

 TOMARK, s.r.o. Strojnícka 5 080 01 Prešov	<h1>SERVICE BULLETIN</h1>	No: SB_SD4-02-2022
		Date: 30.JUN 2022
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Approval:	SB approved under EASA MINOR CHANGE APPROVAL 10079890	

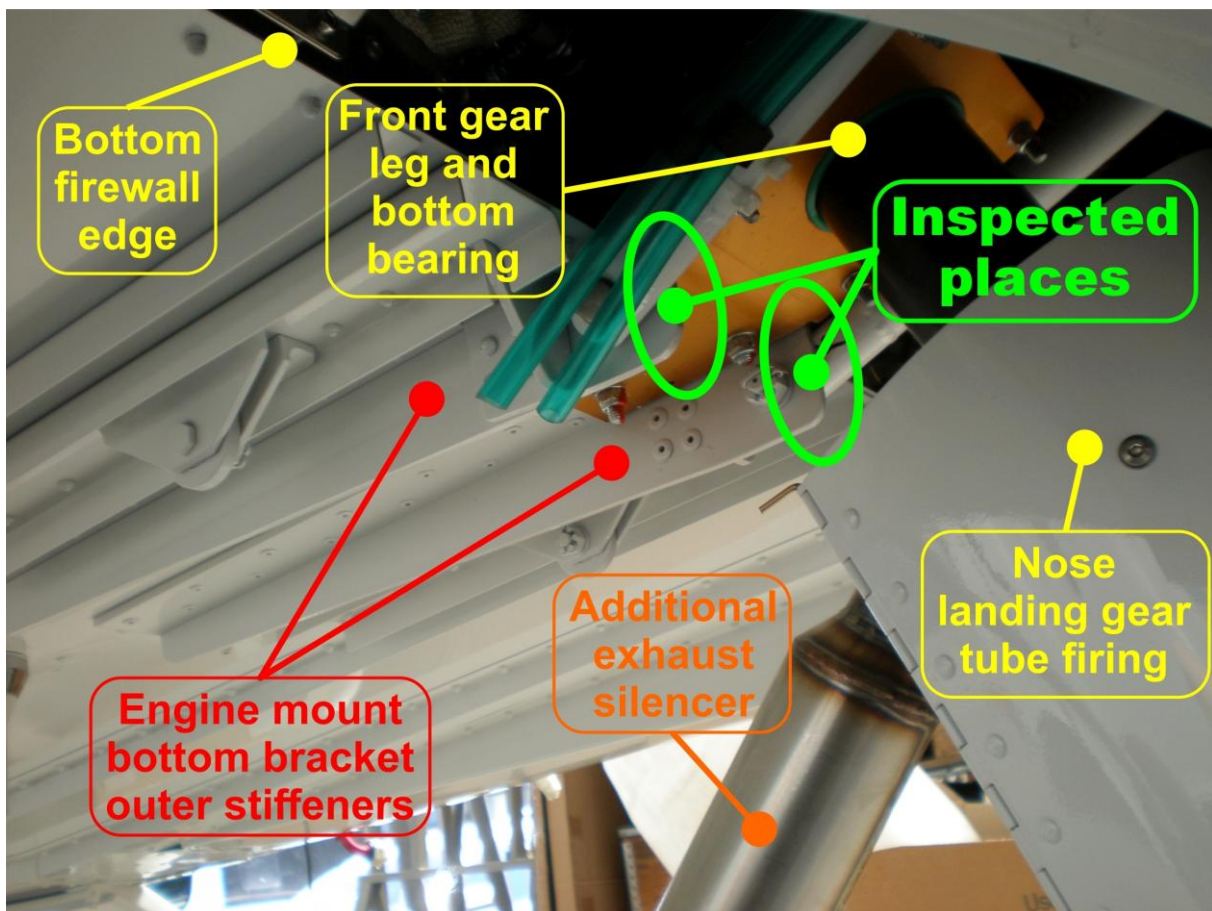
MODEL AFFECTED:	Viper SD-4 RTC aircrafts Viper SD-4 Night-VFR aircrafts
APPLICABILITY:	All aircrafts in conformity with EASA.A.606
SUBJECT:	P/N: SD4-A-1-509-L-7 - Engine mount bottom bracket outer stiffener – left, and P/N: SD4-A-1-509-R-7 - Engine mount bottom bracket outer stiffener – right ATA System: 71-40 Power Plant Attach Fitting
COMPLIANCE:	Implement this Service Bulletin when airplane is extensively used e.g. for pilot training and there is knowledge or suspicion of a hard landing or bounced landing/PIO or executed unintentional spin with possibility to exceedence of published load factor or exceeding the published load factor (g-force limit +4g ÷ -2g). Recommended for all aircraft in service.
DESCRIPTION:	Front edge of both engine mount bottom bracket outer stiffeners in place of stiffener and bottom engine mount connection point near fitted bolt hole.
REASON:	Based on investigation executed on one of Viper SD-4 RTC aircraft there was identified crack on part P/N: SD4-A-1-509-L-7 - Engine mount bottom bracket outer stiffener. Mentioned crack was assessed as service based failure probable induced by hard landing / bounced landing / on nose landing which results crack on stiffener in combination with intensive usage of aircraft. On the basis of the finding, it is recommended: 1) In the case of the aircraft that meet the conditions described above, without unnecessary delay, carry out an inspection of the critical node in the way described in this service bulletin. 2) Also in the case of the aircraft after hard landing that do not meet the conditions described above in this part, carry out the inspection of the critical node of the structure in the way described in this service bulletin. 3) In the case of other aircraft, carry out the inspection of the critical node of the structure specified in this service bulletin till the end of the year 2022 (31 st December of 2022).
MANPOWER:	Persons with approved qualifications for the corresponding aircraft type. EASA Part 145, Part M or Part ML Maintenance organization
LABOR TIME:	1 person, approx. 0,5 working hours
MATERIAL:	<u>Required tools for inspection:</u> Optical device – magnifying glass or endoscope/borescope and lamp/torch or Optical instrument (digital camera, video camera, mobile phone with a camera, endoscope/borescope) in combination with PC and appropriate software – graphic viewer
	<u>Interchangeability of parts:</u> N/A
	<u>Required parts for replacement:</u> N/A
	<u>Special compounds/treatments/fluids</u> ➤ Liquid penetrant for non-destructive testing – if applicable

REFERENCES:	/1/ TOM-TC-01/15-AMM Viper SD-4 RTC / Night-VFR Maintenance Manual /2/ TOM-TC-01-IPC.A - Viper SD4 – Illustrated Parts Catalogue
WEIGHT:	Not affected
BALANCE:	Not affected
ELECTRICAL LOAD DATA:	Not affected
SUPPORT INFORMATION:	Any possible support for Viper SD-4 RTC aircrafts contact: TOMARK s.r.o., Strojnícka 5, 080 01 Prešov, Slovak republic https://www.tomarkaero.com/kontakt/ , E-Mail: service@tomarkaero.com

ACCOMPLISHMENT INSTRUCTIONS:

WARNING !

- ! Park the airplane in a sufficiently large parking area.
 - ! To prevent accidental movement, secure with a parking brake in the airplane's cockpit (see /2/) or secure the wheels with chocks.
1. Identify the places for inspection on the bottom side of the fuselage /2/ – just in the middle under bottom firewall vs bottom fuselage skin connection edge at the front part of the engine mount bottom bracket stiffeners in place of connection of the engine mount bottom beams and near fitted bolts.
See figure below for better orientation.



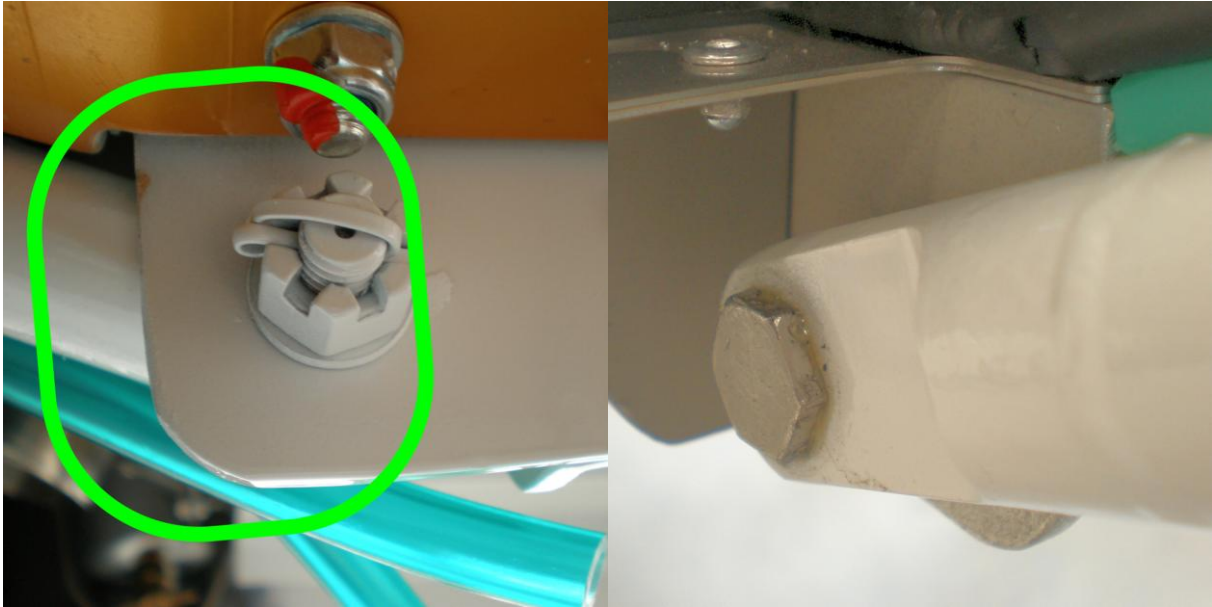
Legend: The view is pointed to inspected places from the right side of the nose landing gear tube firing.

2. The inspected places must be clear and dry.
Remove the dirt (dust, oil) from the surfaces of the places to be inspected. Clear them by suitable cleaning agent and tools if needed.

ATTENTION ! Do not use any agent that could damage the surface protective layer of the paint.

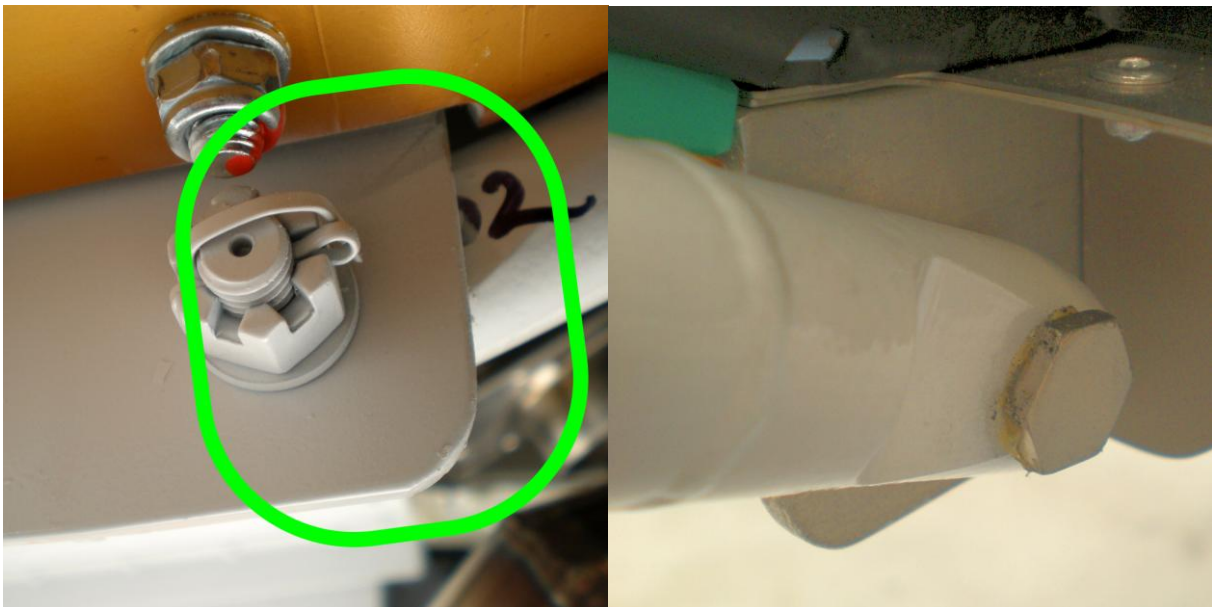
3. Execute detailed visual inspection of front edge of the right engine mount bottom bracket outer stiffener (P/N: SD4-A-1-509-R-7 /2/) in place of stiffener and bottom engine mount beam connection point near fitted bolt hole. Check whole place between front edge of stiffener and fitted bolt spacers on both sides of the stiffener (head and nut) for crack(s). If needed and suitable use any optical instrument for non-destructive testing or even liquid penetrant testing method, if applicable.

See figure below for better orientation - view of the inspected area of the right stiffener front part from the nut and from the fitted bolt head.



4. Execute detailed visual inspection of front edge of the left engine mount bottom bracket outer stiffener (P/N: SD4-A-1-509-L-7 /2/) in place of stiffener and bottom engine mount beam connection point near fitted bolt hole. Check whole place between front edge of stiffener and fitted bolt spacers on both sides of the stiffener (head and nut) for crack(s). If needed and suitable use any optical instrument for non-destructive testing or even liquid penetrant testing method, if applicable.

See figure below for better orientation – view of the inspected area of the left stiffener front part from the nut and from the fitted bolt head.

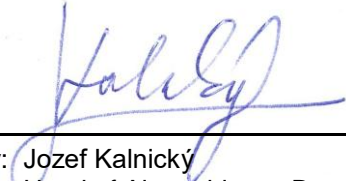


Recommendation:

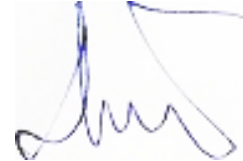
Perform mentioned above inspection procedure during each standard 100 h / 1 year maintenance check prescribed by /1/.

Final actions

1. In case that any crack was detected contact TOMARK, s.r.o. with information about technical data of respective aircraft and send an evidence about detected crack – clear and good readable photo documentation, immediately.
2. Make records to the airplane documentation (Service Log-Book) – regarding this Service Bulletin accomplishment and identified state.
3. If any crack was not detected send information about the bulletin implementation to airplane manufacturer with evidence; e.g. copy/photocopy of records in airplane documentation (Service Log-Book).



Compiled by: Jozef Kalnický
Position: Head of Airworthiness Dpt.
Date: 24.JUN 2022



Approved by: Slavomír Dobrovič
Position: Head of Design Dpt.
Date: 27.JUN 2022