Lloyd's Register España, S.A.

Project:

Client: TSF NAVARRA DE TÉCNICAS DE SOLDADURA Y FIJACIÓN S.L.

This is to Certify that the below described material has been inspected at: TSF (ARAZURI, NAVARRA)

Date of inspection:
First: 19/11/2012
Final: 19/11/2012

Certificate number: BBO8120107/3

Office: BILBAO

Date: 30/11/2012

Main order number:

Order status: COMPLETE

General Certificate

MATERIAL	QUALITIES	DRAWINGS
PRELOAD SYSTEM TH M52	Nut: F-1140 Bolt: 30CrNiMo8 Washer: 42CrMo4	"Perno high preload nut M52" Nº- rev.1 (14-06-2011) "M52 R2" Nº- rev.1 Nov/12

The above material has been subjected to the following tests and inspections according to the "Procedure for certification test plan TH PC 27.1" rev.1 November 2012 and the corresponding drawings provided by TSF, as detailed below:

- Review of material certificates
- Dimensional control of tested element
- Final visual inspection and absence of defects
- Witness of tests in TH M52 system by TH certification process PC 27.1 tests plan and review of the witnessed test report

During the inspection carry out it was found that the values of **preload obtained** during the assembly process **were less than 25%**. Likewise, these values had a **variation of less than 5%**. The test report and graphic has been attached to the Quality dossier.

As it could be seen, the inspection carried out and the reviewed documentation are considered satisfactory.

For the identification purpose the nuts and bolts used during the test were marked with hard label of this Society.

Lloyd's Register España S.A.
Bilbao
Lloyd's Register

AITZIBER GORRIÑO-BEASKOA
Surveyor to Lloyd's Register España S.A.
A member of Lloyd's Register Group

Testing Data Sheets Attached Yes/No

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