

Subject : Power plant ignition system

Effectivity type: DG-800
Variants: DG-800 A all serial numbers
DG-800 LA all serial numbers

Accomplishment : In case of defect of one ignition box

Reason : 1. The Ducati ignition boxes used by Rotax are no longer available. In case of defect of one box you have to install Ducati 432372501 boxes and change the wiring according to working instruction to TN873/33. Both electronic boxes have to be exchanged.
2. In addition to the instructions in the initial issue of this TN we found that the DEI must be modified to prevent damage to the powerplant.

Instructions : a. Modify the system according to working instruction to TN873/33
b. Return the DEI for modification
c. File drawing 4E30 to the aircraft logs in addition to page 16 of the engine manual

Material : a. Working instruction to TN873/33 revision 1
Service kit No. 21000124
b. Drawing 4E30

Weight and balance : influence negligible

Remarks : Instructions are to be executed by a licensed workshop.
Accomplishment of instructions is to be inspected and entered in the aircraft logs by a licensed inspector or released with a "Certificate of release to service" according to EASA part M M.A.801.

Initial issue: August 23.2006
Revision 1: March 5. 2010

Modifications approved by EASA Date 21.04.2010
under Approval No. 10029792.

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Modification of the powerplant – ignition unit to Ducati 432372501 ignition electronic boxes

Note: On the ignition boxes the no. is given without the first digit = 32372501.

A: Remove the DEI and ship for modification to Schicke Elektronik GmbH (address on page 5)

Warning: Without DEI modification the powerplant will be damaged.

B: Remove the ignition electronic boxes, they will not be used again.

C: Modification of the wiring

1. Open the cable harness from the ignition boxes up to the cable junction (pic.2 and sketch 2). The wires coloured white, brown, black and red are for ignition box 1 and white/red, brown, black and red are for ignition box 2.
2. Cut the white and the white/red wire 40 mm (sketch 2 detail Z) in front of the junction of the cable harness (pic.2). Slip pieces of heat shrink tubing over the shortened wires, crimp one spade connector (female) to each of the wires and shrink the tubing.
3. Plug an ignition box filter (pict. 1) to each of the two cable shoes. Slip heat shrink tubing over the connections and shrink the tubing. Take care of the correct mounting direction. (see pict.2).
4. Crimp a spade connector (male) on each of the wires remaining from point 2. Connect the wires according to pict.2 to the filters, so that you have the same wire colours as on the other side of the filter.
5. The cable harness for the ignition box aft (BOX II) has to be shortened to 300mm (pic.2). The cable harness for the front ignition box (BOX I) has to be shortened to 220mm (sketch 2 and pic.2). Slip heat shrink tubing over the cable harness as indicated in picture 2 and shrink the tubing. Note: 20mm of the wires must not be covered by the heat shrink tubing see pict.2.
6. Crimp cable shoes to the wires according to pict.2
7. Connect the wires to the ignition boxes according to pict.2.
8. Slip heat shrink tubing over every connection.
9. Cover the cable harness completely with heat shrink tubing.
10. The cable harness has to be fixed. The cable harness should not be able to vibrate or rub. Fix the cable harness according to pic3, 4 and 5 and drawing 4M77. The ty-raps have to be tightened by hand as tight as possible.
11. Move the Bowden cable mounting 4R38/1 60 mm from the original position to the position (see sketch 1). This must be done even when Ducati boxes have already been installed.

D Install the DEI again, perform engine test run.

necessary material:

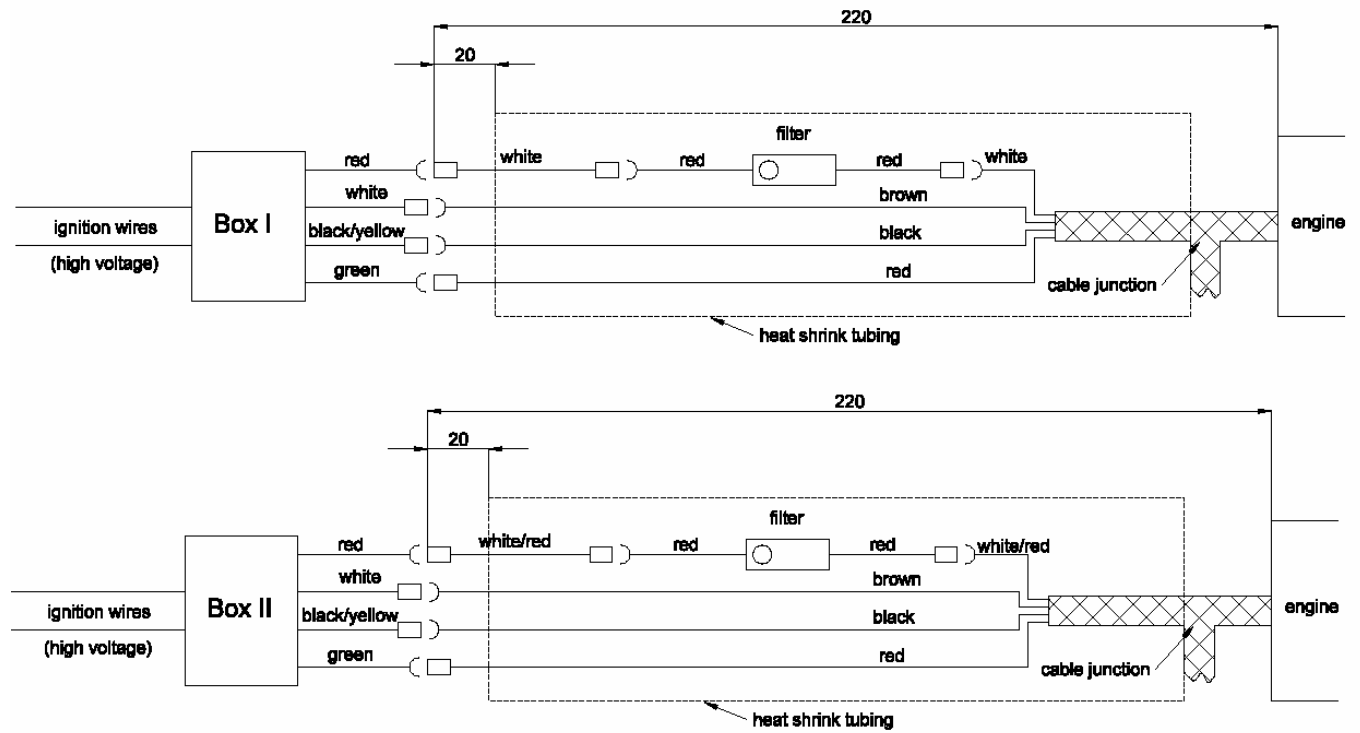
| pieces | Description |
|--------|-------------------------|
| 1 | Service kit No.21000124 |

consisting of

| piece | description | piece | description |
|-------|--|-------|-------------------------------------|
| 2 | Ducati 432372501 ignition boxes | 4 | washer 6,4 DIN9021 |
| 2 | ignition box filter 4E28 | 2 | nut M6 DIN985 |
| 20 | Ty-raps 3,6x140 | 700mm | heat shrink tubing 1/2" FT500 |
| 12 | male spade connector RSQ 7610 6,1-1 | 600mm | heat shrink tubing 19-9,5 FT5550 |
| 12 | female spade connector RSQ 7600 A 6,3-1 | 700mm | heat shrink tubing DERAY H 1/4" |



Picture 1



Picture 2

Warning: don't mix up the wire colours!



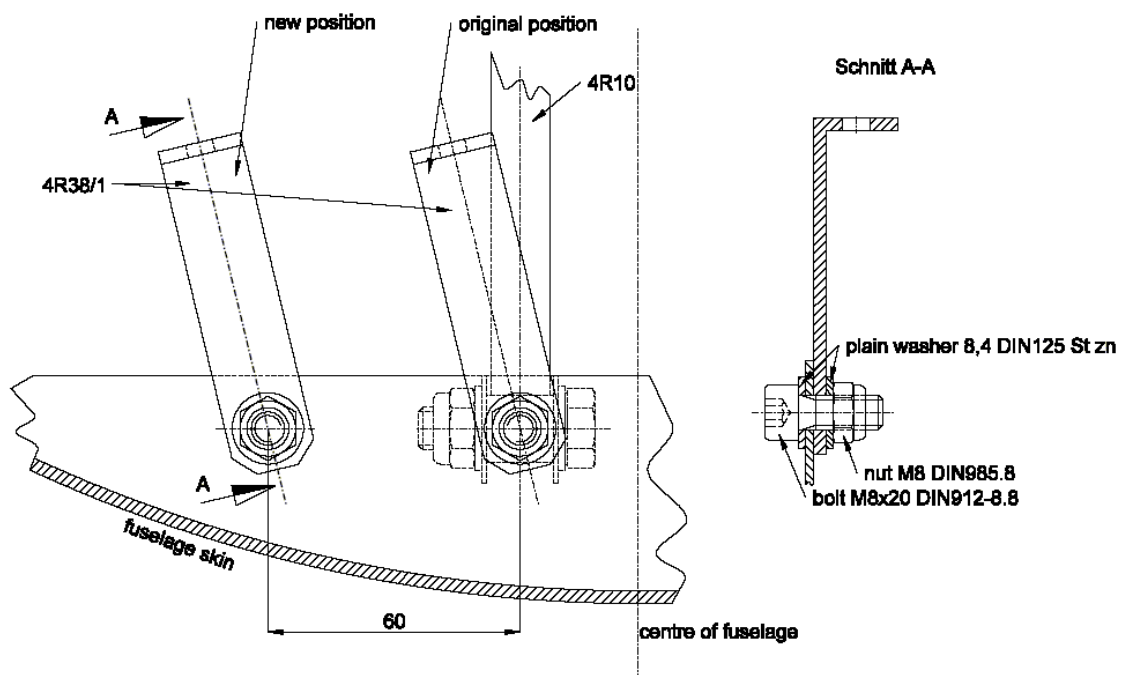
Picture 3



Picture 4



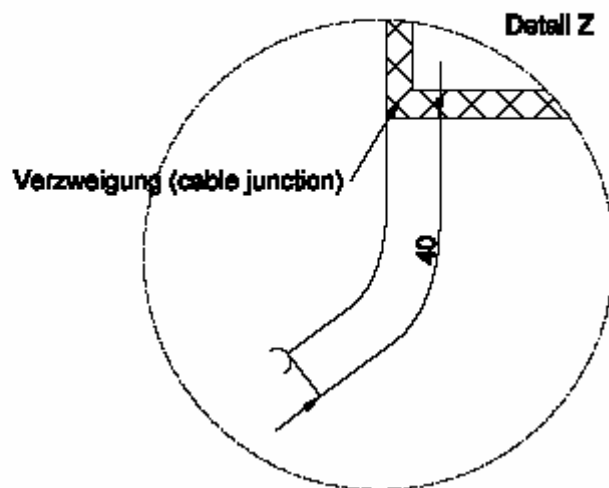
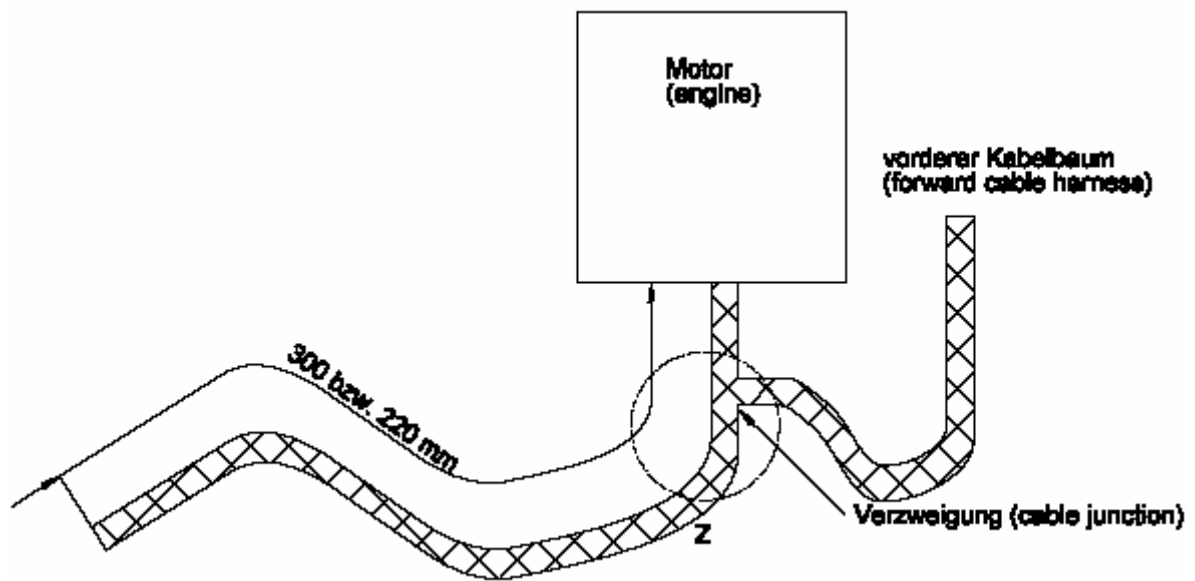
Picture 5



Sketch 1

Issued: August 23.2006

Revision 1: 12. February 2010



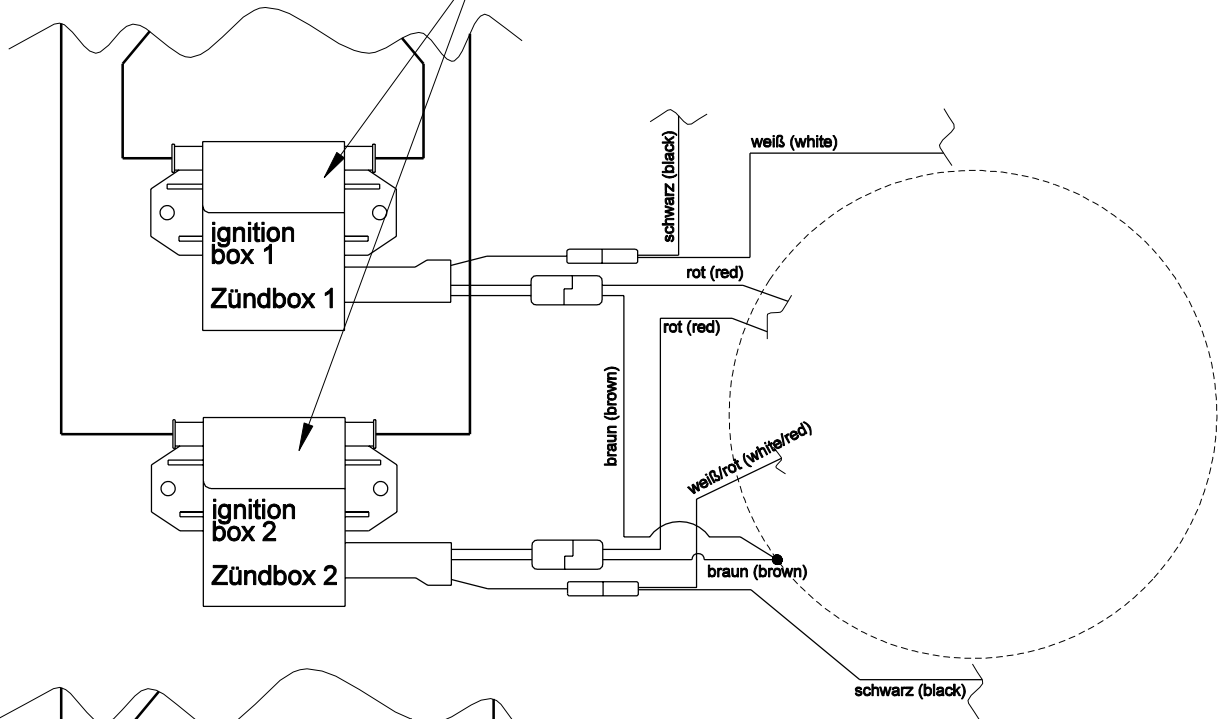
Sketch 2

Address to ship the DEI:
Schicke Elektronik GmbH
Kanalstraße 32

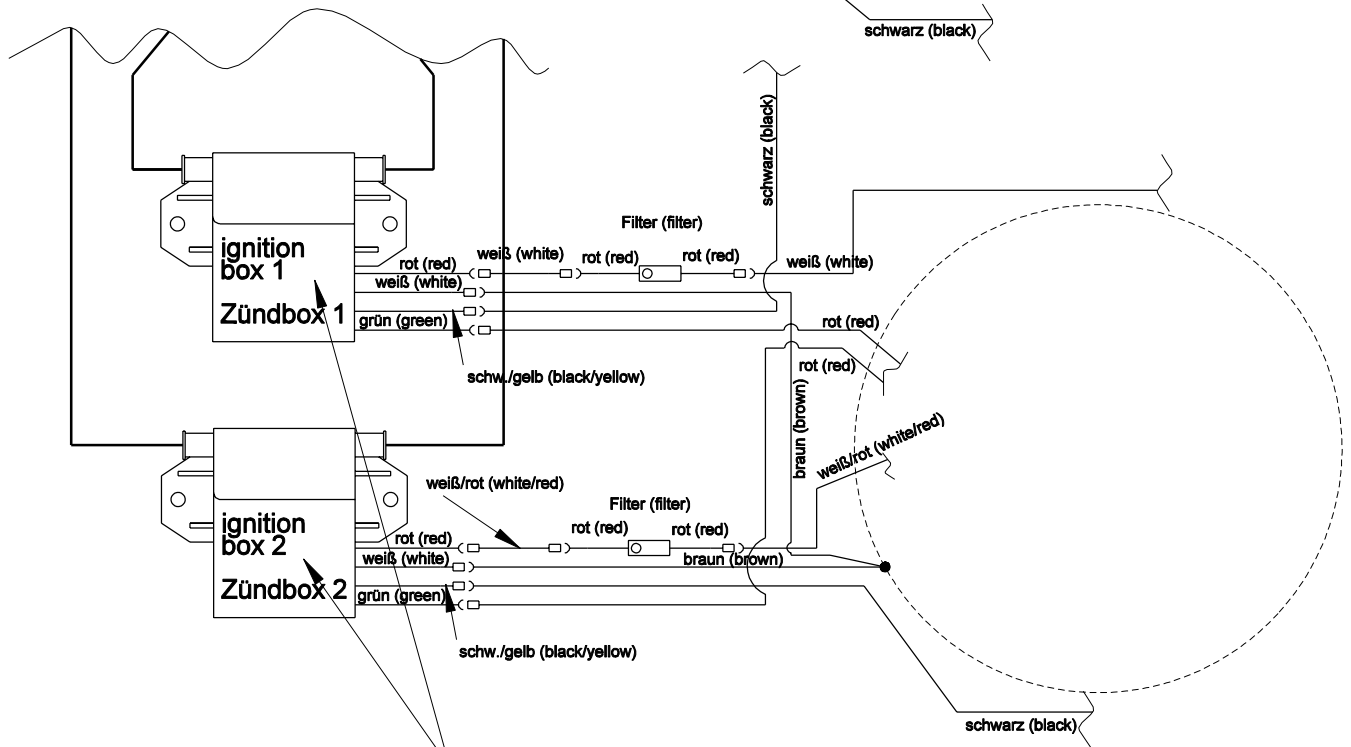
D-76356 Weingarten
Germany

Ducati Rotax 965 675

alt
old




neu
new



Ducati 432372501

Zusatz zu Seite 16 Motorhandbuch Rotax 505
amendment to page 16 of the Rotax 505 engine manual

| | | | | | | | | |
|---------------------------------------|----------|----|-----|------|------------------------------|---|---|--|
| Toleranzen nach Arbeitsanweisung BA 1 | | | | | Tag | Name | DG Flugzeugbau GmbH 76646 Bruchsal Otto-Lilienthal-Weg 2 | |
| Schweißen nach Arbeitsanweisung SA 1 | | | | | Gez. | 14.07.06 Könen | | |
| | | | | | Gepr. | | | |
| | | | | | Norm. | | | |
| | | | | | Maßstab | Änderung der Verkabelung für Ducati Elektronik Zündboxeb 432372501 Modification of the wiring for Ducati electronic ignition boxes 432372501 |  4E30 | |
| | | | | | Maße ohne Toleranzang. nach: | | | |
| | | | | | | | | |
| Ausg. | Änderung | ÄM | Tag | Name | | | | |