1966 Mustang Convertible

Owner: William & Kerri Johnson
43217 Twp Rd 634
MD of Bonnyville, Alberta

Purchase Date: May 6, 2016

Serial Number: 6F08C158711

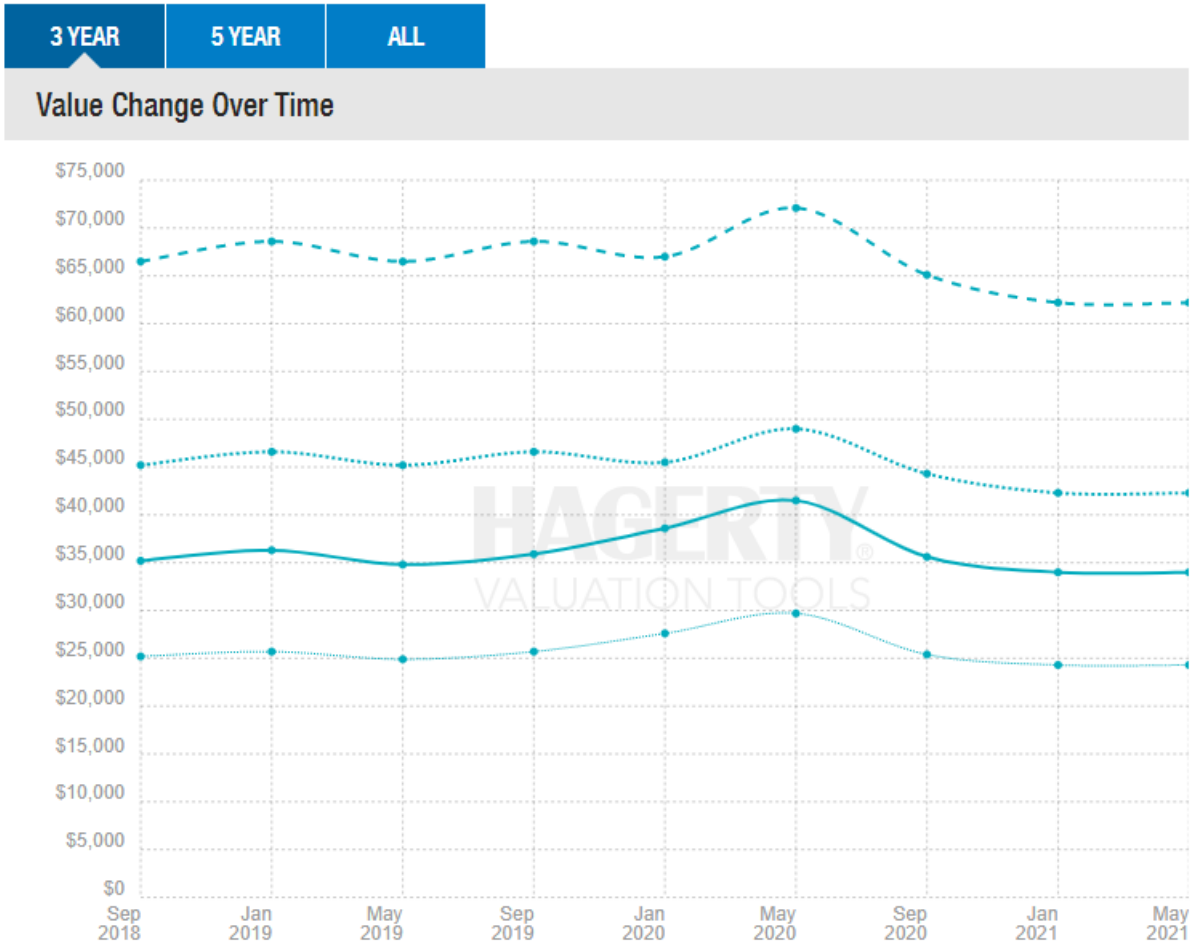
Data Plate

Data Plate Decoded		
Model Year:	6	1966
Assembly Plant:	F	Dearborn, Michigan
Body Code:	08	Convertible
Engine Code:	C	289 cid 2V 200 hp V8
Consecutive Unit #:	15871	15871
Body Code:	76A	Convertible, Standard Interior
Exterior Code:	T	Candy Apple Red
Interior Trim Color:	25	Red with Red Trim
Production Date	09L	November 9, 1965
District Sales Office (DSO):	B78084	Canada, Pacific Zone
Rear Axle Ratio:	6	2.80:1
Transmission:	6	Dual Range Automatic (C4)

Note: Although Ford did not stamp engine and transmission with the VIN during this period, this is considered by mustang enthusiasts to be a “numbers matching” vehicle because all equipment (engine, transmission, interior, paint, etc.) is identical to when it came off the production line.

Mustang VIN Decoder: http://averagejoerestoration.com/classic-mustang-decoder/

Current Value [(hagerty.ca)]



Original Price: $2759.00 USD

Current Condition

A Sep 16, 2014 appraisal was completed at 07933 Miles on the odometer placing the value at $40,000.00. As of May 6, 2016, the car has only been driven an additional ~1200 miles. The Odometer read 09130.1 on May 9, 2016

Pictures – May 2016 (on arrival in Cold Lake)


Information and Specs:

Torque Specifications (ft/lbs)			
Head bolts	65-70	Oil pan bolts	15
Crank cap bolts	60-70	Valve cover bolts	10
Rod end caps	19-24	Carburetor mount bolts	
Intake bolts - iron	12-15	Oil pump	25
Exhaust manifold bolts	15-20	Spark plugs	
Harmonic damper	70-90	Trans. inspection plate	
A/C Compressor mounts		Water pump bolts	20
Engine fan	15	Clutch pressure plate	35
Motor mounts to engine	65	Flexplate	85
Bellhousing bolts		Upper cam bolt	40
Trans to bellhousing	25	Cam thrust plate	10
Flywheel to Crankshaft	75-85	Rocker arms	20

Transmission

Select Shift, 24/24 spline, C4
Ratios: 2.46 low, 1.46 second and direct high.

The Ford C4 is a three-speed, medium-duty automatic transmission introduced on 1964 model year vehicles and produced through 1981. The C4 was designed to be a lighter and more simple replacement for the original Ford-O-Matic two speed transmission being used in smaller, less powerful cars.

Ford used the term "SelectShift" because placing the gear selector in second gear forced the transmission to start and remain in second gear only, regardless of engine revolutions, or torque being sent to the unit. If the transmission was placed in third gear, the transmission would start in first gear, then shift to second and third gear as normal.

In designing the C4, Ford used an aluminum alloy, three-piece case (bell housing, main case, and tailhousing). The aluminum case and the use of a more simple Simpson planetary gearset reduced the weight significantly.

Uses a 0.788-inch 24-spline input shaft.
Mump 1101 01 Service Ford Mustang C4 Transmission Article Lead

Jim Smart
January 5, 2011
Photos By: Courtesy Ford Motor Company
The C4 three-speed automatic is the most common transmission used in vintage Mustangs. Known as the Cruise-O-Matic from '64-1/2-'66 and Select-Shift from '67-'82, this simple hydraulic slush box, of course, has been passed up by more advanced technology in recent years with overdrive automatics like the AOD, AODE (4R70W), and 5R55W. However, it hasn't been forgotten because nothing beats the C4 for simplicity and dependability if you take care of preventative maintenance.

Produced at Ford's Sharonville, Ohio, transmission plant, the C4 Dual-Range Cruise-O-Matic was introduced at the beginning of the '64 model year. It was described as "Dual Range" because the C4 had two driving modes in those first two years-place the shifter at the "Large Dot" with a detent for normal 1-2-3 upshifts or the "Small Dot" without detent for starting out and driving only in second gear. Beginning in '67, Ford redesigned the C4's valve body for the more common P-R-N-D-2-1 performance. If you needed to start out in second gear on snow and ice, all you had to do was place the selector in "2" and gently apply the throttle instead of wondering where to place the shifter. The dot approach created a lot of confusion and transmission failure because some drivers didn't always know which "dot" (mode) to drive in. Some folks never got out of second gear.

http://www.mustangandfords.com/parts/mump-1101-service-ford-mustang-c4-transmissions
The only maintenance C4 transmissions ever need between rebuilds is clean fluid, a fresh filter, and band adjustment every 30,000 miles or every three years. Sometimes, vacuum modulators and kick-down linkages need adjustment, but rarely. Band adjustment is needed because friction material wears off and the bands stretch from heat and use. Kick-down adjustment is required only if shift programming isn't what it should be. Vacuum modulators virtually never need adjustment except when a new one is installed. Most vacuum modulators last the life of the transmission and never need replacement. They fail when their diaphragms rupture, which sucks transmission fluid into the engine, causing white tailpipe smoke and an unexplained loss of transmission fluid.

In the old days, Ford specified the use of Type F automatic transmission for seal, clutch, and band compatibility in its transmissions. These days, Type F (ESW-M2C33-F) isn't mandatory because Ford stopped specifying its use in 1977 with the advent of more advanced friction materials. As older Ford transmissions have been rebuilt and had clutches and bands replaced, the use of Type F has been less of a concern though it remains desirable. Think of Type F as a stickier fluid, with friction modifiers that provide firm clutch and band engagement, which also means longer service life.

It is generally suggested to use Mercon V synthetic transmission fluid if Type F cannot be found. Mercon V is compatible with all kinds of automatic transmission fluid types according to sources we've consulted. Your transmission fluid's job, aside from the obvious for hydraulic control system function, is to cool and lubricate as it travels throughout your transmission. A C4's moving parts generate a tremendous amount of heat, which is why clean fluid and abundant cooling capacity are so important.

Brakes

10-inch drums front and rear:

- ❑ Front Drum Shoes: Primary 2.25 x 8.35 / Secondary 2.25 x 10.75
- ❑ Rear Drum Shoes: Primary 1.75 x 8.35 / Secondary 1.75 x 10.75

Tires

Original: 6.95 x 14 (diameter 25.3” / 796 rev per mile)

1966 Mustang Wheels & Tires
289 Cubic Inch V8

Tire	Status	Modern Size Equivalent	Wheel Width Range	Ideal Wheel Size	Notes
6.95" x 14" Bias Ply	Standard	185/75R14 195/70R14 215/60R14	4.5"-6" 5"-6.5" 6"-7.5"	14" x 5" 14" x 6" 14" x 7"	
6.95" x 14" Nylon Belted	Optional	185/75R14 195/70R14 215/60R14	4.5"-6" 5"-6.5" 6"-7.5"	14" x 5" 14" x 6" 14" x 7"	
6.95" x 14" Premium Nylon Redline	Optional	185/75R14 195/70R14 215/60R14	4.5"-6" 5"-6.5" 6"-7.5"	14" x 5" 14" x 6" 14" x 7"	

https://www.cokertire.com/tires/695-14-bf-goodrich-5-8-whitewall-tire.html

Current (2021): 695-14, Bias Ply (4 ply), 5/8” Whitewall
Previous: P205/70R14 (822 rev per mile)
Alt: P185/75R14 (834 rev per mile)
P195/70R14 (840 rev per mile)

Speedometer Correction Info

Stock Tires **6.95 x 14**

Diameter:	25.3	inches
Circumference:	6.624	Feet
Rev per Mile:	796	
Original Gear:	16	Teeth
Speedo Error:	0.896	

New Gear: 18 Teeth

Existing - Aug 29, 2021		
Indicated mph	Actual mph	Actual km/hr
30	27.0	43.5
40	36.0	57.9
50	44.5	71.6
60	54.0	86.9
70	62.2	100.1

Installed - Mar 20, 2022		
Correction Factor	Corrected mph	Actual km/hr
0.900	30.1	48.5
0.900	40.2	64.7
0.890	49.7	80.0
0.900	60.3	97.0
0.889	69.4	111.8

Front Wheel inner bearings

Item # LM67048/LM67010, Tapered Roller Set - Inch Series and J Series On NTN Bearing Corp. of America
A-6 otherwise known as LM67010/LM67048 has a 1.250" ID

Alignment Specs to give your alignment guy or gal.

A proper alignment will do wonders for the way a Mustang drives. We call it a performance alignment. The performance alignment has more caster for better stability and Zero or some negative camber for added grip instead of the positive camber the cars came with. Negative camber gives the car more grip but is driver specific. Grandma won't need as much camber as grandson driving the same car. Tire wear patterns on the street or tire temps across the tread on the track will tell you how much negative camber to use.

STREET SPECS *

Caster:

+2° to +3.5° Manual Steer

+2.5° to +4.5° Power Steer

Camber:

0 to -.5°

Toe:

1/8″ in

STREET PERFORMANCE SPECS *

Caster:

+2.0° to +3.5° Manual Steer

+2.5° to +4.5° Power Steer

Camber:

-.5° to -1.5°

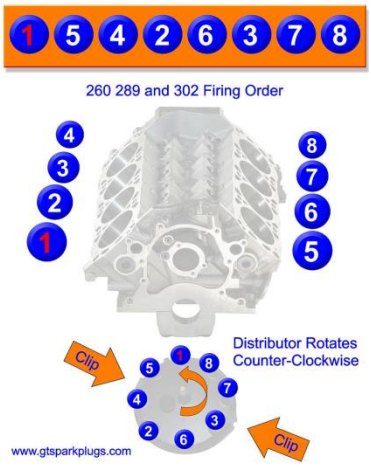
Toe:

1/8″ in

** Caster and camber settings should be the same on both sides for proper handling.*

Specifications: *http://www.automobile-catalog.com/*

Curb weight (without a driver):	1373 kg / 3027 lbs
Length:	4613 mm / 181.6 in
Width:	1732 mm / 68.2 in
Height:	1298 mm / 51.1 in
Wheelbase:	2743 mm / 108 in
Front track:	1422 mm / 56 in
Rear track:	1422 mm / 56 in
Ground clearance:	132 mm / 5.2 in
Turning circle btw. walls:	12.55 m / 41.2 ft
Turning circle btw. curbs:	11.6 m / 38.1 ft
Drag coefficient estimated by a-c:	0.53
Trunk (cargo) capacity SAE:	7.7 cu ft
Departure angle:	17.1 Degrees
Engine manufacturer:	Ford Windsor V-8 289
Engine type:	spark-ignition 4-stroke
Fuel type:	petrol (gasoline)
Fuel system:	carburetor
Charge system:	naturally aspirated
Valves per cylinder:	2
Stock Carburetor:	Autolite 2-barrel



"C" Code, 289 cid, 8 cylinder, 90 degree, Overhead Valves (OHV)

Torque:	282 ft/lbs @ 2400 RPM
Power:	200 hp @ 4400 RPM
Compression:	9.81:1
Bore X Stroke:	4.000 X 2.87
Firing Order:	1-5-4-2-6-3-7-8
Compression:	130-170 psi
Oil Pressure:	35 to 60 psi
Valve Train:	Hydraulic Lifters
Valve Arrangement:	R. Side I E I E I E I E Front to rear
	L. Side E I E I E I E I E I Front to rear
Point Gap:	0.017
Dwell:	26º to 31º *(Less gap increases Dwell)*
Ignition Timing:	6 deg
Idle:	550 rpm in Drive (~750 rpm in park)
Manifold Vacuum:	18" @ idle
Spark Plug Gap:	0.032" to 0.036"
Mods:	Rebored to ~ 302 cid
	Stock 2 bbl carb replaced with 500 CFM Edelbrock 1404 Performer Series Carb

Horsepower gross *(Stock)*: 149 kW / 203 PS / 200 hp (SAE gross)/ 4400 rpm
Torque gross: 382 Nm / 282 ft-lb/ 2400 rpm
Car power to weight ratio net: 81 watt/kg / 37 watt/lb *(estimated)*
Car weight to power ratio net: 12.3 kg/kW / 20.2 lbs/hp (estimated)

Acceleration:

Km/hr	Seconds	mph	Seconds
0-30	2.1	0-20	2.2
0-40	2.8	0-30	3.4
0-50	3.6	0-40	4.8
0-60	4.4	0-50	6.6
0-70	5.3	0-60	9.7
0-80	6.4	0-70	12.6
0-90	8.7	0-80	16.5
0-100	10.2	0-90	23.1
0-110	12.1	0-100	32.7
0-120	14.2	0-110	77.4
0-130	16.9		
0-140	21.2		
0-150	25.5		
0-160	32.1		
0-170	44.0		
0-180	91.8		

Top speed:

Theoretical *(without Governor):* 183 km/h / 114 mph

Drag times:

0- ¼ mile: 17.2 Seconds
Speed at 1/4mile: 131 km/h / 81 mph
0- 1 km: 31.6 Seconds

Overtaking factors:

The times show how fast a car accelerates using the optimal gear or gears, in typical overtaking situations. It is an overtaking with gear reduction or kick-down, the best possible times. Not including the transmission reaction time.

60-100 km/h through gears:	5.9 Seconds
80-120 km/h through gears:	7.8 Seconds
100-180 km/h through gears:	81.6 Seconds
40-70 mph through gears:	7.8 Seconds
50-90 mph through gears:	16.5 Seconds

Capacities:

Fuel capacity:	61 liter / 16.1 U.S. gal / 13.4 imp. gal
Engine lubricant oil capacity:	3.8 liter / 4 U.S. qt / 3.3 imp. qt ** plus 0.9 liter for filter change
Engine coolant capacity:	14.2 liter / 15 U.S. qt / 12.5 imp. qt
Battery capacity (Ah):	45

Fuel consumption:

	extra-urban	city	highway	average combined
l/100km:	11.8-15.5	20.5-27	14.6-19.3	17.4
mpg (imp.):	18.2-24	10.5-13.8	14.7-19.3	16.3
mpg (U.S.):	15.2-19.9	8.7-11.5	12.2-16.1	13.5
km/l:	6.5-8.5	3.7-4.9	5.2-6.8	5.8

Driving range: ***(km / miles on tank)***

extra-urban:	395-520 km / 245-320 miles
city:	225-295 km / 140-185 miles
highway:	315-415 km / 195-260 miles
average combined:	351 km / 218 miles