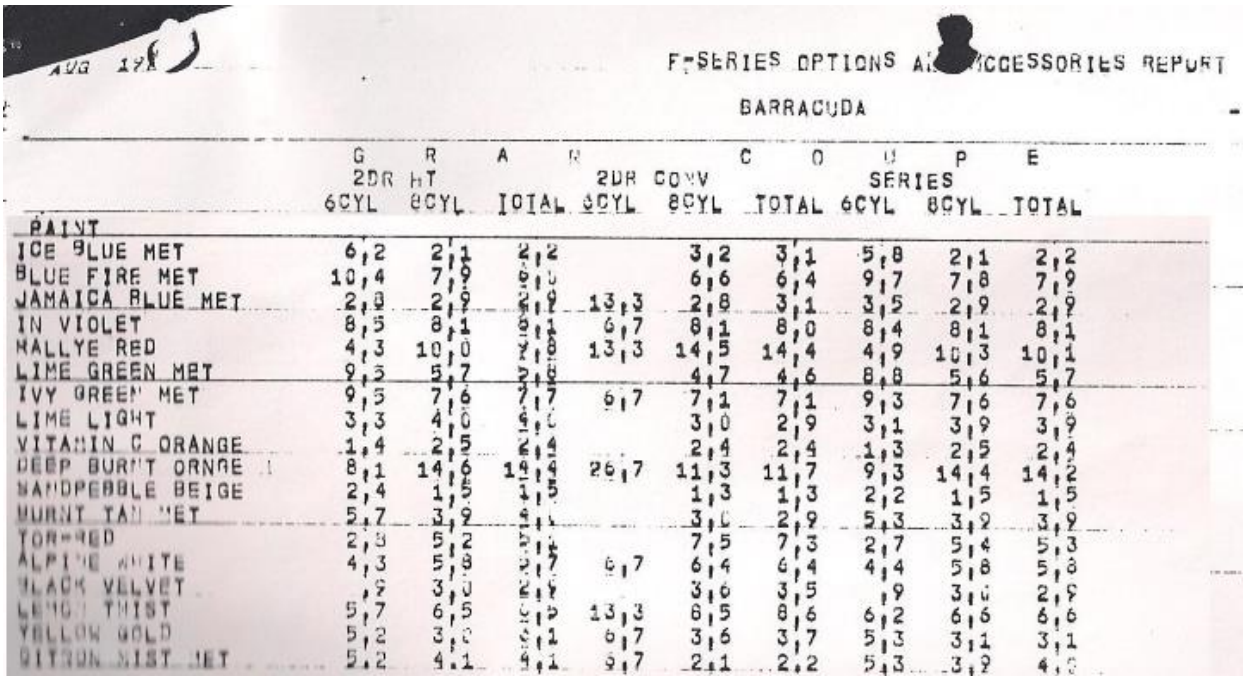
Part I: Chrysler's Options and Accessories Reports – aka SG30 Reports

At any point in the production year, and typically at the end of the production year (usually August) Chrysler executives and product planners could have an Options and Accessories report run to make decisions on what goodies would be offered in future models of cars. These reports listed the installation rates of options based on the number of cars shipped/sold to a particular marketplace (USA, Canada, International). They listed engine sizes, transmission types, and all the options available in each model of car, and showed the installation percentage for that model. A portion of a USA - SG30 report is shown below – detailing the installation rate of paint colors on the different models of the 1970 Barracuda Gran Coupe.



F-SERIES OPTIONS A[illegible]CCESSORIES REPORT

BARRACUDA

	G 2DR HT		R A		N 2DR CONV		C O U P E SERIES		
PAINT	6CYL	8CYL	TOTAL	6CYL	8CYL	TOTAL	6CYL	8CYL	TOTAL
ICE BLUE MET	6,2	2,1	2,2		3,2	3,1	5,8	2,1	2,2
BLUE FIRE MET	10,4	7,9	8,0		6,6	6,4	9,7	7,8	7,9
JAMAICA BLUE MET	2,8	2,9	2,9	13,3	2,8	3,1	3,5	2,9	2,9
IN VIOLET	8,5	8,1	8,1	6,7	8,1	8,0	8,4	8,1	8,1
RALLYE RED	4,3	10,0	9,8	13,3	14,5	14,4	4,9	10,3	10,1
LIME GREEN MET	9,3	5,7	5,8		4,7	4,6	8,8	5,6	5,7
IVY GREEN MET	9,5	7,6	7,7	6,7	7,1	7,1	9,3	7,6	7,6
LIME LIGHT	3,3	4,0	4,0		3,0	2,9	3,1	3,9	3,9
VITAMIN C ORANGE	1,4	2,5	2,4		2,4	2,4	1,3	2,5	2,4
DEEP BURNT ORNGE	8,1	14,6	14,4	26,7	11,3	11,7	9,3	14,4	14,2
SANDPEBBLE BEIGE	2,4	1,5	1,5		1,3	1,3	2,2	1,5	1,5
BURNT TAN MET	5,7	3,9	4,1		3,0	2,9	5,3	3,9	3,9
TOR-RED	2,8	5,2	5,1		7,5	7,3	2,7	5,4	5,3
ALPINE WHITE	4,3	5,8	5,7	6,7	6,4	6,4	4,4	5,8	5,8
BLACK VELVET	,9	3,0	2,9		3,6	3,5	,9	3,0	2,9
LEMON TWIST	5,7	6,5	6,5	13,3	6,5	8,6	6,2	6,6	6,6
YELLOW GOLD	5,2	3,0	3,1	6,7	3,6	3,7	5,3	3,1	3,1
CITRON MIST MET	5,2	4,1	4,1	6,7	2,1	2,2	5,3	3,9	4,0

As you can see, this particular report broke down the Gran Coupe line into hardtop and convertible models, and further delineates between 6 cylinder and 8 cylinder cars. Also notice that the installation rates are reported to the tenth of a percent. With a quick glance, Chrysler executives and product planners could see what colors and options were the most popular, and what options did not sell well. For the 1970 Gran Coupes, it looks like the most popular exterior color was deep burnt orange, with an installation rate across the whole line of 14.2%. Rallye Red was the next popular color, at 10.1%.

Using these reports, you can get an estimation of how many cars were outfitted with a particular engine, color, or option – if you have the corresponding number of cars shipped/sold to that particular marketplace. Since these percentages are figured for each particular option, at no time can you combine percentages. Chrysler did usually keep track of specific engine and trans combinations, or engine / trans / axle ratio combinations - but these are the only combination of options that list a specific percentage on the reports.

The following pages run through an example of how to use the SG30 report data to see how the production numbers shake out on a particular car.

Part II: Understanding SG30 "Production" Numbers

Example car: 1970 Plymouth 'Cuda painted Sandpebble Beige and outfitted with the 383-4 barrel engine mated to the Torqueflite automatic transmission. Major option: A/C.

For anyone trying to figure out how many Sandpebble Beige 1970 Plymouth 'Cudas were made with a 383-4 barrel engine, an automatic transmission, and air conditioning – well, it's not exactly something Chrysler kept track of. The only way to know how many of this particular combination were made, is to have the broadcast sheet or fender tag of every single Plymouth 'Cuda made that year, so you could compare the options on every car. So how do owners come up with those "1 of something" numbers that you often see on their brag boards? The first step is to look at the production numbers for that particular make and model.

The first problem we run across is - what production numbers are we after? If you consult various books and websites on production numbers for 1970 Plymouth 'Cuda Hardtops, it is possible that you would come up with a couple of different numbers. One number you might run across is TOTAL Production - every 1970 Plymouth 'Cuda Hardtop made, including cars that went to Canada and to International markets. The above example car would be a "1 of 18,880" car just given this Total Production number.

Another production number you may run across is the Shipped or Sold to USA number - the cars that were Shipped/Sold to the American marketplace. In our above example, there were 16,710 Plymouth 'Cuda Hardtops shipped to the USA in 1970. Now we have a "1 of 16,710" car.

As mentioned previously, Chrysler kept track of installation rates of engines, transmissions, and options INDIVIDUALLY on most makes and models they produced, starting around 1967 via their internal **Options and Accessories Reports** - aka **SG30 Reports**. Again, these reports listed the installation rates of options based on the number of cars shipped/sold to a particular market (USA/Canada/International). The installation rates are usually based on a percentage of the cars shipped/sold, and are reported to the **TENTH OF A PERCENT**. I highlight this bit of information because this is where "production" numbers get a little bit fuzzy. More on this fuzzy business in just a little bit….back to our example car.

So in the case of our example car above, the **USA Options and Accessories report** says that 27.5% of 1970 Plymouth 'Cudas came with the 383-4 barrel engine. Multiplying the USA shipped number (16,710 units) by 27.5% gives 4,595 Plymouth 'Cudas with the 383-4 barrel engine. Now we have a "1 of 4,595" car.

But WAIT! Remember the **fuzzy** part? In our above example, what was the **actual** percentage the Chrysler computer came up with for our 383-4 barrel 'Cuda? Remember from above – the numbers on the **Options and Accessories reports** were **ROUNDED** to the tenth of a percent. Was the actual number 27.53683% - and then rounded to 27.5%? If we assume the Chrysler computer properly rounded the actual number, 27.5% could have originally ranged anywhere from 27.450% to 27.549%. Taking these low and high percentage numbers and multiplying them by 16,710 units, we get a **RANGE** of production (4,587 to 4,603 cars) - with the true number of 383-4 barrel equipped 1970 Plymouth 'Cudas lying somewhere in between these two numbers.

I stated earlier that Chrysler only kept track of components and options individually. There is one exception to this statement - they did keep track of the engine and transmission combinations for most cars. In the case of our example car, 15.2% of 1970 Plymouth 'Cudas came equipped with the 383-4 barrel engine mated to the 727 Torqueflite automatic transmission. Again, taking into account that the percentage number has been rounded, the actual range of production would be 2,532 to 2,548 cars. So now, based simply on the model of car and its drive train, our example car is now a "1 of 2,540 +/-8" built car.

What about the Air Conditioning? According to the Options and Accessories Report, 12.4% of 1970 Plymouth 'Cudas came equipped with this option. Using our example car, can you simply multiply 2,540 383-4/Auto cars by 12.4% to get our car down to a "1 of 315" car? **NO!** You can **NOT** combine percentages from the Options and Accessories report. The percentage figures for each option are applied across the entire model or line. You cannot assume that the Air Condition option was equally distributed across all of the different engine and transmission combinations from 383ci up through the Hemi on the 70 'Cuda. As a matter of fact - You could not order air conditioning when the car was optioned with the Hemi engine, the 440-6bbl, or the 440-4bbl mated to the 4-speed transmission. So applying the 12.4% to the **ENTIRE** line of 16,710 'Cudas, you get a range of 2,064 to 2,080 Plymouth 'Cudas equipped with Air Conditioning in 1970. Now we have a "1 of 2,072 +/-8" car.

In addition to tracking drive train and options, Chrysler also intermittently tracked what color options were being ordered. In the case of our example car, only 0.3% of 1970 Plymouth 'Cudas were painted Sandpebble Beige. Again, knowing the percentage figures are rounded numbers and doing the math, between 42 and 58 Plymouth 'Cudas were painted Sandpebble Beige in 1970. So, the best most definitive statement on our example car is that it is "1 of 50 +/-8" Plymouth 'Cudas built in 1970 - based solely on the exterior paint color.

Yes, it is very likely that not all of the above 50ish Sandpebble ‘Cudas were 383/Auto cars with air conditioning. The true number is probably a lot less – maybe a dozen or less. But there is no definitive way to know if the above "1 of 50ish" example car is actually a "1 of 30", "1 of 10", or "1 of 1" car unless you have the documentation on hand for every single Sandpebble 1970 Plymouth ‘Cuda produced.

Many thanks go out to Kevin McCabe for his help on this subject of “production” numbers based on Chryslers internal Options and Accessories reports.