

# SAKAI®

## GW751



## vibrating tire roller

### The world's first vibrating tire roller that meets all compaction needs

Conforms to the 2012 exhaust gas regulations for road transportation vehicles  
Conforms to the 2011 Standards of the Off-Road Law

• Muffler integrated DPF adoption

#### Equipped with ECO mode

• Up to 30% improvement in fuel efficiency (compared to our conventional model)

• 8 dB lower than the low noise standard

#### Improved maintainability

• Displays the amount of soot deposited on the DPF meter

• DPF regeneration possible

• Extended engine oil change interval

• Resin tank with filter, stainless steel pipe,

Equipped with metal one-touch nozzle with filter as standard equipment



Specified Special Motor  
Vehicle Exhaust Gas 2011  
Standard Compliant Vehicle



Low-noise  
construction machinery

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the beginning of the world

on pneumatic tires

Uses a variable amplitude vibration mechanism



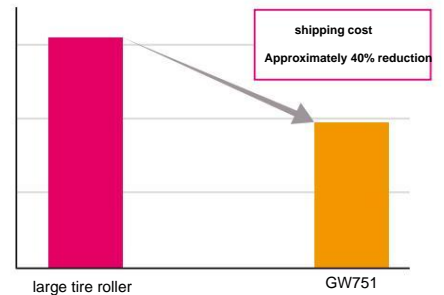
### Reduction of transportation costs and environmental load (CO2)

- Transportation costs can be reduced by approximately 40% compared to large tire rollers.

increase.

\*According to our company's estimation data.

\*Each calculated value varies greatly depending on the type of business and other factors.



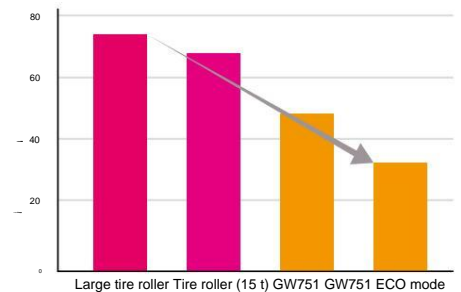
- Compared to large tire rollers, CO2 emissions during construction can be reduced.

increase.

\* Based on the calculation formula based on the fuel method (based on our construction efficiency prediction in the table below).

\*Each calculated value varies greatly depending on construction conditions and other factors.

type name	Construction time (h) per 2,000m2 per day	Fuel consumption (L) per 2,000 m2 per day
Large tire roller (25t)	3.64	28.7
Tire roller (15t)	3.64	25.8
GW751	1.55	17.3
GW751 ECO mode	1.55	12.1



## Improvement of construction environment

### • Specific special automatic car platoon $\ddot{y}$ 2011 standard fit

A muffler-integrated DPF (Diesel Particulate Filter) has been adopted.



### • Up to 30% improvement in fuel efficiency with ECO mode (compared to full throttle)

The eco lamp lights up when the accelerator lever is operated.

In ECO mode, please use flat normal vibration rolling and non-vibrating rolling.



GW751	Continuous operation time (h)	noise level
at full throttle	12.5	Low noise standard
ECO mode	17.9	8 dB lower than the low noise standard value

GW751	vibrating tire roller each amplitude stage of	Vibration force (kN)	corresponding to each amplitude step
			Conventional tire roller mass (t)
at full throttle	0	0	9
	1	7.8	10
	2	24.5	15
	3	41.9	20
	4	58.4	25
ECO mode	4	28.5	

\*The values in the above table may change depending on the construction conditions, etc., so please confirm in advance by test construction, etc. please.

\* Set the amplitude stage to 4 in ECO mode.

Vibratory force equivalent to amplitude stage 2 at full throttle.



### 8dB reduction from the low noise standard value (at the time of ECO lamp)

We have achieved a noise value that is 8dB lower than the low noise standard value (according to our internal test results).

Consideration can be given to the surrounding environment, such as nighttime construction, residential areas, schools, and hospitals.

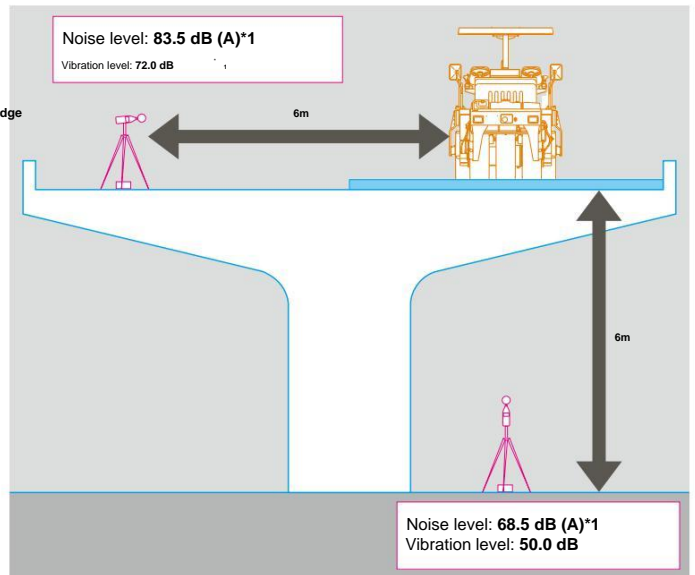
## Achieving low noise (vibration) construction

### • Shadows of noise and vibration on the lower part of the bridge during construction of the upper part of the bridge

### There is almost no sound.

\* At the lower part of the bridge, the noise regulation standard for specific construction work (85 dB (A))<sup>1</sup> and the vibration regulation standard (75dB).

\*Work noise and vibration levels are based on bridge shape and structure, bridge height, and construction conditions, etc. varies greatly.



Bridge length about 60m, bridge width about 10m Measurement example during construction

\* 1 Values are conversion values at the side of the machine and 6m directly below.

# Improved maintainability

## • Use of DPF meter

**DPF meter:** You can check the amount of soot accumulated. **Auto regeneration lamp (green):** Lights up during automatic regeneration **Manual regeneration request lamp (orange):** Flashes when manual regeneration is required **Manual regeneration switch** : Press for manual playback



## Equipped as standard with a rust-free sprinkler system and liquid spray device

(1) Since the water spray and liquid agent tank are made of resin, there is no rust. In addition, each tank is equipped with a filter to remove foreign matter from the outside. To clean the sprinkler filter, simply turn the cleaning lever. There is no need to attach or detach the filter case. (3) The one-touch watering/liquid nozzle is easy to install and remove, no tools required. The nozzle is also equipped with a filter to prevent clogging. \*Neppalan is recommended for the liquid agent (anti-adhesion agent). \*The water tank is equipped with a level gauge.



## Equipped with an easy-to-replace watering palm mat as standard equipment

One-touch attachment and detachment of the watering palm mat to the mat holder. In addition, since the mounting part is made of rubber, the sprinkling palm mat fits well on the tire.



## Standard equipment of intermittent watering system

By setting the intermittent watering time with a single switch, watering can be performed at the optimum timing and prevents the asphalt mixture from adhering to the tire surface.



## Improving construction quality

- By adopting an articulated frame, there is no unfinished step on curved sections.

The amount of overlap between the front and rear tires is 95 to 145mm.

- By adopting front and rear wheel drive system and automatic adjustment differential mechanism, extrusion and dragging of asphalt mixture are suppressed.



## Improved convenience

- Equipped with accessory socket (24V) as standard equipment

It is easy to take out the power supply.



- Equipped with a back buzzer off switch as standard equipment

Consideration can be given to the surrounding environment, such as nighttime construction, residential areas, schools, and hospitals.

Caution: When reversing, make sure that there are no people in the direction of travel before starting work when.



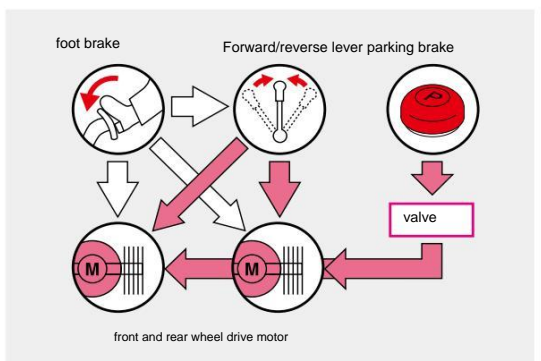
## Improved safety

- Equipped with 3 brake systems as standard

	Applicable action department	brake system
Working brake Normal	Forward/reverse lever	Hydrostatic (HST)
Traction brake Emergency brake pedal	Hydrostatic (HST) + mechanical wet multi-plate type	
Parking brake When parking	Panel button	mechanicalwetmulti-plate

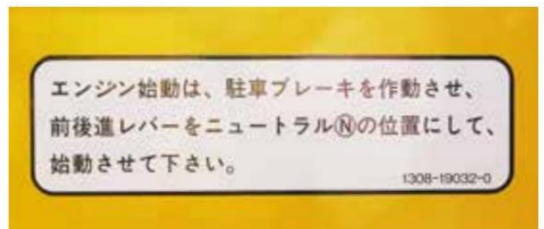
A safety system that activates a mechanical wet multi-plate brake when the engine is stopped.

We are hiring mu.



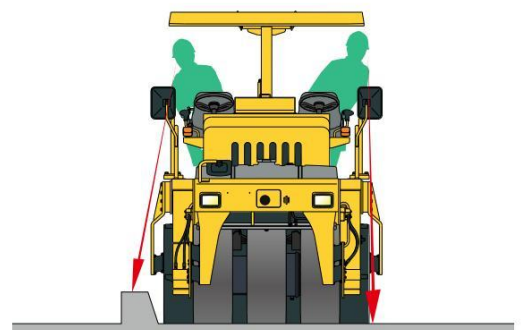
- Standard equipped with engine start safety device

The engine will only start when the forward/reverse lever is in neutral and the parking brake switch is engaged.

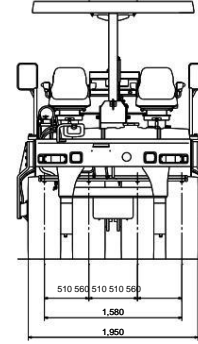
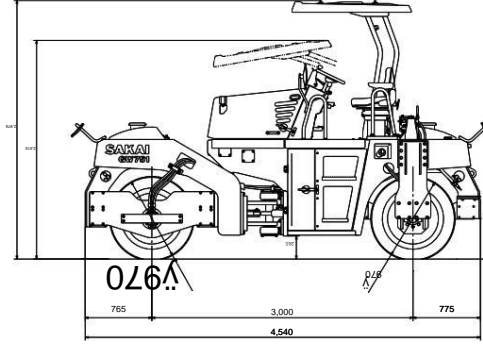
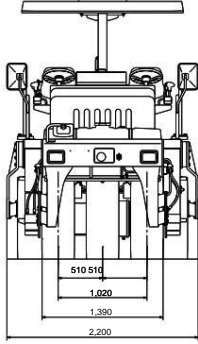


- Good visibility from left and right driver's seats

Since the driver's seat is located on the left and right, compaction work at the construction end can be done safely.



# GW751



Unit: mm

Outline specifications

Model		vibrating tire roller
Model name (nominal model)		<b>GW751</b>
Stamped model (chassis model)		1GW3
Mass Operating mass	kg	9,000
Machine mass	kg	8,440
Front axle mass (at operating mass)	kg	3,840
Rear axle mass (at operating mass)	kg	5,160
Performance Vibratory force (1 / 2 / 3 / 4)	kN/kgf	7.8 / 24.5 / 41.9 / 58.4 / 79.5 / 2,498 / 4,273 / 5,955
Vibration	H <sub>z</sub> vpm <sup>2</sup>	40/2-400
frequency Amplitude (1 / 2 / 3 / 4)	mm	0.1 / 0.3 / 0.5 / 0.7
Speed		3
stage Working speed (1 / 2 / 3)	section km/h	0.3 / 0.6 / 0.9
Hill-climbing ability	°	38/21
Minimum turning radius (based on outer ring)	m	5.4
Dimensions	mm	4,540
	mm	2,200
Overall length Overall width Overall height	mm	2,975/2,515
(when canopy is folded) Wheelbase	mm	3,000
Compaction width Tire size x number (front/rear) Tire pressure (per tire)	mm	1,950
kPa (kgf/cm <sup>2</sup> )	mm	Front: 14/70 - 20 - 12PR (OR) x 3 / Rear: 14/70 - 20 - 12PR (OR) x 4 450/4.5
Minimum ground clearance	mm	265
Curve clearance Side	mm	245
clearance Engine		125
		KUBOTA
		V3800 - CR - TI - WDR
		Diesel, water-cooled 4-stroke, common rail, with turbocharger
Manufacturer	L	3,769
Model Model	kW/PS/ly/min <sup>-1</sup>	80.8/109.9/ 2,400
Total	V (V/AHxpcs)	24/12 / 80 x 2
stroke Capacity	V/A	24 / 80
Rated output Storage battery Charging	L/h	11.2
generator Fuel		hydrostatic transmission
consumption		hydrostatic
(net: no		all round
fan) Transmission		hydrostatic
		4
		Uniaxial eccentricity, variable type
Transmission Drive system Drive wheel		Hydrostatic (HST) brake / forward/reverse lever
Vibrator Type Amplitude stage		Hydrostatic (HST) brake + mechanical wet multi-plate brake / brake pedal
Vibrator Braking device Work		Mechanical wet multi-plate brake / panel button
brake (normal) Travel		hydraulic
brake (emergency)	±"	37 / 6.0
Parking brake ( When parked) Steering device Type Steering angle / rocking angle Tank capacity Fuel tank		130
Hydraulic oil tank	L	64
Sprinkle tank	L	280x2
Fluid tank	L	19

- Operating mass is calculated with a full fuel tank and a full water spray tank, and does not include operator mass.
- This specification is subject to change without notice for performance and quality improvement.
- This display unit is the SI unit based on the International System of Units.
- The operating mass includes the canopy mass.

\* In order to operate rollers, it is compulsory to take "special education related to roller operation work".

\* Using other than the appropriate fuel may cause a significant deterioration in performance or malfunction.



Sakai Heavy Industries Co., Ltd. has a quality management system  
We have obtained ISO9001 certification.



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Training Center TEL 0480-52-6964

(The training center is outside the scope of certification.)

standard equipment

- Pawl •Tool set •Manuals •Canopy •Liquid agent spray device
- Sprinkling palm mat •Sprinkling timer •Accessory socket (24V)

option

- Michal set - Seat belt

Related laws and regulations

- § Structural standards for vehicle construction machinery
- § Security standards for road transportation vehicles (large special vehicles)
- § Regulations concerning the designation of low-noise construction machinery
- § Act on Regulation of Exhaust Emissions from Specified Special Motor Vehicles