



RECOGNITION OF A TEST LABORATORY CERTIFICATE

No. 02-002084/023827

THIS IS TO CERTIFY:

That CROATIAN REGISTER OF SHIPPING did undertake, at the Laboratory's request, and pursuant of the Work instruction QW104 - "Recognition of test laboratory", on assessment of the organisational structure, responsibilities, facilities and associated quality assurance procedures of the referenced Laboratory with respect to test and testing standards, subject to any conditions in the Schedule of recognition attached hereto.

1. LABORATORY:

Name of laboratory: **BRODOSPLIT – Brodograđevna industrija Split d.d.**
BRODOSPLIT – Laboratorij d.o.o.
Address: Put Supavla 21, 21000 SPLIT, HRVATSKA - CROATIA

2. SCOPE OF RECOGNITION

As listed in Annex I of the Schedule of recognition providing that test witnessing shall be as stated hereto.

3. CONDITIONS FOR THE VALIDITY OF THE RECOGNITION

- Tests are to be carried out and reported in compliance with the relevant Regulation(s).
- Surveillance audits are to be carried out annually by the CRS's surveyors and recorded in the Annex II of the Schedule of the recognition.
- CRS is to be informed immediately of any modification in the organisational structure, responsibilities, facilities and associated quality assurance procedures.

Recognition is valid until: **2019-12-16**

Place and date: Split, 2016-04-01

Seal
Signature

Marinko Popović, dipl.ing.

SCHEDULE OF RECOGNITION

Annex I to Certificate No:

No. 02-002084/023827

Item No.	Test method	Regulation	Test standards (latest edition)	Test witnessing mode (see note)	Comments
1.	Ispitivanje metala i zavarenih spojeva metodama bez razaranja / Testing of metals and welded joints by non-destructive methods		EN ISO 17635	(2)	
2.	Radiografska ispitivanja RT <i>Radiographic testings</i>	Pravila HRB-a Dio 25. <i>CRS Rules Part 25.</i> Pravila HRB-a Dio 26. <i>CRS Rules Part 26.</i>	EN ISO 5579 EN ISO 17636-1 EN ISO 10675-1, -2	(2)	
3.	Ultrazvučno ispitivanje UT <i>Ultrasonic testings</i>	Pravila HRB-a Dio 25. <i>CRS Rules Part 25.</i> Pravila HRB-a Dio 26. <i>CRS Rules Part 26.</i>	EN 583-1, -4 EN ISO 17640 EN ISO 11666 EN ISO 23279	(2)	
4.	Ultrazvučno ispitivanje TOFD+PA <i>Ultrasonic testings</i>	Pravila HRB-a Dio 25. <i>CRS Rules Part 25.</i> Pravila HRB-a Dio 26. <i>CRS Rules Part 26.</i>	EN 583-6 EN ISO 10863 EN ISO 13588 EN 16018 EN ISO 15626	(2)	
5.	Ispitivanje magnetskim česticama MT <i>Magnetic particle testings</i>	Pravila HRB-a Dio 25. <i>CRS Rules Part 25.</i> Pravila HRB-a Dio 26. <i>CRS Rules Part 26.</i>	EN ISO 9934-1 EN ISO 17638 EN ISO 23278	(2)	
6.	Ispitivanje penetrirajućim tekućinama PT <i>Dye penetrant testings</i>	Pravila HRB-a Dio 25. <i>CRS Rules Part 25.</i> Pravila HRB-a Dio 26. <i>CRS Rules Part 26.</i>	EN ISO 3452-1 EN ISO 23277	(2)	
7.	Vizualno ispitivanje VT <i>Visual testings</i>	Pravila HRB-a Dio 25. <i>CRS Rules Part 25.</i> Pravila HRB-a Dio 26. <i>CRS Rules Part 26.</i>	EN 13018 EN ISO 17637 EN ISO 5817 EN ISO 10042	(2)	
8.	Razarajuća mehanička i tehnološka ispitivanja metalnih materijala i njihovih zavara <i>Destructive tests on metallic materials and welds in metallic materials</i>	Pravila HRB-a Dio 25 <i>CRS Rules Part 25</i>	EN ISO 6892-1 EN ISO 4136 EN ISO 5178 EN ISO 7438 EN ISO 5173 EN ISO 9017 EN ISO 148-1 EN ISO 6506-1 EN ISO 6507-1 EN ISO 6508-1 EN ISO 9015-1, -2 EN ISO 17639 EN ISO 17655 EN ISO 8492 EN ISO 8493	(1)	

Note:

- (1) Except otherwise agreed upon, the CRS witnessing is compulsory for every test.
- (2) First test and one per 4 years.
- (3) CRS witnessing is not compulsory.

Item No.	Test method	Regulation	Test standards (latest edition)	Test witnessing mode (see note)	Comments
9.	Mjerenje deformacija (naprezanja) pomoću mjernih traka <i>Measurement of strain using strain gauges</i>		ASTM E 251	(2)	
10.	Određivanje zaostalih naprezanja tenzometrijskom metodom bušenja provrta i mjernim rozetama <i>Determining of residual stresses by the hole-drilling method and strain-gauge rosetts</i>		ASTM E 837 - 08 e1	(2)	
11.	Ispitivanje kemijskog sastava metalnih materijala <i>Chemical testing of metallic material</i>	Pravila HRB-a Dio 25 <i>CRS Rules Part 25</i>	Priručnik o ispitivanju LP 1742.1 <i>/ Testing manual</i>	(2)	
12.	Određivanje broja čvrstih čestica u hidrauličkim uljima <i>Contamination by solid particles in hydraulic oils</i>	Pravila HRB-a Dio 24 <i>CRS Rules Part 24</i>	ISO 4406 NAS 1638	(3)	
13.	Ispitivanje fizikalnih karakteristika ulja (gustoća, viskozitet, sadržaj vode i pH) <i>Examination of physical properties of oil (density, viscosity, water content and pH)</i>	Pravila HRB-a Dio 24 <i>CRS Rules Part 24</i>	Priručnik o ispitivanju LP 1742.2 / Testing manual ISO 3675 ISO 3733 ISO 3104 ISO 10523	(3)	
14.	Ispitivanje fizikalnih karakteristika vode (tvrdoća, sadržaj klorida i željeza, pH) <i>Examination of physical properties of water (hardness, chloride and iron content, pH)</i>		Priručnik o ispitivanju LP 1742.3 / Testing manual ISO 10523 ISO 9963-1 ISO 9963-2 ISO 6332	(3)	
15.	Ispitivanje ljevačkog pijeska, vezivnih sredstava i kaluparskih mješavina <i>Testing of foundry sand, binders and mold mixture</i>		Priručnik o ispitivanju LP 1742.4 / Testing manual HRN B.B5.012	(3)	
16.	Metalografska ispitivanja / Metallographic examination		EN ISO 17639 EN ISO 945-1	(2)	
17.	Ispitivanje stručne sposobnosti zavarivača <i>Testing of welders ability</i>	Pravila HRB-a Dio 26. <i>CRS Rules Part 26.</i>	EN ISO 9606-1 EN ISO 9606-2 EN ISO 9606-3 EN ISO 14732	(2)	
18.	Ispitivanje postupaka zavarivanja i dodatnih materijala za zavarivanje <i>Testing of welding procedures and consumables for welding</i>	Pravila HRB-a Dio 26. <i>CRS Rules Part 26.</i>	EN ISO 15607 EN ISO 15609-1 EN ISO 15610 EN ISO 15614-1 EN ISO 15614-2 EN ISO 15614-8	(2)	

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Item No.	Test method	Regulation	Test standards (latest edition)	Test witnessing mode (see note)	Comments
19.	<p>Antikorozivna zaštita Ispitivanje fizikalnih karakteristika boja i abraziva za čišćenje čeličnih površina (volumni sadržaj suhe tvari, gustoća, vrijeme sušenja, adhezija, raspodjela veličine čestica, soli itd.). <i>Corrosion protection</i> <i>Testing for physical characteristics of paints and blasting abrasives (volume solids, density, drying time, adhesion, particle size, contaminants etc.).</i></p>		<p>IMO resolution MSC215(82) PSPC ISO 3233 ISO 2811-1 ASTM D5895 EN ISO 16862 ISO 2409 ISO 4624 ISO 11127 ISO 11125</p>	(3)	
20.	<p>Antikorozivna zaštita Inspekcija pripreme površine i bojenja čeličnih površina (stupanj čistoće, hrapavost, soli/prašina, mikroklimatski uvjeti, debljina filma, adhezija premaza, porozitet). <i>Corrosion protection of steel structures by protective paint systems</i> <i>Quality control of surface preparation and coating application (de-rusting grade, blast profile, salts/dust, environmental conditions, DFT, adhesion, porosity).</i></p>		<p>IMO resolution MSC 215(82) PSPC ISO 8501-1 EN ISO 8503-4 ISO 8502-6 ISO 8502-9 ISO 8502-3 ISO 8502-4 SSPC-PA2 ISO 16276-1 ISO 16276-2 NACE SP0188</p>	(3)	
21.	<p>Katodna zaštita žrtvovanim anodama Provjeravanje efikasnosti izvedene katodne zaštite mjerenjem zaštitnog potencijala. <i>Cathodic protection using sacrificial anodes</i> <i>Cathodic potential measurement for control and adjustment of cathodic protection systems.</i></p>		SB 7439	(3)	

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- (1) Except otherwise agreed upon, the CRS witnessing is compulsory for every test.
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SURVEILLANCE AUDITS

Annex II to Certificate no:

No. 02-002084/023827

Mandatory survey due period (+/- 3 months):

	1.	2.	3.
Due date:	2016-12-16	2017-12-16	2018-12-16
Date of survey:			
Name and signature:			
Seal:			

Raščlana

55.00

Zamjenjuje potvrdu

02-001672/023242
