

BRIGGS ENGINEERING, Inc.

ENGINEERS / PLANNERS / SURVEYORS

1800 West Overland Road
PO BOX 140537
Boise, Idaho 83714
Voice: (208) 344-9700x104
Cell: 208.871.0200
Fax: (800) 572-8870
dean@briggs-engineering.com

Michael Summers
RP Watkins
13401 South 226th Avenue
Gretna, NE 60028

Re: RP Watkins Hanger Validation for Idaho

Dear Mr. Summers:

As requested by your office, we have reviewed the below itemized documents to gain an understanding of the capacity of the RP Watkins hangers indicated in the testing reports. The testing formation was used with a suitable factor of safety to set a base for the hanger capacity. This hanger capacity was measured against the material analysis design parameters from the various listed standards to arrive at an ultimate load capacity and a suitable load rating for each hanger:

1. Watkins Hanger Tensile Testing, Donald G. Fears Structural Engineering Laboratory (Fears), University of Oklahoma, July 12, 2012.
2. Watkins Hanger Capacity Testing, Donald G. Fears Structural Engineering Laboratory (Fears), University of Oklahoma, June 2, 2013.
3. RP Watkins Published Engineering Data for IFH28-11, IFH25-11 & IFH48-11 hangers.
4. ACI 318-11 – Building Code Requirements for Structural Concrete
5. AF&PA – NDS-2012 – National Design Specification (NDS) for Wood Construction with 2012 Supplement
6. AISC 360-10 – Specifications for Structural Steel Buildings
7. AISI S100-10 – North American Specification for the Design of Cold-formed Steel Structural Members

Based on the information presented in the two Fears reports the hangers have an ultimate capacity of approximately 5,950 pounds of vertical loading capacity. Using this information along with analysis based on the references above we have verified the published loading ratings attached are suitable.

Should you have any questions, please let me know.

Sincerely,
BRIGGS ENGINEERING, Inc.
Dean Briggs, PE





Engineering Data

MATERIALS: 16 gauge galvanized steel
 Loads: 2,265 to 2,505

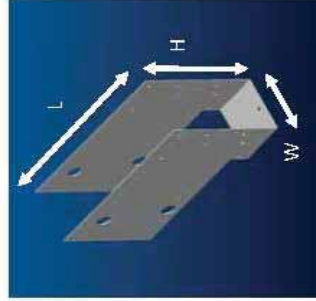
Watkins STOCK #	STEEL GAUGE	INSTALLED BEARING	DIMENSIONS			FASTNER SCHEDULE			ALLOWABLE LOADS				
			W	L	H	JOIST	VERT.	HORZ.	CONCRETE	FLOOR	ROOF	SNOW	UPLIFT
IFH28-11	16	3	1-1/2"	11	7	10-100X-1-1/2	1 #5	2 #3	2265	2265	115%	100%	133%
IFH25-11	16	3	2-1/2"	11	7	10-100X-1-1/2	1 #5	2 #3	2505	2505	2505	2505	1520
IFH48-11	16	3	3-1/2"	11	7	10-100X-1-1/2	1 #5	2 #3	2505	2505	2505	2505	1520

* Bearing stiffeners are required when using I joists.

10d x 1 1/2 nails are 9 gauge (0.148 inch diameter by 1 1/2 inches long.

#3 is 3/8 diameter reinforcing steel meeting requirements of ASTM A.615 grade 40-min L=12"

#5 is 5/8 diameter reinforcing steel meeting requirements of ASTM A.615 grade 40-min L=36"



12.5