



Zimmerman

TSS2500
2 1/2" TRAPEZOIDAL
STANDING SEAM PANEL



Underwriters
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File R18721
Project 10CA43888
10CA44965

September 17, 2010

REPORT

On

Metal Roof Deck Panels
For Wind Uplift Resistance.

Under The

CLASSIFICATION PROGRAM

ZIMMERMAN METALS INC
DENVER, CO

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DESCRIPTION

PRODUCT COVERED:

The products covered by this Report are metal roof deck panels designated "TSS-2500" and "TSS-3000" panels.

The products in this Report are Classified as to uplift resistance only.

USE:

The products are intended for use as building materials as permitted by authorities having jurisdiction.

TEST RECORD NO. 1

SAMPLE:

Classified metal roof deck panels designated panels.

STUDY FOR CLASSIFICATION PURPOSES:

Testing of the metal roof deck panels designated "TSS-2500" and "TSS-3000" panels for use in Uplift Resistance was not considered necessary based upon previous test experience on similar products as documented internally in Test Reference No. 1.

TEST RECORD 1 SUMMARY:

The results of this investigation indicate that the metal panels evaluated in this test record comply with applicable requirements, and therefore, are judged to be eligible for Classification under the Laboratories product categories of Uplift Resistance (TJPV).

Standard	Title	Edition or Publication Date	Latest Revision Date
UL 580	Tests for Uplift Resistance of Roof Assemblies	Fifth	November 2, 2006

Test Record 1 by:

JUDITH G. MARZULLO
Lead Engineering Associate
Fire Protection Division

Reviewed by:

KARL W. AITTANIEMI
Senior Project Engineer
Fire Protection Division

CONCLUSION:

The products covered by this Report are judged to be eligible for Classification and Follow-Up Service. The manufacturer is authorized to use the Laboratories' Classification Marking as shown below on such products that comply with the Follow-Up Procedure and any other applicable requirements of Underwriters Laboratories Inc. Only those products that properly bear the Laboratories' Classification Marking are considered as Classified by Underwriters Laboratories Inc.

The Classification Mark to be used on the "TSS-2500" is illustrated below:

METAL ROOF DECK PANELS
AS TO UPLIFT RESISTANCE
CLASS 90
AS SHOWN BY CONSTRUCTION NO. 294
SEE UL ROOFING MATERIALS AND SYSTEMS DIRECTORY

The Classification Mark to be used on the "TSS-3000" is illustrated below:

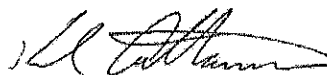
METAL ROOF DECK PANELS
AS TO UPLIFT RESISTANCE
CLASS 90
AS SHOWN BY CONSTRUCTION NOS. 538, 539.
SEE UL ROOFING MATERIALS AND SYSTEMS DIRECTORY

Report by:



JUDITH G. MARZULLO
Lead Engineering Associate
Fire Protection Division

Reviewed by:



KARL W. AITTANIEMI
Senior Project Engineer
Fire Protection Division

DESCRIPTION

PRODUCT COVERED:

This section of the Procedure covers a coated steel roof panel that is identified as "TSS-2500". The panel is produced at job sites by portable rolling machines.

The panel is roll formed from No. 24 MSG minimum gauge coated steel to the configuration shown in ILL. 1. The panel may also have a paint finish over the coating.

SPECIFICATIONS OF FINISHED PRODUCT:

THICKNESS

* The metal thickness of the steel used in the fabrication of the panels shall be not less than 0.0225 in. (No. 24 MSG minimum gauge).

DIMENSIONS

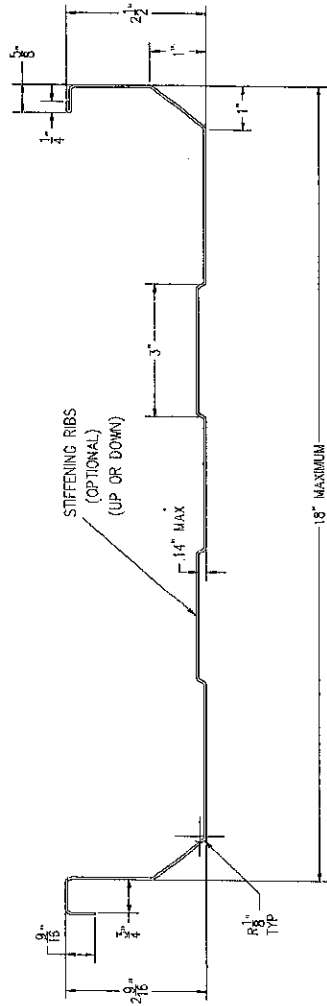
The cross-section dimensions of the panel piece shall be in accordance with the cross-section shown in ILL. 1.

STRENGTH

The strength records of the steel shall be reviewed. The steel used shall conform to ASTM A653, Grade 50 specifications or the minimum yield point of the steel shall be 50,000 psi.

MODEL TSS-2500

24 TO 20 Gg, GRADE "D", 50 KSI MIN. YIELD



ZIMMERMAN METALS INC.		301 E. 58th AVE. DENVER, CO 80206 (303) 750-0100	
TO FRAMERS		BY JAMES P. WU	
UNLESS OTHERWISE SPECIFIED		AS SHOWN	
DRAWING NO. TSS-2500		SHEET 1 OF 1	
STANDING SEAM		DATE 6/14/10	
DRAWING NO. TSS-2500		DATE 6/14/10	
SHEET 1 OF 1		DATE 6/14/10	
NOTES: ALL DIMENSIONS ± 10%		DATE 6/14/10	
MATERIAL USED: 6"		DATE 6/14/10	

N100692356



Construction No. 294 TGKX.294 Roof Deck Constructions

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Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Roof Deck Constructions

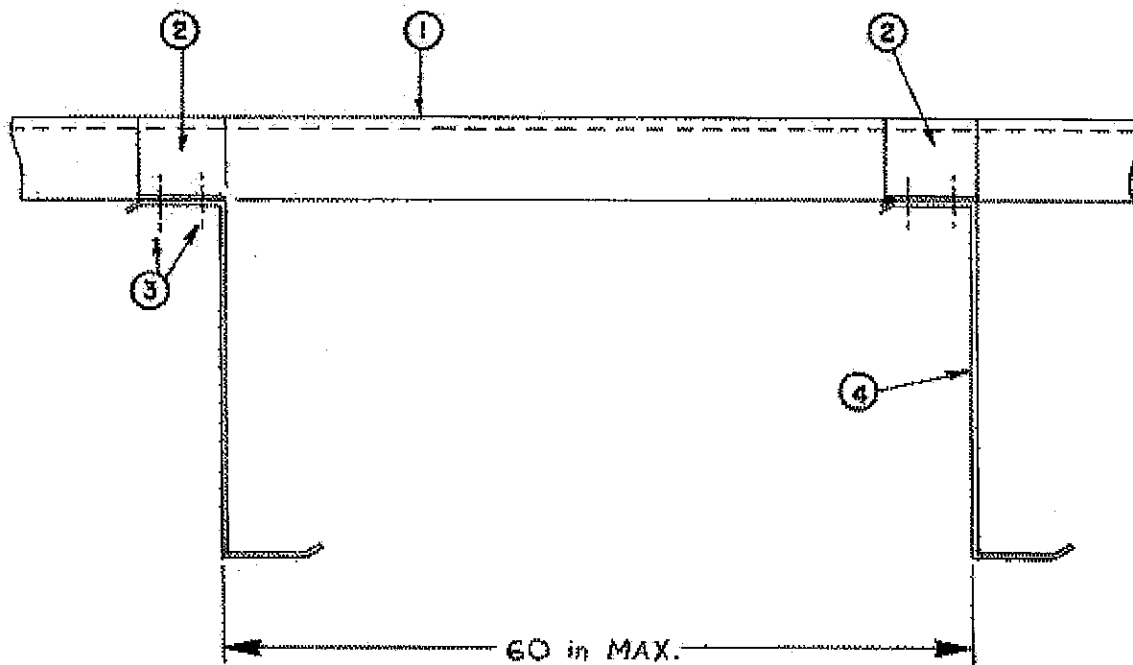
[See General Information for Roof Deck Constructions](#)

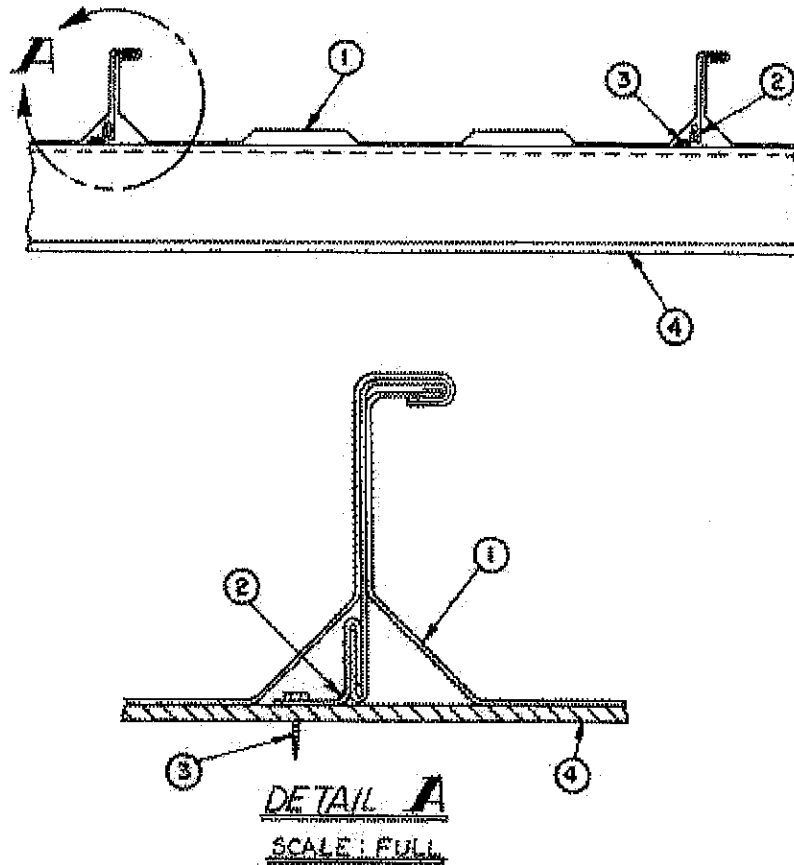
Construction No. 294

May 25, 2011

Uplift – Class 90

Fire Not Investigated





1. **Metal Roof Deck Panels*** — No. 24 MSG min thick coated steel, 18 in. wide, 2-1/2 in. high at the ribs. Panels continuous over two or more spans without end laps. A line of sealant may be used along panel side joints. Adjacent panels to be seamed together along sides using an electric seaming tool with seams to be fully crimped. Seaming operation to include Roof Deck Fasteners (Item 2 or 2A).

KNUDSON MFG INC ([View Classification](#)) — "KR-18"

MORIN CORP ([View Classification](#)) — "MS-18"

ZIMMERMAN METALS INC ([View Classification](#)) — "TSS-2500"

2. **Roof Deck Fasteners*** — (Panel Clips) — Two part assembly consisting of a painted and coated base 0.030 in. thick and a coated steel tab 0.027 in. thick. Overall height 2-1/2 in., width of both tab and base, 6-1/4 in. max.

KNUDSON MFG INC ([View Classification](#)) — "KR-18A Floating Clip"

2A. **Roof Deck Fasteners*** — (Panel Clips) — Not Shown — One part assembly fabricated from 0.027 in. thick coated steel. Height 2-1/2 in. width 6-1/4 in. max.

KNUDSON MFG INC ([View Classification](#)) — "KR-18A Fixed Clip"

3. **Fasteners** — (Screws) — For panel clip (Item 2 and 2A) to purlin (Item 4) attachment to be No. 10 by 3/4 in. long self-drilling, self-tapping hex-washer head plated steel screws used without sealing washers. Two fasteners per panel clip used, inserted into panel clip guide holes.

4. **Purlins** — No. 16 MSG min thick steel (50,000 psi min yield strength).

Purlin Spacing — Max spacing 60 in. OC.

Refer to General Information, Roof Deck Construction (Roofing Materials and Systems Directory) for items not evaluated.

*Bearing the UL Classification Mark

Last Updated on 2011-05-25

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