### **PEL-JOB COMPACT EXCAVATORS**

# EB350



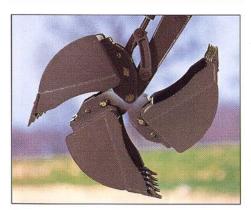
Pel-Job

## **SOLID AS A ROCK**

## COMPACT EXCAVATOR EB350 XT

#### Even more efficient!

Like all Pel-Job machines, the EB 350 develops an impressive level of performances. The bucket forces and digging depth are amongst the best on the market to give you improved productivity on all your sites.



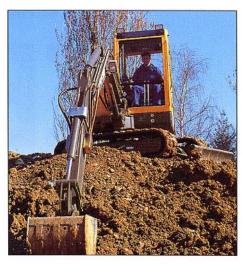
#### Excellent equipment performances

The bucket has a very large range of movement: over 200°. This characteristic guarantees a good attack and square excavations at all depths.



#### Long chassis for more stability

The considerable length of the tracks provides exceptional stability and offers more output and safety, whilst reducing ground pressure.



#### New Load-Sensing system: never has a compact excavator been so easy to operate.

Power, smoothness, independence of movements: the new hydraulic Load-Sensing circuit fitted to the EB 350 machines represents the best available technology.



#### A new X-shaped undercarriage

This X shape makes for a better distribution of the loads on the side members, giving more rigidity and sturdiness. The top part of the side members slopes to prevent earth depositing itself there and to make it easier to clean.



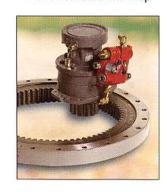
#### A sturdy top chassis

The double-yoke pivot multiplies the bearing surface on the chassis by two and enables a long pin to be fitted for a better distribution of stress and therefore less wear and less slackening.



#### Compact rear impact

The very compact dimensions of the new Pel-Job machines enable them to work safely on the narrowest sites. The wrap-





#### protection

around shape of the counterweight provides the machine with excellent protection against all impacts.

#### Direct slewing crown wheel drive

This hydraulic motor drives the crown wheel directly, without a reduction gear.No wear and no play in the crown wheel drive, therefore no maintenance costs to allow for.

## The boom offset for working alongside a wall

The hydraulic offset of the boom makes it possible to reduce the overall dimensions of the excavator and to work alongside a wall.



#### Smooth operation

The cushions on the rams and the Hydrosensor valve on the hydraulic slewing motor ensure smooth movements.



## Total independence of all movements

The new hydraulic Load-Sensing circuit enables all the machine's controls to be combined. Travelling in a straight line is maintained even when other movements are actuated.



#### Pel-Job quick coupling

The exclusive Pel-Job quick coupling enables an accessory or a bucket to be hooked quickly without leaving the operator's cab. Unlocking can be either mechanical or hydraulic.

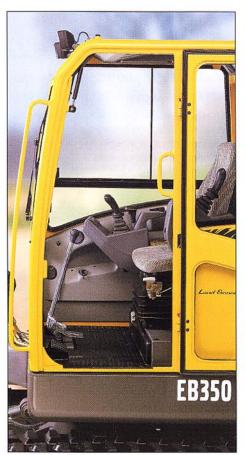


#### Locking of the offset ram

The offset ram is equipped with a balancing valve, which blocks the ram and prevents it from sliding. The result: the boom's offset is solidly held in the position chosen by the operator even during long and difficult work.

## A VERY HIGH LEVEL OF COMFORT AND

## COMPACT EXCAVATOR EB350 XT



## Safe access to the operator's cab

To facilitate access to the operator's cab, the cab door offers a wide opening, and the console swings up out of the way. The cab floor and step are non-slip and combined with two wide grab handles. To avoid any risk of an accident when the operator gets into or out of the cab, all of the machine's controls are locked when the left console is raised. This locking also concerns the travel controls which are

locked in the neutral position when the console is raised.



#### **Excellent visibility**

Thanks to the cabs very large glazed surface area, visibility all round the excavator is excellent. This is an important safety element for the property and people in the vicinity of the machine when it is in use, particularly on narrow or congested sites. The rounded contour and very compact shape of the engine cover also provides good visibility to the rear.



## A perfect operating position

The Pel-Job operator's cab has been the subject of extensive ergonomic studies to make the operating position as pleasant as possible and to reduce operator fatigue. The sprung seat can be adjusted in many ways to suit the operator's morphology.



## A spacious and comfortable cab

The EB 350's cab offers incomparable comfort and operating quietness. Even tall operators immediately feel at ease in this generously sized cab.



#### Operator information

Placed within the operator's line of sight, the instrument panel groups together all the useful machine control information. An anti-theft keypad, available as an option, enables machine starting and the main hydraulic functions to be locked.



## SAFETY



#### Ergonomically-designed armrests

The short responsive manipulators avoid excessive operating movements and reduce fatigue. The position of the forearms resting on the ergonomically designed armrests permits very precise control of the manipulators.



#### Perfect accessibility of the hydraulics compartment

The control valves and all of the hydraulic components are located in a hydraulics compartment located on the side of the machine to facilitate access.



The EB 350's cab has a very high level of safety, guaranteed by the FOPS 1 (Falling Pbject Protection Structure) and TOPS (Tip Over Protection Structure) certifications. The seatbelt is part of the standard equipment.

This Pel-Job innovation permits excellent accessibility of the engine compartment whilst providing total protection to the rear of the machine thanks to the wrap-around shape of the counterweight.



## Loose fitting hoses at the base of the boom

All of the hoses which supply the boom are fitted loose, without going into the pivot, and are connected on the outside of the machine They are thus subject to neither rubbing nor wear, and can easily be replaced if necessary.



#### **ENGINE**

Water-cooled Mitsubishi 4-cylinder diesel engine.

Model	S4L2
Gross power, rated (ISO 9249)27.2 kW (37	hp) at 2800 r/min
Power, installed (ISO 9249)21.6 kW (29.3	hp) at 2200 r/min
Displacement, total	1758 cc
Maximum torque (ISO 9249)102	Nm at 1600 r/min
Bore x stroke	78 mm x 92 mm



#### **ELECTRICAL SYSTEM**

Rated voltage	12 V
Battery capacity	
Alternator rating	12 V - 50 A
Starter motor output	



#### HYDRAULIC SYSTEM

Closed centre Load Sensing hydraulic system providing total independence of each movement.

Control .....power-assisted hydraulic controls

Variable displacement Load Sensing pump for all the equipment and travel circuits:

Maximum flow	90.2 l/min
Maximum operating pressure	23 MPa (230 bars)

#### Gear pump for the power assistance circuit:

Maximum flow	17.6 I/min
Maximum operating pressure3.2	MPa (32 bars)

#### Double-acting hydraulic circuit for accessories:

Maximum flow	60 l/min
Maximum operating pressure	23 MPa (230 bars)

#### End-of-stroke cushions

On boom ramat	the end of the rod extension
On dipper ramat	the end of the rod retraction
On offset ram	on both sides

#### Offset ram lock

The equipment's offset ram is equipped with a balancing valve which holds the boom offset angle in the position chosen by the operator in all working conditions.



#### SLEWING SYSTEM

Turntable slewing is provided by a radial piston hydraulic motor which drives directly (without a reduction gear) a ball internal crown wheel with remote lubrication.

Slewing speed	10 r/min
Turntable braking	automatic multi-disc brake
Absorption of hydraulic shock	sHydrosensor shockless valve



#### **BUCKET PERFORMANCE**

Breakout force	.2920	daN
Tearout force	.2190	daN



#### UNDERCARRIAGE

The undercarriage is made up of an "X" box fabricated centre part for more rigidity and of sloping side members for a better clearance of materials. The rollers and the tensioning wheels are lubricated for life.

Bottom/top rollers per side	4 / 1
Track width	300 mm
Track tension	by grease piston
Blade (width x height)	1650 x 370 mm



#### TRAVEL SYSTEM

Each track is driven by an axial piston hydraulic motor equipped with two speeds and an epicyclic reduction gear. Braking is performed automatically by an oil bath multiple disc brake on each motor.

Max. speed (low speed/ high speed)2.8 km/h	/ 4.3 km/h
Max. tractive force	3630 daN

The forward movement control is automatically locked when the operator raises the left console.



#### SERVICE FILL CAPACITIES

Fuel tank	66
Hydraulic system, total	
Hydraulic tank	
Engine oil	
Cooling system	81



#### WEIGHT

Operational weight and ground pressure:

	Rubber Tracks	Steel Tracks
Version Cabine	3540 kg 0.33 kg/cm²	3582 kg 0.34 kg/cm²



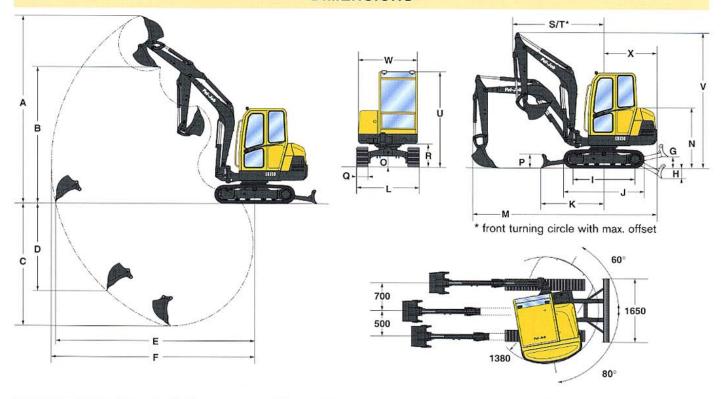
#### **NOISE LEVELS**

Results of dynamic measurements:

Noise level exterior (LwA)96	dB(A)
Noise level in the cab (LpA)77	dB(A)

The noise levels conform to directive  $n^{\circ}$  86/662 EEC and its amendments.

#### **DIMENSIONS**



Buckets	Width	Meight	Capacity	
Backhoe	300 mm	55 kg	43	
buckets	450 mm	66 kg	80	
	600 mm	83 kg	132	
	750 mm	104 kg	157 I	
Ditch bucket	1300 mm	125 kg	1641	

Dipper	Α	В	C*	С	D	E	F
1400 mm	4840	3530	3420	3170	2200	5130	5240
1700 mm	5020	3720	3710	3470	2500	5420	5530

<sup>\*</sup> Dig depth with blade down.

G	Н	1	J	K	L	М	N	0
380	510	1600	2070	1620	1620	4750	1560	290

Р	Q	R	S	Т	U	٧	W	Х
370	300	600	2040	1570	2460	3690	1570	1360

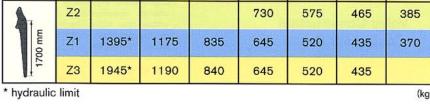
#### TOTAL ROTATION LOAD CAPACITIES

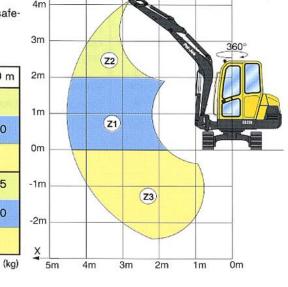
These capacities are given for a machine without a bucket or quick-release coupling and fitted with rubber tracks for a 360° total rotation lifted load.

The handling capacity is 75% of the tipping load or 87% of the hydraulic limit.

Caution: the load lifted must not exceed 1000 kg on a machine not fitted with a safety valve on the boom ram, in accordance with EN standard 474-5.

Outre	ach	1.50 m	2.00 m	2.50 m	3.00 m	3.50 m	4.00 m	4.50 m
1	Z2			955	720	570	465	Ser PSW
1400 mm	Z1	1555*	1190	845	655	530	445	380
1 5	Z3	2040*	1215	855	660	535		
<b>A</b> .	Z2				730	575	465	385
1700 mm	Z1	1395*	1175	835	645	520	435	370
175	Z3	1945*	1190	840	645	520	435	





#### STANDARD EQUIPMENT

#### Engine

Dry-type air filter. Electric pre-heating device. Transparent diesel oil filter, prefilter and sediment chamber. Purge plug under the diesel oil tank.

Oil sump sheet metal guard. Continuous adjustment of engine speed.

#### Electrical system

12 V - 70 Ah battery. Horn.

12 V power socket for inspection lamp.

#### Undercarriage

300 mm wide rubber tracks. Dozer blade

Towing and anchoring rings. Remote lubrication of the slewing crown ring.

#### Hydraulic system

ISO power-assisted hydraulic control.

Additional double-acting hydraulic control valve for an attachment circuit with folding control pedal and circuit for direct return of oil to the hydraulic tank.

Attachment circuit piping (double-acting + return) as far as the bottom of the boom. Power-assisted control of the hydraulic offset of the boom by the left control lever.

Control of forward movement

by two levers coupled to pedals.

#### Cab

Level 1 FOPS (Falling Objects Protective Structure). TOPS (Tip-Over Protective Structure).

Multi-adjustable sprung consoles-seat assembly.

Fabric-covered superior comfort

Non-slip floor with two foot rests.

Grab handles for access to the driver's cab.

Seat belt.

Cab mounted on rubber mountings.

Two working lights.

Two-speed heating and ventila-

Cab heating adjustment.

Windscreen with opening system power-assisted by two gas rams.

Quickly removable front bottom window, and window fixing support behind the seat.

Sliding window (right).

Door stops.

Provision for a radio (location for a radio and two speakers, aerial and electric wiring already fitted).

Interior lighting.

Anti-corrosion protection of the cab by electrophoresis.

Windscreen wiper and washer (front).

Emergency exit via the front

window.

### Instrumentation and monito-

PUMA 2 on-board message transfer control circuit providing continuous monitoring of the machine.

Monitoring and warning light for the following functions: pre-heating, engine oil pressure, water temperature, hydraulic oil temperature, battery charging, hydraulic filter restriction, air filter restriction.

Fuel gauge with minimum level warning light.

Total elapsed hour meter. Partial elapsed hour meter with controlled reset.

Rev. counter.

Display of machine's serial number (anti-theft marking).

Device for automatic switching off of engine in the event of overheating or drop in oil pres-

#### Handling and earthwork equipment

2450 mm long monobloc boom.

1400 mm dipper.

140° hydraulic boom offset. Non-return valve on the offset

Cushions on the boom, dipper and offset rams.

Handling equipment for a load less than 1000 kg (hooking device on the bucket rod and

load table displayed in the driver's cab).

Remote lubrication of the bottom of the offset ram.

#### Safety

Device for locking the earthwork equipment's controls and the travel levers when the left console is raised to gain access to the driver's cab. Engine starting safety device: the left console must be raised to operate the starter. Pressure accumulator on the power assistance circuit in order to be able to put the equipment on the ground if the engine is switched off. Key-lockable toolbox.

#### Official approval

Machine conforming to directive nº 98/37 EEC and its amendments.

Soundproofing conforming to directive nº 86/662 EEC and its amendments.

Handling device conforming to EN standard 474-5.

FOPS 1 conforming to ISO standard 3449.

TOPS conforming to ISO standard 12117.

Electromagnetic compatibility (EMC) conforming to directive nº 89/336 EEC and its amendments.

#### **OPTIONAL EQUIPMENT**

#### Working equipment

Long dipper (1700 mm). Safety valve piloted by the power assistance circuit on the boom ram with overload indicator (for handling loads over 1000 kg).

Safety valve on the dipper ram. Mechanically-controlled quickrelease attachment coupling. Hydraulically-controlled quickrelease attachment coupling.

#### Hydraulic circuits for attachments

Circuit for hydraulic breaker with direct return to the tank. Hydraulic circuit for doubleacting attachments.

Hydraulic circuit for operating a clam-shell bucket (opening/closing and rotation of the bucket).

#### Undercarriage

Steel tracks (300 mm wide).

#### Lighting

Additional working light on the

Additional rear working light. Revolving light.

#### **Environmental protection**

Bio-degradable hydraulic oil. Catalytic exhaust.

#### Comfort and safety

Radio.

Anti-theft system (2 programmable codes). Electric circuit-breaker.

#### Service and maintenance

Tool kit.

#### Miscellaneous

Special customised paint (RAL specifications).

Volvo Construction **Equipment Group** 

Under our policy of continuous product improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not neccessarily show the standard version of the machine.

Ref. No. KON CST

2907867 21 1 432 1017 English

Printed in France 04.99

Tél.: +33 (0)4 79 81 15 09 Fax: +33 (0)4 79 81 39 63

Ecomat Industrie S.A.

Avenue Charles de Gaulle BP 119 - F - 01303 Belley Cedex