

TURBONutter

Lada Niva 4x4 Service Manual Fuel Injection

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<http://www.lada.co.uk/forum>

For Lada parts, advice and general all round Lada wonderfulness these blokes aren't bad:

Lada UK Ltd
Askew Rigg
Troutbeck
Penrith, Cumbria
CA11 0SZ
United Kingdom

T: +44 (0) 17 6877 9794
F: +44 (0) 17 6877 9197
E: alan@lada.co.uk
W: <http://www.lada.co.uk>

Lada Parts Australia P/L
42 Aerodrome Road
Caboolture
Queensland
4510
Australia

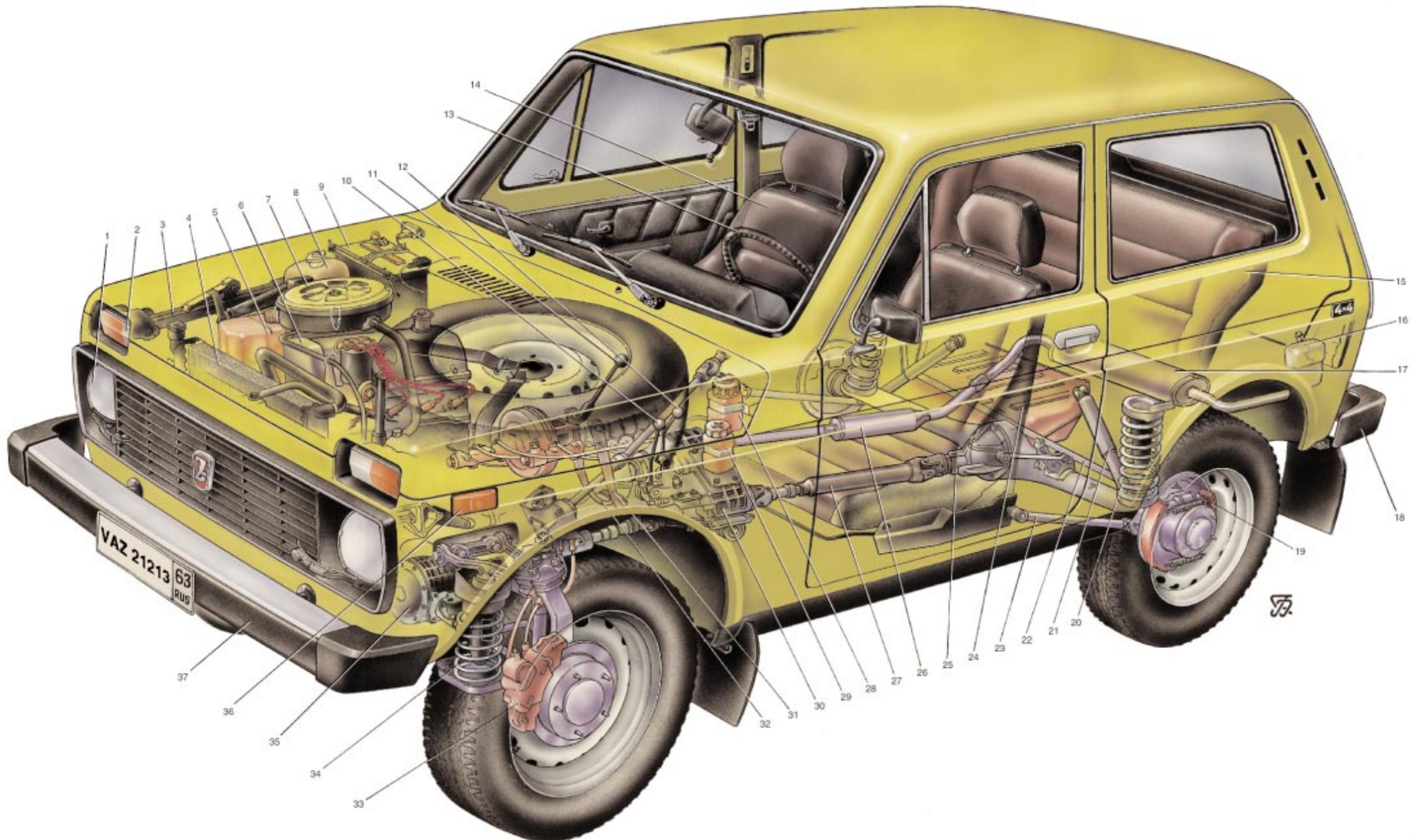
T: +61 7 5495 5100
F: +61 7 5495 5152
E: andy@ladaparts.com
W: <http://www.ladaparts.com>

ILLUSTRATION ALBUM

VAZ - 21213, VAZ - 21214

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VEHICLE PACKAGING

Specification

Payload, kg 400
 Kerbweight , kg 1210
 Max. speed, km/h 137
 Acceleration time from 0 to 100 km/h,
 with gearchange, on GVW vehicle, sec . 21

Overall dimensions, mm:

length..... 3740
 width 1680
 unladen height..... 1640

Wheelbase, mm..... 2200

Track:

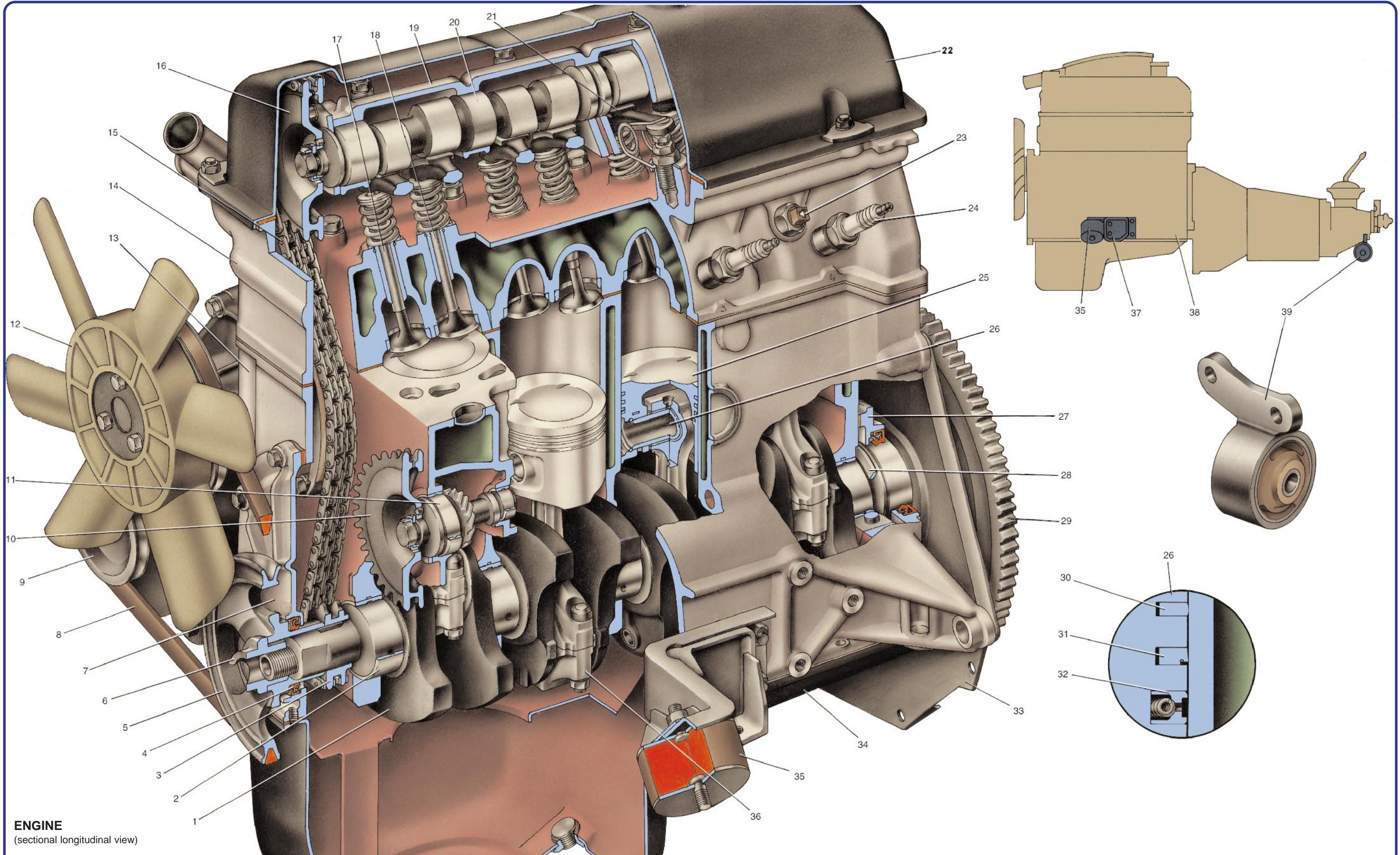
front, mm 1430
 rear, mm..... 1400

1. Headlight
2. Front lamp
3. Jack
4. Radiator
5. Windscreen / headlight washer fluid reservoir
6. Engine
7. Air cleaner
8. Cooling system expansion tank
9. Battery
10. Differential lock lever in transfer box

11. Gear change lever
12. Gear change lever in transfer box
13. Steering wheel
14. Front seat
15. Rear seat
16. Tailgate washer fluid reservoir
17. Main silencer
18. Rear bumper
19. Rear brakes
20. Rear suspension coil spring

21. Rear shock - absorber
22. Rear suspension transverse torque rod
23. Rear suspension longitudinal torque rod
24. Fuel tank
25. Rear axle
26. Intermediate silencer
27. Rear propeller shaft
28. Reservoir for brake hydraulic fluid
29. Reservoir for clutch hydraulic fluid
30. Torque converter

31. Clutch pedal
32. Brake pedal
33. Front brake
34. Front suspension coil spring
35. Front axle
36. Direction indicator side repeater light
37. Front bumper

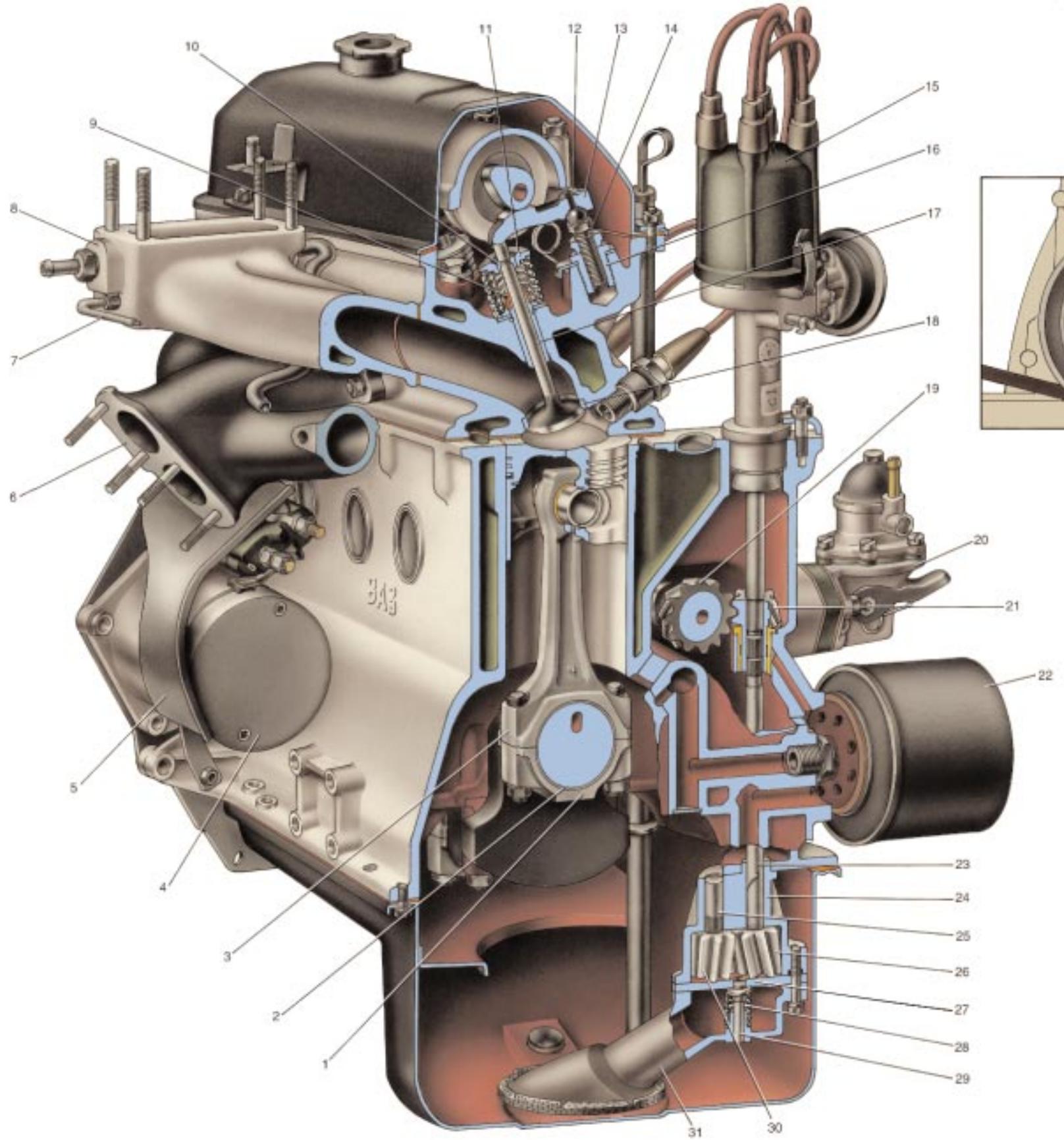


ENGINE
(sectional longitudinal view)

Specification

Engine model VAZ - 21213
Cylinder bore and piston stroke, mm. 80 x 80
Displacement, l 1.69
Compression ratio 9.3
Rated power as per GOST 14846-89 (net)
and ISO 1585-82 at crankshaft rate
5,200 rpm, kW (HP) 59 (80.2)

1. Crankshaft
2. Main bearing shell
3. Crankshaft sprocket
4. Crankshaft front oil seal
5. Crankshaft pulley
6. Ratchet
7. Timing cover
8. Coolant pump / alternator drivebelt
9. Alternator pulley
10. Oil pump / ignition distributor / fuel tank / drive sprocket
11. Oil pump / ignition distributor / fuel tank / drive shaft
12. Engine cooling system fan
13. Cylinder block
14. Cylinder head
15. Timing chain
16. Camshaft sprocket
17. Exhaust valve
18. Inlet valve
19. Camshaft bearing housing
20. Camshaft
21. Valve operating lever
22. Valve cover
23. Coolant temperature gauge sender
24. Spark plug
25. Piston
26. Gudgeon pin
27. Crankshaft rear oil seal retainer
28. Crankshaft thrust half-ring
29. Flywheel
30. Upper compression ring
31. Lower compression ring
32. Oil ring
33. Clutch bellhousing cover plate
34. Oil sump
35. Power unit front mounting
36. Connecting rod
37. Front mounting bracket
38. Power unit
39. Power unit rear mounting



ENGINE
(cross-sectional view)

1. Big end cap
2. Shell bearing
3. Connecting rod
4. Starter motor
5. Starter motor heat shield
6. Exhaust manifold
7. Inlet pipe drain tube
8. Inlet pipe

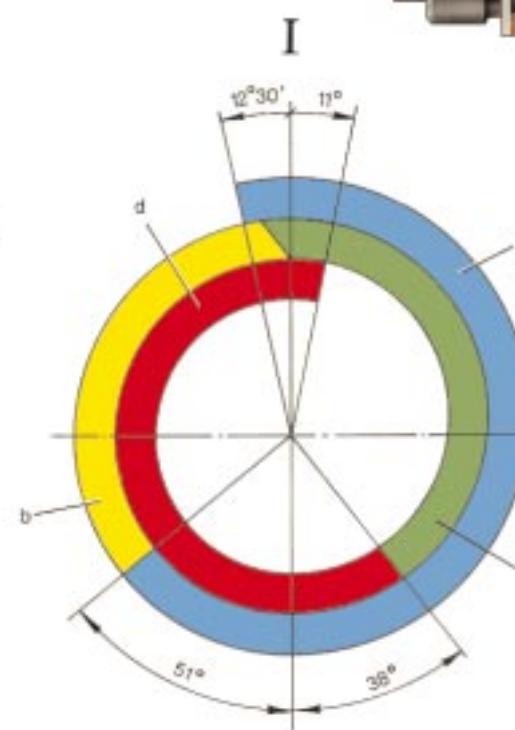
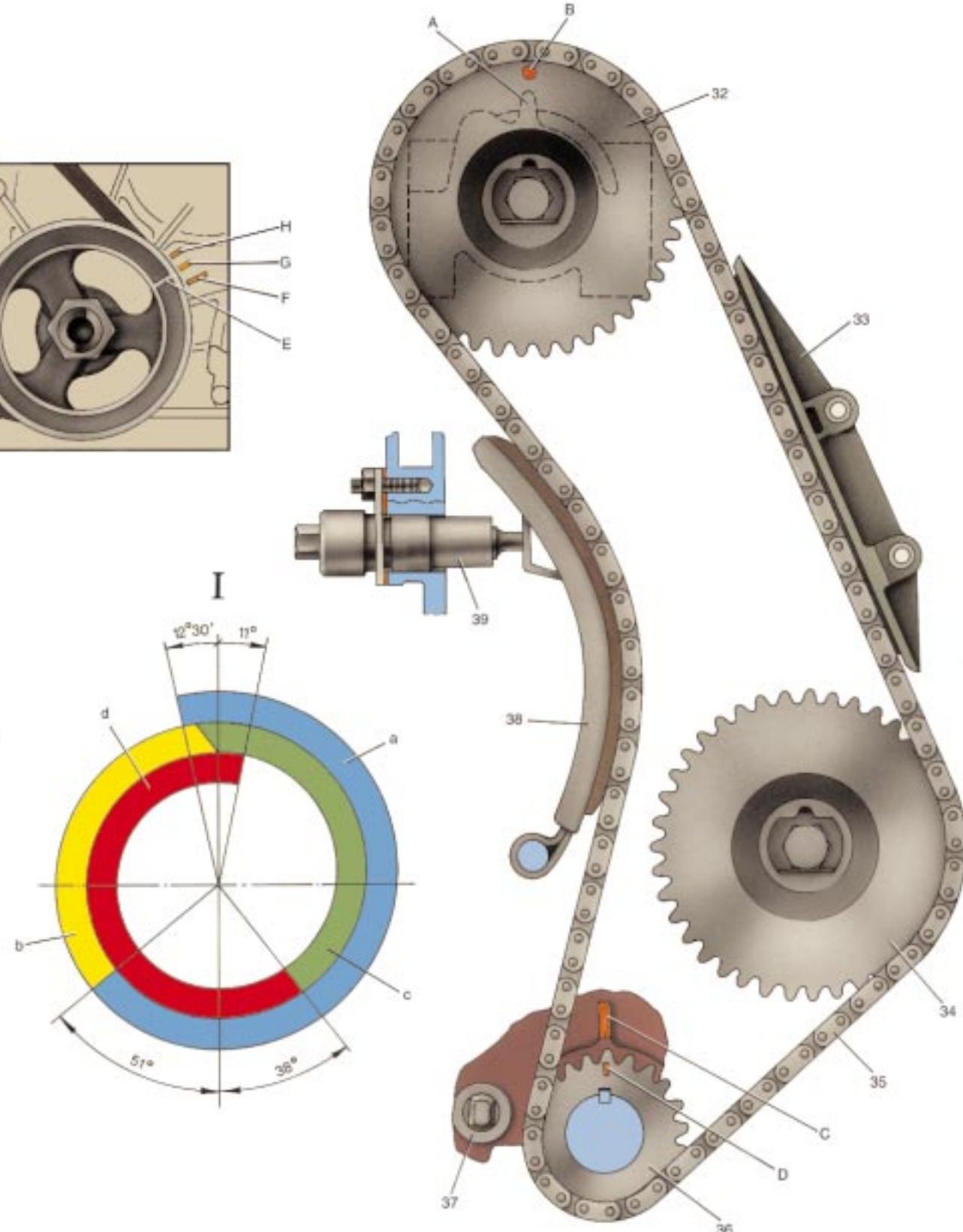
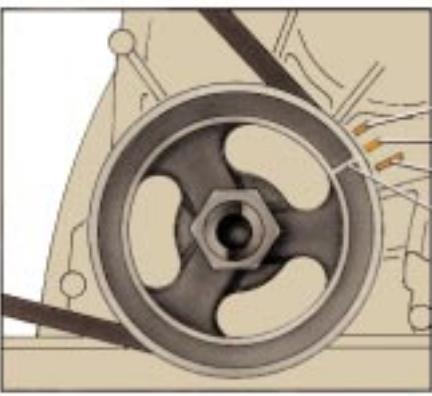
9. Oil deflector cap
10. Valve collet
11. Valve spring cap
12. Valve operating lever spring
13. Valve operating lever
14. Valve adjuster bolt
15. Ignition distributor
16. Adjuster bolt bush
17. Valve guide
18. Valve seat
19. Oil pump / ignition distributor / fuel pump drive shaft
20. Fuel pump
21. Oil pump / ignition distributor drive gear
22. Oil filter
23. Oil pump drive shaft
24. Oil pump body
25. Oil pump driven gear shaft
26. Oil pump drive gear
27. Oil pump cover
28. Reducing valve spring

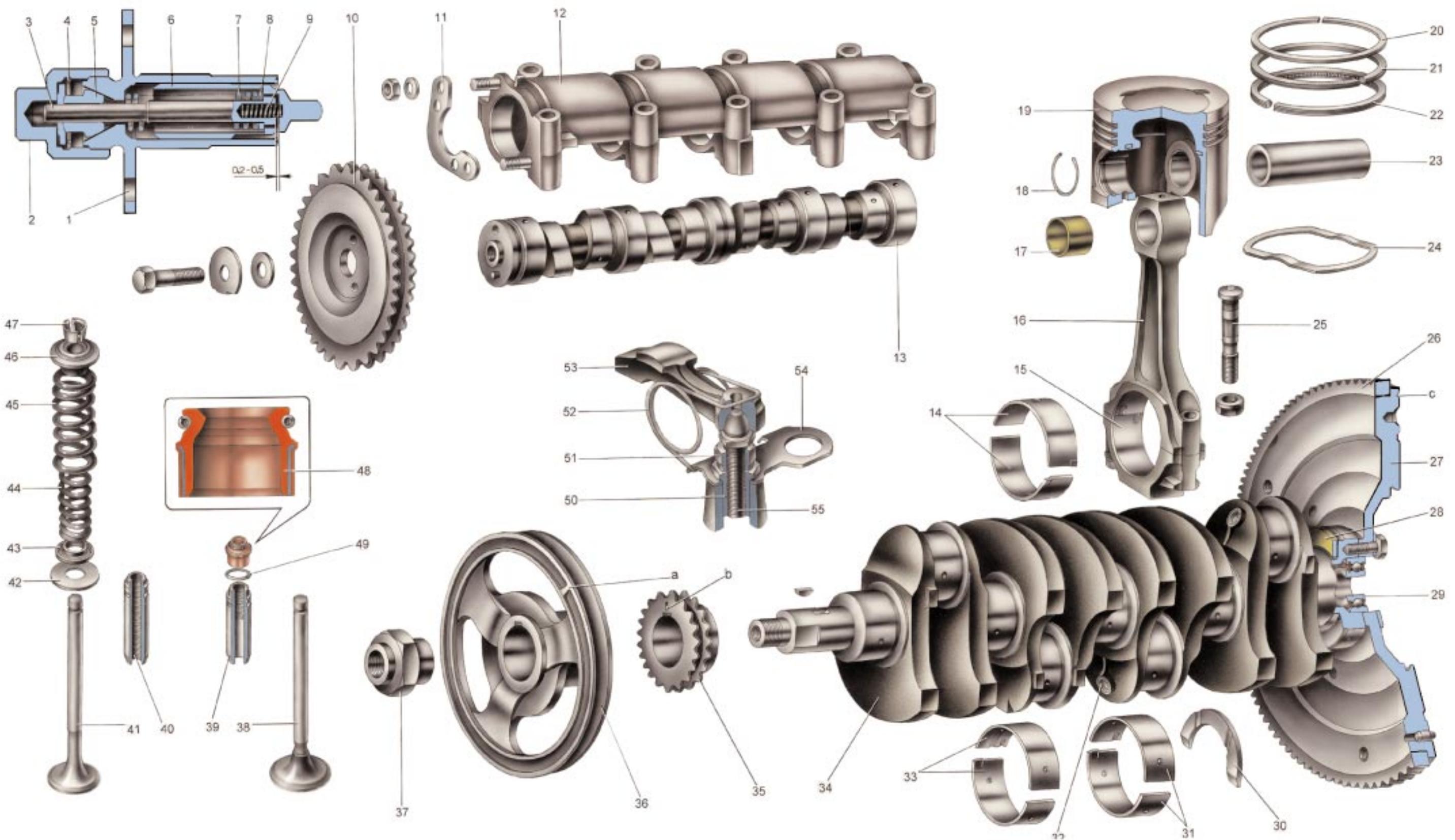
29. Reducing valve
30. Oil pump driven gear
31. Oil pump inlet pipe
32. Camshaft sprocket
33. Chain damper
34. Oil pump / ignition distributor / fuel pump drive sprocket
35. Valve chain
36. Crankshaft sprocket
37. Chain stop pin
38. Chain tensioner shoe

39. Chain tensioner

- A. Mounting lug on camshaft bearing housing
- B. Camshaft sprocket timing mark
- C. Cylinder block timing mark
- D. Timing mark on crankshaft sprocket
- E. TDC pointer on crankshaft pulley
- F. 0° timing mark
- G. 5° timing mark
- H. 10° timing mark

- I. Firing order**
- a. Induction
 - b. Compression
 - c. Power
 - d. Exhaust





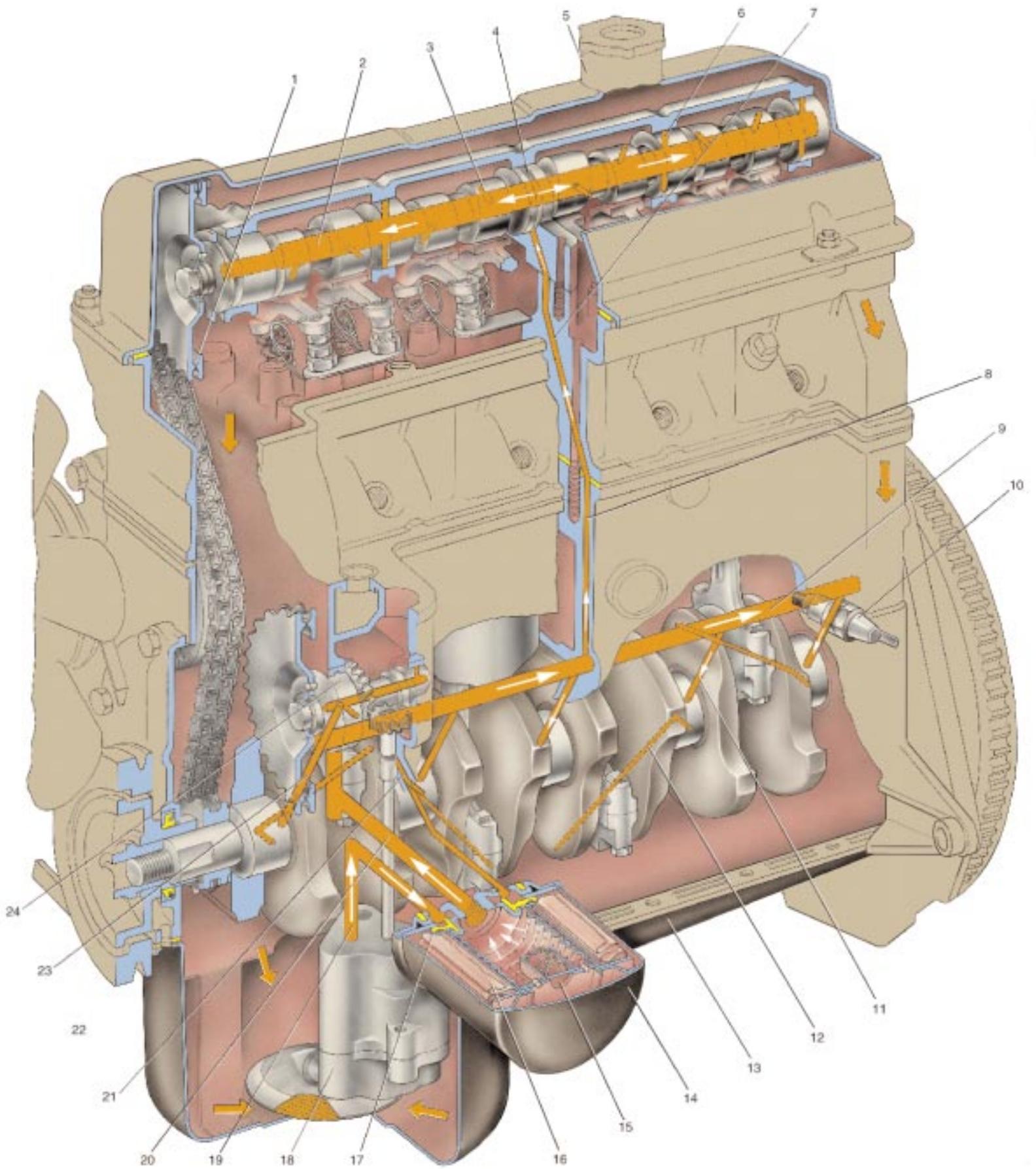
COMPONENTS OF CRANK MECHANISM AND TIMING GEAR

- Tensioner housing
- Cap nut
- Tensioner rod
- Circlip
- Clamping block
- Plunger
- Spring, tensioner
- Washer

- Spring, plunger
- Camshaft sprocket
- Thrust flange
- Camshaft bearing housing
- Camshaft
- Big-end bearing shells
- Big end cap
- Connecting rod
- Bush, conrod small end
- Circlip
- Piston
- Top compression ring
- Bottom compression ring
- Oil ring
- Gudgeon pin
- Thermoregulator plate
- Bolt, conrod
- Starter ring gear
- Flywheel
- Thrust half-ring, rear
- Front bearing, gearbox input shaft
- Thrust half-ring, front

- Centre main bearing (No 3) shells
- Crankshaft oil gallery plug á
- 1st, 2nd, 4th and 5th crankshaft bearing shells
- Crankshaft
- Crankshaft sprocket
- Alternator drive / coolant pump pulley
- Nut
- Inlet valve
- Inlet valve guide
- Exhaust valve guide
- Exhaust valve
- Seat, outer spring
- Seat, inner spring
- Inner valve spring
- Outer valve spring
- Spring seat
- Valve collet
- Outer cap
- Circlip
- Washer, adjusting bolt
- Locknut
- Spring

- a, b, c – TDC marks, 1st and 4th cylinder pistons**
53. Push rod
54. Stop plate, push rod spring
55. Adjusting bolt, valve

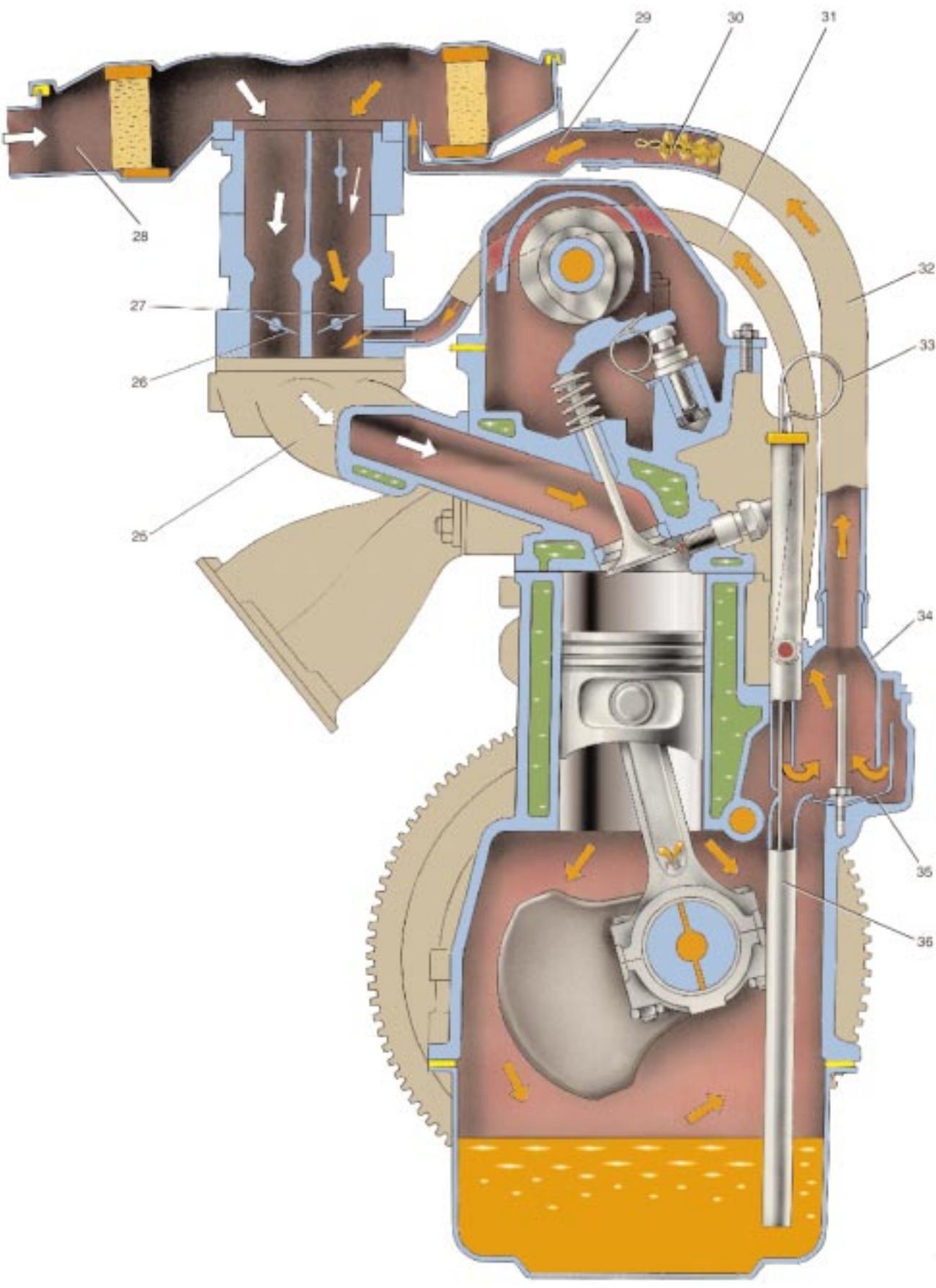


ENGINE LUBRICATION SYSTEM

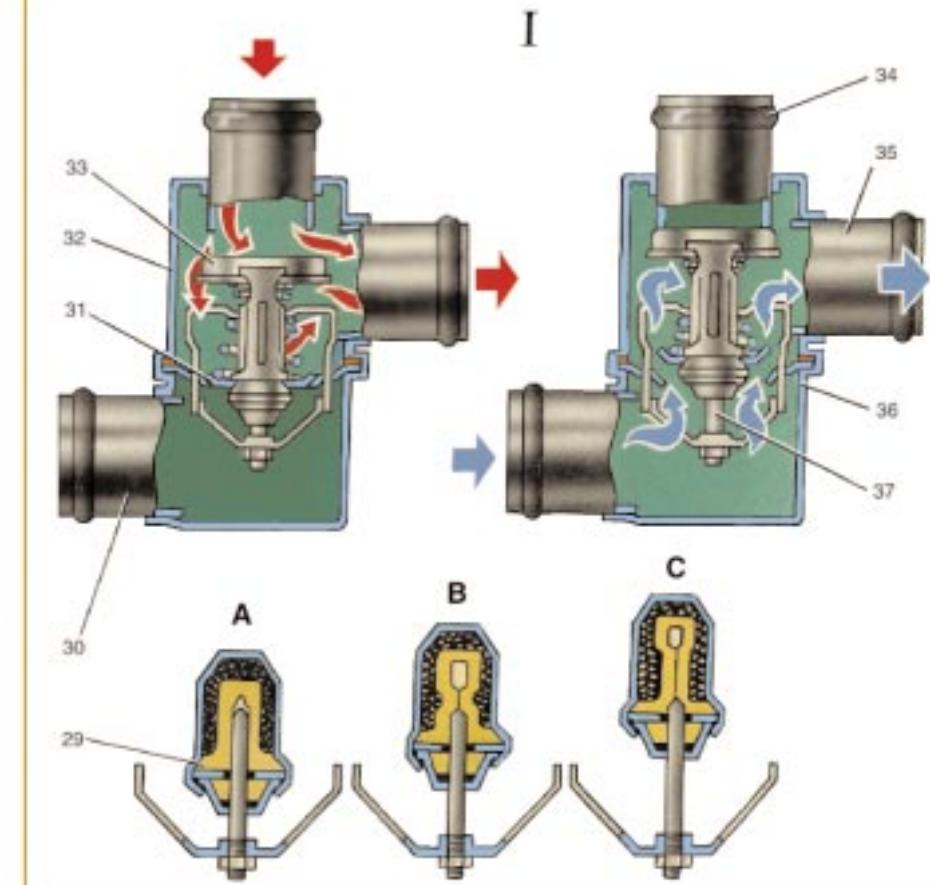
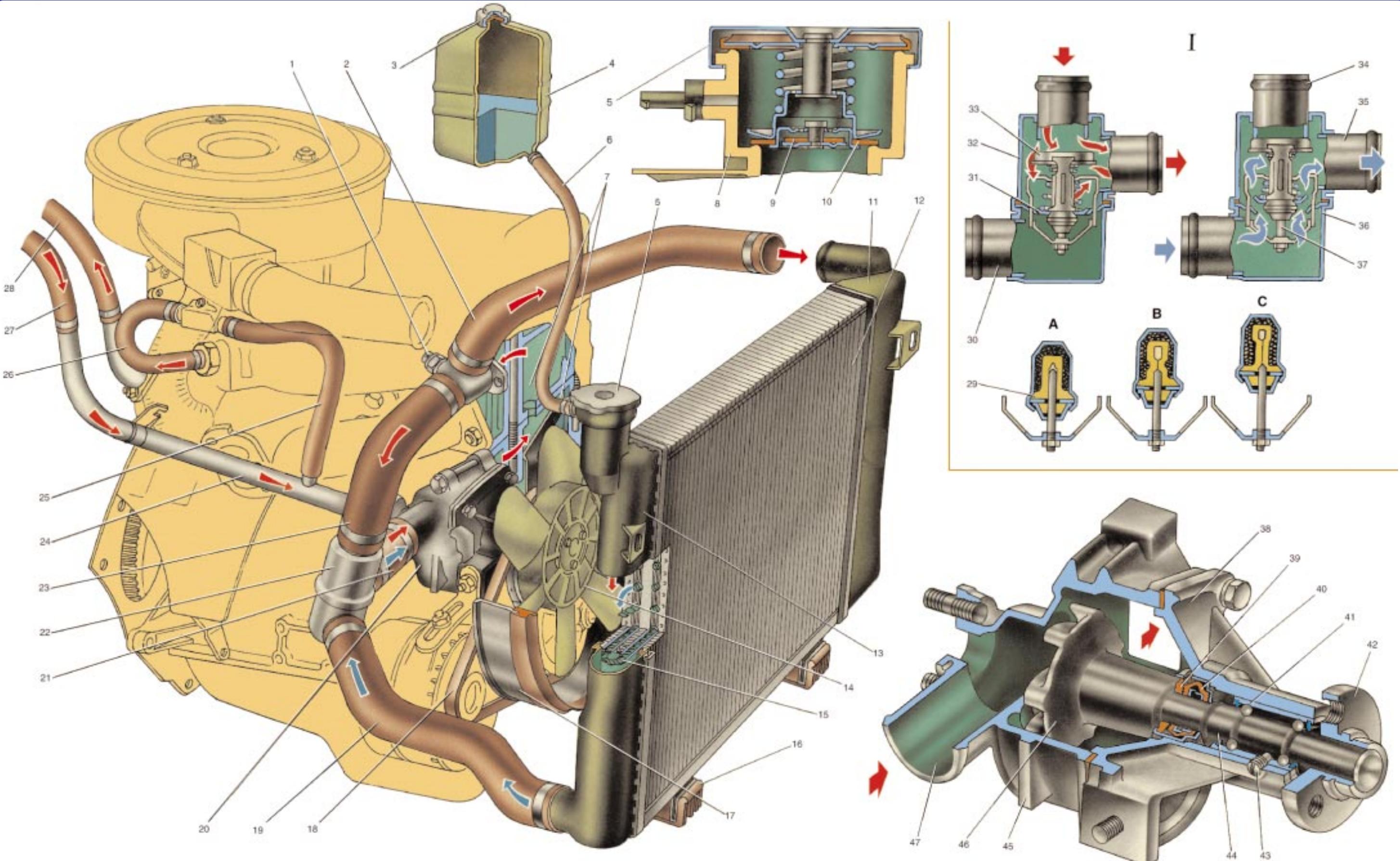
1. Sprocket hole for chain lubrication
2. Camshaft main oil gallery
3. Cam lobe oilway
4. Camshaft centre bearing journal oil recess
5. Oil filler neck
6. Camshaft journal oilway
7. Inclined oilway in cylinder head

8. Oilway to timing gear
9. Cylinder block main oil gallery
10. Oil pressure warning light sender
11. Oilway to main bearing
12. Oilway to big end bearing
13. Oil sump
14. Oil filter
15. By-pass valve
16. Paper filter element

17. Check valve
18. Oil pump
19. Oil pump - to - oil filter gallery
20. Oilway from oil filter to main oil gallery
21. Oilway to oil pump drive gear bush
22. Front crankshaft grease seal
23. Oilway to main bearing and to oil pump drive gear shaft
24. Oil pump / ignition distributor drive shaft



25. Inlet pipe
 26. Throttle valve, carburettor secondary barrel
 27. Throttle valve, carburettor primary barrel
 28. Air cleaner unit
 29. Discharge ventilation manifold
 30. Flame arrester
 31. Hose to draw crankcase gases behind carburettor throttle valve
 32. Discharge hose
- I. Engine crankcase ventilation diagram
33. Oil level dipstick
 34. Oil separator cover
 35. Oil separator
 36. Drain pipe



COOLING SYSTEM

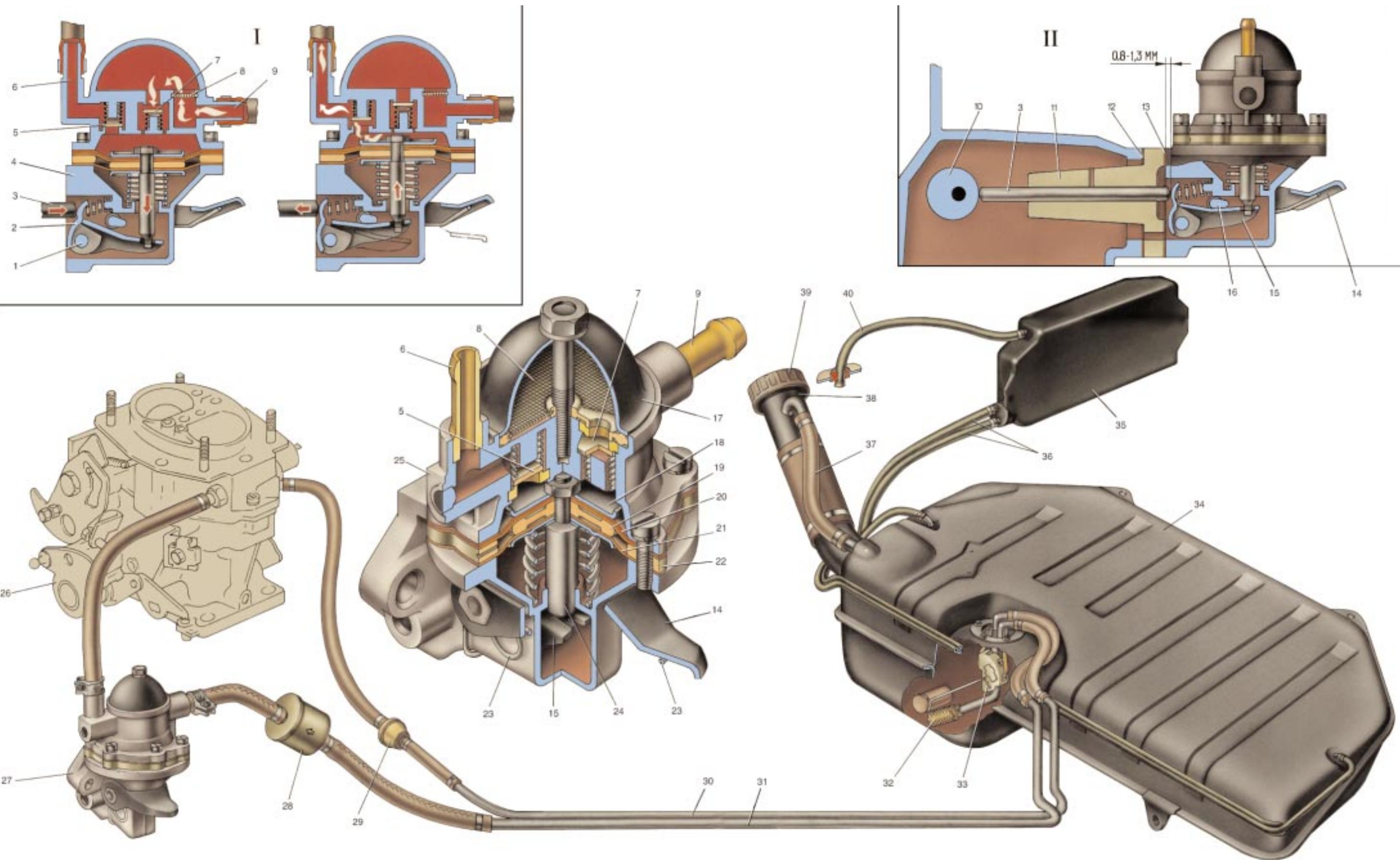
- 1. Temperature sensor for fuel injection system
- 2. Radiator top hose
- 3. Expansion tank filler cap
- 4. Expansion tank
- 5. Radiator cap
- 6. Fluid return hose to expansion tank
- 7. Cooling water jacket
- 8. Filler neck

- 9. Inlet valve
- 10. Exhaust (steam) valve
- 11. LH fluid cooler
- 12. Radiator matrix
- 13. RH fluid cooler
- 14. Fan impeller
- 15. Swirler
- 16. Radiator mounting rubber
- 17. Fan cowl
- 18. Fan belt

- 19. Radiator outlet hose
- 20. Coolant pump
- 21. Coolant pump supply hose
- 22. Thermostat
- 23. Thermostat by-pass hose
- 24. Coolant return hose from heater radiator
- 25. Coolant return pipe from part throttle channel heater
- 26. Coolant supply hose to part throttle channel heater
- 27. Coolant return hose from heater radiator
- 28. Coolant supply hose to heater radiator
- 29. Rubber insert
- 30. Inlet elbow (from radiator)
- 31. Main valve
- 32. Thermostat housing
- 33. By-pass valve
- 34. By-pass hose pipe
- 35. Coolant pump supply pipe
- 36. Thermostat cover

- 37. Piston
- 38. Water pump cover
- 39. Oil seal thrust sealing ring
- 40. Oil seal collar
- 41. Water pump shaft bearing outer ring
- 42. Fan pulley hub
- 43. Stop screw
- 44. Water pump shaft
- 45. Water pump housing
- 46. Water pump impeller
- 47. Inlet pipe

- I.** Thermostat operation diagram
- A. Coolant temperature below 80°C
 - B. Coolant temperature within 80 to 94°C
 - C. Coolant temperature over 94°C



FUEL SYSTEM

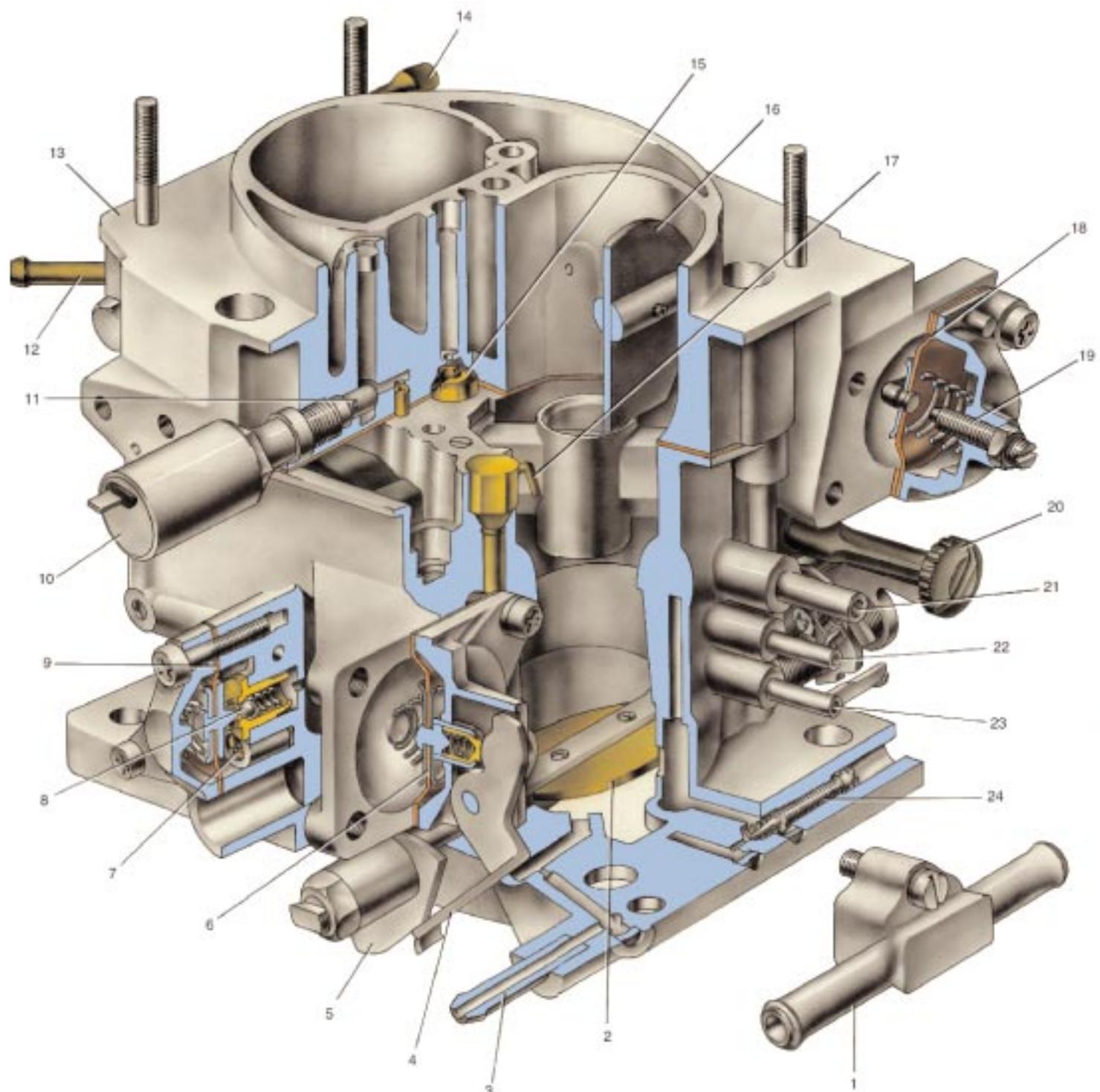
1. Rocker arm shaft
2. Rocker arm
3. Pushrod
4. Bottom cover
5. Delivery valve
6. Delivery union

7. Suction valve
8. Fuel filter
9. Suction union
10. Fuel pump eccentric on shaft 19 (See p.4)
11. Thermal insulating spacer
12. Gasket
13. Fuel tank shim
14. Priming lever
15. Rocker
16. Eccentric
17. Fuel tank cover
18. Diaphragm plate
19. Inner spacer
20. Upper diaphragms
21. Lower diaphragm
22. Outer spacer
23. Return spring
24. Pullrod

25. Top cover
26. Carburettor
27. Fuel pump
28. Fine filter
29. Check valve
30. Return flow line
31. Supply line from fuel tank
32. Intake pipe filter
33. Fuel gauge sender

34. Fuel tank
35. Fuel vapour separator
36. Separator connecting hoses
37. Air hose
38. Fuel filler neck
39. Filler cap
40. Vent hose

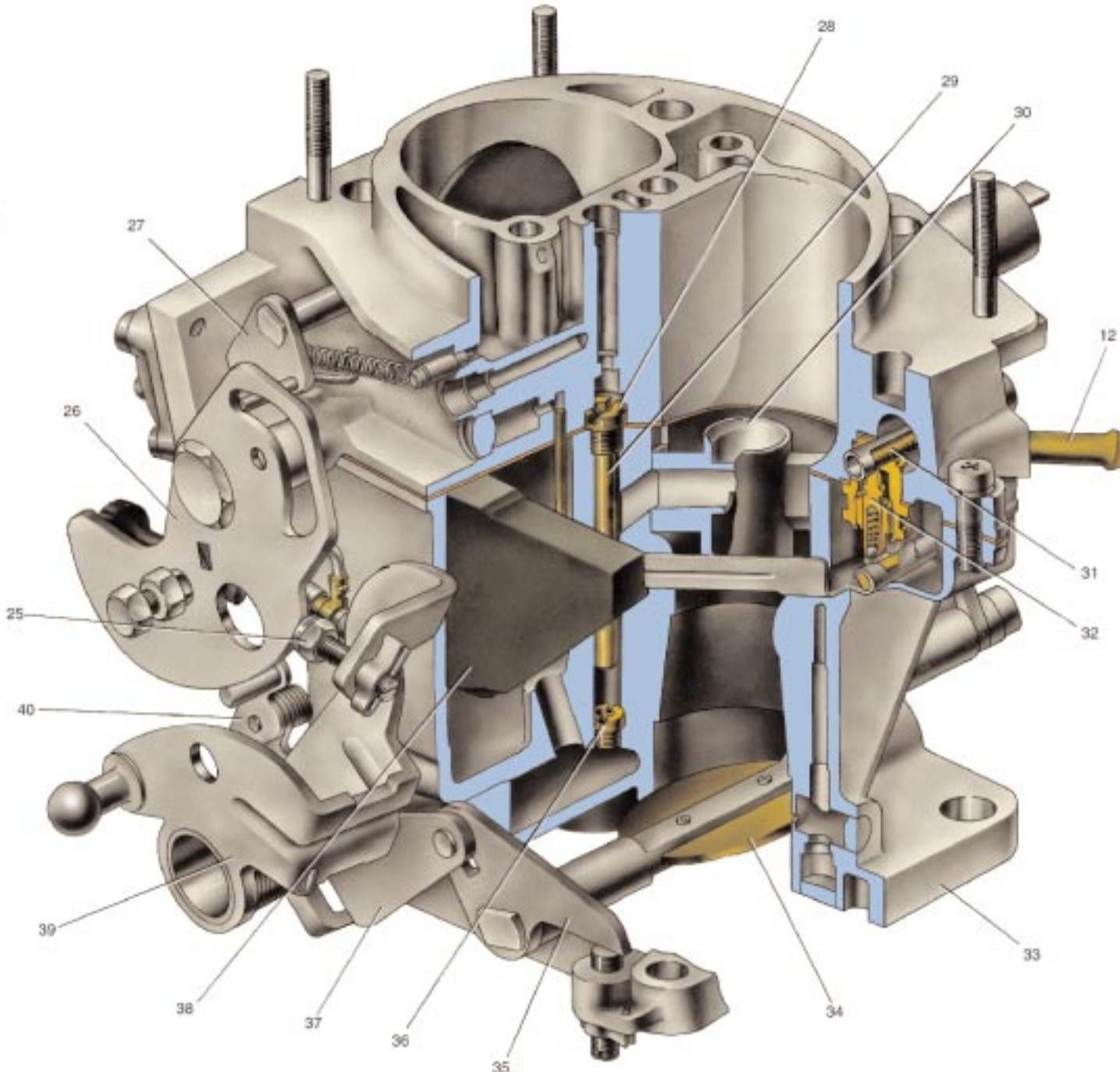
I. Fuel pump operation diagram
II. Fuel pump mounting diagram



CARBURETTOR

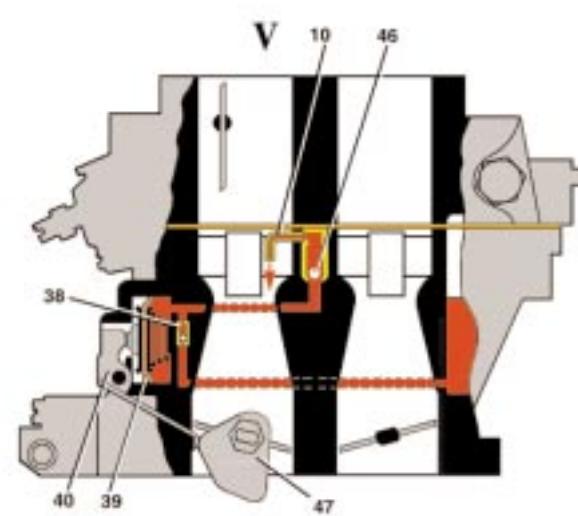
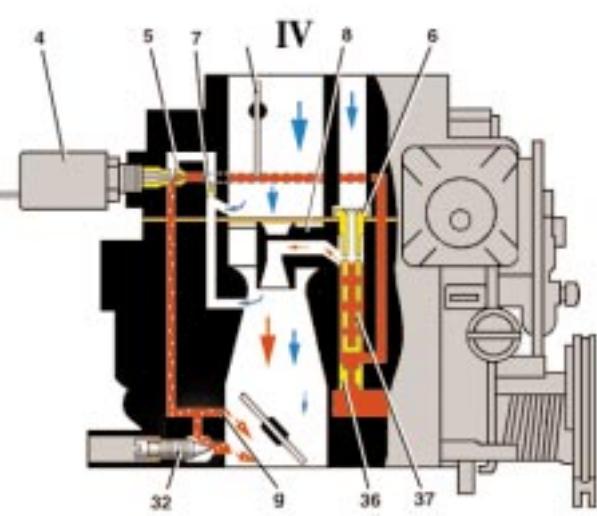
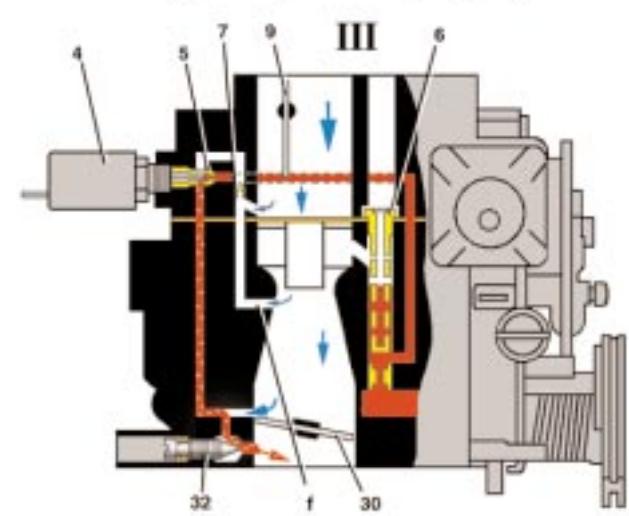
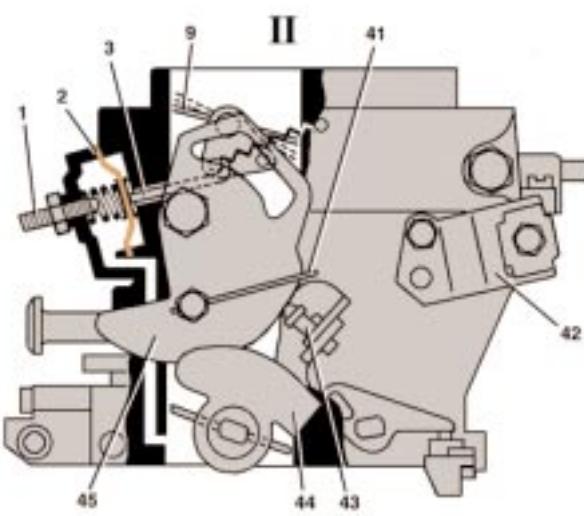
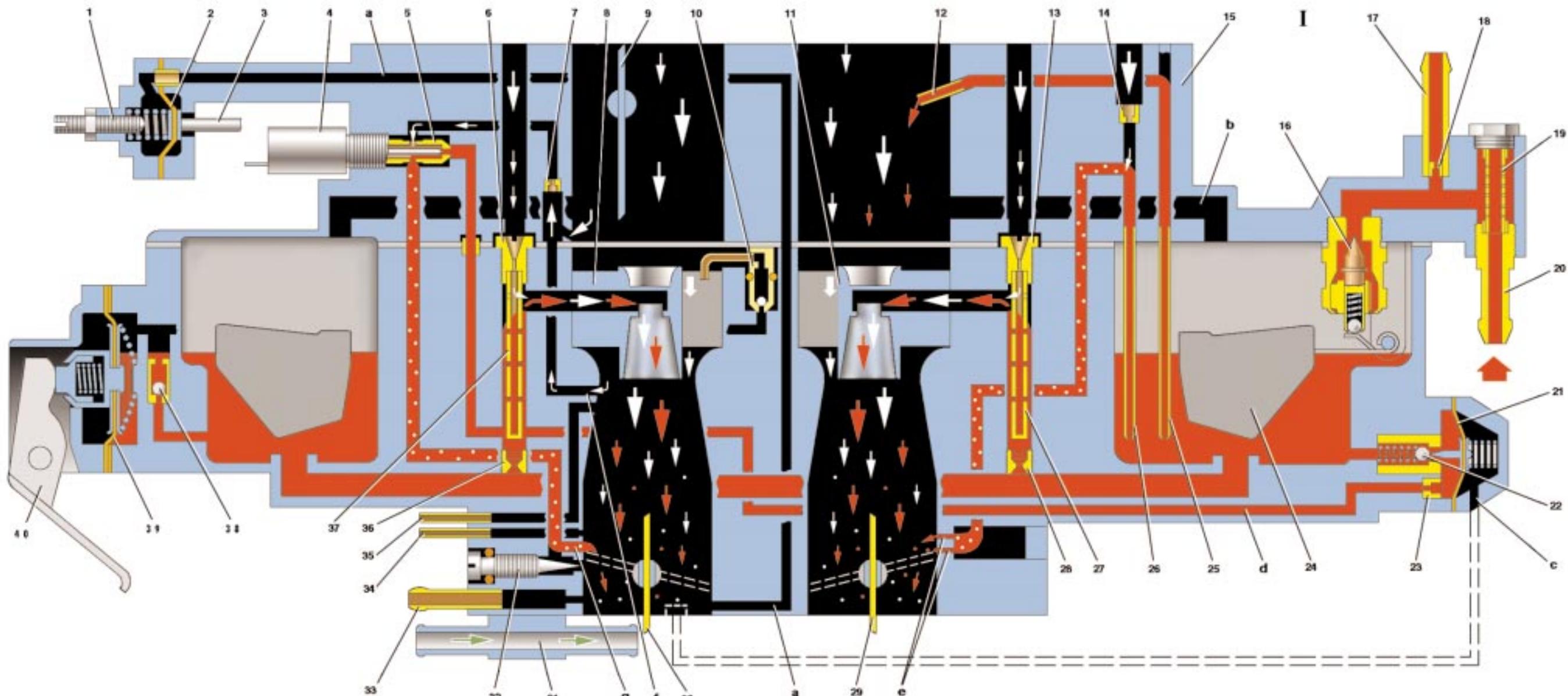
1. Part throttle channel heater
2. Primary throttle
3. Crankcase emission suction union
4. Accelerator pump operating lever
5. Accelerator pump rocker arm
6. Accelerator pump diaphragm
7. Fuel jet, part throttle enrichment
8. Ball valve, part throttle enrichment
9. Diaphragm, part throttle enrichment

10. Electromagnetic shut-off valve
11. Idling fuel jet
12. Return pipe to fuel tank
13. Carburetor cover
14. Supply union
15. Primary barrel main air jet
16. Choke valve plate
17. Accelerator pump atomizers
18. Pull-down diaphragm
19. Adjustment screw
20. Throttle stop screw



- 21.22. Vacuum discharge to EGR system
23. Vacuum discharge to ignition distributor vacuum control
24. Idle mixture adjusting screw
25. Primary throttle adjustment screw (pull-down unit)
26. Choke operating lever
27. Choke drive lever
28. Secondary barrel main air jet
29. Emulsion tube
30. Secondary barrel main fuel atomizer
31. Fuel filter
32. Float chamber needle valve

33. Carburetor body
34. Secondary throttle
35. Secondary throttle lever
36. Secondary barrel main fuel jet
37. Secondary throttle operating lever
38. Float
39. Throttle valves operating lever
40. Secondary barrel lock lever



CARBURETOR OPERATION DIAGRAM

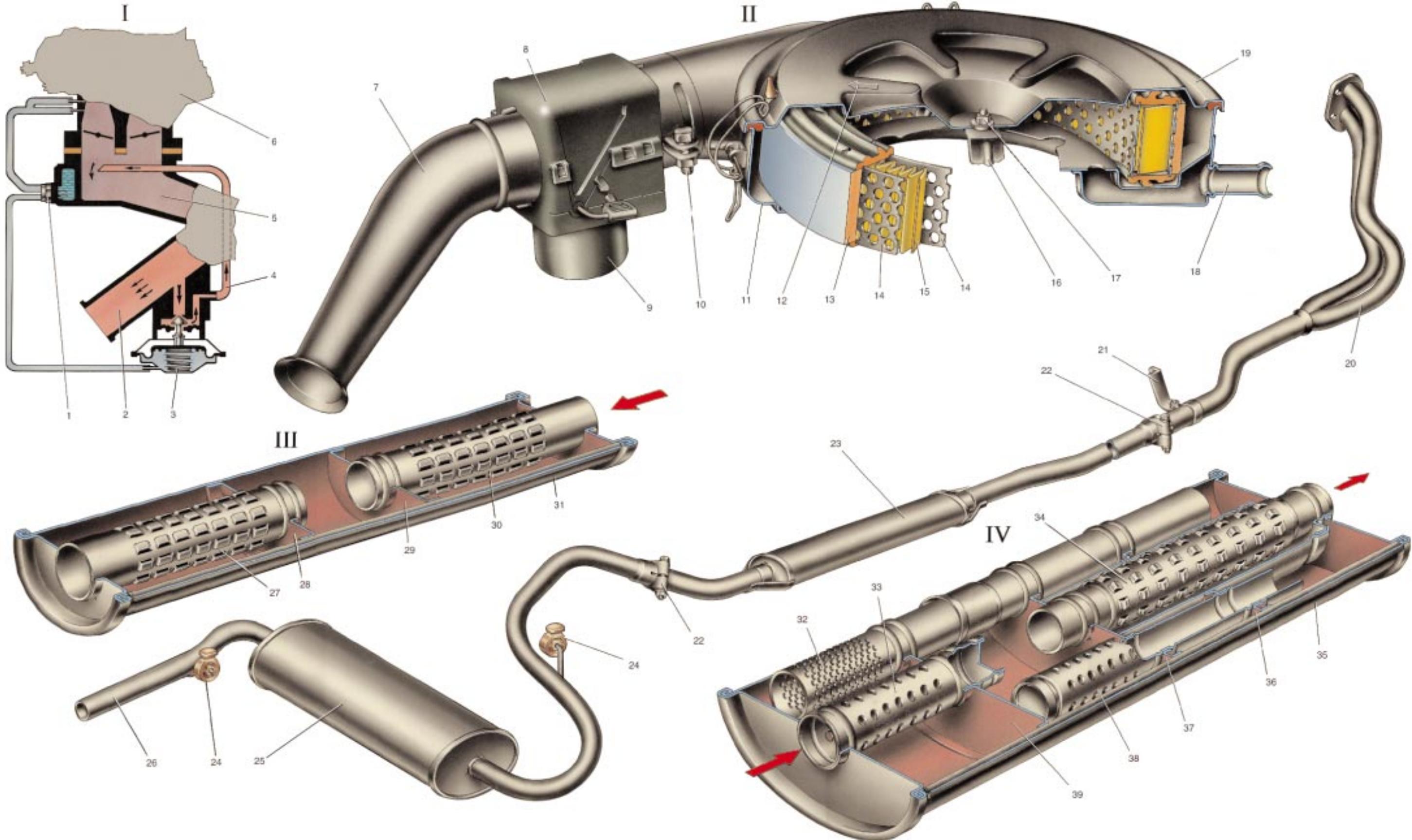
1. Adjustment screw (choke pull-down unit)
2. Pull-down diaphragm
3. Pushrod
4. Electromagnetic shut-off valve
5. Idling fuel jet
6. Main air jet, primary barrel
7. Idling air jet
8. Main fuel atomizer, primary barrel
9. Choke valve plate
10. Accelerator pump nozzle
11. Main fuel atomizer, secondary barrel

10

12. Injection pipe, full throttle enrichment
13. Secondary main air jet
14. Air correction jet, secondary barrel
15. Carburetor top cover
16. Needle valve
17. Return line to fuel tank
18. Fuel-to-tank return jet
19. Fuel filter
20. Fuel supply to carburetor
21. Diaphragm, part throttle enrichment
22. Ball valve, part throttle enrichment
23. Fuel jet, part throttle enrichment
24. Float
25. Fuel jet and tube, full throttle enrichment
26. Secondary barrel fuel correction jet with tube
27. Secondary barrel emulsion tube
28. Secondary barrel main fuel jet
29. Secondary throttle
30. Primary throttle
31. Part throttle channel heater
32. Idle mixture adjustment screw
33. Crankcase emission discharge pipe
34. Vacuum discharge to ignition distributor vacuum control
35. Vacuum discharge to EGR valve (second pipe is not shown)

36. Primary main fuel jet
37. Primary emulsion tube
38. Accelerator pump non-return ball valve
39. Accelerator pump diaphragm
40. Accelerator pump operating lever
41. Choke drive lever
42. Outer rod securing bracket
43. Primary throttle adjusting screw (pull-down unit)
44. Throttle valve operating lever
45. Choke control lever
46. Fuel supply ball valve
47. Accelerator pump operating cam

- a. Air passage, pull-down unit
 - b. Float chamber balance passage
 - c. Air passage, part throttle enrichment
 - d. Fuel passage, part throttle enrichment
 - e. Secondary correction outlet ports
 - f. Idling air passage hole
 - g. Idling transients hole
- I. Carburetor operation diagram at full throttle
 - II. Pull-down unit operation diagram
 - III. Carburetor operation diagram at idle speed
 - IV. Carburetor operation diagram at part throttle
 - V. Acceleration pump operation diagram



AIR CLEANER. SILENCERS.

1. EGR valve thermo-vacuum switch
2. Exhaust manifold
3. EGR valve
4. EGR tube
5. Intake manifold
6. Carburettor
7. Cold air intake

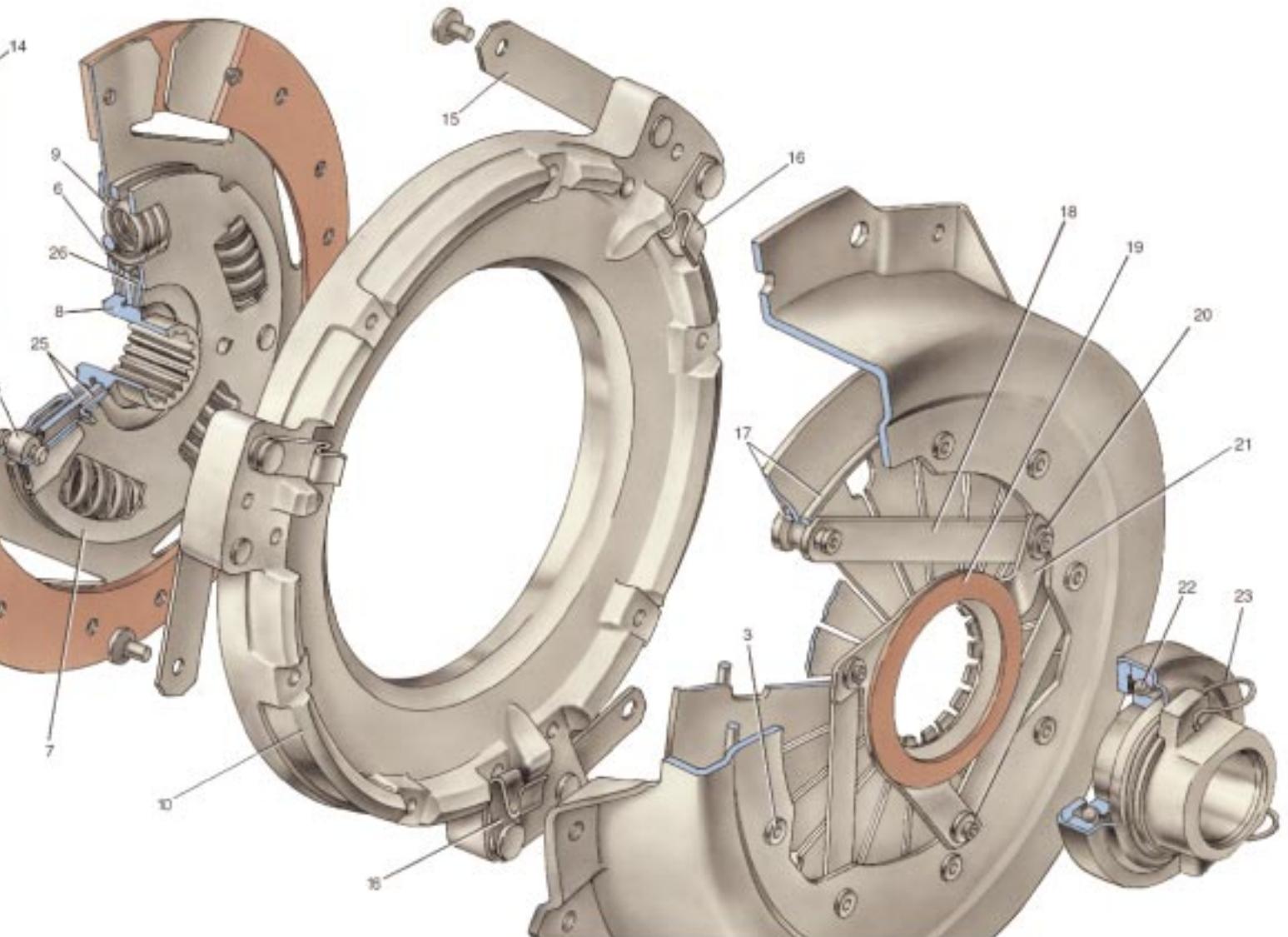
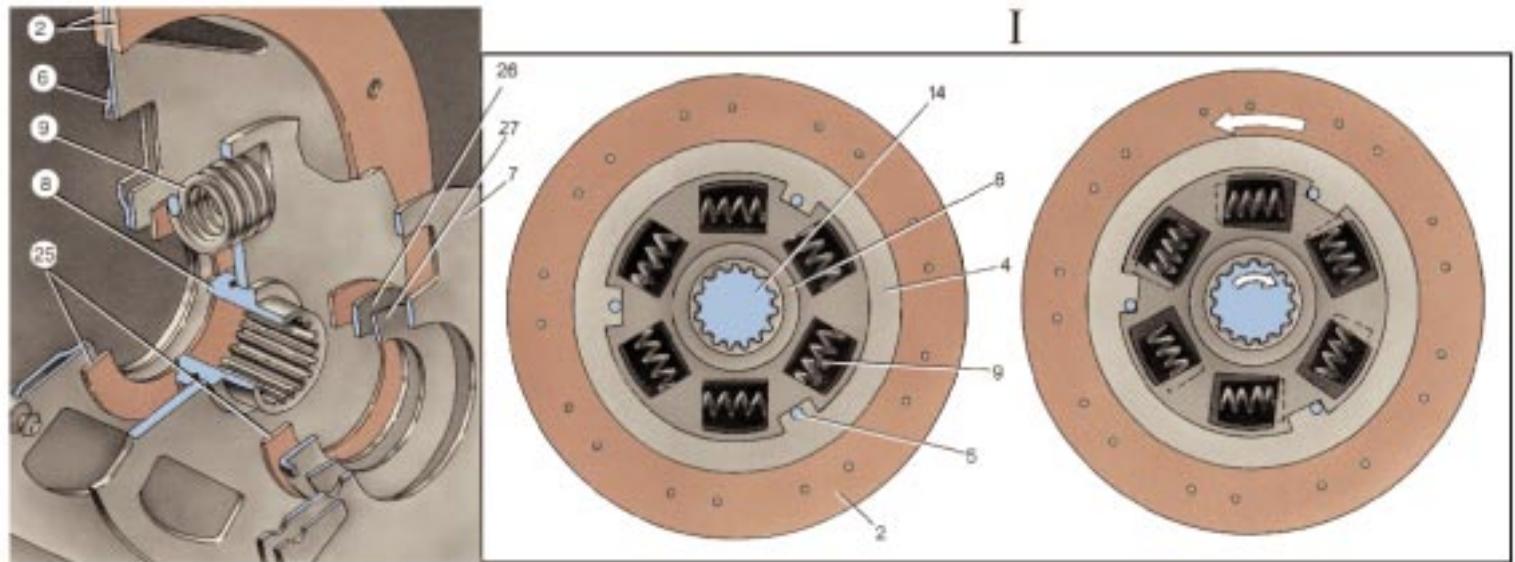
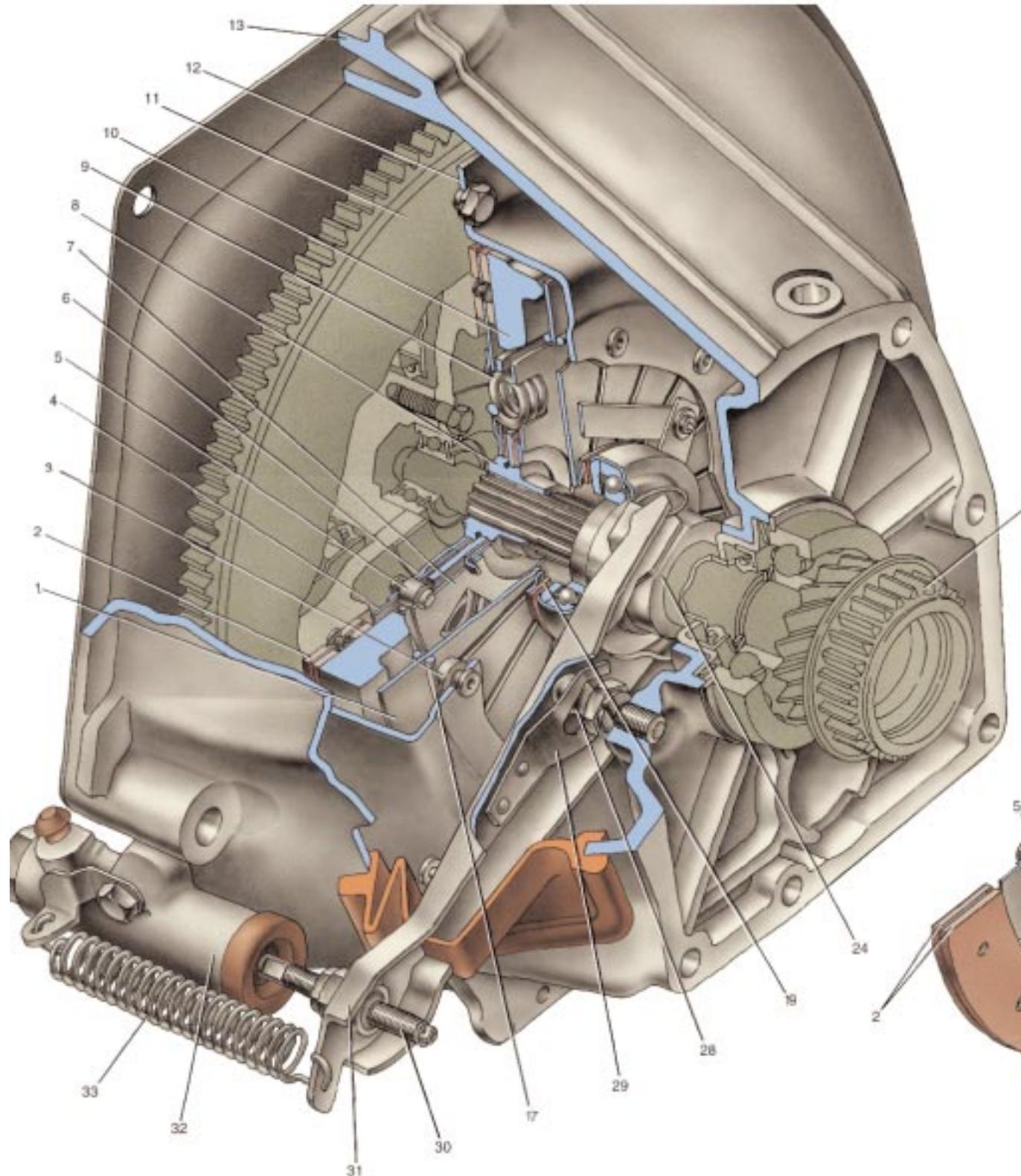
8. Temperature flap
9. Warm air intake manifold
10. Pinch bolt
11. Air cleaner housing
12. Pointer for air filter cover alignment
13. Gauze
14. Filter element perforated plates
15. Paper filter element
16. Air cleaner cover mounting bracket

17. Securing nut
18. Discharge pipe
19. Air cleaner cover
20. Front exhaust pipe
21. Front exhaust pipe bracket
22. Clips
23. Intermediate silencer
24. Suspension rings
25. Main silencer

26. Tail pipe
27. Intermediate silencer rear perforated tube
28. Intermediate silencer rear baffle plate
29. Front baffle plate
30. Front perforated tube
31. Intermediate silencer housing
32. Main silencer front perforated tube
33. Main silencer inlet pipe
34. Main silencer outlet pipe

35. Main silencer housing
36. Rear baffle plate
37. Centre baffle plate
38. Rear perforated tube
39. Front baffle plate

I. Recirculation diagram
II. Air cleaner unit
III. Intermediate silencer
IV. Main silencer



CLUTCH

1. Diaphragm spring
2. Clutch friction discs
3. Diaphragm spring rivet
4. Clutch disc
5. Rivet - damper tip
6. Disc adaptor

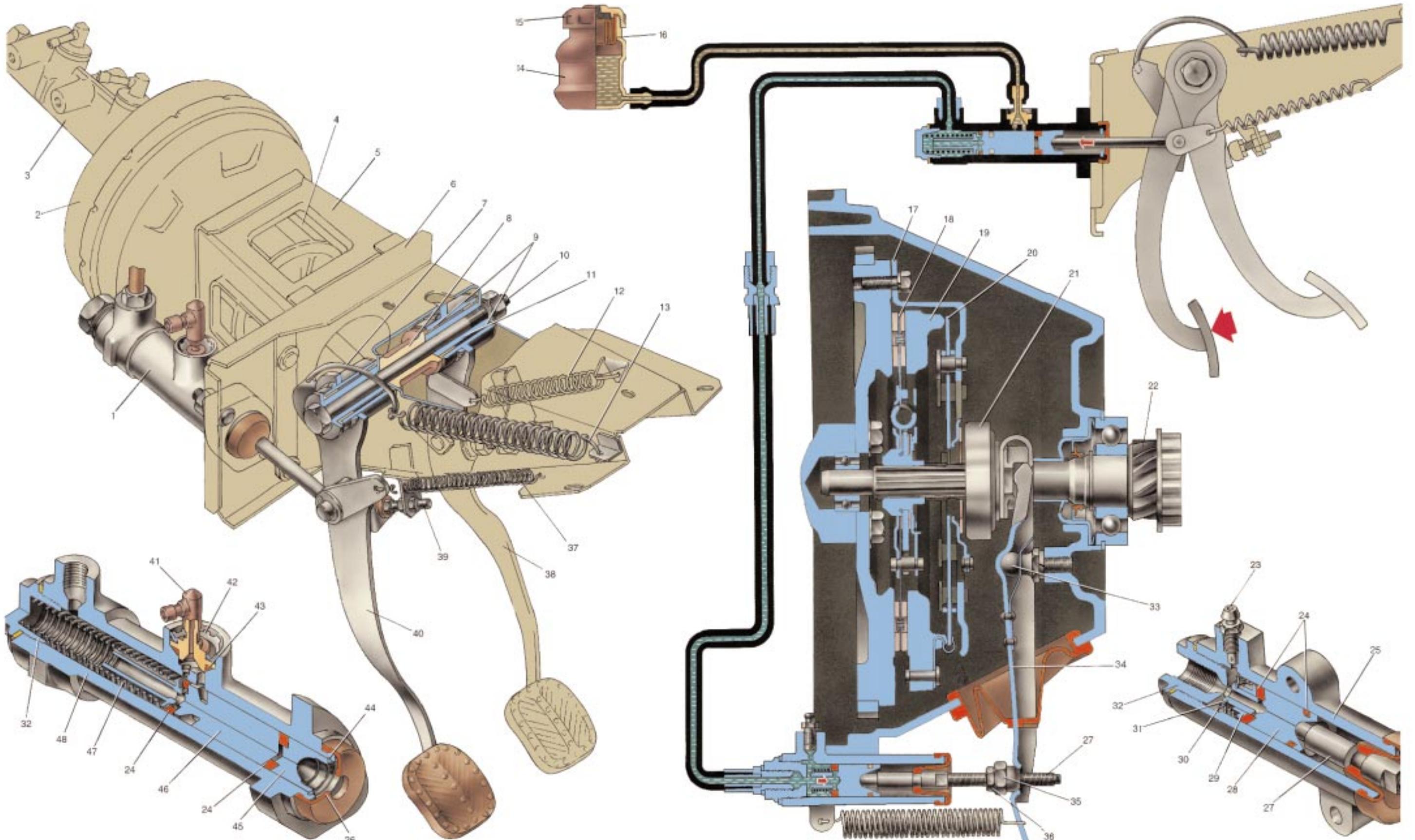
7. Retainer plate
8. Clutch disc hub
9. Damper spring
10. Pressure plate
11. Flywheel
12. Clutch cover
13. Clutch bellhousing
14. Gearbox input shaft

15. Pressure plate - to - clutch cover strap
16. Diaphragm spring clip
17. Diaphragm spring fulcrum ring
18. Thrust flange / clutch cover strap
19. Thrust flange friction washer
20. Strap rivet
21. Diaphragm spring thrust flange
22. Release bearing

23. Clutch release fork / bearing spring
24. Clutch release bearing
25. Damper friction washer
26. Spring washer bearing disc
27. Damper spring washer
28. Release fork ball pivot
29. Release fork spring
30. Release fork pushrod

31. Clutch release fork
32. Slave cylinder
33. Release fork return spring

I. Damper operation diagram



CLUTCH OPERATION SYSTEM

1. Clutch master cylinder
2. Vacuum servo unit
3. Brake master cylinder
4. Servo boot
5. Vacuum servo bracket
6. Pedal cluster mounting bracket
7. Over-centre spring hook

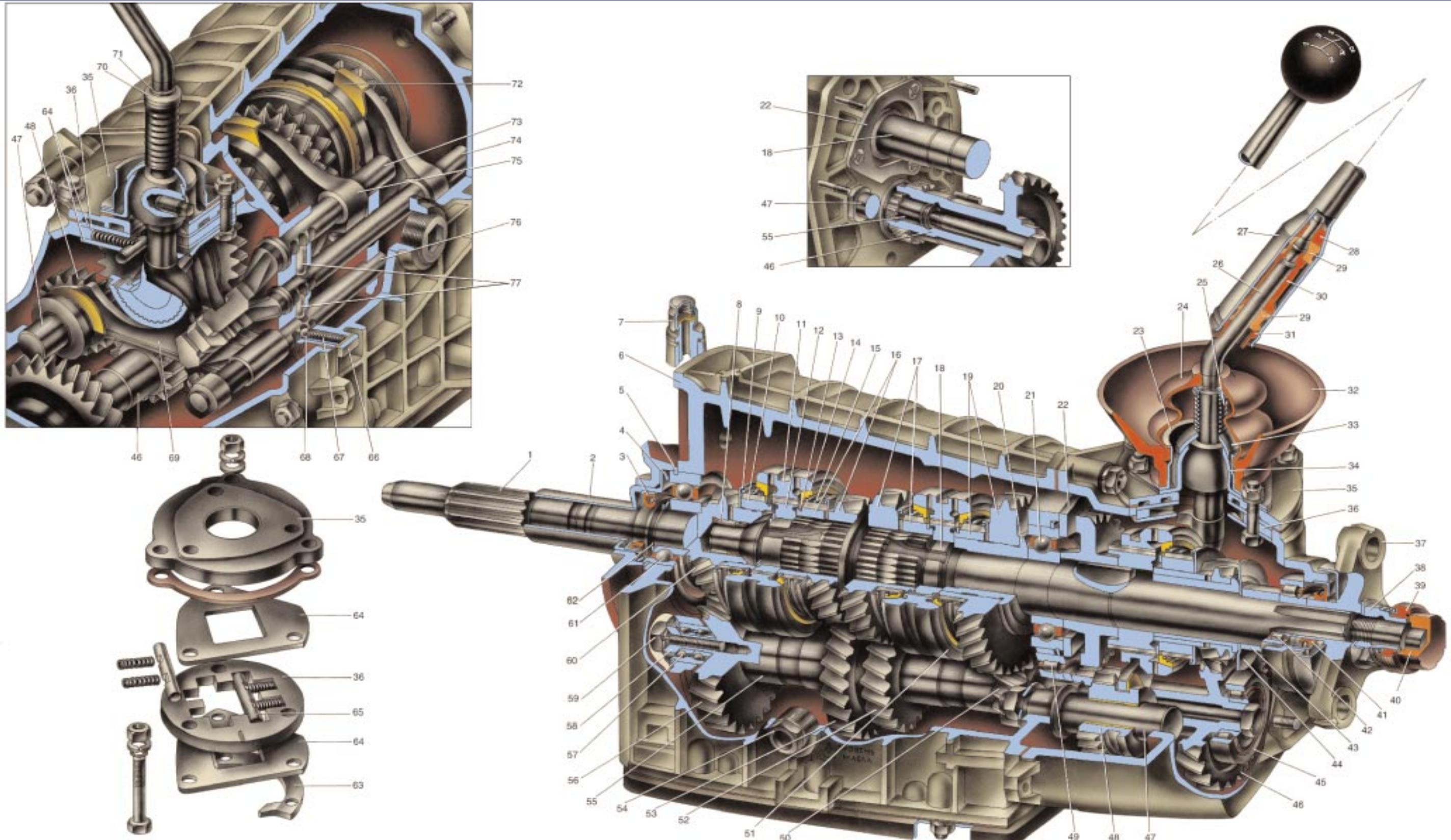
8. Pedal spacer sleeve

9. Pedal outer bushes
10. Brake / clutch pedal shaft
11. Pedal inner bush
12. Brake pedal return spring
13. Booster spring
14. Master cylinder fluid reservoir
15. Filler cap
16. Baffle

17. Clutch cover

18. Clutch disc
19. Pressure plate
20. Diaphragm spring
21. Clutch release bearing
22. Gearbox input shaft
23. Bleed nipple
24. Sealing ring
25. Slave cylinder housing
26. Protective cap
27. Release fork pushrod
28. Piston
29. Piston bearing plate
30. Spring disc
31. Circlip
32. Plug
33. Clutch release fork ball pivot
34. Clutch release fork
35. Adjustment nut
36. Locknut
37. Clutch pedal return spring
38. Brake pedal
39. Clutch pedal screw
40. Clutch pedal
41. Union
42. Retaining washer
43. Gasket

44. Circlip
45. Pushrod piston
46. Master cylinder piston
47. Return spring
48. Master cylinder body
- I. Clutch hydraulic system operation diagram



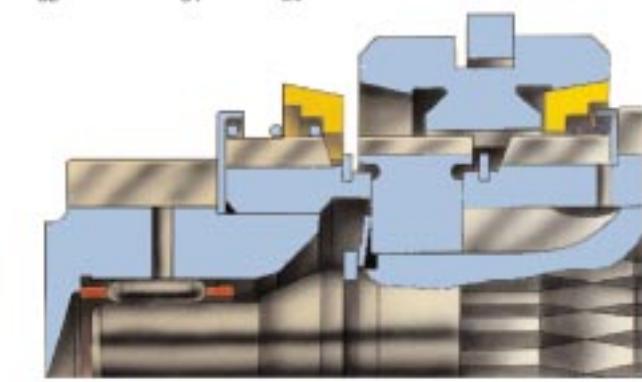
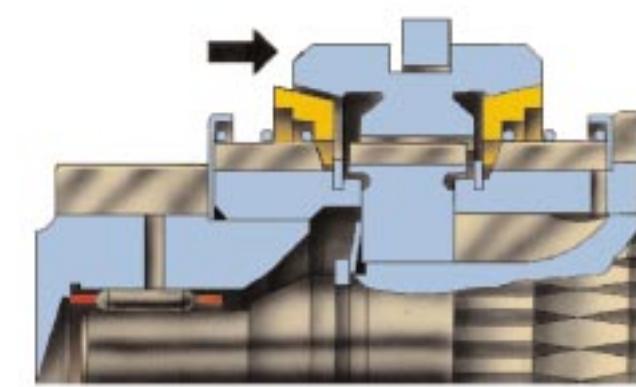
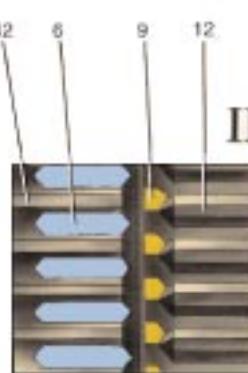
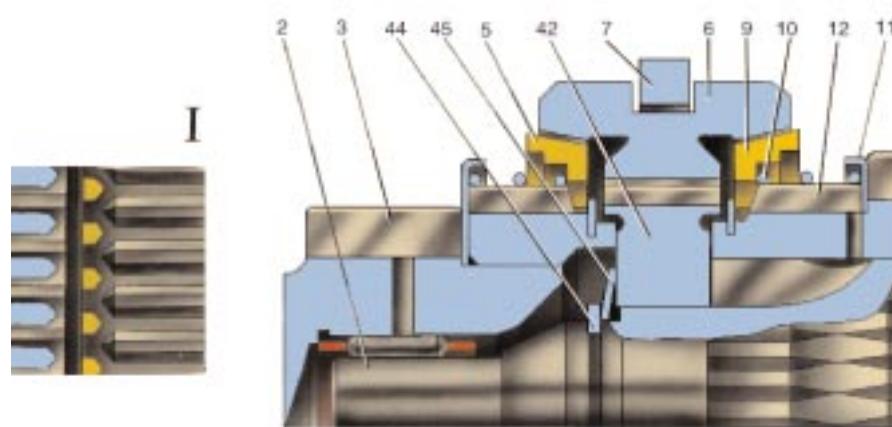
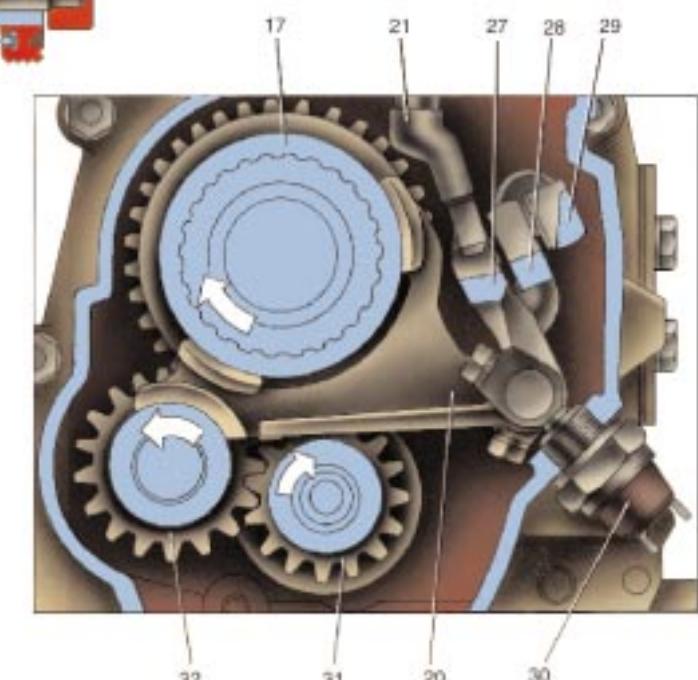
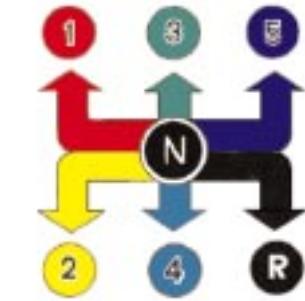
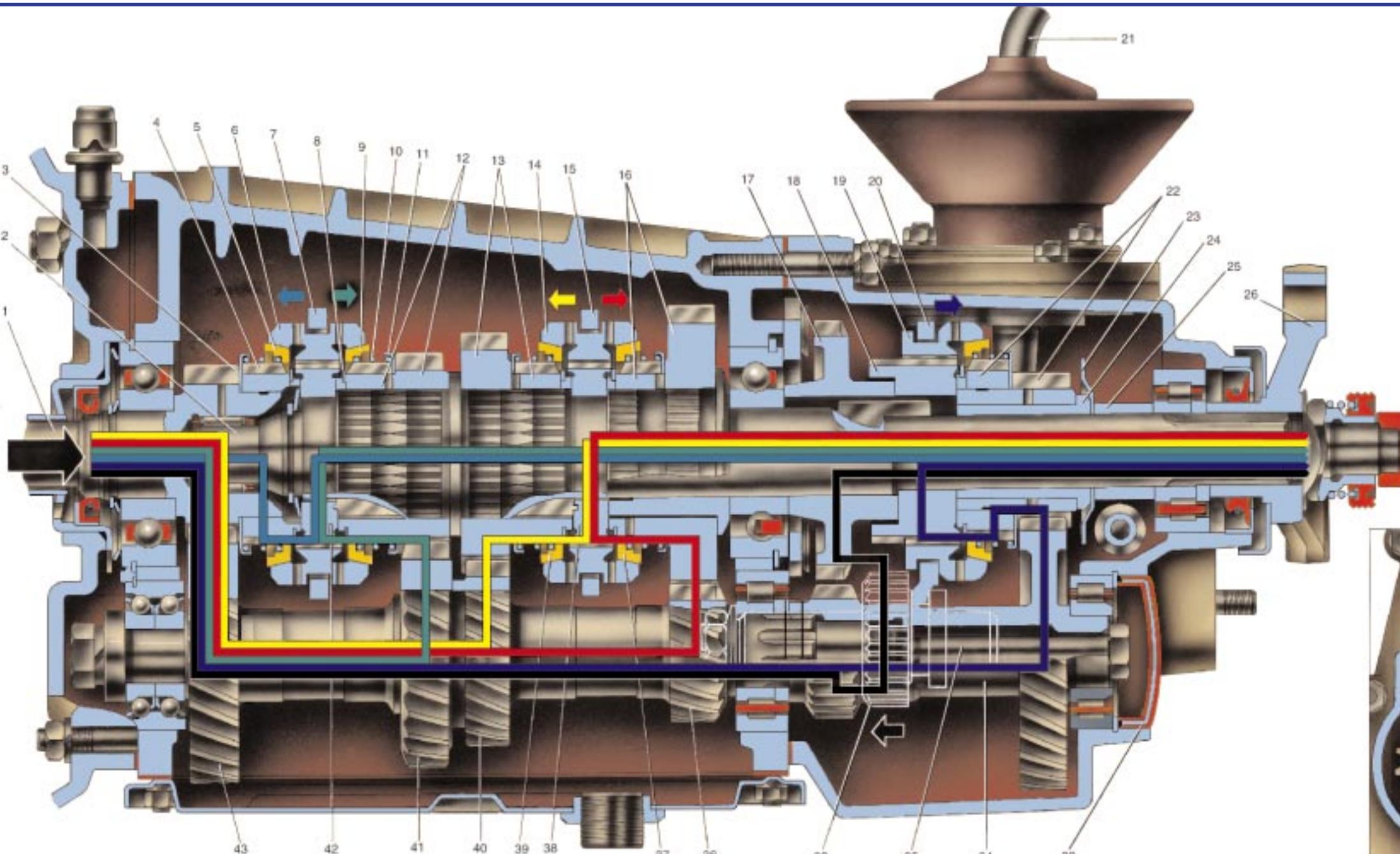
GEARBOX

1. Input shaft
2. Gearbox front cover with clutch release bearing guide sleeve
3. Input shaft oil seal
4. Spring washer
5. Bearing thrust ring
6. Gearbox housing
7. Breather
8. Output shaft needle bearing
9. Synchro sleeve thrust washer
10. 4th speed synchro unit crown
11. 3rd / 4th synchro unit sleeve
12. 3rd / 4th synchro unit hub
13. Circlip
14. Synchro - ring
15. Spring
16. 3rd speed synchro gear
17. 2nd speed synchro gear
18. Output shaft
19. 1st speed synchro gear
20. 1st gear bush
21. Output shaft idler bearing
22. Lock plate
23. Flange
24. Bellows
25. Spring
26. Gear change lever
27. Lever rod

28. Thrust ring
29. Rubber ring
30. Spacer
31. Retaining sleeve
32. Collar
33. Cap
34. Ball socket
35. Gear change lever housing
36. Guide plate
37. Propeller shaft coupling flange
38. Nut
39. Centering ring seal
40. Centering ring
41. Output shaft rear bearing oil seal
42. Output shaft rear bearing

43. Spacer sleeve
44. Oil deflector washer
45. Gear unit bearing
46. 5th speed / reverse gear unit
47. Reverse idler gear shaft
48. Reverse idler gear
49. Intermediate shaft rear bearing
50. Intermediate shaft 1st speed gear
51. 1st/2nd synchro sleeve
52. Intermediate shaft 2nd speed gear
53. Intermediate shaft 3rd speed gear
54. Filler and check orifice cap
55. Intermediate shaft
56. Intermediate shaft constant mesh gear
57. Intermediate shaft front bearing

58. Intermediate shaft bearing clamping washer
59. Clamping washer bolt
60. Input shaft constant mesh gear
61. Input shaft rear bearing
62. Circlip
63. Reverse lock clip
64. Guide plate washers
65. Guide bar
66. Detents cover
67. Spring
68. Detent
69. 5th / reverse shift fork
70. Thrust washer
71. Circlip
72. 3rd / 4th selector fork
73. 1st / 2nd selector rod
74. 3rd / 4th selector rod
75. 1st / 2nd selector fork
76. 5th / reverse selector rod
77. Locking collets



GEARBOX OPERATION DIAGRAM

1. Input shaft
2. Output shaft
3. Input shaft constant mesh gear
4. 4th speed synchro crown
5. 4th gear synchro baulk ring
6. 3rd and 4th synchro sleeve
7. 3rd and 4th gear selector fork
8. Synchro circlip

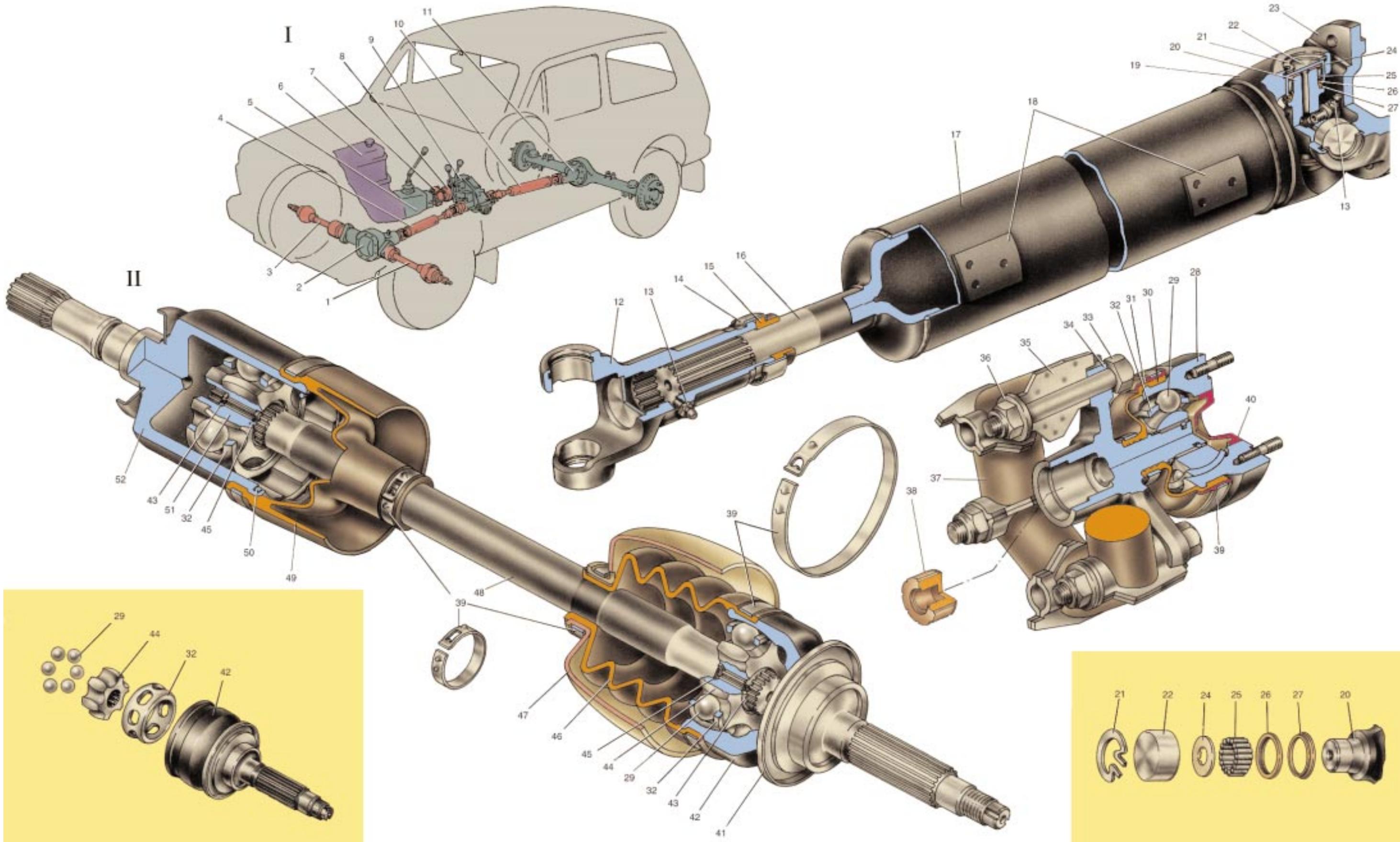
9. 3rd synchro baulk ring
10. Synchro spring
11. Synchro spring thrust washer
12. 3rd synchro gear and crown
13. 2nd synchro gear and crown
14. 1st and 2nd synchro sleeve
15. 1st and 2nd gear selector fork
16. 1st synchro gear and crown
17. Reverse gear
18. 5th synchro sleeve hub

19. 5th synchro sleeve
20. 5th and reverse gear selector fork
21. Gear change lever
22. 5th synchro gear and crown
23. Oil deflector washer
24. 5th gear bush
25. Distance sleeve
26. Flexible sleeve flange
27. 5th gear and reverse selector rod
28. 3rd and 4th selector rod

29. 1st and 2nd selector fork rod
30. Reverse light switch
31. Gear unit reverse gear
32. Reverse idler gear
33. End plug
34. 5th and reverse gear unit
35. Reverse idler gear shaft
36. Layshaft 1st speed gear
37. 1st synchro baulk ring
38. 1st and 2nd synchro sleeve hub

39. 2nd synchro baulk ring
40. Layshaft 2nd speed gear
41. Layshaft 3rd speed gear
42. 3rd and 4th synchro sleeve hub
43. Layshaft constant mesh gear
44. Circlip
45. Poppet spring

- I. Neutral position
 II. Beginning of 3rd gear engagement
 III. Complete engagement of 3rd gear



PROPELLER SHAFT

1. LH wheel drive
2. Front axle
3. RH wheel drive
4. Forward propeller shaft
5. Gearbox
6. Engine
7. Layshaft flexible coupling

8. Layshaft constant velocity joint
9. Torque converter
10. Rear propeller shaft
11. Rear axle
12. Sliding yoke
13. Oiler
14. Retainer
15. Grease seal
16. Propeller shaft end

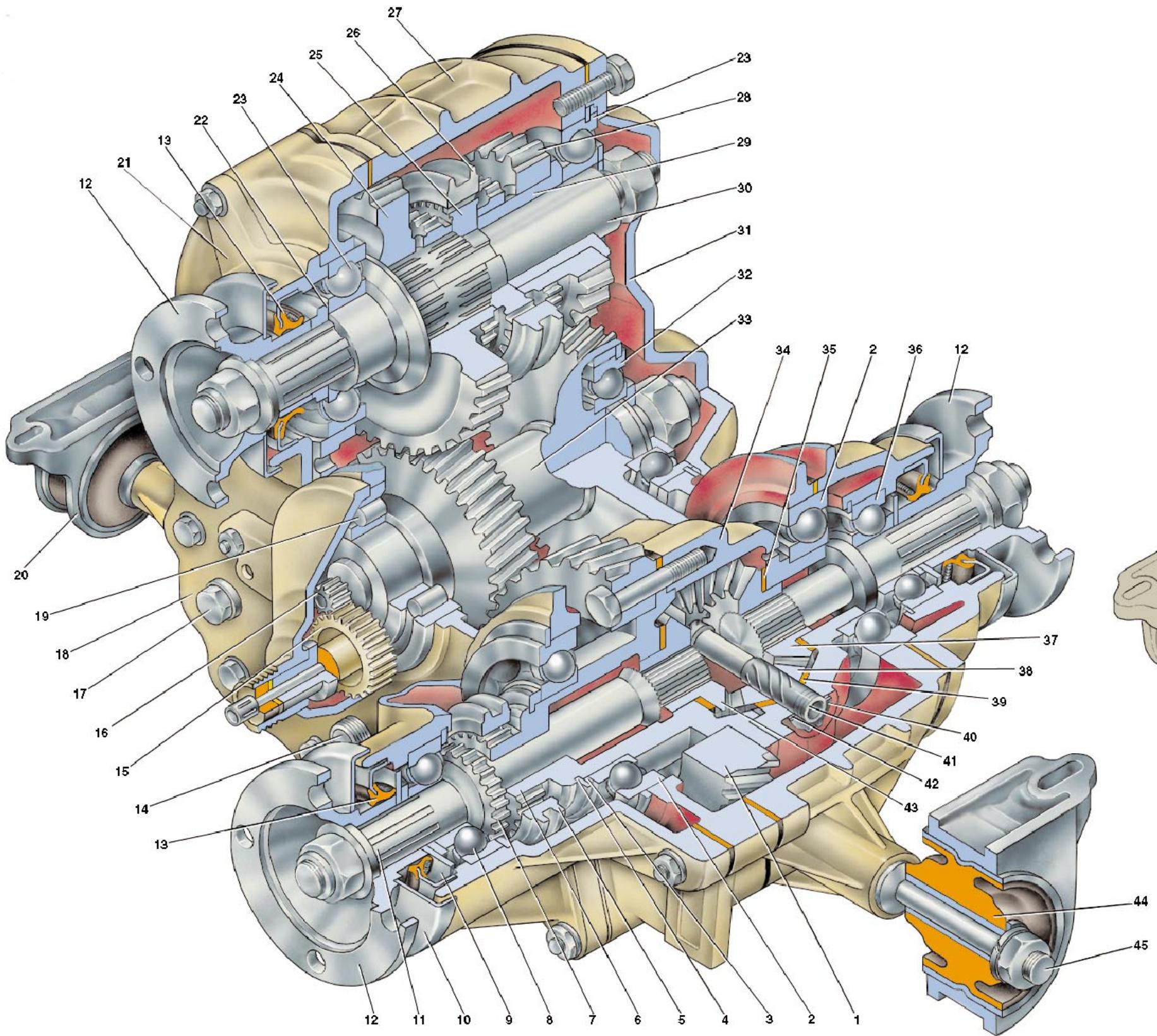
17. Propeller shaft tube
18. Balance plate
19. Propeller shaft joint fork
20. Propeller shaft trunnion
21. Needle bearing circlip
22. Needle roller housing
23. Flange - propeller shaft yoke
24. Washer
25. Needle roller

26. Needle bearing oil seal
27. Trunnion oil seal
28. Constant velocity joint shell
29. Ball
30. Boot
31. Protective shroud
32. Cage
33. Coupling flange securing bolt
34. Coupling flange

35. Coupling liner
36. Balance washer
37. Rubber sleeve
38. Centering bush
39. Clips
40. Plug
41. Oil seal splash guard ring
42. Outer joint shell
43. Circlip

44. Outer joint race
45. Thrust ring
46. Outer joint boot
47. Protective sleeve
48. Road wheel drive shaft
49. Inner joint boot
50. Detent
51. Inner joint race
52. Inner joint shell

I. Drive line view
II. Front wheel drive

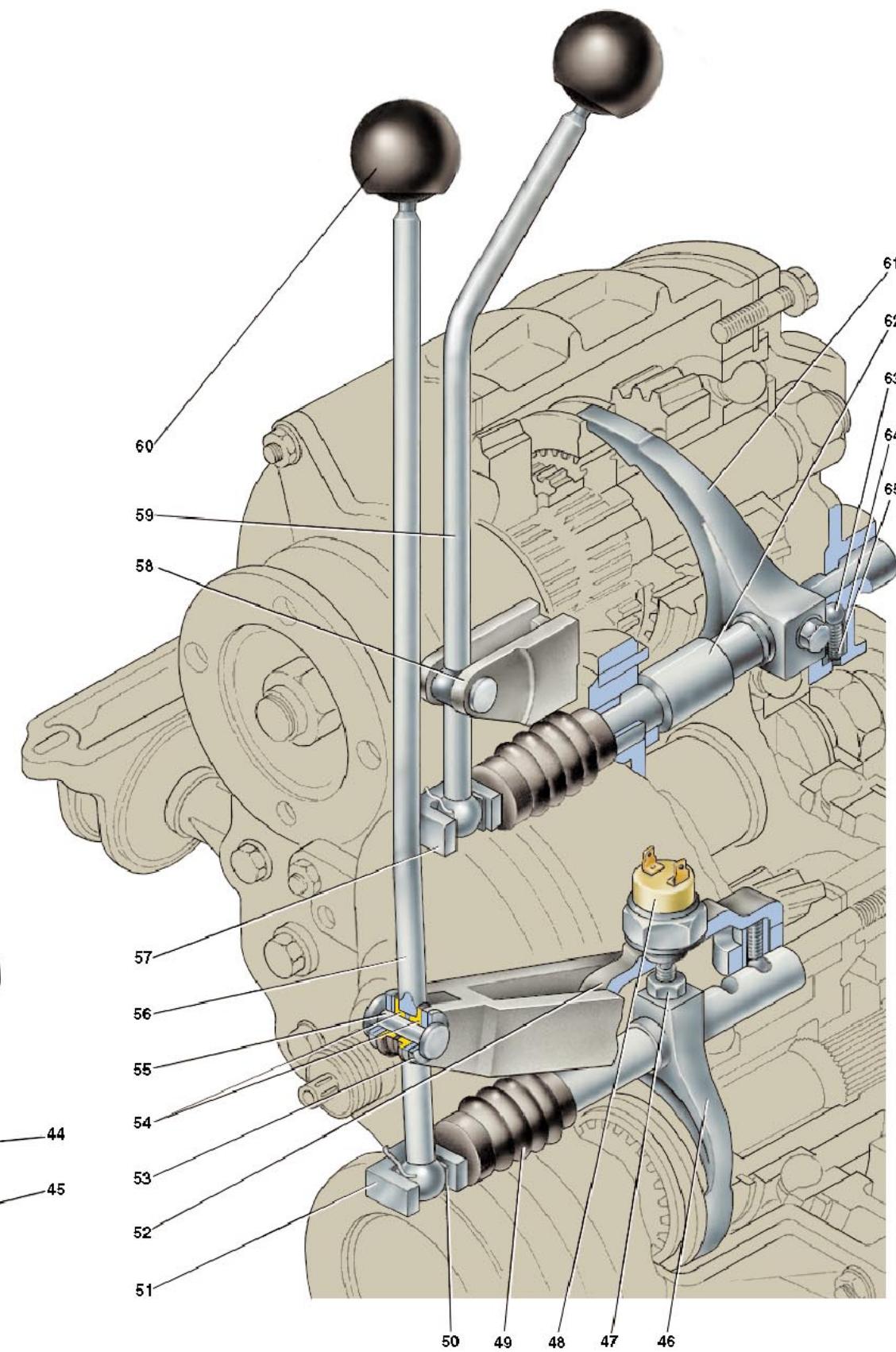


TORQUE CONVERTER AND ITS DRIVE SYSTEM

1. Driven gear
2. Differential bearings
3. Spring washer
4. Circlip
5. Differential locking coupling
6. Differential carrier crown
7. Front axle drive shaft crown
8. Front axle drive shaft bearing
9. Oil slinger

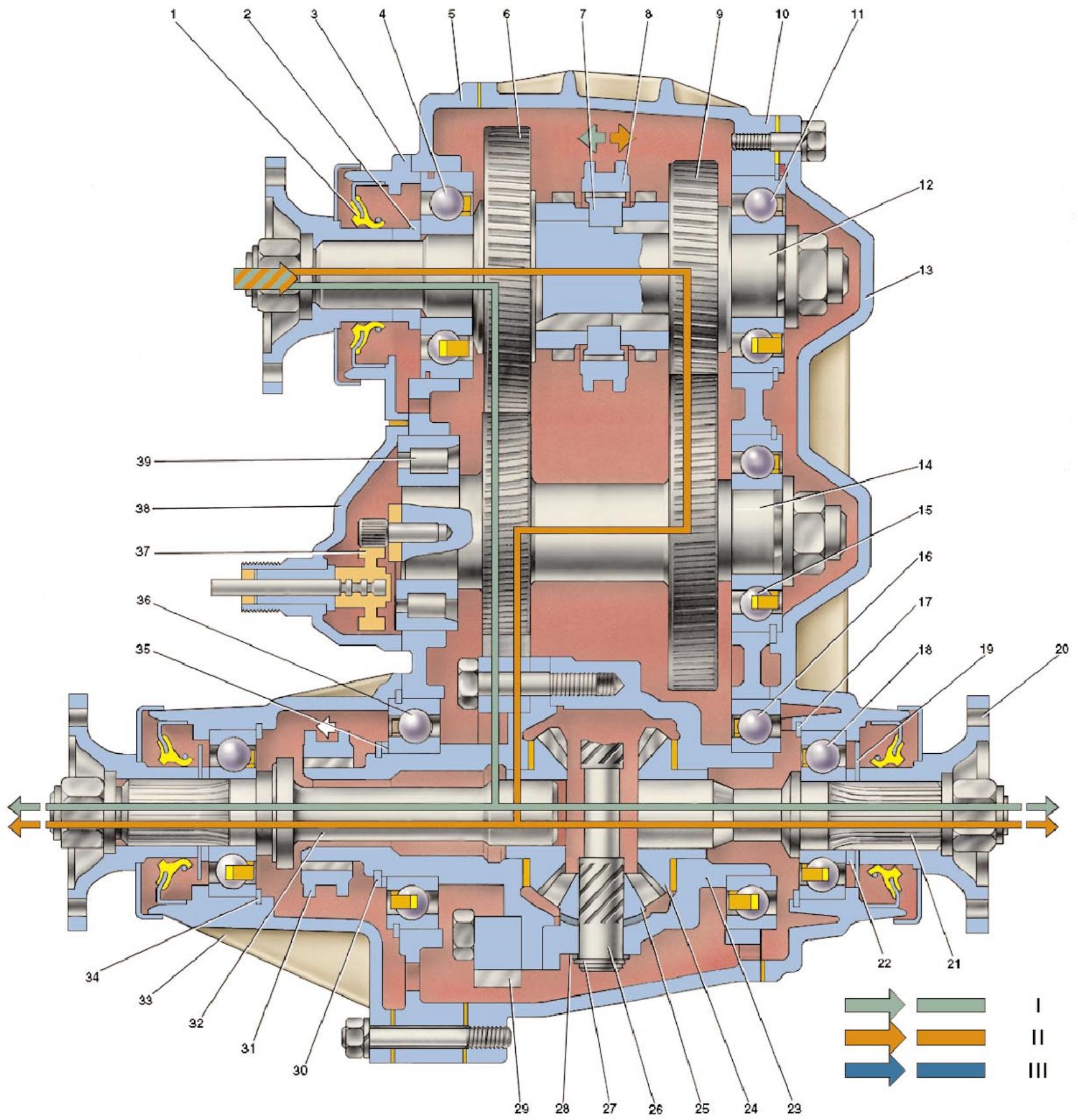
10. Splash guard
11. Front axle drive shaft
12. Flange
13. Oil seal
14. Oil drain plug
15. Speedometer driven gear
16. Speedometer drive gear
17. Plug, oil level inspection / top-up orifice
18. Torque converter front cover
19. Layshaft roller bearing
20. Bracket, torque converter mount
21. Input shaft bearing cover
22. Bearing thrust ring
23. Input shaft bearings
24. Top gear
25. Gear shift clutch hub
26. Gear shift clutch
27. Torque converter casing
28. Low gear
29. Low gear bush
30. Input shaft
31. Rear cover
32. Layshaft ball bearing
33. Layshaft

34. Differential housing
35. Rear axle differential gear thrust washer
36. Rear axle drive shaft bearing
37. Rear axle differential gear
38. Pinion
39. Pinion thrust washer
40. Circlip
41. Pinion shaft
42. Spring washer
43. Front axle differential gear
44. Suspension mounting bracket rubber
45. Shaft, torque converter mount



46. Differential locking clutch yoke
47. Yoke stop bolt
48. Locked differential warning light switch
49. Boot
50. Spring
51. Differential locking fork rod
52. Front axle case cover
53. Lock washer
54. Lever shaft bush
55. Lever shaft
56. Differential locking lever
57. Gear shift fork rod
58. Gear lever bracket
59. Gear lever
60. Gear lever knob
61. Gear shift clutch fork
62. Spacer sleeve
63. Detent ball
64. Detent spring bush
65. Detent spring

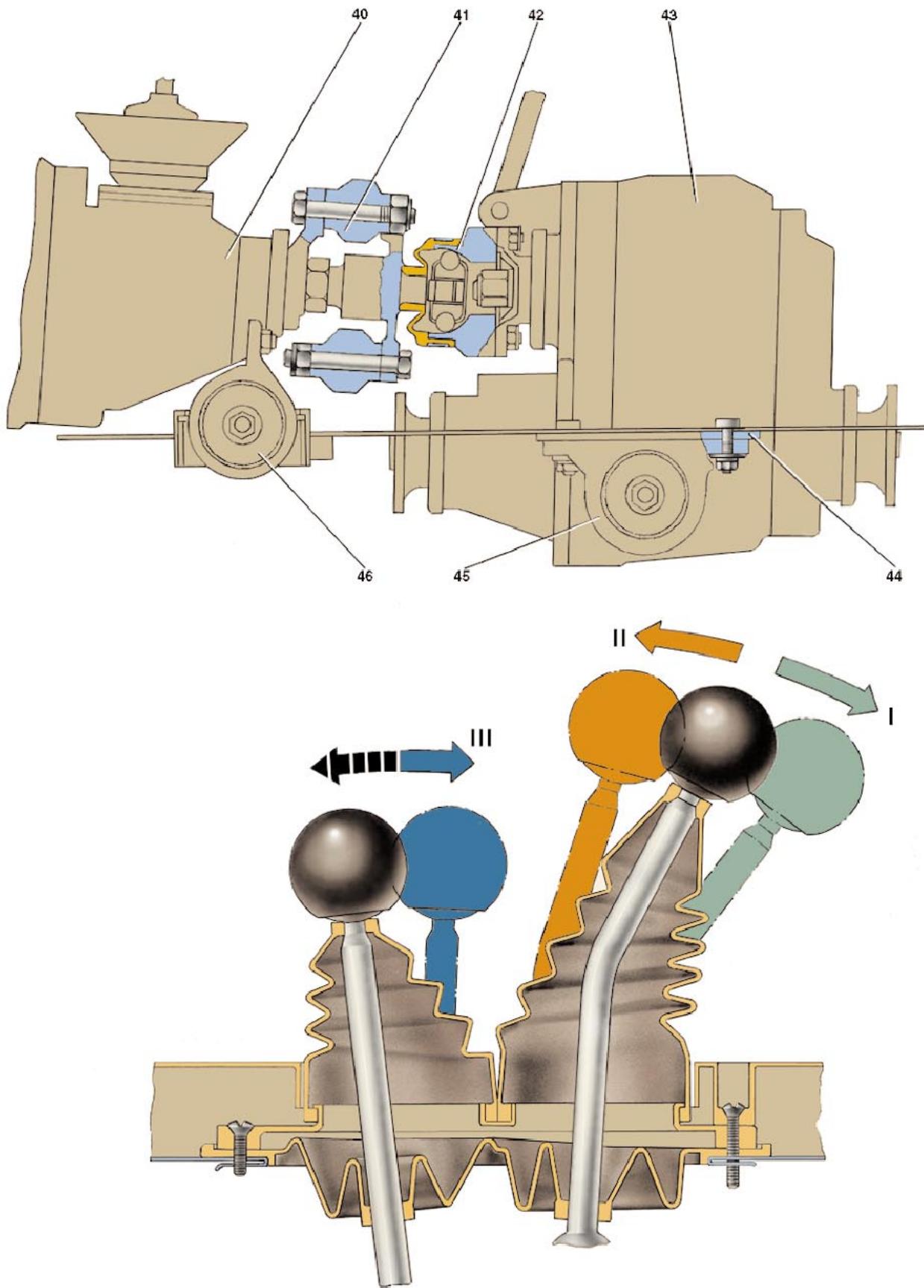
- I. Torque converter operating system



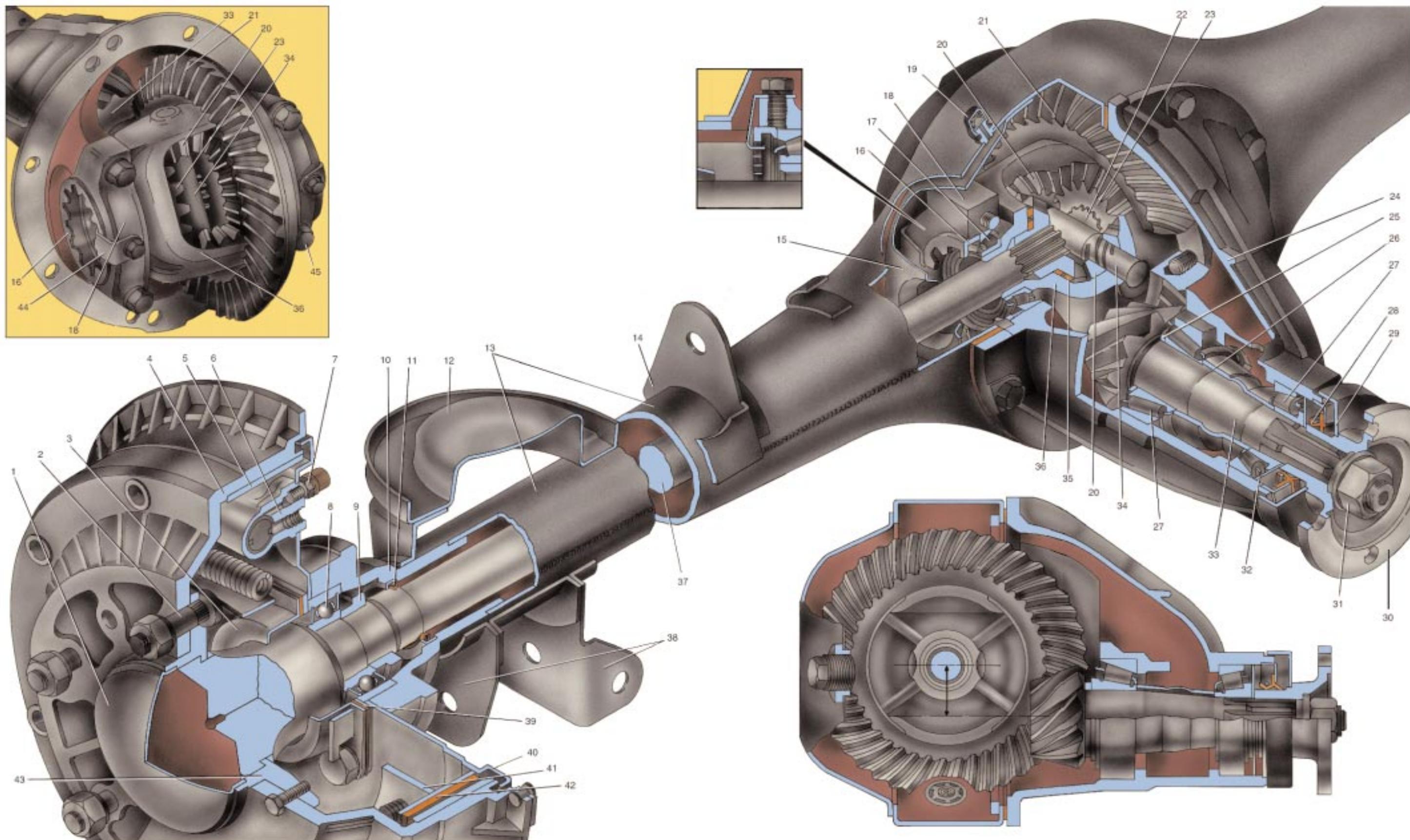
TORQUE CONVERTER OPERATION DIAGRAM

1. Grease seal
2. Thrust ring, input shaft front bearing
3. Front bearing cover
4. Input shaft front bearing
5. Torque converter front cover
6. Top gear
7. Gear engagement clutch hub
8. Gear engagement clutch

9. Low gear
10. Torque converter case
11. Input shaft rear bearing
12. Input shaft
13. Torque converter rear cover
14. Layshaft
15. Layshaft rear bearing
16. Differential rear bearing
17. Rear axle drive shaft retaining ring
18. Rear axle drive shaft bearing
19. Oil slinger
20. Rear axle drive shaft flange
21. Rear axle drive shaft
22. Bearing thrust ring
23. Differential housing
24. Rear axle drive gear
25. Pinion
26. Differential pinion shaft
27. Differential pinion shaft circlip
28. Spring washer
29. Driven gear
30. Differential front bearing circlip
31. Differential lock coupling
32. Front axle drive shaft
33. Front axle casing
34. Circlip, front axle drive shaft bearing
35. Differential front bearing spring washer
36. Differential front bearing
37. Speedometer driven gear
38. Speedometer drive unit housing
39. Layshaft front bearing
40. Gearbox
41. Coupling
42. CV joint
43. Torque converter
44. Shims



- I. Top gear engaged
- II. Low gear engaged
- III. Low gear engaged, differential locked up

**REAR AXLE**

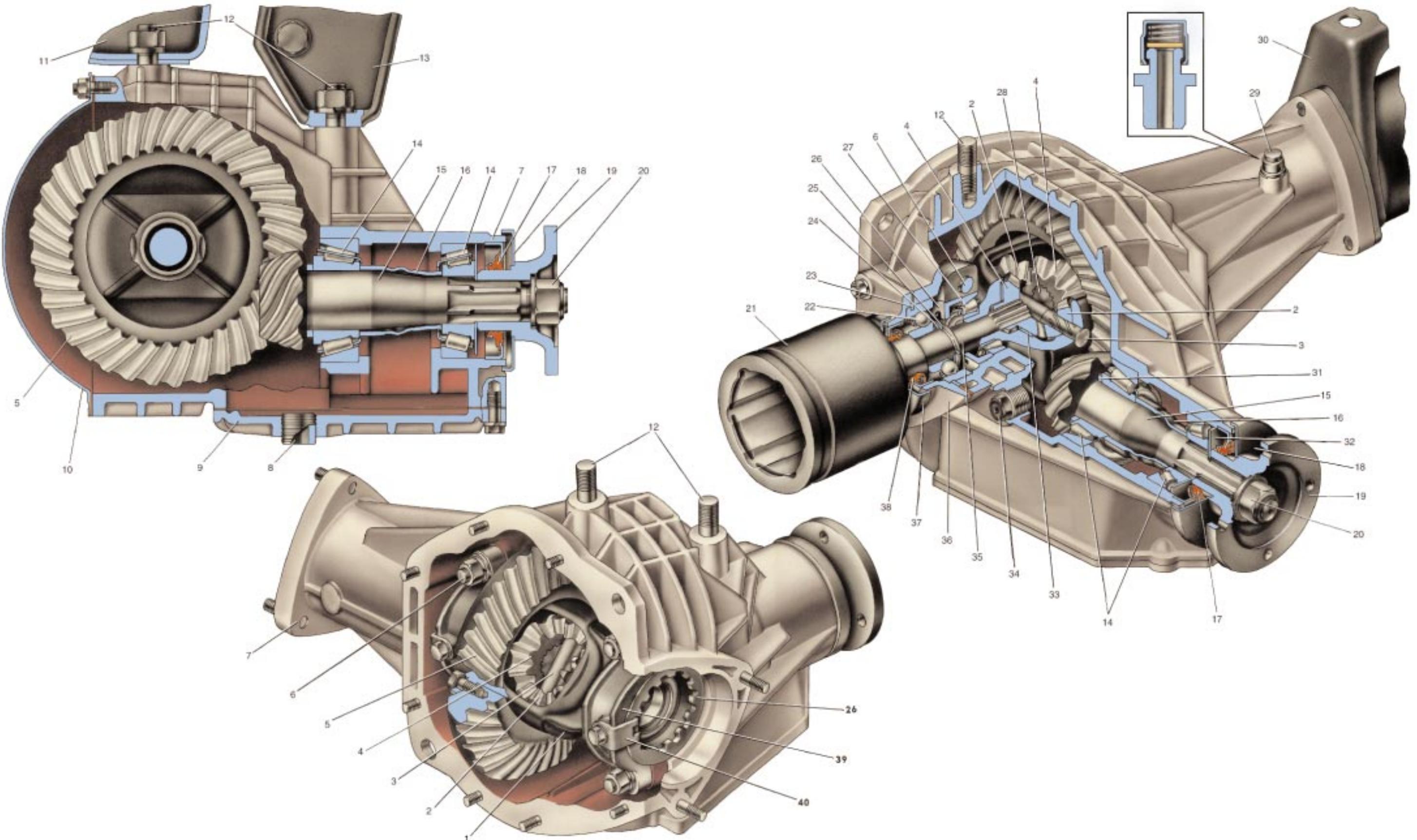
1. Road wheel cap
2. Brake drum - to - wheel securing bolt
3. Oil deflector
4. Brake drum
5. Brake drum iron ring
6. Wheel cylinder
7. Brake bleed nipple
8. Half-shaft bearing

9. Bearing locking collar
10. Rear axle beam flange
11. Half-shaft oil seal
12. Coil spring cup
13. Rear axle beam
14. Suspension bar securing bracket
15. Half-shaft guide
16. Differential bearing nut
17. Differential bearing
18. Differential bearing cover

19. Breather
20. Pinion
21. Crown wheel
22. LH halfshaft
23. Halfshaft gear
24. Rear axle reduction gear casing
25. Drive gear shim
26. Bearing spacer sleeve
27. Bearing, pinion
28. Oil seal, pinion

29. Oil seal splash guard
30. Propeller shaft securing flange
31. Nut
32. Oil baffle
33. Pinion, final drive
34. Differential pinion shaft
35. Half-shaft gear thrust wshcr
36. Differential case
37. RH halfshaft
38. Bracket to secure suspension components

39. Thrust plate, half-shaft bearing
40. Rear brake backplate
41. Rear brake shoe
42. Friction disc
43. Half-shaft flange
44. Bearing nut lockplate
45. Bearing cover securing bolt



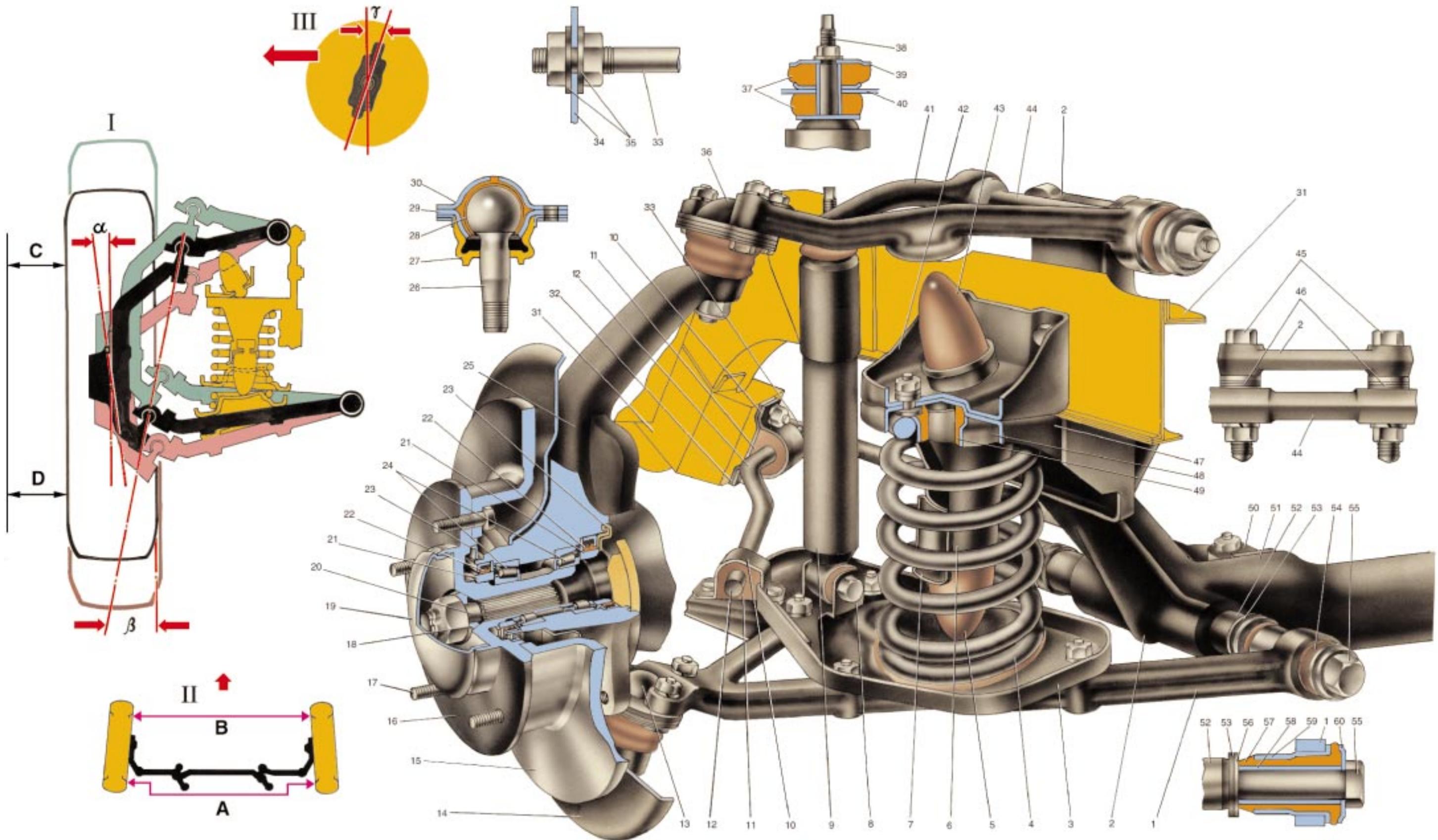
FRONT AXLE

- Differential case
- Differential pinion
- Differential pinion shaft
- Half-shaft gear
- Crown wheel
- Bearing cover retaining stud
- Front axle casing

- Drain plug
- Casing lower cover
- Casing cover
- Bracket, engine front mounting
- Front axle securing stud
- Front axle securing bracket, LH
- Pinion bearings
- Pinion, final drive
- Spacer sleeve
- Pinion oil seal
- Oil seal splash guard
- Pinion flange
- Flange securing nut
- Road wheel drive inner joint
- Inner joint bearing
- Bearing locating ring
- Spring washer
- Circlip
- Differential bearing adjuster nut
- Differential bearing

- Inner joint shell, RH halfshaft
- Breather
- RH bracket, front axle
- Drive gear shim
- Bearing oil deflector
- Half-shaft gear thrust washer
- Filler plug
- LH half-shaft, inner joint shell
- Inner joint shell bearing cover
- Splash guard, joint shell oil seal

- Oil seal
- Differential bearing cover
- Adjuster nut lockplate



FRONT SUSPENSION

1. Lower control arm
2. Crossmember bracket
3. Coil spring lower seat
4. Coil spring
5. Compression buffer
6. Compression buffer mount strut
7. Compression restrictor
8. Shock absorber mounting bracket
9. Shock absorber
10. Anti-roll bar securing clamp
11. Anti-roll bar mounting rubber

12. Anti-roll bar
13. Lower balljoint
14. Wheel brake splash guard
15. Brake disc
16. Wheel hub
17. Wheel - to - brake disc securing bolt
18. Taper bush
19. Wheel cap
20. Outer CV joint shank
21. Oil seal bush
22. Oil seal
23. Splash guard ring
24. Wheel hub bearing
25. Stub axle
26. Ballpin
27. Boot
28. Bearing
29. Ballpin liner race
30. Ballpin bearing housing
31. Body chassis arm
32. Anti-roll bar securing plate
33. Tie-rod
34. Body-to-tie-rod mounting bracket
35. Washers
36. Upper balljoint
37. Shock absorber rod mounting bushes

38. Shock absorber rod
39. Securing washer
40. Upper securing bracket, shock absorber
41. Upper control arm
42. Recoil buffer bracket
43. Recoil buffer
44. Suspension upper arm shaft
45. Upper arm shaft securing bolts
46. Shims
47. Upper spring mounting
48. Upper spring seat
49. Spring insulator gasket
50. Crossmember-to-tie-rod securing bracket

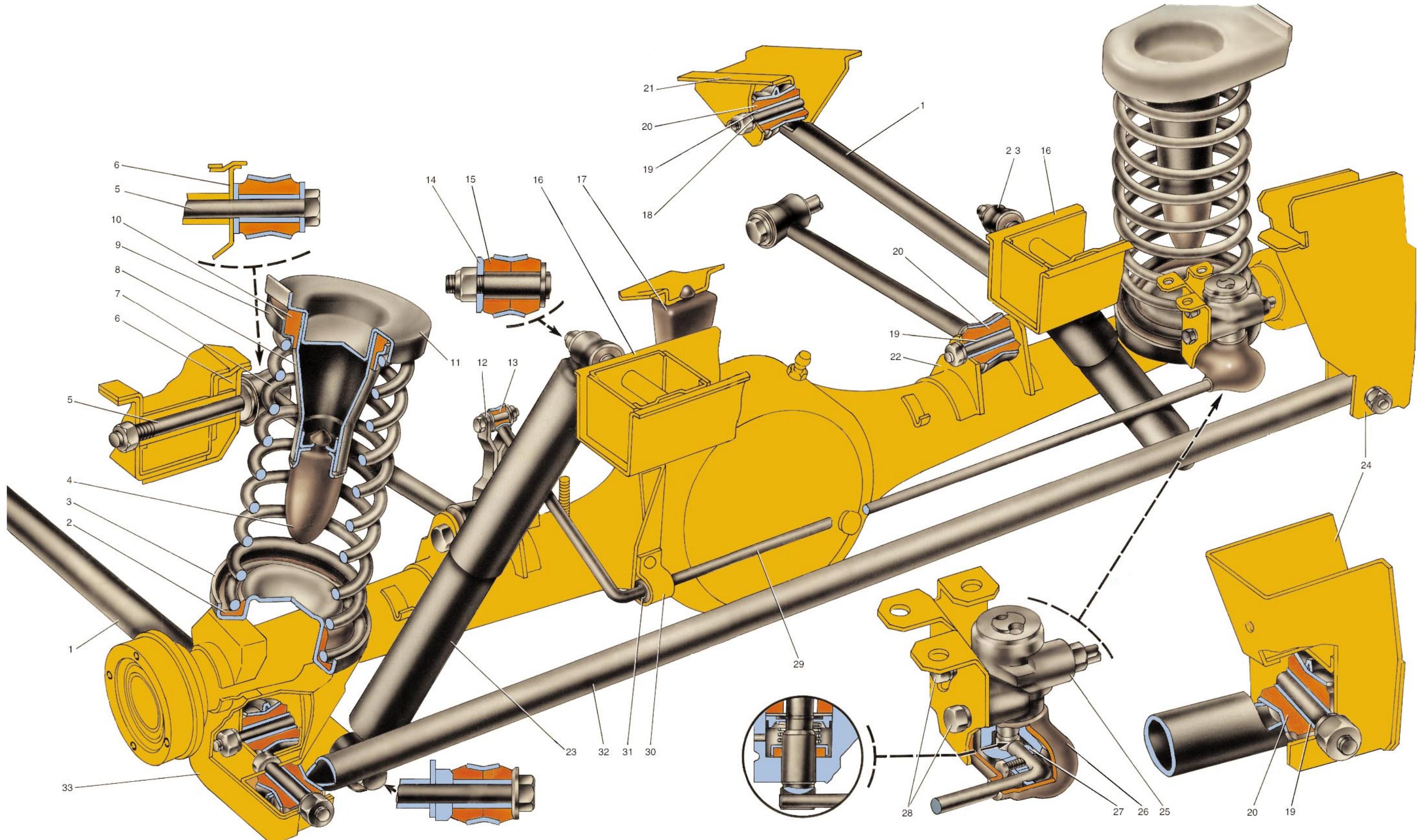
51. Front suspension crossmember
52. Lower control arm shaft bush
53. Lower control arm washes
54. Lower arm silent block
55. Lower control arm shaft
56. Lower control arm shaft thrust washer
57. Balljoint rubber bush
58. Balljoint sleeve, inner
59. Balljoint sleeve, outer
60. Balljoint thrust washer

I. Camber ($\alpha = 0^{\circ}30' \pm 20'$) and inclination angles $D - C = 1 \dots 5$ mm

II. Toe-in $A - B = 2 \dots 4$ mm

III. Castor angle ($\gamma = 3^{\circ}30' \pm 30''$)

All wheel adjustment parameters are given for the vehicle loaded with 3136 N (320 kgf) being equal to 4 people weight and 392 N (40kgf) boot luggage.

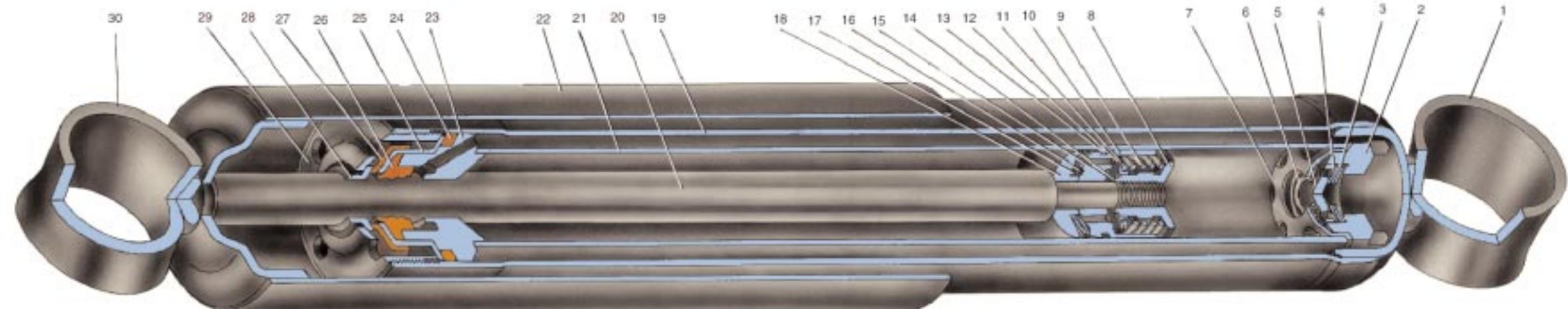
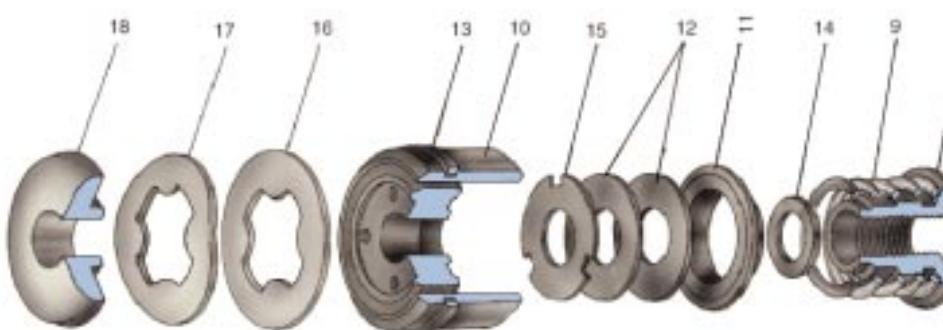
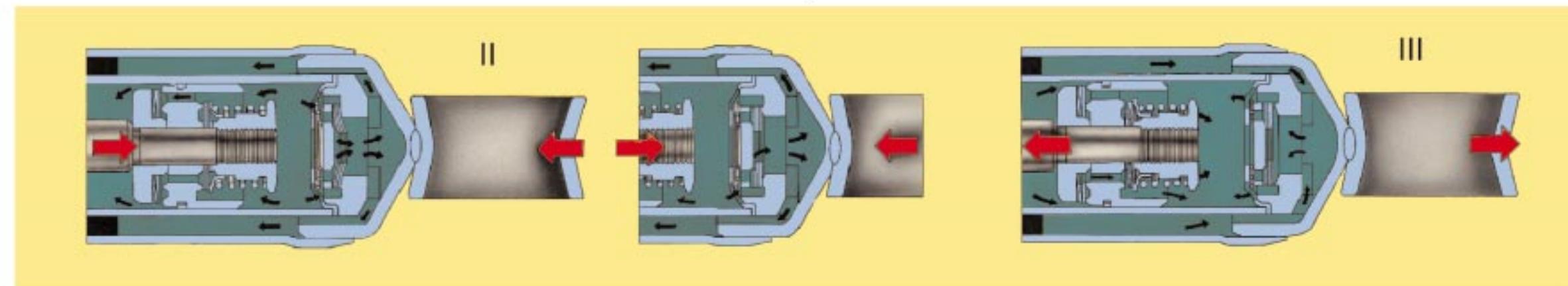
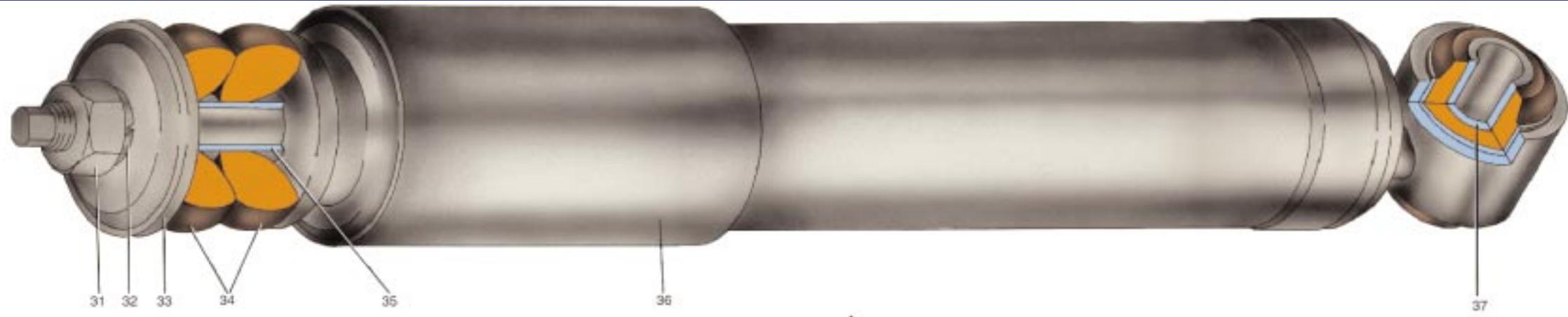


REAR SUSPENSION

1. Lower transverse arm
2. Spring insulating gasket, lower
3. Spring seat, lower
4. Compression buffer
5. Upper longitudinal arm securing bolt
6. Upper longitudinal mounting bracket
7. Coil spring

8. Compression buffer mount
9. Spring insulator collar, upper
10. Spring insulator, upper
11. Spring seat, upper
12. Rear brake pressure regulator operating rod link
13. Rubber bush
14. Shock absorber securing pin washer
15. Shock absorber eye rubber bush
16. Underbody crossmember
17. Additional compression buffer
18. Spring washer
19. Spacer sleeve
20. Rubber bush
21. Lower longitudinal arm mounting bracket
22. Upper longitudinal arm mounting bracket
23. Shock absorber
24. Body-to-transverse arm mounting bracket
25. Pressure regulator

26. Boot, pressure regulator
27. Operating rod shaft, pressure regulator
28. Securing bolts
29. Pressure regulator operating rod
30. Clamp
31. Thrust bush
32. Transverse arm
33. Mounting plate, transverse arm mounting bracket



SHOCK ABSORBERS

1. Shock absorber eye, lower
2. Compression valve housing
3. Compression valve discs
4. Compression valve throttle disc
5. Compression valve cap

SHOCK ABSORBERS

6. Compression valve spring
7. Compression valve retainer
8. Recoil valve nut
9. Recoil valve spring
10. Shock absorber piston
11. Recoil valve cap
12. Recoil valve discs
13. Piston ring
14. Recoil valve nut washer
15. Recoil valve throttle disc
16. By-pass valve cap
17. By-pass valve spring
18. By-pass valve restricting plate
19. Reservoir

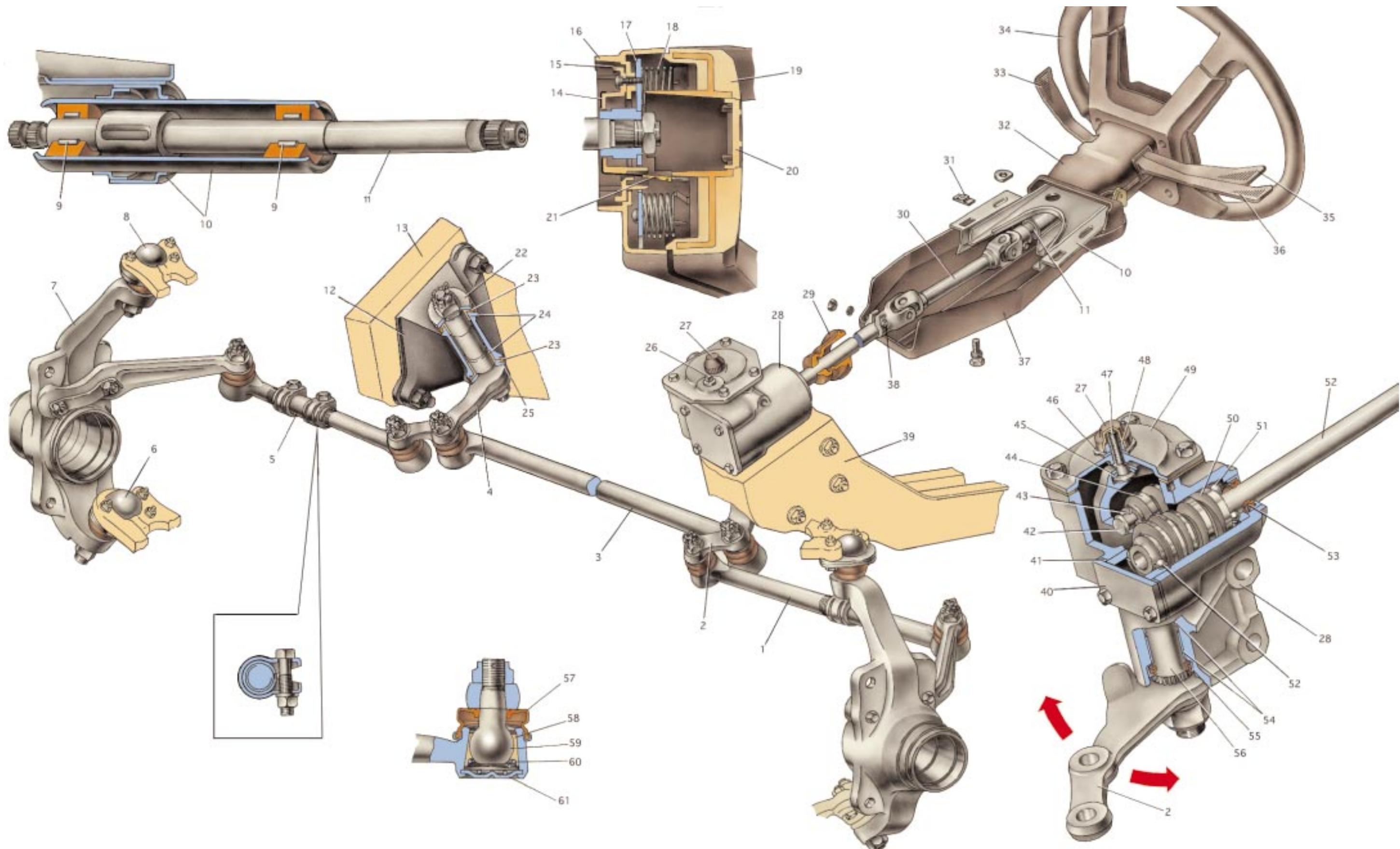
20. Rod
21. Cylinder
22. Casing
23. Guide sleeve
24. Reservoir sealing ring
25. Oil seal retainer
26. Oil seal
27. Gasket
28. Guard ring
29. Reservoir nut
30. Shock absorber eye, upper
31. Upper shock absorber end securing nut
32. Spring washer

33. Washer
34. Mounting rubber
35. Spacer sleeve
36. Shock absorber casing
37. Silent block

I. Shock absorber operation diagram

II. Compression stroke

III. Recoil stroke



STEERING

1. Track rod
2. Drop arm
3. Relay rod
4. Idler arm
5. Tie-rod adjuster pin
6. Lower balljoint
7. Stub axle
8. Upper balljoint

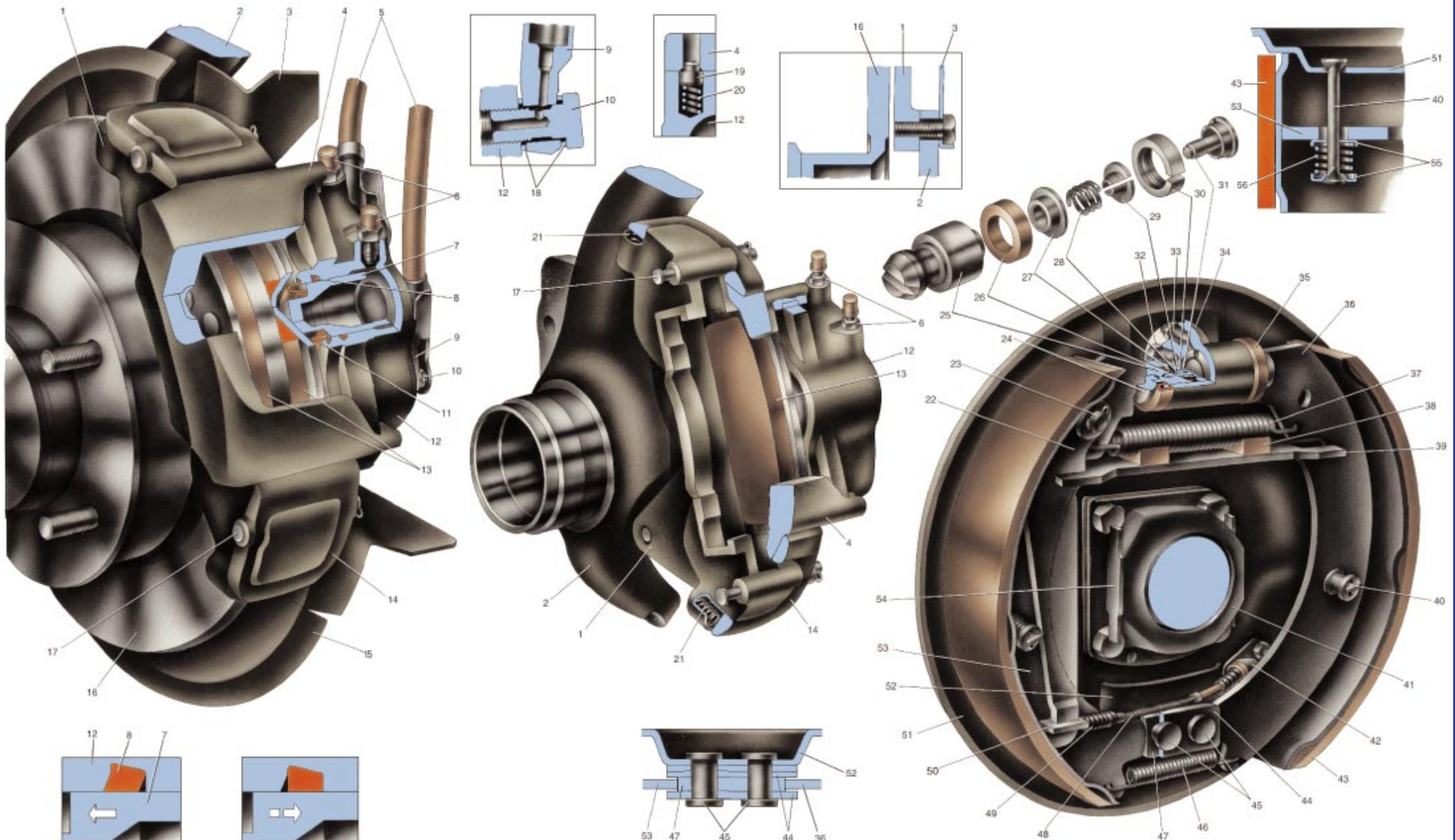
9. Upper shaft bearing
10. Steering wheel mounting bracket
11. Upper shaft
12. Idler bracket
13. RH chassis arm, underbody
14. Lower contact ring
15. Lower contact ring retainer
16. Horn clamp
17. Upper contact ring
18. Horn spring

19. Horn push button
20. Cover plate
21. Lead
22. Upper washer
23. Seal
24. Idler arm shaft bush
25. Lower washer
26. Oil filler plug
27. Protective cap
28. Steering box

29. Steering shaft seal
30. Middle shaft
31. Securing plate, bracket front part
32. Upper column shroud
33. Wipe / wash lever
34. Steering wheel
35. Turn signal lever
36. Headlight lever
37. Lower column shroud
38. Pinch bolt

39. LH chassis arm, underbody
40. End cover
41. Shims
42. Roller spindle, drop arm shaft
43. Thrust washer
44. Roller
45. Adjuster screw plate
46. Lockwasher
47. Adjuster screw
48. Locknut

49. Top cover
50. Worm gear
51. Bearing
52. Worm shaft
53. Oil seal
54. Bush, drop arm shaft
55. Oil seal, drop arm shaft
56. Drop arm shaft
57. Ballpin protective cap
58. Ballpin liner
59. Ballpin
60. Spring
61. End plug



BRAKE MECHANISM

1. Carrier
2. Stub axle
3. Splash guard
4. Caliper
5. Brake hoses
6. Union to expel air
7. Front brake wheel cylinder piston
8. Sealing ring
9. End piece

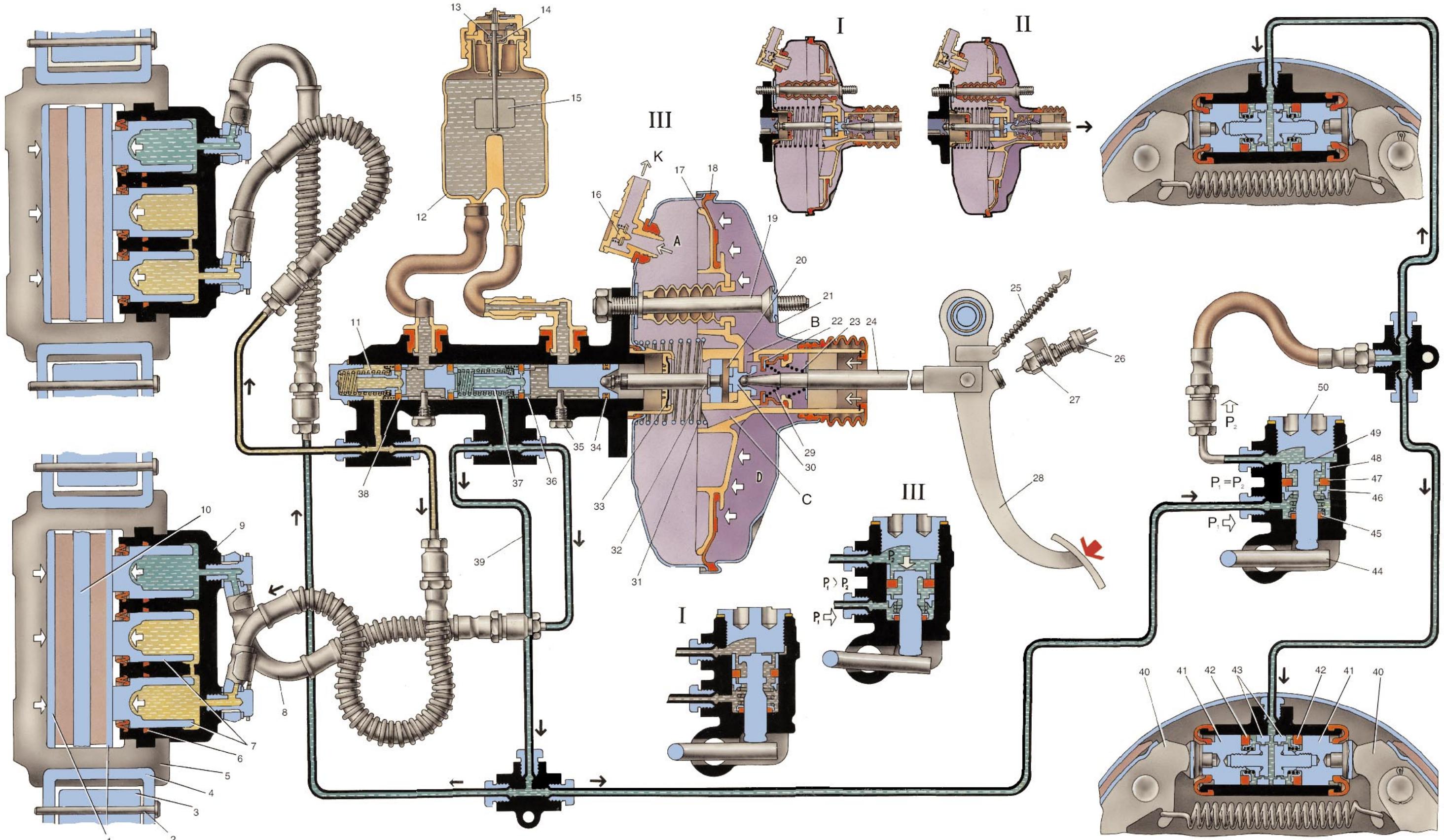
10. Hose union bolt
11. Piston protective cap
12. Cylinder housing
13. Brake pad
14. Caliper clamping lever
15. Front brake splash guard
16. Brake disc
17. Clamping lever shaft
18. Gaskets
19. Detent
20. Detent spring

21. Clamping lever spring
22. Shoe manual return lever
23. Shaft
24. Shoe abutment plate
25. Wheel cylinder piston
26. Seal
27. Backing cup
28. Spring
29. Retainers
30. Thrust ring
31. Thrust screw

32. Brake fluid inlet union
33. Rear brake bleed screw
34. Rear brake wheel cylinder
35. Dust seal
36. Brake pad
37. Upper return spring
38. Mounting rubber
39. Expander strut
40. Steady post
41. Oil deflector
42. Rear cable end

43. Friction linings
44. Cover plates
45. Rivet
46. Lower return spring
47. Mounting plate
48. Handbrake rear cable
49. Cable return spring
50. Rear cable end
51. Rear brake backplate
52. Cable guide plate
53. Brake shoe

54. Bolt retainer
55. Spring cups
56. Spring



BRAKE OPERATION DIAGRAM

1. Brake pads
2. Hold-down lever shaft
3. Carrier
4. Caliper hold-down lever
5. Caliper
6. Piston sealing ring
7. Wheel cylinder pistons, primary circuit
8. Brake hose, secondary circuit
9. Cylinder housing

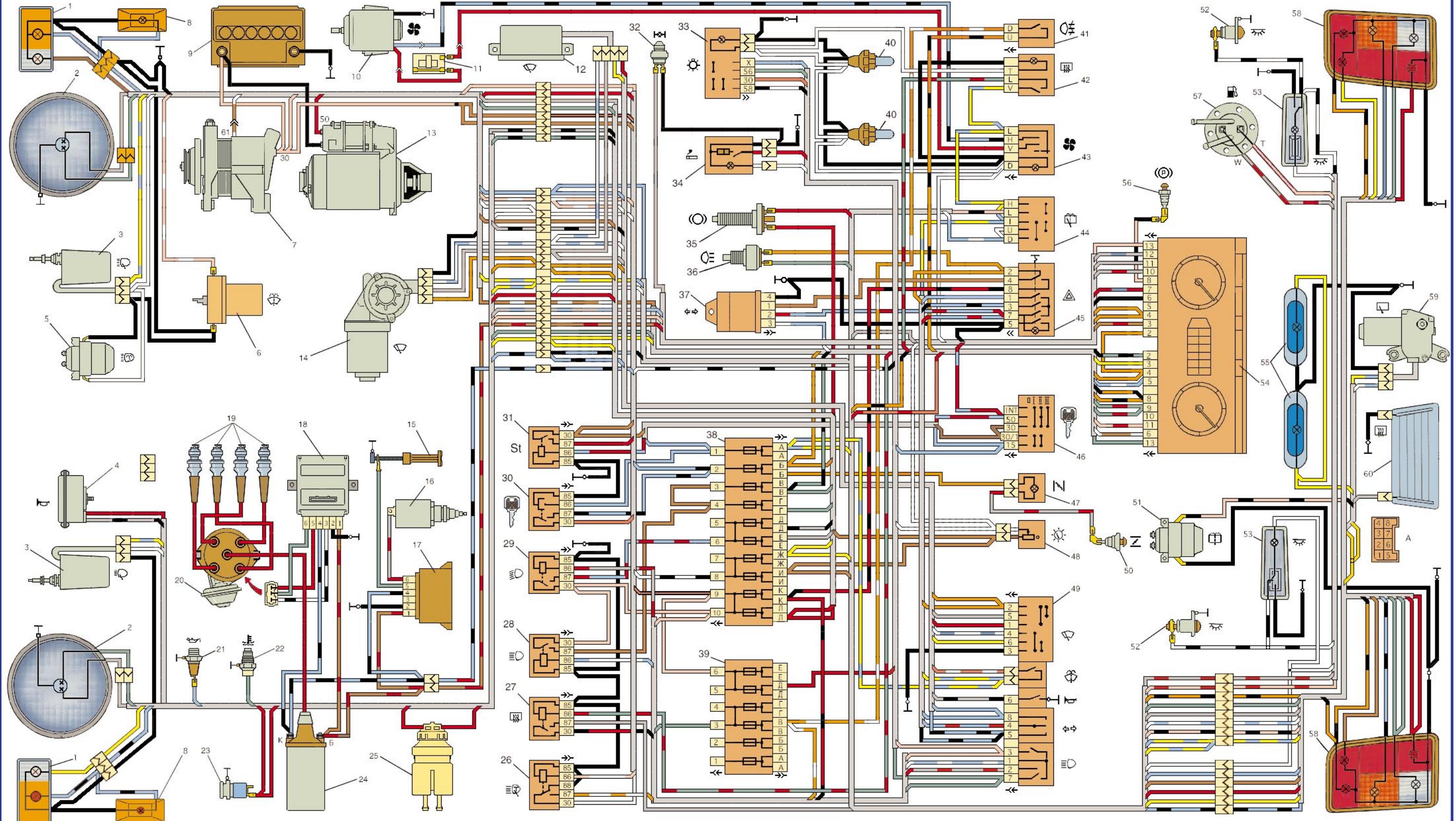
10. Brake disc
11. Master cylinder primary circuit operating piston
12. Hydraulic fluid reservoir
13. Sliding contact
14. Fixed contact
15. Float
16. Vacuum valve
17. Servo unit valve housing
18. Diaphragm
19. Tie-rod

20. Reaction disc
21. Rear shell
22. Vacuum unit valve
23. Return spring
24. Input rod
25. Pedal return spring
26. Stop light switch
27. Stop light switch tip
28. Brake pedal
29. Valve spring
30. Piston

31. Valve housing return spring
32. Output rod
33. Retainer
34. Sealing ring
35. Piston stroke limiter screw
36. Bush
37. Secondary circuit operating piston
38. Seal
39. Secondary circuit pipeline
40. Brake shoes
41. Rear brake wheel cylinder piston

42. Piston seal
43. Thrust rings
44. Pressure regulator operating rod
45. Sealing ring
46. Spring seat
47. Piston head seal
48. Bush
49. Pressure regulator piston
50. End plug

- A. Vacuum cavity
 B. Atmosphere - to - valve inner cavity port
 C. Valve inner cavity - to - vacuum port
 K. To engine intake pipe
 D. Atmospheric cavity
- I. Brake pedal released
 II. Brake off
 III. Brake applied



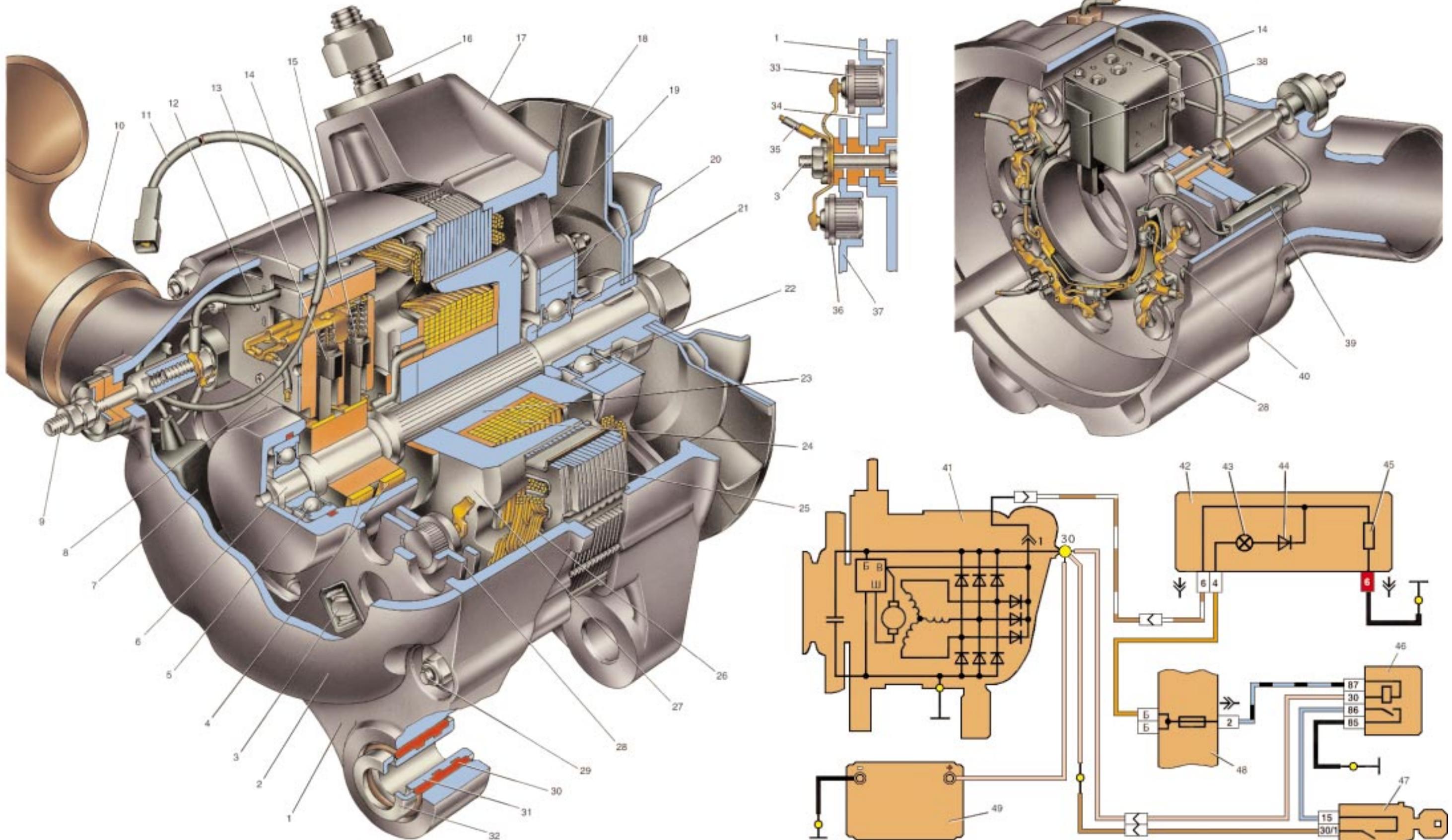
**WIRING DIAGRAM
FOR ELECTRIC EQUIPMENT
OF VAZ 21213 VEHICLE**

1. Front lights
2. Headlights
3. Headlight wiper motor
4. Horn
5. Headlight washer motor
6. Windscreen washer motor
7. Alternator
8. Turn indicator side repeater lights
9. Battery
10. Heater unit motor
11. Additional resistor for heater motor
12. Intermittent wiper relay
13. Starter motor
14. Windscreen wiper motor
15. Carburettor limit switch
16. Carburettor electromagnetic valve
17. Carburettor electromagnetic valve control unit
18. Ignition module

19. Spark plugs
20. Ignition distributor
21. Oil pressure warning light sensor
22. Temperature indicator sensor
23. Socket for inspection lamp
24. Ignition coil
25. Brake fluid level warning lamp sensor
26. Headlight wipe/wash relay
27. Heated rear window relay
28. Headlight main beam relay
29. Headlight dipped beam relay
30. Ignition relay
31. Starter "on" relay
32. Differential lock warning lamp switch
33. Exterior lighting switch
34. Cigarette lighter
35. Stop-signal switch
36. Reversing light switch
37. Intermittent direction indicator / hazard warning lights relay
38. Main fuse box
39. Additional fuse box
40. Heater controls illumination bulbs
41. Rear fog light switch

42. Heated rear window switch
43. Heater motor switch
44. Rear window wipe/wash switch
45. Hazard warning lights switch
46. Ignition switch
47. Carburettor choke warning lamp
48. Instrument lighting switch
49. 3-lever column switch
50. Choke warning lamp switch
51. Rear window washer motor
52. Door pillar light switch
53. Interior lights
54. Instrument cluster
55. Number plate lights
56. Handbrake warning light switch
57. Fuel level / fuel remainder sensor
58. Tail lights
59. Rear window wiper motor
60. Rear window heating element

- A. Pin numbers for column switch connectors
- | | | | |
|----|----|----|----|
| 48 | 37 | 26 | 15 |
|----|----|----|----|

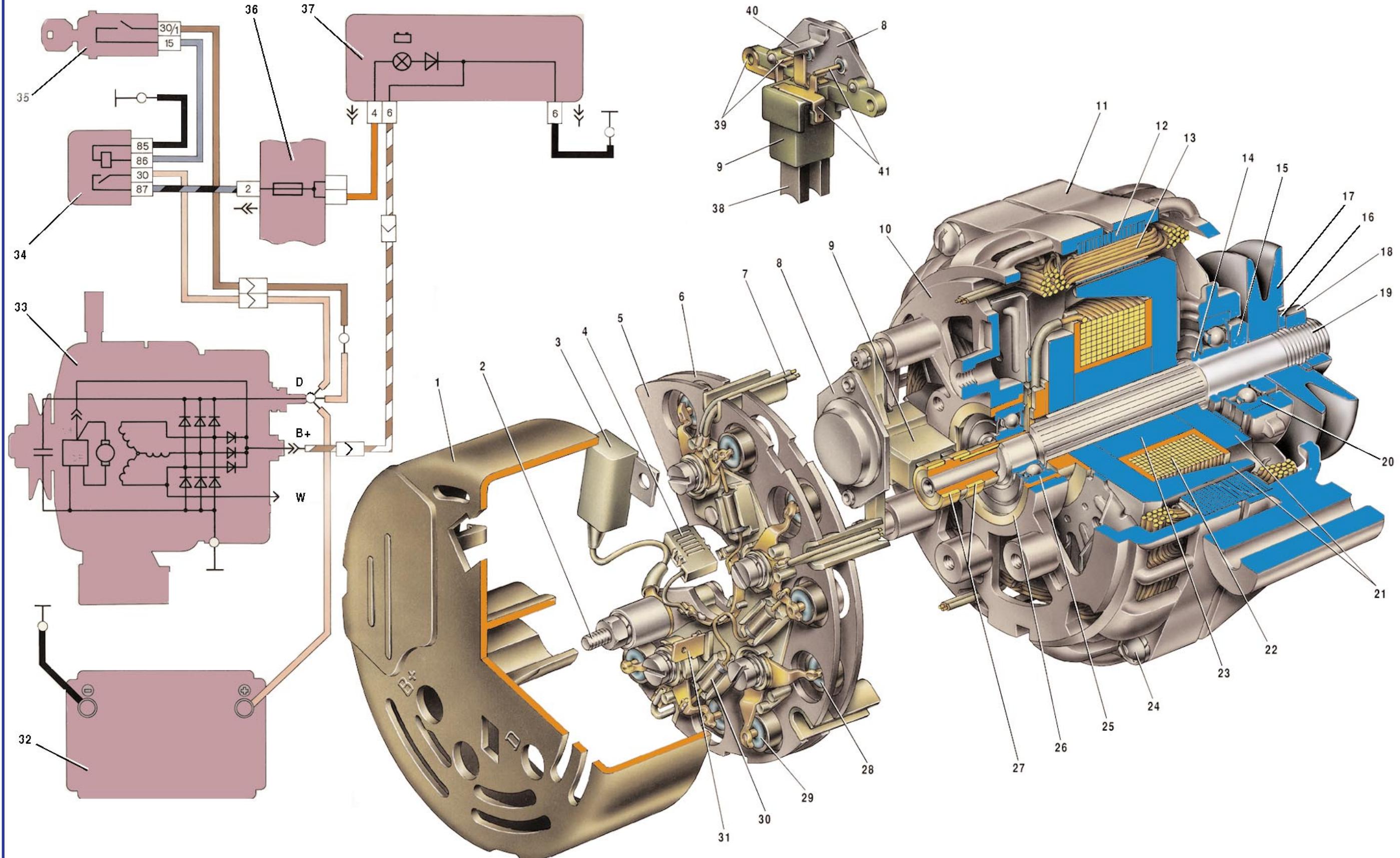


ALTERNATOR

Specification

Max.current at 13 V and rotor rate 5,000 RPM, A
55
Adjustable range of voltage, V14.1 ± 0.5
Engine-to-alternator ratio1 : 2.04

- 1. Slip ring end housing
- 2. Casing
- 3. Securing bolt, diode plate-to-stator winding phased pins
- 4. Slip rings
- 5. Armature shaft ballbearing, slip ring end
- 6. Rotor shaft
- 7. Condenser 2.2 uF± 20%
- 8. Common output lead, supplementary diodes
- 9. Terminal bolt extension (alternator '30' output for power consumption)
- 10. Air intake
- 11. Alternator output '61' lead
- 12. Voltage regulator output 'Б' lead
- 13. Brush connected to voltage regulator 'Б' output
- 14. Voltage regulator
- 15. Brushes connected to voltage regulator 'Ш' output
- 16. Alternator - to - tensioner securing stud
- 17. Drive end housing
- 18. Fan impeller with alternator pulley
- 19. Rotor pole tip, drive end
- 20. Bearing securing washers
- 21. Spacer
- 22. Rotor shaft ballbearing, drive end
- 23. Steel sleeve
- 24. Rotor winding (field winding)
- 25. Stator
- 26. Stator winding
- 27. Rotor pole face, slip ring end
- 28. Rectifier unit
- 29. Alternator pinch bolt
- 30. Buffer bush
- 31. Bush
- 32. Hold-down bush
- 33. Negative gate with “-” rectified current on the housing
- 34. Negative gate retainer
- 35. Stator winding phase pinout
- 36. Positive gate with “+” rectified current on the housing
- 37. Positive gate retainer
- 38. Brush holder
- 39. '61' output (common output of supplementary diodes)
- 40. Supplementary diode (for field winding)
- 41. Alternator
- 42. Instrument cluster
- 43. Battery charge warning light
- 44. Diode
- 45. Resistor 51 Ohm 5 W
- 46. Ignition relay
- 47. Ignition switch
- 48. Main fuse box
- 49. Battery



ALTERNATOR 94.3701 (for injection vehicles)

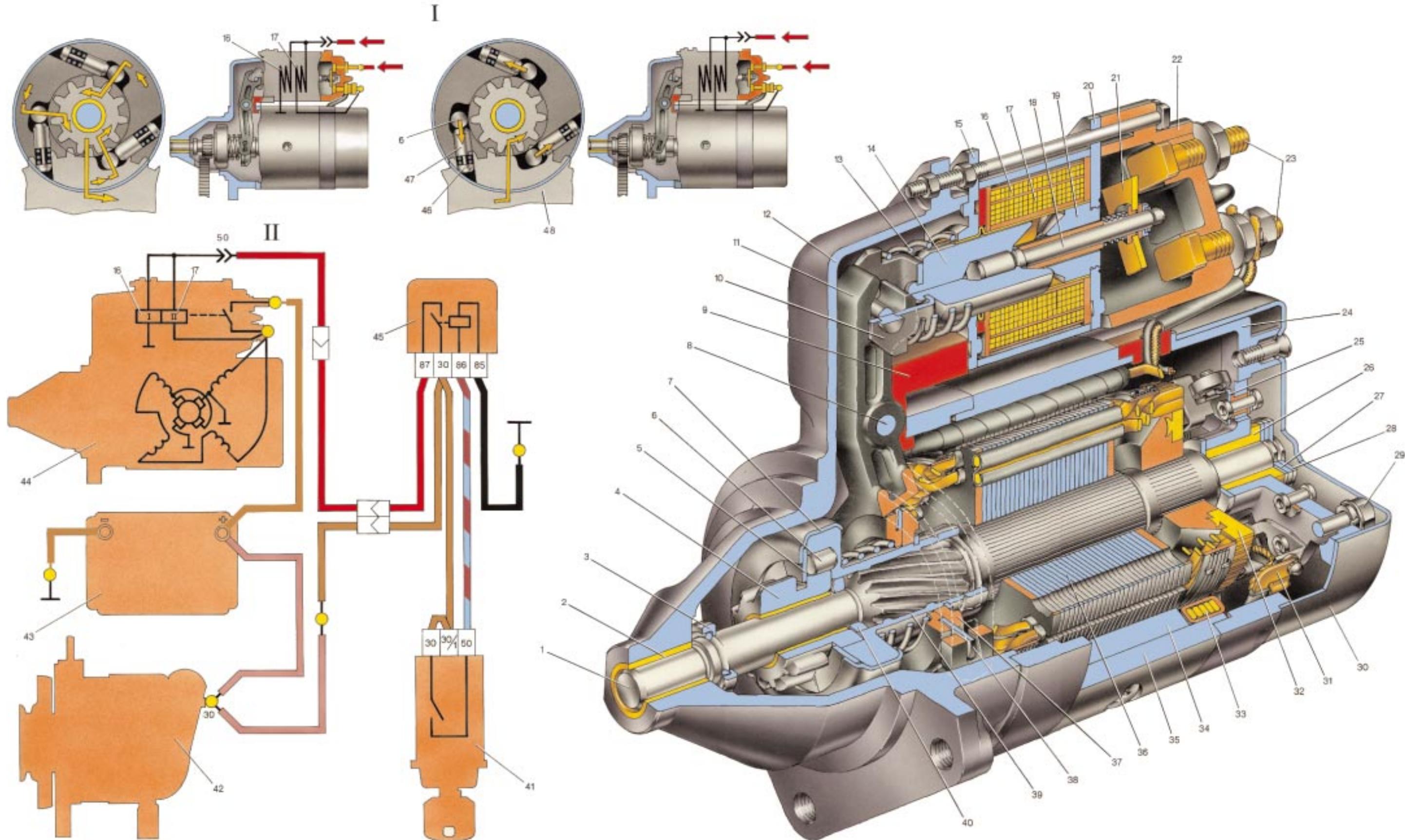
Specification

Maximum current at 13 v
and rotor 6000 RPM, A 80
Adjustable range of voltage, v .. 13,2-14,7
Engine - to - alternator ratio 1 : 2,4

1. Housing
2. "B+" terminal for power consumption
3. Interference suppression capacitor 2.2 uF
4. Common terminal of additional diodes (connected to "D+" terminal of voltage regulator)
5. Holder for rectifier positive diodes
6. Holder for rectifier negative diodes
7. Starter winding terminals
8. Voltage regulator

9. Brush holder
10. Rear cover
11. Front cover
12. Stator core
13. Stator winding
14. Spacer
15. Washer
16. Taper washer
17. Pulley
18. Nut
19. Rotor shaft
20. Rotor shaft bearing, front
21. Rotor pole ends
22. Rotor winding
23. Bush
24. Clamp screw
25. Rotor bearing, rear
26. Bush, bearing
27. Slip rings
28. Negative diode
29. Positive diode
30. Additional diode
31. "D" terminal (common terminal of additional diodes)
32. Battery
33. Alternator
34. Ignition relay

35. Ignition switch
36. Fusebox
37. Battery charge warning light
38. Brush
39. Earth terminal, voltage regulator
40. "DF" terminal, voltage regulator
41. "D+" terminal, voltage regulator



STARTER MOTOR

Specification

Rated power, kW	1.3
Current consumption at rated power, A, not greater	260
Current consumption at "brake on", A, not greater	500
Current consumption at idle, A, not greater	60
Rotation direction (drive end).....	clockwise

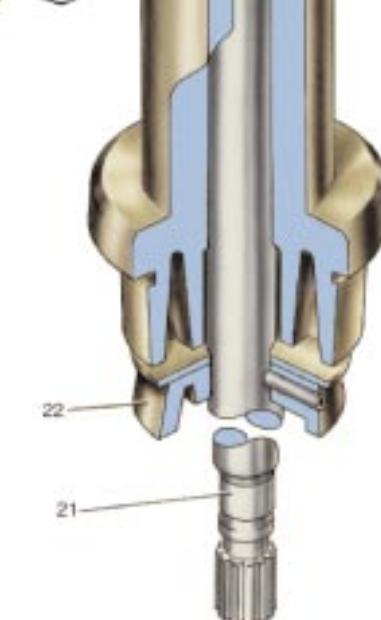
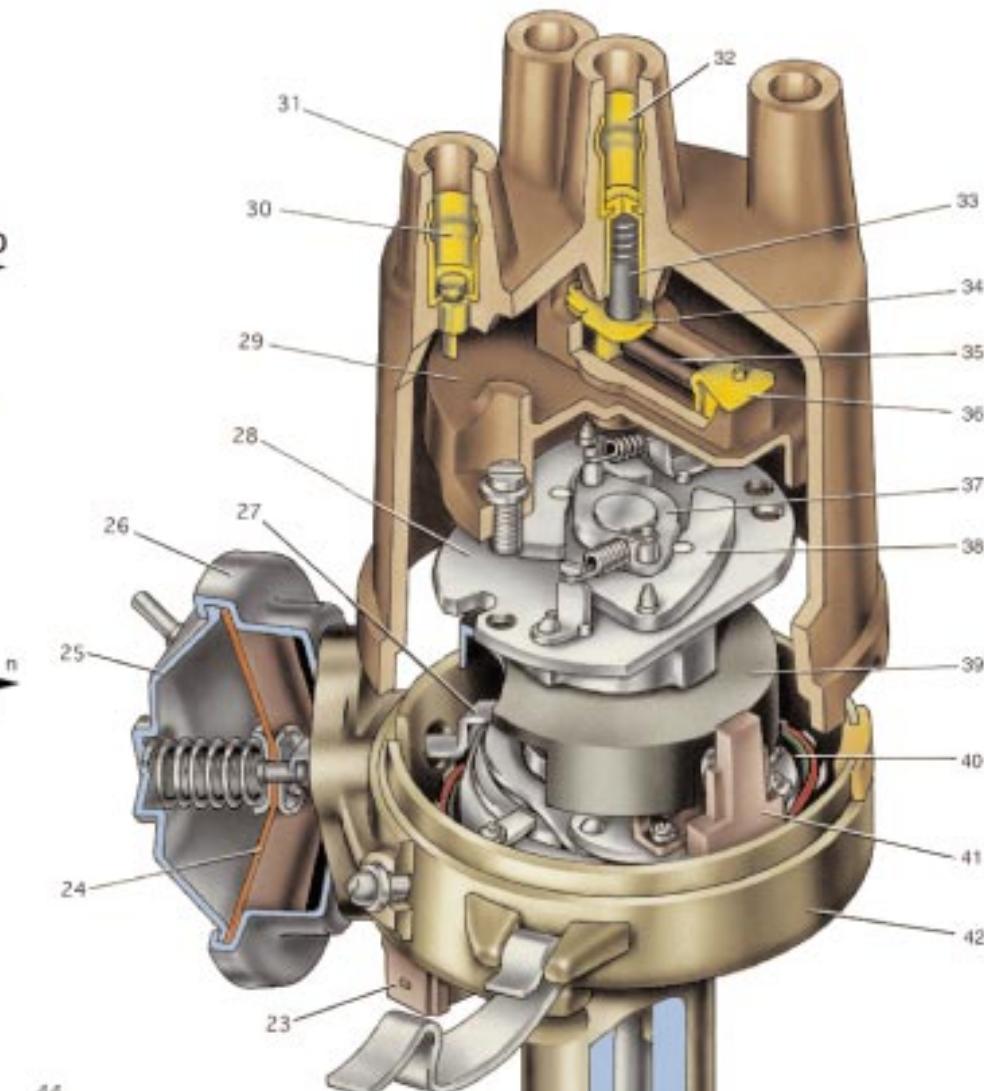
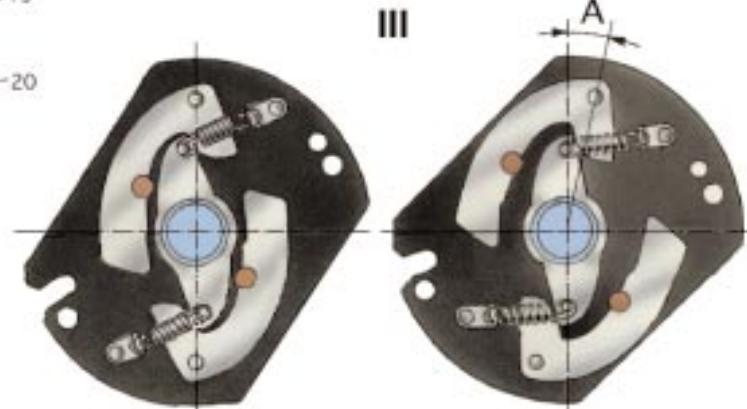
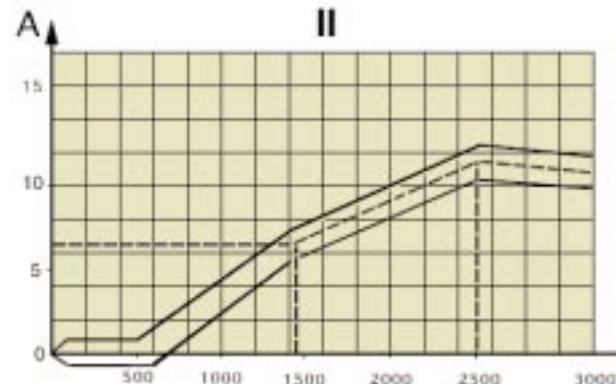
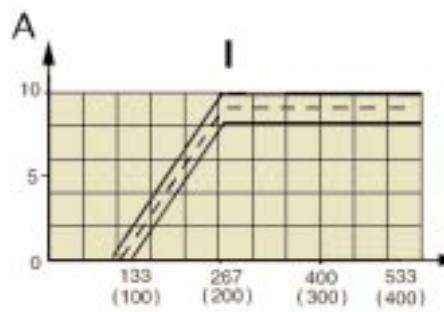
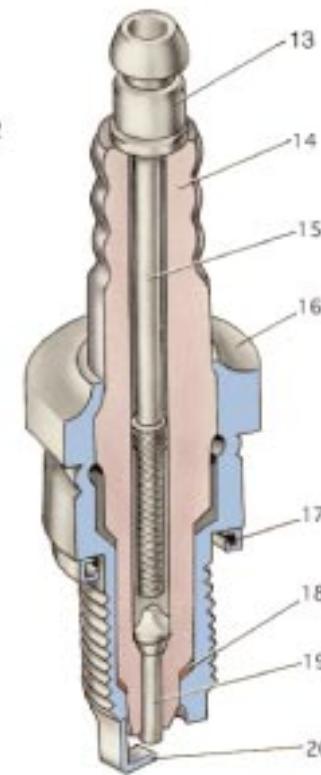
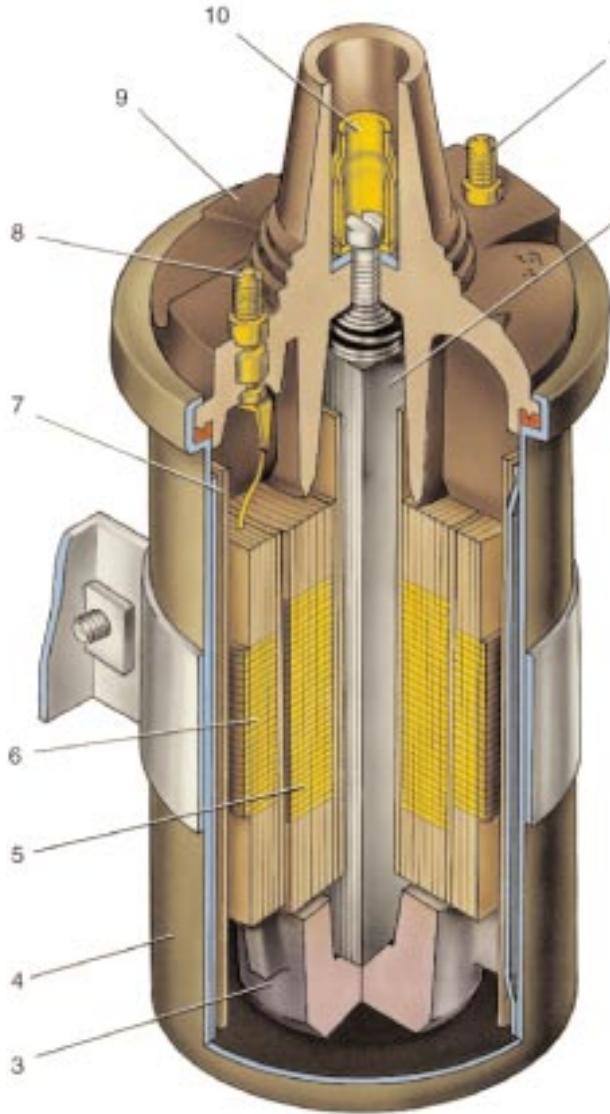
1. Armature shaft
2. Bush, starter motor cover
3. Pinion stop collar
4. Driving pinion / clutch inner ring assy
5. Thrust half-ring
6. Overrun clutch roller
7. Overrun clutch casing
8. Operating lever pivot pin
9. Plug
10. Relay armature drive link
11. Operating lever
12. Drive-end cover
13. Relay armature return spring

14. Starter motor relay armature
15. Front relay flange
16. Relay holding winding
17. Relay plunging winding
18. Armature core bar
19. Relay core
20. Core flange
21. Contact disc
22. Relay cover
23. Relay contact bolts
24. Commutator end cover
25. Positive brush holder
26. Starter motor cover bush

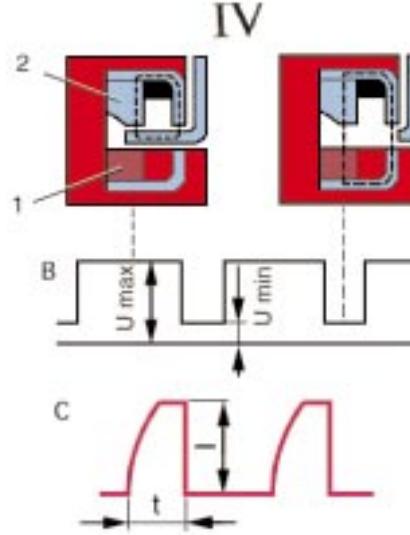
27. End float shim
28. Lock washer
29. Clamp bolt
30. Casing
31. Stator winding series coils pinout
32. Commutator
33. Stator winding series coil
34. Stator pole
35. Starter motor housing
36. Armature core
37. Limiter plate
38. Drive ring
39. Hub / clutch outer ring

40. Overrun clutch hub liner
41. Ignition switch
42. Alternator
43. Battery
44. Starter motor
45. Starter relay
46. Guide bar
47. Plunger
48. Flywheel

- I. Overrun clutch operating diagram
II. Starter motor connection diagram



IV



10. High tension terminal
11. 'B' terminal, primary winding start / secondary winding end

12. Core
13. Contact nut
14. Spark plug insulator
15. Core bar
16. Spark plug body
17. Sealing ring
18. Heat screening washer
19. Centre electrode
20. Side electrode

21. Distributor shaft
22. Shaft oil slinger
23. Socket
24. Diaphragm
25. Vacuum advance cover
26. Vacuum advance housing
27. Vacuum unit operating arm
28. Advance unit bearing plate
29. Distributor rotor
30. Side electrode with terminal for lead to ignition switch
31. Ignition distributor cap

32. Centre electrode with terminal for coil lead
33. Centre electrode carbon contact
34. Centre rotor contact
35. 1000 Ohm resistor for interference suppression
36. Outer rotor contact
37. Centrifugal regulator plate
38. Advance unit governor weight
39. Screen
40. Hall sensor plate
41. Hall sensor
42. Distributor body

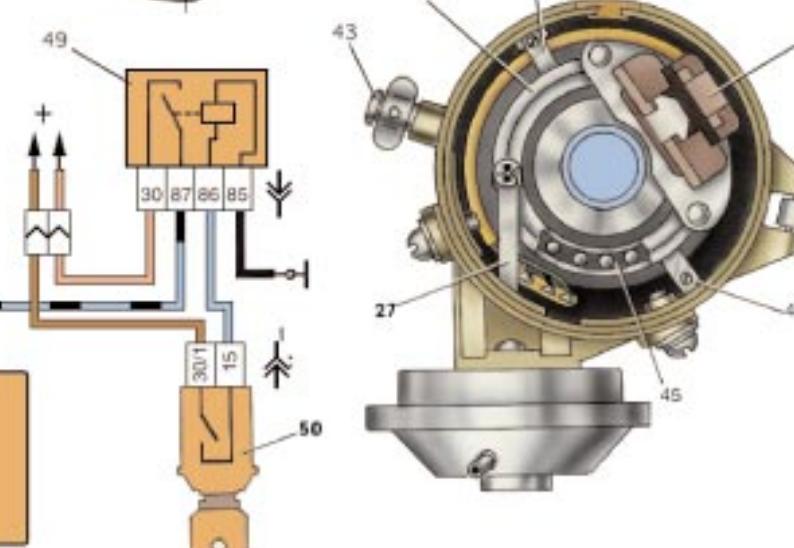
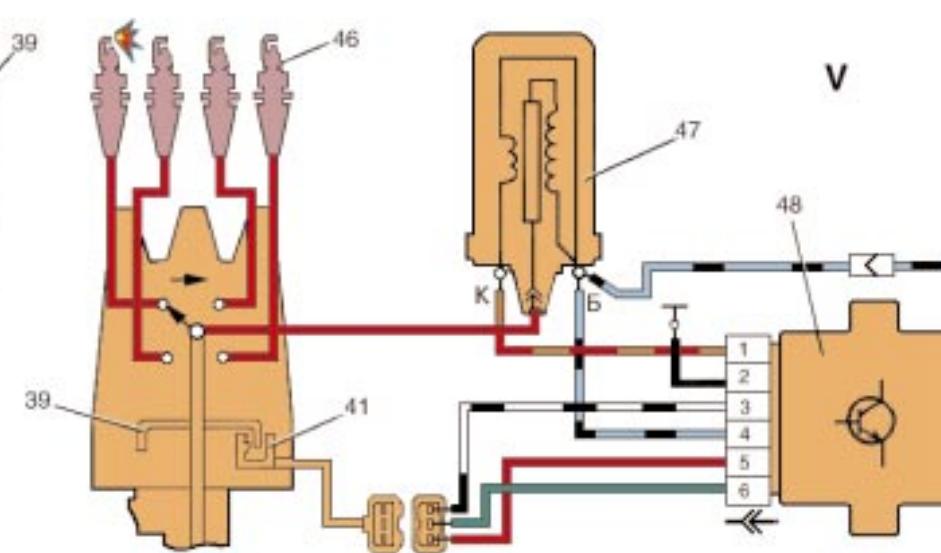
A - ignition timing, degrees
n - distributor shaft rotation rate, RPM

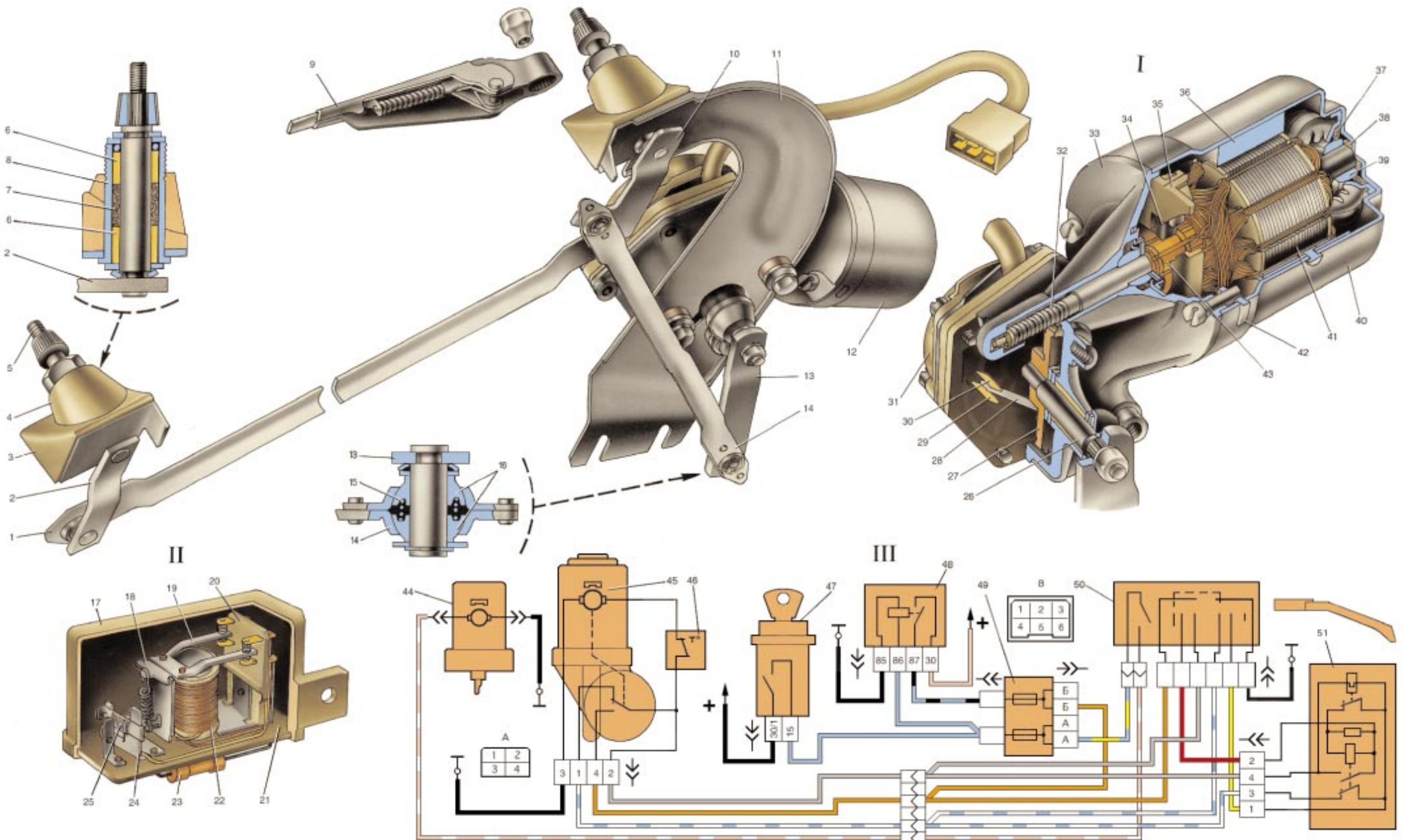
III. Centrifugal advance operation diagram:
A - ignition timing

I. Vacuum advance unit performance:
A - timing angle, degrees
P - vacuum, gPa (Hg mm)
II. Centrifugal advance unit performance:
A - ignition timing
B - voltage pulses (U) at sensor output
C - current pulses (I) in ignition coil primary winding; t - current accumulation time
Y. Ignition system diagram

IGNITION SYSTEM

1. Semiconductor element with integrated circuit
2. Permanent magnet
3. Insulator
4. Ignition coil housing
5. Secondary winding
6. Primary winding
7. Outer magnetic duct
8. Primary winding end 'K' terminal
9. Cover





WINDSCREEN WIPER

- Linking rod
- LH operating arm
- Inner mounting bush
- Outer mounting bush
- Shaft
- Bushes
- Felt
- Bracket
- Wiper arm
- RH operating arm
- Yoke
- Wiper gear motor
- Crank
- Connecting rod
- Spacer spring
- Inserts
- Relay casing

32

- Relay armature
- Conductive plate
- Contact mounting plate
- Base plate
- Relay winding
- Resistor
- Breaker bracket
- Breaker bimetal plate
- Gear shaft
- Gear motor wheel
- Spring plate
- 29, 30 - Contact posts
- Cover
- Armature shaft
- Gear motor cover
- Blade
- Blade holder
- Permanent magnet
- Felt ring
- Thrust bearing
- Bush
- Housing

- A. Pin numbers in relay / wiper motor connector
B. Pin numbers in wiper switch connector
- I. Wiper gear motor M9-241
II. Windscreen wiper relay PC-514
III. Operation diagram of windscreen wipe / wash motors

41. Armature, motor

42. Cover securing plate

43. Commutator

44. Windscreen washer motor

45. Thermal bimetal fuse

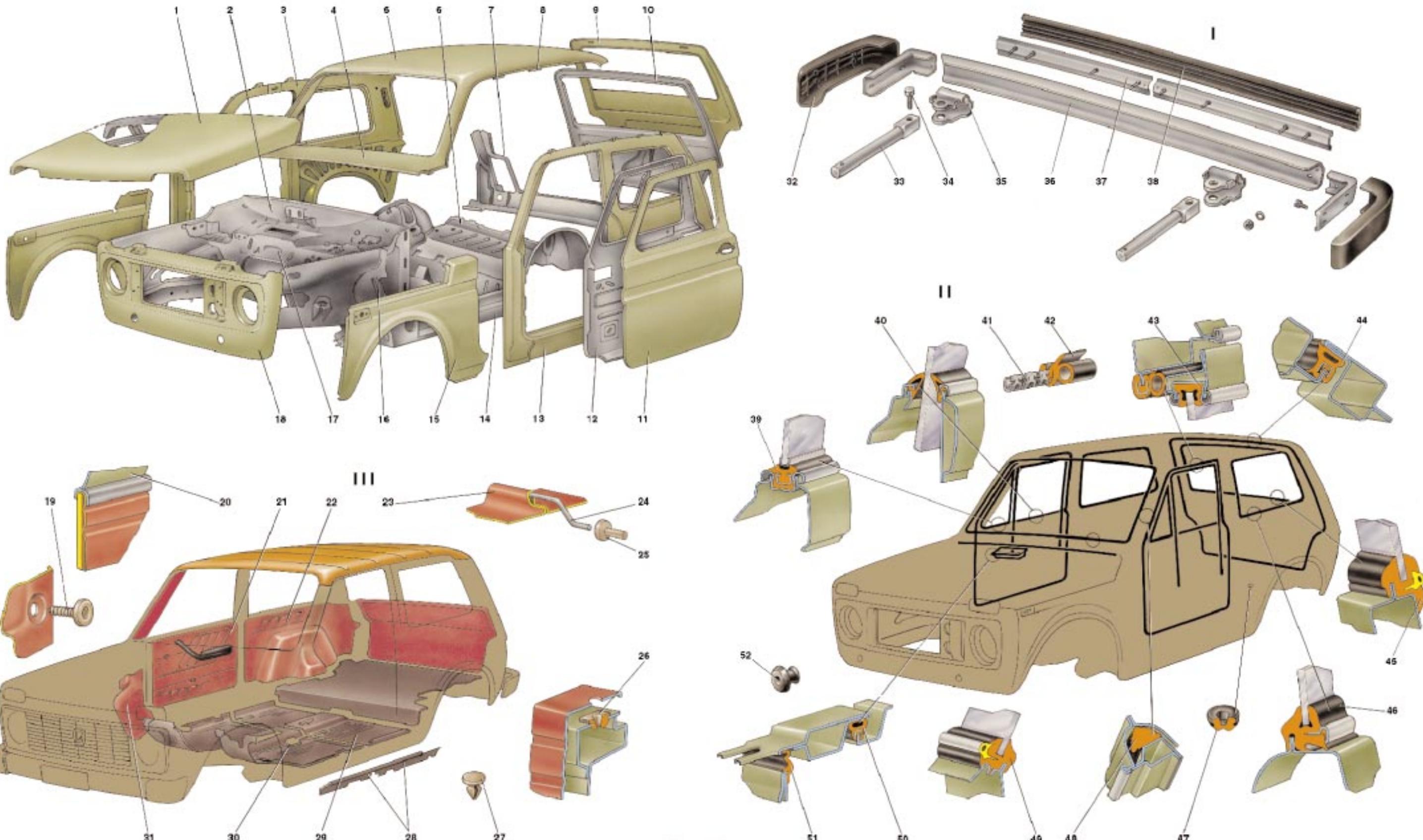
46. Ignition switch

47. Ignition relay

48. Fuse box

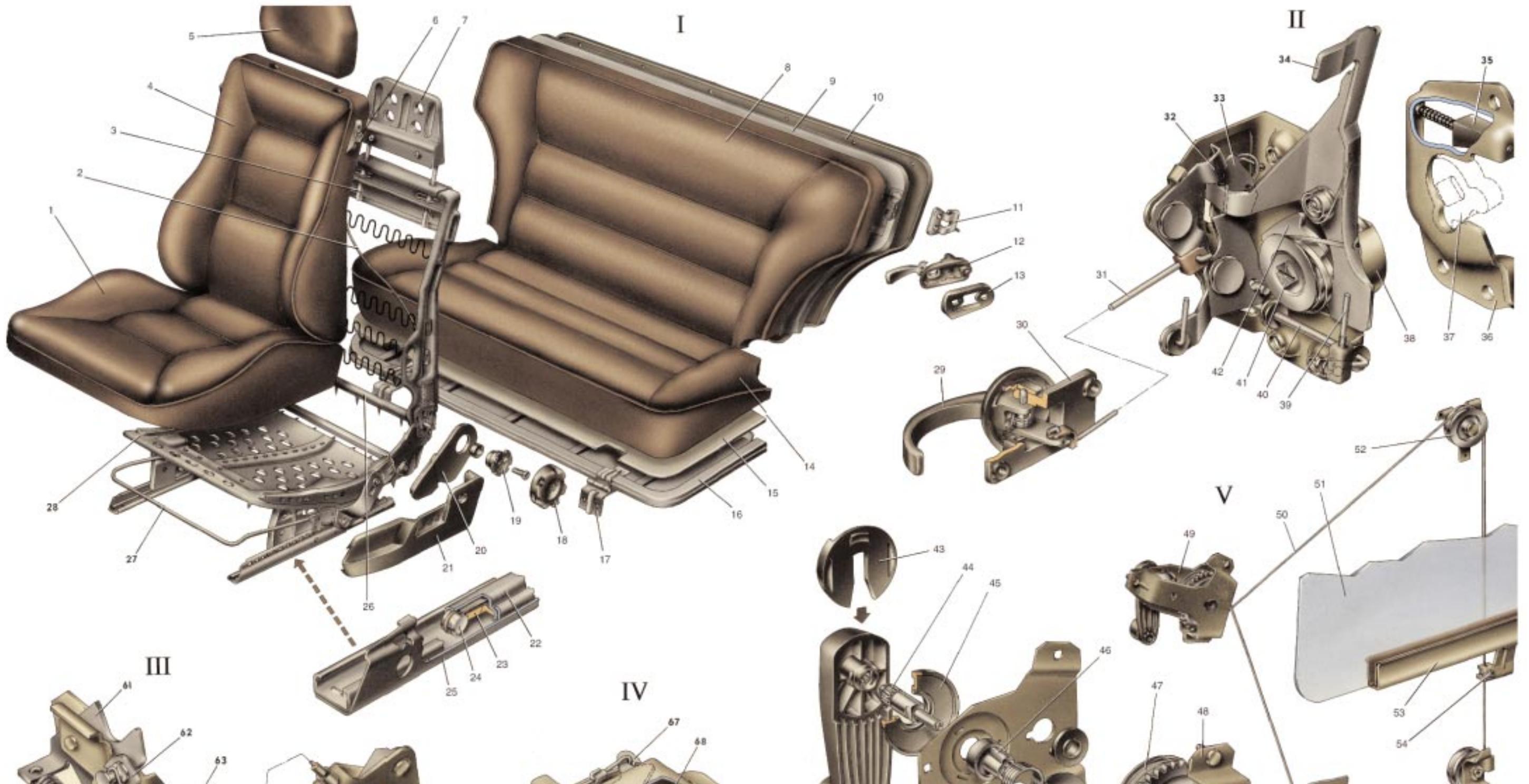
50. Windscreen wipe/wash switch

51. Intermittent wipe relay



BODY

1. Bonnet
2. Upper bulkhead stiffener
3. RH body side
4. Windscreen scuttle panel
5. Roof panel
6. Rear floor panel
7. Rear body side post
8. Roof stiffener
9. Tailgate outer panel
10. Tailgate inner panel
11. Side door outer panel
12. Side door inner panel
13. LH body side
14. Floor - to - body side connection
15. Front wing
16. Front inner wing
17. Bulkhead
18. Radiator trim panel
19. Securing clip
20. Upper door trim retainer
21. Door trim
22. Inner wing and body side liner
23. Headliner
24. Headliner support
25. Bush
26. Trim securing clip
27. Floor carpet retaining clip
28. Door sill trim
29. Rear floor carpet
30. Front floor carpet
31. Front side panel trim
32. Side cover plate
33. Connecting piece
34. Securing bolt
35. Bracket
36. Bumper bar
37. Retainer
38. Rubber cover plate
39. Quarter light seal
40. Sliding glass lower seal
41. Seal cord
42. Side door seal
43. Sliding glass seal
44. Tailgate seal
45. Rear window seal
46. Side panel glass seal
47. Rubber bush
48. Windscreen scuttle panel seal
- I. Rear bumper
- II. Rubber seals
- III. Interior trim



BODY FITTINGS

- Front seat cushion
- Operating rod, seat back fold-down
- Headrest restraint guide
- Front seat back
- Headrest
- Knob, seat back fold-down
- Headrest restraint framework
- Rear seat back
- Seat back base
- Trim

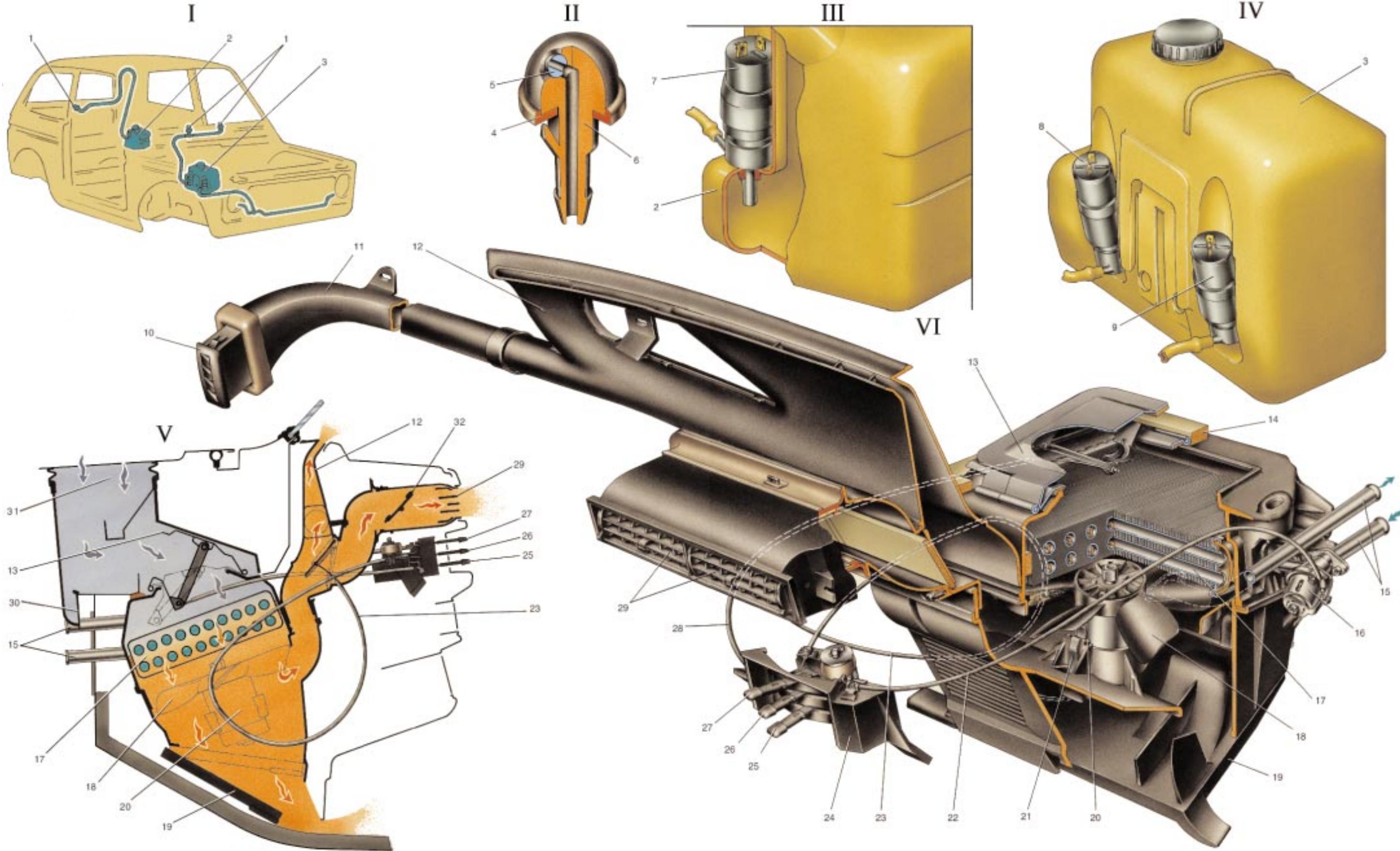
- Seat back brace
- Seat back stop
- Grommet
- Rear seat cushion
- Base-plate
- Cushion pan
- Hinge
- Seat back rake adjuster
- Retainer
- Side trim
- Front seat trim
- Seat slide

- Stop
- Roller
- Seat track with catch
- Seat back crossmember
- Adjuster handle, seat sliding
- Cushion framework
- Handle bracket
- Inner handle operating link
- Inner control lever
- Locking rod
- Outer control lever

- Lock striker retainer
- Lock striker
- Rotor
- Centre shaft mounting
- Lock release rod
- Lock release shaft
- Handle trim cover
- Operating shaft
- Surround
- Brake spring dog

- Drum / driven gear
- Window winder cover
- Window winder mechanism
- Cable
- Door glass
- Rollers
- Window glass support channel
- Operating handle
- Bracket
- Operating rod
- Pinion
- Drive shaft mounting
- Brake spring
- Arm
- Lock housing
- Winder handle

- Seats
- Front door lock
- Bonnet lock
- Tailgate lock
- Window winder



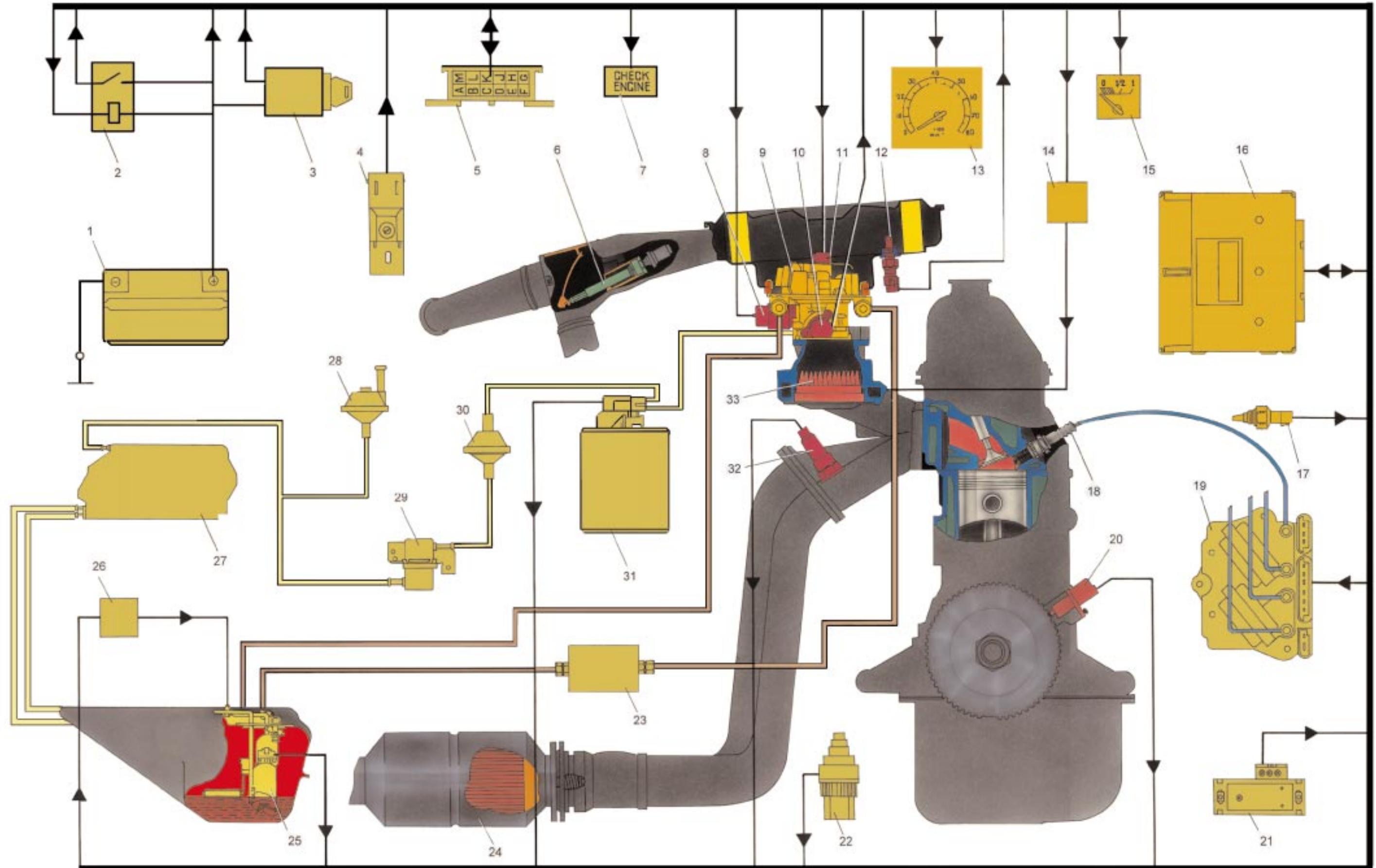
HEATING AND VENTILATION. WIPER/WASHER.

1. Washer jet
2. Tailgate washer fluid container
3. Windscreens and headlight washer fluid container
4. Gasket
5. Atomizer
6. Jet body

7. Tailgate washer pump motor
8. Windscreens and headlight washer pump motor
9. Headlight washer pump motor
10. Side vent
11. Side vent air duct
12. Windscreens defroster air duct
13. Air intake cover
14. Gasket
15. Supply and return pipes
16. Tap

17. Radiator
18. Impeller
19. Air distributor cover
20. Fan motor
21. Fan spring holder
22. Control cable
23. Windscreens vent flap control cable
24. Bracket, control levers
25. Air intake shutter control lever
26. Windscreens vent shutter control lever
27. Tap control lever
28. Air intake cover control cable
29. Centre vents
30. Rubber valve
31. Air box
32. Centre vent shutter

- I. Washer locations
- II. Winscreens and headlight washer pump and fluid container
- III. Tailgate washer pump and fluid container
- IV. Winscreens and headlight washer pump and fluid container
- V. Ventilation system operation diagram
- VI. Heater unit

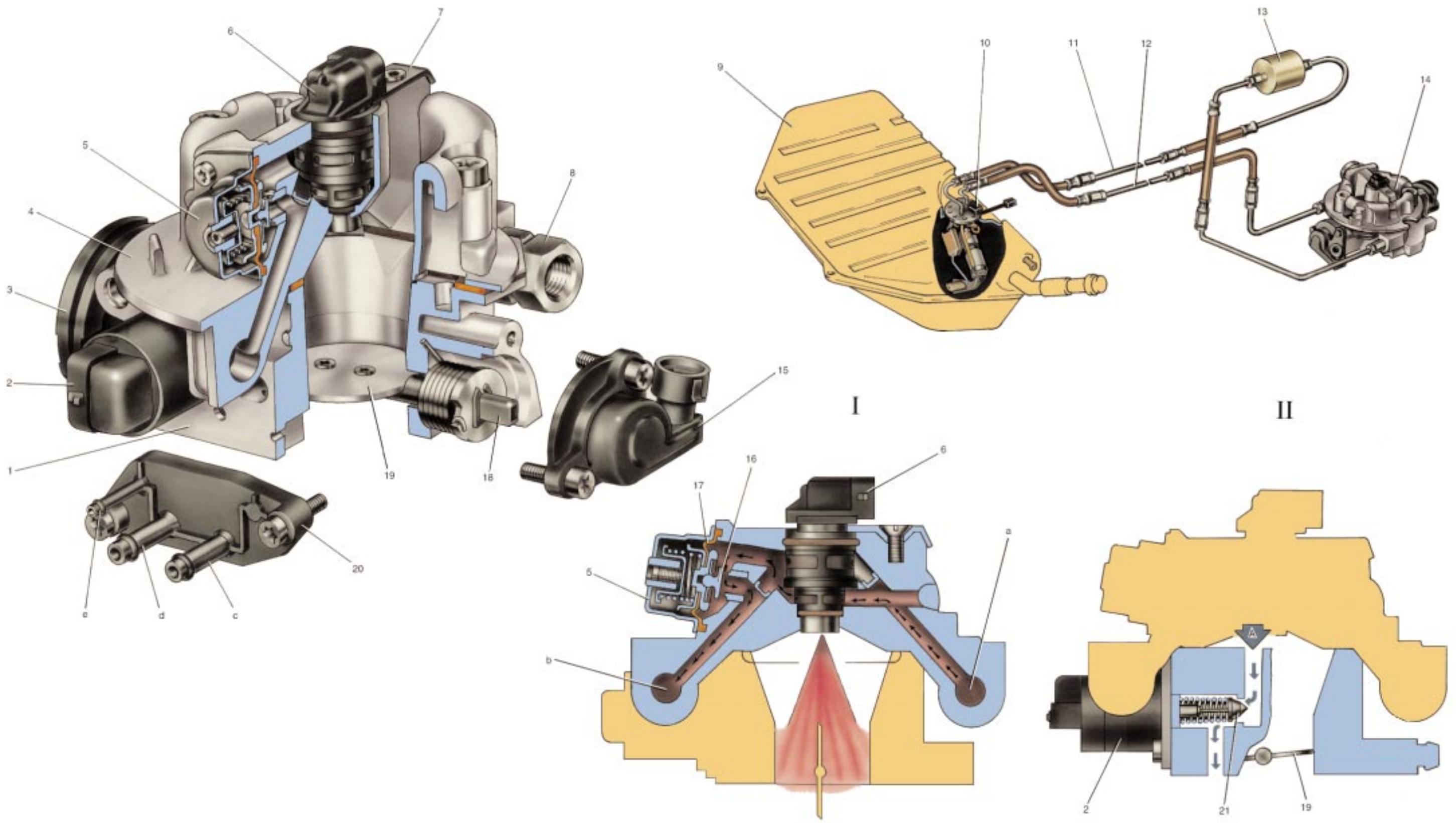


INJECTION SYSTEM DIAGRAM

- | | |
|---------------------------------|------------------------------|
| 1. Battery | 10. Throttle position sensor |
| 2. Ignition relay | 11. Injector |
| 3. Ignition switch | 12. Air temperature sensor |
| 4. Octane adjust potentiometer | 13. Tachometer |
| 5. Diagnostic plug | 14. Preheater "ON" relay |
| 6. Temperature regulator | 15. Fuel level gauge |
| 7. «CHECK ENGINE» warning light | 16. Electronic control unit |

- 8. Idle air control valve
 - 9. Central injection unit
 - 10. Throttle position sensor
 - 11. Injector
 - 12. Air temperature sensor
 - 13. Tachometer
 - 14. Preheater “ON” relay
 - 15. Fuel level gauge
 - 16. Electronic control unit
 - 17. Coolant temperature sender
 - 18. Spark plug
 - 19. Ignition module
 - 20. Crankshaft position sensor
 - 21. Airflow meter
 - 22. Speed sender
 - 23. Fuel filter
 - 24. Catalytic converter
 - 25. Fuel pump and fuel level sender

- 26. Fuel pump “ON” relay
 - 27. Fuel vapour separator
 - 28. Pressure-relief valve
 - 29. Gravity valve
 - 30. Two-way valve
 - 31. Canister with electromagnetic purge valve
 - 32. Oxygen sensor
 - 33. Intake manifold preheater



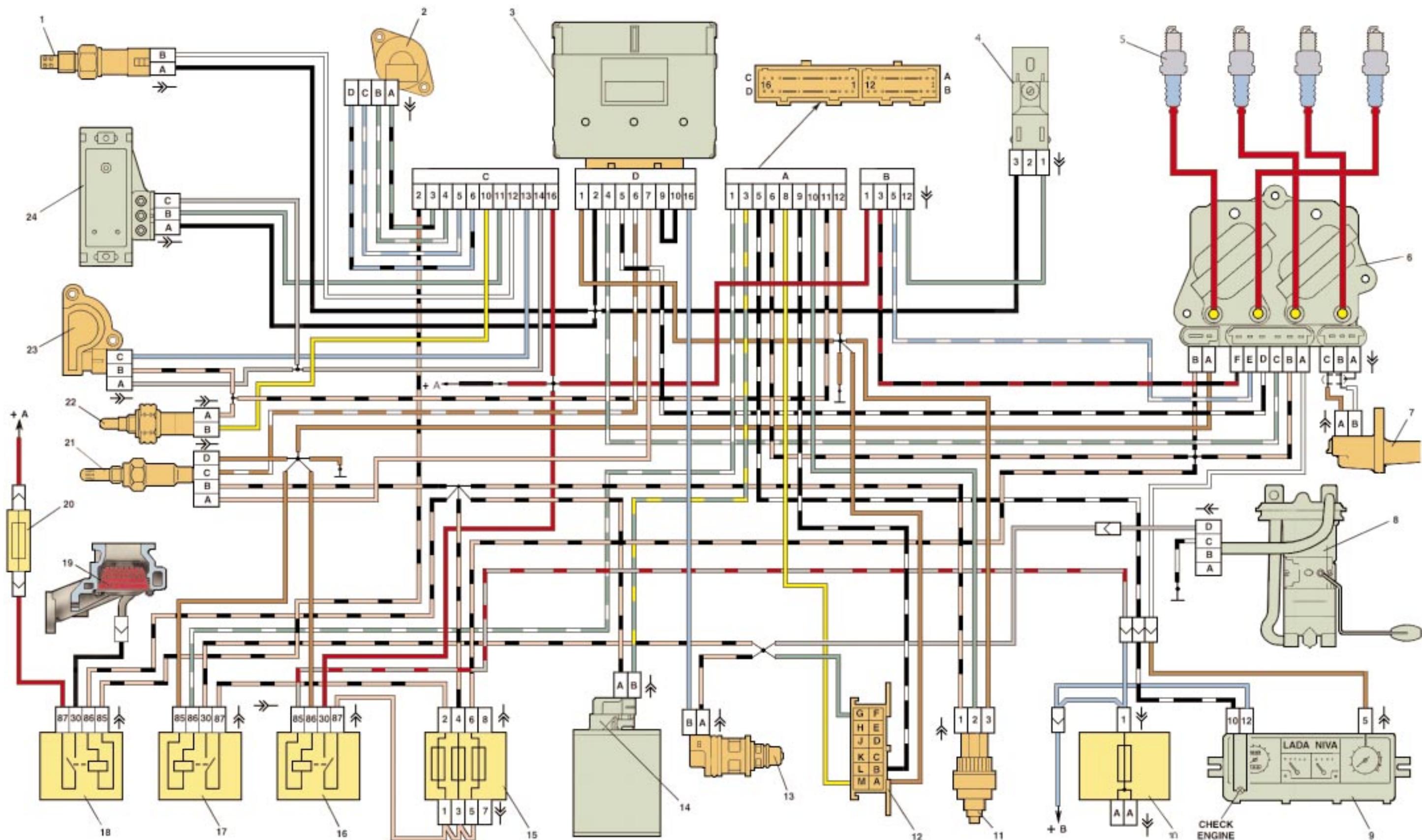
INJECTION SYSTEM

1. Throttle valves housing, TBI unit
2. Idle speed adjuster
3. Throttle operation cam
4. Supply unit, TBI
5. Fuel pressure regulator
6. Injector
7. Securing clip
8. Pipe union, fuel supply
9. Fuel tank
10. Fuel pump with fuel level sender
11. Fuel supply pipe
12. Fuel return pipe

13. Fuel filter
14. TBI unit
15. Throttle position sensor
16. Fuel pressure regulator valve
17. Diaphragm
18. Throttle shaft
19. Throttle valve

20. Vacuum connection
 21. Idle speed control valve
- a. Fuel supply port
 - b. Fuel return port
 - c. Canister purge hose connection
 - d. Crankcase ventilation hose connection

- e. MAP sensor hose connection
- I. Fuel pressure regulator operation diagram
- II. Idle air control diagram:
A - air supply by-passing throttle valve



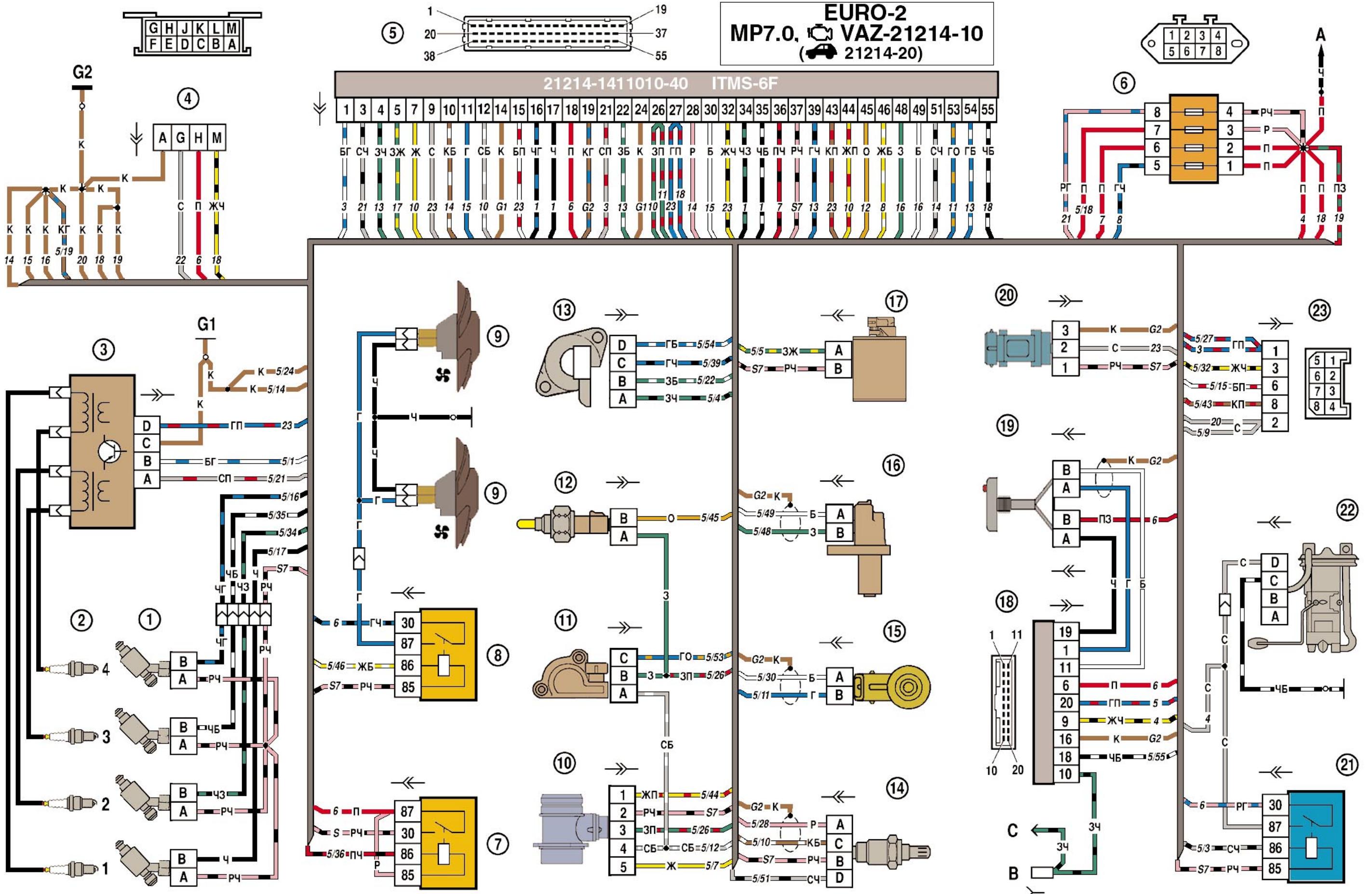
WIRING DIAGRAM FOR INJECTION SYSTEM (GM)

1. Air temperature sensor
2. Idle speed adjuster
3. Electronic control unit (ECU)
4. Octane-rating potentiometer
5. Spark plugs

6. Ignition module
7. Crankshaft sensor
8. Fuel pump motor and fuel level sensor
9. Instrument cluster including tachometer and 'Check Engine' light
10. Main fuse box
11. Speed sensor
12. Diagnostic plug
13. Injector
14. Canister purge valve
15. Injection system fuse box
16. Ignition relay
17. Electric fuel pump 'on' relay
18. Intake manifold preheating relay
19. Intake manifold preheater
20. Intake manifold preheating fuse
21. Oxygen sensor
22. Coolant temperature sensor

23. Throttle position sensor
24. Manifold absolute pressure (MAP) sensor

A. To battery '+' terminal
B. To ignition switch '15' terminal



1 - Injectors;
2 - Spark Plugs;
3 - Ignition Module;
4 - Data Link Connector (DLC);
5 - Electronic Control Module (ECM);
6 - Fusebox;

7 - Main Relay;
8 - Electric Fan Relay;
9 - Cooling Fans Motors;
10 - Mass Air Flow (MAF) and Intake Air Temperature (IAT) Sensor;
11 - Throttle Position (TP) Sensor;
12 - Engine Coolant Temperature

(ECT) Sensor;
13 - Idle Air Control (IAC) Valve;
14 - Heated Oxygen Sensor (HO₂S);
15 - Knock Sensor (KS);
16 - Crankshaft Position (CKP) Sensor;

17 - EVAP Purge Solenoid;
18 - Immobilizer Control Module;
19 - Immobilizer System Key Reader;
20 - Vehicle Speed Sensor (VSS);
21 - Fuel Pump Relay;
22 - Electric Fuel Pump with Fuel

Level Sensor;
23 - Instrument Panel Connector;

A - to battery terminal «+»;
B - to courtesy light switch electric connector;
C - to white/black wire disconnected from the courtesy light switch;
G1, G2 - Ground Connections.

Alongside letter code of wire color this diagram also has digital marking indicating the number of electrical component to which the wire should be connected, e.g. «-3». Marking «-S7-» or «-SA-» means that the wire should be connected to component #7 or A, as indicated on the wiring diagram, through the connection not shown on the diagram.

Important:
A different sequence of fuses may be used while assembling the vehicle.

