

EURO CARGO TECTOR

6 TO 10 t

REPAIR MANUAL

IVECO

This publication describes the characteristics, the data, the correct methodology of the repairs that can be made on each individual component of the vehicle.

By complying with the instructions supplied and using the specific tools it is possible to perform any repair intervention correctly, within the specified time frames, while protecting the technicians against incidents.

Before starting any repair work, make sure that all accident prevention devices are ready at hand.

Check and wear the protective personal equipment provided for by the safety standards: goggles, helmet, gloves, shoes.

Check the efficiency of all processing, lifting and transport tools before using them.

The data contained in this publication might fail to reflect the latest changes which the Manufacturer may introduce at any time, for technical or sales purposes, or to meet the requirements of local legislation.

Copy, even partial, of text and drawings is forbidden.

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SPECIAL REMARKS

The workshop manuals for mechanical parts have been divided into Sections, each of which has a number and its relevant contents are indicated in the General Specifications. Each section features a main Unit (e.g. engine, gears etc.).

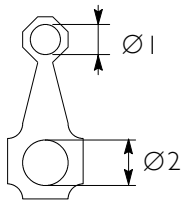
The subjects usually dealt with in each section are:

Technical data table, Driving torques, Equipment, Diagnostic, Removal and Fitting in place, Repair operations.

Where possible, the same sequence of procedures has been followed for easy reference.

Diagrams and symbols have been widely used to give a clearer and more immediate illustration of the subject being dealt with, (see next page) instead of giving descriptions of some operations or procedures.

Example



Ø 1 = housing for connecting rod small end bush

Ø 2 = housing for connecting rod bearings



Tighten to torque
Tighten to torque +
angular value

Furthermore, within each section, every heading or sub-heading concerning the operations to be carried out is preceded by a six digit number. This number is the Product Code that is to be found in the repair operation described in the REPAIR TIMES CHARTS and in the FAULT CODES.

For quick reference the indication of how to read this code is described below (see the Repair time charts also).

Product Code:



PRODUCT



UNIT



SUB-ASSEMBLY
COMPONENT

Example:

Product 50 = Frame;

Product 52 = Axles;

Product 53 = Gears etc.

Unit Code:



PRODUCT



UNIT



SUB-ASSEMBLY
COMPONENT

Figures three and four identify the ASSEMBLY within the PRODUCT

Example:

Product 50 = Frame;

Unit 01 = Chassis;

Unit 02 = Bumpers etc .

Sub-assembly Code:



PRODUCT



UNIT



SUB-ASSEMBLY
COMPONENT



















Example:
















Product 50 = Frame;

Unit 01 = Chassis;

Sub-assembly 40 = Chassis cross members etc.

Graphs and symbols

	Removal Disconnection
	Refitting Connection
	Removal Disassembly
	Fitting in place Assembly
	Tighten to torque
	Tighten to torque + angle value
	Press or caulk
	Regulation Adjustment
	Warning Note
	Visual inspection Fitting position check
	Measurement Value to find Check
	Equipment
	Surface for machining Machine finish
	Interference Strained assembly
	Thickness Clearance
	Lubrication Damp Grease
	Sealant Adhesive
	Air bleeding

	Intake
	Exhaust
	Operation
ϱ	Compression ratio
	Tolerance Weight difference
	Rolling torque
	Replacement Original spare parts
	Rotation
	Angle Angular value
	Preload
	Number of revolutions
	Temperature
	Pressure
$>$	Oversized Higher than.... Maximum, peak
$<$	Undersized Less than.... Minimum
	Selection Classes Oversizing
	Temperature < 0° Cold Winter
	Temperature > 0° Hot Summer

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UPDATE DATA

Section	Description	Page	Revision date

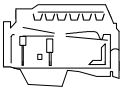


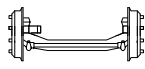

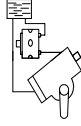


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SECTION I**General Specifications**

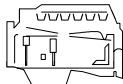
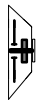


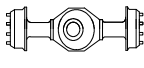
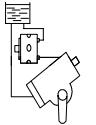


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COMPOSITION OF THE MODELS

UNITS		MODELS																								
		ML60E13	ML60E13/P	ML60E13R	ML60E13R/P	ML60E13K	ML60E13KR	ML60E15	ML60E15/P	ML60E15R	ML60E15R/P	ML60E15K	ML60E15KR	ML65E13	ML65E13/P	ML65E13R	ML65E13R/P	ML65E13K	ML65E13KR	ML65E15	ML65E15/P	ML65E15R	ML65E15R/P	ML65E15K	ML65E15KR	
	F4AE0481D (130HP)	•	•	•	•	•	•							•	•	•	•	•	•							
	F4AE0481C (150HP)							•	•	•	•	•	•								•	•	•	•	•	•
	F4AE0481A (170HP)																									
	F4AE0681E (180HP)																									
	F4AE0681D (210HP)																									
	13"	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	Single plate 13"/14"																									
	14"																									
	2855.5	•	•			•		•	•			•		•	•			•		•	•			•		
	2855.6	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	2865.6																									
	2870.9																									
	5833																									
	5833/1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	4517	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	4521																									
	TRW-TAS 30	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	ZF 8090																									
	Front mechanical	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	Rear mechanical	•		•		•	•	•		•	•	•	•		•		•	•	•		•		•	•	•	
	Front pneumatic																									
	Rear pneumatic		•		•				•		•				•		•				•		•			

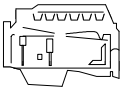


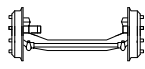

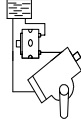


- P = Vehicles with air suspension on rear axle
- FP = Vehicles with front and rear air suspension
- D = Vehicles with double cabin
- K = Vehicles with dump body
- R = Towing vehicles

COMPOSITION OF THE MODELS

UNITS		MODELS		MODELS																						
				ML75E13	ML75E13/P	ML75E13R	ML75E13R/P	ML75E13K	ML75E13KR	ML75E15	ML75E15/P	ML75E15R	ML75E15R/P	ML75E15K	ML75E15KR	ML75E17	ML75E17/P	ML75E17R	ML75E17R/P	ML75E17K	ML75E17KR	ML75E18	ML65E18/P	ML75E18R	ML75E18R/P	ML75E18K
	F4AE048 ID (130HP)	•	•	•	•	•	•																			
	F4AE048 IC (150HP)							•	•	•	•	•	•													
	F4AE048 IA (170HP)														•	•	•	•	•	•						
	F4AE068 IE (180HP)																				•	•	•	•	•	•
	F4AE068 ID (210HP)																									
	13"	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•							
	Single plate 13"/14"																				•	•	•	•	•	
	14"																									
	2855.5	•	•			•		•	•				•		•	•			•		•	•			•	
	2855.6	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	2865.6																									
	2870.9																									
	5833																									
	5833/1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	4517	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	4521																									
	TRW-TAS 30	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	ZF 8090																									
	Front mechanical	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	Rear mechanical	•		•		•	•	•		•		•	•	•		•		•	•	•		•		•	•	
	Front pneumatic																									
	Rear pneumatic		•		•				•		•				•		•				•		•			

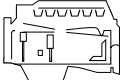




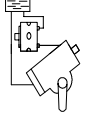

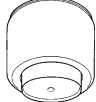
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 R = Towing vehicles

COMPOSITION OF THE MODELS

UNITS		MODELS																								
		ML80ELI 5	ML80ELI 5/P	ML80ELI 5R	ML80ELI 5R/P	ML80ELI 7	ML80ELI 7/P	ML80ELI 7R	ML80ELI 7R/P	ML80E17	ML80E17/P	ML80E17/FP	ML80E17D	ML80E17D/P	ML80E17R	ML80E17R/P	ML80E17R/FP	ML80E17DR	ML80E17DR/P	ML80E17K	ML80E17DK	ML80E17KR	ML80E17DKR	ML80E18	ML80E18/P	
	F4AE048ID (130HP)																									
	F4AE048IC (150HP)	•	•	•	•																					
	F4AE048IA (170HP)					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
	F4AE068IE (180HP)																								•	•
	F4AE068ID (210HP)																									
	13"	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
	Single plate 13"/14"																								•	•
	14"																								•	•
	2855.5	•	•			•	•																			
	2855.6	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	2865.6																									
	2870.9									•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	5833									•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	5833/I	•	•	•	•	•	•	•	•																	
	4517	•	•	•	•	•	•	•																		
	4521									•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	TRW-TAS 30	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	ZF 8090																									
	Front mechanical	•	•	•	•	•	•	•	•	•		•	•	•	•			•	•	•	•	•	•	•	•	
	Rear mechanical	•		•		•		•		•		•		•					•		•	•	•	•	•	
	Front pneumatic											•						•								
	Rear pneumatic		•		•		•		•		•		•		•		•								•	

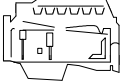




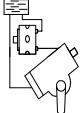


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- R = Towing vehicles

COMPOSITION OF THE MODELS

UNITS		MODELS		ML80E18/FP	ML80E18D	ML80E18D/P	ML80E18R	ML80E18R/P	ML80E18R/FP	ML80E18DR	ML80E18DR/P	ML80E18K	ML80E18DK	ML80E18KR	ML80E18DKR	ML80E21	ML80E21/P	ML80E21/FP	ML80E21D	ML80E21D/P	ML80E21R	ML80E21R/P	ML80E21R/FP	ML80E21DR	ML80E21DR/P	ML80E21K	ML80E21DK	
	F4AE0481D (130HP)																											
	F4AE0481C (150HP)																											
	F4AE0481A (170HP)																											
	F4AE0681E (180HP)			•	•	•	•	•	•	•	•	•	•	•	•													
	F4AE0681D (210HP)															•	•	•	•	•	•	•	•	•	•	•	•	•
	13"																											
	Single plate 13"/14"			•	•	•	•	•	•	•	•	•	•	•	•													
	14"			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	2855.5																											
	2855.6			•	•	•	•	•	•	•	•	•	•	•	•													
	2865.6															•	•	•	•	•	•	•	•	•	•	•	•	•
	2870.9			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	5833			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	5833/1																											
	4517																											
	4521			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	TRW-TAS 30			•	•	•	•	•	•	•	•	•	•	•														
	ZF 8090															•	•	•	•	•	•	•	•	•	•	•	•	•
	Front mechanical			•	•	•	•	•		•	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	•
	Rear mechanical				•		•			•		•	•	•	•	•			•		•			•		•	•	
	Front pneumatic			•					•									•					•					
	Rear pneumatic			•		•					•							•	•				•		•			

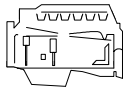




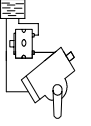

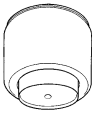
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COMPOSITION OF THE MODELS

UNITS		MODELS																									
		ML80E2IKR	ML80E2IDKR	ML90E17	ML90E17/P	ML90E17/FP	ML90E17D	ML90E17D/P	ML90E17R	ML90E17R/P	ML90E17R/FP	ML90E17DR	ML90E17DR/P	ML90E17K	ML90E17DK	ML90E17KR	ML90E17DKR	ML90E18	ML90E18/P	ML90E18/FP	ML90E18D	ML90E18D/P	ML90E18R	ML90E18R/P	ML90E18R/FP		
	F4AE048ID (130HP)																										
	F4AE048IC (150HP)																										
	F4AE048IA (170HP)			•	•	•	•	•	•	•	•	•	•	•	•	•	•										
	F4AE068IE (180HP)																	•	•	•	•	•	•	•	•	•	•
	F4AE068ID (210HP)	•	•																								
	13"			•	•	•	•	•	•	•	•	•	•	•	•	•											
	Single plate 13"/14"																	•	•	•	•	•	•	•	•	•	
	14"	•	•															•	•	•	•	•	•	•	•	•	
	2855.5																										
	2855.6			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	2865.6	•	•																								
	2870.9	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	5833	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	5833/I																										
	4517																										
	4521	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	TRW-TAS 30			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	ZF 8090	•	•																								
	Front mechanical	•	•	•	•			•	•	•	•			•	•	•	•	•	•			•	•	•	•		
	Rear mechanical	•	•	•				•		•				•	•	•	•	•				•		•			
	Front pneumatic					•					•										•					•	
	Rear pneumatic			•	•			•		•	•			•							•	•		•	•	•	

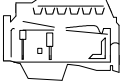




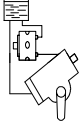


- P = Vehicles with air suspension on rear axle
- FP = Vehicles with front and rear air suspension
- D = Vehicles with double cabin
- K = Vehicles with dump body
- R = Towing vehicles

COMPOSITION OF THE MODELS

UNITS	MODELS	ML90E18DR	ML90E18DR/P	ML90E18K	ML90E18DK	ML90E18KR	ML90E18DKR	ML90E21	ML90E21/P	ML90E21/FP	ML90E21D	ML90E21D/P	ML90E21R	ML90E21R/P	ML90E21R/FP	ML90E21DR	ML90E21DR/P	ML90E21K	ML90E21DK	ML90E21KR	ML90E21DKR	ML100E17	ML100E17/P	ML100E17/FP	ML100E17D	
			F4AE0481D (130HP)																							
	F4AE0481C (150HP)																									
	F4AE0481A (170HP)																						•	•	•	•
	F4AE0681E (180HP)	•	•	•	•	•	•																			
	F4AE0681D (210HP)							•	•	•	•	•	•	•	•	•	•	•	•	•	•					
	13"																					•	•	•	•	
	Single plate 13"/14"	•	•	•	•	•	•																			
	14"	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					
	2855.5																									
	2855.6	•	•	•	•	•	•															•	•	•	•	
	2865.6							•	•	•	•	•	•	•	•	•	•	•	•	•	•					
	2870.9	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	5833	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	5833/1																									
	4517																									
	4521	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	TRW-TAS 30	•	•	•	•	•	•																			
	ZF 8090							•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	Front mechanical	•	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	•	•	•	•	•	•	
	Rear mechanical	•		•	•	•	•				•		•			•		•	•	•	•	•			•	
	Front pneumatic									•					•										•	
	Rear pneumatic		•						•	•		•		•	•		•						•	•		

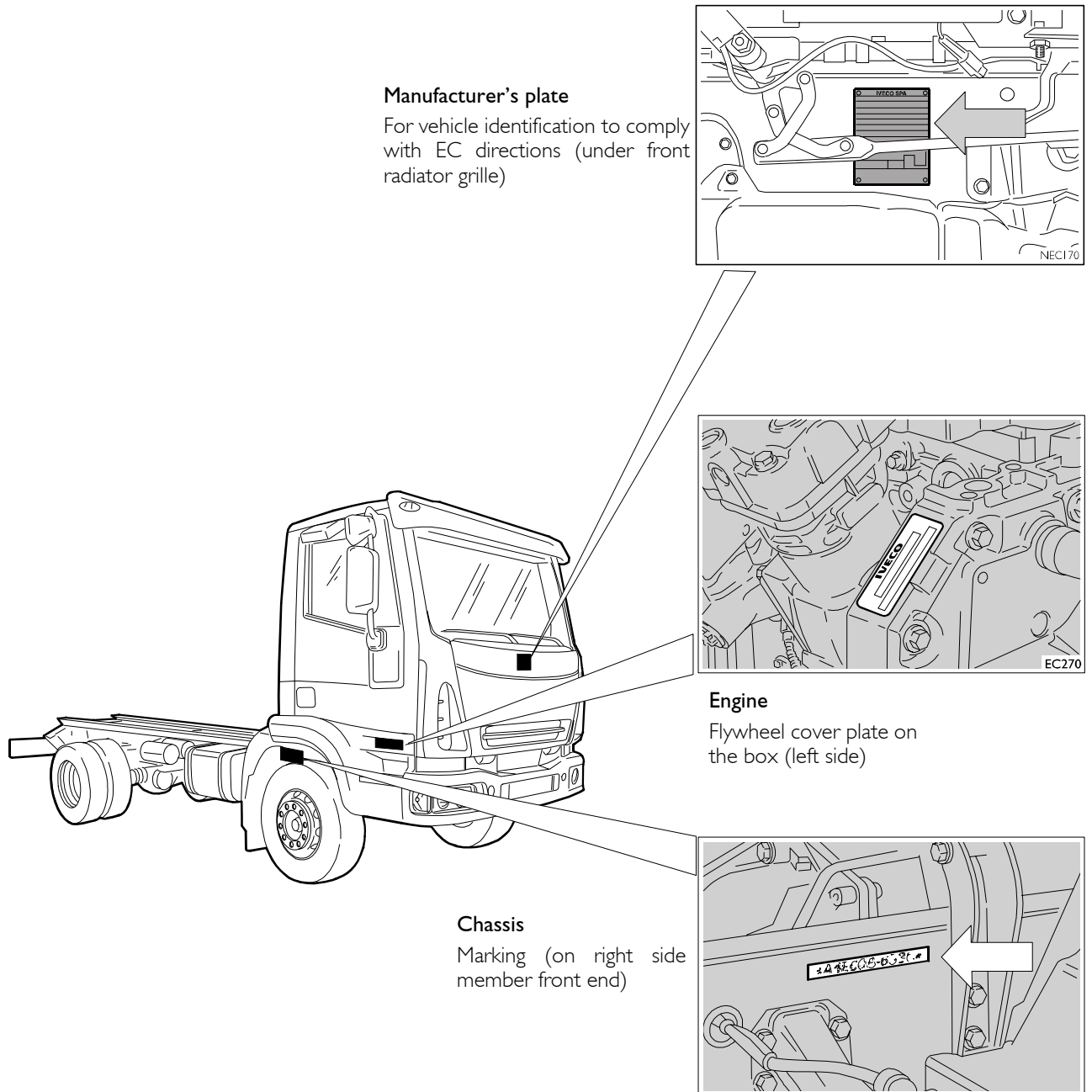
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COMPOSITION OF THE MODELS

UNITS		MODELS																									
		ML100E17D/P	ML100E17R	ML100E17R/P	ML100E17R/FP	ML100E17DR	ML100E17DR/P	ML100E17K	ML100E17DK	ML100E17KR	ML100E17DKR	ML100E18	ML100E18/P	ML100E18/FP	ML100E18D	ML100E18D/P	ML100E18R	ML100E18R/P	ML100E18R/FP	ML100E18DR	ML100E18DR/P	ML100E18K	ML100E18DK	ML100E18KR	ML100E18DKR		
	F4AE0481D (130HP)																										
	F4AE0481C (150HP)																										
	F4AE0481A (170HP)	•	•	•	•	•	•	•	•	•	•																
	F4AE0681E (180HP)											•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	F4AE0681D (210HP)																										
	13"	•	•	•	•	•	•	•	•	•																	
	Single plate 13"/14"											•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	14"											•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	2855.5																										
	2855.6	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	2865.6																										
	2870.9	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	5833	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	5833/I																										
	4517																										
	4521	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	TRW-TAS 30																										
	ZF 8090	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	Front mechanical	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	
	Rear mechanical		•			•		•	•	•	•			•		•				•		•	•	•	•	•	
	Front pneumatic				•								•						•								
	Rear pneumatic	•		•	•			•				•	•		•		•	•			•						

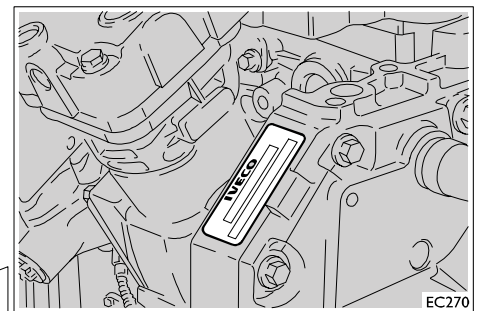
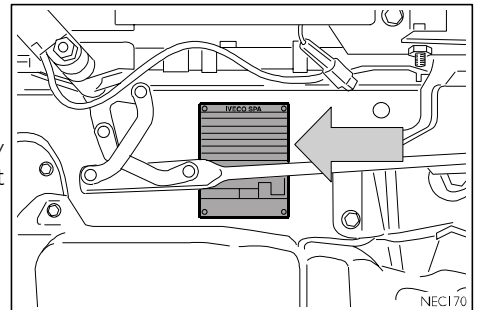
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IDENTIFICATION DATA AND LOCATION ON VEHICLE



Manufacturer's plate

For vehicle identification to comply with EC directions (under front radiator grille)

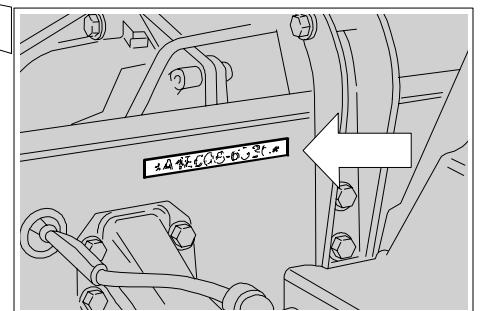


Engine













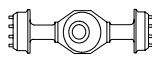








Flywheel cover plate on the box (left side)

Chassis

Marking (on right side member front end)



FILLING UP

LUBRICANTS RECOMMENDED BY IVECO	PARTS TO FILLED UP	Quantity	
		Litres	kg
 Urania Turbo Urania LD5	 Engine – 4 cylinders  min.  max  Engine – 6 cylinders  min.  max 	5.3	4.8
		8.3	7.5
		1	0.9
		8	7.2
		10.8	9.7
		1	0.9
 Tutela ZC 90	 Gearbox	2855.5	5.5
		2855.6	5.5
		2865.6	9
		2870.9	5
 Tutela WI40/M - DA	 Front hubs (individual)	0.1	-
	 Rear axle	4517	3
4521		5	4.5
 Tutela GI/A	 Power steering	TRW - TAS30	-
		ZF 8090	-
 Tutela TRUCK DOT SPECIAL	 Brake circuit	1.9	1.7
		 Clutch circuit	0.4
 50% Paraflu II	Cooling system Total capacity		-
 Tutela LHM	 Cab tipping system	0.7	0.65