

Shinkansen finally reaches northern tip of Honshu

With the opening of the 82-km Hachinohe–Shin Aomori section on 4 December 2010, Tohoku Shinkansen was finally completed nearly 40 years from the start of construction in 1971.

Following the opening of the westbound Tokaido Shinkansen (1964), the Nationwide Shinkansen Railway Construction and Improvement Act was enacted in 1970 to promote expansion of the high-speed network.

Based on this act, construction of the northbound Tohoku Shinkansen started in 1971. After delays caused by mounting construction costs and opposition from trackside residents, service temporarily started on 23 June 1982 from Omiya (30 km north of Tokyo) to Morioka (approximately 500 km from Tokyo).

The following provides a brief overview of long and complicated process until the completion of Tohoku Shinkansen.

(The photographs are courtesy of The Railway Museum unless otherwise stated).

1971

- The construction plan and budget for the Tohoku Shinkansen was approved; construction began in **November**.

1980

- The first Series 200 rolling stock was completed. The design maximum operating speed was 200 km/h and because trains would run through heavy winter snow, cars were fitted with snow and ice countermeasures such as extra bodywork to protect underbody equipment, snow separator, and snow plow. The livery was originally ivory with green bands at the car middle and bottom.

1982

- **23 June** marked the start of Tohoku Shinkansen services carrying 29,000 passengers a day between Omiya and Morioka in the first month. One service ran non-stop between Omiya and Morioka, while another stopped at some stations.



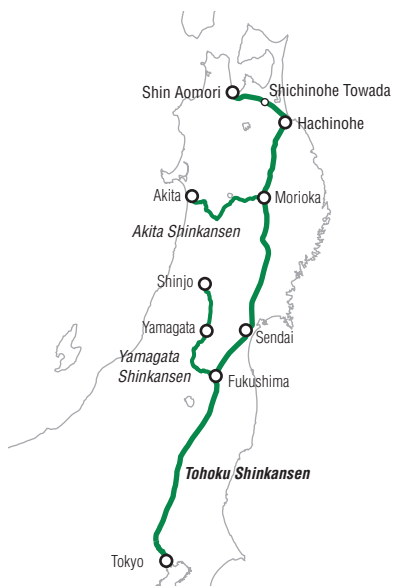
Nose and snowplow of Series 200 in 1982



Extra bodywork to protect underbody equipment from snow



Series 200 in February 1982



The Series E5 prototype is scheduled to debut in March 2011. (JR East)

1983

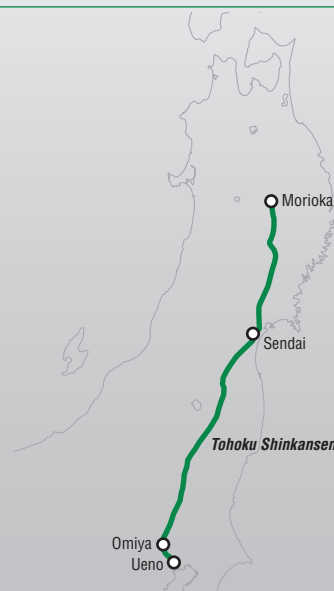
- The class 1000 with a maximum operating speed of 240 km/h was added to the Series 200. To cut running noise, it used three pantographs and higher voltages.

1985

- Ueno Station in central Tokyo became the new Tokyo terminus on **14 March**. Initially, the Tohoku Shinkansen had been planned to run from Tokyo Station, but overcrowding and opposition from residents in Ueno forced a change to Omiya at the service start. After finally reaching Ueno, the service was diversified with at least one *Yamabiko* stopping at all stations. With the faster operating speed and revised timetable, the quickest possible journey between Ueno and Morioka was cut to 2 hours and 45 minutes.



Tohoku Shinkansen opening ceremony at Omiya Station (Railway Journal)



Green Car seats for Series 200 in 1981



Green Car for Series 200 in 1981



Ordinary seats for Series 200 in February 1982



Ordinary car for Series 200 in February 1982

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Original Series 200 with round nose-end

1987

- JNR was split into six private passenger railway operators and one railfreight company.
- The number 200 Classes 221 and 222 were added to the Series 200. The interiors were very similar to the Series 100 on the Tokaido Shinkansen.

1988

- The March timetable revision increased maximum operation speeds with more services in anticipation of future services to Hokkaido.
- Series 200 number 200 Class 215 made its debut with similar exterior and interior designs to the Series 100 on the Tokaido Shinkansen.


1990

- The Class 200 number 248 and 249 were developed. Some partly double-deck cars had a Green Car compartment on the top floor. The 248 had a restaurant car on the bottom floor while the 249 had individual compartments.



A variation of Series 200 with pointed nose-end used for fastest Tokyo–Morioka services

(T. Honda)

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Photostory

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Series 400 with smaller loading gauge for through services between Tokyo and Yamagata via Fukushima (JR East)

1991

- Service was extended to Tokyo Station on 20 June.

1992

- The 86-km narrow-gauge section between Fukushima and Yamagata was converted to standard gauge. Through operation to Tohoku Shinkansen started on 1 July.

1994

- The first fully double-deck Series E1 Max was introduced to cope with rising passenger volumes.



Departure ceremony at Tokyo Station

(JR East)



First fully double-deck Series E1 Max

(JR East)



Nameplate commemorating Tohoku Shinkansen extension to Tokyo Station



Series 200 class F alongside Series 100 of Tokaido Shinkansen

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Series E3 with smaller loading gauge for through services between Tokyo and Akita via Morioka (JR East)

1995

- The Series E2 made its debut with the aim of phasing out the old Series 200 rolling stock.

1997

- The 130-km narrow-gauge section between Morioka and Akita was converted to standard gauge. Through operation to Tohoku Shinkansen started on **22 March**.
- The double-deck Series E4 *Max* made its debut.

1998

- The government approved extension of the Tohoku Shinkansen to Shin Aomori.



The Series E2 offers passengers improved ride comfort. (JR East)



The Series E4 *Max* distinctive nose shape improves aerodynamic performance at high speeds. (JR East)



The interior and exterior design of the Series 200 was updated in 1999. (JR East)



Bird's-eye view of Shin Aomori Station (JR TT)

1999

- Through services to Tohoku Shinkansen was extended from Yamagata to Shinjo (60 km) on **4 December**.

2002

- The Tohoku Shinkansen celebrated 20 years in service with the 97-km extension to Hachinohe on **1 December**.

2010

- Services to Shin Aomori started on **4 December** with a final link to Shin-Hakodate through the Seikan Tunnel by 2015.



Hayate departure ceremony at Hachinohe Station

(JR East)



- The Hokkaido Shinkansen between Shin Aomori and Shin-Hakodate is expected to start in 2015.