

STOVE
WOLFS

CLASSIC

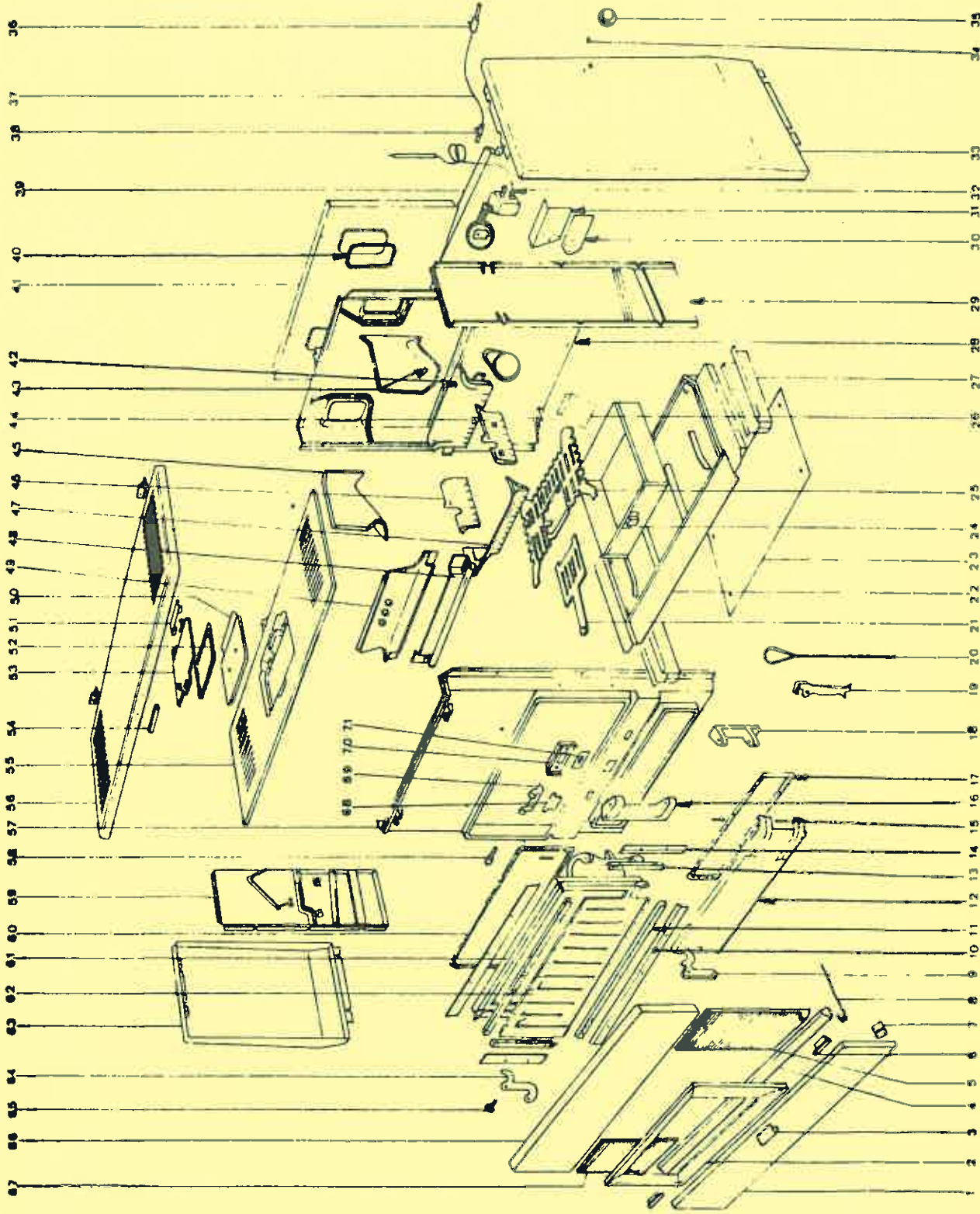
233 MAIN ST. / SUITE 608 / NEW BRITAIN, CT. 06051

MCK 508

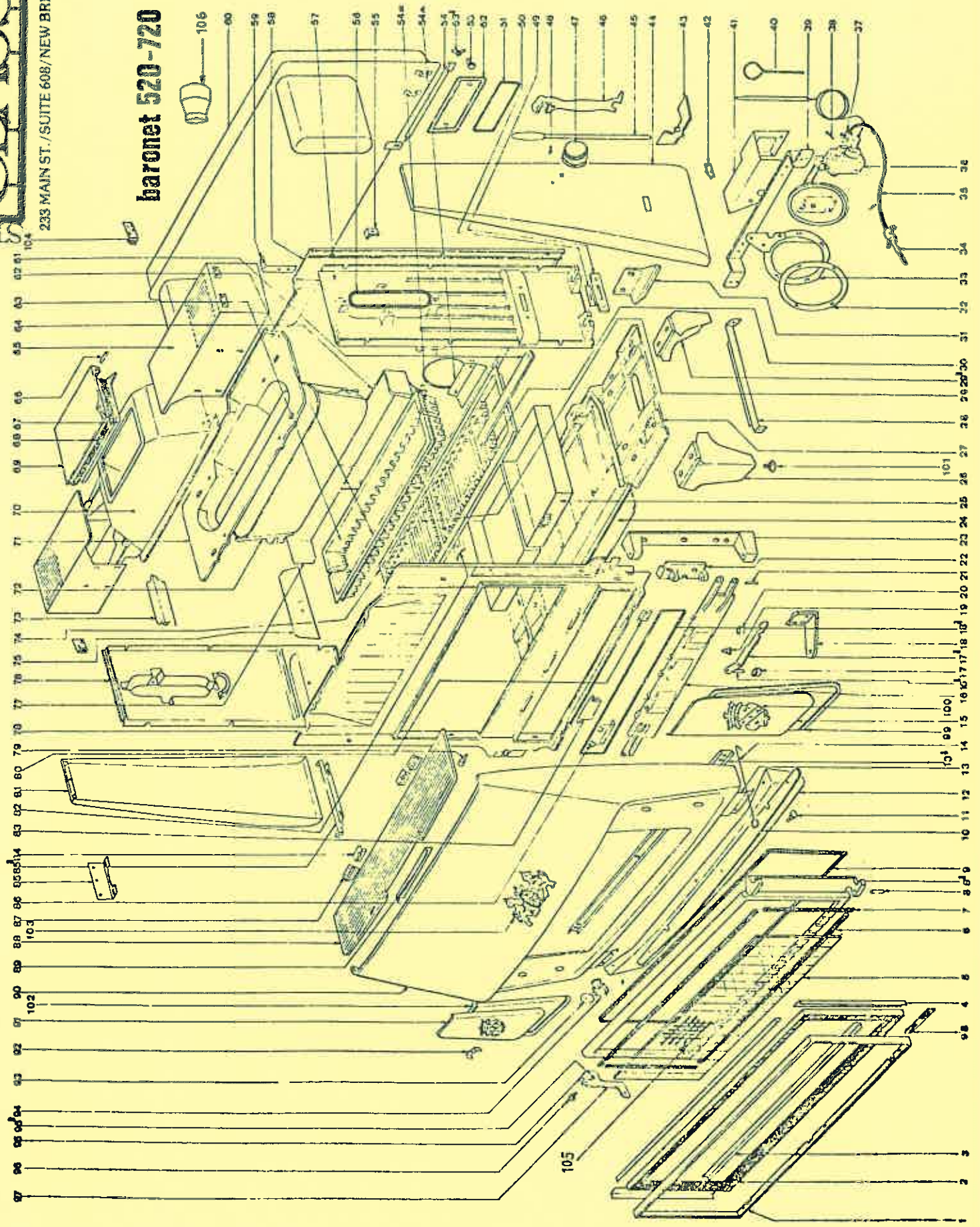
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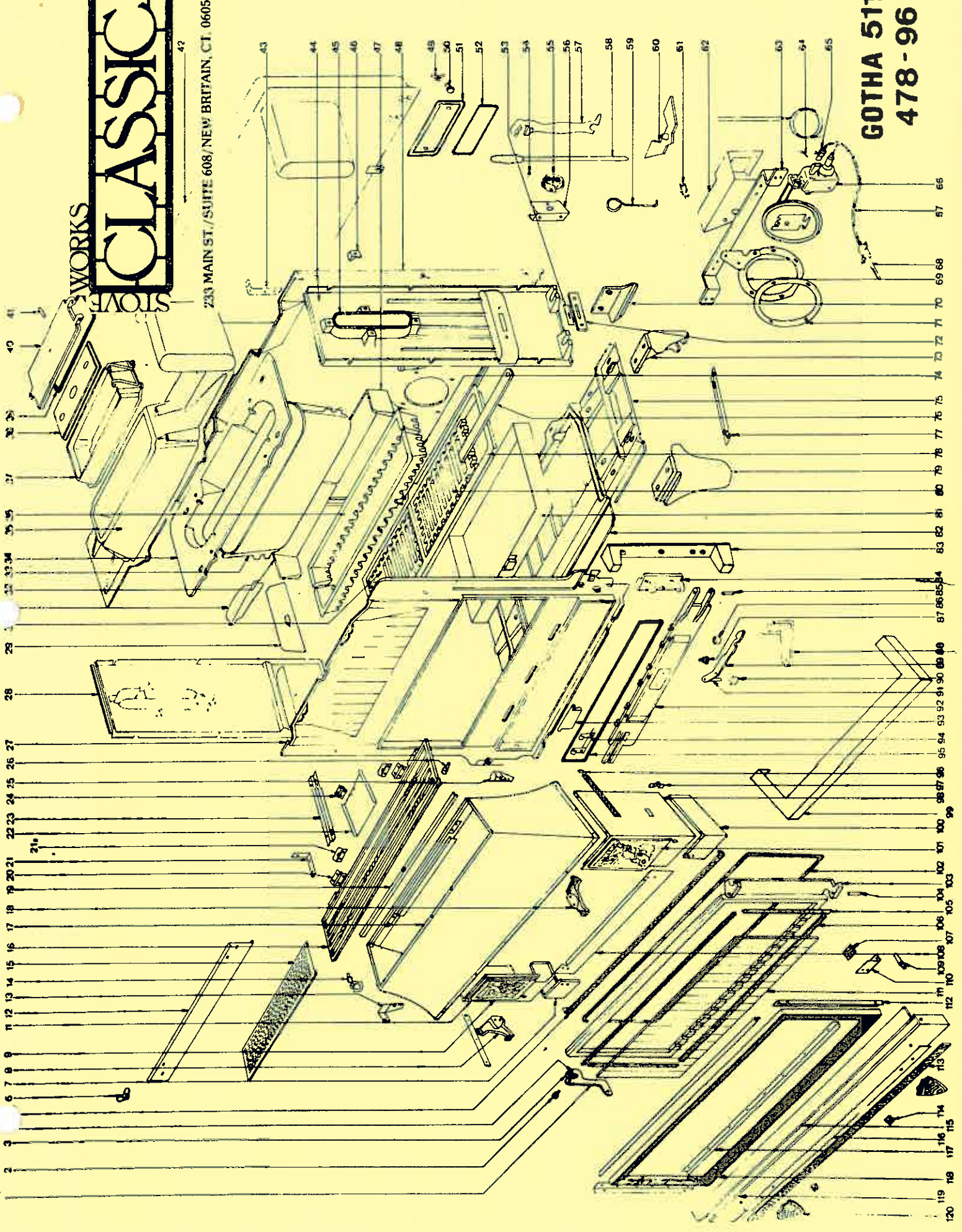


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STOVES WORKS
CLASSIC

233 MAIN ST./SUITE 608/NEW BRITAIN, CT. 06051



GOTHA 511
478-96

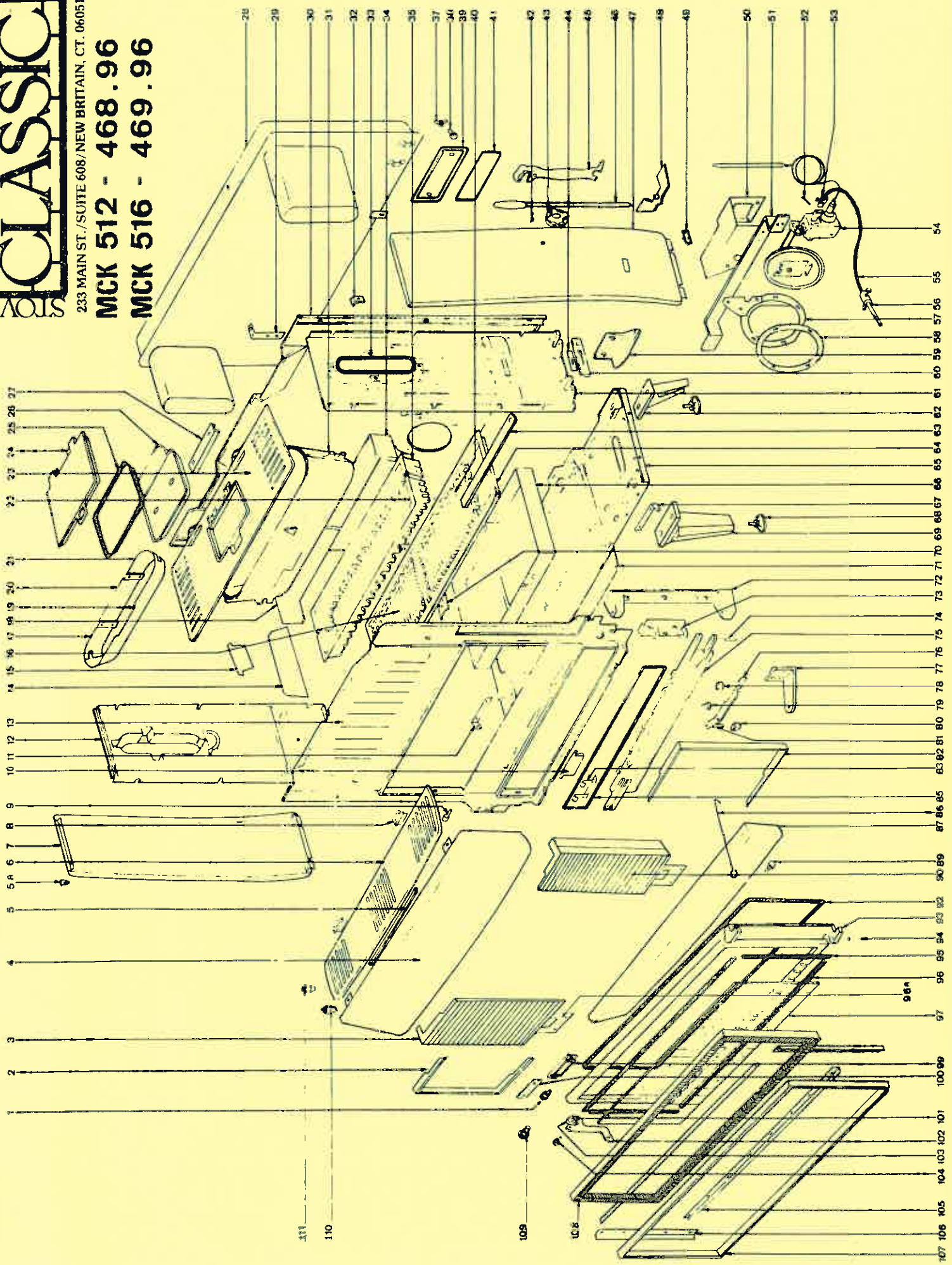
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STOVES
CLASSIC
 WORKS

233 MAIN ST./SUITE 608/NEW BRITAIN, CT. 06051

MCK 512 - 468.96

MCK 516 - 469.96



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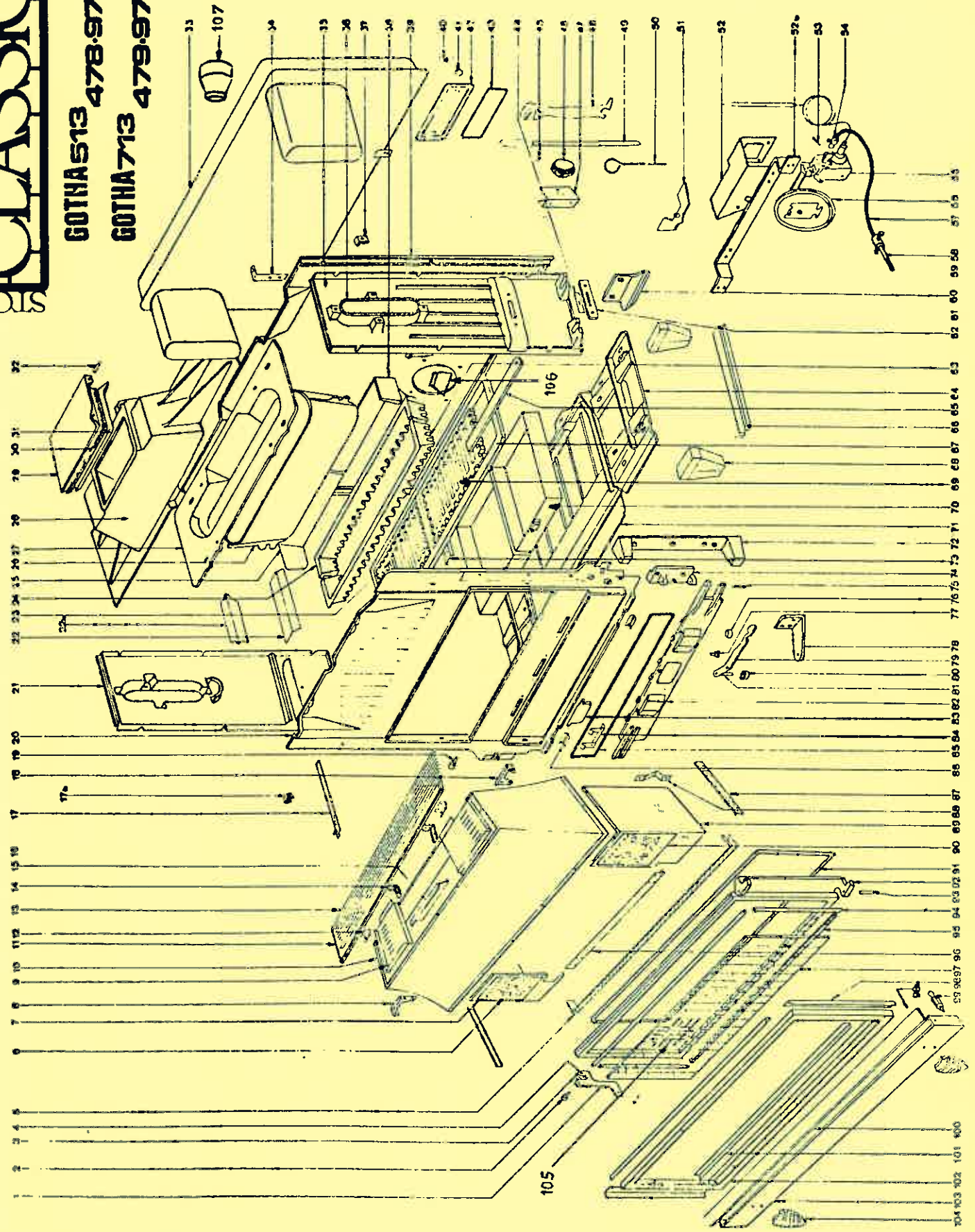
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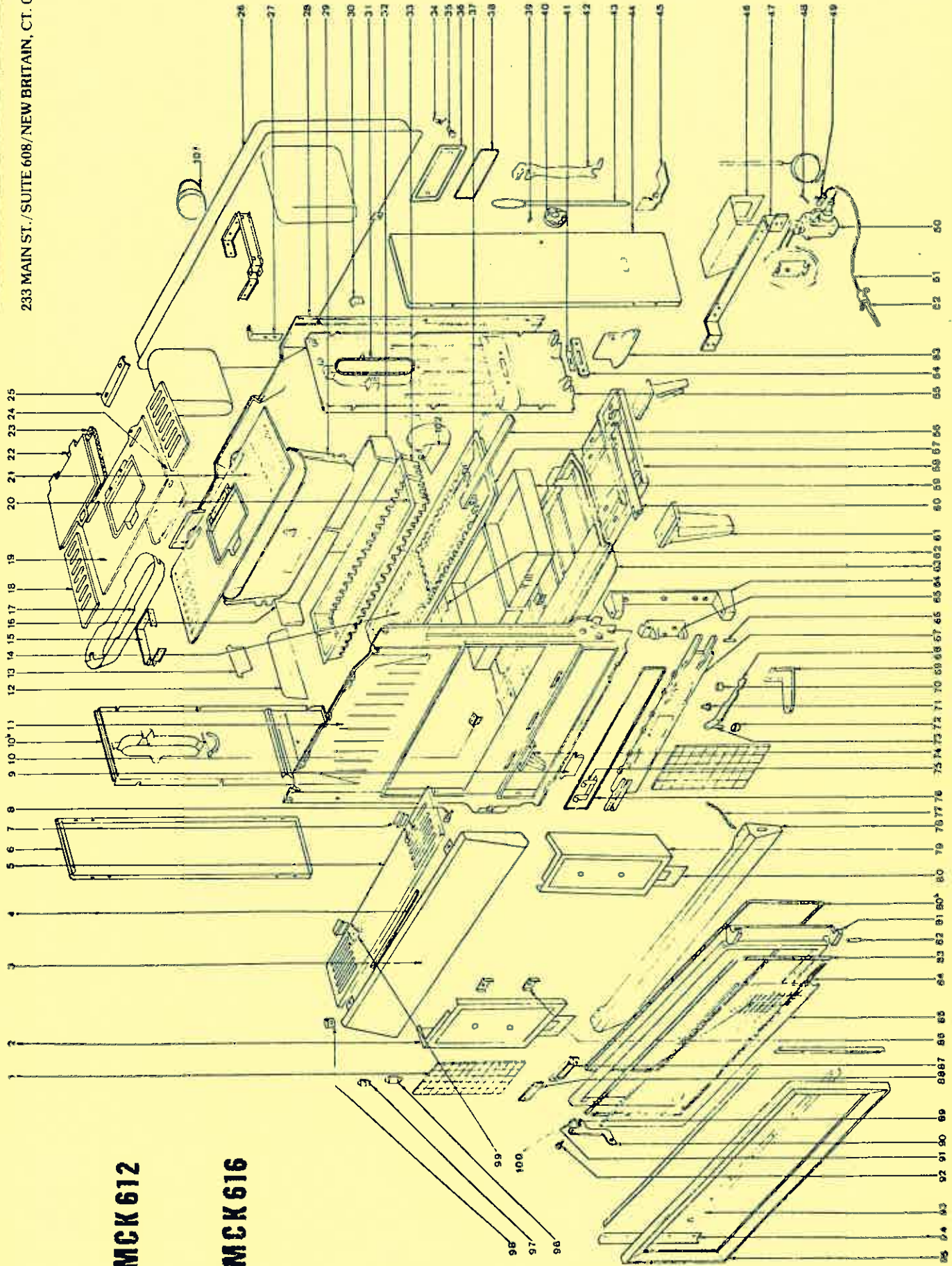
STOVES WORKS CLASSIC

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MCK 612

MCK 616

List of unique construction and design features:

I The Surdiac 690 is a convection radiant heater constructed with the same precision and quality materials found in our traditional Surdiac Coal Stove line. Features such as our thermo-couple regulated thermostat, glass front and removable internal components are also inherent to the design of the 690 heating unit.

II When using pea size anthracite coal:

a) The Surdiac 690 may function as a layer combustion burner. This is a new and more efficient method for coal burning. The coal is gravitationally dispensed in layers by a storage reservoir onto the firebed. The stove is designed and engineered to optimize the ratio of firebed surface area to coal mass depth. This configuration substantially reduces oxygen deficiencies that are usually experienced with a batch burner.

Supplimentary Inverse Combustion Mode:

b) In addition to the 690 burning as a layer combustion burner, it is capable of using the coal storage reservoir as a supplementary combustion chamber. This is accomplished by opening the secondary air adjustment lever, which activates the system by introducing air into the coking chamber, the air then mixes with volatile combustibles in the distillation stage, channeling the gases down (inverse flow pattern) into the primary combustion zone gradually igniting and burning coal in the hopper area. From there the by-products of combustion are drawn to two exhaust parts located in the rear upper extremity of the firebox. This system is designed to provide a higher combustion efficiency than the traditional back draft batch burner.

III When using Nut, Stove, or Egg Size Fuel:

Any calibration larger than pea-size allows for more air circulation between the nuggets of coal. This creates a greater calorific intensity and it automatically activates the supplementary inverse combustion mode, without opening the third air inlet.

IV Coking Chamber:

The back wall of the storage reservoir is perforated. Behind that wall is a compartment or narrow chamber located on the back section of the stove body. At the base of the compartment there is an exterior rectangular aperture where air is introduced. The opening of the aperture is regulated by a secondary air lever which operates manually. As air is channeled into this compartment it is filtered through the perforated wall and blended with the combustible volatiles generated during the distillation phase of burn. By stove design an inverse flow pattern occurs delivering these gases directly into the firebed region.

V Heat Exchanger:

The heat exchanger is designed and engineered to accomplish these functional objectives:

- I Optimum dimensions required a) to sustain adequate temperatures for burning residual carbonaceous by-products and b) Providing additional surface area needed for greater thermo-efficiency.
- II A container trapping fly-ash, thus minimizing atmospheric emissions.

VI Storage Reservoir:

Inverted and flared over the firebed. This configuration allows you to use any calibration of fuel from pea to egg size, it also allows for the free-swelling properties in Bituminous coal, facilitating a free-flow system.

- VII The parameters determining the nature of emissions from heating devices are 1) stove design and 2) the composition and physical properties of the fuel. The Surdiac 690 is innovative in design because it provides a high efficiency for burning bituminous coal, subsequently minimizing atmospheric emissions.

The Surdiac 690 is currently being field tested by dealers in these geographical locations:

Central and Western Pennsylvania, Richmond Virginia, Bozeman Montana, South Portland Maine, Hillsdale Michigan, Gladstone Ohio, Spokane Washington, Attleboro Massachusetts, Elkins West Virginia and Camden South Carolina.

To date we have received test data feedback from most of these areas. The following is a brief synopsis, by dealer, of their findings, general comments and observations.

Dealer: The Coal Box
1002 West Dekalb St.
Camden, SC
Mr. Wayne Billig

Fuel Tested: 1" - 3" and 4" - 6" calibration
Bituminous Coal

Test dates: February 9, 10, 11, and 12.

Draft: .04

Thermostat
Setting: 3

Secondary air setting: Feb. 9 closed, Feb. 10 closed, Feb. 11 fully open, Feb. 12
50 % open.

Fuel Consumption average pounds per/day: 30.50

Duration of burn cycle hours/average: 16.5

Comments: Performance using Bituminous coal; the coal burned very well in the MCK 690 stove. I found that opening the secondary air will increase the heat output very quickly. Found the stove easy to rake-down (very satisfied with heat output).

Dealer: Potters Stove Shop
290 Broad St.
Hillsdale, Michigan

Fuel Tested: Pea-size anthracite coal (Reading) Dates Tested: Jan. 28 1982 through
February 15, 1982

Draft: .06 Thermostat Setting: 1-4

Secondary Setting: Open and Closed Intermittently Stack Temperatures: Internal average
385°

Fuel consumption average pounds per/day: 42 Duration of burn cycle average
hours: 18.5

Comments: Kept a very poorly insulated building, 12 ft. ceilings, at 55° to 60° F overnight on #1 setting in very cold weather (impressive) with no back-up heating equipment. Picks up temperature easily with #4 setting in same building and maintains

a comfortable 70° and 80° F. Burns into hopper only when secondary air lever is open increased heat output tremendously. Extremely impressed with the stove. There are no competitive stoves on the market today that can come close to matching it.

Dealer: Brush Valley Distributors
Rebersburg, Pennsylvania
George and Helen Miller

Fuel Tested: Pea-sized anthracite
Happy Hollow coal.

Dates tested: Jan. 30, 1982 to
Feb. 8, 1982

Draft: .04

Thermostat Setting: 1-4

Secondary Settings closed to 4 setting

Fuel consumption average:
lbs/day= 40 lbs.

Duration of burn cycle: 12-14 hours

Average Stack temperature
internal: 250°F

Comments: Burning the 690 was very similar to the Baronet 720, except when manual secondary air was set to 4 all the coal in the hopper was burning some ash on the grates. Burned anthracite well.

Dealer: New England Energy Distributors
Attleboro Farm Supply
630 S. Washington St.
N. Attleboro, Massachusetts

I Fuel Tested: Bituminous(Split Vien) High Ash Content
Calibration: Egg size

Test Dates: January 28, 1982 to February 5, 1982

Draft: .045

Thermostat Setting: 2½

Secondary Air: 75% open

Fuel Consumption: N/A

Duration of burn cycle in hours:

6-8 hours: good heat output

24 hours: fire still going

Surface temperature 100 F° hotter than when using anthracite.

Comments: No smoke in room - easy to maintain good heat output.

New England Energy Distributors Cont.

II Fuel Tested: Anthracite
Calibration - pea, nut, stove - Beltrami

Test Dates: February 8 to February 19, 1982

Draft: .045

Thermostat setting: 2½

Secondary air closed

Fuel consumption N/A

Duration of burn cycle:

Pea - could burn 24 hr. period

nut - 1 hour - less

stove - 2 hours - less

Comments: Burns excellent with anthracite, heat output good because of hopper configuration you can burn any calibration of coal.

Dealer: Maine Coal Products
738 Main St.
South Portland, Maine

I Fuel Tested: Bituminous - Kentucky coal
Calibration - stove size

Test Dates: January 28, 1982 - February 5, 1982

Draft: .05

Thermostat setting: 2

Secondary Air - 50% open

Fuel Consumption Average per day N/A

Duration of burn cycle - 12 to 14 hours

Comments: Good heat output, unit versatile, like the unit very much when burning bituminous coal.

II Fuel Tested: Calibration pea-size - Beltrami
Nut size - Glenburn

Test Dates: February 8, 1982 to February 19, 1982

Draft: .05

Thermostat setting: 4

Secondary setting - 50% open

Fuel Consumption average - N/A

Duration of burn cycle - 10 hours good heat output

Comments: Anthracite coal burns excellent, good stove.

Dealer: Mr. Paul Baker
3304 Wagon Wheel Road
Bozeman, Montana

Fuel Tested: Bituminous - Big Horn Coal Company
Calibration: Egg size

Test Dates: Commenced testing February 19, 1982
Initial Firings
Thermostat Setting 3
Secondary Setting 3

Fuel Consumption Average - N/A

Duration of burn cycle in hours: 14 hours plus with $\frac{1}{2}$ hopper load.

Comments: "Outstanding performance, good heating, no smoking, very impressed, fabulous stove." "Free flowing, good easy to maintain." I can get coal for 22 dollars a ton.



Duplicate

CLASSIC - SURDIAC PRODUCT UPDATE #4

In Product Update #1, it is mentioned that each Classic - Surdiac stove be given a draft test for warranty validation. Also, our new operating manual specifically addresses the requirement for a barometric damper on each stove installation.

The reasons for these requirements are based on the information pertaining to natural draft provided in this paper.

The areas covered include:

- I. DEFINITION OF NATURAL DRAFT AND ITS FUNCTION
- II. FACTORS GOVERNING THE PRODUCTION OF NATURAL DRAFT
- III. DRAFT MEASUREMENT AND THE BAROMETRIC DAMPER'S FUNCTIONAL PURPOSE

Feel free to call if you have further questions.

CLASSIC STOVE WORKS

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