



SV521D
Smooth Drum

VIBRATORY SINGLE DRUM ROLLER

The SV521 series rollers are versatile soil compactors that are widely applicable to medium and heavy compaction works.

The most suitable drum type can be selected from four (4) drum variations.

Proven Vibratory Compaction Performance

- High amplitude (2.05 mm).
- High centrifugal force (26 tons).
- High density and uniform compaction throughout the layers.

Excellent Traction

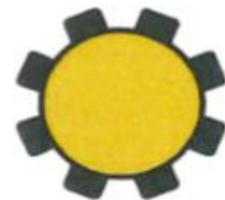
- All-wheel (drum & tire) drive system on all SV521 models.

Economical Operation & Low Maintenance Cost

- Fuel Saving Eco Compaction Mode as a standard equipment.
- Durable and quality components for a prolonged service interval and low maintenance costs.

Operator Comfort & Safety

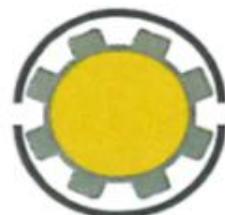
- Sakai's original shock absorbing system for better vibration isolation and longer parts life.
- Increased safety by an emergency pedal brake in addition to the conventional service and parking brakes.



SV521T
Padfoot Drum



SV521DF
Combi. Drum -
Smooth drum with padfoot shell kit



SV521TF
Combi. Drum -
Padfoot drum with Smooth shell kit



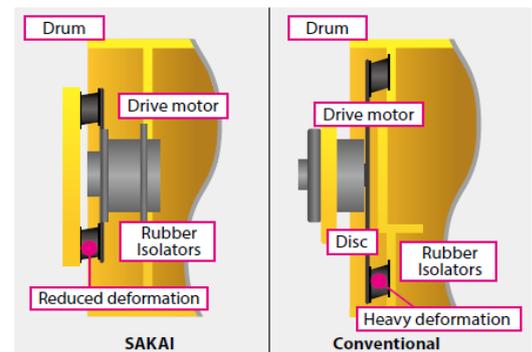
● **Fuel Conservation by the ECO Mode system**

- ECO mode is a standard equipment.
- Saving fuel up to 20% while maintaining the maximum vibration force.
- Cost saving and environmentally friendly.



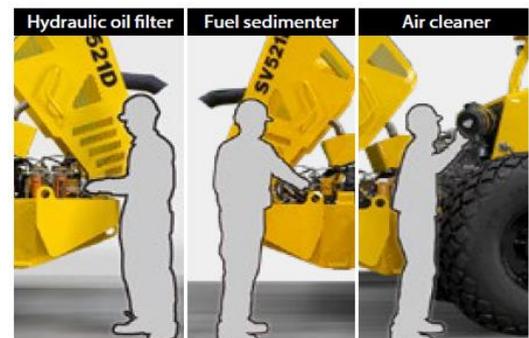
● **Unique Shock Absorbing System**

- Sakai's original vibration absorbing design effectively protects the machine and operator from vibration.
 - The drum is directly driven by the front drive motor which is mounted on the drum.
 - Sakai's rubber isolators are mounted on the chassis frame and are independent from the drum drive system. Thus, they solely perform to reduce vibration that is transmitted to the machine and operator and are free from the repeated twisting torque that is produced with the conventional drum drive design.
- Due to this design, Sakai's rubber isolators have a prolonged service life and reduced maintenance costs. (4~5 times longer life)



● **Easy Access to Components & Ground Maintenance**

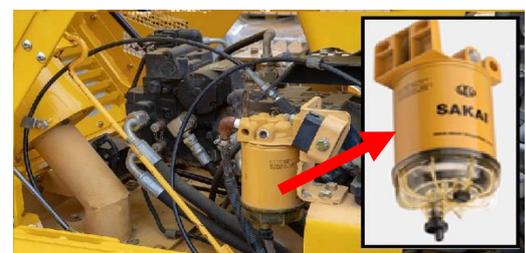
- Easy to access major components for maintenance and repair
- Direct access to those components and parts from the ground reduces chance of accident while conducting maintenance or repairing.



● **Protection against Fuel Contamination**

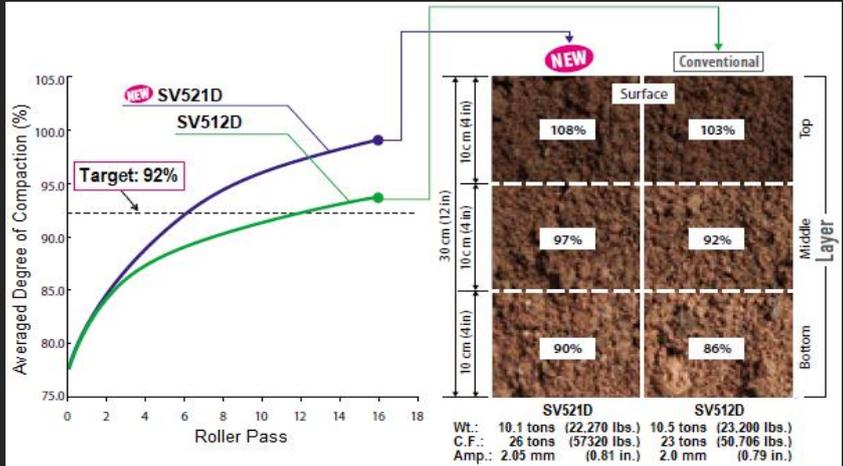
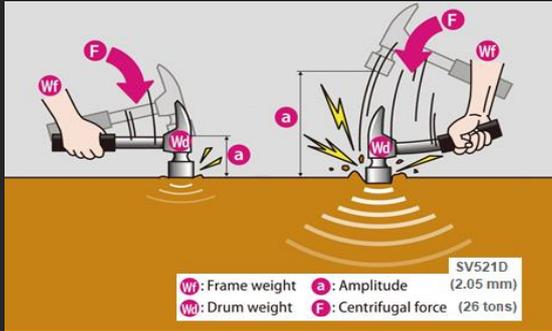
In order to avoid water contamination in the fuel system, an extra large size sedimentor is employed as standard.

(Water deposit capacity: 118 ml.)



● Superb Vibratory Compaction Performance

Due to the highest amplitude in the class, the powerful vibration reaches deeper section. Thereby, it achieves dense and uniform compaction throughout the layer with fewer rolling passes.



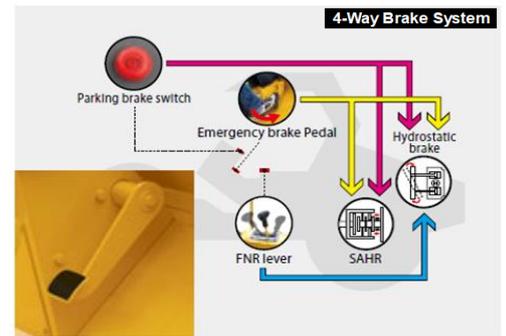
● Safety Conscience Design

• Inter-locking Safety Start System

The engine starts only when the F-R lever is in neutral position as well as the parking brake is applied.

• 4-Way Brake System

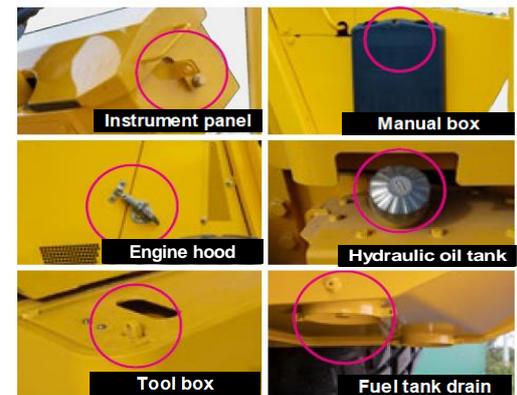
- Service brake: Hydrostatic dynamic brake by F-R lever.
- Parking Brake: Multi-discs brake by the parking switch.
- Auto Brake: Applied automatically in case of hydraulic/engine failure
- **Emergency Pedal Brake: Sakai's extra safety feature**



● Complete Vandalism Protections

Lockable vandalism protections are provided as standard.

- Instrumental panel
- Engine hood
- Tool boxes
- Manual box
- Hydraulic oil tank
- Fuel tank drain
- Padlock(s) (Option)



● Lights & Mirrors

Following lights and mirrors are included as standard equipment.

- Two (2) head lights
- Two (2) rear working lights
- Two (2) rear view mirrors



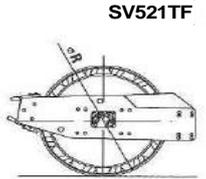
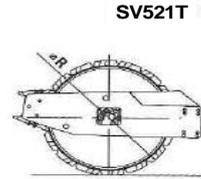
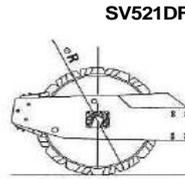
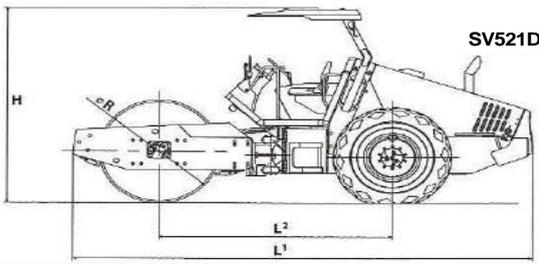
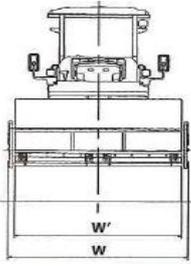
● Canopy & Cabin:

Standard: Sun canopy with metal stays

- Options:
- ROPS canopy
 - Enclosed Cabin
 - Enclosed ROPS Cabin



SV521 Series



TYPE		Vibratory Single Drum Roller				
MODEL		SV521D	SV521DF ⁽¹⁾	SV521T	SV521TF ⁽²⁾	
DRUM TYPE		Smooth Drum	Combi. Drum	Padfoot Drum	Combi. Drum	
WEIGHT	Max. operating weight with AWNING	kg (lbs.)	10,325 (22,765)	11,965 (26,380)	10,665 (23,515)	12,935 (28,520)
	Operating weight with AWNING	kg (lbs.)	10,235 (22,565)	11,875 (26,180)	10,575 (23,315)	12,845 (28,320)
	Load on front axle - operating weight with AWNING	kg (lbs.)	5,800 (12,790)	7,506 (16,550)	6,180 (13,625)	8,440 (18,610)
	Load on rear axle - operating weight with AWNING	kg (lbs.)	4,435 (9,780)	4,370 (9,635)	4,395 (9,690)	4,405 (9,715)
	Static Linear Pressure (drum) - operating weight with AWNING	kg/cm (lbs/in)	27.2 (150)	-	-	39.6 (220)
PERFORMANCE	Centrifugal Force (L/H)	kN (lbs.) [kgf]	150 (33,720) [15,300] / 255 (57,325) [26,000]			
	Frequency @ low amplitude/high amplitude	Hz (vpm)	33.3 (2,000) / 28.8 (1,730)			
	Amplitude (L/H)	mm (in.)	0.87 (0.034) / 2.05 (0.081)	0.62 (0.024) / 1.47 (0.058)	0.81 (0.032) / 1.90 (0.075)	0.53 (0.021) / 1.25 (0.049)
	Number of speed: Speed range (L/H)	km/h (mph)	2 speeds: 0 ~ 6 (0 ~ 3.7) / 0 ~ 10 (0 ~ 6.2)			
	Gradeability	% (°)	63% (32°)	56% (29°)	63% (32°)	49% ^b (26°)
DIMENSIONS	Turning radius at compacted surface (inner/outer)	m (in.)	3.4 (134) / 5.6 (221)			
	Overall length L	mm (in.)	5,810 (229)			
	Overall width W	mm (in.)	2,300 (91)			
	Overall height (without AWNING) H ¹	mm (in.)	2,160 (85)	2,195 (86)	2,165 (85)	2,180 (86)
	Overall height (with AWNING) H	mm (in.)	2,960 (117)	2,995 (118)	2,975 (117)	2,985 (118)
	Wheelbase L ¹	mm (in.)	2,970 (117)			
	Compaction width W'	mm (in.)	2,130 (84)			
	Drum width W' x Drum diameter R	mm (in.)	2,130 x 1,530 (84 x 60)	2,130 x 1,708 (84 x 67)		
	Pad height	mm (in.)	-	75 (3)	100 (4)	
	Number of pads	pcs.	-	160	140	
	Shell thickness	mm (in)	25 (1.0)		22 (0.9)	
	Tire size x Number of tires		23.1 - 26 - 8PR (OR)			
	Ground clearance	mm (in.)	400 (16)	370 (15)	390 (15)	385 (15)
	Curb clearance	mm (in.)	500 (20)	555 (22)	520 (20)	535 (21)
	Side overhang	mm (in.)	85 (3)			
ENGINE	Make & Model	Isuzu "4BG1T" (EPA-Tier 2: equivalent)				
	Type	Water-cooled, 4-cycle, 4-cylinder, overhead valve, direct injection type diesel engine with turbocharger				
	Displacement	L (cu.in.)	4.329 (24.2)			
	Rated output	kW (Hp)/min ⁻¹	83.3 (112)			
	Electric system - battery	V (V/Ah x q'ty)	24 V (12 V / 80 Ah, 655 CCA x 2 pcs.)			
	Electric system - alternator	V/A	24 V / 50 A			
DRIVE SYSTEM	Power transmission type	Hydrostatic transmission				
	Drive wheels	Drum and tires				
VIBRATION SYSTEM	Power transmission type	Hydrostatic transmission				
	Number of amplitudes	2				
BRAKE SYSTEM	Vibrator type	Single eccentric shaft type				
	Service brake (primary brake)	Hydrostatic, dynamic brake (F-N-R lever)				
	Parking brake (secondary brake)	Spring applied, hydraulically released type multi-disc brake (Brake button)				
STEERING SYSTEM	Emergency brake	Hydrostatic + Spring applied, hydraulically released type multi-disc brake (Brake pedal)				
	Type	Hydraulic type (articulated)				
FLUID CAPACITY	Articulation/Oscillation angle	± (°)	± 37° / ± 9°			
	Fuel tank	L (gal.)	215 (56.8)			
	Hydraulic oil tank	L (gal.)	50 (13.2)			

*1) Refer the specification of D for DF without padfoot shells.

*2) Refer the specification of T for TF without padfoot shells.

- Specified figures have a tolerance of ±5%.
- All specifications may be changed without notice.
- Specified figures are in SI Units followed by their equivalent English Units of measurement in ().

- Max. operating weight: Fuel 100%, Water 100%, Operator 75kg
- Operation weight: 50% Fuel, 50% Water, Operator 75 kg
- The photos may contain optional equipment and/or attachment.

* Using low quality fuel may cause engine failure.

Standard Equipment:

Canopy • Eco Mode • Lights • Mirrors • Emergency Brake Pedal • Vandalism Protection • standard tools • instruments & gauges, etc.

Optional Equipment:

Cabin • ROPS • Cabin • A/C • Seat belt • Vandalism Protection (pad locks), etc.

SAKAI HEAVY INDUSTRIES, LTD. obtain the certification of quality management system ISO9001.

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