

# Product Performance Summary

## 050-0810 Single Rotor Latch and Logic

### Cycle Test:

The 050-0810 Single Rotor Latch and Logic had minimal amount of wear seen after 500,000 cycles and the examples were cycle tested up to a 100 lbf (45 kgf) seal load. TriMark recommends a seal load of 25-50 lbf (11-22 kgf).

### FMVSS 206 Tests:

Latch meets load requirements of FMVSS 206 in transverse and longitudinal orientations, in both primary and secondary positions, when paired with approved TriMark Striker Bolts in accordance with SAE J839.

The FMVSS206 strength requirements are listed below.

Transverse Primary 9000N (2023 lbf) Secondary 4500 N (1112 lbf)

Longitudinal Primary 11000 N (2473 lbf) Secondary 4500 N (1112 lbf)

### Cold and Hot Impact -40° F / 200° F (-40° C / 93° C) Test:

The over molded rotors used in the 050-0810 single rotor latch were tested to determine the ultimate impact strength in a cold and hot environment -40° F / 200° F (-40° C / 93° C). The over molded rotors were closed and then struck by the striker. The mean impact energy achieved by the rotor was a substantial 100 lbf-in (11 N-m). The over molded material did not show signs of fracturing.

### Corrosion Protection:

The 050-0810 single rotor latch and logic meets the ASTM B633 for a cyclic corrosion test of 250 hrs with <5% Red Rust.

### Axle Torque Test:

The axles used in the 050-0810 single rotor latch exceed the recommended torque value of 72 lbf-in (8 N-m).

*(Latch must be used with a TriMark approved striker bolt - reference 070-0201 13.9 mm Diameter Striker Bolt)*



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**NOTE:**

The Product performance values shown are intended to be applied as a general guideline only, as specific applications and installation may affect the results. It is recommended that the Customer request a sample and conduct their own testing to determine the suitability of the Product for the intended purpose and specific application. Strength data is given as maximum loads at which the product is operable, however no safety factor has been applied.

Additional Testing information is available upon request.



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