

MGM Brakes e-Stroke

| SAE J1939 Brake Stroke Alert Published Fault Codes             |       |      |     |   |  |
|--|-------|------|-----|---|--|
| Item   | PGN   | SPN  | FMI | SAE FMI Definitions   | Diagnostic Display Text (For MGM & AVM)                |
| Tractor Brake Stroke<br>Axle 1 Left                            | 64881 | 3785 | 1   | Data Valid But Below Normal Operational Range - Most Severe Level | Brake Stroke - Axle 1 Left - Non-Functioning Actuator  |
|  |       |      | 0   | Data Valid But Above Normal Operational Range - Most Severe Level | Brake Stroke - Axle 1 Left - Over-Stroke               |
|  |       |      | 7   | Mechanical System Not Responding Or Out Of Adjustment             | Brake Stroke - Axle 1 Left - Dragging Brake            |
|  |       |      | 4   | Voltage Below Normal, Or Shorted To Low Source                    | Brake Stroke - Axle 1 Left - Actuator Sensor Fault     |
| Tractor Brake Stroke<br>Axle 1 Right                           | 64881 | 3786 | 1   | Data Valid But Below Normal Operational Range - Most Severe Level | Brake Stroke - Axle 1 Right - Non-Functioning Actuator |
|  |       |      | 0   | Data Valid But Above Normal Operational Range - Most Severe Level | Brake Stroke - Axle 1 Right - Over-Stroke              |
|  |       |      | 7   | Mechanical System Not Responding Or Out Of Adjustment             | Brake Stroke - Axle 1 Right - Dragging Brake           |
|  |       |      | 4   | Voltage Below Normal, Or Shorted To Low Source                    | Brake Stroke - Axle 1 Right - Actuator Sensor Fault    |
| Tractor Brake Stroke<br>Axle 2 Left                            | 64881 | 3787 | 1   | Data Valid But Below Normal Operational Range - Most Severe Level | Brake Stroke - Axle 2 Left - Non-Functioning Actuator  |
|  |       |      | 0   | Data Valid But Above Normal Operational Range - Most Severe Level | Brake Stroke - Axle 2 Left - Over-Stroke               |
|  |       |      | 7   | Mechanical System Not Responding Or Out Of Adjustment             | Brake Stroke - Axle 2 Left - Dragging Brake            |
|  |       |      | 4   | Voltage Below Normal, Or Shorted To Low Source                    | Brake Stroke - Axle 2 Left - Actuator Sensor Fault     |
| Tractor Brake Stroke<br>Axle 2 Right                           | 64881 | 3788 | 1   | Data Valid But Below Normal Operational Range - Most Severe Level | Brake Stroke - Axle 2 Right - Non-Functioning Actuator |
|  |       |      | 0   | Data Valid But Above Normal Operational Range - Most Severe Level | Brake Stroke - Axle 2 Right - Over-Stroke              |
|  |       |      | 7   | Mechanical System Not Responding Or Out Of Adjustment             | Brake Stroke - Axle 2 Right - Dragging Brake           |
|  |       |      | 4   | Voltage Below Normal, Or Shorted To Low Source                    | Brake Stroke - Axle 2 Right - Actuator Sensor Fault    |
| Tractor Brake Stroke<br>Axle 3 Left                            | 64881 | 3789 | 1   | Data Valid But Below Normal Operational Range - Most Severe Level | Brake Stroke - Axle 3 Left - Non-Functioning Actuator  |
|  |       |      | 0   | Data Valid But Above Normal Operational Range - Most Severe Level | Brake Stroke - Axle 3 Left - Over-Stroke               |
|  |       |      | 7   | Mechanical System Not Responding Or Out Of Adjustment             | Brake Stroke - Axle 3 Left - Dragging Brake            |
|  |       |      | 4   | Voltage Below Normal, Or Shorted To Low Source                    | Brake Stroke - Axle 3 Left - Actuator Sensor Fault     |
| Tractor Brake Stroke<br>Axle 3 Right                           | 64881 | 3790 | 1   | Data Valid But Below Normal Operational Range - Most Severe Level | Brake Stroke - Axle 3 Right - Non-Functioning Actuator |
|  |       |      | 0   | Data Valid But Above Normal Operational Range - Most Severe Level | Brake Stroke - Axle 3 Right - Over-Stroke              |
|  |       |      | 7   | Mechanical System Not Responding Or Out Of Adjustment             | Brake Stroke - Axle 3 Right - Dragging Brake           |
|  |       |      | 4   | Voltage Below Normal, Or Shorted To Low Source                    | Brake Stroke - Axle 3 Right - Actuator Sensor Fault    |
| Tractor Brake Disc Caliper<br>Lining Clearance<br>Axle 1 Left  | 64556 | 7396 | 13  | Out of Calibration  | Brake Caliper - Axle 1 Left - Lining Clearance Low     |
| Tractor Brake Disc Caliper<br>Lining Clearance<br>Axle 1 Right | 64556 | 7397 | 13  | Out of Calibration  | Brake Caliper - Axle 1 Right - Lining Clearance Low    |
| Tractor Brake Disc Caliper<br>Lining Clearance<br>Axle 2 Left  | 64556 | 7398 | 13  | Out of Calibration  | Brake Caliper - Axle 2 Left - Lining Clearance Low     |
| Tractor Brake Disc Caliper<br>Lining Clearance<br>Axle 2 Right | 64556 | 7399 | 13  | Out of Calibration  | Brake Caliper - Axle 2 Right - Lining Clearance Low    |
| Tractor Brake Disc Caliper<br>Lining Clearance<br>Axle 3 Left  | 64556 | 7400 | 13  | Out of Calibration  | Brake Caliper - Axle 3 Left - Lining Clearance Low     |
| Tractor Brake Disc Caliper<br>Lining Clearance<br>Axle 3 Right | 64556 | 7401 | 13  | Out of Calibration  | Brake Caliper - Axle 3 Right - Lining Clearance Low    |
| Pressure Transducer  | 65226 | 116  | 4   | Voltage Below Normal, Or Shorted To Low Source                    | Brake Stroke - Pressure Transducer Fault               |

Reference ES 1040 for e-Stroke SAE J1939 Communication Specification

## MGM Brakes e-Stroke

| SAE J1708 Brake Stroke Alert Published Fault Codes |   |  |                          |
|--|---|--|--------------------------|
|  | Code                                      | SAE Definition                         |                          |
| MID  | 253                                       | Brake Stroke Alert (BSA)               |                          |
| PID  | 194                                       | Transmitter System Diagnostic Code     |                          |
| FMI  | 2   | Actuator Sensor Fault                  |                          |
|  | 4   | 17                                     |                          |
|  | 7   | Dragging Brake                         |                          |
|  | 12  | Non-Functioning Brake Actuator         |                          |
| SID  | 1   | Tractor Brake Stroke - Axle 1 Left     |                          |
|  | 2   | Tractor Brake Stroke - Axle 1 Right    |                          |
|  | 3   | Tractor Brake Stroke - Axle 2 Left     |                          |
|  | 4   | Tractor Brake Stroke - Axle 2 Right    |                          |
|  | 5   | Tractor Brake Stroke - Axle 3 Left     |                          |
|  | 6   | Tractor Brake Stroke - Axle 3 Right    |                          |
|  | 7   | Tractor Brake Stroke - Axle 4 Left     |                          |
|  | 8   | Tractor Brake Stroke - Axle 4 Right    |                          |
|  | 9   |  |                          |
|  | 10  | Trailer #1 Brake Stroke - Axle 1 Left  |                          |
|  | 11  | Trailer #1 Brake Stroke - Axle 1 Right |                          |
|  | 12  | Trailer #1 Brake Stroke - Axle 2 Left  |                          |
|  | 13  | Trailer #1 Brake Stroke - Axle 2 Right |                          |
|  | 14  | Trailer #1 Brake Stroke - Axle 3 Left  |                          |
|  | 15  | Trailer #1 Brake Stroke - Axle 3 Right |                          |
|  | 16  | Trailer #1 Brake Stroke - Axle 4 Left  |                          |
|  | 17  | Trailer #1 Brake Stroke - Axle 4 Right |                          |
|  | 19  | Trailer #2 Brake Stroke - Axle 1 Left  |                          |
|  | 20  | Trailer #2 Brake Stroke - Axle 1 Right |                          |
|  | 21  | Trailer #2 Brake Stroke - Axle 2 Left  |                          |
|  | 22  | Trailer #2 Brake Stroke - Axle 2 Right |                          |
|  | 23  | Trailer #2 Brake Stroke - Axle 3 Left  |                          |
|  | 24  | Trailer #2 Brake Stroke - Axle 3 Right |                          |
|  | 25  | Trailer #2 Brake Stroke - Axle 4 Left  |                          |
|  | 26  | Trailer #2 Brake Stroke - Axle 4 Right |                          |
|  | 28  | Trailer #3 Brake Stroke - Axle 1 Left  |                          |
|  | 29  | Trailer #3 Brake Stroke - Axle 1 Right |                          |
|  | 30  | Trailer #3 Brake Stroke - Axle 2 Left  |                          |
|  | 31  | Trailer #3 Brake Stroke - Axle 2 Right |                          |
|  | 32  | Trailer #3 Brake Stroke - Axle 3 Left  |                          |
|  | 33  | Trailer #3 Brake Stroke - Axle 3 Right |                          |
|  | 34  | Trailer #3 Brake Stroke - Axle 4 Left  |                          |
|  | 35  | Trailer #3 Brake Stroke - Axle 4 Right |                          |
|  | <b>e-Stroke Pressure Transducer Fault</b> |  |                          |
|  | MID                                       | 253                                    | Brake Stroke Alert (BSA) |
| PID  | 194                                       | Transmitter System Diagnostic Code     |                          |
| FMI  | 2   | Actuator Sensor Fault                  |                          |
| SID  | 9   | Tractor Brake Stroke Alert Monitor     |                          |

## MGM Brakes e-Stroke