

'A.E.C.-ENGLISH ELECTRIC'

63-SEATER · Q TYPE

TROLLEY BUS

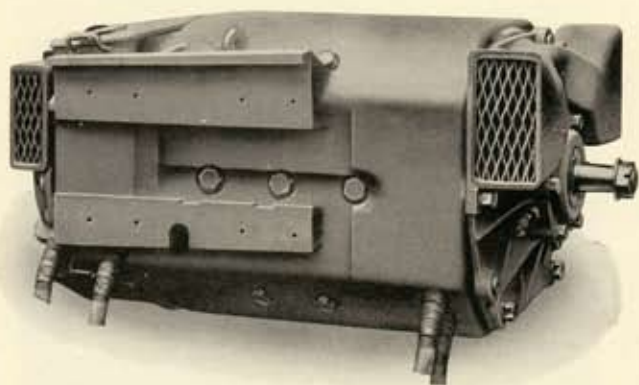


THE ENGLISH ELECTRIC COMPANY LTD
QUEEN'S HOUSE KINGSWAY LONDON W.C.2

THE ASSOCIATED EQUIPMENT CO LTD
SOUTHALL MIDDLESEX

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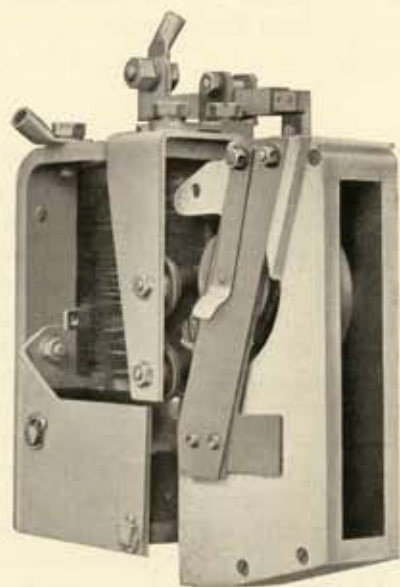
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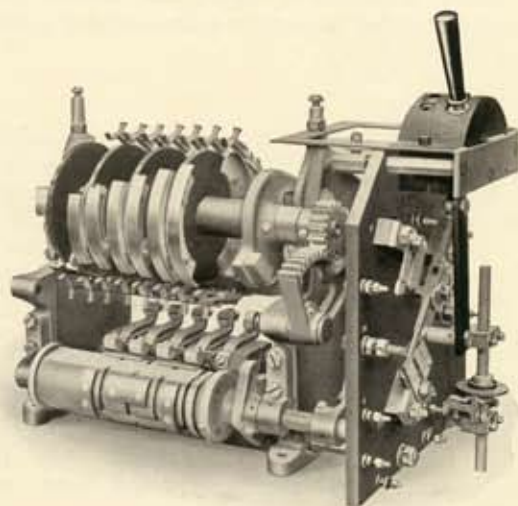
80 H.P., 500 volts, type EE405 Motor.



Lower Saloon.



Standard Trolley Bus Contactor with Arc Chute removed.



Foot Operated Master Control Unit.

ELECTRICAL EQUIPMENT

The power unit is an "English Electric" Type EE405 80 H.P. 500-volt self-ventilated motor specially designed for mounting on the "Q" chassis. Either regenerative control or regulated series field control is provided, and rheostatic braking can be incorporated with either system. The motor is situated in the middle of the chassis and is mounted cantilever fashion on the off-side of the frame. This arrangement greatly improves the accessibility of the motor and allows the use of a low floor. It also assists weight distribution and is found in practice to produce an exceptionally smooth running machine. The contactors are mounted in weatherproof and splashproof cases and are fixed to the side of the chassis. The contactor cases are fitted with easily removable covers and access to the cases is obtained by means of hinged flaps in the body skirt. The whole of the power and control cables are of cable sheathed type, 660 volts grade. Resistances are of the rustless jointless unbreakable grid type, and are of ample capacity to allow for prolonged slow running without overheating; they are mounted in the chassis framework and are triple insulated from the latter.

The master controller, together with the reverser, terminal board and stoplight switch, is mounted in one case on the chassis under the driver's seat.

Operation of the master controller is by means of an organ type foot pedal.

The entire equipment is tested at 3,000 volts A.C. for one minute before the vehicle leaves the English Electric Company's Works.



Upper Saloon.

TRANSMISSION

The motor drives directly on to the rear axle by means of a single tubular propeller shaft fitted with large needle spicer couplings. The rear axle is of the fully floating type.

BRAKING

Braking on all wheels is provided by compressed air brakes, operated by A.E.C. air-cylinders of special design, and applied by means of a foot pedal in the driver's cab. The cylinders for the front brakes are mounted directly on the front king pin, thus eliminating the usual flexible coupling. Independent rear cylinders are mounted on cross tubes. Air is supplied from a motor-driven compressor, in the form of a single unit, which is fixed to the side frame of the chassis by means of "Silentbloc" suspension.

The hand-brake operates the shoes on the rear wheel.

STOPLIGHT

A stoplight at the rear of the vehicle is actuated automatically from the brake pedal.

PASSENGER COMFORT

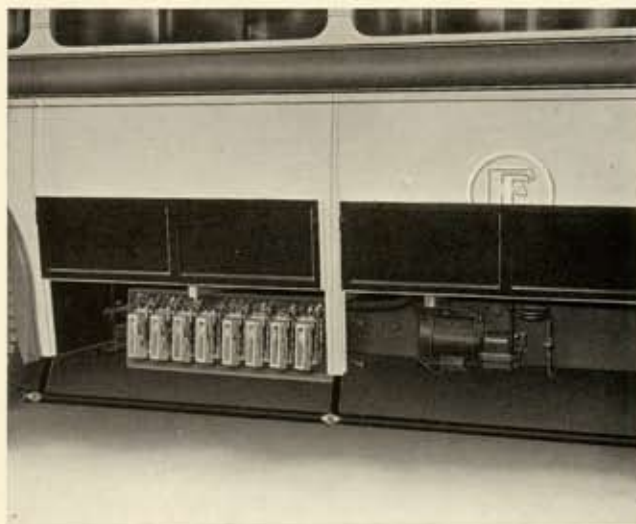
Special attention has been paid to the comfort of the passengers.

The seats are of a tubular type and are fitted with cushions upholstered to match the interior decoration of the saloons, thus providing the maximum of comfort and harmony with durability.

Interior decorations and furniture can be supplied to any requirements.

The staircase steps are fitted with aluminium non-slip treads and the entrance step is provided with a special insulated type of non-slip material.

The front entrance platform is only 13 in. high above road level.



Contactor Gear and Compressor Unit mounted on chassis side frame.



Chassis at driver's end showing controls.

Comprehensive guarantees are given with all "A.E.C.-ENGLISH ELECTRIC" Trolley Bus Chassis, full particulars of which are stated in the Companies' current Conditions of Business.

"A.E.C.-ENGLISH ELECTRIC" Chassis are sold subject to the Companies' current Conditions of Sale.



Rear View of Trolley Bus, showing emergency exits open.

VENTILATION

Much thought and care has been given to the question of efficient ventilation and an ample flow of air can be obtained under all conditions, with the avoidance of draughts, through the half drop windows and roof ventilators which are provided.

LIGHTING EQUIPMENT

The lighting of a trolley bus has always been an outstanding feature, its brilliant illumination comparing favourably with that in any other form of transport. High-tension or low-tension lighting can be supplied as desired. Special attention is paid to workmanship and fittings to ensure that no leakage occurs on the 500-volt system or on the low-tension system. For low-tension lighting the power is provided by a motor-generator set mounted on a chassis side frame by means of "Silentbloc" suspension, and with the generator operating in parallel with a suitable battery. The emergency lighting is provided from the battery in the event of a failure of the main supply.

DISTINCTIVE FEATURES

The essential difference between this vehicle and other four-wheel double-deck vehicles is that the entrance is next to the driver and forward of the near-side front wheel. With the exception of the front entrance, the vehicle is entirely enclosed, and the floor space utilized for seating accommodation. It has been proved in practice that the open front entrance with the closed body produces less interior draught than any of the standard types of vehicles. While this arrangement provides the maximum seating capacity possible on a two-axle chassis, it actually simplifies the work of the driver and the conductor. The driver has the entrance and exit of passengers directly under his observation, and is therefore able to start and stop his vehicle without having to wait for signals from the conductor; the conductor on the other hand is able to devote the whole of his time to the collection of the increased number of fares.

The body can be removed from the chassis leaving all cables except trolley cabling intact, this latter being disconnected at the terminal board incorporated in the master controller.

TYPE OF CONSTRUCTION

The "Q" type of vehicle can be built of either composite or all-metal construction, in both cases keeping the full seating capacity within the Ministry of Transport regulation weight.

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THE MARK OF



DISTINCTION