



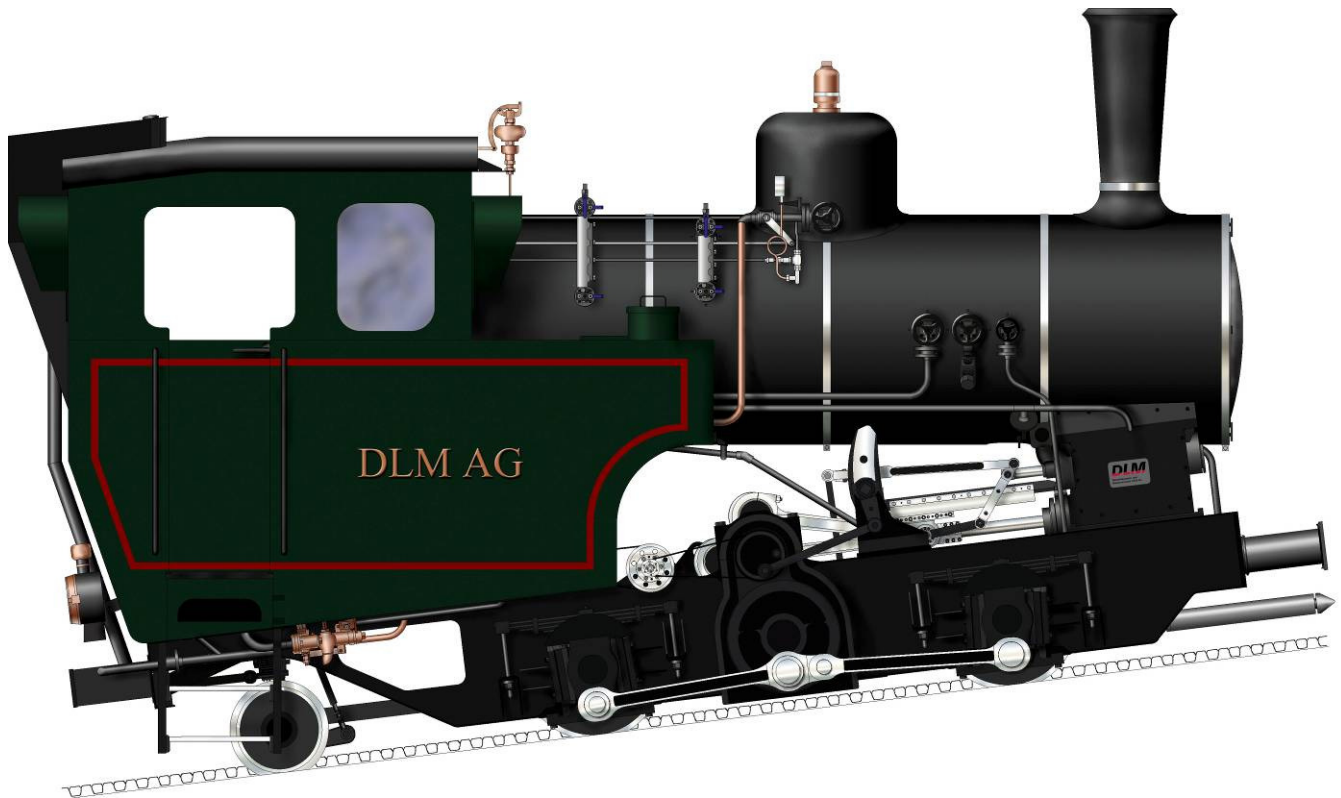
New Rack Steam Locomotives H 2/3 with One-man Operation ⇒ Economic, Attractive and Non-Polluting

Steam locomotives fascinate. Their power, sound and visible drive system attract young and old alike. This popularity creates better revenue, particularly on tourist railways. However, the perceived higher running costs of the old steam locomotives lead to a dilemma, often "solved" by introducing diesel traction. Most passengers prefer steam traction though and there is a much better solution now: *new* steam locomotives. This allows economic operation whilst retaining the attractiveness of steam traction.

To improve the economics of any railway operation it is necessary to convey more passengers with less staff. A new concept was introduced to achieve this. The new steam locomotives can be operated by the driver alone and do not need a fireman. The modern light oil firing system achieves a clean combustion with excellent emission characteristics, superior to diesel traction! The boilers of the modern steam locomotives are fully insulated and maintain steam pressure even overnight. Thus the locomotives are immediately ready for service. An electric preheating device allows unattended steaming up of a cold locomotive. Sealed, maintenance-free roller bearings are used for axles and drive rods.

The powerful new steam locomotives are built in all-welded lightweight construction. This allows pushing of two lightweight coaches seating up to 120 passengers on gradients of 25% (1 in 4) with a sustained speed of 12 km/h. A new version with larger cogwheels allows 15 km/h on rack sections.

New rack steam locomotives can be seen in daily timetabled service during the summer season on the Brienz Rothorn Bahn (BRB) in Switzerland and on the Austrian Schafbergbahn at St. Wolfgang.



Data		BRB	Schafberg	Project
Gauge	m m	800	1000	1000
Length over buffers	m m	6260	6260	6260
Overall width	m m	2200	2200	2200
Overall height	m m	3200	3230	3256
Cogwheel diameter	m m	573	573	688
Carrying wheel diameter (new)	m m	653	706	764
Pony wheel diameter (new)	m m	440	493	550
Wheelbase, total	m m	3650	3650	3650
Wheelbase, fixed	m m	2070	2070	2070
Boiler operating pressure	bar	16	16	16
Cylinder diameter	m m	280	280	280
Stroke	m m	400	400	400
Gear ratio		2,3:1	2,3:1	2,3:1
Weight in service (2/3 supplies)	t	15.5	15.5	15.9
Maximum speed	km /h	12	12	15



The rack steam locomotives are designed for gauges of 800 to 1000 mm and for the following rack systems: Abt, Rigenbach, Strub and VonRoll. Locomotives for standard gauge, different power ratings and speed characteristics can be supplied using standard parts. DLM can also supply steam locomotives for adhesion and combined rack and adhesion operation.

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