An Oshkosh Corporation Company

# Service and Maintenance Manual

## *Model*

## *800A*

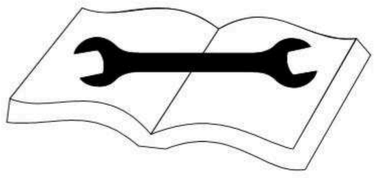
## *800AJ*

***Prior to S/N 0300183033***

***P/N - 3120740***

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***ANSI***





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**Table 1-4. Deutz F4M2011F Specifications**

| | |
|---|---|
| Type | Liquid Cooled (Oil) |
| Fuel | Diesel |
| Oil Capacity | |
| Cooling System | 5 Quarts (4.5 L) |
| Crankcase | 11 Quarts (10.5 L) w/Filter |
| Total Capacity | 16 Quarts (15 L) |
| Idle RPM | 1000 |
| Low RPM | 1800 |
| High RPM | 2800 |
| Alternator | 55 Amp, belt drive |
| Fuel Consumption | |
| Low RPM | 1.90 GPH (7.19 lph) |
| High RPM | 2.50 GPH (9.46 lph) |
| Battery | 1000 Cold Cranking Amps, 210 minutes Reserve Capacity, 12 VDC |
| Horsepower | 65 @ 2800 RPM, full load |

**Table 1-5. Deutz D2011L04 Specifications**

| | |
|---|---|
| Type | Liquid Cooled (Oil) |
| Fuel | Diesel |
| Oil Capacity | |
| Cooling System | 5 Quarts (4.5 L) |
| Crankcase | 11 Quarts (10.5 L) w/Filter |
| Total Capacity | 16 Quarts (15 L) |
| Idle RPM | 1000 |
| Low RPM | 1800 |
| High RPM | 2600 |
| Alternator | 55 Amp, belt drive |
| Fuel Consumption | 0.88 GPH (3.33 lph) |
| Battery | 1000 Cold Cranking Amps, 210 minutes Reserve Capacity, 12 VDC |
| Horsepower | 64 @ 2600 RPM, full load |

**Table 1-6. Caterpillar 3044C**

| | |
|---|---|
| Type | Four Stroke Cycle |
| Cylinders | 4 in-line |
| Bore | 3.70 inch (94 mm) |
| Stroke | 4.72 inch (120 mm) |
| Aspiration | turbocharged |
| Compression ratio | 19:1 |
| Displacement | 203 $in^3$ (3.33 L) |
| Firing Order | 1-3-4-2 |
| Rotation (viewed from flywheel) | Counterclockwise |
| Oil Capacity (w/filter) | 10.6 Quarts (10 L) |
| Cooling System (Engine Only) | 5.8 Quarts (5.5 L) |
| Idle RPM | 1000 |
| Low RPM | 1800 |
| High RPM | 2800 |
| Alternator | 60 Amp, belt drive |
| Fuel Consumption | 1.24 GPH (4.69 lph) |

**Table 1-7. Isuzu 4JB1**

| | |
|---|---|
| Type | Water-cooled |
| Oil Capacity (w/filter) | 8.5 Quarts (8.0 L) |
| Cooling System (Engine Only) | 5.8 Quarts (5.5 L) |
| Idle RPM | 1000 |
| Low RPM | 1800 |
| High RPM | 2800 |
| Alternator | 55 Amp, belt drive |
| Battery | 1000 Cold Cranking Amps, 210 minutes Reserve Capacity, 12 VDC |
| Horsepower | 66 @ 2800 RPM, full load |



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**Table 6-10. Help Fault Codes, Displayed Faults, and Descriptions - (Prior to S/N 0300066931)**

| Fault Flash Code | Communicated (Displayed on Analyzer) Fault | Description | Priority |
|---|---|---|---|
| None | **No flash code is indicated for the following help messages. They are intended to hint at a possible problem if the vehicle is not behaving as expected.** | | 1 |
| | EVERYTHING OK | The "normal" help message in platform mode | |
| | GROUND MODE OK | The "normal" help message in ground mode | |
| | DRIVING AT CREEP - TILTED | Drive speed is limited to creep because the vehicle is tilted. | |
| | FSW OPEN | A drive or boom function has been selected but footswitch is open. | |
| | RUNNING AT CREEP - CREEP SWITCH OPEN | All function speeds are limited to creep because the creep switch is open. | |
| | RUNNING AT CREEP - TILTED AND ABOVE ELEVATION | All function speeds are limited to creep because the vehicle is tilted and above elevation. | |
| | RUNNING AT CUTBACK - ABOVE ELEVATION | Drive speed is limited to "ELEVATED MAX" because the vehicle is above elevation. | |
| | TESTS ACTIVE – RECYCLE EMS TO END | The system tests have been activated; normal vehicle operation is not allowed. | |
| 1/1 | **Flash code 1/1 indicates a "sleep" mode. NOT REQUIRED** | | |
| 2/1 | **Flash code 2/1 indicates problems with footswitch.** | | 2 |
| | FSW FAULTY | The two foot switch signals do not agree. EMS recycle required. | |
| | KEYSWITCH FAULTY | Both platform and ground modes are selected simultaneously | |
| 2/2 | **Flash code 2/2 indicates problems with drive & steer selection.** | | 3 |
| | DRIVE JOYSTICK FAULTY | The drive joystick center tap is out of valid range, or the wiper is wire-off. | |
| | DRIVE LOCKED – JOYSTICK MOVED BEFORE EMS/FSW | Drive was selected before and during footswitch closure. | |
| | FSW INTERLOCK TRIPPED | Footswitch was closed for seven seconds with no function selected. | |
| | STEER LOCKED – SELECTED BEFORE EMS/FSW | Steer was selected before and during footswitch closure. | |
| | STEER SWITCHES FAULTY | Both steer switches are active together. | |
| | WAITING FOR FSW TO BE OPEN | Footswitch was closed when platform mode was selected. | |
| | JOYSTICK FAULTS – CHECK PLATFORM BOX WIRING | More than one of the drive, lift, and swing joystick center tap or wiper voltages is out of range. This is probably due to a short-circuit across a joystick pot. | |
| | FUNCTION LOCKED OUT - TOWER LIFT DOWN PERMANENTLY CLOSED | The control system detected the TOWER LIFT DOWN input high during startup. | |



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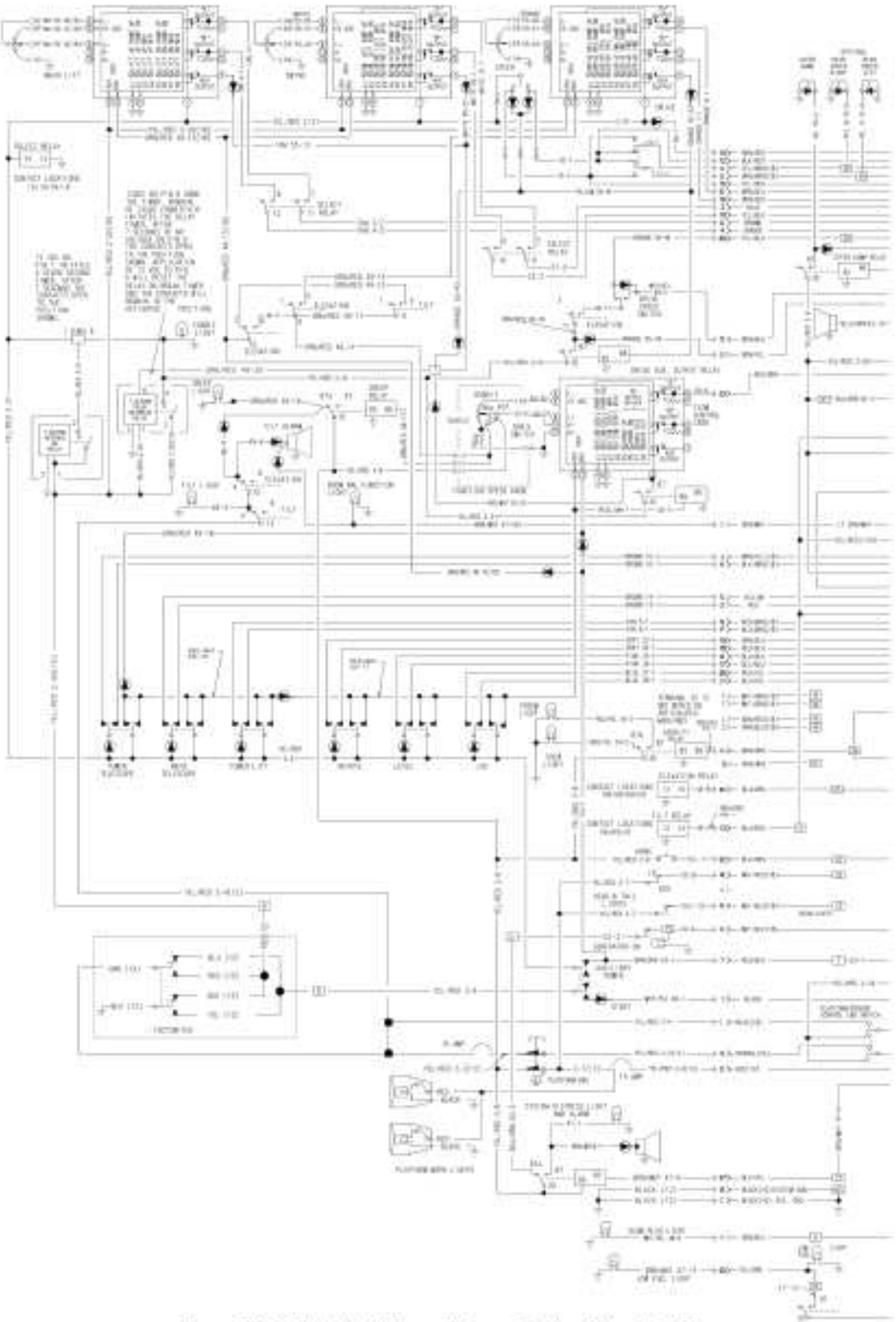


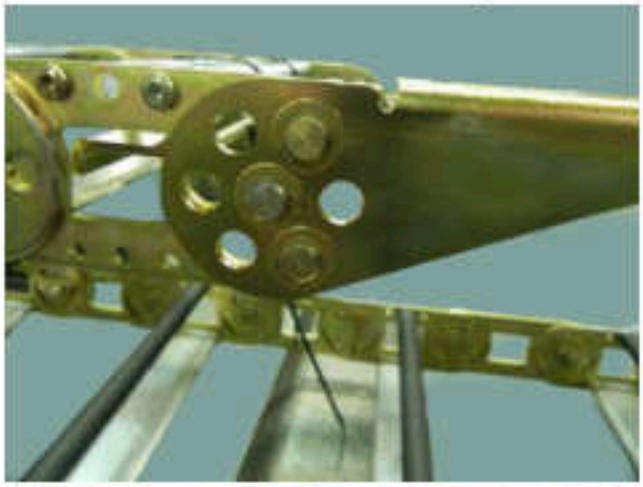
**Figure 7-36. Electrical Schematic Isuzu Engine (Sheet 1 of 2)**



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## Replacing a Moving End Bracket

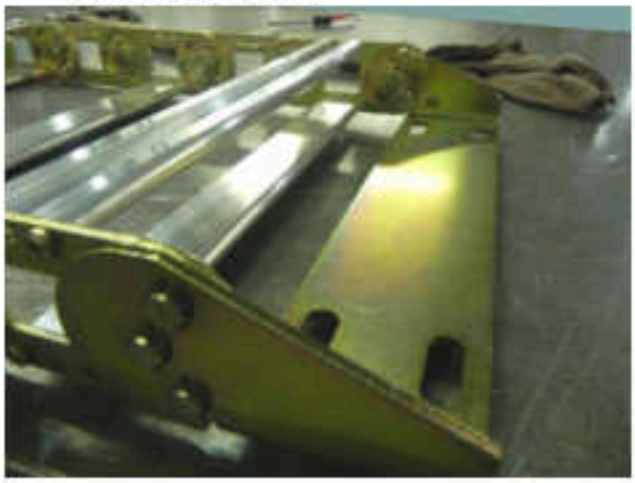
1. Remove bracket by removing all pins, washers, and snap rings. Replace with a new bracket and reinstall the pins, washers, and new snap rings. After installing a new bracket make sure that it rotates correctly.

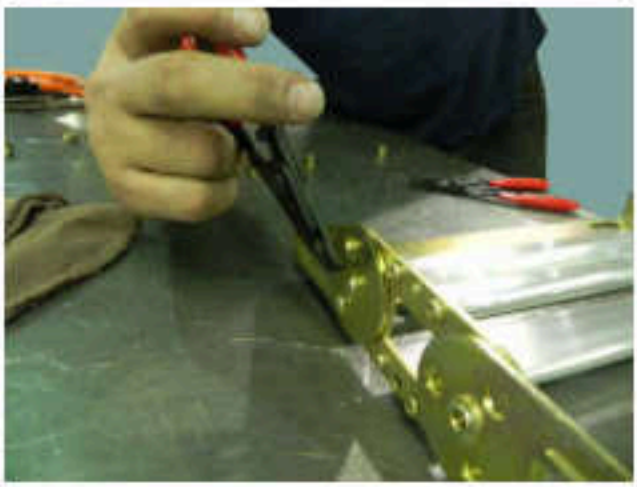


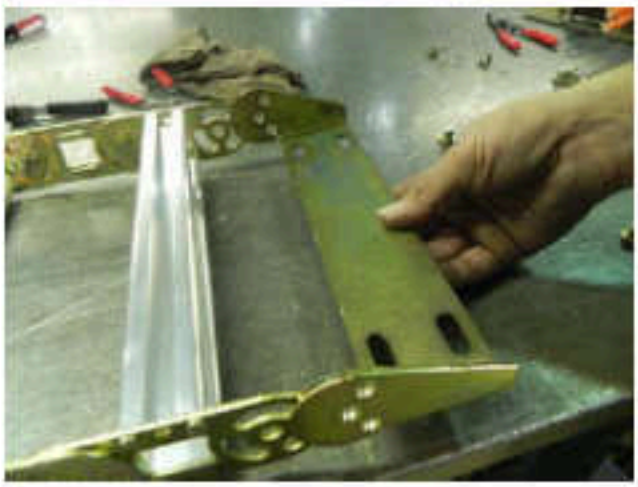


## Replacing a One Piece Bracket

1. Remove all pins, washers, and snap rings and slide the bracket off of the links.









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### BRAD HARRISON / PHOENIX CONTACT M12

The connector uses gold contact material to resist corrosion and an o-ring seal for moisture integrity. If dielectric grease is mistakenly applied to this connector system, the low-force contacts cannot displace the grease to achieve electrical contact. Once contaminated, there is no practical way to remove the dielectric grease (replacement of female contacts required). The JLG Load Sensing System and 1250AJP Rotary Angle Sensors are examples of components with the M12 connector system.





### AMP JUNIOR TIMER

This type of connector uses back-seals for moisture integrity. However, the low-force contacts cannot displace dielectric grease and create electrical contact. It is possible to use solvents (i.e. contact cleaner or mineral spirits) for the removal of improperly applied dielectric grease. The EMR2 engine control module from Deutz employs this connector system (for example).





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