SPACE AGE STAR

OCTOBER 2017

1958 CHEVROLET AND CORVETTE 60TH ANNIVERSARY PART ONE. TIME FOR HERSHEY!

ANTIQUE AUTOMOBILE CLUB of AMERICA

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Editor's Notes - Russell Heim:

I hope this newsletter finds everyone well. I'm especially thinking of our members who live in areas effected by the recent hurricanes. AACA has set up a Go-Fund-Me page for those who wish to donate to hurricane relief funds. You can find information about the relief funds in the News section of the AACA web site's home page.

Congratulations to region member John Mahoney. His 1977 Monza Mirage is featured on the 2018 AACA calendar. John said he thinks it's the September car. The Monza was the subject of a recent *Antique Automobile* article. We featured this car in the October 2015 *Space Age Star*.

In case you haven't heard yet, the AACA Library will have a new location. They haven't announced a moving date. The new location is down the block from the Eastern Fall Meet show field in Hershey, at the corner of North Hockersville Road and Hershey Park Drive.

Once again, many of our members will be heading to Hershey in a few days. The Fall Meet is always fun and a great time to socialize. The region spaces are in the Red Field, row RNI, spaces 82-86. If you look at the maps in the official meet program, we're in Red Field B. RNI is the last row of this field, adjacent to Hershey Park Drive. Use light pole 12 and the TP Equipment tent for landmarks when you look for us.

We'll hold the annual region meeting in our spaces on Thursday, October 5 at 2:00 p.m. As I mentioned in the last newsletter, this is an informal meeting. If you can't attend the meeting, please feel free to visit us any time. Someone from the region should be there from Tuesday afternoon through Friday afternoon. We'll be at the car show on Saturday.

Let's discuss increasing region membership at the meeting. I think our biggest selling feature is our lack of dues; it's free to join! Lack of a treasury leaves us no promotional budget, so we need to think of creative ways to increase membership without spending money. Please call me at 516-445-7165 in case of bad weather, or if you get lost. If you're not attending the Fall Meet, or can't make the meeting, please send ideas on this subject to me at the region email address. Otherwise, I look forward to seeing you at Hershey.

If you're attending Hershey, please take as many pictures as you can of Space Age era Chevrolets, especially at Saturday's car show. Since I don't get around very well, my pictures are usually limited to the Red and Chocolate fields. Please take pictures in the Green and Orange fields for me. I'll use our Hershey pictures in an upcoming newsletter.

In keeping with the subject matter of our past October newsletters, this month we feature the 60th anniversary of the 1958 models. There were so many changes and new features that year, too many changes to fit in one article. This month's newsletter features the passenger cars. We'll look at Corvette and some special accessories in the December newsletter.

Thanks to everyone who has sent their comments on the newsletter. They've all been positive and I appreciate them. Please send articles and ideas for articles to the region email address. Don't forget that we can run classified ads at no cost in this newsletter.

60TH ANNIVERSARY OF 1958 CHEVROLET - BY RUSSELL HEIM

Chevrolet introduced a completely new car for the 1958 model year. They updated the exterior styling, lengthened and widened the car, added a new V-8 engine and Level Air suspension, introduced a new chassis, and changed the series names. They were justly proud of the new car.

The sales hyperbole was out in force. "Unveiling the lower wider longer '58 Chevrolet," trumpeted the sales brochures. Here are a few of Chevrolet's claims for the 1958 models:

"It goes big…with spectacular new shape."

"Longer by over nine inches, and much lower too."

"The most exciting new shape in a generation of cars…"

"In the '58 Chevrolet a wonderful new world of fashion."

The main focus was on the new styling. Chevrolet called the exterior "Sculpturamic" and referred to the interior as a "Luxury Lounge."

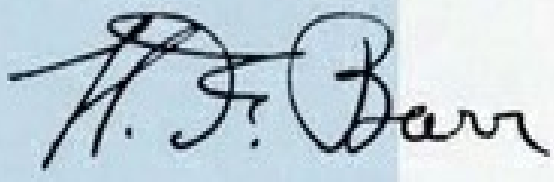
Even the 1958 *Engineering Features* book got into the act: "The dominant theme expressed in the 1958 passenger car design is that of sculptured styling. The theme is enhanced by long, low body lines. Among the outstanding new features are wide front fenders, dual headlights, gull type rear fenders and new bumpers and radiator grille. Also featured are thin center pillars which lend a 'hardtop' appearance to all 2 and 4-door sedan models."

Here are some *Engineering Features* excerpts:

The 1958 passenger car represents the most extensive engineering development program in Chevrolet's history. A Full Coil suspension, an optional Level Air ride, the new Turbo-Thrust V-8 engine, and an advanced concept in automobile styling testify to the scope of product progress.

Underlying the basic design is an entirely new body-frame relationship – one that lowers the body without compromising spaciousness, and is uniquely adapted to the most advanced suspension design ever offered in the low-price field.

Our four new series, headed by two exclusive new Impala models, are calculated to provide a quality vehicle to meet every motoring requirement.



H. F. Barr
Chief Engineer

THE 1958 LINE

Under four new categories, the Delray, Biscayne, Bel Air and Station Wagon Series, Chevrolet offers a total of 16 regular passenger models for 1958. Exterior ornamentation and distinctive interior trim distinguish each series. Two all new extra-quality Impala models are bright new additions to the luxurious Bel Air Series.

A new engineering series and model designation system replaces that formerly used. The odd numbered series (1100, 1500, 1700) identify models equipped with the 6-cylinder engine. Even numbered series (1200, 1600, 1800) designate 8-cylinder models.

The Bel Air models (Series 17-1800) are again the most luxurious in the 1958 line. In addition to the Impala 2-Door Sport Coupe and Convertible, Bel Air models include the 2-Door Sedan, 4-Door Sedan, 2-Door Sport Coupe, and 4-Door Sport Sedan.

The Biscayne models (Series 15-1600) are comparable to the former Series 2100. This series is composed of a 2-Door Sedan and 4-Door Sedan.

The Delray models (Series 11-1200) might be compared to the former Series 1500 and constitute the most economical series in the model lineup. This group is composed of a 2-Door Sedan, Utility Sedan and 4-Door Sedan.

Station wagons, now grouped into a separate category, constitute the last series and are further subdivided into three classifications: Nomad, Brookwood, and Yeoman. The Nomad station wagon is a 4-door, 6-passenger vehicle featuring the same exterior trim and interior appointments as the Bel Air models. A 4-door, 6-passenger and 4-door, 9-passenger station wagon comprise the Brookwood category. These models feature exterior trim and interior appointments similar to the Biscayne models. The Yeoman category is composed of a 2-door, 6-passenger and a 4-door, 6-passenger station wagon. Their exterior trim corresponds to that of the Delray models.

SERIES 17-1800

FOUR-DOOR SEDAN, 6-PASSENGER
MODEL 17-1849

FRONT APPEARANCE

The wide, low outline of the 1958 passenger car front end lends itself to the 1958 styling theme. New front fenders, wider than any previously offered, form functional crowns over the dual headlights. The expansive, bright anodized aluminum radiator grille is composed of five horizontal bars separated by concave ribs.

The front bumper is redesigned for 1958. The top center portion of the bumper is raised to form a wide, overhanging crown which offers protection to the grille and license plate. Inside the crown area, the sheet metal is ribbed and painted silver. Both the grille header bar and front bumper wrap around the front fenders, providing protection to the front end sheet metal.

A large V-shaped hood emblem and the Chevrolet crest identify models with the 8-cylinder engine. For 6-cylinder models, only the Chevrolet crest is used.

FENDER TREATMENT

The long front fenders form functional hoods over the dual headlights on all models. Four simulated vents, accented with anodized aluminum on Bel Air models, are located on the fender side.

The appearance of the rear fenders clearly reflect the prevailing styling theme. At the outermost part of the rear fenders, the gull-wings curve inward and drop to the rear bumper. Slightly forward of the rear bumper on the fender sides, a windsplit sweeps inward and is encircled by four bright-metal moldings on Bel Air models. The fender edge is highlighted by a bright-metal molding on all models.

HEADLIGHTS AND PARKING LIGHTS

Dual headlights, 5-3/4 inches in diameter, are located within a common frame of anodized aluminum positioned under the fender crown. The parking light and direction signal light, combined in a 2-part unit, are superimposed at either end of the radiator grille, directly under the dual headlights. Though the unit contains two light assemblies, the parking and direction signal lamps function only through the outer light assembly. The inner assembly is purely decorative.

REAR APPEARANCE

The sculptured styling theme continues in the exterior design of the rear end. The rear deck lid, wider at the backlight area, is recessed between the rear fenders and follows their inner curvatures. Chevrolet script and a bright "V" are featured on the rear deck for models with the V-8 engine. A wide crest and and the Chevrolet script are used for models powered by the 6-cylinder engine.

The fuel filler door is located at the left of the bumper crown in the area between the trunk lid and the rear bumper on all but station wagon models. Easy access to the fuel tank is gained with the larger door opening. The disappearing door, mounted on over-center hinges, is raised by exerting a slight pressure on the upper portion of the door.

For station wagon models, the fuel filler door is located on the rear quarter panel.

LUGGAGE COMPARTMENT

The luggage compartment for all models is redesigned for 1958 and offers additional space. Composition board used on the front wall is continued around the side wall opposite the spare tire, giving the compartment a finished appearance.

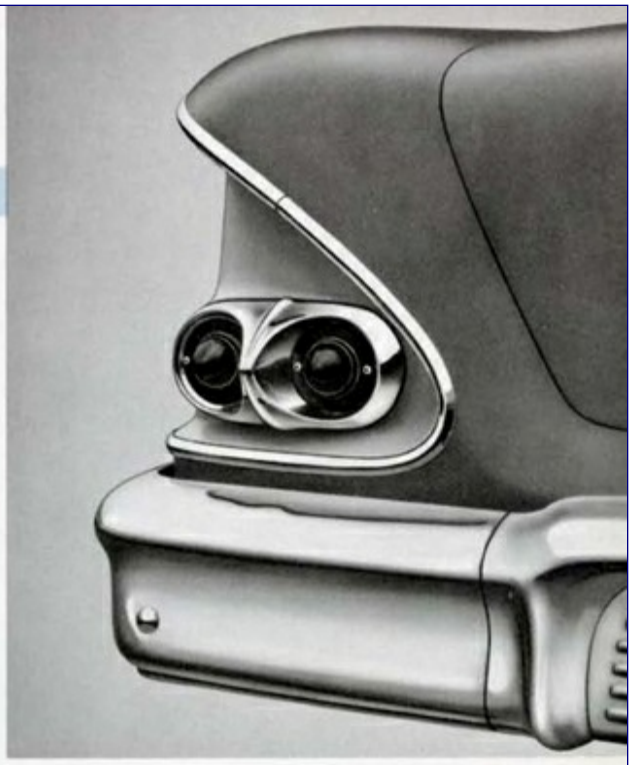
Additional luggage space is gained with the relocation of the spare tire. Formerly in an upright position, the spare tire now tilts toward the center of the compartment to occupy the space within the flare of the right rear fender. For 1958, one end of the jack column fits into a socket on the compartment floor and the other is cradled in a bracket welded to the side wall. The tire and wheel is held against the jack column by a wing nut, using the jack base as a clamp.

TAIL LIGHTS

On all models except station wagons and the Impala Sport Coupe and Convertible, dual tail lights are carried in each rear fender. Both lights serve as tail lights but only the outer light functions for stop and direction signals. Accessory backing lights may be installed as a replacement for the two inner lights.

For the station wagon series, one tail light is situated within each rear fender. This light is a combination tail light, stop light, and direction signal light. Backing lights, available as accessories, are designed to fit under the rear bumper crown.

For the Impala Sport Coupe and Convertible, three lights are located in each rear fender. In this arrangement, the middle lights serve for backing, with the inner and outer lights as tail lights. The outer lights also function for stop and direction signals.



THIN PILLAR STYLING

Combining the beauty of sport models with the structural strength of the regular sedan, Chevrolet, through the thin pillar models, offers an advanced concept in passenger car styling. On Bel Air and Biscayne models, the window frames are executed in bright metal. When the windows are raised, the sleek thin pillar vehicle appears to be a sport model. Thin pillar styling is extended to Delray models, though the window frames and upper door areas are painted. The conventional design pillars are retained for station wagon models.

"Sculpturamic" customers had a choice of 15 solid colors (12 were new) and 14 two-tone combinations. 1958 Chevrolets had a 117.5" wheelbase which was 2.5" longer than 1957's. Overall length was 209.1" – 9.1" longer than 1957. 1958 Chevrolet's height was 57.4" – 2.5" lower than 1957.

Chevrolet service men received updates on the new car in the November 1957 issue of *Service News*: "The 1958 passenger car represents the most extensive engineering development program in Chevrolet's history. A Full Coil suspension, and optional Level Air ride, the new Turbo-Thrust V-8 engine, and an advanced concept in automobile styling testify to the scope of product progress." This issue of *Service News* highlighted some of the new car's features:

Frame –"An X-type chassis frame is used in the 1958 Chevrolet passenger cars." This frame was all welded with box girder main rails, box-section front suspension cross-member, channel section rear cross member and reinforced box-girder center beam. See the February 2015 *Space Age Star* for a detailed article on the X-frame.

Suspension- Coil springs at all four wheels was the main feature of the new suspension. Four-link mounting of the rear suspension was an important new feature. "This suspension system provides a smoother, more comfortable ride and minimizes body dive and squat on braking and acceleration."

The rear axle was connected to the frame through four functional links. Two links were formed by the single upper control arm. The other two links were formed by the two lower control arms. The lower control arms restricted fore-aft movement of the rear axle. These arms had rubber bushings on their frame brackets. The rear coil springs seated on the lower control arms at the bottom and on the frame brackets at the top. The upper control arm was U-shaped and pivoted on the axle banjo housing. The "arms" of the U extended forward and mounted to frame side member brackets where they pivoted on rubber bushings. The upper control arm restricted drive line and axle windup. The upper arm absorbed a major portion of the lateral thrust transmitted from the wheels to the axle.

"The front suspension design used on 1957 models is carried over with the following modifications: Front wheel bearings are increased in capacity." Also, they added a front stabilizer bar on all eight-cylinder models. The upper and lower ball joints were new as well.

The 1958 cars had a new drive shaft: "A new propeller shaft installation utilizes a two-piece shaft with a center universal joint and rubber cushioned mid-ship bearing."

Engines- They raised the compression ratio of the 235 cubic inch six cylinder to 8:21-to-1. "A revised routing of lubricant to the valve rocker shaft has been introduced. Oil is supplied through a drilled passage in the block from the tappet gallery, eliminating the oil feed pipe used previously."

The 283 cubic inch V-8 was mostly unchanged from 1957. Ramjet fuel injection was still available on passenger cars. Fuel injected cars had a 9.5-to-1 compression ratio and were equipped with dual exhaust. Three-speed synchro-mesh or Turboglide were the transmission choices for Ramjet cars.

There was a new "Turbo-Thrust" V-8 in 1958. "The completely new overhead valve, 348 cubic inch V-8 is available as optional equipment with the 3-speed, Powerglide, or Turboglide transmission. This engine is new from fan to flywheel, and with but a few minor exceptions,

no components of this engine are interchangeable with those of the 283 cubic inch V-8 engine." In standard form the 348 was equipped with a four barrel carburetor and dual exhaust and 9.5-to-1 compression ratio. Lubricant capacity was five quarts with oil filter.

Transmission and Clutch - The Powerglide shift quadrant sequence was modified to P-R-N-D-L. Vacuum modulation was added to Powerglide's hydraulic system. This made the transmission sensitive to the engine's torque output at all times. Smoother shifting resulted from this update. Also, a downshift timing valve was added to the main valve body. This achieved a softer downshift by regulating exhaust rate of the low servo cavity ahead of the servo piston.

Turboglide was updated for increased durability. The front pump and forward and reverse clutches were revised. New planet units were incorporated. Converter thrust washers were revised as was the vacuum modulator housing. Also updated was the neutral clutch and the Grade Retarder clutch. See the August 2014 *Space Age Star* for details of Turboglide. Transmission fluid was now dyed red to aid in distinguishing possible engine oil leaks from transmission leaks.

1958 Chevrolets had a three speed manual transmission as standard equipment. Each engine had its own version of the three-speed. The reverse idler gear was improved for 1958. Overdrive was an available option. The clutch was modified to provide increased cooling for 1958.

Cooling System - 1958 radiators used a 13 psi pressure cap. The system featured a 180 degree thermostat.

Fuel and Exhaust - Two and four barrel Rochester carburetors now had atmospheric vents. Gasoline tanks were now 20 gallons on sedans and coupes and 17 gallons on wagons. Gas tanks were vented through a pipe extending up into the right rear quarter panel. The filler caps were non-vented.

ENGINE	EQUIPMENT	COMPRESSION RATIO	GROSS HORSEPOWER	GROSS TORQUE (lb.ft.)
Blue-Flame 235 Six-Cylinder	Single-Barrel Carburetor	8.25-to-1	145 at 4200 rpm	215 at 2400 rpm
Turbo-Fire 283 V-8	2-Barrel Carburetor	8.5-to-1	185 at 4600 rpm	275 at 2400 rpm
Super Turbo-Fire 283 V-8	4-Barrel Carburetor	9.5-to-1	230 at 4800 rpm	300 at 3000 rpm
Ramjet Fuel Injection V-8	Fuel Injection	9.5-to-1	250 at 5000 rpm	305 at 3800 rpm
Turbo-Thrust 348 V-8	4-Barrel Carburetor	9.5-to-1	250 at 4400 rpm	355 at 2800 rpm
Super Turbo-Thrust 348 V-8	Three 2-Barrel Carburetors	9.5-to-1	280 at 4800 rpm	355 at 3200 rpm

Steering - All gears and linkages were moved forward of the front axle line. The pitman and idler arms were located at the front end of the frame side members and extended rearward to a relay link which was connected to the tie rods. The steering arms projected rearward from the tie rods to the steering knuckles. The steering axis inclination was increased to improve high speed vehicle stability. Low–friction nylon idler arm bushings replaced the former torsional type rubber bushings. A universal type coupling was added at the upper end of the steering gear shaft between the steering gear mainshaft and the mast jacket mainshaft. This reduced the transmission of road shocks to the steering wheel.

Brakes and Tires - A Moraine power brake unit replaced the previously used Treadle-Vac unit. All models except wagons and convertibles used 7.50 x 14 four-ply tires. Convertibles and wagons used 8.00 x 14 four-ply tires. 24 psi was the recommended tire pressure.

Electrical - The standard generator was rated at 30 amperes, replacing the 25 ampere unit used in 1957. Cars equipped with air conditioning and/or power steering used a 35 ampere generator. Higher rated generators were available as optional equipment.

Body and Cowl - The outstanding construction features of the 1958 body were the new double-wall cowl with ventilation system plenum chamber, a more rigidly reinforced under body, improved rear seat bracing, and big "side rail" rocker panels that extended up the toe pan to the dash panel. A new four point mounting design securely attached the sheet metal to the frame mountings at each side of the radiator and to both sides of the cowl. The radiator support was now a single piece unit which was rubber mounted to the frame at each side.

Station wagon liftgates now extended up into the roof to provide maximum loading height. Station wagons also featured improved rear seat back locks.

All windshield wipers now provided constant speed operation under all driving conditions. The wiper linkage was now housed in the plenum chamber. Six cylinder cars had a new vacuum operated windshield wiper with a more powerful motor. The standard equipment combination fuel and vacuum pump provided vacuum boost for the wipers, thus assuring constant speed blade action. Eight cylinder cars used a two-speed electric windshield wiper motor. This motor had a new design utilizing a rotary drive mechanism.

Interior - New features were a foot operated parking brake of pendulum design and a completely redesigned instrument panel. The interior had substantial increases in leg room over the 1957 models.

Despite a sales drop off of approximately 200,000 units from 1957, Chevrolet claimed 29.5% market share in 1958. Here are rounded production figures for 1958:

Delray (replaced the 150): 178,000
Biscayne (replaced the 210): 176,200
Bel Air (including Impala): 592,000
Station Wagon: 187,063
Corvette: 9,168

1958 base prices ranged from $2,013 for the Delray utility sedan to $3,631 for Corvette.

In our next issue, we'll continue our 1958 60th anniversary celebration with a look at the complicated and finicky Level Air suspension. We'll also review the new Impala and changes to the Corvette.

Some popular 1958 optional equipment:

Four-barrel carburetor for 283 V-8 - $27.00

Turbo-Thrust 250 hp 348 V-8 - $59.00

Turbo-Thrust 280 hp 348 V-8 - $70.00

250 hp Ramjet fuel-injected 283 V-8 - $848.00

Powerglide - $188.00

Turboglide - $231.00

Overdrive for three-speed manual - $108.00

Power steering - $70.00

Power brakes - $38.00

Power windows - $102.00

Power front seat - $43.00

Deluxe heater - $77.00

White wall tires - $32.00

EZI tinted glass - $38.00

Manual radio - $61.00

Pushbutton radio - $84.00

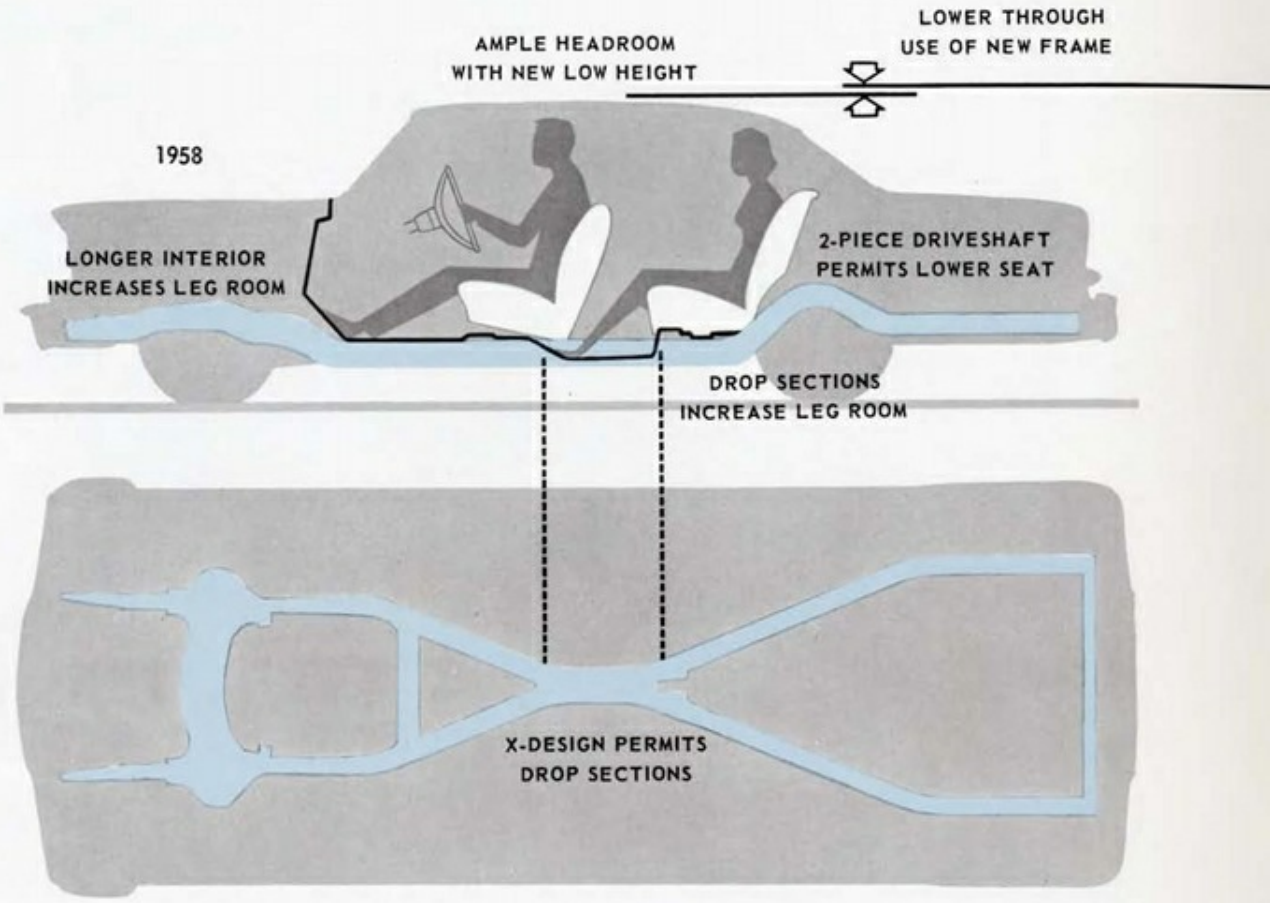
Air conditioner - $468.00

Level Air suspension - $124.00

Two-tone paint - $32.00

Posi-traction - $48.00

THE DIMENSIONAL STORY



The dimensional aspect of the new Chevrolet passenger car is especially significant in that it is a major factor making possible the advanced styling for 1958. The new car is dramatically lower, longer, and wider. The lengthened interior and the new underbody design afford substantial increases in leg room for all models. The wider front tread, lower center of gravity, increased wheelbase, and lower overall height contribute to increased stability for all 1958 models.

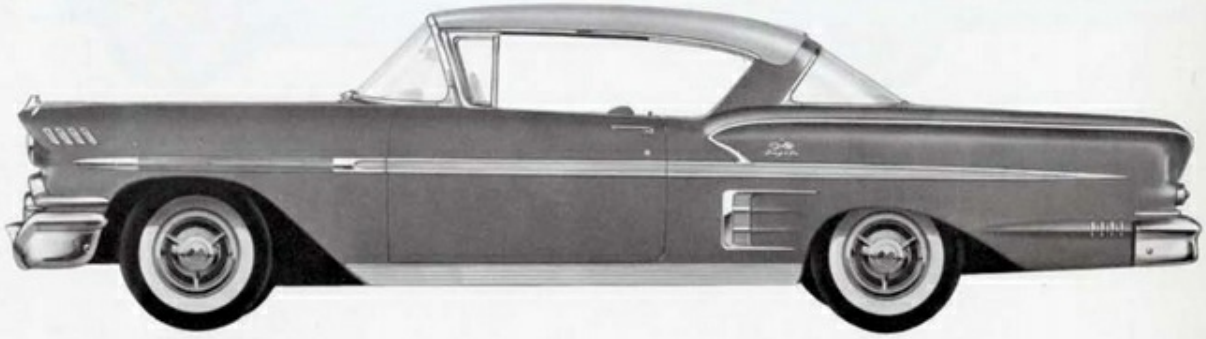
Overall height is greatly reduced through the use of the new X-frame. The absence of conventional side rails permits the lowering of sections of the underbody, making the height reduction possible. The new design obviates the wide rear sill step-over distance necessary in some contemporary designs, the new rear sill being only 4.5 inches wide. In addition, the propeller shaft for 1958 is completely redesigned, having a third universal joint and bearing in the mid-section of the driveline. This permits the shaft to dip in the middle and assume an angularity which provides the space for lowering the car underbody tunnel.

The additional interior length is derived from the longer body for 1958. The longer interior together with the new underbody design make possible the generous increase of more than 3 inches in sedan rear seat leg room. Front seat leg room remains the same as in 1957 for sedan models, but is increased substantially for station wagon models.

A gain of 4 inches in overall vehicle width enhances the new rear appearance. The new bumpers account for almost the entire increase, the body being only 0.5 inch wider.

Excepting station wagon second seat hip room which increases slightly more than one inch, hip room dimensions remain approximately the same. Impala models, however, have more than one inch greater hip room in the front seat than do other 1958 models. Other interior widths for Impala mod-

SPORT COUPE, 6-PASSENGER
MODEL 17-1831



IMPALA SPORT COUPE, 5-PASSENGER
MODEL 17-1847

IMPALA CONVERTIBLE, 5-PASSENGER
MODEL 17-1867

FOUR-DOOR STATION WAGON, 6-PASSENGER
MODEL 15-1693

FOUR-DOOR STATION WAGON, 6-PASSENGER
MODEL 11-1293

TWO-DOOR STATION WAGON, 6-PASSENGER
MODEL 11-1291

The Space Age Star is the official publication of the Space Age Chevrolet Region of the Antique Automobile Club of America. This is a non-geographic region dedicated to the enjoyment, restoration, and history of 1955 and later AACA eligible Chevrolet cars and trucks. We publish the newsletter six times each year.

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