



Wickness Models Soundscape Class 52

Manufacturer: -

Wickness Models **Project number:** - WM052-1

Project version: - SSV1-London

Class 52

Power type Diesel-hydraulic

Builder British Railways' Swindon and Crewe Works

Build date 1961–1964

Total produced 74



With the Hymeks and Warships already in service but proving underpowered for top-link services, BR Western Region needed a high-powered locomotive for these trains – the Western therefore needed two diesel engines to achieve the required power output. In keeping with their policy, a new locomotive with a hydraulic transmission was envisaged. Experience had shown that the Maybach engines in the Hymeks were superior to the MAN engines used in the Warships, particularly in power output. Also Maybach were able to offer their 12 MD engines rated at 1,350 bhp (1,010 kW) allied to a Voith transmission; a Mekydro transmission designed to handle such power could not be fitted into the British loading gauge.

Prototypes sited the engines behind the driving cabs but drivers found this too noisy; moving the engines centrally meant making the locomotive heavier, removing some of the design's advantage. In production use, the dual-engine arrangement turned out to have some advantages: in particular, the Westerns were able to continue operating with a single engine running in situations where more conventional single-engine designs would require rescue by another locomotive. This valuable property was intentionally duplicated in the later High Speed Trains and was one reason for them having two power cars.[citation needed]

The most serious continual problem with the class was the design fault mismatch between the Maybach MD655 engines and the Voith L630rV three speed hydraulic transmissions. The top gear ratio in the transmission was too high for the torque characteristics of the engine: the result was that a single locomotive could struggle to reach its claimed 90 mph (140 km/h) top speed in the absence of down grades, more so when work-weary and due for overhaul. These factors, combined with the 'Devon banks' (a major part of their running grounds) deleterious effect on tired engines, all conspired against the Westerns continuing in top-line service; their replacement by Class 50s and High Speed Trains provided the speed and comfort increases the Western Region sought. Towards the end, the Westerns were all allocated to Laira (Plymouth).

In 1968–69 the Westerns received train air brake equipment in addition to their vacuum exhausters, thus significantly extending their working lives, unlike the similar but lower-powered, Warship class, although four of the class (D1017-D1020) did not receive dual brakes with these locomotives being among the first withdrawals. The vacuum brake equipment was retained and to fit the additional equipment, it was necessary to remove one of the fuel tanks. However, as with the Warships, it proved impossible to equip them with electric train heating (ETH, or head-end power in US terminology). The Western Region faced particularly stiff competition for its prime inter-city services in the mid to late 1970s from the M4 motorway and it was generally felt within BR that a significant speed and comfort increase on the prime Paddington-Bristol route were necessary. The lack of ETH meant the Westerns could not power the newly introduced air-conditioned BR Mark 2d/e/f coaches – a shortcoming that classes 47 and 50, equipped with ETH (the latter from new), did not share.

The highest recorded speed with a Western that O. S. Nock was aware of was 102 mph when D1068 hauled 9 coaches (305 tons gross) down 1 in 1320 (i.e. virtually level) at Southall. The train averaged exactly 100 mph for 12.8 miles between Slough and Ealing whilst hauling a service from Reading to Paddington. An unverified eyewitness account by a BR secondman (Drivers assistant) stated that 110 mph had been achieved when his driver drove a Western between Reading and Westbury. He experienced the loco shaking from side to side as 110 mph was indicated on the speedometer.

Decoder Type: - V4, V4 Micro, V4XL Speed Steps: 128

CV63 Main Volume: - 128(Max 192) Speaker: (4-8 Ohm)

Volume CV's Column: - Relevant CV's to adjust individual sound volumes

Volume Values Column: - Default volume setting for relevant sound CV's

Key	Function	Volume CVs	Volume values
F0	Directional Headlight		
F1	Startup/Shutdown 1	259, 267	96, 128
F2	Airhorn Low Hi	403	128
F3	Startup/Shutdown 2	267	128
F4	Airhorn Hi	275	128
F5	Airhorn Low	379	128
F6	Acceleration, Shunting Mode		
F7	Curve Squeel	371	105
F8	Switch Flange	443	104
F9	Compressed Air	323	120
F10	Conductors Signal	331	128
F11	Coupler	315	100
F12	Sand	339	72
F13	Main Soundscape	355	128
F14	Station people	307	128
F15	Airhorn Low	395	128
F16	Open Close Door	347	110
F17	Rail Clank	387	100
F18	Station Announcement	363	128
F19	Emergency Break	411	54
F20	Brake release-set	427	54
F21	Station Announcement	435	128
F22	Doppler Effect		
F23	Airhorn Hi-Low	419	128
F24	Diesel Notch Up		
F25	Diesel Notch Down		
F26	Dynamic brake		
F27	Double Brake Sound		
F28	Volume Control		

Acceleration - assigning this option disables momentum effects

Shunting mode – this option halves speed, useful in yard operations

Doppler Effect – simulates a Doppler sound effect based on speed when enabled

Diesel notch up - allows notching up of one notch per key press (~ 1 sec cycle), or engage for multiple notch points. Notches up regardless of speed.

Diesel notch down – notch down as above. Note: once engaged manual notching remains in effect until locomotive is stopped and notch point is at idle.

Disable brake sound – when engaged turns off automatic brake sound (CV459 (CV32=1))