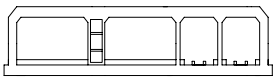
TUNNEL NAME/LOCATION/DATE COMPLETED: **Drogden Tunnel; Oresund, Denmark; U/C**			**T.106 - Drogden** 
TUNNEL TYPE AND USE: Reinforced concrete box sections; Vehicular and rail		LANES/TRACKS: Two tubes with two lanes each Two tubes with one track each Central services/escape gallery between road tubes.	
NO OF ELEMENTS: 20	LENGTH: 175.2 m	HEIGHT: 8.50 m	WIDTH: 42 m
TOTAL IMMERSED LENGTH: 3,510 m		DEPTH AT BOTTOM OF STRUCTURE: 22 m approx.	
UNUSUAL FEATURES:	The 22 meter tunnel segments will be cast in a temperature controlled factory in a single 24 hour long pour to prevent differential cracking. After casting sements will be jacked forward similar to incrementally launched bridges. After eight segments are completed and given 10 days of cure under cover, the element will be pushed into a lowering basin for completion and launched. The temporary lowering basin works similar to a canal lock system.		
ENVIRONMENTAL CONDITIONS:	The flow through the Drogden Channel must not be reduced. Consequently compensatory dredging will be adjusted after the tunnel is in place and backfilled and the flow is measured.		
FABRICATION METHOD: The 178 m long elements are cast in segments of 22 m in a temporary production yard in the Copenhagen North Harbour by use of incremental launch method.		JOINT TYPE: Gina and Omega gaskets.	OUTFITTING: Outfitting with pontoons took place in the canal lock.
WATERPROOFING METHOD:	No separate membrane is provided as concrete is designed to be watertight. Early age stresses are controlled by choice of casting sequence and environment, hence obviating the need to artificially cool the concrete.		
PLACEMENT METHOD:	Pontoons are used to lower the elements onto the screeded gravel bed.		
FOUNDATION METHOD:	Gravel bed placed to level without large scale screeding.		
DREDGING METHOD:	Separate contract from tunnel construction.		
VENTILATION TYPE:	Longitudinal jet fans.		
COVER AND TYPE:			
ADDITIONAL INFORMATION:	Owner: θresundkonsortiet, a company set up to build and operate the link, and owned 50/50 by the Danish and Swedish governments. Owner's Consultant: θresund Link Consultants, a joint venture of TEC (Holland), Halcrow (UK) and others. Contractor: θresund Tunnel Contractors (OTC), a joint venture of NCC (Sweden), Boskalis (Holland), Dumez-GTM (France), John Laing (UK) and Pihl and Son (Denmark). Design and build contract. Contractor's designer: Symonds Travers Morgan.		

Commentaire [C1] :