



JOINT SCREW CONVEYOR AND BUCKET ELEVATOR SECTION MEETING

7:00 a.m.

Wednesday, September 19, 2018

O'Hare Hilton Hotel
Chicago, Illinois

AGENDA

1. Call to Order and Roll Call
2. Approval of the Minutes of March 12, 2018, Meeting
3. Screw Conveyor/Bucket Elevator Sales/Inventory (Kimberly MacLaren)
4. Review Engineering Conference Minutes (Committee)
 - a. Std.300-001 Helicoid Flight O.D. Tolerance
 - b. Std.300-019 - 2 & 3 Bolt Coupling Shaft Dimensional Standards for 3-15/16", 4- 7/16" and 4-15/16" Shaft Diameters
 - c. ANSI/CEMA Std. 350 Bulk Materials List
 - d. Inclined & Vertical Conveyor Best Practices
 - e. Std. 300-013 & 300-014 - Balance of the dimensions
 - f. ANSI/CEMA Std. 300; 30" and 36" diameter screws, Bolt holes/Risk Assessment question
 - g. OSHA and NFPA and How they relate to Bucket Elevators
 - h. Bucket Elevator IOM Manual
 - i. CEMA Bucket Elevator Book Errata - Appendix
 - j. Bucket Elevator Book New Chapters - Troubleshooting & Drive Arrangements
5. Membership Committee Report (Kimberly MacLaren)
6. Next Meeting of the Section
7. Other Business - CEMA Whitepapers
8. Adjournment

Tom Young, Chair

Andy Blanchard, Vice Chair/Secretary



**MINUTES OF THE CEMA ANNUAL MEETING
JOINT SCREW CONVEYOR & BUCKET ELEVATOR SECTION MEETING
Naples Grande Beach Resort, Naples, Florida
Monday, March 12, 2018**

1. Meeting called to Order at 7:30 a.m. and Roll Call (attached)
2. Minutes of September 20, 2017, Meeting
 - a. Amendments to the minutes were made to remove the risk assessment verbiage and that a statement (warning/safety updates) was to be added to the **CEMA TR 2015-1 Risk Assessment** publication. The statement was to be added to the following publications: CEMA Document SC 2018-01, Screw Drag, and Bucket Elevator Warning/Safety Reminders, (rev. SC 2004-01), CEMA No. 352 and CEMA No. 353. The only change to the CEMA TR 2015-1 Risk Assessment was a spelling error on page 18, Appendix 4, Ref #2, second line 'buns' to 'bins'.
 - b. Minutes were approved as amended
3. Screw Conveyor Safety Video/Pub Inventory
 - a. Sales for 2017 of the above were as follows:
 - i. Screw conveyor DVD – 519 sales, 452 in inventory
 - ii. Standards 350/300/352 pdf – non-member sales 65, member sales 8
 - iii. Standard 300 pdf – nonmember sales 17, member sales 1
 - iv. Standard 352 pdf – nonmember sales 8
4. Review Engineering Conf./Fall Meeting Items
 - a. Std.300-001 – Helicoid Flight OD Tolerance Survey
 - i. Motion to approve use of “nominal thickness” for OD dimension/tolerance on helicoid flight
 - ii. Approved
 - b. Std.300-019 – 2 & 3-Bolt Coupling Shaft Dimensional Standards for 3-5/16”, 4-7/16”, and 4-15/16” Shaft Diameters.
 - i. Section was advised that this 2 & 3-Bolt Coupling Shaft Dimensional Standards were approved; however, there should be a separate standard created for each of the 2-bolt and 3-bolt coupling shaft products, i.e. 300-019b, 300-019c. The Engineering committee will need to develop these separate standard depictions.
 - c. Std. 300-013 – U-Tough End Plates: Adding end plate designs for the 30” and 36” screws.
 - i. A survey has been completed and from this, it was agreed to add 30 and 36” screw diameters to standard. Engineering Conference Committee will provide information.
 - ii. Section was advised that with implementation of the 30 and 36” Screw Dimensions in 350, that the Std. 300 Series, i.e. 002 – 016, 023-026, and 031-

034 should have the completed modifications of 30" and 36" added by the Engineering committee and presented to OR's at the fall 2018 meeting for approval. Once approved standard will go through ANSI re-certification.

- d. ANSI/CEMA Std. No. 350 Update
 - i. Cosmetic Changes were completed but printing is on hold
 - ii. The Materials Master List that is in ANSI/CEMA Std. 550 needs to be reviewed as there are inconsistencies of the list in documents CEMA No. 576, 350, and 7th ed. Belt Book. Section will present to the Bulk Handling Committee for consideration of action plan
 - e. Inclined and Vertical Screw Conveyors
 - i. The general information has been added to 'Members ONLY Page'. Note that no comment on it has been received.
 - ii. Review of this separate "members only" document was tabled until the ANSI/CEMA Std. No. 350 would be up for review and revision, as it has a section in it already for inclined and vertical screw conveyors.
 - f. Bucket Elevator Book
 - i. 3 member company representatives formed a committee (David Stronczek, Martin S&G, Warren Knapp, SCC, and Andrew Beadle, Universal Industries) and are in the process of reviewing the errata for this book, i.e. formulas, tables, definitions. Grammatical errata will be corrected by CEMA staff. The section will encourage engineering conference committee to push this to completion.
 - ii. Only 25 books are in stock; will need to reprint in the near future.
 - iii. The new OSHA and NFPA platform and worker tethering changes need to be reviewed and determine proposed changes to the Bucket Elevator book by the engineering conference committee.
 - g. CEMA TR 2015-1 Risk Assessment
 - i. The advisement is in the minutes above 2.a.
 - h. Bucket Elevator – Materials Master List
 - i. See minutes item 4.d.ii.
5. Membership Committee Representation
- a. Report given describing 3 new members, 1 pending member, 3 prospective members and 4 member resignations.
6. Election of Officers
- a. Tom Young and Andy Blanchard were elected Chair and Vice Chair for the Joint Screw Conveyor & Bucket Elevator section.
 - b. A motion was approved to thank Noel Bell for his 4 (2014-2018) years of service on the section, with 2 of those years as chair. Great job.
7. Next Meeting of the Section - September 19, 2018, Hilton Chicago O'Hare Airport. Chicago, IL
8. Meeting adjournment at 8:40 a.m.

Tom Young, Vice Chair/Secretary



MINUTES OF THE CEMA ENGINEERING CONFERENCE

SCREW CONVEYOR COMMITTEE MEETING

Tuesday, June 26, 2018

1. Call to Order
Committee Chair Trevin Berger, Martin Sprocket & Gear, Inc.; and Vice chair Andrew Morton, KWS Manufacturing Company, Ltd.; called the meeting to order at 9:05 am.
2. Roll call and introductions (attached).
3. Minutes from the June 27, 2017 were reviewed and approved.
4. Old Business
 - a) **Std.300-001 Helicoid Flight O.D. Tolerance.**
 - It was determined that everyone's machine will vary in the thickness based on the quality of the machine and the ANSI/CEMA Std. 300, sub-standard 300-001, dimension B should read "Nominal Thickness".
 - b) **Std. 300-019 – 2 & 3 Bolt Coupling Shaft Dimensional Standards for 3-5/16", 4-7/16" and 4-15/16" Shaft Diameters.**
 - Std. 300-019 has been approved and Trevin Berger, Martin Sprocket & Gear, Inc.; is going to create separate 2-bolt and 3-bolt drilled sub-standards.
 - c) **ANSI/CEMA Std. 350 updates.**
 - ANSI/CEMA Std. 350 cosmetic changes update approved.
 - Update has been put on hold until bulk materials material list from the ANSI/CEMA Std. 550, ANSI/CEMA Std. 350, CEMA No. 576 and 7th Ed. Belt Book are consolidated.
 - Call for a Volunteer to review update - Edward Sunseri, Applied Conveyor Technology Inc. CEMA will coordinate once list is completed.
 - d) **Incline and Vertical Conveyor Best Practices - General information submitted by David Stronczek, Martin Sprocket & Gear, Inc.; has been posted to the "Members Only Page". Topic has been tabled until the next review/revision of the ANSI/CEMA Std. 350.**
 - The committee has decided to kick submittal back to the ORs and they must advise if this committee is to proceed with any changes.
 - e) **CEMA TR 2015-1 Risk Assessment**
 - The text change from "buns" to "bins" in the CEMA TR 2015-1 Risk Assessment has taken place.
 - f) **Std. 300-013 – U-Trough End Plates - Review of the "J" and "K" dimension**
 - Motion to accept J dimension for 3 15/16" shaft diameter - Accepted at 7.75"
 - Motion to accept J dimension for 4 7/16" shaft diameter – Accepted at 8.75"
 - Motion to accept J dimension for 4 15/16" shaft diameter – Accepted at 8.75"

- Motion to accept K dimension for 3 15/16", 4 7/16", 4 15/16" shaft diameter – Accepted as 7/8" bolts/studs.
- Balance of the dimensions on the 300-013 and 300-014 standard are being worked under "New Business" below. We will submit to the OR's for final approval, once all of the dimensions have been approved by the Engineering Committee.

5. New Business

a) **CEMA Whitepaper - Volunteers needed.**

- Paul Wehrle, Woodex Bearing Company, Inc./MECO Seal; has one and will send to Kimberly.
- Andrew Morton, KWS Manufacturing Company, Ltd.; has accepted to do one after Paul Wehrle.

b) **ANSI/CEMA Std. 300 Update – With implementation of 30" and 36" diameter screws in the ANSI/CEMA standards 300 and 350.**

- Discussion to send canvas to gather dimensions for all tables.
- Call for volunteers to update tables concurrent to sending canvas. (See Excel document attached for volunteers).
- The committee will update 017 and 018 up to 4 7/16" diameter Shafts. Flange bearings are not regularly offered for 4 15/16" diameter. Push to ORs for approval.
- The committee believes CEMA should stay away from 30" and 36" shaftless conveyors. Push to ORs for approval.

c) **Question was brought up for safety. Should bolt holes be added to all covers in the ANSI/CEMA Std. No. 300 standard? Pages 23-25.**

- Other questions that came up: Should covers be sent with bolt holes regardless if they are assembled or unassembled? How many holes are required? Should troughs have similar holes to mount the covers? How will the trough holes cover holes line up? Why did the ORs decide not to collaborate on risk assessment?
- Kick to ORs and let them decide.

d) **It was brought up to update all images in ANSI/CEMA Std. No. 300.**

- Push this as new business for next year.

6. The next scheduled meeting will be on June 25, 2019 at La Playa Hotel, Naples, FL.

7. Meeting was adjourned at 10:35 pm.

Respectfully submitted,
Trevin Berger, Chair
Andrew Morton, Vice Chair



MINUTES OF THE CEMA ENGINEERING CONFERENCE

BUCKET ELEVATOR COMMITTEE MEETING

Tuesday, June 26, 2018

1. Call to Order
Committee Chair David Stroncsek, Martin Sprocket & Gear, Inc.; and Vice Chair Andrew Beadle, Universal Industries, Inc.; called the meeting to order at 10:41 am.
2. Roll call and introductions – Twenty-nine (29) attendees (attached).
3. Minutes from the June 29, 2017 were reviewed and approved.
4. Old Business
 - a) **Status of 'CEMA Bucket Elevator Book Best Practices in Design'.**
 - Kimberly MacLaren, CEMA; reported it has 19 copies in inventory.
 - b) **Changes to OSHA 1910 and NFPA 61 & 68 related to bucket elevators.**
 - A presentation on OSHA 1910 and NFPA 61 & 68 related to bucket elevators was given by Andrew Beadle, Universal Industries, Inc. (attached)
 - c) **Bucket Elevator IOM Manual.**
 - The committee requested member companies to submit their bucket elevator IOM manuals to Kimberly for the committee to review.
5. New Business
 - a) **CEMA Bucket Elevator Book – Errata approval.**
 - Created a 3-person sub-committee for a final review of the bucket elevator book Errata consisting of Nate Evans, SEW-Eurodrive, Inc.; Trevin Berger, Martin Sprocket & Gear, Inc.; and Andrew Morton, KWS Manufacturing Company, Ltd.
 - The committee also decided to add an appendix with example calculations for all the formulas listed in the book.
 - b) **CEMA Whitepaper – Volunteers needed.**
 - Still looking for volunteers. All members to search existing work for possible whitepaper opportunity.
 - c) **Discuss new projects for Bucket Elevator Committee.**
 - The committee decided to create two sub-committees to develop new sections in the bucket elevator book.
 - i. Bucket Elevator Troubleshooting Section
Sub-Committee: Roger Bruere, 4B Components Ltd.; David Stroncsek, Martin Sprocket & Gear, Inc.; and Andrew Beadle, Universal Industries, Inc.

ii. Bucket Elevator Drive Arrangements

Sub-Committee: Hans Rodgers, SEW-Eurodrive, Inc.; David Stronczek, Martin Sprocket & Gear, Inc.; and Andrew Beadle, Universal Industries, Inc.

6. The next scheduled meeting will be on June 25, 2019 at La Playa Hotel, Naples, FL.

7. Meeting was adjourned at 11:31 am.

Respectfully submitted,
David Stronczek, Chair
Andrew Beadle, Vice Chair