

SUBMISSION OF REQUIRED EXHAUST EMISSION DATA REPORTS BY AIRCRAFT ENGINE MANUFACTURERS
INTEGRATED REPORT FOR 40 CFR §87.42, §87.50, AND §87.64

OMB Control No. 2060-NEW

EPA ICR No. 2427.01

Expires after MM/DD/YYYY

Burden Statement

The respondent reporting burden for this collection of information is estimated to be an average of 60 hours and \$3,646 per year. The average annual burden to EPA for this period is estimated to be 10 hours. The annual public reporting and recordkeeping burden for this collection of information is estimated to average 6 hours per response. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9.

Instructions:

40 CFR §87.42, §87.50, and §87.64 require an annual production report to U.S. EPA from each engine manufacturer for each year in which you produce any engines subject to emission standards under 40 CFR part 87. This requirement applies to engines with a date of manufacturer on or after January 1, 2013. The report is due by February 28 following each calendar year. You should read the sections of 40 CFR cited above and the definitions contained in 40 CFR §87.1 before completing the *Reporting Requirements*, *Exemption and Exception* worksheets contained in this workbook document.

Add the appropriate information in each of the labeled columns shown in the *Reporting Requirements* and *Exemption and Exception* worksheets. Report numerical emissions data to three significant figures or to the nearest 0.1 g/kN (for standards at or above 1 g/kN) except for smoke number which should be expressed to one decimal place.

When completed, email this workbook to aircraft_engine_reporting@epa.gov by February 28 for the respective calendar year. All questions regarding this workbook or aircraft engine reporting requirements should be addressed to the same email address.

Column	Heading Title	Description in Reporting Requirements Worksheet
A	Company corporate name as listed on the engine type certificate (GHG)*	
B	Applicable calendar year (GHG)**	
C	Engine Type (turbofan = TF, mixed turbofan = MTF, turboprop = TP)	
D	Complete sub-model name (GHG)**	
E	The type certificate number issued by FAA (GHG)*	
F	Date of issue of type certificate, (mm-yyyy) (GHG)*	
G	Emission standards to which the engine is certified	
H	Original certified engine model if derivative engine	
I	Engine sub-model that received the original type certificate for the engine family	
J	Production volume of sub-model for previous calendar year	
K	Number of engines intended for use on new aircraft	
L	Number of engines intended for in-use aircrafts (excepted spares)	
M	Reference pressure ratio (GHG)* **	
N	Combustor description, where more than one type of combustor is available	
O	Engine maximum rated thrust output, in kilonewtons (kN) or kilowatts (kW) (GHG)*	
P-T	Unburned hydrocarbon (HC) mass over each segment of the entire landing and take-off (LTO) cycle (g)**	
U	Unburned hydrocarbon (HC) total mass (g)**	
V-Y	Unburned hydrocarbon (HC) characteristic level**	
W-AA	Nitrogen oxides (NOx) mass over each segment of the entire landing and take-off (LTO) cycle (g) (GHG)* **	
A-B	Nitrogen oxides (NOx) total mass (g) (GHG)* **	
AC	Nitrogen oxides (NOx) characteristic level (GHG)* **	
AD-AH	Smoke number over each segment of the entire landing and take-off (LTO) cycle	
AI	Maximum smoke number	
AJ	Smoke number characteristic level	
AK-AO	Carbon dioxide (CO ₂) mass over each segment of the entire landing and take-off (LTO) cycle (g) (GHG)* **	
AP	Carbon dioxide (CO ₂) total mass (g) (GHG)* **	
AQ-AU	Carbon monoxide (CO) mass over each segment of the entire landing and take-off (LTO) cycle (g)**	
AV	Carbon monoxide (CO) total mass (g)**	
AW	Carbon monoxide (CO) characteristic level**	
AX	Number of tests run per sub-model (GHG)*	
AY	Number of engines tested per sub-model (GHG)*	
AZ-BD	Fuel flow rate over each segment of the landing and take-off (LTO) cycle (kg / sec) (GHG)* **	
BE	Overall (weighted) fuel flow rate (kg / sec) (GHG)* **	
BF	Any additional remarks to the EPA	

* Indicates greenhouse gas (GHG) reporting requirement under 40 CFR 87.64

** Does not apply to turbofan engines below 26.7kN thrust or turboprop engines

Serial number of each engine	Use of each engine (e.g. spare or new installation)	Types of aircraft in which the engines were installed (or are intended to be installed for spare engines)	Serial number of the new aircraft in which engines are installed (if known), or the name of the air carriers (or other operators) using spare engines
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