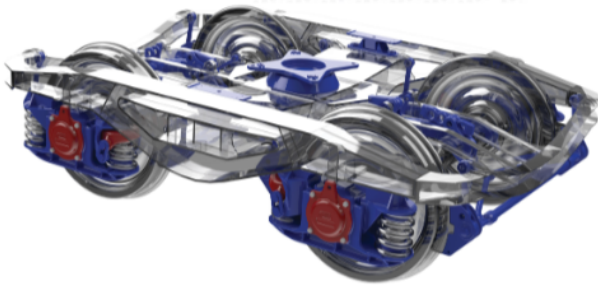




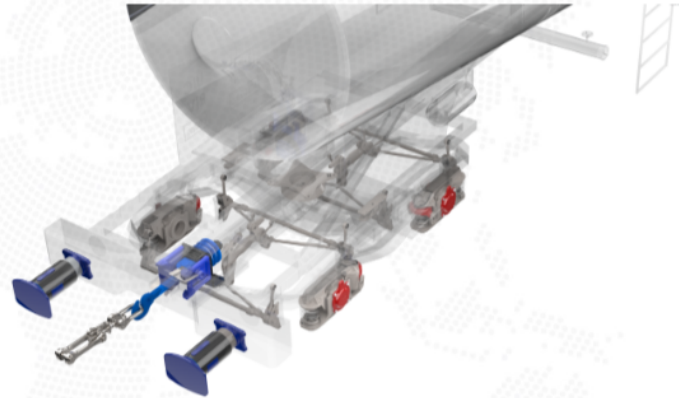
Impressive CV Spare Parts

RAILWAY PARTS

www.wisgroup.com.tr



BOGIE PARTS



WAGON PARTS

Railway Parts

Wide Ra
Products and

VAGON PARÇALARI

Home > Grup Şirketlerimiz > Vagon Parçaları

Automotive

FORGING/CASTING

Railex

Cymac



DRAW HOOK

(TSI Certified)

(1000/1200/1500 kN)



DRAW GEAR

(TSI Certified)

(1000/1500 kN)



SCREW COUPLING

(TSI Certified)

(850/1000/1350 kJ)



BUFFER

(TSI Certified)

CatA 105 Stroke

(30/35/40 kJ)



HAMMER



ROPE HOOK



LIFTING BASE



JOINT PIN



RIGHT-LEFT PIVOT BEARING

(TYPE - A)



RIGHT-LEFT PIVOT BEARING

(TYPE - B)

BOJI PARÇALARI

Home > Grup Şirketlerimiz > Boji Parçaları

Automotive

FORGING/CASTING

Railrex

Cymac



SIDE BEARER LOWER



LOWER PIVOT



BRAKE TRIANGLE



SPRING CUP

(FORGING)



COVER



AXLE BEARING BOX



TOW BAR



SPRING CUP



DRAFT STOP



CONNECTION BAR



BRAKE LEVER



PLUNGER

BOGIE PARTS



BRAKE TRIANGLE

(ORTADAN ASMALI)



BRAKE TRIANGLE

(TEPEDEN ASMALI)



PIVOT FILLER



SPRING BEARER

(WITHOUT SENSOR)



PIVOT FILLER

(FORGING)



EYE



SPRING SHACKLE



SPRING BEARER

(WITH SENSOR)



SUSPENSION LINK

(RECTANGULAR)



SUSPANSION LINK

(OVAL)



GUIDE



BRAKE BLOCK HOLDER



BOGIE PARTS



INTERMEDIATE BEARING



BEARING STONE



COUPLING MUFF CONNECTION



UPPER PIVOT



PISTON HEAD



PISTON ARM



BRAKE BLOCK HOLDER

BRAKE PARTS



Aski Biyeli
Railex, Fren Sistemi



Fren Manivela Köprüsü
Railex, Fren Sistemi



Fren Manivelası
Railex, Fren Sistemi



Fren Üçgeni
Railex, Fren Sistemi



Göz
Railex, Fren Sistemi



Gözlük
Railex, Fren Sistemi



Railcar Parts

Screw Coupling



Main Product Types

1350 kN Screw Coupling
1000 kN Screw Coupling
850 kN Screw Coupling

STANDARD: UIC/ERRI UIC 826, UIC 583, UIC 520, EN 15566 and TSI.

Manufacturing Potential

Weight range : 0,5-60 kg

Machining:

Cutting on conventional and CNC machines
Cutting on single-purpose machines thread rolling

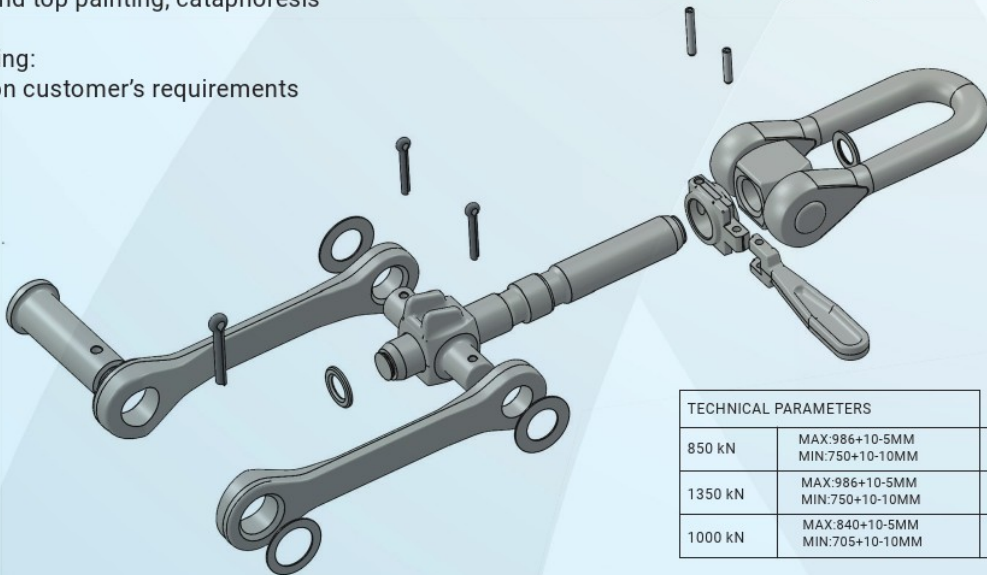
Surface treatment:

Blasting
Sand blasting
Prime and top painting, cataphoresis

Packaging:

Based on customer's requirements

- Screw coupling parts are made by die forging and subsequent heat treatment.
- Fabrication of individual parts is done on conventional and single-purpose machines
- Thread on spindle is made by machining.
- Testing is performed in company mechanical and metallographic test room.
- Painting: based on customers requirements, cataphoresis
- Packaging: based on customers requirements
- Manufacturing and testing inspected by quality control system certified according to **EN ISO 9001:2015**
- Obtained certificates: **EN-15566 (TSI), ÖBB, SNCF, TULOMSAS, TUDEMSAS**
- There is no welding process by washer and lock washer cold press fitting is implemented.
- NDT Material Engineering-UT Level-2



TECHNICAL PARAMETERS

| | | |
|---------|-----------------------------------|---------|
| 850 kN | MAX:986+10-5MM MIN:750+10-10MM | 36 KG |
| 1350 kN | MAX:986+10-5MM MIN:750+10-10MM | 37,5 KG |
| 1000 kN | MAX:840+10-5MM MIN:705+10-10MM | 35 KG |

Railcar Parts

Side Bearer Lower - Upper Parts



Lower Part



Upper Part



Side Bearer

Main Product Types

Die forgings
Hot stampings
Cold stampings
Machined parts
Assemblies

Manufacturing Potential

Weight range : 0,5-60 kg

Machining:

Cutting on conventional and CNC machines
Cutting on single-purpose machines thread rolling

Surface treatment:

Blasting
Sand blasting
Prime and top painting, cataphoresis

Packaging:

Based on customer's requirements

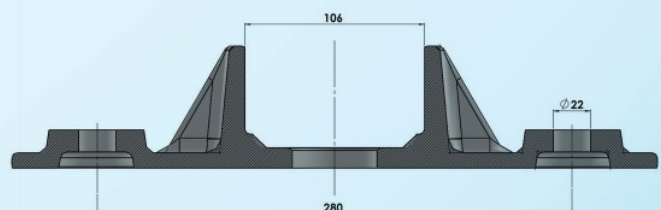
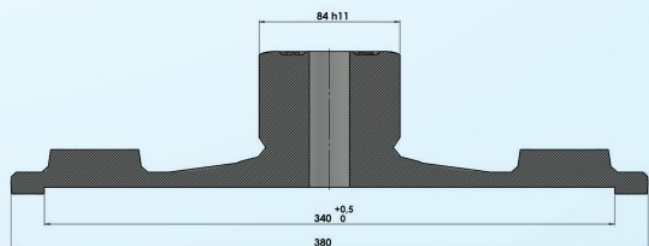
QUALITY CONTROL

Quality control system certified according to
EN ISO 9001:2015
Purchase of materials from certified manufacturers
Material receiving inspection
Product in-process inspection

Mechanical tests performed in company test room
Hardness HB, HV, HRC
Tensile test
Impact test
Non-destructive tests

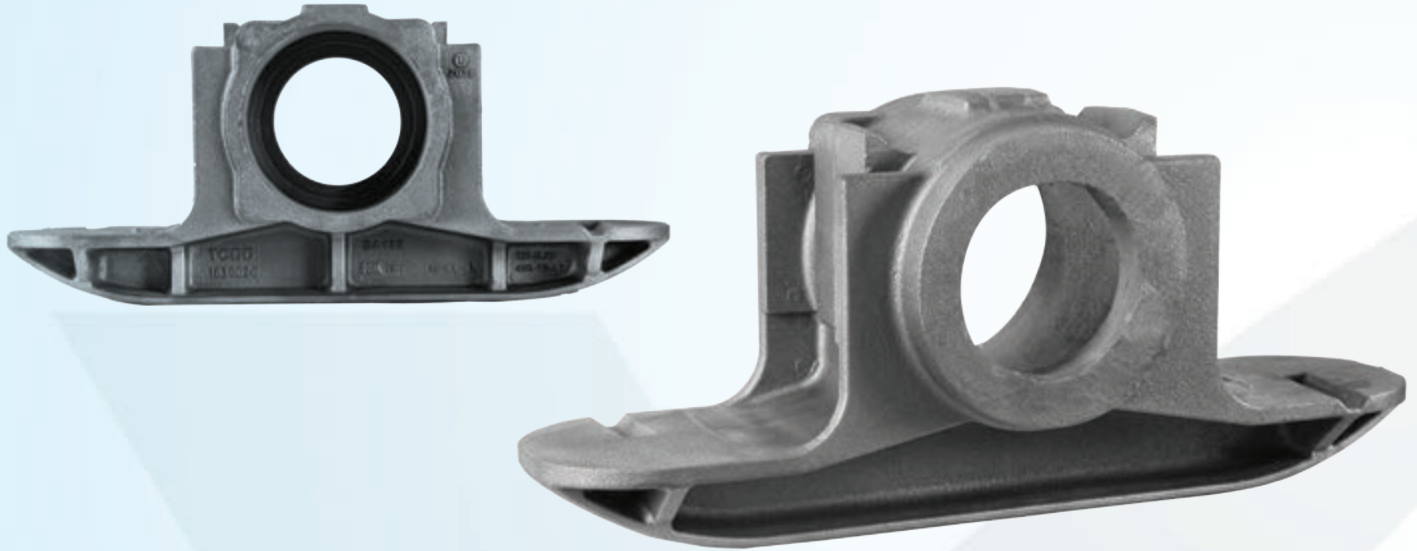
Metallographic tests in company test room
Macrostructure evaluation
Microstructure evaluation
Grain

- Surface defect inspection by magnetoflux, die penetrant methods
- Material substitution inspection, chemical composition analysis (22 elements)
- Final inspection according to EN standards
- Statistical acceptance
- Obtained certificates: **OBB, SNCF, TULOMSAS, TUDEMSAS**

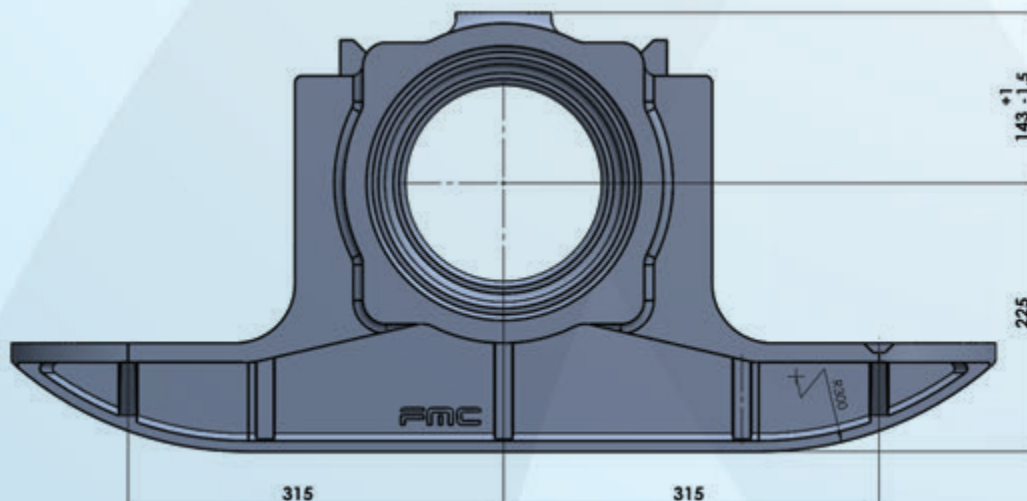


Rail Car Parts

AXLE BOX

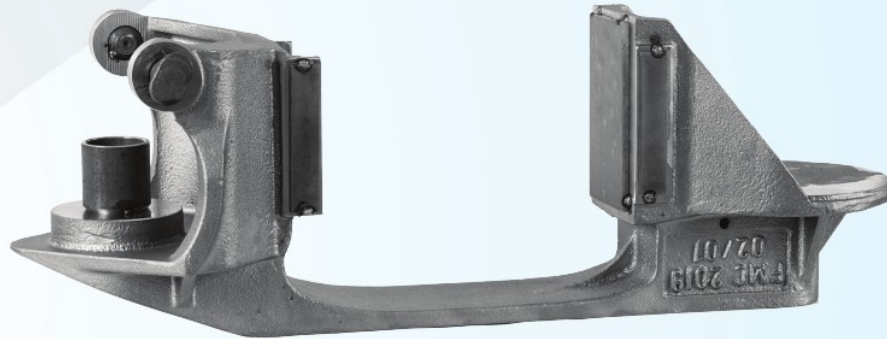


- Used for freight wagons, locomotives and special vehicles and bogies.
- The part is supplied as an assembly of machined casting with encased apertures, including wheel key and spring pin for one or two cast-iron or composite brake blocks.
- The part is supplied and tested in accordance with UIC 583, DIN 5651, BN 918 440
- Manufacture is controlled by the quality management system certified according to EN ISO 9001:2015
- Painting: based on customer's requirement, blasted, primed and top coated to ensure a cataphoresis.
- Packaging: based on customer's requirement
- Obtained certificates: **SNCF, TULOMSAS, TUDEMSAS**
- The part is supplied as an assembly of machined casting with encased apertures, including Labyrinthring, spring guide, manganese plate, bolt M16x40 ISO 4017, washer, seal ring.



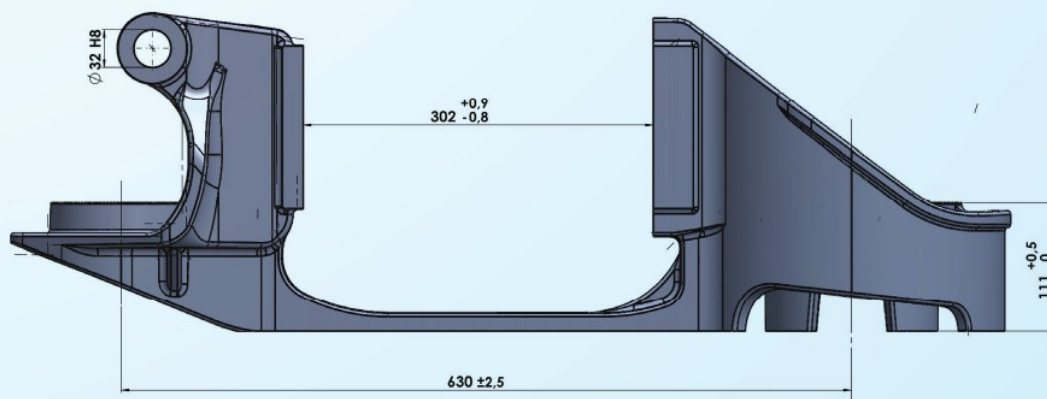
Rail Car Parts

Spring Bearer



- The part is supplied and tested in accordance with UIC 583, DIN 5651, BN 918 440
- Manufacture is controlled by the quality management system certified according to EN ISO 9001:2015
- Painting: based on customer's requirement, blasted, primed and top coated to ensure a cataphoresis.
- Packaging: based on customer's requirement
- Obtained certificates: **ÖBB, SNCF, TULOMSAS, TUDEMSAS**

The part is supplied as an assembly of machined casting with encased apertures, including Pin, Bush, Inner Spring Guide, Outer Spring Guide, Side Plate, Front Plate



Railcar Parts

DRAW BAR



Main Product Types

Die forgings
Hot stampings
Machined parts
Assemblies

Manufacturing Potential

Weight range : 0,5-50 kg

Machining:

Cutting on conventional and CNC machines
Cutting on single-purpose machines thread rolling

Surface treatment:

Blasting
Sand blasting
Prime and top painting, cataphoresis

Packaging:

Based on customer's requirements

QUALITY CONTROL

Quality control system certified according to EN ISO 9001:2015
Purchase of materials from certified manufacturers
Material receiving inspection
Product in-process inspection

Mechanical tests performed in company test room

Hardness HB, HV, HRC

Tensile test

Impact test

Non-destructive tests

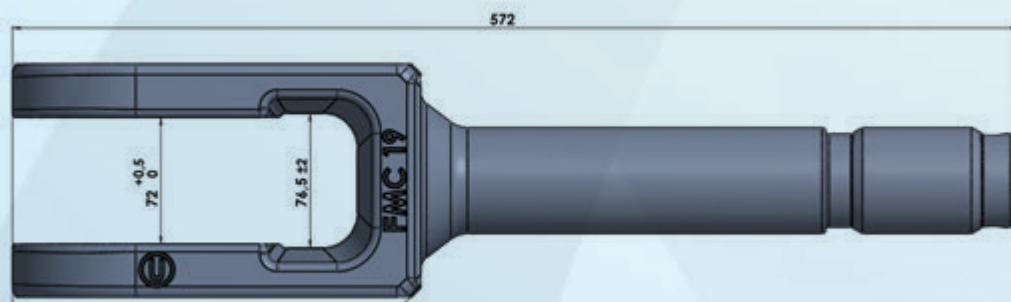
Metallographic tests in company test room

Macrostructure evaluation

Microstructure evaluation

Grain

- Surface defect inspection by magnetoflux, die penetrant methods
- Material substitution inspection, chemical composition analysis (22 elements)
- Final inspection according to EN standards
- Statistical acceptance
- Obtained certificates : OBB, SNCF, TULOMSAS, TUDEMSAS



Rail Car

DRAW HOOK - DRAW GEAR



Draw Hook With Eye - UIC/ERRI Type

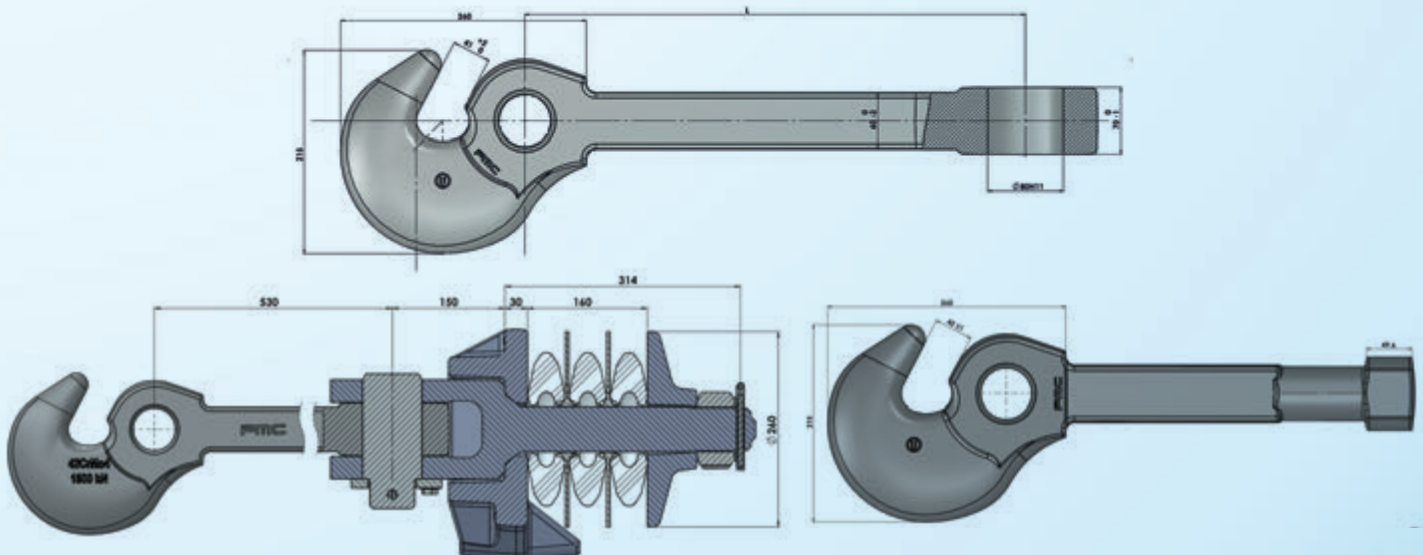
Material, manufacture, heat treatment, testing, acceptance and delivery comply with UIC 825, UIC 583, UIC 520, TL 918272.

*The manufacturer provides 2-year guarantee.

Hook head : According to drawing UIC/ERR1100 M 3211

Minimum strength equal to force at fracture : 1000 kN – 1200 kN – 1500 kN

- Draw hook with eye of UIC/ERRI type is made by die forging and subsequent heat treatment.
 - Fabrication is done on conventional machines.
 - Testing is performed in company mechanical and metallographic test room.
 - Painting: based on customer's requirements, cataphoresis.
 - Packaging: based on customer's requirements
 - Manufacturing and testing inspected by quality control system certified according to EN ISO 9001:2015
 - Obtained certificates: **EN-15566 (TSI), OBB, SNCF, TULOMSAS, TUDEMSAS**
- NDT Material Engineering UT (Level 2)



Rail Car Parts

TWIN AXLE BOGIE PARTS

Main Product Types

Die forgings
Hot stampings
Cold stampings
Machined parts
Assemblies

Manufacturing Potential

Weight range : 0,5-60 kg

Machining:

cutting on conventional and CNC machines

Surface treatment:

Blasting
Sand blasting
Prime and top painting, cataphoresis

Packaging:

Based on customer's requirements

QUALITY CONTROL

- Quality control system certified according to EN ISO 9001:2015
- Purchase of materials from certified manufacturers
- Material receiving inspection
- Product in-process inspection

Mechanical tests performed in company test room

Hardness HB, HV, HRC

Tensile, yield test

Impact test -20°/+20 min 27j

Non-destructive tests (MT) Level 2

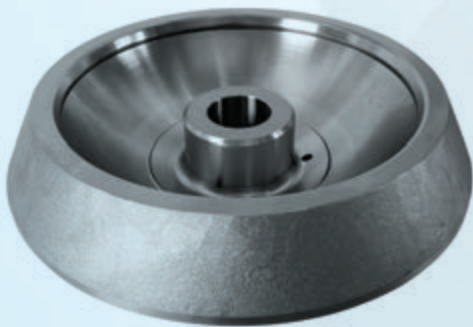
- Metallographic tests in company test room
- macrostructure evaluation
- microstructure evaluation
- grain

- Surface defect inspection by magnetoflux, die penetrant methods
- Material substitution inspection, chemical composition analysis (22 elements)
- Final inspection according to EN standards
- Statistical acceptance

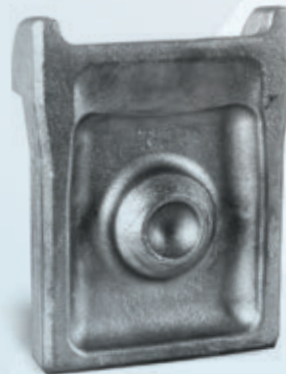
- Obtained certificates:

OBB,SNCF,TULOMSAS,TUDEMSAS

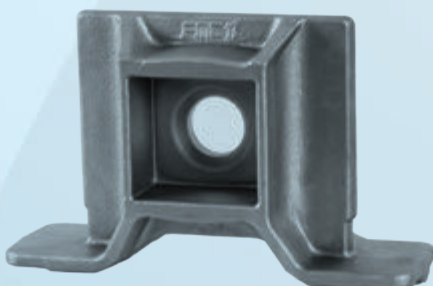
Lower Pivot



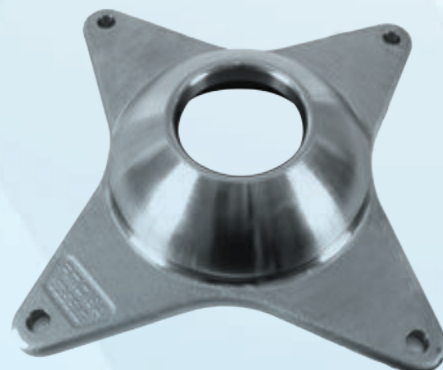
Back-Up Ring



Support



Upper Pivot



Rail Car Parts

Twin Axle Bogie Parts - Brake Triangle

Main Product Types

Die forgings
Hot stampings
Cold stampings
Machined parts
Assemblies

Manufacturing Potential

Weight range : 0,5-60 kg

Machining:

cutting on conventional and CNC machines

Surface treatment:

Blasting
Sand blasting
Prime and top painting, cataphoresis

Packaging:

Based on customer's requirements

QUALITY CONTROL

- Quality control system certified according to EN ISO 9001:2015
- Purchase of materials from certified manufacturers
- Material receiving inspection
- Product in-process inspection

Mechanical tests performed in company test room

Hardness HB, HV, HRC

Tensile, yield test

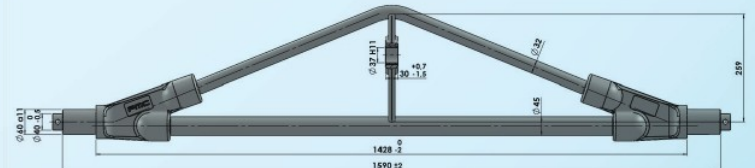
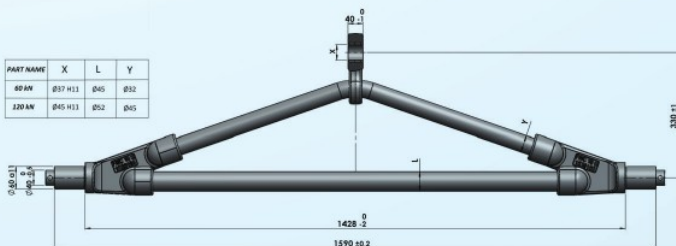
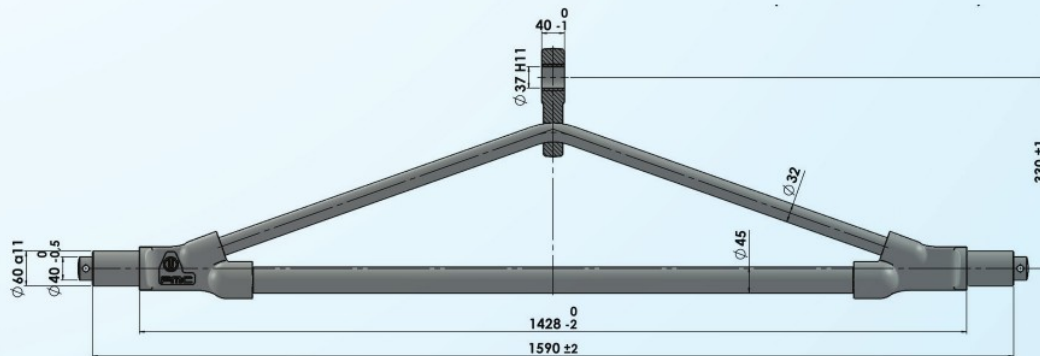
Impact test

Non-destructive tests (MT) Level 2

- Metallographic tests in company test room
- macrostructure evaluation
- microstructure evaluation
- grain

- Surface defect inspection by magnetoflux, die penetrant methods
- Material substitution inspection, chemical composition analysis (22 elements)
- Final inspection according to EN standards
- Statistical acceptance

- Obtained certificates: **TULOMSAS, TUDEMSAS**



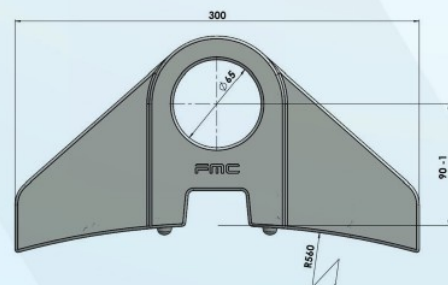
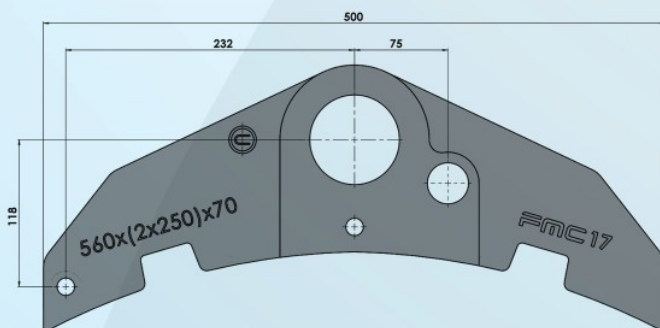
| PART NAME | X | L | Y |
|-----------|---------|-----|-----|
| 80 AN | Ø37 H11 | Ø45 | Ø32 |
| 120 AN | Ø45 H11 | Ø52 | Ø45 |

Rail Car Sub-Assembly Parts

Brake Block Holder



- Brake Shoe Holder: After the brake blocks are secured with keys in the brake shoe holder, the brake shoe transmits braking force to the freight car wheels.
- The part is supplied as an assembly of machined casting with encased apertures, including wheel key and spring pin for one or two cast-iron or composite brake blocks.
- The part is supplied and tested in accordance with UIC 583, DIN 5651, BN 918 440
- Manufacture is controlled by the quality management system certified according to EN ISO 9001:2015
- Painting: based on customer's requirement, blasted, primed and top coated to ensure a cataphoresis.
- Packaging: based on customer's requirement
- Casting-weight: 13 kg
- Obtained certificates: **OBB, SNCF, TULOMSAS, TUDEMSAS**



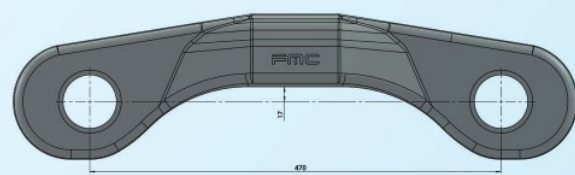
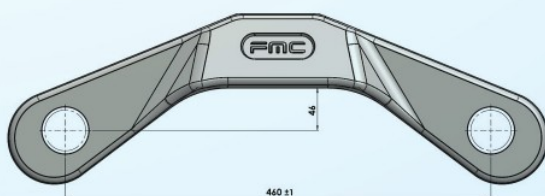
Railcar Subassembly Parts

Brake Lever Bridge



For Y25 (BA 628/629) bogies are used different types of connection bars on brake riggings are used:

- Type UIC according the drawing 100 M3321 0019, having the vertical distance between the holes axis and bottom surface of 17 mm/46 mm.
- The connection bar 17/46 mm could be used in all bogie types Y25
- Obtained certificates: **OBB, SNCF, TULOMSAS, TUDEMSAS**



Rail Car Parts

Twin-Axle Bogie Parts- Brake Lever



Main Product Types

Die forgings
Hot stampings
Cold stampings
Machined parts
Assemblies

Manufacturing Potential

Weight range : 0,5-60 kg

Machining:

- cutting on conventional and CNC machines
- cutting on single-purpose machines
- thread rolling

Surface treatment:

- blasting
- sand blasting
- prime and top painting, cataphoresis

Packaging:

- based on customer's requirements

QUALITY CONTROL

- Quality control system certified according to EN ISO 9001:2015
- Purchase of materials from certified manufacturers
- Material receiving inspection
- Product in-process inspection

Mechanical tests performed in company test room

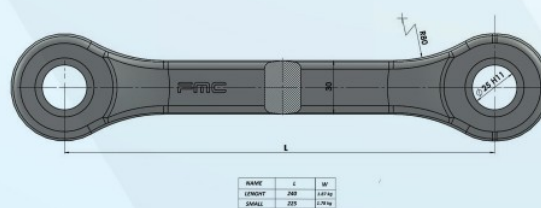
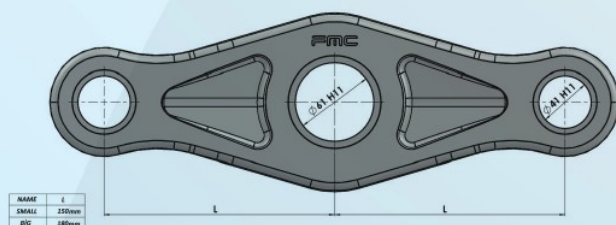
hardness HB, HV, HRC
tensile test
impact test
non-destructive tests

- Metallographic tests in company test room
- Macrostructure evaluation
- Microstructure evaluation
- Grain

- Surface defect inspection by magnetoflux, die penetrant methods
- Material substitution inspection, chemical composition analysis (22 elements)
- Final inspection according to EN standards
- Statistical acceptance

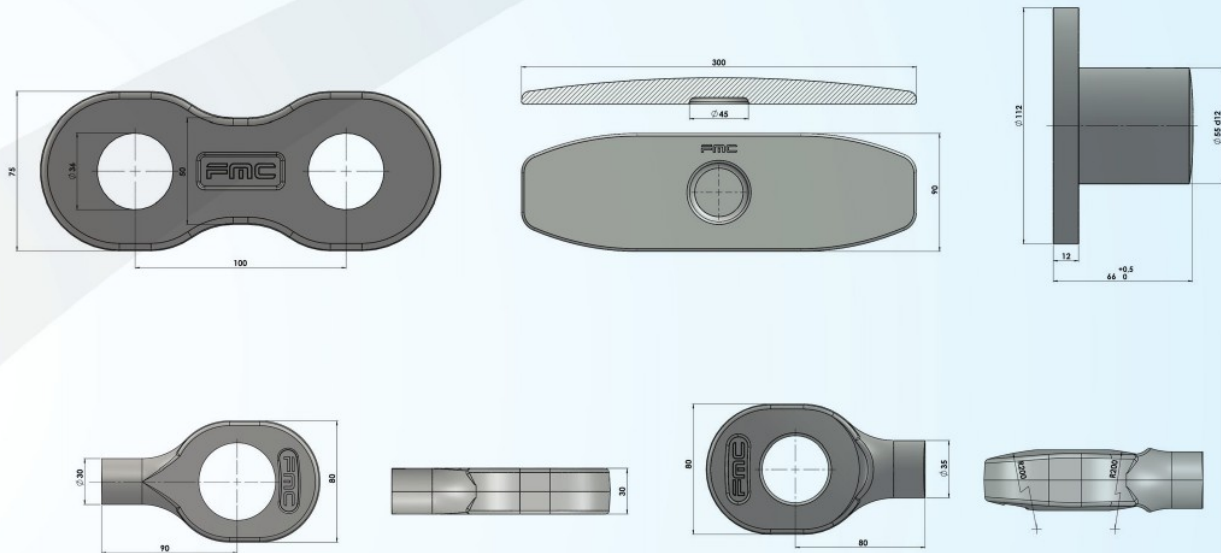
Obtained certificates:

OBB, SNCF, TULOMSAS, TUDEMSAS



Rail Car Parts

Twin Axle Bogie Parts



Main Product Types

Die forgings
Hot stampings
Cold stampings
Machined parts
Assemblies

Manufacturing Potential

Weight range : 0,5-60 kg

Machining:

cutting on conventional and CNC machines
cutting on single-purpose machines thread rolling

Surface treatment:

Blasting
Sand blasting
Prime and top painting, cataphoresis

Packaging:

Based on customer's requirements

QUALITY CONTROL

Quality control system certified according to EN ISO 9001:2015
Purchase of materials from certified manufacturers
Material receiving inspection
Product in-process inspection

Mechanical tests performed in company test room

Hardness HB, HV, HRC

Tensile test

Impact test

Non-destructive tests

Metallographic tests in company test room

Macrostructure evaluation

Microstructure evaluation

Grain

- Surface defect inspection by magnetoflux, die penetrant methods
- Material substitution inspection, chemical composition analysis (22 elements)
- Final inspection according to EN standards
- Statistical acceptance
- Obtained certificates: **OBB, SNCF, TULOMSAS, TUDEMSAS**

Rail Car Parts

Twin Axle Bogie Parts

Main Product Types

Die forgings
Hot stampings
Cold stampings
Machined parts
Assemblies

Manufacturing Potential

Weight range : 0,5-60 kg

Machining:

cutting on conventional and CNC machines
cutting on single-purpose machines thread
rolling

Surface treatment:

blasting
sand blasting
prime and top painting, cataphoresis

Packaging:

based on customer's requirements

QUALITY CONTROL

Quality control system certified according to EN ISO 9001:2015

Purchase of materials from certified manufacturers

Material receiving inspection

Product in-process inspection

Mechanical tests performed in company test room

hardness HB, HV, HRC

tensile test

impact test

non-destructive tests

Metallographic tests in company test room

macrostructure evaluation

microstructure evaluation

grain

Surface defect inspection by magnetoflux, die penetrant methods

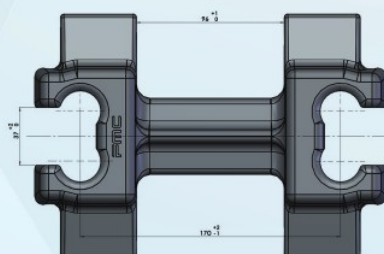
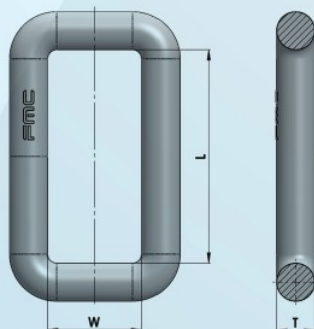
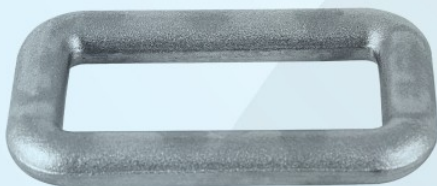
Material substitution inspection, chemical composition analysis (22 elements)

Final inspection according to EN standards

Statistical acceptance

Obtained certificates: OBB, SNCF, TULOMSAS, TUDEM-SAS

Link

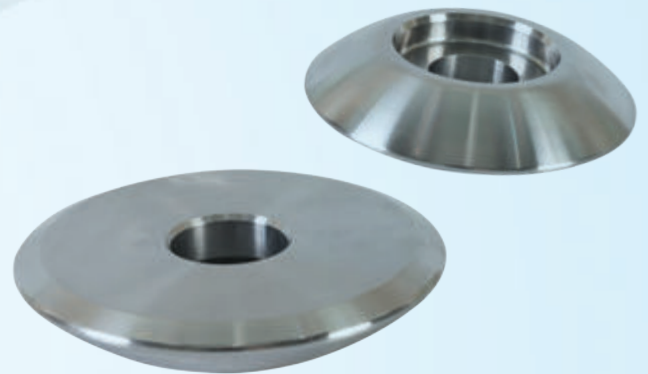


Double Stone

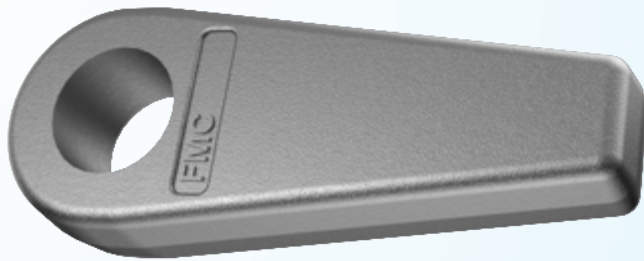
Schakle



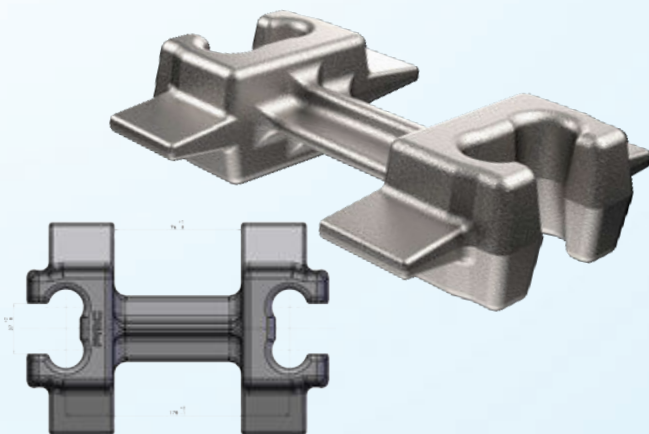
Liner



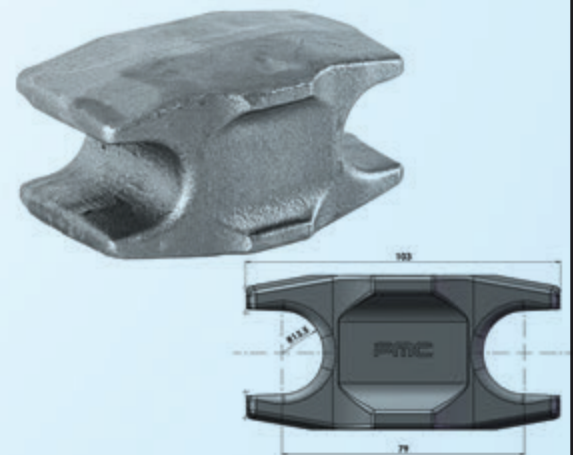
Rod-Eye



Intermediate Stone



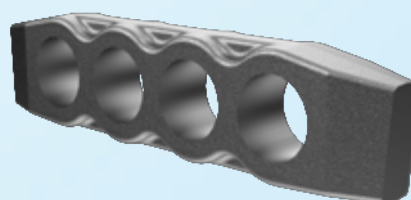
Bearing Stone



Piston Arm



Kotevnik

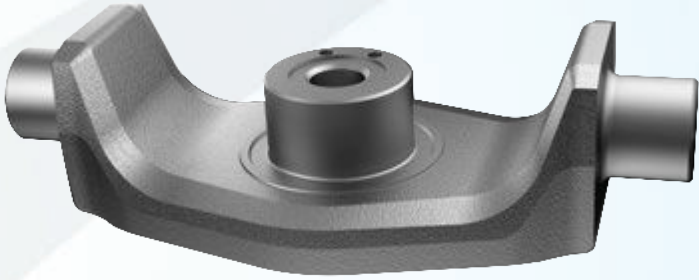


Tamping Tine

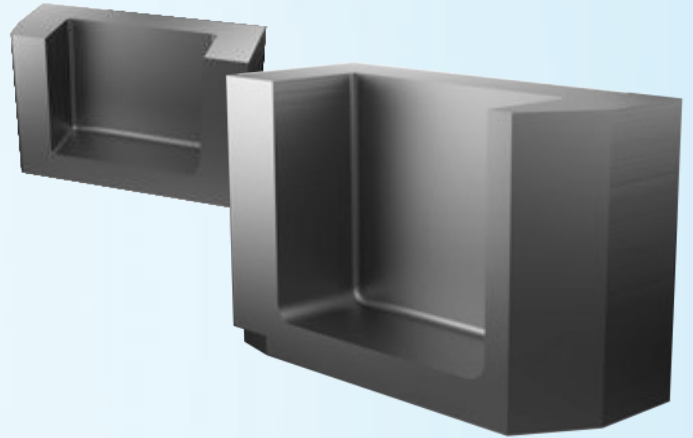


Rail Car Parts Twin Axle Bogie Parts

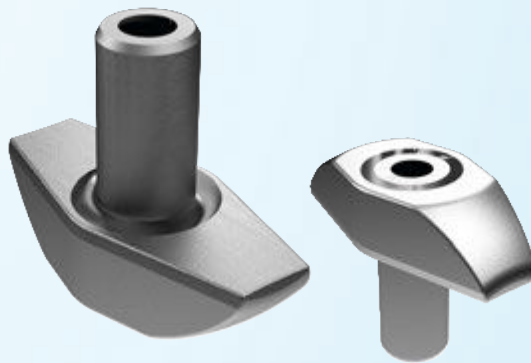
Joint Pin



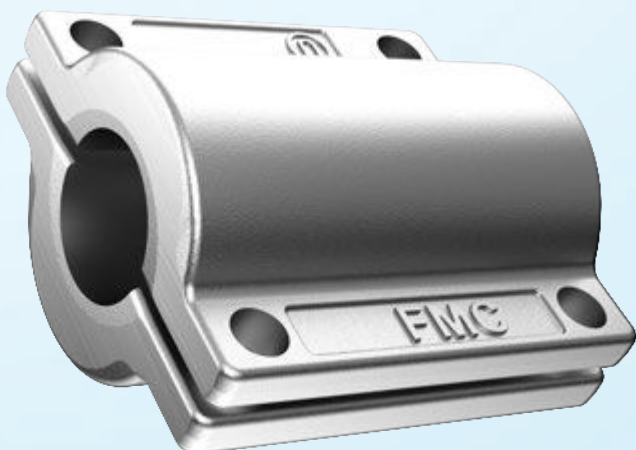
Left / Right Bearings



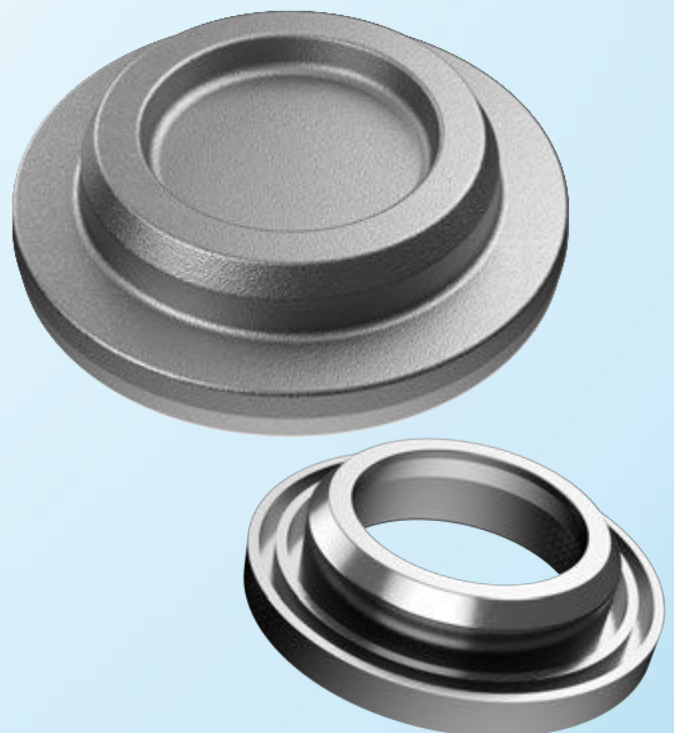
Hammer



Retain Socket



Labyrinthring



TSI CERTIFICATE | EN 15566 STANDARD

ENAC **SGS**

INTERMEDIATE STATEMENT OF VERIFICATION
EC TYPE EXAMINATION
N° 0096/R.1/CB/2020/RST/EN/006 v1.0

In accordance with:
 • Directive (2000/11/CE) of June 17th, and its amendments
 • Technical Specification for interoperability (TSI) related to Rolling Stock - Freight Wagons (Commission Regulation (EU) N° 321/2013), and its amendments

The following type:
Draw Hook 1500 kN
(RS16.00.DH.01.01_Rev.0_11.02.2020)

of Applicant and Production Location:
FMC Hidrolik Sistemler Otomotiv Mak. San. & Tic. Ltd. Şti.
Konya Organize Sanayi Bölgesi Uluçak Sokak No:5
Konya
Türkiye

has been assessed by the Notified Body No. 0066
SGS TECHNICAL S.A.
Ch Trepoedernu, 28 20042 Madrid

to check conformity with the applicable requirements of the above Directives and TSI (Appendix C.1 - Manual Coupling System - Draw Hook - EN 15566:2003+A1:2010)

The assessment results and scope are provided in detail within the attached report ref: SGS-RCB-2020-012, AR no: 1.0, 20200912, which forms part of this certificate and is an integral part of this certificate.

The conformity assessment has been performed by applying the CE module of Decision 2010/713/EU.

Conditions and limits of use:
 1) Maximum limiting load: 1.5 MN
 2) Lifetime according to table A.3 of EN 15566:2010: 30 years

Validity (Y): Start date: 2020-07-16 End date: UNLIMITED

(Y) This certificate is valid for the object of assessment as mentioned above as long as the object of the assessment and the relevant technical documentation are not modified. The Certification Body must be informed about any modification without delay.

NICOLAS ESTEBAN JAVIER
 37726887X
 Javier Nicolás Esteban
 Authorized Signatory
 Date of Issue: 2020-07-16

SGS TECHNICAL S.A.
 Ch Trepoedernu, 28 - 28042 Madrid
 T: 91 812 60 00 **00004066**

ENAC **SGS**

INTERMEDIATE STATEMENT OF VERIFICATION
QUALITY MANAGEMENT SYSTEM APPROVAL
N° 0096/R.4/CD/2020/RST/EN/006 v1.0

In accordance with:
 • Directive (2000/11/CE) of June 17th, and its amendments
 • Technical Specification for interoperability (TSI) related to Rolling Stock - Freight Wagons (Commission Regulation (EU) N° 321/2013), and its amendments

Quality Management System for the production of the:
Draw Hook 1500 kN
(RS16.00.DH.01.01_Rev.0_11.02.2020)

EC Type Examination Certificate N°0096/R.1/CB/2020/RST/EN/006 v1.0

of Applicant and Production Location:
FMC Hidrolik Sistemler Otomotiv Mak. San. & Tic. Ltd. Şti.
Konya Organize Sanayi Bölgesi Uluçak Sokak No:5
Konya
Türkiye

has been assessed by the Notified Body No. 0066
SGS TECHNICAL S.A.
Ch Trepoedernu, 28 20042 Madrid

to check conformity with the applicable requirements of the above Directives and TSI (Appendix C.1 - Manual Coupling System - Draw Hook - EN 15566:2003+A1:2010)

The Quality Management System of the Manufacturer has been audited and was found to comply with the Assessment Requirements.

The assessment results and scope are provided in detail within the attached report ref: SGS-RCB-2020-012, AR no: 1.0, 20200912, which forms part of this certificate and is an integral part of this certificate.

The conformity assessment has been performed by applying the CE module of Decision 2010/713/EU.

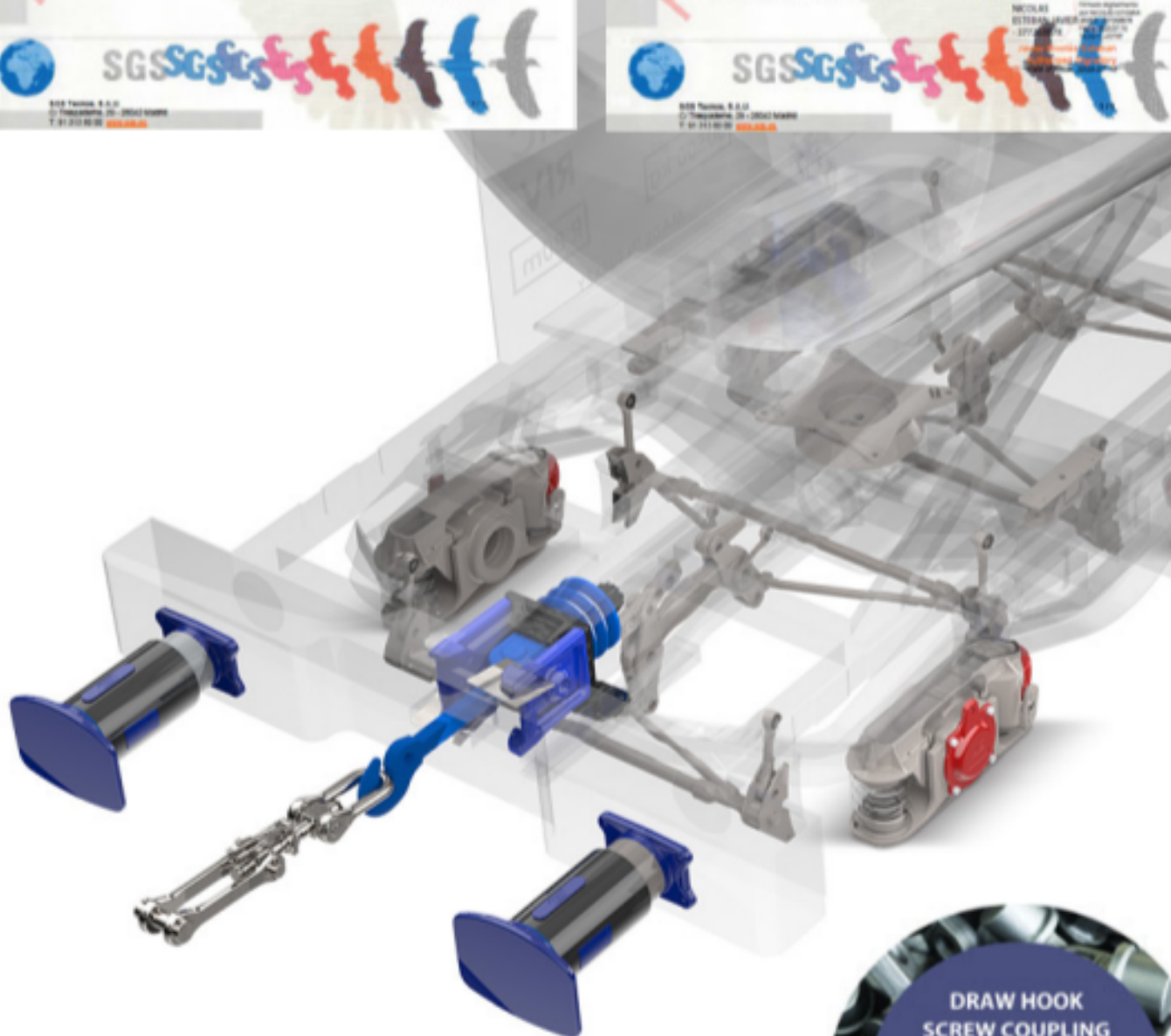
Validity (Y):
 Original cycle start date: -
 Expiry date of certificate cycle: -
 Certification / Recertification Audit date: 2020-05-22
 Certification / Recertification cycle start date: 2020-07-16
 Expiry date: 2023-07-16

(Y) The validity of the Quality Management System Approval is subjected to the continued maintenance of the quality management system. This certificate is valid as long as the object of the assessment, the Quality Management System and the relevant technical documentation are not modified. This certificate is subject to periodic surveillance. The holder must be informed about any modification without delay.

When the validity duration of this SGS Approval the applicant can perform production internal and final product internal inspection of the object of the assessment. This validity duration may be extended on the basis of future auditing.

NICOLAS ESTEBAN JAVIER
 37726887X
 Javier Nicolás Esteban
 Authorized Signatory
 Date of Issue: 2020-07-16

SGS TECHNICAL S.A.
 Ch Trepoedernu, 28 - 28042 Madrid
 T: 91 812 60 00 **00004066**

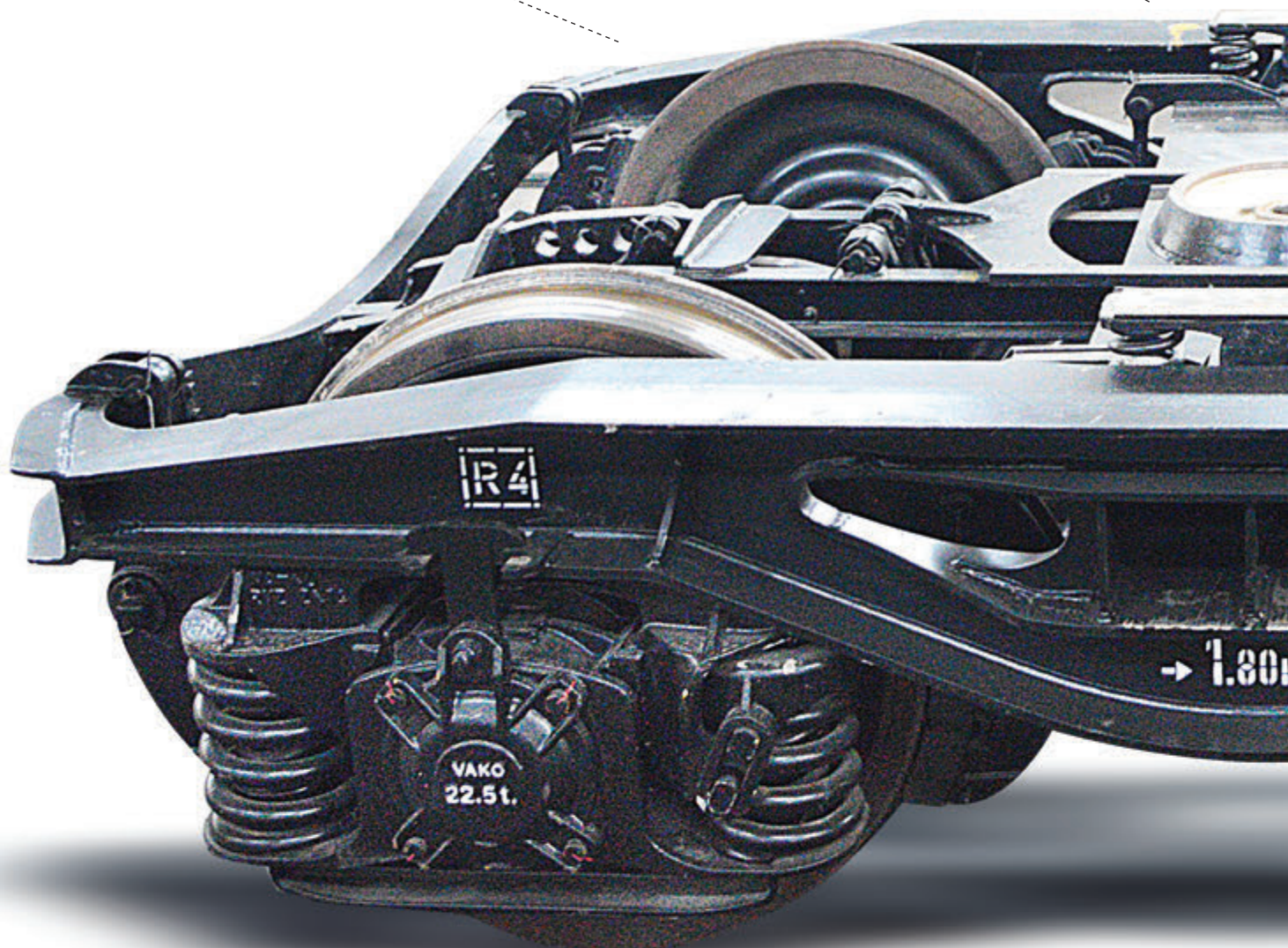


**DRAW HOOK
SCREW COUPLING**

EVERYTHING IS UNDER THE ONE ROOF

**HOT STEEL
FORGING**

**MACHINING
FACILITY**



**WELDING
TECHNOLOGY**

**QUALITY
LABORATORY**