

# 1957 Corvette: Chevrolet Technical Test Report: Fuel Economy - Fuel Injection vs. Carburetion

Below is an interesting Chevrolet Technical Test Report released on June 21, 1957 comparing the fuel economy of fuel injection vs carburetion.

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## TECHNICAL TEST REPORT



ENGINEERING

DEPARTMENT

DETROIT 2, MICHIGAN  
Milford, Michigan

June 21, 1957

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TECHNICAL TEST REPORT



FINAL REPORT - Cont'd

ENGINEERING

DEPARTMENT

SHEET NO. 2  
NO. OF SHEET 3  
WORK ORDER 12696-76  
DATE 6-3-57  
FILE NO. MRK 6

DETROIT 2, MICHIGAN  
Milford, Michigan  
June 21, 1957

HIGHWAY AND CITY TRAFFIC  
FUEL ECONOMY COMPARISON  
OF FUEL INJECTION VS. 4-  
BBL CARBURETION.

TEST RESULTS - Cont'd

Results of Proving Ground performance and constant speed fuel economy checks.

CAR NO.	553	7163	281	215	463	599
ENGINE NUMBER	-	F1212EC	F1114FD	F103EC	-	F1101GF
- COMPRESSION RATIO	9.5:1	9.5:1	9.5:1	9.5:1	9.5:1	9.5:1
- DISPLACEMENT	283	283	283	283	283	283
IGNITION DISTRIBUTOR - MODEL	-	1110890	-	1110906	-	-
TRANSMISSION	T.O.	P.G.	P.G.	3-Speed	T.O.	T.O.
TEST WEIGHT	4136#	4136#	4136#	401/1#	4136#	4136#
DATE	6-20-57	6-10-57	6-10-57	6-10-57	6-12-57	6-20-57
ODOMETER	5066	10002	7390	12430	5730	9668
AIR CLEANER PART NUMBER	Dry	Oil Bath	Dry	Dry	Dry	Dry
CARBURETOR	C. 4-B	Roch. 4-B	F.I.	F.I.	F.I.	F.I.
- PART NUMBER	'57	'58 Prod. 7014800	7014800	7014800	7014800	7014900
- Foot MPH Kick-Off	Good	Good	Good	Stalled	Good	Good
DETONATION - ACCEPTABLE	None	None	None	10-16 Con	None	None
WATER TEMPERATURE - °F	171-182	164-170	152-160	160-168	-	162-173
MAXIMUM SPEED - MPH	-	117.6	126.8	117.6	-	-
ACCELERATIONS - SECONDS						
0 to 20 MPH	2.6	2.6	2.6	-	2.4	2.5
0 to 35 MPH	5.6	5.4	4.9	-	5.3	5.6
0 to 60 MPH	12.5	10.4	9.2	10.5	11.9	12.5
0 to 80 MPH	21.2	18.7	16.5	17.2	20.0	20.6
5 to 25 MPH	2.7	2.6	2.6	-	2.5	2.6
10 to 25 MPH	2.1	2.1	2.1	4.5	2.0	2.2
10 to 35 MPH	4.2	4.0	3.7	7.4	4.0	4.3
20 to 60 MPH	9.8	7.9	6.8	11.1	9.6	10.2
50 to 65 MPH	5.1	4.4	3.7	4.5	4.9	5.2
55 to 70 MPH	5.6	5.2	4.5	4.6	5.5	5.7
60 to 75 MPH	6.4	6.0	4.6	4.6	6.0	6.1
HILL CLIMB - 1400 FEET OF 11.6% GRADE PLUS 200 FT. OF VERTICAL CURVE. SEC'S.						
0 MPH on Grade	25.0	23.6	23.2	-	24.0	24.4
10 MPH Start	25.6	24.3	24.2	28.2	24.0	25.2
20 MPH Start	24.3	23.1	23.1	24.8	22.7	23.9
HILL CLIMB - 2900 FEET OF 7.2% GRADE.						
0 MPH Start	35.6	34.1	33.8	-	34.0	35.1
10 MPH Start	35.0	33.1	33.1	37.8	33.0	34.2
20 MPH Start	33.6	32.0	32.0	33.8	31.6	32.9
HILL CLIMB - 1200 FEET OF 16% GRADE.						
10 MPH Start	25.3	24.0	24.4	-	23.9	24.9
20 MPH Start	24.0	22.8	23.4	-	22.5	23.4
CONSTANT SPEED FUEL ECONOMY - MPG						
20 Miles Per Hour	22.4	22.6	15.9	14.9	(*)	21.9
30 Miles Per Hour	23.5	22.6	18.9	20.6	-	21.1
40 Miles Per Hour	21.5	21.2	19.2	22.0	-	19.0
50 Miles Per Hour	20.2	19.9	18.7	20.5	-	19.5
60 Miles Per Hour	18.2	17.3	18.2	20.1	-	18.8
70 Miles Per Hour	16.3	16.2	16.5	18.9	-	17.3
80 Miles Per Hour	14.5	14.1	15.3	17.2	-	15.0

(\*) Car was sent to Detroit before test was completed.

## TECHNICAL TEST REPORT



ENGINEERING

DEPARTMENT

DETROIT 2, MICHIGAN  
Milford, Michigan  
June 21, 1957

SHEET NO. 3  
NO. OF SHEET 3  
WORK ORDER 1769C-76  
DATE 6-3-57  
FILE NO. MRK 6

HIGHWAY AND CITY TRAFFIC  
FUEL ECONOMY COMPARISON  
OF FUEL INJECTION VS. 4-  
BBL CARBURETION.

FINAL REPORT - Cont'd

### RECOMMENDATION AND/OR DISPOSITION

Further development work is being conducted on the #7014900 fuel injection unit proposed for 1958 release.

### TEST MATERIAL

#7014800 Fuel Injection Units (Latest 1957 Production release).  
#7014900 Fuel Injection Units (Proposed 1958 Production release).  
1957 Production Carter 4-BBL carburetor and Air Cleaner.  
1958 RPD Carburetor and 1958 Air Cleaner.

### TEST METHOD

The following vehicles, operating in city traffic, highway economy and performance and economy checks, were used for this test:

CAR NO.	FUEL SYSTEM	TRANSMISSION
553	1957 Carter 4-barrel and Air Cleaner	Turboglide
7163	1958 RPD Carburetor and 1958 Air Cleaner	Powerglide
281	#7014800 Fuel Injection Unit	Powerglide
215	#7014800 Fuel Injection Unit	3-Speed O/D
463	#7014800 Fuel Injection Unit	Turboglide
599	#7014900 Fuel Injection Unit	Turboglide

Approved *R. D. Aldrich*  
By *W. Heginbottom*  
R. D. Aldrich

By *G. A. Brundrett*  
G. A. Brundrett  
Director

By *J. G. Else*  
J. G. Else  
Chevrolet Engineering

CHEVROLET DEVELOPMENT TEST AT  
General Motors Proving Ground  
Reported  
By *D. L. Wagnitz*  
D. L. Wagnitz

Appendix "C" - Special Test Data

DLW/blo

Online URL:

<https://www.corvetteactioncenter.com/tech/knowledgebase/article/1957-corvette-chevrolet-technical-test-report-fuel-economy-fuel-injection-vs-carburetion-1183.html>