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Affaire n° / File ref. : 0302/P5832/ sw  
Rapport n° / Report nr. : 2783/P03

Vilvoordsesteenweg, 156, Chaussée de Vilvorde - B-1120 Brussels/Bruelles  
☎ 32/2/264.03.60 - ☎ 32/2/268.89.58 - e-mail : [info@apragaz.com](mailto:info@apragaz.com)



concernant l'approbation d'

*concerning the approval of*

**accessoires pour citernes destinées au  
transport de matières dangereuses**

*accessories for tanks intended for the  
transport of dangerous substances*

demandeur : *applicant :*

**ELAFLEX N.V.**

**Merksemsesteenweg 192**

**B-2100 Antwerpen (Belgium)**

fabricant : *manufacturer :*

**MANN TEKNIK AB**

**Mariestad (Sweden)**

description des accessoires :

*description of accessories :*

**Dry Disconnect Couplings, composés de :**

*Dry Disconnect Couplings, composed of :*

- 1 pièce de connexion, côté citerne  
(+ capuchon) en acier inoxydable
- 1 pièce de connexion, côté flexible  
(+bouchon) en acier inoxydable

- 1 tank unit coupling (+ dust cap) in S.S.*
- 1 hose unit coupling (+ dust plug) in S.S.*

**destinés à une déconnexion sans fuites**

*intended for disconnecting the hose from the  
tank without any leakage*

type :

*type :*

**Mann Tek 1" - 2" - 2 1/2" - 3" - 4"**

type de connexion : bridée ou filetée

*connetion type : flanged or threaded*

conditions de conception :

*design conditions :*

**pression de service max : 25 bar**

*max. working pressure : 25 bar*

**température de service min/max : -40 / + 250 °C\***

*min/max. working temperature : -40/+250°C\**

(\* suivant le type de joints utilisé)

*(\* depending from the type of gaskets)*

L'approbation des accessoires a été prononcée  
sur base des prescriptions de :

*The approval of the accessories has been  
made on base of the prescriptions of :*

**ADR Par. 6.7/6.8 - RID Par. 6.7/6.8 - IMDG Par. 6.7 - TRT 024**

**STANAG 3756 - TRbF 131/231, DIN 3230-6**

Les accessoires faisant l'objet de cette approbation  
doivent être marqués avec :

*The accessories ,subject to the present approval, have  
to be marked with :*

- nom ou marque du fabricant
- les conditions maxi. de service

- name or trademark of the manufacturer*
- max. working conditions*

Le constructeur ou l'importateur doit vérifier par  
sondage la conformité au type approuvé.

*The manufacturer or the importer has to verify at  
random the conformity with the approved type.*

Chaque modification doit nous être communiquée afin  
d'évaluer la validité de la présente approbation.

*Each modification has to be communicated to us in  
order to evaluate whether the present approval  
remains valid.*

La compatibilité des matériaux en contact avec les  
produits doit être vérifiée suivant les instructions du  
constructeur.

*The compatibility of the materials in contact with the  
product has to be verified according to the  
manufacturer's instructions.*

Fait à Bruxelles, le 14/02/2003

*Issued at Brussels, on 14/02/2003*

Responsable Département ADR/RID/IMO

*Responsible of ADR/RID/IMO Department*

**Eng. P. De Hertefelt**



# APRAGAZ

V.Z.W.  
Your Inspection Body

**CEOC**

Report n°: 2779/P03-Eng.  
Delegate Mr. M. Tandeur

Vilvoordsestwg., 156 B-1120 Brussels Tel. 32/2/264.03.00 - Fax. 32/2/268.09.58 - e-mail: info@apragaz.com

Elaflex, Deume	references Mr. F. Van der Borst	TRANSLATION
Apragaz 0302/P5832/ EDS		General description : Dry Disconnect Coupling Report concerning Approval of tank accessories according to ADR/RID Performed at Deurne - Belgium on date of 4/2/2003

### Description of the tank accessories :

Type of accessories : Dry Disconnect Coupling, composed of :  
 - 1 tank unit coupling (+ dust cap as option)  
 - 1 hose unit coupling (+ dust cap as option)

Manufacturer : MANN TEKNIK AB – Mariestad (Sweden)

Variants : 1", 2", 2 ½", 3", 4" in flanged or threaded connection type

Materials : housing : stainless steel 1.4404  
 shut-off device : stainless steel 1.4404  
 gasket : according to specification of the manufacturer

Max. working pressure : 25 bar

Min./Max. working temperature : -40/+250°C (depending on the used gaskets)

Requested approval : for use of UN 1040 ethylene oxide and UN 1280 propylene oxide

### Inspections carried out : on a representative specimen, type 2" and type 3"

#### 1. Visual examination for conformity with the documentation from the manufacturer

The inspected types have been found in conformity with the technical documentation of the manufacturer.

#### 2. Functional testing :

From each type of the tested specimens, both couplings have been tested on connecting and disconnecting :  
 without remarks

#### 3. Control of the hydraulic pressure test :

Each coupling part has been submitted during 15 minutes to an hydraulic test with water at a test pressure of 37,5 bar. Neither leaks, nor unacceptable deformations have been noted.

#### 4. Control of the tightness test :

- Each coupling has been submitted separately to a tightness test using nitrogen, at a pressure of 1 bar, of 5 bar, of 10 bar, of 15 bar, of 20 bar and a pressure of 25 bar.  
No leaks have been noted.
- Both coupling parts connected together have been submitted to a tightness test using nitrogen, at a pressure of 5 bar and a pressure of 15 bar.  
No leaks have been noted.

**5. Examination of the marking :**

The inspected specimens were marked as follows :

- name of the manufacturer (Mann-Tek)
- type denomination
- max. working pressure (25 bar)
- inside diameter (in mm)
- type of connection
- type of gasket
- type of material
- TÜV-approval ref. (TU-AGG 304-99)
- "STANAG 3756"
- serial nr. / delivery date

**Conclusion :**

Considering the results of the above mentioned tests and examinations; we are in the opinion that the described coupling units satisfy the requirements of the Royal decree of 12/11/1998, par. Bn211140/212140 in relation with the approval of the use for ADR/RID.

The couplings can be used for various dangerous substances according to ADR/RID, considering the prescriptions of the manufacturer with regard to the compatibility of the materials of the different parts in contact with the substances (according to the manufacturer's declaration of 17/1/2003 th stainless steel couplings can be used for the requested substances ethylene oxide and propylene oxide)

Brussels, 25/02/2003

Seen and approved,  
Head ADR/RID/IMDG Department  
**Eng. P. De Hertefeld**





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Affaire n° / File ref. : 0505/P7545/000/sw  
Rapport n° / Report nr. : 40421/P05

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concernant l'approbation d'

*concerning the approval of*

**accessoires pour citernes destinées au  
transport de matières dangereuses**

*accessories for tanks intended for the  
transport of dangerous substances*

demandeur : *applicant :*

**ELAFLEX N.V.**

**Merksemsesteenweg 192  
B-2100 Antwerpen (Belgium)**

fabricant : *manufacturer :*

**MANN TEKNIK AB  
Mariestad (Sweden)**

description des accessoires :

*description of accessories :*

**DGC - Dry Disconnect Couplings for gas,  
composés de : - 1 pièce de connexion, côté  
citerne (+ capuchon) en acier inoxydable  
- 1 pièce de connexion, côté flexible  
(+bouchon) en acier inoxydable  
destinés à une déconnexion sans fuites**

*DGC - Dry Disconnect Couplings for gas,  
composed of :  
1 tank unit coupling (+ dust cap) in S.S.  
1 hose unit coupling (+ dust plug) in S.S.  
intended for disconnecting the hose from the  
tank without any leakage*

type : *type :*

**Mann Tek 2"**

type de connexion : bridée ou fileté

*connexion type : flanged or threaded*

conditions de conception :

*design conditions :*

pression de service max : 25 bar  
température de service min/max : -25 / + 100 °C\*  
(\* suivant le type de joints utilisé)

*max. working pressure : 25 bar  
min/max. working temperature : -25/+100°C\*  
(\* depending from the type of gaskets)*

L'approbation des accessoires a été prononcée  
sur base des prescriptions de :

*The approval of the accessories has been  
made on base of the prescriptions of :*

**ADR Par. 6.7/6.8 - RID Par. 6.7/6.8 - IMDG Par. 6.7 - TRT 024  
- TRbF 131/231, DIN 3230-6**

Les accessoires faisant l'objet de cette approbation  
doivent être marqués avec :

*The accessories ,subject to the present approval, have  
to be marked with :*

- nom ou marque du fabricant
- les conditions maxi. de service

- name or trademark of the manufacturer
- max. working conditions

Le constructeur ou l'importateur doit vérifier par  
sondage la conformité au type approuvé.  
Chaque modification doit nous être communiquée afin  
d'évaluer la validité de la présente approbation.

*The manufacturer or the importer has to verify at  
random the conformity with the approved type.  
Each modification has to be communicated to us in  
order to evaluate whether the present approval  
remains valid.*


La compatibilité des matériaux en contact avec les  
produits doit être vérifiée suivant les instructions du  
constructeur.

*The compatibility of the materials in contact with the  
product has to be verified according to the  
manufacturer's instructions.*

Fait à Bruxelles, le 17/08/2005  
Le Chef du Service Pression

*Issued at Brussels, on 17/08/2005  
Head Pressure Department*

*Eng. P. De Hertefelt*

  
**APRAGAZ**  
Ing. M. TONDEUR



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V.Z.W.  
Your Inspection Body

**CEOC**

Report n°: 37225/P05  
Delegate Mr. S. De Greef

Vilvoordsestwg., 156 B-1120 Brussels Tel. 32/2/264.03.60 - Fax. 32/2/268.89.58 - e-mail : info@apragaz.com

Elaflex, Deurne	references Mr. F. Van der Borst	
Apragaz	0505/P7545/000/RI	
General description : DGC - Dry Disconnect Coupling for gas Report concerning Approval of tank accessories according to ADR/RID Performed at Deurne - Belgium on date of 24/05/2005		

### Description of the tank accessories :

Type of accessories : DGC - Dry Disconnect Coupling for gas, composed of :  
- 1 tank unit coupling (+ dust cap as option)  
- 1 hose unit coupling (+ dust cap as option)

Manufacturer : MANN TEKNIK AB – Mariestad (Sweden)

Variants : 2" in flanged or threaded connection type

Materials : housing : stainless steel 1.4404  
shut-off device : stainless steel 1.4404  
gasket : NBR 90

Max. working pressure : 25 bar

Min./Max. working temperature : -25/+100°C (depending on the used gaskets)

Requested approval : for use of Liquefied Petroleum Gas (LPG)

### Inspections carried out : on a representative specimen, type 2"

1. Visual examination for conformity with the documentation from the manufacturer :

The inspected types have been found in conformity with the technical documentation of the manufacturer.

2. Functional testing :

From each type of the tested specimens, both couplings have been tested on connecting and disconnecting :  
without remarks

3. Control of the hydraulic pressure test :

Each coupling part has been submitted during 15 minutes to an hydraulic test with water at a test pressure of 37,5 bar. Neither leaks, nor unacceptable deformations have been noted.

4. Control of the tightness test :

- Each coupling has been submitted separately to a tightness test using nitrogen, at a pressure of 1 bar, of 5 bar, of 10 bar, of 15 bar, of 20 bar and a pressure of 25 bar.  
No leaks have been noted.
- Both coupling parts connected together have been submitted to a tightness test using nitrogen, at a pressure of 5 bar and a pressure of 15 bar.  
No leaks have been noted.

**5. Examination of the marking :**

The inspected specimens were marked as follows :

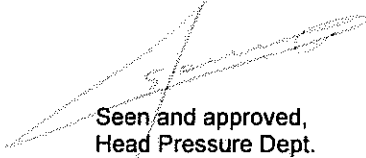
- name of the manufacturer (Mann-Tek)
- type denomination
- max. working pressure (25 bar)
- min./max. working temperature
- inside diameter (in mm)
- **type of connection**
- **type of gasket**
- **type of material**
- TUV-approval ref. (TU-AGG 304-99)
- serial nr. / delivery date

**Conclusion :**

Considering the results of the above mentioned tests and examinations, we are in the opinion that the described coupling units satisfy the requirements of the Royal decree of 13/12/2004, par. 6.7/6.8 in relation with the approval of the use for ADR/RID.

The couplings can be used for Liquefied Petroleum Gas according to ADR/RID, considering the prescriptions of the manufacturer with regard to the compatibility of the materials of the different parts in contact with the substances.

Brussels, 10/06/05



Seen and approved,  
Head Pressure Dept.  
**Eng. P. De Hertefelt**



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Affaire n° / File ref. : 0505/P7545/000/ sw  
Rapport n° / Report nr. : 40422/P05

Vilvoordsesteenweg, 156, Chaussée de Vilvorde - B-1120 Brussels/Bruzelles  
☎ 32/2/264.03.60 - ☐ 32/2/268.89.58 - e-mail : [info@apragaz.com](mailto:info@apragaz.com)

concernant l'approbation d'

*concerning the approval of*

**accessoires pour citernes destinées au  
transport de matières dangereuses**

*accessories for tanks intended for the  
transport of dangerous substances*

demandeur : *applicant :*

**ELAFLEX N.V.**

**Merksemsesteenweg 192  
B-2100 Antwerpen (Belgium)**

fabricant : *manufacturer :*

**MANN TEKNIK AB**

**Mariestad (Sweden)**

description des accessoires :

*description of accessories :*

**Safety Pressure Caps, destinés pour la  
protection des dry disconnect couplings**

*Safety Pressure Caps, intended for  
protection of dry disconnect couplings*

type :

*type :*

**Mann Tek 2" - 3"**

conditions de conception :

*design conditions :*

**pression de service max : 25 bar**

*max. working pressure : 25 bar*

**température de service min/max : -40 / + 250 °C\***

*min/max. working temperature : -40/+250°C\**

(\* suivant le type de joints utilisé)

(\* depending from the type of gaskets)

L'approbation des accessoires a été prononcée  
sur base des prescriptions de :

*The approval of the accessories has been  
made on base of the prescriptions of :*

**ADR Par. 6.7/6.8 - RID Par. 6.7/6.8 - IMDG Par. 6.7 - TRT 024 -  
STANAG 3756 - TRbF 131/231, DIN 3230-6**

Les accessoires faisant l'objet de cette approbation  
doivent être marqués avec :

*The accessories ,subject to the present approval, have  
to be marked with :*

- nom ou marque du fabricant
- les conditions maxi. de service

- name or trademark of the manufacturer
- max. working conditions

Le constructeur ou l'importateur doit vérifier par  
sondage la conformité au type approuvé.

*The manufacturer or the importer has to verify at  
random the conformity with the approved type.*

Chaque modification doit nous être communiquée afin  
d'évaluer la validité de la présente approbation.

*Each modification has to be communicated to us in  
order to evaluate whether the present approval  
remains valid.*

La compatibilité des matériaux en contact avec les  
produits doit être vérifiée suivant les instructions du  
constructeur.

*The compatibility of the materials in contact with the  
product has to be verified according to the  
manufacturer's instructions.*

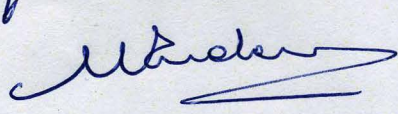
Fait à Bruxelles, le 17/08/2005

*Issued at Brussels, on 17/08/2005*

Le Chef du Service Pression

*Head Pressure Department*

*f* **Eng. P. De Hertefelt**

  
**APRAGAZ**  
Ing. M. TONDEUR



# APRAGAZ

V.Z.W.  
Your Inspection Body

CEOC

Report n°: 37226/P05  
Delegate Mr. S. De Greef

Vilvoordsestwg., 156 B-1120 Brussels Tel. 32/2/264.03.60 - Fax. 32/2/268.89.58 - e-mail : info@apragaz.com

Elaflex, Deurne	references Mr. F. Van der Borst	
Apragaz	0505/P7545/000/RI	
General description : <b>Safety Pressure Cap</b> Report concerning <b>Approval of tank accessories according to ADR/RID</b> Performed at <b>Deurne - Belgium</b> on date of <b>24/05/2005</b>		

### Description of the tank accessories :

Type of accessories : Safety Pressure Cap  
Manufacturer : MANN TEKNIK AB – Mariestad (Sweden)  
Variants : 2" and 3"  
Materials : housing : stainless steel 1.4409  
                  gasket : according to specification of the manufacturer  
Max. working pressure : 25 bar  
Min./Max. working temperature : -40/+250°C (depending on the used gaskets)  
Requested approval : for use of various dangerous substances

### Inspections carried out : on a representative specimen, type 2" and type 3"

#### 1. Visual examination for conformity with the documentation from the manufacturer :

The inspected types have been found in conformity with the technical documentation of the manufacturer.

#### 2. Functional testing :

From each type of the tested specimens, both caps have been tested on connecting and disconnecting :  
without remarks

#### 3. Control of the hydraulic pressure test :

Each cap has been submitted during 15 minutes to an hydraulic test with water at a test pressure of 37,5 bar. Neither leaks, nor unacceptable deformations have been noted.

#### 4. Control of the tightness test :

- Each cap has been submitted separately to a tightness test using water, at a pressure of 1 bar, of 5 bar, of 10 bar, of 15 bar, of 20 bar and a pressure of 25 bar.  
No leaks have been noted.



**5. Examination of the marking :**

The inspected specimens were marked as follows :

- name of the manufacturer (Mann-Tek)
- type denomination
- max. working pressure (25 bar)
- inside diameter (in mm)
- type of gasket
- type of material
- "STANAG 3756"
- serial nr. / delivery date

**Remarks :**

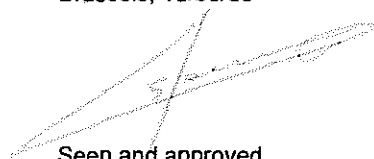
On the nameplate of the caps, the ADR-approval number was not yet been marked. This has to be done for the use of ADR/RID substances.

**Conclusion :**

Considering the results of the above mentioned tests, examinations and remarks, we are in the opinion that the described caps satisfy the requirements of the Royal decree of 13/12/2004, par. 6.7/6.8 in relation with the approval of the use for ADR/RID.

The caps can be used for various dangerous substances according to ADR/RID, considering the prescriptions of the manufacturer with regard to the compatibility of the materials of the different parts in contact with the substances.

Brussels, 10/06/05



Seen and approved,  
Head Pressure Depart  
**Eng. P. De Hertefelt**



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Your Inspection  
Authority

# CERTIFICAT CERTIFICATE

Affaire n° / File ref. : 0702/P8914/000/LMI  
Rapport n° / Report nr. : 66264/P07-A



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concernant l'approbation d' *concerning the approval of*  
**accessoires pour citernes destinées au** *accessories for tanks intended for the*  
**transport de matières dangereuses** *transport of dangerous substances*

demandeur : *applicant :*

**ELAFLEX N.V.**

**Merksemsesteenweg 192  
B-2100 Antwerpen (Belgium)**

fabricant : *manufacturer :*

**MANN TEKNIK AB - Mariestad (Sweden)**

description des accessoires : *description of accessories :*  
**Vannes à boules, type Full-Flow, passage** *Full-Flow aluminium ball valves, 1-way,*  
**droite, destinées comme obturateur externe** *intended as external shut-off valve in*  
**dans les conduites de déchargement de** *discharge lines of petroleum tank trucks*  
**véhicule-citerne pétrolières**

type : *type :*

**Mann Tek DN50(2") – DN80(3") – DN100(4")**

conditions de conception : *design conditions :*

**Pression de service max : 10 bar** *max. working pressure : 10 bar*

**température de service min/max : -20 / + 70 °C** *min/max. working temperature : -20/+70°C*

L'approbation des accessoires a été prononcée *The approval of the accessories has been*  
sur base des prescriptions de : *made on base of the prescriptions of :*  
**ADR Par. 6.8 - RID Par. 6.8 - IMDG Par. 6.8 - EN 14432 –**  
**TRbF050 – TRT002/TRT024 EN 12266-1 (P10, P11, P12) - EN 12266-2 (P20, P21, F20)**

Les vannes faisant l'objet de cette approbation doivent *The valves, subject to the present approval, have to be*  
être marquées avec : *marked with :*

- diamètre nominal de la vanne (DN) *- nominal size of the valve (DN)*
- nom ou marque du fabricant *- name or trademark of the manufacturer*
- matière du corps extérieur de la vanne (EN AW-6063) *- material of the valve casing (EN AW-6063)*
- pression de service max. (10 bar) *- max. working pressure (10 bar)*
- année de fabrication *- year of manufacture*
- n° de série unique *- unique serial number*
- "EN 14432:2006" *- "EN 14432:2006"*

Le constructeur ou l'importateur doit vérifier par *The manufacturer or the importer has to verify at*  
sondage la conformité au type approuvé. *random the conformity with the approved type.*

Chaque modification doit nous être communiquée afin *Each modification has to be communicated to us in*  
d'évaluer la validité de la présente approbation. *order to evaluate whether the present approval*  
*remains valid.*

La compatibilité des matériaux en contact avec les *The compatibility of the materials in contact with the*  
produits, doit être vérifiée suivant les instructions du *product has to be verified according to the*  
constructeur. *manufacturer's instructions.*

Établi à Bruxelles, 29/05/2007 + 03/07/2007  
Chef de Service - ADR/RID/IMDG

*Issued at Brussels, on 29/05/2007 + 03/07/2007*  
*Head of ADR/RID/IMDG Department*

**Eng. M. Tondeur**



concernant l'approbation d'

*concerning the approval of*

**accessoires pour citernes destinées au  
transport de matières dangereuses**

*accessories for tanks intended for the  
transport of dangerous substances*

demandeur : *applicant :*

**ELAFLEX N.V.**

**Merksemsesteenweg 192**

**B-2100 Antwerpen (Belgium)**

fabricant : *manufacturer :*

**MANN TEKNIK AB - Mariestad (Sweden)**

description des accessoires :

**Vannes à boules, type Full-Flow, passage  
par 2 voies, destinées comme obturateur  
externe dans les conduites de déchargement  
de véhicule-citerne pétrolières**

*description of accessories :*

*Full-Flow aluminium ball valves, 2-way,  
intended as external shut-off valve in  
discharge lines of petroleum tank trucks*

type :

**Mann Tek DN50(2") – DN80(3")**

conditions de conception :

**Pression de service max : 10 bar  
température de service min/max : -20 / + 70 °C**

*design conditions :*

*max. working pressure : 10 bar  
min/max. working temperature : -20/+70°C*

L'approbation des accessoires a été prononcée  
sur base des prescriptions de :

**ADR Par. 6.8 - RID Par. 6.8 - IMDG Par. 6.8 - EN 14432 –**

**TRbF050 – TRT002/TRT024 EN 12266-1 (P10, P11, P12) - EN 12266-2 (P20, P21, F20)**

*The approval of the accessories has been  
made on base of the prescriptions of :*

Les vannes faisant l'objet de cette approbation doivent  
être marquées avec :

- diamètre nominal de la vanne (DN)
- nom ou marque du fabricant
- matière du corps extérieur de la vanne (EN AW-6063)
- pression de service max. (10 bar)
- année de fabrication
- n° de série unique
- "EN 14432:2006"

*The valves, subject to the present approval, have to be  
marked with :*

- nominal size of the valve (DN)
- name or trademark of the manufacturer
- material of the valve casing (EN AW-6063)
- max. working pressure (10 bar)
- year of manufacture
- unique serial number
- "EN 14432:2006"

Le constructeur ou l'importateur doit vérifier par  
sondage la conformité au type approuvé.

Chaque modification doit nous être communiquée afin  
d'évaluer la validité de la présente approbation.

*The manufacturer or the importer has to verify at  
random the conformity with the approved type.*

*Each modification has to be communicated to us in  
order to evaluate whether the present approval  
remains valid.*

La compatibilité des matériaux en contact avec les  
produits, doit être vérifiée suivant les instructions du  
constructeur.

*The compatibility of the materials in contact with the  
product has to be verified according to the  
manufacturer's instructions.*

Établi à Bruxelles, 29/05/2007 + 03/07/2007

Chef de Service - ADR/RID/IMDG

*Issued at Brussels, on 29/05/2007 + 03/07/2007*

*Head of ADR/RID/IMDG Department*

**Eng. M. Tondeur**