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# SERVICE BULLETIN

No: SB\_SD4-01-2017

Date: 19.MAY 2017

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Pages:1 of 4

<b>MODEL AFFECTED:</b>	EASA-TCDS No. EASA.A.606, issue 2, 12.APR 2016
<b>APPLICABILITY:</b>	All Viper SD-4 RTC airplanes with Neuform CR-65-(IP)-47-101.6 propeller
<b>SUBJECT:</b>	Exhaust system with additional muffler
<b>COMPLIANCE TIME:</b>	Individual
<b>COMPLIANCE:</b>	When decided to install this design change perform all actions defined within this Service Bulletin by an approved Maintenance Organization.
<b>DESCRIPTION:</b>	This SB is issued to allow all Viper SD-4 RTC airplanes in service to install an exhaust system design change to their current type design.
<b>REASON:</b>	Installation of the design changed exhaust system reduces noise pollution. Operators, who want to reduce their operation costs related to landing fees, can do that so by installing a new design exhaust system with additional muffler.
<b>MANPOWER:</b>	Two people with approved qualifications for the corresponding engine type. Only certified technicians (iRMT-Level: Line Maintenance)
<b>LABOR TIME:</b>	Approx: 2 working hours
<b>MATERIAL:</b>	SD4-B-6-030-N-2 - exhaust system with muffler, air heating chamber and an additional silencer ø 0.8 mm safety wire
<b>TOOLING:</b>	Phillips screwdriver 7 mm socket wrench Wire cutters Pliers
<b>REFERENCES:</b>	/1/ TOM-TC-01-AMM.E Aircraft Maintenance Manual /2/ TOM-TC-01-C1-010_C Powerplant installation definition ( <a href="http://www.vipersd4.com/wp-content/uploads/service-info/TOM-TC-01-C1-010_C_Power_plant_installation_definition.pdf">http://www.vipersd4.com/wp-content/uploads/service-info/TOM-TC-01-C1-010_C_Power_plant_installation_definition.pdf</a> ) /3/ TOM-TC-01-IPC Illustrated Parts Catalogue ( <a href="http://vipersd4.com/support/service/service-information/">http://vipersd4.com/support/service/service-information/</a> )
<b>WEIGHT AND BALANCE:</b>	Mass: 330g Arm: -379 mm from wing leading edge
<b>ELECTRICAL LOAD DATA:</b>	Not affected
<b>SUPPORT INFORMATION:</b>	Any possible support for Viper SD-4 RTC contact: TOMARK s.r.o., Strojnícka 5, 080 01 Prešov, Slovak republic <a href="http://vipersd4.com/contact/">http://vipersd4.com/contact/</a> , E-Mail: <a href="mailto:service@tomarkaero.com">service@tomarkaero.com</a>

**ACCOMPLISHMENT INSTRUCTIONS:**

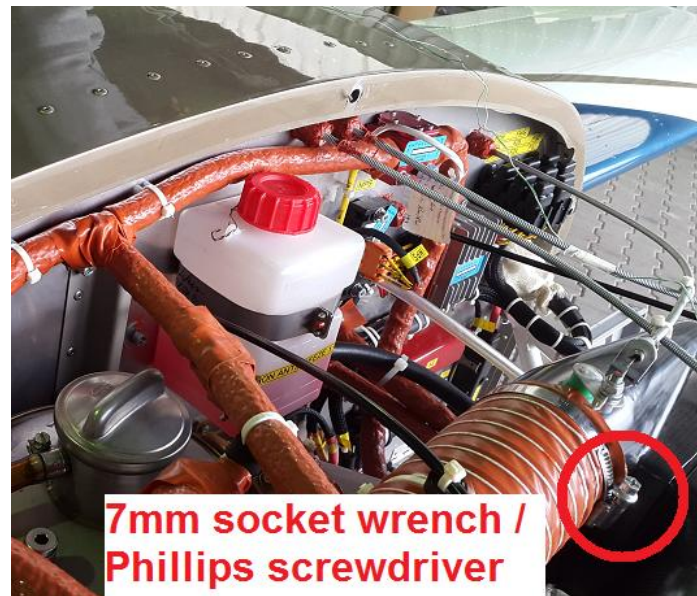
Remove the current exhaust system and replace it with new design one. Make a record in the airplane book.

***Step 1 - Dismount of current muffler******1.1 Remove the upper engine cowling according to the AMM chapter 71-00-01 /1/***

- ▶ Release cam-locks (1/2 turn counter clockwise);
- ▶ Pull top engine cowling ~2 cm forward – pull at cold air inlets grids;
- ▶ Remove top engine cowling upward – put in on a side on a carpet or any soft cushioning to prevent any damage.

***1.2 Loosen the steel clamp attaching the airbox cold air inlet line to the airbox.***

- ▶ Use 7 mm socket wrench or Phillips screwdriver;
- ▶ Loosen the clamp at the airbox cold air intake.

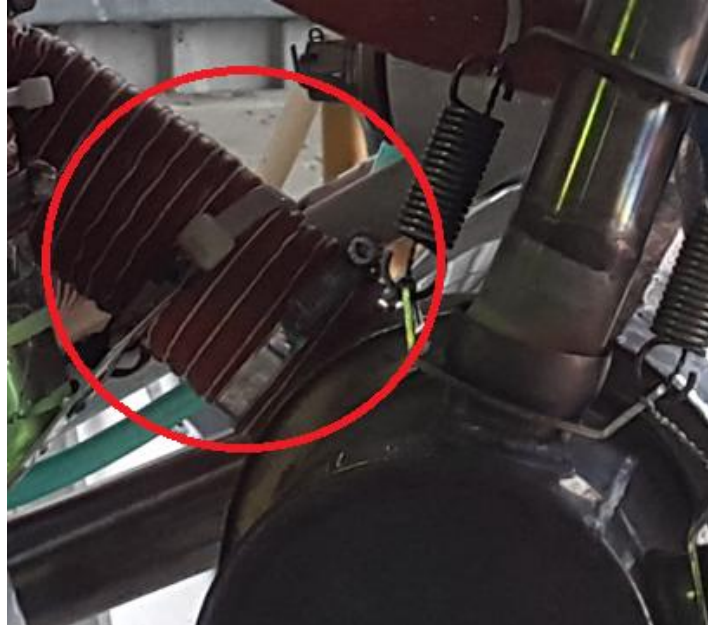
***1.3 Remove bottom engine cowling according to the AMM chapter 71-00-02 /1/***

- ▶ Support the bottom engine cowling;
- ▶ Remove the cold air intake line (ref. /27/ @ /2/) from bottom engine cowling by sliding it backwards;



- ▶ Unplug ST13B terminal from ST13A plug (EASA.A.606 is. 2 + AD&C-DC-58-004 only);
- ▶ Remove Allen screws – Both sides at the same time, start from the bottom;
- ▶ Remove the bottom engine cowling – put it on a side on a carpet or any soft cushioning to prevent any damage.

1.5 Remove the warm air intake line (ref. /17/ @ /2/) – loosen the steel clamp at muffler assembly (use 7 mm socket wrench or Phillips screwdriver) and slide it out.



1.6 Cut all safety wires at the spring joints of the entire exhaust system (ref. 35, 36 & Figure 10, 11 @ /2/).

1.7 Disconnect all spring joints and carefully slide out the exhaust muffler.

- ▶ Check springs for occurrence of wearing – replace if needed (IPC /3/ part No. 4700-0047)

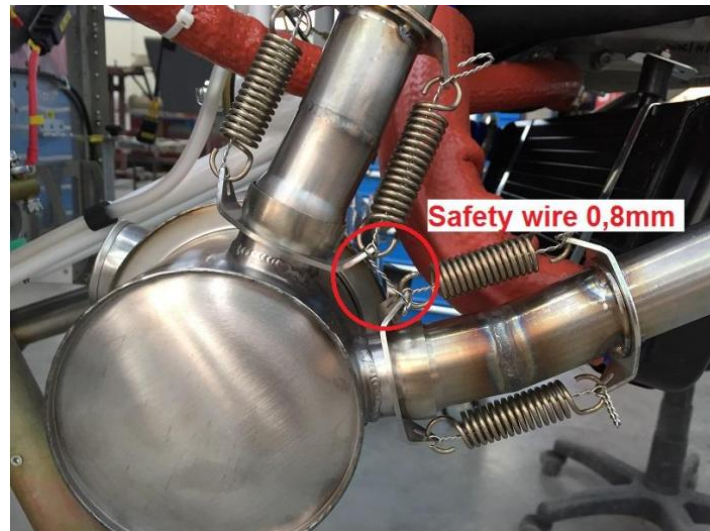
### **Step 2 – Installation of new muffler**

2.1 Attach the new muffler to all 4 exhaust tubes by spring joints.

2.2 Secure all spring joints with 0.8 mm safety wire



2.3 Secure spring joint cups to each other (to prevent their plausible rotation) by 0.8 mm safety wire



2.4 Install the warm air intake line (ref. 17 @ /2/)

2.4 Install the bottom engine cowling according to the AMM chapter 71-00-02 /2/

- ▶ Place the bottom engine cowling to its correct place and support it;
- ▶ Install Allen screws – Both sides at the same time, start from the top;
- ▶ Install the cold air intake line to the bottom engine cowling – slide in;
- ▶ Install warm air intake line (ref. 17 @ /2/);
- ▶ Connect ST13B terminal to ST13A plug (EASA.A.606 is. 2 + AD&C-DC-58-004 only).

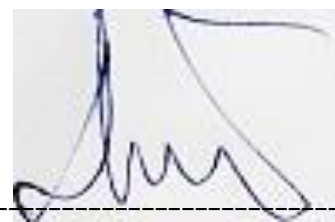
2.6 Connect airbox cold air inlet line to the airbox with a steel clamp (use 10 mm socket wrench)

2.7 Install the upper engine cowling according to the AMM chapter 71-00-01 /1/

- ▶ Place top engine cowling on the edge of the bottom engine cowling;
- ▶ Stick the bayonet pins of the top cowling into the pear-shaped holes of the bottom cowling;
- ▶ Align the aft dowel pins to the holes in the firewall;
- ▶ Push the top cowling ~2 cm aft;
- ▶ Lock cam-locks (1/2 turn clockwise).



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Date: 17.MAY 2017



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Position: Head of Design  
Date: 19.MAY 2017