

Fig. 3. A semi-plan view of the lorry revealing details of the cab plating.

and a Formed Slotted Strip 12. The upper edge of each side is strengthened by a $3\frac{1}{2}$ " Strip, and a $4\frac{1}{2}$ " \times $\frac{1}{2}$ " Double Angle Strip 13 is bolted between the front ends of these Strips on each side.

The back of the cab is made by bolting a $4\frac{1}{2}$ " \times $2\frac{1}{2}$ " Flexible Plate between the ends of the Plates 11, and curved $2\frac{1}{2}$ " \times $2\frac{1}{2}$ " Flexible Plates 14 above each of these Plates. The rear window is edged by $2\frac{1}{2}$ " and $1\frac{1}{2}$ " Strips as shown in Fig. 3. Each side window consists of a 2" and two $2\frac{1}{2}$ " Strips arranged as shown. The roof consists of two $4\frac{1}{2}$ " \times $2\frac{1}{2}$ " Flexible Plates, curved and overlapped three holes, with a curved $2\frac{1}{2}$ " \times $1\frac{1}{2}$ " Flexible Plate on each side. It is bolted to the back of the cab and is connected to the front corners of the window frames by 1 " \times $\frac{1}{2}$ " Angle Brackets. The centre division of the windscreen is a $1\frac{1}{2}$ " Strip bolted to Obtuse Angle Brackets.

The steering column can now be fitted. It is supported in a Flat Trunnion bolted to Double Angle Strip 13 and in the 1 " \times 1 " Angle Bracket mentioned previously. A $\frac{3}{4}$ " Pinion on the lower end of the steering column engages the Contrate 7, and a Collar is used to hold the column in position.

The top of the bonnet is a curved $4\frac{1}{2}$ " \times $2\frac{1}{2}$ " Flexible Plate with a $1\frac{1}{4}$ " radius Curved Plate 15 and a $2\frac{1}{2}$ " \times $1\frac{1}{2}$ " Triangular Flexible Plate 16 on each side. The Flexible Plate is attached to Double Angle Strip 13 by an Angle Bracket, and is

bolted to a plate 17 fixed to the front of the chassis. Plate 17 consists of two $5\frac{1}{2}$ " \times $1\frac{1}{2}$ " Flexible Plates curved and overlapped as shown and strengthened by a $5\frac{1}{2}$ " Strip. The side of each front mudguard is made from a $2\frac{1}{2}$ " \times 2" Triangular Flexible Plate, a $2\frac{1}{2}$ " Strip and three $2\frac{1}{2}$ " Stepped Curved Strips. These are joined together by Fishplates as shown in Fig. 1 and are connected by Angle Brackets to the plate 17. The top of each mudguard consists of a $3\frac{1}{2}$ " \times $1\frac{1}{2}$ " Triangular Flexible Plate and a Formed Slotted Strip. The $3\frac{1}{2}$ " \times $1\frac{1}{2}$ " Triangular Flexible Plate is attached to the side of the mudguard by Angle Brackets, and the Formed Slotted Strip and one of the Curved Strips are bolted to a Double Bracket fixed to the lower front corner of the cab side. The step is a $2\frac{1}{2}$ " \times $\frac{1}{2}$ " Double Angle Strip, and it also is bolted to the Double Bracket.

A $2\frac{1}{2}$ " \times $1\frac{1}{2}$ " Flanged Plate 18 is bolted to the chassis and a Double Bent Strip fixed to it forms the pivot for the trailer coupling. The $5\frac{1}{2}$ " \times $1\frac{1}{2}$ " Flexible Plates forming the rear mudguards are supported by 1 " \times 1 " Angle Brackets.

The tank is made by bolting six curved $5\frac{1}{2}$ " \times $2\frac{1}{2}$ " Flexible Plates to each side of a $12\frac{1}{2}$ " \times $2\frac{1}{2}$ " Strip Plate. Two T-section girders 19, each made from two $12\frac{1}{2}$ " and two $5\frac{1}{2}$ " Angle Girders, are bolted to the Flexible Plates on each side (Fig. 4) and these girders are connected at the centre and at the rear by $2\frac{1}{2}$ " \times $\frac{1}{2}$ " Double Angle Strips. The joints between the Plates are strengthened on the inside by $12\frac{1}{2}$ " and $5\frac{1}{2}$ " Strips. A catwalk 20 is formed by a $12\frac{1}{2}$ " Strip supported by Obtuse Angle Brackets. Two of the filler caps are $1\frac{1}{8}$ " Flanged Wheels fixed on Pivot Bolts passed through the centre holes of $2\frac{1}{2}$ " Strips bolted to the top of the tank. The third cap is fixed on a $\frac{3}{4}$ " Bolt passed through a $2\frac{1}{2}$ " Stepped Curved Strip.

The front end of the tank consists of a $2\frac{1}{2}$ " \times $2\frac{1}{2}$ " Flexible Plate and two Face Plates, and is attached to Angle Brackets. The two lower bolts used for this purpose are passed through the Angle Brackets first and are fixed in them by nuts. The Plates forming the end can then be swung over the bolts and held by further nuts. The rear end of the tank is similar except that Semi-Circular Plates are used instead of Face Plates.

A platform 21 on each side of the tank is made by bolting two $12\frac{1}{2}$ " and two $5\frac{1}{2}$ " Strips to a $1\frac{1}{2}$ " Strip and a Flat Trunnion fixed to the girder 19, and a ladder, formed by Cord laced between two $2\frac{1}{2}$ " \times $\frac{1}{2}$ " Double Angle Strips, is arranged between the platform and the catwalk on one side.

The trailer wheels are fixed on a 5" Rod mounted in Double Brackets bolted to two leaf springs. Each of these springs is made and is mounted in the same way as the rear springs of the lorry described previously.

The trailer coupling is a $1\frac{1}{2}$ " Rod 22 held in a 3" Pulley bolted to $\frac{1}{2}$ " Reversed (Continued on page 518)

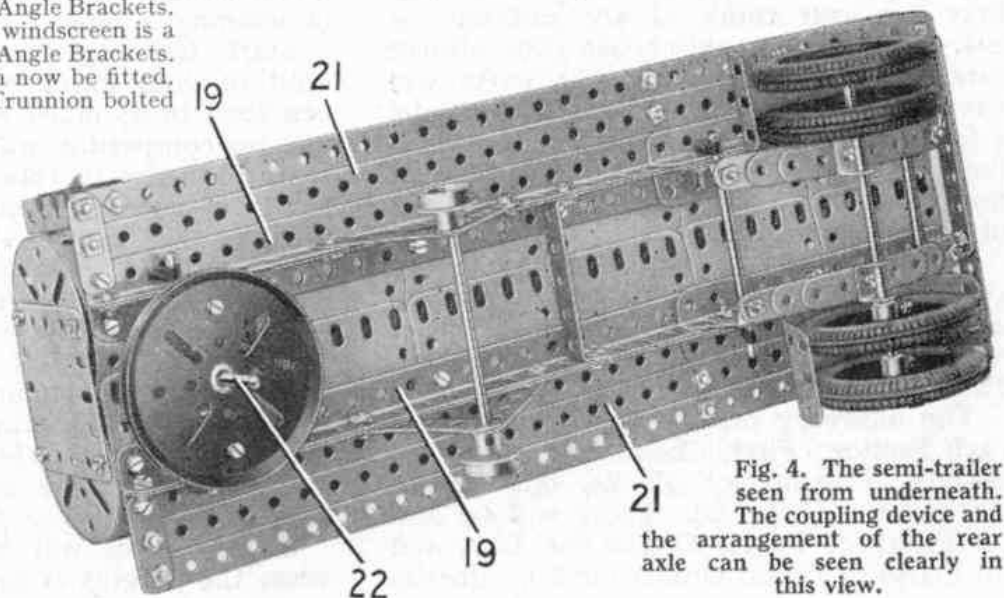


Fig. 4. The semi-trailer seen from underneath. The coupling device and the arrangement of the rear axle can be seen clearly in this view.