



# Conveyor Equipment Manufacturers Association

## 2019 CEMA ENGINEERING CONFERENCE CONVEYOR PULLEY COMMITTEE MEETING

La Playa Hotel, Naples, FL

Tuesday, June 25, 2019

### MINUTES

1. Called to order at 10:32 am
2. Attendance and introductions – Roll call attached
3. Reviewed and approved June 26, 2018 minutes
4. Old Business
  - a) **Unit pulley standards to better support the unit pulley requirements** – Updates  
Subcommittee: Jeff Elis, PPI (chair); Benjamin Brewer, Douglas Manufacturing Co.; Bob Hawkins, Komatsu Mining Corp.; Aaron Eiseler, PPI; Zac Casper, Talos Engineered Products, LLC; Preston Hofer, Universal Industries, Inc.
    - It was determined that the Unit pulleys are distinguished enough to demand a new independent standard. Use B105.1 as a template
    - Sizes will be based on common tube sizes
    - Crown – Edge crown
    - Lower TIR – Survey Needed
    - Different Load Ratings – Survey Needed
    - Subcommittee approve to meet at the 2019 CEMA Fall Meeting.
  - b) **Use FEA to verify Belt Book Table 7.39 compared to B105.1 table 1 to determine if smaller pulley diameters are acceptable to manufacturers in the availability chart** – Updates.  
Subcommittee: Andrew Hustrulid, Shaw Almex Industries Ltd. (chair); Alex Vitou, ABB Motors and Mechanical Inc.; Benjamin Brewer, Douglas Manufacturing Co.; Bob Hawkins, Komatsu Mining Corp.; John Calfee, Martin Sprocket & Gear, Inc.; Jeff Elis, PPI; Paul Schmidgall, Superior Industries, Inc.
    - Investigate how using CEMA recommended shaft sizes and 4:1 pulley to shaft ratio compares to Belt Book Table 7.39 recommendations.
    - Create blind study with allowable stress per diameter and face-width to submit results to CEMA
  - c) **Establish a Standard for Balancing Pulleys** – Updates  
Subcommittee: Alex Vitou, ABB Motors and Mechanical Inc. (chair); Benjamin Brewer, Douglas Manufacturing Co.; Bob Hawkins, Komatsu Mining Corp.; John Calfee, Martin Sprocket & Gear, Inc.; Jeff Elis, PPI; Paul Schmidgall, Superior Industries, Inc.
    - Addendum created to add to B105.1-2015 stating Balancing Standard:  
**2.8 Pulley Balancing** - Balancing is not required for pulleys covered in this standard. However, if balancing is requested, the recommended ISO 1940-1 balance quality

grade is G40. For specific balancing requests, consult your CEMA pulley manufacturer.

- Voted and approved by all manufactures present, based on CEMA voting standards
  - To be presented to OR's in 2019 CEMA Fall meeting for final approval
- d) **Acceptable TIR on Lagged Pulley Surface. Belt cleaner manufacturers will provide proper function.**
- Purposed addition 1/8" TIR for lagging
  - To be presented to belt scraper manufacturers as a survey.
  - Question/Table for the survey: Will a belt scraper be effective on a pulley with the following runout tolerances?

<b>Diameters (in)</b>	<b>Current Maximum TIR on bare pulley face (in)</b>	<b>Purposed Maximum TIR after Lagging (in)</b>	<b>Acceptable? (yes/no)</b>	<b>Suggested Maximum TIR after Lagging (in)</b>
8 thru 24	0.125	0.25		
over 24 thru 48	0.188	0.313		
over 48 thru 60	0.25	0.375		

5. New Business

- a) **CEMA Whitepapers – Volunteers Needed**  
Topic: Considerations of TIR on Drive Pulleys  
Volunteer: Thomas Lopper, ABB Motors and Mechanical Inc.
- b) **ANSI/CEMA Std. B105.1 – ANSI Revision due 2019.**
- Add Figures to explain how the crown is specified
  - Investigate including a Crown Center Line Tolerance
- c) **ANSI/CEMA Std. 501.1 – ANSI Revision due 2019.**
- Add Figures to explain how the crown is specified

6. Next Meeting – June 16, 2020, La Playa Hotel, Naples, FL.

7. Adjourn

Respectfully submitted,  
 Bob Hawkins, Chair  
 Benjamin Brewer, Vice Chair

# EC 2019 - Pulley Committee Meeting Roll Call - June 25

COMPANY	Name	New Member	First Mtg	e-mail:	Initials:
ABB Motors and Mechanical Inc.	Alexander Vitou	<input type="checkbox"/>	<input type="checkbox"/>	alex.vitou@us.abb.com	ABV
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ABB Motors and Mechanical Inc.	David Keech	<input type="checkbox"/>	<input type="checkbox"/>	david.keech@us.abb.com	DJK
ASGCO® "Complete Conveyor Solutions"	Bruce Antonoli	<input type="checkbox"/>	<input type="checkbox"/>	bantonoli@asgco.com	BA
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Name

New First  
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-51

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## Sub-Committee List

### Unit Handling Pulley;

Jeffrey Ellis	PPI	Unit Handling Pulley Manufacturer <b>(Chair)</b>
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### Compare Table 1 in B105 to Table 7.39 in the Belt Book;

Dr Andrew Hustrulid	Shaw Almex Industries	Bulk Handling Pulley User <b>(Chair)</b>
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### Establish a Standard for Balancing Pulleys;

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Diameter run-out tolerance over lagging at midpoint of the pulley face, when using a dial indicator with a wide face flat point tip, is as follows:

Diameters inch (mm)	Maximum Total Indicator Reading (TIR) inch (mm)
8 (203) thru 24 (610)	0.25 (6.35)
Over 24 (610) thru 48 (1219)	0.3125 (7.94)
Over 48 (1219) thru 60 (1524)	0.375 (9.53)

Note: This does not apply to any grooved or ceramic lagging unless using a dial indicator with a wide face flat point tip.