Working instruction No. 1 for TN1000/40
Drive belt tensioning bolt

1. Remove the power plant according to MM section 4.10.9.
2. **Front engine mounting:** Remove and dispose the rear drive belt tensioning bolt M14x110, install a new bolt according to MM diagram 20 issued September 2018 in reverse direction. Use a new self-locking nut DIN985-M14-8-ZN and a new washer DIN125-15-St-ZN. Tension the drive belts according to MM section 4.10.2.
3. **Mid fuselage section, electrical wiring** (see wiring plan 10E202 in the aircraft log and Photo 3): Remove wire 032 from ground terminal of the condenser named "Kondensator" in 10E202 (Caution: May be residually charged!). Remove wire 17 from the Voltage reducing module named "Spannungsreduziermodul" in 10E202. Open the connector (with wires 52, 53, 54) close to the regulator named "Generatorregler" in 10E202.
4. **Engine bay:** Remove bolts 8 x M5 which fix the metal fire wall, remove fire wall.
5. **Engine bay:** Print the pattern attached to this working instruction, set the printer to scale 100% for printing the pattern.
   Make the cut out for scoop 10RU246 in the fire wall.
6. **Engine bay:** Make the same cut out in the rear main bulkhead (see Photo 1).
   Caution: Don't damage wiring loom and fuel lines!
7. **Engine bay:** Install a Ty-rap holder below the opening for the gas-strut * (see Photo 2).
8. **Engine bay:** Remove the starter motor wires and elongate them to new total length measured from rear main bulkhead: Positive wire 870mm / ground wire: 755mm. Fasten wire connectors "Klauke 23R 16 mm²" with crimping tool K05 DIN 46235 size 16 and ring terminals "S12981" with crimping tool K05 DIN 46235, size 16 / 25).
9. **Engine bay:** Install a rivet nut for the new position of the pipe clamp (see Photo 2), drill dia.7 mm.
10. **Engine bay:** Hold the (10Ru246) on the isolation fabric on the fire wall and make a cut out in the fabric matching the outer contour of the flange of the scoop. Glue the scoop to the rear main bulkhead
11. **Engine bay:** Glue the scoop to the rear main bulkhead. Sand the gluing surfaces and apply Epoxy resin/hardener Momentive LR285/LH286 mixed with cotton flocks and 5% Aerosil. Let cure at room temperature and post cure 18h at 60°C.
12. **Engine bay:** Re-install the fire wall. Glue the fire wall to the scoop (10Ru246) with Silicone (Silicone RTV 736) (see Photo 4). Secure the bolts with Loctite 243 and mark with red securing paint.
13. **Mid fuselage section:** Install a Ty-rap holder to the edge of the rear main bulkhead in front of the cut out for the scoop. Fix fuel return line and wiring loom to the new Ty-rap holder (Photo 3). **Caution:** Check that there is no interference with the control system!
14. **Mid fuselage section:** Re-connect wiring and connector disconnected under step 3.
15. **Engine bay:** Re-install power plant according to MM section 4.10.9. Fix starter wires and engine wiring loom with the new Ty-Rap Halter below the opening for the gas strut (see Photo 2). Fix starter wires and engine wiring loom with the pipe clamp to the new rivet nut (see step 9.
16. Check for clearances during engine retraction/extension especially drive belt tensioning bolt and wires.
17. Perform engine test run.

*Ty-rap holder installation: Remove the foam rubber tape with a chisel from the holder. Close the hole in the holder. Sand gluing surfaces. Use „UHU-Plus schnellfest" for gluing.

Author: Wilhelm Dirks
Issued 27.09.2018

Working instruction No. 1 for TN1000/40
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Material list

DG Part No. 21000139 Retrofit kit consisting from:

No.	designation	items
10Ru246	scoop	1
Klauke 23R 16 mm²	wire connector	2
S12981	ring terminal	2
MIL-W-_22759/16-6-WS	wire (WG 6)	1,6m
MU-NT-SEKPF-A2-M5	rivet nut M5	1
DIN912-M5x20-8.8 ZN	bolts	1
DIN985-M14-ZN-8	self locking nut	1
DIN931-M14x110-8.8-ZN	bolt	1
DIN125-15-ST-ZN	washer	1
-	Ty-Rap + holder	10

In addition if not at hand

DG Part No.	Bezeichnung	items
30002041	Silicone RTV 736, rot, 300 ml tube	1
3000030	Loctite 243 10 ml tube	1

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Drive belt tensioning bolt

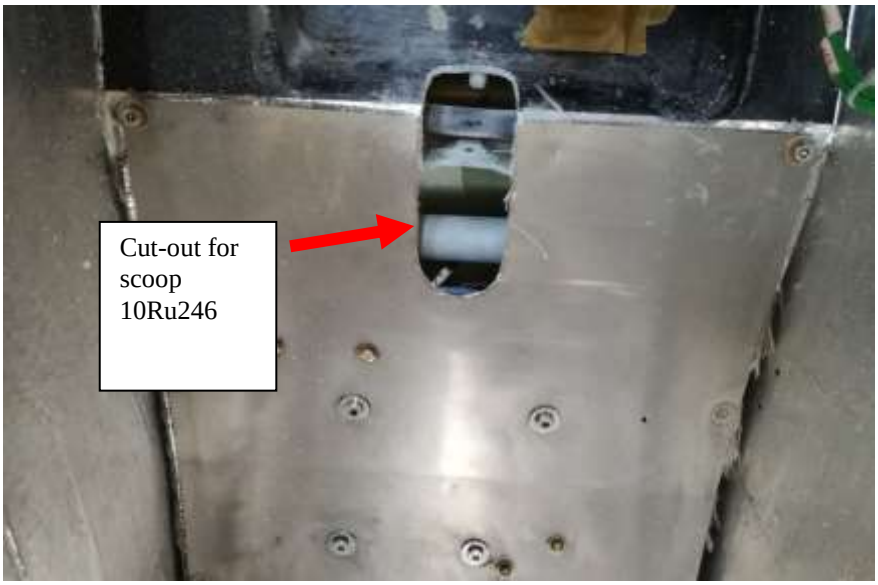


Photo 1:
Fire wall and rear main bulkhead with cut-out, view from engine bay, power plant removed

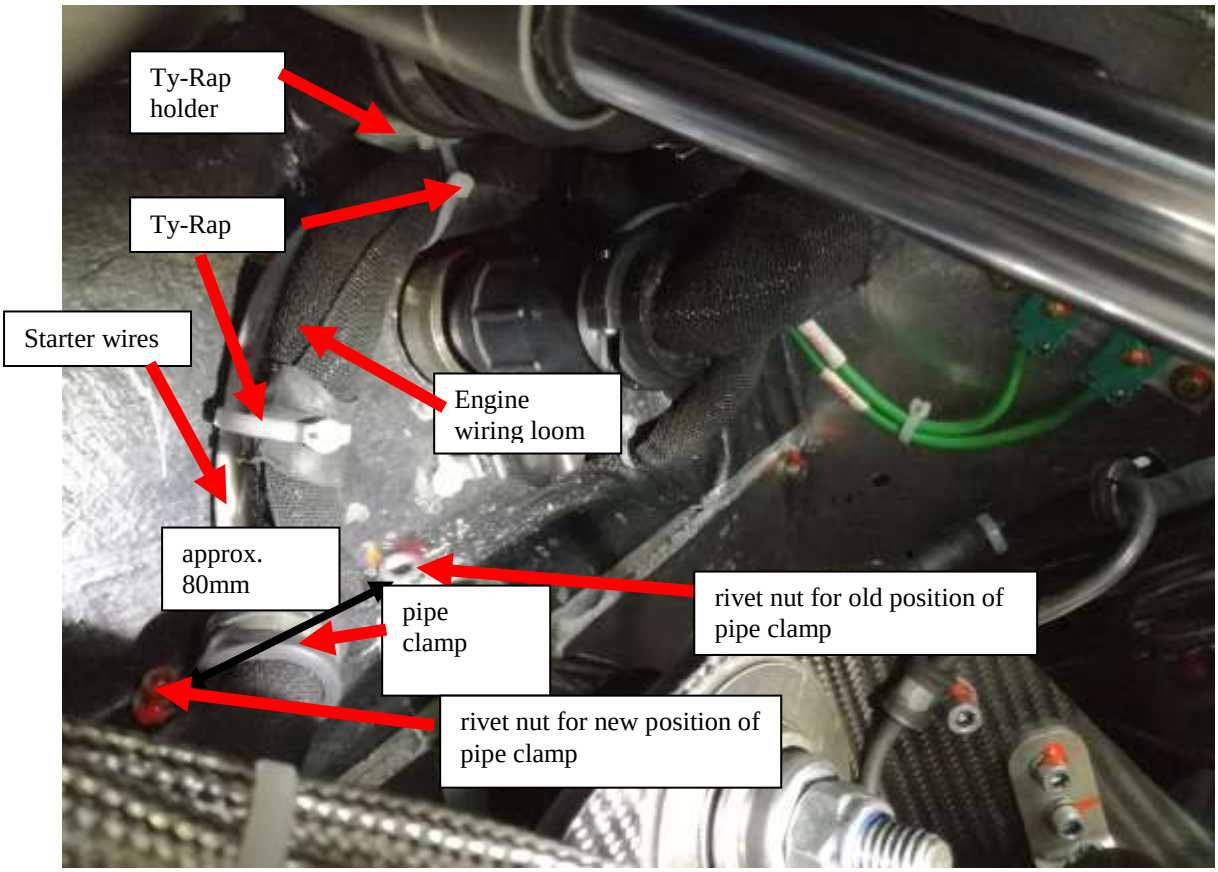


Photo 2: Wire routing in engine bay

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Issued 27.09.2018

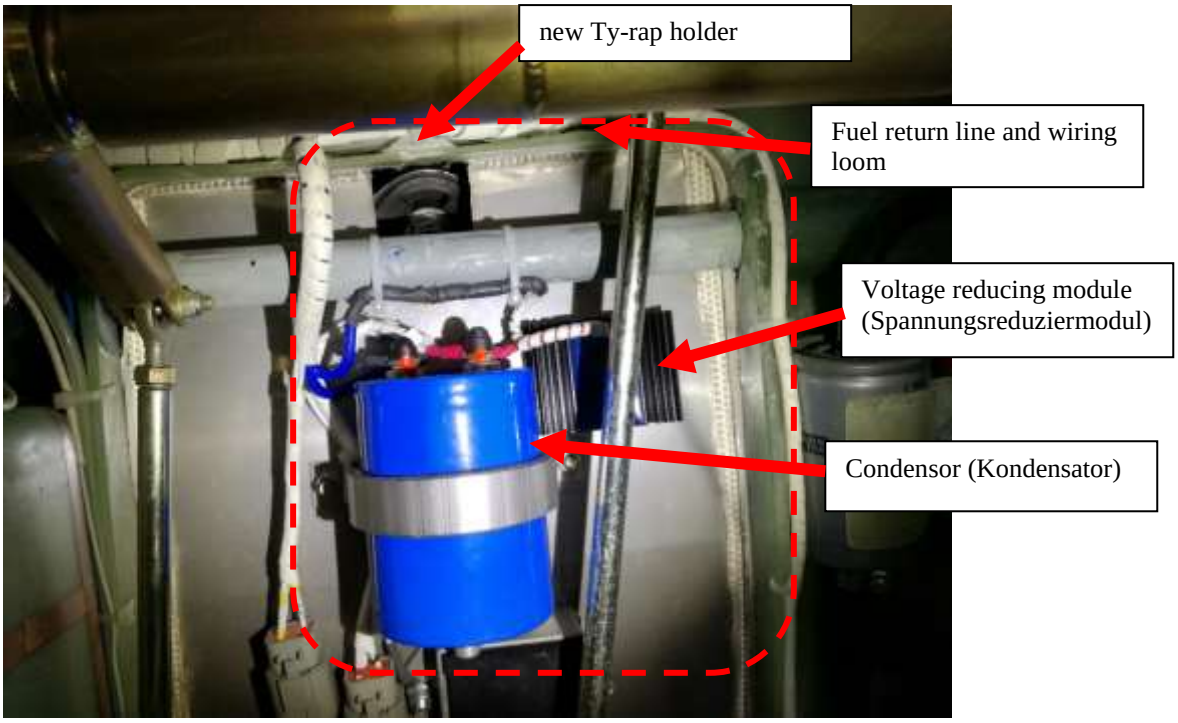


Photo 3: Wire routing in mid fuselage, view from the front, shown without scoop

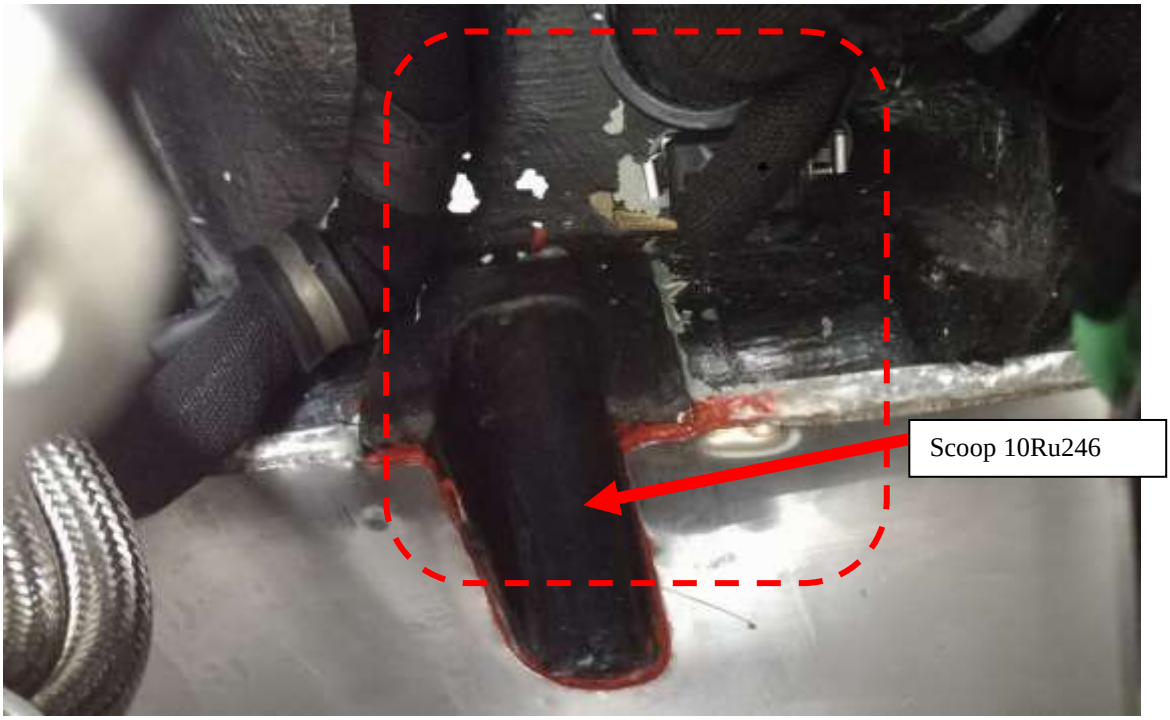
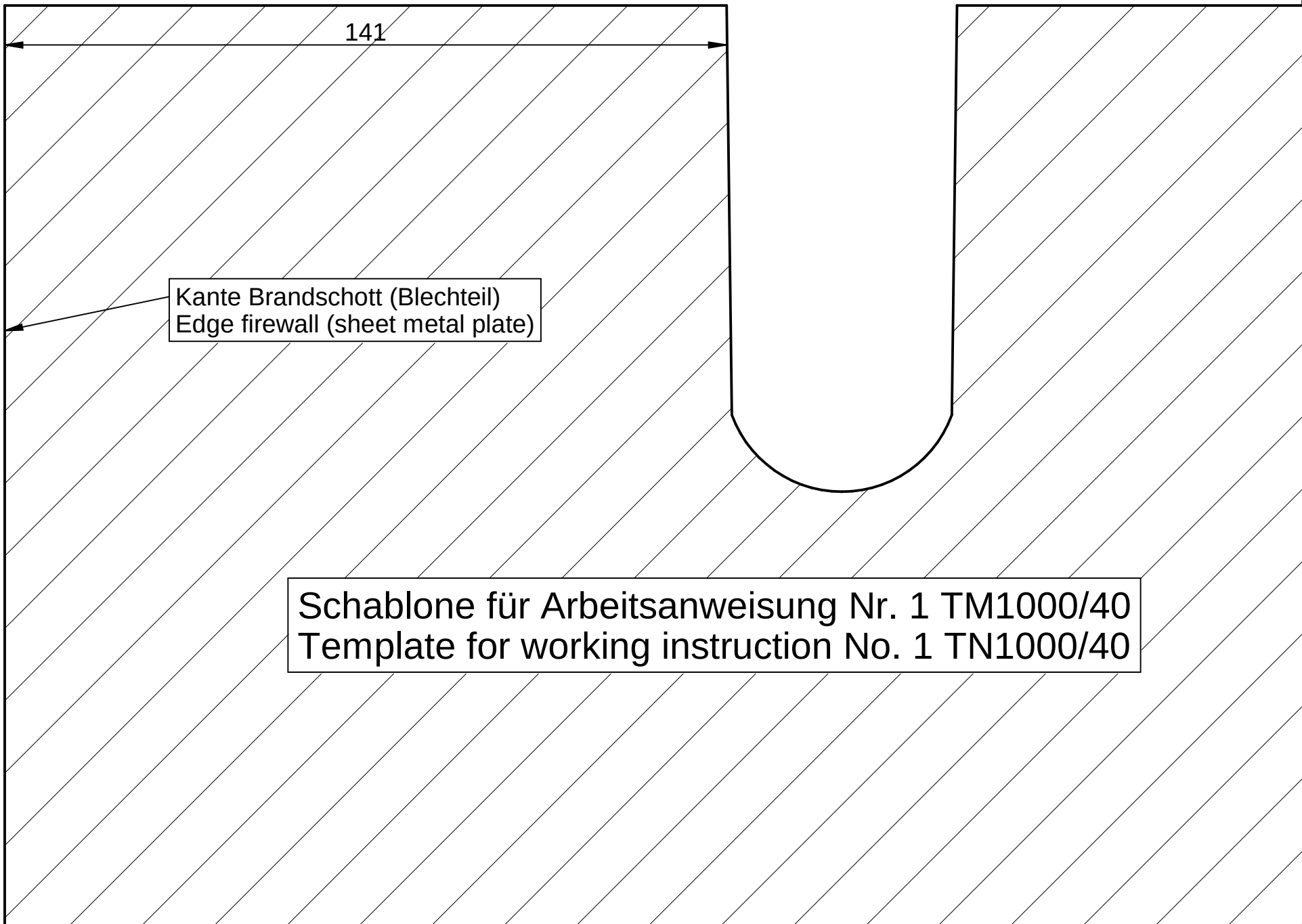


Photo 4 Scoop 10Ru246 installed, view from engine bay

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Issued 27.09.2018


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Kante Brandschott (Blechteil)
Edge firewall (sheet metal plate)
Schablone für Arbeitsanweisung Nr. 1 TM1000/40
Template for working instruction No. 1 TN1000/40