

# Schedule

Singapore Test Services Pte Ltd  
NDT Laboratory  
249 Jalan Boon Lay  
Singapore 619523

Certificate No. : LA-1995-0087-D  
Issue No. : 20  
Date : 19 September 2018  
Page : 1 of 4

FIELD OF TESTING : Non-Destructive Testing

NDT TECHNIQUES	MATERIALS / PRODUCTS TESTED	STANDARD METHODS / TECHNIQUES / EQUIPMENT
<p>1. <u>Penetrant Testing</u></p> <p><b>a. Portable</b> Fluorescent &amp; Visible Water Washable Method Solvent Removable Method</p>	<p>All materials / products covered under the General Standards</p> <p>Welded Joints</p>	<p><b>General Standards:</b> ASME Sect V Art 1, 6, 24 : 2017 ASTM E165 – 2012 ASTM E1417 – 2016 AS 2062 – 1997 BS EN 1011 – 1 : 2009 BS EN 1011 – 2 : 2001 BS EN ISO 3452-1-2013 AWS D1.1/D1.1M : 2015 AWS D1.2/D1.2M : 2014 API 1104 : 2013 API 650 : 2013</p> <p><b>Specific Standards:</b> ASME Sect VIII DIV I : 2017 ASME Sect IX : 2017 BS EN ISO 23277-1-2009</p>
<p>2. <u>Magnetic Particle Testing</u></p> <p><b>a. Portable</b> Fluorescent &amp; Visible Wet Particles Dry Particles</p> <p><b>b. <u>Magnetization Method</u></b> AC DC Yoke Method Prod Method Coil Method</p>	<p>All materials / products covered under the General Standards</p> <p>Welded Joints</p>	<p><b>General Standards:</b> ASME Sect V Art 1, 7, 25 :-2017 ASTM E1444 – 2016 ASTM E709 – 2015 AS 1171 – 1998 BS EN ISO 9934-1 : 2015 BS EN ISO 17638 - 2009 AWS D1.1/D1.1M : 2015 API 1104 : 2013 API 650 : 2013</p>

# Schedule



Certificate No. : LA-1995-0087-D

Issue No. : 20

Date : 19 September 2018

Page : 2 of 4

NDT TECHNIQUES	MATERIALS/PRODUCTS TESTED	STANDARD METHODS/TECHNIQUES/EQUIPMENT
<p><b>c. Bench Unit</b> Fluorescent</p> <p><b>3. Radiographic Testing</b></p> <p><b>a. Gamma Ray</b></p> <p>Detection Medium Film</p> <p><b>b. X-Ray</b> 300kV</p> <p>Detection Medium Film</p>	<p>All materials / products covered under the General Standards</p> <p>Welded Joints Castings</p>	<p><b>Specific Standards:</b> ASME Sect VIII DIV I : 2017 ASME Sect IX : 2017 BS EN ISO 23278 - 2015</p> <p><b>General Standards:</b> ASME Sect V Art 1, 2, 22 : 2017 ASTM E94 – 2004 (2010) ASTM E1742 – 2012 BS EN ISO 5579 - 2013 API 1104 : 2013 API 650 : 2013 ASTM E1030 - 2015 AWS D1.1/D1.1M : 2015 AWS D1.2/D1.2M : 2014 AWS D1.6/D1.6M : 2007 AWS D17.1/D17.1M : 2010</p> <p><b>Specific Standards:</b> AWS D1.1/D1.1M : 2015 AS 2177 Pt 1 – 2006 BS EN ISO17636 - 2013 BS EN ISO 10675-2- 2013 ASME Sect VIII DIV I : 2017 ASME Sect IX : 2017 ASTM E1032 : 2012 API 1104 : 2013 API 650 : 2013</p>
<p><b>4. Eddy Current Testing</b></p> <p><b>Portable</b></p>	<p>All materials / products covered under the General Standards</p> <p>Non-Ferrous Tubes (ECT)</p> <p>Ferrous Tubes (RFT/MFL)</p> <p>Ferrous Tubes (MFL)</p> <p>Non-Ferrous Metals</p>	<p><b>General Standards:</b> ASME Sect V Art 1, 8, 26 : 2017 BS EN ISO 17643-2015</p> <p><b>Specific Standards:</b> ASTM E243 – 2013 ASTM E426 – 2012 ASTM E690 – 2015 BS EN 1971-2 - 2011 (Heat Exchanger Tubes) ASME Sect V Art 1, 17, 26: 2017 ASTM E2096 – 2010 ASME Sect V Art 1, 16: 2017 ASTM E570 - 2009</p> <p>ASTM E703 – 2014</p>

# Schedule



Certificate No. : LA-1995-0087-D

Issue No. : 20

Date : 19 September 2018

Page : 3 of 4

NDT TECHNIQUES	MATERIALS/PRODUCTS TESTED	STANDARD METHODS/ TECHNIQUES/EQUIPMENT
<b>5. Ultrasonic Testing Application</b>  Thickness measurement Flaw Detection	All materials / products covered under the General Standards	<b>General Standards:</b> ASME Sect V Art 1, 4, 5, 23 :-2017 ASTM E114 – 2015 ASTM E797 – 2015 (Thickness) BS EN 583-1 - 1999 ASTM E213 - 2014 ASTM E273 - 2015 ASTM E1001 - 2011 BS EN 10160 - 1999
<b>a. Contact Method</b>	Welded Joints	<b>Specific Standards:</b> AWS D1.1/D1.1M : 2015 ASTM E164 – 2013 AS 2207 – 2007 BS EN ISO 17640- 2010 ASME Sect VIII DIV I : 2017 ASME Sect IX : 2017 API 1104 :2013 API 650 : 2013
<b>b. Internal Rotary Inspection System (IRIS)</b>	Steel Forging	BS EN 10228-3 : 1998 BS EN 10228-4 : 1999
<b>6. Positive Material Identification</b>  <b>a. X-ray Fluorescence Analysis</b>	Ferrous & Non-ferrous tube	ASTM E2375-08(Reapproved 2013) TWI-NDT-002-03-13 Rev 02
<b>7. Phased Array Ultrasonic Testing (PAUT)</b>	All materials / products covered under the General Standards	<b>General Standards:</b> ASTM E572 - 2013 ASTM E1085 – 2016
	All materials / products covered under the General Standards	<b>General Standards:</b> ASME Sec. V, Art 1, 4, 5,23:2017 ASTM E2700 :2014  <b>Specific Standards:</b> ASME Sect VIII : 2017 ASME code case CC2235-9 : 2005

# Schedule



Certificate No. : LA-1995-0087-D

Issue No. : 20

Date : 19 September 2018

Page : 4 of 4

NDT TECHNIQUES	MATERIALS/PRODUCTS TESTED	STANDARD METHODS/TECHNIQUES/EQUIPMENT
<b>8.Time of Flight Diffraction (ToFD)</b>		<b>General Standards:</b> ASME Sec. V, Art 1, 4,5, 23 : 2017 ASTM E2373 : 2014 <b>Specific Standards:</b> ASME Sect VIII DIV I:2017

## Approved signatories

Mr Gan Ee Cheong	- UT, PT, RT, ET, MT & PMI
Mr Ong Kian Chwee	- MT, PT & UT & PMI
Mr Mohd Salem Salemi	- UT, IRIS, and PMI
Mr Periyasamy Rajasekar	- UT, MT, PMI, PAUT, TOFD & IRIS
Mr Ng Kok Choong	- PMI
Mr Yap Yeow Hian	- MPI
Mr Bong Yen Hune	- PAUT, UT, IRIS, PMI

## **Branch Laboratory**

Singapore Test Services Pte Ltd – LA-1995-0087-D-1  
601 Rifle Range Road  
Singapore 588398

## Note :

This laboratory is accredited in accordance with the recognised International Standard ISO/IEC 17025:2005. A laboratory's fulfilment of the requirements of ISO/IEC 17025:2005 means the laboratory meets both the technical competence requirements and **management system requirements** that are necessary for it to consistently deliver technically valid test results. The **management system requirements** in ISO/IEC 17025:2005 (Section 4) are written in language relevant to laboratory operations and meet the principles of ISO 9001:2008 **Quality Management Systems — Requirements** and are aligned with its pertinent requirements.