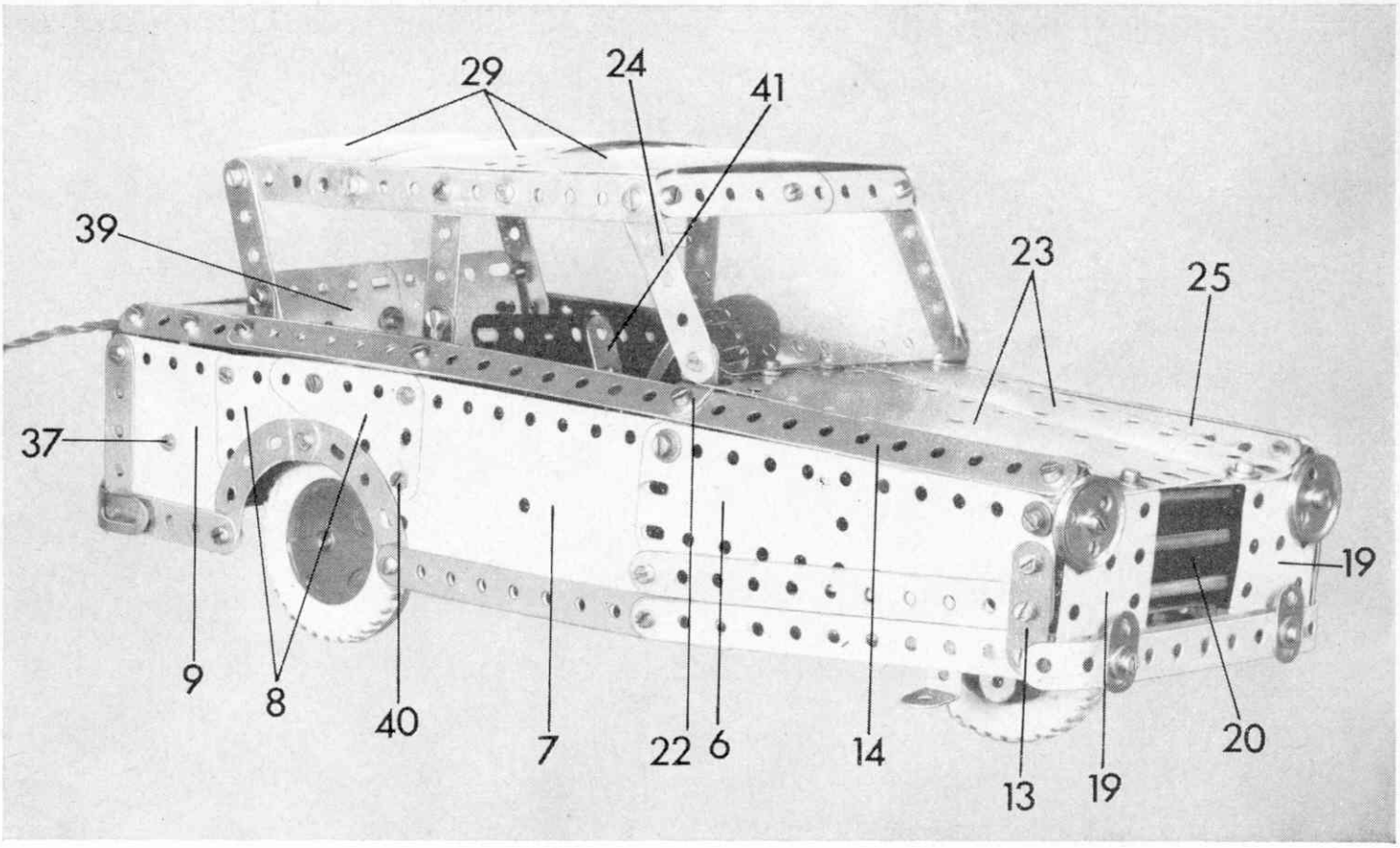



# REALISTIC RELIANT

## BY SPANNER

**This model of the ever popular Reliant three-wheeler shows well the high degree of realism that can be attained in even the simplest Meccano model.**

UNDENIABLE is the immense potential of Meccano as a miniature engineering system with which it is possible to reproduce all sorts of mechanical movements. I have heard it said, however, that while models can be made to perform exact mechanical manoeuvres, Meccano versions of actual objects or machines do not look very much like the original. This is obvious nonsense, and you have only to look at the model described below to prove it as such. Anybody interested in the motoring scene could tell at a glance that it is based on the popular Reliant 3-Wheeler. In fact, you couldn't get another constructional model looking much more realistic than does this particular example. The actual model illustrated is built with Meccano Outfit No. 7, but if you follow the building instructions given below, you will see that 14 Obtuse Angle Brackets are required to complete it, whereas only eight are included in the set. This problem is overcome by bending six Fishplates to form Obtuse Angle Brackets.

### Chassis

Two 12½ in. Angle Girders 1, each extended by a 2½ in. by ½ in. Double Angle Strip 2, are connected by another 2½ in. by ½ in. Double Angle Strip 3. Bolted to each Angle Girder 1 is a 4½ in. by 2½ in. Flat Plate 4, as shown, then these Flat Plates are joined by a 3½ in. by 2½ in. Flanged Plate 5.

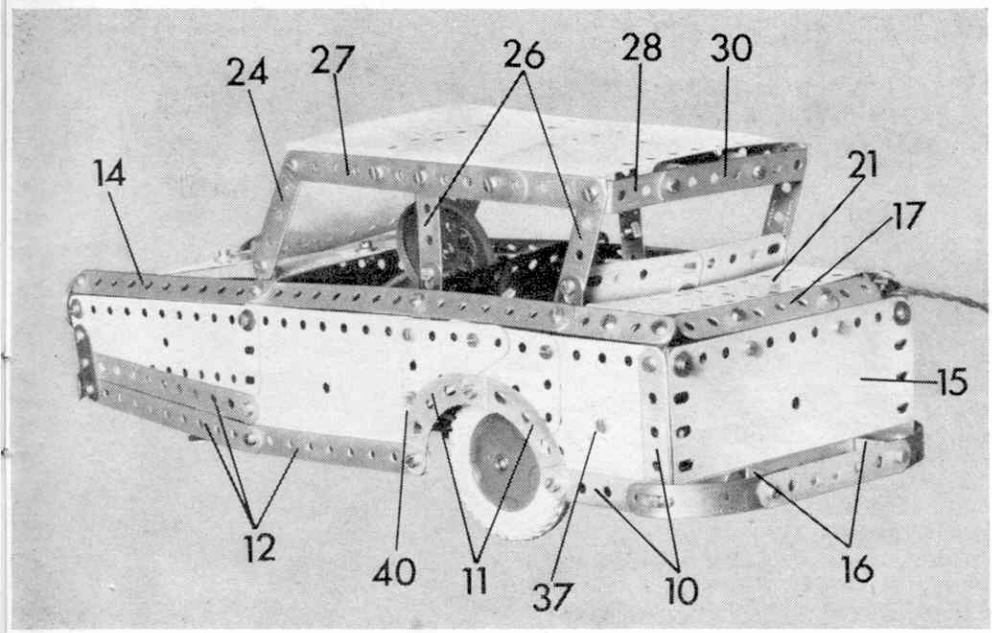
### Body

Both sides of the body are similarly built up from a 5½ in. by 1½ in. Flexible Plate 6, a 4½ in. by 2½ in. Flexible Plate 7, two 2½ in. by 1½ in. Flexible Plates 8 and a 2½ in. by 2½ in. Flexible Plate 9. The Plates are edged by two 2½ in. Strips 10, two 2½ in. Stepped Curved Strips 11, three 5½ in. Strips 12 and a 1½ in. Strip 13, while a compound 14½ in. strip 14 is attached to the upper edges of the Plate by Obtuse Angle Brackets. The compound strip consists of a 12½ in. and a 5½ in. Strip overlapped seven holes.

At the rear, the sides are joined by a 5½ in. by 2½ in. Flexible Plate 15, edged along the bottom by a 5½ in. Strip, Angle Brackets fixing the Plates to the side. The Plate is also bolted direct to the rear lugs of Double Angle Strips 2, at the same time fixing Double Brackets 16 in position. The rear bumper, obtained from a 3½ in. Strip extended by two Formed Slotted Strips, is attached to these Double Brackets. Fixed to the top of Plate 15 by Obtuse Angle Brackets are two 3½ in. Strips 17 overlapped five holes.

Secured to the front ends of Angle Girders 1 by Angle Brackets is a compound 4½ in. strip 18, obtained from two 3½ in. Strips, at the same time fixing two 2½ in. by 1½ in. Flexible Plates 19 in place. The resulting gap is enclosed by a 2½ in. by 1½ in. Flanged Plate 20, attached to Double Angle Strip 3 by Angle Brackets. Three 3½ in. Rods are held in the flanges of this Plate by Spring Clips to represent the radiator grille, while a 1 in. Pulley without boss is bolted to each Plate 19 to represent headlamps. A shaped 5½ in. Strip serves as the front bumper, which is attached to Strip 18 by ½ in. Bolts, but is spaced from it by four Washers on the shank of each Bolt. Two Fishplates act as overriders. Compound strip 18, incidentally, is connected to the sides by Angle Brackets.

Compound strips 14 at each side are now joined by a shaped 5½ in. by 1½ in. Flexible Plate 21 and a shaped 5½ in. Strip 22. Bolted to Strip 22 are two 5½ in. by 2½ in. Flexible Plates 23, overlapped one hole, at the same time securing in position two Angle Brackets to each of which a 2½ in. Strip 24 is attached. Before tightly fixing Plates 23, however, they must be overlapped three holes at the front so as to form a tapered bonnet. A 5½ in. Strip 25 is attached to each compound strip 14 by an Angle Bracket, after which Plates 19 are bent over at the top and bolted to Plates 23.




Two 2½ in. Strips 26 are connected by Obtuse Angle Brackets to each compound strip 14. Note that Strips 26 are fixed to Obtuse Angle Brackets through their second holes. The upper ends of Strips 26 are now connected together and to Strip 24 by a compound strip 27, obtained from two 5½ in. Strips, at the same time fixing an Angle Bracket in place at the front and a 1½ in. by ½ in. Double Angle Strip 28 in place at the rear. In addition, the holding Bolts also secure the roof, which is composed of three 5½ in. by 1½ in. Flexible Plates 29. Double Angle Strips 28 are joined by a 2½ in. Strip 30, while the windscreen, a 4½ in. by 2½ in. Transparent Plastic Plate overlaid by a 4½ in. compound strip, is bolted to the Angle Brackets at the front. The compound strip is composed of two 3 in. Strips overlapped three holes.

## Steering and drive

It is best to construct the steering and front axle assembly separately, and to mount it in the model as a completed unit. Two 2½ in. by ½ in. Double Angle Strips 31 are joined at one end by a 3½ in. Strip 32, to the centre of which a 1 in. by ½ in. Double Bracket is lock-nutted, at the same time fixing a 2½ in. Strip 33 through its second hole between the lugs of the Double Bracket. The lugs are extended by further 2½ in. Strips, but note that only one Bolt is used to fix each Strip to the respective lug. A 1½ in. Rod 34 carrying a 2½ in. Road Wheel is journalled in the second holes of the 2½ in. Strips, as shown.

Lock-nutted through the fourth hole of Strip 33 is a 1½ in. Strip, to the other end of which an Angle Bracket is lock-nutted. A Crank 35 is, in turn, lock-nutted to the free lug of this Angle Bracket, after which the complete unit can now be mounted in position by bolting Double Angle Strips 31 to Angle Girders 1. The steering column is a 4½ in. Rod fixed in the boss of Crank 35 and journalled in an Angle Bracket bolted to the underside of Strip 22 and in a ½ in. Reversed Angle Bracket bolted to the right-hand Double Angle Strip 31. A 2 in. Pulley acts as the steering wheel.

An Emebo Motor with a ½ in. Fixed Pulley on its output shaft is bolted to the underside of a 5½ in. by 2½ in. Flanged Plate 36, which is then fixed at an angle between the sides, being held by Bolts 37. The Pulley is connected by a 2½ in. Driving Band to a 1 in. Fixed Pulley 38 on a 5 in. Rod held in Girders 8 by Collars. Two 2½ in. Road Wheels are also fixed on this Rod.

Besides providing a "bed" for the Motor, part of Flanged Plate 36 also acts as the rear seat, the back of which is provided by two 2½ in. by 1½ in. Flexible Plates 39, overlapped one hole and connected to the Flanged Plate by a 1 in. by 1 in. Angle Bracket. The front seat is also provided by a 5½ in. by 2½ in. Flanged Plate, held by Bolts 40, the back being supplied by two 2½ in. by 1½ in. Plastic Plates, overlapped one hole and overlayed by a 1½ in. Strip 41. Again, it is fixed to the Flanged Plate by a 1 in. by 1 in. Angle Bracket.

## Parts required

| | | |
|---|---|---|
| 2 of No. 1 | 1 of No. 20a | 2 of No. 111a |
| 17 of No. 2 | 1 of No. 22 | 1 of No. 111c |
| 6 of No. 3 | 2 of No. 22a | 3 of No. 125 |
| 2 of No. 4 | 6 of No. 35 | 3 of No. 187 |
| 14 of No. 5 | 138 of No. 37a | 4 of No. 188 |
| 4 of No. 6a | 132 of No. 37b | 3 of No. 189 |
| 2 of No. 8 | 30 of No. 38 | 2 of No. 190 |
| 8 of No. 10 | 2 of No. 48 | 2 of No. 191 |
| 4 of No. 11 | 5 of No. 48a | 6 of No. 192 |
| 1 of No. 11a | 1 of No. 51 | 1 of No. 193c |
| 18 of No. 12 | 2 of No. 52 | 2 of No. 194 |
| 2 of No. 12a | 1 of No. 53 | 2 of No. 215 |
| 8 of No. 12c | 2 of No. 53a | 4 of No. 221 |
| 2 of No. 15 | 2 of No. 59 | 1 Emebo Motor |
| 3 of No. 16 | 1 of No. 62 | |
| 1 of No. 18a | 4 of No. 90a | |

An underneath view of the model showing the chassis, drive and steering arrangement