

VOL. XXXV. No. 5

MAY 1950

# MECCANO

## MAGAZINE



GAS TURBINE LOCOMOTIVE AT HARWICH

9<sup>D</sup>

# DINKY TOYS



**Land-Rover  
No. 27d**

A fine model of a vehicle designed to go anywhere and do anything  
Price 3/9 each



**The Standard 'Vanguard'  
Saloon, No. 40e**

Price 1/11 each



**Motocart  
No. 27g**

Low loading three-wheeled truck. Tipping high-fronted body  
Price 4/6 each



**Daimler Ambulance  
No. 30h**

A beautiful model finished in cream with red wheels and the Red Cross on each side.  
Price 3/3 each



**Massey-Harris Tractor  
No. 27a**

Price 3/6 each

**NEW**

READY DURING MAY



**Petrol Tanker  
No. 30p**

Realistic reproduction of a modern style tanker  
Price 2/6 each



**Farm Produce Wagon  
No. 30n**

Attractive model of all-purpose farm wagon  
Price 3/3 each



**Austin 'Devon' Saloon  
Dinky Toys No. 40d**

Price 1/11 each



**Harvest Trailer  
No. 27b**

Price 3/3 each



**Bedford Refuse Wagon  
No. 25v**

Sliding covers, tipping mechanism, operating rear door  
Price 5/6 each



**B.E.V. Electric Truck  
No. 14a**

Price 2/3 each



**Ford 'Fordor' Sedan  
No. 139a**

Price 2/6 each



**Estate Car  
No. 27f**

An attractive miniature of this popular general purpose vehicle

Price 2/10 each



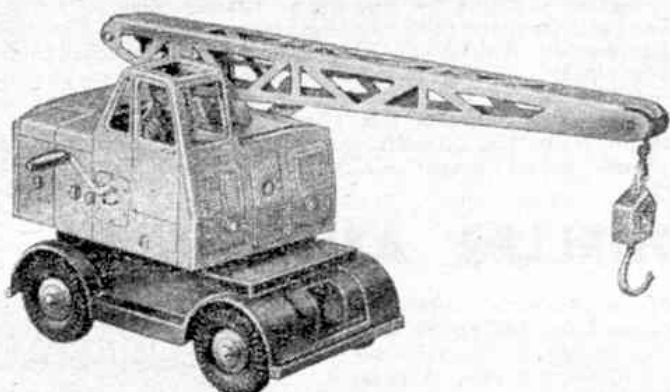
**Massey-Harris Manure  
Spreader, No. 27c**

Price 3/11 each

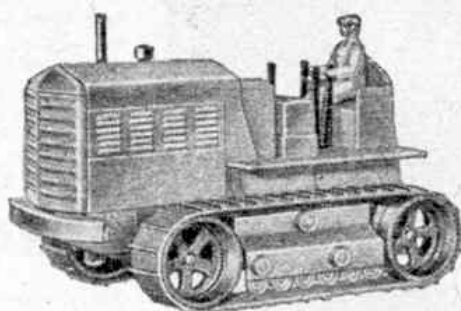
THE ABOVE PRICES INCLUDE PURCHASE TAX

MADE IN ENGLAND BY MECCANO LIMITED

# SUPERTOYS



**Dinky Supertoys No. 571  
Coles Mobile Crane**  
Hoisting, jib-raising and slewing movements  
Price 9/11 each



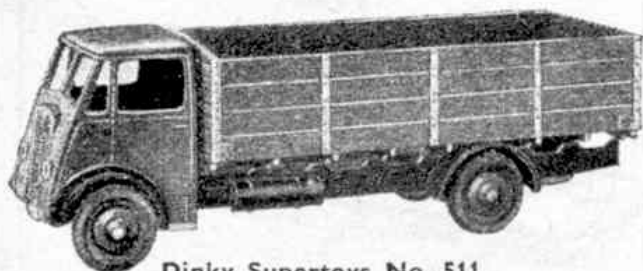
**Dinky Supertoys No. 563  
Heavy Tractor**  
Price 6/3 each



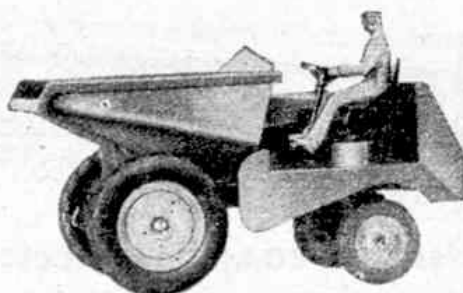
**Dinky  
Supertoys  
No. 751  
Lawn Mower**  
Price 5/6 each



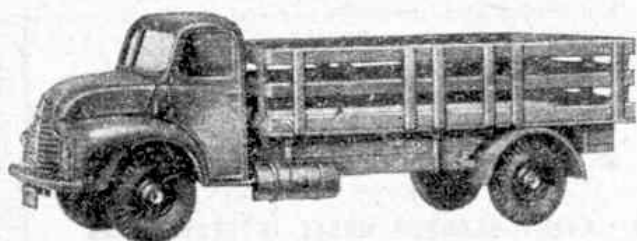
**Dinky Supertoys No. 504  
Foden 14-ton Tanker**  
Price 9/- each



**Dinky Supertoys No. 511  
Guy 4-ton Lorry**  
Price 4/9 each



**Dinky Supertoys No. 562 Dumper Truck**  
Adjustable front wheels, tipping bucket,  
reversible driving seat  
Price 6/6 each



**Dinky Supertoys No. 531  
Leyland 'Comet' Lorry**  
Price 5/- each



**Dinky Supertoys No. 514  
Guy Van**  
Large capacity van body, with  
opening double doors at rear  
Price 5/11 each

ALL PRICES INCLUDE PURCHASE TAX

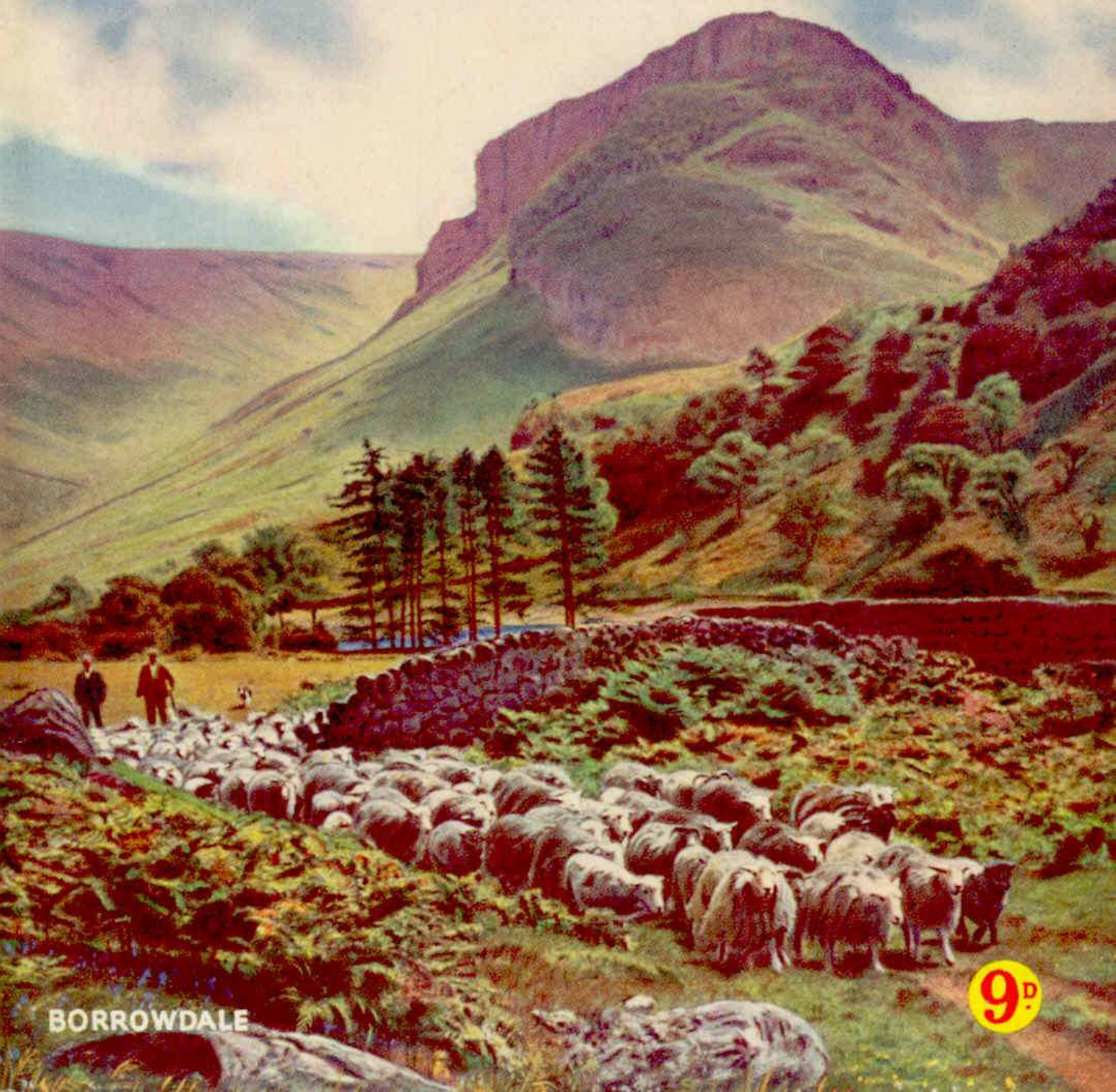
MADE IN ENGLAND BY MECCANO LIMITED

VOL. XXXV. No. 6

JUNE 1950

# MECCANO

## MAGAZINE



BORROWDALE

9<sup>D</sup>

# DINKY TOYS

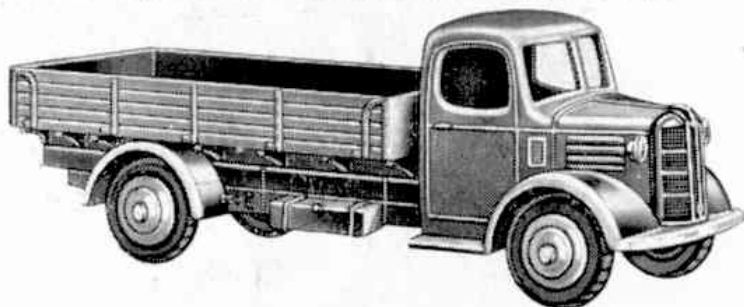
**NEW**

READY DURING JUNE



**MORRIS OXFORD SALOON No. 40g**

A splendid reproduction of a popular modern car with a striking horizontal radiator grille. Price 1/11 each



**AUSTIN WAGON No. 30j**

This handsome model has the characteristic lines of its well-known prototype. .. .. Price 2/4 each



**Massey-Harris Tractor No. 27a**  
Price 3/6 each



**Harvest Trailer No. 27b**  
Price 3/3 each



**Massey-Harris Manure Spreader, No. 27c**  
Price 3/11 each



**Petrol Tanker No. 30p**

Realistic reproduction of a modern style tanker  
Price 2/6 each



**Motocart No. 27g**

Low loading three-wheeled truck. Tipping high-fronted body  
Price 4/6 each



**Land-Rover No. 27d**

A fine model of a vehicle designed to go anywhere and do anything  
Price 3/9 each



**Farm Produce Wagon No. 30n**

Attractive model of all-purpose farm wagon  
Price 3/3 each



**Daimler Ambulance No. 30h**

A beautiful model finished in cream with red wheels and the Red Cross on each side  
Price 2/10 each



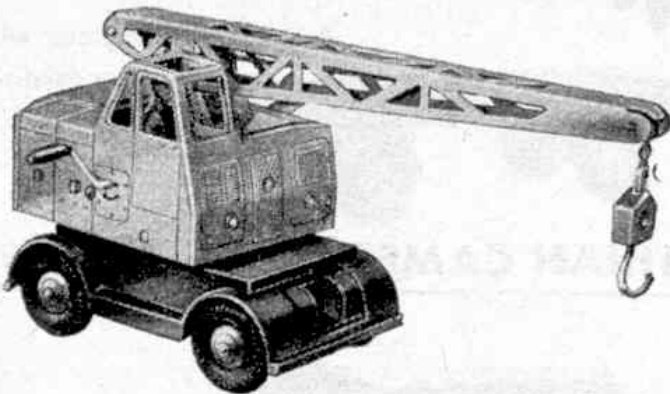
**Estate Car No. 27f**

An attractive miniature of this popular general purpose vehicle  
Price 2/10 each

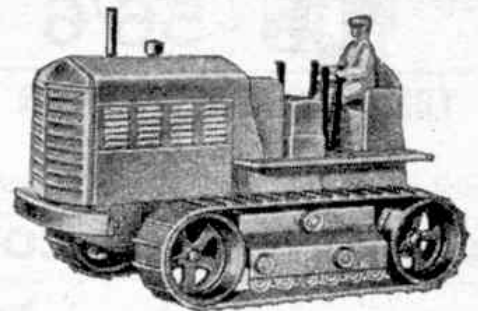
THE ABOVE PRICES INCLUDE PURCHASE TAX

MADE IN ENGLAND BY MECCANO LIMITED

# SUPERTOYS



**Dinky Supertoys No. 571  
Coles Mobile Crane**  
Hoisting, jib-raising and slewing movements  
Price 9/11 each



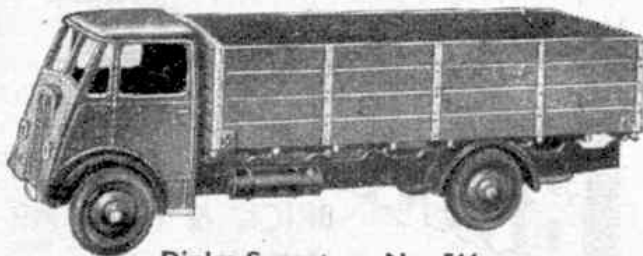
**Dinky Supertoys No. 563  
Heavy Tractor**  
Price 6/3 each



**Dinky  
Supertoys  
No. 751  
Lawn Mower**  
Price 5/6 each



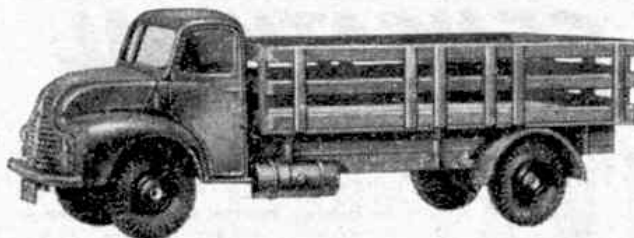
**Dinky Supertoys No. 504  
Foden 14-ton Tanker**  
Price 9/- each



**Dinky Supertoys No. 511  
Guy 4-ton Lorry**  
Price 4/9 each



**Dinky Supertoys No. 562 Dumper Truck**  
Adjustable front wheels, tipping bucket,  
reversible driving seat  
Price 6/6 each



**Dinky Supertoys No. 531  
Leyland 'Comet' Lorry**  
Price 5/- each



**Dinky Supertoys No. 514  
Guy Van**  
Large capacity van body, with  
opening double doors at rear  
Price 5/11 each

ALL PRICES INCLUDE PURCHASE TAX

MADE IN ENGLAND BY MECCANO LIMITED

VOL. XXXV. No. 7

JULY 1950

# MECCANO

## MAGAZINE



A JET FLIGHT

9<sup>D</sup>

# DINKY TOYS

**NEW**

READY DURING JULY



**HUDSON "COMMODORE" SEDAN  
No. 139b**

A fine miniature of a sleek American car, attractively finished in two colours .. .. . Price 2/9 each



**Austin Wagon  
No. 30j**

This handsome model has the characteristic lines of its well-known prototype  
Price 2/4 each



**Morris Oxford Saloon  
No. 40g**

A splendid reproduction of a popular modern car  
Price 1/11 each



**Motocart  
No. 27g**

Low loading three-wheeled truck. Tipping high-fronted body  
Price 4/6 each



**Estate Car  
No. 27f**

An attractive miniature of this popular general purpose vehicle  
Price 2/10 each



**Massey-Harris Tractor  
No. 27a**

Price 3/6 each



**Petrol Tanker  
No. 30p**

Realistic reproduction of a modern style tanker  
Price 2/6 each



**Land-Rover  
No. 27d**

A fine model of a vehicle designed to go anywhere and do anything  
Price 3/9 each



**Harvest Trailer  
No. 27b**

Price 3/3 each



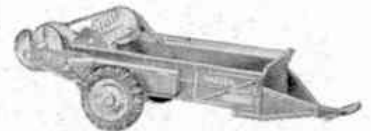
**Farm Produce Wagon  
No. 30n**

Attractive model of all-purpose farm wagon  
Price 3/3 each



**Daimler Ambulance  
No. 30h**

A beautiful model finished in cream with red wheels and the Red Cross on each side  
Price 2/10 each



**Massey-Harris Manure Spreader, No. 27c**

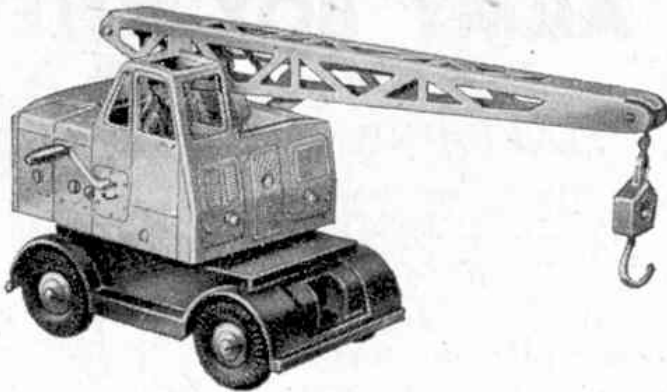
Price 3/11 each

THE ABOVE PRICES INCLUDE PURCHASE TAX

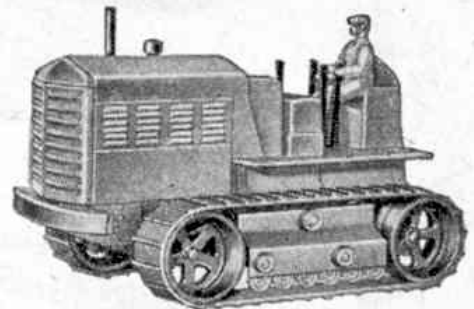
MADE IN ENGLAND BY MECCANO LIMITED



# SUPERTOYS



**Dinky Supertoys No. 571**  
**Coles Mobile Crane**  
 Hoisting, jib-raising and slewing movements  
 Price 9/11 each



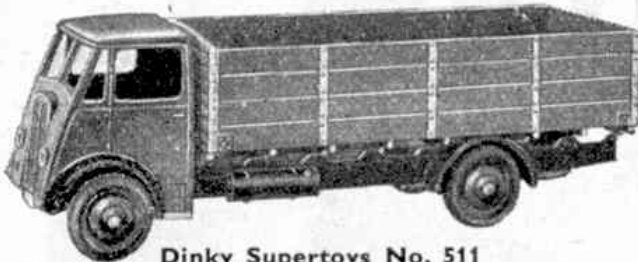
**Dinky Supertoys No. 563**  
**Heavy Tractor**  
 Price 6/3 each



**Dinky**  
**Supertoys**  
**No. 751**  
**Lawn Mower**  
 Price 5/6 each



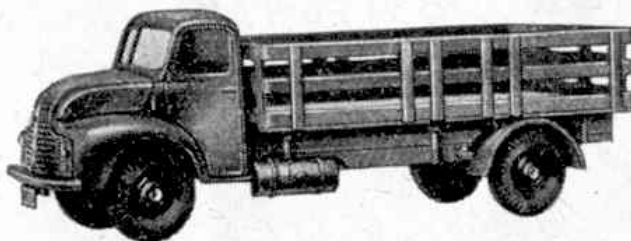
**Dinky Supertoys No. 504**  
**Foden 14-ton Tanker**  
 Price 9/- each



**Dinky Supertoys No. 511**  
**Guy 4-ton Lorry**  
 Price 4/9 each



**Dinky Supertoys No. 562 Dumper Truck**  
 Adjustable front wheels, tipping bucket,  
 reversible driving seat  
 Price 6/6 each



**Dinky Supertoys No. 531**  
**Leyland 'Comet' Lorry**  
 Price 5/- each



**Dinky Supertoys No. 514**  
**Guy Van**  
 Large capacity van body, with  
 opening double doors at rear  
 Price 5/11 each

ALL PRICES INCLUDE PURCHASE TAX

MADE IN ENGLAND BY MECCANO LIMITED

# New Dinky Toys

## A Fine Range of Cars and Lorries

**A** STRIKING new Dinky Toy this month is the new Hudson Commodore Sedan. The prototype of this attractive miniature is a well-known and impressive American car for which there is a choice of two engines, the 121 h.p. Super 6 or



Morris Oxford Saloon, Dinky Toys No. 40g.

the 127 h.p. Super 8, and three body styles. The Sedan, the one chosen for reproduction, is roomy enough to carry six passengers comfortably.

In outward appearance it is modern in style, with a typical American horizontal grille in front. The body is large and long, with the fenders or bumpers absorbed into it, and on the sides there are embossed speed lines designed to give the appearance of forward motion, even when the car is standing still.

These characteristics are splendidly displayed in the Dinky Toys miniature, No. 139b. Two models are available, one in blue, with the top of the body and the wheels in stone colour, and the other in cream with dark red top and wheels. This new Hudson will be welcomed by all Dinky Toys enthusiasts, particularly by those who specialise in modern American productions.

The Land-Rover, Dinky Toys No. 27d, is an outstanding addition to the series, as can be seen from the middle illustration on the opposite page. It shows splendidly the great strength of construction of the original Land-Rover, which is

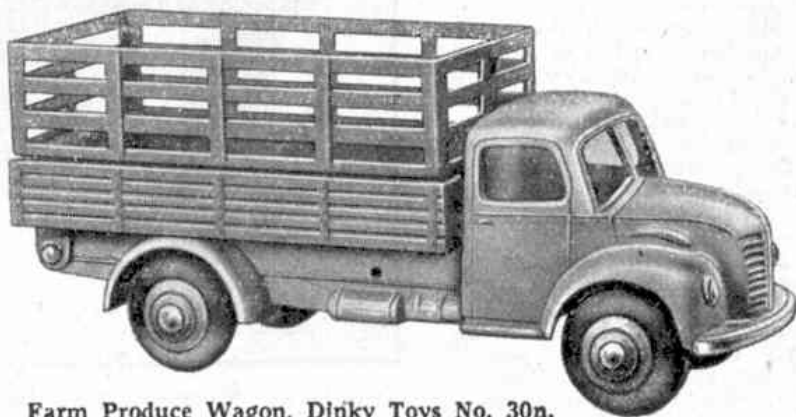
intended to go anywhere and do almost anything. This vehicle has several remarkable features. The top of the large flat bonnet, which is easily lifted by two handles at the front, gives easy access to the engine. At the front there is an unusually strong bumper bar, and above it is a strong steel screen to protect the radiator and headlamps. The driver is provided with a bucket seat in the front compartment of the vehicle, with a tool box on the left; and in the rear section there is accommodation for four passengers. The seats in this section are arranged at the sides and they can be removed when it is necessary to make use of the entire space for load carrying. The spare wheel is mounted behind the partition between the compartments, resting in a shallow depression in the floor. At the back is a tailboard for use in loading and unloading, below which is a hook for towing purposes.

As many as possible of these features are reproduced on the model, which has the striking and original appearance of the real Land-Rover. In

addition there is a representation of one of the most important items in the equipment of the actual vehicle, namely the power take-off gear box and wide belt pulley at the rear. This converts the Land-Rover into a mobile power unit that can go anywhere to take up a job. Through its power take-off it can be harnessed to a great variety of machines,



Hudson Commodore Sedan, Dinky Toys No. 139b.



Farm Produce Wagon, Dinky Toys No. 30n.

such as a thresher, an elevator or a chaff cutter.

Further interesting features of the model are the indications of its side doors and of the 10-gallon petrol tank below that on the offside. This unusual miniature is a splendid addition to the series. Models in two colours, orange with blue inside and green with a stone interior, are available. The prototype can be used for a wide variety of purposes, and correspondingly owners of Dinky Toys layouts will find plenty of opportunity for making good use of it.

The top illustration on the opposite page is a miniature of the Morris Oxford, a car that on its introduction was a distinctive novelty for the well-known Morris organisation. It has a 1,476.5 c.c. engine developing 40.5 b.h.p. at 4,200 r.p.m., with steering column gear change, torsion bar independent front suspension hypoid rear-axle and many other features that make it modern in every way. The car is also completely modern in style, as a glance at the front shows, for it has a massive horizontal grille and bumper, with the new style wings in which the headlamps are sunk. These striking features are well reproduced in the handsome miniature, Dinky Toys No. 40g, which has a saloon body beautifully finished in green or stone colour, and makes a splendid addition to the range of private cars available for the Dinky Toys enthusiast.

Turning now to the latest commercial



Petrol Tanker, Dinky Toys No. 30p.

vehicles of the series, the first that calls for consideration is the Farm Produce Wagon, Dinky Toys No. 30n. This is illustrated at the foot of the opposite page, and a glance reveals its purpose. The chassis is based on the well-known Dodge



Austin Wagon, Dinky Toys No. 30j.

is finished in green and yellow, also in yellow and green.

The second of our new commercial vehicles is a miniature of a well-trying lorry or truck that must be familiar to every reader. This is the low sided Austin Wagon, Dinky Toys No. 30j, which is recognisable immediately from the splendid reproduction of the characteristic radiator grille. This is finished in black. Two



Land-Rover, Dinky Toys No. 27d.

colour schemes are available. In one the body and chassis are in an attractive shade of blue, and the wheel centres are light blue in colour. In the other the colour is dark red throughout.

Lastly we come to another special purpose vehicle, Dinky Toys Petrol Wagon, No. 30p, a very imposing production. It is available in two colours, bright red and green, with a front bumper and radiator grille in aluminium finish, and it is decidedly modern in shape, with a well sloped back. On top of the tank itself are representations of four domes or covers, each of them aluminium in colour.

The handsome and impressive appearance of this model alone makes it very desirable, and it has also the advantage of being of the greatest value on any kind of Dinky Toys layout, particularly one of which a garage forms part, as so often is the case. Petrol pumps at such garages have to be filled, and here is the vehicle to be used for the job. The Dinky Toys Petrol Wagon indeed will add the greatest realism to any play scheme.

VOL. XXXV. No. 8

AUGUST 1950

# MECCANO

## MAGAZINE



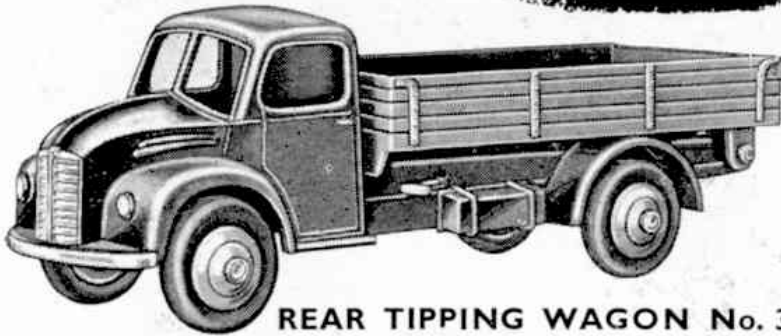
MOUNT VEYRIER CABLE RAILWAY

9<sup>p</sup>

# DINKY TOYS

READY DURING AUGUST

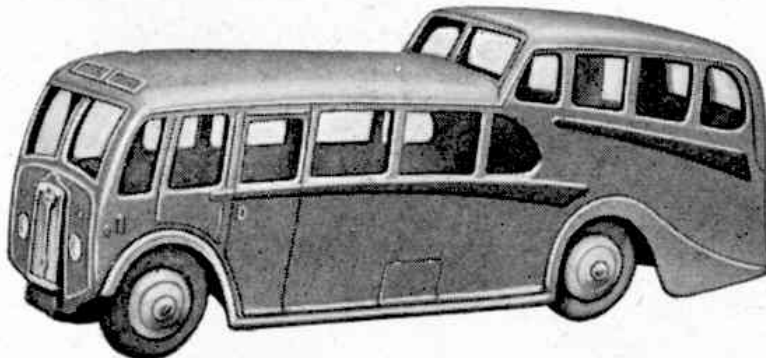
**NEW**



**REAR TIPPING WAGON No. 30m**

Prices later

Has tipping body operated by lever, and hinged tailboard. On Dodge chassis



**OBSERVATION COACH No. 29f**

A handsome model of a motor coach with rear section raised to give passengers good views in all directions



**Estate Car No. 27f**

An attractive miniature of this popular general purpose vehicle

Price 2/10 each



**Land-Rover No. 27d**

A fine model of a vehicle designed to go anywhere and do anything

Price 3/9 each



**Daimler Ambulance No. 30h**

A beautiful model finished in cream with red wheels and the Red Cross on each side

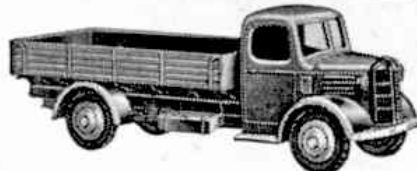
Price 2/10 each



**Hudson "Commodore" Sedan No. 139b**

A fine miniature of a sleek American car, attractively finished in two colours

Price 2/9 each



**Austin Wagon No. 30j**

This handsome model has the characteristic lines of its well-known prototype

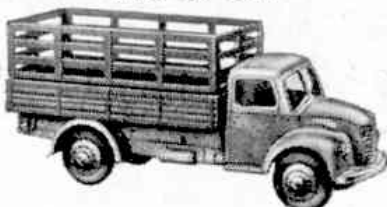
Price 2/4 each



**Motocart No. 27g**

Low loading three-wheeled truck. Tipping high-fronted body

Price 4/6 each



**Farm Produce Wagon No. 30n**

Attractive model of all-purpose farm wagon

Price 3/3 each



**Petrol Tanker No. 30p**

Realistic reproduction of a modern style tanker

Price 2/6 each



**Morris Oxford Saloon No. 40g**

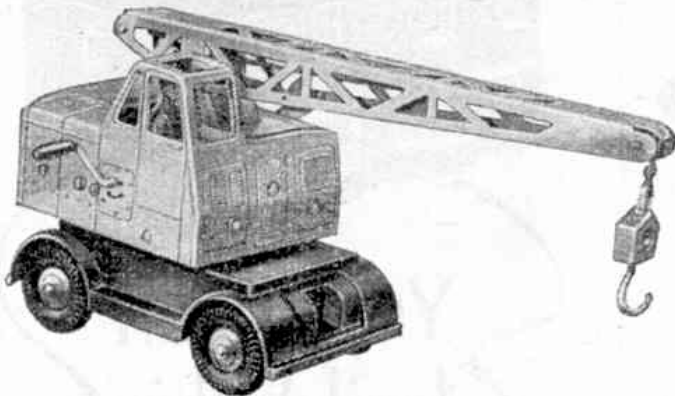
A splendid reproduction of a popular modern car

Price 1/11 each

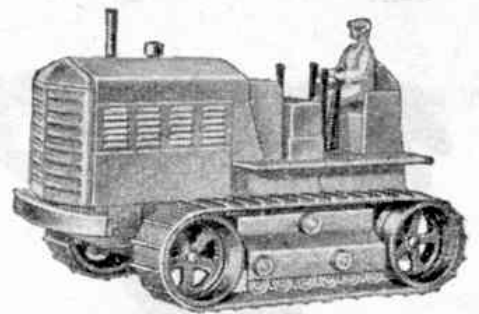
THE ABOVE PRICES INCLUDE PURCHASE TAX

MADE IN ENGLAND BY MECCANO LIMITED

# SUPERTOYS



**Dinky Supertoys No. 571**  
**Coles Mobile Crane**  
 Hoisting, jib-raising and slewing movements  
 Price 9/11 each



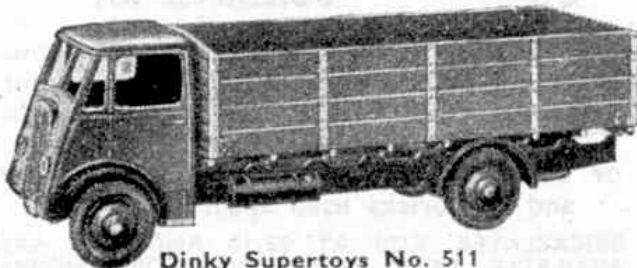
**Dinky Supertoys No. 563**  
**Heavy Tractor**  
 Price 6/3 each



**Dinky**  
**Supertoys**  
**No. 751**  
**Lawn Mower**  
 Price 5/6 each



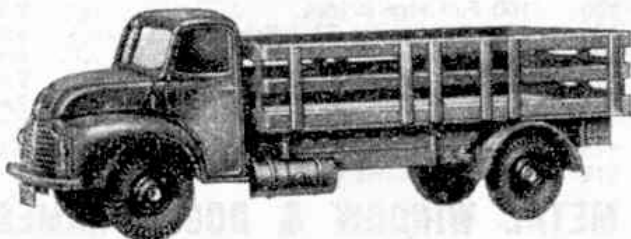
**Dinky Supertoys No. 504**  
**Foden 14-ton Tanker**  
 Price 9/- each



**Dinky Supertoys No. 511**  
**Guy 4-ton Lorry**  
 Price 4/9 each



**Dinky Supertoys No. 562 Dumper Truck**  
 Adjustable front wheels, tipping bucket,  
 reversible driving seat  
 Price 6/6 each



**Dinky Supertoys No. 531**  
**Leyland 'Comet' Lorry**  
 Price 5/- each



**Dinky Supertoys No. 514**  
**Guy Van**  
 Large capacity van body, with  
 opening double doors at rear  
 Price 5/11 each

ALL PRICES INCLUDE PURCHASE TAX

MADE IN ENGLAND BY MECCANO LIMITED

# Dinky Toys Help to Develop Road Sense

**K**ERB drill undoubtedly is one of the most successful means of reducing the number of accidents that take place on our roads, and to illustrate this and other safeguards on a road layout, with Dinky Toys buses, lorries and motor cars running on its highways, is far more effective than just giving lectures and talks. This is in fact a splendid way of developing true road sense on the part of schoolboys and schoolgirls.

The Lancashire Constabulary have realised how effective demonstrations of this kind are and have worked out a very interesting way of turning real accidents to good account in suggesting what might have been done to prevent them. A lesson learned in this way is never forgotten.

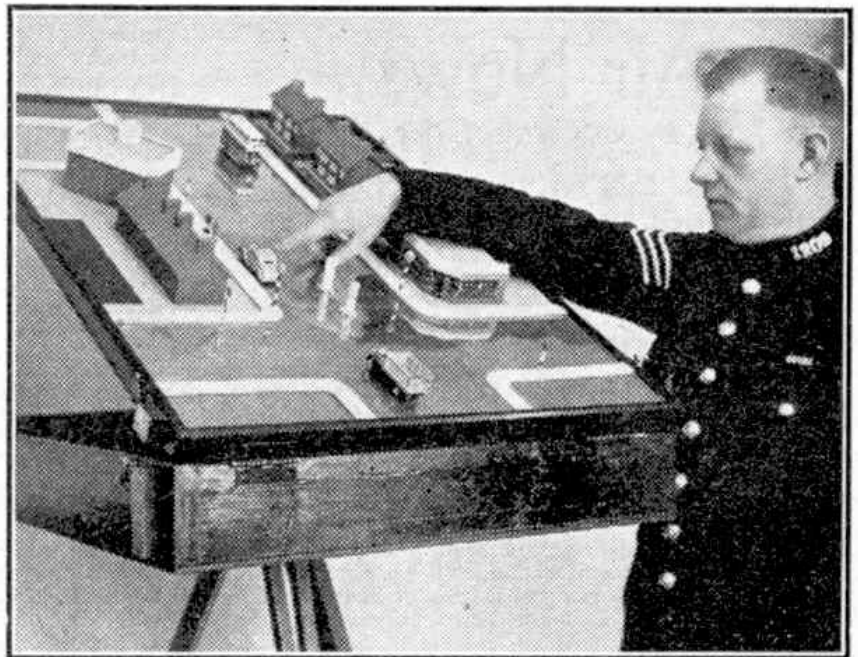
In this scheme a road layout is designed to reproduce the scene of the accident chosen, with the appropriate Dinky Toys placed in position on it, and the boys and girls to whom the demonstration is given play the parts of coroner, jury and witnesses—in a miniature inquest. The layout used is mounted on a tall tripod and sloped forward so that it is easily visible to an entire class. Some way of fixing the Dinky Toys on the sloping roadways was necessary, and the Schools Road Safety Department of the Lancashire police have found that small magnets fitted underneath the Dinky Toys keep them in position on the layout, which is constructed on a metal base. The people concerned in the accident are represented by miniature figures, and in their case it is sufficient to use a dab of Plasticine on their bases in order to fix them.

The course of a study of such an accident is best followed by an actual enquiry conducted by Sergeant Stead at the Whiston Girls Secondary Modern School, by kind permission of Miss M. McLean, M.B.E., Headmistress. The tragedy investigated in this instance occurred on a main road, with a secondary road crossing it at right angles. In the middle of the main road, at the junction, is a refuge, and at the time of the accident there was a car parked just beyond it, as can be seen in our illustration. The two vehicles concerned in the accident were a motor lorry and a bus. The motor lorry crossed over the junction and proceeded up the main road, swerving outward to avoid the parked car; the bus came slowly down on the opposite side, stopping at two points on its way. The positions of the vehicles, and of the girl and two boys concerned in it, were shown at each stage as the witnesses gave their evidence, so that the jury and members of the class were able to follow the sequence of events.

The first witness to step forward was a girl who stated that she was walking up the left-hand side of the main road on her way to the picture house. On the opposite side of the road she saw her brother, who called across to ask if he could go with her. She said yes, whereupon he looked both ways, saw that the bus was a good way off, and ran over. Then another boy who had been with him asked if he could go, and was told that he could. He too looked both ways, saw the bus approaching and waited until it passed. Then he ran across and came out suddenly from behind the bus. He had not seen the

lorry and ran right under it. As the witness told her story the vehicles and figures were moved on the layout to give a graphic reproduction of the scene.

The girl was followed in the witness box by her younger brother and by the driver of the lorry. Each told his story, and members of the class, who jointly represented the coroner, asked questions about various points, with the result that every detail of what happened on that tragic afternoon was clearly brought out. Then the jury left the room to consider their verdict. While they were out other questions were raised, and Sgt. Stead drove home many useful points that the accident illustrated. The jury then returned, and the foreman gave the findings. In this instance the lorry driver was cleared of blame. It was pointed out that the girl who called out across the road should not have allowed the two boys to run across alone, but should have gone across

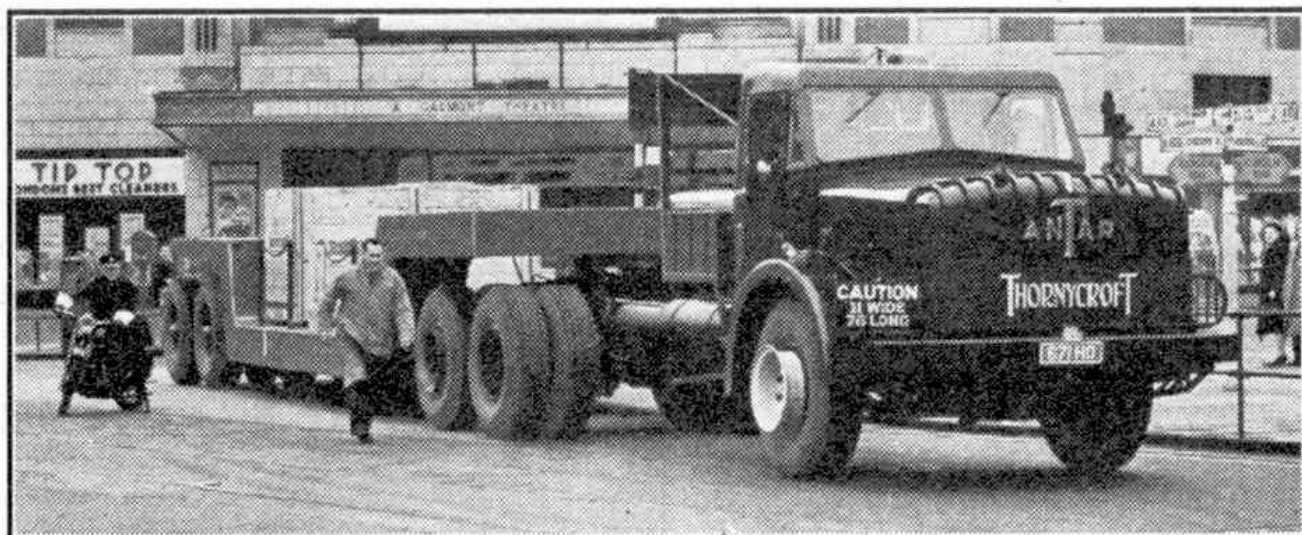


**A Dinky Toys layout used by the Schools Road Safety Department in road safety demonstrations. Sergeant Stead points out a carelessly parked car. This helped to create a dangerous situation that resulted in a serious accident in which a boy was killed.**

to fetch them and to make sure that the way was clear.

An interesting point was that the driver of the parked car, who drove away before the police came on the scene and was never traced, was severely censured for his choice of parking position. This compelled the driver of the lorry to swing outward into the middle of the road, so that when he reached the bus he was too near it to take effective action when the boy suddenly ran across from behind it. It was agreed that the car should have been parked on the secondary road instead of the main road.

The witnesses had been provided with sheets on which their evidence was written, but they were not content merely to read these. They entered fully into the spirit of the inquest and gave their evidence clearly and unmistakably, as if they had actually witnessed the scene. The members of the class asked shrewd questions that helped to clear up many points that had been left in doubt, and the complete and well-ordered verdict of the jury, who were left to reason things out for themselves, showed how carefully they had considered every point.



Britain's largest tractor, coupled to a 65-ton Crane low loading machinery-carrying semi-trailer at Edmonton on its way to London Docks for shipment to the Middle East.

## The "Mighty Antar"

### Britain's Most Powerful Tractor

THE gigantic six-wheeled tractor illustrated on this page is the first of a series of 32 large and powerful vehicles for use in constructing a pipe line 560 miles long from Kirkuk, in Iraq, to the Port of Banias, on the Eastern Mediterranean coast. It has been designed and built by Transport Equipment (Thornycroft) Limited, in co-operation with the engineers of the Iraq Petroleum Company, and although the largest and most powerful vehicle of its kind ever constructed in this country, with many new and striking features, it was actually completed in 10 months.

The tractor is named the "Mighty Antar," after a celebrated Arab warrior of the 6th century who was also a poet. It will be employed in carrying pipes over desert tracks and sandy wastes in the Middle East, in country rising in places to a height of 3,500 ft., and where the temperatures range from 20 deg. of frost in winter to 120 deg. in summer. It is itself capable of carrying loads of up to 32 tons, and for use in connection with its semi-trailers of special design are being built by Cranes (Dereham) Ltd. In addition there is a single low loading machinery trailer of 50 tons capacity, which will be used for the transport of oil-producing equipment.

The steel pipes that will form the chief load of the "Mighty Antar" and its semi-trailer are 93 ft. long and 2 ft. 6 in. in diameter. Each weighs 6½ tons, and

in the operations the aim is to complete 1½ million ton-miles of transport a month. The tractor and semi-trailer between them may be loaded up to a gross train weight of 100 tons.

The first tractor, with low-loading trailer, was shipped to the Middle East in the "Kantara" and reached the port of Tripoli, in Syria, towards the end of April. There it was intended to run as many miles as possible before the pipe-stringing operation was started, so that their Arab drivers could gain valuable experience. Left-hand drive is fitted, and the cab is well insulated to give its occupants protection against extremes of temperature. The normal crew consists of two men.

The engine of the gigantic vehicle is a Meteorite Mark 101 diesel, with eight cylinders arranged in two blocks of four in V formation, at an angle of 60 deg. It has an output of 250 b.h.p. at 2,000 r.p.m. Fuel for the engine is drawn by means of two Duplex pumps from the tractor's two tanks, each of which holds 100 gallons. The bore and stroke of the cylinders are 5.4 in. and 6 in. respectively, and the capacity of the engine is 1,099 cu. in. or 18,000 c.c. The governed engine speed is 2,000 r.p.m. at full load, or 2,300 r.p.m. when running with no load. The actual highest speeds of the tractor are 20½ m.p.h. on direct drive and 28 m.p.h. on overdrive, and its great power allows it to climb a gradient of 1 in 2½.

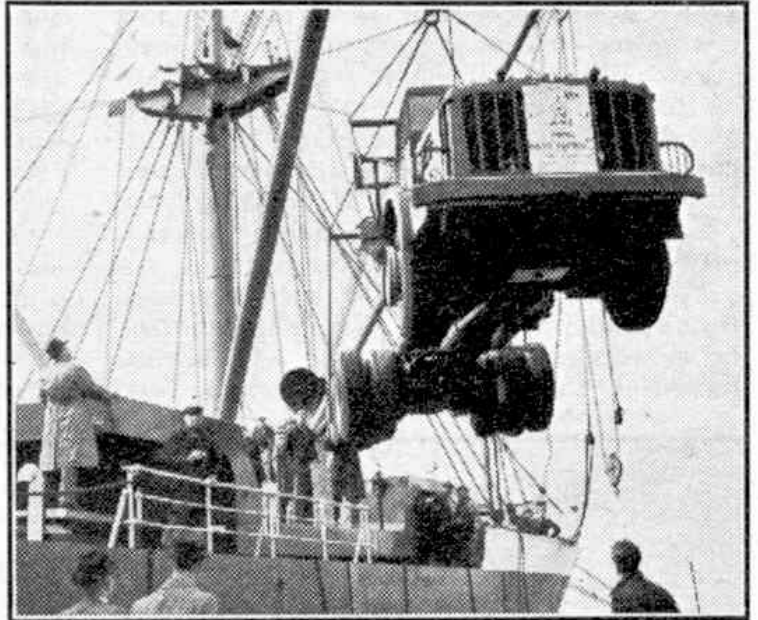


Cooling required special attention in view of the high temperatures in which the vehicles are to work. The immense front grille actually covers large twin radiators, which work together as one unit. The total capacity of the cooling system is 26 gallons, and the flow of air through the radiators is maintained by two fans, each running in a cowl behind one of the radiators. A special oil cooler also is employed. This takes the form of a bank of horizontal tubes mounted on the front of the right hand of the two radiators. Below the latter is an arrangement of guards to protect them from brushwood and boulders.

Another interesting point is that the flywheel, clutch and gear-box unit is mounted separately from the engine, which is thus relieved of the weight of these. One reason for this unusual arrangement is to provide easy access to the parts, and ventilation and cooling of the clutch also are improved. A short shaft of large diameter connects the unit to the engine. The main gear-box has four speeds forward and one reverse, and there is also an auxiliary gear-box with three speeds. Both gear-boxes are of the constant mesh type.

Among other special features of the tractor the steering gear may be noted. Steering is effected by means of a cam and double roller gear, and hydraulic power gives assistance to the driver, hand operation being applied at the left

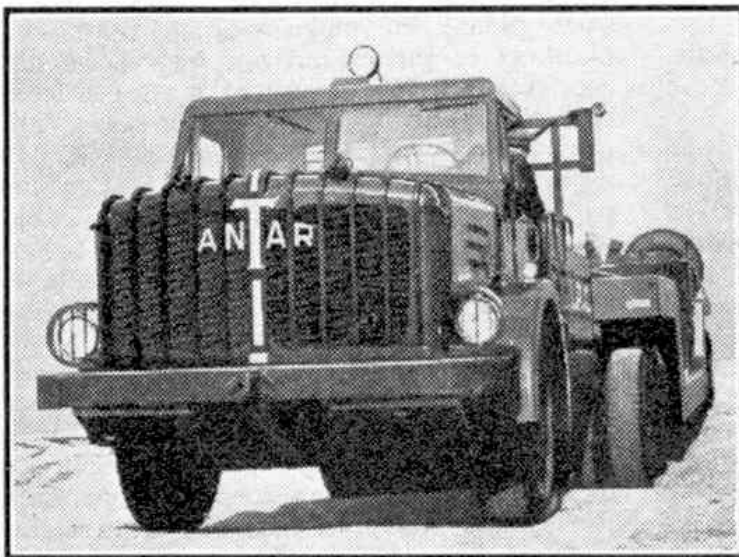
hand end of the front axle and power assistance at the right hand end. When the steering wheel is turned a hydraulic valve allows oil to flow under pressure to the one of two power cylinders that assists



Hoisting the giant tractor on board s.s. "Kantara" in special slings. The illustrations to this article are reproduced by courtesy of Transport Equipment (Thornycroft) Ltd.

movement in the direction required. Power assistance only comes into play after the steering wheel has been turned through a certain angle, so that on a straight course ahead or on one with slight deviations the vehicle is entirely under hand control. The independence of the two systems ensures that a vehicle continues to be steerable even if the power system fails.

Full air pressure brakes are fitted to all wheels and there are also emergency and service line connections for operating the brakes of the trailer. A special dual valve operated by foot makes compressed air available for the trailer brakes slightly before that for the brakes of the tractor itself. If by any chance the trailer brakes do not act their failure does not affect tractor braking. The hand brake operates mechanically on all bogie wheels, and also operates air pressure brakes throughout. A notable point is that the handbrake cannot be released until air pressure is available. This means that after a long parking period the tractor cannot be driven away until there is sufficient air pressure for braking. A gear-box driven compressor provides air pressure.



The "Mighty Antar," with low loading semi-trailer on its trials at Bagshot Heath, Surrey.