

NOT to be distributed outside the FACTORY MUTUAL SYSTEM, except by CLIENT.

PIPE HANGER COMPONENTS
FOR
AUTOMATIC SPRINKLER SYSTEMS
TD-10 TIPPING DOWEL
(RE-EXAMINATION)

from

SIKLA GmbH & co. KG
POSTFACH 1354
D-7208 SPAICHINGEN
WEST GERMANY

J.I. OROHL.AH
(1951)

APRIL 26, 1989



Factory Mutual Research

1151 Boston-Providence Turnpike
P.O. Box 9102
Norwood, Massachusetts 02062



Factory Mutual Research

1151 Boston-Providence Turnpike
P.O. Box 9102
Norwood, Massachusetts 02062

OROH1.AH
(1951)

April 26, 1989

PIPE HANGER COMPONENTS
FOR
AUTOMATIC SPRINKLER SYSTEMS
TD-10 TIPPING DOWEL
(RE-EXAMINATION)

from

SIKLA GmbH & co. KG
POSTFACH 1354
D-7208 SPAICHINGEN
WEST GERMANY

I INTRODUCTION

1.1 This report describes a re-examination of the Sikla GmbH pipe hanger component the TD-10 tipping dowel, as currently Approved and listed in the Factory Mutual Approval Guide.

1.2 The TD-10 tipping dowel will support 3/4 in. through 2 in. nominal size sprinklers piping using a 10 mm nominal size hanger rod in connection with other approved components.

1.3 Factory Mutual installation rule requires that tipping dowel (toggle) hangers be used only for support of a maximum 1-1/2 in. nominal size sprinkler pipe when installed under all ceilings of hollow tile or metal lath and plaster.

II DESCRIPTION

2.1 The TD-10 tipping dowel remains unchanged since initial Approval testing as described in the report Job Identification OF1A9.AH dated June 13, 1989.

III EXAMINATION

3.1 Representative samples of the TD-10 tipping dowel were tested on a universal tensile testing apparatus at Factory Mutual Research Corporation to determine their holding power. The tipping dowel was installed in a small section of 22 gauge roof deck. The applied loads were increased beyond the required minimum in order to determine the ultimate yield point of these pipe hanger components as mounted in a small section of roof deck. The attached Appendix shows the satisfactory results.

3.2 One sample was installed in a full size span of 22 gauge roof deck. The deck was loaded with an evenly distributed load of 40 psf (195 kg/m), the maximum allowed for this type deck. A load of 327 lb (1455 N) was then applied to the tipping dowel. The attached Appendix shows the satisfactory results.

3.3 The samples submitted for this Approval re-examination were found to represent the design adequately.

IV MARKINGS

Stamped on the tipping dowel is the following information: Manufacturer's logo, figure number, and the Factory Mutual Research Corporation Approval Mark.

V CONCLUSION

The Sikla GmbH & Co. KG, TD-10 tipping dowel, manufactured at their Spaichingen, W. Germany facilities and as described in this report, meets Factory Mutual Research Corporation Approval requirements. The tipping dowel, as listed in the Factory Mutual Approval Guide, continues to be Approved. This Approval continuation is effective when the Approval Agreement is signed and received by Factory Mutual Research Corporation.

ORIGINAL DATA: Test Notebook No. 89-147

ATTACHMENTS: Appendix A, Primary Materials List

EXAMINATION AND TESTS BY: S. R. Ide

REPORT BY:

REVIEWED BY:



S. R. Ide
Associate Engineer
Hydraulics



A. V. Brandao, P.E.
Assistant Manager
Hydraulics Section

SRI/mg