

Hypro A.S
 Birkelundsvegen 66
 NO-1481 HAGAN
 Norge

Review of bull bar according to TSFS 2016:22 (2 appendices)

Note rev 1

This assessment has been revised 2018-11-19 with addition of product information.

Summary

According to our review of bull bar on motor vehicles with weight over 3.5 tons do not diverge from 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.

1 Assignment

Review of bull bar to motor vehicle class N₂ and N₃ (motor vehicle for goods over 3.5 ton) according to TSFS 2016:22 Appendix 1, Section 49 – Projection of parts on external surface of vehicle.

Client: Hypro A.S, Hagan, Norway.

2 Product

The bull bar is meant for mounting on motor vehicle with weight over 3.5 tons, according to Table 2 below.

Table 2

Model	Category	Drawing	Vehicle	Appendix
Hypro 1035	HB 010	3-75746	Scania R-S next gen. 2017-	1
Hypro 1036	HB 010	3-75747	Volvo FM-FH-FH4	2

Material: Ø 58 mm aluminium tubes, aluminium grid and fastening made of steel
 Manufacturer: Hypro A.S, Hagan, Norway

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3 Method

Review of the geometry and radius of the product 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	Hypro 1035 Hypro 1036
Directive 92/114/EC, section 4.5 – Protective devices (bumpers) ECE Regulation 61, section 6.5 – Protective devices (bumpers)	Hypro 1035 Hypro 1036

4 Assessment

According to our review the above mentioned types of bull bar for mounting on motor vehicles with weight over 3.5 tons do not diverge 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 Safety - Mechanics Research

Performed by

Examined by



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Date & Time: 2018-11-20 17:38:38 +01:00



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Nina Talbrant

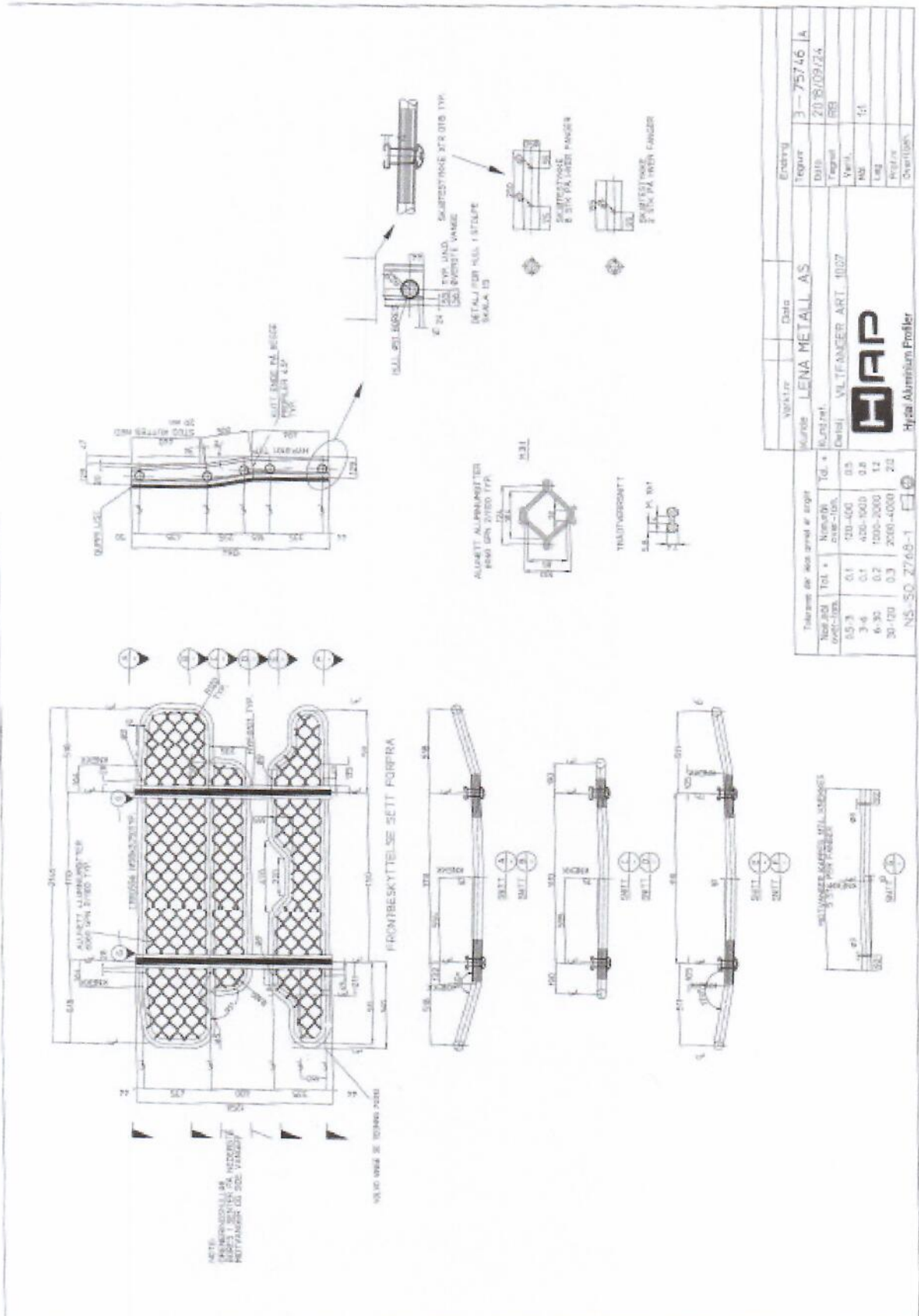
Magnus Andersson

Appendices

Appendix 1 – Drawing 3-75743 dated 2018-09-24

Appendix 2 – Drawing 3-75747 dated 2018-09-24

Appendix 1



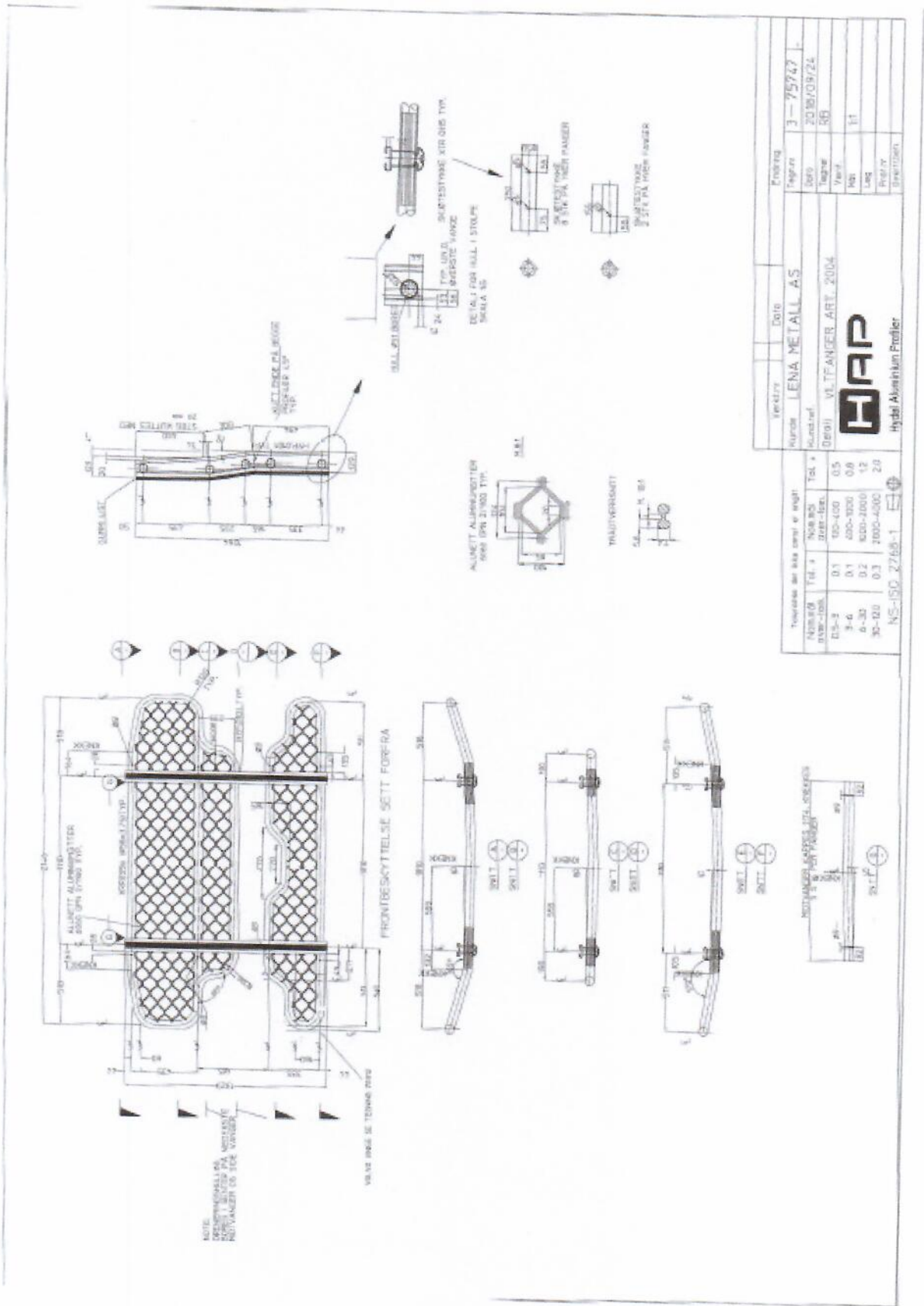
Teknisk data for aluminiumfilter

Material	Tol.	Nominal	Tol.
15-3	0.1	100-400	0.5
3-4	0.1	400-1000	0.8
6-30	0.2	1000-2000	1.2
30-120	0.3	2000-4000	2.0

Virksomhed	Dato	Erhverv
Mærke	LENA METALL AS	Tejgør
Projekt nr.		Dato
Detail	VLT FANCIER ART. 1007	2018/09/25
		Figur
		3-75746 1A
		Figur
		BR
		Var.
		NS
		1:1
		Lsg
		Brdr
		Overlign

HAP
Hydral Aluminium Profiler

Appendix 2



Förnyelse		Datum		Förnyelse	
Uppdrags	Referens	Uppdrags	Referens	Uppdrags	Referens
LENA METALL AS				3-75747	
08001	VL-TFÄNGER ART. 2004			2018/09/24	
				56	
				11	

Temperaturer för olika typer av vagnar		NS-ISO 2768-1	
Nummer	Typ	NS-ISO 2768-1	Temperaturer
01-3	01	100-1000	0,5
3-6	01	100-1000	0,8
6-30	02	100-1000	1,2
30-100	03	1000-4000	2,0

NS-ISO 2768-1	
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