



AVP, Kotnikova ulica 19a, SI-1000 Ljubljana, tel.: 01 478 8430, vozila@avp-rs.si
STSA, Kotnikova ulica 19a, SI-1000 Ljubljana, tel.: +386 1 478 8430, vozila@avp-rs.si
37141-013/2020/12

POTRDILO O EU-HOMOLOGACIJI
EU TYPE-APPROVAL CERTIFICATE

Sporočilo o:
Communication concerning:

- EU-homologaciji
- *EU type-approval*
- ~~razširitvi EU-homologacije~~
- ~~extension of EU type-approval~~
- ~~zavrnitvi EU-homologacije~~
- ~~refusal of EU type-approval~~
- ~~preklicu EU-homologacije~~
- ~~withdrawal of EU type-approval~~

samostojne tehnične enote: naprave za zmanjševanje hrupa
of a type of STU: noise-abatement device

glede na Priloge IX k Delegirani uredbi Komisije (EU) št. 134/2014, kakor je bila nazadnje spremenjena z Delegirano uredbo Komisije (EU) št. 2018/295
with regard to Annex(es) IX to Commission Delegated Regulation (EU) No 134/2014, as last amended by Commission Delegated Regulation (EU) No 2018/295

Številka EU-homologacije: **e26*134/2014*2018/295G*08158*00**
EU type-approval number:

Razlog za razširitev: /
Reason for extension:

ODDELEK I
SECTION I

- | | | |
|-------|---|---|
| 0.7 | Znamke (tovarniška imena proizvajalca):
<i>Make(s) (trade name(s) of manufacturer)</i> | AKRAPOVIC |
| 0.8 | Tip:
<i>Type:</i> | M-HHM001 |
| 0.8.1 | Trgovska imena (če obstajajo):
<i>Commercial name(s) (if available):</i> | / |
| 0.9 | Ime podjetja in naslov proizvajalca:
<i>Company name and adress of manufacturer:</i> | AKRAPOVIC D.D.
MALO HUDO 8A
1295 IVANCNA GORICA
Slovenia |

-
- 0.9.1. Imena in naslovi proizvodnih tovarn:
Name(s) and address(es) of assembly plant(s): AKRAPOVIC D.D.
MALO HUDO 8A
1295 IVANCNA GORICA
Slovenia
- AKRAPOVIČ D.D., PE ČRNOMELJ
ULICA HEROJA STARIHA 24
8340 ČRNOMELJ
Slovenia
- 0.9.2. Ime in naslov zastopnika
proizvajalca (če obstaja):
*Name and address of manufacturer's
representative (if nay):* /
- 0.10. Pri samostojni tehnični enoti,
vozila, za katere je namenjena:
*In the case of seperate technical unit,
vehicle(s) for which is intended for:* KTM
Husqvarna
- 0.10.1 Tip:
Type: glej poročilo o preskusu
see the test report
- 0.10.2 Variante:
Variant(s): vse
all
- 0.10.3 Izvedenke:
Version(s): vse
all
- 0.10.4 Trgovska imena (če obstajajo):
Commercial name(s) (if available): glej poročilo o preskusu
see the test report
- 0.10.5 Kategorija, podkategorija in
podpodkategorija vozila:
*Category, subcategory and
sub-subcategory of vehicle:* glej poročilo o preskusu
see the test report

ODDELEK II
SECTION II

1. Tehnična služba, pristojna za izvajanje preskusov:
Technical service responsible for carrying out the tests: TÜV SÜD Auto Service GmbH
Westendstraße 199
D-80686 München
Germany
2. Datum poročil o preskusu:
Date of test report(s): 29.10.2020
3. Številka poročil o preskusu:
Number of test report(s): 20-00048-CM-GBM-00
4. Opombe:
Remarks: glej Dodatek
see Addendum
- 4a. Homologacija je:
The approval is: **podeljena**
granted
- 4a.1. Homologacija se podeli na podlagi člena 40
Uredbe (EU) št. 168/2013, tako da je njena
veljavnost omejena do: *ne pride v poštev*
The approval is granted in accordance with Article
40 of Regulation (EU) No 168/2013 and its
validity is thus limited to: *not applicable*
5. ~~Omejitve veljavnosti:~~
~~*Restrictions of validity:*~~ /
6. ~~Uporabljene opustitve:~~
~~*Waivers applied:*~~ /
- Kraj:
Place: 1000 LJUBLJANA
- Datum:
Date: 17.11.2020
- Ime in podpis:
Name and signature: mag. Tomaž Svetina, univ.dipl.inž.str.
vodja sektorja za vozila



Temu sporočilu je priložen seznam dokumentov, ki so deponirani pri homologacijskem organu, ki je odobril to homologacijo in jih je na zahtevo mogoče dobiti:

glej kazalo opisne dokumentacije št. e08158 Rev.00

The list of documents deposited with the Administrative Service which has granted approval is annexed to this communication and may be obtained on request:

see index to information package No e08158 Rev.00

Dodatek k potrdilu o EU-homologaciji s številko EU-homologacije:
Addendum to the EU type-approval certificate with EU type-approval number:
e26*134/2014*2018/295G*08158*00

1. **Omejitve uporabe samostojne tehnične enote: naprave za zmanjševanje hrupa:**
Restriction of use of the STU: noise-abatement device:

glej prilogo 2 testnega poročila 20-00048-CM-GBM-00
see enclosure 2 of the test report 20-00048-CM-GBM-00

2. **Posebni pogoji za vgradnjo samostojne tehnične enote: naprave za zmanjševanje hrupa:**
Special conditions for the mounting of the STU: noise-abatement device:

glej proizvajalčeva navodila za vgradnjo
see manufacturer's instruction manual

3. **Opombe:**
Remarks:

/

Ta homologacija se uporablja za tip serijsko izdelanih neoriginalnih izpušnih sistemov za tip motornega kolesa ali njegovih sestavnih delov pod naslednjimi pogoji:

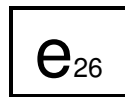
Posamezni proizvodi iz serijske proizvodnje morajo ustrezati najmanj vsem zahtevam Uredbe (EU) št. 168/2013 in Priloge IX k Delegirani uredbi Komisije (EU) št. 134/2014, nazadnje spremenjene z Delegirano uredbo Komisije (EU) št. 2018/295, "Zahteve za preskus tipa IX: raven hrupa".

Priloženo poročilo o preskusu in risbe so sestavni del te homologacije.

Vsak sestavni del neoriginalnega izpušnega sistema, vendar ne deli in cevi za vgradnjo, mora biti čitljivo in trajno označen z:

- znamko (tovarniškim imenom proizvajalca),
- trgovskim imenom,
- homologacijsko oznako.

Temu tipu proizvoda se dodeli naslednja homologacijska oznaka:



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Homologacijska oznaka na proizvodu mora po izvedbi in velikosti ustrezati zahtevam Izvedbene uredbe Komisije (EU) št. 901/2014, nazadnje spremenjene z Izvedbeno uredbo Komisije (EU) št. 2018/295.

S tem homologacijskim znakom so lahko označeni samo tisti proizvodi, ki v celoti ustrezajo homologacijski dokumentaciji.

Oznaka EU-homologacije samostojne tehnične enote ali sestavnega dela mora biti na samostojni tehnični enoti ali sestavnem dele nameščena tako, da je neizbrisna (npr. odtisnjena, jedkana, lasersko vgravirana, samouničljiva nalepka), jasno berljiva in vidna na mestu, kjer se namesti na vozilo, ne da bi bilo treba kateri koli del odstraniti z orodjem.

Proizvod je lahko označen tudi s tujo homologacijsko ali drugo oznako, če s tem ni motena razpoznavnost in čitljivost homologacijske oznake, ki jo je dodelil slovenski homologacijski organ.

Na proizvodu ne sme biti oznak, ki bi lahko privedle do zamenjave z uradno dodeljeno oznako.

Kakršnekoli spremembe na proizvodu so dovoljene samo na podlagi posebnega dovoljenja homologacijskega organa.

Veljavnost homologacije preneha z vrnitvijo ali z odvzemom. Homologacija se odvzame, če pogoji za podelitev in obstoj homologacije ne obstajajo več, če lastnik homologacije krši obveznosti, povezane s homologacijo, oziroma če se ugotovi, da homologirani proizvod ne ustreza več veljavnim predpisom.

Proizvajalec je dolžan stalno kontrolirati kakovost homologiranega proizvoda in njegovo skladnost s homologacijsko dokumentacijo. O tej kontroli je dolžan voditi evidenco in omogočiti vpogled v zapiske nadzornemu organu, ki ga določi homologacijski organ. V primeru ugotovitve neskladnosti s homologacijsko dokumentacijo je proizvajalec dolžan o tem takoj obvestiti homologacijski organ.

Homologacijski organ lahko kadarkoli preverja pravilno izvajanje pooblastil, dodeljenih s to homologacijo, in v ta namen tudi izbira vzorce za ponovni preskus. Stroške takšnih pregledov in presoj skladnosti proizvodnje, se zaračunajo proizvajalcu.

Vsako spremembo oznake proizvajalca, naslova ali proizvodne tovarne oziroma pri homologaciji imenovane pooblaščenice je treba takoj sporočiti homologacijskemu organu.

Pravice, podeljene s to homologacijo, so neprenosljive. Pravice tretjih s to homologacijo niso prizadete.

V primerih, da se proizvodnja ali prodaja proizvoda ne začne v roku enega leta od podelitve homologacije, da se proizvodnja ali prodaja prekine za več kot eno leto oziroma, da se predvideva taka prekinitve, je o tem treba takoj obvestiti homologacijski organ.

O začetku proizvodnje ali začetku prodaje oziroma njihovem ponovnem začetku je treba obvestiti homologacijski organ najkasneje v enem mesecu.

Neupoštevanje zgoraj navedenih določil lahko povzroči odvzem homologacije in se kazensko preganja.

Pravno razlago v zvezi s to homologacijo lahko daje samo homologacijski organ.

17.11.2020



mag. Tomaž Svetec, univ.dipl.inž.
vodja sektorja za vozila

This Approval shall apply to non-original exhaust systems for a type of motorcycle or its components from serial production under the following conditions:

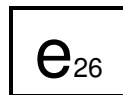
Individual products from serial production shall comply at least with all requirements set out in the Regulation (EU) No 168/2013 and Annex(es) IX to Commission Delegated Regulation (EU) No 134/2014, as last amended by Commission Delegated Regulation (EU) No 2018/295, "Test type IX requirements: sound level".

The attached test report and drawings shall be a constituent part of this Approval.

Each component of the nonoriginal exhaust system, excluding pipes and fitting accessories, shall be marked with a readable and durable:

- *make (trade name of manufacturer),*
- *commercial name,*
- *approval marking.*

This type of product shall be allotted the following approval marking:



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The design and size of the approval marking shall meet the requirements of the Commission implementing Regulation (EU) No 901/2014, as last amended by Commission implementing Regulation (EU) No 2018/295.

Only products which comply with the approval documentation may bear the approval marking.

The EU separate technical unit or component type-approval mark shall be affixed to the separate technical unit or component in a way which is indelible (e.g. stamped, etched, laser-engraved, self-destructing adhesive label), clearly legible and visible in the place at which it is to be fitted to the vehicle without the need to remove any parts with the use of tools.

The product may also be marked with a foreign approval or other marking, provided that the identifiability and readability of the approval marking granted by the Slovenian Type Approval Authority is not affected.

The product shall not bear any markings that may lead to confusion with the officially allotted marking.

Changes of any kind performed on the product shall be subject to special permission by the Slovenian Type Approval Authority.

The Approval will become ineffective when returned or withdrawn. The Approval shall be withdrawn: should the conditions for its granting and existence no longer exist, should the owner of the Approval break his obligations related to the Approval, or when it has been established that the approved product no longer complies with the applicable regulations.

The manufacturer shall regularly inspect the quality of the approved product as well as its conformity with the approval documentation. He shall keep record of this inspection and allow to the surveillance body appointed by the Slovenian Type Approval Authority access to the records. Should any non-conformities be found with respect to the approval documentation, the manufacturer shall immediately inform thereof the Slovenian Type Approval Authority.

Any time, the Slovenian Type Approval Authority may check the correct implementation of the authorizations appointed through this Approval, and for this purpose also select samples for a repeated

test. The costs of such checks and conformity of production assessments are charged to the manufacturer.

Any changes regarding the manufacturer's marking, the address or the production plant, or the authorized person appointed through this Approval, shall be forthwith notified to the Slovenian Type Approval Authority.

The rights granted through this Approval shall be untransferrable. The rights of third persons shall not be affected through this Approval.

In the case where the production or sale of the product does not start within one year after the granting of the Approval, or the production or sale is interrupted for a period longer than one year, or such interruption is foreseen, the Slovenian Type Approval Authority shall be immediately notified.

The Slovenian Type Approval Authority shall be notified of the start of production or start of sale, or its restart, within a month's time at the latest.

Non-compliance with above stated provisions may result in withdrawal of the Approval and will be prosecuted.

Legal explanations in relation with this Approval may only be given by the Slovenian Type Approval Authority.

17.11.2020




Tomaž Svetina, M.Sc.Eng.
Head of Vehicle department



KAZALO OPISNE DOKUMENTACIJE e08158
INDEX TO THE INFORMATION PACKAGE e08158

Revision: 00

Homologacijska številka: **e26*134/2014*2018/295G*08158**
Approval number:

Razširitev številka: **00**
Extension number:

Zgodovina homologacije / Opisne dokumentacije:
Type approval / Information package history:

Razširitev / Revizija: Extension / Revision:	Zadeva: Subject:	Datum izdaje: Date of issue:	Skupno št. strani: Total No. of pages:
00/00	Razširitev homologacije Extension of type approval	17.11.2020	42

Poročilo o preskusu: **20-00048-CM-GBM-00**
Test report:

Število strani: **21**
Number of pages:

datum izdaje: **29.10.2020**
date of issue:

datum zadnje spremembe: /
date of latest amendment:

Opisni list/Tehnični opis naprave: **M-HHM001**
Information document/Technical description of the device:

Število strani: **2**
Number of pages:

datum izdaje: **29.10.2020**
date of issue:

datum zadnje spremembe: /
date of latest amendment:

Risba(e)¹:
Drawing(s)¹:

Število strani: **3**
Number of pages:

datum zadnje spremembe: /
date of latest amendment:

Navodila za vgradnjo in uporabo:
Mounting and handling instructions:

Število strani: **15**
Number of pages:

datum zadnje spremembe: /
date of latest amendment:

Ostala dokumentacija:
Other documentation:

Število strani: **1**
Number of pages:



¹ kosovnice, slike, sheme in diagrami / ¹ bill of materials, pictures, schematics and diagrams

**SLOVENIAN TRAFFIC SAFETY AGENCY,
KOTNIKOVA ULICA 19a,
1000 LJUBLJANA,
SLOVENIA**

We, Akrapovič d.d., Malo Hudo 8a. 1295 Ivančna Gorica, Slovenia hereby ask STSA to grant approval against **134/2014*2018/295 EC (G)** for the following product:
Exhaust system for Motorcycles - muffler:

Type: **M-HHM001**

Version: **M-HHM001 02T (SS / Ti / Ca)**
M-HHM001 02SS (SS / SS / Ca)
M-HHM001 02C (SS / Ca / Ca)
M-HHM001 05T (Ti / Ti / Ca)
M-HHM001 05C (Ti / Ca / Ca)
M-HHM001 02TBL (SS / Ti / Ca)
M-HHM001 02SSBL (SS / SS / Ca)
M-HHM001 02CBL (SS / Ca / Ca)
M-HHM001 05TBL (Ti / Ti / Ca)
M-HHM001 05CBL (Ti / Ca / Ca)
M-HHM001 02T/1 (SS / Ti / Ca)
M-HHM001 02SS/1 (SS / SS / Ca)
M-HHM001 02C/1 (SS / Ca / Ca)
M-HHM001 05T/1 (Ti / Ti / Ca)
M-HHM001 05C/1 (Ti / Ca / Ca)
M-HHM001 02TBL/1 (SS / Ti / Ca)
M-HHM001 02SSBL/1 (SS / SS / Ca)
M-HHM001 02CBL/1 (SS / Ca / Ca)
M-HHM001 05TBL/1 (Ti / Ti / Ca)
M-HHM001 05CBL/1 (Ti / Ca / Ca)

Manufacturer: **Akrapovič d.d.**
Malo Hudo 8a
1295 Ivančna Gorica
Slovenia

We declare that we have not applied to any other Approval Authority in the EU Member States for this approval.

We have requested **TÜV SÜD Auto Service GmbH**, to carry out all testing required by the directive and/or regulation that the approval is sought against and to present the entire documentation for the approval.

Yours sincerely,

Date: 06.07.2020

Akrapovič d.d.
Uroš Rosa, CEO



Malo Hudo 8a, 1295 Ivančna Gorica
Slovenia

Techn. Bericht Nr. / *Techn. Report No.*: 20-00048-CM-GBM-00
Hersteller / *Manufacturer*: Akrapovic, Malo Hudo 8a, 1295 Ivančna Gorica,
Slovenia
Typ / *Type*: M-HHM001

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PRÜFBERICHT TEST REPORT

Nr. / *no.* 20-00048-CM-GBM-00

über die Prüfung zur Bauartgenehmigung einer Nicht-Originalauspuffanlage oder von Einzelteilen hiervon als selbstständige technische Einheit für Krafträder.

about a test regarding a component type-approval for non-original exhaust system or components thereof, as a technical unit for motorcycles

Verordnung / *Regulation* (EU) 134/2014 vom / *dated* 16.12.2013
zuletzt geändert / *last amended* (EU) 2018/295 vom / *dated* 15.12.2017
Kodierung / *Codification* G

zur Ergänzung der Verordnung (EU) Nr. 168/2013 des Europäischen Parlaments und des Rates.
supplementing Regulation (EU) 168/2013 of the European Parliament and the Council.

Genehmigungsstand / <i>Approval status</i>		
<input checked="" type="checkbox"/>	Erteilung einer Typgenehmigung <i>Granting of a type approval</i>	e26*134/2014*2018/295G*08158*00
<input type="checkbox"/>	Nachtrag/Änderung zur Typgenehmigung Nr. <i>Extension/correction to type approval no.</i>	

Gründe der Erweiterung / *Reasons for extension*

Es wird geändert: -

It will be changed: -

Es wird aktualisiert: -

It will be updated: -



0. Allgemeine Angaben / *General information*

0.1. Fabrikmarke / *Make*: Akrapovic Exhaust System Technology

0.2. Typ / *Type*: M-HHM001

0.2.1. Ausführungen / *Variants*

Ausführungen / <i>Variants</i>	Material / <i>Material</i>		
	Rohre / <i>Tubes</i>	Außenmantel / <i>Sleeve</i>	Endkappe / <i>End cap</i>
M-HHM001 02T	VA / <i>Stainless steel</i>	Titan / <i>Titanium</i>	Karbon / <i>Carbon</i>
M-HHM001 02SS	VA / <i>Stainless steel</i>	VA / <i>Stainless steel</i>	Karbon / <i>Carbon</i>
M-HHM001 02C	VA / <i>Stainless steel</i>	Karbon / <i>Carbon</i>	Karbon / <i>Carbon</i>
M-HHM001 05T	Titan / <i>Titanium</i>	Titan / <i>Titanium</i>	Karbon / <i>Carbon</i>
M-HHM001 05C	Titan / <i>Titanium</i>	Karbon / <i>Carbon</i>	Karbon / <i>Carbon</i>
M-HHM001 02TBL	VA / <i>Stainless steel</i>	Titan / <i>Titanium</i>	Karbon / <i>Carbon</i>
M-HHM001 02SSBL	VA / <i>Stainless steel</i>	VA / <i>Stainless steel</i>	Karbon / <i>Carbon</i>
M-HHM001 02CBL	VA / <i>Stainless steel</i>	Karbon / <i>Carbon</i>	Karbon / <i>Carbon</i>
M-HHM001 05TBL	Titan / <i>Titanium</i>	Titan / <i>Titanium</i>	Karbon / <i>Carbon</i>
M-HHM001 02CBL	Titan / <i>Titanium</i>	Karbon / <i>Carbon</i>	Karbon / <i>Carbon</i>
M-HHM001 02T/1	VA / <i>Stainless steel</i>	Titan / <i>Titanium</i>	Karbon / <i>Carbon</i>
M-HHM001 02SS/1	VA / <i>Stainless steel</i>	VA / <i>Stainless steel</i>	Karbon / <i>Carbon</i>
M-HHM001 02C/1	VA / <i>Stainless steel</i>	Karbon / <i>Carbon</i>	Karbon / <i>Carbon</i>
M-HHM001 05T/1	Titan / <i>Titanium</i>	Titan / <i>Titanium</i>	Karbon / <i>Carbon</i>
M-HHM001 05C/1	Titan / <i>Titanium</i>	Karbon / <i>Carbon</i>	Karbon / <i>Carbon</i>
M-HHM001 02TBL/1	VA / <i>Stainless steel</i>	Titan / <i>Titanium</i>	Karbon / <i>Carbon</i>
M-HHM001 02SSBL/1	VA / <i>Stainless steel</i>	VA / <i>Stainless steel</i>	Karbon / <i>Carbon</i>
M-HHM001 02CBL/1	VA / <i>Stainless steel</i>	Karbon / <i>Carbon</i>	Karbon / <i>Carbon</i>
M-HHM001 05TBL/1	Titan / <i>Titanium</i>	Titan / <i>Titanium</i>	Karbon / <i>Carbon</i>
M-HHM001 02CBL/1	Titan / <i>Titanium</i>	Karbon / <i>Carbon</i>	Karbon / <i>Carbon</i>

Die Ausführungen unterscheiden sich in der Verwendung verschiedener Werkstoffe. Der konstruktive Aufbau ist gleich. Das akustische Verhalten ist gleichwertig.

The variants vary because different materials are used. The basic construction remains the same. The acoustic behaviour is similar.





Techn.Bericht Nr. / *Techn. Report No.:* 20-00048-CM-GBM-00
Hersteller / *Manufacturer:* Akrapovic, Malo Hudo 8a, 1295 Ivančna Gorica,
Slovenia
Typ / *Type:* M-HHM001

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- 0.3. Name und Anschrift des Herstellers /
Name and address of manufacturer: Akrapovic d.d.
Malo Hudo 8a
1295 Ivančna Gorica
Slovenia
- 0.4. Name und Anschrift des Beauftragten /
Name and address of authorized agent: entfällt / *n.a.*
- 0.5. Nr. des Beschreibungsbogens /
No. of information document: M-HHM001
Ausgabedatum / *Date:* 23.10.2020
- 1.0. Klasse der Fahrzeuge, für die die
Anlage bestimmt ist / *Class of the
vehicles the unit is used for:* L3e
- 1.1. Beschreibung der Fahrzeuge, für
die die Einrichtung bestimmt ist /
*Description of the vehicles
the unit is used for:* siehe Anlage 2 / *notice enclosure 2*
- 2. Angaben zum Prüfobjekt / *Composition of the separate technical unit***
- 2.1. Art der Technischen Einheit:
Kind of technical unit: Siehe Anlage Technische Dokumentation
See Enclosure, Technical documentation
- 2.2. Ort der Kennzeichnung/
Place of marking: Lasergravur auf Endkappe / Typschild aufgenietet
Engraved by laser / plate fixed with rivets
- 2.3. Zusammenstellung der technischen Einheit /
*Composition of the separate
technical unit:* siehe Anlage 1 / *notice enclosure 1*
- 2.4. Lage und Richtung der Auspuffmündung:
Position and direction of the tail pipe: links seitlich nach hinten
at the left side to the rear
- 2.5. Prüfmuster eingegangen am:
Test samples submitted for testing at: Versuchsreihe A / *Tests series A:* 07.07.2020
Versuchsreihe B / *Tests series B:* 07.07.2020



Techn.Bericht Nr. / *Techn. Report No.*: 20-00048-CM-GBM-00
Hersteller / *Manufacturer*: Akrapovic, Malo Hudo 8a, 1295 Ivančna Gorica,
Slovenia
Typ / *Type*: M-HHM001

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3. Prüfprotokoll / *Test report*

Versuchsreihe A / *Tests series A*

3.1. Fahrzeug lfd. Nr. 1) / *Vehicle no. 1)*

- 3.1.1. Typ / *Type*: KTM 690 LC4
3.1.1.1 Variante / Version / *Variant / Version*: A / -
3.1.1.2 Fahrzeugkategorie / *Category*: L3e-A3
3.1.1.3 Handelsbezeichnung / *Model*: KTM 690 Enduro R
3.1.2. Hersteller / *Manufacturer*: KTM AG
3.1.3. Genehmigungs-Nr. / *Homologation no.*: e1*168/2013*00147*
3.1.3.1 Nachtrag bzw. Erweiterung / *Extension*: 01
3.1.4. Fahrzeugidentifizierungsnummer /
Vehicle identification no.: VBKLETP30MM777579
3.1.5. Baujahr / *Year of manufacture*: 2020
3.1.6. km-Stand / *Kilometers*: 724
3.1.7. Zul. Gesamtgewicht / *total weight*: 350 kg

3.2. Antriebsmaschine / *Engine*

- 3.2.1. Hersteller / *Manufacturer*: KTM
3.2.2. Typ / *Type*: 768
3.2.3. Hubraum / *Engine capacity*: 693 cm³
3.2.4. Höchstleistung / *engine net power*: 55 kW bei / *at* 8000 min⁻¹
3.2.5. max. Drehmoment / *net torque*: 71 Nm bei / *at* 6750 min⁻¹

3.3. Kraftübertragung / *Transmission*

- 3.3.1. Art der Kraftübertragung /
Kind of transmission: mechanisch / *mechanical*
3.3.4. Getriebe / *Gearbox*: manuell / *manual*
3.3.5. Übersetzungsverhältnisse /
Transmission ratios:
primär / *primary* / sekundär / *secondary* 2,194 / 3,067
Höchstgeschwindigkeit / *Top speed*: 180 km/h
Reifen / *Tires*:
vorne / *front* Mitas E-07
hinten / *rear* 90/90 – 21 54T
140/80 – 18 70T

3.4. Zusammenbau der Auspuffanlage / *Assembly of the exhaust system*

- (Teile lfd. Nr. lt. Anl. 1 /
no. of parts, enclosure 1)
Versuchsreihe A / *Tests series A*: 1)2a)3)4)



Techn.Bericht Nr. / *Techn. Report No.:* 20-00048-CM-GBM-00
Hersteller / *Manufacturer:* Akrapovic, Malo Hudo 8a, 1295 Ivančna Gorica,
Slovenia
Typ / *Type:* M-HHM001

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Versuchsreihe B / *Tests series B*

3.1. Fahrzeug lfd. Nr. 8) / *Vehicle no. 8)*

3.1.2. Typ / *Type:* Husqvarna 701
3.1.1.1 Variante / Version / *Variant / Version:* A / -
3.1.1.2 Fahrzeugkategorie / *Category:* L3e-A3
3.1.1.3 Handelsbezeichnung / *Model:* 701 Supermotor
3.1.2. Hersteller / *Manufacturer:* KTM AG
3.1.3. Genehmigungs-Nr. / *Homologation no.:* e1*168/2013*00032*
3.1.3.1 Nachtrag bzw. Erweiterung / *Extension:* 02
3.1.4. Fahrzeugidentifizierungsnummer /
Vehicle identification no.: VBKUSVP35MM781894
3.1.5. Baujahr / *Year of manufacture:* 2020
3.1.6. km-Stand / *Kilometers:* 43
3.1.7. Zul. Gesamtgewicht / *total weight:* 350 kg

3.2. Antriebsmaschine / *Engine*

3.2.1. Hersteller / *Manufacturer:* KTM
3.2.2. Typ / *Type:* 768
3.2.3. Hubraum / *Engine capacity:* 693 cm³
3.2.4. Höchstleistung / *engine net power:* 55 kW bei / *at* 8000 min⁻¹
3.2.5. max. Drehmoment / *net torque:* 71 Nm bei / *at* 6750 min⁻¹

3.3. Kraftübertragung / *Transmission*

3.3.1. Art der Kraftübertragung /
Kind of transmission: mechanisch / *mechanical*
3.3.4. Getriebe / *Gearbox:* manuell / *manual*
3.3.5. Übersetzungsverhältnisse /
Transmission ratios:
primär / *primary* / sekundär / *secondary* 2,194 / 2,625
Höchstgeschwindigkeit / *Top speed:* 200 km/h
Reifen / *Tires:* Continental ContiAttack SM EVO
vorne / *front* 120/70 R17 58H
hinten / *rear* 160/60 R17 69H

3.4. Zusammenbau der Auspuffanlage / *Assembly of the exhaust system*

(Teile lfd. Nr. lt. Anl. 1 /
no. of parts, enclosure 1)
Versuchsreihe B / *Tests series B:* 1)2b)3)4)



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Typ / *Type:* M-HHM001

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3.5. Messung der Geräuschwerte / *Acoustic measurements*

- 3.5.1. Hersteller des Messgerätes /
Manufacturer of test equipment: MÜLLER-BBM
- 3.5.2. Typ des Messgerätes /
Type of the test equipment: PAK MK II Configuration
- 3.5.3. Fahrgeräusch, Standgeräusch /
Drive by noise, stationary noise:

nach ECE-R 41.04 /
according ECE-R 41.04
- 3.5.4. Beladungszustand bei der Fahrgeräuschmessung /
Load condition during drive by test: Leergewicht zuzüglich 75 kg Fahrer /
Unloaded weight plus 75 kg driver
- 3.5.5. Abweichung bei Kalibrierung /
Deviation at calibration: < 0.2 dB(A)

3.6. Messung der Leistung / *Power measurement*

- 3.6.1. Messung der Leistungskurve mit Nicht-Originalauspuffanlage /
Testing of max. power with non-original exhaust system:

Die gemessene Nennleistung und die zugehörige Drehzahl liegen im Toleranzbereich von 5% im Vergleich zu den mit der Originalauspuffanlage gemessenen Werten.
(siehe Anlage) /
The tested max. power and the engine speed are in the 5% tolerance in comparison with the original exhaust system. (see enclosure)
- 3.6.2. Messung der Höchstgeschwindigkeit mit Nicht-Originalauspuffanlage/
Testing of top speed with non-original exhaust system:

Entfällt, da Fahrzeugklasse: L3e
Not applicable, because vehicle class: L3e

3.7. Konditionierung der Auspuffschalldämpferanlage / *Conditioning*

durch Druckschwingungen / *by pulsation*



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3.8. Messung der Schadstoffemissionen / *Pollution Test*

Messung des Abgasverhaltens mit Austauschkatalysator in Verbindung mit Nicht-Originalauspuffanlage gegen die in (EU)168/2013 Anh. VI (A2) Euro 5 genannten Grenzwerte bezogen auf die Fahrzeugklasse des Prüffahrzeugs.

Der Austauschkatalysator P-KAT-082 wird vom original Teilelieferanten des Gesamtfahrzeugherstellers, der in Anlage 2 aufgeführten Fahrzeuge, bezogen und entspricht diesen in allen Parametern. Aufbau und Beschichtung sind identisch. Aus diesem Grund wurde auf eine Vorkonditionierung verzichtet.

Die Messung wurde mit dem Prüffahrzeug Versuchsreihe A durchgeführt, da im Fahrzeug Versuchsreihe B serienmäßig der gleiche Katalysator verbaut ist.

Testing of pollution with aftermarket catalytic converter in combination with non-original exhaust system against the limits mentioned in (EU)168/2013 Annex VI (A2) Euro 5 regarding the vehicle category of the test bike.

The aftermarket catalytic converter P-KAT-082 is obtained from the original parts supplier of the entire vehicle manufacturer, listed in enclosure 2, and corresponds to this in all parameters. Structure and coating are identical. For this reason, preconditioning was not performed.

Only testing with vehicle Tests series A was performed, because vehicle Tests series B is equipped originally with the same catalytic converter.

3.9. Ergebnisse / *Test results*

Die Ergebnisse der Prüfungen hinsichtlich / *The results of*

- 3.9.1. Geräusche / *Noise testing*
- 3.9.2. Leistung / *Power measurement*
- 3.9.3. Höchstgeschwindigkeit / *Top speed*
- 3.9.4. Abgasverhalten / *Pollution test*

sind der als Anlage beigefügten Tabellen zu entnehmen /
are attached in the enclosure.

Aufgrund der Messung mit dem/n o.g. Fahrzeug/en können auch die in Anlage 2 aufgeführten Kraffräder die die gleiche Serien- Auspuffanlage besitzen und gleiche bzw. geringere Motorleistung haben, mit in den Verwendungsbereich aufgenommen werden/

All motorcycles with the same serial exhaust system and same or less performance mentioned in enclosure 2, can be taken into the field of application due to the measurement with the above named motorcycle/s.



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3.9.5. Die beschriebene Nicht-Originalauspuffanlage / Technische Einheit darf an den in der Anlage 2 aufgeführten Kraftfahrzeugen unter den dort genannten Bedingungen verwendet werden. /
The described non-original exhaust system / technical unit is suitable for an application at the vehicles listed in enclosure 2.

3.9.6. Die allgemeinen Spezifikationen gemäß (EU)134/2014; Anhang IX; Anlage 2; Abschnitt 3.5.1. werden durch die Nicht-Originalauspuffanlage als technische Einheit erfüllt. /
The general specifications regarding (EU)134/2014; Annex IX; Appendix 2; Clause 3.5.1. are fulfilled by the non-original exhaust system as technical unit.

4. Anlagen / Enclosures

Anlage 1, Teile der Nicht-Originalauspuffanlage
Enclosure 1, Composition of the non original exhaust system
Anlage 2, Verwendungsbereich
Enclosure 2, Field of application
Anlage 3, Ergebnis der Prüfungen
Enclosure 3, Test results
Anlage 4, Ergebnis der Prüfungen hinsichtlich Abgasverhalten
Enclosure 4, Test results according pollution
Anlage, Leistungskurve
Enclosure, Performance diagram
Anlage, Protokoll Geräuschmessung
Enclosure, protocol noise test
Beschreibungsbogen
Information Document



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5. Schlussbescheinigung / *Summary*

Der angegebene Beschreibungsbogen und der darin beschriebene Typ entsprechen der genannten Prüfgrundlage. Der ungünstigste Fall wurde entsprechend Prozessbeschreibung „Erstellung von Gutachten“ bestimmt.

Der Prüfbericht darf nur vom Auftraggeber und nur in vollem Wortlaut vervielfältigt und weitergegeben werden. Eine auszugsweise Vervielfältigung und Veröffentlichung des Prüfberichtes ist nur nach schriftlicher Genehmigung des Prüflaboratoriums zulässig
The information folder and the type described therein are in compliance with the test specification mentioned above. The worst-case was selected in accordance with document "Preparation of Test Reports".

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München, 29.10.2020



Dipl.-Ing. (FH) Max Höhler
Prüfingenieur / *The Expert*

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**ANLAGE 1
ENCLOSURE 1**

zum Prüfbericht Nr. / to test report no.

Typ / Type:

Hersteller / Manufacturer:

**20-00048-CM-GBM-00
M-HHM001**

**Akrapovic, Malo Hudo 8a
1295 Ivancna Gorica, Slovenia**

**Teile der Nicht-Originalauspuffanlage + Originalteile/
Composition of the original exhaust system + original parts**

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Lfd. Nr. / No.	Einzelteile, Abmessungen in mm / Components parts, dimensions in mm	Abmessungen des Teiles in mm bzw. Originalteil / Ersatzteil / Dimensions of the part in mm or original part / replacement part	Teilenummer bzw. Genehmigungsnummer / Part no. or homologation no.
1)	Krümmerrrohr / header pipe	Originalteile / original parts	-
2a)	Verbindungsrohr / link pipe	-	L-KTM6S01/1 (KTM)
2b)	Verbindungsrohr / link pipe	-	L-HU7S03/1 (Husqvarna)
3)	Katalysator / catalytic converter	Ø 82 x 110	P-KAT-082 e26*01100*F
4)	Schalldämpfer / silencer (Austrittsrohr / outlet pipe 2 x Ø 20)	hexagonal / hexagonal 116,9 x 141,4 Länge ohne Endkappen / length without end caps 400	M-HHM001 e26*08158*G E26 92R 02 8158

A N L A G E 2
E N C L O S U R E 2

zum Prüfbericht Nr. / to test report no.

Typ / Type:

Hersteller / Manufacturer:

20-00048-CM-GBM-00
M-HHM001

Akrapovic, Malo Hudo 8a
1295 Ivancna Gorica, Slovenia

Verwendungsbereich (Fahrzeugdaten) / Field of application

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Die Fahrzeuge erfüllen - bezugnehmend auf ihre Fahrzeugtyp Genehmigung - die Umweltanforderungsstufen: Euro (4/5)
The vehicles fulfil - regarding their Whole Vehicle Type Approval (WVTA) - the environmental steps: Euro (4/5)

Lfd. Nr.	Hersteller	Fabrikmarke	Handelsbezeichnung	Fahrzeugtyp Genehmigung Nr.	Var. Vers.	Motor typ 4 Takt	Hubraum m in cm ³	Nennleistung kW/min ⁻¹	Sonstige bestimmende Merkmale	Anordnung entspr. Anl. 1 lfd. Nr.
No. of vehicle	Manufacturer	Trade mark	Commercial description	Vehicle type no. of homologation	Var. Vers.	Engine type 4 Stroke	Engine capacity in cm ³	max. engine power kW/min ⁻¹	Additional remarks *)	Composition reg. enclosure no. 1
1)	KTM AG	KTM	690 Enduro R	KTM 690 LC4	alle	768	693	55/8000	mit Kat. / with cat.	1)2a)3)4)
2)			690 SMC R	e1*168/2013*00147*	all			55/8000		
3)			690 Enduro R	KTM 690 LC4		768	693	32/5500		
4)				e1*168/2013*00146*				31/7000		
5)			690 SMC R					32/5500		
6)								31/7000		
7)		Husqvarna	Husqvarna 701 Supermoto	Husqvarna 701		766	693	55/8000	1)2b)3)4)	
8)			Husqvarna 701 Enduro	e1*168/2013*00032*		768	693	55/8000		
9)			Husqvarna 701 Enduro LR			766	693	55/8000		
10)			Husqvarna 701 Enduro LR			768	693	55/8000		
11)			Husqvarna 701 Enduro LR			768	693	55/8000		
12)			Husqvarna 701 Enduro	Husqvarna 701		766	693	31/5500		
13)			Husqvarna 701 Supermoto	e1*168/2013*00034*		768	693	31/7000		
14)			Husqvarna 701 Supermoto			766	693	31/5500		
15)			Husqvarna 701 Enduro LR			768	693	31/7000		
16)			Husqvarna 701 Enduro LR			768	693	31/7000		

*) Der serienmäßige Katalysator wird durch einen Austauschkatalysator ersetzt.

The original catalytic converter is replaced by an aftermarket-catalyst.

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**ANLAGE 3
ENCLOSURE 3**

zum Prüfbericht Nr. / to test report no.

Typ / Type:

Hersteller / Manufacturer:

20-00048-CM-GBM-00
M-HHM001

Akrapovic d.d.,
1295 Ivancna Gorica, Slovenia

Ergebnis der Prüfungen / Test results

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Lfd.Nr. Fahr- zeug /	Leistung		Leistung Austausch kW/min ⁻¹	Vmax		Vmax Aus- tausch km/h	Fahrgeräusche in dB(A) / Sound levels driving vehicle in dB(A)				Standgeräusche in dB(A) / Sound levels stationary vehicle in dB(A)			
	Serie kW/min ⁻¹	Engine power original kW/min ⁻¹		Serie km/h	Vmax original km/h		gemes- sen in Gang	Grenz- wert **)	Serie gemes- sen /	Austausch gemessen	bei km/h	lt. Fzg. BE	Serie gemes- sen /	Austausch gemessen
1) A*	55/8000	55/8000	55/8000	-	3	77	78	Original mea- sured L _{urban}	Non original measured L _{urban}	at km/h	90	91	91	4000
8) B*	55/8000	55/8000	55/8000	-	3	77	76			50	90	91	91	4000

*) Versuchsreihe / test series

**) Grenzwert der Richtlinienfassung, die bei Erteilung der Fahrzeuggenehmigung Gültigkeit hatte /
Limit value of directive which was valid by vehicle type homologation



ANLAGE 4 zum Prüfbericht Nr. / *to test report no.* **20-00048-CM-GBM-00**
ENCLOSURE 4 **Typ / Type:** **M-HHM001**
Hersteller / Manufacturer: **Akrapovic d.d.,**
1295 Ivančna Gorica, Slovenia

Ergebnis der Prüfungen hinsichtlich Abgasverhalten /
Test results according pollution

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Versuchsreihe / Series A: (Fahrzeug lfd. Nr. / Vehicle no. 1)

Messung gemäß / *Tests regarding:*
entsprechend Typ / *according to Type*

134/2014 Anh. / *Annex II; III; VI*
I; II; V

Vorkonditionierung Katalysator / *preconditioning Catalytic*

entfällt - Begründung siehe Punkt 3.8. /
not applicable – reason see item 3.8.

Typ / Type I

Äquivalente Schwungmasse / <i>Equivalent flywheel mass</i>	230 kg
---	--------

WMTC Phase 3 2 WMTC Stage 3	Kategorie 3-2 <i>Class 3-2</i>	THC [mg/km]	NMHC [mg/km]	CO [mg/km]	NO _x [mg/km]
Test 1	R ₁	53	41	641	41
Test 2	R ₂	44	34	608	41
Test 3	R ₃	45	34	641	39
Mittelwert / <i>Average</i>		47	36	630	40
Grenzwerte / <i>Limits</i> 168/2013 Annex VI (A2) Euro 5 (Prüfzyklus Teil / <i>test cycle part 1 – 3</i>)		100	68	1000	60

Typ / Type II

Betriebsbedingung / <i>Running condition</i>	CO [Vol %]	Motordrehzahl / <i>Engine rpm</i> [min ⁻¹]	Motoröltemperatur / <i>Engine oil temperature</i> [°C]
Normale Leerlaufdrehzahl / <i>Nominal idle speed</i>	0,00	1600	88° C
Hohe Leerlaufdrehzahl / <i>Exceeded idle speed</i>	0,00	2500	89° C

Typ / Type V

Mathematisches Dauerhaltbarkeitsverfahren / *Mathematical durability procedure*

Verschlechterungsfaktor / <i>Deterioration Factor (DF)</i>	1,3	1,3	1,3	1,3
Test 1 R ₁ x DF	69	54	833	53
Test 2 R ₂ x DF	57	44	790	53
Test 3 R ₃ x DF	59	45	833	51
Mittelwert / <i>Average</i>	62	48	819	52
Grenzwerte / <i>Limits</i> 168/2013 Annex VI (A2) Euro 5 (Prüfzyklus Teil / <i>test cycle part 1 – 3</i>)	100	68	1000	60



1. **Vehicle**

1.1 Manufacturer: KTM AG
 1.2 Vehicle Ident. Number: VBKLETP30MM777579
 1.3 Commercial name / Type: KTM 690 Enduro R
 1.4 Type: KTM 690 LC4
 1.5 Variant: A
 1.6 Version: ---
 1.7 Class: L3e-A3
 1.8 Type approval number: without (Prototype)
 1.9 Vehicle kerb weight (m_{kerb}) [kg]: 160,0
 1.10 Mass of the vehicle in running order (m_{ro}) [kg]: 235,0
 1.11 Vehicle test mass (m_0) [kg]: 235,0
 1.12 Technically permissible max. laden mass (M) [kg]: 350,0
 1.13 Power to mass ratio index (PMR): 234,0
 1.14 Vehicle length [m]: 2,1
 1.15 Milage [km]: 724

2. **Engine**

2.1 Manufacturer / engine code: KTM AG
 2.2 Model: M-757*12920*
 2.3 Cycles: four stroke two stroke n.a.
 2.4 Number and arrangement of cylinders: 1 / Single
 2.5 Working principle: positive ignition compression ignition electrical hybrid
 2.6 Rated power [$\text{kW} / \text{min}^{-1}$]: 55 / 8000
 2.7 Idle engine speed [min^{-1}]: 1600
 2.8 Cylinder capacity [cm^3]: 693

3. **Transmission**

3.1 Type: manual gearbox automatic gearbox Type: without
 3.2 No. of gears: 6
 3.3 Ratio (Prime : Secondary) 15 : 46
 3.4 Driving mode(s): without



4. Equipment

4.1	Pre Catalyst(s) Make / type (left/right):	---	/	---	/	---
4.2	Catalyst(s) Make / type (left/right):	Akrapovic	/	---	/	---
4.5	Front exhaust silencer(s) Make / type (left/right):	---	/	---	/	---
4.6	Middle exhaust silencer(s) Make / type (left/right):	---	/	---	/	---
4.7	Rear exhaust silencer(s) Make / type (left/right):	Akrapovic	/	---	/	M-HHM001
4.8	Tail pipe(s) Make / type (left/right):	Akrapovic	/	---	/	2x D=20/D=25mm
4.9	Exhaust Flap(s) Make / type (left/right):	---	/	---	/	---
4.13	Tyres					
	Manufacturer:	Mitas		Mitas		
	Type:	E-07		E-07		
	Size:	90/90 -21 54T		140/80 -18 70T		
	Tyre pressure [bar]:	---		---		
	Tyre tread depth [mm]:	> 4		> 4		

5. Measurements

5.1 Conditions

Passby Parameter		Driving conditions			Calculation of the acceleration/factors	
Reference acceleration $a_{wot\ ref}$ [m/s ²]:	3,73	Gear:	3	i	---	$a_{wot\ ref} = 3.33 * \log(PMR) - 4.16$
-10% Reference acc. $a_{wot\ ref\ min}$ [m/s ²]:	3,36	test acceleration $a_{wot\ test}$ [m/s ²]:	3,62	i+1	---	$k = n.a.$
+10% Reference acc. $a_{wot\ ref\ max}$ [m/s ²]:	4,10	aver. vehicle velocity when ref. point at AA'	39,1		---	$k_p = (1 - (a_{urban}/a_{wot\ test}))$
Target acceleration a_{urban} [m/s ²]:	1,84	aver. vehicle velocity when ref. point at PP'	50,4		---	$a_{wot\ i} = ((V_{BB}/3.6)^2 - (V_{AA}/3.6)^2) / (2 * (20+i))$
Gear weighting factor k:	n.a.	aver. vehicle velocity when ref. point at BB'	60,0		---	$a_{wot\ i+1} = n.a.$
Partial power factor k_p :	0,49	Operating mode:	without		---	$a_{urban} = 1.28 * \log(PMR) - 1.19$
Test speed v_{test} at PP' (±1) [km/h]:	50,0	Gearbox:	Locked		---	Evaluation $a_{wot\ test}$: AA'-BB'

5.2 Measurement results pass by noise

Gear used	Run	Mode	acc. point ⁽¹⁾ [m]	A-A'		P-P'		B-B'		$a_{wot\ test}$ [m/s ²]	Sound level L ⁽²⁾		L ⁽³⁾ aver	
				v [km/h]	n [rpm]	v [km/h]	n [rpm]	v [km/h]	n [rpm]		left [dB(A)]	right [dB(A)]	li [dB(A)]	re [dB(A)]
3	1	wot ₍₃₎	0,0	38,1	2884	49,5	3683	59,0	4420	3,54	81,5	80,7	81,8	80,9
	2			39,8	3113	51,0	3827	60,6	4530	3,65	81,8	80,8		
	4			39,4	3090	50,7	3782	60,4	4519	3,66	82,0	81,1		
	9	crs ₍₃₎		50,3	3670	50,5	3664	50,6	3675	---	73,9	73,2	73,8	73,0
	11			49,9	3650	50,1	3669	49,8	3602	---	73,6	72,8		
	13			49,9	3594	49,1	3593	49,7	3603	---	73,9	73,0		
---	---	---	---	---	---	---	---	---	---	---	---	---	---	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	

1) Acceleration point according Line A-A'; 2) values reduced by 1 dB(A); Numbers written in *italics* a corrected acc. to Annex3, Pt. 2.1; 3) Intermediate Results of each side of the vehicle

$L_{wot\ rep} = L_{wot\ (i+1)} + k * (L_{wot\ (i)} - L_{wot\ (i+1)})$; [In the case of a single gear ratio test the values are the test result of each test; PMR > 25]
 $L_{crs\ rep} = L_{crs\ (i+1)} + k * (L_{crs\ (i)} - L_{crs\ (i+1)})$; [In the case of a single gear ratio test the values are the test result of each test; PMR > 25]

5.3 Results

	Gear		L_{rep}		$L_{wot\ max\ limit}$ [dB(A)]	Test result L_{urban} [dB(A)]	Calculation L_{urban} (PMR > 25)
	i [dB(A)]	i+1 [dB(A)]	wot [dB(A)]	crs [dB(A)]			
L_{wot}	81,8	---	81,8	73,8	82,0	77,9	$L_{urban} = L_{wot\ rep} - k_p * (L_{wot\ rep} - L_{crs\ rep})$ $L_{urban} = 81,8 - 0,49 * (81,8 - 73,8)$
L_{crs}	73,8	---					

5.4 Limits

Category	Power-to-mass ratio index (PMR)	Limit value for L_{urban} [dB(A)]	applicable Limit value
First category	PMR ≤ 25	73	
Second category	25 < PMR ≤ 50	74	
Third category	PMR > 50	77 ^(a)	X

(a) For motorcycles tested in second gear only in Annex 3, the limit value is increased by 1dB(A) until the date in Paragraph 12.7. Data for affected vehicles shall be studied, and discussions shall be made in case of further extension.



5.5 Sound level of stationary vehicle

Operation mode: without

Measuring results	left	right
	[dB(A)]	[dB(A)]
1 st Run	---	91,0
2 nd Run	---	90,9
3 rd Run	---	90,9
4 th Run	---	---
average Value	---	90,9

Engine speed [rpm]	Target engine speed	
4000	---	n = 75% S (S ≤ 5000 min-1)
	X	n = 50% S (S > 5000 min-1)

Result [dB(A)]	91
-----------------------	-----------

5.5.1 Sound level of stationary vehicle in different operation modes

Operation mode	Result [dB(A)]
---	---
---	---
---	---
---	---
---	---

Engine speed [rpm]	Target engine speed	
---	---	n = 75% S (S ≤ 5000 min-1)
	---	n = 50% S (S > 5000 min-1)

6. **Weather conditions**

Air temperature [°C]:	23,6
Surface temperature [°C]:	48,2
Air pressure [mbar]:	998

Air humidity [%]:	46,5
Wind speed [m/s]:	2,4
Wind direction [°]:	112,2

7. **General Requirements**

Ambient noise level	
before Measurement [dB(A)]:	46,1
after Measurement [dB(A)]:	46,1

Calibration level (Target) [dB(A)]:	94,0
Calibration level Micro 1 [dB(A)]:	94,0
Calibration level Micro 2 [dB(A)]:	94,0

- 8. **Test Standard:** UN ECE-R 41.04, Supp. 7
- 9. **Expert:** Wibmer Chr.
- 10. **Date / place of test:** 07.07.2020 / Akrapovic d.d., Precna (SI)
- 10. **Date of issue:** 14.07.2020
- 11. **Remarks:** Slip on system with catalytic converter
2x Insert tube in the tube D=20mm/D=25mm



1. **Vehicle**

1.1 Manufacturer: Husqvarna
 1.2 Vehicle Ident. Number: VBKUSVP35MM781894
 1.3 Commercial name / Type: 701 SMC
 1.4 Type: ---
 1.5 Variant: ---
 1.6 Version: ---
 1.7 Class: L3e-A3
 1.8 Type approval number: without (Prototype)
 1.9 Vehicle kerb weight (m_{kerb}) [kg]: 159,0
 1.10 Mass of the vehicle in running order (m_{ro}) [kg]: 234,0
 1.11 Vehicle test mass (m_0) [kg]: 235,0
 1.12 Technically permissible max. laden mass (M) [kg]: 350,0
 1.13 Power to mass ratio index (PMR): 235,0
 1.14 Vehicle length [m]: 2,1
 1.15 Milage [km]: 43

2. **Engine**

2.1 Manufacturer / engine code: Husqvarna
 2.2 Model: M-757*03913*
 2.3 Cycles: four stroke two stroke n.a.
 2.4 Number and arrangement of cylinders: 1 / Single
 2.5 Working principle: positive ignition compression ignition electrical hybrid
 2.6 Rated power [kW / min^{-1}]: 55 / 8000
 2.7 Idle engine speed [min^{-1}]: 1600
 2.8 Cylinder capacity [cm^3]: 693

3. **Transmission**

3.1 Type: manual gearbox automatic gearbox Type: without
 3.2 No. of gears: 6
 3.3 Ratio (Prime : Secondary) 16 : 42
 3.4 Driving mode(s): without / --- / --- / --- / --- / --- / ---



4. Equipment

4.1	Pre Catalyst(s) Make / type (left/right):	---	/	---	/	---
4.2	Catalyst(s) Make / type (left/right):	Akrapovic	/	---	/	---
4.5	Front exhaust silencer(s) Make / type (left/right):	---	/	---	/	---
4.6	Middle exhaust silencer(s) Make / type (left/right):	---	/	---	/	---
4.7	Rear exhaust silencer(s) Make / type (left/right):	Akrapovic	/	---	/	M-HHM001
4.8	Tail pipe(s) Make / type (left/right):	Akrapovic	/	---	/	2x D=20/D=25mm
4.9	Exhaust Flap(s) Make / type (left/right):	---	/	---	/	---

4.13 Tyres

Manufacturer:	Continental	Continental
Type:	ContiAttack SM EVO	ContiAttack SM EVO
Size:	120/70 R17 58H	160/60 R17 69H
Tyre pressure [bar]:	---	---
Tyre tread depth [mm]:	> 4	> 4

5. Measurements

5.1 Conditions

Passby Parameter	
Reference acceleration $a_{wot\ ref}$ [m/s ²]:	3,74
-10% Reference acc. $a_{wot\ ref\ min}$ [m/s ²]:	3,37
+10% Reference acc. $a_{wot\ ref\ max}$ [m/s ²]:	4,11
Target acceleration a_{urban} [m/s ²]:	1,84
Gear weighting factor k :	n.a.
Partial power factor k_p :	0,51
Test speed v_{test} at PP' (± 1) [km/h]:	50,0

Driving conditions		i	i+1
Gear:		3	---
test acceleration $a_{wot\ test}$ [m/s ²]:		3,79	---
aver. vehicle velocity when ref. point at AA'		38,2	---
aver. vehicle velocity when ref. point at PP'		49,9	---
aver. vehicle velocity when ref. point at BB'		60,2	---
Operating mode:		without	
Gearbox:		Locked	

Calculation of the acceleration/factors	
$a_{wot\ ref} = 3.33 * \log(PMR) - 4.16$	
$k = n.a.$	
$k_p = (1 - (a_{urban}/a_{wot\ test}))$	
$a_{wot\ i} = ((V_{BB}/3.6)^2 - (V_{AA}/3.6)^2) / (2 * (20+i))$	
$a_{wot\ i+1} = n.a.$	
$a_{urban} = 1.28 * \log(PMR) - 1.19$	
Evaluation $a_{wot\ test}$: AA'-BB'	

5.2 Measurement results pass by noise

Gear used	Run	Mode	acc. point ⁽¹⁾ [m]	A-A'		P-P'		B-B'		$a_{wot\ test}$ [m/s ²]	Sound level $L^{(2)}$		$L_{aver}^{(3)}$		
				v [km/h]	n [rpm]	v [km/h]	n [rpm]	v [km/h]	n [rpm]		left [dB(A)]	right [dB(A)]	li [dB(A)]	re [dB(A)]	
3	3	wot ₍₃₎	0,0	38,7	2686	50,1	3367	60,1	4050	3,69	80,8	80,4	80,8	80,6	
	4			37,8	2622	49,7	3349	60,3	4062	3,85	80,8	80,8			
	6			38,0	2628	50,0	3353	60,3	3896	3,83	80,7	80,7			
	5	crs ₍₃₎		50,5	3350	50,4	3359	50,5	3335		72,4	71,0	72,2	71,4	
	7			49,5	3281	49,5	3301	49,4	3285		72,1	71,8			
	8			49,5	3288	49,6	3305	49,3	3282		72,2	71,5			
	---	---		---	---	---	---	---	---	---	---	---	---	---	---
	---	---		---	---	---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---		
---	---	---	---	---	---	---	---	---	---	---	---	---	---		

1) Acceleration point according Line A-A'; 2) values reduced by 1 dB(A); Numbers written in *italics* a corrected acc. to Annex3, Pt. 2.1; 3) Intermediate Results of each side of the vehicle

$L_{wot\ rep} = L_{wot\ (i+1)} + k * (L_{wot\ (i)} - L_{wot\ (i+1)})$; [In the case of a single gear ratio test the values are the test result of each test; PMR > 25]
 $L_{crs\ rep} = L_{crs\ (i+1)} + k * (L_{crs\ (i)} - L_{crs\ (i+1)})$; [In the case of a single gear ratio test the values are the test result of each test; PMR > 25]

5.3 Results

	Gear		L_{rep}		$L_{wot\ max\ limit}$ [dB(A)]	Test result L_{urban} [dB(A)]
	i [dB(A)]	i+1 [dB(A)]	wot [dB(A)]	crs [dB(A)]		
L_{wot}	80,8	---	80,8	72,2	82,0	76,4
L_{crs}	72,2	---				

Calculation L_{urban} (PMR > 25)	
$L_{urban} = L_{wot\ rep} - k_p * (L_{wot\ rep} - L_{crs\ rep})$	
$L_{urban} = 80,8 - 0,51 * (80,8 - 72,2)$	

5.4 Limits

Category	Power-to-mass ratio index (PMR)	Limit value for L_{urban} [dB(A)]	applicable Limit value
First category	PMR ≤ 25	73	
Second category	25 < PMR ≤ 50	74	
Third category	PMR > 50	77 ^(a)	X

(a) For motorcycles tested in second gear only in Annex 3, the limit value is increased by 1dB(A) until the date in Paragraph 12.7. Data for affected vehicles shall be studied, and discussions shall be made in case of further extension.



5.5 Sound level of stationary vehicle

Operation mode: without

Measuring results	left	right
	[dB(A)]	[dB(A)]
1 st Run	---	90,7
2 nd Run	---	90,8
3 rd Run	---	90,8
4 th Run	---	---
average Value	---	90,8

Engine speed [rpm]	Target engine speed	
	---	n = 75% S (S ≤ 5000 min-1)
4000	X	n = 50% S (S > 5000 min-1)

Result [dB(A)]	91
-----------------------	-----------

5.5.1 Sound level of stationary vehicle in different operation modes

Operation mode	Result [dB(A)]
---	---
---	---
---	---
---	---
---	---

Engine speed [rpm]	Target engine speed	
	---	n = 75% S (S ≤ 5000 min-1)
---	---	n = 50% S (S > 5000 min-1)

6. Weather conditions

Air temperature [°C]:	23,9
Surface temperature [°C]:	49,9
Air pressure [mbar]:	997,7

Air humidity [%]:	38,1
Wind speed [m/s]:	2,9
Wind direction [°]:	78,5

7. General Requirements

Ambient noise level	
before Measurement [dB(A)]:	45,7
after Measurement [dB(A)]:	45,7

Calibration level (Target) [dB(A)]:	94,0
Calibration level Micro 1 [dB(A)]:	94,0
Calibration level Micro 2 [dB(A)]:	94,0

8. **Test Standard:** UN ECE-R 41.04, Supp. 7, Annex 3
9. **Expert:** Wibmer Chr.
10. **Date / place of test:** 07.07.2020 / Akrapovic d.d., Precna (SI)
10. **Date of issue:** 14.07.2020
11. **Remarks:** Slip on system with catalytic converter
2x Insert tube in the tube D=20mm/D=25mm



Item No.	(Sub) categories	Detailed information
B.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer): AKRAPOVIC Exhaust System Technology
0.8.	L1e — L7e	Type: M-HHM001
0.8.1.	L1e — L7e	Commercial name(s) (if available): n.a.
0.8.2.	L1e — L7e	Type-approval number(s) (if available): e26*134/2014*2018/295G*08158*00
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available): n.a.
0.9.	L1e — L7e	Company name and address of manufacturer: Akrapovic d.d. Malo Hudo 8a 1295 Ivančna Gorica Slovenia
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants: n.a.
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any: n.a.
0.10.		Vehicle(s) for which the system/separate technical unit is intended for:
0.10.1.	L1e — L7e	Type: see Technical Report
0.10.2.	L1e — L7e	Variant: see Technical Report
0.10.3.	L1e — L7e	Version: see Technical Report
0.10.4.	L1e — L7e	Commercial name(s) (if available): see Technical Report
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle : see Technical Report
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Controlled by ISO 9001:2008 Quality Management System certified by TÜV SÜD Management Service GmbH Registration no.: 12 100 31148 TMS
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.8.		Propulsion unit performance
1.8.1.	L3e, L4e, L5e, L7e-A, L7e-B2	Declared maximum vehicle speed: km/h see Technical Report
1.8.2.	L1e, L2e, L6e, L7e-B1, L7e-C	Maximum design vehicle speed : and gear in which it is reached: n.a.
1.8.3.	L1e — L7e	Maximum net power combustion engine: . kW at . min ⁻¹ at A/F ratio: see Technical Report
1.8.4.	L1e — L7e	Maximum net torque combustion engine: . Nm at . min ⁻¹ at A/F ratio: see Technical Report
1.8.5.	L1e — L7e	Maximum continuous-rated power electric motor (15/30 minutes power): n.a.
1.8.6.	L1e — L7e	Maximum continuous-rated torque electric motor: Nm at min ⁻¹ n.a.
1.8.7.	L1e — L7e	Maximum continuous total power for propulsion(s): kW. at ... min ⁻¹ at A/F ratio: n.a.
1.8.8.	L1e — L7e	Maximum continuous total torque for propulsion(s): Nm at min ⁻¹ at A/F ratio: n.a.
1.8.9.	L1e — L7e	Maximum peak power for propulsion(s): kW at min ⁻¹ at A/F ratio: n.a.
4.		GENERAL INFORMATION ON ENVIRONMENTAL AND PROPULSION UNIT PERFORMANCE
4.0		General information on environmental and propulsion performance
4.0.1.	L1e — L7e	Environmental step : Euro (4/5)
4.0.2.	L1e — L7e	Fuel consumption: see WVTA
4.0.3.	L1e — L7e	CO ₂ emissions: see WVTA
4.0.4.	L1e — L7e	Energy consumption: n.a.
4.0.5.	L1e — L7e	Electric range: n.a.
4.0.6.		Sound level
4.0.6.1.	L1e — L7e	Limit value for L _{urban} : see Technical Report
4.4.	L1e — L7e	Additional information on environmental and propulsion unit performance
4.4.4.	L1e — L7e	All additional technical information according to UN Regulation No. 92, are mentioned in the Technical Report or shown in the attachments.



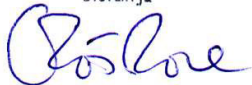
Information Document M-HHM001

relating to EU type-approval of a noise-abatement device as a STU

TÜV SÜD Auto Service Technical Report: 20-00048-CM-GBM-00

Anlage <i>Enclosure</i>	Zeichnung Nr. <i>Drawing no.</i>	Datum <i>Date</i>	Seiten <i>Pages</i>
Zeichnung Schalldämpfer <i>Drawing silencer</i>	M-HHM001	11.09.2020	1
Stückliste <i>Part list</i>	M-HHM001	-	1
Zusammenstellungszeichnung <i>Assembly drawing</i>	KTM 690 SMC R KTM 690 ENDURO R HUSQVARNA 701 Supermoto HUSQVARNA 701 ENDURO	-	1
Montageanleitung <i>Installation instructions</i>	KTM 690 SMC R KTM 690 ENDURO R HUSQVARNA 701 Supermoto HUSQVARNA 701 ENDURO	09/2020	14
ASEP Bestätigung <i>Statement of compliance ASEP</i>	-	07.09.2020	1

 **AKRAPOVIČ** . d.d.
Malo Hudo 8a, 1295 Ivančna Gorica,
Slovenija



Rosa Uroš, Managing Director

29.10.2020



Partial exhaust system / Slip-ON line / EC / ECE / Type approval

**KTM 690 SMC R
KTM 690 ENDURO R
HUSQVARNA 701 Supermoto
HUSQVARNA 701 ENDURO**

Product code: S-KTM6SO1-HHMT

