



**PRE-SHIPMENT INSPECTION AND TESTING CERTIFICATE/REPORT**

CONTRACT NO.	
L/C NO.	
NAME OF THE L/C ISSUING BANK WITH ADDRESS	
COMMERCIAL INVOICE NO.	
ULTIMATE CONSIGNEE	
SUPPLIER NAME	
SUPPLIER ADDRESS	
MANUFACTURER	PJSC INTERPIPE NIZHNEPNEPROVSKY TUBE ROLLING PLANT
MANUFACTURER ADDRESS	21, STOLETOV STR, Dnipro, Dnipropetrovsk region, 49081
DATE OF INSPECTION	December 26 & 27, 2019
PLACE OF INSPECTION	PJSC INTERPIPE NIZHNEPNEPROVSKY TUBE ROLLING PLANT
CARGO DESCRIPTION	Finished wheels Ø 790 mm
H.S CODE NO. OF THE GOODS	
BILL OF LADING NO.	
VESSEL NAME & VAYAGE NO.	
PORT OF LOADING	
PORT OF DISCHARGE	
COUNTRY OF ORIGIN	Ukraine

GOODS INSPECTED (SIZE: Finished wheels Ø 790 mm )	Q'TY ORDERED [WEIGHT (MT /NOS)]	AMOUNT (USD) [UNIT PRICE USD /NOS]	Q'TY INSPECTED [WEIGHT (MT / PCS)]	SAMPLED Q'TY
1. HEAT NO.195146 (lot 1972)	Appr. 36.720 MT* /120 NOS	USD	Appr. 36.720 MT MT*/ 120 NOS	1 NOS
* weight of all wheels is calculated according to theoretical weight				
TOTAL	Gross & Net Weight: Appr. 36.720 MT* Total Q'ty: 120 NOS	USD (FOB VALUE: USD )	Actual Weight: Total Q'ty: 120 NOS	1 NOS
VISUAL	<input checked="" type="checkbox"/> APPEARANCE <input checked="" type="checkbox"/> WORKMANSHIP <input checked="" type="checkbox"/> IDENTIFICATION <input checked="" type="checkbox"/> TAGGING <input checked="" type="checkbox"/> LABELLING <input checked="" type="checkbox"/> DIMENSIONS RESULTS/COMMENTS: Dimensions were checked for 4 NOS of wheels randomly taken from 120 NOS – with <u>acceptable result.</u>			

<p>QUANTITY</p>	<input checked="" type="checkbox"/> NUMBERS – Counted <u>120 NOS</u> RESULTS/COMMENTS: The total quantity was 120 NOS which complied with the P/I/ PL/CI requirements.  <input type="checkbox"/> WEIGHING - Witnessed <u>NOS</u> RESULTS/COMMENTS: Weight verification was not performed by the manufacturer.																																																																																																																																																																																																													
<p>QUALITY</p>	TESTING/ANALYSIS - <input type="checkbox"/> Witnessed <input checked="" type="checkbox"/> Reviewed RESULTS/COMMENTS: We have witnessed the testing of samples heat number 195146 (lot 1972), and found the results were acceptable including physical and chemical testing.																																																																																																																																																																																																													
<p>Geometric measurements</p>	<table border="1"> <tr> <td>Parameter/ Wheel No.</td> <td colspan="3">026</td> <td colspan="3">111</td> <td colspan="3">024</td> <td colspan="3">096</td> </tr> <tr> <td>Ø of hub bore (mm)</td> <td colspan="3">172,5</td> <td colspan="3">172,2</td> <td colspan="3">172,4</td> <td colspan="3">172,6</td> </tr> <tr> <td>Hub height (mm)</td> <td colspan="3">170,0</td> <td colspan="3">170,0</td> <td colspan="3">170,0</td> <td colspan="3">170,0</td> </tr> <tr> <td>Rim Width (mm)</td> <td>128,0</td> <td>128,0</td> <td>128,0</td> <td>127,9</td> <td>127,9</td> <td>127,9</td> <td>127,9</td> <td>127,9</td> <td>127,9</td> <td>127,9</td> <td>128,0</td> </tr> <tr> <td>Outside Ø of hub from outside (mm)</td> <td colspan="3">276,2</td> <td colspan="3">276,0</td> <td colspan="3">276,0</td> <td colspan="3">276,0</td> </tr> <tr> <td>Inside Ø of rim from outside (mm).</td> <td colspan="3">658,46</td> <td colspan="3">658,36</td> <td colspan="3">647,00</td> <td colspan="3">658,42</td> </tr> <tr> <td>Oil hole distance (mm)</td> <td colspan="3">86,0</td> <td colspan="3">86,0</td> <td colspan="3">86,0</td> <td colspan="3">86,0</td> </tr> <tr> <td>Thickness in the middle of the web (mm)</td> <td colspan="3">27,7</td> <td colspan="3">27,8</td> <td colspan="3">27,8</td> <td colspan="3">27,8</td> </tr> <tr> <td>Tread diameter (mm)</td> <td colspan="3">791,07</td> <td colspan="3">791,18</td> <td colspan="3">791,27</td> <td colspan="3">791,16</td> </tr> <tr> <td>Back rim from hub (mm)</td> <td colspan="3">3,52</td> <td colspan="3">3,46</td> <td colspan="3">3,54</td> <td colspan="3">3,47</td> </tr> <tr> <td>Inside Ø of rim from inside (mm).</td> <td colspan="3">663,20</td> <td colspan="3">663,06</td> <td colspan="3">663,17</td> <td colspan="3">663,21</td> </tr> <tr> <td>Outside diameter of hub from outside (mm) (at a depth of 100 mm)</td> <td colspan="3">276,2</td> <td colspan="3">276,0</td> <td colspan="3">275,5</td> <td colspan="3">276,2</td> </tr> <tr> <td>Profile Web from outside</td> <td colspan="3">OK</td> <td colspan="3">OK</td> <td colspan="3">OK</td> <td colspan="3">OK</td> </tr> <tr> <td>R 45°</td> <td colspan="3">OK</td> <td colspan="3">OK</td> <td colspan="3">OK</td> <td colspan="3">OK</td> </tr> <tr> <td>R 5°</td> <td colspan="3">OK</td> <td colspan="3">OK</td> <td colspan="3">OK</td> <td colspan="3">OK</td> </tr> </table>												Parameter/ Wheel No.	026			111			024			096			Ø of hub bore (mm)	172,5			172,2			172,4			172,6			Hub height (mm)	170,0			170,0			170,0			170,0			Rim Width (mm)	128,0	128,0	128,0	127,9	127,9	127,9	127,9	127,9	127,9	127,9	128,0	Outside Ø of hub from outside (mm)	276,2			276,0			276,0			276,0			Inside Ø of rim from outside (mm).	658,46			658,36			647,00			658,42			Oil hole distance (mm)	86,0			86,0			86,0			86,0			Thickness in the middle of the web (mm)	27,7			27,8			27,8			27,8			Tread diameter (mm)	791,07			791,18			791,27			791,16			Back rim from hub (mm)	3,52			3,46			3,54			3,47			Inside Ø of rim from inside (mm).	663,20			663,06			663,17			663,21			Outside diameter of hub from outside (mm) (at a depth of 100 mm)	276,2			276,0			275,5			276,2			Profile Web from outside	OK			OK			OK			OK			R 45°	OK			OK			OK			OK			R 5°	OK			OK			OK			OK		
Parameter/ Wheel No.	026			111			024			096																																																																																																																																																																																																				
Ø of hub bore (mm)	172,5			172,2			172,4			172,6																																																																																																																																																																																																				
Hub height (mm)	170,0			170,0			170,0			170,0																																																																																																																																																																																																				
Rim Width (mm)	128,0	128,0	128,0	127,9	127,9	127,9	127,9	127,9	127,9	127,9	128,0																																																																																																																																																																																																			
Outside Ø of hub from outside (mm)	276,2			276,0			276,0			276,0																																																																																																																																																																																																				
Inside Ø of rim from outside (mm).	658,46			658,36			647,00			658,42																																																																																																																																																																																																				
Oil hole distance (mm)	86,0			86,0			86,0			86,0																																																																																																																																																																																																				
Thickness in the middle of the web (mm)	27,7			27,8			27,8			27,8																																																																																																																																																																																																				
Tread diameter (mm)	791,07			791,18			791,27			791,16																																																																																																																																																																																																				
Back rim from hub (mm)	3,52			3,46			3,54			3,47																																																																																																																																																																																																				
Inside Ø of rim from inside (mm).	663,20			663,06			663,17			663,21																																																																																																																																																																																																				
Outside diameter of hub from outside (mm) (at a depth of 100 mm)	276,2			276,0			275,5			276,2																																																																																																																																																																																																				
Profile Web from outside	OK			OK			OK			OK																																																																																																																																																																																																				
R 45°	OK			OK			OK			OK																																																																																																																																																																																																				
R 5°	OK			OK			OK			OK																																																																																																																																																																																																				
<p>PACKING</p>	TOTAL NUMBERS OF PACKAGES: <u>20 PACKAGES (or 120 NOS)</u> PACKING INFORMATION: CASES : _____ ROLLS : _____ PALLETS : _____ BAGS : _____ CANS : _____ OTHERS : Cassettes <input checked="" type="checkbox"/> PACKING CONDITION / ANTI-RUST / DRYING – Inspected RESULTS/COMMENTS: All wheels were packed well into the cassettes, and no damage was found. All wheels rims were supplied with anti-rust coating. All the packed cassettes were wrapped with polyethylene film for atmospheric protection. REQUIREMENT OF PACKING METHOD: <input type="checkbox"/> YES (SPECIFY DETAILS / RESULTS / COMMENTS) <input checked="" type="checkbox"/> NO																																																																																																																																																																																																													

MARKING	<input type="checkbox"/> SHIPPING MARKS - Inspected and recorded RESULTS/COMMENTS: <u>Standard marking on the product was checked by the inspector, and the information was found correct.</u> BUYER'S REQUIREMENT FOR MARKING: <input type="checkbox"/> YES (SPECIFY DETAILS / RESULTS / COMMENTS) <input checked="" type="checkbox"/> NO	
DOCUMENTS USED	<input type="checkbox"/> L/C <input checked="" type="checkbox"/> MILL TEST CERTIFICATE <input type="checkbox"/> PACKING LIST	<input type="checkbox"/> CATALOGUES <input checked="" type="checkbox"/> DRAWING <input checked="" type="checkbox"/> STANDARDS / SPEC.
PHOTOGRAPHS	<input checked="" type="checkbox"/> TAKEN	
<b>RESULTS OF INSPECTION:</b>  <input checked="" type="checkbox"/> <b>SATISFACTORY</b> <input type="checkbox"/> <b>REJECTED</b> <input type="checkbox"/> <b>CONDITIONAL</b>  From the results of our inspection and testing conducted, we hereby certify that the consignment met the contractual requirements. However, the final acceptance of the products shall be depended on satisfactory performance by Bangladesh Railway as per contractual requirements.  This inspection has been performed and the certificate issued to the best of our knowledge and ability at the time and place of inspection but without prejudice or acceptance of liability and without releasing suppliers and/or shippers and/or other parties involved from their contractual obligations.  <b>ATTACHMENT:</b> <input checked="" type="checkbox"/> CERTIFICATE <input checked="" type="checkbox"/> TEST REPORT <input checked="" type="checkbox"/> MD / SD <input checked="" type="checkbox"/> ANALYSIS REPORT <input type="checkbox"/> PACKING LIST <input type="checkbox"/> WEIGHT LIST <input checked="" type="checkbox"/> PHOTO <input type="checkbox"/> ATTACHED SHEET		
INSPECTOR : Voskoboinikov V. V. DATE : 28.12.2019 SIGNED : 		REVIEWED BY : DATE : SIGNED :

**Inspection Description**

**1.1 Quantity check**

Inspector checked the quantity at the manufacture's workshop according to the certificate No 2943 dated 27.12.2019, all goods were finished and packed well; the details were found acceptable as following:

ITEM	DESCRIPTION	HEAT NO.	NO. OF PCS	NO. OF PACKAGES	RESULTS
1	Finished wheels Ø 790 mm	195146	120	20	Accepted
		TOTAL	120	20	Accepted

**1.2 Visual inspection**

The inspector performed visual inspection for 120 NOS (20 PACKAGES). The appearance and workmanship of the goods were satisfactory.

**1.3 Packing inspection**

The inspector performed packing inspection for the products.

**1.4 Marking inspection**

Marks on the product were checked by the inspector.

Hard stamp on well: Wheel No, logo "KLW", date production (month, year), heat No.

Special paper sticker: Date of acceptance, heat No, wheel No, cassette No, HB, QR code.

**1.5 Weight Check & Quality check**

No weight verification performed by manufacturer and inspector.

**1.6 Document review**

During this inspection, manufacturer submitted the following documents for inspector's review:

- a. Mill Test Certificate
- b. Technical Specification
- c. Drawing
- d. Verification/Calibration Certificates
- e. Quality records (Ultrasonic reference standard, chemical analysis, mechanical tests, microstructure tests, geometric measurements)

All the documents were reviewed with satisfactory results.

**PRE-SHIPMENT INSPECTION AND TESTING CERTIFICATE / REPORT - PHOTOS**



Photo 1. Logbook for ultrasonic test unit calibration

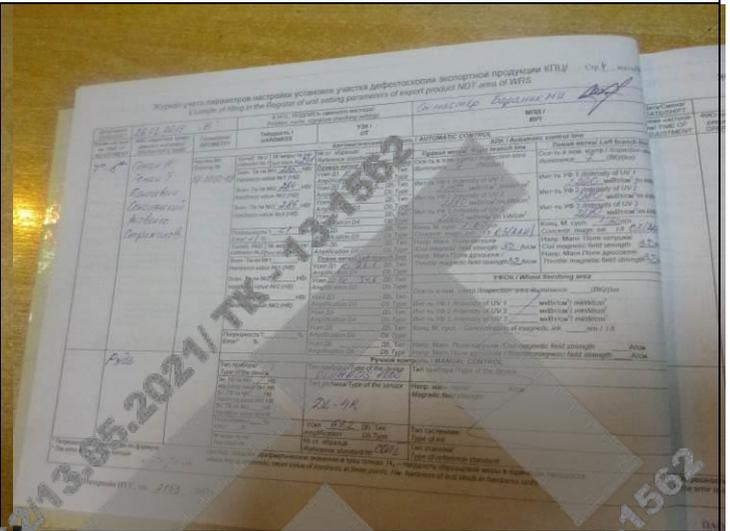


Photo 2. Quality records for ultrasonic test unit calibration

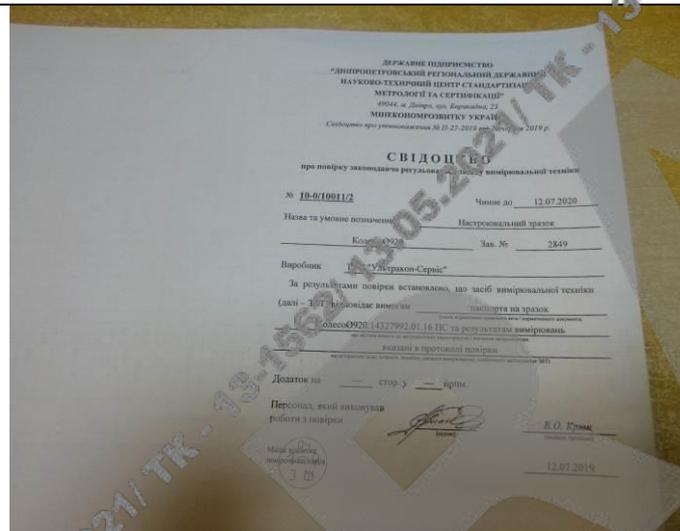


Photo 3. Quality records for ultrasonic test unit calibration

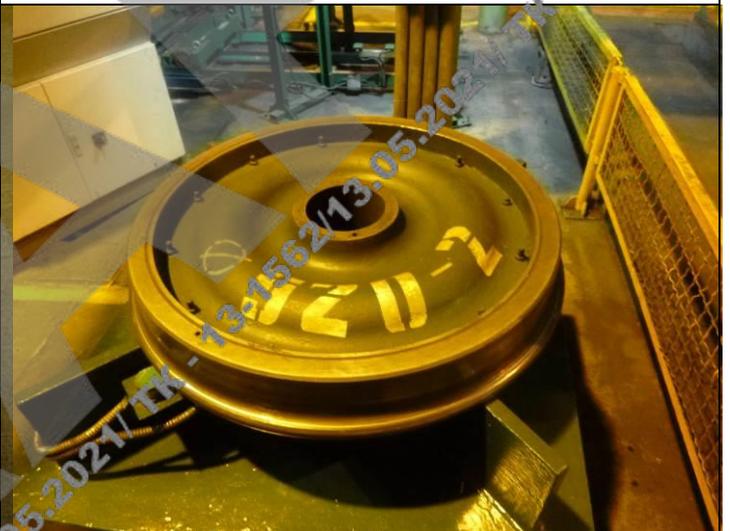


Photo 4. Ultrasonic reference standard

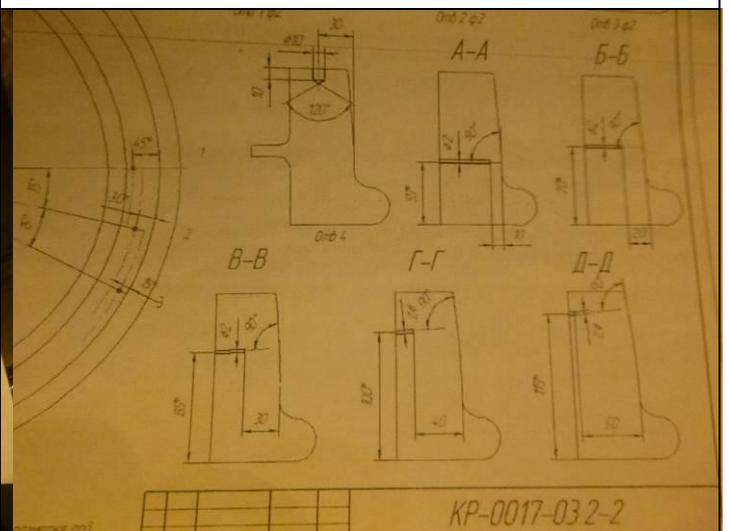


Photo 5 Drawing of ultrasonic test reference standard



Photo 6 Drawing of ultrasonic test reference standard



Photo 7 QC inspection records (quality control sheet)

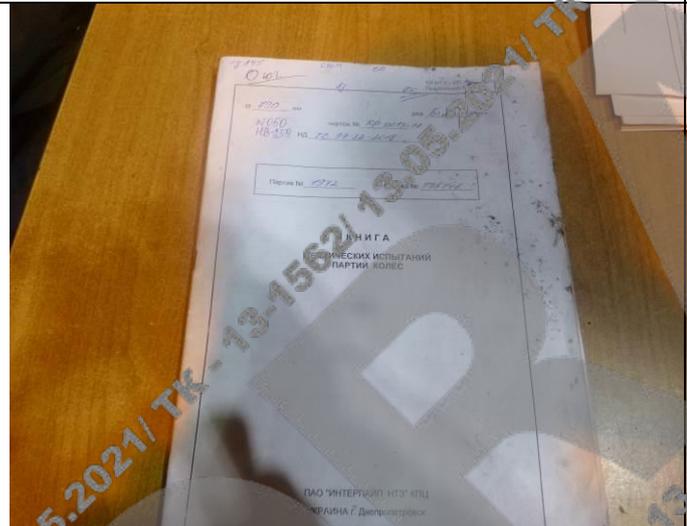


Photo 8 Wheels drawing

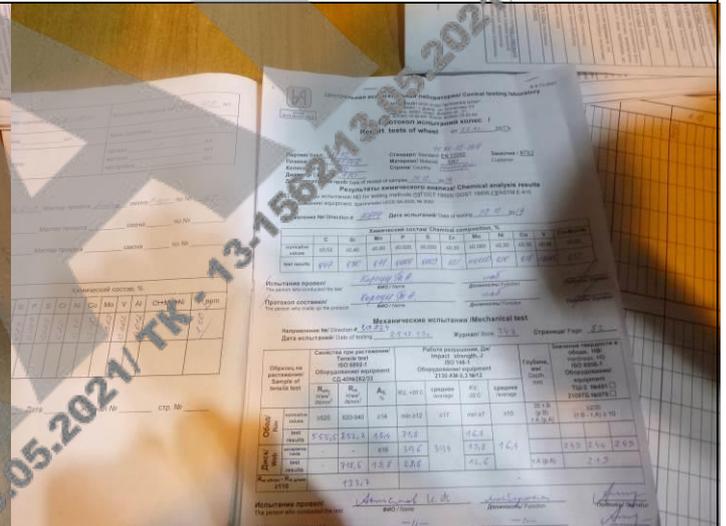


Photo 9 Logbook of technical tests

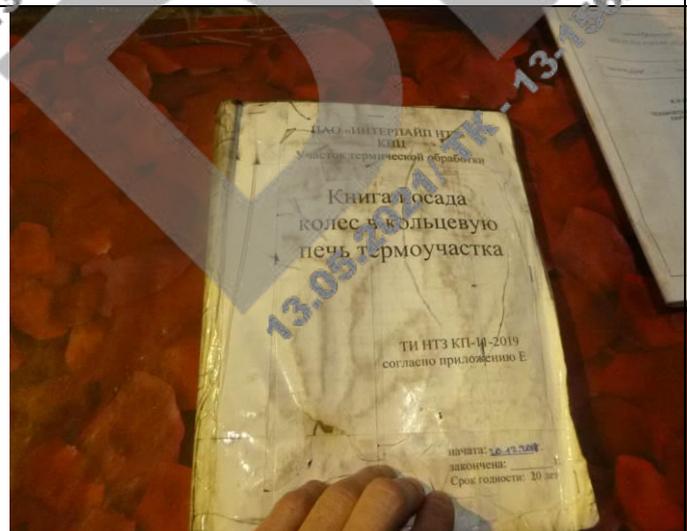


Photo 10 Logbook of technical tests



Photo 11 Heat treatment logbook

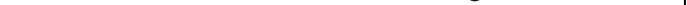


Photo 12 Heat treatment logbook

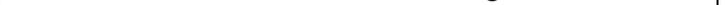




Photo 13 Laboratory mechanical tests logbook



Photo 14 Laboratory mechanical tests logbook



Photo 15 Tensile testing machine



Photo 16 Tensile testing machine



Photo 17 Impact test machine



Photo 18 Impact test machine



Photo 19 Hardness testing machine



Photo 20 Hardness testing machine



Photo 21 Laboratory microstructure tests logbook



Photo 22 Sample after testing (microstructure)



Photo 23 Laboratory chemical tests logbook



Photo 24 Laboratory chemical tests protocol



Photo 25 Die stamp marking



Photo 25 Oiler thread check



Photo 27 Diameter of hub bore



Photo 28 Hub height



Photo 29 Hub height



Photo 30 Rim Width



Photo 31 Inside diameter of rim from inside



Photo 32 Profile Web from outside



Photo 33 Outside diameter of hub from inside



Photo 34 Inside diameter of rim from outside

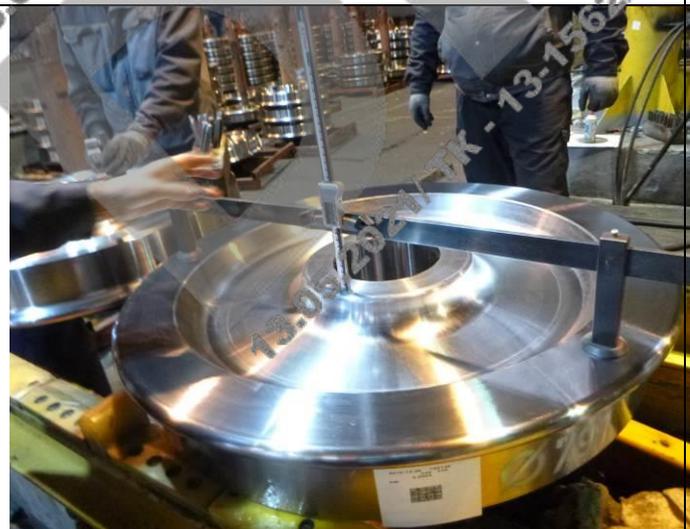


Photo 35 Back rim from hub



Photo 36 Tread diameter



Photo 37 Web thickness measurement



Photo 38 Ultrasonic verification of thickness



Photo 39 Die stamp marking



Photo 40 Die stamp marking



Photo 41 Wheel turn-over device

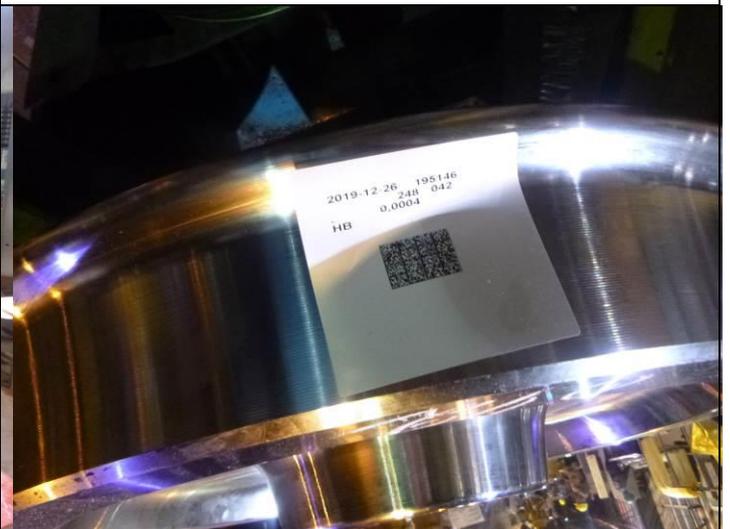


Photo 42 Identification tag



Photo 43 Wheels prepared for shipment



Photo 44 Wheels prepared for shipment



Photo 45 Wheels packing



Photo 46 Identification tag



Photo 47 Wheels packing



Photo 48 Identification tag



Photo 49 Wheels packing



Photo 50 Identification tag



Photo 51 Wheel packing



Photo 52 Identification tag



Photo 53 Wheel packing



Photo 54 Identification tag