

Minutes
Rigging Working Group
Wendnesday, 17 October 2012
The Las Vegas Hotel
Las Vegas, NV

Chairman: Bill Sapsis; Sapsis Rigging, Inc.; P; U

Recording secretary: Karl G. Ruling

Members attending:

Woody Pyeatt; A V Pro, Inc.; P; DR
Ethan William Gilson; Advanced Lighting and Production Services; P; U
William Bradburn; Aerial Arts, Inc.; P; U
Steven C. Shaw; Performance Rigging Systems, representing Aerial Rigging; P; DR
Wendy Holt; AMPTP/CSATF, representing AMPTP; P; G
David Bond; Arcofab; P; U
Robert Young; Arup; P; DE
Donald Hoffend_III; Avista Designs, LLC; A; G
Charlie Weiner; P; U
Ted Jones; Chicago Spotlight, Inc.; O; U
Daniel J. Clark; Clark-Reder Engineering, Inc.; O; G
Herb Hart; Columbus McKinnon Corp.; P; MP
Art Zobal; Columbus McKinnon Corp.; A; MP
Edward A. (Ted) Paget; Daktronics Automated Rigging Solutions (Daktronics Inc.); P; CP
Michael Lichter; Electronic Theatre Controls, Inc.; A; MP
Harvey Sweet; Electronic Theatre Controls, Inc.; P; MP
Dana Bartholomew; Fisher Technical Services, Inc.; P; CP
John Ringelman; Stage Rigging, Inc. (Freeman Companies); A; DR
Miriam Paschetto; Geiger Engineers; P; G
Reid Neslage; H & H Specialties Inc.; P; MP
Ed Garstkiewicz; Harting Inc., North America (Harting KGAA); P; G
Roger Lattin; I.A.T.S.E. Local 728; P; U
Rod Haney; I.A.T.S.E. Local 891; P; U
Tray Allen; James Thomas Engineering, Inc.; P; MP
Jonathan Deull; JSD Projects LLC; I; U
Greg Hareld; Kleege Industries; O; U
William Beautyman; Limelight Productions, Inc.; P; DR
Steve (BOZ) Bodzioch; LMG Inc.; O; G
William B. Gorlin; McLaren Engineering Group (M.G. McLaren, P.C.); P; G
Pat Grenfell; Mainstage Theatrical Supply, Inc.; O; DR
Keith Bohn; Tomcat USA, Inc. (Milos Group); P; MP
Will Todd; Tomcat USA, Inc. (Milos Group); A; MP
Vincent J. Cannavale; Motion Laboratories; P; CP
Marty Wesstrom; Mountain Productions Inc.; P; DR
Joseph Jeremy; Niscon Inc.; P; CP
Gary Justesen; Oasis Stage Werks; O; DR
Orestes Mihaly; Production Resource Group ; P; DR
Rick Montgomery; R&M Materials Handling; P; MP
Bruce Darden; Rigging Innovators, Inc.; P; CP
Jesse Adams; Rose Brand; P; DR
Dan Culhane; SECOA; P; CP
Monica Skjonberg; Skjonberg Controls, Inc.; O; CP
Brad Dittmer; Stage Labor of the Ozarks; P; U
Mark Ager; Stage Technologies (Stage Technologies Group Ltd.); P; CP

Patrick Leigh Bettington; Stage Technologies Group Ltd. (Stage Technologies Group Ltd.); A; CP
Steve Walker; Steve A. Walker & Associates; P; G
Richard J. Nix; Entertainment Structures Group (Steven Schaefer Associates); P; G
Stephen G. Surratt; Texas Scenic Company; P; DR
Joel A Guerra; Texas Scenic Company; A; DR
Jerry Gorrell; Theatre Safety Programs; P; G
John C. Snook; Thermotex Industries Inc.; O; CP
Jeff Wilkowski; Thern, Inc.; P; MP
Adrian Forbes-Black; Total Structures Inc.; P; MP
Dan Lisowski; Dept. Of Theatre and Drama (University of Wisconsin - Madison); P; U
Pete Happe; Walt Disney Imagineering (Walt Disney Company); P; U
Jeff T. Miller; Worldwide Standards and Auditing (Walt Disney Company); A; U
Peter V. Svitavsky; J.R. Clancy Inc. (Wenger Corp.); P; CP
Michael Wells; Xtreme Structures and Fabrication; P; MP
Joseph Champelli; ZFX Flying Inc.; P; CP
Stu Cox; ZFX Flying Inc.; A; CP

Visitors:

Lynn Snook; Thermotex Industries Inc.
Scott Johnson; James Thomas Engineering
Jason Adams; Atlanta Rigging Systems
Erin Grabe; PLASA TSP Scribe
Brett Mulford; LiftAll Co., Inc.
Chris Bertrando; LiftAll Co., Inc.
Michael Viehmeyer
Herbert Bernstädt; Production Partner

1 Opening remarks

Bill Sapsis called the meeting to order at 19:05.

2 Attendance and membership

2.1 Introduction of those present

Those present introduced themselves.

2.2 Circulation of attendance sign-in sheet

An orange sign-in sheet was circulated while the self-introductions were conducted.

2.3 Call for quorum

Sapsis asked for a show of hands of voters. He counted them and then announced that a quorum was present and business could be conducted.

2.4 Requirements for membership

Sapsis reminded the assembly, "Membership is open to all who are materially affected by the work of the group. People who would be in the designer interest group category are particularly encouraged to join. However, voting members are required to attend meetings and to vote on letter ballots. Any principal member and voting alternate who both miss three consecutive meetings or letter ballots will have their membership status changed to observer."

2.5 Changes of membership status resulting from lack of attendance.

The following voters and their alternates have missed the last two consecutive meetings, and will be moved to observer status if they miss this one:

Tracy Nunnally; Hall Associates Flying Effects; CP
Bruce Darden; Rigging Innovators, Inc.; CP
Brad Dittmer; Stage Labor of the Ozarks; U

Mark Ager; Stage Technologies Group; CP

All were present, except for Tracy Nunnally. Nunnally was moved to observer status.

2.6 Processing of new membership requests

Applications logged as of 1 October 2012:

David Bond; Arcofab; Principal; CP (previously observer for Show Restraint)
William Bradburn; Aerial Arts; change to Principal from Observer; User
Benjamin Cohen; Reed Rigging, Inc.; change to Observer from Principal; DR
Jonathan Deull; JSD Projects LLC; Individual; User
Patrick Leigh Bettington; Stage Technologies Group Ltd.; Alternate; CP
Steve (BOZ) Bodzioch; LMG Inc.; Observer; General interest
Jesse Adams: Rose Brand; Principal

Trip Hoffend asked for Avista to be returned to voting status.

The representatives for Tomcat USA submitted applications noting the sale of their company to the Milos Group, so all Tomcat members would now represent the Milos Group rather than Vitac LLC.

Ted Paget moved that the membership requests be accepted. The motion was seconded and then approved with a show of hands.

2.7 Consensus body

The consensus body during this meeting, including those not present, was:

Name	Representing	Voting status	Int. cat.
Woody Pyeatt	A V Pro, Inc.	P	DR
Ethan William Gilson	Advanced Lighting and Production Services	P	U
William Bradburn	Aerial Arts, Inc.	P	U
Steven C. Shaw	Aerial Rigging	P	DR
Wendy Holt	Alliance of Motion Picture and Television Producers	P	G
R. Duane Wilson	Amer. Society of Theatre Consultants	P	DE
David Bond	Arcofab	P	U
Robert Young	Arup	P	DE
James Niesel	Arup	A	DE
Donald A. Hoffend_Jr.	Avista Designs, LLC	P	G
Donald Hoffend_III	Avista Designs, LLC	A	G
Charlie Weiner	Charlie Weiner	P	U
Herb Hart	Columbus McKinnon Corp.	P	MP
Shawn Sack	Columbus McKinnon Corp.	A	MP
Art Zobal	Columbus McKinnon Corp.	A	MP
Edward A. (Ted) Paget	Daktronics Inc.	P	CP
Harvey Sweet	Electronic Theatre Controls, Inc.	P	MP
Michael Lichter	Electronic Theatre Controls, Inc.	A	MP
Dana Bartholomew	Fisher Technical Services, Inc.	P	CP

Name	Representing	Voting status	Int. cat.
Scott Fisher	Fisher Technical Services, Inc.	A	CP
Joseph McGeough	Foy Invenenterprises, Inc.	P	CP
Rocky Paulson	Freeman Companies	P	DR
John Ringelman	Freeman Companies	A	DR
Miriam Paschetto	Geiger Engineers	P	G
Reid Neslage	H & H Specialties Inc.	P	MP
Ed Garstkiewicz	Harting KGAA	P	G
Howard Forryan	Harting KGAA	A	G
Edwin S. Kramer	I.A.T.S.E. Local 1	P	U
Roger Lattin	I.A.T.S.E. Local 728	P	U
Rod Haney	I.A.T.S.E. Local 891	P	U
John (Jack) Miller	I Weiss	P	CP
Tray Allen	James Thomas Engineering, Inc.	P	MP
Jonathan Deull	JSD Projects LLC	I	U
William Beautyman	Limelight Productions, Inc.	P	DR
William B. Gorlin	M.G. McLaren, P.C.	P	G
Keith Bohn	Milos Group	P	MP
Will Todd	Milos Group	A	MP
Mike Garl	Milos Group	A	MP
Vincent J. Cannavale	Motion Laboratories	P	CP
Peter Herrmann	Motion Laboratories	A	CP
David Herrmann	Motion Laboratories	A	CP
Gregory Quinkert	Motion Laboratories	A	CP
Marty Westrom	Mountain Productions Inc.	P	DR
Joseph Jeremy	Niscon Inc.	P	CP
Tim Hansen	Oasis Stage Werks	P	DR
Ron Bonner	PLASA EU	P	G
Orestes Mihaly	Production Resource Group	P	DR
Shawn Nolan	Production Resource Group	A	DR
Rick Montgomery	R&M Materials Handling	P	MP
Troy Post	R&M Materials Handling	A	MP
Bruce Darden	Rigging Innovators, Inc.	P	CP
Jesse Adams	Rose Brand	P	DR
Bill Sapsis	Sapsis Rigging, Inc.	P	U
Kimberly Corbett	Schuler Shook	P	DE
Joshua Grossman	Schuler Shook	A	DE

Name	Representing	Voting status	Int. cat.
Dan Culhane	SECOA	P	CP
Brad Dittmer	Stage Labor of the Ozarks	P	U
Mark Ager	Stage Technologies Group Ltd.	P	CP
Patrick Leigh Bettington	Stage Technologies Group Ltd.	A	CP
Steve Walker	Steve A. Walker & Associates	P	G
Richard J. Nix	Steven Schaefer Associates	P	G
Kyle Kusmer	Steven Schaefer Associates	A	G
Christine L. Kaiser	Syracuse Scenery & Stage Lighting Co., Inc.	P	DR
Frank Willard	Syracuse Scenery & Stage Lighting Co., Inc.	A	DR
Stephen G. Surratt	Texas Scenic Company	P	DR
Rick Rosas	Texas Scenic Company	A	DR
Joel A Guerra	Texas Scenic Company	A	DR
Jerry Gorrell	Theatre Safety Programs	P	G
Jeff Wilkowski	Thern, Inc.	P	MP
Adrian Forbes-Black	Total Structures Inc.	P	MP
Elmer Veith	Total Structures, Inc.	A	MP
Theresa Kelley	Total Structures Inc.	A	MP
Kandie Koed	Total Structures Inc.	A	MP
Dan Lisowski	University of Wisconsin - Madison	P	U
Pete Happe	Walt Disney Company	P	U
Jeff T. Miller	Walt Disney Company	A	U
Peter V. Svitavsky	Wenger Corp.	P	CP
Rodney F. Kaiser	Wenger Corp.	A	CP
Michael Wells	Xtreme Structures and Fabrication	P	MP
Mark Newlin	Xtreme Structures and Fabrication	A	MP
Joseph Champelli	ZFX Flying Inc.	P	CP
Stu Cox	ZFX Flying Inc.	A	CP
	Total votes possible	54	
		11	CP
		3	DE
		10	DR
	Votes by interest categories	9	MP
		9	G
		12	U

3 Approval of minutes from the previous meeting

See the draft minutes of the 19 July 2012 meeting, *RIGmin07-2012.pdf*.

Dan Culhane moved that the draft minutes be approved. The motion was seconded and then accepted with a show of hands. There was one abstention and no opposition.

4 PLASA declarations

4.1 Anti-trust statement

Bill Sapsis read the following statement aloud to the assembly:

"The PLASA Board of Directors, the Technical Standards Council, and the leadership of this working group will reject or nullify any actions that unlawfully restrain trade. Anyone who feels that such an action is being or has been taken is requested to bring that matter to the attention of the chair immediately. Anyone who feels that actions in restraint of trade have been taken and not properly annulled is requested to notify the TSC chair or PLASA chair immediately.

"PLASA legal counsel has informed us that violations of the anti-trust laws can have serious consequences. Individuals engaged in certain unlawful conduct can be found criminally liable. An individual convicted of a criminal violation of the Sherman Act may be fined as much as \$1,000,000 and imprisoned for up to ten years. An easy to read pamphlet describing restraint of trade issues is available from the Technical Standards Manager."

A copy of the easy-to-read pamphlet was displayed by the Technical Standards Manager. No restraint of trade problems were reported.

4.2 Call for patents

Bill Sapsis read the following statement aloud to the assembly:

"PLASA intends not to publish any standard that contains protected intellectual property, unless that information can be licensed by anyone for a reasonable fee. PLASA uses a process of open patent and copyright disclosures to implement its intent. PLASA does not conduct patent or copyright searches and does not warrant that its standards contain no protected intellectual property.

"In keeping with the open disclosures policy, I ask if anyone present wishes to notify this working group of the existence of a patent or copyright or other intellectual property that might protect material in a standard being developed by this working group. You need not be the holder of the patent or copyright to notify this working group of its existence."

No patents or other protected intellectual property was reported.

5 Approval of the agenda

Ted Paget moved that the agenda be approved. The motion was seconded and then approved with a show of hands.

6 Old business

6.1 ANSI E1.1-2012, wire rope ladders

It's published. Any news or action needed?

No news or action.

6.2 BSR E1.2-201x, Entertainment Technology - Design, Manufacture and Use of Aluminum Trusses and Towers

You approved it. See the ballot results, E1-2_RWG_2012-2032r1_BallotResults.pdf. Do you want to make the changes suggested by Steven C. Shaw? These might require another public review. Harvey Sweet's comments are corrections of minor typographical errors.

Dan Culhane moved that Steven Shaw's suggested changes be saved for a future edition of the standard. The motion was seconded, and then approved with a show of hands. All voters present voted Yes, except for one abstention. This was a supermajority.

6.3 ANSI E1.4-2009, Entertainment Technology--Manual Counterweight Rigging Systems

It's published. Any news or action needed?

No news or action.

6.4 BSR E1.6-1, Entertainment Technology--Powered Hoist Systems

It's been submitted to ANSI. As of 26 September, approval is pending. Any news or action needed?

Karl Ruling reported that it was approved by ANSI on October 16.

6.5 BSR E1.6-2, Entertainment Technology--Design, Inspection, and Maintenance of Electric Chain Hoists for the Entertainment Industry

You overwhelmingly voted to accept it as an ANS, but five people voted No, with four pointing to the objections of one voter as things they wanted to see addressed. See E1-6-2_RWG_2012-2031r1_BallotResults.pdf. The No votes need to have written responses before this document can move forward. Accepting all the changes suggested with the reasons would require substantive changes to the standard and additional public reviews.

There was a discussion of the draft resolutions to the reasons provided by Dan Culhane.

Dan Culhane moved the the draft reasons resolutions be accepted. The motion was seconded and then approved with a show of hands. There were six abstentions, but no opposition. This was a supermajority.

Culhane then moved that we offer the revised BSR E1.6-2 for another public review. The motion was seconded. The motion was approved with a show of hands, with one abstention and the rest voting in favor. This was a supermajority.

6.6 BSR E1.6-3, Safe Use of Electric Chain Hoists in the Entertainment Industry

It's published. Any news or action needed?

There was a discusson of the title.

6.7 BSR E1.6-4, Control of Electric Chain Hoists in the Entertainment Industry

Action on proposed comment resolutions. See E1-6-4_ResolsSummary2ndRevw.pdf and E1-6-4_2010-2008r2J.pdf.

Vincent Cannavale moved that the draft comment resolutions be accepted. The motion was seconded. The motion was accepted with a show of hands. There were two abstentions but no opposition. This was a supermajority.

Vincent Cannavale moved that the revised draft standard be offered for public review. The motion was seconded. The motion was accepted with a show of hands. There was one abstention but no opposition. This was a supermajority.

It was pointed out that the table of contents needed to be updated. Karl Ruling said he would update the table of contents.

6.8 BSR E1.8-201x, Entertainment Technology--Loudspeaker Enclosures Intended for Overhead Suspension--Classification, Manufacture and Structural Testing

You approved it. See E1-8_RWG_2012-2033r1_BallotResults.pdf. Does the working group wish to do anything in response to the one comment? It does not need a formal resolution, since the vote is a Yes.

Richard Nix's response was read to the assembly:

My response to the E1.8 comment, just to get these thoughts out of my head and onto e-paper, as it were.

The comment successfully restates two facts about the intent and requirements of section 7.

First, a wide range of test methods may exist. The standard recognizes this fact and accommodates possibilities accordingly with section 7.1.5. Since the standard does not dictate specific test procedures, it does not need to provide examples of alternative testing either; such is the nature of performance-based standards as opposed to prescriptive standards. The "no exceptions" requirement in 7.1.5 pertains to the whole of section 7, not just to 7.1.5. The section as a whole merely reaffirms what the tests must accomplish in order to show that an enclosure is compliant with this standard. This is as intended by the developers of the standard.

Second, test methods only need to be acceptable to—and are deemed so at the discretion of—the qualified person designing them; this is the stated requirement of section 7.1.

The addition of an annex note would not add or improve existing substantive requirements. The comment does not require any action.

Therefore, since the comment is not representative of the consensus, I suggest we make no change and move forward.

Dan Culhane moved that Richard Nix's response be accepted as the consensus of the working group. The motion was seconded. The motion was accepted with a show of hands, with two abstentions and the rest voting in favor. This was a supermajority.

6.9 ANSI E1.15-2006 (R2011), Entertainment Technology--Recommended Practices and Guidelines for the Assembly and Use of Theatrical Boom & Base Assemblies

It's published. Any news or action needed?

No news or action.

6.10 BSR E1.21-201x, Temporary Ground-Supported Overhead Structures Used To Cover Stage Areas and Support Equipment in the Production of Outdoor Entertainment Events

Addressing the public review comments. See E1-21_ScndRevwSummary.pdf.

Keith Bohn reported that we had received 85 comments and the task group so far had addressed 15 of them. They will work to make progress in the time between working group meetings.

6.11 ANSI E1.22 - 2009, Entertainment Technology - Fire Safety Curtain Systems

It's published. Any news or action needed?

No news or action.

6.12 BSR E1.39 - 20xx, Entertainment Technology –Selection and Use of Personal Fall Arrest Systems on Portable Structures Used in the Entertainment Industry

Addressing the public review comments. See E1-39_ThrdRvwCmmntsSummary.pdf.

Mike Wells reported that they have gotten through all but one comment, which is about a claimed OSHA-required 4:1 design factor from Chris Teuber. The task group needs to think about it. There are few OSHA standards that specify a 4:1 design factor, and they deal with shipyard scaffolds, manually powered mobile ladder stands and scaffolds, and movable building maintenance platforms (e.g., window-washing platforms). Are these applicable to fall arrest systems used on the portable structures that are within the scope of our standard?

Jerry Gorrell suggested that we ask OSHA if the clauses apply to portable structures. They do issue interpretations, although it often takes many months to receive a response.

6.13 BSR E1.43 - 201x, Live performer flying effect standard

Progress report. William Gorlin.

Bill Gorlin reported that the task group worked for four hours on this project today. It has additional meetings scheduled for this meeting cycle at LDI. They plan to reach 75% completion by the end of this set of meetings.

6.14 BSR E1.44 – 201x, Common Show File Exchange Format for Entertainment Industry Automation Control Systems -- Stage Machinery

Progress report. Michael Lichter.

Michael Lichter said that he had received a few comments from the working group members on the draft that was sent to the working group. The task group plans to have a complete document for the working group at its January meeting.

6.15 Rigging Glossary

Any further work on this? Chris Kaiser.

Chris Kaiser was not present, but she had sent the following report:

No current work to report. Assuming that Rocky, Joe and Pat wish to continue work on this project, I would like to request a short meeting slot at the January meeting. It had been my intention to request an informal meeting in Las Vegas. I would like to continue the work and pledge to have a written report of progress in time to be included with the pre-January meeting reports.

6.16 BSR E1.47 - 201x Recommended Guidelines for Entertainment Rigging System Inspections

See E1-47_PINS_FORM.pdf. Progress report. Chris Kaiser.

Chris Kaiser was not present, but she had sent the following report:

I have been working on a draft letter to providers of rigging inspections to request samples, and have started a database for potential targets. I will be requesting additional entries for the database from RWG and informal review of the document to be sent from several RWG members.

7 New business

Karl Ruling reported on a query he had received from Italy about E1.6-1 using risk assessment to allow equipment designers more flexibility. Would this be a good approach for Italian rigging standards? Harvey Sweet said that we stand by our approach in E1.6-1. It took two years of meetings to reach consensus on this more flexible approach, but we fully support it now.

8 Other business and announcements

None.

9 Schedule for future meetings

Sapsis announced that the next meeting is scheduled for Thursday evening, 24 January 2013 at the Marriott Solana in Westlake, Texas.

10 Adjournment

Wendy Holt moved that the meeting adjourn. The motion was seconded and then approved by acclamation. Bill Sapsis declared the meeting adjourned at 20:21.

Membership as of 9 November 2012

Name	Company	Representing	Voting status	Int. cat.
Jesse Adams	Rose Brand	Rose Brand	P	DR
Mark Ager	Stage Technologies	Stage Technologies Group Ltd.	P	CP
Tray Allen	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	P	MP
Brent Armstong	Brent Armstong	Brent Armstong	O	U
William Ian Auld	Auld Entertainment	Auld Entertainment	O	U
Warren A. Bacon	Warren A. Bacon	Warren A. Bacon	O	U
Rinus Bakker	Rhino Rigs B.V.	Rhino Rigs B.V.	O	G
Robert Barbagallo	Solotech Inc.	Solotech Inc.	O	DR
Roger Barrett	Star Events Group Ltd.	Star Events Group Ltd.	O	DR
Dana Bartholomew	Fisher Technical Services, Inc.	Fisher Technical Services, Inc.	P	CP
F. Robert Bauer	F.R. Bauer & Associates, LLC	F.R. Bauer & Associates, LLC	O	G
William Beautyman	Limelight Productions, Inc.	Limelight Productions, Inc.	P	DR
Maria Bement	MGM Grand	MGM Grand	O	U
Patrick Leigh Bettington	Stage Technologies Group Ltd.	Stage Technologies Group Ltd.	A	CP
Roy Bickel	Roy Bickel	Roy Bickel	O	G
Lee J. Bloch	Bloch Design Group, Inc.	Bloch Design Group, Inc.	O	G
Steve (BOZ) Bodzioch	LMG Inc.	LMG Inc.	O	G
Keith Bohn	Tomcat USA, Inc.	Milos Group	P	MP
David Bond	Arcofab	Arcofab	P	U
Ron Bonner	PLASA Technical Resources Office	PLASA EU	P	G
William Bradburn	Aerial Arts, Inc.	Aerial Arts, Inc.	P	U
Louis Bradfield	Louis Bradfield	Louis Bradfield	O	U
Buddy Braile	Bestek Lighting & Staging	Bestek Lighting & Staging	O	U
Barry Brazell	Barry Brazell	Barry Brazell	O	U

Name	Company	Representing	Voting status	Int. cat.
André Broucke	André Broucke	André Broucke	O	G
David M. Campbell	Geiger Engineers	Geiger Engineers	O	G
Vincent J. Cannavale	Motion Laboratories	Motion Laboratories	P	CP
Michael J. Carnaby	Mikan Theatricals	Mikan Theatricals	O	DR
Joseph Champelli	ZFX Flying Inc.	ZFX Flying Inc.	P	CP
Daniel J. Clark	Clark-Reder Engineering, Inc.	Clark-Reder Engineering, Inc.	O	G
Benjamin Cohen	Reed Rigging, Inc.	Reed Rigging, Inc.	O	DR
Ian Coles	Total Structures, Inc.	Total Structures, Inc.	O	MP
Gregory C. Collis	I.A.T.S.E. Local 16	I.A.T.S.E. Local 16	O	G
Kimberly Corbett	Schuler Shook	Schuler Shook	P	DE
Stu Cox	ZFX Flying Inc.	ZFX Flying Inc.	A	CP
Dan Culhane	SECOA	SECOA	P	CP
Bruce Darden	Rigging Innovators, Inc.	Rigging Innovators, Inc.	P	CP
Randall W. A. Davidson	Risk International & Associates, Inc.	Risk International & Associates, Inc.	O	U
Robert Dean	ZFX Flying Inc.	ZFX Flying Inc.	O	DR
François Deffarges	Nexo	Nexo	O	MP
Cristina Delboni	Feeling Structures	Feeling Structures	O	MP
Jonathan Deull	JSD Projects LLC	JSD Projects LLC	I	U
Jim Digby	The Collaborative Endeavor Group	Linkin Park Touring/The Collective	O	U
Brad Dittmer	Stage Labor of the Ozarks	Stage Labor of the Ozarks	P	U
Noga Eilon-Bahar	Eilon Engineering Industrial Weighing Systems	Eilon Engineering Industrial Weighing Systems	O	MP
James B. Evans	Mountain Productions Inc.	Mountain Productions Inc.	O	DR
Scott Fisher	Fisher Technical Services, Inc.	Fisher Technical Services, Inc.	A	CP
Adrian Forbes-Black	Total Structures Inc.	Total Structures Inc.	P	MP
Howard Forryan	Harting Ltd.	Harting KGAA	A	G

Name	Company	Representing	Voting status	Int. cat.
Tim Franklin	Theta-Consulting	Theta-Consulting	O	G
Luca Galante	Alfa System Sas	Alfa System Sas	O	CP
Mike Garl	Tomcat USA, Inc.	Milos Group	A	MP
Ed Garstkiewicz	Harting Inc., North America	Harting KGAA	P	G
Ethan William Gilson	ALPS	Advanced Lighting and Production Services	P	U
Jay O. Glerum	Jay O. Glerum & Associates, Inc.	Jay O. Glerum & Associates, Inc.	O	U
Rand Goddard	W.E. Palmer Co.	W.E. Palmer Co.	O	CP
Reuben Goldberg	Technic Services	Technic Services	O	U
William B. Gorlin	McLaren Engineering Group	M.G. McLaren, P.C.	P	G
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	G
Thomas M. Granucci	Associated Students, Cox Arena	San Diego State University	O	U
Pat Grenfell	Mainstage Theatrical Supply, Inc.	Mainstage Theatrical Supply	O	DR
Joshua Grossman	Schuler Shook	Schuler Shook	A	DE
Joel A Guerra	Texas Scenic Company	Texas Scenic Company	A	DR
Rod Haney	I.A.T.S.E. Local 891	I.A.T.S.E. Local 891	P	U
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	DR
Pete Happe	Walt Disney Imagineering	Walt Disney Company	P	U
Sean Harding	High Output, Inc.	High Output, Inc.	O	G
Greg Hareld	Kleege Industries	Kleege Industries	O	U
Dean Hart	Stage Rigging, Inc.	Freeman Companies	O	U
Herb Hart	Columbus McKinnon Corp.	Columbus McKinnon Corp.	P	MP
Ben Hayes	Freedom Flying	Freedom Flying	O	G
Marc Hendriks	Prolyte	Prolyte	O	MP
Peter Herrmann	Motion Laboratories	Motion Laboratories	A	CP
David Herrmann	Motion Laboratories	Motion Laboratories	A	CP

Name	Company	Representing	Voting status	Int. cat.
Ted Hickey	OAP Audio Products	OAP Audio Products	O	MP
Chris Higgs	Total Solutions Group	Total Solutions Group	O	G
Wendy Holt	AMPTP/CSATF	Alliance of Motion Picture and Television Producers	P	G
Daniel Lynn Houser	Real Rigging Solutions, LLC	Real Rigging Solutions, LLC	O	U
Donald Hoffend_III	Avista Designs, LLC	Avista Designs, LLC	A	G
Donald A. Hoffend_Jr.	Avista Designs, LLC	Avista Designs, LLC	P	G
Wes Jenkins	Down Stage Right Industries	Down Stage Right Industries	O	CP
Joseph Jeremy	Niscon Inc.	Niscon Inc.	P	CP
Peter Johns	Total Structures, Inc.	Total Structures, Inc.	O	MP
Ted Jones	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	O	U
Kent H. Jorgensen	IATSE Local 80	IATSE Local 80	O	G
Gary Justesen	Oasis Stage Werks	Oasis Stage Werks	O	DR
John Kaes	John Kaes	John Kaes	O	U
Rodney F. Kaiser	J.R. Clancy Inc.	Wenger Corp.	A	CP
Christine L. Kaiser	Syracuse Scenery & Stage Lighting Co., Inc.	Syracuse Scenery & Stage Lighting Co., Inc.	P	DR
JoAnna Kamorin-Lloyd	Vincent Lighting Systems	Vincent Lighting Systems	O	U
Theresa Kelley	Total Structures Inc.	Total Structures Inc.	A	MP
Nevin Kleege	Kleege Industries	Kleege Industries	O	U
Kandie Koed	Total Structures Inc.	Total Structures Inc.	A	MP
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U
Kyle Kusmer	Entertainment Structures Group	Steven Schaefer Associates	A	G
Ken Lager	Pook, Diemont & Ohl, Inc.	Pook, Diemont & Ohl, Inc.	O	DR
Jon Lagerquist	South Coast Repertory	South Coast Repertory	O	U
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P	U
Eugene Leitermann	Theatre Projects Consultants, Inc.	Theatre Projects Consultants, Inc.	O	G

Name	Company	Representing	Voting status	Int. cat.
Jon Lenard	Applied Electronics	Applied Electronics	O	MP
John Van Lennep	Theatrix Inc.	Theatrix Inc.	O	DR
Mylan Lester	Creation Logics Ltd.	Creation Logics Ltd.	O	U
Michael Lichter	Electronic Theatre Controls, Inc. (DE)	Electronic Theatre Controls, Inc.	P	MP
Dan Lisowski	Dept. Of Theatre and Drama	University of Wisconsin - Madison	P	U
Baer Long	Ninja Rigging	Act 1 Rigging Inc.	O	G
Dennis J. Lopez	Automatic Devices Co.	Automatic Devices Co.	O	MP
Darren Lucier	North Guard Fall protection Inc.	North Guard Fall protection Inc.	O	U
Sam Lunetta	Michael Andrews	Michael Andrews	O	DR
Aleksandrs Lupinskis	Real Rigging Solutions, LLC	Real Rigging Solutions, LLC	O	U
Gary Mardling	Kish Rigging	Kish Rigging	O	DR
Chuck McClelland	Jeamar Winches Inc.	Jeamar Winches Inc.	O	MP
Joseph McGeough	Flying by Foy	Foy Invenerprises, Inc.	P	CP
Richard C. Mecke	Texas Scenic Company	Texas Scenic Company	O	DR
Orestes Mihaly	Production Resource Group	Production Resource Group	P	DR
Hank Miller	W.E. Palmer Co.	W.E. Palmer Co.	O	CP
John (Jack) Miller	I Weiss	I Weiss	P	CP
Jeff T. Miller	Worldwide Standards and Auditing	Walt Disney Company	A	U
Shaun Millington	SEW-Eurodrive, Inc.	SEW-Eurodrive, Inc.	O	MP
Timothy Mills	Geiger Engineers	Geiger Engineers	O	G
Scott Mohr	R&R Cases and Cabinets	R&R Cases and Cabinets	O	G
Rick Montgomery	R&M Materials Handling	R&M Materials Handling	P	MP
John "Andrew" Munro	animaenagerie	animaenagerie	O	U
Bob Murphy	Occams Razor Technical Services	Occams Razor Technical Services	O	G
Steve Nelson	3dx Scenic and 3dx FlameCoat	Educational Theatre Association	O	U

Name	Company	Representing	Voting status	Int. cat.
Reid Neslage	H & H Specialties Inc.	H & H Specialties Inc.	P	MP
Mark Newlin	Xtreme Structures and Fabrication	Xtreme Structures and Fabrication	A	MP
Rikki Newman	Rikki Newman	Rikki Newman	O	U
James Niesel	Arup	Arup	A	DE
Richard J. Nix	Entertainment Structures Group	Steven Schaefer Associates	P	G
Shawn Nolan	Production Resource Group	Production Resource Group	A	DR
Tracy Nunnally	Hall Associates Flying Effects	Hall Associates Flying Effects	O	CP
Edward A. (Ted) Paget	Daktronics Automated Rigging Solutions	Daktronics Inc.	P	CP
Miriam Paschetto	Geiger Engineers	Geiger Engineers	P	G
Michael Patterson	Pook Diemont & Ohl, Inc.	Pook Diemont & Ohl, Inc.	O	CP
Rocky Paulson	Stage Rigging, Inc.	Freeman Companies	P	DR
G. Anthony Phillips	I.A.T.S.E. Local 16	I.A.T.S.E. Local 16	O	U
Philip J. Piszczak	The National Telephone Supply Company	The National Telephone Supply Company	O	G
Troy Post	R&M Materials Handling	R&M Materials Handling	A	MP
Michael Powers	Central Lighting & Equipment, Inc.	Central Lighting & Equipment, Inc.	O	DR
Kurt Pragman	Pragman Associates, LLC	Pragman Associates, LLC	O	G
Woody Pyeatt	A V Pro, Inc.	A V Pro, Inc.	P	DR
Gregory Quinkert	Motion Laboratories	Motion Laboratories	A	CP
Michael Reed	Reed Rigging, Inc.	Reed Rigging, Inc.	O	DR
Mark Riddlesperger	LA ProPoint, Inc.	LA ProPoint, Inc.	O	CP
John Ringelman	Stage Rigging, Inc.	Freeman Companies	A	DR
Timo Risku	Akumek	Akumek	O	DE
Rick Rosas	Texas Scenic Company	Texas Scenic Company	A	DR
Shawn Sack	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP
Bill Sapsis	Sapsis Rigging, Inc.	Sapsis Rigging, Inc.	P	U

Name	Company	Representing	Voting status	Int. cat.
Peter A. Scheu	Scheu Consulting Services, Inc.	Scheu Consulting Services, Inc.	O	G
Peter "Punch" Christian Schmidtke	Hollywood Lighting Services, Inc.	Hollywood Lighting, Inc.	O	DR
Steven C. Shaw	Performance Rigging Systems	Aerial Rigging	P	DR
Monica Skjonberg	Skjonberg Controls, Inc.	Skjonberg Controls, Inc.	O	CP
Knut Skjonberg	Skjonberg Controls, Inc.	Skjonberg Controls, Inc.	O	CP
William Scott Sloan	William Scott Sloan	William Scott Sloan	O	U
John C. Snook	Thermotex Industries Inc.	Thermotex Industries Inc.	O	CP
Michael L. Savage, Sr.	Middle Dept. Inspection Agency, Inc.	Middle Dept. Inspection Agency, Inc.	O	G
Rob Stevenson	SEW-Eurodrive, Inc.	SEW-Eurodrive, Inc.	O	MP
Joachim Stoecker	CAMCO GmbH	CAMCO GmbH	O	MP
Stephen G. Surratt	Texas Scenic Company	Texas Scenic Company	P	DR
Andy Sutton	AFX UK Ltd.	AFX UK Ltd.	O	U
Peter V. Svitavsky	J.R. Clancy Inc.	Wenger Corp.	P	CP
Harvey Sweet	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	A	MP
Katherine Tharp	LA ProPoint, Inc.	LA ProPoint, Inc.	O	CP
Will Todd	Tomcat USA, Inc.	Milos Group	A	MP
Stephen Vanciel	Stephen Vanciel	Stephen Vanciel	O	U
Elmer Veith	Total Structures - Eastern US Sales Office	Total Structures, Inc.	A	MP
Steve Walker	Steve A. Walker & Associates	Steve A. Walker & Associates	P	G
Bill Waters	Conductix-Wampfler	Conductix-Wampfler	O	MP
Charlie Weiner	Charlie Weiner	Charlie Weiner	P	U
Michael Wells	Xtreme Structures and Fabrication	Xtreme Structures and Fabrication	P	MP
Marty Wesstrom	Mountain Productions Inc.	Mountain Productions Inc.	P	DR
Michael G. Wiener	Aerial Rigging & Leasing, Inc.	Aerial Rigging & Leasing, Inc.	O	U
Jeff Wilkowski	Thern, Inc.	Thern, Inc.	P	MP

Name	Company	Representing	Voting status	Int. cat.
Frank Willard	Syracuse Scenery & Stage Lighting Co., Inc.	Syracuse Scenery & Stage Lighting Co., Inc.	A	DR
R. Duane Wilson	George C. Izenour Associates	Amer. Society of Theatre Consultants	P	DE
Jiantong Wu	Beijing Special Engineering Design & Research Institute	Beijing Special Engineering Design & Research Institute	O	G
Robert Young	Arup	Arup	P	DE
Art Zobal	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP

P principal voting representative

A alternate voting representative

I individual voter

O observer, non-voting

CP custom-market producer

DE designer of installations that use rigging products

DR dealer or rental company

G general interest

MP mass-market producer

U user