

# INGALLS

**DIESEL-ELECTRIC  
LOCOMOTIVES**

The Ingalls Shipbuilding Corporation; The Ingalls Iron Works Company; The Birmingham Tank Company; The Steel Construction Company . . . LOCOMOTIVE WORKS: Pascagoula, Mississippi . . . FABRICATING PLANTS: Birmingham, Alabama, and Pittsburgh, Pennsylvania . . . SHIPYARDS: Pascagoula, Mississippi, and Decatur, Alabama . . . OFFICES: Birmingham, Pascagoula, New York, Washington, New Orleans

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**DIESEL-ELECTRIC  
LOCOMOTIVES**



*The*  
**INGALLS**  
**SHIPBUILDING CORPORATION**  
*Locomotive Division • Pascagoula, Miss.*



# INGALLS LOCOMOTIVES

## FEATURE PRACTICAL ADVANTAGES AND MODERN DESIGN

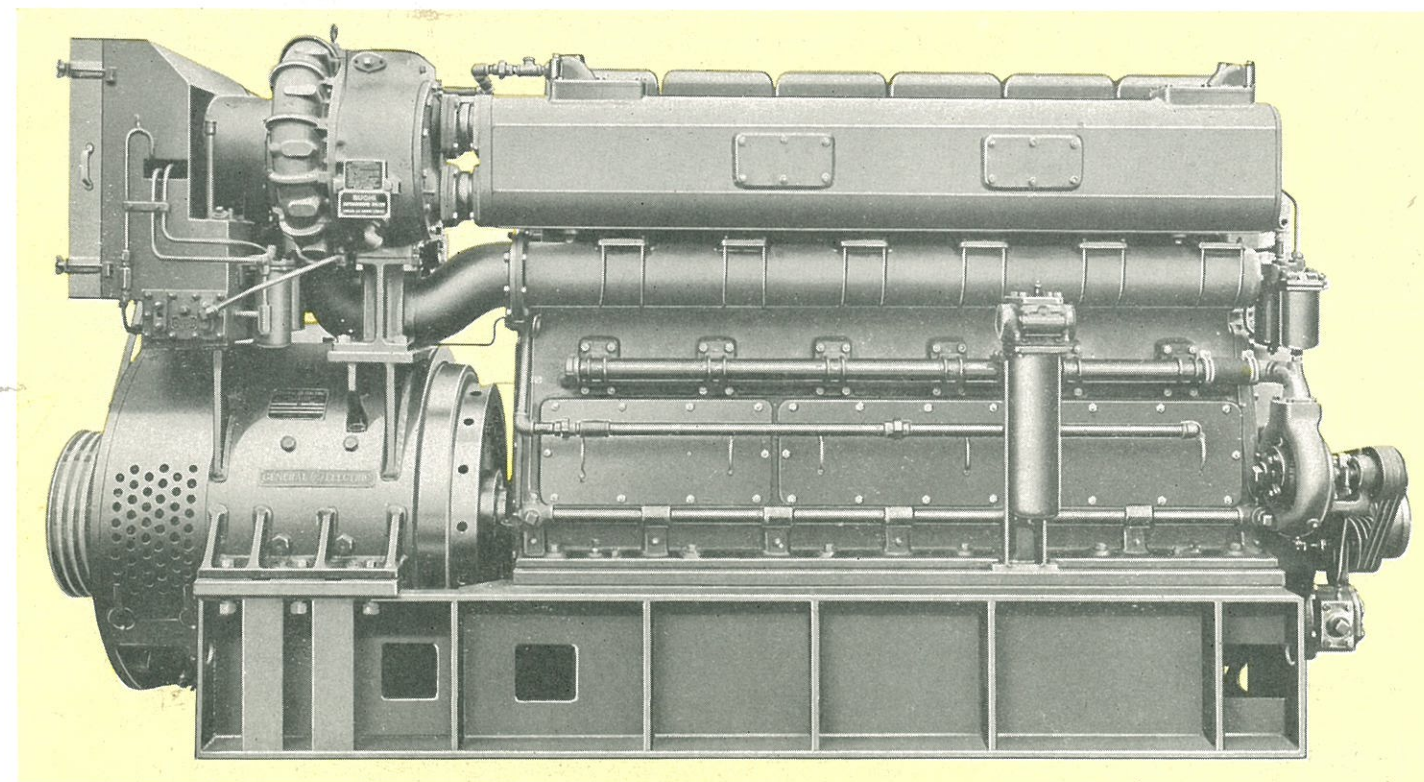
Ingalls Diesel-Electric Locomotives incorporate many outstanding features of modern design with emphasis on the practical advantages of low operating and maintenance cost, dependability and rugged construction.

Typical of this company's thorough-going methods, an exhaustive study was first made to learn in detail what the railroads' requirements in new locomotive equipment would be. Then, specifications and designs were prepared to meet these requirements. The result is a line of locomotives in-

corporating numerous features and improvements which have not been obtainable before.

As the pioneer in building large all-welded ocean-going ships, Ingalls has the distinct advantage of constant research and "know-how" in the most modern methods of construction. The same resources, the same insistence on quality workmanship at lowest consistent prices, are being devoted to the building of Ingalls Diesel-Electric Locomotives—your assurance of satisfactory construction and performance.

Powered by *Superior*



**THE NATIONAL SUPPLY COMPANY**  
*Superior Engine Division • Springfield, Ohio*



# GENERAL FEATURES

A number of features have been incorporated into all the models described in this booklet, such as the automatic shutter control and separate water-cooled lubricating oil cooler which give more uniform oil temperature and better protection against leaks.

## 4-S, All Purpose Locomotive, 1500 H.P.

Designed as an all-purpose model for switching, transfer or road service. It has an exceptionally high continuous tractive effort of 42,800 pounds. This model is designed so that one can walk through the engine room and emphasizes the following advantages: (1) All equipment accessible for inspection and adjustment; (2) Can pass from one unit to another in multiple operation; (3) Entire roof over engine can be removed to facilitate major repairs or removal of engine; (4) Maximum front and rear vision provided by unique design of cab.

## OTHER STANDARD MODELS

### 17-A, Passenger and Freight Locomotive, 2000 H.P.

This model fills a definite need in passenger or freight service and can be operated in multiple to provide 4000 or 6000 H.P. For freight service, three of these units give more power than four standard units, reducing maintenance and operating cost.

### 3-S, Switching and Road Locomotive, 1000 H.P.

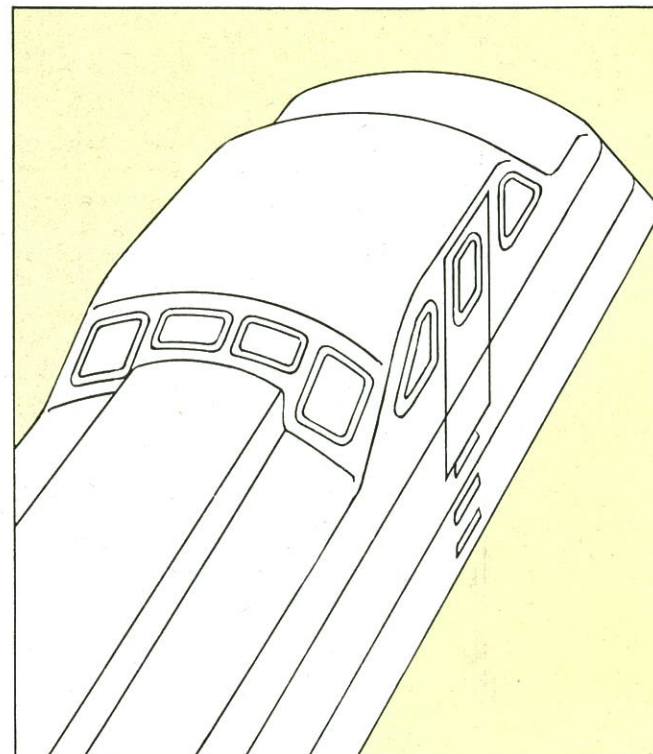
Special design gives visibility both ways, yet permits access to equipment and to coupled units or to train when running.

### 5-S, Switching Locomotive, 1000 H.P.

Built along more conventional lines for railroads which rate visibility higher than access to equipment. All hood doors can be opened and all doors slide down to one end of hood.

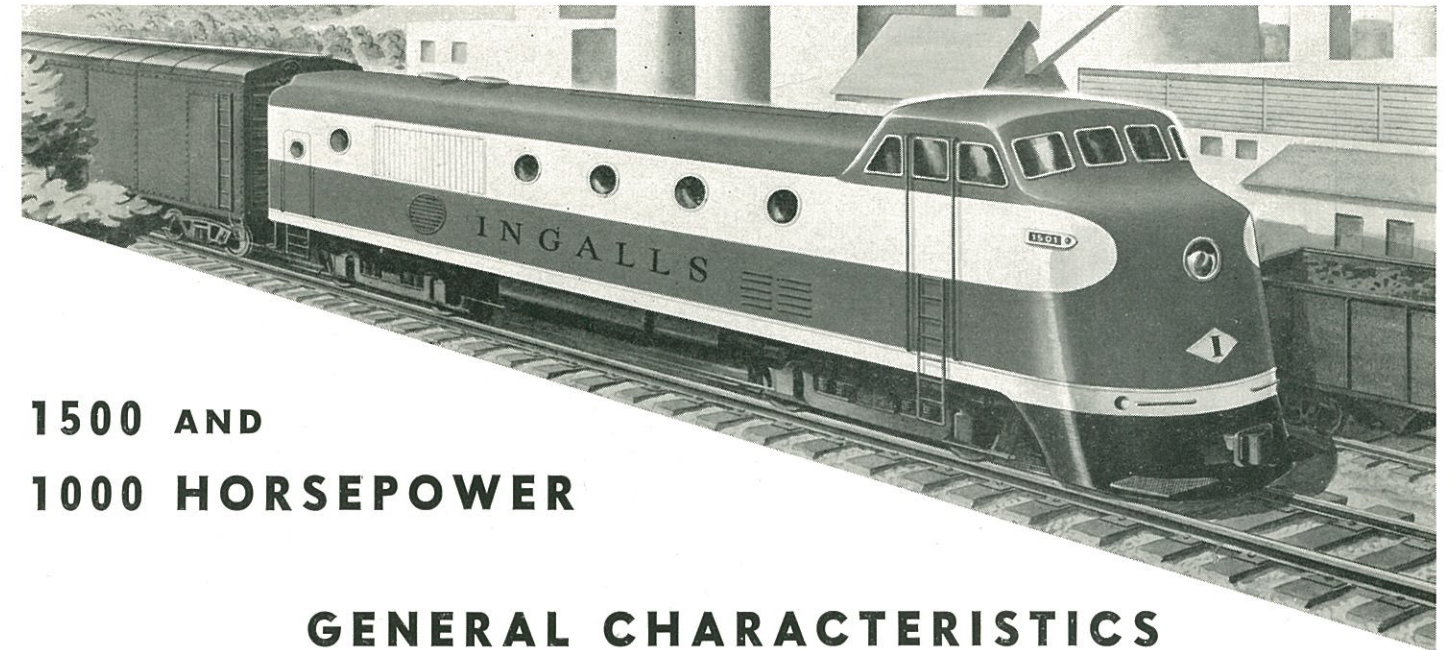
### 16-S, Switching Locomotive, 660 H.P.

Similar to Model 5-S, but with a smaller bore and stroke of the Diesel engine.



Experienced railway operators will appreciate the construction of the cab on Ingalls Switching and Road Locomotives, which provides full 360° vision

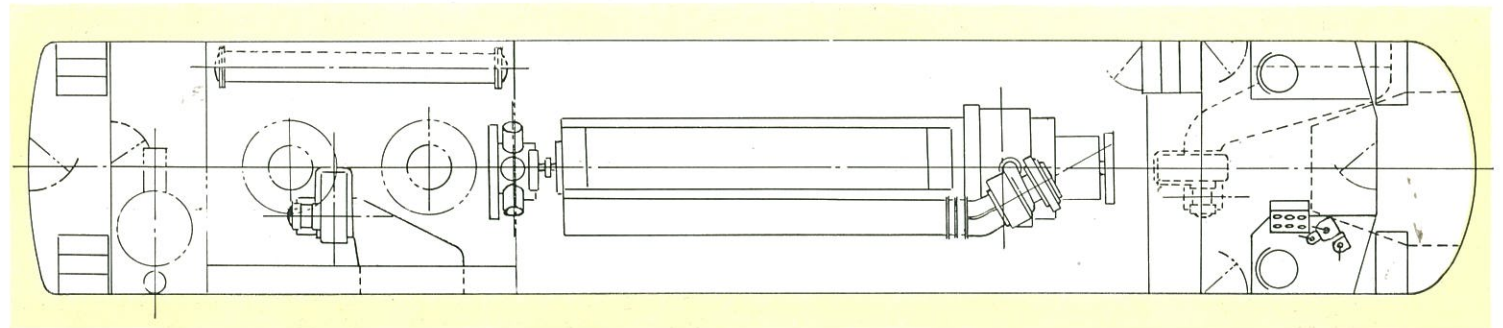
# ALL-PURPOSE LOCOMOTIVE



## 1500 AND 1000 HORSEPOWER

### GENERAL CHARACTERISTICS

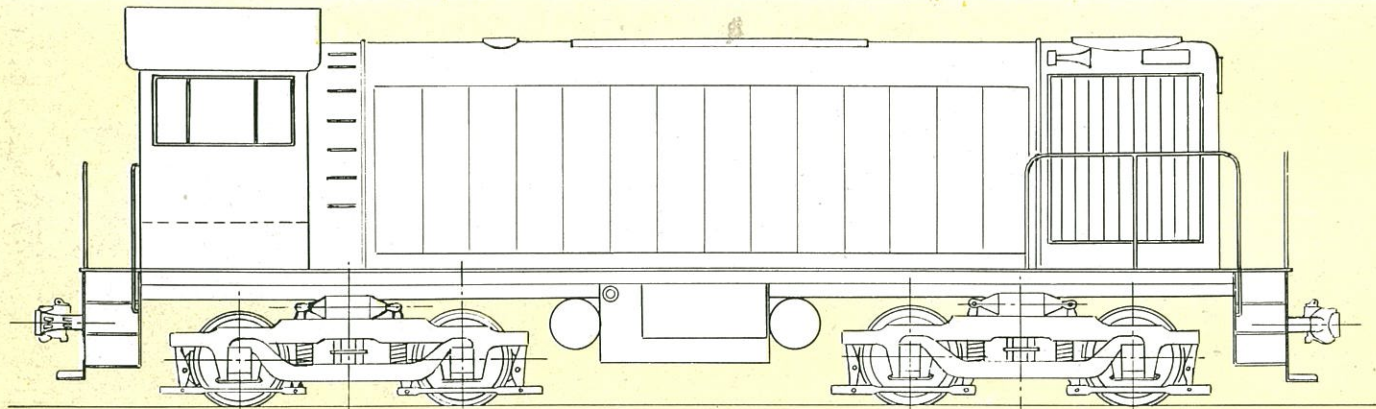
	1500 H. P.	1000 H. P.		1500 H. P.	1000 H. P.
Length overall body . . . . .	56'-6"	50'-8"	Starting tractive effort, 30% adhesion . . . . .	72,000	72,000
Length inside coupler knuckles . . . . .	59'-1"	53'-3"	Maximum track curvature radius . . . . .	150'	150'
Width, over body . . . . .	10'-0"	10'-0"	Diesel engine, four cycle super-charged . . . . .	(8 cyl.) 1500 HP	(6 cyl.) 1000 HP
Width, extreme . . . . .	10'-7"	10'-7"	Wheel diameter . . . . .	42"	40"
Height, to roof, above rail . . . . .	15'-0"	15'-0"	Traction motors, per unit . . . . .	4	4
Height, extreme, above rail . . . . .	15'-0"	15'-0"	Maximum speed . . . . .	65 MPH (gear ratio 15/63)	60 MPH (gear ratio 14/68)
Truck wheel base . . . . .	9'-6"	9'-6"	Supplies, fuel oil, per unit . . . . .	1000 gal.	1000 gal.
Distance between truck centers . . . . .	33'-0"	30'-10"	Lubricating oil . . . . .	150 gal.	90 gal.
Total wheel base . . . . .	42'-6"	40'-4"	Cooling water . . . . .	280 gal.	240 gal.
Weight, loaded . . . . .	240,000 lbs.	240,000 lbs.	Sand . . . . .	28 cu. ft.	28 cu. ft.
Weight, on drivers, loaded . . . . .	240,000 lbs.	240,000 lbs.			





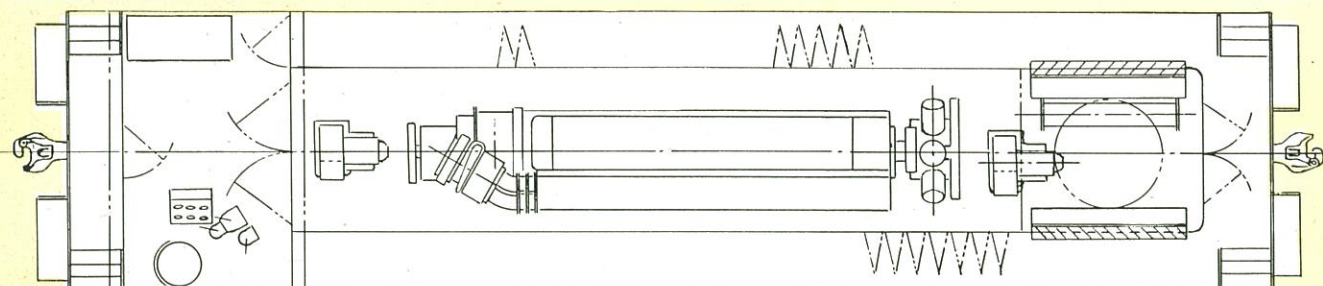
# SWITCHING LOCOMOTIVE

1000 AND 660 HORSEPOWER



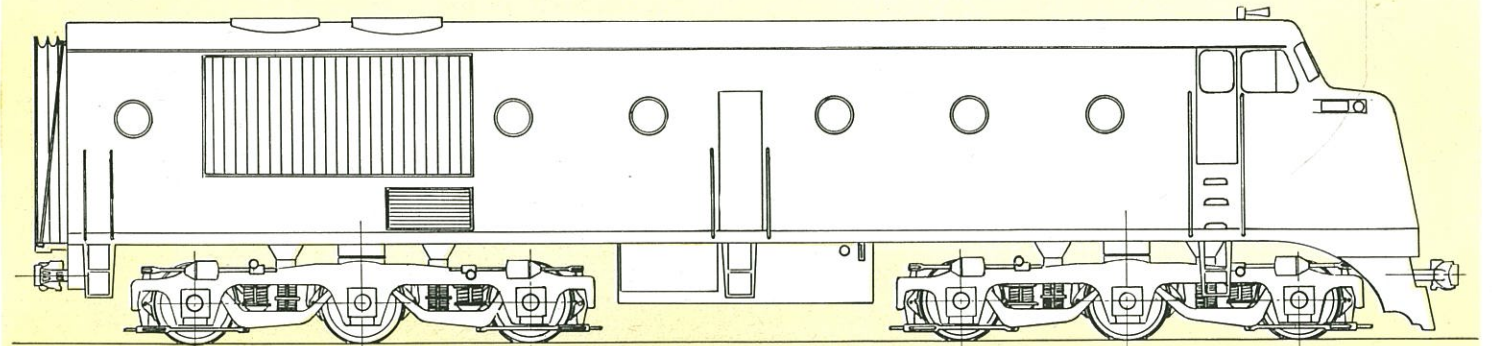
## GENERAL CHARACTERISTICS

	1000 H. P.	660 H. P.	1000 H. P.	660 H. P.
Length overall, body . . . . .	44'-10"	43'-0"	Maximum track curvature radius . . . . .	50'-0" 50'-0"
Width, over body . . . . .	9'-10"	10'-0"	Diesel engine, type . . . . .	4 cycle 4 cycle
Width, extreme . . . . .	10'-2"	10'-1"		supercharged
Height, extreme, above rail . . . . .	14'-8"	14'-3"	Number cylinders . . . . .	6 8
Truck rigid wheel base . . . . .	8'-0"	8'-0"	HP available for traction . . . . .	1000 HP 660 HP
Distance between truck centers . . . . .	25'-10"	24'-0"	Wheel diameter . . . . .	40" 40"
Total wheel base . . . . .	33'-10"	32'-0"	Maximum speed, gear ratio 14/68 . . . . .	60 MPH 60 MPH
Weight, loaded . . . . .	240,000 lbs.	190,000 lbs.	Traction motors, per unit . . . . .	4 4
Weight, on drivers, loaded . . . . .	240,000 lbs.	190,000 lbs.	Supplies, fuel oil, per unit . . . . .	800 gal. 600 gal.
Starting tractive effort, 30% adhesion . . . . .	72,000 lbs.	57,000 lbs.	Lubricating oil . . . . .	120 gal. 100 gal.
			Cooling water . . . . .	300 gal. 250 gal.
			Sand . . . . .	30 cu. ft. 27 cu. ft.



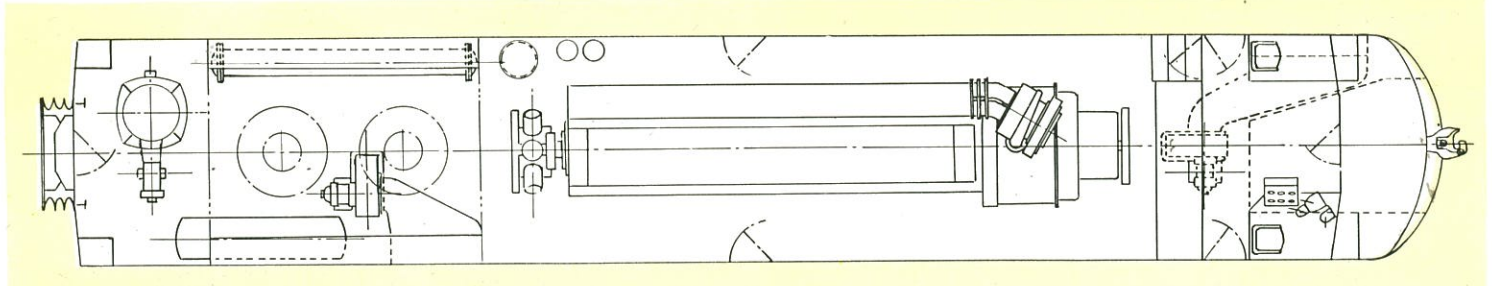
# PASSENGER LOCOMOTIVE

2000 HORSEPOWER



## GENERAL CHARACTERISTICS

	2000 H. P.	2000 H. P.	
Length overall body . . . . .	60'-0"	Starting tractive effort, 30% adhesion . . . . .	66,000 lbs.
Length inside coupler knuckles . . . . .	63'-0"	Maximum track curvature radius . . . . .	360'
Width over body . . . . .	10'-0"	Diesel engine, one 8 cylinder four cycle supercharged . . . . .	2000 HP available for traction
Width, extreme . . . . .	10'-5"	Wheel diameter . . . . .	40"
Height, to roof, above rail . . . . .	14'-3"	Traction motors, per unit . . . . .	4
Height, extreme, above rail . . . . .	14'-11"	Maximum speed, gear ratio 15/63 . . . . .	90 MPH
Truck wheel base . . . . .	15'-6"	Supplies, fuel oil, per unit . . . . .	1000 gal.
Distance between truck centers . . . . .	34'-0"	Lubricating oil . . . . .	200 gal.
Total wheel base . . . . .	49'-6"	Cooling water . . . . .	300 gal.
Weight, loaded . . . . .	330,000 lbs.	Boiler water . . . . .	1200 gal.
Weight, on drivers, loaded . . . . .	220,000 lbs.	Sand . . . . .	20 cu. ft.





# Superior

# LOCOMOTIVE DIESELS

## GENERAL FEATURES

- Modern, streamlined design
- Moderate speeds and loadings
- Buchi turbocharged
- In-line design for accessibility and simplicity
- Engine bed, block, and cylinder head are steel castings for strength and rigidity
- Generator is supported by engine bed and rests on engine foundation over its full length.
- Dry cylinder block with individually cooled liners
- Interchangeable dual intake and exhaust valves, of heat resisting steel, with seat inserts
- Cast iron, oil-cooled pistons
- Forged one-piece crankshaft
- Precision type Tri-metal bearings
- Cylinder liners of cast iron—chrome plating optional
- Helixhaust manifold, water cooled
- Individual fuel injection pumps actuated by chain-driven engine camshaft
- Built-in circulating water and lube oil pumps, chain driven
- Fuel supply pump driven by electric motor
- Hydraulic variable speed governor
- Westinghouse load control
- Alarms for failure of lube oil system and overheating of cooling system
- Bearing Watchdog System shuts off engine at excessive wear or failure of bearings
- Aluminum cover plates

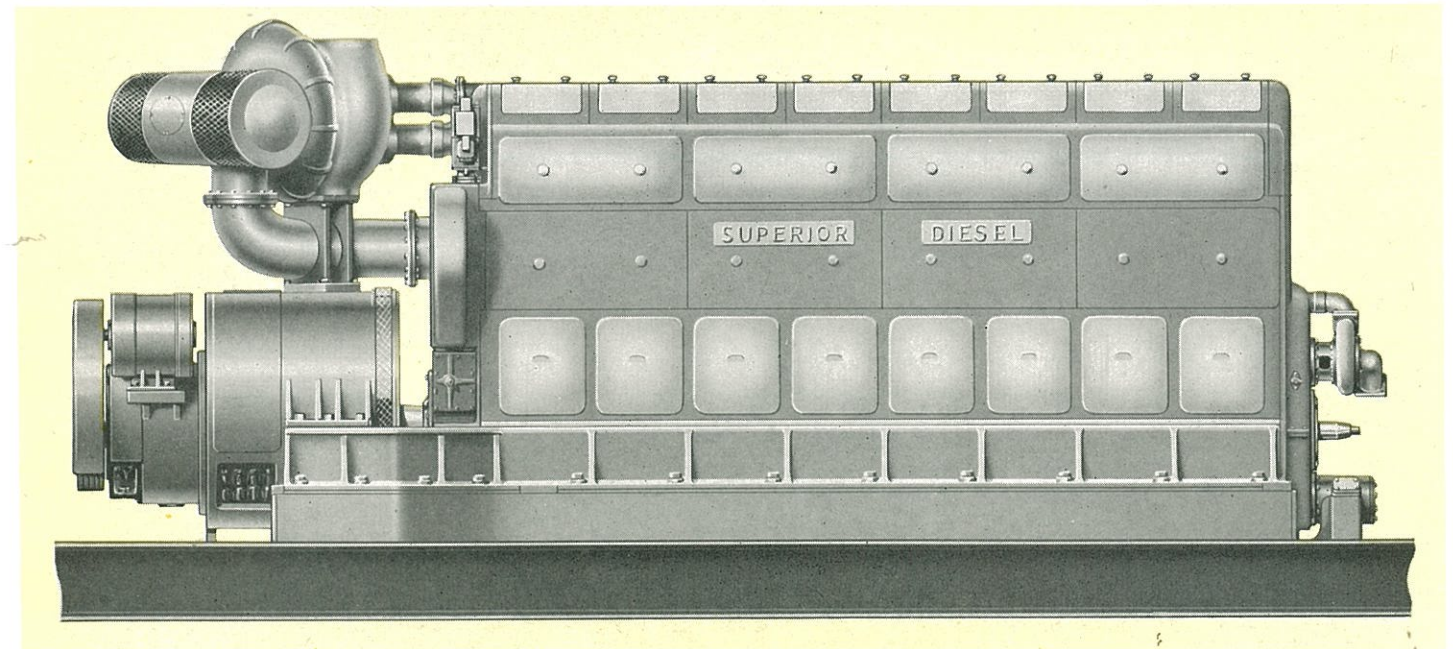
## TYPES AND SIZES

MODEL	ENGR. TYPE	NO. CYLS.	BORE AND STROKE	RPM	GROSS BHP	NET BHP (FOR TRACTION)	FOR INGALLS LOCOMOTIVE MODEL NO.
65-L-6*	LD-1840	6	12½ x 15	660	760	660	16-S
65-LX-6**	LDS-1840	6	12½ x 15	660	1220	1000-1100	3-S
65-LX-8**	LDS-1840	8	12½ x 15	660	1650	1500	4-S
75-LX-8**	LDS-2500	8	14½ x 15	660	2220	2000	17-A

**Smaller types and sizes of Superior Diesels are also available for locomotive service. (See Photograph, Page 1)**

40-LX-6**	LDS-282	6	8½ x 10½	900	520	450	For Railcars and
40-LX-8**	LDS-282	8	8½ x 10½	900	690	600	Smaller Switchers

\*Non-supercharged    \*\*Supercharged



**Model 65-LX-8 Built for  
INGALLS SHIPBUILDING CORPORATION  
Pascagoula, Mississippi**

**Superior Diesels are Manufactured by  
THE NATIONAL SUPPLY COMPANY  
Superior Engine Division • Springfield, Ohio**



# **INGALLS**

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## ***Built to the Railroads' Own Specifications***

The standard models of Ingalls Diesel-Electric Locomotives, several of which are illustrated and described in this booklet, were designed with a number of distinctive features which every railroad can use to advantage.

By studying the needs of many of the country's leading railway systems in advance . . . by conferring with numerous operating and maintenance executives . . . the greatest care was exercised to see that every improvement that could be devised was incorporated into these models.

We acknowledge with sincere thanks the valuable suggestions and advice that we received, from locomotive engineers as well as presidents of lines. They have enabled us to produce Diesel-Electric Locomotives which we are confident meet every operating requirement effectively and economically.

**THE INGALLS SHIPBUILDING CORPORATION**

**LOCOMOTIVE DIVISION**

**PASCAGOULA, MISSISSIPPI**