

ACF INDUSTRIES

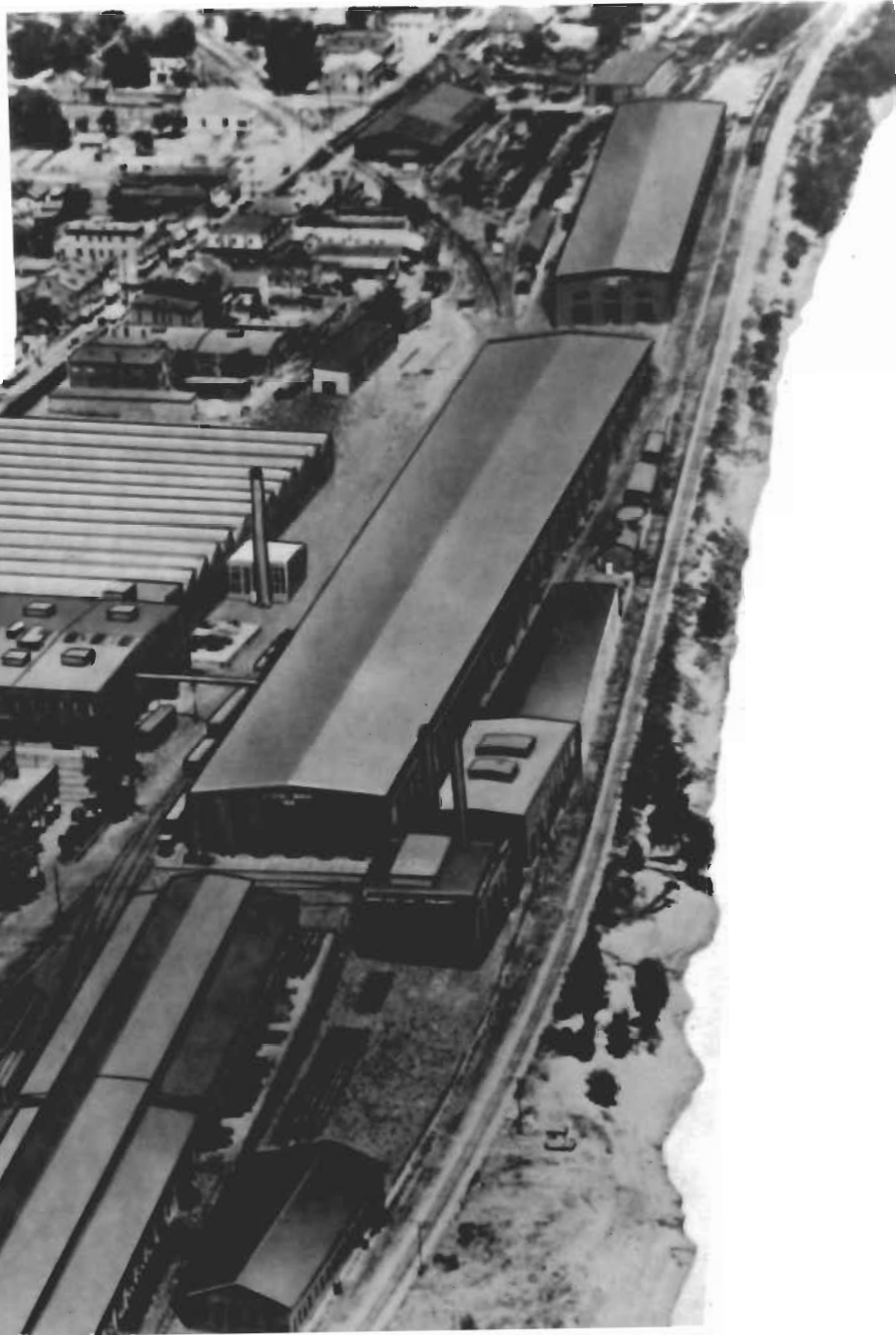
INCORPORATED

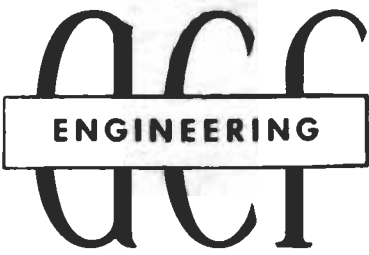
St. Charles, Missouri

AMERICAN CAR AND FOUNDRY DIVISION

The American Car & Foundry Division of ACF Industries, Incorporated, located at St. Charles, Missouri, is one of the major manufacturing facilities of the corporation. Here, engineering designs become products. It is a completely integrated facility offering services starting with Engineering and continuing through Planning, Tooling, Production Engineering, Production Control, Fabrication and Assembly, Quality Control and Final Shipment.

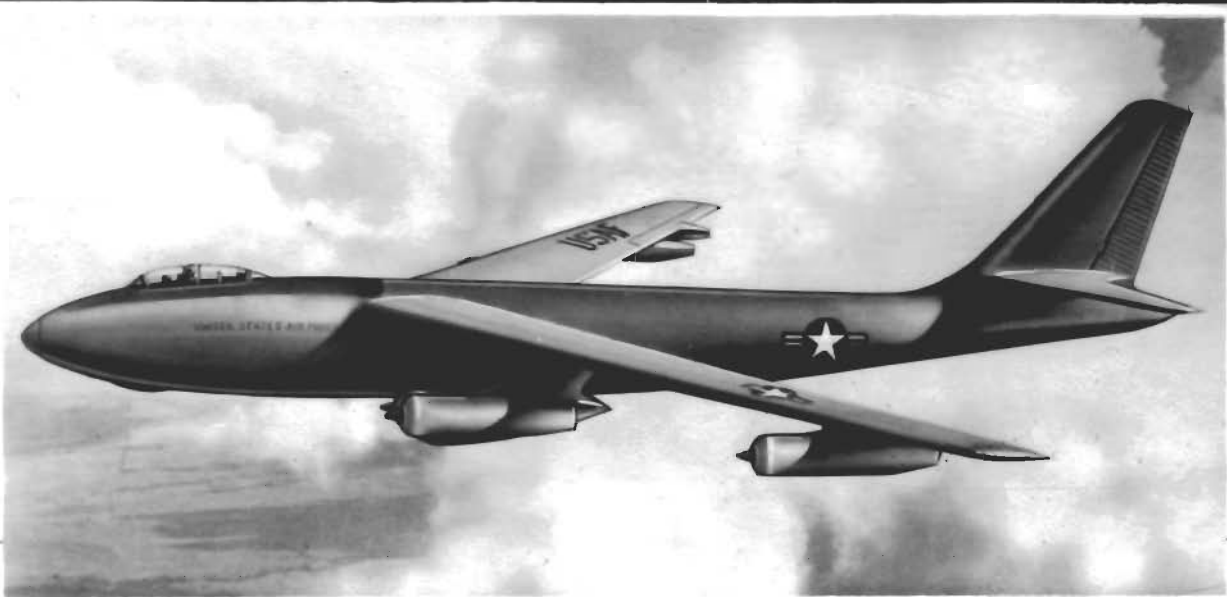
At the St. Charles Plant, we have approximately 700,000 square feet of floor space devoted to Metal-Working and Fabrication, Production and Assembly. The major items manufactured for the government are Railway Rolling Stock, Ground Support Equipment, Bomb Fins, Missile Carrying Devices and Aircraft Components. Included in the fabrication of aircraft components is the installation of control surface mechanisms, fuel systems, electronic counter measure components, and hydraulic systems. All systems are functionally tested for completeness of operation prior to shipment to an assembly center.





FACILITIES...

DESIGN AND DEVELOPMENT ENGINEERING DEPARTMENT— Complete staff of engineers create and develop the designs of tomorrow from customer specifications for release to the manufacturing department.



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PRODUCTION ENGINEERING

FACILITIES...

PLANNING — Here engineers plan the completed product, piece by piece, assembly by assembly. Each part has a scheduled sequence of operations for manufacturing efficiency.



TOOL DESIGN — Experienced tool and die people create tools for efficient and economical manufacturing.



LOFT AND MOCK UP — Experienced personnel translate complex designs into detailed layouts onto metal or glass cloth that guide production.

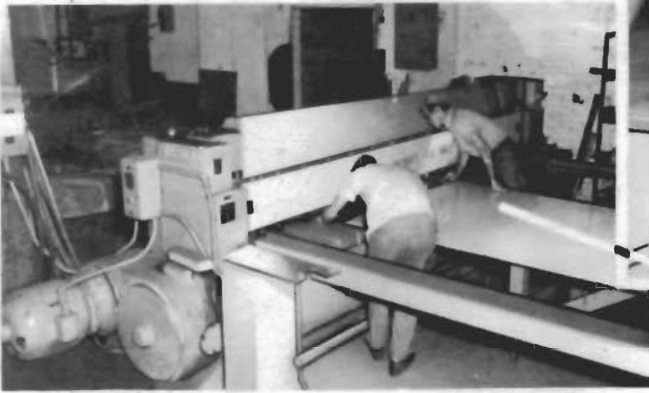


REPRODUCTION IN METAL — Master-drafts accurate to .005 of an inch are drawn on glass cloth and reproduced on aluminum because paper shrinks and expands in heat and cold.

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MANUFACTURING

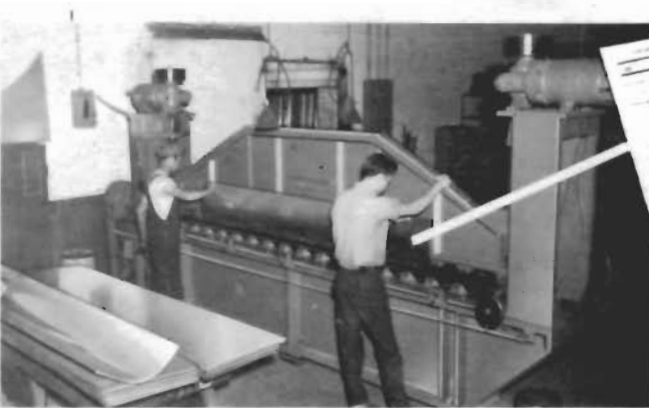
FACILITIES...



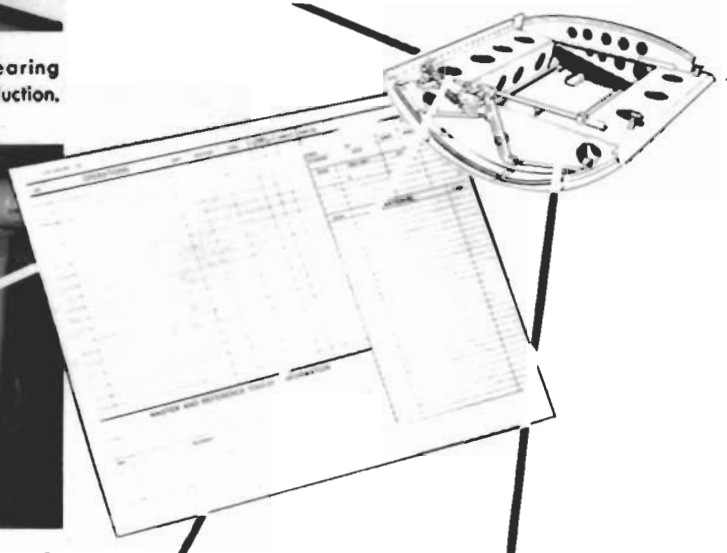
SHEAR DEPARTMENT—Dependable accurate shearing through use of micrometer back gages for economical production.



CONTOUR FORMING—Through use of this equipment complex sheet metal parts and extruded shapes may be formed.



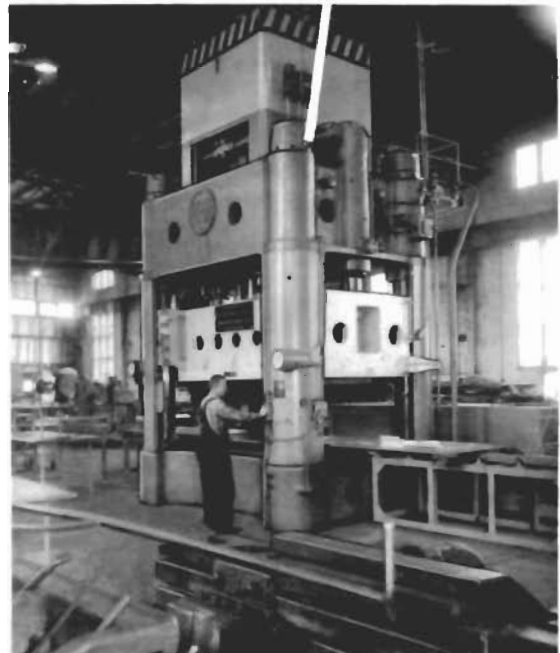
FORMING ROLL—Fast accurate forming of long skin section, leading edges of ailerons, rudder and elevator skins, and many other sheet metal parts of cylindrical or conical shape are accomplished on this machine.



THE HYDRAULIC PRESS—2500 ton rubber pad forming press for shaped pieces in one single stroke. Die tables permit loading of blanks for next operation.



RADIAL ARM ROUTERS—Through use of high speed spindles in routing and drilling, accuracy can be improved at economical costs.

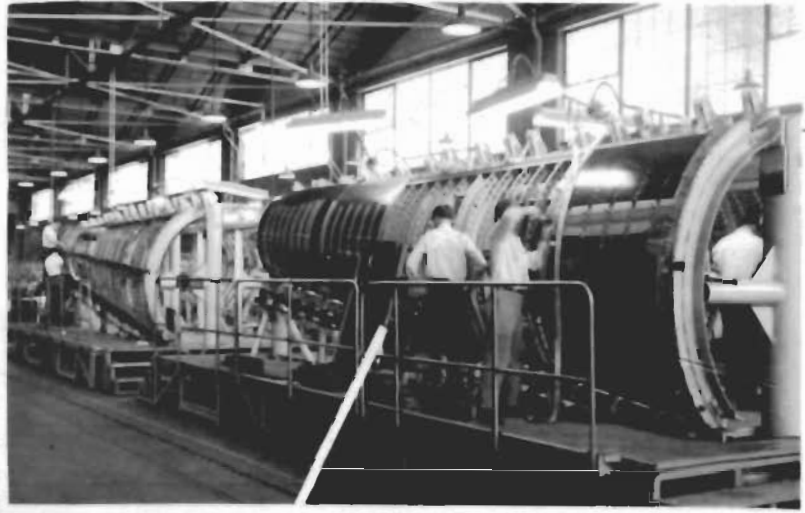


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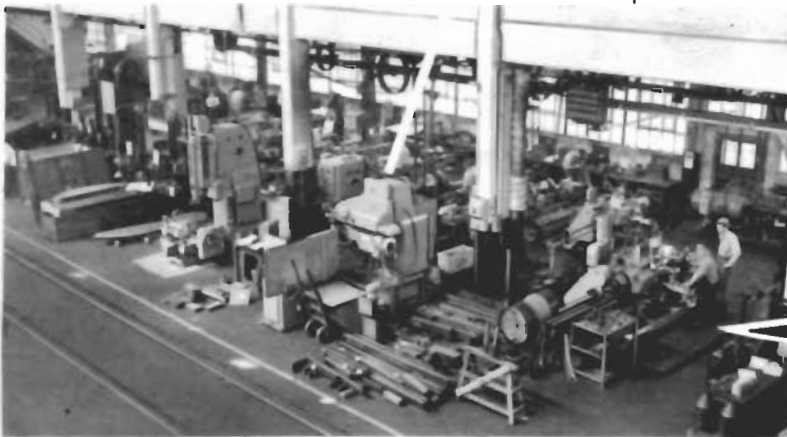
MANUFACTURING

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SHEET METAL ASSEMBLY— Sheet Metal structural parts assembled into sub-assemblies.



WIRE HARNESS DEPARTMENT— Miles of wiring are marked, plugs attached, routed, assembled into bundles and checked for continuity.

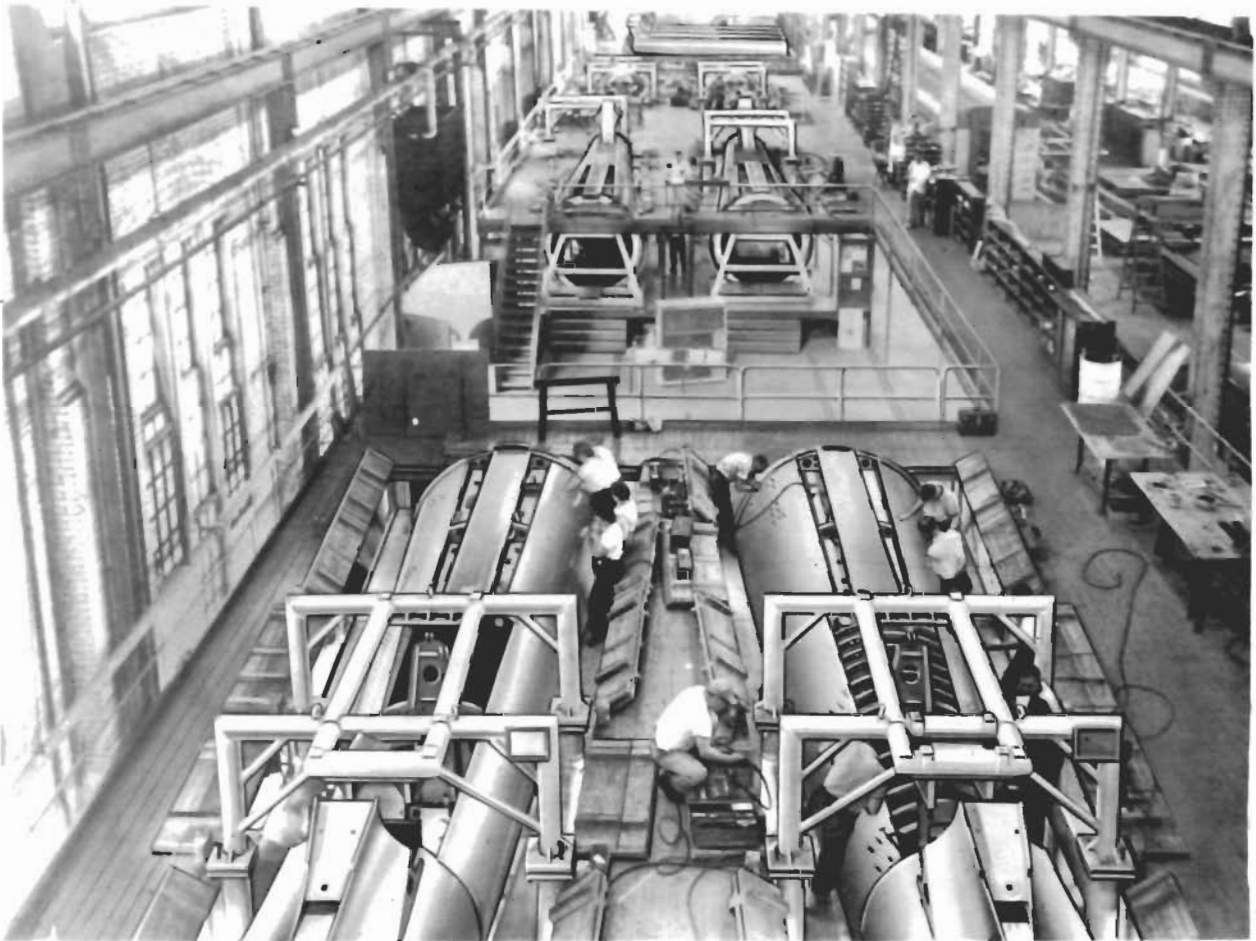


MACHINE SHOP— This well equipped machine shop provides complete facilities for quantity production of machined parts of all types.

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View of final assembly line of aft-fuselages of the B-47 "Strato-jet" Bomber.

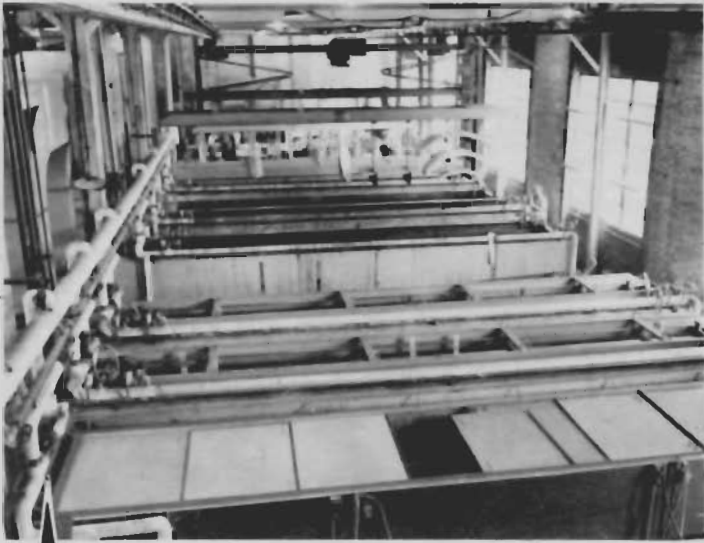
■ Completed ACF-built fuselage aft section of B-47 bomber is joined to rest of aircraft at giant Douglas plant in Tulsa, Oklahoma.



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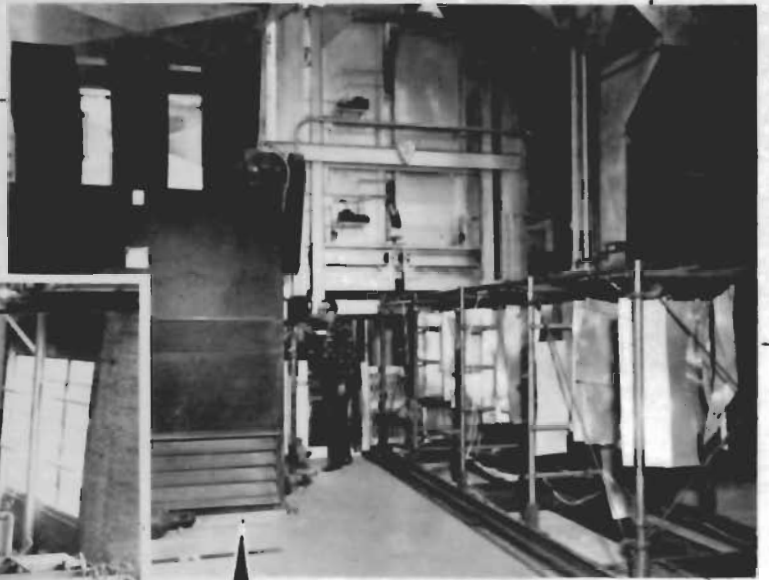
PROCESSING

FACILITIES...



SPECIAL FINISHES SECTION—This unit provided complete facilities for applying corrosion resistant finishes to metals.

PAINTING SECTION—Complete conveyerized paint facilities for spray and dip painting.



HEAT TREATING SECTION—
A complete facility for heat treating non-ferrous metals.

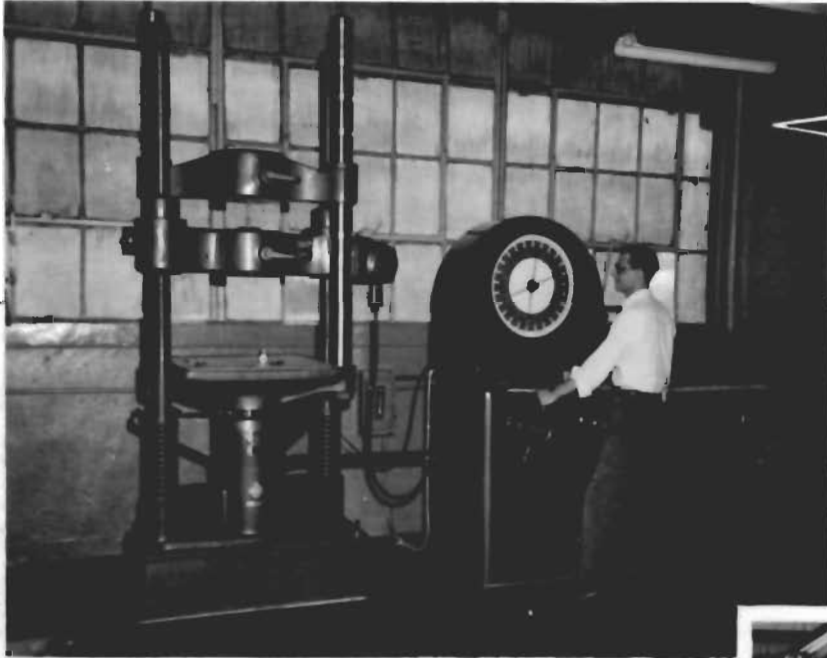
HEAT TREAT SECTION—A complete facility for heat treating metals other than non-ferrous.



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LABORATORY

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TESTING SECTION—Complete facilities for testing of metals to determine physical properties.

CHEMICAL LABORATORY—Contains complete facilities for analysis of metals, metal treatment processes, plastics, etc.



METALLURGICAL LABORATORY—Complete facilities for the analysis of metals; view showing microscopic study of structure of metals or alloys.



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FUNCTIONAL TEST

FACILITIES...

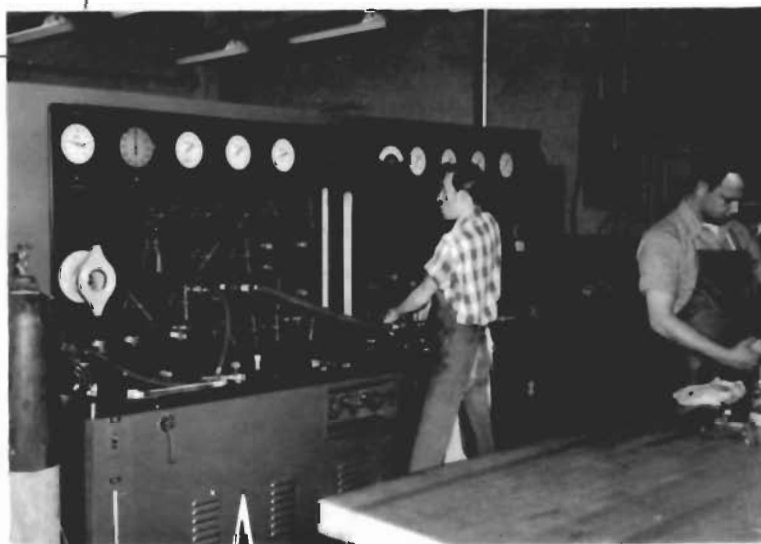


INSTRUMENT LABORATORY—This laboratory is supplied with filtered air and contains complete facilities for the assembly and testing of precision instruments.



ENVIRONMENTAL TEST CHAMBER—A piece of equipment is being tested in a climate chamber to determine its resistance to salt spray.

INSTRUMENT CALIBRATION LABORATORY—All precision instruments are calibrated and tested under controlled conditions.



HYDRAULIC TEST STAND—At this stand hydraulic pumps and motors undergo operational tests. The use of this equipment detects even slight defects, which may cause system failures, so they may be eliminated.



A.C.F.

QUALITY CONTROL

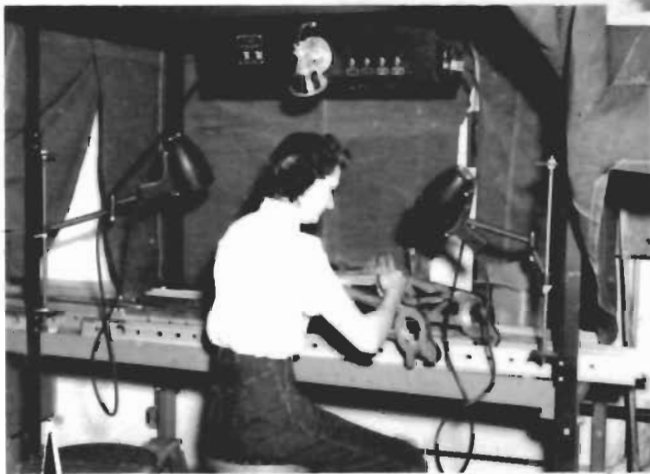
INSPECTION FACILITIES...



RECEIVING INSPECTION — All Parts and material flow through this section to insure that specifications and drawing tolerances are to acceptable standards.



PARTS INSPECTION — All in process parts are inspected to A.C.F. standards and checked to insure quality in finished product.



ZYGLO INSPECTION — Non-ferrous castings and structural parts are Zygo inspected to assure quality of product.



TOOL AND GAGE CONTROL — Through use of optical comparator gages are inspected for acceptable tolerances.

MAGNAFLUX INSPECTION — Examination of castings and structural parts assures quality in finished products.





FACILITIES



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COMPLETE STAFF of Tool, Die, Jig and Fixture Designers together with experienced Template Makers, Tool and Die Makers, Jig and Fixture Builders and sufficient floor space are available for your tooling program.

