

H44.5X16.5R21 30PR 235MPH

P/N : 441009-1

Chafer Crack

Hainan Airlines

SN 00515152 R2



PROCESS WALK

Tire Information	
Tire size	H44.5X16.5R21 30PR 235MPH
Part Number	441Q09-1
Tire Type	Radial
Serial Number	00515152 R2
MFG Site	GY Thailand
Date of Production	September 13 th , 2023
Customer	Hainan Airlines
Condition	Chafer Crack
Location of Incident	NA
Aircraft Type	NA
complain Reported to GY Date	22 nd September 2025
complain Date	22 nd September 2025
Number of Landings	NA

complain Description :

- Hainan Airlines found chafer crack on one tire.



PROCESS WALK

Process Card

STD R01 HKY

Mold type:

GOODYEAR (THAILAND) PUBLIC COMPANY LIMITED

HOLO H1: HB H2: HC

F 63/2/2-001/3

AIRCRAFT TIRE RETREAD PROCESS CARD

NO. E013

Date: 11.09.2023

Retread Type: STD

Customer: GUANGZHOU BAIYUN INT HKY

Work Order No: 140911477000010

Size: H44.5X16.5R21 30PR 235MPH

P/N: 441Q09-1 Type of Work: RT

S/N: 00515152

Prev. R-No.: 01 /15.04.2021 New R-No.: 02

Orig. Mfg.: GYT

Pre Retreader: GYT

Retread Spec. No.: 319101

TSO-C62- E

Reject date: Rej. Code: Rej. Description: Repr. at: Repr. no.: 00

INITIAL INSPECTION

Air Inj: Y

Liner Rep: NQ

Venting: YES

Rem. Skid: 04

Step Wear: 03

Hold Code: Status: C

Opr/Date: A395351 /11.09.2023

DRYING ROOM

Date/Time In: 11.09.2023/19:00:00

Date/Time Out: 12.09.2023/07:00:00

Status: C

QA DATE

Hold Code: Status:

CEMENTING

Rep. Cement Code: 02C01

Tag No./Date: 00330118-17.10.2023

Spray Cement Code: :

Tag No./Date: 00000000/

REPAIRING

Rep Gum Code: J2064

Tag No./Date: 00000000/

Hold Code: Status: C

Opr/Date: AA38346 /12.09.2023

QA DATE

Hold Code: Status:

BUILDING

Breakers: :

#1 Tag No./Date: 02731260/02.11.2023

#2 Tag No./Date: 00000000/

#3 Tag No./Date: 00000000/

AZ Cushion Tag No.: 06016671

AZ Cushion Date: 20.09.2023

Hold Code: Status: C

Date/Time: 12.09.2023/16:16:50

Opr: AA74978

ORBITREAD

Comp. Tag #/Date: 60169804/20.09.2023

Trd GA CL/SS/NS: 00/00/00

Trd Wt.: 17/200

Pre-Balance Result: OK

Hold Code: Status: C

Date/Time: 12.09.2023/21:09:42

Opr: AA03383

QA DATE

Hold Code: Status:

CURING

Sta. No 16 Mold P/N: 380219

Cure Time Spec.: 085

Time In: 01:55:00

Time Out: 03:20:00

Act Cure Time: 85

Retread Level: 02

Hold Code: Status: C

Opr/Date: AA88185 /13.09.2023

QA A356703 DATE 13.09.2023

Hold Code: Status: C

POST AIR INJECTION

Air Inj: Y

Liner Rep: N

Hold Code: Status: C

Opr/Date: AA74975 /13.09.2023

QA DATE

Hold Code: Status:

FINISHING

Weight: 79.15

Tread Hardness: 12

Balance Chk.: OK

Bal. Pad weight: 00

Liner Repair Chk: NQ

Hold Code: Status: C

Opr/Date: AC28291 /13.09.2023

FINAL INSPECTION

QA AA40353 DATE 13.09.2023

Hold Code: Status: C

RETREAD

Holography / Shearography: H1 / BEAD H2 CROWN

Done on: H1 Casing H2 Retreaded Result: H1: PASS H2: PASS

Opr: H1: AC28641 H2: AC08847 Date: H1: 11.09.2023 H2: 13.09.2023

Status: H1: C H2: C

Remarks:

Hold History [Current & 1st Reprocess]:

IN' ' ' 'HH' ' ' 'QHH' ' '

BF' ' ' 'CR' ' ' 'QCR' ' '

BL' ' ' 'OB' ' ' 'QOB' ' '

CU' ' ' 'FF' ' ' 'QCU' ' '

' ' 'QFF' ' '

R-No	Rep.	Repair Location		Depth in piles	Dia/Area
		Distance From S/N	C/L		

F-AR-002 Rev 3/09



PROCESS WALK

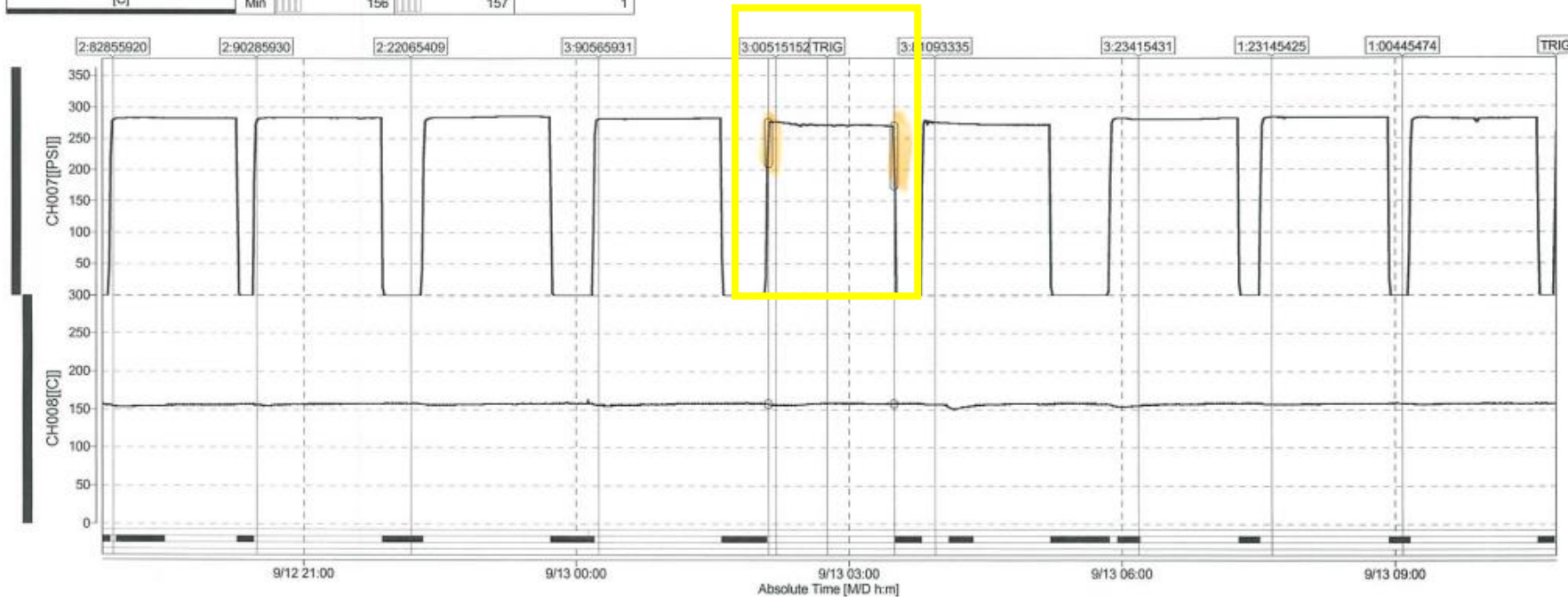
Cure Chart

Tolerance Curing time (82-97 mins)

Tolerance Pressure (265-300 psi)

Tolerance Temp (154-160 C)

		Cursor A	Cursor B	Difference
Data No.		440	523	83
Absolute Time		2023/09/13 02:07:00.000	2023/09/13 03:30:00.000	01:23:00.000
Channel		Value A	Value B	Value B-A
CH007 [PSI]	Max	276	270	-6
	Min	209	173	-36
CH008 [C]	Max	158	158	0
	Min	156	157	1



- Curing OK, No abnormalities



PROCESS WALK

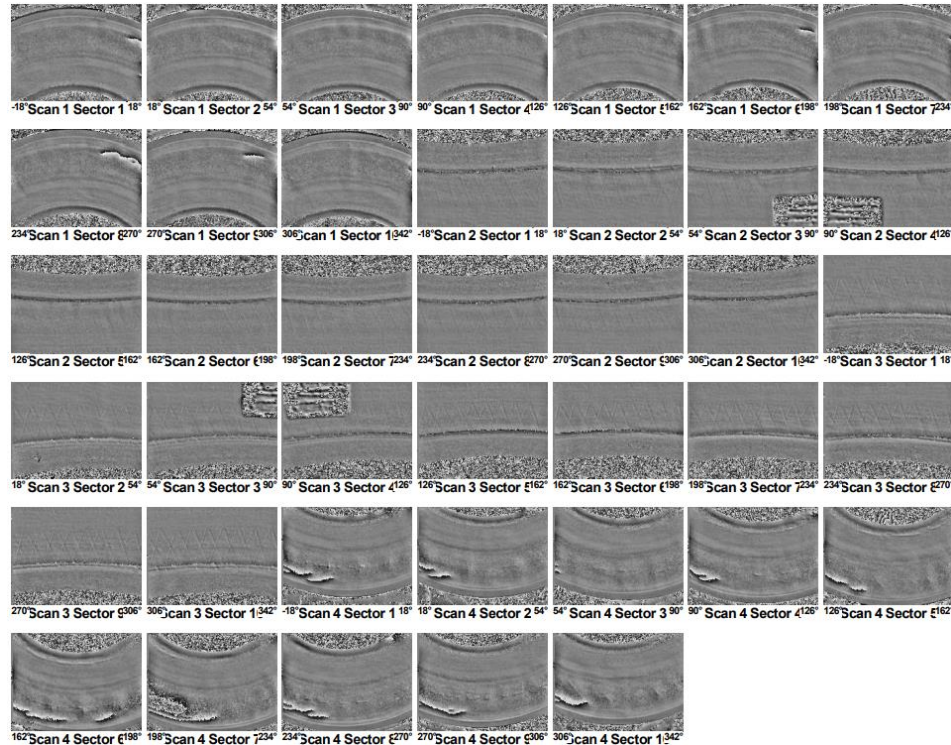
Shearography Test Result (Pre)

S/N: 00515152

Work Order: 140911477000010

Size: H44.5X16.5R21 30PR 235MPH

R-Level: R1



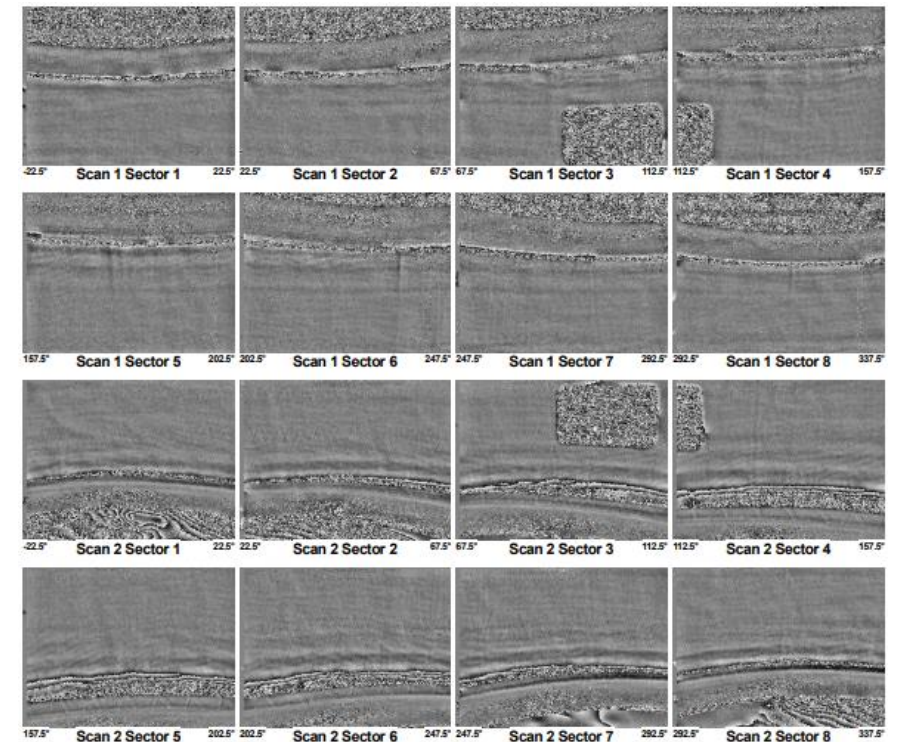
Shearography Test Result (Post)

S/N: 00515152

Work Order: 140911477000010

Size: H44.5X16.5R21 30PR 235MPH

R-Level: R2



- Shearography Ok, No abnormalities



Analyze



- 回顾胎皮翻修过程工卡等，没有发现有异常的地方。
- 这不是“鼓包”，是胎圈附近“摩擦片”（chafer）的橡胶裂纹。这个裂纹是受外力摩擦造成的。
- 使用中如果有一些比较极端的受力情况发生，可能会偶尔在一些此件号的胎皮的这个位置观察到类似的裂纹。
- 此裂纹不会带来安全问题。
- 此胎皮为R2,使用中累积的疲劳和老化是可能的原因之一。



Remove reference

- 此胎皮不存在批次，制造，安全问题。
- 我司会在翻修中加强品控，做好相关区域检查，避免给航司带来类似问题。
- 航司运行中可以参考我司CMM手册关于胎圈附近的裂纹，不见线可以继续使用。CMM的P26页，截屏如下。

Sidewall Damage

Remove tire from service if weatherchecking, cracking, cuts and snags extend down to the casing ply in the sidewall and bead areas.

