SV211
Vibratory Roller

Service Manual

84581912

CASE CONSTRUCTION

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Contents

SECTION 00 – MAINTENANCE

GENERAL INSTRUCTIONS

1. **Introduction** 1-1

2. **Safety precautions** 2-1

2.1. Safety section 2-2
2.1.1. Precautionary statements – personal safety signal words 2-2
2.1.2. Machine safety and information signal words 2-2
2.1.3. General safety rules 2-3
2.1.4. General operating safety 2-4
2.2. Safety signs 2-5
2.3. General maintenance safety 2-9
2.3.1. Fire and explosion prevention 2-9
2.3.2. Hazardous chemicals 2-10
2.3.3. Battery safety 2-10
2.3.4. Air conditioning system 2-11
2.3.5. Transportation safety 2-11
2.3.6. Proper entry and exit 2-11
2.3.7. Operator presence system 2-11
2.3.8. Operator protective structure 2-12
2.3.9. Utility safety 2-12
2.4. Hand signals 2-13

3. **Repair safety precautions** 3-1

3.1. Safety regulations 3-2
3.2. Ecological measures & hygiene principles 3-6
3.3. Fire measures 3-7

4. **Product identification** 4-1

4.1. Basic Data 4-2
4.2. Summary of applications 4-3

5. **Check the tightening of bolted joints** 5-1

5.1. Check the tightening of bolted joints 5-2

SECTION 00 – MAINTENANCE

GENERAL SPECIFICATIONS

6. **Description of the machine** 6-1

6.1. Machine construction 6-2
6.2. Fluid/lubricant specifications 6-3
6.2.1. Engine oil 6-3
6.2.2. Fuel 6-4
6.2.3. Coolant 6-5
6.2.4. Hydraulic oil 6-5
6.2.5. Gearbox Oil 6-6
6.2.6. Lube grease 6-6
6.2.7. Screen washer liquid 6-6
6.3. Technical data SV211 6-7
6.4. Dimensional diagram for SV211 6-10

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SECTION 10 – ENGINE

7. Removing the engine 7-1

7.1. Removing and installing the engine 7-14

SECTION 35 – HYDRAULIC SYSTEM

8. Hydraulic system 8-1

8.1. Hydraulic diagrams 8-3

9. Hydraulics 9-1

9.1. Removing hood hydromotors 9-2

9.2. Removing the level gauge 9-6

9.3. Removing the float 9-7

SECTION 35 – HYDRAULIC SYSTEM

10. Removing pumps, cento clutch 10-1

10.1. Removing pumps 10-4

SECTION 39 – FRAMES

11. Articulated joint 11-1

11.1. Articulated joint 11-6

SECTION 41 - STEERING

12. Controls 12-1

13. Steering cylinder 13-1

SECTION 44 – AXLES AND WHEELS

14. Drum removal 14-1

14.1. Removing the drum from the machine 14-10

15. Wheel removal 15-1

16. Installation of segments 16-1

16.1. Installation of segments 16-4

SECTION 50 – CAB CLIMATE CONTROL

17. Removing the heater 17-1

SECTION 55 - ELECTRICAL SYSTEM

18. Electrical installation 18-1

18.1. Electrical wiring – location of elements 18-3

18.2. Battery 18-5

18.3. Alternator 18-5

18.4. Starter 18-5

19. Electrical system 19-1

19.1. Wiring diagram 19-3

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SECTION 90 – CAB

20. Removing the ROPS frame 20-1

21. Operator's station installation 21-1

21.1. Platform 21-8

21.2. Cabin 21-9

INDEX

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Safety precautions during work on hydraulic circuits

- Check that hydraulic circuits have been depressurized before removing them. Hydraulic oil that leaks under pressure could cause serious skin injury.
- Mark parts, hoses and pipes before removing them.
- Do NOT operate hydroelectric generators or hydromotors with no oil.
- There is a scalding hazard when handling hot oil.
- Do NOT heat oil over 160°C (320°F) – oil or its vapors could flame up.
- Use lint-free cloth when wiping and cleaning hydraulic parts.
- Use hydraulic oil – not lube grease – as lubricating agent during parts installation work.
- Thoroughly clean the bolting before installation work; flush and blow out the hoses and pipes with air.
- It is important to ALWAYS use new gaskets.
- After hydraulic set replacement, flush the hydraulic circuit and clean the hydraulic tank.
- Replace the oil filter element.
- Fill the hydraulic circuit with clean oil of the specified viscosity – only with the engine switched off!
- Wipe up any spilled oil.
- Confirm that connections are tight with no oil leaks before pressurizing the system.
- Upon completion of all of the work, check all connections.
- Do NOT adjust the relief valves.
- Reinstall all protective elements after the work is completed.

Check the following once the machine is in operation

- Oil level in the hydraulic tank.
- Check the boost pressure of hydroelectric generators when these are replaced and check relief valve pressure.
- Always measure at 40°C (104°F).

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NOTE: *All specifications are given according to SAE standards or recommended practices where the specification applies.*

6.3. Technical data SV211

		SV211 D	SV211 PD
Weight			
Operating weight of CECE with cab, ROPS	kg (lb)	10120 (22310)	10860 (23940)
Operating load of CECE with cab, ROPS on front axis	kg (lb)	5300 (11680)	6040 (13320)
Operating load of CECE with cab, ROPS on rear axis	kg (lb)	4820 (10630)	4820 (10630)
Weight of half fluid capacities	kg (lb)	190 (420)	190 (420)
Operating weight of ISO 6016 with cab, ROPS	kg (lb)	10300 (22710)	11050 (24360)
Maximum permitted weight according to ROPS	kg (lb)	18500 (40790)	18500 (40790)
Static linear load of front drum	kg/cm (lb/in)	24,9 (139,5)	
Weight of 2 padfoot segments	kg (lb)	1750 (3860)	
Weight of tyre filling 0°C (32°F)	kg (lb)	1020 (2250)	1020 (2250)
Weight of tyre filling -25°C (-13°F)	kg (lb)	1200 (2650)	1200 (2650)
Driving characteristics			
Number of speeds	-	1+1	1+1
Maximum transport speed	km/h (MPH)	10,3 (6,4)	10,3 (6,4)
Climbing ability	%	40	40
Climbing ability with vibration	%	30	30
Lateral static stability	%	72,65	72,65
Lateral stability during driving without vibration	%	25	25
Lateral stability during driving with vibration	%	15	15
Maximum gradient when towing machine on slope	%	60	60
Turning radius inner (edge)	mm (in)	3210 (126,4)	3210 (126,4)
Turning radius outer (contour)	mm (in)	5575 (219,5)	5575 (219,5)
Front approach slope	%	58	58
Rear approach slope	%	53	53
Type of drive	-	Hydrostatic	Hydrostatic
Number of driving axles	-	2	2
Oscillation angle	°	±10	±10
Angle of steering	°	±36	±36
Steering			
Type of steering	-	Joint	Joint
Steering control	-	Hydraulic	Hydraulic
Linear hydraulic motors	-	2	2

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Fault	Cause	Remedy
Engine is overheating.	Insufficient coolant.	Quickly stop the engine, replenish coolant, find the leak and repair it.
	Clogged radiator.	Clean the radiator.
	Incorrect belt tension or broken belt.	Adjust the tension; replace the belt.
	Malfunctioning thermostat.	Verify thermostat functionality; replace if necessary.
	High amount of dirt and deposits in the cooling circuit.	Clean the cooling circuit.
	Faulty injection nozzles.	Have them checked by an expert.
	Incorrect amount of fuel supplied by the injection pump.	Have adjusted at a specialized workshop.
	Ambient temperature too high.	Work for a limited time and allow the engine to cool down.
	Improperly adjusted injection start.	Have checked by an expert.
Insufficient engine lubrication – the lubrication indicator lamp is on.	Engine oil level too low.	Replenish oil.
	Engine oil is leaking.	Immediately stop the engine, inspect lubrication system connections and repair any leaks.
	Oil used is of incorrect viscosity.	Exchange oil for a recommended type.
	Overheated engine.	Allow the engine to cool down. Troubleshoot to determine the reason.
Engine runs irregularly with low power.	Air in the fuel system.	Bleed the fuel system; repair any leaks.
	Faulty injection nozzles.	Have checked by an expert.
	Incorrect valve clearance.	Have checked by an expert.
	Broken injection pipe.	Have checked by an expert.
	Improperly adjusted injection pump.	Have checked by an expert.
Engine smokes excessively.	Increased negative pressure in the engine intake manifold.	Check function of the vacuum switch. Replace the filter elements if needed.
	Oil level too high.	Reduce oil level to the upper mark on the dipstick.
	Incorrect compression due to burned or broken piston rings or incorrect valve clearance.	Have the piston rings tested at a specialized workshop; adjust valve clearance.
Excessive engine oil consumption.	Oil system leakage.	Repair any leaks.
	Leaking piston rings or generally worn engine.	Have checked by an expert.
Insufficient engine power.	Excessively clogged fuel cleaners.	Replace the filter elements.
	Incorrect valve clearance.	Adjust valve clearance.
	Clogged injection nozzle holes; injectors are not adjusted to correct injection pressure.	Have checked by an expert.
	Improperly adjusted injection pump. Improperly adjusted advanced injection angle. The cylinders have insufficient compression pressure. Turbocharger fault.	Have checked by an expert.
Other additional faults are described in the engine operator's manual, which is supplied with the machine.		

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