

MT223

Etched wagon brake gear - 9' wheelbase Morton RCH type (4 sets)

**Includes levers, v-hangers
and safety loops**

These frets produce four sets of full-relief RCH-type double-sided Morton cam brake gear for 9' wheelbase wagons. They have been designed for upgrading the brake gear on plastic wagon kits, as well as for modifying RTR vehicles and for use on scratchbuilt wagons. The resulting gear retains the delicacy of the prototype while being robust enough for layout use.

The commonest application of the 9' Morton gear was the RCH standard 10T private owner wooden mineral wagon on a 16'6"

underframe, but many railway company wagons also used this brake gear. It was widely fitted from about 1885 to 1914 on pre-Group company wagons, and was later applied to types such as the LNER standard cattle van, LMS low-sided wagons and covered vans and - of course - the ubiquitous LMS/MoS/BR 16T steel mineral wagon. The gear is applicable to kits or RTR vehicles from the ABS, Slaters, Cambrian, Parkside, Kirk, Colin Ashby, Airfix/Dapol and Bachmann ranges.

Note the 'handing' of the Morton cams on one side of the wagon, as shown in the diagram. Be sure to select the correct offset of push-rods and cranks to suit the lever to be fitted on that side. To ease confusion, the NON-CAM brake gear is on fret 223 and the CAM brake gear is on fret 224. The correct combination for double sided brake gear (the most common type) is: plain lever and 223 brake gear (bottom of brake crank offset to right of v-hanger) on one side; cam lever and 224 brake gear (bottom crank to left of v-hanger) on the other.

Double v-hangers (one inside solebar, one outside) are provided. For many applications, only single v-hangers are needed. This varies with the particular prototype, but as a general rule

double hangers are usually only found on wooden solebar wagons. Most steel underframes had the inner v-hanger only, while some wooden-framed wagons with both side brakes used only the outer v-hanger on each side. Check prototype references to be sure about this. The only time when double v-hangers are *always* present is on 'independent' or single-sided gear, where the lever only works the brake gear on the same side. If there's a brake gear and lever on each side but no cross-shaft, then that's independent gear. You can model it from the parts provided by using 'right-offset' gears and plain levers on both sides.

Each brake and push-rod, hanger and crank assembly is made up of three layers to give correctly-spaced hangers and scale thickness push-rods and blocks. Fold up the layers as indicated on the sketch overleaf and solder or use cyanoacrylate (CA) to laminate the layers. Use the supplied 0.9mm wire for the brake cross-shaft – carefully open out the holes in the v-hangers, levers and cranks out to suit with a fine tapered broach.

Floor-mounting tabs are provided - you may need to file the top of the back layer if these are used. Usually, the brake gear is best

fixed to the rear of the solebar, using plasticard spacers as needed to ensure alignment with the wheels, in which case the tabs can be discarded. The brake gear can be attached to the wagon with a gel CA, a contact adhesive such as Bostik or UHU, or - best of the lot - with 5-minute epoxy like Devcon or Araldite Rapid, which gives time for adjustment and a very strong bond.

Other details supplied include the safety loops - which can be bent to form the rounded or squared-off pattern - and the brake lever ratchet. The frets also include a few other useful wagon underframe bits such as draw plates, label clip and owner's plates.

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