



ICBO Evaluation Service, Inc.

5360 WORKMAN MILL ROAD WHITTIER, CALIFORNIA 90601-2299

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EVALUATION REPORT

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ER-5367

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Filling Category: FASTENERS—Screws (066)

I-LAG™ BRAND EYE LAG SCREWS
DOC'S MARKETING CORPORATION
5158 GOLDMAN AVENUE, UNIT A
MOORPARK, CALIFORNIA 93021

1.0 SUBJECT

I-LAG™ Brand Eye Lag Screws.

2.0 DESCRIPTION

2.1 General:

I-LAG brand screw fasteners, having part numbers 750 SD, 150 SP and 150 WS, are recognized for use as suspended ceiling fasteners. The I-LAG brand screws are eye lag type screws manufactured from 1018 steel. The 750 SD and 150 SP screws are manufactured from heat-treated steel and have an electroplated zinc Type II coating, giving them a yellowish or golden appearance. The 150 WS screw is manufactured from untreated steel and is either uncoated or has an electroplated zinc Type I coating.

2.1.1 750 SD: The 750 SD is a self-tapping screw fastener designed for use with metal framing. Each fastener is 2 inches (51 mm) long and consists of a 0.3-inch-long (7.6 mm) self-tapping portion, 0.5-inch-long (12.7 mm) threaded portion, 0.19-inch-diameter (4.8 mm) shank, and a 0.5-inch-diameter-by-0.08-inch-thick (12.7 mm by 2 mm) washer portion. The fastener portion above the washer consists of a 0.21-inch-diameter-by-0.6-inch-long (5.3 mm by 15 mm) shank portion and a 0.08-inch-thick-by-0.5-inch-long (2 mm by 12.7 mm) flattened eyelet portion having a 0.18-inch-diameter (4.6 mm) hole as shown in Figure 1.

2.1.2 150 SP: The 150 SP is a sharp-point screw fastener designed for use with metal or wood framing. Each fastener is 2 ¾ inches (70 mm) long and consists of a 1 ½-inch-long (38 mm) threaded portion, 0.19-inch-diameter (4.8 mm) shank, and a 0.5-inch-diameter-by-0.08-inch-thick (12.7 mm by 2 mm) washer portion. The fastener portion above the washer consists of a 0.21-inch-diameter-by-0.6-inch-long (5.3 mm by 15 mm) shank portion and 0.08-inch-thick-by-0.5-inch-long (2 mm by 12.7 mm) flattened eyelet portion having a 0.18-inch-diameter (4.6 mm) hole as shown in Figure 1.

2.1.3 150 WS: The 150 WS is a sharp-point screw fastener designed for use with wood framing. The 150 WS fastener dimensions are the same as the 150 SP screw fastener.

2.2 Allowable Loads:

Allowable fastener loads are as shown in Table 1. The allowable loads for the 750 SD and 150 SP screw fasteners are

loads for screws fastened into steel sheets having minimum uncoated thicknesses of 0.030 inch, 0.036 inch, 0.047 inch and 0.062 inch (0.76 mm, 0.91 mm, 1.19 mm and 1.57 mm), and 38,000 psi (262 Mpa) minimum yield strength.

Allowable loads for the 150 SP and 150 WS screw fasteners are based on fasteners attaching into lumber having minimum 0.46 specific gravity.

2.3 Installation:

The self-tapping and sharp-point screws are installed without predrilling holes in the receiving material. Fasteners are installed with an eye lag jig pole, ¼-inch (6.4 mm) hex driver and a variable speed drill having a minimum speed of 200 rpm. Installed fasteners must protrude through the attached steel members three full threads beyond the members and must be fully embedded into wood framing members. The distance from the center of a fastener to the edge and end of the steel and wood framing members shall not be less than 2 inches (51 mm).

2.4 Identification:

Fasteners are embossed with four "I"s radiating from the shank on the top portion of the washer, or have the name "I-LAG" embossed on the flattened eyelet portion as shown in Figure 1. Each box of fasteners has a label bearing the I-LAG brand name, the manufacturer's name, the fastener type, the quantity and the ICBO ES evaluation report number (ER-5367) as noted in Figure 2.

3.0 EVIDENCE SUBMITTED

Reports of shear and tension tests, installation instructions, and a quality control manual.

4.0 FINDINGS

That the I-LAG brand screws described in this report comply with the 1997 Uniform Building Code™, subject to the following conditions:

- 4.1** Fasteners are installed in accordance with the manufacturer's instructions and this report.
- 4.2** Allowable tension values comply with Table 1.
- 4.3** Allowable loads shall not be increased due to duration of load such as wind or earthquake forces.
- 4.4** Calculations shall be submitted to the building official, proving that applied loads are less than the allowable loads in this report.

This report is subject to re-examination in one year.

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Table 1 – ALLOWABLE SCREW LOADS (pounds)

I-LAG PART NUMBER	FRAMING MATERIAL									
	Steel (Thickness) ¹								Wood ^{2,3}	
	22 Gage (0.030 inch)		20 Gage (0.036 inch)		18 Gage (0.047 inch)		16 Gage (0.062 inch)		0.46 Specific Gravity	
	Tension	45 Degrees ⁴	Tension	45 Degrees ⁴	Tension	45 Degrees ⁴	Tension	45 Degrees ⁴	Tension	45 Degrees ⁴
750 SD	135	170	170	190	245	280	340	375	NA	NA
150 SP	180	205	NA	NA	NA	NA	NA	NA	245	155
150 WS	NA	NA	NA	NA	NA	NA	NA	NA	270	140

For **SI**: 1 inch = 25.4 mm, 1 lbf = 4.45 N, 1 psi = 6.9 kPa.

NA = Not applicable

¹Values are based on steel sheets having a minimum yield strength of 38,000 psi.

²Based on a minimum 1 ½-inch screw penetration into wood member.

³Wood specific gravity of 0.46 or greater.

⁴Load applied 45 degrees from the vertical and horizontal direction.

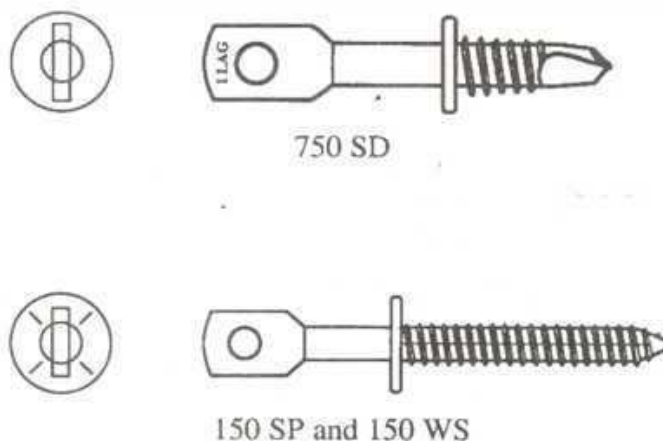
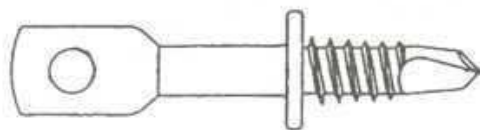


FIGURE 1—FASTENER TYPE AND IDENTIFICATION



1000 PCS
PART# 750 SD

I-LAG™ SELF DRILLING SHEET METAL SCREWS

ER-5367

FOR SUSPENDED CEILING APPLICATIONS ONLY
SOLD BY WEIGHT 17 LBS

DISTRIBUTED BY DOC'S MARKETING

MOORPARK CA



MADE IN USA

FIGURE 2—IDENTIFICATION LABEL