

VOLVO CONSTRUCTION EQUIPMENT

# QUARRY AND AGGREGATE SOLUTIONS



# A FULL LINE OF QUARRY & AGGREGATE SOLUTIONS...



With today's tough markets and competitive environment, your quarry and aggregate operation must continuously lower the cost per ton of material produced to lead the competition. At Volvo, we are committed to providing you with industry leading products, features and technology that sharpen your competitive edge.

Our wheel loaders offer features such as Volvo's OptiShift technology which increases fuel efficiency and helps you lower fuel costs. Volvo articulated haulers leads our industry with features like exclusive Automatic Traction Control, which reduces fuel consumption, tire wear and lowers overall operating costs. Volvo motor graders have the industry's leading blade down force and moldboard turning torque to move more material per day. Our wheel loaders, articulated haulers, excavators and motor graders all offer Volvo engine technology that provides high torque at low engine speed which results in lower fuel consumption, less wear, and higher productivity.

In addition to our full production equipment, Volvo offers a line of compact equipment that incorporates the same Volvo quality, innovative technology, and commitment to satisfying your needs in your quarry and aggregates operation.



**...SOLUTIONS TO HELP YOU SUCCEED.**





# LOAD OUT YOUR SHOTROCK

## TAKING YOUR COSTS TO THE CRUSHER



**Volvo Care Cab** delivers **excellent visibility** all around the machine for maximum productivity and enhanced safety. Includes standard rear-view camera with color monitor.

**Model**  
L350F

**Operating Weight**  
50,712 kg (111,800 lbs)

**Full Turn Tip Load**  
33,961 kg (74,870 lbs)

**Breakout Force**  
392.6 kN (88,280 lbf)

**Net Engine Power**  
394 kW (528 hp)

**Bucket Capacity (heaped)**  
7.6 m<sup>3</sup> (10.0 yd<sup>3</sup>)



**Comfort Drive Control (CDC)** provides comfortable operation of steering and shifting with user-friendly controls integrated in the armrest. Especially effective in short-cycle loading applications.



**Volvo Tooth System (VTS)** is designed for excellent breakout penetration and long life in many applications. Adapters are available in both weld-on and bolt-on versions.



**Tailored for effective block handling**  
Volvo L350F block handlers are available in two versions, standards and heavy-duty. Both are modified for extremely heavy lifting and to handle rough operating conditions when running long shifts in demanding rock quarries. They are just as smooth, operator-friendly, and easy on fuel as a standard Volvo L350F - even with their massive counterweights.

# LOAD OUT YOUR FINISHED PRODUCT

## THE NEW VOLVO L250G REHANDLER



**Volvo L250G Rehandler** is designed specifically for **two pass loading** of finished aggregate product in tri-axle on-highway trucks for up to 30% more trucks loaded per day.

### Models

L150G L180G, L220G, L250G

### Operating Weight Range

23,329 - 35,380 kg  
(51,430 - 78,000 lbs)

### Full Turn Tip Load Range

15,286 - 23,780 kg  
(33,700 - 52,430 lbs)

### Breakout Force Range

184.7 - 290.0 kN  
(41,520 - 65,350 lbf)

### Net Engine Power Range

209 - 290 kW  
(280 - 389 hp)

### Standard Bucket Capacity Range

4.0 - 6.7 m<sup>3</sup>  
(5.2 - 9.0 yd<sup>3</sup>)



Rehandling Solutions	L150G	L180G	L220G	L250G
Rehandling Counterweight	•	•	•	•
Comfort Drive Control (CDC)	•	•	•	•
Boom Suspension System (BSS)	•	•	•	•
Rehandling Buckets	•	•	•	•
Long Boom	•	•	•	•
Engine & Cab Air Pre-Cleaners	•	•	•	•
Mudguards	•	•	•	•
Automatic Lubrication Systems	•	•	•	•
Electrically Heated Adjustable Mirrors	•	•	•	•
Oil Sampling Ports	•	•	•	•
Heavy Duty Guarding Available	•	•	•	•



**Volvo OptiShift** technology promotes faster loading cycles, higher durability, operator comfort, and increasing overall fuel efficiency by up to 15% - boost your bottom line.



**Reverse By Braking** technology automatically applies service brakes during directional changes to decelerate the machine enhancing operator comfort - perfect for short-cycle loading.



**Rehandling buckets** have an optimized shape and spill guard to fit aggregate, gravel, and crushed rock, providing faster bucket fills with less spills. The longer floor allows easy penetration and lowers fuel consumption by up to 10% over standard general purpose buckets.



# EFFICIENT HAULING. DEFINED.



## **"F" Stands for Fuel Efficiency**

F-series haulers provide market leading fuel efficiency. Reliable Volvo components, designed using over 40 years experience, competence and the latest industrial technologies are well matched in the drivetrain, specially developed for heavy duty applications. Functioning together, they ensure high rimpull, low power losses and a long service life. Main customer benefits – reduced operating costs and environmental impact.





Customer trust is not just given, but earned over years. Volvo developed the hauler concept in the 1960s and retains its position as the world's leading articulated hauler manufacturer. When choosing Volvo articulated haulers, you can be sure – the job will be done quickly, cost effectively and safely, with low environmental impact.

#### **Automatic Traction Control (ATC) System is Standard on All F-Series Volvo Articulated Haulers**

Constantly changing underfoot conditions are quite common when operating an articulated hauler. To keep the traction and mobility, ATC system automatically selects the optimal drive combination on the move. The possibility to shift between 6x4 mode (lower fuel consumption, less tire wear) and 6x6 mode (maximum rimpull) is a Volvo exclusive.

Since operators do not have to engage/disengage differential locks manually, they can focus on proper operation, which improves safety and reduces operating costs. The ATC system not only simplifies operation, maximizing off-road performance, but also protects the drivetrain from misuse and unnecessary wear, prolonging machine service life.

#### **Environmentally-Friendly Engine**

A35F and A40F are equipped with electronically controlled, low emission diesel engines. Powerful engines are characterized by high torque at low rpm, resulting in excellent fuel efficiency, high performance, quick response, less wear and long life. Purpose built by Volvo, they optimally match the drivetrain, ensuring maximum utilization of power and torque even in the most demanding applications.

#### **Effective Cooling**

Two hydraulically driven variable speed fans consume engine power only when needed, perfectly responding to cooling demands. Most of the time, they rotate at idle speed, lowering fuel consumption and noise. The system ensures effective cooling, providing optimal temperatures in all conditions. Side-mounting simplifies service, maximizing uptime.

# WHEEL LOADER SOLUTIONS

## QUARRY & AGGREGATE INDUSTRY



### Wheel Loader Line

L60F, L70F, L90F, L110F, L120F,  
L150G, L180G, L220G, L250G, L350F

### Operating Weight Range

9,980 - 49,895 kg (11.0 - 55.0 tons)  
(22,000 - 110,000 lbs)

### Net Engine Power & Torque Ranges

115 - 394 kW, 650 - 2,535 Nm  
(154 - 528 hp), (480 - 1,870 lbf ft)

### Full Turn Tipping Capacity Range

7,380 - 33,960 kg  
(16,270 - 74,870 lbs)

### Bucket Breakout Force Range

82.9 - 392.6 kN  
(18,640 - 88,280 lbf)

### Travel Speed Range

35.4 - 45.0 kph  
(22.0 - 28.0 mph)

### Highly Efficient Volvo Powertrain (Engine, Transmission, Axles & Brakes)

- High torque at low rpm (1100-1600 rpm) engine, designed together with the high flow, load-sensing hydraulics provide fast hydraulic speeds and high fuel efficiency.
- OptiShift technology, increases overall fuel efficiency by up to 15% by increasing productivity while lowering fuel consumption.
- Forced oil-cooled, outboard-mounted, wet disc brakes lower operating costs by increasing the life of your brakes - brake wear indicators lowers downtime.
- Selectable 100% differential lock in the front axle provides maximum traction in slippery conditions (L60F - L250G). Maintenance free rear axle trunnion.

### Powerful Linkages

- Torque Parallel Linkage (L60F - L220G) - high breakout torque and parallel lift at all heights and attachment angles provide excellent visibility to help increase production.
- Z-Bar Linkage (L250G, L350F) - high breakout force at ground level allow for easy filling of bucket. Linkage provides excellent visibility to help increase production.

### Volvo Care Cab

- Best-in-class cab filtration, front pillar-mounted switches, adjustable seat and tilt/telescopic steering wheel, and low internal sound levels all provide excellent operator comfort to help increase production rates over a day's shift.
- CareTrack remote monitoring system, & Contronics/MATRIS, our on-board diagnostic systems, are standard - these systems provide maximum uptime.



# EXCAVATOR SOLUTIONS

## QUARRY & AGGREGATE INDUSTRY



### **Crawler Excavator Line**

EC140, EC210, EC240, EC290, EC330,  
EC360, EC460, EC700

### **Wheeled Excavator Line**

EW160C, EW180C

### **Short Swing Radius Line**

ECR145C, ECR235C

### **Operating Weight Range**

12,600 - 71,670 kg (13.8 - 79.0 tons)  
(27,780 - 158,000 lbs)

### **Net Engine Power & Torque Ranges**

70 - 316 kW, 480 - 2,250 Nm  
(94 - 424 hp), (354 - 1,660 lbf ft)

### **Lift Capacity Range (Over End, Side)**

2,200 - 22,200 kg (4,840 - 48,940 lbs)  
3,500 - 25,470 kg (7,710 - 56,150 lbs)

### **Powerful Hydraulics**

- Work modes match hydraulic speed & power in different applications.
- Boom/arm summation system maximizes power by prioritizing functions - as digging forces increase, flow, at the same pressure, increases hydraulic power.

### **Durable Frame**

- Upper & lower, robotically welded frames are strategically reinforced for increased durability in your toughest applications.

### **Fuel Efficient Volvo Engine**

- High torque at low rpm delivers industry leading fuel efficiency.
- High-capacity, variable speed engine cooling fans run as required to keep engine at maximum efficiency.

### **Volvo Care Cab**

- Best-in-class cab filtration, adjustable seat, arm rests, air conditioning, excellent visibility & anti-glare LCD color monitor with rearview camera are standard.
- CareTrack, Volvo's remote monitoring system, & Contronics/MATRIS, Volvo's on-board diagnostic systems, are normally standard - these systems help maximize uptime.

### **Easier Service**

- Easily accessible hatches and service areas, remote-mounted fluid drains and easy filter locations during replacements help lower machine downtime.

# ARTICULATED HAULER SOLUTIONS

## QUARRY & AGGREGATE INDUSTRY



### **Articulated Hauler Line**

A25F, A30F, A35F, A35FFS, A40F,  
A40FFS (FS - Full Suspension)

### **Payload Range**

24,000 - 39,000 kg (26.5 - 43.0 tons)  
(52,910 - 85,980 lbs)

### **Capacity Range**

15.0 - 24.0 m<sup>3</sup>  
(19.6 - 31.4 yd<sup>3</sup>)

### **Net Operating Weight Range**

47,530 - 67,460 kg (10.8 - 15.3 tons)  
(21,560 - 30,600 lbs)

### **Net Engine Power & Torque Ranges**

234 - 347 kW, 2,040 - 2,525 Nm  
(314 - 465 hp), (1,504 - 1,862 lbf ft)

### **Travel Speed Range**

53.0 - 57.0 kph  
(32.9 - 35.4 mph)

### **Highly Efficient Volvo Powertrain (Engine, Transmission, Axles & Brakes)**

- High torque at low rpm (1800 - 2100 rpm) engine provides over six horsepower per ton on average promoting high production and excellent fuel efficiency.
  - Automatic Traction Control simplifies operation and provides maximum traction.
  - Volvo provides 100% locking, dog-clutch differentials, an industry-exclusive, which provides maximum torque and extreme off-roading capabilities.
  - Industry-exclusive self-compensating steering ensures accurate cornering lines.
  - **Full suspension haulers** feature an industry exclusive suspension system that use full flow hydraulic cylinders on each wheel with self-leveling capabilities.
- Productivity increases of up to 32%** on rough, dry roads with these models.

### **Easier Service**

- No daily or weekly maintenance on all Volvo haulers provides maximum uptime.
- Servicing at 250 hours, low number of greasing points, easily accessed oil engine filters and drain keep you working.

### **Volvo Care Cab**

- Air suspension seat, air-conditioning, CD player, tilt/telescopic steering wheel are standard in order to increase comfort which helps production over a day's shift.
- CareTrack remote monitoring system, & Contronics/MATRIS, our on-board diagnostic systems, are standard - these systems provide maximum uptime.



# MOTOR GRADER SOLUTIONS

## QUARRY & AGGREGATE INDUSTRY



### Motor Grader Line

G930, G940, G946, G960, G970, G976, G990

### Operating Weight Range

15,800 - 22,100 kg (17.4 - 24.4 tons)  
(34,830 - 48,720 lbs)

### Net Engine Power Range

145.0-198.0 kW  
(195.0-265.0 hp)

### Forward Travel Speed Range

**8-Speed Transmssion (8F/4R)**

Up to 45.2 kph (28.1 mph) forward

**11-Speed Transmission (11F/6R)**

Up to 49.1 kph (30.5 mph) forward\*

\*Optional feature

### Highly Efficient Volvo Powertrain (Engine, Transmission, Axles & Brakes)

- Triple power curves provide optimum power at all operating speeds.
- Load-sensing hydraulics promote higher fuel efficiency.
- HTE 840 and optional HTE 1160 transmission provides automatic ground speed matching & shuttle shifting capabilities - a feature enabling directional shifts without clutching (8F/4R).
- HTE 840 with optional Autoshift & HTE 1160 feature multiple operating modes - automatic/manual/transport (HTE 1160 - 11F/6R).
- Four individual, multiple wet-disc wheel brakes feature a dual cross-over system with an electric backup system.
- All service functions including grease zerks and fuel fill are accomplished at ground level for quick servicing which helps lower downtime.
- G976 is the largest all wheel drive (AWD) grader in the industry.

### Grading Performance

- Excellent blade down force provides increased productivity and circle turn torque allows movement of material while operating at optimum speeds.
- An optional lifetime frame warranty is available.

### Volvo Care Cab

- Reduced shifter movement for repetitive operations - simply moves the shifter straight forward/back to change directions.
- CareTrack, Volvo's remote monitoring system, & Contronics/MATRIS, Volvo's on-board diagnostic systems are standard - these systems help maximize uptime.

# COMPACT EQUIPMENT SOLUTIONS

## QUARRY & AGGREGATE INDUSTRY



### Wheel Loader Line

L20F, L30B PRO, L35B PRO, L45F, L50F

Operating Weight Range  
4,511 - 9,430 kg (9,945 - 20,790 lbs)

### Backhoe Loader Line

BL60B, BL70B

Operating Weight Range  
7080 - 9,800 kg

### Excavator Line

Conventional radius: EC27C, EC35C, EC55B PRO/C, EC60C  
Zero-turn radius: ECR58, ECR88

Operating Weight Range  
2,6 - 8.45 t (3,848 - 18,629 lbs)

### Skid Steer Loader Line

Rated Operator Capacity  
MC60C - MC155C  
610 kg - 1500 kg  
MCT60 - MCT145  
640 kg - 1450 kg

All models are not available in all markets.

### A Versatile Line of Compact Players

- Volvo's compact equipment is manufactured to work efficiently and effectively in a variety of applications.
- Spacious operator stations and ergonomic controls keep operators comfortable over long shifts.

### A Full Line of Attachments to Meet Your Needs

- One-stop shop - Volvo offers a full line of attachments to keep these utility machines working in a variety of applications.
- With Volvo, you have the ability to interchange attachments between product lines.\*

### A Value You Can Trust

- Powerful, fuel efficient Volvo engines that meet or exceed emissions requirements.
- Safe, easy entry and exit with large grab handles and steps to help maintain 3 points of contact.

### Easier Service

- Ground level service points, pressure test ports, remote fluid drains, and easy filter replacements.

\*When equipped with optional hydraulic attachment bracket (certain CWL and BHL) or Universal Skid Steer attachment bracket (CWL and SSL).



# BACKHOE SOLUTIONS

## QUARRY & AGGREGATE INDUSTRY



### Backhoe Line

BL60, BL70

### Operating Weight Range

7,340 - 7,820 kg (8.1 - 8.6 tons)  
(16,200 - 17,250 lbs)

### Net Engine Power Range

62.0 - 67.0 kW (83.0 - 90.0 hp)

### Maximum Travel Speeds Range

Forward/Reverse - 21.0 mph (34.0 kph)

### Hydraulics Systems

30.0 - 42.0 gpm  
(114.0 - 160.0 lpm)

### Loader Breakout Force

Up to 55.4 kN (12,450 lbf)

### Bucket Digging Force

Up to 59.1 kN (13,300 lbf)

### Volvo Performance

- Outboard, wet-disc brakes and planetaries, front and rear cast steel axles with improved axle mounting design increase brake life and overall durability.
- Industry exclusive high-mounted swing cylinders avoid seal contamination from ground contact and lowers potential damage to backhoe hydraulic hoses.
- Swing casting features massive top and bottom yokes with large pivot bushings.
- Optional loader quick coupler accepts a full line of tools and attachments.

### Smooth Transmission

- Fully automatic powershift transmission features four forward and four reverse speeds & kickdown for fast shifting from 2<sup>nd</sup> to 1<sup>st</sup> gear (BL70 option).

### Powerful Hydraulics

- BL70 features a closed-center, load-sensing, flow sharing valves coupled with a variable displacement pump ensuring output matches flow demand.

### Easier Service

- Ground level servicing, fifty hour grease intervals, tilting oil cooler & full access to hydraulic/transmission coolers lower downtime.
- Maintenance-free extendable dipper allows for higher versatility and provides superior craning ability.

# VOLVO FMX



## Volvo FMX

The new Volvo FMX is ready for the toughest of construction jobs. This truck stands up to heavy loads, poor roads and challenging inclines. The tougher the conditions, the more at home it is.

We already had a robust basis from the Volvo FM with its smooth and powerful driveline, sturdy chassis and comfortable cab. But we wanted to tailor it specifically for construction tasks. No sooner said than done. We have further developed the cab and chassis and enhanced the truck with equipment and features that make it simply unbeatable in tough, demanding conditions.

Besides Volvo Trucks we also offer the brands Mack and Renault Trucks that are being successfully used in road construction and quarry & aggregate operations.



# VOLVO CE REGION INTERNATIONAL STRENGTH FOR SUPPORT YOU AND YOUR BUSINESS



**CareTrack** - Volvo's telematics system works with our exclusive machine tracking info system, MATRIS, using guided diagnostics to track and analyze machines remotely - minimizing costs and maximizing uptime.



**Customer Support Agreements** - Gives you peace of mind by reducing total ownership costs, maximizing uptime, and distributing maintenance and major repair costs.



**Parts** - Genuine Volvo Parts and certified Volvo technicians will keep your machine running and working hard over the long haul.



**Attachments** - Providing customers with a wide variety of attachments keep your machine working and open up new job opportunities.

## VOLVO'S GLOBAL STRENGTH IN YOUR EQUIPMENT

Volvo has the expertise in designing power systems that move the world and providing you support you need to succeed. Volvo's expertise shines in Volvo Construction Equipment, Volvo Aero, Volvo

Buses, Volvo Penta and Volvo Trucks - Volvo Financial Services help support you during purchasing phases. Our company performance has been honed on land, over the

sea, across the sky and into space. So when we say Volvo strength is tested and proven, you can believe it. Trust in it. It's the real advantage of Volvo's global strength.



# VOLVO CONSTRUCTION EQUIPMENT

Volvo Construction Equipment is different. Our machines are designed, built and supported in a different way. That difference comes from an engineering heritage of over 175 years. A heritage of thinking first about the people who actually use the machines. About how to help them be safer, more comfortable, more productive. About the environment we all share. The result of that thinking is a growing range of machines and a global support network dedicated to helping you do more. People around the world are proud to use Volvo.

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.

# **VOLVO**

**Volvo Construction Equipment**  
**[www.volvoce.com](http://www.volvoce.com)**

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