NEW HOLLAND

REPAIR MANUAL FOR CNH U.K. ENGINES

667TA/EEG
667TA/EEC
667TA/EBF
667TA/EED
667TA/EBD

NEW HOLLAND

PROVEN PERFORMANCE

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UNIT OF MEASURE

This manual adopts the units of measure based on the International System.

The MKSA system units of measure are indicated within brackets after the units of measure of the International System.

Example: 24.5 Mpa (250 kgf/cm2).

The following table converts the International System units of measure in some of the main units belonging to other systems.

Quantity	To convert from (IS)	in (Others)	Multiply by
Length	mm	in	0.03937
	mm	ft	0.003281
Volume	L	US gal	0.2642
	L	US qt	1.057
	m^3	yd^3	1.308
Mass	kg	lb	2.205
Force	N	kgf	0.10197
	N	lbf	0.2248
Torque	N.m	kgf.m	0.10197
	N.m	lbf.ft	0.7375

Quantity	To convert from (IS)	in (Others)	Multiply by
Pressure	MPa	kgf/cm^2	10.197
	MPa	psi	145.0
Power	kW	PS	1.360
	kW	HP	1.341
Temperature	°C	°F	°C x 1.8 + 32
Speed	km/h	mph	0.6214
	min^{-1}	rpm	1.0
Capacity	L/min	US gpm	0.2642
	mL/rev	cc/rev	1.0

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ENGINES

INDEX OF SECTIONS



Section 1 – Diagnostics EW–1–1



Section 2 – 667TA engine overhaul EW–2–1



Section 3 – Recharging and start–up EW–3–1

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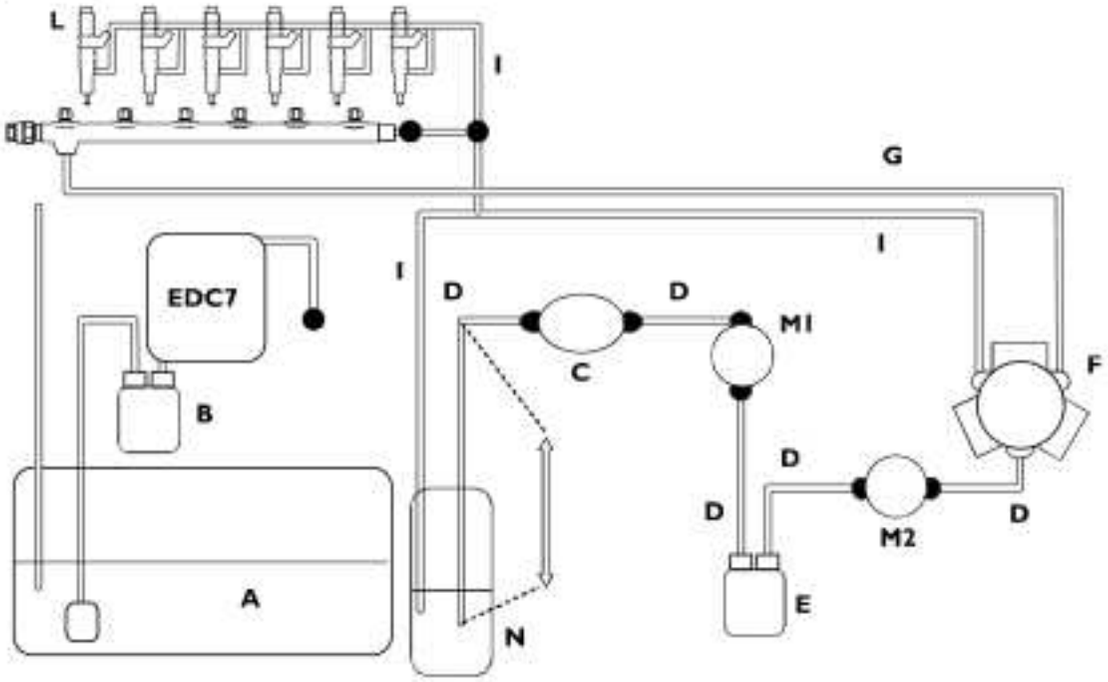
	Type		667TA				
			EEG	EEC	EBF	EED	EBD
COOLING			By fluid				
	Water pump drive:		By means of belt				
	Thermostat: Start of opening:	°C	81± 2				
Ambra Mastergold HSP	FILLING Total capacity 1st filling:	litres kg	– –		– –		
	– engine sump	litres kg	– –		– –		
	– engine sump + filter	litres kg	17 –		19 –		
	FEEDING Bosch-type injection		high pressure Common Rail				
	Pump setting						
	Start of delivery	mm					
	Type of injector		CRIN 1		CRIN 2		
	Injection sequence		1 – 5 – 3 – 6 – 2 – 4				
	Injection pressure	bar	–		250 to 1600	250 to 1400	250 to 1600

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Low pressure supply test

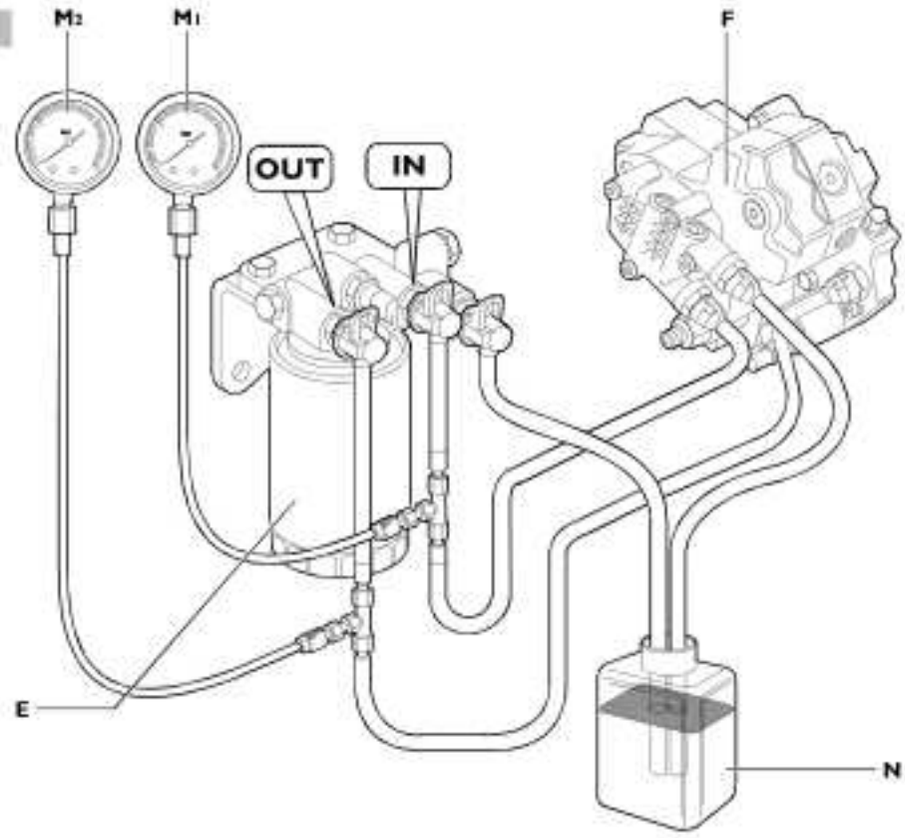
The figure shows a diagram describing the use of the components available in the specific set.

Figure 71



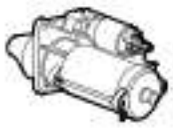
A. Fuel tank – B. Prefilter – C. Low-pressure pump – D. Fuel delivery circuit – E. Fuel filter – F. High-pressure pump CP3.3 – G. High-pressure circuit – H. Common rail – I. Fuel recirculation circuit – L. Injectors – M1. Pressure gauge 1 fuel filter inlet – M2. Pressure gauge 2 fuel filter outlet – N. External container.

Figure 72



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STARTER MOTOR



BOSCH – 24 V – 4 kW – For engines: 667TA/EEG
667TA/EEC

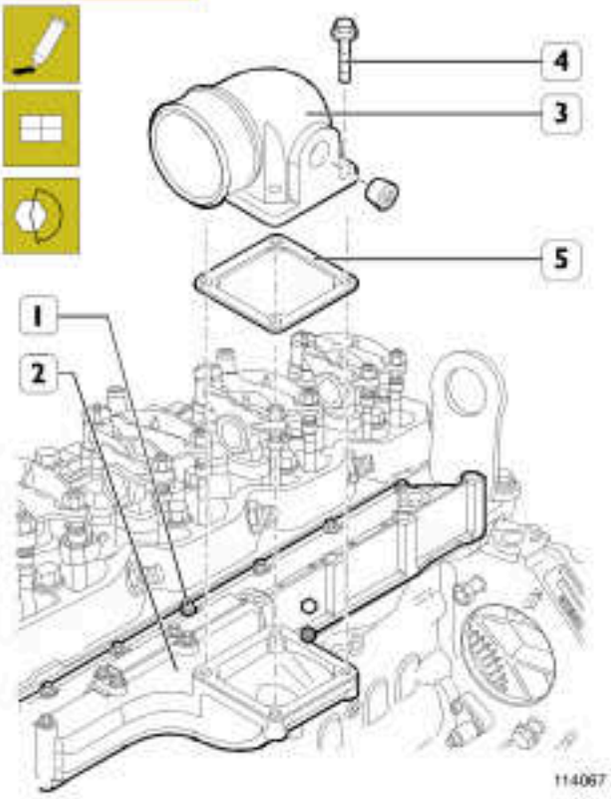
ISKRA – For engines: 667TA/EBF
667TA/EED

Quick diagnosis

Fault	Possible causes	Remedy
Dragging torque insufficient	1. Batteries run down	Restore
	2. Circuit connections oxidized or loose	Replace the component
	3. Brushes not in working order	Replace the component
	4. Short–circuited field windings	Replace the component
	5. Interruptedor short circuited armature	Replace the component
	6. Out–of–round collector	Replace the component
Dragging torque sufficient, but the engine won't start	1. Free wheel or faulty electro–magnet	Replace the component
Pinion won□t engage	1. Bevelled ring gear	Restore

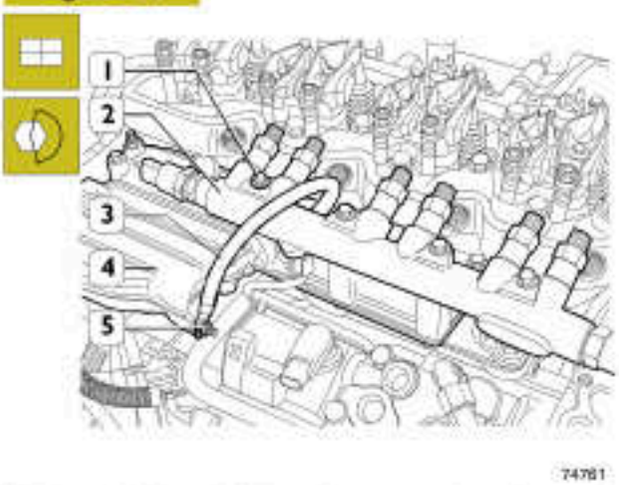
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Figure 242



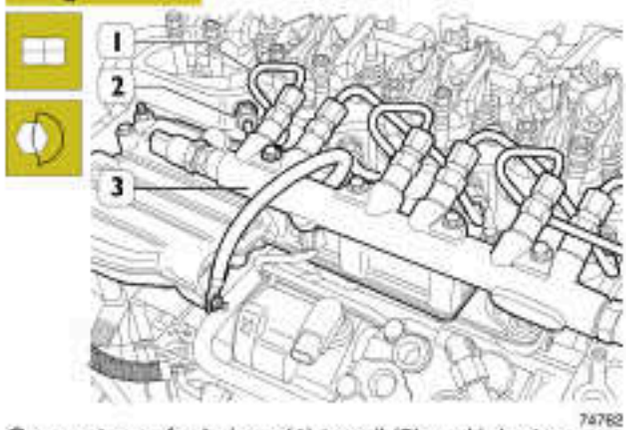
Apply LOCTITE 5999 to the contact surfaces of intake manifold (1) and fit the manifold and heater to the cylinder head.
Screw in bolts (2) and tighten to the specified torque.
Fit air intake (3) with a new gasket (5) and tighten bolts (4) to the specified torque.
The figure shows the air intake for 667TA/EEG – 667TA/EEC engines.

Figure 243



Fit the rail (2) and tighten the screws (1) to the specified torque, connect the ground cable (3) to the intake manifold (4) and tighten the fastening nut (5) to the specified torque.

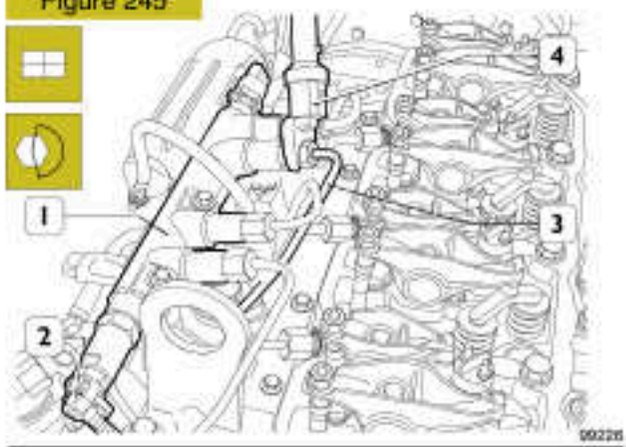
Figure 244



Connect new fuel pipes (1) to rail (3) and injector manifolds (2).

IMPORTANT – *When removed, pipes (1) shall always be replaced.*

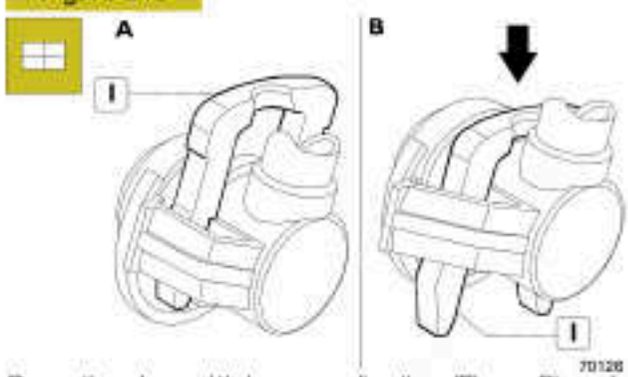
Figure 245



IMPORTANT – *Pipe (7) connections shall be tightened to 20 Nm torque, using the proper wrench (5) and the dynamometric wrench 380000158 (4).*

Connect the fuel pipe (3) to the rail (2) following the procedure shown in the following figure.

Figure 246



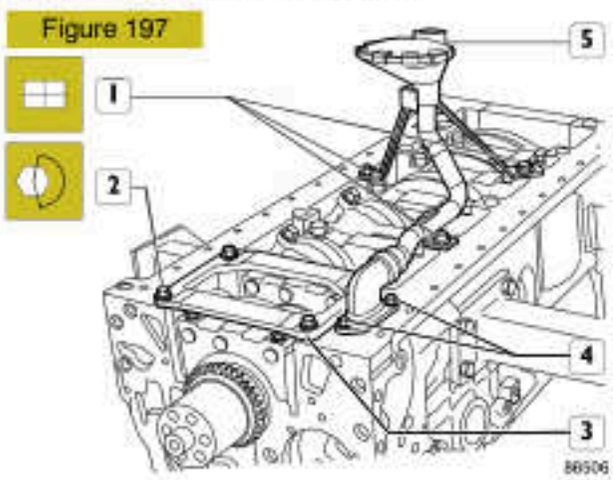
Press the clamp (1) in arrow direction (Figure B) and connect the pipe to the rail (2, Figure 245), reset the clamp to the initial locking position "A".

IMPORTANT – *Check proper fuel pipe connection.*

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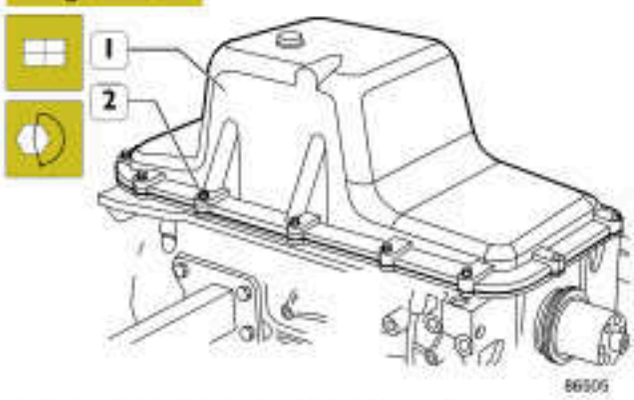
Only engines: 667TA/EED – /EBD

Figure 197



Mount plate (3) and strainer (5), then screw down fastening screws (1–2–4) and tighten them to the specified torque.

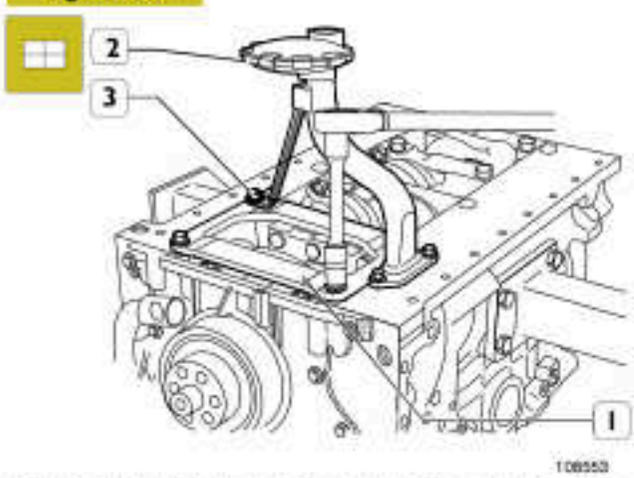
Figure 198



Mount oil sump (1) and apply plate (3) on the same. Fasten screws (2) and tighten them to the specified torque.

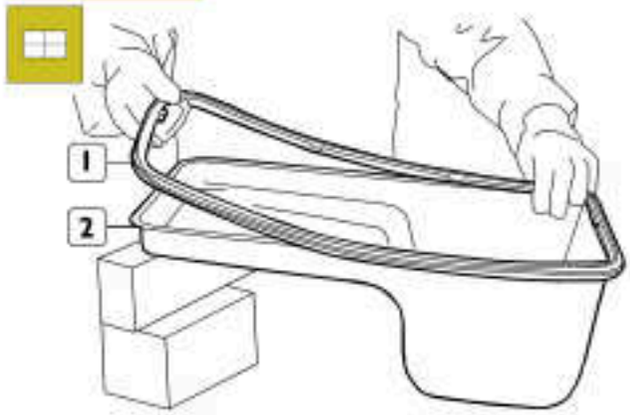
Only engines: 667TA/EEG – /EEC – /EBF – /EED

Figure 199



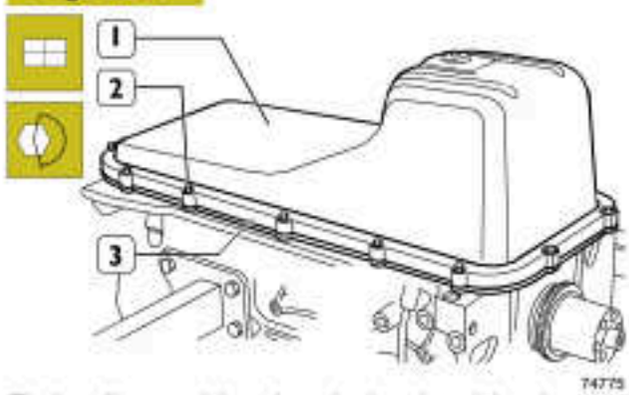
Fit the plate (1), the oil pick up tube (2) and tighten the fastening screws (3) to the specified torque.

Figure 200



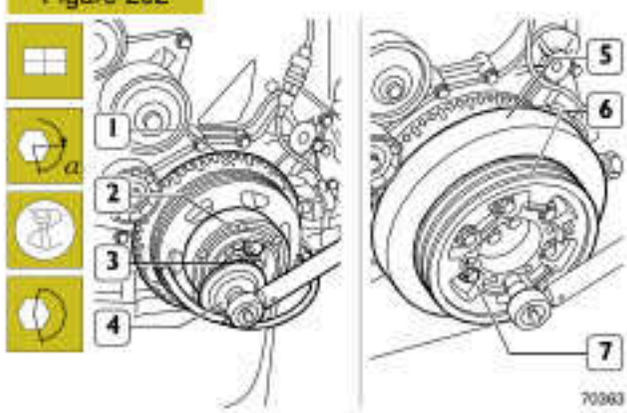
Set the gasket (1) on the oil sump (2).

Figure 201



Fit the oil sump (1) and apply the plate (3) to it. Tighten the screws (2) to the specified torque.

Figure 202



Key phonic wheel (1) and hub (2) on drive shaft. Screw securing screws (3) and tighten them in two steps.

- ❑ 1st step, tightening with a dynamometric wrench at 50 ± 5 Nm torque.
- ❑ 2nd step, locking with 90° angle.

IMPORTANT – *Angle tightening is carried out by means of tool 380001001 (4).*

Mount damper flywheel (5) and pulley (6). Screw securing screws (7) and tighten them at 68 ± 7 Nm torque.

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