Manual No. : KM-18EE
Vol. No. : TO18EE-00

Technical Manual

(Operational Principle)

EX1200-5C

Excavator

Service Manual (Manual No. KM-18EE) consists of the following three separate volumes;

Technical Manual (Operational Principle)	: Vol. No. TO18EE
Technical Manual (Troubleshooting)	: Vol. No. TT18EE

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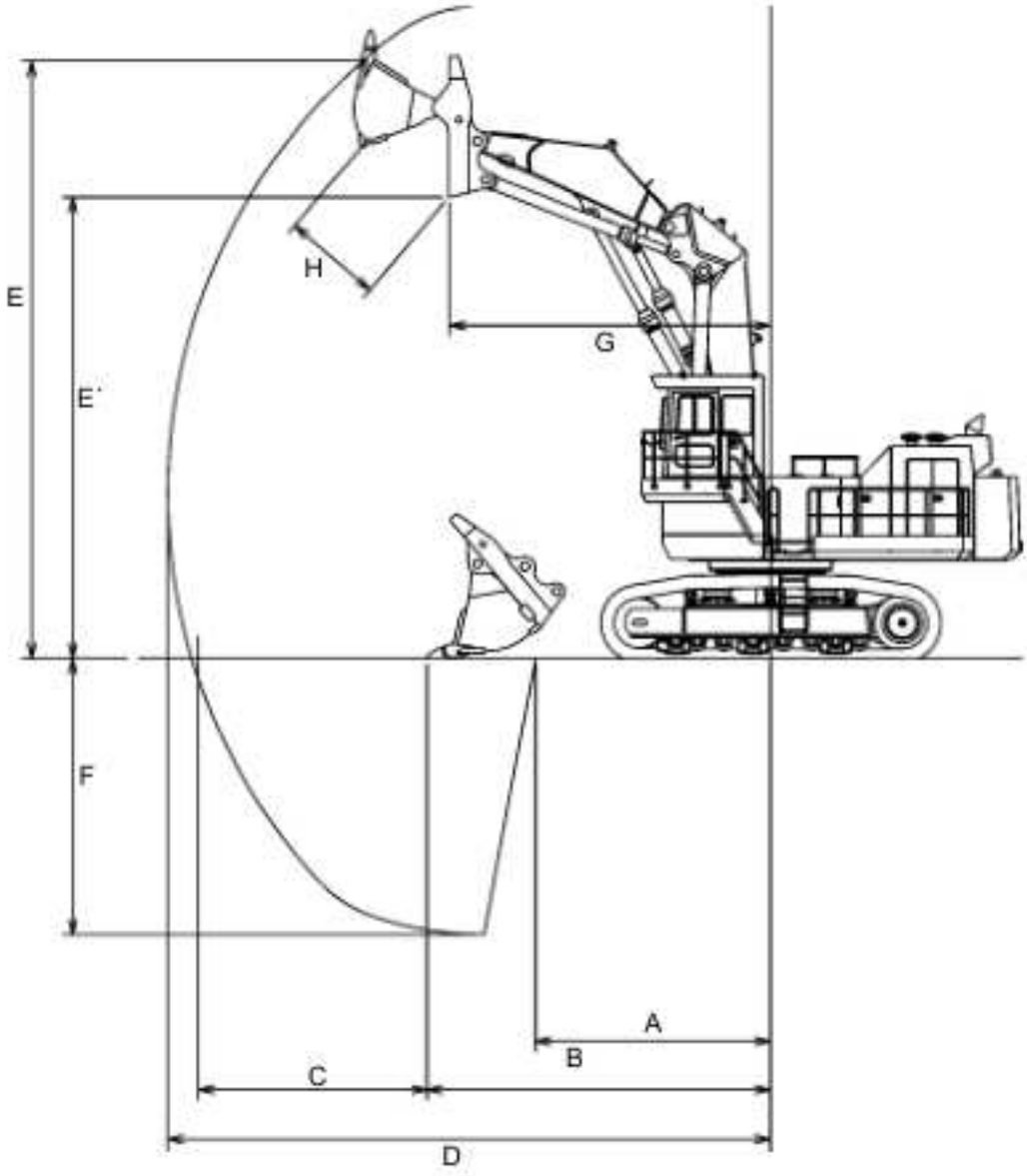
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WORKING RANGE (LOADING SHOVEL)



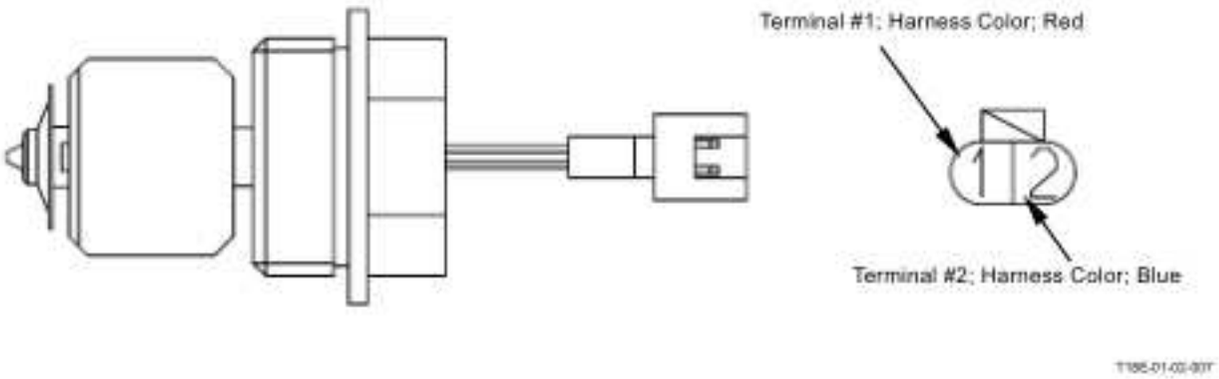
T1B3-01-01-005

A	: Minimum Digging Distance	4460 mm (14' 8")
B	: Minimum Level Crowding Distance	6520 mm (21' 5")
C	: Level Crowding Distance	4340 mm (13' 10")
D	: Maximum Digging Reach	11440 mm (37' 6")
E	: Maximum Cutting Height	*12350 mm (40' 6")
E'	: Maximum Dumping Height	*8740 mm (28' 8")
F	: Maximum Digging Depth	*5240 mm (17' 2")
G	: Working Radius at Maximum Dumping Height	*6090 mm (20' 0")
H	: Maximum Bucket Opening Width	1880 mm (6' 2")

*NOTE: * The dimensions do not include the height of the shoe lug.*

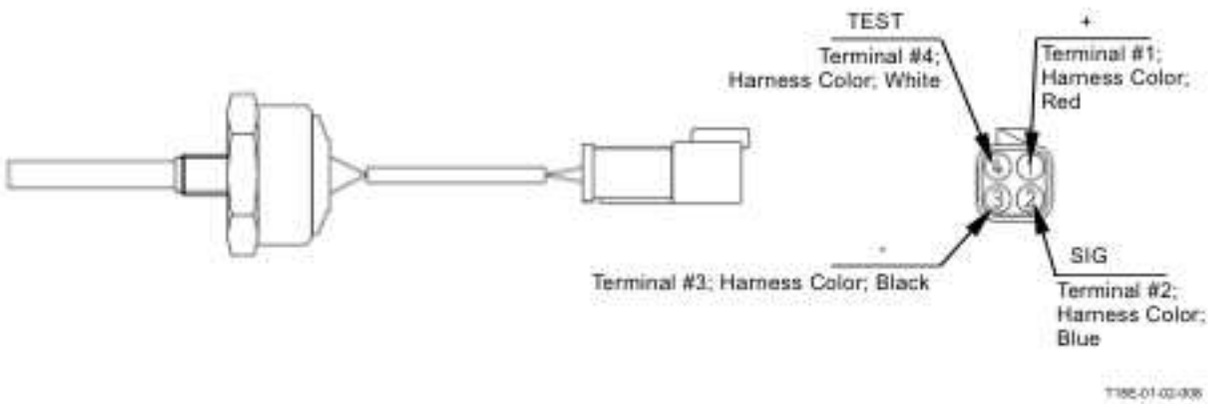
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Coolant Level Switch 1



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Coolant Level Switch 2



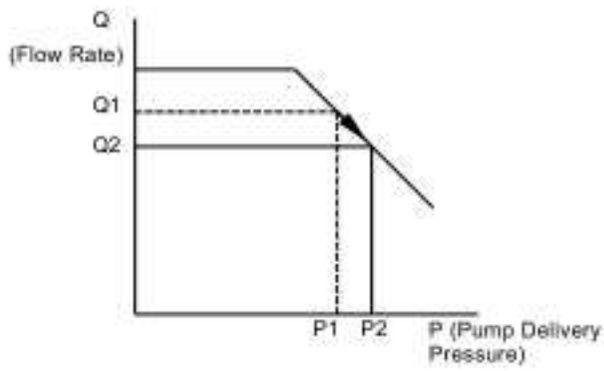
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Constant Torque Control

- Overload Preventing Operation

1. If pump delivery pressure P rises from P1 to P2, compensating piston (16) moves compensating rod (20) to the right until it balances with outer spring (21) and inner spring (22).
2. Movement of compensating rod (20) is transmitted to lever 2 (17) via pin (24), rotating lever 2 (17) counterclockwise around pin (18).
3. Since pin (5), which is connected to feedback lever (12), is inserted into hole (19) on lever 2 (17), feedback lever (12) rotates around pin (13) clockwise as lever 2 (17) rotates, moving spool (3) to the right.
4. As spool (3) is moved, pump pressure P is routed to the servo piston large chamber via spool (3). Although pump pressure P is also routed to the servo piston small chamber, servo piston (14) is moved to the right due to the difference in pressure receiving area between the servo piston ends.
5. As servo piston (14) is moved to the right, the pump displacement angle decreases corresponding to the distance that servo piston (14) has moved, decreasing the pump delivery flow rate.
6. As the pump pressure P acts on the compensating piston (16), compensating rod (20) and lever 2 (17) do not move even if servo piston (14) moves.
7. As servo piston (14) moves, feedback lever (12) moves via pin (13). Since compensating rod (20) and lever 2 (17) do not move, feedback lever (12) rotates counterclockwise around pin (5), shifting spool (3) to the left until the notches on spool (3) and sleeve (2) close completely. As these notches close, the pump pressure stops acting on the servo piston large chamber. Consequently, the movement of servo piston (14) stops.
8. With the above operation, the pump delivery flow rate decreases from Q1 to Q2, relieving excessive load otherwise applied to the pump.



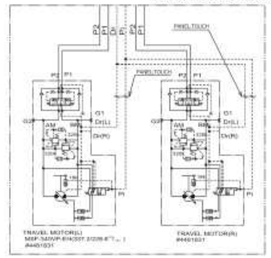
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EX1200-5C HYDRAULIC CIRCUIT DIAGRAM (BACKHOE)

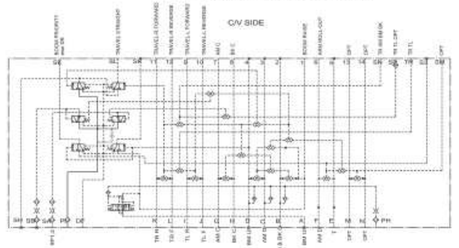
Authorized Hitachi Dealer Use Only
Parts numbers on the drawing are provided only for reference purpose.
To order parts on the drawing, be sure to consult the Parts Catalog.

IMPORTANT:
The numbers (001) to (048) indicate the No. in the cross reference table.
((002), (004), (008) and (009) are absent.)
Refer to the cross reference table in T5-2 group.



DETAIL XI

TRAVEL MOTOR



DETAIL XA

SIGNAL CONTROL VALVE

NOTE:Refer to the perrformance standard table in the Technical Manual for the set pressure of each relief valve.

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