



CHINA HONG KONG RAILWAY INSTITUTION

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17th August 2021

昆侖號橋樑運架一體機技術交流

Technical Seminar - Kun Lun Travelling Box Beam Launching Girder

Date: 28th August, 2021 (Saturday)

Time: 9:30 am to 11:30 am

Venue: Online

近年來，高速鐵路在世界上得到快速發展，目前已有中國、西班牙、日本、德國、法國、瑞典、美國、英國、義大利、俄羅斯、土耳其、韓國、比利時、荷蘭、瑞士等 16 個國家和地區建成運營高速鐵路，印度、泰國等也陸續開展高速鐵路的建造。預製混凝土簡支箱梁的運輸與架設施工在高速鐵路的建造過程中佔有非常關鍵的作用，本次演講的主要內容是預製混凝土簡支箱梁運輸和架設施工的主力施工裝備——昆侖號橋樑運架一體機 (1000t-40m)，該機是中國鐵建自行研發、設計和製造，具有完全知識產權，結構形式簡單、操作程式簡便、作業效率高、施工安全可靠，集提梁、運梁、架梁功能於一體，可以滿足高速鐵路 20m~40m 預製混凝土簡支箱梁在隧道內及隧道外的運輸及架設施工，實現高速鐵路全線無障礙架梁。演講將從昆侖號架橋機的研發歷程、功能、組成、施工流程及關鍵技術等方面進行詳細介紹，並通過視頻遠端觀摩昆侖號同型架橋機的現場施工。

In recent years, high speed rail developed rapidly in the world. There are 16 countries have built and operated high speed rail, including China, Spain, Japan, Germany, France, Sweden, America, UK, Italy and Russia. Construction of high speed rail will start in India and Thailand in the near future. Precast concrete box beams have been widely used in the high speed rail, therefore, the conveying and launching of precast beams are critically important in the construction. This technical talk will introduce a precast concrete box beam conveying and launching main-force equipment called "Kun Lun" Travelling Box Beam Launching Girder (1000t-40m), which was researched & developed, designed and manufactured by China Railway Construction Corporation Company Limited (CRCC) who has the proprietary intellectual property rights. The Launching Girder is a simple structure, easy in operation, high efficiency, high safety and high reliability. It combines the functions of lifting, conveying and erecting precast concrete box beams with span from 20m to 40m. It realizes barrier-free convey and erection of beams. This technical talk will cover the history of R&D, functions, construction process and key technology of Kun Lun. As a part of this technical talk, a real-time erection site visit through video will be arranged.

演講者
Speaker

唐坤元，現任中國鐵建漢江重工有限公司設計研發中心橋樑施工裝備研究所所長，專業從事高速鐵路橋梁施工裝備研究。曾先後參與 R500 長軌鋪設機組、900 噸 32 米高鐵過隧道運架分體機（運梁車與架橋機）、900 噸 32 米高鐵運架一體機、全國最大 2700 噸 64 米公鐵兩用節段拼裝造橋機的研發、製造及重大技術攻關。2018 年參加中國鐵建股份公司重大科技專項課題“高速鐵路 40m 預應力混凝土簡支箱梁運架成套施工設備研製”研究，作為 1000 噸 40 米高鐵過隧道運架分體機、梁場用搬梁機的方案總設計師、項目實施負責人，同時參與 40m 運架一體機的研製。負責或參與研製的 40m 高速鐵路運架梁施工裝備在福廈高鐵、南沿江高鐵、杭衢高鐵、昌景黃高鐵、滬蘇湖高鐵等線路成功投入使用，負責超過 80% 的架設任務。

Tang Kunyuan, Director of Bridge Construction Equipment Institution of CRCC Hanjiang Heavy Industry Company Limited, who is dedicated in high speed rail bridge construction equipment research and development. He successively participated in the R&D, design, manufacture and major technical breakthroughs for the equipment below: R500 Long Rail Track Layer, 900t-32m High Speed Rail Box Beam Conveyer and Launcher (Split Type), 900t-32m High Speed Rail Travelling Box Beam Launching Girder (All-in-one), 2700t-64m Highway-Railway Combining Bridge Segments Launching Girder. He participated in a CRCC Grand Task named “High Speed Rail 40m Prestressing Concrete Box Beam All-in-one Convey and Launching Equipment Research and Development” in 2018, and as the Chief Engineer for 1000t-40m High Speed Rail Box Beam Conveyer and Launcher (Split Type), later he participated in the manufacture of the all-in-one type equipment as well. The equipment has been successfully used in the construction of Fuzhou-Xiamen High Speed Rail, Southern along Changjiang River High Speed Rail, Hangzhou-Quzhou High Speed Rail, Nanchang-Jingdezhen-Huangshan High Speed Rail, Shanghai-Suzhou-Huzhou High Speed Rail, which completed over 80% of box beam erection tasks for the aforementioned railways.

Registration

For registration, each participant has to confirm to CHKRI his/her name, employer and contact telephone number by filling the online form on or before **25th August 2021**. Successful registrants will be notified in due course. The TEAMS link will be sent on 26th August. Certificate of Attendance will be issued to paid-up members ONLY.

<https://forms.gle/EwpYesDusECQTgHW6>



Alex Lo
Secretary, CHKRI