

RELEASE FOR TRANSFERRED PRODUCTION

IN BRIVE OF TYPES:

D 14-120 ...

D 14-121 ...

D 14-123 ...

D 14-125 ...

Eindhoven, April 1978

ELCOMA

KWALITEITS LABORATORIUM PROFESSIONELE KATODESTRAALBUIZEN

RAR-84/76.063

5-1

76-03-18

ONDERWERP : Release for transferred production in Brive of C.R.T.
type D14-120, D14-121, D14-123, D14-125.

The C.R.T. types D14-120 , D14-121, D14-123, D14-125 made in Brive are tested in Eindhoven on several parameters to the F and L specifications to obtain.

"Release for transferred production" in Brive.

Annexed reports give summaries of test - and measuring results of the above mentioned types.

As can be seen from the results summarised on sheets 4 upto and 9 and the remarks on sheets 2 and 3, those types can be given.

"Release for transferred production" in Brive.

K.Wassenaar

Copy to Messrs.: Van Geffen

Honig

Mathijssen

Mulder

Peper

Radstake

Schell

Varekamp

Modderman

WeiJer

Menet

Bru

Brive

ONDERWERP : Remarks to be made in connection with the Release for Transferred Production in Brive of the C.R.T. types D14-120... D14-121... D14-123... D14-125...

- 1) As can be seen from the summary report RAR-84/76.063, a considerable number of tubes have been rejected on the following items :
 - 1st. Rasterdistortion. 4%
 - 2nd. Usefull scan too small 3%
 - 3rd. Cracked faceplate 2.2%
 - 4th. Silicate stain + scratches 7%

- 2) The first two items have already been improved in the last batches, but we still find these faults.
It is very important that the factory as well as the Quality Lab. give attention to these items, to improve the quality of the delivered product which has too fulfil the specifications.

- 3) The third item concerns the glass bulbs.
Brive must receive bulbs of good quality concerning strain from Eindhoven and a proper handling in Brive.
This needs continuously attention of the bulbdeliverer as well as the tubemanufacturers.

- 4) Item 4 concerns silicate stains and scratches on the tube faceplate.
Untill now the tubes concerned have been repaired in Eindhoven. In future, this will be impossible.
Fortunately the last series of tube showed a considerable improvement on this fault but also this item needs continuously attention and a systems, that makes damage before dispatch impossible. E.g. the man who puts the sticker on the screen inspects the faceplate and is responsible for it. This sticker has to be put on the faceplate in the most early stage.
A tube must never be put on the faceplate without a sticker.

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RAR-84/76.063

-3-

'76-03-19

ONDERWERP :

- 5) After "Release for Transferred Production" and "Direct Shipment" customercomplaints will be sent directly to Brive because of removal of test - and repairfacilities from Eindhoven.

K.Wassenaar

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ONDERWERP : Release for transferred production D14-120, D14-121, D14.122, D14-123, D14-125.

Summary of test results

1)	See reports RAR-84/75.170	test II results batch 1	1
	75.227		2
	75.192		3
	75.242		5
	75.241		6
	75.246		7
	75.252		8
	75.248		9
	75.253		10
	75.254		11
	75.255		12
	75.261		13
	76.009		14
	76.002		15
	76.010		16
	76.035		17
	76.020		18
	76.021		19
	76.024		20
	76.036		21
	76.037		22
	76.039		23
	76.044		24

RAR-84/75.226 L test and life test results batch 1

RAR-84/75.228 L test and life test results batch 2

2) Summary of test II results

Received 1334 pieces (24 batches)

Good 1056 pieces

27 pieces dirt on the mesh (repaired)

94 pieces silicat stains + scratches (repaired)

4 pieces modulation too high (repaired)

1 piece stray emission (repaired)

1 piece side pin protector forgotten (repaired)

Good after repair 1183 pieces

Rejected 151 pieces

53 pieces raster distortion

39 pieces usefull scan too small

30 pieces cracked near screen

ONDERWERP :

Rejected 4 pieces gascross	2 pieces loose particles
4 pieces insulation	2 pieces charging Y places
3 pieces loose welding	1 piece black dot
3 pieces eccentricity	1 piece bruise
3 pieces -Vg1 too high	1 piece dirt on defl.plate.
1 piece modulation too high	1 piece wire of mesh loose
1 piece bad mesh quality	1 piece broken heater

Remark : 6 batches 274 pieces had a wrong coating.
(repaired in Eindhoven)

3) Summary of L test results

Batch 1 No extra faults were found as already mentioned
in RAR-84/75.170 test II results.
The results are satisfactory.

Batch 2 1x usefull scan borderline good
1x stray emission (good after repair)
1x preference direction of polishing
The results are satisfactory

4) Summary of life test results

Batch 1 0 hours No remarks
1000 hours Tube number 3 emission bad after
160 hours.
The rest of the results are satisfactory.

Batch 2 0 hours No remarks
1000 hours The results are satisfactory

5) Conclusion

Sufficient information has been collected to conclude
that there is no objection against release of the C.R.T.'s
D14-120..., D14-121..., D14-122..., D14-123, D14-125..., for
production and measuring in Brive,
However rasterdistortion and usefull scan needs improvement.

G.Geevers

7

DATE CODE

RECEIVED

MEMORANDUM

GOOD

REJECTED

GOOD (REL. TO MEAL TRAY)

REPAIRED IN BIN

REPAIR IN BAY

GOOD AFTER REPAIR

ST

1

23

25

12

12/25/10

10

GRAVELS too HIGH
 INSULATIONS
 HIGH TENSION
 GASKETS
 SCRAMBLING
 BRIGHTNESS too LOW
 BLIND CURRENT
 LEAKAGE CURR. P.D.
 -Vg, too HIGH/LOW
 MODEL too HIGH
 IN COOL
 IN too LOW
 ANGLE OF TAPERS
 PARTIAL DISTORTION
 FIMBUSH CORN
 BLANKING too HIGH
 CONNECTION
 DEPT. FRST too HIGH/LOW
 FOCUS BEAMS too HIGH/LOW
 RETING too HIGH/LOW
 DIRTY ON DIRTY
 SPOTCHING/ING
 USEFUL TECH TO SMALL
 STRAY EMISSION
 BASE ALIGNMENT
 ALIGN. POSITION
 COCENTR. GITY
 IS too HIGH/LOW
 WRONG TYPE GOOD
 LOOSE BASE

0

6

501

510

104

105

485

605

427

402

403

506

509

605

704

801

TYPE DIV-120

BATCH IS 9000

BATCH IS REJECTED

DELIV. TO THE STORE

ST

X

FAULT

FOR REPAIR
 AFTER REPAIR

TYPE. DIV. 121..

DATE CODE RECEIVED MESSAGED
 GOOD REJECTED
 GOOD(%) REJ. TO MESS. THRU REPIRGD IN BIN REPAIR IN BAY GOOD REPAIR REPAIR

1259/100 1 1 1 0 1 100
 1219/100 53 3 3 1 2 38
 1254/100 78 0
 1255/100 80 0

GRAVELLS too HIGH
 INSULATIONS
 HIGH TENSION
 GASKETS
 SCENENQUALITY
 BRIGHTNESS too LOW
 BLIND QUERENT
 LEAKAGE CURS. PDR
 -Vg, too HIGH/LOW
 MODEL. too HIGH
 IN COOLING
 IS too LOW
 ANGLE OF TARGET
 FOCUS IN DISTORTION
 FOCUSING CARE
 BLANKING too HIGH
 CONDITION
 DEL. FOCUS too HIGH/LOW
 FOCUSING too HIGH/LOW
 DIRTY or HIGH/LOW
 SPOT CORRECTING
 WEAR/SCUM FORMS
 STRAY EMISSION
 BASE ALIGNMENT
 ALIGN. POSITION
 ECCENTRICITY
 IS too HIGH/LOW
 KRONG TYPE GOOD
 COARSE BASE
 COARSEN. SCREEN

BRUSH IS GOOD
 BRUSH IS REJECTED
 DELIV. TO THE STAGE

FOR REPAIR
 REPAIR REPAIR

007
 105
 104
 009
 010
 501
 485
 485
 605
 427
 402
 403
 506
 506
 509
 605
 204
 507
 505
 505
 505
 426
 508
 504
 001
 405
 502
 401
 603
 001

FAULT
 0000

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RAR-84/75.170

1

75-09-18

ONDERWERP : Release for transferred production D14-121GH batch 1

Test II results

Received 17 tubes

Measured 5 tubes (first sample test)

Good 1 tube

Rejected 4 tubes

- 1x black dots 0.6 - 0.55 mm + silicat stains on the screen
- 1x silicat stain on the screen
- 1x silicat stain on the screen and dirt on the mesh.
- 1x dirt on the mesh and scratches

Batch is rejected.

Measured 12 tubes(second test = total lot)

Total results of all tubes:
good 3 tubes

Rejected and repaired 12 tubes:

- 1x dirt on the mesh(529025)
- 3x dirt on the mesh and silicat stains on the screen(529011 - 529022 - 529052)
- 1x dirt on the mesh and scratches(529035)
- 1x scratches and silicat stains on the screen(529026)
- 6x silicat stains on the screen(529008 - 529010- 529014- 529023-529024 - 529050)

Rejected 2 tubes: 1x black dots 0.6 - 0.55 mm and silicat stains 529019

1x dirt on the mesh after repair, loose connection deflection plate(bad welding)

Total good after repair: 15 tubes

for L-test: no 529014 - 529019 - 529022 - 529035 - 529039

G.Geevers

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RAR-84/75.227

1

75-11-19

ONDERWERP : Release for transferred production D14-123GP batch 2

Test II results

Received 21 pieces

Measured 10 pieces

Good 8 pieces

Rejected 2 pieces

1x gascross (L test)

1x rasterdistortion (L test)

after repair on scratches and silicat stains

29 pieces delivered to the store.

C. Geevers

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RAR-84/75.192

1

75-10-21

ONDERWERP : Release for transferred production D14-123 GP batch 3

Test II results

Received 7 tubes

Measured 7 tubes

Tube number 529004: screen burned in,
silicat stains
dirt on the mesh(after repair good)

529034: silicat stains(after repair good)

529038: loose particles

529042: raster distortion,
silicat stains,
dirt on the mesh(after repair good)

529049: screenglass damaged(after repair good)

529128: gascross
dirt on the mesh(after repair good)

529076: rasterdistortion borderline good
usefull scan Y too small borderline
good
silicat stains on the screenglass

This tube is taken to Brive by Mr.Menet.

Used for life test: 529004 - 529038 - 529042 - 529128

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RAK-84/75.242

1

75-12-03

ONDERWERP : Release for transferred production D14-125GH/08 batch 5

Test II results

Received 7 pieces

Measured 7 pieces

Good 3 pieces

Rejected 4 pieces

1 piece silicat stains (repaired)

1 piece modulation too high(repaired)

1 piece short circuit G6/Y2

1 piece rasterdistortion + dirt on the
mesh.

Remark: 2 tubes too long but within published data.

1 tube + K/-F rather high 40 uA(good)

Total result after repair

Delivered to the store 5 pieces

rejected 2 pieces

All tubes have a wrong coating(repaired in Eindhoven)

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RAR-84/75.241

1

75-12-03

ONDERWERP : Release for transferred production 95476 batch 6

Test II results

Received 18 pieces

Measured 18 pieces

Good 7 pieces

Rejected 11 pieces

6 pieces silicat stains(repaired)

1 piece glass strain near screen

1 piece bruise

1 piece bruise + usefull scan too small

1 piece usefull scan too small

1 piece dirt on deflection plates

Remark: All tubes have no date code.(repaired)
(must be X A 0)

After repair total result

Delivered to the store 13 pieces

Rejected 5 pieces

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RAH-84/75.246

1

75-12-08

ONDERWERP : Release for transferred production D14-125GH/08 batch 7

Test II results

Received 35 pieces

Measured 35 pieces

Good 0 pieces

Rejected 35 pieces wrong coating

After repair

Good 31 pieces

Rejected 2 pieces glass strain near screen

2 pieces usefull scan too small

Remarks

- 1) 2 pieces repaired on dirt on the mesh
- 2) 6 pieces repaired on silicat stains.

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RAK-84/75.252

1

75-12-19

ONDERWERP : Release for transferred production D14-125GH/08 batch 8

Test II results

Received 38 pieces

Measured 38 pieces

Good 0 pieces

Rejected 2 pieces usefull scan too small
2 pieces glass strain near screen
1 piece short circuit g2 + g4/Y1
6 pieces silicat stains(repaired)
3 pieces scratches (repaired)
4 pieces dirt on the mesh(repaired)
38 pieces wrong coating (repaired)

Good after repair : 33 pieces

rejected : 5 pieces

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RAR-84/75.248

1

75-12-22

ONDERWERP : Release for transferred production D14-125GH/08 batch 9

Test II results

Received 45 pieces

Measured 45 pieces

Good 0 pieces

Wrong coating 45 pieces (repaired in Eindhoven)

After repair

Good 37 pieces

Rejected 1 piece dirt on the mesh (repaired)

4 pieces raster distortion

1 piece glass stain near screen

1 piece usefull scan too small

1 piece wire loose of the mesh

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RAH-84/71.255

1

75-12-23

ONDERWERP : Release for transferred production D14-123GP batch 10

Test II results

Received 8 pieces

Measured 8 pieces

Good 0 pieces

Repaired 2 pieces dirt on the mesh

5 pieces silicat stains

Rejected 1 piece raster distortion

Good after repair 7 pieces

G. Gevers

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