

Cryomagnets Interconnections

Connection Cryostats

Sector 1-2

Q19 L2 : Short circuit repair

Consolidation of sector 4-5

Plug-in Modules (see S Weisz's presentation) Leaks

Overview - Status

Quick interconnection overview

ICC 28/03/2008 1/7 J.Ph. TOCK



(Inter)Connection Cryostats Status

Repair of ICCs
Completed
R2 is closed / L3 is under closure now
Opened ; End foreseen beginning W15 [Open Days, in paral with 4-5]
R4 and L5 opened ; end for W17 ; not priority
Afer warm-up (8th) - 3 units ?
Completed
Completed
Completed



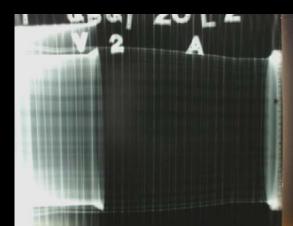
Sector 1-2

- Q19 L2 : [Documented in NC 890391]
- Abnormal displacement of SSS due to failure of concrete floor
- ≻TS-IC inspected 6 out of the 8 sectors : no other problem
- Gamma-rays of PIMs : OK
- ➤Concrete was repaired [TS/HE]
- Test with vacuum on one side : OK
- Short to ground detected on the dipole circuit and then localised in the QBQI.20L2
- IC opened, line M3 cut open and endoscopy was performed













- ➤ To allow intervention :
- M3 bellows was cut
- M1 sleeve open
- Hole drilled in cold mass
- ➢ The quad lines are OK

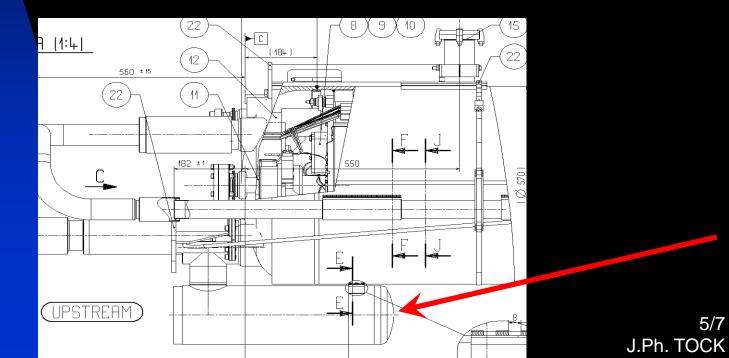




Consolidation of sector 4-5 Leaks

Interventions :

- VACSEC 7R4 (NC847504) CM leak to insulation vacuum of 1 10⁻⁵ mbar l /sec Localised on diode box container inner side ; container under dismounting for repair or replacement
- VACSEC 15R4 C' K leak to insulation vacuum of 6 10⁻⁶ mbar I /sec Disappeared during localisation ; leak not present anymore
- 3. Check of beam lines leak tightness : OK
- 4. Q17L5 and Q29R4 (NC 826696 and 820313) leak air to insulation vacuum temporary solution now but to be consolidated by AT-VAC during repump down phase



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Consolidation of sector 4-5

	Sector 4-5 C	onsolidation	<u>Schedule</u>	Remark
1	Plug-in modules	6 failed PIMs localised / 10 cut ;	OK	
2	Photometer test	Planned 9-10/4	OK	
3	Y lines	2/3 analysed and under repair	OK	In IC
4	Helium guards	20 to be repaired / 30 % done	OK	
5	Leaks	1 disappeared / 1 under localisation	OK	
6	Triplet 5L	Electrical connection completed	OK	Problem with instrumentation connector
7	Q5R4	Short localised / under repair	?	
8	Connection Cryostats	Started	OK	
9	CC splices	Not critical	Done	
10	DFBs cables	Not to be done	NA	



Quick IC overview

<u>Sector</u>	On-going
1-2	Short circuit in Q19L2
2-3	ICC closure today
3-4	Repair of ICC
4-5	Consolidation
5-6	Cold
6-7	Ready for cool-down
7-8	Cool-down
8-1	Cool-down

31 ICs opened:

27 in the arc: 6 for CC, 19 in 4-5, 2 in 1-2 4 in LSS : L5 triplet DFBX/Q3 + 2 jumpers Q5-D4 @ R4

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	1-2	2-3	3-4	4.5	5-6	6-7	7-8 8	OPENINGS FO
	1-2 1R	2-3 2 R	3-4 3 R	4R	5-6	6-7 6R	7-8 8- 7R 8	R ::
QOQI.7 R QQBI.7 R								QQBL34 L QBBLB34 L
QQBLA8 R								QBBLA34 L
QBB1.8 R QBQ1.8 R				The second				QBQI.34 L QQBI.33 L
QQBL8 R								Q881.8.33 L
QBB19 R QBQ1.9 R				VAC				Q881A33 L Q801.33 L
QQBL9 R				y				QQBI.32 L
QBB1.10 R QBQ1.10 R								Q881.8.32 L Q881.A.32 L
QQBL10 R								QBQ1.32 L
QBBI.11 R QBEL11 R			00	VAC				QQBI.31 L QBB1.B31 L
QEQL11 R				CC				QBBLA31 L
QQBL11 R QBBLA12 R								QBQI.31 L QQBI.30 L
2661.812 R								Q881.8.30 L
2801.12 R 2081.12 R				-				QBB1A30 L QBQ130 L
QBBLA13 R								QQ8L29 L
QBBI.B13 R QBQI.13 R								Q881.8.29 L Q881.A.29 L
QQBI.13 R								Q8Q1.29 L
2661.614 R 2661.614 R								QQBI.28 L QBBI.8.28 L
2801.14 R								QBBLA28 L
2QBL14 R 2BBLA15 R								QBQI.28 L QQBI.27 L
2881.815 R								Q881.827 L
28QI.15 R								Q881A27 L
2081.15 R 2881.A16 R								QBQI.27 L QQBI.26 L
2881.816 R								QB31.8.26 L
2QBI.16 R								Q881A26 L Q801.26 L
2881A17 R 2881.817 R								QQBI.25 L QBB1.825 L
2881.817 R 2801.17 R								Q881.825 L Q881.A25 L
208I.17 R								Q8Q1.25 L
2661.618 R 2661.618 R								QQBI.24 L QBB1.8.24 L
2801.18 R								QBBLA24 L
208.18 R 2681.A19 R								QBQI.24 L QQBI.23 L
2881.819 R								Q881.8.23 L
2801.19 R 2081.19 R				<u> </u>				QBB1A23 L QBQ123 L
2881A20 R								QQBI.22 L
2881.820 R								Q881.8.22 L Q881.A.22 L
2Q8I.20 R								QBQI.22 L
2661.621 R 2661.621 R								QQBI.21 L QBBI.821 L
28QI.21 R								Q881A21 L
2081.21 R 2881.422 R				25.00				QBQI.21 L QQBI.20 L
2661.622 R								Q881.8.20 L
2801.22 R 2081.22 R								Q881A20 L Q801.20 L
2881A23 R								QQBI.19 L
2881.823 R 2801.23 R								Q881.819 L Q881.A19 L
2001.23 R								QB01.419 L QB01.19 L
2881A24 R 2881.824 R								QQBI.18 L QBB1.B18 L
2001.0.24 R 2021.24 R								QBBLA18 L
2QBI.24 R								Q8Q1.18 L
2881A25 R 2881.825 R								QQBI.17 L QBBI.B17 L
18Q1.25 R								QBBLA17 L
2QBL25 R 2BBLA26 R								QBQL17 L QQBL16 L
2661.626 R								Q881.816 L
2801.26 R 2081.26 R								Q881A16 L Q801.16 L
2661A27 R								QQ8I.15 L
2881.827 R 2801.27 R								Q881.815 L Q881.A15 L
2QBI.27 R	2.14							QBQ1.15 L
2661A28 R 2661B28 R								QQBL14 L QBBLB14 L
1901.28 R								QBBLA14 L
2QBL28 R 2BBLA29 R								Q8Q1.14 L
2881.829 R								QQBL13 L QBB1.B13 L
28Q1.29 R								Q881A13 L
2QBL29 R 2BBLA30 R								QBQI.13 L QQBI.12 L
2661.830 R								Q881.812 L
2801.30 R 2081.30 R								QB81A12 L QB01.12 L
2681A31 R								00F111 L
2661.631 R 2601.31 R								QEBI.11 L QBBI.11 L
2Q8I.31 R								QBQL11 L
2661.632 R 2661.632 R								QQ81.10 L
QBQI.32 R								QBQI.10 L
QQBI.32 R								QQBL9 L
2881.A33 R 2881.833 R								QB01.9 L QB01.9 L
QBQI.33 R								QQBL8 L
2081.33 R 2881.A34 R								0601.8 L 0601.8 L 0001.7 L
2881.834 R								

NGS FOLLOW UP									
	1-2 2-3 2L 3L	3-4 4 L	4-5 5.	5-6 6L	6-7 75	7-8 8L	8-1 1L		
QQBI.34 L QBBI.834 L									
QBBLA34 L QBQL34 L									
QQBI.33 L									
QBB1.B.33 L QBB1.A.33 L									
QBQI.33 L									
Q881.832 L									
QBB1A32 L QBQ132 L									
QQBI.31 L QBBI.B31 L									
QBBLA31 L									
QBQI.31 L QQBI.30 L									
QBB1.B30 L									
QBBLA30 L QBQL30 L									
QQBI.29 L QBBI.B.29 L									
QB01.29 L QB01.29 L									
QQBI.28 L			PIM						
QBB1.B.28 L QBB1.A.28 L									
QBQI 28 L QQBI 27 L									
Q881.827 L									
Q881A27 L									
QBQI.27 L QQBI.28 L									
QB81.826 L QB81.A26 L									
QBQI.26 L QQBI.25 L									
Q881.825 L									
QBB1A25 L QBQ125 L									
QQBI.24 L QBBI.8.24 L									
QBBLA24 L									
QBQI.24 L QQBI.23 L									
QBB1.B23 L									
QBB1A23 L QBQ123 L									
QQBI.22 L QBBI.822 L									
Q881A22 L									
QBQI.22 L QQBI.21 L									
QBB1.B21 L QBB1.A21 L									
QBQI.21 L									
QQBI.20 L QBBI.5.20 L									
QBBLA20 L QBQL20 L	ELGA								
QQBI.19 L			Υ						
QBB1.B19 L QBB1.A19 L									
QBQI.19 L QQBI.18 L									
QBB1.B18 L									
QB01.18 L Q001.18 L		_	Υ						
QQBI.17 L QBBI.B17 L									
QBBLA17 L QBQL17 L									
QQBI.16 L									
QBB1.B16 L QBB1.A16 L QBQ1.16 L									
QBQL16 L QQBL15 L									
Q881.815 L									
QBB1A15 L QBQL15 L QQBL14 L									
QQBI.14 L QBBI.B14 L									
QBBLA14 L									
QBQI.14 L QQBI.13 L									
Q881.813 L Q881.A13 L									
QB01.13 L QQ01.12 L									
QBB1.B12 L			V CANE						
QBBLA12 L QBQL12 L									
Q8Q1.12 L QQE1.11 L	00	00	CC						
QQEI.11 L QEBI.11 L QBBI.11 L	00	CC	00						
QBQI.11 L									
Q881.10 L			In Prop.						
QBB1.10 L QBQ1.10 L									
Q881.10 L Q8Q1.10 L Q881.9 L Q881.9 L									
QBS1.10 L QBQ1.10 L QBS1.9 L QBS1.9 L QBQ1.9 L QQS1.8 L			у 14 7 М						
Q881.10 L Q801.10 L Q881.9 L Q881.9 L Q881.9 L Q881.8 L Q881.8 L			4 10 2 10						
QBS1.10 L QBQ1.10 L QBS1.9 L QBS1.9 L QBQ1.9 L QQS1.8 L	Last Usdate:	27.4	Y In P M Y						