

MAINTENANCE

REFER TO 1988 CELICA REPAIR MANUAL (Pub. No. RM071U)

NOTE: The following pages contain only the points which differ from the above listed manual.

	Page
MAINTENANCE SCHEDULE	MA-2
MAINTENANCE OPERATIONS	MA-4
GENERAL MAINTENANCE	MA-12



GENERAL NOTES:

- Every service item in the periodic maintenance list must be performed.
- Failure to do even one item can cause the engine to run poorly and increase exhaust emissions.

MA-2

MAINTENANCE — Maintenance Schedule

MAINTENANCE SCHEDULE

Maintenance operations: A = Check and adjust if necessary;
R = Replace, change or lubricate;
I = Inspect and correct or replace if necessary

NORMAL CONDITION SCHEDULE

System	Service interval (Odometer reading or months, whichever comes first)	Maintenance services beyond 60,000 miles (96,000 km) should be performed at the same intervals shown in each maintenance schedule.										See page (item No.)
		Miles x 1,000										
		Km x 1,000										
		Months										
ENGINE	Maintenance items	10	20	30	40	50	60					
	Valve clearance	16	32	48	64	80	96					A
	Drive belts ⁽¹⁾	12	24	36	48	60	72					I
	Engine oil and oil filter★	R ⁽²⁾										MA-5 (item 6)
	Engine and intercooler coolant ⁽³⁾											MA-5 (item 7, 8)
FUEL	Exhaust pipes and mountings			I								MA-6 (item 12)
	Air filter★				R							MA-4 (item 4)
	Fuel lines and connections			I								MA-6 (item 11)
	Fuel tank cap gasket											MA-6 (item 10)

MAINTENANCE — Maintenance Schedule

MA-3

Follow the severe condition schedule if vehicle is operated mainly under one or more of the following severe conditions:

- Towing a trailer, using a camper or car top carrier.
- Repeat short trips less than 5 miles (8 km) and outside temperatures remain below freezing.
- Extensive idling and/or low speed driving for a long distance such as police, taxi or door-to-door delivery use.
- Operating on dusty, rough, muddy or salt spread roads.

SEVERE CONDITION SCHEDULE

System	Service interval (Odometer reading or months, whichever comes first)	Maintenance services beyond 60,000 miles (96,000 km) should be performed at the same intervals shown in each maintenance schedule.																								See page (item No.)	
		Maintenance items																									
		Miles x 1,000						Km x 1,000						Months													
		5	10	15	20	25	30	35	40	45	50	55	60	8	16	24	32	40	48	56	64	72	80	88	96		
ENGINE	Timing belt	R ⁽¹⁾																								MA-4 (item 1)	
	Valve clearance																								A	MA-6 (item 13)	
	Drive belts ⁽²⁾																								I	MA-4 (item 2)	
	Engine oil and oil filter★	R ⁽³⁾																								MA-5 (item 6)	
FUEL	Engine and intercooler coolant ⁽⁴⁾																									R	MA-5 (item 7, 8)
	Exhaust pipes and mountings																								I	MA-6 (item 12)	
	Air filter★ ⁽⁵⁾																								I	MA-4 (item 3, 4)	
	Fuel lines and connections																								I	MA-6 (item 11)	
	Fuel tank cap gasket																									R	MA-6 (item 10)

MAINTENANCE OPERATIONS

ENGINE

Cold Engine Operations

1. REPLACE TIMING BELT

- (a) Remove the timing belt.
(See pages EM-11 to 14)
- (b) Install the timing belt.
(See pages EM-16 to 20)

2. INSPECT DRIVE BELT

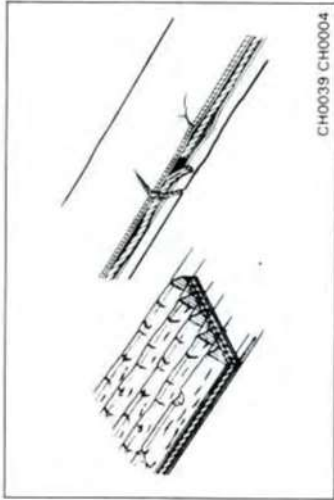
- (a) Visually check the belt for separation of the adhesive rubber above and below the core, core separation from the belt side, severed core, separation of the rib from the adhesive rubber, cracking or separation of the ribs, torn or worn ribs or cracks in the inner ridges of the ribs.

If necessary, replace the drive belt.

- (b) Using a belt tension gauge, measure the drive belt tension.

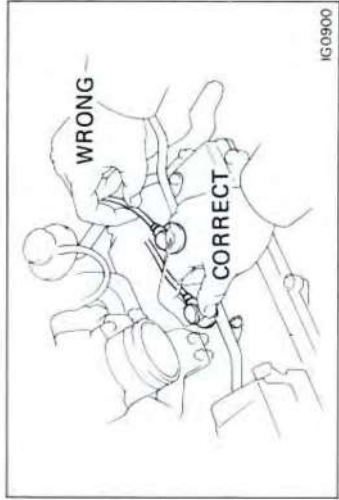
Belt tension gauge:

Nippondenso BTG-20 (95506-00020)
Borroughs NO.BT-33-73F



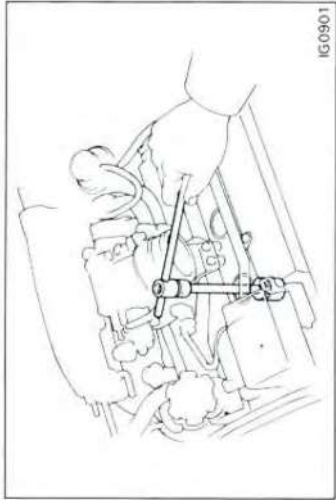
Nippondenso

Borroughs



5. REPLACE SPARK PLUGS

- (a) Remove the intercooler. (See page TC-9)
- (b) Disconnect the spark plug cords at the rubber boot.
DO NOT pull on the cords.



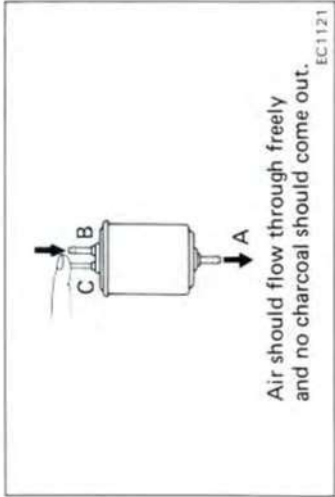
- (c) Using a plug wrench (16 mm), remove the spark plugs.



- (d) Check the electrode gap of new spark plugs.
Correct electrode gap: 0.8 mm (0.031 in.)

MA-6

MAINTENANCE — Maintenance Operations



9. INSPECT CHARCOAL CANISTER

- (a) Disconnect the hoses to the charcoal canister. Label hoses for correct installation.
- (b) Plug pipe C with your finger, and blow compressed air (3 kg/cm², 43 psi or 294 kPa) through pipe B (fuel tank side).
 - Check that air comes out of the bottom pipe A without resistance.
 - Check that no activated charcoal comes out.

If necessary, replace the charcoal canister.

NOTE: Do not attempt to wash the charcoal.

- (c) Connect the hoses to the charcoal canister.

10. REPLACE GASKET IN FUEL TANK CAP

- (a) Remove the old gasket (O-ring) from the tank cap. Do not damage the cap.
- (b) Install a new gasket by hand.
- (c) Check the cap for damage or cracks.
- (d) Install the cap and check the torque limiter.



11. INSPECT FUEL LINES AND CONNECTIONS

Visually check the fuel lines for cracks, leakage, loose connections. deformation or tank band looseness.

BRAKES**14. INSPECT BRAKE LINE PIPES AND HOSES**

NOTE: Check in a well lighted area. Check the entire circumference and length of the brake hoses using a mirror as required. Turn the front wheels fully right or left before checking the front brake.

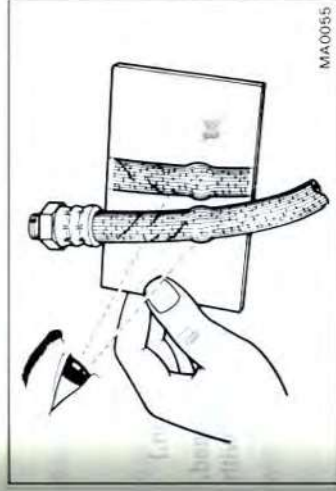
(a) Check all brake lines and hoses for:

- Damage
- Wear
- Deformation
- Cracks
- Corrosion
- Leaks
- Bends
- Twists

(b) Check all clamps for tightness and connections for leakage.

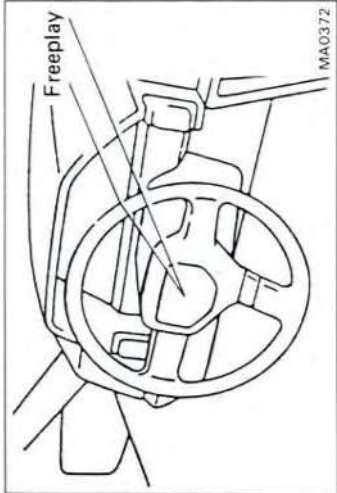
(c) Check that the hoses and lines are clear of sharp edges, moving parts and the exhaust system.

(d) Check that the lines installed in grommets pass through the center of the grommets.



MA-8

MAINTENANCE — Maintenance Operations



CHASSIS

17. INSPECT STEERING LINKAGE

- (a) Check the steering wheel freeplay.

Maximum steering wheel freeplay: 30 mm (1.18 in.)

With the vehicle stopped and pointed straight ahead, rock the steering wheel gently back and forth with light finger pressure.

- (b) Check the steering linkage for looseness or damage.

Check that:

- Tie rod ends so not have excessive play.
- Dust seals and boots are not damaged.
- Boot clamps are not loose.

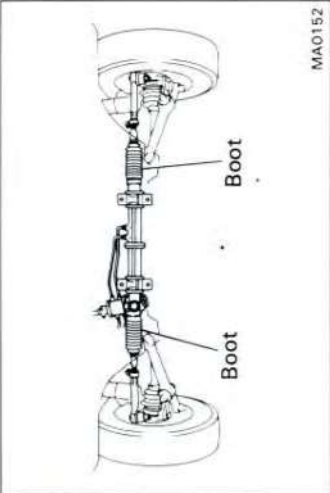
18. INSPECT STEERING GEAR HOUSING OIL

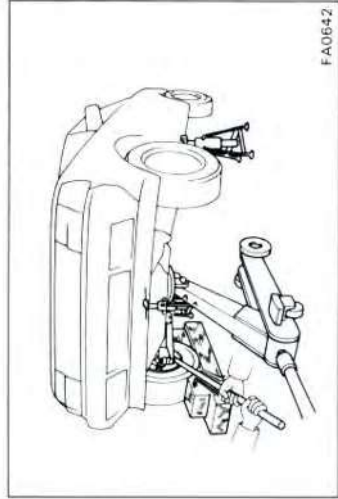
Check the steering gear box for oil leakage.

Front

19. INSPECT FRONT AND REAR DRIVE SHAFT BOOTS

Check the drive shaft boots for clamp looseness, leakage or damage.





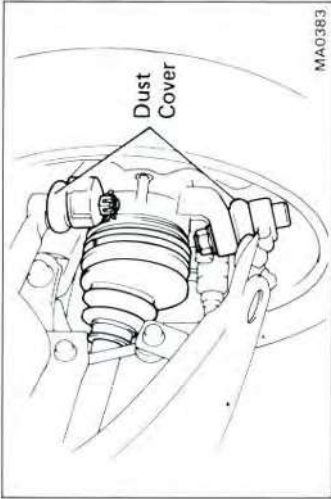
20. INSPECT BALL JOINTS AND DUST COVERS

- (a) Inspect the ball joints for excessive looseness.
 - Jack up the front of the vehicle and place wooden blocks with a height of 180 — 200 mm (7.09 — 7.87 in.) under the front tires.
 - Lower the jack until there is about half a load on the front coil springs. Place stands under the vehicle for safety.
 - Check the front wheels are in a straight forward position, and block them with chocks.
 - Using a lever, pry up the end of the lower arm, and check the amount of play.

Maximum ball joint vertical play: 0 mm (0 in.)

If there is play, replace the ball joint.

- (b) Check the dust cover for damage.



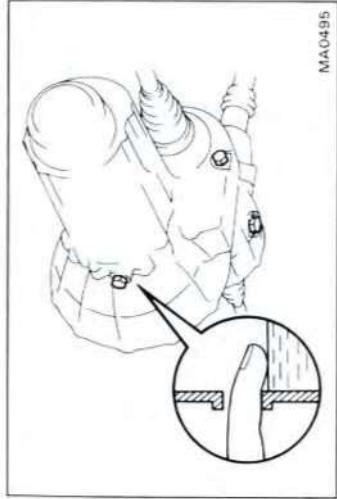
Transaxle

21. CHECK TRANSAXLE AND REAR DIFFERENTIAL OIL

- (a) Visually check the transaxle and rear differential for oil leakage.

MA-10

MAINTENANCE — Maintenance Operations



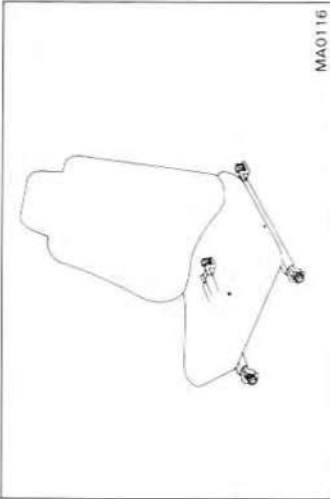
23. REPLACE REAR DIFFERENTIAL OIL

- (a) Remove the filler and drain plugs, and drain the oil.
- (b) Reinstall the drain plug securely.
- (c) Add new oil until it begins to run out of the filler hole.

Rear differential oil:

Oil grade	Hypoid gear oil API GL-5
Viscosity	Above -18°C (0°F) SAE 90 Below -18°C (0°F) SAE 80W-90 or 80W
Capacity:	1.1 liters (1.2 US qts, 1.0 Imp. qts)

- (d) Reinstall the filler plug securely.



24. TIGHTEN BOLTS AND NUTS ON CHASSIS AND BODY

Tighten the following parts:

- Front seats mount bolts

Torque: 375 kg-cm (27 ft-lb, 37 N·m)



- Engine mounting center member-to-body mount bolts

MAINTENANCE — Maintenance Operations **MA-11****25. FINAL INSPECTION**

(a) Check the operation of the body parts:

- Hood
 - Auxiliary catch operation properly
 - Hood locks securely when closed
- Front and rear doors
 - Door locks operate properly
 - Doors close properly
- Luggage compartment door and back door
 - Door sock operates properly
- Seats
 - Seat adjusts easily and locks securely in any position
 - Front seat back locks securely in any position
 - Folding-down rear seat backs lock securely

(b) Road test

- Check the engine and chassis for abnormal noises.
- Check that the vehicle does not wander or pull to one side.
- Check that the brakes work properly and do not drag.
- Perform bedding down of the parking brake shoes and drum. (See page MA-7)

(c) Be sure to deliver a clean car especially check:

MA-12

MAINTENANCE — General Maintenance

GENERAL MAINTENANCE

These are maintenance and inspection items which are considered to be the owner's responsibility. They can be performed by the owner or he can have them done at a service shop. These items include those which should be checked on a daily basis, those which, in most cases, do not require (special) tools and those which are considered to be reasonable for the owner to perform. Items and procedures for general maintenance are as follows.

OUTSIDE VEHICLE

1. TIRES

- (a) Check the pressure with a gauge. Adjust if necessary.
- (b) Check for cuts, damage or excessive wear.

2. WHEEL NUTS

When checking the tires, check the nuts for looseness or for missing nuts. If necessary, tighten them.

3. TIRE ROTATION

8. WARNING LIGHTS AND BUZZERS

Check that all warning lights and buzzers function properly.

9. HORN

Check that it is working.

10. WINDSHIELD GLASS

Check for scratches, pits or abrasions.

11. WINDSHIELD WIPER AND WASHER

- (a) Check operation of the wipers and washer.
- (b) Check that the wipers do not streak.

12. WINDSHIELD DEFROSTER

Check that air comes out from the defroster outlet when operating the heater or air conditioner.

13. REAR VIEW MIRROR

Check that it is mounted securely.

14. SUN VISORS

Check that they move freely and are mounted

MAINTENANCE – General Maintenance		MA-13
18. ACCELERATOR PEDAL	27. BRAKE AND CLUTCH FLUID LEVELS	
Check the pedal for smooth operation and uneven pedal effort or catching.	(a) Check that the brake fluid level is near the upper level line on the see-through reservoir.	
19. CLUTCH PEDAL (See Pub. No. RM071U on page CL-3)	(b) Check that the clutch fluid level is within ± 5 mm (0.20 in.) of the reservoir hem.	
Check the pedal for smooth operation. Check that the pedal has the proper freeplay.	28. ENGINE DRIVE BELTS	
20. BRAKE PEDAL (See Pub. No. RM071U on page BR-6)	Check all drive for fraying, cracks, wear or oiliness.	
(a) Check the pedal for smooth operation.	29. ENGINE OIL LEVEL	
(b) Check that the pedal has the proper reserve distance and freeplay.	Check the level on the dipstick with the engine turned off.	
(c) Check the brake booster function.	30. POWER STEERING FLUID LEVEL	
21. BRAKES	Check the level on the dipstick. The level should be in the "HOT" or "COLD" range depending on the fluid temperature.	
At a safe place, check that the brakes do not pull to one side when applied.	31. EXHAUST SYSTEM	
22. PARKING BRAKE (See Pub. No. RM071U on page BR-8)	Visually inspect for cracks, holes or supports. If any change in the sound of the exhaust or smell of the exhaust fumes is noticed, have the cause located and corrected.	
(a) Check that the lever has the proper travel.		
(b) On a safe incline, check that vehicle is		

held securely with only the parking brake applied.

UNDER HOOD

23. WINDSHIELD WASHER FLUID

Check that there is sufficient fluid in the tank.

24. ENGINE COOLANT LEVEL

Check that the coolant level is between the "FULL" and "LOW" lines on the see-through reservoir.

25. RADIATOR AND HOSES

- (a) Check that the front of the radiator is clean and not blocked with leaves, dirt or bugs.
- (b) Check the hoses for cracks, links, rot or loose connections.

26. BATTERY ELECTROLYTE LEVEL

Check that the electrolyte level of all battery cells is between the upper and lower level lines on the case. If level is low, add distilled water only.