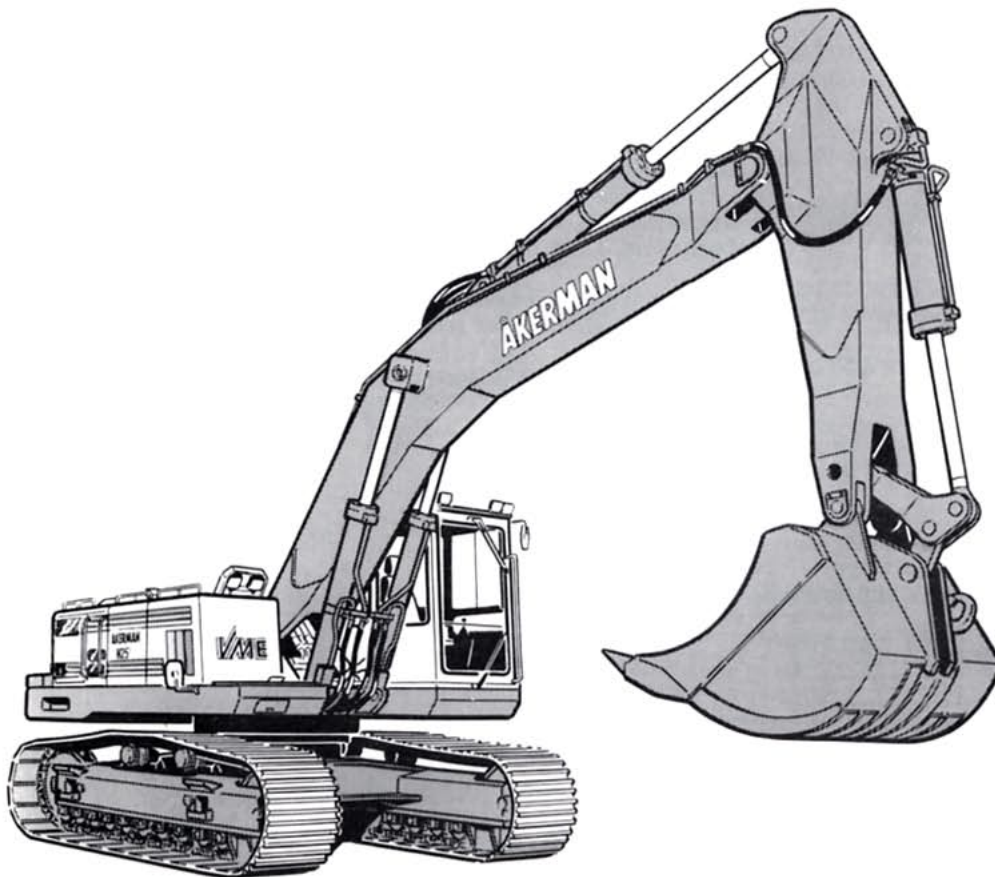




Åkerman H25DME

International 12



Engine power 284 kW (386 HP)
Operating weight..... 59 t
Bucket capacity 3500 - 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 rpm.....284 kW (386 Hp)
(According to ISO 3046 and DIN 6271)

Cylinder diameter.....130.175 mm

Piston stroke.....150 mm

Stroke volume.....11.98 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. Generator.....28 V/45A

Battery.....2 pcs. (12V)

Battery capacity.....2 x 160 Ah



HYDRAULIC SYSTEM

Pump 1 (slew, power and pressure controlled)

Max. pressure.....29 MPa (290 bar)

Max. flow.....180 l/min

Pump 2 and 3

Max. pressure.....30 MPa (300 bar)

Max. flow.....2 x 180 l/min

Pump 4 and 5 (power and pressure controlled)

Max. pressure.....30 MPa (300 bar)

Max. flow.....2 x 173 l/min

Servo pump

Pressure.....6.5 MPa (65 bar)

Flow.....about 33 l/min

Fan pump

Pressure.....max. 25 MPa (250 bar)

Flow.....30 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 speed.....5.0 r/min

90° turn from start to stop.....6.5 s

180° turn from start to stop.....9.5 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 effort.....554 kN (56.5 Mp)

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

Tracks

Track chain B8 - specially reinforced for excavator use.

Number of track plates each side.....53 pcs.

Track width.....800 (600,1000) mm

Rollers each side.....10 bottom rollers and 2 top rollers



VOLUMES

Fuel tank.....770 l

Hydraulically driven fuel pump, capacity.....90 l/min

Cooling system (incl. glycol).....69 l

Hydraulic system, total.....840 l

Hydraulic oil tank.....530 l

Diesel engine (lubricating oil).....38 l

Pump gear box.....2.3 l

Slew gear box.....50 l

Slew ring.....25 l

Travel gearbox.....2 x 16 l

Final gear.....2 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

Base machine with 800 mm track,

incl. counterweight.....46360 kg

Counterweight.....8800 kg

Equipment with 2.75 m dipper arm.....12600 kg

Working weight and ground pressure, for complete excavator with 2.75 m dipper arm.

Track width

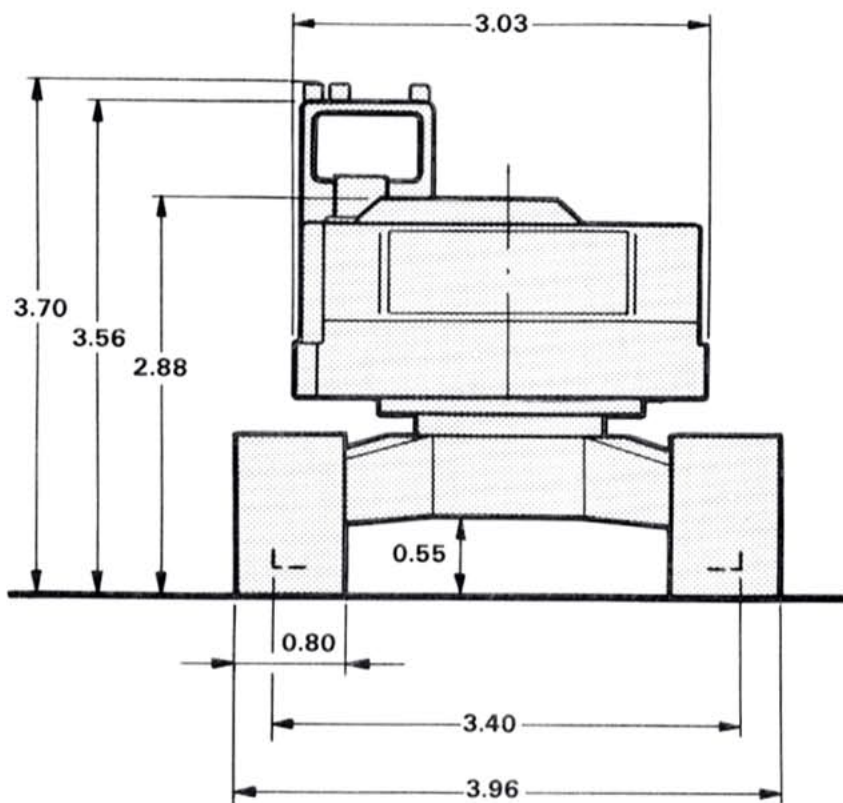
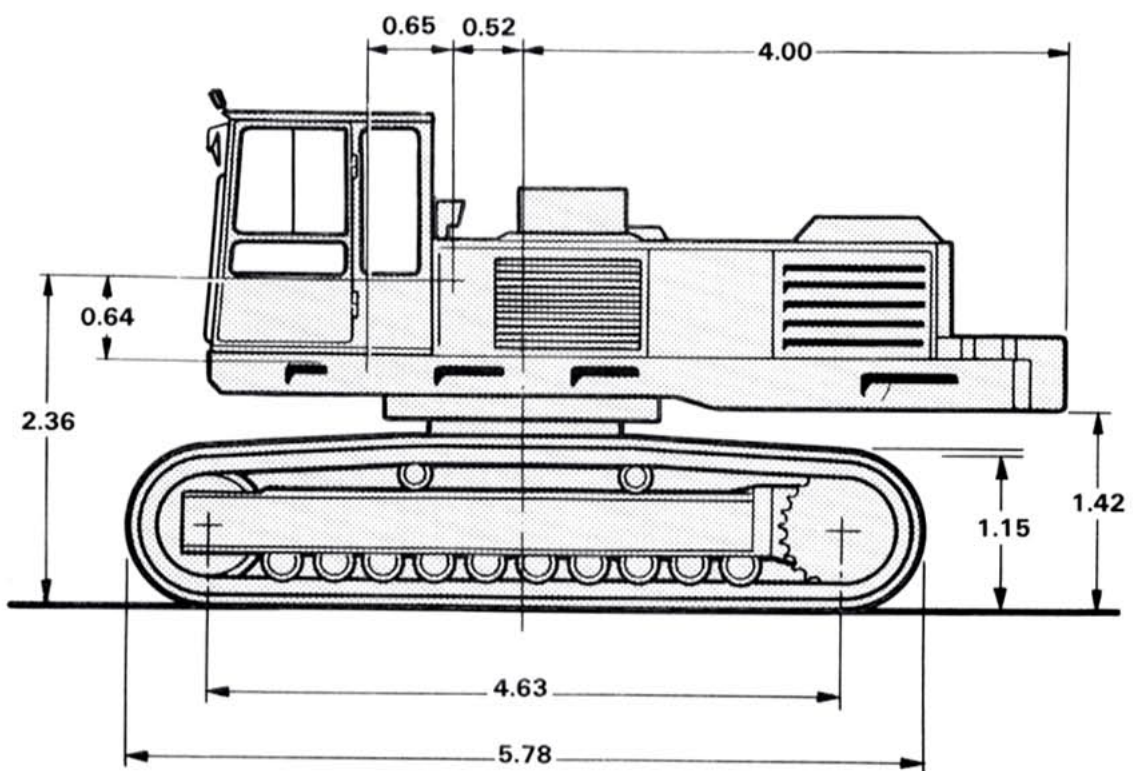
800 mm

Ground pressure

72 kPa (0.72 kp/cm²)

Total weight

59.0 t



BACKHOE EQUIPMENT

BACKHOE EQUIPMENT

Boom length.....	6.6 m
Data for dipper arm - 2.75 m	
HD-bucket 3500 litres SAE J296 = 3200 litres CECE	
Weight.....	3200 kg
Cutting width.....	1850 mm
GP-bucket 4000 litres SAE J296 = 3600 litres CECE	
Weight.....	3550 kg
Cutting width.....	2040 mm

CYLINDER DATA

Boom cylinder	
Internal diameter.....	200 mm
Piston rod diameter.....	125 mm
Piston stroke.....	1500 mm
Piston force, out.....	2 x 942 kN (2 x 96.1 Mp)
Dipper arm cylinder	
Internal diameter.....	200 mm
Piston rod diameter.....	140 mm
Piston stroke.....	1900 mm
Piston force, out.....	942 kN (96.1 Mp)
Bucket cylinder	
Internal diameter.....	200 mm
Piston rod diameter.....	125 mm
Piston stroke.....	1500 mm
Piston force, out.....	942 kN (96.1 Mp)

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

DIGGING FORCE

	Dipper arm
	2.75 m
Digging force at bucket edge due to bucket cylinder at 155° torsional angle of the bucket	352 kN (35.9 Mp)

Digging force at bucket edge due to dipper arm	278 kN (28.4 Mp)
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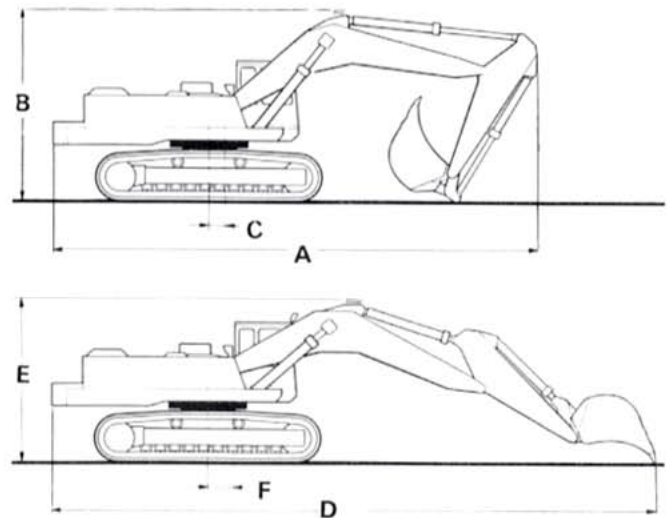
Digging forces are calculated with Åkermans standard HD-buckets.

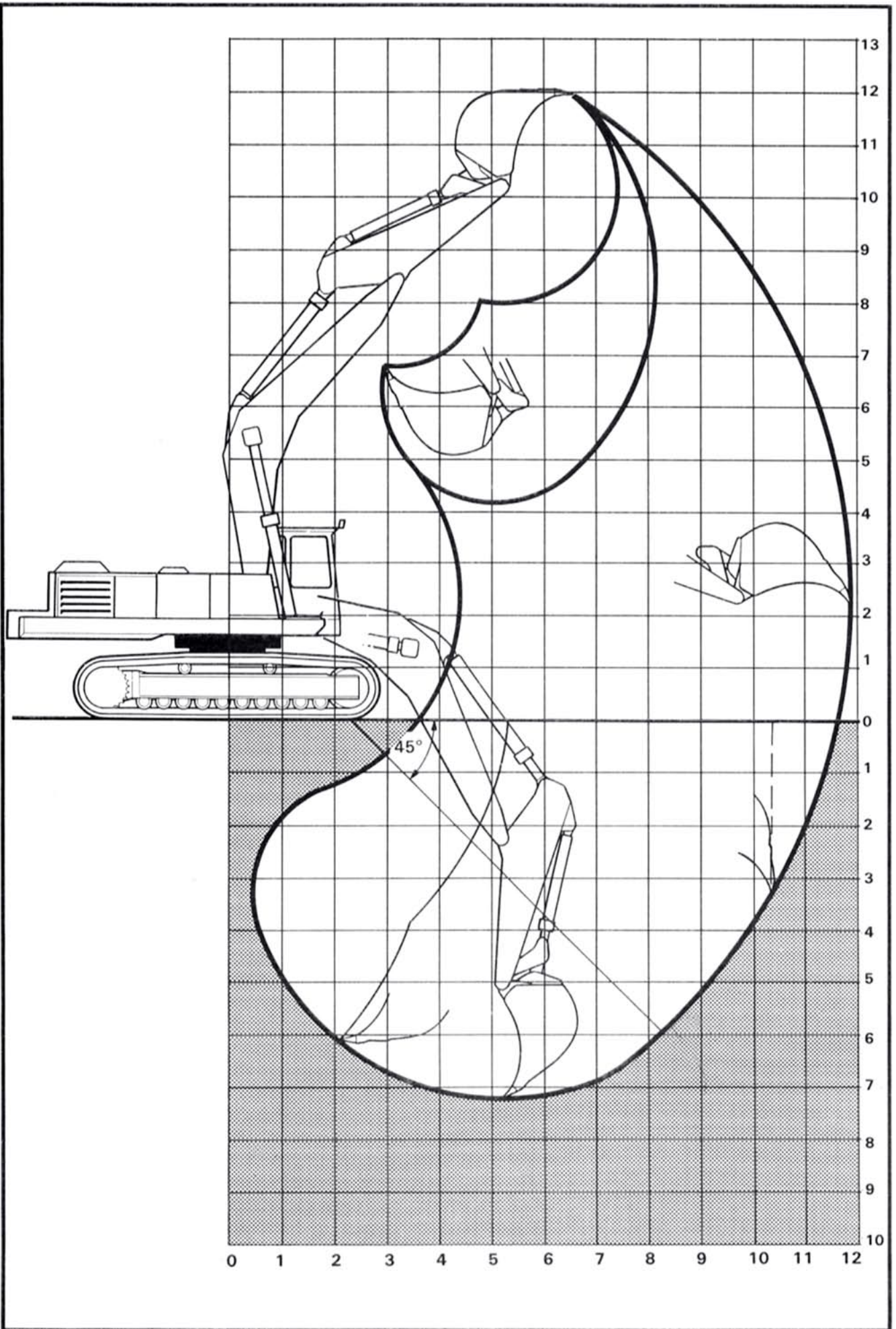
DIGGING DATA

	Dipper arm
	2.75 m
Max. reach at ground level.....	11.6 m
Max. digging depth.....	7.2 m
Max. height, ground - tooth tip.....	12.0 m
Max. dumping height.....	8.1 m
Max. practical dumping height.....	5.5 m
Practical digging depth at a repose of material of 45°.....	5.9 m
Max. vertical digging depth.....	3.3 m
Max. reach, slewing centre - bucket attachment.....	9.7 m
Max. height, ground - bucket attachment.....	10.2 m
Min. turning radius in front.....	5.7 m

TRANSPORT DATA

Min. transport length with folded equipment (A).....	12.5 m
Min. transport height with folded equipment (B).....	4.9 m
Distance slewing centre - centre of gravity folded equipment (C).....	0.4 m
Total length with extended equipment (D).....	15.6 m
Min. transport height with extended equipment (E).....	4.2 m
Distance slewing centre - centre of gravity extended equipment (F).....	0.7 m





H25DME

LIFTING CAPACITY

MAX LOAD IN DIPPER PIN (kg) = 100% OF THE TIPPING LOAD

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

Bucket weight = 3200 kg

WITH 2.75 m DIPPER ARM

ALONG TRACK

A \ B	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	Max. reach
9			9780*	9660*					8940*/B = 8.5
8			9930*	9610*	8900*				8610*/B = 9.4
7		11470*	10550*	9900*	9480*	8510*			8510*/B = 10.0
6		12790*	11450*	10460*	9750*	8870*			8310*/B = 10.5
5		14200*	12380*	11120*	10140*	9350*			8300*/B = 10.9
4			13370*	11780*	10590*	9700*	8450*		8320*/B = 11.1
3			14360*	12370*	11010*	9910*	8650*		8330*/B = 11.3
2			15250*	12900*	11300*	9990*	8700*		8370*/B = 11.3
1			15850*	13270*	11430*	9940*	8640*		8400*/B = 11.2
0			16000*	13390*	11390*	9820*	8380*		8380*/B = 11.0
-1		18970*	15660*	13120*	11150*	9500*			8250*/B = 10.7
-2	21820*	17900*	14820*	12390*	10500*	8630*			8150*/B = 10.2
-3	19550*	16140*	13320*	11080*	9170*				7690*/B = 9.6
-4	16330*	13360*	10830*	8880*					7160*/B = 8.7
-5	11370*	8840*	6930*						6540*/B = 7.2

WITH 2.75 m DIPPER ARM

ACROSS TRACK

A \ B	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	Max. reach
9			9780*	9660*					8940*/B = 8.5
8			9930*	9610*	8900*				8610*/B = 9.4
7		11470*	10550*	9900*	9480*	8510*			8510*/B = 10.0
6		12790*	11450*	10460*	9750*	8870*			8270 /B = 10.5
5		14200*	12380*	11120*	10140*	8810			7430 /B = 10.9
4			13370*	11780*	10330	8660	7100		6960 /B = 11.1
3			14360*	12250*	10140	8350	6910		6520 /B = 11.3
2			14700	11870	9750	8080	6730		6380 /B = 11.3
1			14320	11520	9460	7860	6590		6380 /B = 11.2
0			14070	11290	9260	7760	6540		6540 /B = 11.0
-1		17990	13990	11180	9210	7710			6870 /B = 10.7
-2	21820*	17900*	14020	11190	9320	7750			7520 /B = 10.2
-3	19550*	16140*	13320*	11080*	9170*				7690*/B = 9.6
-4	16330*	13360*	10830*	8880*					7160*/B = 8.7
-5	11370*	8840*	6930*						6540*/B = 7.2

Loads marked with an asterisk (*) are limited by the hydraulic lifting capacity. Other loads limited due to machine stability. Working pressure = 30 MPa (300 kp/cm²)

Lifting capacity values are calculated with 8800 kg counterweight.

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

Åkerman Printing M105621/04/92 From machine no. 374 - up

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