

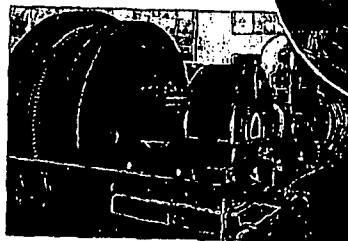
Skinner UNIVERSAL UNAFLOW

Steam Engines

VERTICAL TYPE



HORIZONTAL TYPE



WHAT THEY ARE

The Skinner "Universal Unaflow" Steam Engine is the outstanding reciprocating prime mover of this era, made by the largest exclusive manufacturer of steam engines in America. The performance of thousands of "Universal Unaflow" engines, in almost every type of industry and institution, daily demonstrates the truth of our claim—that they are "the most economical steam engines built."

"Universal Unaflow" engines are correctly designed for simplicity, dependability, heavy duty service, flexibility, and permanently maintained economy. They are available in sizes ranging from 75 to 2,250 horsepower, and in horizontal or multi-cylinder vertical types.

WHAT THEY DO

Skinner "Universal Unaflow" Steam Engines are built for direct connection, coupling, or belt drive, to electric generators, compressors, blowers, pumps, lineshafts, or other load.

Over 2000 power users, in industries and institutions, have found it more economical to generate their own power with "Universal Unaflow" engines than to purchase power from the local utility, or to generate power with other prime movers.

Exhaust steam is available to be utilized for heating, for laundry, for processing techniques, and many other purposes, further adding to the savings enjoyed through use of "Universal Unaflow" engines.

Skinner "Universal Unaflow" engines are frequently bought under our Guaranteed Saving Contract, payments being made out of proved savings after the engine is in service. Write for detailed information of the advantages of Skinner "Universal Unaflow" engines in your industry.

For Over 76 Years, Doing One Thing Well—Building Steam Engines
SKINNER ENGINE COMPANY, ERIE, PA.

nomical and strategic lines. Many small diesel units will be eliminated and thousands of farm households will have electricity.

The southwest project will be completed in three stages. It is developing sub-bituminous coal deposits at Collier, a small steam power plant at Collier will be enlarged to an initial capacity of 10,000 kw, which in the thinly settled area around the station is sufficient to power 40 townships with electricity.

A 10,000-kw station is planned to be built at Collier. The two stations will be linked. Work has commenced on the metropolitan power station at Fremantle. This will supersede the late 40-cycle 53,500-kw East Perth station that is running with one of the highest load factors in the world. Fremantle will have an initial capacity of 50,000 kw and will cost \$11,000,000. Two additional 25,000-kw units will be added later to provide 75,000 kw running plant and 25,000 kw standby capacity. East Perth, South Fremantle, and Bunbury systems will be connected. The grid will operate on 40 cycles, replacing present 40-cycle operation in the state. The ultimate transmission voltage will be 132 kv.

With establishment of another power plant at Geraldton to link with Perth-South Fremantle system the grid will cover an area as big as California, extending from the subtropical north to the whaling station of Albany on the coast of the state.

Buenos Aires, Argentina: An appropriation of \$559,000,000 was authorized for energy development in the 1941 budget approved by executive decree. The figure will be subdivided as follows: \$1,000,000 for water works, \$121,250,000 for electricity, \$155,000,000 for petroleum, \$80,000,000 for gas, \$40,000,000 for minerals, etc.

E. F. Drew & Co. has prepared a 16-mm motion-picture film with music entitled *A Study in Boiler Treatment*. Picture, filmed in Drew research laboratories at Boonton, N. J., covers difficulties in boiler-water treatment, such as scale and corrosion and their correction. By a 1000-psi foaming boiler, fitted with sight glass, foaming and priming is shown in a manner that clearly depicts these phenomena in a high-pressure boiler. The company offers this picture without charge to engineering societies and other interested groups. Write: Power chemicals div., E. F. Drew & Co., E. 26th St., New York 10, New York, for information concerning use of this film.

Sulfo, Inc., 1143 E. Jersey St., Elizabeth, N. J., has announced an expansion of its line of plumbing, steamfitting and metal-working specialties. The expansion, to be known as Sulfo Quality Line, includes solder fluxes, pipe-joint compounds, penetrating oil, layout liquid and a new all-purpose cutting compound. In addition to plumber and steamfitter supplies items.

INSTALL STEEL PIPING ADEQUATE FOR TOMORROW'S NEEDS

Ready for this year's 50% load increase.....

because 'oversize' pipe went in in '44

INCREASE PIPE SIZE BY 25% AND YOU ADD 50% TO LOAD CAPACITY

It was a forward-looking engineer who specified "oversize" steel pipe a few years ago. If he had been satisfied with sizes barely adequate to do the war-time job, he would now be making major changes to meet a 50% load increase facing him this year.

You can also apply this thought to today's pipe installations, looking ahead to make sure you are anticipating steam and processing loads of the next five to ten years.

Too many owners and contractors are content to think only of today. To some it may seem economical to stick to the minimum sizes with which they can "get by." But, of course, it's common sense and long-run economy to plan for future needs as well as present, when you invest in equipment as permanent as steel pipe.

Youngstown Distributors join us in recommending Youngstown Steel Pipe in sizes adequate for tomorrow's needs.

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THE YOUNGSTOWN SHEET AND TUBE COMPANY
General Offices: Youngstown, Ohio
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Manufacturing Plants: Youngstown, Ohio; Warren, Ohio; and Toledo, Ohio

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