2017 - MaBiDaTi develops a narrow-gauge standard in modular design

1. Basis track system

The base are modules with 64 studs in depth (See picture 1).



Picture 1: Basic system

The tracks consist of the 3 components of the 12 Volt system: Part 3230b Track, Track Slotted Rail Curved Inside Part 3229b Train, Track Slotted Rail Curved Outside Part 3228b Train, Track Slotted Rail Straight With these parts straight rails and curves can be constructed, which have a track spacing of 4 studs.



Picture 2: Straight track

The construction of the straight tracks (See picture 2) is very simple.

The construction of a 90 °-curve (See picture 3) is very complex, because the system must fit a base plate 48 * 48. In order to be able to fasten the bent rail parts, a corresponding substructure must be created. This results in the track level of 2 blocks (6 plates) to the upper edge of the rail. (See picture 4)



Picture 3: construction of a 90 °-curve

In order to achieve the predetermined raster, fitting pieces are necessary. (See picture 4)



Picture 4: fitting pieces

Picture 5 shows the finished construction with the web dam and the fitting



Picture 5: 90 °-curve



Picture 6: fitting pieces (2 studs and 3 studs)

The small tolerances in the track system (See picture 5 and 6) have no negative influence on the driving characteristics of the trains.

2. Trains

The trains are driven and controlled by the PF system. The vehicles have their role models at the Harz narrow-gauge cars. (See picture 7)



Picture 7: Diesel locomotive BR 199

Picture 8 shows the transmission of the BR 199. The battery and receiver are in the first car. (See picture 7)



Picture 8 : Transmission of the BR 199

3. Special track system

A track system becomes only interesting when points are used. The switches should fit on a 32 module. (See picture 9 and 10)



Picture 9: Simple switch



Picture 10: Double switch

Due to the 32 studs of the module, 32 studs are available for station construction. This results in 64 studs for the basic modules.

The switches have no moving tongues. Therefore, a module is required, which can take over this function. This module is called "sliding track". The length of the module is 16 studs. (See picture 11)



Picture 11: Simple switch with sliding track

The double switch is longer on one side 4 studs. As a result, the sliding track module has to be shortened by four studs. The solution shows the pictures 12 and 13.



Picture 12: Double switch 4 nubs too long (top right)



Picture 13: sliding track for Double switch

Picture 13 shows the necessary fitting (with 8 studs)

If all 3 modules are combined, you get a module with 176 studs, which corresponds to the basic grid. (See picture 14)



Picture 14: Double switch with sliding track

With these switch modules, the track system is complete, the construction fun can begin. (See picture 15)



Picture 15: a first draft

P.S. All modules were designed in AutoCAD and are available in blocks.dwg

P.S. 2 More information: <u>http://www.mabidati.de/ssb.htm</u>