



Åkerman EC130

Monobloc- / 2-piece boom



- **Engine Power:**
76 kW (103 hp)
- **Operating Weight:**
13,6 – 14,7 t
- **Buckets:**
170 – 600 l
- *Direct injection, turbocharged engine*
- *Åkerman three-circuit hydraulic system and newly developed pump regulation PSC. (PSC = Pressure Sensing Control)*
- **Comfort cab**
 - computerized control and warning system
 - ergonomic environment
 - low sound level
 - filtered air
- *Highest flexibility for extra equipment/hydraulics*
- *Long undercarriage for high stability*
- *High crawler speed – 5,2 km/h*
- *Hydraulic quickfit*

ÅKERMAN

ENGINE



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

Model		VME TD 40 GB
Net output at	r/s (r/min)	36,7 (2200)
ISO 3046 / DIN 6271*	kW (hp)	76 (103)
No. of cylinders		4
Displacement, total	l	4,0
Bore	mm	100
Stroke	mm	127

* Fan excluded

UNDERCARRIAGE



Heavy duty box designed body with solid slew ring support.

Track chain size		B4
No. of track shoes		2 x 47
Track width	mm	600
alt.	mm	750, 900
No. of bottom rollers		2 x 8
Skid rail		2 x 1

ELECTRIC SYSTEM



Micro processor for monitoring of engine/hydraulic system. High capacity and well protected electric system. Printed circuit board based electric central with clearly arranged fuses and relays. Central prepared for connection optional equipment. Battery disconnecter standard.

Voltage	V	24
Battery	V	4 x 12
Battery capacity	Ah	120
A.C. Generator	V/A	28/60
Alternator rating	W	1680

CAB



Operator's cab with a supporting frame structure. Large panes for all round good visibility. The upper front pane can be pushed up in the ceiling, and the lower one can be removed. Sliding window in the cab door.

Heater and defroster: Pressurized and filtered cab. A 3-speed fan provides efficient heating and defrosting through 14 outlets. Prepared for Air Conditioning.

Operator's seat: Adjustable suspension operator's seat with headrest and individually adjustable armrests and hand controls.

Sound level: Approved according to 86/662/EEC.

DRIVE TRAIN



Each track is powered by a two-step axial piston hydraulic motor. The track brakes are of multidisc type and are spring applied and hydraulically released.

Max. tractive force	kN	132
Max. travel speed	km/h	5,2
Gradeability, continuously	°	% 50,3 (120)

SERVICE REFILL CAPACITIES



Fuel tank	l	225
Fuel pump capacity	l/min	90
Hydraulic system, total	l	220
Diesel engine	l	8,1
Cooling system (incl. glycol)	l	32,0
Slew gearbox	l	15,0

SLEWING SYSTEM



The superstructure is slewed by an axial piston motor through a servo released slew brake, into the two-step slew gear giving torque to the inner tooth race of the slew ring.

Slew, start to stop*		
90° turn	s	4,3
180° turn	s	6,5

* Empty bucket and extended equipment.

HYDRAULIC SYSTEM



Åkerman 3-circuit system all-servo controlled.

Pumps: P1 is a fixed axial piston pump to slew circuit. P2 /P3 is a dual power controlled variable piston pump.

Mode selector: Two travel modes:

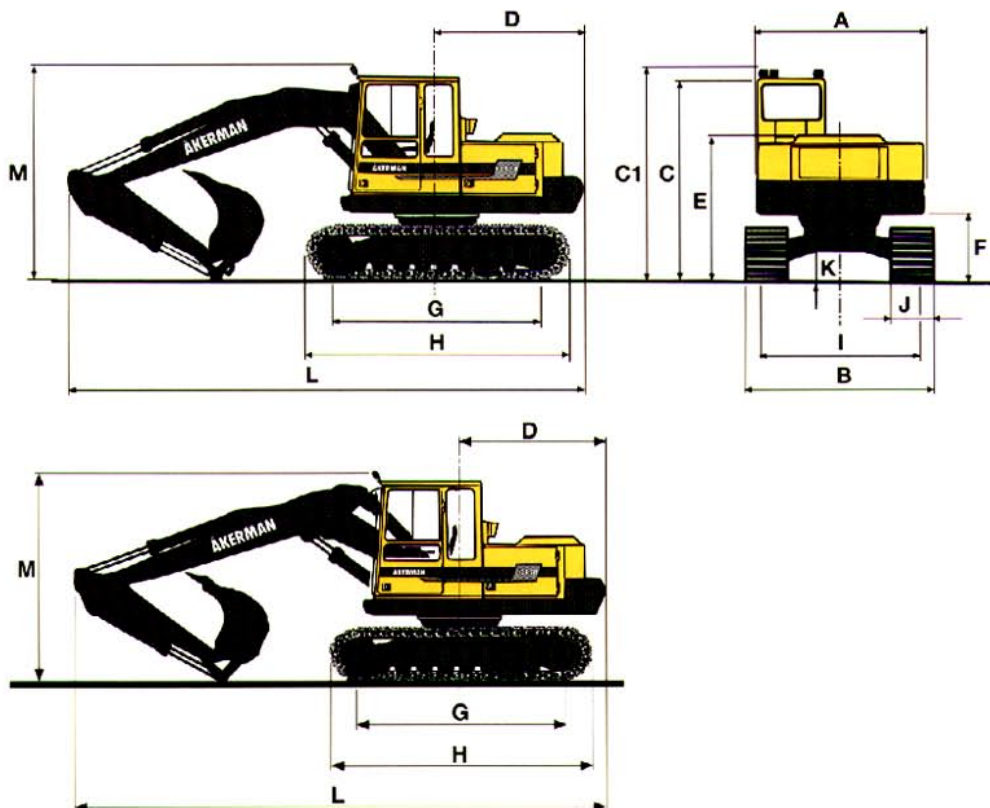
ECO = Travel

CAP = Digging and travel

Valve system: Boom is operated by dual main valves to obtain best combination of precision manoeuvrability and minimized fuel consumption. Boom function equipped with floating position for improved comfort and increased digging speed. Security hose rupture valve on the boom cylinder.

Pump P1			
Max. pressure	MPa		31
Max. flow	l/min		46
Pumps P2 and P3			
Max. pressure	MPa		24
Max. flow	l/min		2 x 81
Servo pump			
Pressure	MPa		6,5
Flow	l/min		23

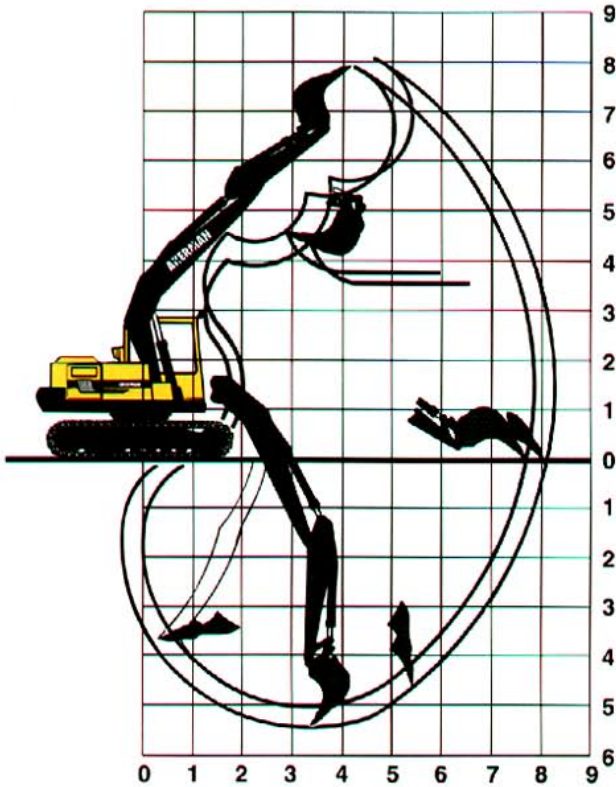
DIMENSIONS



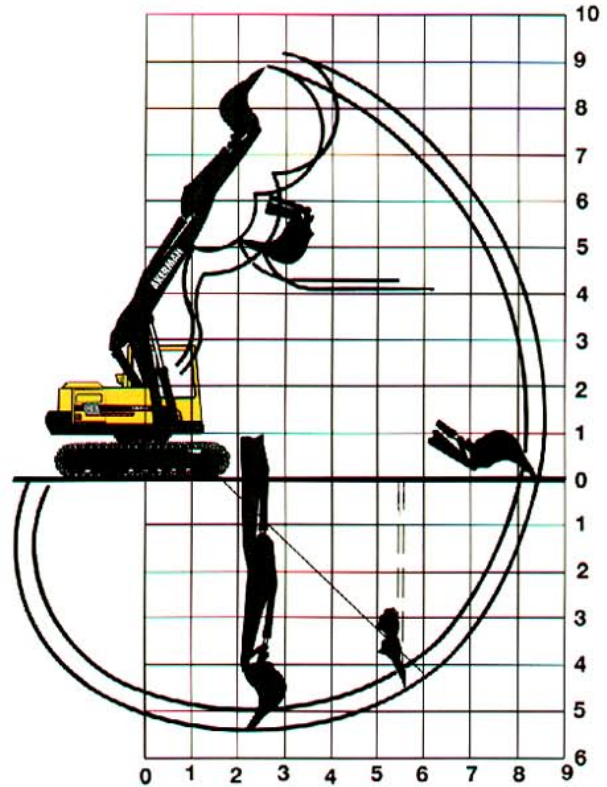
A:	mm	2 430	G:	mm	3 030	L:	mm	7 630	(1,9 m arm , 2-p. boom)	
B:	mm	2 700/2 850/ 3 000	H:	mm	3 790	L:	mm	7 600	(2,4 m arm , 2-p. boom)	
C:	mm	2 900	I:	mm	2 240	M:	mm	3 040	(1,9 m arm, monoboom)	
C1:	mm	3 040	J:	mm	600/750/900	M:	mm	3 040	(2,4 m arm, monoboom)	
D:	mm	2 100	K:	mm	450	M:	mm	3 040	(1,9 m arm, 2-p. boom)	
E:	mm	2 080	L:	mm	7 400	(1,9 m arm, monoboom)	M:	mm	3 040	(2,4 m arm 2-p. boom)
F:	mm	970	L:	mm	7 400	(2,4 m arm, monoboom)				

WORKING RANGES

4,4 m Monobloc boom



4,62 m 2-piece boom



Monobloc boom	m	4,4	4,4		
2-piece boom	m			4,62	4,62
Dipper arm	m	1,9	2,4	1,9	2,4
Max. reach	m	7,9	8,3	8,1	8,5
Max. reach at ground level	m	7,7	8,1	8,0	8,4
Max. digging depth	m	5,0	5,4	5,0	5,4
Max. height, ground					
– tooth tip	m	7,9	8,2	8,9	9,2
Max. dumping height	m	5,3	5,6	6,2	6,6
Max. practical dumping height	m	3,8	3,6	4,3	4,1
Practical digging depth at a repose of material of 45°	m	4,0	4,3	4,1	4,4
Max. vertical digging depth	m	4,1	4,5	4,0	4,4
Min. slewing radius in front	m	2,9	2,9	2,5	2,6

DIGGING FORCE

Bucket digging force*	kN	70
Dipper arm force*	kN	52

* HD-bucket, 600 l SAE, 4,4 m boom and 1,9 m dipper arm.

BUCKET AND ARM COMBINATIONS

BUCKETS for quickfit	Volume SAE l	Cutting width mm	Weight kg	Suitable for 4,4 m boom and arm		Suitable for 4,62 m 2-piece boom and arm	
				1,9 m	2,4 m	1,9 m	2,4 m
				Backhoe buckets 1,8 t/m ³	500 600	930 1000	390 450
Articulated slope bucket 1,5 t/m ³	450 480	1400 2000	500 520	• •	• •	• •	• •
Cable bucket	160 170 290	400 490 600	270 235 320	• • •	• • •	• • •	• • •

WEIGHT AND GROUND PRESSURE















Standard machine, 4,4 m monobloc boom, 1,9 m dipper arm, hydraulic quickfit, 600 l bucket and counterweight 1 700 kg.

Machine with 4,62 m 2-piece boom, 1,9 m dipper arm, hydraulic quickfit, 600 l bucket and counterweight 1 700 kg.

Track shoes		Operating weight				Ground pressure			
600 mm		13 650 kg		14 000 kg (2-piece boom)		33,8 kPa		34,7 kPa (2-piece boom)	
750 mm		14 000 kg		14 350 kg (2-piece boom)		27,7 kPa		28,5 kPa (2-piece boom)	
900 mm		14 350 kg		14 700 kg (2-piece boom)		23,7 kPa		24,3 kPa (2-piece boom)	

STABILITY AND LIFTING CAPACITIES

In the quickfit lifting hook without bucket. Unit: 1000 kg.

 Across carriage  Along carriage	Lifting hook related to ground level	Reach from machine centre										Max. m						
		3,0 m		4,5 m		6,0 m		7,5 m		Max. reach								
																		
Monobloc boom - 4,4 m 1,9 m arm Quickfit 600 mm track shoes	6,0 m			4,94	2,08	7,35	2,08			4,15	2,22	6,13	2,22	5,0				
	4,5 m			4,81	2,24	7,16	2,24	3,08	2,19	4,52	2,19	2,91	2,17	4,28	2,17	6,2		
	3,0 m			4,51	2,74	6,80	2,74	2,98	2,34	4,40	2,34	2,51	2,25	3,71	2,25	6,7		
	1,5 m			4,22	3,36	6,47	3,36	2,85	2,58	4,25	2,58	2,35	2,30	3,49	2,30	6,9		
	0,0 m			4,06	3,73	6,30	3,73	2,77	2,71	4,15	2,71	2,40	2,41	3,58	2,41	6,7		
	-1,5 m	7,53	5,50	12,9	5,50	4,03	3,64	6,26	3,64	2,76	2,59	4,15	2,59	2,65	2,45	3,98	2,45	6,2
-3,0 m	7,60	4,39	12,9	4,39	4,13	2,92	6,37	2,92					3,60	2,46	5,47	2,46	5,0	
Monobloc boom - 4,4 m 2,4 m arm Quickfit 600 mm track shoes	4,5 m							3,11	1,90	4,55	1,90			2,58	1,93	3,79	1,93	6,7
	3,0 m	8,54	3,31	14,1	3,31	4,60	2,44	6,93	2,44	3,00	2,13	4,42	2,13	2,25	2,00	3,33	2,00	7,2
	1,5 m			4,27	3,10	6,55	3,10	2,86	2,41	4,26	2,41			2,10	2,07	3,13	2,07	7,4
	0,0 m	7,41	5,92	12,8	5,92	4,06	3,61	6,31	3,61	2,74	2,62	4,14	2,62	2,14	2,18	3,21	2,18	7,2
	-1,5 m	7,41	5,69	12,8	5,69	3,99	3,68	6,23	3,68	2,70	2,64	4,09	2,64	2,35	2,27	3,53	2,27	6,7
	-3,0 m	7,50	4,88	12,8	4,88	4,04	3,23	6,29	3,23					3,02	2,38	4,58	2,38	5,6
2-piece boom - 4,62 m 1,9 m arm Quickfit 600 mm track shoes	6,0 m			5,02	2,67	7,49	2,67							3,80	2,59	5,63	2,59	5,3
	4,5 m	9,20	3,70	15,0	3,70	4,83	2,85	7,22	2,85	3,07	2,42	4,53	2,42	2,74	2,35	4,07	2,35	6,4
	3,0 m			4,45	3,21	6,78	3,21	2,94	2,53	4,38	2,53			2,31	2,22	3,45	2,22	7,0
	1,5 m			4,10	3,58	6,38	3,58	2,78	2,61	4,20	2,61			2,14	2,14	3,23	2,14	7,2
	0,0 m			3,92	3,55	6,18	3,55	2,67	2,58	4,08	2,58			2,18	2,06	3,30	2,06	7,0
	-1,5 m	7,31	4,20	12,7	4,20	3,88	3,10	6,14	3,10	2,65	2,20	4,06	2,20	2,44	1,91	3,72	1,91	6,4

Tipping load*

Hydr. lifting capacities**

* Regardless of the hydraulic lifting capacity of the machine.

** Regardless of the stability of the machine.

Working pressure = 24 MPa (240 bar)

STANDARD EQUIPMENT

Engine and electrical system

Computer controlled monitoring system
 Battery disconnecter and main fuel tap
 3-step air filter:
 precyclone
 main filter
 safety filter
 with electronic service indicator
 Hour meter
 Cold start aid
 Revs counter
 Fuel meter
 Temperature meter for cooling fluid and hydraulic oil
 24 volt electrical system with 4 standard batteries
 Cranked exhaust pipe

Undercarriage

600 mm track shoes with mud holes
 Tripple grousers
 Hydraulic track adjuster
 Derailing shields
 Skid rails

Superstructure

Counterweight 1700 kg

Safety and Comfort

Cab heating with 14 outlets
 Filtered air intake
 Cab skylight
 Openable side pane
 Emergency exit through rear window
 Tinted windows (clear front)
 Ergonomically designed and adjustable operator's seat, with heating coils
 Internal sunvisor
 Rear view mirrors,
 2 exterior
 1 interior
 Lights:
 4 working lights, front, halogen
 1 working light, rear, halogen
 Instrument lighting
 Illuminated cab, engine compartment and fuel filling compartment
 Safety bar for control levers
 Double intermittent windscreen wipers
 Windscreen washers
 Hydraulic refuelling pump, 90 l/min
 Compressor horn
 Hose rupture valve on boom cyl.
 Overload indicator
 Radio console

Hydraulics

One dual power controlled axial piston working pump
 One fixed axial piston pump to slew circuit
 Mode selector, 2 steps
 Standard filter cartridges for return, leak oil and breathing filter
 Float position on boom
 Hydraulic equipment for quickfit

Equipment

4,4 m monobloc boom
 1,9 m dipper arm
 Hydraulic quickfit
 End dampening on dipper and bucket cylinders
 Security lifting hook
 Friction welded piston rod eyes

OPTIONAL EQUIPMENT *(Standard on certain markets)*

Engine and Electrical System

Electric over speed protector
 Rear lights
 Immersion heater, 220 V
 Volvo diesel driven engine and cab heater with digital timer
 Exhaust ejector
 Oil bath precleaner for inlet air

Undercarriage

750/900 mm track shoes
 Dozer blade, front

Safety and Comfort

Protective grid for front pane/roof pane
 Fire extinguisher
 Seat belts
 Rotating beacon
 Exterior glare shields
 Rear window jalousie
 Air conditioning
 Micro filter for the cab
 Extra circulation pump for the heating system
 Radio and cassette player
 Extra hose rupture valves
 Protection against overfilling fuel

Hydraulics

Biologically degradable oil
 Hydraulic equipment for:
 slope bucket
 grab
 hydraulic hammer
 shears

Equipment

Dipper arm 2,4 m
 2-piece boom, 4,62 m
 Extra headlights on the boom
 Hammer plate
 Grab holder
 Ripper tooth

Under our policy of continuous product 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.

VME Excavators AB

Box 115, S-241 22 ESLÖV SWEDEN

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