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KAWASAKI DECK MACHINERY SERVICE NEWS	ISSUED: JUNE, 17, 2026

SUBJECT:	Test procedure with a pressure test kit for deck machinery

The components of the pressure test kit for our deck machinery are shown in Table 1 & Fig.1.
Applicable types of motor are HMKC, HMJC & HMC Series.

Table 1. Components of the pressure test kit

Parts name	Part No.	Req'd	Use for / Remarks
① Pressure gauge(40MPa)	PGV50-40V-SET1	2	For pressure check
② Connector	8300QU1CKK14	2	Fitting for pressure gauge
③ Hose(600mm)	8300QU1CKHA06	2	For extension use
④ Quick test coupling	8300QU1CKPF14	2	Attach to the motor test port
⑤ Plug	69-67171	2	Close the port after pressure test Not reusable

Fig.1 Components of the pressure test kit

Using this kit, the tests described on the following pages can be carried out. **When performing the test, please ensure that you have fully understood the SAFETY PRECAUTIONS described in the finished plan drawings and the instruction manual before proceeding. Furthermore, if the winch components are severely corroded, applying high pressure may cause damage to the winch. Please exercise sufficient caution, and if there are any safety concerns, discontinue the inspection immediately.**

KAWASAKI HEAVY INDUSTRIES, LTD.
PRECISION MACHINERY BUSINESS DEVISION
CUSTOMER SERVICE DEPARTMENT

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1. Verification of switching pressure between high and low displacement of the hydraulic motor

If the following symptoms are observed, there is a possibility that the hydraulic motor is not switching between high and low displacement:

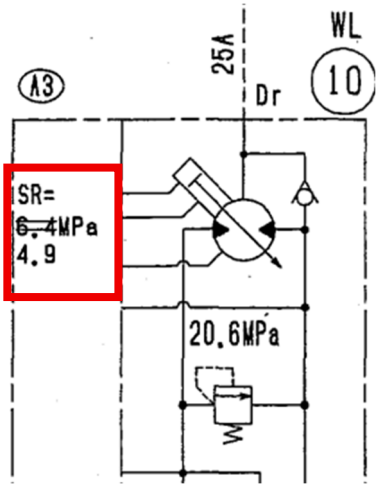
- The winch winding speed is slow
- The winch output is insufficient (unable to wind or hoist)

If such symptoms are present, please confirm operation in accordance with the following procedure.

1) Refer to Fig.2 and 3 on page 4. Install the test kit to the test port on the hydraulic motor.
2) Set the brake of the chain drum or hawser drum to **"Applied"** and the clutch to **"Engaged."** Depending on the brake configuration, apply the brake and engage the clutch for multiple drums in the same manner as necessary.
3) Operate the control valve slowly in the **"UP" ("WIND")** direction.
4) Confirm that the pressure at one port gradually increases and switches to the opposite port at approximately the SB regulator set pressure.
   If the port does not switch, there may be a malfunction in the SB regulator or the selector valve.
5) After the test, set the control valve to neutral, disengage the clutch, and stop the pump.
6) After confirming that there is no residual pressure, remove the test kit and install the plug to the pressure test port.
7) For the method of confirming the SB regulator set pressure, refer to one of the following methods shown in the approved drawings:

Method (1): When it is indicated for the relevant winch in the hydraulic circuit diagram

(Example: Set pressure 4.9 MPa for windlass 10)



Method (2): Parts list in the hydraulic motor drawing

(Example: The suffix "100" indicates a set pressure of 100 kgf/cm² = 9.8 MPa)

20	レギュレータ SB REGULATOR	1	69R231100

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2. Pressure Test

To verify the integrity of the hydraulic equipment, piping, and winch, a pressure test can be carried out in accordance with the following procedure.

If the hydraulic equipment, piping, or winch components are severely corroded, applying high pressure may cause damage to components or result in oil leakage. Please exercise sufficient caution, and if there are any safety concerns, discontinue the test immediately.

1) Refer to Fig.2 and 3 on page 4. Install the test kit to the test port on the hydraulic motor.
2) Set the brake of the chain drum or hawser drum to **"Applied"** and the clutch to **"Engaged."** Depending on the brake configuration, apply the brake and engage the clutch for multiple drums in the same manner as necessary.
3) Operate the control valve slowly in the **"DOWN" ("SLACK")** direction.
   [Caution] Performing a pressure test in the "UP" (WIND) direction may damage the brake. Operate in the "DOWN" ("SLACK") direction.
4) Confirm that the pressure at one port gradually increases and reaches approximately the relief valve set pressure. Also confirm that the pressure gauge on the pump side in the pump room likewise rises to approximately the relief valve set pressure.
   [Caution] Keep the pressurization time to the minimum necessary. Prolonged pressurization may cause burnout of the electric motor.
5) After the test, set the control valve to neutral, disengage the clutch, and stop the pump.
6) After confirming that there is no residual pressure, remove the test kit and install the plug to the pressure test port.

The relief valve set pressure can be confirmed from the **Particulars** in the finished plan drawings.
(Example below: Set pressure 24.5 MPa)

PUMP UNIT (ITEM 30) (For fore group)

Type		Unit	K3VG180 × 2
Quantity		Set	1
Hydraulic pump (Main pump)	Type × Q'ty	per set	K3VG180 × 2
	Working press.	MPa	19.5
	Max. Delivery	L/min	278 × 2
	Relief valve setting press.	MPa	24.5
Electric motor (For main pump)	Voltage × Hz	V × Hz	AC440V × 60Hz
	Power	kW	120kW×2
	Speed	rpm	1750
	Rating	—	CONT.

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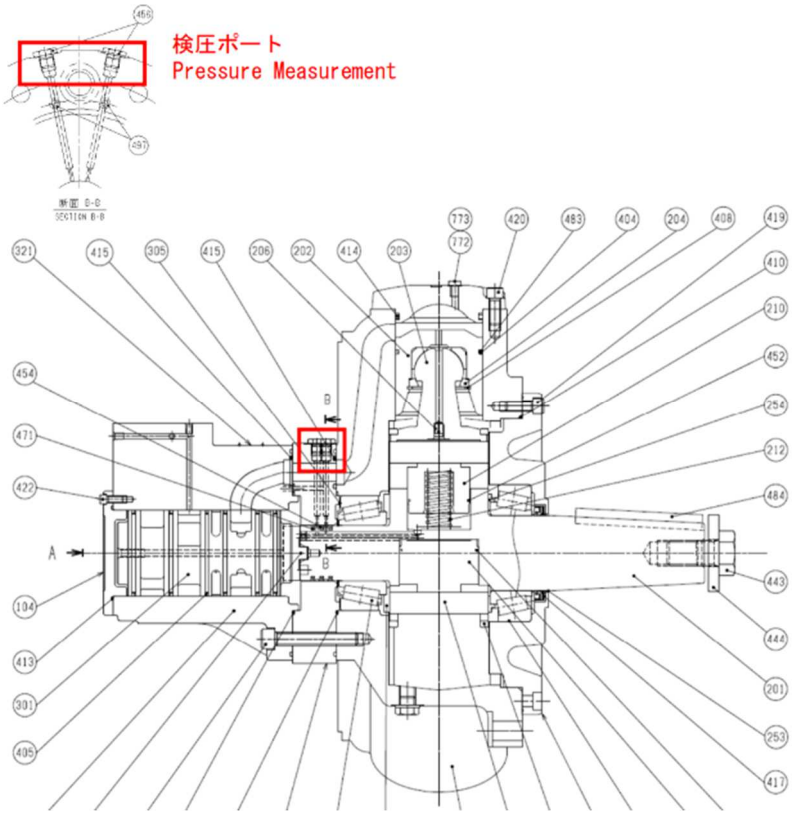

Fig. 2 Location of the test port

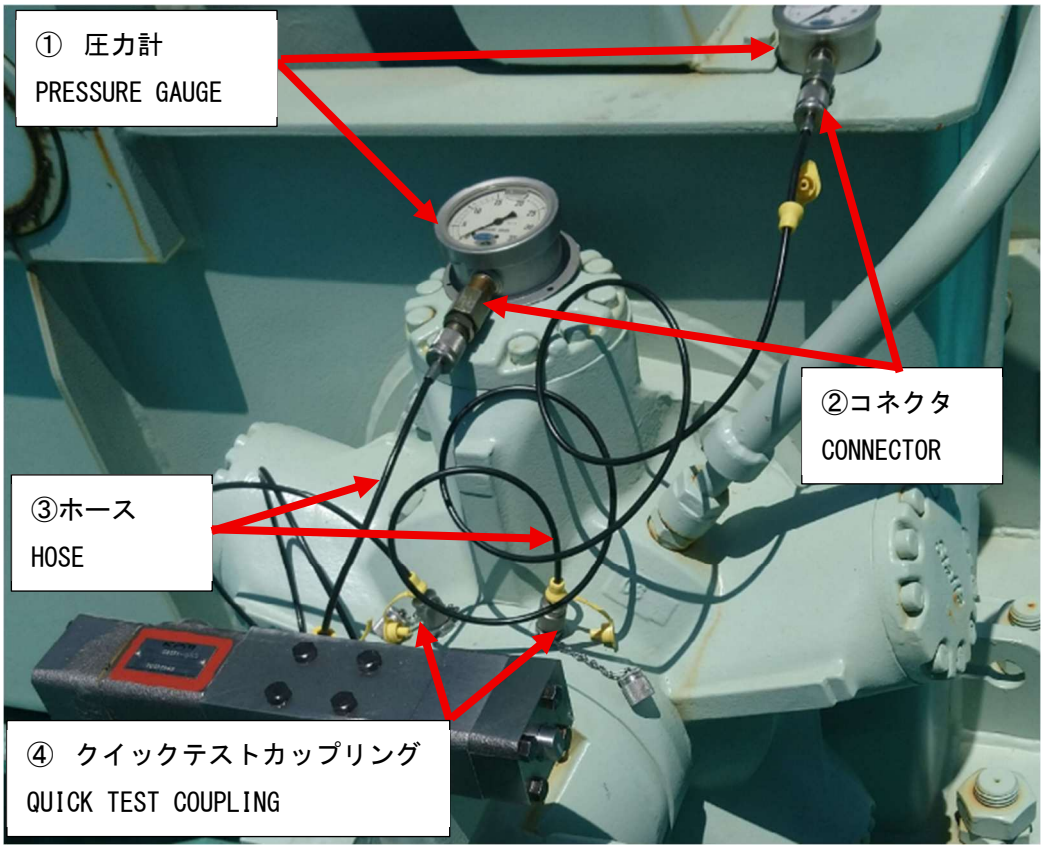

Fig. 3 Connection of test kit