TEST REPORT

SGS Report No.	IN-CZ-5821-240161-01								
SGS Order No.	SHP24-041050		7						
	Contact Person	Tao So	ng						
SGS Contact Information (Coordinator Information)	Telephone	+86 13	404267822						
	Email	Tao.song@sgs.com							
Client									
	Contact Person		7						
Client Contact Information	Telephone								
	Email	1							
Object Tested	Aluminum Forging Ring								
Testing Location									
Testing Items	Results (Acceptable / Rej	ected/ P	ending)						
UT	Acceptable								
Date of Testing	Dec.22~Dec.27, 2024 Inspector Rambo Tian								

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Abnormal Items and Outstanding Issues

N/A

Reference Documents

ASTM B594-19 Standard Practice for Ultrasonic Inspection of Aluminum-Alloy Wrought Products¹

Testing Narrative Summation

At the request of

SGS inspector visited on Dec.22~Dec.27, 2024 to carry out UT to Aluminum Forging Ring.

List of test samples:

	•		•
Material No	Specification(mm)	QTY.	Testing Method
7075-T7352	OD1300*ID1200*H185	19 pcs	UT
7075-T7352	OD580*ID310*H60	29 pcs	UT
7075-T7352	OD470*ID230*H70	10 pcs	UT
7075-T7352	OD670*ID395*H100	20 pcs	UT
7075-T7352	OD1000*ID930*H120	25 pcs	UT
7075-T7352	OD690*ID385*H180	27 pcs	UT
7075-T7352	OD480*ID375*H70	30 pcs	UT
7075-T7352	OD530*ID315*H60	28 pcs	UT
7075-T7352	OD250*H185	70 pcs	UT

Ultrasonic Testing

UT has been performed to 258 pieces of luminum Forging Rings based on the requirement of the client and testing standard ASTM B594-19, no defect which goes beyond the limit of Class A of the acceptance criteria ASTM B594-

19 has been found during this testing, the result is acceptable.

Sample Name	Aluminum Forging Ring	Product Specification	See Below Table
Material and Mark	7075-T7352	Product or Lot No.	See Below Table
Instrument Type /No.	EPOCH 650 / CZNDT-117	Testing Time	Designated by the client
Probe Type	B2S, MB2S, MSEB4	Testing Quantity	258 pcs
Block	7075-Т6/Ф1.2mm	Area Tested	100% Whole
Couplant	Couplant Oil		Clean

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Scanning Method	100% scanning	Transfer Correction	2dB
Testing Standard	ASTM B594-19	Testing Sensitivity	DAC: Φ1.2mm-80% Bottom wave calculation method: Φ1.2mm-80%
Acceptance Criteria	ASTM B594-19 Class A	Testing Temperature	13℃

No.	Sample No.	W.T.	Defect	Equivalent	Maximum area	Length		Defect sition(r		Result	Remark
NO.	Запріє №.	(mm)	No.	Size	(mm ²)	(mm)	Х	Υ	Н	Result	Remark
1.	OD1300*ID1200*H185-1	185/50								Acc.	
2.	OD1300*ID1200*H185-2	185/50								Acc.	
3.	OD1300*ID1200*H185-3	185/50								Acc.	
4.	OD1300*ID1200*H185-4	185/50								Acc.	
5.	OD1300*ID1200*H185-5	185/50								Acc.	
6.	OD1300*ID1200*H185-6	185/50								Acc.	
7.	OD1300*ID1200*H185-7	185/50								Acc.	
8.	OD1300*ID1200*H185-8	185/50								Acc.	
9.	OD1300*ID1200*H185-9	185/50								Acc.	
10.	OD1300*ID1200*H185-10	185/50								Acc.	
11.	OD1300*ID1200*H185-11	185/50								Acc.	
12.	OD1300*ID1200*H185-12	185/50								Acc.	
13.	OD1300*ID1200*H185-13	185/50								Acc.	
14.	OD1300*ID1200*H185-14	185/50								Acc.	
15.	OD1300*ID1200*H185-15	185/50								Acc.	
16.	OD1300*ID1200*H185-16	185/50								Acc.	
17.	OD1300*ID1200*H185-17	185/50								Acc.	
18.	OD1300*ID1200*H185-18	185/50								Acc.	

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NI-	Committee No.	W.T.	Defect	Equivalent	Maximum area	Length		Defect		Danulk	Damanda
No.	Sample No.	(mm)	No.	Size	(mm ²)	(mm)	Х	Υ	H	Result	Remark
19.	OD1300*ID1200*H185-19	185/50								Acc.	
20.	OD580*ID310*H60-1	60/135								Acc.	
21.	OD580*ID310*H60-2	60/135								Acc.	
22.	OD580*ID310*H60-3	60/135								Acc.	
23.	OD580*ID310*H60-4	60/135								Acc.	
24.	OD580*ID310*H60-5	60/135								Acc.	
25.	OD580*ID310*H60-6	60/135								Acc.	
26.	OD580*ID310*H60-7	60/135								Acc.	
27.	OD580*ID310*H60-8	60/135								Acc.	
28.	OD580*ID310*H60-9	60/135								Acc.	
29.	OD580*ID310*H60-10	60/135								Acc.	
30.	OD580*ID310*H60-11	60/135								Acc.	
31.	OD580*ID310*H60-12	60/135								Acc.	
32.	OD580*ID310*H60-13	60/135								Acc.	
33.	OD580*ID310*H60-14	60/135								Acc.	
34.	OD580*ID310*H60-15	60/135								Acc.	
35.	OD580*ID310*H60-16	60/135								Acc.	
36.	OD580*ID310*H60-17	60/135								Acc.	
37.	OD580*ID310*H60-18	60/135								Acc.	
38.	OD580*ID310*H60-19	60/135								Acc.	
39.	OD580*ID310*H60-20	60/135								Acc.	
40.	OD580*ID310*H60-21	60/135								Acc.	

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No.	Sample No.	W.T.	Defect	Equivalent	Maximum area	Length		Defect sition(r		Result	Remark
140.	Gample No.	(mm)	No.	Size	(mm ²)	(mm)	Х	Υ	Н	rtesuit	Remark
41.	OD580*ID310*H60-22	60/135								Acc.	
42.	OD580*ID310*H60-23	60/135								Acc.	
43.	OD580*ID310*H60-24	60/135								Acc.	
44.	OD580*ID310*H60-25	60/135								Acc.	
45.	OD580*ID310*H60-26	60/135								Acc.	
46.	OD580*ID310*H60-27	60/135								Acc.	
47.	OD580*ID310*H60-28	60/135								Acc.	
48.	OD580*ID310*H60-29	60/135								Acc.	
49.	OD470*ID230*H70-1	70/120								Acc.	
50.	OD470*ID230*H70-2	70/120								Acc.	
51.	OD470*ID230*H70-3	70/120								Acc.	
52.	OD470*ID230*H70-4	70/120								Acc.	
53.	OD470*ID230*H70-5	70/120								Acc.	
54.	OD470*ID230*H70-6	70/120								Acc.	
55.	OD470*ID230*H70-7	70/120								Acc.	
56.	OD470*ID230*H70-8	70/120								Acc.	
57.	OD470*ID230*H70-9	70/120								Acc.	
58.	OD470*ID230*H70-10	70/120								Acc.	
59.	OD670*ID395*H100-1	100/137								Acc.	
60.	OD670*ID395*H100-2	100/137								Acc.	
61.	OD670*ID395*H100-3	100/137								Acc.	
62.	OD670*ID395*H100-4	100/137								Acc.	

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N	O constantin	W.T.	Defect	Equivalent	Maximum area	Length		Defect		D !t	Dominal
No.	Sample No.	(mm)	No.	Size	(mm ²)	(mm)	Х	Y	H	Result	Remark
63.	OD670*ID395*H100-5	100/137								Acc.	
64.	OD670*ID395*H100-6	100/137								Acc.	
65.	OD670*ID395*H100-7	100/137								Acc.	
66.	OD670*ID395*H100-8	100/137								Acc.	
67.	OD670*ID395*H100-9	100/137								Acc.	
68.	OD670*ID395*H100-10	100/137								Acc.	
69.	OD670*ID395*H100-11	100/137								Acc.	
70.	OD670*ID395*H100-12	100/137								Acc.	
71.	OD670*ID395*H100-13	100/137								Acc.	
72.	OD670*ID395*H100-14	100/137								Acc.	
73.	OD670*ID395*H100-15	100/137								Acc.	
74.	OD670*ID395*H100-16	100/137								Acc.	
75.	OD670*ID395*H100-17	100/137								Acc.	
76.	OD670*ID395*H100-18	100/137								Acc.	
77.	OD670*ID395*H100-19	100/137								Acc.	
78.	OD670*ID395*H100-20	100								Acc.	
79.	OD1000*ID930*H120-1	120/35								Acc.	
80.	OD1000*ID930*H120-2	120/35								Acc.	
81.	OD1000*ID930*H120-3	120/35								Acc.	
82.	OD1000*ID930*H120-4	120/35								Acc.	
83.	OD1000*ID930*H120-5	120/35								Acc.	
84.	OD1000*ID930*H120-6	120/35								Acc.	

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N	Quarte No.	W.T.	Defect	Equivalent	Maximum	Length		Defect		D !t	Damarda
No.	Sample No.	(mm)	No.	Size	area (mm ²)	(mm)	Х	Y	Н	Result	Remark
85.	OD1000*ID930*H120-7	120/35								Acc.	
86.	OD1000*ID930*H120-8	120/35								Acc.	
87.	OD1000*ID930*H120-9	120/35								Acc.	
88.	OD1000*ID930*H120-10	120/35								Acc.	
89.	OD1000*ID930*H120-11	120/35								Acc.	
90.	OD1000*ID930*H120-12	120/35								Acc.	
91.	OD1000*ID930*H120-13	120/35								Acc.	
92.	OD1000*ID930*H120-14	120/35								Acc.	
93.	OD1000*ID930*H120-15	120/35								Acc.	
94.	OD1000*ID930*H120-16	120/35								Acc.	
95.	OD1000*ID930*H120-17	120/35								Acc.	
96.	OD1000*ID930*H120-18	120/35								Acc.	
97.	OD1000*ID930*H120-19	120/35								Acc.	
98.	OD1000*ID930*H120-20	120/35								Acc.	
99.	OD1000*ID930*H120-21	120/35								Acc.	
100.	OD1000*ID930*H120-22	120/35								Acc.	
101.	OD1000*ID930*H120-23	120/35								Acc.	
102.	OD1000*ID930*H120-24	120/35								Acc.	
103.	OD1000*ID930*H120-25	120/35								Acc.	
104.	OD690*ID385*H180-1	180/152								Acc.	
105.	OD690*ID385*H180-2	180/152								Acc.	
106.	OD690*ID385*H180-3	180/152								Acc.	

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No	Comple No.	W.T.	Defect	Equivalent	Maximum area	Length		Defects		Decult	Domoric
No.	Sample No.	(mm)	No.	Size	(mm ²)	(mm)	Х	Υ	H	Result	Remark
107.	OD690*ID385*H180-4	180/152								Acc.	
108.	OD690*ID385*H180-5	180/152								Acc.	
109.	OD690*ID385*H180-6	180/152								Acc.	
110.	OD690*ID385*H180-7	180/152								Acc.	
111.	OD690*ID385*H180-8	180/152								Acc.	
112.	OD690*ID385*H180-9	180/152								Acc.	
113.	OD690*ID385*H180-10	180/152								Acc.	
114.	OD690*ID385*H180-11	180/152								Acc.	
115.	OD690*ID385*H180-12	180/152								Acc.	
116.	OD690*ID385*H180-13	180/152								Acc.	
117.	OD690*ID385*H180-14	180/152								Acc.	
118.	OD690*ID385*H180-15	180/152								Acc.	
119.	OD690*ID385*H180-16	180/152								Acc.	
120.	OD690*ID385*H180-17	180/152								Acc.	
121.	OD690*ID385*H180-18	180/152								Acc.	
122.	OD690*ID385*H180-19	180/152								Acc.	
123.	OD690*ID385*H180-20	180/152								Acc.	
124.	OD690*ID385*H180-21	180/152								Acc.	
125.	OD690*ID385*H180-22	180/152								Acc.	
126.	OD690*ID385*H180-23	180/152								Acc.	
127.	OD690*ID385*H180-24	180/152								Acc.	
128.	OD690*ID385*H180-25	180/152								Acc.	

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		W.T.	Defect	Equivalent	Maximum	Length		Defects			
No.	Sample No.	(mm)	No.	Size	area (mm ²)	(mm)	Х	Υ	Н	Result	Remark
129.	OD690*ID385*H180-26	180/152								Acc.	
130.	OD690*ID385*H180-27	180/152								Acc.	
131.	OD480*ID375*H70-1	70/52								Acc.	
132.	OD480*ID375*H70-2	70/52								Acc.	
133.	OD480*ID375*H70-3	70/52								Acc.	
134.	OD480*ID375*H70-4	70/52								Acc.	
135.	OD480*ID375*H70-5	70/52								Acc.	
136.	OD480*ID375*H70-6	70/52								Acc.	
137.	OD480*ID375*H70-7	70/52								Acc.	
138.	OD480*ID375*H70-8	70/52								Acc.	
139.	OD480*ID375*H70-9	70/52								Acc.	
140.	OD480*ID375*H70-10	70/52								Acc.	
141.	OD480*ID375*H70-11	70/52								Acc.	
142.	OD480*ID375*H70-12	70/52								Acc.	
143.	OD480*ID375*H70-13	70/52								Acc.	
144.	OD480*ID375*H70-14	70/52								Acc.	
145.	OD480*ID375*H70-15	70/52								Acc.	
146.	OD480*ID375*H70-16	70/52								Acc.	
147.	OD480*ID375*H70-17	70/52								Acc.	
148.	OD480*ID375*H70-18	70/52								Acc.	
149.	OD480*ID375*H70-19	70/52								Acc.	
150.	OD480*ID375*H70-20	70/52								Acc.	

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No.	Sample No.	W.T.	Defect	Equivalent	Maximum area	Length		Defect sition(r		Result	Remark
NO.	Sample No.	(mm)	No.	Size	(mm ²)	(mm)	Х	Υ	Н	Result	Remark
151.	OD480*ID375*H70-21	70/52								Acc.	
152.	OD480*ID375*H70-22	70/52								Acc.	
153.	OD480*ID375*H70-23	70/52								Acc.	
154.	OD480*ID375*H70-24	70/52								Acc.	
155.	OD480*ID375*H70-25	70/52								Acc.	-
156.	OD480*ID375*H70-26	70/52								Acc.	-
157.	OD480*ID375*H70-27	70/52								Acc.	
158.	OD480*ID375*H70-28	70/52								Acc.	
159.	OD480*ID375*H70-29	70/52								Acc.	-
160.	OD480*ID375*H70-30	70/52								Acc.	
161.	OD530*ID315*H60-1	60/107								Acc.	
162.	OD530*ID315*H60-2	60/107								Acc.	
163.	OD530*ID315*H60-3	60/107								Acc.	
164.	OD530*ID315*H60-4	60/107								Acc.	-
165.	OD530*ID315*H60-5	60/107								Acc.	-
166.	OD530*ID315*H60-6	60/107								Acc.	
167.	OD530*ID315*H60-7	60/107								Acc.	
168.	OD530*ID315*H60-8	60/107								Acc.	
169.	OD530*ID315*H60-9	60/107								Acc.	
170.	OD530*ID315*H60-10	60/107								Acc.	
171.	OD530*ID315*H60-11	60/107								Acc.	
172.	OD530*ID315*H60-12	60/107								Acc.	

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No.	Sample No.	W.T.	Defect	Equivalent	Maximum area	Length		Defects		Result	Remark
110.	cample No.	(mm)	No.	Size	(mm ²)	(mm)	Х	Υ	Н		
173.	OD530*ID315*H60-13	60/107								Acc.	
174.	OD530*ID315*H60-14	60/107								Acc.	
175.	OD530*ID315*H60-15	60/107								Acc.	
176.	OD530*ID315*H60-16	60/107								Acc.	
177.	OD530*ID315*H60-17	60/107								Acc.	
178.	OD530*ID315*H60-18	60/107								Acc.	
179.	OD530*ID315*H60-19	60/107								Acc.	
180.	OD530*ID315*H60-20	60/107								Acc.	
181.	OD530*ID315*H60-21	60/107								Acc.	
182.	OD530*ID315*H60-22	60/107								Acc.	
183.	OD530*ID315*H60-23	60/107								Acc.	
184.	OD530*ID315*H60-24	60/107								Acc.	
185.	OD530*ID315*H60-25	60/107								Acc.	
186.	OD530*ID315*H60-26	60/107								Acc.	
187.	OD530*ID315*H60-27	60/107								Acc.	
188.	OD530*ID315*H60-28	60/107								Acc.	
189.	OD250*H185-1	250/185								Acc.	
190.	OD250*H185-2	250/185								Acc.	
191.	OD250*H185-3	250/185								Acc.	
192.	OD250*H185-4	250/185								Acc.	
193.	OD250*H185-5	250/185								Acc.	
194.	OD250*H185-6	250/185								Acc.	

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No.	Sample No.	W.T.	Defect	Equivalent	Maximum area	Length		Defects		Result	Remark
NO.	Sample No.	(mm)	No.	Size	(mm ²)	(mm)	Х	Υ	Н	Result	
195.	OD250*H185-7	250/185								Acc.	
196.	OD250*H185-8	250/185								Acc.	
197.	OD250*H185-9	250/185								Acc.	
198.	OD250*H185-10	250/185								Acc.	
199.	OD250*H185-11	250/185								Acc.	
200.	OD250*H185-12	250/185								Acc.	
201.	OD250*H185-13	250/185								Acc.	
202.	OD250*H185-14	250/185								Acc.	
203.	OD250*H185-15	250/185								Acc.	
204.	OD250*H185-16	250/185								Acc.	
205.	OD250*H185-17	250/185								Acc.	
206.	OD250*H185-18	250/185								Acc.	
207.	OD250*H185-19	250/185								Acc.	
208.	OD250*H185-20	250/185								Acc.	
209.	OD250*H185-21	250/185								Acc.	
210.	OD250*H185-22	250/185								Acc.	
211.	OD250*H185-23	250/185								Acc.	
212.	OD250*H185-24	250/185								Acc.	
213.	OD250*H185-25	250/185								Acc.	
214.	OD250*H185-26	250/185								Acc.	
215.	OD250*H185-27	250/185								Acc.	
216.	OD250*H185-28	250/185								Acc.	

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No	Sample No.	W.T.	Defect	Equivalent	Maximum area	Length	Defect Position	Defects		Result	Remark
No.	Sample No.	(mm)	No.	Size	(mm ²)	(mm)	Х	Υ	Н	Result	
217.	OD250*H185-29	250/185								Acc.	
218.	OD250*H185-30	250/185								Acc.	
219.	OD250*H185-31	250/185								Acc.	
220.	OD250*H185-32	250/185								Acc.	
221.	OD250*H185-33	250/185								Acc.	
222.	OD250*H185-34	250/185								Acc.	
223.	OD250*H185-35	250/185								Acc.	
224.	OD250*H185-36	250/185								Acc.	
225.	OD250*H185-37	250/185								Acc.	
226.	OD250*H185-38	250/185								Acc.	
227.	OD250*H185-39	250/185								Acc.	
228.	OD250*H185-40	250/185								Acc.	
229.	OD250*H185-41	250/185								Acc.	
230.	OD250*H185-42	250/185								Acc.	
231.	OD250*H185-43	250/185								Acc.	
232.	OD250*H185-44	250/185								Acc.	
233.	OD250*H185-45	250/185								Acc.	
234.	OD250*H185-46	250/185								Acc.	
235.	OD250*H185-47	250/185								Acc.	
236.	OD250*H185-48	250/185								Acc.	
237.	OD250*H185-49	250/185								Acc.	
238.	OD250*H185-50	250/185								Acc.	

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		W.T.	Defect	Equivalent	Maximum	Length		Defect			Remark
No.	Sample No.	(mm)	No.	Size	area (mm ²)	(mm)	Х	Υ	Н	Result	Remark
239.	OD250*H185-51	250/185								Acc.	
240.	OD250*H185-52	250/185								Acc.	
241.	OD250*H185-53	250/185								Acc.	
242.	OD250*H185-54	250/185								Acc.	
243.	OD250*H185-55	250/185								Acc.	
244.	OD250*H185-56	250/185								Acc.	
245.	OD250*H185-57	250/185								Acc.	
246.	OD250*H185-58	250/185								Acc.	
247.	OD250*H185-59	250/185								Acc.	
248.	OD250*H185-60	250/185								Acc.	
249.	OD250*H185-61	250/185								Acc.	
250.	OD250*H185-62	250/185								Acc.	
251.	OD250*H185-63	250/185								Acc.	
252.	OD250*H185-64	250/185								Acc.	
253.	OD250*H185-65	250/185								Acc.	
254.	OD250*H185-66	250/185								Acc.	
255.	OD250*H185-67	250/185								Acc.	
256.	OD250*H185-68	250/185								Acc.	
257.	OD250*H185-69	250/185								Acc.	
258.	OD250*H185-70	250/185								Acc.	

Attached Photos



Fig. 1: OD690*ID385*H180



Fig. 2: OD1300*ID1200*H185



Fig. 3: OD470*ID230*H70



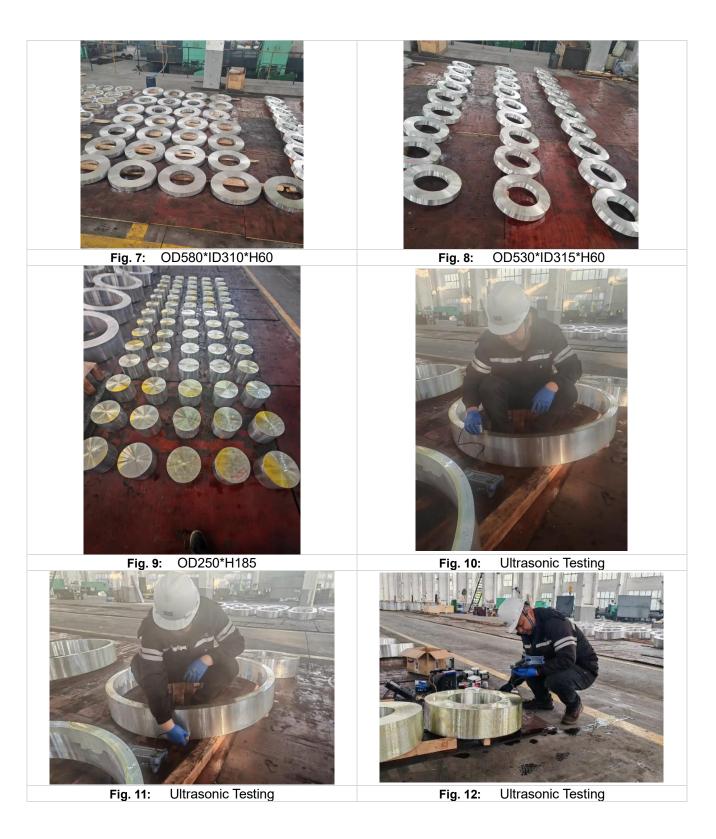
Fig. 4: OD1000*ID930*H120



Fig. 5: OD670*ID395*H100



Fig. 6: OD480*ID375*H70



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Time Sheet

	Date	Working Hours	Over Time
	Dec.22, 2024	8	
Used for Testing	Dec.23, 2024	8	
(Including Traveling and	Dec.24, 2024	8	
Reporting)	Dec.25, 2024	8	
	Dec.26, 2024	8	
	Dec.27, 2024	8	
Total tim	e charged	48	

Remarks

- 1. This report only reflects our findings at time and place indicated above only and does not refer to any other matters.
- 2. Every NDT method has the limit which may result the non-conformation with client's requirements.
- 3. All orders are accepted and all reports and certificates issued subject to the General Conditions of Service.
- 4. In the territory of the People's Republic of China, the test report without CMA logo expresses some or all testing standard are not in CMA accredited scope, the test report shall only be used for client scientific research, teaching, internal quality control, product research and development, etc...and just for client internal reference.
- 5. This declaration of conformity is only based on the result of this laboratory activity, the impact of the uncertainty of the result was not included.

Inspected by: Rambo Tian Reviewed by: Approved by:

Inspector Technical Support Authorized Signatory Qualification: Qualification: