

# **Engineering Construction Cases**

# Believe us Believe safety





# **About ZZHZ**

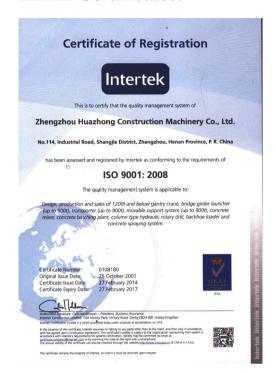
Located in Zhengzhou, central China, ZZHZ (Zhengzhou Huazhong Construction Machinery Co., Ltd) was founded to produce construction machinery with a land coverage area 60,000 square meters in December 17, 1992. ZZHZ started to design, fabricate highway bridge construction machinery since 1999, railway and high speed railway bridge construction machinery since 2005.



ZZHZ has obtained production license issued by China General Quality Supervision, Inspection Administration for Quarantine, and got ISO9001:2008 quality system certification and CE certification. To have more powerful development starts cooperations **ZZHZ** with China universities such as Southwest Jiaotong University, Dalian University of Technology and Wuhan University of Technology. ZZHZ products are widely used in highway, railway and high speed railway bridge construction projects in domestic market; meanwhile they are exported to many countries such as Vietnam, Singapore, India, Indonesia, Sri Lanka, Saudi Arabia, Qatar, and Morocco.

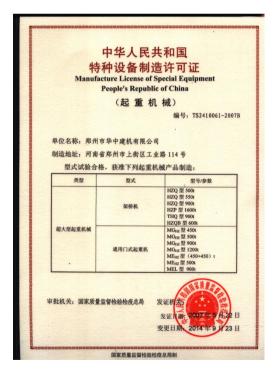


#### **ZZHZ** Certificates:









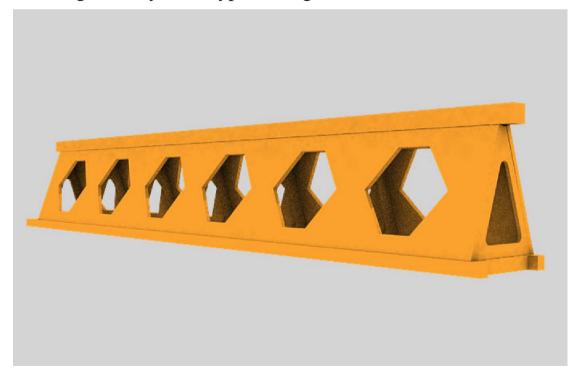


# Main advantages:

1. Design, fabrication and construction of lifting machinery;



2. Pioneering design all-the-world and adoption of isosceles triangle honeycomb type main girder;

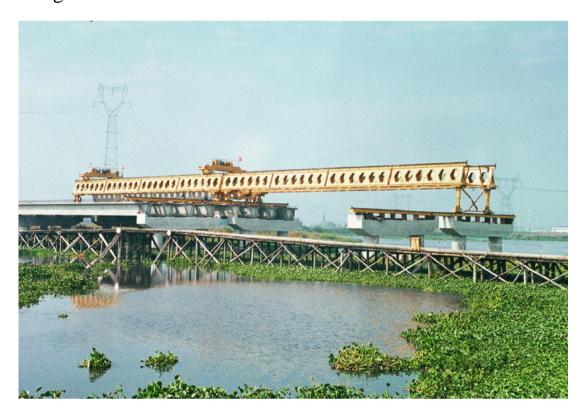




### Main bridge construction types in China:

A.Installation of bridge girders for highway with a speed 120km/h.

Highway design is usually of bi-directional and 4 lanes design with two paralleling piers in a row, each pier is placed 5 pieces of concrete girders, each girder weight 80-200t, length 30-50m. HZQ series highway launching girder is popular in highway bridge construction.























B.Installation of bridge girders for railway with a speed at 120km/h.

common railway is usually of single lane design with 2 concrete girders on each pier, double lanes design with 4 concrete girders on 2 piers, each girder weight 160t, length 32m. HZQ165T launching girder is specially designed for above bridge.







C.Installation of bridge girders for inter-city railway with a speed at 200km/h.

urban light rail is usually of double lanes design with 1 concrete HZQ500 railway launching girder is specially designed for above bridge.







D.Installation of bridge girders for high speed railway with a speed at 250km/h.

high speed railway is of double lanes design with 1 concrete girder on one pier, each girder weight 900t, length 24m or 32m. HZQ900T launching girder is specially designed for high speed railway.

























#### Note:

Above 4 kinds of concrete girders are produced at a large quantity in special pre-cast yard, then lifted onto special girder carrier by gantry crane and transported to proper position so that the launching girder can install girders. The construction way needs a large pre-cast yard but features short construction period and high efficiency.





























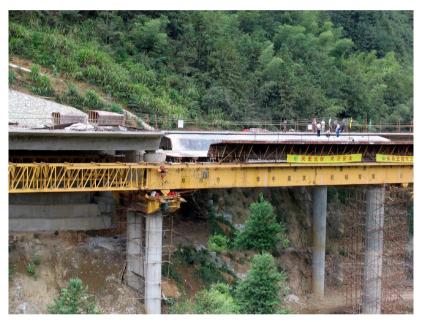






## E.cast-in-site concrete girders on two piers, namely MMS

pour one piece of girder on two piers, 1 week later move forward to produce another girder, girder weight 650t or 900t or 1000t, it is divided into MZ series upstroke movable scaffolding system and MSS series downstroke movable scaffolding system. The construction method suits highway and high speed railway projects with less concrete girders, long working period.



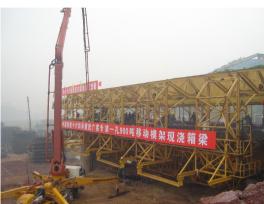






















#### F.Segments assembly then integral tension method on piers.

Pre-fabricate concrete segments in advance in pre-cast yard, then transport segments to proper position so that segments assembly launching girder can bond and install all segments in one span, then tension the whole span before erection of the next girder. The construction method suits highway and high speed railway projects with less concrete girders and long working period, especially suits to construct above the river. HZP series launching girder and girder carrier are necessary in above working condition.











# Foreign Engineering



Guinea engineering



Arabia engineering



Cameroon engineering



Singapore engineering



Vietnam engineering



Ghana engineering