

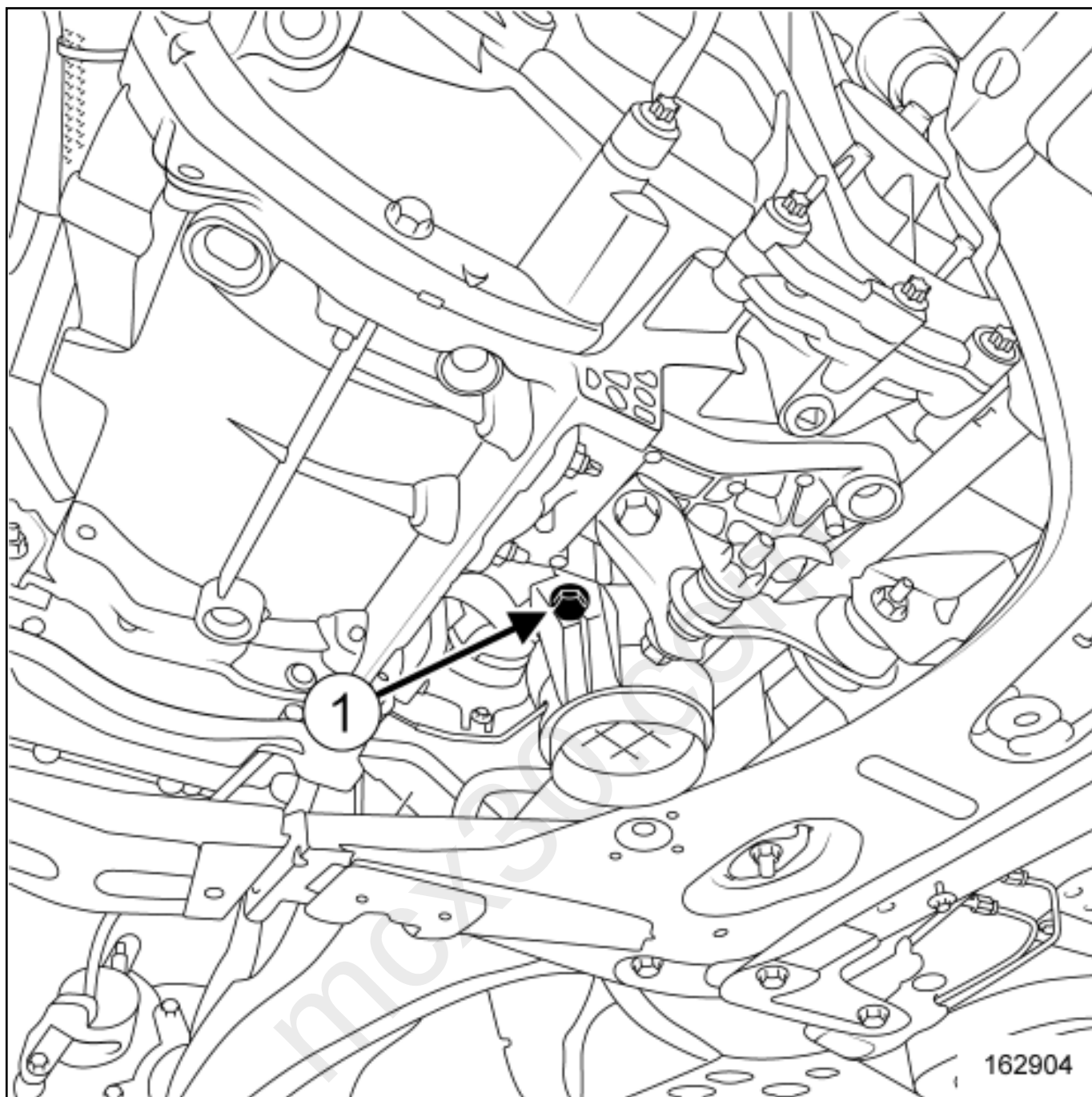
LOWER ENGINE TIE-BAR: REMOVAL - REFITTING

Locations and specifications (tightening torques, parts always to be replaced, etc.)[\(see 19D, Engine mounting, Engine-gearbox unit support assembly: Exploded view\)](#) .

REMOVAL

1. REMOVAL PREPARATION OPERATION

- ☐ Position the vehicle on a two-post lift[Vehicle: Towing and lifting](#) .
- ☐ Remove the engine undertray.



■ Remove [Electric powertrain assembly : Exploded view](#) :

- the screw(1) of the rear air outlet duct,
- the rear air outlet duct.

2. REMOVAL OPERATION

■ Remove [\(see 19D. Engine mounting. Engine-gearbox unit support assembly: Exploded view\)](#) :

- the lower engine tie-bar bolt from the subframe,
- the lower engine tie-bar screw from the engine tie-bar mounting,

- the lower engine tie-bar,
- the engine tie-bar mounting screws,
- the engine tie-bar mounting,
- the bracket lower engine tie-bar rod screw,
- the bracket lower engine tie-bar rod nuts,
- the bracket lower engine tie-bar rod.

REFITTING

1. REFITTING OPERATION

■ Refit [\(see 19D, Engine mounting, Engine-gearbox unit support assembly: Exploded view\)](#)

- the bracket lower engine tie-bar rod,
- the bracket lower engine tie-bar rod screw,
- the bracket lower engine tie-bar rod nuts.

■ Torque tighten [\(see 19D, Engine mounting, Engine-gearbox unit support assembly: Exploded view\)](#) :

- the bracket lower engine tie-bar rod screw,
- the bracket lower engine tie-bar rod nuts.

■ Refit [\(see 19D, Engine mounting, Engine-gearbox unit support assembly: Exploded view\)](#)

- the engine tie-bar mounting,
- the engine tie-bar mounting screws.

■ Torque tighten the engine tie-bar mounting screws [\(see 19D, Engine mounting, Engine-gearbox unit support assembly: Exploded view\)](#) .

■ Refit

- the lower engine tie-bar ,
- the lower engine tie-bar bolt on the front axle subframe,
- the lower engine tie-bar screw on the engine tie-bar mounting.

■ Torque tighten [\(see 19D, Engine mounting, Engine-gearbox unit support assembly: Exploded view\)](#) :

- the lower engine tie-bar bolt on the front axle subframe,
- the lower engine tie-bar screw on the engine tie-bar mounting.

2. FINAL OPERATION

■ Proceed in the reverse order to removal.



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MAINTENANCE OPERATIONAL INSTRUCTIONS :SERVICE



Note, one or more warnings are present in this procedure



Equipment required

Diagnostic tool

Electronic check tool

WARNING



To avoid all risk of damage to the systems, apply the safety and cleanliness instructions and operation recommendations before carrying out any repair Vehicle:
Precautions for the repair

The Renault maintenance programme includes all checks, top-ups, adjustments, and part replacements necessary for vehicle maintenance. For information on the specific service intervals for the vehicle, refer to the maintenance booklet or to ICM.

1. CONTENT OF THE DIFFERENT TYPES OF SERVICES AND THE ANNUAL INTERMEDIATE VISIT:

1-SERVICES:

The types of service (Maintenance Service, General Service, Renault Service) and the operations to be performed may vary depending on the vehicle and the date of manufacture. To find out which specific checks and operations should be performed on the vehicle, refer to the vehicle maintenance booklet.

1- ANNUAL INTERMEDIATE VISIT:

For vehicles for which the oil change is to be performed no later than every 2 years, a non-obligatory visit including the following operations is advised:

- check the engine oil level,
- check the level, condition, and sealing of the brake fluid circuit,
- check the coolant level,
- check the level, condition, and sealing of the power-assisted steering circuit,
- check the washer fluid level,
- electronic fault finding of the battery with the test tool,
- electronic fault finding of the computers,
- condition of the windscreen and rear view mirrors,

- wear of the windscreen wiper and rear wiper blades,
- check the exterior lighting and signals,
- condition and pressure of the tyres (including emergency spare wheel or tyre repair aerosol),
- condition of gaiters, rubber mounting bushes, and ball joints,
- exhaust system check,
- sealing of the front and rear shock absorbers,
- wear of the front and rear brake pads and brake discs.

NOTE: the content of the intermediate visit, as well as its commercial name, may vary from one country to another. Thus additional checks and / or operations could be added to this list. For more information, please contact the manufacturer's technical teams in your country

2. SPECIAL CONDITIONS OF CUSTOMER USE AND MAINTENANCE MANAGEMENT FOR VEHICLES EQUIPPED WITH THE OCS (OIL CONTROL SYSTEM) FOR GERMANY, ANDORRA, AUSTRIA, BELGIUM, DENMARK, SPAIN, ESTONIA, FINLAND, FRANCE, GREAT BRITAIN, GREECE, HUNGARY, IRELAND, ICELAND, ITALY, LATVIA, LIECHTENSTEIN, LITHUANIA, LUXEMBOURG, NORWAY, NETHERLANDS, POLAND, PORTUGAL, CZECH REPUBLIC, SLOVAKIA, SLOVENIA, SWEDEN, SWITZERLAND, CROATIA, ISRAEL:

Definitions:

What does it mean that a vehicle is operated under normal conditions of customer use?

A vehicle is operated under normal conditions of customer use if it is not operated under the special conditions of customer use (see below). In this case, observe the standard maintenance programme provided in the maintenance booklet or ICM (Shared World Information).

What does it mean that a vehicle is operated under special conditions of customer use?

A special condition of customer use affects the replacement frequency of one or several parts of the maintenance programme (service, air filter replacement, fuel filter replacement, etc.). The vehicle is said to operate under special conditions of customer use if:

- The instrument panel displays that a service is required (change engine oil and oil filter), only for vehicles equipped with the OCS (Oil Control System) oil quality control device. See "List of vehicles equipped with OCS or information in ICM (Shared World Information)",
- At least 50% of the vehicle operating time is with the engine idling (example: constant door-to-door driving without stopping the engine),
- At least 50% of trips are at an average speed of less than 18 mph (30 km/h) (primarily urban use, taxi, etc.),
- At least 30% of the miles driven involve towing a trailer, caravan, etc. weighing more than 500 kg (condition only for passenger vehicles),

- Use in a dusty environment (work-site, + than 600 miles (1000 km)/year on unpaved roads, etc.),
- Extended use (+ than 3000 miles (5000 km)/year) at temperatures continuously below -15°C.

What is the OCS (Oil Control System) and what does it detect?

The OCS is a device that evaluates oil degradation by calculations, taking into account the severe engine operating conditions that affect the oil. Thus, under certain driving conditions, the instrument panel indicates to the customer that a service is required.

Which vehicles are equipped with the OCS device?

THE MODELS EQUIPPED WITH THE OCS ARE FOR THE COUNTRIES OF GERMANY, ANDORRA, AUSTRIA, BELGIUM, DENMARK, SPAIN, ESTONIA, FINLAND, FRANCE, GREAT BRITAIN, GREECE, HUNGARY, IRELAND, ICELAND, ITALY, LATVIA, LIECHTENSTEIN, LITHUANIA, LUXEMBOURG, NORWAY, NETHERLANDS, POLAND, PORTUGAL, CZECH REPUBLIC, SLOVAKIA, SLOVENIA, SWEDEN, SWITZERLAND, CROATIA, AND ISRAEL:

Note :

For the Dacia vehicles consult the ICM for the vehicles manufactured starting from 14/06/2011, before consulting the table.

For the Renault vehicles consult the ICM for the vehicles manufactured starting from 01/01/2010, before consulting the table.

Model	engine	Engine suffix	Vehicles affected:
Dacia	K9K emission control standard Euro 5	all	all
WIND	D4F, K4M	All	All
TWINGO II	D4F turbocharged	All	All
TWINGO II	K4M emission control standard Euro 5	All	All
TWINGO II	K9K	718	All
TWINGO II	K9K	740	Vehicles with oil service every 18 000 miles (30 000 Km) /2 years
TWINGO II	K9K emission control standard Euro 5	All	All
CLIO III phase 1	K9K	764	Vehicles with oil service every 18,000 miles (30,000 Km) / 1 year
CLIO III phase 2	K9K emission control standard Euro 5	All	All
CLIO III	D4F turbocharged	All	All

CLIO III	D4F	742	Vehicles with oil service every 18,000 miles (30,000 Km) / 1 year
CLIO III	K4M	862	All
MODUS	D4F turbocharged	All	All
MODUS	D4F	742	All
MODUS	K9K	764	Vehicles with oil service every 18,000 miles (30,000 Km) / 1 year
MODUS	K9K without particle filter	All	Vehicles with oil service every 18 000 miles (30 000 Km) /2 years
MODUS	K9K emission control standard Euro 5	All	All
KANGOO II	K4M emission control standard Euro 5	All	All
KANGOO II	K9K	All	All
MEGANE II and SCENIC II	K9K	732	Vehicles with oil service every 18,000 miles (30,000 Km) / 1 year
MEGANE II and SCENIC II	M9R	700,721,722	Vehicles with oil service every 18,000 miles (30,000 Km) / 1 year
MEGANE II	M9R	724	Vehicles with oil service every 12,000 miles (20,000 Km) / 1 year
MEGANE II and SCENIC II	F9Q	816,818	Vehicles with oil service every 18,000 miles (30,000 Km) / 1 year

FLUENCE and MEGANE III/SCENIC III	K9K	830	Vehicles with oil service interval every 2 years
FLUENCE and MEGANE III/SCENIC III	K9K	832, 834, 836, 837	All
FLUENCE and MEGANE III/SCENIC III	K9K emission control standard Euro 5	All	All
MEGANE III/SCENIC III	F9Q, M9R, H4J, F4R, R9M	All	All
Koleos	M9R emission control standard Euro 5	All	All
LAGUNA III	K9K,M9R,V9X	All	All
LAGUNA III	M4R	726	All
ESPACE IV	M9R	All	Vehicles with oil service every 18,000 miles (30,000 Km) / 1 year
LATITUDE	Diesel	All	All
MASTER II phase 3	G9U	All	All
TRAFIC phase 2 and 3	M9R	All	Vehicles manufactured from 01/12/06
TRAFIC phase 2 and 3	G9U	All	All
MASTER III	All	All	All

For the vehicles sold starting from 01/01/2011, consult the ICM.

1- MANAGEMENT OF VEHICLE MAINTENANCE IN CASE OF DRIVING UNDER SPECIAL CONDITIONS OF CUSTOMER USE:

It is ESSENTIAL to read the instructions:

Depending on whether the vehicle is fitted with OCS or not, refer to the corresponding table below.

The tables below contain X's or notes to specify the maintenance operations to be performed depending on the special conditions of customer use.

For the other maintenance programme parts that need not be replaced early, the maintenance interval is the same as recommended for normal conditions of customer use (see the maintenance booklet or ICM). If this interval will be reached before the next customer visit, replace this part ahead of schedule.

If the vehicle is operated under several of these special conditions of customer use, apply the most stringent recommendation for replacement specified for the special conditions of use concerned.

FOR MODELS WITHOUT OCS:

	Divide by 2 the engine oil and oil filter service interval for normal conditions of use		Divide by 2 the air filter replacement interval for normal conditions of use (1)		Divide by 2 the diesel filter replacement interval for normal conditions of use (1)		Replace the belts and rollers 18,000 miles (30,000 km) sooner than for normal use conditions (1)(2)	Replace the cabin filter during every service for normal conditions of use (1)
	Distance (kilometres or miles)	Time	Distance (kilometres or miles)	Time	Distance (kilometres or miles)	Time		
At least 50% of the vehicle operating time with the engine idling (e.g. constant door-to-door driving without stopping the engine)	X	X	X	X	X	X	X	
At least 50% of trips at an average speed of less than 18 mph (30 km/h) (primarily urban use, taxi, etc.),	X		X		X		X	X

At least 30% of the miles driven while towing a trailer, caravan, etc. weighing more than 500 kg (condition only for passenger vehicles),	X				X		X	
Use in a dusty environment (work-site, + than 600 miles (1000 km)/year on unpaved roads, etc.),	X		X		X		X	X
Extended use (+ than 3000 miles (5000 km) /year) at temperatures continuously below -15°C.	X							

(1) If the recommended interval will be reached before the next customer visit, replace the part concerned ahead of schedule.

(2) Certain pulleys of certain engines must be replaced when replacing the accessories belt. See the "Supplementary operations" section.

FOR MODELS WITH OCS (SEE THE TABLE OF MODELS EQUIPPED WITH THE

OCS AND THE COUNTRIES CONCERNED):

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	Divide by 2 the engine oil and oil filter service interval for normal conditions of use (1)		Divide by 2 the air filter replacement interval for normal conditions of use (1)		Divide by 2 the diesel filter replacement interval for normal conditions of use (1)		Replace the belts and rollers 18,000 miles (30,000 km) sooner than for normal use conditions (1)(2)	Replace the cabin filter during every service for normal conditions of use (1)
	Distance (kilometres or miles)	Time	Distance (kilometres or miles)	Time	Distance (kilometres or miles)	Time		
Instrument panel display that a service is required (engine oil and oil filter service) due to the OCS (Oil Control System).	Observe the message on the vehicle instrument panel and perform the service (engine oil and oil filter service) when it is requested(1).							
At least 50% of the vehicle operating time with the engine idling (e.g. constant door-to-door driving without stopping the engine)			X	X	X	X	X	

At least 50% of trips at an average speed of less than 18 mph (30 km/h) (primarily urban use, taxi, etc.),			X		X		X	X
At least 30% of the miles driven while towing a trailer, caravan, etc. weighing more than 500 kg (condition only for passenger vehicles),					X		X	
Use in a dusty environment (work-site, + than 600 miles (1000 km)/year on unpaved roads, etc.),	X		X		X		X	X

Extended use (+ than 3000 miles (5000 km) /year) at temperatures continuously below -15°C.	X							
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- (1) If the recommended interval will be reached before the next customer visit, replace the part concerned ahead of schedule.

(2) Certain pulleys of certain engines must be replaced when replacing the accessories belt. See the "Supplementary operations" section.

3. SPECIAL CONDITIONS OF CUSTOMER USE (OIL CONTROL SYSTEM) FOR THE COUNTRIES NOT MENTIONED ABOVE:

See the vehicle's maintenance booklet.

4. PROCEDURES FOR PERFORMING OPERATIONS AND CHECKS DURING THE MAINTENANCE OR SERVICE:

The customer must be warned if a check reveals a fault.

Checks marked with an asterisk depend on the vehicle or the country.

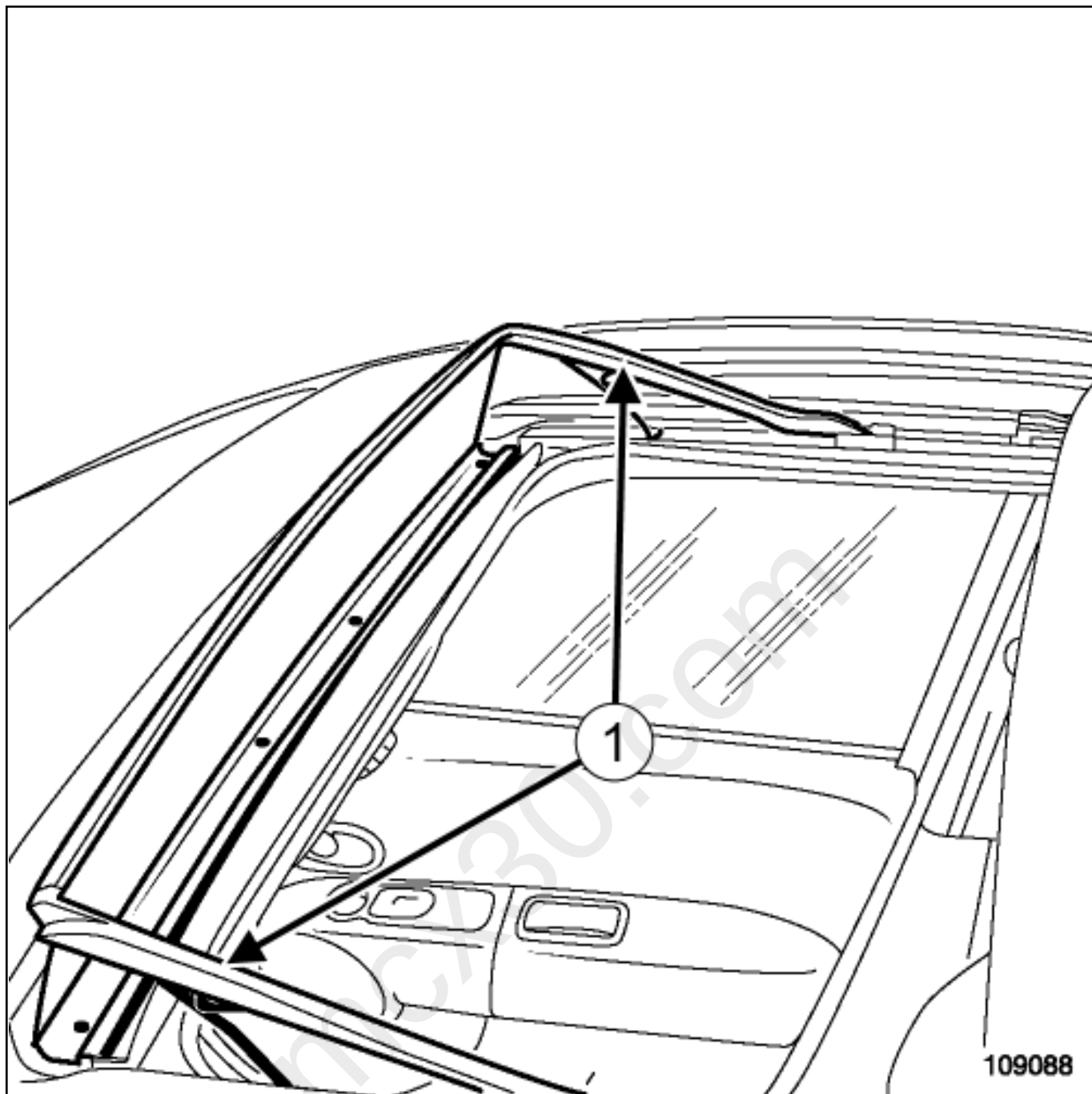
1- BODYWORK: ANTICORROSION CHECK

- ☐ Visually inspect the condition of the:
 - vehicle,
 - underside of the vehicle,
 - wheel arches.

Indicate any damage to the underbody protection, and all cuts, ruptures, scratches or corrosion anywhere on the vehicle.

This inspection contributes to the validity of the anticorrosion warranty. It is therefore necessary to complete the maintenance sheets in the maintenance booklet.

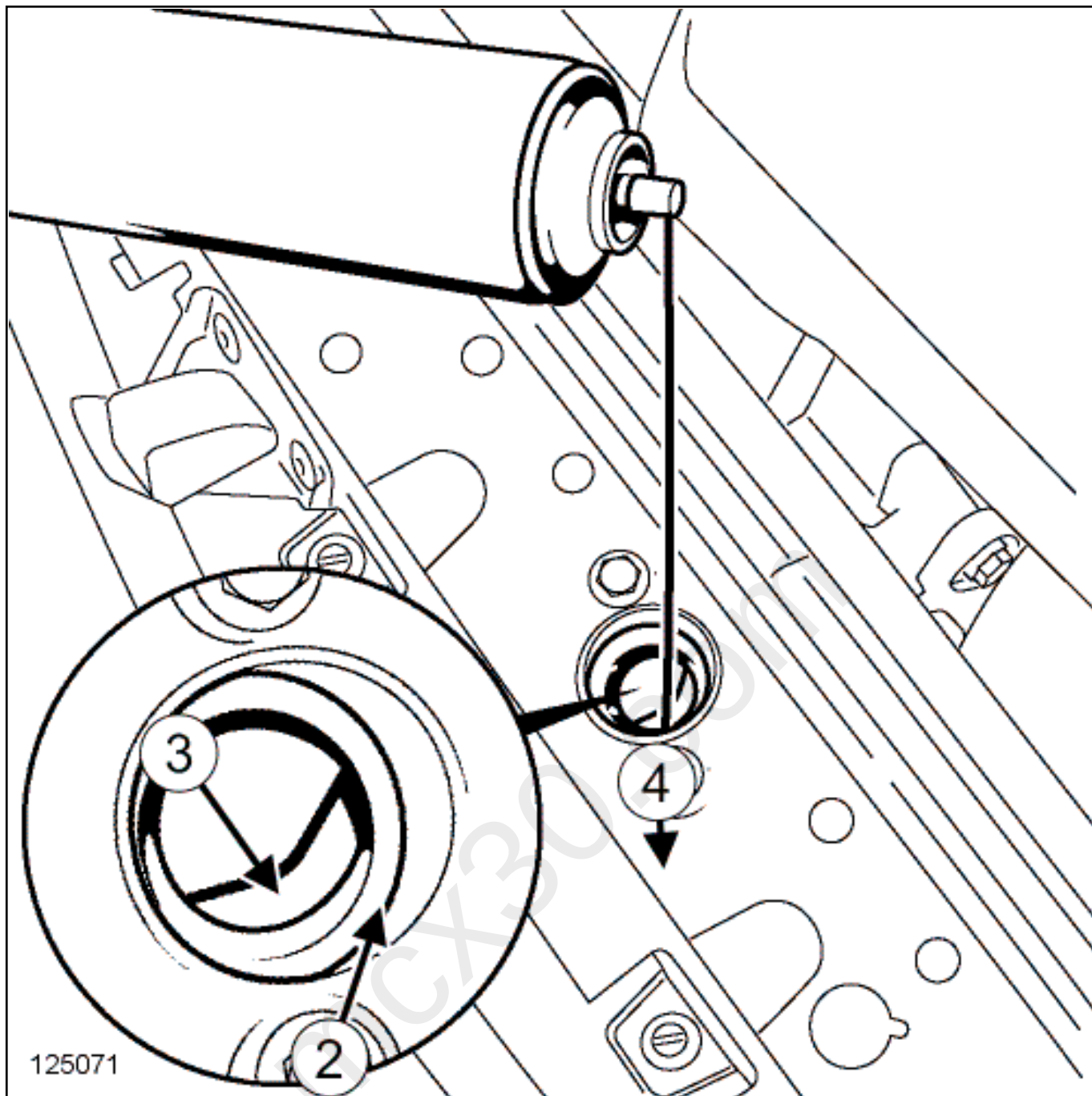
2- BODYWORK: CLEANING THE DEFLECTOR ARMS AND PANORAMIC SUNROOF MOBILE PANEL



Use a dry, lint-free cloth to clean the sunroof deflector arms (1) and the section of the mobile panel with which they come into contact.

3- BODYWORK: CHECKING THE BONNET LOCK LUBRICATION AND OPERATION

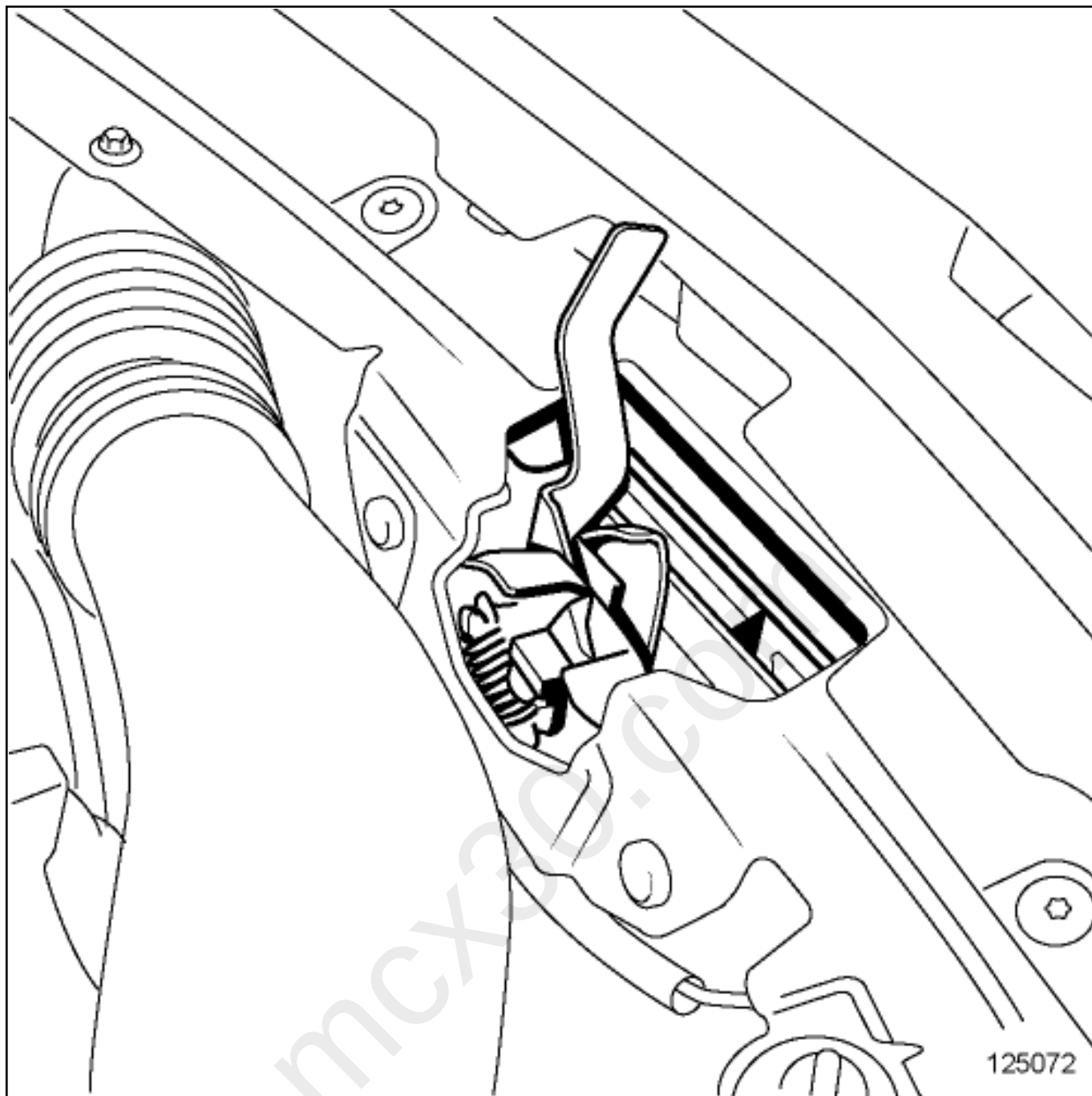
1)GUILLLOTINE TYPE LOCK



As specified in the photo above, apply silicone-free lubricant [Vehicle: Parts and consumables for the repair](#) (04B, Consumables - Products), placing it between the body of the lock (2) and the lock blade (3) in the direction of the lock blade hinge shaft (4).

Let it set for 1 minute, then manoeuvre 10 times from the bonnet release catch in the passenger compartment.

2) OTHER TYPES OF LOCK



Apply silicone-free lubricant [Vehicle: Parts and consumables for the repair](#) (04B, Consumables - Products) to the catch assembly.

Let it set for 1 minute, then manoeuvre 10 times from the bonnet release catch in the passenger compartment.

4- GREASING OF THE REAR DOOR HINGES AND THE UPPER STRIKER PANEL HOOK OF THE SLIDING SIDE DOOR(MASTER II PHASE 3)

Apply opening element grease to the rear door hinges and the upper striker panel hook of the sliding side door (see [Vehicle: Parts and consumables for the repair](#))

5- ENGINE: DRAINING THE ENGINE OIL

The oil grade is essential for maintaining the service life of the engine. Carefully follow the manufacturer's recommendations specified in the Technical Note [Engine oil: Specifications](#) (Technical Note 6013A, 04A, Lubricants).

Use the correct quantity of oil and the correct sump plug sealing washer [Engine oil: Draining - Refilling](#) (10A, Engine and peripherals).

After topping up, let the oil run for approximately 10 minutes before checking the level. The oil level maximum mark on the dipstick must never be exceeded (risk of damage to the engine).

6- ENGINE: REPLACING THE OIL FILTER

Replace the engine oil filter after each oil service [Oil filter: Removal - Refitting](#) (10A, Engine and peripherals).

7- ENGINE: CHECKING THE EXHAUST SYSTEM

■ Visually inspect:

- that there is no corrosion, piercing or impact to the silencer, expansion chamber, catalytic converter and particle filter*,
- that the rubber mounting bushes are not torn or cracked,
- that the exhaust pipe is not in contact with the underside of the vehicle.

8- ENGINE: BLEEDING WATER FROM THE FUEL FILTER* (IF THE PART HAS NOT REACHED ITS REPLACEMENT INTERVAL)

Bleed the water from the fuel filter by unscrewing the water bleed cap and letting the water run into a suitable container.

9- ENGINE: CHECKING THE CLUTCH PLAY* FOR LOGAN-SANDERO (EXCEPT FOR AUTOMATIC COMPENSATION)

(Logan and Sandero only) Use the recommended checking procedure [Clutch control: Adjustment](#) (37A, Mechanical component controls).

10- CHECKING THE LEVELS, CONDITION AND SEALING OF THE HYDRAULIC CIRCUITS: HYDRAULIC POWER-ASSISTED STEERING*

Check the hydraulic steering fluid level: it should be between the minimum and maximum level on the reservoir.

Visually check the sealing, ensuring that there are no leaks, or any abnormal loss of fluid.

Top up, if necessary.

11- CHECKING THE LEVEL, CONDITION AND SEALING OF THE HYDRAULIC CIRCUITS: COOLING

Check the coolant level: it should be between the minimum and maximum level on the reservoir.

Visually check the circuit sealing, ensuring that there are no leaks, or any abnormal loss of fluid.

Top up, if necessary.

12- CHECKING THE LEVEL, CONDITION AND SEALING OF THE HYDRAULIC CIRCUITS: HYDRAULIC BRAKE/CLUTCH*

Visually check the circuit sealing, checking the condition and that there are no leaks around the engine compartment, under the vehicle or at the unions.

■ Check the brake fluid level:

- If the level is between the minimum and maximum, do not add brake fluid as wear on the discs, pads, drums and linings leads to a progressive drop in the brake fluid level in the tank which will usually be rectified once these components are replaced. However, the brake fluid level should never drop below the minimum mark.
- If there is an abnormal loss of fluid, the cause of which cannot be found with this check, advise the customer.

13- CHECKING THE LEVEL, CONDITION AND SEALING OF THE HYDRAULIC CIRCUITS: SEQUENTIAL GEARBOX HYDRAULIC UNIT*

Check the hydraulic unit oil level: it should be between the minimum and maximum level on the reservoir.

Visually check the sealing, ensuring that there are no leaks, or any abnormal loss of fluid.

Top up, if necessary.

14- CHECKING THE LEVEL, CONDITION AND SEALING OF THE HYDRAULIC CIRCUITS: SEQUENTIAL GEARBOX HYDRAULIC CLUTCH*

Check the hydraulic clutch fluid level, it should be at the middle level of the reservoir.

Visually check the sealing, ensuring that there are no leaks, or any abnormal loss of fluid.

Top up, if necessary.

15- CHECKING THE CHASSIS: CONDITION OF THE GAITERS, RUBBER MOUNTING BUSHES AND BALL JOINTS

Check the condition of the driveshaft and steering rubber gaiters, all ball joints and the rubber mounting bushes. There must not be any signs of tearing or cracks.

16- CHECKING THE CHASSIS: TYRE CONDITION AND PRESSURE (INCLUDING EMERGENCY SPARE WHEEL OR PRESENCE OF TYRE-REPAIR AEROSOL)

Check that the tread depth of the tyres has not reached the wear warning strips, explain the degree of tyre wear to the customer.

Check that there is no abnormal tyre wear, and no bulges, blisters, tears or foreign objects (sharp object, screw, etc.).

Check and readjust the tyre inflation pressure when cold according to the type of driving.

Check the pressure and condition of the emergency spare wheel, or if not supplied with the vehicle, check that there is a tyre repair aerosol in the vehicle.

Respect the recommended pressure shown on the label on the door (if the vehicle does not have one, refer to the Driver's Handbook or.

17- CHECKING THE CHASSIS: PRESENCE OF THE WHEEL VALVE CAPS

Check that each valve cap is present.

18- CHECKING THE CHASSIS: SEALING OF THE FRONT AND REAR SHOCK ABSORBERS

Visually check that there is no oil leaking along the length of the shock absorbers.

19- CHECKING THE CHASSIS: WEAR OF THE FRONT AND REAR BRAKE PADS AND BRAKE DISCS*, AND SWAPPING THE FRONT AND REAR WHEELS

In order to perform a quality check, always remove the wheels (an electric impact wrench or a pneumatic wrench can be used to loosen the wheel bolts and nuts).

Check the thickness of the brake pads and compare to the minimum authorised value. In case of partial wear, advise the customer of the degree of wear to the brake pads.

Check the thickness of the front brake discs and the thickness of the rear brake discs and compare to the minimum authorised value. In case of partial wear, advise the customer of the degree of wear to the brake discs.

Refit the wheels. For Duster 4X4, swap the front and rear wheels.

When refitting the wheels, an electric impact wrench set at low speed can be used to fit the wheel bolts and nuts until contact, then torque tighten them.

20- CHECKING VISIBILITY: EXTERIOR LIGHTING AND SIGNALS

Check the side lights, dipped headlights, main beam headlights, front and rear fog lights, the direction

indicators and side mounted indicators, the reversing lights, the hazard warning lights, the brake lights, the registration plate lighting and the additional cornering lights*.

21- CHECKING VISIBILITY: INTERIOR LIGHTING

Checking door lighting, interior lights and sun visors, glovebox and luggage compartment lights.

22- CHECKING VISIBILITY: CONDITION OF THE WINDSCREEN AND DOOR MIRRORS

Check that there are no cracks or chips.

23- CHECKING VISIBILITY: WEAR ON THE FRONT AND REAR WINDSCREEN WIPER BLADES

Check the quality of the wiping function and check that the wiper blades are not torn or cracked.

24- CHECKING VISIBILITY: FRONT AND REAR WINDSCREEN WASHER FLUID LEVEL

Check that there is windscreen washer fluid present.

Top up, if necessary.

25- LABELS: CHECKING THE AIRBAG SAFETY AND ENGINE COMPARTMENT LABELS ARE PRESENT AND CORRECTLY POSITIONED

- ☐ Check that the vehicle has the following original safety labels:
 - airbag, located on the windscreen, sun visor and passenger side of the dashboard,
 - battery, oil, cooling system, heating and air conditioning system, engine cooling fan located in the engine compartment.

26- ELECTRONIC CHECK: BATTERY

Check the condition of the battery with the tool "Midtronics R330".

27- ELECTRONIC CHECK: COMPUTERS



Note:

Always check the condition of the battery before checking the computers as insufficient voltage can affect the computers.

The purpose of this procedure is to see if any of the computers are faulty.

- The following tools are essential for carrying out fault finding on these systems:
- an approved Renault Electronic check tool(QUEST) with the latest update,
 - an approved Renault Diagnostic tool(CLIP) with the latest update,
 - a CAN probe.

Running fault finding on the computers highlights possible faults not displayed by the system self-test procedure, and allows them to be analysed and deleted

28- CHECKING CHARGING CORD (ONLY TWIZY):

Visually check the charging cord without removing.

29- CHECKING ELECTRIC VEHICLE (ONLY KANGOO AND FLUENCE):

Electronic check :

Select the symptome in MCS (Modulate Targeting Symptome): R201, integrate it into the order of repair.

Make a electronic check of computers, see "Electronic check : computers".

Make the checks of symptome R201: "Maintenance Range".

NB :

Do not control the system Quick Dropbecause it is canceled.

30- ELECTRONIC FAULT FINDING: OPERATION OF THE INSTRUMENT PANEL WARNING LIGHTS

Check that the following warning lights come on when the ignition is switched on:

- STOP warning light,
- SERVICE warning light.

31- REINITIALISATION: MAINTENANCE/OIL SERVICE DISPLAY*

Reset the maintenance/oil service interval display (see Driver's Handbook).

32- SERVICE SHEETS: AFFIXING THE SERVICE LABEL IN THE ENGINE COMPARTMENT*

Fill in the maintenance label and affix it in the engine compartment.

5. SUPPLEMENTARY OPERATIONS:

The removal and refitting procedures and some of the checks to be carried out during maintenance are set out in the repair manuals or the technical notes. The information and repair methods given below are specific to the maintenance programme.

For an exhaustive description of the operations to be carried out during the maintenance operation, refer to the vehicle maintenance booklet.

1- REPLACEMENT OF THE ACCESSORIES BELT, ROLLERS, AND PULLEYS (PULLEY TO BE REPLACED DEPENDING ON THE VEHICLE)

When replacing the belt, it is essential to replace the tensioning rollers and fixed rollers across the whole range. It is also necessary to replace the damper pulley (also known as the crankshaft accessories pulley) or the alternator pulley on certain engines, see below.

Table of pulleys to be replaced during maintenance only according to the accessories belt replacement frequency. The vehicles concerned are those for which the maintenance booklets mention a replacement for certain engines. The detail of the vehicle variants concerned is given below (vehicles manufactured after June 2006):

1)FOR GERMANY, ANDORRA, AUSTRIA, BELGIUM, DENMARK, SPAIN, ESTONIA, FINLAND, FRANCE, GREAT BRITAIN, GREECE, HUNGARY, IRELAND, ICELAND, ITALY, LATVIA, LIECHTENSTEIN, LITHUANIA, LUXEMBOURG, NORWAY, NETHERLANDS, POLAND, PORTUGAL, CZECH REPUBLIC, SLOVAKIA, SLOVENIA, SWEDEN, SWITZERLAND, CROATIA, ISRAEL:

RECOMMENDATIONS FOR REPLACING THE DAMPER PULLEY (CRANKSHAFT ACCESSORIES PULLEY):

Engine type	Engine suffix	Recommendation for replacing the damper pulley during maintenance operations
F4R	714, 715, 720, 760, 761, 762, 763, 764, 765, 766, 767, 770, 771, 774, 776, 784, 786, 787, 792, 794, 795, 796, 797, 800, 811, 820, 830, 867, 870, 886, 887, 896, 897.	To be replaced each time the accessories belt and its rollers are scheduled for replacement
F9Q	260, 262, 264, 660, 664, 670, 674, 680, 755, 757, 758, 759, 800, 803, 804, 808, 812, 814, 816, 818, 820.	
M9R	610, 700, 720, 721, 722, 740, 760, 761, 780, 812.	
G9T equipped with air conditioning	600 ,605, 606, 607, 642, 645, 702, 703, 706, 707, 710, 712, 720, 722, 742, 743, 750.	
G9U equipped with air conditioning	630, 632, 650, 720, 724, 730, 750, 754.	
V9X	All	

RECOMMENDATIONS FOR REPLACING THE ALTERNATOR PULLEY:

Engine type	Engine suffix	Recommendations for replacing the alternator pulley during maintenance
F4R	802, 813.	To be replaced each time the accessories belt and its rollers are scheduled for replacement

**RECOMMENDATIONS FOR REPLACING THE DAMPER PULLEY (CRANKSHAFT
ACCESSORIES PULLEY):**

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Engine type	Engine suffix	Recommendation for replacing the damper pulley
K4J equipped with air conditioning	730, 732, 740, 770, 780.	To be replaced each time the accessories belt and its rollers are scheduled for replacement
K4M equipped with air conditioning	604, 606, 680, 690, 694, 696, 697, 698, 716, 744, 745, 760, 761, 762, 764, 766, 768, 770, 780, 782, 788, 790, 791, 794, 800, 801, 804, 812, 813, 814, 824, 830, 831, 834, 835, 844, 854, 856, 862, 866.	
K4M equipped with air conditioning	838, 839, 848, 858	
K9K	782	To be replaced every other time the accessories belt and its rollers are scheduled for replacement

F4R	714, 715, 720, 760, 761, 762, 763, 764, 765, 766, 767, 770, 771, 774, 776, 784, 786, 787, 792, 794, 795, 796, 797, 800, 811, 820, 830, 867, 870, 886, 887, 896, 897.	To be replaced each time the accessories belt and its rollers are scheduled for replacement
K9K	278, 282, 288, 292, 732, 734, 764, 772, 780, 804, 806, 832, 836.	
F9Q	260, 262, 264, 660, 664, 670, 674, 680, 755, 757, 758, 759, 794, 800, 803, 804, 808, 812, 814, 816, 818, 820.	
G9T equipped with air conditioning	600 ,605, 606, 607, 642, 645, 702, 703, 706, 707, 710, 712, 720, 722, 742, 743, 750.	
G9U equipped with air conditioning	630, 632, 650, 720, 724, 730, 750, 754.	
M9R	610, 700, 720, 721, 722, 740, 742, 760, 761, 780, 812.	
V9X	All	
M9R	802, 803, 805, 809, 816, 830, 832, 833.	To be replaced every other time the accessories belt and its rollers are scheduled for replacement
M9T	All	To be replaced every other time the accessories belt and its rollers are scheduled for replacement

RECOMMENDATIONS FOR REPLACING THE ALTERNATOR PULLEY:

Engine type	Engine suffix	Recommendations for replacing the alternator pulley during maintenance
F4R	802, 813	To be replaced each time the accessories belt and its rollers are scheduled for replacement

2- REPLACING THE TIMING BELT AND ROLLERS

When replacing the belt, it is essential to replace the tensioning and fixed rollers across the whole range. Certain vehicle/engine specifications require associated parts to be replaced, therefore it is necessary to consult the repair procedure for the vehicle and engine for further details.

3- CHECKING THE REAR BRAKE LININGS FOR VEHICLES FITTED WITH DRUMS

Check the wheel cylinders for any possible leaks.

Remove any dust from the brake linings using a brake cleaning product.

Check the thickness of the drum linings and compare it to the minimum authorised thickness..

4- CLEANING THE AIR CONDITIONING SYSTEM

The air conditioning system is cleaned by cleaning the evaporator.

6. STANDARD OF PROFESSIONAL ACTIVITY

The Standard of Professional Activity is a tool which describes the operation to perform in an optimised order favouring time and quality. This way of working allows for the elimination and reduction of unnecessary actions, the grouping together of operations by operation area and a reduction in down time.

Order of performance	Principal steps	Key points
Preparing the vehicle:		
1	Consult the repair order and ICM editions to find out:- The works to be performed and additional operations- The presence of OTS	
2	Check that the driver's protections are in place (front seat, steering wheel, floor carpet, gear lever)	
3	Check for the maintenance booklet and the wheel anti-theft key (if equipped) on the passenger seat	
4	Check the instrument panel warning lights with the ignition on	Warning light (STOP and SERVICE)
5	Start the vehicle and check that all the warning lights go out	No warning light lit
6	Move the vehicle to the workstation, leave the engine running	
Passenger compartment checks:		
7	Step out of the vehicle and connect the exhaust gas extraction system	

8	■ Check the exterior signals and lights: ■ Side lights, ■ Dipped headlights, ■ Main beam headlights, ■ Front and rear fog lights, ■ direction indicators and side mounted indicators, ■ Front and rear hazard warning lights, ■ Brake lights, ■ number plate lighting, ■ Reversing lights, ■ Additional cornering lights,	Use a mirror If not done whilst walking around the vehicle
9	■ Check the interior lighting: ■ Courtesy lights, ■ Sun visors, ■ Glovebox.	
10	Release the bonnet, and remove the diagnostic socket cover	
11	Reset the distance before oil change/maintenance display	
12	Switch off the engine and switch on the ignition again	
13	Step out of the vehicle, take the wheel anti-theft key	
Front visibility check:		
14	Check the condition of the windscreen wiper blades	
15	Check the condition of the windscreen	
Engine compartment checks:		
16	Open the bonnet	

17	Run fault finding on the battery with the "MIDTRONICS R330" tool.	
18	Grease the bonnet catch using silicone-free lubricant	
19	Go back into the passenger compartment, switch on the ignition and connect the Diagnostic tool "Clip" or Electronic check tool "Quest" and run the computer scan	
20	Release the bonnet 10 times using the control in the driver's position	
21	Check the levels and sealing of the hydraulic circuits in the engine compartment: ■ the coolant circuit, ■ of the hydraulic power-assisted steering circuit (depending on the version), ■ of the brake fluid and clutch circuit (depending on the version), ■ hydraulic unit of the sequential gearbox (depending on the version).	Do not top up the brake fluid level
22	Check the washer fluid level.	
23	Remove the oil filler cap	
24	Loosen the oil filter if accessible from above.	
25	Check the clutch clearance (Logan version)	
26	Bleed the water from the fuel filter (if accessible)	Bleed the fuel filter if it has not reached its replacement interval

27	Check for the presence of the "Manufacturer's Recommendations" label located in the engine compartment	The "manufacturer's recommendations" labels include: oil, battery, cooling circuit, fan, air conditioning.
Check the condition of the bodywork on the driver's side:		
28	Check the lighting of the front door sill	
29	Read and retain the tyre pressure	
30	Check the condition of the rear view mirror	
31	Visually inspect the condition of the bodywork	
32	Check the lighting of the rear door sill (if equipped)	
33	Position the arms or pads of the lift (depending on the type of lift)	
34	Take the pressure gauge (if it is not present in the kit)	
Rear vehicle checks:		
35	Check the lighting of the luggage compartment	
36	Check the level of wear of the emergency spare wheel (if accessible through the luggage compartment)	
37	Check the pressure and the presence of the valve cap	

38	Check the condition of the rear screen wiper blade	
Check the condition of the bodywork on the passenger's side:		
39	Visually inspect the condition of the bodywork	
40	Check the lighting of the rear door sill	
41	Check the lighting of the front door sill	
42	Check the presence of the airbag label on the passenger's side	
43	Check the condition of the rear view mirror	
44	Position the arms or pads of the lift (depending on the type of lift)	
Computer checks		
45	Record the scan results of Diagnostic tool "Clip" or Electronic check tool "Quest"	
46	Disconnect the Diagnostic tool "Clip" or Electronic check tool "quest"	
Panoramic sunroof check		
47	Clean the arms of the sunroof deflector and the section of the mobile panel which comes into contact with them (if equipped)	
48	Raise the vehicle to chest height	

Check on driver's side front wheel

49	Check the level of wear of the tyre + presence of foreign bodies (blisters, tears, foreign objects)	
50	Remove the wheel	Wheel: Removal - Refitting (35A, Wheels and tyres)
51	Check the level of brake pad wear	Note the degree of wear on the test certificate
52	Check the brake disc wear	
53	Check the condition of the brake hose	
54	Check the condition of the rubber mounting bushes and suspension arm ball joint	
55	Check the sealing of the shock absorber	
56	Check for corrosion on wheel arch, the condition of the spring, shock absorber cups and shock absorber	
57	Check the condition of the driveshaft gaiters and steering gaiters	
58	Check the level of power-assisted steering fluid (Laguna 3)	

Check on driver's side rear wheel:

59	Check the level of wear of the tyre + presence of foreign bodies (blisters, tears, foreign objects)	
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60	Remove the wheel	Wheel: Removal - Refitting (35A, Wheels and tyres)
61	Check the level of wear of the brake pads, depending on the version	Note the degree of wear on the test certificate
62	Check the brake disc wear (if equipped)	
63	Check the condition of the brake hose	
64	Check the sealing of the shock absorber.	
65	Check for corrosion on wheel arch, the condition of the spring, shock absorber cups and shock absorber	
Check on passenger's side rear wheel:		
66	Check the level of wear of the tyre + presence of foreign bodies (blisters, tears, foreign objects)	
67	Remove the wheel	Wheel: Removal - Refitting (35A, Wheels and tyres)
68	Check the level of wear of the brake pads, depending on the version	Note the degree of wear on the test certificate
69	Check the brake disc wear (if equipped)	
70	Check the condition of the brake hose	
71	Check the sealing of the shock absorber.	

72	Check for corrosion on wheel arch, the condition of the spring, shock absorber cups and shock absorber	
Check on passenger's side front wheel		
73	Check the level of wear of the tyre + presence of foreign bodies (blisters, tears, foreign objects)	
74	Remove the wheel	Wheel: Removal - Refitting (35A, Wheels and tyres)
75	Check the level of brake pad wear	Note the degree of wear on the test certificate
76	Check the brake disc wear	
77	Check the condition of the brake hose	
78	Check the condition of the rubber mounting bushes and suspension arm ball joint	
79	Check the sealing of the shock absorbers.	
80	Check for corrosion on wheel arch, the condition of the spring, shock absorber cups and shock absorber	
81	Check the condition of the driveshaft gaiters and steering gaiters	
82	Bleed the water in the fuel filter (if accessible through wheel arch) according to the maintenance programme)	

83	Raise the vehicle to the upper position	
Underbody operations		
84	Remove the protection plate underneath the engine and position the oil collector	
85	Remove the drain plug	Let the oil flow for 10 minutes
86	Remove the oil filter (version accessed from underneath)	
87	Check the exhaust system: Corrosion, contact with body and condition of the rubber mounting bushes	
88	Check the condition of the catalytic converter	
89	Check the condition of the spring, shock absorber cups and shock absorber on the right-hand and left-hand sides (if accessible from underneath)	
90	Check the condition of the underbody brake pipes	
91	Check the condition and pressure of the emergency spare wheel (if accessible from underneath)	
92	Check the engine components using a lamp: ■ Cooling system hoses, ■ Coolant pump, ■ Engine block, ■ Turbocharger	

93	Parts are supplied using Dialogys and the physical values should be noted (tightening torque, oil grade and quantity)	
94	Refit the new oil filter (if accessible)	Lubricate the seal, tighten to torque depending on the model
95	Refit the drain plug	With new seal and according to recommended part number, for copper seals, the lips should be on the plug side (panel cover) Torque tighten depending on the model
96	Clean the oil residues	
97	Drain the oil collector.	
	Supplementary operation: replacement of fuel filter	See ICM/Maintenance booklet
98	Refit the protection plate underneath the engine	
99	Read the tyre pressure on the label on the driver's side door (if equipped)	Pressure to be applied depends on customer's driving type
100	Lower the vehicle to chest height	
Operations on driver's side front wheel		
101	Refit the wheel	Wheel: Removal - Refitting (35A, Wheels and tyres)

102	Check the tyre pressure and the presence of the valve cap	
Operations on driver's side rear wheel		
	Supplementary operation: remove dust and check the drum brake (if equipped)	See ICM/Maintenance booklet
103	Refit the wheel	Wheel: Removal - Refitting (35A, Wheels and tyres)
104	Check the tyre pressures and the presence of the valve cap	
Operations on passenger's side rear wheel		
	Supplementary operation: remove dust and check the drum brake (if equipped)	See ICM/Maintenance booklet
105	Refit the wheel	Wheel: Removal - Refitting (35A, Wheels and tyres)
106	Check the tyre pressures and the presence of the valve cap	
Operations on passenger's side front wheel		
	Remove - refit diesel filter (depending on the version)	See ICM/Maintenance booklet
107	Refit the wheel	Wheel: Removal - Refitting (35A, Wheels and tyres)

108	Check the tyre pressures and the presence of the valve cap	
109	Lower the vehicle to the low position	
Operations in the engine compartment		
110	Refit the new oil filter (if accessible)	Lubricate the seal, tighten by hand or to torque depending on the model
111	Fill the engine oil	Respect the grade and quantity of engine oil.
112	Replace the oil filler cap	
	Supplementary operation: replacement of diesel filter (depending on the version)	See ICM/Maintenance booklet
	Supplementary operation: replacement of fuel filter (depending on the version)	See ICM/Maintenance booklet
	Supplementary operation: replacement of air filter	See ICM/Maintenance booklet
	Supplementary operation: replacement of spark plugs	See ICM/Maintenance booklet
	Supplementary operation: replacement of brake fluid	See ICM/Maintenance booklet
	Supplementary operation: replacement of coolant	See ICM/Maintenance booklet
	Supplementary operation: replacement of accessories belt and rollers	See ICM/Maintenance booklet

	Supplementary operation: replacement of damper pulley/alternator pulley (depending on the version)	See Technical Note 6018/Maintenance booklet
	Supplementary operation: replacement of timing belt and rollers	See ICM/Maintenance booklet
	Supplementary operation: check and clean air conditioning system	See ICM/Maintenance booklet
	Supplementary operation: replacement of cabin filter (depending on the version)	See ICM/Maintenance booklet
Internal vehicle operation		
113	Start the vehicle	
114	Switch off the ignition	
	Supplementary operation: replacement of cabin filter (depending on the version)	See ICM/Maintenance booklet
Wheel torque tightening		
115	Consult the tightening torque in the technical documentation	
116	Torque tighten the front wheel on the driver's side and refit the trim (if equipped)	Refitting the trim confirms the tightening operation.
117	Torque tighten the rear wheel on the driver's side and refit the trim (if equipped)	Refitting the trim confirms the tightening operation.
118	Torque tighten the rear wheel on the passenger's side and refit the trim (if equipped)	Refitting the trim confirms the tightening operation.

119	Torque tighten the front wheel on the passenger's side and refit the trim (if equipped)	Refitting the trim confirms the tightening operation.
Administrative operations		
120	Fill in the test certificate	
121	Indicate, according to the degree of importance, the next works to be performed in order to ensure vehicle conformity.	
Final inspection in the engine compartment:		
122	Fill in and position the maintenance label	
123	After waiting at least 10 minutes after the last top-up or starting the engine, check the oil level using the dipstick	
124	Top up if necessary	
125	Clean the engine cover and the battery cover	



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