SEBM022209

SHOP MANUAL

KOMATSU®

140-3 SERIES

DIESEL ENGINE

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PERFORMANCE TEST STANDARDS

Engine	Machine model	Test item	Specification value	Speed (rpm)	Dynamometer load (N {kg})
SA6D140E-3	D155AX-5 (110001 – 112349)	Rated horsepower	252 kW/1,900 rpm (Gross) {338 HP/1,900 rpm} (Gross)	1,900 ± 5	1,755 – 1,820 {179 – 186}
		Max. torque	1,635 Nm/1,250 rpm (Gross) {166.7 kgm/1,250 rpm} (Gross)	1,250 ± 50	2,235 – 2,325 {228 – 237}
		High idling speed	2,100 ± 50 rpm	2,100 ± 50	—
		Low idling speed	740 $^{+25}_{0}$ rpm	740 $^{+25}_{0}$	—
	D155AX-5 (112350 and up)	Rated horsepower	248 kW/1,900 rpm (Gross) {332 HP/1,900 rpm} (Gross)	1,900 ± 5	1,705 – 1,775 {174 – 181}
		Max. torque	1,635 Nm/1,250 rpm (Gross) {166.7 kgm/1,250 rpm} (Gross)	1,250 ± 50	2,235 – 2,325 {228 – 237}
		High idling speed	2,100 ± 50 rpm	2,100 ± 50	—
		Low idling speed	740 $^{+25}_{0}$ rpm	740 $^{+25}_{0}$	—
	PC600-6	Rated horsepower	287 kW/1,800 rpm (net) {385 HP/1,800 rpm} (net)	1,800 ± 5	2,195 – 2,330 {224 – 238}
		Max. torque	1,755 Nm/1,400 rpm (net) {179 kgm/1,400 rpm} (net)	1,400 ± 100	2,460 – 2,620 {251 – 267}
		High idling speed	1,950 ± 50 rpm	1,950 ± 50	—
		Low idling speed	800 ± 25 rpm	800 ± 25	—
	WA500-3	Rated horsepower	235 kW/2,100 rpm (net) {316 HP/2,100 rpm} (net)	2,100 ± 5	1,520 – 1,610 {155 – 164}
		Max. torque	1,370 Nm/1,400 rpm (net) {140 kgm/1,400 rpm} (net)	1,400 ± 50	1,890 – 2,010 {193 – 205}
		High idling speed	2,350 ± 50 rpm	2,350 ± 50	—
		Low idling speed	725 ± 25 rpm	725 ± 25	—
	DCA400SSK (DENYO generator)	Rated horsepower	357 kW/1,800 rpm (Net, 60Hz) {478 HP/1,800 rpm} (Net, 60Hz)	1,800 ± 5 (60Hz)	2,620 – 2,780 (60Hz) {267 – 284} (60Hz)
		Max. torque			
		High idling speed	Max. 1880 rpm (60Hz)	Max. 1,880 rpm (60Hz)	—
		Low idling speed	800 $^{+50}_{0}$ rpm	800 $^{+50}_{0}$ rpm	—

★ This table shows the standard values using the JIS correction factor.

★ The output and torque values in the table are the standard values with the fan removed, so they are different from the specification values.

★ The table shows the standard values with an air cleaner installed, muffler installed, alternator under no load, and air compressor open (when installed).

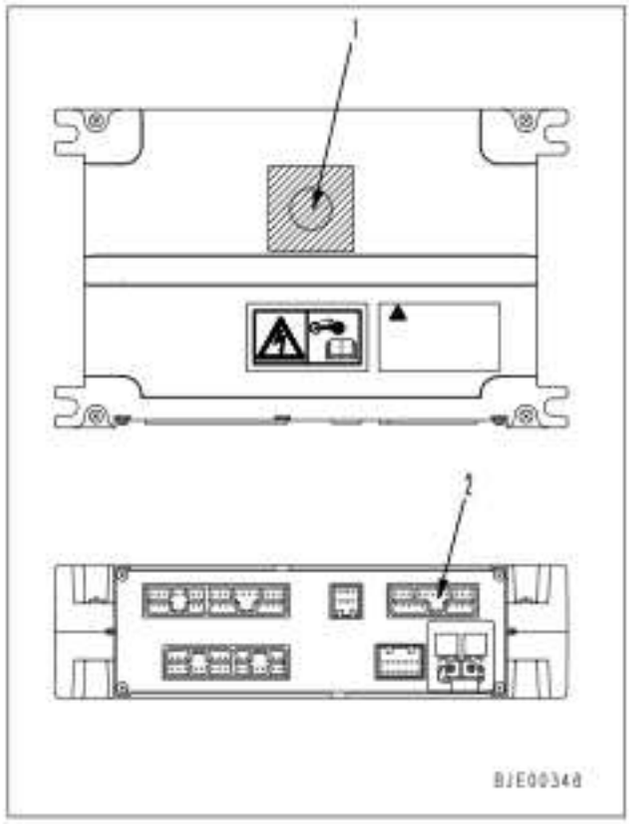
★ The dynamometer load shows the value for an arm length of 716 mm.

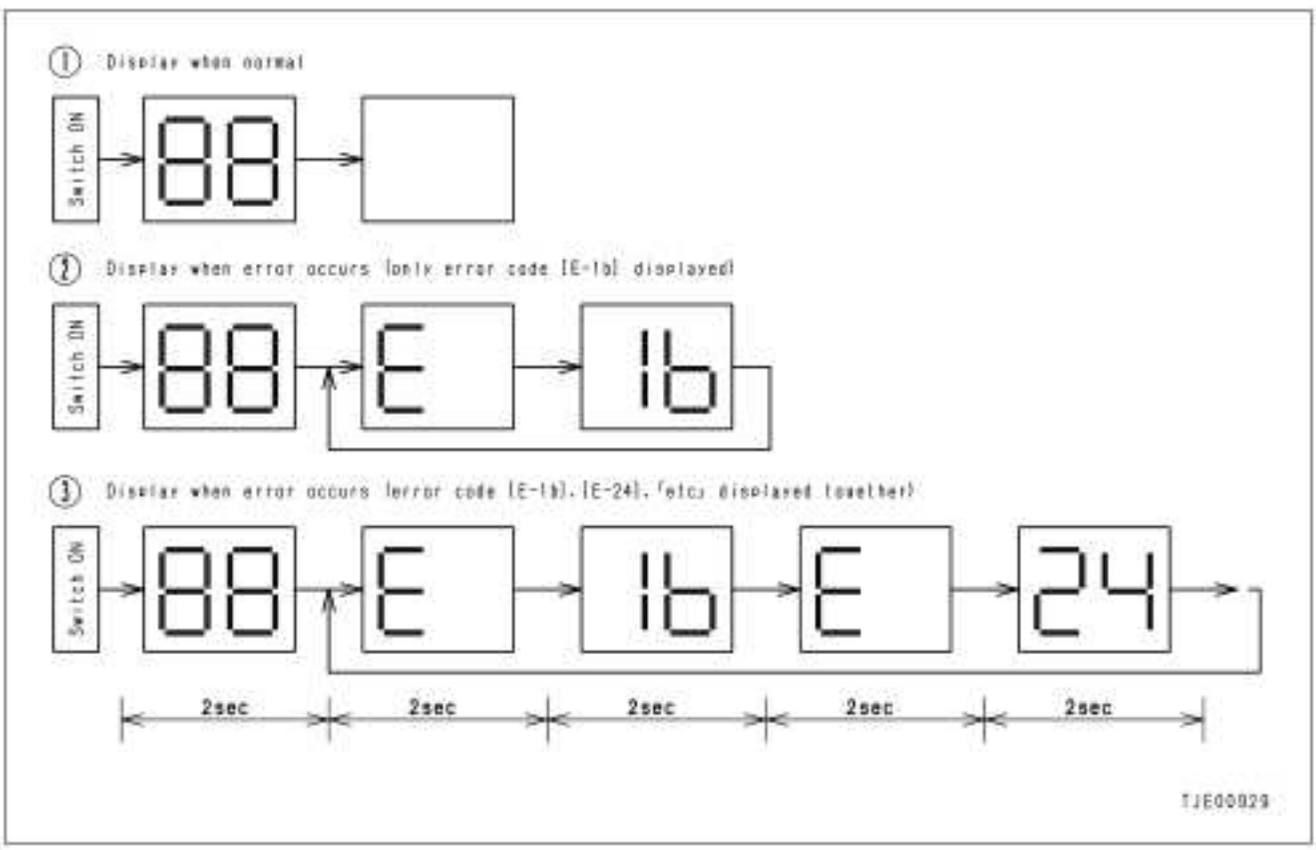
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ERROR CODE DISPLAYS AND POINTS TO REMEMBER WHEN TROUBLESHOOTING

1. Error code displays

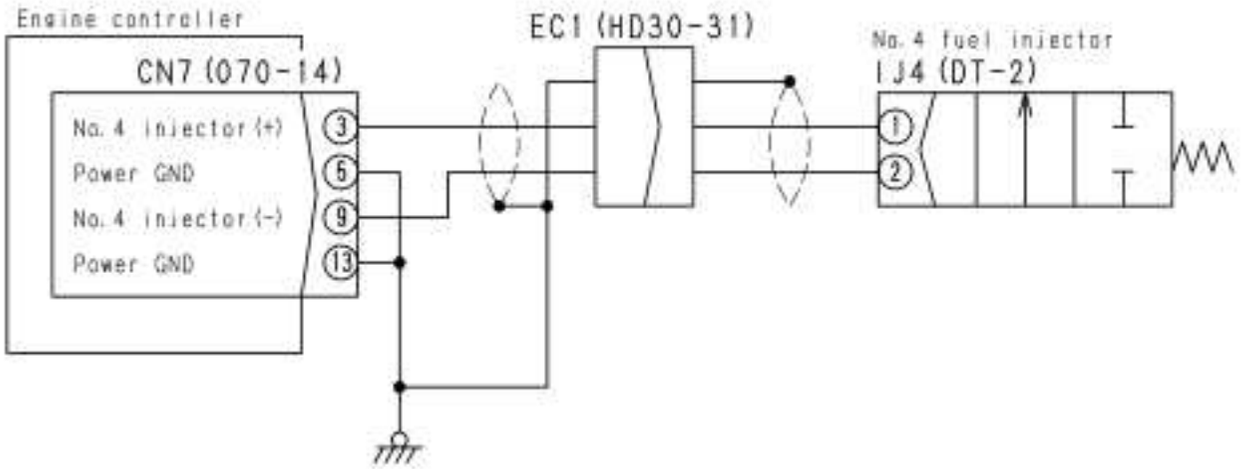
- The engine controller displays the appropriate error code for the abnormality in display window (1) of the controller using seven segments with two alphanumeric digits.
- When the starting switch is turned ON, the display check displays [**88**], then displays [**E**] to show the occurrence of an error and a 2-digit code repeatedly.
  If there are multiple service codes in memory, the display returns to the first display after completing all the displays.
- To prevent mistakes when reading, the numerals and letters are displayed as follows.
  Numerals: **0 1 2 3 4 5 6 7 8 9**
  Alphabet: **A b C d E**
- When re-enacting an abnormality or after completion of repair of an abnormality, keep the starting switch at the ON position and connect the No. 4 pin circuit of connector (2) CN4 to the ground.



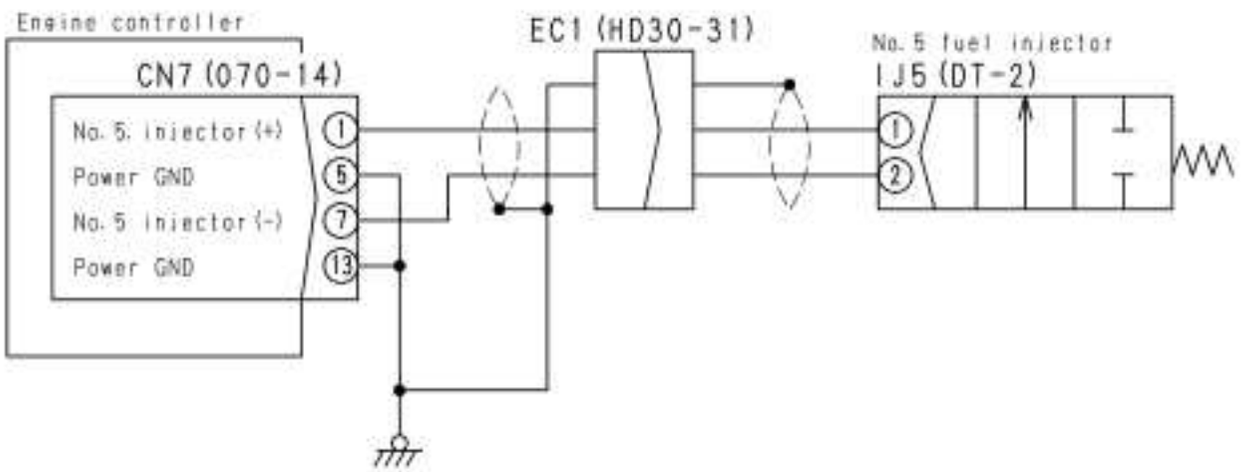


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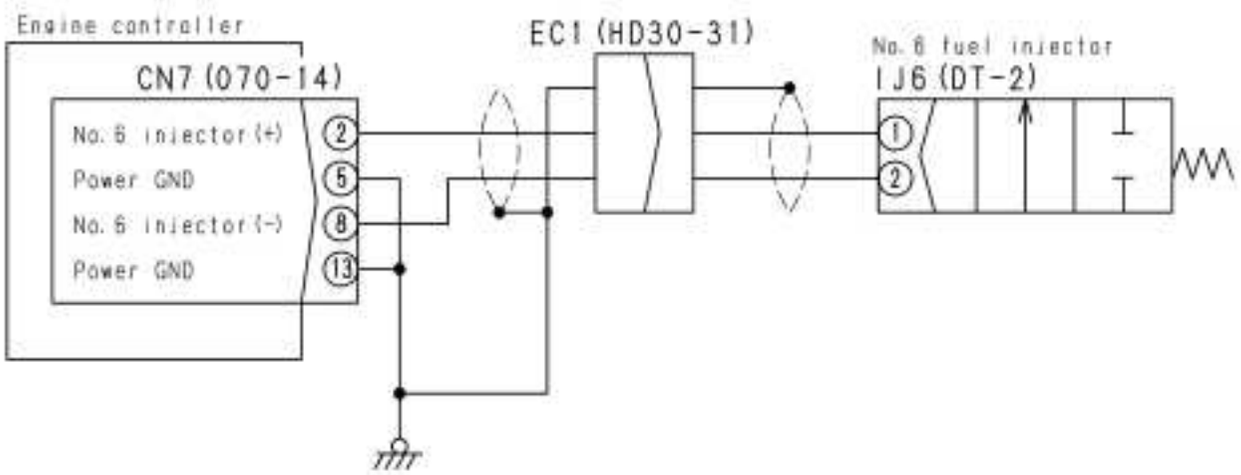
E-36 a), b) Related electrical circuit diagram



E-36 a), c) Related electrical circuit diagram



E-36 a), d) Related electrical circuit diagram



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