Appendix A

Weld # 2, wall thickness 14.3 mm, Defect # 1
Defect height max. 6.4 mm

1.9 mm
8.3 mm

TOFD image
Defect 1 & 2

Weld sample from 1418 – 1492 mm
Defect location from 1429 – 1492 mm

Root –us
LCP-us
Hot pass 1-us
Hot pass 2-us
Fill 1-us
Fill 2-us
Fill 3/Cap-us

Strip chart @ 0 dB  Stripchart @ -12 dB

Note: Defect 1 / up stream and defect 2 / down stream interfere in TOFD display.
Appendix B-1

Weld # 2, wall thickness 14.3 mm, Defect # 2

Defect height max. 5.8 mm

2.6 mm
8.4 mm

TOFD image Defect 2

Weld sample from 1511 – 1576 mm
Defect location from 1511 – 1576 mm

Strip chart @ 0 dB
Stripchart @ -12 dB

Root –ds
LCP-ds
Hot pass 1-ds
Hot pass 2-ds
Fill 1-ds
Fill 2-ds
Fill 3/Cap-ds
65.1% = 3.3 mm
65.5% = 3.3 mm
Appendix B-2
Weld # 2, wall thickness 14.3 mm, Defect # 2
Defect height max. 5.7 mm

2.8 mm
8.5 mm

TOFD image Defect 2

Weld sample from 1578 – 1658 mm
Defect location from 1578 – 1658 mm

Root –ds
LCP-ds
Hot pass 1-ds
Hot pass 2-ds
Fill 1-ds
Fill 2-ds
Fill 3/Cap-ds
Strip chart @ 0 dB
Stripchart @ -12 dB

48.6% = 2.4 mm
58.4% = 2.8 mm
Appendix B-3
Weld # 2, wall thickness 14.3 mm, Defect # 2
Defect height max. 5.5 mm

Weld sample from 1661 – 1741 mm
Defect location from 1661 – 1741 mm

8.1 mm
2.6 mm

TOFD image defect 2

Root – ds
LCP-ds
Hot pass 1-ds
Hot pass 2-ds
Fill 1-ds
Fill 2-ds
Fill 3/Cap-ds

Strip chart @ 0 dB
Strip chart @ -12 dB

54.5% = 2.6 mm
60.8% = 3.0 mm
Appendix B-4
Weld # 2, wall thickness 14.3 mm, Defect # 2
Defect height max. 3.2 mm

2.4 mm
5.6 mm

Weld sample from 1743 – 1819 mm
Defect location from 1743 – 1819 mm

Note: Weld sample did not break at defect over the full length.
Appendix B-5
Weld # 2, wall thickness 14.3 mm, Defect # 2
Defect height not visible

Weld sample from 1820 – 1898 mm
Defect location from 1820 – 1886 mm

Root –ds
LCP-ds
Hot pass 1-ds
Hot pass 2-ds
Fill 1-ds
Fill 2-ds
Fill 3/Cap-ds

27.5% = 1.5 mm

Strip chart @ 0 dB
Strip chart @ -12 dB

Note: Weld sample did not break at defect.
Note: Defect 2 / down stream and defect 3 up stream interfere in TOFD display.
Appendix C
Weld # 2, wall thickness 14.3 mm, Defect # 3 Defect height max. 3.5 mm

Weld sample from 1898 – 1952 mm
Defect location from 1914 – 1936 mm

Root –us
LCP-us
Hot pass 1-us
Hot pass 2-us
Fill 1-us
Fill 2-us
Fill 3/Cap-us

Strip chart @ 0
dBStripchart @ -12 dB
Appendix D

Weld # 8, wall thickness 14.3 mm, Defect # 1  
Defect height not visible

TOFD image defect 1 / 2

Weld sample from 2630 – 2697 mm
Defect location from 2640 – 2697 mm

Root –us
LCP-us
Hot pass 1-us
Hot pass 2-us
Fill 1-us
Fill 2-us
Fill 3/Cap-us

Strip chart @ 0 dB  Stripchart @ -12 dB

No wrapping for -12 dB display @ bottom of chart

In weld # 8, defect 1 & 2 are the same defect in the center of the weld. Centerline shrinkage.

41.6% = 2.2 mm

Note: Weld sample did not break at the defect.
Appendix E
Weld # 8, wall thickness 14.3 mm, Defect # 2
Defect height max. 2.8 mm

Weld sample from 2700 – 2762 mm
Defect location from 2700 – 2750 mm

Strip chart @ 0 dB
Stripchart @ -12 dB

8.6 mm
11.4 mm

TOFD image of defect 1 / 2

In weld # 8, defect 1 & 2 are the same defect in the center of the weld.
Centerline shrinkage

Note: Weld sample broke in the center of the weld at the defect.
Appendix F-1
Weld # 8, wall thickness 14.3 mm, Defect # 3  Defect height max. 3.0 mm

Weld sample from 2160 – 2245 mm
Defect location from 2176 – 2245 mm

Note: Defect at 45 degree inclined area is measured 2 mm only.
Appendix F-2
Weld # 8, wall thickness 14.3 mm, Defect # 3
Defect height max. 4.3 mm

4.5 mm
8.8 mm

TOFD image defect 3

Weld sample from 2248 – 2336 mm
Defect location from 2248 – 2325 mm

Root –us
LCP-us
Hot pass 1-us
Hot pass 2-us
Fill 1-us
Fill 2-us
Fill 3/Cap-us

71.4% = 3.6 mm
68.2% = 3.3 mm

Strip chart @ 0 dB
Stripchart @ -12 dB
Appendix G

Weld # 8, wall thickness 14.3 mm, Defect # 4

Defect height max. 2.7 mm

| 5.6 mm | 8.3 mm |

TOFD image defect 4

Weld sample from 1670 – 1739 mm

Defect location from 1691 – 1724 mm

<table>
<thead>
<tr>
<th>Root –us</th>
<th>LCP-us</th>
<th>Hot pass 1-us</th>
<th>Hot pass 2-us</th>
<th>Fill 1-us</th>
<th>Fill 2-us</th>
<th>Fill 3/Cap-us</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>51.8% = 2.6 mm</td>
<td>47.5% = 2.4 mm</td>
<td></td>
</tr>
</tbody>
</table>

Strip chart @ 0 dB  Stripchart @ -12 dB
Appendix H-1
Weld # 8, wall thickness 14.3 mm, Defect # 5
Defect height max. 2.1 mm

Weld sample from 1100 – 1169 mm
Defect location from 1108 – 1169 mm

Strip chart @ 0 dB
Stripchart @ -12 dB

43.9% = 2.2 mm
Appendix H-2

Weld # 8, wall thickness 14.3 mm, Defect # 5

Defect height max. 2.3 mm

Weld sample from 1171 – 1239 mm

Defect location from 1171 – 1232 mm

TOFD image defect 5

Strip chart @ 0 dB

Stripchart @ -12 dB
Appendix J-1

Weld # 8, wall thickness 14.3 mm, Defect # 6

Defect height max. 3.4 mm

Weld sample from 283 – 358 mm

Defect location from 291 – 358 mm

Note: defect located in fill 1 and hot pass, total defect height is 3.2 mm (defect not in
Appendix J-2
Weld # 8, wall thickness 14.3 mm, Defect # 6
Defect height not visible

Weld didn’t break at the Fill 1 defect, but instead at a laminar defect in the Root area.

Note: Laminar defect in the root is visible in the raw data and in TOFD.
Appendix J-3
Weld # 8, wall thickness 14.3 mm, Defect # 6 
Defect height max. 2.7 mm

7.3 mm
10.0 mm

TOFD image defect 6

Weld sample from 434 – 501 mm
Defect location from 434 – 501 mm

Root –ds
LCP-ds
Hot pass 1-ds
Hot pass 2-ds
Fill 1-ds
Fill 2-ds
Fill 3/Cap-ds

Strip chart @ 0 dB 
Stripchart @ -12 dB

Note: defect located in fill 1 and hot pass, total defect height is 3.9 mm (defect not in
Appendix J-4
Weld # 8, wall thickness 14.3 mm, Defect # 6
Defect height max. 2.5 mm

Weld sample from 503 – 567 mm
Defect location from 503 – 542 mm

Note: defect located in fill 1 and hot pass, total defect height is 2.5 mm (defect not in