



Specifications Systems Operation Testing and Adjusting

CP-563E, CS-563E, CS-573E and CS-583E Vibratory Compactors Propel System

ASA1-Up (Machine)
CEB1-Up (Machine)
BWE1-Up (Machine)
CNG1-Up (Machine)
DAJ1-Up (Machine)
CNN1-Up (Machine)
CNT1-Up (Machine)
CNX1-Up (Machine)

Important Safety Information

Most accidents that involve product operation, maintenance and repair are caused by failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing potentially hazardous situations before an accident occurs. A person must be alert to potential hazards. This person should also have the necessary training, skills and tools to perform these functions properly.

Improper operation, lubrication, maintenance or repair of this product can be dangerous and could result in injury or death.

Do not operate or perform any lubrication, maintenance or repair on this product, until you have read and understood the operation, lubrication, maintenance and repair information.

Safety precautions and warnings are provided in this manual and on the product. If these hazard warnings are not heeded, bodily injury or death could occur to you or to other persons.

The hazards are identified by the "Safety Alert Symbol" and followed by a "Signal Word" such as "DANGER", "WARNING" or "CAUTION". The Safety Alert "WARNING" label is shown below.



The meaning of this safety alert symbol is as follows:

Attention! Become Alert! Your Safety is Involved.

The message that appears under the warning explains the hazard and can be either written or pictorially presented.

Operations that may cause product damage are identified by "NOTICE" labels on the product and in this publication.

Caterpillar cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this publication and on the product are, therefore, not all inclusive. If a tool, procedure, work method or operating technique that is not specifically recommended by Caterpillar is used, you must satisfy yourself that it is safe for you and for others. You should also ensure that the product will not be damaged or be made unsafe by the operation, lubrication, maintenance or repair procedures that you choose.

The information, specifications, and illustrations in this publication are on the basis of information that was available at the time that the publication was written. The specifications, torques, pressures, measurements, adjustments, illustrations, and other items can change at any time. These changes can affect the service that is given to the product. Obtain the complete and most current information before you start any job. Caterpillar dealers have the most current information available.



When replacement parts are required for this product Caterpillar recommends using Caterpillar replacement parts or parts with equivalent specifications including, but not limited to, physical dimensions, type, strength and material.

Failure to heed this warning can lead to premature failures, product damage, personal injury or death.

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i01813686

Pump Drive

SMCS Code: 3108

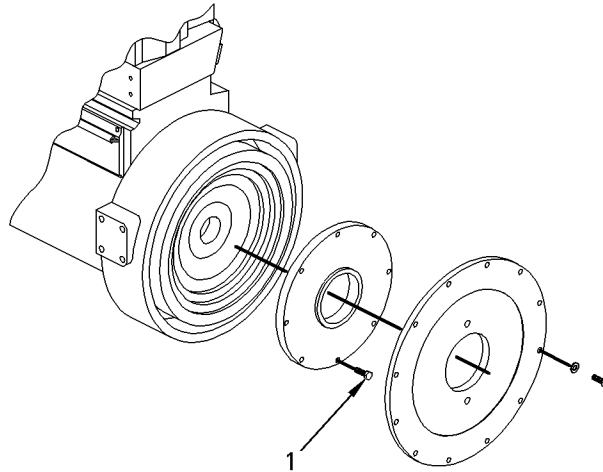


Illustration 2

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Apply 9S-3263 Thread Lock Compound to the threads of eight bolts (1).

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Propel Lines Group

SMCS Code: 3218; 5057

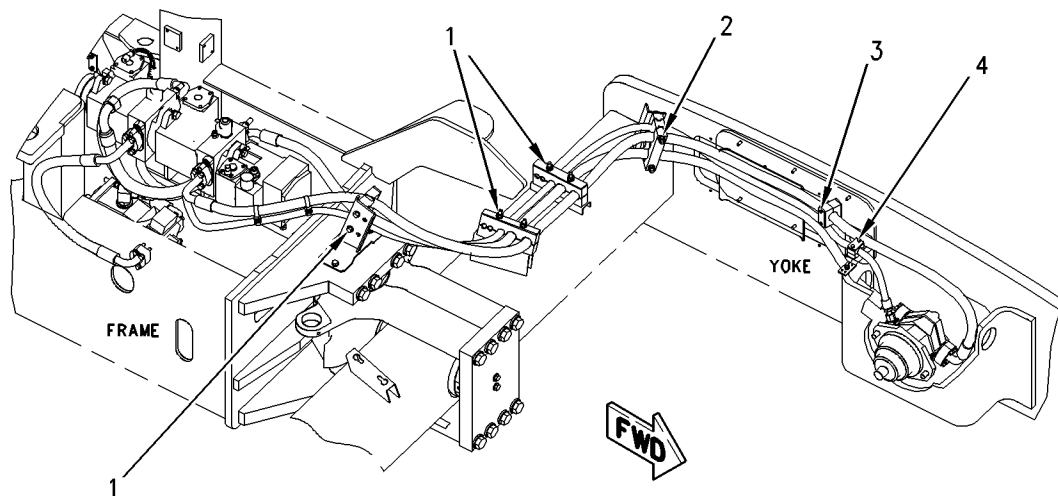


Illustration 3

g00926238

(1) Torque for six bolts .. 30 ± 7 N·m (22 ± 5.2 lb ft)

(3) Torque for two bolts .. 6 ± 1 N·m (53 ± 8.9 lb in)

(2) Torque for two bolts .. 30 ± 7 N·m (22 ± 5.2 lb ft)

(4) Torque for two bolts .. 6 ± 1 N·m (53 ± 8.9 lb in)

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Piston Pump (Axle and Drum Propel)

SMCS Code: 3203; 5070

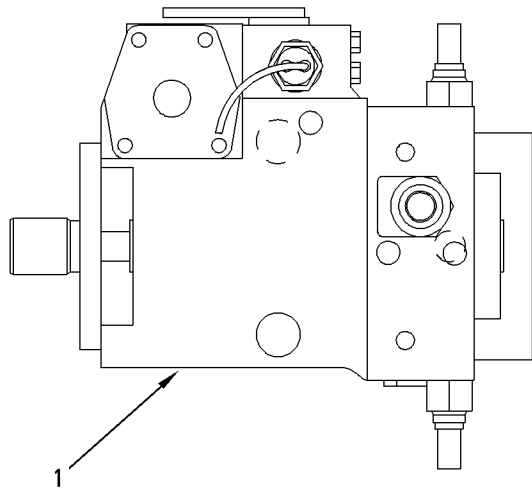


Illustration 4

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(1) Piston pump

Type Variable displacement
 Displacement 56 cc/rev
 Rotation (shaft end) Clockwise
 Charge pressure above case at port
 "G" 2900 ± 100 kPa (421 ± 14.5 psi)
 Pressure setting for high pressure relief
 (gauge) 48000 kPa (6962 psi)
 POR setting .. 45000 ± 145 kPa (6527 ± 21 psi)
 Resistance for the axle and drum interlock
 solenoids 24.6Ω

Pump Test Specification

Pump speed 2300 ± 25 rpm
 Charge flow 20 L/min (5 US gpm)
 Oil temperature $40 \text{ }^\circ\text{C}$ ($104 \text{ }^\circ\text{F}$)

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Speed and Direction Control

SMCS Code: 5462

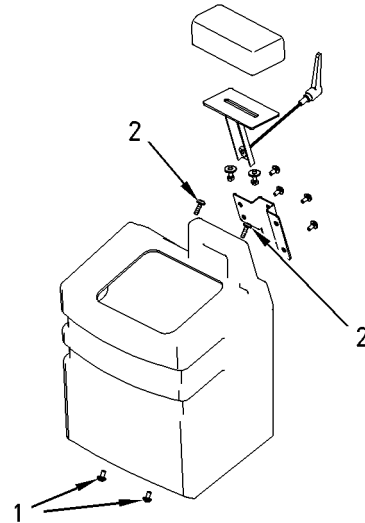


Illustration 5

g00926303

- (1) Torque for two screws 6 ± 1 N·m
(53 ± 8.9 lb in)
- (2) Torque for two screws 6 ± 1 N·m
(53 ± 8.9 lb in)

i01813979

Control Valve (Shift)

SMCS Code: 5051

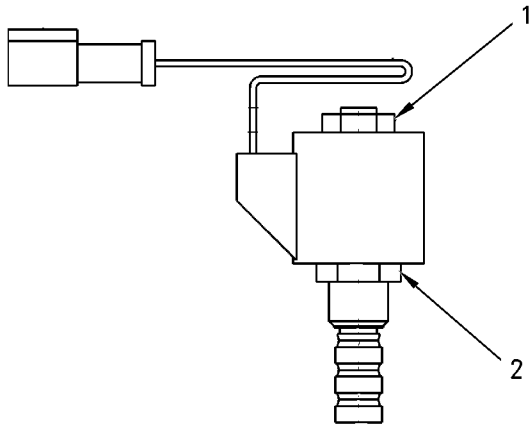


Illustration 6

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Valve

Solenoid 24 VDC

(1) Torque for one nut 4.1 N·m (36 lb in)

(2) Torque for one nut 37 N·m (27 lb ft)

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Parking Brake Control

SMCS Code: 4284

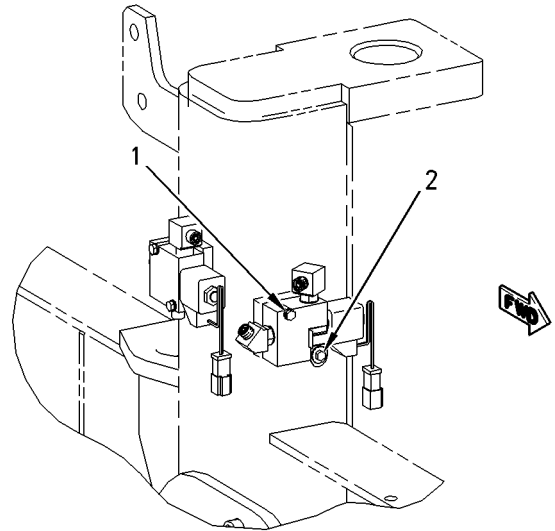


Illustration 7

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Apply **9S-3263** Thread Lock Compound to the threads on bolts (1) and (2).

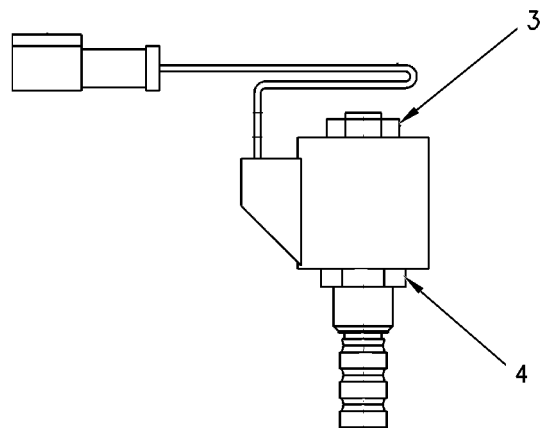


Illustration 8

g00926321

(3) Torque for one nut 4.1 N·m (36 lb in)

(4) Torque for one nut 37 N·m (27 lb ft)

Resistance 31.4 to 32 Ω

i01814146

Piston Motor (Axle Propel)

SMCS Code: 4351; 5058

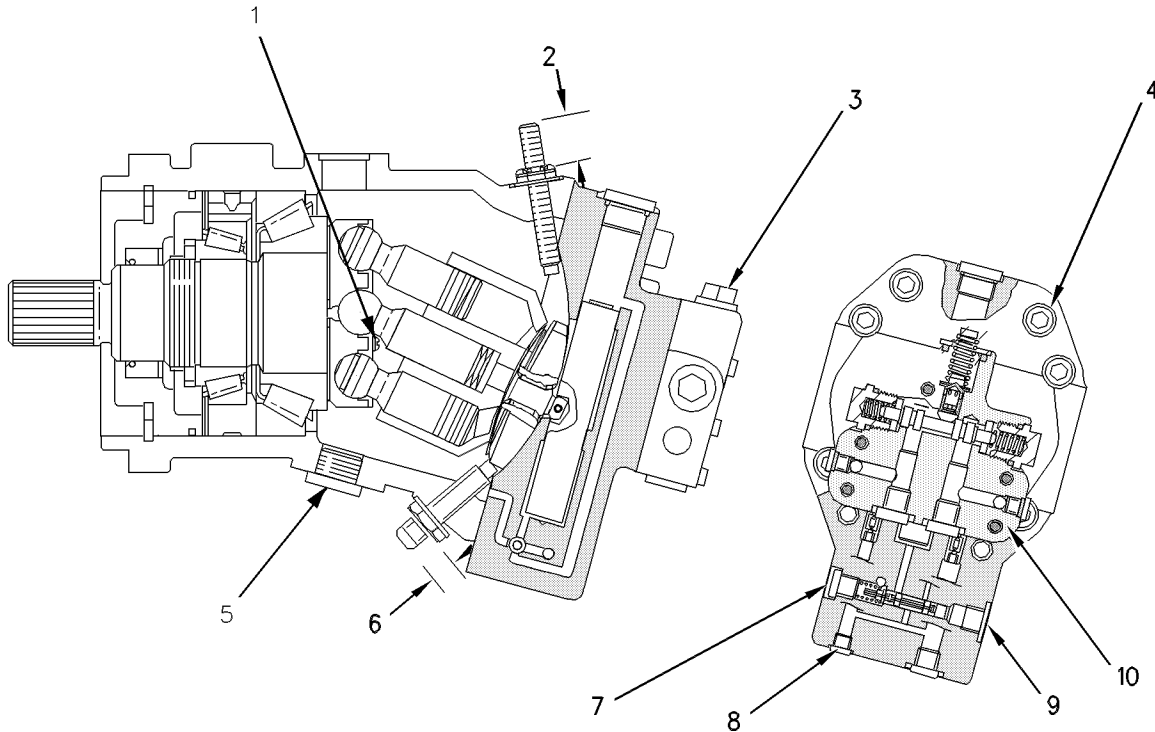


Illustration 9

g00562523

Maximum displacement 55 cm³/rev (3.3 in³/rev)

Minimum displacement 28 cm³/rev (1.7 in³/rev)

(1) Apply **9S-3263** Thread Lock Compound to the threads. Torque for screws 3 N·m (27 lb in)

(2) The minimum displacement adjustment screw 14.5 mm (0.57 inch)

(3) Torque for plug 50 N·m (37 lb ft)

(4) Torque for four bolts 48 N·m (35 lb ft)

(5) Torque for plug .. 135 ± 15 N·m (100 ± 11 lb ft)

(6) The maximum displacement position .. 14.5 mm (0.57 inch)

(7) Torque for plug 40 ± 5 N·m (30 ± 4 lb ft)

(8) Torque for plug 40 ± 5 N·m (30 ± 4 lb ft)

(9) Torque for plug 40 ± 5 N·m (30 ± 4 lb ft)

Case drain with the flushing valve 7 to 14 L/min (1.8 to 3.8 US gpm)

Case drain without the flushing valve 3.8 L/min (1 US gpm)

(10) Diameter of the orifice in the flushing valve 1.4 mm (0.055 inch)

Relief pressure 1800 kPa (261 psi)

Flushing Valve

i01863115

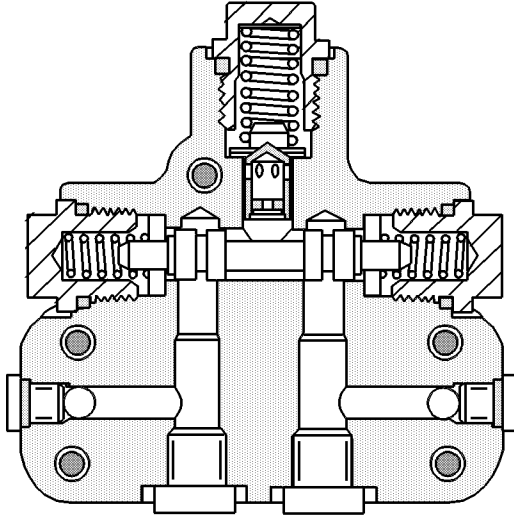


Illustration 10

g00471788

Flow of the flushing valve 9 ± 2 L/min
(2.4 ± 0.5 US gpm)

Pressure setting for the relief valve 1800 kPa
(261 psi)

Note: The flushing valve and the size of the orifice
1.4 mm (0.055 inch) control the cooling flow from
the low pressure side.

Case drain 7 to 14 L/min (1.8 to 3.8 US gpm)

Note: The case drain includes the flow of the
flushing valve.

Final Drive Planetary (Axle Propel)

SMCS Code: 4050

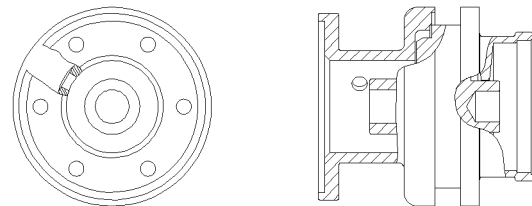


Illustration 11

g00949741

Ratio of gear reducer 4.63 to 1

Continuous torque 170 daN·m

Maximum torque 340 daN·m

Input speed 4400 rpm

Output speed 950 rpm

i01814229

Drum Drive Group

SMCS Code: 4050; 5058; 6605-DRV

S/N: ASA1-Up

S/N: CEB1-Up

S/N: BWE1-Up

S/N: CNG1-Up

Part No.: 203-4712, 205-4950

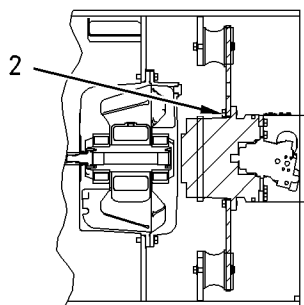
S/N: DAJ1-Up

S/N: CNN1-Up

S/N: CNT1-Up

S/N: CNX1-Up

Drum Drive Group for the CS/CP-563E



VIEW A-A

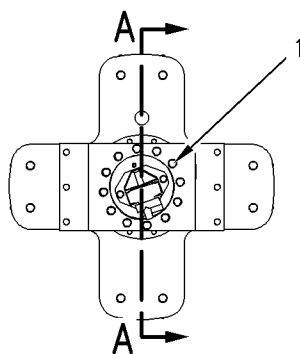


Illustration 12

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(1) Torque for 12 bolts 530 ± 70 N·m
(390 ± 52 lb ft)

(2) Torque for 12 bolts 530 ± 70 N·m
(390 ± 52 lb ft)