



Åkerman EW150



- **Engine Power:**
82 kW (112 hp)
- **Operating Weight:**
13,5 - 15,1 t
- **Buckets:**
160 – 700 l
- *Direct injection, turbocharged diesel engine with intercooler*
- *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*
 - *Four travel speeds – max. 30 km/h*
- *Individually operated outriggers and dozer blade*
- *Hydraulic quickfit*

ÅKERMAN

ENGINE



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

Model		VME TD40KC
Net output at	r/s (r/min)	36,7 (2200)
ISO 3046 / DIN 6271*	kW (hp)	82 (112)
No. of cylinders		4
Displacement, total	l	4,0
Bore	mm	100
Stroke	mm	127

* Fan excluded

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.

Voltage	V	24
Battery	V	4 x 12
Battery capacity	Ah	120
Alternator	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	5,6
180° turn	s	7,5

* 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	101,6
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	35,0
Slew gearbox	l	15,0
Travel gearbox	l	4,0

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 travel / working modes:

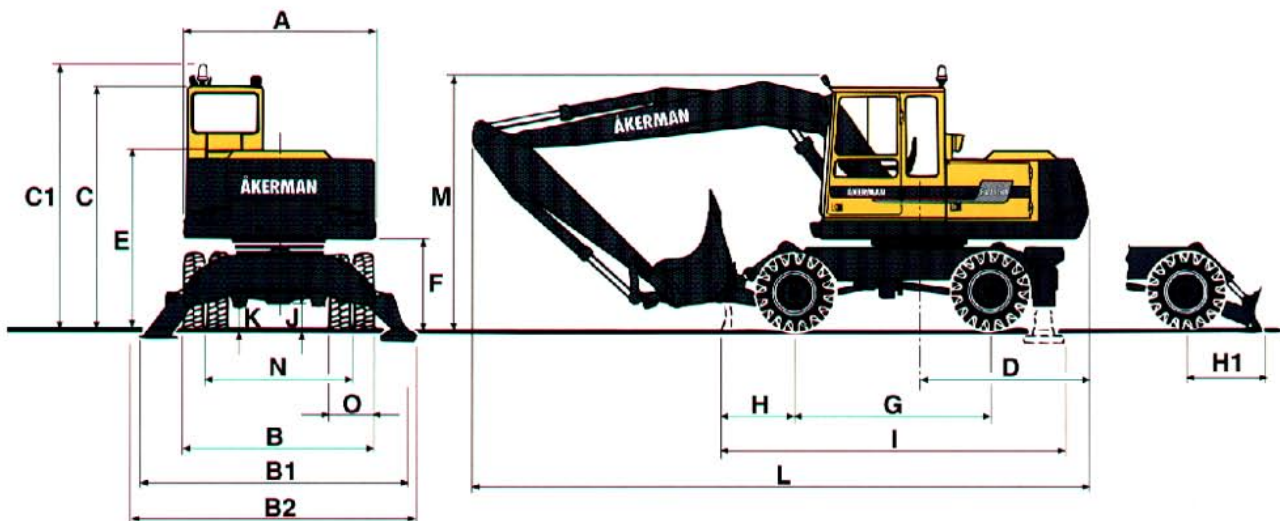
ECO = Travel

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

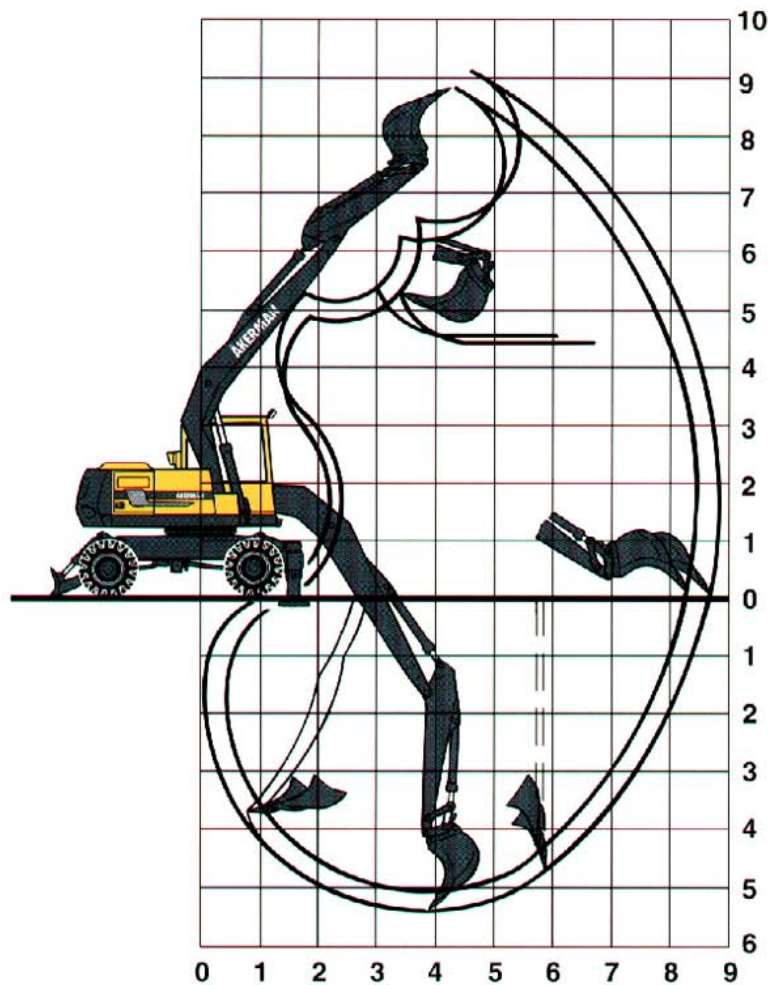
Pump P1			
Max. pressure	MPa		31
Max. flow	l/min		46
Pumps P2 and P3			
Max. pressure	MPa		30
Max. flow	l/min		2 x 81
Servo pump			
Pressure	MPa		6,5
Flow	l/min		23
Steering pump			
Pressure	MPa		14
Flow	l/min		23

DIMENSIONS



A:	mm	2430	H:	mm	980
B:	mm	2500	H1:	mm	980
B1:	mm	3520	I:	mm	4430
B2:	mm	3530	J:	mm	350
C:	mm	3120	K:	mm	300
C1:	mm	3400	L:	mm	7980
D:	mm	2170	M:	mm	3400
E:	mm	2300	N:	mm	1910
F:	mm	1180	O:	mm	580
G:	mm	2500			

WORKING RANGES



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

DIGGING FORCE

Bucket digging force*	kN	86
Dipper arm force*		
with 2,0 m dipper arm	kN	63
with 2,4 m dipper arm	kN	56

* HD-bucket, 600 l SAE.

BUCKET COMBINATIONS

BUCKETS for quickfit	Volume SAE l	Cutting width mm	Weight kg	Suitable for arm	
				2,0 m	2,4 m
Backhoe buckets 1,8 t/m ³	500	930	390	•	•
	600	1000	450	•	•
	700	1070	490	•	•
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, 4,9 m boom, 2,4 m dipper arm, hydraulic quickfit, 600 l bucket and counterweight 2500 kg.

Total machine weight, incl. dozer blade

front and outriggers kg 14 400

Axle load

Front axle kg 6 200

Rear axle kg 8 200

Total machine weight, incl. dozer blade rear kg 13 450

Axle load

Front axle kg 5 730

Rear axle kg 7 720

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																
		3,0 m		4,5 m		6,0 m		7,5 m		Max. reach		Max. m						
4,9 m boom 2,0 m arm Quickfit Outriggers and dozer blade down	6,0 m					4,46	2,63	6,84	2,63	4,46	2,63	6,84	2,63	6,0				
	4,5 m			6,84	3,03	10,8	3,03	4,38	2,69	6,72	2,69	3,44	2,60	5,26	2,60	7,0		
	3,0 m			6,42	3,77	10,3	3,77	4,22	3,00	6,52	3,00	3,09	2,64	4,75	2,64	7,4		
	1,5 m			6,11	4,55	9,98	4,55	4,06	3,29	6,34	3,29	2,98	2,70	4,59	2,70	7,5		
	0,0 m			5,99	4,78	9,85	4,78	3,97	3,45	6,24	3,45	3,05	2,77	4,73	2,77	7,3		
	-1,5 m	12,1	6,58	23,3	6,58	5,98	4,54	9,84	4,54	3,96	3,31	6,23	3,31	3,43	2,82	5,34	2,82	6,7
	-3,0 m	12,1	5,27	23,1	5,27	6,08	3,69	9,93	3,69					4,47	2,72	7,04	2,72	5,6
4,9 m boom 2,4 m arm Quickfit Outriggers and dozer blade down	6,0 m					4,51	2,33	6,88	2,33			3,93	2,42	6,00	2,42	6,5		
	4,5 m			6,94	2,75	11,0	2,75	4,41	2,49	6,76	2,49	3,15	2,40	4,82	2,40	7,4		
	3,0 m			6,53	3,51	10,5	3,51	4,24	2,83	6,56	2,83	3,04	2,52	4,66	2,52	7,8		
	1,5 m			6,16	4,35	10,1	4,35	4,07	3,17	6,37	3,17	2,96	2,64	4,58	2,64	7,9		
	0,0 m			5,99	4,74	9,87	4,74	3,96	3,40	6,24	3,40	2,91	2,67	4,52	2,67	7,7		
	-1,5 m	12,0	6,91	23,1	6,91	5,95	4,62	9,83	4,62	3,92	3,36	6,20	3,36	3,08	2,60	4,80	2,60	7,2
	-3,0 m	12,1	5,79	23,1	5,79	6,02	3,99	9,90	3,99	4,01	2,75	6,30	2,75	3,92	2,65	6,15	2,65	6,1
2-piece boom – 4,9 m 2,0 m arm Quickfit Dozer blade rear down	6,0 m					2,97	2,63	5,76	2,63			2,97	2,63	5,76	2,63	6,0		
	4,5 m			4,52	3,03	9,10	3,03	2,91	2,69	5,65	2,69	2,26	2,60	4,41	2,60	7,0		
	3,0 m			4,16	3,77	8,62	3,77	2,76	3,00	5,47	3,00	2,01	2,64	3,97	2,64	7,4		
	1,5 m			3,87	4,55	8,27	4,55	2,62	3,29	5,30	3,29	1,92	2,70	3,83	2,70	7,5		
	0,0 m			3,76	4,78	8,14	4,78	2,53	3,45	5,19	3,45	1,96	2,77	3,94	2,77	7,3		
	-1,5 m	7,15	6,58	18,7	6,58	3,75	4,54	8,13	4,54	2,52	3,31	5,18	3,31	2,20	2,82	4,45	2,82	6,7
	-3,0 m	7,23	5,27	18,5	5,27	3,84	3,69	8,23	3,69					2,87	2,72	5,87	2,72	5,6

Tipping load *



Hydr. lifting capacities **

* Regardless of the hydraulic lifting capacity of the machine.

** Regardless of the stability of the machine.

Working pressure = 30 MPa (300 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

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

Superstructure

Counterweight 2500 kg

Safety and Comfort

Cab heating with 14 outlets
 Filtered air intake
 Cab skylight
 Tinted windows (clear front)
 Emergency exit through rear window
 Ergonomically designed and adjustable operator's seat, with heating coils
 Internal sun visor
 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

Safety bar for control levers
 Hose rupture valve on boom cylinder
 Adjustable steering wheel
 Double intermittent windscreen wipers
 Rotating beacon
 Hazard flashers
 Windscreen washers
 Hydraulic refuelling pump, 90 l/min
 Compressor horn
 Over load 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

4,9 m monobloc boom
 2,4 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
 Volvo diesel driven engine and cab heater, with digital timer
 Immersion heater, 220 V
 Exhaust ejector
 Oil bath precleaner for inlet air

Undercarriage

Twin wheels
 10.00 – 20 PR14
 Single tyres
 Mud guards
 Stone protection rings
 Widening rings 2x50 mm
 Oscillating outriggers plates
 Dozer blade, rear
 Tow hook
 Tool box

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

Hydraulics

Biologically degradable oil
 Hydraulic equipment for:
 slope bucket
 grab
 hydraulic hammer
 2-piece boom

Equipment

5,0 m – 2-piece boom
 2,0 m dipper arm
 Extra headlights on the boom
 Ripper tooth
 Hammer plate
 Grab holder
 Various buckets

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 2 430 0036 ENGLISH (global)

Printed in Sweden 03.03.95