# BRITISH RAILWAYS MINERAL WAGONS 1945(-ish!) TO 1962

Mineral; a mineral is a naturally occurring chemical compound, usually of crystalline form and abiogenic in origin. Wagon; a rectangular-bodied vehicle on at least 4 wheels, used for the transportation of goods.

British Railways inherited a huge and motley collection of mineral wagons that had been pooled for war-time service, pretty much wooden-bodied and in a poor state of repair. A programme of mass replacement was started very soon after nationalisation, and these notes are barely a 'toe in the water' for the subject but illustrates the basic types. It will be obvious that the greater the number of new wagons over time, the fewer the old wooden wagons were to be seen and by the time of our model of Finchley the wooden wagons were very much in the minority.

This (very brief - !!) review covers the various diagrams, and I've also include here the precursors to the BR types, the steel versions as built for the LMS and LNER which were themselves influenced by the Ministry of Transport wagons. Most of the MoT versions are recorded from a 1954 survey. After the LMS and LNER wagons I've listed the hopper types then 'standard' types, listing the least numerous wagons first, building up to the almost ubiquitous diagram.

Where I've found information regarding models (4mm) and preservation I've included it, but please don't take it for granted – I'm sure there's more to it! - and some of the models will now only be available on the second-hand market.

#### **LNER**

Diagram Not known Total built 7,200
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16T rivetted steel with end door.

Some at least built by Teesside Bridge & Eng. From 1945. Cambrian produce a kit C10.



#### LMS

Diagram	2106	Total built	1

16T welded steel with end door.

Prototype built at Derby in 1945.

Diagram	2109	Total built	2,599

16T welded steel with end door.

Built from 1946 in 2 lots. The shape of side doors varied, some flat, some with a raised 'pyramid' profile.



Diagram	2134	Total built	3,500

16T welded steel or rivetted steel, with end door. Built 1949 in 2 lots.

#### **HOPPER WAGONS**

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Diagram	158	Total built	21

20T welded steel hopper, for coke traffic. These were provided with a sheet bar.

A single lot built at Shildon, date of build is not specified but likely to be late-50s, and the running numbers are not recorded in the Lot Book!

No models or preservation I'm aware of.

Diagram	153	Total built	250
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20T welded steel hopper with disc brakes.

Built in 2 lots in 1960 and 1962 at Shildon, the Lot Book states they are 24.5T and 24T, not the 20T of the diagram! No models or preservation I'm aware of.

13T wooden-bodied and wood sole bar hopper.

A single lot built in 1949 at Faverdale.

No models or preservation I'm aware of.

Diagram 150	Total built	500
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20T welded steel hopper, for coke traffic

Built in 2 lots in 1949 and 1950 at Shildon and Teesside Bridge. The second lot had steel raves.

No models or preservation I'm aware of.

Diagram	154	Total built	548

24.5T welded steel hopper.

Built as 1 lot in 1962 at Shildon.

No models, 1 in preservation I'm aware of at Tanfield.



Diagram 152 Total built 550
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20T hopper.

This is a mixed bag, 250 welded steel, 300 rivetted, no raves but full-height sheeting and 279 were vacuum braked. Built in 1958 at Shildon

Model - Hornby R6733, though none preserved

Diagram	144	Total built	650

13T steel hopper. This is basically a D.142 but is a quarter inch taller! Built in 2 lots in 1951 at RY Pickering (300) and Fairfields S&E (350) No models or preservation I'm aware of.

Diagram 149	Total built	1,000
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21T welded steel hopper.

Built in 1 lot at Shildon in 1958. These had roller bearings and self-contained buffers. 100 were vacuum braked.

No models but 2 in preservation I'm aware of.

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Diagram	155	Total built	1,087

24.5T welded steel hopper.

Built in 3 lots, year unknown, at Shildon (678) and Pressed Steel (100)



Diagram	151	Total built	1.150
Diagram	101	i otai buiit	1,100

20T welded steel hopper.

Built in 7 lots between 1951 and 1957, all at Shildon. End raves were replaced by sheeting.

Model by Hornby, R6822, though none preserved.

Diagram 141 Total built 1,200	Diagram
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21T steel hopper.

Built in 3 lots in 1949 between Cravens (500), Head Wrightson (500) and Teesside Bridge (200). Brake blocks only on one side.

No models, but 1 preserved at NRM Locomotion.



Diagram	145	Total built	1,400

21T rivetted steel hopper. Very similar to D.141 but with a Morton brake.

Built in 2 lots in 1952 and 2 more in 1955 between Hurst Nelson (600) and Metropolitan Cammell (800).

No models or preservation I'm aware of.

Diagram 142	Total built	1,950
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13T steel hopper but with wooden bottom doors.

Built in 5 lots between 1949 and 1950 at Shildon (2 lots, 1,200), Fairfields S&E (250), RY Pickering (250) and Cravens (250).

No models or preservation I'm aware of.

21T steel hopper, only minor differences to D. 141.

Built in 7 lots between 1949 and 1950 by Cravens (350), Head Wrightson (2 lots, 800), Teesside Bridge (150),

Birmingham RCW (700), Metropolitan Cammell (500) and Butterley (250)

Model by Hornby, R6016. Nothing preserved I'm aware of.

Diagram	148	Total built	3,378

24.5T welded steel hopper.

Built in 8 lots between 1953 and 1962, only 1 example built at Ashford, the remaining lots at Shildon.

Model by Accurascale, based on a preserved example. Whilst hoppers were most common in the north of England, the Accurascale notes state this type was used on Wellingborough to East London trains, so one for the Finchley branch?

21T welded steel hopper

Built in 26 lots from 1952 to 1959 by 12 different builders. Standard hand lever brake.

Birmingham RCW 3 lots, 1,400. Butterley 1 lot, 200. Charles Roberts 1 lot, 1,150. Cravens 4 lots, 1,150. Fairfield S&E 2 lots, 1,150. Gloucester C&W 2 lots, 950. Head Wrightson 2 lots, 800. Hurst Nelson 2 lots, 950 Metropolitan Cammell 2 lots, 1,450 Pressed Steel 1 lot 2,950 Shildon 5 lots, 3,100 Standard 1 lot, 500.

One lot from Shildon's allocation was later converted for grain traffic from Millwall Dock to Welwyn

Model by Parkside, kit PA77. 21 preserved I'm aware of.

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#### **NON-HOPPER WAGONS**

Diagram	116	Total built	100

16T rivetted aluminium with end door. Built at Shildon 1953 in 1 lot of 100

No models or preservation I'm aware of.

Diagram	113	Total built	305

16T rivetted steel with end door. Ex-French government to a Hurst Nelson design. Built in 6 lots in 1950, at Earlestown (3 lots, 180), New Cross Gate (3 lots, 125) No models or preservation I'm aware of.

Diagram	101	Total built	500

16T rivetted steel with end door. Ex-French government and Ministry of Transport. Built as 1 lot by Cambrian W&E, recorded in a 1954 survey. No models or preservation I'm aware of.

	Diagram	103	Total built	800
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16T rivetted steel with end door. Ex-French government and Ministry of Transport.

Built by Cambrian W&E (650) and Metropolitan Cammell (150), recorded in a 1954 survey.

No models, 1 preserved at Foxfield Railway.



Diagram 110 Total built 1,000
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21T rivetted steel with end door.
Built in 1 lot by Metropolitan Cammell in 1950.
Model available from Parkside, kit PC03, one example preserved at Swindon & Cricklade Railway.



Diagram	118	Total built	1,245

24.5T wagon with side and end door, with roller bearings and self-contained buffers.

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Built in 4 lots at Ashford (2 lots, 845) and Shildon (2 lots, 400) from 1959 to 1962. No models or preservation I'm aware of.

Diagram	107	Total built	1,500
Diagram	101	i otai buit	1,500

16T welded steel with end door.

Built in 3 lots by P&W McLellan (500), Charles Roberts (500) and Birmingham RCW (500) all in 1950. No models or preservation I'm aware of.

	1		1
Diagram	103/105	Total built	1,850

16T rivetted steel with end door, ex-French government and Ministry of Transport.

Built by Metropolitan Cammell, recorded in 1954 survey.

No models or preservation I'm aware of.

A mixed bag if the logs are correct.

The first lot is recorded as a 16T welded steel with end door, built at Derby in 1951. The first 100 are vacuum fitted version of D.111, the remaining 200 being unfitted.

Bachmann offers a model of these, 37226 and 37228.

The remainder are recorded as 24.5T welded steel with end door. Built in 3 lots at Shildon in 1953 and 1954.

Parkside do a kit of this, kit PC04, and an example is preserved



Diagram	120	Total built	2,450
Diagram	120	i otai buiit	2,430

21T wagon, as D. 119 but fitted with SAB vacuum brake. Built at Derby in 2 lots in 1961/62.

Both Hornby (R6070) and Slimlines (kit 473) provide models, and 6 examples are preserved.



Diagram 119 Total built 2.
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21T wagon with roller bearings, hydraulic buffers and manual changeover vacuum brake.

Built in 3 lots at Shildon (2 lots, 2,000) in 1961 and 1962, and at Derby (500) in 1962.

No models though similar to D.120 above, 6 examples preserved.



	Diagram	106	Total built	2,800
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16T welded steel with end door. Believed to an LMS design. Built in 3 lots by Derbyshire C&W in 1950/51.

Models by Bachmann (37226D and 33752), 2 examples preserved, 1 of which at East Anglian Railway Museum.



Diagram	104	Total built	3,300

16T welded steel with end door.

Built in 7 lots, the first 2 of which are recorded as part of the 1954 survey, from Derbyshire C&W (750) and Fairfields S&E (1,200). These 2 lots both feature 2 flap doors.

The remaining 5 lots were built in 1950 at Fairfields S&E (2 lots, 750), Derbyshire C&W (400), Cambrian W&E (100) and GR Turner (100).

Bachmann 37226 represents one of the 1954 survey models, but none preserved.

Diagram	111	Total built	4,400
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16 welded steel with end door. Only minor differences to D.108.

Built in 5 lots between 1950 and 1953 at Derby (2 lots, 1,500) and Shildon (3 lots, 2,900)

D.108 is well represented by models, but Bachman represent this diagram in a set of 3, 37225Y. None preserved.

Diagram	105	Total built	5,900
Diagram	103	i otai buiit	3,300

16 rivetted steel with end door. Ex-French government and Ministry of Transport.

Recorded in the 1954 survey, built in 4 lots by Cambrian W&E (1,500), P&W McLellan (2,000), GR Turner (900) and Gloucester C&W (1,500).

No models or preservation I'm aware of.

Diagram	112	Total built	6,982

16T open wagon (!). Ex-French government, to a Metropolitan Cammell design.

Refurbished and Anglicised on repatriation as 1 lot, split between Earlestown (4,200) and New Cross Gate (2.782). Parkside produce a kit PC22, 4 preserved.

Diagram	117	Total built	8.250
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16T welded steel with end door. Minor differences to D.108, believed Morton brake.

Ordered as 8 lots. Shildon built 1,500 in 1954, the remainder are dated 1957 – Pressed Steel (2 lots, 3,350, of which 2,350 were vacuum fitted), Derby (3 lots, 2,400, of which 500 vacuum fitted), and Central Wagon (2 lots, 1,000, of which 350 vacuum fitted).

10 examples are preserved, and Bachmann produce models numbered for a Pressed Steel version (37226F), and a vacuum fitted Derby example (37225D)

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Diagram	100	Total built	8,266



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16T rivetted steel with end door.

6,374 recorded in the 1954 survey and the remainder built in 1950, across 6 builders in total.

The early '1954' batch were built by Metropolitan Cammell (1,099), Charles Roberts (4,285), GR Turner (660) and P&W McLellan (330).

The 1950 batch were ordered as 1 lot, split between

Earlestown (1,142) and New Cross Gate (750). The earliest batch from Earlestown is noted as ex-French government / Ministry of Transport.

BR 16 TON MINERAL WAGON

SLOPE SIDES)

None preserved, but Parkside produce a kit PC27, and Bachmann produce models 37425A, 37450 and 37250F numbered for Charles Roberts examples, and 37425 based on a New Cross Gate example.



16T rivetted steel with end door; rivetted version of D.108.

Ordered as 18 lots through 5 builders between 1950 and 1959. Built at Ashford (4 lots, 3,265), Cambrian W&E (3 lots, 4,350), Gloucester C&W (1 lot, 300), Hurst Nelson (9 lots, 6,067) and Metropolitan Cammell (1 lot, 2,000).

Parkside produce a kit PC54, none preserved.

Diagram 102 Total built 18,450

16T welded steel with end door, ex-French government and Ministry of Transport. Recorded in the 1954 survey, as built by 5 builders. Royal Ordnance Woolwich (11,050), Royal Ordnance Dalmuir (4,500), Birmingham RCW (1,000), Fairfields S&E (500), and Teesside Bridge (1,400) Bachmann produced a number of models, 37377, 37253, 37250 and 37450. None preserved.

Diagram None Total built 23,793 assigned

16T rivetted steel.

Recorded in the 1954 survey, built by 15 companies. Birmingham RCW (5,412), Butterley (1,750), Cravens RCW (864), DG Hall (150), Derbyshire C&W (250), Fairfields S&E (650), GR Turner (803), Gloucester C&W (750), Head Wrightson (780), Hurst Nelson (1,888), P&W McLellan (1,350), RY Pickering (896), Royal Ordnance Dalmuir (4,370), Royal ordnance Patricroft (2,080), Teesside Bridge &E (1,8100). One example preserved, Bachmann models include 37427, 37400A, 37250A, 37426A, B & C, 37250E, 37377A & C

Diagram 108 Total built 206,444

The big one!

16T Welded steel with end door but no bottom doors.

Built between 1950 and 1959 by 17 builders allocated in 183 lots. Birmingham RCW (15 lots, 17,850), Butterley (12 lots, 6,850), Cambrian W&E (13 lots, 8,600), Central Wagon (5 lots, 2,910), Charles Roberts (12 lots, 11,400), Cravens RCW (8 lots, 4,700), Derbyshire C&W (18 lots, 15,461), Fairfields S&E (7 lots, 5,450), GR Turner (6 lots, 1,450), Gloucester C&W (8 lots, 7,150), Head Wrightson (2 lots, 2,100), Hurst Nelson (2 lots, 1,233), Metropolitan Cammell (16 lots, 17,600),





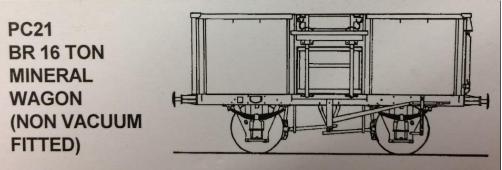
**East Bedfordshire Model Railway Society** P&W McLellan (13 lots, 11,200), Pressed Steel (22 lots. 71,000), RY Pickering (6 lots, 5,700), Teesside Bridge & E (18 lots, 15,790).

7,700 of the total were provided with vacuum brakes.









Some 99 are noted as preserved (though some are complete rust buckets) and unsurprisingly a large number of models are available. Dapol still produce the old Airfix kit, ref C37, which is reported as a good model. Parkside produce a kit PC21, and PC19 for the vacuum brake version, Hornby ref R243, and Bachmann produce a good number, including 33750, 33751 37078, 37225, 37227, 37250, 37251,37252, 37253, 37254, 37375, 37377 and a host of -suffix variants

#### **SUMMARY**

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Standard

Faverdale

**Grand Total** 

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# ety

<b>East Bedfordshire Model</b>			<b>Railway Society</b>			
Builder	Volume		Year	Order		
Pressed Steel	77,709		Not recorded	26,108		
Birmingham RCW	26,862		1954 survey	59,617		
Metropolitan Cammell	26,449		1949	2,350		
Shildon	21,324		1950	50,229		
Derbyshire C&W	19,661		1951	16,511		
Teesside Bridge & E	19,440		1952	21,750		
Charles Roberts	17,335		1953	27,451		
Cambrian W&E	15,700		1954	27,163		
P & W McLellan	15,380		1955	23,851		
Royal Ordnance Woolwich	11,050		1956	26,800		
Hurst Nelson	10,738		1957	44,970		
Gloucester C&W	10,650		1958	6,180		
Fairfields S&E	10,200		1959	11,920		
Butterley	9,050		1960	1,610		
Cravens RCW	8,964		1961	2,085		
Royal Ordnance Dalmuir	8,870		1962	4,206		
Derby	7,150		<b>Grand Total</b>	352,801		
R Y Pickering	7,146					
Earlestown	5,522					
Head Wrightson	4,980					
Ashford	4,111					
G R Turner	3,913					
Central Wagon	3,910					
New Cross Gate	3,657					
Royal Ordnance Patricroft	2,080					

500

300

150

352,801

So there you have it - a total of 28 builders, and over a third of a million wagons in 15 years or so, about 60 a day, almost a quarter from Pressed Steel!!

Almost 90% were 16T wagons, and of the hoppers most were operated in the north so virtually all in the south were 'standard' mineral wagons. The 24.5T versions seem to be mainly for power station traffic.

D.108 itself accounted for almost 7 out of 10 of all the new wagons, and if you are modelling in the late 1950s your layout should feature a good proportion of these and just a few of the others. I bet, like me, you ought to get rid of some oddments and replace them with Dapol or Parkside D. 108s!!

If anyone has made models of mineral wagons, with detailing and /or weathering, I'd be interested in a short review and picture to include here, please.

Sources, and much more information available

British Railways Wagons, Don Rowland www.prsl.co.uk www.ws.vintagecarriagestrust.org

There is also a book available on preserved wagons, published in February by ST Publications at £13

Size	End door	Open	Side & end door	Not noted	Hopper	Grand Total
13T					0.8%	0.8%
16T	79.1%	2.0%		6.7%		87.8%
20T					0.7%	0.7%
21T	0.3%			1.4%	6.6%	8.2%
24.5T	0.6%		0.4%		1.4%	2.4%
<b>Grand Total</b>	80.0%	2.0%	0.4%	8.1%	9.5%	100.0%

