



**SV520D**

## VIBRATORY SINGLE DRUM ROLLER

The innovatively designed SV520 is applicable to medium to large soil compaction jobs. The SV520 includes new roller features and optimizes job profitability through efficiency.

### Proven Compaction Performance

- Roller compactive force reaches target density in fewer roller passes.
- Provides higher centrifugal force and amplitude.
- Achieves uniform compaction throughout lift thickness.

### Low Operating Costs

- Sakai's new *Eco compaction mode (ECM)*, which reduces fuel consumption up to 20%, while maintaining compaction performance.
- Durable, quality components such as hydraulics, drum and center-pin hitch provide lower maintenance cost and less downtime.

### Operator Comfort and Safety

- Includes Sakai's durable dual rubber isolation system between the drum and operator deck.
- Extremely quiet operator station with noise levels as low as 87 dB(A).



**SV520T**



**SV520DF**



**SV520TF**

# **SAKAI's Experience in Compaction Technology**



## **Drum Variations**



**SV520D**



**SV520T**



**SV520DF : Smooth drum with pad foot shells**



**SV520TF : Pad foot drum with smooth shells**





# Options



ROPS - CANOPY



CABIN

● Standard		● Option
■ ECO mode	■ Adjustable Scrapers for D drum (front and rear)	■ ROPS - Cab
■ 1 m x 1 m visibility	■ Adjustable V-Scrapers for T drum (front)	■ ROPS - CANOPY
■ Emergency brake pedal	■ 4 point lifting	■ CABIN
■ Vandalism protection	■ Double element air cleaner	■ A/C
■ Instrument panel*	■ Fuel filter with sedimentor (attachment for engine)	■ Deluxe seat (Suspension)
■ Gauges*	■ Hydraulic test ports	■ Heater
■ Meets EPA emission requirements (EPA-Tier2)	■ Cup holder	

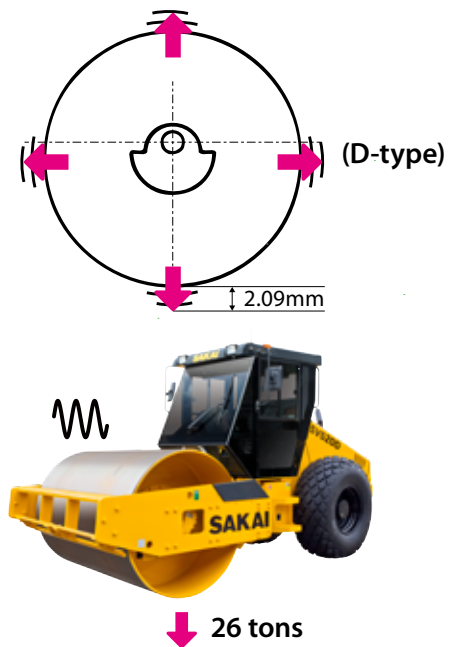
\* Instrument panel and gauge include :  
 Switches: Parking brake, Speed change, Front-facing work lights, Vibrator and Vibration (amplitude) selector  
 Lamps: Battery charge, Hydraulic oil filter warning, Engine oil pressure warning, Vibrator indicator, Flood (work) lamp indicator, Preheating plug indicator and ECO mode

## ● Improvement of Vibration Force & Amplitude

- Vibration force and amplitude are improved steadily in comparison with old model.
- New model has much stronger vibration force.

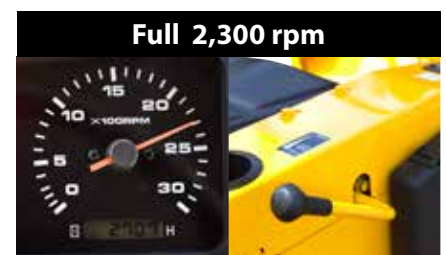
### Old-versus-New

- Vibration force : 23 t ➔ **26 t**
- Amplitude : 2.0 mm ➔ **2.09 mm** ( **4.5 %** ↑ ) ( D-type )
- Total applied force : 28.4 t ➔ **31.6 t**



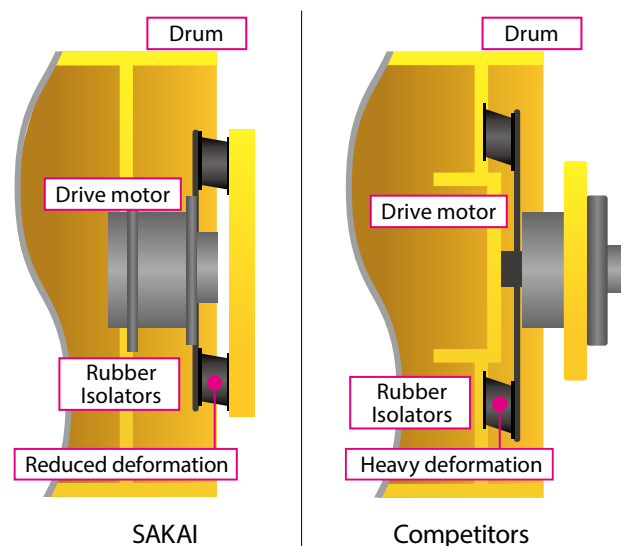
## ● Enviromentally Freindly System

- ECO mode is installed as standard function.
- Save 20 % of fuel consumption.  
( 12.5 L/h ➔ **10 L/h** )
- Vibration force does not decrease.



## ● Durable Rubber Isolaters

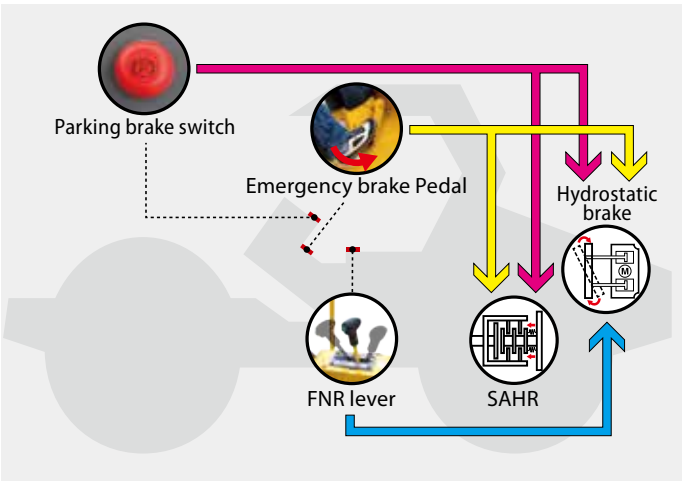
- Sakai's original design unaffected by drum driving force.
- This means:
  - Long lifetime (5 times longer lifetime)
  - Highly durable
  - Low maintenance cost





● **4-Way Brake System**

- Service brake by (FNR Lever)
- **Emergency brake pedal (engine stop)**  
**SAKAI ORIGINAL**
- Parking brake switch
- Auto-stop in case of engine and / or hydraulic system failure



● **Vandalism Protections**

- Instrument panel
- Engine hood
- Hydraulic oil tank
- Fuel tank drain
- Side cover
- Manual box
- \* Padlock is option

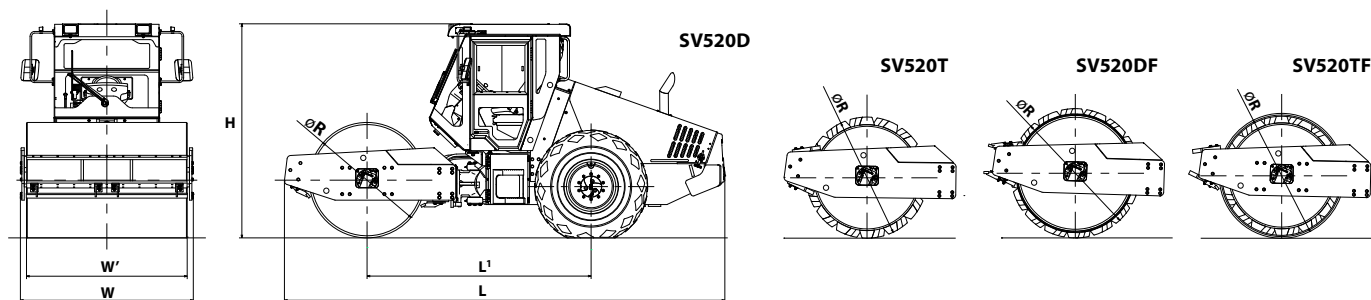


● **Ground Maintenance**

- Easy to access any components for maintenance and repair.
- Direct access from ground = **Increased safety**



# SV520 Series



TYPE			Vibratory Single Drum Roller			
MODEL			SV520D	SV520T	SV520DF	SV520TF
CHASSIS MODEL			2SV31			
WEIGHTS	Max. operating weight with ROPS-Cab	kg (lbs)	11,040 (24,340)	11,380 (25,090)	12,680 (27,955)	13,650 (30,095)
	Operating weight with ROPS-Cab	kg (lbs)	10,950 (24,145)	11,290 (24,890)	12,590 (27,760)	13,560 (29,895)
	Load on front axle - operating weight with ROPS-Cab	kg (lbs)	5,650 (12,460)	6,030 (13,295)	7,350 (16,205)	8,300 (18,300)
	Load on rear axle - operating weight with ROPS-Cab	kg (lbs)	5,300 (11,685)	5,260 (11,600)	5,240 (11,555)	5,260 (11,600)
PERFORMANCE	Centrifugal force (L / H)	kN (lbs)(kgf)	172 / 255 (38,665 / 57,325) [17,540 / 26,000]			
	Frequency (L / H)	Hz(vrpm)	33.3 / 28.3 (2,000 / 1,700)			
	Amplitude (L / H)	mm (in)	1.02 / 2.09 (0.040 / 0.082)	0.95 / 1.94 (0.037 / 0.076)	0.73 / 1.50 (0.029 / 0.059)	0.62 / 1.27 (0.024 / 0.050)
	Dynamic linear pressure for front drum - operating weight with ROPS-Cab (L / H)	N/cm (lbs/in)	1,068 / 1,457 (605 / 830)	—	—	1,190 / 1,579 (675 / 900)
	Number of speed shifts		2			
	Speed range (L / H)	km/h (mph)	0-6 / 0-10 (0-3.7 / 0-6.2)			
	Gradeability	% (°)	62 (32)	61 (31)	51 (27)	47 (25)
	Turning radius compacted surface (inside / outside)	m (in)	3.5 / 5.6 (138 / 221)			
DIMENSIONS	Overall length <b>L</b>	mm (in)	5,840 (230)			
	Overall width <b>W</b>	mm (in)	2,295 (90)			
	Overall height (without ROPS-Cab)	mm (in)	2,190 (86)	2,175 (86)	2,195 (86)	2,180 (86)
	Overall height (with ROPS-Cab) <b>H</b>	mm (in)	2,840 (112)	2,860 (113)	2,890 (114)	2,875 (113)
	Wheelbase <b>L'</b>	mm (in)	2,970 (117)			
	Compaction width <b>W'</b>	mm (in)	2,130 (84)			
	Drum width <b>W'</b> / Drum diameter <b>R</b>	mm (in)	2,130 / 1,530 (84 / 60)	2,130 / 1,600 (84 / 63)	2,130 / 1,708 (84 / 67)	2,130 / 1,650 (84 / 65)
	Pad height	mm (in)	—	100 (4)	75 (3)	100 (4)
	Number of pads	pcs.	—	140	160	140
	Shell thickness	mm (in)	25 (1.0)	22 (0.9)	25 (1.0)	22 (0.9)
ENGINE	Tire size × Number of tires		23.1-26-8PR(OR) × 2			
	Inflation (each wheels)	kPa (psi)	137 (19.9)			
	Ground clearance	mm (in)	405 (16)		390 (15)	400 (16)
	Curb clearance	mm (in)	500 (20)	520 (20)	555 (22)	535 (21)
	Side clearance	mm (in)	82.5 (3)			
	Make		ISUZU			
	Model		4BG1T (EPA Tier2 : equivalent)			
	Type		Diesel, water-cooled, 4-cycle, 4-cylinder inline, with turbo charger			
	Displacement	L(cu.in)	4.329 (264.2)			
	Rated output	kW (HP)/min <sup>-1</sup>	83.3 (112) / 2,100			
DRIVE SYSTEM	Electric system battery	V (V/Ah× Qty)	24V (12V / 100 × 2)			
	Electric system alternator	V/A	24V / 50A			
VIBRATION SYSTEM	Power transmission type		Hydrostatic			
	Drive wheel		All wheel (drum & tires)			
BRAKE SYSTEM	Power transmission type		Hydraulic			
	Number of amplitude		2			
STEERING SYSTEM	Vibrator type		Single eccentric shaft			
	Service brake		Dynamic braking through hydrostatic drive system / FNR lever			
FLUID CAPACITY	Secondary brake (Emergency brake)		Hydrostatic + Spring applied hydraulically released type (SAHR) / Brake pedal			
	Parking brake		SAHR / Panel button			
FLUID CAPACITY	Power transmission type		Hydraulic			
	Articulation / Oscillation angle	± (°)	37 / 9			
FLUID CAPACITY	Fuel tank	L (gal)	210 (55.5)			
	Hydraulic oil tank	L (gal)	50 (13.2)			

- 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
- The photos may contain optional equipment and/or attachment.

\* Using low quality fuel may cause engine failure.