

# PRODUCT TEST OF PARAMOUNT ENCLOSURE STATIC LOAD TEST

#### **CONFIGURATION TESTED:**

Qty ITEM DESCRIPTION

1 PMT423042H 42U x 30W x 42D Paramount enclosure

TEST COMPLETION DATE: 05/20/13

MANUFACTURER: Wright Line - EATON, Worcester, MA. 01606

## **TESTS CONDUCTED:**

Static load test of Paramount enclosure.

**Purpose of Tests:** To subject the frame to static physical loading and establish a loading value to the frames.

#### **Test Procedure:**

Equip the frame with 10 identical shelves, equally spaced 5.25" (3 U) starting at the bottom of the frame. Mechanically fasten each shelf to the frame. Each shelf weighs 13 lbs for a total of 130 lbs. This loading will result in a CG of 26.25" from the bottom of the frame.

### Static Load testing:

Place the frame on a smooth, flat concrete floor. Load each shelf with 150 lbs. The weight of the shelves is 130 lbs for a total load acting on the frame of 1630 lbs. Allow the fully loaded frame to set for a minimum of two (2) hours while visually inspecting the frame and record dimensional measurements as empty, loaded and empty again after maximum load is reached. Repeat test with 200 lbs on each shelf (2130 lbs total), 250 lbs on each shelf (2630 lbs total) 300 lbs on each shelf (3130 lbs total) and 350 lbs on each shelf (3630 lbs total).

Measurement Locations: (See Appendix A)

- (A) Measured horizontally at inside of front vertical frame (short dimension). Measured at 40.5" up from bottom of frame.
- (B) Measured horizontally at inside of mid span of horizontal frame (short dimension). Measured at 43.5" up from bottom of frame.
- (C) Measured horizontally at inside or rear vertical frame (short dimension). Measured at 40.5" up from bottom of frame.
- (D) Measured horizontally at inside of left vertical frame (long dimension). Measured at 44" up from bottom of frame.
- (E) Measured horizontally at inside right of vertical frame (long dimension). Measured at 44" up from bottom of frame.
- (F) Measured horizontally at inside of front vertical frame (short dimension). Measured at 3" up from bottom of frame.
- (G) Measured horizontally at inside of mid span of horizontal frame (short dimension), Measured at 6.5" up from bottom of frame.
- (H) Measured horizontally at inside of rear vertical frame (short dimension). Measured at 3" up from bottom of frame.



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- (I) Measured horizontally at inside of right vertical frame (long dimension). Measured at 7" up from bottom of frame
- (J) Measured horizontally at inside left of vertical frame (long dimension). Measured at 7" up from bottom of frame.

#### **Results:**

Refer to aforementioned "Measurement Locations". Dimensions measured to the nearest 0.01". The following tables indicate the change in dimensions in relation to the initial measurements. (See Appendix B).

**Acceptance Level:** The unit shall not deflect more than 0.080" under load.

<u>Test Results</u>: The unit has passed. The conducted static load test did not subject the frame or shelves to the point of failure. The maximum applied load to the frame was 3,630 lbs (including shelves). A rating of 85% of the applied load (15% safety margin) can be applied to the frame (3,000 lbs). This rating can be applied to similar sized frames and smaller (example: 24"W, 36"D).

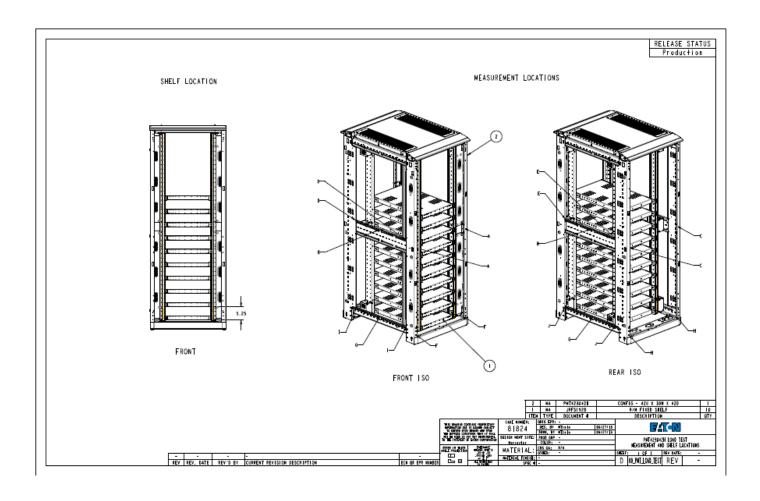
Test Conducted By: B. Eaton / M.Troio Test Report Prepared By: M.Troio Quality Manager: Carolina Nunez

THESE TESTS SHALL NOT BE REPRODUCED EXCEPT IN FULL



## Appendix A

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## Appendix B

|  | Initial<br>Measure<br>ments | Load to<br>1500 lbs | Delta<br>Load to<br>1500 lbs |  |  |  |
|--|-----------------------------|---------------------|------------------------------|--|--|--|
| Α  | 26.37                       | 26.37               | 0.00                         |  |  |  |
| В  | 29.48                       | 29.45               | 0.03                         |  |  |  |
| С  | 26.33                       | 26.33               | 0.00                         |  |  |  |
| D  | 28.23                       | 28.23               | 0.00                         |  |  |  |
| Е  | 28.22                       | 28.22               | 0.00                         |  |  |  |
| F  | 26.39                       | 26.39               | 0.00                         |  |  |  |
| G  | 29.33                       | 29.37               | -0.04                        |  |  |  |
| Н  | 26.38                       | 26.38               | 0.00                         |  |  |  |
| I  | 28.24                       | 28.24               | 0.00                         |  |  |  |
| J  | 28.23                       | 28.24               | -0.01                        |  |  |  |
|  |                             |                     |                              |  |  |  |
|  |                             |                     |                              |  |  |  |
| Initial measurements are rack with 0 lbs |                             |                     |                              |  |  |  |

|   | Initial |          | Delta    |  |  |  |
|---|---------|----------|----------|--|--|--|
|   | Measure | Load to  | Load to  |  |  |  |
|   | ments   | 2000 lbs | 2000 lbs |  |  |  |
|   |         |          |          |  |  |  |
| Α   | 26.37   | 26.37    | 0.00     |  |  |  |
| В   | 29.45   | 29.50    | -0.05    |  |  |  |
| С   | 26.34   | 26.33    | 0.01     |  |  |  |
| D   | 28.24   | 28.23    | 0.01     |  |  |  |
| E   | 28.23   | 28.23    | 0.00     |  |  |  |
| F   | 26.39   | 26.39    | 0.00     |  |  |  |
| G   | 29.37   | 29.39    | -0.02    |  |  |  |
| Н   | 26.39   | 26.39    | 0.00     |  |  |  |
| I   | 28.23   | 28.24    | -0.01    |  |  |  |
| J   | 28.24   | 28.24    | 0.00     |  |  |  |
|   |         |          |          |  |  |  |
|   |         |          |          |  |  |  |
| Initial measurements are rack with 1500 lbs |         |          |          |  |  |  |



|           | Initial<br>Measure<br>ments | Measure Load to Load to |             |    |
|-----------|-----------------------------|-------------------------|-------------|----|
|           |                             |                         |             |    |
| Α         | 26.37                       | 26.42                   | -0.05       |    |
| В         | 29.50                       | 29.49                   | 0.01        |    |
| С         | 26.33                       | 26.34                   | -0.01       |    |
| D         | 28.23                       | 28.23                   | 0.00        |    |
| E         | 28.23                       | 28.23                   | 0.00        |    |
| F         | 26.39                       | 26.39                   | 0.00        |    |
| G         | 29.39                       | 29.37                   | 0.02        |    |
| Н         | 26.39                       | 26.39                   | 0.00        |    |
| I         | 28.24                       | 28.24                   | 0.00        |    |
| J         | 28.24                       | 28.23                   | 0.01        |    |
|           |                             |                         |             |    |
|           |                             |                         |             |    |
| nitial me | asurement                   | s are rack v            | with 2000 l | bs |

|   | Initial                 |         | Delta    |  |  |  |
|---|-------------------------|---------|----------|--|--|--|
|   | Measure                 | Load to | Load to  |  |  |  |
|   | ments 3000 lbs 3000 lbs |         | 3000 lbs |  |  |  |
|   |                         |         |          |  |  |  |
| Α   | 26.42                   | 26.39   | 0.03     |  |  |  |
| В   | 29.49                   | 29.48   | 0.01     |  |  |  |
| С   | 26.34                   | 26.36   | -0.02    |  |  |  |
| D   | 28.23                   | 28.23   | 0.00     |  |  |  |
| Е   | 28.23                   | 28.23   | 0.00     |  |  |  |
| F   | 26.39                   | 26.39   | 0.00     |  |  |  |
| G   | 29.37                   | 29.40   | -0.03    |  |  |  |
| Н   | 26.39                   | 26.39   | 0.00     |  |  |  |
| I   | 28.24                   | 28.24   | 0.00     |  |  |  |
| J   | 28.23                   | 28.23   | 0.00     |  |  |  |
|   |                         |         |          |  |  |  |
|   |                         |         |          |  |  |  |
| Initial measurements are rack with 2500 lbs |                         |         |          |  |  |  |



|   | Initial |          | Delta    |  |  |  |
|---|---------|----------|----------|--|--|--|
|   | Measure | Load to  | Load to  |  |  |  |
|   | ments   | 3500 lbs | 3500 lbs |  |  |  |
|   |         |          |          |  |  |  |
| Α   | 26.39   | 26.39    | 0.00     |  |  |  |
| В   | 29.48   | 29.42    | 0.06     |  |  |  |
| С   | 26.36   | 26.34    | 0.02     |  |  |  |
| D   | 28.23   | 28.23    | 0.00     |  |  |  |
| E   | 28.23   | 28.22    | 0.01     |  |  |  |
| F   | 26.39   | 26.39    | 0.00     |  |  |  |
| G   | 29.40   | 29.41    | -0.01    |  |  |  |
| Н   | 26.39   | 26.38    | 0.01     |  |  |  |
| I   | 28.24   | 28.25    | -0.01    |  |  |  |
| J   | 28.23   | 28.23    | 0.00     |  |  |  |
|   |         |          |          |  |  |  |
|   |         |          |          |  |  |  |
| Initial measurements are rack with 3000 lbs |         |          |          |  |  |  |

|   | Initial |          |           | Delta    | Delta     |  |
|---|---------|----------|-----------|----------|-----------|--|
|   | Measure | Load to  | Empty -   | Load to  | Empty -   |  |
|   | ments   | 3500 lbs | post load | 3500 lbs | post load |  |
|   |         |          |           |          |           |  |
| Α   | 26.37   | 26.39    | 26.37     | -0.02    | 0.00      |  |
| В   | 29.48   | 29.42    | 29.47     | 0.06     | 0.01      |  |
| С   | 26.33   | 26.34    | 26.34     | -0.01    | -0.01     |  |
| D   | 28.23   | 28.23    | 28.23     | 0.00     | 0.00      |  |
| Е   | 28.22   | 28.22    | 28.22     | 0.00     | 0.00      |  |
| F   | 26.39   | 26.39    | 26.39     | 0.00     | 0.00      |  |
| G   | 29.33   | 29.41    | 29.35     | -0.08    | -0.02     |  |
| Н   | 26.38   | 26.38    | 26.39     | 0.00     | -0.01     |  |
| I   | 28.24   | 28.25    | 28.25     | -0.01    | -0.01     |  |
| J   | 28.23   | 28.23    | 28.24     | 0.00     | -0.01     |  |
|   |         |          |           |          |           |  |
|   |         |          |           |          |           |  |
| Initial measurements are rack with 0000 lbs |         |          |           |          |           |  |



|  | Initial |          |           | Delta    | Delta     |  |
|--|---------|----------|-----------|----------|-----------|--|
|  | Measure | Load to  | Empty -   | Load to  | Empty -   |  |
|  | ments   | 3000 lbs | post load | 3000 lbs | post load |  |
|  |         |          |           |          |           |  |
| Α  | 26.37   | 26.39    | 26.37     | -0.02    | 0.00      |  |
| В  | 29.48   | 29.48    | 29.47     | 0.00     | 0.01      |  |
| С  | 26.33   | 26.36    | 26.34     | -0.03    | -0.01     |  |
| D  | 28.23   | 28.23    | 28.23     | 0.00     | 0.00      |  |
| Е  | 28.22   | 28.23    | 28.22     | -0.01    | 0.00      |  |
| F  | 26.39   | 26.39    | 26.39     | 0.00     | 0.00      |  |
| G  | 29.33   | 29.40    | 29.35     | -0.07    | -0.02     |  |
| Н  | 26.38   | 26.39    | 26.39     | -0.01    | -0.01     |  |
| I  | 28.24   | 28.24    | 28.25     | 0.00     | -0.01     |  |
| J  | 28.23   | 28.23    | 28.24     | 0.00     | -0.01     |  |
|  |         |          |           |          |           |  |
|  |         |          |           |          |           |  |
| Initial measurements are rack with 0 lbs |         |          |           |          |           |  |