



Track 進程

T2 主幹路及茶果嶺隧道

TRUNK ROAD T2 AND CHA KWO LING TUNNEL

第三期 ISSUE 3

02/2022



T2主幹路及茶果嶺隧道
TRUNK ROAD T2 AND CHA KWO LING TUNNEL



土木工程拓展署
Civil Engineering and
Development Department



巨型隧道鑽挖機啟動！

The Massive Tunnel Boring Machines Have Launched!

2021

7 月 JUL

隧道鑽挖機首批部件運抵香港

First batch of Tunnel Boring Machine (TBM)
components arrived in Hong Kong

8 月 AUG

隧道鑽挖機啟動豎井完成

Completion of the TBM Launching Shaft

11 月 NOV

隧道鑽挖機啟動

TBM launching

隧道鑽挖機正式啟動運作

LAUNCHING AND OPERATION OF THE TUNNEL BORING MACHINES



隧道鑽挖機在啟動
豎井內進行裝嵌
Assembly of the
two TBMs in the
Launching Shaft

經過一年多的設計、製造、測試及付運，T2主幹路及茶果嶺隧道的兩部巨型隧道鑽挖機已完成最後組裝並啟動隧道建造運作。

Following their design, manufacturing, testing and delivery, which together took over a year's time, the two gigantic tunnel boring machines (TBMs) of the Trunk Road T2 and Cha Kwo Ling Tunnel (Trunk Road T2) project have completed final assembly and launching for tunnel construction.

隧道鑽挖機運送過程 Delivery Process of the TBMs

2



中國江門廠房

兩部隧道鑽挖機的部件在德國及中國內地製造，在江門廠房首次完成組裝，經詳細測試後，再分拆成34件運送來港，其中最重的組件重量達480公噸。

Factory in Jiangmen, China

The two TBMs were first completely assembled here from parts manufactured in Germany and the Mainland. After detailed factory testing, the TBMs were disassembled into 34 components for shipment to Hong Kong. The heaviest ones weigh up to 480 tonnes each.

1

3

運送路線

由於隧道鑽挖機組件體積龐大，未能符合陸路運送的條件，因此需要以海路由江門廠房直送啟德工地。航海路線需依從內河船舶的相關規定，使用指定河道及距岸不超過五公里。34件組件共需10船次航程才完成運送。



The Delivery Route

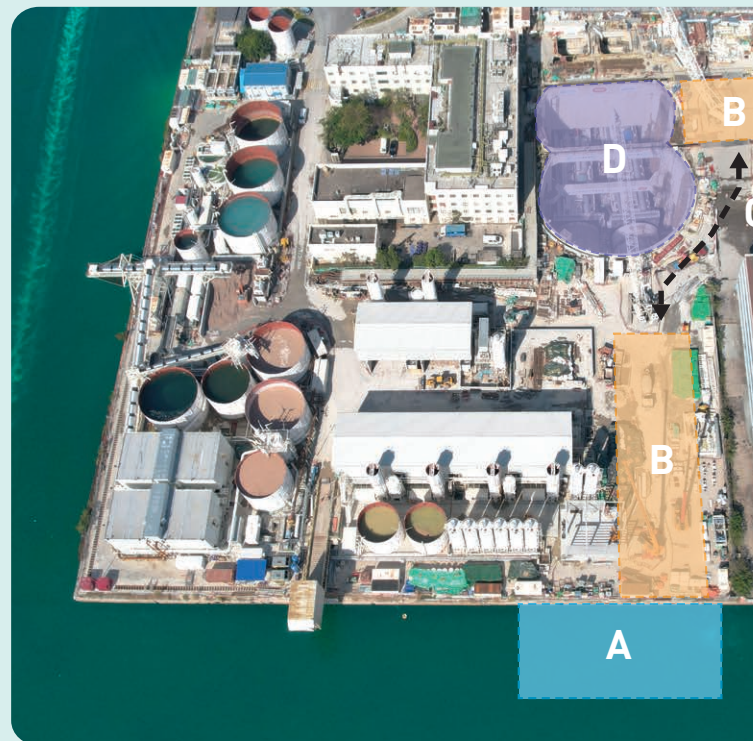
The TBM components were too sizeable to be delivered by land. Instead, they were shipped directly from the Jiangmen factory to the Kai Tak works site. The transportation route had to comply with the requirements for river-trade vessels. In particular, they need to operate along the designated river course and river trade limits, and stay within 5 kilometres from the coast. The 34 components required a total of 10 barge trips.

啟德工地

在啟德工地海旁，起重船將組件逐一從運載躉船吊到岸上，再利用自行式模塊運輸車運送至啟動豎井旁的暫存區，待龍門式起重機將組件吊進豎井內。

Kai Tak Works Site

At the seafront of the Kai Tak works site, a crane barge unloaded the TBM components onto the shore, from where they were transported by **self-propelled modular transporters (SPMTs)** to a temporary storage area next to the launching shaft, pending onward delivery down the shaft by a **gantry crane**.



A. 躉船卸載區
Barge
Unloading Area

B. 組件暫存區
Temporary
Components
Storage Area

C. 自行式模塊運輸車活動區
SPMTs Operation Area

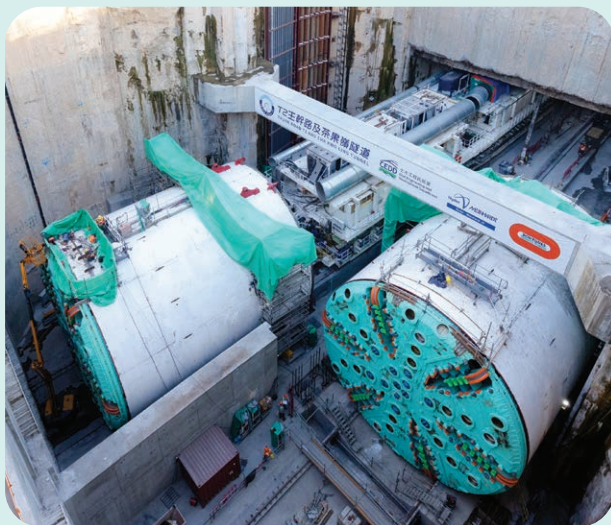
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隧道鑽挖機啟動豎井

兩部巨型隧道鑽挖機於啟動豎井內完組裝後，已啟動隧道鑽挖工程。

TBM Launching Shaft

After re-assembly in the launching shaft, the two gigantic TBMs have commenced tunnel construction works.



D. 啟動豎井
Launching
Shaft

自行式模塊運輸車

自行式模塊運輸車是一種用於移送大型重物的運輸機械，由多個元件按負載物的特性串連而成，各元件的運作相互配合，令運輸車即使在狹窄和高低不平的工地上亦能靈活移動，而負載物可維持於水平狀態，避免受損。



Self-Propelled Modular Transporter (SPMT)

An SPMT is a platform vehicle constituted by an array of basic units connected together in a manner that suits the load to be moved. Through the coordinated action of the individual basic units, the SPMT can manoeuvre steadily to keep the load in a horizontal state even on narrow and uneven surfaces, thereby minimizing the risk of damage.



Gantry Crane

Of 500 tonnes lifting capacity, the gantry crane operates on rails between the launching shaft and the adjacent temporary storage area, hoisting the colossal TBM components one by one for re-assembly down the shaft.

龍門式起重機

承重量達500噸，利用軌道穿梭於啟動豎井與旁邊的暫存區，將巨型隧道鑽挖機組件逐一吊進啟動豎井內組裝。



掃描二維碼，檢視龍門式起重機的三維影像
Scan QR code for 3D visualisation of the gantry crane

工程進度

PROJECT PROGRESS

1 | 進口車道 Approach Road

- 結構工程
- Structural works

2 | 西面通風大樓 West Ventilation Building

- 地基挖掘工程
- Foundation excavation works

3 | 隧道鑽挖機啟動豎井 Tunnel Boring Machine launching shaft

- 隧道鑽挖機安裝及啟動
- Assembly and launching of the TBMs

4 | 茶果嶺隧道 Cha Kwo Ling Tunnel

- 隧道挖掘工程
- Tunnel excavation

5 | 東面通風大樓 East Ventilation Building

- 地基挖掘工程
- Foundation excavation works



隧道鑽挖機命名

NAMING OF THE TUNNEL BORING MACHINES



海濱事務委員會主席吳永順先生（右三）及東拓展處處長梁中立先生（左三）與兩位大獎得獎同學（中）、老師及校長合照

Chairman of the Harbourfront Commission Mr. Vincent Ng (right 3) and Project Manager (East) Mr. Michael Leung (Left 3) with the two Grand Prize Winners (Middle), Teachers and Headmasters.

配合隧道鑽挖機的完成和啟動，於去年第三季舉行的隧道鑽挖機命名比賽，反應非常熱烈，共有近350位中小學生提交提名。評審團經過仔細考量，選取了「維多利亞」和「瑞亞」這兩個別具意義的名字。工程團隊衷心感謝每位參與的同學，及支持這項比賽的老師和學校。

命名比賽得獎名單詳載於本工程網頁 www.trunkroadt2.hk。

「維多利亞」Victoria

「維多利亞」除了是香港美麗海灣的名字，亦有勝利的意思，寓意工程順利完成。

Apart from being the name of Hong Kong's beautiful harbour, Victoria has the meaning of victory, symbolising smooth accomplishment of the project.

「瑞亞」Rhea

「瑞亞」是希臘神話中掌控時光的女神，與T2主幹路通車後減省行車時間、提供更便捷道路網絡的主旨相配合。

In Greek mythology, the goddess Rhea represents the eternal flow of time. This aligns well with the Trunk Road T2 project's objectives of reducing travelling time and create a more convenient transport network.

In connection with the completion and launching of the two Tunnel Boring Machines (TBMs), the TBM naming competition held in the third quarter of 2021 was met with an overwhelming response. Close to 350 primary and secondary school students submitted proposed names for the two TBMs. The judging panel selected the names "Victoria" and "Rhea" in consideration of their meanings and relevance to the project. The project team is grateful to each of the participants as well as their teachers and schools for their interest in the project and their support.

Please visit our project website www.trunkroadt2.hk for the list of the naming competition winners.



各得獎同學、老師及學校代表
Prize Winners, Teachers and School Representatives

如欲查閱更多有關T2主幹路及茶果嶺隧道的資料，請瀏覽網站：

Please visit the Trunk Road T2 and Cha Kwo Ling Tunnel project website for more project information:

感謝閣下瀏覽《進程》。

若對我們工程有任何意見，請將意見電郵至：

Welcome to our newsletter Track.

If you have any views on our project, please email us at: