



Åkerman EW130



- **Engine Power:**
76 kW (103 hp)
- **Operating Weight:**
12,1– 13,5 t
- **Buckets:**
160 – 600 l

- *Direct injection, turbocharged diesel engine*
- *Åkerman three-circuit hydraulic system with 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*
- *Hydraulic quickfit*
- *Four travel speeds – max. 30 km/h*
- *Individually operated outriggers and dozer blade*

ÅKERMAN

ENGINE



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

Model		VME TD40GB
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

* Excl. fan

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

SLEWING SYSTEM



The superstructure is slewed by a two-step 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.

BRAKES



Brake system corresponds to ISO 3450.

Service brakes consist of a 2-circuit oil servo system with drum brakes on each axle.

Parking brake of drum type mounted on the gearbox. It is activated by spring power and servo released.

Digging brake without play is obtained through the same drum brake system.

Security system: The 2-circuit travel brakes are supplied with two accumulators in the event of failure in the service brake system.

UNDERCARRIAGE



Drive Train: One big variable piston motor on the mid-mounted two-step gearbox gives power to front and rear axles, both with hub reductions.

Framework: All-welded robust torsion box frame.

Wheels: Alternative single and twin wheels available.

Front axle: Oscillating $\pm 7^\circ$.

Twin wheels, standard		9.00 - 20 PR14
Max tractive force	kN	81,2
Travel speed, road travel	km/h	30,0
Travel speed, site travel	km/h	7,8
Turning radius, front wheels	m	6,55

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 heating, headrest and individually adjustable armrests and hand controls.

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

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
Travel gearbox	l	4,0
Slew gearbox	l	15,0

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 working modes:

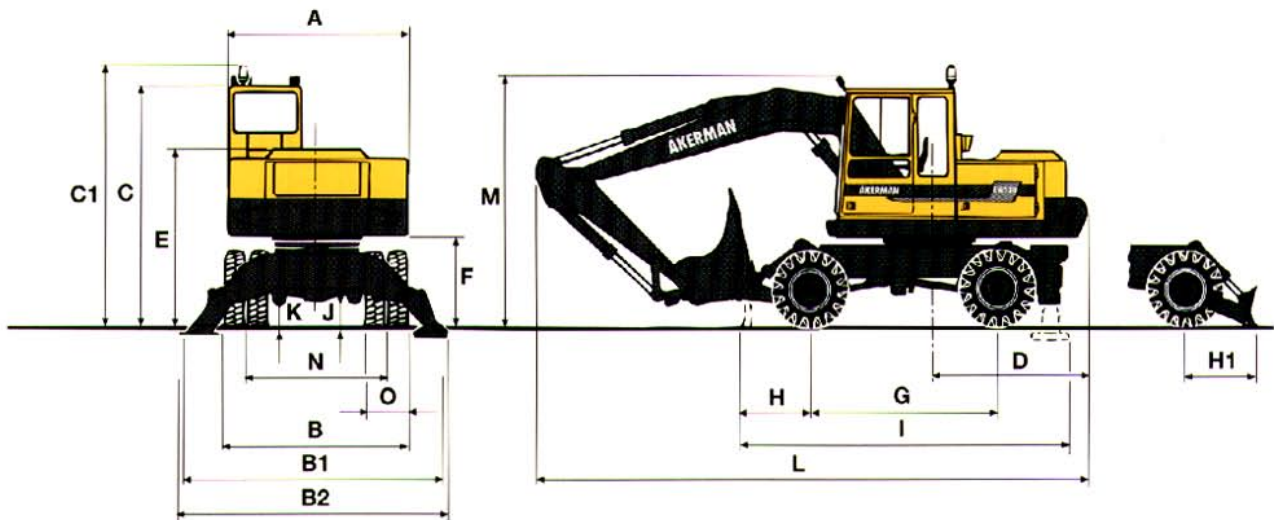
ECO = Travel

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 cylinder equipped with floating position valve for improved comfort and increased digging speed. Security hose rupture valve on the boom cylinder.

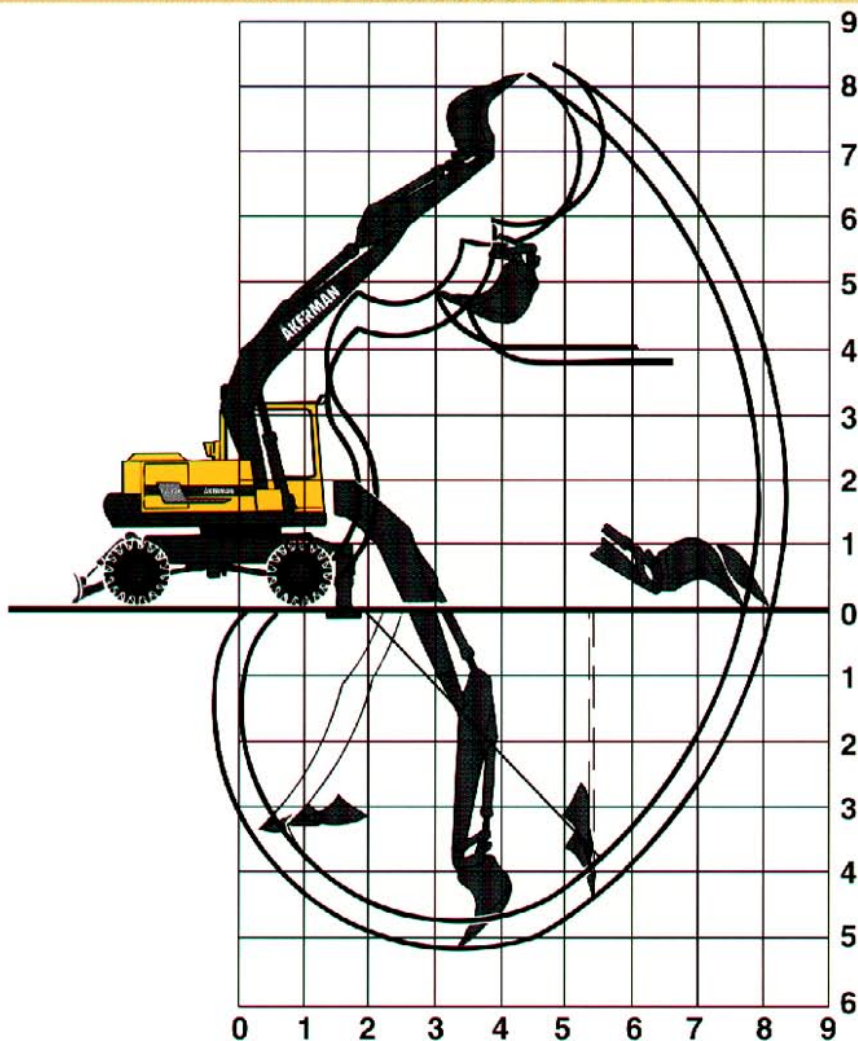
Pump P1			
Max. pressure	MPa		31
Max. flow	l/min		46
Pumps P2 and P3			
Max. pressure	MPa		24
Max. flow	l/min		2 x 81
Servo pump			
Pressure	MPa		6,5
Flow	l/min		23
Steering pump			
Pressure	MPa		14
Flow	l/min		23

DIMENSIONS



A:	mm	2430	H1:	mm	980
B:	mm	2500	I:	mm	4430
B1:	mm	3530	J:	mm	350
B2:	mm	3530	K:	mm	300
C:	mm	3120	L:	mm	7400 (1,9 m arm)
C1:	mm	3400	L:	mm	7300 (2,4 m arm)
D:	mm	2100	M:	mm	3400 (1,9 m arm)
E:	mm	2300	M:	mm	3500 (2,4 m arm)
F:	mm	1180	N:	mm	1910
G:	mm	2500	O:	mm	580
H:	mm	980			

WORKING RANGES



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

DIGGING FORCE

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

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

BUCKET AND ARM COMBINATIONS

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

WEIGHT AND AXLE LOAD



Standard machine, 4,4 m boom, 1,9 m dipper arm, quickfit, 600 l bucket and counterweight 1700 kg.

Total machine weight (incl. dozer blade and outriggers)	kg	13 500	Total machine weight incl. dozer blade rear (excl. outriggers)	kg	12 550
Axle load			Axle load		
Front axle	kg	5 470	Front axle	kg	5 000
Rear axle	kg	8 030	Rear axle	kg	7 550

STABILITY AND LIFTING CAPACITIES

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

		Reach from machine centre											
		3,0 m		4,5 m		6,0 m		7,5 m		Max. reach		Max m	
4,4 m boom 1,9 m arm Quickfit Outriggers and dozer blade down	4,5 m			6,05 2,31	9,84 2,31	3,83 2,20	6,05 2,20			3,53 2,19	5,58 2,19	6,3	
	3,0 m			5,70 2,84	9,39 2,84	3,70 2,38	5,90 2,38			3,06 2,24	4,86 2,24	6,8	
	1,5 m			5,39 3,45	9,04 3,45	3,57 2,61	5,74 2,61			2,93 2,32	4,68 2,32	6,9	
	0,0 m	10,4 5,90	20,6 5,90	5,25 3,74	8,88 3,74	3,49 2,72	5,65 2,72			3,01 2,40	4,83 2,40	6,7	
	-1,5 m	10,5 5,37	20,7 5,37	5,24 3,58	8,86 3,58	3,51 2,50	5,67 2,50			3,51 2,50	5,67 2,50	6,0	
	-3,0 m	10,6 4,08	20,6 4,08	5,39 2,65	9,04 2,65					5,06 2,44	8,41 2,44	4,7	
4,4 m boom 2,4 m arm Quickfit Outriggers and dozer blade down	4,5 m			6,06 1,98	9,89 1,98	3,86 1,93	6,09 1,93			3,13 1,95	4,95 1,95	6,8	
	3,0 m	11,4 3,63	21,8 3,63	5,80 2,55	9,55 2,55	3,73 2,18	5,93 2,18			2,74 2,00	4,36 2,00	7,3	
	1,5 m			5,45 3,21	9,14 3,21	3,58 2,45	5,76 2,45			2,63 2,08	4,20 2,08	7,4	
	0,0 m	10,4 5,91	20,7 5,91	5,25 3,65	8,91 3,65	3,47 2,64	5,64 2,64			2,69 2,17	4,33 2,17	7,2	
	-1,5 m	10,4 5,61	20,6 5,61	5,20 3,65	8,84 3,65	3,43 2,61	5,60 2,61			3,09 2,33	5,00 2,33	6,5	
	-3,0 m	10,5 4,65	20,6 4,65	5,27 3,08	8,93 3,08					4,07 2,34	6,68 2,34	5,4	
4,4 m boom 1,9 m arm Quickfit Outriggers and dozer blade up	4,5 m			3,95 2,31	3,99 2,31	2,53 2,20	2,59 2,20			2,32 2,19	2,38 2,19	6,3	
	3,0 m			3,66 2,84	3,70 2,84	2,42 2,38	2,48 2,38			2,00 2,24	2,06 2,24	6,8	
	1,5 m			3,39 3,45	3,45 3,45	2,31 2,61	2,37 2,61			1,89 2,32	1,96 2,32	6,9	
	0,0 m	5,88 5,90	5,83 5,90	3,27 3,74	3,32 3,74	2,23 2,72	2,29 2,72			1,94 2,40	2,00 2,40	6,7	
	-1,5 m	5,98 5,37	5,92 5,37	3,25 3,58	3,31 3,58	2,24 2,50	2,31 2,50			2,24 2,50	2,31 2,50	6,0	
	-3,0 m	6,09 4,08	6,03 4,08	3,39 2,65	3,44 2,65					3,20 2,44	3,26 2,44	4,7	

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

<p>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</p> <p>Undercarriage Twin wheels 9.00 – 20 PR14 4-wheel drive Oscillating front axle $\pm 7^\circ$ Axles with hub reduction 2-circuit travel brakes Dozer blade in front, and two outriggers rear</p>	<p>Superstructure Counterweight 1700 kg</p> <p>Safety and Comfort Cab heating with 14 outlets Filtered air intake Tinted windows (clear front) Cab skylight Sliding window in the cab door Emergency exit through rear window Ergonomically designed and adjustable operator's seat, with heating coils Internal sunvisor Rear view mirrors, 2 exterior 1 interior Lights: headlights, full and dipped beam asymmetrical, halogen 3 working lights, front, halogen 1 working light, rear, halogen Brakelights Rear lights Direction indicators Instrument lighting Illuminated cab, engine compartment and fuel filling compartment</p>	<p>Safety bar for control levers Double intermittent windscreen wipers Windscreen washers Rotating beacon Hazard flashers Hydraulic refuelling pump, 90 l/min Compressor horn Hose rupture valve on boom cylinder Overload protection Radio console</p> <p>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</p>	<p>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</p>
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OPTIONAL EQUIPMENT *(Standard on certain markets)*

<p>Engine and Electrical System Electric over speed protector Immersion heater, 220 V Volvo diesel driven engine and cab heater, with digital timer Exhaust ejector Oil bath precleaner for inlet air</p> <p>Undercarriage Twin wheels 10.00 – 20 PR14 Single tyres Mud guards Stone protection rings Widening rings 2 x 50 mm Oscillating outriggers plates Dozer blade, rear Tow hook Tool box</p>	<p>Safety and Comfort Exterior glare shields Protective grid for front pane/roof pane Fire extinguisher Seat belts 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 Cruise controller</p>	<p>Hydraulics Biologically degradable oil Hydraulic equipment for: slope bucket grab hydraulic hammer 2-piece boom</p>	<p>Equipment Dipper arm 2,4 m 2-piece boom, 4,62 m Extra headlights on the boom Hammer plate Grab holder Ripper tooth</p>
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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.

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Ref. No. 21 3 430 0034 ENGLISH (global)
 Printed in Sweden 03.03.95