

Minutes
Rigging Working Group
Thursday, 22 July 2010
Marriott Solana
Westlake, TX

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

Recording secretary: Karl G. Ruling; ESTA

Members attending:

Woody Pyeatt; A V Pro, Inc.; P; DR
Ethan William Gilson; ALPS, (Advanced Lighting and Production Services); P; U
James Niesel; Arup; P; G
Shawn Sack; Columbus McKinnon Corp.; A; MP
Art Zobal; Columbus McKinnon Corp.; A; MP
Pat Grenfell; Vortek, (Daktronics Inc.); A; CP
M. Brad Dittmer; Downhome Productions; P; U
Harvey Sweet; Electronic Theatre Controls, Inc.; P; MP
Michael Lichter; Electronic Theatre Controls, Inc.; A; MP
Rocky Paulson; Stage Rigging, Inc., (Freeman Companies); P; DR
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
Jody Williquette; Harting Inc., North America, (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
Kent H. Jorgensen; IATSE Local 80; O; G
Peter V. Svitavsky; J.R. Clancy Inc.; P; CP
Mike Garl; James Thomas Engineering, Inc.; P; MP
Tray Allen; James Thomas Engineering, Inc.; A; MP
William B. Gorlin; McLaren Engineering Group, (M.G. McLaren, P.C.); P; G
Ron Bonner; PLASA; P; G
John (Jack) Miller; Scenic Technologies, (Production Resource Group); P; CP
Rick Montgomery; R&M Materials Handling; P; MP
Daniel Lynn Houser; Real Rigging Solutions, LLC; P; U
Michael Reed; Reed Rigging, Inc.; O; DR
Kimberly Corbett; Schuler Shook; P; DE
Dan Culhane; SECOA; P; CP
Mark Ager; Stage Technologies; P; CP
Steve Walker; Steve A. Walker & Associates; P; G
Richard J. Nix; Entertainment Structures Group; P; G
Christine L. Kaiser; Syracuse Scenery & Stage Lighting Co., Inc.; P; DR
Stephen G. Surratt; Texas Scenic Company; P; DR
Rick Rosas; Texas Scenic Company; A; DR
Jerry Gorrell; Theatre Safety Programs; P; G
Jeff Wilkowski; Thern, Inc.; P; MP
Tim Franklin; Theta-Consulting; O; G
Keith Bohn; Tomcat USA, Inc., (Vitec Group plc); P; MP
Will Todd; Tomcat USA, Inc., (Vitec Group plc); A; MP
Pete Happe; Walt Disney Imagineering, (the Walt Disney Company); O; U
Mark Newlin; Xtreme Structures and Fabrication; A; MP
Joseph Champelli; ZFX Flying Inc.; P; CP

Visitor: Orestes Mihaly; Production Resource Group

1 Opening remarks

Bill Sapsis called the meeting to order at 13:09. Sapsis apologized for the late start and said that a luncheon had been scheduled in the same room, and the group had not cleared the room until almost 13:00. This was the reason why the working group members had had to wait in the lobby while the room was cleared and reset. Sapsis told the working group that he would file a complaint.

2 Attendance and membership

2.1 Introduction of those present

Those present introduced themselves.

2.2 Circulation of attendance sign-in sheet

A dull green attendance sign-in sheet was circulated, and those present were instructed to sign in.

2.3 Call for quorum

Bill Sapsis asked for a show of hands of voting members. He counted the hands and then announced that a quorum was present.

2.4 Requirements for membership

Sapsis reminded the assembly that 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:

Jon Lenard; Applied Electronics
Charlie Weiner

The two were not present. Sapsis announced that they are no longer voting members.

2.6 Processing of new membership requests

The following applications were in hand at the meeting:

Name	Company	Representing	Voting status	Int. cat.
Brent Armstong	Brent Armstong	Brent Armstong	O	U
Art Zobal	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP
Mark Newlin	Xtreme Structures and Fabrication	Xtreme Structures and Fabrication	A	MP
Michael Wells	Xtreme Structures and Fabrication	Xtreme Structures and Fabrication	P	MP
Rick Rosas	Texas Scenic Company	Texas Scenic Company	A	DR
Maria Bement	MGM Grand	MGM Grand	O	U

Eddie Kramer moved that the applications be accepted. The motion was seconded. The motion was approved with a show of hands.

2.7 Consensus body

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

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
Woody Pyeatt	A V Pro, Inc.	A V Pro, Inc.	P	DR
Ethan William Gilson	ALPS	Advanced Lighting and Production Services	P	U
William Bradburn	Aerial Arts, Inc.	Aerial Arts, Inc.	P	U
Wendy Holt	AMPTP/CSATF	Alliance of Motion Picture and Television Producers	P	G
William Conner	Bill Conner Associates LLC	Amer. Society of Theatre Consultants	P	DE
R. Duane Wilson	George C. Izenour Associates	Amer. Society of Theatre Consultants	A	DE
James Niesel	Arup	Arup	P	G
Donald A. Hoffend_Jr.	Avista Designs, LLC	Avista Designs, LLC	P	G
Donald Hoffend_III	Avista Designs, LLC	Avista Designs, LLC	A	G
Daniel J. Clark	Clark-Reder Engineering, Inc.	Clark-Reder Engineering, Inc.	P	G
Herb Hart	Columbus McKinnon Corp.	Columbus McKinnon Corp.	P	MP
Art Zobal	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP
Shawn Sack	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP
Edward A. (Ted) Paget	Vortek Rigging Division	Daktronics Inc.	P	CP
Pat Grenfell	Vortek	Daktronics Inc.	A	CP
M. Brad Dittmer	Downhome Productions	Downhome Productions	P	U
Harvey Sweet	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	P	MP
Michael Lichter	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	A	MP
Dana Bartholomew	Fisher Technical Services, Inc.	Fisher Technical Services, Inc.	P	CP
Rocky Paulson	Stage Rigging, Inc.	Freeman Companies	P	DR
John Ringelman	Stage Rigging, Inc.	Freeman Companies	A	DR
Miriam Paschetto	Geiger Engineers	Geiger Engineers	P	G
Reid Neslage	H & H Specialties Inc.	H & H Specialties Inc.	P	MP
Ed Garstkiewicz	Harting Inc., North America	Harting KGAA	P	G
Jody Williquette	Harting Inc., North America	Harting KGAA	A	G
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P	U
Peter V. Svitavsky	J.R. Clancy Inc.	J.R. Clancy Inc.	P	CP
Thomas S. Young	J.R. Clancy Inc.	J.R. Clancy, Inc.	A	CP
Rodney F. Kaiser	J.R. Clancy Inc.	J.R. Clancy, Inc.	A	CP
Mike Garl	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	P	MP
Tray Allen	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	A	MP
Greg Herald	Kleege Industries	Kleege Industries	P	U
William Beautyman	Limelight Productions, Inc.	Limelight Productions, Inc.	P	DR
Bob Medve	Limelight Productions, Inc.	Limelight Productions, Inc.	A	DR
William B. Gorlin	McLaren Engineering Group	M.G. McLaren, P.C.	P	G
Martin Moore	Martin Moore	Martin Moore	I	G
Vincent J. Cannavale	Motion Laboratories	Motion Laboratories	P	CP

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
David Herrmann	Motion Laboratories	Motion Laboratories	A	CP
Peter Herrmann	Motion Laboratories	Motion Laboratories	A	CP
Donald Halchak	Mountain Productions Inc.	Mountain Productions Inc.	P	DR
Marty Wesstrom	Mountain Productions Inc.	Mountain Productions Inc.	A	DR
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	DR
Spencer Brown	Oasis Stage Werks	Oasis Stage Werks	A	DR
Ron Bonner	PLASA	PLASA	P	G
John (Jack) Miller	Scenic Technologies	Production Resource Group	P	CP
Rick Montgomery	R&M Materials Handling	R&M Materials Handling	P	MP
Daniel Lynn Houser	Real Rigging Solutions, LLC	Real Rigging Solutions, LLC	P	U
Aleksandrs Lupinskis	Real Rigging Solutions, LLC	Real Rigging Solutions, LLC	A	U
Shawn Nolan	Reed Rigging, Inc.	Reed Rigging, Inc.	P	DR
Bruce Darden	Rigging Innovators, Inc.	Rigging Innovators, Inc.	P	CP
Bill Sapsis	Sapsis Rigging, Inc.	Sapsis Rigging, Inc.	P	U
Kimberly Corbett	Schuler Shook	Schuler Shook	P	DE
Joshua Grossman	Schuler Shook	Schuler Shook	A	DE
Dan Culhane	SECOA	SECOA	P	CP
Jerald Kraft	SECOA	SECOA	A	CP
Jean-Philippe Robitaille	Show Distribution Group, Inc.	Show Distribution Group, Inc.	P	DR
Knut Skjonberg	Skjonberg Controls, Inc.	Skjonberg Controls, Inc.	P	CP
Monica Skjonberg	Skjonberg Controls, Inc.	Skjonberg Controls, Inc.	A	CP
Mark Ager	Stage Technologies	Stage Technologies	P	CP
Steve Walker	Steve A. Walker & Associates	Steve A. Walker & Associates	P	G
Richard J. Nix	Entertainment Structures Group	Steven Schaefer Associates	P	G
Kyle Kusmer	Entertainment Structures Group	Steven Schaefer Associates	A	G
Christine L. Kaiser	Syracuse Scenery & Stage Lighting Co., Inc.	Syracuse Scenery & Stage Lighting Co., Inc.	P	DR
Frank Willard	Syracuse Scenery & Stage Lighting Co., Inc.	Syracuse Scenery & Stage Lighting Co., Inc.	A	DR
Stephen G. Surratt	Texas Scenic Company	Texas Scenic Company	P	DR
Rick Rosas	Texas Scenic Company	Texas Scenic Company	A	DR
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	G
Jeff Wilkowski	Thern, Inc.	Thern, Inc.	P	MP
Adrian Forbes-Black	Total Structures Inc.	Total Structures Inc.	P	MP
Theresa Kelley	Total Structures Inc.	Total Structures Inc.	A	MP
Elmer Veith	Total Structures - Eastern US Sales Office	Total Structures, Inc.	A	MP
Dan Lisowski	Dept. Of Theatre and Drama	University of Wisconsin - Madison	P	U
Keith Bohn	Tomcat USA, Inc.	Vitec Group plc	P	MP
Will Todd	Tomcat USA, Inc.	Vitec Group plc	A	MP
Michael Wells	Xtreme Structures and Fabrication	Xtreme Structures and Fabrication	P	MP
Mark Newlin	Xtreme Structures and Fabrication	Xtreme Structures and Fabrication	A	MP
Joseph Champelli	ZFX Flying Inc.	ZFX Flying Inc.	P	CP

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
Stu Cox	ZFX Flying Inc.	ZFX Flying Inc.	A	CP
		Total votes possible	51	
		Votes by interest categories	10	CP
			9	MP
			9	DR
			9	U
			12	G
			2	DE

3 Approval of minutes from the previous meeting

See the draft minutes of the March 2010 meeting, RIGmin03-2010.pdf.

Eddie Kramer moved that the draft minutes be approved as written. The motion was seconded and then approved with a show of hands.

4 ESTA declarations

4.1 Anti-trust statement

Bill Sapsis read the following statement aloud to the assembly:

"The ESTA Board of Directors, the Technical Standards Committee, 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 ESTA president immediately.

"ESTA 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."

The Technical Standards Manager (Karl Ruling) held up a few copies of the easy-to-read pamphlet to show that it was available. No one requested a copy, and no one reported any restraint of trade problems at this meeting.

4.2 Call for patents

Bill Sapsis read the following statement aloud to the assembly:

"ESTA intends not to publish any standard that contains protected intellectual property, unless that information can be licensed by anyone for a reasonable fee. ESTA uses a process of open patent and copyright disclosures to implement its intent. ESTA 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 protected intellectual property was reported.

5 Approval of the agenda

Eddie Kramer moved that the draft agenda be approved as written. The motion was seconded and then approved with a show of hands.

6 Old business

6.1 ANSI E1.1-2006, wire rope ladders revision

Report on proposed changes pending reaffirmation. Dan Houser, Rocky Paulson, Bill Sapsis.

Dan Houser discussed the proposed changes to the standard. He plans to adjusted the load ratings from 250 to 310 pounds with a 5:1 design factor. There also will be changes to the referenced standards to keep those references up to date. The minimum rail requirements will be changed to 3/16 inch minimum because stops are not available that will meet the load rating with 5:1 design factor in 1/8 inch wire rope sizes.

People asked if all the existing wire rope ladders in the field would need to be changed to meet the revised standard. The answer was that wire rope ladders that comply with ANSI E1.1 - 2006 would still comply with that standard, and they would be so marked, as is required by that standard. The standard is not deficient; it simply is designed for lighter workers and will continue to be adequate for them.

6.2 ANSI E1.2-2006, Entertainment Technology - Design, Manufacture and Use of Aluminum Trusses and Towers

There was a brief discussion of possibly starting a reaffirmation or revision project. The consensus was that no work needed to be started at this meeting.

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

No news or action.

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

Comment resolutions progress report and discussion.

Harvey Sweet described the progress being made on the comment resolutions. There were some 370+ comments received, and the task group has drafted responses to about half of them. The other half will be worked on over the next 20 hours of task group meetings or so.

Bill Sapsis praised the task group, saying that it is accomplishing a lot of work done on a monumental task.

Jack Miller asked about E1.6-1 and the requirement that crew members be competent. "Competent" requires the person to be "capable of identifying existing and predictable hazards in the workplace, and who is authorized to take prompt corrective measures to eliminate them." Do we need all of them to have this authorization? Should we have a third classification for workers, people designed by the employer to do a designated task, but who aren't able to order other people to do anything or to make expenditures to fix problems? Or should we change the requirement in E1.6-1 so that the crew doesn't have to be competent? There was discussion. It was suggested that a change to some clauses in the draft standard would remove the requirement that all the crew members be authorized to take corrective action.

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

Dan Culhane gave a report on the comment resolution progress. The task group will be meeting after this working group meeting from 7:00 to 11:00 p.m. They need "face time" to get through the contentious issues. He suggested that a draft set of resolutions should be ready for the January 2010 meeting.

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

Public review comments and method of resolution. See the comment summary, SmmryE1-6-3FrstRvwCmmnts.pdf. Appointment of draft comment resolution task group.

Bill Sapsis appointed Pete Happe as the task group leader. He appointed Shawn Sack, Mark Newlin, and Brad Dittmer to be task group members.

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

Progress report and any actions relevant to the BSR E1.6-4 project.

Eddie Kramer noted that no comments or suggestions had been received on the draft standard from the working group.

Eddie Kramer moved that the draft standard be offered for public review. The motion was seconded. The motion will be decided by letter ballot.

Why are e-stops limited to category 0, asked Steve Walker. Kramer explained.

The title, "Portable Control of Electric Chain Hoists in the Entertainment Industry," was discussed. Rocky Paulson moved that the title should be changed to "Portable Control of Fixed Speed Electric Chain Hoists in the Entertainment industry." The motion was seconded and then approved with a show of hands.

6.8 ANSI E1.8-2005, Entertainment Technology--Loudspeaker Enclosures Intended for Overhead Suspension--Classification, Manufacture and Structural Testing

Report on ballot recirculation for public review for reaffirmation.

The recirculated ballot closed on July 12, reported Ruling. Out of a voting body of 52, 36 "Yes" votes and seven "No with reasons" votes were cast. Nine ballots were not returned. The motion was accepted with the required supermajority: Yes votes from more than half the total voting body and Yes votes from 2/3rds or more of those who voted

Jim Niesel moved that the comments and reasons offered on the letter ballots be considered among the public review comments. The motion was seconded and then approved with a show of hands.

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

Reaffirmation work. Public review the next step?

There was discussion. Richard Nix moved that the existing ANSI E1.15 be offered for public review for reaffirmation. The motion was seconded. The question will be decided by letter ballot.

6.10 ANSI E1.21-2006, Temporary Ground-Supported Overhead Structures Used To Cover Stage Areas and Support Equipment in the Production of Outdoor Entertainment Events

Discussion of revision. BSR E1.38-20XX has been incorporated into this document.

Keith Bohn reported that the task group has merged E1.38 with E1.21, and they are working on refining the language. It will be a better document, even for stage roofs.

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

It's published. Any news or action needed?

Jerry Gorrell said he's concerned about possible proposals for Chapter 20 in NFPA 80. The Proposal Closing Date is 23 November 2010. Proposal forms are on the NFPA website.

6.12 Arup fire modeling project progress report

Jim Neisel reported on the project's progress. He said that changes to the NFPA codes and E1.22 will be proposed as a result it. Those changes will include no fusible links in cut-lines, and no fusible links for smoke doors. Rate-of-rise detectors work better. Also, the either/or choice of a deluge system or a fire safety curtain should be removed. The systems are not equivalent. The study eventually will describe the pressure differential across the fire safety curtain when it is down and there is a fire on stage—which was the question that started the project.

6.13 BSR E1.39 - 20xx, Entertainment Technology – Recommendations for the Use of Fall Protection on Temporary Suspended and Ground-Supported Structures

Rocky Paulso reported that the task group is beginning to get into the difficult discussion of the selection of the equipment needed. Rocky Paulson predicted that it should be ready (or very close) to public review in one year.

There were comments from the floor on the content of the document, the varying amounts of detail in different parts of the draft, and trying to harmonize it with OSHA and other regulations.

7 New business

None.

8 Other business and announcements

8.1 Report on the recent ITEAC & ABTT conferences

Bill Sapsis reports on events in London.

Sapsis noted that at the ITEAC sessions only one reference to our standards work was made in passing. However, he also found a certain amount of admiration for our methodology. CEN works differently, and the opinion seems to be varied on whether it works.

Sapsis praised ABTT's training programs, which cover a broad spectrum of the skills needed in the entertainment industry.

Sapsis announced the PLASA International Rigging Conference, which will run 13-14 September at the Earls Court conference center alongside the PLASA 2010 trade show. It is planned to work as a forum, with some notable guest speakers, but also providing a venue and an opportunity for riggers air questions and concerns, discuss issues, share experiences, and in general talk with each other.

Sapsis announced that planning is starting for the second NATEAC, which is to be held in New York in July 2012.

8.2 Other other business

8.2.1 Jerry Gorrell spoke about the proposed change to NFPA 101, which would allow a new test for scenery burning performance: the test specified in NFPA 289. Urged people to look at it and to comment. The problem is that an AHJ might insist on this test, which is difficult and costly.

8.2.2 Dan Houser spoke about the issue recently reported to many by an email from Kish Rigging of 7-pin circular connectors breaking in such a way that the insulating body holding the contacts becomes loose and can spin in the connector shell. This allows male and female connectors to be plugged together so that the conductors are cross-connected. It is possible with a "spinner" to have the housing of a chain hoist, which is supposed to be grounded, instead be connected to one of the power conductors.

There was discussion, but no motions were offered.

9 Schedule for future meetings

Sapsis announced that the next meeting is scheduled for Wednesday, 20 October 2010, from 19:00 to 23:00 at the Las Vegas Hilton.

10 Adjournment

Woody Pyeatt moved that the meeting adjourn. The motion was seconded. Hearing no objections, Sapsis declared the meeting adjourned at 15:28.

Working Group Membership and Contact Information as of 16 August 2010

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
Woody Pyeatt	A V Pro, Inc.	A V Pro, Inc.	P	DR
Baer Long	Ninja Rigging	Act 1 Rigging Inc.	O	G
Ethan William Gilson	ALPS	Advanced Lighting and Production Services	P	U
William Bradburn	Aerial Arts, Inc.	Aerial Arts, Inc.	P	U
Michael G. Wiener	Aerial Rigging & Leasing, Inc.	Aerial Rigging & Leasing, Inc.	O	U
Andy Sutton	AFX UK Ltd.	AFX UK Ltd.	O	U
Wendy Holt	AMPTP/CSATF	Alliance of Motion Picture and Television Producers	P	G
R. Duane Wilson	George C. Izenour Associates	Amer. Society of Theatre Consultants	A	DE
William Conner	Bill Conner Associates LLC	Amer. Society of Theatre Consultants	P	DE
Jim Fletcher	American Sling Company, Inc.	American Sling Company, Inc.	O	MP
André Broucke	André Broucke	André Broucke	O	G
John "Andrew" Munro	animaenagerie	animaenagerie	O	U
Jon Lenard	Applied Electronics	Applied Electronics	O	MP
James Niesel	Arup	Arup	P	G
Dennis J. Lopez	Automatic Devices Co.	Automatic Devices Co.	O	MP
Donald Hoffend_III	Avista Designs, LLC	Avista Designs, LLC	A	G
Donald A. Hoffend_Jr.	Avista Designs, LLC	Avista Designs, LLC	P	G
Jiantong Wu	Beijing Special Engineering Design & Research Institute	Beijing Special Engineering Design & Research Institute	O	G
Buddy Braile	Bestek Lighting & Staging	Bestek Lighting & Staging	O	U
Lee J. Bloch	Bloch Design Group, Inc.	Bloch Design Group, Inc.	O	G
Brent Armstong	Brent Armstong	Brent Armstong	O	U
Joachim Stoecker	CAMCO GmbH	CAMCO GmbH	O	MP
Charlie Weiner	Charlie Weiner	Charlie Weiner	O	U
Ted Jones	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	O	U

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
Daniel J. Clark	Clark-Reder Engineering, Inc.	Clark-Reder Engineering, Inc.	P	G
Shawn Sack	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP
Art Zobal	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP
Herb Hart	Columbus McKinnon Corp.	Columbus McKinnon Corp.	P	MP
Bill Waters	Conductix-Wampfler	Conductix-Wampfler	O	MP
Mylan Lester	Creation Logics Ltd.	Creation Logics Ltd.	O	U
Howard R. Ott	D.E.O. Associates, Inc.	D.E.O. Associates, Inc.	O	G
Pat Grenfell	Vortek	Daktronics Inc.	A	CP
Edward A. (Ted) Paget	Vortek Rigging Division	Daktronics Inc.	P	CP
Wes Jenkins	Down Stage Right Industries	Down Stage Right Industries	O	CP
M. Brad Dittmer	Downhome Productions	Downhome Productions	P	U
Noga Eilon-Bahar	Eilon Engineering Industrial Weighing Systems	Eilon Engineering Industrial Weighing Systems	O	MP
Michael Lichter	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	A	MP
Harvey Sweet	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	P	MP
F. Robert Bauer	F.R. Bauer & Associates, LLC	F.R. Bauer & Associates, LLC	O	G
Cristina Delboni	Feeling Structures	Feeling Structures	O	MP
Dana Bartholomew	Fisher Technical Services, Inc.	Fisher Technical Services, Inc.	P	CP
Ben Hayes	Freedom Flying	Freedom Flying	O	G
John Ringelman	Stage Rigging, Inc.	Freeman Companies	A	DR
Dean Hart	Stage Rigging, Inc.	Freeman Companies	O	U
Rocky Paulson	Stage Rigging, Inc.	Freeman Companies	P	DR
David M. Campbell	Geiger Engineers	Geiger Engineers	O	G
Timothy Mills	Geiger Engineers	Geiger Engineers	O	G
Miriam Paschetto	Geiger Engineers	Geiger Engineers	P	G
Reid Neslage	H & H Specialties Inc.	H & H Specialties Inc.	P	MP
Delbert Hall	Hall Associates Inc.	Hall Associates Inc.	O	U

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
Jody Williquette	Harting Inc., North America	Harting KGAA	A	G
Howard Forryan	Harting Ltd.	Harting KGAA	O	MP
Ed Garstkiewicz	Harting Inc., North America	Harting KGAA	P	G
Peter "Punch" Christian Schmidtke	Hollywood Lighting Services, Inc.	Hollywood Lighting, Inc.	O	DR
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U
G. Anthony Phillips	I.A.T.S.E. Local 16	I.A.T.S.E. Local 16	O	U
Gregory C. Collis	I.A.T.S.E. Local 16	I.A.T.S.E. Local 16	O	G
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P	U
Michael Dilesio	IATSE Local 481	IATSE Local 481	O	U
Kent H. Jorgensen	IATSE Local 80	IATSE Local 80	O	G
Rodney F. Kaiser	J.R. Clancy Inc.	J.R. Clancy, Inc.	A	CP
Thomas S. Young	J.R. Clancy Inc.	J.R. Clancy, Inc.	A	CP
Peter V. Svitavsky	J.R. Clancy Inc.	J.R. Clancy Inc.	P	CP
Tray Allen	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	A	MP
Mike Garl	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	P	MP
Jay O. Glerum	Jay O. Glerum & Associates, Inc.	Jay O. Glerum & Associates, Inc.	O	U
Chuck McClelland	Jeamar Winches Inc.	Jeamar Winches Inc.	O	MP
John Kaes	John Kaes	John Kaes	O	U
John R. Burgess	John R. Burgess	John R. Burgess	O	U
Gary Mardling	Kish Rigging	Kish Rigging	O	DR
Nevin Kleege	Kleege Industries	Kleege Industries	O	U
Greg Herald	Kleege Industries	Kleege Industries	P	U
Mark Riddlesperger	LA ProPoint, Inc.	LA ProPoint, Inc.	O	CP
Katherine Tharp	LA ProPoint, Inc.	LA ProPoint, Inc.	O	CP
Bob Medve	Limelight Productions, Inc.	Limelight Productions, Inc.	A	DR

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
William Beautyman	Limelight Productions, Inc.	Limelight Productions, Inc.	P	DR
Louis Bradfield	Louis Bradfield	Louis Bradfield	O	U
William B. Gorlin	McLaren Engineering Group	M.G. McLaren, P.C.	P	G
Martin Moore	Martin Moore	Martin Moore	I	G
Maria Bement	MGM Grand	MGM Grand	O	U
Michael L. Savage, Sr.	Middle Dept. Inspection Agency, Inc.	Middle Dept. Inspection Agency, Inc.	O	G
Michael J. Carnaby	Mikan Theatricals	Mikan Theatricals	O	DR
Todd Petersen	Mixed Productions	Mixed Productions	O	U
Peter Herrmann	Motion Laboratories	Motion Laboratories	A	CP
David Herrmann	Motion Laboratories	Motion Laboratories	A	CP
Vincent J. Cannavale	Motion Laboratories	Motion Laboratories	P	CP
Marty Wesstrom	Mountain Productions Inc.	Mountain Productions Inc.	A	DR
James B. Evans	Mountain Productions Inc.	Mountain Productions Inc.	O	DR
Donald Halchak	Mountain Productions Inc.	Mountain Productions Inc.	P	DR
Bradford A. Kegel	National Production Services Inc.	National Production Services Inc.	O	U
François Deffarges	Nexo	Nexo	O	MP
Tracy Nunnally	Northern Illinois University	Northern Illinois University	O	U
Ted Hickey	OAP Audio Products	OAP Audio Products	O	MP
Spencer Brown	Oasis Stage Werks	Oasis Stage Werks	A	DR
Gary Justesen	Oasis Stage Werks	Oasis Stage Werks	O	DR
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	DR
Bob Murphy	Occams Razor Technical Services	Occams Razor Technical Services	O	G
Robert A. Grenier_Jr.	Ocean State Rigging Systems Inc.	Ocean State Rigging Systems Inc.	O	DR
Ron Bonner	PLASA	PLASA	P	G
Michael Patterson	Pook Diemont & Ohl, Inc.	Pook Diemont & Ohl, Inc.	O	CP
John (Jack) Miller	Scenic Technologies	Production Resource Group	P	CP

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
Marc Hendriks	Prolyte	Prolyte	O	MP
Douglas Franz	QVC Network	QVC Network	O	U
Rick Montgomery	R&M Materials Handling	R&M Materials Handling	P	MP
Scott Mohr	R&R Cases and Cabinets	R&R Cases and Cabinets	O	G
Aleksandrs Lupinskis	Real Rigging Solutions, LLC	Real Rigging Solutions, LLC	A	U
Daniel Lynn Houser	Real Rigging Solutions, LLC	Real Rigging Solutions, LLC	P	U
Michael Reed	Reed Rigging, Inc.	Reed Rigging, Inc.	O	DR
Shawn Nolan	Reed Rigging, Inc.	Reed Rigging, Inc.	P	DR
Rinus Bakker	Rhino Rigs B.V.	Rhino Rigs B.V.	O	G
Bruce Darden	Rigging Innovators, Inc.	Rigging Innovators, Inc.	P	CP
Rikki Newman	Rikki Newman	Rikki Newman	O	U
Randall W. A. Davidson	Risk International & Associates, Inc.	Risk International & Associates, Inc.	O	U
Roy Bickel	Roy Bickel	Roy Bickel	O	G
Thomas M. Granucci	Associated Students, Cox Arena	San Diego State University	O	U
Bill Sapsis	Sapsis Rigging, Inc.	Sapsis Rigging, Inc.	P	U
Peter A. Scheu	Scheu Consulting Services	Scheu Consulting Services	O	G
Joshua Grossman	Schuler Shook	Schuler Shook	A	DE
Kimberly Corbett	Schuler Shook	Schuler Shook	P	DE
Jerald Kraft	SECOA	SECOA	A	CP
Dan Culhane	SECOA	SECOA	P	CP
Shaun Millington	SEW-Eurodrive, Inc.	SEW-Eurodrive, Inc.	O	MP
Rob Stevenson	SEW-Eurodrive, Inc.	SEW-Eurodrive, Inc.	O	MP
Jean-Philippe Robitaille	Show Distribution Group, Inc.	Show Distribution Group, Inc.	P	DR
Monica Skjonberg	Skjonberg Controls, Inc.	Skjonberg Controls, Inc.	A	CP
Knut Skjonberg	Skjonberg Controls, Inc.	Skjonberg Controls, Inc.	P	CP
Robert Barbagallo	Solotech Inc.	Solotech Inc.	O	DR

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Jon Lagerquist	South Coast Repertory	South Coast Repertory	O	U
Mark Ager	Stage Technologies	Stage Technologies	P	CP
Roger Barrett	Star Events Group Ltd.	Star Events Group Ltd.	O	DR
Steve Walker	Steve A. Walker & Associates	Steve A. Walker & Associates	P	G
Kyle Kusmer	Entertainment Structures Group	Steven Schaefer Associates	A	G
Richard J. Nix	Entertainment Structures Group	Steven Schaefer Associates	P	G
Frank Willard	Syracuse Scenery & Stage Lighting Co., Inc.	Syracuse Scenery & Stage Lighting Co., Inc.	A	DR
Christine L. Kaiser	Syracuse Scenery & Stage Lighting Co., Inc.	Syracuse Scenery & Stage Lighting Co., Inc.	P	DR
Reuben Goldberg	Technic Services	Technic Services	O	U
Rick Rosas	Texas Scenic Company	Texas Scenic Company	A	DR
Richard C. Mecke	Texas Scenic Company	Texas Scenic Company	O	DR
Stephen G. Surratt	Texas Scenic Company	Texas Scenic Company	P	DR
Eugene Leitermann	Theatre Projects Consultants, Inc.	Theatre Projects Consultants, Inc.	O	G
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	G
Ed Nicholas	Theatrical Lighting Systems, Inc.	Theatrical Lighting Systems, Inc.	O	DR
John Van Lennep	Theatrix Inc.	Theatrix Inc.	O	DR
John C. Snook	Thermotex Industries Inc.	Thermotex Industries Inc.	O	CP
Jeff Wilkowski	Thern, Inc.	Thern, Inc.	P	MP
Tim Franklin	Theta-Consulting	Theta-Consulting	O	G
Chris Higgs	Total Solutions Group	Total Solutions Group	O	G
Elmer Veith	Total Structures - Eastern US Sales Office	Total Structures, Inc.	A	MP
Theresa Kelley	Total Structures Inc.	Total Structures Inc.	A	MP
Ian Coles	Total Structures, Inc.	Total Structures, Inc.	O	MP
Peter Johns	Total Structures, Inc.	Total Structures, Inc.	O	MP
Adrian Forbes-Black	Total Structures Inc.	Total Structures Inc.	P	MP
Dan Lisowski	Dept. Of Theatre and Drama	University of Wisconsin - Madison	P	U

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JoAnna Kamorin-Lloyd	Vincent Lighting Systems	Vincent Lighting Systems	O	U
Michael Keppler	Bogen	Vitec Group	O	MP
Will Todd	Tomcat USA, Inc.	Vitec Group plc	A	MP
Keith Bohn	Tomcat USA, Inc.	Vitec Group plc	P	MP
Hank Miller	W.E. Palmer Co.	W.E. Palmer Co.	O	CP
Rand Goddard	W.E. Palmer Co.	W.E. Palmer Co.	O	CP
Pete Happe	Walt Disney Imagineering	Walt Disney Company	O	U
Warren A. Bacon	Warren A. Bacon	Warren A. Bacon	O	U
Mark Newlin	Xtreme Structures and Fabrication	Xtreme Structures and Fabrication	A	MP
Michael Wells	Xtreme Structures and Fabrication	Xtreme Structures and Fabrication	P	MP
Stu Cox	ZFX Flying Inc.	ZFX Flying Inc.	A	CP
Robert Dean	ZFX Flying Inc.	ZFX Flying Inc.	O	DR
Joseph Champelli	ZFX Flying Inc.	ZFX Flying Inc.	P	CP

Voting status

- P principal
- A alternate
- I individual voting member
- O observer, non-voting

Interest categories

- CP custom-market producer
- MP mass-market producer
- DR dealer or rental company
- U user
- G general interest
- DE designer