Zimmerman

SS1500
1 ½" STANDING SEAM PANEL

Underwriters Laboratories Inc.®
Over A Century Of Public Safety

Underwriters Laboratories Inc.®

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File R18721
Project 02NK20608

May 21, 2002

CLASSIFICATION BY REPORT

OF

METAL ROOF DECK PANELS AND ROOF DECK FASTENERS
IN A ROOF DECK CONSTRUCTION

Zimmerman Metals, Inc.
Denver, Co.

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committed to quality service

GENERAL

The subject of this Report is a roof deck panel which is identified as "SS-1500". The panel is used in Construction No. 554 as described in UL's Roofing Materials and Systems Directory. In addition to the roof deck panel, the construction utilized steel purlins, Classified roof deck fasteners (panel clips) and screw fasteners.

The roof deck panel is normally roll-formed at the construction site. Therefore, the information provided in this Report replaces the Laboratories' usual factory Follow-Up Service Program for metal roof deck panels for which Follow-Up Service is normally conducted at the point of manufacture. The program for companies that are "Classified By Report" consists of keeping supplies of up-to-date Reports that are to be distributed to and interested parties and requiring the roll-forming machines to be covered by the Underwriters Laboratories Inc.'s Certificate Service.

The roof deck fasteners (panel clips) are covered by the usual Follow-Up Service Program of Underwriters Laboratories, Inc. with factory monitored quality control. The method of use and a description of the Classified panel clips are shown in the roof deck constructions.

DESCRIPTION

Metal Roof Deck Panels - The roof deck panel is 16 in. wide, and 1-1/2 in. high at the female rib. The panel is fabricated from coated steel having a minimum thickness of 0.0225 in. (No. 24 MSG) and a minimum yield strength of 50,000 psi (ASTM A653, Grade 50). The panels will be Classified as "Metal Roof Deck Panels" in Underwriters Laboratories, Inc.'s Roofing Materials and Systems Directory and will be covered under its Follow-Up Service. The panel is designated as "SS-1500" by the manufacturer and is shown in ILL. 1.

CONCLUSION

The following conclusions represent the judgement of Underwriters Laboratories, Inc., based on the results of the examination presented in this Report as they relate to established principles and previously reported data.

UPLIFT RESISTANCE:

The roof deck assembly constructed of the materials and in the manner described in Roof Deck Construction No. 554 will afford a Class 90 uplift resistance rating based on the method of test.

Secondary supports (beams, purlins, joists, bull tees, lateral bracing, etc.), connections to these assemblies to the main structural members (girders, columns, etc.) and construction details along the edges of the roof or around roof openings (mechanical equipment, chimneys, etc.) have not been evaluated.

PRACTICABILITY:

The materials used in the assembly can be readily installed by qualified work men with tools and methods commonly used for construction work of a similar nature.

The materials and installation procedures for the original test assembly described for this test assembly, were judged to be significant factors in the uplift resistance of the construction.

CONFORMITY:

The original assembly was tested in accordance with the Standard UL 580, "Tests For Uplift Resistance Of Roof Assemblies".

CLASSIFICATION AND FOLLOW-UP SERVICE:

The roof deck panel, as described herein, is judged to be eligible for Classification and Follow-Up Service of Underwriters Laboratories, Inc. Under the Service, the manufacturer is authorized to use the Laboratories' Certification of Classification on the forming machine to produce products which comply with the fabrication specifications in this Report, and other applicable requirements of Underwriters Laboratories, Inc. Only those products which are produced with a Certified machine are considered as Classified by Underwriters Laboratories, Inc.

In addition, UL Classification Report Reference No. R18721, Project 02NK20608 dated May 21, 2002 should be consulted for compliance with material specifications and metal panel design.

See UL Roofing Materials and Systems Directory

Report by

GREG REZEK
Senior Engineering Associate

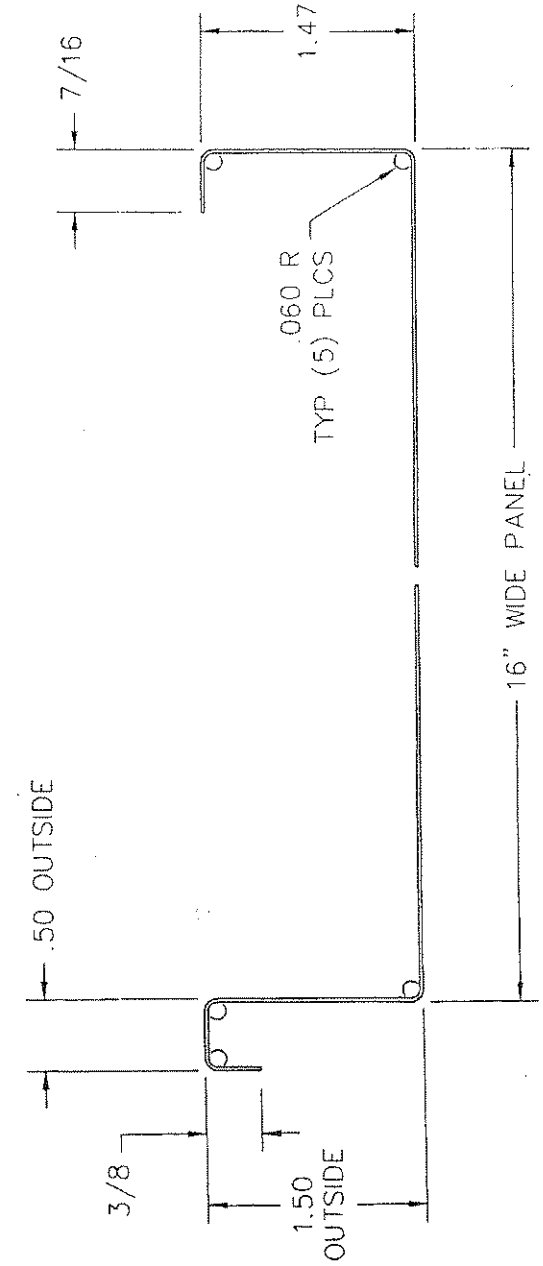
Reviewed by,

DOUGLAS C. MILLER
Engineering Group Leader

MODEL SS-1500 1-1/2" STANDING SEAM

24 Ga Steel, 50 KSI yield

NOTE: ±10% ON ALL DIMENSIONS



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554 -A CARD

OF DECK CONSTRUCTIONS

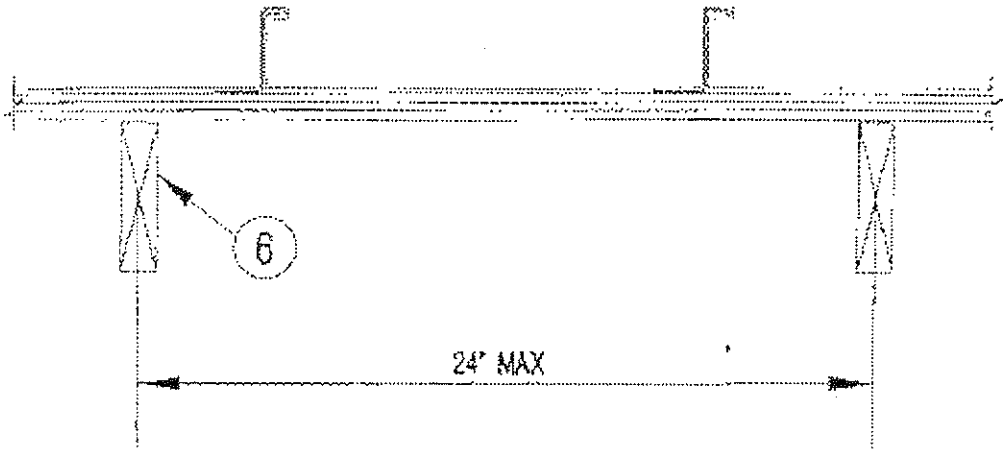
CONT'D. ON 554-A1 CARD

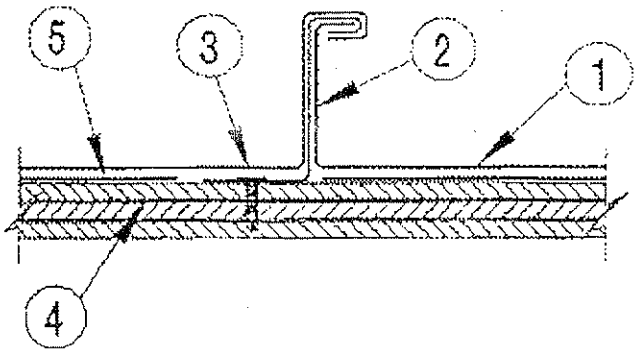
PART 1-SEE PART 2 FOR DESCRIPTION OF NUMBERED ITEMS

CONSTRUCTION NO. 554

UPLIFT-CLASS 90

FIRE NOT INVESTIGATED





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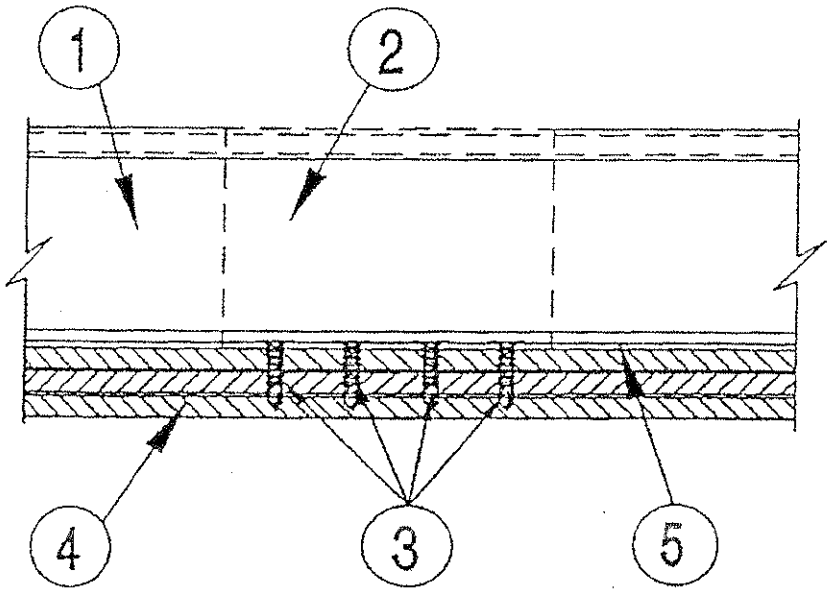
554-A1 CARD

)OF DECK CONSTRUCTIONS

CONT'D. ON 554-B CARD

CONSTRUCTION NO. 554



Fire Not Investigated

1. Metal Roof Deck Panels* - No. 24 MSG min coated steel. Max width 16 in., female rib height 1-1/2 in. Panels continuous over three or more clips with no end laps.

   ZIMMERMAN METALS, INC. - "SS-1500"

2. Roof Deck Fasteners* (Panel Clips) - One piece assembly, 1 in. wide, 1-5/8 in. high. Min thickness 0.0225 in. (No.24 MSG). Clips spaced 48 in. OC. Four fasteners used per clip.

   ENGLERT, INC. - "Series 1300 Clip"

3. Fasteners (Screws) - Fasteners used to attach plywood (Item 4) to joists (Item 6) to be No. 7-6 coarse thread, No 1 Phillips Drive, bugle head, coated steel wood screws. Fasteners used to attach panel clips to plywood to be in. No. 2, Phillips Drive, wafer head, plated steel wood screws.

4. Plywood Decking - Plywood decking to be nominal 1/2 in. (15/32 in. actual) thick, APA rated sheathing, Grade B-C.

5. Underlayment - One layer Type 30 felt. Installed per manufacturer's instructions.

6. Joists - Graded dimensional lumber, No. 2 or better. Spaced max of 24 in. OC.

Refer to General Information, Roof Deck Constructions, for items not evaluated.

*Bearing the UL Classification Marking.