

THE PENNSYLVANIA RAILROAD

No. 109-L

ISSUED PHILADELPHIA, PA.

SEPTEMBER 1, 1956

CLASSIFICATION AND DESCRIPTION OF LOCOMOTIVES AND TENDERS

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LOCOMOTIVES—CLASSIFICATION AND DESCRIPTION

(SUPERSEDING CLASSIFICATION AND DESCRIPTION OF LOCOMOTIVES AND TENDERS NO. 109-K, DATED JUNE 2, 1952)

Heating surfaces given herein are actual areas. Arch tube or circulator heating surface is included in item number 27 for all superheated steam locomotives.

Except where otherwise noted, the starting tractive force given for steam locomotives is based on a mean effective pressure equal to 85 per cent of the boiler pressure, or tractive force = $\frac{.85 \times \text{pressure} \times \text{CYL.}^2 \times \text{stroke}}{\text{diam. drivers}}$

Explanation of P. R. R. Classifications for experimental Electric and Diesel-electric locomotives shown on Page 2.

Explanation of A. A. R. symbols for wheel arrangements of Electric and Diesel-electric locomotives shown on Page 3.

STEAM LOCOMOTIVES

P.R.R. CLASS	WHYTE SYMBOL	WHEEL ARRANGEMENT	P.R.R. CLASS	WHYTE SYMBOL	WHEEL ARRANGEMENT
B	0-6-0	$\triangle \square \bigcirc \bigcirc \bigcirc$	K	4-6-2	$\triangle \bigcirc \square \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$
H	2-8-0	$\triangle \bigcirc \square \bigcirc \bigcirc \bigcirc \bigcirc$	L	2-8-2	$\triangle \bigcirc \square \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$
I	2-10-0	$\triangle \bigcirc \square \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$	M	4-8-2	$\triangle \bigcirc \square \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$
J	2-10-4	$\triangle \bigcirc \square \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$			

ELECTRIC LOCOMOTIVES

P.R.R. CLASS	A.A.R. SYMBOL	WHEEL ARRANGEMENT
B	C	$\triangle \bigcirc \bigcirc \bigcirc \triangle$
L	1-D-1	$\triangle \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \triangle$
O	2-B-2	$\triangle \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \triangle$
P	2-C-2	$\triangle \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \triangle$
DD	2-B+B-2	$\triangle \bigcirc \bigcirc \bigcirc \bigcirc + \bigcirc \bigcirc \bigcirc \triangle$
GG	2-C+C-2	$\triangle \bigcirc \bigcirc \bigcirc \bigcirc + \bigcirc \bigcirc \bigcirc \triangle$
E2B	2(B-B)	$\triangle \bigcirc \bigcirc - \bigcirc \bigcirc + \bigcirc \bigcirc - \bigcirc \bigcirc \triangle$
E2C	2(C-C)	$\triangle \bigcirc \bigcirc \bigcirc - \bigcirc \bigcirc \bigcirc + \bigcirc \bigcirc \bigcirc - \bigcirc \bigcirc \bigcirc \triangle$
E3B	2(B-B-B)	$\triangle \bigcirc \bigcirc - \bigcirc \bigcirc - \bigcirc \bigcirc + \bigcirc \bigcirc - \bigcirc \bigcirc - \bigcirc \bigcirc \triangle$

DIESEL-ELECTRIC LOCOMOTIVES

A.A.R. SYMBOL PER UNIT.	WHEEL ARR'G'T. PER UNIT
B	$\triangle \bigcirc \bigcirc \triangle$
B-B	$\triangle \bigcirc \bigcirc - \bigcirc \bigcirc \triangle$
C-C	$\triangle \bigcirc \bigcirc \bigcirc - \bigcirc \bigcirc \bigcirc \triangle$
B-B	<div style="text-align: center;"><u>A-UNIT</u></div> $\triangle \bigcirc \bigcirc - \bigcirc \bigcirc$ <div style="text-align: center;"><u>B-UNIT</u></div> $\bigcirc \bigcirc - \bigcirc \bigcirc$
A1A-A1A	<div style="text-align: center;"><u>A-UNIT</u></div> $\triangle \bigcirc \bigcirc \bigcirc - \bigcirc \bigcirc \bigcirc$ <div style="text-align: center;"><u>B-UNIT</u></div> $\bigcirc \bigcirc \bigcirc - \bigcirc \bigcirc \bigcirc$
2(2-D+D-2)	$\triangle \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc + \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc + \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \triangle$

EXPLANATION OF CLASSIFICATIONS FOR DIESEL-ELECTRIC LOCOMOTIVES

1. First letter designates Builder:

- A—Alco Products, Inc.
- B—Baldwin-Lima-Hamilton Corporation.
- E—Electro-Motive Division of General Motors Corporation.
- F—Fairbanks, Morse and Company
- G—General Electric Company. (Switchers only).
- L—Lima-Hamilton Corp.

2. Second letter (and third letter where used) designates service:

- F—Freight.
- H—Freight with lower speed gearing, primarily for helper service.
- FP—Normally freight, but equipped for use in passenger service.
- P—Passenger.
- S—Switching service.
- FS—Switching locomotives, equipped for use in freight service.
- PS—Switching locomotives, equipped for use in passenger service.

3. Numerals indicate engine horsepower in nearest hundreds:

4—380 or 400 Horsepower	24—2400 Horsepower
6—600 or 660 “	25—2500 “
7—750 or 800 “	30—3000 “
10—1000 Horsepower	32—3200 “
12—1200 “	40—4000 “
15—1500 “	45—4500 “
16—1600 “	48—4800 “
17—1750 “	50—5000 “
18—1800 “	60—6000 “
20—2000 “	64—6400 “
22—2250 “	

4. Final letter, or letters, indicates special features as follows:

(All small letters).

- a—Change in original design.
- m—Multiple Unit equipped—Switchers.
- s—Steam Generator equipped—Switchers.
- z—Indicates major changes.

EXPLANATION OF CLASSIFICATIONS FOR TWO UNIT
ELECTRIC LOCOMOTIVES. (EXPERIMENTAL)

All locomotives have two units and are built by the following builders:

- E2B—General Electric Company, Nos. (4939-4940)—(4941-4942)—(4943-4944).
- E2C—Westinghouse Electric Corporation, Nos. (4997-4998).
- E3B—Westinghouse Electric Corporation, Nos. (4995-4996).

1. First letter designates type of locomotive:

E—Electric.

2. Numeral designates number of trucks.

3. Last letter designates the A.A.R. Classification for each truck:

- B—2 Axles, or 4-Wheel Truck.
- C—3 Axles, or 6-Wheel Truck.

September 1, 1956

ASSOCIATION OF AMERICAN RAILROADS

**STANDARD SYSTEM OF NOMENCLATURE FOR AXLE AND TRUCK ARRANGEMENT OF LOCOMOTIVES HAVING
ELECTRIC TRANSMISSION**

Standard

Adopted, 1932; Revised 1949, 1953

Starting at the front end of locomotives designed for single end operation or at either end of locomotives built for double end operation, the wheels in any wheel base, the truck connections for the individual units, and the connections between such units, are designated in their consecutive order. Letters represent the driving axles, numerals the guiding or carrying axles or the number of units, and arithmetical signs the type of connections between units and the type or absence of connections between trucks.

1. The number of adjacent driving axles (a) in a rigid wheel base, or (b) on a truck, is represented by a letter selected according to its alphabetical order.

- Examples: A One driving axle.
 B Two driving axles.
 C Three driving axles.
 D Four driving axles, etc.

2. The number of adjacent idler (non-driving) axles in a rigid wheel base or a truck is represented by an Arabic numeral.

- Examples: 1. One idler axle.
 2. Two idler axles, etc.

3. Trucks having both driving and idler axles in the same rigid wheel base are designated by a letter and a numeral placed together in proper order.

- Examples: 1A Truck with one idler and one driving axle.
 1B Truck with one idler and two adjacent driving axles.
 A1A Truck with one idler and two non-adjacent driving axles.

Additional examples of various truck wheel arrangements are shown in diagram form on Page 1.

4. Plus (+) signs are used to indicate:

Articulated connections between trucks under a single unit locomotive, or between units of a multiple unit locomotive. An articulated connection as used for this purpose generally involves the use of one pin, the connection having freedom vertically and horizontally.

5. Minus (—) signs are used to indicate:

- (a) Separation between swivel type trucks, not articulated.
 (b) Separation between a rigid base of any group of driving wheels and adjacent guiding or carrying trucks not connected through an articulated connection.

6. Multiplication (x) signs are used to designate permanent drawbars between the units of multiple unit locomotives. A permanent drawbar as used for this purpose involves the use of two pins, and a connecting link.

7. Division (÷) signs are used to designate automatic couplers between the units of multiple unit locomotives.

8. On locomotive units where two swivel trucks are connected by a common or span bolster, or where a guiding truck and one or more pairs of driving wheels are incorporated into the same frame, such truck assemblies shall be underlined to designate such grouping of trucks, or guiding trucks and driving wheels.

9. (a) When two or more similar motive power units, each with the same or symmetrical wheel arrangement, are operated in multiple as a locomotive, the number of units is indicated by a numeral and either a division sign, multiplication sign or a plus sign to show automatic couplers, permanent drawbars, or articulated connections, respectively, preceding the classification of one unit put in parenthesis.

(b) When two or more units with dissimilar wheel arrangements are operated in multiple, the wheel arrangement of each unit is shown in consecutive order, starting from the front of the locomotive, setting off each unit by parenthesis with plus, division, or multiplication signs between the units to represent articulated connections, automatic couplers, or permanent drawbars, respectively, to indicate connections between the units.

10. Examples of designating wheel arrangements of single and multiple units with various types of trucks, and connections between trucks and units, are shown in diagrams form on Manual page F-104A.

STEAM LOCOMOTIVE CLASSES

Class B 6 s b.
 Class B 8 a, Converted from class B 8—Saddle tank applied.
 Class H 9 s.
 Class H 10 s—Hand fired.
 Class H 10 s—Standard or Berkley Stoker.
 Class I 1 s a, Type “E” Superheater—without feed water heater.
 Class I 1 s a, Type “E” Superheater—with feed water heater.
 Class I 1 s a, Type “E” Superheater—with feed water heater and fabricated cylinders.
 Class J 1, Bar Frame.
 Class J 1—Cast bed frame with carbon-silicon boiler plate.
 Class J 1 a—Cast bed frame.
 Class K 4 s—Stoker fired. “HT” Stoker (No. 5497, 5498 One Piece Frame.)
 Class K 4 s a—Front end throttle, circulators and fabricated cylinders (Converted from K4s)Nos. 612, 1985, 5405, 5481, 5484.
 Class L 1 s, Stoker Fired.
 Class L 1 s—Oil fired. Nos. 8148, 8260, 8280, 8283, 8426.
 Class M 1.
 Class M 1, with fabricated cylinders.
 Class M 1 a.
 Class M 1 b, 270 lb. Steam Pressure. (Converted from M1A.)

ELECTRIC LOCOMOTIVES

Class B 1.
 Class DD 1—“DC” Current.
 Class DD 2 No. 5800.
 Class L 6 No. 5938.
 Class L 6 No. 5939.
 Class L 6 a No. 5940.
 Class O 1 a No. 7853.
 Class O 1 c No. 7857.
 Class P 5 No. 4700.
 Class P 5 a (Before 5-1-34). Box Type.
 Class P 5 a (Modified P 5 a—After 5-1-34). Streamlined.
 Class P 5 b No. 4702 (Converted from P 5 a, Motors applied to Trucks).
 Class GG 1 No. 4800.
 Class GG 1 Built prior to 1-1-37. Nos. 4801-4857 incl.—57 Loco’s.
 Class GG 1 Built after 1-1-37. Nos. 4858-4868 incl.—11 Loco’s.
 Class GG 1 Built after 12-1-38. Nos. 4869-4888 incl.—20 Loco’s.
 Class GG 1 Built after 6-1-39. Nos. 4889-4938 incl.—50 Loco’s.

TWO UNIT ELECTRIC LOCOMOTIVES

Class E2B	General Electric Co. 5000 H.P., Nos. 4939 to 4944, incl.	} S. K. F. Bearings.
Class E2C	Westinghouse Electric Corp. 5625 H.P., Nos. 4997, 4998.	
Class E3B	Westinghouse Electric Corp. 5625 H.P., Nos. 4995, 4996	

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DIESEL-ELECTRIC SWITCHING LOCOMOTIVE CLASSES

Class A6b No. 3907 only.

Class AS-6

Class AS-10

Class AS-10m

Class AS-10s No. 5906 only.

Class AS-10as

Class AS-10am

Class AS-10ams

Class AS-16 No. 8914 only.

Class AS-16m

Class AS-16ms

Class AS-16a

Class AS-18m

Class AS-24m

Class BS-6

Class BS-6a

Class BS-7

Class BS-7m

Class BS-10

Class BS-10a

Class BS-10am

Class BS-10as

Class BS-12

Class BS-12m

Class BS-12am

Class BS-12as No. 8975 only.

Class BS-12ams

Class BS-16m

Class BS-16ms

Class BS-24

Class BS-24m

Class ES-6 No. 5911 only.

Class ES-6

Class ES-10

Class ES-12

Class ES-12m

Class ES-15m

Class ES-15ms

Class ES-15a (Madison Hill).

Class FS-10

Class FS-10m

Class FS-12

Class FS-12m

Class FS-16m

Class FS-20

Class FS-20m

Class FS-24m

Class GS-4

Class GS-4m

Class LS-25

Class FS-25m

**SWITCHING LOCOMOTIVE CLASSES
EQUIPPED FOR "ROAD SERVICE"**

Class APS-24ms

Class EFS-17m

September 1, 1956

DIESEL-ELECTRIC ROAD LOCOMOTIVE CLASSES**SINGLE UNIT— "A" OR "B"****ROAD FREIGHT SERVICE****Class AF-15****Class AF-16****Class AFP-20** **Converted from (AP-20 Pass.)****Class BF-15****Class BF-15a****Class BF-16****Class BF-16z** **Converted from (BP-20 Pass.)****Class BH-50** **Converted from (BP-60a) For Helper Service.****Class EF-15****Class EF-15a****Class EFP-15** **Freight or Passenger Service.****Class EH-15** **Helper Service.****Class FF-16****Class FF-20****PASSENGER SERVICE****Class BP-20****Class EP-20****Class EP-22**

September 1, 1956

STEAM LOCOMOTIVES

	CLASSIFICATION	B 6 s b	B 8 a	H 9 s	H 10 s	H 10 s Stoker	
1	Wheel Arrangement	0-6-0	0-6-0	2-8-0	2-8-0	2-8-0	1
2	Wheel Diameters	In. 56	56	33, 62	33, 62	33, 62	2
3	Journal, Engine Truck	In. —	—	5½ x 10	5½ x 10	5½ x 10	3
4	“ Drivers	In. 9 9½ x 12	9 9½ x 12	9½ 10½ x 13	9½ 10½ x 13	9½ 10½ x 13	4
5	“ Trailer Truck	In. —	—	—	—	—	5
6	Wheel Base, Driver	Ft. In. 11-6	11-6	17-0½	17-0½	17-0½	6
7	“ “ Engine	Ft. In. 11-6	11-6	25-9½	25-9½	25-9½	7
8	“ “ Engine & Tender	Ft. In. 49-0¼	—	62-4¾	62-4¾	62-4¾	8
9	Height, Deck Plate	In. 66¾	66¾	70¾	81	81	9
10	“ Bottom of Drawbar Pocket	In. 34¾	—	34¾	34¾	34¾	10
11	Cylinder Spread	In. 86	86	90	90	90	11
12	“ Dimensions	In. 22 x 24	20 x 24	25 x 28	26 x 28	26 x 28	12
13	Steam Port Dimensions	In. 2¼ Wide	1¼ x 15½	2¼ Wide	2¼ Wide	2¼ Wide	13
14	Valve Travel	In. 5	5	6	6	6	14
15	“ Lap	In. ¾	¾	¾	¾	¾	15
16	“ Type	8” Piston	D	12” Piston	12” Piston	12” Piston	16
17	“ Gear Type	Wals’h’t	Steph’n	Wals’h’t	Wals’h’t	Wals’h’t	17
18	Steam Pressure	Lb. per Sq. In. 205	205	205	205	205	18
19	Boiler Type	Belpaire Wide Firebox	Belpaire Wide Firebox	Belpaire Wide Firebox	Belpaire Wide Firebox	Belpaire Wide Firebox	19
20	“ Diam., Minimum Internal	In. 67¾	60	76¾	76¾	76¾	20
21	Flues and Tubes, Number	194, 26, 104	247	265, 36, 144	265, 36, 144	265, 36, 144	21
22	“ “ O. Diam.	In. 2, 5½, 1½	2	2, 5½, 1½	2, 5½, 1½	2, 5½, 1½	22
23	“ Length between Sheets	In. 148	163½	180	180	180	23
24	“ Fire Area	Sq. Ft. 5.35	4.17	7.35	7.35	7.35	24
25	Heating Surface, Ext. Flues	Sq. Ft. 1715	1762	2859	2859	2859	25
26	“ “ Int. Superh’ter	Sq. Ft. 354	—	613	613	613	26
27	“ “ Firebox	Sq. Ft. 195	106	211	211	211	27
28	“ “ Total	Sq. Ft. 2264	1868	3683	3683	3683	28
29	Grate Dimensions	In. 79¾ x 111	66 x 69	71¾ x 110¾	72 x 110¾	72 x 110¾	29
30	“ Area	Sq. Ft. 61.57	31.62	55.09	55.06	55.06	30
31	Wt. On Rail, Engine Truck	Lb. —	—	27700	24500	26860	31
32	“ “ “ 1st Drivers	Lb. 61400	50400	62300	56000	55180	32
33	“ “ “ 2nd Drivers	Lb. 62200	59400	54600	57000	54720	33
34	“ “ “ 3rd Drivers	Lb. 56700	57900	55700	60000	59850	34
35	“ “ “ 4th Drivers	Lb. —	—	50700	50000	57210	35
36	“ “ “ 5th Drivers	Lb. —	—	—	—	—	36
37	“ “ “ 6th Drivers	Lb. —	—	—	—	—	37
38	“ “ “ 7th Drivers	Lb. —	—	—	—	—	38
39	“ “ “ 8th Drivers	Lb. —	—	—	—	—	39
40	“ “ “ All Drivers	Lb. 180300	167700	223300	223000	226960	40
41	“ “ “ Trailer Truck	Lb. —	—	—	—	—	41
42	Wt. Of Engine, Working Order	Lb. 180300	167700	251000	247500	253820	42
43	“ “ “ Empty	Lb. 161500	139400	225500	216400	222720	43
44	Starting Tractive Force Main Eng.	36144	29871	49183	53197	53197	44
45	“ “ “ “ Booster	—	—	—	—	—	45
46	“ “ “ “ Total	36144	29871	49183	53197	53197	46
47	Factor of Adhesion—Main Engine	4.99	5.61	4.54	4.19	4.27	47
48							48
49							49
50							50
51	Remarks						51
52	Class of Tender	60 S 66	△Saddle Tank	70 F 70a	80 F 81b	80 P 81a	52

△ Water capacity 1596 Gallons.
Coal Capacity 2500 Pounds.

STEAM LOCOMOTIVES

	CLASSIFICATION	I 1 s a	I 1 s a	I 1 s a	J 1 Bar Frame	J 1 Cast Bed	J 1 a Cast Bed	
1	Wheel Arrangement	2-10-0	2-10-0	2-10-0	2-10-4	2-10-4	2-10-4	1
2	Wheel Diameters	In. 33, 62	33, 62	33, 62	33,70,36,44	33,70,36,44	33,70,36,44	2
3	Journal, Engine Truck	In. 6½ x 12	6½ x 12	6½ x 12	7x 14	7x 14	7x 14	3
4	“ Drivers	In. 11/12 x 16	11/12 x 16	11/12 x 16	12/13½ x 14	12/13½ x 14	12/13½ x 14	4
5	“ Trailer Truck	In. —	—	—	7/9 x 14	7/9 x 14	7/9 x 14	5
6	Wheel Base, Driver	Ft. In. 22-8	22-8	22-8	24-4	24-4	24-4	6
7	“ “ Engine	Ft. In. 32-2	32-2	32-2	49-3	49-3	49-3	7
8	“ “ Engine & Tender	Ft. In. 73-4½	73-4½	90-5	104-0½	104-0½	104-0½	8
9	Height, Deck Plate	In. 83	83	83	85	85	85	9
10	“ Bottom of Drawbar Pocket	In. 34¾	34¾	34¾	37¾	37¾	37¾	10
11	Cylinder Spread	In. 91½	91½	91½	95	95	95	11
12	“ Dimensions	In. 30½ x 32	30½ x 32	30½ x 32	29 x 34	29 x 34	29 x 34	12
13	Steam Port Dimensions	In. 3/8 Wide 1/8 x 1½ (Aux.)	3/8 Wide 1/8 x 1½ (Aux.)	3/8 Wide	2½ Wide	2½ Wide	2½ Wide	13
14	Valve Travel	In. 6	6	6	9	9	9	14
15	“ Lap	In. 1½	1½	1½	1½	1½	1½	15
16	“ Type	12” Piston	12” Piston	12” Piston	14” Piston	14” Piston	14” Piston	16
17	“ Gear Type	Wals’h’t	Wals’h’t	Wals’h’t	Baker	Baker	Baker	17
18	Steam Pressure	Lb. per Sq. In. 250	250	250	270	270	270	18
19	Boiler Type	Belpaire Wide Firebox	Belpaire Wide Firebox	Belpaire Wide Firebox	Radial Stay Wide Firebox	Radial Stay Wide Firebox	Radial Stay Wide Firebox	19
20	“ Diam., Minimum Internal	In. 82	82	82	97½	97½	97½	20
21	Flues and Tubes, Number	120,170,340	120,170,340	120,170,340	56,277,554	56,277,554	56,277,554	21
22	“ “ “ O. Diam.	In. 2¼, 3½, 1⅜	2¼, 3½, 1⅜	2¼, 3½, 1⅜	2¼, 3½, 1⅜	2¼, 3½, 1⅜	2¼, 3½, 1⅜	22
23	“ Length between Sheets	In. 228	228	228	250½	250½	250½	23
24	“ Fire Area	Sq. Ft. 8.73	8.73	8.73	12.76	12.76	12.76	24
25	Heating Surface, Ext. Flues	Sq. Ft. 4303	4303	4303	5993	5993	5993	25
26	“ “ Int. Superh’ter	Sq. Ft. 1634	1634	1634	2930	2930	2930	26
27	“ “ Firebox	Sq. Ft. 287	287	287	575	575	575	27
28	“ “ Total	Sq. Ft. 6224	6224	6224	9498	9498	9498	28
29	Grate Dimensions	In. 79¾ x 126	79¾ x 126	79¾ x 126	108¼ x 162	108¼ x 162	108¼ x 162	29
30	“ Area	Sq. Ft. 69.89	69.89	69.89	121.7	121.7	121.7	30
31	Wt. On Rail, Engine Truck	Lb. 33600	33600	29700	63690	63690	64110	31
32	“ “ “ 1st Drivers	Lb. 70500	71500	63300	76800	76800	77270	32
33	“ “ “ 2nd Drivers	Lb. 66000	67000	62900	75880	75880	76340	33
34	“ “ “ 3rd Drivers	Lb. 71600	72600	71300	72510	72510	72890	34
35	“ “ “ 4th Drivers	Lb. 67800	68800	72600	76670	76670	76760	35
36	“ “ “ 5th Drivers	Lb. 71600	72600	73300	75940	75940	76040	36
37	“ “ “ 6th Drivers	Lb. —	—	—	—	—	—	37
38	“ “ “ 7th Drivers	Lb. —	—	—	—	—	—	38
39	“ “ “ 8th Drivers	Lb. —	—	—	—	—	—	39
40	“ “ “ All Drivers	Lb. 347500	352500	343400	377800	377800	379300	40
41	“ “ “ Trailer Truck	Lb. —	—	—	131140	131140	131320	41
42	Wt. Of Engine, Working Order	Lb. 381100	386100	373100	572640	572640	574730	42
43	“ “ “ Empty	Lb. 349250	354250	341250	510140	510140	513630	43
44	Starting Tractive Force Main Eng.	*96026	*96026	*96026	93750	93750	93750	44
45	“ “ “ Booster	—	—	—	15000	15000	15000	45
46	“ “ “ Total	96026	96026	96026	108750	108750	108750	46
47	Factor of Adhesion—Main Engine	3.62	3.67	3.58	4.03	4.03	4.05	47
48								48
49								49
50				Feedwater Heater and				50
51	Remarks	Without Feed Water Heater	With Feed Water Heater	Fabricated Cylinders	Carb.-Sil. Steel Boiler Plate	Carb.-Sil. Steel Boiler Plate	Carbon Steel Boiler Plate	51
52	Class of Tender	90 F 82	90 F 82	210 F 82a	210 F 84	210 F 84	210 F 84	52

*Based on Formula $T = \frac{.8PC^2S}{D}$

September 1, 1956

STEAM LOCOMOTIVES

	CLASSIFICATION	K 4 s	K 4 s a	L 1 s	L 1 s Oil Fired	
1	Wheel Arrangement	4-6-2	4-6-2	2-8-2	2-8-2	1
2	Wheel Diameters	In. 36, 80, 50	36, 80, 50	33, 62, 50	33, 62, 50	2
3	Journal, Engine Truck	In. 6½ x 12	6½ x 12	6½ x 12	6½ x 12	3
4	“ Drivers	In. 11 x 15	11 x 15	11 x 15	11 x 15	4
5	“ Trailer Truck	In. 6½ x 12	6½ x 12	6½ x 12	6½ x 12	5
6	Wheel Base, Driver	Ft. In. 13-10	13-10	17-0½	17-0½	6
7	“ “ Engine	Ft. In. 36-2	36-2	36-4½	36-4½	7
8	“ “ Engine & Tender	Ft. In. 74-8	74-8	73-9½	73-9½	8
9	Height, Deck Plate	In. 76	76	76	81	9
10	“ Bottom of Drawbar Pocket	In. 34¾	34¾	34¾	34¾	10
11	Cylinder Spread	In. 89	89	90	90	11
12	“ Dimensions	In. 27 x 28	27 x 28	27 x 30	27 x 30	12
13	Steam Port Dimensions	In. 2½&2⅙ Wide	2½&2⅙ Wide	2¼ Wide	2¼ Wide	13
14	Valve Travel	In. 7	7	6	6	14
15	“ Lap	In. 1⅙	1⅙	⅞	⅞	15
16	“ Type	12” Piston	15” Piston	12” Piston	12” Piston	16
17	“ Gear Type	Wals’h’t	Wals’h’t	Wals’h’t	Wals’h’t	17
18	Steam Pressure	Lb. per Sq. In. 205	205	205	205	18
19	Boiler Type	Belpaire Wide Firebox	Belpaire Wide Firebox	Belpaire Wide Firebox	Belpaire Wide Firebox	19
20	“ Diam., Minimum Internal	In. 76⅘	76⅘	76⅘	76⅘	20
21	Flues and Tubes, Number	236, 40, 160	236, 40, 160	236, 40, 160	236, 40, 160	21
22	“ “ “ O. Diam.	In. 2¼, 5½, 1½	2¼, 5½, 1½	2¼, 5½, 1½	2¼, 5½, 1½	22
23	“ Length between Sheets	In. 228	228	228	228	23
24	“ Fire Area	Sq. Ft. 8.39	8.39	8.39	8.39	24
25	Heating Surface, Ext. Flues	Sq. Ft. 3736	3736	3736	3736	25
26	“ “ Int. Superh’ter	Sq. Ft. 943	943	943	943	26
27	“ “ Firebox	Sq. Ft. 305	347	305	305	27
28	“ “ Total	Sq. Ft. 4984	5026	4984	4984	28
29	Grate Dimensions	In. 79⅞ x 126	79⅞ x 126	79⅞ x 126	79⅞ x 126	29
30	“ Area	Sq. Ft. 69.89	69.89	69.89	69.89	30
31	Wt. On Rail, Engine Truck	Lb. 53200	54100	31000	27500	31
32	“ “ “ 1st Drivers	Lb. 68400	71900	57500	57600	32
33	“ “ “ 2nd Drivers	Lb. 71100	71400	57000	58200	33
34	“ “ “ 3rd Drivers	Lb. 69800	66500	59000	59800	34
35	“ “ “ 4th Drivers	Lb. —	—	59000	62700	35
36	“ “ “ 5th Drivers	Lb. —	—	—	—	36
37	“ “ “ 6th Drivers	Lb. —	—	—	—	37
38	“ “ “ 7th Drivers	Lb. —	—	—	—	38
39	“ “ “ 8th Drivers	Lb. —	—	—	—	39
40	“ “ “ All Drivers	Lb. 209300	209800	232500	238300	40
41	“ “ “ Trailer Truck	Lb. 57500	59200	61200	52600	41
42	Wt. Of Engine, Working Order	Lb. 320000	323100	324700	318400	42
43	“ “ “ Empty	Lb. 284500	288100	290100	287000	43
44	Starting Tractive Force Main Eng.	44460	44460	61465	61465	44
45	“ “ “ Booster	—	—	—	—	45
46	“ “ “ Total	44460	44460	61465	61465	46
47	Factor of Adhesion—Main Engine	4.71	4.72	3.78	3.88	47
48						48
49						49
50					8900 Gal. Water	50
51	Remarks		Circulators		3200 Gal. Fuel Oil	51
52	Class of Tender	110 P 75a	110 P 75a	90 F 75	90 F 80	52

STEAM LOCOMOTIVES

	CLASSIFICATION	M 1	M 1	M 1 a	M 1 b	
1	Wheel Arrangement	4-8-2	4-8-2	4-8-2	4-8-2	1
2	Wheel Diameters	In. 33, 72, 50	33, 72, 50	33, 72, 50	33, 72, 50	2
3	Journal, Engine Truck	In. $6\frac{1}{2} \times 12$	$6\frac{1}{2} \times 12$	$6\frac{1}{2} \times 12$	$6\frac{1}{2} \times 12$	3
4	“ Drivers	In. $\frac{11}{12} \times 16$	$\frac{11}{12} \times 16$	$\frac{11}{12} \times 16$	$\frac{11}{12} \times 16$	4
5	“ Trailer Truck	In. $6\frac{1}{2} \times 12$	$6\frac{1}{2} \times 12$	$6\frac{1}{2} \times 12$	$6\frac{1}{2} \times 12$	5
6	Wheel Base, Driver	Ft. In. 18-10	18-10	18-10	18-10	6
7	“ “ Engine	Ft. In. 41-0 $\frac{1}{2}$	41-0 $\frac{1}{2}$	41-9 $\frac{1}{2}$	41-9 $\frac{1}{2}$	7
8	“ “ Engine & Tender	Ft. In. 95-1 $\frac{3}{8}$	95-1 $\frac{3}{8}$	96-6 $\frac{3}{8}$	96-6 $\frac{3}{8}$	8
9	Height, Deck Plate	In. 76	76	76	76	9
10	“ Bottom of Drawbar Pocket	In. 34 $\frac{3}{4}$	34 $\frac{3}{4}$	34 $\frac{3}{4}$	34 $\frac{3}{4}$	10
11	Cylinder Spread	In. 91 $\frac{1}{2}$	91 $\frac{1}{2}$	91 $\frac{1}{2}$	91 $\frac{1}{2}$	11
12	“ Dimensions	In. 27 x 30	27 x 30	27 x 30	27 x 30	12
13	Steam Port Dimensions	In. 2 Wide	2 Wide	2 Wide	2 Wide	13
14	Valve Travel	In. 7	7	7	7	14
15	“ Lap	In. 1 $\frac{7}{16}$	1 $\frac{7}{16}$	1 $\frac{7}{16}$	1 $\frac{7}{16}$	15
16	“ Type	12" Piston	12" Piston	12" Piston	12" Piston	16
17	“ Gear Type	Wals'h't	Wals'h't	Wals'h't	Wals'h't	17
18	Steam Pressure	Lb. per Sq. In. 250	250	250	270	18
19	Boiler Type	Belpaire Wide Firebox	Belpaire Wide Firebox	Belpaire Wide Firebox	Belpaire Wide Firebox	19
20	“ Diam., Minimum Internal	In. 82 $\frac{1}{4}$	82 $\frac{1}{4}$	82 $\frac{1}{4}$	82 $\frac{1}{4}$	20
21	Flues and Tubes, Number	120, 170, 340	120, 170, 340	120, 170, 340	120, 170, 340	21
22	“ “ “ O. Diam.	In. 2 $\frac{1}{4}$, 3 $\frac{1}{2}$, 1 $\frac{3}{16}$	2 $\frac{1}{4}$, 3 $\frac{1}{2}$, 1 $\frac{3}{16}$	2 $\frac{1}{4}$, 3 $\frac{1}{2}$, 1 $\frac{3}{16}$	2 $\frac{1}{4}$, 3 $\frac{1}{2}$, 1 $\frac{3}{16}$	22
23	“ Length between Sheets	In. 228	228	228	228	23
24	“ Fire Area	Sq. Ft. 8.73	8.73	8.73	8.73	24
25	Heating Surface, Ext. Flues	Sq. Ft. 4303	4303	4303	4303	25
26	“ “ Int. Superh'ter	Sq. Ft. 1550	1550	1550	1550	26
27	“ “ Firebox	Sq. Ft. 395	395	395	430	27
28	“ “ Total	Sq. Ft. 6248	6248	6248	6283	28
29	Grate Dimensions	In. 79 $\frac{3}{8}$ x 125 $\frac{15}{16}$	79 $\frac{3}{8}$ x 125 $\frac{15}{16}$	79 $\frac{3}{8}$ x 125 $\frac{15}{16}$	79 $\frac{3}{8}$ x 125 $\frac{15}{16}$	29
30	“ Area	Sq. Ft. 69.86	69.86	69.86	69.86	30
31	Wt. On Rail, Engine Truck	Lb. 60000	50800	59000	59000	31
32	“ “ “ 1st Drivers	Lb. 63100	62600	67000	67000	32
33	“ “ “ 2nd Drivers	Lb. 72500	68200	70000	70000	33
34	“ “ “ 3rd Drivers	Lb. 67300	69500	67000	67000	34
35	“ “ “ 4th Drivers	Lb. 64100	67500	67000	67000	35
36	“ “ “ 5th Drivers	Lb. —	—	—	—	36
37	“ “ “ 6th Drivers	Lb. —	—	—	—	37
38	“ “ “ 7th Drivers	Lb. —	—	—	—	38
39	“ “ “ 8th Drivers	Lb. —	—	—	—	39
40	“ “ “ All Drivers	Lb. 267000	267800	271000	271000	40
41	“ “ “ Trailer Truck	Lb. 58000	59200	60000	60000	41
42	Wt. Of Engine, Working Order	Lb. 385000	377800	390000	390000	42
43	“ “ “ Empty	Lb. 343850	333400	344000	344000	43
44	Starting Tractive Force Main Eng.	64550	64550	64550	69700	44
45	“ “ “ “ Booster	—	—	—	—	45
46	“ “ “ “ Total	64550	64550	64550	69700	46
47	Factor of Adhesion—Main Engine	4.14	4.15	4.19	3.89	47
48						48
49						49
50						50
51	Remarks		Fabricated Cylinders		Circulators	51
52	Class of Tender	210 F 75a	210 F 75a	210 F 75	210 F 75	52

September 1, 1956.

DIESEL LOCOMOTIVES

SWITCHING DIESEL-ELECTRIC LOCOMOTIVES

11

	CLASSIFICATION		A6b	AS-6	AS-6	AS-10	AS-10m		
1	UNIT		—	—	—	—	—		1
2	Wheel Arrangement Symbol	A.A.R.	B	B-B	B-B	B-B	B-B		2
3	Number of Engines, Per Unit		One	One	One	One	One		3
4	Make of Engine		<small>General Mach. Corp.</small>	Alco	Alco	Alco	Alco		4
5	Model of Engine		68-SA	539	539	539-SC	539-SC		5
6	Number of Cylinders, Each Engine		6	6	6	6	6		6
7	Rated Horsepower, Each Engine		450	660	660	1000	1000		7
8	Maximum Governed Speed	R.P.M.	950	740	740	740	740		8
9	Wheel Diameter	In.	50	40	40	40	40		9
10	Driving Axles, Number		Two	4	4	4	4		10
11	Idler Axles, Number		—	—	—	—	—		11
12	Journal, Driving Axle	In.	6½ x 12	6½ x 12 7 x 14	6½ x 12 7 x 14	6½ x 12 7 x 14	6½ x 12		12
13	“ Idler Axle	In.	—	—	—	—	—		13
14	“ Bearings		Plain	Plain	Plain	Plain	Plain		14
15	Length of Truck Centers	Ft. In.	—	22-0	22-0	22-6	22-6		15
16	Wheel Base—Truck	Ft. In.	10-0	8-0	8-0	8-0	8-0		16
17	“ “ —Unit	Ft. In.	10-0	30-0	30-0	30-6	30-6		17
18	Coupled Length of Unit	Ft. In.	26-10½	44-5¾	44-5¾	45-5¾	45-5¾		18
19	Main Generator		One	One	One	One	One		19
20	“ “ —Make		W. E. Corp.	G. E. Co.	G. E. Co.	G. E. Co.	G. E. Co.		20
21	“ “ —Type		476-A2	552	552	GT-553	GT-553		21
22	Traction Motors		Two	4	4	4	4		22
23	“ “ —Make		W. E. Corp.	G. E. Co.	G. E. Co.	G. E. Co.	G. E. Co.		23
24	“ “ —Type		355	731	731	731	731		24
25	“ “ —Gear Ratio		16 to 76	16 to 75	16 to 75	16 to 75	16 to 75		25
26	Electric Control—Voltage		64	64	64	64	64		26
27	Air Brake Schedule		14-EL	6-SL 14-EL	6-SL 14-EL	6-SL 14-EL	6-SL		27
28	Compressors		One	One	One	One	One		28
29	“ —Make		W.T.B.	W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	W.A.B. Co.		29
30	“ —Type		D4P	3CD	3-CD	3-CD	3-CD		30
31	“ —Cap. At Full Eng. Speed	Cu. Ft.	50	228	228	228	228		31
32	Brakes—Dynamic		No	No	No	No	No		32
33	Wt. On Rail—All Drivers	Lb.	130,000	199,900	202,400	234,100	234,100		33
34	“ “ “ —All Idlers	Lb.	—	—	—	—	—		34
35	“ “ “ —Total Unit	Lb.	130,000	199,900	202,400	234,100	234,100		35
36	Maximum Loco. Speed	M.P.H.	20	60	60	60	60		36
37	Starting Tractive Force, 25% Adhesion	Lb.	32,500	49,975	50,600	58,525	58,525		37
38	Max. Continuous Tractive Force	Lb.	8,500	29,200	29,200	34,000	34,000		38
39	Speed at Max. Cont. Tractive Force	M.P.H.	16.5	6.3	6.3	8	8		39
40	Fuel Tank Capacity—Total	Gals.	230	635	635	635	635		40
41	Water “ “ —Heating, Total	Gals.	—	—	—	—	—		41
42	“ “ “ —Eng. Cooling, Total	Gals.	340	220	220	240	240		42
43	Lubricating Oil—Engine, Total	Gals.	60	80	80	80	80		43
44	Steam Heat Generator—No. Per Unit		—	—	—	—	—		44
45	“ “ “ —Type		—	—	—	—	—		45
46	“ “ “ —Each, Lbs. Steam/Hr.		—	—	—	—	—		46
47									47
48									48
49									49
50									50
51									51
52	Remarks		No. 3907		Note 1				52

Note 1.—Weights for Loco. Nos. 5954,
9100-9103, 9237-9244 only.

September 1, 1956

SWITCHING DIESEL-ELECTRIC LOCOMOTIVES

	CLASSIFICATION	AS-10s	AS-10as		AS-10am	AS-10ams	
1	UNIT	—	—		—	—	1
2	Wheel Arrangement Symbol	A.A.R.	B-B	B-B	B-B	B-B	2
3	Number of Engines, Per Unit		One	One	One	One	3
4	Make of Engine		Alco	Alco	Alco	Alco	4
5	Model of Engine		539-SC	539-SC	539-SC	539-SC	5
6	Number of Cylinders, Each Engine		6	6	6	6	6
7	Rated Horsepower, Each Engine		1000	1000	1000	1000	7
8	Maximum Governed Speed	R.P.M.	740	740	740	740	8
9	Wheel Diameter	In.	40	40	40	40	9
10	Driving Axles, Number		4	4	4	4	10
11	Idler Axles, Number		—	—	—	—	11
12	Journal, Driving Axle	In.	7 x 14	6½ x 12	6½ x 12	6½ x 12	12
13	“ Idler Axle	In.	—	—	—	—	13
14	“ Bearings		Plain	Plain	Plain	Roller	14
15	Length of Truck Centers	Ft. In.	31-0	31-0	31-0	31-0	15
16	Wheel Base—Truck	Ft. In.	9-4	9-4	9-4	9-4	16
17	“ “ —Unit	Ft. In.	40-4	40-4	40-4	40-4	17
18	Coupled Length of Unit	Ft. In.	54-11¾	54-11¾	54-11¾	54-11¾	18
19	Main Generator		One	One	One	One	19
20	“ “ —Make		G. E. Co.	G. E. Co.	G. E. Co.	G. E. Co.	20
21	“ “ —Type		GT-553	GT-553	GT-553	GT-553	21
22	Traction Motors		4	4	4	4	22
23	“ “ —Make		G. E. Co.	G. E. Co.	G. E. Co.	G. E. Co.	23
24	“ “ —Type		731	731	731	731	24
25	“ “ —Gear Ratio		16 to 75	16 to 75	16 to 75	16 to 75	25
26	Electric Control—Voltage		64	64	64	64	26
27	Air Brake Schedule		14-EL	6-SL	24-RL	24-RL	27
28	Compressors		One	One	One	One	28
29	“ —Make		W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	29
30	“ —Type		3-CD	3-CD	3-CD	3-CD	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft.	228	228	228	228	31
32	Brakes—Dynamic		No	No	No	No	32
33	Wt. On Rail—All Drivers	Lb.	249,700	244,000	242,400	246,000	33
34	“ “ “ —All Idlers	Lb.	—	—	—	—	34
35	“ “ “ —Total Unit	Lb.	249,700	244,000	242,400	246,000	35
36	Maximum Loco. Speed	M.P.H.	60	60	60	60	36
37	Starting Tractive Force, 25% Adhesion	Lb.	62,425	61,000	60,600	61,500	37
38	Max. Continuous Tractive Force	Lb.	34,000	34,000	34,000	34,000	38
39	Speed at Max. Cont. Tractive Force	M.P.H.	8	8	8	8	39
40	Fuel Tank Capacity—Total	Gals.	800	800	1600	800	40
41	Water “ “ —Heating, Total	Gals.	800	800	—	800	41
42	“ “ “ —Eng. Cooling, Total	Gals.	240	240	240	240	42
43	Lubricating Oil—Engine, Total	Gals.	80	80	80	80	43
44	Steam Heat Generator—No. Per Unit		One	One	—	One	44
45	“ “ “ —Type		Vapor 4225	Vapor OK-4616	—	Vapor OK-4616	45
46	“ “ “ —Each, Lbs. Steam/Hr.		2250	1600	—	1600	46
47							47
48							48
49							49
50							50
51							51
52	Remarks		No. 5906				52

September 1, 1956

SWITCHING DIESEL-ELECTRIC LOCOMOTIVES

	CLASSIFICATION	AS-16	AS-16m	AS-16m		AS-16ms	AS-16ms	
1	UNIT	—	—	—		—	—	1
2	Wheel Arrangement Symbol	A.A.R. B-B	B-B	B-B		B-B	B-B	2
3	Number of Engines, Per Unit	One	One	One		One	One	3
4	Make of Engine	Alco	Alco	Alco		Alco	Alco	4
5	Model of Engine	244-D	244-D	244-D		244-D	244-D	5
6	Number of Cylinders, Each Engine	12	12	12		12	12	6
7	Rated Horsepower, Each Engine	1600	1600	1600		1600	1600	7
8	Maximum Governed Speed	R.P.M. 1000	1000	1000		1000	1000	8
9	Wheel Diameter	In. 40	40	40		40	40	9
10	Driving Axles, Number	4	4	4		4	4	10
11	Idler Axles, Number	—	—	—		—	—	11
12	Journal, Driving Axle	In. 6½ x 12	6½ x 12	6½ x 12		6½ x 12	6½ x 12	12
13	“ Idler Axle	In. —	—	—		—	—	13
14	“ Bearings	Roller	Roller	Roller		Roller	Roller	14
15	Length of Truck Centers	Ft. In. 30-0	30-0	30-0		30-0	30-0	15
16	Wheel Base—Truck	Ft. In. 9-4	9-4	9-4		9-4	9-4	16
17	“ “ —Unit	Ft. In. 39-4	39-4	39-4		39-4	39-4	17
18	Coupled Length of Unit	Ft. In. 55-11½	55-11½	55-11½		55-11½	55-11½	18
19	Main Generator	One	One	One		One	One	19
20	“ “ —Make	G. E. Co.	G. E. Co.	G. E. Co.		G. E. Co.	G. E. Co.	20
21	“ “ —Type	GT-581	GT-581	GT-581		GT-581	GT-581	21
22	Traction Motors	4	4	4		4	4	22
23	“ “ —Make	G. E. Co.	G. E. Co.	G. E. Co.		G. E. Co.	G. E. Co.	23
24	“ “ —Type	752	752	752		752	752	24
25	“ “ —Gear Ratio	18 to 74	18 to 74	18 to 74		18 to 74	18 to 74	25
26	Electric Control—Voltage	64	64	64		64	64	26
27	Air Brake Schedule	24-RL	24-RL	24-RL		24-RL	24-RL	27
28	Compressors	One	One	One		One	One	28
29	“ —Make	W.A.B. Co.	W.A.B. Co.	W.A.B. Co.		W.A.B. Co.	W.A.B. Co.	29
30	“ —Type	3CDC	3CDC	3CDC		3CDC	3CDC	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft. 225	225	225		225	225	31
32	Brakes—Dynamic	No	Yes	No		No	*No	32
33	Wt. On Rail—All Drivers	Lb. 248,600	252,000	248,600		250,200	259,600	33
34	“ “ “ —All Idlers	Lb. —	—	—		—	—	34
35	“ “ “ —Total Unit	Lb. 248,600	252,000	248,600		250,200	259,600	35
36	Maximum Loco. Speed	M.P.H. 65	65	65		65	65	36
37	Starting Tractive Force, 25% Adhesion	Lb. 62,150	63,000	62,150		62,550	64,900	37
38	Max. Continuous Tractive Force	Lb. 52,500	52,500	52,500		52,500	52,500	38
39	Speed at Max. Cont. Tractive Force	M.P.H. 9.5	9.5	9.5		9.5	9.5	39
40	Fuel Tank Capacity—Total	Gals. 1400	1400	1400		800	800	40
41	Water “ “ —Heating, Total	Gals. —	—	—		800	1200	41
42	“ “ “ —Eng. Cooling, Total	Gals. 250	250	250		250	250	42
43	Lubricating Oil—Engine, Total	Gals. 200	200	200		200	200	43
44	Steam Heat Generator—No. Per Unit	—	—	—		One	One	44
45	“ “ “ —Type	—	—	—		Vapor OK-4625	Vapor OK-4625	45
46	“ “ “ —Each, Lbs. Steam/Hr.	—	—	—		2500	2500	46
47								47
48								48
49								49
50								50
51								51
52	Remarks	No. 8914	Note 1			Note 2		52

Note 1.—Weights for Loco. Nos. 8435-8438 only.

Note 2.—Weights for Loco. Nos. 8903, 8905, 8910-8913, 8915, 8916 only.

* 8445 has dynamic brakes.

September 1, 1956

SWITCHING DIESEL-ELECTRIC LOCOMOTIVES

	CLASSIFICATION	AS-16a	AS-18m	AS-24m	
1	UNIT	—	—	—	1
2	Wheel Arrangement Symbol	A.A.R. C-C	B-B	C-C	2
3	Number of Engines, Per Unit	One	One	One	3
4	Make of Engine	Alco	Alco	Alco	4
5	Model of Engine	244-D	251	251	5
6	Number of Cylinders, Each Engine	12	12	16	6
7	Rated Horsepower, Each Engine	1600	1800	2400	7
8	Maximum Governed Speed	R.P.M. 1000	1000	1000	8
9	Wheel Diameter	In. 40	40	40	9
10	Driving Axles, Number	6	4	6	10
11	Idler Axles, Number	—	—	—	11
12	Journal, Driving Axle	In. 6½ x 12	6½ x 12	6½ x 12	12
13	“ Idler Axle	In. —	—	—	13
14	“ Bearings	Roller	Roller	Roller	14
15	Length of Truck Centers	Ft. In. 34-9	31-0	43-6	15
16	Wheel Base—Truck	Ft. In. 12-6	9-4	12-6	16
17	“ “ —Unit	Ft. In. 42-3	40-4	51-0	17
18	Coupled Length of Unit	Ft. In. 55-11¾	56-11¾	66-7	18
19	Main Generator	One	One	One	19
20	“ “ —Make	G. E. Co.	G. E. Co.	G. E. Co.	20
21	“ “ —Type	GT-566	GT-581	GT-586	21
22	Traction Motors	6	4	6	22
23	“ “ —Make	G. E. Co.	G. E. Co.	G. E. Co.	23
24	“ “ —Type	752	752	752	24
25	“ “ —Gear Ratio	18 to 74	18 to 74	18 to 74	25
26	Electric Control—Voltage	64	64	64	26
27	Air Brake Schedule	24-RL	24-RL	24-RL	27
28	Compressors	One	One	One	28
29	“ —Make	W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	29
30	“ —Type	3CDC	3-CDC	3-CDB	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft. 225	225	306	31
32	Brakes—Dynamic	No	Yes	Yes	32
33	Wt. On Rail—All Drivers	Lb. 360,000		348000	33
34	“ “ “ —All Idlers	Lb. —	—	—	34
35	“ “ “ —Total Unit	Lb. 360,000		348000	35
36	Maximum Loco. Speed	M.P.H. 60	65	65	36
37	Starting Tractive Force, 25% Adhesion	Lb. 90,000		87000	37
38	Max. Continuous Tractive Force	Lb. 78750	53000	79500	38
39	Speed at Max. Cont. Tractive Force	M.P.H. 5	10	8.5	39
40	Fuel Tank Capacity—Total	Gals. 1300	1800	2000	40
41	Water “ “ —Heating, Total	Gals. —	—	—	41
42	“ “ “ —Eng. Cooling, Total	Gals. 250	250	320	42
43	Lubricating Oil—Engine, Total	Gals. 200	200	250	43
44	Steam Heat Generator—No. Per Unit	—	—	—	44
45	“ “ “ —Type	—	—	—	45
46	“ “ “ —Each, Lbs. Steam/Hr.	—	—	—	46
47					47
48					48
49					49
50					50
51					51
52	Remarks	Hump Control			52

September 1, 1956

SWITCHING DIESEL-ELECTRIC LOCOMOTIVES

	CLASSIFICATION	BS-6	BS-6a			BS-7	BS-7m	
1	UNIT	—	—			—	—	1
2	Wheel Arrangement Symbol	A.A.R.	B-B	B-B		B-B	B-B	2
3	Number of Engines, Per Unit		One	One		One	One	3
4	Make of Engine	B-L-H Corp	B-L-H Corp			B-L-H Corp	B-L-H Corp	4
5	Model of Engine	V.O.	606-NA			606-NA	606-NA	5
6	Number of Cylinders, Each Engine		6	6		6	6	6
7	Rated Horsepower, Each Engine		660	660		750	750	7
8	Maximum Governed Speed	R.P.M.	625	625		625	625	8
9	Wheel Diameter	In.	40	40		40	40	9
10	Driving Axles, Number		4	4		4	4	10
11	Idler Axles, Number		—	—		—	—	11
12	Journal, Driving Axle	In.	6½ x 12	6½ x 12		6½ x 12	6½ x 12	12
13	“ Idler Axle	In.	—	—		—	—	13
14	“ Bearings		Plain	Plain		Plain	Plain	14
15	Length of Truck Centers	Ft. In.	22-6	22-8		22-8	22-8	15
16	Wheel Base—Truck	Ft. In.	8-0	8-0		8-0	8-0	16
17	“ “ —Unit	Ft. In.	30-6	30-8		30-8	30-8	17
18	Coupled Length of Unit	Ft. In.	45-10	46-0		46-0	46-0	18
19	Main Generator		One	One		One	One	19
20	“ “ —Make		W.E. Corp.	W.E. Corp.		W.E. Corp.	W.E. Corp.	20
21	“ “ —Type		485-K4	480		480	480-F	21
22	Traction Motors		4	4		4	4	22
23	“ “ —Make		W.E. Corp.	W.E. Corp.		W.E. Corp.	W.E. Corp.	23
24	“ “ —Type		362-E 362-D	362-D		362-D	362-D	24
25	“ “ —Gear Ratio		*16 to 76	14 to 68		14 to 68	14 to 68	25
26	Electric Control—Voltage		112	64		64	64	26
27	Air Brake Schedule		14-EL	6-DS		6-SL	6-SL	27
28	Compressors		One	One		One	One	28
29	“ —Make		G.D.	W.A.B. Co.		W.A.B. Co.	W.A.B. Co.	29
30	“ —Type		W.X.O.	3-CD		3-CD	3-CD	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft.	176	193		193	193	31
32	Brakes—Dynamic		No	No		No	No	32
33	Wt. On Rail—All Drivers	Lb.	197,600	196,000		197,600	197,600	33
34	“ “ “ —All Idlers	Lb.	—	—		—	—	34
35	“ “ “ —Total Unit	Lb.	197,600	196,000		197,600	197,600	35
36	Maximum Loco. Speed	M.P.H.	60	60		60	60	36
37	Starting Tractive Force, 25% Adhesion	Lb.	49,400	49,000		49,400	49,400	37
38	Max. Continuous Tractive Force	Lb.	29,200	34,000		34,000	34,000	38
39	Speed at Max. Cont. Tractive Force	M.P.H.	6.5	5.3		6.2	6.2	39
40	Fuel Tank Capacity—Total	Gals.	600	650		650	650	40
41	Water “ “ —Heating, Total	Gals.	—	—		—	—	41
42	“ “ “ —Eng. Cooling, Total	Gals.	240	295		285	285	42
43	Lubricating Oil—Engine, Total	Gals.	95	165		165	165	43
44	Steam Heat Generator—No. Per Unit		—	—		—	—	44
45	“ “ “ —Type		—	—		—	—	45
46	“ “ “ —Each, Lbs. Steam/Hr.		—	—		—	—	46
47								47
48								48
49								49
50								50
51								51
52	Remarks							52

*Loco. Nos. 5941-5943 have
14 to 68 gear ratio.

SWITCHING DIESEL-ELECTRIC LOCOMOTIVES

	CLASSIFICATION		BS-10		BS-10a	BS-10am		BS-10as	
1	UNIT		—		—	—		—	1
2	Wheel Arrangement Symbol	A.A.R.	B-B		B-B	B-B		B-B	2
3	Number of Engines, Per Unit		One		One	One		One	3
4	Make of Engine		B-L-H Corp		B-L-H Corp	B-L-H Corp		B-L-H Corp	4
5	Model of Engine		V.O.		606-SC	606-SC		606-SC	5
6	Number of Cylinders, Each Engine		8		6	6		6	6
7	Rated Horsepower, Each Engine		1000		1000	1000		1000	7
8	Maximum Governed Speed	R.P.M.	625		625	625		625	8
9	Wheel Diameter	In.	40		40	40		42	9
10	Driving Axles, Number		4		4	4		4	10
11	Idler Axles, Number		—		—	—		—	11
12	Journal, Driving Axle	In.	6½ x 12		6½ x 12	6½ x 12		6½ x 12	12
13	“ Idler Axle	In.	—		—	—		—	13
14	“ Bearings		Plain		Plain	Plain		Plain	14
15	Length of Truck Centers	Ft. In.	25-6		22-8	22-8		32-3	15
16	Wheel Base—Truck	Ft. In.	8-0		8-0	8-0		9-10	16
17	“ “ —Unit	Ft. In.	33-6		30-8	30-8		42-1	17
18	Coupled Length of Unit	Ft. In.	48-10		46-0	46-0		58-0	18
19	Main Generator		One		One	One		One	19
20	“ “ —Make		W.E. Corp.		W.E. Corp.	W.E. Corp.		W.E. Corp.	20
21	“ “ —Type		480		480	480		480	21
22	Traction Motors		4		4	4		4	22
23	“ “ —Make		W.E. Corp.		W.E. Corp.	W.E. Corp.		W.E. Corp.	23
24	“ “ —Type		362-D		362-D	362-D		362-D	24
25	“ “ —Gear Ratio		14 to 68		14 to 68	14 to 68		14 to 68	25
26	Electric Control—Voltage		112		64	64		64	26
27	Air Brake Schedule		6-DS		6-DS	*6-DS		6-DS	27
28	Compressors		One		One	One		One	28
29	“ —Make		G.D.		W.A.B. Co.	W.A.B. Co.		W.A.B. Co.	29
30	“ —Type		W.X.O.		3-CD	3-CD		3-CD	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft.	176		193	193		193	31
32	Brakes—Dynamic		No		No	No		No	32
33	Wt. On Rail—All Drivers	Lb.	240,000		228,500	228,500		240,600	33
34	“ “ “ —All Idlers	Lb.	—		—	—		—	34
35	“ “ “ —Total Unit	Lb.	240,000		228,500	228,500		240,600	35
36	Maximum Loco. Speed	M.P.H.	60		60	60		60	36
37	Starting Tractive Force, 25% Adhesion	Lb.	60,000		57,125	57,125		60,150	37
38	Max. Continuous Tractive Force	Lb.	34,000		34,000	34,000		32,400	38
39	Speed at Max. Cont. Tractive Force	M.P.H.	8.3		9	9		9.5	39
40	Fuel Tank Capacity—Total	Gals.	700		650	650		900	40
41	Water “ “ —Heating, Total	Gals.	—		—	—		1000	41
42	“ “ “ —Eng. Cooling, Total	Gals.	290		295	295		295	42
43	Lubricating Oil—Engine, Total	Gals.	110		185	185		185	43
44	Steam Heat Generator—No. Per Unit		—		—	—		One	44
45	“ “ “ —Type		—		—	—		Vapor 4516	45
46	“ “ “ —Each, Lbs. Steam/Hr.		—		—	—		1600	46
47									47
48									48
49									49
50									50
51									51
52	Remarks								52

*Loco. Nos. 9429-9434 have
24-RL Brake Equipment.

September 1, 1956

SWITCHING DIESEL-ELECTRIC LOCOMOTIVES

	CLASSIFICATION	BS-12	BS-12m	BS-12am	BS-12as	BS-12ams		
1	UNIT	—	—	—	—	—	1	
2	Wheel Arrangement Symbol	A.A.R.	B-B	B-B	B-B	B-B	2	
3	Number of Engines, Per Unit	One	One	One	One	One	3	
4	Make of Engine	B-L-H Corp	B-L-H Corp	B-L-H Corp	B-L-H Corp	B-L-H Corp	4	
5	Model of Engine	606-SC	606-SC	606-A	606-SC	606-SC	5	
6	Number of Cylinders, Each Engine	6	6	6	6	6	6	
7	Rated Horsepower, Each Engine	1200	1200	1200	1200	1200	7	
8	Maximum Governed Speed	R.P.M.	625	625	625	625	8	
9	Wheel Diameter	In.	40	40	42	42	9	
10	Driving Axles, Number		4	4	4	4	10	
11	Idler Axles, Number		—	—	—	—	11	
12	Journal, Driving Axle	In.	6½ x 12	6½ x 12	6½ x 12	6½ x 12	12	
13	“ Idler Axle	In.	—	—	—	—	13	
14	“ Bearings		Plain and Roller	Plain and Roller	Plain	Plain	Roller	14
15	Length of Truck Centers	Ft. In.	22-8	22-8	32-3	32-3	32-3	15
16	Wheel Base—Truck	Ft. In.	8-0	8-0	9-10	9-10	9-10	16
17	“ “ —Unit	Ft. In.	30-8	30-8	42-1	42-1	42-1	17
18	Coupled Length of Unit	Ft. In.	46-0	46-0	58-0	58-0	58-0	18
19	Main Generator		One	One	One	One	One	19
20	“ “ —Make		W.E. Corp.	W.E. Corp.	W.E. Corp.	W.E. Corp.	W.E. Corp.	20
21	“ “ —Type		480	480 FZ	480	480	480	21
22	Traction Motors		4	4	4	4	4	22
23	“ “ —Make		W.E. Corp.	W.E. Corp.	W.E. Corp.	W.E. Corp.	W.E. Corp.	23
24	“ “ —Type		362-HZ 362-DF	362-DZ	362-HZ	362-DF	362-HZ 362-DF	24
25	“ “ —Gear Ratio		14 to 68	14 to 68	14 to 68	14 to 68	14 to 68	25
26	Electric Control—Voltage		64	64	64	64	64	26
27	Air Brake Schedule		6-SL	24-RL	24-RL	6-SL	24-RL	27
28	Compressors		One	One	One	One	One	28
29	“ —Make		W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	29
30	“ —Type		3-CD	3-CD	3-CD	3-CD	3-CD	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft.	193	193	193	193	193	31
32	Brakes—Dynamic		No	No	No	No	No	32
33	Wt. On Rail—All Drivers	Lb.	228,000	240,000	233,200	243,000	243,000	33
34	“ “ “ —All Idlers	Lb.	—	—	—	—	—	34
35	“ “ “ —Total Unit	Lb.	228,000	240,000	233,200	243,000	243,000	35
36	Maximum Loco. Speed	M.P.H.	60	60	60	60	60	36
37	Starting Tractive Force, 25% Adhesion	Lb.	57,000	60,000	58,300	60,750	60,750	37
38	Max. Continuous Tractive Force	Lb.	34,000	34,000	32,400	32,400	32,400	38
39	Speed at Max. Cont. Tractive Force	M.P.H.	10.8	10.8	11.4	11.4	11.4	39
40	Fuel Tank Capacity—Total	Gals.	650	650	1900	1000	1000	40
41	Water “ “ —Heating, Total	Gals.	—	—	—	900	900	41
42	“ “ “ —Eng. Cooling, Total	Gals.	250	250	250	250	250	42
43	Lubricating Oil—Engine, Total	Gals.	165	165	165	170	170	43
44	Steam Heat Generator—No. Per Unit		—	—	—	One	*One	44
45	“ “ “ —Type		—	—	—	Vapor OK-4616	Vapor OK-4616	45
46	“ “ “ —Each, Lbs. Steam/Hr.		—	—	—	1600	1600	46
47								47
48								48
49								49
50								50
51								51
52	Remarks					No. 8975	*Nos. 8110 and 8776	52

*Loco No. 8110 has Steam Generator.
Type, Vapor OK-4625, 2500 lbs. Steam/hr.

SWITCHING DIESEL-ELECTRIC LOCOMOTIVES

	CLASSIFICATION	BS-16m	BS-16ms		BS-24	BS-24m	
1	UNIT	—	—		—	—	1
2	Wheel Arrangement Symbol	A.A.R. C-C	C-C		C-C	C-C	2
3	Number of Engines, Per Unit	One	One		Two	Two	3
4	Make of Engine	B-L-H Corp	B-L-H Corp		B-L-H Corp	B-L-H Corp	4
5	Model of Engine	608-SC	608-SC		606-SC	606-SC	5
6	Number of Cylinders, Each Engine	8	8		6	6	6
7	Rated Horsepower, Each Engine	1600	1600		1200	1200	7
8	Maximum Governed Speed	R.P.M. 625	625		625	625	8
9	Wheel Diameter	In. 42	42		42	42	9
10	Driving Axles, Number	6	6		6	6	10
11	Idler Axles, Number	—	—		—	—	11
12	Journal, Driving Axle	In. 6½ x 12	6½ x 12		6½ x 12	6½ x 12	12
13	“ Idler Axle	In. —	—		—	—	13
14	“ Bearings	Roller	Roller		Roller	Roller	14
15	Length of Truck Centers	Ft. In. 32-3	32-3		41-0	41-0	15
16	Wheel Base—Truck	Ft. In. 13-0	13-0		13-0	13-0	16
17	“ “ —Unit	Ft. In. 44-6	44-6		54-9	54-9	17
18	Coupled Length of Unit	Ft. In. 58-0	58-0		74-0	74-0	18
19	Main Generator	One	One		Two	Two	19
20	“ “ —Make	W.E. Corp.	W.E. Corp.		W.E. Corp.	W.E. Corp.	20
21	“ “ —Type	471	471		480	480	21
22	Traction Motors	6	6		6	6	22
23	“ “ —Make	W.E. Corp.	W.E. Corp.		W.E. Corp.	W.E. Corp.	23
24	“ “ —Type	370-DZ	370-DZ		370-DZ	370-DZ	24
25	“ “ —Gear Ratio	15 to 63	15 to 63		15 to 63	15 to 63	25
26	Electric Control—Voltage	64	64		64	64	26
27	Air Brake Schedule	24-RL	24-RL		24-RL	24-RL	27
28	Compressors	One	One		Two	Two	28
29	“ —Make	W.A.B. Co.	W.A.B. Co.		W.A.B. Co.	W.A.B. Co.	29
30	“ —Type	3-CD	3-CD		3-CD	3-CD	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft. 193	193		193 Each	193 Each	31
32	Brakes—Dynamic	No	No		No	ΔNo	32
33	Wt. On Rail—All Drivers	Lb. 331,000	339,600		359,000	359,000	33
34	“ “ “ —All Idlers	Lb. —	—		—	—	34
35	“ “ “ —Total Unit	Lb. 331,000	339,600		359,000	359,000	35
36	Maximum Loco. Speed	M.P.H. 60	60		60	60	36
37	Starting Tractive Force, 25% Adhesion	Lb. 82,750	84,900		89,750	89,750	37
38	Max. Continuous Tractive Force	Lb. 72,900	72,900		72,900	72,900	38
39	Speed at Max. Cont. Tractive Force	M.P.H. 6.5	6.5		9.9	9.9	39
40	Fuel Tank Capacity—Total	Gals. 1900	1000		1500	*1500	40
41	Water “ “ —Heating, Total	Gals. —	900		—	—	41
42	“ “ “ —Eng. Cooling, Total	Gals. 300	300		500	500	42
43	Lubricating Oil—Engine, Total	Gals. 185	185		320	320	43
44	Steam Heat Generator—No. Per Unit	—	One		—	—	44
45	“ “ “ —Type	—	Vapor OK-4625		—	—	45
46	“ “ “ —Each, Lbs. Steam/Hr.	—	2500		—	—	46
47							47
48							48
49							49
50							50
51			Hump Control				51
52	Remarks	Hump Control	Nos. 8970 8971		Nos. 8952 8958		52

* Loco. Nos. 8724-8731 and 8113 have
2000 Gals. Fuel Oil.

Δ Loco. Nos. 8958-8965 have
Dynamic Brakes

September 1, 1956

SWITCHING DIESEL-ELECTRIC LOCOMOTIVES

	CLASSIFICATION	ES-6 No. 5911	ES-6	ES-10		ES-12	ES-12m	
1	UNIT	—	—	—		—	—	1
2	Wheel Arrangement Symbol	A.A.R.	B-B	B-B	B-B	B-B	B-B	2
3	Number of Engines, Per Unit		One	One	One	One	One	3
4	Make of Engine		Winton	E.M.D.	E.M.D.	E.M.D.	E.M.D.	4
5	Model of Engine		8-201-A	6-567-A	12-567-A	12-567-A 12-567-B	12-567-A 12-567-B	5
6	Number of Cylinders, Each Engine		8	6	12	12	12	6
7	Rated Horsepower for Propulsion, Each Engine		600	600	1000	1200	1200	7
8	Maximum Governed Speed	R.P.M.	750	800	800	800	800	8
9	Wheel Diameter	In.	40	40	40	40	40	9
10	Driving Axles, Number		4	4	4	4	4	10
11	Idler Axles, Number		—	—	—	—	—	11
12	Journal, Driving Axle	In.	6½ x 12	6½ x 12	6½ x 12	6½ x 12	6½ x 12	12
13	“ Idler Axle	In.	—	—	—	—	—	13
14	“ Bearings		Plain	Plain	Plain	Plain	Plain	14
15	Length of Truck Centers	Ft. In.	22-0	22-0	22-0	22-0	22-0	15
16	Wheel Base—Truck	Ft. In.	8-0	8-0	8-0	8-0	8-0	16
17	“ “ —Unit	Ft. In.	30-0	30-0	30-0	30-0	30-0	17
18	Coupled Length of Unit	Ft. In.	43-7½	44-5	44-5	44-5	44-5	18
19	Main Generator		One	One	One	One	One	19
20	“ “ —Make		G.E. Co.	E.M.D.	E.M.D.	E.M.D.	E.M.D.	20
21	“ “ —Type		5CT-534E1	D4D	D4D	D15A	D15A	21
22	Traction Motors		4	4	4	4	4	22
23	“ “ —Make		G.E. Co.	E.M.D.	E.M.D.	E.M.D.	E.M.D.	23
24	“ “ —Type		287	D17B	D17B	D27B	D27B	24
25	“ “ —Gear Ratio		16 to 68	15 to 62	15 to 62	15 to 62	15 to 62	25
26	Electric Control—Voltage		64	64	64	64	64	26
27	Air Brake Schedule		14-EL	14-EL 6-BL	14-EL 6-BL	6-BL	24-RL	27
28	Compressors		One	One	One	One	One	28
29	“ —Make		G.D.	G.D.	G.D.	G.D.	G.D.	29
30	“ —Type		WXE	WXE	WXE	WXO	WXO	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft.	167	178	178	225	225	31
32	Brakes—Dynamic		No	No	No	No	No	32
33	Wt. On Rail—All Drivers	Lb.	206,560	194,000	248,400	246,600	246,600	33
34	“ “ “ —All Idlers	Lb.	—	—	—	—	—	34
35	“ “ “ —Total Unit	Lb.	206,560	194,000	248,400	246,600	246,600	35
36	Maximum Loco. Speed	M.P.H.	40	65	65	65	65	36
37	Starting Tractive Force, 25% Adhesion	Lb.	51,640	48,500	62,100	61,650	61,650	37
38	Max. Continuous Tractive Force	Lb.	20,000	23,500	30,000	36,000	36,000	38
39	Speed at Max. Cont. Tractive Force	M.P.H.	9	7.5	10	10	10	39
40	Fuel Tank Capacity—Total	Gals.	600	600	600	600 and 930	600 and 930	40
41	Water “ “ —Heating, Total	Gals.	—	—	—	—	—	41
42	“ “ “ —Eng. Cooling, Total	Gals.	90	135	195	223	223	42
43	Lubricating Oil—Engine, Total	Gals.	60	85	100	165	165	43
44	Steam Heat Generator—No. Per Unit		—	—	—	—	—	44
45	“ “ “ —Type		—	—	—	—	—	45
46	“ “ “ —Each, Lbs. Steam/Hr.		—	—	—	—	—	46
47								47
48								48
49								49
50								50
51								51
52	Remarks		No. 5911					52

SWITCHING DIESEL-ELECTRIC LOCOMOTIVES

	CLASSIFICATION	ES-15m	ES-15m	ES-15ms	ES-15ms		ES-15a	
1	UNIT	—	—	—	—		—	1
2	Wheel Arrangement Symbol	A.A.R.	B-B	B-B	B-B		C-C	2
3	Number of Engines, Per Unit		One	One	One		One	3
4	Make of Engine		E.M.D.	E.M.D.	E.M.D.		E.M.D.	4
5	Model of Engine		16-567-B	16-567-B	16-567-B		16-567-BC	5
6	Number of Cylinders, Each Engine		16	16	16		16	6
7	Rated Horsepower, Each Engine		1500	1500	1500		1500	7
8	Maximum Governed Speed	R.P.M.	800	800	800		800	8
9	Wheel Diameter	In.	40	40	40		40	9
10	Driving Axles, Number		4	4	4		4	10
11	Idler Axles, Number		—	—	—		—	11
12	Journal, Driving Axle	In.	6½ x 12	6½ x 12	6½ x 12		6½ x 12	12
13	“ Idler Axle	In.	—	—	—		—	13
14	“ Bearings		Roller	Roller	Roller		Roller	14
15	Length of Truck Centers	Ft. In.	31-0	31-0	31-0		35-0	15
16	Wheel Base—Truck	Ft. In.	9-0	9-0	9-0		13-7	16
17	“ “ —Unit	Ft. In.	40-0	40-0	40-0		48-7	17
18	Coupled Length of Unit	Ft. In.	56-2	56-2	56-2		60-8½	18
19	Main Generator		One	One	One		One	19
20	“ “ —Make		E.M.D.	E.M.D.	E.M.D.		E.M.D.	20
21	“ “ —Type		D12B	D12B	D12B		D12	21
22	Traction Motors		4	4	4		6	22
23	“ “ —Make		E.M.D.	E.M.D.	E.M.D.		E.M.D.	23
24	“ “ —Type		D27B	D27B	D27B		D27E	24
25	“ “ —Gear Ratio		15 to 62	15 to 62	15 to 62		12 to 65	25
26	Electric Control—Voltage		64	64	64		64	26
27	Air Brake Schedule		24-RL	24-RL	24-RL		24-RL	27
28	Compressors		One	One	One		One	28
29	“ —Make		G.D.	G.D.	G.D.		G.D.	29
30	“ —Type		WXO	WXO	WXO		WXG	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft.	225	225	225		365	31
32	Brakes—Dynamic		Yes	*No	No		Yes	32
33	Wt. On Rail—All Drivers	Lb.	250,400	245,600	249,000		360,000	33
34	“ “ “ —All Idlers	Lb.	—	—	—		—	34
35	“ “ “ —Total Unit	Lb.	250,400	245,600	249,000		360,000	35
36	Maximum Loco. Speed	M.P.H.	65	65	65		55	36
37	Starting Tractive Force, 25% Adhesion	Lb.	62,600	61,400	62,250		90,000	37
38	Max. Continuous Tractive Force	Lb.	40,000	40,000	40,000		87,700	38
39	Speed at Max. Cont. Tractive Force	M.P.H.	11	11	11		4.6	39
40	Fuel Tank Capacity—Total	Gals.	1600	1600	800		800	40
41	Water “ “ —Heating, Total	Gals.	—	—	800		800	41
42	“ “ “ —Eng. Cooling, Total	Gals.	230	230	230		230	42
43	Lubricating Oil—Engine, Total	Gals.	200	200	200		200	43
44	Steam Heat Generator—No. Per Unit		—	—	One		One	44
45	“ “ “ —Type		—	—	Vapor OK-4625		Vapor OK-4625	45
46	“ “ “ —Each, Lbs. Steam/Hr.		—	—	2500		2500	46
47								47
48								48
49								49
50								50
51							Note 3.	51
52	Remarks		Note 1			Note 2	Madison Hill No. 8588, 8589	52

Note 1.—Weights for Loco.
Nos. 8564 and 8567 only.

Note 2.—Weights for Loco.
Nos. 8551-8553 only.

Note 3.—Locos. have Hump Control and
“Vapor 4015” Water Heater.

*Loco. Nos. 8503-8508, 8554-8582 have Dynamic Brake.

September 1, 1956

SWITCHING DIESEL-ELECTRIC LOCOMOTIVES

	CLASSIFICATION	FS-10	FS-10m		FS-12	FS-12m	
1	UNIT	—	—		—	—	1
2	Wheel Arrangement Symbol	A.A.R. B-B	B-B		B-B	B-B	2
3	Number of Engines, Per Unit	One	One		One	One	3
4	Make of Engine	F.M. Co.	F.M. Co.		F.M. Co.	F.M. Co.	4
5	Model of Engine	38D8½	38D8½		38D8½	38D8½	5
6	Number of Cylinders, Each Engine	6	6		6	6	6
7	Rated Horsepower, Each Engine	1000	1000		1200	1200	7
8	Maximum Governed Speed	R.P.M. 800	800		850	850	8
9	Wheel Diameter	In. 40	40		40	40	9
10	Driving Axles, Number	4	4		4	4	10
11	Idler Axles, Number	—	—		—	—	11
12	Journal, Driving Axle	In. 6½ x 12	6½ x 12		6½ x 12	6½ x 12	12
13	“ Idler Axle	In. —	—		—	—	13
14	“ Bearings	Plain	Plain		Plain	Plain	14
15	Length of Truck Centers	Ft. In. 25-6	25-6		25-6	25-6	15
16	Wheel Base—Truck	Ft. In. 8-0	8-0		8-0	8-0	16
17	“ “ —Unit	Ft. In. 33-6	33-6		33-6	33-6	17
18	Coupled Length of Unit	Ft. In. 48-10	48-10		48-10	48-10	18
19	Main Generator	One	One		One	One	19
20	“ “ —Make	W.E. Corp. F.M. Co.	F.M. Co.		F.M. Co.	F.M. Co.	20
21	“ “ —Type	481-B DGZ-J	DGZ-J		DGZ-J	DGZ-J	21
22	Traction Motors	4	4		4	4	22
23	“ “ —Make	W.E. Corp. F.M. Co.	F.M. Co.		F.M. Co.	F.M. Co.	23
24	“ “ —Type	362-D DRZ-H	DRZ-H		DRZ-H	DRZ-H	24
25	“ “ —Gear Ratio	14 to 68	14 to 68		14 to 68	14 to 68	25
26	Electric Control—Voltage	112 64	64		64	64	26
27	Air Brake Schedule	6-DS	6-DS		6-SL	24-RL	27
28	Compressors	One	One		One	One	28
29	“ —Make	W.A.B. Co.	W.A.B. Co.		W.A.B. Co.	W.A.B. Co.	29
30	“ —Type	3-CD	3-CD		3-CD	3-CD	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft. 246	246		260	260	31
32	Brakes—Dynamic	No	No		No	No	32
33	Wt. On Rail—All Drivers	Lb. 242,000	242,000		246,800	249,000	33
34	“ “ “ —All Idlers	Lb. —	—		—	—	34
35	“ “ “ —Total Unit	Lb. 242,000	242,000		246,800	249,000	35
36	Maximum Loco. Speed	M.P.H. 60	60		60	60	36
37	Starting Tractive Force, 25% Adhesion	Lb. 60,500	60,500		61,700	62,250	37
38	Max. Continuous Tractive Force	Lb. 34,000	34,000		34,000	34,000	38
39	Speed at Max. Cont. Tractive Force	M.P.H. 8.9	8.9		11.3	11.3	39
40	Fuel Tank Capacity—Total	Gals. 750	750		1150	1150	40
41	Water “ “ —Heating, Total	Gals. —	—		—	—	41
42	“ “ “ —Eng. Cooling, Total	Gals. 135	135		135	135	42
43	Lubricating Oil—Engine, Total	Gals. 250	250		250	250	43
44	Steam Heat Generator—No. Per Unit	—	—		—	—	44
45	“ “ “ —Type	—	—		—	—	45
46	“ “ “ —Each, Lbs. Steam/Hr.	—	—		—	—	46
47							47
48							48
49							49
50							50
51							51
52	Remarks						52

SWITCHING DIESEL-ELECTRIC LOCOMOTIVES

	CLASSIFICATION	FS-16m	FS-20	FS-20m		FS-24m	
1	UNIT	—	—	—		—	1
2	Wheel Arrangement Symbol	A.A.R. B-B	B-B	B-B		C-C	2
3	Number of Engines, Per Unit	One	One	One		One	3
4	Make of Engine	F.M. Co.	F.M. Co.	F.M. Co.		F.M. Co.	4
5	Model of Engine	38D8 $\frac{1}{2}$	38D8 $\frac{1}{2}$	38D8 $\frac{1}{2}$		38D8 $\frac{1}{2}$	5
6	Number of Cylinders, Each Engine	8	10	10		12	6
7	Rated Horsepower, Each Engine	1600	2000	2000		2400	7
8	Maximum Governed Speed	R.P.M. 850	850	850		850	8
9	Wheel Diameter	In. 42	42	42		40	9
10	Driving Axles, Number	4	4	4		6	10
11	Idler Axles, Number	—	—	—		—	11
12	Journal, Driving Axle	In. 6 $\frac{1}{2}$ x 12	7 x 14	7 x 14		6 $\frac{1}{2}$ x 12	12
13	“ Idler Axle	In. —	—	—		—	13
14	“ Bearings	Roller	Roller	Roller		Roller	14
15	Length of Truck Centers	Ft. In. 30-0	27-0	27-0		41-6	15
16	Wheel Base—Truck	Ft. In. 9-4	9-6	9-6		13-0	16
17	“ “ —Unit	Ft. In. 39-4	36-6	36-6		49-3 $\frac{1}{2}$	17
18	Coupled Length of Unit	Ft. In. 54-0	51-0	51-0		66-0	18
19	Main Generator	One	One	One			19
20	“ “ —Make	W.E. Corp.	W.E. Corp.	W.E. Corp.			20
21	“ “ —Type	472	474-A	474-A			21
22	Traction Motors	4	4	4		6	22
23	“ “ —Make	W.E. Corp.	W.E. Corp.	W.E. Corp.		G. E. Co.	23
24	“ “ —Type	370-DEZ	370-D	370-D		752-E	24
25	“ “ —Gear Ratio	15 to 63	15 to 63	15 to 63		18 to 74	25
26	Electric Control—Voltage	64	64	64		64	26
27	Air Brake Schedule	24-RL	24-RL	24-RL		24-RL	27
28	Compressors	One	One	One		One	28
29	“ —Make	W.A.B. Co.	W.A.B. Co.	W.A.B. Co.		W.A.B. Co.	29
30	“ —Type	3-CD	3-CD	3-CD		3-CD	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft. 260	260	260		260	31
32	Brakes—Dynamic	No	No	No		Yes	32
33	Wt. On Rail—All Drivers	Lb. 256,000	254,000	254,000			33
34	“ “ “ —All Idlers	Lb. —	—	—		—	34
35	“ “ “ —Total Unit	Lb. 256,000	254,000	254,000			35
36	Maximum Loco. Speed	M.P.H. 70	65	65		66	36
37	Starting Tractive Force, 25% Adhesion	Lb. 64,000	63,500	63,500			37
38	Max. Continuous Tractive Force	Lb. 48,600	42,800	42,800		79500	38
39	Speed at Max. Cont. Tractive Force	M.P.H. 9.9	14.7	14.7		8.6	39
40	Fuel Tank Capacity—Total	Gals. 1640	1200	1200		4200	40
41	Water “ “ —Heating, Total	Gals. —	—	—		—	41
42	“ “ “ —Eng. Cooling, Total	Gals. 175	221	221		250	42
43	Lubricating Oil—Engine, Total	Gals. 300	350	350		385	43
44	Steam Heat Generator—No. Per Unit	—	—	—		—	44
45	“ “ “ —Type	—	—	—		—	45
46	“ “ “ —Each, Lbs. Steam/Hr.	—	—	—		—	46
47							47
48							48
49							49
50							50
51							51
52	Remarks						52

SWITCHING DIESEL-ELECTRIC LOCOMOTIVES

	CLASSIFICATION	GS-4	GS-4m		LS-25	LS-25m	
1	UNIT	—	—		—	—	1
2	Wheel Arrangement Symbol	A.A.R.	B-B	B-B	C-C	C-C	2
3	Number of Engines, Per Unit		Two	Two	Two	Two	3
4	Make of Engine		Caterpillar	Caterpillar	Hamilton	Hamilton	4
5	Model of Engine		D17000	D17000	T-89-SA	T-89-SA	5
6	Number of Cylinders, Each Engine		8	8	8	8	6
7	Rated Horsepower, Each Engine		*190 200	*190 200	1250	1250	7
8	Maximum Governed Speed	R.P.M.	1000	1000	950	950	8
9	Wheel Diameter	In.	33	33	42	42	9
10	Driving Axles, Number		4	4	6	6	10
11	Idler Axles, Number		—	—	—	—	11
12	Journal, Driving Axle	In.	5 x 9	5 x 9	6½ x 12	6½ x 12	12
13	“ Idler Axle	In.	—	—	—	—	13
14	“ Bearings		Plain	Plain	Plain	Plain	14
15	Length of Truck Centers	Ft. In.	18-9	18-9	49-0	49-0	15
16	Wheel Base—Truck	Ft. In.	6-10	6-10	13-0	13-0	16
17	“ “ —Unit	Ft. In.	25-7	25-7	61-3	61-3	17
18	Coupled Length of Unit	Ft. In.	33-5	33-5	79-0	79-0	18
19	Main Generator		Two	Two	Two	Two	19
20	“ “ —Make		G.E. Co.	G.E. Co.	W.E. Corp.	W.E. Corp.	20
21	“ “ —Type		GT-555	GT-555	499-B	499-B	21
22	Traction Motors		4	4	6	6	22
23	“ “ —Make		G.E. Co.	G.E. Co.	W.E. Corp.	W.E. Corp.	23
24	“ “ —Type		733	733	370-DZ	370-DZ	24
25	“ “ —Gear Ratio		15 to 26 23 to 51	15 to 26 23 to 51	15 to 63	15 to 63	25
26	Electric Control—Voltage		64	64	64	64	26
27	Air Brake Schedule		14-EL	14-EL	24-RL	24-RL	27
28	Compressors		Two	Two	Two	Two	28
29	“ —Make		G. D.	G. D.	W.A.B. Co.	W.A.B. Co.	29
30	“ —Type		ADS	ADS	3-CDC	3-CDC	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft.	50 Each	50 Each	214 Each	214 Each	31
32	Brakes—Dynamic		No	No	No	*No	32
33	Wt. On Rail—All Drivers	Lb.	88,550	88,550	362,000	362,000	33
34	“ “ “ —All Idlers	Lb.	—	—	—	—	34
35	“ “ “ —Total Unit	Lb.	88,550	88,550	362,000	362,000	35
36	Maximum Loco. Speed	M.P.H.	30	30	70	70	36
37	Starting Tractive Force, 25% Adhesion	Lb.	22,137	22,137	90,500	90,500	37
38	Max. Continuous Tractive Force	Lb.	13,000	13,000	64,000	64,000	38
39	Speed at Max. Cont. Tractive Force	M.P.H.	7.2	7.2	11.5	11.5	39
40	Fuel Tank Capacity—Total	Gals.	250	250	1200	1200	40
41	Water “ “ —Heating, Total	Gals.	—	—	—	—	41
42	“ “ “ —Eng. Cooling, Total	Gals.	80	80	450	450	42
43	Lubricating Oil—Engine, Total	Gals.	100	100	290	290	43
44	Steam Heat Generator—No. Per Unit		—	—	—	—	44
45	“ “ “ —Type		—	—	—	—	45
46	“ “ “ —Each, Lbs. Steam/Hr.		—	—	—	—	46
47							47
48							48
49							49
50							50
51							51
52	Remarks						52

*—Horsepowers shown are total including horsepower required for auxiliaries. Horsepowers for propulsion are 165 and 175 respectively.

*Loco. Nos. 8948, 8949 have Dynamic Brakes.

ROAD SERVICE

SWITCHING DIESEL-ELECTRIC LOCOMOTIVES

24

	CLASSIFICATION		APS-24ms		EFS-17m	EFS-17m	
1	UNIT		—		—	—	1
2	Wheel Arrangement Symbol	A.A.R.	C-C		B-B	B-B	2
3	Number of Engines, Per Unit		One		One	One	3
4	Make of Engine		ALCo		E. M. D.	E. M. D.	4
5	Model of Engine		244		16-567-C	16-567-C	5
6	Number of Cylinders, Each Engine		16		16	16	6
7	Rated Horsepower, Each Engine		2400		1750	1750	7
8	Maximum Governed Speed	R.P.M.	1000		800	800	8
9	Wheel Diameter	In.	40		40	40	9
10	Driving Axles, Number		6		4	4	10
11	Idler Axles, Number		—		—	—	11
12	Journal, Driving Axle	In.	6½ x 12		6½ x 12	6½ x 12	12
13	“ Idler Axle	In.	—		—	—	13
14	“ Bearings		Roller		Roller	Roller	14
15	Length of Truck Centers	Ft. In.	43-6		31-0	31-0	15
16	Wheel Base—Truck	Ft. In.	12-6		9-0	9-0	16
17	“ “ —Unit	Ft. In.	51-0		40-0	40-0	17
18	Coupled Length of Unit	Ft. In.	65-1		56-2	56-2	18
19	Main Generator		One		One	One	19
20	“ “ —Make		G. E. Co.		E. M. D.	E. M. D.	20
21	“ “ —Type		GT-586		D12B	D12B	21
22	Traction Motors		6		4	4	22
23	“ “ —Make		G. E. Co.		E. M. D.	E. M. D.	23
24	“ “ —Type		752		D37B	D37B	24
25	“ “ —Gear Ratio		18 to 65		15 to 62	15 to 62	25
26	Electric Control—Voltage		64		64	64	26
27	Air Brake Schedule		24-RL		24-RL	24-RL	27
28	Compressors		One		One	One	28
29	“ —Make		W. A. B. Co.		G. D.	G. D.	29
30	“ —Type		3-CDB		WXO	WXO	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft.	306		225	225	31
32	Brakes—Dynamic		Yes		Yes	Yes	32
33	Wt. On Rail—All Drivers	Lb.	366000		249000	250400	33
34	“ “ “ —All Idlers	Lb.	—		—	—	34
35	“ “ “ —Total Unit	Lb.	366000		249000	250400	35
36	Maximum Loco. Speed	M.P.H.	75		65	65	36
37	Starting Tractive Force, 25% Adhesion	Lb.	91500		62250	62600	37
38	Max. Continuous Tractive Force	Lb.	69800				38
39	Speed at Max. Cont. Tractive Force	M.P.H.	9				39
40	Fuel Tank Capacity—Total	Gals.	1350		1600	1600	40
41	Water “ “ —Heating, Total	Gals.	2000		—	—	41
42	“ “ “ —Eng. Cooling, Total	Gals.	280		230	230	42
43	Lubricating Oil—Engine, Total	Gals.	230		200	200	43
44	Steam Heat Generator—No. Per Unit		One		—	—	44
45	“ “ “ —Type		Vapor OK-4740		—	—	45
46	“ “ “ —Each, Lbs. Steam/Hr.		4500		—	—	46
47							47
48							48
49							49
50							50
51							51
52	Remarks					Note 1	52

Note 1.—Weights for Loco. Nos. 7004, 7013,
7016, 7020, 7023-7024, 7027 only.

September 1, 1956

ROAD DIESEL-ELECTRIC LOCOMOTIVES—FREIGHT

	CLASSIFICATION	AF-15	AF-15	AF-16	AF-16	AFP-20	AFP-20		
1	UNIT	A	B	A	B	A	B	1	
2	Wheel Arrangement Symbol	A.A.R.	B-B	B-B	B-B	A1A-A1A	A1A-A1A	2	
3	Number of Engines, Per Unit	One	One	One	One	One	One	3	
4	Make of Engine	Alco	Alco	Alco	Alco	Alco	Alco	4	
5	Model of Engine	244-B	244-B	244-D	244-D	244-B	244-B	5	
6	Number of Cylinders, Each Engine	12	12	12	12	16	16	6	
7	Rated Horsepower, Each Engine	1500	1500	1600	1600	2000	2000	7	
8	Maximum Governed Speed	R.P.M.	1000	1000	1000	1000	1000	8	
9	Wheel Diameter	In.	40	40	40	40	40	9	
10	Driving Axles, Number		4	4	4	4	4	10	
11	Idler Axles, Number		—	—	—	Two	Two	11	
12	Journal, Driving Axle	In.	6½ x 12	6½ x 12	6½ x 12	6½ x 12	6½ x 12	12	
13	“ Idler Axle	In.	—	—	—	6½ x 12	6½ x 12	13	
14	“ Bearings		Roller	Roller	Roller	Roller	Roller	14	
15	Length of Truck Centers	Ft. In.	27-2	27-2	29-2	29-2	34-2	34-2	15
16	Wheel Base—Truck	Ft. In.	9-4	9-4	9-4	9-4	15-6	15-6	16
17	“ “ —Unit	Ft. In.	36-6	36-6	38-6	38-6	49-8	49-8	17
18	Coupled Length of Unit	Ft. In.	51-6	50-2	53-6	52-8	65-8	63-6	18
19	Main Generator		One	One	One	One	One	19	
20	“ “ —Make		G.E. Co.	G.E. Co.	G.E. Co.	G.E. Co.	G.E. Co.	20	
21	“ “ —Type		GT-564	GT-564	GT-581	GT-581	GT-566	21	
22	Traction Motors		4	4	4	4	4	22	
23	“ “ —Make		G.E. Co.	G.E. Co.	G.E. Co.	G.E. Co.	G.E. Co.	23	
24	“ “ —Type		752	752	752	752	752	24	
25	“ “ —Gear Ratio		18 to 74	18 to 74	18 to 74	18 to 74	19 to 64	19 to 64	25
26	Electric Control—Voltage		64	64	64	64	64	26	
27	Air Brake Schedule		24-RL	24-RL	24-RL	24-RL	24-RL	27	
28	Compressors		One	One	One	One	One	28	
29	“ —Make		W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	29	
30	“ —Type		3-CDC 3-CDB	3-CDC 3-CDB	3-CDC	3-CDC	3-CDB	30	
31	“ —Cap. At Full Eng. Speed	Cu. Ft.	225 306	225 306	225	225	306	31	
32	Brakes—Dynamic		Yes	Yes	Yes	Yes	No	32	
33	Wt. On Rail—All Drivers	Lb.	244,600	235,200	246,400	245,200	208,100	204,600	33
34	“ “ “ —All Idlers	Lb.	—	—	—	—	104,100	102,300	34
35	“ “ “ —Total Unit	Lb.	244,600	235,200	246,400	245,200	312,200	306,900	35
36	Maximum Loco. Speed	M.P.H.	65	65	65	65	80.5	80.5	36
37	Starting Tractive Force, 25% Adhesion	Lb.	61,150	58,800	61,600	61,300	52,025	51,150	37
38	Max. Continuous Tractive Force	Lb.	42,500	42,500	52,500	52,500	35,000	35,000	38
39	Speed at Max. Cont. Tractive Force	M.P.H.	11	11	9.5	9.5	17.5	17.5	39
40	Fuel Tank Capacity—Total	Gals.	1200	1200	1200	1200	1200	1200	40
41	Water “ “ —Heating, Total	Gals.	—	—	—	—	1300	1900	41
42	“ “ “ —Eng. Cooling, Total	Gals.	250	250	250	250	330	330	42
43	Lubricating Oil—Engine, Total	Gals.	200	200	200	200	230	230	43
44	Steam Heat Generator—No. Per Unit		—	—	—	—	One	One	44
45	“ “ “ —Type		—	—	—	—	Vapor DRK-4530	Vapor DRK-4530	45
46	“ “ “ —Each, Lbs. Steam/Hr.		—	—	—	—	3000	3000	46
47									47
48									48
49									49
50									50
51									51
52	Remarks					Note 1	Note 1	52	

Note 1.—Locos. converted from Pass. AP-20.

September 1, 1956

ROAD DIESEL-ELECTRIC LOCOMOTIVES—FREIGHT

	CLASSIFICATION	BF-15	BF-15		BF-15a	BF-15a	
1	UNIT	A	B		A	B	1
2	Wheel Arrangement Symbol	A.A.R.	B-B	B-B	B-B	B-B	2
3	Number of Engines, Per Unit	One	One		One	One	3
4	Make of Engine	B-L-H Corp	B-L-H Corp		B-L-H Corp	B-L-H Corp	4
5	Model of Engine	608-SC	608-SC		608-SC	608-SC	5
6	Number of Cylinders, Each Engine	8	8		8	8	6
7	Rated Horsepower, Each Engine	1500	1500		1500	1500	7
8	Maximum Governed Speed	R.P.M.	625	625	625	625	8
9	Wheel Diameter	In.	42	42	42	42	9
10	Driving Axles, Number		4	4	4	4	10
11	Idler Axles, Number		—	—	—	—	11
12	Journal, Driving Axle	In.	6½ x 12	6½ x 12	6½ x 12	6½ x 12	12
13	“ Idler Axle	In.	—	—	—	—	13
14	“ Bearings		Roller	Roller	Roller	Roller	14
15	Length of Truck Centers	Ft. In.	28-2	28-2	28-2	28-2	15
16	Wheel Base—Truck	Ft. In.	9-10	9-10	9-10	9-10	16
17	“ “ —Unit	Ft. In.	38-0	38-0	38-0	38-0	17
18	Coupled Length of Unit	Ft. In.	54-4½	52-7	54-8	53-2	18
19	Main Generator		One	One	One	One	19
20	“ “ —Make		W.E. Corp.	W.E. Corp.	W.E. Corp.	W.E. Corp.	20
21	“ “ —Type		471-A	471-A	471	471	21
22	Traction Motors		4	4	4	4	22
23	“ “ —Make		W.E. Corp.	W.E. Corp.	W.E. Corp.	W.E. Corp.	23
24	“ “ —Type		370-G	370-G	370-GL	370-GL	24
25	“ “ —Gear Ratio		15 to 63	15 to 63	15 to 63	15 to 63	25
26	Electric Control—Voltage		64	64	64	64	26
27	Air Brake Schedule		24-RL	24-RL	24-RL	24-RL	27
28	Compressors		One	One	One	One	28
29	“ —Make		W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	29
30	“ —Type		3-CD	3-CD	3-CD	3-CD	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft.	193	193	193	193	31
32	Brakes—Dynamic		Yes	Yes	Yes	Yes	32
33	Wt. On Rail—All Drivers	Lb.	266,000	257,000	257,800	250,400	33
34	“ “ “ —All Idlers	Lb.	—	—	—	—	34
35	“ “ “ —Total Unit	Lb.	266,000	257,000	257,800	250,400	35
36	Maximum Loco. Speed	M.P.H.	65	65	65	65	36
37	Starting Tractive Force, 25% Adhesion	Lb.	66,500	64,250	64,450	62,600	37
38	Max. Continuous Tractive Force	Lb.	43,000	43,000	42,800	42,800	38
39	Speed at Max. Cont. Tractive Force	M.P.H.	11	11	10.5	10.5	39
40	Fuel Tank Capacity—Total	Gals.	1200	1200	1200	1200	40
41	Water “ “ —Heating, Total	Gals.	—	—	—	—	41
42	“ “ “ —Eng. Cooling, Total	Gals.	325	325	310	369	42
43	Lubricating Oil—Engine, Total	Gals.	190	190	215	215	43
44	Steam Heat Generator—No. Per Unit		—	—	—	—	44
45	“ “ “ —Type		—	—	—	—	45
46	“ “ “ —Each, Lbs. Steam/Hr.		—	—	—	—	46
47							47
48							48
49							49
50							50
51							51
52	Remarks		Note 1	Note 1			52

Note 1.—Loco. Nos. 9588-9593 have
7" x 13" Journal Bearings.

September 1, 1956

ROAD DIESEL-ELECTRIC LOCOMOTIVES—FREIGHT

27

	CLASSIFICATION	BF-16	BF-16			BF-16z	BF-16z	
1	UNIT	A	B			A	B	1
2	Wheel Arrangement Symbol	A.A.R.	B-B	B-B		A1A-A1A	A1A-A1A	2
3	Number of Engines, Per Unit		One	One		Two	Two	3
4	Make of Engine		B-L-H Corp	B-L-H Corp		B-L-H Corp	B-L-H Corp	4
5	Model of Engine		608-SC	608-SC		606-SC	606-SC	5
6	Number of Cylinders, Each Engine		8	8		6	6	6
7	Rated Horsepower, Each Engine		1600	1600		800	800	7
8	Maximum Governed Speed	R.P.M.	625	625		625	625	8
9	Wheel Diameter	In.	42	42		42	42	9
10	Driving Axles, Number		4	4		4	4	10
11	Idler Axles, Number		—	—		Two	Two	11
12	Journal, Driving Axle	In.	6½ x 12	6½ x 12		7 x 13	7 x 13	12
13	“ Idler Axle	In.	—	—		7 x 13	7 x 13	13
14	“ Bearings		Roller	Roller		Roller	Roller	14
15	Length of Truck Centers	Ft. In.	28-2	28-2		46-3½	46-4½	15
16	Wheel Base—Truck	Ft. In.	9-10	9-10		15-6	15-6	16
17	“ “ —Unit	Ft. In.	38-0	38-0		61-9½	61-9½	17
18	Coupled Length of Unit	Ft. In.	54-8	53-2		80-0	78-2½	18
19	Main Generator		One	One		Two	Two	19
20	“ “ —Make		W.E. Corp.	W.E. Corp.		W.E. Corp.	W.E. Corp.	20
21	“ “ —Type		471-B	471-B		471-A	471-A	21
22	Traction Motors		4	4		4	4	22
23	“ “ —Make		W.E. Corp.	W.E. Corp.		W.E. Corp.	W.E. Corp.	23
24	“ “ —Type		370-DZ	370-DZ		370-DP	370-DP	24
25	“ “ —Gear Ratio		15 to 63	15 to 63		15 to 63	15 to 63	25
26	Electric Control—Voltage		64	64		64	64	26
27	Air Brake Schedule		24-RL	24-RL		24-RL	24-RL	27
28	Compressors		One	One		Two	Two	28
29	“ —Make		W.A.B. Co.	W.A.B. Co.		W.A.B. Co.	W.A.B. Co.	29
30	“ —Type		3-CD	3-CD		3-CD	3-CD	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft.	193	193		193 Each	193 Each	31
32	Brakes—Dynamic		Yes	Yes		No	No	32
33	Wt. On Rail—All Drivers	Lb.	257,800	250,400		257,200	250,000	33
34	“ “ “ —All Idlers	Lb.	—	—		129,900	124,500	34
35	“ “ “ —Total Unit	Lb.	257,800	250,400		387,100	374,500	35
36	Maximum Loco. Speed	M.P.H.	70	70		65	65	36
37	Starting Tractive Force, 25% Adhesion	Lb.	64,450	62,600		64,300	62,500	37
38	Max. Continuous Tractive Force	Lb.	48,600	48,600		42,800	42,800	38
39	Speed at Max. Cont. Tractive Force	M.P.H.	9.9	9.9		11.3	11.3	39
40	Fuel Tank Capacity—Total	Gals.	1200	1200		1200	1200	40
41	Water “ “ —Heating, Total	Gals.	—	—		1810	2310	41
42	“ “ “ —Eng. Cooling, Total	Gals.	310	369		575	575	42
43	Lubricating Oil—Engine, Total	Gals.	215	215		330	330	43
44	Steam Heat Generator—No. Per Unit		—	—		One	One	44
45	“ “ “ —Type		—	—		Vapor DRK-4530	Vapor DRK-4530	45
46	“ “ “ —Each, Lbs. Steam/Hr.		—	—		3000	3000	46
47								47
48								48
49								49
50								50
51								51
52	Remarks					Note 1	Note 1	52

Note 1.—Locos. converted from
Pass. BP-20.

September 1, 1956

ROAD DIESEL-ELECTRIC LOCOMOTIVES—HELPER SERVICE

	CLASSIFICATION		BH-50			
1	Wheel Arrangement Symbol	A.A.R.	*2(2-D+D-2)			1
2	Number of Engines, Each Cab		Two			2
3	Make of Engine		B-L-H Corp.			3
4	Model of Engine		608-SC			4
5	Number of Cylinders, Each Engine		8			5
6	Rated Horsepower, Each Engine		1250			6
7	Maximum Governed Speed	R.P.M.	625			7
8	Wheel Diameter	In.	42			8
9	Driving Axles, Number, Each Cab		8			9
10	Truck Axles, “ “ “		4			10
11	Journal, Driving Axle	In.	7 x 13			11
12	“ “ Truck Axle	In.	7 x 13			12
13	“ “ Bearings		Roller			13
14	Length of Truck Centers, Each Cab	Ft. In.	66-0			14
15	Wheel Base, Engine Truck	Ft. In.	7-2			15
16	“ “ Driving Truck,	Ft. In.	31-5			16
17	“ “ “ “ Rigid	Ft. In.	16-9			17
18	“ “ Each Cab	Ft. In.	73-2			18
19	“ “ Total Loco.	Ft. In.	164-8			19
20	Coupled Length, Total Loco.	Ft. In.	183-0			20
21	Main Generator, Each Cab		Two			21
22	“ “ Make		W.E. Corp.			22
23	“ “ Type		471-A			23
24	Traction Motors, Each Cab		8			24
25	“ “ Make		W.E. Corp.			25
26	“ “ Type		370-F			26
27	“ “ Gear Ratio		17 to 62			27
28	Electric Control—Voltage Total		64			28
29	Air Brake Schedule		24-RL			29
30	Compressors, Each Cab		Two			30
31	“ “ Make		W.A.B. Co.			31
32	“ “ Type		3-CD			32
33	“ “ Cap. At Full Eng. Speed	Cu. Ft.	193 Each			33
34	Brakes, Dynamic		No			34
35	Weight on Rail, Front Engine Truck	Lb.	94,070			35
36	“ “ “ Rear “ “	Lb.	90,640			36
37	“ “ “ Front Driving Truck	Lb.	204,000			37
38	“ “ “ Rear “ “	Lb.	205,000			38
39	“ “ “ All Drivers, Total Loco.	Lb.	818,000			39
40	“ “ “ Total Loco.	Lb.	1,187,420			40
41	Maximum Loco. Speed	M.P.H.	75			41
42	Starting Tract. Force, at 25% Adhesion	Lb.	204,500			42
43	Max. Continuous Tractive Force	Lb.	147,200			43
44	Speed at Max. Cont. Tractive Force	M.P.H.	9.8			44
45	Fuel Tank Cap., Total Loco.	Gals.	7000			45
46	Water “ “ Heating, Total Loco.	Gals.	5000			46
47	“ “ “ Eng. Cooling, Tot. Loco.	Gals.	1200			47
48	Lubricating Oil, Engine, Total Loco.	Gals.	760			48
49	Steam Heat Generator, No. Per Cab		One			49
50	“ “ “ Type		Vapor-4530			50
51	“ “ “ Each, Lbs. Steam/Hr.		3000			51
52	Train Phone & Cab Signals		Yes			52

*—Single Unit locomotive made up of two (2) cabs and frames connected by a draw bar, and cannot be used as separate units.
Converted from BP-60a.

September 1, 1956

ROAD DIESEL-ELECTRIC LOCOMOTIVES—FREIGHT

	CLASSIFICATION	EF-15	EF-15		EF-15a	EF-15a	
1	UNIT	A	B		A	B	1
2	Wheel Arrangement Symbol A.A.R.	B-B	B-B		B-B	B-B	2
3	Number of Engines, Per Unit	One	One		One	One	3
4	Make of Engine	E.M.D.	E.M.D.		E.M.D.	E.M.D.	4
5	Model of Engine	16-567-B	16-567-B		16-567-B	16-567-B	5
6	Number of Cylinders, Each Engine	16	16		16	16	6
7	Rated Horsepower, Each Engine	1500	1500		1500	1500	7
8	Maximum Governed Speed R.P.M.	800	800		800	800	8
9	Wheel Diameter In.	40	40		40	40	9
10	Driving Axles, Number	4	4		4	4	10
11	Idler Axles, Number	—	—		—	—	11
12	Journal, Driving Axle In.	6½ x 12	6½ x 12		6½ x 12	6½ x 12	12
13	“ Idler Axle In.	—	—		—	—	13
14	“ Bearings	Roller	Roller		Roller	Roller	14
15	Length of Truck Centers Ft. In.	30-0	30-0		30-0	30-0	15
16	Wheel Base—Truck Ft. In.	9-0	9-0		9-0	9-0	16
17	“ “ —Unit Ft. In.	39-0	39-0		39-0	39-0	17
18	Coupled Length of Unit Ft. In.	50-8½	50-0½		50-8	50-0	18
19	Main Generator	One	One		One	One	19
20	“ “ —Make	E.M.D.	E.M.D.		E.M.D.	E.M.D.	20
21	“ “ —Type	D-12	D-12		D-12	D-12	21
22	Traction Motors	4	4		4	4	22
23	“ “ —Make	E.M.D.	E.M.D.		E.M.D.	E.M.D.	23
24	“ “ —Type	D17B	D17B		D27B	D27B	24
25	“ “ —Gear Ratio	15 to 62	15 to 62		15 to 62	15 to 62	25
26	Electric Control—Voltage	64	64		64	64	26
27	Air Brake Schedule	24-RL	24-RL		24-RL	24-RL	27
28	Compressors	One	One		One	One	28
29	“ —Make	G. D.	G. D.		G. D.	G. D.	29
30	“ —Type	WXE	WXE		WXE	WXE	30
31	“ —Cap. At Full Eng. Speed Cu. Ft.	180	180		²²⁵ 180	²²⁵ 180	31
32	Brakes—Dynamic	Yes	Yes		Yes	Yes	32
33	Wt. On Rail—All Drivers Lb.	238,000	227,000		234,000	230,600	33
34	“ “ “ —All Idlers Lb.	—	—		—	—	34
35	“ “ “ —Total Unit Lb.	238,000	227,000		234,000	230,600	35
36	Maximum Loco. Speed M.P.H.	65	65		65	65	36
37	Starting Tractive Force, 25% Adhesion Lb.	59,500	56,750		58,500	57,650	37
38	Max. Continuous Tractive Force Lb.	32,500	32,500		40,000	40,000	38
39	Speed at Max. Cont. Tractive Force M.P.H.	14.25	14.25		11	11	39
40	Fuel Tank Capacity—Total Gals.	1200	1200		1200	1200	40
41	Water “ “ —Heating, Total Gals.	—	—		—	—	41
42	“ “ “ —Eng. Cooling, Total Gals.	230	215		230	215	42
43	Lubricating Oil—Engine, Total Gals.	200	200		200	200	43
44	Steam Heat Generator—No. Per Unit	—	—		—	—	44
45	“ “ “ —Type	—	—		—	—	45
46	“ “ “ —Each, Lbs. Steam/Hr.	—	—		—	—	46
47							47
48							48
49							49
50							50
51							51
52	Remarks		Note 1		Note 2	Note 2	52

Note 1.—“B” Units 9530, 9532, 9534, 9536 purchased from “Bangor & Aroostook R. R.”

Note 2.—Loco. Nos 9872-9879 have 1500 gal. Fuel Tanks.

ROAD DIESEL-ELECTRIC LOCOMOTIVES—FREIGHT

	CLASSIFICATION	EFP-15	EFP-15		EH-15	EH-15	EH-15	
1	UNIT	A	B		A	B	B	1
2	Wheel Arrangement Symbol	A.A.R.	B-B	B-B	B-B	B-B	B-B	2
3	Number of Engines, Per Unit		One	One	One	One	One	3
4	Make of Engine		E.M.D.	E.M.D.	E.M.D.	E.M.D.	E.M.D.	4
5	Model of Engine		16-567-B	16-567-B	16-567-B	16-567-B	16-567-B	5
6	Number of Cylinders, Each Engine		16	16	16	16	16	6
7	Rated Horsepower, Each Engine		1500	1500	1500	1500	1500	7
8	Maximum Governed Speed	R.P.M.	800	800	800	800	800	8
9	Wheel Diameter	In.	40	40	40	40	40	9
10	Driving Axles, Number		4	4	4	4	4	10
11	Idler Axles, Number		—	—	—	—	—	11
12	Journal, Driving Axle	In.	6½ x 12	6½ x 12	6½ x 12	6½ x 12	6½ x 12	12
13	“ Idler Axle	In.	—	—	—	—	—	13
14	“ Bearings		Roller	Roller	Roller	Roller	Roller	14
15	Length of Truck Centers	Ft. In.	34-0	30-0	30-0	30-0	30-0	15
16	Wheel Base—Truck	Ft. In.	9-0	9-0	9-0	9-0	9-0	16
17	“ “ —Unit	Ft. In.	43-0	39-0	39-0	39-0	39-0	17
18	Coupled Length of Unit	Ft. In.	54-8	50-0	50-8½	50-0½	50-0½	18
19	Main Generator		One	One	One	One	One	19
20	“ “ —Make		E.M.D.	E.M.D.	E.M.D.	E.M.D.	E.M.D.	20
21	“ “ —Type		D12	D12	D-12	D-12	D-12	21
22	Traction Motors		4	4	4	4	4	22
23	“ “ —Make		E.M.D.	E.M.D.	E.M.D.	E.M.D.	E.M.D.	23
24	“ “ —Type		D27B	D27B	D ^{D7E} _{D27E}	D ^{D7E} _{D27E}	D ^{D7E} _{D27E}	24
25	“ “ —Gear Ratio		17 to 60	17 to 60	12 to 65	12 to 65	12 to 65	25
26	Electric Control—Voltage		64	64	64	64	64	26
27	Air Brake Schedule		24-RL	24-RL	24-RL	24-RL	24-RL	27
28	Compressors		One	One	One	One	One	28
29	“ —Make		G. D.	G. D.	G. D.	G. D.	G. D.	29
30	“ —Type		WXO	WXO	WXE	WXE	WXE	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft.	225	225	180	180	180	31
32	Brakes—Dynamic		Yes	Yes	Yes	Yes	Yes	32
33	Wt. On Rail—All Drivers	Lb.	260,000	247,000	238,000	234,800	227,000	33
34	“ “ “ —All Idlers	Lb.	—	—	—	—	—	34
35	“ “ “ —Total Unit	Lb.	260,000	247,000	238,000	234,800	227,000	35
36	Maximum Loco. Speed	M.P.H.	77	77	50	50	50	36
37	Starting Tractive Force, 25% Adhesion	Lb.	65,000	61,750	59,500	58,700	56,750	37
38	Max. Continuous Tractive Force	Lb.	34,000	34,000	42,500	42,500	42,500	38
39	Speed at Max. Cont. Tractive Force	M.P.H.	13.2	13.2	11	11	11	39
40	Fuel Tank Capacity—Total	Gals.	1200	1200	1200	1200	1200	40
41	Water “ “ —Heating, Total	Gals.	1180	1400	—	—	—	41
42	“ “ “ —Eng. Cooling, Total	Gals.	230	215	230	215	215	42
43	Lubricating Oil—Engine, Total	Gals.	200	200	200	200	200	43
44	Steam Heat Generator—No. Per Unit		One	One	—	—	—	44
45	“ “ “ —Type		Vapor OK-4625	Vapor OK-4625	—	—	—	45
46	“ “ “ —Each, Lbs. Steam/Hr.		2500	2500	—	—	—	46
47								47
48								48
49								49
50								50
51							Note 1	51
52	Remarks				Note 2	Note 2	Note 2	52

Note 1.—Weights for Loco. No's. 9518-B, 9542-B, 9544-B only.

Note 2.—Locos. with Low Speed Gearing for Helper Service

September 1, 1956

ROAD DIESEL-ELECTRIC LOCOMOTIVES—FREIGHT

31

	CLASSIFICATION	FF-16	FF-16	FF-20	FF-20		
1	UNIT	A	B	A	B		1
2	Wheel Arrangement Symbol	A.A.R.	B-B	B-B	A1A-A1A	A1A-A1A	2
3	Number of Engines, Per Unit	One	One	One	One		3
4	Make of Engine	F.M. Co.	F.M. Co.	F.M. Co.	F.M. Co.		4
5	Model of Engine	38D8½	38D8½	38D8½	38D8½		5
6	Number of Cylinders, Each Engine	8	8	10	10		6
7	Rated Horsepower, Each Engine	1600	1600	2000	2000		7
8	Maximum Governed Speed	R.P.M.	850	850	850	850	8
9	Wheel Diameter	In.	42	42	42	42	9
10	Driving Axles, Number		4	4	4	4	10
11	Idler Axles, Number		—	—	Two	Two	11
12	Journal, Driving Axle	In.	6½ x 12	6½ x 12	6½ x 12	6½ x 12	12
13	“ Idler Axle	In.	—	—	6½ x 12	6½ x 12	13
14	“ Bearings		Roller	Roller	Roller	Roller	14
15	Length of Truck Centers	Ft. In.	34-0	34-0	36-5	36-5	15
16	Wheel Base—Truck	Ft. In.	9-4	9-4	15-6	15-6	16
17	“ “ —Unit	Ft. In.	43-4	43-4	51-11	51-11	17
18	Coupled Length of Unit	Ft. In.	56-6	56-6	64-10	64-10	18
19	Main Generator		One	One	One	One	19
20	“ “ —Make		W.E. Corp.	W.E. Corp.	G.E. Corp.	G.E. Corp.	20
21	“ “ —Type		497-B	497-B	GT-567	GT-567	21
22	Traction Motors		4	4	4	4	22
23	“ “ —Make		W.E. Corp.	W.E. Corp.	G.E. Co.	G.E. Co.	23
24	“ “ —Type		370-G	370-G	746	746	24
25	“ “ —Gear Ratio		15 to 63	15 to 63	17 to 70	17 to 70	25
26	Electric Control—Voltage		64	64	64	64	26
27	Air Brake Schedule		24-RL	24-RL	24-RL	24-RL	27
28	Compressors		One	One	One	One	28
29	“ —Make		W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	29
30	“ —Type		3-CD	3-CD	3-CDB	3-CDB	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft.	262	262	262	262	31
32	Brakes—Dynamic		Yes	Yes	Yes	Yes	32
33	Wt. On Rail—All Drivers	Lb.	258,000	254,000	245,720	245,140	33
34	“ “ “ —All Idlers	Lb.	—	—	109,440	108,960	34
35	“ “ “ —Total Unit	Lb.	258,000	254,000	355,160	354,100	35
36	Maximum Loco. Speed	M.P.H.	66.4	66.4	69	69	36
37	Starting Tractive Force, 25% Adhesion	Lb.	64,500	63,500	61,430	61,285	37
38	Max. Continuous Tractive Force	Lb.	42,800	42,800	41,000	41,000	38
39	Speed at Max. Cont. Tractive Force	M.P.H.	11.7	11.7	15.5	15.5	39
40	Fuel Tank Capacity—Total	Gals.	1200	1200	1650	1650	40
41	Water “ “ —Heating, Total	Gals.	—	—	—	—	41
42	“ “ “ —Eng. Cooling, Total	Gals.	330	330	490	490	42
43	Lubricating Oil—Engine, Total	Gals.	330	330	380	380	43
44	Steam Heat Generator—No. Per Unit		—	—	—	—	44
45	“ “ “ —Type		—	—	—	—	45
46	“ “ “ —Each, Lbs. Steam/Hr.		—	—	—	—	46
47							47
48							48
49							49
50							50
51							51
52	Remarks			Note 1			52

Note 1.—Loco. Nos. 9480-9491 not equipped with dynamic brake.

September 1, 1956

ROAD DIESEL-ELECTRIC LOCOMOTIVES—PASSENGER

	CLASSIFICATION	BP-20	BP-20	EP-20	EP-20	EP-22	
1	UNIT	A	B	A	B	A	1
2	Wheel Arrangement Symbol	A.A.R. A1A-A1A	A1A-A1A	A1A-A1A	A1A-A1A	A1A-A1A	2
3	Number of Engines, Per Unit	Two	Two	Two	Two	Two	3
4	Make of Engine	B-L-H Corp	B-L-H Corp	E.M.D.	E.M.D.	E.M.D.	4
5	Model of Engine	606-SC	606-SC	12-567A	12-567A	12-567B	5
6	Number of Cylinders, Each Engine	6	6	12	12	12	6
7	Rated Horsepower, Each Engine	1000	1000	1000	1000	1125	7
8	Maximum Governed Speed	R.P.M. 625	625	800	800	800	8
9	Wheel Diameter	In. 42	42	36	36	36	9
10	Driving Axles, Number	4	4	4	4	4	10
11	Idler Axles, Number	Two	Two	Two	Two	Two	11
12	Journal, Driving Axle	In. 7 x 13	7 x 13	6½ x 12	6½ x 12	6½ x 12	12
13	“ Idler Axle	In. 7 x 13	7 x 13	6½ x 12	6½ x 12	6½ x 12	13
14	“ Bearings	Roller	Roller	Roller	Roller	Roller	14
15	Length of Truck Centers	Ft. In. 46-3½	46-3½	43-0	43-0	43-0	15
16	Wheel Base—Truck	Ft. In. 15-6	15-6	14-1	14-1	14-1	16
17	“ “ —Unit	Ft. In. 61-9½	61-9½	57-1	57-1	57-1	17
18	Coupled Length of Unit	Ft. In. 80-0	78-2½	71-1¼	70-0	70-3	18
19	Main Generator	Two	Two	Two	Two	Two	19
20	“ “ —Make	W.E. Corp.	W.E. Corp.	E.M.D.	E.M.D.	E.M.D.	20
21	“ “ —Type	471-A	471-A	D4D	D4D	D15B	21
22	Traction Motors	4	4	4	4	4	22
23	“ “ —Make	W.E. Corp.	W.E. Corp.	E.M.D.	E.M.D.	E.M.D.	23
24	“ “ —Type	370-DP	370-DP	D17B	D17B	D27B	24
25	“ “ —Gear Ratio	22 to 57	22 to 57	22 to 55	22 to 55	22 to 55	25
26	Electric Control—Voltage	64	64	64	64	64	26
27	Air Brake Schedule	24-RL	24-RL	24-RL	24-RL	24-RL	27
28	Compressors	Two	Two	Two	Two	Two	28
29	“ —Make	W.A.B. Co.	W.A.B. Co.	G. D.	G. D.	G. D.	29
30	“ —Type	3-CD	3-CD	ADX	ADX	ABO	30
31	“ —Cap. At Full Eng. Speed	Cu. Ft. 193 Each	193 Each	89 Each	89 Each	112 Each	31
32	Brakes—Dynamic	No	No	No	No	No	32
33	Wt. On Rail—All Drivers	Lb. 257,200	250,000	215,400	206,300	226,000	33
34	“ “ —All Idlers	Lb. 129,900	124,500	104,200	99,800	109,000	34
35	“ “ —Total Unit	Lb. 387,100	374,500	319,600	306,100	335,000	35
36	Maximum Loco. Speed	M.P.H. 100	100	98	98	98	36
37	Starting Tractive Force, 25% Adhesion	Lb. 64,300	62,500	53,850	51,575	56,500	37
38	Max. Continuous Tractive Force	Lb. 26,400	26,400	18,750	18,750	23,500	38
39	Speed at Max. Cont. Tractive Force	M.P.H. 23.8	23.8	34	34	30	39
40	Fuel Tank Capacity—Total	Gals. 1200	1200	1200	1200	1200	40
41	Water “ “ —Heating, Total	Gals. 1810	2310	1600	2100	1950	41
42	“ “ —Eng. Cooling, Total	Gals. 575	575	300	300	400	42
43	Lubricating Oil—Engine, Total	Gals. 330	330	330	330	330	43
44	Steam Heat Generator—No. Per Unit	One	One	One	One	Two	44
45	“ “ “ —Type	Vapor DRK-4530	Vapor DRK-4530	Vapor DRK-4530	Vapor DRK-4530	Vapor OK-4625	45
46	“ “ “ —Each, Lbs. Steam/Hr.	3000	3000	3000	3000	2500	46
47							47
48							48
49							49
50							50
51							51
52	Remarks						52

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ELECTRIC LOCOMOTIVES

	CLASSIFICATION	B1	DD1	DD2	
1	Number of Units Per Loco.	One	One	One	1
2	Wheel Arrangement Symbol A.A.R.	C	2-B+B-2	2-B+B-2	2
3	“ Diameter—Drivers In.	62	72	62	3
4	“ “ —Trucks In.	—	36	36	4
5	Axles, Drivers	3	4	4	5
6	“ Trucks	—	4	4	6
7	Journal, Drivers In.	6½ x 12	10 x 13½	8½ x 13	7
8	“ Trucks	—	6½ x 12	6½ x 12	8
9	Bearings, Driver	Plain	Plain	Roller	9
10	“ Trucks	—	Plain	Roller	10
11	Number of Trucks	—	Two	Two	11
12	Truck Centers—End Trucks Ft. In.	—	49-4	53-10	12
13	Wheel Base—Truck Ft. In.	—	6-7	7-2	13
14	“ “ —Rigid Ft. In.	12-8	7-2	10-9	14
15	“ “ —Unit Ft. In.	—	—	—	15
16	“ “ —Loco. Ft. In.	12-8	55-11	61-0	16
17	Coupled Length—Unit Ft. In.	—	—	—	17
18	“ “ —Loco Ft. In.	31-6	64-11	72-6¼	18
19	Max. Height—over Cab Ft. In.	14-4 ¹³ / ₁₆	13-1 ¹ / ₁₆	14-8¼	19
20	“ “ —Pantograph Down Ft. In.	15-0	14-8 ¹ / ₁₆	15-0	20
21	* “ Width Ft. In.	10-1	11-2¼	10-7 ¹¹ / ₁₆	21
22	Drive, Type of	Gears	Rods & Jack Shaft	Geared Quill	22
23	Current Collectors	Pantograph	Pantograph & 3rd Rail Shoes	Pantograph	23
24	Line Voltage	11,000 25-Cycle	650-D.C.	11,000 25-Cycle	24
25	Traction Motors—Class	A.C.	D.C.	A.C.	25
26	“ “ —Voltage	235	650	340	26
27	“ “ —Make	W.E. or A.C.	W.E. Corp.	W.E. Corp.	27
28	“ “ —Type	137-B 100	315-A	428-A	28
29	“ “ —Number	3	Two	8	29
30	“ “ —Gear Ratio	16 to 87	—	21 to 83	30
31	Control, Master Type	Electro-Pneumatic	Electro-Pneumatic	Electro-Pneumatic	31
32	Electric Control Voltage	32 V	20 V	32 V	32
33	Traction Motor Blowers—Number & H.P. Each	One-10	—	2-90	33
34	“ “ “ —Capacity, Each	—	—	—	34
35	Transformer Blower—No. & H.P. Each	—	—	1-50	35
36	“ “ —Capacity, Each	—	—	—	36
37	Air Brake Schedule	No.6 & No.8	No. 6	No. 8	37
38	Compressors—Number	One	Two	Two	38
39	“ —Make	W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	39
40	“ —Type	CA-150-A	C-60	CA-150-B	40
41	“ —Capacity Cu. Ft.	150	60	150	41
42	Weight on Rail—All Drivers, Lbs.	157,000	203,400	286,000	42
43	“ “ “ —All Trucks, Lbs.	—	125,000	164,000	43
44	“ “ “ —Loco., Total Lbs.	157,000	328,400	450,000	44
45	Max. Loco. Speed M.P.H.	25	80	70	45
46	Starting Tractive Force, 25% Adhesion Lbs.	39,250	50,850	71,500	46
47	Rating Continuous Horse Power	570	1580	5000	47
48	“ “ Tractive Force Lbs.	13,500	10,200	38,300	48
49	“ “ Speed M.P.H.	15.9	58	49	49
50	Brakes—Dynamic	No	No	No	50
51			See Note	See Note	51
52	Remarks		D.C. Current	No. 5800	52

*—Including Window Guards.

Note—“DD1”—Two Cabs and Frames Connected by Draw Bars.

Note—“DD2”—One Cab and Two Frames

ELECTRIC LOCOMOTIVES

	CLASSIFICATION	GG1	GG-1 Prior 1-1-37	GG-1 After 1-1-37	GG-1 After 12-1-38	GG-1 After 6-1-39	
1	Number of Units Per Loco.	One	One	One	One	One	1
2	Wheel Arrangement Symbol	A.A.R. 2-C+C-2	2-C+C-2	2-C+C-2	2-C+C-2	2-C+C-2	2
3	“ Diameter—Drivers	In. 57	57	57	57	57	3
4	“ “ —Trucks	In. 36	36	36	36	36	4
5	Axles, Drivers	6	6	6	6	6	5
6	“ Trucks	4	4	4	4	4	6
7	Journal, Drivers	In. 6½ x 12	6½ x 12	6½ x 12	6½ x 12	6½ x 12	7
8	“ Trucks	6½ x 12	6 x 11	6 x 11	6 x 11	6 x 11	8
9	Bearings, Driver	Roller	Roller	Roller	Roller	Roller	9
10	“ Trucks	Roller	Roller	Roller	Roller	Roller	10
11	Number of Trucks	Two	Two	Two	Two	Two	11
12	Truck Centers—End Trucks	Ft. In. 61-0	61-0	61-0	61-0	61-0	12
13	Wheel Base—Truck	Ft. In. 8-0	8-0	8-0	8-0	8-0	13
14	“ “ —Rigid	Ft. In. 13-8	13-8	13-8	13-8	13-8	14
15	“ “ —Unit	Ft. In. —	—	—	—	—	15
16	“ “ —Loco.	Ft. In. 69-0	69-0	69-0	69-0	69-0	16
17	Coupled Length—Unit	Ft. In. —	—	—	—	—	17
18	“ “ —Loco	Ft. In. 79-6	79-6	79-6	79-6	79-6	18
19	Max. Height—over Cab	Ft. In. 14-3 ¹⁹ / ₃₂	14-3 ¹¹ / ₃₂	14-3 ¹¹ / ₃₂	14-3 ¹¹ / ₃₂	14-3 ¹¹ / ₃₂	19
20	“ “ —Pantograph Down	Ft. In. 15-0	15-0	15-0	15-0	15-0	20
21	* “ Width	Ft. In. 10-6	10-4 ³ / ₁₆	10-4 ³ / ₁₆	10-4 ³ / ₁₆	10-4 ³ / ₁₆	21
22	Drive, Type of	Geared Quill	Geared Quill	Geared Quill	Geared Quill	Geared Quill	22
23	Current Collectors	Pantograph	Pantograph	Pantograph	Pantograph	Pantograph	23
24	Line Voltage	11,000 25-Cycle	11,000 25-Cycle	11,000 25-Cycle	11,000 25-Cycle	11,000 25-Cycle	24
25	Traction Motors—Class	A.C.	A.C.	A.C.	A.C.	A.C.	25
26	“ “ —Voltage	340	340	340	340	340	26
27	“ “ —Make	G.E.	G.E. or W.E	G.E. or W.E	G.E. or W.E	G.E. or W.E	27
28	“ “ —Type	627	627 427	627 427	627 427	627 427	28
29	“ “ —Number	12	12	12	12	12	29
30	“ “ —Gear Ratio	24 to 77	22 to 79	24 to 77	24 to 77	24 to 77	30
31	Control, Master Type	Electro-Pneumatic	Electro-Pneumatic	Electro-Pneumatic	Electro-Pneumatic	Electro-Pneumatic	31
32	Electric Control Voltage	32 V	32 V	32 V	32 V	32 V	32
33	Traction Motor Blowers—Number & H.P. Each	Two-52	Two-55	Two-55	Two-55	Two-55	33
34	“ “ “ —Capacity, Each						34
35	Transformer Blower—No. & H.P. Each	Note	Note	Note	Note	Note	35
36	“ “ —Capacity	26,000	25,000	25,000	25,000	25,000	36
37	Air Brake Schedule	No. 8	No. 8	No. 8	No. 8	No. 8	37
38	Compressors—Number	One	One	One	One	One	38
39	“ —Make	W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	39
40	“ —Type	CA-150-A	CA-150-A	CA-150-A	CA-150-A	CA-150-A	40
41	“ —Capacity	Cu. Ft. 150	150	150	150	150	41
42	Weight on Rail—All Drivers.	Lbs. 303,000	300,000	303,000	300,000	303,000	42
43	“ “ “ —All Trucks,	Lbs. 172,000	160,000	174,000	168,400	174,000	43
44	“ “ “ —Loco., Total	Lbs. 475,000	460,000	477,000	468,000	477,000	44
45	Max. Loco. Speed	M.P.H. 100	90	100	100	100	45
46	Starting Tractive Force,	Lbs. 70,700	Δ75,000	70,700	70,700	70,700	46
47	Rating Continuous Horse Power	4620	4620	4620	4620	4620	47
48	“ “ Tractive Force	Lbs. 17,300	19,250	17,300	17,300	17,300	48
49	“ “ Speed	M.P.H. 100	90	100	100	100	49
50	Brakes—Dynamic	No	No	No	No	No	50
51							51
52	Remarks	No. 4800					52

*Including Window Guards

Δ--25% Adhesion

Note:—Transformer Air from Traction Motor Blowers.

September 1, 1956

ELECTRIC LOCOMOTIVES

	CLASSIFICATION	L6	L6	L6a		O1a	O1c	
1	Number of Units Per Loco.	One	One	One		One	One	1
2	Wheel Arrangement Symbol	A.A.R.	1-D-1	1-D-1	1-D-1		2-B-2	2-B-2
3	“ Diameter—Drivers	In.	62	62	62		72	72
4	“ “ —Trucks	In.	36	36	36		36	36
5	Axles, Drivers		4	4	4		Two	Two
6	“ Trucks		Two	Two	Two		4	4
7	Journal, Drivers	In.	8½ x 13	8½ x 13	8½ x 13		8½ x 13	8½ x 13
8	“ Trucks	In.	6½ x 12	6½ x 12	6½ x 12		6 x 11	6 x 11
9	Bearings, Driver		Roller	Roller	Roller		Roller	Roller
10	“ Trucks		Roller	Roller	Roller		Roller	Roller
11	Number of Trucks		Two	Two	Two		Two	Two
12	Truck Centers—End Trucks	Ft. In.	36-0	36-0	36-0		33-0	33-0
13	Wheel Base—Truck	Ft. In.	—	—	—		6-10	6-10
14	“ “ —Rigid	Ft. In.	20-0	20-0	20-0		10-0	10-0
15	“ “ —Unit	Ft. In.	—	—	—		—	—
16	“ “ —Loco.	Ft. In.	36-0	36-0	36-0		39-10	39-10
17	Coupled Length—Unit	Ft. In.	—	—	—		—	—
18	“ “ —Loco	Ft. In.	51-10	51-10	51-10		52-8	52-8
19	Max. Height—over Cab	Ft. In.	12-8	12-8	12-8		12-8	12-8
20	“ “ —Pantograph Down	Ft. In.	15-0	15-0	15-0		15-0	15-0
21	* “ Width	Ft. In.	10-8½	10-8½	10-8½		10-8½	10-8½
22	Drive, Type of		Gears	Gears	Gears		Geared Quill	Geared Quill
23	Current Collectors		Pantograph	Pantograph	Pantograph		Pantograph	Pantograph
24	Line Voltage		11,000 25-Cycle	11,000 25-Cycle	11,000 25-Cycle		11,000 25-Cycle	11,000 25-Cycle
25	Traction Motors—Class		A.C.	A.C.	A.C.		A.C.	A.C.
26	“ “ —Voltage		275	275	275		225	275
27	“ “ —Make		W.E. Co.	G.E. Co.	W.E. Co.		G.E. Co.	W.E. Co. G.E. Co.
28	“ “ —Type		425-B	G.E.A. 625-B	425-B		619-A	425-A 625-A
29	“ “ —Number		4	4	4		4	4
30	“ “ —Gear Ratio		20 to 86	23 to 98	20 to 86		36 to 103	31 to 91
31	Control, Master Type		Electro-Pneumatic	Electro-Pneumatic	Electro-Pneumatic		Electro-Pneumatic	Electro-Pneumatic
32	Electric Control Voltage		32 V	32 V	32 V		32 V	32 V
33	Traction Motor Blowers—Number & H.P. Each		2-18½	2-18½	2-18½		2-15	2-18½
34	“ “ “ —Capacity, Each		10750	10750	13000		10000	10750
35	Transformer Blower—No. & H.P. Each		1-18½	1-18½	1-18½		1-15	1-18½
36	“ “ “ —Capacity, Each		8000	8000	8000		10,000	8000
37	Air Brake Schedule		No. 8	No. 8	No. 8		No. 8	No. 8
38	Compressors—Number		One	One	One		One	One
39	“ —Make		W.A.B. Co.	W.A.B. Co.	W.A.B. Co.		W.A.B. Co.	W.A.B. Co.
40	“ —Type		CA-150-A	CA-150-A	CA-150-A		CA-150-A	CA-150-A
41	“ —Capacity	Cu. Ft.	150	150	150		150	150
42	Weight on Rail—All Drivers, Unit	Lbs.	220,000	220,000	221,000		156,100	150,000
43	“ “ “ —All Trucks, Loco.	Lbs.	80,000	80,000	84,110		153,300	150,000
44	“ “ “ —Loco., Total	Lbs.	300,000	300,000	305,110		309,400	300,000
45	Max. Loco. Speed	M.P.H.	54	54	54		90	90
46	Starting Tractive Force,	Lbs.	Δ55,000	Δ55,000	Δ55,250		33,500	33,500
47	Rating Continuous Horse Power		2500	2500	2500		2500	2500
48	“ “ Tractive Force	Lbs.	25,000	25,000	25,000		14,900	14,900
49	“ “ Speed	M.P.H.	37.5	37.5	37.5		63	63
50	Brakes—Dynamic		No	No	No		No	No
51								
52	Remarks		No. 5938	No. 5939	No. 5940		No. 7853	No. 7857

*Including Window Guards.

Δ—25% Adhesion.

ELECTRIC LOCOMOTIVES

	CLASSIFICATION	P5	P5a Bef'r 5-1-34	P5a After 5-1-34	P5b		
1	Number of Units Per Loco.	One	One	One	One		1
2	Wheel Arrangement Symbol	A.A.R.	2-C-2	2-C-2	2-C-2		2
3	“ Diameter—Drivers	In.	72	72	72		3
4	“ “ —Trucks	In.	36	36	36		4
5	Axles, Drivers		3	3	3		5
6	“ Trucks		4	4	4	4 (Drivers)	6
7	Journal, Drivers	In.	8½ x 13	8½ x 13	8½ x 13	8½ x 13	7
8	“ Trucks		6 x 11	6 x 11	6 x 11	6 x 11	8
9	Bearings, Driver		Roller	Roller	Roller	Roller	9
10	“ Trucks		Roller	Roller	Roller	Roller	10
11	Number of Trucks		Two	Two	Two	Two	11
12	Truck Centers—End Trucks	Ft. In.	43-0	43-0	43-0	43-0	12
13	Wheel Base—Truck	Ft. In.	6-10	6-10	6-10	7-10	13
14	“ “ —Rigid	Ft. In.	20-0	20-0	20-0	20-0	14
15	“ “ —Unit	Ft. In.	—	—	—	—	15
16	“ “ —Loco.	Ft. In.	49-10	49-10	49-10	50-10	16
17	Coupled Length—Unit	Ft. In.	—	—	—	—	17
18	“ “ —Loco	Ft. In.	62-8	62-8	62-8	62-8	18
19	Max. Height—over Cab	Ft. In.	12-8	12-8	14-6 ³ / ₂	12-8	19
20	“ “ —Pantograph Down	Ft. In.	15-0	15-0	15-0	15-0	20
21	* “ Width	Ft. In.	10-8 ³ / ₈	10-8 ⁵ / ₈	10-8 ¹ / ₄	10-8 ⁵ / ₈	21
22	Drive, Type of		Geared Quill	Geared Quill	Geared Quill	Geared Quill	22
23	Current Collectors		Pantograph	Pantograph	Pantograph	Pantograph	23
24	Line Voltage		^{11,000} 25-Cycle	^{11,000} 25-Cycle	^{11,000} 25-Cycle	^{11,000} 25-Cycle	24
25	Traction Motors—Class		A.C.	A.C.	A.C.	A.C.	25
26	“ “ —Voltage		275	275	275	275	26
27	“ “ —Make		W.E. Co. G.E. Co.	W.E. Co. G.E. Co.	W.E. Co. G.E. Co.	W.E. Co. G.E. Co.	27
28	“ “ —Type		425-A 625-A	425-A 625-A	425-A 625-A	425-A 625-A	28
29	“ “ —Number		6	6	6	10	29
30	“ “ —Gear Ratio		25 to 97	25 to 97	25 to 97	25 to 97	30
31	Control, Master Type		Electro- Pneumatic	Electro- Pneumatic	Electro- Pneumatic	Electro- Pneumatic	31
32	Electric Control Voltage		32 V	32 V	32 V	32 V	32
33	Traction Motor Blowers—Number & H.P. Each		3-18½	3-35	²⁻³⁵ 1-18½	3-35	33
34	“ “ “ —Capacity, Each		10750	13000	19500	12000	34
35	Transformer Blower—No. & H.P. Each		1-18½	1-18½	1-18½	¹⁻³⁵ 2-52½	35
36	“ “ —Capacity, Each		8000	8000	8000	^{**1-13000} 1-16000, 1-7000	36
37	Air Brake Schedule		No. 8	No. 8	No. 8	No. 8	37
38	Compressors—Number		One	One	One	One	38
39	“ —Make		W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	W.A.B. Co.	39
40	“ —Type		CA-150-A	CA-150-A	CA-150-A	CA-150-A	40
41	“ —Capacity	Cu. Ft.	150	150	150	150	41
42	Weight on Rail—All Drivers, Unit	Lbs.	220,000	220,000	229,000	233,400	42
43	“ “ “ —All Trucks, Loco.	Lbs.	172,000	172,000	165,000	^{211,300} Drivers	43
44	“ “ “ —Loco., Total	Lbs.	392,000	392,000	394,000	444,700	44
45	Max. Loco. Speed	M.P.H.	70	70	70	70	45
46	Starting Tractive Force, 25% Adhesion	Lbs.	55,000	55,000	57,250	80,000	46
47	Rating Continuous Horse Power		3750	3750	3750	5350	47
48	“ “ Tractive Force	Lbs.	28,700	28,700	28,700	41,000	48
49	“ “ Speed	M.P.H.	49	49	49	49	49
50	Brakes—Dynamic		No	No	No	No	50
51						No. 4702	51
52	Remarks		No. 4700	Box Type	Streamlined	See Note	52

*—Including Window Guards.

**—Cools Transformer, Truck Motors
and Associated Equipment

Note: —Engine Truck Motor, Class & Voltage—A.C. 340.

Engine Truck Motor, Gear Ratio—17 to 50.

Note: —“R1”—Transformer Cooling Air from Traction Motor Blower.

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ELECTRIC LOCOMOTIVES (EXPERIMENTAL)

	CLASSIFICATION		E2B		E2C		E3B	
1	Number of Units Per Loco.		Two		Two		Two	1
2	Wheel Arrangement Symbol	A.A.R.	2(B-B)		2(C-C)		2(B-B-B)	2
3	“ Diameter—Drivers	In.	48		44		44	3
4	“ “ —Trucks	In.	—		—		—	4
5	Axles, Drivers—No. per unit		4		6		6	5
6	“ Trucks — “ “ “		—		—		—	6
7	Journal, Drivers	In.	7 x 12		6½ x 12		6½ x 12	7
8	“ Trucks	In.	—		—		—	8
9	Bearings, Driver		Roller		Roller		Roller	9
10	“ Trucks		—		—		—	10
11	Number of Driving Trucks, per unit		Two		Two		3	11
12	Truck Centers—End Trucks, Unit	Ft. In.	28-10		33-8		33-8	12
13	Wheel Base—Truck (Each)	Ft. In.	11-0		16-5		9-6	13
14	“ “ —Rigid	Ft. In.	11-0		16-5		9-6	14
15	“ “ —Unit	Ft. In.	39-10		43-2		43-2	15
16	“ “ —Loco.	Ft. In.	94-1		104-5		104-5	16
17	Coupled Length—Unit	Ft. In.	54-3		62-0		62-0	17
18	“ “ —Loco	Ft. In.	108-6		124-0		124-0	18
19	Max. Height—over Cab	Ft. In.	14-0		14-7⅞		14-7⅞	19
20	“ “ —Pantograph Down	Ft. In.	15-0		15-0		15-0	20
21	* “ Width	Ft. In.	10-7		10-5½		10-5½	21
22	Drive, Type of		Gears		Gears		Gears	22
23	Current Collectors		Pantograph		Pantograph		Pantograph	23
24	Line Voltage		^{11,000} 25-Cycle		^{11,000} 25-Cycle		^{11,000} 25-Cycle	24
25	Traction Motors—Class		A.C.		ΔD.C.		ΔD.C.	25
26	“ “ —Voltage		750		600		600	26
27	“ “ —Make		G.E. Co.		W.E. Co.		W.E. Co.	27
28	“ “ —Type		G.E.A. 632-B		370-DZ		370-DZ	28
29	“ “ —Number (Per Unit)		4		6		6	29
30	“ “ —Gear Ratio		21 to 83		15 to 68		15 to 68	30
31	Control, Master Type		Electro-Pneumatic		Electro-Pneumatic		Electro-Pneumatic	31
32	Electric Control Voltage		32 V		32 V		32 V	32
33	Traction Motor Blowers—Number & H.P. Each		4-27		3-53		3-53	33
34	“ “ “ —Capacity, Each		7550		18000		18000	34
35	Transformer Blower—No. & H.P. Each		2-6¼		1-29		1-29	35
36	“ “ “ —Capacity, Each		4000		13000		13000	36
37	Air Brake Schedule							37
38	Compressors—Number		One		One		One	38
39	“ —Make		W.A.B. Co.		W.A.B. Co.		W.A.B. Co.	39
40	“ —Type		3-CD		3-CD		3-CD	40
41	“ —Capacity	Cu. Ft.	223		223		223	41
42	Weight on Rail—All Drivers, Unit	Lbs.	245500		361980		378000	42
43	“ “ “ —All Trucks, Loco.	Lbs.	—		—		—	43
44	“ “ “ —Loco., Total	Lbs.	491000		723960		756000	44
45	Max. Loco. Speed	M.P.H.	65		63		63	45
46	Starting Tractive Force, 25% Adhes. Loco.	Lbs.	122750		180990		189000	46
47	Rating Continuous Horse Power—Loco.		5000		6000		6000	47
48	“ “ Tractive Force—Loco.	Lbs.	70800		132000		132000	48
49	“ “ Speed	M.P.H.	26.5		17		17	49
50	Brakes—Dynamic		Yes		Yes		Yes	50
51			Note-1		Note-2		Note-2	51
52	Remarks							52

*—Including Window Guards.
Δ—Uses Rectifiers

Note 1—“E2B”—2 Blowers Dynamic Brake
Grids 65 H.P.—12000 Cu. Ft.

Note 2—“E2C, E3B”—1 Blower 35 H.P.—40000 Cu. Ft.
Brake Resistor-Radiator.

TENDERS—CLASSIFICATION AND DESCRIPTION

In this classification, tenders are given a primary number to designate the approximate water capacity in hundreds of gallons for the original design, a letter to denote the type, another number to indicate the height of deck plate in even inches above the rail, small suffix letters are used to indicate modifications or redesign in class of tender.

Thus: 210 F 75 indicates 21000 gallons of water, freight tender, and 75 ¼" deck; while 210 F 75a indicates a change of original design.

Heights given above rail are for empty tenders, unless otherwise noted.

Coal capacity is heaped load.

The letter "P" represents "Passenger Type."

The letter "F" represents "Freight Type."

The letter "S" represents "Switching Type."

Tender trucks are classified by the following symbols:

1. Number of axles per truck.
2. A. A. R. Axle classification as follows:

A. A. R. Class	D	E	F
Size of Journal	5 ½" x 10"	6" x 11"	6 ½" x 12"
Capacity per Axle	40000	50000	60000

3. "Dash" for standard A. A. R. axle or number for deviation therefrom.
4. "T" indicating tender truck or "F" for Freight Car Trucks.
5. Serial number of design

Thus: 2F-T2 indicates truck with two axles having 6 ½" x 12" journals A. A. R. standard, designed for tender service and the second design for same capacity and service. See E417453.

TENDER CLASSES

Class 55 S 66a,	formerly 5500 gals. Sloping, 66" deck. Channel Frame.
Class 60 S 66,	formerly 6000 gals. Sloping, 66" deck. Channel Frame
Class 60 S 66a,	formerly 6000 gals. Sloping, 66" deck. H-Beam Frame.
Class 70 P 58f,	45° Slope Sheet.
Class 70 F 66b,	formerly 7000 gals. 66" deck. 17'8" T. C. Channel Frame.
Class 70 F 70,	formerly 7000 gals. 70" deck. 14'-8" T. C. Channel Frame.
Class 70 F 70a,	formerly 7000 gals. 70" deck. 17'-8" T. C. Channel Frame.
Class 70 F 70c,	formerly Class 3D-Lines West.
Class 70 F 70e	45° Slope Sheet.
Class 70 P 70a,	formerly 7000 gals. 70" deck. 17'-8" T. C. H-Beam Frame.
Class 70 P 70b,	formerly 7000 gals. 70" deck. 17'-8" T. C. H-Beam Frame.
Class 70 P 70d,	45° Slope Sheet.
Class 70 F 77,	formerly Class 6A—Lines West.
Class 70 P 78,	formerly Class 7A—Lines West.
Class 80 P 81,	formerly Class (7B—Fort Wayne) Lines West.
Class 80 P 81a,	Stoker. ("HT" and Berkley). H 10s Loco.
Class 80 F 81b,	45° Slope Sheet. (Curved Top). H 10s Loco.
Class 90 F 75,	formerly 9000 gals. with Stoker. Converted from 90 F 66 or 90 F 82 for L1s. (After 4-1-1941.)
Class 90 F 80,	formerly 7D—Lines West. (Oil Burners) No's 8135, 8426, 8260, 7958, 8120.

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Class 90 F 81, **Converted from 90 F 82 (H 10s with Stoker.)**
Class 90 F 81a, **Converted from 90 F 75 (H 10s with Stoker.)**
Class 90 F 82, **formerly 9000 gals.**
Class 110 P 75,
Class 110 P 75a,
Class 110 F 82, **Modified from 110 F 75a (I 1sa—Duplex Stoker.)**
Class 130 P 75, **formerly 130 P 70 or (130 F 82a—Short Trough.)**
Class 130 F 82, **formerly 13000 gals. No. 3700.**
Class 130 F 82a, **Modified from 130 P 75 for (I 1sa—Duplex Stoker.)**
Class 180 F 82a, **Converted from 180 F 79 for (I 1sa—Berkley Stoker) N. and W. Tenders—No's. 374, 377, 378.**
Class 210 F 75, **With 33'-7" Truck Centers, No's 7573, 7574, 7576, 7577, 7579. M1, M1a Loco's.**
Class 210 F 75, **With 32'-1" Truck Centers (Standard Design) M1, M1a Loco's.**
Class 210 F 75a, **(Welded tank.) Stoker engine on tender. M 1, M 1a Loco.**
Class 210 F 75b, **"Lt" Stoker. M 1-Loco.**
Class 210 F 82, **Converted from 210 F 75, Duplex Stoker, (I 1sa Loco.)**
Class 210 F 82a, **"LT," Berkley, Duplex and "HT" Stokers. (I 1sa Loco.)**
Class 210 F 82b, **Converted from 210 F 75a, Berkley Stoker. (I 1sa Loco.)**
Class 210 F 84, **Franklin Radial Buffer, Stoker Eng. On Tender. (J 1, J 1a Loco.)**
Class 250 P 75, **(Mod. "B", or "HT" Stoker.)**
Class 250 F 82, **Converted from (250 P 84, No. 6100) Berkley Stoker.**
Class 250 F 82a, **Converted from 250 P 75, Duplex or Berkley Stoker.**

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TENDERS

	CLASSIFICATION	55 S 66 a	60 S 66	60 S 66a	70 P 58f			
1	Water Capacity, Gallons	5700	6300	6350	7050			1
2	Coal " , Pounds	15150	12950	13200	26200			2
3	Frame, Type of	Channel	Channel	H-Beam	H-Beam			3
4	" Width Ft. In.	9-8	9-8	9-8	9-8			4
5	" Length Ft. In.	26-3	26-3	26-3	29-3			5
6	Truck Classification	2D-F18	2D-F18	2D-F18	2D-18			6
7	" Type of	Cast Steel	Cast Steel	Cast Steel	Cast Steel			7
8	" Wheel Diameter In.	33	33	33	33			8
9	" " Base Ft. In.	5-6	5-6	5-6	5-6			9
10	" Size of Journal In.	5½ x 10	5½ x 10	5½ x 10	5½ x 10			10
11	Length of Truck Centers Ft. In.	14-8	14-8	14-8	17-8			11
12	" Front Truck to Chafing Plate Ft. In.	7-4	7-4	7-4	6-10			12
13	" Rear Truck to Face of Coupler Ft. In.	6-8½	6-8½	6-8½	6-8½			13
14	" of Tender, Total Ft. In.	28-8½	28-8½	28-8½	31-2½			14
15	" " Wheel Base Ft. In.	20-2	20-2	20-2	23-2			15
16	Height Rail to Center Plate In.	27¼	27¼	27¼	27¼			16
17	" " " Bottom of Frame In.	31	31	31	31			17
18	" " " Bottom of Tank In.	44	44	44	44			18
19	" " " Deck Plate In.	66	66	66	58			19
20	Weight, Empty Lb.	58500	57950	58900	77750			20
21	" Loaded Lb.	121150	123500	125000	162650			21
22								22
23								23
24								24

TENDERS

	CLASSIFICATION	70 F 66b	70 F 70	70 F 70a	70 F 70c	70 F 70e		
1	Water Capacity, Gallons	7100	7400	7150	7250	7800		1
2	Coal " , Pounds	36800	35000	34000	30100	27000		2
3	Frame, Type of	Channel	Channel	Channel	Channel	Channel		3
4	" Width Ft. In.	9-8	9-8	9-8	9-8	9-8		4
5	" Length Ft. In.	29-3	26-3	29-3	26-3	29-3		5
6	Truck Classification	2E-T2	2E-T2	2E-T2	2D-F18	2E-T2		6
7	" Type of	Crown S.C.	Crown S.C.	Crown S.C.	Cast Steel	Crown S.C.		7
8	" Wheel Diameter In.	33	33	33	33	33		8
9	" " Base Ft. In.	5-10	5-10	5-10	5-6	5-10		9
10	" Size of Journal In.	6 x 11	6 x 11	6 x 11	5½ x 10	6 x 11		10
11	Length of Truck Centers Ft. In.	17-8	14-8	17-8	14-8	17-8		11
12	" Front Truck to Chafing Plate Ft. In.	6-10	6-10	6-10	6-10	6-10		12
13	" Rear Truck to Face of Coupler Ft. In.	6-8½	6-8½	6-8½	6-8½	6-8½		13
14	" of Tender, Total Ft. In.	31-2½	28-2½	31-2½	28-2½	31-2½		14
15	" " Wheel Base Ft. In.	23-6	20-6	23-6	20-2	23-6		15
16	Height Rail to Center Plate In.	27¼	27¼	27¼	27¼	27¼		16
17	" " " Bottom of Frame In.	31	31	31	31	31		17
18	" " " Bottom of Tank In.	44	44	44	44	44		18
19	" " " Deck Plate In.	66	70	70	70	70		19
20	Weight, Empty Lb.	68500	62450	67200	56650	67200		20
21	" Loaded Lb.	164400	159100	160600	147150	159200		21
22								22
23								23
24								24

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TENDERS

	CLASSIFICATION	70 P 70a	70 P 70b	70 P 70d		70 F 77	70 P 78		
1	Water Capacity, Gallons	7300	7150	7850		7100	6500		1
2	Coal " , Pounds	33900	32000	27100		32500	32600		2
3	Frame, Type of	H-Beam	H-Beam	H-Beam		Channel	Channel		3
4	" Width Ft. In.	9-8	9-8	9-8		9-8	9-8		4
5	" Length Ft. In.	29-3	29-3	29-3		26-3	29-3		5
6	Truck Classification	2E-T2	2E-T2	2E-T2		2D-18	2E-F13		6
7	" Type of	Crown S.C.	Crown S.C.	Crown S.C.		Cast Steel	Cast Steel		7
8	" Wheel Diameter In.	33	33	33		33	33		8
9	" " Base Ft. In.	5-10	5-10	5-10		5-6	5-8		9
10	" Size of Journal In.	6 x 11	6 x 11	6 x 11		5½ x 10	6 x 11		10
11	Length of Truck Centers Ft. In.	17-8	17-8	17-8		14-8	17-8		11
12	" Front Truck to Chafing Plate Ft. In.	6-10	6-10	6-10		6-10	6-10		12
13	" Rear Truck to Face of Coupler Ft. In.	6-8½	6-8½	6-8½		6-8½	6-8½		13
14	" of Tender, Total Ft. In.	31-2½	31-2½	31-2½		28-2½	31-2½		14
15	" " Wheel Base Ft. In.	23-6	23-6	23-6		20-2	23-4		15
16	Height Rail to Center Plate In.	27¼	27¼	27¼		27¼	27¼		16
17	" " " Bottom of Frame In.	31	31	31		31	31		17
18	" " " Bottom of Tank In.	44	44	44		44	44		18
19	" " " Deck Plate In.	70	70	70		77¼	77¾		19
20	Weight, Empty Lb.	79850	79250	78800		63950	70600		20
21	" Loaded Lb.	174600	170850	171400		155650	160750		21
22									22
23									23
24									24

TENDERS

	CLASSIFICATION		80 P 81	80 P 81a	80 F 81b	90 F 75	90 F 80		
1	Water Capacity, Gallons		8100	9090	8900	9700	8900		1
2	Coal " , Pounds		34350	38100	31900	41600			2
3	Frame, Type of		Channel	Channel	Channel	H-Beam	H-Beam		3
4	" Width Ft. In.		9-8	9-8	9-8	9-8	9-8		4
5	" Length Ft. In.		29-3	29-3	29-3	30-7	30-7		5
6	Truck Classification		2E-F13	2E-F13	2E-F13	2E-T2	2E-T2		6
7	" Type of		Cast Steel	Cast Steel	Cast Steel	Crown S.C.	Crown S.C.		7
8	" Wheel Diameter In.		33	33	33	33	33		8
9	" " Base Ft. In.		5-8	5-8	5-8	5-10	5-10		9
10	" Size of Journal In.		6 x 11	6 x 11	6 x 11	6 x 11	6 x 11		10
11	Length of Truck Centers Ft. In.		17-8	17-8	17-8	19-0	19-0		11
12	" Front Truck to Chafing Plate Ft. In.		6-10	6-10	6-10	6-10	6-10		12
13	" Rear Truck to Face of Coupler Ft. In.		6-9½	6-9½	6-9½	6-8½	6-8½		13
14	" of Tender, Total Ft. In.		31-3½	31-3½	31-3½	32-6½	32-6½		14
15	" " Wheel Base Ft. In.		23-4	23-4	23-4	24-10	24-10		15
16	Height Rail to Center Plate In.		27⅝	27⅝	27⅝	27¼	27¼		16
17	" " " Bottom of Frame In.		31½	31½	31½	31	31		17
18	" " " Bottom of Tank In.		44½	44½	44½	44	44		18
19	" " " Deck Plate In.		23-4	23-4	23-4	75¼	80¼		19
20	Weight, Empty Lb.		76700	76800	70500	77000	73900		20
21	" Loaded Lb.		178550	190650	176570	199400	174800		21
22									22
23							3200 Gal.		23
24							Fuel Oil		24

TENDERS

	CLASSIFICATION	90 F 81	90 F 81a	90 F 82	110 P 75	110 P 75a	110 F 82	
1	Water Capacity, Gallons	10300	9700	10300	11980	11300	11300	1
2	Coal " , Pounds	37000	40000	37400	37000	43600	42000	2
3	Frame, Type of	H-Beam	H-Beam	H-Beam	Cast Steel	Cast Steel	Cast Steel	3
4	" Width Ft. In.	9-8	9-8	9-8	2-0	2-0	2-0	4
5	" Length Ft. In.	30-7	30-7	30-7	32-1½	32-1½	32-1½	5
6	Truck Classification	2E-T2	2E-T2	2E-T2	2F-T2	2F-T2	2F-T2	6
7	" Type of	Crown S.C.	Crown S.C.	Crown S.C.	Side Frame Ell. Spring	Side Frame Ell. Spring	Side Frame Ell. Spring	7
8	" Wheel Diameter In.	33	33	33	36	36	36	8
9	" " Base Ft. In.	5-10	5-10	5-10	6-5	6-5	6-5	9
10	" Size of Journal In.	6 x 11	6 x 11	6 x 11	6½ x 12	6½ x 12	6½ x 12	10
11	Length of Truck Centers Ft. In.	19-0	19-0	19-0	20-0	20-0	20-0	11
12	" Front Truck to Chafing Plate Ft. In.	6-10	6-10	6-10	6-10	6-10	6-10	12
13	" Rear Truck to Face of Coupler Ft. In.	6-8½	6-8½	6-8½	6-9½	6-9½	6-9½	13
14	" of Tender, Total Ft. In.	32-6½	32-6½	32-6½	33-7½	33-7½	33-7½	14
15	" " Wheel Base Ft. In.	24-10	24-10	24-10	26-5	26-5	26-5	15
16	Height Rail to Center Plate In.	27¼	27¼	27¼	27¼	27¼	27¼	16
17	" " " Bottom of Frame In.	31	31	31	30	30	30	17
18	" " " Bottom of Tank In.	44	44	44	43	43	43	18
19	" " " Deck Plate In.	80¾	80¾	82¼	75¼	75¼	82¼	19
20	Weight, Empty Lb.	81450	77000	81450	84210	83700	83700	20
21	" Loaded Lb.	204300	198000	204700	221050	221500	219800	21
22								22
23								23
24								24

TENDERS

	CLASSIFICATION	130 P 75	130 F 82	130 F 82a	180 F 82a	210 F 75	210 F 75	
1	Water Capacity, Gallons	13475	11940	13475	18000	22090	22090	1
2	Coal " , Pounds	43600	35700	42000	51300	63000	63000	2
3	Frame, Type of	Cast Steel	H-Beam	Cast Steel	Cast Steel	Cast Steel Tank Bottom	Cast Steel Tank Bottom	3
4	" Width Ft. In.	2-0	9-8	2-0	9-9	9-11⅜	9-11⅜	4
5	" Length Ft. In.	36-1½	34-7	36-1½	43-4⅞	51-6	51-6	5
6	Truck Classification	2F-T2	2F-T2	2F-T2	N&W T-40	3F2T3	3F3T4	6
7	" Type of	Side Frame Ell. Spring	Side Frame Ell. Spring	Side Frame Ell. Spring	Cast Steel	Cast Steel	Cast Steel	7
8	" Wheel Diameter In.	36	36	36	33	33	33	8
9	" " Base Ft. In.	6-5	6-5	6-5	9-0	9-0	9-0	9
10	" Size of Journal In.	6½ x 12	6½ x 12	6½ x 12	6 x 11	6½ x 12	6½ x 12	10
11	Length of Truck Centers Ft. In.	24-0	23-0	24-0	26-9¼	33-7	32-1	11
12	" Front Truck to Chafing Plate Ft. In.	6-10	6-10	6-10	8-6⅞	9-5	9-5	12
13	" Rear Truck to Face of Coupler Ft. In.	6-9½	6-8½	6-9½	9-4½	9-11¼	11-5¼	13
14	" of Tender, Total Ft. In.	37-7½	36-6½	37-7½	44-5⅞	52-11¼	52-11¼	14
15	" " Wheel Base Ft. In.	30-5	29-5	30-5	35-9¼	42-7	41-1	15
16	Height Rail to Center Plate In.	27¼	27¼	27¼	27⅞	27⅞	27⅞	16
17	" " " Bottom of Frame In.	30	31	30	25½	30	30	17
18	" " " Bottom of Tank In.	43	44	43	47	30	30	18
19	" " " Deck Plate In.	75¼	82¼	82¼	82¼	75¼	75¼	19
20	Weight, Empty Lb.	98590	83790	98590	109200	137020	131360	20
21	" Loaded Lb.	254450	219000	252800	310500	384020	378360	21
22								22
23								23
24			No. 3700			Original Design		24

September 1, 1956

TENDERS

	CLASSIFICATION	210 F 75a	210 F 75b	210 F 82	210 F 82a	210 F 82b	210 F 84		
1	Water Capacity, Gallons	20800	20500	22000	20500	20800	21000		1
2	Coal " , Pounds	63000	61800	58300	59800	61200	59800		2
3	Frame, Type of	Cast Steel Tank Bottom	Cast Steel Tank Bottom	Cast Steel Tank Bottom	Cast Steel Tank Bottom	Cast Steel Tank Bottom	Cast Steel Tank Bottom		3
4	" Width Ft. In.	10-0	10-0	9-11 ³ / ₈	10-0	10-0	10-0		4
5	" Length Ft. In.	52-9 ¹ / ₂	52-9 ¹ / ₂	51-6	52-9 ¹ / ₂	52-9 ¹ / ₂	53-11 ¹ / ₄		5
6	Truck Classification	4F5T1	4F5T1	3F3T4	4F5T1	4F5T1	4F5T1		6
7	" Type of	Cast Steel	Cast Steel	Cast Steel	Cast Steel	Cast Steel	Cast Steel		7
8	" Wheel Diameter In.	36	36	33	36	36	36		8
9	" " Base Ft. In.	13-9	13-9	9-0	13-9	13-9	13-9		9
10	" Size of Journal In.	6 ¹ / ₂ x 12	6 ¹ / ₂ x 12	6 ¹ / ₂ x 12	6 ¹ / ₂ x 12	6 ¹ / ₂ x 12	6 ¹ / ₂ x 12		10
11	Length of Truck Centers Ft. In.	25-3	25-3	33-7	25-3	25-3	25-3		11
12	" Front Truck to Chafing Plate Ft. In.	13-8	13-8	9-5	13-8	13-8	14-11 ³ / ₈		12
13	" Rear Truck to Face of Coupler Ft. In.	15-5 ¹ / ₄	15-8 ¹ / ₄	9-11 ¹ / ₄	15-8 ¹ / ₄	15-5 ¹ / ₄	15-5 ¹ / ₄		13
14	" of Tender, Total Ft. In.	54-4 ¹ / ₄	54-7 ¹ / ₄	52-11 ¹ / ₄	54-7 ¹ / ₄	54-4 ¹ / ₄	55-7 ³ / ₈		14
15	" " Wheel Base Ft. In.	39-0	39-0	42-7	39-0	39-0	39-0		15
16	Height Rail to Center Plate In.	27#	27#	27 ³ / ₈	27#	27#	27#		16
17	" " " Bottom of Frame In.	29 ³ / ₈ #	29 ³ / ₈ #	30	29 ³ / ₈ #	29 ³ / ₈ #	29 ³ / ₈ #		17
18	" " " Bottom of Tank In.	29 ³ / ₈ #	29 ³ / ₈ #	30	29 ³ / ₈ #	29 ³ / ₈ #	29 ³ / ₈ #		18
19	" " " Deck Plate In.	75 ¹ / ₄ #	75 ¹ / ₄ #	82 ¹ / ₄	82 ¹ / ₄ #	82 ¹ / ₄ #	84 ¹ / ₄ #		19
20	Weight, Empty Lb.	176900	178850	146900	180730	176900	176800		20
21	" Loaded Lb.	412900	411400	388500	411520	411300	411500		21
22									22
23									23
24									24

TENDERS

	CLASSIFICATION	250 P 75	250 F 82	250 F 82a					
1	Water Capacity, Gallons	24410	24230	24410					1
2	Coal " , Pounds	50240	52900	48800					2
3	Frame, Type of	Cast Steel Tank Bottom	Cast Steel Tank Bottom	Cast Steel Tank Bottom					3
4	" Width Ft. In.	9-11 ³ / ₈	10-0	9-11 ³ / ₈					4
5	" Length Ft. In.	54-0	57-6	54-0					5
6	Truck Classification	3F3T4	4F5T3	3F3T4					6
7	" Type of	Cast Steel	Cast Steel	Cast Steel					7
8	" Wheel Diameter In.	33	36	33					8
9	" " Base Ft. In.	9-0	14-0	9-0					9
10	" Size of Journal In.	6 ¹ / ₂ x 12	6 ¹ / ₂ x 12	6 ¹ / ₂ x 12					10
11	Length of Truck Centers Ft. In.	31-0	29-6	31-0					11
12	" Front Truck to Chafing Plate Ft. In.	10-6	13-7 ¹ / ₂	10-6					12
13	" Rear Truck to Face of Coupler Ft. In.	13-11 ¹ / ₄	15-11 ¹ / ₄	13-11 ¹ / ₄					13
14	" of Tender, Total Ft. In.	55-5 ¹ / ₄	59-0 ¹ / ₄	55-5 ¹ / ₄					14
15	" " Wheel Base Ft. In.	40-0	43-6	40-0					15
16	Height Rail to Center Plate In.	27 ³ / ₈	27#	27 5-8					16
17	" " " Bottom of Frame In.	30	32 ¹ / ₂ #	30					17
18	" " " Bottom of Tank In.	30	32 ¹ / ₂ #	30					18
19	" " " Deck Plate In.	75 ¹ / ₄	82 ¹ / ₄ #	82 ¹ / ₄					19
20	Weight, Empty Lb.	142180	197020	142180					20
21	" Loaded Lb.	395835	451840	394300					21
22									22
23									23
24			No. 6100						24

Heights above rail are for loaded tenders.

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