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MOBILITY SOLUTIONS

GARBAGE COMPACTOR 23 + 2 M^3

JAP Africa presents the 23+2m^3 Garbage Compactor.
Our garbage trucks are developed according to the most modern urban requirements, offering an increased payload per round, thus decreasing garbage transportation time. They are task-oriented designed to systematically work with reliability, efficiency, and sustainability, thanks to innovation and high-tech systems brought to you by top quality engineering and workmanship, sophisticated technology, state-of-the-art compaction mechanism.
The Garbage Compactor product line is available on different capacities and designs, and can be mounted on the most adequate MAN chassis for your job.

JAPAFRICA MOBILITY SOLUTIONS, UNIPESSOAL LDA

Registada Cons. Reg. Com. Funchal
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Capital Social 505.000,00€

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AUXILIARY CHASSIS	EN 10025-S355 quality steel sheet 8 mm pressed C-shape sheet metal, same width as the main chassis
	Cross-section height of the chassis determined by taking into account the amount of settlement of the vehicle suspension when it is loaded, leaving adequate gap for skid chain between the rear wheel and the mudguard
	Detachable connections
	Connected to the vehicle chassis with bolts using proper connection brackets as recommended by the chassis vehicle manufacturer
	Flexible front connections, bolts and nuts of the quality and size deemed appropriate by MAN, and tightened in way and to the torque allowed by the Brand
COMPACTOR BODY	Capacity: 23m^3, excluding hopper capacity
	Body floor manufactured from EN 10025-S355 quality steel sheet with a minimum thickness of 5 mm
	Side walls of the body manufactured from EN 10025-S355 quality steel with a minimum thickness of 5 mm aesthetically shaped curved convex metal plate
	Ceiling manufactured from EN 10025-S355 quality steel with a minimum thickness of 4 mm. water accumulation shall be prevented on the ceiling.
	Tank with a ball valve to accumulate the leachate and the accumulated water shall be able to be emptied at the unloading location, placed under the front bottom plate
	Suitable eyebolts to be used in the dismantling of the equipment when necessary
	Spare wheel will be put suitable place of the truck

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COMPACTION & DISCHARGE PLATE	Panel frame bearings covered with abrasion and acid-resistant polyamide; easily replaceable bolted connections or equivalent material
	Compaction and discharge plate 4 mm thick EN 10025-S355 quality steel sheet metal
	Compaction and discharge plate shall be formed by covering the surface of the panel frame which also carries the panel bearings and comes into contact with waste
	Minimum 4 mm thick EN 10025-S355 quality steel sheet metal
	Body motion on top of slides mounted horizontally on the sides of the body, using an extendable telescopic cylinder with at least 2 levels supported by the front body strut
	When the body is empty the plate stays at the rear end; when the waste is loaded, rear lid compaction mechanism moves forward by releasing hydraulics in an adjusted pressure via a pilot-controlled valve alerted by the hydraulic pressure
	Discharge is done by the discharge plate being pushed to the rear end of the body as a result of the telescopic panel cylinder being fully opened after the rear lid is opened, since the panel moved up to the front side of the body when it was loaded
	The duration for the panel to reach from the front to the rear end of the body is less than 90 seconds
TAILGATE	The tailgate is hinged to the body from the rear top and is opened upwards with hydraulic cylinders
	It locks automatically when the back cover is closed
	Lock ears will be placed under the rear of the body, hydraulic cylinders tailgate hinges and locks will be placed on the same axis to prevent itching and crashes
	Lock safety valves on the tailgate cylinders avoiding the tailgate drop in order to prevent hose bursts when the tailgate is open; folding safety locking mechanism under the tailgate, in order to prevent tailgate cylinders from being under constant load when the tailgate is open during maintenance

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TAILGATE (continued)

Easily replaceable mono-block acid- resistant rubber gasket on the tailgate in order to ensure leak proofing between the tailgate and the body

In order to ensure that the tailgate pushes against the gasket, locking tabs and the axes of the upper tailgate connection lugs are not parallel to the closing surface and have a certain angle such that the gap between tailgate and body is reduced when it moves downwards in the slot axis; locking tabs and upper tailgate connection lugs' slot sliding directions are parallel with each other

The tailgate not touching the waste chamber (hooper) shall be made of 2mm thick EN 10025-S355 quality steel sheet

HOOPER

The hooper has 1,2 m³ capacity to the brim and 1,5 m³ when piled on

Side walls shall be made of 4 mm thick EN 10025-S355 quality steel sheet

Floor made of 6 mm thick EN 10025-S355 quality steel sheet

Reinforcement made of pressed U-shape sheet metal

The compaction mechanism with slide moving in a linear motion on top of the grooves, rotary shovel at its end, solid steel material placed on the side walls of the tailgate

Shovel surfaces in contact with waste are made of 6 mm thick EN 10025-S355 quality steel sheet metal

The shovel gathers the waste in the hooper in a rotation motion, compacts the waste with an upward linear motion of the slide parallel to the tailgate surface and transfer it to the chamber; the total cycle period of the slide and the shovel shall not exceed 25 seconds in the automatic position

Linear motions of the slide and the rotary motions of the shovel are ensured via two hydraulic cylinders each, hydraulic cylinders of the slide are placed outside the hooper on the sides, and the hydraulic cylinders of the shovel are connected to the sliding system with bearings

The sliding system moves on top of the sliding grooves within shoes made of high-density abrasion-resistant materials; these shoes shall be replaceable without dismantling the slide; the centering of the slide inside the rear lid is made with adjustable shoes of the same properties.

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HOOPER (continued)

The container arms loading system placed on the tailgate is foldable and able to empty at 120/240 and 1100 liter euro container sizes of waste containers into the waste loading hooper; during unloading, the container is able to rotate between 110-145 degree with regard to its first position

Skip-loader arms for lifting of 5CBM containers protected with outrigger, pushing the floor before large container lifting up

Foldable non-slip stepping surfaces and handles on both sides of the back of the tailgate

Tailgate lifting and sliding cylinders and hydraulic connections placed on the sides of the tailgate made of 2 mm thick EN 10025-S355 quality steel sheet metal, hinged and lockable, protected by right and left side tailgate

Self-aligning bearings are used for upper and lower connections of all the hydraulic cylinders on the tailgate (tailgate lifting, sliding and shovel cylinders)

HYDRAULIC INSTALLATION

Hydraulic power provided by hydraulic pump connected to PTO, controlled from the vehicle's cabin

The hydraulic installation consists of

-- 1 oil tank
-- 1 hydraulic pump
-- 2 tailgate cylinders
-- 2 slide cylinders
-- 2 shovel cylinders
-- 1 compaction and discharge plate telescopic cylinder
-- suction and pressure pipes and hoses
-- manually controlled valves

All movements in the system are executed by hydraulic power whereas hydraulic power shall be provided through a hydraulic pump

Hydraulic pump is 200 bar pressure, driven by a PTO coupled vehicle's gearbox

60 liters/minute of oil at the engine revolution level adjusted tor manual accelerator and automatic accelerator

Hydraulic system max. pressure of 175 bars on any of the hydraulic equipment

Adjusted engine revolution shall not be higher than the torque revolution

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HYDRAULIC INSTALLATION (continued)

Hydraulic pistons used in the system shall be double acting; hydraulic locking valve to prevent hose bursts at the rear lid lift cylinders; hydraulic cylinder bodies made of seamless cold rolled St 52 BK quality pipe to DIN 2391C standards;
internal surfaces are honed and polished, internal surface roughness shall be 0.4 microns, flatness will be 1:2000mm, tensile strength will be 60 kg/mm², yield limit will be 47 kg/mm², elongation elasticity will be a5:15% and the inside diameter tolerance shall be to ISO H8 standard

Pipes used in the hydraulic installation are seamless cold rolled St 35.4 quality, normalized and bonderized to DIN 2391ºC standard with its phosphate coat in its interior and exterior;
tensile strength will be 36/48 kg/mm², elongation elasticity will be 23%

Hydraulic hoses able to operate within -40°C/+120°C temperature range and resistant to hydraulic oil and external factors

Pressure hoses made of nitrile rubber according to SAE 100R2 standard with double layer spiral steel wire reinforcement

Nitrile rubber suction hoses according to SAE 100R4, able to operate within -40°C/+120°C temperature range and resistant to hydraulic oil and external factors, rayon cord fabric between layers reinforced with spiral mesh and neoprene rubber upper side layer; screening protection (spiral wrap, etc.) applied to the exterior of hydraulic hoses in order to protect them against external factors and sudden hose bursts

All equipment parts operating under pressure shall be able to endure at least 2 times of the pressure they bear

Hydraulic tank volume capacity of 70lt with oil level gauge and thermometer, ventilated tank lid, suction filter of 125 µ and 100 lpm, return filter of 25 µ 125lpm on the tank, discharge plug at the bottom of the tank; the filter permeability shall not be less than 100 liters/minute

High quality control valves, tempered and hardened shafts and NBR sealing elements that will allow up to 2 cm³ leakage per minute to withstand 250 bar pressure

Greased nipples at all joints in the system

Tailgate opening-closing and compression-discharge plate provides forward / backward movement by R ½" manual directional control valve with serial nipple and safety valve (system pressure 150~160 bar)

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HYDRAULIC INSTALLATION (continued)

Sliding shovel movements on the back cover mounted on the manual - controlled R ½" size directional control valve is provided so that all the energy taken from the vehicle in the automatic operation will be spent for compaction

Manually operated port of the valve mounted on the back cover is used for the control of the waste container emptying system

ADDITIONAL ELECTRICAL AND CONTROLS

Electrical installation used in the superstructure complies with EN60204-1 standards, certified flexible cables and passed through protection tubes; the complete electrical installation is done with proper mounting brackets and without touching the metal surfaces, fuses and relay boxes for electrical equipment are mounted in compliance of EN 60529 IP 65 protection class; control box compliant with the standard type of protection against external elements

Limit and pressure switches for slide and shovel movements

System logics via printed card; control buttons and printed card placed in a protection box from external elements

1 rotating amber lamp, a rear work floodlight controlled from inside the cabin

Tailgate lifting and discharge panel movement by double hydraulic controlling valve with a safety button and manual accelerator placed in the front left side of the hooper

Shovel, slide and container unloading controls on the tailgate are placed on the right side of the tailgate; control can be performed manually via the hydraulic control

Controls suitable for operating with hand gloves and the button diameters shall be at least 20 mm; erasure-resistant markings on the controls easily visible on size and color

Each step of the movements of the clamping process can be controlled manually by means of the control levers located on the right side of the back cover, so that it can be performed in both directions

Tailgate is opened for discharge via control levers in front of the case; compaction and discharge plate will be moved backwards

While tailgate is open, the system of the bolt-shovel is operated by the system on the body. Therefore, thus ensuring the hooper is emptied

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ACCESSORIES	Mudguards and mud flaps on rear wheels
	Light projector at the back of the vehicle
	Aluminium folding bicycle barriers
PAINTING & LABELING	All equipment parts are sanded and cleaned with required chemicals before painting; surface leveling is done by paste, onto at least 70 µ epoxy primer; exterior surfaces are painted with the same color of the cabin; bottom surfaces and mudguards, if metallic, are painted on the same color of chassis; interior surfaces shall be painted with epoxy topcoat, thickness shall be at least 40 µ
	Total paint thickness will be at least 110 µ; drying will be done by oven
	Color to be chosen by Customer
	Reflective strips and markings, in accordance with ECE R-104 (2002) requirements
	instructions, warnings or precautions made from non-corrosive material; particular attention is paid to areas where water could be trapped during road travel and vehicle washing; mandatory markings, warnings and function tagging shall be of an easily visible size and color, and protected from erasing or dropping

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NOTES

JAP Africa reserves the right to introduce minor changes to improve operational and performance related aspects of the vehicle and if also necessary to supply equivalent equipment/components if they should become unavailable or obsolete. Pictures are presented for reference purpose only. Actual units may differ.

MORE INFO

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