SANDIA SYSTEMATIC DECLASSIFICATION REVIEW
DOWNGRADING OR DECLASSIFICATION STAMP
CLASSIFICATION CHANGED TO: U
AUTHORITY: W. C. Layne
PERSON CHANGING MARKING & DATE: Emelda Selph 7/21/98
RECORD ID: 98SN3083
PERSON VERIFYING MARKING & DATE: W C Layne 7/22/98
DATED: 7/21/98

[redacted]

SEP 3, 1952 0362

Ref. Symbol: 1531
Project No. ET-727

UNCLASSIFIED

MR. A. M. LEUPOLD - 2532

Re: Load-Deflection Test of Five Springs

Object of Test

The object of this test was to determine the load-deflection curves and the permanent set of five springs manufactured by the California Spring Company (Catalogue No. D-110).

Function of Object Tested

These springs are used as shock absorbers for the Mk 7 dive brakes.

Authorization for Test

This test was requested by Division 2532 in a Work Order Authorization dated April 10, 1952. Mr. T. Reinhardt was the consultant.

Procedure

Springs Nos. 1, 2, 3, and 4 were deflected to solid height; they could not be deflected to 1-29/32 inches, as requested, before solid height was reached. Spring No. 5 was deflected to a height of 1-29/32 inches and load-deflection curves were recorded. The free lengths were measured before and after deflection.

Spring No. 5 was then deflected to solid height, released, and again deflected to 1-29/32 inches. The load-deflection curves were recorded during each deflection. The free length was measured after the last deflection.

Spring No. 1 was deflected from 2-7/16 inches to 2-3/64 inches fifty times and the free length was measured after the last deflection. The load-deflection curves were recorded before and after the fifty cycles.

The Baldwin-Southwark universal testing machine (8000 lbs) was used for this test.

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW
Review Date: 7/21/98
Reviewer: W Layne
2nd Review Date:
Authority: ADD
Name: (not required)
Determination (Circle Number):
1 Classification Retained
2 Classification Changed to: UNCL
3 Contains No DOE Classified Information
4 Downgrade With:
5 Contains UCNI?
6 Comments:
Declassify

TECH REF. FILES
ACCOUNTABILITY CARD
DD
TITLE No. MK 7
3-3

UNCLASSIFIED

[redacted]

[redacted]

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Summary of Results

The following test results were obtained:

Spring No.	K	Free Lengths (Inches) Measured Before Test	After First Deflection	After Third Deflection	After Fifieth Deflection
1	1100	2-15/16	2-29/32	2-29/32	2-29/32
2	1100	2-15/16	2-29/32		
3	1100	3	2-15/16		
4	1100	2-15/16	2-29/32		
5	1150	3	2-15/16	2-57/64	

Refer to Figs. 1, 2, and 3 for load-deflection curves.

Clearwood Giles

Test Conducted by C. W. GILES - 1531

Original Signed By
R. L. WAGAR

Approved by R. L. WAGAR - 1531

CWG:nj

Encls: Figs. 1, 2, and 3

Copy to:
L. J. Paddison - 1500
A. F. Como - 1510
G. H. Roth - 1520
T. B. Morse - 1530
C. F. Robinson - 1263
F. J. Given - 5300
J. M. Ralls - 1521-4 Attn: 1500 Drawing File

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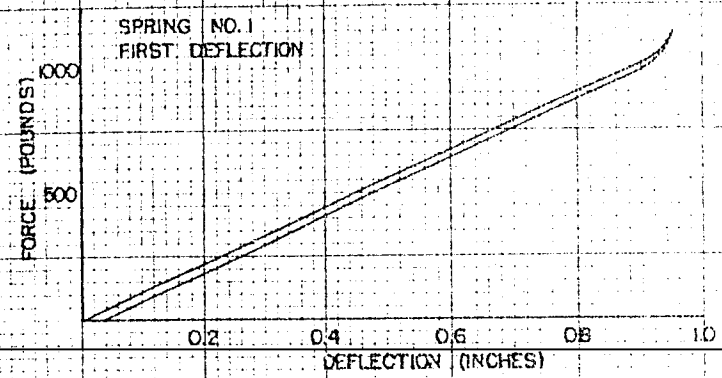

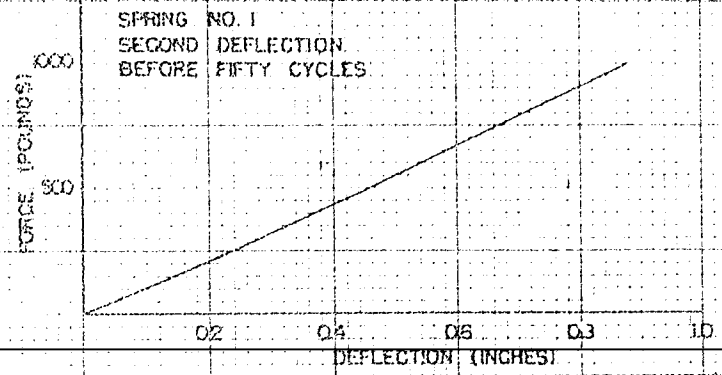

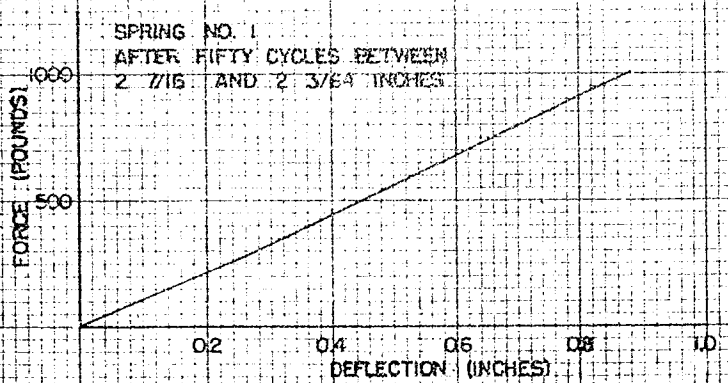

FIG. 1 — LOAD-DEFLECTION CURVES

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ET - 727
REF SYM. - 1531
5-13-52 JVF

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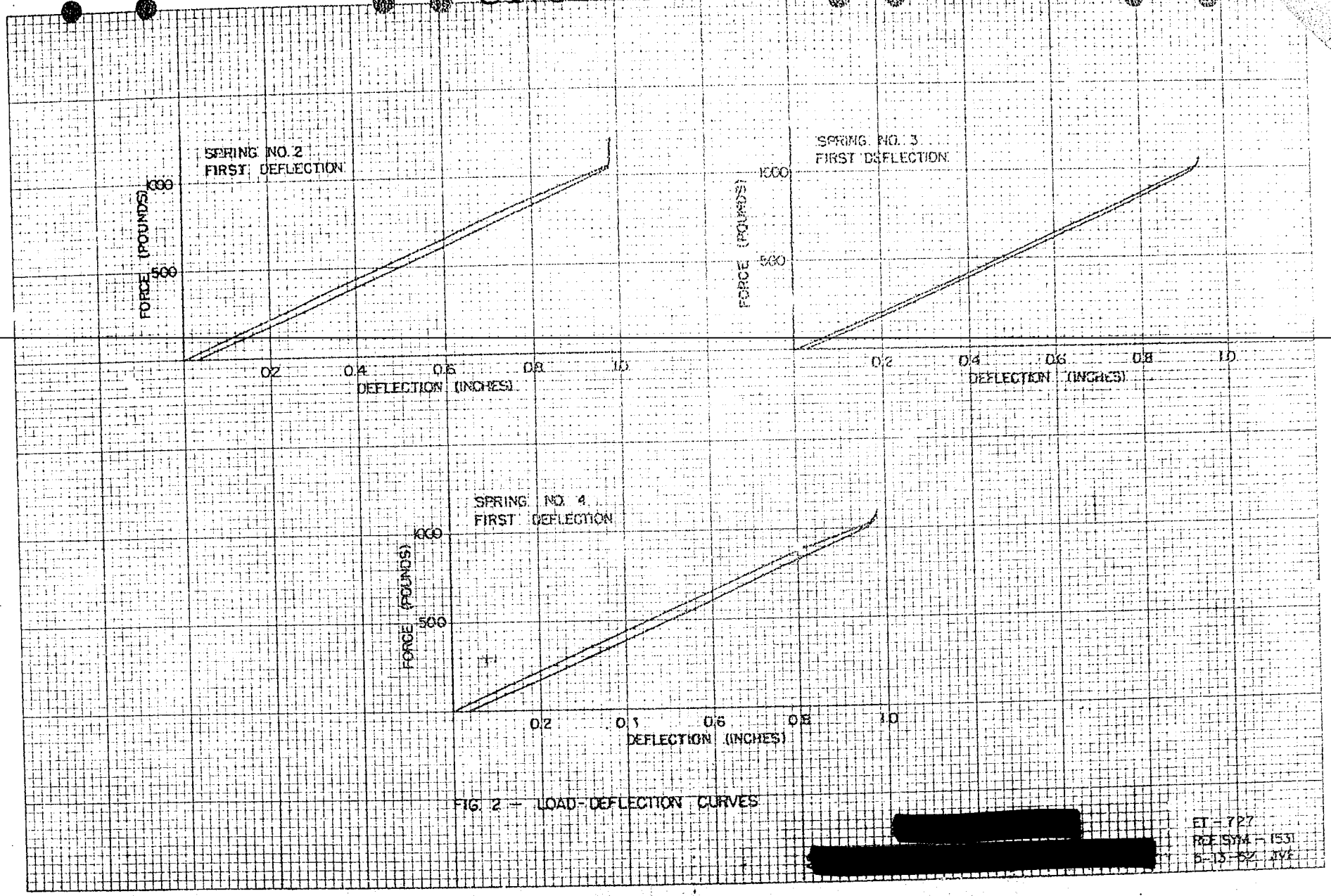

FIG. 2 — LOAD-DEFLECTION CURVES

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ET - 727
REF SYM 4 - 153
6-13-52 JVE

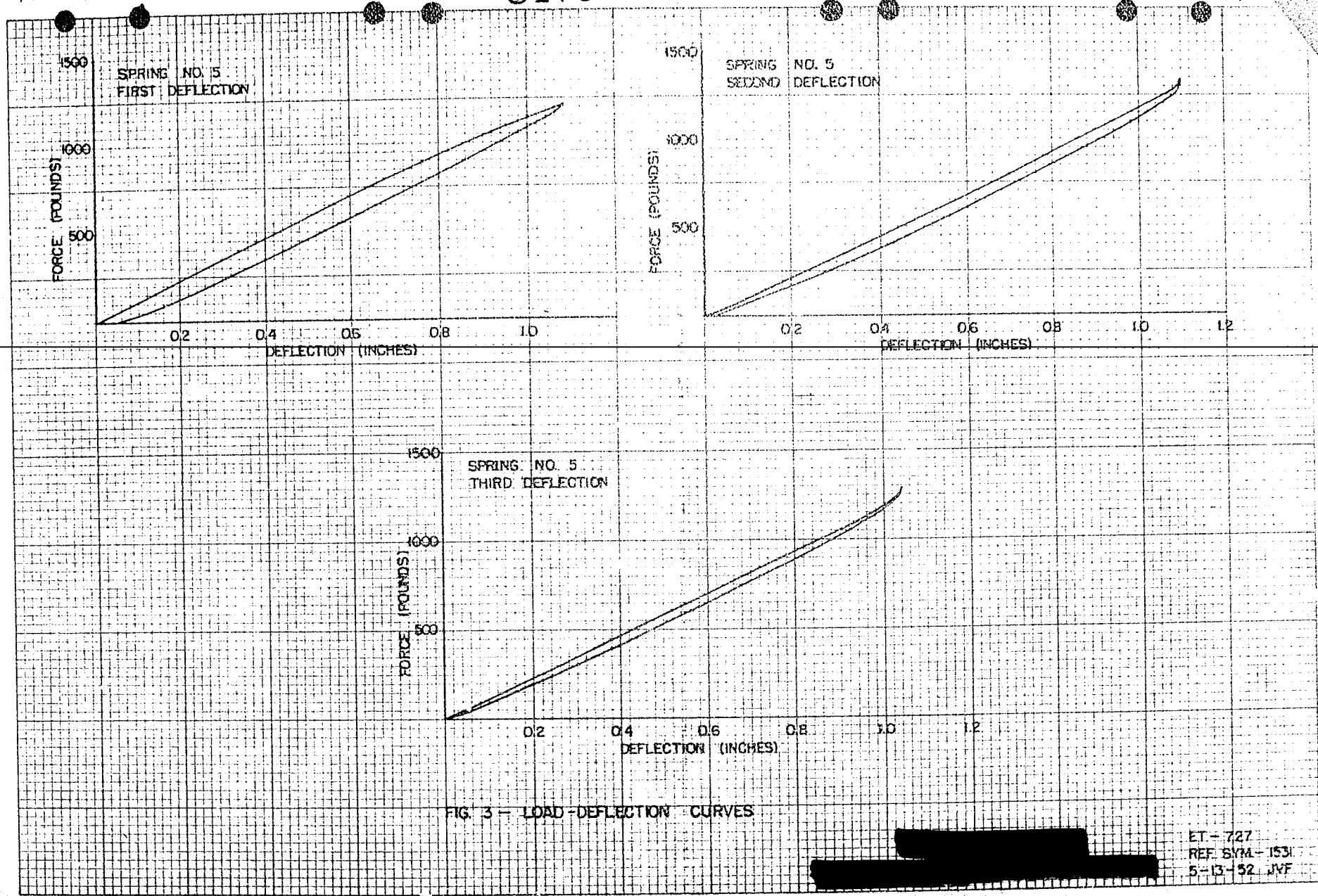

FIG. 3 — LOAD-DEFLECTION CURVES

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ET-727
REF. SYM.-1531
5-13-52 JVF