YAMAHA

2005

XT 125R
XT 125X

SERVICE INFORMATION

IDM C144600300.fm

WARNING

This Manual has been written by Yamaha Motor and is addressed to Yamaha vendors and their qualified engineers. This Manual cannot cover any aspect of mechanical knowledge; therefore, anyone who will refer to this manual is expected to have a basic knowledge of the mechanical skills required for servicing and repairing Yamaha motorcycles. Repairing performed by unskilled personnel may cause motorcycles to be unserviceable and dangerous.
Yamaha Motor is constantly searching for enhancing all its motorcycle models. Authorized Yamaha distributors will be informed of substantial changes and improvements made to specifications or mounting procedures; these ones will be stated in the following issues of this Manual, when required.

NOTE: The motorcycle model and specifications are subject to changes without prior notice.

IMPORTANT INFORMATION

Particularly important information is highlighted as follows:

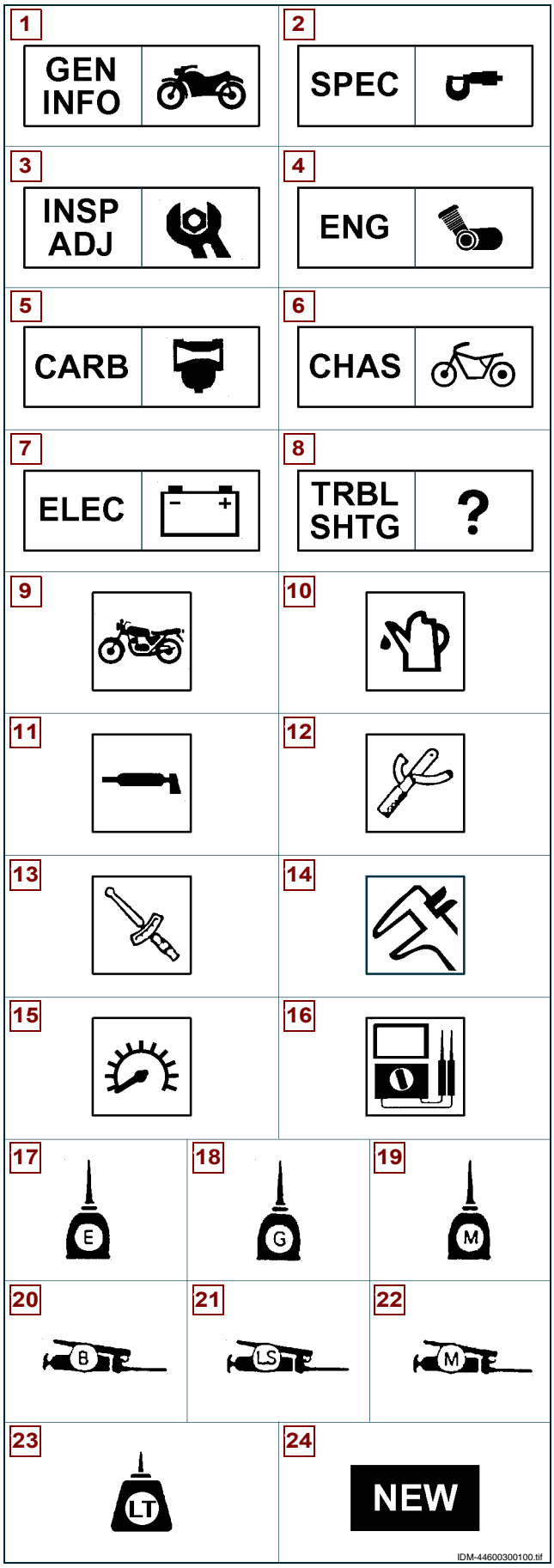
⚠ The symbol of danger means CAUTION! BEWARE! YOUR SAFETY DEPENDS ON THIS!

⚠ WARNING: The non-observance of WARNINGS can cause serious injury or the death of the motorcyclist, of the people standing near the motorcycle or the repairer of the motorcycle.

CAUTION: A CAUTION notice implies particular care to be taken not to damage the motorcycle.

NOTE: A NOTE contains important information for a better comprehension of the described procedures.

GRAPHIC SYMBOLS



Symbols 1 to 8 are drawn as tabs to indicate the chapter number and its content.

1 General Information
2 Technical Specifications
3 Scheduled Servicing and Adjustment
4 Engine
5 Carburetion
6 Frame
7 Electrical System
8 Troubleshooting

Symbols 9 to 16 are used to identify technical specifications stated in this Manual.

9 Repairing Possible with Engine in Place
10 Filling Up
11 Lubricant
12 Special Components
13 Tightening
14 Wear Limit, Distance
15 Engine RPM
16 Ω, V, A (to be measured with a tester)

Symbols 17 to 22 illustrated in the diagram indicate the types of lubricant to be used and the greasing points.

17 Use Engine Oil
18 Use Oil for Spare Parts
19 Use Molybdenum-Bisulphide Oil
20 Use Grease for Bearings
21 Use Grease Made of Light Lithium Soap
22 Use Molybdenum-Bisulphide Grease

Symbols 23-24 illustrated in the diagram indicate where to apply the high-resistance sealer 23 and where to install new Component Parts 24.

23 Apply High-Resistance Sealer (LOCTITE®)
24 Use a New Component Part

INDEX

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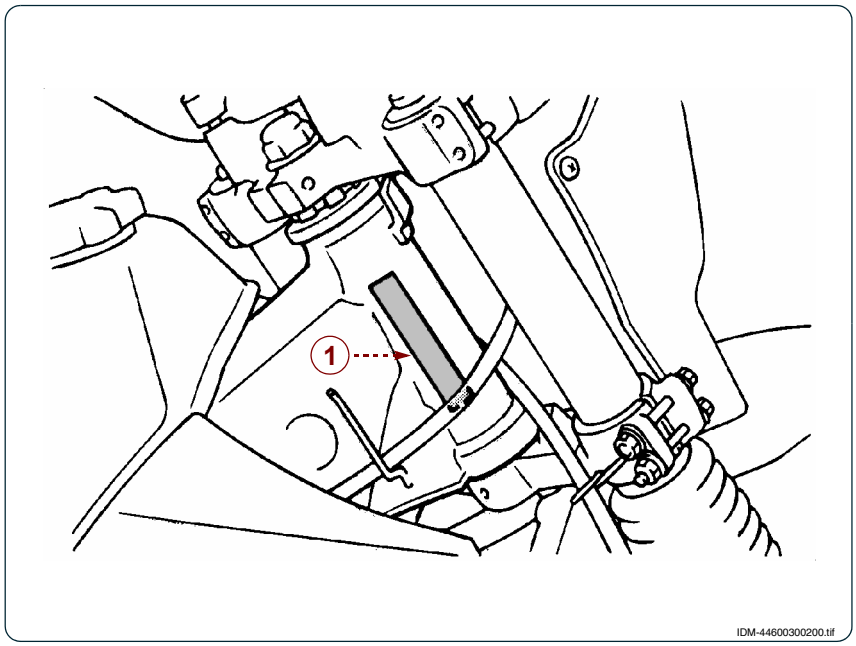
GENERAL INFORMATION

IDENTIFICATION OF THE MOTORCYCLE

Serial Number of the Frame
The Serial Number of the frame (1) is marked on the metal tube of the handlebar.

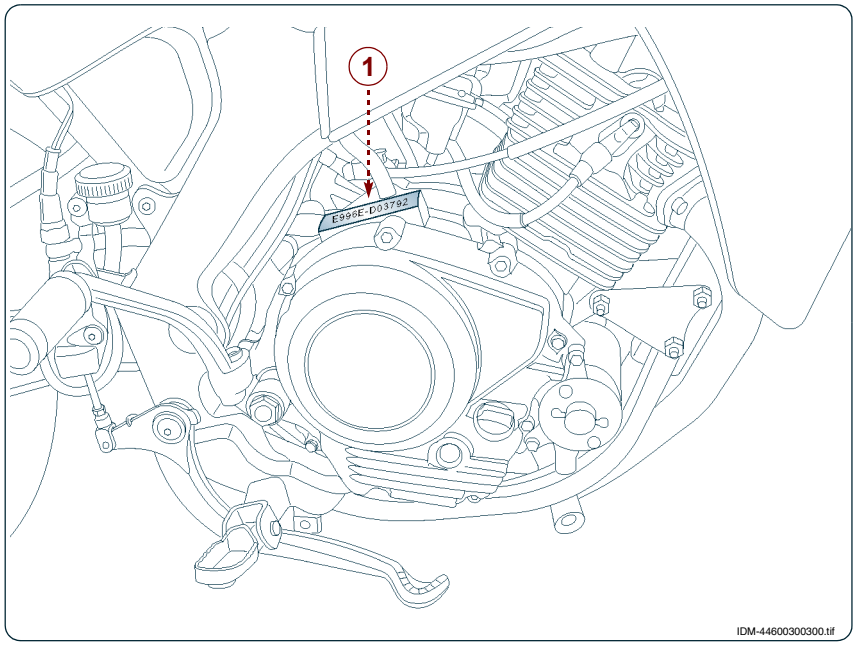
NOTE: The Serial Number of the frame is used for the motorcycle identification and registration.



Serial Number of the Engine
The Serial Number of the Engine (1) is marked on the right side of the crankcase.

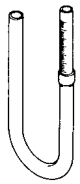
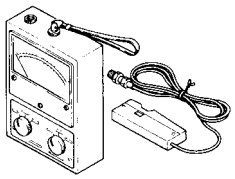
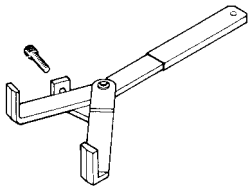
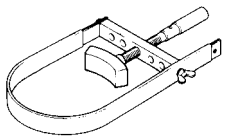
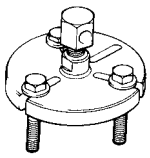
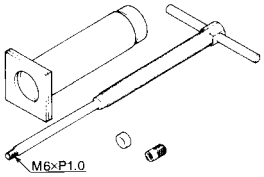
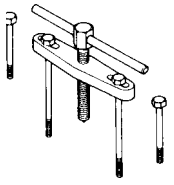
NOTE: The first three figures of this Serial Number identify the motorcycle model; the remaining figures indicate the production number of the unit.

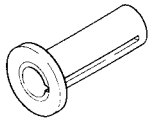
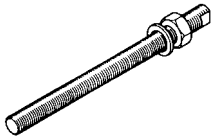
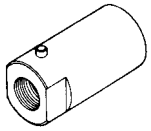
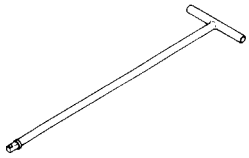
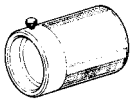
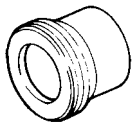
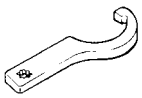
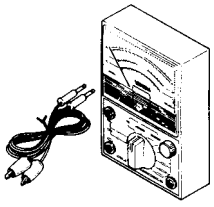
NOTE: Technical specifications and drawings can be changed without prior notice.



SPECIAL COMPONENTS

The special components listed below are required for a complete and accurate tuning and assembly of the motorcycle. The use of proper special instruments prevents damages caused by improper instruments or made-up techniques.
When ordering a special component, please refer to the list below to avoid any mistake.

Component N.	*Description*	*Picture*
90890-01312	**Fuel Indicator** The fuel indicator is used to measure the fuel level in the carburettor float chamber.	
90890-06760	**Rev Counter** The rev counter is used to measure the engine RPM.	
90890-04086/09	**All-purpose Clutch Support** This support is used to lock the clutch when assembling or disassembling the clutch locking nut.	
90890-01701	**Pulley Lock** The pulley lock is used to lock the secondary pulley.	
90890-01862	**Flywheel Puller** This is used to pull out the flywheel.	
90890-01304	**Pin Puller** The pin puller is used to pull out the piston pin.	
90890-01135	**Tool for Drive Shaft Remover** This tool is used to remove the drive shaft or to separate the crankcase.	

Component N.	Description	Picture
90890-01274 (1)	**Tool for Drive Shaft Installation**	
90890-01275 (2)	**Drive Shaft Pin**	
90890-01278 (3)	**Adaptor (M12)**	
(*) 90890-01326	**T-tool** The T-tool is used to hold the shock absorber rod when it is removed or installed.	
(*) 90890-01367	**Fork Clamp**	
(*) 90890-01381	**Fork Clamp Fitting** The fork clamp fitting is used to install the fork cross.	
(*) 90890-01403	**Nut Ring Wrench** This wrench is used to loosen and tighten the nut ring of the handlebar.	
90890-03112	**Pocket Tester** The pocket tester is required to check the electrical system.	

(*) Indications from Yamaha are required about the compatibility of the components above. If they are not compatible, ID codes and drawings of new components are required. Otherwise, Yamaha should state which components are to be excluded from this Manual.

TECHNICAL SPECIFICATIONS

GENERAL FEATURES

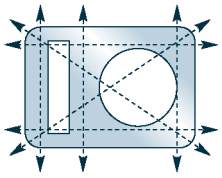
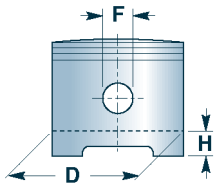
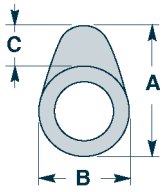
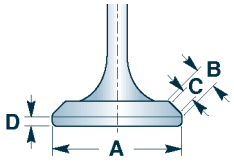
Model	*XT 125R*	*XT 125X*
Dimensions:		
Overall Length	2110 mm	2040 mm
Overall Width	860 mm	860 mm
Overall Height	1130 mm	1090 mm
Saddle Height	860 mm	830 mm
Pitch	1340 mm	1340 mm
Min. Distance from the Ground	300 mm	271 mm
Min. Turning Radius	2100 mm	2016 mm
Net Weight:		
Oil and Fuel Included	120 kg	120 kg
Engine:		
Type of Engine:	4-stroke, air-cooling	
Feeding System	Carburettor	
Cylinder Arrangement	Tilted forward, single-cylinder	
Displacement	123.7 cm^3	
Diameter per Stroke	54.0x54.0	
Compression Ratio	10:1 ±0.5	
Max. Power	7.3 kW / 8500 RPM	
Max. Torque	9.5 N*m / 5500 RPM	
Min. Speed	1600~1800 RPM	
Starting System	Electrical and manual starter	
Lubrication System	Yamaha Autolube	
Oil Type or Grade:		
Motor Oil	YAMALUBE 4, SAE 10W30/SH or equivalent	
Total Quantity	1.2 L	
Scheduled Oil Change	1.0 L	
Air Filter:	Humid-element type	
Fuel:		
Type	Unleaded	
Fuel Tank:		
Capacity	10 L	
Low Fuel	2.0 L	

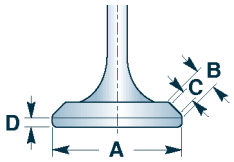
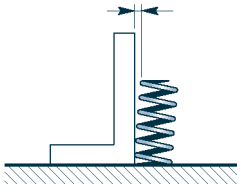
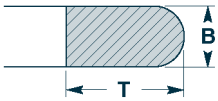
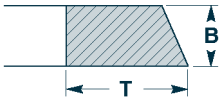
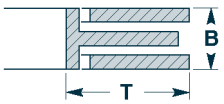
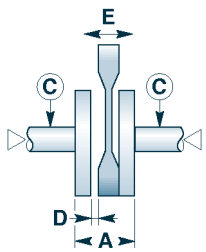
Model	*XT 125R*	*XT 125X*
Carburettor:		
Type/Quantity	VM20SS	
Manufacturer	MIKUNI	
Spark Plugs:		
Type	CR7HSA	
Manufacturer	NGK	
Distance between Electrodes	0.6 mm (0.0236 in)	
Type of Clutch:	Oil-bath, multiple disc	
Gear:		
Primary Step-down System	Worm gear	
Primary Step-down Ratio	68/20 (1/3,4)	
Secondary Step-down Ratio	Drive chain	
Secondary Step-down Ratio	50/14 (3.5715)	48/14 (3.4286)
Type of Gear	Continuous gear, 5-speed	
Operation	Left foot	
Drive Ratio:		
First Gear	14/37 (2.64)	
Second Gear	18/32 (1.78)	
Third Gear	19/25 (1.32)	
Fourth Gear	22/23 (1.05)	
Fifth Gear	24/21 (0.88)	
Frame:		
Type of Frame	Semi double cradle	Semi double cradle
Front Axle Angle	28°	26.7°
Angle Base	114.4 mm	78.33 mm
Tyres:		
Type	With inner tube	With inner tube
Front	90/90-21 54S	100/80-17 52S
Rear	120/80-18 62S	130/70-17 62S
Pressure with Cold Wheels:		
Front 0~90kg	1.8 bars (26.1 psi)	
Rear 0~90kg	1.9 bars (27.6 psi)	
Front 90~178kg	2.0 bars (29.0 psi)	
Rear 90~178kg	2.1 bars (30.5 psi)	

Model	*XT 125R*	*XT 125X*
Brakes:		
Type of Front Brake	Disc brake with hydraulic drive	
Front Brake Operation	Right hand	
Type of Rear Brake	Disc brake with hydraulic drive	
Rear Brake Operation	Right foot	
Suspensions:		
Front	Hydraulic fork	
Rear	Swinging arm with hydraulic shock absorber	
Shock Absorbing System:		
Front	Coil spring / Oil damper	
Rear	Coil spring / Oil damper	
Wheel Stroke:		
Front Wheel Stroke	170 mm (6.69 in)	170 mm (6.69 in)
Rear Wheel Stroke	190 mm (7.48 in)	190 mm (7.48 in)
Electrical System:		
Starting System	CDI	
Generator System	Magnetic AC	
Battery Capacity	12V-6.5Ah	
Headlight:	Bulb	
Headlight Power:		
Headlight	12V 35/35W	
Rear Light/Stop Light	12V P21/5W	
Front/Rear Indicators	12V 10Wx4	
Plate Light	12V 5W	
Dashboard Warning Light	LED	
Warning Lights:		
"FUEL LEVEL"	LED	
"DIRECTION"	LED	
"NEUTRAL"	LED	
"HEADLIGHTS ON FULL BEAM"	LED	
"PARKING LIGHTS"	LED	
Amperage:		
Main Fuse	10A	

SERVICING TECHNICAL DATA

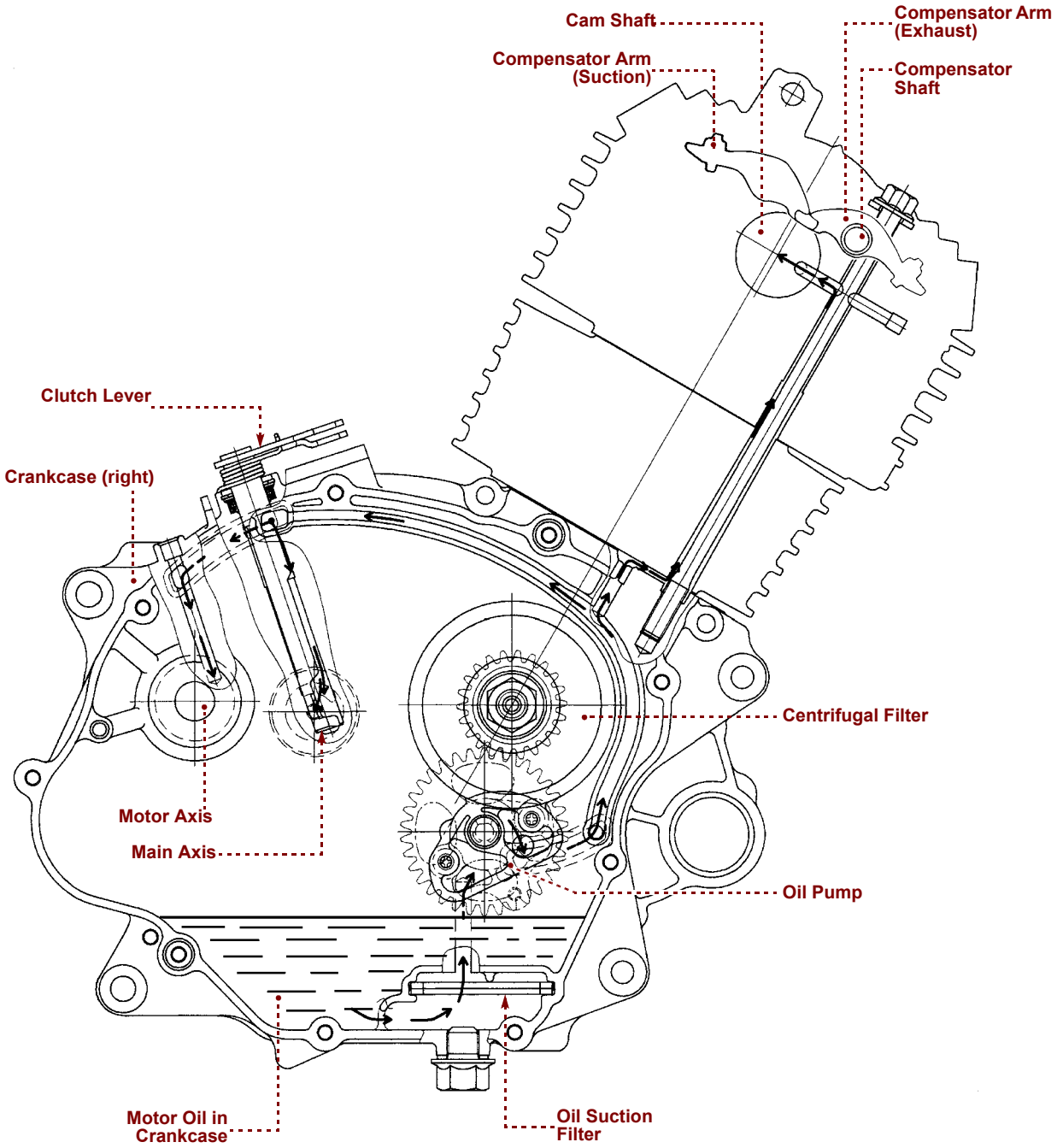
ENGINE

Picture	Description	Standard	Limit
	**Cylinder Head:**		
	Planarity Error	The lines indicate the points for the planarity measures.	0.03 mm
	Cylinder:		
	Hole size	54.00~54.020 mm	-
	**Piston:**		
	Piston Diameter **(D)**	53.977~53.996 mm	-
	Measure Point **(H)**	4.5 mm	-
	Piston/Cylinder Clearance	0.020~0.028 mm	0.15 mm
	Hole diameter **(F)**	15.002~15.013 mm	-
	Pin Diameter	14.991~15.000 mm	-
	Timing System:		
	Type of Drive	Chain drive	-
	**Timing Cams:**		
	Inlet Cam Height **(A)**	25.881~25.981 mm	25.851 mm
	Exhaust Cam Height **(A)**	25.841~25.941 mm	25.811 mm
	Inlet Cam Width **(B)**	21.195~21.295 mm	21.165 mm
	Exhaust Cam Width **(B)**	21.05~21.15 mm	21.02 mm
	Inlet Cam Height **(C)**	4.391 mm	-
	Timing Shaft Eccentricity	-	0.03 mm
	Compensators:		
	Bearing Inner Diameter	10.000~10.015 mm	10.03 mm
	Bearing Outer Diameter	9.981~9.991 mm	9.95 mm
	Timing Chain:		
	Type	Bush chain/P	-
	Pitch per Link Number	6.35 x 88	-
	Adjustment	Automatic	-
	**Valves, Housings and Guides:**		
	Inlet Valve Clearance (Cold Operation)	0.08~0.12 mm	-
	Exhaust Valve Clearance (Cold Operation)	0.10~0.14 mm	-
	Inlet Valve Diameter **(A)**	25.9~26.1 mm	-
	Exhaust Valve Diameter **(A)**	21.9~22.1 mm	-
	Inlet Valve Width **(B)**	1.1~3.0 mm	-

Picture	Description	Standard	Limit
	Exhaust Valve Width **(B)**	1.7~2.8 mm	-
	Valve Housing Width **(C)**	0.9~1.1 mm	1.6 mm
	Inlet Valve Thickness **(D)**	0.4~0.8 mm	-
	Exhaust Valve Thickness **(D)**	0.8~1.2 mm	-
	Diameter of Inlet Valve Stem	4.975~4.990 mm	4.950 mm
	Diameter of Exhaust Valve Stem	4.960~4.975 mm	4.935 mm
	Diameter of Inlet Valve Guides	5.000~5.012 mm	5.042 mm
	Clearance of Inlet valve Guide/Stem	0.010~0.037 mm	0.08 mm
	Clearance of Exhaust Valve Guide/Stem	0.025~0.052 mm	0.10 mm
	Valve Stem Eccentricity	-	0.010 mm
	**Valve Springs:**		
	Free Length	38.78 mm	37.0 mm
	Spring Length when the Valve is Closed	25.6 mm	-
	Compression	13.2~15.5 kgf (132~155 N)	-
	Winding Direction (from top)	Clockwise	-
	**Upper Piston Ring:**		
	Type	Barrel	-
	Dimensions **(BxT)**	1.0x2.1 mm	-
	Distance between Ends (when installed)	0.15~0.30 mm	0.4 mm
	Side Clearance	0.03~0.07 mm	0.12 mm
	**Intermediate Piston Ring:**		
	Type	Taper	-
	Dimensions **(BxT)**	1.0x2.1 mm	-
	Distance between Ends (when installed)	0.15~0.30 mm	0.4 mm
	Side Clearance	0.02~0.06 mm	0.12 mm
	**Lower Piston Ring:**		
	Dimensions **(BxT)**	2.0x2.2 mm	-
	Distance between Ends (when installed)	0.2~0.7 mm	-
	**Drive Shaft:**		
	Crank Width **(A)**	46.95~47.00 mm	-
	Eccentricity **(C)**	-	0.03 mm
	Side Clearance of Big End of the Connecting Rod **(D)**	0.15~0.45 mm	-
	Side Clearance of Small End of the Connecting Rod **(E)**	-	0.8 mm

Picture	Description	Standard	Limit
	Clutch:		
	Clutch Disc Thickness (conductors)	2.92~3.08 mm	2.80 mm
	Quantity	5 pcs	-
	Clutch Disc Thickness (conduced)	1.05~1.35 mm	0.05 mm
	Quantity	4 pcs	-
	Clutch Spring Free Length	31 mm	-
	Quantity	4 pcs	-
	Min. Free Length	29 mm	-
	Carburettor:		
	ID Mark	3D6	-
	Main Jet	#105	-
	Main Air Jet	1.2	-
	Jet Pin	5EJ9-2	-
	Jet Needle	N-7M(913)	-
	Min. Output	f1.05	-
	Min. Jet	#12.5	-
	Bypass	1.6	-
	Adjusting Screw Rev	1	-
	Valve Housing Dimensions	1.8	-
	Starter Jet	22.5	-
	Jet Power	#60	-
	Fuel Level	7.5 mm	-
	Float Height	18.9 mm	-
	Min. Speed	1600~1800 RPM	-

LUBRICATION DIAGRAMS



CAUTION: Do not damage the crankcase surface to avoid oil leakage.

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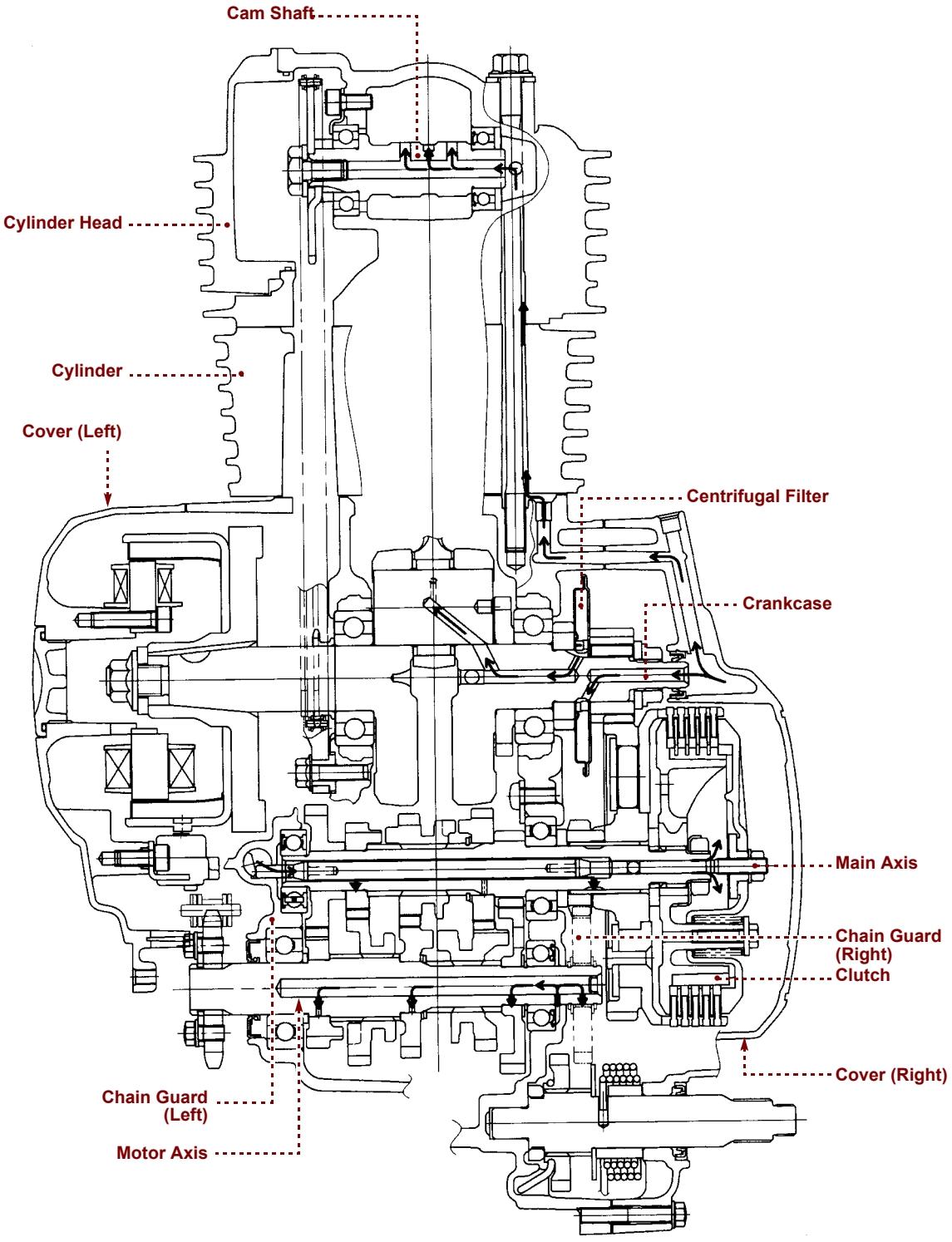

CAUTION: To enhance performance, always use “Yamalube” oil.

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ENGINE TIGHTENING TORQUES

Components To Be Tightened	Type	Q.ty	Thread	Tightening Torque		Notes
				Kg*m	N*m	
Cylinder Head	Screw Screw	4 2	M8 M6	2.2 1.0	22 10	Oil check
Plug	-	1	M10	1.25	12.5	
Cylinder Head Side Guard	Screw	2	M6	1.0	10	
Valve Cap	-	2	M45	1.75	17.5	
Magnet Rotor	Screw	1	M12	7.0	70	
Chain Guide	Screw	1	M6	1.0	10	
Adjusting Screw	Nut	2	M5	0.75	7.5	
Timing Chain Pinion	Screw	1	M8	2.0	20	
Camshaft Locking Plate	Screw	1	M6	1.0	10	
Plug (Turnbuckle)	Plug	1	M8	0.75	7.5	
Turnbuckle Unit	Screw	2	M6	1.0	10	
Oil Pump	Screw	2	M6	0.7	7	
Drain Plug	Screw	1	M12	2.0	20	
Manifold	Screw	2	M6	1.0	10	
Carburettor/Manifold Clamp	Screw	1	M4	0.2	2	
Carburettor/Air Filter Clamp	Screw	1	M4	0.2	2	
Silencer	Screw	2	M6	1.0	10	
Oil Sump Torque	Screw Screw Screw	2 7 1	M6 M6 M6	1.0 1.0 1.0	10 10 10	
Flywheel Side Cap	Screw Screw Screw	4 2 1	M6 M6 M6	1.0 1.0 1.0	10 10 10	
Clutch Side Cap	Screw Screw Screw	6 2 1	M6 M6 M6	1.0 1.0 1.0	10 10 10	
Plate	Screw	1	M6	0.7	7	
Ignition Stage Control Plug	Screw	1	M14	0.7	7	
Main Plug	Screw	1	M32	0.7	7	
Starting Pedal Crank Base	Nut	1	M12	5.0	50	
Engine Pinion	Nut	1	M12	7.0	70	
Disc Pusher	Screw	4	M5	0.6	6	
Clutch Hub	Nut	1	M12	6.0	60	
Clutch Disc Pusher Rod	Nut	1	M6	0.8	8	With locking washer
Locking Plate	Screw	2	M6	1.0	10	
Engine Pinion	Screw	2	M8	1.0	10	
Gear Indicator Lever	Screw	1	M6	1.0	10	
Desmodronic Pulling Cam	Screw	1	M6	1.2	12	
Pick-up	Screw	2	M6	1.0	10	
Idling Light Sensor	-	1	M10	0.4	4	
Stator	Screw	3	M6	1.0	10	
Oil Pressure Checkscrew	Screw	1	-	0.7	7	

FRAME

Detail	Standard		Limit	
	XT 125R	XT 125X	XT 125R	XT 125X
Front Wheel:				
Type	Spoked wheel	Spoked wheel		
Rim Dimensions	21x1.85	17x2.50		
Rim Material	Aluminium	Aluminium		
Stroke	170 mm (6.69'')	170 mm (6.69'')		
Max. Radial Clearance	1 mm	1 mm		
Max. Side Clearance	0.5 mm	0.5 mm		
Rear Wheel:				
Type	Spoked wheel	Spoked wheel		
Rim Dimensions	18x2.50	17x3.00		
Rim Material	Aluminium	Aluminium		
Stroke	190 mm (7.48")	190 mm (7.48")		
Max. Radial Clearance	1 mm (0.04")	1 mm (0.04")		
Max. Side Clearance	0.5 mm (0.02")	0.5 mm (0.02")		
Front Disc Brake:				
Disc Dimensions	245.0x3.5 mm	260.0x3.5 mm		
Inside Pad Lining Thickness	3 mm	3 mm	0.8 mm	0.8 mm
Inside Pad Lining Thickness	3 mm	3 mm	0.8 mm	0.8 mm
Pump Piston Diameter	11 mm	11 mm		
Piston Pliers Diameter	32 mm	25 mm		
Recommended Fluid	DOT 4	DOT 4		
Rear Disk Brake:				
Disc Dimensions	218x3.5 mm			
Inside Pad Lining Thickness	4 mm		1.0 mm	
Inside Pad Lining Thickness	4 mm		1.0 mm	
Pump Piston Diameter	12.7 mm			
Piston Pliers Diameter	32 mm			
Recommended Fluid	DOT 4			
Steering System:				
Type of Steering System	Conical roller bearing			
Bearing Quantity	1 upper/1 lower			

Detail	Standard		Limit	
	XT 125R	XT 125X	XT 125R	XT 125X
Front Suspension:				
Fork Free Length	575 mm			
Spring Stiffness K1	4.8 N/mm			
Spring Stroke K1 (Packed Spring)	250 mm			
Available Optional Spring	NO			
Recommended Oil	SAE10			
Quantity	285 cc/Rod			
Level	180 mm (limit stop, with no spring)			
Rear Suspension:				
Type	Swinging Arm			
Rear Shock Absorber Compression	45 mm			
Spring Free Length	163 mm			
Spring Length when Installed	158 mm			
Spring Preload	Hard/Soft (5 mm)			
Spring Stiffness (K)	17.7 daN/mm			
Spring Stroke	55 mm			
Available Optional Spring	YES			
Gas/Air Pressure Included	12.5±3 bars			
Drive Chain:				
Type/Manufacturer	428H G&G/DID	428H G&G/DID		
Articulated Joint N.	128	126		
Front Brake Lever/Rear Brake Pedal:				
Front Brake Lever Clearance	2~5 mm			
Brake Pedal Clearance	15 mm			

FRAME TIGHTENING TORQUES

Components To Be Tightened	*Type*	*Q.ty*	*Thread*	*Tightening Torque*		*Notes*
				kg∗m	*N∗m*	
Front Wheel Pin	Screw	1	M14x1.5	4.5	45	
Front Wheel Pin Locking	Screw	1	M8x25	2.0	20	
Front Brake Pliers	Screw	2	M8	3.0	30	
Muffler Side Connection	Screw	3	M6	0.8	8	
Engine Rear Connection	Screw	2	M8	2.3	23	
Fork Pin	Screw	1	M14x1.5	6.0	60	
Engine Front Connection	Screw	2	M8	2.3	23	
Front Pump Clamp	Screw	2	M6	0.6	6	
Rear Wheel	Screw	1	M14x1.5	8.5	85	
Command Clamp	Screw	2	M6	0.3	3	
Rear Shock Absorber	Screw	2	M10	4.5	45	
Upper Cross	Screw	2	M8	1.95	19.5	
Handlebar U-bolt	Screw	4	M8	2.15	21.5	
Steering System	Nut	1	M25x1	3.0	30	
Rear Frame	Screw	4	M8	2.0	20	
Silencer	Screw	1	M8	2.3	23	

ELECTRICAL SYSTEM

Model	*XT 125R*	*XT 125X*
System Voltage	12V	
Starting System:		
Type of Starting System	C.D.I.	
Spark Lead (B.T.D.C.)	0° at 1400 RPM	
Type of Ignition	Electric Ignition	
C.D.I. Control Unit:		
Magnet Flywheel/Manufacturer	3D6-MORIYAMA	
Pick-up Winding Resistance (Ohm)	240±20% at 20°C (68°F) (Blue/Yellow-Green)	
CDI Control Unit, Model/Manufacturer	5HH-DENSO	
Starting Coil:		
Model/Manufacturer	5HH	
Primary Winding Resistance (Ohm)	0.3±10% at 20°C (68°F)	
Secondary Winding Resistance (kOhm)	3.16±10% at 20°C (68°F)	
Recharge System		
Type	Magnet Flywheel	
Model/Manufacturer	3D6 MORIYAMA	
Charge Voltage	14V	
Rated Power	1.0A (3000 RPM)~2.0A (8000 RPM)	
Recharge Winding Resistance (Ohm)	0.64±20% at 20°C (68°F) (White-Black)	
Lighting:		
Min. Voltage	12V/3000 RPM	
Max. Voltage	15V/8000 RPM	
Winding Resistance (Ohm)	0.49±20% at 20°C (68°F) (Yellow-Black)	
Regulator:		
Type of Regulator	Semiconductor-shortcircuit	
No-load Voltage	13~14V	
Rectifier:		
Rectifier Capacity	8A	
Resistance Voltage	400V	
Battery:		
Battery Voltage/Capacity	12V 6.5Ah	
Indicator Lights		
Indicator Light (Idling)	LED	
Indicator	LED	
Indicator for Headlights on Full Beam	LED	

Model	*XT 125R*	*XT 125X*	*Limit*
Engine Starting System:			
Type of Starting System	Electrical Starter and Foot Lever		
Starting Motor:			
Model/Manufacturer	3MB/Moric		
Output Power	0.2 kW		
Winding Resistance	0.0315~0.0385<Ohm> 20°C		
Brush Dimensions	5x7x7mm		3.5 mm
Brush Spring Strength	4.9 N ±20%		3.92 N
Selector Diameter	17.6 mm		16.6 mm
Mica Recess (Depth)	1.35 mm		
Starting Relay:			
Model/Manufacturer	NAIS		
Amperage	70A		
Winding Resistance	90÷100 Ohm		
Horn:			
Type of Horn	Flat		
Quantity	1		
Model/Manufacturer	K70H/LEB		
Max. Amperage	<3A		
Performance	105~118db(A)		
Indicator Relay:			
Type	Electronic		
Model/Manufacturer	Cablologica/CBL		
Flashing Frequency	80~160 cycles/min		
Power	10+10+2W		

WIRING (1)

1) Clutch wire
2) Carburettor starter wire
3) Front left indicator wires
4) Front right indicator wires
5) Wires for headlight on full beam, on low beam
6) Parking light wires
7) Clutch switch wire
8) Front brake switch wire
9) Front brake drive
10) Mileometer wire
11) Gas control wire
12) Start control wire
13) Horn wires
14) Dashboard connector
15) Key-selector switch connector
16) AIS valve hose - exhaust manifold
17) Filter box hose - AIS valve
18) AIS valve vacuum pipe
19) Exhaust pipe
20) Flywheel connectors
21) Idling warning light wire
22) Tank cock vacuum pipe
23) Fuel feeding pipe
24) Air AIS valve
25) Regulator
26) Starting relay
27) Intermittence
28) Thermal sensor
29) Regulator ground lug
30) Carburettor PTC heater
31) Starting selector switch

What To Do

1 -Insert device **(A)** after connecting connector **(14)** and lock the rubber clamp **(B)**.

2 -Bring wires inside frame **(C)** and lock them with clamps **(D)**.

3 -To disconnect connector **(15)**, cut clamps **(E)** and remove rubber cover **(F)**.

4 -Insert clutch wire **(1)** inside cable gland **(G)**.

5 -Insert wire **(21)** inside the housing located on the engine carter; use screw **(N)** to lock the wire to the idling switch.

6 -Join pipe **(17)** to pipe **(18)** with clamp **(H)**.

7 -Fasten exhaust pipes **(19)** with clamp **(L)** and cable glands **(M)**.

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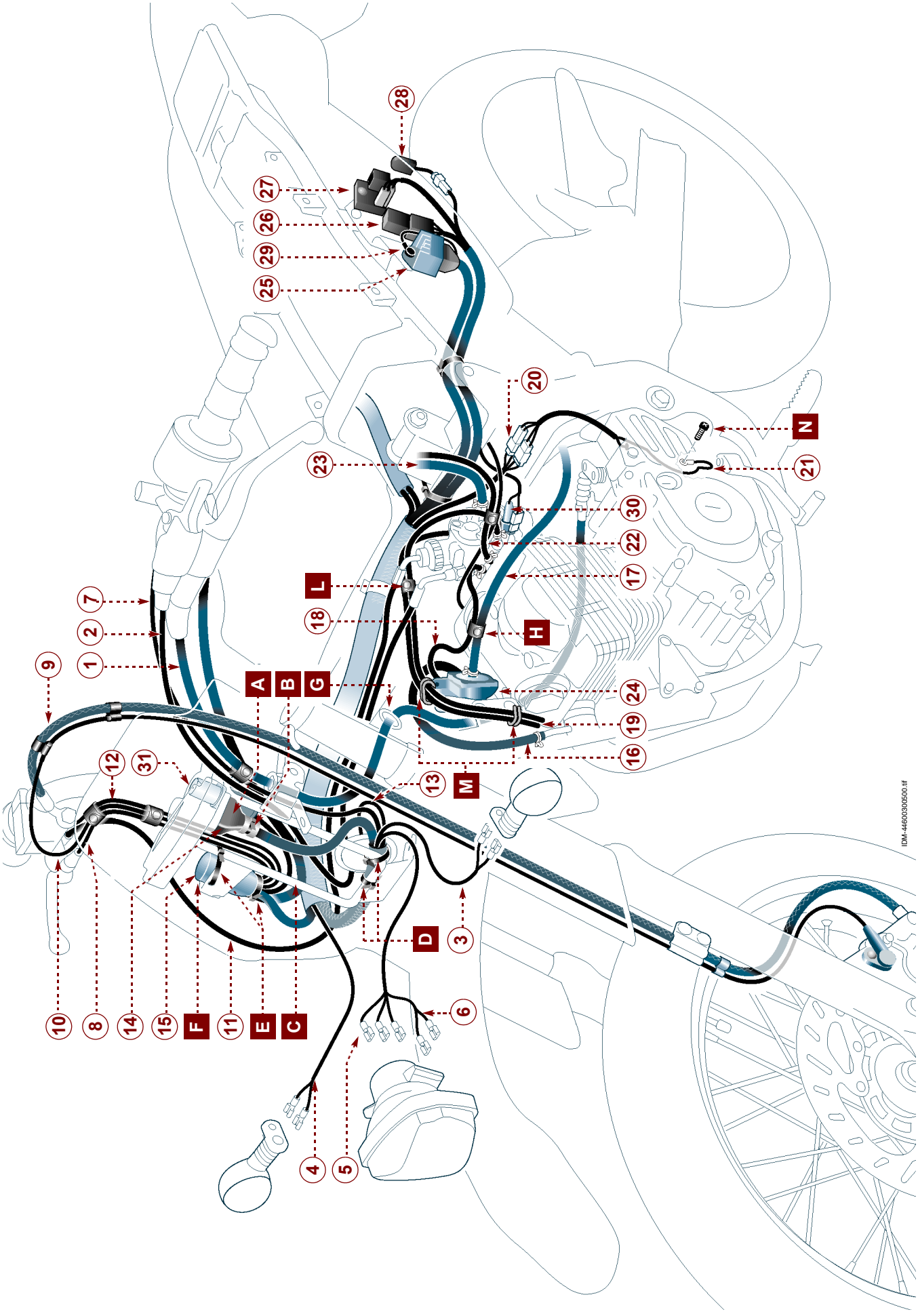
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WIRING (2)

1) Gas control wire
2) Carburettor starter wire
3) Clutch wire
4) Starter motor wire
5) AIS valve hose - exhaust manifold
6) Plug wire
7) AIS valve vacuum pipe
8) Air AIS valve
9) Coil
10) Coil feeding wire
11) Fuel probe connector
12) Tank cock vacuum pipe
13) Fuel feeding pipe
14) Exhaust pipe
15) Oil tank pipe- rear brake pump
16) Rear brake switch wire
17) Rear pliers oil drive
18) Battery
19) Fuse (10A)
20) CDI control unit
21) Rear right indicator wires
22) Rear left indicator wires
23) Rear light/brake wires
24) Plate light wires
25) Ground lug
26) Battery positive wire (red)
27) Battery negative wire (black)
28) Rear brake switch

What To Do

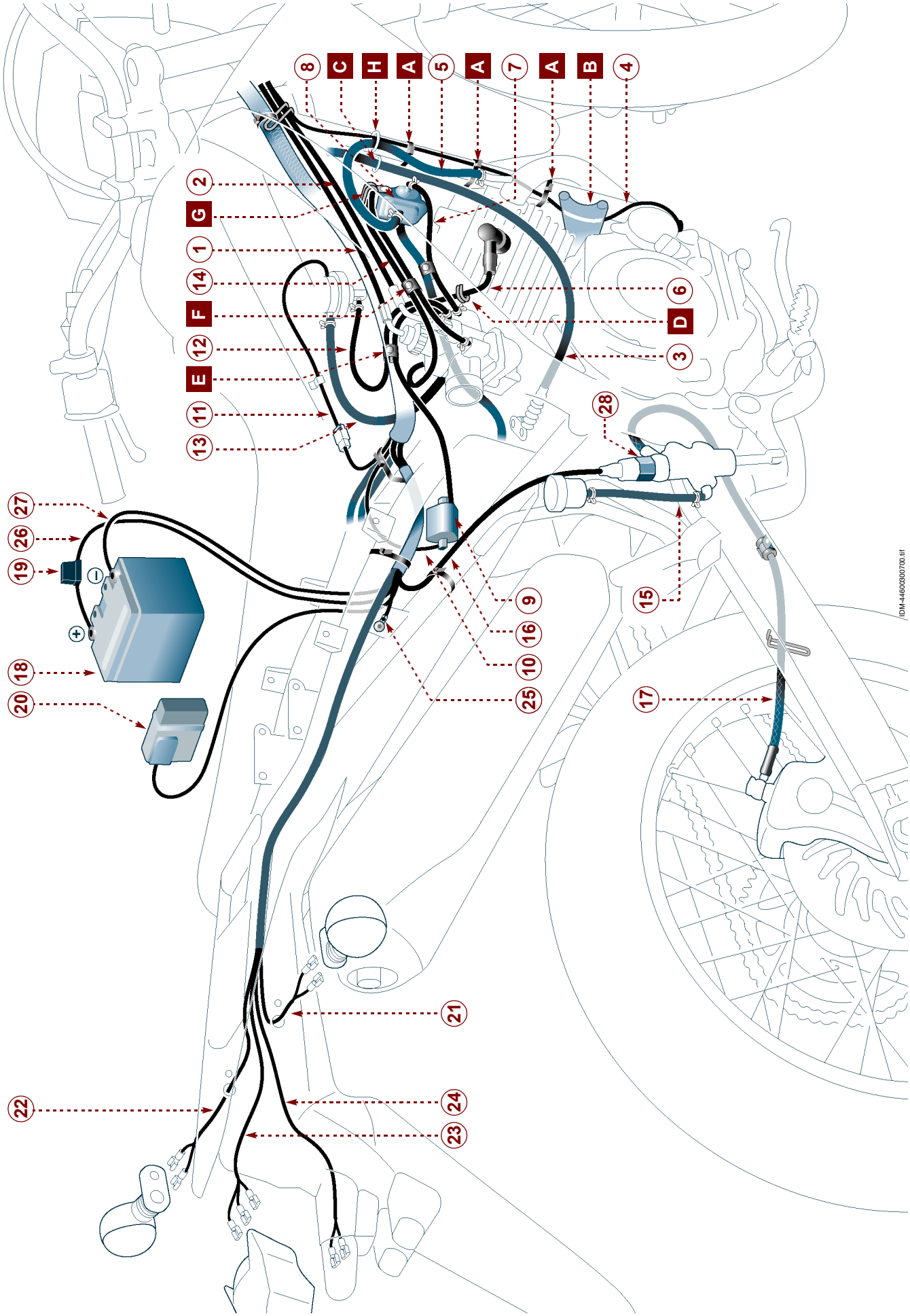
1 -Fasten wire **(4)** to the motorcycle frame with three clamps **(A)**; bring it inside plate **(B)** and cable gland **(H)**.

2 -Insert clutch wire **(3)** inside cable gland **(C)**.

3 -Fasten plug wire **(6)** with cable gland **(D)** and join to pipe **(12)** with clamp **(E)**.

4 -Fasten exhaust pipes **(14)** with clamp **(F)** and cable gland **(G)**.

5 -Insert pipe **(5)** inside cable gland **(H)**.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SCHEDULED SERVICING AND ADJUSTMENT

SCHEDULED MAINTENANCE AND GREASING

Component	*What To Do*	*1,000 km*	*6,000 km*	*every 6,000 km or every 12 months*
Valves*	Check noise/Adjust, if required.	X	X	X
Spark Plug	Check spark plug condition and clean, if required. If required, replace spark plug every 12,000 km.	X	X	X
Air Filter	Clean or replace, if required.	X	X	X
Carburettor*	Adjust.	X	X	X
Battery	Check electrolyte level and exhaust pipe path.	X	X	X
Engine Oil	Change.	X	X	X
Muffler	Check to see any damage. Tighten.		X	X
Brakes*	Check operation, adjust lever stroke. Check pad thickness.	X	X	X
Rear Arm Pin*	Check arm tightening. Do not exaggerate greasing.		X	X
Wheels and Tyres	Check tyre pressure, wear and tightening.	X	X	X
Wheel Bearings*	Check tightening; check to see if damaged.		X	X
Steering System Bearings*	Check tightening. Grease every 12,000 km or every 12 months.**	X	X	X
Front Forks*	Check operation/oil leakage.	X	X	X
Rear Shock Absorber*	Check operation/oil leakage.	X	X	X
Drive Chain	Check if loosen/grease and adjust, if required.		Every 500 km	
Fastening/locking Parts	Check tightening.	X	X	X
Side Stand	Check serviceability and tightening.	X	X	X
Control Wires: Gas Feeding/Clutch/ Front Brake	Adjust/check serviceability. Grease every 12,000 km	X	X	X
Lights and Indicators	Check operation.	X	X	X
Bolts and Nuts	Check tightening.	X	X	X
Motorcycle Appearance	Check.	X	X	X

* Address to a Yamaha Dealer.
** Molybdenum-bisulphide grease.
*** Lithium soap grease.

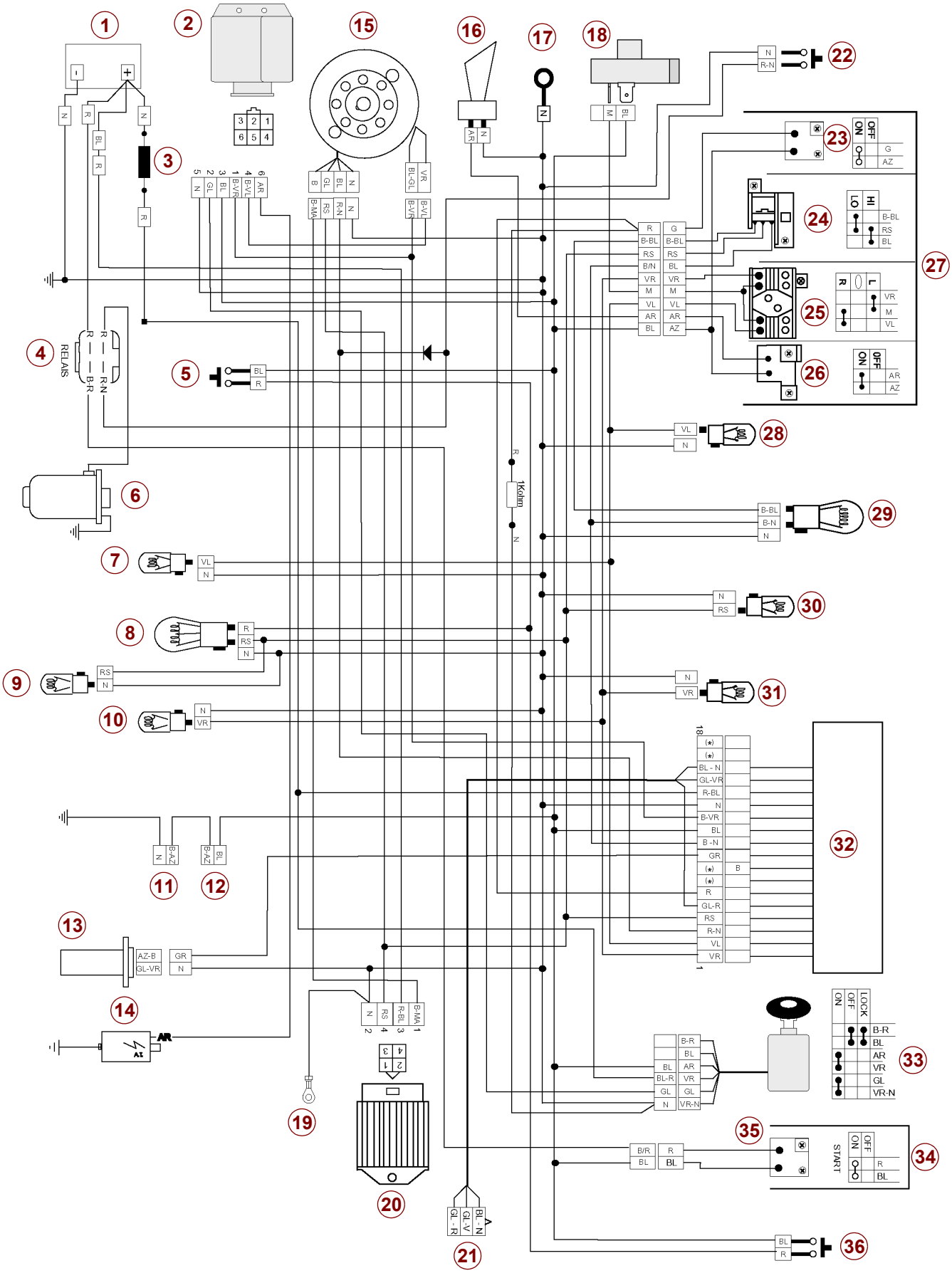
WIRING DIAGRAM

1) Battery (12V)
2) Control unit
3) Fuse (10A)
4) Starting relay
5) Rear brake switch
6) Starter motor
7) Front left indicator
8) Rear light/brake
9) Plate light
10) Front right indicator
11) PTC heater
12) Thermal sensor
13) Fuel emergency sensor
14) Coil
15) Magnet flywheel
16) Horn
17) Frame ground
18) Intermittence
19) Regulator ground
20) Regulator
21) Tachometer sensor
22) Clutch wire
23) Display function command
24) Light command
25) Indicator command
26) Horn command
27) Left command unit
28) Rear left indicator
29) Headlight on full beam/on low beam
30) Parking light
31) Rear right indicator
32) Dashboard
33) Key selector switch
34) Right command unit
35) Starting command
36) Front brake switch

Colours

AR	Orange
AZ	Light blue
AZ-B	Light Blue-White
B	White
B-N	White-Black
B-MA	White-Brown
B-R	White-Red
B-VL	White-Purple
B-VR	White-Green
BL	Blue
BL-B	Blue-White
BL-GL	Blue-Yellow
BL-N	Blue-Black
BL-R	Blue-Red
GL	Yellow
GL-B	Yellow-White
GL-N	Yellow-Black
GL-R	Yellow-Red
GL-VR	Yellow-Green
GR	Grey
M	Brown
N	Black
R	Red
RS	Pink
VL	Purple
VR	Green
VL-GL	Purple-Yellow

WIRING DIAGRAM



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(*) Available