

Contact person	Date	Reference	Page
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**Review of bull bar according to TSFS 2016:22**

(3 appendices)

**Summary**

Review of bull bar and lamp holders according to the requirements in Swedish Transport Agency’s regulation TSFS 2016:22 Appendix 1, Section 49 – Projection of parts on external surface of vehicle together with supplements of TSFS 2017:10, TSFS 2017:61, TSFS 2017:78, TSFS 2018:41, TSFS 2018:44 and with reference to directive 92/114/EEC and ECE Regulation No. 61. Consideration has also been taken with aspects of EC Regulation No.661/2009.

Note that his assessment is an update of the previously issued assessment named “8P08634\_Tarmetec\_Bullbar\_Scania\_Rev.2” where two powder-coated products have been added.

**1. Assignment**

Review of bull bar to motor vehicle class N<sub>2</sub> and N<sub>3</sub> (motor vehicle for goods over 3.5 tonnes) according to TSFS 2016:22 Appendix 1, Section 49 – Projection of parts on external surface of vehicle.

Client: Tarmetec Ltd in Tartu, Estonia.

**2. Product**

The product is intended for mounting on Scania S/R/G/P 2016- motor vehicle with weight over 3.5 tonnes. The product’s drawings are provided in appendices 1 and 2.

Material: tubes made of AISI 304 stainless steel, Ø 60 mm and Ø 76 mm

Manufacturer: Tarmetec Ltd, Tartu, Estonia

Art.	Mounting instructions	Vehicle
2761788	8644908	Scania S/R/G/P 2016-
3240793 (powder-coated)		
2761789		
3240794 (powder-coated)		

**RISE Research Institutes of Sweden AB**

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### 3. Method

Review of the geometry and radius of the products according to TSFS 2016:22 section 49; which refers to directive 92/114/EEC and ECE Regulation 61, see below.

Consideration has also been taken with aspects of EC Regulation No.661/2009, Chapter II, article 4 paragraph 3 and article 5, paragraphs 1 and 2f.

Method	Valid for product
Directive 92/114/EC, section 3 – General requirements ECE Regulation 61, section 5 – General specifications	2761788
	3240793
	2761789
	3240794
Directive 92/114/EC, section 4.5 – Protective devices (bumpers) ECE Regulation 61, section 6.5 – Protective devices (bumpers)	2761788
	3240793
	2761789
	3240794

### 4. Assessment

According to our review the above mentioned types of lamp holder for mounting on motor vehicles with weight over 3.5 tonnes do not deviate from the requirements in TSFS 2016:22 Appendix 1, Section 49 – Projection of parts on external surface of cab.

This assessment shall be attached to the client’s confirmation that will follow each delivery of the product.

**RISE Research Institutes of Sweden AB**  
**Chemistry and Applied Mechanics - Mechanical Reliability**

Performed by

Examined by

Pooya Tabib

Jukka Holappa

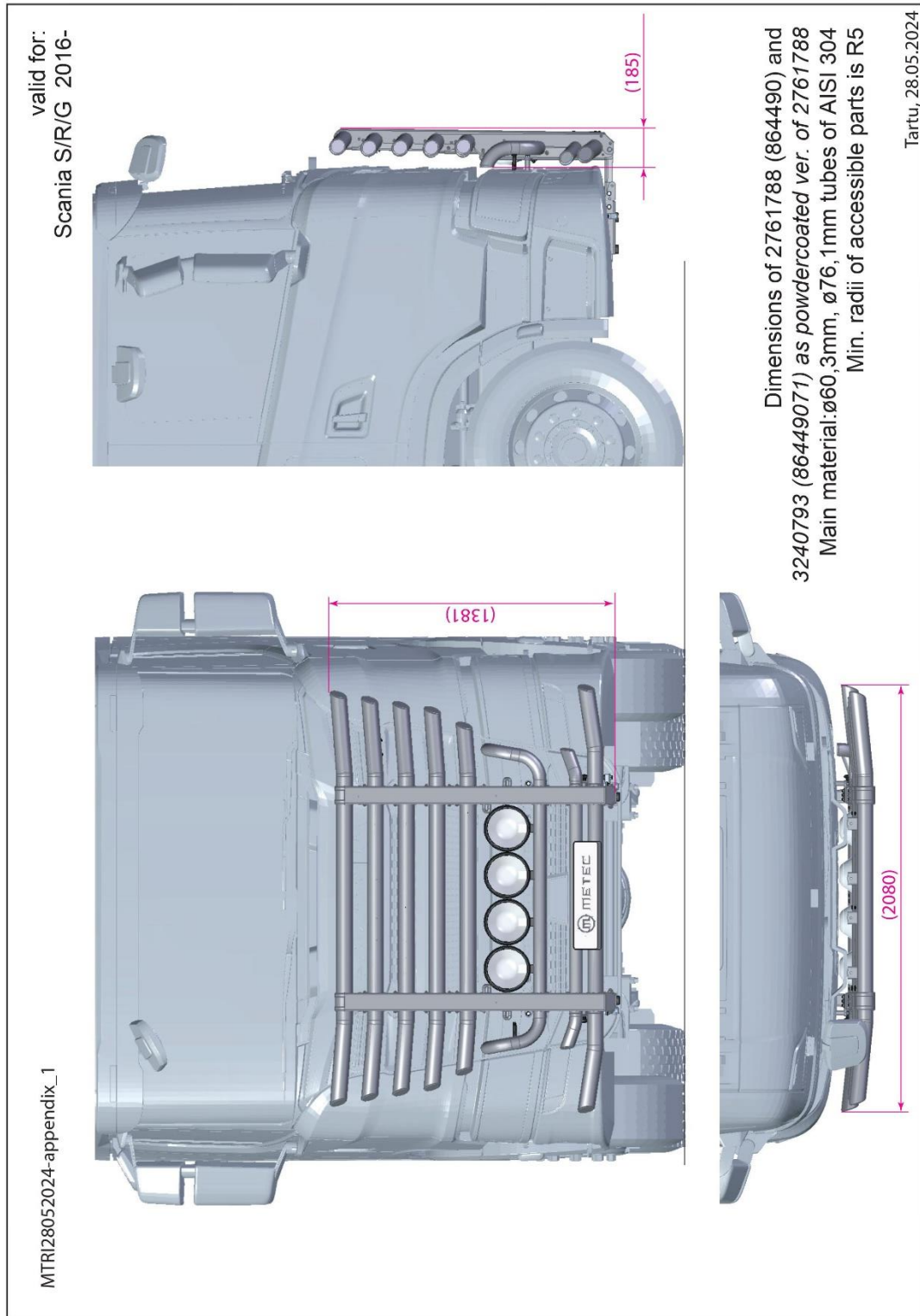
### Appendices

Appendix 1 – Drawing 2761788 and 3240793, dated 28-05-2024

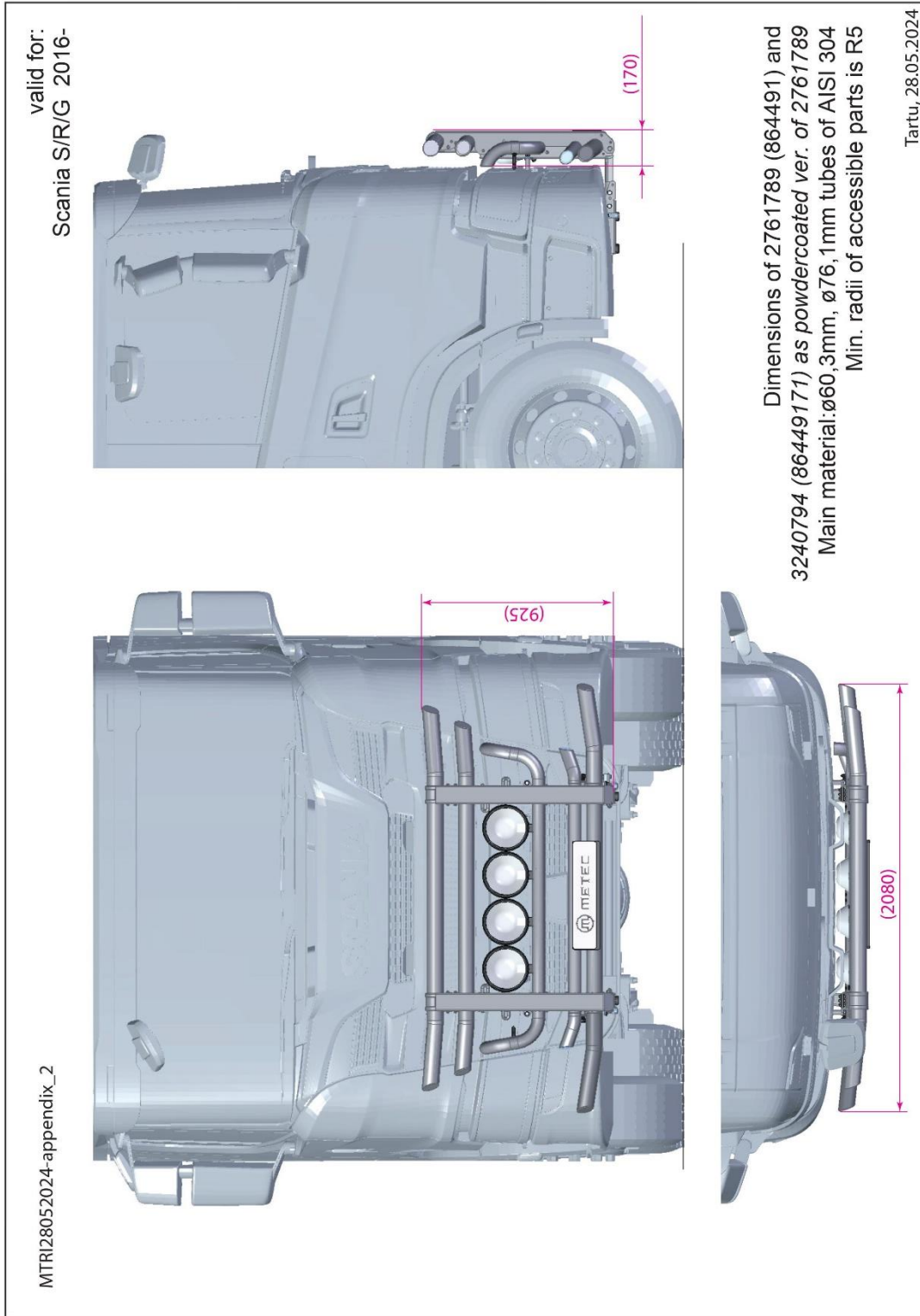
Appendix 2 – Drawing 2761789 and 3240794, dated 28-05-2024

Appendix 3 – Mounting instruction 8644908, dated 28-05-2024

Appendix 1



Appendix 2



### Appendix 3



app.3 of MTRI28052024

Paigaldusjuhend | Mounting instructions | Инструкция по установке | Montageanleitung **8644908**

## Scania S, R, G, P cabs, 2016-

Art. 2761788 (864490), 2761789 (864491), 3240793 (86449071), 3240794 (86449171)

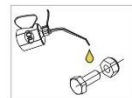
Rammraud FIN WING | Truck cattleguard FIN WING | Передняя дуга FIN WING | LKW Bullfänger FIN WING



20. Polt / bolt / болт / Bolzen M10x30 DIN 933	10	20. Polt / bolt / болт / Bolzen M10x30 DIN 7991	6
21. Polt / bolt / болт / Bolzen M10x30 DIN 7991	6	22. Polt / bolt / болт / Bolzen M8x20 DIN7380	8
22. Polt / bolt / болт / Bolzen M8x20 DIN7380	8	23. Polt / bolt / болт / Bolzen M8x25 DIN 7991	2
23. Polt / bolt / болт / Bolzen M8x25 DIN 7991	2	24. Polt / bolt / болт / Bolzen M8x25 DIN 933	2
24. Polt / bolt / болт / Bolzen M8x25 DIN 933	2	25. Liblikpolt / butterfly bolt / бабочка болт / Schmetterling Bolzen	2
25. Liblikpolt / butterfly bolt / бабочка болт / Schmetterling Bolzen	2	26. Mutter / nut / гайка / Mutter M10	20
26. Mutter / nut / гайка / Mutter M10	20	27. Puks / bushing / букса / Buchse	2
27. Puks / bushing / букса / Buchse	2	28. Seib / washer / шайба / Scheibe 20x37x3	2
28. Seib / washer / шайба / Scheibe 20x37x3	2	29. Seib / washer / шайба / Scheibe 13x24x2,5	2
29. Seib / washer / шайба / Scheibe 13x24x2,5	2	30. Seib / washer / шайба / Scheibe 10,5x30x2,5	20
30. Seib / washer / шайба / Scheibe 10,5x30x2,5	20	31. Seib / washer / шайба / Scheibe 10,5x20x2	12
31. Seib / washer / шайба / Scheibe 10,5x20x2	12	32. Seib / washer / шайба / Scheibe 8,4x16x1,6	2
32. Seib / washer / шайба / Scheibe 8,4x16x1,6	2	33. Seib / washer / шайба / Scheibe 6,4x18x1,6	2
33. Seib / washer / шайба / Scheibe 6,4x18x1,6	2	34. Vedruseib / spring washer / пружинная шайба / Federnscheibe A20	2
34. Vedruseib / spring washer / пружинная шайба / Federnscheibe A20	2	35. Vedruseib / spring washer / пружинная шайба / Federnscheibe A12	2
35. Vedruseib / spring washer / пружинная шайба / Federnscheibe A12	2	36. Vedruseib / spring washer / пружинная шайба / Federnscheibe A10	2
36. Vedruseib / spring washer / пружинная шайба / Federnscheibe A10	2	37. Vedruseib / spring washer / пружинная шайба / Federnscheibe A8	10
37. Vedruseib / spring washer / пружинная шайба / Federnscheibe A8	10	38. Vedruseib / spring washer / пружинная шайба / Federnscheibe A5	2
38. Vedruseib / spring washer / пружинная шайба / Federnscheibe A5	2	39*. Polt / bolt / болт / Bolzen M20x220	2
39*. Polt / bolt / болт / Bolzen M20x220	2	40*. Kronstein / bracket / кронштейн / Konsole	1
40*. Kronstein / bracket / кронштейн / Konsole	1	41*. Kronstein / bracket / кронштейн / Konsole	1
41*. Kronstein / bracket / кронштейн / Konsole	1	42*. Kronstein / bracket / кронштейн / Konsole	1
42*. Kronstein / bracket / кронштейн / Konsole	1	43*. Kronstein / bracket / кронштейн / Konsole	1
43*. Kronstein / bracket / кронштейн / Konsole	1	44. Kummiseib / rubber washer / резиновая шайба / Gummisscheibe	6
44. Kummiseib / rubber washer / резиновая шайба / Gummisscheibe	6		
1. Rammraud / cattle guard / передняя дуга / Bullfänger	1		
2. Kronstein / bracket / кронштейн / Konsole	1		
3. Kronstein / bracket / кронштейн / Konsole	1		
4. Kronstein / bracket / кронштейн / Konsole	1		
5. Kronstein / bracket / кронштейн / Konsole	1		
6. Kronstein / bracket / кронштейн / Konsole	2		
7. Kronstein / bracket / кронштейн / Konsole	1		
8. Kronstein / bracket / кронштейн / Konsole	1		
9. Kronstein / bracket / кронштейн / Konsole	1		
10. Kronstein / bracket / кронштейн / Konsole	1		
11. Kronstein / bracket / кронштейн / Konsole	1		
12. Laterna kinnituskronstein / lamp fixing bracket / крепежный кронштейн лампы / Lampenbefestigungsklammer	4		
13. Laterna kinnituskronstein / lamp fixing bracket / крепежный кронштейн лампы / Lampenbefestigungsklammer	4		
14. Puks / bushing / букса / Buchse	2		
16. Polt / bolt / болт / Bolzen M20x170	2		
17. Polt / bolt / болт / Bolzen M12x170	2		
18. Polt / bolt / болт / Bolzen M20x40	2		
19. Polt / bolt / болт / Bolzen M10x70	2		

\* - for protruding bumper

M6 - 11 Nm  
M8 - 25 Nm  
M10 - 50 Nm  
M12 - 90 Nm  
M20 - 245 NM



Kaal / Weight / Масса / Gewicht: 88,1 kg

Paigaldusaeg / Time of mounting / Время установки / Einbauzeit: 180 min

Vajalikud tööriistad / Required Tools / Необходимые инструменты / Benötigte Werkzeuge



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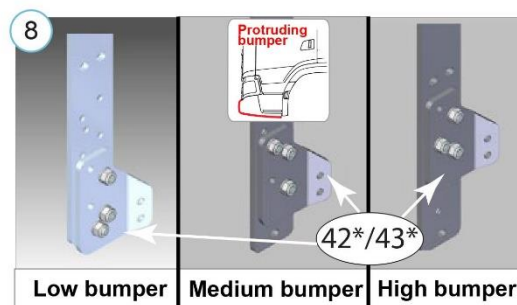
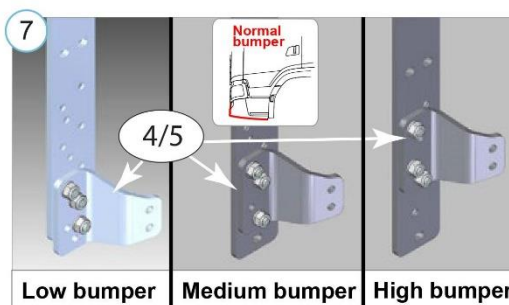
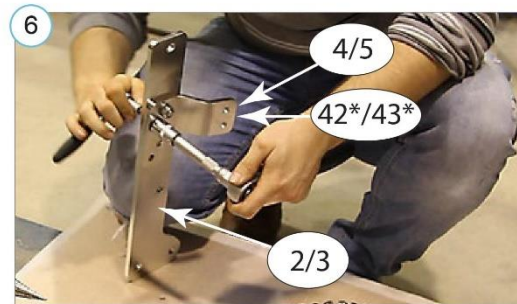
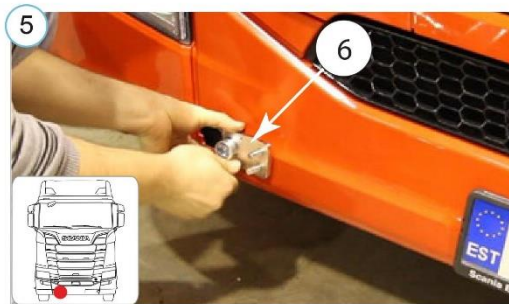
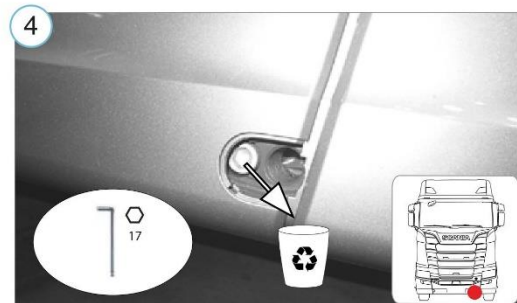
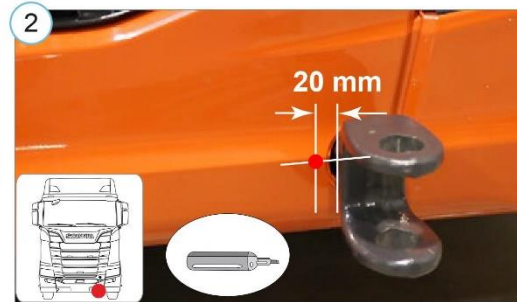
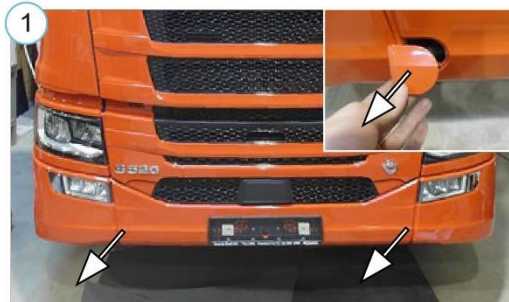
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## Appendix 3

### Scania S, R, G, P cabs, 2016-

Rammraud FIN WING | Truck cattleguard FIN WING | Передняя дуга FIN WING | LKW Bullfänger FIN WING



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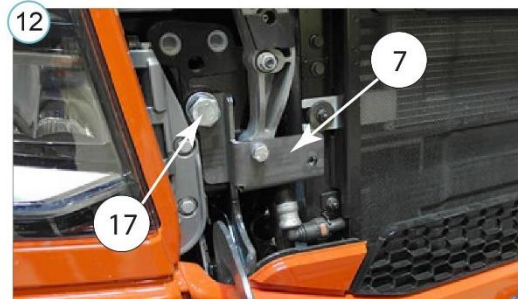
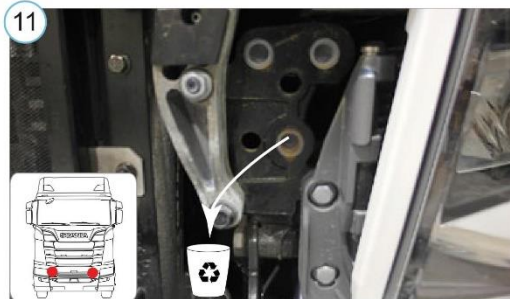
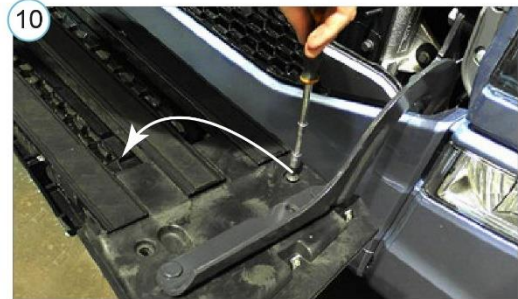
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Scania S, R, G, P cabs, 2016-

Rammraud FIN WING | Truck cattleguard FIN WING | Передняя дуга FIN WING | LKW Bullfänger FIN WING

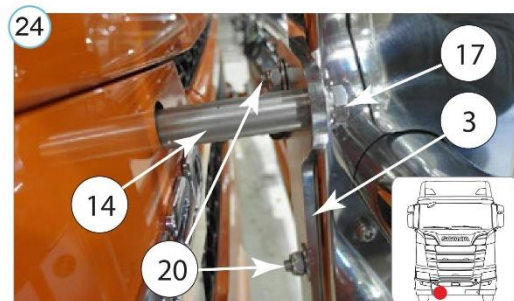
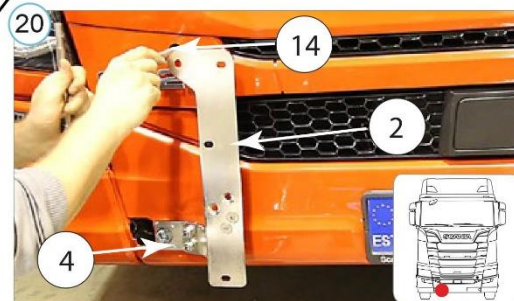
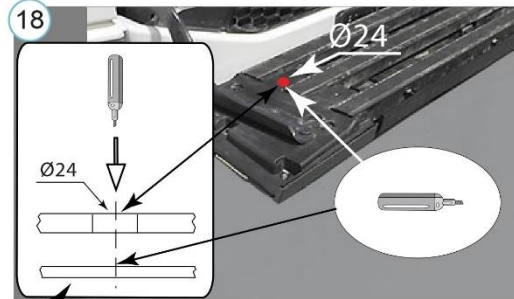




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Scania S, R, G, P cabs, 2016-

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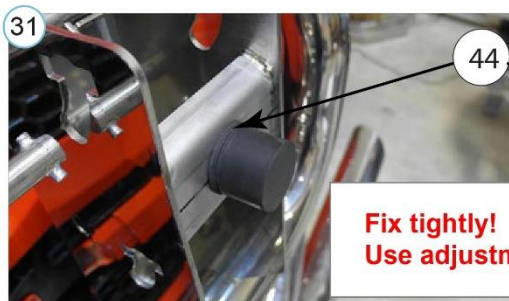
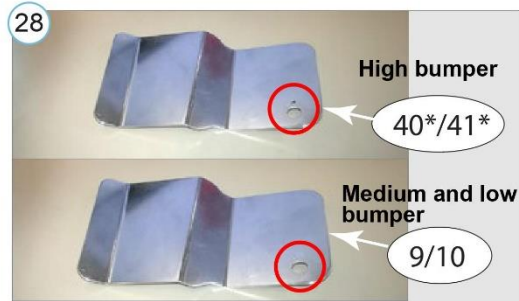
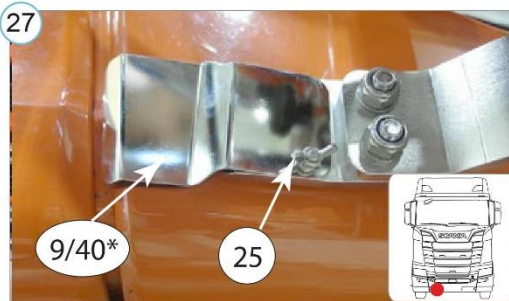
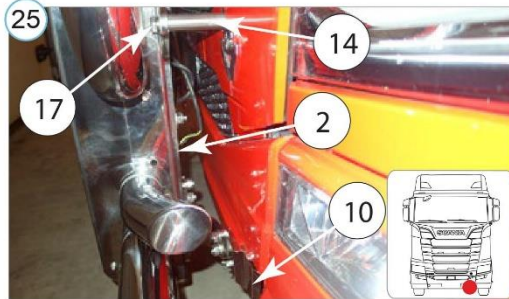




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#### Scania S, R, G, P cabs, 2016-

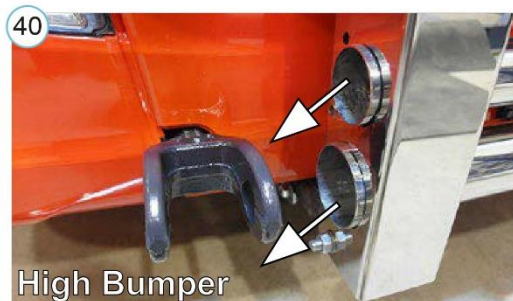
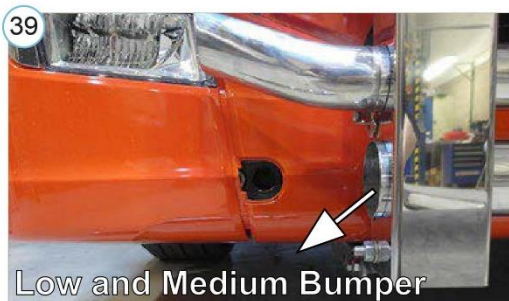
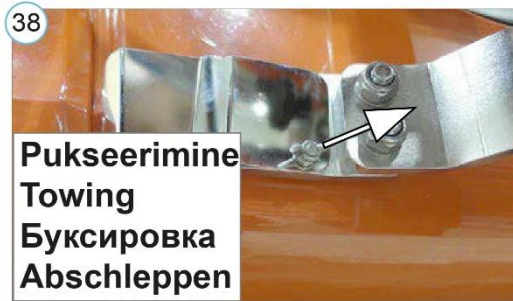
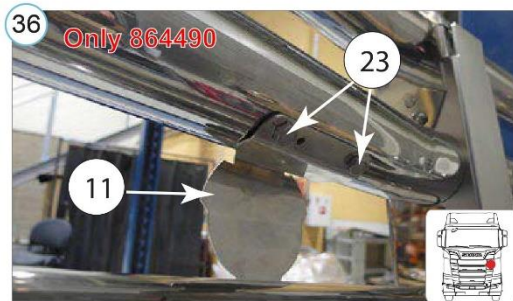
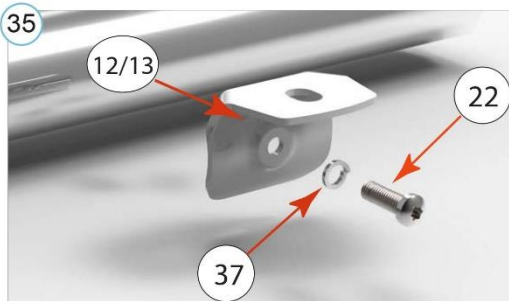
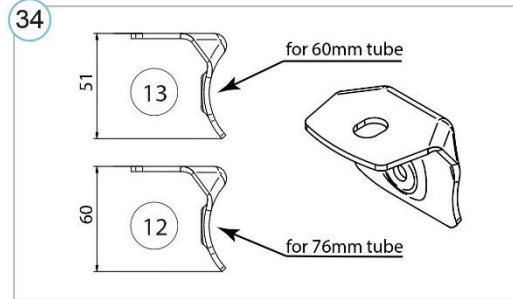
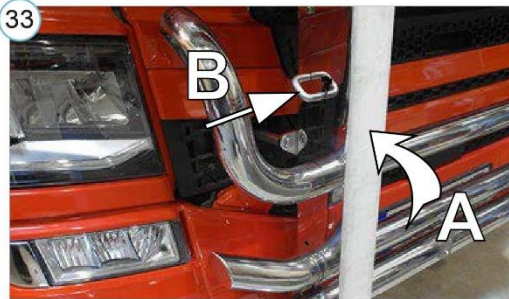
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Scania S, R, G, P cabs, 2016-

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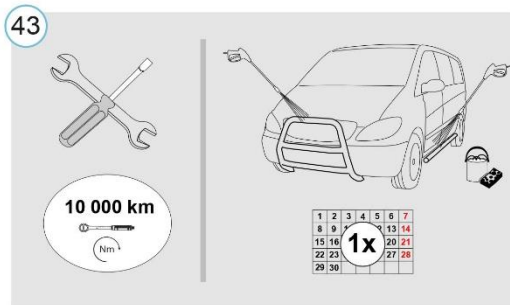




### Appendix 3

#### Scania S, R, G, P cabs, 2016-

Rammraud FIN WING | Truck catterguard FIN WING | Передняя дуга FIN WING | LKW Bullfänger FIN WING



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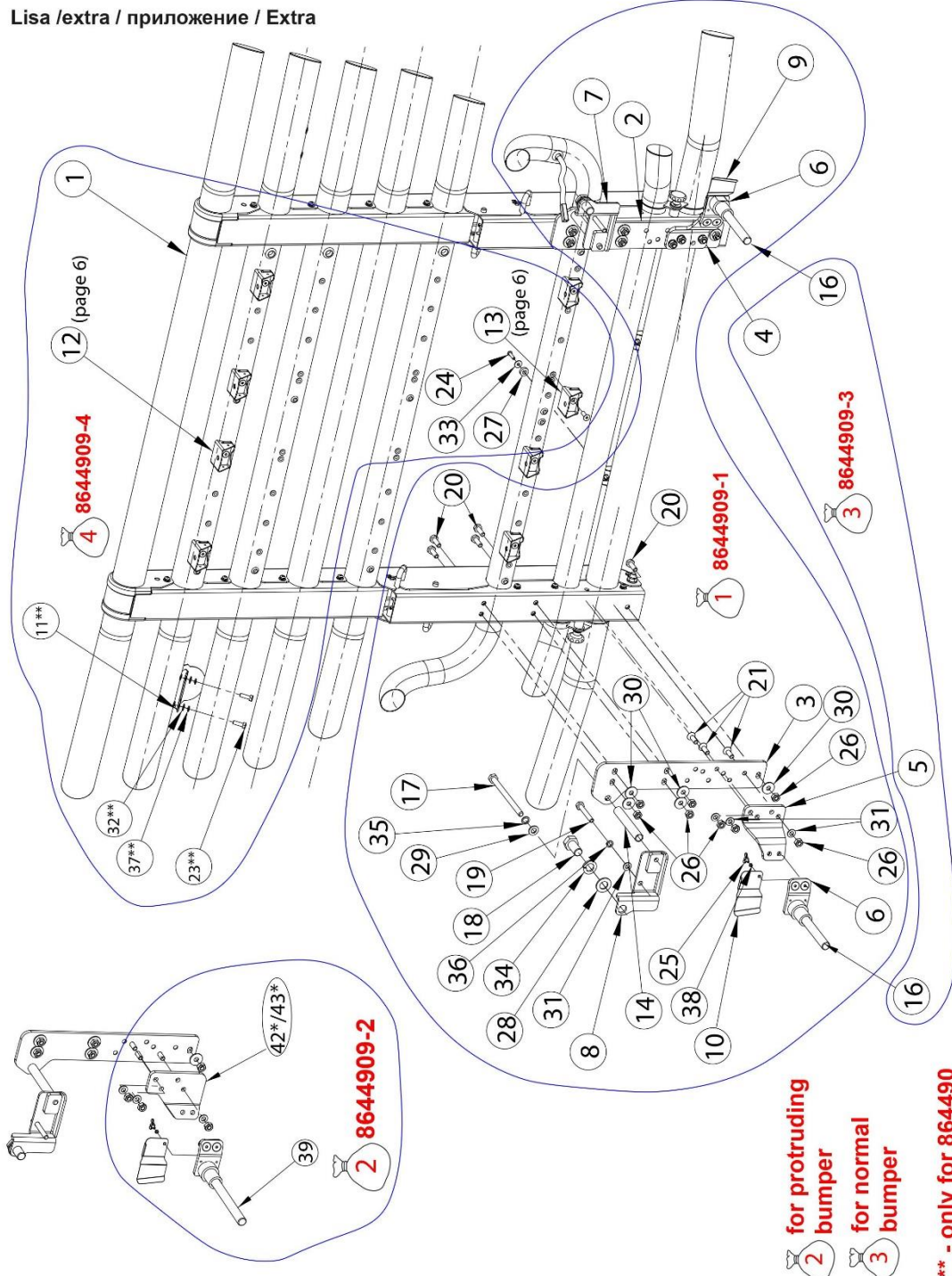


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Scania S, R, G, P cabs, 2016-

Rammraud FIN WING | Truck cattleguard FIN WING | Передняя дуга FIN WING | LKW Bullfänger FIN WING

Lisa /extra / приложение / Extra



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# Verification

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## Document

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Main document

13 pages

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Tabib Zadeh Adibi (PTZA)*

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