



Welding Procedure Qualification Certificate (EN ISO 15614-1) Energy - Downstream, Power and Manufacturing

Manufacturer's Welding Procedure Qualification Record No.: **WPS 4- 111 Weldox 700** Examining body Reference No: **LR Piraeus /**

Manufacturer: **NAV MARINE Limited Partnership (LP)**
Address: **Tinou 6, Ikonio Perama**
Welders Name: **Skouras Nikolaos**

Code/Testing Standard: **BS EN ISO 15614-1:2004 + A2: 2012**
Date of Welding: **28 April 2016**

Range of Qualification


Welding Process(es): **111 (SMAW)**
Type of joint and weld: **Full and partial penetration butt welds**
Parent material group(s) and sub-: **3.1 to 3.1 or lower specified yield strength steels**
Parent Material Thickness (mm): **8mm - range: 4.0≤t≤16.0**
Weld Metal Thickness (mm): **8mm - range: 4.0≤t≤16.0**
Throat Thickness (mm): **No restriction**
Single Run/Multi Run: **Multi Run**
Outside Pipe Diameter (mm): **88.9 (formed from plate D> 44.4**
Filler Material Designation: **111: E11018-G (E 2NiMoB)**
Filler Material Make: **COMET J 76 ELH**
Filler Material Size: **Any size of filler material**
Designation of Shielding Gas/Flux: **Not Applicable**
Designation of Backing Gas: **Not Applicable**
Type of Welding Current and Polarity: **111: DCEP**
Mode of Metal Transfer: **Spray**
Heat Input: **-**
Welding Positions: **All welding positions except PG and J-L045**
Preheat Temperature: **Ambient 20 °C**
Interpass Temperature: **max 220 °C**
Post-Heating: **Not Applicable**
Post-Weld Heat Treatment and/or: **Not Applicable**

Other Information

Butt joints without backing and from one side with backing, butt joints on plates welded from both sides with gouging, T-joints,

Certified that test welds were prepared, welded and tested satisfactorily in accordance with the requirements of the code/testing standard indicated above.

Location: **Piraeus**

Date of Issue: **05 December 2016**  Lloyd's Register
Surveyor: **Skoulaxinos**
Piraeus
Dimitrios Skoulaxinos
Surveyor to Hellenic Lloyd's S.A.

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Examining Body **LR Piraeus**