



Inspection Order No. : IN-TJ-5301-10035  
Boss No. : 1024566  
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Date of issue: May.24, 2010

### INSPECTION REPORT

- **Description and Quantity of Commodity:** OCTG SEAMLESS API 5-CT K55 PERFORATED, RANGE 3 BTC/109pcs

- **Name & Address Of Buyer:** Hebei Abter Steel Pipe Co.,Ltd

- **Name & Address Of Seller:**

- **Inspection Date & Place:** Apr.19 & May.13-14, 2010 in Dagang District, Tianjin

- **Contract No.:** BC10-031505 Dated: Mar.16, 2010

- **Nature Of Inspection:**

1. Quantity check by piece;
2. Visual quality check randomly;
3. Packing and marking check randomly;
4. Dimension check randomly;
5. Witness ovality test randomly;
6. Witness thread test randomly;
7. Check the perforated casing randomly;
8. Document review for MTC;

- **Inspector:** Ryan Guo & Eric Wu

This is to report that we, SGS-CSTC Tianjin Co., Ltd. on Apr.19 & May.13-14, 2010 at the request of Metals International Limited conducted the following inspection:

#### Identification:

The follow casing pipes were presented for inspection:

OCTG SEAMLESS API 5-CT K55 PERFORATED, RANGE 3 BTC 109pcs



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**Inspection Finding:**

1. Quantity check by pieces:

Quantity of pipe was checked by pieces and the result 109pcs.

2. Visual quality inspection randomly: (sample size: ANSI/ASQ, Z1.4-2008, L-II, 20pcs totally)

Visual quality check was performed randomly and found the casing and coupling was painted protection coating and the pipe end was protected by thread protector. No other obvious deviation was found during inspection.

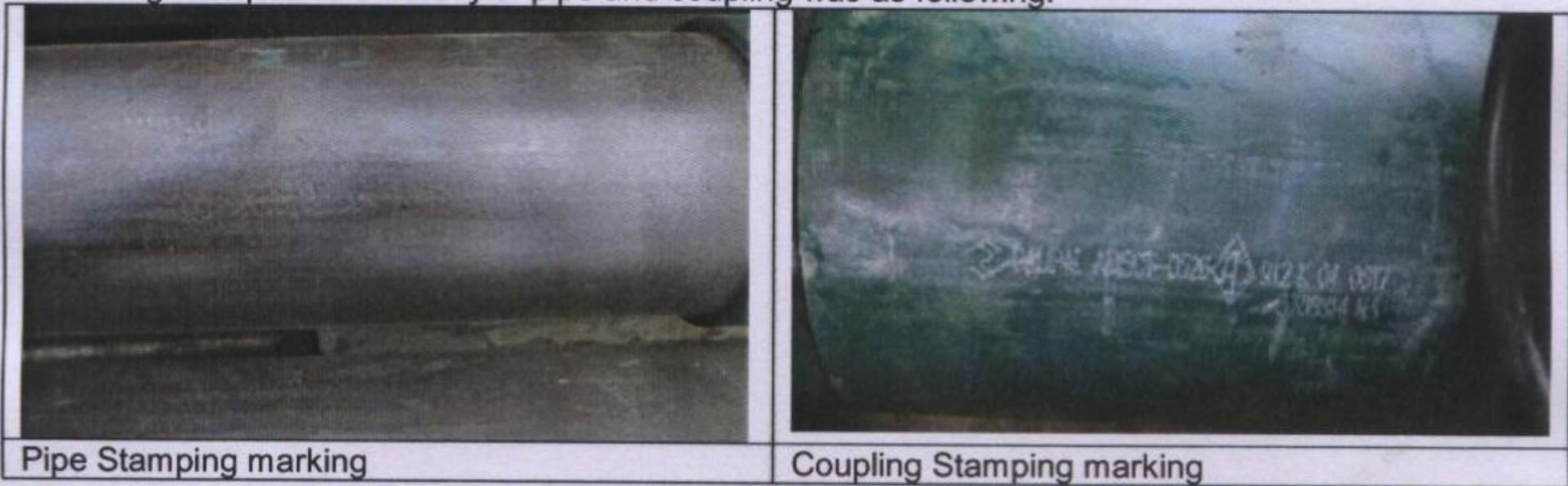
3. Packing and marking check randomly: (sample size: ANSI/ASQ, Z1.4-2008, L-II, 20pcs totally)

3.1 Packing check randomly:

Packing check was performed by SGS inspector and found the pipes were nude packing. The end of pipe was protected by thread protector.

3.2 Marking check randomly:

- Marking stamped on the body of pipe and coupling was as following:



Remark: The marking stamped on the body of pipe and coupling was too vague to see clearly.

- Marking painted on the body of pipes as following:

\*\* (Manufactory's logo)

\*\* (API logo) 003 7 23.00PPF K S P27.5 BS D \*\* (pipe no.)

\*\* (length) \*\* (weight) 3100819 BC10-031505



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Color identification and make-up triangle marking was checked according to API 5CT and the result was as following:



4. Dimension check randomly: (sample size: ANSI/ASQ, Z1.4-2008, L-II, 20pcs totally)

Total 20pcs of pipes were randomly selected for dimension check and the actual finding was as following:

Size:		Outer diameter	Wall thickness	Unit (mm)
				Length
7"	Require value	177.8(+1%D/-0.5%D)	8.05 (-12.5%)	11370~11730
	Actual value	178.8~179.1	7.30~8.35	11270~11709

Applied standard: API 5CT-2005 for OT & WT

Result: Actual value of dimension OT & WT was found to meet required value. As no tolerance of length was specified in standard, so the actual value of length was just for client reference.

5. Witness ovality test randomly: (sample size: ANSI/ASQ, Z1.4-2008, L-II, 20pcs totally)

During our inspection, 20pcs of pipes was randomly performed ovality test by check dimension of outer diameter. As no requirement was specified in API 5CT-2005, so the actual finding was subject to client evaluation.

6. Witness thread test randomly: (sample size: ANSI/ASQ, Z1.4-2008, L-II, 20pcs totally)

During the inspection, the thread check randomly had been performed, according to standard API 5B requirement and witnessed by SGS inspector. The thread taper gauge, lead gauge, thread height gauge were used and check method compliance with the standard. The details were as following:

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Size		Deviation of lead	Deviation of thread height	Taper	Standoff
7"	Require value	+/-0.0508 mm	1.57+/-0.0254mm	0.0625 in/in +0.0035/-0.0015	+1/2 P/-0
	Actual value	-0.01~0 mm	-0.01~+0.01mm	0.0620-0.0635 in	1.3~2.4 mm

Applied standard: API 5CT and API 5B

Result: The actual values had been found in compliance with the required values.

7. Perforated hole on casing check randomly: (sample size: ANSI/ASQ, Z1.4-2008, L-II, 20pcs totally)

Perforated hole on casing was check randomly according to the drawing offered by manufacturer. The details of the dimensions were as below:

The means of the symbol:

L1: the distance between the coupling and holes	L2: the length of holes
L3: the centre distance of two holes	Ø d: the diameter of the holes
n: quantity of holes	

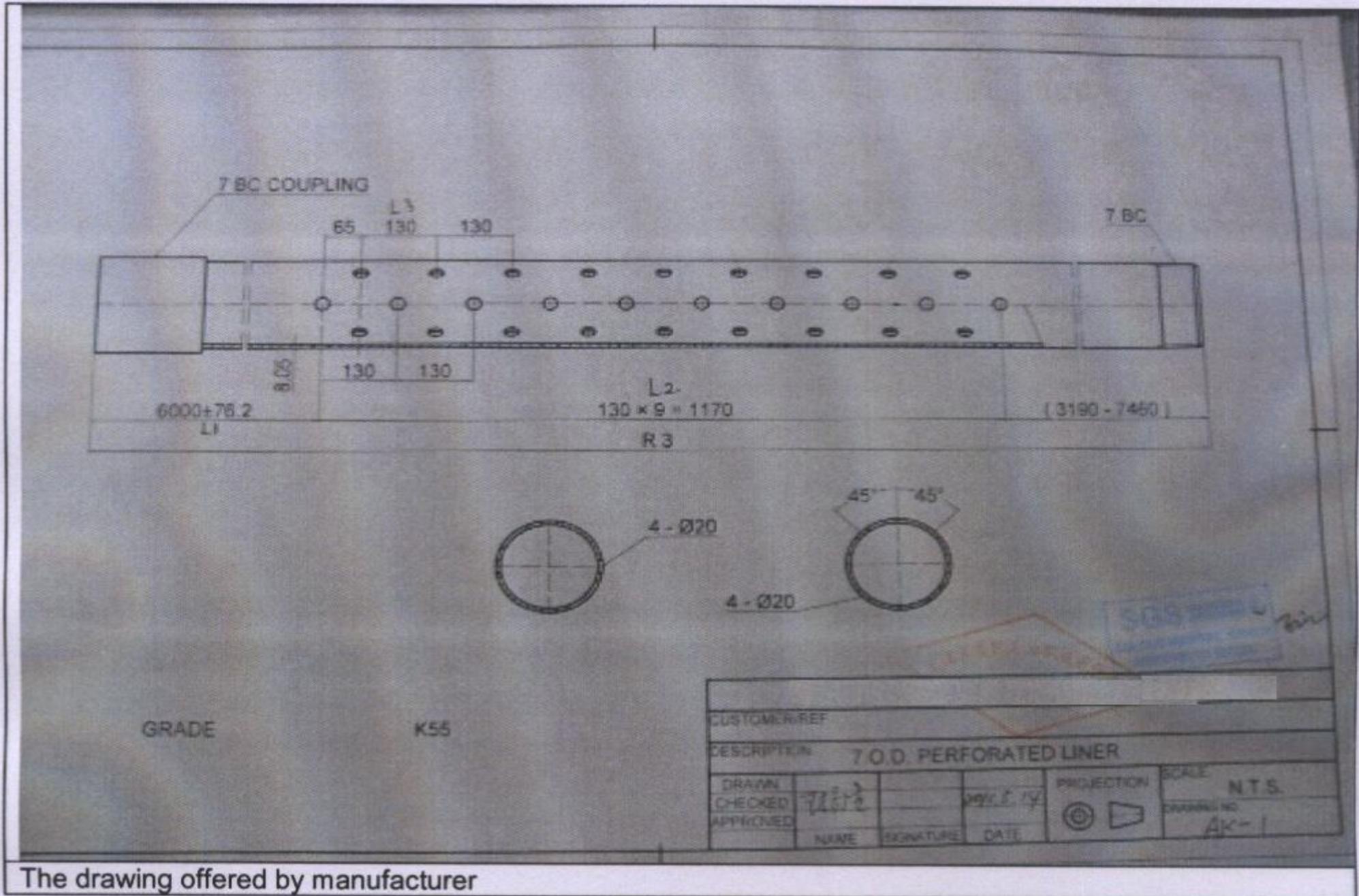
	L1	L2	L3	Unit (mm)
Require value	=6000	1170	130	n× Ød
Actual value	6005~6055	1162~1170	127.0~131.0	76×Ø 20.0~20.3

Note: The required values were according to the drawing offered by manufacturer and the actual values were just for reference.



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The drawing offered by manufacturer

8. Document review for MTC:

Mill Test Certificate (No.: 10-04-018, 10-04-019 Dated: Apr.06) was provided by manufacturer and indicated that the heat number of 109pcs of seamless pipes was 3100819 & 3708814. The mechanical properties including tensile, yield, elongation, impact test & chemical composition including C, Si, Mn, P, S, Cr, Ni, V, Cu, Mo is compliance with the required value of API SPEC 5CT (8<sup>th</sup>). The result of E.M.I. of N.D.E., threads inspection, hydrostatic test, drift test, visual & dimension inspection was OK.

9. Equipment calibration record:

Internal equipment:

Name	Equipment No.	Model/ specification	Calibrated effectively period
tape measure	IN-TJ-77	0-15000mm	2009.11.19-2010.11.18



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10. Referred photos:



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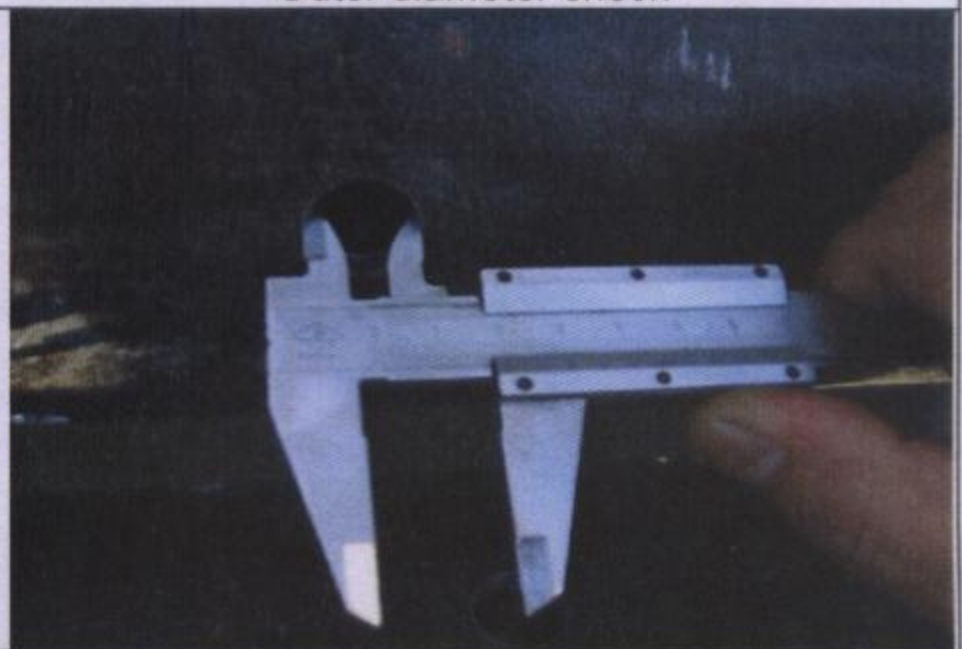
Length check



Outer diameter check



Wall thickness check



the diameter of the holes



Dimension of holes

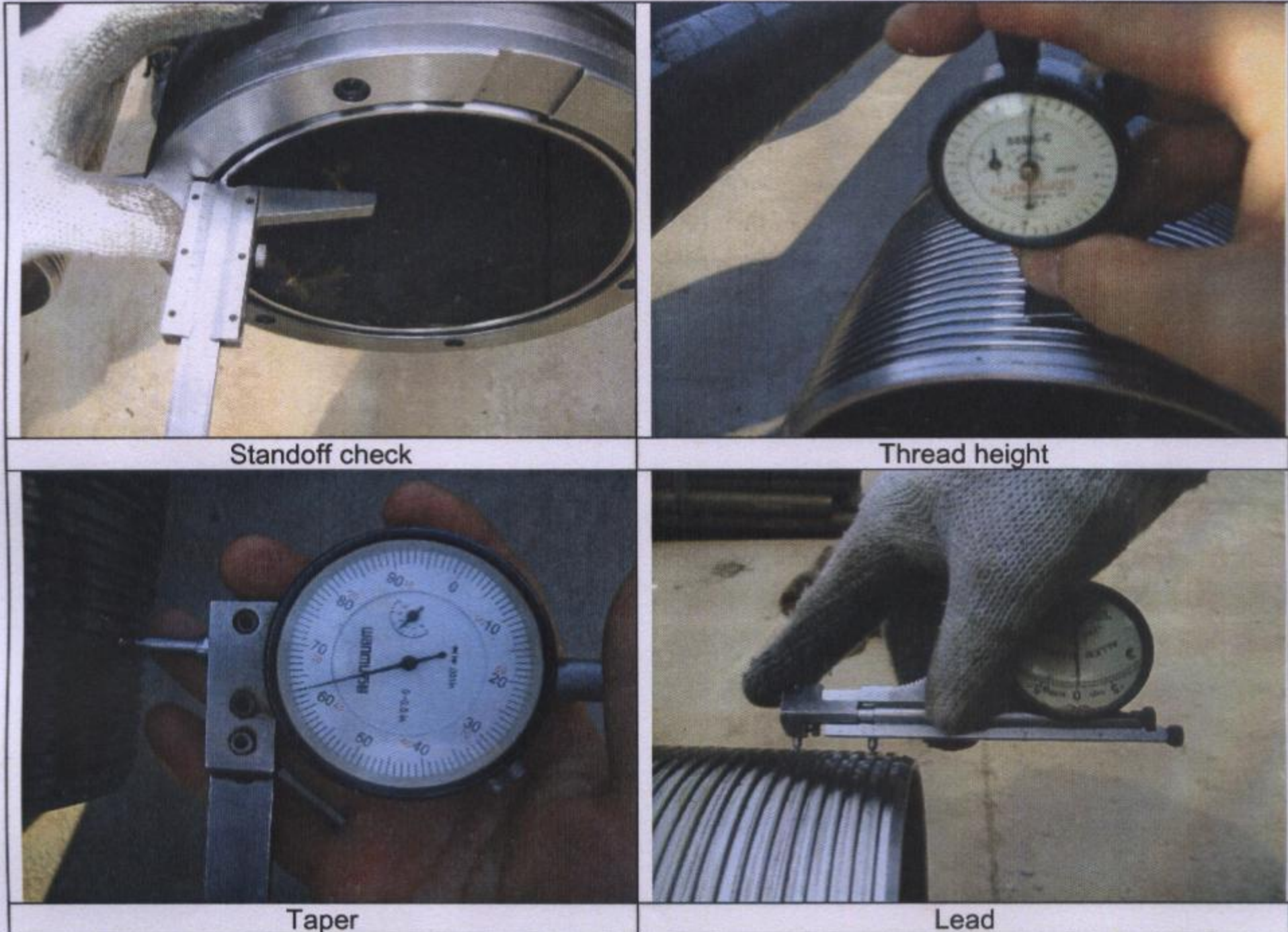


Dimension check for hole distance

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FOR AND ON BEHALF OF  
SGS-CSTC STANDARDS  
TECHNICAL SERVICES CO., LTD.

  
AUTHORIZED SIGNATURE



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