

*issues***NOTIFICATION BULLETIN No. RTC-051b R1**

**TECHNICAL CONTENT OF THIS DOCUMENT IS APPROVED ON
THE BASIS OF AUTHORIZATION DOA NO. EASA.21J.057.**

- 1. CONCERNING TO:** All airplanes SPORTSTAR RTC except airplanes SPORTSTAR RTC S/N 20151729, Reg. N. OE-ASA and S/N 20192112, Reg. N. S5-DNK (on these airplanes, the exhaust pipelines were installed by means of the bulletin No. RTC-044b).
- 2. REASON:** Based on the experience from the operation of the airplanes, the airplane manufacturer allows the installation of modified exhaust pipelines Dwg. No. E6 18-23 01, E6 18-24 01, E6 18-25 01, E6 18-26 01. A major benefit, leading to increased life of the exhaust system, is to increase the wall thickness at the location of the ball joint where the original version has a wall thickness of approximately 0.4 mm and the modified version has thickness 1 mm.
- 3. REQUIRED ACTIONS:**
1. Replace the original exhaust pipelines Dwg. No. E6 18-11 01, E6 18-12 01, E6 18-13 01, E6 18-14 01 by the modified exhaust pipelines Dwg. E6 18-23 01, E6 18-24 01, E6 18-25 01, E6 18-26 01.
 2. Record the bulletin implementation in the Logbook.
- 4. LATEST DAY OF THE ACTION:** As necessary.
- 5. CARRIED OUT BY:** Organization with authorization for maintenance/repairs of this type of airplane in accordance with Part M or Part 145.
- 6. COSTS COVERED BY:** Operator / owner of the airplane.
- 7. NECESSARY MATERIAL:** In accordance with the text of the bulletin.
- 8. WORK PROCEDURE:** In accordance with the text of the bulletin.
- 9. APPENDICES:** None.

Valid from: 26. 01. 2023

1. Description of exhaust system

The modified exhaust pipelines differ from the original exhaust pipelines by replacing the flexible parts of individual exhaust pipeline with the new hydro-formed pipeline with ball joints.

The geometry of the whole exhaust system, the exhaust collector, the cross-section of the pipeline, the length of the flue gas routes and the way of installation in the airplane do not change.

NOTE: Modified exhaust pipelines are only compatible with E6 18-10 01 exhaust collector.

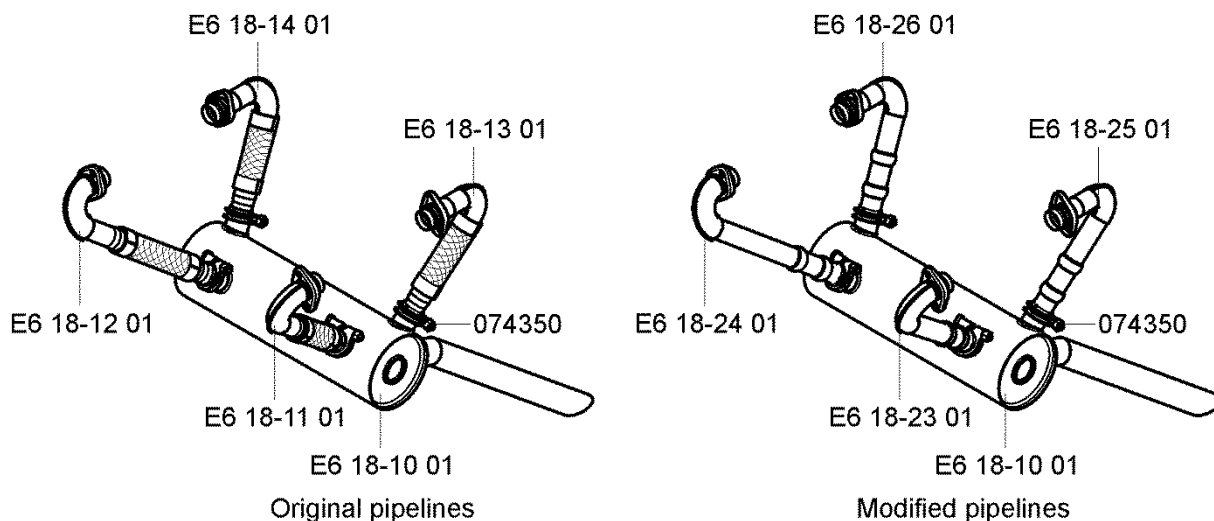


Fig. 1 – Exhaust system

2. Work procedure

2.1 Necessary tools

See Airplane Maintenance Manual for SportStar RTC (doc. No. ERTC022-10-AS), Section 78-20.

2.2 Necessary material (in accordance with RTC-051B)

Name	Marking	Nomencl.	Quantity
Exhaust pipe – front left		E6 18-23 01	1 pc
Exhaust pipe – front right		E6 18-24 01	1 pc
Exhaust pipe – rear left		E6 18-25 01	1 pc
Exhaust pipe – rear right		E6 18-26 01	1 pc

Material shall be supplied by the airplane manufacturer.

2.3 Work procedure

NOTE: Modified exhaust pipelines can be combined with the original pipelines.

2.3.1 Exhaust system removal

Remove E6 18-15 01 Exhaust system according the procedure mentioned in the Airplane Maintenance Manual for SportStar RTC (doc. No. ERTC022-10-AS), Section 78-20.

2.3.2 Exhaust system installation

WARNING

CHECK THE EXHAUST SYSTEM THOROUGHLY. THE EXHAUST GASES MAY PERVADE THROUGH DAMAGED MUFFLER INTO THE COCKPIT. THIS MAY CAUSE DEATH OR INJURY OF PERSONS, ENGINE POWER LOSS, OR FIRE.

- a) Check the individual parts of the exhaust system to make sure that they are not damaged, burnt or torn.
- b) Install the shock-absorbers (10, Fig. 2) between the brackets (8; 9) and attach them with screws (11), nuts (12) and bushings (13); do not tighten the nuts.
- c) Attach the front brackets (7); slightly tighten the screws (14).
- d) Remove the end caps from the openings in the cylinder heads.
- e) Attach the heat exchanger to the muffler according to the procedure mentioned in the Aircraft Maintenance Manual for Sportstar RTC (doc. No. ERTC022-10-AS), Section 21-40.
- f) Attach the muffler (1) to the brackets (7; 9) with clamps (6), screws (16), nuts (17) and washers (18); do not tighten the nuts.
- g) Put the sleeves (5) on the muffler socket pipes (1).

CAUTION

FIT THE MUFFLER BY ROTATION AND BY SHIFT THAT THE METAL HOSE OF THE EXHAUST PIPE MUST NOT BE DEFORMED AND COMPLETELY STRAIGHT AFTER SLIDE INTO MUFFLER SOCKET PIPES AND AT THE SAME TIME INTO THE ENGINE CYLINDERS. YOU MUST SLIDE THE PIPES INTO THE MUFFLER SOCKET PIPES SO THAT YOU CANNOT SEE THE GAP IN THE GROOVE OF THE MUFFLER SOCKET PIPE.

- h) Align the exhaust pipelines (Fig. 3) in the straightened position.
- i) Slide the individual pipes (2, 3, 4, Fig. 2) on the muffler socket pipes (1); align the flanges on the cylinder heads, screw on the nuts (15) and tighten them slightly.
- j) Adjust the exhaust pipe clearance from the radiator hose and the oil filter. Clearance from the radiator hose must be min. 20 mm and clearance from the oil filter must be approximately 5 mm according to the procedure mentioned in the Aircraft Maintenance Manual for Sportstar RTC (doc. No. ERTC022-10-AS), Section 79-20.
- k) Tighten the sockets (5), nuts (12; 17) and screws by (14) with the prescribed torque of 8-10 Nm.
- l) Tighten the flange nuts (15) with the prescribed torque of 15 Nm.
- m) Check the shock absorbers (10). When tightening the exhaust pipeline clamps, the shock absorbers may be compressed and need to be tightened.
- n) Secure the screws (14) and fasteners of the clamps (16; 17) with a lockwire according to the procedure mentioned in the Aircraft Maintenance Manual for Sportstar RTC (doc. No. ERTC022-10-AS), Section 20-20.

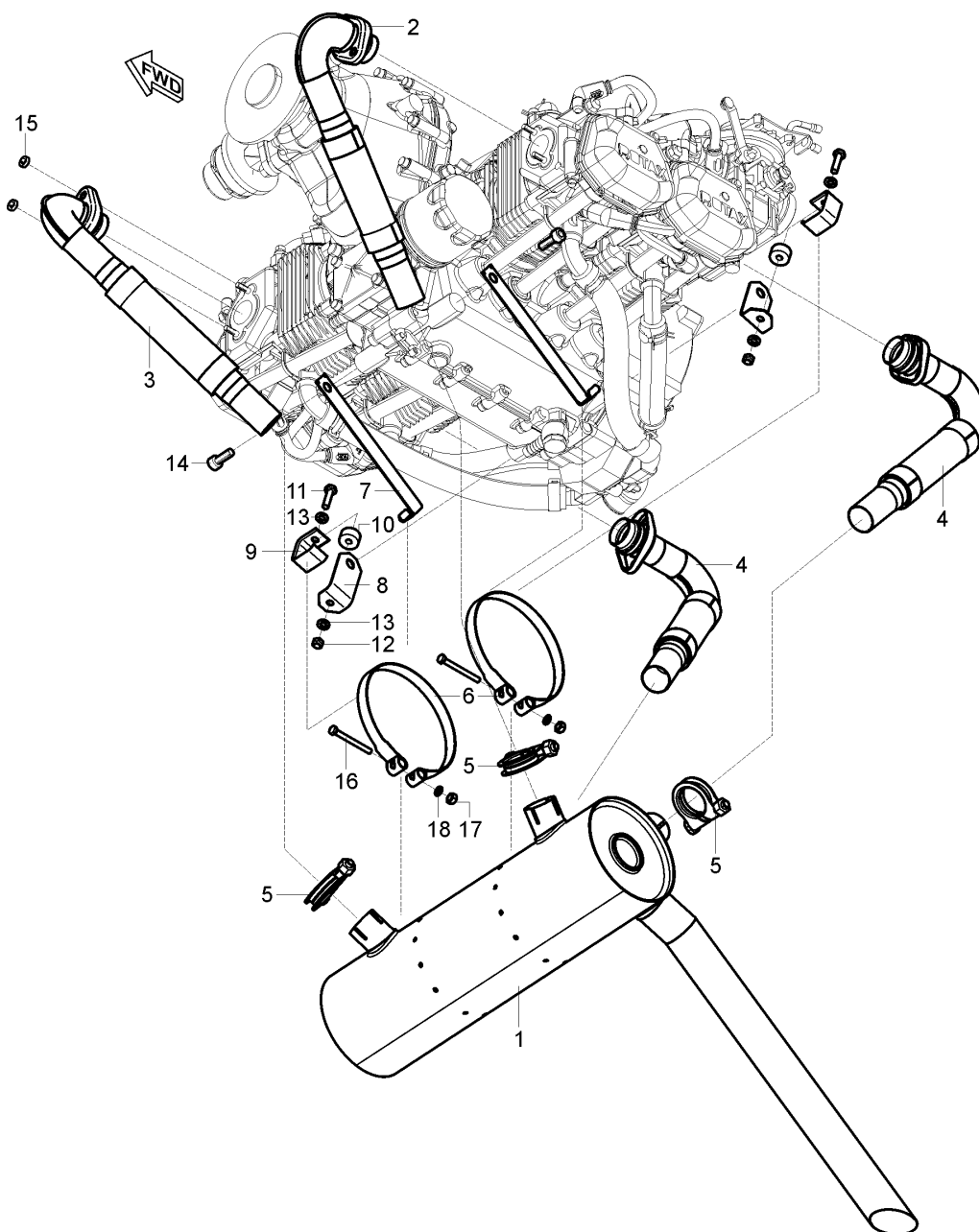


Fig. 2 – Exhaust system – removal / installation

Legend to Fig. 2

1	Muffler	10	Shock absorber (2 pcs.)
2	Left front pipe	11	Screw M6x25 (2 pcs.)
3	Right front pipe	12	Nut M6 (2 pcs.)
4	Rear pipe	13	Washer 6,4 (4 pcs.)
5	Sleeve	14	Screw M10x25 (2 pcs.)
6	Clamp	15	Nut M8 (8 pcs.)
7	Front bracket (2 pcs.)	16	Screw M5x50 (2 pcs.)
8	Rear upper bracket (2 pcs.)	17	Nut M5
9	Rear lower bracket (2 pcs.)	18	Washer 5,3 (2 pcs.)



- o) If necessary, install the exhaust temperature sensors according to the procedure mentioned in the Aircraft Maintenance Manual (doc. No. ERTC022-10-AS), Section 77-20.
- p) Connect the battery.
- q) Install the engine cowlings according to the procedure mentioned in the Aircraft Maintenance Manual (doc. No. ERTC022-10-AS), Section 71-10.
- r) Switch the electrical network on.
- s) Start the engine, do the engine test and check the exhaust system for leakage points and the exhaust temperature measurement function.

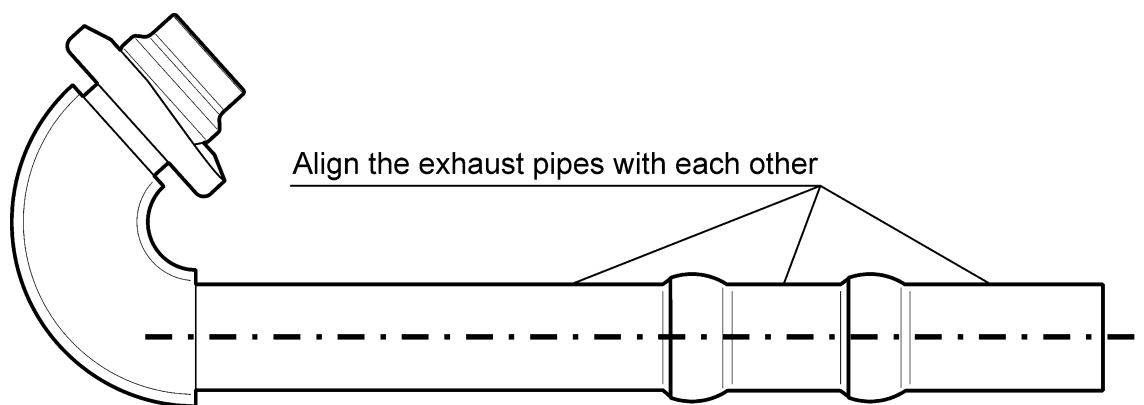


Fig. 3 – Exhaust pipelines – the coaxial alignment

3. Influence on airplane documentation

3.1 Accompanying technical documentation

Not affected.

3.2 Operation technical documentation

The authorized person will carry out this record in the Aircraft Logbook after bulletin implementation: „**Removal of the original exhaust pipelines Dwg. No. E6 18-11 01, E6 18-12 01, E6 18-13 01, E6 18-14 01 and installation of the modified exhaust pipelines Dwg. No. E6 18-23 01, E6 18-24 01, E6 18-25 01, E6 18-26 01** were carried out according to the Information Bulletin No. RTC-051b R1“ and they will add the date and their signature.

4. Influence on weight and balancing

Not affected.