A TEMPORARY BRIDGE – 70 YEARS LATER

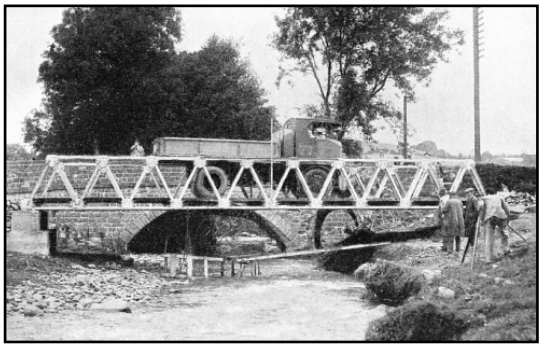
Because of the frequent WW II images, we often assume that all WW II bridging operations used Bailey Bridge equipment. But the first operational use of Bailey by the Royal Engineers was not until November 1942. The allies had entered WW II with a severe deficiency in its inventory of military bridges: the WW I-era Inglis Bridge had severe load limitations and the Royal Engineers and Royal Canadian Engineers had limited holdings in of an equipment called "Unit Construction Bridge."

Recent investigations in England have confirmed the existence and history of one of these bridges. The "Two Fords Bridge" over the River Lydden near Lydlinch in Dorset, England is of local historic interest. At this site two very different technologies are present: a 20th century steel bridge carries the eastbound traffic while an 18th century stone bridge (seen through the trusses) carries the westbound traffic while.

The steel bridge is of the "Unit Construction Bridge" type that was also called the Callender-Hamilton Truss-type bridge. As in other parts of England during WW II, the defence of England against an invasion required upgrading of the local roads and bridges in order to be able to support heavy military traffic like tanks. Taking on such tasks to improve the infrastructure was common for the RCE units that were stationed in England at the time while awaiting the D-Day invasion of mainland Europe.

Royal Canadian Engineers constructed this bridge in the spring of 1942 and it has been in continuous use on the main road since then. The old stone bridge at Bagber was not strong enough to take the heavy military traffic and the military operations required the installation a steel bridge in order to move tanks and materiel to the south coast prior to the Dieppe Raid in August 1942.

This bridging equipment used was the "The Callender-Hamilton" bridge - a modular pre-fabricated Warren truss bridge. This equipment had been designed primarily for use as permanent civil bridging but also for emergency bridge replacement and for construction by military engineering units. The designer of this bridge type was Archibald Hamilton (1898–1972), a New Zealand-born civil engineer who is notable for building the 'Hamilton Road' through Iraqi Kurdistan as well as for designing this Callender-Hamilton bridge system. Hamilton's bridge concept was inspired by his work as principal engineer on the Hamilton Road during the 1930s when he became aware of the need for strong, adaptable bridges that were made from simple components that could easily be transported and erected in remote locations or on difficult terrain.



Assembling a Callender-Hamilton bridge took much longer than the Bailey Bridge as it is made up of individual lengths of galvanized steel that are bolted together. It is, however, stronger and simpler in design concept than the Bailey Bridge.

Operation JUBILEE, the raid on Dieppe on 19 August, 1942, involved over 6,000 infantrymen (predominantly Canadian), who were supported by a Canadian armoured regiment and a force of Royal Navy and Royal Air Force landing contingents. It was these same armoured vehicles that had crossed the new Lydden bridge months earlier, on their way to the coast for training and preparations that were to land in Dieppe. These same routes would be used later for the massing of heavy forces for the D-Day invasion.

More than seventy years after its construction, this 'temporary' tank bridge is still an integral part of local road infrastructure. The quality of the steel and the original galvanization is such that not a hint of rust is evident and the quality of the RCE construction has withstood the 'test of time'.