

MCCARTNEY MANUFACTURING COMPANY, INC.



GEORGE S. FRERE
VICE-PRES. & GENERAL MANAGER

635 WEST 12TH STREET
BAXTER SPRINGS, KANSAS

April 30, 1962

Air Mail

Brigham Young University
Provo,
Utah

MAY 3 1962

Attn: H. Tracy Hall, Director of Research

Dear Tracy:

Upon my return home, we immediately started in on lay-out drawings for the high pressure generating apparatus for National Bureau of Standards.

The following attached drawings are those which we submitted with our formal proposal:

Dwg. SK-C1-023.62 - Illustration of pressure
generating system

Dwg. SK-C2-023.62 - Base for generating system

Dwg. SK-B3-023.62 - Hydraulic schematic for
pressure generating system

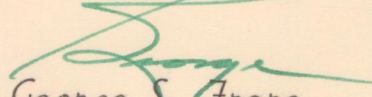
We plan to furnish one of our PMP hydraulic intensifiers as the driving media on the upper and lower rams. We have also arranged the fluid piping and the ram mechanisms to retract using the same power rather than use the smaller hydraulic cylinders.

Basically, the unit we have offered is what you and I discussed. If we are fortunate enough to receive this order, we will proceed to detail each part and will forward you drawings

then for comment. Incidentally, we declined to quote on the furnace and pressure gauge for this unit, as we feel this could be better handled by the laboratory technicians.

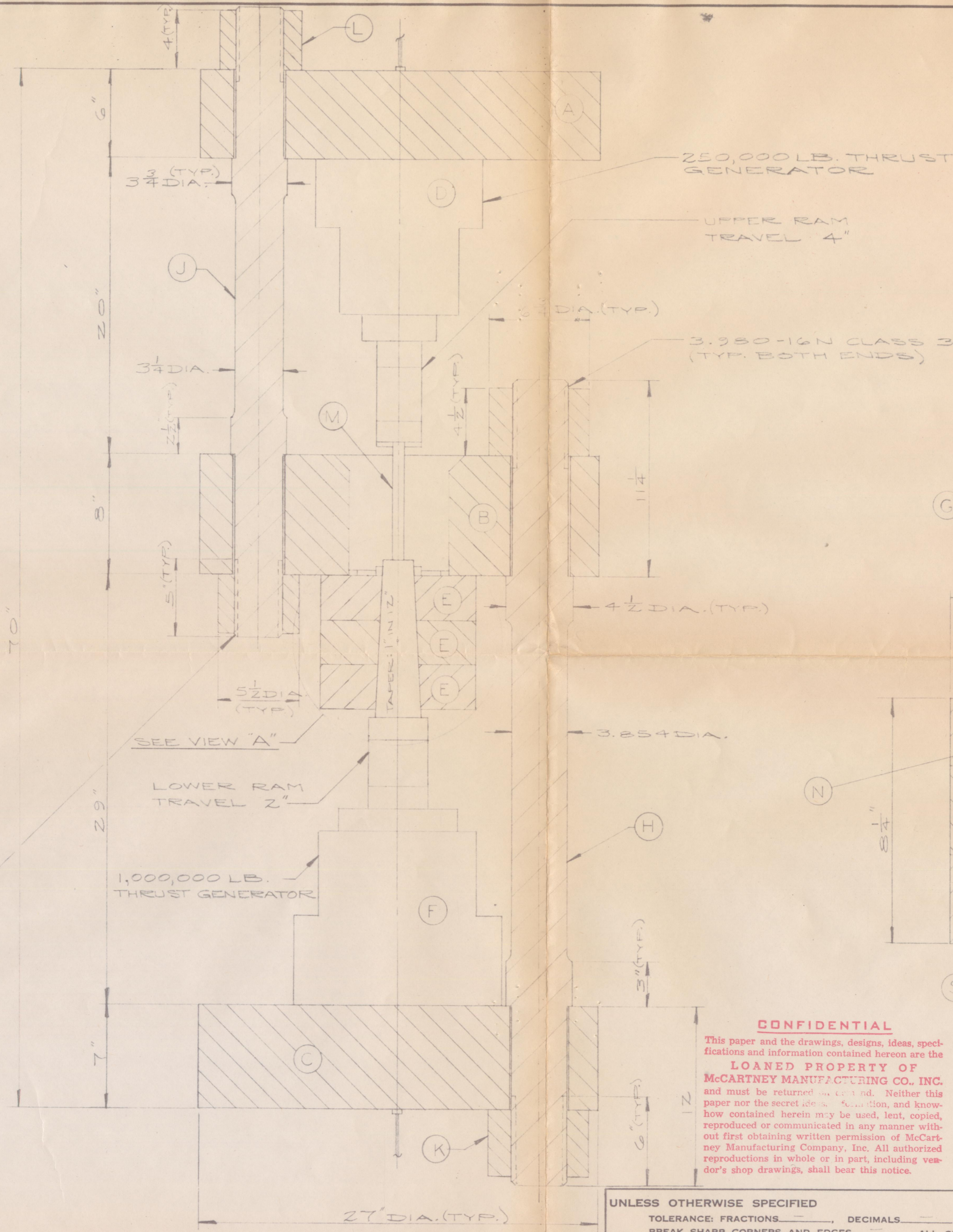
Sincerely,

McCartney Manufacturing Co., Inc.


George S. Frere
Vice-Pres., Gen. Mgr.

GSF: vb

encl.



ITEM	MATERIAL
A, B, C	AISI 4340 AIRCRAFT QUALITY MAGNAFLUXED STEEL FORGING Rc28-34
E	AISI 4340 AIRCRAFT QUALITY MAGNAFLUXED STEEL FORGING VACUUM MELT HIGH TRANSVERSE Rc 42-45
G	BETHLEHEM OMEGA STEEL Rc 46-48
D, F	AISI 4340 AIRCRAFT QUALITY MAGNAFLUXED STEEL FORGING Rc55-59
H, J	LASALLE STEEL CO. "STRESSPROOF"
K, L	AISI 4340 STEEL FORGING (HARDNESS OF FINISHED NUT Rc 30-32)
M	TUNGSTEN CARBIDE GRADE SSS
S	BETHLEHEM OMEGA STEEL Rc 50
N	FLX AA HIGH SPEED STEEL - TUNGSTEN 18% CHROMIUM 4% VANADIUM 1.10% F-52-S4 12-4-1
P	FLX 440 HIGH SPEED STEEL - TUNGSTEN 19.5% CHROMIUM 4% VANADIUM 2.7% COBALT 1.2% Rc 47-66 20-4-1-20
R	FLX AAA HIGH SPEED STEEL - TUNGSTEN 18% CHROMIUM 4% VANADIUM 1.5% COBALT 5% Rc 64-66 18-4-1-5

250,000 LB. THRUST GENERATOR

UPPER RAM TRAVEL 4"

3.950-16N CLASS 3 THD. (TYP. BOTH ENDS)

4 1/2" DIA. (TYP.)

3.854" DIA.

SEE VIEW "A"

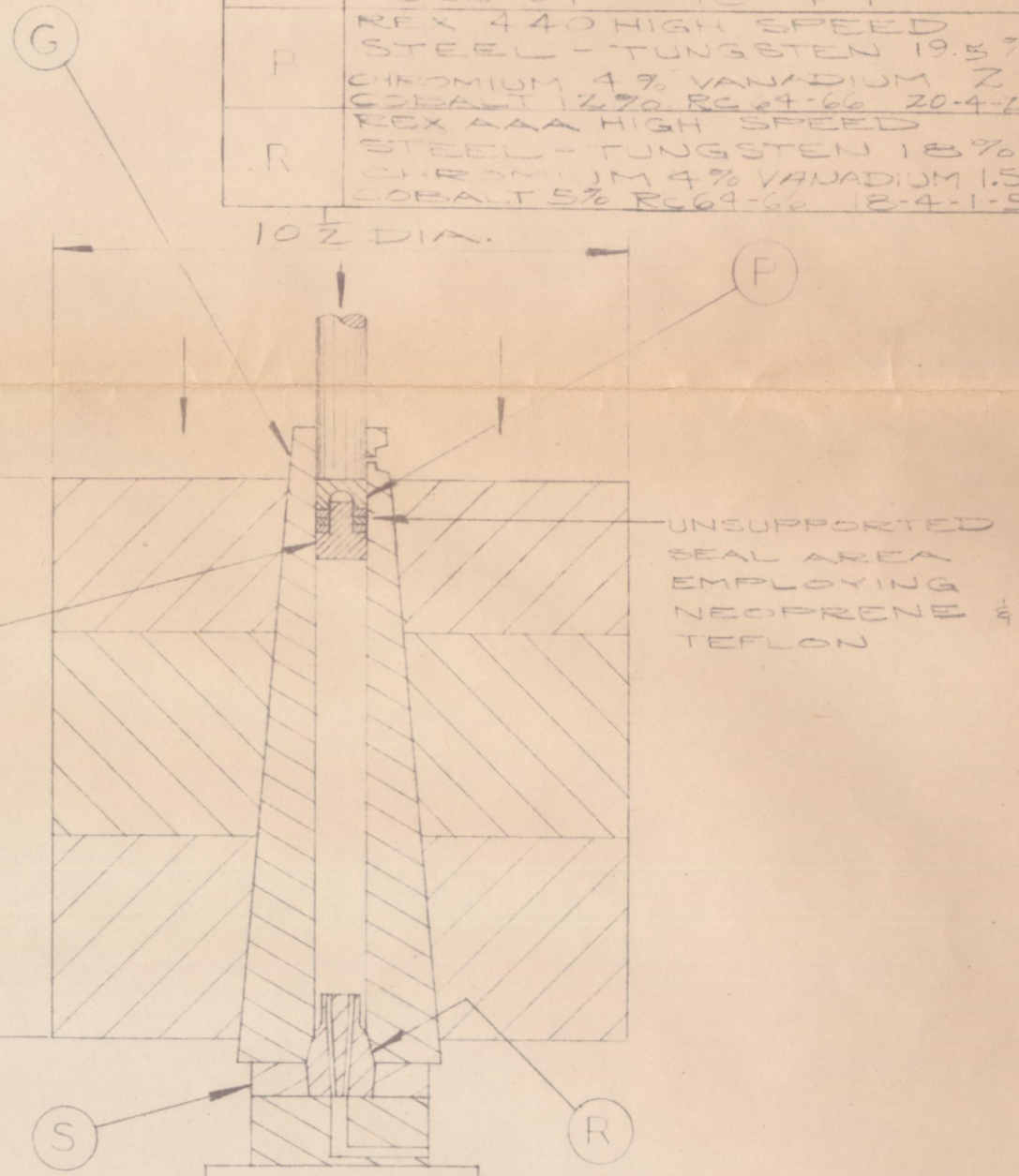
LOWER RAM TRAVEL 2"

1,000,000 LB. THRUST GENERATOR

3 1/4"-16N CLASS 3 THD. (TYP. BOTH ENDS)

CONFIDENTIAL

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VIEW "A"
SCALE: 3/8" = 1"

NOTE: GIVEN DIMENSIONS ARE NOMINAL.

UNLESS OTHERWISE SPECIFIED
TOLERANCE: FRACTIONS —, DECIMALS —
BREAK SHARP CORNERS AND EDGES — ALL OVER.
SURFACE FINISH — ALL OVER.

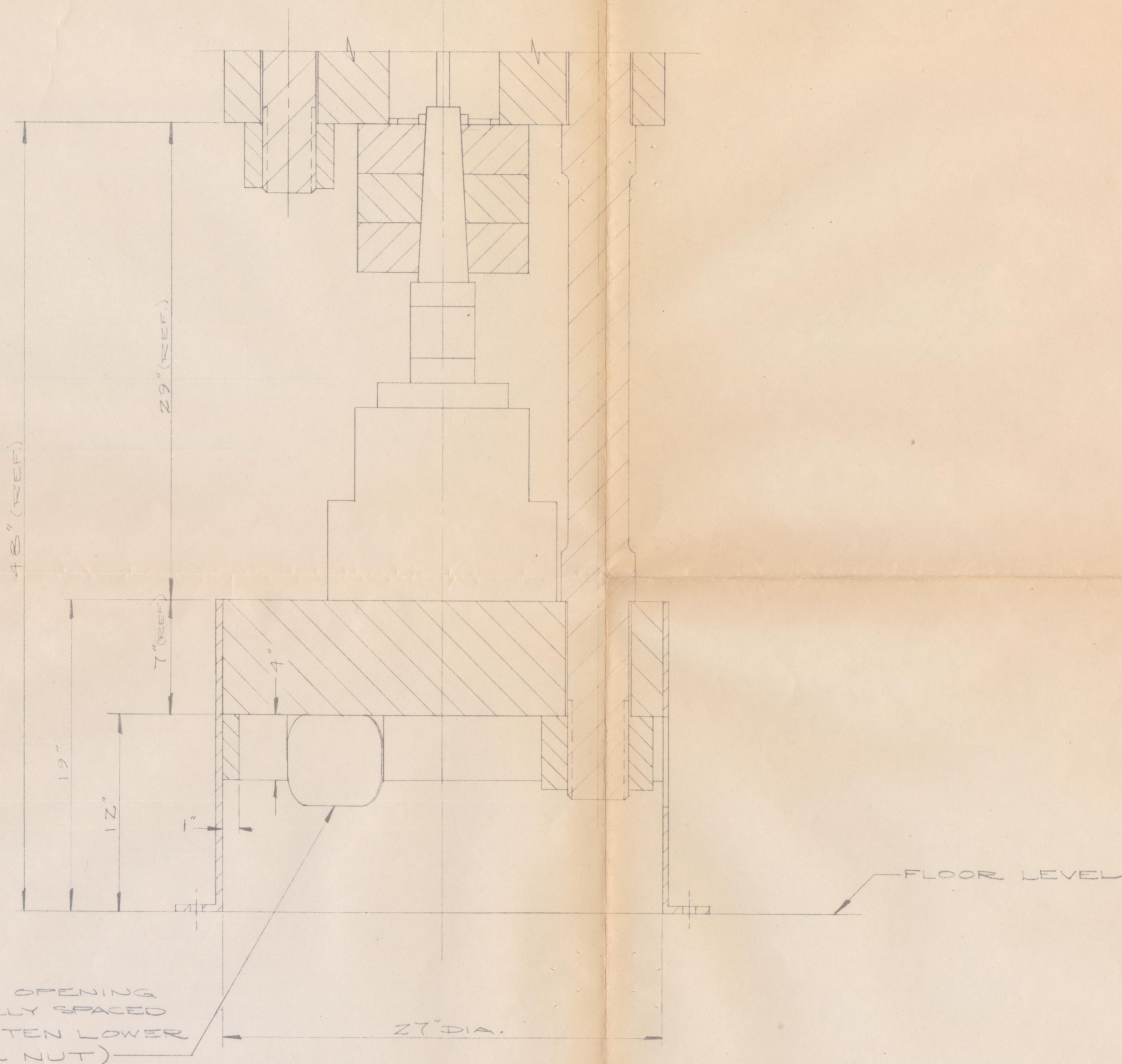
REV.	REF. No.	REF. No.
△	△	△
△	△	△
△	△	△



McCARTNEY MFG. CO.
BAXTER SPRINGS KANSAS

ILLUSTRATION DRAWING OF PRESSURE-GENERATING SYSTEM

SCALE	DATE
3/16" = 1"	4-18-62
MATL	HEAT TREAT
	DWG. J. LARSON
	PART No.
	APPR. [Signature]
CATALOG No.	DWG. No. SK-CI-023.62



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NOTE: GIVEN DIMENSIONS ARE NOMINAL.



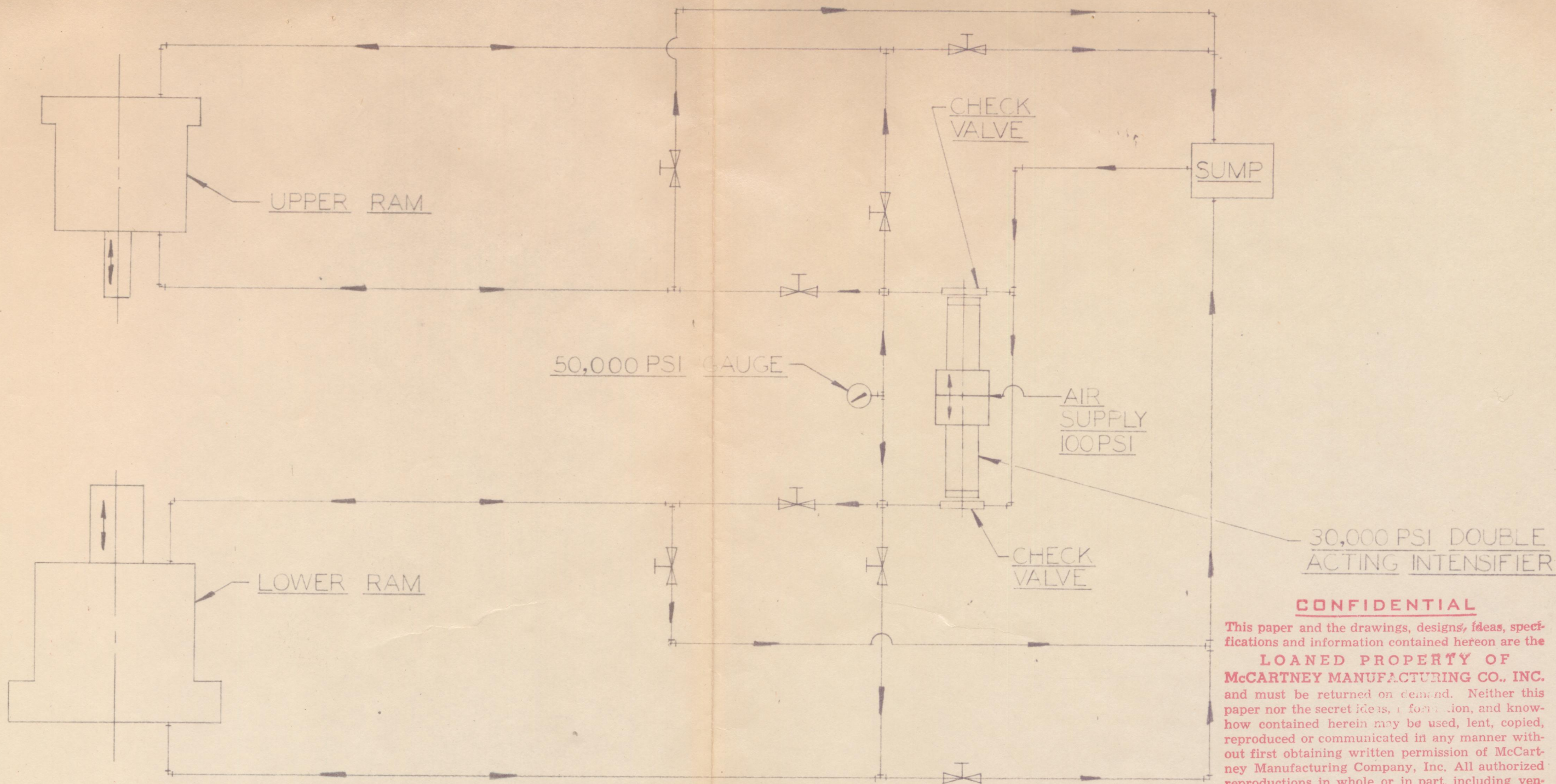
McCARTNEY MFG. CO.
BAXTER SPRINGS KANSAS

BASE FOR PRESSURE GENERATING SYSTEM

UNLESS OTHERWISE SPECIFIED
TOLERANCE: FRACTIONS —, DECIMALS —
BREAK SHARP CORNERS AND EDGES — ALL OVER.
SURFACE FINISH — ALL OVER.

SCALE 3/16" = 1"	DATE 4-18-62
MATL 3/8" H.R. SHEET	DWG. J. LARSON
CATALOG No.	APPRD. [Signature]
	DWG. No. SK-C2-023.62

REV. Δ	REF. No. Δ
REV. Δ	REF. No. Δ
REV. Δ	REF. No. Δ



30,000 PSI DOUBLE ACTING INTENSIFIER

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McCARTNEY MFG. CO.
BAXTER SPRINGS KANSAS

HYDRAULIC SCHEMATIC
FOR PRESSURE
GENERATING SYSTEM

UNLESS OTHERWISE SPECIFIED
TOLERANCE: FRACTIONS _____, DECIMALS _____
BREAK SHARP CORNERS AND EDGES _____ ALL OVER.
SURFACE FINISH _____ ALL OVER.

REV. Δ	REF. No. Δ
REV. Δ	REF. No. Δ
REV. Δ	REF. No. Δ

SCALE	DATE 4-20-61
MATL	HEAT TREAT DWG. J. LARSON
	PART No. APPRD. <i>EJL</i>
CATALOG No.	DWG. No. SK-B3-023.6Z