

Tool Steel Process sheaves and pins. Photographs are included.

26 V-BELT DRIVE—Allis-Chalmers Mfg. Co., Milwaukee, Wis. 14-page catalog No. 1038956 on pre-engineered stock V-type drives simplifies drive selection so that persons untrained in V-belt engineering can readily specify proper drives. These drives are for all applications from one to 180 hp.

27 CONVEYOR BELTING—Howitt Rubber Div., Hawitt-Robins Inc., 510 Kensington Ave., Buffalo 8, N. Y. Folder discusses the "Infinite" features of Maltex Conveyer belting.

28 LEATHER BELTING—J. E. Rhoads & Sons 35 N. 4th St., Philadelphia 8, Pa. 44-page handbook contains engineering data for design and installation of Rhoads Tannate-Rockwood drives.

29 ADJUSTABLE V-BELT—Manheim Mfg. & Belting Co., Manheim, Pa. 34-page handbook contains engineering data for design and installation of features of adjustable V-belt, construction details, illustrates how to couple and uncouple, measure and install.

BOILERS AND AUXILIARIES

35 BOILER AND TANK ACCESSORIES—Steel Improvement & Forge Co., 870 E. 44th St., Cleveland 14, Ohio. 26-page catalog No. 11 on forged boiler and tank accessories gives complete buying information on standards and handbooks plates and yokes.

36 SPREADER STOKER—Detroit Stoker Co., General Motors, Div., Detroit, Mich. 4-page brochure describes the Detroit RotoGrate stoker. Typical examples of various installations are shown over a wide range of boiler types and sizes.

37 HORIZONTAL ROTARY BURNER—Proffert Utilities Mfg. Corp., 1800 Broadway, New York 10, N. Y. 26-page bulletin No. 175 describes a new type oil burner of the horizontal rotary type, with a capacity of up to 180 sq. ft. per hr.

38 OIL BURNERS—Peabody Engrg. Corp., 550 W. 14th Ave., New York 10, N. Y. 4-page condensed bulletin No. 403 and 103 discuss operation of heavy-duty mechanical and steam-atmosphere oil burners. Bulletins also describe gas and oil burners for industrial boilers, heaters and furnaces, as well as central-section installation.

39 STEAM GENERATORS—Springfield Boiler Co., 1581 E. Capitol Ave., Springfield, Ill. 31-page bulletin covers Springfield line of 1-drum bundle-tube and sectional-header cross-drum boilers. Designs featured include Type 24 standard-size boilers for small- and medium-size plants, with complete data and dimensions.

40 COMBUSTION UNIT—National Air-oil Burner Co., 1341 E. Sordley Ave., Philadelphia 14, Pa. Supplement No. 8 to bulletin No. 10 describes National Air-oil Alcohol tandem combustion unit for combined gaseous and oil fuels.

41 STEAM GENERATORS—Cyclotherm Corp., 90 Broad St., New York 4, N. Y. 8-page bulletin No. 31 explains principle of cyclotherm combustion that enables the Cyclotherm steam generator to operate automatically on any liquid or gaseous fuel. Ratings and dimensions of standard sizes are included.

42 RAM-FEED STOKERS—Brownell Mfg. Co., 308 N. Windsor St., Dayton 1, Ohio. 8-page bulletin discusses mechanical features of Types R and R1 ram-feed stokers. Photos and diagrams are included.

43 SOOT BLOWERS—Diamond Power Specialty Corp., Detroit 31, Mich. 48-page catalog No. 1016 describes automatic air put out by steam, electric, or gas blowers, short retracting soot blowers, long retracting soot blowers, telescopic retracting soot blowers, air heater blowers, electric control panel, air control panel, etc. Photos and diagrams are included.

44 RENT-TUBE BOILER—Henry Vogt Machine Co., 19th and Ormsby St., Louisville, Ky. 11-page bulletin covers installations of LB rent-tube boiler.

45 HIGH-PRESSURE BOILERS—Kewanee Boiler Corp., Kewanee, Ill. 16-page booklet describes operation and care of Kewanee high-pressure boilers. Boiler construction is given.

46 BITUMINOUS COAL—Pittston Co., 510 Fifth Ave., New York 10, N. Y. 44-page brochure on the Pittston Co. and its associated divisions gives a graphic picture of their far-reaching activities, with particular emphasis on mining, shipping and distribution of bituminous coal.

47 UNDERFEED STOKERS—Erie City Iron Works, Erie, Pa. 13-page bulletin No. 5837-524-4-47 describes construction of Erie City underfeed stokers. Dimensions of Type L and Type T underfeed stokers are discussed.

48 WATER GAGE AND ALARM—Ermst Water Column & Gage Co., Livingston, N. J. Bulletin No. 2 gives specifications of Ermst adjustable inclined water column and high and low alarm for package boilers.

49 BURNERS—Peabody Engineering N. Y. Bulletin No. 303 covers M and M1 industrial oil and gas burners, their construction features and typical installations.

50 BLOW-DOWN SEPARATORS—Wilson Engrg. Corp., 121 South Michigan Ave., Chicago 11, Ill. 4-page bulletin No. 30 discusses boiler blowdown disposal problems and the Wilson centrifugal blowdown separator.

51 STOKER—Coke Stoker Engrg. Co., Hamilton, Pa. 4-page folder illustrates and describes Hamilton traveling grate stoker for anthracite. Bulletin describes automatic operation and photographs show construction details.

52 OIL BURNERS—Schutte & Koerting Co., 1315 N. Thompson St., Philadelphia 16, Pa. 16-page bulletin No. 104 illustrates line of mechanical oil burners. Photographs, text and drawings describe the burners, together with general information on construction and operation.

53 WATER COLUMNS AND GAUGES—Yarnall-Waring Co., Chestnut Hill, Philadelphia 30, Pa. Bulletin No. 104-WO-181 explains operation of the Yarnall-Waring Co. water column and gauge. Construction details of columns, types and gauges, column-gauge unit for pressures over 400 lb., remote water level indicators and a list of dimensions and prices.

54 BOILER-TUBE CLEANER—Boiler Equipment Trust, Amherst, Mass. 4-page booklet gives construction features of BTE boiler-tube cleaner.

All literature designated with a star (*) may be obtained only by writing direct to the manufacturer on company letterhead, giving writer's name and title.

55 OIL BURNING SYSTEM—Peabody Engrg. Corp., 550 Fifth Ave., New York 10, N. Y. Bulletin No. 102A not only explains how the constant differential oil burning system operates, but also illustrates the atomizer itself, with complete explanation of how extreme fluctuating loads are handled under positive regulation with full flame control.

56 AUTOMATIC ROILER—Alert Engrg. Products Co., 315 W. Woodbridge St., Detroit 26, Mich. 4-page circular No. 17 gives advantages of the Alert automatic boiler. Design features and construction details are included.

57 MECHANICAL ATOMIZER—Engelner Co., 18 West 14th St., New York 4, N. Y. Drawing 2112-B, with descriptive loads are handled under positive regulation with full flame control.

58 COAL GRINDERS—McNally Pittsburg Mfg. Corp., Pittsburgh, Kan. 4-page bulletin explains coal crushing and washing equipment. Photos and diagrams are included.

59 RAM-FEED STOKERS—Brownell Mfg. Co., Dayton 1, Ohio. 11-page bulletin No. 8-23 describes LR and LR1 ram-feed

stokers. Diagrams and photos show construction of these stokers.

59 SPREADER STOKER PIERCE—Pierce & Warriner Appliances Co., 32 Broad St., Boston 10, Mass. 4-page bulletin No. 13-50 describes air-cooled Carboflexa front wall stokers for oil spreader stokers. Diagrams are included.

60 FUEL-OIL CONDITIONING—Power-Chemicals Div. E. P. Draw & Co., 18 E. 44th St., New York 17, N. Y. 7-page technical bulletin covers five main problems encountered in burning of industrial fuel oil. The bulletin discusses causes of these problems and corrective measures.

61 CONDENSATE RETURN UNIT—Roy & Roth Co., Rock Island, Ill. 10-page bulletin No. 281 offers general catalog data, descriptions, specifications and prices on both condensate units, parts and accessories.

62 THERMAL INSULATION—Infra-Tek Insulation, Inc., 10 Murray St., New York 10, N. Y. Bulletin No. 111 describes "The Simplified Physics of Thermal Insulation," shows relative insulative values of various materials under different circumstances.

63 BOILER FEED UNITS—Roy & Roth Co., Rock Island, Ill. 4-page bulletin No. 282 contains descriptions, specifications and prices on both boiler feed units, parts and accessories.

64 GAS SCRUBBER—Peabody Engrg. Corp., 550 Fifth Ave., New York 10, N. Y. Bulletin No. 41-103 illustrates and describes Peabody scrubbers and outlines their applications in industry.

CLUTCHES AND COUPLINGS

65 HYDRAULIC COUPLINGS—Hydraulic Div., Twin Disc Clutch Co., Rockford, Ill. 13-page bulletin No. 114 discusses design, construction and operation of Twin Disc amply hydraulic couplings.

66 FLEXIBLE COUPLINGS—Coupling Div., John Waldron Corp., New Brunswick, N. J. 30-page catalog No. 87 contains descriptive information on various types of Waldron Series A flexible couplings, as well as complete tables on gear coupling ratings.

67 CLUTCHES, DRIVES, GEARS—Hydraulic Div., Twin Disc Clutch Co., Rockford, Ill. 28-page sales and service issue describes Twin Disc line of clutches, hydraulic drives and marine gears.

68 FLEXIBLE COUPLINGS—Morse Chain Co., 7401 Central Ave., Detroit 8, Mich. 31-page catalog No. C1-48 discusses development, construction and working principle of Morse flexible coupling line.

69 FLEXIBLE COUPLINGS—Thomas Flexible Coupling Co., Warren, Pa. 28-page engineering catalog covers complete lines of standard Thomas flexible couplings.

COMPRESSORS AND ACCESSORIES

70 COMPRESSOR STATIONS—Clark Bros. Co., Olean, N. Y. 4-page article entitled "Field Compressor Stations," by C. B. Worley, will be of vital interest to everyone connected with production and transmission of natural gas.

71 COMPRESSORS—Frick Co., Wayneboro, Pa. Bulletin No. 100-4 describes and illustrates "New Bellows" reflowing machines. Specifications are included and diagrams show outline dimensions.

72 AFTERCOOLERS—Ingersoll-Rand Corp., 11 Broadway, New York 10, N. Y. 16-page bulletin, Form No. 2014-B, covers benefits, principles and applications of aftercoolers. This bulletin gives complete description of a line of Type PL and M aftercoolers.

73 COMPRESSOR—Fredric Fiedler, Inc., 113 Cleveland St., New York 10, N. Y. Check coupon on page 185 for further information concerning axial flow compressor only 17 in. long & 23 in. wide which delivers 15,000 cfm at 35 psig.

74 AIR FILTER—American Air Filter Co., Louisville, Ky. 4-page booklet explains operation and application of company's self-cleaning air filter for engine and compressor service.

75 AIR COMPRESSORS—Davy Compressor Co., Kent, Ohio. Air-compressor leaflet contains mechanical data and specifications on complete Davy departmental units of 60-, 105-, 160-, 210-, and 315-cfm capacities.

76 STATIONARY AIR COMPRESSORS—Schramm Inc., West Chester, Pa. 13-page bulletin No. 4810 features complete line of Schramm stationary air compressors, built in sizes ranging from 3 to 101 cu ft displacement and designed for V- or flat-belt drive and direct built-in motor.

CONTROLS, ELECTRIC

77 BOILER WATER LEVEL CONTROL—Northern Equipment Co., Erie, Pa. 4-page bulletin No. 472 entitled "Boiler Water Level Control at the Municipal Power Plant, City of Monroe, Louisiana," describes the installation of boiler water control at this plant.

78 VOLTAGE REGULATORS—Allis-Chalmers Mfg. Co., Milwaukee 1, Wis. 4-page bulletin No. 1018 describes, with many illustrations and color, Allis-Chalmers' self-cooled, 3-phase, 60-cycle feeders and regulators.

79 WATER LEVEL CONTROL—Northern Equipment Co., Erie, Pa. 8-page bulletin No. 478 describes performance of the Erie Municipal electric remote boiler water-level control at Ham-mersmith Paper Co. Significant data on boiler water levels included as well as two sets of boiler water-level charts.

80 DAMPER CONTROL—Cleveland Fuel Equipment Co., 1818 Euclid Ave., Cleveland 15, Ohio. 4-page bulletin discusses Cleveland's new low-cost electric remote damper control, Model DCR-A. It provides, in one compact cabinet, all the elements for safe, automatic control of stack draft.

81 ELECTRONIC SERVO SYSTEM—Askania Regulator Co., 418 E. Ontario St., Chicago 11, Ill. Bulletin describes Askania electronic servo systems for remote positioning of dampers, valves and other mechanisms.

82 TIMING MOTORS—Haydon Mfg. Co., Torrington, Conn. 16-page catalog No. 210 describes timing motors, timing devices and clock movements produced by Haydon Mfg. Co.

83 BOILER WATER-LEVEL CONTROL—Magnetrol, Inc., 2110 S. Marshall Blvd., Chicago 22, Ill. 4-page bulletin No. 147 discusses Magnetrol boiler water-level controls. Photos and diagrams are included.

84 ELECTRONIC MOTOR CONTROLS—Electron Equipment Corp., 117 Meridian Ave., South Pasadena, Calif. 4-page bulletin No. 178 covers operating features and applications of Vorticonic electronic motor controls.

85 TEMPERATURE CONTROL SYSTEMS—Whelco Instruments Co., 147 W. Harrison St., Chicago 10, Ill. 12-page education bulletin No. 3 contains charts, tables and diagrams explaining measurement and automatic control. Selection of proper control system is covered.

86 ELECTRONIC CONTROL UNIT—Electron Div., R-S Products Corp., 10000 Juniper Road, Dayton 10, Ohio. 8-page catalog No. 27 presents the new Levitronic relay, designed for basic applications in control of liquid level, interface, pressure and temperature.

87 TIME DELAY RELAYS—Ward Leonard Electric Co., 31 South St., Mt. Vernon, N. Y. 4-page bulletin No. 161 describes Ward Leonard time delay relays with composite connections for operation on ac.

88 SMALL RELAYS—Attila Control Co., 2 East 42nd St., New York 17, N. Y. 4-page guide illustrates a complete line of small, compact, space-saving relays of varied types and features.

89 COMBUSTION SAFEGUARD—Whelco Instruments Co., 147 W. Harrison St., Chicago 10, Ill. 12-page bulletin No. 3 contains illustrations, wiring diagrams and a complete description of Whelco flame-out combustion safeguard system.

90 VOLTAGE REGULATORS—Sorenson Electric Co., 275 Fairfield Ave., Stamford, Conn. 16-page catalog No. S-118 gives advantages, applications and designs of Sorenson standard electronic voltage regulators.

CONTROLS, MECHANICAL

92 INDOOR, OUTDOOR THERMOMETER—Brown Instrument Co., 1078 Southport Ave., Chicago 14, Ill. 4-page leaflet discusses March Duo-Temp thermometer for registering both indoor and outdoor temperatures.

93 AIR-OPERATED CONTROLLERS—Brown Instrument Co., Wayne & Roberts Ave., Philadelphia 44, Pa. 48-page catalog No. 8103 discusses control instruments for temperature, pressure, flow, liquid level and humidity.

94 DIFFERENTIAL CONTROLLERS—Brown Instrument Co., Wayne & Roberts Ave., Philadelphia 44, Pa. 47-page catalog No. 8221 presents instruments and systems for measuring, indicating, recording and controlling flow and liquid level.

95 ELECTRONIC SQUIRREL—Whelco Instruments Co., 147 W. Harrison St., Chicago 10, Ill. 10-page educational bulletin No. 7 presents the Canadlog, electronic recorder. Operational diagrams, schematic drawings, charts and listings explain differential functions of the company's new strip chart recorder.

96 FLOAT SWITCH—Automatic Control Co., St. Paul 4, Minn. Bulletin 3 gives construction, operation and applications of L-80 float switch. Photos and diagrams are included.

97 DIFFERENTIAL PRESSURE CONTROLS—Swartwout Co., 1811 Euclid Ave., Cleveland 15, Ohio. 4-page bulletin No. 8-17 explains a new series of precision differential pressure master controllers. Bulletin includes hookup diagrams on a number of applications.

98 ENTHALPIE CONTROL VALVES—Foxboro Co., 81 Bennett Ave., Foxboro, Mass. 48-page bulletin No. 477-3 describes Foxboro pneumatic control valves and controller accessories. Photos, diagrams and tables are given.

99 REGULATORS—Spence Engrg. Co., 1000 W. 14th St., New York 10, N. Y. 24-page condensed catalog No. 2 gives operating cycle of Spence regulators, main valves, pressure regulators, temperature regulators, strainers. Dimensions and weights, flange standards and capacities are included.

100 CONTROL DEVICES—Brown Instrument Co., Wayne & Roberts Ave., Philadelphia 44, Pa. 16-page catalog No. 8103 presents informative data on electronic and pneumatic automatic control systems.

101 TEMPERATURE REGULATORS—Leafield & Co., 1110 Broadway, New York 10, N. Y. 16-page booklet, entitled "Engineering, Operating and Maintenance Data on Temperature and Automatic Control Systems," covers the subject thoroughly. Tables and concise tables guide selection of proper controller or controller.

102 THERMOPNEUMATIC CONTROLS—Greenview Ave., Chicago 14, Ill. Catalog No. 101 contains complete line of regulators and thermopneumatic water-mixing valves for water temperature control.

103 PLOWMETERS—Brown Instrument Co., Philadelphia 44, Pa. 23-page bulletin No. 1023 presents the instruments offered by Brown for measurement of steam distribution and utilization.

104 TACHOMETERS—Herman H. East, 257 East 14th St., New York 10, N. Y. 4-page bulletin No. 104 describes various tachometers, such as centrifugal, chronometric, vibrating reed, etc.

105 PHOTOGRAPHY—George Scherr Co., 200 Lafayette St., New York 13, N. Y. 6-page folder discusses Models A and B of the Wilder Albers projector. These projectors measure or compare objects by a magnified shadow image.

ELECTRICAL EQUIPMENT, GENERAL

107 GROUNDING CONNECTORS—Bundy Engrg. Co., 107 Bruckner Blvd., New York 24, N. Y. 11-page catalog, entitled "Connectors for Grounding," presents company's line of grounding devices. This publication provides a comprehensive discussion of modern grounding practice.

108 FLUORESCENT LIGHTING—Benjamin Electric Mfg. Co., 2101 Broadway, New York 10, N. Y. 11-page "Guide to Fluorescent Lighting," gives applications and specifications of Benjamin fluorescent lighting line. Photos, diagrams and charts are included.

109 POWER-LINE CARRIER COMMUNICATIONS—Westinghouse Electric Corp., Box 218, Pittsburgh 30, Pa. 8-page booklet No. B-2353 describes the Type J power-line carrier communication equipment. This booklet discusses 3-frequency duplex, manual simplex and automatic simplex transmission systems for measuring, indicating, recording and controlling flow and liquid level.

110 FLUORESCENT-TUBE LOUVERS—Photo-Vision, Inc., 35 W. 43rd St., New York 18, N. Y. Folder gives advantages of Beauty-Tube louvers on fluorescent tubes for eye protection. Specifications are included.

111 ELECTRONIC LINE—Trumbull Electric Mfg. Co., Plainville, Conn. 50-page Trumbull general catalog presents enclosed safety switches, enclosed circuit breakers, service entrance switches, multi-breaker load centers, motor starters, and a complete line of electrical equipment, including busways, control centers, switchboards, infrared ovens, etc. Capacities are given.

112 TRANSFORMERS—Allis-Chalmers Mfg. Co., Milwaukee 1, Wis. 4-page bulletin No. 8104133A covers construction and application of A-C network transformers. Bulletin also describes how network system operates.

113 RENEWABLE FUSES—Ware Brothers, 4450 W. Lake St., Chicago 21, Ill. 16-page booklet describes construction of Ware Hi-Lag renewable fuses. Prices and dimensions included.

114 HIGH-CURRENT RESISTORS—Ward Leonard Electric Co., 31 South St., Mt. Vernon, N. Y. 4-page bulletin No. 28 presents Ward Leonard Barnham, Loop-ham and Edgemoor resistors. Resistance values, current-carrying capacities, dimensions, methods of mounting, etc. are given.

115 AC CONTACTORS—Ward Leonard Electric Co., 31 South St., Mt. Vernon, N. Y. 4-page bulletin No. 28 presents Ward Leonard Barnham, Loop-ham and Edgemoor contactors. Resistance values, current-carrying capacities, dimensions, methods of mounting, etc. are given.

116 AXIAL AIR-GRAB MOTOR—Fairbanks-Morse & Co., 600 S. Michigan Ave., Detroit 2, Mich. 16-page bulletin No. 2740 covers design and construction of Fairbanks-Morse axial air-grab motor. Applications, dimensions and sizes are discussed.

117 SQUIRREL-CAGE INDUCTION MOTORS—Louis Allis Co., Milwaukee 1, Wis. 16-page bulletin No. 618-D gives electrical and mechanical details of CT rolled shell, shaftless squirrel-cage induction motors for built-in drive.

118 CONNECTORS—Bundy Engrg. Co., New York 24, N. Y. Connector "wall chart," which can also be used as a "factory," is designed to simplify choice of right connector for each job. Terminations, T-connectors and splices indexed for quick selection, and complete ordering information included.

119 DIELECTRIC CERAMICS—General Ceramic & Stoneware Co., Kew-Forest, N. Y. 32-page booklet contains description of some ceramic materials