FOREWORD

This manual is a maintenance and servicing guide for the HONDA 450, the largest in the series HONDA matorcycles.

The description and information is based on the Model CB450, however, since the Model CL450 is very similar in design and performance, the manual is also applicable to this model equally as well. The areas of difference are specifically noted both by description and figures.

Each section contains a general description of operation for the respective components and the unique design features attributing to the superior performances of these models.

Service and maintenance procedures are outlined in detail to enable the shop personnel to locate the problems rapidly and make repairs with much saving in time.

This manual has been prepared by major groups, assemblies and sections for easy use. Further, all work procedures are descriptive and accompanied by many photographs and drawings for clarity.

HONDA MOTOR CO., LTD.

Service Pablications Office

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CONTENTS

1. FEATURES

CB/CL 450 SHOP MANUAL

The Honda CB 450 has been specially designed for use as a sports motorcycle by increasing the engine power output and mounting it on a newly engineered lightweight frame of greater rigidity. The performance and handling is further improved by incorporating a 5-speed transmission to meet the full range of condition from high speed sports riding to operating over rough country roads.

The CL 450 is identical to the CB 450 with the distinct difference being in the setting of the carburetor, and design of the frame components to provide a sports motorcycle suitable for touring and rugged riding.

1. ENGINE

-1 Description

Air-cooled, 4-cycle, vertical side-by-side, twin cylinder gasoline engine with a double overhead camshaft.

-2 Cylinder head and combustion chamber

Cylinder head is a high strength aluminum alloy casting with a special cast iron valve seat inserts. Further, the combustion chamber is a semi spherical design incorporating a squish area for greater efficiency.

-3 Crankshaft

Precisionly balanced crankshaft is mounted on four main roller bearings for minimum friction.

-4 Valve mechanism

Camshaft is driven by and endless chain which is maintained at a constant tension by an adjustable tensioner assembly and guide rollers distributed uniformly over the entire length of the chain for greater operating stability and rugged service. In addition, torsion bar valve springs are used for increasing the power output.

-5 Carburetor

By the use of a dual loaded servo carburetors, a stable and smooth highly efficient engine operation is obtained over the entire speed range.

-6 Lubrication

A pressure lubrication system provided by the efficient plunger pump, and incorporating a dual screen and centrifugal filters provide highly purified oil to the engine moving components (crankshaft, transmission, etc.) assuring a minimum of wear.

-7 Ignition system

A 12 V battery ignition system is used.

-8 Air cleaner

A formed box one piece air cleaner silences the air inlet noise as well as efficiently protecting the engine from rain dust and dirt.

-9 The CL 450 mounts the same engine as the CB 450 with the difference in the exhaust system which is designed to provide a power characteristic favorable in the lower speed range for superior

riding performance on rough terrain. In conjunction with the design in the exhaust system, the carburetor setting is also different.

2. FRAME

-1 Frame body

Main structural member of frame is made of high strength steel tubing and designed as a semi-double cradle frame.

-2 Front and rear suspension

Front wheel suspension is a telescoping oil damper type having an aluminum alloy bottom case for lightness.

Rear wheel suspension is a welded steel tubing, cross member, swing arm type rear fork cushion for both the front and rear are made longer for improved comfort.

-3 Big tires, 3.25-18 for the front and 3.50-18 for the rear are mounted on the CB450 for greater comfort and better stability.

The CL 450 mounts a 3.25-19 on the front and 3.50-18 on the rear wheels with block pattern tread for good stability on rough roads.

-4 Friction type steering damper is used for improved handling.

-5 The frame of the CL 450 is higher to prevent the components from contacting the ground in case of fall.

2. SPECIFICATIONS

CB 450 (AH Type)

mm (in.)

ITEM	CB 450	CB 450 K1	CB 450 K2	CB 450 K3	CB 450 K4	CB 450 K5	CB 450 K6	CB 450 K7
DIMENSION								
Overall length	2115 (83.3)	2065	←	2100 (82.7)	←	2115 (83.3)	←	←
Overall width	775 (30.5)	775 (30.5)	←	800 (31.5)	←	830 (32.6)	←	←
Overall height	1090 (43.0)	←	←	1140 (44.9)	←	1150 (45.2)	←	←
Seat height	790 (31.0)	←	←	815 (32.1)	←	←	←	←
Ground clearance	140 (5.5)	←	←	135 (5.3)	←	140 (5.5)	←	←
FRAME								
Type	Semi-double cradle	←	←	←	←	←	←	←
F. suspension, travel	Telescopic fork	←	←	←	←	←	←	←
R. Suspension, travel	Swing arm	←	←	←	←	←	←	←
F. tire size, pressure	3.25–18 (4 PR)	←	←	←	←	←	←	←
R. tire size, pressure	3.50–18 (4 PR)	←	←	←	←	←	←	←
F. Brake	Internal expansion	←	←	←	←	←	←	←
Fuel capacity	12.5 lit (3.3 US. gal, 2.8 Imp. gal)	←	13.5 lit. (3.6 U.S.gal)	←	←	←	←	←
Fuel reserve capacity	1.8 lit. (0.5 US. gal 0.4 Imp. gal)	←	←	←	←	←	←	←
ENGINE								
Type	D.O.H.C twin cylinder air cooled 4 stroke	←	←	←	←	←	←	←
Cylinder arrengement	Vertical twin cylinder	←	←	←	←	←	←	←
Bore and stroke	70 × 57.8 (2.756 × 2.276)	←	←	←	←	←	←	←
Displacement	444 cc (27.09 cu-in)	←	←	←	←	←	←	←
Compression ratio	9.0 : 1	←	←	←	←	←	←	←
Valve train	Chain driven double over head camshaft	←	←	←	←	←	←	←
Oil capacity	2.8 lit. (3.0 US. qt 2.5 Imp. qt)	←	←	←	←	←	←	←
Lubrication system	Forced and wet sump	←	←	←	←	←	←	←
Intake Opens	10	←	←	←	←	←	←	←
Intake Closes	40	←	←	←	←	←	←	←
Exhaust valve Opens	40	←	←	←	←	←	←	←
Exhaust valve Closes	10	←	←	←	←	←	←	←
Valve tappet clearnce	0.03 (0.0012)	←	←	←	←	←	←	←
Idle speed	1000 rpm	←	←	←	←	←	←	←

ITEM	CB 450	CB 450 K1	CB 450 K2	CB 450 K3	CB 450 K4	CB 450 K5	CB 450 K6	CB 450 K7
DRIVE TRAIN								
Clutch	Wet, multi-plate type	←	←	←	←	←	←	←
Transmission	Five-speed for ward constant mesh	←	←	←	←	←	←	←
Primary reduction	3.304	←	←	←	←	←	←	←
Gear ratio I	2.412	←	←	←	←	←	←	←
Gear ratio II	1.636	←	←	←	←	←	←	←
Gear ratio III	1.269	←	←	←	←	←	←	←
Gear ratio IV	1.000	←	←	←	←	←	←	←
Gear ratio V	0.844	←	←	←	←	←	←	←
Final reduction	2.333	←	←	←	←	←	←	←
Gear shift pattern	Left foot return system	←	←	←	←	←	←	←
ELECTRICAL		←	←	←	←	←	←	←
Ignition	Battery	←	←	←	←	←	←	←
Starting system	Motor and kick pedal	←	←	←	←	←	←	←
Alternator	A.C generator 0.11 kW/4000 rpm	←	←	←	←	←	←	←
Battery capacity	12 V–12 AH	←	←	←	←	0.120 kW/ 4000 rpm	←	←
Spark plug	NGK B–8 ES	NGK B–8 ES	←	←	←	NGK 8 ES ND W 24 ES	←	←

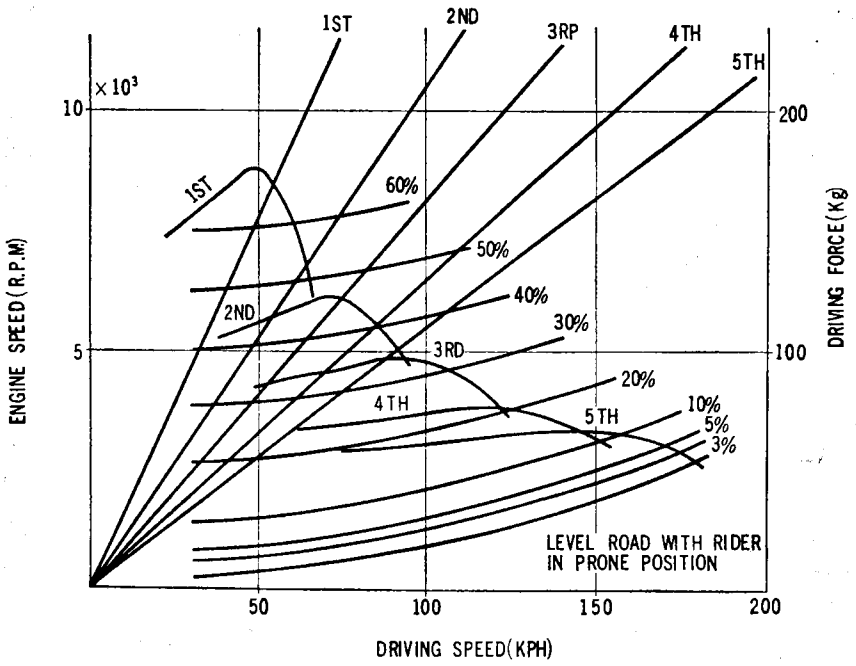
CL 450 (AH Type)

mm (in)

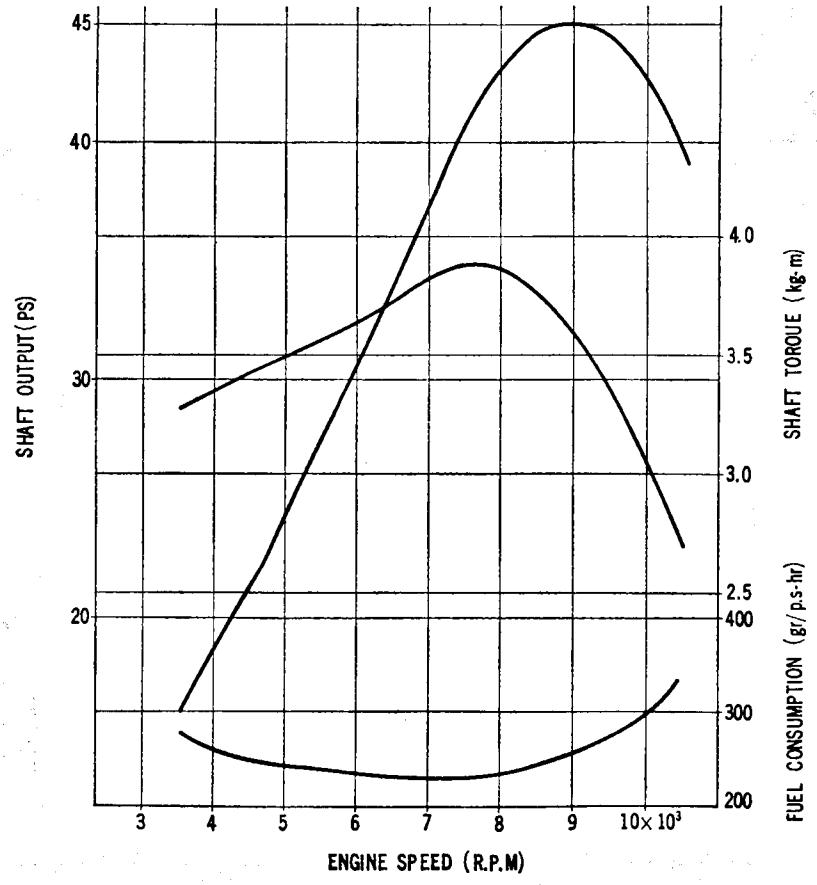
ITEM	CL 450	CL 450 K1	CL 450 K2	CL 450 K3	CL 450 K4	CL 450 K5	CL 450 K6
DIMENSION							
Overall length	2080 (82.0)	←	←	←	←	2115 (83.3)	←
Overall width	830 (32.5)	←	←	860 (34.0)	←	←	←
Overall height	1125 (44.2)	←	←	1115 (45.5)	←	←	←
Wheel base	1375 (54.0)	←	←	←	←	←	←
Seat height	795 (31.0)	←	←	815 (32.1)	←	←	←
General clearance	155 (6.0)	←	←	135 (5.3)	←	←	←
FRAME							
Type	Semi-double cradle	←	←	←	←	←	←
F. suspension travel	Telescopic fork	←	←	←	←	←	←
R. suspension travel	Swing arm	←	←	←	←	←	←
F. tire size, pressure	3.25–19 (4 PR)	←	←	←	←	←	←
R. tire size, pressure	3.50–18 (4 PR)	←	←	←	←	←	←
F. brake	Internal expansion	←	←	←	←	←	←
Fuel capacity	9.0 lit. (2.4 US. gal, 2.0 Imp. gal)	←	←	←	←	10 lit.	10 lit. (2.6 US. gal / 2.2 Imp. gal)
Fuel reserve capacity	1.6 lit.	←	←	←	←	←	←
ENGINE							
Type	D.O.H.C twin cylinder air cooled 4 stroke	←	←	←	←	←	←
Cylinder arrangement	Vertical twin cylinder	←	←	←	←	←	←
Bore and stroke	70 × 57.8 (2.756 × 2.276)	←	←	←	←	←	←
Displacement	444 cc (27.09 cu-in)	←	←	←	←	←	←
Compression ratio	9.0 : 1	←	←	←	←	←	←
Valve train	Chain driven double over head camshaft	←	←	←	←	←	←
Oil capacity	2.8 lit. (6.0 US. qt, 5.0 Imp. qt.)	←	←	←	←	←	←
Lubrication system	Forced and wet sump	←	←	←	←	←	←
Intake valve — Opens	10	←	←	←	←	←	←
Intake valve — Closes	25	40	←	←	←	←	←
Exhaust valve — Opens	40	←	←	←	←	←	←
Exhaust valve — Closes	10	←	←	←	←	←	←
Valve tappet clearance	0.03 (0.0012)	←	←	←	←	←	←
Idle speed	1000 rpm	←	←	←	←	←	←
DRIVE TRAIN							
Clutch	Forced and wet sump	←	←	←	←	←	←
Transmission	Five-speed foward, constant mesh	←	←	←	←	←	←

ITEM		CL 450 K1	CL 450 K2	CL 450 K3	CL 450 K4	CL 450 K5	CL 450 K6
Primary reduction	3.304	←	←	←	←	←	←
Gear ratio I	2.412	←	←	←	←	←	←
Gear ratio II	1.636	←	←	←	←	←	←
Gear ratio III	1.269	←	←	←	←	←	←
Gear ratio IV	1.000	←	←	←	←	←	←
Gear ratio V	0.844	←	←	←	←	←	←
Gear ratio VI		←	←	←	←	←	←
Final reduction	2.333	←	←	←	←	←	←
Gear shift pattern	Left foot type return system	←	←	←	←	←	←
ELECTRICAL							
Ignition	Battery	←	←	←	←	←	←
Starting system	Motor and kick pedal	←	←	←	←	←	←
Alternator	A.C generator	←	←	←	←	←	0.11 km/ 4000 rpm
Battery capacity	12 V–12 A	←	←	←	←	←	←
Spark plug	NGK B8ES	←	←	←	←	←	NGK B8ES ND W24ES

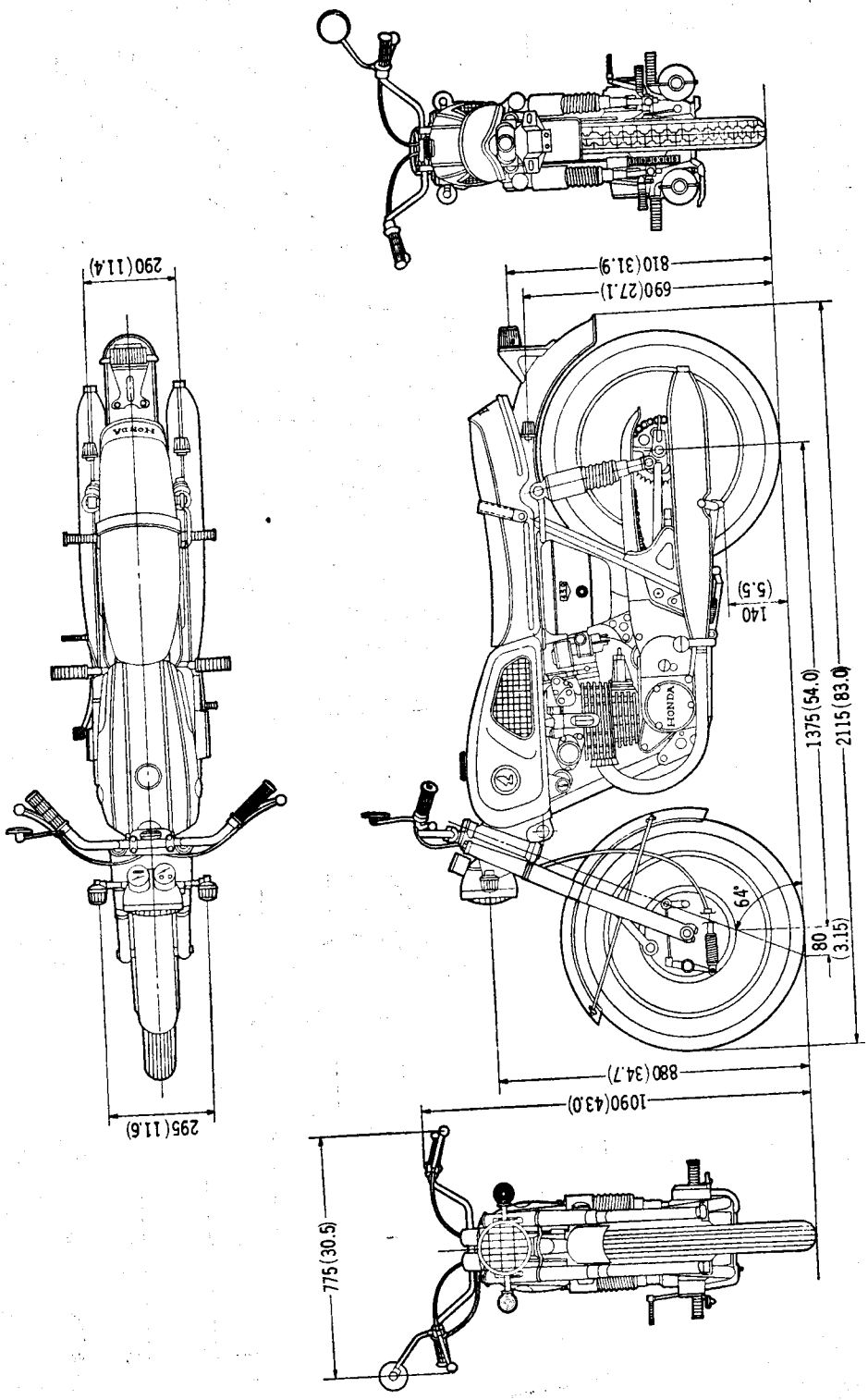
CB 450 DRIVING PERFORMANCE CURVE



CB450 ENGINE PERFORMANCE CURVE



DIMENSIONAL DRAWING (CB 450) UNIT : mm (inch)



3. ENGINE

Special Tools Required for Disassembly and Reassembly