

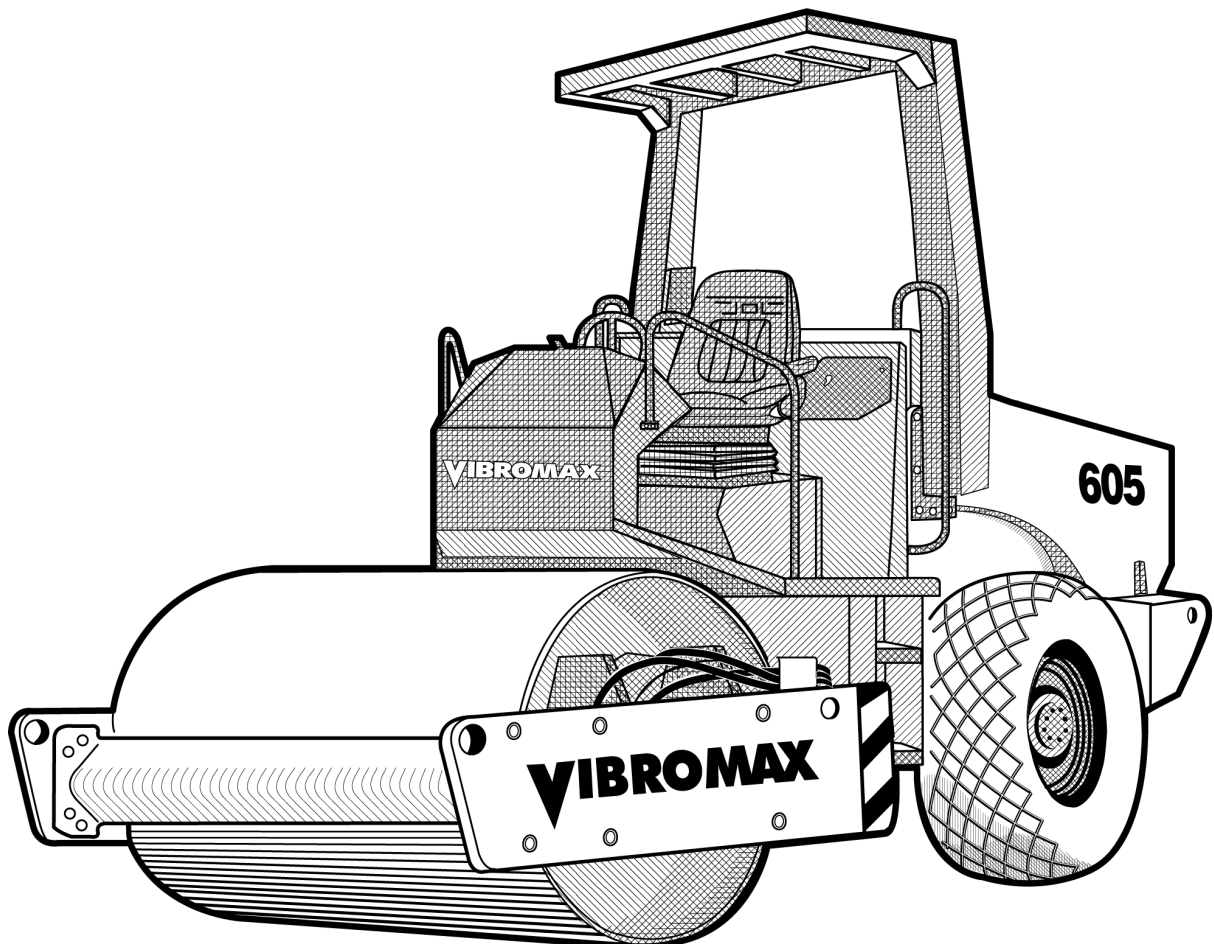
VIBROMAX

SINGLE DRUM ROLLER

SERVICE MANUAL SM85005

March 2003

Models 405, 605, 606



CALIFORNIA

Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

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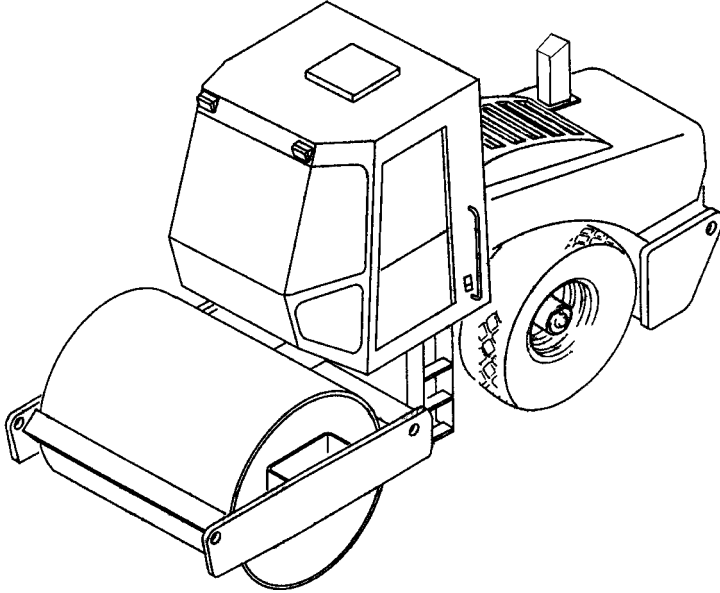
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SECTION ONE

GENERAL INFORMATION

MACHINE DESCRIPTION

In the fall of 1998 Vibromax introduced a new series of single drum vibratory rollers. Included in the new series are the models 405, 605, and 606.

These new rollers use the Cummins 3.9 liter 4 cylinder engine. Some engines are turbocharged depending on the machine model. All of the new engines are tuned to meet the latest EPA emissions standards.

A Mannesman Rexroth variable displacement, axial piston hydrostatic pump, used for machine propulsion, is mounted to the flywheel end of the engine. It provides oil to a Rexroth 2 speed drum drive motor and a 2 speed axle drive motor in a parallel path. The Rexroth drum motor is mounted on the left side of the drum, drives through a L&S planetary gearbox and is isolated from the drum by rubber buffers. This arrangement is used in the heavy roller models with a great deal of success. The axle drive motor is attached directly to the intermediate gearbox incorporated into the rear axle.

The vibration system on the 605 & 606 use a Rexroth hydrostatic pump mounted directly behind the propulsion pump. It is similar in design to the propulsion pump. On the model 405 the vibratory pump is a Rexroth gear type pump. The vibratory pump supplies oil to a Rexroth hydrostatic motor mounted at the right side of the drum. The new 605 & 606 models operate at frequencies of 1740 or 2160 vibrations per minute on both the smooth drum and pad foot versions. The model 405 has only one vibration frequency of 2016 vibrations per minute.

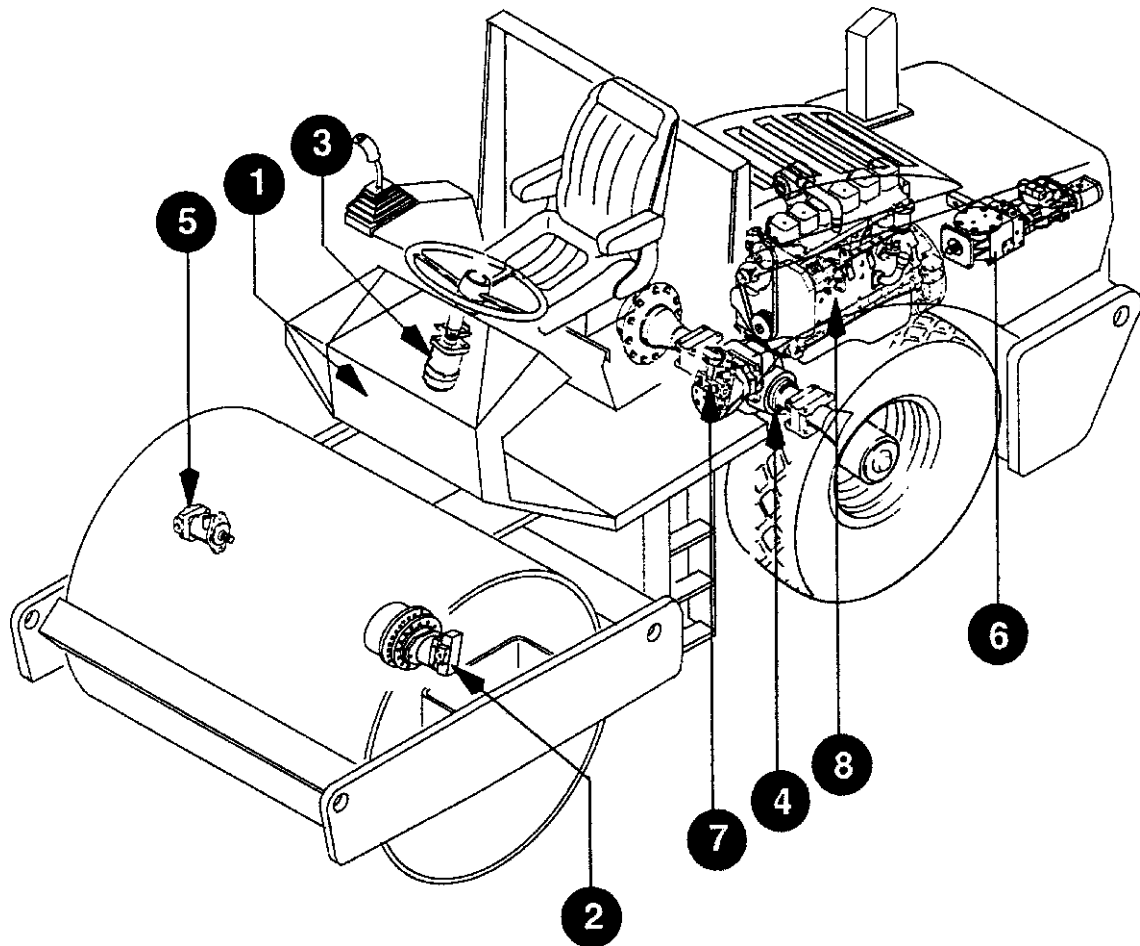
A steering pump, mounted to the rear of the vibratory pump, provides the oil needed for steering. The steering pump also acts as the charge pump in the propulsion/vibration circuit. The steering pump draws oil from the reservoir, passes it through the steering control valve, through the inline hydraulic filter, and into the charge circuit.

These machines come standard with parking brakes at both the front drum and the rear axle. A spring applied-hydraulically released multi disc brake is part of the drum drive motor gearbox. The axle uses a spring applied hydraulically released multiple disc brake at the intermediate gearbox input shaft.

Pressure testing has been made easier by placing all the test ports at a centrally located test station under the engine hood.

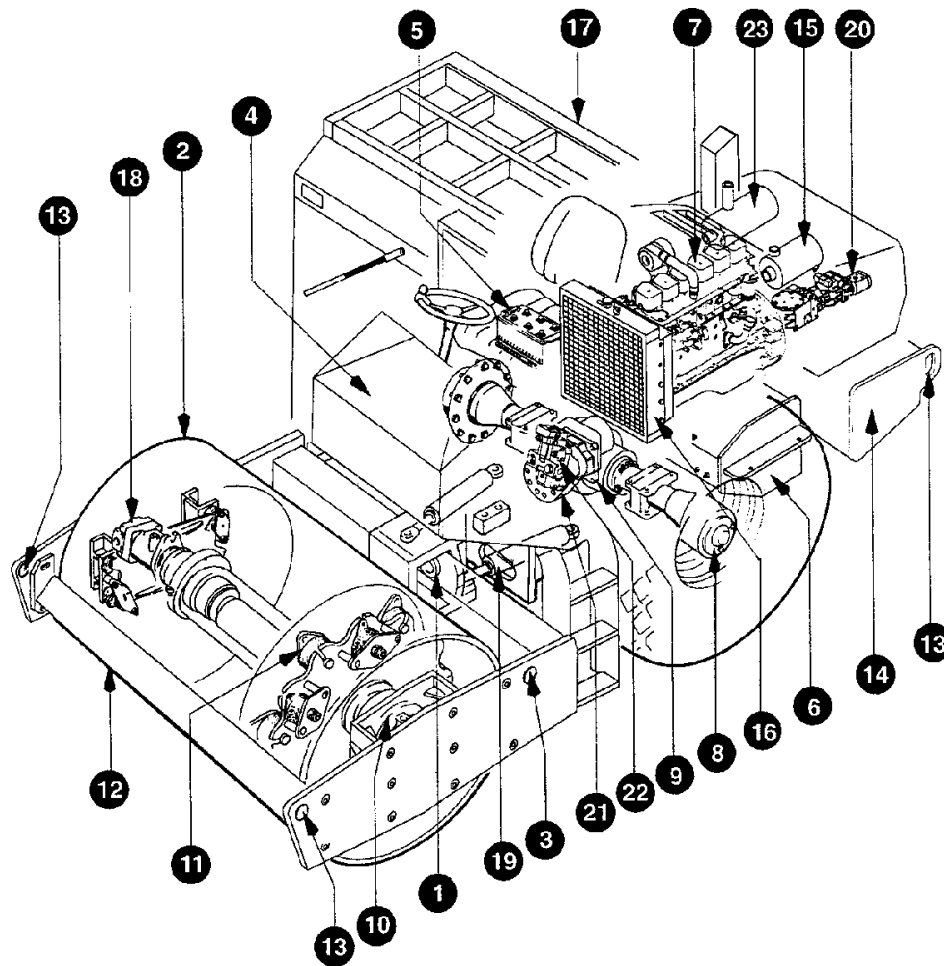
The electrical system consists of a 12 volt battery, starter, alternator system, optional lighting and standard instrumentation.

The most notable changes from the earlier model is the mounting of the engine in a forward position and the tilting hood. These changes result in a substantial ambient noise level reduction.



SERIAL NUMBERS

1	Model / Serial Number	
2	Front Drum Drive Motor S/N	
3	Steering Unit S/N	
4	Axle S/N	
5	Vibratory Motor S/N	
6	Hydraulic Pumps S/N	
7	Axle Drive Motor S/N	
8	Engine S/N	



IDENTIFYING MACHINE COMPONENTS

1	Articulation joint	13	Lifting and towing eyes
2	Smooth drum	14	Fuel tank
3	Lifting eye	15	Air filter system
4	Operator's stand	16	Engine radiator
5	Battery	17	Roll over protective structure
6	Hydraulic tank	18	Vibration motor
7	Engine	19	Steering cylinder
8	Planetary gear	20	Hydraulic pumps
9	Differential	21	Intermediate gearbox
10	Drum drive motor	22	Axle drive motor
11	Isolation buffer	23	Engine exhaust
12	Scraper		

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