UNCLASSIFIED [redacted]

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577

10/6/98
RB Cranor
not req'd
per DOE/OD

U
no
OK for Opennet.

TCG-NNT-1

DEC 7 1953

Case No. 433.00
Ref. Symbol: 1611
Project No. ET-1616
Completed 8/21/53

MR. P. E. JOCKLE, JR. - 1281

Re: Test of Shear Pads, Dwg No. 102989, AD 1197, Manufactured by Republic Rubber Company of Youngstown, Ohio (XH-249)

Object of Test

The object of this test was to expose five shear pads, Dwg No. 102989, AD 1197, to the following shear tests:

(a) one pad to failure at room temperature
(b) four pads to 4-1/2-inch deflection at room temperature
(c) two of the above four pads to 4-1/2-inch deflection at -40°F
(d) the remaining two pads to 4-1/2-inch deflection at +165°F

Previous tests are described in ET-1450. An attempt is being made to better the behavior of the rubber at extreme temperatures.

Function of Object Tested

Four pads of this type are used to absorb lateral and longitudinal thrust in the XH-249 container.

Authorization for Test

The test was requested by Division 1281 in a Work Order Authorization dated July 31, 1953. Mr. J. B. Cahill was the consultant.

Procedure and Results

Each rubber pad was 5 x 3 1/2 x 1-1/2 inches with 200 steel plates bonded to both sides. Each pad was required to withstand 500 psi in shear, or a total of 3500 8750 pounds per sample. One of each set of plates was bolted to the upper platen of the Baldwin-Southwark universal testing machine (120,000 lbs) and the other plate was bolted to a jig resting on the lower platen of the machine.

KGP

SANDIA SYSTEMS ... DOWNGRADING ... CLASSIFICATION STAMP
CLASSIFICATION CHANGED TO: U
AUTHORITY: R.B. Cranor
Emelda Selph 10-15-98
PERSON CHANGING MARKING & DATE: WC Layne 10-
RECORD ID: 99SN0106
PERSON VERIFYING MARKING & DATE
DATED: 10/06/98

CDL No.	
ACCOUNTABILITY CARD	
FILE No. H-4	Alpha

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DEC 7 1953

Ref. Symbol: 1611
Project No. EF-1616

The pad was then stressed in shear by the upward movement of the lower platen. The first sample was tested to destruction at room temperature and had a maximum strength of 3260 pounds and 4-1/8-inch deflection whereas ~~8750~~ 3500 pounds and 4-1/2-inch deflection were required. The consultant directed that additional samples be tested at room temperature to destruction. The second and third samples had maximum strengths of 2000 and 2430 ~~and deflections~~ of 2-3/4 ~~and 3-5/8~~ inches, ~~respectively~~. 1420 As this was not satisfactory, the consultant discontinued the test. Figure 1 shows the ~~load-deflection~~ curves for the three samples. Bond failure occurred over about 90 per cent of one plate in the first sample, and about 80 and 95 per cent for the second and third samples.

Test Conducted by H. G. PAGE - 1611

Original Signed By
R. L. WAGAR

Approved by R. L. WAGAR - 1611

HGP:1611:jf

Encl: Fig. 1

Copy to:
A. F. Gone, 1510
T. B. Morse, 1610
K. O. Therp, 1630
G. M. Byrne, 1925-3 [redacted]
J. M. Halls, 1521-4 Attn: 1500 Drawing File

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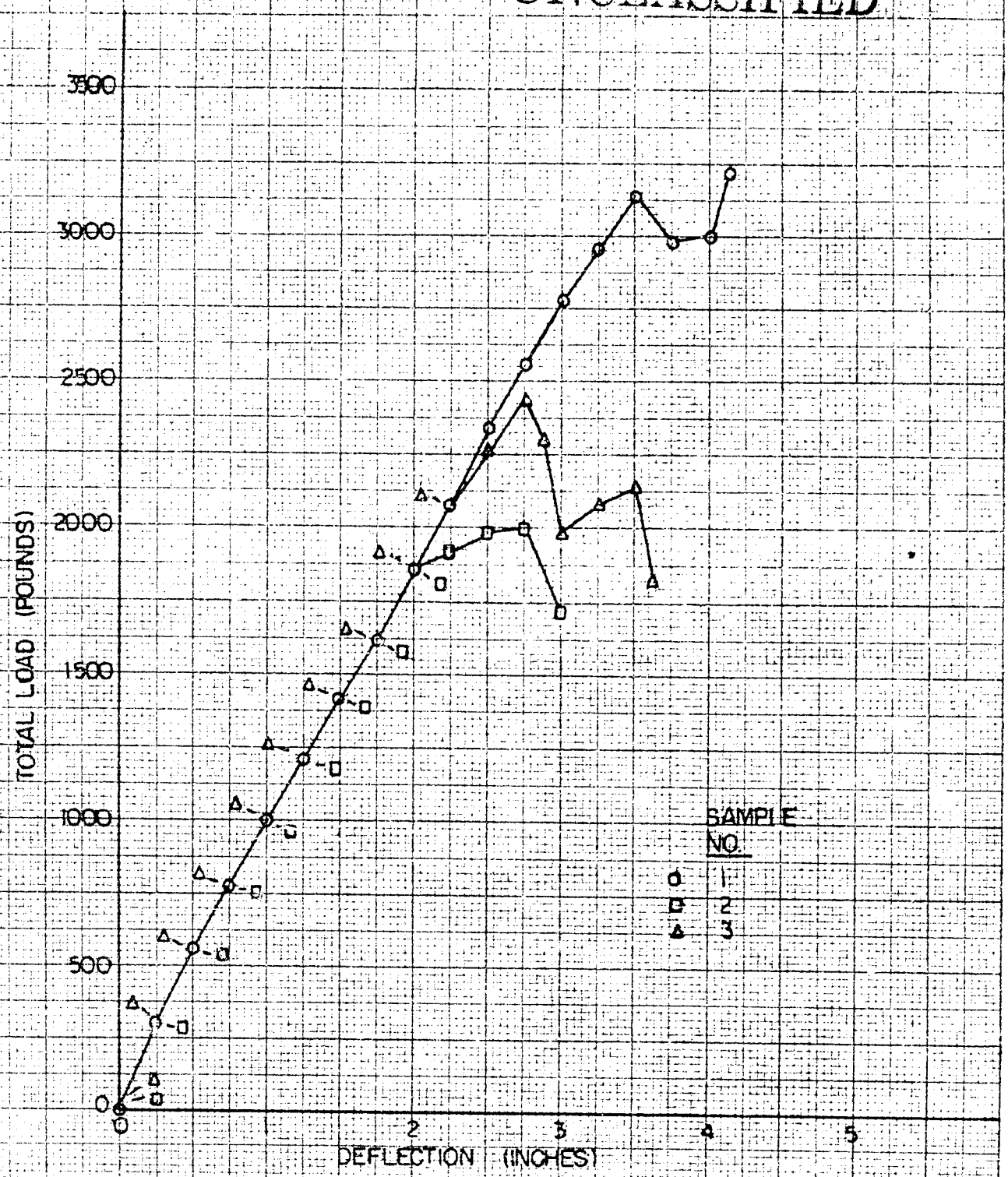

FIG. 1 — ROOM TEMPERATURE TESTS OF SHEAR PADS, DWG NO. 102989, AD 1197, FOR XH-249 CONTAINER

ET — 1616
REF SYM — 1611
10-9-53 JFM

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