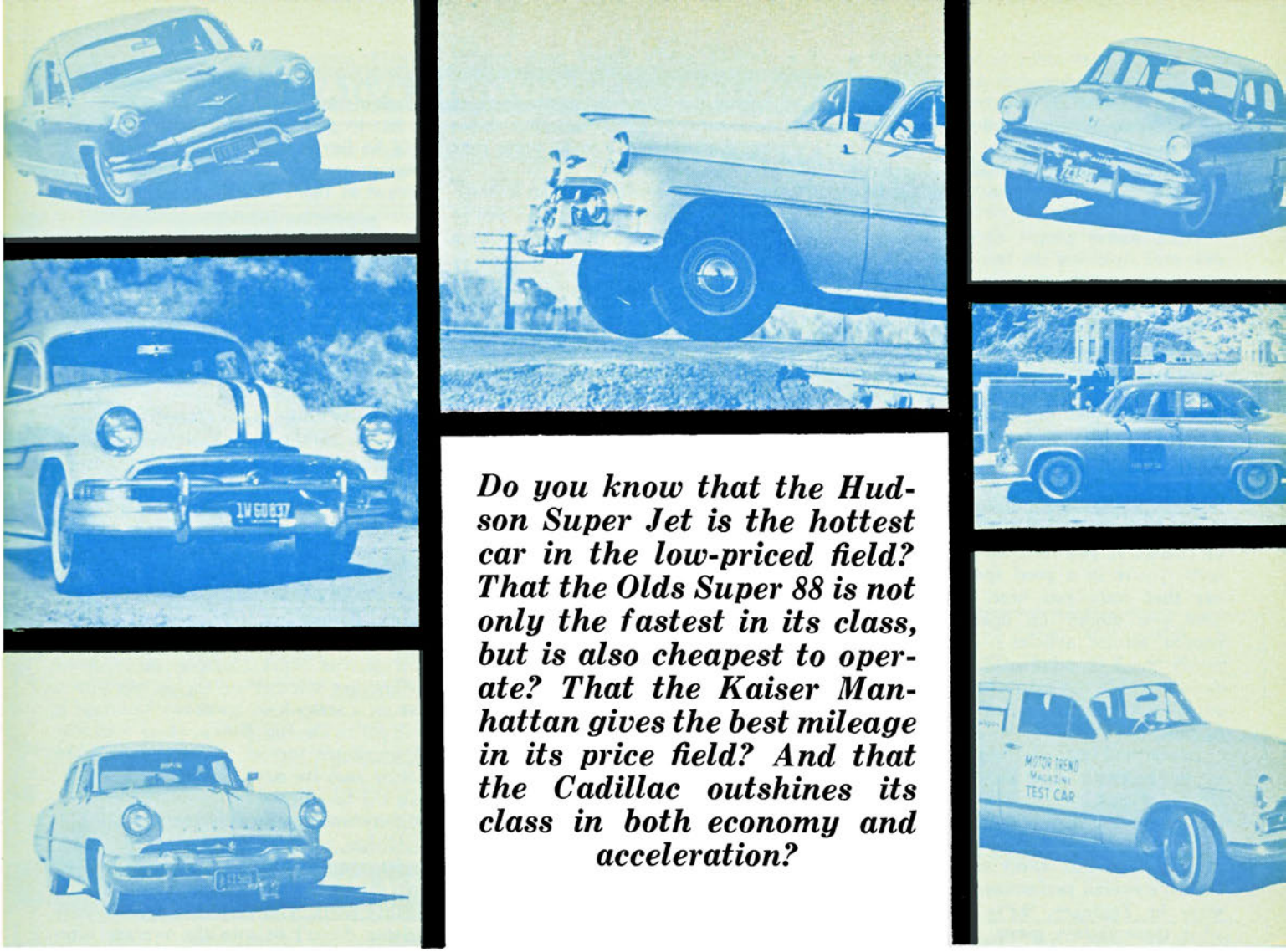

Do you know that the Hudson Super Jet is the hottest car in the low-priced field? That the Olds Super 88 is not only the fastest in its class, but is also cheapest to operate? That the Kaiser Manhattan gives the best mileage in its price field? And that the Cadillac outshines its class in both economy and acceleration?

Where Does Your Favorite Car Rate?

AN MT RESEARCH REPORT

YOU CAN SAY what you will about people and their opinions, but we've yet to find someone who doesn't actually respect the opinions of others. That doesn't mean that he necessarily agrees, but at least he acknowledges that the other person is *capable* of having his own viewpoint.

We're in a funny situation now. We have our beliefs about specific car features and characteristics, some of which may be biased, others which we hope are not. At this time of year, we like to think that we are objective, for we generally have something of considerable moment to tell you. And that is this: That MT tested almost every 1953 American production car. That after hours and hours of poring over myriad figures, gulping gallons of black coffee to prop open our eyelids, going 'round and 'round in seemingly endless harangues, we've come up with an indisputable method of showing you that Car A is better than Car B. But we haven't. Not in enough and sufficiently better respects to leave not one whit of doubt in your (and we mean everyone's) mind. But—we're stumped.

Call it failure if you will. To us it's an admission that's hard to make. We're bucking a problem that no one else has ever been able to resolve. For here's the rub: Regardless of whether we tell you that—mathematically—Car A outshines Car B, you can come back with "But it doesn't *ride* as well" or "But it doesn't *corner* as well" or "But it doesn't have any *trade-in* value."

And if it happens to be your car that winds up on top of the heap, maybe you're satisfied, maybe not. Perhaps you don't like the way we arrived at our decision. If it's not your choice, then chances are you won't agree, *regardless* of how strong we make our points. And if you *don't like* the car we've selected, well, "What's the matter? No guts? Bought out?"

So this year we're letting *you* decide. We're giving you *all* the figures we'd normally use to rate the cars ourselves. But rather than get arbitrary by assigning certain values to each category, we're letting you assign your own. You can set it up any way you wish; there are hundreds of them. In other words, *Rate Your Own Car.*

If you like to sit and pore over a chart comparing figures, you'll have a lot of fun here. For example, you can compare your own car against the other cars and against the averages in its price bracket; you can compare your favorite car (even if you don't own one) against the other cars and the averages; you can compare your car and its averages against the averages in the other classes.

Looking at the averages, some things come out the way you would expect them to: Operating cost per mile, for instance, is less for the lower-price cars and gets succeedingly higher on the more expensive

cars. Others may come as somewhat of a shock: The heaviest cars are the fastest, both in acceleration and top speed. Fuel consumption definitely follows a pattern: The heavier the car, the less the fuel economy; but braking distances decrease as the cars get heavier, until you get into the heaviest bracket.

What makes people decide to buy a new car? Assessing the factors objectively—and that's difficult to do, because buying a car is, we think, essentially a very pleasant emotional experience—the three main reasons are probably price, looks, and performance. Some of you buy your cars for other reasons, like comfort, ride, or the little details that can mean so much in satisfaction. Alas, there's little we can do to help you with the question of price. (If we could, no doubt even more than half a million people would flock to buy MT each month. We *can* help you save money, of course. If you read the monthly road tests, you're in a good spot to pick the car that suits you best; and we can save you money on upkeep with our regular service articles.) Appearance is pretty much a personal thing. You can decide on ride and comfort. But performance is a matter of cold, impersonal figures.

In our road tests and comparison charts, we try to give a clear picture of the efficiency of each car. In the road tests, of course, we list engine displacement, bore and stroke, weight, and a host of other specifications that affect each other and the car's overall performance. Here, as always in February, we're interested in what these factors mean. Note that the figures apply to the cars tested, with the listed equipment that might vary performance to a noticeable degree. We haven't listed other options which may add comparatively small amounts of weight (such as radio, heater, or power steering) or use up one or two horsepower (power steering again).

Average acceleration figures in each of the three ranges are the result of many test runs (in opposite directions, to cancel out any effect of the wind). If there is any serious discrepancy in the test runs in the same direction, we make more runs and average those that are closest, regardless of whether they are better or worse than the others.

Quarter-mile acceleration runs are made in the fastest possible way, whether it involves manually shifting an automatic transmission, speed-shifting a conventional gearbox, or any other unusual procedure. Figures from 30 to 50 mph and from 50 to 80 mph are obtained just as you would do it in ordinary highway driving: With the car in DRIVE, overdrive, or high, depending on its transmission, we slam our foot to the floor. If the car has an automatic kickdown to a lower gear, it shifts down; if it doesn't, it has to do the best it can without a shift. In the hands of a sane driver, good high-speed acceleration is a definite safety factor with today's higher cruising speeds almost everywhere.

Average top speed results, again, from at least four runs. If a big variation shows a slip-up somewhere, we make more runs to make sure we're fair.

Average fuel consumption is an average of our readings at a steady 30, 45, 60, and 75 mph, plus our simulated traffic test. DRIVE range, overdrive, or high gear is used in the first four; in the traffic test, we use DRIVE range only in automatic-transmission cars and go through all gears on the others.

Average braking distance is the result of the shortest possible stops from speeds of 30, 45, and 60 mph; at least four trials are made at each speed. These are panic stops—the kind you make when someone steps off the curb right in front of your car, or when a woolgathering oaf cuts across your bow; these we have always with us. So we stand on it as hard as we can, with one exception: If the car twists itself out of control, we let it straighten out. We don't count a stop made under those conditions unless it's the only kind we can get out of the car. We allow brakes adequate time for cooling to avoid any normal tendency to fade, and so make sure that each of the four stops from each speed is fair to the car.

Per cent of brake horsepower at the rear wheels shows how well the drive train does its job. Although a high percentage actually indicates an absence of friction or of power losses all the way from the flywheel to the rear wheels, our Clayton chassis dynamometer tests show mainly one thing: how well the car's transmission handles the power it gets from the engine. That's taking something for granted, namely that the advertised brake horsepower is the actual engine horsepower of the car tested. The same make and model of car will show the highest percentage of bhp at its rear wheels when equipped with its most efficient transmission option.

Pounds per brake horsepower is a yardstick of ability to accelerate and climb hills. The lower it is, the better performance and economy you can expect.

Pounds per road horsepower indicates the same thing, but it ties the above factors down to a particular engine-transmission-body and frame combination. It's more down-to-earth than pounds per bhp.

Brake horsepower per cubic inch shows how much power the engineers have been able to squeeze out of the engine. Anyone can build an enormously powerful car, but it takes a fine engineering department to design a truly efficient engine. A high rating here means you'll get unusual zip for your engine's size, and dividends of fuel economy too.

Pounds per pound feet of maximum torque shows the relation of the car's weight to the work the engine can do. Maximum torque, the twisting or turning force that the engine delivers to the crankshaft, is given in pounds feet at a specific engine speed. Even though one car may have considerably more torque than another, the ratio of torque to the weight it has to push may be higher; the result will be less available acceleration. Truck engines are designed to develop maximum torque at relatively low rpm; racing engines develop maximum torque in the higher rpm ranges. Passenger car engines usually develop their maximum torque at somewhere near half the engine speed where they produce their maximum bhp; this gives reasonably good performance throughout a fairly wide range. Like nearly all the automobile's characteristics, it's a compromise.

Maximum brake mean effective pressure shows in another way how ingenious the engineers have been. It's another way of expressing maximum engine torque per cubic inch at the range of maximum torque. It's a comparative figure, and it shows how well, considering its size, the engine develops power.

Now let's look back at some of these terms. **Torque** is a measure of an engine's ability to work. **Horsepower** tells how fast it can work. Simply put, torque determines whether an engine *can* pull a car up a steep hill; hp shows how fast it will get to the top. **Bmep,** along with bhp at maximum torque, shows how well the engine uses its size to produce the work. It's the best figure for comparison.

Maintenance and repair costs, which MT publishes each month during the road-testing season, include parts and labor for sample replacements with original-quality parts. You may do better, if your driving doesn't fit into the average category, to use heavy-duty or even light-duty parts where you have a choice and need a replacement. Generally, the factory-quality parts do a better job for more people. Of course, you won't need all the items we list, and you'll probably need others. We print the figures to give you a useful basis for comparison, car to car. The items we list are a distributor, a battery, a fuel pump, a fan belt, a valve grind, one front fender, and two new tires.

Operating cost per mile has brought us many a storm of bricks and bouquets. From the owners whose first-year expenses for identical cars have been within a tenth of a cent of MT's figures, the list stretches all the way to those who "can prove" that we're subsidized by GM, or Ford, or any other car maker you could think of. Here's how we arrive at the controversial cost: We take the cost of gasoline, based on our average fuel consumption tests (already described); we figure this for a distance of 10,000 miles, and consider whether or not the manufacturer recommends premium fuel. Engine oil changes include first-grade oil every 1167 miles (an average of the American Petroleum Institute's recommendations for the three basic types of driving; there's more about this on page 34). Depreciation is the average across the country for a year's

TABLE OF COMPARATIVE PERFORMANCE—1953 TEST CARS

BOLD NUMBERS SHOW TOP RATINGS

TEST CAR Make and Model	Factory List Price	FACTORY LIST PRICE With Performance Equipment	Average Acceleration ¼-Mile	30-50	50-80	Average Top Speed	Average Fuel Consumption in MPG	Average Braking Distance in Feet	Per Cent of BHP at Rear Wheels	Pounds per Bhp	Pounds per Road hp	Bhp per Cu. In.	Lbs. per lb.-ft. Torque	Maximum Bmep in psi	Maintenance & Repair Costs	Operating Cost per Mile in Cents
LOW-PRICE CLASS (under $2050)																
Chevrolet Two-Ten	$1761	Powerglide	$1939	21.0	7.4	27.6	93.2	18.6	111	62.6	31.4	50.1	.489	17.7	130.7	$176.71	9.2
Ford Customline V-8	1858	Fordomatic	2042	21.4	9.2	19.3**	86.5	17.2	111	58.2	31.6	54.4	.459	17.9	123.5	201.00	9.3
Henry J Six†	1561	Overdrive	1667	21.0	10.2	30.0**	76.5	25.2	125	72.5	32.5	44.8	.497	19.5	124.6	174.39	11.0
Hudson Super Jet	1954	Hydra-Matic Twin H-Power 8.1:1 Cylinder Head	2229	19.8	6.7	25.1	95.9	19.6	121	64.0	26.8	41.8	.565	19.3	123.9	216.12	12.9
Plymouth Cranbrook	1853	Overdrive	1951	21.3	10.2	17.3**	85.4	20.2*	118	60.0	32.5	54.2	.460	18.4	122.5	199.92	11.2
Studebaker Champion	1949	Overdrive 7.5:1 Cylinder Head	2054	22.7	10.0	43.7	85.6	28.1	112	58.8	35.1	59.6	.501	21.6	122.8	198.47	12.1
Willys Aero Ace	2038	Overdrive	2124	21.1	9.5	37.0	82.6	24.9	111	64.5	32.3	50.2	.559	21.5	126.4	222.68	9.3
Average	1853		2000	21.2	9.0	28.6	86.6	22.0	115.6	62.9	31.7	50.7	.504	19.4	124.9	198.47	10.7
LOW-MEDIUM PRICE CLASS ($2051-$2500)																
Buick Special	$2255	Dynaflow	$2448	21.4	8.9	27.9	93.4	17.3	105	68.0	32.0	47.0	.475	17.8	128.4	200.92	11.6
Dodge Coronet V-8	2220	Gyro-Torque	2454	19.3	6.4	23.5	100.7	19.4*	115	57.1	26.5	46.5	.580	16.9	137.5	230.87	14.4
Hudson Super Wasp	2466	Hydra-Matic	2642	20.4	8.5	27.2	94.3	19.7	115	55.1	30.4	55.1	.485	19.3	115.0	291.45	15.0
Mercury Monterey	2333	Merc-O-Matic	2523	20.8	7.9	29.1	88.5	17.4	110	56.0	29.3	52.4	.490	16.8	128.7	235.80	11.0
Oldsmobile Super 88	2462	Hydra-Matic Power Brakes	2676	18.3	5.5	14.0	109.8	19.2	116	63.7	25.2	39.6	.543	14.6	140.0	233.43	10.5
Pontiac 8	2194	Hydra-Matic	2372	20.2	6.7	16.4	94.7	19.5	123	59.8	32.0	53.6	.454	17.2	127.7	205.18	11.1
Studebaker Commander†	2213	Automatic Drive	2456	20.5	7.2	22.6	95.6	19.0	116	56.6	27.9	49.3	.516	17.6	123.2	219.81	15.0
Average	2306		2510	20.1	7.3	23.0	96.7	18.8	114	59.5	29.0	49.1	.506	17.2	128.6	231.07	12.7
MEDIUM-HIGH PRICE CLASS ($2501-$3000)																
Buick Super	$2696	Dynaflow	$2889	19.9	7.1	20.0	102.7	16.1	114	58.5	26.2	44.8	.509	15.0	133.9	279.85	13.7
DeSoto V-8	2643	Fluid-Torque Power Brakes	2917	19.7	6.2	25.4	98.4	16.5	116	53.7	25.8	47.9	.579	16.4	136.5	262.73	15.8
Hudson Hornet	2769	Hydra-Matic Twin H-Power	3031	20.2	6.8	21.0	98.6	17.0	104	72.4	27.3	37.5	.471	15.4	125.8	326.58	16.6
Kaiser Manhattan	2650	Hydra-Matic	2828	21.6	9.1	34.1	89.5	23.1	109	49.1	30.0	61.2	.521	17.8	133.3	195.42	15.7
Average	2689		2916	20.4	7.3	25.1	97.3	18.2	111	58.4	27.3	47.9	.520	16.1	132.4	266.15	15.5
HIGH-PRICE CLASS (over $3000)																
Cadillac 62	$3666	Hydra-Matic	$3666	18.4	6.1	16.2	115.4	19.8	118	57.1	22.2	38.8	.635	14.1	150.1	304.32	8.5
Chrysler New Yorker	3293	Fluid-Torque Power Brakes	3433	20.2	5.6	19.1	104.3	16.6	115	65.5	24.4	37.1	.544	14.0	142.0	285.71	17.9
Lincoln Capri	3766	Hydra-Matic Power Brakes	3809	18.5	6.1	16.7	110.4	16.4	136	54.6	21.6	39.6	.646	14.4	146.3	314.06	20.6
Packard Cavalier	3244	Ultramatic Power Brakes	3482	20.0	8.0	21.6	100.9	15.6	120	56.7	24.3	42.8	.550	14.6	138.3	281.67	19.0
Average	3492		3597	19.3	6.5	18.4	107.8	17.1	122	58.5	23.1	39.6	.594	14.2	144.2	296.44	16.5

† Two-door models * Does not include fuel consumption at 75 mph ** Figure shown is for 50-70 mph

operation. License fees are the nationwide average. We add the cost of insurance ($10,000 and $20,000 public liability; $5000 property damage; medical payments; $50 deductible collision, and comprehensive) and the following maintenance costs: wheel alignment, front brake reline, major tuneup as recommended by the manufacturer, an adjustment and change of lubricant for the automatic transmission (if the car has one). Then we divide the total by 10,000 and there's our answer.

In almost any category certain cars excel in certain things, while others are compromise cars, having good or average features straight across the board. Almost invariably, those cars that have the best acceleration qualities have the best power to weight ratio (lowest number of pounds per brake horsepower, and a high percentage of brake horsepower at the rear wheels). That doesn't always hold true, since torque also has to be taken into consideration. Those cars with the best average fuel consumption have high (if not the highest) bhp per cubic inch displacement.

Here are a few points from the table:

In the lowest price class it is apparent that the Hudson Super Jet greatly outperforms the other cars as far as acceleration is concerned. When you analyze its pounds per bhp, and pounds per rhp and bhp per cubic inch, it is evident why. With a better power to weight ratio than the other cars it *should* be faster from the standstill,

(Continued on page 49)

torque converter. When you reach 50 mph, let up on the accelerator ever so slightly and you automatically drop into direct drive at just about the point where torque multiplication from the converter ceases. The throttle linkage is designed so that you can move the pedal within this range and remain wide open.

"Packard uses the Bendix power brake (calling it Easamatic). The convenient pedal is not too sensitive and I was pleased to find that this version will stop the car with the engine stalled and the vacuum reserve gone. It may be a little hard for your wife to do it, but I locked the wheels at 50 mph under these conditions. This probably stems from the self-energizing Packard brake shoes. The test car was equipped with Bendix linkage-type power steering. It's relatively sensitive (4½ turns from lock to lock), but on straightaways, you feel like you're still driving the car. The definite oversteer characteristics are derived mostly from toeing-in the rear springs and increasing the angle of the inside front wheel in a turn. I like the comfortable, chair-height seats and the four-fender visibility from the driver's position. Springing is soft and gives a comfortable ride."

PONTIAC

AND HERE'S WHAT Don had to say about the new Pontiac Star Chief, the biggest car in the Pontiac line:

"You sense the bigness of the Star Chief when you drive it. It has a feel that can only be described as 'solid.' Its ride benefits from better weight distribution. The added overhang (nine inches) doesn't seem to affect the ride as you think it might; on the contrary, it has the effect of a pendulum, dampening out pitch even under severe conditions.

"There's no metal-to-metal contact at any point between the body and frame, while mounts are located so that the natural vibration frequency of the frame is dampened out.

"I found the car to be acceptably stable at high speeds on winding roads. Its higher-than-usual roll center keeps it level in any turn taken within posted speed limits. I like Pontiac's version of Saginaw power steering —it acts like it's not there on a straightaway and comes into its own in city traffic and parking.

"The Star Chief doesn't exactly drag its heels, but it's not the one to bet on in any race away from a stoplight. Like most in-line engines that are (or were) coupled to Hydra-Matic, the noise level is a little high during initial full-throttle acceleration. Out on the highway the engine is quietly responsive. You can cruise around laboring trucks or Sunday slowpokes with plenty of power left over for an emergency.

"Controls are as easy to reach as ever, except for the hand brake. This has redesigned linkage to make parking possible on hills without dislocating your shoulder."

—Walt Woron

Where Does Your Favorite Car Rate?

(Continued from page 17)

while the high bhp per cubic inch indicates greater overall engine efficiency.

The average braking distance in the low-price field wound up in a tie for best brakes among the Chevrolet 210, the Ford Custom-line V-8, and the Willys Aero Ace. Actually, there is not too much spread between the best stopping distances and those of the other cars in this price bracket.

Operating cost per mile also wound up almost the same way, with the Chevrolet 210 at 9.2 cents, the Ford V-8 and Willys at 9.3.

In its price field ($2050 to $2500) the Olds Super 88 far outclasses the other cars in its ability to take off from scratch and get to its top speed, which is also well above the other cars. Surprisingly, its fuel consumption is excellent also, being but 0.5 mpg behind the first-place car, the Hudson Super Wasp, with 19.7 mpg. The Olds Super 88 also winds up with the lowest operating cost per mile (10.5 cents).

Best brake stopping distances and lowest maintenance and repair figures honors go to the Buick Special.

Best acceleration and top speed in the $2500 to $3000 price bracket are split between the DeSoto V-8 (which gets away from the stop signal quicker) and the Buick Super (which has the most ability to accelerate at cruising speeds and the highest top speed).

Best average fuel consumption in this category (by a wide margin) goes to the Kaiser Manhattan, with 23.1 mpg. The same car also has the lowest maintenance and repair cost figure in this hotly contested group.

The Buick Super gets another feather in its cap with the lowest operating cost per mile of 13.7 cents.

The Cadillac 62 appears to be pretty much the queen of its class with the best acceleration (from a standstill and at high cruising speeds), the highest top speed, the best average fuel consumption, and the lowest operating cost per mile. This latter figure of 8.5 cents per mile is mostly due to the fantastically low depreciation of this car. The depreciation figure is almost eight cents per mile less than the average of this class.

Best brakes in the over $3000 class, based on average braking distances, belong to the Chrysler New Yorker, while the Packard Cavalier chalks up the lowest maintenance and repair cost.

We could go on like this endlessly, pointing up various things, but that would take a certain amount of the pleasure out of it for you. Go ahead and have your fun. Compare away!

You've probably already noticed changes in our road test tables in the January issue, when we tested the '54 Plymouth and Nash Rambler. All the '53 cars were tested alike and identical data were figured on all of them, though we added certain facts to the printed Story in Figures during the year, and omitted others. A full story on how MT conducts its road tests will soon appear, and of course our usual tests and latest figures will come to you all year.

—The MT Research Staff