



Service Bulletin

Bulletin No. 2009-65
CMD 2009-05

Circulate to: Sales Manager Accounting Service Manager Technician Parts Manager

QSD 2.8L & 4.2L Axius Model Engine Idle Speed Adjustment

Models Affected

All Axius-equipped QSD 2.8L and 4.2L engines:

Models Covered	Engine Serial Numbers
Axius QSD 2.8L	88305713-88356210
Axius QSD 4.2L	88401109-88417255

Situation

Axius QSD engines may stall during low-speed maneuvering with frequent shift and steering input. This situation is most likely to occur during joystick or Skyhook operation.

At idle speed under certain conditions, the engine control module (ECM) may not effectively counteract the combined affect of engine load generated by the Axius steering hydraulic pump and a simultaneous sterndrive shift causing an engine stall.

It has been determined that a 20 RPM increase in ECM set engine idle speed reduces the engine's susceptibility to stall.

Correction

Increase engine idle speed by 20 RPM on all QSD Axius engines experiencing engine stall during low-speed maneuvering. The QSD 2.8L and 4.2L engine idle speed can be adjusted using the Mercury Computer Diagnostic System (CDS) tool. Refer to the CDS instructions to properly adjust the engine idle speed.

NOTE: The engine idle speed can be changed or reset at any time using the CDS tool.

Engine	Allowable Idle Speed Range	Standard Idle Speed	Adjusted Idle Speed
Axius QSD 2.8L	700-800 RPM	700 RPM	720 RPM
Axius QSD 4.2L	600-800 RPM	600 RPM	620 RPM

Parts Information

No parts are required to perform an engine idle speed adjustment.

Engine control modules (ECM) currently released and stocked as service parts are programed for the standard engine idle speed. When replacing an ECM on an Axius-equipped vessel, both engine's ECM set idle speeds must be checked and adjusted to the increased engine idle speed as specified in this bulletin.

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All Axius QSD 2.8L and 4.2L engines shipped from Cummins MerCruiser Diesel after May 11, 2009 will have engine idle speeds set to 720 RPM and 620 RPM, respectively. The engine idle speeds of the ECMs installed on these engines will not adjust lower than 720 (2.8L) or 620 RPM (4.2L). The minimum engine idle speed is factory-set.

IMPORTANT: Both engines must idle at the same speed. If a revised service ECM programmed for the increased engine idle speed is installed, the paired engine's idle speed must be checked and adjusted to the increased engine idle speed as specified in this bulletin.

Warranty

CMD will cover labor costs associated with this engine idle speed adjustment within the normal terms and conditions of the engine's warranty. Submit a warranty claim through your normal warranty processing channel listing:

- Starboard engine serial number
- Port engine serial number
- Part Code 731
- Failure Code 79
- Flat Rate Code and labor time for the starboard engine: NJC 0.3 hours
- Flat Rate Code and labor time for the port engine: NJC 0.3 hours

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