

2.6 RAILWAY STATION

Classification of Railway Stations

Railway stations can broadly be sorted into various classes on the basis of two main considerations.

Operational considerations

As per the general and subsidiary rules of Indian Railways stations are classified as block stations and non-block stations. Block stations are further classified as A class, B class, and C class stations. Non-block stations are classified as D class or flag stations.

Functional considerations

Stations are classified based on the functions they are required to perform. Under this category, stations are classified as halt stations, flag stations, crossing stations or wayside stations, junction stations, and terminal stations.

The following factors are taken into consideration when classifying a railway station.

- (a) Least expenditure with regard to the provision of the least number of signals
- (b) Flexibility in shunting operations
- (c) Increasing the line capacity
- (d) Faster movement of trains

1 Block Stations

A block station is a station at which the driver has to obtain an 'authority to proceed' in order to enter the next block section. In a railway system that is inclusive of block stations, the entire railway line is divided into convenient block sections of 5 to 10 km and a block station is provided at the end of each block. This system ensures that

a suitable 'space interval' is provided between running trains so that there are no collisions and accidents. There are three types of block stations

A class station

A class stations are normally provided on double-line sections. At such stations a 'line clear' signal cannot be granted at the rear of a station unless the line on which a train is to be received is clear and the facing points set and locked. No shunting can be done after line clear has been granted.

A class stations are suitable for sections where traffic passes rapidly. It is essential for the driver of the train to have an advance knowledge of the layout of the block station.

B class station

This is the most common type of station and is provided on single-line as well as double-line sections. At a B class station, the line has to be clear up to an adequate distance beyond the outer signal before 'permission to approach' can be given to a train.

C class station

The C class station is only a block hut where no booking of passengers is done. It is basically provided to split a long block section so that the interval between successive trains is reduced. No train normally stops at these stations.

2 Non-block Stations or D Class Stations

D class or non-block stations are located between two block stations and do not form the boundary of any block section. No signals are provided at D class stations.

A D class station that serves an outlying siding is called a *DK station*. At such a station, the siding takes off through a crossover, which can be operated only with the help of a key, which in turn is released with the help of a ball token. A D class station that serves no siding is called a *flag station*.

3 Functional Classification of Stations

The layout of stations varies in size and importance according to the type and volume of traffic handled and according to their locations with respect to cities or industrial areas. Broadly speaking, the layouts required for passenger stations and their yards can be divided into the following categories for the purpose of study.

- (a) Halts
- (b) Flag stations
- (c) Roadside or crossing stations
- (d) Junction stations
- (e) Terminal stations

Halt

A halt is the simplest station where trains can stop on a railway line. A halt usually has only a rail level platform with a name board at either end. Sometimes a small waiting shed is also provided, which also serves as a booking office. There is no yard or station building or staff provided for such types of stations. Some selected trains are allotted a stoppage time of a minute or two at such stations to enable passengers to entrain or detrain. The booking of passengers is done by travelling ticket examiners or booking clerks.

Flag station

A flag station is more important as a stop-over for trains than a halt and is provided with a station building and staff. On controlled sections, a flag station is equipped with either a Morse telegraph or a control phone, which is connected to one of the stations on either side to facilitate easy communication. A flag station is usually provided with a small waiting hall and booking office, platforms and benches, and arrangements for drinking water. Sometimes a flag station is also provided with a siding for stabling wagons booked for that station.

Wayside or crossing station

After a flag station comes the wayside or crossing station. While a flag station has arrangements for dealing with traffic but none for controlling the movement of the trains, a crossing station has arrangements for controlling the movement of trains on block sections. The idea of a crossing station was initially conceived for single-line sections, to facilitate the crossing of trains going in opposite directions so that there may be a more rapid movement of trains.

Junction stations

A junction station is the meeting point of three or more lines emerging from different directions. Normally at junctions, trains arrive on branch lines and return to the same station from where they started or proceed to other stations from where they again return to their originating stations.

(a) There are two platforms-one is the main line platform and the other is an island platform. In case the timings of two trains match, both the trains can be received and made to wait on either side of the island platform. This helps in the easy trans-shipment of passengers and luggage. Also, main line as well as branch line trains can be received on the main platform.

(b) A foot over bridge is provided for passengers to move between the station platform and the island platform.

(c) It is provided with a small goods siding and a goods platform to deal with goods traffic.

(d) A turntable is provided for reversing the direction of an engine, if required.

(e) The emergency crossover on provided either side of the station helps in switching to a single-line set-up in the case of an emergency.

Terminal station

The station at which a railway line or one of its branches terminates is known as a terminal station or a terminal junction (Fig. 26.11). The reception line terminates in a

dead end and there is provision for the engine of an incoming train to turn around and move from the front to the rear of the train at such a station. In addition, a terminal station may need to be equipped with facilities for watering, cleaning, coaling, fuelling, and stabling the engines; storing, inspecting, washing and charging the carriages; and such other works.

