AUTOMOBILE MANUFACTURERS ASSOCIATION
CONSOLIDATED SPECIFICATION QUESTIONNAIRE

MAKE OF CAR:	FORD THUNDERBIRD	**MODEL NAME**	**SYMBOL**
COMPANY:	FORD MOTOR COMPANY FORD DIVISION	THUNDERBIRD (CONVERTIBLE) THUNDERBIRD (HARDTOP)	40A 40B
MODEL YEAR:	1957	**DATE**	

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NOTES: 1. The specifications set forth herein are those in effect at the date of compilation and are subject to change without notice.
2. All specifications are standard for the models under which they are listed unless otherwise indicated.
3. All dimensions are nominal engineering dimensions unless otherwise indicated.
4. Unless otherwise indicated, specifications apply to 5 or 6 passenger, 4-door sedan or equivalent.

GENERAL SPECIFICATIONS

Model			292 Cu. In.	312 Cu. In.
Wheelbase			102.0	
Tread	Front		56.0	
	Rear		56.0	
Maximum Overall Dimensions	Length (L-103)		181.4	
	Width (W-103)		72.8	
	Height (H-101)		51.6	
Steering ratio—overall			23.1	
Turning diameter (curb to curb)			34.9 Ft.	
Shipping weight*			N. A.	
Transmission— (Specify standard, optional, not avail.)		Conventional	Standard	
		Overdrive	Optional	
		Automatic	Optional	
Axle ratio	Conventional		3.56:1	
	Overdrive		3.70:1	
	Automatic		3.10:1	
Tire size			7.50 x 14 - 4 Ply	
Engine	Type		V	
	No. of cylinders		8	
	Valve arrangement		Overhead	
	Bore and stroke		3.75 x 3.30	3.80 x 3.44
	Piston displacement, cu. in.		292	312
	Standard compression ratio		9.1:1	9.7:1
	Maximum bhp at engine rpm		N. A.	N. A.
	Maximum torque at rpm		N. A.	N. A.

*Standard car weight, not including gas and water.

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MODEL			292 Cu. In.	312 Cu. In.
ENGINE—GENERAL				
Type	V, In-line, other		V	
	Angle of V		90°	
No. of cylinders			8	
Valve arrangement			Overhead	
Bore and stroke			3.75 x 3.30	3.80 x 3.44
Piston displacement, cu. in.			292	312
Numbering system (front to rear)	L. Bank		5-6-7-8	
	R. Bank		1-2-3-4	
Firing order			1-5-4-8-6-3-7-2	
Compression ratio	Standard Head		9.1:1	9.7:1
	Optional Head			
Cylinders	Head Material	Standard	Cast Iron	
		Optional		
	Sleeve—Wet, dry, other, none			
Number of mounting points		Front	Two	
		Rear	One	
Taxable horsepower	$\frac{(\text{Dia.}^2 \times \text{No. Cyl.})}{2.5}$		45.00	46.21
Advertised max. brake horsepower at engine RPM*	Standard head		N. A.	N. A.
	Optional head			
	With fuel (Octane and method)	Standard Head	N. A.	N. A.
		Optional Head		
Max. torque (lb. ft. @ RPM)	Standard head		N. A.	N. A.
	Optional head			
Recommended idle speed (neutral)			475-500 RPM	
ENGINE—PISTONS				
Material			Aluminum Alloy	
Description and finish			Autothermic, Solid Skirt Cam-Ground, Flat Head Tin-Plated	
Weight (piston only) oz.			19.6	20.7
Clearance	Top land		.0230-.0284	
	Skirt	Top	.0013-.0027	
		Bottom	.0009-.0015	
Ring groove depth	No. 1 ring		.1926-.1940	.2045-.2107
	No. 2 ring		.1926-.1940	.2045-.2107
	No. 3 ring		.1735-.1802	.1867-.1905
	No. 4 ring			

*Corrected as defined by SAE Engine Test Code, with the following standard power consuming accessories:

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MODEL			292 Cu. In.	312 Cu. In.
ENGINE—RINGS				
Type (top to bottom)	No. 1 oil or comp.		Compression	
	No. 2 oil or comp.		Compression	
	No. 3 oil or comp.		Oil Control	
	No. 4 oil or comp.			
No. rings above piston pin			Three	
Compression	Material		No. 1-Alloy Cast Iron	No. 2-Cast Iron
	Coating		Chrome-Plated	Phosphate-Coated
	Width		.0930 - .0935	No.1-.0775 - .0780 No.2-.0930 - .0930
	Gap		.010 - .020	
	Maximum wall thickness		.181	.168
Oil	Material		Steel	
	Coating		Chrome-Plated Rails - Blued Expander	
	Width		.183 (Assy)	
	Gap		.015 - .055	
	Maximum wall thickness		.177	.158
Location of expanders			In Oil Ring Assembly	
ENGINE—PISTON PINS				
Material			Alloy Steel, Heat-Treated	
Length			3.016 - 3.030	3.022 - 3.028
Diameter			.9120 - .9123	
Type	Locked in rod, in piston, floating, etc.		Full-Floating	
	Bushing	In rod or piston	In Rod	
		Material	Bronze	
Clearance	In piston		.0001 - .0003 (S.F.)	
	In rod		.0001 - .0003 (S.F.)	
Direction offset in piston			Right (.062)	
ENGINE—CONNECTING RODS				
Material			Forged Steel	
Weight (oz.)			24.06	23.04
Length (center to center)			6.320 - 6.324	6.250 - 6.254
Bearing	Material		Steel-Backed Copper-Lead	
	Type (cast-in or removable)		Replaceable Insert	
	Effective length		.711	
	Clearance		.0008 - .0027	
	End play		.006 - .016 (Two Rods)	
ENGINE—CRANKSHAFT				
Material			Precision-Molded Alloy Cast Iron	
Weight (lb.)			50.43	

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MODEL			292 Cu. In.	312 Cu. In.
ENGINE—CRANKSHAFT (cont.)				
Vibration damper type			Rubber-Floated	
End thrust taken by bearing (No.)			3	
Crankshaft end play			.002 - .006	
Main bearing	Material		Steel-Backed Babbitt	Steel-Backed Copper-Lead
	Type (cast-in or removable)		Replaceable Insert	
	Clearance		.0008 - .0026	
	Journal dia. and bearing effective length	No. 1	2.4980 - 2.4988 x 1.082	2.6235 - 2.6243 x 1.102
		No. 2	2.4980 - 2.4988 x 1.165	2.6235 - 2.6243 x 1.125
		No. 3	2.4980 - 2.4988 x 1.125	2.6235 - 2.6243 x 1.125
		No. 4	2.4980 - 2.4988 x 1.165	2.6235 - 2.6243 x 1.125
		No. 5	2.4980 - 2.4988 x 1.220	2.6235 - 2.6243 x 1.160
		No. 6		
		No. 7		
	Direction offset from cyl. bore			
Connecting rod crankpin journal diameter			2.1880 - 2.1888	
ENGINE—CAMSHAFT				
Material			Precision-Molded Alloy Cast Iron	
Bearings	Material		Steel-Backed Babbitt	
	Number		Five	
Type of drive	Gear or chain		Chain	
	Crankshaft gear or sprocket material		Steel	
	Camshaft gear or sprocket material		Cast Iron	
	Timing chain	Make	N. A.	
		No. of links	56	
		Width	.9275	
		Pitch	.375	
ENGINE—VALVE SYSTEM				
Hydraulic lifters (yes, no)			No	
Special provision for valve rotation (intake, exhaust)			Free-Turn, Intake & Exhaust	
Rocker ratio			1.54:1	
Operating tappet clearance (indicate hot or cold)		Intake	.019 (Hot)	
		Exhaust	.019 (Hot)	
Tappet clearance for timing		Intake	.019 (Hot)	
		Exhaust	.019 (Hot)	
Timing marks on fly-wheel, damper, other			Damper	

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MODEL			292 Cu. In.	312 Cu. In.

ENGINE—VALVE SYSTEM (cont.)

Timing	Intake	Opens (°BTC)	18°
		Closes (°ABC)	58°
	Exhaust	Opens (°BBC)	66°
		Closes (°ATC)	10°
Intake	Material		Chrome Steel
	Overall length		5.11
	Actual overall head dia.		1.920 - 1.930
	Angle of seat		45° 30' - 45° 45'
	Seat insert material		
	Stem diameter		.3416 - .3423
	Stem to guide clearance		.0010 - .0024
	Lift		.401
	Outer spring press. and length	Valve closed (lb. @ in.)	71-79 @ 1.78
		Valve open (lb. @ in.)	161-177 @ 1.39
	Inner spring press. and length	Valve closed (lb. @ in.)	
		Valve open (lb. @ in.)	
Exhaust	Material		Austenitic Steel
	Overall length		5.09
	Actual overall head dia.		1.505 - 1.515
	Angle of seat		45° 30' - 45° 45'
	Seat insert material		
	Stem diameter		.3403 - .3410
	Stem to guide clearance		.0023 - .0037
	Lift		.421
	Outer spring press. and length	Valve closed (lb. @ in.)	71-79 @ 1.78
		Valve open (lb. @ in.)	161-177 @ 1.39
	Inner spring press. and length	Valve closed (lb. @ in.)	
		Valve open (lb. @ in.)	

ENGINE—LUBRICATION SYSTEM

Type of lubrication (splash, pressure, nozzle)	Main bearings	Pressure
	Connecting rods	Pressure
	Piston pins	Oil Mist
	Camshaft bearings	Pressure
	Tappets	Gravity
	Timing gear or chain	Gravity
	Cylinder walls	Pressure Stream

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MODEL	292 Cu. In.	312 Cu. In.

ENGINE—LUBRICATION SYSTEM (cont.)

Oil pump type	Rotary
Normal oil pressure (lb. @ rpm)	45 @ 2000
Oil pressure gage type (electric or mechanical)	Electric
Type oil intake (floating, stationary)	Stationary
Oil filter type (full flow, partial flow)	Full Flow
Capacity of crankcase, less filter—refill (qt.)	5
Oil grade recommended (SAE viscosity and temperature range)	Above 30F - SAE 20 or 20W Above 10F - SAE 10 or 10W Below 10F - SAE 5W
Oil type recommended	Normal Service - ML-Regular (Low Detergency) Heavy Duty - MM-Premium (Mild Detergency)

ENGINE—FUEL SYSTEM

			Regular	Premium
Recommended fuel	Standard head			
	Optional head			
Fuel Tank	Capacity (gals.)		20	
	Filler Location		R. H. Side	
Fuel Filter	Type		Porous Fiber	
	Location		In Pump-to-Carburetor Line	
Fuel pump	Type (elec. or mech.)		Mechanical Diaphragm	
	Location		Lower Left, On Front Cover	
	Pressure range		4-5 PSI @ Idle	
	Vacuum booster (std., optl., none)		Standard	
Carburetor	Make		Holley	
	Model number		N. A.	
	Number used		One	One Std., Two Optional
	Type	Downdraft, side inlet, other	Downdraft	
		Single or dual	Dual	Four-Barrel
	Intake manifold heat control (manual, auto., none)		Automatic	
	Automatic choke type (integral, other)		Integral	
	Air cleaner type	Standard	Dry - Disposable Element	
		Optional		

ENGINE—EXHAUST SYSTEM

Type (single, single with cross-over, dual, other)		Dual
Muffler type (rev. flow, str. thru, sep.resonator)		3 Passage
Exhaust pipe dia.	Branch	
	Main	2.0
Tail pipe diameter		2.0

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MODEL			292 Cu. In.	312 Cu. In.
ENGINE—COOLING SYSTEM				
Type (pressure system, atmospheric, other)			Pressure	
Radiator cap relief valve press.			12-15 P.S.I.	
Circulation thermostat	Type (choke, bypass)		Choke	
	Starts to open at		157-162 F	
Water pump	Type (centrifugal, other)		Centrifugal	
	Number of pumps		One	
	Drive (V-belt, other)		V-Belt	
	Bearing type		Double-Row Sealed Ball	
By-pass recirculation type (internal, external)			External	
Radiator core type (cellular, tube and fin)			Corrugated Fin and Tube	
Cooling system capacity	With heater (qt.)		21	
	Without heater (qt.)		20	
Water jackets full length of cylinder (yes, no)			Yes	
Water all around cylinder (yes, no)			Yes	
Radiator hose	Lower	Number and type (molded, straight)	One Molded	
		Inside diameter and length	2.00 x 8.16	
	Upper	Number and type (molded, straight)	One Molded	
		Inside diameter and length	1.75 x 10.40	
	By-pass	Number and type (molded, straight)	One Straight	
		Inside diameter and length	.578 - .640 x 4.25	
Drive belts	Fan	Number used	One	
		Angle of V	38°	
		Outside length	45.14 @ P.D.	
		Width	.500	
	Generator	Angle of V	See Fan Belt	
		Outside length		
		Width		
Fan	Number of blades and spacing		Four-Unequal	
	Diameter		18	
	Ratio—fan to crankshaft revolutions		.90:1	
	Bearing type		See Water Pump	

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MODEL			292 Cu. In.	312 Cu. In.
ELECTRICAL—SUPPLY SYSTEM				
Battery	Make and Model		Various	
	Voltage Rtg. & Plates/cell		12 Volts - 66 Plates - 6 Cells	
	SAE Designation & Amp Hr. Rtg		55	
	Location		Engine Compartment	
	Terminal grounded		Negative	
Generator	Make		Four	
	Model		FEJ-10000-C	
	Type		Shunt	
	Ratio—Gen. to Cr/s rev.		2:1	
Regulator	Make		Ford	
	Model		FEJ-10505-B	
	Type		3 Coil	
	Cutout relay	Closing voltage @ generator rpm	12.0 - 12.8	
		Reverse current to open	2-6	
	Regulated	Voltage	14.6 - 15.4 @ 75°	
		Current	28-32	
	Min. Gen. rpm required		3000	
	Voltage test conditions	Temperature	75°F	
		Load	5 Amps	
		Other		
ELECTRICAL—STARTING SYSTEM				
Starting motor	Make		Ford	
	Model		FEJ-11001-A	
	Rotation (drive end view)		Clockwise	
	Engine cranking speed		150-180	
	Test conditions		85°	
	Lock test	Amps	55°	
		Volts	5	
		Torque (lb. ft.)	15.5	
	No load test	Amps	85	
		Volts	12	
		RPM (min.)	4500	
Motor control	Switch (solenoid, manual)		Solenoid	
	Starting procedure		Turn Ignition Key to Right Beyond the "On" Position	

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MODEL			292 Cu. In.	312 Cu. In.

ELECTRICAL—STARTING SYSTEM (cont.)

Motor drive	Engagement type		Bendix Folo-Thru	
	Pinion meshes (front, rear)		Rear	
	Number of teeth	Pinion	9	~~Synchromesh-146~~
		Flywheel	146	~~Fordomatic-148~~
	Flywheel tooth face width		.375	

ELECTRICAL—IGNITION SYSTEM

Coil	Make		Ford
	Model		FEJ-12029-A
	Amps	Engine stopped	4.5
		Engine idling	2.5
Distributor	Make		
	Model		FEJ-12127-B
	Spark advance data (at distributor shaft)	Centr. advance start (rpm)	7° @ 1000
		Centr. advance max. deg. @ rpm	35 @ 4000
		Vacuum advance start (in. Hg.)	0° @ 5 IN. Hg.
		Vac. adv. (max. deg. @ in. Hg.)	22° @ 18 In. Hg.
	Breaker gap (in.)		.014 - .016
	Cam angle (deg.)		26° - 28.5°
	Breaker arm tension (oz.)		17-20
Timing	C/S deg. @ rpm		3° Std. or O.D. Trans. - 6° Automatic
	Mark location		Vibration Damper
	Cylinder numbering system (see page 2)		L. Bank - 5-6-7-8 R. Bank - 1-2-3-4
	Firing order (see page 2)		1-5-4-8-6-3-7-2
Spark plug	Make and model		Champion 870
	Thread (mm)		18
	Tightening torque (lb. ft.)		20-25 Prod. Inst. Only
	Gap		.032 - .036
Cable	Conductor type		Stranded Steel
	Insulation type		Neoprene Sheath
	Spark plug protector		

ELECTRICAL—SUPPRESSION

Description	

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ELECTRICAL—INSTRUMENTS AND SWITCHES

Speedometer	Make	King Seely
	Trip odometer (yes, no)	No
Charge indicator—type		Warning Lamp
Temperature indicator—type		Electric Gage
Oil pressure indicator—type		Warning Lamp
Fuel indicator—type		Electric Gage
Ignition switch	Identify positions in order and circuits controlled	To Left - Accessories "On" Center - Accessories and Engine "Off" To Right- 1st Position: Accessories and Engine "On" 2nd Position: Starter and Engine "On"
	Provision for illumination	Lighted with Instrument Panel Lights "On"
	Location	Lower Left Side of Instrument Panel
	Theft protection type	
Main lighting switch	Identify positions and lights controlled	Pull Out - 1st Position: Parking, Tail, License and Instrument Panel Lights. 2nd Position: Head, Tail, License and Instrument Panel Lights. Rotate Knob Clockwise to Dim Instrument Panel Lights.
Other light switches	Locations and lamps controlled	Toe Board Headlamp Dimmer Switch. Map Lamp Switch Integral with Map Lamp on Instrument Panel. Courtesy Lamp Switches in Door Pillars Operate Map Lamp. Stoplight Switch in Brake Line on Top of Frame. Road Lamp Switch on Bracket Under Instrument Panel.
Other switches	Locations and devices controlled	Power Seat Switch in Left Door Trim Molding. Power Window Switches on Door Trim Panels. Combined Automatic Transmission Neutral Switch and Back-up Lamp Switch on Transmission Shifter Tower. Turn Signal Switch in Steering Column Hub. Heater Blower Switch on Instrument Panel. Overdrive Kickdown Switch Accelerator Pedal.
Windshield wiper	Make	Trico
	Type	Vacuum
	Vacuum booster provision	Optional
	Washer provision	Optional
Horn	Type	Air-Electric
	Number used	Two
	Amp draw (each)	10 Amp. Max.

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MODEL		40A	40B

ELECTRICAL—LAMP BULBS

Give quantity used and trade number, e.g., Headlamp 2-4030.
Indicate accessories which are not standard equipment by an asterisk following the numbers.

Headlamp		
Headlamp beam indicator		2-#5400
Parking light		1-#57
Tail light		2-#1034
Stop light		2-#1034
Direction indicator	Front	See Tail Light
	Rear	See Parking Light
	Tell-Tale	See Tail Light
License plate light		1-#57
Instrument light		1-#67
Ignition lock light		1-#57
Map light		1-#57
Dome light		1-#89
Clock light		None
Radio dial light		1-#57
Glove compartment light		1-#57
Courtesy light		None
Trunk compartment light		See Map Light
Other		None
		R.H. Air or Blower Switch Light 1-#57; Heater Control 1-#57; L.H.Air & Ext. Lighting Switch Light 1-#57; Back-up Lights 2-#1034; Cigar Lighter & W/S Wiper Light 1-#57; Trans. Selector Quantant Light 1-#67; Hand Brake Warning Light 1-#57; Road Lamps (Clear) 2-#4415 (Amber) 2-#4415-A

ELECTRICAL—FUSE & CIRCUIT BREAKER DATA

Use trade number of fuse, e.g., SFE-10. Indicate circuit breaker by ampere capacity suffixed by letters "C.B", e.g., 30 C.B. Where fuse or circuit breaker protects multiple circuits indicate first use by a letter and repeat the same letter for all units protected by the same fuse or circuit breaker, e.g., Parking light: SFE-10 (a), Direction indicator: same as (a).

Headlamp	12 C.B.(a)
Headlamp beam indicator	Same as (a)
Parking light	12 C.B.(b)
Tail light	Same as (b)
Stop light	Same as (b)
Direction indicator	SFE - 7.5
License plate light	Same as (b)
Instrument light	Same as (b)
Ignition light	Same as (b)
Map light	SFE - 7.5 (c)
Dome light	None
Clock	Motochron - (Not Fused)
Clock light	Same as (b)
Radio	9-Tube SFE 7.5
Glove compartment light	None
Courtesy light	Same as (c)
Trunk compartment light	None
Other	Cigar Lighter-Thermal Fuse; Back-up Lights Same as (b); Heater Blower SFE-14; Overdrive 3AG-15; Power Seats & Windows as follows: 1-30 C.B. (Line Protector); 1-15 C.B. (Each Window Motor); One 15C.B. (Common to Both Seat Motor); 1-15 C.B. Seat S/W Line 1-15 C.B.; (Protector)

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MODEL			40A	40B
DRIVE UNITS—CLUTCH (PEDAL OPERATED)				
Make			Long	
Type (dry or wet plate)			Dry	
In combination with fluid coupling (yes, no)			No	
Semi-centrifugal (yes, no)			Yes	
Type pressure plate springs			Steel	
Total plate pressure (lb.)			1395	
No. of clutch driven discs			One	
Clutch facing	Material		Molded Asbestos	
	Inside diameter		7.0	
	Outside diameter		11.0	
	Total eff. area (sq. in.)		113.10	
	Thickness		0.125	
	Number required		Two	
	Engagement cushioning method		Torbend Disc With Spring Vibration Damper	
	Release bearing	Type	Sealed Ball Thrust	
		Method of lubrication	Prepacked	
	Torsional damping	Method (springs, other)	Springs	
		Frict. mat.	Steel	
DRIVE UNITS—TRANSMISSIONS				
Conventional (std. or opt.)			Standard	
Conventional with overdrive (std. or opt.)			Optional	
Automatic (std. or opt.)			Optional	
DRIVE UNITS—CONVENTIONAL TRANSMISSION				
Number of forward speeds			Three	
Transmission ratios	In first		2.40:1	
	In second		1.49:1	
	In third		1.00:1	
	In fourth			
	In reverse		2.86:1	
Constant mesh gears in 2nd (yes, no)			Yes	
Spur gear used in (indicate speeds)			None	
Helical gears used in (indicate speeds)			All	
Synchronous meshing in 2nd and 3rd gears (yes, no)			Yes	

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MODEL			40A	40B

DRIVE UNITS—CONVENTIONAL TRANSMISSION (cont.)

Lubricant	Capacity (pt.)		3.25
	Type recommended		Multi-Purpose
	SAE viscosity number	Summer	SAE 90
		Winter	SAE 90
		Extreme cold	

DRIVE UNITS—CONVENTIONAL TRANSMISSION WITH OVERDRIVE

For transmission data see conventional transmission section

Overdrive	Type (planetary or other)			Planetary
	If planetary, No. of pinions			3
	Manual lockout (yes, no)			Yes
	Downshift accelerator control (yes, no)			Yes
	Minimum cut-in speed			28 MPH
	Gear ratio			0.72:1
	Lubricant	Capacity (O.D. only)		N. A.
		Separate filter (yes, no)		No
		Type recommended		Multi-Purpose
		SAE viscosity number	Summer	SAE 90
			Winter	SAE 90
			Ext. cold	

DRIVE UNITS—AUTOMATIC TRANSMISSION

Trade name	Ford-O-Matic
Type (fluid coupling with gears, torque convertor with gears, other)	Torque Converter With Planetary Gears
Manual selector positions, left to right (show symbols and define, e.g., N- Neutral)	P Park R Reverse N Neutral DR Drive LO Low
List gear ratios in each drive position (range)	Drive 1.46 - 1.00 Plus Torque Converter Low 2.40 - 1.00 Plus Torque Converter Reverse 2.00 - 1.00 Plus Torque Converter
Shifting within drive position range by accelerator control and speed limiting governor (yes, no)	Yes
By governor—forced shift (yes, no)	Yes
Downshift of gears in high range possible up to (mph)	67 MPH

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MODEL			40A	40B
DRIVE UNITS—AUTOMATIC TRANSMISSION (cont.)				
Torque convertor	Number of elements		Three	
	Max. ratio at stall at engine rpm		2.1-1 @ 1610 - 1810	
	Mechanical lockup	Provided (yes, no)	No	
		Speed range		
		Releases at (speed range, mph)		
	Type of cooling (forced air, oil cooler and type, other)		Oil Cooler in Radiator Lower Tank	
	Anti-creep device (yes, no)		No	
Lubricant	Capacity—refill (pt.)		21.5 Pts.	
	Type recommended		Automatic Transmission	
	Grade	Summer	Type A	
		Winter	Type A	
		Extreme cold	Type A	
DRIVE UNITS—PROPELLER SHAFT				
Number used			One	
Type (exposed, torque tube)			Exposed	
Outer diameter x length* x wall thickness	Conventional trans.		2.00 x 28.25 x .083	
	Overdrive trans.		2.00 x 28.25 x .083	
	Automatic trans.		2.00 x 25.30 x .083	
Intermediate bearing	Type (plain, anti-friction)		None	
	Lubri. (fitting, prepack)			
Universal joints	Make		Spicer	
	Number used		Two	
	Type (ball and trunnion, cross, other)		Cross	
	Bearing	Type (plain, anti-friction)	Needle Roller	
		Lubric. (fitting, prepack)	Fitting	
Drive taken through (torque tube or arms, spring)			Rear Springs	
Torque taken through (torque tube or arms, springs)			Rear Springs	

*Centerline to centerline of joints or centerline of rear attachment point.

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MAKE OF CAR THUNDERBIRD **MODEL YEAR** 1957

MODEL			40A	40B
DRIVE UNITS—REAR AXLE				
Type (semi-floating, other)			Semi-Floating	
Gear type (hypoid, other)			Hypoid	
Gear ratio and No. of teeth	Conventional trans.		3.56:1	
	Overdrive trans.		3.70:1	
	Automatic trans.		3.10:1	
Pinion adjustment (shim, other)			Shims	
Pinion bearing adj. (shim, other)			Shims	
Lubricant	Capacity (pt.)		3.8	
	Type recommended		Multi-Purpose Extreme Pressure	
	SAE viscosity number	Summer	SAE 90	
		Winter	SAE 90	
		Extreme cold	SAE 80	
DRIVE UNITS—WHEELS				
Type (disc, other)			Disc	
Rim (size and flange type)			14 x 5K	
Attachment	Type (bolt or stud)		Stud	
	Circle diameter		4.5	
	Number and size		Five	
DRIVE UNITS—TIRES				
Size and ply rating	Standard		7.50 x 14	
	Optional			
Rev/mile at 30 mph			773 @ 35 MPH	
Inflation press. (cold)	Front		22	
	Rear		22	
BRAKES—SERVICE				
Type			Hydraulic, Internal Expanding, Duo Servo, Single Anchor	
Booster type			None	
Effective area (sq. in.)			176 Sq. In.	
Percent brake effectiveness—rear			45%	
Drum	Diameter	Front	11.0	
		Rear	11.0	
	Type and material		Composite Pressed Steel Disc and Cast Iron Drum	

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MAKE OF CAR THUNDERBIRD **MODEL YEAR** 1957

MODEL					40A	40B
BRAKES—SERVICE (cont.)						
Brake lining	Bonded or riveted				Riveted	
	Primary	Material			Molded Asbestos	
		Size (length x width x thickness)	Front wheel		11.00 x 2.00 x .190	
			Rear wheel		11.00 x 1.75 x .214	
		Segments per shoe			One	
	Secondary	Material			Molded Asbestos	
		Size (length width x thickness)	Front wheel		11.00 x 2.50 x .25	
			Rear wheel		11.00 x 2.00 x .214	
		Segments per shoe			One	
Wheel cylinder bore	Front				1.125	
	Rear				.937	
Master cylinder bore					1.0	
Available pedal travel					6.5	
Line pressure at 100 lb. pedal load					700 Approx.	
Shoe clearance adjustment					.010	
BRAKES—PARKING						
Type of control					T-Handle Pull Twist Release	
Location of control					Under Instrument Panel Left Side	
Operates on					Rear Brakes	
If separate from service brakes	Type (internal or external)					
	Drum diameter					
	Lining size (length x width x thickness)					
FRAME						
Type and description					"X" Member, Box Section Side Rails and Four Crossmembers.	
FRONT SUSPENSION						
Type and description					Independent Ball Joint Coil Spring System Incorporating Two Unequal Length Transverse Control Arms.	

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MAKE OF CAR THUNDERBIRD **MODEL YEAR** 1957

MODEL			40A	40B

FRONT SUSPENSION (cont.)

	Type		Coil
	Material		SAE 9260 or SAE 5160
Spring	Size (length x width x No. leaves or coil I.D.)		14.99 x 4.03
	Spring rate (lb. per in.)		290
	Rate at wheel (lb. per in.)		
	Normal load (lb. @ rated length)		1540
Shock absorbers	Manufacturer		Gabriel
	Type (direct or lever)		Direct
	Piston diameter		1.0
Stabilizer	Type (link, linkless, frameless)		Link Frame Mounted
	Material		

STEERING

Type used (Standard or optional)		Mechanical		Standard
		Power		Optional
Wheel diameter				17 Inch
Turning diameter	Outside front	Wall to wall (r. & l.)		37.43
		Curb to curb (r. & l.)		34.98
	Inside rear	Wall to wall (r. & l.)		N. A.
		Curb to curb (r. & l.)		N. A.
Inside wheel angle with outside wheel at 20°				24° 31'
Mechanical	Gear	Type		Worm and Roller
		Make		Ford
		Ratios	Gear	20:1
			Overall	23:1
	No. wheel turns			3.5
Power	Type			Linkage Booster
	Make			Bendix
	Trade name			Master Guide
	Gear	Type		Worm and Roller
		Ratios	Gear	20:1
			Overall	23:1
	Pump driven by			Belt to Crankshaft
	Overall torque ratio			25% of Standard Effort
	Number wheel turns			
Linkage	Type			Parallelogram
	Location (front or rear of wheels)			Rear of Wheels
	Drag link (trans. or long) Tie rods (one or two)			Two Transverse

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MAKE OF CAR THUNDERBIRD **MODEL YEAR** 1957

MODEL			40A	40B
STEERING (cont.)				
Kingpin	Inclination at camber (deg.)		7° 7' Curb Weight	
	Diameter			
	Bearings (type)	Upper	Ball Joint	
		Lower	Ball Joint	
		Thrust	Ball Bearing in Lower Joint	
Wheel alignment (range and preferred)	Caster (deg.)		0° 30' to 1° 30' Curb Weight Caster not to vary more than 1/2° from side to side.	
	Camber (deg.)		0° 8' to 1° 8' Curb Weight Camber not to vary more than 1/4° from side to side.	
	Toe-in (outside tread-inches)		1/16 - 1/8	
Steering knuckle type			Ball Joints	
Wheel spindle	Diameter	Inner bearing	1.2493 - 1.2498	
		Outer bearing	0.7493 - 0.7498	
	Thread size			
	Bearing type		Tapered Roller	
REAR SUSPENSION				
Type			Longitudinal Leaf	
Drive and torq. taken through (see page 14)			Rear Springs	
Spring	Type		Semi-Elliptic	
	Material			
	Size (length x width x No. leaves or coil I.D.)		55 x 2 x 5	
	Spring rate (lb. per in.)		105	
	Rate at wheel (lb. per in.)			
	Normal load (lb. at rated length)		845	
	Mounting insulation type		Rubber Bushed Shackles & Rubber Bushings	
	If leaf	No. of leaves	5	
		Covers (yes, no)	No	
		Lubricated (yes, no)	No	
		Inserts: Type and size	Leaf Tip Inserts	
		Inserts: Material	Wax Impregnated Fabric	
		Shackle (comp. or tens.)	Tension	
Shock absorbers	Manufacturer		Gabriel	
	Type (direct or lever)		Direct	
	Piston diameter		1.0	
Stabilizer	Type (link, linkless, frameless)		None	
	Material			
Track bar type			None	

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MAKE OF CAR THUNDERBIRD **MODEL YEAR** 1957

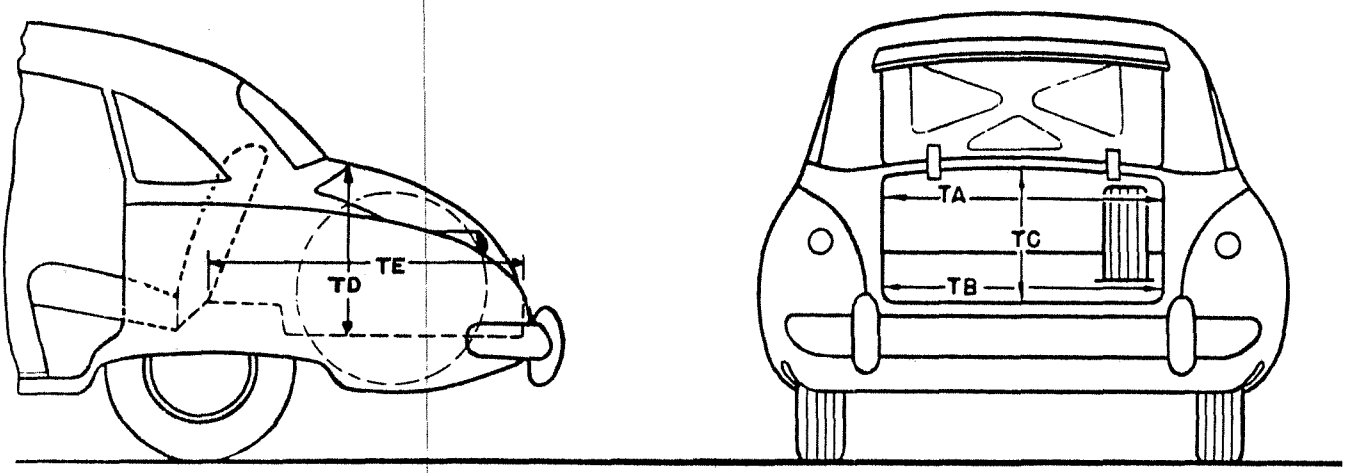
BODY—GENERAL DEFINITIONS

NOTE: Included in the dimension definitions listed on this and the following pages are those which have been proposed for adoption by the SAE. These are indicated by a number following the type of dimension, e.g., L 3. Additional dimensions have been added by the AMA Specifications Body Sub-Committee for inclusion in the Questionnaire. These are shown by an additional letter, e.g., HA. The dimensions are developed from the following basic points:

1. Front and rear seat "A" points are taken 5" forward of vertical tangent to seat back 15" from center of body.
2. Front seat is in the rear position.
3. Loaded position—5 passengers, front 300 lb., rear 450 lb., includes spare wheel, tire and tools, and full complement of gas, oil, water, etc. and tires to recommended pressure, etc.
4. C. L. (centerline).
5. D. L. O. (daylight opening, exposed glass dimension).
6. Ramp breakover angle (page 20-A) is the supplement of the included ramp angle (180° minus the included ramp angle) over which a car can pass without hanging up.

MODEL	40A	40B

BODY—TRUNK OPENING DIMENSIONS



TA—Width across the top	46.3
TB—Width across the bottom	43.3
TC—Diagonal dimension at CL from top of opening to bottom	38.3
TD—Vertical height of opening (floor to top, inside edge of opening)	16.1
TE-Max. horizontal depth (forward from vertical projection of inside edge of opening)	63.4
Position of spare tire stowage	Right Side Luggage Compartment on Angle
Method of holding lid open	Spring Center Balance

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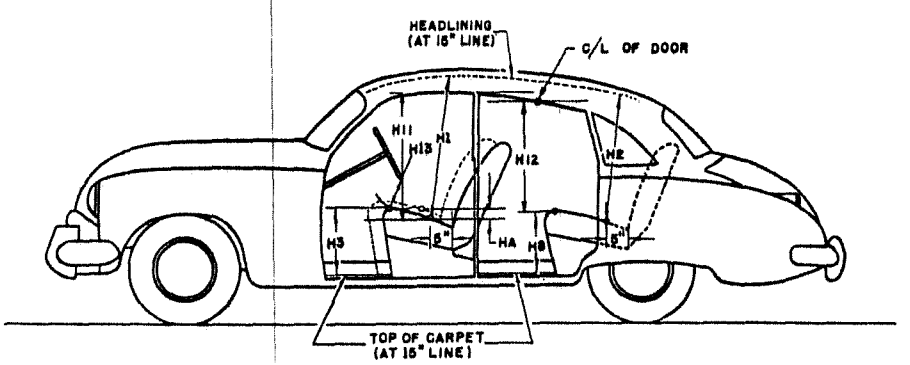
MAKE OF CAR THUNDERBIRD **MODEL YEAR** 1957

MODEL	40A	40B

BODY—HEIGHT DIMENSIONS—INTERIOR



H1. Front headroom—from "A" pt. to headlining at 8° back of vertical on 15" line. (For "A" pt. see note 1, page 19)	33.6	33.1
H2. Rear headroom—from "A" pt. to headlining at 8° back of vertical on 15" line.		
H3. Front seat height to floor carpet on 15" line (front edge of cushion).	7.0	7.0
H8. Rear seat height to floor carpet on 15" line (front edge of cushion).		
H11. Entrance—front—cushion "A" point to bottom windcord vertical.	27.2	27.0
H12. Entrance—rear—top of cushion to bottom windcord vertical at C/L of rear door.		
H13. Steering wheel clearance to seat cushion taken on arc.	5.6 With Wheel in Neutral Position	
HA. Front seat vertical rise at "A" pt. (inches.)	1.8	

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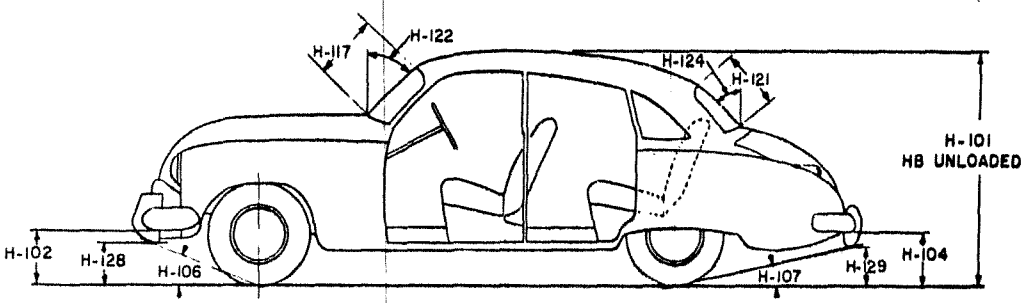
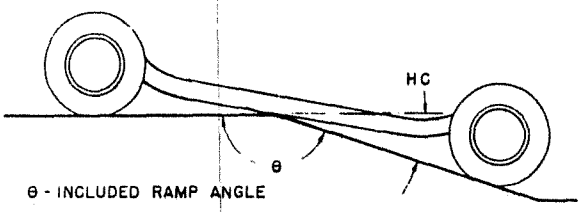
MAKE OF CAR THUNDERBIRD **MODEL YEAR** 1957

MODEL	40A	40B

BODY—HEIGHT DIMENSIONS—EXTERIOR





θ - INCLUDED RAMP ANGLE
H C - RAMP BREAKOVER ANGLE
(SUPPLEMENT OF INCLUDED RAMP ANGLE)

H101. Overall height.	51.8	51.6
HB. Overall height—unloaded.	49.6	
H102. Front bumper bottom to ground at normal section.	11.4	11.4
H104. Rear bumper bottom to ground at normal section.	11.6	11.6
H106. Angle of approach—from the tire rolling radius to lowest point on front bumper or guard.	22° 18'	22° 18'
H107. Angle of departure—from the tire rolling radius to lowest point on rear bumper or guard.	13° 57'	13° 57'
HC. Ramp breakover angle.*	11° 51' 56"	11° 51' 56"
H117. Windshield DLO-slant height.	17.1	17.1
H121. Backlight DLO*—Max., slant height.	13.0	12.4
H122. Windshield slope angle to vertical line on car axis.	49°	49°
H124. Backlight slope angle to vertical line on car axis.	42°	42°
H128. Ground to bottom of front bumper guard.	11.4	11.4
H129. Ground to bottom of rear bumper guard.	11.6	11.6
HD. Min. road clearance (location and dimension).	5.3 Frame	5.3 Frame
HE. Min. road clearance at rear axle.	6.7	6.7

*See Notes, page 19.

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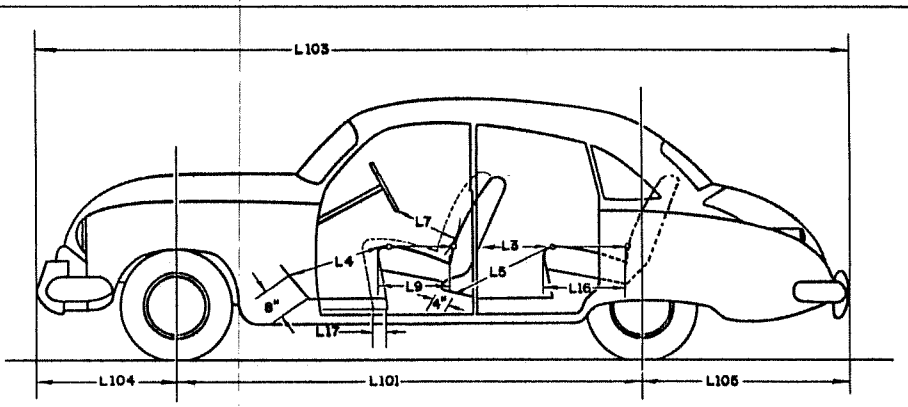
MAKE OF CAR THUNDERBIRD **MODEL YEAR** 1957

MODEL	40A	40B

BODY—LENGTH DIMENSIONS



Interior	**L3.** Rear compartment back of front seat back to rear seat back.	
	L4. Leg room—front—diagonal—ball of foot to top of seat to front seat back—15" line.	44.9
	L5. Leg room—rear—diagonal—from ball of foot to top of rear seat cushion and to seat back.	
	L7. Steering wheel clearance to seat back taken on arc.	14.4 With Wheel in Neutral Position
	L9. Front seat depth (front edge to vert. tan. to seat back on 15" line).	17.8
	L16. Depth of rear seat (front edge to seat back).	
	L17. Total adjustment of front seat at floor.	4.0
Exterior	**L101.** Wheel base.	102.0
	L103. Overall length (bumper to bumper inc. guards).	181.4
	L104. Overhang—front including bumper guards.	28.3
	L105. Overhang—rear including bumper guards.	51.1

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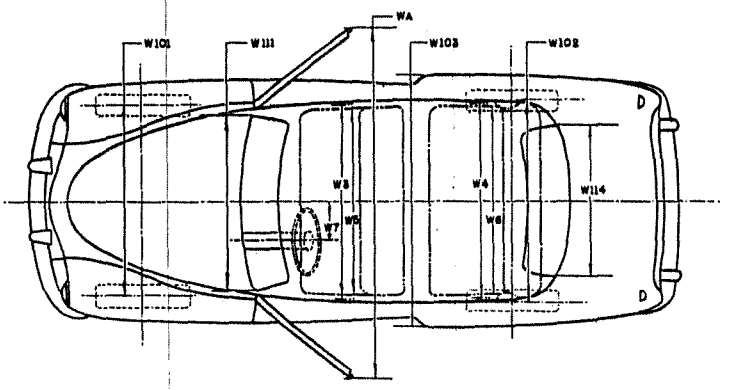
MAKE OF CAR THUNDERBIRD **MODEL YEAR** 1957

MODEL	40A	40B

BODY—WIDTH DIMENSIONS



Interior	**W3.** Front shoulder room, at garnish moulding height or nearest interference 5" forward of seat back.	53.3	
	W4. Rear shoulder room, at garnish moulding height or nearest interference 5" forward of seat back.		
	W5. Front hip room, at top of seat 5" forward of vert. tan. to seat back.	58.8	
	W6. Rear hip room, at top of seat 5" forward of vert. tan. to seat back.		
	W7. Steering wheel center to center of body.	14.5	
Exterior	**W101.** Front tread at ground.	56.0	
	W102. Rear tread at ground.	56.0	
	W103. Max. overall width of car including bumpers or mouldings.	72.8	
	WA. Max. overall width of car with doors open.	148.9	
	W111. Windshield DLO, max. width.	56.6	
	W114. Back window DLO, max. width.	41.1	44.6

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MODEL	40A	40B

BODY—MISCELLANEOUS INFORMATION

Doors hinged (front, rear)	Front	Front	
	Rear		
Type of finish (lacquer, enamel)		Enamel	
Hood opening (front, side; semi-full, full, half)		Rear Full	
Hood counterbalanced (yes, no)		Yes	
Hood release control (internal, external)		Internal	
Vent window control method (crank, friction, pivot).		N. A.	
Windshield (one piece, two piece; curved, flat)		One Piece Curved	
Rear window type (one piece, two piece, three piece; curved, flat)		One Piece Curved	
Windshield glass area		1027.20	
Backlight glass area		522.74	533.6
Total glass area		2012.38	2023.25

BODY—TYPES AND STYLE NAMES

Body type, number of passengers, and style names (use letter code shown below followed by passenger capacity and style name e.g., N-6 Ranchwagon)	L-2	J-2

Body type code

A—Coupe—2 door flatback
B—Coupe—2 door notchback
C—Sedan—2 door flatback
D—Sedan—2 door notchback
E—Sedan—4 door flatback (4 windows)
F—Sedan—4 door flatback (6 windows)
G—Sedan—4 door notchback (4 windows)
H—Sedan—4 door notchback (6 windows)
J—Hardtop—2 door
K—Hardtop—4 door
L—Convertible—2 door
M—Convertible—4 door
N—Station wagon—2 door
P—Station wagon—4 door
Q—Combined passenger and utility—2 door
R—Combined passenger and utility—4 door
S—Sedan delivery
T—Limousine

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