel gear dif | R60D 39 9 540 10 600 rential, and planetary reduction at each w R60D 3.73:1 5.80:1 21.63:1 rque tubes of 290 MPa yield strength ste s exhaust heated and rests on resilientim tant steel of yield strength 1 000 MPa (1 R60D 19 10 10 19.6 35 | R70D 42 9 760 11 200 heel R70D 3.73:1 5.80:1 21.63:1 el. Pact absorption pads. 45 000 lbf/in²) R70D 19 10 10 29 41.5 |
| Steering conforms to ISO 5010 Maximum tire steering angle SAE turning radius Clearing radius Axles Heavy duty axle with full floating Standard Differential ratio Planetary reduction Overall drivetrain reduction Frame Full box section frame rails, intectorssmember connections are is Body Longitudinal 'V' type floor with in Body floor wear surface: Are higher thickness Floor Sides Front Body volume Stuck Heaped 2:1 (SAE) Fires and Rims | egral front 655 Mpa mtegral tragh hardne: mm | R45D R45D 39 9 475 10 500 its, single reduction spiral bevel gear difference of the spiral bevel ge | R60D 39 9 540 10 600 rential, and planetary reduction at each w R60D 3.73:1 5.80:1 21.63:1 rque tubes of 290 MPa yield strength ste s exhaust heated and rests on resilientim tant steel of yield strength 1 000 MPa (1 R60D 19 10 19.6 35 | R70D 42 9 760 11 200 heel R70D 3.73:1 5.80:1 21.63:1 el. Pact absorption pads. 45 000 lbf/in²) R70D 19 10 10 29 41.5 |
| Maximum tire steering angle SAE turning radius Clearing radius Axles Heavy duty axle with full floating Standard Differential ratio Planetary reduction Overall drivetrain reduction Frame Full box section frame rails, interest of the consumer of the cons | egral front 655 Mpa mtegral tragh hardne: mm | R45D 39 9 475 10 500 its, single reduction spiral bevel gear difference of the spiral bevel gear dif | R60D 39 9 540 10 600 rential, and planetary reduction at each w R60D 3.73:1 5.80:1 21.63:1 rque tubes of 290 MPa yield strength ste s exhaust heated and rests on resilientim tant steel of yield strength 1 000 MPa (1 R60D 19 10 10 19.6 35 | R70D 42 9 760 11 200 heel R70D 3.73:1 5.80:1 21.63:1 el. Pact absorption pads. 45 000 lbf/in²) R70D 19 10 10 29 41.5 |
| Maximum tire steering angle SAE turning radius Clearing radius Clearing radius Axles Heavy duty axle with full floating Standard Differential ratio Planetary reduction Overall drivetrain reduction Frame Full box section frame rails, inte Crossmember connections are is Body Longitudinal 'V' type floor with in Body floor wear surface: Are hig Plate thickness Floor Sides Front Body volume Stuck Heaped 2:1 (SAE) Tires and Rims | egral front 655 Mpa mtegral tragh hardne: mm mm mm mm mm mm mm mm mm | R45D R45D 39 9 475 10 500 its, single reduction spiral bevel gear difference of the spiral bevel ge | R60D 39 9 540 10 600 rential, and planetary reduction at each w R60D 3.73:1 5.80:1 21.63:1 rque tubes of 290 MPa yield strength ste s exhaust heated and rests on resilientim tant steel of yield strength 1 000 MPa (1 R60D 19 10 19.6 35 | R70D 42 9 760 11 200 heel R70D 3.73:1 5.80:1 21.63:1 el. Pact absorption pads. 45 000 lbf/in²) R70D 19 10 10 29 41.5 |

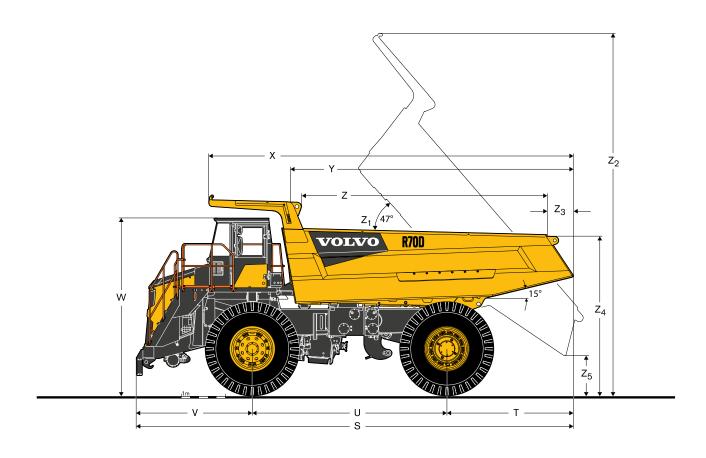
| | | R45D | R60D | R70D |
|--|--|--|---|--|
| Transmission | | Allison 5620 ORS | Allison 6620 ORS | Allison 6620 ORS |
| | | Mid-mounted in the frame for ease of | Mid-mounted in the frame for ease of | Mid-mounted in the frame for ease of |
| | | access with integral torque converter, | access with integral torque converter, | access with integral torque converter, |
| | | | hydraulic retarder and planetary gearing. | |
| Assembly | | Automatic electronic control with | Automatic electronic control with | Automatic electronic control with |
| | | | softshift feature. Automatic lock-up in all | |
| | | speed ranges. | speed ranges. | speed ranges. |
| Electronic control | | CEC2 | CEC2 | CEC2 |
| | | CLC2 | CLC2 | CLC2 |
| Maximum speed, forward/rev | | 110.171 | 24.422 | 05.474 |
| 1st gear | km/h | 11.3 / 7.1 | 9.1 / 6.6 | 9.5 / 7.4 |
| 2nd gear | km/h | 16.8 / 12.9 | 14.6 / 11.8 | 14.2 / 11.0 |
| 3rd gear | km/h | 22.4 | 19.5 | 18.9 |
| 4th gear | km/h | 33.4 | 29.1 | 28.2 |
| 5th gear | km/h | 45.2 | 39.3 | 38.1 |
| Sth gear | km/h | 65 | 57.5 | 57 |
| uspension | | | | |
| <u> </u> | | | | |
| | | | with self contained, variable rate, nitrogen | /oil cylinders. |
| Rear: Volvo variable rate nitroger | nzon cynr | ders with A-frame linkage and lateral stab | ſ | 2702 |
| | | R45D | R60D | R70D |
| Maximum front strut stroke | mm | 251 | 251 | 235 |
| Maximum rear strut stroke | mm | 192 | 192 | 193 |
| Maximum rear axle oscillaton | 0 | 6.5 | 6.5 | 7.5 |
| rake system | | ! | ! | ! |
| <u>-</u> | | | | |
| | | | oiston pump provides hydraulic pressure fo hich stores energy to provide rapid brakin | |
| | | aded opposing piston on disc pack, hydra | | ig response and emergency supply. |
| Secondary Park push button so | spring io | aded opposing pistori on disc pack, nydra | uncany released. Automatically applies when engine is switc | shed off Brakes conform to ISO 3450 |
| Deterdation: Lover control of rea | r dice br | akes or hydraulic retarder in transmission. | Automatically applies when engine is switch | thed on. Brakes comorni to 150 5450. |
| Retardation: Level Control of Tea | uisc bie | , | BOOD | 5705 |
| | | R45D | R60D | R70D |
| Front brakes type | | Dry disc | Dry disc | Dry disc |
| Front brake diameter | mm | 660 | 710 | 710 |
| | | 1 395 | 1 395 | 2 788 |
| -ront brakes lining area | | | | |
| • | cm ² | | | |
| Rear brakes type | | Volvo force oil cooled, multiple disc | Volvo force oil cooled, multiple disc | Volvo force oil cooled, multiple disc |
| Front brakes lining area Rear brakes type Rear brake lining area | cm ² | Volvo force oil cooled, multiple disc | | |
| Rear brakes type | | Volvo force oil cooled, multiple disc | Volvo force oil cooled, multiple disc | Volvo force oil cooled, multiple disc |
| Rear brakes type Rear brake lining area loist | cm ² | Volvo force oil cooled, multiple disc 38 310 | Volvo force oil cooled, multiple disc | Volvo force oil cooled, multiple disc |
| Rear brakes type Rear brake lining area toist Two body hoist cylinders are mo | cm² | Volvo force oil cooled, multiple disc 38 310 | Volvo force oil cooled, multiple disc 47 151 | Volvo force oil cooled, multiple disc |
| Rear brakes type Rear brake lining area toist Two body hoist cylinders are mo | cm² | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. | Volvo force oil cooled, multiple disc 67 390 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are mol Cylinders are two-stage with pou | cm² unted be wer down | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D | Volvo force oil cooled, multiple disc 67 390 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are mol Cylinders are two-stage with pow System relief pressure | cm² unted be wer down MPa | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 | Volvo force oil cooled, multiple disc 67 390 R70D 19 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are mol Cylinders are two-stage with pow System relief pressure | cm² unted be wer down | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are mo Cylinders are two-stage with pov System relief pressure Pump output flow rate | cm² unted be wer down MPa | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 | Volvo force oil cooled, multiple disc 67 390 R70D 19 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are mo Cylinders are two-stage with pox System relief pressure Pump output flow rate at | cm² unted be wer down MPa I/min | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are mot Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time | cm² unted be wer down MPa I/min r/min s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are mot Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time | cm² unted be wer down MPa I/min r/min | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are mot Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time | cm² unted be wer down MPa I/min r/min s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are mot Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time | cm² unted be wer down MPa I/min r/min s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are moccylinders are two-stage with poxity System relief pressure Pump output flow rate at Body raise time Body lower time Service Refill | cm² unted be wer down MPa I/min r/min s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are mor Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time Gervice Refill Engine crankcase and filters | cm² unted be wer down MPa I/min r/min s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D R45D 60 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D R60D | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 33 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time Gervice Refill Engine crankcase and filters Transmission and filters | cm² unted be wer down MPa I/min r/min s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D R45D 60 76 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 33 85 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time Gervice Refill Engine crankcase and filters Transmission and filters Cooling system | cm² unted be wer down MPa I/min r/min s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 870D 33 85 236 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are mot Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time Bervice Refill Engine crankcase and filters Transmission and filters Cooling system Fuel tank | cm² unted be wer down MPa I/min r/min s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 870D 33 85 236 938 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are mot cylinders are two-stage with posts System relief pressure Pump output flow rate at Body raise time Body lower time Body lower time Bervice Refill Engine crankcase and filters Transmission and filters Cooling system Fuel tank Steering hydraulic tank | cm² unted be wer down MPa I/min r/min s s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 606 68 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 608 | R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are monocylinders are two-stage with power stage with | cm² unted be wer down MPa I/min r/min s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 870D 33 85 236 938 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more cylinders are two-stage with power to be some cylinders are two-stage with power time Body raise time Body lower time Body lower time Body lower time Body lower time Cervice Refill Engine crankcase and filters Transmission and filters Cooling system Fuel tank Steering hydraulic tank Steering hydraulic system (total) | cm² unted be wer down MPa I/min r/min s s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 606 68 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 608 | R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time Service Refill Engine crankcase and filters Transmission and filters Transmission and filters Cooling system Fuel tank Steering hydraulic tank Steering hydraulic system (total) Body hydraulic tank | cm² unted be wer down MPa I/min r/min s s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 68 92 250 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time Gervice Refill Engine crankcase and filters Transmission and filters Transmission and filters Cooling system Fuel tank Steering hydraulic tank Steering hydraulic system (total) Body hydraulic tank Body hydraulic and brake | cm² unted be wer down MPa I/min r/min s s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 68 92 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 | R70D |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more Cylinders are two-stage with pox System relief pressure Pump output flow rate at at Body raise time Body lower time Bervice Refill Engine crankcase and filters Transmission and filters Transmission and filters Cooling system Fuel tank Steering hydraulic tank Steering hydraulic tank Body hydraulic tank Body hydraulic and brake cooling system (total) | cm² unted be wer down MPa I/min r/min s s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 68 92 250 385 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 385 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 432 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time Bervice Refill Engine crankcase and filters Transmission and filters Transmission and filters Cooling system Fuel tank Steering hydraulic tank Steering hydraulic system (total) Body hydraulic and brake cooling system (total) Planetaries (total) | cm² unted be wer down MPa I/min r/min s s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 68 92 250 385 56 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 385 56 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 432 43 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are mot cylinders are two-stage with pout system relief pressure Pump output flow rate at a body raise time Body lower time Body lower time Bervice Refill Engine crankcase and filters Transmission and filters Cooling system Fuel tank Steering hydraulic tank Steering hydraulic system (total) Body hydraulic tank Body hydraulic and brake cooling system (total) Planetaries (total) Planetaries (total) | cm² unted be wer down MPa I/min r/min s s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2100 13 9 R45D 60 76 126 606 68 92 250 385 56 60 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 385 56 60 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 432 43 52 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more cylinders are two-stage with power to the power are two-stage with power to the | cm² unted be wer down MPa I/min r/min s s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 68 92 250 385 56 60 14 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 385 56 60 14 | R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 432 43 52 25 |
| Rear brakes type Rear brake lining area Joist Two body hoist cylinders are more Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time Service Refill Engine crankcase and filters Transmission and filters Transmission and filters Cooling system Fuel tank Steering hydraulic tank Steering hydraulic system (total) Body hydraulic and brake cooling system (total) Planetaries (total) Differential Front ride strut (each) Rear ride strut (each) | cm² unted be wer down MPa I/min r/min s s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 68 92 250 385 56 60 14 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 385 56 60 14 17 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 432 43 52 26 21 |
| Rear brakes type Rear brake lining area Joist Two body hoist cylinders are more Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time Service Refill Engine crankcase and filters Transmission and filters Transmission and filters Cooling system Fuel tank Steering hydraulic tank Steering hydraulic system (total) Body hydraulic and brake cooling system (total) Planetaries (total) Differential Front ride strut (each) Rear ride strut (each) | cm² unted be wer down MPa I/min r/min s s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 68 92 250 385 56 60 14 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 385 56 60 14 | R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 432 43 52 25 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time Bervice Refill Engine crankcase and filters Transmission and filters Transmission and filters Cooling system Fuel tank Steering hydraulic tank Steering hydraulic system (total) Body hydraulic and brake cooling system (total) Planetaries (total) Differential Front ride strut (each) Rear ride strut (each) Power take off | cm² unted be wer down MPa I/min r/min s s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 68 92 250 385 56 60 14 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 385 56 60 14 17 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 432 43 52 25 21 |
| Rear brakes type Rear brake lining area Joist Two body hoist cylinders are more Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time Service Refill Engine crankcase and filters Transmission and filters Transmission and filters Cooling system Fuel tank Steering hydraulic tank Steering hydraulic system (total) Body hydraulic and brake cooling system (total) Planetaries (total) Differential Front ride strut (each) Rear ride strut (each) Power take off | cm² unted be wer down MPa I/min r/min s s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2100 13 9 R45D 60 76 126 606 68 92 250 385 56 60 14 17 4 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 385 56 60 14 17 4 | R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 432 43 52 25 21 4 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time Bervice Refill Engine crankcase and filters Transmission and filters Transmission and filters Cooling system Fuel tank Steering hydraulic tank Steering hydraulic tank Body hydraulic tank Body hydraulic tank Body hydraulic and brake cooling system (total) Planetaries (total) Differential Front ride strut (each) Rear ride strut (each) Power take off Veights | cm² unted be wer down MPa I/min r/min s s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 68 92 250 385 56 60 14 17 4 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 385 56 60 14 17 4 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 432 43 52 25 21 4 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time Gervice Refill Engine crankcase and filters Transmission and filters Cooling system Fuel tank Steering hydraulic tank Steering hydraulic system (total) Body hydraulic and brake cooling system (total) Planetaries (total) Differential Front ride strut (each) Rear ride strut (each) Power take off Veights Chassis with hoists | cm² unted be wer down MPa I/min r/min s s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 68 92 250 385 56 60 14 17 4 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 385 56 60 14 17 4 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 432 43 52 25 21 4 R70D 36 190 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time Gervice Refill Engine crankcase and filters Transmission and filters Cooling system Fuel tank Steering hydraulic tank Steering hydraulic system (total) Body hydraulic and brake cooling system (total) Planetaries (total) Differential Front ride strut (each) Rear ride strut (each) Power take off Veights Chassis with hoists | cm² unted be wer down MPa I/min r/min s s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 68 92 250 385 56 60 14 17 4 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 385 56 60 14 17 4 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 432 43 52 25 21 4 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more Cylinders are two-stage with pox System relief pressure Pump output flow rate at Body raise time Body lower time Bervice Refill Engine crankcase and filters Transmission and filters Transmission and filters Cooling system Fuel tank Steering hydraulic tank Steering hydraulic system (total) Body hydraulic and brake cooling system (total) Planetaries (total) Differential Front ride strut (each) Rear ride strut (each) Power take off Veights Chassis with hoists Body standard | cm² unted be wer down MPa I/min r/min s s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 68 92 250 385 56 60 14 17 4 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 385 56 60 14 17 4 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 432 43 52 25 21 4 R70D 36 190 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more Cylinders are two-stage with pox System relief pressure Pump output flow rate at the stage with goard of the stage w | cm² unted be wer down MPa I/min r/min s s I I I I I I I I I I I I I I I I I | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 68 92 250 385 56 60 14 17 4 R45D R45D R45D | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 385 56 60 14 17 4 R60D R60D R60D | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 432 43 52 25 21 4 R70D 36 190 11 500 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more Cylinders are two-stage with pox System relief pressure Pump output flow rate at | cm² unted be wer down MPa I/min r/min s s I I I I I I I I I I I I I I I I I | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2 100 13 9 R45D 60 76 126 606 68 92 250 385 56 60 14 17 4 R45D R45D R45D R45D 92 250 385 56 60 14 17 4 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 385 56 60 14 17 4 R60D R60D R60D 10 650 42 048 54 500 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 432 43 52 25 21 4 R70D 36 190 11 500 49 573 65 000 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more cylinders are two-stage with possible to the | cm² unted be wer down MPa I/min r/min s s I I I I I I I I I I I I I I I I I | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2100 13 9 R45D 60 76 126 606 68 92 250 385 56 60 14 17 4 R45D R45D R45D 92 250 385 56 60 76 100 110 110 110 110 110 110 110 110 11 | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 385 56 60 14 17 4 R60D R60D 30 600 10 650 42 048 54 500 96 548 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 432 43 52 25 21 4 R70D 36 190 11 500 49 573 65 000 114 573 |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more cylinders are two-stage with possible to the | unted be wer down I/min r/min s s | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2100 13 9 R45D 60 76 126 606 68 92 250 385 56 60 14 17 4 R45D R45D R45D 27 835 9 300 36 435 41 000 77 435 Front / Rear | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 385 56 600 14 17 4 R60D 30 600 10 650 42 048 54 500 96 548 Front / Rear | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 432 43 52 25 21 4 R70D 36 190 11 500 49 573 65 000 114 573 Front / Rear |
| Rear brakes type Rear brake lining area loist Two body hoist cylinders are more cylinders are two-stage with poxition and poxition are at the stage with poxition and poxition and poxition are at the stage with graph and poxition and filters. Engine crankcase and filters Engine crankcase and filters Transmission and filters Cooling system Fuel tank Steering hydraulic tank Steering hydraulic tank Steering hydraulic tank Body hydraulic tank Body hydraulic and brake cooling system (total) Planetaries (total) Differential Front ride strut (each) Rear ride strut (each) Power take off Veights Chassis with hoists Body standard Net weight Maximum payload Maximum gross weight* | cm² unted be wer down MPa I/min r/min s s I I I I I I I I I I I I I I I I I | Volvo force oil cooled, multiple disc 38 310 tween the frame rails. in the second stage. Float to chassis and R45D 19 227 2100 13 9 R45D 60 76 126 606 68 92 250 385 56 60 14 17 4 R45D R45D R45D 27 835 9 300 36 435 41 000 77 435 Front / Rear | Volvo force oil cooled, multiple disc 47 151 over-centre kick-over control. R60D 16 227 2 100 16.4 16.3 R60D 60 92 136 606 68 92 250 385 56 60 14 17 4 R60D R60D 30 600 10 650 42 048 54 500 96 548 | Volvo force oil cooled, multiple disc 67 390 R70D 19 365 2 100 13 11.5 R70D 33 85 236 938 61 92 258 432 43 52 25 21 4 R70D 36 190 11 500 49 573 65 000 114 573 |

Specifications









| | Unit | R45D | R60D | R70D |
|-------------|------|-------|-------|-------|
| 1 | mm | 4 630 | 4 980 | 5 290 |
| В | mm | 4 370 | 4 630 | 4 940 |
| С | mm | 585 | 660 | 685 |
| D | mm | 2 665 | 2 580 | 2 970 |
| E | mm | 3 325 | 3 320 | 3 660 |
| = | mm | 3 985 | 4 060 | 4 420 |
| 3 | mm | 4 135 | - | - |
| + | mm | 4 245 | 4 440 | 4 570 |
| | mm | 4 520 | 4 820 | - |
| | mm | 1 195 | 1 425 | 1 536 |
| (| mm | 810 | 950 | 1 080 |
| | mm | 450 | 600 | 600 |
| Л | mm | 1 520 | 1 380 | 1 500 |
| 1 | mm | 2 710 | 2 900 | 2 995 |
|) | mm | 4 000 | 4 450 | 4 445 |
|) | mm | 4 240 | - | - |
| 2 | mm | 3 800 | 4 270 | 4 280 |
| λ+1 | mm | 4 060 | 4 470 | 4 940 |
| } | mm | 3 530 | 3 950 | 3 940 |
| 6 | mm | 8 700 | 9 130 | 9 905 |
| | mm | 2 410 | 2 600 | 2 945 |
| J | mm | 3 940 | 4 170 | 4 470 |
| / | mm | 2 350 | 2 360 | 2 490 |
| V | mm | 3 855 | 3 970 | 4 190 |
| (| mm | 7 417 | 7 750 | 8 380 |
| | mm | 5 485 | 6 000 | 6 580 |
| | mm | 4 700 | 5 050 | 6 200 |
| .+1 | 0 | 58 | 58 | 58 |
| ' +2 | mm | 7 645 | 8 050 | 8 380 |
| :+3 | mm | 430 | 500 | - |
| <u>Z</u> +4 | mm | 3 425 | 3 680 | 3 785 |
| Z+5 | mm | 585 | 580 | 460 |
| | | | | |

Equipment

| STANDARD EQUIPMENT | | | D70P | |
|--|------|----------|------|--|
| | R45D | R60D | R70D | |
| Engine | | | | |
| Charge air cooler Air cleaner | • | • | • | |
| Direct drive fan | • | • | • | |
| Fuel filter/water separator | • | _ | • | |
| · · · · · · · · · · · · · · · · · · · | | | • | |
| Sump guard Operator environment | * | | | |
| 2 doors lights | | • | | |
| Air conditioning | | • | | |
| Body hoist control, servo assisted | • | • | | |
| CD/radio player | | | | |
| Cup holder | • | • | • | |
| FOPS protection, ISO 3449/SAE J231 | | • | | |
| Heater/demistor | • | • | • | |
| Horn | | • | | |
| Insulation, thermal and acoustic | • | • | • | |
| Interior light | | • | • | |
| Mirrors | • | • | • | |
| Power port, 24 V & 12 V | • | • | • | |
| Power window (LHS) | • | • | • | |
| 360 degree camera visual system | • | • | • | |
| ROPS protection (body cabguard), ISO 3471/ | | | | |
| SAE J1040 | • | | • | |
| Seat , operator, air suspension | • | • | • | |
| Seat belt, operator 4-point harness | • | • | • | |
| Seat, trainer | • | • | ٠ | |
| Steering wheel, padded with tilt | • | • | • | |
| Storage compartment | • | • | • | |
| Sun visor | • | • | • | |
| Tinted glass | • | • | • | |
| Wiper and washer, windscreen | • | • | • | |
| Gauges | • | • | • | |
| Coolant temperature | • | • | • | |
| Engine oil pressure | • | • | • | |
| Fuel level | • | • | • | |
| Hourmeter | • | • | • | |
| Odometer | • | • | • | |
| Speedometer | • | • | • | |
| Tachometer | • | • | • | |
| Transmission oil temperature | • | • | • | |
| Warning indicator lights Air cleaner restriction | • | • | • | |
| | • | _ | • | |
| Air filter restriction indicator Alternator charging | • | • | | |
| 0 0 | • | _ | • | |
| Body up Brake cooling oil temperature, high | • | | | |
| | | <u> </u> | • | |
| Brakes front, low pressure Brakes rear, low pressure | • | • | • | |
| Direction indicator | | • | | |
| Engine check | | • | | |
| Engine coolant level | | • | | |
| Engine coolant temperature | • | • | • | |
| Engine maintenance | • | • | • | |
| Engine oil pressure | • | • | • | |
| Engine overspeed | | | | |
| Engine stop | • | • | • | |
| Headlight main beam | | • | • | |
| In-converter | • | • | • | |
| Parking brake | | • | | |
| Retarder active | • | • | • | |
| Steering and brake tank, low oil level | | • | | |
| Steering filter restriction | • | • | • | |
| Steering, low pressure | | | | |
| Transmission check | • | • | • | |
| Transmission oil filter restriction | | • | • | |
| | | | | |

| STANDARD EQUIPMENT | | | |
|--|------|------|----------|
| | R45D | R60D | R70D |
| Audible alarms | | | |
| Brakes front, low pressure | • | • | • |
| Brakes rear, low pressure | | | |
| Steering, low pressure | • | • | • |
| Electrical system | | | |
| Alternator, 70 A | • | • | • |
| Alternator, 100 A | _ | | |
| Batteries, 2 x 12 V, 180 Ah | • | • | • |
| Batteries, 2 x 12 V, 200 Ah | _ | | |
| Battery master switch, electrically operated | • | • | • |
| Direction indicators and hazard warning | | | |
| Headlights | • | • | • |
| In-cab diagnostics, engine/transmission | | | |
| Reverse alarm / reverse light | • | • | • |
| Side, tail, stop lights (LED) | | | |
| Transmission | | | |
| Body-up reverse interlock | • | • | • |
| Body-up shift inhibitor | | | |
| Downshift inhibitor | • | • | • |
| Filter restriction shift inhibitor | | | |
| Hydraulic retarder | • | | |
| Neutral start interlock | | | |
| Power and economy mode selection | • | | _ |
| Shift energy management | | _ | |
| Stall check and limp home selection | • | | _ |
| Sump guard | • | _ | |
| Brake system | | | |
| Brake retarder (rear) | | | |
| Front dry disc brakes | • | | • |
| Hydraulically actuated | | • | • |
| Dual circuits | ¥ | , | <u> </u> |
| OCDB oil cooler | • | | |
| Oil-cooled multiple-disc (rear) | _ | | • |
| Park brake integral to rear brake pack | • | • | • |
| Body | • | | |
| Body down indicator | • | | |
| Exhaust heated | • | • | |
| Mud flaps | · · | • | • |
| | • | • | • |
| Operator guard - LHS | • | • | |
| Operator guard - RHS | - | | |
| Rock ejectors Safety locking pins | • | • | |
| , , , | • | • | |
| Tire guards | | | |
| Other Diagnostic pressure test points | • | | |
| Diagnostic pressure test points | | | |
| Exhaust muffler | • | • | • |
| Handrails on fenders | | | • |
| Tow points, front and rear | • | • | • |

| OPTIONAL EQUIPMENT | | | | |
|--|------|------|------|--|
| | R45D | R60D | R70D | |
| Engine | • | | | |
| Fast fuel | • | • | - | |
| Inline fuel heater | • | • | • | |
| Operator environment | | | | |
| Mirrors - heated / electrical actuated | • | • | • | |
| Drivetrain | | | | |
| Differential - traction bias | • | • | • | |
| Electrical system | | | | |
| Alternator, 100 A | • | • | • | |
| Auxiliary jump-start receptacle | • | • | • | |
| Beacon - orange cab mounted | • | • | • | |
| Service lighting kit | • | • | • | |
| Ground level isolation switch | • | • | • | |
| Work lighting kit | • | • | • | |

| | R45D | R60D | R70D |
|------------------------------------|------|------|------|
| Body | | | |
| Body liner plates | • | • | • |
| Body side extensions -upon request | • | • | • |
| Tail gate | • | • | • |
| Body spill guard | • | • | • |
| On Board Weighing system | • | • | • |
| Maintenance | | | |
| Auto lubrication system | • | • | • |
| Quick oil drain kit | • | • | • |
| Fire suppression system | • | • | • |
| -40°C artic weather protection | • | • | • |

Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

