INTERNATIONAL UNION OF RAILWAYS

UIC CODE
Leaflet to be classified in Volume : VI - TRACTION

627-2

O

2nd edition, 1-7-80

FILLING DEVICES

FOR DIESEL STOCK

(Reprint of 1-7-1987)

REVISIONS

Leaflet 627-2, 2nd edition, 1-7-80			
Amendment		Amendment	
No.	Date	No.	Date

NOTE

This leaflet is part of a set which also includes :

Leaflet 563 : Fittings provided in coaches in the interests of hygiene and cleanliness.

CONTENTS

0 - SCOPE OF APPLICATION

The regulations set out below shall apply to the filling devices of Diesel stock to be built in the future and intended to be used on international services.

1 - FILLING DEVICES FOR MOTOR FUEL AND FOR BOILER FUEL

Each tractive unit must be fitted with filling devices for motor fuel and for boiler fuel, making it possible to carry out the fuelling operation from above, without pressure, from a supply installation.

Filling devices (filling couplings), as well as fuel tanks, including their connection pipes and ventilation apertures, must be of a size and so arranged that it is possible to obtain a fuel flow of :

- 200 l per minute as regards tanks with a capacity of less 500 l ;

- 400 l per minute as regards tanks with a capacity exceeding 500 l.

1.1 - Type of filling coupling

Simple filling coupling with a minimum aperture diameter of 70 mm.

1.2 - Number and position of filling couplings

For each independent installation : a filling coupling on each side of the vehicle . Centre of the coupling aperture : maximum 1500mm above rail level.

1.3 - Sealing cover

Filling couplings must be fitted with sealing covers secured to the coupling to prevent loss.

2 - FILLING DEVICES FOR THE FUEL OF INDEPENDENT PRE-HEATING OR KEEPING-WARM DEVICES

Tractive units with pre-heating or keeping warm devices which are not supplied from tanks as per Point 1, must be fitted with filling devices for the fuel intended for these independent installations.

2.1 - Type of filling coupling

Simple filling coupling with a minimum aperture diameter of 70 mm.

2.2 - Number and position of filling couplings

For each independent installation : a filling coupling on each side of the vehicle.

2.3 - Sealing cover

The filling coupling must be fitted with a sealing cover secured to the coupling to prevent loss.

3 - FILLING DEVICES FOR ENGINE-COOLING WATER

Each tractive unit, with water-cooled motors, must be fitted with :

- a filling device as specified in 3.1 and

- a filling device as specified in 3.2 or 3.3.

3.1 - Device making it possible to carry out the filling operation from below, from fixed installations supplying water under pressure by means of flexible water-tight hoses

3.1.1 - Type of filling coupling

Connection for hose coupling, complying with Appendix 1 (right-hand figure) of UIC Code Leaflet 563. A free choice of the other details is permitted.

3.1.2 - Number and position of filling couplings

For each independent water-circuit : a filling coupling on each side of the vehicle. The centre of the coupling aperture must be situated at a maximum height of 1250 mm above rail level.

3.2 - Device making it possible to carry out the filling operation from below by suction in a bucket or any other receptacle, by means of a pump fitted in the vehicle and a water-tight flexible hose

3.2.1 - Type of filling coupling :

The hose coupling as shown in Appendix 1 (figure on right) to UIC Code leaflet 563. A free choice of the other details is permitted.

3.2.2 - Number and position of filling couplings :

For each independent water circuit : a filling coupling on each side of the vehicle.

The centre of the coupling aperture must be situated at a maximum height of 1250 mm above rail level.

3.2.3 - Bucket and hose form part of the vehicle equipment.

3.3 - Device making it possible to carry out the filling operation from above, without pressure, by means of a bucket or any similar receptacle and a funnel.

3.3.1 - Type of filling coupling

Simple filling coupling with a minimum aperture of 50 mm diameter.

3.3.2 - Bucket and funnel form part of the vehicle equipment.

4 - FILLING DEVICES FOR THE WATER SUPPLY OF THE BOILER

Each vehicle equipped with a boiler must be fitted with a filling device making it possible to carry out the filling operation from below, from fixed installations supplying water under pressure, by means of water-tight flexible hoses.

The filling device (filling coupling), as well as the water supply tanks and their communicating piping and ventilation apertures must be of a size and so arranged that a flow of 1,000 litres per minute can be obtained. For this flow, the pressure measured at the filling coupling must not exceed 1 bar.

4.1 - Type of filling coupling

Filling couplings must be fitted with a fixed coupling, as per Appendix 1 to this leaflet.

4.2 - Number and position of filling couplings :

For each independent installation : a fixed coupling on each side of the vehicle.

The centre of the coupling aperture must be situated at a maximum height of 1250 mm above rail level.

4.3 - If required, the aperture of the filling coupling may be sealed by a dummy coupling, in accordance with Appendix 2 to this leaflet.

4.4 - Appendix 3 to this leaflet specifies the removable coupling of the flexible hose necessary for the filling operation carried out from the fixed installation supplying water under pressure.

5 - FILLING DEVICES FOR THE WATER SUPPLY OF SANITARY INSTALLATIONS, ETC...

Each vehicle equipped with sanitary installations, etc... using water must be fitted with devices making it possible for the filling operation to be carried out from below, from fixed installations supplying water under pressure by means of water-tight flexible hoses.

5.1 - Type of filling coupling

Connection for hose coupling, in accordance with Appendix 1 (right-hand figure) of UIC Code leaflet 563 ; a free choice of the other details is permitted.

5.2 - Number and position of filling couplings

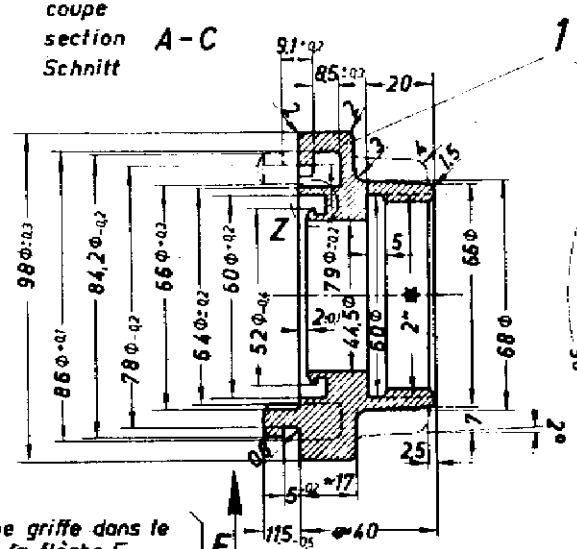
For each independent installation : a filling coupling on each side of the vehicle.

The centre of the coupling aperture must be situated at a maximum height of 1250 mm above rail level.

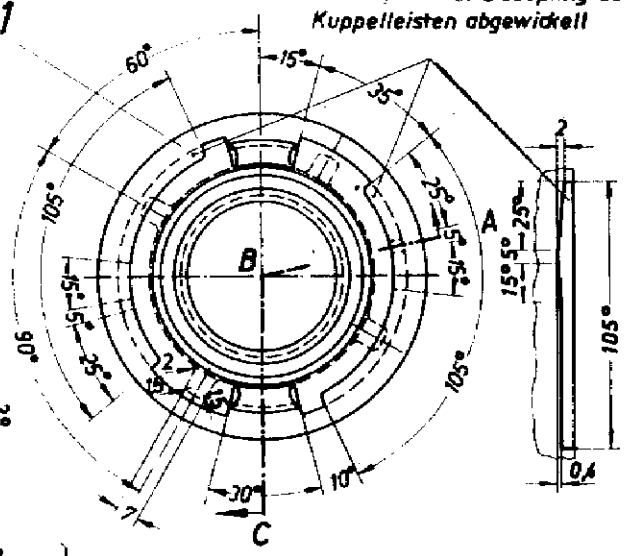
DISPOSITIF DE REMPLISSAGE POUR L'EAU D'ALIMENTATION DE LA CHAUDIERE (REMPLISSAGE SOUS PRESSION)
FILLING DEVICE FOR STEAM BOILER FEED WATER (FILLING UNDER PRESSURE)
NACHFÜLL-EINRICHTUNG FÜR SPEISEWASSER ZUM DAMPFKESSEL DER HEIZUNGSANLAGE (NACHFÜLLUNG UNTER DRUCK)

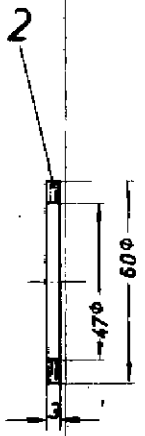
627-2
ANNEXE 1
APPENDIX 1
ANLAGE 1

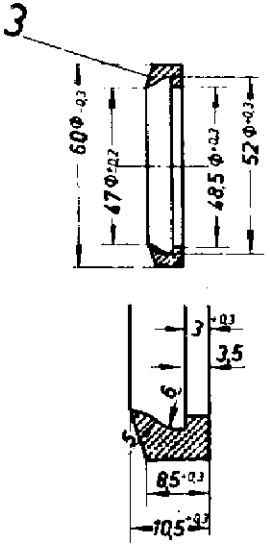
coupe
section A-C
Schnitt



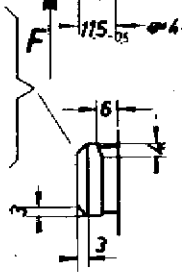
2 rampes d'accouplement développées
Development of 2 coupling surfaces
Kuppelleisten abgewickelt



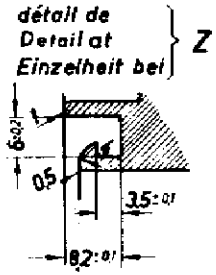




vue d'une griffe dans le sens de la flèche F
View of a key in the direction of arrow F
Ansicht einer Knagge in Pfeilrichtung F



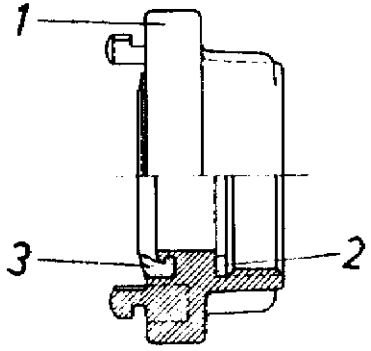
détail de Z
Detail at Z
Einzelheit bei Z



la partie la plus épaisse se trouve dans le plan A-B
The thickest part of the coupling surface is situated on the plane A-B
Die dickste Stelle der Kuppelleiste liegt in der Ebene A-B

★ filetage Whitworth avec filets tronqués pour tube de 2"
2" Whitworth pipe thread
2" Rohrgewinde

Pour les cotes dont les tolérances ne sont pas mentionnées par le dessin la tolérance à respecter est de ± 0,5
For the dimensions, for which tolerances are not mentioned in the drawing, the tolerance to be observed is ± 0,5
Für die Maße, deren Toleranzen in der Zeichnung nicht aufgeführt beträgt die einzuhaltende Toleranz ± 0,5



repère	désignation	matière
part n°	description	material
Teil-Nr.	Bezeichnung	Werkstoff
1	raccord à griffes key piece Knaggenteil	
2	rondelle d'étanchéité plate flat packing ring Flachdichtring	en cuir/en caoutchouc leather/rubber Leder/Gummi
3	joint d'étanchéité packing ring Dichtring	en caoutchouc rubber Gummi

Accouplement fixe
Fixed coupling
Festkupplung

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NACHFÜLL-EINRICHTUNG FÜR SPEISEWASSER ZUM DAMPFKESSEL DER HEIZUNGSANLAGE (NACHFÜLLUNG UNTER DRUCK)

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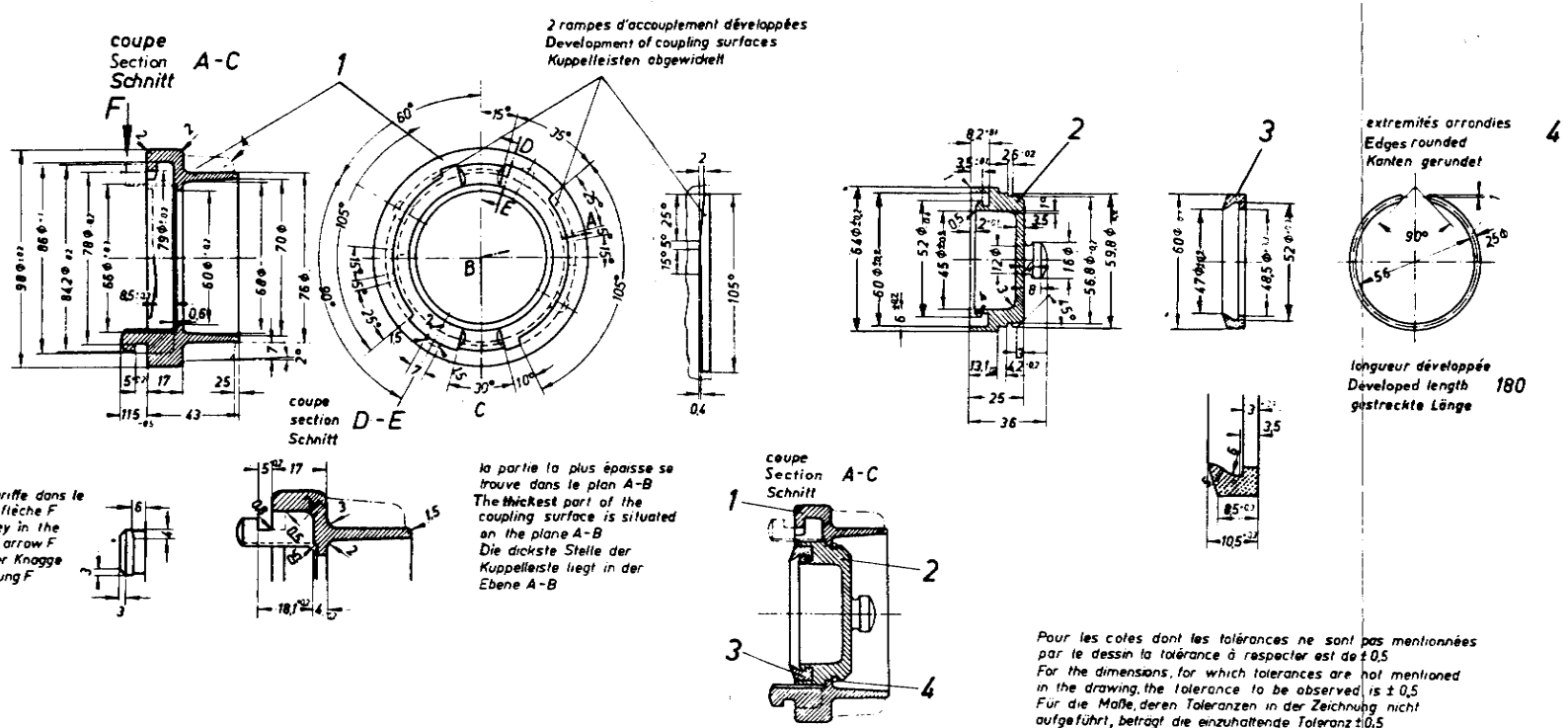
ANNEXE 2
APPENDIX 2
ANLAGE 2



repère	désignation	matière
part n°	description	material
Teil-Nr.	Bezeichnung	Werkstoff
1	raccord à griffes key piece Knaggenteil	
2	couvercle cover Deckel	
3	joint d'étanchéité packing ring Dichtring	caoutchouc rubber Gummi
4	anneau de blocage retaining ring Sperring	

Faux accouplement
Dummy coupling
Blindkupplung

Pour les cotes dont les tolérances ne sont pas mentionnées par le dessin la tolérance à respecter est de ± 0,5
For the dimensions, for which tolerances are not mentioned in the drawing, the tolerance to be observed is ± 0,5
Für die Maße, deren Toleranzen in der Zeichnung nicht aufgeführt, beträgt die einzuhaltende Toleranz ± 0,5

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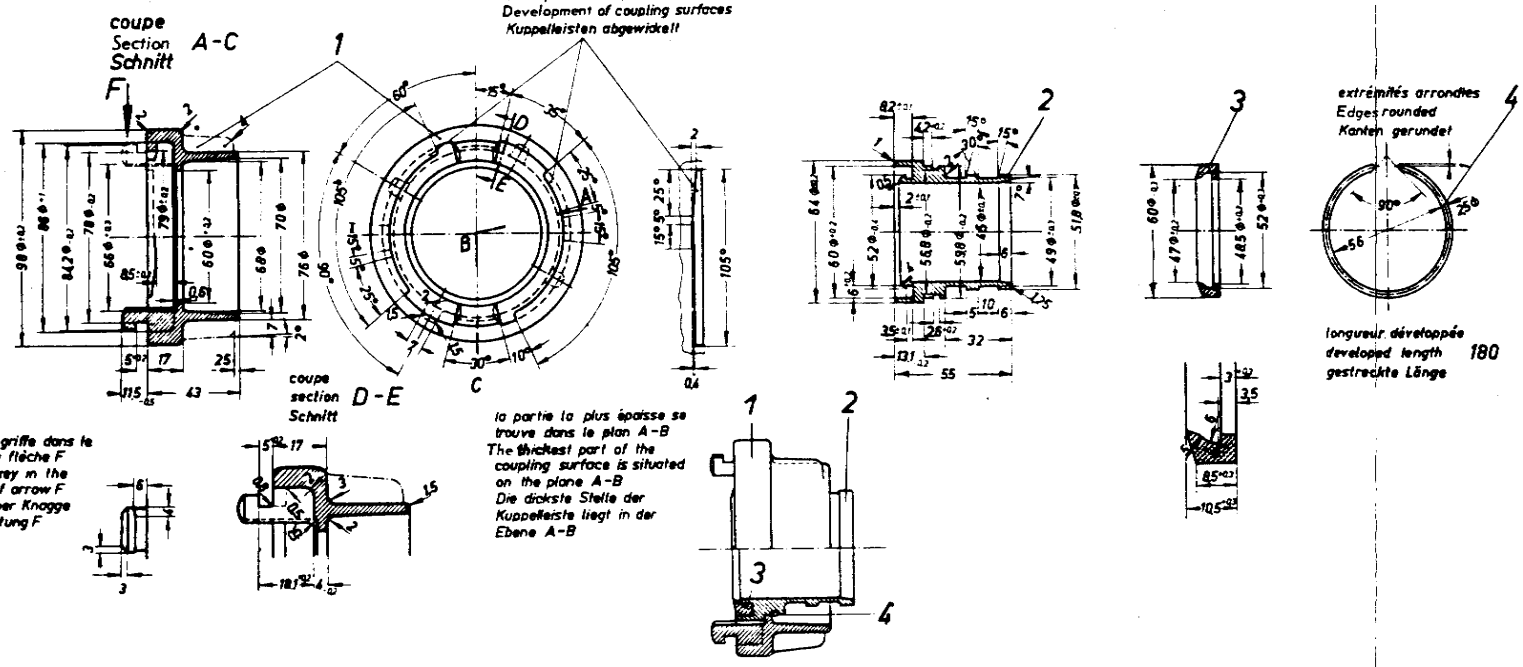

repère	désignation	matière
part n°	description	material
Teil-Nr.	Bezeichnung	Werkstoff
1	raccord à griffes key piece Knaggenteil	
2	tubulure à envelopper Hose half-coupling Einbindestutzen	
3	joint d'étanchéité packing ring Dichtring	caoutchouc rubber Gummi
4	anneau de blocage retaining ring Sperring	

Accouplement mobile
Removable coupling
Bewegliche Kupplung

Pour les cotes dont les tolérances ne sont pas mentionnées par le dessin la tolérance à respecter est de ± 0,5
For the dimensions, for which tolerances are not mentioned in the drawing, the tolerance to be observed is ± 0,5
Für die Maße, deren Toleranzen in der Zeichnung nicht aufgeführt beträgt die einzuhaltende Toleranz ± 0,5

APPLICATION

As from 1 July 1980.

All Railways in the Union.

RECORD REFERENCES

Headings under which the question has been dealt with :

- Examination of standard methods for supplying Diesel locomotives and railcars with fuel and water.
(5th Committee - Di- : Paris, June, 1957).

- Revision of Leaflet 627-2 : «Filling devices for Diesel stock».
(5th Committee - Di. : Paris, June 1977).

- *Question 5/B/FIC :* Approval of the new version of Leaflet 627-2.
(Traction and Rolling Stock Committee : Paris, January 1979).

- Examination of comments on the draft leaflet 627-2.
(Working Party for Diesel Traction : Paris, January 1980).