



# Welding Procedure Qualification Certificate

## EN ISO 15614-1: 2017

Manufacturer's WPQR no.: **WPS01**      Examining body Reference No: **Hellenic Lloyd's S.A. /**

Manufacturer: **DROP - N. KIOSIDIS S.A.**

Address: **IND. AREA SINDOS - THESSALONIKI**

Code / Testing standard: **EN ISO 15614-1:2017**

Level: **2**

Date of welding: **02 November 2020**

### Range of qualification

#### FW Pipe to Pipe-ring T-joint, Partial penetration

Welding process(es): **135**

Type of joint and weld: **T-JOINT FW**

Deposited thickness (mm): **NA**

Parent material group(s) and sub-group(s): **1-1**

Parent material thickness (mm): **1: 2.1 to 6.0, 2:13.0 to 26.0**

Throat thickness (mm): **4.5 to 9.0**

Single layer / multi run: **Single layer**

Outside pipe diameter (mm): **NA**

Filler material designation: **EN ISO 14341: G42/46 4 M21 (AWS A5.18: ER70S-6)**

Filler material make: **PITTARC G6**

Filler material size: **1.0mm**

Designation of shielding gas / flux: **ARCAL-21/92%Ar + 28%CO2**

Designation of backing gas: **N/A**

Type of welding current and polarity: **DCEP**

Transfer mode: **N/A**

Heat input: **-**

Welding positions: **All positions**

Preheat temperature: **Ambient**

Interpass temperature: **max250°C**

Post-Heating: **No**

Post-weld heat treatment: **N/A**

### Other information

-

We confirm that the statements in this record are correct and that the test pieces were prepared, welded, tested and have fulfilled the requirements with the above indicated code / testing standard.

Location: **Athens**

Date of Issue: **11 November 2020**

Surveyor

N. PANTELIADIS

Surveyor to Hellenic Lloyd's S.A.

**11 November 2020**

**Nikos Panteliadis**

**Inspection Services  
Direct Office  
Hellenic Lloyd's SA**

**Lloyd's Register**

**Hellenic Lloyd's SA**

LR032-2016-09

A subsidiary of Lloyd's Register Group Limited

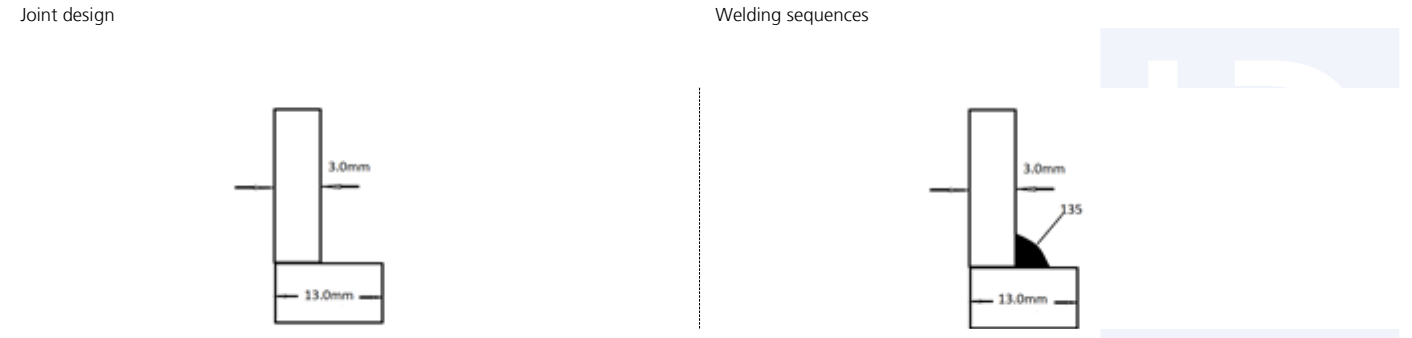
Examining Body **Hellenic Lloyd's S.A.**

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

**Details of test weld**

Manufacturer's [p] WPS no.:	<b>WPS01</b>		
Manufacturer's WPQR no.:	-	Method of preparation & cleaning:	<b>CUTTING &amp; GRINDING</b>
Welder's / operator's name:	<b>TSIRIKIDIS VASILEIOS, W01</b>	Parent material specification: (attach material certificates)*	<b>1.0345, P235GH:EN10028-2 (Gr1)</b>
Joint type and weld:	<b>FW</b>	Material thickness (mm):	<b>3 (13)</b>
Welding position:	<b>PA</b>	Outside pipe diameter (mm):	<b>NA</b>

**Weld preparation details (Sketch)**



**Welding details**

Run	Process	Size filler Material	Current [A]	Voltage [V]	Type current / polarity	Wire feed m/min	Travel speed mm/min	Heat input kJ/mm	Metal transfer
<b>1</b>	<b>135</b>	<b>1.0</b>	<b>155-160</b>	<b>22-23</b>	<b>DCEP</b>	-	-	-	-

Filler material designation & make: (attach consumable certificate(s))*	<b>EN ISO 14341: G42/46 4 M21 (AWS A5.18: ER70S-6)</b>	
Any special baking or drying:	-	Weaving (max. with of run) -
Gas / flux – shielding:	<b>ARCAL-21/92%Ar + 28%CO2</b>	Oscillation: amplitude, frequency, dwell time -
Gas / flux – backing:	-	Pulse welding details: -
Gas flow rate – shielding:	<b>8.5Lt/min</b>	Distance contact tube / workpiece: -
Gas flow rate – backing:	-	Plasma welding details: -
Tungsten electrode type / size:	-	Torch angle: <b>60°</b>
Details of back gouging / backing:	<b>N/A</b>	Post-Weld Heat Treatment and / or Ageing: -
Preheat temperature:	<b>Ambient (min15°C)</b>	Time, temperature and method: -
Interpass temperature:	<b>max250°C</b>	Heating and cooling rates*: -
Post-heating:	<b>No</b>	
Power source:	-	
Manufacturer power source:	-	
Other information*:	-	
Manufacturer	<b>DROP - N. KIOSIDIS S.A.</b>	
Manufacturer's signature:		

 Lloyd's Register

Nikos Panteliadis

Inspection Services  
Piraeus Office  
[Discipline]

**Hellenic Lloyd's SA**

13032\_2016\_09

Date:	<b>11 November 2020</b>	Surveyor to Lloyd's Register
		A subsidiary of Lloyd's Register Group Limited

