



SPECIFICATIONS

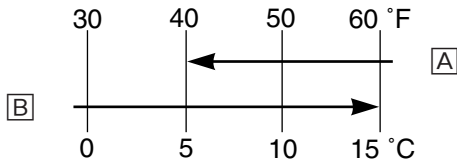
GENERAL SPECIFICATIONS

Item	Standard	Limit
Model code	5PW4 USA 5PW5 California 5PW6 Canada	---- ---- ----
Dimensions		
Overall length	2,040 mm (80.3 in)	----
Overall width	705 mm (27.8 in)	----
Overall height	1,105 mm (43.5 in)	----
Seat height	820 mm (32.3 in)	----
Wheelbase	1,395 mm (54.9 in)	----
Minimum ground clearance	140 mm (5.5 in)	----
Minimum turning radius	3,900 mm (153.5 in)	----
Weight		
Wet (with oil and a full fuel tank)	193 kg (426 lb) USA, Canada 194 kg (428 lb) California	---- ----
Maximum load (except motorcycle)	202 kg (445 lb) USA, Canada 201 kg (443 lb) California	---- ----



ENGINE SPECIFICATIONS

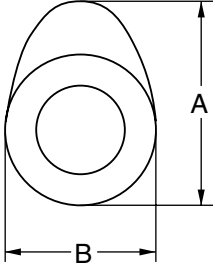
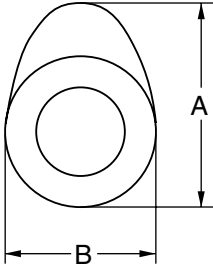
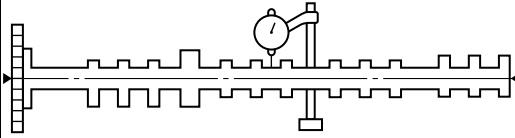
Item	Standard	Limit
Engine		
Engine type	Liquid-cooled, 4-stroke, DOHC	----
Displacement	998 cm ³ (60.9 cu.in)	----
Cylinder arrangement	Forward-inclined parallel 4-cylinder	----
Bore × stroke	74 × 58 mm (2.91 × 2.28 in)	----
Compression ratio	11.8 : 1	----
Engine idling speed	1,000 ~ 1,100 r/min	----
Vacuum pressure at engine idling speed	25.3 kPa (190 mmHg, 7.47 inHg)	----
Standard compression pressure (at sea level)	1,450 kPa (14.5 kg/cm ² , 210 psi) at 400 r/min	----
Fuel		
Recommended fuel	Premium unleaded gasoline only	----
Fuel tank capacity		
Total (including reserve)	17 L (3.74 Imp gal, 4.49 US gal)	----
Reserve only	3.3 L (0.73 Imp gal, 0.87 US gal)	----
Engine oil		
Lubrication system	Wet sump	----
Recommended oil		
	Yamalube 4 (20W40) or SAE 20W40 type SE motor oil (5 °C (40 °F) or higher) A	----
	Yamalube 4 (10W30) or SAE 10W30 type SE motor oil (15 °C (60 °F) or below) B	----
Quantity		
Total amount	3.8 L (3.34 Imp qt, 4.02 US qt)	----
Without oil filter cartridge replacement	2.9 L (2.55 Imp qt, 3.07 US qt)	----
With oil filter cartridge replacement	3.1 L (2.73 Imp qt, 3.28 US qt)	----
Oil pressure (hot)	45 kPa at 1,100 r/min (0.45 kg/cm ² , 6.5 psi at 1,100 r/min)	----
Relief valve opening pressure	480 ~ 560 kPa (4.8 ~ 5.6 kg/cm ² , 69.6 ~ 81.2 psi)	----



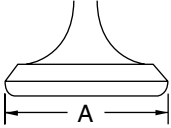
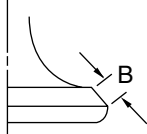
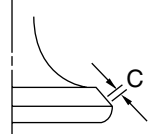
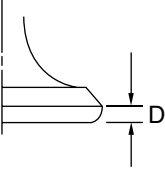


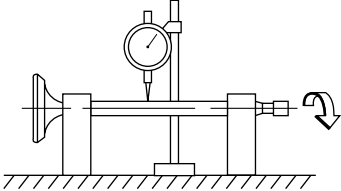
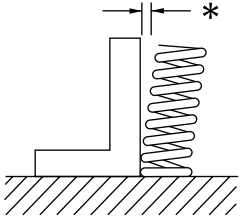
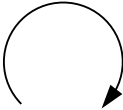
Item	Standard	Limit
Oil filter		
Oil filter type	Cartridge (paper)	----
Bypass valve opening pressure	80 ~ 120 kPa (0.8 ~ 1.2 kg/cm ² , 11.6 ~ 17.4 psi)	----
Oil pump		
Oil pump type	Trochoid	----
Inner-rotor-to-outer-rotor-tip clearance	0.01 ~ 0.10 mm (0.0004 ~ 0.0039 in)	0.18 mm (0.0071 in)
Outer-rotor-to-oil-pump-housing clearance	0.09 ~ 0.15 mm (0.0035 ~ 0.0059 in)	0.22 mm (0.0087 in)
Cooling system		
Radiator capacity	2.45 L (2.16 Imp qt, 2.59 US qt)	----
Radiator cap opening pressure	95 ~ 125 kPa (0.95 ~ 1.25 kg/cm ² , 13.8 ~ 18.1 psi)	----
Radiator core		
Width	340 mm (13.4 in)	----
Height	295.8 mm (11.6 in)	----
Depth	27 mm (1.06 in)	----
Coolant reservoir		
Capacity	0.24 L (0.21 Imp qt, 0.25 US qt)	----
Water pump		
Water pump type	Single suction centrifugal pump	----
Reduction ratio	68/43 × 28/28 (1.581)	----
Max. impeller shaft tilt	----	0.15 mm (0.0059 in)
Starting system type		
	Electric starter	----
Electric fuel injection		
Type	INP-731/4	----
Manufacturer	NIPPON INJECTOR	----
Spark plugs		
Model (manufacturer) × quantity	CR9EIA 9/IU24D (NGK/DENSO) × 4	----
Spark plug gap	0.8 ~ 0.9 mm (0.032 ~ 0.035 in)	----
Cylinder head		
Volume	13.45 ~ 14.05 cm ³ (0.82 ~ 0.86 cu.in)	----
Max. warpage	----	0.1 mm (0.0039 in)



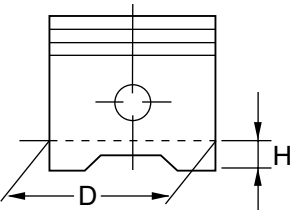
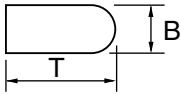
Item	Standard	Limit
Camshafts		
Drive system	Chain drive (right)	----
Camshaft cap inside diameter	24.500 ~ 24.521 mm (0.9646 ~ 0.9654 in)	----
Camshaft journal diameter	24.459 ~ 24.472 mm (0.9630 ~ 0.9635 in)	----
Camshaft-journal-to-camshaft-cap clearance	0.028 ~ 0.062 mm (0.0011 ~ 0.0024 in)	----
Intake camshaft lobe dimensions		
		
Measurement A	32.5 ~ 32.6 mm (1.2795 ~ 1.2835 in)	32.4 mm (1.2756 in)
Measurement B	24.95 ~ 25.05 mm (0.9823 ~ 0.9862 in)	24.85 mm (0.9783 in)
Exhaust camshaft lobe dimensions		
		
Measurement A	32.95 ~ 33.05 mm (1.2972 ~ 1.3012 in)	32.85 mm (1.2933 in)
Measurement B	24.95 ~ 25.05 mm (0.9823 ~ 0.9862 in)	24.85 mm (0.9783 in)
Max. camshaft runout	----	0.03 mm (0.0012 in)
		



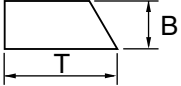
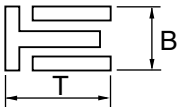
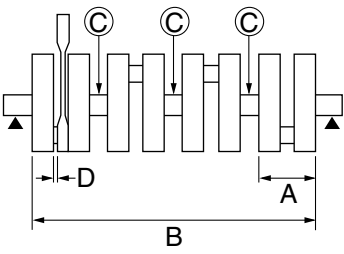
Item	Standard	Limit
Timing chain		
Model/number of links	RH2015/130	----
Tensioning system	Automatic	----
Valves, valve seats, valve guides		
Valve clearance (cold)		
Intake	0.11 ~ 0.20 mm (0.0043 ~ 0.0079 in)	----
Exhaust	0.21 ~ 0.27 mm (0.0083 ~ 0.0106 in)	----
Valve dimensions		
 Head Diameter	 Face Width	 Seat Width
		 Margin Thickness
Valve head diameter A		
Intake	22.9 ~ 23.1 mm (0.9016 ~ 0.9094 in)	----
Exhaust	24.4 ~ 24.6 mm (0.9606 ~ 0.9685 in)	----
Valve face width B		
Intake	1.76 ~ 2.90 mm (0.0693 ~ 0.1142 in)	----
Exhaust	1.76 ~ 2.90 mm (0.0693 ~ 0.1142 in)	----
Valve seat width C		
Intake	0.9 ~ 1.1 mm (0.0354 ~ 0.0433 in)	----
Exhaust	0.9 ~ 1.1 mm (0.0354 ~ 0.0433 in)	----
Valve margin thickness D		
Intake	0.5 ~ 0.9 mm (0.0197 ~ 0.0354 in)	----
Exhaust	0.5 ~ 0.9 mm (0.0197 ~ 0.0354 in)	----
Valve stem diameter		
Intake	3.975 ~ 3.990 mm (0.1565 ~ 0.1571 in)	3.945 mm (0.1553 in)
Exhaust	4.465 ~ 4.480 mm (0.1758 ~ 0.1764 in)	4.43 mm (0.1744 in)
Valve guide inside diameter		
Intake	4.000 ~ 4.012 mm (0.1575 ~ 0.1580 in)	4.05 mm (0.1594 in)
Exhaust	4.500 ~ 4.512 mm (0.1772 ~ 0.1776 in)	4.55 mm (0.1791 in)
Valve-stem-to-valve-guide clearance		
Intake	0.010 ~ 0.037 mm (0.0004 ~ 0.0015 in)	0.08 mm (0.0031 in)
Exhaust	0.020 ~ 0.047 mm (0.0008 ~ 0.0019 in)	0.10 mm (0.0039 in)

Item	Standard	Limit
Valve stem runout 	----	0.01 mm (0.0004 in)
Valve seat width Intake Exhaust	0.9 ~ 1.1 mm (0.0354 ~ 0.0433 in) 0.9 ~ 1.1 mm (0.0354 ~ 0.0433 in)	---- ----
Valve springs Free length Intake Exhaust Installed length (valve closed) Intake Exhaust Compressed spring force (installed) Intake Exhaust Spring tilt  Intake Exhaust Winding direction (top view) Intake Exhaust 	38.9 mm (1.53 in) 40.67 mm (1.60 in) 34.5 mm (1.36 in) 35 mm (1.38 in) 82 ~ 96 N (8.2 ~ 9.6 kg, 18.43 ~ 21.58 lb) 110 ~ 126 N (11.0 ~ 12.6 kg, 24.73 ~ 28.32 lb) ---- ---- Clockwise Clockwise	37.0 mm (1.46 in) 38.6 mm (1.52 in) ---- ---- ---- ---- 2.5°/1.7 mm (0.067 in) 2.5°/1.8 mm (0.071 in) ---- ----



Item	Standard	Limit
Cylinders		
Cylinder arrangement	Forward-inclined, parallel 4-cylinder	----
Bore × stroke	74 × 58 mm (2.91 × 2.28 in)	----
Compression ratio	11.8 : 1	----
Bore	74.00 ~ 74.01 mm (2.9134 ~ 2.9138 in)	----
Max. taper	----	0.05 mm (0.0020 in)
Max. out-of-round	----	0.05 mm (0.0020 in)
Piston		
Piston-to-cylinder clearance	0.010 ~ 0.035 mm (0.0004 ~ 0.0014 in)	0.12 mm (0.0047 in)
Diameter D	73.975 ~ 73.990 mm (2.9124 ~ 2.9130 in)	----
		
Height H	5 mm (0.2 in)	----
Piston pin bore (in the piston)		
Diameter	17.002 ~ 17.013 mm (0.6694 ~ 0.6698 in)	17.043 mm (0.6710 in)
Offset	0.5 mm (0.02 in)	----
Offset direction	Intake side	----
Piston pins		
Outside diameter	16.991 ~ 17.000 mm (0.6689 ~ 0.6693 in)	16.971 mm (0.6681 in)
Piston-pin-to-piston-pin-bore clearance	0.002 ~ 0.022 mm (0.00008 ~ 0.00087 in)	0.072 mm (0.00283 in)
Piston rings		
Top ring		
		
Ring type	Barrel	----
Dimensions (B × T)	0.90 × 2.75 mm (0.04 × 0.11 in)	----
End gap (installed)	0.32 ~ 0.44 mm (0.013 ~ 0.017 in)	0.69 mm (0.027 in)
Ring side clearance	0.030 ~ 0.065 mm (0.0012 ~ 0.0026 in)	0.115 mm (0.0045 in)



Item	Standard	Limit
<p>2nd ring</p>  <p>Ring type Dimensions (B × T) End gap (installed) Ring side clearance</p> <p>Oil ring</p>  <p>Dimensions (B × T) End gap (installed)</p>	<p>Taper 0.8 × 2.8 mm (0.03 × 0.11 in) 0.43 ~ 0.58 mm (0.017 ~ 0.023 in) 0.020 ~ 0.055 mm (0.0008 ~ 0.0022 in)</p> <p>1.5 × 2.6 mm (0.06 × 0.10 in) 0.10 ~ 0.35 mm (0.0039 ~ 0.0138 in)</p>	<p>---- ---- 0.93 mm (0.037 in) 0.115 mm (0.0045 in) ---- ----</p>
<p>Connecting rods Crankshaft-pin-to-big-end-bearing clearance Bearing color code</p>	<p>0.031 ~ 0.055 mm (0.0012 ~ 0.0022 in) -1 = Violet 0 = White 1 = Blue 2 = Black</p>	<p>---- ----</p>
<p>Crankshaft</p>  <p>Width A Width B Max. runout C Big end side clearance D Crankshaft-journal-to-crankshaft-journal-bearing clearance Bearing color code</p>	<p>52.40 ~ 57.25 mm (2.06 ~ 2.25 in) 300.75 ~ 302.65 mm (11.84 ~ 11.92 in) ---- 0.160 ~ 0.262 mm (0.0063 ~ 0.0103 in) 0.029 ~ 0.053 mm (0.0011 ~ 0.0021 in) -1 = Violet 0 = White 1 = Blue 2 = Black 3 = Brown</p>	<p>---- ---- 0.03 mm (0.0012 in) ---- ---- ----</p>



Item	Standard	Limit
Clutch		
Clutch type	Wet, multiple disc	----
Clutch release method	Outer pull, rack and pinion pull	----
Clutch release method operation	Cable operation	----
Operation	Left-hand operation	----
Clutch cable free play (at the end of the clutch lever)	10 ~ 15 mm (0.4 ~ 0.6 in)	----
Friction plates		
Thickness	2.9 ~ 3.1 mm (0.114 ~ 0.122 in)	2.8 mm (0.110 in)
Plate quantity	8	----
Clutch plates		
Thickness	1.9 ~ 2.1 mm (0.075 ~ 0.083 in)	----
Plate quantity	7	----
Max. warpage	----	0.1 mm (0.004 in)
Clutch springs		
Free length	6.5 mm (0.26 in)	----
Spring quantity	1	----
Transmission		
Transmission type	Constant mesh, 6-speed	----
Primary reduction system	Spur gear	----
Primary reduction ratio	68/43 (1.581)	----
Secondary reduction system	Chain drive	----
Secondary reduction ratio	43/16 (2.688)	----
Operation	Left-foot operation	----
Gear ratios		
1st gear	35/14 (2.500)	----
2nd gear	35/19 (1.842)	----
3rd gear	30/20 (1.500)	----
4th gear	28/21 (1.333)	----
5th gear	30/25 (1.200)	----
6th gear	29/26 (1.115)	----
Max. main axle runout	----	0.08 mm (0.0031 in)
Max. drive axle runout	----	0.08 mm (0.0031 in)
Shifting mechanism		
Shift mechanism type	Guide bar	----
Max. shift fork guide bar bending	----	0.1 mm (0.0039 in)

ENGINE SPECIFICATIONS

SPEC



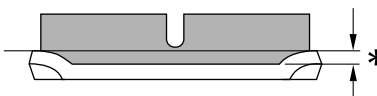
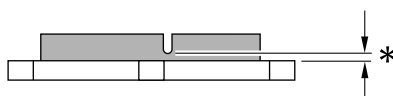
Item	Standard	Limit
Air filter type	Wet element	----
Fuel pump		
Pump type	Electrical	----
Model (manufacturer)	5PW (DENSO)	----
Output pressure	94 kPa (2.94 kg/cm ² , 42.6 psi)	----
Throttle position sensor		
Resistance	4.85 ~ 5.15 kΩ at 20 °C (68 °F)	----
Output voltage (at idle)	Adjusted by tachometer	----
Throttle bodies		
Model (manufacturer) × quantity	40EIS (MIKUNI) × 4	----
Intake vacuum pressure	25.3 kPa (190 mmHg, 7.48 inHg)	----
Throttle cable free play (at the flange of the throttle grip)	3 ~ 5 mm	----
ID mark	5PW1 00 USA, Canada 5PW5 20 California	----
Throttle valve size	#100	----
Max. EXUP cable free play (at the EXUP valve pulley)	1.5 mm (0.059 in)	----



CHASSIS SPECIFICATIONS

Item	Standard	Limit
Frame		
Frame type	Diamond	----
Caster angle	24°	----
Trail	103 mm (4.06 in)	----
Front wheel		
Wheel type	Cast wheel	----
Rim		
Size	17 M/C × MT3.50	----
Material	Aluminum	----
Wheel travel	120 mm (4.72 in)	----
Wheel runout		
Max. radial wheel runout	----	1 mm (0.04 in)
Max. lateral wheel runout	----	0.5 mm (0.02 in)
Rear wheel		
Wheel type	Cast wheel	----
Rim		
Size	17 M/C × MT6.00	----
Material	Aluminum	----
Wheel travel	130 mm (5.12 in)	----
Wheel runout		
Max. radial wheel runout	----	1 mm (0.04 in)
Max. lateral wheel runout	----	0.5 mm (0.02 in)
Front tire		
Tire type	Tubeless	----
Size	120/70 ZR17 (58W)	----
Model (manufacturer)	Pilot SPORT E (MICHELIN) D208FL (DUNLOP)	----
Tire pressure (cold)		
0 ~ 90 kg	250 kPa (2.5 kgf/cm ² , 36.3 psi)	----
90 ~ 202 kg	250 kPa (2.5 kgf/cm ² , 36.3 psi)	----
High-speed riding	250 kPa (2.5 kgf/cm ² , 36.3 psi)	----
Min. tire tread depth	----	1.6 mm (0.06 in)
Rear tire		
Tire type	Tubeless	----
Size	190/55 ZR17 M/C (73W)	----
Model (manufacturer)	Pilot SPORT (MICHELIN) D208L (DUNLOP)	----
Tire pressure (cold)		
0 ~ 90 kg	250 kPa (2.5 kgf/cm ² , 36.3 psi)	----
90 ~ 202 kg	290 kPa (2.9 kgf/cm ² , 42.1 psi)	----
High-speed riding	250 kPa (2.5 kgf/cm ² , 36.3 psi)	----
Min. tire tread depth	----	1.6 mm (0.06 in)



Item	Standard	Limit
Front brakes		
Brake type	Dual disc brake	----
Operation	Right hand operation	----
Recommended fluid	DOT 4	----
Brake lever free play	2.3 ~ 11.5 mm (0.09 ~ 0.45 in)	----
Brake discs		
Diameter × thickness	298 × 5 mm (11.73 × 0.20 in)	----
Min. thickness	----	4.5 mm (0.18 in)
Max. deflection	----	0.1 mm (0.004 in)
Brake pad lining thickness	4.5 mm (0.18 in)	0.5 mm (0.02 in)
		
Master cylinder inside diameter	14 mm (0.55 in)	----
Caliper cylinder inside diameter	30.1 mm and 27 mm (1.19 in and 1.06 in)	----
Rear brake		
Brake type	Single disc brake	----
Operation	Right foot operation	----
Brake pedal position (from the top of the brake pedal to the bottom of the rider footrest bracket)	38 ~ 42 mm (1.50 ~ 1.65 in)	----
Recommended fluid	DOT 4	----
Brake pedal freeplay	4.3 ~ 9.3 mm (0.17 ~ 0.37 in)	----
Brake discs		
Diameter × thickness	220 × 5 mm (8.66 × 0.20 in)	----
Min. thickness	----	4.5 mm (0.18 in)
Max. deflection	----	0.15 mm (0.006 in)
Brake pad lining thickness	5.1 mm (0.20 in)	0.8 mm (0.03 in)
		
Master cylinder inside diameter	12.7 mm (0.5 in)	----
Caliper cylinder inside diameter	27 mm and 22.2 mm (1.06 in and 0.87 in)	----



Item	Standard	Limit
Front suspension		
Suspension type	Telescopic fork	----
Front fork type	Coil spring/oil damper	----
Front fork travel	120 mm (4.72 in)	----
Spring		
Free length	251 mm (9.88 in)	246 mm (9.69 in)
Spacer length	74 mm (2.91 in)	----
Installed length	244 mm (9.61 in)	----
Spring rate (K1)	8.34 N/mm (0.83 kg/mm, 47.62 lb/in)	----
Spring stroke (K1)	0 ~ 120 mm (0 ~ 4.72 in)	----
Inner tube outer diameter	43 mm (1.69 in)	----
Inner tube bending limit	----	0.2 mm (0.008 in)
Optional spring available	No	----
Fork oil		
Recommended oil	Suspension oil "01" or equivalent	----
Quantity (each front fork leg)	0.543 L (0.478 Imp qt, 0.574 US qt)	----
Level (from the top of the inner tube, with the inner tube fully compressed, and without the fork spring)	88 mm (3.46 in)	----
Spring preload adjusting positions		
Minimum	8	----
Standard	6	----
Maximum	1	----
Rebound damping adjusting positions		
Minimum*	26	----
Standard*	13	----
Maximum*	1	----
Compression damping adjusting positions		
Minimum*	20	----
Standard*	13	----
Maximum*	1	----
*from the fully turned-in position		
Steering		
Steering bearing type	Angular bearing	----



Item	Standard	Limit
Rear suspension		
Suspension type	Swingarm (link suspension)	----
Rear shock absorber assembly type	Coil spring/gas-oil damper	----
Rear shock absorber assembly travel	65 mm (2.56 in)	----
Spring		
Free length	176.5 mm (6.95 in)	----
Installed length	162.5 mm (6.4 in)	----
Spring rate (K1)	88.3 N/mm (8.83 kg/mm, 504 lb/in)	----
Spring stroke (K1)	0 ~ 65 mm (0 ~ 2.56 in)	----
Optional spring available	No	----
Standard spring preload gas/air pressure	1,200 kPa (12 kg/cm ² , 174 psi)	----
Spring preload adjusting positions		
Minimum	1	----
Standard	4	----
Maximum	9	----
Rebound damping adjusting positions		
Minimum*	20	----
Standard*	15	----
Maximum*	1	----
Compression damping adjusting positions		
Minimum*	20	----
Standard*	15	----
Maximum*	1	----
*from the fully turned-in position		
Swingarm		
Free play (at the end of the swingarm)		
Radial	----	1.0 mm (0.04 in)
Axial	----	1.0 mm (0.04 in)
Drive chain		
Model (manufacturer)	50VA8 (DAIDO)	----
Link quantity	114	----
Drive chain slack	40 ~ 50 mm (1.57 ~ 1.97 in)	----
Maximum ten-link section	----	150.1 mm (5.91 in)



ELECTRICAL SPECIFICATIONS

Item	Standard	Limit
System voltage	12 V	----
Ignition system		
Ignition system type	Transistorized coil ignition (digital)	----
Ignition timing	5° BTDC at 1,050 r/min	----
Crankshaft position sensor resistance/color	248 ~ 372 Ω at 20 °C (68 °F)/Gy-B	----
Transistorized coil ignition unit model (manufacturer)	F8T917 (MITSUBISHI) USA, Canada F8T918 (MITSUBISHI) California	----
Ignition coils		
Model (manufacturer)	F6T558 (MITSUBISHI)	----
Minimum ignition spark gap	6 mm (0.24 in)	----
Primary coil resistance	1.19 ~ 1.61 Ω at 20 °C (68 °F)	----
Secondary coil resistance	8.5 ~ 11.5 kΩ at 20 °C (68 °F)	----
Charging system		
System type	AC magneto	----
Model (manufacturer)	F4T471 (MITSUBISHI)	----
Normal output	14 V/32 A at 5,000 r/min	----
Stator coil resistance/color	0.19 ~ 0.23 Ω at 20 °C (68 °F)/W-W	----
Rectifier/regulator		
Regulator type	Semi conductor short circuit	----
Model (manufacturer)	FH001 (SHINDENGEN)	----
No-load regulated voltage	14.1 ~ 14.9 V	----
Rectifier capacity	35 A	----
Withstand voltage	200 V	----
Battery		
Battery type	GT12B-4	----
Battery voltage/capacity	12 V/10 AH	----
Specific gravity	1.320	----
Manufacturer	GS	----
Ten hour rate amperage	1 A	----
Headlight type	Halogen bulb	----
Bulbs (voltage/wattage × quantity)		
Headlight	12 V 60 W/55 W × 2	----
Auxiliary light	12 V 5 W × 2	----
Tail/brake light	12 V 4 W/0.5 W (LED)	----
Front turn signal light/position light	12 V 21 W/5 W × 2	----
Rear turn signal light	12 V 21 W × 2	----
Licence plate light	12 V 5 W × 1	----
Indicator light (voltage/wattage × quantity)		
Neutral indicator light	LED × 1	----
High beam indicator light	LED × 1	----
Oil level indicator light	LED × 1	----
Turn signal indicator light	LED × 2	----
Fuel indicator light	LED × 1	----
Engine trouble warning light	LED × 1	----
Engine speed indicator light	LED × 1	----



Item	Standard	Limit
Electric starting system		
System type	Constant mesh	----
Starter motor		
Model (manufacturer)	5JJ (YAMAHA)	----
Power output	0.9 kW	----
Brushes		
Overall length	10.8 mm (0.43 in)	3.65 mm (0.14 in)
Spring force	5.28 ~ 7.92 N (528 ~ 792 g, 19.01 ~ 28.51 oz)	----
Armature coil resistance	0.009 ~ 0.011 Ω at 20 °C (68 °F)	----
Commutator diameter	24.5 mm (0.96 in)	23.5 mm (0.93 in)
Mica undercut	1.5 mm (0.06 in)	----
Starter relay		
Model (manufacturer)	2768079-A (JIDECO)	----
Amperage	180 A	----
Coil resistance	4.18 ~ 4.62 Ω at 20 °C (68 °F)	----
Horn		
Horn type	Plain	----
Model (manufacturer) \times quantity	YF-12 (NIKKO) \times 1	----
Max. amperage	3 A	----
Performance	105 ~ 113 db/2 m (6.6 ft)	----
Coil resistance	1.15 ~ 1.25 Ω at 20 °C (68 °F)	----
EXUP servo motor		
Type (manufacturer)	5PW (YAMAHA)	----
Turn signal relay		
Relay type	Full-transistor	----
Model (manufacturer)	FE218BH (DENSO)	----
Self-cancelling device built-in	No	----
Turn signal blinking frequency	75 ~ 95 cycles/min.	----
Wattage	21 W \times 2 + 3.4 W	----
Oil level gauge		
Model (manufacturer)	5PW (DENSO)	----
Fuses (amperage \times quantity)		
Main fuse	50 A \times 1	----
Fuel injection system fuse	15 A \times 1	----
Headlight fuse	20 A \times 1	----
Signaling system fuse	15 A \times 1	----
Ignition fuse	15 A \times 1	----
Radiator fan motor fuse	15 A \times 1	----
Backup fuse (odometer and clock)	5 A \times 1	----
Reserve fuse	20 A, 15 A, 5 A \times 1	----



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CONVERSION TABLE

All specification data in this manual are listed in SI and METRIC UNITS.

Use this table to convert METRIC unit data to IMPERIAL unit data.

Ex.

METRIC		MULTIPLIER	=	IMPERIAL
** mm	×	0.03937	=	** in
2 mm	×	0.03937	=	0.08 in

CONVERSION TABLE

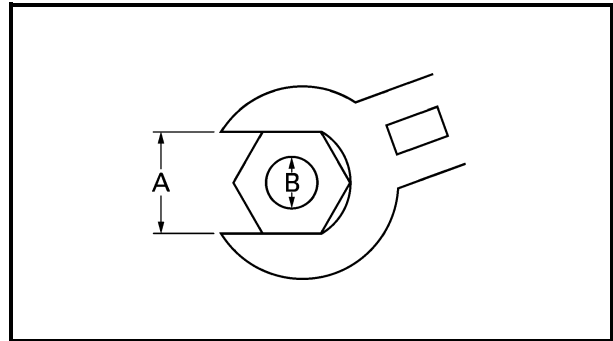
METRIC TO IMPERIAL			
	Metric unit	Multiplier	Imperial unit
Tightening torque	m·kg	7.233	ft·lb
	m·kg	86.794	in·lb
	cm·kg	0.0723	ft·lb
	cm·kg	0.8679	in·lb
Weight	kg	2.205	lb
	g	0.03527	oz
Speed	km/hr	0.6214	mph
Distance	km	0.6214	mi
	m	3.281	ft
	m	1.094	yd
	cm	0.3937	in
	mm	0.03937	in
Volume/ Capacity	cc (cm ³)	0.03527	oz (IMP liq.)
	cc (cm ³)	0.06102	cu·in
	lt (liter)	0.8799	qt (IMP liq.)
	lt (liter)	0.2199	gal (IMP liq.)
Misc.	kg/mm	55.997	lb/in
	kg/cm ²	14.2234	psi (lb/in ²)
	Centigrade (°C)	9/5+32	Fahrenheit (°F)

TIGHTENING TORQUES

EAS00029

GENERAL TIGHTENING TORQUE SPECIFICATIONS

This chart specifies tightening torques for standard fasteners with a standard ISO thread pitch. Tightening torque specifications for special components or assemblies are provided for each chapter of this manual. To avoid warpage, tighten multi-fastener assemblies in a crisscross pattern and progressive stages until the specified tightening torque is reached. Unless otherwise specified, tightening torque specifications require clean, dry threads. Components should be at room temperature.



A: Width across flats

B: Thread diameter

A (nut)	B (bolt)	General tightening torques	
		Nm	m·kg
10 mm	6 mm	6	0.6
12 mm	8 mm	15	1.5
14 mm	10 mm	30	3.0
17 mm	12 mm	55	5.5
19 mm	14 mm	85	8.5
22 mm	16 mm	130	13.0

TIGHTENING TORQUES

SPEC


















ENGINE TIGHTENING TORQUES

Item	Fastener	Thread size	Q'ty	Tightening torque			Remarks
				Nm	m·kg	ft·lb	
Spark plugs	—	M10	4	13	1.3	9.4	
Cylinder head	Nut	M10	2	20 + 121° (50)	2.0 + 121° (5.0)	14 + 121° (36)	
Cylinder head	Nut	M10	6	20 + 105° (50)	2.0 + 105° (5.0)	14 + 105° (36)	
Cylinder head	Cap nut	M10	2	20 + 140° (65)	2.0 + 140° (65)	14 + 140° (47)	
Cylinder head	Bolt	M6	2	12	1.2	8.7	
Camshaft caps	Bolt	M6	28	10	1.0	7.2	
Cylinder head cover	Bolt	M6	6	12	1.2	8.7	
Cylinder head (exhaust pipe)	Stud bolt	M8	8	15	1.5	11	
Connecting rod caps	Nut	M8	8	20 + 120°	2.0 + 120°	14 + 120°	
Engine hunger	Screw	M6	4	10	1.0	7.2	
Generator rotor	Bolt	M10	1	65 + 60°	6.5 + 60°	47 + 60°	
Crankshaft sprocket	Bolt	M10	1	60	6.0	43	
Cap bolt (timing chain tensioner)	Bolt	M6	1	7	0.7	5.1	
Camshaft sprocket	Bolt	M7	4	24	2.4	17	
Water pump inlet pipe	Bolt	M6	1	10	1.0	7.2	
Water pump outlet pipe	Bolt	M6	1	10	1.0	7.2	
Oil/water pump assembly driven sprocket	Bolt	M6	1	15	1.5	11	
Oil pump	Bolt	M6	2	12	1.2	8.7	
Oil cooler	Bolt	M20	1	35	3.5	25	
Engine oil drain bolt	—	M14	1	43	4.3	31	
Oil strainer housing	Bolt	M6	2	10	1.0	7.2	
Oil/water pump assembly driven sprocket cover	Bolt	M6	1	12	1.2	8.7	
Oil delivery pipe	Bolt	M6	1	10	1.0	7.2	
Oil filter bolt	Bolt	M20	1	70	7.0	51	
Oil filter cartridge	—	M20	1	17	1.7	12	
Oil strainer cover	Bolt	M6	15	10	1.0	7.2	
Air cleaner case	Screw	M5	8	4	0.4	2.9	
Frame and air cleaner	Bolt	M6	1	10	1.0	7.2	
Cylinder head and throttle body and air cleaner case	Clamp	M4	8	3.0	0.3	2.2	
Ring nut and cylinder head	Nut	M8	8	20	2.0	14	
Exhaust pipe and muffler	Bolt	M8	1	20	2.0	14	
Emission check bolt	Bolt	M6	4	10	1.0	7.2	
EXUP pulley cover	Bolt	M6	3	10	1.0	7.2	
EXUP cable bracket	Bolt	M6	2	10	1.0	7.2	

TIGHTENING TORQUES

SPEC





Item	Fastener	Thread size	Q'ty	Tightening torque			Remarks
				Nm	m·kg	ft·lb	
Exhaust pipe and exhaust valve	Bolt	M6	4	10	1.0	7.2	
Exhaust valve and housing	Bolt	M6	3	10	1.0	7.2	
EXUP pulley and arm shaft	Bolt	M5	2	5	0.5	3.6	
Exhaust joint	Bolt	M4	4	3	0.3	2.2	
Exhaust valve pipe	Bolt	M8	1	20	2.0	14	
Air induction system pipe	Clamp	—	4	3.5	0.35	2.5	
Crankcase (cylinder head)	Stud bolt	M10	10	10	1.0	7.2	
Crankcase (upper and lower)	Bolt	M9	10	See NOTE.			
Crankcase (upper and lower)	Bolt	M6	2	14	1.4	10	
Crankcase (upper and lower)	Bolt	M6	14	12	1.2	8.7	
Crankcase (upper and lower)	Bolt	M8	2	24	2.4	17	
AC magneto cover	Bolt	M6	9	12	1.2	8.7	
Drive sprocket cover	Bolt	M6	2	10	1.0	7.2	
Drive sprocket cover	Bolt	M6	1	10	1.0	7.2	
Plate	Bolt	M6	1	10	1.0	7.2	
Clutch cover	Bolt	M6	8	12	1.2	8.7	
Pick up rotor cover	Bolt	M6	8	12	1.2	8.7	
Shift shaft cover	Bolt	M6	5	12	1.2	8.7	
Breather plate	Bolt	M6	5	10	1.0	7.2	
Timing mark accessing screw	Bolt	M8	1	15	1.5	11	
Starter clutch idle gear shaft	Bolt	M6	1	10	1.0	7.2	
Starter one-way clutch	Bolt	M6	3	12	1.2	8.7	
Clutch boss	Nut	M20	1	105	10.5	76	Use a lock washer. 
Clutch spring	Bolt	M6	6	8	0.8	5.8	
Drive sprocket	Nut	M22	1	85	8.5	61	Use a lock washer.
Main axle bearing housing	Screw	M6	3	12	1.2	8.7	
Shift lever stopper	Bolt	M6	2	10	1.0	7.2	
Stopper screw	Screw	M8	1	22	2.2	16	
Shift rod	Nut	M6	1	6.5	0.65	4.7	Left thread
Shift rod	Nut	M6	1	6.5	0.65	4.7	
Shift rod joint	Bolt	M6	1	10	1.0	7.2	
Shift arm	Bolt	M6	1	10	1.0	7.2	
AC magneto stator coil	Screw	M6	3	14	1.4	10	
ECU	Screw	M6	2	7	0.7	5.1	
Neutral switch	—	M10	1	20	2.0	14	
Pick up coil	Bolt	M6	2	10	1.0	7.2	
Thermo unit	—	M12	1	18	1.8	13	

TIGHTENING TORQUES

SPEC

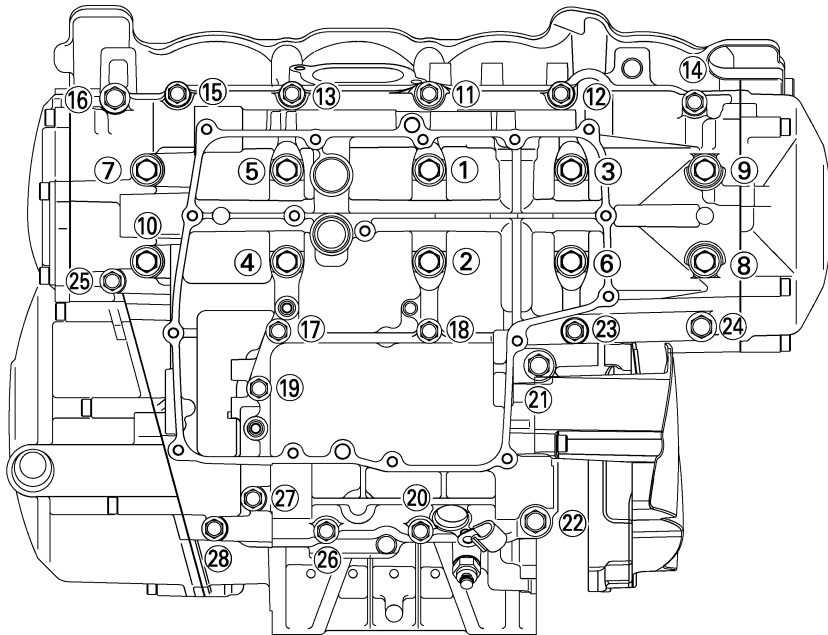


Item	Fastener	Thread size	Q'ty	Tightening torque			Remarks
				Nm	m·kg	ft·lb	
EXUP servo motor cover	Screw	M5	2	2	0.2	1.4	
Intake air temperature sensor	—	M12	1	18	1.8	13	
Cylinder identification sensor	Bolt	M6	1	10	1.0	7.2	
Atmospheric pressure sensor	Screw	M5	2	7	0.7	5.1	
Speed sensor	Bolt	M6	1	10	1.0	7.2	
Stator coil clamp	Bolt	M6	1	10	1.0	7.2	

NOTE:

1. First, tighten the bolt to approximately 20 Nm (2.0 m • kg, 14 ft • lb) with a torque wrench.
2. Retighten the bolt to 20 Nm (2.0 m • kg, 14 ft • lb), and tighten another 41 ~ 46° with a angle gauge or 32 Nm (3.2 m • kg, 23 ft • lb) with a torque wrench.

Crankcase tightening sequence:





CHASSIS TIGHTENING TORQUES

Item	Thread size	Tightening			Remarks
		Nm	m·kg	ft·lb	
Upper bracket and front fork	M8	26	2.6	19	See NOTE
Steering stem nut	M28	115	11.5	83	
Handlebar and front fork	M6	13	1.3	9.4	
Handlebar and upper bracket	M6	13	1.3	9.4	
Lower ring nut	M30	9	0.9	6.5	
Lower bracket pinch bolt	M8	23	2.3	17	
Main switch and handle crown	M8	26	2.6	19	
Brake fluid reservoir cap stopper	M4	1.2	0.12	0.9	
Front brake hose union bolts	M10	30	3.0	22	
Front brake master cylinder and bracket	M6	9	0.9	6.5	
Meter and cowling stay	M5	1	0.1	0.7	
Headlight and cowling stay	M5	1	0.1	0.7	
Upper cowling and headlight	M5	1	0.1	0.7	
Side, bottom cowling and frame, engine	M6	5	0.5	3.6	
Wind screen and upper cowling	M5	0.4	0.04	0.3	
Side cowling and console panel	M5	1	0.1	0.7	
Side cowling and inner panel	M5	1	0.1	0.7	
Grip end and handlebar	M6	4	0.4	2.9	
Brake hose holder and under bracket	M6	7	0.7	5.1	
Engine mounting					
Front mounting bolts	M10	45	4.5	33	
Rear mounting bolts (upper and lower)	M10	50	5.0	36	
Pinch bolts (front)	M8	24	2.4	17	
Engine mount adjust bolt (rear)	M16	7	0.7	5.1	
Exhaust pipe bracket and frame	M8	34	3.4	25	
Clutch cable adjuster lock nut (engine side)	M8	7	0.7	5.1	
Main frame and rear frame	M10	40	4.0	29	
Throttle cable adjuster lock nut (engine side)	M6	5	0.5	3.6	
Pivot shaft nut	M18	105	10.5	76	
Pivot shaft adjust bolt	M25	5	0.5	3.6	
Connecting arm and frame	M10	45	4.5	33	
Relay arm and connecting rod	M10	45	4.5	33	
Relay arm and swingarm	M10	45	4.5	33	
Rear shock absorber and relay arm	M10	45	4.5	33	
Rear shock absorber and frame	M10	45	4.5	33	
Drive chain guard	M6	7	0.7	5.1	
Fuel tank and fuel pump	M5	4	0.4	2.9	
Fuel tank stay and frame (front)	M6	7	0.7	5.1	
Fuel tank and stay (rear)	M6	10	1.0	7.2	
Fuel tank and fuel tank side cover	M5	4	0.4	2.9	
Rider seat and frame	M6	7	0.7	5.1	

TIGHTENING TORQUES

SPEC



Item	Thread size	Tightening			Remarks
		Nm	m·kg	ft·lb	
Coolant reservoir and radiator	M6	5	0.5	3.6	
Tail cowling and frame	M5	4	0.4	2.9	
Battery box and frame	M6	7	0.7	5.1	
Taillight and battery box	M5	3	0.3	2.2	
ECU and battery box	M6	1	0.1	0.7	
Passenger seat lock and battery box	M6	3	0.3	2.2	
Atmospheric pressure sensor and battery box	M5	0.7	0.07	0.5	
Lean angle cut-off switch sensor and battery box	M4	2	0.2	1.4	
Rider footrest bracket and frame	M8	28	2.8	20	
Passenger footrest bracket and frame	M8	28	2.8	20	
Rear master cylinder	M6	18	1.8	13	
Rear brake hose union bolts	M10	30	3.0	22	
Sidestand	M10	63	6.3	46	
Front wheel axle and bolt	M14	90	9.0	65	
Rear wheel axle nut	M24	150	15.0	108	
Front brake caliper and front fork	M10	40	4.0	29	
Brake disc and wheel	M6	18	1.8	13	
Rear wheel sprocket and rear wheel drive hub	M10	100	10	72	
Brake caliper and bleed screw	M8	6	0.6	4.3	
Pinch bolt (front wheel axle)	M8	18	1.8	13	

NOTE:

1. First, tighten the ring nut to approximately 50 Nm (5.0 m • kg, 36 ft • lb) with a torque wrench, then loosen the ring nut completely.
2. Retighten the lower ring nut to specification.



EAS00031

LUBRICATION POINTS AND LUBRICANT TYPES
















ENGINE

Lubrication point	Lubricant
Oil seal lips	
O-rings	
Bearings	
Crankshaft pins	
Piston surfaces	
Piston pins	
Connecting rod bolts and nuts	
Crankshaft journals	
Camshaft lobes	
Camshaft journals	
Valve stems (intake and exhaust)	
Valve stem ends (intake and exhaust)	
Water pump impeller shaft	
Oil pump rotors (inner and outer)	
Oil pump housing	
Oil strainer	
Clutch (pull rod)	
Oil/water pump drive sprocket and washer	
Clutch (thrust plate)	
Starter clutch idle gear inner surface	
Starter clutch assembly	
Primary driven gear	
Transmission gears (wheel and pinion)	
Main axle and drive axle	
Shift drum	
Shift forks and shift fork guide bars	
Shift shaft	
Shift shaft boss	
Cylinder head cover mating surface	Yamaha bond No. 1215
Crankcase mating surface	Yamaha bond No. 1215
Clutch cover (crankcase mating surface)	Yamaha bond No. 1215
Generator rotor cover (crankcase mating surface)	Yamaha bond No. 1215
Pickup rotor cover	Yamaha bond No. 1215



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CHASSIS

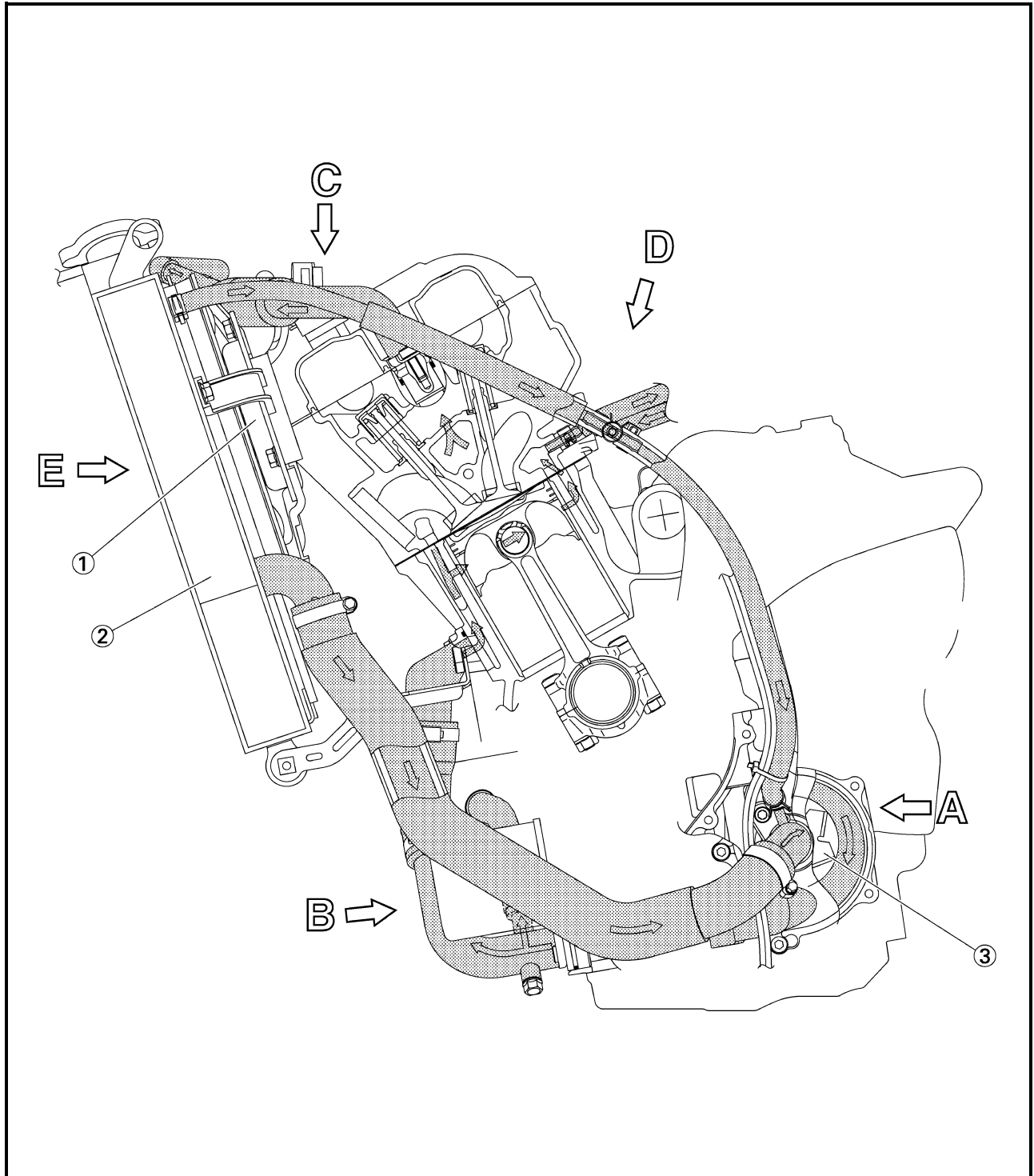
Lubrication point	Lubricant
Steering bearings and bearing races (upper and lower)	
Front wheel oil seal (right and left)	
Rear wheel oil seal	
Rear wheel drive hub oil seal	
Rear wheel drive hub mating surface	
Rear brake pedal shaft	
Sidestand pivoting point and metal-to-metal moving parts	
Throttle grip inner surface	
Brake lever pivoting point and metal-to-metal moving parts	
Clutch lever pivoting point and metal-to-metal moving parts	
Relay arm, connecting rod and rear shock absorber collar	
Pivot shaft	
Swing arm pivot bush	
Swing arm head pipe end and oil seal	
Oil seal (relay arm and connecting arm)	



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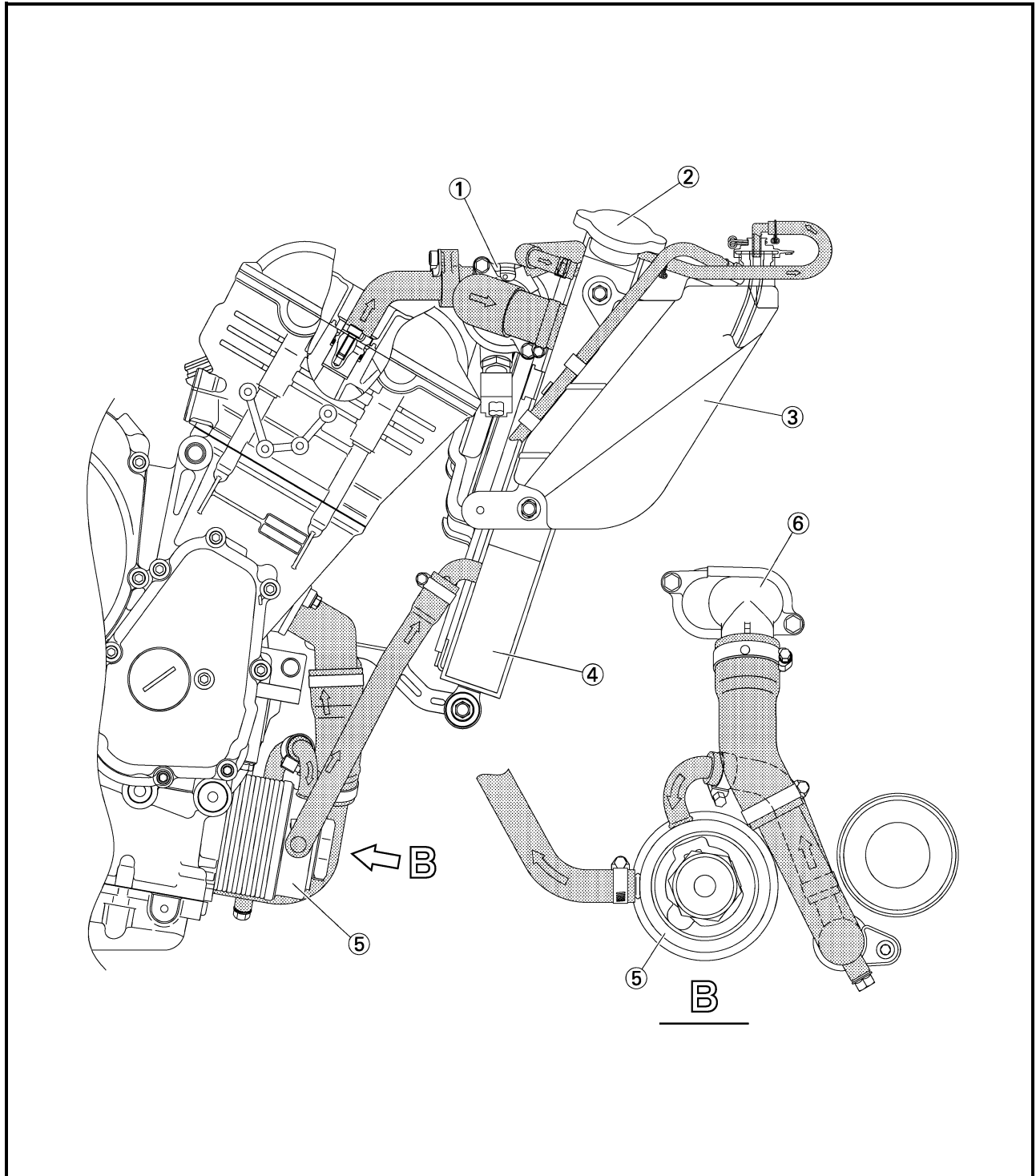
COOLING SYSTEM DIAGRAMS

- ① Radiator fan
- ② Radiator
- ③ Water pump



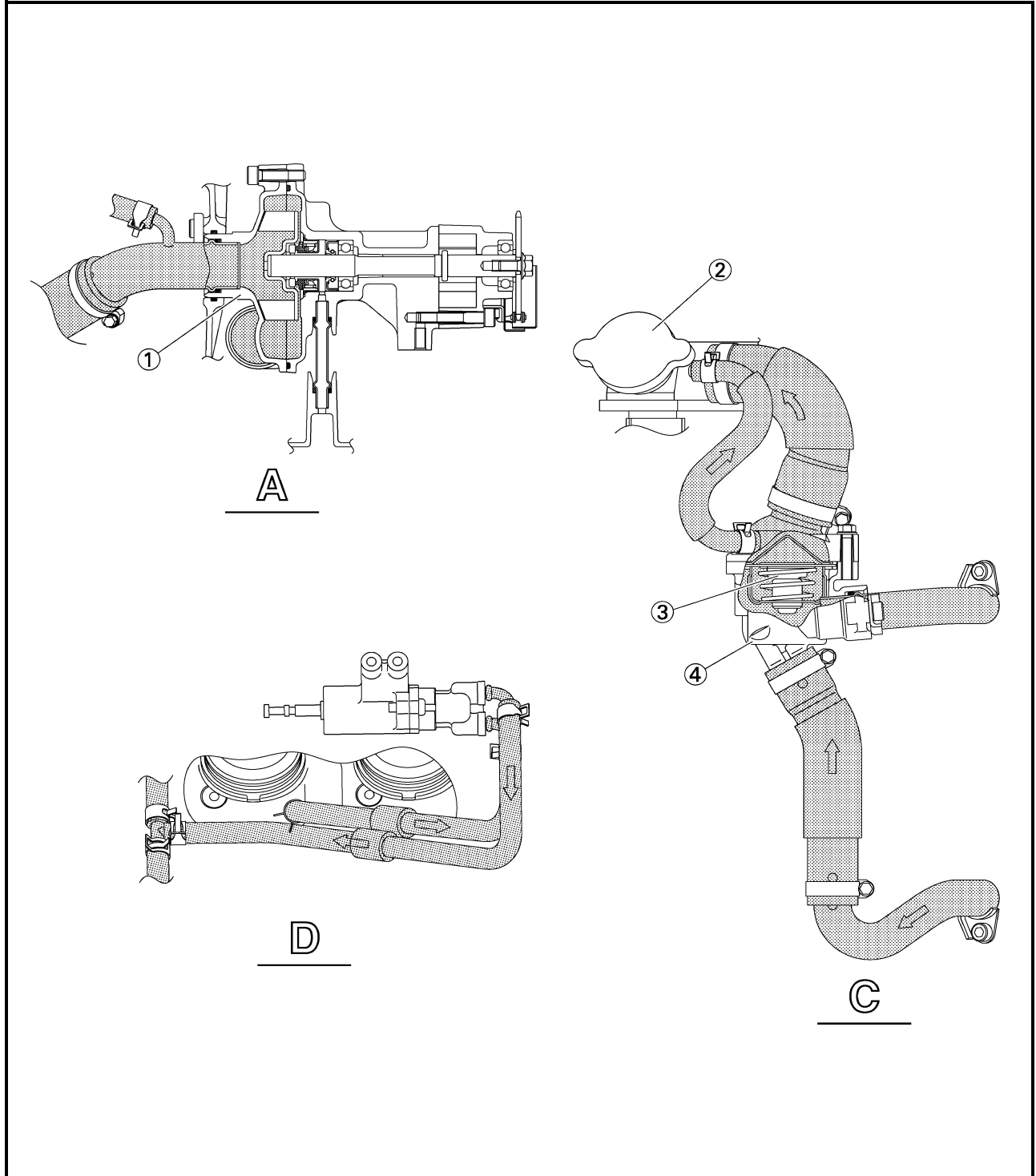


- ① Thermostat
- ② Radiator cap
- ③ Coolant reservoir
- ④ Radiator
- ⑤ Oil cooler
- ⑥ Water jacket joint



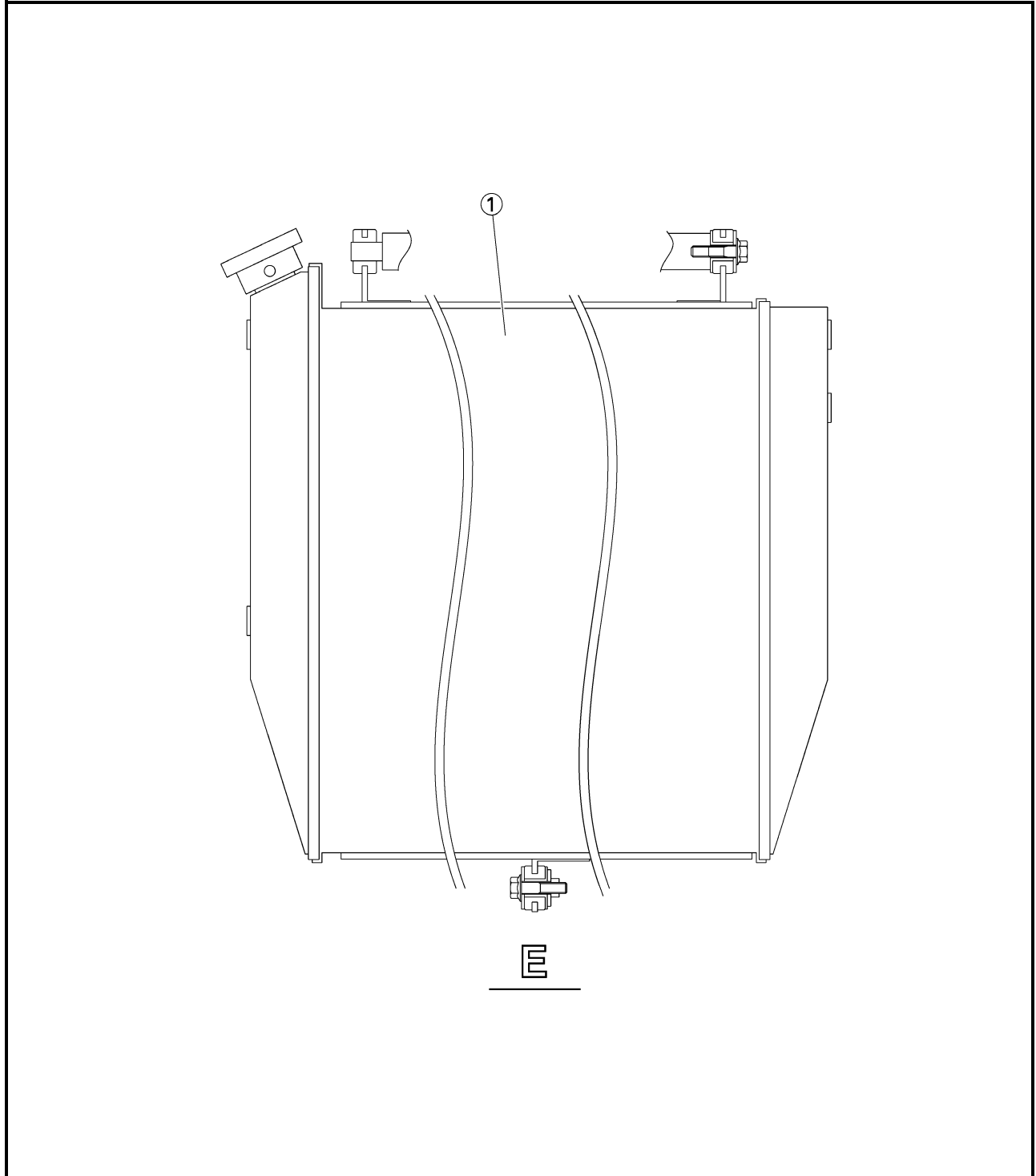


- ① Water pump
- ② Radiator cap
- ③ Thermostat
- ④ Thermostat housing



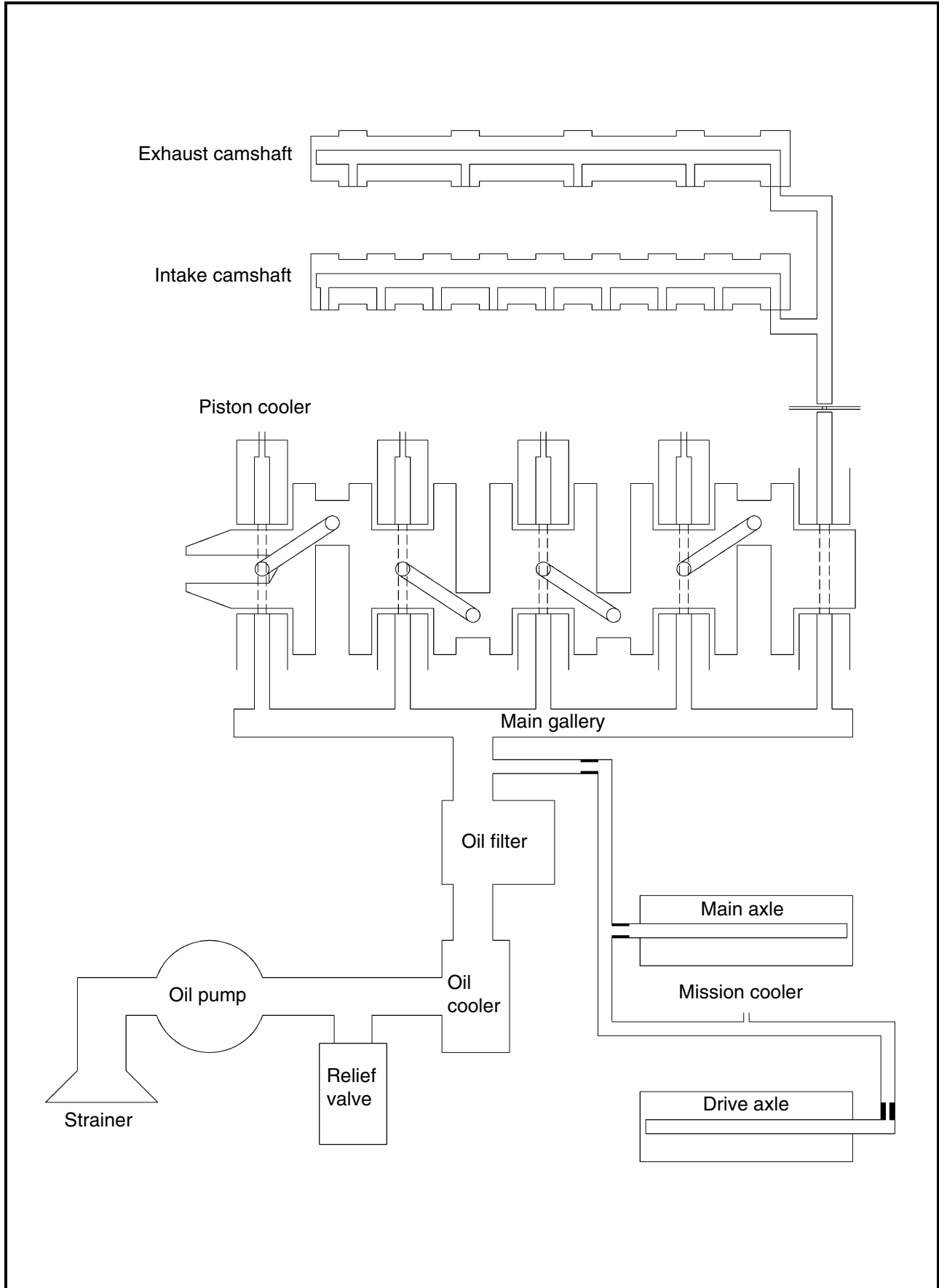


① Radiator





ENGINE OIL LUBRICATION CHART

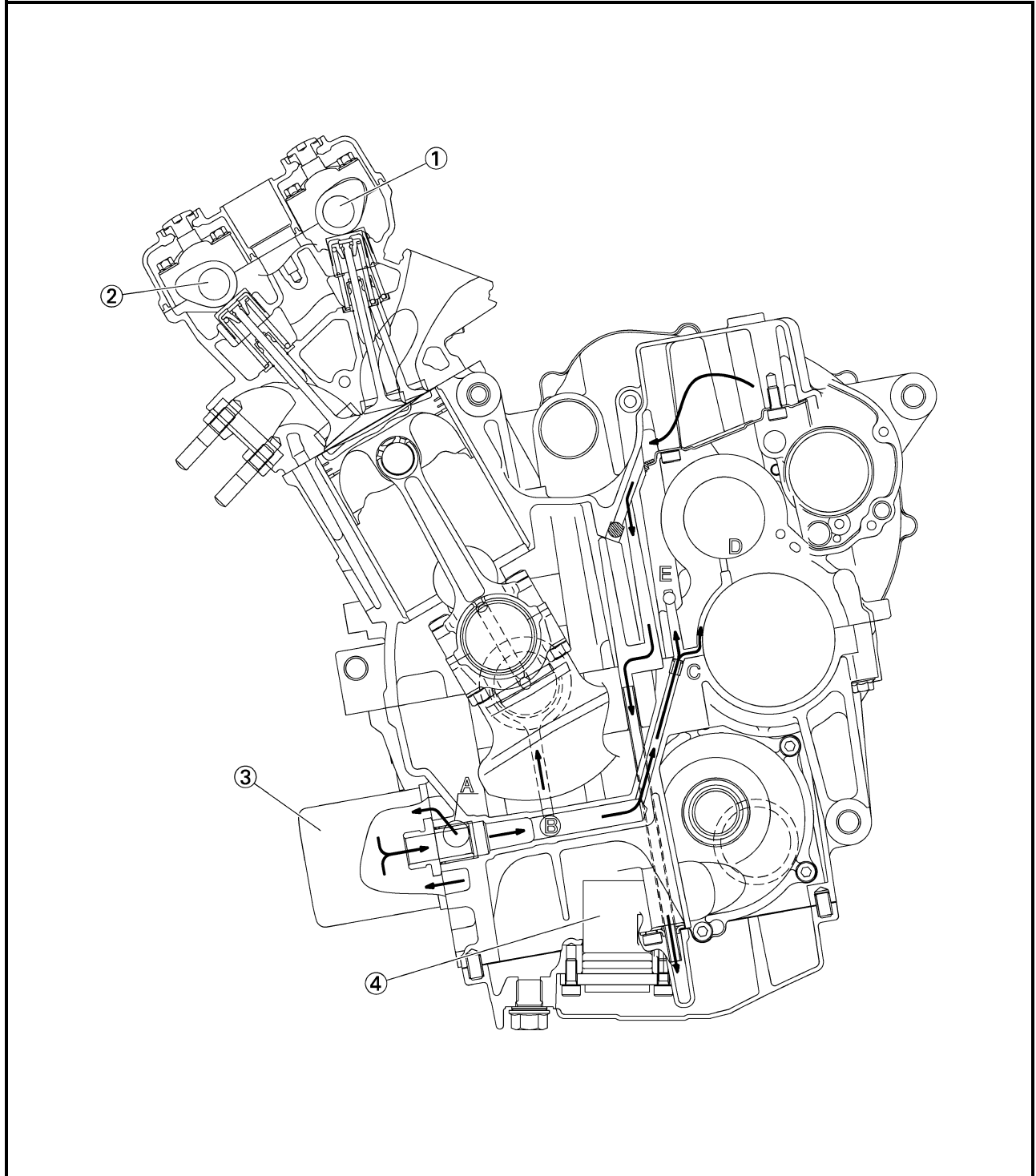




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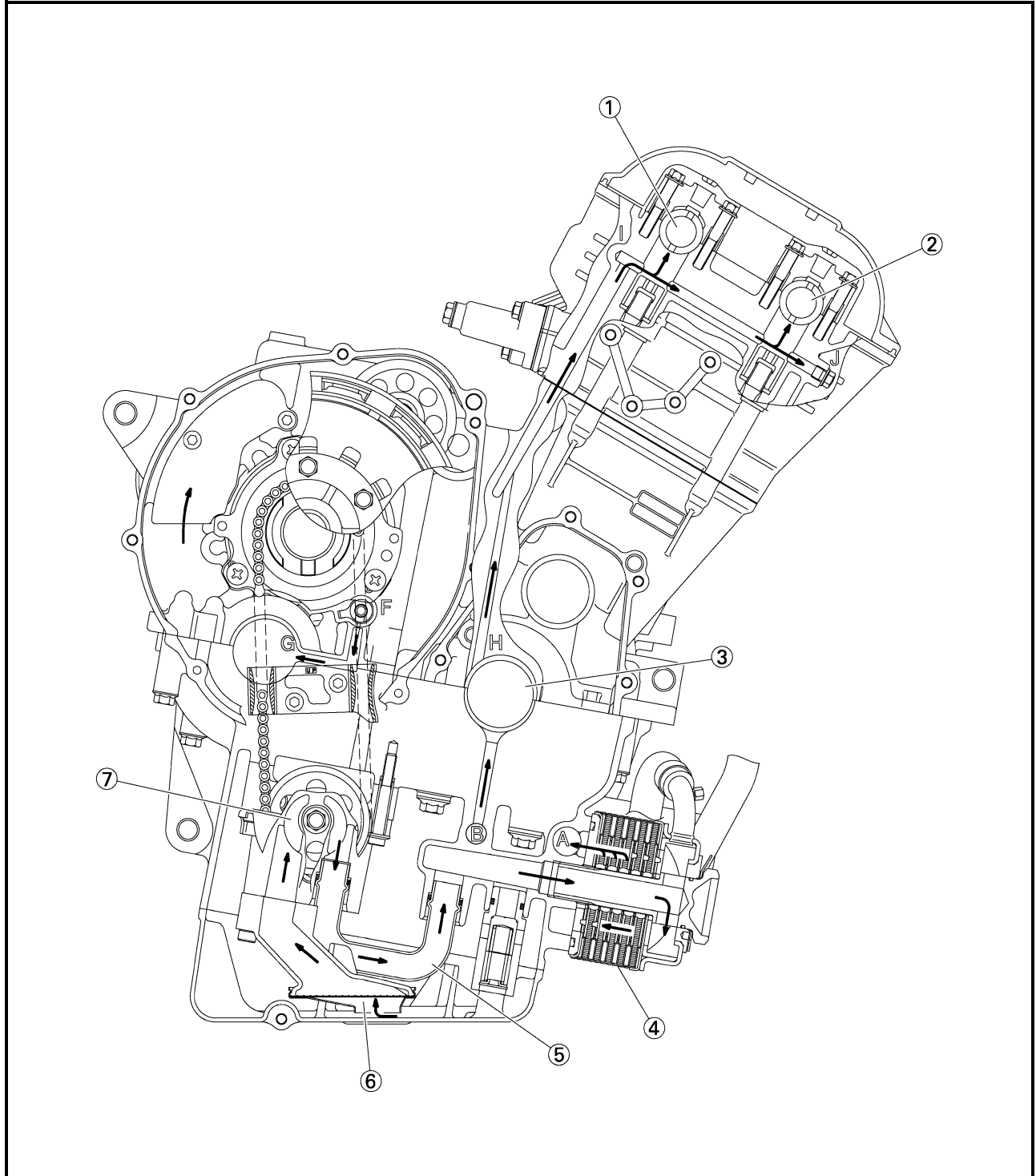
LUBRICATION DIAGRAMS

- ① Intake camshaft
- ② Exhaust camshaft
- ③ Oil filter cartridge
- ④ Oil level switch



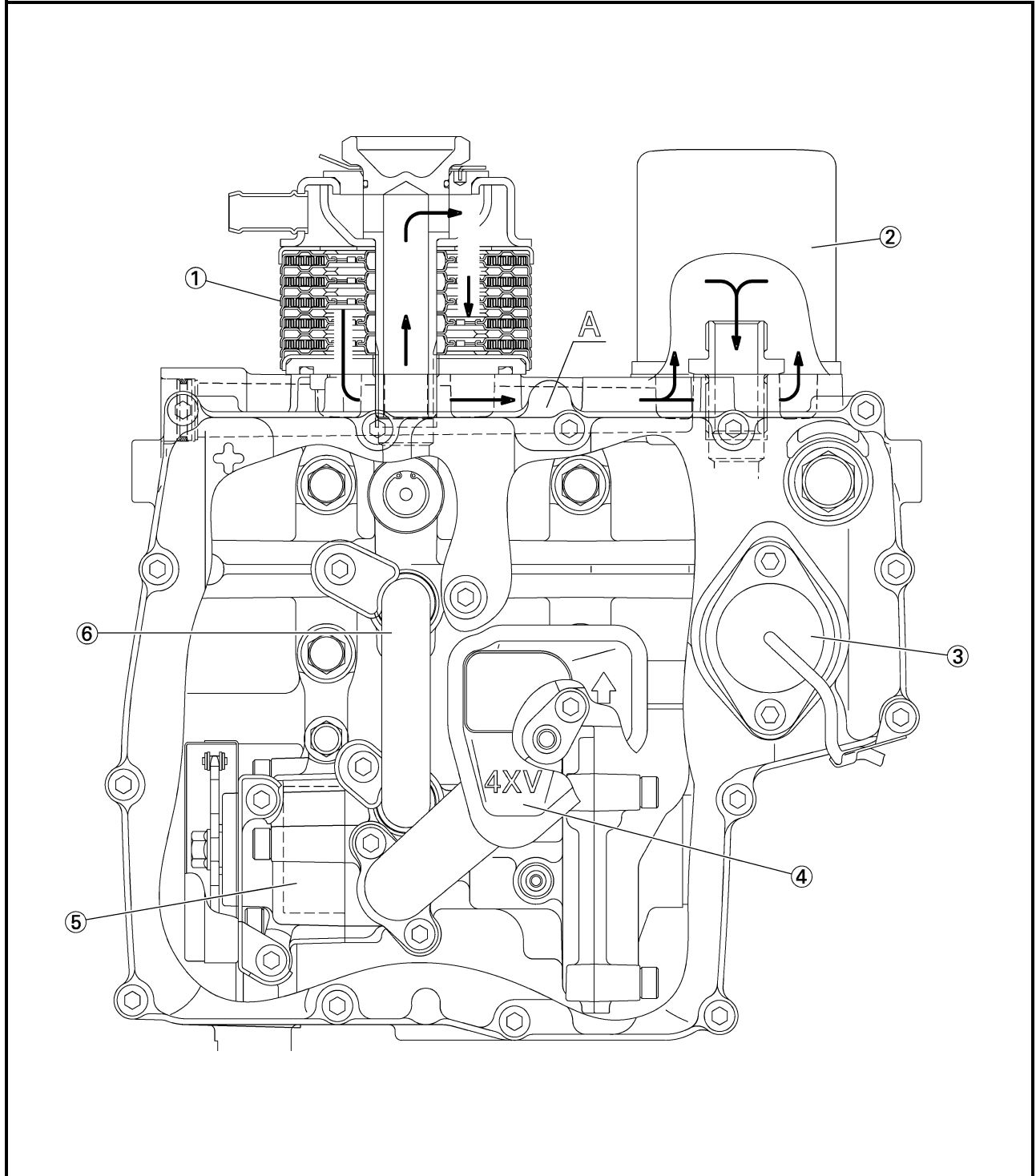


- ① Intake camshaft
- ② Exhaust camshaft
- ③ Crankshaft
- ④ Oil cooler
- ⑤ Oil pipe
- ⑥ Oil strainer
- ⑦ Oil pump



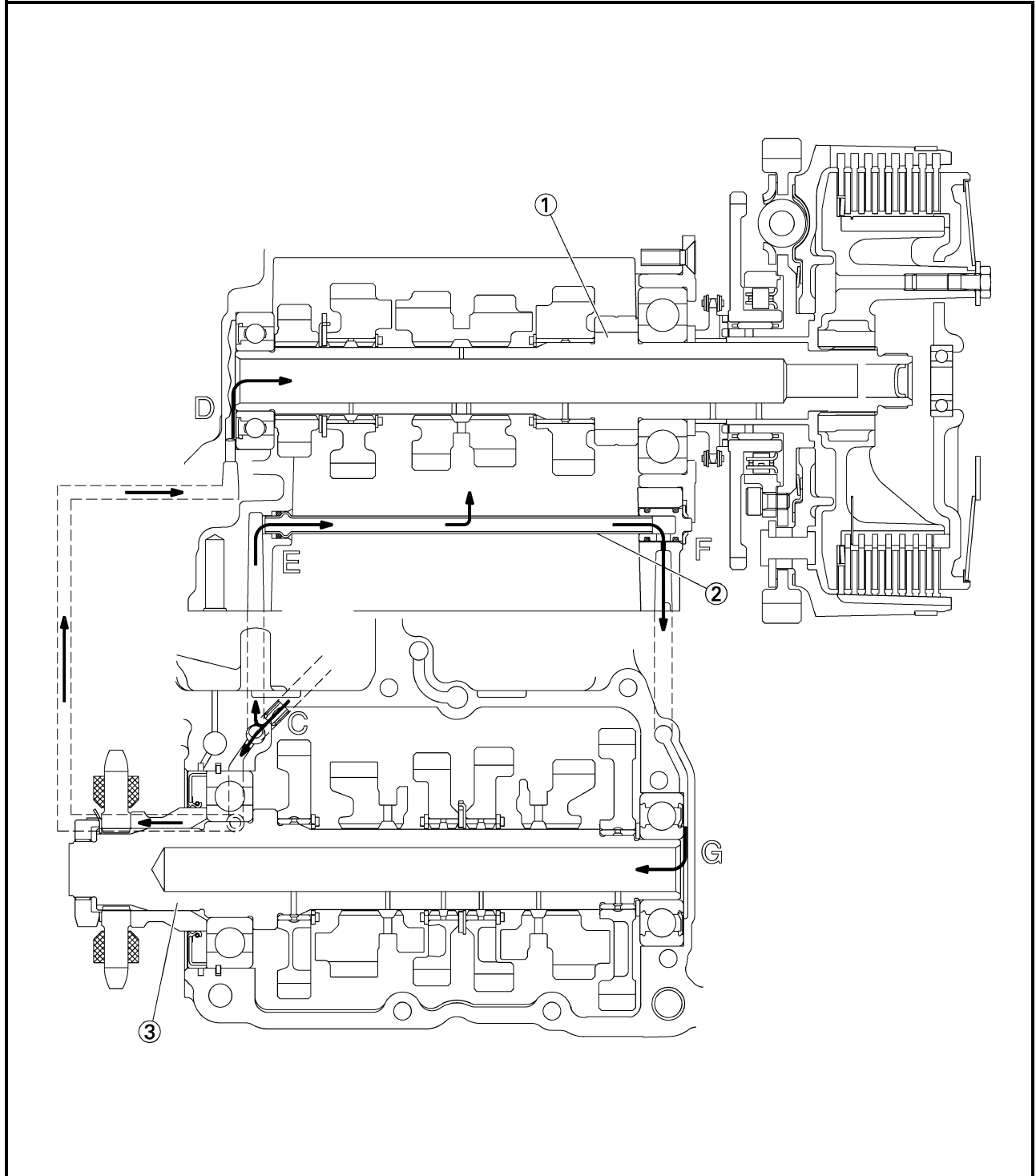


- ① Oil cooler
- ② Oil filter cartridge
- ③ Oil level switch
- ④ Oil strainer
- ⑤ Oil pump
- ⑥ Oil pipe

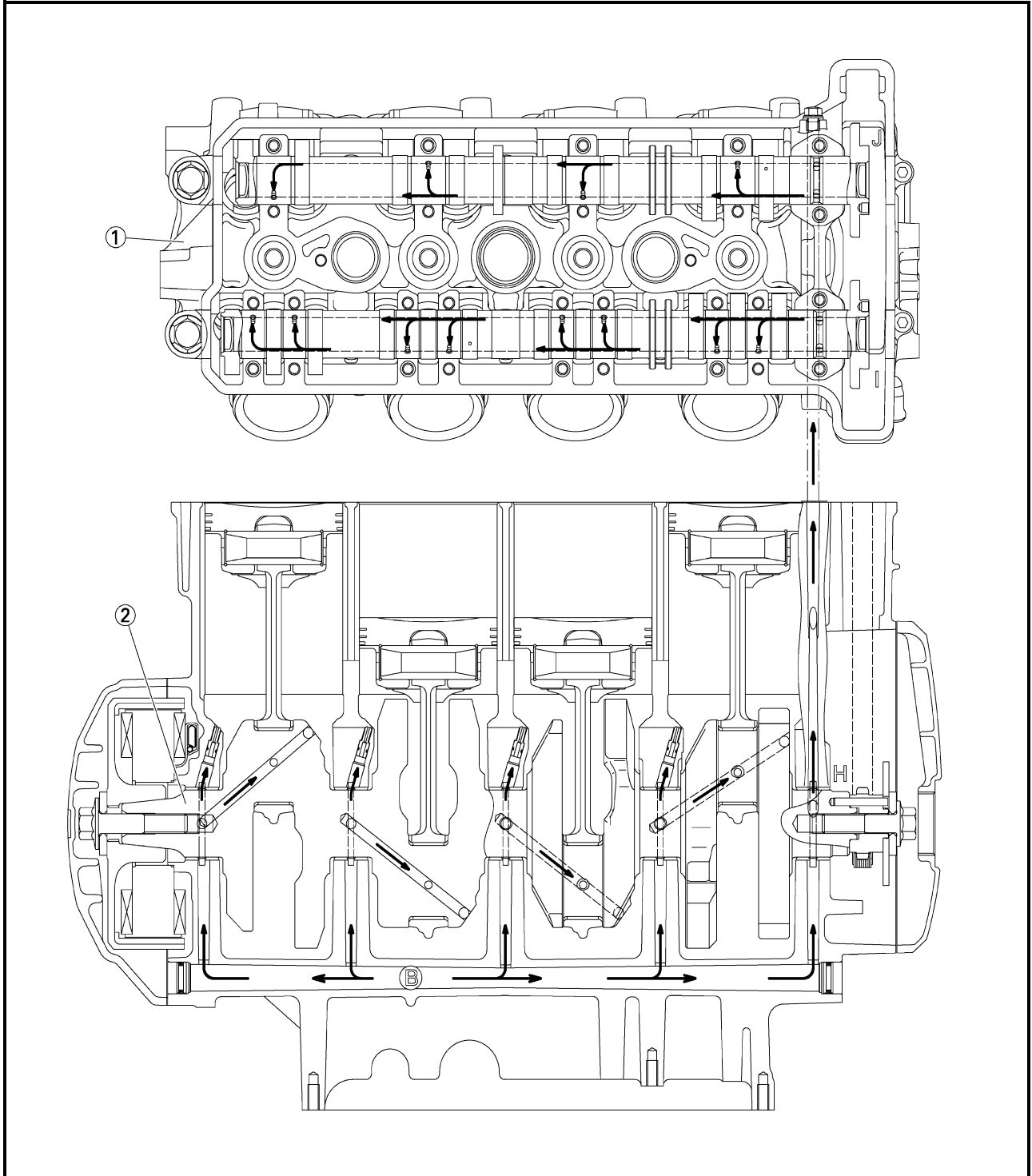




- ① Main axle
- ② Oil delivery pipe
- ③ Drive axle



- ① Cylinder head
- ② Crankshaft





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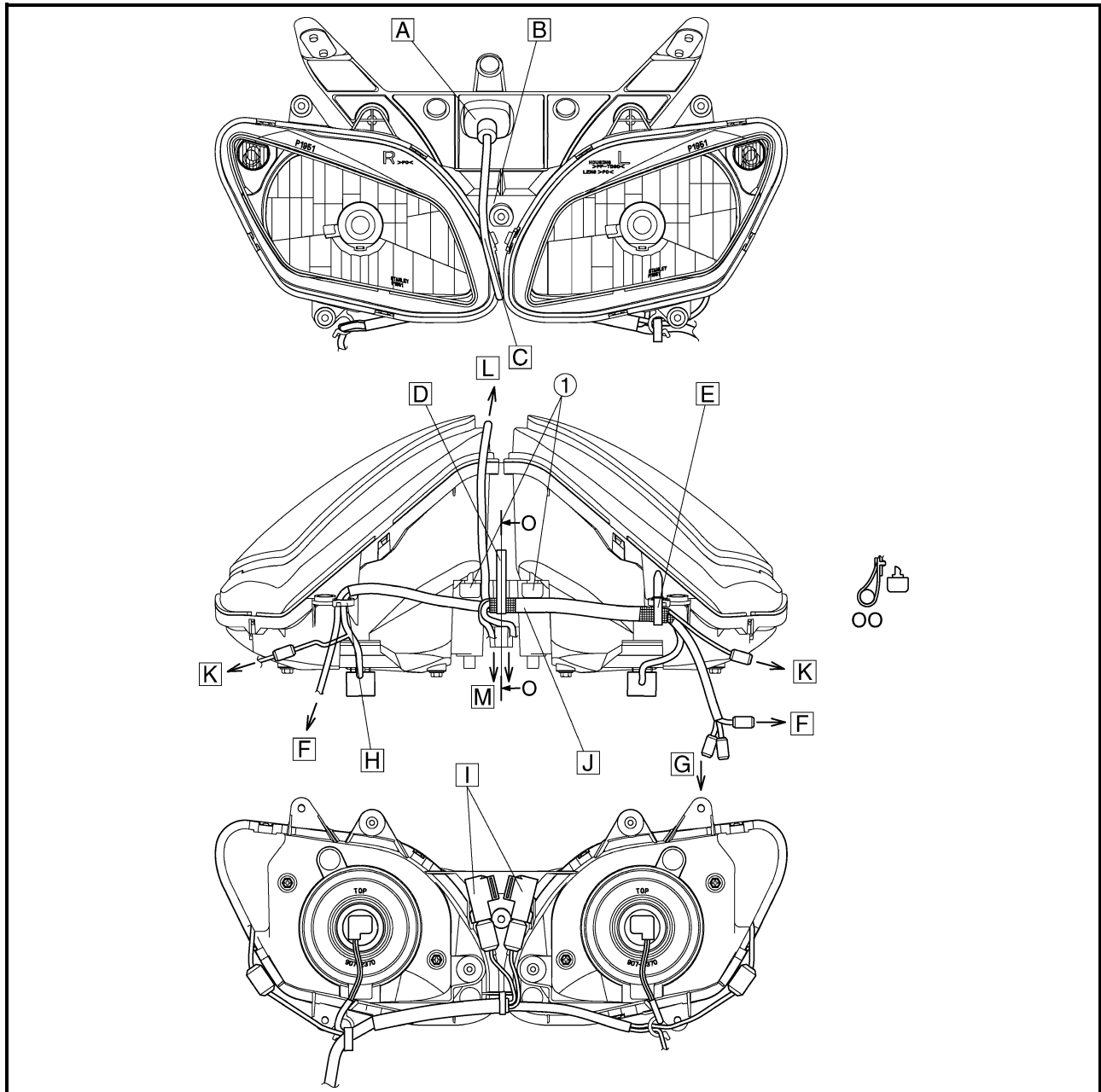
CABLE ROUTING

① Headlight drain plug

- A Make sure to securely insert the coupler and boot.
- B The headlight lead can be routed by either of the headlight or the boss. Do not catch the headlight lead when assembling the front cowling.
- C Do not make the lead stretch too much.
- D Secure the junction of the cord headlight at the place of white tape.

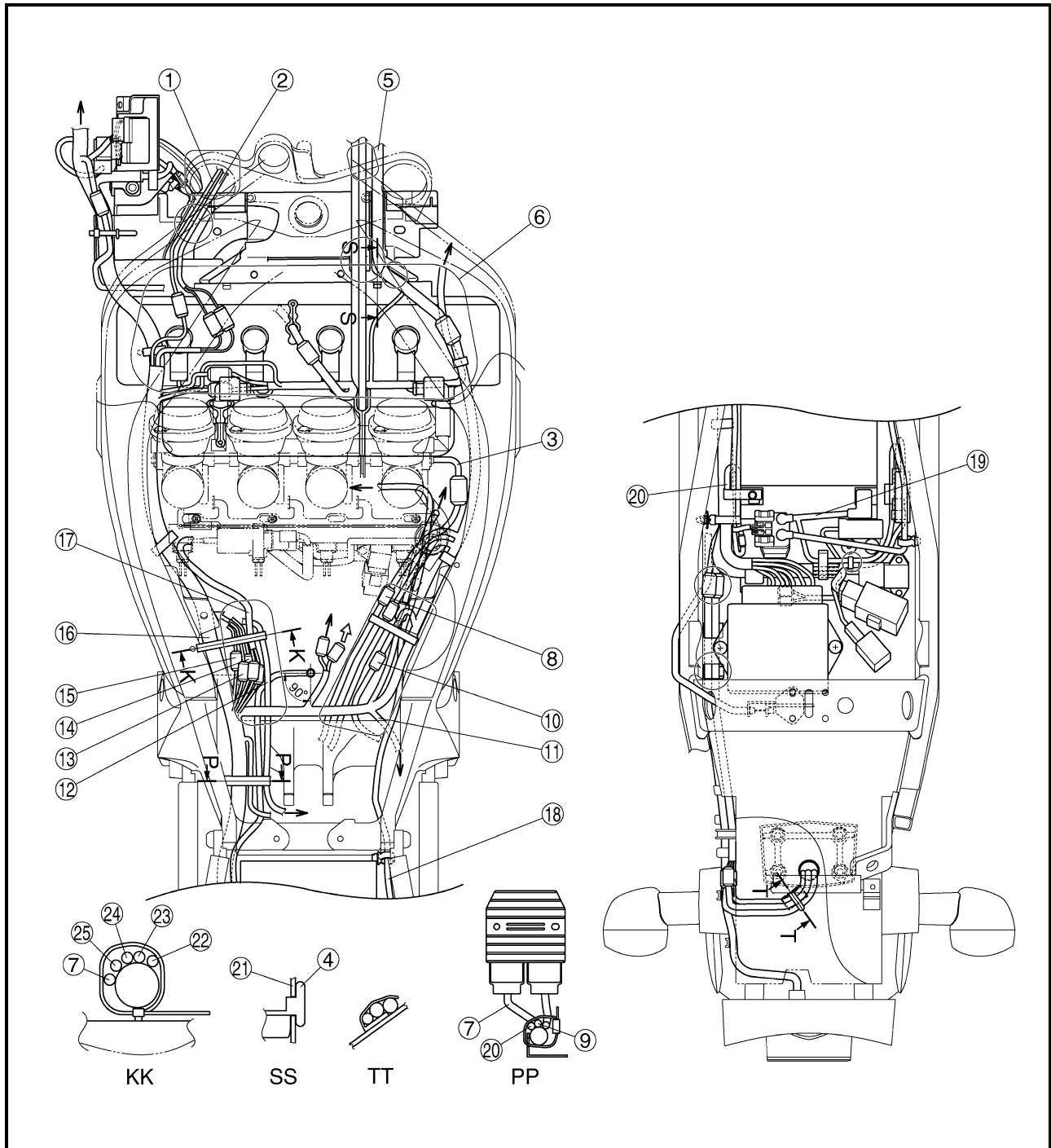
- E Secure the junction of headlight lead (including the headlight leads and position lamp leads) at the place of white tape with the clamp behind the pawl of headlight body.
- F To turn signal light
- G To main harness
- H Route the junction of the headlight, position lamp and turn signal light leads through the pawl on the headlight body. (Pay attention to the direction.)

- I Insert the headlight relay to the rib of the headlight body. (No special roder is specified for right and left.)
- J Route the headlight lead behind the cap of headlight breather hole. (It can be routed below, but should not be in front of the cap.)
- K To the auxiliary light lead
- L To meter assembly
- M To headlight relay





- ① Handlebar switch (left)
- ② Main switch
- ③ Throttle position sensor lead
- ④ Guide-air
- ⑤ Handlebar switch (right)
- ⑥ Wiring section 1
- ⑦ AC magneto lead
- ⑧ Speed sensor lead
- ⑨ (-) lead
- ⑩ Rear brake switch lead
- ⑪ EXUP servo motor lead
- ⑫ AC magneto lead
- ⑬ AI system lead
- ⑭ Oil level switch lead
- ⑮ Sidestand switch lead
- ⑯ Wire harness assembly
- ⑰ Injector sub lead
- ⑱ Starter lead
- ⑲ (+) lead
- ⑳ (-) lead
- ㉑ Cover 1
- ㉒ Injector sub lead
- ㉓ AI system lead
- ㉔ Oil level switch lead
- ㉕ Sidestand switch lead

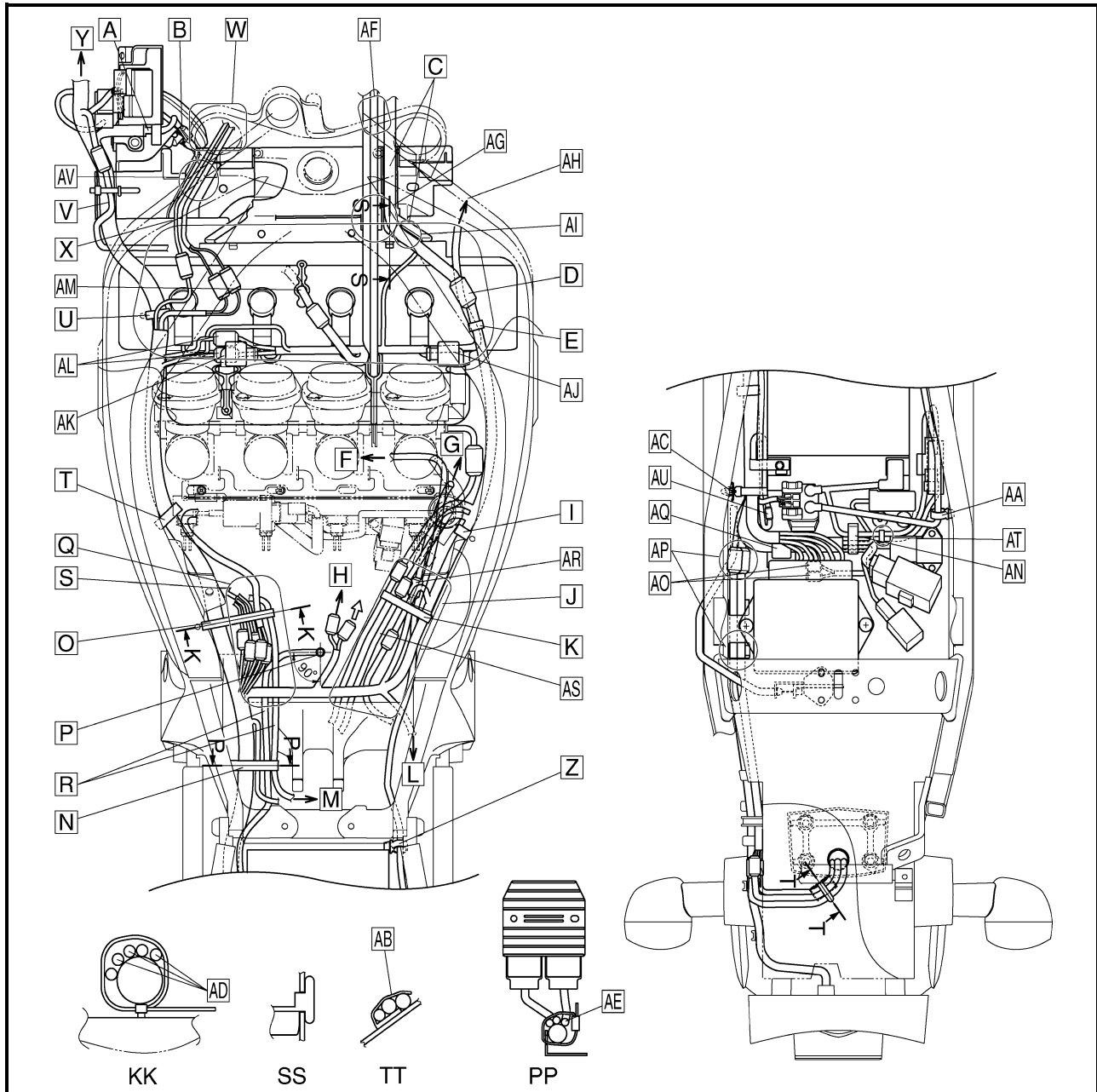




- A** Route the horn lead under the rib of bracket horn positioning the stepped part of protector outside the rib.
- B** Make the horn lead face the outside.
- C** Route the handlebar switch lead along the groove of the guide-air.
- D** Handlebar switch (right) lead coupler.
- E** Fasten the wire harness and coolant temperature sensor lead with the clamp inserted to the frame. Point the clamp tip downward.
- F** To starter motor
- G** To pick-up coil

- H** To fuel pump
- I** Insert the holding clamp of the wire harness to the frame. Route the starter motor lead and crankshaft position sensor lead under the throttle body.
- J** Wiring section **3**
- K** Connect the leads behind the clamp. (without crankshaft position sensor lead) Fasten the wire harness, speed sensor, neutral switch, rear brake switch, pick-up coil and starter leads with the clamp inserted to the frame.
- L** EXUP servo motor
- M** To rectifier regulator

- N** Fasten the wire harness, (-) lead, AC magneto lead and rectifier regulator lead junction with the clamp inserted to the box battery.
- O** Fasten the wire harness, AI system lead, AC magneto lead, oil level gauge lead, sidestand switch lead and injector sub lead with the clamp inserted to the frame.
- P** Pay attention to the direction of installation.
- Q** Connect the leads between the clamp and the junction.
- R** Route the (-) and AC magneto leads under the wire harness.

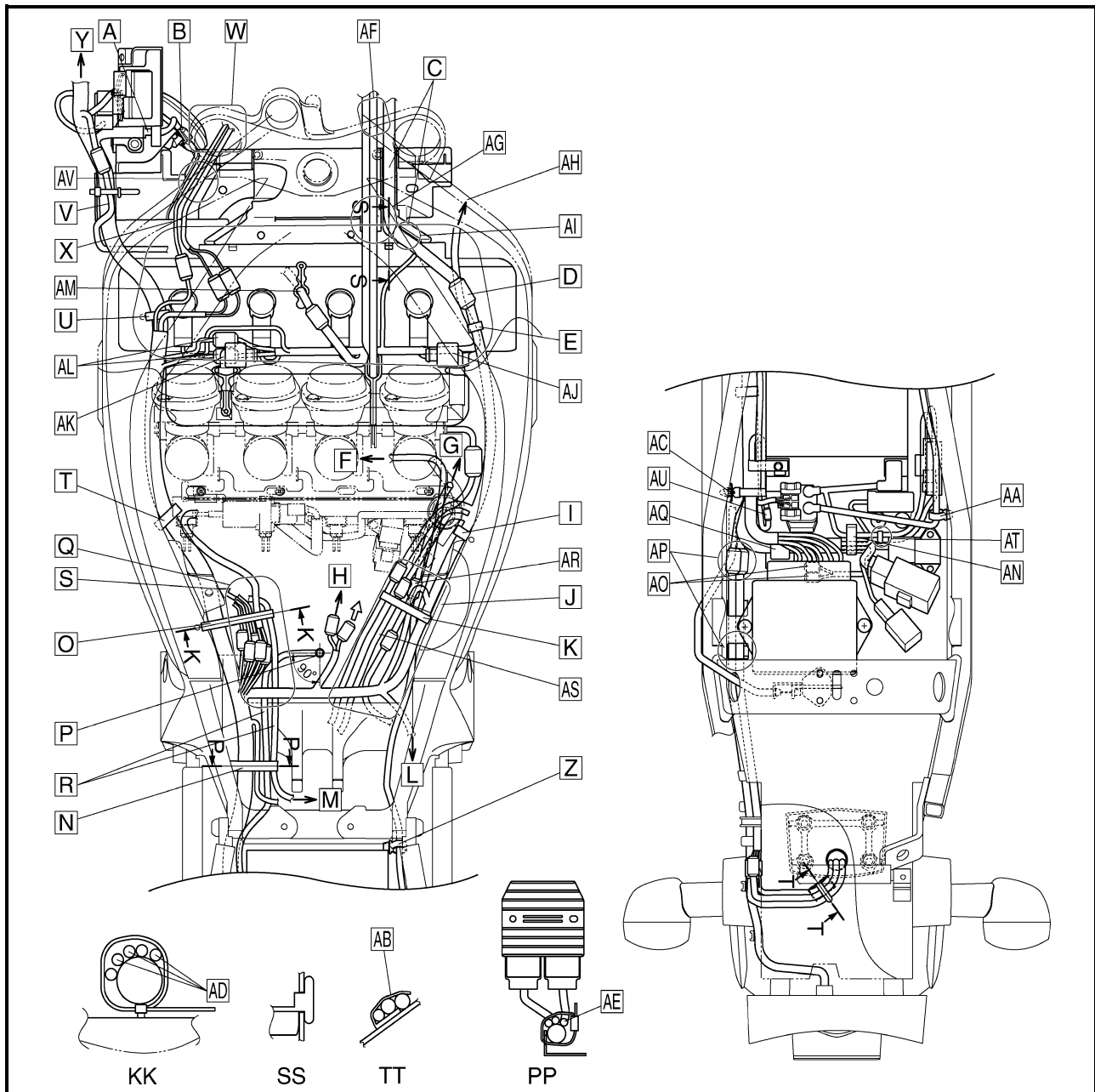




- [S] Route under the wire harness to the assembling point [1].
- [T] Insert the holding clamp of the wire harness to the frame.
- [U] Fasten the wire harness with the clamp inserted to the frame.
- [V] Route the radiator fan motor lead above the wire harness.
- [W] Assembling point [3] Beneath the under bracket
- [X] Route the handlebar switch lead and main switch leads along the groove of the guide-air.
- [Y] To cord headlight

- [Z] Route the starter motor lead through the clamp inserted to the box battery.
- [AA] Route the starter motor lead through the clamp inserted to the box battery.
- [AB] Clamp the lead as being in parallel along the fender. Make sure to clamp three leads.
- [AC] Fasten the wire harness with the clamp inserted to the hole of the box battery.
- [AD] Routing position of each lead except the wire harness is not regulated in the clamp.

- [AE] Branch from the main harness
- [AF] Assembling point [4] Beneath the under bracket, below the cover steering
- [AG] Throttle cable should not be placed on the rib of guide-air.
- [AH] To coolant temperature sensor
- [AI] Do not pinch the handlebar switch lead when assembling the ignition coil plate.
- [AJ] Pass the filter of throttle body through the notch of the rubber baffle and release it under the ignition coil plate.

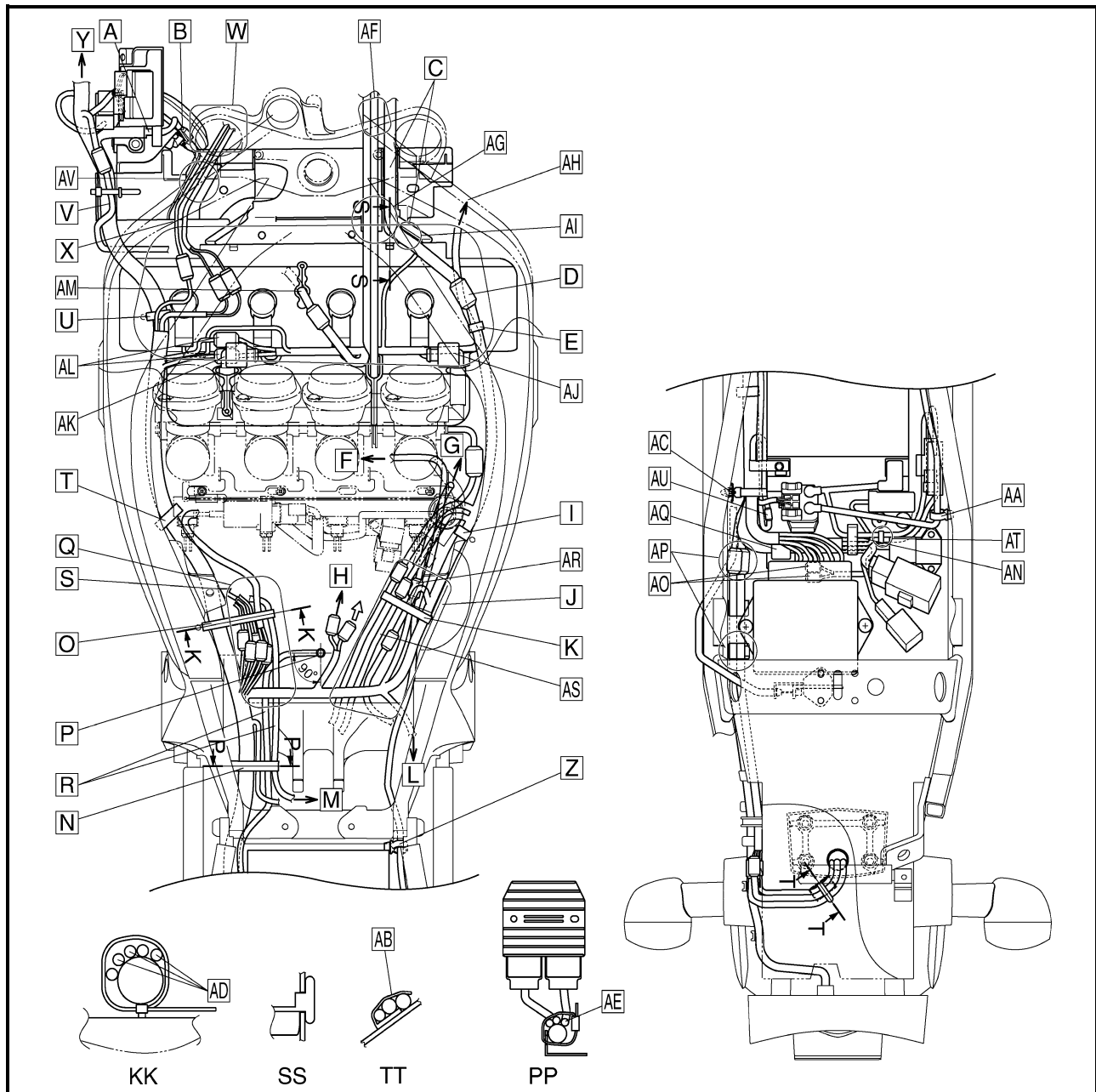




- AK** Pass the filter of throttle body through the hole of rubber baffle and release it under the ignition coil plate.
- AL** Route the sub lead coupler behind the ignition coil.
- AM** Pass the camshaft position sensor lead through the hole of COVER 1 and connect it.
- AN** After branching the harness, clamp each lead of the (+) lead junction, starting circuit cut-off relay, atmosphere pressure sensor, lean angle cut-off switch flasher relay in the lump. Do not clamp the ALARM coupler lead.

- AO** Press the lead of the coupler for ALARM in under the coupler of ECU.
- AP** Pay attention not to allow the lead to slack and get caught after wiring when assembling the side cover.
- AQ** Make sure to hook the harness on the hook of battery box.
- AR** Pick-up coil lead (Should be wired in front of the clamp.)
- AS** Neutral switch lead (Should be wired in front of the clamp.)

- AT** Fasten the (+) lead junction lead by hooking on the pawl of the box battery.
- AU** Push the (-) lead coupler into the down side of wire harness clamp.
- AV** Pull in the lead to the position inside the frame until the different color tape attached to the lead is invisible outside the frame bottom edge.

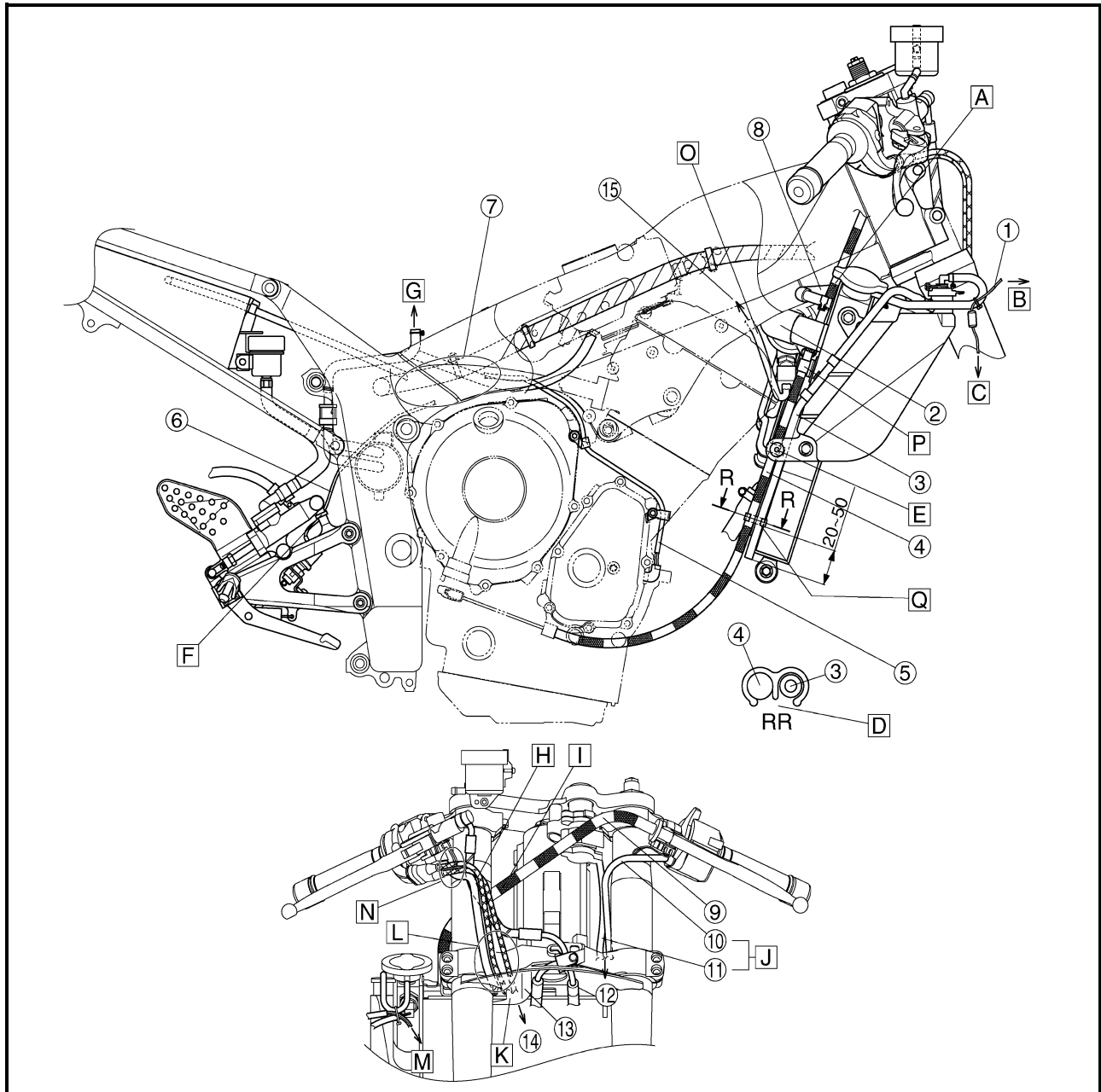




- ① Turn signal light lead
- ② Radiator hose
- ③ Reservoir tank breather hose (L = 440)
- ④ Clutch cable
- ⑤ Crankshaft position sensor lead
- ⑥ Rear brake switch lead
- ⑦ Wiring section ③
- ⑧ Coolant breather hose
- ⑨ Clutch cable
- ⑩ Handlebar switch lead
- ⑪ Main switch lead
- ⑫ Assembling point ③
- ⑬ Cover steering
- ⑭ Assembling point ④
- ⑮ Wiring section ①

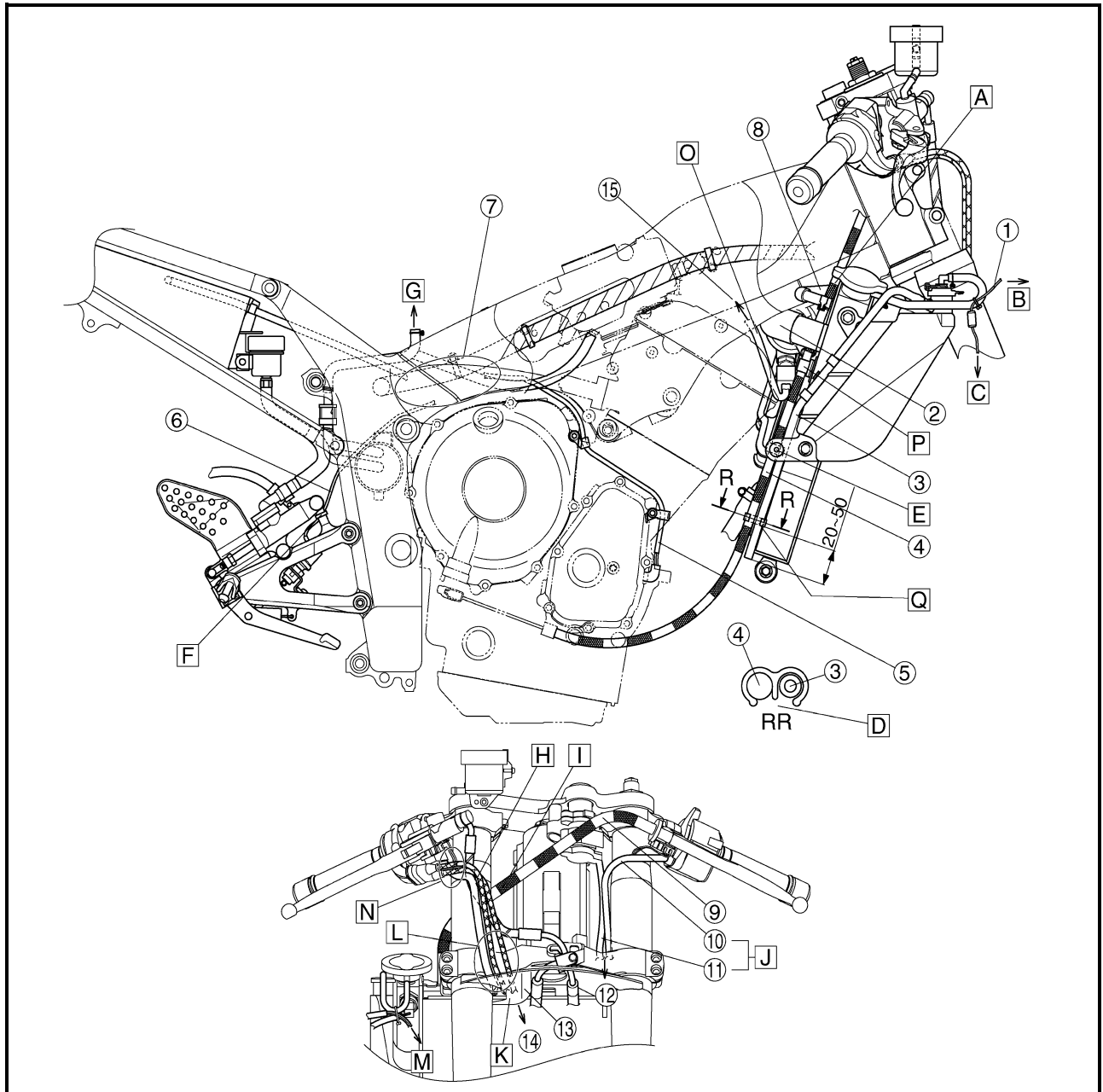
- A Route the clutch cable through the backward of radiator bracket and inside of coolant breather hose.
- B To cord headlight
- C To turn signal light
- D Point the open side to the vehicle outside.
- E Fasten the clutch cable with the clamp to the inside of the coolant reservoir tank.
- F Fasten the sidestand switch lead behind the bracket and cut the tip.
- G To fuel tank
- H Pass the throttle cable in front of the brake hose.

- I Pass the clutch cable behind the front fork.
- J Pass the handlebar switch lead and main switch lead between the steering stopper and front fork outer tube.
- K Pass the throttle cable, handlebar switch lead between the under bracket and the cover steering. There should be no twist and crossing of the cable.
- L In this area, the handlebar switch lead (right side) should not be in front of the throttle cable. It should not cross the throttle cable around the guide-air.





- M** To turn signal light
- N** In this area, pass the handlebar switch (right) lead behind of the throttle cable.
- O** Route the coolant temperature sensor lead between the engine and the radiator hose.
- P** Route the clutch cable through the inside of radiator hose and fasten it with the clamp to the radiator.
- Q** Fasten the clutch cable and coolant reservoir tank breather hose with the clamp.





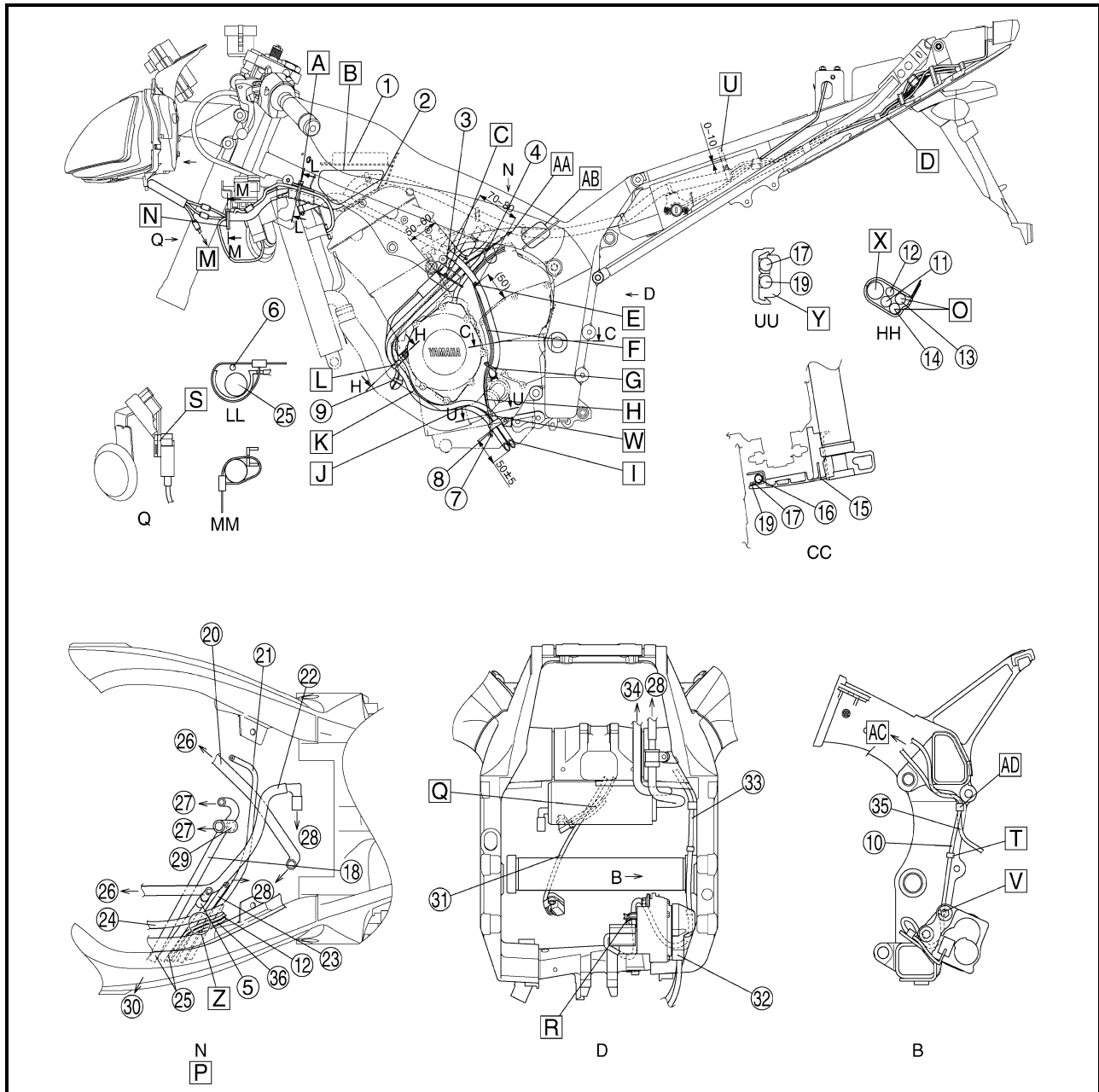
- ① Ignition coil plate
- ② Rubber baffle
- ③ Assembling point ②
- ④ Assembling point ①
- ⑤ To wiring section ②
- ⑥ To wiring sections ②, ③
- ⑦ Oil level switch lead
- ⑧ Sidestand switch lead
- ⑨ Clamp
- ⑩ EXUP servo motor lead
- ⑪ Air cleaner drain hose
- ⑫ AI system lead
- ⑬ Fuel tank breather hose
- ⑭ Fuel tank drain hose (No special order is required.)
- ⑮ Drive sprocket cover
- ⑯ Radiator hose

- ⑰ Oil level gauge lead
- ⑱ AI system hose
- ⑲ Sidestand switch lead
- ⑳ Fuel return hose
- ㉑ Fuel tank breather hose
- ㉒ Fuel feeder hose
- ㉓ Fuel tank drain hose
- ㉔ Injector sub lead
- ㉕ Wire harness
- ㉖ To throttle body
- ㉗ To air cleaner
- ㉘ To fuel tank
- ㉙ Crankcase breather hose
- ㉚ Assembling point ②
- ㉛ Speed sensor lead
- ㉜ EXUP servo motor
- ㉝ EXUP servo motor lead

- ㉞ To throttle body
- ㉟ Rear brake switch lead
- ㊱ AC magneto lead

Ⓐ Route the wire harness and radiator fan motor lead through the hole of the guide-air and fasten them.

Ⓑ Wiring section ①
Above rubber baffle
Under ignition coil plate

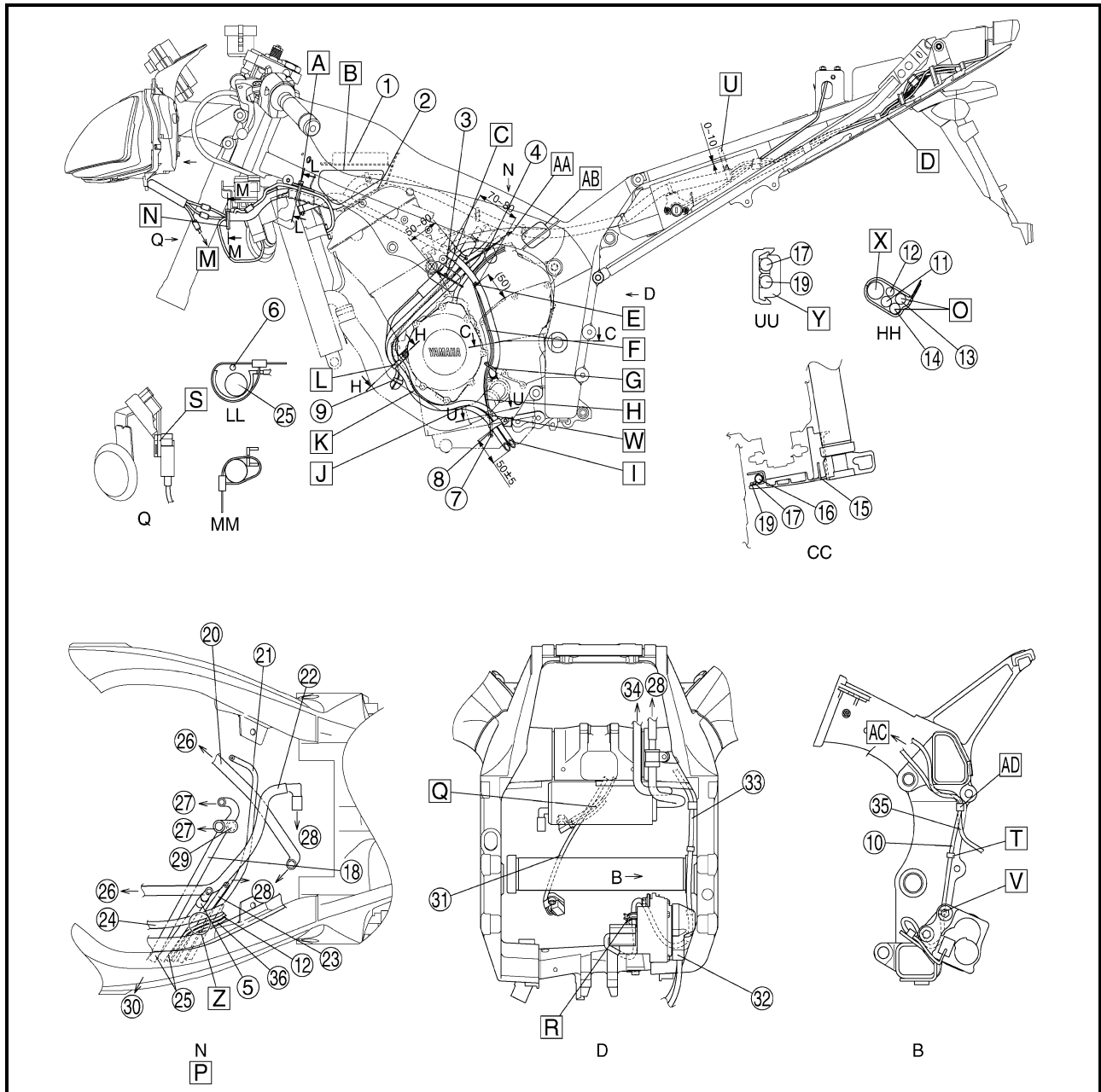




- C** Clamp the air cleaner drain hose, fuel tank breather hose, drain hose, AI system hose, AI system lead and AC magneto. Route the air cleaner drain hose, fuel tank breather hose and drain hose outside the AI system hose, AI system lead and AC magneto lead. Route the fuel tank reserve hose and fuel tank drain hose underneath AC magneto lead and AI system lead and then to the outside.
- D** House all the leads in the rib of the box battery.

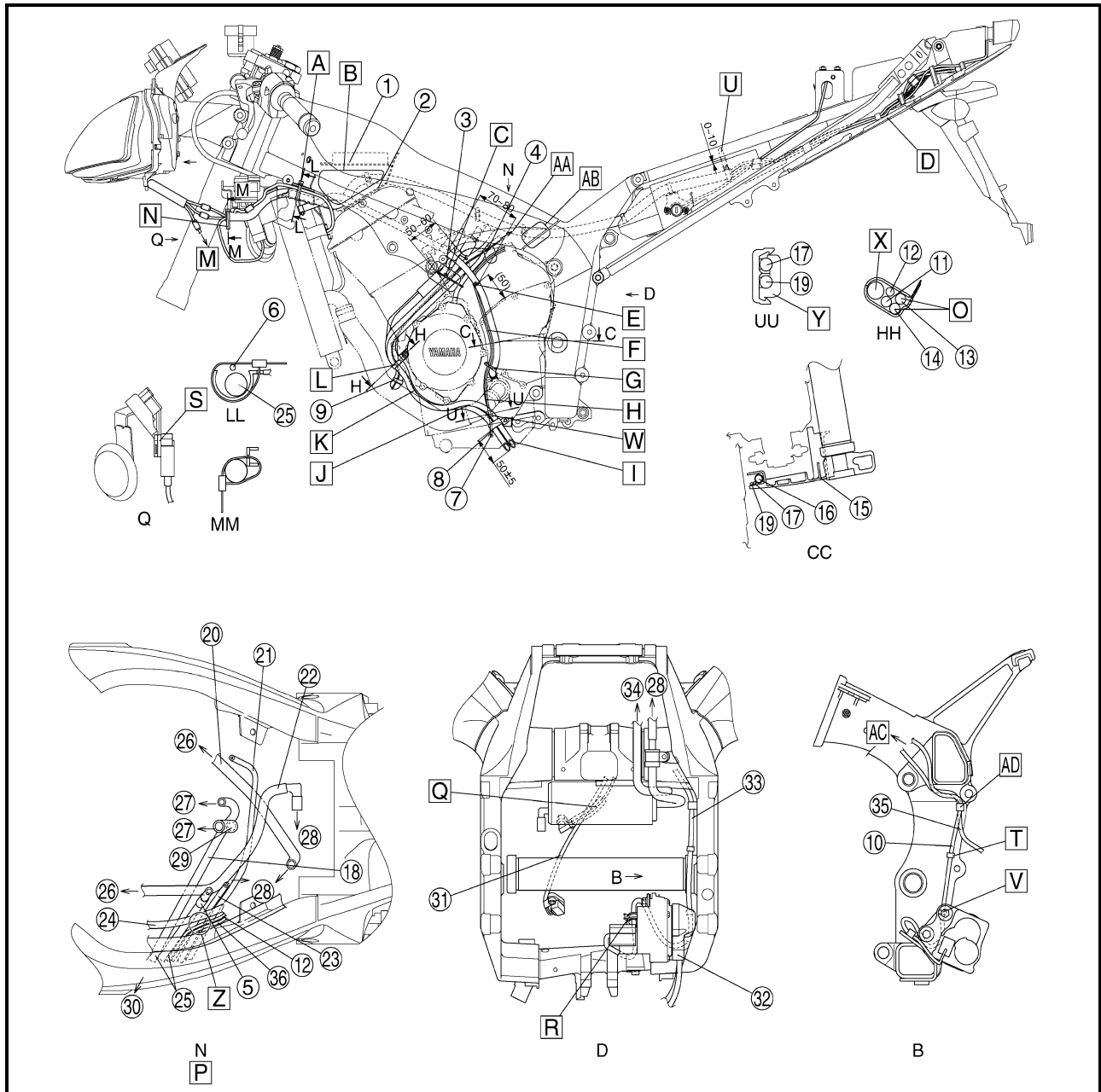
- E** Clamp the oil level gauge, side stand switch lead and radiator hose.
- F** Place the oil level gauge, side stand switch lead and radiator hose in the drive sprocket cover.
- G** Do not pinch the hose.
- H** Pass the oil level gauge lead and sidestand switch lead by the inner side of the coolant hose.
- I** Route the fuel tank breather hose and fuel tank drain hoses through the clamp and pass by the outside of the bottom cowling. Make the end length of hoses even.

- J** Pass the fuel tank breather hose and fuel tank drain hose by the inner side of the coolant hose. Do not pinch each hose in the bottom cowling cowl mounting section.
- K** Pass the air cleaner drain by the inner side of the coolant hose and release under the coolant hose. However, do not place out side of the bottom cowling.
- L** Route the air cleaner drain hose, fuel tank breather hose, fuel tank drain hose, AI system hose and AI system lead through the clamp.
- M** To turn signal light





- N** Point the tip of the band to the inner side.
- O** Routing position of each hose except the AI system hose is not regulated in the clamp.
- P** Pass all the hoses under the injector sub lead and wire harness.
- Q** Neutral switch lead:
Fasten the EXUP servo motor lead and rear brake switch lead with the clamp inserted to the frame.
- R** Clamp the lead making slack so that the harness routes to the coupler from the downside of the EXUP servo motor.
- S** Pay attention to the inserting direction of the relay.
- T** Fasten the EXUP servo motor lead with the clamp inserted to the frame.
- U** Fasten the wire harness with the clamp inserted to the hole of battery box. Point the tip of clamp upward. Cut the tip according to the illustration.
- V** Fasten the EXUP servo motor lead with the clamp inserted to the frame.
- W** Clamp the oil level gauge and sidestand switch lead.
- X** AI system hose
(Route by the most inner side.)
- Y** Position the clamp between the clamp of oil level switch lead and the radiator coolant hose. The direction of clamp is not regulated.
- Z** Route the hoses of fuel tank drain and breather underneath the wire harness, injector sub lead, AI system lead and AC magneto lead.





for California

- ① Canister
- ② Roll over valve assembly
- ③ Hose (fuel tank breather – canister)
- ④ Hose (canister – roll over valve)
- ⑤ Hose (roll over valve – throttle body)

- A To throttle body
- B To atomosphere

