

OPERATION AND MAINTENANCE MANUAL

COM 3010

CUMMINS engine

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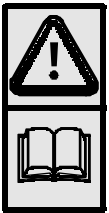
Read the instruction mentioned in the manuals before manipulating with this device

This manual contains:

I. Specification manual

II. Driver's manual

III. Lubrication and Maintenance manual



Read the instruction mentioned in the manuals before manipulating with this device



This manual contains basic information on the operation and maintenance of the machine in general. For more extensive repairs it is necessary to follow the Shop Manual, or have the repair done by an authorized service shop. Should the machine be damaged or should other defects appear because of non-adherence to specified procedures, improper maintenance or repairs, the manufacturer is not responsible for machine (products) defects caused by non-adherence to specified procedures, incorrect maintenance, or repairs.



SPECIFICATION MANUAL
COM 3010

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1.1. Basic Data

Basic Data

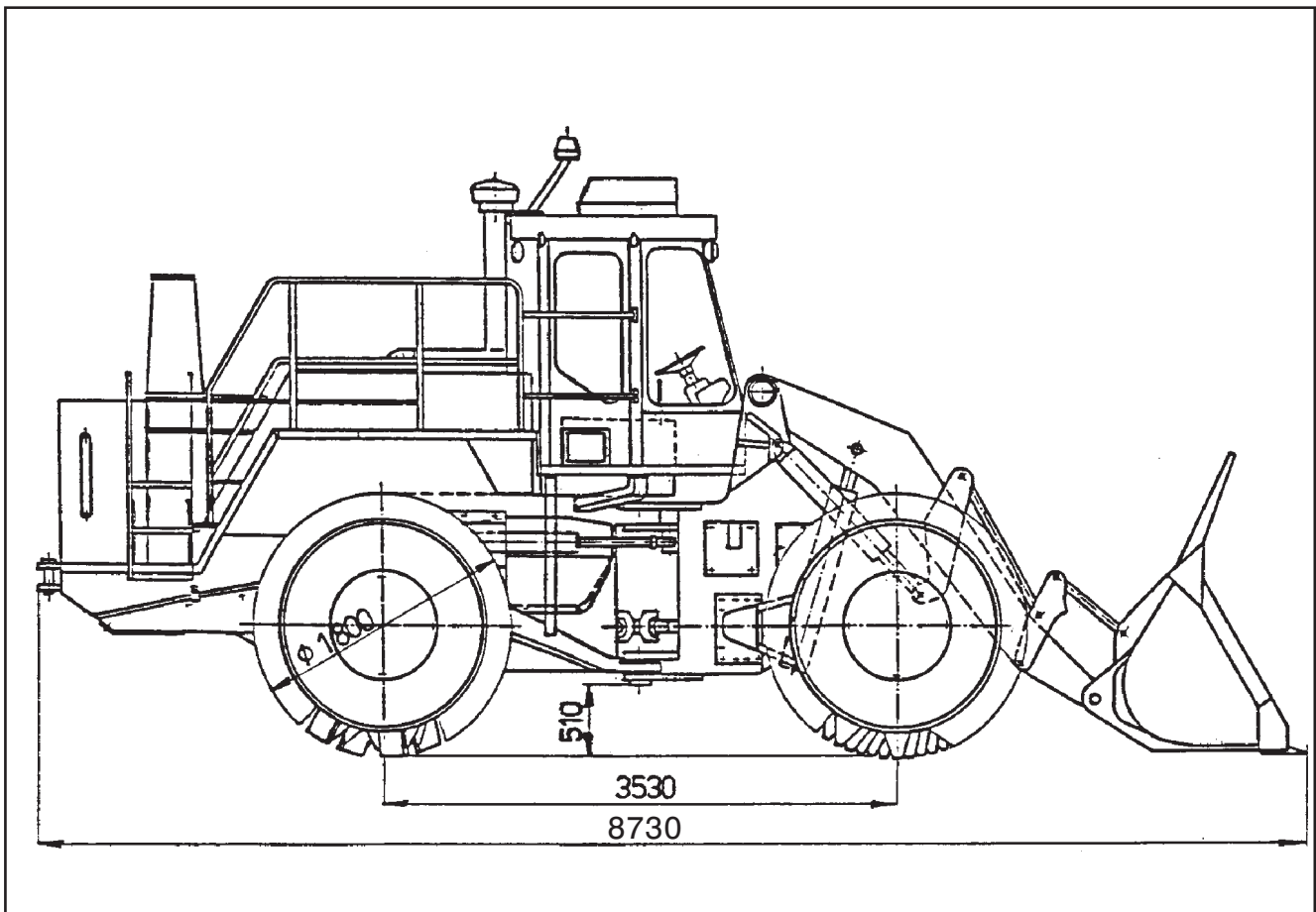
The waste compactor COM 3010 is unique with its state-of-art design, adopted technologies and styling. The machine offers maximal comfort to the driver, is easy to drive and maintain and is highly reliable. The machine has excellent compacting output at the landfills.

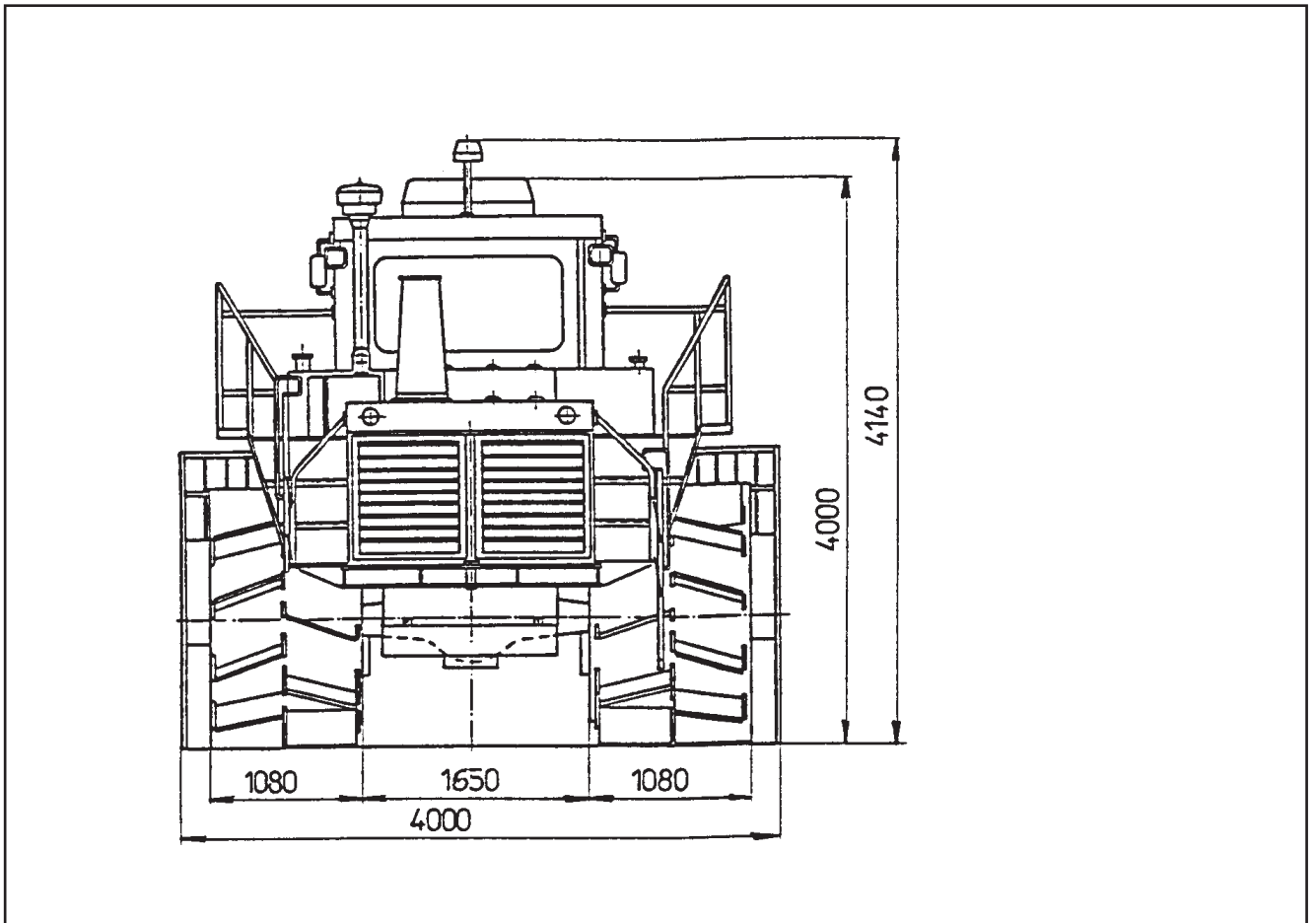
Application Range

The COM 3010 waste compactor is suitable for compaction of municipal waste, buried at large-size landfills. It enables loading, carrying and dozing of the supplied material by means of the shovel. In addition, the compactor can be used also as a loader for materials of specific weight up to $1,5 \text{ t/m}^3$ when carrying the cover material around the landfill. The material is compacted by means of pads and blades welded on the circumference of the steel wheels.

Low turning radius enables good maneuverability. The machine passes well through the terrain and the bottom parts is perfectly protected by covering against accidental damage.

1.2. Dimension Scheme of the Machine





1.3. Technical Data

1.3.1. Weights

Machine equipped with rear wheels and plates

Operation weight according to ISO 6016	kg (lb)	30 590	(67420)
Operation weigh :			
to the front axle	kg (lb)	16 390	(36 123)
to the rear axle	kg (lb)	14 200	(31 297)
Operation weight CECE	kg (lb)	30 490	(67 307)
Operation weigh :			
to the front axle	kg (lb)	16 338	(36 066)
to the rear axle	kg (lb)	14 152	(31 241)

Machine equipped with padded rear wheels and with rear scrapers.

Operation weight ISO 6016	kg (lb)	31 980	(70 504)
Operation weigh :			
to the front axle	kg (lb)	17 170	(37 853)
to the rear axle	kg (lb)	14 810	(32 650)
Operation weight CECE	kg (lb)	31 800	(70 107)
Operation weigh :			
to the front axle	kg (lb)	17 080	(37 655)
to the rear axle	kg (lb)	14 720	(32 452)

Weights may differ from the above data when some optional accessories are mounted on.

1.3.2. Main Dimensions

Total length	mm (in)	8 730	(343,7)
Total width	mm (in)	4 000	(157,4)
Width over the wheels	mm (in)	3 810	(150,0)
Height with the air-condition	mm (in)	4 000	(157,4)
Height with the safety beacon	mm (in)	4 140	(162,9)
Minimal ground clearance	mm (in)	510	(20,0)
Wheel base	mm (in)	3 530	(138,9)
Rear access angle	(°)	23	
Oscillation of the rear axle	(±°)	14	
Inner wheel track	mm (in)	1 650	(64,9)

Machine equipped with rear wheels and plates:

Inner outline turning radius	mm (in)	7 500	(295,2)
Max. turning angle	(±°)	43	

Machine equipped with padded rear wheels and with rear scrapers.

Max. turning angle	(±°)	39	
Inner outline turning radius	mm (in)	8 250	(324,8)

1.3.3. Travel Characteristics

Travel speed can be infinitely controlled within the range of the individual gears, in both directions.

I. gear forward / reverse	km/h (MPH)	0 - 5,5 / 0 - 5,5 (0 - 3,43 / 0 - 3,43)
II. gear forward / reverse	km/h (MPH)	0 - 8,8 / 0 - 8,8 (0 - 5,5 / 0 - 5,5)
III. gear forward / reverse	km/h (MPH)	0 - 16 / 0 - 16 (0 - 10 / 0 - 10)
Theoretic gradability at the 1st gear	%	81,1
Transversal stability in max. turned position (static)	(°)	32

1.3.4. Engine

Manufacturer	Cummins Engine Company		
Type	M 11 - C 290		
Serial number		
Number of cylinders	6		
Bore	mm (in)	125	(4,92)
Stroke	mm (in)	147	(5,79)
Total cylinder volume	cm ³ (cu in)	10800	(660)
Engine output CSN 30 2008 (ISO 1585)	kW	216	
Rated speed	min ⁻¹ (RPM)	2100	
Torque at rated speed	Nm (lb in)	983	(8690)
Max. torque at 1300 speed/min	Nm (lb in)	1328	(11754)
Specific fuel consumption at max. torque	g/kWh	211	
Fuel consumption at normal operation	l/h (galUS/h)	29,4	(7,75)
Type of fuel cleaner	FF 1212		
Type of oil cleaner	LF 9009		
Type of air cleaner	Donaldson FRG13-0061, with rotary precleaner H00-2223		
Type of alternator	DR 21S1-200, 24V, 70A*		
Type of starter	DR 42 MT 400, 24V*		
Cooling system of the engine	Water-cooled engine with combined radiator Nis-sens		

Engine fulfills requirements of EUROMOT 97/68/EC
EPA/CARB OFF HIGHWAY

* When ordering spare parts, always state the engine serial number.

1.3.5. Gear-Box of Travel

Hydromechanical reversible type	3 WG 260	3-gear gear-box ZF with electric gear shifting
Control unit	EST 37	
Type of torque convertor	F & S. 340	
Converting ratio	2,314	
Mechanical gear ratios:		
I. gear	forward 4,533	reverse 4,533
II. gear	forward 2,206	reverse 2,206
III. gear	forward 0,969	reverse 0,969
Gear ratio of pump drive	1	

1.3. Technical Data

1.3.6. Axles

The front axle and the rear one are of the same design; they only differ in the sense of crown wheel and pinion spiral lead and in fastening to the frame of the machine. The front axle is fixed, the rear one is oscillating.

Total gear ratio of the axle	24,9
Gear ratio of the reduction gear	5,11
Gear ratio in the wheels	4,875

1.3.7. Brakes

Service brake	multi-plate type, built in the wheels, pneumatically controlled through a rubber membrane		
Parking and emergency brake	disc brake at the output from the gear-box, controlled by a brake main cylinder, with pneumatical release		
Release pressure	kPa (PSI)	520	(75,4)

1.3.8. Power Steering

Hydraulic power steering with two hydraulic cylinders

Pump of steering	CASAPPA HDP 35.80 - DO		
Flow per revolution	cm ³ (cu in/rev)	80	(4,86)
Pump speed	min ⁻¹ (RPM)	2100	(2100)
Flow booster of the power steering	ZPS 16-16-20-0		
Power steering unit	LAGBX 200-1		
Hydraulic cylinder	HV 110/55/880-111211		
Safety pressure	MPa (PSI)	16	(2320)
Steering angle horizontally, max.			
rear wheels with plates	(±°)	43	
rear wheels with lugs and scrapers	(±°)	39	

1.3.9. Compactor Wheels

The front axle is equipped with compacting wheels with lugs, the rear axle can be equipped with compacting wheels with plates, or wheels with lugs and scrapers.

Wheel dia over pads (plates)	mm (in)	1 800	(70,86)
Wheel width	mm (in)	1080	(42,51)
Height of pads (plates)	mm (in)	200	(7,87)
Number of pads in a line / Number of lines	12 / 5		
Number of plates in a line / Number of lines	10 / 2		
Contact area of a pad	cm ² (sq in)	50,4	(7,81)
Contact area of a plate	cm ² (sq in)	151,5	(23,48)
Weight of a pad wheel	kg (lb)	2154,9	(4749,1)
Weight of a plate wheel	kg (lb)	1832,9	(4069,0)