# John Caldwell

## Vice President
## Business Banking

BREMER BANK

Member FDIC

FOUNDED

# In 1943

HEADQUARTERS

# St. Paul, MN

BRANCH NETWORK

# MN, ND, WI

OUR PURPOSE

# Cultivating thriving Communities

At Bremer, we believe that together banking and commerce can help communities thrive.

**OUR VALUES**

# Collaboration

We work elbow to elbow with our customers, making a difference for them however we can.  We share our skills, knowledge and experience to support each other every day.

# Commitment

We’re deeply invested in the places we live and work, and we’re always ready to find ways to help our neighbors and communities thrive and grow

# Creativity

Imagination and innovation are essential to our customers’ success and our own.  If there’s a better way to do something, we’ll find or create it.

Member FDIC

# Capturing Tribal Knowledge

Manufactures Alliance

Manufacture of the Year Awards

Breakout Session

September 29th, 2021

# Helen Swanson

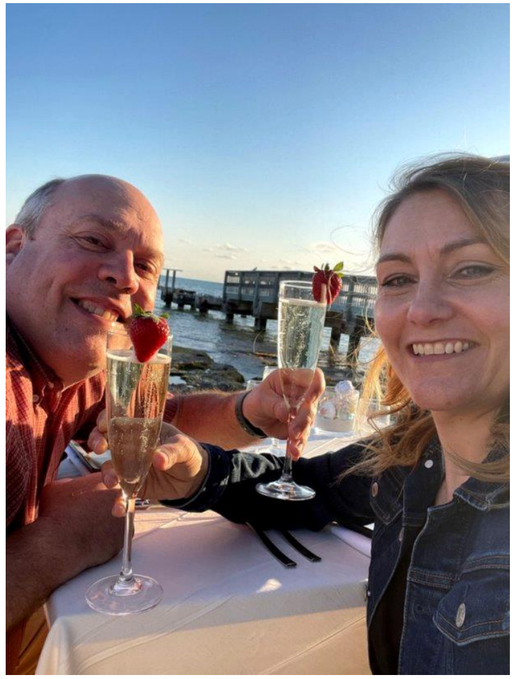
Director of Quality and Continuous Improvement – Sportech LLC, Elk River, MN

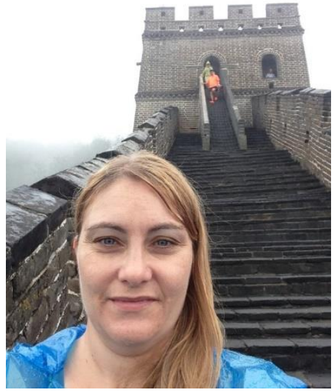
20+ years of experience as a quality and lean professional.  She has held Quality and Continuous Improvement Management positions in a number of industries including aerospace, medical, defense and consumer products.  Helen has spent her career developing Integrated Management Systems that fit the needs and culture of individual companies focusing on strong Strategic Planning, Process Focus and Lean Principles.

Helen is a certified Six Sigma Green Belt, Lean Practitioner, ISO9001 Lead Auditor and holds a degree in Chemical Engineering from the University of Minnesota.

Empty Nester …. WHAT NOW!!!!

BLUE HAWAIIAN





# What is Tribal Knowledge?

# What is Tribal Knowledge?

- Any information that is not widely known by other employees within a company
- Unique information that only a few, or one, person knows and is critical to the success of the business.
- Information considered to be common sense
  - “common sense is not so common” - Voltaire
- “the collective wisdom of the organization. It is the sum of all the knowledge and capabilities of all the people.” Leonard Bertain ‘The Tribal Knowledge Paradigm’
- UNWRITTEN, UNSHARED, GAINED THROUGH EXPERIENCE OR ORAL TRADITION.

# What is Tribal Knowledge?

Explicit Knowledge*

- Explicit or tangible knowledge is the concrete information that comprises essential information and data. Things like standardized procedures and safety protocols are documented by necessity and are crucial to operations. This knowledge is easy to store and pass between people because it exists in the form of documents, records, or reports.

Implicit Knowledge*

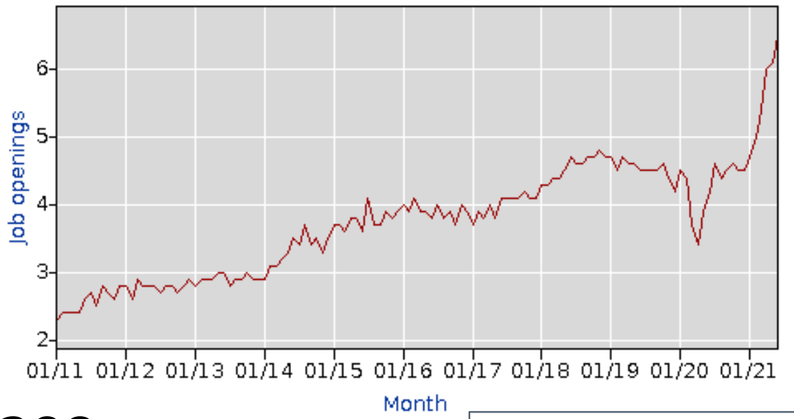
- Implicit or intangible knowledge includes personal stories, skills, and intuition-based learnings that are accrued through experience, in-person training, or mentorship. This type of knowledge is more difficult to communicate and often remains siloed or lost. A bulk of tribal knowledge falls in this group.

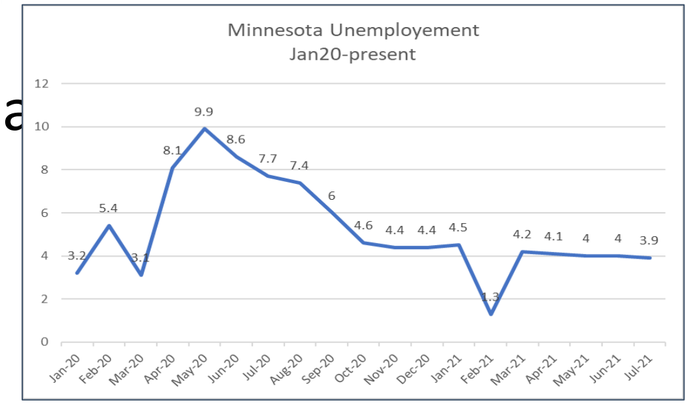
*https://www.dozuki.com/

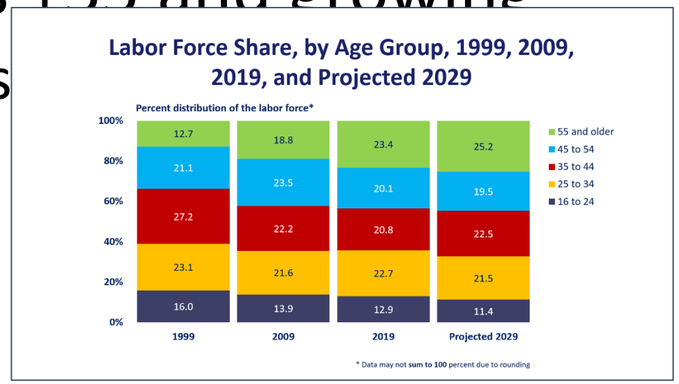
# Life without Implicit Knowledge…

# Why is Capturing Tribal Knowledge Important?

- "Turnover Tsunami"
  - Forbes 4.27.21
- Job openings continue increase
  - Sept 8 Job Opening and Labor Turnover Summa
- Unemployment rates continue to decrease
  - National Conference of State Legislatures
- 23% of the Labor force is +55 and growing
  - US Bureau of Labor Statis

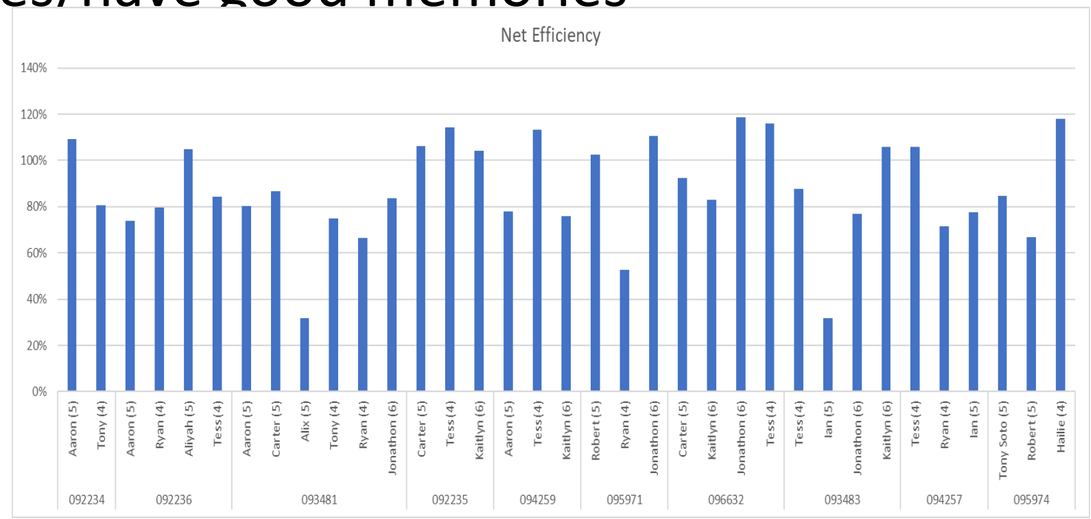


# Why is Capturing Tribal Knowledge Important?

- Losing important information forever.
  - Q: “Why do we do it that way:
  - A: “It’s the way we have always done it”
- Lengthy training process for new employees.
  - A situation must occur to learn what to do about it
  - New employees must take good notes/have good memories
- Loss of Productivity
  - “Make it Work”
- Inconsistent Result
  - Employee Dependent



# How does Tribal Knowledge Happen?

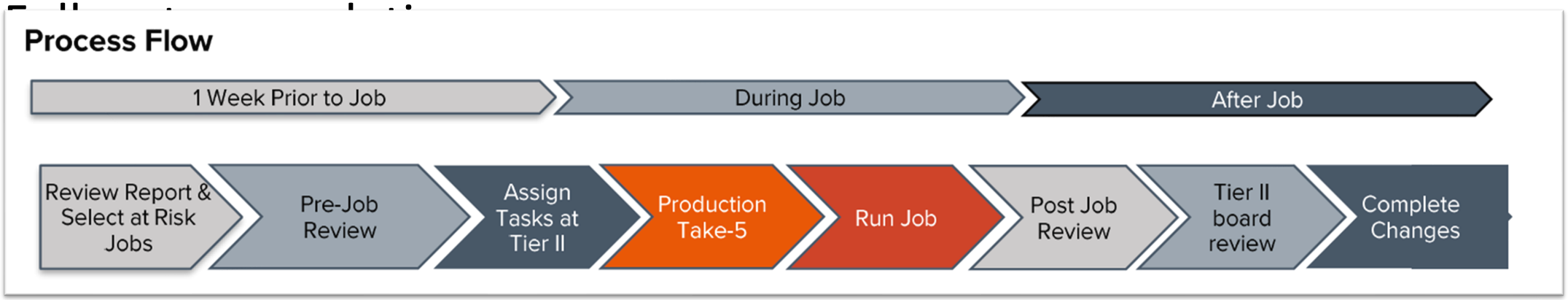
- Growth
  - In small Entrepreneurial companies everyone is close enough to the information the knowledge is considered “common”.
  - As a company grows there is no more common knowledge, only the original “tribe” has the knowledge.
- Fear or Power
  - Someone or *something* can take over the job.
  - Feels safe knowing they are indispensable.
- Nobody Asked
  - Don’t ask/ Don’t tell
  - Assumes everyone knows the information

# Where to start?

- Develop your WHY
  - Make sure everyone understands why it is important to capture the tribal knowledge.
    - Metrics
    - Stories
- Identify the Knowledge Holder(s)
  - Develop a relationship at a personal level
  - Find out their aspirations for the future
  - Understand what the knowledge means to them
  - Create a safe space
    - Acknowledge all the good things that have been done to date
    - Provide incentive to share the knowledge
      - Coaching/Mentoring Opportunities
      - Career advancement
      - Retirement Planning

# Make it a Process

- Include the Knowledge Holder in developing the process
- Identify and involve change agents to work with the Knowledge Holder
- Map a process for how, when, where and who will collect and document the process
- Determine how priorities will be set
-

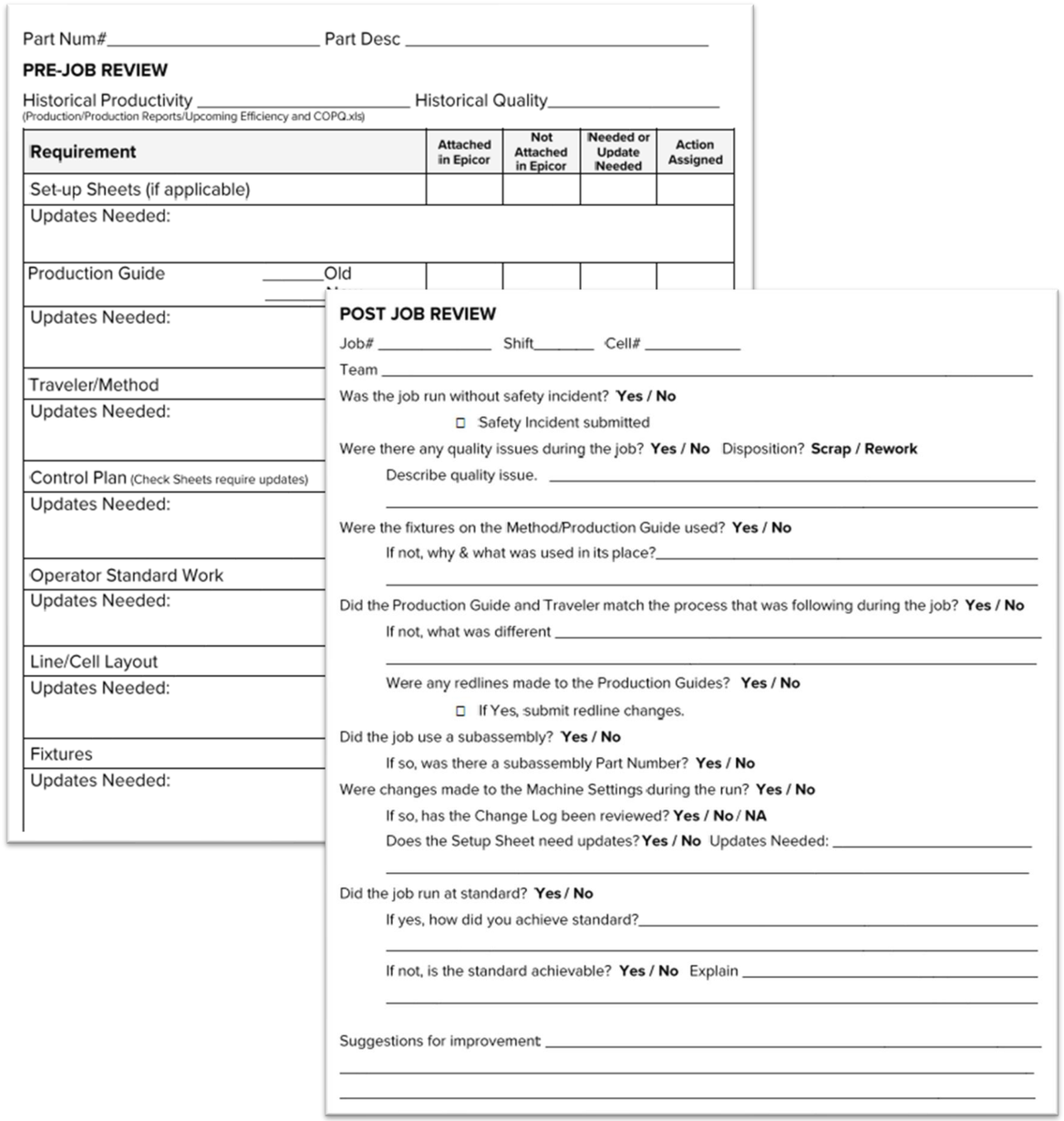


# Make it a Process - Considerations

- Is the Tribal Knowledge useful?
- Is the Tribal Knowledge correct/safe?
- Is the Tribal Knowledge preventing us from making improvements?
- Handle with CARE!
  - **C**arefully Review
  - **A**llow for growth and improvement
  - **R**espect the Knowledge Holder
  - **E**xecute

# Make it Easy

- Clear Signals
- Easy to follow checklist
- Provide resources
  - Designated Note Taker/Tech Writer
  - GoPro/phone (policy?)
  - Software
    - Dozuke
    - VKS



Part Num#_____ Part Desc _____

**PRE-JOB REVIEW**

Historical Productivity _____ Historical Quality_____
(Production/Production Reports/Upcoming Efficiency and COPQ.xls)

| Requirement | Attached in Epicor | Not Attached in Epicor | Needed or Update Needed | Action Assigned |
|---|---|---|---|---|
| Set-up Sheets (if applicable) | | | | |
| Updates Needed: | | | | |
| Production Guide _____Old | | | | |
| Updates Needed: | | | | |
| Traveler/Method | | | | |
| Updates Needed: | | | | |
| Control Plan (Check Sheets require updates) | | | | |
| Updates Needed: | | | | |
| Operator Standard Work | | | | |
| Updates Needed: | | | | |
| Line/Cell Layout | | | | |
| Updates Needed: | | | | |
| Fixtures | | | | |
| Updates Needed: | | | | |

**POST JOB REVIEW**

Job# _____ Shift_____ Cell# _____

Team _____

Was the job run without safety incident? **Yes / No**

☐ Safety Incident submitted

Were there any quality issues during the job? **Yes / No** Disposition? **Scrap / Rework**

Describe quality issue. _____

_____

Were the fixtures on the Method/Production Guide used? **Yes / No**

If not, why & what was used in its place?_____

_____

Did the Production Guide and Traveler match the process that was following during the job? **Yes / No**

If not, what was different _____

_____

Were any redlines made to the Production Guides? **Yes / No**

☐ If Yes, submit redline changes.

Did the job use a subassembly? **Yes / No**

If so, was there a subassembly Part Number? **Yes / No**

Were changes made to the Machine Settings during the run? **Yes / No**

If so, has the Change Log been reviewed? **Yes / No / NA**

Does the Setup Sheet need updates? **Yes / No** Updates Needed: _____

_____

Did the job run at standard? **Yes / No**

If yes, how did you achieve standard?_____

_____

If not, is the standard achievable? **Yes / No** Explain _____

_____

Suggestions for improvement _____

_____

_____

# Make it Easy - Considerations

- Multi-lingual users
  - Limit the text
  - Use photos and illustrations
  - Use Video
  - Provide Translations
- How much is too much?
  - Enough to do the job, not so much to be cumbersome.
  - Trail and Error
  - Test on someone outside the department
  - 15 min training blocks

## D

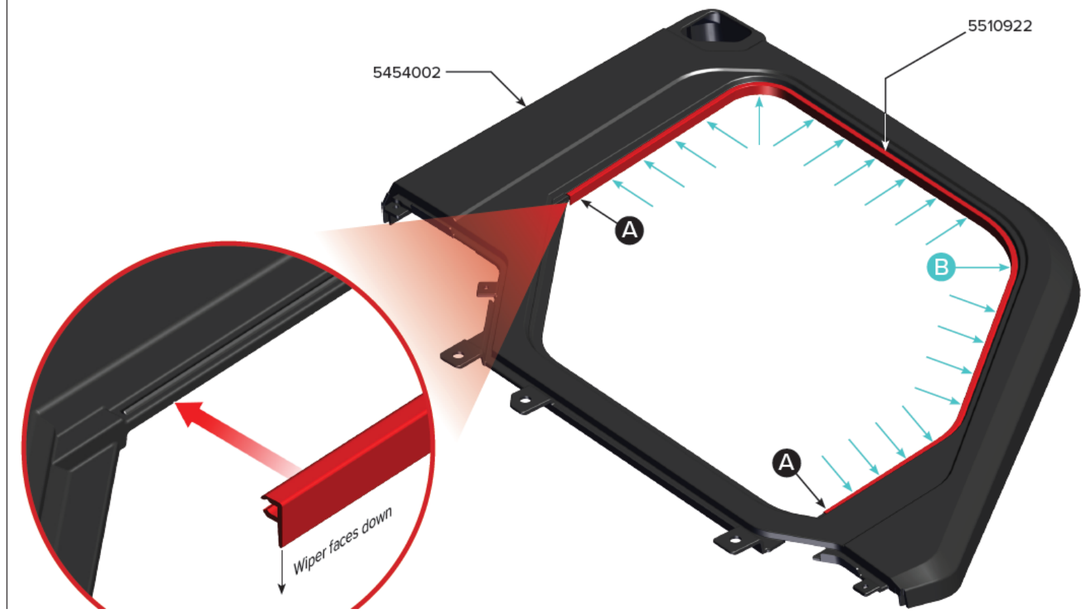
Tools: N/A

CRANK

POWER

### D - Upper Door Outer Panel: Back, Upper Window Trim

Press trim PN 5510922 into place to outer upper panel PN 5454002 at the ends first (A), then along the center (B) until it flattens into place. Ensure the trim's wiper faces down as shown in Figure 4.




## B

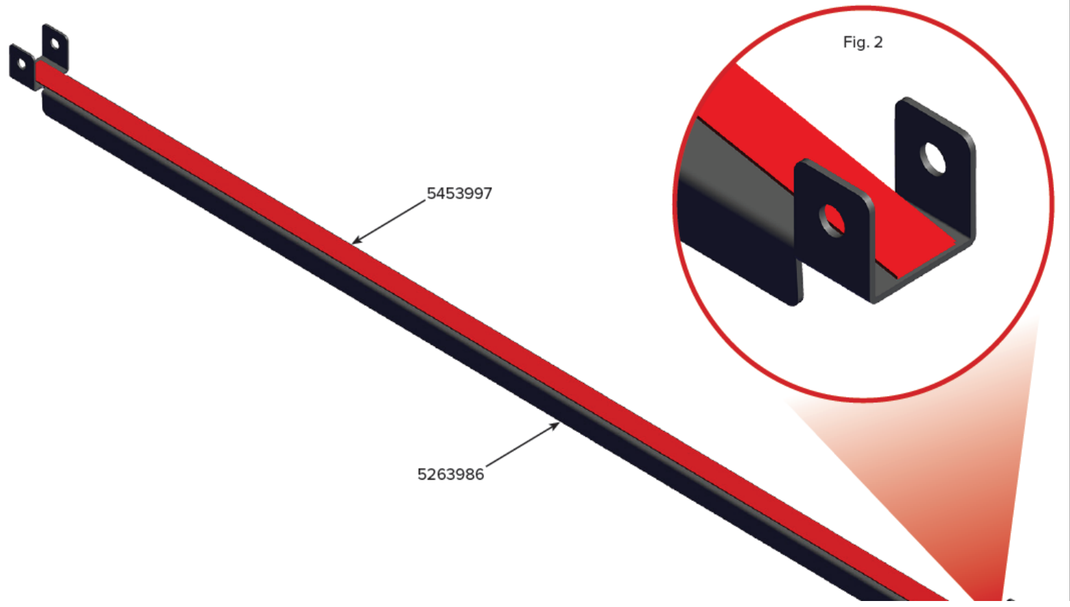
[T1] Trim Snips

CRANK

POWER

### B - Channel Foam Tape

Cut foam tape PN 99960038 to 31.50". Peel the backing and apply it to the metal channel PN 5263986. Center it between the left and right sides of the channel, and to each end as shown in Figure 2.




## C

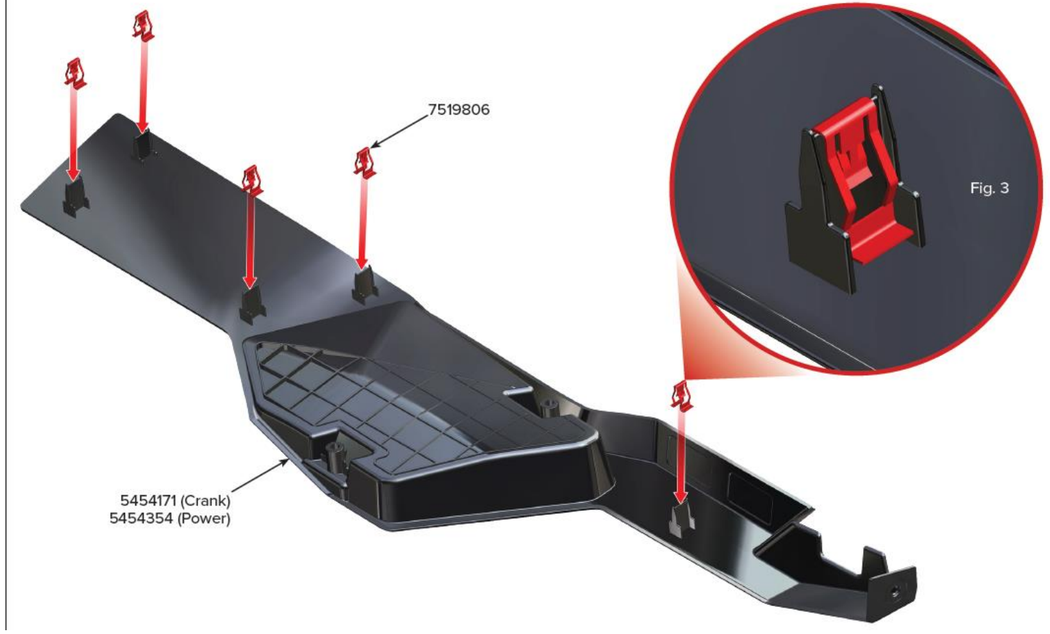
Tools: N/A

CRANK

POWER

### C - RH Inner Trim Panel Preparation

Press five (5) metal dash clips PN 7519806 onto the crank inner trim panel PN 5454171 molded clip bosses, or power inner trim panel PN 5454354 molded clip bosses as shown in Figure 3.




## A1

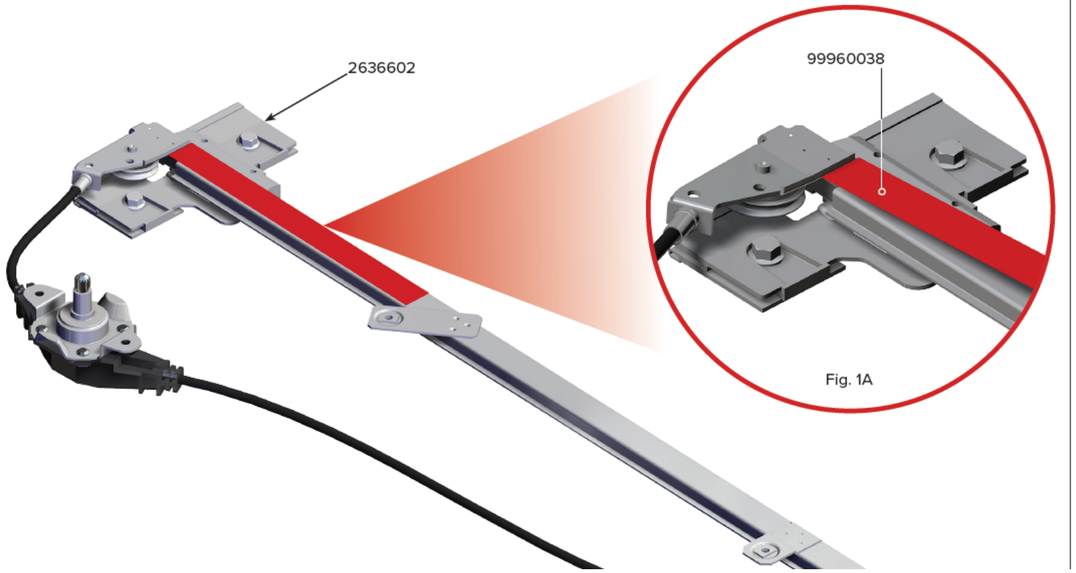
[T1] Trim Snips

CRANK

POWER

### A1 - Regulator Vibration Trim, Crank

Cut a piece of trim PN 99960038 to 8.75". Position one end against the regulator PN 2636602 top cable housing as shown in Figure 1A, and press the trim onto the regulator.



# Make it Visible

- Put planned, in-process and completed items in a visible location.
- Highlight key personnel on each one
- Encourage Leadership to review progress.
  - Acknowledge
  - Encourage
  - Congratulate

# Celebrate the wins

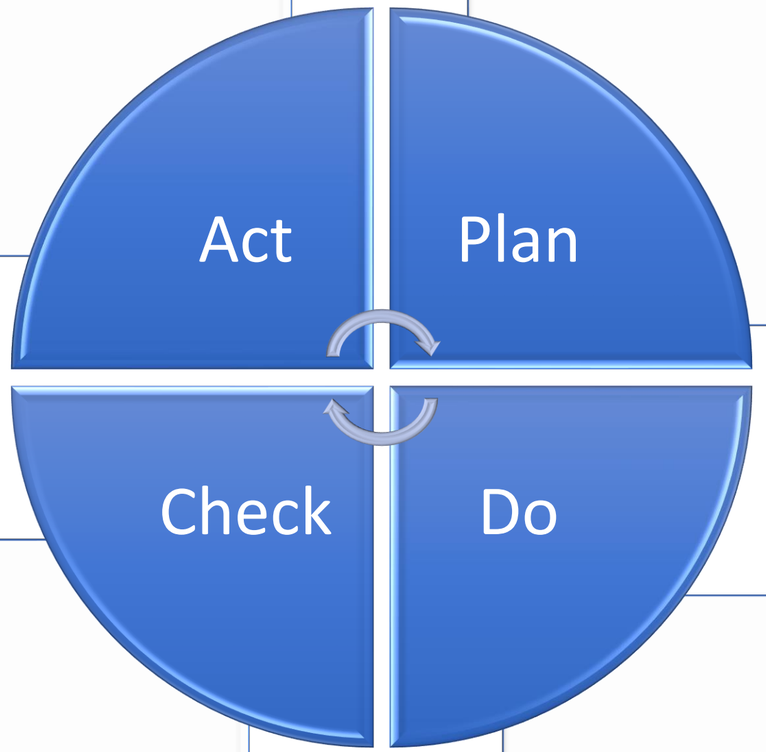
- Share progress widely and celebrate milestone along the way.
- Provide incentive as appropriate to team members.
  - Food
  - Gift Cards
  - Leadership Acknowledgement

# Maintain the Knowledge

- Build regular reviews of the information to maintain knowledge.
- Make it a daily process.

# Close the Loop (PDCA)

- Train/Retrain all effected employees
- Add to New Employee Training




- Review Current Documentation
- Determine the Knowledge Holder(s)
- Determine the Knowledge
- Provide Priority
- Provide the Resources

- Is it Useful?
- Is it Correct?
- Is it Effective?

- Capture the Knowledge
- Document the Knowledge

# Putting it all together

- Develop your WHY
- Identify the Knowledge Holder(s)
- Create a Process
- Make it Easy
- Make it Visible
- Celebrate the Wins
- Maintain the Knowledge

COMMIT THE TIME!