

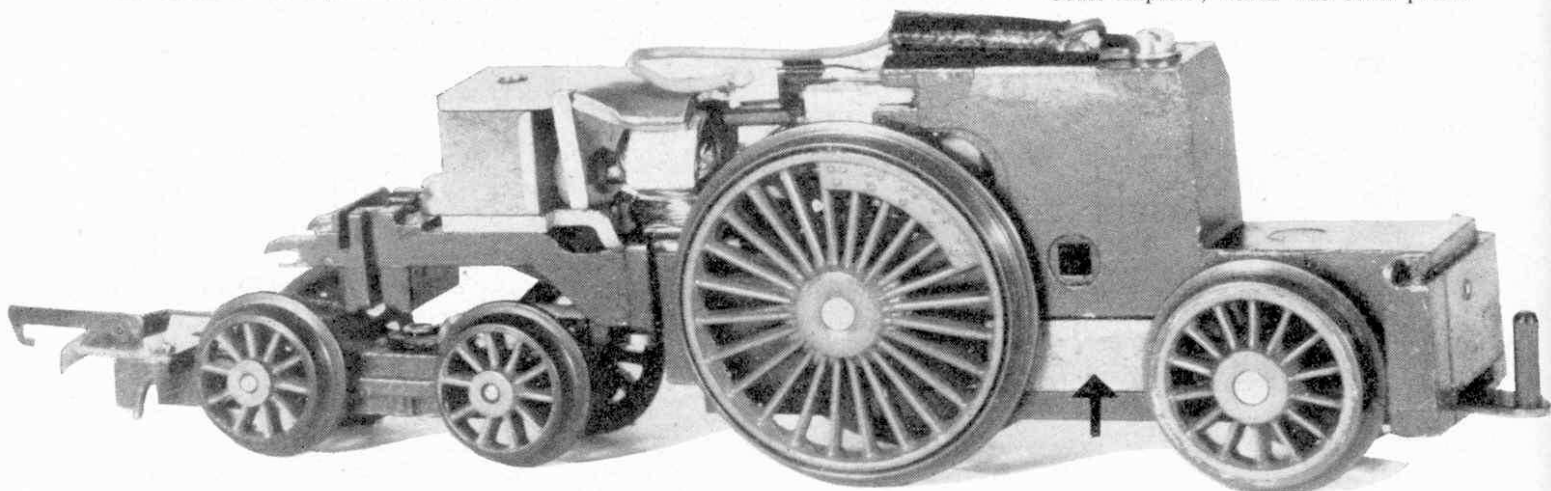
THE capacity of your locomotives to pull as great a load as possible is a feature to which most enthusiasts attach great importance. Previously, if your locomotive had insufficient traction through a lack of adhesion weight, the only solution was to pack the body with lead to increase its tractive effort—or the number of wagons it could pull. Manufacturers have previously overcome this difficulty by adding extra weight to the chassis of their locomotives and also by casting the body in metal. This procedure invariably made the engine more expensive. Also, plastic moulding techniques enable an enormous amount of fine detail to be reproduced; far more

# More Triang-Hornby Locomotives

by Linesman

should it be accidentally dropped. This, though, does *not* mean that it can be deliberately maltreated, since the mechanism is an intricate piece of engineering. It also gives much greater and more realistic control at slow speeds—a very useful feature when shunting.

One of the nine locomotives in the Triang Hornby range to be fitted with Magnadhesion is the 2-6-2 Tank Locomotive No. R.59. This is painted in a green livery and has Walschaerts valve gear. It is a most useful locomotive and can be used for a whole variety of operations, from local passenger to small express trains such as the 'Cambrian Coast Express', which was often pulled



The chassis of the Caledonian Railway No. 123. An arrow points to the magnet used to produce Magnadhesion as described in the text

than that obtainable with cast metal, which is also brittle and easily broken.

The Triang Hornby System includes locomotives that are reasonably light in weight, which have plastic bodies, with the consequent high standard of detail and finish, and give excellent traction. These advantages have only been possible because of the introduction of Magnadhesion by Rovex engineers. This invention is unique to the Triang Hornby range, and confers adhesion powers never before thought possible in locomotives of their weight and size.

Magnadhesion is basically a very simple but ingenious invention that takes advantage of the use of steel rails as used in the Triang Super 4 track system, by literally creating a magnetic field on one or more pairs of wheels on the locomotive so that they are attracted to the steel rails. The powerful attraction still allows the wheels to roll on the rails, but will not allow them to slip, except under very adverse conditions. This has the effect of giving the locomotive far greater power, especially on gradients. To evaluate the effects of Magnadhesion, tests were carried out at the Rovex Scale Models factory, where a train of 25 assorted four-wheeled wagons were tested behind a variety of Triang Hornby locomotives on an oval of level track. The locomotives were then timed for one complete journey round the oval. The most

successful was the A1A-A1A Diesel (R.357) which took 15 secs. The Britannia 4-6-2 (R.259) and the 2-6-2T (R.59) 17 secs.; the Co-Bo Diesel Electric locomotive (R.2233) and the 4-4-0 class L1 (R.350) at 18 secs.; the 0-6-2 Tank (R.2217) 24½ secs.; the 0-6-0 (R.251S) 43 secs., the 0-4-0 Dock Shunter 57 sec.

The train was then increased to fifty wagons, two locomotives in the range were still able to pull it, No. R.357, the A1A-A1A Diesel locomotive, and (R.2233) Co-Bo Diesel Electric locomotive. The latter, which is not fitted with Magnadhesion, is a very heavy locomotive and has, as an extra aid to adhesion, two rubber tyres fitted on the driving wheels. The diesel locomotive, on the other hand, is a relatively light engine which, with the aid of Magnadhesion, was also able to move the train of fifty wagons—an achievement of some merit.

## Greater Realism

These tests were quite revealing in that four of the best performing locomotives were fitted with Magnadhesion—the Britannia R.259, the A1A-A1A R.375, The Tank R.59, and the L.1 4-4-0 R.350.

Among the many benefits of Magnadhesion are two that are not perhaps generally realised. The first is that there is a greatly reduced risk to the engine

by one of these locomotives. They were never really designed for goods working, but in recent times have been used for slow goods trains.

The Triang Hornby L1 4-4-0 locomotive falls roughly into the same category, and is used for similar types of trains. These trains are, however, oldcr, and were built for the Southern Railway. They were rarely seen outside this area and are, therefore, an ideal choice for Southern enthusiasts. The class introduced in 1926 by Maunsell for the Southern Railway was used for fast express work, but in latter times was almost exclusively used for goods traffic. Both it, and 2-6-2T are ideal for an end-to-end type layout since either can be used for secondary passenger duties. Goods can be operated by the 0-6-0 3F tender locomotive R.251S which for many years, along with other tender locomotives of similar classification, formed the nucleus of light goods engines on the L.M.S. until they were introduced in 1906 by Deeley, the then Locomotive Superintendent of the Midland Railway. They were rebuilt by Fowler during their L.M.S. ownership, and a large number were taken into British Railways stock in 1948. The model is supplied with a crew and is fitted with Synchro-Smoke, described last month. The locomotive is finished in matt black and has a very pleasing appearance.

Another locomotive which is often used for small goods trains, but nowadays more usually for shunting, is the 0-6-0 class 3F tank R.52S. This locomotive is modelled on the famous L.M.S. 'Jinties' which were themselves the final development of a long line of 0-6-0 tank locomotives built by the Midland Railway. This locomotive has always been a favourite among railway enthusiasts and can quite authentically be used for station pilot duties or shunting.

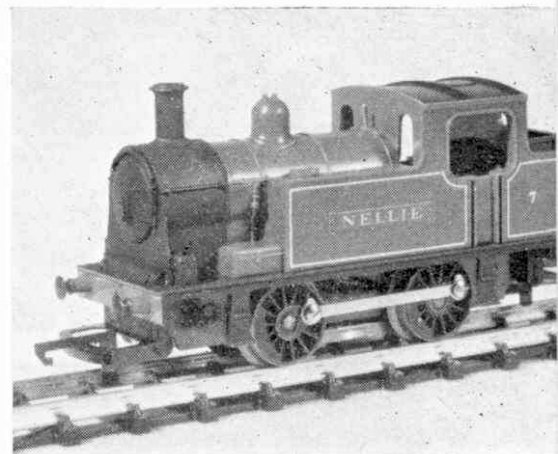
The original duties of the 3F tank are now largely carried out by the Diesel Shunter, also represented in the Tri-ang Hornby range by two models. One (R.2231) is a model from the Hornby-Dublo range, and was based on the B.R. Shunter introduced in 1955. These machines are now to be seen in large numbers in every part of Britain, usually on shunting duties in marshalling yards and in goods yards.

For light passenger suburban work another model from the Hornby-Dublo range, R.2207, an 0-6-0 tank locomotive attractively painted in green, is ideal. This model is also an engine owned by the former Southern Railway, who inherited it from the South Eastern and Chatham Railway. The class (R1), was originally introduced in 1888, to the designs of Sterling. It was later re-built however, to its present condition and forms a useful and unusual addition to any locomotive stud.

In addition to the larger 0-6-0 shunters in the Tri-ang Hornby range, three four-wheel shunters of various types are available. The most attractive in my opinion is the four-wheel British Railways Shunter R.559 which is painted green, and which bears the No. D.2907. This class of ten engines, are in use in small goods yards and are also used for other duties requiring limited power. They were made by the North British Locomotive Company in 1959, with hydraulic transmission instead of the mechanical type usually fitted to shunters.

The other two locomotives in the range are basically freelance designs and are most suitable for any private industries that you may have on your layout. The first, R.355, is an 0-4-0 tank steam locomotive painted in red livery and bearing the name 'Polly', and the other engine is a four-wheeled diesel dock locomotive with the words 'Dock Authority' on its side, and also a working headlight on the front.

In both this and the previous two articles I have described the range of Tri-ang Hornby locomotives, and you will see that a suitable engine is available for every possible type of model traffic that you are ever likely to operate over your layout. Locomotives are continually being added to the range, and occasionally withdrawn to make room for new types. Indeed several of the earlier locomotives—the 'Princess' 4-6-2



The Tri-ang Hornby 0-4-0 Tank Locomotive 'Nellie'. The latest version, 'Polly', is now available in red livery

for example—are now collector's pieces and are no longer obtainable. One point that must be emphasised however, is that to provide as great an interest as possible in your layout, it is important to run as many types of trains as your locomotive and rolling stock can provide, and if feasible, to formulate a simple form of operating timetable or sequence. In this way you will be obtaining the greatest possible fun from your locomotives and rolling stock.

Below (top photo): the Tri-ang Hornby 0-6-0 Class 3F Tender Locomotive No. 251 S. This locomotive is fitted with crew and SynchronSmoke. The bottom photograph shows one of the latest additions to the Tri-ang Hornby range, the B 12 Class 4-6-0 Locomotive No. R 150 S., also fitted with crew and SynchronSmoke

