Application for patent rights
Project: Hot-Roll Forming Process (CS-Grip)

Abstract

This invention discloses a hot-roll forming process intended for product related to security.

1) The hot-roll process invention consists of 4 different parts;

- 'A' the hot-roll forming die (non-limiting to shape & size of lock).
- 'B' the insulating board of heater unit.
- 'C' the thermal coupler.
- 'D' the flexibility heater.

2) This new hot-roll forming process invention formed a tampered evident lock for security seal, which allows shippers, carriers, retailers, banks, and logistics providers to protect their cargo.

3) The invented hot-roll forming process delivers security lock for additional security due to its high strength and self locking properties.

4) The hot-roll forming die is designed with non-limiting fabricated lock shape and size with flexibility heater and thermal coupler capable of forming the upstanding wall 'E' and 'K' to roll and overlaps and securely suppressed the planar portion of the secure grip cover 'G' and universal clip 'L'.

5) The hot-rolled forming process is invented in a way that the lock housing upstanding wall is melted and formed rigidly in housing the locking metal 'F' and secure grip cover 'G' to be tampered evident and locking the CS-Grip thin strip which is to be inserted into the locking area.

6) The hot-rolled forming process is invented in a way that the lock housing upstanding wall is melted and formed rigidly in housing the universal clip 'L' to be tampered evident and locking the CS-Pull thin strip which is to be inserted into the locking area.

7) The hot-rolled lock housing is capable on ensuring the strap is highly impossible to reversal pull out because of the integral metal clips inside the product.

8) The hot-roll processed lock is capable of tamper-indicating polypropylene material will blush if tampering occurs and cannot be reattached if broken.

9) The invented hot-roll lock housing security seal can be adjusted to seal a wide range of applications including: tote boxes, ATM cassettes, money bags and etc.

(Figure 1, Figure 2, Figure 3A, Figure 3B, Figure 4, Figure 5, Figure 6, Figure 7, Figure 8, Figure 9, Figure 10)