Vibratory Rollers
SV212 and SV216

Service Manual

Cre 7-29530

NOTE: CASE Company reserves the right to make changes in the specification and design of the machine without prior notice and without incurring any obligation to modify units previously sold.

The description of the models shown in this manual has been made in accordance with the technical specifications known as of the date of design of this document.

Printed in France
April 2001

Cre 7-29530

CONTENTS

SECTION 21 - TRANSMISSION

CHAPTER 1 - Hydraulic motor

CHAPTER 2 - Travel reduction gear

SECTION 29 - HYDROSTATIC DRIVE

CHAPTER 1 - Pumps - Cento drive coupling

SECTION 35 - HYDRAULIC SYSTEM

CHAPTER 1 - Hydraulic cylinders

CHAPTER 2 - Vibration Motor

CHAPTER 3 - Hydraulic circuit

CHAPTER 4 - Hydraulic pump

SECTION 39 - FRAMES

CHAPTER 1 - Drum

CHAPTER 2 - Articulation

CHAPTER 3 - Drum Segments and Scrapers

SECTION 41 - STEERING

CHAPTER 1 - Control

CHAPTER 2 - Steering cylinders

CHAPTER 3 - Steering control valve

SECTION 50 - HEATER - AIRCONDITIONING

CHAPTER 1 - Removal and installation

SECTION 55 - ELECTRICAL CIRCUIT

CHAPTER 1 - Wiring diagram

SECTION 90 - PLATFORM, CAB

CHAPTER 1 - Operator’s compartment

NOTES

SECTION 00 - MAINTENANCE

Chapter 1 - General Instructions

CONTENTS

INTRODUCTION

This series of Vibratory Rollers is suitable for compaction of all kinds of ground and for large and average-scale groundwork in highway construction (construction of motorways, railways, aiports), in hydro-engineering (construction of dams), in building construction (industrial areas, ports), and the like.

These machines are manufactured in conformity with the latest developments and standards, which ensure their safe function.

If the machine is used incorrectly, by untrained operators or for other purposes than those stipulated above, there is a danger of an accident or damage to the equipment.

The main purpose of this manual is to give the information necessary for carrying out assembly and disassembly of the machine as well as service repairs of main assemblies of the equipment. It contains technical and installation data, instructions on how to adjust the machine and how to use special tools, fixtures and aids.

The manufacturer continuously seeks to make product improvements on the basis of experience and latest developments in the field.

For this reason, the manufacturer may make some changes in drawings, descriptions and designs in this manual.

RIGHT, LEFT, FRONT AND REAR OF THE MACHINE

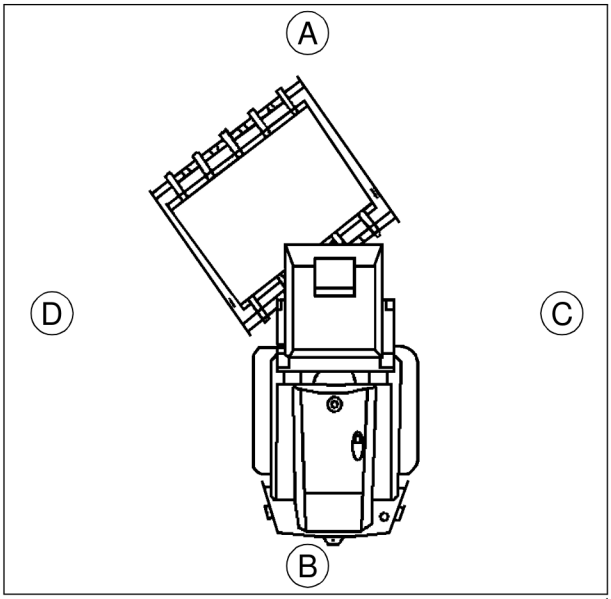
As used in this manual, the terms “right”, “left”, “front” and “rear” indicate the sides of the machine as seen from the operator’s seat.

A. FRONT

B. REAR

C. RIGHT-HAND SIDE

D. LEFT-HAND SIDE



CS00M511 1

SAFETY INSTRUCTIONS

GENERAL SAFETY INSTRUCTIONS

The following safety instructions must be observed by ALL repairing the machine.

1. Repairs may be carried out by skilled, trained and experienced personnel only.
2. When performing repairs, always use our shop manual. Special instructions for the assembly work are given in individual chapters of the manual.
3. Before putting the machine into operation acquaint yourselves with the machine controls as explained in the “Operator’s Manual” and make sure that you are perfectly familiar with the machine.
4. Do not use the machine if you do not fully understand all controls and until you know how the machine works.
5. Familiarize yourself with the area where you will work.
6. Do not carry out any redesign work or modifications on the machine because you could compromise the safety of the equipment.
7. Original parts and accessories have been designed especially for this machine.
8. Installation and use of spare parts not supplied by the manufacturer of the machine or not authorized by him can have negative effects on operational characteristics and safe operation of the machine.

REPAIRING AND INSPECTING THE MACHINE

1. Wear working clothes and boots.
2. Use gloves when handling oils, fuel or coolant.
3. Protect your eyes with goggles or a shield when handling the battery.
4. Place the equipment on a flat and firm surface before starting repair. Secure the machine to prevent spontaneous movement.
5. Secure the frame of the machine and the drum to prevent rotation using a locking pin and a draw bar.
6. Before starting work remove the ignition key, disconnect the batteries and let hot parts cool down.
7. Attach a "Do not operate" warning note to the steering wheel and leave it there for the duration of the service work.
8. Wash the equipment thoroughly. If you use steam, do not expose electrical components and insulation directly to the steam, or otherwise cover them beforehand.
9. Keep all parts absolutely clean when dismantling, mounting, and servicing each assembly. Protect removed parts from getting soiled.
10. Clean the surface of dismantled parts and do the necessary to ensure adequately dust-free working conditions and a suitable storage area.
11. Be careful when handling cleaning agents. Do not use petrol or other easy inflammable materials for cleaning.
12. Dry the cleaned parts and immediately cover with anticorrosive protective oil- never install corroded parts.
13. Tools, hoists, safety equipment on chains, and other additional items must be serviceable and in good condition.
14. Use hoists and fasteners (ropes, chains) that have sufficient lifting capacity and are in good condition.
15. Make sure that there is enough fresh air supply when starting up the equipment in an enclosed area.

16. Before operating the equipment make sure there is nobody on the machine or close by. Starting up of the machine must always be announced with an audible alarm, also after any pause in operation before the equipment is restarted. Those present on the machine and dangerously close by must leave the machine after the alarm has been sounded.
17. Do not adjust moving equipment.
18. When working (adjusting) on a running engine, avoid touching hot and rotating parts. During work on a running engine, another person must be present that can easily access the emergency switch and must be in contact at all times with the person performing the adjustment, to be able to switch off the engine immediately when necessary.
19. Use only approved makes of motor, gear and hydraulic oil and coolant.

WORKING ON HYDRAULIC CIRCUITS

1. Make sure that no hydraulic circuit is under pressure before opening it. Hydraulic oil leaks under pressure may penetrate your skin and cause serious injury.
2. Mark all parts, hoses and pipes before removing them.
3. Do not operate hydraulic pumps and hydraulic motors without oil.
4. There is danger of being scalded when handling hot oil.
5. Do not warm oil to temperatures above 160°C (320°F)- oil or its fumes may ignite.
6. For cleaning and wiping hydraulic parts use such textiles that do not leave traces of lint.
7. When reassembling parts use hydraulic oil - not grease - as a lubricant.
8. Clean screws and bolts carefully before installation, wash hoses and pipes and blow them through using compressed air.
9. Always use new packing in sealing areas.
10. Fill new components with hydraulic oil before installation.
11. Rinse the hydraulic circuit after replacing a hydraulic component; clean the hydraulic reservoir as well.
12. Replace the oil filter cartridge.
13. Fill the hydraulic circuit with pure oil of the recommended viscosity, but only when the engine has been stopped.
14. Wipe off excess oil.
15. Check connections for tightness and any oil leaks, before applying pressure to the system.
16. Do not adjust safety valves.
17. After all work has been finished, recheck all connections and replace all safety items.
18. After finishing the work put all protective devices back in place.
19. After putting the machine into operation.
    - Check the level in the hydraulic reservoir.
    - Check the output pressure of hydraulic pumps if they have been replaced as well as safety valve pressure. Carry out the measurements at a temperature of 40°C (104°F).

WORKING ON THE FUEL SYSTEM

Mixtures of gasoline and diesel (winter fuel) are as inflammable as gasoline.

1. Do not refuel in closed areas.
2. Wipe off excess fuel.
3. Do not smoke when working on the fuel system and do not use naked lights. There is a danger of fire.

WORKING ON ELECTRICAL WIRING

1. Disconnect the battery when carrying out any repairs on the charging circuit to avoid accidental short-circuits.
2. When dismantling, first disconnect the cable from the negative pole (-), then the cable from the positive one (+).
3. Do not disconnect batteries when the engine is running.
4. Connect the “minus” pole of the battery to the chassis and the “plus” pole to terminal “B+” from the alternator. In case of opposite connection the whole semi-conductor device can be destroyed.
5. When starting with an auxiliary external supply, do not disconnect the supply sooner than the battery of the machine is connected. Make sure of the starting voltage of the auxiliary external supply (for 24 V).
6. Do not put the alternator into no-load operation, i. e. with the wire disconnected from the “+” terminal and connected to the “D+” terminal.
7. Do not check the presence of voltage in the wire by sparking it on the chassis of the equipment.
8. Do not do anything that produces sparks.
9. When handling batteries, use protective rubber gloves and goggles.
10. Protect your skin and clothes from stains caused by electrolyte or lead particles.
11. If electrolyte gets into your eye, rinse it with running water for a few minutes. Then see a doctor as soon as possible.
12. When electrolyte stains your skin or clothes, take off your clothes, wash the stained area with soapy water or with a solution of baking soda and water and see a doctor.
13. In the event of accidentally swallowing electrolyte, drink as much milk or water as possible or a solution of milk of magnesia and immediately see a doctor.
14. Never pour distilled water into the cells unless the operation of the machine or charging outside the machine follows. In this case the battery would discharge rapidly.
15. Never add sulfuric acid (H_2SO_4).
16. Do not overturn the batteries because electrolyte could run out of the air vents in the battery.
17. If acid (electrolyte) is spilled, rinse the area with water and neutralize it with lime.
18. When the batteries are being charged, hydrogen is released and, mixed with air, makes an explosive, easily combustible mixture. Do not use naked lights and do not smoke.

WELDING ON THE MACHINE

Before starting arc welding, disconnect all parts with semi-conductors from electrical wiring, i.e.:

- engine alternator,
- hourmeter,
- control unit under the instrument panel,
- earth both the supply and the machine that is being repaired,
- protect the supply point against moisture,
- place the ground terminal close to the welded joint,
- when parts are welded or when the machine is in the suspended position, insulate the point of current transfer to avoid current entering the hoist, or use a non-conducting rope.

SEALS

1. Always use new packing.
2. You can obtain packing kits in spare part form.

HARDWARE TORQUE

1. Use a torque wrench to obtain the right hardware torque.
2. Fastening screws and nuts of the given grade are tightened according to the table.
3. Screw grade is shown visibly on the screw head.
4. Hardware torque is given in the tables.
5. Threaded connections of hydraulic circuits are tightened as specified in the tables.
6. The given hardware torque specifications are valid for dry screw threads.
7. Use new self-locking nuts only.

ENVIRONMENTAL MEASURES AND HEALTH PRECAUTIONS

When repairing the machine, observe the general principles of health protection and environment protection, along with all laws, regulations, and guidelines related to these problems, as applicable to the territory where the machine is used.

HYGIENE

1. Oil products, coolants, battery acids, and paints including thinners can be harmful to your health and they can cause serious injury.
2. It is necessary to observe consistently safety and health instructions enclosed with the products and to use personal protective aids when handling them.
3. Personnel in contact with these products during servicing must observe the general principles relating to conservation and keep in mind safety and health guidelines as given by manufacturers of such products, especially the following:
   - protection of eyes and skin when working with batteries,
   - protection of the skin when handling oil products, paint, and coolants,
   - workers should wash their hands properly after finishing their work and apply proper healing hand lotions,
   - when working with the cooling system it necessary to observe the instructions in the manuals supplied with the machine.
4. Oil products, coolants, batteries, and paint including organic thinners as well as cleaners and preservatives should be always stored in their original packaging and properly labeled. Do not store such products in unlabeled bottles and other containers because there is a danger of confusion. Confusion with food or drinks is especially dangerous.
5. If your skin or eyes are by accidentally splashed or fumes inhaled, apply first aid immediately. In case of accidental consumption of such products see your doctor immediately.

ECOLOGICAL PRECAUTIONS

1. Contents of machine systems and some parts of the machine, when no longer in use, represent great risks to the environment.
2. The following products especially belong to this category:
   - both organic and synthetic lubricating materials, oils and fuel,
   - coolants,
   - battery acids and batteries themselves,
   - cleaning agents and preservatives,
   - all removed filters and filter elements,
   - all used and discarded hydraulic and fuel hoses, rubber - metals and the other elements exposed to the above products.
3. The above parts and materials must be handled, after they had been discarded, in accordance with prevailing national regulations on environmental protection and in conformance with directives relating to health conservation.
4. When hydraulic liquids, fuel, cooling systems and their components are being removed it is necessary to prevent their infiltration into the ground by using retaining vessels and by plugging all orifices.
5. In the event of leakage, the contaminated area-must be immediately dried with sawdust, Vapex, or similar.
6. Contaminated earth must be removed to prevent further infiltration. Then the soil and absorbing material must be disposed of safely.

FIRE PRECAUTIONS

1. From a fire risk point of view, the inflammable liquids used are divided into the following risk classes

   II. Risk class

   - oil

   IV. Risk class

   - mineral oils

   - lubricants

   - antifreeze

2. The place where oil is being changed must not situated in an area where there is danger of explosions or fire.
3. Notices showing that smoking and naked lights are not allowed must be installed there.
4. The receptacles used to catch drained inflammable liquids must be of adequate capacity.
5. Portable fire-extinguishers must be available.
6. Oil and oil products should be handled in special containers, e.g. metal barrels, drums or cans.
7. Liquid containers must be properly closed when stored.
8. The containers should have an air vent. They should be always stored with the air vent up and there must be measures taken to prevent leakage.
9. The vessels must be labeled with indelible inscriptions showing their contents and inflammability class.

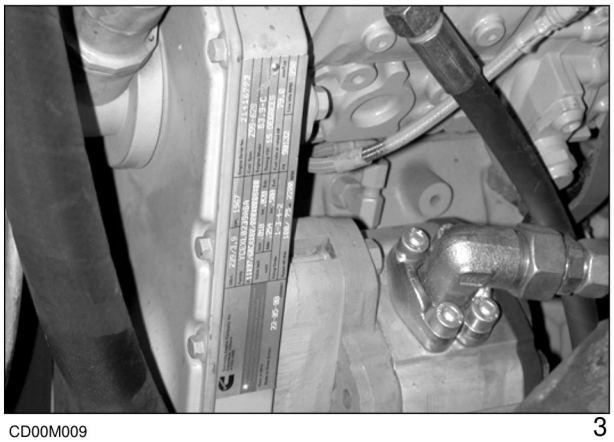
PRODUCT IDENTIFICATION

Serial and type numbers are important for machine identification and/or in case of warranty claims. A name plate with basic machine data is attached to the left side of the frame below the cab.

CD00M008 2

A plate with the serial number of the Cummins engine is attached to the fuel injection pump drive housing.

Serial numbers and data relating to major components may be found on the components concerned.



CD00M009 3

TORQUE SPECIFICATIONS

FASTENING HARDWARE

Inspection and re-tightening

1. Regularly check that hardware is not loose.
2. Use torque limiting wrenches to tighten screws and nuts.

Screws with metric threads

Screw size	Torque					
	For screws 5.8 (5 S)		For screws 8.8 (8 G)		For screws 10.9 (10 K)	
	Nm	lb-ft	Nm	lb-ft	Nm	lb-ft
M4	2	1	3	2	4	3
M5	4	3	6	4	8	6
M6	7	5	10	7	14	10
M8	16	12	22.5	17	32.5	24
M10	31.5	23	44	32	62	46
M12	53	39	75	55	105	77
M14	79	58	118	87	165	122
M16	113	83	165	122	226	167
M18	172	127	245	181	343	253
M20	226	167	314	232	441	325
M22	284	209	392	289	559	412
M24	392	289	549	405	755	557

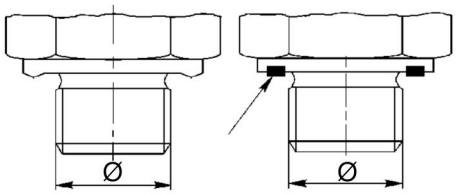
NOTE: *Lock nuts may be used a maximum of 3 times when approved.*

SCREW TYPE HOSE CONNECTIONS

			Screw type connections with “O” Rings					
			Nm			lb-ft		
Wrench size	Thread	Hose	Nominal	Min	Max	Nominal	Min	Max
14	M12x1.5	6	20	15	25	15	11	18
17	M14x1.5	8	38	30	45	28	22	33
19	M16x1.5	8	45	38	52	33	28	38
		10						
22	M18x1.5	10	51	43	58	38	32	43
		12						
24	M20x1.5	12	58	50	65	43	37	48
27	M22x1.5	14	74	60	88	55	44	65
		15						
30	M24x1.5	16	74	60	88	55	44	65
32	M26x1.5	18	105	85	128	77	63	92
36	M30x2	20	135	115	155	100	85	114
		22						
41	36x2	25	166	140	192	122	103	142
46		28						
50	M42x2	30	240	210	270	177	155	199
50	M45x2	35	290	255	325	214	188	240
	M52x2	38	330	280	380	243	207	280
		42						

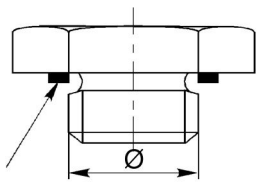
PLUGS AND NECKS

Table of tightening torques for necks and plugs with tightening edge, or with flat packing:



CS01C502 4

	Neck torque	
Ø	Nm	lb-ft
G 1/8“	25	18
G 1/4“	40	30
G 3/8“	95	70
G 1/2“	130	96
G 3/4“	250	184
G 1“	400	295
G 11/4“	600	443
G 11/2“	800	590
M 10x1	25	18
M 12x1.5	30	22
M 14x1.5	50	37
M 16x1.5	60	44
M 18x1.5	60	44
M 20x1.5	140	103
M 22x1.5	140	103
M 26x1.5	220	162
M 27x1.5	250	184
M 33x1.5	400	295
M 42x1.5	600	443
M 48x1.5	800	590



CS01C503 5

	Plugs torque	
Ø	Nm	lb-ft
G 1/8“	15	11
G 1/4“	33	24
G 3/8“	70	52
G 1/2“	90	66
G 3/4“	150	111
G 1“	220	162
G 11/4“	600	443
G 11/2“	800	590
M 10x1	13	10
M 12x1.5	30	22
M 14x1.5	40	30
M 16x1.5	60	44
M 18x1.5	70	52
M 20x1.5	90	66
M 22x1.5	100	74
M 26x1.5	120	89
M 27x1.5	150	111
M 33x1.5	250	184
M 42x1.5	400	295
M 48x1.5	500	369

NOTES

SECTION 00 - MAINTENANCE

Chapter 2 - General Specifications

CONTENTS

DESCRIPTION OF THE MACHINE

This vibratory roller is a self-propelled compaction machine consisting of two articulated sections, i.e. the drum and the towing unit.

Drum unit

This consists of the frame in which the drum with the travel drive and vibration drive is placed. Two levels of amplitude, which can be selected together with the corresponding frequency, make it possible to compact materials with different characteristics. Two scrapers placed on the front side of the beam and on the rear side on the cross member of the drum frame are provided for removing any soil adhering to the drum.

Articulation

Connects both units of the roller and enables independent horizontal and vertical movement of both sections.

Towing unit

This consists of a welded frame with the articulation support and hydraulic travel motors in front and the fuel tank, batteries and tool box to the rear. The hydraulic reservoir, operator's compartment and ROPS frame are mounted on top.

The static linear load and dynamic parameters for this machine place it in the heavy vibratory roller category.

ATTACHMENTS

Tamping segments

These segments make it possible to convert a smooth drum for tamping compaction duties.

Dozer blade

This attachment is useful for spreading bulk soil and for leveling the area being compacted. The arms of the blade are pendular and fixed to the frame of the drum. The blade is lifted and lowered using two bracket-mounted linear hydraulic motors on the right and left side drum frame members.

The ROPS protection frame

This protects the driver in case of the machine overturning. Data concerning the frame is to be found on the plate.

Asc lock

This makes it possible to negotiate rough terrain (gradients) with better adhesion and helps when loading on a trailer or trying to free the machine in mud, etc.

FLUIDS AND LUBRICANTS

Lubricants must have the correct properties for each application.

⚠ WARNING ⚠

The conditions of use for individual fluids and lubricants must be respected.

ENGINE OIL

IMPORTANT: *Use high quality oil and respect the oil changing intervals so as to ensure maximum engine life.*

Categories of oil to be used: API CE - CCMC D5

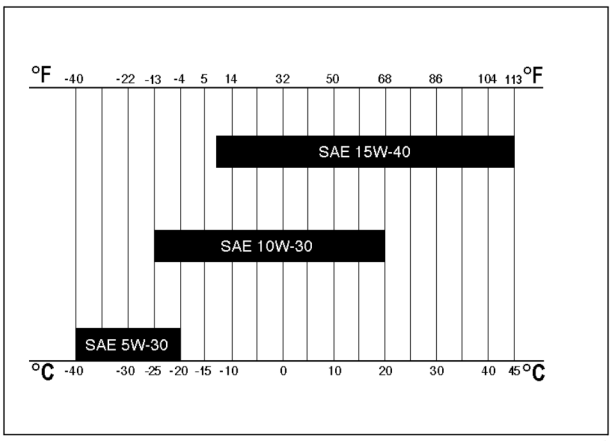
NOTE: *In certain countries, if CE grade oils are not to be found, it is possible to use CC/CD grade oils, but in this case the oil must be changed more frequently.*

The type of oil to use depends on ambient temperature:

- SAE 15W40: All seasons
- SAE 10W30: Winter
- SAE 5W30: Arctic

The following table gives the temperature ranges for different oils, depending on their viscosity.

NOTE: *Do not put any Performance Additive or other additive in the sump. Oil change intervals shown in this manual are based on tests carried out on lubricants.*



CS00N532 1

HYDRAULIC FLUID

Use high quality hydraulic fluid which is suitable for use at high pressures.

The type of fluid use depends on ambient temperature:

ISO VG46: Temperate climates (-8°C to +40°C) (17°F to 104°F)
ISO VG68: Hot climates (0°C to +80°C) (32°F to 176°F)

TRANSMISSION OIL

Use extreme pressure type oil, of the API GL5 SAE 80W90 category.

GREASE

Use extreme pressure grease of the NLGI grade 2 category.

FUEL

Use fuel which is to ASTM (American Society for Testing and Materials) D975 standard.

Use grade N°2 fuel. The use of other types of fuel can result in a loss of power and may cause high fuel consumption.

When the temperature is very cold, the use of a mixture of N°1 and N°2 fuel is permitted. See your fuel vendor for winter fuel requirements in your area.

If the temperature falls below the fuel cloud point (point at which wax begins to form) the wax crystals will cause power loss or will prevent the engine from starting.

IMPORTANT: *In cold weather, fill the fuel tank at the end of the day's work, in order to prevent the formation of condensation.*

Long storage can lead to the accumulation of impurities and condensation in the fuel. Engine trouble can often be traced to the presence of water in the fuel.

The storage tank must be placed outside and the temperature of the fuel should be kept as low as possible. Drain off water and impurities regularly.

ANTI-FREEZE/ANTI-CORROSION

Use anti-freeze in all seasons to protect the cooling system from corrosion and all risk of freezing.

For areas where ambient temperature is over -36°C (-33°F), use a blend of 50% ethylene-glycol based anti-freeze.

For areas where the temperature is below -36°C (-33°F), it is advisable to use a blend of 40% water and 60% anti-freeze.

FLUID AND LUBRICANT CAPACITIES AND SPECIFICATIONS

Components	Fluids and lubricants	Capacity
Engine	SAE 15W40 - API CE/SGE, ACEA E1-E2, CCMC D2-D3 - 10W30 - 5W30 oil	16.3 litres (4.3 gal US)
Hydraulic system	ISO VG46 - VG48 oil	90 litres (23.8 gal US)
Transmission	API GL5 - SAE 80W90 oil	4.2 litres (1.1 gal US)
Axle	API GL5 - SAE 80W90 oil	xx litres
Fuel system	Grade N°2 fuel	410 litres (108.3 gal US)
Machine articulation	NLGI grade 2 grease	as needed
Cooling system	Coolant - Water - Anti-freeze	25 litres (6.6 gal US)
Drum vibration	SAE 15W40 - 10W30 - 5W30 oil	8 litres (2.1 gal US)
Batteries	Distilled water	as needed
Windshield washers	Water - Anti-freeze	2.75 litres (0.72 gal US)

ENVIRONMENT

Before carrying out any maintenance operation on this machine and before disposing of used fluids or lubricants, always think of the environment. Never throw oil or fluid on the ground and never place it in leaking receptacles.

Contact your local ecological recycling center or your Dealer to obtain information on the correct method of disposing of these materials.

SPECIFICATIONS

	SV212	SV216
ENGINE		
Make	Cummins	
Type	B5.9 - C148	
Power rating	110.0 kW (148 HP)	
Standard	ISO 3046/1 (DIN 6271)	
Rated speed	2200 RPM	
STEERING		
Oscillation angle	±10°	
Steering angle	±36°	
Turning radius:		
Inner (edge)	3050 mm (120.08 in)	
Outer (overall)	5370 mm (211.4 in)	5395 mm (212.4 in)
CAPACITIES		
Fuel tank	410 litres (108.3 gal US)	
Engine oil	16.3 litres (4.3 gal US)	
Cooling system	25 litres (6.6 gal US)	
Hydraulic system	90 litres (23.8 gal US)	
Drum gearbox	2 litres (0.53 gal US)	4.2 litres (1.1 gal US)
Vibrating drum	8 litres (2.1 gal US)	
ELECTRICAL SYSTEM		
Voltage	24 Volts	
Batteries	2 x 100 Ah	
WHEELS		
Size of tires	23.1 x 26"	
Tread	UK5 10 PR	
Average ground contact pressure	304 kPa (44.1 psi)	
Tire inflation	160 kPa (23.2 psi)	

	SV212	SV216

TRAVEL

Drive axles 2
No. of travel speeds 4
Travelling speed - continuously controlled in both directions

1st speed range
Position of the shifter for working speed

1st position of the pre-selector	0-2.9 km/h (0-1.8 MPH)	0-2.4 km/h (0-1.49 MPH)
2nd position of the pre-selector	0-4 km/h (0-2.48 MPH)	0-3.1 km/h (0-1.92 MPH)
3rd position of the pre-selector	0-7 km/h (0-4.3 MPH)	0-5.7 km/h (0-3.54MPH)

2nd speed range
Position of the shifter for transport speed (hare)

Pre-selective gear control disengaged	0-16.0 km/h (0-9.91 MPH)	0-13 km/h (0-8.07 MPH)

Transversal stability - straight	36°	37°

Brakes:
Service ..... Hydrostatic
Parking and emergency ..... Multi-disc

Practical gradeability:

Without vibration	50%	56%
With vibration	40%	

Vibration:

Frequency	30/34 Hz	28/34 Hz
Amplitude	1.8/1.05 mm (0.071/0.041 in)	2.1/1.1 mm (0.079/0.41 in)

WEIGHTS

Operating weight (CECE) * with cab and ROPS frame	11 250 kg (24802 lb)	14 480 kg (31922 lb)
Operating weight (CECE) - maximum	12 590 kg (27756 lb)	15 300 kg (33730 lb)
Drum load (CECE)	7020 kg (15476 lb)	10 160 kg (22399 lb)
Static linear weight	31.9 kg/cm	46.2 kg/cm
Ballast	1200 kg (2645 lb)	
Cab	220 kg (485 lb)	
ROPS frame	230 kg (507 lb)	
Three tamping compaction segments	1680 kg (3704 lb)	
Tires with liquid ballast	2x600 kg (2x1323 lb)	

* When using tamping compaction segments or liquid tire ballast the basic machine weight figures shown must be increased accordingly.

PERFORMANCE LEVELS

SV212 (soil compaction)

Number of passes	Square output m^2/h (yd^2/h)	Volumetric Output m^3/h (yd^3/h)				Working speed (km/h): 4.5 (2.8 mph) Correction factor: 0.8		
		Compacted lift thickness m (in)						
		0.2 (8)	0.3 (12)	0.4 (16)	0.5 (20)	0.6 (24)	0.7 (28)	0.8 (31)
2	3960 (4736)	792 (1036)						
4	1980 (2368)	396 (518)	594 (777)					
6	1320 (1579)	264 (345)	396 (518)	528 (691)	660 (863)	792 (1036)		
8	990 (1184)	198 (259)	297 (388)	396 (518)	495 (647)	594 (777)	693 (906)	792 (1036)

SV216 (soil compaction)

Number of passes	Square output m^2/h (yd^2/h)	Volumetric Output m^3/h (yd^3/h)				Working speed (km/h): 4.5 (2.8 mph) Correction factor: 0.8		
		Compacted lift thickness m (in)						
		0.2	0.4	0.6	0.8	1	1.2	1.4
2	3960 (4736)	792 (1036)						
4	1980 (2368)	396 (518)	792 (1036)	1188 (1554)				
6	1320 (1579)	264 (345)	528 (691)	792 (1036)	1056 (1381)			
8	990 (1184)	198 (259)	398 (518)	594 (777)	792 (1036)	990 (1295)	1188 (1554)	1386 (1813)

Less economical compaction modes

MAXIMUM COMPACTED LIFT THICKNESS AT OPTIMAL WORKING CONDITIONS

	Rockfill	Sand/gravel	Mixed soils	Silt	Clay
SV212	0.8 m (31 in)	0.6 m (24 in)	0.5 m (20 in)	0.4 m (16 in)	0.25 m (10 in)
SV216	1.4 m (55)	0.9 m (35 in)	0.75 m (30 in)	0.55 m (22 in)	0.3 m (12 in)

EQUIPMENT

Standard

Lockable vandal guard
Single lever control
Both drum and wheels are hydrostatically driven
Double mode vibration
Interaxle differential lock
Articulated chassis
Halogen working lamps
Tires 23.1 x 26” tread UK 5 (10 PR)
Tire ballast water filling device

Options

ROPS protection
Segment kits, 150 feet
Airconditioning
Engine air pre-cleaner
Tires 23.1 x 26” TR1 (10PR)
Tire ballast liquid filling to 0 centigrade C
Tire ballast liquid filling to minus 25 centigrade C
Compaction indicator
Fan safety screen
Alternator safety screen
Turn indicators
Rotating beacon

NOISE AND VIBRATION LEVELS

Internal noise

The acoustic pressure level affecting the driver during travel (measured according to EN 11 202 on sand):

1) With door closed

Using vibration ..... 81 dB (A)
Without vibration ..... 78 dB (A)

2) With door open

Using vibration ..... 91 dB (A)
Without vibration ..... 90 dB (A)

External noise

Measured according ISO 6393 on concrete, machine stationary ..... 108 dB (A)

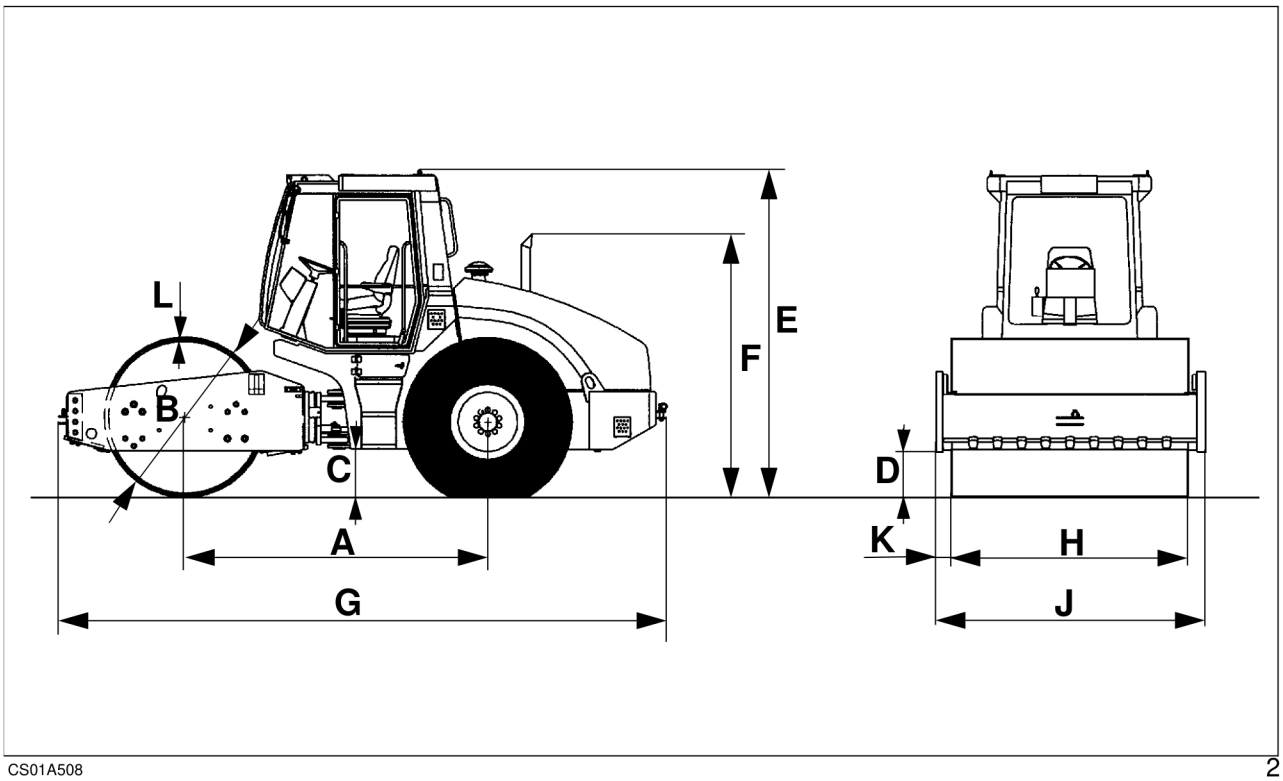
Vibration

The mean effective value of vibration acceleration:

- Transferred to the hands (measured according to ISO 5349 on sand, using vibration): aw < 2.5 m/s^2 (vectorial sum).

- Transferred to the body (measured according to EN 1032 on sand, using vibration): aw < 0.5 m/s^2 (vectorial sum)

OVERALL MACHINE DIMENSIONS



CS01A508 2

	SV212	SV216
A	2.820 m (111 in)	
B	1.500 m (59 in)	
C	0.420 m (16.5 in)	
D	0.430 m (16.9 in)	
E	3.030 m (119.3 in)	
F	2.500 m (98.4 in)	
G	5.686 m (223.8 in)	
H	2.200 m (86.6 in)	
J	2.450 m (96.4 in)	2.500 m (98.4 in)
K	0.118 m (4.6 in)	0.142 m (5.6 in)
L	0.025 m (0.98 in)	0.040 m (1.57 in)

NOTES