

Engine

X70 Series Tier 4 (2012-2013) - RPE1 - X70.60

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A-05
01



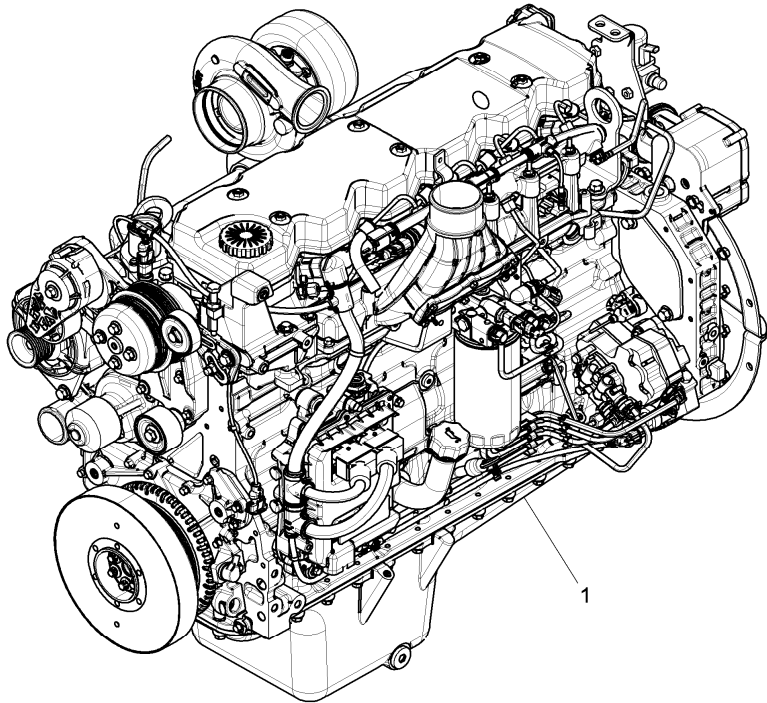
A0501

Engine assembly

1 6509671M91

"fpt nef" 140 kw

Inglese
1 Engine



Engine

X70 Series Tier 4 (2012-2013) - RPE1 - X70.60

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A-05
015



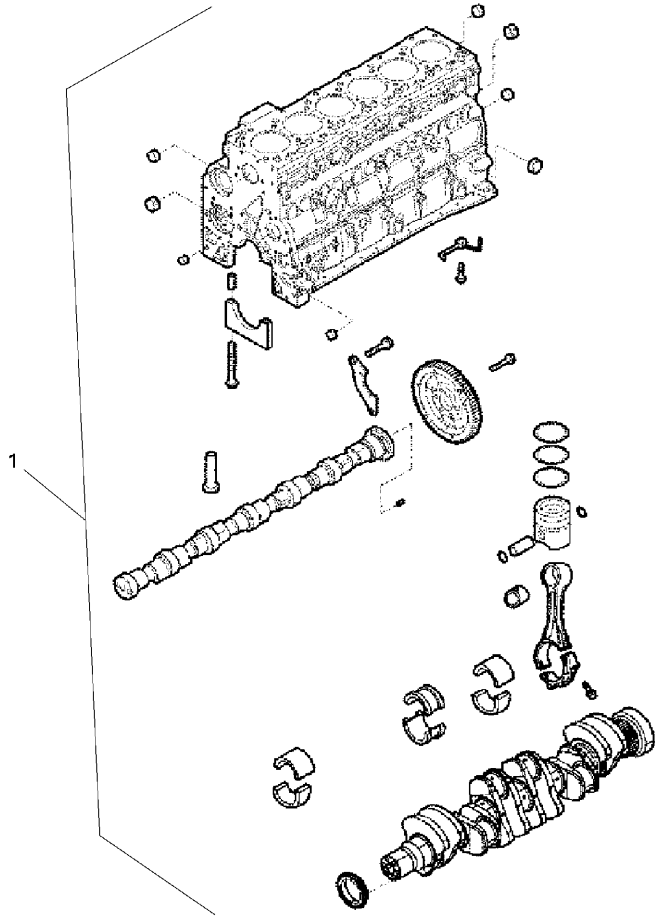
A05015

Short engine

1 6513390M91

Inglese

1 Short engine



Engine

X70 Series Tier 4 (2012-2013) - RPE1 - X70.60

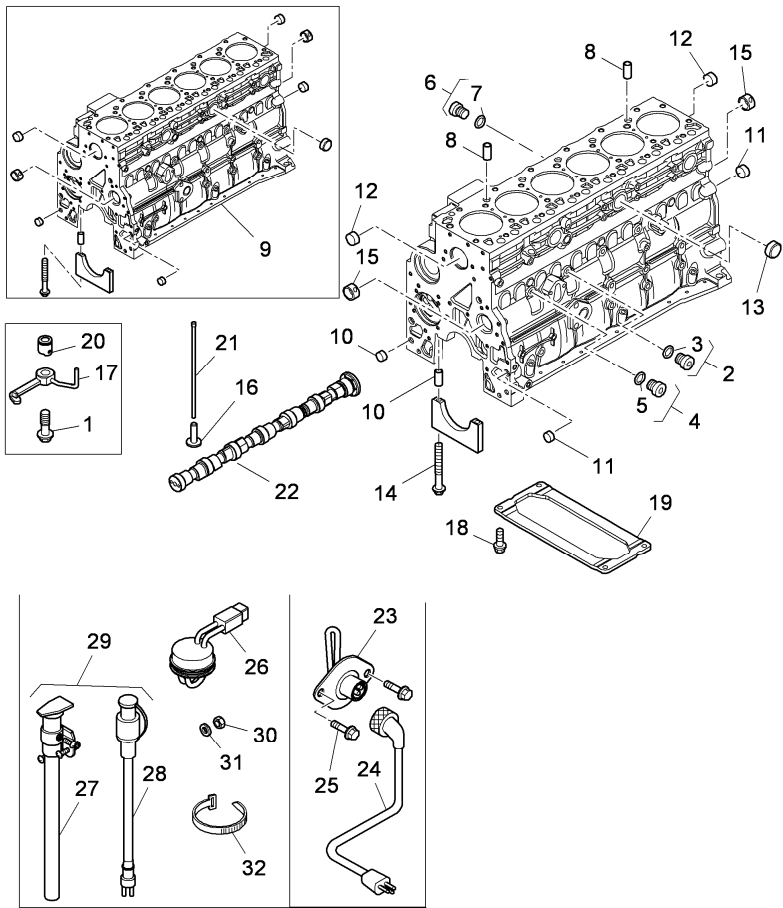
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A-05
02



A0502

Crankcase



		Inglese
1	3688692M1	6 Filler
2	3689350M1	2 Plug
3	3688868M1	1 O ring
4	3688822M1	2 Plug
5	3688855M1	1 O ring
6	3688780M1	3 Plug
7	3688781M1	1 O ring
		707405A1(1)
8	3688760M1	2 Dowel pin
9	704604A1	1 Crankcase
10	3688824M1	14 Dowel pin
		704983A1(14)
11	3688758M1	3 Plug
		17,73x6,35x1,07
12	3688757M1	6 Plug
		58,06x8,25x1,52
13	3688775M1	3 Plug
		35,23x7,94x1,52
14	3688673M1	14 Screw
		M12x120 mm
		704696A1(14)
15	3688759M1	1 Bearing
16	3688877M1	12 Platform
17	3689030M1	6 Splasher
18	704985A1	4 Bolt
		M10x25 mm

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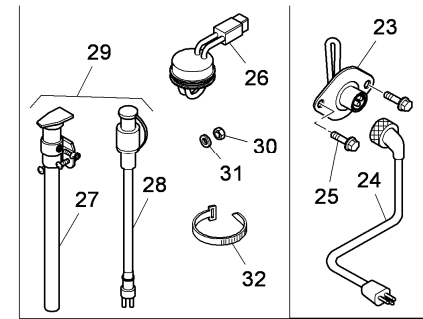
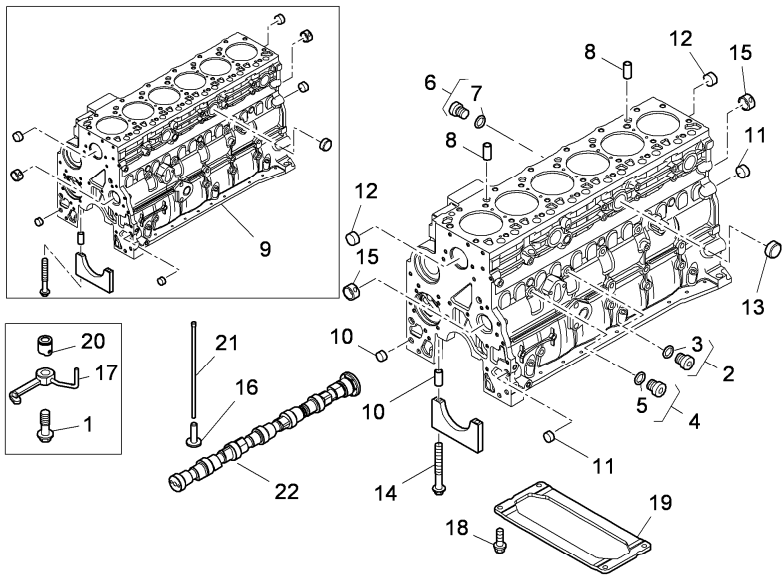
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A-05
02



A0502

Crankcase



		Inglese
19	705218A1	1 Plate
20	⊕ A-05 11 20	6 Piston
21	⊕ A-05 09 17	12 Rod
22	⊕ A-05 14 5	1 Camshaft
23	706388A1 A	1 Heater
24	J905113 A	1 Cable
25	844-8020 ◀▶ M8x20 mm	2 Bolt
	A	
26	706389A1 B	1 Heater
27	314722A1 ! 29	1 Cable
28	314723A1 ! 29	1 Cable
29	313126A2 ● 314722A1(1), 314723A1(1)	1 Cable
	B	
30	825-1405 ● 390995X1(1)	1 Nut
	B	
31	893-16005 B	2 Washer
32	289862C1 B	3 Clamp
! This is a component of an assembly		
⊕ See page - reference number		
◀▶ Length		
● Replacement		
A For market "n.a.o."		
B Excluded "n.a.o." market		

Engine

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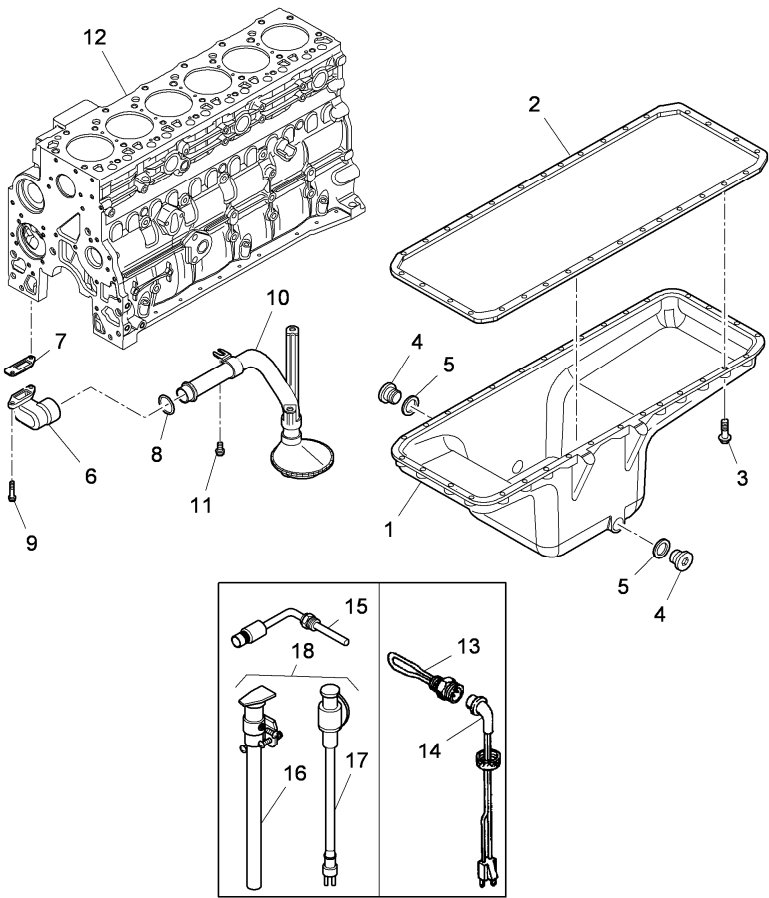
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**A-05
03**



A0503

Oil sump



- | | | | | | |
|----|-----------|---|-----------------------------|----|---------|
| 1 | 705252A1 | | | 1 | Housing |
| 2 | 705082A1 | | | 1 | Gasket |
| 3 | 3688942M1 | ◄ | M8x30 mm | 32 | Screw |
| | | ● | 706309A1(32) | | |
| 4 | 3688691M1 | | | 2 | Plug |
| 5 | 3688997M1 | | | 2 | O ring |
| 6 | 705185A1 | | | 1 | Insert |
| 7 | 704957A1 | | | 1 | Gasket |
| 8 | 704589A1 | | | 1 | Gasket |
| 9 | 710626A1 | ◄ | M8x25 mm | 2 | Screw |
| 10 | 705298A1 | | | 1 | Pipe |
| 11 | 704827A1 | ◄ | M10x20 mm | 1 | Screw |
| 12 | | ◁ | A-05 02 9 | 1 | Housing |
| 13 | J904380 | A | | 1 | Heater |
| 14 | J905113 | A | | 1 | Cable |
| 15 | 706391A1 | B | | 1 | Heater |
| 16 | 314722A1 | ! | 18 | 1 | Cable |
| 17 | 314723A1 | ! | 18 | 1 | Cable |
| 18 | 313126A2 | ● | 314722A1(1),
314723A1(1) | 1 | Cable |

Inglese

- ! This is a component of an assembly
- ◁ See page - reference number
- ◄ Length
- Replacement
- A N.a.o. market

Engine

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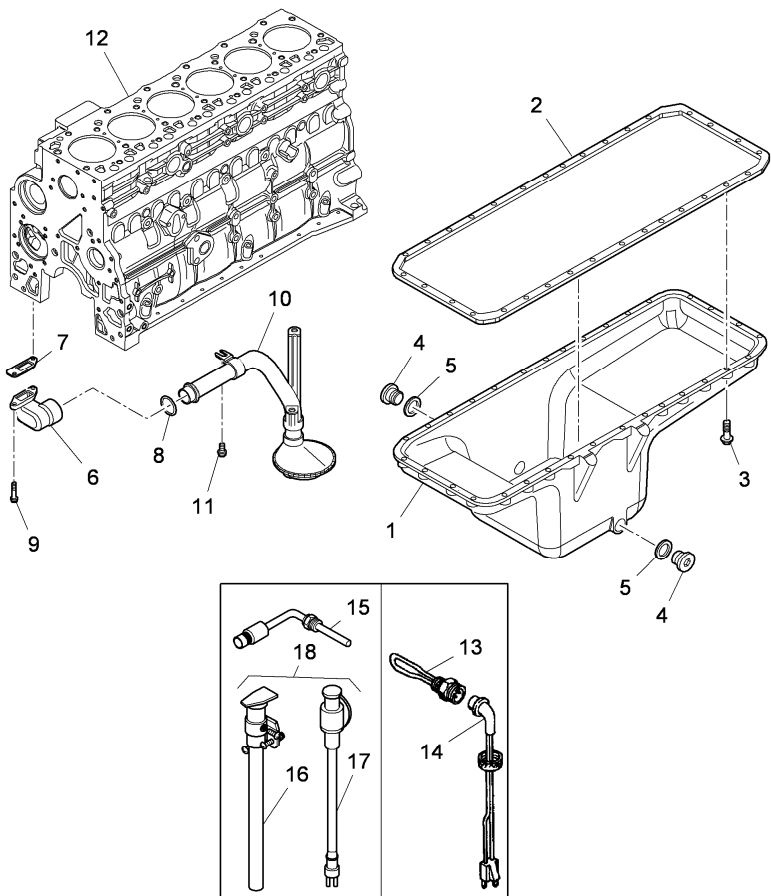
A-05
03



A0503

Oil sump

B Excluded "n.a.o." market



Engine

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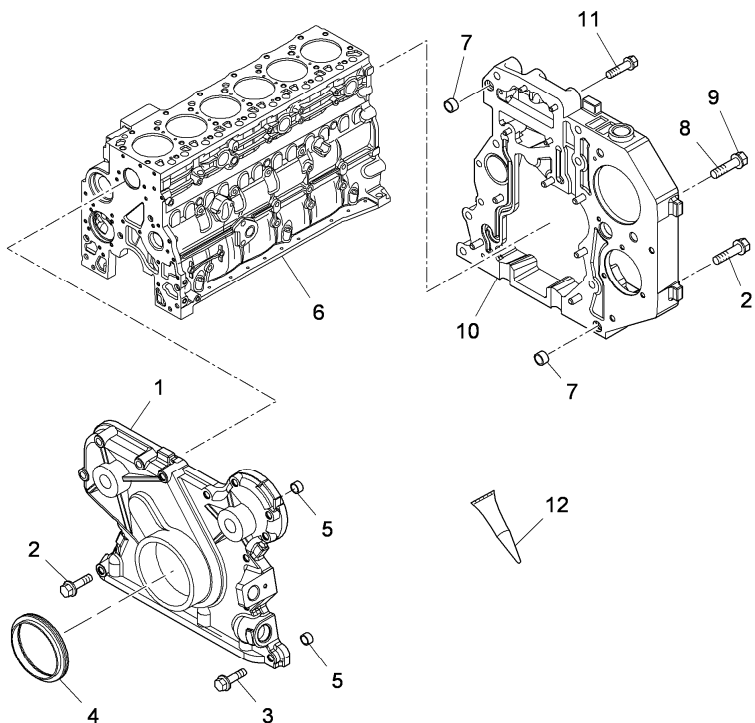
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**A-05
04**



A0504

Crankcase covers



- | | | Inglese |
|----|-----------|-----------------------------|
| 1 | 704913A1 | 1 Cover |
| 2 | 705003A1 | 9 Screw |
| 3 | 3688853M1 | 8 Screw |
| 4 | 6513391M1 | 1 Ring |
| 5 | 704693A1 | 2 Stud |
| 6 | | 1 Crankcase |
| 7 | 3688824M1 | 2 Dowel pin |
| 8 | 705015A1 | 2 Screw |
| 9 | 704999A1 | 1 Screw |
| 10 | 6513392M1 | 1 Box |
| 11 | 704910A1 | 3 Screw |
| 12 | 3688632M1 | 3688632M2(999) 999 Adhesive |
- ◁ See page - reference number
 ▶ Length
 ● Replacement

Engine

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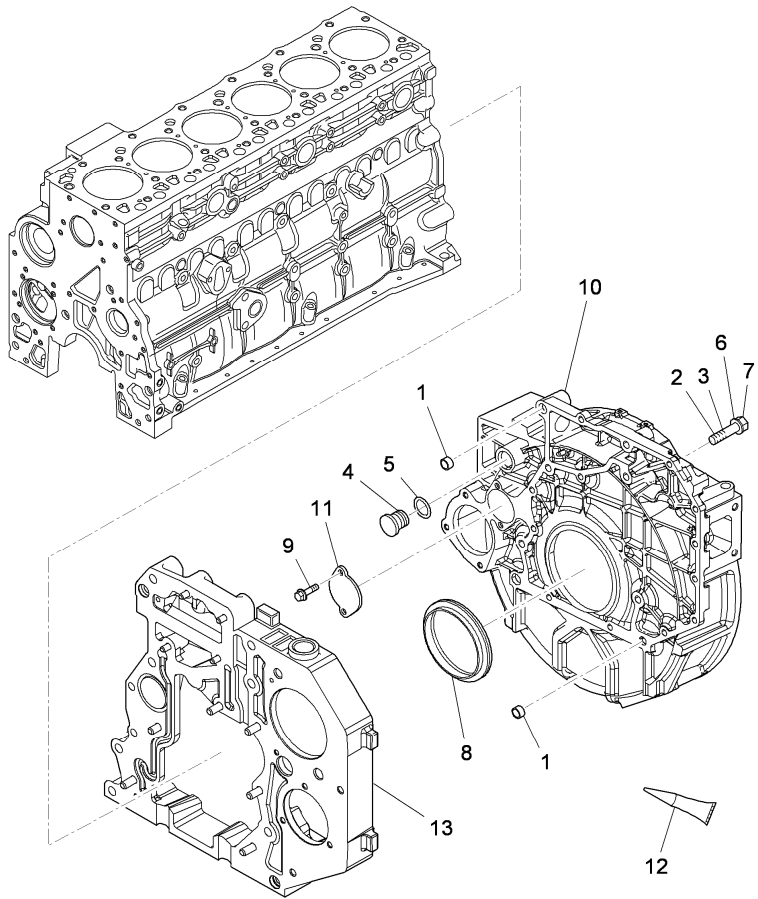
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A-05
05



A0505

Flywheel housing



		Inglese			
1	3688824M1	●	704983A1(2)	2	Dowel pin
2	705020A1	◄	M10x80 mm	2	Screw
3	712165A1	◄	M10x40 mm	10	Screw
4	704847A1			1	Plug
5	714949A1			1	O ring
6	705002A1	◄	M12x80 mm	6	Screw
7	4219091M1			2	Screw
8	6514306M1		155x130x16	1	Ring
9	3688854M1	◄	M8x17 mm	2	Screw
		●	704997A1(2)		
10	705098A1			1	Cover
11	704799A1			1	Cover
12	3688632M1	●	3688632M2(999)	999	Adhesive
13		◄	A-05 04 10	1	Box

◄ See page - reference number
 ◄ Length
 ● Replacement

Engine

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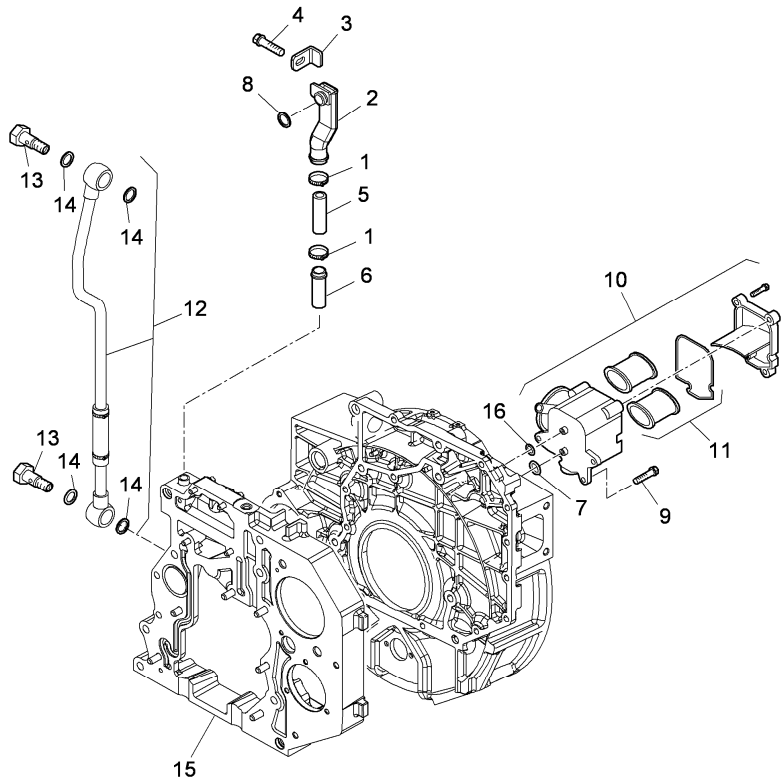
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A-05
06



A0506

Engine breathers



		Inglese
1	6513395M1	2 Collar
2	704935A1	1 Pipe
3	704936A1	1 Bracket
4	704937A1	1 Screw
5	6513393M1	1 Manicott
6	704940A1	1 Union
7	704960A1	1 Gasket
8	704962A1	1 Seal
9	705014A1	3 Screw
10	6513394M91	1 Breather
11	707340A1	1 Kit
12	705029A1	1 Pipe
13	3688929M1	2 Filler
14	3688878M1	4 Gasket
15		1 Box
16	714672A1	1 Ring

- ! This is a component of an assembly
- See page - reference number
- Replacement

Engine

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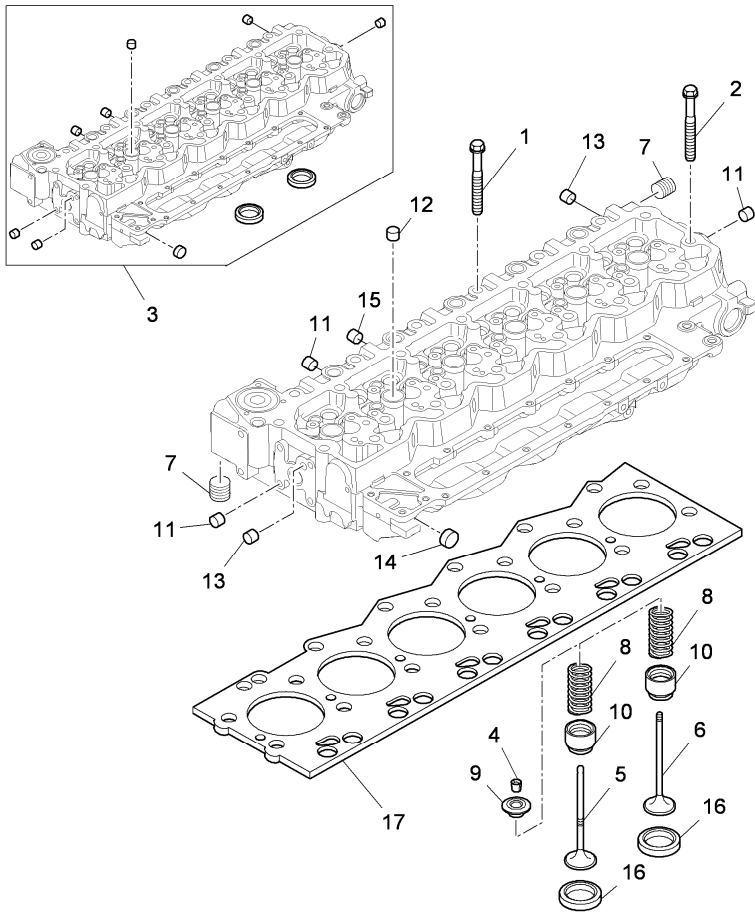
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**A-05
07**



A0507

Head cylinder



		Inglese	
1	3688651M1	◄► M12x130 mm	12 Screw
2	3688652M1	◄► M12x150 mm	14 Screw
3	6513396M91		1 Cylinder head
4	3688858M1	! 3	48 Cone
5	3688761M1	! 3	12 Valve
6	3688762M1	! 3	12 Valve
7	3688683M1	! 3	1 Plug
8	6513397M1		24 Spring
9	3688766M1	! 3	24 Cup
10	3688622M1	! 3	24 Cap
11	3688768M1	! 3	13 Plug
12	3688769M1	! 3	11 Plug
		25,74x8,13x1,27	
		22,5 mm x 1,27 m	
13	3688782M1	! 3	7 Plug
14	3688794M1	! 3	2 Plug
15	3688795M1	! 3	2 Plug
16	704914A1	! 3	12 Valve seat
16	704914A1	! 3	12 Valve seat
17	3688616M1	! 3	1 Gasket
!	This is a component of an assembly		
◄►	Length		

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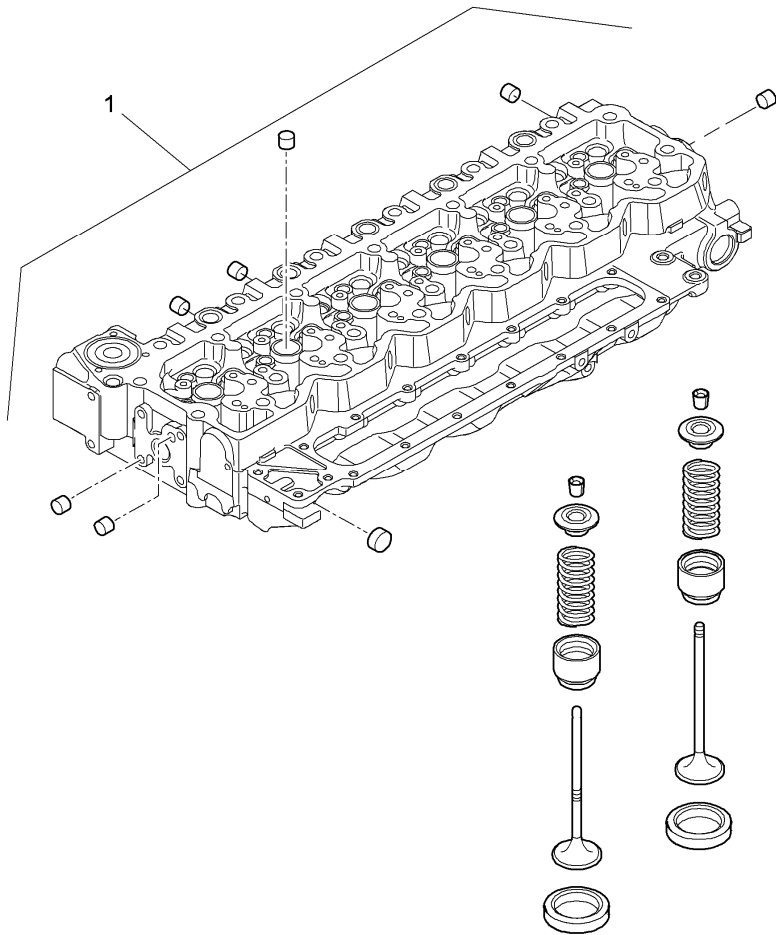
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A-05
075



A05075

Cylinder head



- 1 6501968M91 ● 704660A1(1)
- Replacement

Inglese

- 1 Cylinder head

Engine

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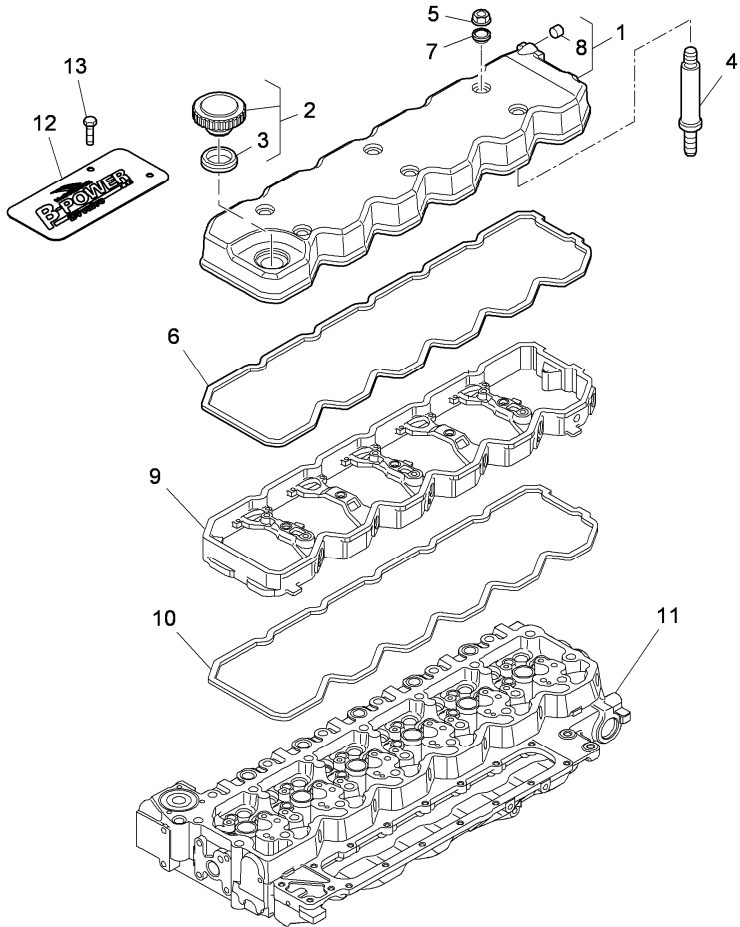
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A-05
08



A0508

Cylinder head cover



		Inglese
1	6513398M91	1 Coperch.
2	6513399M91	1 Plug
3	3689016M1 ! 2	1 Gasket
4	3688812M1 ● 3689104M1(6)	6 Screw
5	3689057M1	6 Nut
6	3689038M1	1 Gasket
7	3689040M1	6 Spacer
8	3688819M1 ! 1 ● 704956A1(1)	1 Plug
9	◁ A-05 09 13	1 Spacer
10	◁ A-05 09 19	1 Gasket
11	◁ A-05 07 3	1 Head
12	707730A1	1 Plaque, data
13	555-1 ◄ M8x16 mm	2 Bolt
!		This is a component of an assembly
◁		See page - reference number
◄		Length
●		Replacement

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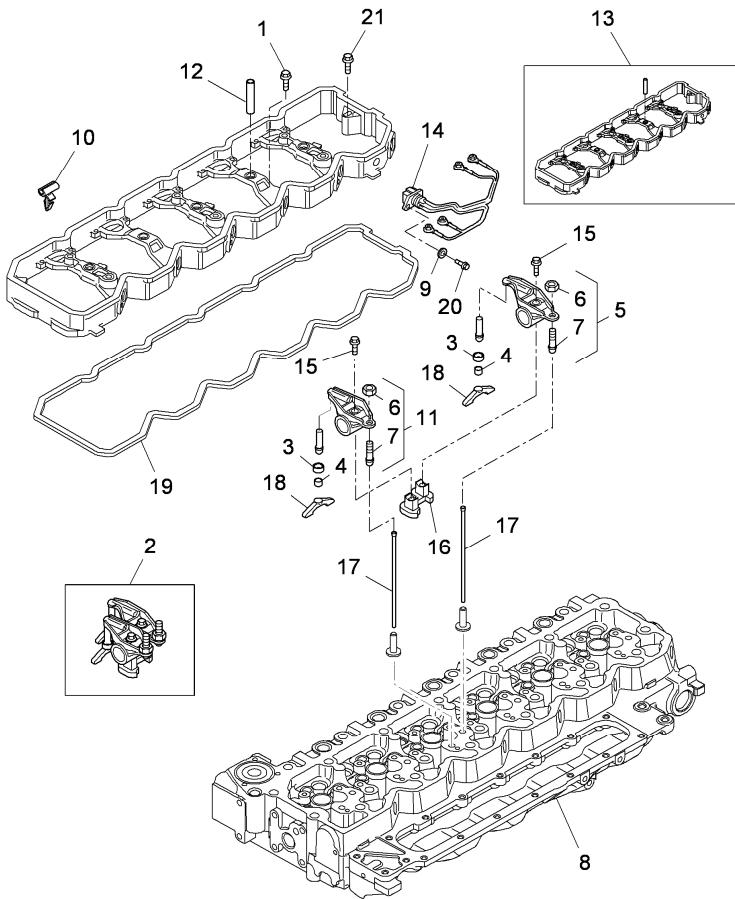
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A-05
09



A0509

Rocker shaft



1	3688796M1	◄►	M8x70 mm	5	Screw
2	3688820M1	●	704858A1(5)	6	Shaft
3	6513400M1	●	6503095M2(1)	12	Cup
4	6513401M1			12	Skate
5	6513402M91			6	Rocker
6	6513403M1			12	Nut
7	6513404M1			12	Screw
8		◊	A-05 07 3	1	Head
9	3688950M1	●	707347A1(3)	3	Lock washer
10	3689037M1	●	705197A1(6)	6	Spring
11	6513405M91			6	Rocker
12	3688871M1	●	705039A1(5)	5	
13	3688872M1			1	Spacer
14	3689025M1			3	Cable
15	3688609M1	➔	37131	12	Screw
15	3688860M1	●	704622A1(12)	12	Screw
15	3688860M1	➔	37130	12	Screw
15	3688860M1	●	707345A1(12)	12	Screw
16	6513406M1			6	Support
17	3688756M1			12	Rod
18	3688767M1	●	704785A1(12)	12	Axle
19	707423A1	●	3689039M1(1)	1	Gasket
20	3688945M1	◄►	M6x16 mm	3	Screw
		●	704572A1(3)		

Engine

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09



A0509

Rocker shaft

Inglese

21 3688863M1 ● 705011A1(2)

2 Screw

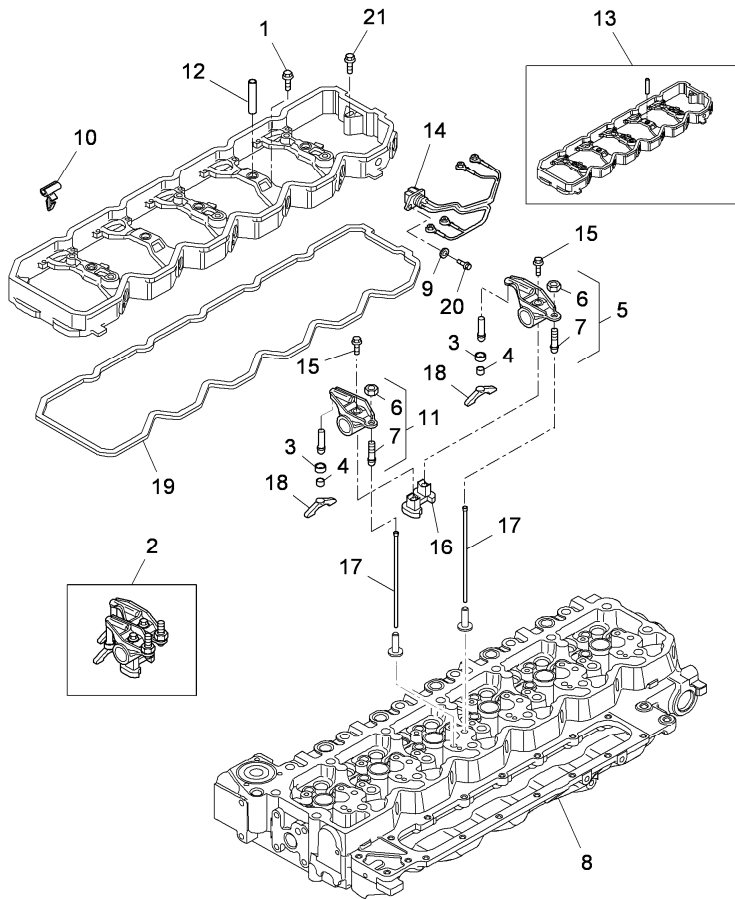
➔ From serial or engine number

➔ Up to serial or engine number

👁 See page - reference number

↔ Length

● Replacement



Engine

X70 Series Tier 4 (2012-2013) - RPE1 - X70.60

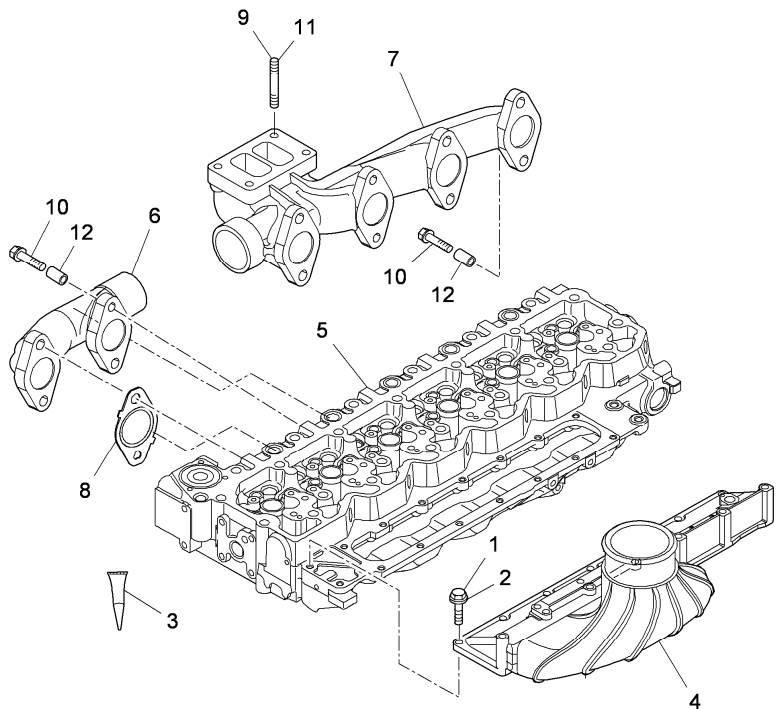
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**A-05
10**



A0510

Intake and exhaust manifold



		Inglese
1	3688777M1	2 Screw
2	3688850M1	8 Screw
3	6500933M1	999 Loctite
4	3689091M1	1 Duct
5	A-05 07 3	1 Head
6	3688619M1	1 Manifold
7	3689060M1	1 Manifold
8	3689062M1	6 Gasket
9	3688861M1	3 Screw
10	705316A1	12 Screw
11	3688946M1	1 Screw
12	6513407M1	12 Spacer

See page - reference number

Length

Replacement

A Inlet

B Exhaust

Engine

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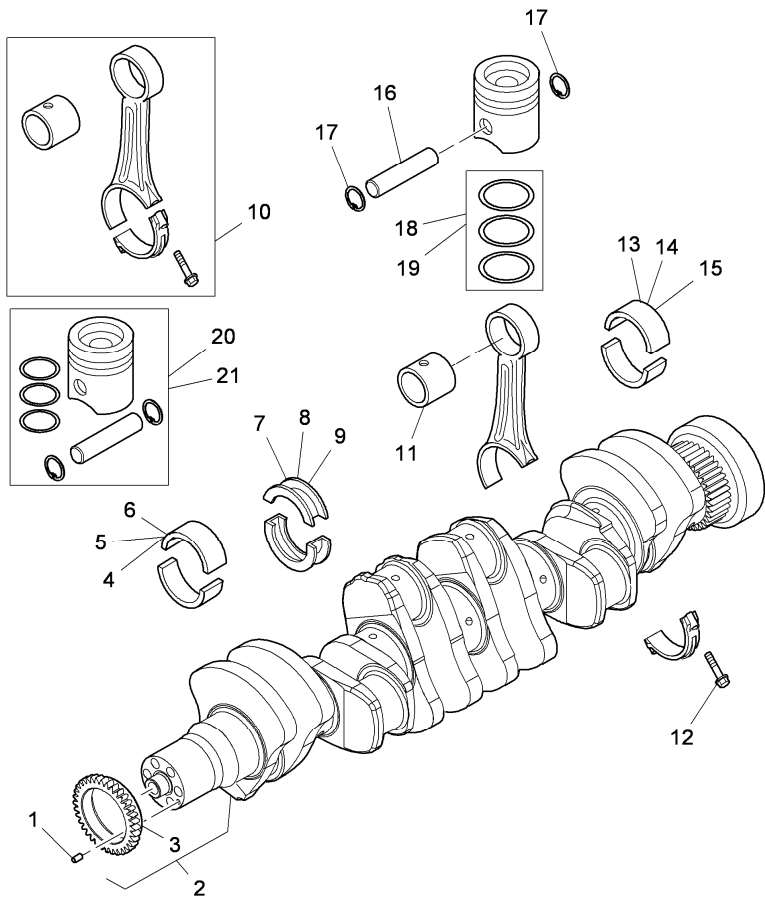
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A-05
11



A0511

Crank shaft - connecting rods



		Inglese		
1	3688851M1	●	704992A1(1)	1 Dowel pin
2	705157A1	●	705157A2(1)	1 Shaft
3	704730A1	!	2	1 Gear
4	3688637M1			6 Cuscinet
5	3688638M1	✕	-0,250 mm	6 Cuscinet
6	3688639M1	✕	-0,500 mm	6 Cuscinet
7	3688634M1			1 Cuscinet
8	3688635M1	✕	-0,250 mm	1 Bearing
9	3688636M1	✕	-0,500 mm	1 Cuscinet
10	3688624M1			6 Conrod
11	3688675M1	!	10	1 Bush
12	3688623M1	!	10	2 Screw
13	3688880M1			6 Cuscinet
14	4206388M1	✕	-0,250 mm	6 Cuscinet
15	4206389M1	✕	-0,500 mm	6 Cuscinet
16	3688676M1			6 Pin
17	3689087M1			12 Ring
18	3688921M1			6 Kit
19	3688923M92	✕	+0,400 mm	6 Kit
		●	713981A1(6)	
20	6513408M91			6 Piston
21	6513409M91	✕	+0,400 mm	6 Piston
!	This is a component of an assembly			
✕	Shim			
●	Replacement			

Engine

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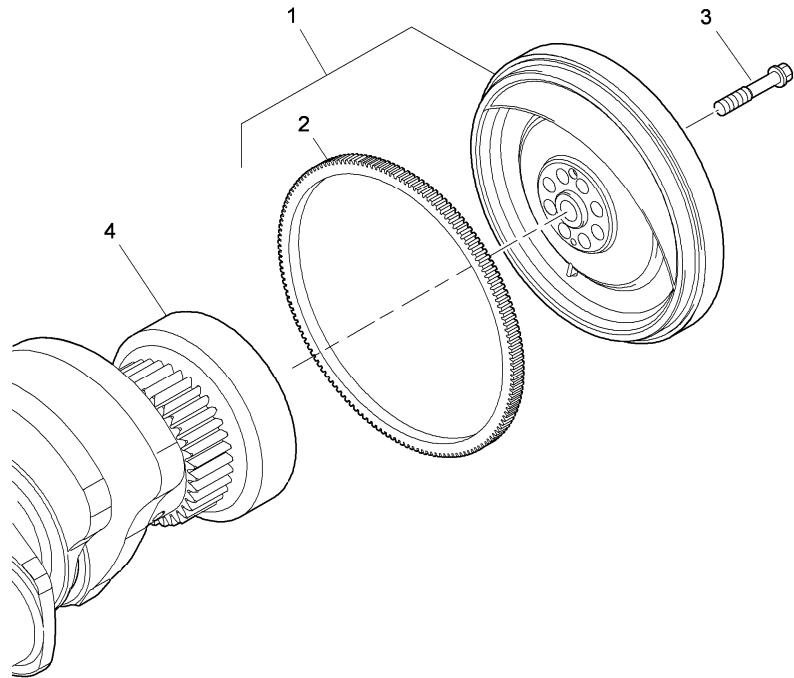
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A-05
12



A0512

Engine flywhell - damper



- 1 705228A1
- 2 705069A1 ! 1
● N.L.S.(1)
- 3 704752A1
- 4 ⦿ A-05 11 2
- ! This is a component of an assembly
- ⦿ See page - reference number
- Replacement

Inglese

- 1 Flywheel
- 1 Crownwheel
- 8 Screw
- 1 Shaft

Engine

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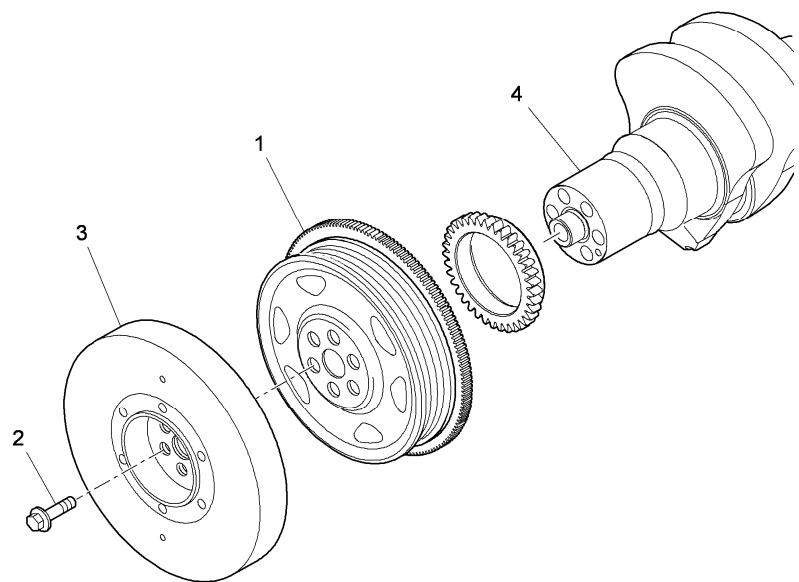
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A0513

Vibration damper



- 1 704899A1
 - 2 3688681M1
 - 3 704720A1
 - 4  A-05 11 2
-  See page - reference number

Inglese

- 1 Pulley
- 6 Screw
- 1 Kit
- 1 Shaft

Engine

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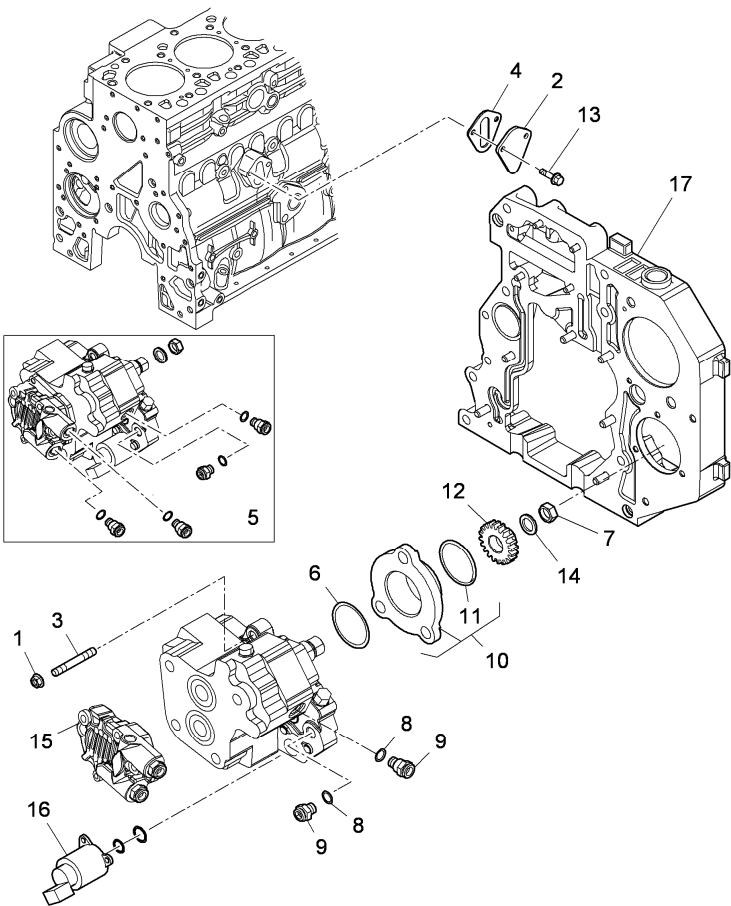
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**A-05
15**



A0515

Fuel injection equipment



- 1 706306A1
- 2 3688811M1 ● 704911A1(1)
- 3 704575A1 ◄ M8x50 mm
- 4 3688642M1 ● 704684A1(1)
- 5 6513428M91 ● 704975A2(1)
- 6 3689012M1
- 7 3688641M1 ● 704682A1(1)
- 8 3689015M2
- 9 6501374M1
- 10 705116A1
- 11 704591A1 ! 10
- 12 704731A1
- 13 3688941M1 ● 710625A1(2)
- 14 3688990M1 ● 707359A1(1)
- 15 ◁ A-05 17 4
- 16 ◁ A-05 17 1
- 17 ◁ A-05 04 10

- Inglese**
- 3 Nut
 - 1 Coperch.
 - 3 Stud
 - 1 Gasket
 - 1 Pump
 - 1 O ring
 - 1 Nut
 - 2 Gasket
 - 2 Union
 - 1 Spacer
 - 1 Gasket
 - 1 Pinion
 - 2 Screw
 - 1 Washer
 - 1 Pump
 - 1 Adjuster
 - 1 Rotor drive

! This is a component of an assembly
 ◁ See page - reference number
 ◄ Length
 ● Replacement

Engine

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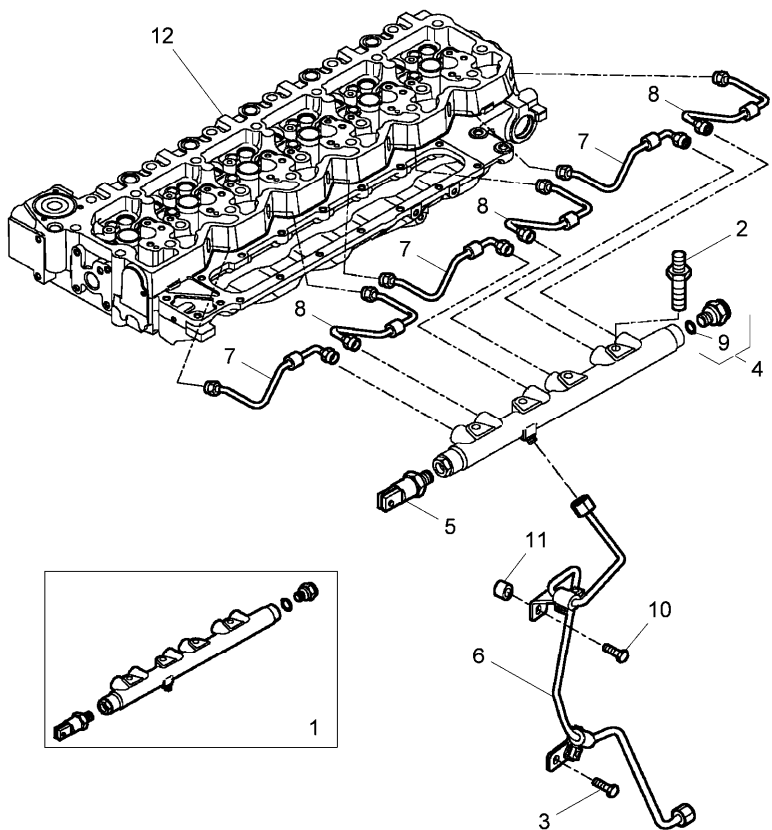
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**A-05
16**



A0516

Accumulator hydraulic



Inglese

- | | | | | | |
|----|-----------|---|-------------|---|-------------|
| 1 | 3689071M2 | | | 1 | Accumulator |
| 2 | 3689029M1 | ● | 705148A1(4) | 4 | Screw |
| 3 | 710625A1 | ◄ | M8x20 mm | 1 | Bolt |
| 4 | 3689078M2 | ! | 1 | 1 | Valve |
| 5 | 3689100M2 | ! | 1 | 1 | Sensor |
| 6 | 4218885M1 | | | 1 | Pipe |
| 7 | 4218886M1 | | | 3 | Pipe |
| 8 | 4218887M1 | | | 3 | Pipe |
| 9 | 4218938M1 | ! | 4 | 1 | Ring |
| 10 | 704904A1 | | | 1 | Screw |
| 11 | 714693A1 | | | 1 | Spacer |
| 12 | | ◄ | A-05 07 3 | 1 | Head |
- ! This is a component of an assembly
 ◄ See page - reference number
 ◄ Length
 ● Replacement

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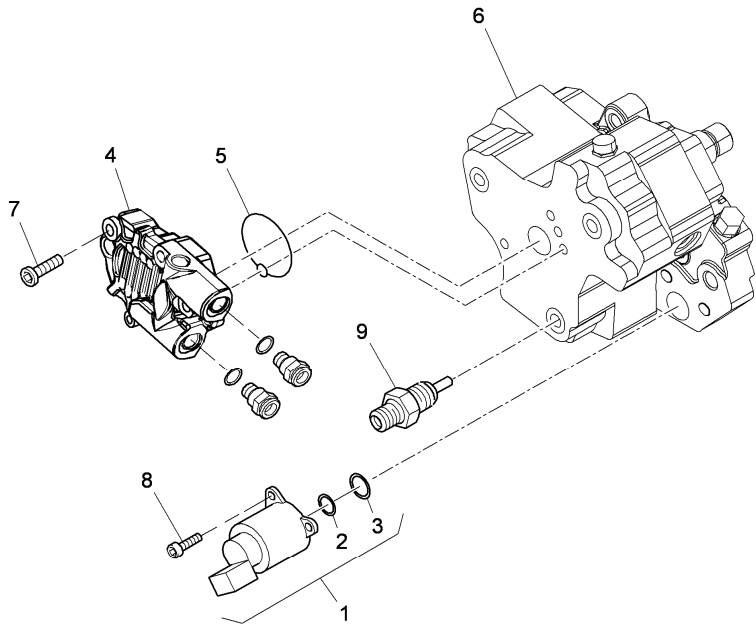
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**A-05
17**



A0517

Injection pump (componenti)



		Inglese
1	3689009M1	1 Adjuster
2	3689008M1 ! 1	1 O ring
3	3689007M1 ! 1	1 O ring
4	3689010M1 ● 3689010M2(1)	1 Pump
5	6501370M1	1 Ring
6	⦿ A-05 15 5	1 Pump
7	3689112M1 ● 6525662M1(4)	4 Screw
8	3689128M1 ● 6525661M1(3)	3 Screw
9	3689129M1	1 Valve

- ! This is a component of an assembly
- ⦿ See page - reference number
- Replacement

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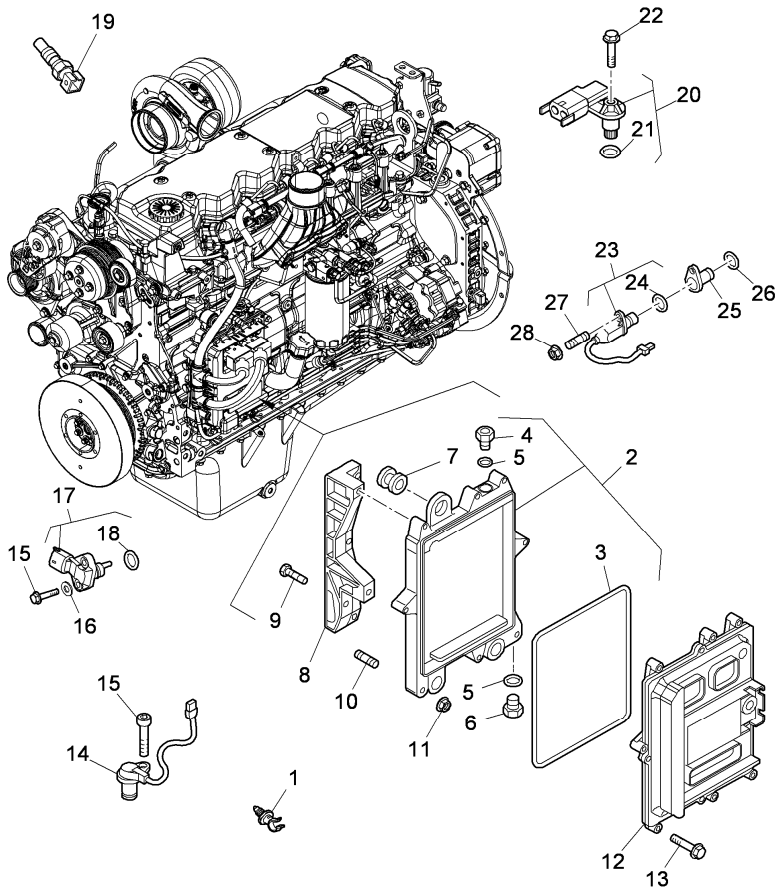
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**A-05
19**



A0519

Electronic control unit



		Inglese
1	6513422M1	2
2	6513421M91	1 Support
3	704902A1	! 2
	● 3689053M1(1)	1 Gasket
4	704894A1	! 2
5	3689015M2	! 2
6	3688650M1	! 2
7	3689019M1	! 2
8	704945A1	1 Stirrup
9	704573A1	3 Insert
10	714709A1	1 Stud
11	714711A1	1 Nut
12	6513420M1	● N.L.S.(2)
13	3688931M1	◄ M6x30 mm
13	705003A1	3 Screw
14	704677A1	A
15	3688866M1	● 705021A1(3)
16	705023A1	2 Washer
17	3688640M1	● 3688640M2(1)
	B	
	E	
18	3688797M1	! 17
19	3688813M1	C
20	6513418M91	D
	F	



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
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Engine

X70 Series Tier 4 (2012-2013) - RPE1 - X70.60

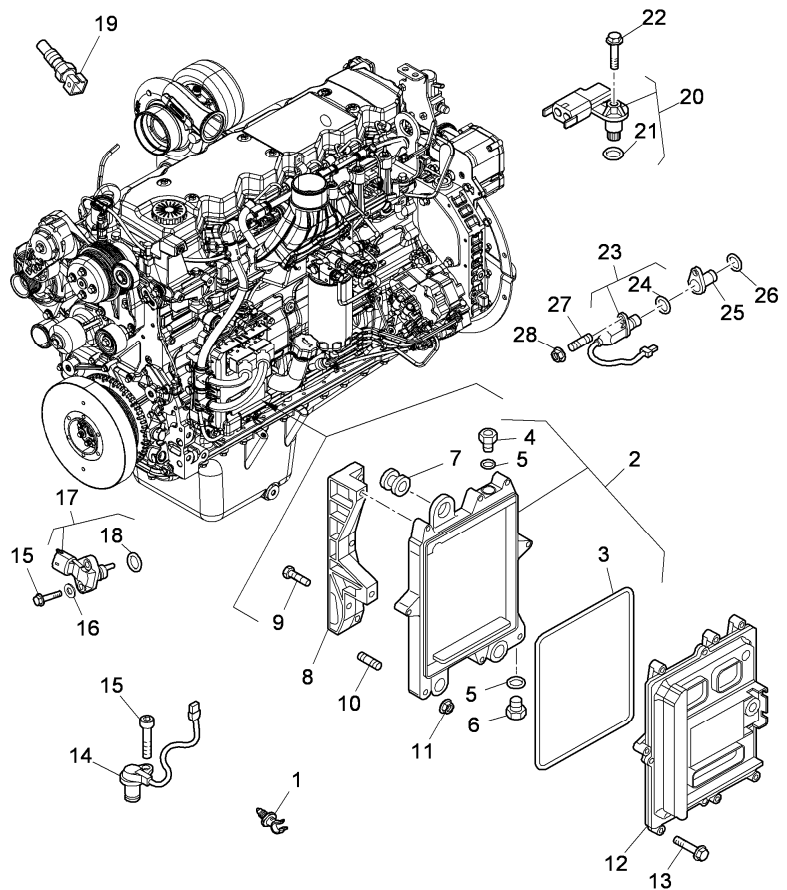
A-05
19



A0519

Electronic control unit

RPE1\00042142.png



- 21 4206392M1 ! 20
 - 22 3688801M1
 - 23 707382A1 A
 - 24 3688993M1 ! 23
 - 25 6513423M1
 - 26 6513424M1
 - 27 6513419M1
 - 28 714708A1
- ! This is a component of an assembly
- ◄ Length
- Replacement
- A Speed
- B Oil pressure
- C Water temperature
- D Air pressure
- E Oil temperature
- F Temperature

- Inglese**
- 1 O ring
 - 1 Screw
 - 1 Sensor
 - 1 O ring
 - 1 Union
 - 1 Ring
 - 1 Screw
 - 1 Nut

Engine

X70 Series Tier 4 (2012-2013) - RPE1 - X70.60

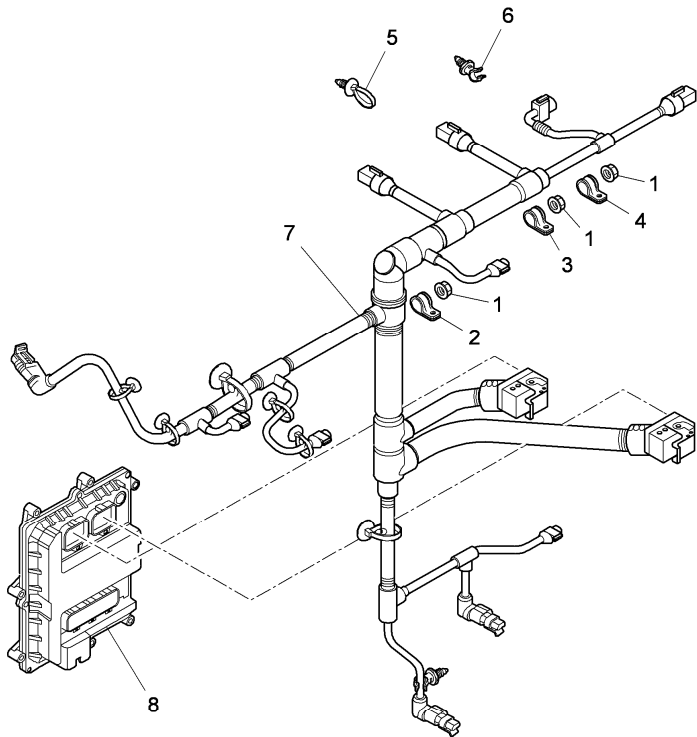
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A-05
20



A0520

Engine wiring



- 1 3688947M1
- 2 714911A1
- 3 3689001M1 ● 704593A1(1)
- 4 704594A1
- 5 707369A1
- 6 705180A1
- 7 714718A1
- 8 ◁ A-05 19 12

- ◁ See page - reference number
- Replacement

Inglese

- 3 Nut
- 1 Stirrup
- 1 Stirrup
- 1 Stirrup
- 1 Clip
- 1 Clip
- 1 Harness
- 1 Electronic unit control

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