



*Global Propulsion
Systems*

General Motors Corporation
Global Propulsion Systems
800 N. Glenwood Ave.
Pontiac, MI 48340
USA

Date: April 5, 2019

To: Gary Polak
SAE
400 Commonwealth Drive
Warrendale, PA 15096

Gary –

For MY2020, GM will be introducing the Cadillac XT6 with the 3.6L naturally aspirated LGX engine on the C1TL vehicle platform. This is the same RPO (LGX) engine that was previously certified for MY2017 Cadillac XT5 for the C1UL vehicle platform. Due to slight modifications to the air induction system, an isopower* analysis was performed to retrieve the adjusted torque and horsepower numbers based on the SAE-certified MY2017 Cadillac XT5 LGX engine.

*A GT Power Model for XT6 C1TL was created based on XT5 C1UL GT model (Air Induction System and Exhaust restrictions are modified). The offset between XT5 C1UL and XT6 C1TL Power/Torque GT results are applied to XT6 C1UL test data to predict XT6 C1TL peak power and torque numbers.

Thanks,

Brian Kingston
Engineering Manager - Global Powertrain and Electrification Development
Global Propulsion Systems
General Motors
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Cell: 248-978-2170

SAE Power Certification
Form J2723 B

J2723 Aug2007

SAE J1349
Certified Power™

Manufacturer Name: **General Motors**
Address: 850 Glenwood
City: Pontiac
State: MI
Country: USA
Postal Code: 48340
Engine: LGX - 60° V6
Model Year & Vehicle: MY2020 - C1TL; Cadillac XT6
Application(s):

Test Standard: J1349:Sep2011

Test Location: Isopower Data based on LGX
C1xxSAE Witness Testing in
Pontiac Dyno Lab Test Cell
D211

Engine Serial Number: Isopower Data based on LGX
C1xxSAE Witness Testing on
N7GXY693

Test/Run Number: Isopower Data based on LGX
C1xxSAE Witness Testing on
N7GXY693: 2015-08-27-
00003.67771

Note: A GT Power Model
for C1TL is created
based on C1UL GT model
(Air Induction System
and Exhaust restrictions
are modified). The offset
between C1UL and C1TL
Power/Torque GT results
are applied to C1UL test
data to predict C1TL
power numbers.

RESULTS:

The engine described herein was tested on 18-September-2015 according to the requirements prescribed in J1349:Sep2011, Engine Power Test Code in the presence of a qualified SAE Witness, and was determined to produce the following results:

Parameter	Rated Speed	Rated Output	Measured Speed	Measured Output*	% Difference
C1TL Power (hp/kW)*	6700	310 HP / 231kW	6700	307.9 HP/ 229.6 kW	0.68%
C1TL Torque (ft-lbs/Nm)*	5000	271 ft*lb / 367 Nm	5000	269.6 ft*lb / 365.6 Nm	0.52%

*Determined via
Isopower

SAE Certified Witness

Date

APPROVALS:

General Motors declares that the engine tested for this report is representative of engines in series production. General Motors further declares that the performance of engines in series production will characteristically be at least 98% of the rated torque and power values indicated on this report.

Name:

Title:

Date:

Authorization Date:

J. Arman Heid
Asst. Chief Engineer
4-4-19
4-4-19



Documents

Document Sharing Hub

**SAE Power Certification
 Form J2723 B**

J2723 Aug2007



Manufacturer Name	General Motors
Address:	850 Glenwood
City:	Pontiac
State:	MI
Country:	USA
Postal Code:	48340
Engine:	LGX - 60° V6
Model Year & Vehicle	MY2017 - C1UL; Cadillac XT5
Application(s):	MY2020 - C1TL; Cadillac XT6* *via isopower
Test Standard:	J1349:Sep2011
Test Location:	Isopower Data based on LGX C1xx SAE Witness Testing in Pontiac Dyna Lab Test Cell D211
Engine Serial Number:	Isopower Data based on LGX C1xx SAE Witness Testing on N7GXY693
Test/Run Number:	Isopower Data based on LGX C1xx SAE Witness Testing on N7GXY693: 2015-08-27- 00003.67771

RESULTS:

The engine described herein was tested on 18-September-2015 according to the requirements prescribed in J1349:Sep2011, Engine Power Test Code in the presence of a qualified SAE Witness, and was determined to produce the following results:

Parameter	Rated Speed	Rated Output	Measured Speed	Measured Output*	% Difference
C1ULPower (hp/kW)	6700	310 hp / 231 kW	6700	307.1 hp / 229.3 kW	0.94%
C1TL Power (hp/kW)*	6700	310 hp / 231 kW	6700	307.9 hp / 229.6 KW	0.68%
C1UL Torque (ft-lbs/Nm)	5000	271 ft*lb / 368 Nm	5000	269.3 ft*lb / 365.1 Nm	0.63%
C1TLTorque (ft-lbs/Nm)*	5000	271 ft*lb / 368 Nm	5000	269.6 ft*lb / 365.6 Nm	0.52%

*Determined via
Isopower

SAE Certified Witness
 Date

APPROVALS:

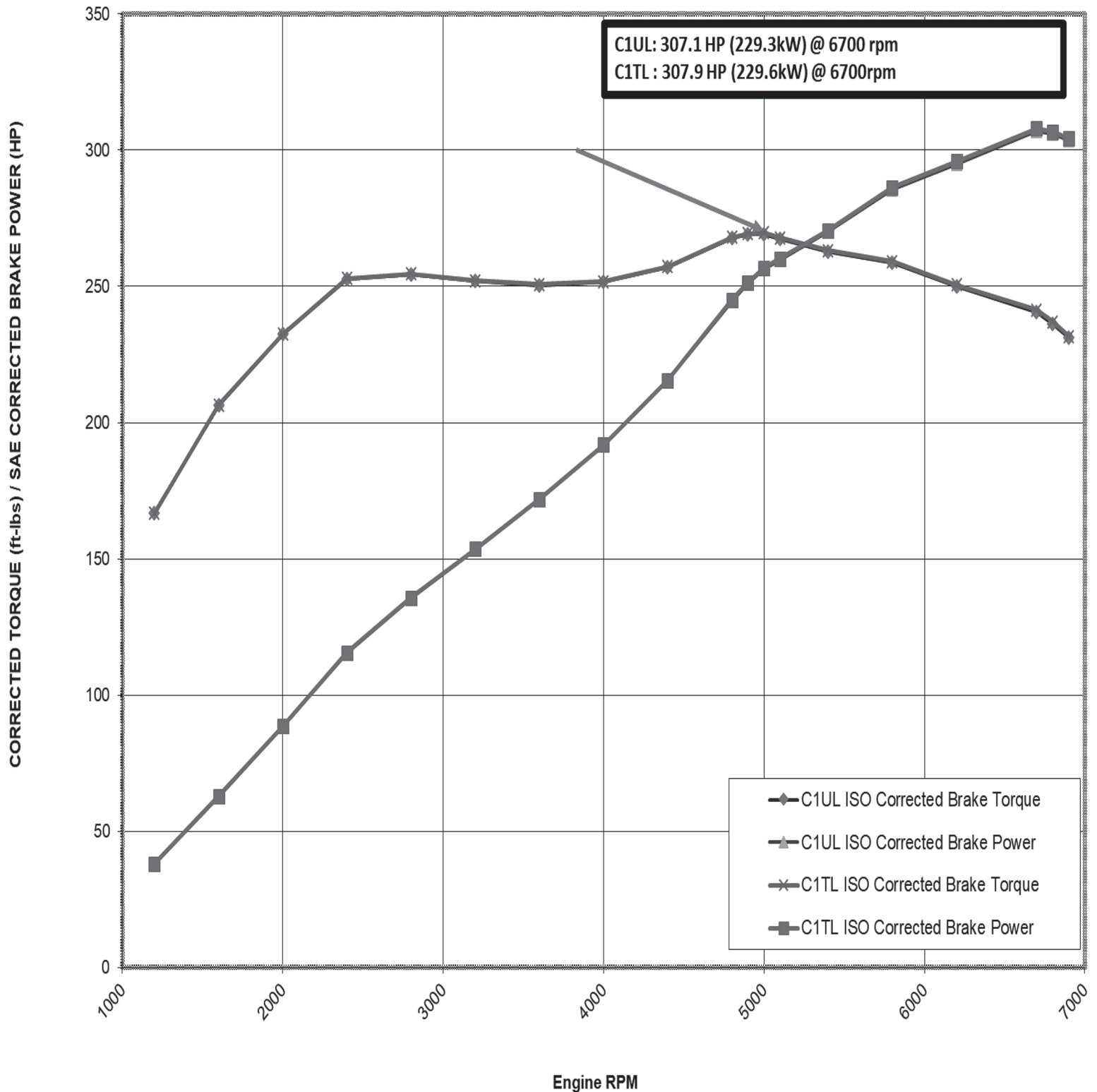
General Motors declares that the engine tested for this report is representative of engines in series production. General Motors further declares that the performance of engines in series production will characteristically be at least 98% of the rated torque and power values indicated on this report.

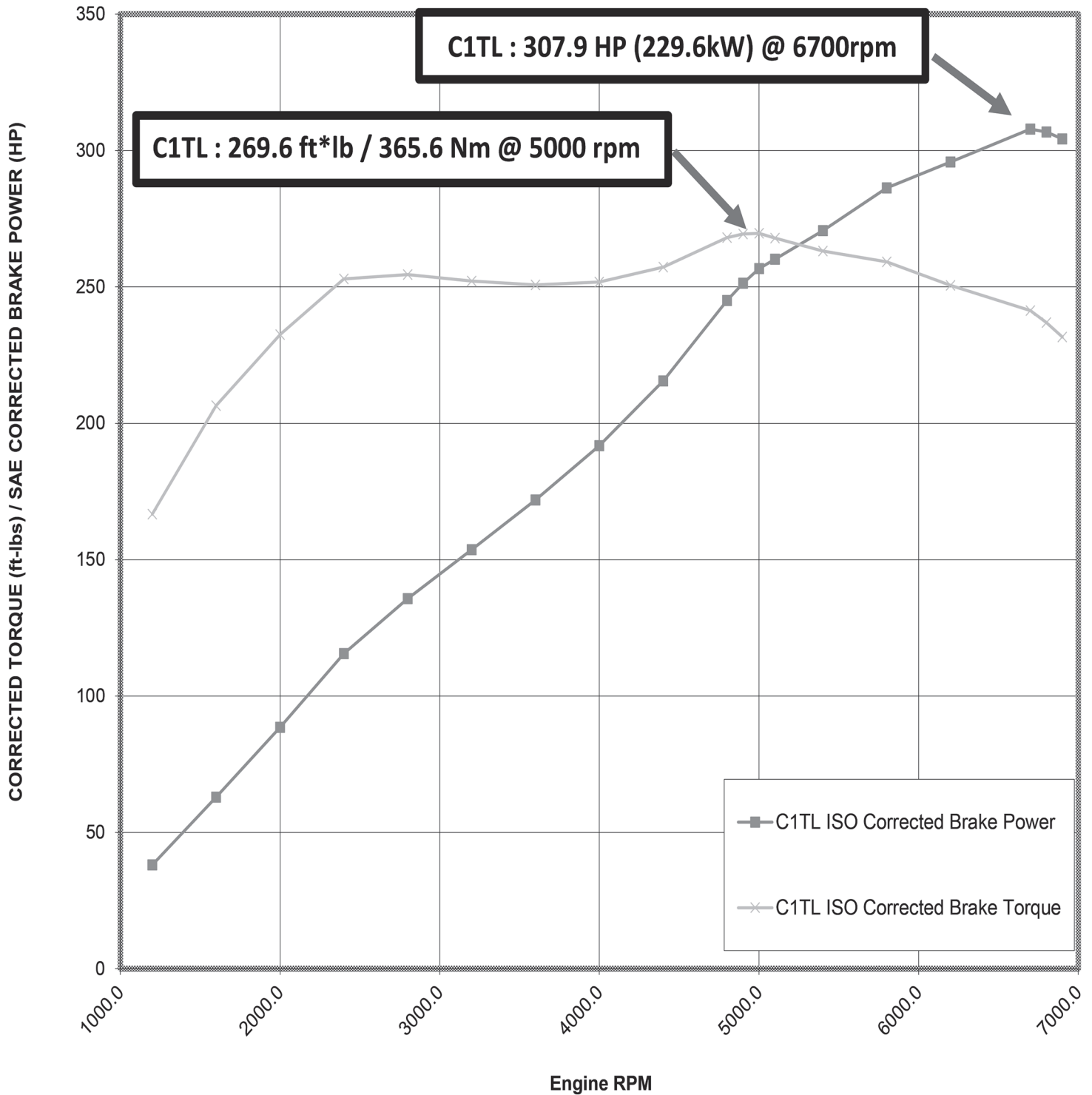
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Title:

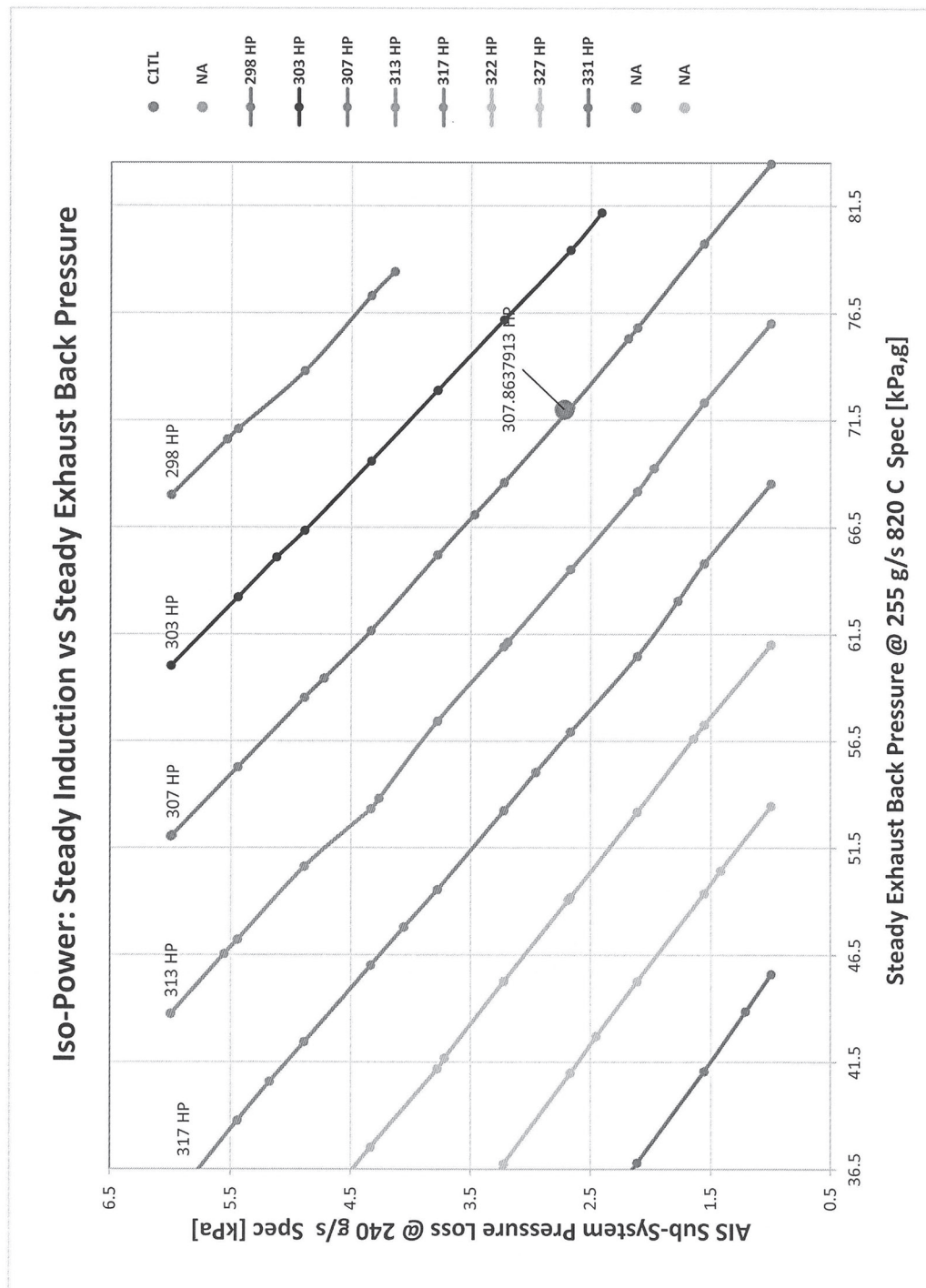
Date:

Authorization Date:





SAE J2723 AUG2007
 WOT ENGINE POWER PLOT (AS TESTED)



SAE J2723 AUG2007
SAE POWER CERTIFICATION FORM J2723 A
ENGINE DESCRIPTION (AS TESTED):

SAE Power Certification Form J2723 A		SAE J1349 Certified Power™
J2723		
ENGINE DESCRIPTION - Data Entry Form		
Description	Value (Enter Values)	Units
Displacement (cc)	3600	cc
Configuration/Number of Cylinders:	60° V-6	
Valve Train:	DOHC	
Type:	Gasoline	
Combustion Cycle:	Four Stroke	
Pressure Charging:	Naturally Aspirated	
Charge Air Cooling:	N/A	
Bore (mm)	95	mm
Stroke (mm)	85.8	mm
Cylinder Numbering Convention	From Front of Crank Nose, Foremost Cylinder	
Firing Order:	1-2-3-4-5-6	
Compression Ratio:	11.5:1	
Fuel System:	Direct Injection	
Fuel System Pressure	20 Mpa	
Ignition System:	Spark Ignited	
Knock Control:	Dual Knock Sensors	
Intake Manifold:	Composite Nylon	
Exhaust Manifolds:	Integrated with Cylinder Heads - Aluminium	
Cooling System:	Internal Pump with Liquid Cooling	
Coolant Liquid:	50% Water / 50% DEX-COOL	
Thermostat:	Outlet Side - Blocked Open	
Cooling Fan	Electric	
Lubricating Oil:	Dexos1 5W-30	
Fuel:	Baseline 93	
Fuel Shut Off Speed:	7300	RPM
Notes:	E82_a171711903_DT_2017_LGX_C1UL_MRC_FWD_QNU_wATSS_GSS_Rev01_Dyno_DTC_E_SCOff_IVERMAF_PPOff_COTOff_SAE; E82 Controller; Pilot Build Engine; Software Version 17.17.119.03; IVER Induction used with matching IVER transfer function	