



ROYAL ENFIELD SERVICE MANUAL

LS410

PREFACE

"FIRST TIME RIGHT" is a very important element for enhancing Customer Satisfaction.

Royal Enfield is committed to upgradethe skills and knowledge of technicians so that they follow scientific repair techniques to ensure "FIRST TIME RIGHT" practices and carry out repairs accurately so that customers will enjoy trouble free performance at all times.

This manual will help in complete understanding of systematic procedures for dismantling, inspection, diagnosis and reassembly of the new range of Royal Enfield, LS 410Single Cylinder, 4 Stroke, Overhead Cam, Air Cooled with Oil cooler Engine, in a simple and scientific manner.

While this manual is updated with latest Information and Specifications, at the time of going to print, due to continuous improvements being done to improve performance, some of the data, illustrations etc., in this manual may differ from the actual parts fitted in the engine.

Please do feel free to write to us at customerservice@royalenfield.com, if you have any queries, clarification, suggestions or feedback.

With warm regards

SERVICE HEAD QUARTERS

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Part No: 888438 / March '16

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ENGINE VIEWS LH & RH

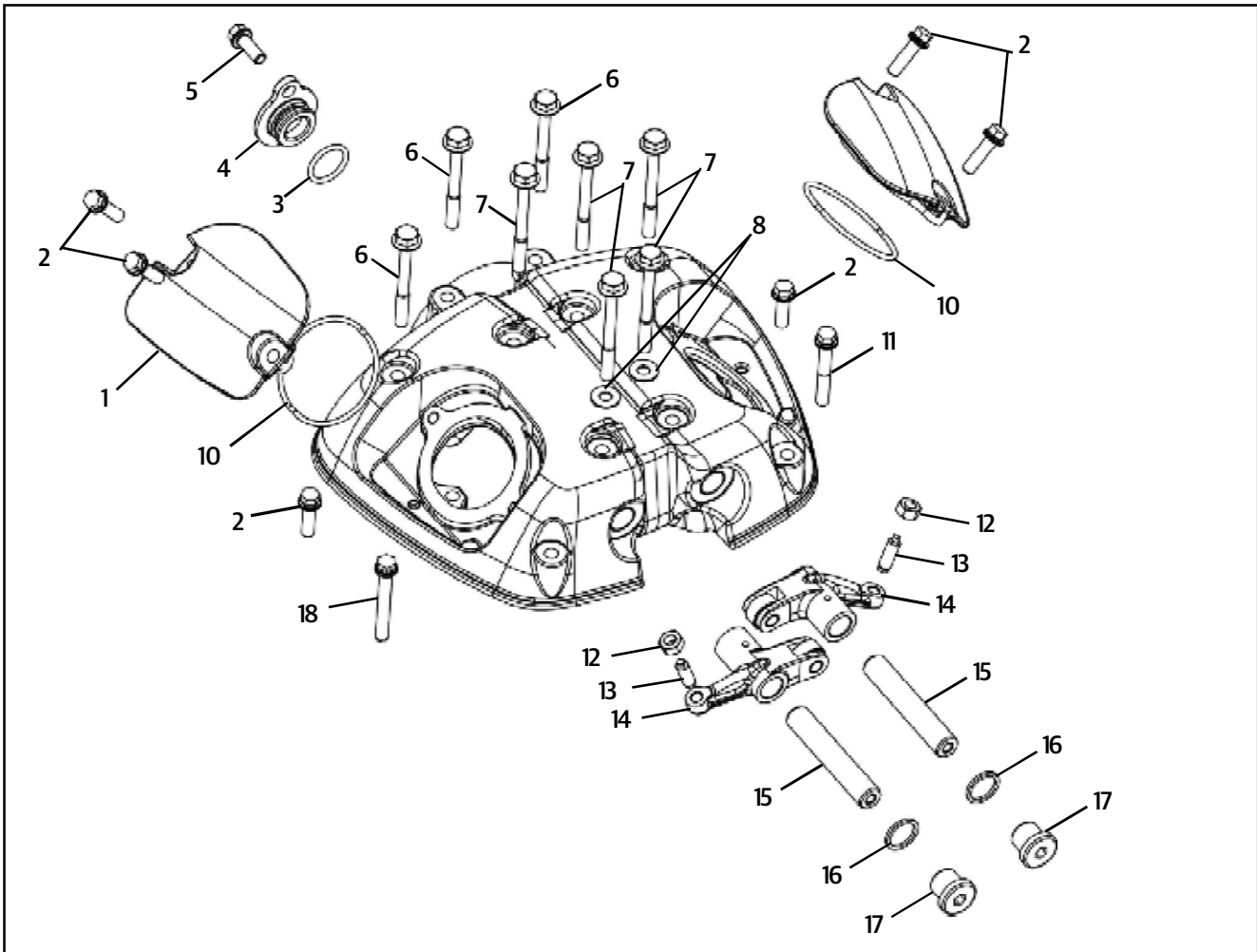


TECHNICAL SPECIFICATIONS

ENGINE & ENGINE SYSTEMS		
A. ENGINE		LS 410
1	Type	Single Cylinder, 4 Stroke SOHC
2	Bore	78 mm
3	Stroke	86 mm
4	Displacement	411 cc
5	Compression ratio	9.5 : 1
6	Max Power @ RPM	24.5 BHP(18.02 Kw @ 6500 RPM)
7	Max Torque @ RPM	32 Nm @ 4250 + 250 RPM
8	Idle RPM	1150 - 1500 RPM
9	Starting	Electric Start
10	Air filter element	Paper element
11	Lubrication	Forced Lubrication, Wet Sump
12	Engine oil tank capacity (1 st Dry fill/ fill after complete Engine Overhaul)	2.3 litres
	Engine oil tank capacity(Routine Oil change/ Subsequent refills)	2.0 litres
13	Engine oil grade	SAE 15W 50 API SL Grade JASO MA 2
14	Cooling	Forced Air Cooled with Oil Cooler
B. TRANSMISSION		
1	Clutch	Wet Multiplate
2	Primary drive	Gear
3	Primary ratio	2.31: 1
4	Gear box	5 Speed Constant Mesh
5	Gear Ratios	
	1 st Gear	2.92 : 1
	2 nd Gear	1.83 : 1
	3 rd Gear	1.43 : 1
	4 th Gear	1.17 : 1
5 th Gear	1 : 1	
6	Secondary drive	Sprockets & Chain (5/8" Pitch)
7	Secondary ratio	2.53 : 1
C. FUEL		
1	Fuel	Petrol
2	Induction	CV Carburetor
D. IGNITION		Digital Spark Ignition - TCI System
1	Ignition Advance	5 - 30°
2	Spark plug	Bosch - UR5CC
3	Spark plug gap	0.7 to 0.8 mm
E. ELECTRICALS		
1	System	12V - DC
2	Generation	Alternator
3	Alternator Output	170W @ 1500 RPM

EXPLODED VIEWS

CYLINDER HEAD COVER ASSEMBLY



S.NO.	DESCRIPTION
1	Cover - Tappet Inlet
2	Hex Flange Bolt-M6 X 21
3	'O' Ring - Camshaft Hole
4	Plug - Camshaft Hole
5	Hex Flange Bolt - M6 X 16
6	Hex Flange Bolt - M6 X 55
7	Hex Flange Bolt - M6 X 60
8	Gasket Washer - 6.2 X 14 X 1
9	Cover - Tappet Exhaust

S.NO.	DESCRIPTION
10	O' Ring - Tappet
11	Hex Flange Bolt - M6 X 40
12	Nut - Tappet Adjusting
13	Screws Tappet Adjusting
14	Arm comp valve Rocker
15	Shaft Valve Rocker Arm
16	Copper Washer
17	Plug - Rocker Shaft
18	Hex Flange Bolt - M6 X 45