

### **Background**

This tool was developed as a manufacturing process improvement in the conduction of work for the Office of Secure Transportation. This work required the use of a manually loaded rivet gun to install numerous pop, or blind, rivets. Before the implementation of this tool, the operator would hold rivets in his or her hand with or without a container or store them in a nail apron prior to loading each rivet. When loading the rivet, the operator would have to choose a rivet from amongst the pile and rotate the rivet into the proper orientation to place it in the nose of the gun. There was nothing to prevent the operator from fumbling with and/or dropping the rivet and extra time was required to properly orient the fastener.

# **Description**

This technology is a device that holds over 40 rivets in the proper orientation for rapid, effortless loading into a handheld rivet gun (pneumatic or manual). This design with accompanying lanyard allows for the operator to focus on the riveting process and easily use both hands when needed without losing any of the rivets or their load ready orientation.

# **Advantages**

There are numerous advantages to this tool in terms of functionality, process efficiencies, and improvements to worker safety. The most significant advantages include:

- Convenient
  - Eliminates fumbling for the next rivet to load into the gun
  - Prevents the worker from dropping rivets saving time that would be required to retrieve the rivets and eliminates the safety hazard for those working below the operator
  - Keeps rivets close and at hand
- Proper Orientation
  - Preloads rivets in the correct orientation facilitating quick and easy loading
  - Eliminates the need for the operator to rotate the rivet before loading
  - Allows for a simple motion to load a rivet
- Holds numerous rivets
  - Eliminates extra movement required for operators to retrieve rivet refills when working in difficult to reach places, such as high off the ground, or in tight spaces
  - Holds 40+ rivets saving the operator time and money



4. Lanyard 5. Small lightweight 6. Improves quality and Spee



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- Lanyard
  - o Allows the operator the use of both hands when required
  - Keeps the tool close and at hand without the need for a place to set down the rivets
  - Catches the tool if dropped saving time that would be required to retrieve the tool and eliminates the safety hazard for those working below the operator
- Small, lightweight, handy
  - Allows for the use of multiple preloaded rivet holders attached to the operator's belt via one lanyard, eliminating trips to the rivet supply area
  - Minimizes worker strain when holding the tool and loading the rivet gun
- Improves Quality and Speed
  - Saves time and money by allowing the operator to concentrate fully on the riveting process improving quality and speed
  - o Eliminates human error in the rivet gun loading operation

## **Applications**

This tool could be utilized anywhere pop rivets are installed. Existing and potential customers include:

- Tractor trailer assembly/repairs
- Automotive industry
- Boating industry
- Sheet metal industry
- HVAC industry
- Home repair

This tool could easily be sold alongside pop rivets, pop rivet guns, and accessories. It can be fabricated inexpensively using plastic creating value for both the commercial and individual consumer markets.

# **Intellectual Property Status**

This technology is patent pending under US Patent application number 14/962,295, filed 12/10/2015.

# **Keyword List**

Pop/Blind Rivet, Pop/Blind Rivet Dispenser, Pop/Blind Rivet Holder, Pop/Blind Rivet Tool, Speedy Rivet Dispenser

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