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|  | Test report n. | 414-QL19-R01 ver.2 |
| | Applicant/ Antragsteller | Fondmetal Spa Via Bergamo, 4 24050 - Palosco (BG) - Italy |
| | EUT/Type | PKW-Rad - Type FMI05_9021 |

0. Zentrierart / Centering type

Mittenzentrierung
Centering on Hub Flange

I. Übersicht / Overview


| Ausführung / Version | Kennzeichnung Rad/Zentrierring Wheel identification/ centering rings | Lochzahl/ Lochkreis/ Mittenloch-Ø [mm] Number of holes/ PCD/ centre hole Ø | ET [mm] offset | Radlast [kg] Wheel load | Abroll- umfang [mm] Rolling circum- ference | Gültig ab Herstell- datum Valid from production date |
|----------------------|---|---|----------------------|-------------------------------|--|---|
| 30 5108Y | FMI05_9021 30 5108Y / Ø75 - Ø67,1 | 5/108/67,1 | 30 | 950 | 2410 | 04/2019 |
| 30 5108Y | FMI05_9021 30 5108Y / Ø75 - Ø65,1 | 5/108/65,1 | 30 | 950 | 2410 | 04/2019 |
| 30 5108Y | FMI05_9021 30 5108Y / Ø75 - Ø63,4 | 5/108/63,4 | 30 | 950 | 2410 | 04/2019 |
| 30 5108Y | FMI05_9021 30 5108Y / Ø75 - Ø60,1 | 5/108/60,1 | 30 | 950 | 2410 | 04/2019 |
| 33 5108Y | FMI05_9021 33 5108Y / Ø75 - Ø67,1 | 5/108/67,1 | 33 | 950 | 2410 | 04/2019 |
| 33 5108Y | FMI05_9021 33 5108Y / Ø75 - Ø65,1 | 5/108/65,1 | 33 | 950 | 2410 | 04/2019 |
| 33 5108Y | FMI05_9021 33 5108Y / Ø75 - Ø63,4 | 5/108/63,4 | 33 | 950 | 2410 | 04/2019 |
| 33 5108Y | FMI05_9021 33 5108Y / Ø75 - Ø60,1 | 5/108/60,1 | 33 | 950 | 2410 | 04/2019 |
| 35 5108Y | FMI05_9021 35 5108Y / Ø75 - Ø67,1 | 5/108/67,1 | 35 | 950 | 2410 | 04/2019 |
| 35 5108Y | FMI05_9021 35 5108Y / Ø75 - Ø65,1 | 5/108/65,1 | 35 | 950 | 2410 | 04/2019 |
| 35 5108Y | FMI05_9021 35 5108Y / Ø75 - Ø63,4 | 5/108/63,4 | 35 | 950 | 2410 | 04/2019 |
| 35 5108Y | FMI05_9021 35 5108Y / Ø75 - Ø60,1 | 5/108/60,1 | 35 | 950 | 2410 | 04/2019 |
| 38 5108F | FMI05_9021 38 5108F / ohne Ring | 5/108/63,4 | 38,5 | 950 | 2410 | 04/2019 |
| 44 5108F | FMI05_9021 44 5108F / ohne Ring | 5/108/63,4 | 44 | 950 | 2410 | 04/2019 |
| 50 5108Y | FMI05_9021 50 5108Y / Ø75 - Ø67,1 | 5/108/67,1 | 50 | 940 | 2410 | 04/2019 |
| 50 5108Y | FMI05_9021 50 5108Y / Ø75 - Ø65,1 | 5/108/65,1 | 50 | 940 | 2410 | 04/2019 |
| 50 5108Y | FMI05_9021 50 5108Y / Ø75 - Ø63,4 | 5/108/63,4 | 50 | 940 | 2410 | 04/2019 |
| 50 5108Y | FMI05_9021 50 5108Y / Ø75 - Ø60,1 | 5/108/60,1 | 50 | 940 | 2410 | 04/2019 |
| 29 5110G | FMI05_9021 29 5110G / ohne Ring | 5/110/65,1 | 29 | 950 | 2410 | 04/2019 |
| 25 5112N | FMI05_9021 25 5112N / ohne Ring | 5/112/66,5 | 25 | 950 | 2410 | 04/2019 |
| 25 5112N | FMI05_9021 25 5112N / Ø66,5 - Ø57,1 | 5/112/57,1 | 25 | 950 | 2410 | 04/2021 |
| 26 5112P | FMI05_9021 26 5112P / ohne Ring | 5/112/66,5 | 26 | 950 | 2410 | 04/2019 |
| 33 5112N | FMI05_9021 33 5112N / ohne Ring | 5/112/66,5 | 33 | 950 | 2410 | 04/2019 |
| 33 5112N | FMI05_9021 33 5112N / Ø66,5 - Ø57,1 | 5/112/57,1 | 33 | 950 | 2410 | 04/2021 |
| 40 5112N | FMI05_9021 40 5112N / ohne Ring | 5/112/66,5 | 40 | 950 | 2410 | 04/2019 |
| 40 5112N | FMI05_9021 40 5112N / Ø66,5 - Ø57,1 | 5/112/57,1 | 40 | 950 | 2410 | 04/2021 |
| 45 5112Y | FMI05_9021 45 5112Y / Ø75 - Ø66,5 | 5/112/66,5 | 45 | 950 | 2410 | 04/2019 |
| 45 5112Y | FMI05_9021 45 5112Y / Ø75 - Ø57,1 | 5/112/57,1 | 45 | 950 | 2410 | 04/2019 |



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|-----------------------------|---|
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| EUT/Type | PKW-Rad - Type FMI05_9021 |

| Ausführung / Version | Kennzeichnung Rad/Zentrierring Wheel identification/ centering rings | Lochzahl/ Lochkreis/ Mittenloch-Ø [mm] Number of holes/ PCD/ centre hole Ø | ET [mm] offset | Radlast [kg] Wheel load | Abroll- umfang [mm] Rolling circum- ference | Gültig ab Herstell- datum Valid from production date |
|----------------------|---|---|----------------------|-------------------------------|--|---|
| 50 5112N | FMI05_9021 50 5112N / ohne Ring | 5/112/66,5 | 50 | 940 | 2410 | 04/2019 |
| 50 5112N | FMI05_9021 50 5112N / Ø66,5 - Ø57,1 | 5/112/57,1 | 50 | 940 | 2410 | 04/2021 |
| 40 51141 | FMI05_9021 40 51141 / ohne Ring | 5/114/67,1 | 40 | 950 | 2410 | 04/2019 |
| 45 5114Y | FMI05_9021 45 5114Y / Ø75 - Ø67,1 | 5/114,3/67,1 | 45 | 950 | 2410 | 04/2019 |
| 45 5114Y | FMI05_9021 45 5114Y / Ø75 - Ø66,6 | 5/114,3/66,6 | 45 | 950 | 2410 | 04/2019 |
| 45 5114Y | FMI05_9021 45 5114Y / Ø75 - Ø66,1 | 5/114,3/66,1 | 45 | 950 | 2410 | 04/2019 |
| 45 5114Y | FMI05_9021 45 5114Y / Ø75 - Ø64,1 | 5/114,3/64,1 | 45 | 950 | 2410 | 04/2019 |
| 45 5114Y | FMI05_9021 45 5114Y / Ø75 - Ø63,4 | 5/114,3/63,4 | 45 | 950 | 2410 | 04/2019 |
| 45 5114Y | FMI05_9021 45 5114Y / Ø75 - Ø60,1 | 5/114,3/60,1 | 45 | 950 | 2410 | 04/2019 |
| 45 5114Y | FMI05_9021 45 5114Y / Ø75 - Ø56,1 | 5/114,3/56,1 | 45 | 950 | 2410 | 04/2019 |
| 50 5114Y | FMI05_9021 50 5114Y / Ø75 - Ø67,1 | 5/114,3/67,1 | 50 | 940 | 2410 | 04/2019 |
| 50 5114Y | FMI05_9021 50 5114Y / Ø75 - Ø66,6 | 5/114,3/66,6 | 50 | 940 | 2410 | 04/2019 |
| 50 5114Y | FMI05_9021 50 5114Y / Ø75 - Ø66,1 | 5/114,3/66,1 | 50 | 940 | 2410 | 04/2019 |
| 50 5114Y | FMI05_9021 50 5114Y / Ø75 - Ø64,1 | 5/114,3/64,1 | 50 | 940 | 2410 | 04/2019 |
| 50 5114Y | FMI05_9021 50 5114Y / Ø75 - Ø63,4 | 5/114,3/63,4 | 50 | 940 | 2410 | 04/2019 |
| 50 5114Y | FMI05_9021 50 5114Y / Ø75 - Ø60,1 | 5/114,3/60,1 | 50 | 940 | 2410 | 04/2019 |
| 50 5114Y | FMI05_9021 50 5114Y / Ø75 - Ø56,1 | 5/114,3/56,1 | 50 | 940 | 2410 | 04/2019 |
| 21 5120I | FMI05_9021 21 5120I / ohne Ring | 5/120/72,5 | 21 | 950 | 2410 | 04/2019 |
| 21 5120I | FMI05_9021 21 5120I / Ø72,5 - Ø67,1 | 5/120/67,1 | 21 | 950 | 2410 | 04/2019 |
| 21 5120I | FMI05_9021 21 5120I / Ø72,5 - Ø64,1 | 5/120/64,1 | 21 | 950 | 2410 | 04/2019 |
| 35 5120 | FMI05_9021 35 5120 / ohne Ring | 5/120/64,1 | 35 | 950 | 2410 | 04/2019 |
| 39 5120I | FMI05_9021 39 5120I / Ø72,5 - Ø67,1 | 5/120/72,5 | 39 | 950 | 2410 | 04/2019 |
| 39 5120I | FMI05_9021 39 5120I / Ø72,5 - Ø64,1 | 5/120/67,1 | 39 | 950 | 2410 | 04/2019 |
| 39 5120I | FMI05_9021 39 5120I / ohne Ring | 5/120/64,1 | 39 | 950 | 2410 | 04/2019 |
| 51 5127I | FMI05_9021 51 5127I / ohne Ring | 5/127/71,6 | 51 | 940 | 2410 | 04/2019 |
| 45 5130A | FMI05_9021 45 5130A / ohne Ring | 5/130/71,6 | 45 | 950 | 2410 | 04/2019 |

S22 52859*01

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|---|-----------------------------|---|
|  | Test report n. | 414-QL19-R01 ver.2 |
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| | EUT/Type | PKW-Rad - Type FMI05_9021 |

I.1. Beschreibung der Räder / Description of wheels

| | |
|--|---|
| Handelsmarke Trade mark | FONDMETAL |
| Art der Räder Type of wheels | Einteiliges Leichtmetall Rad Aluminum One piece wheels |
| Korrosionsschutz Corrosion protection | Mehrschicht Einbrennlackierung Multilayer Coating, Baked Paint |
| Masse des Rades Weight of wheel | 16,09 kg * ohne Lackierung / Unpainted * Weighth referes to wheel version 45 5130A |

I.2. Radanschluss und Befestigungselemente / Wheel attachment and fastening elements

Siehe Punkt I. Übersicht und Anhaenge
See point I. overview and enclosures

I.3. Kennzeichnung der Räder / Wheel identification

An den Rädern wird folgende Kennzeichnung an der Außen- bzw. Innenseite eingegossen bzw. eingeprägt.
The following identification will be casted or impressed on the inner and/or outer side of the wheel.

| | Außenseite / Outer side | Innenseite / Inner side |
|---|-------------------------|-----------------------------|
| Herstellerzeichen / Manufacturer sign | - | FONDMETAL |
| Radtyp / Wheel type | - | FMI05_9021 |
| Radausführung / Version | - | s.p. I Übersicht / overview |
| Radgröße / Wheel dimension | - | 9Jx21 EH2+ |
| Einpreßtiefe / Offset | - | s.p. I Übersicht / overview |
| Herstellungsdatum / Date of manufacturing | - | Monat und Jahr |
| Herkunftsmerkmal / Origin | - | Made in Italy |
| Gießerei-kennzeichnung / Casting identification | - | - |
| KBA Nummer / KBA number | KBA 52859 | - |
| ECE Nummer / ECE number | - | - |

Zusätzlich können auf der Radinnenseite bzw.-außenseite verschiedene Kontrollzeichen angebracht sein.
Additionally other control labels could be affixed on the outer- or inner side of the wheel.

I.4. Verwendungsbereich / Application field

Die Räder sind fuer Personenkraftwagen vorgesehen.
The wheels are designated to be mounted on passenger cars.


II. Radprüfung / Wheel testing

Die Dauerfestigkeit, der hier beschriebenen Räder , wurde gemäss der "Richtlinien für die Prüfung von Sonderrädern für Kfz und ihren Anh. BMV/StV 13/36.25.07-20.01, VkB1 S 1377" vom 25.11.1998 und ECE-R 124 Änd. 00 Erg. 01 geprüft.

The strength resistance of the wheels described in this report were tested in accordance with the "guidelines for the testing and inspection of special wheels for motor vehicles and their trailers BMV/StV 13/36.25.07-20.01, VkB1 S 1377" from 25th of November 1998 and Regulation ECE 124 - Supplement 1 to the original version of the Regulation.

II.1. Felge / Rim

Die Maße und Tolleranzen der Felgenkontour entsprechen der E.T.R.T.O. Norm.
Dimensions and tollerances of the rim-contour are in accordance with the E.T.R.T.O.

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|---|-----------------------------|---|
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| | EUT/Type | PKW-Rad - Type FMI05_9021 |

II.2. Werkstoffe der Räder / Materials of wheels

Zusammensetzung, Festigkeitswerte und Korrosionsverhalten des Werkstoffes sind in der Beschreibung des Herstellers aufgeführt; diese Angaben wurden durch uns nicht ueberprueft.

Composition, strength values and corrosion behaviour of the materials are listed in the technical description of the manufacturer, these data are not verified by us.

II.3. Festigkeitsprüfung / Strength test

II.3.1. Dauerfestigkeitsprüfung / Endurance strength test


Prüfinstrument / Measurement instrument:

LEONARDO FR12 QL internal n° QL-IN-069 and Inmess RBT-8K internal n° QL-IN-089

| Ausführung/ Version | Lochzahl/Lochkreis [mm]/ Number of holes/PCD | ET [mm] Offset | Radlast [kg] Wheel load | Abrollumfang [mm] Rolling circumference | Prüfmoment $M_{b_{max}}$ bei 100 % [Nm] Bendingmoment | Anzahl Kurzzeittest Short time test qty | Anzahl Langzeittest Long time test qty |
|------------------------|---|-------------------|----------------------------|--|---|--|---|
| 30 5108Y | 5/108 | 30 | 950 | 2410 | 6993 | 1 | 1 |
| 33 5108Y | 5/108 | 33 | 950 | 2410 | 7049 | - | - |
| 35 5108Y | 5/108 | 35 | 950 | 2410 | 7086 | 1 | 1 |
| 38 5108F | 5/108 | 38,5 | 950 | 2410 | 7152 | - | - |
| 44 5108F | 5/108 | 44 | 950 | 2410 | 7254 | - | - |
| 50 5108Y | 5/108 | 50 | 940 | 2410 | 7289 | 1 | 1 |
| 29 5110G | 5/110 | 29 | 950 | 2410 | 6975 | - | - |
| 25 5112N | 5/112 | 25 | 950 | 2410 | 6900 | 1 | 1 |
| 26 5112P | 5/112 | 26 | 950 | 2410 | 6919 | - | - |
| 33 5112N | 5/112 | 33 | 950 | 2410 | 7049 | - | - |
| 40 5112N | 5/112 | 40 | 950 | 2410 | 7180 | - | - |
| 45 5112Y | 5/112 | 45 | 950 | 2410 | 7273 | 1 | 1 |
| 50 5112N | 5/112 | 50 | 940 | 2410 | 7289 | - | - |
| 40 51141 | 5/114 | 40 | 950 | 2410 | 7180 | 1 | 1 |
| 45 5114Y | 5/114,3 | 45 | 950 | 2410 | 7273 | - | - |
| 50 5114Y | 5/114,3 | 50 | 940 | 2410 | 7289 | 1 | 1 |
| 21 5120I | 5/120 | 21 | 950 | 2410 | 6826 | 1 | 1 |
| 35 5120 | 5/120 | 35 | 950 | 2410 | 7086 | 1 | - |
| 39 5120I | 5/120 | 39 | 950 | 2410 | 7161 | 1 | 1 |
| 51 5127I | 5/127 | 51 | 940 | 2410 | 7307 | 1 | 1 |
| 45 5130A | 5/130 | 45 | 950 | 2410 | 7273 | 1 | 1 |

Die Prüfung wurde mit positivem Ergebnis abgeschlossen (Anrisskontrolle mittels Farbeindringverfahren)

The test was performed with positive result (crack assessment and evaluation: dye penetration method).

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|---|-----------------------------|---|
|  | Test report n. | 414-QL19-R01 ver.2 |
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II.3.2. Abrollprüfung / Rim rolling test

Prüfinstrument / Measurement instrument: Rim rolling machine GOAL QL internal n° QL-IN-068

| Ausführung/ Version | Lochzahl/Lochkreis-[mm]/ Number of holes/ PCD | ET [mm] Offset | Radlast [kg] Wheel load | Prüf - last [N] Test Load | Reifengröße Tire dimension | Reifenfüll- druck [bar] Tire pressure | Prüf- distanz [km] Test distance | Anzahl Abroll- test Rolling- Test qty |
|------------------------|---|----------------------|----------------------------------|------------------------------------|-------------------------------|---|--|---|
| 45 5112Y | 5/112 | 45 | 950 | 2330 | 285/45 R21 | 4,5 | 2000 | 1 |
| 45 5130A | 5/130 | 45 | 950 | 2330 | 285/45 R21 | 4,5 | 2000 | 1 |

Die Prüfung wurde mit positivem Ergebnis abgeschlossen. (Anrisskontrolle mittels Farbeindringverfahren).
Alle anderen Versionen sind abgeleitet.

The test was performed with positive result (crack assessment and evaluation: dye penetration method). All other versions are derived.


II.3.3. Impact Prüfung / Impact test

Prüfinstrument / Measurement instrument:
Impact tester INMESS QL internal n° QL-IN-153

| Ausführung/ Version | Lochzahl/Lochkreis [mm]/ Number of holes/ PCD | ET [mm] Offset | Radlast [kg] Wheel load | Fallmasse [kg] Impact weight | Reifengröße Tire dimension | Reifenfüll- druck [bar] Tire pressure | Anzahl Impact- test Impact-Test qty |
|------------------------|---|----------------------|-------------------------------|------------------------------------|-------------------------------|---|---|
| 30 5108Y | 5/108 | 30 | 950 | - | - | - | - |
| 33 5108Y | 5/108 | 33 | 950 | - | - | - | - |
| 35 5108Y | 5/108 | 35 | 950 | - | - | - | - |
| 38 5108F | 5/108 | 38,5 | 950 | - | - | - | - |
| 44 5108F | 5/108 | 44 | 950 | 750 | 235/30 R21 | 2,0 | 2 |
| 50 5108Y | 5/108 | 50 | 940 | 744 | 235/30 R21 | 2,0 | 2 |
| 29 5110G | 5/110 | 29 | 950 | - | - | - | - |
| 25 5112N | 5/112 | 25 | 950 | 750 | 235/30 R21 | 2,0 | 2 |
| 26 5112P | 5/112 | 26 | 950 | - | - | - | - |
| 33 5112N | 5/112 | 33 | 950 | - | - | - | - |
| 40 5112N | 5/112 | 40 | 950 | - | - | - | - |
| 45 5112Y | 5/112 | 45 | 950 | - | - | - | - |
| 50 5112N | 5/112 | 50 | 940 | - | - | - | - |
| 40 51141 | 5/114 | 40 | 950 | - | - | - | - |
| 45 5114Y | 5/114,3 | 45 | 950 | - | - | - | - |
| 50 5114Y | 5/114,3 | 50 | 940 | - | - | - | - |
| 21 5120I | 5/120 | 21 | 950 | 750 | 235/30 R21 | 2,0 | 2 |
| 35 5120 | 5/120 | 35 | 950 | - | - | - | - |
| 39 5120I | 5/120 | 39 | 950 | 750 | 235/30 R21 | 2,0 | 2 |
| 51 5127I | 5/127 | 51 | 940 | 744 | 235/30 R21 | 2,0 | 2 |
| 45 5130A | 5/130 | 45 | 950 | 750 | 235/30 R21 | 2,0 | 2 |

Die Prüfung wurde mit positivem Ergebnis abgeschlossen.

The test was performed with positive result.

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|---|-----------------------------|---|
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| | EUT/Type | PKW-Rad - Type FMI05_9021 |

III. Prüfergebnis / Test result

Aufgrund der durchgeführten Prüfungen bestehen keine technischen Bedenken o.g. Räder an den in Verwendungsbereichsgutachten genannten Fahrzeugen und den dort aufgeführten Bedingungen zu verwenden.

Based on the performed tests there are no technical objections to apply the wheels described above to the vehicles listed in the application certificate under fulfillment of the mounting conditions.

IV. Hinweis / Note

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V. Anlagen / Enclosures

Beschreibung / Technical description :

Radzeichnung / Drawing n° : FMI05_J9021215

Radzeichnung / Drawing n° : FMI05_J9021255

Radzeichnung / Drawing n° : FMI05_J9021265

Radzeichnung / Drawing n° : FMI05_J9021295

Radzeichnung / Drawing n° : FMI05_J9021305

Radzeichnung / Drawing n° : FMI05_J9021335

Radzeichnung / Drawing n° : FMI05_J9021335_S

Radzeichnung / Drawing n° : FMI05_J9021355

Radzeichnung / Drawing n° : FMI05_J9021355_S

Radzeichnung / Drawing n° : FMI05_J9021385

Radzeichnung / Drawing n° : FMI05_J9021395

Radzeichnung / Drawing n° : FMI05_J9021405

Radzeichnung / Drawing n° : FMI05_J9021445

Radzeichnung / Drawing n° : FMI05_J9021455

Radzeichnung / Drawing n° : FMI05_J9021455_S

Radzeichnung / Drawing n° : FMI05_J9021505

Radzeichnung / Drawing n° : FMI05_J9021505_S

Radzeichnung / Drawing n° : FMI05_J9021515

Date 07/04/2021

rev.0 date 28/05/2019

rev.0 date 28/05/2019

rev.0 date 04/03/2019

rev.0 date 28/03/2019

rev.0 date 28/05/2019

rev.0 date 28/05/2019

rev.0 date 28/05/2019

rev.0 date 28/05/2019

rev.0 date 28/05/2019

rev.0 date 28/05/2019

rev.0 date 28/05/2019

rev.0 date 28/05/2019

rev.0 date 28/05/2019

rev.0 date 28/05/2019

rev.0 date 28/03/2019

rev.0 date 28/05/2019

rev.0 date 28/05/2019

rev.0 date 28/05/2019

VI. Datum Bericht und Test / Report and test date

Ver. 0: 31/05/2019 - Test Date: From 15/05/2019 to 29/05/2019

Ver. 1: 02/03/2020 - addition of bending fatigue test at 50 % Mb_{max} on version 25 5112N

Test Date: From 27/02/2020 to 28/02/2020

Ver. 2: 09/04/2021 - addition Ø66,5 - Ø57,1 ring applications on versions 25 5112N , 33 5112N , 40 5112N and 50 5112N

S22 52859*01

WHEEL DESCRIPTION

Please find details of wheels supplied to TUV for testing listed below.

Certification request: ABE Document

1. General information

- Wheel Type: FMI05_9021
- Wheel Size: 9.0 J x 21" EH2+
- Tyre type: Tubeless
- Snow chain: See TUV indications
- Face Parallelity and Roundness of Rim: 0.30 mm
- Rim Base: According To Std. E.T.R.T.O.
- Valve Type: Customer Own (STD E.T.R.T.O. 11.3F)
- Balancing Weights: Only Adhesive

2. Applications

- All models homologated

3. Measurement and other

| PART NUMBER | | ET | PCD | C.B. | Rings | Bolt & Nuts | Application |
|-------------|----------|------|-------|------|--------------|------------------------|--|
| FMI05_9021 | 38 5108F | 38.5 | 5x108 | 63.4 | - | D039,D023, V024 | Ford, Volvo, Jaguar, Landrover |
| FMI05_9021 | 44 5108F | 44 | 5x108 | 63.4 | - | D039, D023, V024 | Ford, Volvo, Jaguar, Landrover |
| FMI05_9021 | 29 5110G | 29 | 5x110 | 65.1 | - | OE Bolt | Alfa Romeo |
| FMI05_9021 | 25 5112N | 25 | 5x112 | 66.5 | 57.1 | OE Bolt, V036, V037 | Audi, BMW, VW, Seat, Skoda, Mercedes, Infiniti, Porsche |
| FMI05_9021 | 26 5112P | 26 | 5x112 | 66.5 | - | OE Bolt | Porsche |
| FMI05_9021 | 33 5112N | 33 | 5x112 | 66.5 | 57.1 | OE Bolt, V036, V037 | Audi, BMW, VW, Seat, Skoda, Mercedes, Infiniti |
| FMI05_9021 | 40 5112N | 40 | 5x112 | 66.5 | 57.1 | OE Bolt, V036, V037 | Audi, BMW, VW, Seat, Skoda, Mercedes, Infiniti |
| FMI05_9021 | 50 5112N | 50 | 5x112 | 66.5 | 57.1 | OE Bolt, V036, V037 | Mercedes |
| FMI05_9021 | 40 51141 | 40 | 5x114 | 67.1 | - | V009 | Maserati, Ferrari |
| FMI05_9021 | 21 5120I | 21 | 5x120 | 72.5 | 64.1 67.1 | V025, D038 | BMW, Chevrolet Camaro |

| | | | | | | | |
|------------|----------|----|-------|------|----------------------|------------|----------------|
| FMI05_9021 | 35 5120 | 35 | 5x120 | 64.1 | - | Oe Nut | Tesla |
| FMI05_9021 | 39 5120I | 39 | 5x120 | 72.5 | 64.1 65.1 67.1 | V025, V024 | BMW, VW Amarok |
| FMI05_9021 | 51 5127I | 51 | 5x127 | 71.6 | - | OE Nut | Jeep |
| FMI05_9021 | 45 5130A | 45 | 5x130 | 71.6 | - | OE Bolt | Porsche |

4. Drawings / Accessories

- Wheel drawing numbers:
 - FMI05_J9021215 rev 0
 - FMI05_J9021255 rev 0
 - FMI05_J9021265 rev 0
 - FMI05_J9021295 rev 0
 - FMI05_J9021305 rev 0
 - FMI05_J9021335 rev 0
 - FMI05_J9021335_S rev 0
 - FMI05_J9021355 rev 0
 - FMI05_J9021355_S rev 0
 - FMI05_J9021385 rev 0
 - FMI05_J9021395 rev 0
 - FMI05_J9021405 rev 0
 - FMI05_J9021445 rev 0
 - FMI05_J9021455 rev 0
 - FMI05_J9021455_S rev 0
 - FMI05_J9021505 rev 0
 - FMI05_J902150_S rev 0
 - FMI05_J9021515 rev 0
- Centering: See draw in attachment
- Hubcap: See draw in attachment
- Valve: See draw in attachment
- Wheel Bolt/Nut: See draw in attachment
- Starting Torque the Wheel Nuts: See TUV Indication

5. Construction

- Wheel Standard: E.T.R.T.O.
- Construction: One Piece Wheels
- Design: Fondmetal Wheels

6. Description of the Wheel Manufacturing

- Features: Low-pressure casting
- Heat treatment: T6
- Machining Process: Fully CNC Machined & CNC drilling
- Varnishing: 3 layer, powder coat, colour paint, lacquer

7. Material

- Material: Aluminium alloy G-Al Si7 Mg - T6
- Enervations load: Rp02 110 ÷ 140 N/mm2
- Tension strength: Rm 190 ÷ 230 N/mm2
- Elongation: A 2 ÷ 5 %
- Density: 2.65 kg/dm3
- Hardness: Min 75 HB
- Chemical Analysis:

| Silicio Si% | Rame Cu% | Ferro Fe% | Manganese Mn% | Zinco Zn% | Magnesio Mg% | Titanio Ti% | Altro % |
|----------------|-------------|--------------|------------------|--------------|-----------------|----------------|------------|
| 6.5 - 7.5 | Max 0.05 | Max 0.19 | Max 0.10 | Max 0.01 | 0.20 ÷ 0.45 | 0.08 ÷ 0.25 | Max 0.1 |

8. Corrosion Consistency of the Material

- Against influence of the water: Very good
- Against seawater: Very good - Minimum 384 hours Corrosion Protection to UNI ISO 9227

9. Quality Control

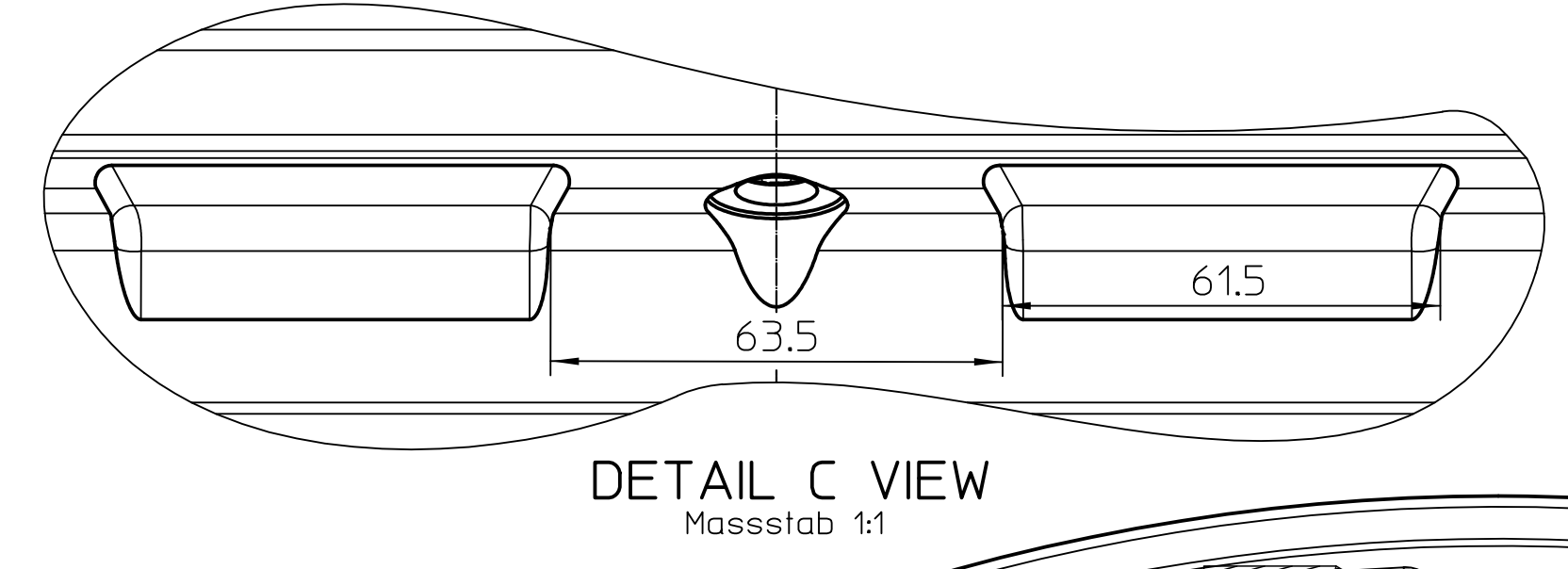
- Material Analysis
- 100% X-Ray Analysis
- Dimensional Inspection Throughout manufacture
- Statistical Process Control on Critical Dimensions
- A 100% tubeless
- A 100% visual inspection

10. Production plant

- Casting: Fondmetal Spa, Via Bergamo, Palosco BG
- Machining Process: Fondmetal Spa, Via Bergamo, Palosco BG
- Varnishing / Paint Finish: Fondmetal Spa, Via Bergamo, Palosco BG
- Finish Control: Fondmetal Spa, Via Bergamo, Palosco BG
- Dispatch/Delivery: Fondmetal Spa, Via Bergamo, Palosco BG

2021-04-10

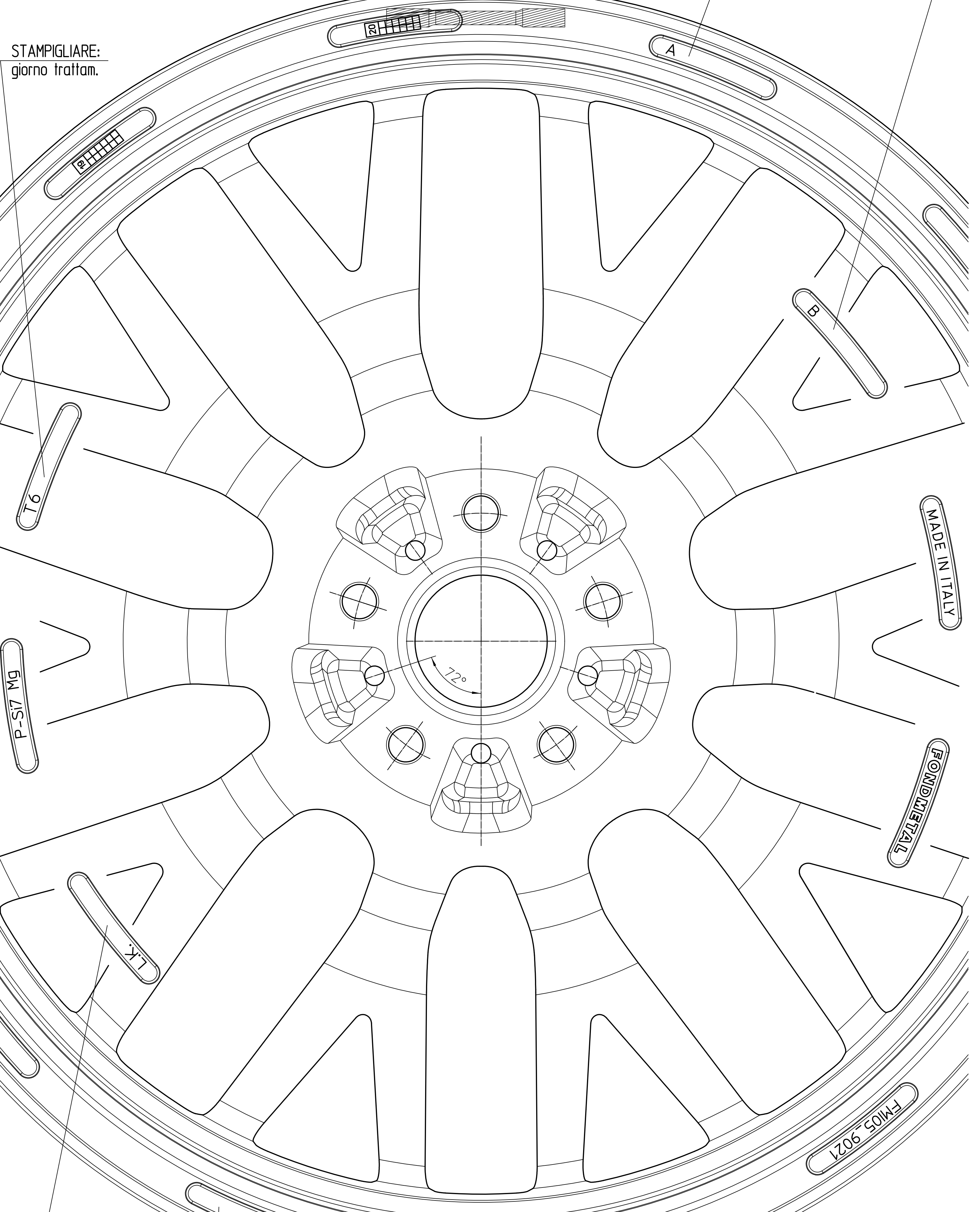
Ufficio tecnico Fondmetal



STAMPIGLIARE:
giorno fus. e sigla oper.

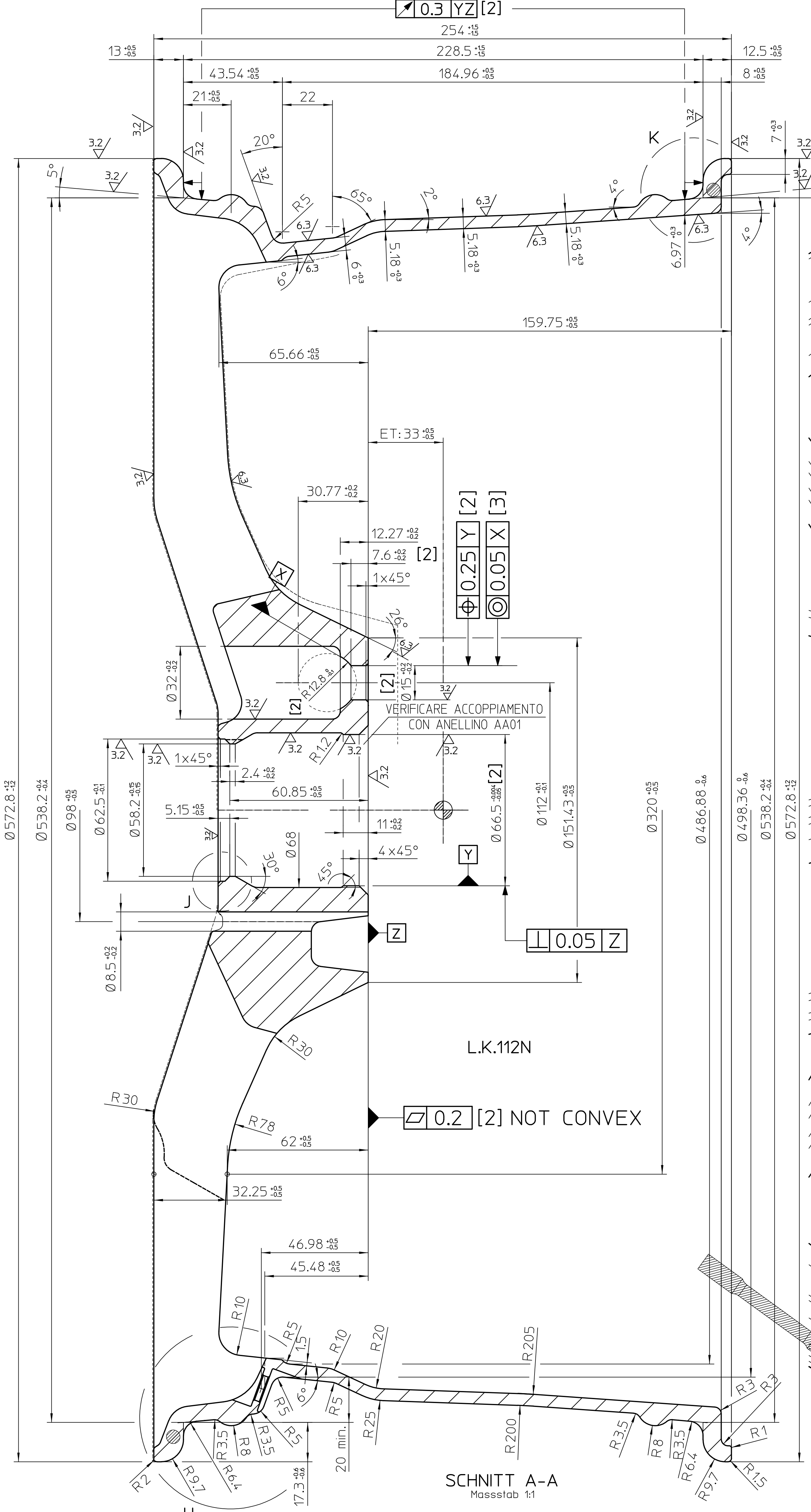
STAMPIGLIARE:
giorno lavorazione mecc.

STAMPIGLIARE:
giorno trattam.



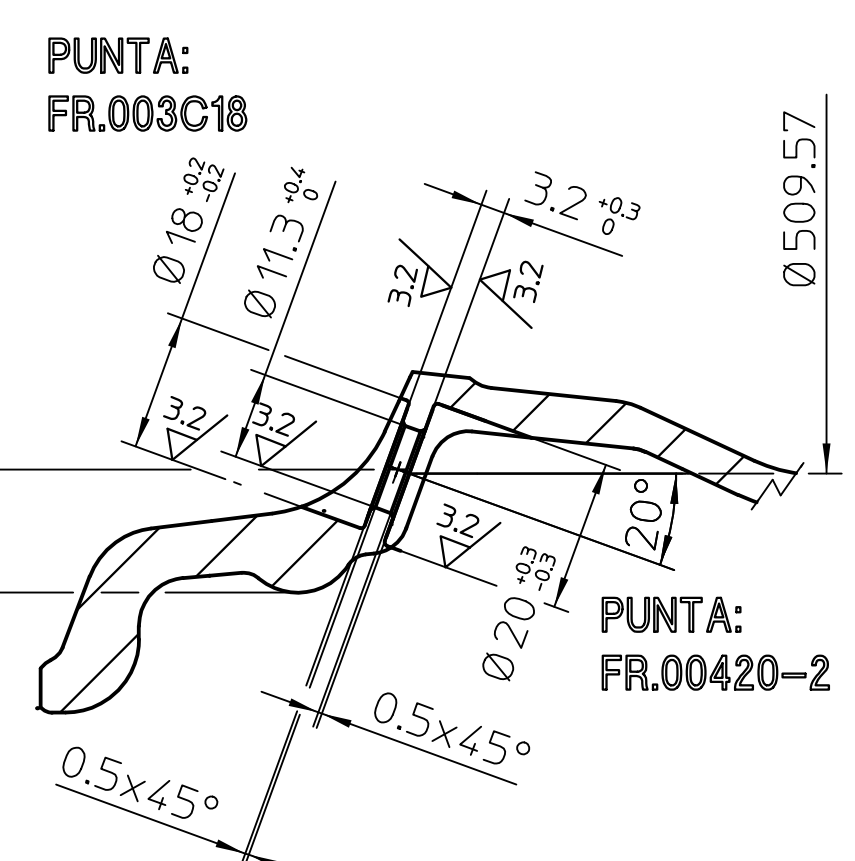
STAMPIGLIARE:
cod. interasse

STAMPIGLIARE: 33

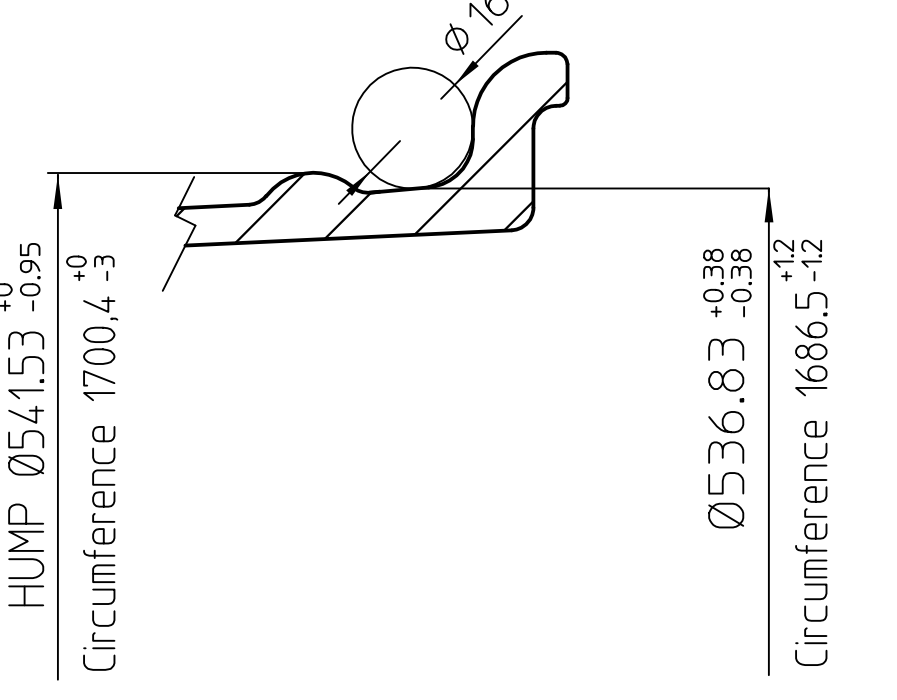


SCHNITT A-A
Massstab 1:1

DETAIL J
Massstab 2:1



DETAIL H
Massstab 1:1



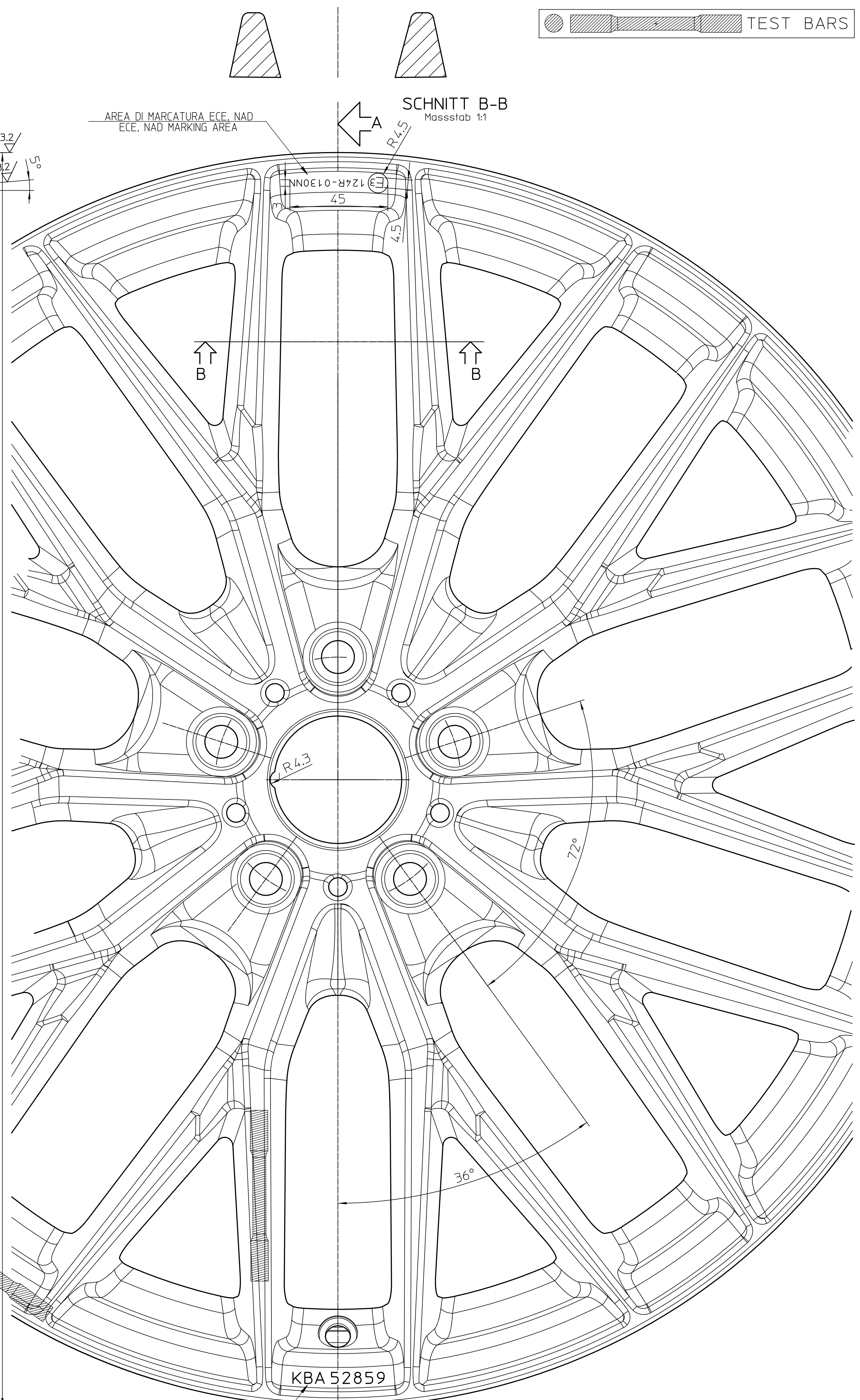
DETAIL K
Massstab 1:1

PUNTI LAVORAZIONE PASSAGGIO PINZA:

- 1) X484.2 Z-192.77
- 2) X479.22 Z-216.47
- 3) X458.28 Z-225.41 R10
- 4) X313.12 Z-221.61
- 5) X257.84 Z-214.97 R78
- 6) X210.68 Z-204.47
- 7) X181.16 Z-190.22 R30
- 8) X146.56 Z-154.75

NOTE - VARIE

PUNTA: FR-ATP04
PUNTE VAL: FR.003C18 - FR.00420-2
CAP: C059-OE AUDI
GREZZO: FM05J9021255



SCHNITT B-B
Massstab 1:1

AREA DI MARCATURA KBA
KBA MARKING AREA

ZONE PROTETTE DALLA VERNICIATURA:
LACKGESCHÜTZTE OBERFLÄCHE:
-CENTRATURA (MITTENBOHRUNG)
-PIANO D'APPOGGIO (ANLIEGEFLÄCHE)
[2] QUOTA IMPORTANTE (WICHTIGES MASS)
[3] QUOTA MOLTO IMPORTANTE (SEHR WICHTIGES MASS)
BILANCIATURA STATICA CON MANICHINO TPMS MAX 26.5 gr
STATISCHE AUSWICHTUNG MAX 26.5gr DUMMY TPMS
GREZZE TUTTE LE PARTI SENZA SEGNO DI LAVORAZIONE
ALLE PUNTE OHNE BEARBEITUNGSKENNZEICHEN SIND UNBEARBEITET

| TYP | MODELLO | ET | L.K. | M.B. | KENNZERZEICHNERING | ANNE-DURCHMESSER | INNEN-DURCHMESSER | BL |
|-----------|---------|------|-------|------|--------------------|------------------|-------------------|----|
| FM05_9021 | 33 | 112N | 66.50 | AA01 | 57.10 | 5 | | |
| FM05_9021 | 33 | 112N | 66.50 | / | / | 5 | | |

| KENNZEICHNUNG | DESCRIZIONE | AUDENSEITE FRONTALE | INNENSEITE POSTERIORE |
|-------------------------|-------------------|---|-----------------------|
| HERSTELLER | PRODUTTORE | FONDOMETAL | FONDOMETAL |
| TYP | MODELLO | FM05_9021 | FM05_9021 |
| GRÖÖE | MISURA | 9Jx21EH2+ | 9Jx21EH2+ |
| ENPREITTEFE | ET | E1:33 | E1:33 |
| HERSTELLUNGS | FABBRICATO IN | MADE IN ITALY | MADE IN ITALY |
| HERSTELLUNGS | DATA DI FUSIONE | DATE OF CASTING | DATE OF CASTING |
| LOCHKREIS | INTERASSE | L.K. | L.K. |
| WEITERE KENNZEICHNUNGEN | ALTE SORTE | 124R-0130N | L.K. |
| ALLE ANGABEN LESBAR | ERHABEN ENGEBOREN | TUTTE LE DESCRIZIONI LEGGIBILI IN RILEVIO | |

| WERKSTOFF | MATERIALE | P | Al | Si | Mg | + T6 |
|-------------------|---|---|----|----|----|------|
| BEARBEITUNG | ALLE NICHT VERMÄTTEN RADIIEN 0.5mm 3/2 4/3 UNO | | | | | |
| LOCHKREIS | +0.1mm UM DEN THEORETISCHEN MITTELPUNKT | | | | | |
| OBERFLÄCHE | NACH ENTFETTUNG LACKIERUNG NACH VORSCHRIFT | | | | | |
| FELGENBETT | NACH ENTFETTUNG LACKIERUNG NACH VORSCHRIFT | | | | | |
| OFFENE TOLERANZEN | ALLE IDENTIFIKATIONEN VON FONDOMETAL S.P.A. VORBEHALTEN. NACH NACHDRUCK ZUR HERSTELLUNG DER HER | | | | | |