

The Railways of the Islamic Republic of Iran (RAI)

History:

Construction of railway in Iran was a great and national expectation, which this national wish came to reality in 1927. October 15, 1927 marked the beginning of constructing the trans-Tehran railway; since the very time the construction of railway was commenced at three points from South – Centre and North.

When the trans-railway was on the verge of completion, the Ministry of Roads and Transportation was committed to construct the other lines; the first line the construction of which started following the trans-railway was the Garmsar – Mashhad line. Construction of the said line was commenced on 15 March 1937, its infrastructure and rail laying up to Shahroud station (315 km) completed in 1941 and its operation began; but the constructional work from Sharoud onwards stopped due to the World War II, till end of war and removal of impediments, once again construction of this line resumed in 1947 by the Ministry of Roads and Transportation and the budget assigned by the Planning and Budget Org., and completed on 7 January 1956.

Current status of RAI

The Railways of the Islamic Republic of Iran (RAI) is the subset of the Ministry of Roads and Transportation of I. R. of Iran. Currently, RAI has 9864 km of rail lines, 4565 km of which had been constructed before and 5660 km after the Revolution. And for the time being, further 7500 km of rail lines is under construction and based on the Vision 2025 the length of the rail lines in Iran must reach up to 25000 km.

The gauge of the tracks is of standard gauge of 1435 mm except 94 km connecting to Pakistan that is of broad gauge of 1676 mm. 194 km is electrified too.

Technical Specifications

The Railways of Iran generally uses UIC 60 rails with 900 A grade, except in some old lines where U33 rails are applied. Concrete sleepers with B70 grade are mostly used with the exception of old lines fitted with wooden and steel sleepers.

Single and double tracks

Of the whole network 81.6% of the main lines are single track and 18.4% are double tracked.

Main lines constructed:

- Mashhad –Saraks (North-South): 180 km in length
- Khorramshahr-Shalamcheh: 16 km in length
- Second line of Tehran-Mashhad: 703 km in length, 223 km was already built.
- Aprin-Bam: 31 km
- Double tracking Tehran-Qom: with the length of 284 km
- Amir Abad Port-Rostam Kola: 20 km in length

-Ardakan-Chador malou: 219 km in length

-Kerman-Bam-Zahedan: 535 km in length

-Bafq-Mashshad: 800 km in length

-Esfahan-Shiraz: 500 km in length

-Branches: 81 km in length

Infrastructure key rail projects

Many infrastructure projects are being carried out by RAI to develop new railway lines and to supply the rolling stocks; upon realization of these projects Asia will be connected to Europe that could bring many advantages to the Middle-East countries and the region as well. Below are just some internationally important projects:

1-Construction of Qazvin – Rasht – Astara (372 km) is considered as the key route on the North – South corridor and is among the heaviest rail projects of Iran. Construction of this line has got around 70% progress.

2-Construction of Gorgan- Inchehbrun (82 km) along rail connection of Iran – Turkmenistan – Kazakhstan (East of Caspian Sea – 928.5 km) as an alternative to the North – South corridor, 700.5 of which is inside the territory of Turkmenistan, 82 km inside Iran and 146 km in Kazakhstan. This new route passes through Gorgan (Iran) Atrak, Berekat, Kyzilgaya (Turkmenistan) and Uzen (Kazakhstan). The route in territories of Iran and Kazakhstan is already complete and the section in territory of Turkmenistan is planned to be finished in October 2014.

3- Connection to Iraq through two projects:

- o Short-term project of Khorramshahr – Basra (51 km); operational work has been commenced by Iran with 16 km of length and the studies for the route in Iraq is in the final phase;
- o Long-term project of Arak – Kermanshah – Khosravi-Qaneqin (536 km); sub-structuring from Arak to Kermanshah is underway.

4- Construction of Sangan – Herat (191 km), is aimed at connecting Afghanistan to the rail networks of Iran, Central Asia, Middle-East, Europe, also accessibility of Afghanistan to the Persian Gulf and the Oman Sea. Substructure of two sections in Iran is complete and substructure of third section in Afghanistan is underway by the Government of Iran.

5-Double-tracking the Mianeh – Bostanabad – Tabriz route (202 km), upon completion of this project Mianeh - Tabriz will be shortened about 200 km. Furthermore, this route will increase the speed as well as the transportation capacity on the East – West transit corridor.

6-Chabahar Port-Birjand-Mashhad project (1330 km) aims to make a rail link from Sarakhs to Chabahar in the south to connect CIS countries to the Persian Gulf. Executive operations are already started.

7-High speed double track railways of Tehran-Qom (140 km)

8-High speed electrified railway of Tehran –Mashhad (940 km)

9-Tabriz-Azarshahr electrification (48 km). The project was launched and became operational on 13 Oct. 2012.

10- Electrification of Bafq-Bandar Abbas (600 km)

11- Electrification of Garmsar-Gorgan (404 km)

Rail connection with the neighboring countries:

RAI has rail connection with the below countries:

Turkmenistan (break of gauge 1435/1524 mm), Azerbaijan (break of gauge 1435/1524 mm), Pakistan (break of gauge 1435/1676 mm), Turkey (Van Lake ferry boat) with the same gauge. There is missing link with Iraq (1435 mm) and Afghanistan (1435 mm).

Key infrastructure projects of Iranian Railways

