



RAILCAR.CO.UK

METROPOLITAN-CAMMELL CARRIAGE & WAGON CO. LTD.

• Head Office: SALTLEY • BIRMINGHAM • 8

London Office: VICKERS HOUSE • BROADWAY • WESTMINSTER • S.W.1



Metropolitan-Cammell was nominated by the British Transport Commission to design and construct five special diesel electric de-luxe express trains for service with The Pullman Car Company Ltd., on selected routes. Many new features have been incorporated on passenger rolling stock for the first time in U.K., including full air-conditioning.

This photograph illustrates the interior of a first-class saloon.

**BRITAIN GIVEN  
LAURELS  
FOR NEW TRAIN**

**FROM OUR OWN CORRESPONDENTS  
NEW YORK, Tuesday.**

**B** **BRITAIN** was given the laurels for the best train in Europe by a delegation of eight leading American railway executives who returned to-day in the Queen Elizabeth after travelling through Britain, Russia, France, West Germany, Holland, Switzerland and Italy.

They agreed that the finest train they had seen abroad was the new Pullman which is to be placed in service between London and Manchester. "We were particularly impressed by the interior decoration and the speed," said the delegation leader, Mr. Curtis Buford, vice-president of the Association of American Railroads.

"The seating was comfortable, the lighting excellent and the air-conditioning good. We found the kitchens very well planned and we had good food on our trial run."

The delegation was the first industrial party from the United States to visit Russia under a new State Department exchange programme. Mr. Buford said they had found standards of comfort on Russian trains "very mediocre."

*Reproduced by kind permission of  
"The Daily Telegraph"*



*After eighteen months in service the following extract appeared in "The Railway Gazette" on 15th December, 1961, and is reproduced by kind permission of the Totbill Press Limited:-*

**SUCCESS OF MIDLAND PULLMAN.** The London Midland Region of British Railways has announced that the Midland Pullman is attracting an average loading of 95 per cent capacity and has a record of 95 per cent punctuality.

# INTRODUCTION

EVER since 1845 when Joseph Wright, the founder of Metropolitan-Cammell, established himself at Saltley, Birmingham, railway carriages and wagons have been designed and built for many diverse climates and conditions all over the world. During 115 years an unrivalled record of enterprise and experience has been created until today there exist four finely equipped factories in the Birmingham area from which railway rolling stock and road passenger vehicles are exported to many countries overseas.

In spite of two world wars, when the capacity of Metropolitan-Cammell was converted to armament production this progress has been uninterrupted. With the design methods and modern techniques handed down and developed by generations of designers and craftsmen, the Company has won many large and important contracts for overseas countries which include South Africa, Rhodesia, East and West Africa, Egypt, Sudan, India, Pakistan, Ceylon, Burma, Malaya, Hong Kong, Australia, New Zealand, Argentina, Brazil and Jamaica. At the same time large quantities of carriages and wagons have been supplied to British Railways.

In view of Metropolitan-Cammell's long technical experience with railway rolling stock, both passenger and freight, and road passenger vehicles it was inevitable that the Company should eventually expand into the field of road freight vehicles, and on 1st January, 1961, a new Division was started to deal with the design and manufacture of bodywork for Road Commercial Vehicles of all types, including semi-trailer covered vans of integral lightweight construction; tipping bodies of all steel, composite and alloy construction; containers of all types; tankers of mild steel, stainless steel and alloy construction for both rigid and articulated vehicles; refrigerated vehicles; bodywork for ambulances, fire fighting vehicles and other special purpose requirements which include the extensive use of fibreglass construction.

Also in January, 1961, a separate Division was formed to handle Engineering Products within the existing facilities of the organisation — including mobile cranes, sideloaders, mechanical handling plant, fabrications, structural engineering, stress relieving and heat treatment, and all forms of sheet metal work, hot and cold presswork, drop stamping. The Engineering Products Division therefore caters for a wide variety of work which falls outside the realms of railway rolling stock and road passenger or commercial vehicles.

Metropolitan-Cammell is now organised into four separate divisions:

- |                       |                                    |
|-----------------------|------------------------------------|
| (1) Railway Division. | (3) Commercial Vehicle Division.   |
| (2) Bus Division.     | (4) Engineering Products Division. |

## MANUFACTURING RESOURCES

SALTLEY WORKS  
 MIDLAND WORKS  
 OLD PARK WORKS

These three factories are well equipped for the manufacture of passenger coaches and freight wagons for both home and overseas. Spacious erecting and machine shops with modern plant and equipment exist in all factories which are well suited to large scale production of light alloy or steel coaches, diesel and electric locomotives, electric multiple unit stock, diesel railcars, steel wagons, road passenger vehicles and commercial vehicle bodywork. Stampings and pressings for component parts of carriages, wagons, bogies and bus bodies are a feature of two of the factories, whilst capacity throughout the organisation is available for diversified work which is being obtained by the newly-formed Divisions.

ELMDON WORKS

The whole of this extensive factory is devoted to the production of metal bus bodies. It has been well equipped for this purpose and many large orders for passenger carrying vehicles of varying types are in production both for home and overseas markets.

The total area of these works is as follows:—

		Site area.	Factory area.
Saltley Works	... ..	45 acres	20.9 acres
Midland Works	... ..	52.5 acres	20.5 acres
Old Park Works	... ..	66 acres	12.5 acres
Elmdon Works	... ..	44 acres	6.6 acres
Total area		207.5 acres	60.5 acres

And the number of workpeople employed during recent years has averaged between 4,000 and 5,000.

PRESS SHOP, OLD PARK WORKS



CARRIAGE ERECTION SHOP,  
MIDLAND WORKS



HEAT TREATMENT PLANT, SALTLEY WORKS



**Moving the Millions...**



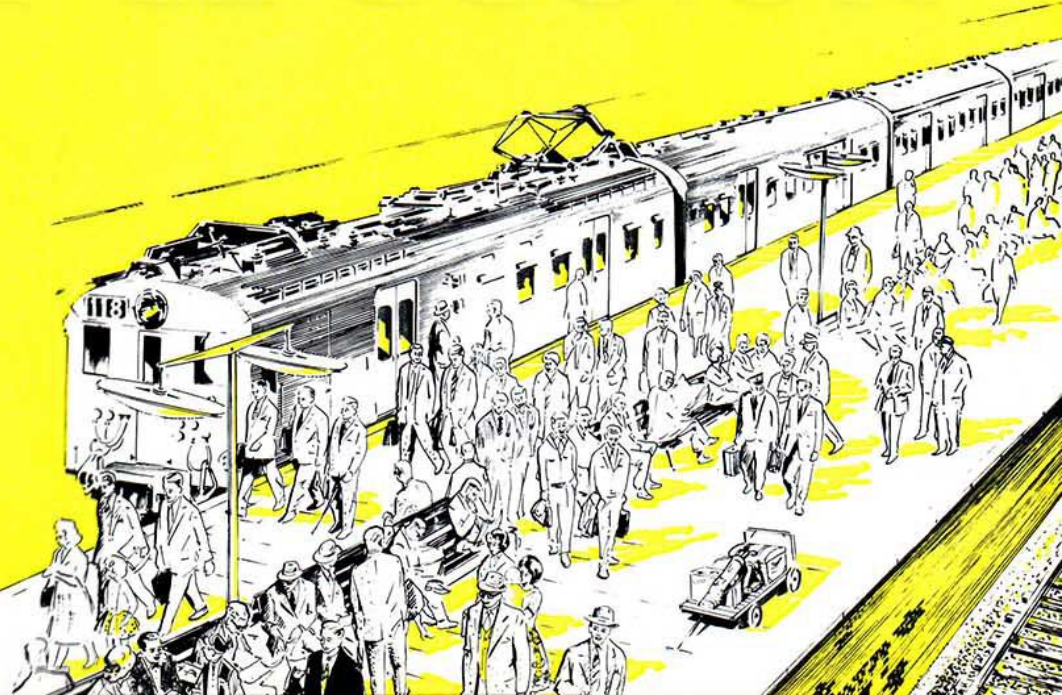
**ELECTRIC MULTIPLE UNIT STOCK**



Valuable contributions have been made by Metropolitan-Cammell towards resolving the problem of safe and quick transportation in highly populated areas of big cities.

**T**HE first contracts for electric multiple unit stock were awarded to Metropolitan-Cammell in 1902 for London's Underground, and the first electric coaches of all steel construction were supplied in 1913. Considerable quantities of electric stock were exported at about that time to the new suburban system in Buenos Aires, and these coaches still form the backbone of the suburban system in Argentina's Capital City.

After World War I a larger number of electric multiple unit coaches for the London Underground was manufactured, and between 1924 and 1926 the Company supplied most of the broad gauge stock for the new electrified routes of Bombay. This original stock runs alongside more modern coaches and continues to give reliable service after 35 years despite the arduous conditions. In 1930-31 Madras was supplied with similar coaches for the metre gauge system in that city.

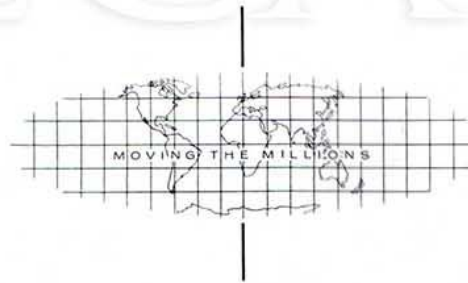






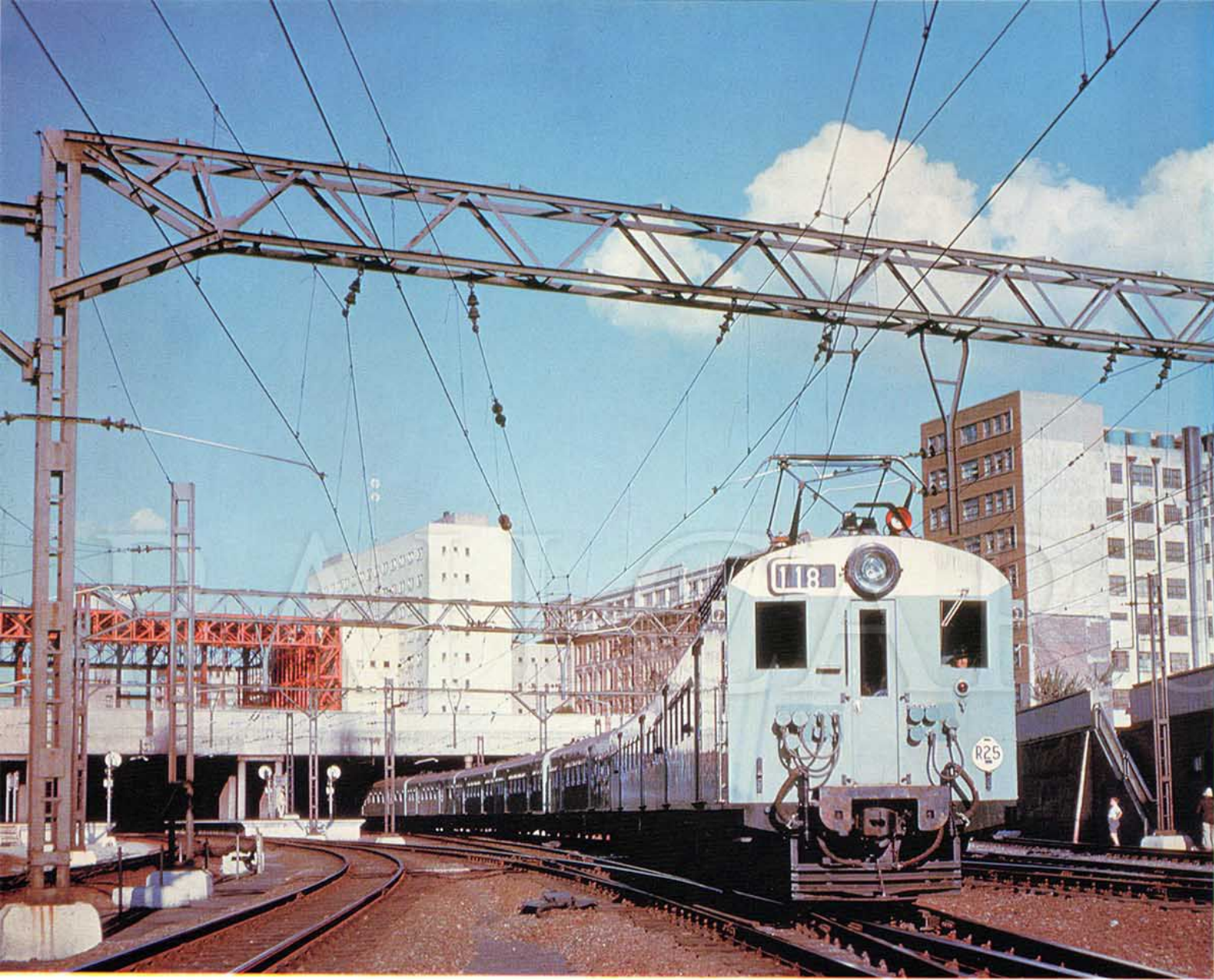
LONDON

OVER 2,500 of the coaches supplied to London's vast network of electric Underground railways have been supplied by Metropolitan-Cammell. Emphasis has been laid in recent years on weight reduction and in 1949 the Company was entrusted with the construction of 90 cars for the London Transport Executive which represented the first large scale application of aluminium alloy construction to rolling stock in the United Kingdom. One of these cars, which gave a 20% weight saving as compared with previous steel cars of similar design, was exhibited at the Festival of Britain in 1951. A repeat order was later received, and these cars were supplied with the aluminium exteriors unpainted.



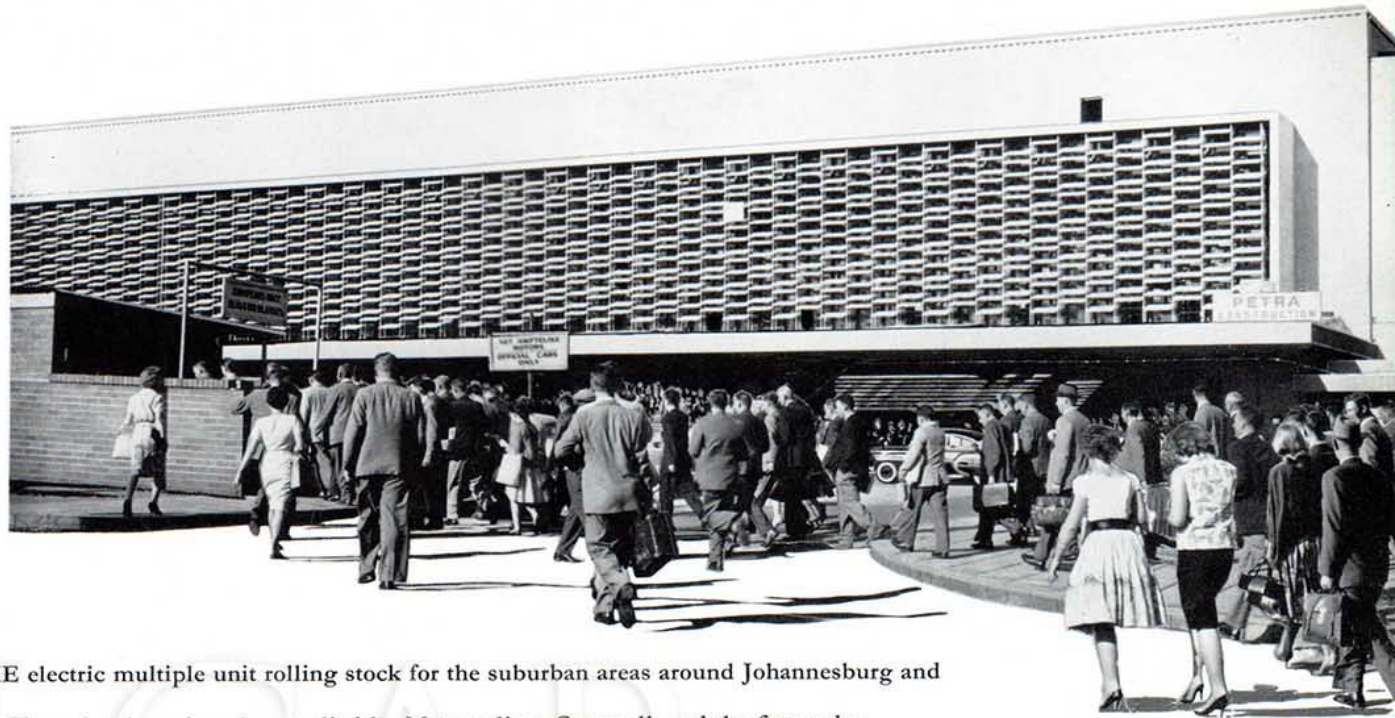
As a result of experience with this exterior, the 1,039 cars now ordered on Metropolitan-Cammell to replace the existing stock on the Piccadilly and Central Lines will have exteriors of unpainted aluminium sheeting and this type of exterior appearance has now become the new standard livery for London's Tube stock.



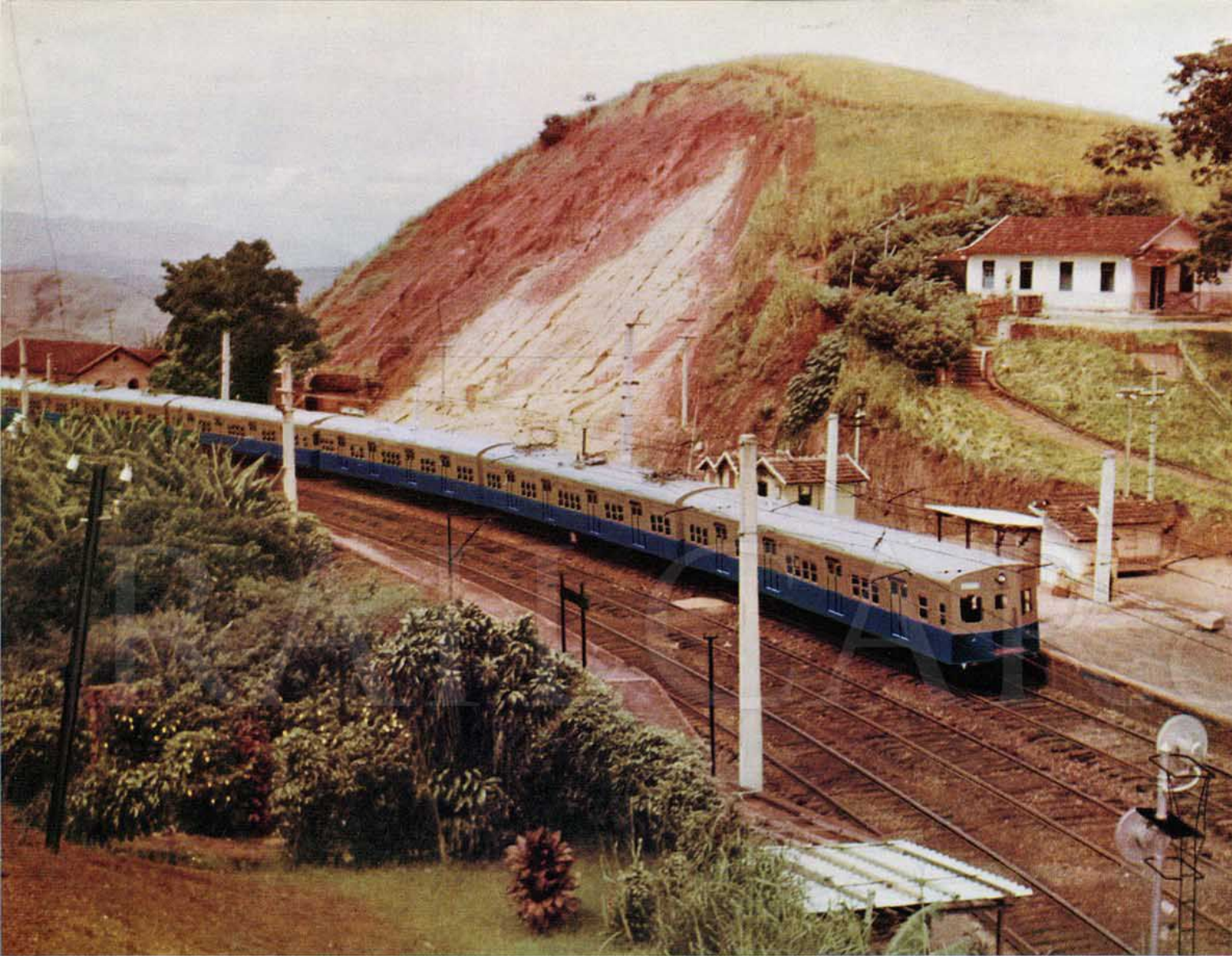


O.UK

# JOHANNESBURG



**T**HE electric multiple unit rolling stock for the suburban areas around Johannesburg and Cape Town has been largely supplied by Metropolitan-Cammell, and the first order comprising 1st and 2nd class motor coaches was being executed by the Company in 1935. Since that time several contracts have been received for motor and trailer coaches and to meet the modern trend for weight reduction Metropolitan-Cammell obtained a contract in 1953 for the preparation of designs for lightweight coaches. This important development proved to be the forerunner of an entirely new design of lightweight suburban coach based on the integral tubular anti-telescopic principle which has now become standard for South Africa, and 349 electric coaches to this design have since been supplied by the Company. With an increasing accent on local manufacture Metropolitan-Cammell quickly saw the importance of participating in this development, as a result of which a substantial interest was taken in Union Carriage Company (Pty.) Ltd., who were successful, in not only winning a further contract for electric suburban stock, but also in obtaining a large contract for main line coaches based on Metropolitan-Cammell's original design.

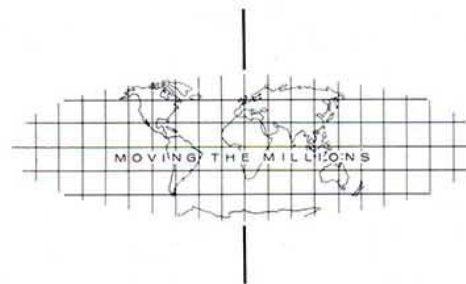


O.UK

# RIO DE JANEIRO

ALL the electric suburban coaches obtained from overseas for service on the Central Railway of Brazil have been manufactured by Metropolitan-Cammell — amounting to a total of 570 electric coaches supplied as three separate contracts, the last of which included the provision of component parts for the manufacture of an additional 100 coaches in Brazil. For all of these coaches Associated Electrical Industries Ltd. were the Main Contractors and all electric traction equipment was supplied by them.

Thus, the most recent coaches are running side by side with similar stock supplied more than 25 years ago during which time many thousands of Brazilians have travelled to and from their work in Metropolitan-Cammell coaches which have given reliable service under arduous conditions.





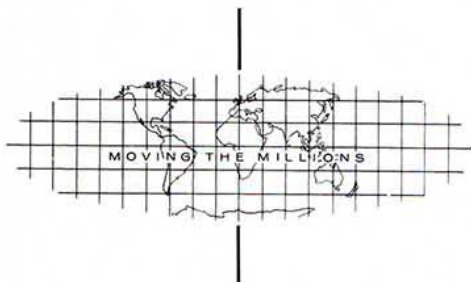
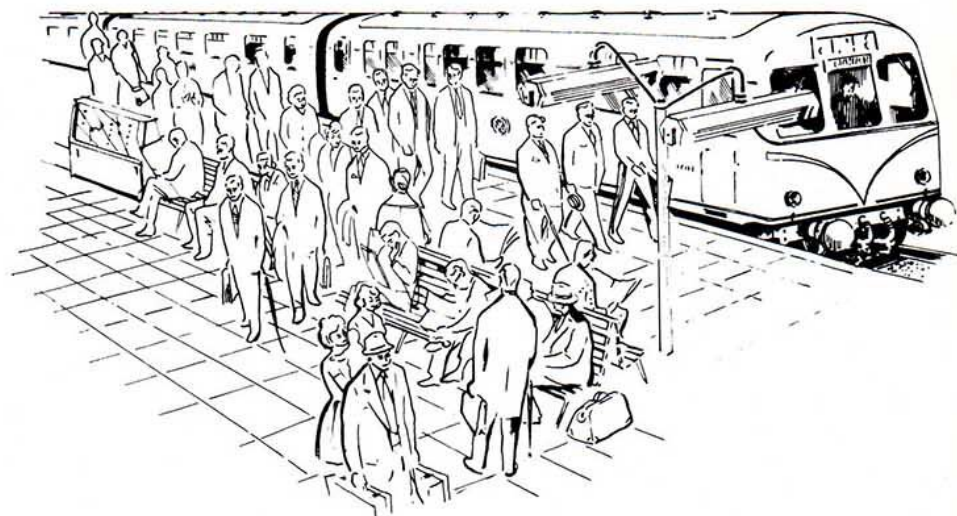
# CALCUTTA

Having supplied Bombay and Madras with suburban electric stock Metropolitan-Cammell also assisted in the introduction of similar stock to the congested areas of Calcutta and in collaboration with Jessop & Co. Ltd. of Calcutta, motor coach shells, motor and trailer bogies and other component parts were supplied for final assembly in India.

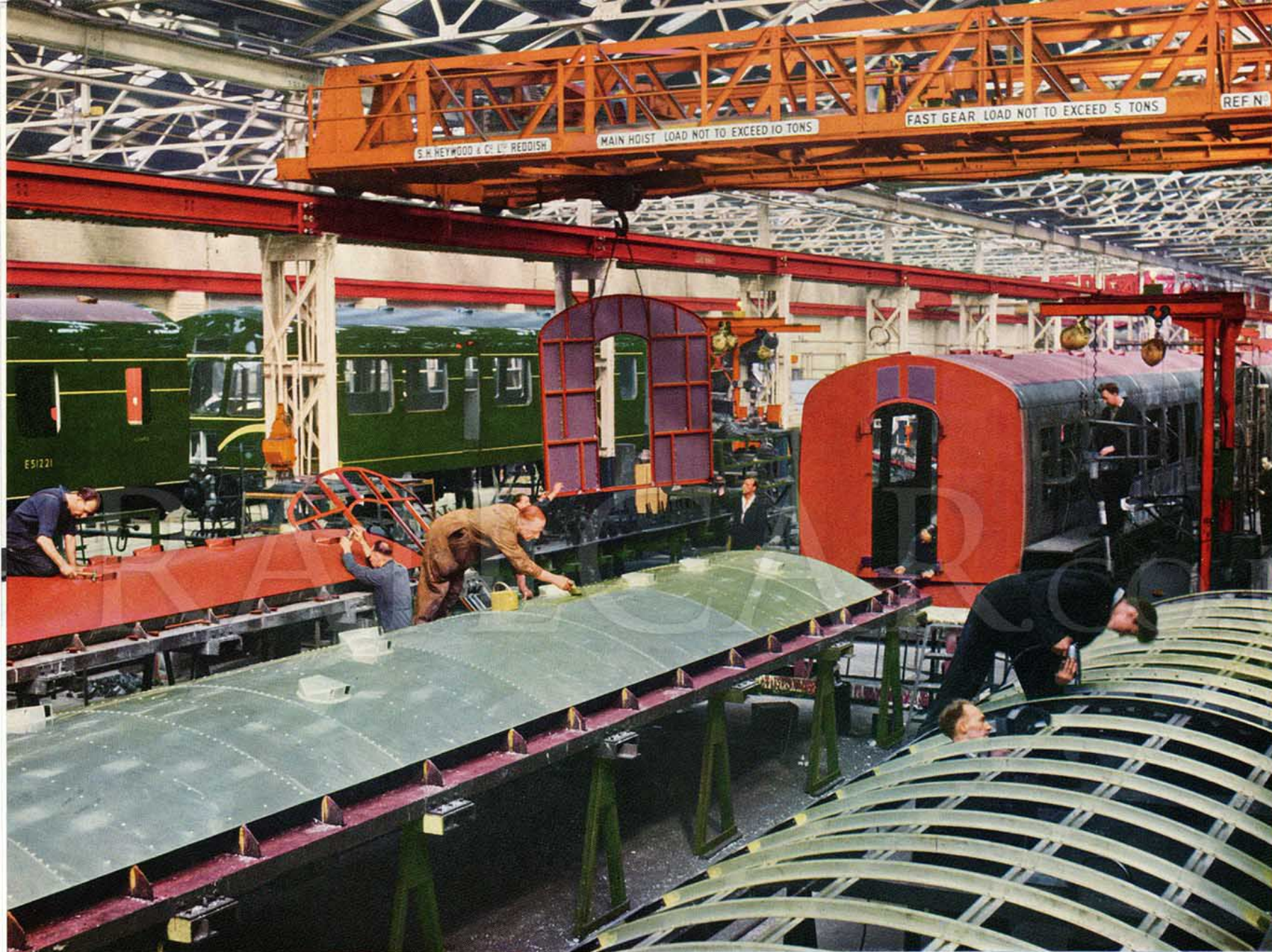
## MOVING THE MILLIONS **2** DIESEL RAILCARS

Metropolitan-Cammell has for many years had a department dealing exclusively with the development of diesel railcar designs to suit widely varying operating conditions, and in 1955 the Company became the first private firm to be entrusted with the design and manufacture of diesel railcars for the British Transport Commission as part of its modernisation plan. For a continuous period of 4 years one of the Company's factories was responsible for an average production of 4 diesel railcars per week to British Railways — made up of either 2-car, 3-car (as illustrated on page 17), 4-car or 6-car sets — finally finishing with a quantity of Buffet cars. 760 diesel railcars have now been supplied by Metropolitan-Cammell for service on British Railways. These were delivered for service as follows:—

	2-Car Sets	3-Car Sets	4-Car Sets	Total No. of Cars
London Midland Region ...	41	18	—	136
North Eastern Region ...	93	23	38	407
Eastern Region ...	29	—	—	58
Scottish Region ...	30	33	—	159
				<hr/> 760 <hr/>



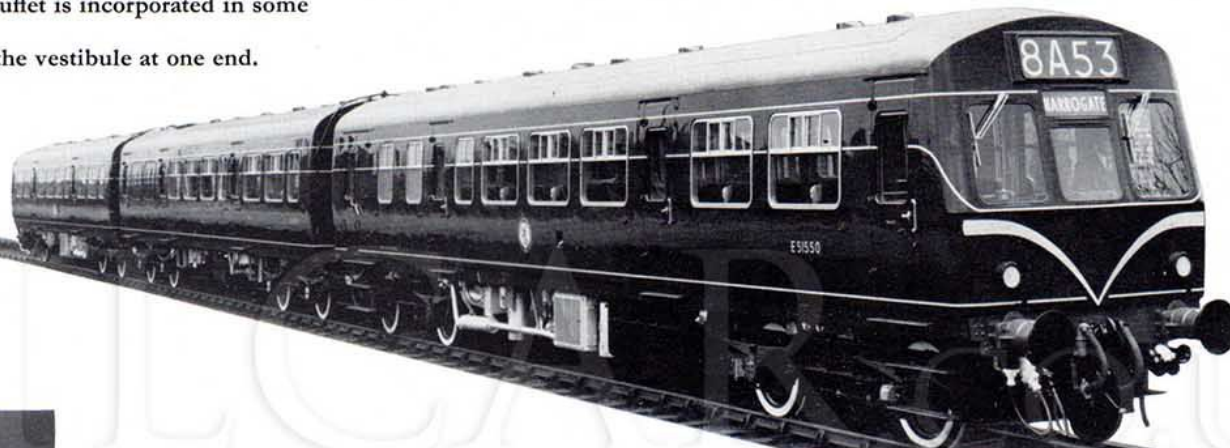




*A "Times Review of Industry" colour photograph*

**Diesel railcars for British Railways in full production**

A 2-car unit provides seating accommodation for 12 First class passengers and 105 Second class passengers with a central gangway, whilst the buffet is incorporated in some of the trailer cars adjacent to the vestibule at one end.



**I**NTERIOR decor was carefully selected to provide a pleasing and spacious effect and plastic panelling was used extensively. Heating, controlled by the driver, is by oil-heated warm air through insulated ducting fitted immediately above the floor on the body sides. The body structure is of the integral type and such that all variations in lay-out can be catered for in the same jigs. The side framing extends as a complete unit from below the underframe well up into the roof portion, thus providing an excellent structure to take care of all super-imposed loads.

Metropolitan-Cammell has made good use of the experience gained in diesel railcar construction with British Railways and has applied it to the export field, with the result that in 1960 a contract was awarded to the Company for 20 Diesel Railcars for the Jamaican Railway Corporation.

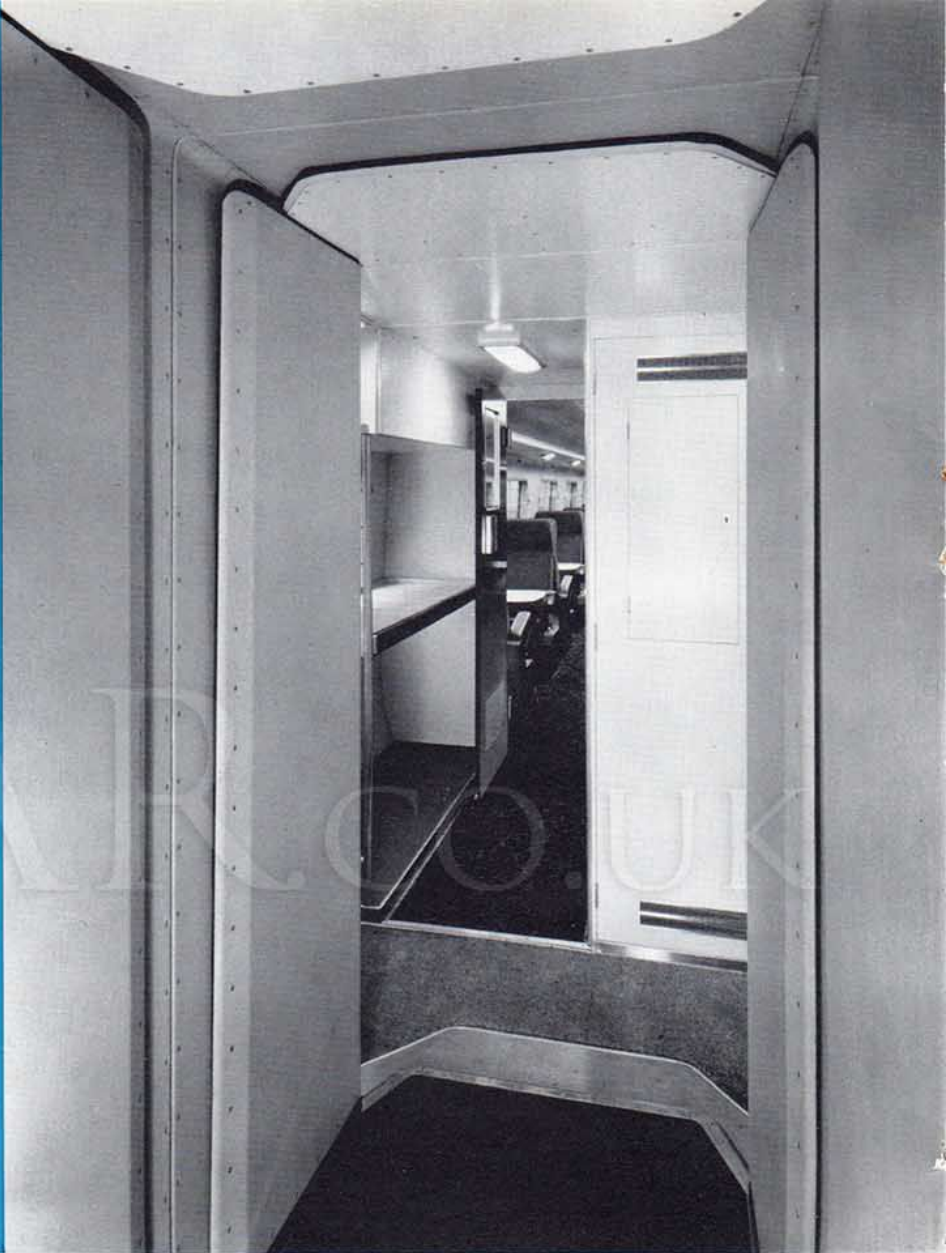
## **DIESEL ELECTRIC PULLMAN**

**AS** a result of the Company's world-wide reputation over the years for building luxury coaches of high quality Metropolitan-Cammell was selected by the British Transport Commission to design and manufacture five special trains, and the Company was proud indeed to be nominated for this important work. These high speed luxury diesel electric Pullman trains were designed to contain all that is best to offer for the comfort and amenity of the passenger and many new features were incorporated for the first time on British Railways including:—

1. The latest form of integral tubular construction which represents the culmination of experience gained from previous important contracts both at home and overseas.
2. Quieter riding than anything previously experienced made possible by special insulation, double windows and fully suspended floors.
3. Full air-conditioning for the first time in the U.K.
4. Specially wide gangways for easier access between coaches and to ensure cleanliness and comfort throughout the length of the trains.
5. Adjustable reclining seats and improved lighting.
6. Modern stainless steel kitchen equipment, sterilisation sinks and a deep-freeze.







The comfort and soundproofing of the Driver's Cab has been acknowledged as a special feature and the freedom from vibration in the passenger saloon of the power car is in itself a major engineering achievement.

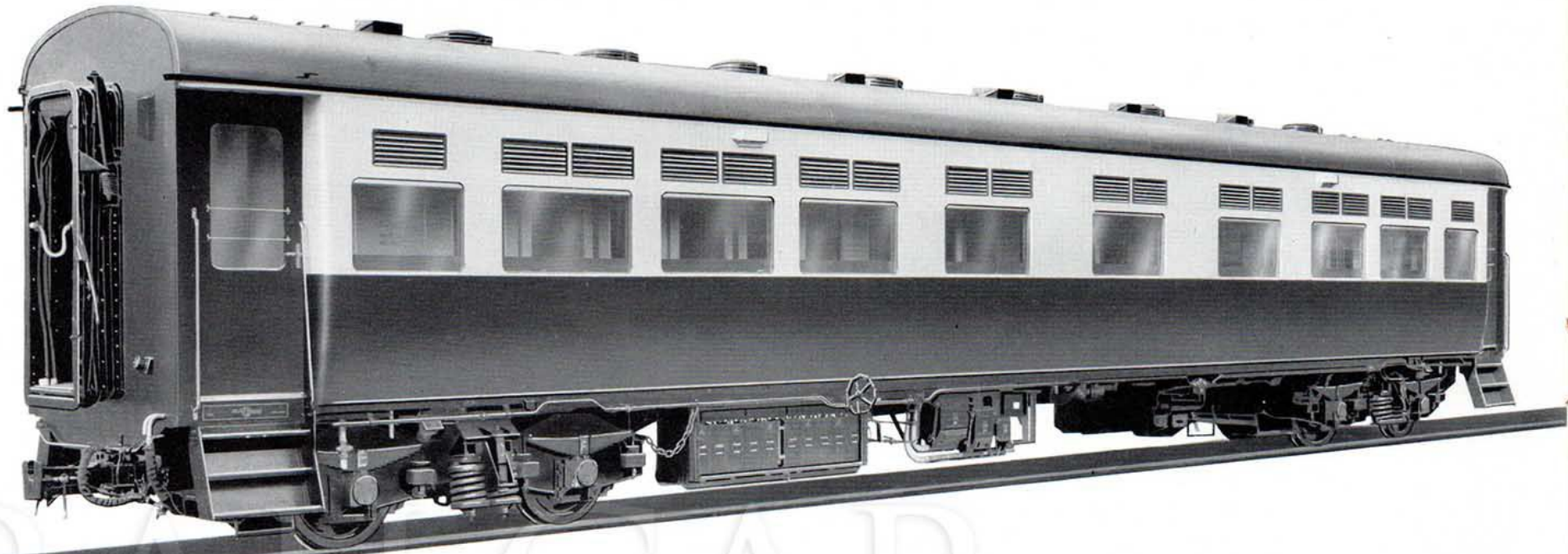
The new gangway between coaches is supplied with conditioned air from adjacent saloons and, when moving from one coach to another, it ensures smooth and quiet movement round curves.

## LOCOMOTIVE - HAULED COACHES

**T**HE total number of passenger coaches supplied to British Railways in the last 15 years amounts to over 4,300, comprising many different types. Besides supplying large quantities of 1st Class corridor coaches, 2nd Class corridor coaches, brake vans, 1st and 2nd Class composite coaches and buffet cars, to British Railways, the Company has made a large contribution towards the renewal of the Railway's fleet of sleeping cars — nearly 100 having recently been completed.

More than half this quantity were 1st Class cars comprising single berths as illustrated. Nearly 2,000 passenger coaches have been shipped overseas since the end of World War II, which represents nearly one-third of the total output of





6,250 coaches, or an average of 416 a year for 15 years. Of the many railways which have been supplied with large quantities of carriages and wagons, the East African Railways and Harbours is typical. As far as coaches are concerned, Metropolitan-Cammell has supplied all the new 1st Class Day and Sleeping Cars together with a twin Dining-Car Unit; both of these types of vehicle are illustrated on the opposite page, whereas on this page can be seen the latest type of 2nd Class Day and Sleeping Car with 6 berths per compartment. In previous years large quantities of 3rd Class coaches and passenger brake vans have also been supplied. Various new designs of rolling stock have been evolved over the last 15 years which have stemmed from much development and research.



## LIGHT ALLOY COACHES

During this time considerable emphasis has been laid on lightweight vehicles, and Metropolitan-Cammell was the first rolling stock manufacturer in the United Kingdom to design and manufacture coaches of light alloy construction, firstly for the Underground Services of the London Transport Executive and secondly Main Line coaches for East Africa. Where gradients are severe there is always a need for lightweight vehicles, and in East Africa where the line climbs from sea level at Mombasa to over 9,000 ft., specially designed



lightweight coaches have many advantages. With underframes and body structures of light alloy and exterior panels of polished aluminium unpainted — relieved with extruded sections running longitudinally along the bodyside — and plastics being introduced on a large scale for the first time on an export contract — these coaches represented something quite new for any of the Railways in Africa. In the Dining Car special murals were incorporated into the surface of the plastic panels and the seat units of blue hide were a distinctive feature of the Saloon, their simplicity of design adding dignity to the general comfort of the car.



# WAGON PRODUCTION

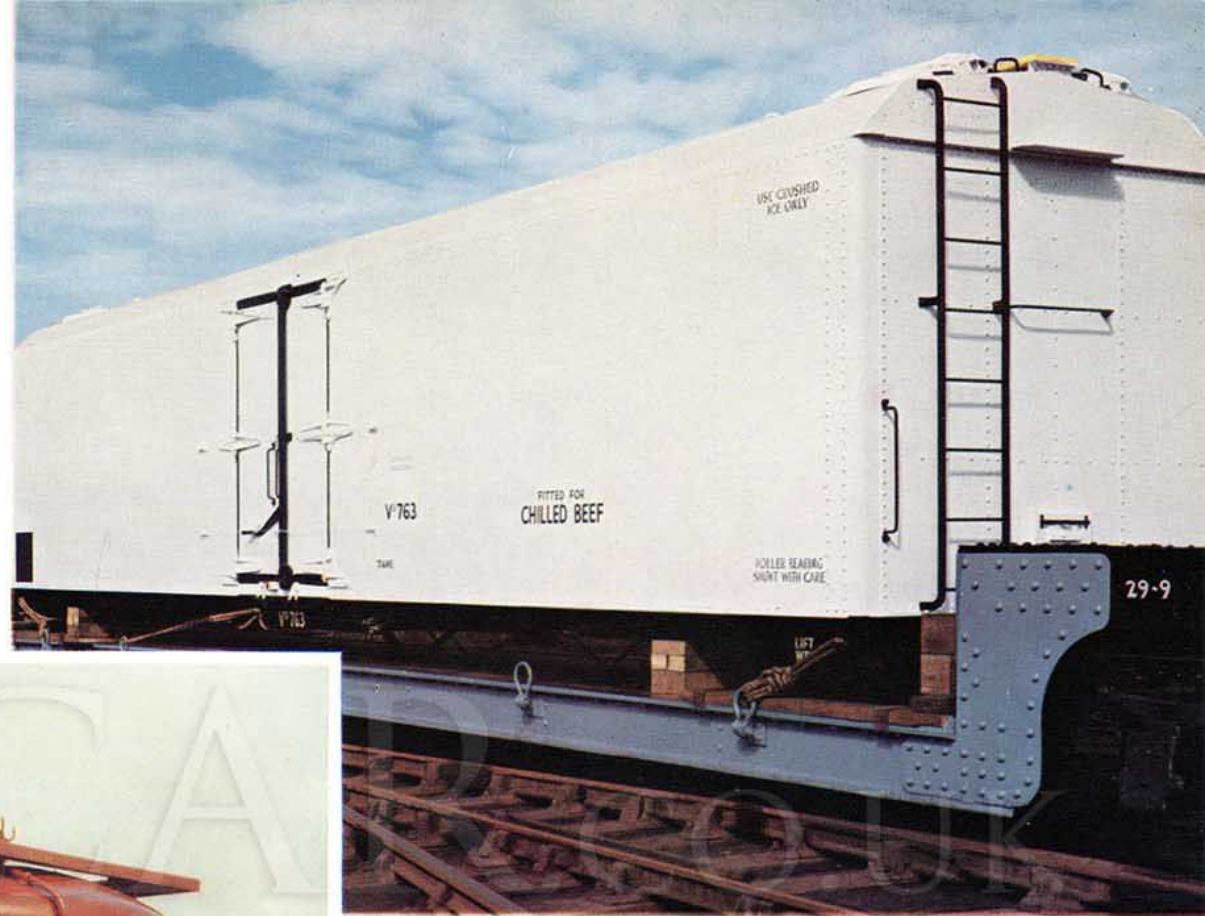
MUCH pictorial space has been devoted in this Brochure to the wide range of passenger coaches including de-luxe coaches, main line standard stock, suburban electric coaches and diesel railcars, but within its three rolling stock factories Metropolitan-Cammell has also the capacity and up-to-date equipment to manufacture concurrently large numbers of different types of freight wagons to meet the varying requirements of railways throughout the world.

Freight wagons have been supplied to the majority of overseas railways for the transportation of many diverse products and to suit many different climates and gauges. A typical list of such freight includes steel, coal, ballast, copper, iron ore, limestone, explosives, grain, jute, cotton, ground nuts, mud, chilled beef, fluids and general merchandise, and special types of wagons have been designed in conjunction with the customer for the discharge by compressed air of commodities in bulk, such as salt, cement and ground silica.

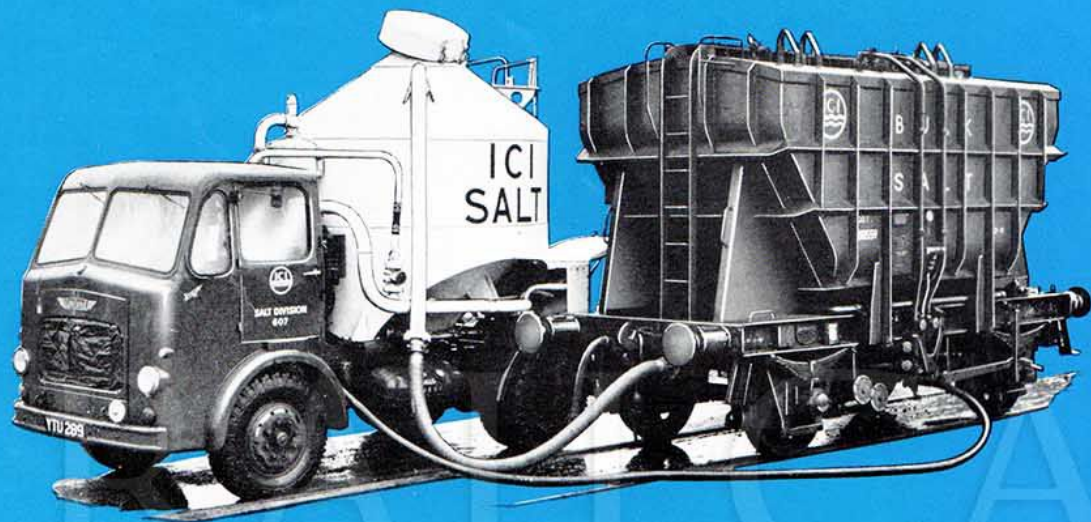
In the last 15 years nearly 85,000 wagons of more than 75 different types have been manufactured for over 30 customers, and nearly 55% of the total wagon output has been for overseas.

Whilst having maintained its position over the years as the largest exporter of railway rolling stock in Europe, Metropolitan-Cammell has continued to make an important contribution towards meeting the requirements of the home market, and the Company has in the last 15 years delivered nearly 39,000 wagons of thirty different types.

## SPECIAL DUTIES



The accent on wagon design in recent years has been towards vehicles for special duties and on this page are illustrated two types; an insulated van for the transportation of chilled meat in New Zealand, and a Twin Silo Air Discharge Wagon for ground silica and other powders such as soda ash, alumina, hydrate of lime, etc., for British Railways.



**T**WO other special types of wagon have been manufactured by the Company, in collaboration with the customer, for the transport of powders in bulk and for discharge by compressed air. These two types are similar — one for cement and the other for salt. 350 cement wagons have been manufactured for British Railways, and 50 for salt have been supplied direct to I.C.I.





**METROPOLITAN-CAMMELL** has supplied rolling stock to many African countries — Sierra Leone, Liberia, Ghana, Nigeria, Angola, Rhodesia, South Africa, Mozambique, East Africa (embracing Kenya, Tanganyika and Uganda), Sudan and Egypt. All of these countries have been supplied with new vehicles within the last 10 years.



On the top left are illustrated iron ore wagons en-route to the port of Pepel from the Sierra Leone Development Company's mines at Marampa; limestone wagons at the Athi River Cement factory near Nairobi, Kenya (*above*); and a selection of carriages and wagons, all built by Metropolitan-Cammell, at the Angolan-Congo border town of Teixeira da Sousa on the Benguela Railway.

## **DIESEL ELECTRIC AND ELECTRIC LOCOMOTIVES . . .**

CONSIDERABLE developments have taken place in the field of diesel and electric locomotives in recent years and whilst traditionally Metropolitan-Cammell has concentrated the efforts of its designers and draughtsmen towards carriages and wagons, the advent of dieselisation and electrification has resulted in a number of important contracts. The entry by Metropolitan-Cammell into the field of locomotive construction began with an order for 10 1,000 h.p. Diesel Electric Locomotives for New South Wales, in conjunction with B.T.H. This was followed by an order for 94 Diesel Electric Locomotives for Coras Iompair Eireann, with Associated Electrical Industries Ltd. as Main Contractors. This order comprised 60 1,200 h.p. Locomotives and 34 550 h.p. Locomotives and they represented at the time the largest order for diesel electrical locomotives to be placed with private contractors in U.K. More recently the Company manufactured 35 type 5.E.1 Electric Locomotives for the South African Railways, again with Associated Electrical Industries Ltd. as the Main Contractor.



## SOUTH AFRICA

## **ROAD PASSENGER VEHICLES . . .**

**E**VER since 1929 when the Company pioneered the all metal omnibus body, Metropolitan-Cammell has held a premier position in the development and construction of these vehicles. In the last 15 years, one of the Company's four factories has manufactured nearly 10,000 buses for over 100 customers. 30% of this production has gone to the export market and the Company's buses are now in service in countries all over the world, such as Ceylon, Cuba, Ghana, Jamaica, Argentina, Uruguay, Spain, Pakistan, Sudan, Sierra Leone, South Africa, Turkey, Iran, New Zealand and Yugoslavia, while for the home market more than 70 different Municipal and large company operators in the United Kingdom have been equipped with Metropolitan-Cammell buses.

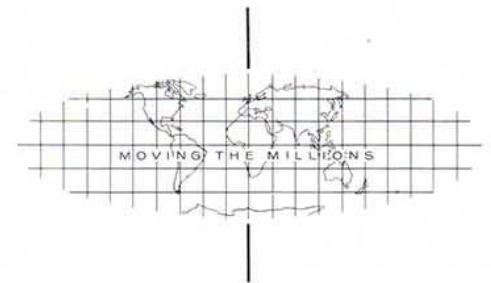
Strict attention is always paid to the pre-treatment of the various metals. Detail and sub-assembly jigs ensure accuracy in final erection and enable interchangeable replacement parts to be readily available. Resin bonded fibreglass is however replacing metal to a certain extent especially for exterior panelling which is prone to damage; laminated and other forms of plastic are also in evidence for interior panelling and fittings. Transistorised fluorescent tube lighting is another new feature, whilst the travelling public and operators alike have welcomed the appearance of the latest large capacity bus with its entrance forward of or immediately behind the front wheels, and its engine in the rear. All these improvements have been developed at the Company's Elmdon Works, near Birmingham where the Bus Division is located.

The sales company — Metropolitan-Cammell-Weymann Ltd. is situated at Vickers House, Broadway, London, S.W.1., and Metropolitan-Cammell is associated with Bus Bodies (S.A.) Limited, situated at Port Elizabeth, which was incorporated in South Africa in 1946, with subsidiaries in Johannesburg and Durban, for the manufacture of Road Passenger and Commercial Vehicle Bodies. Metropolitan-Cammell has a 30% shareholding in this Company and a high reputation for the quality of its products has been built up in South Africa. Among many important contracts recently secured is an order for the manufacture, at Port Elizabeth, of Land-Rover Bodies.

Zambesi Coachworks Limited in Salisbury, Southern Rhodesia, is another Associated Company established in 1957 jointly by Metropolitan-Cammell and Leyland Motors Ltd., each of whom own 50% of the capital; this factory is engaged on the production of similar Bodies for Road Passenger and Commercial Vehicles for a wide circle of operators throughout Central Africa.



**METROPOLITAN-CAMMELL** has always kept in the forefront where design trends are concerned, with particular emphasis on weight reduction allied to structural strength. The chassisless trolleybuses for London Transport in 1939 led to the introduction of the "Olympic" bus in 1948 — the first British passenger road vehicle of entirely integral construction. Over a thousand of these "Olympics" are now in service in various parts of the world — the vehicle illustrated on the left operating on one of the many services in Havana, Cuba.







Two of the 150 45-seater all-metal buses in service in Ghana.

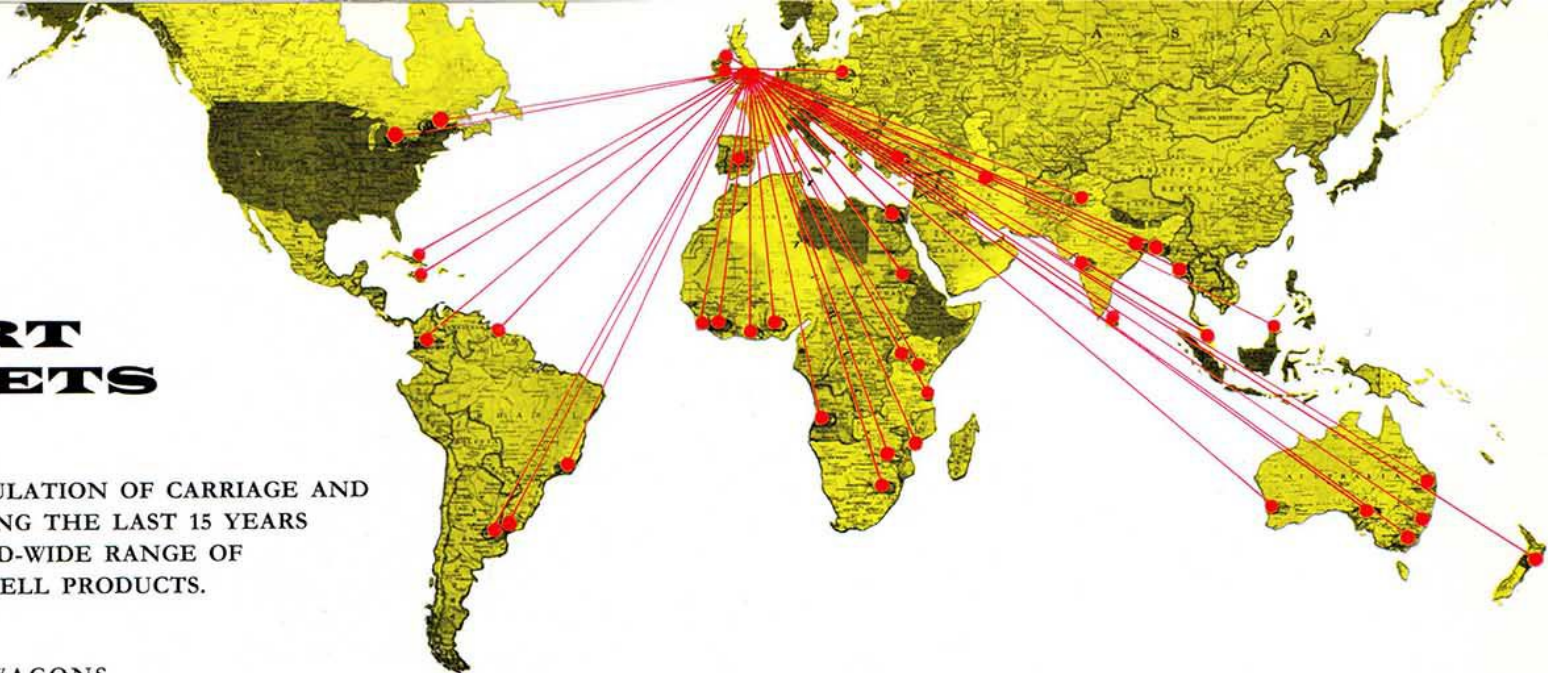
RAIL



This new "Atlantean" vehicle operating in Sheffield, was developed in conjunction with Leyland Motors Ltd., and already over 600 with Metropolitan-Cammell bodies have been purchased by 25 different operators.

# EXPORT MARKETS

THE FOLLOWING TABULATION OF CARRIAGE AND WAGON OUTPUT DURING THE LAST 15 YEARS INDICATES THE WORLD-WIDE RANGE OF METROPOLITAN-CAMMELL PRODUCTS.



## WAGONS

AFRICA.	South Africa .. .. .	3,212
	Rhodesia .. .. .	4,378
	East Africa .. .. .	1,902
	Egypt .. .. .	1,600
	Nigeria .. .. .	421
	Ghana .. .. .	304
	Sierra Leone .. .. .	40
	Angola .. .. .	635
	Sudan .. .. .	1,519
Liberia .. .. .	83	
	<hr/>	14,094
SOUTH AMERICA.	Argentine .. .. .	1,910
	Brazil .. .. .	200
	Colombia .. .. .	12
	British Guiana .. .. .	56
	<hr/>	2,178
ASIA.	India .. .. .	8,468
	Pakistan .. .. .	4,090
	Burma .. .. .	1,025
	Malaya .. .. .	350
	Turkey .. .. .	400
	North Borneo .. .. .	2
	Ceylon .. .. .	115
	<hr/>	14,450
AUSTRALASIA.	Australia .. .. .	6,526
	New Zealand .. .. .	7,020
	<hr/>	13,546
EUROPE.	Eire .. .. .	1,620
	Ulster .. .. .	25
	<hr/>	1,645
	Export Market =	45,913 (54%)
	Home Market =	38,811 (46%)
	<b>TOTAL ..</b>	<b>84,724</b>

## CARRIAGES

AFRICA.	South Africa .. .. .	545
	Rhodesia .. .. .	137
	Mozambique .. .. .	13
	East Africa .. .. .	218
	Egypt .. .. .	264
	Nigeria .. .. .	11
Angola .. .. .	6	
	<hr/>	1,194
SOUTH AMERICA.	Brazil .. .. .	330
	Jamaica .. .. .	20
	<hr/>	350
ASIA.	India .. .. .	74
	Ceylon .. .. .	96
	Hong Kong .. .. .	23
	<hr/>	193
AUSTRALASIA.	Australia .. .. .	200
	<hr/>	200
EUROPE.	Ulster .. .. .	1
	<hr/>	1
	Export Market =	1,938 (31%)
	Home Market =	4,306 (69%)
	<b>TOTAL ..</b>	<b>6,244</b>

## ASSOCIATED & SUBSIDIARY COMPANIES

**Bus Bodies (S.A.) Ltd.,**  
Port Elizabeth,  
South Africa.

**Metropolitan-Cammell (Argentina) S.A.I.C.,**  
Buenos Aires,  
Argentina.

**Metropolitan-Cammell Carriage & Wagon Company Africa (Pty.) Ltd.**

**Metropolitan-Cammell-Weymann Ltd.**

**Metropolitan Railcars Ltd.**

**The Patent Shaft Steel Works Ltd.**

**G. H. Sheffield & Company (Engineers) Ltd.**

**Southern Structural Ltd.,**  
Madras, India.

**Union Carriage & Wagon Company (Pty.) Ltd.,** Nigel,  
South Africa.

**Zambesi Coachworks Ltd.,**  
Salisbury,  
Southern Rhodesia.

### AGENTS & REPRESENTATIVES THROUGHOUT THE WORLD

**ARGENTINA.**

Evans Thornton & Cia., S.A.I.M.F.,  
Calle Defensa 465 (R.46),  
Casilla Correo Central No. 3993,  
BUENOS AIRES, Argentina.

**AUSTRALIA.**

Knox Schlapp (Pty.) Ltd.,  
P.O. Box 1649 N.,  
Collins House,  
360, Collins Street,  
MELBOURNE, C.I., Australia.

**BOLIVIA.**

Parson & Crosland Ltd.,  
City Wall House,  
129, Finsbury Pavement, LONDON, E.C.2.

**BRAZIL.**

M. Almeida, S/A. Engenharia, Comercio E Industria,  
Caixa Postal 457,  
Rua Brigadeiro Tobias 773,  
SAO PAULO, Brazil.

**BURMA.**

Sein Trading Co. Ltd.,  
P.O. Box 770,  
73/77, Maung Taulay Street,  
RANGOON, Union of Burma.

**CEYLON.**

Brown & Company Ltd.,  
P.O. Box 200,  
Darley Road,  
COLOMBO, 10, Ceylon.

**CHILE.**

Sr. V. D. Bullemore,  
Casilla 1689,  
SANTIAGO, Chile.

**CHINA.**

Jardine Engineering Corporation Ltd.,  
P.O. Box 517,  
Jardine House,  
22, Pedder Street,  
HONG KONG.

**COLOMBIA.**

Jorge Triana & Cia.,  
Oficina No. 514,  
Apartado de Correos No. 5,  
Avenida Jimenez No. 9-43,  
BOGOTA, Colombia.

Mangner & Villa Ltda.,  
Calle 14 No. 7-61-62 Piso,  
Apartado Aereo 4083,  
BOGOTA, Colombia.

**DENMARK.**

E. T. Grew, A/S.,  
Raadmandsgade 43,  
COPENHAGEN-N, Denmark.

**FINLAND.**

de Jersey & Co. (Finland) Ltd.,  
P.O. Box 435,  
Finland House,  
Kalevankatu 13A,  
HELSINKI, Finland.

**GHANA.**

John Holt Bartholomew Ltd.,  
P.O. Box 468,  
Kwame Nkrumah Avenue,  
ACCRA, Ghana.

**GREECE.**

Alec C. Triandafyllides, S.A.,  
Stadiou Street 29,  
ATHENS, Greece.

**INDIA.**

Vickers India Private Ltd.,  
136, Sundar Nagar,  
NEW DELHI, 11, India.

**IRAN.**

Haig C. Galustian & Sons,  
Shahreza Avenue,  
TEHERAN, Iran.

**IRAQ.**

John Birch & Co. (Iraq) Ltd.,  
P.O. Box 43,  
BAGHDAD, Iraq.

**MALAYA.**

Jardine Waugh (Malaya) Ltd.,  
P.O. Box 304,  
Denmark House,  
84, Ampang Road,  
KUALA LUMPUR, Malaya.

**MEXICO.**

Moto-Equipos, S.A.,  
Dr. Lavista No. 123,  
MEXICO, 7. D.F.

**NETHERLANDS.**

Landre & Glinderman N.V.,  
P.O. Box 203,  
Spuistraat 6-8,  
AMSTERDAM, C., Netherlands.

**NEW ZEALAND.**

Cory-Wright & Salmon Ltd.,  
P.O. Box 1230,  
31-37, Panama Street,  
WELLINGTON, C.I., New Zealand.

**NIGERIA.**

J. Allen & Co. Ltd.,  
P.O. Box 542,  
Broad Street,  
LAGOS, Nigeria.

**NORTH BORNEO.**

Jardine Waugh (B) Ltd.,  
P.O. Box 195,  
Hong Kong Bank Chambers,  
SANDAKAN, North Borneo.

**NORWAY.**

Mr. N. A. Eie,  
P.O. Box 19,  
OSLO, Norway.

**NYASALAND.**

Metropolitan-Cammell Carriage & Wagon Co. Africa (Pty.) Ltd.,  
P.O. Box 1137,  
JOHANNESBURG, South Africa.

**PAKISTAN.**

Vickers (Pakistan) Ltd.,  
P.O. Box 4945,  
Karachi Company Building,  
Wallace Road,  
KARACHI, Pakistan.

**PARAGUAY.**

Evans Thornton & Cia. S.A.I.M.F.,  
Calle Defensa 465, (R.46),  
Casilla Correo Central No. 3993,  
BUENOS AIRES, Argentina.

**PERU.**

Parson & Crosland Ltd.,  
City Wall House,  
129, Finsbury Pavement, LONDON, E.C.2.

Peru Mercantil, S.A.,  
Avenida Abancay 291,  
LIMA, Peru.

**PORTUGAL AND PORTUGUESE WEST AFRICA.**

C. E. Bleck Ltda.,  
P.O. Box 2697,  
Rua Serpa Pinto 15-30 D,  
LISBON, 2, Portugal.

**PORTUGUESE EAST AFRICA.**

Agencia Geral Lda.,  
Caixa Postal 667,  
LOURENCO MARQUES, Mozambique.

**RHODESIA.**

Metropolitan-Cammell Carriage & Wagon Co. Africa (Pty.) Ltd.,  
P.O. Box 1137,  
JOHANNESBURG, South Africa.

**SOUTH AFRICA.**

Metropolitan-Cammell Carriage & Wagon Co. Africa (Pty.) Ltd.,  
P.O. Box 1137,  
JOHANNESBURG, South Africa.

**SPAIN.**

Senores Nicolas & Ricardo Fuster,  
Antonio Maura 8,  
MADRID, Spain.

**SUDAN.**

National Engineering Co. Ltd.,  
P.O. Box 208,  
Gambouria Avenue,  
KHARTOUM, Sudan.

**SYRIAN ARAB REPUBLIC.**

Khalil Fattal & Fils,  
B.P. 15,  
Rue Chassane,  
DAMASCUS, Syria.

**THAILAND.**

United Thai Trading Co. Ltd.,  
Siam City Bank Building,  
13, Anuwongse Road,  
BANGKOK, Thailand.

**TURKEY.**

Celesttin Dervis Bukey, ve Oglu Ticaret Limited Sirketi,  
Posta Kurusu 21,  
Olgunlar Sk., No. 10 Bukey Ap.,  
ANKARA, Turkey.

**UNITED STATES OF AMERICA.**

Luria Steel & Trading Corporation,  
511, Fifth Avenue,  
NEW YORK 17, N.Y., U.S.A.

**URUGUAY.**

Compania Ericsson, S.A.,  
Casilla de Correo 575,  
MONTEVIDEO, Uruguay.

**VENEZUELA.**

Mr. Keith E. Arnold,  
Edificio Residencia Miracielos,  
Esquina Miracielos,  
CARACAS, Venezuela.



**FOR OVER A CENTURY LEADING BUILDERS OF ROLLING STOCK FOR THE RAILWAYS OF THE WORLD.**



TRAILCAR.CO.UK

