MARINE DIVISION

67/71 Boulevard du Château 92200 Neuilly-sur-Seine - France

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Certificate number: 04347/D0 BV File number: ACM 135/1313/001

Product code: 2130H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

TYPE APPROVAL CERTIFICATE

This certificate is issued to

INDUSTRIAS METALA S.L.

Elgoibar (Guipuzcoa) - SPAIN

for the type of product

SCREW COUPLINGS

Cutting ring screw couplings for metallic pipes - Series L and S.

Regulations and standards:

- BUREAU VERITAS Rules for the Classification of Steel Ships
- BUREAU VERITAS Rules for the Classification of Offshore Units

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements of the Regulations and standards mentioned above.

This certificate is valid until: 09 Feb 2014

At Neuilly, on: 09 Feb 2009

For BUREAU VERITAS, By order of the Secretary

L-COURREGELONGUE

Approval office

PARIS 1828

this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

Local office : BV MADRID Surveyor : A. Banta Villamil

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This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are compiled with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to littley being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division. Any Person not a party to the contract pursuant to which

Certificate number: 04347/D0 BV

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Metala Cutting ring screw couplings for metallic pipes.

SERIE L (Light)		
Tube Diameters	Maxi. service pressure	
6 to 18 mm	315 bar	
22 to 42 mm	160 bar	

SERIE S (heavy)		
Tube Diameters	Maxi. service pressure	
6 to 14 mm 16 to 30 mm	630 bar 400 bar	
38 mm	315 bar	

The approval is valid for the different configurations of the couplings as unions, tees, elbows etc... as per Manufacturer's catalogue edited in spanish language.

Materials and/or components :

Tube Seamless Steel Couplings Steel

2. DOCUMENTS AND DRAWINGS:

As per Manufacturer's catalogue CRM - 2000.

3. TEST REPORTS:

Tests carried out:

Assembly test, leakage test, pulsation test, vibration test, bursting test and tearing stress test.

Test reports dated october 2000 and 21/03/2002:

Hydraulie test and burst test

4. APPLICATION / LIMITATION:

4.1 May be used for the following services on board:

Fresh and sea water, Fuel oil, Lub and hydraulic oil, Compressed air

- 4.2 The cutting ring screw couplings are to be at any time accessible.
- 4.3 The bulkhead unions are not to be used as fittings in way of watertight or oil tight bulkheads or decks.
- 4.4 In all cases, the associated pipes are to be suitably adjusted, aligned and anchored.
- 4.5 The assembly instructions given by the Manufacturer are to be complied with.
- 4.6 The wall thickness and the material of tubes used are to be in accordance with the Bureau Veritas Rules.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 The products are to be manufactured, examined and tested by the manufacturer in accordance with the approved type described in this certificate and Bureau Veritas Rules and Regulations stated on the front page of this certificate.
- 5.2 Production sites are to be recognized by Bureau Veritas as per NR 320 for HBV products. To this end, the manufacturer has to make the necessary arrangements for a Society's Surveyor to perform visits and product audits at the production sites.
- 5.3 The manufacturer has declared to Bureau Veritas that the products detailed in this certificate are manufactured at the production site stated on the front page of this certificate.
- 5.4 Bureau Veritas certificate is not required for the product to be fitted on board units to be classed with Bureau Veritas.

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6. MARKING OF PRODUCT

Each screw coupling is to be clearly marked to avoid any wrong utilization as per the manufacturer's instructions:

- Manufacturer's name or logo
- Pipe size
- Material

7. OTHERS

- 7.1 This approval is given on the understanding that the manufacturer will accept full responsibility for informing shipbuilder or their subcontractors of the proper method of fitting and general maintenance of the screw coupling and of the conditions of this approval.
- 7.2 This certificate supersedes Type Approval Certificate No 04347/C0 BV issued on 08/07/2002 by the Society.

" END OF CERTIFICATE "



File Number: ACM 135/1313/001

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

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16 to 30 mm	400 bar	
38 mm	315 bar	

The approval is valid for the different configurations of the couplings as unions, tees, elbows etc... as per Manufacturer's catalogue edited in spanish language.

2. DESIGN DRAWINGS and/or SPECIFICATIONS

As per Manufacturer's catalogue CRM - 2000.

3. TYPE TEST REPORTS / LABORATORY RECOGNITION STATUS

Tests carried out:

Assembly test, leakage test, pulsation test, vibration test, bursting test and tearing stress test.

Test reports dated october 2000 and 21/03/2002:

- Hydraulic test and burst test

4. MATERIALS and/or COMPONENTS REQUIRED TO BE TYPE APPROVED

None.

5. OTHER MATERIALS and/or COMPONENTS

Tube

Seamless Steel

Couplings

Steel

6. APPLICATION / LIMITATION OF USE

May be used for the following services on board:

- Fresh and sea water
- Fuel oil
- Lub and hydraulic oil
- Compressed air

7. PRODUCTION SURVEY REQUIREMENTS

The products are to be manufactured, inspected and tested according to the requirements of Bureau Veritas Rules for Classification. Arrangements shall be made for a Society's Surveyor to carry out, on a periodic basis, visit of the Manufacturer's premises or relevant audits when an alternative survey scheme, BV Mode I, has been arranged.

8. ON BOARD INSTALLATION & MAINTENANCE REQUIREMENTS

- 8.1 The cutting ring screw couplings are to be at any time accessible.
- 8.2 The bulkhead unions are not to be used as fittings in way of watertight or oil tight bulkheads or decks.
- 8.3 The assembly instructions given by the Manufacturer are to be complied with.

9. MARKING FOR IDENTIFICATION

Each cutting ring coupling is to be clearly marked to avoid any wrong utilization as per manufacturer's instructions.

10. OTHERS

- 10.1 This approval is given on the understanding that Metala will accept full responsibility for informing shipbuilder or their subcontractors of the proper method of fitting and general maintenance of the cutting rings couplings and of the conditions of this approval.
- 10.2 This certificate supersedes Type Approval Certificate N° 2130/4347/B0/0/H BV issued on 18/01/1996 by the Society.

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BUREAU VERITAS MADRID

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