

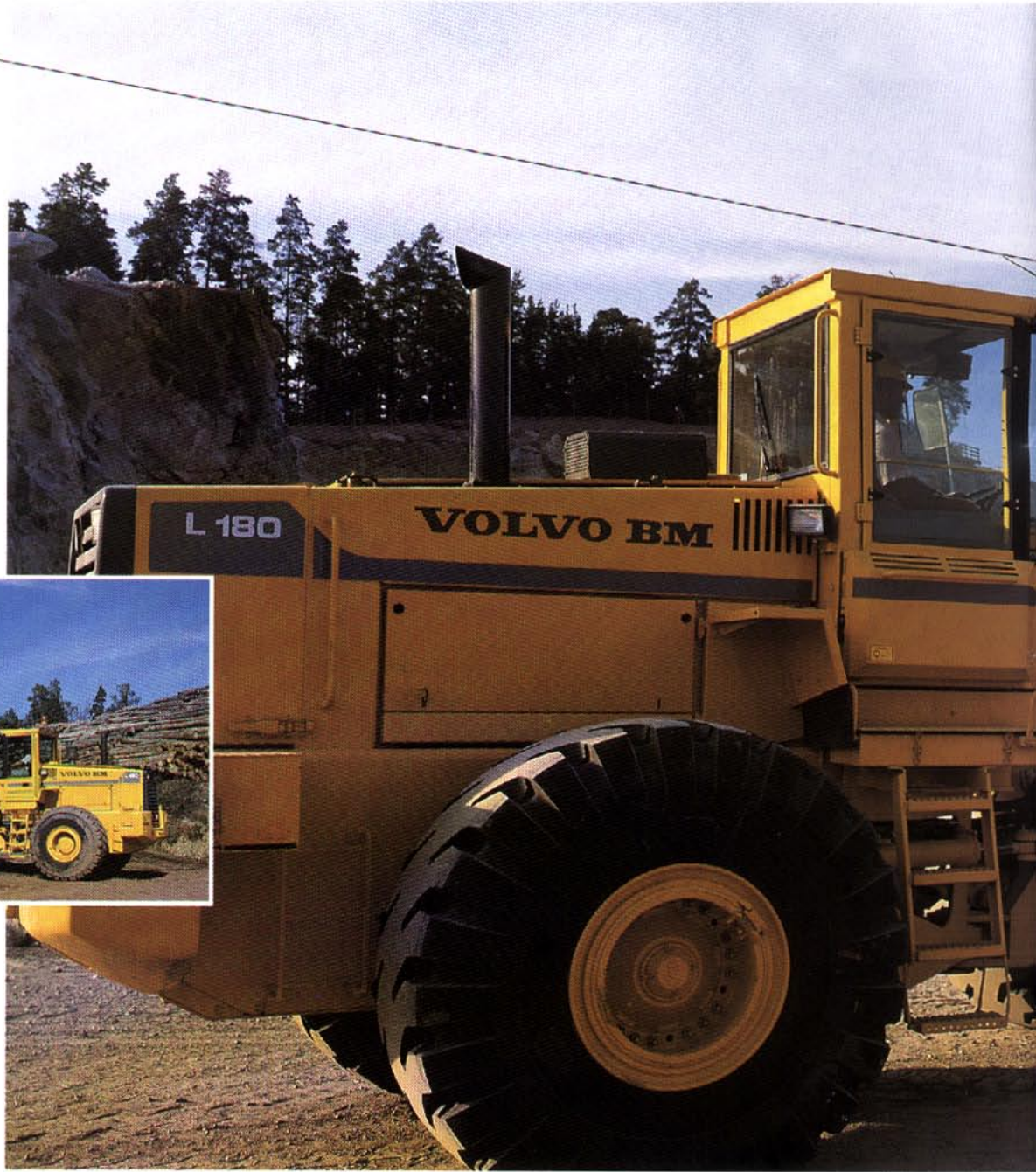


Volvo BM wheel loaders L150 and L180



VOLVO BM

Volvo BM TP Linkage is a new, patented lift-arm system that combines all the advantages of the parallel lift-arm system with the best features of the Z-bar linkage.



Due to TP Linkage, the Volvo BM L150 and L180 retain their excellent breakout capacity throughout the entire lifting range. The attachment bracket enables the Volvo BM L150 and L180 to be equipped for everything from timber, woodchip and pallet handling to street cleaning and snow clearance.

TP Linkage keeps
productivity up
in all situations



The location of the tilt cylinder and the unique T-bar link give the operator good visibility over the bucket and the front wheels, regardless of the bucket's position.

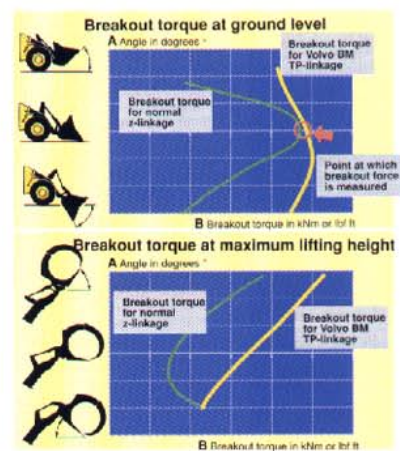
The lift arms are situated high for longer reach and additional lift height.

The Volvo BM L180 and L150 production loaders are two heavyweights, built to tackle the toughest jobs in rock, sand and gravel operation

Both are equipped with our new, patented lift-arm system, Volvo BM TP Linkage. TP (Torque Parallel) Linkage combines the advantages of the market's two most successful lift-arm systems - the Volvo BM parallel system and the traditional Z-bar linkage.

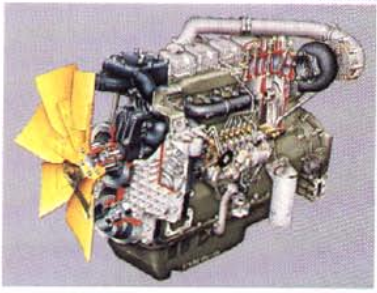
Parallel lift-arm action is nearly exact through the working range. Furthermore, TP Linkage is more efficient than Z-bar linkage throughout the lifting range. The secret is a unique T-link and the location of the tilt cylinder.

Normally, breakout force is measured only at ground level. There the difference is small. But in the carry position and during breakout in the top position, the Z-bar link loses 60 percent of its force. This results in unnecessary spillage and makes certain tasks impossible. TP Linkage retains at least 85 percent of its force in all positions and gives you full control over attachment and load.

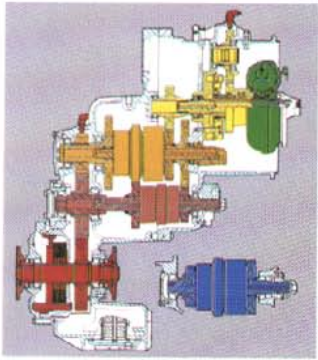


The diagram shows that a comparison of the breakout force in a single point gives an incomplete picture of the loader's capacity in practice.

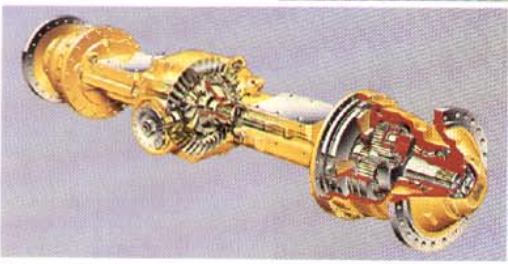
The breakout torque for Volvo BM TP Linkage surpasses the Z-bar linkage throughout the lifting range. Parallel lift arm action is nearly exact throughout the working range, in fact slightly better than the old parallel system.



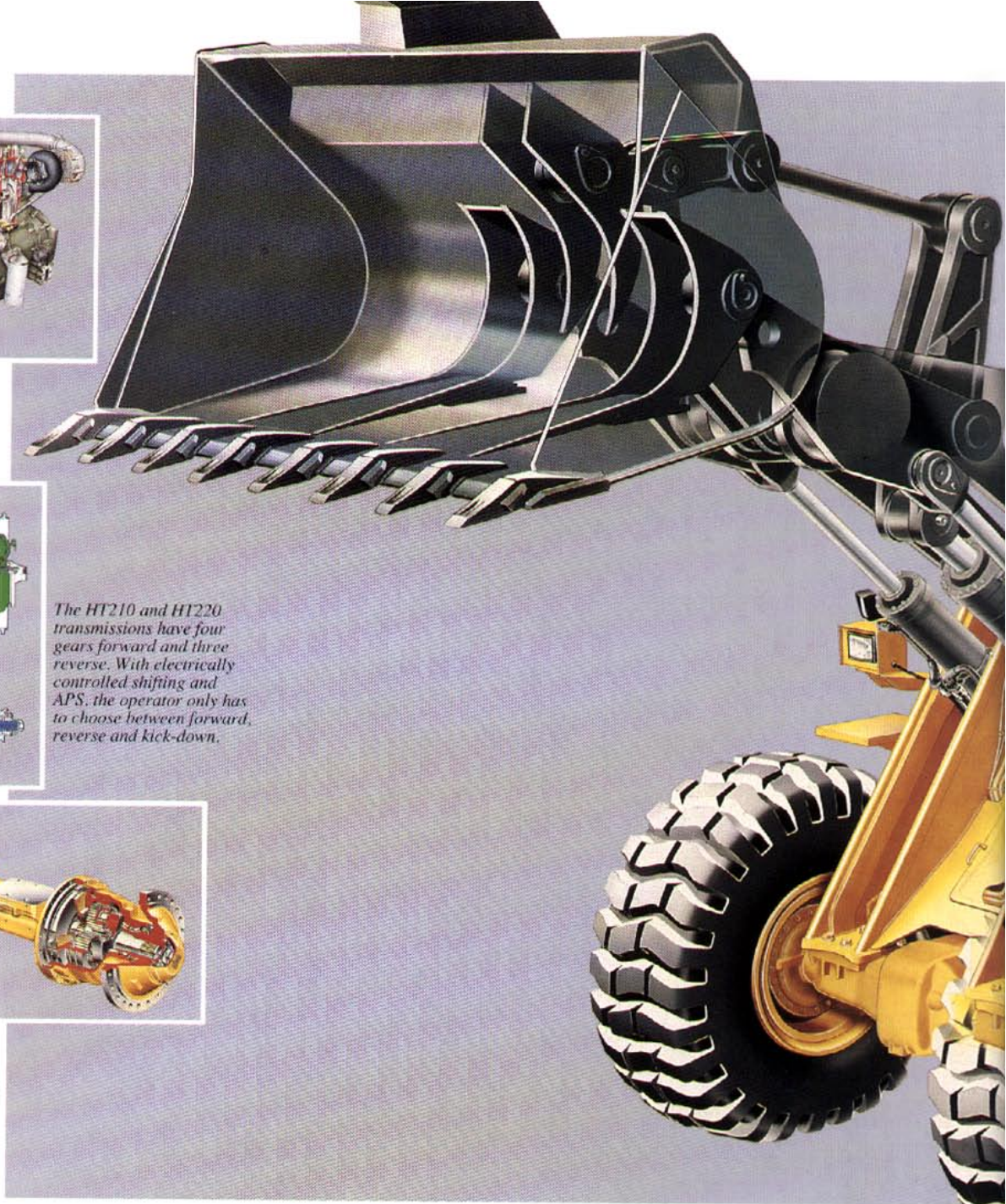
High torque and low engine speed contribute to good fuel economy, less noise and long life.



The HT210 and HT220 transmissions have four gears forward and three reverse. With electrically controlled shifting and APS, the operator only has to choose between forward, reverse and kick-down.



The new AWB (Axle Wet Brake) axles have fully floating half-shafts. Wet, internal circulation-cooled disc brakes ensure safe braking. The brakes are enclosed and thereby fully protected.



The strongest chain
has no weak links



• The Volvo engines are well-matched to their respective transmissions and axles, hydraulic systems and load-sensing steering systems.

• Reliable countershaft transmission utilizes the engine power optimally.

• Load-sensing steering system with high precision and low fuel consumption.

• Effective dual circuit brake system with wet, internal circulation-cooled disc brakes.

• The half shafts are fully floating. The front axle has 100% differential lock.

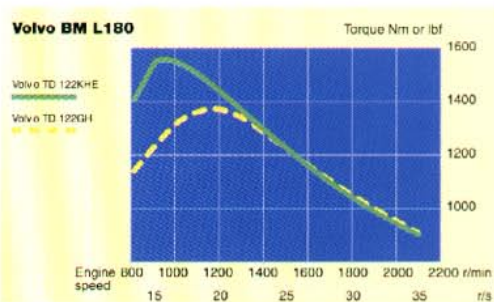
The power and capacity of the Volvo BM L180 and L150 cannot be traced to any single component. The power is the result of a chain without any weak links.

The difference between a world-leading wheel loader and a mediocre one lies in how well the parts of the drivetrain are matched to each other, to the working hydraulics and to the loader unit.

The drivetrain in the Volvo BM L180 and L150 is made up entirely of quality, VME-manufactured components. It is a well-balanced package.

From the powerful, direct-injection 6-cylinder turbodiesel engine—which responds instantly when you step on the accelerator, even under full load from low rpm—to our new, fully floating AWB axles with wet, internal circulation-cooled disc brakes.

The power is transmitted by a 4-speed Volvo BM transmission with our patented and field-proven Automatic Power Shift, APS.



The low-emission engines have higher torque at lower rpm than the standard engines. Better performance and lower emissions are the natural result of more efficient combustion. Volvo BM's low-emission engines meet the future environmental requirements specified by both European and Californian standards.

The Volvo BM Care Cab is quiet and vibrationless, thanks to rubber cab mounts and superb insulation.

The heating and ventilation system supplies tempered, double-filtered fresh air from 14 adjustable air outlets.

Adjustable steering wheel available as optional equipment.

The smooth, threshold-free floor is easy to keep clean.



Volvo BM Care Cab

This is where the machine's most important production factor sits



The climate control system can be supplemented with air conditioning. (Standard for certain markets)

The curved windshield without corner pillars and the large glazed areas provide excellent all-round visibility.

The operator can sit comfortably and work efficiently thanks to the ergonomically located controls.

No matter how advanced the technology gets, the operator will always be the machine's most important production factor.

The Volvo BM Care Cab is an ergonomically carefully thought-out workstation from floor to ceiling.

After taking your place in the operator's seat, you can easily adjust it to a comfortable working position, regardless of your height and weight. Large panes of glass and the curved windshield without corner pillars give you perfect all-round visibility.

Thanks to the pilot-operated working hydraulics you can control the bucket with smooth and precise movements using the fingertips of your right hand, while your arm rests on the adjustable armrest. The hydraulic console has buttons for kick-down and downshifting, and additional forward/reverse control is available as an option. In this way you can operate all functions with the fingertips of your right hand and concentrate on steering with your left hand. You don't have to touch the gearshift lever.

This technology enables you to work with undiminished precision and pace during long, demanding work shifts.



The Volvo BM Care Cab is designed from floor to ceiling to enhance the operator's productivity. The curved windshield without corner pillars and large panes of glass contribute to higher safety on the work site. The Volvo BM Care Cab is, of course, ROPS/FOPS approved.



When you let up on the accelerator and press the downshift button, located in front and to the right of the lift lever, APS automatically shifts down at the right instant for maximum engine braking. If you want to shift into 1st gear, you can use either hand to press one of the two kick-down buttons.



APS gives quick and smooth forward/reverse shifting.



APS means
shorter work cycles
and longer life



By setting the automatic bucket positioner and boom kick-out to pre-selected positions, you automatically get the right position for level bucket and the right height for dumping.

APS has built-in overload protection that increases availability and service life.

VME-made Power Shift transmission of the countershaft type. Proven reliable, easy to service.

Upshifting from 2nd reverse to 3rd takes place at a relatively high rpm. In this way you can decide via the accelerator when you want to shift up. If you want to avoid upshifting during acceleration, keep the downshift button depressed.

The Volvo BM L180 and L150 are equipped with APS, Automatic Power Shift. APS ensures that the machines always work in the right gear. APS therefore reduces fuel consumption by up to 30 percent, depending on the task at hand.

APS improves the efficiency of the operator's work in each phase of the work cycle. In the first place, you can concentrate on other things besides operating the gearshift lever. In the second place, spillage is reduced thanks to smooth forward/reverse shifting. Finally, quick acceleration shortens the cycle time and boosts productivity.

Shifting is controlled electrically by a microprocessor. You only have to select forward, reverse or kick-down.

APS's refined design with built-in overload protection has been proven reliable by many years of use. It also extends the service life of the transmission. This has been shown by more than 15 years' experience and 24,000 produced units.



The Loadtronic load weighing system (option) automatically records what, to whom and how much you load directly during loading. You can drive and load just as usual, and also switch between four Volvo BM attachments without recalibrating.

Excellent all-round visibility and good lighting contribute to high safety and maneuverability.

Comfort Drive Control (CDC) and Boom Suspension System (BSS) boost capacity and reduce stress and strain on both machine and operator. (Option)

The front and rear wheels always run in the same track. This reduces rolling resistance and tire wear



A joy to operate



- Less spillage in the carry position. The operator has the bucket in an iron grip, and the bucket opening is almost exactly parallel to the underlying surface.

- Compact lift-arm geometry positions the load's center of gravity near the front axle. Stability increases and the tipping load is utilized maximally.

Patented load-sensing steering and long wheelbase make the Volvo BM L180 and L150 quick, nimble and stable to drive.

This reduces the cycle times in both load/carry work and high-speed haul runs.

The steering angle of 37° to both sides minimizes the turning radius in precision jobs in confined areas. The steering is quick and precise with few turns of the wheel and low wheel effort. The steering pump with variable flow gives constant steering performance regardless of resistance. A fuel-efficient solution, since oil is not circulated unnecessarily.

Their smart design makes our heavyweights remarkably easy to maneuver.

Optional items of equipment such as Comfort Drive Control and Boom Suspension System boost capacity and reduce stress and strain on both machine and operator. This further reduces cycle times and enhances operating pleasure.

An operator who enjoys his work will also do a better job.



An effective dual-circuit brake system with hydraulic accumulators and fully hydraulic, internal circulation-cooled disc brakes provide excellent braking capacity.

Large, easy-to-open access doors, raised by gas struts. The doors can be provided with locks.

Hinged radiator grill with adjustable gas strut and easily accessible swing-out radiator simplify cleaning.



Serviceability leaves
more time for productive work



• A service friendly location makes all filters easy to replace.

The lube nipples are extended where necessary and accessible from ground level.



Contronic informs the operator of the machine's status and need for recurrent service on a five-language display on the instrument panel. It increases availability and reduces maintenance costs.

All wheel loaders need service and maintenance to function optimally throughout their life. But all are not equally easy to take care of.

The Volvo BM L180 and L150 are designed from the start for a minimum of downtime. In addition, they are equipped with the electronic monitoring system Contronic, which simplifies service, improves availability and actively contributes to lower maintenance costs.

Contronic informs you in plain text what kind of service the machine needs and when. A five-language display keeps the operator constantly apprised of the machine's condition, including the temperature in the engine and transmission. This reduces the risk of unscheduled service stoppages and prolongs the life of the machine.

Large access doors raised by gas struts and a swing-out radiator facilitate daily service and maintenance. This excellent accessibility saves time - time you can use for more productive work.



The Contronic system automatically records malfunctions in its memory. A special service display provides more detailed information on 17 different functions. Quick diagnosis of the machine's status minimizes the time for troubleshooting.

Volvo BM T/P Linkage is a new, patented lift-arm system that combines all the advantages of the parallel system with the good features of the Z-bar linkage.

The Volvo BM Care Cab has excellent all-round visibility, thanks to the curved windshield without corner pillars and large glazed areas.

Powerful, direct-injection, 6-cylinder Volvo turbodiesel engine with excellent low-rev lugging performance. Available in low-emission version.



Pilot-operated working hydraulics give you smooth and precise fingertip control of the bucket.

Fully floating AWB axles with wet, internal circulation-cooled disc brakes.

Patented load-sensing steering and long wheelbase make the Volvo BM L180 and L150 quick, nimble and stable to drive.



High capacity, long life and a high second-hand value add up to best total economy



- The location of the tilt cylinder and the unique T-bar link give the operator good visibility over the bucket and the front wheels, regardless of the bucket's position.

- The lift arms are situated high for longer reach and additional lift height.

- The electronic monitoring system Contronic simplifies service, improves availability and actively contributes to lower maintenance costs.



- 4-speed Volvo BM transmission with duty-proven reliable Automatic Power Shift (APS) as standard.

- Hinged radiator grill with adjustable gas strut and easily accessible swing-out radiator simplify cleaning.

A service-friendly location makes all filters easy to replace.

Volvo BM L150

Operating weight	20,6–25,4 t	(45 500–56 000 lb)
Bucket sizes	3,5–12,0 m ³	(4,6–15,7 yd ³)
Engine	Volvo TD 102	
Output Gross at	35 rps	(2 100 rpm)
SAE J1349	180 kW	(245 hp)
DIN 70020/6271 Net	170 kW	(231 hp)
Max. torque at	20,0 rps	(1 200 rpm)
SAE J1349 Gross	1 000 Nm	(738 lbf ft)
SAE J1349 Net	980 Nm	(723 lbf ft)
DIN 70020/6271 Net	980 Nm	(723 lbf ft)
Tipping load with bucket	3,5 m ³	4,6 yd ³
straight	15 530 kg	(34 240 lb)
at 35° turn	13 820 kg	(30 470 lb)
at full turn	13 620 kg	(30 030 lb)
Breakout force	195 kN	(43 840 lbf)

Volvo BM L180

Operating weight	23,4–28,5 t	(51 600–62 800 lb)
Bucket sizes	4,2–14,0 m ³	(5,5–18,3 yd ³)
Engine	Volvo TD 122	
Output Gross at	33,3 rps	(2 000 rpm)
SAE J1349	211 kW	(289 hp)
DIN 70020/6271 Net	202 kW	(275 hp)
Max. torque at	18,3 rps	(1 100 rpm)
SAE J1349 Gross	1 390 Nm	(1 025 lbf ft)
SAE J1349 Net	1 380 Nm	(1 018 lbf ft)
DIN 70020/6271 Net	1 380 Nm	(1 018 lbf ft)
Tipping load with bucket	4,2 m ³	(5,5 yd ³)
straight	18 190 kg	(40 100 lb)
at 35° turn	16 030 kg	(35 340 lb)
at full turn	15 780 kg	(34 790 lb)
Breakout force	210 kN	(47 210 lbf)



Hard work as far as the eye can see!

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