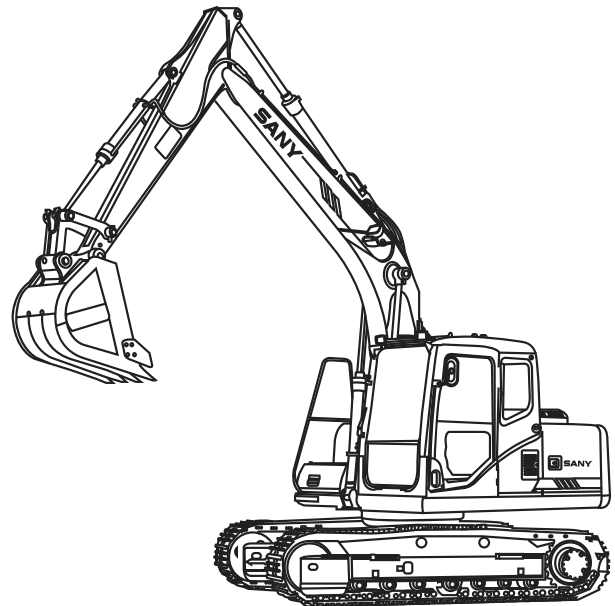


Quality Changes the World



Crawler Hydraulic Excavator SY365H(BH)-10



Shop Manual

hot. When changing oil, drain the used hydraulic oil as much as possible. (Drain from hydraulic oil tank; and drain from the filter and the drain plug in the oil circuit.) The impurities and sediments in the used oil, if any, will be mixed with the new oil and thereby shorten the service life of hydraulic oil.

6. Flushing

When disassembling and reassembling the device or changing the oil, remove the impurities, sediments and old oil in hydraulic circuits with flushing oil. Flushing shall generally be done twice: main flushing with flushing oil, supplemental flushing with the specified hydraulic oil.

7. Cleaning

Perform oil flushing to remove sediments or impurities from the hydraulic circuit after repair of hydraulic components (pump, control valve, etc.) or during the operation of hydraulic excavator. The oil cleaning device is highly effective because it is used for removing ultra fine particles of about 3μ to make it unnecessary to remove the filter built in the hydraulic component.

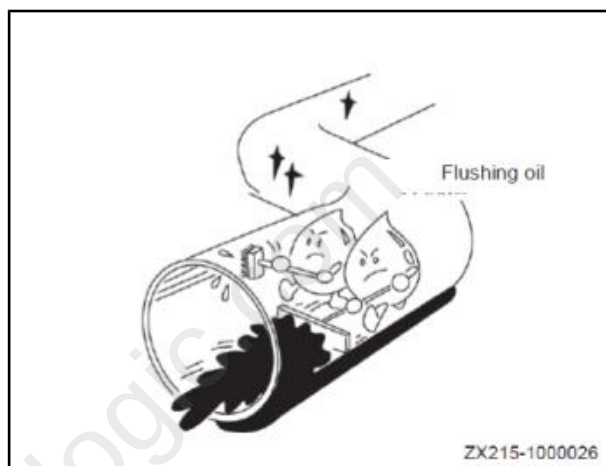


Fig.1-22

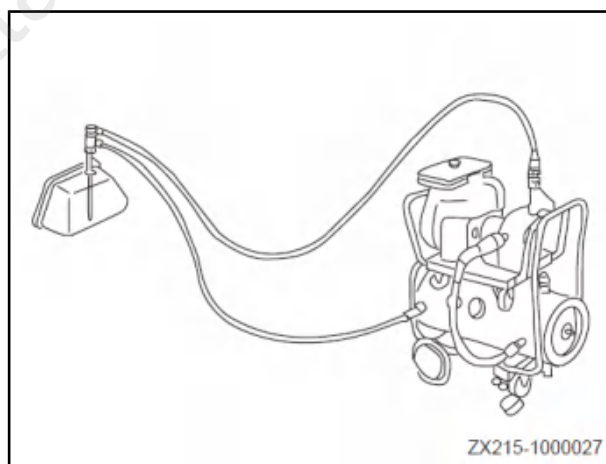


Fig.1-23

Function

- The engine torque is transferred to the shaft (1) to drive the cylinder (7) to rotate, and the 9 pistons (6) slide along the surface of the port plate (8). The piston (6) reciprocates within the cylinder (7) to alternately suck the low-pressure oil and discharge the high-pressure oil.
- The displacement is changed through change of the inclination angle of the swashplate.

Structure

- The cylinder (7) is supported on the shaft (1) by the spline (17).
- The shaft (1) is supported by the front and rear bearings (18).
- The piston (6) top is made into a concave sphere which is filled with the slipper (5) to form a device.
- The piston (6) and slipper (5) form a spherical bearing.

Working process

- The cylinder (7) rotates with the shaft (1), and the slipper (5) slides on the plane (A).
- In this case, the swashplate (4) moves along the cylindrical surface (B). Therefore, the angle (a) between the center line (X) of the swashplate (4) and the axial direction of the cylinder (7) may change.
- (a) is the inclination angle of the swashplate.

- The swashplate (4) has a plane (A), and the slipper (5) always presses against this plane when it makes a circular motion.
- The swashplate (4) guides the high-pressure oil to the surface (B) and forms a static pressure bearing when it slides.
- The piston (6) makes an axial relative movement inside each cavity of the cylinder (7).
- The cylinder (7) seals the pressurized oil to the port plate (8) and makes a relative rotation.
- This surface is so designed that the oil pressure balance is maintained at a suitable level.
- The oil inside each cavity of the cylinder (7) is sucked and discharged through the port plate (8).

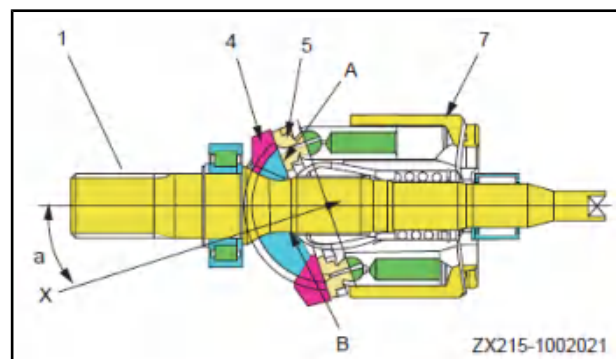


Fig.4-19

 Do not disconnect the hose from the large chamber.

3) Start the engine and apply relief pressure to the large chamber when it runs at high idle speed.

4) After 30s, measure the leakage amount within 1min.

5) After measurement, ensure that the machine is back to normal.

3. Measurement of bucket cylinder leakage

1) Start the engine and allow it to run until the temperature of hydraulic oil rises within the operation range. Then extend the bucket cylinder to the end of its stroke.

 Release the residual pressure from the pipelines. Refer to “Release of residual pressure from hydraulic lines” (Page 6-19).

2) Disconnect the hose (3) from the small chamber, and install a blind plug to the hose end.

 Do not disconnect the hose from the large chamber.

3) Start the engine and apply relief pressure to the large chamber when it runs at high idle speed.

4) After 30s, measure the leakage amount within 1min.

5) After measurement, ensure that the machine is back to normal.



Fig.6-31

			Operate the control lever, and the pilot pressure is within 0 ~37KG
	2	Engine speed fault	Check the engine speed and proportional solenoid valve current; if the speed is low, re-calibrate the speed.
	3	Controller fault	The fault diagnosis cannot be carried out because it is an internal fault. (If the fault is not due to any of the above, the controller shall be deemed to be defective)

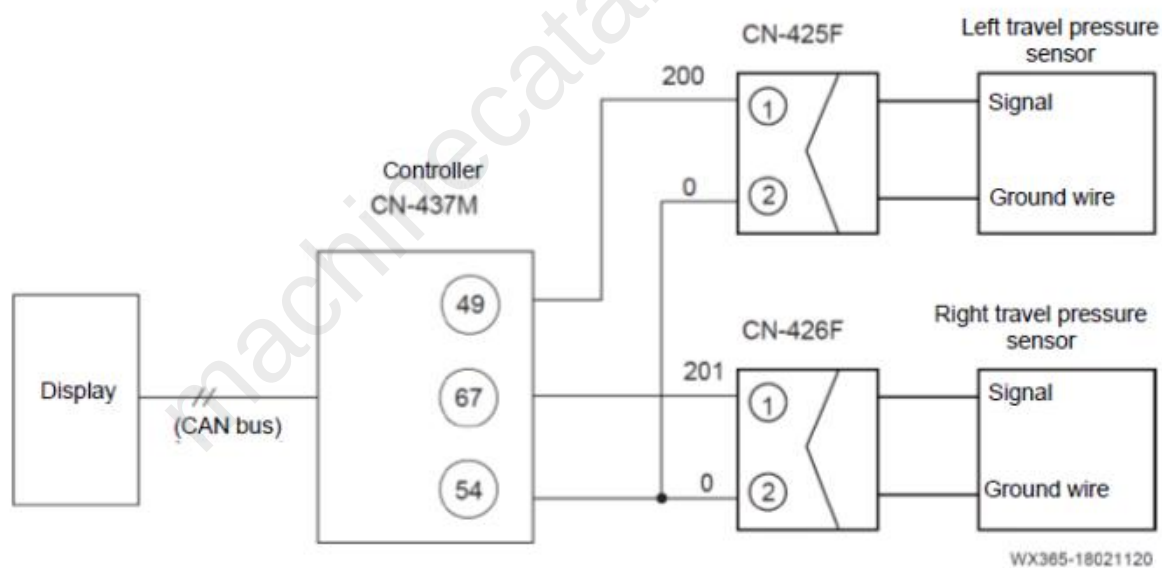
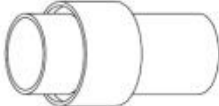
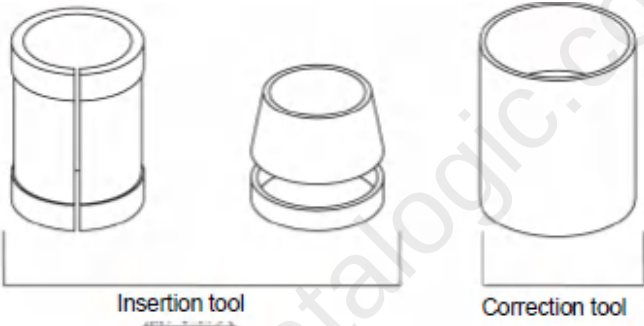
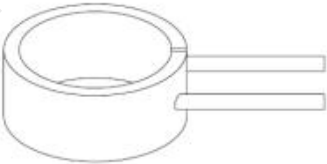


Fig.7-21

7.10.12 E-10 The display is blank

Fault information	The display is blank after the excavator is powered on
Relevant information	

Tool name	Sketch	Necessity	Quantity
Bushing removal and installation		■	1
Dust ring installation		■	1
Seal installation and correction		■	1
Cylinder head installation		■	1
Piston installation		■	1

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