

PARTS & SERVICE NEWS

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SUBJECT: REPLACEMENT PROCEDURE OF ENGINE CONTROLLER ON SA(A)6D140E-3

PURPOSE: To introduce modification procedures to replace the engine controller for the SA(A)6D140E-3 engines

APPLICATION: PC600-6 Hydraulic Excavators, Serial Nos. 11001 thru 11016
(Engine Nos. 110002 thru 110073)
PC650-6 Hydraulic Excavators, Serial Nos. 31001 thru 31002
(Engine Nos. 11008, 11007)

FAILURE CODE: DA00MA

DESCRIPTION:

1. Introduction

Although a logic to stop the engine has thus been incorporated in the engine control program of the engine controller for the SA(A)6D140E-3 engines in order to protect the engine when a serious trouble occurs with the engine, we have changed the control program not to stop the engine even when a serious trouble occurs with the engine so that an emergency evacuation of the machine can be conducted. Consequently, replace the engine controller with the new one following the modification procedures outlined in this Service News.

2. List of parts

Part No.	Part Name	Purpose of part	Q'ty	Remarks
7872-10-4101 (7872-10-4100)	Controller (Controller)	Replacement	1 (1)	

3. Contents of the modification

Although a logic to stop the engine has thus been incorporated in the engine control program of the engine controller for the SA(A)6D140E-3 engines in order to protect the engine when a serious trouble occurs with the engine, we have changed the control program so as not to stop the engine but as to control the engine speed even when a serious trouble occurs with the engine so that an emergency evacuation of the machine can be conducted.

4. Modification procedures

(1) The engine controller is being installed behind the operator's seat.

Refer to Fig. 1 for the detailed location of installation of the engine controller.

(2) Remove the decorated cover located behind the operator's seat.

Refer to Fig. 2 and Fig. 3 regarding the removal procedures for the cover.

When the cover is removed, you will see the engine controller.

(3) Disconnect the harness being connected to the engine controller.

Since the harness is provided with a fool proofing means and although there is no fear of making connection error, check the connections of the harness before disconnecting it just in case.

(4) Remove the bolts (4 bolts) fastening the controller body and separate the controller.

(5) Install the new controller. (Tightening torque: 27.5 – 34.3 Nm (2.8 – 3.5 kgm))

(6) Since the "Q" adjustment of the new controller is being preset to individual serial numbers of the engines, be sure to check and confirm that the serial number of the engine being indicated on the upper surface of the controller coincides with the serial number of the engine itself.

(7) Connect the harness.

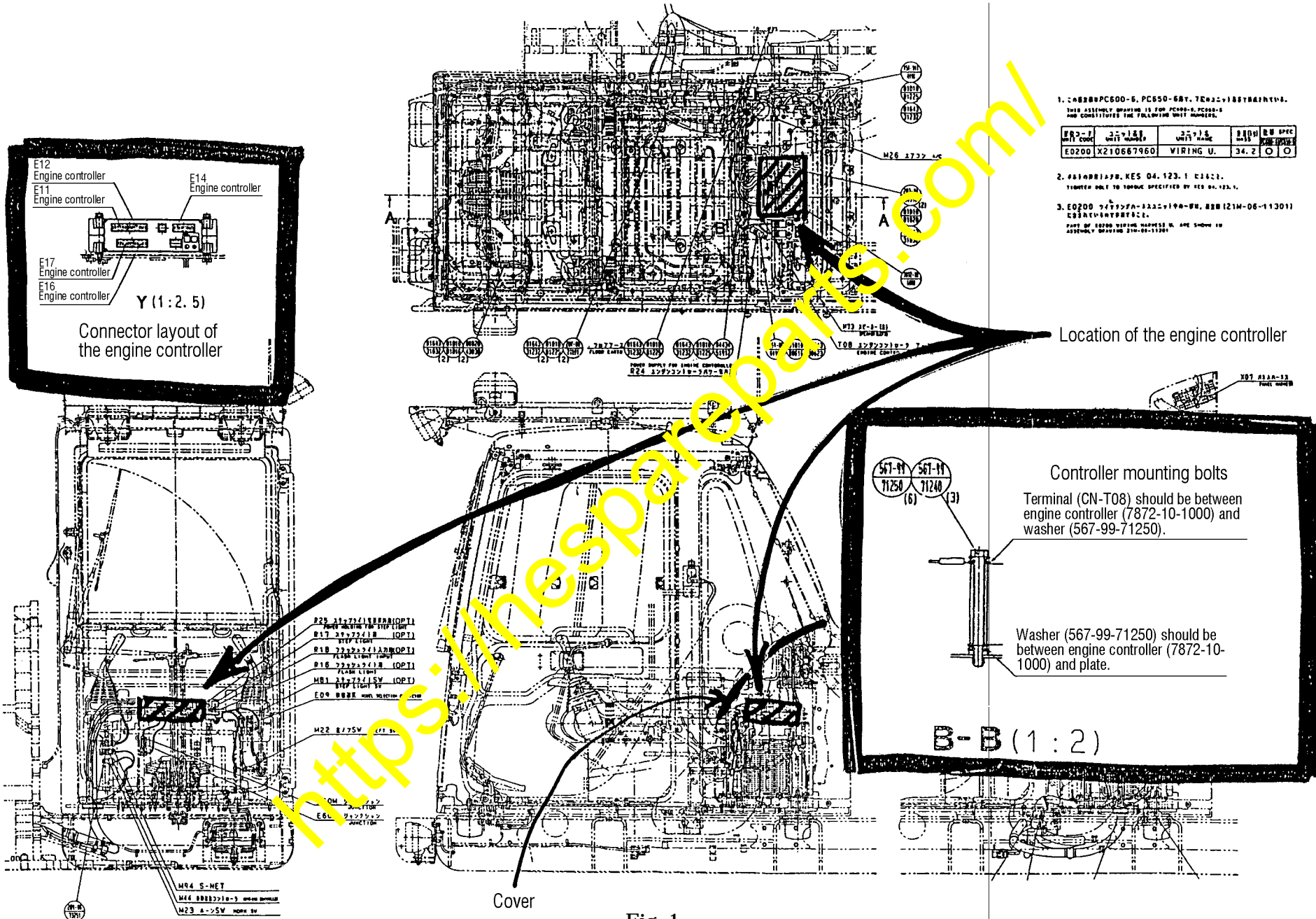
(8) Turn on the starting switch and the LED located on the upper surface of the controller will turn on to indicate the program number. Make sure that the indication is as follows.

[88] [70] [72] [10] [A4] [**] [– –] [00]

↖
The "Q" adjustment being preset to each serial number of the engine will be indicated here.

(9) Although it would not be necessary in particular to check the operation and performance of the machine after replacing the engine controller, operate the machine and make sure operations are normal, just in case.

(10) Reinstall the decorated cover.

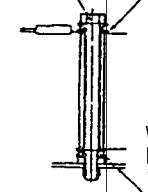


1. 00000PC600-6, PC650-6BY, TCR2-118STRAYN-6.
THIS ASSEMBLY DRAWING IS FOR PC600-6, PC650-6
AND CONSTITUTES THE FOLLOWING UNIT NUMBERS.
- | UNIT CODE | UNIT NUMBER | UNIT NAME | REV | REV SPEC |
|-----------|-------------|-----------|------|----------|
| E0200 | X210667960 | WIRING U. | 34.2 | 0 0 |
2. 00000R149B, KES 04, 123, 1 02022.
TIGHTEN BOLT TO TORQUE SPECIFIED BY KES 04, 123, 1.
 3. E0200 747999A-122-1190-00, 88B (21M-06-11301)
ESSENTIAL INTERPRET 822.
PARTS OF ENGINE WIRING HARNESS U. ARE SHOWN IN
ASSEMBLY DRAWING 210-0011201.

Location of the engine controller

Controller mounting bolts

Terminal (CN-T08) should be between engine controller (7872-10-1000) and washer (567-99-71250).



Washer (567-99-71250) should be between engine controller (7872-10-1000) and plate.

B-B (1:2)

Fig. 1

Engine controller replacement procedures - 1

- Remove 4 units each of the bolts ②④ and ②⑤ to remove the rear covers ① and ⑩.

When removing the rear covers, disconnect the speaker connectors (at 2 places on the LH and RH sides) and, furthermore, remove the air conditioner hose (the part numbered ⑧ on the next page) before fully taking out the rear covers.

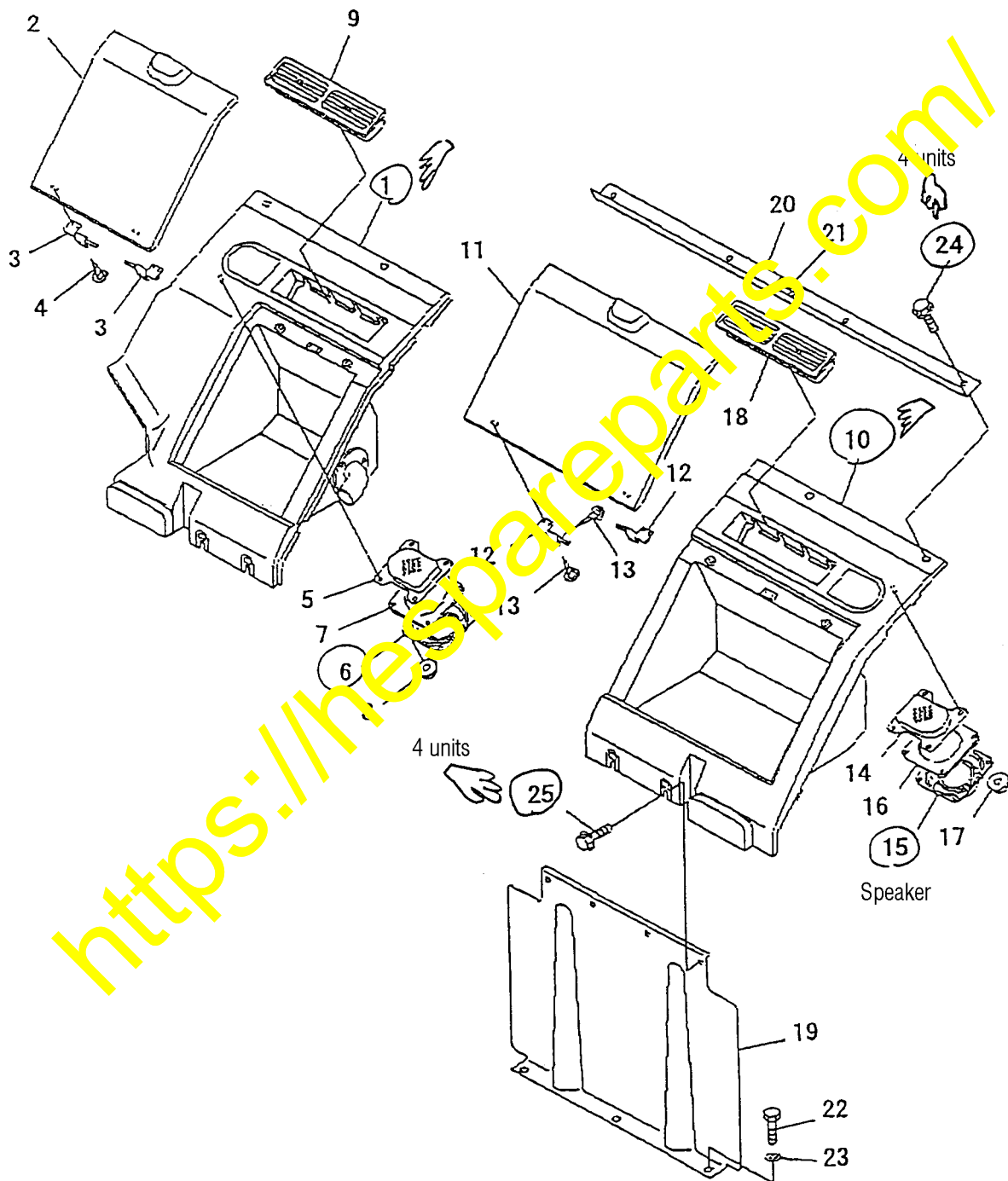


Fig. 2

Engine controller replacement procedures - 2

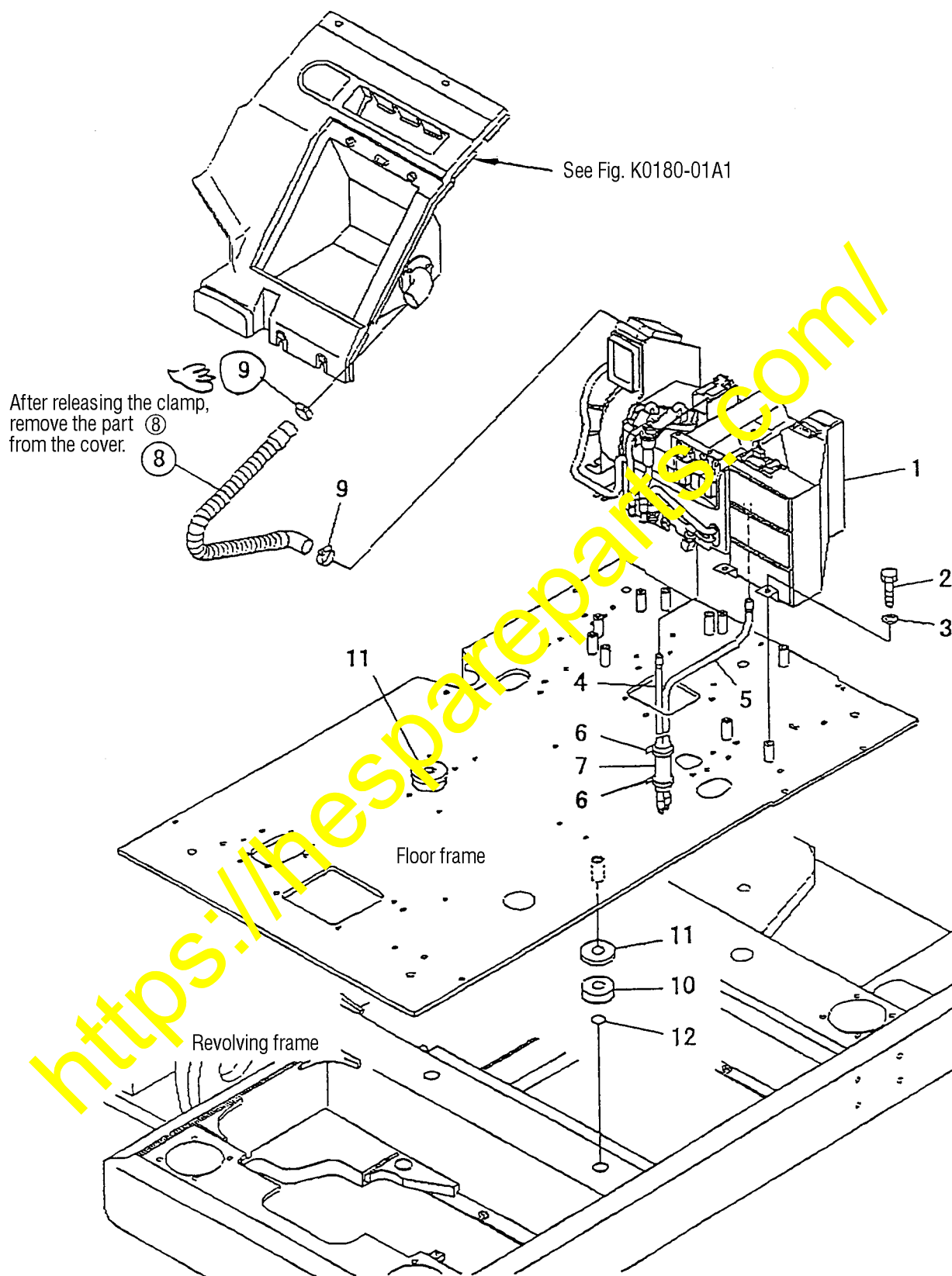


Fig. 3

List of engine controllers applicable to this modification

1. PC600-6

No.	Serial Nos.	Engine Nos.	Destinations	Remarks
1	11001	110002	U.S.A.	
2	11003	110010	U.S.A.	Already replaced the controller.
3	11004	110011	U.K.	Shipped the improved controller on Mar. 22.
4	11005	110013	U.K.	Shipped the improved controller on Mar. 21.
5	11006	110026	U.K.	Shipped the improved controller on Mar. 21.
6	11007	110036	U.K.	Shipped the improved controller on Mar. 22.
7	11008	110037	U.K.	Shipped the improved controller on Mar. 22.
8	11009	110038	U.K.	Shipped the improved controller on Mar. 22.
9	11010	110054	U.K.	Shipped the improved controller on Mar. 22.
10	11011	110064	South Africa	
11	11012	110052	CHINA	
12	11013	110066	U.K.	Shipped the improved controller on Mar. 22.
13	11014	110053	CHINA	
14	11015	110065	CHINA	
15	11016	110073	CHINA	