CEAM028001

Operation & Maintenance Manual

WA270-7

WHEEL LOADER

SERIAL NUMBERS WA270-7 A27001

ENGINE 6D107E-2

March 2016

KOMATSU®

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MAX. TRACTION SWITCH (WA320-C7L1-043-K-00-A)

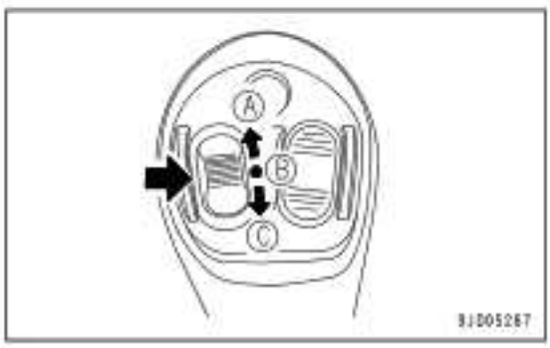
Use this switch (21) to cancel the traction control or S mode.
Use the traction control switch to select traction control ON or S mode.
When the traction control ON or S mode selection is active, if switch (21) pressed, the traction control or S mode is cancelled and the maximum traction becomes larger. At the same time, the traction control operation pilot lamp or S mode operation pilot lamp on the machine monitor goes out.
To return to the traction control ON or S mode state, press switch (21) again or change the position of the directional lever.



REMARK
Use this function for scooping-up operations or other operations where the maximum traction is desired.

PCS (Proportional Control Switch) (WA320-PTDV-100-K-00-A)

(if equipped)
This switch (22) is used to operate the attachment.
Position (A): Expand left cylinder (retract right cylinder)
Position (B): HOLD
Position (C): Expand right cylinder (retract left cylinder)

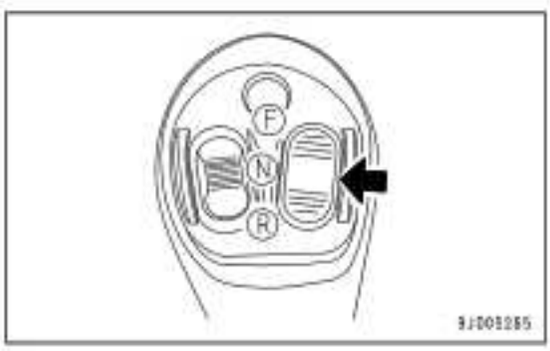


DIRECTIONAL SELECTOR SWITCH (WA320-C7N1-043-K-00-A)

This switch (23) is used to set the travel direction to forward, neutral, and reverse.
Position (F): Forward
Position (N): Neutral
Position (R): Reverse
Before operating this switch, check that the condition is as follows.

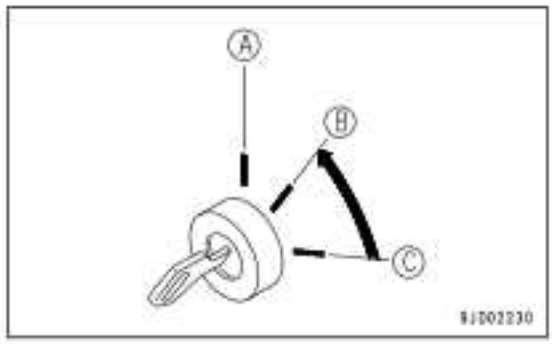
- Directional lever is at N
- Directional selector switch actuation switch is at ON

If the condition is not as above, the switch will not work.
For detail, see "SHIFT BETWEEN FORWARD AND REVERSE (PAGE 3-178) ".



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4. Method of starting engine in temperatures near -20°C (-4°F)
   1) Keep the key in starting switch (1) at START position (C) to keep running the starting motor for the max. 20 seconds until the engine starts.
   2) If the engine does not start even after running the starting motor for approx. 20 seconds, stop the starting motor (release the starting switch) and wait for 1 minute or so, and then keep the key in starting switch (1) at START position (C) again to keep running the starting motor for the max. 20 seconds.
   3) If the engine does not start, wait for 1 minute again, then perform the third starting operation.
5. After the engine starts and its speed increases, release your hand from the key of starting switch (1). The key will return automatically to ON position (B).



REMARK

When the engine is started, white smoke may come out of the exhaust pipe. It is fine water particles which are produced from moisture or water vapor and which seem white, thus it does not indicate a problem.

The smell of the exhaust gas is different from that of the conventional diesel machine because of the exhaust gas filtering function.

TURBOCHARGER PROTECTION FUNCTION *(WA-AA90-043-K-00-A)*

The turbo protect function protects the turbocharger by keeping the engine speed at approximately 1000 rpm or less immediately after the engine is started.

When the turbo protect function and engine cooling water auto warm-up function are activated at the same time, the former takes priority over the latter.

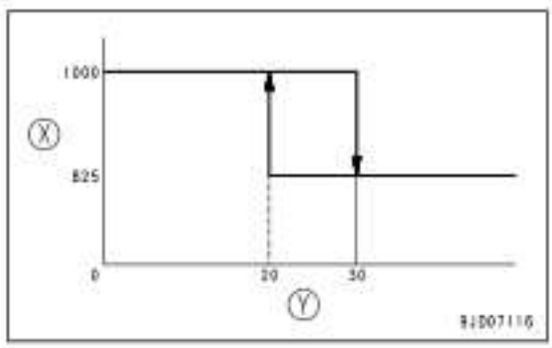
- While the turbo protect function is in operation, the engine speed is held at 1000 rpm even if the fuel control dial is set above 1000 rpm.
- When the turbo protect function is canceled, the engine speed becomes the speed according to the depressed level of the accelerator pedal.
- The relationship between the actuating time of the turbo protect function and the temperature of the engine coolant is as shown in the table.

Coolant temperature (°C (°F))	Turbo protect time (sec.)
Min. 10 (Min. 50)	0
10 to -30 (50 to -22)	Change between 0 to 20

AUTOMATIC WARM-UP OPERATION *(WA320-0000-132-K-02-A)*

When the engine is started, if the engine coolant temperature is below 20°C (68°F), the warming-up operation (engine speed: 1,000 rpm) is carried out automatically and stopped when the engine coolant temperature increases to above 30°C (86°F). (Engine speed: 825 rpm)

(X): Engine speed (rpm)
(Y): Coolant temperature (°C)

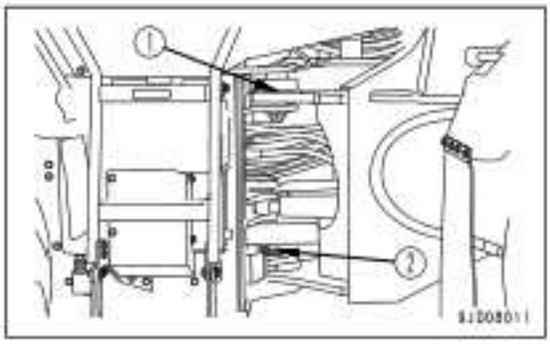


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LUBRICATE CENTER HINGE PIN (WA270-H1L2-242-K-00-A)

1. Pump in grease through the grease fittings marked by arrows by using a grease pump.
2. After greasing, wipe off any old grease that is pushed out.

(1) Upper part of center hinge pin (1 place)
(2) Lower part of center hinge pin (1 place)



CHECK FOR LOOSENESS OF ENGINE INTAKE PIPE CLAMP (WA-A980-286-K-00-A)

Ask your Komatsu distributor to check the tightening of the clamps between the air cleaner, turbocharger, after-cooler and engine.

CHECK ALTERNATOR DRIVE BELT TENSION, REPLACE (WA-AKM4-92E-K-00-A)

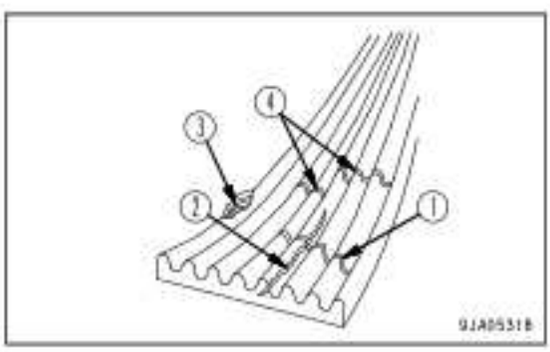
Special tools are required for the inspection and replacement of the belt. Contact your Komatsu distributor.

REMARK
Since the auto-tensioner is installed, tension adjustment is not required.

If the alternator drive belt shows the following conditions, it must be replaced. If it happens, ask your Komatsu distributor to replace it.

- When vertical flaw (2) that crosses horizontal flaw (1) is observed.
- When part of the belt has tears (3).

When only horizontal flaw (4) is found, replacement is not required.



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