MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

1989

Manufacturer	Vehicle Line	
FORD MOTOR COMPANY	MERKUR XR4Ti	
Mailing Address		
P.O. BOX 2053 DEARBORN, MICHIGAN 48121	Issued MARCH, 1988	Revised AUGUST 31, 1988

Direct questions concerning these specifications to the manufacturer listed above.

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Motor Vehicle Manufacturers Association
of the United States, Inc.

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MVMA-C-89

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (•) 8/31/88

∅ Vehicle Origin

Design & development (company)	Ford Motor Company, West Germany
Where built (country)	Cologne, West Germany
Authorized U.S. sales marketing representative	Lincoln/Mercury/Merkur Division, Ford Motor

∅ Vehicle Models

	Model Description & Drive (FWD/RWD/AWD/4WD)*	Introduction Date	Make, Vehicle Models, Series, Body Type (Mfgr's Model Code)	No. of Designated Seating Positions (Front/Rear)	Max. Trunk/Cargo Load—Kilograms (Pounds)
	REAR WHEEL DRIVE (RWD)				
(•)	**MERKUR XR4TI**	12/1/88	2-Dr. Hatchback (T80)	2/3	68.0 (150)

∅ * FWD-Front Wheel Drive RWD-Rear Wheel Drive
AWD-All Wheel Drive 4WD-Four Wheel Drive

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (•) 5/31/88

METRIC (U.S. Customary)

Power Teams (Indicate whether standard or optional)
SAE J1349 Net bhp (brake horsepower) and net torque corrected to 77°F/25°C and 29.61 in. Hg/100 kPa atmospheric pressure.

	SERIES AVAILABILITY	ENGINE Code	Displ. Liters (in³)	Induction (FI, CARB/BBL, etc.)	Compr. Ratio	SAE Net at RPM Power kW (bhp)	SAE Net at RPM Torque N·m (lb. ft.)	Exhaust S/D*	TRANSMISSION/ TRANSAXLE	AXLE RATIO (std. first)
	50 STATES/ALTITUDE									
(•)	All		2.3 (140)	EFI	8.0	131 (175) 5000	271 (200) 3000	S	M5	3.64
						108 (145) 4400	244 (180) 3000	S	C-3	3.36

M5 — 5-Speed Manual Overdrive
C-3 — 3-Speed Automatic

*Single/Dual

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (•) 5/31/88

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	2.3L

ENGINE — GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-chamber, etc.)		Inline, Front, Longitudinal, Single Overhead Camshaft Engine with Modified Wedge Combustion Chamber
Manufacturer		Ford Motor Company
No. of cylinders		Four
Bore		96.04 (3.78)
Stroke		79.40 (3.12)
Bore spacing (C/L to C/L)		105.99 (4.17)
Cylinder block material & mass kg (lbs.) (machined)		Cast Iron, 39.5 (87.0)
Cylinder block deck height		212.55 (8.36)
Cylinder block length		473.8 (18.6)
Deck clearance (minimum) (above or below block)		0.178
Cylinder head material & mass kg (lbs.)		Cast Iron, 24.5 (54.0)
Cylinder head volume (cm^3)		61.3 (0.007) Above
Cylinder liner material		N/A
Head gasket thickness (compressed)		1.09 (0.043)
Minimum combustion chamber total volume (cm^3)		74.6
Cyl. no. system (front to rear)*	L. Bank	1, 2, 3, 4
	R. Bank	N/A
Firing order		1, 3, 4, 2
Intake manifold material & mass [kg (lbs.)]**		Aluminum Cast, 5.5 (12.1)
Exhaust manifold material & mass [kg (lbs.)]**		Nodular Iron, 5.4 (11.9)
Fuel required unleaded, diesel, etc.		Unleaded, Premium
Fuel antiknock index (R + M) ÷ 2		92 Minimum Octane
(•) Engine mounts	Number	Three
	Material and type (elastomeric, hydroelastic, hydraulic damper, etc.)	Two Hydroelastic in Front, Elastomeric at Rear
	Added isolation (sub-frame, crossmember, etc.)	N/A
Total dressed engine mass (wt) dry***		197.9 (436.3)

Engine — Pistons

Material & mass, g (weight, oz.)-piston only	Forged Aluminum Alloy 480 (16.9)

Engine — Camshaft

Location		Cylinder Head
Material & mass kg (weight, lbs.)		Hardenable Cast Iron 293 (6.45)
Drive type	Chain/belt	Belt
	Width/pitch	21.8-22.8 (0.86-0.90)/9.52 (0.37)

*Rear of engine — drive takeoff. View from drive takeoff end to determine left & right side of engine.

**Finished state.

***Dressed engine mass (weight) includes the following: Front End Dress, All Engine Mounted Components and Flex Plate; Excludes Starter and Alternator.

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (●) _____

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	2.3L

Engine — Valve System

Hydraulic lifters (std., opt., NA)		Standard
Valves	Number intake/exhaust	4/4
	Head O.D. intake/exhaust	44.1 (1.69)/38.1 (1.50)

Engine — Connecting Rods

Material & mass [kg., (weight, lbs.)]*	Forged Steel (SAE 1041-H or SAE 1541-H) 0.63-0.64 (1.38-1.41)
Length (axes ℄ to ℄) mm	

Engine — Crankshaft

Material & mass [kg., (weight, lbs.)]*		Nodular Cast Iron Alloy 15.48 (34.13)
End thrust taken by bearing (no.)		#3
Length & number of main bearings		5
Seal (material, one, two piece design, etc.)	Front	Polyacrylic, One Piece
	Rear	Silicon, One Piece

Engine — Lubrication System

Normal oil pressure [kPa (psi) at engine rpm]	379 (55) @ 2000 RPM
Type oil intake (floating, stationary)	Stationary
Oil filter system (full flow, part, other)	Full Flow
Capacity of c/case, less filter-refill-L (qt.)	4.3 (4.5) Plus 0.45 (0.5) for Filter

Engine — Diesel Information (NOT OFFERED)

Diesel engine manufacturer		
Glow plug, current drain at 0°F		
Injector nozzle	Type	
	Opening pressure [kPa (psi)]	
Pre-chamber design		
Fuel injection pump	Manufacturer	
	Type	
Fuel injection pump drive (belt, chain, gear)		
Supplementary vacuum source (type)		
Fuel heater (yes/no)		
Water separator, description (std., opt.)		
Turbo manufacturer		
Oil cooler-type (oil to engine coolant; oil to ambient air)		
Oil filter		

Engine — Intake System

Turbo charger - manufacturer	Garrett
Super charger - manufacturer	N/A
Intercooler	N/A

*Finished State

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (●) _____

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	2.3L

Engine — Cooling System

Coolant recovery system (std., opt., n.a.)		Standard
Coolant fill location (rad., bottle)		Degas Container Mtd. on LH Fender
Radiator cap relief valve pressure [kPa (psi)]		120 (17.4)
Circulation thermostat	Type (choke, bypass)	Bypass
	Starts to open at °C(°F)	88.9° (192°)
Water Pump	Type (centrifugal, other)	Centrifugal, Vane
	GPM 1000 pump rpm	13.1
	Number of pumps	One
	Drive (V-belt, other)	V-Belt
	Bearing type	Double Row, Sealed, Ball and Roller
	Impeller material	Steel
	Housing material	Cast Iron
By-pass recirculation [type (inter., ext.)]		Internal
Cooling system capacity	With heater-L(qt.)	Manual and Automatic Transmission 9.7 (10.5)
	With air cond.-L(qt.)	Standard
	Opt. equipment [specify-L(qt.)]	N/A
Water jackets full length of cyl. (yes, no)		Yes
Water all around cylinder (yes, no)		Yes
Water jackets open at head face (yes, no)		Yes
Radiator core	Std., A/C, HD	Standard, A/C
	Type (cross-flow, etc.)	Crossflow
	Construction (fin & tube mechanical, braze, etc.)	Tube and Fin, 1 Row — Vacuum Brazed
	Material, mass [kg (wgt, lbs.)]	Aluminum
	Width	600 (23.6)
	Height	388 (15.3)
	Thickness	42 (1.7)
	Fins per inch	16
Radiator end tank material		Plastic
Fan	Std., elec., opt.	Electric
	Number of blades & type (flex, solid, material)	5, Solid, Plastic
	Diameter & projected width	366 (14.4), 31 (1.2)
	Ratio (fan to crankshaft rev.)	N/A
	Fan cutout type	N/A
	Drive type (direct, remote)	Direct
	RPM at idle (elec.)	2230
	Motor rating (wattage) (elec.)	227.5 Max.
	Motor switch (type & location) (elec.)	Single Pole Ground (Bi-Metallic Snap Disc — Lower Intake Manifold)
	Switch point (temp., pressure) (elec.)	Opens — 190°F, Min. Closes — 210° ± 5° F
	Fan shroud (material)	Steel

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (●) 5/31/88

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	2.3L

Engine — Fuel System (See supplemental page for details of Fuel Injection, Supercharger, Turbocharger, etc. if used)

Induction type: carburetor, fuel injection system, etc.		Electronic Fuel Injection
(●) Manufacturer		Ford EEC IV
∅ Carburetor no. of barrels		
(●) Idle A/F mix.		N/A
Fuel injection	Point of injection (no.)	Intake Port, Four (4)
	Constant, pulse, flow	Simultaneous Double Fire
	Control (electronic, mech.)	Electronic
	System pressure [kPa (psi)]	268.9 (39.0) (Above Intake Manifold Pressure)
Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	N/A
	Automatic	N/A
Intake manifold heat control (exhaust or water thermostatic or fixed)		N/A
Air cleaner type		Remote Replaceable Dry Paper Element
(●) Fuel filter (type/location)		Steel Body — Paper Element L.H. Side Rail — Rear
∅ Fuel pump	Type (elec. or mech.)	Two — Electrical
	Location (eng., tank)	Low Pressure in Tank & High Pressure Forward of Tank
	Pressure range [kPa (psi)]	37.9-44.8 (5.5-6.5)
∅	Flow rate at regulated pressure (L (gal)/hr @ kPa (psi))	Two Pumps 1. Lift Pump in Tank (@) 2. High Pressure Pump 75 L/hr at 2.7 Bar

Fuel Tank

Capacity [refill L (gallons)]		57.0 (15.0)
Location (describe)		Behind Rear Axle
Attachment		Two Straps with Pin and Loop at Rear, Bolt at Front
Material & Mass [kg (weight lbs.)]		Steel (Terne Plate) 11.6 (25.6) Includes Sender Unit & Pump
Filler pipe	Location & material	Right Rear Quarter Panel, Steel
	Connection to tank	Rubber Seal
Fuel line (material)		Nylon/Steel
Fuel hose (material)		N/A
Return line (material)		Nylon/Steel
Vapor line (material)		Nylon/Steel
Extended range tank	Opt., n.a.	N/A
	Capacity [L (gallons)]	
	Location & material	
	Attachment	
Auxiliary tank	Opt., n.a.	N/A
	Capacity [L (gallons)]	
	Location & material	
	Attachment	
	Selector switch or valve	
	Separate fill	

(@) Flow Rate Depends on High Pressure Pump

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (●) _____

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	2.3L

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		Electronic Fuel and Spark Control Plus Exhaust Gas Recirculation
	Air Injection	Pump or pulse	N/A
		Driven by	N/A
		Air distribution (head, manifold, etc.)	N/A
		Point of entry	N/A
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Controlled Flow Tapered Stem
		Exhaust source	Exhaust Manifold
		Point of exhaust injection (spacer, carburetor, manifold, other)	Intake Manifold
	Catalytic Converter	Type	TWC + Dual Brick Transverse
		Number of	One
		Location(s)	Underbody
		Volume [L (in³)]	1.08L (66) + 1.08L (66)
		Substrate type	Coated Ceramic Monolith
		Noble metal type	
		Noble metal Concentration (g/cm,)	
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		Closed Induction System
	Energy source (manifold vacuum, carburetor, other)		Intake Duct Vacuum
	Discharges (to intake manifold, other)		Air Intake Duct — Before Turbo
	Air inlet (breather cap, other)		Compressor Inlet Adapter
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Carbon Canister
		Carburetor	N/A
	Vapor storage provision		Carbon Canister
Electronic system	Closed loop (yes/no)		Yes
	Open loop (yes/no)		Yes

Engine — Exhaust System

Type (single, single with cross-over, dual, other)		Single
Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass [kg (weight lbs.)]		Two, Reverse Flow (Front)/Straight Thru (Rear) (a)
Resonator no. & type		N/A
Exhaust pipe	Branch o.d., wall thickness	N/A
	Main o.d., wall thickness	57.2 x 1.07 (2.25 x 0.042)
	Material & Mass [kg (weight lbs.)]	Laminated Construction Aluminum-Coated Steel (a)
Intermediate pipe	o.d. & wall thickness	57.2 x 1.75 (2.25 x 0.069)
	Material & Mass [kg (weight lbs.)]	Aluminum Coated Steel (a)
Tail pipe	o.d. & wall thickness	54.0 x 1.75 (2.12 x 0.069)
	Material & Mass [kg (weight lbs.)]	Aluminum Coated Steel (a)

(a) Purchased in Assembly (PIA) Muffler and Pipe Assembly 11.8 (26.0)

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (•) _____

METRIC (U.S. Customary)

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Transmissions/Transaxle (Std., Opt., N.A.)

Manual 3-speed (manufacturer/country)	N/A
Manual 4-speed (manufacturer/country)	N/A
Manual 5-speed (manufacturer/country)	Standard — Ford
Automatic (manufacturer/country)	Optional — Ford
Automatic overdrive (manufacturer/country)	N/A

Manual Transmission/Transaxle

Number of forward speeds		Five
Gear ratios	1st	3.36:1
	2nd	1.81:1
	3rd	1.26:1
	4th	1.00:1
	5th	0.83:1
	Reverse	3.36:1
Synchronous meshing (specify gears)		1st, 2nd, 3rd, 4th, 5th
Shift lever location		Floor
Trans. case mat'l. & mass kg (lbs)*		Cast Iron, 35 (77)
Lubricant	Capacity [L (pt.)]	1.25 (2.64)
	Type recommended	ESD-M2C175-A

Clutch (Manual Transmission)

Clutch manufacturer		
Clutch type (dry, wet; single, multiple disc)		Dry Plate, Single Disc
Linkage (hydraulic, cable, rod, lever, other)		Cable
Max. pedal effort (nom. spring load, new) N (lbs)	Depressed	
	Released	
Assist (spring, power/percent, nominal)		No
Type pressure plate springs		Diaphragm Spring
Total spring load (nominal, new) N (lbs)		6500-7200 (1461.3-1618.6)
Clutch facing	Facing mfgr. & material coding	Valeo, F-202
	Facing material & construction	Woven, Non-Asbestos
	Rivets per facing	16
	Outside x inside dia. (nominal)	228.6 x 155 (9 x 6.1)
	Total eff. area [cm^2($in.^2$)]	443.0 (68.7)
	Thickness (pressure plate side/ fly wheel side)	3.6 (0.14)
	Rivet depth (pressure plate side/ fly wheel side)	
	Engagement cushion method	Single Segment
Release bearing type & method lub.		Self-Centering, Constant Running
Torsional damping method, springs, hysteresis		Steel Coil Springs

*Includes shift linkage, lubricant, and clutch housing. If other specify.

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (●) _____

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	2.3L

Automatic Transmission/Transaxle

Trade name		3-Speed Automatic (C-3)
Type and special features (describe)		Torque Converter with Planetary Gears
Selector	Location	Floor
	Ltr./No. designation	P R N D 2 1
Gear ratios	1st	2.47:1
	2nd	1.47:1
	3rd	1.00:1
	4th	—
	Reverse	2.11:1
Max. upshift speed - drive range [km/h (mph)]		116 (72.1)
Max. kickdown speed - drive range [km/h (mph)]		Top Speed
Min. overdrive speed [km/h (mph)]		N/R
Torque converter	Number of elements	Three
	Max. ratio at stall	2.2
	Type of cooling (air, liquid)	Liquid
	Nominal diameter	260.4 (10.3)
∅	Capacity factor "K"*	
Lubricant	Capacity [refill L (pt.)]	8.7 (18.5) Approx.
	Type Recommended	ESP-M2C138-CJ
Oil cooler (std., opt., NA, internal, external, air, liquid)		Standard in Radiator, Liquid
∅ Transmission case material & mass kg (lbs)**		Aluminum, 53.0 (116.8)

Axle or Front Wheel Drive Unit

Type (front, rear)		Rear
Description		Rear Wheel Drive Axle Incorporated Aluminum Alloy Cast Axle Housing and Semi Fine Pitch Hypoid Gear Set
Limited slip differential (type)		Viscose
Drive pinion offset		31.75 (1.25)
Drive pinion (type)		Hypoid
No. of differential pinions		Two
Pinion/differential adjustment (shim, other)		Shim
Pinion/differential bearing adjustment (shim, other)		Retainer with Thread
Driving wheel bearing (type)		Taper Roller Bearings
Lubricant	Capacity [L (pt.)]	1.3 (2.8)
	Type recommended	Hypoid Oil SAE 90 Hypoid (Ford Spec. #SQM2C-9003-AA)

Axle or Transaxle Ratio and Tooth Combinations (See 'Power Teams' for axle ratio usage.)

Axle ratio (or overall top gear ratio)		3.64:1	3.36:1
No. of teeth	Pinion	14	
	Ring gear or gear	51	47
Ring gear o.d.		7.5	
Transaxle	Transfer gear ratio	—	
	Final drive ratio	—	

*Input speed + $\sqrt{\text{torque}}$

**Includes shift linkage, lubricant, & clutch housing. If other specify.

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (•) _____

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	2.3L

Propeller Shaft — Rear Wheel Drive

Manufacturer Type (straight tube, tube-in-tube, internal-external damper, etc.)			Straight Tube with Guibo Joint and Center Bearing
Outer diam. x length* x wall thickness	Manual 3-speed trans.		N/A
	Manual 4-speed trans.		N/A
	(M5) Manual 5-speed trans.		Front Section — 50.7 x 469 x 1.65 (2.0 x 24.99 x .065) Rear Section — 50.7 x 794 x 1.65 (2.0 x 34.26 x .065)
	Overdrive		N/A
	(C-3) Automatic transmission		Front Section — 50.7 x 474.5 x 1.65 (2.0 x 21.44 x .065) Rear Section — 50.7 x 794 x 1.65 (2.0 x 31.26 x .065)
Intermediate bearing	Type (plain, anti-friction)		Deep Groove Ball
	Lubrication (fitting, prepack)		Prepacked
Slip yoke	Type		Plain
	Number of teeth		25
	Spline o.d.		27.5 (1.08)
Universal joints	Make and mfg. no.	Front	Guibo 21 (Goetze, West Germany)
		Rear	Intermediate and Rear (Ford of Europe) 4967
	Number used		Two
	Type (ball and trunnion, cross)		Cross
	Rear attach (u-bolt, clamp, etc.)		Bolted Flange
	Bearing — Type (plain, anti-friction)		Needle Roller
	Bearing — Lubrication (fitting, prepack)		Prepacked
Drive taken through (torque tube, arms or springs)			Semi-Trailing Arms
Torque taken through (torque tube, arms or springs)			Rear Suspension Assembly

*Centerline to centerline of universal joints, or to centerline of rear attachment.

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (•) 5/31/88

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement: 2-DOOR HATCHBACK

∅ Suspension — General Including Electronic Controls

	Car leveling	Standard/optional/not avail.	N/A
		Manual/automatic control	
		Type (air/hydraulic)	
		Primary/assist spring	
		Rear only/4 wheel leveling	
		Single/dual rate spring	
		Single/dual ride heights	
		Provision for jacking	Notched Rocker Panel Positions, Front and Rear
(•)	Shock absorber damping controls	Standard/option/not avail.	N/A
		Manual/automatic control	
		Number of damping rates	
		Type of actuation (manual/electric motor/air, etc.)	
		sensors: Lateral acceleration	
		sensors: Deceleration	
		sensors: Acceleration	
		sensors: Road surface	
	Shock absorber (front & rear)	Type	Direct Double Acting Nitrogen Gas Pressurized Front Struts and Rear Shocks
		Make	Fichtele and Sachs
		Piston diameter	N/A
		Rod diameter	Front — 20 (0.79)

∅ Suspension — Front

	Type and description		MacPherson Strut
	Travel*	Full jounce	73.0 (2.87)
		Full rebound	102.0 (4.02)
	Spring	Type (coil, leaf, other) & material	Coil, Steel
		Insulators (type & material)	None
		Size (coil design height & i.d., bar length x dia.)	I.D. — 112 (4.41) Dia. — 11.6 (0.46)
		Spring rate [N/mm (lb./in.)]	17 (97)
		Rate at wheel [N/mm (lb./in.)]	18.0 (103.0)
	Stabilizer	Type (link, linkless, frameless)	Linkless
		Material & bar diameter	26.0 (1.02)

∅ Suspension — Rear

	Type and description		Independent
	Travel*	Full jounce	91.9 (3.62)
		Full rebound	123.2 (4.85)
	Spring	Type (coil, leaf, other) & material	Coil, Steel
		Size (length x width, coil design height & i.d., bar length & dia.)	I.D. — 100 (3.94) Dia. — 10.4-15.6 (0.41-0.61)
		Spring rate [N/mm (lb./in.)]	Variable 45-88 (256-502)
		Rate at wheel [N/mm (lb./in.)]	Variable 18.5-36.4 (105-202)
		Insulators (type & material)	Rubber Snubber
		If leaf: No. of leaves	N/A
		If leaf: Shackle (comp. or tens.)	N/A
	Stabilizer	Type (link, linkless, frameless)	Link
		Material & bar diameter	10.0 (0.39)
	Track bar (type)		None

*Define load condition:

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (•) _____

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement: 2-DOOR HATCHBACK

Brakes — Service

Description			Four Wheel Hydraulic Actuated System
Manufacturer and brake type (std., opt., n.a.)	Front (disc or drum)		Disc, Vented, Standard
	Rear (disc or drum)		Drum, Finned, Standard
Valving type (proportion, delay, metering, other)			Proportioning — Deceleration Conscious
Power brake (std., opt., n.a.)			Standard
Booster type (remote, integral, vac., hyd., etc.)			Vacuum — 203 (8.0) Double Diaphragm Booster
Vacuum	Source (inline, pump, etc.)		Engine Manifold Vacuum
	Reservoir (volume in.³) and source		
	Pump-type (elec., gear driven, belt driven)		
Traction control	Operational speed range		
	Type engine intervention (electronic, mech.)		
Anti-lock device	Front/rear (std., opt., n.a.)		N/A
	Manufacturer		
	Type (electronic, mech.)		
	Number sensors or circuits		
	Number anti-lock hydraulic circuits		
	Integral or add-on system		
	Yaw control (yes, no)		
	Hydraulic power source (elect., vac. mtr., pwr. strg.)		
Effective area [cm²(in.²)]*			140 (21.7)/536.8 (83.2)
Gross lining area [cm²(in.²)]**(F/R)			180 (27.9)/536.8 (83.2)
Swept area [cm²(in.²)]***(F/R)			1349.3 (209.0)/877.3 (136.0)
Rotor	Outerworking diameter	F/R	260 (10.2)
	Inner working diameter	F/R	157 (6.2)
	Thickness	F/R	24.15 (0.95)
	Material & type (vented/solid)	F/R	Cast Iron Vented
Drum	Diameter & width	F/R	254.0 (10.0) Dia./55 (2.16)
	Type and material	F/R	Cast Iron Vented
Wheel cylinder bore			22.2 (0.87)
Master cylinder	Bore/stroke	F/R	Bore 25.4 (1.00)/Stroke 32.0 (1.26)
Pedal arc ratio			Average 4.6:1
Line pressure at 445 N(100 lb.) pedal load [kPa (psi)]			10.6 (1558)
Lining clearance		F/R	0.3 (0.12) Front/0.5-0.9 (0.012-0.035) Rear
Brake lining — Front wheel	Bonded or riveted (rivets/seg.)		Bonded Pad
	Rivet size		N/A
	Manufacturer		Mintex
	Lining code*****		M8976 (Mintex)
	Material		Molded Asbestos Free
	**** Primary or out-board		105 x 46.6 x 12.5 (4.13 x 1.83 x .49)
	Size Secondary or in-board		105 x 46.6 x 12.5 (4.13 x 1.83 x .49)
	Shoe thickness (no lining)		5.5 (0.22)
Brake lining — Rear wheel	Bonded or riveted (rivets/seg.)		Bonded Lining
	Manufacturer		Ferodo
	Lining Code*****		F360/FFF (Ferodo)
	Material		Molded Asbestos Free
	**** Primary or out-board		244 x 55 x 4.75 (9.60 x 2.16 x .19)
	Size Secondary or in-board		244 x 55 x 3.25 (9.60 x 2.16 x .13)
	Shoe thickness (no lining)		2.18 to 2.64 (1.09 to 0.10)

*Excludes rivet holes, grooves, chamfers, etc. **Includes rivet holes, grooves, chamfers, etc.
***Total swept area for four brakes. (Drum brake: Widest lining contact width for each brake x its contact circumference.)
(Disc brake: Square of Outer Working Dia. minus Square of inner Working Dia. multiplied by Pi/2 for each brake.)
****Size for drum brakes includes length x width x thickness. *****Manufacturer I.D., catalog or formulation designation and coefficient of friction classification.

MVMA Specifications Form

Vehicle Line XR4Ti

Model Year 1989 Issued 3/88 Revised (●) _____

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	2-DOOR HATCHBACK

Tires And Wheels (Standard)

Tires	Size (load range, ply)		195/60HR15 Pirelli P6
	Type (bias, radial, steel, nylon, etc.)		Steel Belted Radial
	Inflation pressure (cold) for recommended max. vehicle load	Front [kPa (psi)]	221 (32)
		Rear [kPa (psi)]	221 (32)
	Rev./mile — at 70 km/h (45 mph)		858
Wheels	Type & material		Cast Aluminum Alloy
	Rim (size & flange type)		15" x 5.5" J
	Wheel offset		41.0 (1.61)
	Attachment	Type (bolt or stud)	Stud
		Circle diameter	107.95 (4.25)
		Number & size	Four — 12 (0.47)
Ⓓ Spare	Tire and wheel		T115/70R15 Mini Spare with 15 x 4 Steel Wheel/414 kPa 60 PSI
	Storage position & location (describe)		Flat Position, Well in Trunk

Tires And Wheels (Optional) (NONE AVAILABLE)

Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Ⓓ Spare tire and wheel (size) (if configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position	

Brakes — Parking

Type of control		Pull Lever — Push-Button Release
Location of control		Tunnel Mounted
Operates on		Rear Service Brakes
If separate from service brakes	Type (internal or external)	N/A
	Drum diameter	N/A
	Lining size (length x width x thickness)	N/A

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (•) ____

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement: 2-DOOR HATCHBACK

Steering

Manual (std., opt., n.a.)				N/A
Power (std., opt., n.a.)				Standard
Adjustable steering wheel/column (tilt, telescope, other)		Type		N/A
		Manufacturer		N/A
		(Std., opt., n.a.)		N/A
Wheel diameter** (W9) SAE J1100		Manual		N/A
		Power		382 (15.0)
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)		11.3 (37.1)
		Curb to curb (l. & r.)		10.8 (35.4)
	Inside rear	Wall to wall (l. & r.)		—
		Curb to curb (l. & r.)		—
Scrub Radius*				15 (0.59)
Manual	Gear	Type		N/A
		Manufacturer		N/A
		Ratios	Gear	N/A
			Overall	N/A
	No. wheel turns (stop to stop)			N/A
Power	Type (coaxial, elec., hyd., etc.)			Variable Ratio Hydraulic
	Manufacturer			ZF
	Gear	Type		Servo-Assisted Rotary Valve Rack and Pinion
		Ratios	Gear	12.07 to 16.38
			Overall	12.60
	Pump (drive)			Belt Off Crankshaft Pulley
	No. wheel turns (stop to stop)			2.46
Linkage	Type			N/A
	Location (front or rear of wheels, other)			Front of Wheels
	Tie rods (one or two)			Two
Steering axis	Inclination at camber (deg.)			13°43′
	Bearings (type)	Upper		Ball Race (Thrust)
		Lower		Ball Joint
		Thrust		N/A
Steering spindle & joint type				Cast Iron Knuckle (Includes Steering Arm)
Wheel spindle/hub	Diameter	Inner bearing		60 (2.36)
		Outer bearing		60 (2.36)
	Thread (size)			M27 x 2.00 LH Thread on RH Side/RH Thread on LH Side
	Bearing (type)			Setright Tapered Roller

*The horizontal distance in the front elevation between wheel centerline and kingpin (ball joint) axis at ground.

**See Page 22.

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (•) _____

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	2-DOOR HATCHBACK

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	1°58′ ± 1° (Pre-Set)
		Camber (deg.)	− 0°32′ ± 1° (Pre-Set)
		Toe-in [outside track-mm (in.)]	0°20′ Toe-In ± 0°25′ (Combined Whl. to Whl.) Adjustment
	Service reset*	Caster	Nil Adjustment
		Camber	Nil Adjustment
		Toe-in	0°20′ Toe-In ± 0°10′
	Periodic M.V. inspection	Caster	N/A
		Camber	N/A
		Toe-in	N/A
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	2°07′ to 2°50′ (Dependent Upon Ride Height)
		Toe-in [outside track-mm (in.)]	0°8′ Toe-In ± 0°34′ (Combined Whl. to Whl.) Pre-Set
	Service reset*	Camber	Nil Adjustment
		Toe-in	N/A
	Periodic M.V. inspection	Camber	N/A
		Toe-in	N/A

*Indicates pre-set, adjustable, trend set or other.

Electrical — Instruments and Equipment

Speedometer	Type (analog, digital, std., opt.)	Pointer, Standard
	Trip odometer (std., opt., n.a.)	Standard
EGR maintenance indicator		None
Charge indicator	Type	Warning Light in Instrument Cluster
	Warning device (light, audible)	None
Temperature indicator	Type	Electric Bi-Metal Gage 75° (a)
	Warning device (light, audible)	None
Oil pressure indicator	Type	Warning Light in Instrument Cluster
	Warning device (light, audible)	None
Fuel indicator	Type	Electric Bi-Metal Gage 75° (a)
	Warning device (light, audible)	Low Fuel Warning Light in I/P
Windshield wiper	Type (standard)	Intermittent Electric Wiper (Column-Mounted Control)
	Type (optional)	None
	Blade length	500 (19.68)
	Swept area [cm²(in.²)]	5879 (911.2)
Windshield washer	Type (standard)	Electric Pump (Impeller Type)
	Type (optional)	None
	Fluid level indicator (light, audible)	Electronic Graphic Display Indicator Lamp
Rear window wiper, wiper/washer (std., opt., n.a.)		None
Horn	Type	Electric
	Number used	One High Pitch and One Low Pitch
Other		

(a) Instrument Voltage Regulator: 10 Volts DC, Solid State

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (•) 5/31/88

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	2.3L

Electrical — Supply System

Battery	Manufacturer	Motorcraft
	Model, std., (opt.)	Standard
	Voltage	12 Volt
	Amps at 0°F cold crank	590
	Minutes-reserve capacity	90
	Amp/hrs. - 20 hr. rate	55
	Location	Right Rear Corner of Engine Compartment
Alternator	Manufacturer	Bosch
	Rating (idle/max. rpm) 10300	Bosch (90 Amp)
	Ratio (alt. crank/rev.)	2.2:1
	Output at idle (rpm, park)	
	Optional (type & rating)	None
Regulator	Type 10316	Electronic Integral with Alternator

Electrical — Starting System

(•) Start. motor	Manufacturer		Ford Motor — EED
	Current drain at 0°F		260-285 Amps
	Power rating [kw (hp)]		
Motor drive	Engagement type		Positive
	Pinion engages from (front, rear)		Front

Electrical — Ignition System

Type	Electronic (std., opt., n.a.)		Standard
	Other (specify)		N/A
(•) Coil	Manufacturer		Motorcraft
	Model 12024		86GB-AA
	Current	Engine stopped — A	6.5
		Engine idling — A	3.2
Spark plug	Manufacturer		Motorcraft
	Model		AWSF-32C
	Thread (mm)		14
	Tightening torque [N-m (lb. ft)]		7-14 (5-10)
	Gap		0.86 (0.034)
	Number per cylinder		One
Distributor	Manufacturer		Motorcraft
	Model		TFI (Thick Film Ignition)

Electrical — Suppression

Locations & type	Resistor Spark Plugs and Resistance Core Ignition Wire. Ground Cable-Engine to Apron, Hood Bond, RF Shielding Material, Arc-Suppression Diodes, Braided Ground Strap-Radio to Body.

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (•) ____

METRIC (U.S. Customary)

Body Type	2-DOOR HATCHBACK

Body

Structure	Unitized Body Construction and Energy-Absorbing Front and Rear Structures with Anchors for Engine, Suspension, Steering and Driveline Components
∅ Bumper system front-rear	Urethane Fascia Over Aluminum Reinforcing Beam. Gas and Oil Filled Energy Absorbers (Five (5) Mile Per Hour Bumper Front/Rear — Ford Requirements)
Anti-corrosion treatment	Selected Critical Body Parts are Protected by the Use of Coated Steel or Through Application of Zinc-Rich Primer. During Body Assembly, Vinyl Sealers and Aluminized Wax are Used, Each for Selected Body Parts

∅ Body — Miscellaneous Information

Type of finish (lacquer, enamel, other)		Polyester
Hood	Material & mass	
	Hinge location (front, rear)	Rear
	Type (counterbalance, prop)	Prop
	Release control (internal, external)	Primary-Internal, Secondary-External
Trunk lid	Material & mass	N/A
	Type (counterbalance, other)	N/A
	Internal release control (elec., mech., n.a.)	N/A
Hatch-back lid	Material & mass	
	Type (counterbalance, other)	Gas Struts
	Internal release control (elec., mech., n.a.)	N/A
Tailgate	Material & mass	N/A
	Type (drop, lift, door)	N/A
	Internal release control (elec., mech., n.a.)	N/A
Vent window control (crank, friction, pivot, power	Front	N/A
	Rear	Pivot
Window regulator type (cable, tape, flex, drive, etc.)	Front	
	Rear	
Seat cushion type (e.g., 60/40, bucket, bench, wire, foam etc.)	Front	Bucket, Stamped Frame, Foam Pad
	Rear	60/40 Bench, Stamped Frame, Foam Pad
	3rd seat	N/A
Seat back type (e.g., 60/40, bucket, bench, wire, foam etc.)	Front	Stamped Frame, Foam Pad
	Rear	60/40 Bench, Stamped Frame, Foam Pad
	3rd seat	N/A

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (●) 5/31/88

METRIC (U.S. Customary)

Body Type 2-DOOR HATCHBACK

Restraint System

Seating Position			Left	Center	Right
(●) Active	Type & description (lap & shoulder belt, lap belt, etc.) Standard/optional	First seat	3-Point Lap & Shoulder Belt Using Emergency Locking Retractor	N/A	3-Point Lap & Shoulder Belt Using Emergency Locking Retractor
		Second seat	3-Point Lap & Shoulder Belt Using Emergency Locking Retractor	2-Point Static Lap Belt, Manual Adjustment	3-Point Lap & Shoulder Belt Using Emergency Locking Retractor
		Third seat	N/A	N/A	N/A
(●) Passive	Type & description (air bag, motorized-2-point belt, fixed belt, knee bolster, manual-lap belt) Standard/optional	First seat	N/A	N/A	N/A
		Second seat	N/A	N/A	N/A
		Third seat	N/A	N/A	N/A

Glass

	SAE Ref. No.	
Windshield glass exposed surface area [cm²(in.²)]	S1	7880 (1221)
Side glass exposed surface area [cm²(in.²)]-total 2-sides	S2	11260 (1745)
Backlight glass exposed surface area [cm²(in.²)]	S3	7505 (1163)
Total glass exposed surface area [cm²(in.²)]	S4	26645 (4129)
Windshield glass (type)		Laminated
Side glass (type)		Tempered
Backlight glass (type)		Tempered

Lamps and Headlamp Locations

Headlamps	Description-sealed beam, halogen, replaceable bulb, etc.	Replaceable Bulb
	Shape	Rectangular
	Lo-beam type (2A1, 2B1, 2C1, etc.)	Standard
	Quantity	02
	Hi-beam type (1A1, 2A1, 1C1, 2C1,etc.)	Standard
	Quantity	02

Frame

Type and description (separate frame, unitized frame, partially-unitized frame)	Unitized Construction (Bolt on #2 Crossmember and Rear Suspension Crossmember)

MVMA Specifications Form

Vehicle Line XR4Ti

Model Year 1989 Issued 3/88 Revised (●) _____

METRIC (U.S. Customary)

Body Type	2-DOOR HATCHBACK

Convenience Equipment (standard, optional, n.a.)

∅ Air conditioning (manual, auto. temp control)		Manual, Standard
Clock (digital, analog)		Digital, Standard
Compass/thermometer		N/A
Console (floor, overhead)		Overhead and Floor, Std.; Power Window Switches Incl. in Console
Defroster, elec. backlight		Standard
Electronic	Diagnostic monitor (integrated, individual)	Integrated Graphic Display and Individual Warning Lts., Std.
	Instrument cluster (list instruments)	
	Keyless entry	N/A
	Tripminder (avg. spd., fuel)	
	Voice alert (list items)	N/A
	Other	Icy Conditions Alert, Standard
	Other	
Fuel door lock (remote, key, electric)		N/A
Lamps	Auto head on/off delay, dimming	N/A
	Cornering	N/A
	Courtesy (map, reading)	Standard
	Door lock, ignition	Torch Key, Standard
	Engine compartment	N/A
	Fog	Standard
	Glove compartment	Standard
	Trunk	Standard
∅	Illuminated entry system (list lamps, activation)	N/A
	Other	
	Other	
Mirrors	Day/night (auto. man.)	Manual, Standard
	L.H. (remote, power, heated)	Heated, Power Remote, Standard
	R.H. (convex, remote, power, heated)	Heated, Power Remote, Standard
	Visor vanity (RH/LH, illuminated)	RH Illuminated Visor Vanity, Standard
∅ Navigation system (describe)		
Parking brake-auto release (warning light)		Warning Lamp, Standard

MVMA Specifications Form

Vehicle Line XR4Ti

Model Year 1989 Issued 3/88 Revised (●) _____

METRIC (U.S. Customary)

Body Type 2-DOOR HATCHBACK

Convenience Equipment (standard; optional, n.a.)

	Deck lid (release, pull down)		
	Door locks (manual, automatic, describe system)		Automatic, Optional
Power equipment	Seats	2 - 4 - 6 way, etc.	
		Reclining (R.H., L.H.)	Front RH & LH Infinitely Variable Reclining, Std.
		Memory (R.H., L.H., preset, recline)	
		Lumbar, hip, thigh, support	Front RH & LH Manual Lumbar, Optional
		Heated (R.H., L.H., other)	Front RH & LH, Optional
	Side windows		Optional
	Vent windows		N/A
	Rear windows		N/A
Radio systems	Antenna (location, whip, w/shield, power)		Backlite, Standard
	Standard		Electronic AM/FM Stereo Cassette with Dolby, Auto-Reverse, Seek/Scan and Twelve Station Memory
	Optional	AM, FM, stereo, tape compact disc, graphic equalizer, theft deterrent, radio prep package, headphone jacks, etc.	N/A
	Speaker (number, location)		4 — 2 Front/2 Rear w/Joystick Control, Standard
Roof open air fixed (flip-up, sliding, "T")			Flip-Up/Sliding Sunroof, Optional
Speed control device			Optional
Speed warning device (light, buzzer, etc.)			N/A
Tachometer (rpm)			Standard
Telephone system (describe)			N/A
Theft deterrent system			N/A

MVMA Specifications Form

Vehicle Line XR4Ti

Model Year 1989 Issued 3/88 Revised (•) 5/31/88

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

All dimensions to ground are for comparative purposes only. Dimensions are to be shown for all base body models of each vehicle line.
SAE Ref. no. refers to the definition published in SAE Recommended Practice J1100 "Motor Vehicle Dimensions," unless otherwise specified.

Body Type	SAE Ref. No.	2-DOOR HATCHBACK
Width		
Tread (front)	W101	1452 (57.2)
Tread (rear)	W102	1468 (57.8)
Vehicle width	W103	1728 (68.0)
Body width at SgRP (front)	W117	1672 (65.8)
Vehicle width (front doors open)	W120	3850 (151.6)
Vehicle width (rear doors open)	W121	N/A
(•) Front fender overall width	W106	1657 (65.2)
(•) Rear fender overall width	W107	1692 (66.6)
Tumble-home (deg.)	W122	23.4°
(•) Vehicle width including mirrors		1921 (75.6)
Length		
Wheelbase	L101	2608 (102.7)
Vehicle length	L103	4532 (178.4)
Overhang (front)	L104	882 (34.7)
Overhang (rear)	L105	1042 (41.0)
Upper structure length	L123	2876 (113.2)
Rear wheel C/L "X" coordinate	L127	4310 (169.7)
Cowl point "X" coordinate	L125	2159 (85.0)
Front end length at centerline	L126	1339 (52.7)
Rear end length at centerline	L129	212 (8.4)
Height*		
Passenger distribution (front/rear)	PD1,2,3	2/2
Trunk/cargo load		0
Vehicle height	H101	1367 (53.8)
Cowl point to ground	H114	950 (37.4)
Deck point to ground	H138	926 (36.5)
Rocker panel-front to ground	H112	213 (8.4)
Bottom of door closed-front to ground	H133	300 (11.8)
Rocker panel-rear to ground	H111	202 (8.0)
Bottom of door closed-rear to ground	H135	N/A
Windshield slope angle	H122	60°
Backlight slope angle	H121	64°
Ground Clearance*		
Front bumper to ground	H102	177 (7.0)
Rear bumper to ground	H104	193 (7.6)
Bumper to ground [front at curb mass (wt.)]	H103	194 (7.6)
Bumper to ground [rear at curb mass (wt.)]	H105	232 (9.1)
Angle of approach (degrees)	H106	19.5°
Angle of departure (degrees)	H107	14.5°
(•) Ramp breakover angle (degrees)	H147	10.8°
(•) Axle differential to ground (front/rear)	H153	156.0 (6.1)
(•) Min. running ground clearance	H156	115.0 (4.5)
Location of min. run. grd. clear.		Converter Grass Shield

*All vehicle **height** and **ground** clearances are measured at the Manufacturer's Design Load Weight.
Manufacturers Design Load Weight is defined with indicated passenger distribution and trunk/cargo load, unless otherwise specified.
All linear dimensions are in millimeters (inches) unless otherwise noted.

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (•) _____

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

Body Type		2-DOOR HATCHBACK
Front Compartment	**SAE Ref. No.**	
SgRP front, "X" coordinate	L31	3124 (123.0)
Effective head room	H61	977 (38.5)
Max. eff. leg room (accelerator)	L34	1041 (41.0)
SgRP to heel point	H30	262 (10.3)
SgRP to heel point	L53	824 (32.4)
Back angle	L40	25°
Hip angle	L42	94.2°
Knee angle	L44	118.6°
Foot angle	L46	87.0°
Design H-point front travel	L17	215 (8.5)
Normal driving & riding seat track trvl.	L23	184 (7.2)
Shoulder room	W3	1368 (53.9)
Hip room	W5	1300 (51.2)
Upper body opening to ground	H50	1243 (48.9)
Steering wheel maximum diameter*	W9	382 (15.0)
Steering wheel angle	H18	24.9°
Accel. heel pt. to steer. whl. cntr	L11	421 (16.2)
Accel. heel pt. to steer. whl. cntr	H17	635 (25.0)
Steering wheel to C/L of thigh	H13	60 (2.4)
Steering wheel torso clearance	L7	
Headlining to roof panel (front)	H37	18 (0.7)
Undepressed floor covering thickness	H87	15 (0.6)
Rear Compartment		
SgRP point couple distance	L50	779 (30.7)
Effective head room	H63	957 (37.7)
Min. effective leg room	L51	873 (34.4)
SgRP (second to heel)	H31	297 (11.7)
Knee clearance	L48	15 (0.6)
Compartment room	L3	673 (26.5)
Shoulder room	W4	1374 (54.1)
Hip room	W6	1134 (44.6)
Upper body opening to ground	H51	N/A
Back angle	L41	26°
Hip angle	L43	86.3°
Knee angle	L45	86.3°
Foot angle	L47	115.5°
Headlining to roof panel (second)	H38	18 (0.7)
Depressed floor covering thickness	H73	15 (0.6)
Luggage Compartment		
Usable luggage capacity [L (cu.ft.)]	V1	—
Liftover height	H196	749 (29.5)
Interior Volumes (EPA Classification)		
Vehicle class		Compact
Interior volume index (cu.ft.)		107.5
Trunk/cargo index (cu.ft.)		17.7

*See page 14.

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (•) _____

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

Body Type 2-DOOR HATCHBACK

Station Wagon—Third Seat	SAE Ref. No.	(NOT APPLICABLE)
Seat facing direction	SD1	
SgRP couple distance	L85	
Shoulder room	W85	
Hip room	W86	
Effective leg room	L86	
Effective head room	H86	
SgRP to heel point	H87	
Knee clearance	L87	
Back angle	L88	
Hip angle	L89	
Knee angle	L90	
Foot angle	L91	

Station Wagon—Cargo Space		(NOT APPLICABLE)
Cargo length (open front)	L200	
Cargo length (open second)	L201	
Cargo length (closed front)	L202	
Cargo length (closed second)	L203	
Cargo length at belt (front)	L204	
Cargo length at belt (second)	L205	
Cargo width (wheelhouse)	W201	
Rear opening width at floor	W203	
Opening width at belt	W204	
Min. rear opening width above belt	W205	
Cargo height	H201	
Rear opening height	H202	
Tailgate to ground height	H250	
Front seatback to load floor height	H197	
Cargo volume index [$m^3(ft.^3)$]	V2	
Hidden cargo volume index [$m^3(ft.^3)$]	V4	
Cargo volume index-rear of 2-seat	V10	

Hatchback—Cargo Space		2-DOOR HATCHBACK
Cargo length at front seatback height	L208	1480 (58.3)
Cargo length at floor (front)	L209	1571 (61.8)
Cargo length at second seatback height	L210	680 (26.8)
Cargo length at floor (second)	L211	965 (38.0)
Front seatback to load floor height	H197	480 (18.9)
Second seatback to load floor height	H198	442 (17.4)
Cargo volume index [$m^3(ft.^3)$]	V3	1.0 (35.5)
Hidden cargo volume index [$m^3(ft.^3)$]	V4	N/A
Cargo volume index-rear of 2-seat	V11	0.50 (17.7)

Aerodynamics*	
Wheel lip to ground, front	—
Wheel lip to ground, rear	—
Frontal area [$m^2(ft.^2)$]	—
Drag coefficient (Cd)	—

*EPA Loaded Vehicle Weight, Loading Conditions

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line XR4Ti

Model Year 1989 Issued 3/88 Revised (•) _____

Body Type 2-DOOR HATCHBACK

Vehicle Fiducial Marks

Fiducial Mark Number*	Define Coordinate Location
Front 1 & 2	Master control hole on top surface of LH and RH front sidemembers which serve as forward attachment hole for engine front crossmember locates the "X" coordinate relative to body grid. X = 1625 Y = N/A
Rear 3	Vehicle jacking hole in rear floor pan on left side of vehicle forward of LH wheelwell locates the "Y" and "Z" coordinates relative to body grid.

Fiducial Mark Number		
Front	W21*	403 (15.9)
	L54*	1625 (64.0)
	H81*	488 (19.2)
	H161*	—
	H163*	—
Rear	W22*	812 (24.1)
	L55*	3665 (144.3)
	H82*	391 (15.4)
	H162*	—
	H164*	—

*Reference—SAE Recommended Practice, J182, Motor Vehicle Fiducial Marks.

MVMA Specifications Form

Vehicle Line XR4Ti

Model Year 1989 Issued 3/88 Revised (●) 8/31/88

METRIC (U.S. Customary)

			Vehicle Mass (weight)							
			CURB MASS, kg. (lb.)*			% PASS. MASS DISTRIBUTION				
						Pass. In Front		Pass. In Rear		
	Code	Model	Front	Rear	Total	Front	Rear	Front	Rear	ETWC**
	99W/445									
(●)	2.3L EFI	(T80)	702	622	1324	46	54	16	84	3250
	Turbo w/5-Spd.		(1548)	(1372)	(2920)					
	Man. Trans. (M5)									
	99W/440									
(●)	2.3L EFI	(T80)	702	622	1324	46	54	16	84	3250
	Turbo w/3-Spd.		(1547)	(1371)	(2918)					
	Auto. Trans. (C-3)									

(●) SHIPPING MASS (weight) = Curb Weight Less Kg. (lbs.) 52 (115)

*Reference — SAE J1100 Motor vehicle dimensions, curb weight definition.

**ETWC — Equivalent Test Weight Class — U.S. Environmental Protection Agency emission certifications are based on the ETWC's shown.

NA — Not Applicable — applies to model/series combinations not requiring testing.

MVMA Specifications Form

Vehicle Line XR4Ti
Model Year 1989 Issued 3/88 Revised (•) _____

METRIC (U.S. Customary)

Optional Equipment Differential Mass (weight)*					
		MASS, kg. (lb.)			Remarks Restrictions, Requirements
Code	Equipment	Front	Rear	Total	
21C	Tilt/Slide	4.7	10.1	14.8	
	Screened Moonroof	(10.4)	(22.3)	(32.7)	
463	Heated Front Seats	2.4	0	2.4	
		(5.4)	0	(5.4)	
	Metallic Paint	0.5	0.5	1.0	
		(1.1)	(1.1)	(2.2)	
	Leather Trim	0.8	0.8	1.6	
		(1.8)	(1.8)	(2.6)	

*Also see Engine - General Section for dressed engine mass (weight).