

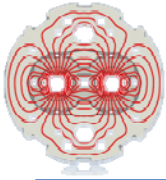
MMM and TEMB - 16 March, 2009

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# Status Report of Magnet Work Week 11 / 2009

Francesco Bertinelli - TE/MSC

On behalf of - and with several contributions from - surface and IC teams



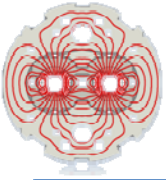
# Surface News Week 11/2009

	End activity week 5 - 2009		End activity week 6 - 2009		End activity week 7 - 2009	
	Magnets	Quantity	Magnets	Quantity	Magnets	Quantity
Cryostating	2428-3118-SSS 221	3	2433-2443-SSS 195	3	2035-2103-2441-SSS 225	4
Cold testing	2427-2739	2	1085-SSS 369	2	2421-2429-2440-SSS 221	4
Stripping	2432-SSS 243	2	2739	1	1085-SSS 369	2
Fiducialization					1085	1
Beam screen integration	2434-2436	2	2399-SSS 055	2	2432	1
Tunnel preparation	2422-2624	2	2342-2399-2434-2436-SSS 055	5	2432	1
Installation (=pose)	2624	1	2434-2436	2	2342	1

	End activity week 8 - 2009		End activity week 9 - 2009		End activity week 10 - 2009	
	Magnets	Quantity	Magnets	Quantity	Magnets	Quantity
Cryostating	1071-1092-1099-2192-SSS 227	5	2108-SSS 208-(2431-2442= spares)	4	(2437-2438 = spares)	2
Cold testing	2418-2435-2446-3118-SSS 195-SSS 203	6	2103-2444-2427-2690-SSS 006-SSS 225-SSS 227	7	2423-2428-2441-2868-SSS 227	5
Stripping	2421-2429-SSS 221	3	2252-2418-2435-2440-SSS 195-SSS 203	6	2427-2444-SSS 006	3
Fiducialization			2252-2418-2440-SSS 203	4	2427-2435-2444-SSS 006-SSS 195	5
Beam screen integration	2739-SSS 243	2	2421-2429-SSS 369	3	2252-2418-2435-2440	4
Tunnel preparation	SSS 243	1	2422-2739	2	2421-2440	2
Installation (=pose)	2432-2399	2	2422-2739-SSS 055-SSS 243	4	2421	1

	End activity week 11 - 2009		End activity week 12 - 2009		End activity week 13 - 2009	
	Magnets	Quantity	Magnets	Quantity	Magnets	Quantity
Cryostating	SSS 219 -(2445=spare)	2				
Cold testing	1092-1099-2108-2192-2433-SSS 208	6				
Stripping	2103-2428-2441-2443-2446-2690-3118	7				
Fiducialization	1085-2428-2441-2446-2690-3118	6				
Beam screen integration	1085-2427-2444-3118-SSS 203-SSS 221	6				
Tunnel preparation	2252-2429-2418-2435-SSS 221-SSS 369	6				
Installation (=pose)	2252-2418-2429-2435-2440-SSS 221-SSS 369	7		planned 7 MB		planned 2MB+4SSS
Pre-alignment in tunnel	2739(B 25)-2422(C 25)-2421(B 28)-2551(C 28)- 2419(A 29)-2342(B 29)-SSS 055(Q 27)-1219(C 27)- 2440(A 31), 3413(B 31), 2429(C 31)	11				leaving ... 10MB+5SSS

Courtesy A. Russo  
R. Bihery

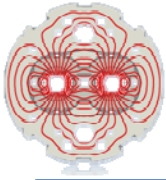


## ... but not without problems

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- SSS006:
  - missing solder between SC cable and Cu stabiliser in M3 busbars
  - oxidised SC cables
  - CERN fabrication
  - Cutting M tubes and bellows, try re-soldering
- MB3383: ready for SM18 mid-week
- MB2868: short being repaired, will be retested in SM18
- SSS279 (CM assembled at CERN): rebuilding the diode insulation, will be the last SSS for 3-4 at cold-testing in SM18
- Intensive week for final preparation and installation (e.g. SSS221 finished welding at 13h Thursday 12 March, left for Point 4 at 14h, lowered in the evening, installed with SSS369 during the night): “are we in a crash program or not?”





# Installation Week 11/2009

## Secteur 3-4

Situation semaine 11/09 (09.03.09 au 14.03.09)

Réinstallation des aimants semaines 12 (16.03.09 au 21.03.09) et 13 (23.03.09 au 28.03.09)

<= Point 3

Function	A				B				C				Q WITH JUMPER				A				B				C				Q				
Decan (star)	LBBLA 3115				LBALA 1001				LBBLD 3009				000228				LBALA 3152				LBBLA 1130				LBALB 2054				24.03.09				
	7479.2 C19R3	7494.8			7510.5			7526.1 Q19			7532.5 C20R3			A20 A20			7548.3 B20			7563.9 C20			7579.6 Q20			000195							
Decan (star)	LBBLA 2036				LBALA 1092				LBBLD 1099				000225				LBALA 1086				LBBLA 3118				LBALB 1071				000203				
	7585.1 C21R3	A21	7601.70 B21		7617.4 C21		7633.0 Q21		7639.5 C22R3		A22		7655.2 B22		7670.8 C22		7686.5 Q22		27.03.09				17.03.09				17.03.09				26.03.09		
Decan (star)	LBALA 2430				LBALA 2790				LBBLD 2398				000243				LBALA 2438				LBBLA 2434				LBALB 2438				000277				
	7693.0 C23R3	A23	7708.6 B23		7724.3 C23		7739.9 Q23		7746.4 C24R3		A24		7762.1 B24		7777.7 C24		7793.4 Q24		27.03.09				27.03.09				27.03.09						
Decan (star)	LBBLA 2103				LBALA 2798				LBBLD 2422				000218				LBALA 2695				LBBLA 2493				LBALB 2698				000208				
	7739.3 C26R3	A26	7815.5 B26		7831.2 C26		7846.8 Q26		7853.3 C28R3		A28		7869.0 B28		7884.6 C28		7900.3 Q28		20.03.09				18.03.09				18.03.09						
Decan (star)	LBBLA 2423				LBALA 2690				LBBLD 1210				000055				LBALA 2446				LBBLA 2421				LBALB 2661				000389				
	7905.8 C27R3	A27	7922.4 B27		7938.1 C27		7953.7 Q27		7960.2 C28R3		A28		7975.9 B28		7991.6 C28		8007.2 Q28		11.03.09				12.03.09				14.03.09						
Decan (star)	LBBLA 2419				LBALA 2342				LBBLD 2418				000221				LBALA 2436				LBBLA 2427				LBBLA 2444				000008				
	8013.7 C28R3	A28	8029.3 B29		8045.0 C29		8060.6 Q29		8067.1 C30R3		A30		8082.6 B30		8098.4 C30		8114.1 Q30		09.03.09				10.03.09				28.03.09						
Decan (star)	LBBLA 2440				LBALA 3413				LBBLD 2429				000594				LBALA 2624				LBBLA 2262				LBBLA 2440				000279				
	8120.6 C31R3	A31	8136.2 B31		8151.9 C31		8167.5 Q31		8174.0 C32R3		A32		8189.7 B32		8205.3 C32		8221 Q32		08.03.09				10.03.09				28.03.09						
Decan (star)	LBBLA 3363				LBALA 2192				LBBLD 2108				000237				LBALA 2177				LBBLA 1100				LBALB 1246				LQ0BK 0202				
	8227.5 C33R3	A33	8243.1 B33		8258.8 C33		8274.4 Q33		8280.9 C34R3		A34		8296.6 B34		8312.2 C34		8327.9 Q34		08.03.09				10.03.09				28.03.09						

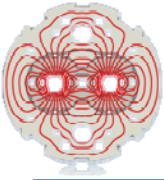
Point 4 =>

Slot libre	Prévision réinstallation	éléments réinstallés	dd/mm/yy	Date de transport et mise en place
Cantons électriques				

Prepared by H.Gaillard  
updated by J.Coupard

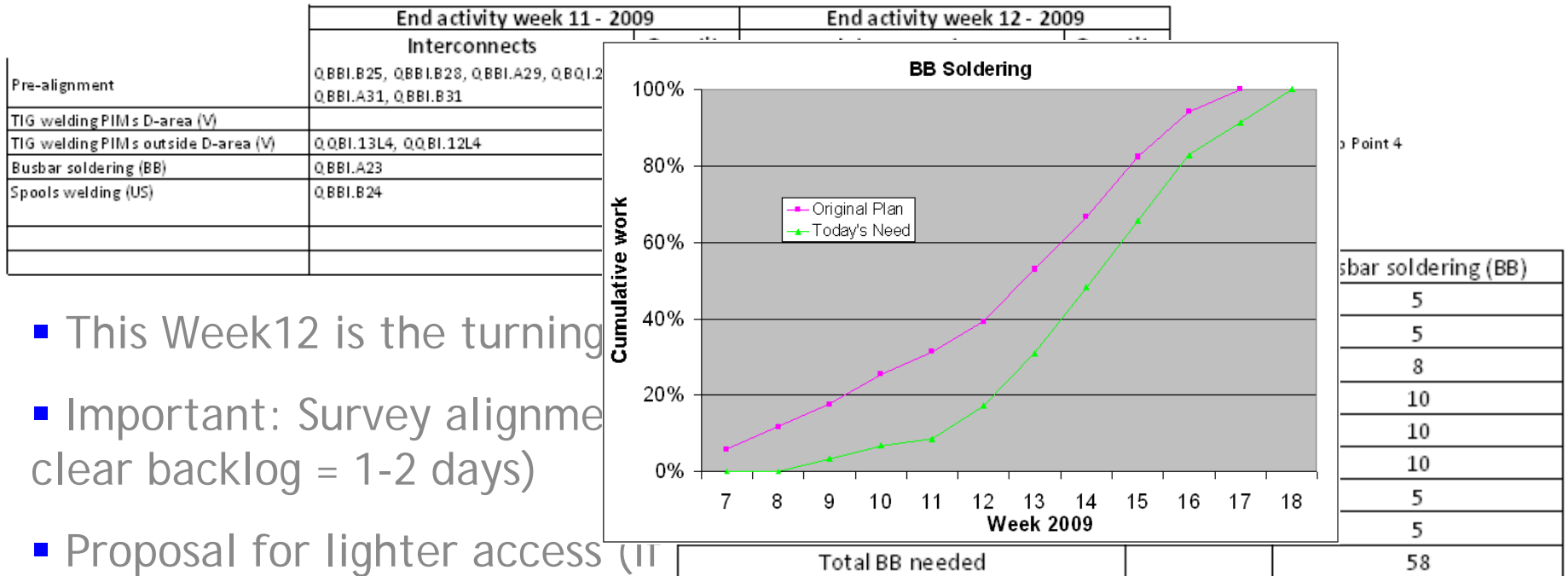
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Courtesy H. Gaillard

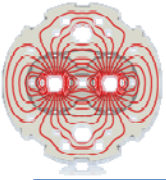


# Tunnel News Week 11/2009

	End activity week 8 - 2009		End activity week 9 - 2009		End activity week 10 - 2009	
	Interconnects	Quantity	Interconnects	Quantity	Interconnects	Quantity
Pre-alignment						
TIG welding PIMs D-area (V)	QBB1.A23, QBB1.A24, QBB1.B24, QBQ1.24	4	QBB1.B23, QBQ1.23, QQB1.23	3		
TIG welding PIMs outside D-area (V)			QQB1.8L4	1		
Busbar soldering (BB)			QBB1.A24, QBB1.B24	2	QBB1.B23, QQB1.23	2
Spools welding (US)						



- This Week12 is the turning point
- Important: Survey alignment clear backlog = 1-2 days
- Proposal for lighter access (II) work after 10h30 during AUG Tests (=inspections, survey, light transport, cabling ...), Guards at Points 3 and 4 ...



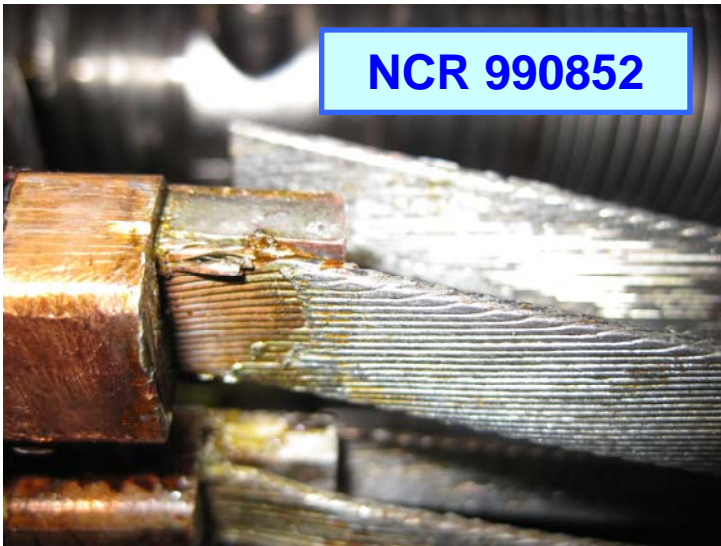
## ... but not without problems

**NCR 990652**



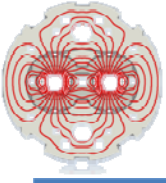
- ICIT Pre-inspection in tunnel: QBBI.B28R3 (M3 on MB2551 lowered W02 before final surface ICIT inspection organised and stripping quality improved)
- Extra time needed for reconditioning in tunnel

**NCR 990852**



- CERN Pre-inspection in tunnel: QBBI.B20R3
- ???

Courtesy A. Wozniak  
P. Thonet



# Tunnel News Week 11/2009

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- 1-2: AIV2 OK, starting final welding M, K, C' for 16R1. All SAM welding done (except for pressure relief nozzles), can organise leak testing end W12.

First 6 W bellows closing.

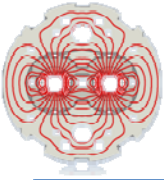
- 2-3: SAM work ongoing (except Q6R2 - and Q6L8 - , no intervention in partial warm-up possible, RP evaluating conditions for next shutdown)

Triplets in R2: intervention for pressure relief nozzles starting.

- 3-4: finished QRL service module repair work (A. Pirotte)
  - 4-5: SAM work ongoing
  - 5-6: V lines He-leak tested OK, starting W bellows closing. Finishing arc SSS He gauges W12.
  - 6-7: RF ball test done (one buckled RF fingers, probably in QBQI). Endoscopy at ends OK for PIMs, but identified a plastic ribbon.
- Will need gamma ray tests over night in W12 (transport of concrete blocks ...)

MB swap organised for Saturday 21 March and Monday night 23 March.

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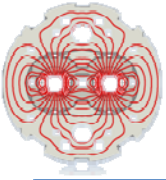
# Pressure relief DN200 News

	Total	Sector 1-2	Sector 3-4	Sector 5-6	Sector 6-7	Remarks
W6	2		2			Surface
W7	11		9			Surface
WS	34	9	11	3		Surface & Tunnel
W9	82	20	16	12		Surface & Tunnel
W10	167	34	27	24		Surface & Tunnel
W11	269	41	5	30	26	
W12	353			54	30	
W13	428			45	30	
W14	488				60	
W15	577	30	37		22	
W16	667	30	60			
W17	672	4	1			
<b>SUM</b>		168	168	168	168	
<b>Contract</b>		<b>DUBNA</b>	<b>S-108</b>	<b>S-107</b>	<b>S-108</b>	

- 5-6: Dubna (moved Saturday 14 March from 1-2 to 6L, S107 in 5R)
- 6-7: S108 moved from 3-4 to 6R

Courtesy JC. Perez





# Connection Cryostats: ongoing actions

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- In 5-6 (J.-P. Tock):
  - samples with Nomex prepared for LN2 cold-testing and rubbing
  - QEDI.5L6 (17th CC): endoscopy on DFBA-side, discussion with A. Perin Wednesday 18 March
  - further cuts and endoscopy, in 3-4 and 11L7, to compare current situation with past endoscopy (displacement of supports, insulation, bending)
- Generally (V. Parma):
  - regrouping historical knowledge
  - 2D non-linear model ongoing (C. Maglioni)
  - analysing endoscopy data, cross-check with respect to cool-down and powering
  - identify further candidates for insulating material
  - study re-opening possibilities and long-term intervention strategy
- MPE: verify response to a single short to ground