

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2010	ACEXL019.AAD	19.0	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control Module			Loader and Dozer	

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
225 ≤ kW < 560	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
		FEL	N/A	N/A	3.9	N/A	0.17	N/A	N/A	N/A
		CERT	--	--	3.8	1.9	0.13	9	4	12


BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

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

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 19th day of November 2009.


 Annette Hebert, Chief
 Mobile Source Operations Division

Engine Model Summary Template

U-12-002-0522
Attachment
1/16/2011

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
ACEXL019.AAD	8533:FR4431	QSK19-C	750@2000	417	281	2200@1500	457	231	DDI,ECM,TC <i>Cac</i>
ACEXL019.AAD	2754:FR4466	QSK19-C	700@2000	389	263	2200@1500	457	231	DDI,ECM,TC,
ACEXL019.AAD	2754:FR4468	QSK19-C	700@1800	417	253	2200@1500	457	231	DDI,ECM,TC,
ACEXL019.AAD	2754:FR4467	QSK19-C	675@1800	407	247	2200@1500	457	231	DDI,ECM,TC,
ACEXL019.AAD	2755:FR4473	QSK19-C	560@2000	314	212	1755@1500	386	195	DDI,ECM,TC,
ACEXL019.AAD	2755:FR4472	QSK19-C	525@2000	298	201	1775@1500	391	198	DDI,ECM,TC,
ACEXL019.AAD	2755:FR4501	QSK19-C	600@2000	334	226	1950@1500	417	211	DDI,ECM,TC,
ACEXL019.AAD	2757:FR4497	QSK19-C	506@1800	321	195	2032@1300	417	183	DDI,ECM,TC,
ACEXL019.AAD	2757:FR4498	QSK19-C	506@1800	321	195	2032@1300	417	183	DDI,ECM,TC,
ACEXL019.AAD	8466:FR92058	QSB6.7	195@2300	100	77.7	542@1200	109	44	ECM TC CAC
ACEXL019.AAD	8610:FR92113	QSB6.7	190@2500	98	82.3	520@1500	112	56.9	ECM TC CAC
ACEXL019.AAD	8466:FR92212	QSB6.7	185@2200	99	73.3	546@1400	113	53.5	ECM TC CAC
ACEXL019.AAD	8466:FR93357	QSB6.7	186@2200	99	73.4	435@1500	114	58.0	ECM TC CAC
ACEXL019.AAD	8610:FR92095	QSB6.7	186@2200	99	73.4	547@1500	114	58.0	ECM TC CAC
ACEXL019.AAD	8466:FR91496	QSB6.7	200@2100	107	75.8	547@1500	117	59.2	ECM TC CAC
ACEXL019.AAD	8611:FR92276	QSB6.7	260@2500	124	104.5	550@1500	120	60.6	ECM TC CAC
ACEXL019.AAD	8466:FR91439	QSB6.7	189@2050	109	75.3	548@1500	121	61.3	ECM TC CAC
ACEXL019.AAD	8611:FR92515	QSB6.7	275@2500	129	108.7	575@1500	125.9	63.7	ECM TC CAC
ACEXL019.AAD	8610:FR92419	QSB6.7	205@2500	90	76.1	625@1500	128	64.9	ECM TC CAC
ACEXL019.AAD	8610:FR91688	QSB6.7	185@2500	97	81.8	575@1500	128	64.7	ECM TC CAC
ACEXL019.AAD	8466:FR92059	QSB6.7	220@2300	110	110.2	597@1500	128	64.5	ECM TC CAC
ACEXL019.AAD	8610:FR92441	QSB6.7	215@2500	105	88.7	620@1500	129	65.3	ECM TC CAC
ACEXL019.AAD	8611:FR92599	QSB6.7	275@2500	125	105.7	620@1500	129	65.4	ECM TC CAC
ACEXL019.AAD	8610:FR93156	QSB6.7	205@2500	97.9	85.75	575@1700	130.9	66.1	ECM TC CAC
ACEXL019.AAD	8610:FR93156	QSB6.7	205@2500	97.9	85.75	575@1700	130.9	66.1	ECM TC CAC
ACEXL019.AAD	8610:FR92288	QSB6.7	220@2500	110	92.8	640@1500	135	68.5	ECM TC CAC
ACEXL019.AAD	8466:FR91955	QSB6.7	220@2200	116	86.1	650 @ 1500	135	68.3	ECM TC CAC
ACEXL019.AAD	8611:FR92866	QSB6.7	240@2200	124	92	650@1500	136	69	ECM TC CAC ✓

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
ACEXL019.AAD	8466;FR91428	QSB6.7	190@2400	92	74.5	685@1500	140	70.8	ECM TC CAC
ACEXL019.AAD	8466;FR92112	QSB6.7	185@2200	96	71.2	685@1400	141	66.6	ECM TC CAC
ACEXL019.AAD	8466;FR91435	QSB6.7	190@2200	98	72.7	685@1400	141	66.6	ECM TC CAC
ACEXL019.AAD	8610;FR91598	QSB6.7	193@2200	104	77.1	674@1400	142	67	ECM TC CAC
ACEXL019.AAD	8466;FR91445	QSB6.7	205@1800	126	76.7	685@1300	143	62.7	ECM TC CAC
ACEXL019.AAD	8466;FR91431	QSB6.7	190@2300	102	78.9	685@1500	145	73.5	ECM TC CAC
ACEXL019.AAD	8610;FR91597	QSB6.7	215@2500	107	90.9	655@1500	146	73.4	ECM TC CAC
ACEXL019.AAD	8610;FR91599	QSB6.7	215@2100	116	82.1	700@1500	146	68.9	ECM TC CAC
ACEXL019.AAD	8466;FR91440	QSB6.7	220@2000	124	83.5	700@1400	146	73.9	ECM TC CAC
ACEXL019.AAD	8466;FR91637	QSB6.7	203@2000	108	73	694@1450	148	69.8	ECM TC CAC
ACEXL019.AAD	8466;FR91434	QSB6.7	220@2200	111	82.3	700@1500	148	74.9	ECM TC CAC
ACEXL019.AAD	8610;FR91653	QSB6.7	220@2200	114	84.4	700@1500	148	75	ECM TC CAC
ACEXL019.AAD	8466;FR91998	QSB6.7	228@2100	126	89.2	700@1500	148	75	ECM TC CAC
ACEXL019.AAD	8610;FR92694	QSB6.7	200@2200	104.1	77.4	694@1500	149	75.4	ECM TC CAC
ACEXL019.AAD	8466;FR91430	QSB6.7	220@2300	110	85.5	700@1500	149	75.4	ECM TC CAC
ACEXL019.AAD	8611;FR91429	QSB6.7	260@2300	129	99.8	730@1500	149	75.3	ECM TC CAC
ACEXL019.AAD	8611;FR92279	QSB6.7	275@2300	135	104.5	725@1500	149	75.2	ECM TC CAC
ACEXL019.AAD	8611;FR91427	QSB6.7	260@2400	124	100.4	730@1500	150	75.9	ECM TC CAC
ACEXL019.AAD	8611;FR91433	QSB6.7	260@2200	135	99.8	730@1500	150	75.9	ECM TC CAC
ACEXL019.AAD	8611;FR91600	QSB6.7	240@2000	136	91.8	730@1500	150	75.9	ECM TC CAC
ACEXL019.AAD	8611;FR91596	QSB6.7	240@2500	114	96.1	730@1500	151	76.2	ECM TC CAC
ACEXL019.AAD	8611;FR91595	QSB6.7	250@2500	117	98.8	730@1500	151	76.2	ECM TC CAC
ACEXL019.AAD	8611;FR91421	QSB6.7	275@2500	129	108.8	730@1500	151	76.4	ECM TC CAC
ACEXL019.AAD	0656;FR92053	QSB7-G1	173@1800	105	63.7	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	0656;FR92053	QSB7-G1	154@1500	113	57.2	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	0656;FR92054	QSB7-G2	234@1800	140	84.9	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	0656;FR92054	QSB7-G2	204@1500	143	72.3	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	0656;FR91910	QSB7-G3	250@1800	151	91.8	NA	NA	NA	ECM TC CAC

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
ACEXL019.AAD	0656;FR91910	QSB7-G3	233@1500	166	84	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	1404;FR91996	QSL9-G3	345@1500	243	123	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	1404;FR91996	QSL9-G3	399@1800	239	145.2	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	1404;FR92204	QSL9-G2	374@1800	219	133	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	1404;FR92204	QSL9-G2	321@1500	220	111	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	1404;FR92201	QSL9-G1	325@1800	200	121.3	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	1404;FR92201	QSL9-G1	285@1500	201	101.4	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	8695;FR91546	QSL9-G2	364@1800	219	133.2	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	8695;FR91546	QSL9-G2	310@1500	213	107.6	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	1754;FR92067	QSL9-G2	364@1800	219	133.3	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	1754;FR92067	QSL9-G2	310@1500	213	107.6	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	2701;FR92858	QSL9G4	374@1500	259.6	130	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	2701;FR92858	QSL9G4	430@1800	257.2	153	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	3301;FR93008	QSL9G7	427@1500	299	151.2	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	3301;FR92889	QSL9G7	464@1800	275.6	167.3	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	3301;FR92889	QSL9G7	402@1500	282.2	142.8	NA	NA	NA	ECM TC CAC
ACEXL019.AAD	2736;FR92370	6TAA-9004	330@2100	178	126.1	1155@1500	230	116.3	ECM TC CAC
ACEXL019.AAD	2736;FR92371	6TAA-9004	304@2000	170	114.5	1109@1400	226	106.7	ECM TC CAC
ACEXL019.AAD	8548;FR91672	QSL	350@2100	192	135.8	1120@1500	223	113	ECM TC CAC
ACEXL019.AAD	8641;FR91520	QSL	350@2100	192	135.8	1120@1500	223	113	ECM TC CAC
ACEXL019.AAD	8548;FR91672	6TAA-9004	350@2100	192	135.8	1120@1500	223	113	ECM TC CAC
ACEXL019.AAD	8547;FR92190	6TAA-9004	350@2200	179	133	1110@1500	221	112	ECM TC CAC
ACEXL019.AAD	2736;FR92372	6TAA-9004	320@2200	171	126.6	1070@1500	219	110.8	ECM TC CAC
ACEXL019.AAD	8547;FR92191	6TAA-9004	340@2200	175	130	1107@1500	219	111	ECM TC CAC
ACEXL019.AAD	8641;FR91679	QSL	340@2200	173	128.4	1096@1500	218	110.1	ECM TC CAC
ACEXL019.AAD	8641;FR91673	QSL	345@1800	206	125.2	1095@1400	217	102.6	ECM TC CAC
ACEXL019.AAD	8647;FR91675	QSL	325@2000	178	120.1	1050@1500	217	109.8	ECM TC CAC
ACEXL019.AAD	8641;FR91681	QSL	330@1800	199	121	1075@1400	216	102.4	ECM TC CAC

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
ACEXL019.AAD	8647;FR91689	QSL	305@2000	174	117.4	1109@1400	216	102.2	ECM TC CAC
ACEXL019.AAD	8547;FR91374	6TAA-9004	304@2000	174	117.4	1109@1400	216	102.2	ECM TC CAC
ACEXL019.AAD	8647;FR91526	QSL	280@2100	165	116.6	1050@1500	214	108.3	ECM TC CAC
ACEXL019.AAD	8647;FR91674	QSL	325@2100	176	124.6	1050@1500	213	107.7	ECM TC CAC
ACEXL019.AAD	8647;FR91680	QSL	330@2100	178	126	1050@1500	213	107.7	ECM TC CAC
ACEXL019.AAD	8647;FR92604	QSL	305@2100	172	122	1050@1500	213	107.4	ECM TC CAC
ACEXL019.AAD	8547;FR91515	6TAA-9004	324@2100	176	124.6	1050@1500	213	107	ECM TC CAC
ACEXL019.AAD	8641;FR91523	QSL	325@1800	194	117.7	1050@1400	212	100.1	ECM TC CAC
ACEXL019.AAD	0422;FR91709	QSL	280@2000	164	110.3	1070@1400	212	100.1	ECM TC CAC
ACEXL019.AAD	8547;FR91880	6TAA-9004	305@2100	171	121.2	1070@1400	212	100.1	ECM TC CAC
ACEXL019.AAD	8647;FR91676	QSL	300@2000	173	116.7	1010@1500	211	106.7	ECM TC CAC
ACEXL019.AAD	8641;FR91525	QSL	300@1800	187	113.5	1000@1400	210	99.1	ECM TC CAC
ACEXL019.AAD	8641;FR91527	QSL	280@2000	164	110.3	1000@1400	210	99.1	ECM TC CAC
ACEXL019.AAD	8647;FR91524	QSL	300@2100	170	120.4	1010@1500	210	106.2	ECM TC CAC
ACEXL019.AAD	2736;FR92488	6TAA-9004	275@2000	154	103.9	1029@1400	206	97.3	ECM TC CAC
ACEXL019.AAD	8641;FR91518	QSL	365@2100	192	136.1	1113@1500	202	102.2	ECM TC CAC
ACEXL019.AAD	8641;FR92257	QSL	365@2100	192	136.1	1113@1500	202	102.2	ECM TC CAC
ACEXL019.AAD	8548;FR91377	6TAA-9004	365@2100	192	136.1	1113@1500	202	102.2	ECM TC CAC
ACEXL019.AAD	8641;FR91528	QSL	280@1800	174	106	950@1400	197	93	ECM TC CAC
ACEXL019.AAD	0422;FR92041	QSL	250@2000	145	97.5	800@1400	157	74.2	ECM TC CAC
ACEXL019.AAD	2743;FR92384	QSB5-G5	176@1800	161	65.3	NA	NA	NA	PCM TC CAC
ACEXL019.AAD	3172;FR92672	QSB5 G6	208 @ 1800	180.2	70	NA	NA	NA	PCM TC CAC
ACEXL019.AAD	2605;FR92278	QSB7-G5	285@1500	212	107.2	NA	NA	NA	DDI ECM TC
ACEXL019.AAD	2605;FR92278	QSB7-G5	324@1800	200	121.4	NA	NA	NA	DDI ECM TC
ACEXL019.AAD	2605;FR92277	QSB7-G4	287@1800	160	97.1	N.A.	N.A.	N.A.	DDI ECM TC
ACEXL019.AAD	2605;FR92277	QSB7-G4	263@1500	177	89.6	N.A.	N.A.	N.A.	DDI ECM TC
ACEXL019.AAD	8608;FR20309	QSM11-C	290@2100	157	111.3	1090@1400	219	103.2	DDI,ECM,TC,
ACEXL019.AAD	8545;FR20022	QSM11-C	300@2100	165	117	1050@1400	229	108	DDI,ECM,TC,

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
ACEXL019.AAD	8608:FR20043	QSM11-C	290@2100	157	111.2	1090@1400	235	111.1	DDI,ECM,TC,
ACEXL019.AAD	8545:FR20237	QSM11-C	305@2100	178	126.4	1124@1400	240	113.5	DDI, ECM, TC,
ACEXL019.AAD	8608:FR20173	QSM11-C	310@2100	181	128.2	1161@1400	248	117.1	DDI,ECM,TC,
ACEXL019.AAD	8608:FR20096	QSM11-C	300@2000	177	119.6	1162@1400	251	118.7	DDI,ECM,TC,
ACEXL019.AAD	8608:FR20246	QSM11-C	300@2000	177	119.6	1162@1400	251	118.7	DDI,ECM,TC,
ACEXL019.AAD	8545:FR20088	QSM11-C	330@2100	191	135.5	1235@1400	263	124	DDI,ECM,TC,
ACEXL019.AAD	8495:FR20026	QSM11-C	360@1800	214	129.9	1260@1400	264	124.5	DDI,ECM,TC,
ACEXL019.AAD	8495:FR20212	QSM11-C	360@1800	214	129.9	1260@1400	264	124.5	DDI,ECM,TC,
ACEXL019.AAD	8545:FR20021	QSM11-C	335@2100	184	130.3	1235@1400	266	125.4	DDI,ECM,TC,
ACEXL019.AAD	8608:FR20042	QSM11-C	335@2100	184	130.3	1235@1400	266	125.4	DDI,ECM,TC,
ACEXL019.AAD	8471:FR02999	QSM11-C	375@2100	198	139.9	1400@1400	296	139.9	DDI,ECM,TC,
ACEXL019.AAD	8471:FR20001	QSM11-C	400@2100	208	147.5	1400@1400	296	139.9	DDI,ECM,TC,
ACEXL019.AAD	8471:FR20003	QSM11-C	400@2100	208	147.5	1400@1400	296	139.9	DDI,ECM,TC,
ACEXL019.AAD	8471:FR20004	QSM11-C	400@2100	208	147.5	1400@1400	296	139.9	DDI,ECM,TC,
ACEXL019.AAD	8471:FR20213	QSM11-C	400@2100	208	147.5	1400@1400	296	139.9	DDI,ECM,TC,
ACEXL019.AAD	8495:FR20002	QSM11-C	400@1800	241	146.4	1400@1400	296	139.9	DDI,ECM,TC,
ACEXL019.AAD	8608:FR20243	QSM11-C	400@2100	208	147.5	1400@1400	296	139.9	DDI,ECM,TC,
ACEXL019.AAD	8760:FR10601	QSM11-C	600@1800	350	212.5	1875@1400	408	192.5	DDI,ECM,TC,
ACEXL019.AAD	8761:FR10571	QSM11-C	510@1800	307	186.5	1743@1400	375	177	DDI,ECM,TC,
ACEXL019.AAD	8761:FR10579	QSM11-C	560@1800	344	208.5	1743@1400	375	177	DDI,ECM,TC,
ACEXL019.AAD	8761:FR10623	QSM11-C	500@1800	301	183	1743@1400	375	177	DDI,ECM,TC,
ACEXL019.AAD	8761:FR10666	QSM11-C	530@1800	319	193.5	1743@1400	377	177.9	DDI,ECM,TC,
ACEXL019.AAD	8762:FR10582	QSM11-C	390@2000	217	146.6	1346@1400	292	137.9	DDI,ECM,TC,
ACEXL019.AAD	8762:FR10743	QSM11-C	410@2000	249	168	1346@1400	292	137.9	DDI,ECM,TC,
ACEXL019.AAD	8760:FR10830	QSM11-C	600@1800	350	212.5	1875@1400	408	192.5	DDI,ECM,TC,
ACEXL019.AAD	8762:FR10885	QSM11-C	390@2000	217	146.6	1346@1400	292	137.9	DDI,ECM,TC,
ACEXL019.AAD	3087:FR10568	QSM11-C	600@2100	317	224.5	1875@1400	408	192.5	DDI,ECM,TC,
ACEXL019.AAD	3087:FR10569	QSM11-C	560@1800	341	207	1875@1400	408	192.5	DDI,ECM,TC,

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
ACEXL019.AAD	3087:FR10593	QSX15-C	535@2100	283	200.5	1873@1400	408	192.5	DDI,ECM,TC,
ACEXL019.AAD	3087:FR10595	QSX15-C	630@2100	322	228.1	1875@1400	375	176.9	DDI,ECM,TC,
ACEXL019.AAD	3087:FR10661	QSX15-C	535@2100	277	196.3	1806@1400	383	181	DDI,ECM,TC,
ACEXL019.AAD	3087:FR10663	QSX15-C	665@2100	338	239	1875@1400	408	192.5	DDI,ECM,TC,
ACEXL019.AAD	3087:FR10689	QSX15-C	540@2100	286	202.5	1875@1400	408	192.5	DDI,ECM,TC,
ACEXL019.AAD	3087:FR10715	QSX15-C	575@2100	309	218.7	1875@1400	408	192.5	DDI,ECM,TC,
ACEXL019.AAD	3087:FR10758	QSX15-C	665@2100	339	239	1875@1400	408	192.5	DDI,ECM,TC,
ACEXL019.AAD	3088:FR10565	QSX15-C	485@2000	261	176	1783@1400	388	183	DDI,ECM,TC,
ACEXL019.AAD	3088:FR10570	QSX15-C	520@2100	280	198	1743@1400	379	179	DDI,ECM,TC,
ACEXL019.AAD	3088:FR10572	QSX15-C	450@2100	241	171	1550@1400	344	162.5	DDI,ECM,TC,
ACEXL019.AAD	3088:FR10573	QSX15-C	450@2000	253	170.5	1550@1400	344	162.5	DDI,ECM,TC,
ACEXL019.AAD	3088:FR10574	QSX15-C	450@1800	274	166.5	1550@1400	341	160.8	DDI,ECM,TC,
ACEXL019.AAD	3088:FR10577	QSX15-C	500@2100	268	190	1743@1400	379	179	DDI,ECM,TC,
ACEXL019.AAD	3088:FR10581	QSX15-C	400@2100	217	154	1452@1400	322	152.2	DDI,ECM,TC,
ACEXL019.AAD	3088:FR10583	QSX15-C	500@2000	280	189	1743@1400	379	179	DDI,ECM,TC,
ACEXL019.AAD	3088:FR10596	QSX15-C	375@1800	235	142.5	1346@1400	301	142	DDI,ECM,TC,
ACEXL019.AAD	3088:FR10659	QSX15-C	435@2100	232	164	1469@1400	320	151	DDI,ECM,TC,
ACEXL019.AAD	3088:FR10660	QSX15-C	485@2100	257	181.8	1637@1400	359	169.4	DDI,ECM,TC,
ACEXL019.AAD	3088:FR10682	QSX15-C	475@1800	287	174	1625@1400	349	164.6	DDI,ECM,TC,
ACEXL019.AAD	3088:FR10683	QSX15-C	425@1800	258	156.5	1452@1400	316	149	DDI,ECM,TC,
ACEXL019.AAD	3088:FR10716	QSX15-C	450@2000	250	168.8	1655@1400	372	175.6	DDI,ECM,TC,
ACEXL019.AAD	3088:FR10753	QSX15-C	450@2000	253	170.5	1434@1400	319	150.8	DDI,ECM,TC,
ACEXL019.AAD	3088:FR10829	QSK15	485@2100	257	181.8	1637@1400	359	169.4	DDI,ECM,TC,
ACEXL019.AAD	3087:FR10886	QSX15	535@2100	294	207.9	1806@1400	406	191.8	DDI,ECM,TC,
ACEXL019.AAD	1778:FR20144	QSM11-G	530@1800	315	191.5	N/A	N/A	N/A	DDI,ECM,EGR,
ACEXL019.AAD	1778:FR20138	QSM11-G	470@1800	271	164.4	N/A	N/A	N/A	DDI,ECM,EGR,
ACEXL019.AAD	1778:FR20147	QSM11-G	443@1800	255	154.9	N/A	N/A	N/A	DDI,ECM,EGR,
ACEXL019.AAD	3296:FR20222	QSM11-G5	550@1800	329.5	200	N/A	N/A	N/A	DDI,ECM,EGR,

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
ACEXL019.AAD	3296;FR20192	QSM11-G5	534@1800	329.5	200	N/A	N/A	N/A	DDI,ECM,EGR,
ACEXL019.AAD	8543;FR20017	QSM11-C	350@2100	196	138.5	1310@1400	270	140.4	DDI,ECM,TC,
ACEXL019.AAD	8543;FR20018	QSM11-C	360@2100	202	142.7	1350@1400	277	140.4	DDI,ECM,TC,
ACEXL019.AAD	8543;FR20233	QSM11-C	340@2100	198	139.9	1273@1400	262	123.7	DDI,ECM,TC,
ACEXL019.AAD	8544;FR20019	QSM11-C	350@2000	200	134.6	1350@1400	276	136.6	DDI,ECM,TC,
ACEXL019.AAD	8546;FR20023	QSM11-C	340@1800	215	130.4	1260@1400	263	124.3	DDI,ECM,TC,
ACEXL019.AAD	1376;FR91693	6TAA-8304	283@2000	159	107.1	1020@1400	201	95.1	ECM TC CAC
ACEXL019.AAD	1632;FR91505	QSC	215@2200	118	87.5	675@1500	148	74.8	ECM TC CAC
ACEXL019.AAD	1632;FR92042	QSC	220@2000	126	85.1	645@1400	134	63.4	ECM TC CAC
ACEXL019.AAD	1738;FR92024	QSC	207@1950	121	79.5	746@1450	166	81.3	ECM TC CAC
ACEXL019.AAD	2705;FR92333	QSC	260@1900	150	96.4	830@1400	178	83.9	ECM TC CAC
ACEXL019.AAD	8535;FR91353	6TAA-8304	248@2000	139	93.8	938@1400	193	90.9	ECM TC CAC
ACEXL019.AAD	8535;FR91359	6TAA-8304	275@2200	146	108.1	896@1500	196	98.9	ECM TC CAC
ACEXL019.AAD	8535;FR91372	6TAA-8304	275@2000	156	105.4	1029@1400	208	98.3	ECM TC CAC
ACEXL019.AAD	8535;FR91400	6TAA-8304	244@2200	130	96.5	857@1500	183	92.5	ECM TC CAC
ACEXL019.AAD	8535;FR91501	6TAA-8304	270@2200	143	106.2	948@1500	201	101.5	ECM TC CAC
ACEXL019.AAD	8535;FR92520	6TAA-8304	275@2200	140	104	896@1500	180	91	ECM TC CAC
ACEXL019.AAD	8539;FR91354	6TAA-8304	299@2200	159	118.1	1008@1500	207	104.6	ECM TC CAC
ACEXL019.AAD	8539;FR91358	6TAA-8304	305@2200	159	118.2	1020@1500	208	105.2	ECM TC CAC
ACEXL019.AAD	8539;FR92062	6TAA-8304	290@2200	158	117.5	1020@1500	204	103.2	ECM TC CAC
ACEXL019.AAD	8539;FR92422	6TAA-8304	305@2200	155	115	1020@1500	202	102	ECM TC CAC
ACEXL019.AAD	8627;FR91695	QSC	275@2200	146	108.1	896@1500	196	98.9	ECM TC CAC
ACEXL019.AAD	8627;FR91503	QSC	260@2200	136	101.2	870@1500	179	90.5	ECM TC CAC
ACEXL019.AAD	8627;FR92746	QSC	275@ 2000	155	103.6	1029 @ 1400	202	95.4	ECM TC CAC
ACEXL019.AAD	8627;FR91357	QSC	240@2200	129	95.9	800@1500	171	86.5	ECM TC CAC
ACEXL019.AAD	8627;FR91502	QSC	280@2100	157	111	1000@1500	202	102.3	ECM TC CAC
ACEXL019.AAD	8627;FR91510	QSC	280@2200	150	111.2	1000@1500	203	102.8	ECM TC CAC
ACEXL019.AAD	8627;FR91512	QSC	250@2200	130	96.3	835@1500	176	88.9	ECM TC CAC

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
ACEXL019.AAD	8627;FR91513	QSC	230@2200	122	90.7	800@1500	172	86.8	ECM TC CAC
ACEXL019.AAD	8627;FR91698	QSC	245@2200	130	96.5	857@1500	183	92.5	ECM TC CAC
ACEXL019.AAD	8627;FR91853	QSC	245@2000	139	93.8	938@1400	193	90.9	ECM TC CAC
ACEXL019.AAD	8627;FR92001	QSC	245@1800	149	90.7	870@1400	197	93	ECM TC CAC
ACEXL019.AAD	8630;FR91691	QSC	290@2200	157	116.2	940@1500	195	98.7	ECM TC CAC
ACEXL019.AAD	8630;FR91506	QSC	305@2200	159	118.2	1020@1500	208	105.2	ECM TC CAC
ACEXL019.AAD	8630;FR91507	QSC	305@2100	164	116.2	1020@1500	206	104.4	ECM TC CAC
ACEXL019.AAD	8630;FR91508	QSC	300@2100	162	114.5	1000@1500	203	102.5	ECM TC CAC
ACEXL019.AAD	8630;FR91509	QSC	300@2200	159	118.1	1000@1500	207	104.6	ECM TC CAC
ACEXL019.AAD	8639;FR92838	QSC	275@2200	144	107	896@1500	188	95.5	ECM TC CAC
ACEXL019.AAD	8639;FR91516	QSC	240@2200	129	95.9	800@1500	171	86.5	ECM TC CAC
ACEXL019.AAD	8639;FR91915	QSC	250@2200	130	96.3	835@1400	176	88.9	ECM TC CAC
ACEXL019.AAD	8745;FR91558	6TAA-8304	217@2200	118	87.5	754@1500	159	80.4	ECM TC CAC
ACEXL019.AAD	8745;FR91559	6TAA-8304	221@2000	126	85	824@1400	168	79.3	ECM TC CAC
ACEXL019.AAD	8746;FR91514	QSC	215@2200	118	87.5	675@1500	148	74.8	ECM TC CAC
ACEXL019.AAD	3666;FR4550	QSK19-C	506@1800	321	195.0	2032@1300	417	183	DDI,ECM,TC,