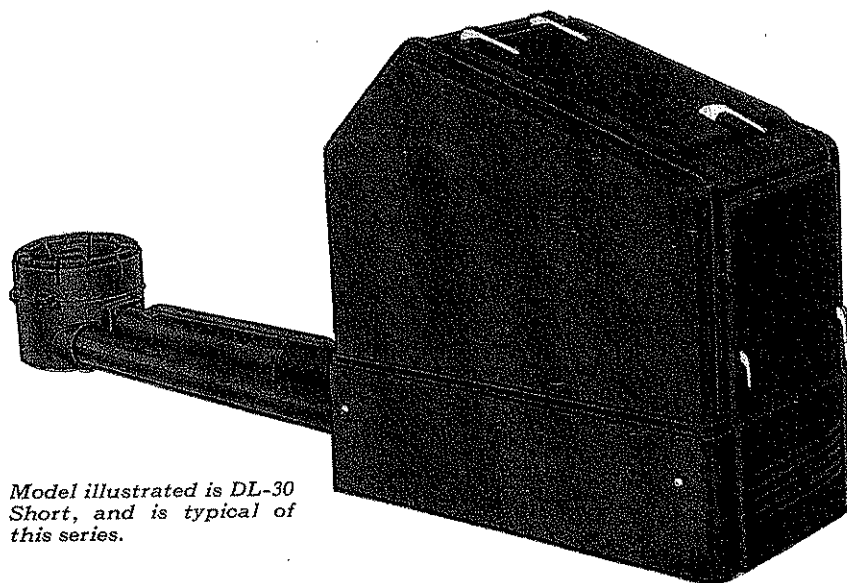




IRON FIREMAN



DL SERIES DELUXE HOPPER MODELS



Model illustrated is DL-30 Short, and is typical of this series.

DL Series Deluxe Hopper Model bituminous stokers are designed for use in warm air, steam, or hot water systems, and industrial applications. They are made in four sizes, and each size is available in two lengths.

These units are distinguished by their modern styling and compact design.

A metering-type worm conveys the coal

from the hopper to the fire in an unpacked condition, so that the air can easily penetrate the entire fuel bed. The coal is burned on an air-cooled hearth, from which the fused residue is easily removed.

The large hopper is easily filled through a low opening. The operating mechanism is concealed and protected by adjustable and removable hopper base enclosures, which

provide easy access to working parts.

Air required for combustion is supplied by a quiet fan, and is automatically regulated by the Volumeter to maintain a constant, predetermined air delivery.

Iron Fireman controls regulate the stoker to provide a constant room temperature or to meet steam, hot water, or other load requirements.

SPECIFICATIONS

HOPPER... 500-pound capacity... closed type... heavy cover sealed with rubber gasket... pressed-steel construction... convenient hopper-base cleanout.

COAL WORM... metering-type with heavier flights in hopper and stainless steel at retort end... cold-drawn steel flights electrically welded to solid steel core.

WORM HOUSING CLEANOUT... permits removal of foreign objects without emptying hopper... special guide plate directs foreign material to the easily removable cover.

FAN... radial-vane type... quiet... accurately balanced... ample capacity for all coals... high efficiency gives low power consumption.

VOLUMETER... automatically maintains correct volume of air for efficient combustion when adjusted to coal and burning rate... simple, positive, pneumatic operation... dash-pot action gives delayed damper opening... damper closes during "off" period and banks fire.

RETORT... self-contained air chamber and cleanout... adapted to air-cooled hearth construction.

TUYERES... Venturi-type, self-cleaning air openings... accurately sized and proportioned to burning rate of each model.

LEVELING SCREWS... rubber insulated... facilitate proper installation on sloping or uneven floors.

TRANSMISSION... continuous-feed type... worm and spur gear reduction... all gears and parts accurately machined... ball bearings used on high-speed shaft... totally enclosed... operates quietly in bath of oil.

DRIVE... flexible V-belt... multigroove sheaves provide three coal-feeding rates.

OVERLOAD PROTECTION... straight shear pin... easily replaced... gives positive, fool-proof protection.

AIR INJECTOR... supplies high-pressure air to coal-worm housing.

MOTOR... rubber mounted, totally enclosed, capacitor type with built-in, thermal overload protection... standard N.E. M.A. frames.

	DL-20	DL-30	DL-50	DL-75
Catalog Number				
Short Model	19512	19513	19516	29315
Long Model	19522	19523	19526	29325
Coal Feed, in pounds per hour (varies with density of coal)				
High Speed	20 to 24	30 to 37	50 to 62	70 to 85
Intermediate Speed	14 to 16	20 to 24	34 to 42	46 to 56
Low Speed	7 to 8	10 to 12	17 to 21	23 to 28
Motor Size	1/8 H.P.	1/8 H.P.	1/4 H.P.	1/2 H.P.
Approximate Shipping Weight				
Short Model	655	660	690	795
Long Model	690	695	725	825
Railroad Classification	3rd	3rd	3rd	3rd



DL SERIES DELUXE HOPPER MODELS



STANDARD EQUIPMENT

CONTROLS... A standard control system is included with each burner. This system automatically controls room temperature and provides timed refueling to keep the fire alive during mild weather. It consists of:

- One—Plain Thermostat, Model T-114, low-voltage, 2-wire, closed circuit.
- One—Controller, Model C-200, 115-volt, 60-cycle.
- One—Limit Control, high-voltage type. For warm air, hot water, or low-pressure steam systems. High-pressure steam regulators, and warm air or hot water controls with extra length bimetal extension are available at slight additional charge. Complete listings on control data sheets.

MOTOR... 1725 r.p.m., 115-volt, 60-cycle, single phase.

TUYERES... The standard tuyeres are:

- DL-20—11 $\frac{1}{8}$ -in. dia. round type.
- DL-30—13-in. diameter, round type.
- DL-50—13- $\frac{7}{8}$ -in. diam. round type.
- DL-75—Either P-25 or F-40 type with dead plates to form any setting shown in table up to 25 $\frac{1}{4}$ in. x 34 $\frac{1}{4}$ in. Larger settings at extra cost.

MISCELLANEOUS... Clinker hook... clinker tongs... spare shear pins... initial supply of gear case oil.

OPTIONAL AND EXTRA EQUIPMENT

CONTROLS... To automatically maintain lower room temperatures at night, the following two Syncrostat controls are substituted for the Plain Thermostat and the Model C-200 Controller:

- One—Duplex Thermostat, Model T-214, low-voltage, closed circuit, magnetic type.
- One—Syncrostat Controller, Model C-120, 115-volt, 60-cycle.

For combination time and stack temperature refueling, and automatic outfire cut-off, as well as the day-and-night room temperature control, use:

- One—Duplex Thermostat, Model T-214.
- One—Syncrostat Controller, Model C-110.
- One—Fire Pilot, Model S-101.

Controls are available for circulating fan or pump operation, summer or winter domestic hot water systems, industrial applications, and other special requirements.

Controls and motors can be furnished for most types of electrical current. Refer to factory for approval and quotation.

AGITATORS... should be used on all installations, except where dry, sized coal is burned. **MUST** be used with damp or slack coal.

TUYERES... Optional tuyere arrangements for the DL-75 are:

F-30 type tuyeres for hearth setting available only where dead plates cannot be used.

The round retort and DL-50 round tuyere can be used on the DL-75 for use in extremely small boilers.

AUXILIARY EQUIPMENT... Automatic draft regulators, low-water cut-offs, indirect water heaters, and other products are available for shipment with the stoker.

DEAD PLATES FOR DL-75 STOKERS

FOR SETTING		SPECIFY		SHIPPING WEIGHT
Length	Width	Side Plates	End Plates	4th Class
*28 $\frac{1}{4}$ in.	25 $\frac{1}{4}$ in.	Two—S-37	Two—S-18; (3 in.)	100 lbs.
*28 $\frac{1}{4}$ "	29 $\frac{1}{4}$ "	Two—S-6MA	Two—S-18; (3 in.)	140 "
*30 "	25 $\frac{1}{4}$ "	Two—S-38	One—S-18 One—S-19	110 "
*30 "	29 $\frac{1}{4}$ "	Two—S-23	One—S-18 One—S-19	150 "
34 $\frac{1}{4}$ "	25 $\frac{1}{4}$ "	Two—S-39	Two—S-19; (6 in.)	130 "
34 $\frac{1}{4}$ "	29 $\frac{1}{4}$ "	Two—S-1	Two—S-19; (6 in.)	180 "
34 $\frac{1}{4}$ "	33 "	Two—S-10	Two—S-19; (6 in.)	220 "
Step Type Dead Plates				
30 "	29 $\frac{1}{4}$ "	Two—SS-23	One—S-18 One—S-19	190 "

*Avoid using the three-inch S-18 End Plate wherever possible.

GENERAL DIMENSIONS

