

Komatsu PC128uu-1 Sample File.

**This single sample file
contains samples for**

10535 Komatsu PC128uu-1 Ops & Maintenance 264 pages

10535 Komatsu PC128uu-1, PC128us-1 WSM 794 pages

**10535 Komatsu Engine 102, 4d102e-1, S6d102e-1 WSM 949
pages**

Ops = operators manual

WSM = workshop manual

[*p] = *** pages**

info@farmequipmentmanuals.co.nz

Operation & Maintenance Manual



PC128UU-1

HYDRAULIC EXCAVATOR

SERIAL NUMBERS **PC128UU-1 -1001** and up

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Due to this continuous program of research and development, periodic revisions may be made to this publication. It is recommended that customers contact their distributor for information on the latest revision.

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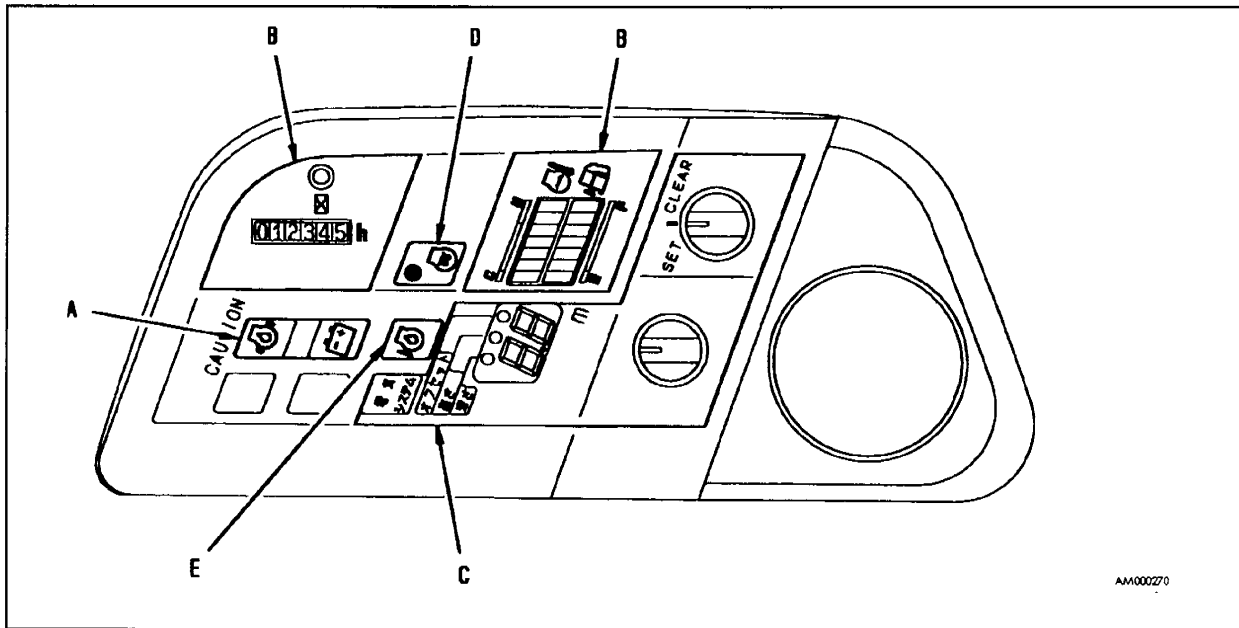
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12. EXPLANATION OF EACH DEVICE

Each device necessary for operation is explained.

The most important thing for proper, safe and smooth operation is to properly understand the ways to operate these devices and to understand what the gauges mean.

12.1 VEHICLE MONITOR PANEL



The monitor panel shows the basic items that must be checked before starting the engine.

Lights will come on for anything that is abnormal on the monitor panel.

The light will go out when the engine is started even if there is something abnormal.

A. Emergency stop items (12.1.1)

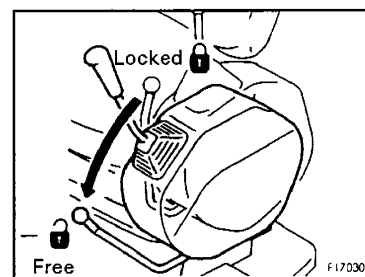
When the engine is running and there is something abnormal the item that needs to be taken care of will be indicated.

The monitor light will flash and a buzzer will sound when something is abnormal.

⚠ Caution!

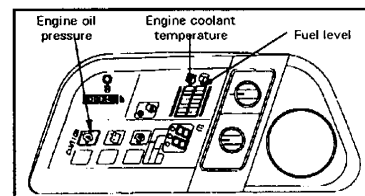
Immediately cease operations and check and repair the problem when these monitors flash.

5. Place locking lever (3) in the locked position.



13.15 CHECKS AFTER COMPLETING OPERATION

Check the engine coolant temperature, engine oil pressure and the amount of fuel remaining on the monitors.

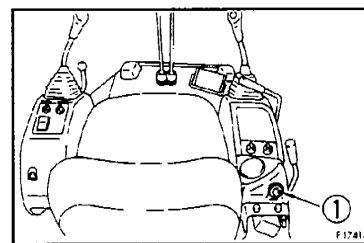


13.16 STOPPING THE ENGINE

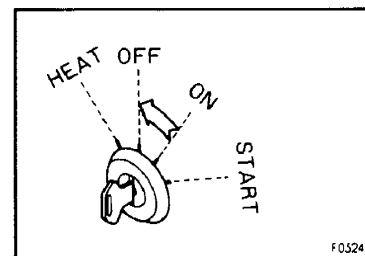
NOTICE

Do not stop the engine abruptly except when there is an emergency. Stopping the engine abruptly before it has cooled will shorten the life of various engine components. If the engine has overheated do not stop the engine suddenly. Allow it to run at moderate speed and stop it after it has gradually cooled down.

1. Run the engine for 5 minutes at a low idle and allow it to cool down gradually.



2. Turn the key in the ignition switch (1) to the OFF position.
3. Remove the key from the ignition switch (1).

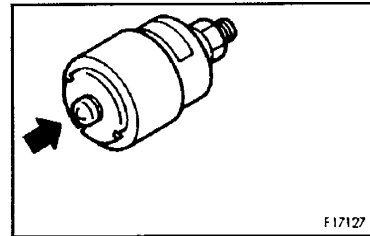
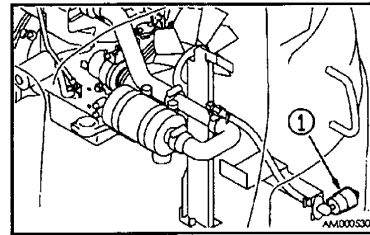


25.3.5 Check the dust indicator

1. Open the left side cover and check to see whether a red piston is protruding at the arrow sign of the dust indicator (1) .
2. If red piston is protruding immediately clean the element or replace it.

For how to clean the element, see item 25.2.1 "Inspecting, cleaning and replacing the air cleaner."

3. After checking, cleaning or replacing the air cleaner, push the knob of dust indicator (1) and return the red piston to its original position.



25.3.6 Check the electrical circuits

Warning!

If fuses blow frequently and there is evidence of short circuits in the wiring, do not fail to ascertain the cause and correct it.

Check for blown fuses, breaks in the wiring and evidence of short circuits. Check also for loose terminals, and if found, tighten them.

In particular, check the

- Battery
 - Starter
 - Alternator
- etc.

Consult with Komatsu or your Komatsu distributor for locating and correcting the problem.

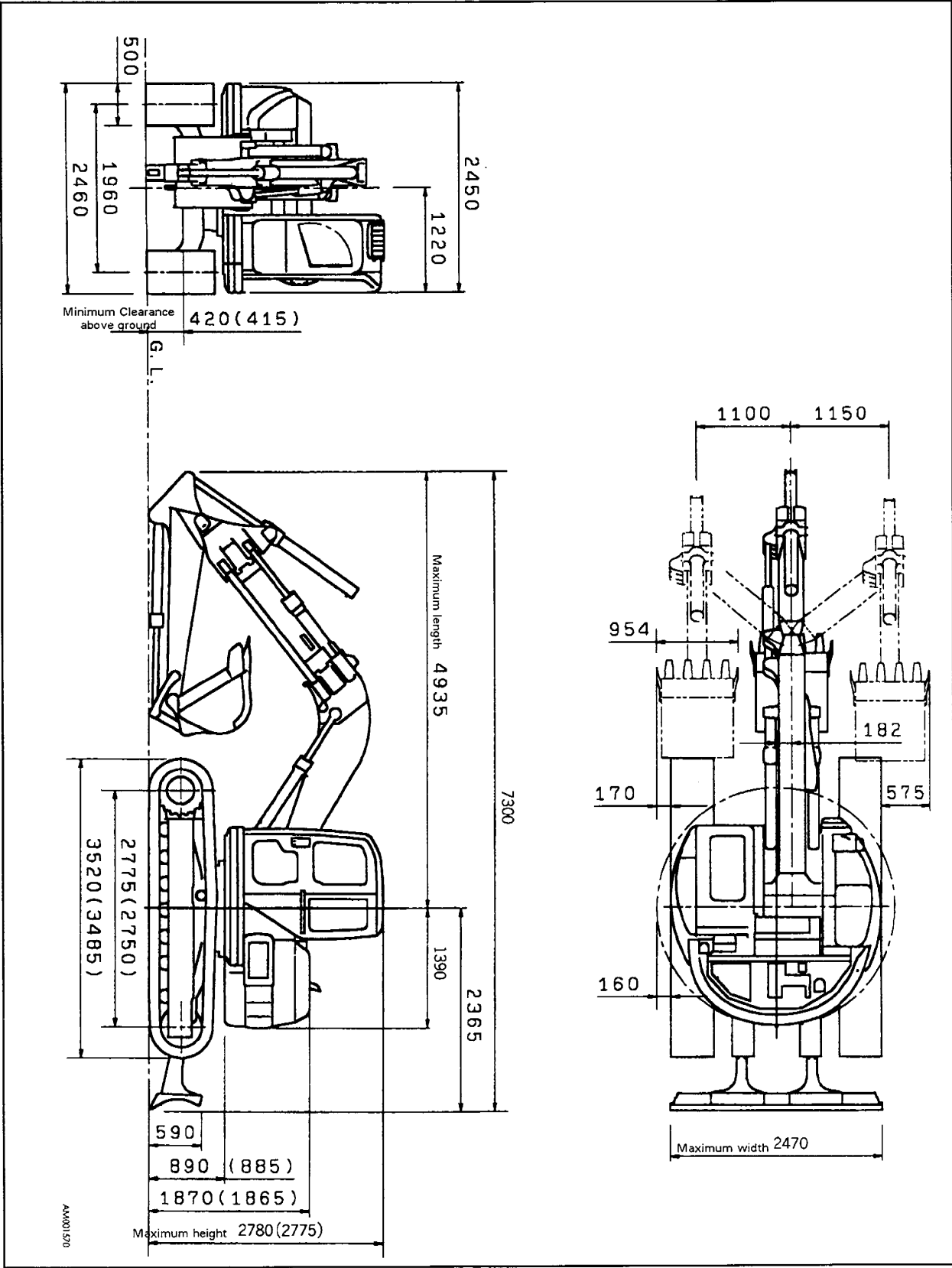
Warning!

Always remove any flammable materials like dead leaves, twigs and grass that may have accumulated around the battery as they can cause fires.

Always check around the battery for flammable materials that may have accumulated when doing visual checks and checks prior to beginning operations and remove them if there are any.

- Vehicles with rubber tracks
- Vehicles with steel tracks

Figures not in parentheses are those for vehicles with rubber tracks
Figures in parentheses are those for vehicles with steel tracks
Figures standing alone with corresponding figures in parentheses are the same for vehicles with rubber tracks and vehicles with steel tracks



SHOP MANUAL

KOMATSU

PC128UU-1 PC128US-1

MACHINE MODEL	SERIAL NUMBER
---------------	---------------

PC128UU-1	2347 and up
PC128US-1	1715 and up

- This shop manual may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require.
Materials and specifications are subject to change without notice.
- PC128UU-1, PC128US-1 mounts the S4D102E-1 engine.
For details of the engine, see the 102 Series Engine Shop Manual.

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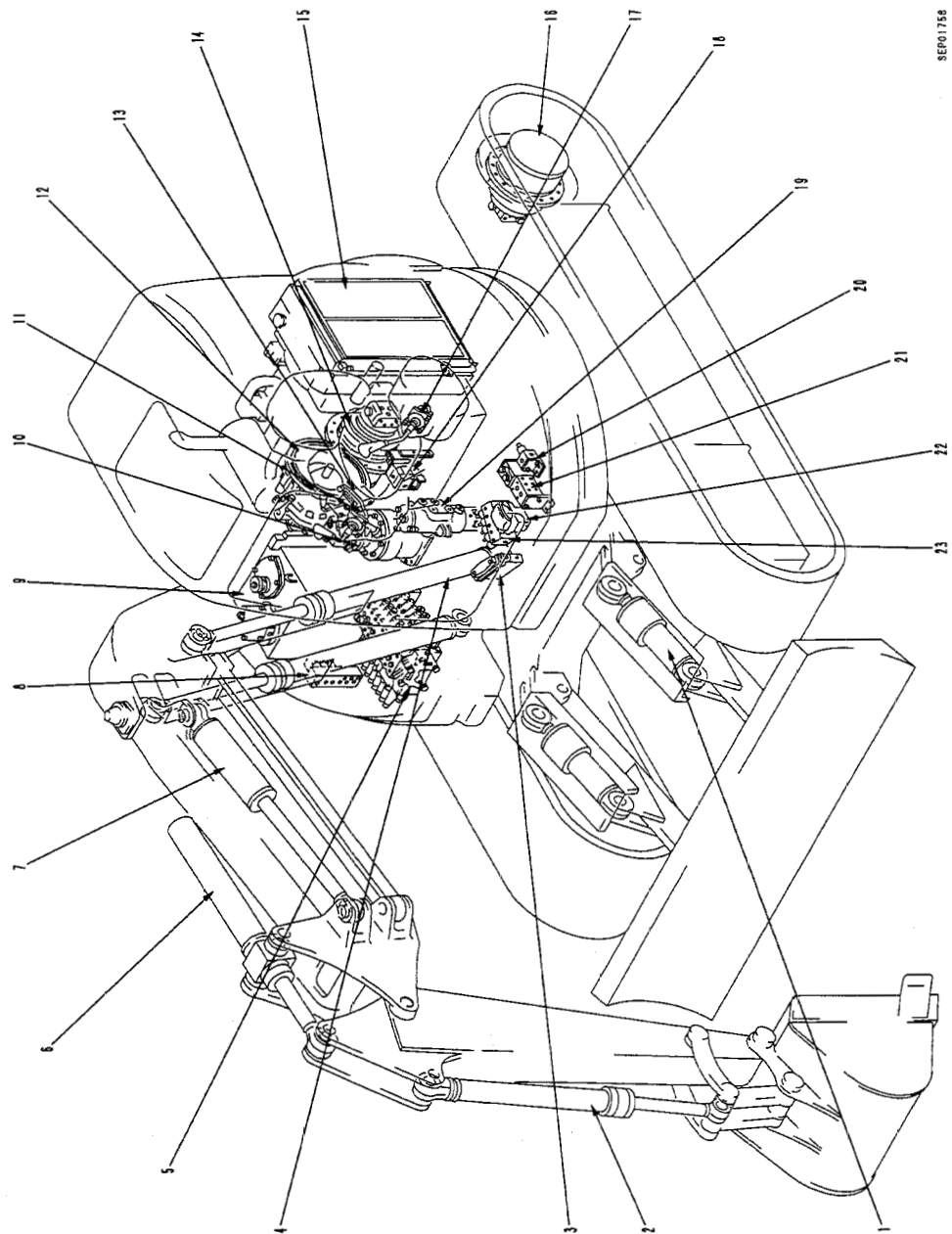
	No. of page
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10 STRUCTURE AND FUNCTION	10-1
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HYDRAULIC PIPING DRAWING

PC128UU-1

★ For details of this page, see page 90 – 3

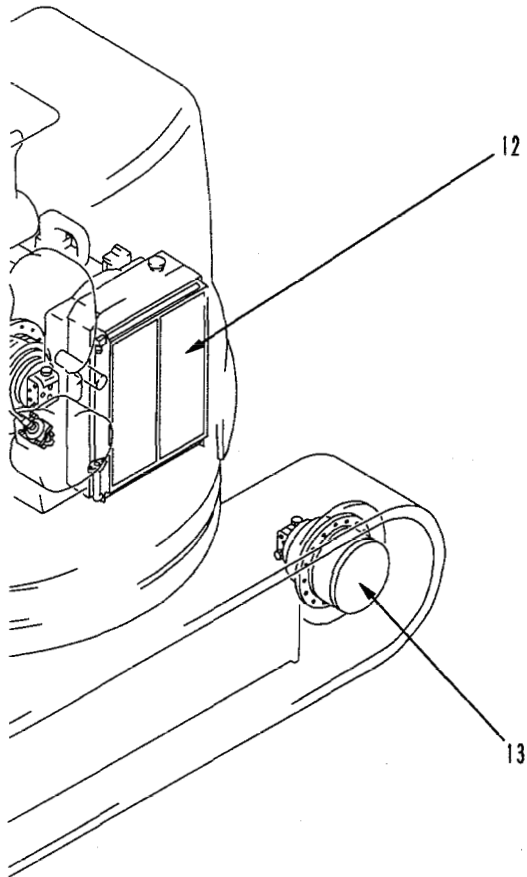
1. Blade cylinder
2. Bucket cylinder
3. Offset PPC valve
4. Boom cylinder
5. Control valve
6. Arm cylinder
7. Offset cylinder
8. Solenoid valve
(for valve, swing, travel control)
9. Hydraulic tank
10. Swing motor
11. R.H. work equipment PPC valve
12. Hydraulic pump
13. Blade PPC valve
14. R.H. travel motor
15. Oil cooler
16. L.H. travel motor
17. L.H. work equipment PPC valve
18. Boom holding valve
19. Center swivel joint
20. PPC lock solenoid valve
21. PPC shuttle, travel junction valve
22. Travel PPC valve
23. EPC solenoid valve
(for FORE system control)



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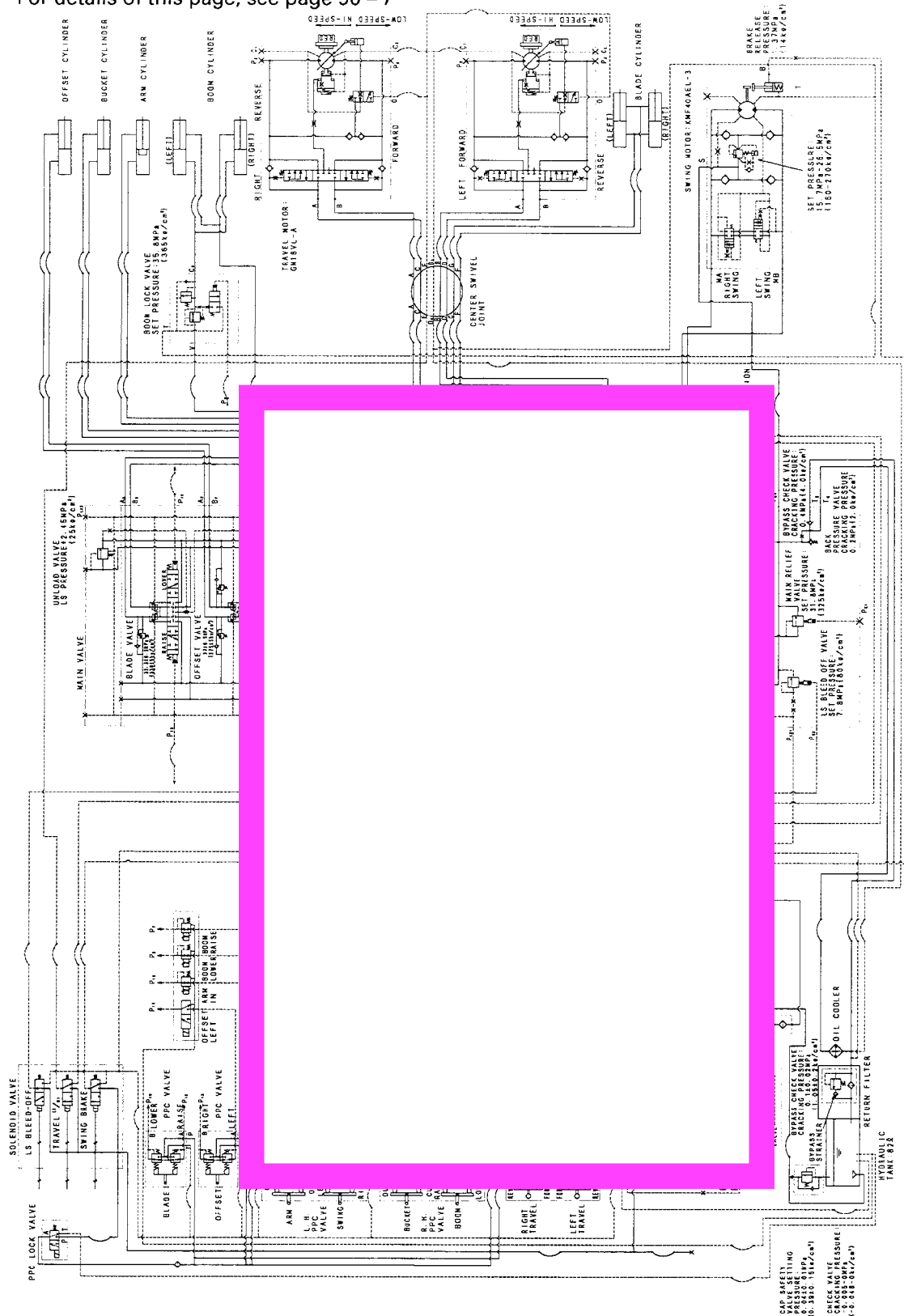
1. Bucket cylinder
2. Arm cylinder
3. Control valve
4. Boom cylinder
5. Solenoid valve
(for valve, swing, travel control)
6. Hydraulic tank
7. R.H. work equipment PPC valve
8. Blade PPC valve
9. Hydraulic pump
10. R.H. travel motor
11. L.H. work equipment PPC valve
12. Oil cooler
13. L.H. travel motor
14. PPC shuttle, travel junction valve
15. Boom holding valve
16. EPC solenoid valve
(Electronic boom cushion, PPC lock)
17. Travel PPC valve
18. Center swivel joint
19. Blade cylinder
20. Swing motor

SVP06229

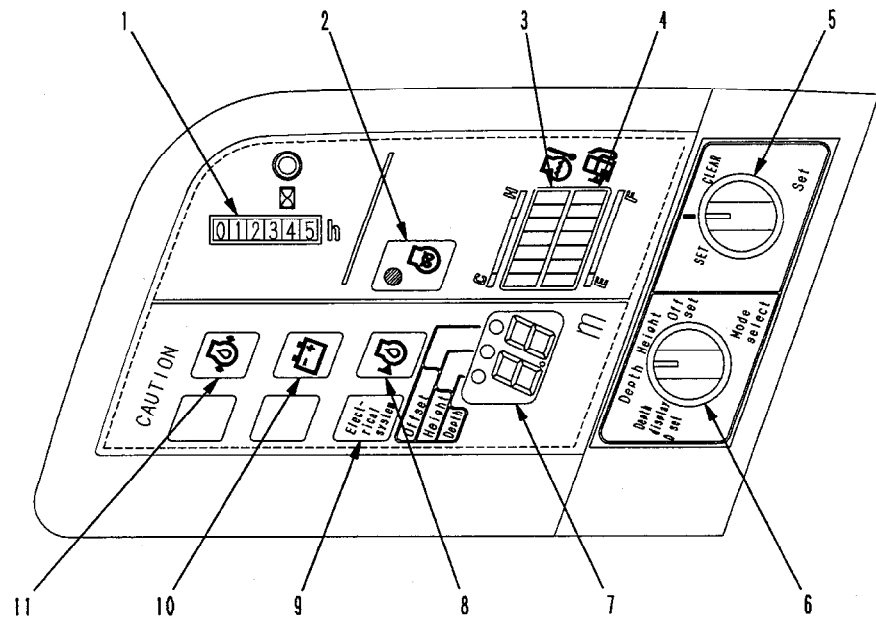
HYDRAULIC CIRCUIT DIAGRAM

PC128UU-1

★ For details of this page, see page 90 – 7



021Y01



SDP02524

- | | |
|--------------------------------|---|
| 1. Service meter | 7. Depth display (Note 1) |
| 2. Preheating pilot lamp | 8. Engine oil level caution lamp (Note 2) |
| 3. Coolant temperature gauge | 9. Electric system caution lamp (Note 1) |
| 4. Fuel gauge | 10. Battery charge level caution lamp |
| 5. Setting switch (Note 1) | 11. Engine oil pressure caution lamp |
| 6. Mode select switch (Note 1) | |

Note 1: For the display and operating procedures, refer to the fore system of "Electronic control system".

Note 2: The engine oil level caution lamp is optional; however, only the lamp is mounted as standard.

3. POINTS TO REMEMBER WHEN HANDLING HYDRAULIC EQUIPMENT

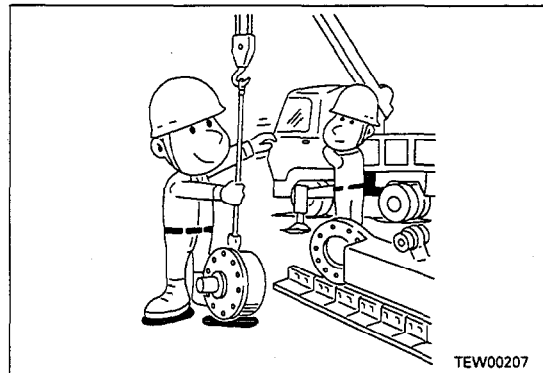
With the increase in pressure and precision of hydraulic equipment, the most common cause of failure is dirt (foreign material) in the hydraulic circuit. When adding hydraulic oil, or when disassembling or assembling hydraulic equipment, it is necessary to be particularly careful.

1) Be careful of the operating environment.

Avoid adding hydraulic oil, replacing filters, or repairing the machine in rain or high winds, or places where there is a lot of dust.

2) Disassembly and maintenance work in the field

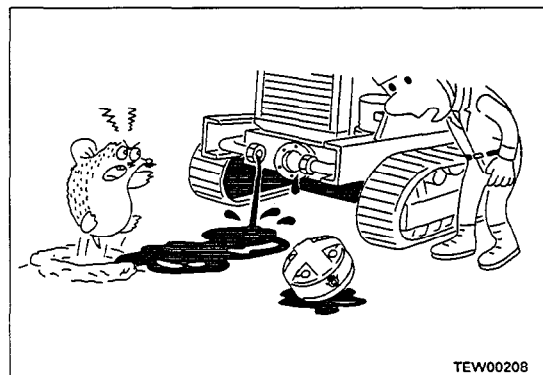
If disassembly or maintenance work is carried out on hydraulic equipment in the field, there is danger of dust entering the equipment. It is also difficult to confirm the performance after repairs, so it is desirable to use unit exchange. Disassembly and maintenance of hydraulic equipment should be carried out in a specially prepared dustproof workshop, and the performance should be confirmed with special test equipment.



3) Sealing openings

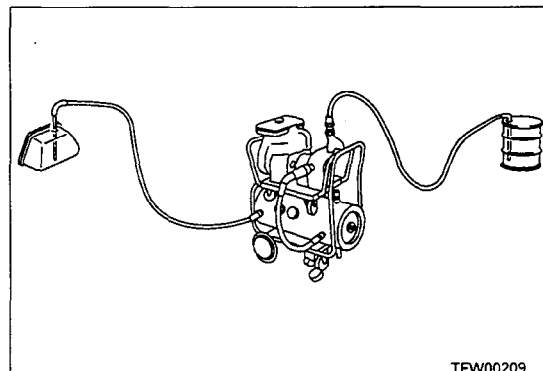
After any piping or equipment is removed, the openings should be sealed with caps, tapes, or vinyl bags to prevent any dirt or dust from entering. If the opening is left open or is blocked with a rag, there is danger of dirt entering or of the surrounding area being made dirty by leaking oil so never do this.

Do not simply drain oil out on to the ground, collect it and ask the customer to dispose of it, or take it back with you for disposal.



4) Do not let any dirt or dust get in during refilling operations.

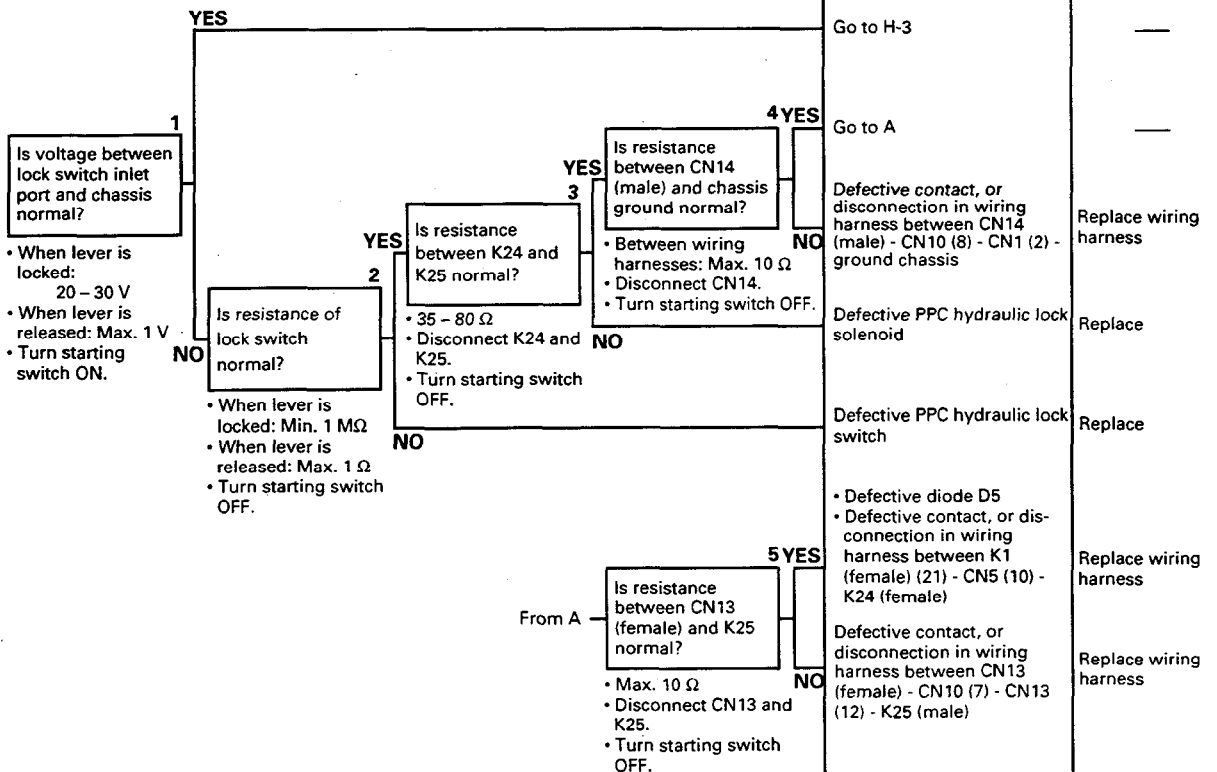
Be careful not to let any dirt or dust get in when refilling with hydraulic oil. Always keep the oil filler and the area around it clean, and also use clean pumps and oil containers. If an oil cleaning device is used, it is possible to filter out the dirt that has collected during storage, so this is an even more effective method.



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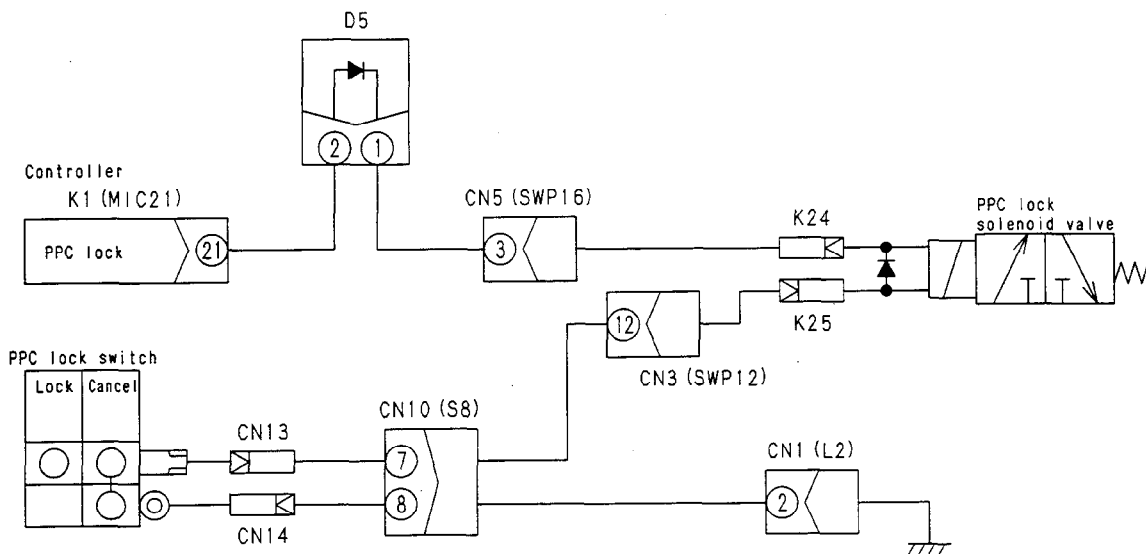
E-19 Work equipment does not work even when work equipment lock lever is released

- ★ When error code [91] (valve open) is not displayed.
- ★ Before carrying out troubleshooting, check that all the related connectors are properly inserted.
- ★ Always connect any disconnected connectors before going on to the next step.
- ★ For this system only, no self-diagnosis display is given for disconnections.



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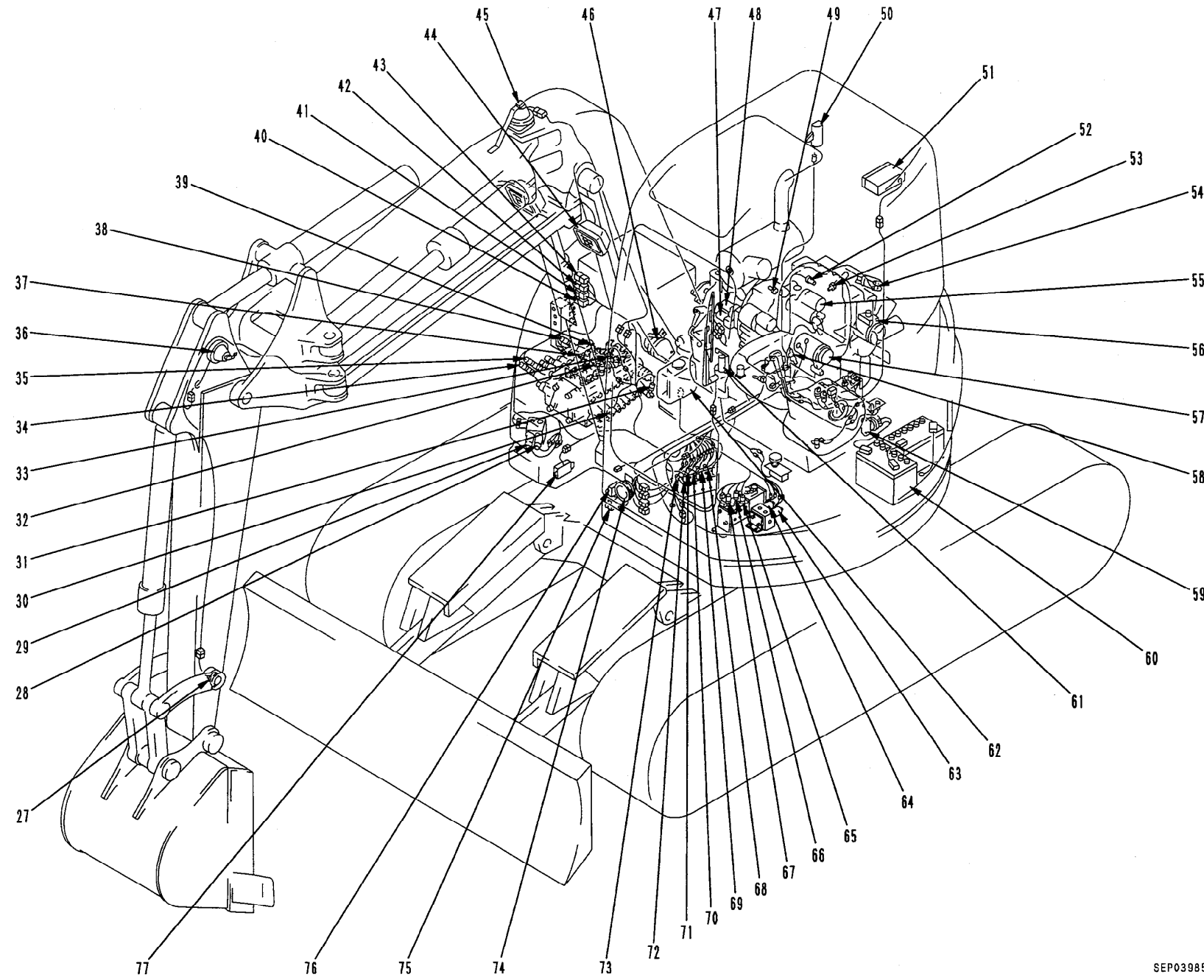
E-19 Related electric circuit diagram



TLP00588

ACTUAL ELECTRICAL WIRING DIAGRAM

MACHINE EQUIPPED WITH AUTOMATIC HORIZONTAL EXCAVATION CONTROL
PC128UU-1



- 27. Bucket potentiometer
- 28. Bucket dump EPC valve
- 29. Bucket curl EPC valve
- 30. Blade raise oil pressure switch
- 31. Swing right oil pressure switch
- 32. Arm cylinder read pressure sensor
- 33. Boom cylinder bottom pressure sensor
- 34. Blade lower oil pressure sensor
- 35. Offset right oil pressure switch
- 36. Arm potentiometer
- 37. Arm cylinder bottom pressure sensor
- 38. Swing left oil pressure switch
- 39. Boom cylinder head pressure sensor
- 40. 2-stage relief solenoid valve
- 41. Swing parking brake solenoid valve
- 42. Travel speed solenoid valve
- 43. Bleed off solenoid valve
- 44. Working lamp
- 45. Offset potentiometer
- 46. Boom potentiometer
- 47. PC-EPC valve
- 48. LS-EPC valve
- 49. Engine rotating sensor
- 50. Room lamp
- 51. Coolant temperature sensor
- 52. Radio
- 53. Engine oil pressure sensor
- 54. Engine stop solenoid
- 55. Starting switch
- 56. Coolant compressor
- 57. Alternator
- 58. Heater relay
- 59. Battery relay
- 60. Battery
- 61. Wiper motor
- 62. Window washer
- 63. PPC lock solenoid
- 64. Solenoid valve for supply of automatic excavation pressure
- 65. Travel oil pressure switch
- 66. Boom raise oil pressure
- 67. Boom lower oil pressure
- 68. Arm dump EPC valve
- 69. Boom raise stop EPC valve
- 70. Arm curl stop EPC valve
- 71. Boom lower stop EPC valve
- 72. Offset left oil pressure switch
- 73. Offset left stop solenoid valve
- 74. Horn
- 75. LS-control EPC resistor 2
- 76. LS-control EPC resistor 1
- 77. PC resistor

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SEP03985

PC128UU-1

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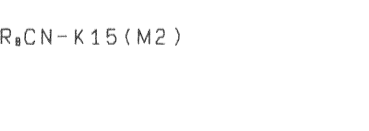
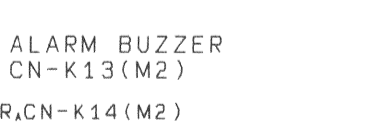
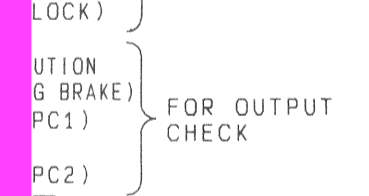
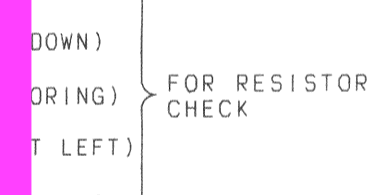
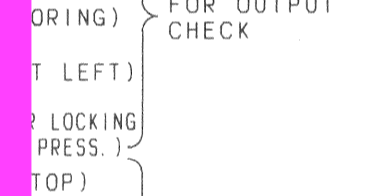
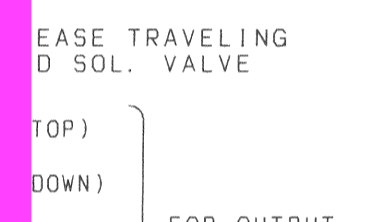
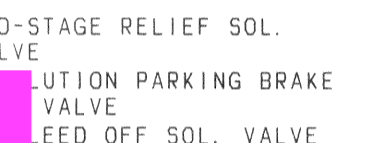
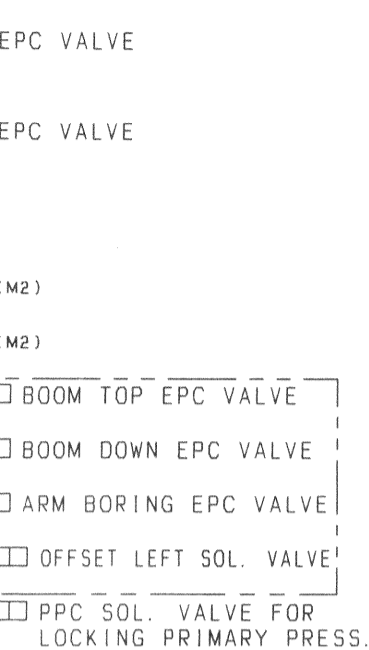
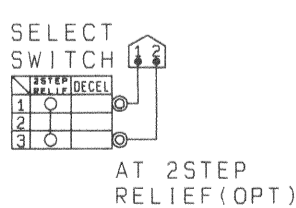
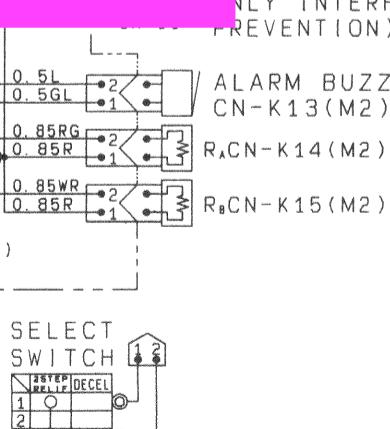
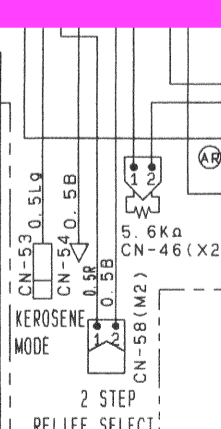
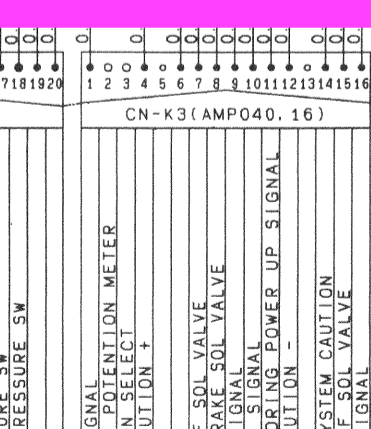
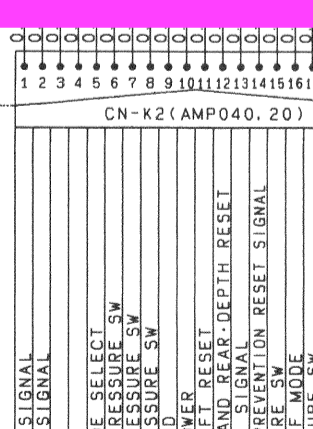
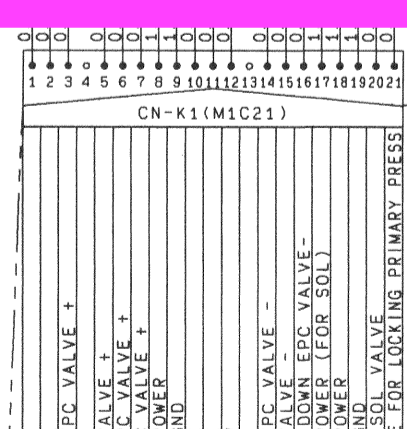
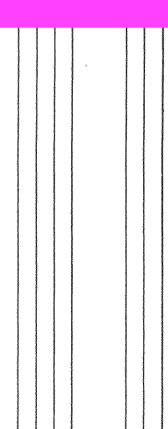
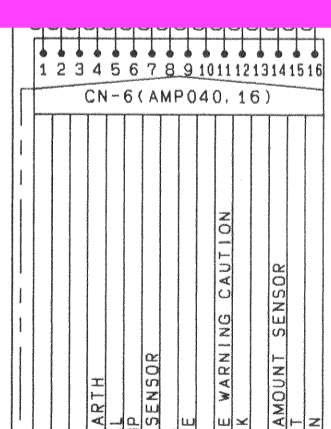
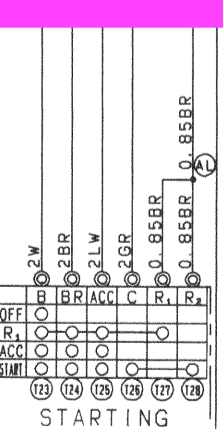
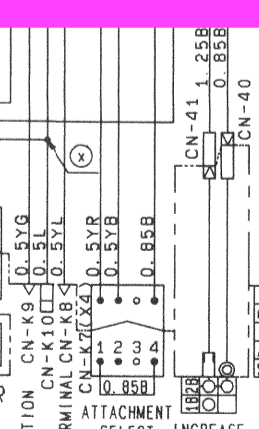
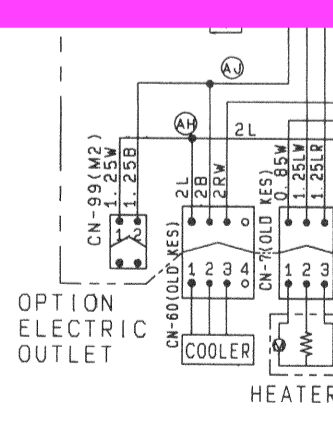
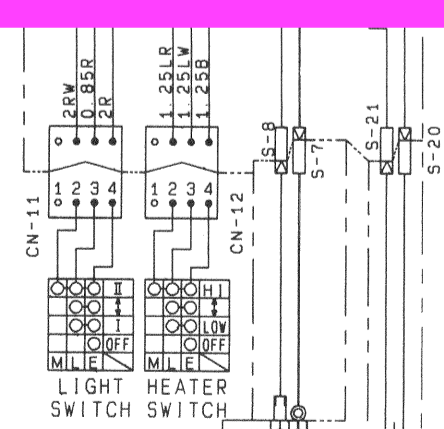
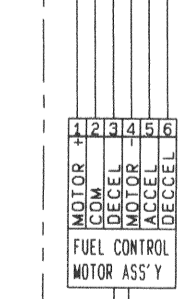
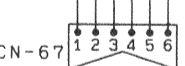
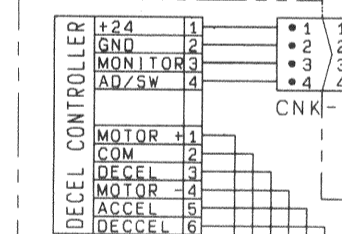
2

1

DECEL INDICATOR

CN-64

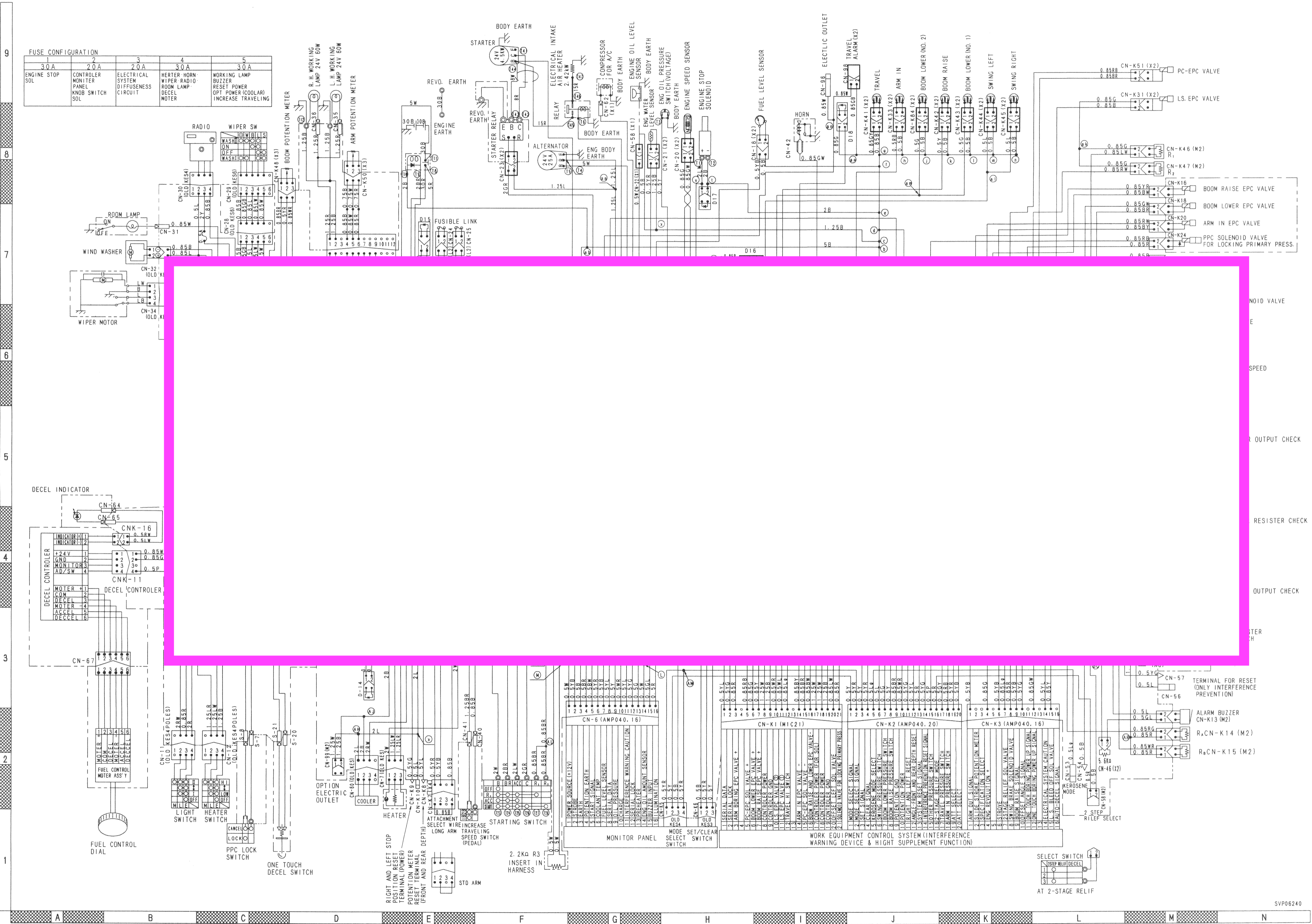
CN-65



ELECTRICAL CIRCUIT DIAGRAM

PC128US-1

021Y01



NOID VALVE
E
SPEED
R OUTPUT CHECK
RESISTER CHECK
OUTPUT CHECK
STER
CH

SVP06240

90-35

④

SHOP MANUAL

KOMATSU

102 SERIES

DIESEL ENGINE

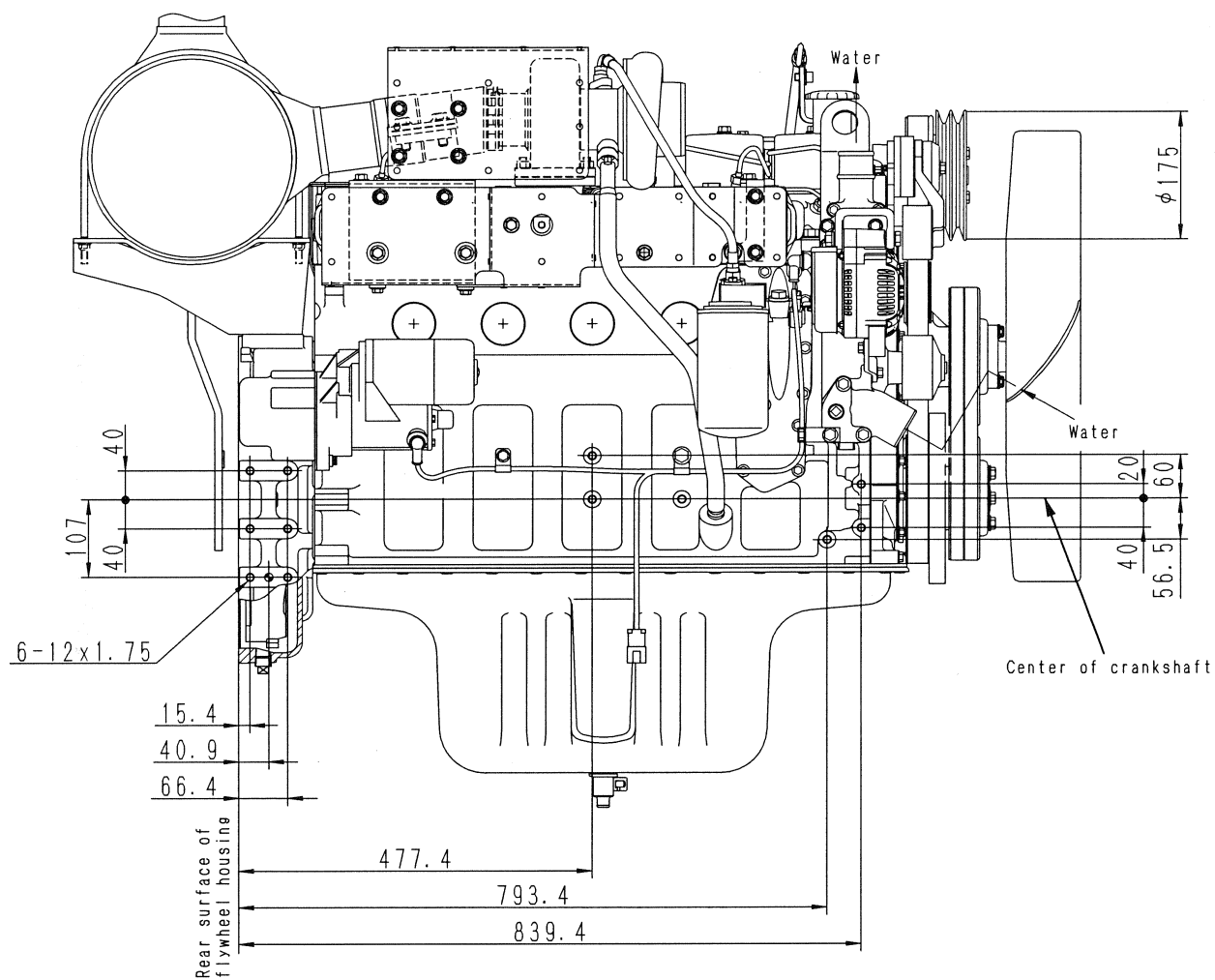
★ This Shop Manual is made by adding the special descriptions for the **102-2** series to the Shop Manual for the current **102-1** series.

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S6D102E-1 (PC200-6)

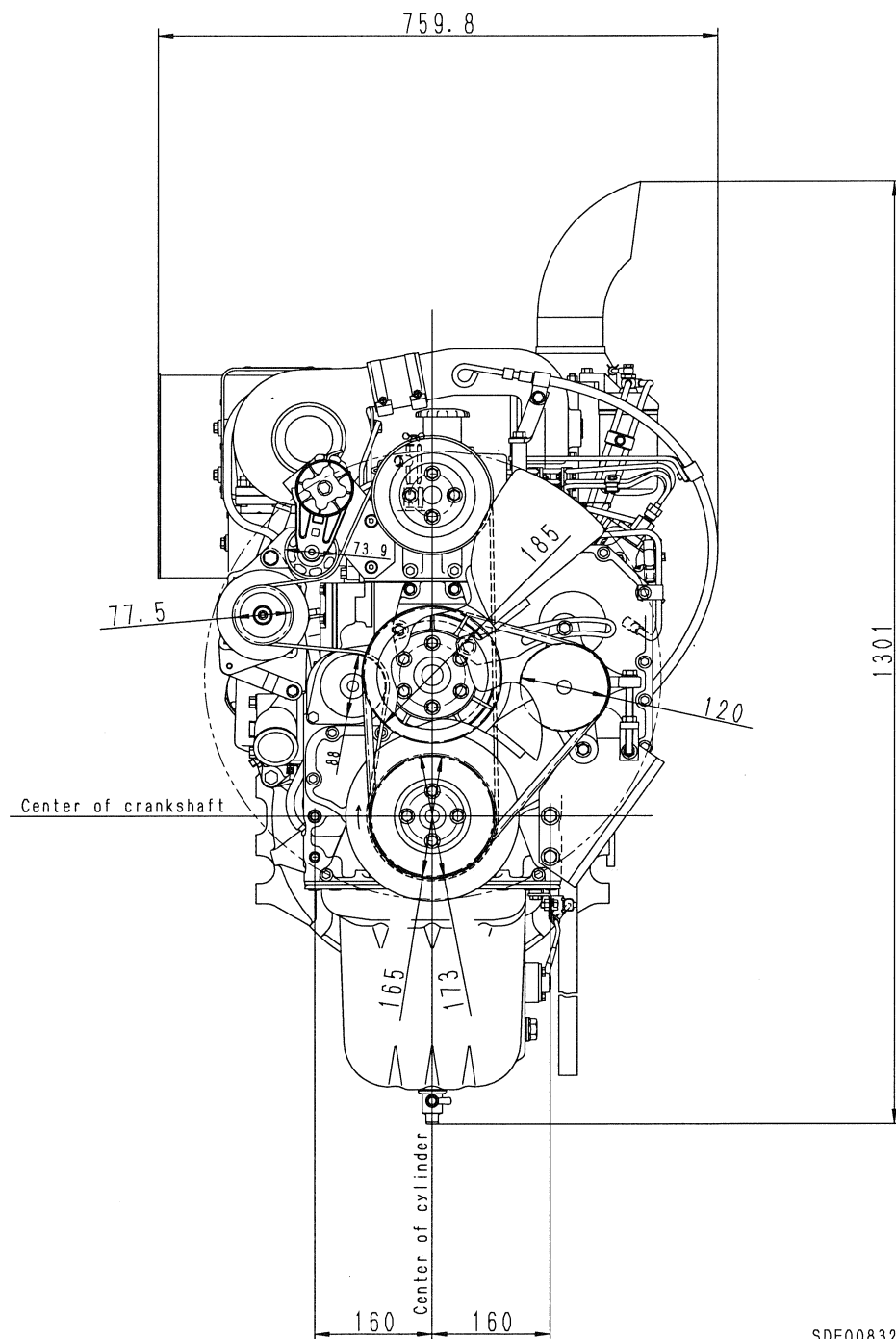
RIGHT-HAND VIEW



SDE00831

S6D102E-1 (PC200-6)

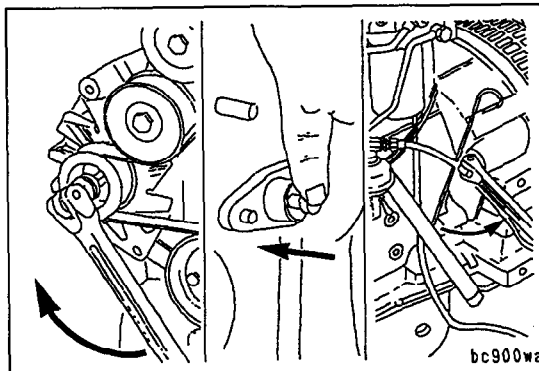
FRONT VIEW



SDE00832

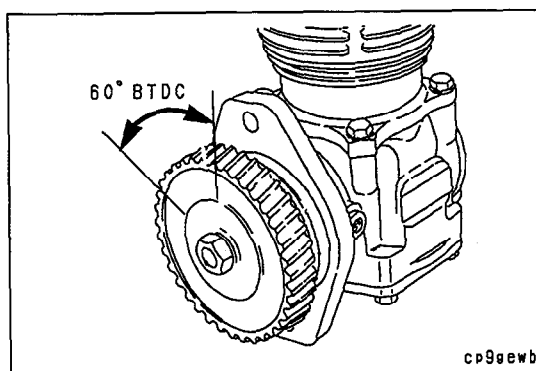
After determining the TDC position, check if the timing pin is out of position.

Push the timing pin and slowly bar the crankshaft to determine the TDC position of the No. 1 cylinder.



Rotate the compressor TDC mark 60° forward from the TDC position or 6 teeth forward (if the gear has 36 teeth). This position becomes approximately the 10 o'clock position as seen from the front of the air compressor.

Caution: On the Holset air compressor series SSQE120, 296, and 338, a radial line indicating the TDC position is etched on the gear.



INSTALLATION

18 mm, 14 mm, 10 mm

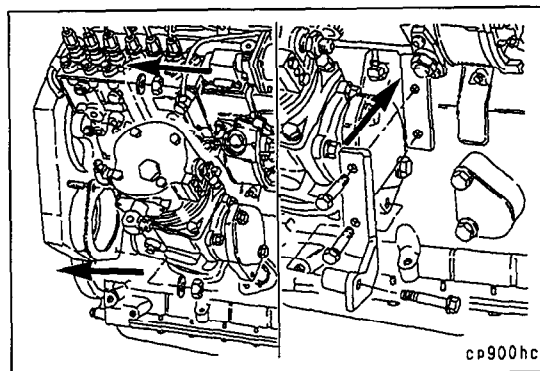
Fit a new gasket and install the air compressor to the gear housing.

Install the air compressor support bracket.



Mounting nut : 77 Nm {7.9 kgm}
Support mounting bolts : 24 Nm {2.4 kgm}

Caution: The gear timing is unnecessary.

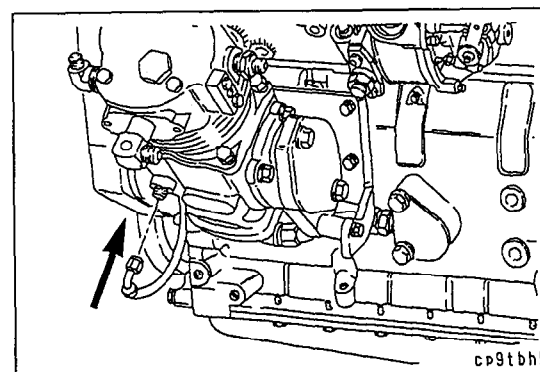


9/16 inch

Install the oil supply line.



15 Nm {1.5 kgm}



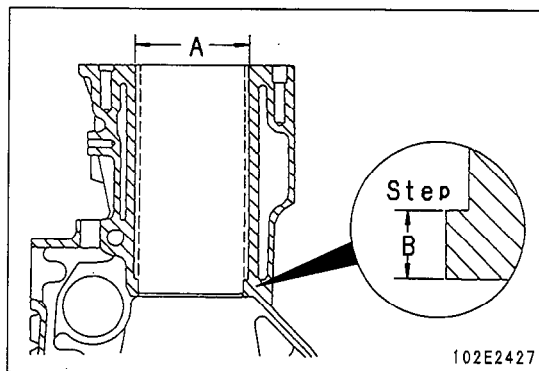
673501

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INSTALLATION OF REPAIR SLEEVE**Repair sleeve part number 6736-29-2110**

If an oversize bore of more than diameter 1.00 mm is needed, the hole must be made in the block again and the repair sleeve installed. After installing, the sleeve bore must be finished again to a diameter of 102.020 ± 0.020 mm. Use the standard diameter piston and service piston ring set.

**Making a new hole in block for repair sleeve**

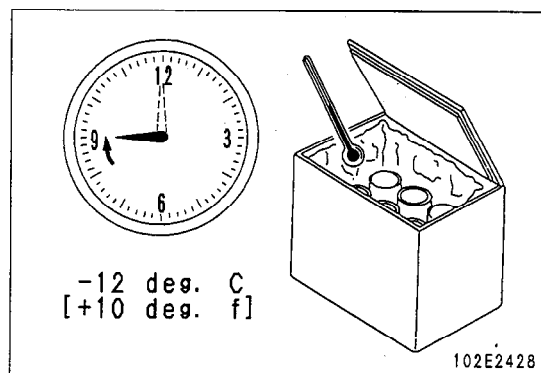
$$A = 104.515 + 0.015 \text{ mm} \\ 104.500 - 0.000 \text{ mm}$$

$$B = 6.35 \text{ mm}$$

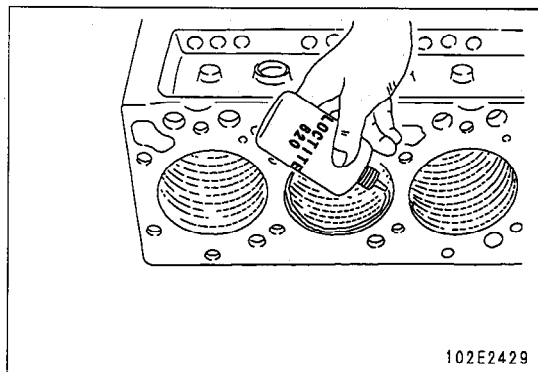
After completely making the hole, remove all metal chips, particles, and oil completely from the bore, and install the repair sleeve.



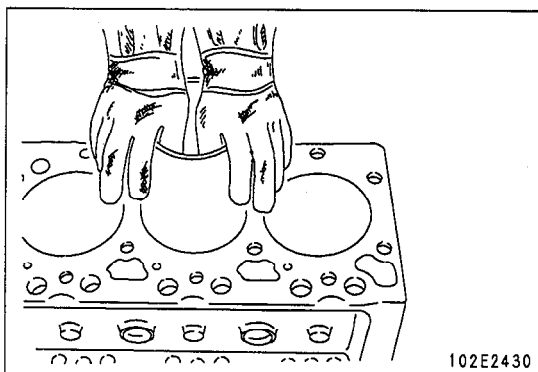
Cool the repair sleeve at -12°C ($+10^{\circ}\text{F}$) for at least one hour. Remove the sleeves one at a time and install them to the block as follows.



When installing the sleeve, coat each bore one at a time with Loctite™620.



Using protective gloves, push the frozen sleeves as far as possible into the bore by hand.



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