Pursuant to the authority vested in the California Air Resources Board by Health and Safety Code Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-14-012; 

IT IS ORDERED AND RESOLVED: The engine and emission control systems produced by the manufacturer are certified as described below for use in on-road motor vehicles with a manufacturer's GVWR over 14,000 pounds. Production engines shall be in all material respects the same as those for which certification is granted.

Following are: 1) the FTP exhaust emission standards, or family emission limit(s) as applicable, under 13 CCR 1956.8; 2) the SET and NTE limits under the applicable California exhaust emission standards and test procedures for heavy-duty diesel engines and vehicles (Test Procedures); and 3) the corresponding certification levels, for this engine family. "Diesel" CO, SET and NTE certification compliance may have been demonstrated by the manufacturer as provided under the applicable Test Procedures in lieu of testing. (For flexible- and dual-fueled engines, the CERT values in brackets [ ] are those when tested on conventional test fuel. For multi-fueled engines, the STD and CERT values for default operation permitted in 13 CCR 1956.8 are in parentheses). 

BE IT FURTHER RESOLVED: The manufacturer has demonstrated compliance with the Greenhouse Gas Emission Standards as specified in Title 13 CCR 1956.8 and the incorporated "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy Duty Diesel-Engines and Vehicles" (HDDE Test Procedures) adopted December 12, 2002, as last amended September 1, 2017, using the 2014 model year National Heavy-Duty Engine and Vehicle Greenhouse Gas Program as specified in Section 1036.108 of the HDDE Test Procedures. For the listed California-only engine family, the manufacturer has submitted the required greenhouse gas information.
BE IT FURTHER RESOLVED: Certification to the FEL(s) / FCL(s) listed above, as applicable, is subject to the following terms, limitations and conditions. The FEL(s) / FCL(s) is the emission level declared by the manufacturer and serves in lieu of an emission standard for certification purposes in any averaging, banking, or trading (ABT) programs. It will be used for determining compliance of any engine in this family and compliance with such ABT programs.

BE IT FURTHER RESOLVED: For the listed engine models the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR 1965 (emission control labels), 13 CCR 1971.1 (on-board diagnostic, full or partial compliance), and 13 CCR 2035 et seq. (emission control warranty).

BE IT FURTHER RESOLVED: Except in vehicle applications exempted per 13 CCR 1956.8(a)(6)(B), 30g rating engines in this engine family certified under 13 CCR 1956.8(a)(6)(C) [30 g/hr NOx] and section 35. B.4 of the incorporated "California Exhaust Emissions Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles" adopted December 12, 2002, as last amended September 1, 2017, shall be provided with an approved "Certified Clean Idle" label that shall be affixed to the vehicle into which the engine is installed.

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this 19th day of October 2018.

[Signature]
Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division
## ENGINE MODEL SUMMARY

<table>
<thead>
<tr>
<th>ENGINE FAMILY</th>
<th>ENGINE CODE</th>
<th>ENGINE MODEL</th>
<th>BHP@RPM (SAE Gross)</th>
<th>FUEL RATE mm³/stroke @ peak HP</th>
<th>FUEL RATE lbs/hr @ peak HP</th>
<th>TORQUE@RPM ft-lb</th>
<th>FUEL RATE mm³/stroke @ peak TORQUE</th>
<th>FUEL RATE lbs/hr @ peak TORQUE</th>
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</thead>
<tbody>
<tr>
<td>KSZXH05.23FB</td>
<td>523FB-1</td>
<td>4HK1TC</td>
<td>210 @ 2500 (157 kW)</td>
<td>138.0</td>
<td>76.6</td>
<td>520 @ 1600 (705 N-m)</td>
<td>154.0</td>
<td>55.0</td>
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</table>

## EMISSION CONTROL DEVICE Per SAE J1930

<table>
<thead>
<tr>
<th>ENGINE FAMILY</th>
<th>ENGINE CODE</th>
<th>ENGINE MODEL</th>
<th>EMISSION CONTROL DEVICE</th>
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</thead>
<tbody>
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<td>KSZXH05.23FB</td>
<td>523FB-1</td>
<td>4HK1TC</td>
<td>ECM, DDI, EGRC, CAC, TC, DOC, PTOX, SCR-U, AMOX, NOS(2)</td>
</tr>
</tbody>
</table>