



ALCO
2180/2030 CV

SERIES C-22 (2150/2000 HP)

DIESEL-ELECTRIC
LOCOMOTIVE

GENERAL SPECIFICATION DL-543

WITH 2030 CV NET INPUT TO THE GENERATOR

ALCO
1980/1825 CV

SERIES C-20 (1950/1800 HP)

DIESEL-ELECTRIC
LOCOMOTIVE

GENERAL SPECIFICATION DL-541

WITH 1825 CV NET INPUT TO THE GENERATOR

STANDARD EXPORT, ALL PURPOSE MAINLINE SIX AXLE
DIESEL-ELECTRIC LOCOMOTIVES

ALCO DL-543



ALCO

2180/2030 CV

SERIES C-22 (2150/2000 HP)

DIESEL-ELECTRIC LOCOMOTIVE

- An extremely versatile all purpose unit. (Note 1).
- For all gauges from meter upwards. (Note 2), designed to be equipped with the high adhesion ALCO Trimount truck (basic); or the "World" type double suspension high speed truck; or a 1 Co-Co 1 wheel arrangement.
- Built from 16,0 metric tons axle load (basic); or from 13,35 metric tons on driving axles (1 Co-Co 1).
- Dynamic brake and train heating steam generator can be simultaneously applied.

NOTE 1: When 2180 CV are not needed, this unit can be built to ALCO specification DL-541 (1980/1825 CV), with simplified electrical equipment and other changes resulting in lower basic price. All gauges and wheel arrangements also available.

NOTE 2: 914 mm (36" gauge) for special applications (narrow gauge motors).

DL-543 General Characteristics

Diesel Engine: ALCO 12-251-C 2180/2030 CV (2150/2000 HP)

Wheel Arrangement: Co-Co; 1 Co-Co 1 optional

Principal Dimensions:

Height (maximum)—4010 mm (13'1 $\frac{7}{8}$ "")

Width (maximum)—2915 mm (9'6 $\frac{3}{4}$ "")

Length (over body)—16612 mm (54'6"")

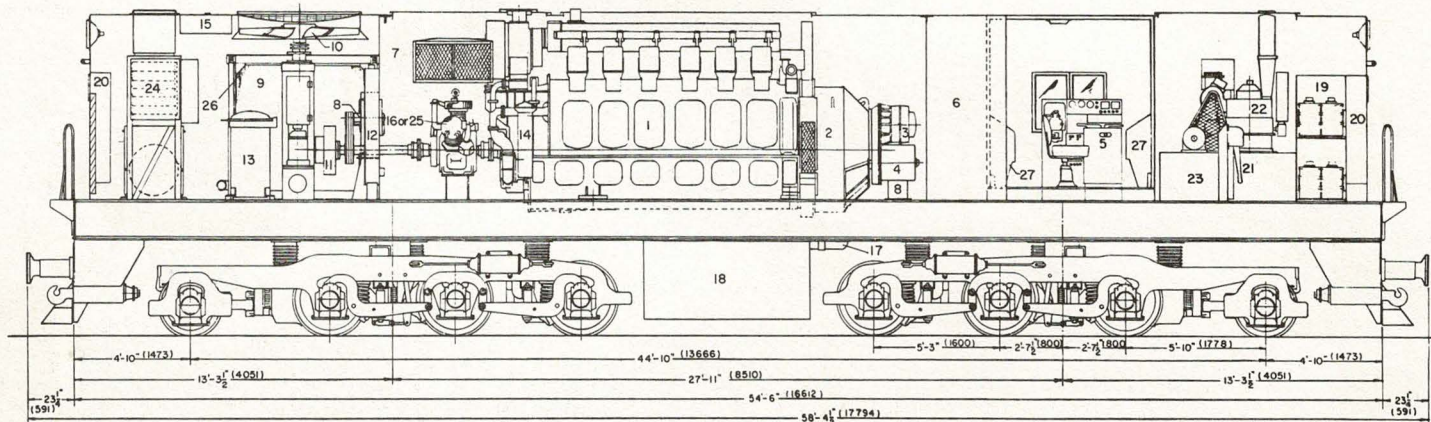
Basic Locomotive Weight: 96 000 Kg. (211,500 lbs.)

Axle Load: 16 000 Kg. (35,250 lbs.)

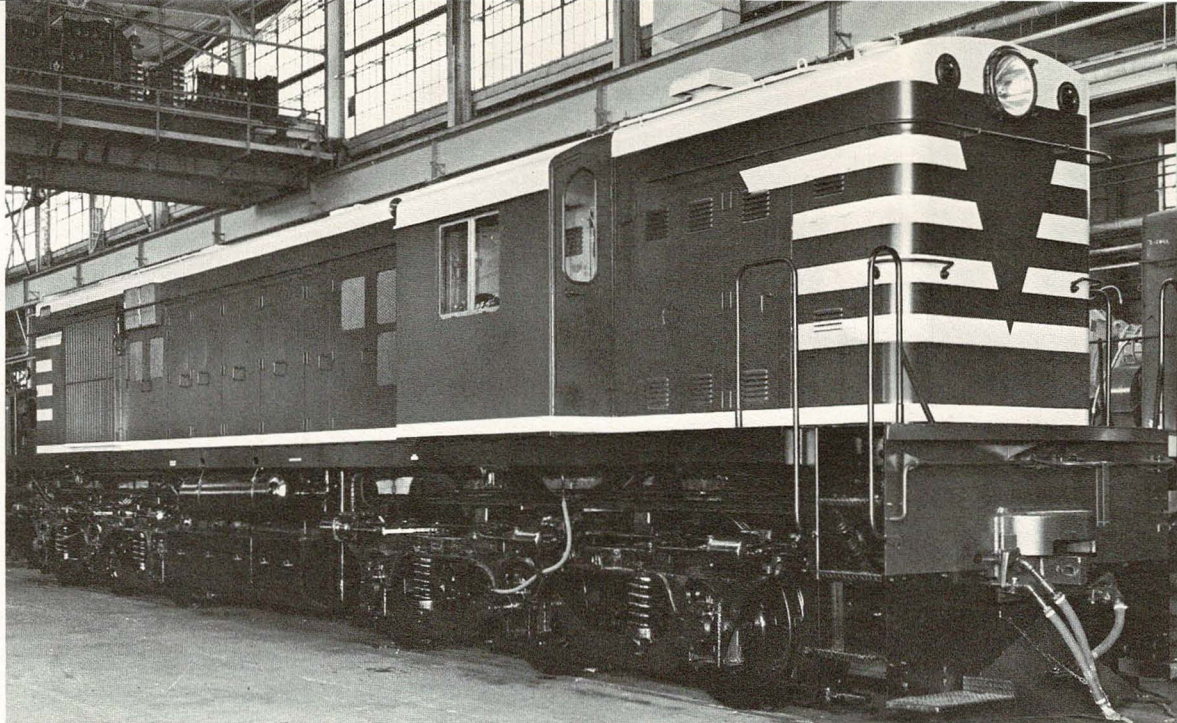
Wheel Diameter Basic: 1016 mm (40"")

Fuel Oil Capacity Basic: 3 030 l. (800 U.S. Gallons); (666 Imp. Gallons)

Multi-Gauge Traction Motors from metric gauge upwards



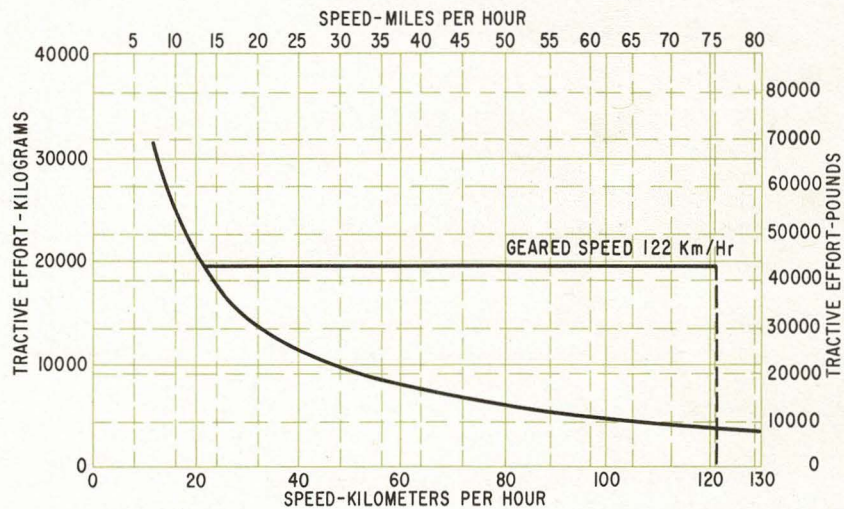
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|------------------------|------------------------------|------------------------|--------------------------|
| 1. Engine | 8. Traction Motor Blower | 15. Engine Water Tank | 22. Steam Generator |
| 2. Main Generator | 9. Radiator | 16. Air Compressor | 23. Water Tank |
| 3. Exciter | 10. Radiator Fan | 17. Main Air Reservoir | 24. Dynamic Brake |
| 4. Auxiliary Generator | 11. Radiator Fan Clutch | 18. Fuel Tank | 25. Compressor-Exhauster |
| 5. Control Stand | 12. Lubricating Oil Cooler | 19. Batteries | 26. Radiator Shutter |
| 6. Control Compartment | 13. Lubricating Oil Filters | 20. Sand Box | 27. Cab Heater |
| 7. Air Filters | 14. Lubricating Oil Strainer | 21. Hand Brake | |



ALCO DL-543 with double-suspension, swing-swivel trucks.

TRACTIVE EFFORT

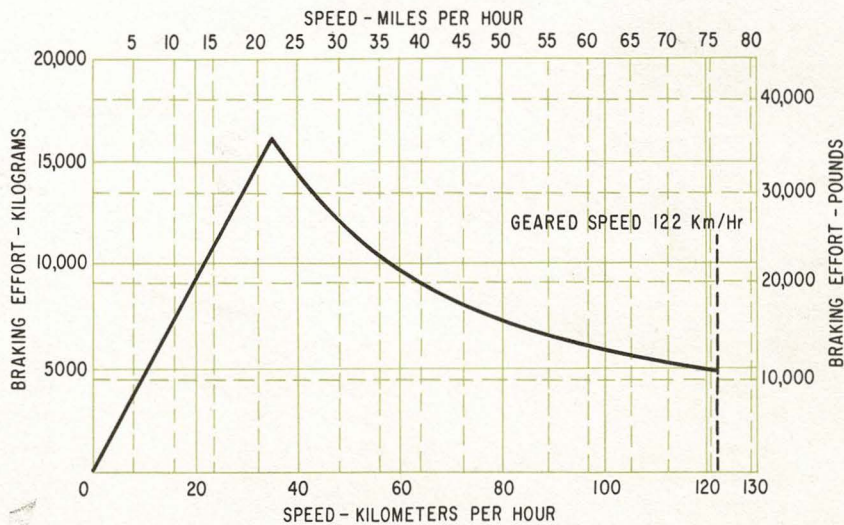
GEAR RATIO	TOP GEARED SPEED		MAXIMUM CONTINUOUS TRACTIVE EFFORT			
	Km/h.	MPH	Kg.	Lbs.	Km/h	MPH
With 1016 mm (40") wheels						
92:19	122	76	19 280	42,500	22,5	14.0
94:17	80	50	22 000	48,500	19,5	12.1



Tractive Effort Characteristics with 1016 mm (40") Wheels and Basic 92:19 Gearing.

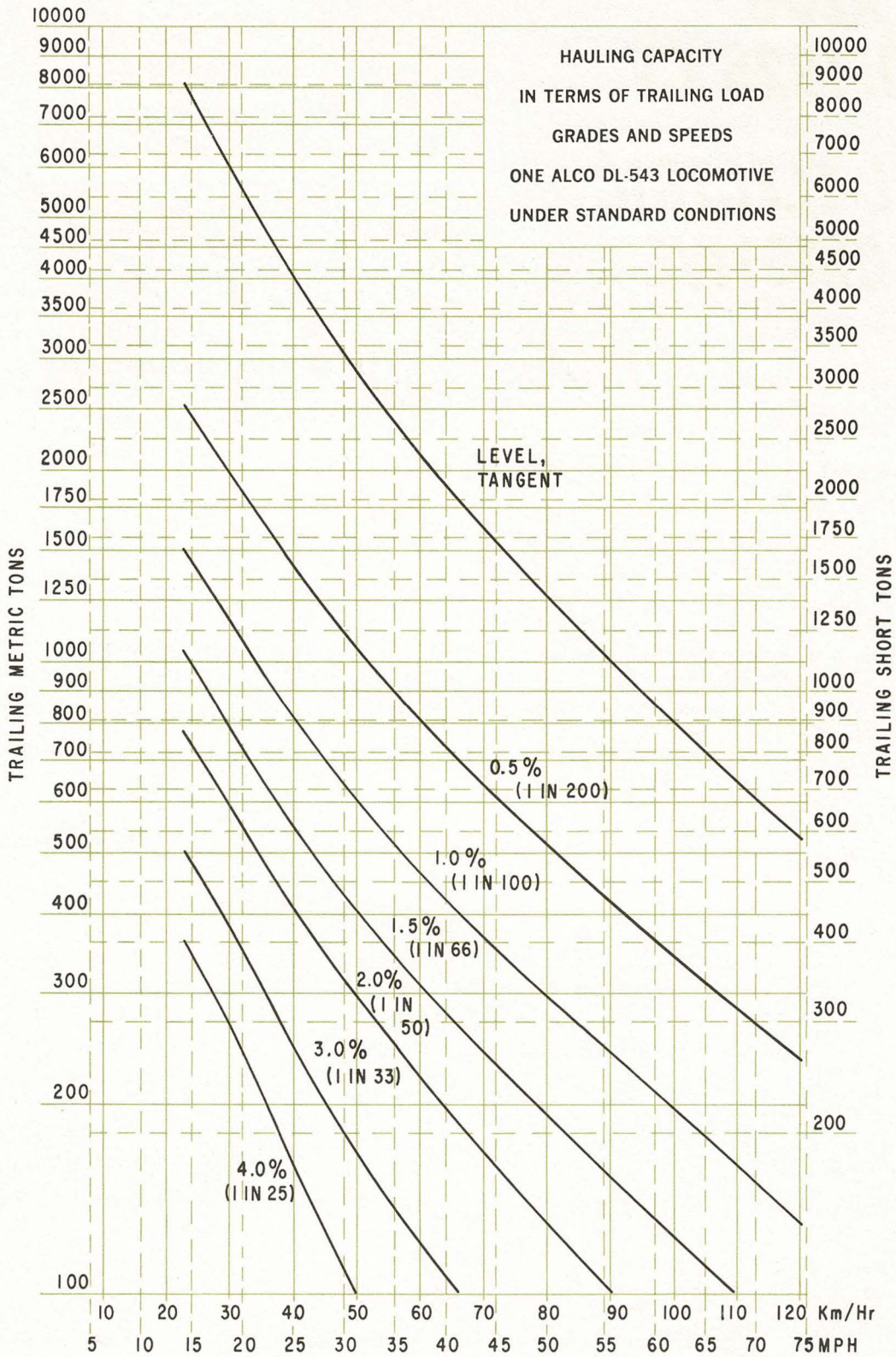
BRAKING EFFORT

GEAR RATIO	BRAKE PEAK SPEED		PEAK BRAKING EFFORT	
	Km/h	MPH	Kg.	Lbs.
With 1016 mm (40") wheels				
92:19	35,1	21.8	15 880	35,000
94:17	33,0	20.5	18 140	40,000



Braking Effort Characteristics with 1016 mm (40") Wheels and Basic 92:19 Gearing.

TONNAGE RATING



NOTE: The hauling capacity shown above is for 4 axle 40 metric ton freight wagons, in good condition, and has been calculated by Davis' formula, for standard conditions: Sea level, 736 mm. Hg. (29"), 16° C. intake temperature (60° F.) and fuel of 10 850 Cal./Kg.* (19,500 BTU/lb.*) meeting ASTM 2-D specification.

*Higher calorific value

ALCO

1980/1825 CV

SERIES C-20 (1950/1800 HP)

DIESEL-ELECTRIC LOCOMOTIVE

- An extremely versatile all purpose unit, modified for lower CV needs from ALCO specification DL-543, with simplified electrical equipment and other changes resulting in lower basic price.
- For all gauges from meter upwards*. Designed to be equipped with the high adhesion ALCO Trimount truck (basic); or the "World" type double suspension high speed truck; or a 1 Co-Co 1 wheel arrangement.
- Dynamic brake and train heating steam generator can be simultaneously applied.

*914 mm (36" gauge) for special applications (narrow gauge motors).

DL-541 General Characteristics

Diesel Engine: ALCO 12-251-C 2180 CV (2150 BHP) set at 1980 CV (1950 HP) for this application.

Wheel Arrangement: Co-Co; 1 Co-Co 1 optional

Principal Dimensions:

Height (maximum)—4010 mm (13'1 $\frac{1}{8}$ "")

Width (maximum)—2915 mm (9'6 $\frac{3}{4}$ "")

Length (over body)—16612 mm (54'6"")

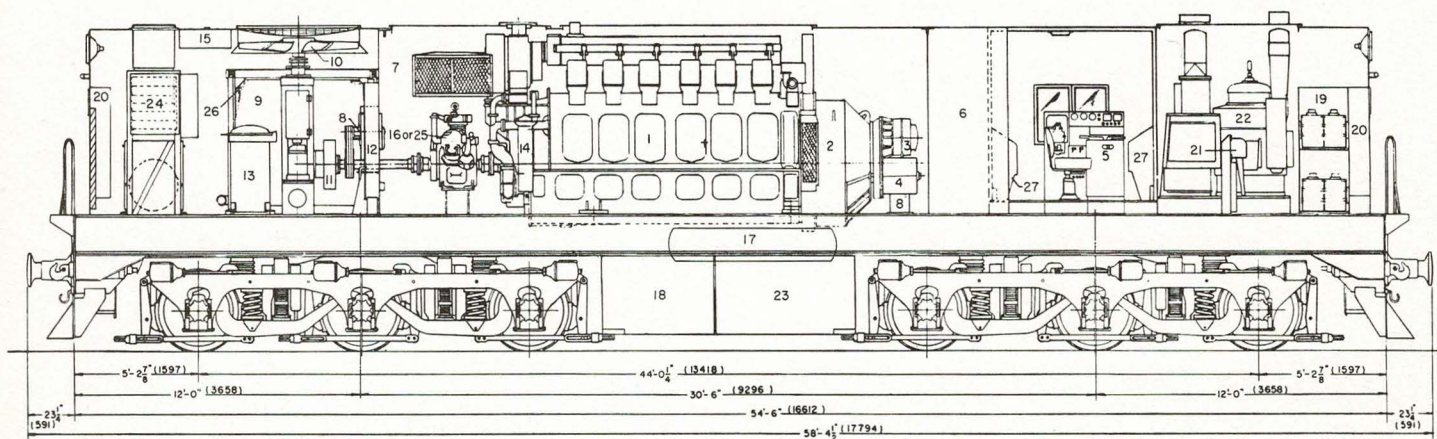
Basic Locomotive Weight: 96 000 Kg. (211,500 lbs.)

Axle Load: 16 000 Kg. (35,250 lbs.)

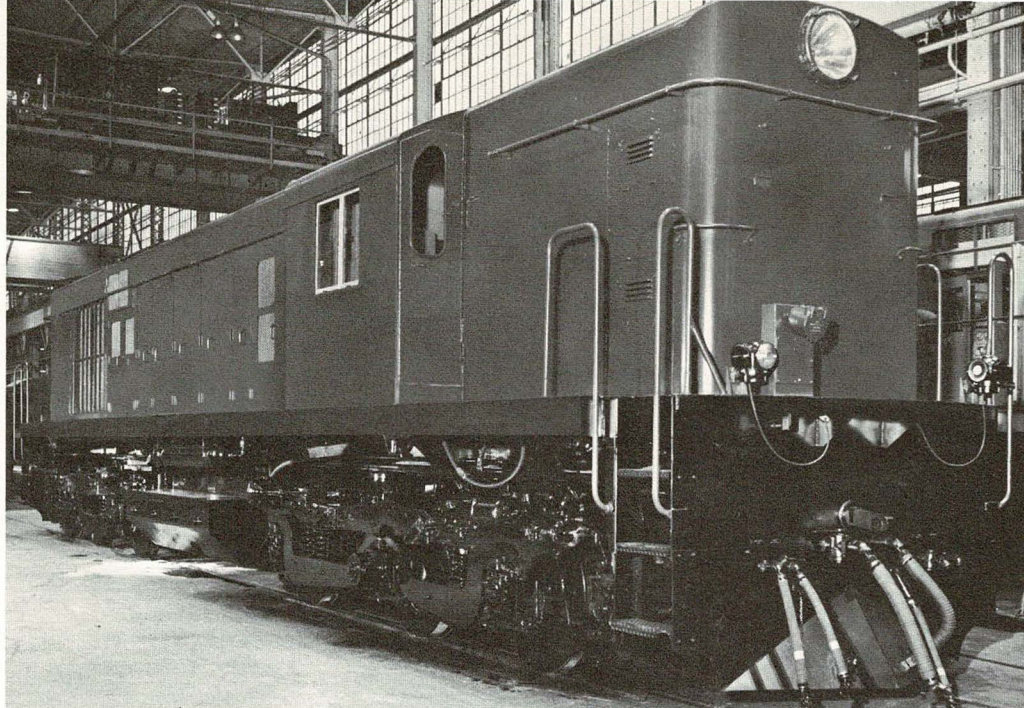
Wheel Diameter Basic: 1016 mm (40"")

Fuel Oil Capacity Basic: 3 030 l. (800 U.S. Gallons); (666 Imp. Gallons)

Multi-Gauge Traction Motors from metric gauge upwards



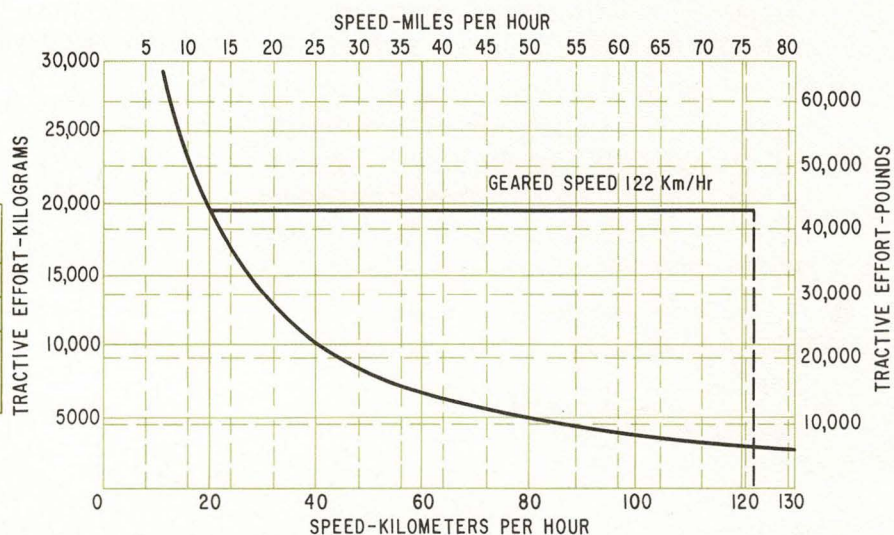
- | | | | |
|------------------------|------------------------------|------------------------|--------------------------|
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| 2. Main Generator | 9. Radiator | 16. Air Compressor | 23. Water Tank |
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| 6. Control Compartment | 13. Lubricating Oil Filters | 20. Sand Box | 27. Cab Heater |
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ALCO DL-541

TRACTIVE EFFORT

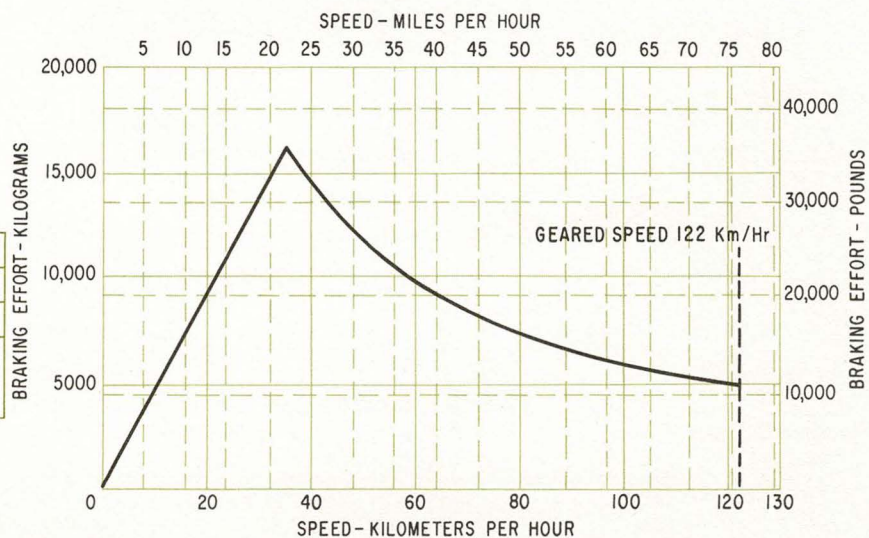
GEAR RATIO	TOP GEARED SPEED		MAXIMUM CONTINUOUS TRACTIVE EFFORT AT			
	Km/h	MPH	Kg.	Lbs.	Km/h	MPH
With 1016 mm (40") wheels						
92:19	122	76	19 280	42,500	20,1	12.5
94:17	80	50	22 000	48,500	17,9	11.1



Tractive Effort Characteristics with 1016 mm (40") wheels and Basic 92:19 Gearing.

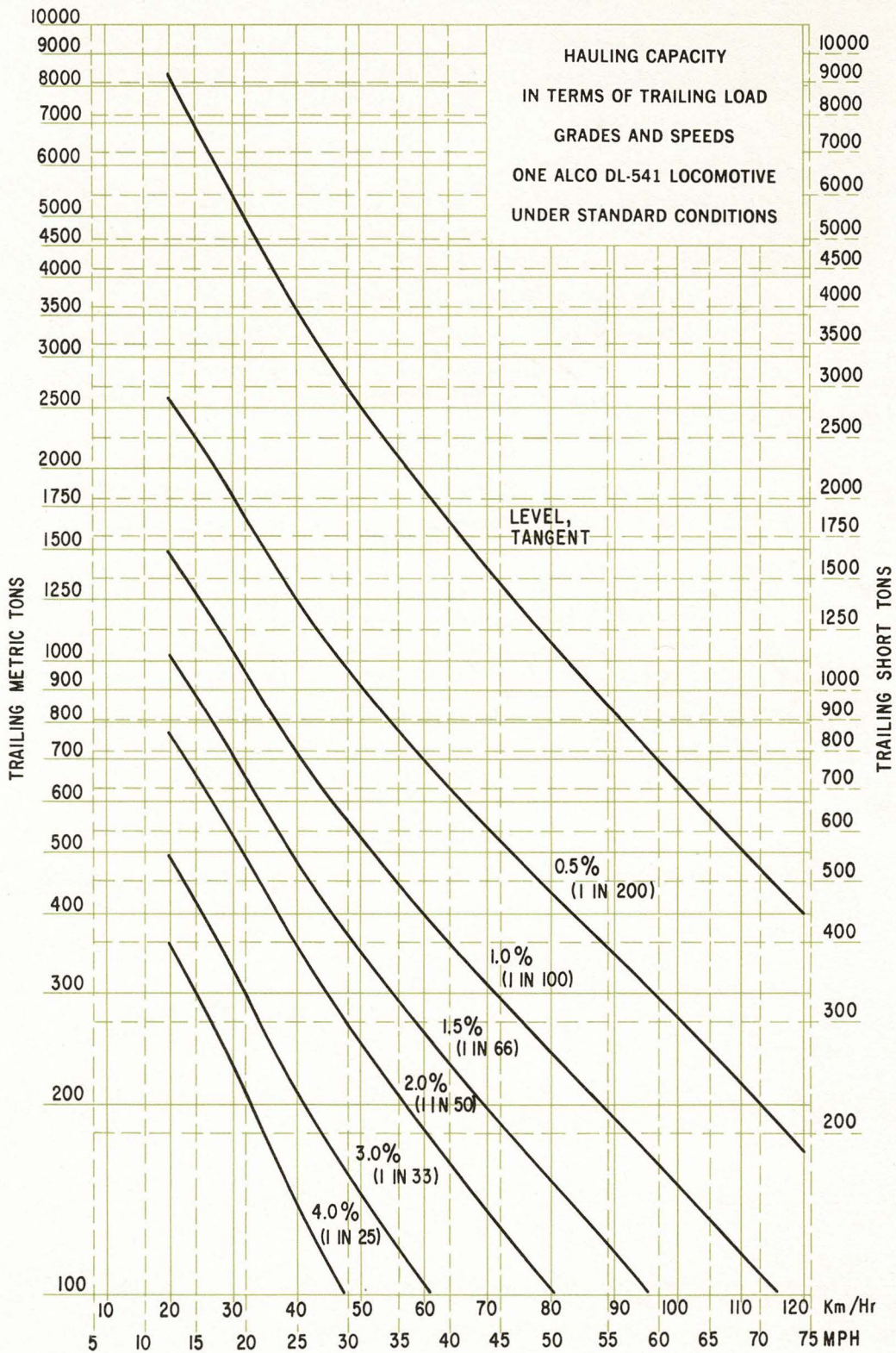
BRAKING EFFORT

GEAR RATIO	BRAKE PEAK SPEED		PEAK BRAKING EFFORT	
	Km/h	MPH	Kg.	Lbs.
With 1016 mm (40") wheels				
92:19	35,1	21.8	15 880	35,000
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Braking Effort Characteristics with 1016 mm (40") wheels and Basic 92:19 Gearing.

TONNAGE RATING



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*Higher calorific value

**FOREIGN
ASSOCIATES
AND
LICENSEES**

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India: Diesel Locomotive Works, Varanasi, U.P., India

Spain: Cia. Euskalduna, Madrid, Spain



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