



HONDA[®]
CX 500

NOVEMBER 10, 1977

MOTORCYCLE

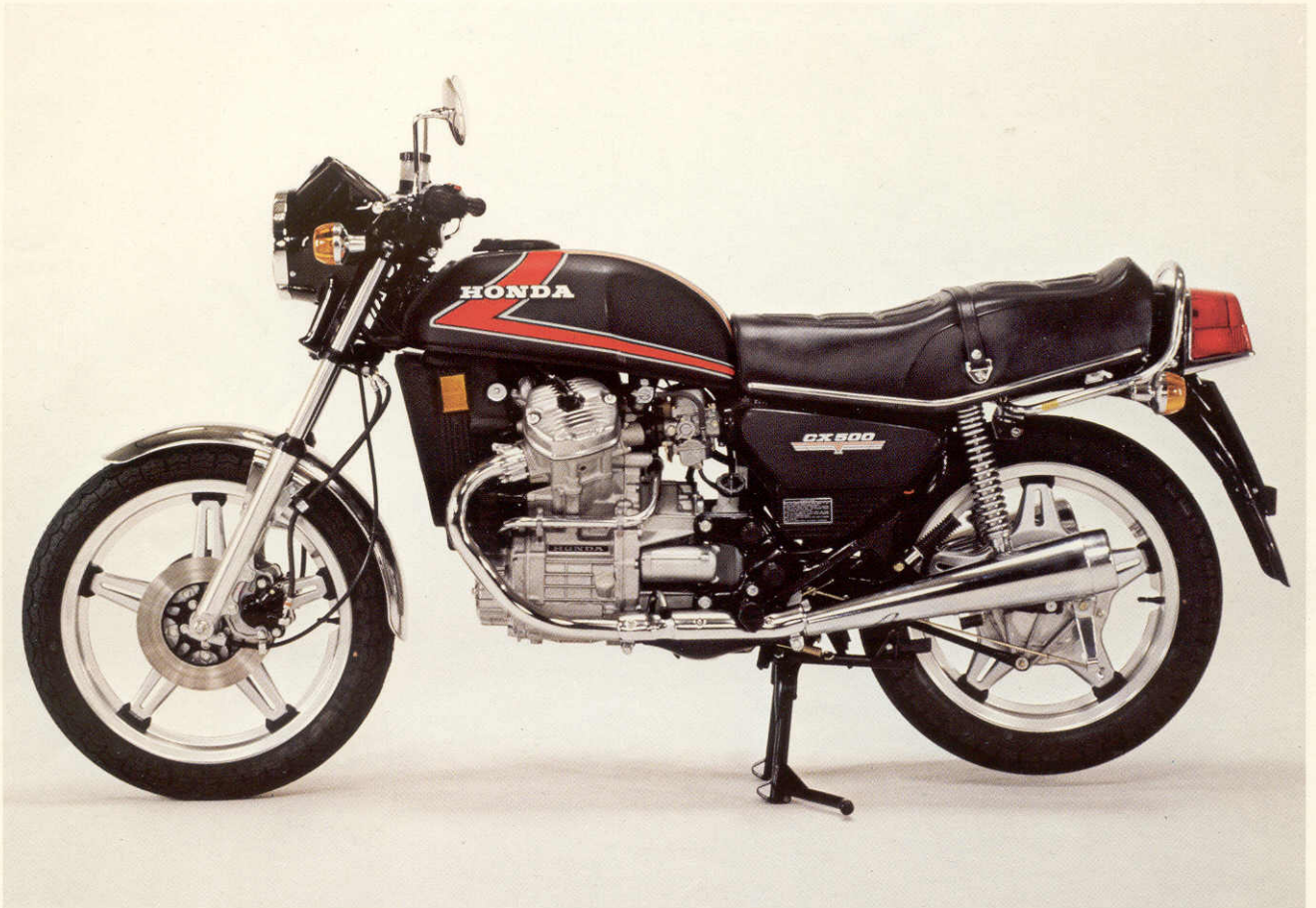
PRODUCT

7702



FIRST AGAIN!
THE NEW FUTURISTIC SPORT/TOURER
THE CX500

HONDA®
HONDA MOTOR CO., LTD. TOKYO, JAPAN



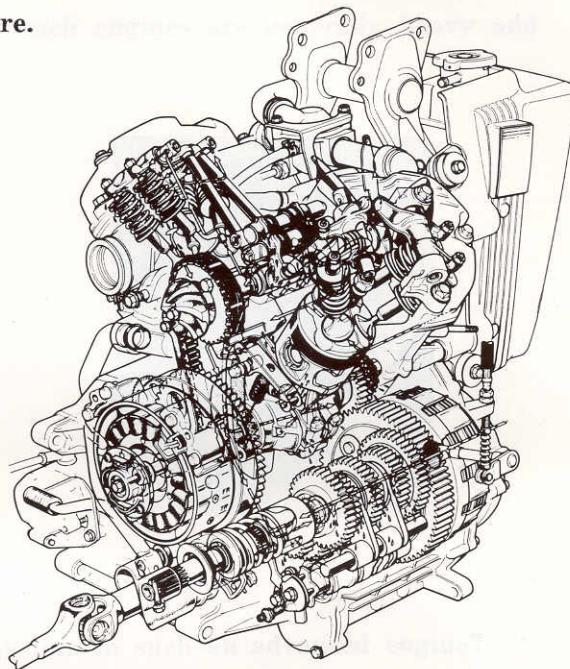
Q: Honda never made a V-Twin engine before.

Why does the CX500 have it?

A: Because the V engine has less vibration.

And this engine is not as high, so the rider's feet can touch the ground easier.

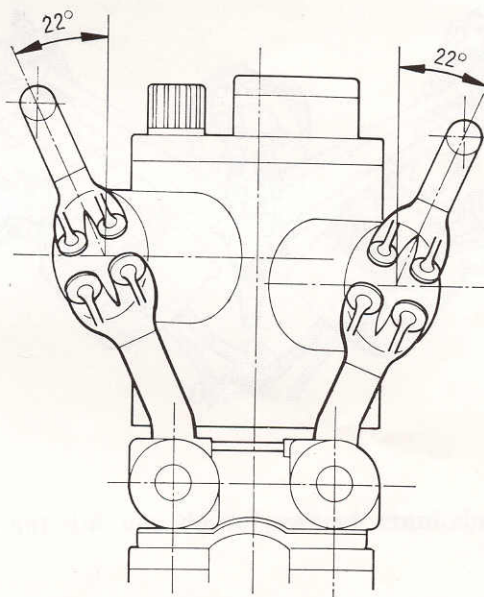
Also, it gives the bike unique styling, better balance and more stability.



Q: Why did you design the Honda V-Twin Twist?

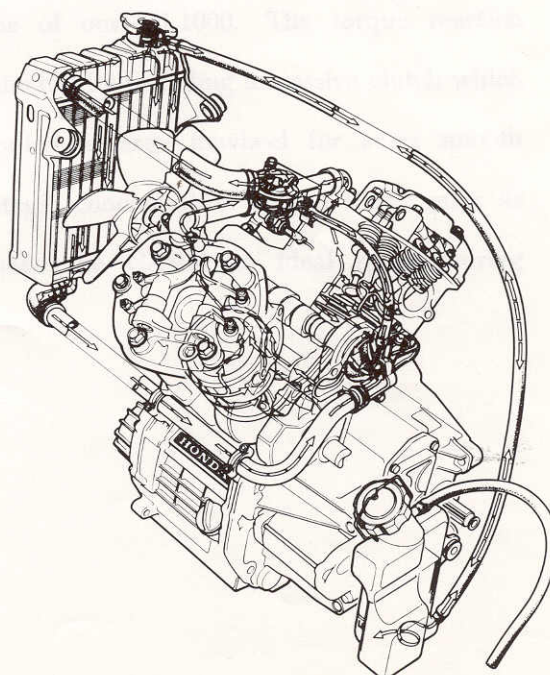
A: For better performance. The cylinder head is angled 22 degrees from the crankshaft, permitting straight-line air-flow from the carburetor. This means that intake air can flow in a straight line through the carburetors, cylinder heads and out the exhaust pipes. Because the air's directional inertia is not altered, smoother air flow and increased power output result—a distinct advantage over the conventional V-Twin engines.

Another point: angling the cylinder heads on this new V-Twin means more comfort for the rider . . . his knees don't touch the hot cylinder heads.



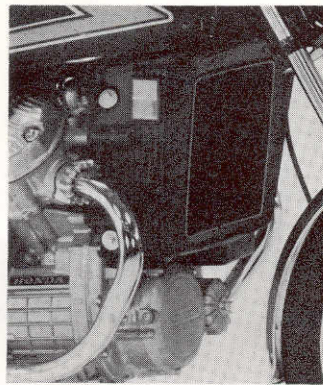
Q: Why is the CX500 engine water cooled?

A: To get the highest possible compression ratio of 10:1 and to achieve better combustion with Honda's exclusive Pentroof combustion chamber. Only water cooled engines can give the thermal efficiency needed.



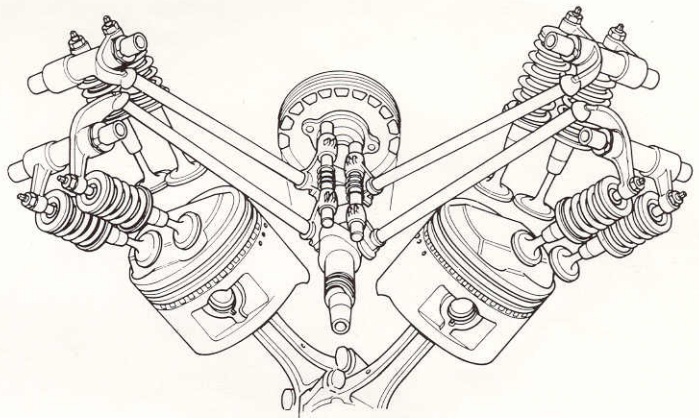
Q: Yes, water cooled systems are good. But such engines are generally heavy and bulky. How about the CX500 V-Twin?

A: This was one of the toughest problems for our engineers and designers. The key to the solution is a compact built-in radiator. It makes Honda's V-Twin Twist almost as compact and light as the conventional air cooled engines of its class.



Q: Why did you employ the classic pushrod system in such an advanced engine?

A: Because the V-Twin Twist is angled 22 degrees, it is virtually impossible to connect 2 camshaft, a necessity with an OHC engine. The logical answer was 4 pushrods driving 8 valves, with the motion changed 22 degrees by a single camshaft. This gives the CX500 an amazing 10,000 rpm.



Q: Your engine is longitudinally mounted. What did you do to prevent crankshaft rotation torque reaction?

A: We found the answer in the opposed-4 engine of our GL1000. The torque reaction caused by the crankshaft's revolutions was eliminated by installing a massive clutch which counter-rotates at high speed. We also installed a large flywheel for extra smooth power output. These features, along with strategic concentration of the bike's mass as close as possible to the center of gravity, make the CX500 an ideal sports/touring motorcycle.

Q: What else is important about the V-Twin?

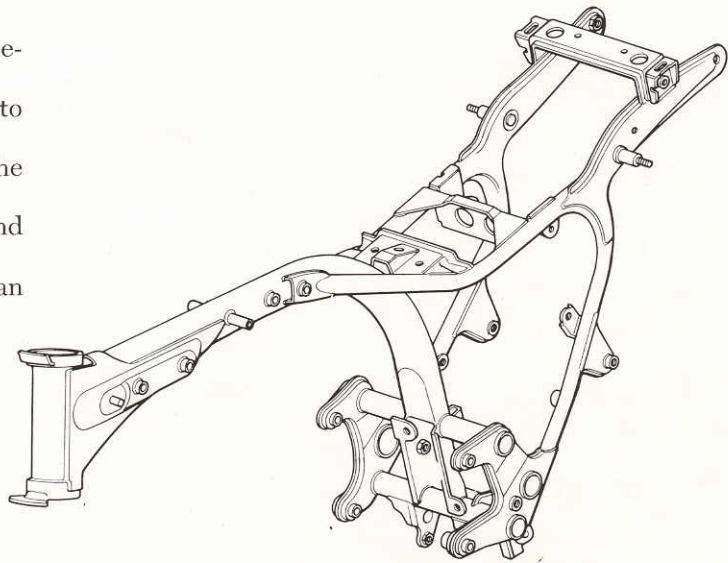
A: The bore \times stroke (78 \times 52 mm) over-square engine and Pentroof combustion chamber were adapted from Honda's championship RCB racer.

With a 35 mm CV carburetor, throttle response is excellent.

The Honda Power Chamber, proved on other Honda bikes, delivers extra torque and power while reducing exhaust noise. Even when idling, the large generator charges the extra-big 12 volt, 14 ampere battery.

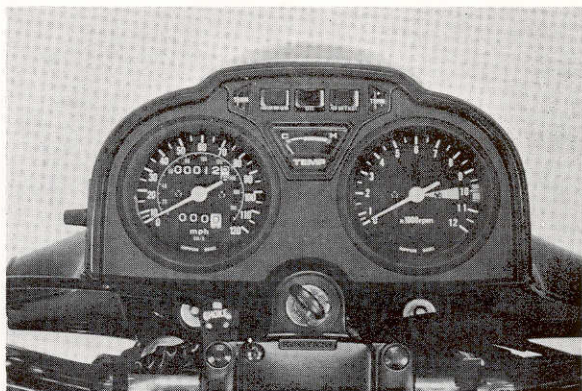
Q: What have you done to match the frame to the engine?

A: The new diamond configuration steel frame and the V-Twin engine are designed to concentrate the mass close to the center of gravity. This makes the Honda CX500 easy to handle and makes the bike feel even lighter than it is.



Q: What are some more handling or comfort features of this bike?

A: The water cooled V-Twin is excitingly powerful, yet very quiet, with almost no vibration. Long travel front suspension has been dramatically improved and Honda's exclusive FVQ rear suspension offers two stage damping to provide a comfortable ride and excellent traction on all kinds of roads. Instrumentation is handsome and conveniently positioned. The fuel tank holds 17 liters—enough for care-free touring.



Q: In the past, touring bikes have not been considered desirable for high speeds on winding mountain roads. How about the CX500?

A: The CX500 has completely changed this concept. The suspension provides a "soft" ride but gives you a firm feel of the road when fast riding demands it. With the new Honda wheels, premium quality tires and outstanding cornering capabilities, this bike can be banked at angles that other machines in this class can't match.

Q: What is new about the wheels?

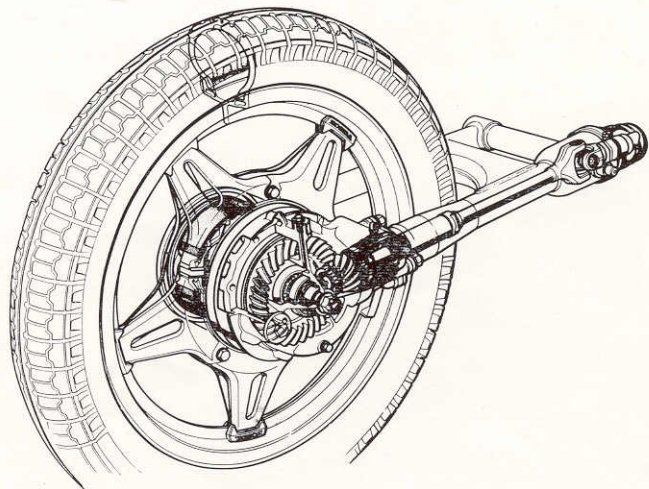
A: They are riveted together, mag-style wheels, developed and proven on Honda's championship winning racing machines in Europe. The idea behind this new design is that the wheels are more rigid than normal spoked wheels, but can flex just enough to aid handling and suspension.

Q: In my market, acceleration is an important selling point. How does the CX500 measure up?

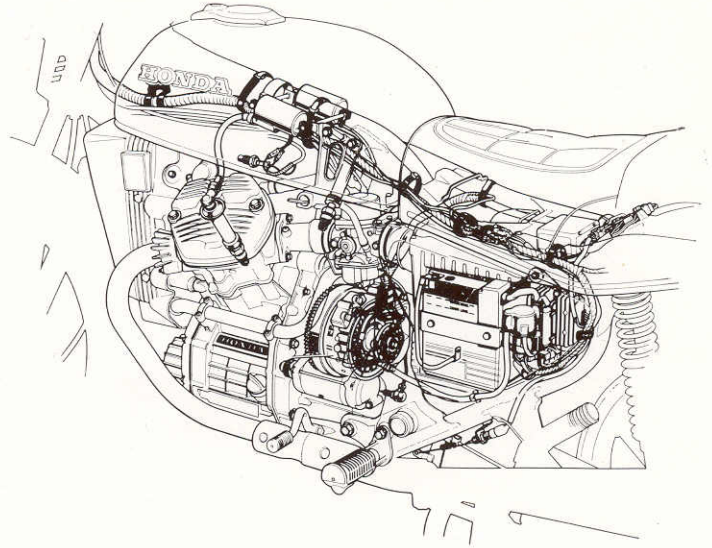
A: In a 0~400 meter drag race, the CX500 accelerates better than almost all the bikes in its class . . . 13.4 seconds. As for passing power, it is absolutely King of the Road . . . incredible passing power on the highway.

Q: Many of my customers hate maintenance work. What about this aspect?

A: First, we should mention the shaft-drive system. You don't have to adjust it, as is the case with chain driven motorcycles. As our GL1000 proved, a shaft drive is the best way to deliver power of a longitudinally mounted engine to the rear wheel.



Our Capacitive Discharge Ignition (CDI) is another boon to riders who dislike maintenance work. Did you know that more than 50% of engine troubles are problems with the ignition? And we must not forget to mention the new Honda wheels, are also designed to reduce maintenance.



Q: How about economy?

A: Well, of course, less maintenance means greater economy. The outstanding durability of our water cooled V-Twin engine is another economy. Plus excellent fuel economy. The CX500 gets 30 kilometers per liter at a cruising speed of 60 km/h.

Q: What has Honda done to make the CX500 a safe bike?

A: Safety is Honda's first consideration. We were the first company to put disc brakes on street bikes. Safety features of the new CX500 are too numerous to list here, but a good example is the braking system on the CX500. Dual front disc brake and large diameter rear drum brake. They are very powerful, reasonably sensitive, with excellent progressive stopping power. This bike has tubeless tires, another Honda first in production motorcycles.

Q: I feel confident now that the new CX500 will be one of our best sellers. When can we expect delivery?

A: It depends on the market. In most cases, shipments will start in January or February, 1978. For details, please contact our sales division.

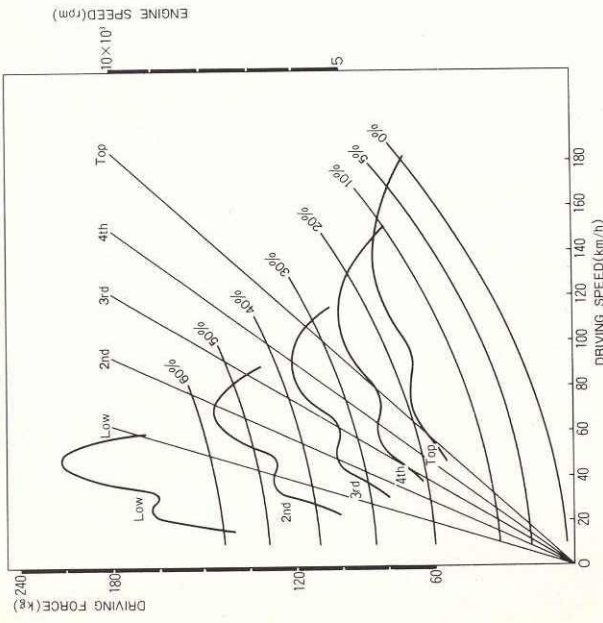
These photos and specifications are not final. They might differ slightly from the model you order. Therefore, please do not quote them when talking with your customers.

SPECIFICATIONS

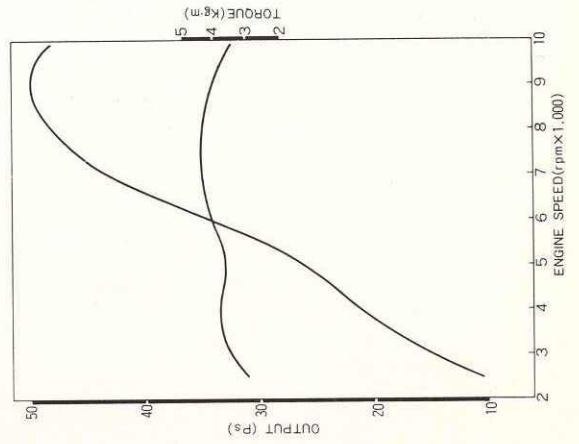
Overall Length	2,185 mm
Overall Width	865 mm
Overall Height	1,175 mm
Wheel Base	1,455 mm
Seat Height	810 mm
Dry Weight	200 kg
Frame Type	Diamond Frame
Front Tire Size	3.25S-19, 4PR
Rear Tire Size	3.75S-18, 4PR
Fuel Tank Capacity	17 liters
Engine Type	Liquid Cooled OHV 4 cycle
Cylinder Arrangement	2-cylinder, Transverse V
Bore × Stroke	78 × 52 mm
Displacement	496 cc
Compression Ratio	10.0
Maximum Horsepower	50.0 ps/9,000 rpm
Maximum Torque	4.4 kg-m/7,000 rpm
Clutch	Wet Multiple Plate Type
Transmission	5 Speeds
Starting System	Electric Push Button
Ignition	C.D.I.
Acceleration (0~400 m)	13.4 sec.
Maximum Speed	180 km/h
Ground Clearance	150 mm
Dynamic Bank Angle	36°

SPECIFICATIONS OF MODEL CX500

DRIVING PERFORMANCE CURVE



ENGINE PERFORMANCE CURVE



DIMENSIONS

Overall Length	2,205mm
Overall Width	740mm
Overall Height	1,125mm
Wheel Base	1,455mm
Seat Height	810mm
Ground Clearance	150mm
Dry Weight	200kg

FRAME

Type	Diamond Type
F.Suspension, Travel	Telescopic, 139.5mm
R.Suspension, Travel	Swing arm, 85mm
F. Tire Size	3.25S-19,4PR
R. Tire Size	3.75S-18,4PR
F. Brake	Dual Discs
R. Brake	Drum (Internal expanding shoes)
Fuel Tank Capacity	17.0 liters
Fuel Reserve Capacity	3.5 liters
Front Fork Oil Capacity	140cc

ENGINE

Type	Liquid cooled OHV 4stroke
Cylinder Arrangement	Transverse 80° V-Twin
Bore and Stroke	78 x 52mm
Displacement	496cc
Compression Ratio	10 : 1
Carburetor	35mm C.V X 2
Maximum PS	50 ps/9,000rpm
Maximum Torque	4.4kg-m/7,000rpm
Lubrication System	Forced lubrication wet sump
Air Filtration	Paper filter

DRIVE TRAIN

Drive System	Shaft Drive
Clutch	Wet multi plate type
Transmission	5-speed constant mesh
Primary Reduction	2.242
Gear Ratio 1st	2.733
2nd	1.850
3rd	1.416
4th	1.148
5th	0.931
Gear Shift Pattern	return system

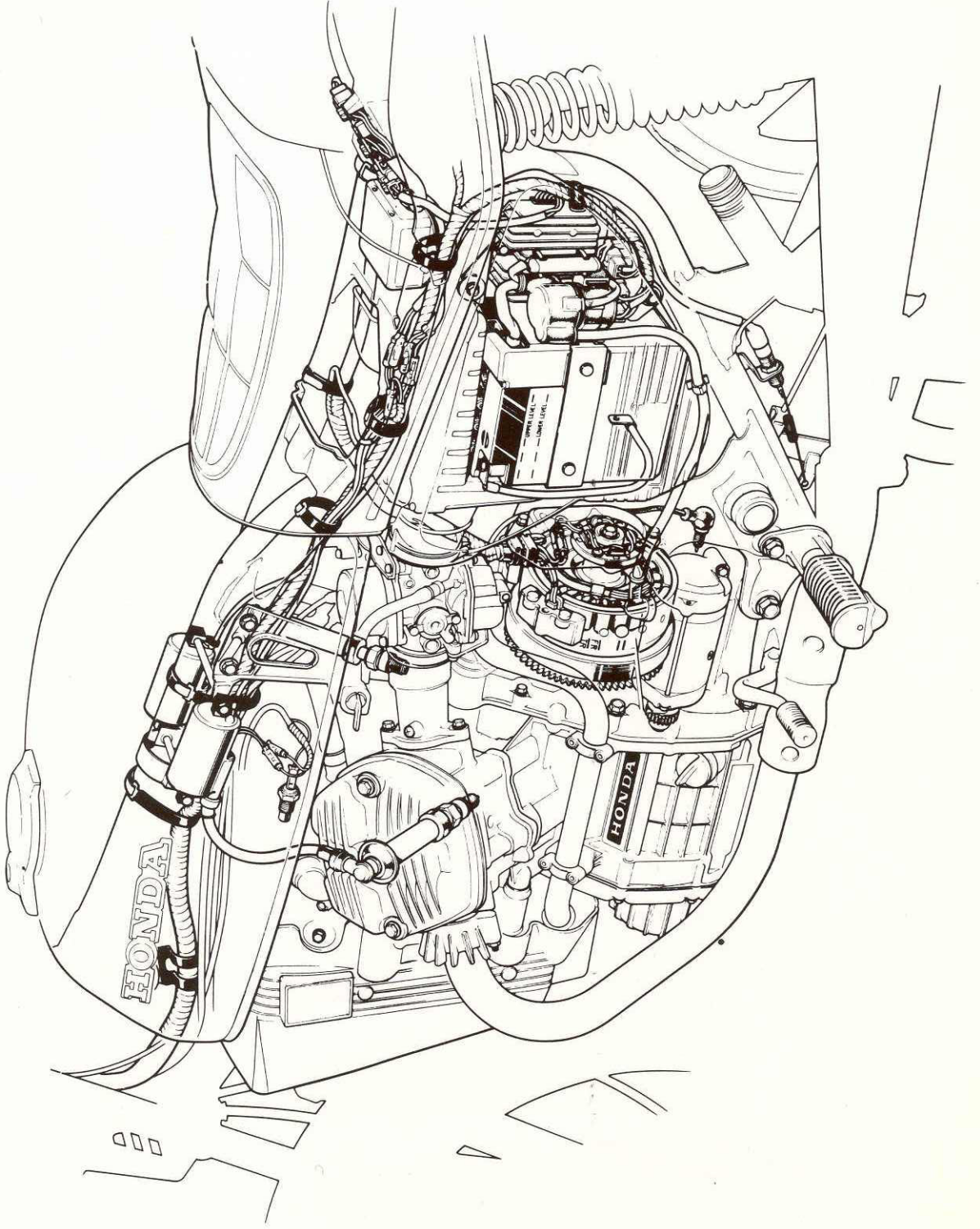
ELECTRICAL

Ignition	C.D.I.
Starting System	Starter motor
Alternator	0.17kw/5,000rpm
Battery Capacity	12V - 14AH
Headlight	55/60watt
Tail/Stoplight	5/21 watt
Turnsignal Light	Front/Rear 21 watt

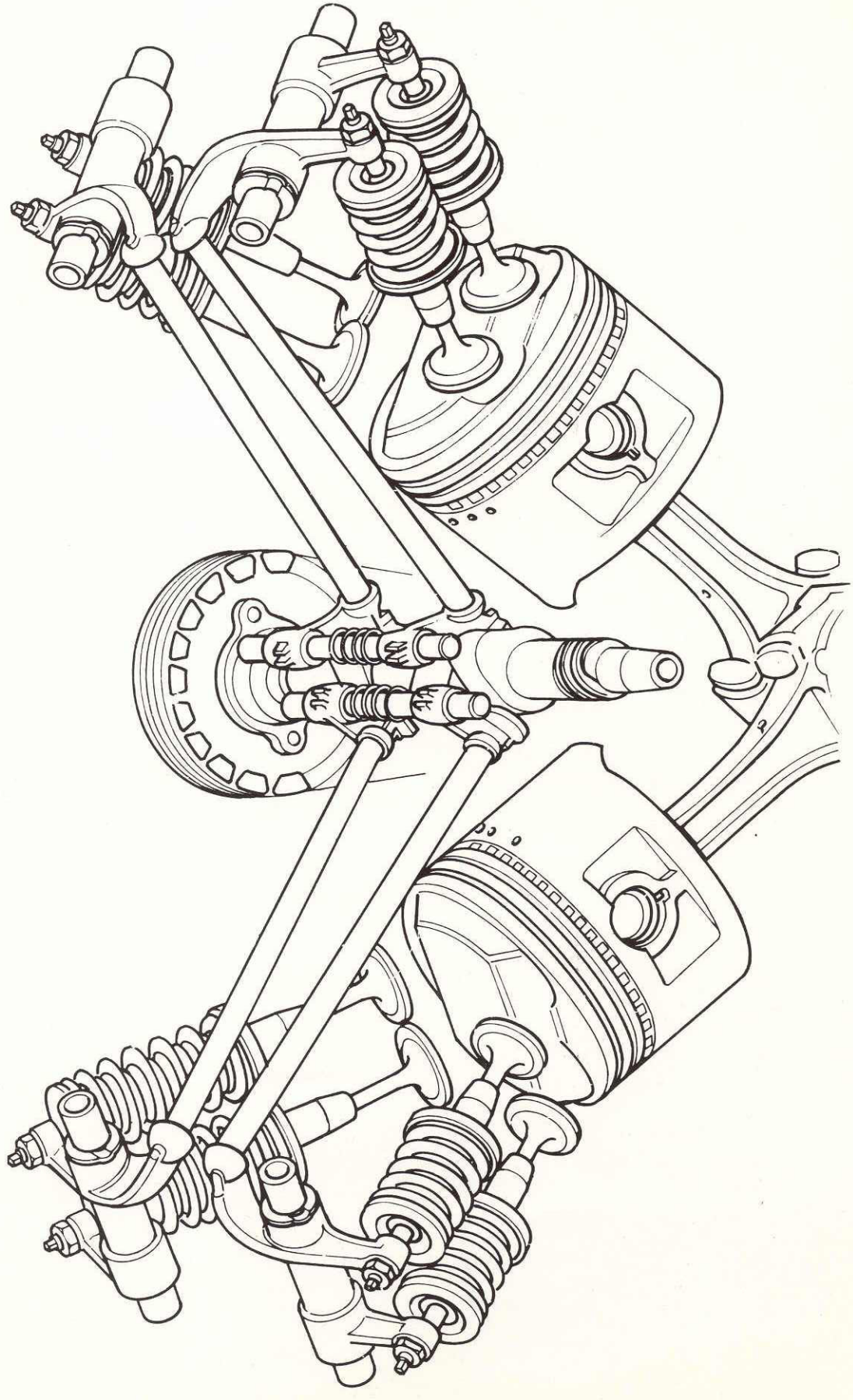
PERFORMANCE

Maximum Speed	180km/h
0-400 meter	13.4sec
Terminal Speed at 0-400m	150km/h
Fuel Consumption	30km/lit. at 60km/h
Climbing Ability	25°
Turning Circle	4.8m
Stopping Distance	13.5m at 50km/h

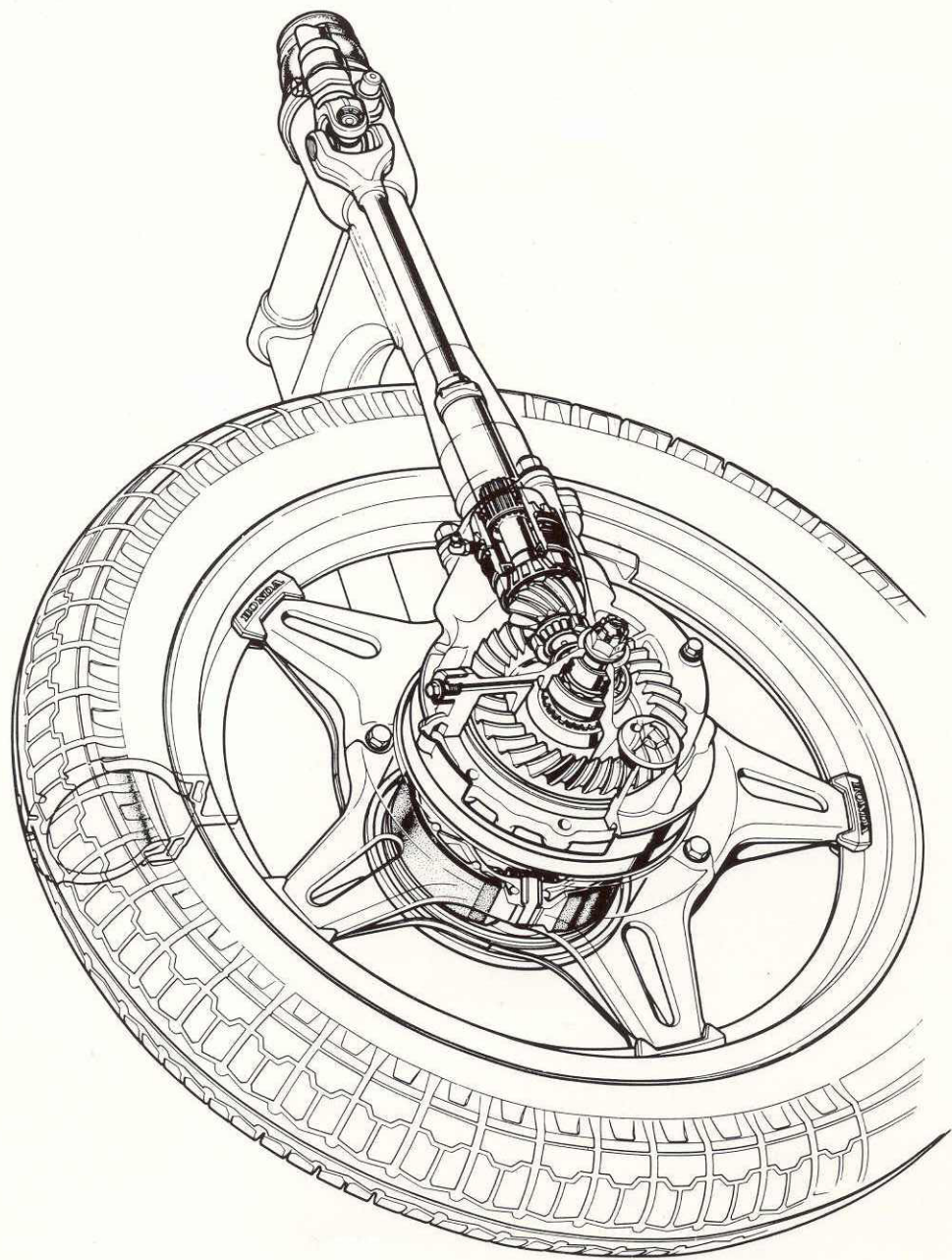
IGNITION SYSTEM



PUSHROD SYSTEM

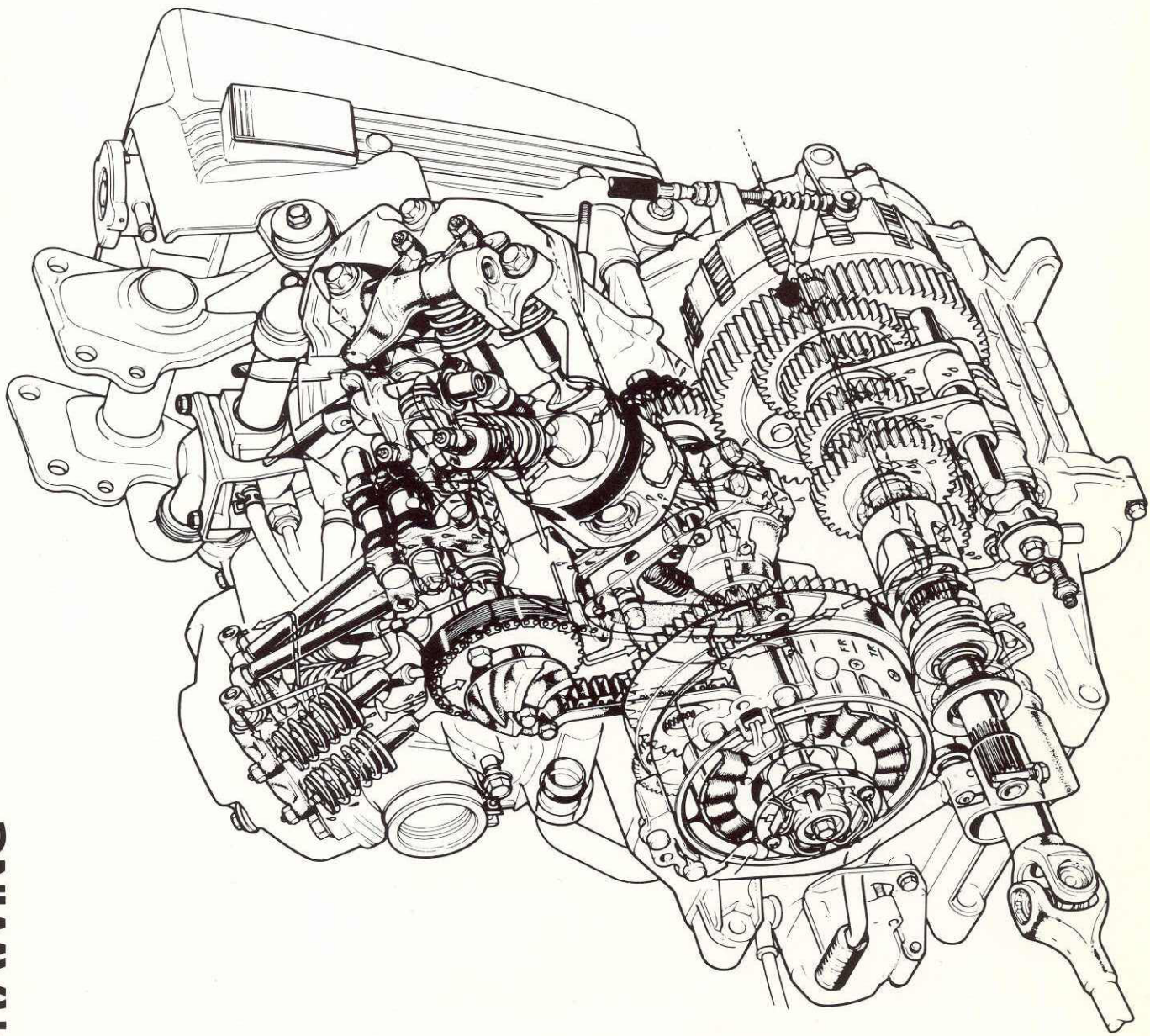


SHAFT DRIVE/NEW HONDA WHEEL/TUBELESS TIRE



CX500:ENGINE

CUT AWAY DRAWING



WATER COOLED ENGINE SYSTEM

