



EUROTRAKKER CURSOR REPAIR MANUAL

IVECO



This publication describes the characteristics, data and correct methods for repair operations on each component of the vehicle.

If the instructions provided are followed and the specified equipment is used, correct repair operations in the allotted time will be guaranteed, and the operators will also be protected against possible accidents.

Before any repair is commenced, ensure that all normal safety precautions are observed.

All items specified by the safety regulations-goggles, helmet gloves, boots-should be checked and worn.

All machining, lifting and conveying equipment should be inspected before use.

The data contained in this publication was correct at the time of going to press but, owing to possible modifications made by the Manufacturer for reasons of a technical or commercial nature or for adaptation to the legal requirements of different countries, some changes may have occurred.

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NOTE

This manual is divided into several sections.

Section numbers are listed on the index page to be found at the beginning of each repair manual.

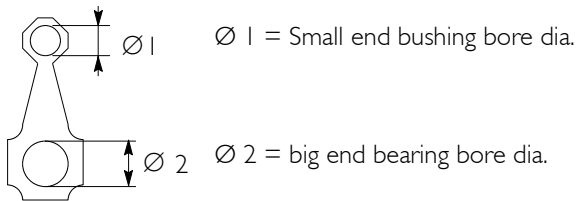
Each section deals generally with one of the main assemblies (engine, transmission etc.)

Each section deals with the following topics:

Specifications and data; Tightening torques; Special tools; Troubleshooting (fault diagnosis); Component removal/refitting; Repair operations.

This manual provides graphs and symbols instead of description of parts, operations or operating procedures (see next page).

Example



Tighten to specified torque
Tighten to specified torque +
angular value

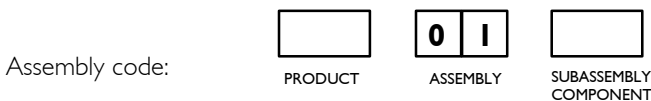
You will also notice that titles and subtitles of operations to be carried out are marked with a 6-figure number representing the **Product Code, Corresponding codes** are provided in the REPAIR BASE TIME SCHEDULES and in FAILURE CODES. Below you will find the explanation of each "NUMERICAL CODE" component.



Figures one and two identify the PRODUCT as part of the vehicle.

Example:

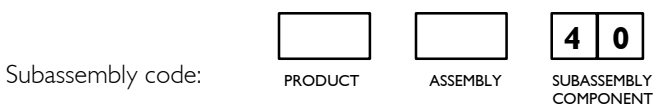
- Product 50 = Chassis;
- Product 52 = Axles;
- Product 53 = Gearbox etc.



Figures three and four identify the ASSEMBLY within the PRODUCT

Example:

- Product 50 = Chassis;
- Assembly 01 = Chassis frame;
- Assembly 02 = Anti lock bumper etc .







































Figures five and six identify THE SUBASSEMBLY and a Component of an Assembly within a PRODUCT.

Example:

- Product 50 = Chassis;
- Assembly 01 = Chassis frame;
- Subassembly 40 = Chassis cross members etc.

Graphs and symbols

	Remove Disconnect		Suction, intake
	Fit back Reconnect		Exhaust discharge
	Disassembly take apart Dismantling		Operation
	Assemble put together		Compression ratio
	Tighten to torque		Tolerance Load unbalance
	Tighten to torque + angle value		Rolling torque
	Stake or bend over		Part replacement Original spare parts
	Adjustment Regulation		Rotation
	Warning Note		Angle Angle value
	Visual check Check assembly position		Preloading
	Measurement Dimension reading Check		Number of revolutions
	Tooling		Temperature
	Machining surface Finished part		Pressure
	Interference Force fitting		Oversized Greater than... Maximum, peak
	Thickness Clearance, play, backlash		Undersized Less than... Minimum
	Lubricate Moisten Grease		Selection Class Oversizing
	Sealant Adhesive		Temperature below < 0° C Cold Winter
	Air bleeding		Temperature over 0° C Warm Summer

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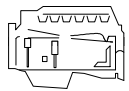






	Section
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SECTION I

General

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GENERAL COMPOSITION OF THE MODELS

ASSEMBLIES		MODELS 4X2			
		MP 190 E 24 H	MP 190 E 27 H	MP 190 E 31 H	MP 400 E 35 HT
	F2BEO681D	•			
	F2BEO681C		•		
	F2BE0681B			•	
	F2BEO681A				•
	Single plate with pull rod 15"/16"	•	•		
	Single plate with pull rod 16"			•	•
	2895.9	•			
	ZF 9S 109 D.D.		•		
	ZF 16S 109 D.D.			•	
	ZF 16S 151 D.D.				•
	5886 - 5886/2D - 5886/D *	•	•	•	•
	451391/1 ● - 451391/2D ■	•	•	•	•
	ZF 8098	•	•	•	•
	Front mechanical suspension	•	•	•	•
	Rear mechanical suspension	•	•	•	•

4x2 = Two axle vehicles with rear driving axle.

4x4 = Two axle vehicles with front and rear driving axles.

6x4 = Three axle vehicles with two rear driving axles (in Tandem).

6x6 = Three axle vehicles with front axle and two rear driving axles (in Tandem).

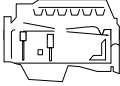


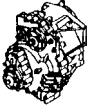
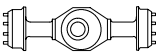
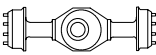



8x4x4 = Four axle vehicles: first and second steering axles, third and fourth driving axles (in Tandem).

● Drum brakes Simplex

* Disk brakes

■ Drum brakes Duo Duplex

COMPOSITION OF THE MODELS

ASSEMBLIES		MODELS 4X4							
		MP 180 E 24 W	MP 180 E 27 W	MP 190 E 24 W	MP 190 E 27 W	MP 190 E 31 W	MP 190 E 35 W	MP 190 E 31 W-/P	MP 190 E 35 W-/P
	F2BEO681D	•		•					
	F2BEO681C		•		•				
	F2BEO681B					•		•	
	F2BEO681A						•		•
	Single plate with pull rod 15"/16"	•	•	•	•				
	Single plate with pull rod 16"					•	•	•	•
	2895.9 (optional)	•	•	•	•				
	ZF 9S 109 D.D.	•	•	•	•	•	•	•	•
	ZF 16S 109 D.D.					•		•	
	ZF 16S 151 D.D.						•		•
	Eurotronic 1800 - Eurotronic 12AS 2301 D.D.					•	•	•	•
	T C 700 <input type="checkbox"/>	•	•	•	•				
	T C 1800	•	•	•	•	•	•	•	•
 FRONT	5985 • - 5985/2D ■	•	•	•	•	•	•	•	•
 REAR	451391/1 • - 451391/2D ■	•	•	•	•	•	•	•	•
	ZF 8098	•	•	•	•	•	•	•	•
	Front mechanical suspension	•	•	•	•	•	•	•	•
	Rear mechanical suspension	•	•	•	•	•	•		
	Rear mechanical suspension							•	•

4x2 = Two axle vehicles with rear driving axle.

4x4 = Two axle vehicles with front and rear driving axles.

6x4 = Three axle vehicles with two rear driving axles (in Tandem).

6x6 = Three axle vehicles with front axle and two rear driving axles (in Tandem).

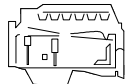







8x4x4 = Four axle vehicles: first and second steering axles, third and fourth driving axles (in Tandem).

Applied on ceased production vehicles

• Disk brakes Simplex

■ Drum brakes Duo Duplex

COMPOSITION OF THE MODELS

ASSEMBLIES		MODELS 6X4								
		MP 260 E 27 H	MP 260 E 31 H	MP 260 E 31 HB	MP 260 E 31 HB/P	MP 260 E 35 H	MP 260 E 35 HB	MP 260 E 35 HB/P	MP 380 E 35 H	MP 380 E 35 HB
	F2BEO681C	•								
	F2BEO681B		•	•	•					
	F2BE0681A					•	•	•	•	•
	Single plate with pull rod 15"/16"	•								
	Single plate with pull rod 16"		•	•	•	•	•	•	•	•
	ZF 9S 109 D.D	•	•	•	•					
	ZF 16S 109 D.D		•							
	ZF 16S 151 D.D					•	•	•	•	•
	Eurotronic 1800 - Eurotronic 12AS 2301 D.D.		•	•	•	•	•	•	•	•
	5886 ● - 5886/2D ■ - 5886/D*	•	•	•	•	•	•	•	•	•
	INTERMEDIATE 452146 ● - 412146/2D ■	•	•	•		•				
	REAR 452146 ● - 412146/2D ■	•	•	•		•				
	INTERMEDIATE 453291 ● - 453291/2D ■								•	•
	REAR 453291 ● - 453291/2D ■								•	•
	INTERMEDIATE SR 145 E/2D ■			•	•		•	•		
	REAR SR 145 E/2D ■			•	•		•	•		
	ZF 8098	•	•	•	•	•	•	•	•	•
	Front mechanical suspension	•	•	•	•	•	•	•	•	•
	Rear mechanical suspension	•	•	•		•	•			•
	Rear mechanical suspension				•			•		

4x2 = Two axle vehicles with rear driving axle.

4x4 = Two axle vehicles with front and rear driving axles.

6x4 = Three axle vehicles with two rear driving axles (in Tandem).

6x6 = Three axle vehicles with front axle and two rear driving axles (in Tandem).




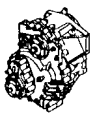
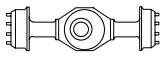



8x4x4 = Four axle vehicles: first and second steering axles, third and fourth driving axles (in Tandem).

● Drum brakes Simplex

* Disk brakes

■ Drum brakes Duo Duplex

COMPOSITION OF THE MODELS

		MODELS 6X6	MP 260 E 35 W	MP 380 E 35 W
ASSEMBLIES				
	F2BEO681A		•	•
	Single plate with pull rod 16"		•	•
	ZF 16S 15I		•	•
	Eurotronic 1800 - Eurotronic 12AS 230I		•	•
	T C 1800		•	•
FRONT 	5985 ● - 5985/2D ■		•	•
TANDEM 	INTERMEDIATE 452191/1 ● - 452191/2D ■		•	
	REAR 452191/11 ● - 452191/2D ■		•	
	INTERMEDIATE 453291 ● - 45329/2D ■			•
	REAR 453291 ● - 45329/2D ■			•
	ZF 8098		•	•
	Front mechanical suspension		•	•
	Rear mechanical suspension		•	•

4x2 = Two axle vehicles with rear driving axle.

4x4 = Two axle vehicles with front and rear driving axles.

6x4 = Three axle vehicles with two rear driving axles (in Tandem).

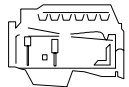


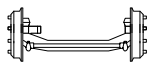
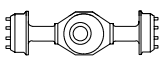



6x6 = Three axle vehicles with front axle and two rear driving axles (in Tandem).

8x4x4 = Four axle vehicles: first and second steering axles, third and fourth driving axles (in Tandem).

● Disk brakes Simplex

■ Drum brakes Duo Duplex

COMPOSITION OF THE MODELS

ASSEMBLIES		MODELS 8X4X4				
		MP 340 E 35 H	MP 340 E 35 H/P	MP 340 E 35 HB	MP 340 E 35 HB/P	MP 410 E 35 H
	F2BEO681A	•	•	•	•	•
	Single plate with pull rod 16"	•	•	•	•	•
	ZF 16S 151 D.D.	•	•	•	•	•
	EUROTRONIC 1800 - Eurotronic 12 AS 2301 D.D.	•	•	•	•	•
	1° 5886 ● - 5886/2D ■ - 5886/D*	•	•	•	•	•
	2° 5886	•	•	•	•	•
	INTERMEDIATE 452146 ● - 452146/2D ■	•		•		
	REAR 452146 ● - 452146/2D ■	•		•		
	INTERMEDIATE 453291 ● - 453291/2D ■					•
	REAR 453291 ● - 453291/2D ■					•
	INTERMEDIATE RT 153 E/2D ■	•	•		•	
	REAR RT 153 E/2D ■	•	•		•	
	ZF 8099/1 - ZF 8099/1,5	•	•	•	•	•
	Front mechanical suspension	•	•	•	•	•
	Rear mechanical suspension	•		•		•
	Rear mechanical suspension		•		•	

- Drum brakes Simplex
- * Disk brakes
- Drum brakes Duo Duplex

4x2 = Two axle vehicles with rear driving axle.

4x4 = Two axle vehicles with front and rear driving axles.

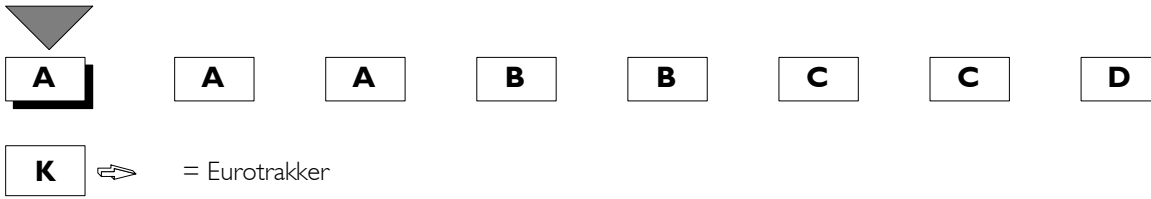
6x4 = Three axle vehicles with two rear driving axles (in Tandem).

6x6 = Three axle vehicles with front axle and two rear driving axles (in Tandem).

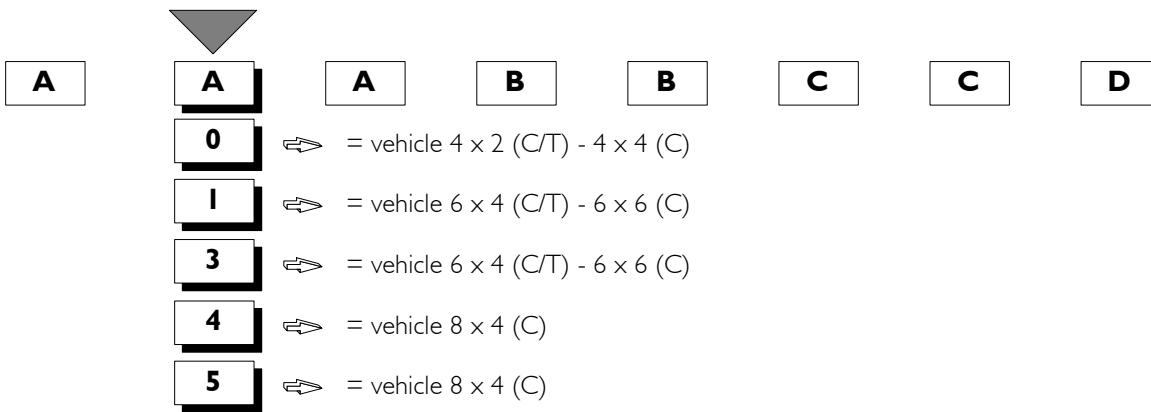
8x4x4 = Four axle vehicles: first and second steering axles, third and fourth driving axles (in Tandem).

P.I.C. CODE NUMBERS

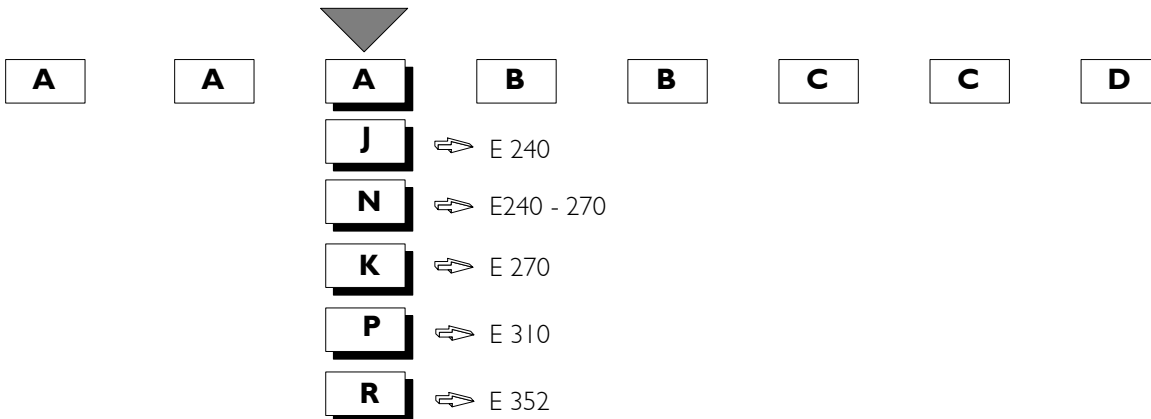
RANGE



TOTAL MASS ON THE GROUND

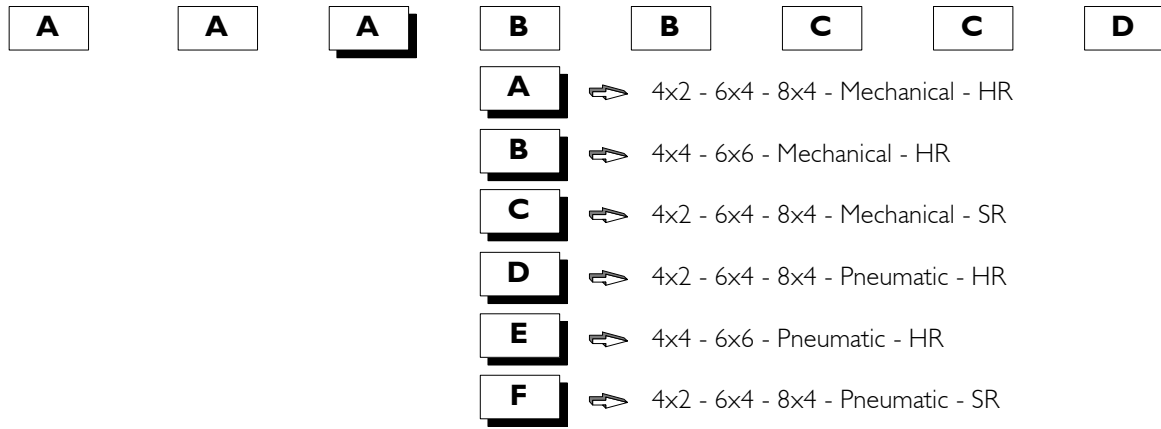


ENGINE POWER

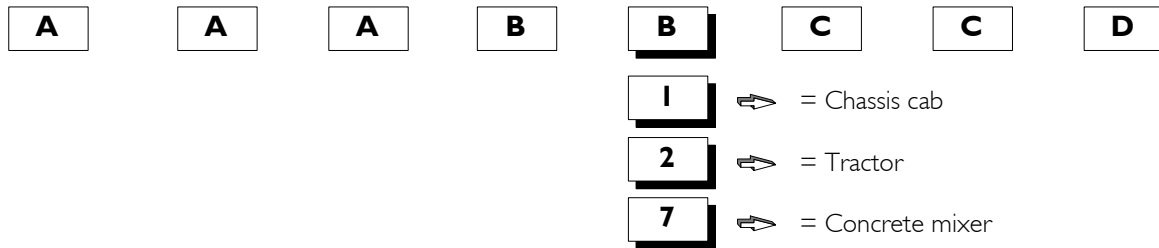


C = Chassis cab
T = Tractors

AXLE SET-UP - SUSPENSION TYPE - REAR AXLE TYPE



VERSION



WHEELBASE



VERSION	WHEEL-BASE	M.T.T.
C/T 4x2	3500	18-20
C 4x4		

VERSION	WHEEL-BASE	M.T.T.

VERSION	WHEEL-BASE	M.T.T.
C 8x4	4250	32 32-40

C/T 4x2	3800	18-20
C 4x4		

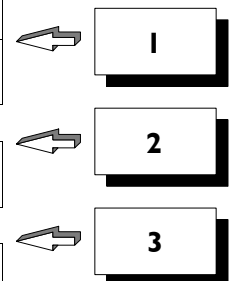
C 6x4	3200	26 33
-------	------	----------

C 8x4	4700	32 32-40
-------	------	-------------

C 4x2	4200	18-20
C 4x4		

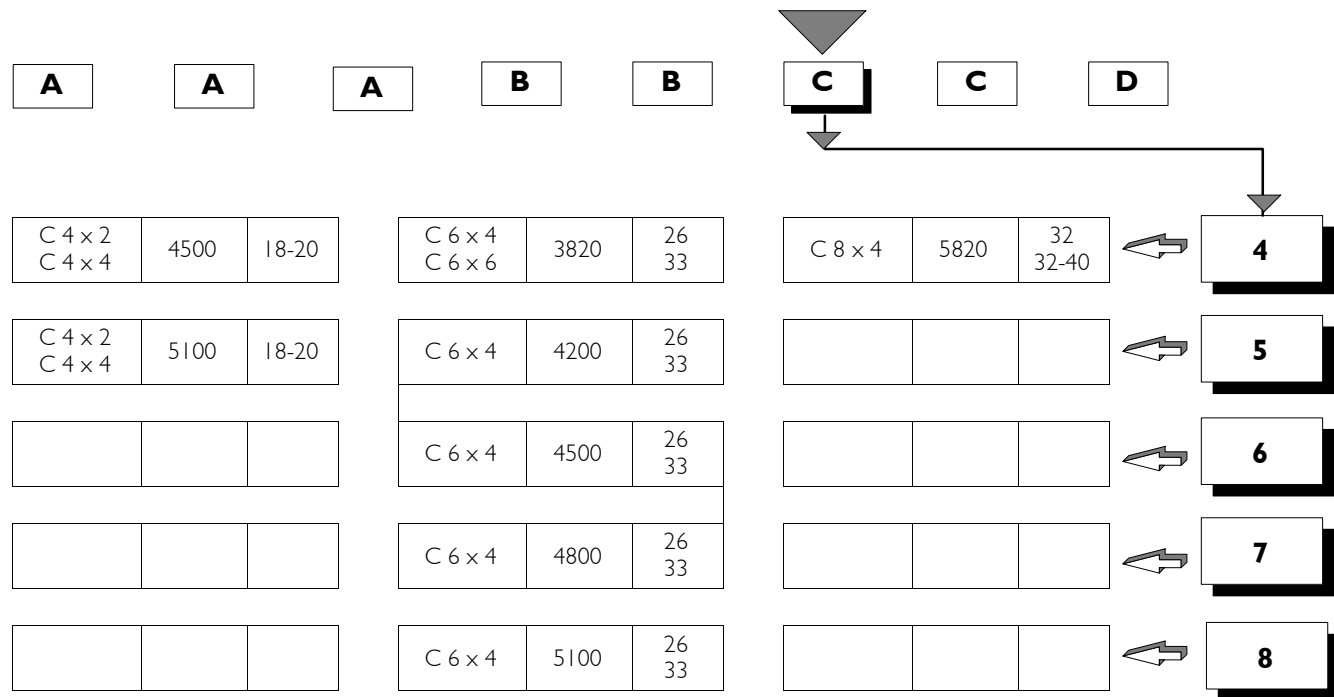
C 6x4	3500	26 33
C 6x6		

C 8x4	5020	32 32-40
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M.T.T. = Total mass on the ground in tons
 C = Chassis cab
 T = Tractor

WHEELBASE

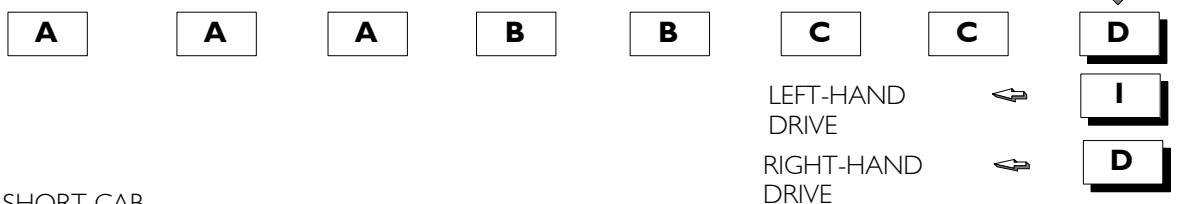


GEARBOX - CAB - BRAKES - RETARDER COMBINATION

A	A	A	B	B	C	C	D	
GEARBOX			CAB		INTEGRATED RETARDER			
9 speed mechanical	MPC	optional						A
16 speed mechanical [▪]	MPC	optional						B
16 speed mechanical [◦]	MPC	optional						A
semiautomatic	MPC	optional						C
9 speed mechanical	MPL	optional						D
16 speed mechanical [▪]	MPL	optional						E
16 speed mechanical [◦]	MPL	optional						D
semiautomatic	MPL	optional						F
9 speed mechanical	MPC	not present						G
16 speed mechanical	MPC	not present						H
semiautomatic	MPC	not present						J
9 speed mechanical	MPL	not present						K
16 speed mechanical	MPL	not present						L
semiautomatic	MPL	not present						M
16 speed mechanical	MPC	hydraulic						N
semiautomatic	MPC	hydraulic						P
16 speed mechanical	MPL	hydraulic						Q
semiautomatic	MPL	hydraulic						R

- = 310 HP power engine
- = 350 HP power engine

DRIVE (•)



MPC = SHORT CAB
 MPL = LONG CAB

(•) Only for vehicles with front and rear Simplex type drum brakes

VEHICLES MY 2000 CODE NUMBERS

GEARBOX - ENGINE COMBINATION

A	A	A	B	B	C	C	D
		380 CV (L)	440 CV (M)	440 CV (M)	E 35		
ZF 16 S 109	YES	YES	YES	YES	NO	➔	A
ZF 16 S 151	NO	NO	NO	NO	YES		
ZF 16 S 151 + Intarder	YES	NO	NO	NO	YES	➔	B
2895.9 (▪)	YES	NO	NO	NO	NO	➔	G
ZF 9 S 109	NO	YES	YES	YES	NO		
EuroTronic	YES	YES	YES	YES	YES	➔	K
EuroTronic + Intarder	YES	YES	YES	YES	YES	➔	L

(▪) Only for 190H (4x2) vehicles

CAB - DRIVE - BRAKES COMBINATION

A	A	A	B	B	C	C	D
CAB	DRIVE	BRAKES		FRONT	REAR		
MPC	Right	Disc	Drum	⇒	A		
MPC	Right	Drum	Drum	⇒	B		
MPL	Right	Disc	Drum	⇒	C		
MPL	Right	Drum	Drum	⇒	E		
MPC	Left	Disc	Drum	⇒	2		
MPC	Left	Drum	Drum	⇒	3		
MPL	Left	Disc	Drum	⇒	4		
MPL	Left	Drum	Drum	⇒	5		

MPC = Short cab
 MPL = Long cab

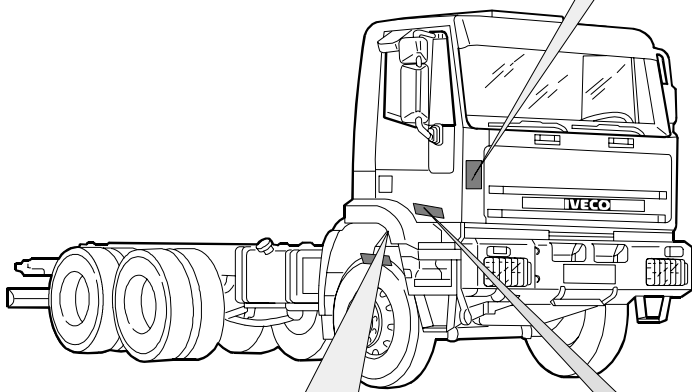
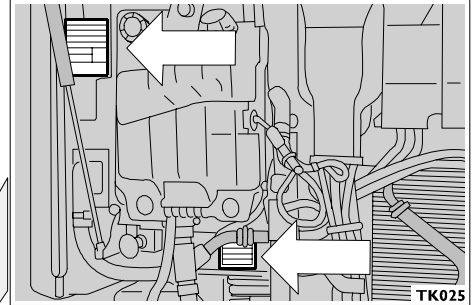
- * Simplex drum brakes
- Duo-Duplex drum brakes

VEHICLE IDENTIFICATION DATA

Engine type and number, chassis type and number and manufacturer's plate are your vehicle's identification data.

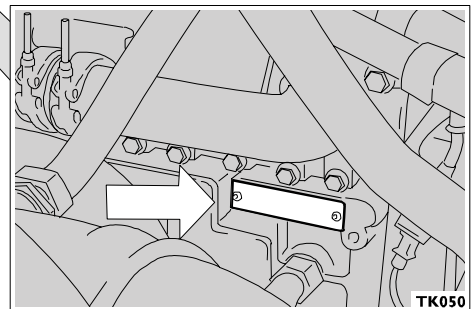
Manufacturer's plate

For vehicle identification to comply with EEC directives (under front radiator cowl)



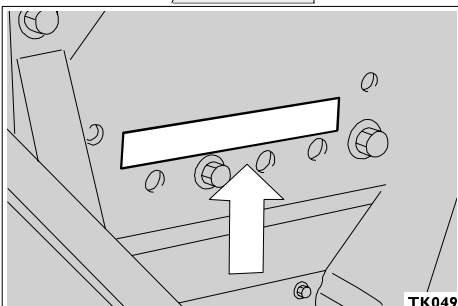
Engine

Plate on rear left side of engine block






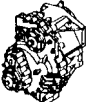

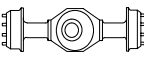

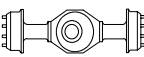


Chassis

Stamping (on right-hand side member front end)



FILLING UP

LUBRICANTS RECOMMENDED BY IVECO		PARTS TO BE FILLED UP		Quantity	
				Liters	Kg
	Urania Turbo LD5 Urania Turbo LD		Engine F2B		
			Total capacity 1st filling	28	25.2
			Capacity:		
			- engine sump min level	12.5	11.2
			- engine sump max level	23	21
			- circulating quantity not returning to sump	5	4.5
			- quantity contained in the cartridge filter (to add when replacing the cartridge filter)	2.5	2.3
	Tutela ZC 90		Gearbox		
			2895.9	8.3	7.5
			ZF 9S 109	8	7
			ZF 16 S 109	8.5	7.5
			ZF 16S 151	7.3	6.5
			ZF 16 S 151 + Intarder	18.5	16.5
			Eurotronic 1800	11	9.9
			Eurotronic 12 AS 2301 D.D	12	11
Eurotronic 12 AS 2301 D.D + Intarder	21	19			
			Power take off "Multipower"	2.5	
	Tutela ZC 90		TC 700	5	4.5
			Reduction gear unit		
			TC 1800	6.5	5.5
			Axle 5886 -/D (for each hub)	0.35	0.32
			Front axle 5985/2D	5	4.5
			Front axle wheels reduction unit 5985 2/D	0.75	0.68
			Rear axle 451391/2D	16	14.5
			Axle in tandem 453291/1/1-/2D:		
			- (intermediate + transm.)	27	24.3
			- rear	16	14.5
			Axle in tandem 452191-2/D:		
			- (intermediate + transm.)	27	24.3
			- rear	16	14.5
			Axle in tandem 452146-2/D:		
			- (intermediate + transm.)	13	11.7
			- rear	11.5	10.5
			Axle in tandem SR 145 E/2D:		
			- (intermediate + transm.)	16.5	14
			- rear	12.5	11.5
			Axle in tandem RT 153 E/2D		
			with pneumatic suspension:		
			- (intermediate + transm.)	20	18
			- rear	18	16
			with cantilever suspension:		
			- (intermediate + transm.)	22	19.8
			- rear	19	17