



M A R I N E D I E S E L E N G I N E S

# SPARE PARTS CATALOGUE

## CATALOGO PARTI DI RICAMBIO

***HPE/P 250/225 - 2,4 c.c. 20V***

**From serial number 3709039 (hpe/p 250) – 4209006-(hpe/p 225)**

**Dal n° matricola 3709039 (hpe/p 250) – 4209006 (hpe/p 225)**

***Rev. 09-2012***

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**This parts catalogue contains valuable information for maintenance and service over your engine.**

**For replacement, we recommend that you use only genuine FNM parts.**

**The identification tag contains information about model, serial number and series.**

**Use this information when ordering parts.**

**Questo catalogo parti di ricambio contiene precise informazioni per la manutenzione e le relative operazioni del nostro motore.**

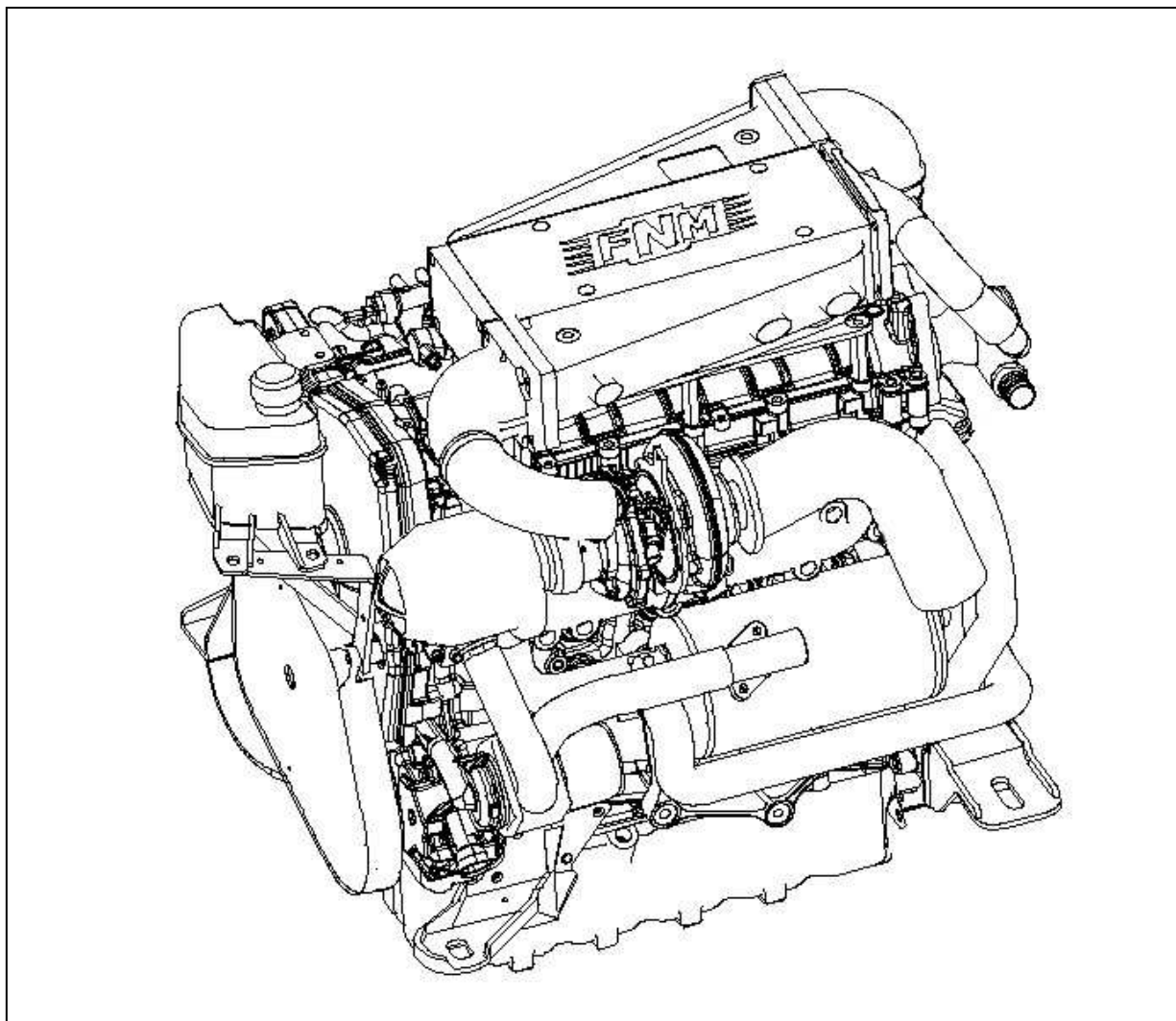
**Raccomandiamo di usare solo parti di ricambio *FNM* originali.**

**La targhetta identificativa contiene informazioni sul modello, il N° di serie e il N° di matricola.**

**Utilizzate queste informazioni quando ordinate le parti di ricambio.**

## ENGINE HPE/P 250/225 20V

## MOTORE HPE/P 250/225 20V



group.	pag.	Type / tipo	Description / Descrizione
1	1	HPE/P 250/225	Engine / Motore
	2		Engine supports gear box vers. / Supporti motore vers.invert.
	3		Engine supports stern drive vers. / Supporti motore vers.piede
	4		Crankcase / Basamento
	5		Cylinder head / Testa cilindri
	6		Gasket for Crankcase and cylinder head / Guarnizioni motore
	7		Oil sump and crankcase covers / Coppa olio e coperchi basamento
	8		Crankshaft / Albero motore
	9		Flywheel for gear box ZF / Volano per invert. ZF
	10		Flywheel for gear box TM / Volano per invert. TM
	11		Connecting rods and pistons / Bielle e pistoni
	12		“
2	1		Camshaft drive / Albero distribuzione
	2		“
	3		Distribution / Distribuzione
	4		“
	5		Auxiliary drives with hydraulic pump/Comandi vari con idrog.
	6		Auxiliary drives without hydraulic pump/Comandi vari senza idroguida
3	1		Hydraulic pump / Pompa idraulica
4	1		Air cleaner / Filtro aria
5	1		Fuel injection system / Alimentazione ad iniezione
	2		“
	3		“
	4		Engine cable and ecu box / Cablaggio motore e box centralina
	5		Fuel filter / Filtro gasolio
	6		Fuel injection system without hydraulic pump / Alimentazione con pompa idraulica
	7		Fuel injection system with hydraulic pump / Alimentazione senza pompa idraulica
6	1		Turbocharger / Turbocompressore
	2		Fixed geometry turbocharger / Turbocompress. geometr.fissa
	3		Water-cooled turbocharger /Turbo con raffreddamento ad H2O
	4		Intake manifold / Condotto aspirazione
	5		Intercooler / Intercooler
	6		Exhaust manifold / Condotto scarico
7	1		Lubrication system / Lubrificazione
	2		“
	3		“
	4		“
	5		“

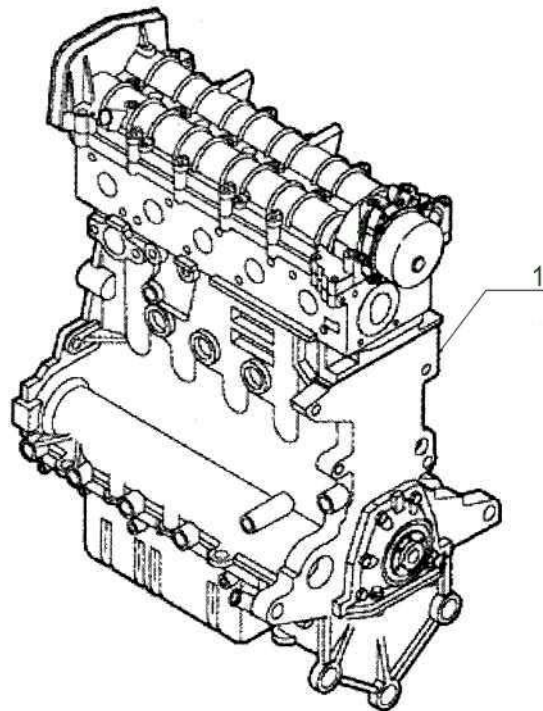
group	Pag.	Type/Tipo	Description/Descrizione
8	1	HPE/P 250/225	Sea water pump / Pompa acqua mare
	2		Water pump / Pompa acqua
	3		Thermostat / Termostato
	4		Water tank / Vaschetta acqua
	5		Kit boiler / Kit riscaldamento
	6		Heat exchanger / Scambiatore acqua
9	1		Starter / Motorino avviamento
	2		Alternator for gear box vers. / Alternatore per vers.invertitore
	3		Alternator for stern drive vers. / Alternatore per vers. piede
	4		Glow plug / Candele
10	1		Flywheel housing for gearbox / Campana coprivolano invertit.
11	1		Potentiometer hpe / Potenzometro hpe
	2		Potentiometer hpep / Potenzometro hpep
	3		Panel instrumens / Quadro strumenti
	4		Operation indicators / Indicatori strumenti
	5		Electrical system / Impianto elettrico
12	1		Gear box ZF V drive kit / Kit per invertitore zf vdrive
13	1		Stern drive Bravo kit / Kit piede bravo
	2		Stern drive Volvo 290 A-B-C kit / Kit piede Volvo 290 A-B-C
	3		Stern drive Volvo SX A-M kit / Kit piede Volvo SX A-M

<b>Group</b> 1	<b>Pag.</b> 1	<b>Type/Tipo</b> HPEP 225/250	<b>Description/Descrizione</b> Engine/Motore	<b>Date/Data</b> 06-2009
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<b>Pos.</b>	<b>Qty/Q.tà</b>	<b>Code/Codice</b>	<b>Description/Descrizione</b>	
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1	1	1.900.029.1	Short block/ Motore alleggerito	
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Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
1	1	HPEP 225/250	Short block/Motore alleggerito	06-2009



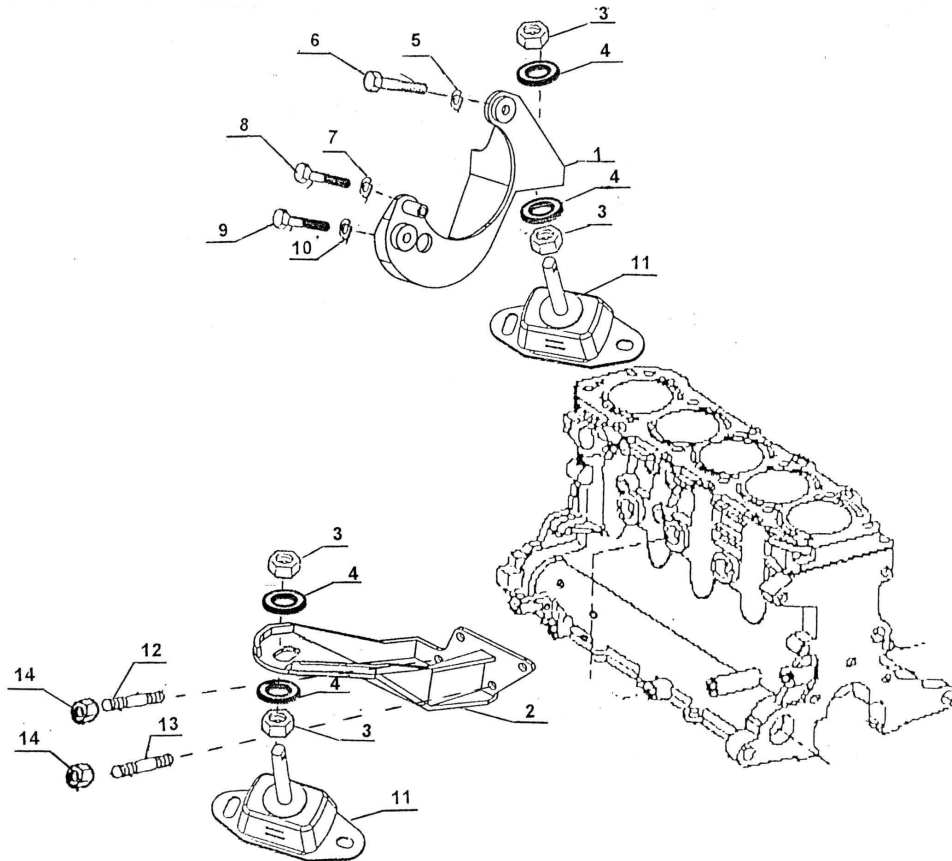
Group	Pag.	Type	Description/Descrizione	Date/Data
1	2	HPE 225/250	Engine supports gearbox version/Supporti motore per versione invertitore	06-2009

Pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	3.019.150.1	Engine support / Supporto motore
2	1	3.019.151.1	Engine support / Supporto motore
3	4	4.117.504.1	Nut / Dado M16x2
4	4	4.122.406.1	Washer / Rosetta M16
5	1	4.122.301.1	Washer / Rosetta M10
6	1	4.116.327.1	Bolt / Vite M10x1,25x110
7	1	4.123.203.1	Washer / Rosetta M8
8	1	4.116.244.1	Bolt / Vite M8x1,25x50
9	1	4.116.322.1	Bolt / Vite M10x1,25x70
10	1	4.123.302.1	Washer / Rosetta M10
11	2	1.016.021.1	Flexible engine mounting / Supporto elastico 45sh
12	1	4.115.306.1	Stud / Prigioniero M10x1,25x55
13	3	4.115.302.1	Stud / Prigioniero M10x1,25x35
14	4	4.117.302.1	Nut stop / Dado stop M10x1.25



Group 1	Pag. 2	Type/Tipo HPE 225/250	Description/Descrizione Engine supports gearbox version/supporti motore per versione invertitore	Date/Data 06-2009
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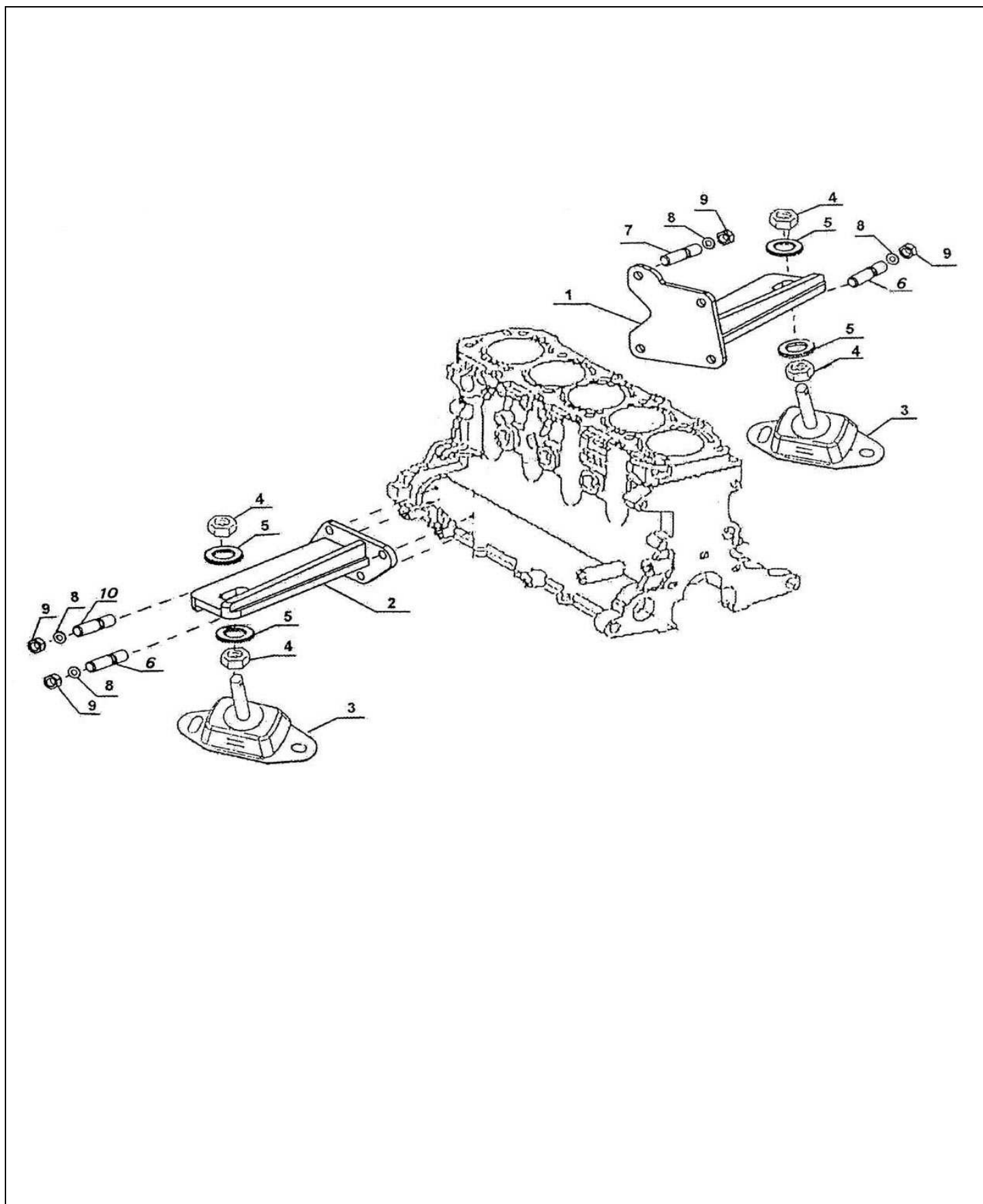


<b>Group</b> 1	<b>Pag.</b> 3	<b>Type/Tipo</b> HPEP 225/250	<b>Description/Descrizione</b> Engine supports stern drive version/Supporti motore versione piede	<b>Date/Data</b> 06-2009
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pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	3.019.243.1	Engine support / Supporto motore
2	1	3.019.242.1	Engine support / Supporto motore
3	2	1.016.021.1	Flexible engine mounting / Supporto antivibrante 45 SH
4	4	4.117.504.1	Nut stop / Dado stop M16x2
5	4	4.122.406.1	Washer / Rosetta M16
6	2	4.115.310.1	Stud / Prigioniero M10x1,25x50
7	2	4.115.306.1	Stud / Prigioniero M10x1,25x55
8	8	4.122.301.1	Washer / Rosetta M10
9	4	4.117.302.1	Nut stop / Dado stop M10
10	4	4.115.309.1	Stud / Prigioniero M10x1,25x40

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
1	3	HPEP 225/250	Engine supports stern drive version/Supporti motore versione piede	06-2009



<b>Group</b> 1	<b>Pag.</b> 4	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Crankcase/Basamento	<b>Date/Data</b> 06-2009
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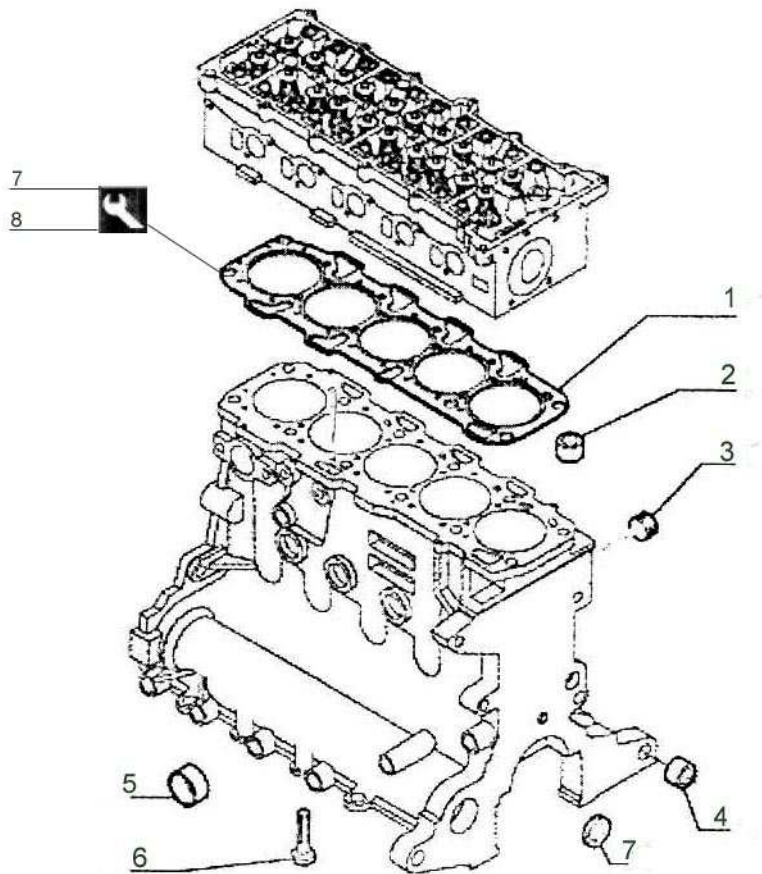
pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	3.051.030.1	Cylinder head gasket / Guarnizione testa (thickness 0.95)
	1	3.051.031.1	Cylinder head gasket / Guarnizione testa (thickness 1.05)
	1	3.051.032.1	Cylinder head gasket / Guarnizione testa (thickness 1.15)
2	2	4.126.009.1	Dowel / Grano
3	5	4.126.013.1	Dowel / Grano
4	2	3.126.002.1	Dowel / Grano
5	7	4.119.011.1	Plug / Tappo
	2	4.119.005.1	Plug / Tappo
	3	4.119.017.1	Plug / Tappo
	2	4.829.163.1	Plug / Tappo
6	12	4.116.419.1	Bolt / Vite M12x1,25x138

#### SPECIAL SERVICE TOOLS / ATTREZZATURE SPECIALI

7	1	7.104.016.1	Bracket for comparator measuring depth of piston / Base per misurazione alzata pistone
8	1	7.104.017.1	Comparator for measuring depth piston / Comparatore per alzata pistone

Group 1	Pag. 4	Type/Tipo HPE/P.225/250	Description/Descrizione Crankcase/Basamento	Date/Data 06-2009
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<b>Group</b> 1	<b>Pag.</b> 5	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Cylinder head/Testa cilindri	<b>Date/Data</b> 06-2009
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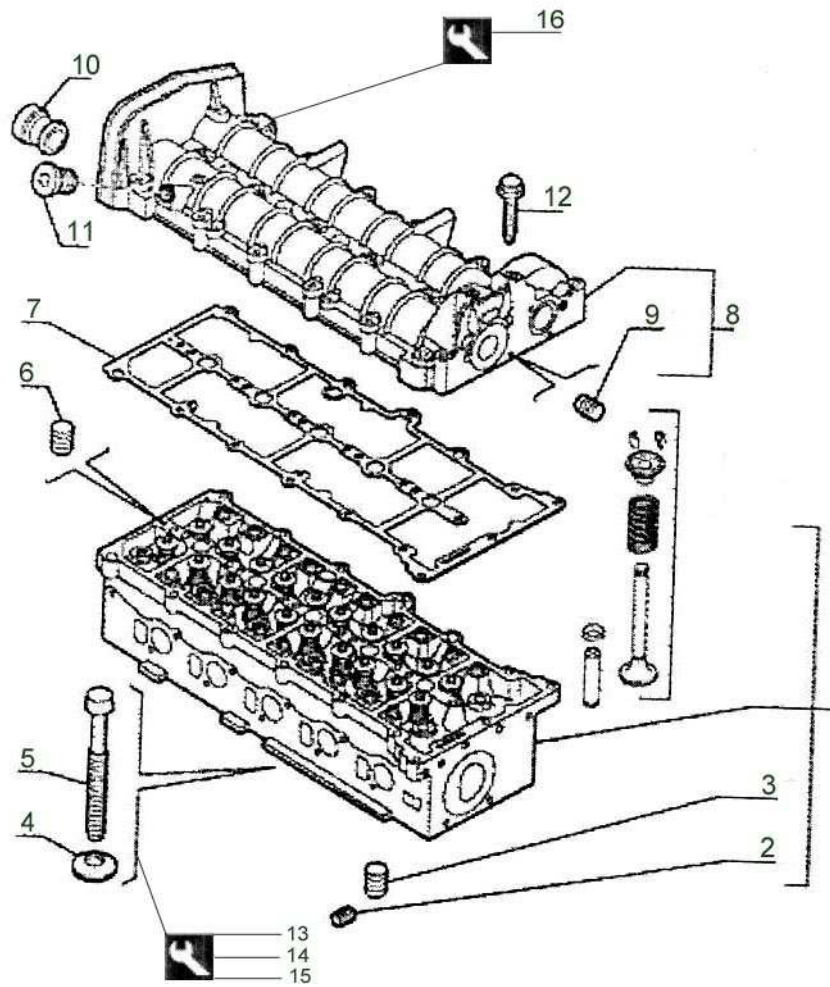
pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	1.002.130.1	Cylinder head assembly / Testa cilindri completa
2	6	4.829.081.1	Plug / Tappo
3	1	4.829.215.1	Plug / Tappo
4	12	4.829.208.1	Washer / Rosetta
5	12	4.829.216.1	Bolt / Vite
6	2	4.829.217.1	Dowel / Grano
7	1	3.021.094.1	Gasket / Guarnizione
8	1	3.004.077.1	Cylinder head / Testata
9	4	4.829.218.1	Plug / Tappo
10	1	4.829.219.1	Plug / Tappo
11	1	4.829.220.1	Plug / Tappo
12	1	4.116.282.1	Bolt / Vite M8x125
	14	4.116.281.1	Bolt / Vite M8x65
	6	4.116.272.1	Bolt / Vite M8x35

#### SPECIAL SERVICE TOOLS / ATTREZZATURE SPECIALI

13	1	7.104.005.1	Dynamometric tool / Chiave dinamometrica
14	1	7.104.006.1	Graduated tool torque screw / Goniometro
15	1	7.104.014.1	Monkey wrench for cylinder head screws 14L / Chiave a bussola 14L serraggio testa
16	1	7.104.020.1	Vacuum gauge for pression tightness / Vacuometro

Group 1	Pag. 5	Type/Tipo HPE/P 225/250	Description/Descrizione Cylinder head/Testa cilindri	Date/Data 06-2009
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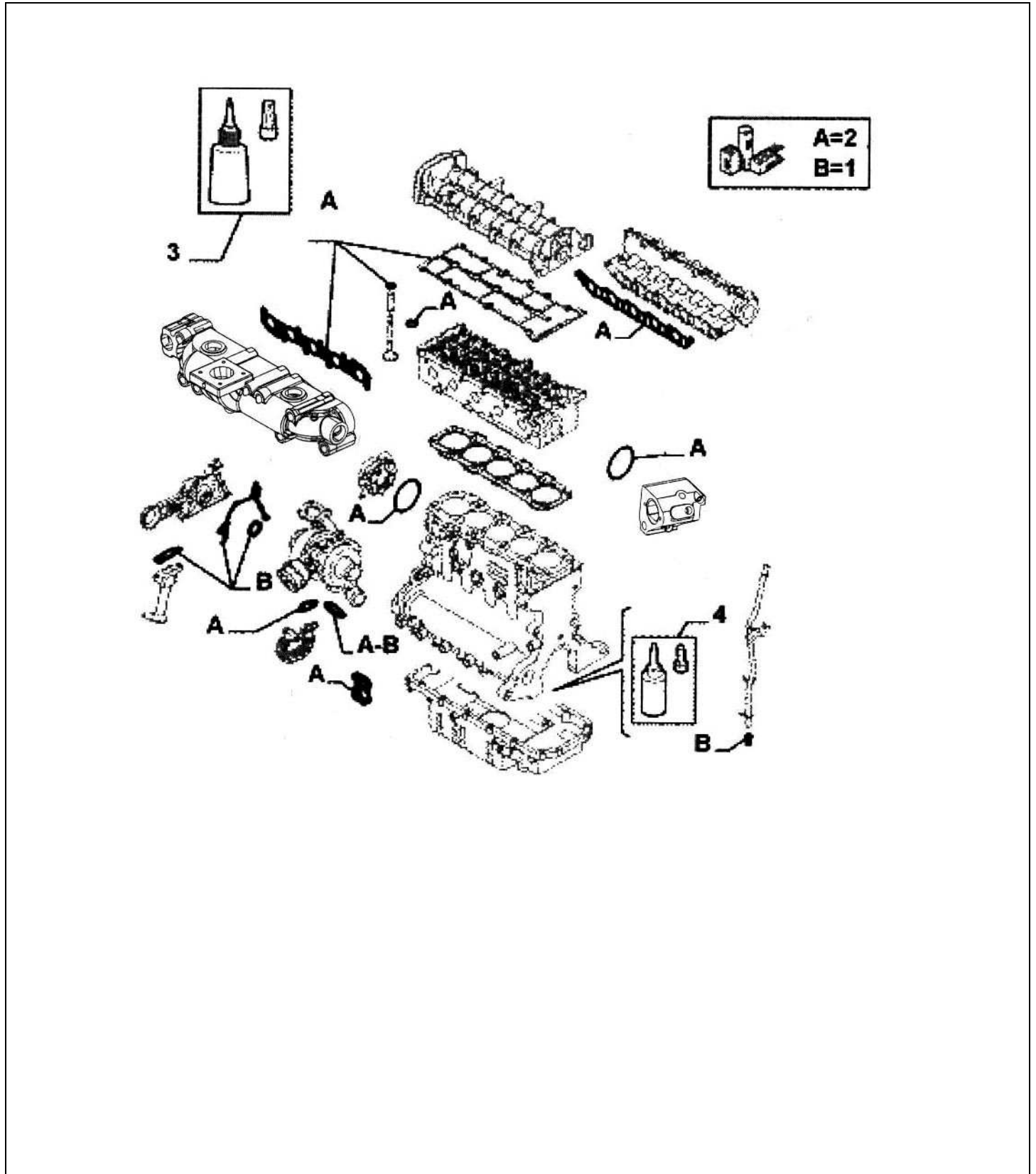
<b>Group</b> 1	<b>Pag.</b> 6	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Gasket for crankshaft and cylinder head / Guarnizioni basamento e testa cilindri	<b>Date/Data</b> 06-2009
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pos.	Qty/Q.tà	Code/Codice	Description/Descrizione	
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1	1	3.900.137.1	Crankcase gasket kit / Kit guarnizioni basamento
2	1	3.900.138.1	Cylinder head gasket kit / Kit guarnizioni testata
3	1	6.040.012.1	Sealer / Sigillante
4	1	6.040.012.1	Sealer / Sigillante



Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
1	6	HPE/P 225/250	Gasket crankshaft and cylinder head / Guarnizioni basamento e testa cilindri	06-2009



<b>Group</b> 1	<b>Pag.</b> 7	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Oil sump and crankcase covers / Coppa e coperchi basamento	<b>Date/Data</b> 06-2009
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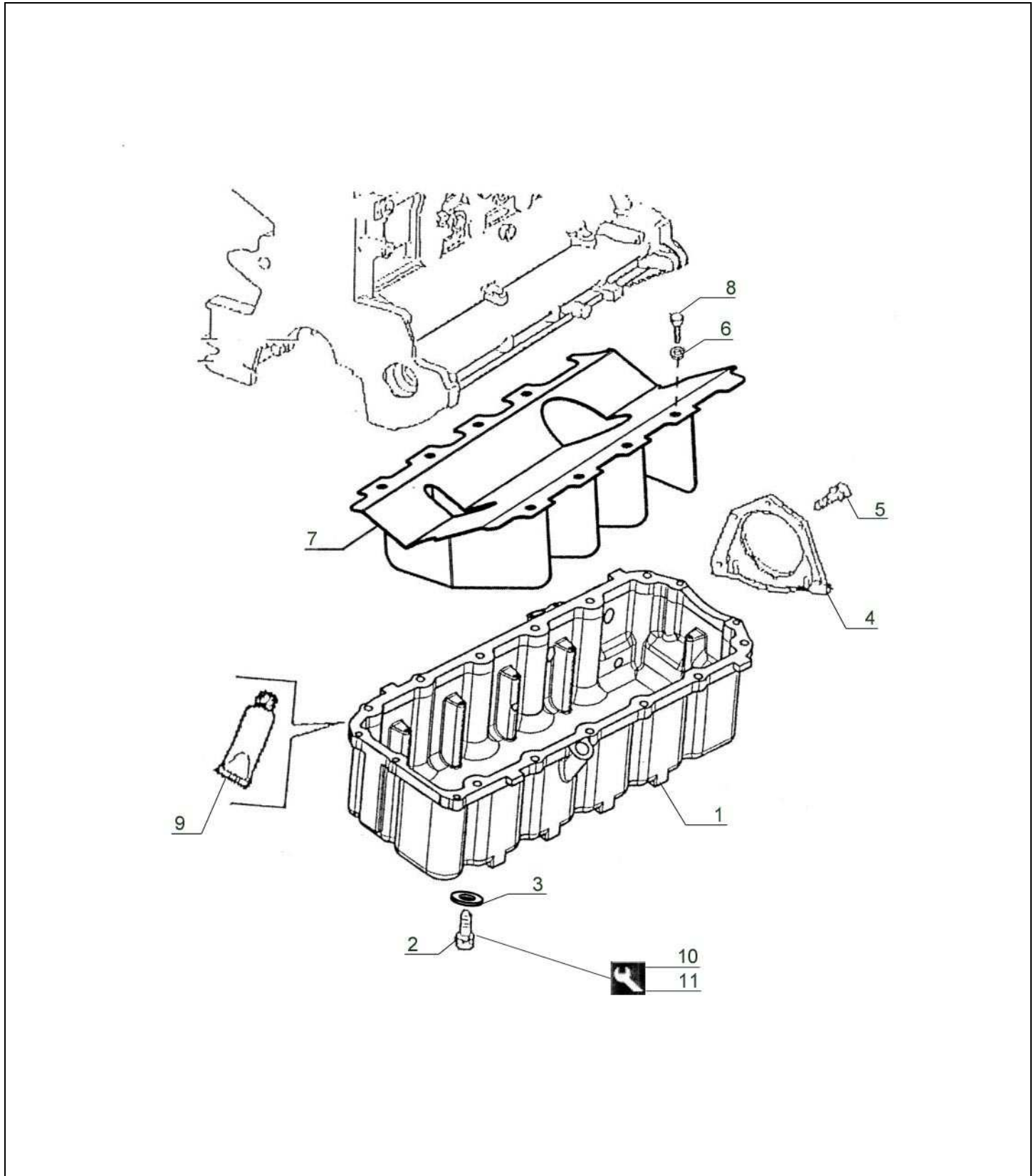
pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	3.013.015.1	Oil sump / Coppa olio
2	5	4.116.135.1	Bolt / Vite M6x30
	12	4.116.276.1	Bolt / Vite M8x28
3	5	4.123.102.1	Washer / Rosetta sic. M6
	12	4.123.203.1	Washer / Rosetta sic. M8
4	1	3.004.065.1	Cover / Coperchio
5	5	4.116.102.1	Bolt / Vite M6x16
6	8	4.123.102.1	Washer / Rosetta sic. M6
7	1	3.004.069.1	Cover / Coperchio
8	8	4.116.102.1	Bolt / Vite M6x16
9	1	6.040.012.1	Sealer / Sigillante

#### SPECIAL SERVICE TOOLS / ATTREZZATURE SPECIALI

10	1	7.104.024.1	Special wrench 8L / Chiave 8L
11	1	7.104.025.1	Special wrench 6L / Chiave 6L

Group 1	Pag. 7	Type/Tipo HPE/P 225/250	Description/Descrizione Oil sump and crankcase covers / Coppa e coperchi basamento	Date/Data 06-2009
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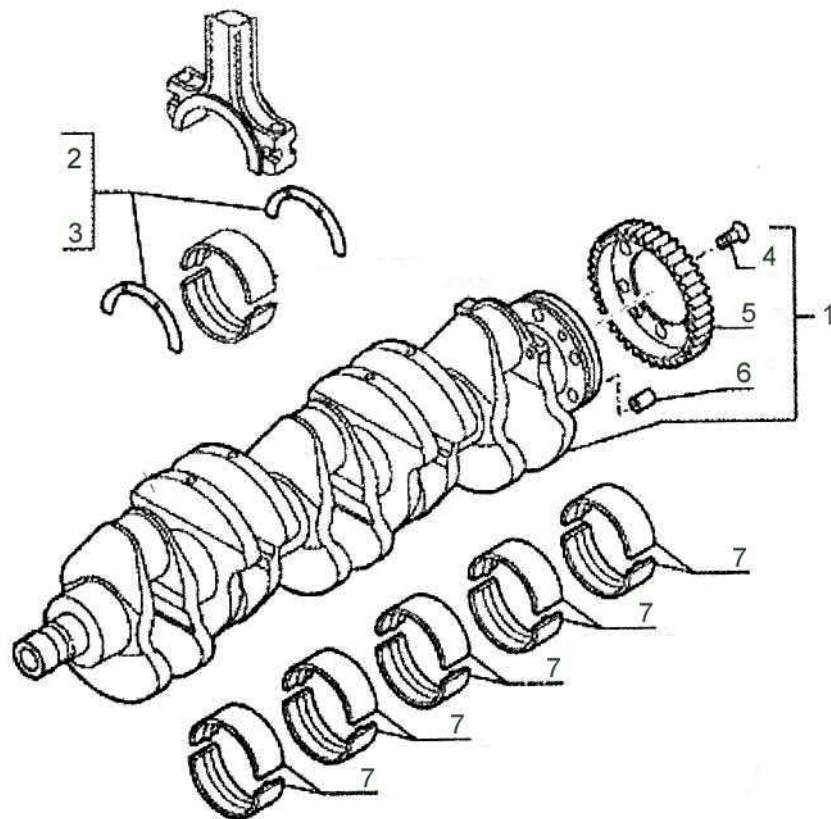


<b>Group</b> 1	<b>Pag.</b> 8	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Crankshaft/Albero motore	<b>Date/Data</b> 06-2009
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pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	3.003.007.1	Crankshaft / Albero motore
2	5	3.027.019.1	Bearing / Semianello std
3	5	3.027.020.1	Bearing / Semianello +0,127
4	3	4.116.144.1	Bolt / Vite M6
5	1	3.018.026.1	Driving gear / Ruota fonica
6	1	4.126.010.1	Dowel / Grano
7	6	3.900.116.1	Half-bearing set std / Kit semicuscinetto std
	6	3.900.261.1	Half-bearing set -0,127 / Kit semicuscinetto -0,127

Group 1	Pag. 8	Type/Tipo HPE/P 225/250	Description/Descrizione Crankshaft/Albero motore	Date/Data 06-2009
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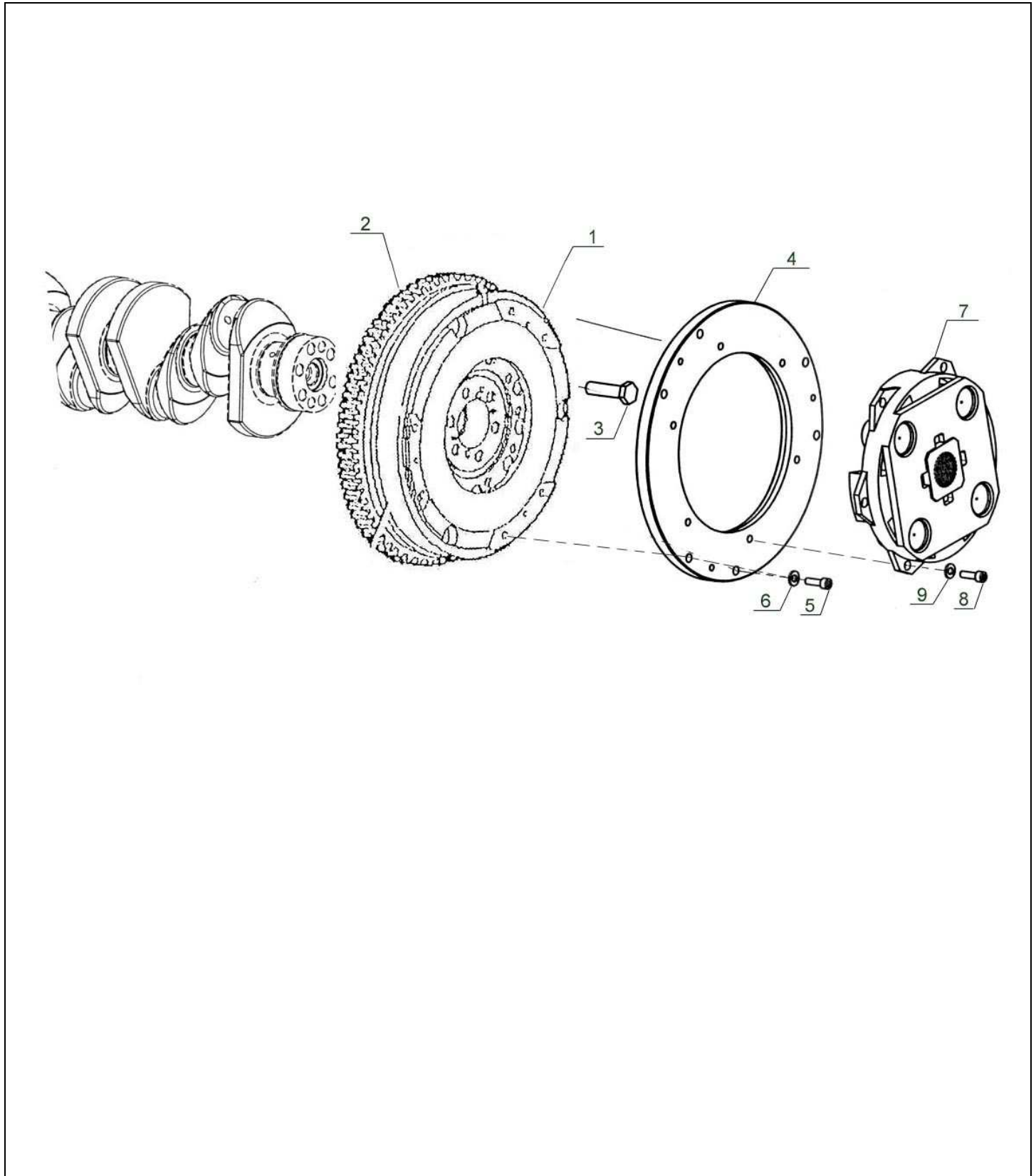


<b>Group</b> 1	<b>Pag.</b> 9	<b>Type/Tipo</b> HPE 225/250	<b>Description/Descrizione</b> Flywheel for gear box zf / Volano per invertitore zf	<b>Date/Data</b> 06-2009
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pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	1.508.030.1	Flywheel assembly / Volano premontato
2	1	3.018.027.1	Gear / Corona
3	6	4.116.440.1	Bolt / Vite M12x1,25x44
4	1	3.105.183.1	Plate / Piastra
5	6	4.116.207.1	Bolt / Vite M8x25
6	6	4.123.203.1	Washer / Rosetta sic. M8
7	1	2.013.015.1	Damperplate / Parastrappi
8	6	4.116.204.1	Bolt / Vite M8x20
9	6	4.123.203.1	Washer / Rosetta sic. M8

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
1	9	HPE 225/250	Flywheel for gear box zf / Volano per invertitore zf	06-2009



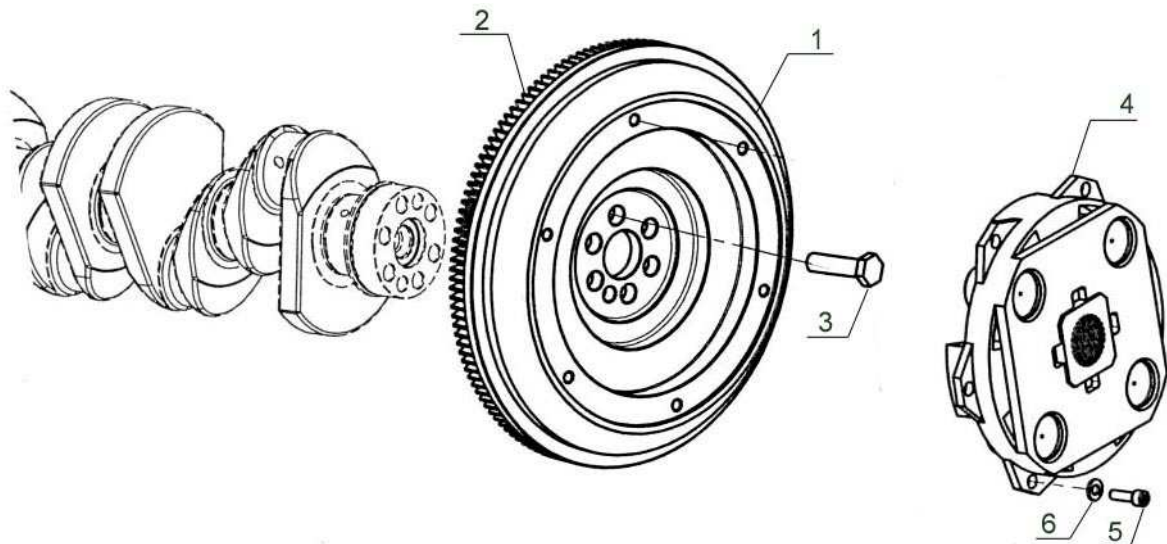
<b>Group</b> 1	<b>Pag.</b> 10	<b>Type/Tipo</b> HPE 225/250	<b>Description/Descrizione</b> Flywheel for gear box tm / Volano per invertitore tm	<b>Date/Data</b> 06-2009
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<b>pos.</b>	<b>Qty/Q.tà</b>	<b>Code/Codice</b>	<b>Description/Descrizione</b>	
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1	1	1.508.029.1	Flywheel assembly / Volano premontato
2	1	3.018.025.1	Gear / Corona
3	6	4.116.440.1	Bolt / Vite M12x1,25x44
4	1	2.013.006.1	Damperplate / Parastrappi
5	6	4.116.204.1	Bolt / Vite M8x20
6	6	4.123.203.1	Washer / Rosetta sic. M8



Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
1	10	HPE 225/250	Flywheel for gear box tm / Volano per invertitore tm	06-2009

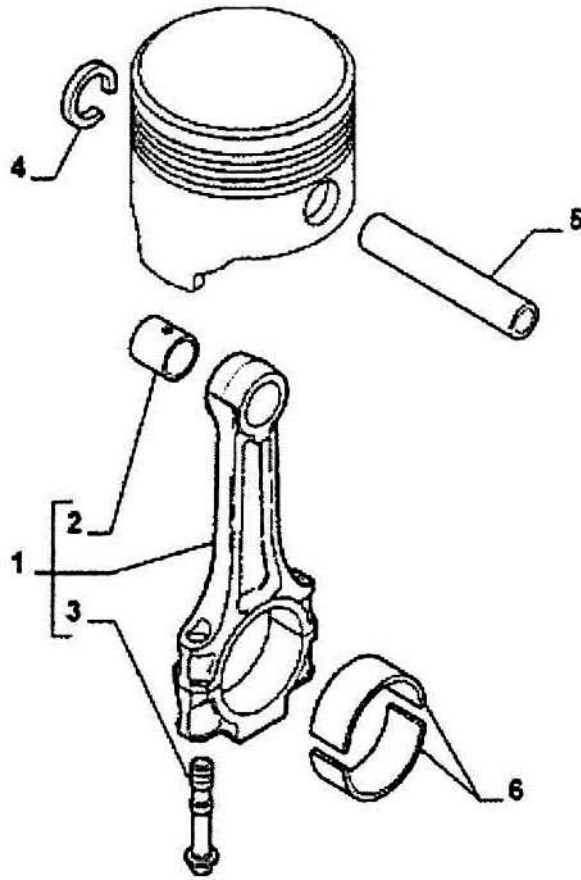


Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
1	11	HPE/P 225/250	Connecting rods and pistons / Bielle e stantuffi	12-2010

pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	5	1.005.006.1	Connecting rod / Biella D.26
	5	1.005.008.1	Connecting rod / Biella D.30
2	5	4.103.011.1	Busch / Boccola D.26
	5	4.103.017.1	Busch / Boccola D.30
3	10	4.116.352.1	Bolt / Vite biella D.26
	10	4.116.374.1	Bolt / Vite biella D.30
4	10	3.133.011.1	Lokring / Anello di sicurezza D.26
	10	3.133.008.1	Lokring / Anello di sicurezza D.30
5	5	3.112.014.1	Pin / Spinotto D.26
	5	3.112.016.1	Pin / Spinotto D.30
6	5	3.900.194.1	Bearing set red / Kit semicuscinetti sp.1,527-1,531 rosso D.26
	5	3.900.195.1	Bearing set blue / Kit semicuscinetti sp.1,530-1,534 blu'
	5	3.900.254.1	Bearing set yellow / Kit semicuscinetti sp.1,533-1,537 giallo
	5	3.900.255.1	Bearing set brown / Kit semicuscinetti sp.1,591-1,595 marrone
	5	3.900.256.1	Bearing set green / Kit semicuscinetti sp.1,595-1,599 verde
	5	3.900.257.1	Bearing set black / Kit semicuscinetti sp.1,599-1,603 nero
	5	3.900.311.1	Bearing set black / Kit semicuscinetti sp. 1,530-1,534 blu' D.30

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
1	11	HPE/P 225/250	Connecting rods and pistons / Bielle e pistoni	12-2010



Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
1	12	HPE/P 225/250	Connecting rods and pistons / Bielle e pistoni	06-2009

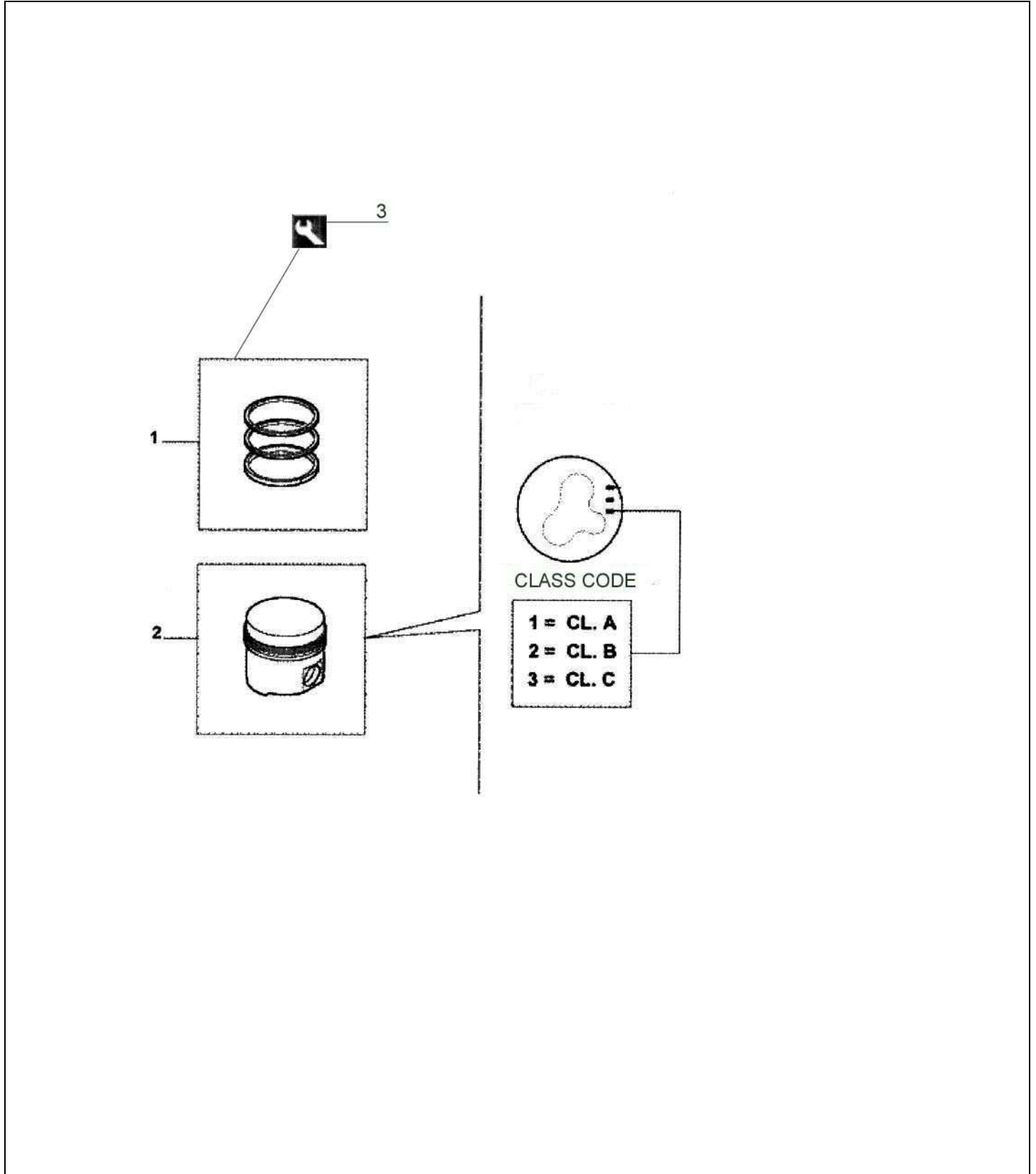
pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	5	3.900.139.1	Ring set std / Serie anelli std
	5	3.900.259.1	Ring set +0,4 / Serie anelli +0.4
2	5	3.900.140.1	Piston set assembly std / Pistoni completi std
	5	3.900.248.1	Piston set assembly CL.B / Pistoni completi CL. B
	5	3.900.253.1	Piston set assembly CL.C / Pistoni completi CL. C
	5	3.900.258.1	Piston set assembly +0,4 / Pistoni completi +0,4

#### SPECIAL SERVICE TOOLS / ATTREZZATURA SPECIFICA

3	1	7.104.015.1	Piston rings key / Stringi fasce
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Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
1	12	HPE/P 225/250	Connecting rods and pistons / Bielle e pistoni	06-2009

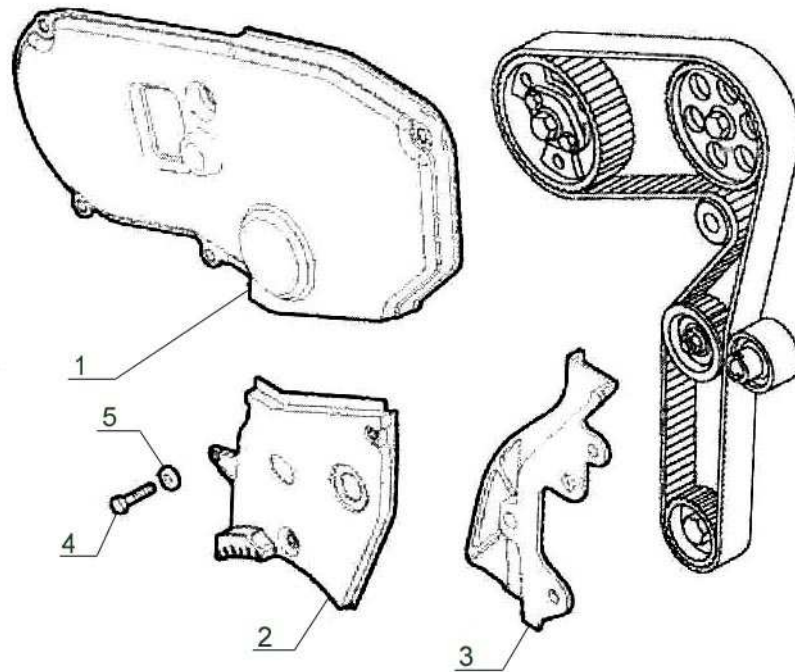


Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
2	1	HPE/P 225/250	Camshaft drive / Comando distribuzione	06-2009

pos.	Qty/Q.tà	Code/Codice	Description/Descrizione	
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1	1	3.004.083.1	Cover / Coperchio
2	1	3.004.061.1	Cover / Coperchio
3	1	3.105.175.1	Protection / Riparo
4	1	4.116.139.1	Bolt / Vite M6x18
	3	4.116.138.1	Bolt / Vite M6x30
	1	4.116.140.1	Bolt / Vite+ros M6x18
5	4	4.122.102.1	Washer / Rosetta piana M6

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
2	1	HPE/P 225/250	Camshaft drive / Comando distribuzione	06-2009



Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
2	2	HPE/P 225/250	Camshaft drive	06-2009

pos.	Qty.Q.tà	Code/Codice	Description/Descrizione
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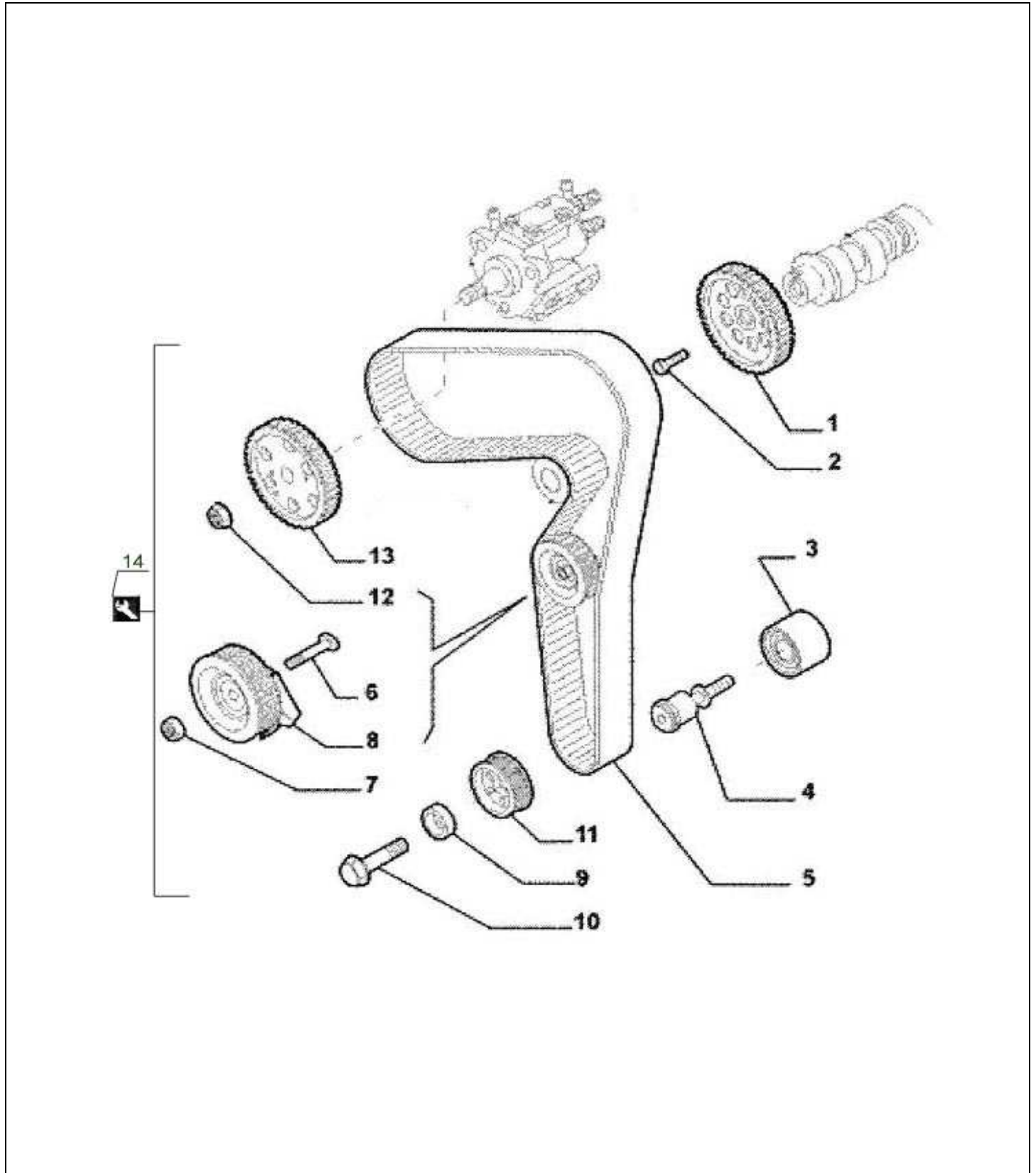
1	1	3.018.044.1	Gear / Ingranaggio albero distribuz.
2	1	4.116.441.1	Bolt / Vite M12
3	1	4.131.013.1	Bearing Cuscinetto
4	1	4.116.353.1	Bolt / Vite M10
5	1	4.130.027.1	Belt / Cinghia
6	1	4.116.277.1	Bolt / ViteM8
7	1	4.117.201.1	Nut / Dado M8
8	1	2.600.008.1	Belt stretcher / Tendicinghia
9	1	4.103.012.1	Distance washer / Distanziale
10	1	4.116.507.1	Bolt / Vite M16
11	1	3.018.034.1	Gear / Ingranaggio albero motore
12	1	4.117.505.1	Nut / Dado M14x1,5
13	1	3.018.037.1	Gear / Ingranaggio pompa iniez.

#### SPECIAL SERVICE TOOLS / ATTREZZATURE SPECIALI

14	1	3.900.151.1	Timing kit / Kit messa in fase cinghia
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Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
2	2	HPE/P 225/250	Camshaft drive / Comando distribuzione	06-2009

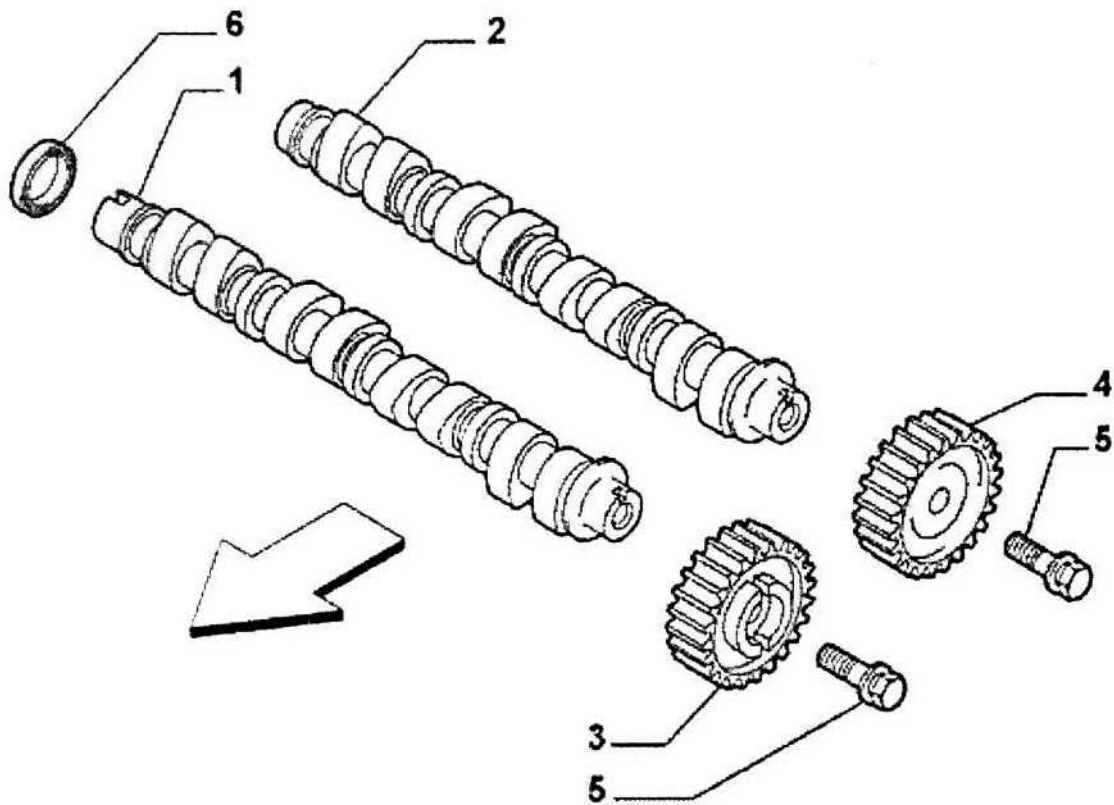


<b>Group</b>	<b>Pag.</b>	<b>Type/Tipo</b>	<b>Description / Descrizione</b>	<b>Date / Data</b>
<b>2</b>	<b>3</b>	<b>HPE/P 225/250</b>	<b>Distribution / Distribuzione</b>	<b>06-2009</b>

<b>pos.</b>	<b>Qty/Q.tà</b>	<b>Code/Codice</b>	<b>Description/Descrizione</b>	
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<b>1</b>	<b>1</b>	<b>3.043.008.1</b>	<b>Camshaft exhaust / Albero distribuzione scarico</b>
<b>2</b>	<b>1</b>	<b>3.043.009.1</b>	<b>Camshaft intake / Albero distribuzione aspirazione</b>
<b>3</b>	<b>1</b>	<b>3.018.035.1</b>	<b>Gear exhaust / Ingranaggio scarico</b>
<b>4</b>	<b>1</b>	<b>3.018.036.1</b>	<b>Gear intake / Ingranaggio aspirazione</b>
<b>5</b>	<b>2</b>	<b>4.116.441.1</b>	<b>Bolt / Vite M12</b>
<b>6</b>	<b>1</b>	<b>4.128.044.1</b>	<b>Oil seal ring / Anello di tenuta</b>

Group	Pag.	Type/Tipo	Description / Descrizione	Date / Data
2	3	HPE/P 225/250	Distribution / Distribuzione	06-2009

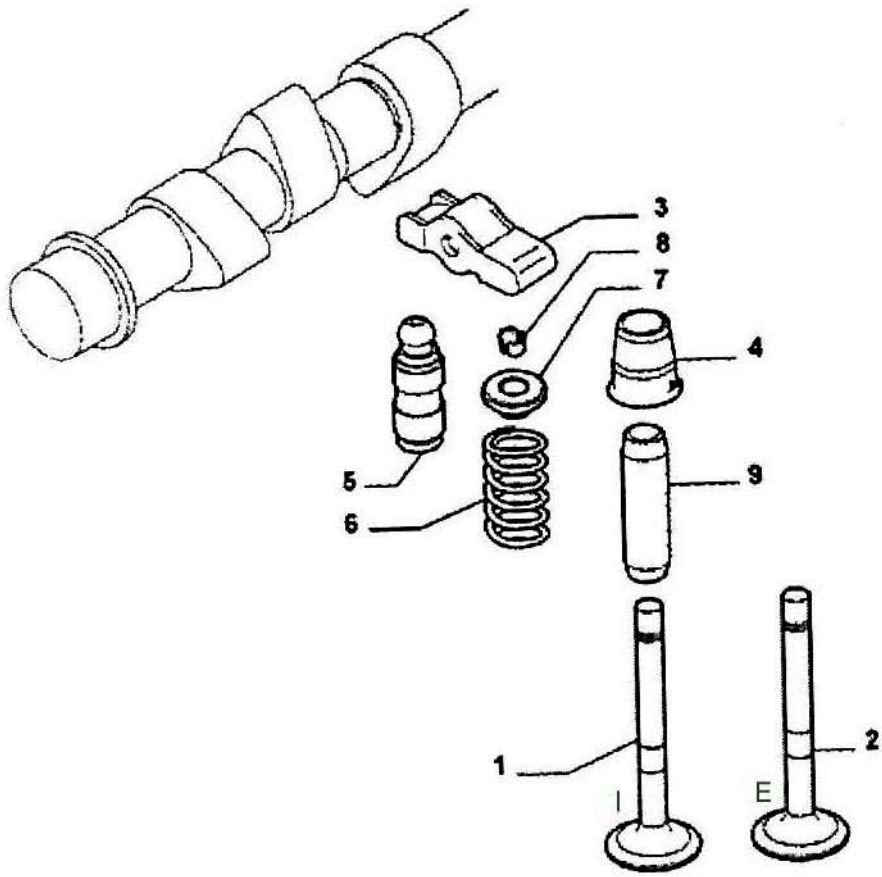


<b>Group</b> 2	<b>Pag.</b> 4	<b>Type / Tipo</b> HPE/P 225/250	<b>Description / Descrizione</b> Distribution / Distribuzione	<b>Date / Data</b> 06-2012
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pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	10	4.029.012.1	Valve intake / Valvola aspirazione D.6
	10	4.029.019.1	Valve intake / Valvola aspirazione D.5
2	10	4.029.013.1	Valve exhaust / Valvola scarico D.6
	10	4.029.020.1	Valve exhaust / Valvola scarico D.5
3	20	4.829.205.1	Rocker / Bilanciere
4	20	4.829.221.1	Seal / Anelo tenuta D.6
	20	4.829.168.1	Seal / Anelo tenuta D.5
5	20	4.033.003.1	Tappet / Punteria
6	20	4.829.203.1	Valve spring / Molla
7	20	4.032.006.1	Retainer valve stem / Scodellino D.6
	20	4.829.204.1	Retainer valve stem / Scodellino D.5
8	40	4.031.005.1	Lock valve retainer / Semicono D.6
	40	4.031.006.1	Lock valve retainer / Semicono D.5
9	20	3.030.004.1	Valve guide / Guida valvola

Group	Pag.	Type/Tipo	Description/ Descrizione	Date/Data
2	4	HPE/P 225/250	Distribution / Distribuzione	06-2012



<b>Group</b> 2	<b>Pag.</b> 5	<b>Type/Tipo</b> HPEP 225/250	<b>Description/Descrizione</b> Auxiliary drives with hydraulic pump / Comandi vari con pompa idraulica	<b>Date/Data</b> 02-2011
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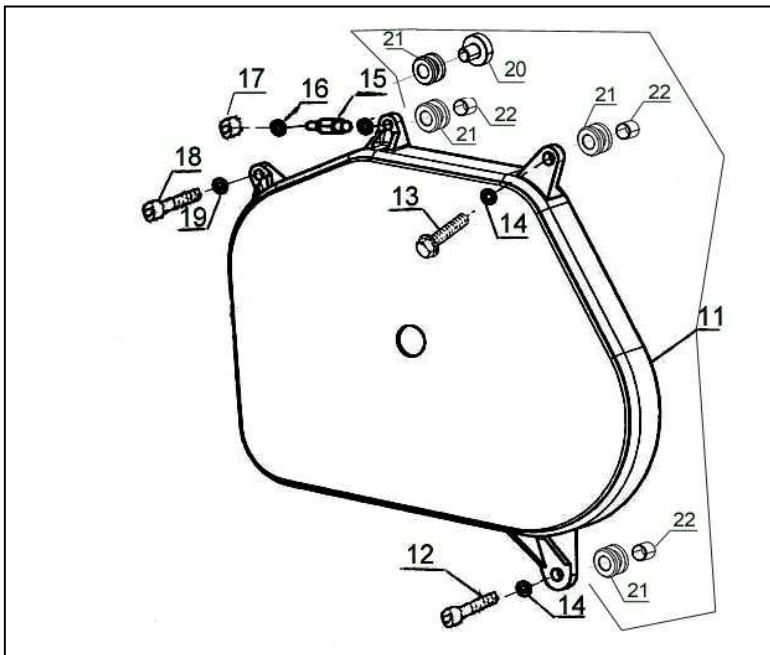
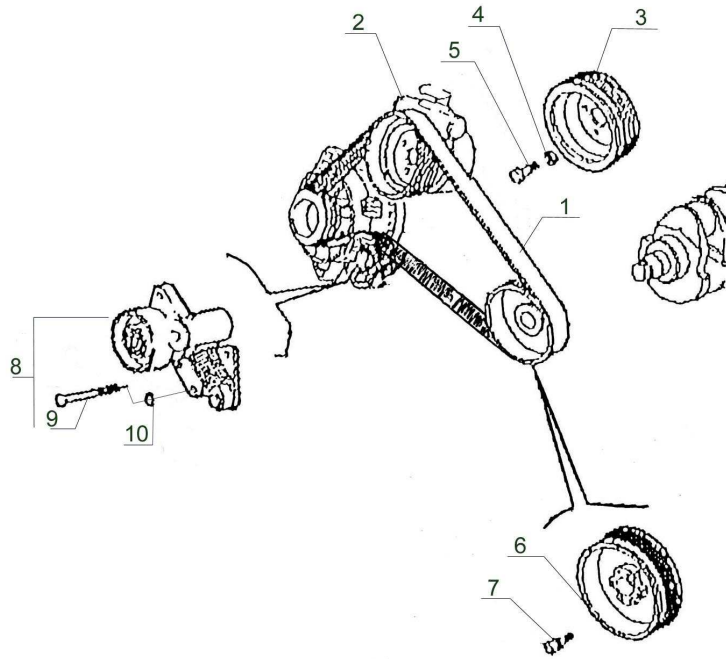
pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	4.130.021.1	Belt / Cinghia
2	1	1.006.011.1	Hydraulic pump / Pompa idraulica
3	1	3.017.040.1	Pulley / Puleggia
4	3	4.123.203.1	Washer / Rosetta
5	3	4.116.231.1	Bolt / Vite M8x1,25x16
6	1	3.017.041.1	Pulley / Puleggia
7	6	4.116.225.1	Bolt / Vite M8x1,25x35
8	1	2.600.007.1	Belt stretcher / Tendicinghia
9	3	4.116.203.1	Bolt / Vite M8x1,5x20
10	3	4.123.203.1	Washer / Rosetta M8
11	1	1.004.082.1*	Carter / Copricinghie <i>Replacing / In sostituzione del 3.004.082.1</i>
12	1	4.116.207.1	Bolt / Vite M8x1,25x25
13	1	4.116.244.1	Bolt / Vite M8x1,25x50
14	2	4.122.203.1	Washer / Rosetta M8
15	1	3.116.111.1	Spacer / Distanziale
16	2	4.122.102.1	Washer / Rosetta M6
17	1	4.117.210.1	Nut sop / Dado stop M8
18	1	4.116.126.1*	Bolt / Vite M6x35 <i>Replacing / In sostituzione del 4.116.130.1</i>
19	1	3.123.101.1*	Washer / Rosetta M6 <i>Replacing / In sostituzione del 4.122.101.1</i>
20	1	3.103.093.1*	Bush / Boccia
21	4	3.133.006.1*	Rubber tip / Gommino
22	3	3.103.092.1*	Bush / Boccia

\* Effective from serial number 4211001 (hpe 225) 3711015 (hpe 250)

\* In vigore dal n° matricola 4211001 (hpe 225) 3711015 (hpe 250)

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
2	5	HPEP 225/250	Auxiliary drives with hydraulic pump/Comandi vari con pompa idraulica	06-2009



<b>Group</b> 2	<b>Pag.</b> 6	<b>Type/Tipo</b> HPE 225/250	<b>Description/Descrizione</b> Auxiliary drives without hydraulic pump/Comandi ausiliari senza idroguida	<b>Date/Data</b> 02-2011
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pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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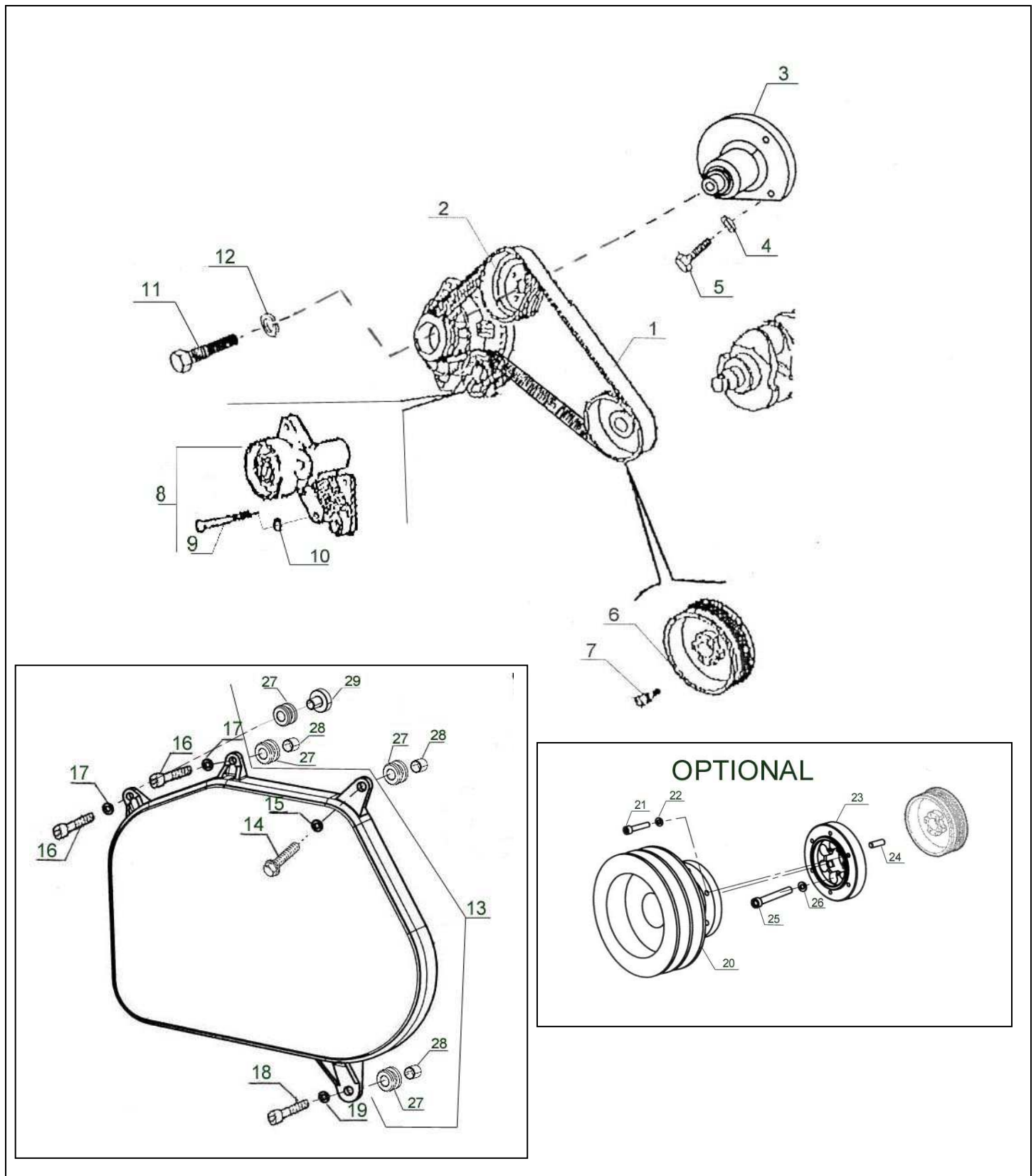
1	1	4.130.023.1	Belt / Cinghia
2	1	2.600.006.1	Belt stretcher / Tendicinghia
3	1	3.105.155.1	Pulley support / Supporto puleggia
4	3	4.123.203.1	Washer / Rosetta M8
5	3	4.116.243.1	Bolt / Vite M8x1,25x35
6	1	3.017.041.1	Pulley / Puleggia
7	6	4.116.225.1	Bolt / Vite M8x1,25x35
8	1	2.600.007.1	Belt stretcher / Tendicinghia
9	2	4.116.203.1	Bolt / Vite M8x1,25x20
10	2	4.123.203.1	Washer / Rosetta M8
11	1	4.116.332.1	Bolt / Vite M10x1,5x30
12	1	4.123.302.1	Washer / Rosetta M10
13	1	1.004.091.1*	Carter / Copricinghie <i>Replacing / In sostituzione del 3.004.091.1</i>
14	1	4.116.244.1	Bolt / Vite M8x1,25x50
15	1	4.122.203.1	Washer / Rosetta M8
16	2	4.116.126.1*	Bolt / Vite M6x35 <i>Replacing / In sostituzione del 4.116.130.1</i>
17	2	3.123.101.1*	Washer / Rosetta M6 <i>Replacing / In sostituzione del 4.122.101.1</i>
18	1	4.116.207.1	Bolt / Vite M8x1,25x25
19	1	4.122.203.1	Washer / Rosetta M8
20	1	3.017.016.1	Pulley / Puleggia doppia gola
21	6	4.116.130.1	Bolt / Vite M6x30
22	6	4.123.102.1	Washer / Rosetta sic. M6
23	1	3.105.178.1	Adapter / Adattatore
24	1	3.126.012.1	Pin / Spina
25	6	4.116.210.1	Bolt / Vite M8x1,25x60
26	6	4.123.203.1	Washer / Rosetta sic. M8
27	4	3.133.006.1*	Rubber tip / Gommino
28	3	3.103.092.1*	Bush / Boccola
29	1	3.133.093.1*	Bush / Boccola

\* Effective from serial number 4211001 (hpe 225) 3711015 (hpe 250)

\* In vigore dal n° matricola 4211001 (hpe 225) 3711015 (hpe 250)



Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
2	6	HPE 225/250	Auxiliary drives without hydraulic pump/ Comandi vari senza idroguida	02-2011

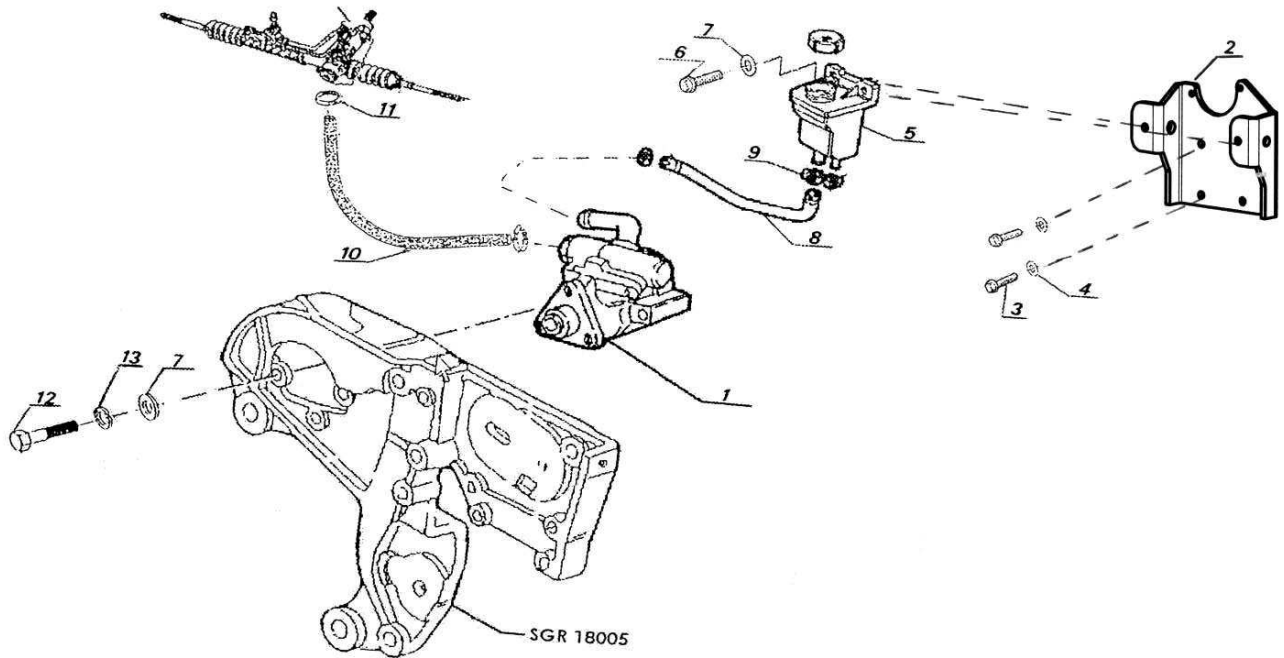


<b>Group</b> 3	<b>Pag.</b> 1	<b>Type/Tipo</b> HPEP 225/250	<b>Description/Descrizione</b> Hydraulic command / Comando idraulico	<b>Date/Data</b> 06-2009
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<b>pos.</b>	<b>Qty/Q.tà</b>	<b>Code/Codice</b>	<b>Description/Descrizione</b>
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1	1	1.006.011.1	Hydraulic pump Pomap idraulica
2	1	3.019.222.1	Plate / Piastra
3	4	4.116.102.1	Bolt / Vite M6x16
4	4	4.123.102.1	Washer / Rosetta M6
5	1	2.146.001.1	Expansion tank / Vaschetta
6	2	4.116.204.1	Bolt / Vite M8x1,25x20
7	5	4.122.201.1	Washer / Rosetta M8
8	1	6.051.040.1	Hose / Tubo in gomma (L= 1,20mt.)
9	2	4.106.013.1	Clamp / Collare 14-27
10	1	6.051.017.1	Hose / Tubo in gomma (L= 1,50mt.)
11	2	4.106.009.1	Clamp / Collare 11-20
12	3	4.116.229.1	Bolt / Vite M8x1,25x40
13	3	4.123.203.1	Washer / Rosetta M8

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
3	1	HPEP 225/250	Hydraulic command / Comando idraulico	06-2009

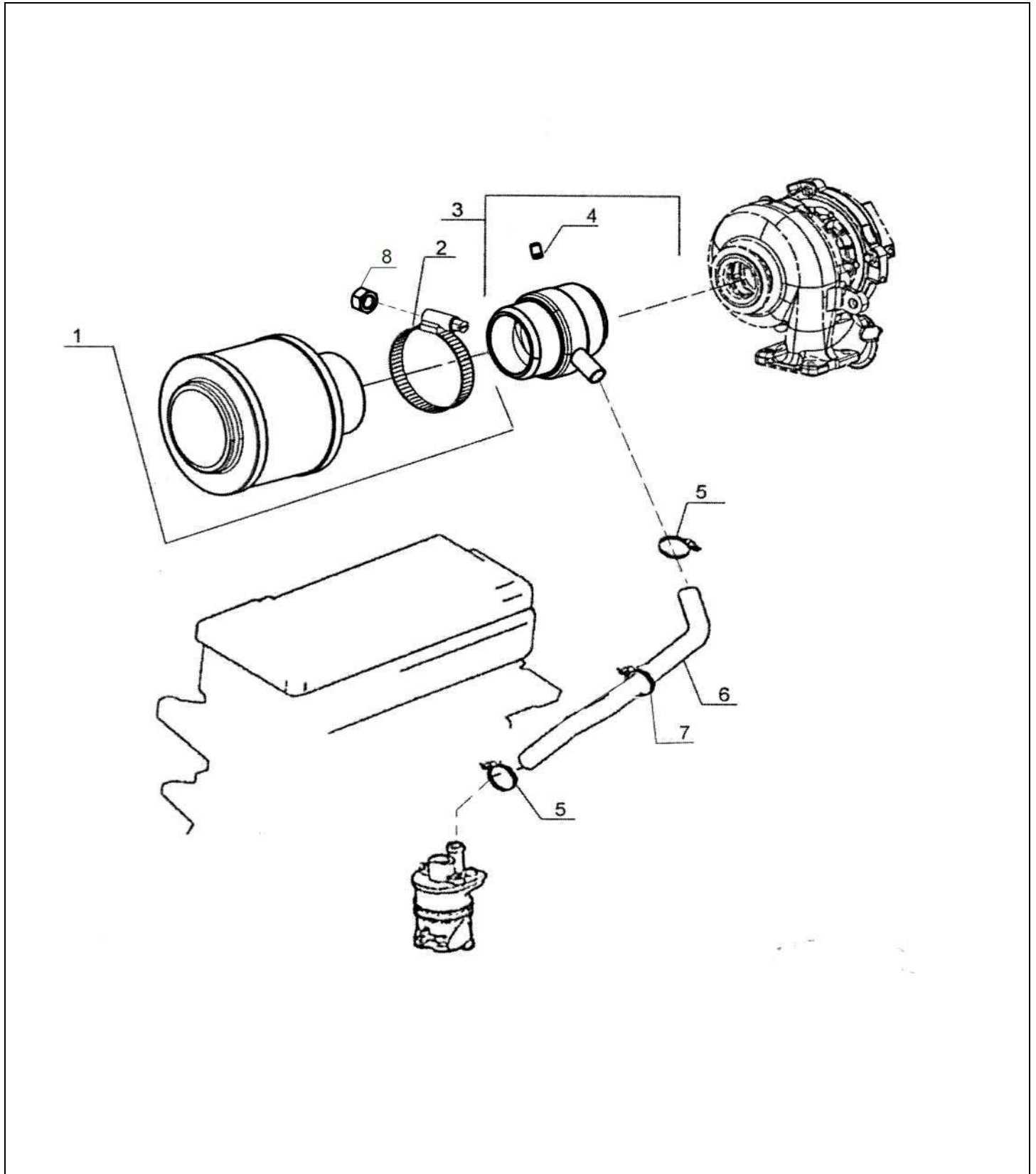


Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
4	1	HPE/P 225/250	Air cleaner/Filtro aria	06-2009

pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	2.641.013.1	Air filter/Filtro aria
2	1	4.106.505.1	Clamp / Collare
3	1	1.120.049.1	Connection air filter / Raccordo
4	2	4.126.014.1	Dowel / Tappo
5	2	4.106.013.1	Clamp / Collare14-27
6	1	6.051.040.1	Hose / Tubo (L= 1,00mt.)
7	1	4.106.403.1	Clamp / Collare RSG1 pas032
8	1	4.117.110.1	Nut stop / Dado stop M6

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
4	1	HPE/P 225/250	Air cleaner / Filtro aria	06-2009



<b>Group</b> 5	<b>Pag.</b> 1	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Fuel injection system/Alimentazione ad iniezione	<b>Date/Data</b> 10-2011
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\	<b>Qty/Q.tà</b>	<b>Code/Codice</b>	<b>Description/Descrizione</b>	
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1	1	1.023.083.1	Rail / Rail
2	1	3.022.015.1	Fuel pipe / Tubazione rigida cil.4
3	1	3.022.014.1	Fuel pipe / Tubazione rigida cil.3
4	1	3.022.012.1	Fuel pipe / Tubazione rigida cil.1
5	1	3.022.017.1	Fuel pipe / Tubazione rigida rail
6	1	3.022.013.1	Fuel pipe / Tubazione rigida cil.2
7	1	3.022.016.1	Fuel pipe / Tubazione rigida cil.5
8	5	2.002.013.1	Injector for hpe/p 225 / Iniettore per hpe/p 225
			Injector for hpe/p 250 / Iniettore per hpe/p 250 **
	5	2.002.016.1	Injector for hpe/p 250 / Iniettore per hpe/p 250
9	5	3.021.074.1	Gasket / Guarnizione
10	4	3.019.234.1	Bracket / Staffa
11	4	4.122.201.1	Washer / Rosetta M8
12	4	4.115.202.1	Stud / Prigioniero M8x16-57
13	4	4.117.201.1	Nut / Dado M8
14	1	3.024.082.1	Hose / Tubo
15	2	4.116.206.1	Bolt / Vite M8x1,25x25
16	1	4.019.024.1*	Rail sender / Sensore rail
			<i>Replacing / In sostituzione del 4.019.016.1</i>
17	1	4.019.018.1	Rail pressure sender / Regolatore pressione rail
18	1	1.023.104.1*	Rail / Rail
19	1	4.019.024.1*	Rail sender / Sensore rail
20	1	3.022.031.1*	Fuel pipe / Tubazione rigida cil.4
21	1	3.022.030.1*	Fuel pipe / Tubazione rigida cil.3
22	1	3.022.028.1*	Fuel pipe / Tubazione rigida cil.1
23	1	3.022.033.1*	Fuel pipe / Tubazione rigida rail
24	1	3.022.029.1*	Fuel pipe / Tubazione rigida cil.2
25	1	3.022.032.1*	Fuel pipe / Tubazione rigida cil.5

#### SPECIAL SERVICE TOOLS / ATTREZZI SPECIALI

18	1	3.900.238.1	Universal kit injector extractor / Kit estrattore iniettori
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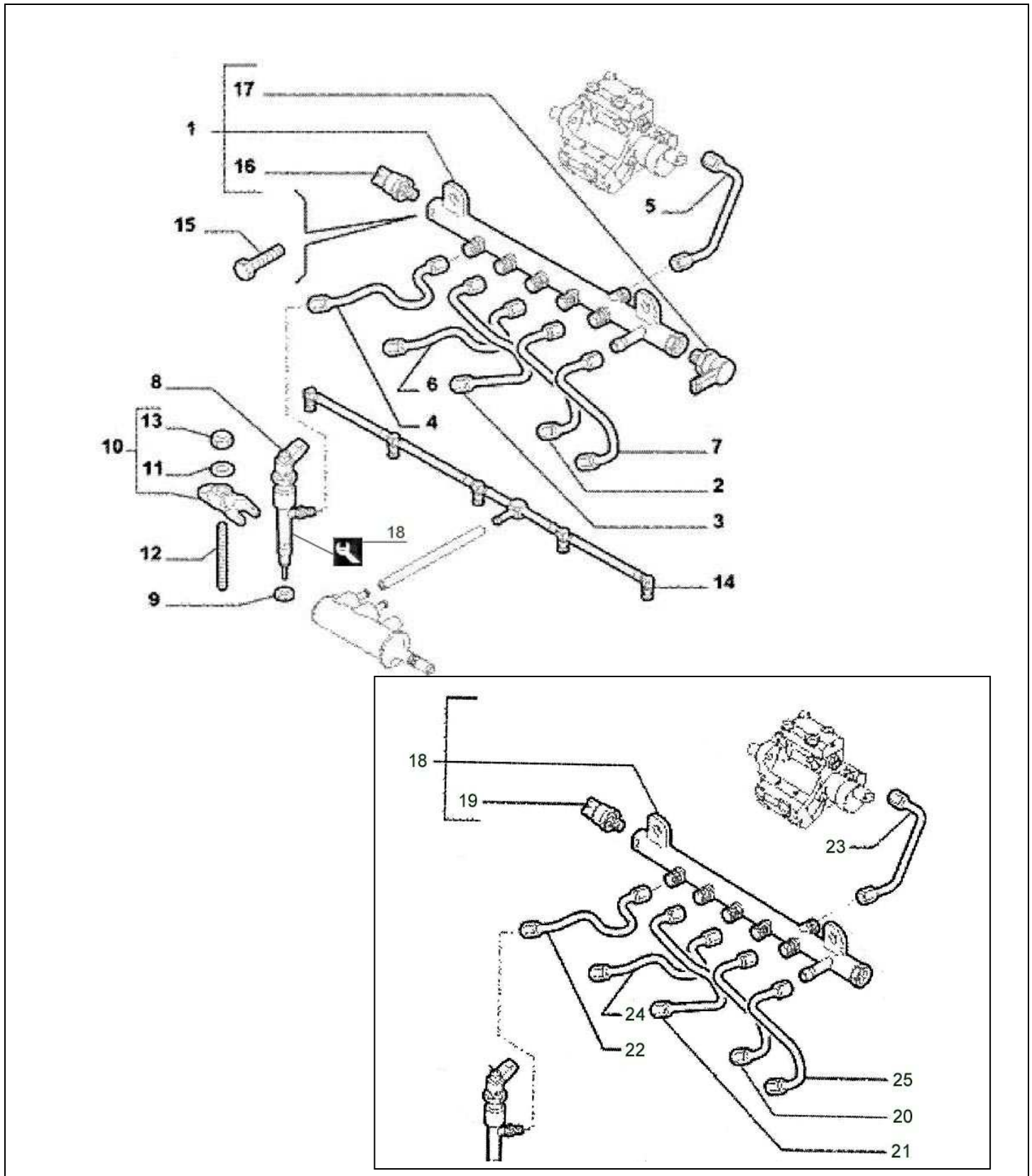
\* Effective from serial number 3711051 to serial number 3711065 (hpe/p 250)

\* In vigore dal n° matricola 3711051 al n° 3711065 (hpe/p 250)

\*\* With water-cooled turbocharger "kangyue"

\*\* Con turbo "Kangyue" raffreddato ad acqua

Group 5	Pag. 1	Type/Tipo HPE/P 225/250	Description/Descrizione Fuel injection system/alimentazione ad iniezione	Date/Data 05-2011
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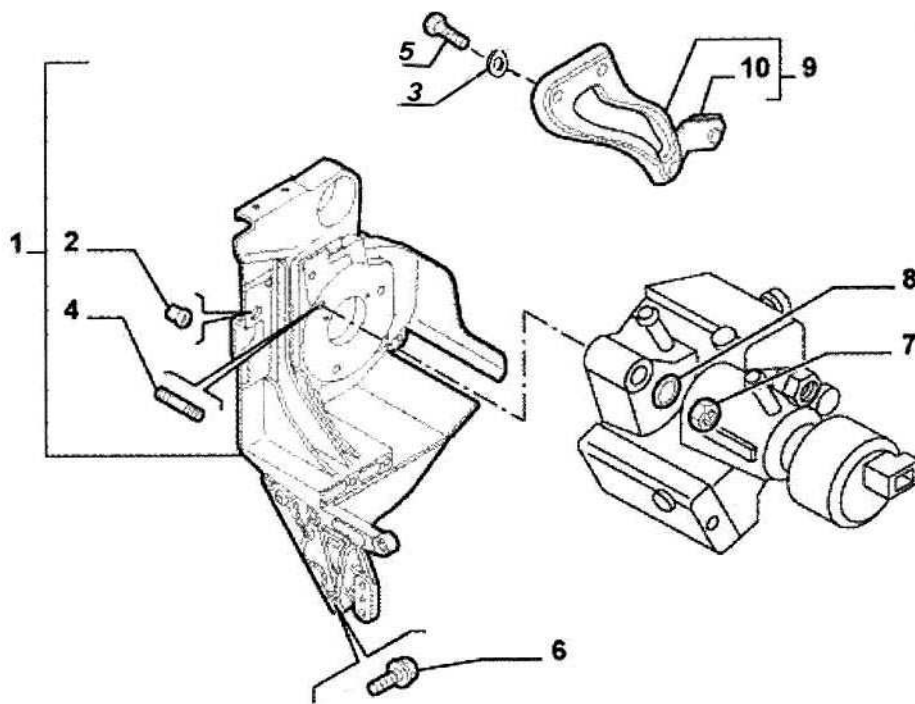
<b>Group</b> 5	<b>Pag.</b> 2	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Fuel injection system/Alimentazione ad iniezione	<b>Date/Data</b> 06-2009
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pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	1.105.034.1	Support / Supporto
2	1	4.103.015.1	Busch / Boccola
3	2	4.123.102.1	Washer / Rosetta M6
4	3	4.115.209.1	Stud / Prigioniero M8
5	2	4.116.105.1	Bolt / Vite M6x20
6	2	4.116.215.1	Bolt / Vite M8x1,25x110
	3	4.116.209.1	Bolt / Vite M8x1,25x35
	1	4.116.281.1	Bolt / Vite M8x1,25x65
7	3	4.829.055.1	Nut / Dado M8
8	3	4.123.203.1	Washer / Rosetta M8
9	1	3.019.235.1	Bracket / Staffa
10	1	3.105.189.1	Plate / Piastra



Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
5	2	HPE/P 225/250	Fuel injection system/ Alimentazione ad iniezione	06-2009

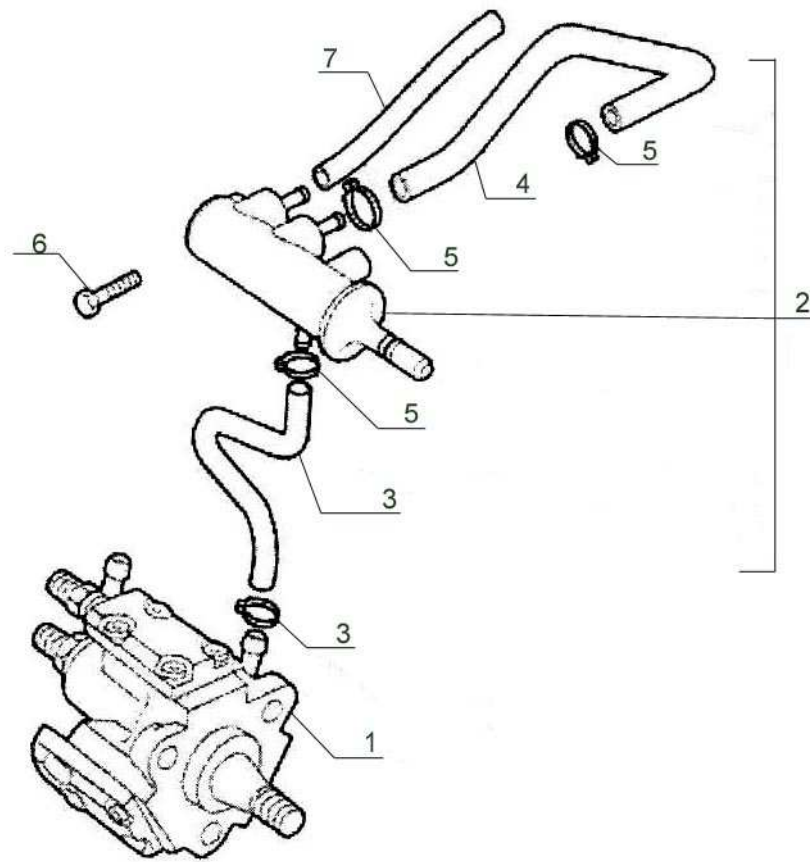


<b>Group</b> 5	<b>Pag.</b> 3	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Fuel injection system / Alimentazione ad iniezione	<b>Data/Data</b> 06-2009
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<b>pos.</b>	<b>Qty/Q.tà</b>	<b>Code/Codice</b>	<b>Description/Descrizione</b>	
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1	1	2.001.018.1	Injection pump/Pompa iniezione
2	1	2.017.005.1	Piping / Condotto
3	1	3.025.096.1	Fuel hose / Tubo carburante
4	1	3.025.097.1	Fuel hose / Tubo carburante
5	2	4.106.018.1	Clamp / Collare 10-16
6	2	4.116.110.1	Bolt / Vite M6x35
7	1	3.025.098.1	Fuel hose / Tubo carburante

Group 5	Pag. 3	Type/Tipo HPE/P 225/250	Description/Descrizione Fuel injection system / alimentazione ad iniezione	Date/Data 06-2009
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<b>Group</b> 5	<b>Pag.</b> 4	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/descrizione</b> Engine cable and ecu box / Cablaggio motore e box centralina	<b>Date/Data</b> 05-2011
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pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	1.010.050.1	Engine cable / Cablaggio motore
2	1	2.011.068.1	Box ecu for gear box hpe 225 / Box centralina x invert. hpe 225
	1	2.011.077.1	Box ecu for stern drive hpep 225 / Box centralina x piede hpep 225
	1	2.011.069.1	Box ecu for gear box hpe 250 / Box centralina x invert. hpe 250
	1	2.011.078.1	Box ecu for stern drive hpep 250 / Box centralina x piede hpep 250
	1	2.011.100.1**	Box ecu for stern drive hpep 250 / Box centralina x piede hpep 250
	1	2.011.101.1**	Box ecu for stern drive hpe 250 / Box centralina x piede hpe 250
3	1	4.116.137.1	Bolt / Vite M6x16
4	1	4.020.023.1	Rpm sensor / Sensore giri
5	1	4.116.139.1	Bolt / Vite M6x18
6	1	4.829.133.1	Washer / Rosetta M6
7	1	4.020.022.1	Stroke sensor / Sensore fase
8	1	2.011.103.1*	Box ecu for gear box hpe 250 / Box centralina x invert. hpe 250
	1	2.011.104.1*	Box ecu for stern drive hpep 250 / Box centralina x piede hpep 250
9	1	1.010.088.1*	Engine cable / Cablaggio motore

#### SPECIAL SERVICE TOOLS / ATTREZZI SPECIALI

8	1	3.900.150.1	Diagnostic kit EDR / Kit strumento diagnosi
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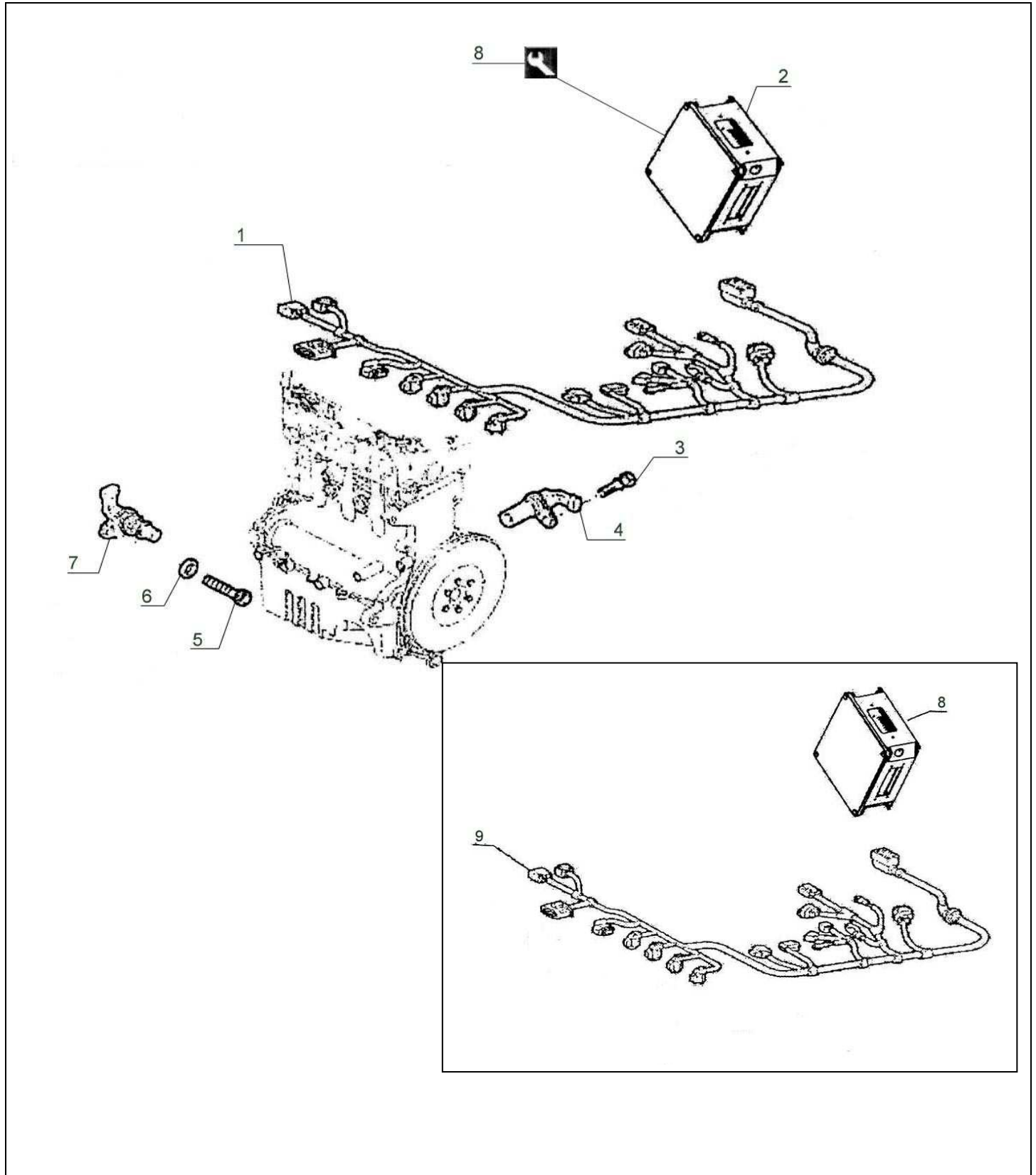
\* Effective from serial number 3711051 to serial number 3711065 (hpe/p 250)

\* In vigore dal n° matricola 3711051 al n° 3711065 (hpe/p 250)

\*\* With water-cooled turbocharger “kangyue”

\*\* Con turbo “Kangyue” raffreddato ad acqua

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
5	4	HPE/P 225/250	Engine cable and ecu box / Cablaggio motore e box centralina	05-2011

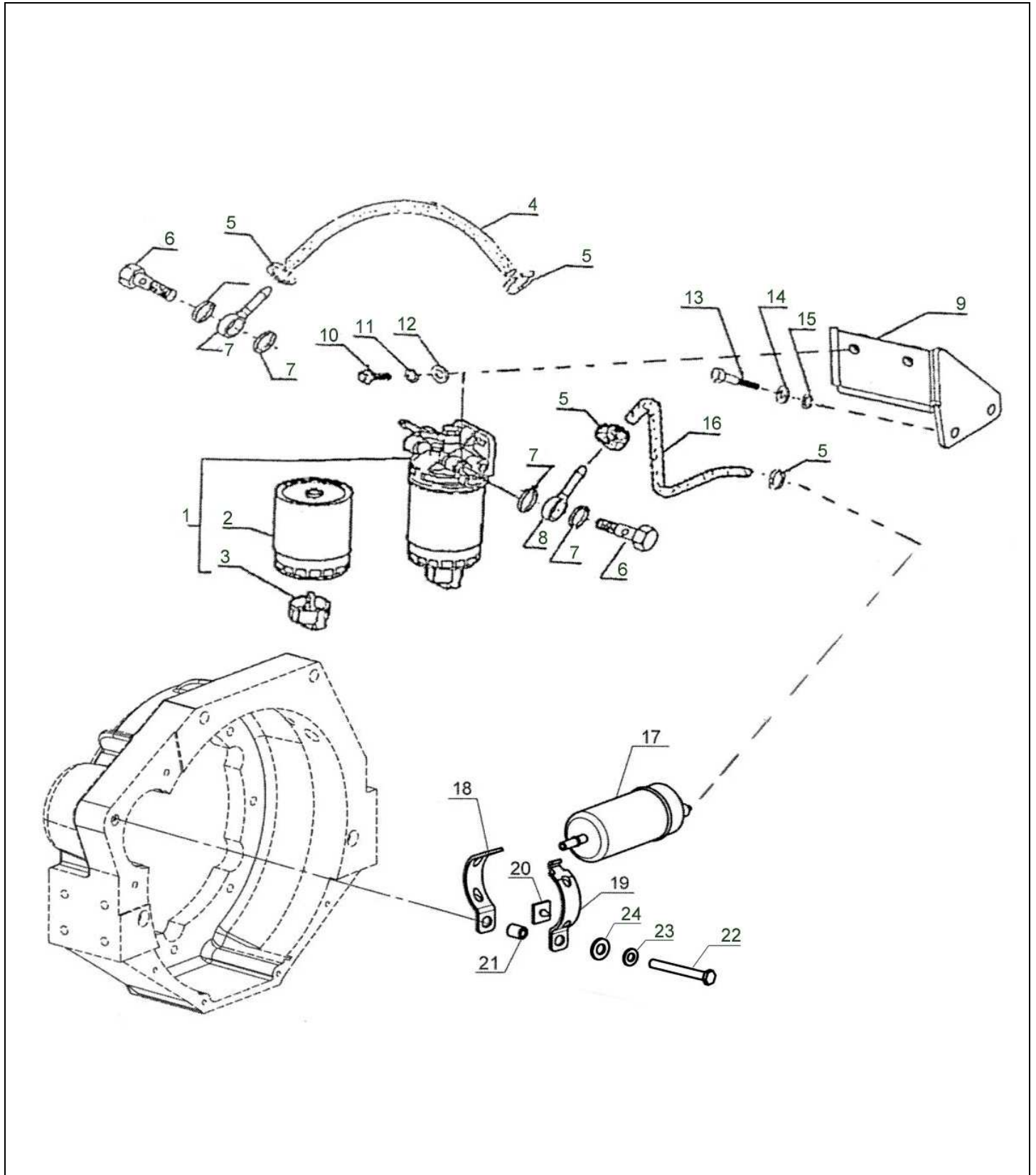


<b>Group</b> 5	<b>Pag.</b> 5	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Fuel injection system: Fuel filter / Alimentazione ad iniezione: Filtro gasolio	<b>Date/Data</b> 06-2009
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pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	2.017.003.1	Fuel filter assembly / Filtro gasolio completo
2	1	2.006.002.1	Fuel filter / Filtro gasolio
3	1	4.019.008.1	Sensor / Sensore
4	1	6.051.006.1	Hose fuel / Tubo carburante (L=0,60 mt.)
5	4	4.106.018.1	Clamp / Collare 10-16
6	2	3.116.502.1	Connection / Raccordo M14x1,5
7	4	4.124.502.1	Washer / Rosetta M14
8	2	3.120.607.1	Eye connection / Raccordo ad occhio M14
9	1	3.019.223.1	Support / Supporto
10	2	4.116.208.1	Bolt / Vite M8x30
11	2	4.123.203.1	Washer / Rosetta M8
12	2	4.122.201.1	Washer / Rosetta M8
13	2	4.116.105.1	Bolt / Vite M6x20
14	2	4.123.102.1	Washer / Rosetta M6
15	2	4.122.101.1	Washer / Rosetta M6
16	2	6.051.006.1	Hose fuel / Tubo carburante L=0,60 mt.)
17	1	2.001.014.1	Fuel pump / Pompa gasolio
18	1	3.019.265.1	Support / Supporto
19	1	3.019.264.1	Support / Supporto
20	4	3.133.010.1	Rubber gasket / Gommino
21	1	3.103.058.1	Busch / Boccia
22	1	4.116.230.1	Bolt / Vite M8x1,25x70
23	1	4.123.203.1	Washer / Rosetta M8
24	1	3.122.202.1	Washer / Rosetta M8

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
5	5	HPE/P 225/250	Fuel injection system: Fuel filter / Alimentazione ad iniezione: Filtro gasolio	06-2009



Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
5	6	HPE 225/250	Fuel injection system without hydraulic pump	01-2010

pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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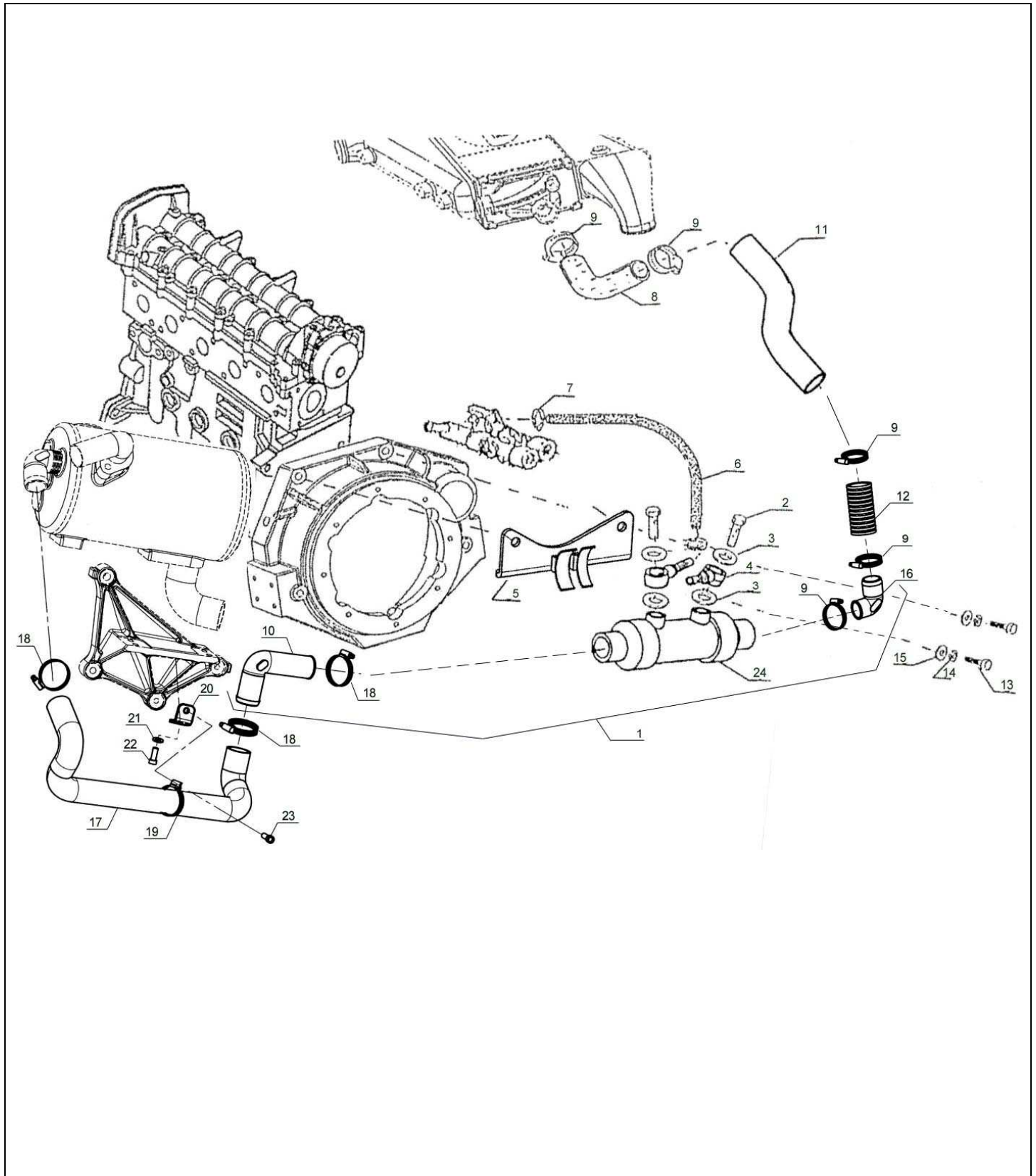
1	1	3.900.272.1	Diesel heat exchanger kit / Kit scambiatore gasolio <i>Substituted / Per sostituzione del 3.070.016.1</i>
2	2	3.120.679.1	Connection bolt / Vite raccordo 3/8"
3	4	4.124.511.1	Washer / Rosetta 3/8"
4	2	3.120.685.1	Eye connection / Raccordo ad occhio 3/8"
5	1	3.019.261.1	Support / Staffa supporto
6	1	6.051.006.1	Fuel hose / Tubo carburante ( L=1,10 mt.)
7	2	4.106.018.1	Clamp / Collare 10-16
8	1	3.025.011.1	Sleeve / Manicotto
9	4	4.106.008.1*	Clamp / Collare 50-70 <i>Replacing / In sostituzione del 4.106.010.1</i>
10	1	3.120.687.1*	Connection / Raccordo <i>Replacing / In sostituzione del 3.120.731.1</i>
11	1	3.023.195.1	Hose / Tubo
12	1	6.051.037.1	Water hose / Tubo acqua (0,50 mt.)
13	2	4.116.407.1	Bolt / Vite M12x1,25x60
14	2	4.123.403.1	Washer / Rosetta M12
15	2	4.122.401.1	Washer / Rosetta M12
16	1	3.120.688.1*	Connection / Raccordo <i>Replacing / In sostituzione del 3.120.718.1</i>
17	1	3.025.122.1	Sleeve / Manicotto
18	3	4.106.010.1	Clamp / Collare 21-44
19	1	4.106.411.1	Clamp / Collare RSG1 pas 40
20	1	3.019.285.1	Bracket / Staffa
21	1	4.123.203.1	Washer / Rosetta sicurezza M8
22	1	4.116.204.1	Bolt / Vite M8x1,25x20
23	1	4.116.232.1	Bolt / Vite M8x1,25x10
24	1	3.070.029.1*	Diesel heat exchanger / Scambiatore gasolio

\* Effective from serial number 4209011 (hpe 225) 3710001 (hpe 250)

\* In vigore dal n° matricola 4209011 (hpe 225) 3710001 (hpe 250)



Group 5	Pag. 6	Type/Tipo HPE 225/250	Description/Descrizione Fuel injection system without hydraulic pump/Alimentazione ad iniezione senza idroguida	Date/Data 01-2010
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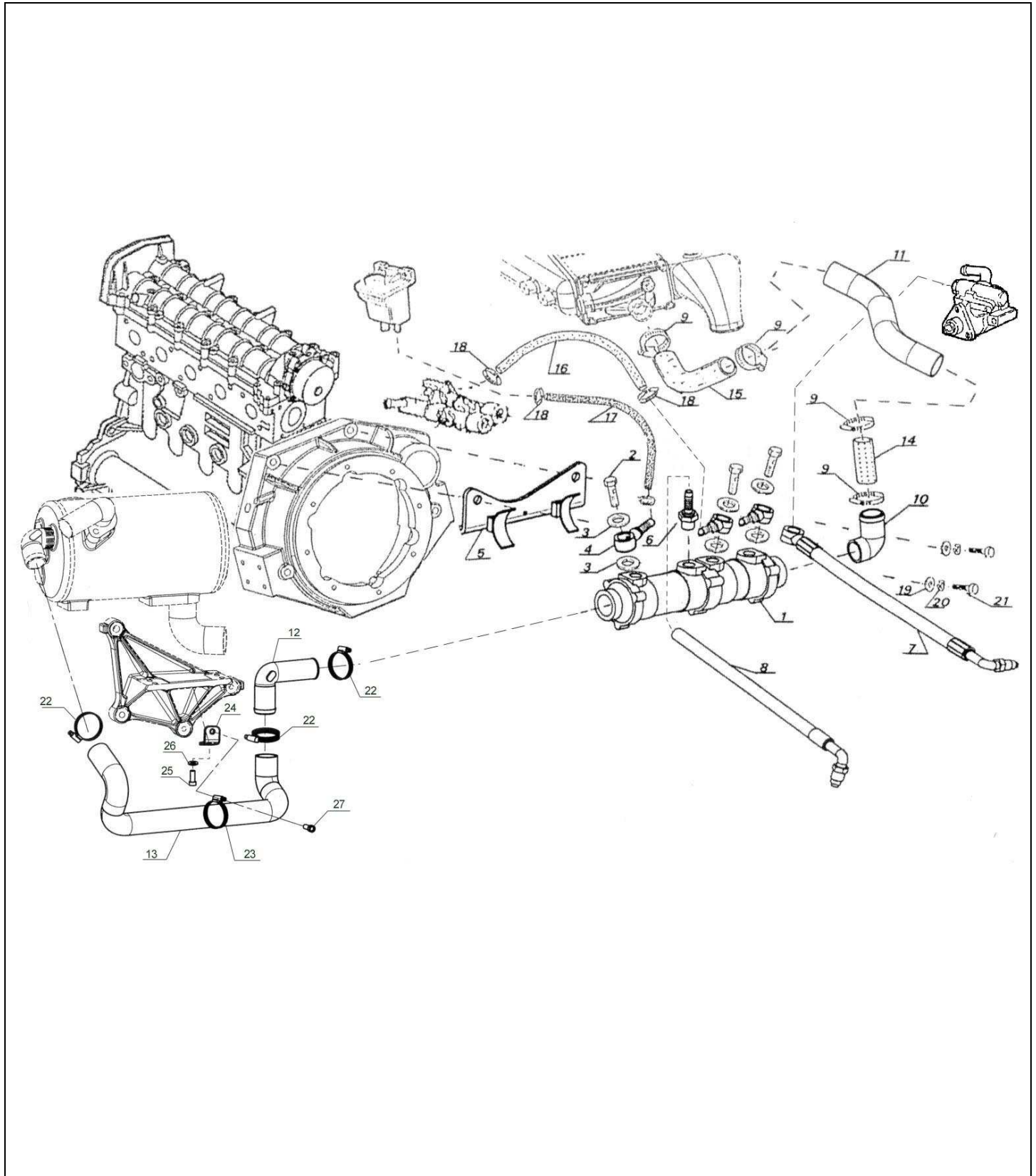


<b>Group</b> 5	<b>Pag.</b> 7	<b>Type/Tipo</b> HPE 225/250	<b>Description/Descrizione</b> Fuel injection system with hydraulic pump/Alimentazione ad iniezione con pompa idraulica	<b>Date/Data</b> 06-2009
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pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	3.070.017.1	Diesel heat exchanger / Scambiatore gasolio
2	3	3.120.679.1	Connection bolt / Vite raccordo 3/8"
3	6	4.124.511.1	Washer / Rosetta 3/8"
4	3	3.120.685.1	Eye connection / Raccordo ad occhio
5	1	3.019.186.1	Support / Staffa
6	1	3.120.697.1	Connection bolt / Raccordo
7	1	3.024.070.1	Hydraulic hose / Tubo idraulico
8	1	3.024.069.1	Hydraulic hose / Tubo idraulico
9	4	4.106.010.1	Clamp / Collare 21-44
10	1	3.120.688.1	Connection / Raccordo
11	1	3.023.195.1	Hose / Tubo
12	1	3.120.687.1	Connection / Raccordo
13	1	3.025.122.1	Sleeve / Manicotto
14	1	6.051.037.1	Hose water / Tubo acqua (L=0,50)
15	1	3.025.011.1	Sleeve / Manicotto
16	1	6.051.006.1	Fuel hose / Tubo carburante (L=1,0 mt.)
17	1	6.051.006.1	Fuel hose / Tubo carburante (L=0,60 mt.)
18	4	4.106.018.1	Clamp / Collare 10-16
19	2	4.122.401.1	Washer / Rosetta M12
20	2	4.123.403.1	Washer / Rosetta secur. M12
21	2	4.116.407.1	Bolt / Vite M12x1,25x60
22	3	4.106.010.1	Clamp / Collare 21-44
23	1	4.106.411.1	Clamp / Collare RSG1 pass 40
24	1	3.019.285.1	Bracket / Staffa
25	1	4.116.204.1	Bolt / Vite M8x1,25x20
26	1	4.123.203.1	Washer / Rosetta M8
27	1	4.116.232.1	Bolt / Vite M8x1,25x10

Group	Pag.	Type	Description/Descrizione	Date/Data
5	7	HPEP 225/250	Fuel injection system with hydraulic pump/Alimentazione ad iniezione con pompa idraulica	06-2009



Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
6	1	HPE/P 225/250	Turbocharger / Turbocompressore	06-2009

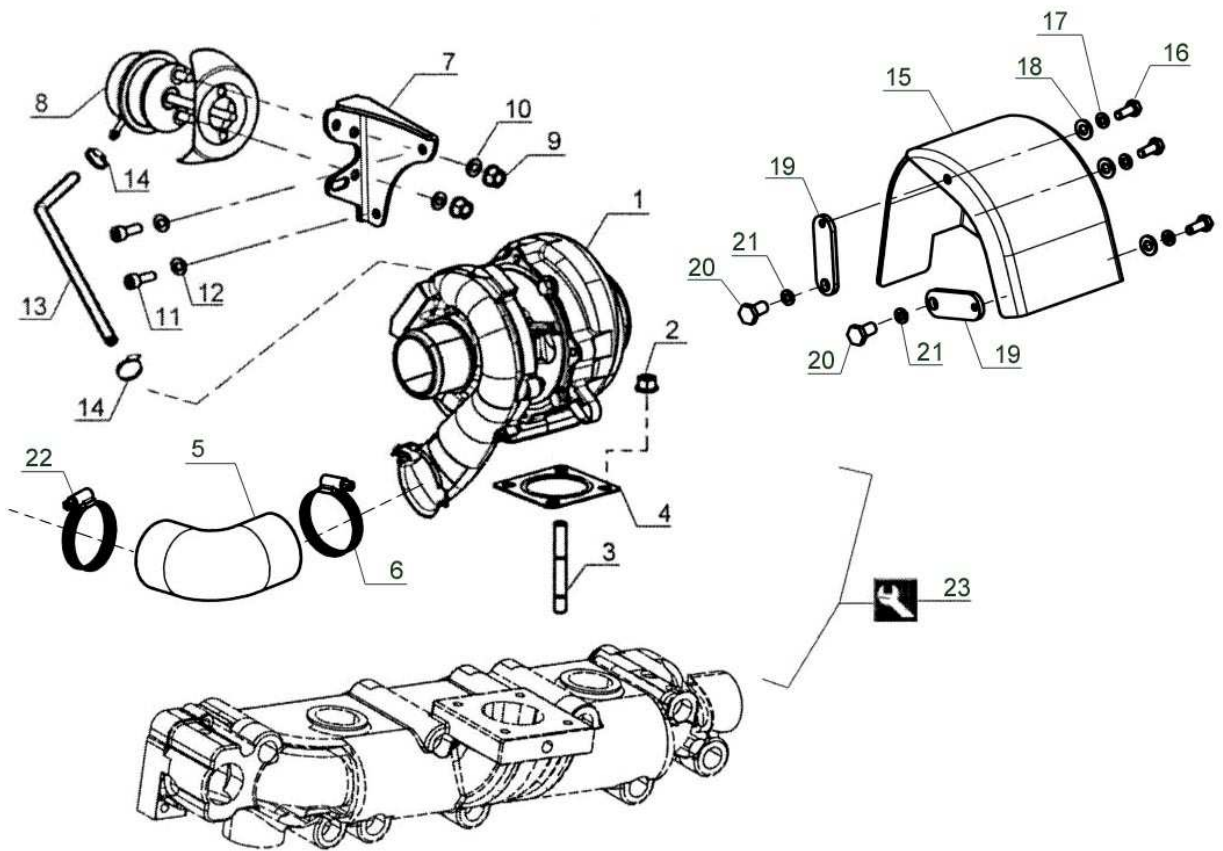
pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	2.008.509.1	Turbocharger / Turbocompressore
2	4	4.117.212.1	Nut / Dado M8
3	4	4.115.214.1	Stud / Prigioniero M8
4	1	3.021.078.1	Gasket / Guarnizione
5	1	3.025.012.1	Silicon hose / Manicotto siliconato
6	1	4.106.005.1	Hose clamp / Collare 45-65
7	1	3.019.176.1	Support / Staffa
8	1	2.009.005.1	Actuator / Attuatore
9	2	4.117.102.1	Nut stop / Dado stop M6
10	2	4.123.102.1	Washer / Rosetta M6
11	2	4.116.148.1	Bolt / Vite M6x14
12	2	4.123.102.1	Washer / Rosetta M6
13	1	6.051.027.1	Hose / Tubo 3x7 L= 0,20 mt.
14	2	4.107.005.1	Clamp / Collare click 7,5 - 9
15	1	1.004.206.1	Turbo carter / Copriturbina
16	3	4.116.124.1	Bolt / Vite M6x10
17	3	4.123.102.1	Washer / Rosetta M6
18	3	3.123.101.1	Washer / Rosetta M6
19	2	3.105.170.1	Plate / Piastra
20	2	4.116.231.1	Bolt /vite M8x1,25x16
21	2	3.123.203.1	Washer / Rosetta M8
22	2	4.106.021.1	Clamp / Collare 60-80

#### SPECIAL SERVICE TOOLS / ATTREZZI SPECIALI

23	1	7.104.009.1	Disassembling and assembling key / Chiave per smontaggio e rimontaggio
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Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
6	1	HPE/P 225/250	Turbocharger/Turbocompressore	06-2009

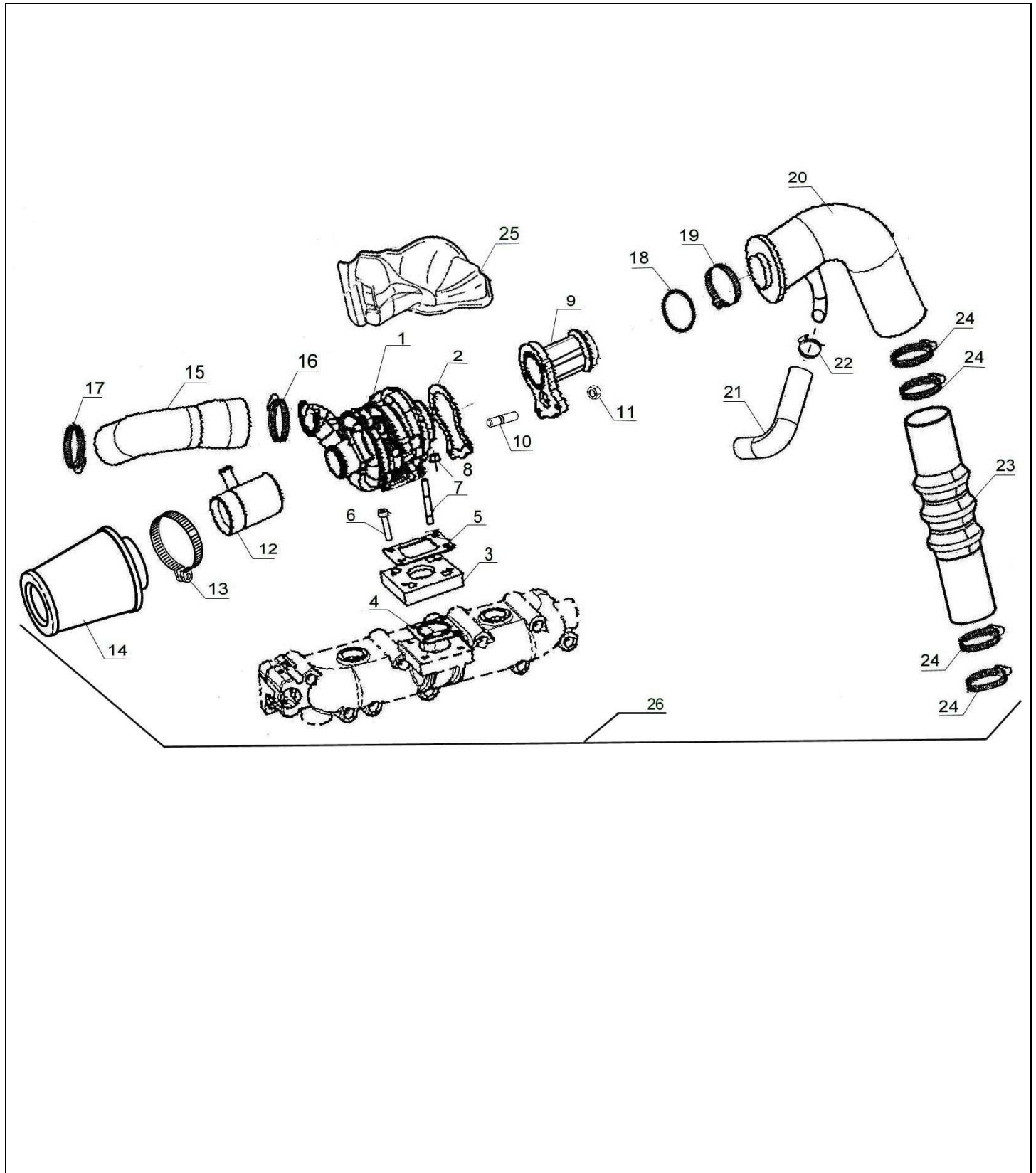


<b>Group</b> 6	<b>Pag.</b> 2	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Fixed geometry turbocharger /Turbo a gemetria fissa	<b>Date/Data</b> 03-2011
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pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	2.008.516.1	Turbocharger / Turbocompressore
2	1	3.021.068.1	Gasket / Guarnizione
3	1	3.105.226.1	Plate / Piastra
4	1	3.021.078.1	Gasket / Guarnizione
5	1	3.021.133.1	Gasket / Guarnizione
6	4	4.116.207.1	Bolt / Vite M8x1,25x25
7	4	4.115.214.1	Stud / Prigioniero M81,25x32
8	4	4.117.212.1	Nut / Dado flang. M8
9	1	1.120.050.1	Adaptor / Adattatore
10	4	4.115.212.1	Stud / Prigioniero M8x1,25x36
11	4	4.117.215.1	Nut / Dado flang. M8
12	1	1.120.048.1	Connection / Raccordo
13	1	4.106.008.1	Clamp / Collare 50-70
14	1	2.641.011.1	Air filter / Filtro aria
15	1	3.025.125.1	Sleeve / Manicotto
16	1	4.106.019.1	Clamp / Collare 52-76
17	1	4.106.005.1	Clamp / Collare 40-60
18	1	3.021.207.1	Gasket / Guarnizione
19	1	4.106.503.1	Clamp / Collare
20	1	1.015.029.1	Exhaust elbow / Gomito di scarico
21	1	3.025.208.1	Sleeve / Manicotto
22	2	4.106.010.1	Clamp / Collare 30-45
23	1	3.025.103.1	Sleeve / Manicotto
24	4	4.106.011.1	Clamp / Collare 80-100
25	1	1.004.203.1	Turbo carter / Copriturbina
26	1	3.900.263.1	Kit assembly / Kit completo

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
6	2	HPE/P 225/250	Fixed geometry turbocharger /Turbo a geometria fissa	03-2011



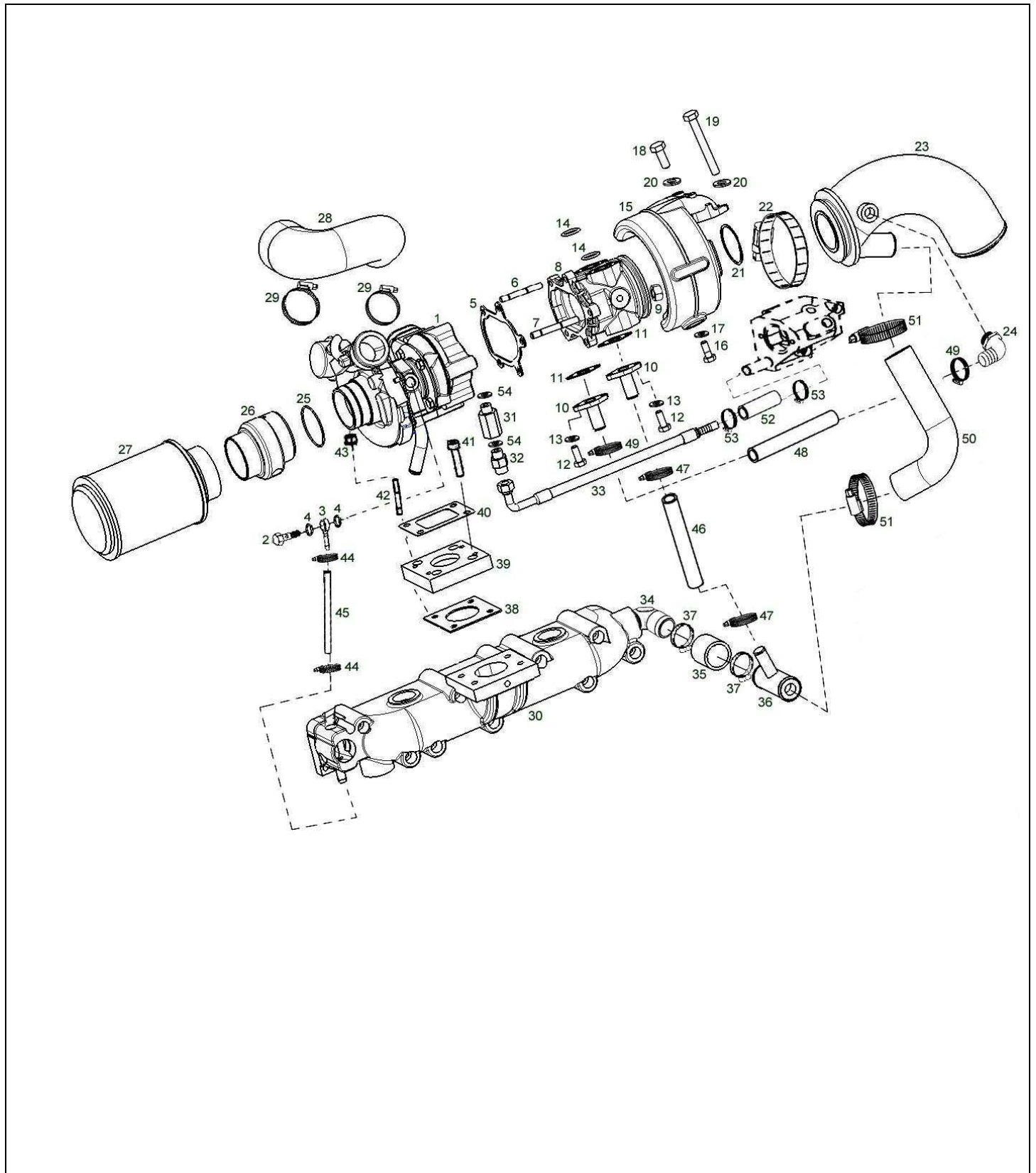
<b>Group</b> 6	<b>Pag.</b> 3/1	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Water-cooled turbocharger /Turbo con raffreddamento ad acqua	<b>Date/Data</b> 01-2012
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pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	2.008.519.1	Turbocharger Kangyue/ Turbocompressore Kangyue
2	1	3.116.518.1	Connection / Raccordo M14x1,5
3	1	3.120.607.1	Eye connection / Raccordo ad occhio M14
4	2	4.124.502.1	Washer / Rosetta M14
5	5	3.021.139.1	Gasket / Guarnizione
6	4	4.115.212.1	Stud / Prigioniero M8x1,25 L= 38
7	1	3.115.202.1	Stud / Prigioniero M8x1,25 L= 49
8	1	3.015.136.1	Exhaust flange/ Flangia scarico
9	5	4.117.216.1	Nut stop / Dado stop M8
10	2	1.120.054.1	Connection / Raccordo
11	2	3.021.143.1	Gasket / Guarnizione
12	4	4.116.102.1	Bolt / Vite M6x16
13	4	4.123.102.1	Washer / Rosetta M6
14	2	4.128.058.1	O-Ring 21,95x1,78
15	1	1.004.214.1	Turbocarter / Copriturbina
16	1	1.025.018.1	Anode zinc / Anodo di zinco
17	1	4.124.503.1	Washer / Rosetta
18	2	4.116.105.1	Bolt / Vite M6x20
19	2	4.116.114.1	Bolt / Vite M6x50
20	4	4.123.102.1	Washer / Rosetta M6
21	1	3.021.142.1	Gasket / Guarnizione
22	1	4.106.022.1	Clamp / Collare D.90
23	1	1.015.044.1	Exhaust elbow / Gomito di scarico
24	1	3.120.749.1	Connection / Raccordo 3/8"x15
25	1	4.128.068.1	O-ring 56,87x1,68
26	1	1.120.053.1	Connection / Raccordo
27	1	2.641.013.1	Air filter / Filtro aria
28	1	3.025.125.1	Sleeve / Manicotto
29	2	4.106.019.1	Clamp / Collare 52-76
30	1	1.515.037.1	Exhaust manifold assy / Condotta scarico completo
31	1	3.120.766.1	Extencion / Prolunga M14x1,5
32	1	3.120.765.1	Nipples / Nipples M14x1,5-M16x1,5
33	1	3.024.093.1	Pipe / Tubo
34	1	3.120.688.1	Connection / Raccordo
35	1	3.025.039.1	Sleeve / Manicotto
36	1	3.023.243.1	Pipe / Tubo
37	2	4.106.010.1	Clamp / Collare 30-45
38	1	3.021.078.1	Gasket / Guarnizione
39	1	3.105.226.1	Plate / Piastra
40	1	3.021.133.1	Gasket / Guarnizione
41	4	4.116.207.1	Bolt / Vite M8x1,25x25
42	4	4.115.214.1	Stud / Prigioniero M8
43	4	4.117.212.1	Nut stop / Dado stop M8
44	2	4.106.018.1	Clamp / Collare 8-16
45	1	6.051.017.1	Sleeve / Manicotto L= 0,50 mt.



Group 6	Pag. 3/1	Type/Tipo HPE/P 225/250	Description/Descrizione Water-cooled turbocharger /Turbo con raffreddamento ad acqua	Date/Data 01-2012
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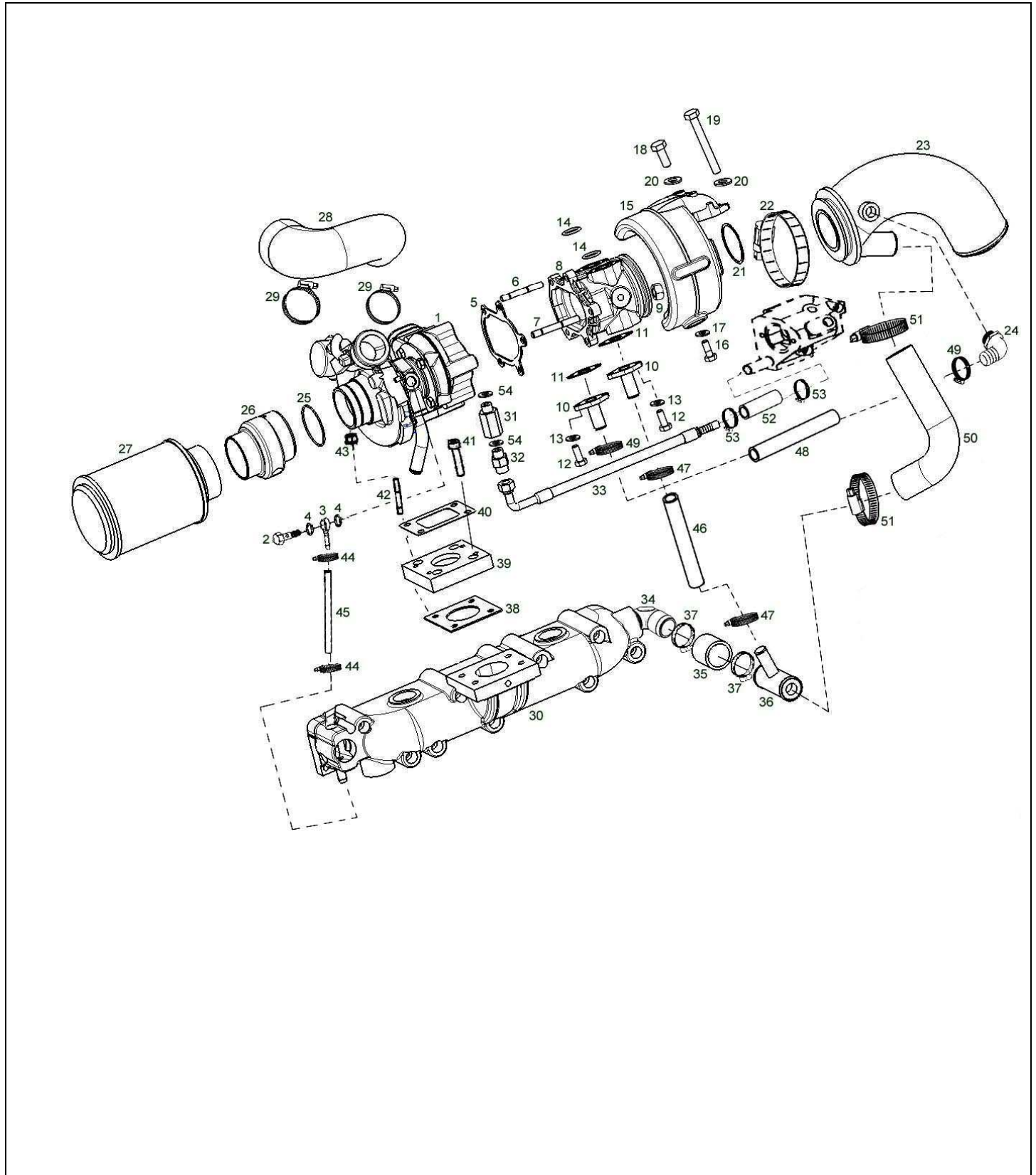


<b>Group</b> 6	<b>Pag.</b> 3/2	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Water-cooled turbocharger /Turbo con raffreddamento ad acqua	<b>Date/Data</b> 01-2012
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<b>pos.</b>	<b>Qty/Q.tà</b>	<b>Code/Codice</b>	<b>Description/Descrizione</b>	
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46	1	3.025.005.1	Sleeve / Manicotto
47	2	4.106.013.1	Clamp / Collare 16-27
48	1	3.025.005.1	Sleeve / Manicotto
49	2	4.106.013.1	Clamp / Collare 16-27
50	1	3.025.207.1	Sleeve / Manicotto
51	2	4.106.010.1	Clamp / Collare 30-45
52	1	6.051.017.1	Sleeve / Manicotto L= 0,05 mt.
53	2	4.106.018.1	Clamp / Collare 8-16
54	2	4.124.502.1	Washer / Rosetta rame M14

Group 6	Pag. 3/2	Type/Tipo HPE/P 225/250	Description/Descrizione Water-cooled turbocharger /Turbo con raffreddamento ad acqua	Date/Data 01-2012
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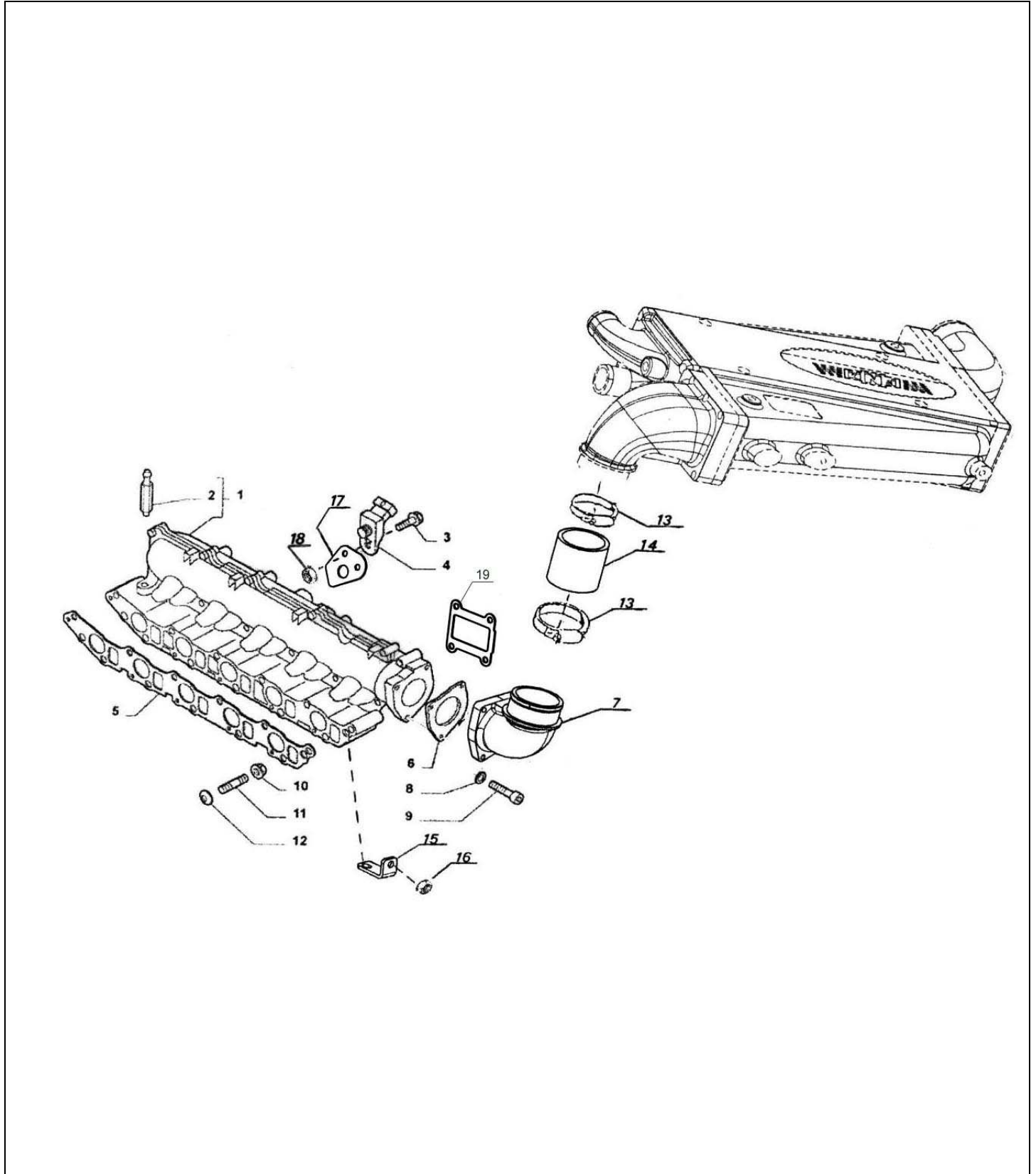


Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
6	4	HPE/P 225/250	Intake manifold/Condotto aspirazione	06-2009

pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	1.514.031.1	Intake manifold assembly / Condotto aspirazione completo
2	1	3.120.724.1	Connection / Raccordo
3	1	4.116.103.1	Bolt / Vite M6x16
4	1	4.019.010.1	Air pressure trasmitter / Sensore pressione aria
5	1	3.021.090.1	Gasket / Guarnizione
6	1	3.021.200.1	Gasket / Guarnizione
7	1	3.004.074.1	Inlet intake cap / Coperchio entrata
8	3	4.123.102.1	Washer / Rosetta M6
9	3	4.116.117.1	Bolt / Vite M6x30
10	11	4.117.202.1	Nut Stop / Dado Stop M8
11	11	4.115.209.1	Stud / Prigioniero M8
12	11	4.122.201.1	Washer / Rosetta M8
13	2	4.106.008.1	Clamp / Collare 46-70
14	1	3.025.082.1	Sleeve / Manicotto
15	1	3.105.171.1	Bracket / Staffa
16	1	4.117.202.1	Nut stop / Dado stop M8
17	1	3.105.162.1	Plate / Piastra
18	1	4.117.102.1	Nut stop / Dado stop M8
19	1	3.021.203.1	Gasket / Guarnizione

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
6	4	HPE/P 225/250	Intake manifold / Condotto aspirazione	06-2009



<b>Group</b> 6	<b>Pag.</b> 4	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Intercooler/Intercooler	<b>Date/Data</b> 01-2011
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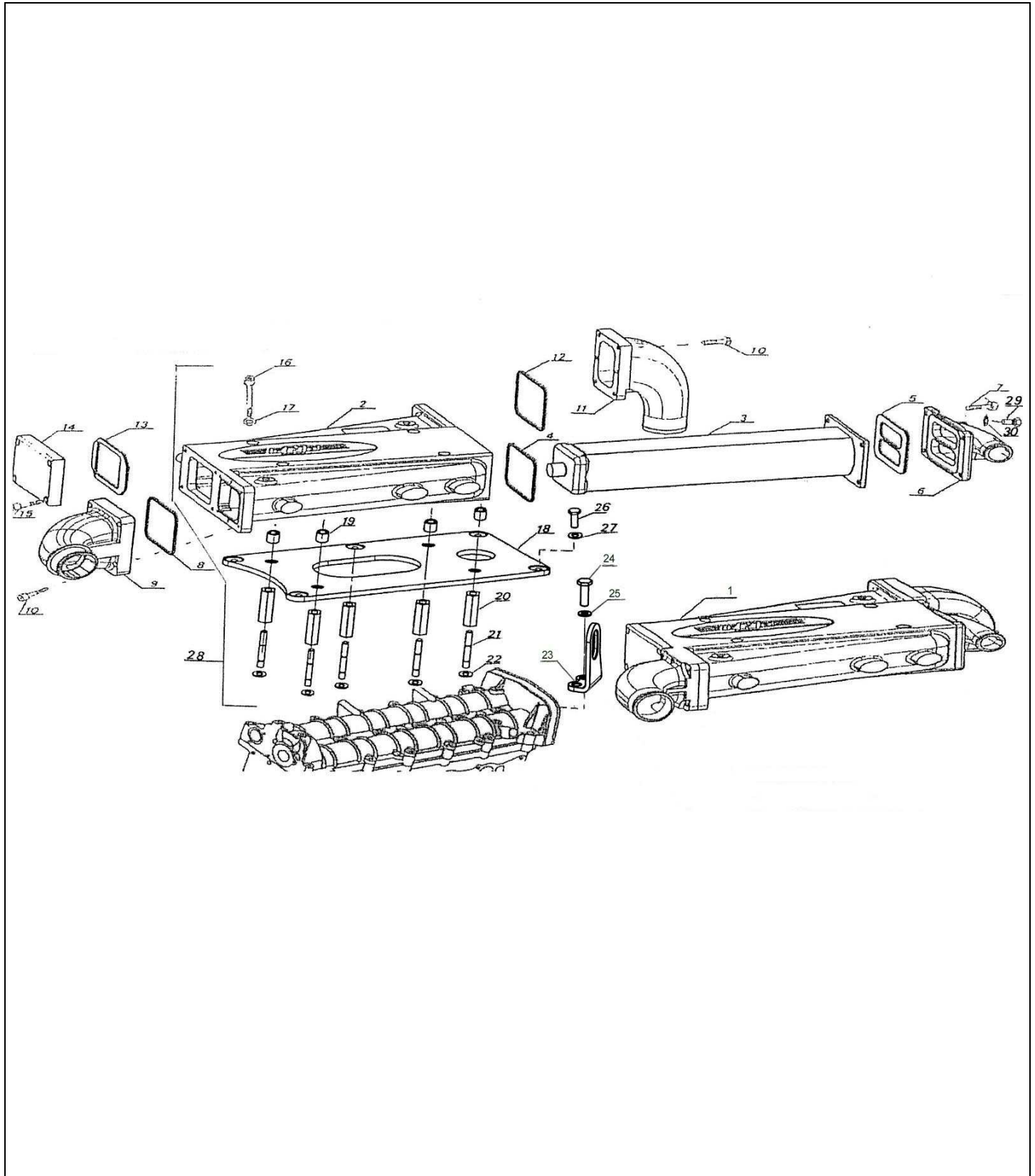
pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	1.514.018.1	Intercooler assembly / Intercooler completo
2	1	3.039.016.1	Intercooler body / Corpo scambiatore
3	1	3.070.015.1	Intercooler / Intercooler
4	1	4.128.039.1	O-ring
5	1	3.021.075.1	Gasket / Guarnizione
6	1	1.004.057.1	Cap complete / Coperchio completo
7	4	4.116.208.1	Bolt / Vite M8x1,25x30
8	1	4.128.040.1	O-ring
9	1	3.004.071.1	Cap / Cover
10	11	4.116.108.1	Bolt / Vite M6x25
11	1	3.004.073.1	Cap / Coperchio
12	1	4.128.038.1	O-ring
13	1	3.021.076.1	Gasket / Guarnizione
14	1	3.004.059.1	Cap / Coperchio
15	4	4.116.207.1	Bolt / Vite M8x1,25x25
16	4	4.116.284.1*	Bolt / Vite M8x1,25x110 <i>Replacing / In sostituzione del 4.116.287.1</i>
17	4	4.123.203.1	Washer / Rosetta M8
18	1	3.105.202.1	Plate / Piastra
19	4	3.103.073.1	Busch / Boccola
20	5	3.116.222.1	Spacer / Distanziale
21	5	4.115.215.1	Stud / Prigioniero M8x1,25
22	5	3.122.202.1	Washer / Rosetta M8
23	1	3.019.255.1	Bracket / Staffa
24	1	4.116.315.1	Bolt / Vite M10x1,25x30
25	1	4.122.302.1	Washer / Rosetta M10
26	5	4.116.206.1	Bolt / Vite M8x1,25x25
27	5	4.123.203.1	Washer / Rosetta M8
28	1	3.900.182.1	Kit for intercooler plate replacment / Kit per aggiornamento
29	1	1.025.001.1	Anode / Anodo
30	1	4.124.503.1	Washer / Rosetta rame D.16

\* Effective from serial number 4211001 (hpe/p 225) 3711001 (hpe/p 250)

\* In vigore dal n° matricola 4211001 (hpe/p 225) 3711001 (hpe/p 250)

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
6	5	HPE/P 225/250	Intercooler/Intercooler	01-2011



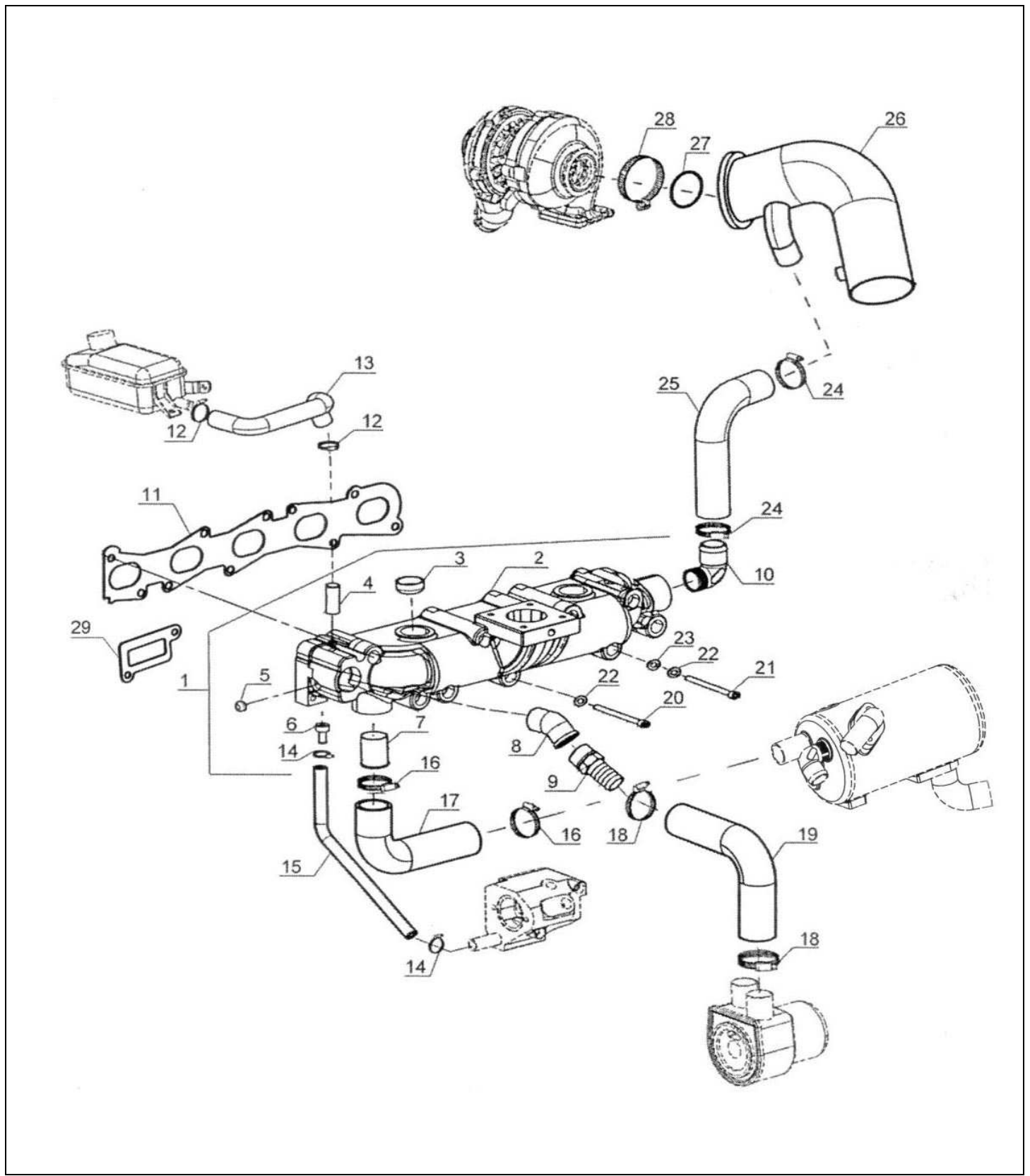
Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
6	6	HPE/P 225/250	Exhaust manifolds / Collettore scarico	06-2009

pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	1.515.528.1	Exhaust manifolds assembly / Collettore scarico completo
2	1	3.015.028.1	Exhaust manifolds body / Corpo collettore scarico
3	4	4.119.012.1	Plug / Tappo D.32
4	1	3.023.081.1	Pipe / Tubo
5	1	4.829.163.1	Plug / Tappo D.16
6	1	3.120.755.1	Connection / Raccordo
7	1	3.023.197.1	Pipe / Tubo
8	1	3.120.715.1	Connection / Raccordo
9	1	3.120.730.1	Connection / Raccordo
10	1	3.120.688.1	Connection / Raccordo
11	1	3.021.201.1	Gasket / Guarnizione
12	2	4.106.013.1	Clamp / Collare 14-27
13	1	3.025.209.1	Sleeve / Manicotto
14	2	4.106.018.1	Clamp / Collare 10-16
15	1	6.051.006.1	Water hose / Tubo acqua D.8 L=0,70 mt.
16	2	4.106.010.1	Clamp / Collare 21-44
17	1	3.025.207.1	Sleeve / Manicotto
18	2	4.106.010.1	Clamp / Collare 21-44
19	1	3.025.225.1	Sleeve / Manicotto
20	8	4.116.278.1	Bolt / Vite M8x1,25x100
	2	4.116.126.1	Bolt / Vite M6x35
21	2	4.116.212.1	Bolt / Vite M8x1,25x80
22	10	4.123.203.1	Washer / Rosetta M8
	2	4.123.102.1	Washer / Rosetta M6
23	2	4.122.201.1	Washer / Rosetta M8
24	2	4.106.010.1	Clamp / Collare 21-44
25	1	3.025.208.1	Sleeve / Manicotto
26	1	1.015.030.1	Exhaust elbow for version with gearbox/Gomito scarico vers.inver
27	1	3.021.099.1	Gasket / Guarnizione
28	1	4.106.503.1	Clamp / Collare
29	1	3.021.202.1	Gasket / Guarnizione



Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
6	6	HPE/P 225/250	Exhaust manifold	06-2009



Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
7	1	HPE/P 225/250	Lubrication system / Lubrificazione	02-2011

pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	1.006.013.1	Oil pump / Pompa olio
2	1	3.021.085.1	Gasket / Guarnizione
3	1	4.128.034.1	Seal / Anello tenuta 30x41x7
4	4	4.829.056.1	Bolt / Vite M6
	1	4.116.110.1	Bolt / Vite M6x35
	3	4.116.113.1	Bolt / Vite M6x45
	1	4.116.140.1	Bolt / Vite M6x18
5	1	1.023.063.1	Oil suction / Tromba aspirazione olio
6	1	4.128.035.1	O-ring
7	2	4.116.102.1	Bolt / Vite M6x16
8	5	2.002.014.1	Sprayer nozzle / Spruzzatore
9	5	4.116.125.1	Bolt / Vite M6x12
10	1	4.019.004.1	Connection / Sensore press.olio
11	1	4.019.001.1	Sensor / Sensore
12	1	3.120.699.1	Connection / Raccordo
13	1	3.116.516.1	Bolt / Vite racc. M14x1,5
14	1	3.120.690.1	Connection / Raccordo
15	1	4.020.010.1	Vdo pressure instr. / Vdo pressione strum. M14x1,5
16	4	4.124.502.1	Washer copper / Rosetta rame D. 14x20
17	1	4.020.029.1*	Vdo pressure instr. / Vdo pressione strum. M14x1,5
18	1	3.120.690.1*	Connection / Raccordo
19	2	4.124.502.1*	Washer copper / Rosetta rame D. 14x20

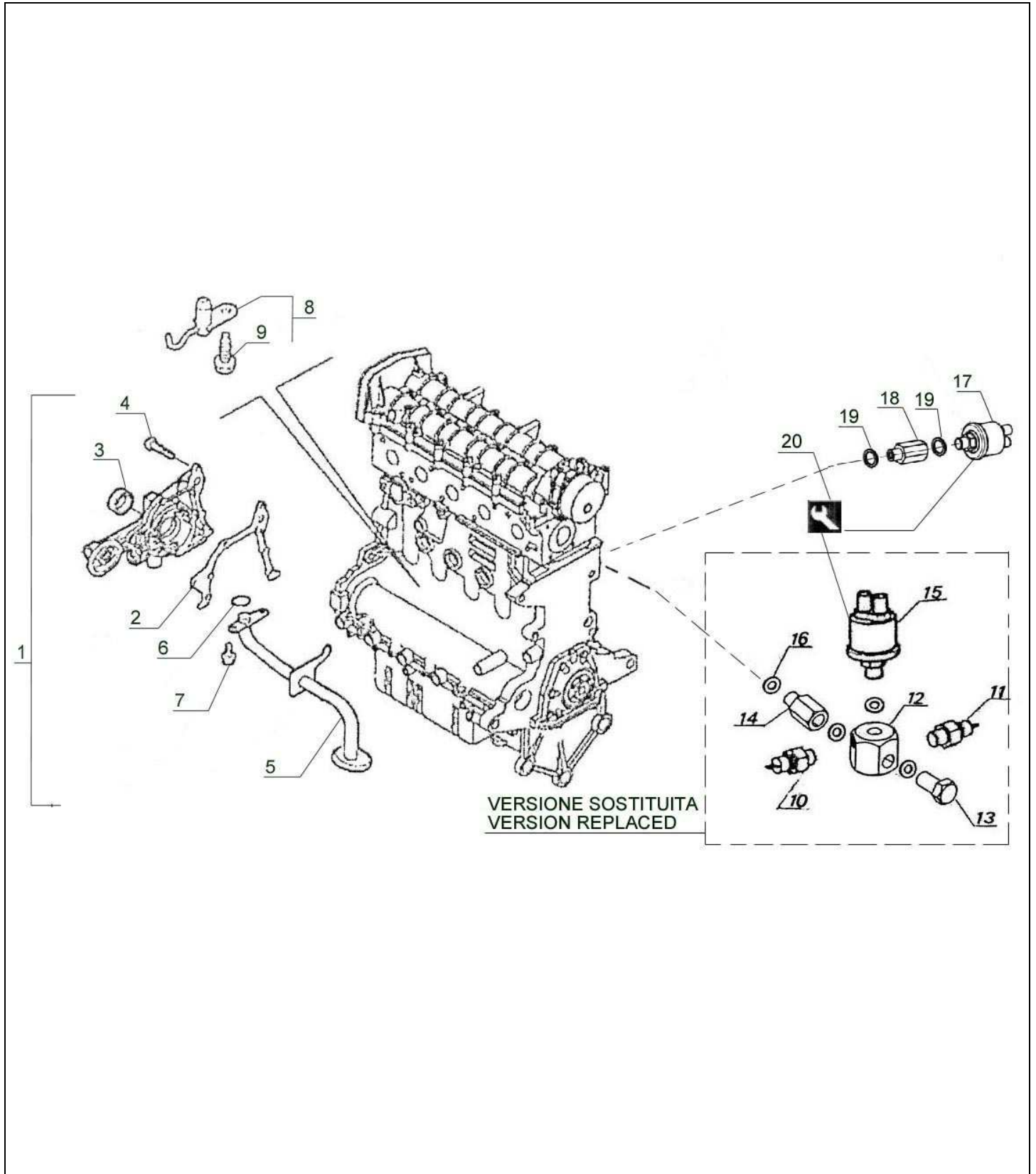
#### SPECIAL SERVICE TOOLS

20	1	7.104.029.1	Oil sensor tool
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\* Effective from serial number 3711025 (HPE 250) 4211001 (HPE 225)

\* In vigore dal n° matricola 3711025 (HPE 250) 4211001 (HPE 225)

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
7	1	HPE/P 225/250	Lubrication system / Lubrificazione	02-2011

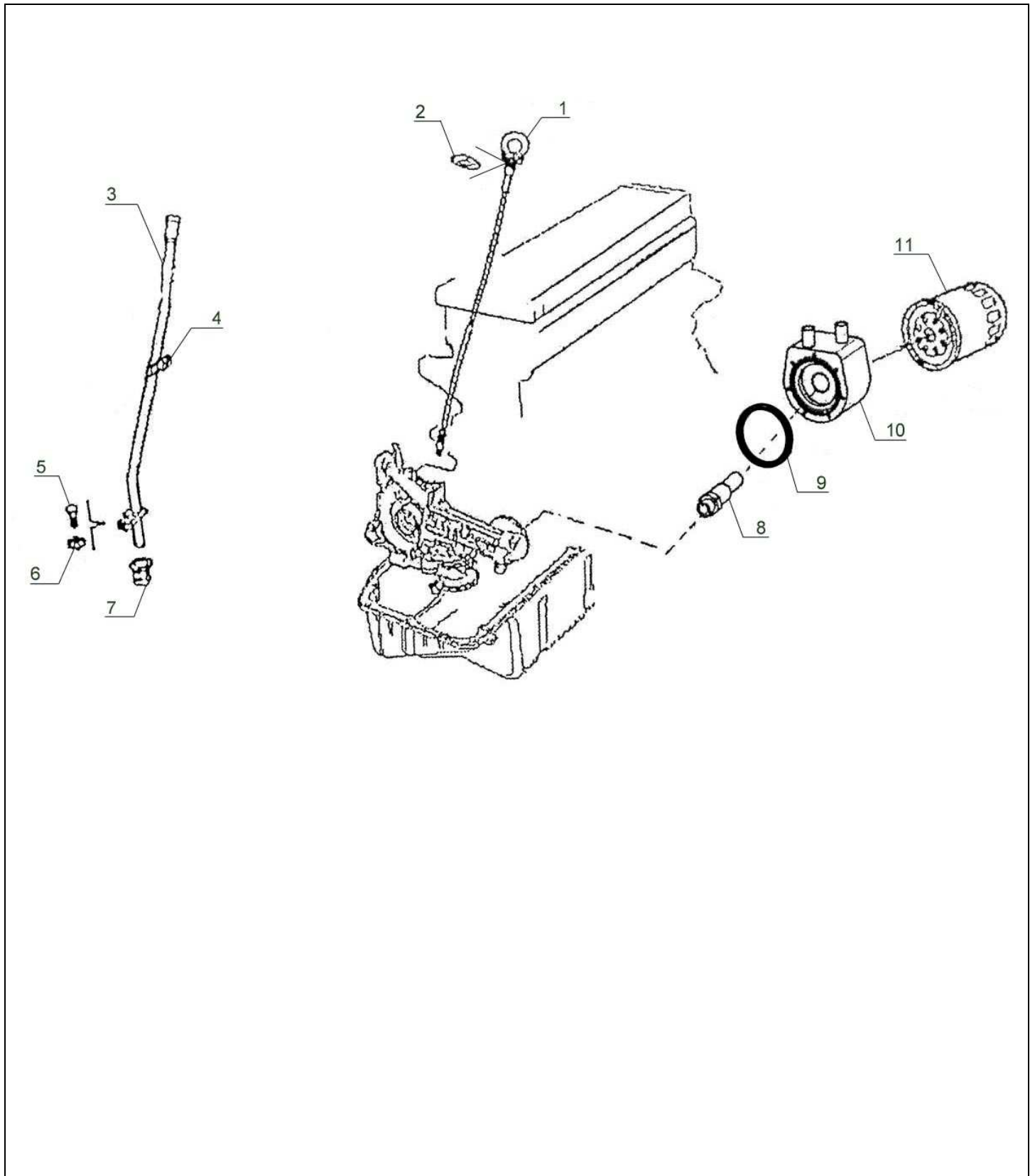


<b>Group</b> 7	<b>Pag.</b> 2	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Lubrication system / Lubrificazione	<b>Data/Data</b> 06-2009
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<b>pos.</b>	<b>Qty/Q.tà</b>	<b>Code/Codice</b>	<b>Description/Descrizione</b>
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1	1	1.026.006.1	Oil level stick / Asta livello olio
2	1	4.128.003.1	Oil seal / Anello tenuta
3	1	3.023.189.1	Pipe oil stick / Tubo stecca olio
4	1	4.106.408.1	Clamp / Collare RSG1
5	1	4.116.125.1	Bolt / Vite M6x12
6	1	4.122.101.1	Washer / Rosetta M6
7	1	4.128.036.1	Oil seal / Anello tenuta
8	1	3.120.683.1	Donut connection / Raccordo
9	1	4.128.014.1	Oil seal / Anello tenuta 73x65x4
10	1	2.019.007.1	Oil heat exchanger / Scambiatore donut
11	1	2.005.004.1	Oil filter / Filtro olio

Group	Pag.	Type/Tipo	Description/Descrizione	Data/Data
7	2	HPE/P 225/250	Lubrication system / Lubrificazione	06-2009

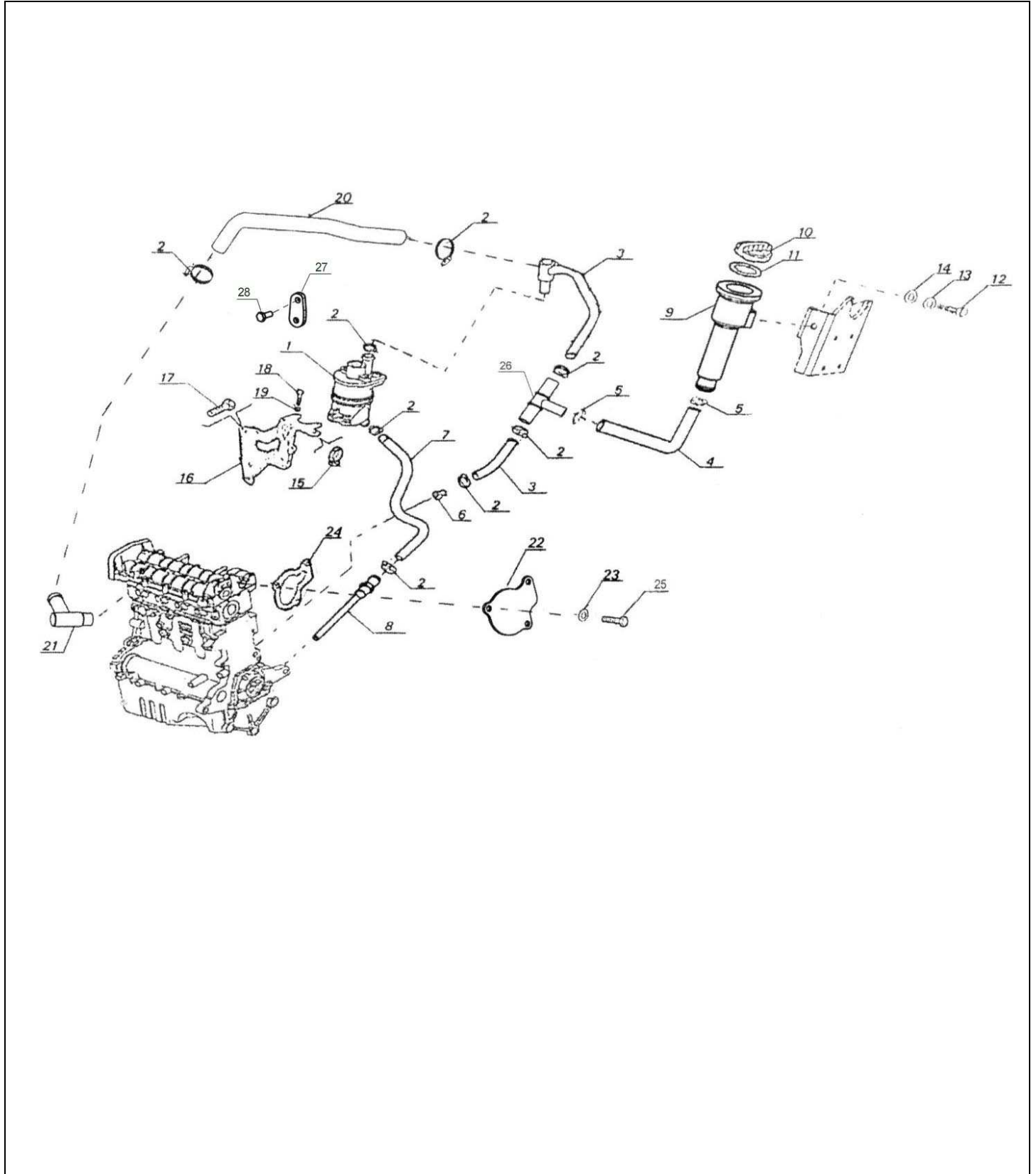


Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
7	3	HPE/P 225/250	Lubrication system / Lubrificazione	06-2009

pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	3.070.021.1	Oil separator / Separatore olio
2	8	4.106.013.1	Clamp / Collare 14-27
3	1	3.025.084.1	Sleeve / Manicotto
4	1	3.025.086.1	Sleeve / Manicotto
5	2	4.106.003.1	Clamp / Collare 17-32
6	1	3.120.708.1	Connection / Raccordo
7	1	3.025.085.1	Sleeve / Manicotto
8	1	1.023.074.1	Hose assy / Tubo completo
9	1	1.023.183.1	Oil introduction pipe / Tubo introduzione olio
10	1	1.119.006.1	Oil introduction cap / Tappo
11	1	3.021.084.1	Gasket / Guarnizione
12	1	4.116.204.1	Bolt / Vite M8x20
13	1	4.123.203.1	Washer / Rosetta sic. M8
14	1	3.122.202.1	Washer / Rosetta M8
15	1	4.106.205.1	Clamp / Collare
16	1	3.019.237.1	Support / Staffa
17	1	4.116.102.1	Bolt / Vite M6x16
18	1	4.116.105.1	Bolt / Vite M6x20
19	1	4.123.102.1	Washer / Rosetta M6
20	1	6.051.040.1	Hose / Tubo D.16 L= 0,50 mt.
21	1	4.829.152.1	Connection / Raccordo
22	1	3.105.163.1	Plate / Piastra
23	3	4.123.102.1	Washer / Rosetta M6
24	1	3.021.204.1	Gasket / Guarnizione
25	3	4.116.105.1	Bolt / Vite M6x20
26	1	3.023.192.1	Connection / Raccordo 3 vie
27	1	3.019.232.1	Plate / Piastra
28	1	4.116.105.1	Bolt / Vite M6x20

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
7	3	HPE/P 225/250	Lubrication system / Lubrificazione	06-2009



<b>Group</b> 7	<b>Pag.</b> 4	<b>Type/Tipo</b>	<b>Description / Descrizione</b> Lubrication system / Lubrificazione	<b>Date/Data</b> 10-2011
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pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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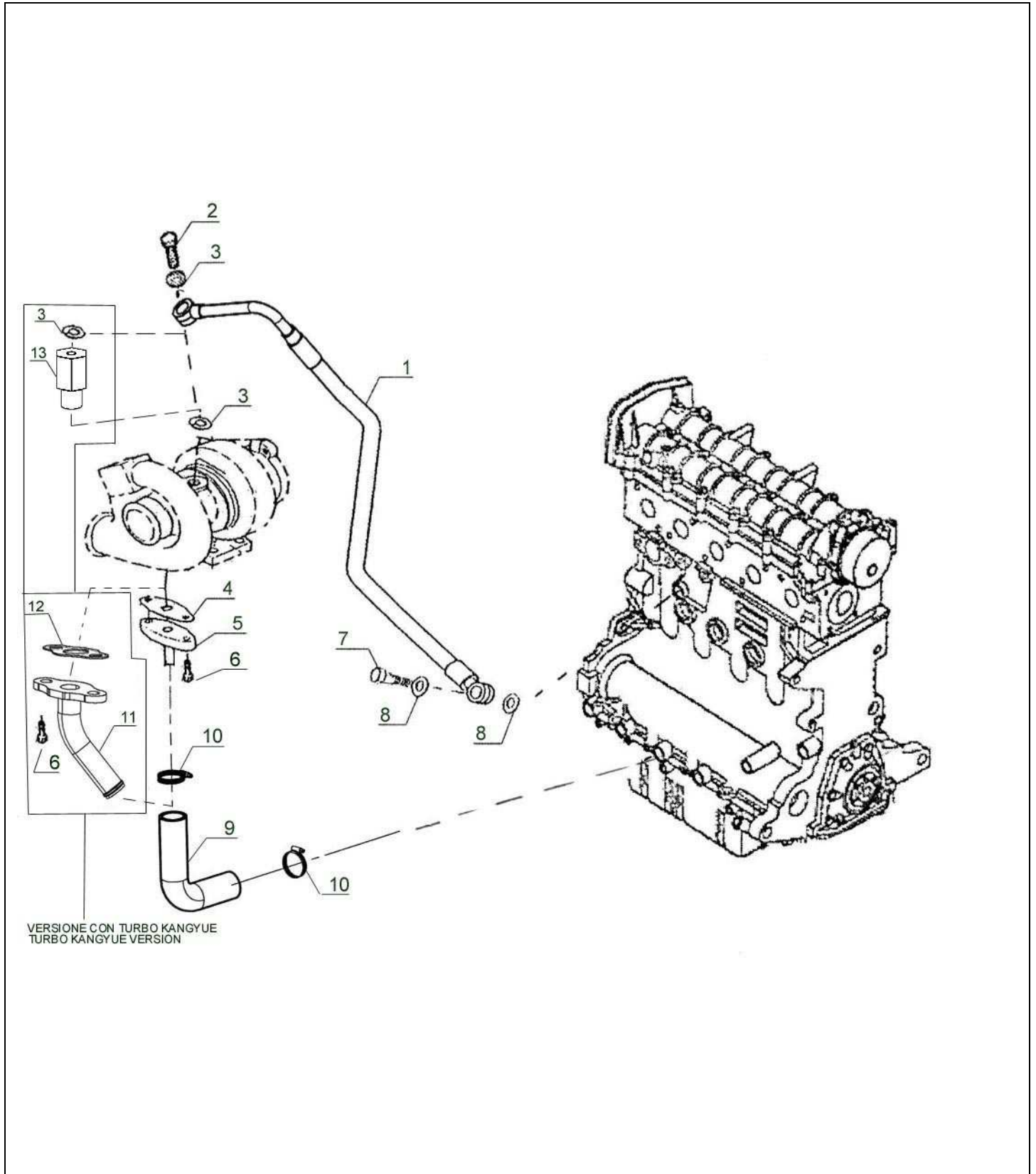
1	1	3.024.079.1	Pipe oil delivery turbo / Tubo mandata olio
2	1	3.116.332.1	Connection / Raccordo M10x1
3	2	4.124.302.1	Washer / Rosetta M10
4	1	3.021.022.1	Gasket / Guarnizione
5	1	1.120.020.1	Connection / Raccordo
6	2	4.116.102.1	Bolt / Vite M6x16
7	1	3.116.405.1	Connection / Raccordo M12x1.5
8	2	4.124.401.1	Washer / Rosetta M12
9	1	6.051.040.1	Oil hose / Tubo silic. D.16 L= 0,40 mt.
10	2	4.106.013.1	Clamp / Collare 14-27
11	1	1.120.030.1*	Connection / Raccordo
12	1	3.021.138.1*	Gasket / Guarnizione
13	1	3.120.746.1*	Connection / Raccordo M12x1,5 – M10x1

\* With water-cooled turbocharger “kangyue”

\*Con turbo “Kangyue” raffreddato ad acqua



Group	Pag.	Type/Tipo	Description / Descrizione	Date/Data
7	4	HPE/P 225/250	Lubrication system / Lubrificazione	10-2011



<b>Group</b> 8	<b>Pag.</b> 1	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Sea water pump / Pompa acqua mare	<b>Data/Data</b> 06-2009
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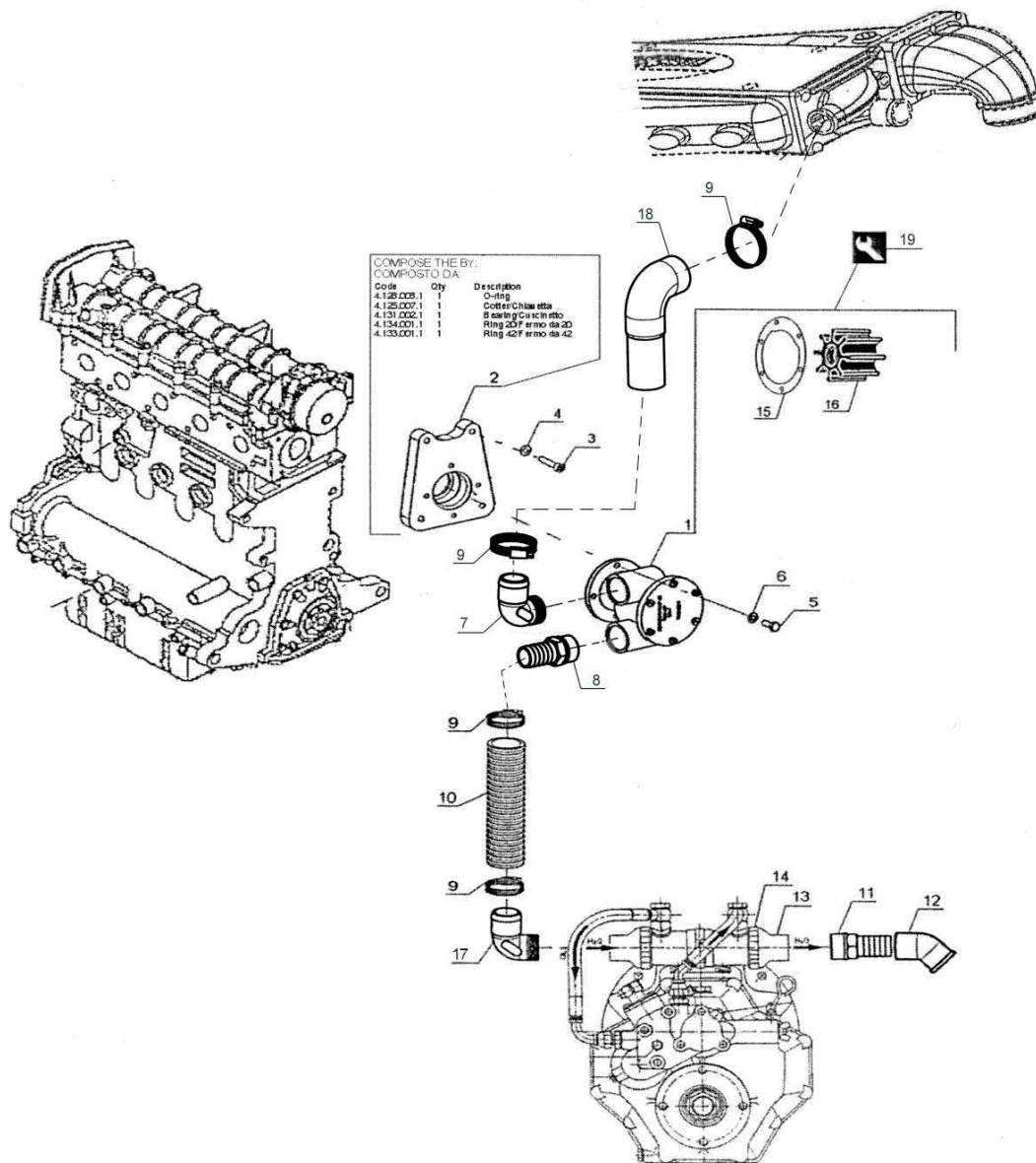
pos.	Qty/Q.tà	Code/Codice	Description/Descrizione	
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1	1	2.014.009.1	Sea water pump assembly / Pompa acqua mare completa
2	1	1.105.160.1	Support assembly / Piastra supporto completa
3	4	4.116.126.1	Bolt / Vite M6x35
4	4	4.123.102.1	Washer / Rosetta M6
5	4	4.116.102.1	Bolt / Vite M6x16
6	4	4.123.102.1	Washer / Rosetta M6
7	1	3.120.688.1	Connection / Raccordo
8	1	3.120.652.1	Connection / Raccordo
9	4	4.106.010.1	Clamp / Collare 21-44
10	1	6.051.037.1	Water hose / Tubo acqua D.32 L= 0,16 mt.
11	1	3.120.732.1	Connection / Raccordo
12	1	3.120.715.1	Connection / Raccordo
13	2	3.025.065.1	Sleeve / Manicotto
14	2	4.106.010.1	Clamp / Collare 21-44
15	1	3.021.061.1	Gasket / Guarnizione
16	1	3.020.004.1	Impeller / Girante
17	1	3.120.718.1	Connection / Raccordo
18	1	3.025.089.1	Sleeve / Manicotto

#### SPECIAL SERVICE TOOLS / ATTREZZATURE SPECIALI

19	1	7.104.013.1	Sea water pump impeller extractor / Estrattore per girante
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<b>Group</b> 8	<b>Pag.</b> 1	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Sea water pump / Pompa acqua mare	<b>Date/Data</b> 06-2009
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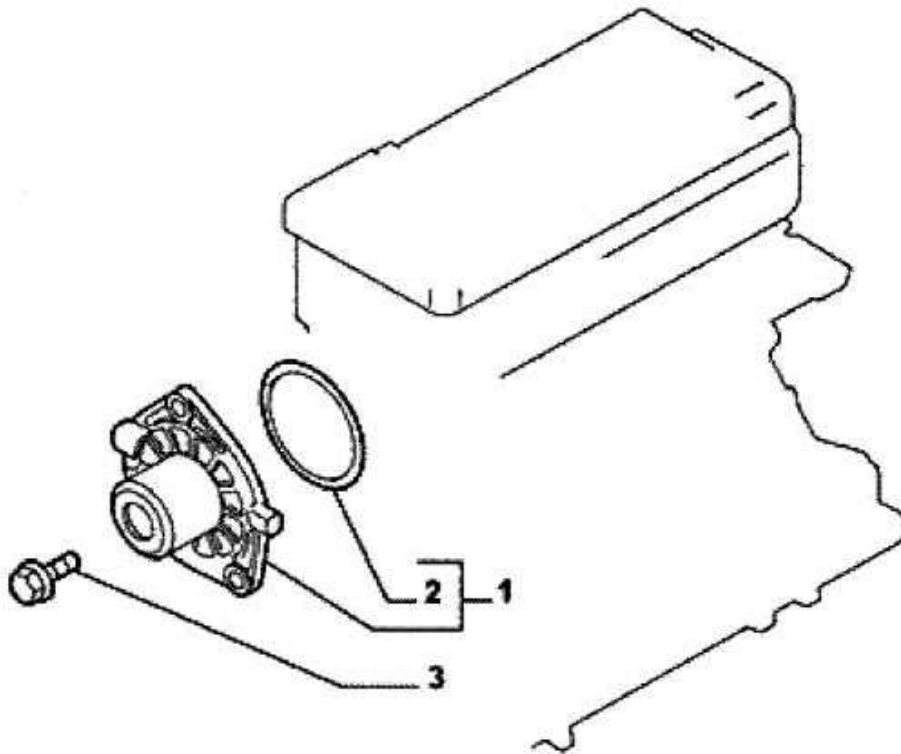


<b>Group</b> 8	<b>Pag.</b> 2	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Water pump / Pompa acqua	<b>Date/Data</b> 06-2009
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<b>pos.</b>	<b>Qty/Q.tà</b>	<b>Code/Codice</b>	<b>Description/Descrizione</b>	
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1	1	2.014.012.1	Water pump assembly / Pompa acqua completa
2	1	3.021.132.1	Gasket / Guarnizione
3	3	4.116.270.1	Bolt / Vite M8x1,25x25

Group	Pag.	Type/Tipo	Description / Descrizione	Date/Data
8	2	HPE/P 225/250	Water pump / Pompa acqua	06-2009



<b>Group</b> 8	<b>Pag.</b> 3	<b>Type/Tipo</b> HPE/P 225/250	<b>Description</b> Thermostat / Termostato	<b>Date/Data</b> 10-2011
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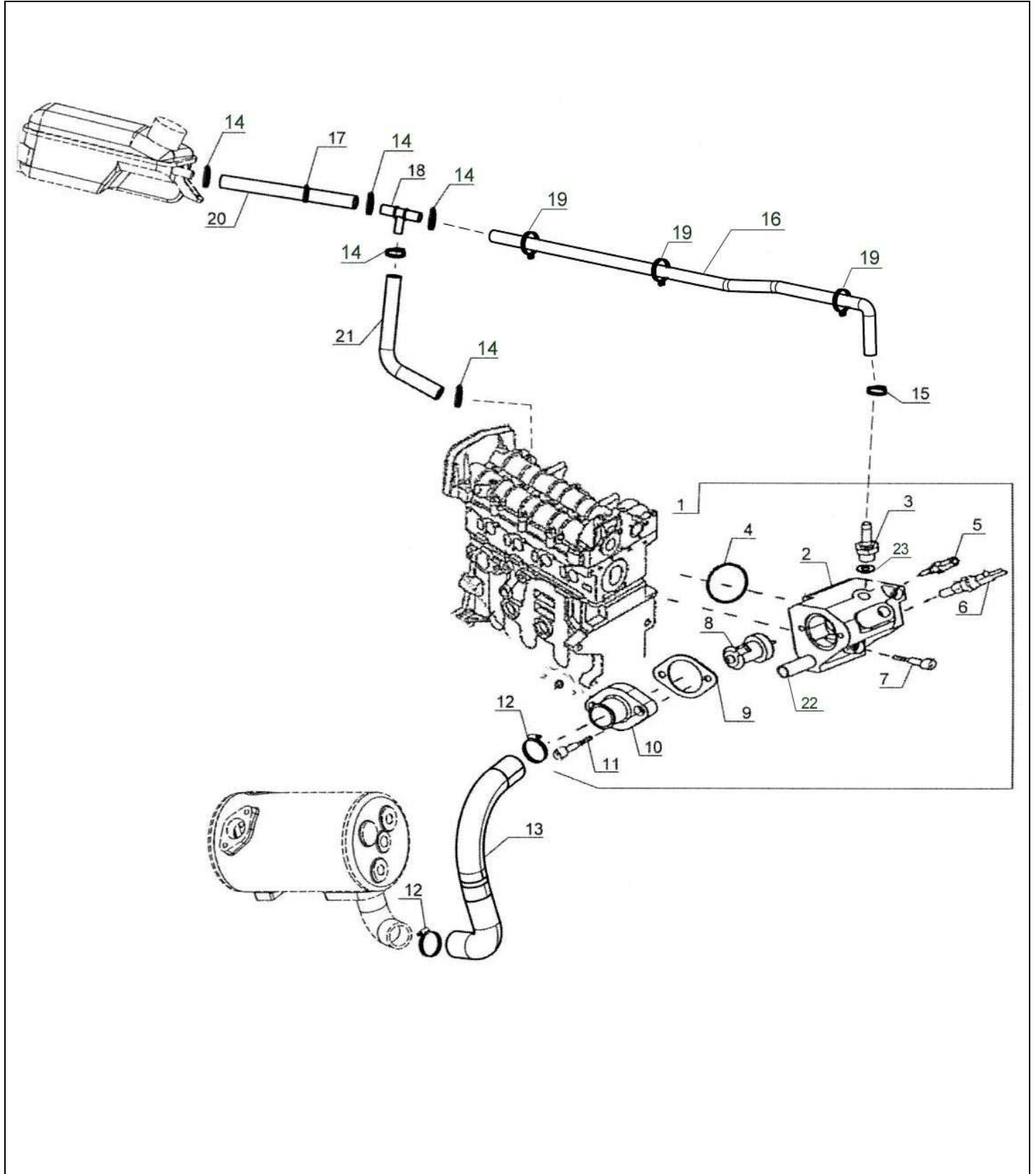
pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	1.044.010.1	Thermostat assembly / Termostato completo
	1	1.044.011.1*	Thermostat assembly / Termostato completo
2	1	3.044.006.1	Thermostat housing / Corpo termostato
3	1	3.120.716.1	Connection / accordo
4	1	4.128.037.1	O-ring 55,25x2,62
5	1	4.019.011.1	Transmitter / Trasmettitore
6	1	4.020.009.1	Sensor / Sensore M14x1,5
7	2	4.116.264.1	Bolt / Vite M8x1,25x85
8	1	3.010.001.1	Thermostat valve / Vavola termostatica
9	1	3.021.015.1	Gasket / Guarnizione
10	1	3.120.039.1	Connection thermostat body / Raccordo termostato
11	2	4.116.204.1	Bolt / Vite M8x1,25x20
12	2	4.106.010.1	Clamp / Collare 21-44
13	1	3.025.123.1	Sleeve / Manicotto
14	5	4.107.009.1	Clamp clic / Collare clic 14.5-16.5
15	1	4.106.018.1	Clamp / Collare 10-16
16	1	6.051.006.1	Water hose / Tubo acqua D.8x14 L= 0,70 mt.
17	3	4.106.408.1	Clamp / Collare
18	1	3.120.756.1	T connection / Raccordo a T
19	3	4.106.409.1	Clamp RSG1
20	1	6.051.006.1	Water hose / Tubo acqua D.8x14 L= 0,30 mt.
21	1	6.051.006.1	Water hose / Tubo acqua D.8x14 L= 0,09 mt.
22	1	3.120.755.1	Connection / Raccordo
23	1	4.124.502.1	Washer / Rosetta rame M14

\* With turbo kangyue version

\* Versione con turbo kangyue

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
8	3	HPEP 225/250	Thermostat / Termostato	10-2011



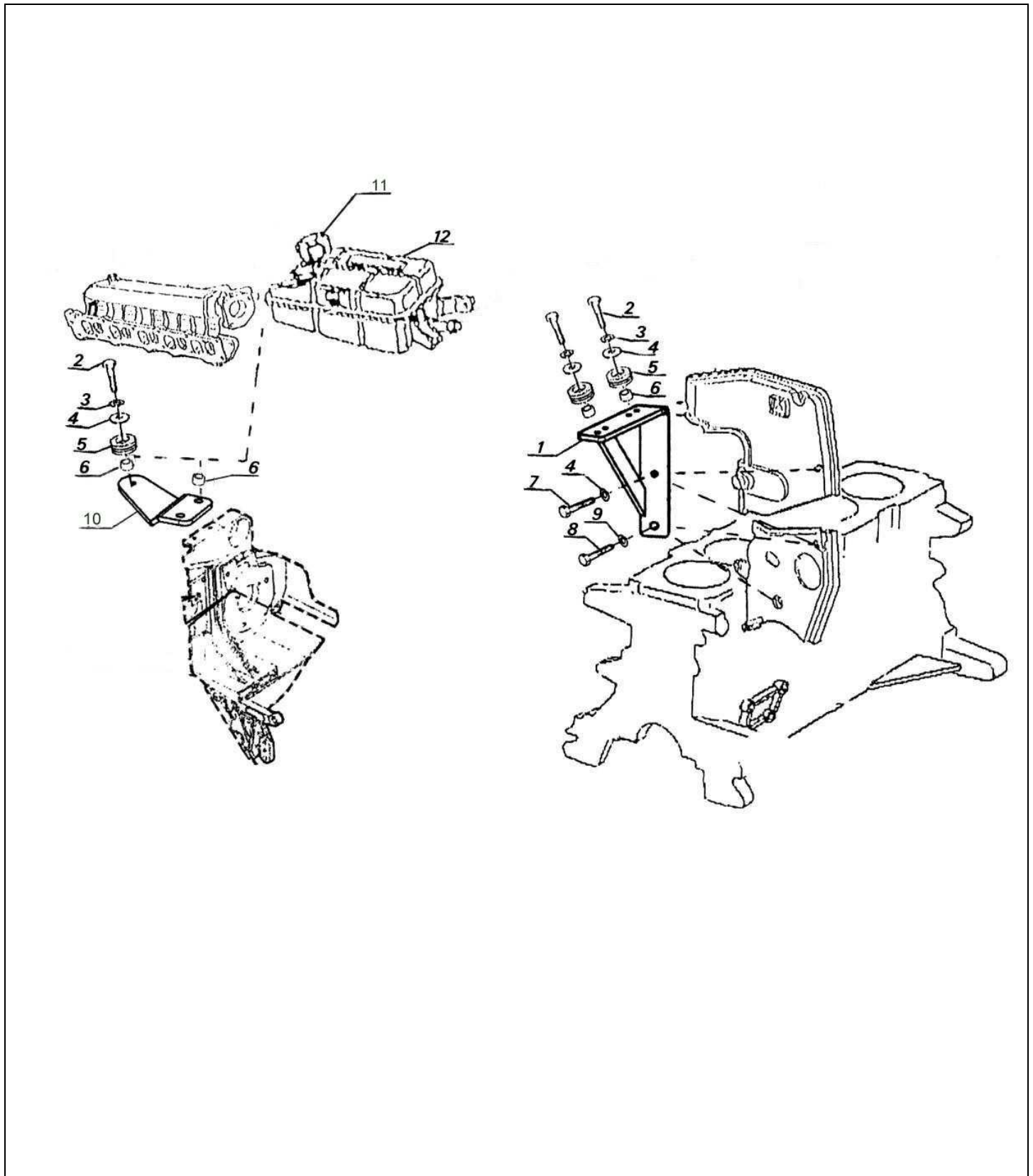
<b>Group</b> 8	<b>Pag.</b> 4	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Water tank/Vaschetta acqua	<b>Date/Data</b> 06-2009
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<b>pos.</b>	<b>Qty/Q.tà</b>	<b>Code/Codice</b>	<b>Description/Descrizione</b>
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1	1	3.019.195.1	Bracket / Staffa
2	3	4.116.134.1	Bolt / Vite M6x20
3	3	4.123.102.1	Washer / Rosetta M6
4	4	4.122.101.1	Washer / Rosetta M6
5	3	3.133.006.1	Rubber tipp / Gommino
6	4	4.103.009.1	Busch / Boccola
7	1	4.116.133.1	Bolt / Vite M6x50
8	1	4.116.228.1	Bolt / Vite M8x1.25x45
9	1	4.122.201.1	Washer / Rosetta M8
10	1	3.019.231.1	Bracket / Staffa
11	1	1.119.003.1	Plug / Tappo
12	1	3.146.004.1	Water tank / Vaschetta acqua



Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
8	4	HPE/P 225/250	Water tank / Vaschetta acqua	06-2009



<b>Group</b> 8	<b>Pag.</b> 5	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Kit boiler / Kit riscaldamento	<b>Date/Data</b> 06-2009
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<b>pos.</b>	<b>Qty/Q.tà</b>	<b>Code/Codice</b>	<b>Description/Descrizione</b>	
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1	1	3.120.719.1	Connection / Raccordo
2	1	4.124.503.1	Washer / Rosetta rame 16x22x1,5
3	1	3.120.759.1	Connection / Raccordo a "T"
4	2	4.106.002.1	Clamp / Collare 13-23
5	1	3.025.209.1	Sleeve / Manicotto
6	1	3.900.163.1	Assembly kit / Kit completo

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
8	5	HPE/P 225/250	Kit boiler / Kit riscaldamento	06-2009

To heater line - Linea di mandata al boiler

Mount the pipe cod.3.120.719.1 with the copper washer on thermostat housing -Montaggio del raccordo cod.3.120.719.1 con la rosetta in rame sul corpo termostato (rimuovere il grano M16 )

Back line( from water heater )adjust-Montaggio linea di ritorno dal boiler

Manicotto -Rubber Pipe cod. 3.025.209.1

Inserire il raccordo a T da 16 mm cod.3.120.759.1 e serrare i collari -Insert T pipe 16 mm diameter cod 3.120.759.1 and screw the clamps

**6 Assembly kit / Kit completo**

<b>Group</b> 8	<b>Pag.</b> 6	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Exchanger/Scambiatore	<b>Date/Data</b> 04-2010
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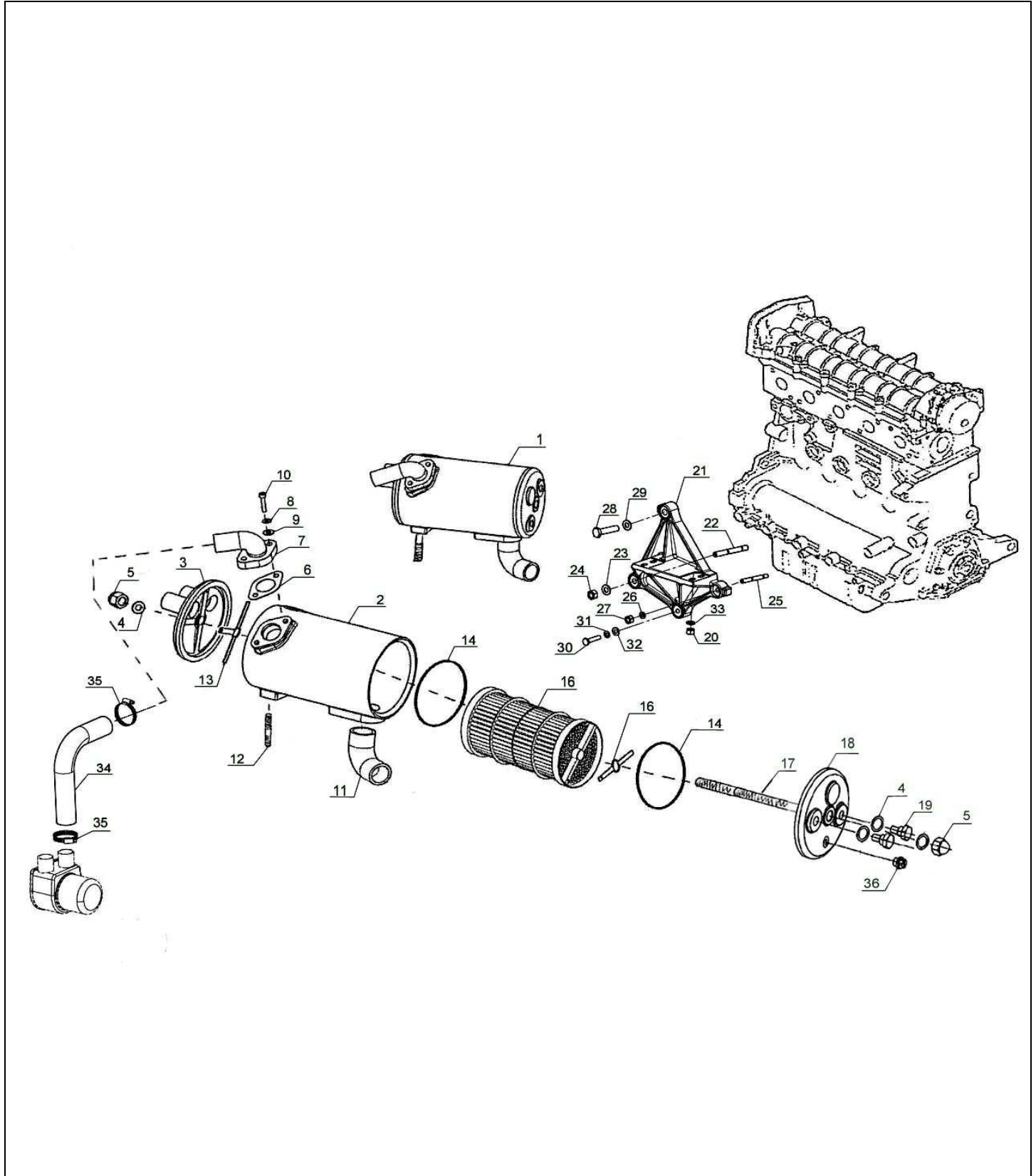
pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	1.539.025.1	Exchanger assy / Scambiatore completo
2	1	3.039.010.1	Body exchanger / Corpo scambiatore
3	1	1.004.116.1	Exchanger cap assy / Coperchio completo
4	4	4.124.503.1	Washer / Rosetta rame M16
5	2	4.117.502.1	Nut / Dado M16x2
6	1	3.021.029.1	Gasket / Guarnizione
7	1	3.120.002.1	Connection / Raccordo
8	2	4.123.203.1	Washer / Rosetta M8
9	2	4.122.201.1	Washer / Rosetta M6
10	2	4.116.208.1	Bolt / Vite M8x1,25x30
11	1	3.120.723.1	Connection / Raccordo
12	4	4.115.201.1	Stud / Prigioniero M8x1,25x37
13	1	3.021.113.1	Gasket / Guarnizione
14	2	4.128.015.1	O-ring
15	1	3.070.023.1	Exchanger / Fascio scambiatore
16	1	3.021.055.1	Gasket / Guarnizione
17	1	3.104.010.1	Screwed shaft / Alberino M16x2
18	1	1.004.118.1*	Exchanger cap assy / Coperchio completo <i>Replacing / Sostituito cod. 1.004.050.1</i>
19	2	1.025.001.1	Zinc anode / Anodo di zinco
20	4	4.117.202.1	Nut stop M8 / Dado stop M8
21	1	3.019.257.1	Support / Supporto
22	1	4.115.306.1	Stud / Prigioniero M10x1,25x55
23	1	3.122.301.1	Washer / Rosetta M10
24	1	4.117.302.1	Nut Stop / Dado stop M10
25	1	4.115.209.1	Stud / Prigioniero M8x1,25x37
26	1	3.122.202.1	Washer / Rosetta M8
27	1	4.117.202.1	Nut stop / Dado M8
28	1	4.116.415.1	Bolt / Vite M12x1,25x50
29	1	4.123.403.1	Washer / Rosetta M12
30	1	4.116.229.1	Bolt / Vite M8x1,25x40
31	1	4.123.201.1	Washer / Rosetta M8
32	1	3.122.202.1	Washer / Rosetta M8
33	4	3.122.202.1	Washer / Rosetta M8
34	1	3.025.224.1	Sleeve / Manicotto
35	2	4.106.010.1	Clamp / Collare 21-44
36	1	4.119.026.1*	Cap / Tappo

\* Effective from serial number 4210007 (hpe 225) 371040 (hpe 250)

\* In vigore dal n° matricola 4210007 (hpe 225) 371040 (hpe 250)

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
8	6	HPE/P 225/250	Exchanger / Scambiatore	04-2010

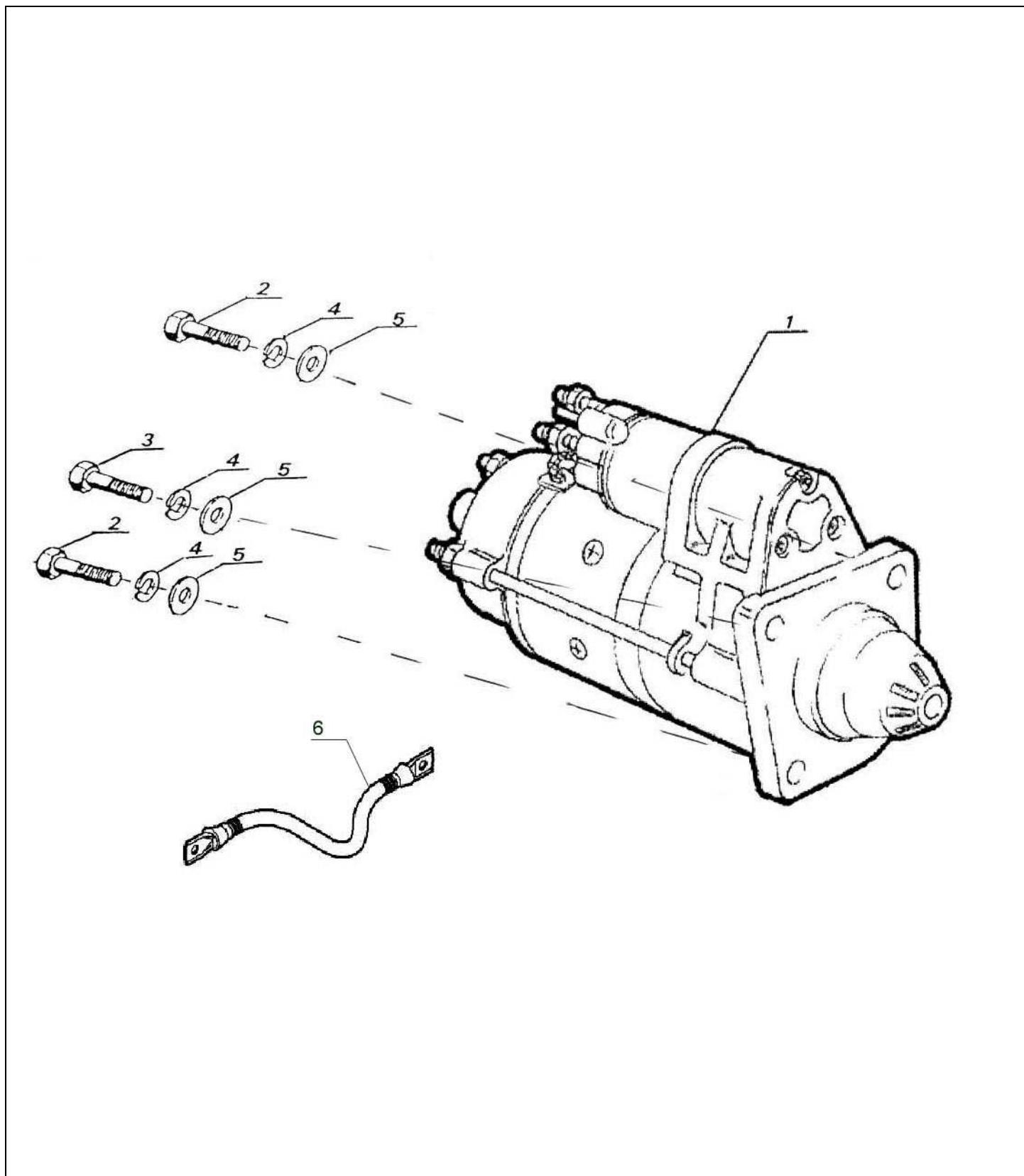


<b>Group</b> 9	<b>Pag.</b> 1	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Starter / Motorino avviamento	<b>Date/Data</b> 09-2010
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<b>pos.</b>	<b>Qty/Q.tà</b>	<b>Code/Codice</b>	<b>Descrizione</b>	
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1	1	2.003.008.1	Starter / Motorino avviamento
2	2	4.116.229.1	Bolt / Vite M8x40
3	1	4.116.230.1	Bolt / Vite M8x70
4	3	4.123.203.1	Washer / Rosetta M8
5	3	4.122.201.1	Washer / Rosetta M8
6	1	1.010.053.1	Cable / Cavo

Group	Pag.	Type / Tipo	Description/Descrizione	Date/Data
9	1	HPE/P 225/250	Starter /Motorino avviamento	09-2010



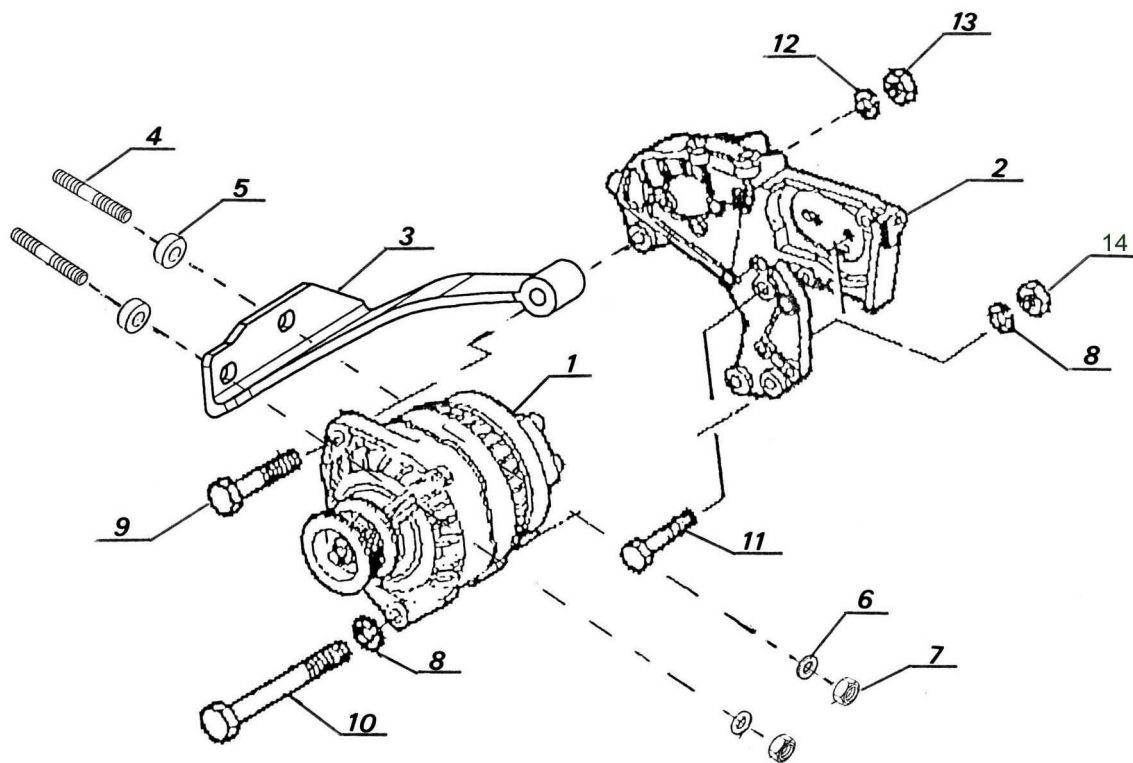
<b>Group</b> 9	<b>Pag.</b> 2	<b>Type/Tipo</b> HPE/P 225/250	<b>Description / Descrizione</b> Alternator gear box vers./Alternatore vers.invertitore	<b>Date/Data</b> 06-2009
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<b>pos.</b>	<b>Qty/Q.tà</b>	<b>Code/Codice</b>	<b>Description/Descrizione</b>
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1	1	2.004.015.1	Alternator / Alternatore
2	1	1.105.033.1	Support / Supporto
3	1	3.019.179.1	Bracket / Staffa
4	2	4.115.306.1	Stud / Prigioniero M10x1,25x55
5	2	3.103.047.1	Busch / Boccia
6	2	3.122.301.1	Washer / Rosetta M10
7	2	4.117.302.1	Nut stop / Dado stop M10
8	2	4.122.401.1	Washer / Rosetta M10
9	1	4.116.327.1	Bolt / Vite M10x1,25x110
10	1	4.116.410.1	Bolt / Vite M12x1,25x120
11	1	4.116.244.1	Bolt / Vite M8x1,25x50
	1	4.116.206.1	Bolt / Vite M8x1,25x25
	1	4.116.321.1	Bolt / Vite M10x1,25x65
	1	4.116.309.1	Bolt / Vite M10x1,25x50
12	1	4.122.301.1	Washer / Rosetta M10
13	1	4.117.302.1	Nut stop / Dado stop M10
14	1	4.117.403.1	Nut stop / Dado stop M12



Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
9	2	HPE 225/250	Alternator gear box vers. / Alternatore vers.invertitore	06-2009

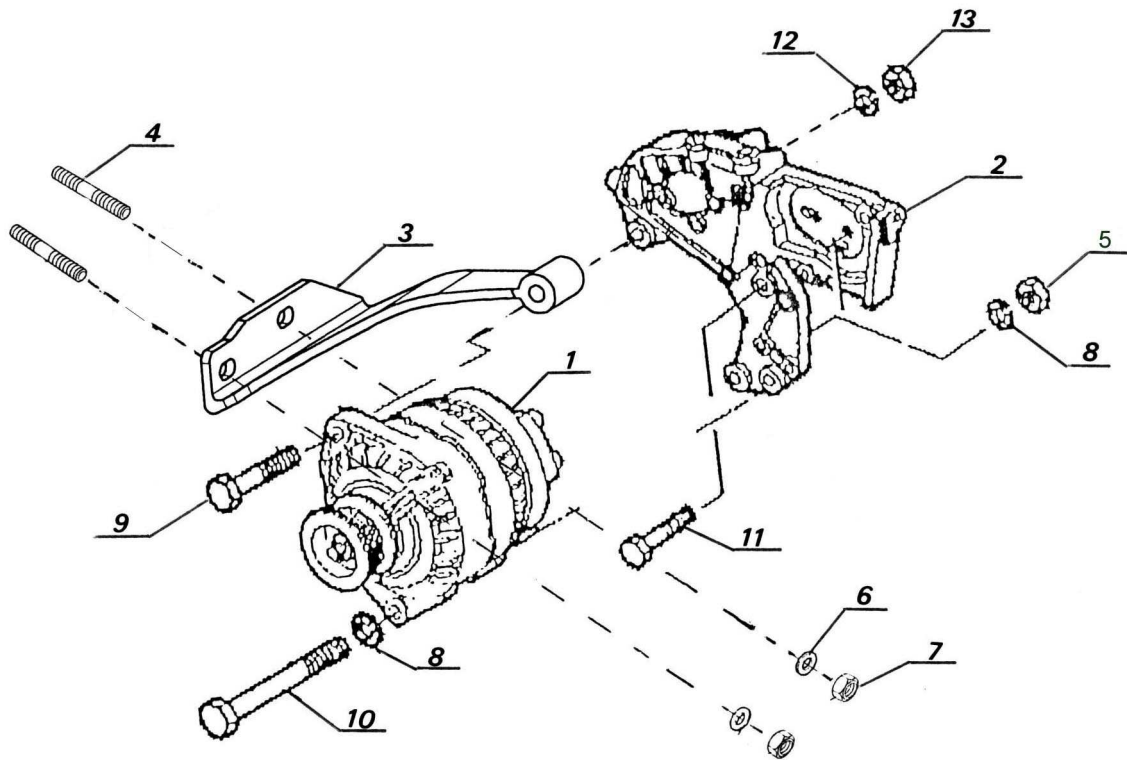


<b>Group</b> 9	<b>Pag.</b> 3	<b>Type/Tipo</b> HPEP 225/250	<b>Description / Descrizione</b> Alternator stern drive vers./Alternatore vers.piede	<b>Date/Data</b> 06-2009
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<b>pos.</b>	<b>Qty/Q.tà</b>	<b>Code/Codice</b>	<b>Description/Descrizione</b>
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1	1	2.004.015.1	Alternator / Alternator
2	1	1.105.033.1	Support / Supporto
3	1	3.019.179.1	Bracket / Staffa
4	2	4.115.306.1	Stud / Prigioniero M10x1,25x55
5	1	4.117.403.1	Nut stop / Dado stop M12
6	2	3.122.301.1	Washer / Rosetta M10
7	2	4.117.302.1	Nut stop / Dado stop M10
8	2	4.122.401.1	Washer / Rosetta M10
9	1	4.116.312.1	Bolt / Vite M10x1,25x100
10	1	4.116.410.1	Bolt / Vite M12x1,25x120
11	1	4.116.244.1	Bolt / Vite M8x1,25x50
	1	4.116.206.1	Bolt / Vite M8x1,25x25
	1	4.116.321.1	Bolt / Vite M10x1,25x65
	1	4.116.309.1	Bolt / Vite M10x1,25x50
12	1	4.122.301.1	Washer / Rosetta M10
13	1	4.117.302.1	Nut stop / Dado stop M10

Group 9	Pag. 3	Type/Tipo HPEP 225/250	Description/Descrizione Alternator stern drive vers./ Alternatore vers. piede	Date/Data 06-2009
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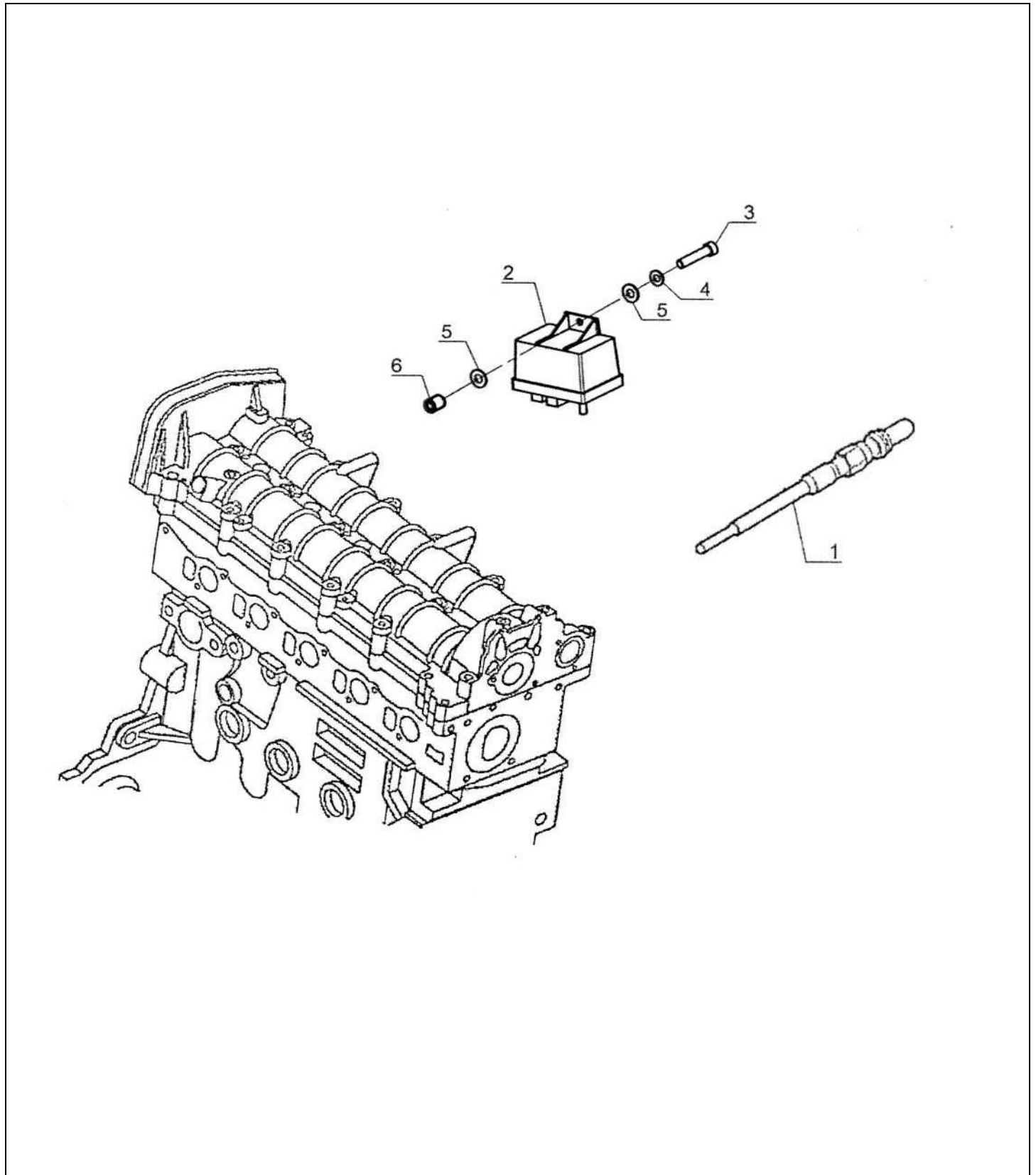


<b>Group</b>	<b>Pag.</b>	<b>Type/Tipo</b>	<b>Description/Descrizione</b>	<b>Date/Data</b>
9	4	HPE/P 225/250	Glow plug / Candelette	06-2009

<b>pos.</b>	<b>Qty/Q.tà</b>	<b>Code/Codici</b>	<b>Description/Descrizione</b>	
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1	5	4.001.007.1	Glow plug / Candeletta
2	1	2.011.031.1	Ecu / Centralina candele
3	1	4.116.126.1	Bolt / Vite M6x35
4	1	4.123.102.1	Washer / Rosetta M6
5	2	3.123.101.1	Washer / Rosetta M6
6	1	3.103.059.1	Busch / Boccola

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
9	4	HPE/P 225/250	Glow plug / Candelette	06-2009

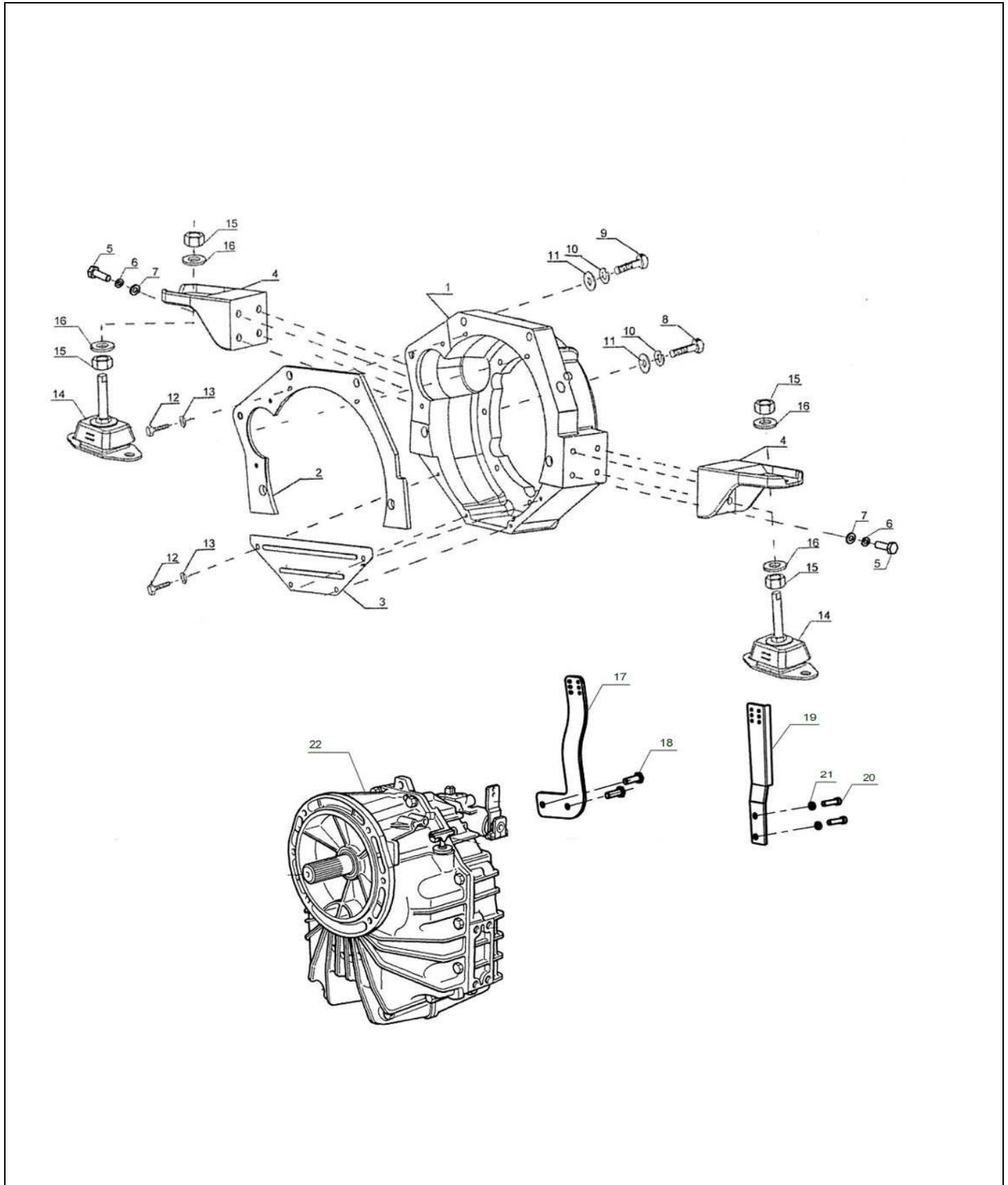


<b>Group</b> 10	<b>Pag.</b> 1	<b>Type/Tipo</b> HPE 225/250	<b>Description/Descrizione</b> Flywheel housing for gearbox / Coprivolano vers. invertitore	<b>Date/Data</b> 06-2009
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pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	1.511.013.1	Flywheel housing / Campana coprivolano
2	1	3.105.152.1	Plate / Piastra
3	1	3.105.165.1	Plate / Piastra
4	2	3.019.149.1	Engine support / Supporto motore
5	8	4.116.314.1	Bolt / Vite M10x1.5x30
6	8	4.123.302.1	Washer / Rosetta M10
7	8	4.122.301.1	Washer / Rosetta M10
8	2	4.116.431.1	Bolt / Vite M12x1.75x150
9	2	4.116.401.1	Bolt / Vite M12x1,25x80
10	4	4.123.403.1	Washer / Rosetta M12
11	4	4.122.401.1	Washer / Rosetta M12
12	6	4.116.102.1	Bolt / Vite M6x16
13	6	4.123.102.1	Washer / Rosetta M6
14	2	1.016.021.1	Flexible engine mounting / Supporto antivibrante 45 sh
15	4	4.117.504.1	Nut / Dado M16
16	4	4.122.406.1	Washer / Rosetta M16
17	1	3.019.198.1	Support ZF vers. / Staffa vers. ZF
18	2	4.116.515.1	Bolt / Vite 3/8"x28
19	1	3.019.085.1	Support TM vers. / Staffa vers. TM
20	2	4.116.247.1	Bolt / Vite M8x1,25
21	2	4.123.203.1	Washer / Rosetta M8
22	1	2.018.045.1	Gear box / Invertitore ZF 45D 2,51:1
	1	2.018.044.1	Gear box / Invertitore ZF 45D 2,20:1
	1	2.018.038.1	Gear box / Invertitore ZF 45D 1,26:1
	1	2.018.043.1	Gear box / Invertitore ZF 45A 2,43:1
	1	2.018.041.1	Gear box / Invertitore ZF 45A 1,51:1
	1	2.018.042.1	Gear box / Invertitore ZF 45A 2,03:1
	1	2.018.063.1	Gear box / Invertitore TM 485A 1,51:1
	1	2.018.064.1	Gear box / Invertitore TM 485A 2,09:1
	1	2.018.065.1	Gear box / Invertitore TM 485A 2,40:1

Group	Pag.	Type/Tipo	Description / Descrizione	Date/Data
10	1	HPE 225/250	Flywheel housing for gearbox / Coprivolano vers.invertitore	06-2009



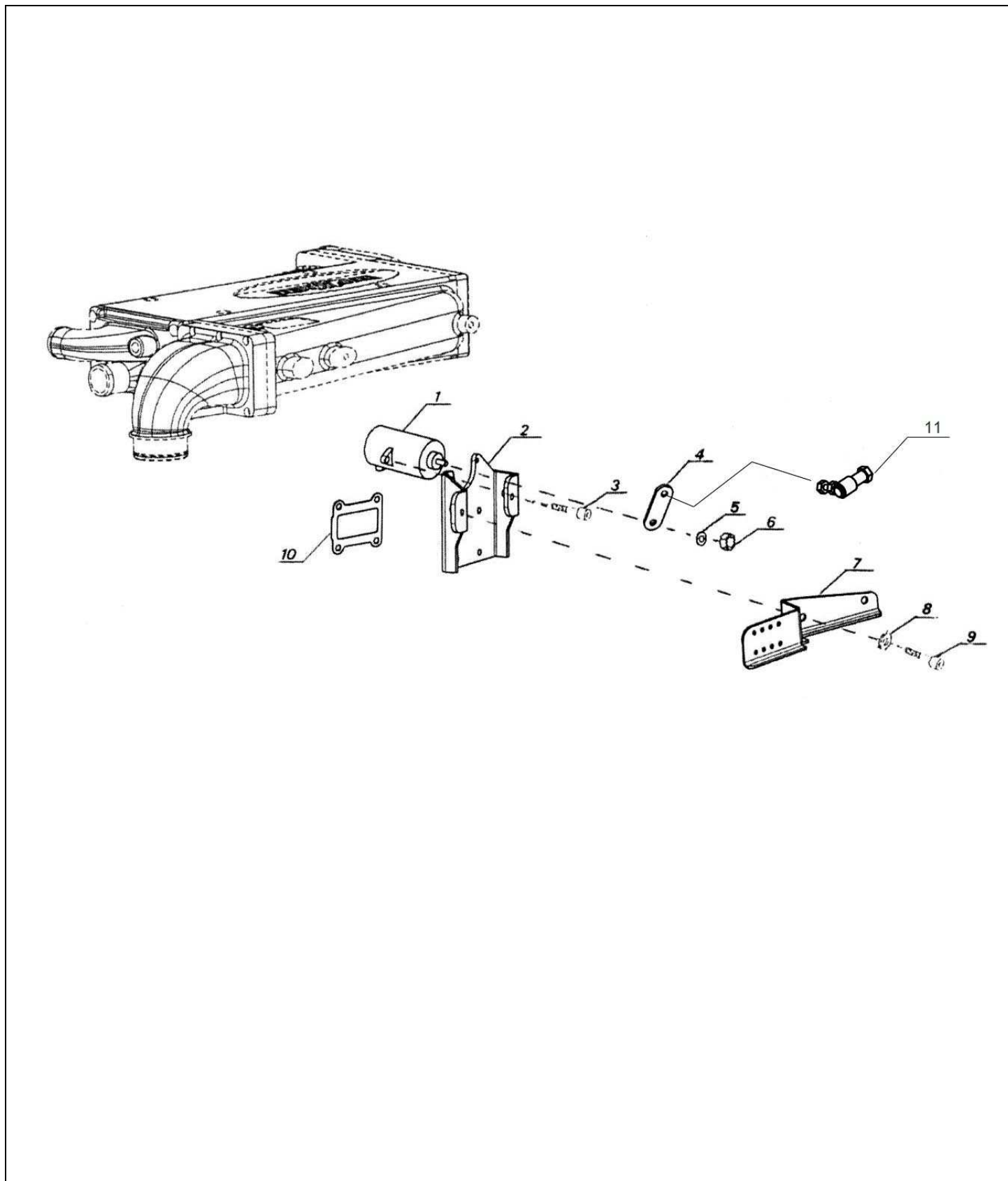
<b>Group</b> 11	<b>Pag.</b> 1	<b>Type/Tipo</b> HPE 225/250	<b>Description/Descrizione</b> Potentiometer gear box vers. / Potenzimetro vers.invertitore	<b>Date/Data</b> 06-2009
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<b>pos.</b>	<b>Qty/Q.tà</b>	<b>Code/Codice</b>	<b>Description/Descrizione</b>
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1	1	1.010.031.1	Potentiometer assembly / Potenzimetro completo
2	1	3.019.222.1	Bracket / Staffa
3	2	4.116.103.1	Bolt / Vite M6x16
4	1	3.105.179.1	Plate / Piastra
5	1	4.122.102.1	Washer / Rosetta M6
6	1	4.117.102.1	Nut stop / dado stop M6
7	1	3.019.227.1	Bracket / Staffa
8	2	3.122.202.1	Washer / Rosetta M8
9	2	4.116.201.1	Bolt / Vite M8x1,25x10
10	1	3.021.203.1	Gasket / Guarnizione
11	1	2.801.303.1	Pivot / Snodo



Group 11	Pag. 1	Type/Tipo HPE 225/250	Description/Descrizione Potentiometer gear box vers./Potenziometro vers.invertitore	Date/Data 06-2009
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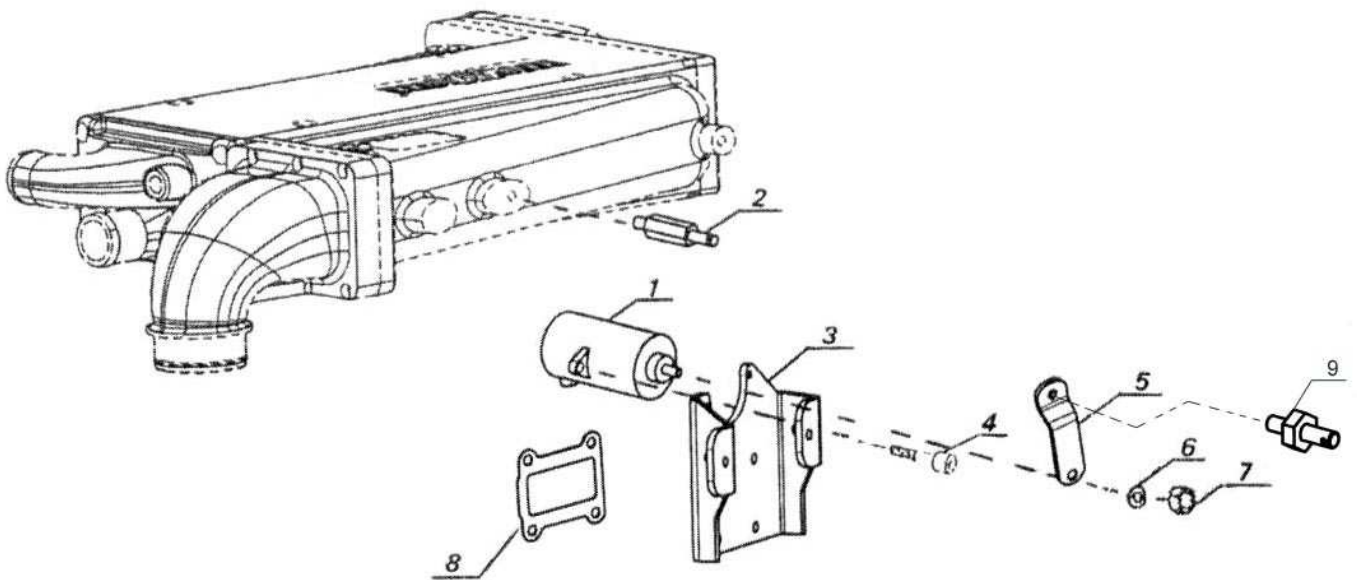


<b>Group</b> 11	<b>Pag.</b> 2	<b>Type/Tipo</b> HPEP 225/250	<b>Description/Descrizione</b> Potentiometer stern drive vers. / Potenziometro vers. piede	<b>Date/Data</b> 06-2009
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<b>pos.</b>	<b>Qty/Q.tà</b>	<b>Code/Codice</b>	<b>Description/Descrizione</b>	
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1	1	1.010.031.1	Potentiometer assembly / Potenzometro completo
2	1	3.112.013.1	Spacer / Distanziale
3	1	3.019.222.1	Bracket / Staffa
4	2	4.116.103.1	Bolt / Vite M6x16
5	1	3.019.190.1	Bracket / Staffa
6	1	4.122.102.1	Washer / Rosetta M6
7	1	4.117.102.1	Nut stop / Dado stop M6
8	1	3.021.203.1	Gasket / Guarnizione
9	1	3.112.011.1	Peg / Piolo

Group 11	Pag. 2	Type/Tipo HPEP 225/250	Description/Descrizione Potentiometer stern drive vers./Potenziometro vers. piede	Date/Data 06-2009
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<b>Group</b> 11	<b>Pag.</b> 3	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Panel instruments / Quadri strumenti	<b>Date/Data</b> 04-2010
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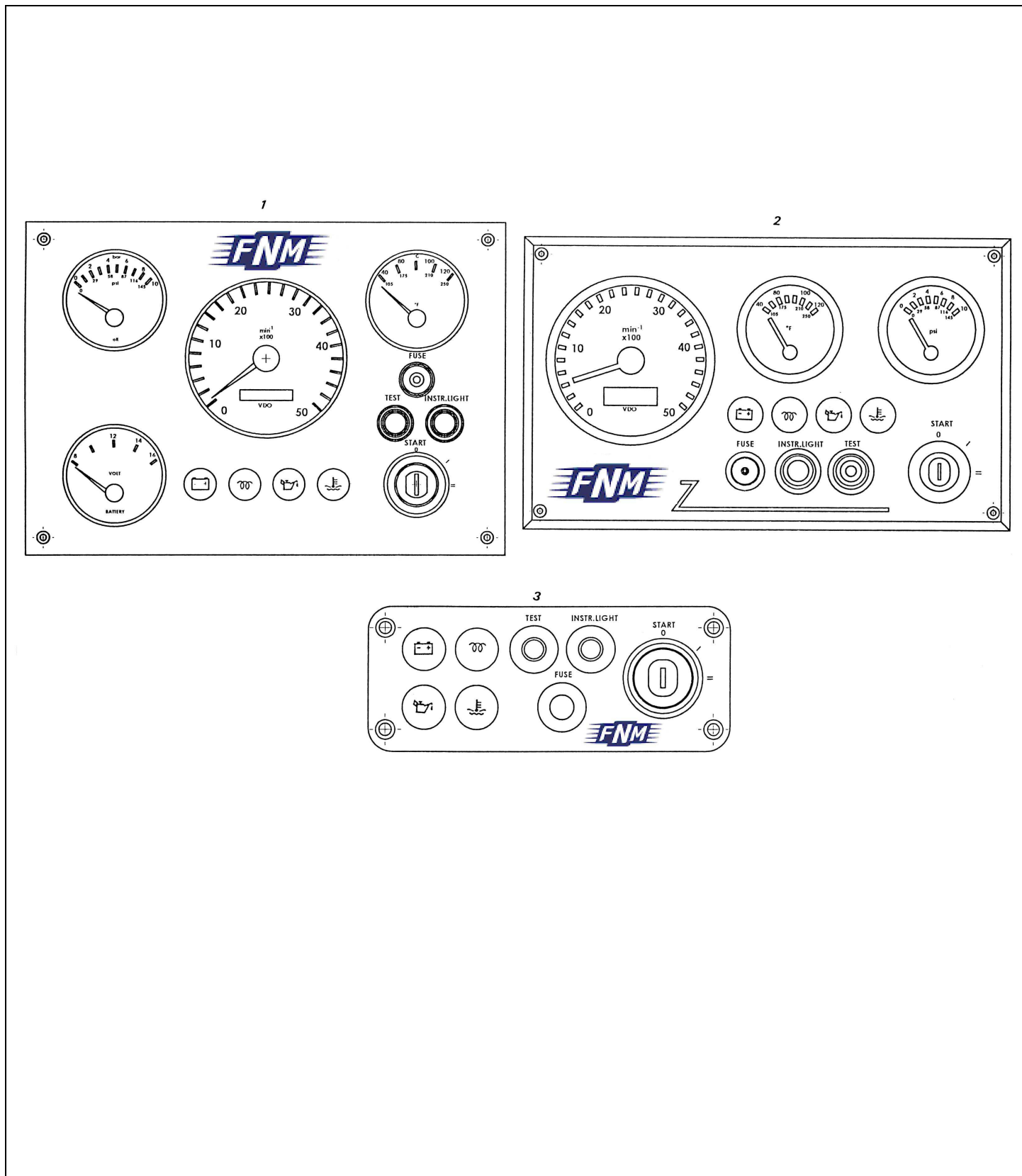
pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	1.049.055.1	Panel instruments chrome with voltmeter "GUSPI" / Quadro strumenti cromato con voltmetro "GUSPI"
	1	1.049.059.1*	Panel instruments chrome with voltmeter "WEMA" / Quadro strumenti cromato con voltmetro "WEMA"
2	1	1.049.054.1	Panel instruments chrome without voltmeter / Quadro strumenti cromato senza voltmetro
3	1	1.049.057.1	Disassembl. panel instruments chrome with voltmeter "GUSPI" / Quadro strumenti cromato sciolto con voltmetro "GUSPI"
	1	1.049.058.1*	Disassembl panel instruments chrome with voltmeter "WEMA" / Quadro strumenti cromato sciolto con voltmetro "WEMA"
4	1	1.049.056.1	Disassemblead panel instruments chrome without voltmeter / Quadro strumenti cromato sciolto senza voltmetro

\* Effective from serial number 3710043 (hpe 250) 4210007 (hpe 225)

\* In vigore dal n° matricola 3710043 (hpe 250) 4210007 (hpe 225)

Group 11	Page 3	Type/Tipo HPE/P 225/250	Description/Descrizione Panel instruments / Quadro strumenti	Date/Data 04-2010
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<b>Group</b> 11	<b>Pag.</b> 4	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Operation indicators / Segnalazioni funzionamento	<b>Date/Data</b> 04-2010
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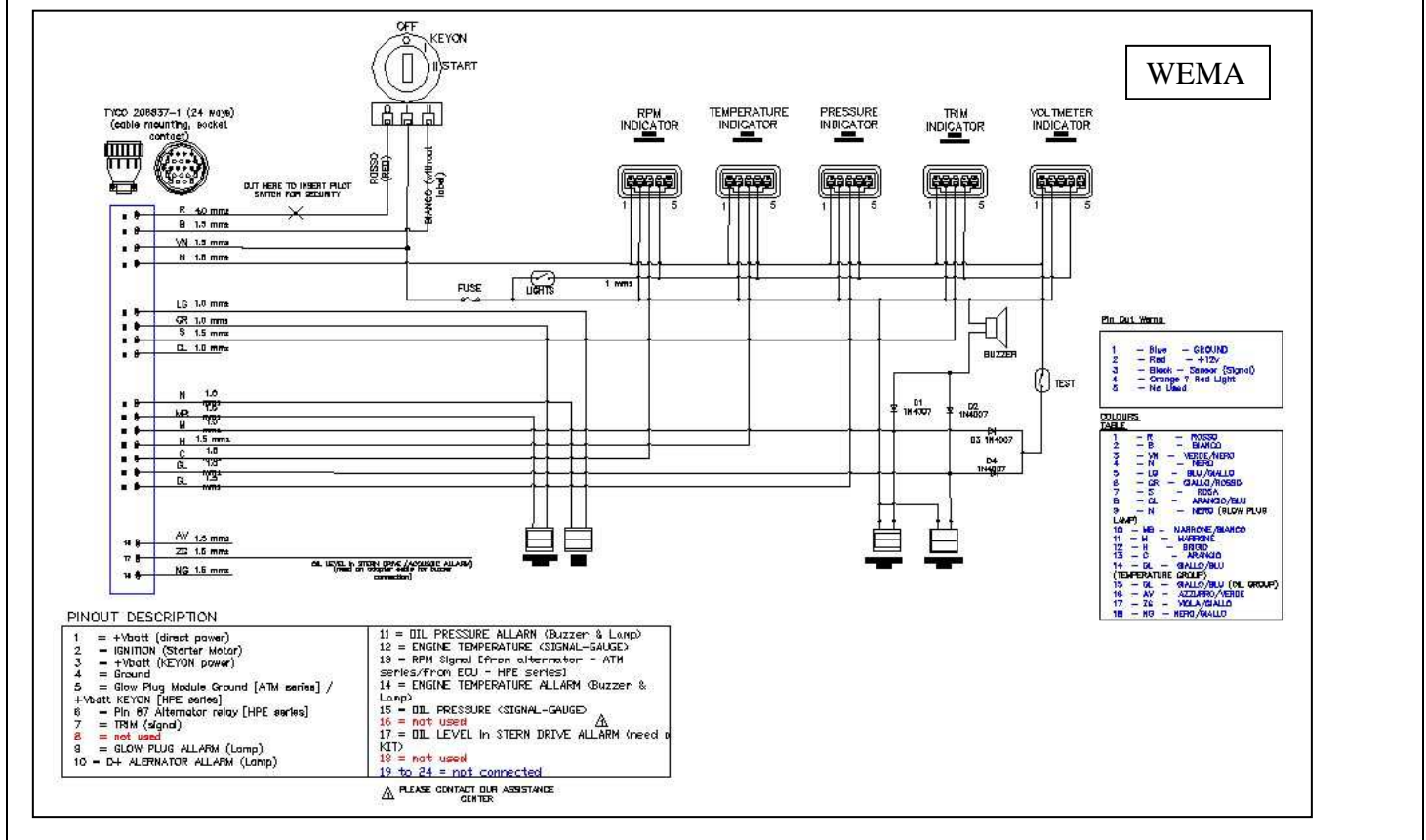
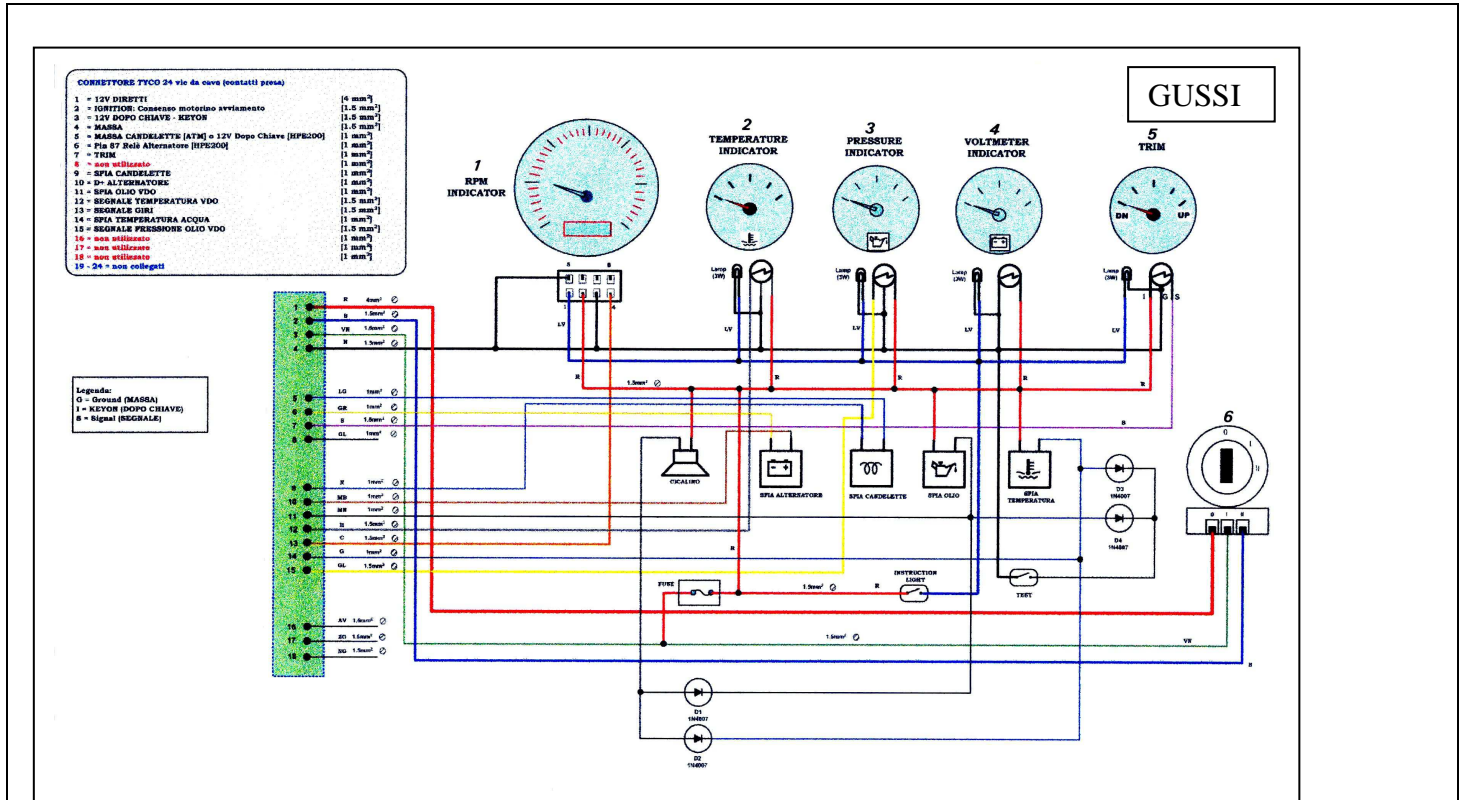
pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	4.049.001.1	Rpm white / Contagiri fondo bianco
	1	4.049.002.1	Rpm black / Contagiri fondo nero
	1	4.049.036.1	Rpm black-chrome / Contagiri fondo nero cromato
	1	4.049.055.1*	Rpm black-chrome / Contagiri fondo nero cromato "WEMA"
2	1	4.049.007.1	Water temperature white / Temperatura acqua bianco
	1	4.049.008.1	Water temperature black / Temperatura acqua nero
	1	4.049.041.1	Water temperature black-chrome /Temperatura acqua nero crom.
	1	4.049.056.1*	Water temp. black-chrom /Temperat. acqua nero crom."WEMA"
3	1	4.049.005.1	Oil pressure white / Pressione olio white
	1	4.049.006.1	Oil pressure black / Pressione olio nero
	1	4.049.038.1	Oil pressure black-chrome / Pressione olio nero cromato
	1	4.049.057.1*	Oil pressure black-chrome / Pressione olio nero crom. "WEMA"
4	1	4.049.003.1	Voltmeter white / Voltmetro fondo bianco
	1	4.049.004.1	Voltmeter black / Voltmetro fondo nero
	1	4.049.037.1	Voltmeter black-chrome / Voltmetro fondo nero cromato
	1	4.049.058.1*	Voltmeter black-chrome / Voltmetro fondo nero crom."WEMA"
5	1	4.049.026.1	Trim white / Trim bianco
	1	4.049.045.1	Trim black / Trim nero
	1	4.049.040.1	Trim black-chrome / Trim nero cromato
	1	4.049.054.1*	Trim black-chrome / Trim nero cromato "WEMA"
6	1	4.049.014.1	Starting key / Contatto chiave
7	1	1.010.049.1	Panel cable / Cablaggio quadro vers. "GUSSEI"
	1	1.010.072.1*	Panel cable / Cablaggio quadro vers. "WEMA"

\* Effective from serial number 3710043 (hpe 250) 4210007 (hpe 225)

\* In vigore dal n° matricola 3710043 (hpe 250) 4210007 (hpe 225)

<b>Group</b> 11	<b>Page</b> 4	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Operation indicators / Segnalazioni funzionamento	<b>Date/Data</b> 04-2010
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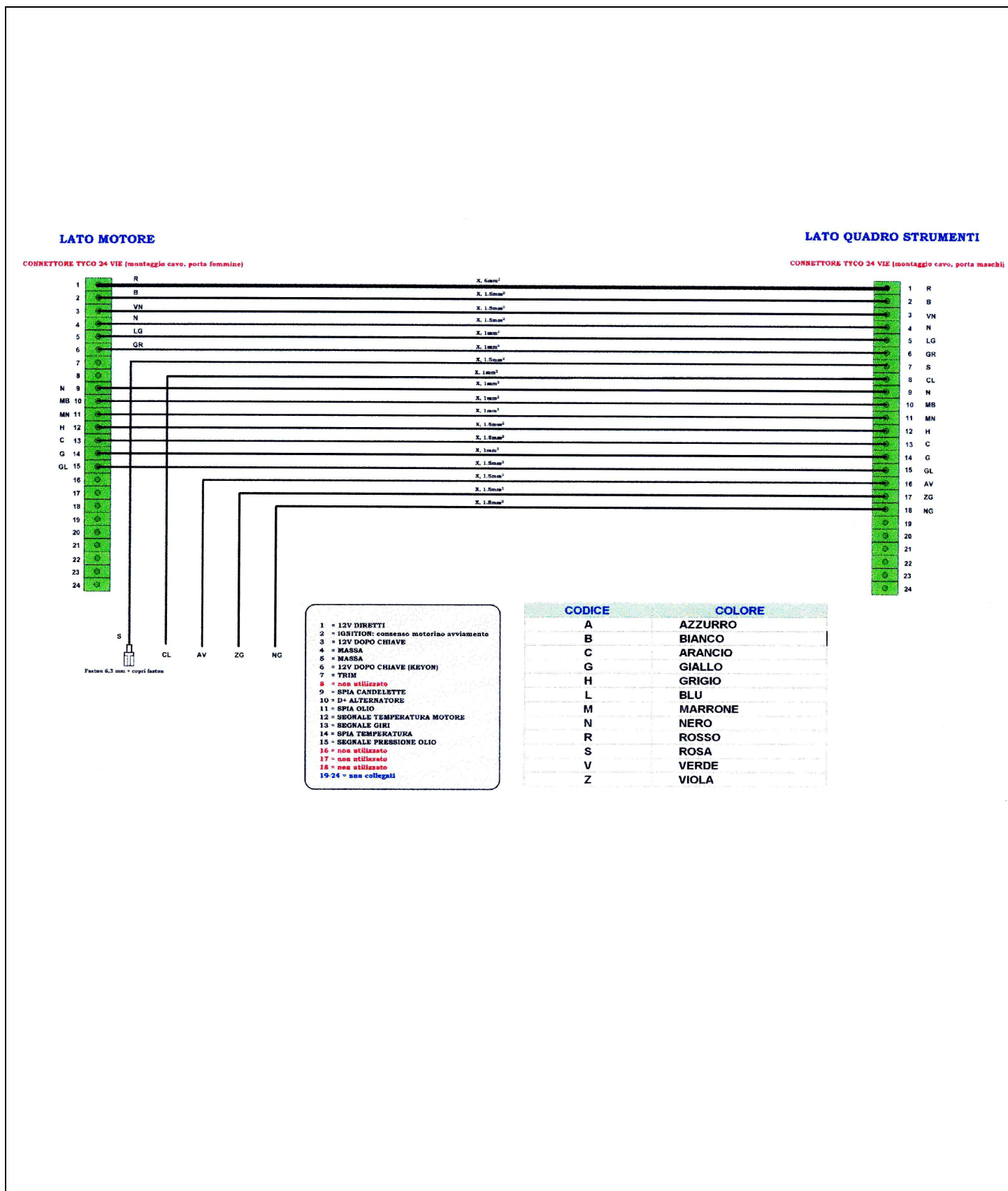
<b>Group</b>	<b>Pag.</b>	<b>Type/Tipo</b>	<b>Description/Descrizione</b>	<b>Date/Data</b>
<b>11</b>	<b>5</b>	<b>HPE/P 225/250</b>	<b>Electrical system / Impianto elettrico</b>	<b>06-2009</b>

<b>pos.</b>	<b>Qty/Q.tà</b>	<b>Code/Codice</b>	<b>Description/Descrizione</b>	
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<b>1</b>	<b>1</b>	<b>1.010.038.1</b>	<b>Extension panel / Prolunga quadro mt.8</b>	
<b>1</b>	<b>1</b>	<b>1.010.040.1</b>	<b>Extension panel / Prolunga quadro mt.6</b>	
<b>1</b>	<b>1</b>	<b>1.010.041.1</b>	<b>Extension panel / Prolunga quadro mt.4</b>	
<b>1</b>	<b>1</b>	<b>1.010.051.1</b>	<b>Extension panel / Prolunga quadro mt.12</b>	



<b>Group</b> 11	<b>Page</b> 5	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Electrical system / Impianto elettrico	<b>Date/Data</b> 06-2009
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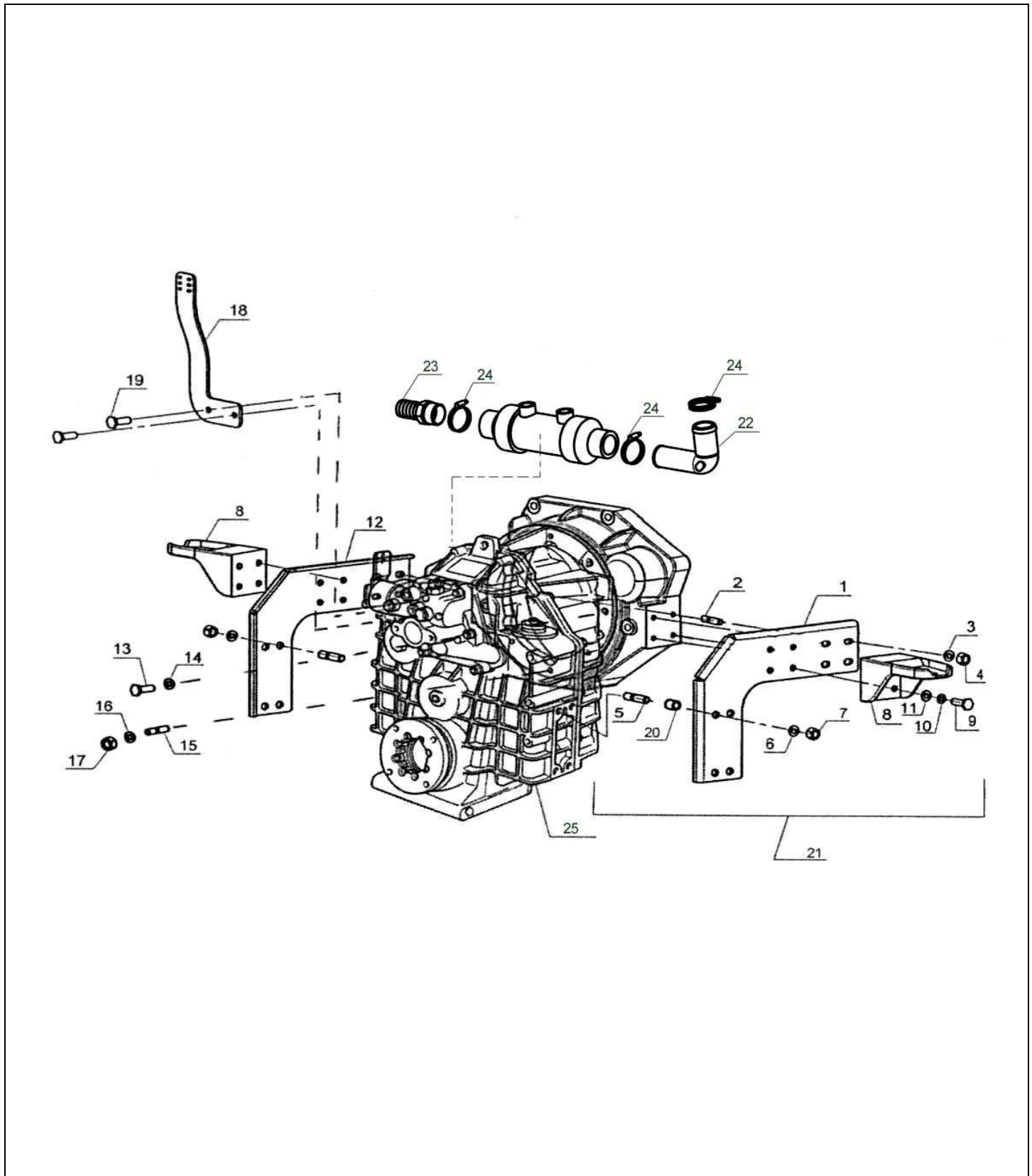


<b>Group</b> 12	<b>Pag.</b> 1	<b>Type/Tipo</b> HPE 225/250	<b>Description/Descrizione</b> Gear box zf V drive kit / Kit invertitore zf V drive	<b>Date</b> 06-2009
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pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	3.105.187.1	Support lx / Supporto sx
2	8	4.115.313.1	Stud / Prigioniero M10x1,25x44
3	8	4.123.303.1	Washer / Rosetta M10
4	8	4.117.306.1	Nut / Dado M10
5	8	4.115.402.1	Stud / Prigioniero M12x1,75x60
6	8	4.123.401.1	Washer / Rosetta M12
7	8	4.117.408.1	Nut / Dado M12
8	2	3.019.149.1	Engine support / Supporto motore
9	8	4.116.314.1	Bolt / Vite M10x1,5x30
10	8	4.123.302.1	Washer / Rosetta M10
11	8	4.122.301.1	Washer / Rosetta M10
12	1	3.105.186.1	Support rx / Supporto dx
13	4	4.116.314.1	Bolt / Vite M10x1,5x30
14	4	4.123.302.1	Washer / Rosetta M10
15	2	4.115.313.1	Stud / Prigioniero M10x1,25x44
16	2	4.123.303.1	Washer / Rosetta M10
17	2	4.117.304.1	Nut / Dado M10
18	1	3.019.198.1	Bolt / Vite M10x1,5x30
19	2	4.116.515.1	Bolt / Vite 3/8"16x28
20	4	3.103.071.1	Busch / Boccola 25x13x11
21	1	3.900.204.1	Gear box kit / Kit invertitore
22	1	3.120.731.1	Connection / Raccordo
23	1	3.120.732.1	Connection / Raccordo
24	3	4.106.010.1	Clamp / Collare 30-45
25	1	2.018.049.1	Gear box Zf 63 V R=2,00:1

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
12	1	HPE 225/250	Gear box zf v drive kit / Kit invertitore zf V drive	06-2009



<b>Group</b> 13	<b>Pag.</b> 1	<b>Type/Tipo</b> HPEP 225/250	<b>Description/Descrizione</b> Stern drive "Bravo" kit / Kit piede "Bravo"	<b>Date/Data</b> 06-2010
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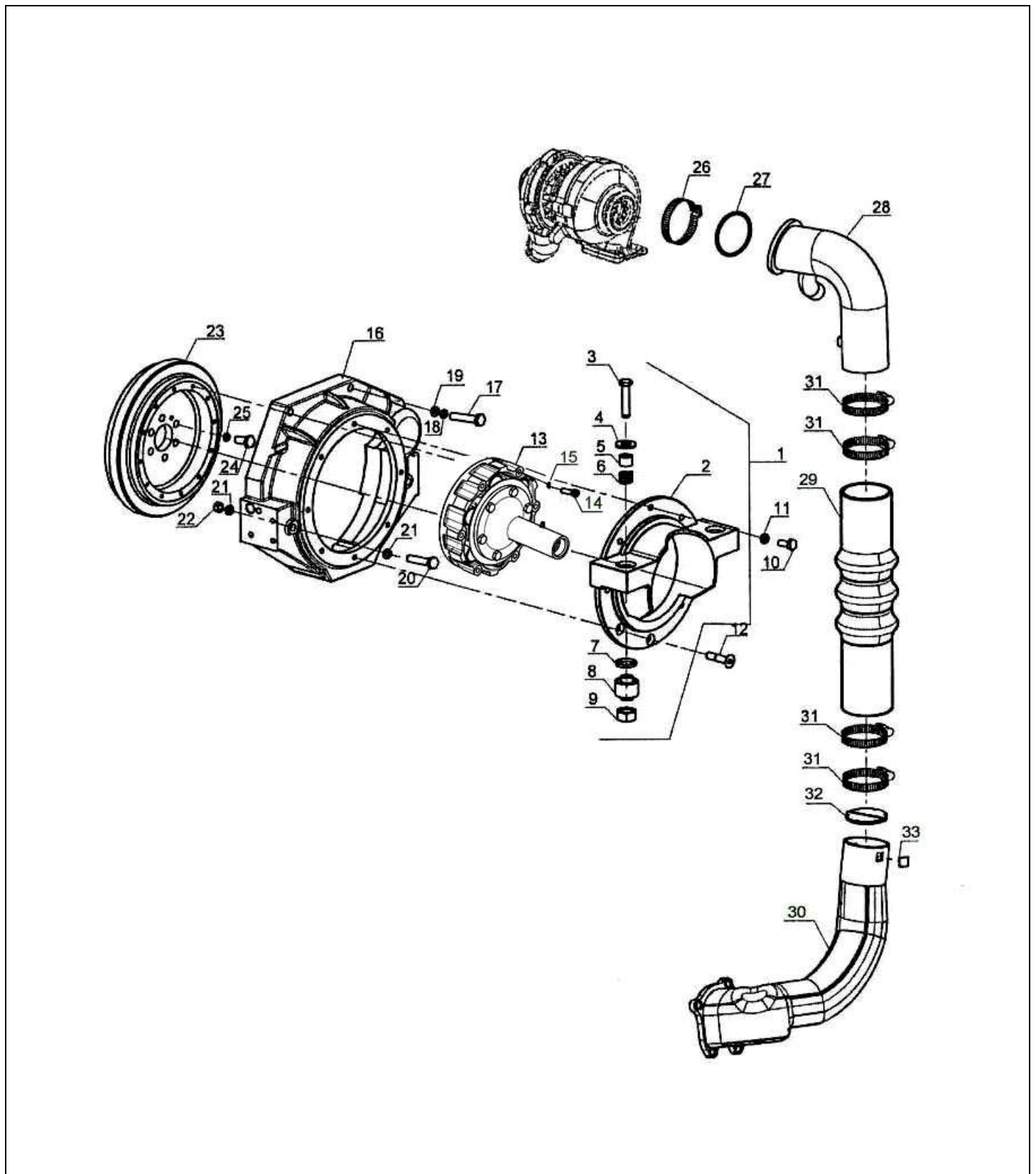
pos.	qty	Code/Codice	Description/Descrizione
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1	1	1.511.025.1*	Bell assembly stern drive / Campana attacco piede completa <i>Replacing / Sostituito cod. 1.511.022.1</i>
2	1	3.011.025.1*	Bell stern drive / Campana attacco piede <i>Replacing / Sostituito cod. 3.011.022.1</i>
3	2	3.116.510.1	Bolt / Vite 1/2"x136
4	2	3.122.512.1	Washer / Rosetta
5	2	3.103.038.1	Busch / Boccola 13,3x22x16
6	2	3.037.006.1	Spring / Molla
7	2	3.103.052.1	Mount spacer / Boccola
8	2	3.900.095.1	Housing mount kit / Kit boccola
9	2	3.117.506.1	Nut stop 1/2" / Dado stop 1/2"
10	6	4.116.351.1	Bolt / Vite M10x1,5x25
11	6	4.122.301.1	Washer / Rosetta M10
12	2	4.116.336.1	Bolt / Vite M10x1,5x25
13	1	2.013.020.1*	Flexible coupling / Parastrappi <i>Replacing / Sostituito cod. 2.013.018.1</i>
14	6	4.116.210.1*	Bolt / Vite M8x1,25x60 <i>Replacing / Sostituito cod. 4.116.207.1 qty 12</i>
15	6	4.123.203.1	Washer / Rosetta M8
16	1	1.511.021.1	Flywheel housing / Coprivolano
17	2	4.116.407.1	Bolt / Vite M12x1,25x60
18	2	4.123.403.1	Washer / Rosetta M12
19	2	4.122.401.1	Washer / Rosetta M12
20	2	4.116.443.1	Bolt / Vite M12x1,25x140
21	4	4.122.401.1	Washer / Rosetta M12
22	2	4.117.403.1	Nut / Dado M12
23	1	1.508.037.1*	Flywheel assembly / Volano premontato <i>Replacing / Sostituito cod. 1.508.035.1</i>
24	6	4.116.417.1	Bolt / Vite M12x1,25x29
25	6	4.123.401.1	Washer / Rosetta M12
26	1	4.106.503.1	Clamp / Collare
27	1	3.021.099.1	Gasket / Guarnizione
28	1	1.015.028.1	Exhaust elbow / Gomito scarico
29	1	3.025.103.1	Sleeve / Manicotto
30	1	1.023.080.1	Exhaust pipe / Manicotto scarico
31	4	4.106.011.1	Clamp / Collare 80-100
32	1	4.029.005.1	Valve / Valvola
33	2	3.133.007.1	Rubber tip / Gommino

\* Effective from serial number 4210009 (hpep 225) 3710054 (hpep 250)

\* In vigore dal n° matricola 4210009 (hpep 225) 3710054 (hpep 250)

Group	Pag.	Type/Tipo	Description/Descrizione	Data/Data
12	1	HPEP 225/250	Stern drive "Bravo" kit / Kit piede "Bravo"	06-2010

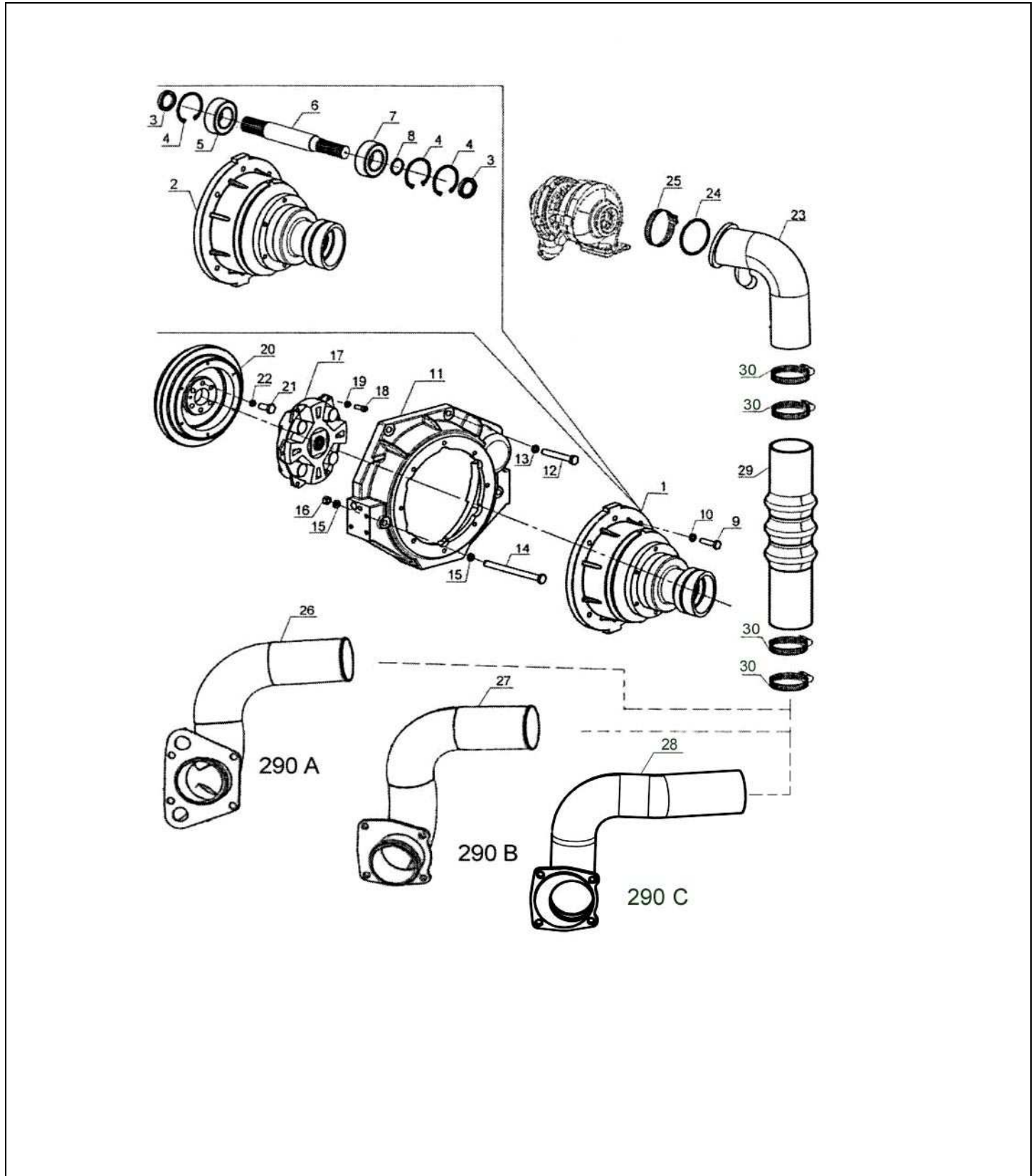


<b>Group</b> 12	<b>Pag.</b> 2	<b>Type/Tipo</b> HPEP 225/250	<b>Description/Descrizione</b> Stern drive kit for Volvo 290 A-B-C / Kit piede Volvo 290 A - B -C	<b>Date/Data</b> 01-2010
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pos.	Qty/Q.tà	Code/Codice	Description/Descrizione
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1	1	1.511.112.1	Bell assembly stern drive Volvo / Campana piede Volvo completa
2	1	3.011.012.1	Bell stern drive Volvo / Campana piede volvo
3	2	4.128.025.1	Seal / Anello tenuta 35x62x7
4	3	4.133.003.1	Ring / Anello sicurezza
5	1	4.131.011.1	Bearing / Cuscinetto 62x35x14
6	1	3.104.015.1	Shaft / Albero
7	1	4.131.010.1	Bearing / Cuscinetto 62x30x16
8	1	4.134.005.1	Ring / Anello sicurezza
9	8	4.116.344.1	Bolt / Vite M10x1,5x40
10	8	4.123.302.1	Washer / Rosetta M10
11	1	1.511.013.1	Flywheel housing / Campana coprivolano
12	2	4.116.401.1	Bolt / Vite M12x1,25x80
13	2	4.123.403.1	Washer / Rosetta M12
14	2	4.116.431.1	Bolt / Vite M12x1,75x150
15	6	4.123.401.1	Washer / Rosetta M12
16	2	4.117.408.1	Nut / Dado M12x1,75
17	1	2.013.006.1	Coupling / Parastrappi
18	6	4.116.207.1	Bolt / Vite M8x1,25x25
19	6	4.123.203.1	Washer / Rosetta M8
20	1	1.508.029.1	Flywheel assembly / Volano premontato
21	6	4.116.440.1	Bolt / Vite M12x1,25x44
22	6	4.123.401.1	Washer / Rosetta M12
23	1	1.015.028.1	Exhaust elbow / Gomito scarico 290 A - B
	1	1.015.040.1	Exhaust elbow / Gomito scarico 290 C
24	1	3.021.099.1	Gasket / Guarnizione
25	1	4.106.503.1	Clamp / Collare
26	1	1.023.082.1	Exhaust pipe vers. 290 A / Tubo scarico vers. 290 A
27	1	1.023.079.1	Exhaust pipe vers. 290 B / Tubo scarico vers. 290 B
28	1	1.023.099.1	Exhaust pipe vers. 290 C / Tubo scarico vers. 290 C
29	1	3.025.103.1	Sleeve / Manicotto
30	4	4.106.011.1	Clamp / Collare 80-100

Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
13	2	HPEP 225/250	Stern drive kit for Volvo 290 A -B-C / Kit piede Volvo 290 A - B - C	01-2010



<b>Group</b> 13	<b>Pag.</b> 3	<b>Type/Tipo</b> HPE/P 225/250	<b>Description/Descrizione</b> Stern drive kit for Volvo SX A - M / Kit piede Volvo SX A - M	<b>Date/Data</b> 01-2011
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pos.	Qty/Q.tà	Code/Codice	Description/Descrizione	Note
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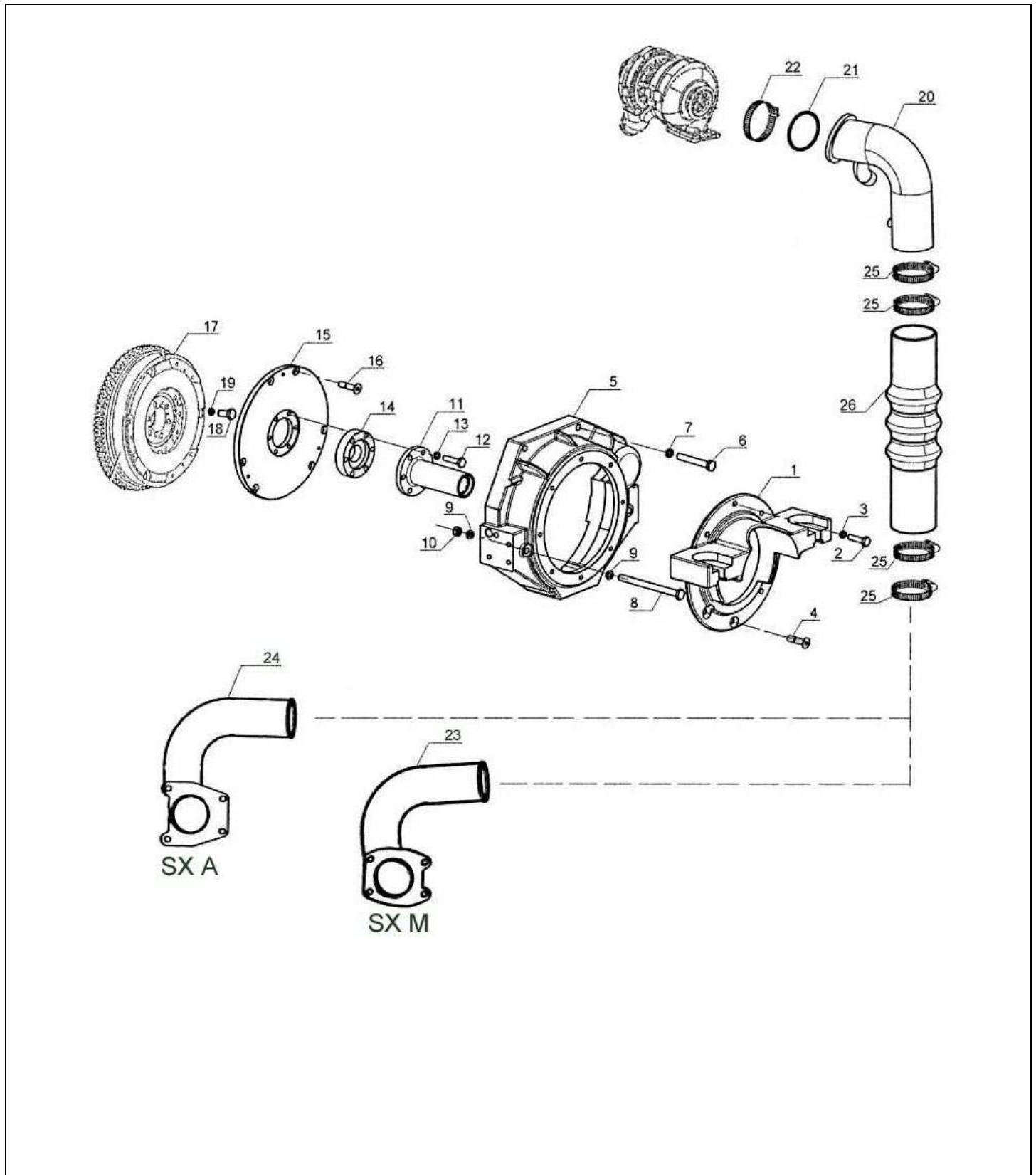
1	1	3.011.020.1	Bell stern drive Volvo / Campana attacco	
2	6	4.116.351.1	Bolt / Vite M10x1,5x25	
3	6	4.122.301.1	Washer / Rosetta M10	
4	2	4.116.336.1	Bolt / Vite M10x1,5x25	
5	1	1.511.016.1	Flywheel housing / Coprivolano	
6	2	4.116.407.1	Bolt / Vite M12x1,25x60	
7	2	4.123.403.1	Washer / Rosetta M12	
8	2	4.116.443.1	Bolt / Vite M12x1,25x140	
9	4	4.122.401.1	Washer / Rosetta M12	
10	2	4.117.403.1	Nut / Dado M12	
11	1	1.100.011.1*	Complete hub / Mozzo completo	Rev.1 28-10-2010
12	6	4.116.373.1*	Bolt / Vite M10x1,5x65 <i>Replacing / In sostituzione del 4.116.363.1</i>	
13	6	4.123.302.1	Washer / Rosetta M10	
14	1	3.105.211.1*	Spacer / Distanziale	Rev.1 28-10-2010
15	1	3.105.157.1	Flange for hub / Flangia	
16	6	4.116.252.1	Bolt / Vite M8x1,25x25	
17	1	1.508.030.1	Flywheel assembly / Volano premontato	
18	6	4.116.440.1	Bolt / Vite M12x1,25x44	
19	6	4.123.401.1	Washer / Rosetta M12	
20	1	1.015.028.1	Exhaust elbow / Gomito scarico	
21	1	3.021.099.1	Gasket / Guarnizione	
22	1	4.106.503.1	Clamp / Collare	
23	1	1.023.095.1	Exhaust pipe vers. SX M / Tubo scarico vers. SX M	
24	1	1.023.094.1	Exhaust pipe vers. SX A / Tubo scarico vers. SX A	
25	4	4.106.011.1	Clamp / Collare 80-100	
26	1	3.025.103.1	Sleeve / Manicotto	

\* Effective from serial number 3711020 (HPE 250) 4211001 (HPE 225)

\* In vigore dal n° matricola 3711020 (HPE 250) 4211001 (HPE 225)



Group	Pag.	Type/Tipo	Description/Descrizione	Date/Data
13	3	HPE/P 225/250	Stern drive kit for Volvo SX A – M / Kit piede Volvo SX A - M	01-2011





*Notes*

A series of horizontal lines provided for taking notes, consisting of 27 lines spaced evenly down the page.





M A R I N E   D I E S E L   E N G I N E S

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