

*Machined Component*



**OLD PART**

*Deep drawn stamping*



**NEW PART**

## **LOCK HARDWARE – THREADED HUB**

### **APD STORY EIGHT**

The Threaded Hub is a component of a Grade 2 commercial lock assembly that anchors the spindle and fastens to a door. The original hub was machined from solid bar stock. The critical features of the part, such as the outer thread pitch and inner bore diameters, were favorable to screw machine processing. Our APD team overcame this challenge by redesigning the part as a drawn stamping with a controlled outer diameter and two side embossed features that contour to the spindle. These critical product features utilized a 16 station deep draw transfer process. We then developed a dual head, high speed, thread forming process to finish the part. The customer's largest saving was in material costs. Our value engineered Threaded Hub cost only one-third of the machined component.

### ***COST REDUCTION***

More information on Lock Hardware Stampings | [Threaded Hub](#)

Trans-Matic is a highly developed metal stampings company that uses deep draw stamping methods to create world-class metal stampings. At Trans-Matic we utilize our capabilities to produce deep draw metal stampings to serve the automotive industry in braking, oxygen sensor, fuel delivery, air bag, bayonet socket, and sensor markets. Our non-automotive deep draw metal stampings capabilities serve the lock hardware, compressor, appliance, fire prevention, pharmaceutical, HVAC, and plumbing markets.

Value Engineering is ingrained into Trans-Matic's ongoing quest to help our customers reduce cost, improve quality, and increase performance. In the late 90's, we realized that many of the components we produce were being used in long-standing product lines with only incremental change. It was at that point where we began to focus on our customers' end product to ensure that the designs were streamlined for cost efficiency, with improved performance. In 1999, we instituted a separate VA-VE department to focus specifically on our customers' products. Since that time, we have become very product development savvy by engaging our technical team to dissect the functional elements of those products. The result, and continuing objective, is the creation of solutions that optimize the design intent of the product and the development of new products.

### **Reverse Engineering**

Trans-Matic APD activities have focused on the redesign of costly screw machine parts into lower cost deep drawn stampings. Trans-Matic VA/VE activities have redesigned multiple piece assemblies into complex, one-piece deep drawn stampings. Our reverse engineering efforts have reduced or eliminated components within an assembly many times creating a more reliable metal structure.

### **Trans-Matic produces automotive deep drawn metal stampings:**

- Using cold rolled steels (1006 to 1050), pre-coated steels, stainless steels (300 & 400 series), Inconel, brass, bronze, copper, and aluminum (1100, 3003, & 5052).
- With overall length up to seven inches.
- With thickness ranging from .005" (0.127mm) to .150" (3.81mm).
- With in-press capability to produce stampings with both coarse and fine threading, wall ironing, multiple side piercing, knurling, embossing, rectangular shapes, coining and marking, extruding and many other required features.
- To serve automotive markets including braking, oxygen sensor, fuel delivery, air bag, bayonet socket, and sensor markets.
- To serve non-automotive markets such as lock hardware, compressor, appliance, fire prevention, pharmaceutical, HVAC, and plumbing.
- In compliance with quality standards ISO/TS 16949
- In compliance with environmental standards TS 14001

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### **Additional PDF Examples and Information on Lock Hardware Stampings:**

| Lock Hardware– Drive-In Casing | Lock Hardware – Knob Catch | Lock Hardware – Dead Bolt Lock Bar |  
| Lock Hardware– Spring Return Mechanism | Lock Hardware – Spring Cage Assembly | Lock Hardware – CAM |

**More information on Lock Hardware Stampings | Threaded Hub**