

The Kalka – Shimla Railway

The Kalka-Shimla Railway is a 2 ft 6 in (762 mm) narrow gauge railway in North-West India travelling along a mostly mountainous route from Kalka to Shimla. It is known for breathtaking views of the hills and surrounding villages, and for having the greatest incline over its 96km stretch.

History

Shimla (then spelt Simla) was settled by the British shortly after the first Anglo-Gurkha war, and is located at 7116 feet in the foothills of the Himalayas. By the 1830s, Shimla had already developed as a major base for the British. It became the summer capital of British India in 1864, and was also the headquarters of the British army in India. Prior to construction of the railway communication with the outside world was via village cart.

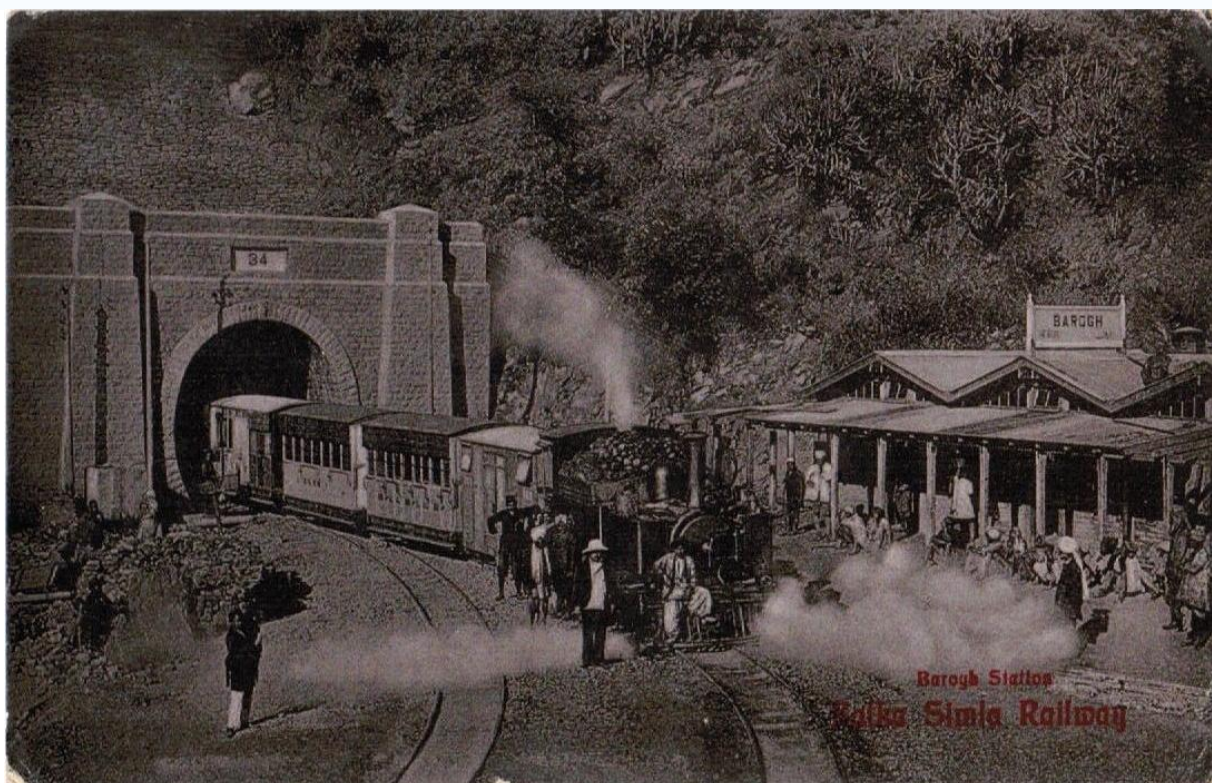
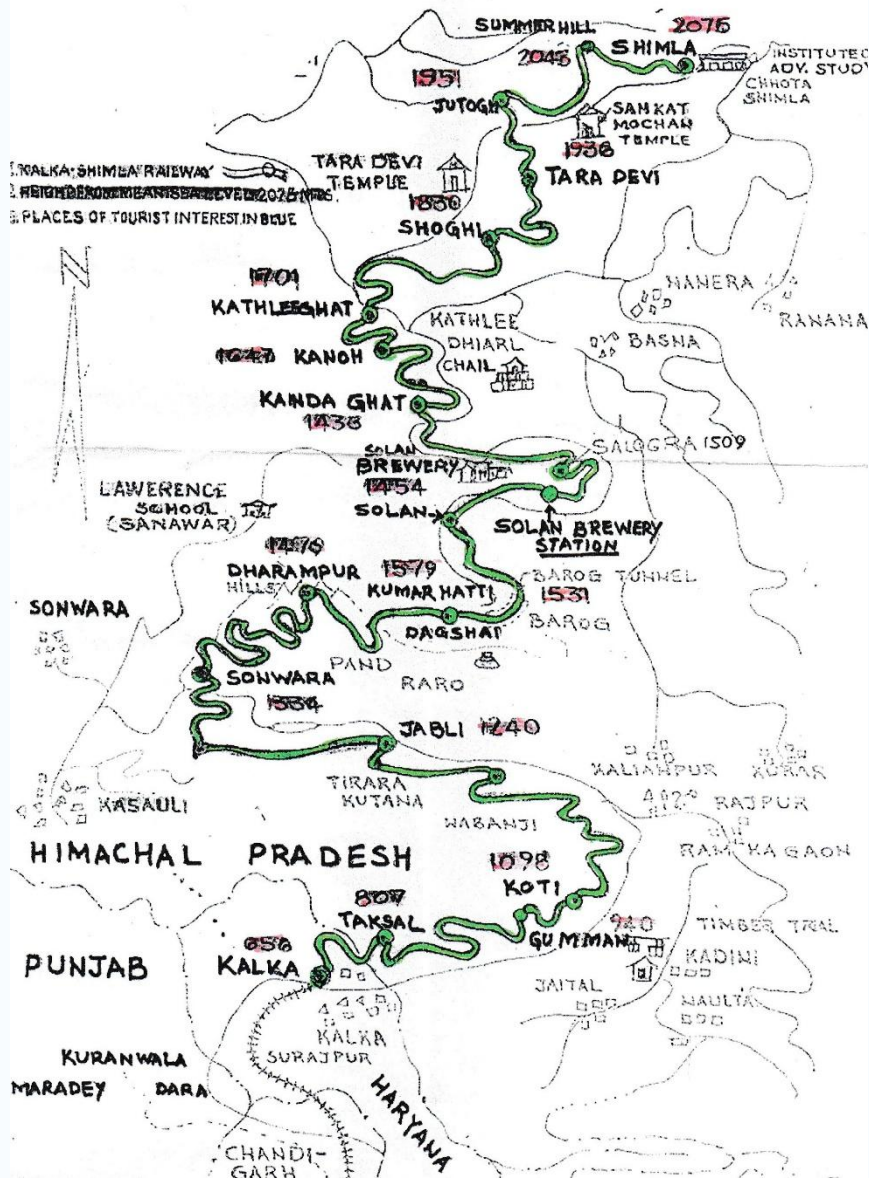


The railway was constructed by the Delhi-Umbala-Kalka Railway Company commencing in 1898. The estimated cost of Rs 86,78,500, however, the cost doubled during execution of the project. The 96.54 km (60 mi) line was opened for traffic November 9, 1903. Because of the high capital and maintenance cost, coupled with peculiar working conditions, the Kalka-Shimla Railway was allowed to charge fares that were higher than the prevailing tariffs on other lines. However, even this was not good enough to sustain the company and the Government had to purchase it on January 1, 1906 for Rs 1,71,07,748.

In mid-August 2007, the government of Himachal Pradesh declared the railway a heritage property in preparation for its review in September.

For about a week starting on September 11, 2007, an expert team from UNESCO was on a visit to the railway to review and inspect the railway for possible selection as a World Heritage Site. On July 7th 2008, the Kalka-Shimla Railway was included in the UNESCO World Heritage List. This has made it the fourth railway property in India to be declared so. Darjeeling Himalayan Railway, Nilgiri Mountain

SKETCH MAP OF KALKA SHIMLA RAILWAY (KSR)



Railway and Chhatrapati Shivaji Terminus in Mumbai have already been declared as world heritage properties.



Ordinary local train halts at the Solan Station

Route

The Kalka-Shimla Railway was built to connect Shimla, the summer capital of India during the British Raj, with the Indian rail system. Now, Shimla is the capital city of Himachal Pradesh and Kalka is a town in the Panchkula district of Haryana. Spectacular scenery along the whole route, and the marvels of its construction, keeps the traveler on this line spell bound. On leaving Kalka, 656 meters (2,152 ft) above sea level, the railway enters the foothills and immediately commences its climb.



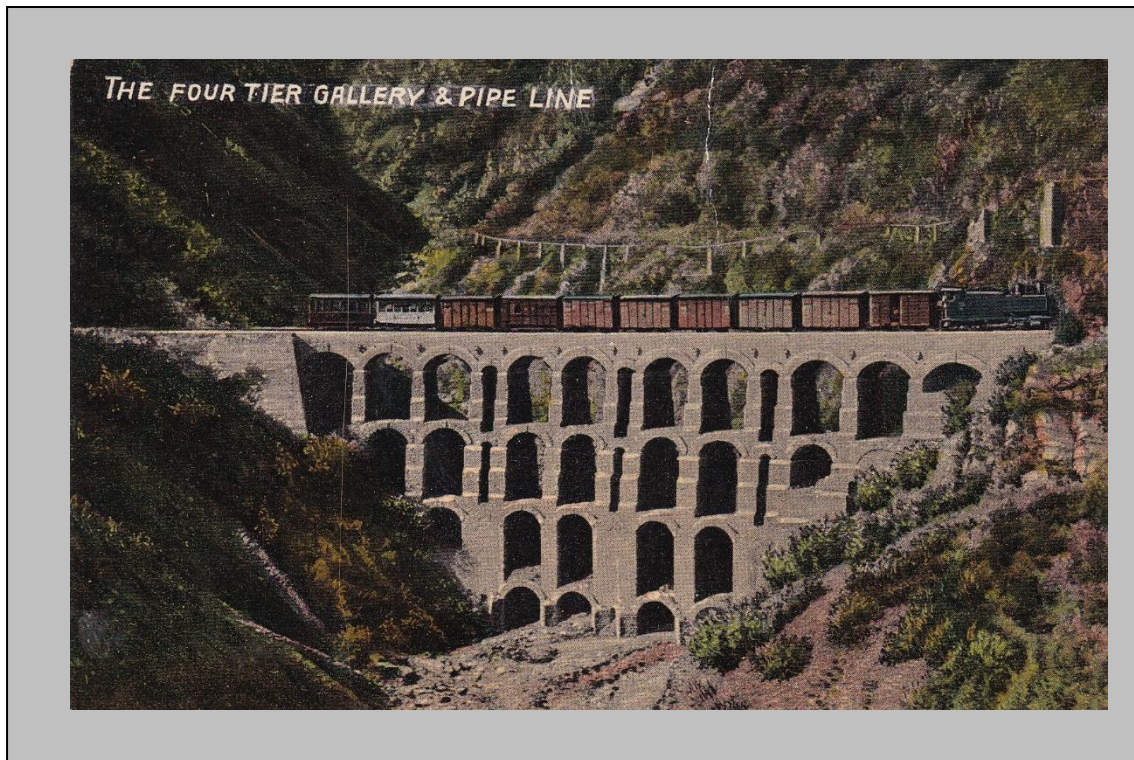
Kalka Railway Station



kaithlighat railway station

Stations

The route offers a panoramic feast of the picturesque Himalayas from the shivalik foot hills at Kalka to several important points such as Dharampur, Solan, Kandaghat, Taradevi, Barog, Salogra, Summerhill and Shimla at an altitude of 2,076 meters (6,811 ft).



A typical passenger train on one of the line's big bridges

Tunnels

The Kalka Shimla Railway runs through 103 tunnels (one is not in use; so only 102 in service). The longest tunnel is at Barog, and is named after the engineer in charge of construction. The tunnel which is 1143.61-

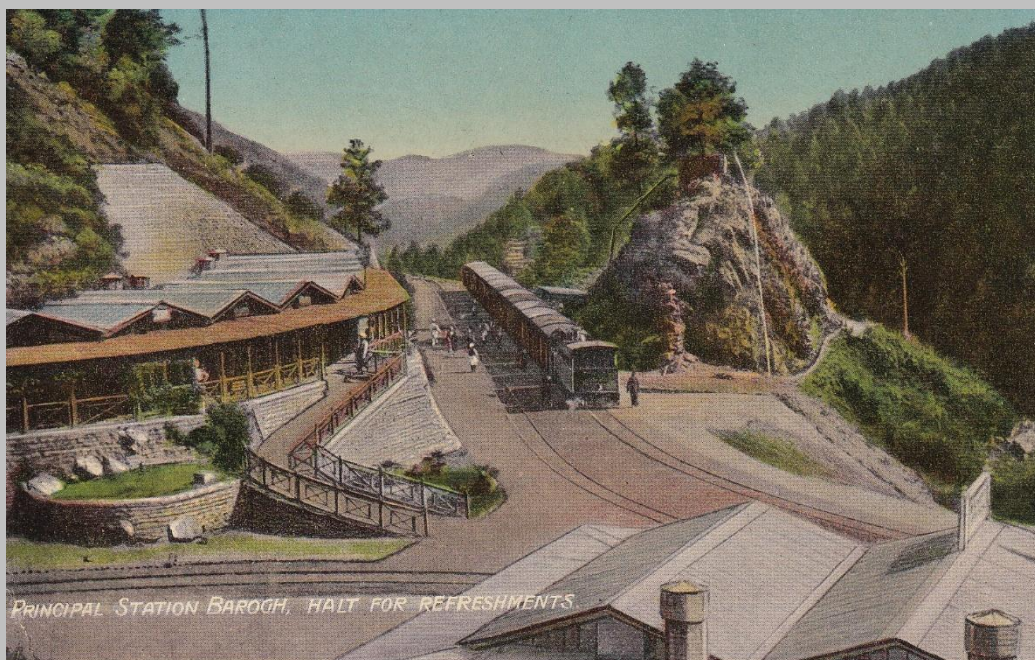
metre-long, and passes through fissured sandstone, has an interesting and tragic story associated with its construction. Barog, the engineer in charge, committed the mistake of digging the tunnel from both ends of the hill. The ends of the tunnels could not meet due to mistake in alignment. It is said that a fine of Re 1 was laid on him by the British authorities, for wasting government money in the tunnel. The British engineer could not digest this humiliation and during a walk along with his pet dog, shot himself in sheer desperation. He killed himself near what now is the state government-run Barog Pine Wood Hotel. It is said that his dog upon seeing his master bleeding profusely ran in panic to a village, near the present Barog railway station, for help. However, by the time people reached the spot, Barog had breathed his last. His tunnel was abandoned, and a second tunnel was constructed one kilometre away under the supervision the Chief Engineer, H.S. Harrington. Harrington had the assistance of Bhalku, a man from Jhaja, near Chail, who possessed natural engineering skills and is believed to have helped the British engineers bore other tunnels on the railway. Bhalku is regarded as a local saint, and apparently received a gold medal for his role in construction of the railway.



Infrastructure

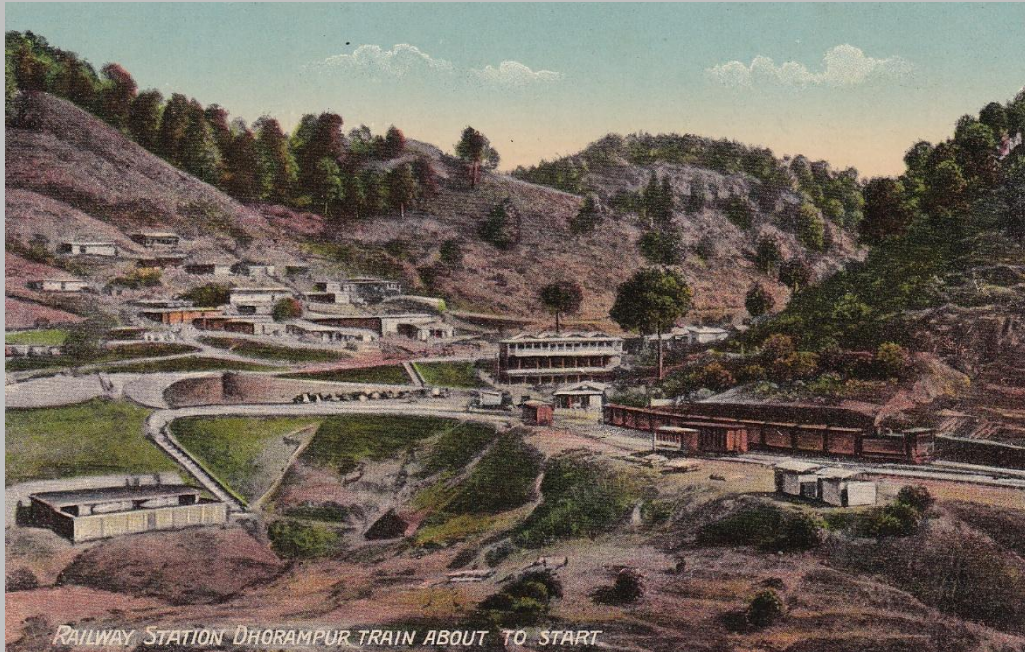
The line has 864 bridges, one of which is a 18.29 metre (60 ft) plate girder span and steel truss. The others are viaducts with multi-arched galleries like the ancient Roman aqueducts. Bridge No. 493, historically known as the "Arch Gallery", situated between Kandaghat and Kanoh stations, is an arch bridge in three stages, constructed with stone masonry. Bridge No. 226; between Sonwara and Dharampur is an arch gallery bridge having 5 tier galleries of multiple spans, constructed with stone masonry and bridging a deep valley surrounded by high peaks.

The railway has a ruling gradient of 1 in 33 or 3%. It has 919 curves, the sharpest being 48 degrees (a radius of 37.47 m or 122.93 feet). Climbing from 656 meters (2,152 ft), the line terminates at an elevation of 2,076 meters (6,811 ft) at Shimla. The line originally used 42lb/yd (21kg/m) rail but this was later re-laid to 60lb/yd (30kg/m) rail.



Locomotives

The first locomotives to arrive were two class "B" 0-4-0ST from the famous Darjeeling Himalayan Railway. These were built as 2 ft (610 mm) gauge engines, but were converted to 2 ft 6 in (762 mm) gauge in 1901. They were not large enough for the job, and were sold on in 1908. They were followed by 10 engines with a 0-4-2T wheel arrangement of a slightly larger design, introduced in 1902. These locos weighed 21.5 tons (21.85 tonnes), and had 30" (762 mm) driving wheels, and 12"x16" (304.8 mm x 406.4 mm) cylinders. They were later classified into the "B" class by the North Western State Railways. All these locos were constructed by the British firm of Sharp Stewart.



RAILWAY STATION DHORAMPUR TRAIN ABOUT TO START



ONE OF THE BIG GALLERIES ON THE LINE NEAR DHORAMPUR.

Larger locomotives were introduced in the form of an 2-6-2T, of which 30 were built with slight variations between 1904 and 1910. Built by the Hunslet and the North British Locomotive Company, these locomotives were about 35 tons (35.56 tonnes), with 30" (762 mm) drivers and 14"x16" (355.6 mm x 406.4

mm) cylinders. These locomotives, later classed K and K2 by the North Western State Railways, subsequently handled the bulk of the railways traffic during the steam era. A pair of Kitson-Meyer 2-6-2+2-6-2 articulated locomotives, classed TD, were supplied in 1928. They quickly fell into disfavour, as it often took all day for enough freight to be assembled to justify operating a goods train hauled by one of these locos. Shippers looking for a faster service started to turn to road transport. These 68 ton (69.09 tonnes) locomotives were soon transferred to the Kangra Valley Railway, and subsequently ended up converted to 1,000 mm (3 ft 3³/₈ in) gauge in Pakistan.

Rolling Stock

The railway opened using conventional four-wheel and bogie coaches. The tare weight of these coaches meant that only four of the bogie coaches could be hauled up grade by the 2-6-2T locomotives. In an effort to increase loadings in 1908 the entire coaching stock was rebuilt as bogie coaches 33' long by 7' wide, using steel frames and bodies. To further save weight the roofs were constructed using aluminium. Savings in weight meant the locomotives could now haul six of the larger coaches, significantly expanding capacity. This was an early example of the use of steel in construction of coaches to reduce the coaches' tare.

Goods rolling stock was constructed on a common pressed steel underframe, 30' long and 7' wide. Both open and covered wagons were provided, the open wagons having a capacity of 19 tons and the covered wagons 17.5 tons.

Trains

Shivalik Deluxe Express

Rail Car

Other Local trains

Railcars

Rail cars, which looked like buses on the rail, were used to transport upper class travellers. The fare for these cars was almost double of the first class ticket. The travel time by these rail cars was less than three hours from Kalka to Simla where as trains used to take between Six to Seven hours to complete this journey.

