



TÜRK STANDARTLARI
ENSTİTÜSÜ



T.C. ULAŞTIRMA VE
ALTYAPI BAKANLIĞI

TASARIM TİP ONAY SERTİFİKASI

CERTIFICATE of TYPE APPROVAL

No: TR/TSE04*0236

Türk Standartları Enstitüsü

**TÖKE MAKİNA OTOMOTİV İTHALAT İHRACAT
SANAYİ VE TİCARET LİMİTED ŞİRKETİ**

firmasının

SABİT TANK

tasarımını

Tehlikeli Maddelerin Karayoluyla Uluslararası
Taşınmasına İlişkin Avrupa Antlaşması (ADR) 4.3, 6.8 ve
TS EN 13094:2015

gereklerine göre uygun bulmuştur.

Turkish Standards Institution certifies that

**TÖKE MAKİNA OTOMOTİV İTHALAT İHRACAT
SANAYİ VE TİCARET LİMİTED ŞİRKETİ**

has a design of

FIXED TANK

that meets the requirements of

*The European Agreement Concerning the
International Carriage of Dangerous Goods by Road
(ADR) 4.3, 6.8 and EN 13094:2015*

İlk sertifika numarası: TR/TSE04*0236
İlk sertifika düzenlenme tarihi: 20.07.2023

The number of the first certificate: TR/TSE04*0236
The date of issue of the first certificate: 20.07.2023

Sertifika 20.07.2023 tarihinde düzenlenmiştir.
Sertifika 27.04.2033 tarihine kadar geçerlidir.

Certificate is prepared at 20.07.2023
Certificate is valid until 27.04.2033

**Not: Bu sertifika TR/TSE04*0236/151 numaralı ve
20.07.2023 tarihli kapsamla geçerlidir.**

***Note: This certificate is only valid with the scope
TR/TSE04*0236/151 numbered and 20.07.2023
dated.***



Öncü ALPER
Tehlikeli Madde Taşımacılığı
Müdürü

Türk Standartları Enstitüsü
Tehlikeli Madde ve Kombine Taşımacılık Müdürü

*Director of Dangerous Goods and
Combined Transportation Department
Turkish Standards Institution*



ULAŞIM VE LOJİSTİK SİSTEMLERİ MERKEZİ BAŞKANLIĞI
HEAD OF TRANSPORTATION AND LOGISTIC SYSTEMS CENTERTASARIM ONAY SONUÇ RAPORU
DESIGN APPROVAL RESULT REPORT

1. GENEL BİLGİLER/ GENERAL INFORMATION			
Başvuru Sahibi: TÖKE MAKİNA OTOMOTİV İTHALAT İHRACAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ Applicant			
Adresi: HOROZLUHAN MAH. İLKAY SOK. ARSAN TİC. SİT. NO: 8 SELÇUKLU / KONYA Address:			
Ülke: TÜRKİYE Country			
Başvuru Evrak/Proje No Application Doc./ Project No	36064 / 2726429	Rapor Tarih ve No Report Date and No	03.02.2023 / 1339
Tasarım Onay Numarası Design Approval Number	TR/TSE04*0236/151		
Tank Kodu/ Tank Code	LGBF	Tank Özel Hükümü Tank Special Provision	TU9
Portatif Tank Talimatı Portable Tank Instruction	-	Portatif Tank Özel Hükümü Portable Tank Special Provision	-
Taşıma Biriminin Tanımı Type of Transport Unit	Sabit Tank/ Fixed Tank	Test Basıncı 10 bar üstünde mi? Is test pressure above 10 bar?	Evet/ Yes <input type="checkbox"/> Hayır/ No <input checked="" type="checkbox"/>
Taşınacak Madde Sınıf 2 mi? Is Class 2 Substance carried?	Evet/ Yes <input type="checkbox"/> Hayır/ No <input checked="" type="checkbox"/>	Taşınacak Madde Kriyojenik Sıvı mı? Is Cryogenic Liquid carried?	Evet/ Yes <input type="checkbox"/> Hayır/ No <input checked="" type="checkbox"/>
Başvuru Tipi Application Type	İlk Başvuru <input checked="" type="checkbox"/> Initial Application	Kapsam Değişikliği* <input type="checkbox"/> Modification of scope	Belge Yenileme <input type="checkbox"/> Renewal
*Kapsam Değişikliğine İlişkin Açıklama Explanation for Modification of Scope	-		

2. TASARIM BİLGİLERİ/ DESIGN INFORMATION	
Firma Tip Kodu/İsmi/ Company's Type Code/Name: TK-ST-ALM-ADR01	
Araç Tanımı/ Type of vehicle : Kamyon/ Truck <input type="checkbox"/> Yarı Römork/ Semi-Trailer <input checked="" type="checkbox"/> Römork/ Trailer <input type="checkbox"/> Sarnıç Vagon/ Tank-Wagon <input type="checkbox"/>	
Tank Tipi/ Type of tank : Şasi Üzerine Bağlı/ Fixed to the chassis <input type="checkbox"/> Kendini Taşıyan Gövdeli/ Self-Supporting Body <input checked="" type="checkbox"/>	
Tank Şasi Bağlantısı/ Tank Chassis Connection : Kaynaklı/ Welded <input type="checkbox"/> Cıvatalı/ Bolted <input checked="" type="checkbox"/> Diğer/ Other:	
Tank Gövde Kesiti / Tank Shell Cross- Section : Dairesel/ Circular <input checked="" type="checkbox"/> Eliptik/ Elliptical <input type="checkbox"/> Diğer/ Other: Bölgesel Konik (Şişe Tip) Regional Conical (Bottle Type)	
Uç Tipi/ End Type : Küresel/ Hemispherical <input type="checkbox"/> Torisferik/ Torispherical <input type="checkbox"/> Diğer/ Other:	
Gövde Et Kalınlığı/ Thickness of Shell : min. 5 mm, konik alt kısım min. 6 mm veya destekli/Conical bottom part min. 6 mm or supported	
Uçların Et Kalınlığı/ Thickness of Ends : min. 5 mm	
Bölme Et Kalınlığı/ Thickness of Partition : min. 5 mm	
Korozyon Payı/ Corrosion Allowance : Yok/ None	
İmalat Tipi/ Manufacturing Method : Kaynaklı/ Welded	Kaynak Katsayısı (λ)/ Welding Coefficient: Ön Bombe/Front End: 1 Gövde, Arka Bombe ve Bölme/Shell, Rear End and Compartment: 0.8
Isıl İşlem/ Heat Treatment : Var/ Yes <input type="checkbox"/> Yok/ No <input checked="" type="checkbox"/> Açıklama/ Explanation : -	
Tank Gövde Malzemesi/ Tank Shell Material : Alüminyum/Aluminum (EN AW 5059, EN AW 5088, EN AW 5182, EN AW 5186) (TS EN 14286)	
Tank Hasar Koruması : Var/ Yes <input checked="" type="checkbox"/> Yok/ No <input type="checkbox"/> İlgili Standard/Madde/ Relevant Std/Clause : ADR 6.8.2.1.20 (b) TS EN 13094 6.9.2.2 (a)	
Hasar Koruma Tipi : Çift Cidarlı Tank/ Double Wall Tank <input type="checkbox"/> İskelet Yapı/ Skeleton Structure <input type="checkbox"/> Ringler/ Rings <input type="checkbox"/>	
Type of protection against damage : Sandviç Yapı/ Sandwich Construction <input type="checkbox"/> Bölmeli Yapı/ Partitions <input checked="" type="checkbox"/>	
Dış Basınca Karşı Koruma Elemanı : İç Ring <input type="checkbox"/> Dış Ring <input type="checkbox"/> Diğer/Other:	
Stiffeners Against External Pressure : İç Ring External Ring	
Test Basıncı/ Test Pressure : 0,47 bar	
Bölme Test Basıncı/ Compartment Test Pressure : 0,46 bar	
Sızdırmazlık Test Basıncı/ Leakproofness Test Pressure : min. 0,2 bar	
Maksimum İzin Verilebilir Çalışma Basıncı : 0,12 bar	
Maximum Allowable Working Pressure	
Maksimum Ağırlık/ Maximum Gross Mass : 35500 kg	
Maksimum Faydalı Yük/ Maximum Payload : 30000 kg	
Maksimum Kapasite/ Maximum Capacity : 44000 lt	
Maksimum Bölme Kapasitesi/ Maximum Compartment Capacity : 20000 lt	
Minimum Bölme Sayısı/ Minimum Number of Compartments : 2	

TASARIM ONAY NUMARASI/ DESIGN APPROVAL NUMBER: TR/TSE04*0236/151

Doküman Kodu: ULM-02-FR-04-024 Yayın Tarihi: 05.03.2014 Revizyon Tarihi / No: 6.01.2022 / 11

Bu dokümanın güncelliği, elektronik ortamda TSE Doküman Yönetim Sisteminden takip edilmelidir.

Sayfa 1 / 4

A.G.



ULAŞIM VE LOJİSTİK SİSTEMLERİ MERKEZİ BAŞKANLIĞI
HEAD OF TRANSPORTATION AND LOGISTIC SYSTEMS CENTER

TASARIM ONAY SONUÇ RAPORU
DESIGN APPROVAL RESULT REPORT



Tasarım Sıcaklığı/ Design Temperature	: 20 °C	
İşletme Sıcaklığı/ Operation Temperature	: -20 °C / +50 °C	
İç Kaplama/ Inner Coating/Lining	: Yok/ No <input checked="" type="checkbox"/> Var/ Yes <input type="checkbox"/> Cinsi/ Type/Brand :	Kalınlık/ Thickness:mm
Yalıtım/ Insulation	: Yok/ No <input checked="" type="checkbox"/> Var/ Yes <input type="checkbox"/> Cinsi/ Type/Brand :	Kalınlık/ Thickness:mm
3. VARYASYON BİLGİLERİ (Teknik resimlerde ulaşılamayan varyasyon bilgileri aşağıda belirtilmiştir) VARIATION INFORMATION (Variation information that cannot be accessed in the technical drawings is given below.)		
Tüm bilgiler TK-ST-ALM-ADR01-GTR Rev.2 numaralı genel teknik resimde mevcuttur./ All information is available in the general technical drawing numbered TK-ST-ALM-ADR01-GTR Rev.2.		

4. ÇALIŞMA MEKANİZMASI/ OPERATION MECHANISM		
Tankın Doldurma ve Boşaltma Mekanizması: Filling and Discharge Mechanism of Tank	Yerçekimi/ Gravity <input checked="" type="checkbox"/>	Basınçla/ Pressure <input checked="" type="checkbox"/>
Alttan Doldurulabilen/Boşaltılabilen Tank/ Bottom Filled/Discharged Tank	<input checked="" type="checkbox"/>	13 bar (Doldurma/ Filling), 0,35 bar (Boşaltma/ Discharge)
Üstten Doldurulabilen Tank/Boşaltılabilen Tank/ Top Filled/Discharged Tank	<input type="checkbox"/>	
Hermetik Olarak Kapatılmış Tank/ Hermetically Closed Tank	<input type="checkbox"/>	
Kriyojenik Tank/ Cryogenic Tank	<input type="checkbox"/>	
Isıtma Mekanizmalı Tank/ Tank with Heating Mechanism	<input type="checkbox"/>	
Soğutma Mekanizmalı Tank/ Tank with Cooling Mechanism	<input type="checkbox"/>	
Vakumla Çalışan Tank/ Vacuum Operated Tank	<input type="checkbox"/>	Dış Tasarım Basıncı/ External Design Pressure:..... bar

5. TEÇHİZATLAR/ EQUIPMENT	
Teçhizat Koruması Tipi/ Type of Equipment Protection: Gövde Dış Hatları/ Shell Contours	Enlemesine Kutu Profilleri/ Transverse Box Sections
Teçhizat Koruması Standardı/ Standard of Equipment Protection: TS EN 13094:2015 - 6.14.2.3 / 6.14.2.6	
Basınç Emniyet Valfi/ Pressure Safety Valve: 0,12 bar pozitif basınç ayarlı	
Vakum Emniyet Valfi/ Vacuum Safety Valve: 0,03 bar negatif basınç ayarlı	
ÇEGK ve Batarya Tipi Araçlarda Kullanılan Tüplerin Tasarım Standardı: -	Design Standard of Cylinders of MEGC and Battery Vehicle
ÇEGK ve Batarya Tipi Araçlarda Kullanılan Tüplerin Tasarım Onay Numarası: -	Design Approval Number of Cylinders of MEGC and Battery Vehicle

6. TEKNİK RESİMLER VE DOKÜMANLAR (Rapor ekinde) TECHNICAL DRAWINGS AND DOCUMENTS (Attached to this report)			
Dokümanın adı/ Document Name	Doküman numarası/ Document No	Uygun/ Conforming	Uygun Değil/ Non Conforming
Tank kompleksi (Genel Teknik Resim) Tank Complete (General Technical Drawing)	TK-ST-ALM-ADR01-GTR Rev.2	✓	
Tank şasi bağlantıları/ Tank Chassis Connections	TK-ST-ALM-ADR01-TR2 Rev.1 TK-ST-ALM-ADR01-TR3 Rev.1 TK-ST-ALM-ADR01-TR4 Rev.1	✓	
Teçhizat koruması detayı/ Equipment Protection Detail	TK-ST-ALM-ADR01-TR5	✓	
Tankın hasar koruması detayı/ Protection Against Damage Detail	TK-ST-ALM-ADR01-TR6 TK-ST-ALM-ADR01-TR7	✓	
Tankın borulama detayı/ Piping Detail	TK-ST-ALM-ADR01-TR8	✓	
P&I diyagramı/ P&I Diagram	TK-ST-ALM-ADR01-TR8	✓	
Tank bombe resimleri detayı/ Dished Head details	TK-ST-ALM-ADR01-TR6	✓	
Tankın nozul yerleşim planı/ Nozzle Orientation Plan		-	-

TASARIM ONAY NUMARASI/ DESIGN APPROVAL NUMBER: TR/TSE04*0236/151

Doküman Kodu: ULM-02-FR-04-024 Yayın Tarihi: 05.03.2014 Revizyon Tarihi / No: 6.01.2022 / 11

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Sayfa 2 / 4

08.03.2014



ULAŞIM VE LOJİSTİK SİSTEMLERİ MERKEZİ BAŞKANLIĞI
HEAD OF TRANSPORTATION AND LOGISTIC SYSTEMS CENTER

TASARIM ONAY SONUÇ RAPORU
DESIGN APPROVAL RESULT REPORT



Nozul ve flanş detayları/ Nozzle and Flange Details	-	-	-
Dış tank detay resmi, iç tank-dış tank bağlantı detayı/ Detail drawing of outer tank, inner tank-outer tank connection detail	-	-	-
İşaretleme plakalarına ait resimler/ Pictures of marking plates	TK-ST-ALM-ADR01-TR9	✓	
Tankın iskelet yapısına ait teknik resim ve detay/ Technical drawing and detail of the skeleton structure of the tank	-	-	-
Teçhizat listesi/ Equipment list	TK-ST-ALM-ADR01-TR8	✓	
Elleçleme için kullanılan bağlantı ekipmanlarına (halkalar, mapalar, askılar vb.) ilişkin resimler/ Drawings of fastening equipments for Handling (rings, eyebolts, hangers, etc)	-	-	-
Diğer/ Other:	-	-	-

7. TAŞINABİLECEK MALZEMELER/ DANGEROUS GOODS WHICH MAY BE TRANSPORTED		
Taşıdığı En Büyük Yoğunluk/ Maximum Density	Hesaplamalarda 1,00 kg/lt kullanılmıştır./ 1,00 kg/l was used in calculations	
Taşınacak tehlikeli maddelerin işletme koşullarında ve 50 °C'deki maksimum buhar basıncı/ Maximum vapor pressure of dangerous goods to be carried under operating conditions and at 50 °C	0,1 bar	
Maksimum Dolum Derecesi/ Maximum Filling Degree	%96 (Taşınacak her tehlikeli madde için ADR 4.3.2.2'ye göre hesap yapılmalıdır./ Calculation must be made according to ADR 4.3.2.2 for each dangerous substance to be transported.)	
Özel Hükümlerle İlgili Hususlar/ Regarding Special Provisions		
Özel Hüküm/ Special Provision	Açıklama/ Explanation	
TU9	6.8.2.1.14 (a) uyarınca tasarımı yapılan ve 6.8.2.2.6'ya uygun teçhizatla donatılmış olan tanklarda 50°C'de 110 kPa'nın (1.1 bar) üstünde, ancak 150 kPa'nın (1.5 bar) altında buhar basıncına sahip BM No. 1203 petrol (gazolin) de taşınabilir./ UN No. 1203 petrol (gasoline) with a vapour pressure at 50°C of more than 110 kPa (1.1 bar) but not above 150 kPa (1.5 bar) may also be carried in tanks designed according to 6.8.2.1.14 (a) and having equipment conforming to 6.8.2.2.6.	
Kısıtlamalar/ Restrictions		
Bu tasarım onayı yalnızca aşağıda belirtilen malzemelerin taşınmasını kapsamaktadır. / This design approval only covers the transportation of the following materials.		
UN Numarası/ UN Number	Adı/ Name	Paketleme Grubu/ Packaging Group
-	-	-

8. GENEL BİLGİLER/ GENERAL REMARKS
1. Tankın tasarım tip onayı, ilgili tank koduna, ADR/RID Bölüm 4.3'te tanımlanan tank hiyerarşisine uyan tank kodlarına ve ilgili tank özel hükümlerine uygun olarak ADR/RID Tablo A'da bulunan, tankta kullanılan gövde malzemesi, conta malzemesi, kaplama malzemesi ve teçhizatlarla uyumlu olan tehlikeli maddelerin taşınmasını kapsamaktadır. The design type approval of the tank covers the transport of dangerous goods in ADR/RID Table A in accordance with the relevant tank code conforming to the tank hierarchy defined in ADR/RID Chapter 4.3 and the relevant tank specific provisions, which are compatible with the body material, gasket material, coating/lining material and equipment used in the tank.
2. Taşınacak tehlikeli maddeler için; TS EN 12285-1 standardında verilen uyumluluk şartları göz önüne alınmalıdır. For dangerous goods to be transported; The compliance conditions given in the TS EN 12285-1 standard should be taken into account.
3. ADR/RID Bölüm 3.2 Tablo A Sütun 3 (b)'ye göre Sınıf 3 alevlenebilir sıvıların parlama noktası kriterlerini karşılayan maddelerin, bu tasarım onay kapsamındaki tanklarda taşınması durumunda tankta kullanılacak nefeslik veya vakum valflerinin, alevin tankın içerisine iletimini engelleyecek yapıda olması gerekmektedir. In case the substances meeting the flash-point criteria of Class 3 according to ADR/RID 3.2 Table A Column 3 (b) are carried in tanks within the scope of this design approval, the breathers or vacuum valves to be used in the tank shall be of a structure to prevent the passage of flame into the tank.

TASARIM ONAY NUMARASI/ DESIGN APPROVAL NUMBER: TR/TSE04*0236/151

Doküman Kodu: ULM-02-FR-04-024 Yayın Tarihi: 05.03.2014 Revizyon Tarihi / No: 6.01.2022 / 11

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Sayfa 3 / 4

08.04

✓



ULAŞIM VE LOJİSTİK SİSTEMLERİ MERKEZİ BAŞKANLIĞI
HEAD OF TRANSPORTATION AND LOGISTIC SYSTEMS CENTER

TASARIM ONAY SONUÇ RAPORU
DESIGN APPROVAL RESULT REPORT



9. HESAPLAMALARIN KONTROL EDİLDİĞİ İLGİLİ ULUSLARARASI SÖZLEŞME VE STANDARDLAR/ RELATED INTERNATIONAL AGREEMENTS AND STANDARDS USED FOR CHECK OF CALCULATIONS			
Kontrol edilen parametre/ Checked Parameter	Standart/ Standard	Uygun/ Conforming	Uygun değil/ Non-conforming
Gövde ve bombe et kalınlığı hesaplamaları Shell and end thickness calculations	TS EN 13094:2015 ADR 2021 6.8-4.3	✓	
Dalga kuran veya diğer hasar korumalarına ilişkin hesaplamalar Calculations for surge plaste or other damage protection	ADR 2021 - 6.8.2.1.20 (b) TS EN 13094:2015 - 3.1.12 / 6.11 / 6.9.2.2 (a)	✓	
Vakum Hesabı Vacuum calculation	TS EN 13094:2015 - 6.6 TS EN 13445 - Bölüm/ Section 8	✓	
Teçhizat korumalarına ilişkin hesaplamalar Equipment protection calculations	TS EN 13094:2015 6.14.2.3 - 6.14.2.6	✓	
Dolum derecesi ve kapasite hesabı Filling degree and capacity calculation	ADR 2021 - 4.3.2.2	✓	
Tank-şasi bağlantısı hesaplamaları Tank-chasis fastening calculations	EN 12252:2014 ULM-02-TL-04-013	✓	

10. SONUÇ/ RESULT	
Uygun Appropriate <input checked="" type="checkbox"/>	<ul style="list-style-type: none">Dosya, dokümantasyon ve teknik açıdan uygun bulunmuş olup, ilgili yapım standardı (TS EN 13094:2015), uluslararası sözleşmelere (ADR 2021) ve muayene standardına (TS EN 12972:2018) göre prototip testleri yapılabilir./ The file was found to be appropriate from documentation and technical point of view, prototype tests can be performed according to the relevant construction standard (TS EN 13094:2015), international agreements (ADR 2021) and inspection standard (TS EN 12972:2018).Prototip testlerinin yapıldığı tarihte bu raporda atıf yapılan standartların geçerliliğini koruması gerekmektedir. Aksi halde yeni sonuç raporu için başvuru yapılmalıdır./ The standards referred to in this report must remain valid at the time of the prototype tests. Otherwise, an application shall be made for a new result report.Prototip testlerinin uygun olması durumunda Tasarım Tip Onay Sertifikası'nın geçerlilik tarihi için bu raporun onaylandığı TSE komisyon tarihi esas alınır./ In case the prototype tests result positive, the TSE commission date, on which this report was approved, is taken as the basis for the validity date of the Design Type Approval Certificate.
Uygun Değil Inappropriate <input type="checkbox"/>	Dosya, dokümantasyon ve teknik açıdan uygun bulunmamıştır./ The file was not found to be appropriate from documentation and technical point of view.

Tasarım Onay Uzmanı/ Design Approval Expert

Adı Soyadı/ Name Surname: Seçil KÖSEOĞLU

Unvanı/ Title: İnceleme Elemanı

İmza ve Kaşe/ Signature and Stamp:



Teknik Yönetici/ Technical Manager

Adı Soyadı/ Name Surname: Duygu YANIZCA

Unvanı/ Title: TSE Uzmanı

İmza ve Kaşe/ Signature and Stamp:



TÜRK STANDARDLARI ENSTİTÜSÜ

TURKISH STANDARDS INSTITUTION

Tehlikeli Madde ve Kombine Taşımacılık Müdürlüğü

Directorate of Dangerous Goods and Combined Transportation

100. Yıl Bulvarı No:99 OFİM Plaza Kat: 2 Ostim Yenimahalle/ANKARA /TÜRKİYE

TASARIM ONAY NUMARASI/ DESIGN APPROVAL NUMBER: TR/TSE04*0236/151

Doküman Kodu: ULM-02-FR-04-024 Yayın Tarihi: 05.03.2014 Revizyon Tarihi / No: 6.01.2022 / 11

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Sayfa 4 / 4



CERTIFICATE



EN ISO 9606-2 131 P BW 22 S s5,28 PA bs

Certificate Nr.: **21-IS-0306-TAT-22-WLD-0558**

Manufacturer's welding procedure spec.:

Pr-TKAIWPS-002

Surname / first name of the welder:

TÖKE, Süleyman

Identification / Method of identification

ID-Card / 29986773944

Date / Place of birth

28.08.1998 / Turkey

Employer:

**TÖKE MAKİNA OTOMOTİV İTH. İHR. SAN. ve TİC. LTD.
ŞTİ.**

Examining body: **TÜV AUSTRIA CERT GMBH**

A-1015 Wien, Krugerstrasse 16

Examiner: **Kaan ÖZDOĞAN**

Welder's identification mark: **W01**

Approval acc. to PED: --

Code / Testing Standard

EN ISO 9606-2

Test data - Details		Scope
Welding process	131	131
Transfer mode	Short	All transfer modes
Product type (Plate or Tube)	P	P, T: (Fixed ≥500 mm, Rot. ≥ 75 mm)
Type of weld	BW	BW
Parent material group(s)	CR ISO 15608 Group 22.3	21,22
Filler metal group	-	-
Filer material (designation)	EN ISO 18273: S Al 5183	-
Shielding gas	EN 14175; I1	-
Auxiliaries	-	-
Type of current and polarity	AC	AC
Material thickness of test piece (mm)	5,28	3 to 10,56
Deposited thickness (mm)	-	-
Outside pipe diameter (mm)	-	-
Welding position	PA	PA
Details of weld seam	bs	ss, ss mb

See supplementary sheet and/or Manufacturer's welding procedure specification for additional information

	Performed and accepted	Not required
Visual Testing	X	
Radiographic Examination	X	
Ultrasonic test		X
Magnetic Particle Test		X
Macro section	X	
Fracture test		X
Bend test		X
Notched Tensile test		X
Additional tests		X
Hardness test		X
Job knowledge		X

Extension acc. to point 9.2	
Date	Signature

Name and Signature: **Osman YILDIRIM**

Certification Body: **TÜV AUSTRIA CERT GMBH**

Place of issue: **Ankara**

Date of issue: **21.11.2022** *

Place of testing: **Ankara**

Date of testing: **04.11.2022**

Acc. to 9.2

Valid until: **03.11.2024**

*Details on supplementary sheet, if required

**In case of proper confirmation of employer or supervisor (acc. to testing standard)



CERTIFICATE



EN ISO 9606-2 131 P FW 22 S t5,28 PB ml

Certificate Nr.: **21-IS-0306-TAT-22-WLD-0559**

Manufacturer's welding procedure spec.:

Pr-TKAIWPS-003

Surname / first name of the welder:

TÖKE, Efe

Identification / Method of identification

ID-Card / 13355328910

Date / Place of birth

06.03.2004 / Turkey

Employer:

TÖKE MAKİNA OTOMOTİV İTH. İHR. SAN. ve TİC. LTD. ŞTİ.

Code / Testing Standard

EN ISO 9606-2

Examining body: **TÜV AUSTRIA CERT GMBH**
A-1015 Wien, Krugerstrasse 16

Examiner: **Kaan ÖZDOĞAN**

Welder's identification mark: **W02**

Approval acc. to PED: --

Test data - Details		Scope
Welding process	131	131
Transfer mode	Spray	Spray, Globular, Pulsed
Product type (Plate or Tube)	P	P, T:(Fixed ≥500 mm, Rot.≥ 75 mm)
Type of weld	FW	FW
Parent material group(s)	CR ISO 15608 Group 22.3	21.22
Filler metal group	-	-
Filer material (designation)	EN ISO 18273: S Al 5183	-
Shielding gas	EN 14175; I1	-
Auxiliaries	-	-
Type of current and polarity	AC	AC
Material thickness of test piece (mm)	5,28	≥ 3
Deposited thickness (mm)	-	-
Outside pipe diameter (mm)	-	-
Welding position	PB	PA, PB
Details of weld seam	sl	sl

See supplementary sheet and/or Manufacturer's welding procedure specification for additional information

	Performed and accepted	Not required
Visual Testing	X	
Radiographic Examination		X
Ultrasonic test		X
Magnetic Particle Test		X
Macro section	X	
Fracture test		X
Bend test		X
Notched Tensile test		X
Additional tests		X
Hardness test		X
Job knowledge		X

Extension acc. to point 9.2	
Date	Signature

Name and Signature: **Osman YILDIRIM**

Certification Body: **TÜV AUSTRIA**

CERT GMBH

Place of issue: **Ankara**

Date of issue: **21.11.2022**

Place of testing: **Ankara**

Date of testing: **04.11.2022**

Acc. to 9.2

Valid until):** **03.11.2024**

*Details on supplementary sheet, if required

**In case of proper confirmation of employer or supervisor (acc. to testing standard)



Approval test certificate for welding operators
 weld setter
according OENORM EN ISO 14732:2013

Manufacturer's welding procedure specification: PR-TKALWPS-001

Certificate No: 21-IS-0306-TAT-22-WLD-0560

Reference No. (if applicable):

Name of welding operator: BÜYÜKDEVECİ, Ahmet

Method of Identification: ID Card

Identification no.: 41023715496

Date and place of birth: 15.01.1973

Employer: TÖKE MAKİNA OTOMOTİV İTH. İHR. SAN. ve TİC. LTD. ŞTİ.

Examiner: Kaan ÖZDOĞAN
Welder sign: W03

Functional knowledge: acceptable

Job knowledge: not tested

Weld details	Range of qualification
Welding process: 131 - MIG (Metal Inert Gas)	131 - MIG (Metal Inert Gas)
Welding equipment: Weldycar Air Liquide Welding	Weldycar Air Liquide Welding
Welding unit: Fronius Trans Steel 4000 Pulse	Fronius Trans Steel 4000 Pulse

Details for mechanized welding:

Visual control: <input checked="" type="checkbox"/> direct <input type="checkbox"/> remote	Direct/remote visual control
Automatic arc length control: <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	With/without arc length control
Automatic joint tracking: <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	With/without automatic joint tracking
Welding position: PA	
<input type="checkbox"/> Single run technique <input checked="" type="checkbox"/> multi run technique	Single or multi run technique
Material backing: <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	With material backing
Consumable insert: <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	Without consumable insert

Details for automatic welding:

Joint sensor: <input type="checkbox"/> yes <input type="checkbox"/> no	
Arc sensor control: <input type="checkbox"/> yes <input type="checkbox"/> no	
<input type="checkbox"/> Single run technique <input type="checkbox"/> multi run technique	

The approval is based on: - welding procedure test (see 4.1a)) <input checked="" type="checkbox"/> - pre-production welding test (see 4.1b)) <input type="checkbox"/> - standard test piece (see 4.1c)) <input checked="" type="checkbox"/> - production test or production sample testing (see 4.1d)) <input type="checkbox"/>	Examining body: TÜV AUSTRIA CERT GMBH Name: Osman YILDIRIM Signature: Place of issue: Ankara/Turkey Date of issue: 21.11.2022 Place of welding: Ankara / Turkey Date of welding: 04.11.2022
Results of the qualification test see document No.: PQR-2020/03	

Validity according 5.3: <input checked="" type="checkbox"/> a) <input type="checkbox"/> b) <input type="checkbox"/> c)	Valid until: 03.11.2028				
Re-validation for qualification by employer/welding coordinator for the following 6 months (see clause 5)	Re-validation for qualification by employer/welding coordinator for the following 6 months (see clause 5)				
Date	Signature	Position or title	Date	Signature	Position or title

PRÜFERGEBNISSE TEST RESULTS

Beleg-Nr.: PQR-TOKE-003
Reference No:

Prüfstelle: TÜV AUSTRIA SERVICES GMBH
Inspecting authority:

Sichtprüfung: EN ISO 10042 (Accepted)
Visual test:

Berichts-Nr.: 21-IS-0306-TAT-22-PQR-0634
Report No:

Eindringprüfung *): EN ISO 23277 (Accepted)
Penetrant test *):

Durchstrahlungsprüfung *): --
Radiographic test *):

Magnetpulverprüfung *): --
Magnetic particle test *):

Ultraschallprüfung *): --
Ultrasonic test *):

Prüftemperatur: 20 °C
Test temperature:

ZUGPRÜFUNG: EN ISO 4136
TENSILE TESTS:

Art / Nr. Type / No.	R _e N/mm ²	R _m N/mm ²	A %	Z %	Bruchlage Fracture location	Bemerkungen Remarks
-	-	-	-	-	-	-
-	-	-	-	-	-	-

BIEGEPRÜFUNG: EN ISO 5173
BEND TESTS:

Biegedorn-Durchmesser:
Former diameter:

Art / Nr. Type / No.	Biegewinkel Bend angle	Dehnung* Elongation*	Ergebnis Result
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Makroprüfung*): EN ISO 17639
Macro examination*): (Accepted)

Mikroprüfung*): --
Micro examination*):

KERBSCHLAGBIEGEPRÜFUNG*):
IMPACT TESTS*): EN ISO 9016

Art: --
Type:

Größe: --
Size:

Anforderung: --
Requirement:

Kerblage / Richtung Notch location / Direction	Temperatur (°C) Temperature	Werte (J) Values			Mittelwert (J) Average	Bemerkungen Remarks
		1	2	3		

HÄRTEPRÜFUNG *): --
HARDNESS TEST *):

SONSTIGE PRÜFUNGEN: --
OTHER TESTS:

BEMERKUNGEN: --
REMARKS:

Die Prüfungen wurden ausgeführt gem. den Anforderungen der: EN ISO 15614-2:2005
Test carried out in accordance with the requirements of:

Laborbericht Nr.: See attached test reports
Laboratory Report No:

Die Prüfergebnisse sind zufriedenstellend
Test results were acceptable

Die Prüfungen erfolgten in Anwesenheit von: TEST TRUST LAB
Test carried out in the presence of:





CONFÉDÉRATION EUROPÉENNE D'ORGANISMES DE CONTROLE



SCHWEISSVERFAHREN - PRÜFUNGSBESCHEINIGUNG WELDING PROCEDURE QUALIFICATION REPORT

TÜV AUSTRIA
SERVICES GMBH

Geschäftsbereich
Werkstoff- und
Schweißtechnik

Institut für
Werkstoffprüfung

NOBO 0408

Prüfzentrum Wien
A-1230 Wien
Deutschstraße 10
Telefon:
+43 1 / 610 91
Fax: DW 6605

Hersteller-Schweißanweisung: PR-TKALWPS- Manufacturer's welding procedure: 003	Prüfstelle: TÜV AUSTRIA Inspecting authority: SERVICES GMBH
Beleg-Nr.: Reference No: PQR-TOKE-003	Berichts-Nr.: Report No: 21-IS-0306-TAT-22-PQR-0634
Hersteller: Manufacturer: TÖKE MAKİNA OTOMOTİV İTH. İHR. SAN. ve TİC. LTD. ŞTİ.	
Anschrift: Address: Horozluhan Mah. Uzman Sanayi Sitesi İlkay Sk. No:8/1 Selçuklu / KONYA	
Vorschrift / Prüfnorm: Code / Testing standard: EN ISO 15614-2:2005	
Datum der Schweißung: Date of welding: 04.11.2022	

GELTUNGSBEREICH / RANGE OF APPROVAL

Schweißverfahren: Welding process: 131 (Semi-Mechanized)	
Nahtart: Joint type: FW (Fillet Welded Plate)	
Werkstoffgruppe: Parent metal group: EN AW-5182 / EN 573 (group 22.3 acc. to ONR CEN ISO/TR 15608)	
Prüfstückdicke (mm): Parent metal thickness (mm): 5,28 mm (3 mm to 10,56 mm)	
Rohraußendurchmesser (mm): Pipe outside diameter (mm): D>500 mm, D>150 mm for PC, PF rotated and PA rotated position	
a-Maß (mm): design throat thickness (mm): 3,75mm to 7,5mm	
Art des Zusatzwerkstoffes / Bezeichnung: Filler metal type / Designation: EN ISO 18273: S Al 5183	
Shutzgas / Pulver: Gas / Flux: EN ISO 14175: I1	
Stromart: Type of welding current: AC	
Schweißposition: Welding position: PB; All Positions except PG, PJ, J-L045	
Vorwärmung: Preheating: Min: 20 °C	
Wärmenachbehandlung: Post weld heat treatment: -	
Sonstige Angaben: Other information: Interpass temperature: -- Transfer Mod: spray, pulsed, and globular. Heat input min. 0,62 kJ/mm max. 0,70 kJ/mm Vawe Form: N/A	

Hiermit wird bestätigt, dass die Prüfungsschweißungen in Übereinstimmung mit den Anforderungen der vorbezeichneten Vorschriften bzw. Prüfnormen zufriedenstellend vorbereitet, geschweißt und geprüft wurden.
Certified that test welds were prepared, welded and tested satisfactorily in accordance with the requirements of the code / testing standard indicated above.

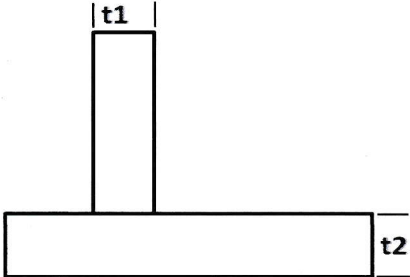
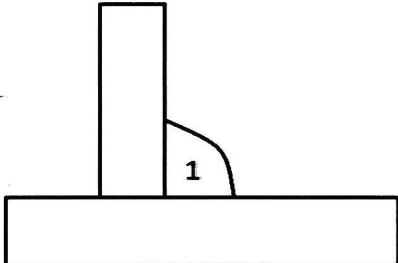
Ankara
Ort/Location

21.11.2022
Datum der Ausstellung
Date of issue

Osman YILDIRIM
Name und Unterschrift
Name and signature

EINZELHEITEN ZUR PRÜFUNG DER SCHWEISSNAHT DETAILS OF WELD TEST

Hersteller-Schweißanweisung: Manufacturer's welding procedure:	PR-TKALWPS-003	Prüfstelle: Inspecting authority:	TÜV AUSTRIA SERVICES GMBH
Beleg-Nr.: Reference No:	PQR-TOKE-003	Berichts-Nr.: Report No:	21-IS-0306-TAT-22-PQR-0634
Hersteller: Manufacturer:	TÖKE MAKİNA OTOMOTİV İTH. İHR. SAN. ve TİC. LTD. ŞTİ.	Art der Vorbereitung und Reinigung: Method of preparation and cleaning:	Brushing & Grinding
Ort: Location:	KONYA	Spezifikation des Grundwerkstoffes: Parent metal specification:	AW-5182
Name des Schweißers: Welder's name:	Efe TÖKE	Prüfstückdicke (mm): Parent metal thickness (mm):	5,28 mm
Schweißverfahren: Welding process:	131	Rohraußendurchmesser (mm): Pipe outside diameter (mm):	--
Nahtart: Joint type:	FW (Fillet Weld Plate)	Schweißposition: Welding position:	PB

Gestaltung der Verbindung / Joint design	Schweißfolge / Welding sequence
<p>t1 = 5,2 mm t2 = 5,2 mm</p> 	

EINZELHEITEN FÜR DAS SCHWEISSEN / Welding details

Schweißraupe	Verfahren	Ø Schweißzusatz	Strom	Spannung	Stromart/Polung	Drahtvorschub / Schweißgeschwindigkeit *)	Wärmeeinbringung *)
Run	Process	Size of filler metal	Current	Voltage	Type current / Polarity	Wire feed / Travel speed *)	Heat input *)
		(mm)	(A)	(V)		(m/min) / (mm/min)	(kJ/mm)
1	131	1,2	145-155	21-22	AC	233	0,62-0,70

Zusatzwerkstoff: EN ISO 18273: S Al 5183
Filler metal:

Vorschriften für Trocknung: --
Specification for baking or drying:

Shutzgas / Pulver: EN ISO 14175: I1
Gas / Flux:

Gasdurchflussmenge - Schutzgas: 12-14 lt/min
Gas flow rate - Shield:

- Wurzelschutz: --
- Backing:

Wolframelektrode, Art / Durchmesser: --
Tungsten electrode type / Size:

Weitere Informationen *): --
Further information *):

Das vorbezeichnete Prüfstück wurde geschweißt in Anwesenheit von: Kaan ÖZDOĞAN
The above test piece was welded in the presence of:

Einzelheiten über Ausfugen / Badsicherung: --
Details of back gouging / Backing:

Vorwärmtemperatur: 20 °C
Preheat temperature:

Zwischenlagentemperatur: --
Interpass temperature:

WÄRMENACHBEHANDLUNG: --
POST WELD HEAT TREATMENT:

Zeit, Temperatur, Verfahren:
Time, temperature, method:

Erwärmungs- und Abkühlungsrate *): --
Heating and cooling rates *):

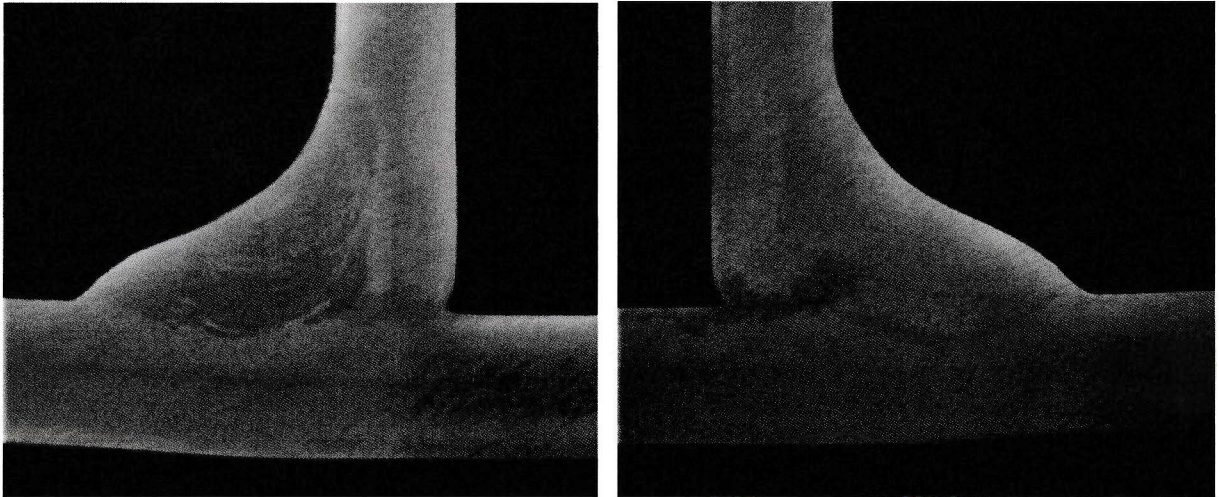
*) falls erforderlich / *) if required

Datum, Name und Unterschrift
Date, name and signature

Osman YILDIRIM
21.11.2022



GEFÜGEUNTERSUCHUNG / MACRO EXAMINATION



HÄRTEPRÜFUNG / HARDNESS TEST





CONFÉDÉRATION EUROPÉENNE D'ORGANISMES DE CONTRÔLE



SCHWEISSVERFAHREN - PRÜFUNGSBESCHEINIGUNG WELDING PROCEDURE QUALIFICATION REPORT

TÜV AUSTRIA
SERVICES GMBH

Geschäftsbereich
Werkstoff- und
Schweißtechnik

Institut für
Werkstoffprüfung

NOBO 0408

Prüfzentrum Wien
A-1230 Wien
Deutschstraße 10
Telefon:
+43 1 / 610 91
Fax: DW 6605

Hersteller-Schweißanweisung: PR-TKALWPS-
Manufacturer's welding procedure: 001

Prüfstelle: TÜV AUSTRIA
Inspecting authority: SERVICES GMBH

Beleg-Nr.: PQR-TOKE-001
Reference No:

Berichts-Nr.: 21-IS-0306-TAT-22-PQR-0632
Report No:

Hersteller:
Manufacturer: TÖKE MAKİNA OTOMOTİV İTH. İHR. SAN. ve TİC. LTD. ŞTİ.

Anschrift: Horozluhan Mah. Uzman Sanayi Sitesi İlkay Sk. No:8/1 Selçuklu / KONYA
Address:

Vorschrift / Prüfnorm: EN ISO 15614-2:2005
Code / Testing standard:

Datum der Schweißung: 04.11.2022
Date of welding:

GELTUNGSBEREICH / RANGE OF APPROVAL

Schweißverfahren: 131 (Full Mechanized)
Welding process:

Nahtart: BW (Butt Welded Plate)
Joint type:

Werkstoffgruppe: EN AW-5182 / EN 573 (group 22.3 acc. to ONR CEN ISO/TR 15608)
Parent metal group:

Prüfstückdicke (mm): 5,28 mm (3 mm to 10,56 mm)
Parent metal thickness (mm):

Rohraußendurchmesser (mm): Qualification given for plates also covers pipes when the outside diameter is > 500 mm or
Pipe outside diameter (mm): when the diameter is > 150 mm welded in the welding position PA or PC (rotated position).

a-Maß (mm): --
design throat thickness (mm):

Art des Zusatzwerkstoffes / Bezeichnung: EN ISO 18273: S Al 5183
Filler metal type / Designation:

Shutzgas / Pulver: EN ISO 14175: I1
Gas / Flux:

Stromart: AC
Type of welding current:

Schweißposition: PA; All Positions except PG, PJ, J-L045
Welding position:

Vorwärmung: Min: 20 °C
Preheating:

Wärmenachbehandlung: --
Post weld heat treatment:

Sonstige Angaben: Interpass temperature: max:150 °C
Other information: Metal Transfer Mod: All transfer modes
Heat input min. 0,38 kJ/mm and max.0,47 kJ/mm
Vawe Form: N/A

Hiermit wird bestätigt, dass die Prüfungsschweißungen in Übereinstimmung mit den Anforderungen der vorbezeichneten Vorschriften bzw. Prüfnormen zufriedenstellend vorbereitet, geschweißt und geprüft wurden.
Certified that test welds were prepared, welded and tested satisfactorily in accordance with the requirements of the code / testing standard indicated above.

Ankara

Ort/Location

21.11.2022

Datum der Ausstellung

Date of issue



EINZELHEITEN ZUR PRÜFUNG DER SCHWEISSNAHT DETAILS OF WELD TEST

Hersteller-Schweißanweisung: PR-TKALWPS-001
Manufacturer's welding procedure:

Beleg-Nr.: PQR-TOKE-001
Reference No:

Hersteller: TÖKE MAKİNA OTOMOTİV İTH. İHR.
Manufacturer: SAN. ve TİC. LTD. ŞTİ.

Ort: KONYA
Location:

Name des Schweißers: Ahmet BÜYÜKDEVECİ
Welder's name:

Schweißverfahren: 131
Welding process:

Nahtart: BW (Butt Welded Plate)
Joint type:

Prüfstelle: TÜV AUSTRIA SERVICES GMBH
Inspecting authority:

Berichts-Nr.: 21-IS-0306-TAT-22-PQR-0632
Report No:

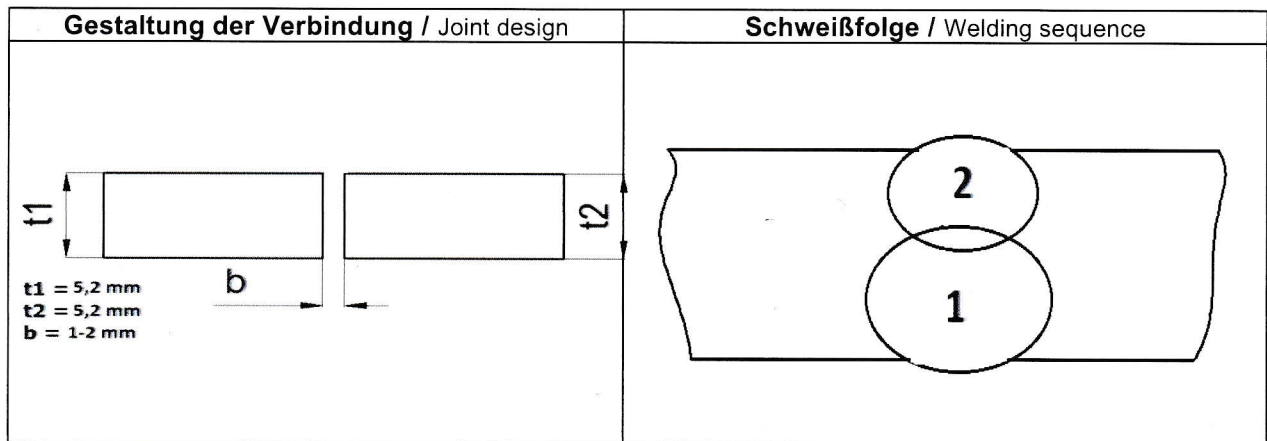
Art der Vorbereitung und Reinigung: Brushing & Grinding
Method of preparation and cleaning:

Spezifikation des Grundwerkstoffes: AW-5182
Parent metal specification:

Prüfstückdicke (mm): 5,28 mm
Parent metal thickness (mm):

Rohraußendurchmesser (mm): --
Pipe outside diameter (mm):

Schweißposition: PA
Welding position:



EINZELHEITEN FÜR DAS SCHWEISSEN / Welding details

Schweißraupe	Verfahren	Ø Schweißzusatz	Strom	Spannung	Stromart/ Polung	Drahtvorschub / Schweißgeschwindigkeit *)	Wärmeeinbringung *)
Run	Process	Size of filler metal (mm)	Current (A)	Voltage (V)	Type current / Polarity	Wire feed / Travel speed *) (m/min) / (mm/min)	Heat input *) (kJ/mm)
1	131	1,2	145-155	19-20	AC	350	0,38-0,42
2	131	1,2	155-165	20-21	AC	356	0,41-0,47

Zusatzwerkstoff: EN ISO 18273: S Al 5183
Filler metal:

Vorschriften für Trocknung: --
Specification for baking or drying:

Schutzgas / Pulver: EN ISO 14175: I1
Gas / Flux:

Gasdurchflussmenge - Schutzgas: 12-14 lt/min
Gas flow rate - Shield:

- **Wurzelschutz:** --
- Backing:

Wolframelektrode, Art / Durchmesser: --
Tungsten electrode type / Size:

Weitere Informationen *): --
Further information *):

Einzelheiten über Ausfugen / Badsicherung: Grinding
Details of back gouging / Backing:

Vorwärmtemperatur: 20 °C
Preheat temperature:

Zwischenlagentemperatur: max. 150 °C
Interpass temperature:

WÄRMENACHBEHANDLUNG: --
POST WELD HEAT TREATMENT:

Zeit, Temperatur, Verfahren: --
Time, temperature, method:

Erwärmungs- und Abkühlungsrate *): --
Heating and cooling rates *):

Das vorbezeichnete Prüfstück wurde geschweißt in Anwesenheit von: Kaan ÖZDOĞAN
The above test piece was welded in the presence of:

*) falls erforderlich / *) if required

Datum, Name und Unterschrift
Date, name and signature

Osman YILDIRIM
21.11.2022





**PRÜFERGEBNISSE
TEST RESULTS**

Beleg-Nr.: PQR-TOKE-001
Reference No:

Prüfstelle: TÜV AUSTRIA SERVICES GMBH
Inspecting authority:

Sichtprüfung: EN ISO 10042 (Accepted)
Visual test:

Berichts-Nr.: 21-IS-0306-TAT-22-PQR-0632
Report No:

Eindringprüfung *): EN ISO 23277 (Accepted)
Penetrant test *):

Durchstrahlungsprüfung *): EN ISO 10675-1 (Accepted)
Radiographic test *):

Magnetpulverprüfung *): --
Magnetic particle test *):

Ultraschallprüfung *): --
Ultrasonic test *):

Prüftemperatur: 24 °C
Test temperature:

ZUGPRÜFUNG: EN ISO 4136
TENSILE TESTS:

Art / Nr. Type / No.	R _e N/mm ²	R _m N/mm ²	A %	Z %	Bruchlage Fracture location	Bemerkungen Remarks
S1		267,50			Base Metal	Accepted
S2		259,40			Base Metal	Accepted

BIEGEPRÜFUNG: EN ISO 5173
BEND TESTS:

Biegedorn-Durchmesser:
Former diameter: 32 mm

Art / Nr. Type / No.	Biegewinkel Bend angle	Dehnung* Elongation*	Ergebnis Result
FB1	180	-	Accepted
FB2	180	-	Accepted
RB1	180	-	Accepted
RB2	180	-	Accepted

Makroprüfung*): EN ISO 17639
Macro examination*): (Accepted)

Mikroprüfung*): --
Micro examination*):

KERBSCHLAGBIEGEPRÜFUNG*):
IMPACT TESTS*): EN ISO 9016

Art: --
Type:

Größe: --
Size:

Anforderung: --
Requirement:

Kerblage / Richtung Notch location / Direction	Temperatur (°C) Temperature	Werte (J) Values			Mittelwert (J) Average	Bemerkungen Remarks
		1	2	3		

HÄRTEPRÜFUNG *): --
HARDNESS TEST *):

SONSTIGE PRÜFUNGEN: --
OTHER TESTS:

BEMERKUNGEN: --
REMARKS:

Die Prüfungen wurden ausgeführt gem. den Anforderungen der: EN ISO 15614-2:2005
Test carried out in accordance with the requirements of:

Laborbericht Nr.: See attached test reports
Laboratory Report No:

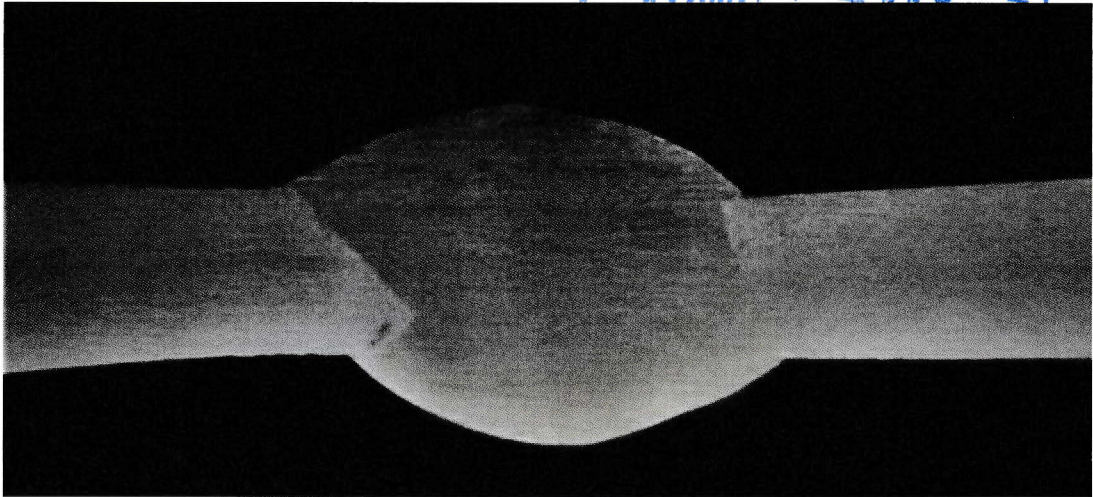
Die Prüfergebnisse sind zufriedenstellend
Test results were acceptable

Die Prüfungen erfolgten in Anwesenheit von: TEST TRUST LAB
Test carried out in the presence of:

Datum, Name und Unterschrift
Date, name and signature



GEFÜGEUNTERSUCHUNG / MACRO EXAMINATION



HÄRTEPRÜFUNG / HARDNESS TEST



CONFÉDÉRATION EUROPÉENNE D'ORGANISMES DE CONTROLE



SCHWEISSVERFAHREN - PRÜFUNGSBESCHEINIGUNG WELDING PROCEDURE QUALIFICATION REPORT

TÜV AUSTRIA
SERVICES GMBH

Geschäftsbereich
Werkstoff- und
Schweißtechnik

Institut für
Werkstoffprüfung

NOBO 0408

Prüfzentrum Wien
A-1230 Wien
Deutschstraße 10
Telefon:
+43 1 / 610 91
Fax: DW 6605

Hersteller-Schweißanweisung: PR-TKALWPS- Manufacturer's welding procedure: 002	Prüfstelle: TÜV AUSTRIA Inspecting authority: SERVICES GMBH
Beleg-Nr.: PQR-TOKE-002 Reference No:	Berichts-Nr.: 21-IS-0306-TAT-22-PQR-0633 Report No:
Hersteller: Manufacturer: TÖKE MAKİNA OTOMOTİV İTH. İHR. SAN. ve TİC. LTD. ŞTİ.	
Anschrift: Horozluhan Mah. Uzman Sanayi Sitesi İlkay Sk. No:8/1 Selçuklu / KONYA Address:	
Vorschrift / Prüfnorm: EN ISO 15614-2:2005 Code / Testing standard:	
Datum der Schweißung: 04.11.2022 Date of welding:	

GELTUNGSBEREICH / RANGE OF APPROVAL

Schweißverfahren: 131 (Semi-Mechanized) Welding process:	
Nahtart: BW (Butt Welded Plate) Joint type:	
Werkstoffgruppe: EN AW-5182 / EN 573 (group 22.3 acc. to ONR CEN ISO/TR 15608) Parent metal group:	
Prüfstückdicke (mm): 5,28 mm (3 mm to 10,56 mm) Parent metal thickness (mm):	
Rohraußendurchmesser (mm): Qualification given for plates also covers pipes when the outside diameter is > 500 mm or Pipe outside diameter (mm): when the diameter is > 150 mm welded in the welding position PA or PC (rotated position).	
a-Maß (mm): -- design throat thickness (mm):	
Art des Zusatzwerkstoffes / Bezeichnung: EN ISO 18273: S Al 5183 Filler metal type / Designation:	
Shutzgas / Pulver: EN ISO 14175: I1 Gas / Flux:	
Stromart: AC Type of welding current:	
Schweißposition: PA; All Positions except PG, PJ, J-L045 Welding position:	
Vorwärmung: Min: 20 °C Preheating:	
Wärmenachbehandlung: - Post weld heat treatment:	
Sonstige Angaben: Interpass temperature: max:150 °C Other information: Metal Transfer Mod: All transfer modes Heat input min. 0,36 kj/mm and max.0,42 kj/mm Vawe Form: N/A	

Hiermit wird bestätigt, dass die Prüfungsschweißungen in Übereinstimmung mit den Anforderungen der vorbezeichneten Vorschriften bzw. Prüfnormen zufriedenstellend vorbereitet, geschweißt und geprüft wurden.
Certified that test welds were prepared, welded and tested satisfactorily in accordance with the requirements of the code / testing standard indicated above.

Ankara
Ort/Location

21.11.2022
Datum der Ausstellung
Date of issue

Osman YILDIRIM
Name und Unterschrift
Name and signature

EINZELHEITEN ZUR PRÜFUNG DER SCHWEISSNAHT DETAILS OF WELD TEST

Hersteller-Schweißanweisung: PR-TKALWPS-002
Manufacturer's welding procedure:

Beleg-Nr.: PQR-TOKE-002
Reference No:

Hersteller: TÖKE MAKİNA OTOMOTİV İTH. İHR. SAN. ve TİC. LTD. ŞTİ.
Manufacturer:

Ort: KONYA
Location:

Name des Schweißers: Süleyman TÖKE
Welder's name:

Schweißverfahren: 131
Welding process:

Nahtart: BW (Butt Welded Plate)
Joint type:

Prüfstelle: TÜV AUSTRIA SERVICES GMBH
Inspecting authority:

Berichts-Nr.: 21-IS-0306-TAT-22-PQR-0633
Report No:

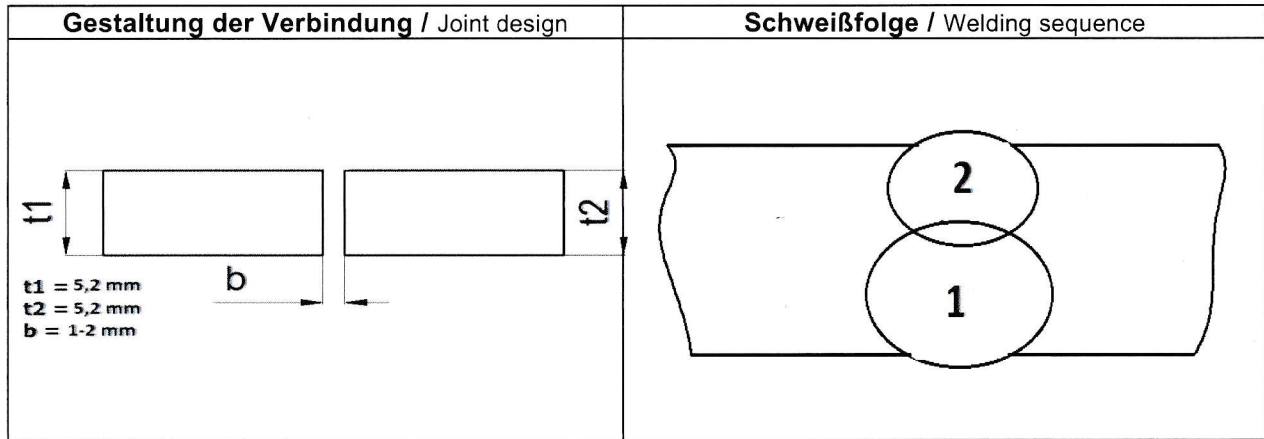
Art der Vorbereitung und Reinigung: Brushing & Grinding
Method of preparation and cleaning:

Spezifikation des Grundwerkstoffes: AW-5182
Parent metal specification:

Prüfstückdicke (mm): 5,28 mm
Parent metal thickness (mm):

Rohraußendurchmesser (mm): --
Pipe outside diameter (mm):

Schweißposition: PA
Welding position:



EINZELHEITEN FÜR DAS SCHWEISSEN / Welding details

Schweißraupe	Verfahren	Ø Schweißzusatz	Strom	Spannung	Stromart/Polung	Drahtvorschub / Schweißgeschwindigkeit *)	Wärmeeinbringung *)
Run	Process	Size of filler metal (mm)	Current (A)	Voltage (V)	Type current / Polarity	Wire feed / Travel speed *) (m/min) / (mm/min)	Heat input *) (kJ/mm)
1	131	1,2	130-140	20-21	AC	350	0,36-0,40
2	131	1,2	125-135	19,5-20,5	AC	313	0,37-0,42

Zusatzwerkstoff: EN ISO 18273: S Al 5183
Filler metal:

Vorschriften für Trocknung: --
Specification for baking or drying:

Shieldgas / Pulver: EN ISO 14175: I1
Gas / Flux:

Gasdurchflussmenge - Schutzgas: 12-14 lt/min
Gas flow rate - Shield:

- **Wurzelschutz:** --
- Backing:

Wolframelektrode, Art / Durchmesser: --
Tungsten electrode type / Size:

Weitere Informationen *): --
Further information *):

Das vorbezeichnete Prüfstück wurde geschweißt in Anwesenheit von:
The above test piece was welded in the presence of:

Kaan ÖZDOĞAN

Einzelheiten über Ausfugen / Badsicherung: Grinding
Details of back gouging / Backing:

Vorwärmtemperatur: 20 °C
Preheat temperature:

Zwischenlagentemperatur: max.150°C
Interpass temperature:

WÄRMENACHBEHANDLUNG: --
POST WELD HEAT TREATMENT:

Zeit, Temperatur, Verfahren: --
Time, temperature, method:

Erwärmungs- und Abkühlungsrate *): --
Heating and cooling rates *):

*) falls erforderlich / *) if required

Datum, Name und Unterschrift
Date, name and signature



PRÜFERGEBNISSE TEST RESULTS

Beleg-Nr.: PQR-TOKE-002
Reference No:

Prüfstelle: TÜV AUSTRIA SERVICES GMBH
Inspecting authority:

Sichtprüfung: EN ISO 10042 (Accepted)
Visual test:

Berichts-Nr.: 21-IS-0306-TAT-22-PQR-0633
Report No:

Eindringprüfung *): EN ISO 23277 (Accepted)
Penetrant test *):

Durchstrahlungsprüfung *): EN ISO 10675-1 (Accepted)
Radiographic test *):

Magnetpulverprüfung *): --
Magnetic particle test *):

Ultraschallprüfung *): --
Ultrasonic test *):

Prüftemperatur: 24 °C
Test temperature:

ZUGPRÜFUNG: EN ISO 4136
TENSILE TESTS:

Art / Nr. Type / No.	R _e N/mm ²	R _m N/mm ²	A %	Z %	Bruchlage Fracture location	Bemerkungen Remarks
S1		264,90			Base Metal	Accepted
S2		270,40			Base Metal	Accepted

BIEGEPRÜFUNG: EN ISO 5173
BEND TESTS:

Biegedorn-Durchmesser:
Former diameter: 32 mm

Art / Nr. Type / No.	Biegewinkel Bend angle	Dehnung* Elongation* ^{*)}	Ergebnis Result
FB1	180	-	Accepted
FB2	180	-	Accepted
RB1	180	-	Accepted
RB2	180	-	Accepted

Makroprüfung*): EN ISO 17639
Macro examination*): (Accepted)

Mikroprüfung*): --
Micro examination*):

KERBSCHLAGBIEGEPRÜFUNG*):
IMPACT TESTS*): EN ISO 9016

Art: --
Type:

Größe: --
Size:

Anforderung: --
Requirement:

Kerblage / Richtung Notch location / Direction	Temperatur (°C) Temperature	Werte (J) Values			Mittelwert (J) Average	Bemerkungen Remarks
		1	2	3		

HÄRTEPRÜFUNG *): --
HARDNESS TEST *):

SONSTIGE PRÜFUNGEN: --
OTHER TESTS:

BEMERKUNGEN: --
REMARKS:

Die Prüfungen wurden ausgeführt gem. den Anforderungen der: EN ISO 15614-2:2005
Test carried out in accordance with the requirements of:

Laborbericht Nr.: See attached test reports
Laboratory Report No:

Die Prüfergebnisse sind zufriedenstellend
Test results were acceptable

Die Prüfungen erfolgten in Anwesenheit von: TEST TRUST LAB
Test carried out in the presence of:

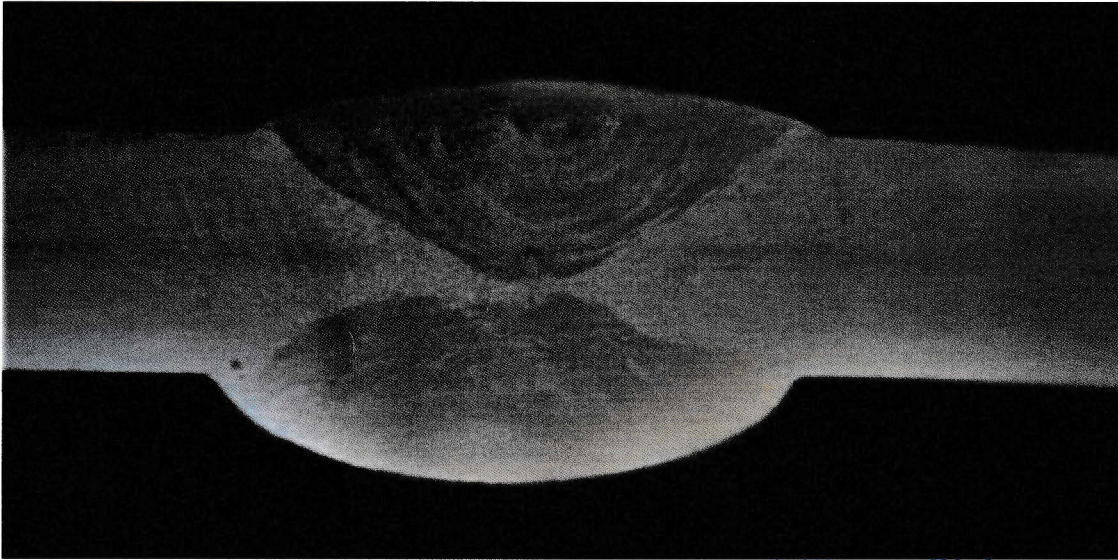


Datum, Name und Unterschrift
Date, name and signature



CONFÉDÉRATION EUROPÉENNE D'ORGANISMES DE CONTROLE

GEFÜGEUNTERSUCHUNG / MACRO EXAMINATION



HÄRTEPRÜFUNG / HARDNESS TEST





TECHNICAL REPORT

No.: LC 2091 002 23

Inspection concerning

Motor vehicles and their trailers

performed according to the Regulation (EU)

No. 2018/858

Amended by: Regulation (EU) 2022/2236

Type: TKM2

Manufacturer name and address:

TÖKE MAKİNA OTOMOTİV İTHALAT İHRACAT SANAYİ VE TİCARET LİMİTED
ŞİRKETİ
FEVZİÇAKMAK MAH. 10753. SK. B-BLOK NO:30BE
KARATAY/KONYA/TURKEY

Type approval previously granted: **Not applicable**

Contents:

1. General
 2. Test details
 3. Statement of compliance
- Index

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BGL BNP Paribas
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BIC: BGLLLLULL
BIL
IBAN: LU48 0026 1824 1543 2600
BIC: BILLLLULL



1. General

Manufacturer: **TÖKE MAKİNA OTOMOTİV İTHALAT İHRACAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ**

Vehicle Type: **TKM2**

2. Test details

	Inspector	Location of test:	Date of receipt of test item:	Date of test:
Main report	Zehra DOĞAN (Type Approval Engineer)	FEVZİÇAKMAK MAH. 10753. SK. B-BLOK NO:30BE KARATAY/KONYA/TURKEY	14.07.2023	14.07.2023

2.1. Remarks

2.1.1. Main report:

Not applicable



3. Statement of compliance

The inspections items and measurements carried out have shown the compliance of the type described in this technical report and the attached Annexes with the requirements of the standard as stated on page 1.

Istanbul-Turkey, June 24, 2023

Luxcontrol s.a.
Service Homologation-automobile

Zehra Doğan
Ingénieur-Inspecteur

Mehmet Rauf Gümüş
Ingénieur-Stagiaire

Annexes



Details to the information package, including a summary in chronological order, concerning extensions and/or amendments.

Type-approval previously granted: **Not applicable**

Main Report

Technical Report No.:	LC 2091 002 23	3 pages
Index		1 page

List of Annexes:

A: Communication as numbered in the standard	4 pages
B: Test results	12 pages
C: Information folder	229 pages

Content of the information folder:

- Manufacturer's information document (Page 1 to 43)
Sample Format of Certificate of Conformity, Sample Format of Statutory Plate, Type-Approval/Test Report Numbers Lists, Brake Calculations, Drawings and Descriptions of the vehicle details (Page 44 to 229)
-



COMMUNICATION AS NUMBERED IN THE STANDARD

Model A, Section I

- (0.1.) Make (trade name of manufacturer): **TÖKE MAKİNA**
- (0.2.) Type: **TKM2**
- (0.2.1.) Commercial name(s): **Semi-Trailer**
- (0.3.) Means of identification of type, if marked on the vehicle: **On the statutory plate
(For statutory plate location see item 0.6 of the information document).**
- (0.3.1.) Location of that marking: **See item 0.3.**
- (0.4.) Category of vehicle: **O4**
- (0.5.) Company name and address of manufacturer of the complete/~~completed~~ vehicle (): **TÖKE MAKİNA OTOMOTİV İTHALAT İHRACAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ
FEVZİÇAKMAK MAH. 10753. SK. B-BLOK NO:30BE
KARATAY/KONYA/TURKEY**
- (0.5.1.) For multi-stage approved vehicles, company name and address of the manufacturer of the base/previous stage(s) vehicle: **Not Applicable**
- (0.8.) Name(s) and address(s) of assembly plant(s): **TÖKE MAKİNA OTOMOTİV İTHALAT İHRACAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ
FEVZİÇAKMAK MAH. 10753. SK. B-BLOK NO:30BE
KARATAY/KONYA/TURKEY**
- (0.9.) Name and address of the manufacturer's representative (if any): **ANDREW ALEX AUERBECK
51 Bd Marcel Sembat, 69200
Venissieux, FRANCE**



Model A, Section II

(1.) For complete and completed vehicles/variants:
The vehicle type meets the technical requirements of all the relevant regulatory acts as prescribed in Annex II ~~or Annex II Part III~~ to Regulation (EU) 2018/858.

(2.) For incomplete vehicles/variants:
Not Applicable

Part 2

This EU type approval is, where incomplete and completed vehicles or variants are concerned, based on the approval(s) for incomplete vehicles listed below: **Not Applicable**

Stage 1: Manufacturer of the base vehicle: **Not Applicable**

EU Type-approval number: **Not Applicable**

Dated: **Not Applicable**

Applicable to variants or versions (as appropriate): **Not Applicable**

Stage 2: Manufacturer of the base vehicle: **Not Applicable**

EU Type-approval number: **Not Applicable**

Dated: **Not Applicable**

Applicable to variants or versions (as appropriate): **Not Applicable**



In the case where the approval includes one or more incomplete variants or versions (as appropriate), list those variants or versions (as appropriate) which are complete or completed.

Complete / ~~completed~~ variant(s):

Not Applicable

List of requirements applicable to the approved incomplete vehicle type variant or version (as appropriate, taking account of the scope and latest amendment to each of the regulatory acts listed below):

Not Applicable

In the case of special purpose vehicles, exemptions granted or special provisions applied pursuant to Part III of Annex II to Regulation (EU) 2018/858, exemptions granted pursuant to Article 39 of Regulation (EU) 2018/858, and exemptions granted pursuant to Article 42 of Regulation (EU) 2018/858:

Not Applicable

Item	Subject	Regulatory act reference	Kind of approval and nature of exemption	Applicable to variant or, if need be, to version
--	--	--	--	--
--	--	--	--	--
--	--	--	--	--



Appendix

List of regulatory acts to which the type of vehicle complies

(to be filled in only in case of a whole-vehicle type approval in accordance with Article 22(1)(b) and (c) of Regulation (EU) 2018/858:

See point 1.1. of Annex B

- 3.1.1. Numbering according to the EU type-approval certificate following 2020/683/EU (Annex VI)
- (1) Results of the sound level tests:
Not applicable (category O vehicle)
- (2) Results of the exhaust emission tests
Not applicable (category O vehicle)
- (3.) Results of the CO₂ emission / fuel consumption tests:
Not applicable (category O vehicle)
- (4.) Results of the tests for vehicles fitted with eco-innovation
Not applicable (category O vehicle)
- (4.1) General code of the eco-innovation
Not applicable (category O vehicle)



1. Test results:

1.1. List of regulatory acts to which the type of vehicle complies

(to be filled in only in the case of a whole-vehicle type-approval in accordance with Article 22(1)(b) and (c) of Regulation (EU) 2018/858)

Item	Subject	Regulatory act reference	Amendment (EU) or Series of amendment / Supplement (ECE)	Applicable to variant/version
A12	Rear underrun protection	R58	Series 03 Suppl 03	All
A13	Lateral protection	R73	Series 01 Suppl 02	All
A14	Fuel tank safety	R34	Series 03 Suppl 02	N.A.
B10	Safety glazing	R43	Series 01 Suppl 09	N.A.
C1	Steering equipment	R79	Series 04 Suppl 00	N.A.
C4	Braking	R13	Series 11 Suppl 17	All
C7	Stability Control	R13	Series 11 Suppl 17	All
C14	Tyre pressure monitoring for heavy-duty vehicles	R141	Series 01 Suppl 02	All
C15	Tyre installation	R142	Series 01 Suppl 01	All
D2	Radio interference (electromagnetic compatibility)	R10	Series 06 Suppl 01	All
D10	Heating systems	R122	Series 00 Suppl 06	N.A.
D15	Installation of light signalling, road illumination and retro-reflective devices	R48	Series 08 Suppl 00	All
F1	Registration plate space	(EU) 2021/535	(EU) 2021/535	All
F7	Statutory plate and vehicle identification number	(EU) 2021/535	(EU) 2021/535	All
F10	Spray suppression systems	(EU) 2021/535	(EU) 2021/535	All
F11	Masses and dimensions	(EU) 2021/535	(EU) 2021/535	All
F12	Mechanical couplings	R55	Series 02 Suppl 01	All
F13	Vehicles intended for the transportation of dangerous goods	R105	Series 06 Suppl 01	C12A?/???XX??S0XX
G3b	Determination of specific energy efficiency performance of trailer	(EC) 595/2009	(EU) 2022/2383	N.A.
H1	Access to vehicle OBD information and vehicle repair and maintenance information	(EU) 2018/858	(EU) 2022/2236	All
H2	Software update	R156	Series 00 Suppl 06	N.A.
	General safety	(EU) 2019/2144	(EU) 2022/1398	All



1.2. Version of the tested vehicle or information concerning the vehicle type / component and the requested approval

Following version(s) has (have) been used for testing:

For Base Application:

Vehicle type: **TKM2**

Vehicle 1: VIN: **NR9990000P1451001 [only for (EU) 2021/535 Annex II]**

Vehicle 2: VIN: **Prototype [for all tests except (EU) 2021/535 Annex II]**

The tested item(s) are representative of the worst-case configuration.

1.3. Test conditions and results:

1.3.1. General:

In accordance with Article 22 of Regulation (EU) 2018/858, vehicles mentioned in Annex II ~~or Annex II Part III~~ as trailer, may follow the provisions stated in that Annexes.

List of requirements to be fulfilled and/or exemptions according to Annex II ~~or Annex II Part III~~.

A - RESTRAINT SYSTEMS, CRASH TESTING, FUEL SYSTEM INTEGRITY AND HIGH VOLTAGE ELECTRICAL SAFETY

1.3.1.1. Item A12 – Rear underrun protection

RUPD is tested/inspected according to Part III of ECE R58.03.

Drawing of RUPD is given at information folder.

The ground clearance with respect to the underside of the RUP is not exceed 450 mm over its entire width.

The section height of the cross-member is not less than 120 mm.

The lateral extremities of the cross-member are rounded on the outside and have a radius of curvature of not less than 2.5mm.



Physical test records:

For Base Application:

RUPD

Distance between RUPD end point and outermost point is not more than (200) mm.

Test points	Test Load kN	RUPD	Deflection (≤ 100 mm)	
			During test mm	After test mm
P1_{Left}	100	RUPD	40	20
P2_{Left}	180	RUPD	55	30
P3	100	RUPD	50	25
P2_{Right}	180	RUPD	55	30
P1_{Right}	100	RUPD	40	20
Conformity			In conformity	

The device is fitted that after the application of the test forces, the maximum ground clearance of the device of the unladen the vehicle is at any point not exceed by more than 55 mm the value before test.

RUPD is steel made and welded to chassis rails, material: S 355,
Circular profile thickness: 6 mm

1.3.1.2. **Item A13 – Lateral protection**

Requirements according to Part I of ECE R73 are fulfilled.

Requirements fully or partially can be fulfilled by vehicle structure or bodywork.

Physical test records:

For Base Application:

LPD-A

Maximum deflection under horizontal static force of 1kN:

Over rearmost 250mm (limit 30mm): LPD-A: 25 mm

Over remainder of guard (limit 150mm): LPD-A: 80 mm

LPD-B

LPD-B is a steel made rigid toolbox. So, there is no need to perform any physical test due to its rigid structure. Only dimensional controls were done.

1.3.1.3. **Item A14 – Fuel tank safety**

Not applicable



B - VULNERABLE ROAD USERS, VISION AND VISIBILITY

1.3.1.4. Item B10 - Safety glazing

Not applicable

C - VEHICLE CHASSIS, BRAKING, TYRES AND STEERING

1.3.1.5. Item C1 - Steering equipment

Not applicable

1.3.1.6. Item C4 – Braking

The existing axle test reports and confirmations which are defined in information document meet the requirements of regulation level shown in item 1.1.

Brake system(s) are tested according to ECE R13.

Following test results are obtained. Detail of brake systems are given at information document.

The parking braking system with which the trailer is equipped, is capable of holding the laden trailer stationary, when separated from the towing vehicle, on an 18% up or down-gradient.

The automatic braking performance in the event of a failure, when testing the laden vehicle from a speed of 40 km/h, is not less than 13.5% of the maximum stationary wheel load.

It is possible to release the brakes at least three times after the trailer has been uncoupled.

The pressure in the spring compression chamber beyond which the springs begin to actuate the brakes are not be greater than that obtained after four full-stroke actuations of the service braking system.

Where an Annex 19 test report(s) has been utilised, the test report number shall be stated: **See item 8.5.1. of information document of manufacturer.**

**Physical test records:****For Base Application:**

		Test vehicle
Truck + Trailer (laden / unladen)		52590 kg / 11650 kg
Tyres		385/65 R22,5
Axle 1 (laden /unladen)		9030 kg / -- kg
Axle 2 (laden /unladen)		9030 kg / 1575 kg
Axle 3 (laden /unladen)		9030 kg / 1575 kg
Axle and test report / Brake factor		SERTEL SE4214 – 22-TAMO-0127 / 9,09
Size of brake cylinders		2x24" – 4x24/30"
Brake cylinder	Axle 1 Axle 2 Axle 3	ARFESAN BC 0080.0 ARFESAN BC 0081.0 ARFESAN BC 0081.0
Brake lining/pad		EREN M650
Electronic brake components and number of test report:		EB123.12E
Total volume of the brake reservoirs:		80 lt

Type 0 and Type III tests:

	Vehicle condition	Test speed km/h	z _R in %		Pressure in the control line p _m in bar	
			required	measured	required	measured
Type 0 tests, engine of towing vehicle disconnected	laden	60,4	min 45	50,3	max. 6,5	6,5
	unladen	60,6	min 45	66,6	max. 6,5	6,5
Type III tests free running	laden	See test report 361-035-16 (Report Date: 21.12.2022)				

Reaction time at the brake actuator

	measured value	limit value
pneumatic control line	0,38 s	0,4 s
electric control line	0,39 s	



Total volume of the brake reservoirs is checked by applying 9 times service brake.

Measured pressure in the supply reservoir prior to brake actuation	850 kPa
Pressure measured in the supply reservoir during the first brake actuation	760 kPa
Calculated Minimum required residual pressure in supply reservoir after 9 brake actuations (50% of the supply pressure at the first brake actuation)	380 kPa
Pressure measured in the supply reservoir after 9 brake actuations	400 kPa

1.3.1.7. Item C7 – Stability control

Requirements are fulfilled referring to item 5.2.2.23 of ECE R13: **See item 8.5.1. of information document of manufacturer**

1.3.1.8. Item C14– Tyre pressure monitoring for heavy-duty vehicles

All the relevant requirement of regulatory act(s) according to R141 are fulfilled.

1.3.1.9. Item C15 – Tyre installation

The tyre size mentioned is meet with the requirements of ECE R54 and ECE R117.

Optionally, the vehicle might be equipped with a spare tyre.

The vehicle type is not equipped/include with a temporary-use spare tyre of type 1 (temporary use spare tire) as defined in ECE Regulation 64.

Physical test records:

For Base Application:

Tyre/wheel combination(s) (including tyre size, rim size and wheel off-set)

Axle 1/2/3

Tyre size: 385/65 R22,5

Min. speed symbol: K

Load capacity index 164; 5000 kg per wheel

Rim size: 11,75 x 22,5

Wheel offset: 0 mm



D - ON-BOARD INSTRUMENTS, ELECTRICAL SYSTEM, VEHICLE LIGHTING AND PROTECTION AGAINST UNAUTHORISED USE, INCLUDING CYBERATTACKS

1.3.1.10. Item D2 – Radio interference (electromagnetic compatibility)

All electrical/electronic components installed on the vehicle are approved according to R10 and fulfils all the relevant requirement of regulatory act.

A brief description of the electrical/electronic components for vehicle type; ECE R10 approvals are listed in item 9.18.3. of information document.

The existing approvals which are defined in information document meet the requirements of regulation level shown in item 1.1.

For details see information document.

1.3.1.11. Item D10 – Heating systems

Not applicable

1.3.1.12. Item D15 – Installation of light signalling, road illumination and retro-reflective devices

All requirement of the regulation 48 have been verified and fulfilled.

The arrangement, position, geometric visibility, alignment and orientation and the electrical connection are in accordance with the Regulation. The approval number of the components are stated in the manufacturer's document.

Following lighting/light signalling devices are included the vehicle type:

- non-triangular side retro-reflectors
- side marker lamps
- reversing lamps
- rear direction indicators
- hazard warning signal
- stop / rear position lamps
- rear registration plate lamps
- rear fog lamps
- triangular rear retro reflectors
- non-triangular front retro reflector
- front / rear end outline lamp
- front position lamps
- retro-reflective markings (UN-ECE Reg. 104)



F - GENERAL VEHICLE CONSTRUCTION AND FEATURES

1.3.1.13. Item F1 – Registration plate space

The space(s) for mounting the rear registration plates are available according to the regulative dimensions which have maximum 5 mm surface(s) gap between registration plate surface(s) and registration plate space(s) surface.

The positions of the plates are entirely within the two parallel longitudinal vertical planes passing through the outer extremities of the vehicle, complies with all the dimensional and geometrical requirements.

For details see information document.

1.3.1.14. Item F7 – Statutory plate and vehicle identification number

The manufacturer of the vehicle adds his own plate. This plate bears all the required information within a clearly defined rectangle. Additional information may be given outside this rectangle.

The position of the plate, symmetrical to the longitudinal plane of symmetry of the vehicle, complies with all the dimensional and geometrical requirements.

For details see information document.

1.3.1.15. Item F10 – Spray suppression systems

The existing approvals which are defined in information document meet the requirements of regulation level shown in item 1.1.

Requirements of spray suppression systems of the vehicle is fulfilled according to vehicle/axle conditions.

Requirements fully or partially can be fulfilled by vehicle structure or bodywork.

For details see information document.

Mudguards:

The mudguards meet the requirements of item 6.1.1 of the mentioned test base (see information document).

The front side of the rear mudguard is fitted with a spray reduction device complying with the specifications set out in Appendix 1 to Annex II.

The material of the spray reduction device covers the inside of the mudguard up to a height determined by a straight line running from the centre of the wheel and forming an angle of at least 30° with the horizontal.



Outer valances:

The outer valances meet the requirements of items 6.2.1, 6.2.2, 6.2.3 and 6.2.4 of the mentioned test base (Air suspension).

Rain flaps:

The rain flaps fulfil the requirements according to rain flap width.

1.3.1.16. Item F11 – Masses and dimensions

Masses of the vehicle:

The masses stated by the manufacturer in Annex C, have been verified. The requirements of the regulatory act, Annex XIII, Part 2 Section E of (EU) 2021/535 are fulfilled.

Dimensions of the vehicle:

The dimensions of the vehicle are within the stated tolerances and do not exceed the limit values stated in the regulatory act, Annex XIII, Part 2 Section E of (EU) 2021/535.

For details see information document

Conditions for off-road classification:

The vehicle type is not classified as an off-road vehicle.

Manoeuvrability:

The vehicle is capable to manoeuvre on either side for a complete circular trajectory of 360° inside an area defined by two concentric circles, the outer circle having a radius of 12,50m and the inner circle having a radius of 5,30m, without any of the vehicle's outermost points projecting outside the circumferences of the circles.

Hill-starting ability: Not applicable

For details see information document of the manufacturer.

1.3.1.17. Item F12 – Mechanical couplings

The existing approvals which are defined in information document meet the requirements of regulation level shown in item 1.1.



Physical test records:

For Base Application:

Class and type of coupling device: H50-X and 2''KINGPIN

Approval number of coupling device: E20 55R-013753

The specific value $D = 190$ kN of the coupling device exceeds the minimum required D-value (143,65 kN)

The mounting of the coupling device corresponds to the manufacturer's instructions.

1.3.1.18. Item F13 – Vehicles intended for the transportation of dangerous goods

The existing ADR test reports which are defined in information meet the requirements of regulation level shown in item 1.1.

Physical test records:

For Base Application:

Testing for ADR Class: AT, FL

Electrical equipment

The electrical installation as a whole meets the following provisions, in accordance with the table of paragraph 5.1. of R105.06.

Note: HELLA, BPW, FRISTOM is not applicable for vehicles which are intended for the transport of dangerous goods

Cables

No cable in an electrical circuit carries a current in excess of that for which the cable is designed.

Conductors are adequately insulated.

Cables are suitable for the conditions in the area of the vehicle, such as temperature range and fluid compatibility conditions as given in ISO 16750-4:2010 and ISO 16750-5:2010, they are intended to be used.

Cables are in conformity with standard ISO 6722-1:2011 including its Corr. 01:2012 or ISO 6722-2:2013.



Cables are securely fastened and positioned to be protected against mechanical and thermal stresses.

Cables on trailers are additionally protected to minimize any unintended ignition or short-circuit in the event of an impact or deformation.
The additional protection suitable is for the conditions during normal use of the vehicle.

Lighting

Light sources (e.g. bulbs) with a screw caps are not used

Electrical connections between motor vehicles and trailers

Electrical connections shall be designed to prevent

Ingress of moisture and dirt (connected parts have a protection degree of at least IP54 in accordance with IEC 60529)

Accidental disconnection (connectors fulfil the requirements given in clause 5.6. of ISO 4091:2003)

Requirements of paragraph 5.1.1.6.1. are deemed to be met

Electrical connections for other purposes concerning the proper functioning of the vehicles or their equipment that comply with the requirements of paragraph 5.1.1.6.1.

Nominal voltage of the electrical system does not exceed:

- 25 V AC or
- 60 V DC

Braking equipment

Vehicle fulfils all relevant requirements of Regulation No. 13 including those of Annex 5.

Coupling devices of motor vehicles and trailers

Coupling devices of motor vehicles and trailers comply with the technical requirements of Regulation No. 55.

1.3.1.19. Item G3b – Determination of specific energy efficiency performance of trailer

Not applicable



1.3.1.20. Item H1 – Access to vehicle OBD information and vehicle repair and maintenance information

Access to vehicle OBD information and vehicle repair and maintenance information are given in the information Document.

1.3.1.21. Item H2 – Software update

Not applicable

1.3.1.22. General safety

Covered by applicable Regulatory acts and/or Regulations.

1.4. Remarks

The inspection results are only applicable to items which have been tested.

1.5. Test facilities

Calibration of measuring and test equipment used to carry out the inspections is in accordance with the standard stated on page 1 of this report and with ISO 17025:2017.



Bertrange, le 08 août 2023

FICHE DE RÉCEPTION UE PAR TYPE DE VÉHICULE
EU VEHICLE TYPE-APPROVAL CERTIFICATE

Communication concernant l'octroi/l'extension/le refus/le retrait de:

Communication concerning granting/extension/refusal/withdrawal of:

- **Réception UE par type de véhicule entier conformément au règlement (UE) 2018/858**
EU whole vehicle type-approval in accordance with Regulation (EU) 2018/858
- ~~**Réception UE par type de véhicule entier avec exemptions pour nouvelles technologies ou nouveaux concepts conformément à l'article 39, paragraphe 2, du règlement (UE) 2018/858 autorisées par la Commission conformément à l'article 39, paragraphe 3, dudit règlement**~~
EU whole vehicle type-approval with exemptions for new technologies or concepts in accordance with Article 39(2) of Regulation (EU) 2018/858 authorised by the Commission in accordance with Article 39(3) thereof
- ~~**Réception UE par type provisoire de véhicule entier avec exemptions pour nouvelles technologies ou nouveaux concepts conformément à l'article 39, paragraphe 2, du règlement (UE) 2018/858 dans l'attente de l'autorisation de la Commission conformément à l'article 39, paragraphe 4, dudit règlement. La validité de la réception UE par type est donc limitée au JJ/MM/AAAA**~~
Provisional EU whole vehicle type-approval with exemptions for new technologies or concepts in accordance with Article 39(2) of Regulation (EU) 2018/858 pending on the authorisation by the Commission in accordance with Article 39(4) thereof. The validity of the EU type-approval is thus limited to DD/MM/YYYY
- ~~**Réception UE par type de véhicules produits en petites séries conformément à l'article 41 du règlement (UE) 2018/858**~~
EU type-approval of vehicles produced in small series in accordance with Article 41 of Regulation (EU) 2018/858
- ~~**Réception nationale par type de véhicules produits en petites séries conformément à l'article 42 du règlement (UE) 2018/858**~~
National type-approval of vehicles produced in small series in accordance with Article 42 of Regulation (EU) 2018/858

d'un type de:

of a type of:

- **véhicule complet**
complete vehicle
- ~~**véhicule complété**~~
completed vehicle
- ~~**véhicule incomplet**~~
incomplete vehicle
- ~~**véhicule avec variantes complètes et incomplètes**~~
vehicle with complete and incomplete variants
- ~~**véhicule avec variantes complétées et incomplètes**~~
vehicle with completed and incomplete variants

Numéro de la fiche de réception UE par type:

Number of the EU type-approval certificate:

e13*2018/858*00593*00

Raison de l'extension/du refus/du retrait:

Reason for extension/refusal/withdrawal:

not applicable

SECTION I
SECTION I

- 0.1. Marque (nom commercial du constructeur):**
Make (trade name of manufacturer): TÖKE MAKİNA
- 0.2. Type:**
Type: TKM2
- 0.2.1. Dénomination(s) commerciale(s):**
Commercial name(s): Semi-Trailer
- 0.3. Moyens d'identification du type, s'ils sont marqués sur le véhicule:**
Means of identification of type, if marked on the vehicle: on the statutory plate
- 0.3.1. Emplacement de ce marquage:**
Location of that marking: riveted on the right hand-side of the chassis
- 0.4. Catégorie de véhicule:**
Category of vehicle: O₄
- 0.5. Raison sociale et adresse du constructeur du véhicule ~~incomplete/complet/complété~~:**
Company name and address of manufacturer of the ~~incomplete/complete/completed~~ vehicle: TÖKE MAKİNA OTOMOTİV İTHALAT İHRACAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ FEVZİÇAKMAK MAH. 10753. SK. BBLOK NO:30BE KARATAY/KONYA/TURKEY
- 0.5.1 Dans le cas de véhicules réceptionnés en plusieurs étapes, raison sociale et adresse du constructeur du véhicule de base/du véhicule au(x) stade(s) antérieur(s):**
For multi-stage approved vehicles, company name and address of the manufacturer of the base/previous stage(s) vehicle: not applicable
- 0.8. Nom et adresse de l'atelier/des ateliers de montage:**
Name(s) and address(es) of assembly plant(s): TÖKE MAKİNA OTOMOTİV İTHALAT İHRACAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ FEVZİÇAKMAK MAH. 10753. SK. BBLOK NO:30BE KARATAY/KONYA/TURKEY
- 0.9. Nom et adresse du mandataire du constructeur (le cas échéant):**
Name and address of the manufacturer's representative (if any): ANDREW ALEX AUERBECK
51, Bd Marcel Sembat,
F-69200 Venissieux

SECTION II
SECTION II

- 1. Service technique responsable de la réalisation des essais:**
Technical service responsible for carrying out the tests: Luxcontrol S.A.
- 2. Date du rapport d'essai:**
Date of test report: 24.07.2023
- 3. Numéro du rapport d'essai:**
Number of test report: LC 2091 002 23

Je soussigné, certifie par la présente l'exactitude de la description du constructeur dans la fiche de renseignements en annexe relative au(x) véhicule(s) décrit(s) ci-dessus [un (des) échantillon(s) ayant été choisi(s) par les autorités compétentes en matière de réception UE par type et présenté(s) par le constructeur en tant que prototype(s) du type de véhicule], ainsi que l'applicabilité au type de véhicule des résultats d'essai en annexe.

The undersigned hereby certifies the accuracy of the manufacturer's description in the attached information document of the vehicle(s) described above, ((a) sample(s) having been selected by the EU type-approval authority and submitted by the manufacturer as prototype(s) of the vehicle type), and that the attached test results are applicable to the vehicle type.

1. Véhicules/variantes complets/complètes/complète(s):

For complete/completed vehicles/variants:

Le type de véhicule satisfait/ne satisfait pas aux prescriptions techniques de tous les actes réglementaires pertinents visés dans l'annexe II du règlement (UE) 2018/858.

The vehicle type meets/does not meet the technical requirements of all the relevant regulatory acts referred to in Annex II to Regulation (EU) 2018/858.

2. Véhicules/variantes incomplets/incomplètes:

For incomplete vehicles/variants:

Le type de véhicule satisfait/ne satisfait pas aux prescriptions techniques des actes réglementaires énumérés dans le tableau de la partie 2 de la présente fiche.

The vehicle type meets/does not meet the technical requirements of the regulatory acts listed in the table in part 2 of this certificate.

Lieu:

Place:

Bertrange

Signature:

Signature:

**Pour le Ministre de la Mobilité
et des Travaux publics**

Pol PHILIPPE
Attaché

Pour la SNCH

Luc SCHMITT
Directeur QRM



Date:

Date:

08 août 2023

Pièces jointes:

Attachments:

- Dossier d'information.
Information package.
- ~~Fiche des résultats d'essai conformément au modèle figurant dans l'annexe VI du présent règlement.~~
~~Test results sheet in accordance with the template set out in Annex VI of this Regulation.~~
- Nom(s) et spécimen(s) de la signature de la (des) personne(s) habilitée(s) à signer les certificats de conformité, ainsi qu'une indication de sa (leur) fonction dans l'entreprise.
Name(s) and specimen(s) of the signature(s) of the person(s) authorised to sign certificates of conformity and a statement of their position in the company.
- ~~Fichier contenant les informations visées à l'article 39, paragraphe 2, du règlement (UE) 2018/858.~~
~~File containing the information referred to in paragraph 2 of Article 39 of Regulation (EU) 2018/858.~~

FICHE DE RECEPTION UE PAR TYPE DE VEHICULE
EU VEHICLE TYPE-APPROVAL CERTIFICATE

Partie 2

Part 2

La présente réception UE par type est fondée, pour les véhicules, variantes ou versions incomplets et complétés, sur la ou les réceptions de véhicules incomplets visées ci-dessous:

This EC type-approval is, where incomplete and completed vehicles, variants or versions are concerned, based on the approval(s) for incomplete vehicles listed below:

Étape 1: Constructeur du véhicule de base:

Stage 1: Manufacturer of the base vehicle: not applicable

Numéro de la fiche de réception UE par type:

Number of the EU type-approval: not applicable

Date:

Dated: not applicable

Applicable aux variantes ou versions (selon le cas):

Applicable to variants or versions (as appropriate): not applicable

Étape 2: Constructeur:

Stage 2: Manufacturer: not applicable

Numéro de la fiche de réception UE par type:

Number of the EU type-approval: not applicable

Date:

Dated: not applicable

Applicable aux variantes ou versions (selon le cas):

Applicable to variants or versions (as appropriate): not applicable

Étape 3: Constructeur:

Stage 3: Manufacturer: not applicable

Numéro de la fiche de réception UE par type:

Number of the EU type-approval: not applicable

Date:

Dated: not applicable

Applicable aux variantes ou versions (selon le cas):

Applicable to variants or versions (as appropriate): not applicable

Lorsque la réception inclut une ou plusieurs variantes ou versions (selon le cas) incomplètes, énumérer les variantes ou versions (selon le cas) complètes ou complétées:

In the case where the approval includes one or more incomplete variants or versions (as appropriate), list those variants or versions (as appropriate) which are complete or completed:

Variante(s) complète(s)/complétée(s):

Complete/completed variant(s): not applicable

Liste des prescriptions applicables au type de véhicule incomplet ou à la variante ou version (selon le cas) incomplète réceptionné(e) (compte tenu, le cas échéant, du champ d'application et de la dernière modification de chacun des actes réglementaires visés ci-dessous):

List of requirements applicable to the approved incomplete vehicle type, variant or version (as appropriate, taking account of the scope and latest amendment to each of the regulatory acts listed below):

Elément Item	Objet Subject	Référence de l'acte réglementaire Regulatory act reference	Dernière modification Last amended	Applicable à la variante ou, le cas échéant, à la version Applicable to variant or, if need be, to version
not applicable				

(N'indiquer que les objets pour lesquels il existe une réception UE par type.)

(List only subjects for which an EU type-approval exists.)

Dans le cas des véhicules à usage spécial, dérogations accordées ou dispositions spécifiques appliquées en vertu de l'annexe II, partie III, du règlement (UE) 2018/858, dérogations accordées en vertu de l'article 39 du règlement (UE) 2018/858 et dérogations accordées en vertu de l'article 42 du règlement (UE) 2018/858:

In the case of special purpose vehicles, exemptions granted, or special provisions applied pursuant to Part III of Annex II to Regulation (EU) 2018/858, exemptions granted pursuant to Article 39 of Regulation (EU) 2018/858, and exemptions granted pursuant to Article 42 of Regulation (EU) 2018/858:

Elément Item	Objet Subject	Référence de l'acte réglementaire Regulatory act reference	Type de réception et nature de la dérogation Kind of approval and nature of exemption	Applicable à la variante ou, le cas échéant, à la version Applicable to variant or, if need be, to version
not applicable				

Appendice
Appendix

Liste des actes réglementaires auxquels le type de véhicule est conforme
List of regulatory acts to which the type of vehicle complies.

(à remplir uniquement en cas de réception par type d'un véhicule entier conformément à l'article 22, paragraphe 1, points b) et c), du règlement (UE) 2018/858)

(to be filled in only in the case of a whole-vehicle type-approval in accordance with Article 22(1)(b) and (c) of Regulation (EU) 2018/858)

Elément Item	Objet Subject	Référence de l'acte réglementaire Regulatory act reference	Modifié par As amended by	Applicable à la variante ou, le cas échéant, à la version Applicable to variant or, if need be, to version
refer to Page 1 of Annex B to technical report				



Bertrange, le 08 août 2023

Index du dossier de réception

Index to type-approval report

	Numéro de la fiche de réception UE par type: Number of the EU type-approval certificate:	e13*2018/858*00593*00
	Révision: Revision:	00
	Marque (nom commercial du constructeur): Make (trade name of manufacturer):	TÖKE MAKINA
	Type: Type:	TKM2
1.	Rapport d'essai: Test report:	LC 2091 002 23
	- Technical report:	Page 1 to 3
	- Index:	Page 1
	- Communication as numbered in the standard:	Annex A - Page 1 to 4
	- Test results:	Annex B - Page 1 to 12
2.	Dossier du constructeur: Report of the manufacturer:	Annex C
	- Information folder:	refer to Index of technical report
3.	Autres documents annexés: Other documents annexed:	not applicable
4.	Date de délivrance de la réception initiale: Date of issue of initial type-approval:	08.08.2023
5.	Date de la dernière délivrance de pages révisées: Date of last issue of revised pages:	not applicable
6.	Date de la dernière délivrance d'une réception révisée: Date of last extension:	not applicable



Référence: e13*2018/858*00593*00

Bertrange, le 08 août 2023

ANNEXE VI
ANNEX VI

FICHE DE RESULTATS D'ESSAIS
TEST RESULTS SHEET

Il doit être indiqué clairement à quelle version et à quelle variante le résultat d'essais s'applique. Pour chaque version, il ne peut y avoir qu'un seul résultat d'essais. Il est toutefois possible de combiner, pour chaque version, plusieurs résultats correspondant à la situation la moins avantageuse. Dans ce cas, une note indiquera que, pour les éléments accompagnés du signe (*), seuls les résultats les plus défavorables sont indiqués. Please indicate clearly to which variant and version of the vehicle the test result applies. Each version shall not have more than one test result. In the case of several test results per version indicating the worst test result, a note shall state that for items marked (*) the worst test results are provided.

- | | | |
|----|---|----------------|
| 1. | Résultats des essais de niveau sonore
Results of the sound level test | not applicable |
| 2. | Résultats des essais d'émission de gaz d'échappement
Results of the exhaust emission tests | not applicable |
| 3. | Résultats des essais d'émissions de CO₂, de consommation de carburant/d'énergie électrique et d'autonomie en mode électrique
Results of the CO ₂ emission, fuel/electric energy consumption, and electric range tests | not applicable |
| 4. | Résultats des essais pour les véhicules équipés d'éco-innovations
Results of the tests for vehicles fitted with eco-innovation(s) | not applicable |