SHOP MANUAL

KOMATSU®

70E, 76E-5 SERIES

DIESEL ENGINE

MidWestTech | Komatsu 70E, 76E-5 Series Diesel Engine Service Manual | Publication SEBM037701

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1.1 Specifications

(1) 2D70E

Engine name		Unit	2D70E									
Engine specification class		–	VM									
Type		–	Vertical, in-line, 4-cycle, water-cooled diesel engine									
Combustion chamber		–	Swirl chamber type									
Number of cylinders		–	2									
Cylinder bore x stroke		mm x mm	70 x 74									
Displacement		ℓ (cc)	0.570 (570)									
Continuous rating	Revolving speed	rpm	–									
	Output	kW {HP}	–									
Rated output	Revolving speed	rpm	2,000	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000
	Output	kW {HP}	6.0 {8.0}	6.3 {8.5}	6.6 {8.9}	7.0 {9.4}	7.3 {9.8}	7.6 {10.2}	7.9 {10.6}	8.2 {11.0}	8.5 {11.5}	8.8 {11.9}	9.1 {12.2}
Max. no-load speed (± 25)		rpm	2,160	2,250	2,355	2,460	2,570	2,675	2,780	2,890	2,995	3,100	3,210
Ignition order		–	1-2-1(No.1 cylinder on flywheel side)										
Power take off		–	Flywheel										
Direction of rotation		–	Counterclockwise (viewed from flywheel)										
Cooling system		–	Radiator										
Lubrication system		–	Forced lubrication with trochoid pump										
Starting system		–	Electric										
Applicable fuel		–	Diesel oil-ISO 8217 DMA, BS 2869 A1 or A2 (Cetane No.45 min.)										
Applicable lubricant		–	API grade class CD or CF										
Lubricant capacity (oil pan) (*1)	Total	ℓ	1.7										
	Effective	ℓ	0.7										
Cooling water capacity (engine only)		ℓ	0.6										
Engine Dimensions (with flywheel housing) (*1),(*2)	Overall length	mm	415										
	Overall width	mm	427										
	Overall height	mm	484										
Engine dry weight (*1),(*2) (with flywheel housing)		kg	84										
Cooling fan (std.) (*1)		mm	260 mm O/D, 5 blades pusher type F										
Crankshaft V pulley diameter & Fan V pulley diameter (std.) (*1)		mm	110 x 110										

*1. Items may differ from the above depending on an engine installed on a machine unit.
*2. Engine weight and dimensions without radiator

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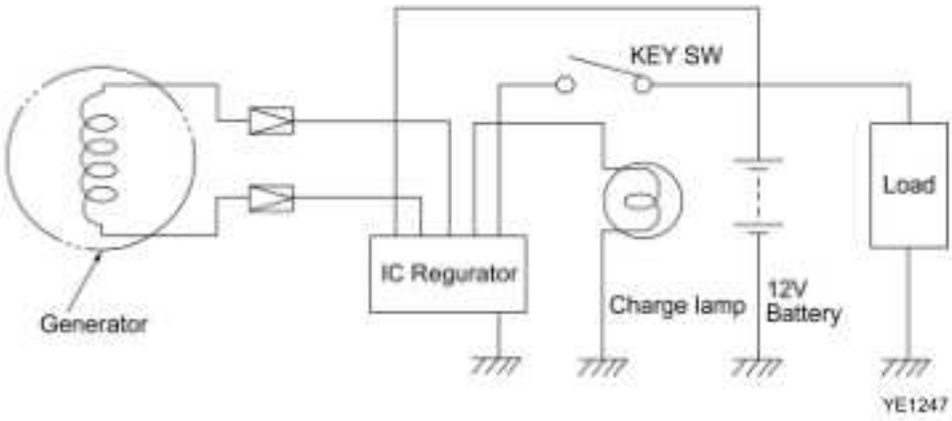
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9.1.3 Wiring diagram

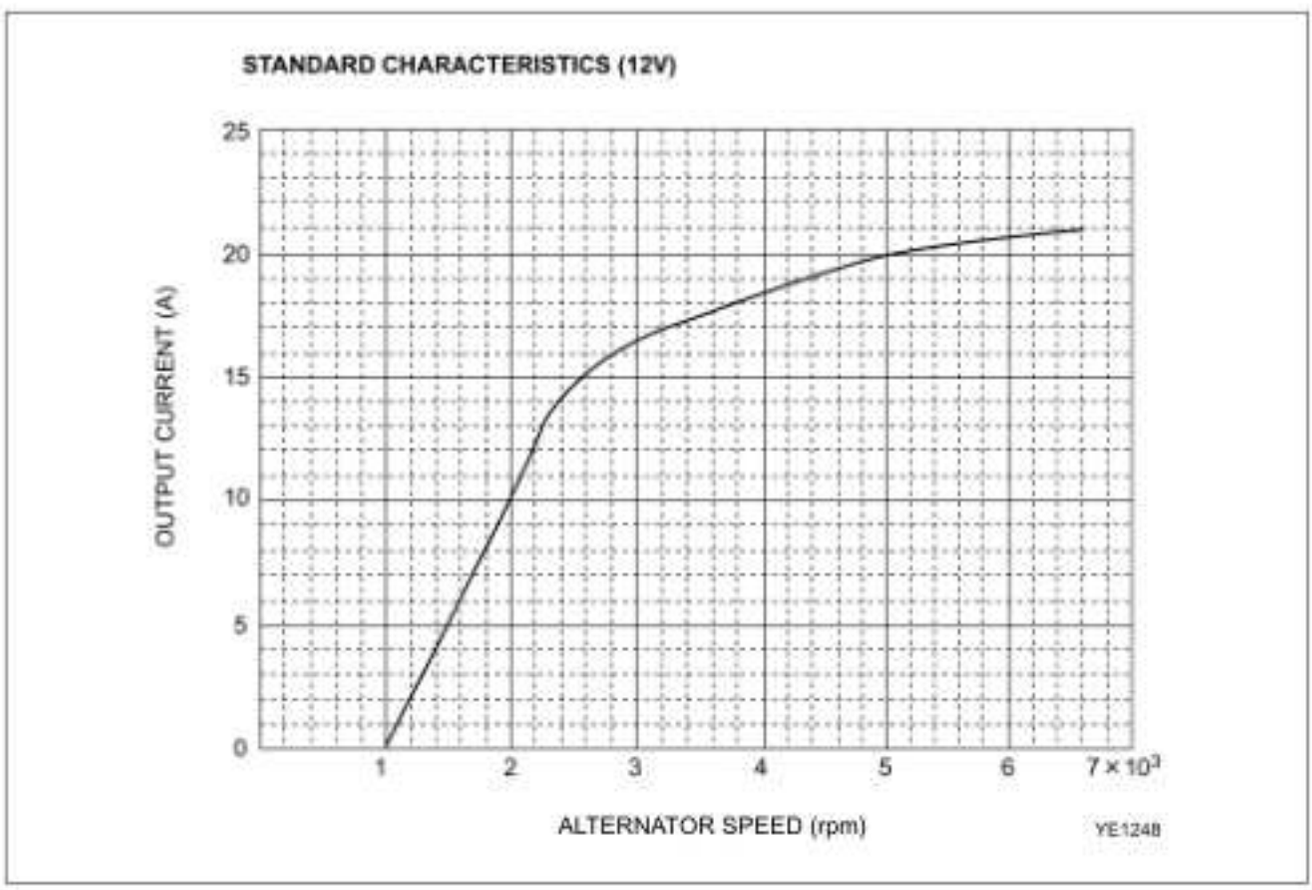
Standard circuit composition for output confirmation



[NOTICE]
1) Do not do mis-connecting and short-circuit of each terminal.
2) Do not remove a battery terminal and a B terminal when rotating.
3) Shut out a battery switch during the alternator stop.

9.1.4 Standard output characteristics

The standard output characteristics of this alternator are shown as the below figure.



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