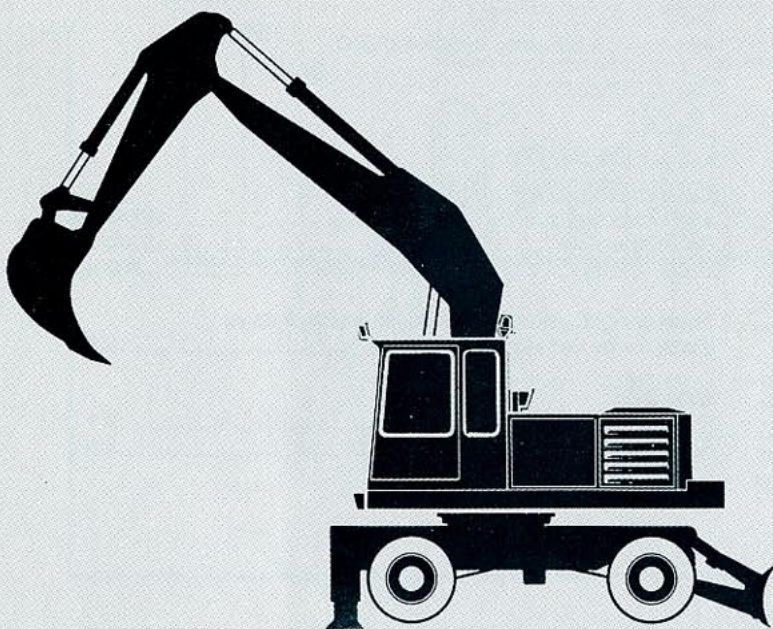
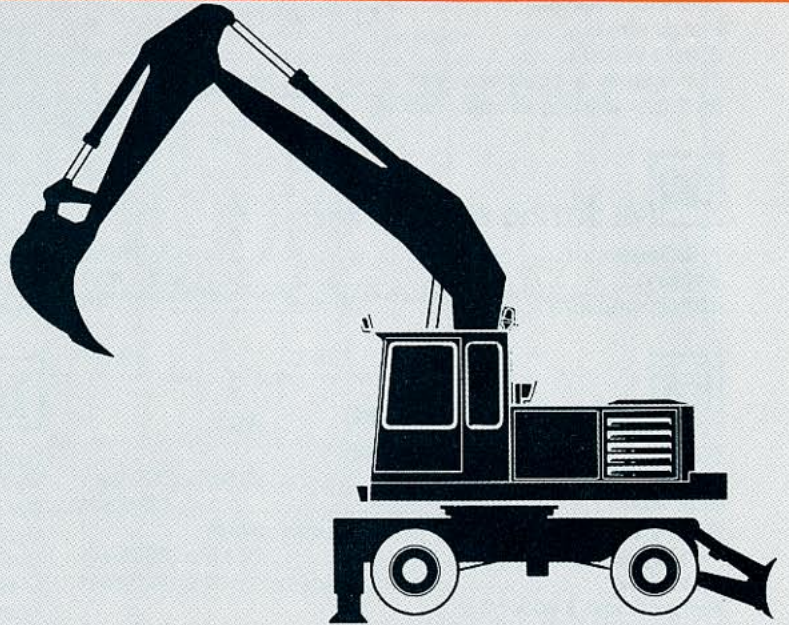


AKERMAN H10MB

International 13



BASE MACHINE



DIESEL ENGINE

VOLVO TD61ACE

The TD61ACE is a turbocharged 6-cylinder, 4-stroke diesel engine with water cooling and direct injection.

Output at 2100 rpm122 kW (166 hp)

(According to ISO 3046 and DIN 6271)

Cylinder diameter98.43 mm

Piston stroke120 mm

Stroke volume5.48 dm³

The engine is equipped with an electric heater element to facilitate starting in cold weather.



ELECTRIC SYSTEM, 24V

A.C. Generator28 V/55A

Battery4 pcs. (12V)

Battery capacity2 x 60 Ah



HYDRAULIC SYSTEM

Pump 1 (slew, pressure controlled)

Max. pressure26 MPa (260 bar)

Max. flow88 l/min

Pumps 2 and 3 (power and pressure controlled)

Max. pressure26 MPa (260 bar)

Max. flow2 x 142 l/min

Pumps 2 and 3 with HLD

Max. pressure30 MPa (300 bar)

Servo pump

Pressure6.5 MPa (65 bar)

Flowabout 21 l/min

Steering pump

Pressure14 MPa (140 bar)

Flow38 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 speed8.1 r/min

90° turn, from start to stop4.6 s

180° turn, from start to stop6.5 s

(Bucket empty - equipment extended)



UNDERCARRIAGE

Running

A hydraulically variable piston motor operates both drive shafts (4 wheel drive) via a two-step gearbox.

The drive shafts have hub reduction and are provided with drum brakes.

The parking brake is of drum type and is activated by spring power and hydraulically released.

Two separately controlled outriggers, hydraulically locked.

Twin wheels10.00 - 20PR16

Travel speed, road travel0 - 30 km/h

Travel speed, site travel0 - 8 km/h

Max. tractive force, site travel139 kN (14.2 Mp)



CYLINDER DATA

Boom cylinder

Internal diameter160 mm

Piston rod diameter105 mm

Piston stroke1395 mm

Piston force, out523 kN (53.3 Mp)

Piston force, out with HLD603 kN (61.5 Mp)

Dipper arm cylinder

Internal diameter160 mm

Piston rod diameter105 mm

Piston stroke1175 mm

Piston force, out523 kN (53.3 Mp)

Piston force, out with HLD603 kN (61.5 Mp)

Bucket cylinder

Internal diameter140 mm

Piston rod diameter90 mm

Piston stroke850 mm

Piston force, out400 kN (40.8 Mp)

Piston force, out with HLD462 kN (47.1 Mp)



VOLUMES

Fuel tank340 l

Hydraulically driven fuel pump, capacity90 l/min

Cooling system (incl. glycol)28 l

Hydraulic system, totalabout 400 l

Hydraulic oil tank260 l

Diesel engine (lubricating oil)22 l

Pump gear box2.8 l

Slew gear box18 l

Slew ring35 l

Travel gear box5 l

Front axle, differential15 l

Hub gear4 x 1.6 l

Rear axle, differential18 l



SOUND LEVEL

Surroundings (10 metres distance from the machine)

Average value L_{pA} (acoustic pressure)77 dB(A)

Average value L_{wA} (acoustic power)105 dB(A)

(According to ISO 6393)

Inside the cabin with the door closed

Average value L_{pA} (acoustic pressure)73 dB(A)

(According to ISO 6394)

Approved according to 86/662/EEC



WEIGHTS

Base machine incl. counterweight

and dozerblade15240 kg

Counterweight2100 kg

Dozer blade600 kg

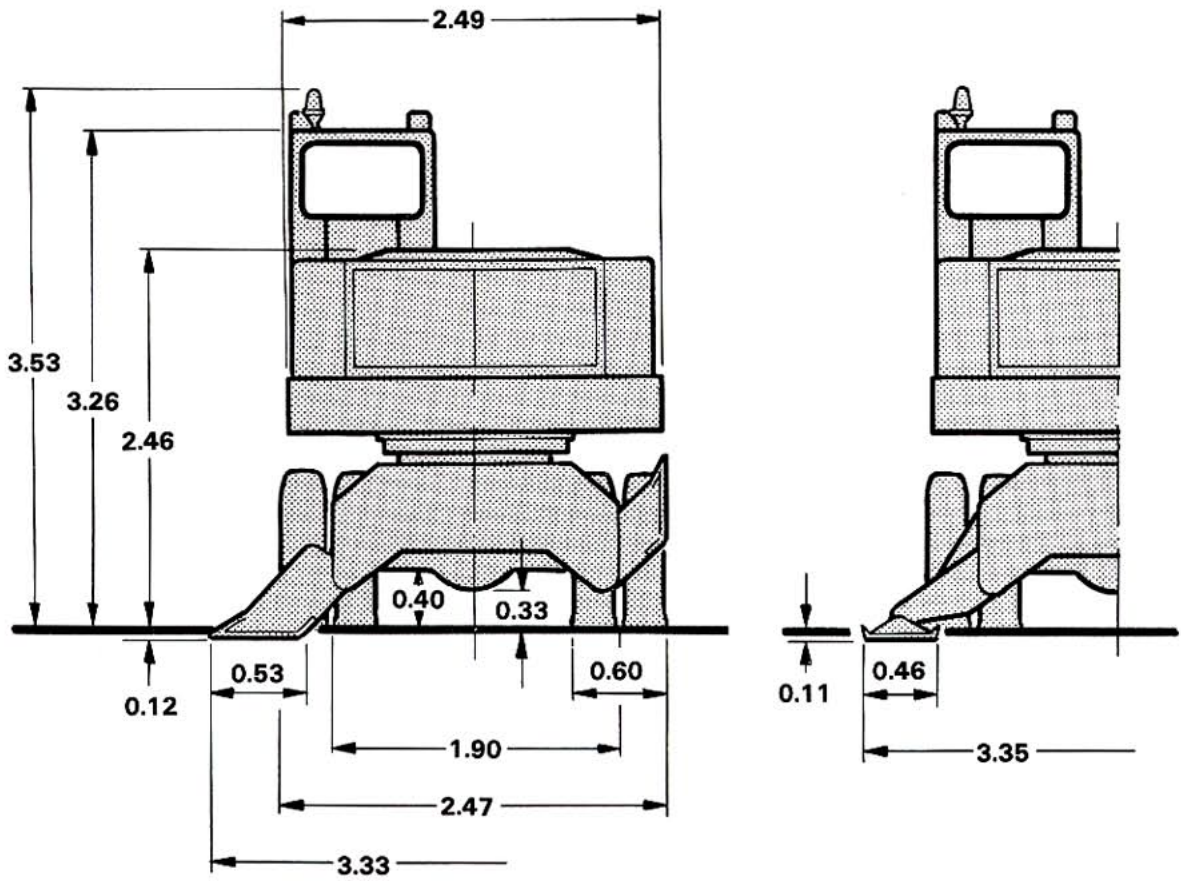
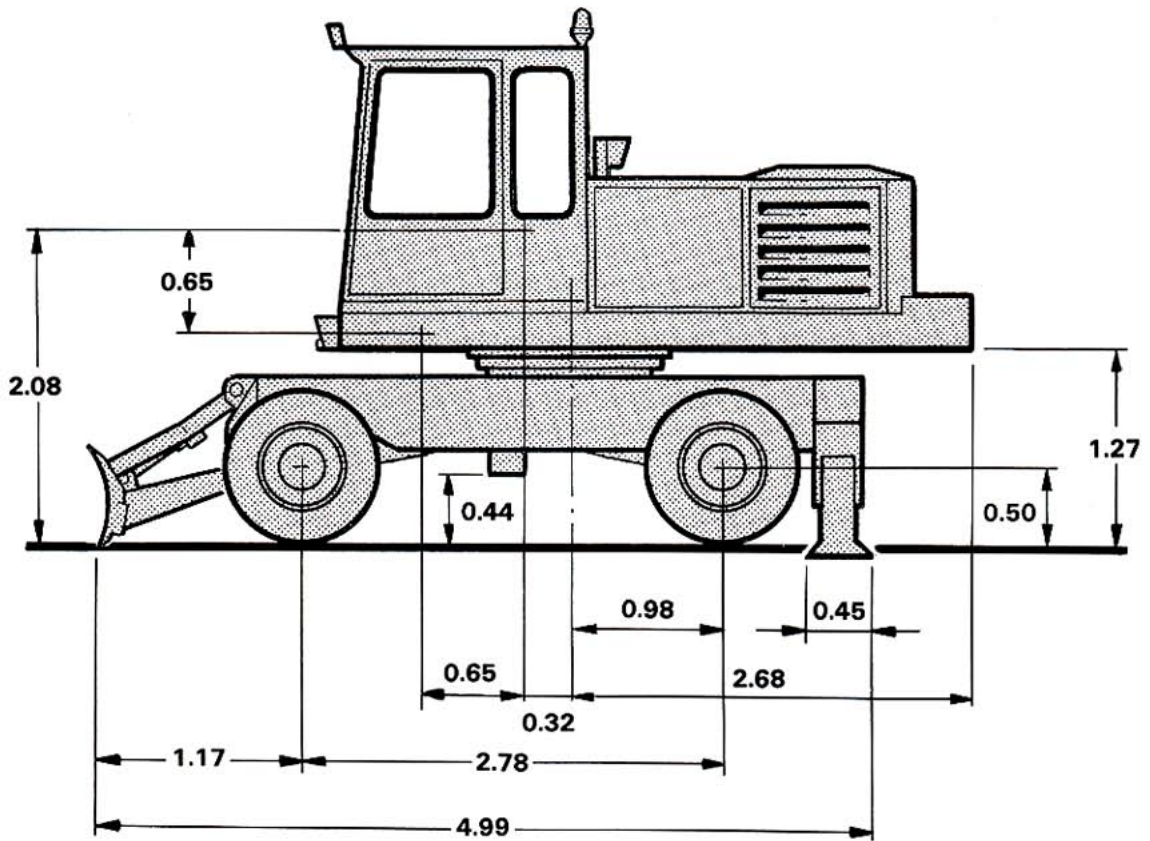
Total weight, complete excavator with 2.25 m

dipper arm and dozer blade18.9 t

Axle load

Front axle with dozer blade9.1 t

Rear axle with dozer blade9.8 t



BACKHOE EQUIPMENT

BACKHOE EQUIPMENT

Boom length.....5.2 m

Data for 2.25 m dipper arm

HD-bucket 900 litres CECE = 900 litres SAE J296
(Fitting standard attachment as well as quickfit)

Weight.....760 kg
Cutting width1050 mm
Weight incl. quickfit.....920 kg
Weight: equipment with 2.25 m dipper arm3700 kg

Data for 2.80 m dipper arm

HD-bucket 800 litres CECE = 850 litres SAE J296
(Fitting the quickfit only)

Weight.....790 kg
Cutting width1040 mm
Weight incl. quickfit.....950 kg
Weight: equipment with 2.80 m dipper arm4020 kg

Data for 3.30 m dipper arm

HD-bucket 700 litres CECE = 750 litres SAE J296
(Fitting the quickfit only)

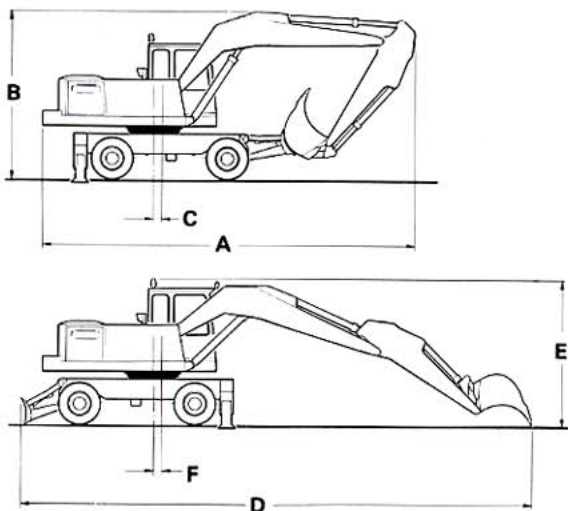
Weight.....600 kg
Cutting width980 mm
Weight incl. quickfit.....760 kg
Weight: equipment with 3.30 m dipper arm3970 kg

DIGGING FORCE

	Dipper arm 2.25 m	Dipper arm 2.80 m	Dipper arm 3.30 m
Digging force at bucket teeth due to bucket cylinder at 156° torsional angle of the bucket	129 kN (13.2 Mp)	126 kN (12.9 Mp)	133 kN (13.5 Mp)

Digging force at bucket teeth due to dipper arm	107 kN (10.9 Mp)	93 kN (9.5 Mp)	88 kN (8.9 Mp)
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Digging forces are calculated with Åkerman's standard buckets.

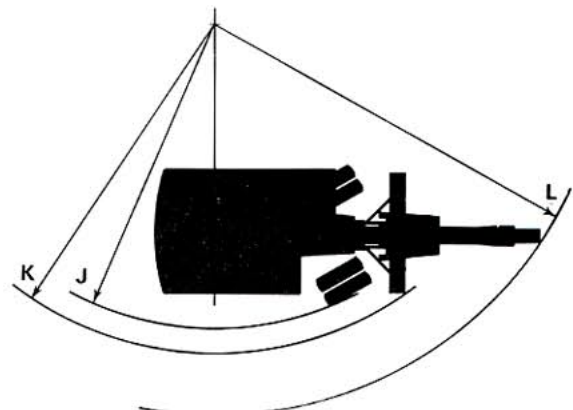
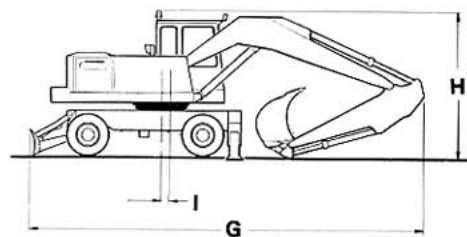


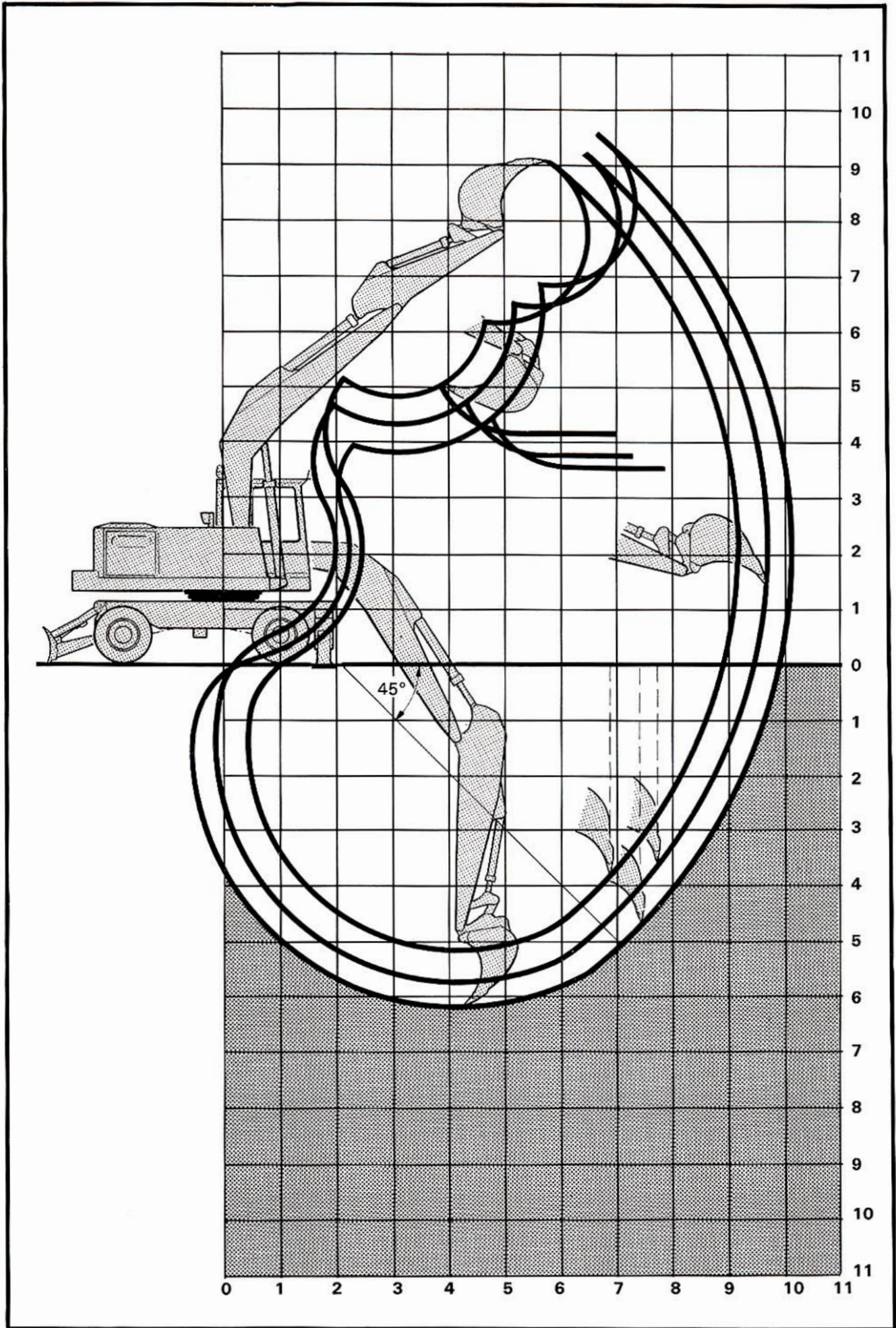
DIGGING DATA

	Dipper arm 2.25 m	Dipper arm 2.80 m	Dipper arm 3.30 m
Max. reach at ground level	8.9 m	9.5 m	9.9 m
Max. digging depth	5.2 m	5.7 m	6.2 m
Max. height, ground - tooth tip	9.0 m	9.2 m	9.5 m
Max. dumping height	6.3 m	6.4 m	6.8 m
Max. practical dumping height	4.2 m	3.7 m	3.6 m
Practical digging depth at a repose of material of 45°	4.4 m	4.8 m	5.1 m
Max. vertical digging depth	3.9 m	3.7 m	4.6 m
Max. reach, slewing centre - bucket attachment	7.7 m	8.2 m	8.7 m
Max. height, ground - bucket attachment	7.8 m	7.9 m	8.3 m
Min. slewing radius in front	4.1 m	4.1 m	4.2 m

TRANSPORT DATA

Min. transport length with folded equipment resting on dozerblade (A)	9.0 m	8.9 m	8.8 m
Min. transport height with folded equipment resting on dozerblade (B)	3.9 m	4.2 m	4.5 m
Distance, slewing centre - centre of gravity (folded equipment resting on dozerblade) (C)	0.4 m	0.4 m	0.4 m
Total length with extended equipment (D)	12.1 m	12.7 m	13.1 m
Min. transport height with extended equipment (E)	3.6 m	3.6 m	3.6 m
Distance slewing centre - centre of gravity (extended equipment) (F)	0.4 m	0.5 m	0.5 m
Min. transport length with folded equipment at ground level (G)	9.5 m	9.5 m	9.6 m
Min. transport height with folded equipment at ground level (H)	3.6 m	3.6 m	3.9 m
Distance slewing centre - centre of gravity (folded equipment at ground level) (I)	0.2 m	0.2 m	0.2 m
Turning radius (J)	7.6 m	7.6 m	7.6 m
Turning radius, incl. dozerblade (K)	8.2 m	8.2 m	8.2 m
Clearance radius (L)	9.5 m	9.4 m	9.3 m





H10MB

LIFTING CAPACITY

MAX LOAD IN BUCKET HOOK (kg) = 80% OF THE TIPPING LOAD

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

WITH 2.25 m DIPPER ARM

ALONG UNDERCARRIAGE

SUPPORT UP

A \ B	ALONG UNDERCARRIAGE									Max. reach
	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0		
7										
6					2160					
5				2890	2120				1580 /B= 7.9	
4			3730	2720	2030	1500			1360 /B= 8.3	
3			3410	2540	1920	1450			1250 /B= 8.5	
2			3150	2380	1810	1390			1210 /B= 8.5	
1			3010	2260	1730	1340			1210 /B= 8.4	
0			2960	2190	1680	1310			1260 /B= 8.2	
-1		4280	2960	2180	1670				1390 /B= 7.8	
-2	7200	4370	3000	2200	1710				1600 /B= 7.3	
-3		4510	3090	2300						
-4										
-5										
-6										

WITH 2.25 m DIPPER ARM

ALONG UNDERCARRIAGE

SUPPORT DOWN

A \ B	ALONG UNDERCARRIAGE									Max. reach
	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0		
7									4070*/B= 6.6	
6					3930*				4080*/B= 7.4	
5				4200*	4040*				4090*/B= 7.9	
4			5600*	4790*	4350*	4150*			3690*/B= 8.3	
3			6840*	5480*	4750*	4130			3690*/B= 8.5	
2			7290*	6130*	5100	4060			3650 /B= 8.5	
1			6430*	6480	5010	4010			3690 /B= 8.4	
0			6550*	6390	4950	3980			3820 /B= 8.2	
-1		10450*	5890*	6370	4930				4150 /B= 7.8	
-2	11860*	8310*	7720*	6330*	4980				4630*/B= 7.3	
-3		5930*	6660*	5330*					4470*/B= 6.5	
-4										
-5										
-6										

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

LIFTING CAPACITY

MAX LOAD IN BUCKET HOOK (kg) = 80% OF THE TIPPING LOAD

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

WITH 2.25 m DIPPER ARM

ACROSS UNDERCARRIAGE

SUPPORT UP

A \ B	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	Max. reach
7									
6					1740				
5				2380	1690				1220 /B= 7.9
4			3090	2210	1600	1140			1020 /B= 8.3
3			2770	2030	1490	1090			910 /B= 8.5
2			2510	1870	1390	1030			870 /B= 8.5
1			2380	1750	1310	980			870 /B= 8.4
0			2320	1690	1260	950			900 /B= 8.2
-1		3430	2320	1670	1250				1010 /B= 7.8
-2	5900	3510	2360	1700	1280				1200 /B= 7.3
-3		3650	2460	1790					
-4									
-5									
-6									

WITH 2.25 m DIPPER ARM

ACROSS UNDERCARRIAGE

SUPPORT DOWN

A \ B	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	Max. reach
7									3730 /B= 6.6
6					3330				2940 /B= 7.4
5				4200*	3270				2540 /B= 7.9
4			5600*	4210	3170	2430			2240 /B= 8.3
3			5410	4000	3060	2370			2090 /B= 8.5
2			5120	3820	2940	2310			2050 /B= 8.5
1			4960	3690	2850	2260			2070 /B= 8.4
0			4900	3620	2800	2230			2140 /B= 8.2
-1		7270	4900	3600	2780				2340 /B= 7.8
-2	11860*	7380	4950	3630	2820				2660 /B= 7.3
-3		5930*	5060	3730					3310 /B= 6.5
-4									
-5									
-6									

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

LIFTING CAPACITY

MAX LOAD IN BUCKET HOOK (kg) = 80% OF THE TIPPING LOAD

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

WITH 2.80 m DIPPER ARM

ALONG UNDERCARRIAGE

SUPPORT UP

A \ B	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	Max. reach
7					2100				
6					2090	1450			1450 /B= 8.0
5					2020	1440			1190 /B= 8.5
4				2650	1920	1380			1030 /B= 8.8
3			3380	2450	1790	1300	920		920 /B= 9.0
2			3070	2250	1670	1230	880		850 /B= 9.1
1			2860	2100	1560	1160	850		850 /B= 9.0
0		4020	2760	2010	1490	1110			880 /B= 8.8
-1	6750	4020	2730	1960	1450	1090			980 /B= 8.4
-2	6860	4080	2750	1970	1460				1150 /B= 7.9
-3	7020	4210	2820	2020	1530				1460 /B= 7.2
-4			2960	2160					
-5									
-6									

WITH 2.80 m DIPPER ARM

ALONG UNDERCARRIAGE

SUPPORT DOWN

A \ B	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	Max. reach
7					3210*				3130*/B= 7.3
6					3140*	2940*			2940*/B= 8.0
5					3340*	3340*			2810*/B= 8.5
4				4040*	3700*	3520*			3040*/B= 8.8
3			5890*	4780*	4150*	3780*	2980*		2980*/B= 9.0
2			7070*	5510*	4620*	3910	3140		2630*/B= 9.1
1			7420*	6090*	4850	3840	3060*		3060*/B= 9.0
0		10710*	6360*	6220	4770	3780			3200*/B= 8.8
-1	12630*	9230*	6580*	6170	4720	3760			3470 /B= 8.4
-2	10570*	7180*	7710*	6170	4730				3880 /B= 7.9
-3	8220*	5630*	7060*	5710*	4450*				4140*/B= 7.2
-4			5620*	4240*					4060*/B= 6.1
-5									
-6									

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

LIFTING CAPACITY

MAX LOAD IN BUCKET HOOK (kg) = 80% OF THE TIPPING LOAD

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

WITH 2.80 m DIPPER ARM

ACROSS UNDERCARRIAGE

SUPPORT UP

A \ B	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	Max. reach
7					1680				
6					1670	1090			1090 /B= 8.0
5					1600	1070			850 /B= 8.5
4				2140	1490	1020			710 /B= 8.8
3			2740	1940	1370	940	600		600 /B= 9.0
2			2430	1740	1240	860	560		540 /B= 9.1
1			2230	1590	1140	800	530		530 /B= 9.0
0		3170	2130	1500	1070	750			560 /B= 8.8
-1	5460	3160	2090	1450	1030	730			640 /B= 8.4
-2	5570	3230	2110	1460	1040				790 /B= 7.9
-3	5730	3350	2180	1510	1100				1050 /B= 7.2
-4			2320	1650					
-5									
-6									

WITH 2.80 m DIPPER ARM

ACROSS UNDERCARRIAGE

SUPPORT DOWN

A \ B	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	Max. reach
7					3210*				2970 /B= 7.3
6					3140*	2400			2400 /B= 8.0
5					3200	2380			2040 /B= 8.5
4				4040*	3080	2320			1840 /B= 8.8
3			5420	3930	2940	2240	1700		1700 /B= 9.0
2			5060	3710	2800	2150	1660		1620 /B= 9.1
1			4830	3540	2690	2080	1620		1620 /B= 9.0
0		7010	4710	3440	2610	2030			1680 /B= 8.8
-1	12630*	7010	4680	3390	2570	2010			1840 /B= 8.4
-2	10570*	7090	4700	3390	2580				2090 /B= 7.9
-3	8220*	5630*	4780	3450	2650				2540 /B= 7.2
-4			4940	3610					3520 /B= 6.1
-5									
-6									

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

LIFTING CAPACITY

MAX LOAD IN BUCKET HOOK (kg) = 80% OF THE TIPPING LOAD
 A = Height of bucket attachment (m) B = Reach of load from centre (m)

WITH 3.30 m DIPPER ARM		ALONG UNDERCARRIAGE							SUPPORT UP
A \ B	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	Max. reach
8					2260				2120 /B= 7.3
7						1670			1580 /B= 8.2
6						1670			1280 /B= 8.8
5					2150	1620	1160		1060 /B= 9.3
4				2730	2080	1540	1120		920 /B= 9.6
3		4940	3530	2590	1930	1440	1070		860 /B= 9.7
2		4450	3170	2370	1780	1350	1010		800 /B= 9.8
1		4140	2940	2190	1660	1260	950		790 /B= 9.7
0		3980	2790	2060	1570	1200	910		810 /B= 9.5
-1	6510	3930	2720	2000	1510	1160	900		870 /B= 9.2
-2	6540	3950	2710	1980	1490	1170			1000 /B= 8.7
-3	6610	4030	2760	2010	1530	1210			1200 /B= 8.1
-4	6790	4160	2860	2090	1630				1620 /B= 7.1
-5									

WITH 3.30 m DIPPER ARM		ALONG UNDERCARRIAGE							SUPPORT DOWN
A \ B	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	Max. reach
8					3270*				3140*/B= 7.3
7						3140*			2970*/B= 8.2
6						3240*			2990*/B= 8.8
5					3370*	3340*	3270*		2610*/B= 9.3
4				4030*	3740*	3560*	3350		2610*/B= 9.6
3		6760*	5410*	4660*	4160*	3830*	3320		2910 /B= 9.7
2		8510*	6450*	5260*	4580*	3970	3250		2810 /B= 9.8
1		9890*	7390*	5800*	4860*	3900	3180		2820 /B= 9.7
0		10600*	7900*	6150	4760	3820	3140		2900 /B= 9.5
-1	11750*	10610*	8100*	6070	4700	3770	3130		3050 /B= 9.2
-2	14000*	10290*	7980*	6050	4680	3800			3350 /B= 8.7
-3	12770*	9600*	7510*	6040*	4730	3840*			3780*/B= 8.1
-4	10820*	8280*	6470*	5160*	3910*				3830*/B= 7.1
-5									

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

LIFTING CAPACITY

MAX LOAD IN BUCKET HOOK (kg) = 80% OF THE TIPPING LOAD

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

WITH 3.30 m DIPPER ARM

ACROSS UNDERCARRIAGE

SUPPORT UP

A \ B	ACROSS UNDERCARRIAGE									Max. reach
	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0		
8					1830					1710 /B= 7.3
7						1310				1200 /B= 8.2
6						1310				960 /B= 8.8
5					1730	1260	850			750 /B= 9.3
4				2230	1660	1180	810			630 /B= 9.6
3		4120	2910	2090	1510	1080	750			570 /B= 9.7
2		3630	2550	1870	1370	990	690			510 /B= 9.8
1		3310	2320	1690	1240	900	640			500 /B= 9.7
0		3160	2170	1570	1150	840	600			510 /B= 9.5
-1	5250	3100	2100	1500	1100	800	590			560 /B= 9.2
-2	5290	3120	2090	1480	1080	810				670 /B= 8.7
-3	5370	3200	2140	1510	1110	860				850 /B= 8.1
-4	5550	3340	2240	1600	1210					1200 /B= 7.1
-5										

WITH 3.30 m DIPPER ARM

ACROSS UNDERCARRIAGE

SUPPORT DOWN

A \ B	ACROSS UNDERCARRIAGE									Max. reach
	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0		
8					3270*					3140*/B= 7.3
7						2640				2510 /B= 8.2
6						2630				2120 /B= 8.8
5					3280	2570	1960			1820 /B= 9.3
4				4030*	3230	2480	1910			1650 /B= 9.6
3		6760*	5390*	4040	3060	2370	1850			1570 /B= 9.7
2		7380	5110	3790	2900	2260	1780			1490 /B= 9.8
1		7010	4840	3590	2760	2170	1720			1490 /B= 9.7
0		6840	4670	3450	2660	2100	1680			1530 /B= 9.5
-1	11740*	6780	4590	3380	2600	2060	1670			1620 /B= 9.2
-2	12100	6800	4580	3360	2580	2080				1810 /B= 8.7
-3	12150*	6870	4630	3390	2630	2120				2100 /B= 8.1
-4	10820*	7000	4740	3490	2740					2710 /B= 7.1
-5										

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

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

Åkerman Printing M91121/09/91 From machine no. 1273 - up

VME Excavators AB
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