SAKAI
MASTERS OF COMPACTION

PM550-s

Road Maintenance Machine

STABILIZER

Innovative newly-designed Stabilizer PM550-s for full depth reclamation (FDR) and soil stabilization.
It makes jobs environmentally-friendly and profitable.

High Construction Quality

- Outstanding crushing and optimized mixing
- High-powered engine
- Single operator control providing a clear view of the mixing operation
- Rotor shift mechanism (unique to SAKAI)
- All-wheel drive system for consistent traction
- Easy speed change for working and mobilizing

Improved Safety

- Four safe braking systems are provided as standard equipment
- Slim engine hood for a clear view
- Wide operator´s deck

Enhanced Maintenance Capability

- Easy access to bits and bit holders
- Full open engine hood
- Fuel filler caps on both sides
- Easy battery check / replacement
- Large toolbox space
- Emulsion spraying system

Stabilizer Method Featuring Environmentally-friendly Paving Technology Description

The Stabilizer method

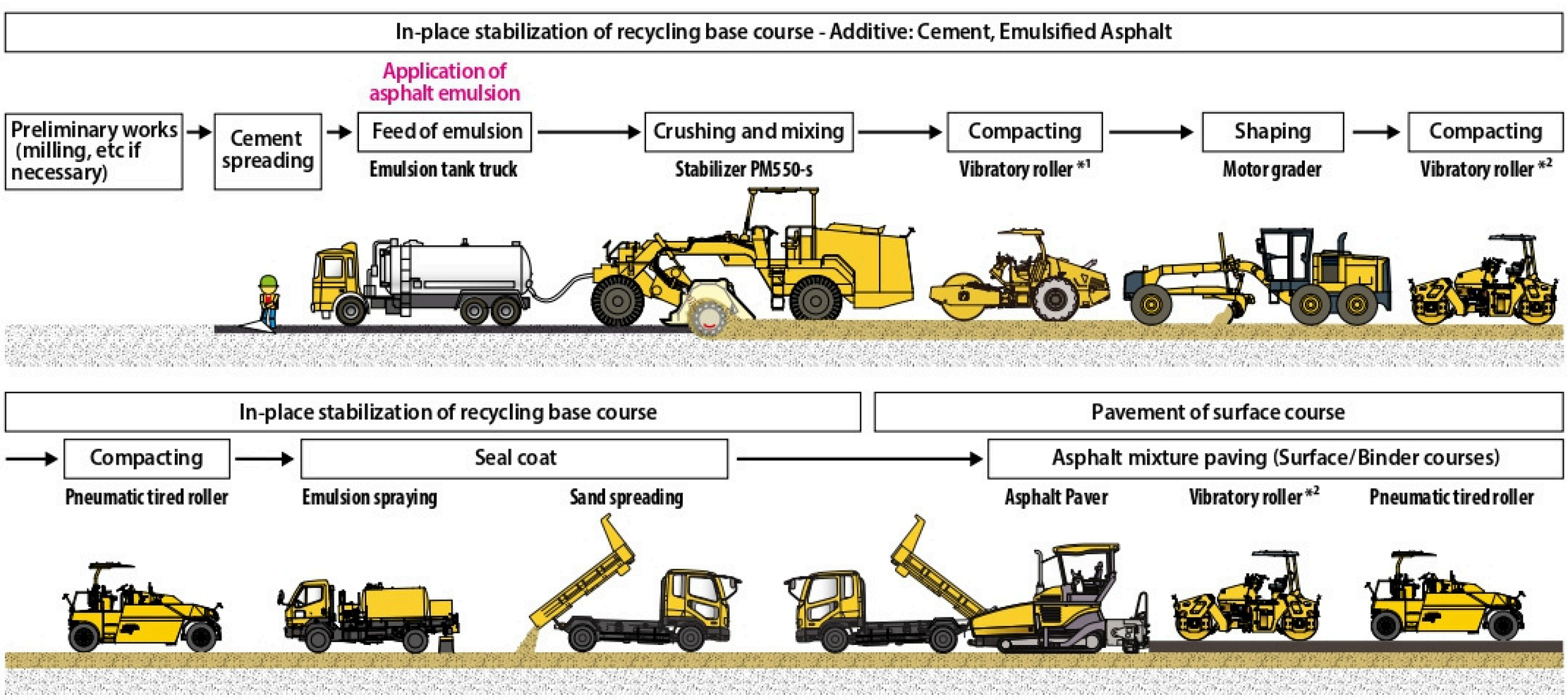
The Stabilizer method is capable for conducting in-place base course construction and/or subgrade rehabilitation by using a Stabilizer that crushes and mixes materials on site.
The method provides the following benefits and makes roadwork environmentally-friendly and profitable.

(1) Cost-saving :
Construction costs can be reduced by as much as 60 to 70% compared with conventional reconstruction or replacement methods.
(2) Resource-saving :
Existing materials are recycled on site.
(3) Shorter construction period :
Construction time can be shortened by 2/3 or less compared to conventional reconstruction or replacement methods.

* The reconstruction or replacement methods is a technique that removes the existing worn-out pavement to construct a completely new pavement.

g-edge Stabilizer with
nding Crushing and Mixing Capacity

Example of required equipment and typical application



*1 Pneumatic tired rollers and Tamping rollers are also applicable. *2 Three wheel roller is also applicable.

High Construction Quality

Outstanding crushing and optimized mixing

Outstanding crushing capacity

Material crush size can be optimized by utilizing the two-speed rotor to meet a diverse range of paving conditions.
The machine is equipped with a secondary crusher in its rotor hood so as to provide an improved crushing capability and control.

Rotor speed	
Low	High
100 rpm	130 rpm

High-strength rotor hood

Thick, high-strength steel plates are used for the side frames and top plate of the rotor hood, substantially increasing the durability of the rotor hood.

Optimized mixing

Maximum mixing depth: 430 mm. (17in)
SAKAI unique conical bit arrangement provides optimized mixing.

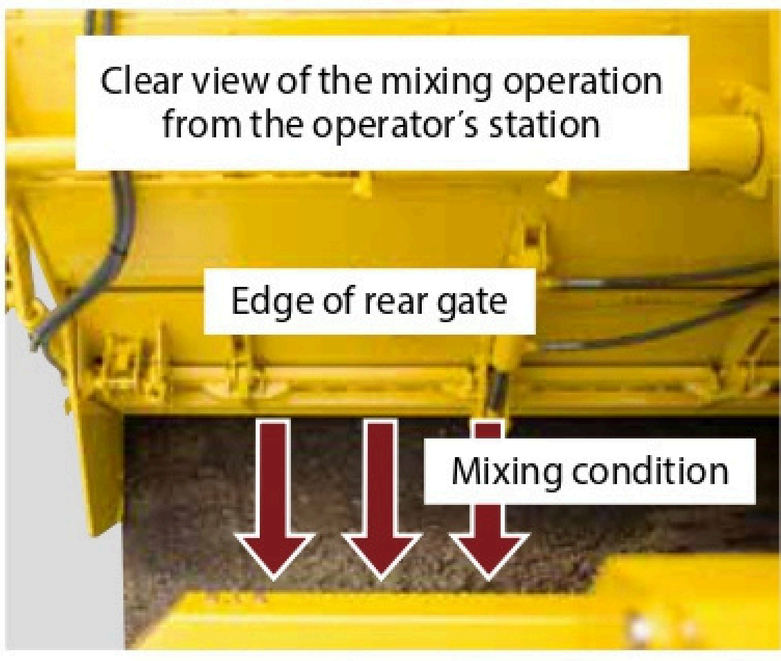
Max. mixing depth
430 mm (17 in)

Easy adjustments of crushed material size

The size of crushed materials can be adjusted so that they are uniform, thanks to the incorporation of the two-speed rotor and secondary crusher as well as the use of high-strength conical bits.

High-powered engine

Work efficiency is supported by the 370kW / 503PS (496HP) high-powered engine incorporated in the Stabilizer.



Clear view of the mixing operation from the operator's station

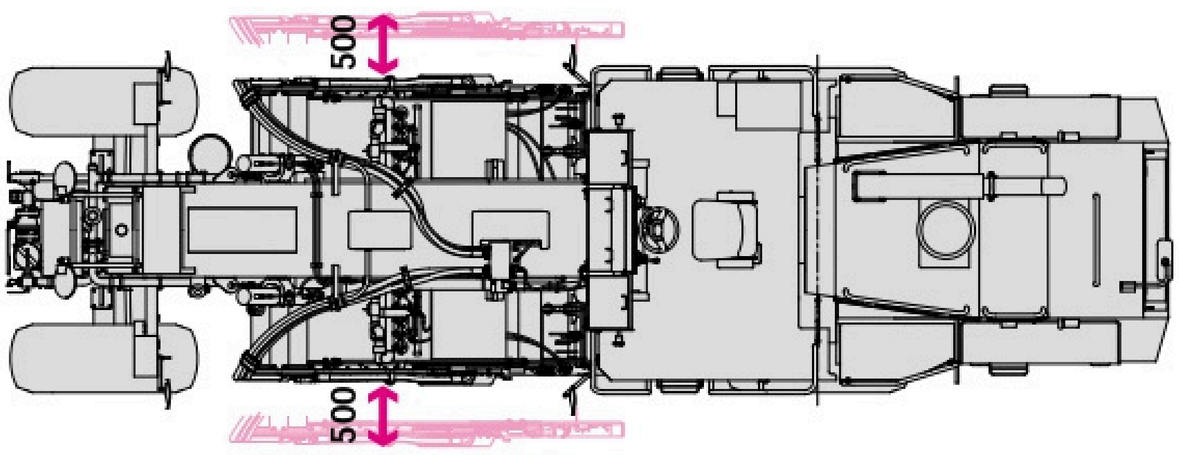
- **Single operator control providing a clear view of the mixing operation**
  Console panels are arranged on the right and left of the operator's station to provide better visibility to the conditions of crushing and mixing so that they can be easily and carefully controlled during operation. In addition, the machine is designed to permit easy adjustment of operating speed, mixing depth and rotor hood position by a single operator.

- **Rotor shift mechanism (unique to SAKAI)**

  Safe operation along shoulder of a road
  The lateral shift of the rotor hood is 500 mm (20 in) on each side, ensuring safe operation even along soft shoulders of a road.

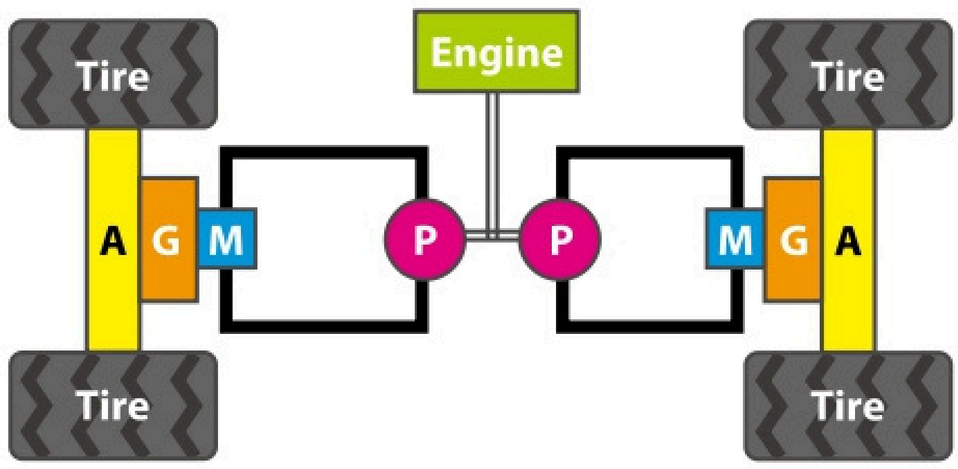
  Precision work
  The rotor hood can be shifted to run very tight to the edge of any structure to improve the working accuracy.

Rotor hood shift amount
Each side 500mm (20 in)



- **All-wheel drive system for consistent traction**
  The two-pump, two-motor HST circuit employed in the four-wheel drive system ensures consistent traction even on a slippery road surface and under other severe conditions.

P Hydraulic pump
M Hydraulic motor
G Gear box
A Axle shaft



● **Easy speed change for working and mobilizing**
One switch permits selection of one working speed and two traveling speeds. When the working speed is selected, the differential locking device built in the rear axle is activated automatically to generate better traction.

Working speed	Traveling speed	
	Slow speed	High speed
0–48 m/min 0–157 ft/min	**0–10** km/h 0–6.3 mph	**0–14** km/h 0–8.7 mph

Speed-change switch

Improved Safety

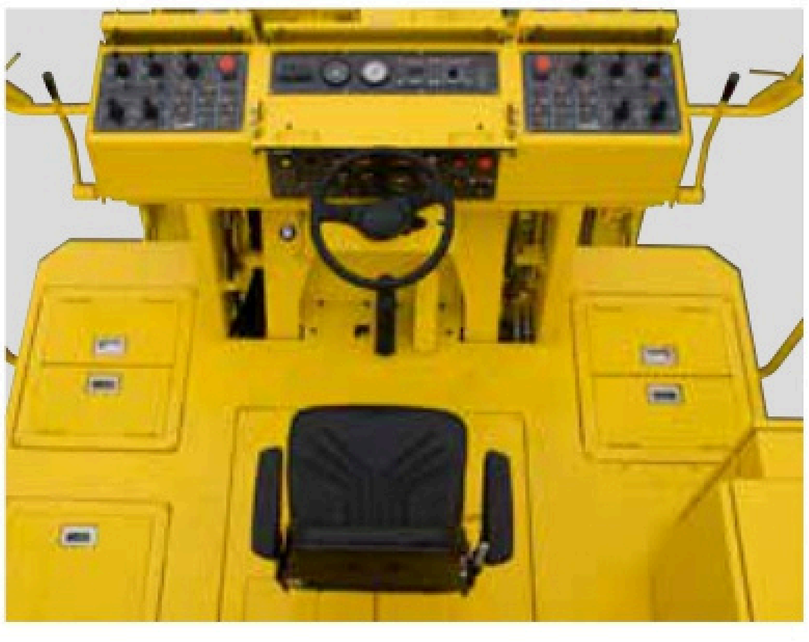
● **Four safe braking systems are provided as standard equipment**

	Application	Operating parts	Braking system
Working brake	Normal operation (self-propelling / working)	Forward-backward lever	Hydrostatic transmission (HST)
Traveling brake	Emergency	Brake pedal	Mechanical wet multi-disc type
Parking brake	Parking	Panel button	Mechanical wet multi-disc type
Emergency stop	In danger	Emergency stop switch	Engine stops and stalls Mechanical wet multi-disc type

*The safety system is designed to activate the mechanical wet multi-disc brake when the engine stalls.

● **Slim engine hood for a clear view**
The slim engine hood substantially reduces the dead angle to provide excellent sight lines for safety when reversing the vehicle.

● **Wide operator's deck**
The wide operator's deck improves visibility in all directions.



Enhanced Maintenance Capability

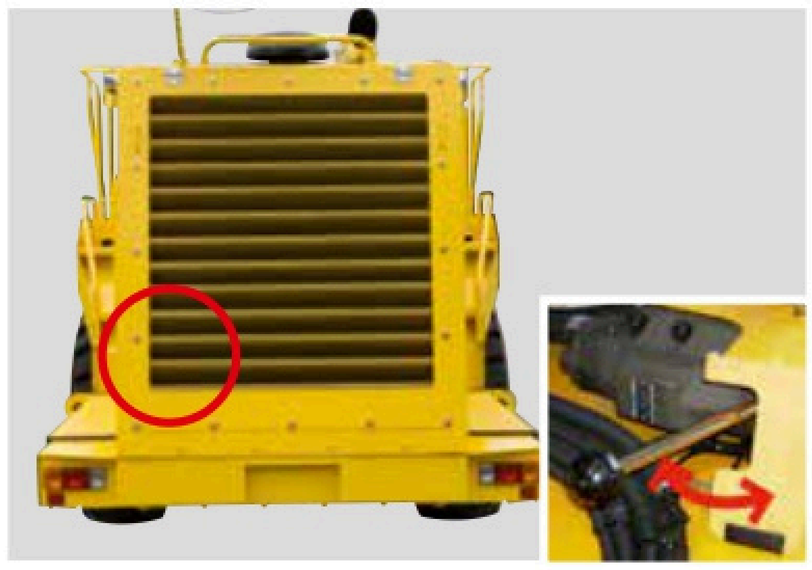
- **Easy access to bits and bit holders**
  The use of a two-stage type rear gate offers a wide opening, which facilitates access to the rotary drum and makes maintenance work easier during replacement of the cutting bits and holders.

Power-operated rotor drum inching system
A power-operated inching system has been introduced for the rotor drum to permit its rotation during engine stops, thereby ensuring safety during maintenance.

- **Full open engine hood**
  This engine hood provides quick and easy access to the engine, peripheral equipment, and the hydraulic system.

Centralized layout of the rotor, hydraulic filter for the drive system, and oil pressure gauge test port are arranged together for easy access from the ground.

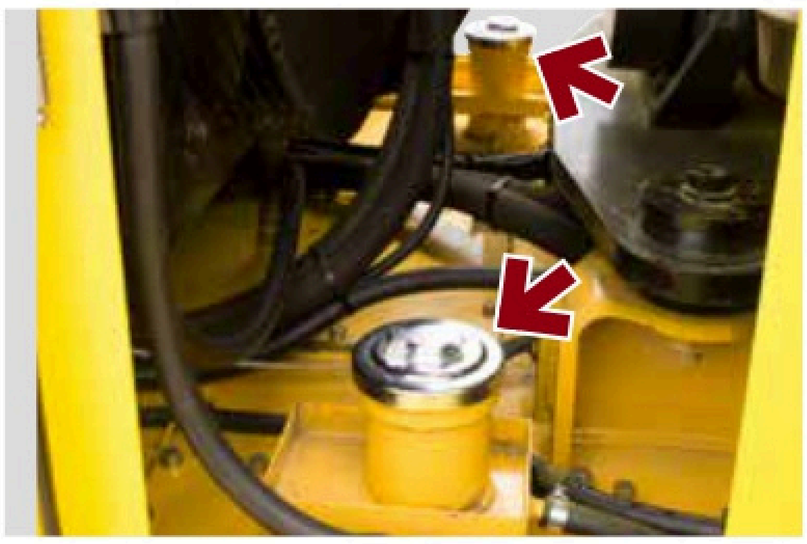
Radiator clogging control
To prevent clogging of the radiator with rust, dust, etc., the PM550-s is equipped with a manual control valve for reverse rotation of the radiator fan. Periodic reverse rotation is recommended to prevent possible clogging of the radiator core.



Fuel filler caps on both sides

The PM550-s has fuel filler caps on both side of the machine inside the engine hood. This allows for safe, smooth re-fueling from ground. In addition, a large 700 liters (185 gal) fuel tank used.

Fuel tank capacity
700 L (185 gal)



Easy battery check / replacement

The battery can be checked and replaced easily from the ground.

Large toolbox space

The PM550-s is designed with a space large enough for housing a toolbox, bits, holder, etc.

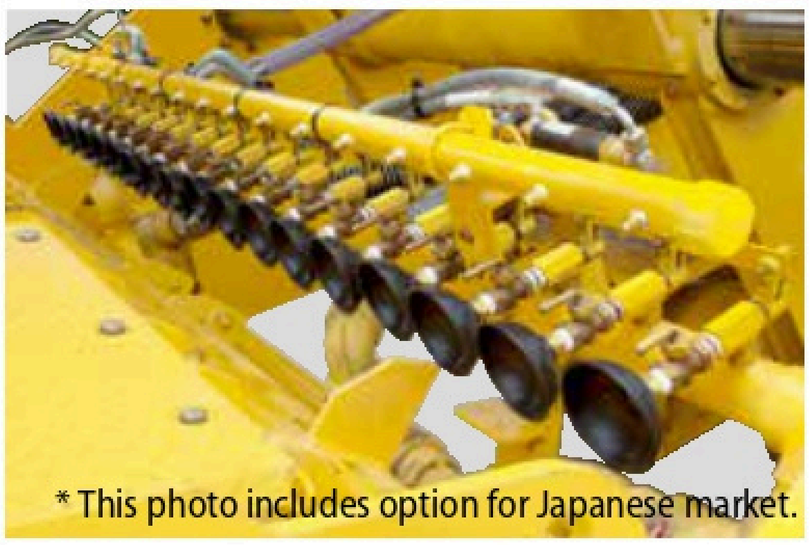
Emulsion spraying system

Automatic emulsion spraying system (Optional)

The application rate of emulsion spray is automatically adjusted in accordance with the working speed. Information on mixing such as width, depth, target density, etc., needs to be input in to a controller.

Emulsion nozzle outlet design easy to clean

The emulsion nozzle outlet is designed for easy opening/closing operation so as to facilitate cleaning around the outlet.

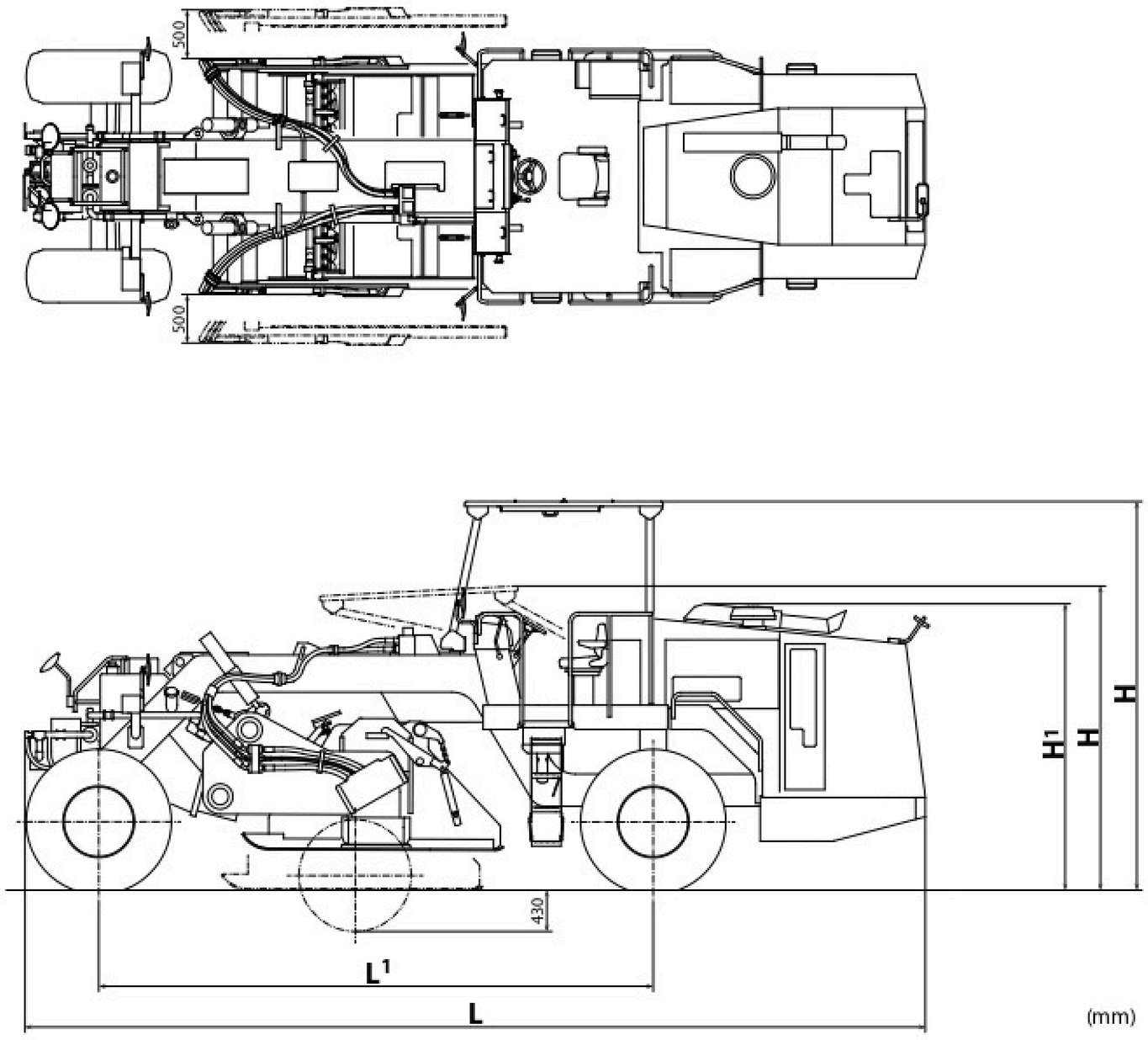


* This photo includes option for Japanese market.

Large emulsion scouring tank

Scouring tank of 90 liters (23.8 gal) is available.

PM550-s



TYPE			**Stabilizer**
MODEL			**PM550-s**
CHASSIS MODEL			**1PM6**
WEIGHTS	Max. operating weight with AWNING	kg (lb)	22,820 (50,310)
	Operating weight with AWNING	kg (lb)	22,390 (49,360)
	Shipping weight with AWNING	kg (lb)	21,950 (48,390)
	Load on front axle - operating weight with AWNING	kg (lb)	7,570 (16,690)
	Load on rear axle - operating weight with AWNING	kg (lb)	14,820 (32,670)
PERFORMANCE	Roter speed (L/H)	min-1	100 / 130
	Number of speed shifts (travel)		1
	Speed range (travel)	km/h (mph)	0–14 (0–8.7)
	Number of speed shifts (operating)		1
	Speed range (operating)	m/min (ft/min)	0–48 (0–157)
	Gradeability	% (°)	51 (27)
	Minimum turning radius (outside)	m (in)	11.3 (445)
DIMENSIONS	Overall length **L**	mm (in)	9,280 (365)
	Overall width **W**	mm (in)	2,650 (104)
	Overall height (without AWNING) **H¹**	mm (in)	2,915 (115)
	Overall height (with AWNING) **H** (fold / unfold)	mm (in)	3,100 / 4,000 (122 / 157)
	Wheelbase **L¹**	mm (in)	5,700 (224)
	Mixing width	mm (in)	2,000 (79)
	Mixing depth (max.)	mm (in)	430 (17)
	Roter shift stroke	mm (in)	500 (20)
	Roter width / Roter diameter	mm (in)	2,000 / 1,150 (79 / 45)
	Number of tools (conical / roof)	pcs.	98 / 10
	Tire size × Number of tires		20.5-25 20PR × 4
	Inflation (front / rear)	kPa (psi)	400 / 450 (58 / 65.3)
	Ground clearance	mm (in)	380 (15)
	Side clearance	mm (in)	235 (9)

ENGINE	Make		KOMATSU
	Model		SAA6D140E-5 (EPA Tier2)
	Type		Diesel, water cooled, 4 cycle, 6 cylinder, with turbo charger
	Displacement	L (cu.in)	15.239 (929.9)
	Rated output	kW (HP) / min-1	370 (496) / 1,800
	Electric system battery	V (V / Ah × Qty)	24 (12 / 200 × 2)
	Electric system alternator	V / A	24 / 90
DRIVE SYSTEM	Power transmission type		Hydraulic
	Drive wheel		All wheel
ROTOR SYSTEM	Power transmission type		Hydraulic
EMULSION SYSTEM	Power transmission type		Hydraulic
	Capacity of discharge flow	L/min (gal/min)	0–300 (0–79.3)
BRAKE SYSTEM	Service brake		Dynamic braking through hydrostatic drive system / FNR lever
	Secondary brake (emergency)		Hydrostatic + Spring applied hydraulically released type (SAHR) / Brake pedal
	Parking brake		SAHR / Panel button
	Emergency brake (in danger)		SAHR + Engine stops and stalls / Emergency stop switch
STEERING SYSTEM	Power transmission type		Hydraulic
FLUID CAPACITY	Fuel tank	L (gal)	700 (184.9)
	Hydraulic oil tank	L (gal)	235 (62.1)
	Water sprinkler tank	L (gal)	250 (66)
	Emulsion scouring tank	L (gal)	90 (23.8)

- Specified figures have a tolerance of ±5%.
- All specifications may be changed without notice.
- Specified figures are in SI Units, followed by their equivalent in English units of measurement in parentheses.
- Max. operating weight : Fuel=100%, Water=100%, Operator=75kg
- Operating weight : Fuel=50%, water=50%, operator=75kg
- Shipping weight : Fuel=10%, water=0%, operator=0kg
- The photos may contain optional equipment and/or attachment.

* Using low quality fuel may cause engine failure.

Standard Equipment :

- AWNING
- Instrument panel
- Gauges
- Backup alarm
- Horn
- Working lights
- Turn signal lamp
- Mirrors
- Emulsion spraying system
- Emulsion scouring tank
- Pressurized water sprinkler system
- Vandalism protections

Optional Equipment :

- ROPS CANOPY
- Automatic emulsion spraying system

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