



BIKE NAME

HONDA CB400/FOUR

AUGUST 2005

15

MANF. RUN

1975-79

POWER

37bhp

WEIGHT

392lb

PRICE RANGE

£500-£2500



Dossier BY NEIL MURRAY

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Great looks, practicality and a jewel-like engine

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You've got to love it

We all adored Honda's fantastic 400/Four when it was new. 27 years later it still makes perfect sense

RIDING BY **HUGO WILSON**
PHOTOGRAPHY **JOHN NOBLE**

Getting to ride a 27 year old bike that has covered just 1400 miles from new is a rare treat. Nigel Mann bought this 1978 Honda CB400/Four six months ago. Until then it had spent its life cossetted in a heated garage before being snapped up by Nigel, who has a bit of a thing about low mileage classic Hondas.

Petrol on, ignition on. Hook up the choke lever that's located down by the carbs on the left side and press the starter button. The rustle of the camchain takes you straight back to the Seventies. The sound of a sohc Honda at tickover should be on any album of period hits alongside Abba and Chickory Tip. And that fantastic looking four-into-one should be in any collection of shiny Seventies objects. Right next to the lava lamp.

Prod it into gear, wind up the revs and feed in the clutch. It's all typically Honda. Everything is where you need it and, as you'd expect on a bike that is almost brand new, everything works.

The B1090 heading towards Huntingdon is a lovely road with sweeping bends, lots of visibility and, for today, a dry surface. The yellow Honda handles it with aplomb.

The steering is on the fast side of neutral. The bike goes where you point it with the minimum of effort and the modern Bridgestone BT45s offer plenty of grip, but it doesn't feel particularly stable and the ride is slightly choppy. There was a reason that everyone fitted aftermarket shocks.

The riding position is a bit 'perched on' rather than 'sit-in', but on this 30-mile ride the bike was perfectly comfortable.

I'm only disappointed by the flat-feel of the performance. Cruising at 75mph the engine is spinning at 7000rpm with 3000 to go to the redline. Which is actually the problem. I'm changing up much too early and being far too sensitive to the 1400 mile engine, and an owner who is waiting nervously for me to return his pride and joy.

Putting both those thoughts out of my mind, letting the little Honda rev right up to five figures and tapping away on the six speed gearbox makes a fantastic difference, turning an ordinary ride into an absorbing one. There is a slight tingling vibration at 6000rpm, then it goes smooth again.

It's no wonder they were popular in the Seventies. The combination of great looks, practicality and the jewel-like engine made them an instant hit.

In Britain we never got the cute-looking four cylinder, four pipe CB350 that was introduced in some markets in 1972. But for 1975 the capacity was boosted from 347 to 408cc, an extra gear ratio was added and the bike was re-styled with a fashion-setting four-into-one exhaust to create the CB400F.

With a £695 price tag, the Honda was the most expensive Japanese bike in the 400 class in 1975, but it was comfortably cheaper than any other four-cylinder bikes on the market, most of which were made by Honda anyway.

It somehow achieved the credibility of a big bike with the practicality of a small one, and performance mid-way between the two. Everybody loved them, from teenagers who'd just passed their test to seasoned riders who appreciated the miniaturised engineering. And women riders were particularly enamoured.

Despite their popularity the model only lasted till 1978. It was suggested that the reason it was axed was that it didn't sell in America. What's more likely is that Honda couldn't make money from it. A 400cc sohc four cost the same to make as a 750, but it sold for much less. And maybe it also stole sales from Honda's bigger and more profitable fours too. Whatever, the 400 twins that replaced it were charmless by comparison.

Thirty years after the 400 Four was introduced its appeal is as strong as ever. This is probably the most highly regarded, popular and practical Japanese classic, but you won't find many that have only done 1400 miles.



The B1090, dry tarmac, no traffic and a 1400 mile old Honda CB400F. Hang on, is this 1978?

SPECIFICATION

1978 HONDA CB400/FOUR F2

▼ ENGINE/TRANSMISSION

type	air-cooled sohc four
capacity	408cc
bore x stroke	51 x 50mm
compression ratio	9.4:1
carburation	4 x 20mm Keihin
primary/final drive	chain/chain
clutch/gearbox	wet multiplate/six-speed
electrics	12 volt, coil ignition

▼ CHASSIS

frame	tubular steel simplex
front suspension	telescopic forks
rear suspension	swingarm, twin shocks
brakes front/rear	214mm disc/160mm drum
wheels	spoked
tyres front/rear	3.00 x 18/3.50 x 18

▼ DIMENSIONS

kerb weight	392lb (with 1 gallon fuel)
wheelbase	53.5in/1359mm
seat height	31in/787mm
fuel capacity	3.1 gallons/14 litres

▼ PERFORMANCE

top speed	103mph
max power	37bhp @ 8,500rpm (claimed)
max torque	24ft/lbs @ 7,500rpm (claimed)
standing ¼ mile	14.8 seconds
fuel consumption	51mpg
price new	£895
	*Bike magazine test



Original toolkit doesn't look like it's ever been out of the bag



Sliding piston caliper is prone to wintertime corrosion

Riding

Nostalgia

Development

Racing

Buying

Owning

The Honda handles the bends beautifully, although is slightly unstable due to standard shocks





MANE RUN	POWER	WEIGHT	PRICE RANGE
1975-79	37bhp	392lb	£500-£2500



◀ **1975** "Famous and dependable – Honda's OHC four-stroke four cylinder engine design." That's what they said; they weren't wrong

▶ **1975** Honda knew how to market the 400/Four, but why the pictures of racing sidecar outfits?



▲ **1975** Nice bike, shame about the green Honda leathers...

◀ **1975** The bike's sexy four-into-one exhaust had plenty of "purring power" according to this Seventies ad



◀ **1978** Parts list for the CB400F: handy for aficionados. Original manuals still exist on eBay



I BOUGHT ONE, 1979

● **Niall Rowan**

"I bought mine with my university grant cheque"

I bought my 400/Four (pillion footpegs mounted on swingarm) in spring 1979. It was painted a non-standard metallic purple and fitted with a Rickman full fairing. I bought it with my university grant in the days when the state paid your tuition fees and your grant would cover rent, food... and a new motorbike. You wouldn't be able to do it these days.

It had a smooth, powerful engine, good handling and gearbox and it looked good – especially the exhaust.

Bad points were: crap shocks; very heavy clutch which relied on three ball bearings; terrible rattling which could be cured by balancing the carbs; the cam-chain tensioner didn't have enough guts so you had to do it manually (the chain used to stretch like knicker elastic). It also used to cut out when it was wet. I replaced the metal plug caps with plastic ones – but the coils under the tank were also part of the problem. You carried WD40 with you at all times.

▶ **1976** This bike was a year old when this pic was taken. Narrower and lighter than most fours, its easy chuckability was perfect for bendy British roads





"A bike that will run with the best, walk over the rest, and won't scare you or your wallet to death in the process"

– JP McMurphy, *Bike* August 1976

► 1975

Women loved the 400/Four. They still do. *CB*'s Sally Pepper has just bought a minter (see page 73). This is not her, sadly. **(Oy!–SP)**



PERIOD ROAD TEST



"The rider's helmet fills up with a great big grin"

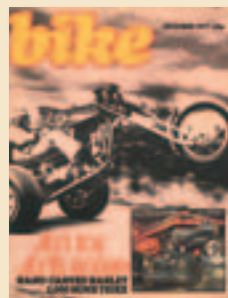
***Bike* – August 1976**

Honda has bitten the bullet and said, "Our bikes must go, handle and stop." Their engineers are probably still recovering from the shock of having to design a frame that's more than just a bracket to stop the engine falling out.

"The engine pulls hard and smooth with the exhaust note barely perceptible, the tacho needle moves purposefully round the dial and everything feels fine. The needle then approaches 7000 rpm and three things occur almost simultaneously. The bike surges forward, the exhaust starts to wail like a proper four-into-one, and finally the hole in the front of the rider's helmet fills up with a great big grin – that's the secret of the 400, it really is a joy to ride, especially fast.

"Unfortunately for many Japanese offerings, if you ride fast in England, a bend of some description will appear very soon and if taken in true biking fashion (ie flat out), yet another set of Y-fronts will end up in the laundry. Not so on the Honda.

JP McMurphy



"That the superb four suited our tastes was accidental"

***Bike* – December 1977**

We've been conned into believing that Honda had developed a European conscience when they launched the CB400/Four onto the market. In retrospect, the fact that the superb four suited our tastes was accidental good fortune, rather than a Europeanised motorcycle plan on Honda's part.

"The 400/Four, being narrower and lighter than most other fours, felt really chuckable, despite a tendency to drop into slow corners.

"One of the most astonishing ingredients of the four, its uncanny smoothness, was bound to be lost in the transition to a twin. But not even the superior qualities of the [CB400] twin will detract from many bikers' flourishing admiration for the four. It's the kind of bike that will fuel those 'do-you-remember?' conversations in years to come.

Graham Sanderson



1976 CB400F

Introduced in 1975, early models had the pillion footrests mounted on the swingarm, while later versions (like this lovely bike owned by *CB* production editor Sally) had proper pillion footrest loops on the frame.



1972 CB350F

The CB350 was introduced in some markets in 1972, following Honda's 750 and 500 fours, but it was never officially imported into the UK. The model was produced until 1974 and was replaced by the CB400F.



1978 CB400F2

The fuel filler cap was moved to one side and the bike had a new paint job in either Antares Red or Parakeet Yellow, with pinstripes on the fuel tanks. Mechanically the bike remained unchanged.

The incredible shrinking Honda

The 400/Four used familiar Honda technology, except for the camchain tensioner

The 400/Four was derived from the slightly gutless CB350 Four which was sold on the Continent and in the US, but never in Britain. Honda increased capacity to 408cc, upped the compression ratio from 9.3:1 to 9.4:1, fitted bigger valves and bigger carbs. And the 350 only had a five-speed gearbox while, for the first time on a road legal Honda four, the 400 had six ratios.

The engine followed the pattern of the 750 and 500cc Honda sohc fours. Plain bearing crankshaft, chain primary drive, and an overhead camshaft driven by a roller chain from the centre of the crank.

There were some differences from the bigger fours. The camchain tensioner was a slipper type with a spring-loaded tensioner at the front of the block acting on the moving blade at the back. The pressure was transferred via a pivoting horseshoe which ran under the crank.

This system was the engine's Achilles' heel: the feeble spring soon lost its grip and the rod it bore on would seize up. The tensioner would stick, the chain would develop slack, and the engine would rattle. Worse still, pieces of the rubber coating on the blades would get knocked off and find their way into the oil.

The frame was, effectively, the same as the CB250G5/CB360 twins. The heavier 400 engine put more weight lower down and further forward, and the sporty riding position with flat bars also added to this front end weight bias. The entire front end was straight off the twins too. Wheel, brake, forks – all were identical except that, crucially, the 400 had revised damping units.

The rear suspension also looked identical to the twins, but had different damping and springs. The result was hailed as the best-handling Honda ever.

To make it really special they gave it one of the finest styling jobs ever to come from Japan. The four-into-four exhaust was ditched for a radical four-into-one. Because the header pipes had to cross the front of the block, where Honda mounted its oil filters, a stylist decided the headers would sway to the right and wave past the filter in a sensuous double curve.

The engine was unchanged during the model's four year production run, barring the fitment of some longer cylinder studs to prevent head gasket leaks. Likewise, the chassis was never revised either, except for moving the pillion pegs from the swingarm to frame loops.

TIMELINE

1975

Introduced. Red or blue colours, pillion pegs mounted on swinging arm. Designated CB400F. Red 70mph mark on speedometer. UK price at launch was £669, compared to the 500/Four at £859 and the 750 at £979. US bikes had higher, wider bars and in Japan and France (which had a 400cc licence limit) it was built to 399cc capacity. Early bikes had matt black side panels.

1976

Pillion pegs moved to separate loops welded to the frame. No speedo mark.

1977

Fuel filler cap lock added.

1978

F2 model: fuel filler cap lock re-positioned to one side. Maroon (Antares Red) or yellow (Parakeet) paint with pinstriping on the fuel tanks. Mechanically unchanged. List price in December 1977 was £895. Because it was launched as the F2 model, many referred to the earlier bikes as 'F1's.

1979

Last models sold from dealers.



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What to look for

The key parts to examine when buying your 400/Four

ENGINE/FRAME NOS

F1 models 1975-1977 (UK)

Engine: 1007720-1069245

Frame: 1007709-1073399

F2 models

Engine: 1069242-1086660

Frame: 1074740-1085944

(Bikes had longer cylinder head studs from engine number 1084315.)

105,160 bikes were produced,**15,549 were sold in the UK**

CB400F: 73,400 (Europe)

F1: 9350 (USA/Canada)

F2: 17,350 (Europe) 5060 (USA/Canada)



● Kickstart

The 'knuckle' (bottom casting) can break. New units are unobtainable; a broken one can be welded by an expert.



● Head gasket leaks

Small weeps are common, usually from the right hand side, but they can be ignored. Proper leaks must be fixed.

● Camchain tensioner

Easily stripped, requiring an insert or alloy welding and machining, but expensive. Any sign of bogging, walk away.

● Rattling engine

Camchain tensioner is the bike's Achilles' heel. It can be adjusted manually but if neglected, will wear quickly.

● Primary chain

Wear is common on high-milers. New chains cost more than £100 and require a total engine strip.

BUYING A 400/FOUR

Genuine 400s are high risers

With great spares availability, Neil Murray says a tatty 400/Four could be just the thing



There are loads of 400/Fours out there, but condition varies widely. I recently bought a trio of non-runners from eBay for less than £600 with the intention of trying to build one, but they were all too far gone, so I broke them for parts. At the other extreme, there's Sally's £1900 example and my own, which is worth a similar sum.

Barring the swingarm-mounted pillion pegs of the first models, there are no real differences between them. No particular model is worth more than the other, so it all comes down to condition and which colour you prefer: red, yellow, blue or maroon.

Most engine parts are still available. A cared-for 400/Four engine can run to 100,000 miles, and

there are lots of engines out there. Concentrate on the cosmetics instead, especially the chromework.

Original exhausts are the real clincher. Motads are the only aftermarket systems worth considering, but everyone wants the genuine swoopy Honda exhaust. It makes all the difference between an £800 bike and one in four figures. Same goes for seats – a Two-Four sports seat can knock at least £100 off the value.

A 400/Four is one of those bikes that can be done as a rolling restoration: just ride it and do it up as you go along, sourcing new or used parts. A slightly scrappy one (non-standard paint, a bit of corrosion, aftermarket seat) for £600 is still a valid buy, given the largely excellent parts availability.

I SPECIALISE IN THEM...



DAVID SILVER:

01728 833020

David Silver, of the eponymous spares operation, probably has his company's details filed in the address books of every Honda 400/Four owner.

CB: How many 400/Four owners do you have on your database?

DS: About 1500, but this reflects previous owners who may have sold their bikes. We don't delete their records. Most are in the UK.

CB: What are the fastest-selling items?

DS: Exhausts and front guards. We've sold 108 complete systems and 92 front mudguards in the last 12 months. Honda doesn't sell complete exhausts – we put all the various components together in one package. We also sell a lot of service items such as air filters.

CB: And what are the hardest items to get?

DS: Rear mudguards, clocks, chainguards and fuel tanks. But you can find them used. Centre stand lifting handles are unobtainable, but the one from the CB750 fits.

CB: What's the oddest thing you've been asked for?

DS: Frames, probably. Some people have asked us for a whole new frame.

CB: What are the main differences between bikes in different national markets?

DS: The US bikes had bigger indicators and tail light. The front indicator/headlight bracket is unique to UK models.

CB: Who loves the CB400? Which markets are mad about it?

DS: It's mostly the British. In the US, it was diluted by the CB350 Four. The 400/Four is definitely a British 'thing'.

CB: Do you have parts specially made for you by the original suppliers?

DS: Oh, yes. Spoke kits, for example. Honda never sold them as kits, but as individual spokes. We use the original supplier, and make up complete kits. Rectifiers are another item: we have to buy 25 or 50 at a time.

CB: Do you ever send stuff back to Japan?

DS: By the bucketload. Oddly enough, it's mostly the stuff we have specially made in Japan in the first place.

PRICES

CONCOURS: £1800-3000

GOOD: £1000-1500

RATTY: £500

BASKET CASE: £100-250



A new, unregistered CB400 has recently been advertised for as much as £3500

Rear mudguard

Rusts through and new units are no longer available. Refinishing and re-chroming of still-solid units is a solution.

STUDIO PHOTOGRAPHY/JOHN NOBLE



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This electronic ignition kit from Boyer Bransden will give you easier starting and smoother running



Spare parts price list

Throttle cable (pair)	£27.02
Tail light	£18.74
Silencer	£175.08
Piston	£22.33
Complete Honda exhaust system	£298.45
Major service approx (excluding parts)	£176.25

(All parts genuine Honda, prices from David Silver Spares)

Popular mods

Steel brake hose **£37.99**

This makes a world of difference, and the 400/Four was reasonably braked anyway. Note that the caliper end of the line needs a special gland nut.

Contact Goodridge 01327 858799

Electronic ignition **£178.48**

This easy-to-fit kit will make your life a whole lot better giving easier starting, smoother running and slightly better economy.

Contact Boyer Bransden 01622 730939

Oil filter bolt **£9.40**

The 17mm replaces the 12mm headed stock item, which always rounds off and can be a bugger to remove. Available from most good accessory merchants, it fits all SOHC Honda fours.

Contact David Silver Spares 01728 833020

Big bore kit . . . **\$600 (£330 approx)**

Yoshimura's 466cc big bore kit was a popular period mod and US firm Eaglescall sells them. You'll notice the power hike best in the low and mid-range. A performance camshaft is recommended to be used with the kit, and the Yoshi Road Special (around £300) can be used without any head mods.

Contact KSM Enterprises 001 206 820 4373

www.eaglescall.com

SERVICE TIPS

● Camchain tensioner

This can be adjusted manually with a screwdriver down the tensioner plunger tunnel when the plunger sticks. Set tickover with a warm engine to 1500rpm, undo the blanking plug and tensioner bolt locknut, and loosen off the tensioner bolt. Stick a screwdriver down the hole uncovered by the blanking plug, and press gently until chain rattle dies away.

● Carb balancing

The carbs go out of balance very quickly and the tickover sounds lumpy and the clutch rattle worsens. Invest in a set of vacuum gauges and learn how to use them.

● Front brake pivoting arm

Notorious for seizing as it's a steel pin in an alloy housing. Remove every so often, clean steel pivot pin, apply plenty of grease, and reassemble.

● Oil changes

Renew the filter with every oil change at approximately 2000km/1250 miles, and be very careful if it still wears a 12mm headed oil filter bolt, as the heads chew up if you use a cheap, ill-fitting spanner or an open-ender. Beware over-tightening the drain plug: the thread in the sump strips easily.

● Front brake bleed nipple

Soak in Plus-Gas for a few days before undoing. Just putting a spanner on it will snap it off. Remove entirely and apply Copaslip to the threads.

AN OWNER'S STORY



NAME: Sally Pepper
OCCUPATION: CB production editor
BIKE: 1976 CB400/F
MONTHS OWNED: five
MILEAGE: 5052

CB: Why a 400/Four?

SP: The four-into-one exhaust, obviously, and it's such a pretty bike! When I was 13, there was a tiny Chinese girl in the sixth form, whose Honda looked massive next to the boys' mopeds in the bike shed. I just wanted to be her.

CB: What's it like to ride?

SP: The 400/Four feels manoeuvrable and friendly. I can do 90 on a dual carriageway, though it does feel like my head's being pulled off. After a full day's riding the seat's still comfortable, though the throttle starts to feel painfully heavy.

CB: Most memorable ride?

SP: That would have to be Dijon for the Coupes Moto Légende (see CB July). But my first 100-mile-plus ride on it from Peterborough to Brancaster in

Norfolk a week earlier was also special. It was a beautiful sunny day and I parked the bike on the edge of the sand while I ate cockles for lunch.

CB: How's it shaping up as a first classic?

SP: It sat in a garage for more than 20 years, which doesn't seem right at all – I'm waiting to discover if this has dire consequences, but so far it's running beautifully. It's stalling at low revs since the Dijon trip and I'm just mentally preparing myself to tackle its first service. But generally it's an undaunting bike for a beginner to work on.

CB: What do you like about it?

SP: The red Bakelite-look kill switch. The perfect blue and red tank. That men with greying hair come over and start wistful conversations with the words "I used to have...". I find this charming.

FURTHER INFORMATION

CONTACTS

● Oxford Classic Honda

01865 771166
 Dealer for all old Hondas

● David Silver Spares

01728 833020
 Parts and accessories

● Rising Sun Restorations

01423 358004

Japanese restorations

● Sunrise Graphics

email: sunqueries@nostalgic-suzuki.co.uk

Decal kits

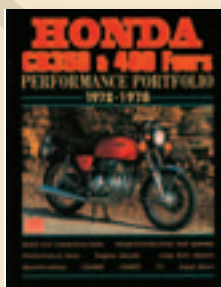
● Classic Motorcycles Supplies

www.cmsnl.com
 Parts and accessories

CLUB

● Honda Owners' Club

New members: 61 Vicarage Road, Ware SG12 7BE.
 Tel 01536 412086
 www.hoc.org.uk



USEFUL BOOKS

● Honda CB350 & 400 Fours

Performance Portfolio 1972-1978

by Brooklands Books
 ISBN 1-85520-415-0

● Honda CB350-550

sohc fours

by Clymer
 ISBN 0-89287-653-0

● Honda CB400 & CB550

Fours Workshop Manual
 by Haynes
 ISBN 0-85696-262-7

USEFUL WEBSITES



www.sohc4.us/

Covers all the fours, but a good resource for 400/Four owners.



www.motorcyclistonline.com/
 flashback/122_9612_

cb400hon/
 Excellent history of the bike in the US.

MISSED A DOSSIER?

Classic Bike
Dossier service

● DOSSIER 14
 – BSA Road Rocket
 July 2005



● DOSSIER 13
 – Laverda Jota
 June 2005



● DOSSIER 12
 – Triumph Daytona
 May 2005

● DOSSIER 11 – Kawasaki Z1

April 2005

● DOSSIER 10 – BSA Singles

March 2005

● DOSSIER 09 – Ducati Singles

February 2005

● DOSSIER 08 – AMC Twins

January 2005

● DOSSIER 07 – BSA A65

November 2004

● DOSSIER 06 – Triumph T140

October 2004

● DOSSIER 05 – Yamaha RD350LC

September 2004

● DOSSIER 04 – Suzuki GT750

August 2004

● DOSSIER 03 – Norton Dominator

July 2004

● DOSSIER 02 – Honda CB750

June 2004

● DOSSIER 01 – Triumph Trident

May 2004

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 Email: jan.branaghan@emap.com

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