

**Minutes**  
**Rigging Working Group**  
7:00 p.m.  
Friday, June 27, 1997  
Dallas/Ft. Worth Airport Marriott  
Irving, TX

Mike Garl, Chair  
Karl G. Ruling, Recording secretary

In attendance:     Jim Fletcher, American Sling Company, Inc. (Principal)  
                      Brad Dittmer, Associated Theatrical Contractors (Principal)  
                      Ron Fogel, BASH Theatrical Lighting (Principal)  
                      George Sabbi, BASH Theatrical Lighting (Alternate)  
                      David M. Campbell, Geiger Engineers (Principal)  
                      Reid Neslage, H & H Specialties Inc. (Principal)  
                      Rodney F. Kaiser, J. R. Clancy, Inc. (Alternate)  
                      Mark Herman, Lift-All Co., Inc. (Principal) [Voted in at this meeting]  
                      Richard Mecke, Texas Scenic Co. (Observer) [Voted in at this meeting]  
                      Jerry Gorrell, Theatre Safety Programs (Principal)  
                      Mike Garl, James Thomas Engineering, Inc. (Principal)  
                      Jay Edwards, Tomcat USA, Inc. (Principal)  
                      Peter Hind, Total Fabrications (UK) (Principal)  
                      Tony Douglas-Beveridge, PLASA (Principal)

- 1   Opening Remarks  
    The meeting was called to order by Mike Garl at 7:07 p.m.
  
- 2   Attendance and membership
  - 2.1 Introduction of those present  
      The members of the group introduced themselves
  - 2.2 Determination of quorum (10 needed)  
      Mike Garl announced that a quorum was present.
  - 2.3 Recognition of alternate voting members  
      Rodney Kaiser was voting as the alternate for J.R. Clancy.  
      George Sabbi was present but was not voting, since the principal member for BASH Lighting,  
      Ron Fogel, was present.
  - 2.4 Requirements for membership  
      Mike Garl reviewed the requirements for membership
  
- 3   Processing of New Membership Requests
  - 3.1 Mark Herman, Liftall, Principal
  - 3.2 Delbert Hall, Hall Associates, Inc., Observer
  - 3.3 John Kaes, John Kaes, Observer
  - 3.4 Warren A. Bacon, Warren A. Bacon, Observer
  - 3.5 Richard Mecke, Texas Scenic, Observer  
      Jerry Gorrell moved to accept all. Brad Dittmer seconded. Unanimous by show of hands.
  
- 4   Approval of Minutes from the Previous Meeting  
    Brad Dittmer moved to accept the minutes as written. Ron Fogel seconded. Unanimous show of hands.

5 ESTA policy notices.

Mike Garl directed the group's attention to the following statements, which were printed in the agenda:

5.1 Call for patents:

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

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

5.2 Anti-trust statement

"The ESTA Board of Directors, the Technical Standards Committee, and the leadership of this Working Group will reject or nullify any actions that restrain trade. Anyone who feels that an action restraining trade is being or has been taken is requested to bring the 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 any member of this working group may be found individually liable for any action that restrains trade taken by this working group. An individual convicted of a violation of the Sherman Act may be fined as much as \$100,000 and be imprisoned for up to three years. An easy to read pamphlet describing restraint of trade is available from the Technical Standards Committee."

6. Approval of agenda

Mike Garl requested that we add a point 7.5, comment resolution to truss standard. Ron Fogel moved, and Rodney Kaiser seconded. Unanimous show of hands.

7. Old Business

7.1 Wire Rope Ladder

Karl Ruling asked for a motion send to file the ANSI BSR-8 form and initiate the ANSI public review. Dave Campbell offered the motion and Brad Dittmer Seconded. The motion to go to public review will be voted on by letter ballot.

7.2 Status of Letter Ballots

7.2.1 Karl Ruling reported that the letter ballot to send E1.4, Entertainment Technology — Manual Counterweight Flying Systems to public review had carried without comment in the working group, and that the TSC also had accepted the motion.

7.2.2 The motion to send E1.2, Entertainment Technology -- Design, Manufacture and Use of Aluminum Trusses and Towers, to public review had carried by a supermajority, but two negative comments were received during letter balloting. These comments needed to be addressed by the working group, and this would be done as item 7.5 at this meeting.

### 7.3 USITT Stage Rigging Task Group - Rod Kaiser

#### 7.3.1 Flying Performers - Recommended Practice

7.3.1.1 There was a discussion of the title and the difference between a recommended practice and a standard.

7.3.1.2 Mike Garl directed the group to send comments to Delbert Hall or to Jay Glerum.

7.3.1.3 Karl Ruling was directed to file a Project Initiation Notification System form for the recommended practice with ANSI.

#### 7.3.2 Motorized Flying Systems

The draft document (E1.6, Entertainment Technology — Powered Flying Systems) was received too late to meet the two-week rule. Discussion was tabled until the next meeting. Ron Fogel moved that working group members should send informal comments on the document to Jay Glerum. Brad Dittmer seconded the motion. Unanimous show of hands.

### 7.4 Speaker Rigging Task Group - Andrew Martin

Martin was not present. No report.

### 7.5 Comment resolution for truss standard.

Mike Garl offered a written response from the truss task group to the two negative comments received during the letter ballot to send the aluminum truss and tower standard to first public review. This document was not presented in accordance with the two-week rule, but David Campbell moved and Peter Hind seconded that the working group accept the document and deal with it at this meeting. Unanimous consent.

The truss task group response was amended slightly during the discussion to read:

As a result of the comment received during the letter ballot seeking approval of the Rigging Work Group to send the draft Standard for the Design, Manufacture and Use of Aluminum Truss and Tower in the Entertainment Industry to public review and the additional comment received during the re-circulation the Truss Task Group was contacted to formulate a response.

The comments received refer to Section 3.1 covering engineering design. This section specifies that the design of truss/tower "shall be performed in accordance with established engineering practice per the Aluminum Association standard" and continues "Welds to be designed and detailed per AWS D1.2 "Structural Welding Code/ Aluminum" by the American Welding Society." The draft then goes on to define two categories one of which covers truss/tower modules for repetitive use and states, "The design strength determined in accordance with the standards cited herein shall be reduced by multiplying the strength by a factor of 0.85."

The basic standards referred to in this section have been developed over a number of years by experts in both aluminum and welding. Due to the repetitive use these types of structures are subjected to in the entertainment industry it was felt an additional design factor was required. After an extensive discussion by the task group, which is made up of structural engineers, both independent and those employed by truss manufacturers, and representatives of truss manufacturers the 0.85 factor was agreed upon. These discussions were firmly based in engineering principals, design considerations and the experience of structural engineers who have, for a number of years, been involved in designing truss. It is also important to note everyone present at the meeting agreed this factor was needed and that 0.85 was sufficient.

It is the feeling of the Truss Task Group that any suggestions to modify this factor should be accompanied with a coherent, logical argument which is based on sound engineering. Furthermore, it should be pointed out that this standard establishes a minimum, which exceeds that of the Aluminum Association, and there is nothing prohibiting any manufacturer from using a more conservative factor if they so choose.

Therefore the document should remain unchanged and be forwarded to the TSC and Public Review.

Ron Fogel moved to accept the amended task group response. Jay Edwards seconded. Unanimous show of hands.

8. New Business  
None.

9. Other Business  
None

10. Schedule for Future Meetings  
Mike Garl announced that the next meeting would be held in conjunction with LDI on October 22, 1997, at 7:00 p.m. The January meeting would probably be on the evening of January 23, 1998 in Irving, TX.

11. Adjournment  
Motion to adjourn by Jay Edwards. Dave Campbell second. Adjourned at 9:00 p.m.