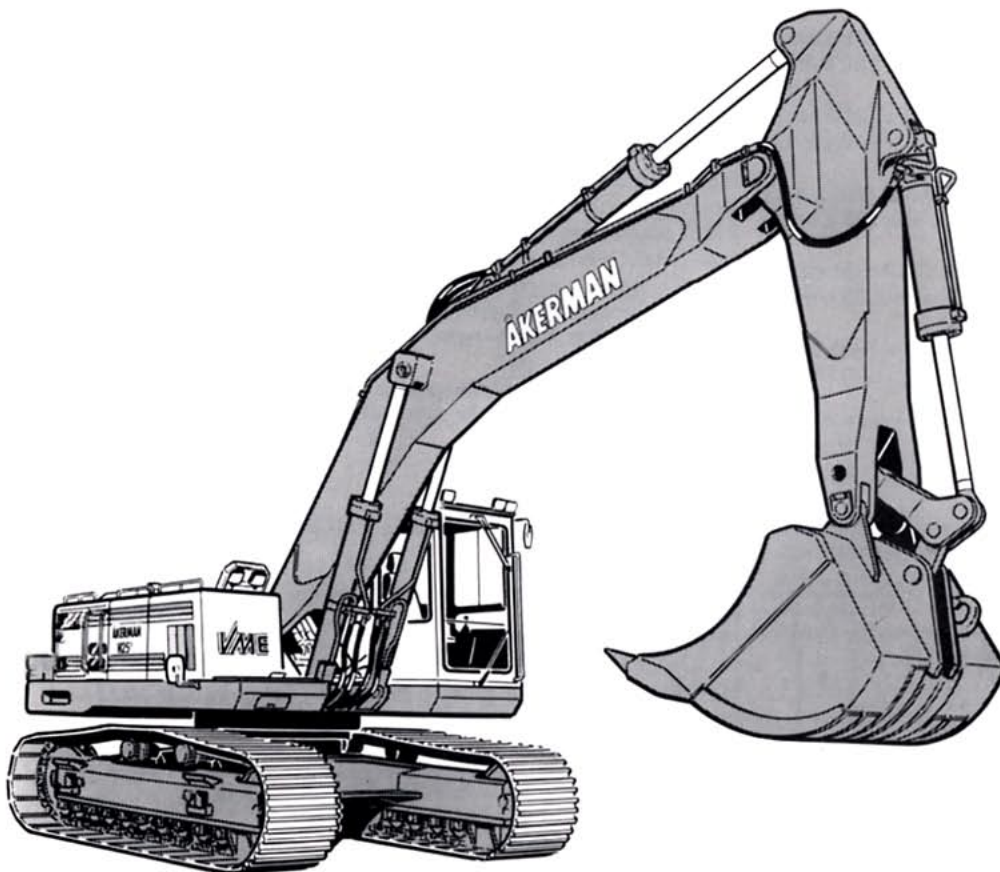




Åkerman H25D

International 11



Engine power 284 kW (386 HP)
Operating weight..... 57.0-59.9 t
Bucket 2600 - 4000 l

ÅKERMAN

BASE MACHINE



DIESEL ENGINE

VOLVO TID 121L

The TID 121L is a turbocharged 6-cylinder, 4-stroke diesel engine with water cooling and intercooler.

Output at 1800 rpm284 kW (386 Hp)

(According to ISO 3046 and DIN 6271)

Cylinder diameter130.175 mm

Piston stroke150 mm

Stroke volume11.98 dm³

The engine is equipped with an electric starter element to facilitate starting in cold weather - as well as an engine pre-heater.



ELECTRIC SYSTEM, 24V

A.C. Generator28 V/45A

Battery2 pcs. (12V)

Battery capacity160 Ah



HYDRAULIC SYSTEM

Pump 1 (slew, power and pressure controlled)

Max. pressure29 MPa (290 bar)

Max. flow180 l/min

Pump 2 and 3

Max. pressure26 MPa (260 bar)

Max. flow2 x 180 l/min

Pump 4 and 5 (power and pressure controlled)

Max. pressure26 MPa (260 bar)

Max. flow2 x 173 l/min

Servo pump

Pressure6.5 MPa (65 bar)

Flowabout 33 l/min

Fan pump

Pressuremax. 25 MPa (250 bar)

Flow30 l/min



SLEWING SYSTEM

The superstructure is slewed by an axial piston motor. Cab lock, slew gearbox and slew drive shaft are geared between the slew motor and the inner tooth race of the slew ring.

Slewing speed5.0 r/min

90° turn from start to stop6.5 s

180° turn from start to stop9.5 s

(Bucket empty - equipment extended)



UNDERCARRIAGE

Travel

Each track is powered by a hydraulic motor of axial piston type. The track brake and a four step gearbox are situated between the drive wheel and motor. The track brakes are of multiple-plate type and are activated by spring power and hydraulically released.

Max. tractive effort480 kN (48.9 Mp)

Track speed, (forward and reverse)2.3 km/h

Tracks

Track chain B8 - specially reinforced for excavator use.

Number of track plates each side53 pcs.

Track width800 (600,1000) mm

Rollers each side10 bottom rollers and 2 top rollers



VOLUMES

Fuel tank770 l

Hydraulically driven fuel pump, capacity90 l/min

Cooling system (incl. glycol)69 l

Hydraulic system, total840 l

Hydraulic oil tank530 l

Diesel engine (lubricating oil)38 l

Pump gear box2.3 l

Slew gear box50 l

Slew ring25 l

Travel gearbox2 x 16 l

Final gear2 x 22 l



SOUND LEVEL

Surroundings (16 metres distance from the machine)

Average value L_{pA} (sound pressure)74 dB(A)

Average value L_{WA} (sound effect)106 dB(A)
(ISO 6393)

Inside the cabin with the door closed

L_{pA} (sound pressure)73 dB(A)

(ISO 6394)

Approved according to 86/662/EEC



WEIGHTS/BACKHOE EQUIPMENT

Base machine with 800 mm track,

incl. counterweight45360 kg

Counterweight7800 kg

Extra counterweight1000 kg

Equipment with 3.0 m dipper arm11640 kg

Working weight and ground pressure, for complete excavator with 3.0 m dipper arm.

Track width	Ground pressure	Total weight
800 mm	69 kPa (0.69 kp/cm ²)	57.0 t



WEIGHTS/LOADING EQUIPMENT

Base machine with 600 mm tracks,

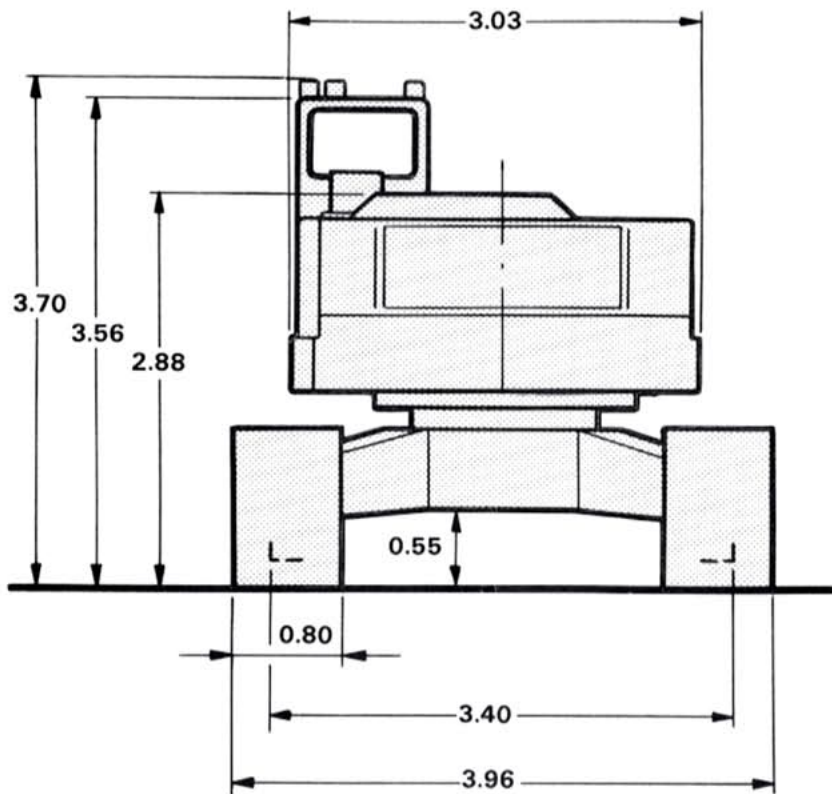
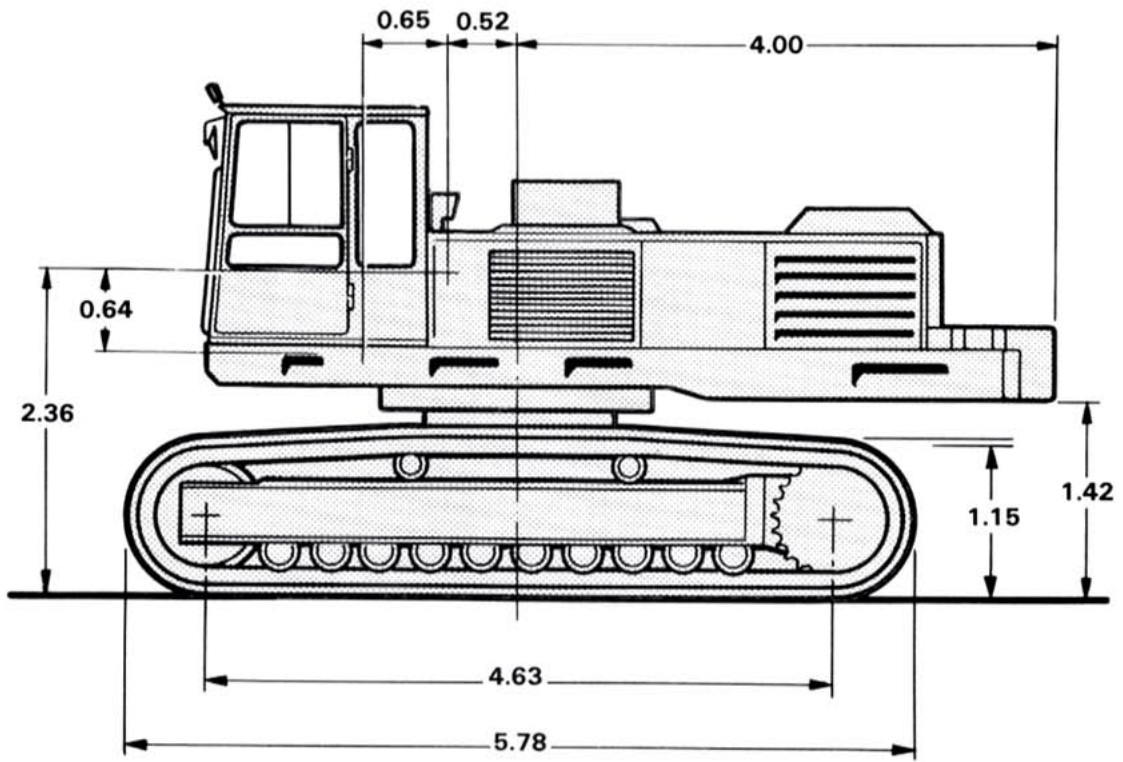
incl. counterweight and cab rock guard44900 kg

Counterweight8800 kg

Shovel equipment14500 kg

Working weights and ground pressure, for complete excavator.

Track width	Ground pressure	Total weight
600 mm	97 kPa (0.97 kp/cm ²)	59.9 t



BACKHOE EQUIPMENT

BACKHOE EQUIPMENT

Boom length.....	7.3 m
Data for dipper arm - 3.0 m	
HD-bucket 2600 litres SAE J296 = 2400 litres CECE	
Weight.....	2690 kg
Cutting width	1600 mm

CYLINDER DATA

Boom cylinder	
Internal diameter	200 mm
Piston rod diameter	125 mm
Piston stroke	1300 mm
Piston force, out.....	2 x 817 kN (2 x 83.3 Mp)
Dipper arm cylinder	
Internal diameter	200 mm
Piston rod diameter	140 mm
Piston stroke	1900 mm
Piston force, out.....	817 kN (83.3 Mp)
Bucket cylinder	
Internal diameter	200 mm
Piston rod diameter	125 mm
Piston stroke	1300 mm
Piston force, out.....	817 kN (83.3 Mp)

The machine is equipped with automatic greasing of the equipment as standard.

DIGGING FORCE

	Dipper arm
	3.0 m
Digging force at bucket edge due to bucket cylinder at 150° torsional angle of the bucket	295 kN (30.1 Mp)
Digging force at bucket edge due to dipper arm	205 kN (20.9 Mp)

Digging forces are calculated with Åkermans standard buckets.

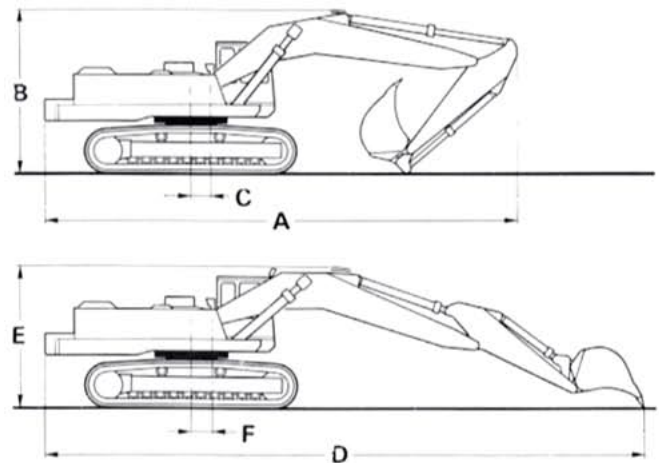
DIGGING DATA

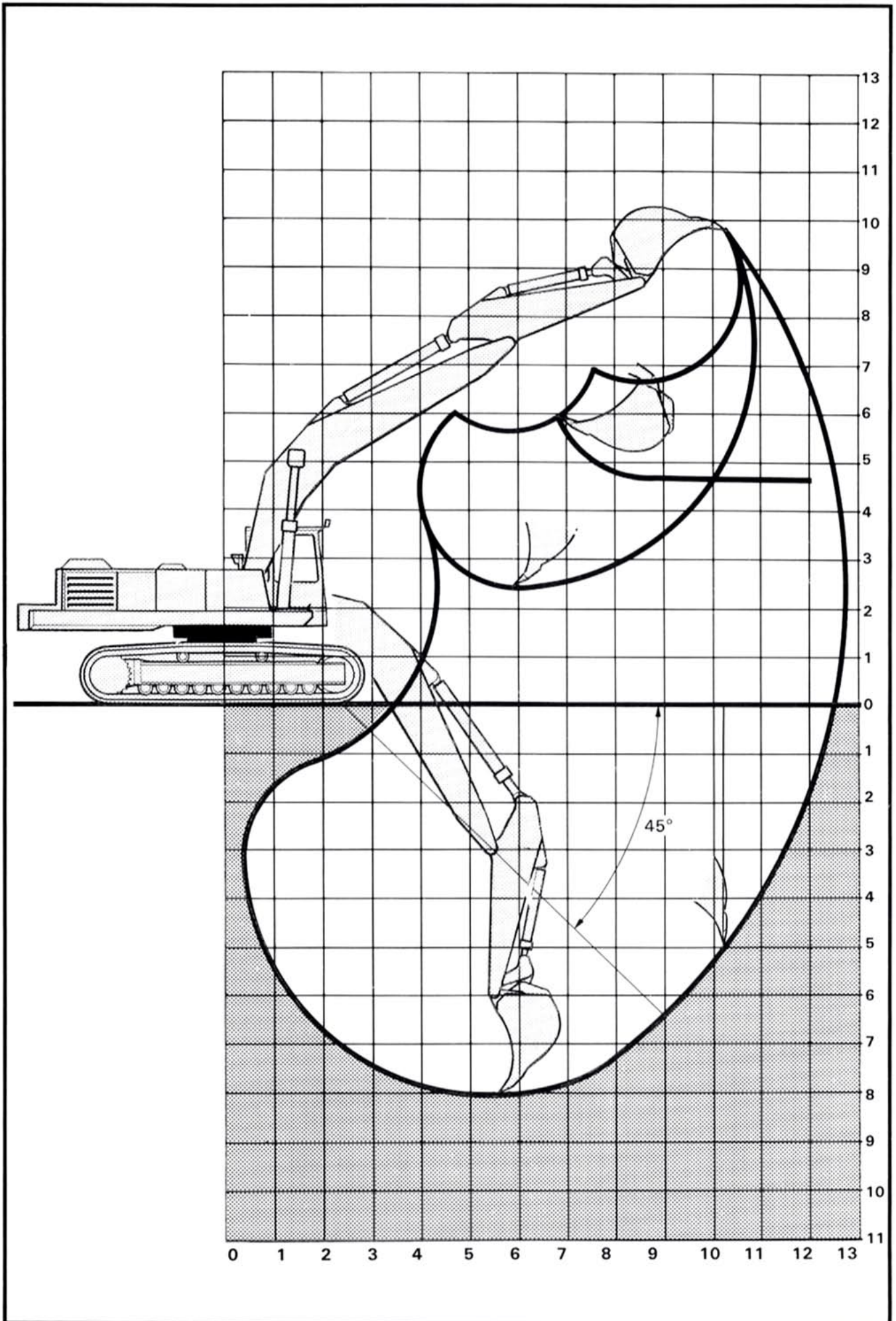
	Dipper arm
	3.0 m
Max. reach at ground level	12.5 m
Max. digging depth	8.1 m
Max. height, ground - tooth tip.....	9.9 m
Max. dumping height	6.7 m
Max. practical dumping height	4.5 m
Practical digging depth at a repose of material of 45°.....	6.6 m
Max. vertical digging depth	4.7 m
Max. reach, slewing centre - bucket attachment.....	10.7 m
Max. height, ground-bucket attachment.....	8.7 m
Min. turning radius in front	6.9 m

TRANSPORT DATA

Min. transport length with folded equipment (A).....	13.1 m
Min. transport height with folded equipment (B)	4.2 m*
Distance slewing centre - centre of gravity folded equipment (C)	0.3 m
Total length with extended equipment (D).....	16.5 m
Min. transport height with extended equipment (E)	3.6 m*
Distance slewing centre - centre of gravity extended equipment (F)	0.7 m

* Without bucket





H25D

LIFTING CAPACITY

MAX LOAD IN DIPPER PIN (kg) = 80% OF THE TIPPING LOAD

A = Height of bucket attachment (m) B = Reach of load from centre (m)

WITH 3.0 m DIPPER ARM

ALONG TRACK

A \ B	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	Max. reach
7					6450*	5880*			5880*/B = 11.0
6				7140*	6660*	6130*			5790*/B = 11.4
5			8430*	7570*	6920*	6430*			5820*/B = 11.8
4		10580*	9050*	8020*	7250*	6640*	5850*		5850*/B = 12.0
3		11650*	9670*	8420*	7520*	6830*	5950*		5880*/B = 12.1
2		12500*	10300*	8790*	7760*	6920*	6010*		5930*/B = 12.1
1		13070*	10760*	9070*	7890*	6920*	6000*		6000*/B = 12.0
0	16170*	13220*	10940*	9230*	7930*	6840*			6060*/B = 11.8
-1	15900*	13060*	10880*	9190*	7850*	6700*			6090*/B = 11.5
-2	15270*	12620*	10560*	8910*	7560*	6220*			6040*/B = 11.1
-3	14250*	11830*	9870*	8290*	6880*				5810*/B = 10.6
-4	12720*	10520*	8690*	7190*					5480*/B = 9.9
-5	10390*	8410*	6800*	4760*					4760*/B = 9.0
-6	6570*	5010*							4350*/B = 7.4

WITH 3.0 m DIPPER ARM

ACROSS TRACK

A \ B	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	Max. reach
7					6450*	5850*			5850*/B = 11.0
6				7140*	6660*	5790*			5310 /B = 11.4
5			8430*	7570*	6740	5670			4800 /B = 11.8
4		10580*	9050*	7920*	6660*	5510	4530		4530 /B = 12.0
3		11650*	9450	7760	6430	5340	4440		4360 /B = 12.1
2		11310	9120	7490	6220	5200	4350		4280 /B = 12.1
1		11030	8880	7280	6060	5080	4290		4290 /B = 12.0
0	13930	10870	8720	7150	5950	5040			4400 /B = 11.8
-1	14070	10820	8640	7070	5910	5020			4610 /B = 11.5
-2	14160	10840	8640	7070	5970	5040			4960 /B = 11.1
-3	14120*	10920	8710	7180	6050				5480 /B = 10.6
-4	12720*	10520*	8690*	7190*					5480*/B = 9.9
-5	10390*	8410*	6800*	4760*					4760*/B = 9.0
-6	6570*	5010*							4350*/B = 7.4

Loads marked with an asterisk (*) are limited by the hydraulic lifting capacity. Other loads limited due to machine stability.
Working pressure = 26 MPa (260 kp/cm²)

Lifting capacity values are calculated with 7800 kg counterweight.

LOADING EQUIPMENT

LOADING EQUIPMENT

Data applicable for loading equipment with visor bucket.

Bucket 3500 litres CECE = 3500 litres SAE J742B
 Weight.....5600 kg
 Cutting width2470 mm
 Max. visor bucket gap at dumping1.25 x 2.4 m

CYLINDER DATA

Boom cylinder

Internal diameter200 mm
 Piston rod diameter125 mm
 Piston stroke1300 mm
 Piston force, out.....2 x 817 kN (2 x 83.3 Mp)

Dipper arm cylinder

Internal diameter200 mm
 Piston rod diameter140 mm
 Piston stroke1900 mm
 Piston force, out.....817 kN (83.3 Mp)

Bucket cylinder

Internal diameter180 mm
 Piston rod diameter125 mm
 Piston stroke1300 mm
 Piston force, out.....2 x 662 kN (2 x 67.5 Mp)

The machine is equipped with automatic greasing of the equipment as standard.

DIGGING FORCE

Digging force at bucket tooth due to bucket cylinder 375 kN (38.2 t)

Digging force at bucket tooth due to dipper arm cylinder 230 kN (23.4 t)

Digging forces are calculated with Åkermans standard buckets.

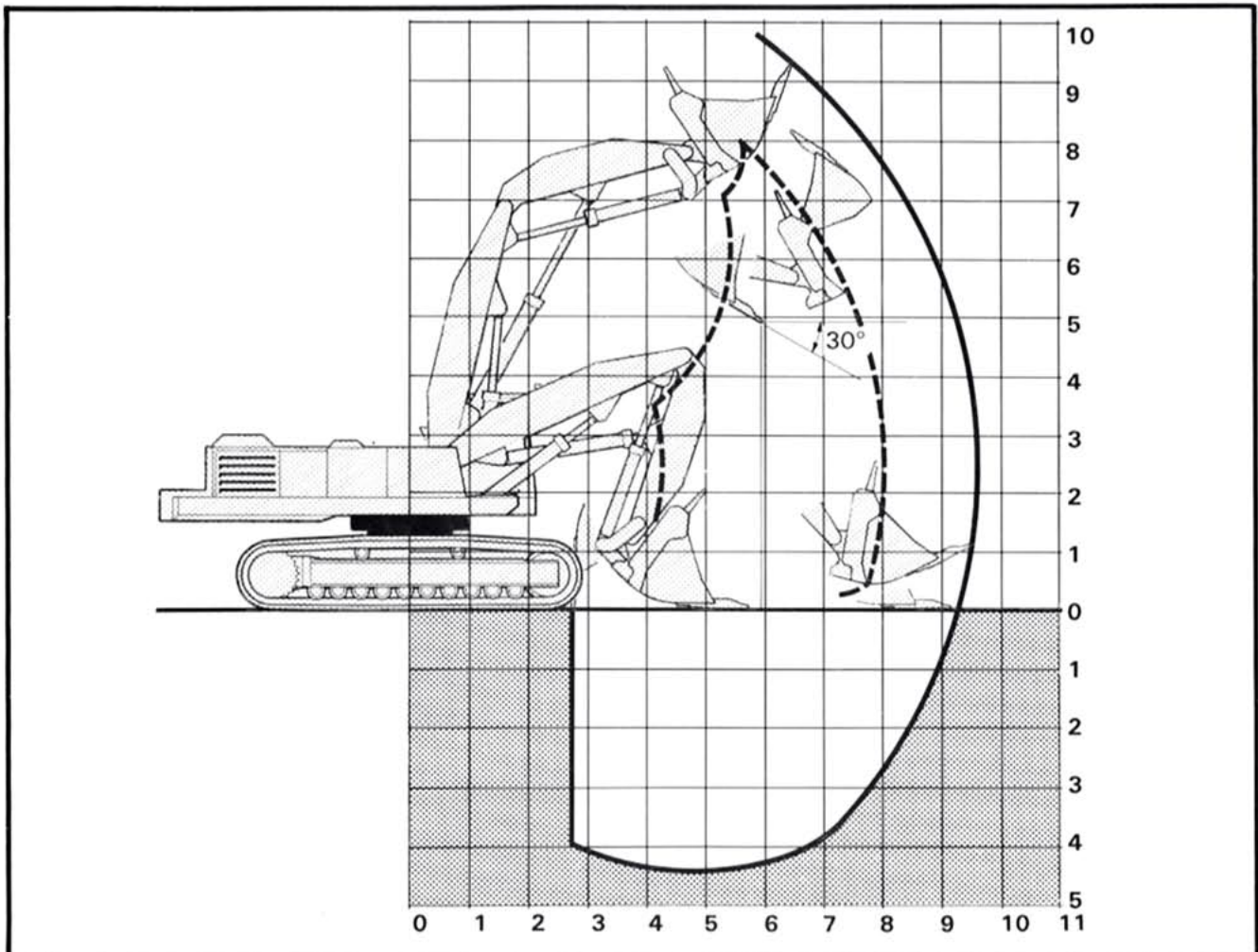
DIGGING DATA

Max. reach9.5 m
 Max. reach at ground level.....9.2 m
 Max. digging depth4.3 m
 Max. digging height9.1 m
 Max. dumping height, vertical bucket back.....7.0 m

TRANSPORT DATA

Min. transport length with folded equipment.....9.8 m
 Min. transport height with folded equipment.....4.3 m
 Min. turning radius - folded equipment5.9 m
 Centre of gravity in front of slewing centre (folded equipment)0.3 m
 Total length with extended equipment.....13.2 m
 Min. transport height with extended equipment.....3.8 m (4.0 m*)

* Incl. cab rock guard



Specifications and design are subject to change without notice.
Reservation is made for minor deviations of dimensions and weights listed.

Åkerman Printing M98521/03/92 From machine no. 359 - up

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