

# Honda NSX 'old and new' plus Civics 'classic and modern' – Kim's Impressions

Published: November 8, 2017

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 $On line\ version: \ \texttt{https://www.wheels-alive.co.uk/honda-nsx-old-and-new-plus-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions/linear-civics-classic-and-modern-kims-impressions-civic-and-modern-kims-impressions-civic-and-modern-kims-impressions-civic-and-modern-kims-impressions-civic-and-modern-kims-impressions-civic-and-modern-kims-impressions-civic-and-modern-kims-civic-and-modern-kims-impressions-civic-and-modern-kims-impressions-civic-and-modern-kims-impression$ 





As a motoring writer, one of the questions I am most often asked is, "What are your favourite cars of all time, and/or which do you most enjoy driving?".

Well the answer is, 'Many cars for many reasons', but since the spring of 1990, when I first got behind the wheel of Honda's original NSX, that model has remained at, or exceedingly close to, the top of my list of the most exciting and enjoyable vehicles that I have ever driven



- simple as that.

Last week, on a Honda driving event arranged for motoring scribes, I was able to sample a variety of Honda models (including their heritage fleet 1975 Civic, plus the latest, Britishbuilt Type-R), and, much to my delight, was able to re-acquaint myself with an NSX dating from 2005 (3.2 litre V6), followed straight away by the latest NSX (powered by a 3.5 litre V6 engine plus three electric motors).

I'll cover the Civics shortly, but will start by looking at the two NSX models that I drove...

# ORIGINAL, FIRST GENERATION NSX...

(Note: Photographs below show 2005 3.2 litre version).

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The car's origins can be traced back to the Pininfarina-styled, mid-engined HP-X (Honda Pininfarina Xperimental) concept car, displayed at the Turin Motor Show in 1984. The design centred around a lightweight body shell, in which the V6 engine (in this case, a two litre unit) was mounted amidships.

When Honda made the decision to pursue this project, the development team was given the daunting task of making the car faster than any rival from Italy or Germany – in those days these two countries were dominating the 'supercar' market.

During the following years, the NSX was developed towards its production form, with Honda staff still determined to make their new sportscar as fast as anything currently available from European manufacturers, but at the same time to instil inherent driving enjoyment, practicality, dependability, reliability and ease of ownership. It is generally accepted that such aspects (especially when considered together) did not always go hand-in-hand with traditional 'supercars' of that era...



In arriving at the design on which they eventually settled, Honda engineers drew on the company's considerable experience in motor sport, and in addition evaluated sporting machinery from a wide range of manufacturers, including (notably) Ferrari and Porsche. Indeed the NSX was intended to rival – and beat – the Ferrari 348 at every level as an all-new supercar.

Thus the HP-X concept car was developed into the NS-X prototype (the name was changed to NSX for the production version's launch), still featuring a mid-mounted V6 engine, but this had now grown to 3.2 litres in capacity.

# QUALITY AND INNOVATION

Honda invested heavily in the design and manufacture of the NSX, the aim being to produce a vehicle that was superior in all aspects, compared with the opposition. It was also intended that the car would have a lower price than the Ferrari 348 (for example).

In order to optimise the car's performance and dynamic behaviour, the monocoque body shell was made from aluminium (a world first for a production car), and built around an innovative extruded aluminium frame. Extensive use of aluminium was also incorporated into the clever double wishbone suspension set-up, resulting in a low unsprung weight and aiding the car's handling. Special forged aluminium alloy road wheels also helped in this respect.

Further ahead-of-their time features included electrically operated power steering and a quad channel anti-lock braking system.

The body design and 'cab forward' approach were arrived at after Honda had studied the 360 degree visibility available within the cockpit of an F-16 fighter jet aeroplane.

The newcomer was intended to showcase Honda's innovative technologies, many of them (including the bodywork structure approach) developed as a result of the company's involvement with Formula 1 racing.



At the heart of the car (literally) was a 24 valve, 3.0 litre V6 petrol engine, incorporating Honda's VTEC ('Variable Valve Timing and Lift Electronic Control') variable valve timing system, and developing 271 bhp, plus a torque output of 284 Nm (209 lb.ft) of torque produced at 5,400 rpm. Hidden within this jewel of engineering were titanium connecting rods (for example), helping the unit to rev reliably to around 8,000 rpm.

(In addition, in 1995 the NSX was fitted with the first electronic throttle control used by Honda).

Power was delivered to the rear wheels via either a five speed manual gearbox or a four speed automatic transmission.

Performance was considered to be excellent (it still is!), and even in automatic form, an NSX was capable of reaching 60 mph from rest in under seven seconds (manual versions took less than six seconds!), and provided a potential top speed of 158 mph (in manual form, approximately 165 mph). Fuel consumption, typically in the low twenties per gallon, was reasonable, especially considering the car's performance potential.

During development work, the new car's handling and roadholding characteristics came under the close scrutiny of a variety of top drivers of the time, including Ayrton Senna, Satoru Nakajima and Bobby Rahal. Much of this work took place at Suzuka. Ayrton Senna persuaded Honda to stiffen the car more than they had originally intended, and helped to develop the rear suspension to give maximum traction.

The NSX was (initially) produced at a purpose-built factory at Tochigi, where the vehicles were in many respects hand-built.

## **RAVE REVIEWS**

The NSX (NA1) was introduced to the public at the Chicago Motor Show in 1989 (initially named 'NS-X', but revised to 'NSX' before the model went on sale), and at the Tokyo Motor show later that year.



The first 'wow' factor was the styling. Most motoring enthusiasts liked the low-slung lines of the car, its retractable headlamps, and its timeless appearance (even today, it looks impressive and modern).

From within the vehicle, the deliberately good all-round visibility was another plus point often commented upon, as well as the comfort of the seats and the clear dash layout.

However, it is the way that this car drove that made it even more desirable, for once on the move, its advanced engineering and subtle characteristics could be appreciated by any driver. In addition, the refined manner in which it performed at any speed surprised those used to fast machinery which was usually much less forgiving.

The NSX was fast when required – but smooth-running and relatively quiet at the same time, yet when driven in town, it was as docile as a lamb. In particular, it could trickle along slowly in heavy traffic without drama, happily awaiting the time when it could next be given its head on the open highway.

Although the car handled impressively (the stiff chassis, carefully designed and tuned suspension and light weight all helped), it also provided an accommodating, comfortable ride quality that surprised many.

## **DEVELOPMENTS**

Between 1992 and 1995, just under 500 NSX-R models were built (they never officially came to the UK), with retuned suspension incorporating much stiffer springs, weight reductions, engine and transmission tweaks, plus Recaro sports seats.

In the summer of 1995, the NSX-T (Targa) version was introduced, with a removable roof panel, and ousting the coupé styling. Suspension changes included stiffer front springs, softer rear springs and firmer damping.

A revised NSX (NA2) with a slightly more powerful (294 PS and 298 Nm or 220 lb.ft of



torque) 3.2 litre engine, a six speed transmission (with closer ratios than the previous five speed gearbox) and a host of other changes, made its UK debut early in 1998. Notable new features of this model included aluminium doors, bonnet and spoilers (to reduce weight), and a dual-mass, low inertia single disc clutch.

A number of low volume special versions were produced too.

Later cars (from 2002) were fitted with conventional fixed headlamps in place of the retractable types used on the first NSX models. Stiffer suspension, larger front wheels and wider rear tyres, plus improved aerodynamic performance, were further refinements.

NSX-R versions, produced between 2002 and 2005, featured further weight reduction measures, more power, a revised final drive set-up, a front air scoop plus a rear diffuser, a carbon fibre bonnet and Recaro seats.

By 2005 the end of the production road was in sight for the original NSX, but the model has always been revered for its engineering excellence and its overall combination of qualities. As with Hondas generally, reliability in service has proved to be first class too.

#### KIM'S ORIGINAL VERDICT ON THE FIRST GENERATION 3.0 LITRE NSX

Sensational. A supercar classic, if ever there was one. One of the most innovative and attractive sporting vehicles of its era; a supercar for sure, yet easy to drive and reliable in service, the NSX has stood the test of time in both styling and technical aspects.

Since driving one in 1990 I have always very much liked to own one. At that time I rated it as one of the most fascinating and enjoyable cars I had ever driven. I still do.

2005 NSX 3.2





Until last week I had not driven the 3.2 litre version, widely considered to be the best of the NSX models produced up to 2005.

Just looking at the exquisite styling of the car reminded me of how much I had liked the design of first model. There were subtle differences in the case of the 3.2 litre version stood on the tarmac before me, compared with the 1990 model; notably the fixed headlamps (rather than the retractable types on the original car), but the clean styling heritage of the first generation NSX was still clearly evident.

Getting into the attractive and comfortably-furnished cockpit, my interest in the NSX as a model was further re-awakened. With the V6 engine running and emitting a hushed growl, I



accelerated carefully through Swindon's busy traffic, and again the good-natured docility of the car in urban situations, so noticeable in the 3.0 litre car I drove in 1990, was still there.

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As we headed out onto the open road, it was fun to give the NSX its head and enjoy the instant acceleration available at all legal speeds (and, probably, above...), also to experience the limpet-like roadholding as we took in some fast, sweeping bends, tight corners and slippery leaf-covered by-ways. Traction levels at all speeds were superb, with the rear tyres gripping the tarmac to push the car on, in effortless fashion.

On the fast main roads and motorway sections encountered on parts of my test route, the car drove impeccably and guietly; cruising at 70 mph required 2,700 rpm in sixth (top) gear.

However, as in 1990 it was the effortless acceleration and overall dynamic competence of this NSX that most impressed me once again.

For around half an hour I was having the drive of my life (again!), and to be honest I really couldn't fault this car; 12 years old but looking, feeling and driving like the supercar it was and remains.

My wife, who was aboard at the time, enjoyed the car too. She is certainly no enthusiast of high speeds, but felt safe in the NSX, which is so mechanically refined and positive on the road. Importantly, it's comfortable too, even over the pot-holed rural roads on our test route.

So I was reluctant to return to base with the 2005 NSX 3.2 – although my sadness was short-lived when I discovered that the latest version of the NSX, the 3.5 litre 2017 model, had just returned from a test drive in the hands of a writer colleague – so it was now available to be driven... by me!



Wheels-Alive Tech. Spec. in Brief:

Model: 2005 NSX 3.2

Engine: 3.2 litre VTEC V6

Power: 280 PS @ 7,300 rpm

Torque: 298 Nm (220 lb.ft) @ 5,300 rpm

Performance:

0-62 mph 5.7 seconds

Top speed 168 mph

Fuel consumption: 22 mpg (Combined)





2017 NSX 3.5





Although there is little more than a decade between the build dates of the 3.2 litre car I climbed out of, and the 2017 model into which I was now getting, the newcomer underlines just how much progress has been made by Honda in the intervening years. The company has certainly not rested on its laurels, in terms of the exterior and interior styling (in both cases, making a dramatic statement about the car's sporting intent...), and of course in the construction and technical sophistication of the NSX.

The car incorporates a multi-material, aluminium-intensive chassis, and much use is made of ultra high strength, lightweight materials throughout.

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Looking next at the hybrid propulsion system, the latest NSX features a four valves per cylinder, twin-turbocharged 3.5 litre V6 petrol engine, supplemented by no less than three electric motors. The internal combustion engine delivers 507 PS between 6,500 and 7,500 rpm, and with a maximum torque output of 550 Nm (406 lb.ft) all the way from 2,000 to 6,000 rpm.

In addition, a direct drive, water-cooled electric motor/generator is attached directly to the crankshaft, producing another 48 PS at 3,000 rpm, plus 147 Nm (108 lb.ft) of torque between 500 and 2,000 rpm. This power is directed to the rear wheels, and the electric motor/generator also aids braking and gearchange functions, as well as re-charging the battery.

Meanwhile, at the front of the car is an additional set-up in the form of two independent electric motors/generators, in a single package ('Twin Motor Unit') incorporating a planetary gear set, one-way clutch and brake. Each of these motors, operating on its respective front wheel, delivers 37 PS at 4,000 rpm, plus 73 Nm (54 lb.ft) between zero and 2,000 rpm. These motors further aid performance and traction, with the system incorporating torque vectoring to further enhance the car's handling and hence the driving experience. I hear some of you cry, what is 'torque vectoring'? Essentially the system varies the amount of torque being fed to each driving wheel, thus improving traction, handling and roadholding capabilities.

So there's a very hefty output available in total (581 PS plus 646 Nm or 476 lb.ft of torque), helping to propel this Honda in dramatic fashion. Speaking personally this also makes this NSX the most powerful, and fastest, car that I have ever driven.

The cabin of the latest NSX looks and feels beautifully put together (as with the rest of the vehicle), with comfortable seats and driver information a-plenty on offer, including a central touchscreen set-up and a quality audio system.

As with the earlier NSX, driving this beauty through urban traffic proved to be an easy and



pleasant experience, with the engine purring away quietly while we negotiated roundabouts, sets of traffic lights and queues.



We then headed for the open road and the countryside around north Wiltshire. Again the car felt well-behaved, docile and fun, as we drove through villages and areas with 50 mph speed limits. Eventually we found a long, straight section of road with the national dual carriageway speed limit of 70 mph applying. This was the first opportunity I had of trying the car's acceleration. Wow... Just a wonderful 'wow'. As the engine note changed from its quiet normal self to wind up into a glorious yet not intrusive roar, the car shot forward as speed was gained. In a very few seconds we were up to 70 mph, and so rapid had been the acceleration that for a moment I felt mildly breathless (but happy!) – and I also felt that I might have to retrieve my wife from the engine compartment behind the cabin...

We continued through the lush wooded valleys and over the open hills of that area, with the car's nine speed automatic gearbox choosing its own ratios, although at times it was fun to



use the steering column mounted shift paddles to encourage manual ratio changes at different speeds.

The ride quality was controlled but comfortable, with the lightweight independent suspension set-up, incorporating magnetic dampers at both the front and rear, doing its job in impressive fashion. At the same time the handling and roadholding properties are best described as 'spot-on'; the old phrase of 'cornering as if on rails' certainly sums it up. While talking of this, I was interested to learn that in this NSX there is no direct mechanical connection between (for example) the steering wheel and the car's front wheels; every movement of the wheel by the driver is converted to steering action by means of sophisticated electronics...

The multi-piston brakes (with optional carbon ceramic discs with red calipers on the test vehicle – costing an additional £8,400...) did their job effectively too, and although this car is very, very fast, it also feels reassuringly safe; yet, of course, ultimately the laws of physics still apply. Therefore this is a car that drivers need to treat with due respect as road hazards can appear very rapidly...

Main road cruising proved quiet and effortless, with 60 mph in ninth (top) ratio requiring just over 1,300 rpm.

#### **VERDICT**





I have found a new 'favourite of all time' car. The latest NSX is, indeed, a supercar for the 21<sup>st</sup>
Century. It looks dynamic, it offers comfort and ultra-rapid performance, with phenomenal acceleration and superb handling/roadholding characteristics. The whole package is just so well thought-out and put together. It's a true driver's car (and my passenger enjoyed her time in the car too). The price? The

basic, 'On the road' figure, including a three year service plan, is £149,950. With a host of extras, the test car I sampled worked out at £180,250...

Wheels-Alive Tech. Spec. in Brief:

Model: 2017 NSX 3.5

Engine: 3.5 litre VTEC V6 (+3x electric motors)



Power: 581 PS, total (please see text)

Torque: 646 Nm (476 lb.ft), total (please see text)

Performance:

0-60 mph 3.0 seconds (approximately)

Top speed 191 mph

Fuel consumption: 10 mpg (Combined)

# CIVICS CLASSIC AND MODERN







My next, necessarily short outing was in Honda's heritage fleet 1975 Civic, followed immediately by an equally brief drive in the latest British-built Civic Type-R.

In a comprehensive feature published just a few days ago on Wheels-Alive, my colleague David Miles covered both these models in depth, so rather than repeat all the historical and technical information here in my report, I will just ask you please to click HERE if you'd like to find out more, written from David's perspective.

Meanwhile, I'll just give you my own driving impressions...

### 1975 FIRST GENERATION CIVIC





The Civic of the 1970s arrived in Britain at a time when our country's motor industry was in a state of turmoil...

At this time the Honda company, and the other Japanese car makers, knew that buyers yearned for effective, well-equipped and reliable motor cars, sold at a reasonable price. The Civic offered all these attributes in a neat package, and as the years passed British buyers increasingly came to like models like this, with their inherent reliability and overall effectiveness.

Of course this Civic feels dated by comparison with 2017 offerings, but then with 42 years of automotive progress during the intervening years, that's to be hoped and expected!



That said, during my test drive this likeable compact car performed willingly, with its smooth-running 1169cc overhead camshaft four cylinder engine delivering up to 50 PS when required, endowing it with reasonable performance around a 21<sup>st</sup> Century Swindon. In fact, in its day the engine in this car was produced as a 'low emissions' unit for installation in cars sold in the U.S.A. Therefore its claimed fuel consumption of 46.6 mpg at 56 mph is probably not far off the mark.

Features that this car noticeably did not have include power-assisted steering (although the steering is quite light to the touch anyway) and servo-assisted brakes. The lack of servo-assistance was evident at the first roundabout I approached, but I very soon adjusted mentally to applying the higher pressures required on the brake pedal. The brakes worked well enough, but just needed a harder shove on the pedal than is the case with today's models.

It was also clear how relatively small this Civic is, compared with the models of today bearing the same name. Even so, there is plenty of room for front seat occupants in terms of leg and head room, while it's a bit less generous for those in the rear seat.

A push-button radio was fitted to the test car (not always a standard fitting on British cars of the time), which also incorporated such features as a collapsible, energy-absorbing steering column.

The gearchange was silky-smooth on this Civic, and around town I found it very easy to operate. For longer runs on the open road, an overdrive ratio fifth gear would have been welcome, but few cars of this era (apart from, say, the Austin Maxi) were thus endowed.

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### **VERDICT**

A good quality compact vehicle, which still shows why makers such as Honda made such progress in the U.K. market from the 1970s onwards.



# 2017 CIVIC TYPE R



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I was privileged to attend the U.K. launch of the first generation Civic Type R, in September 2001 on the Isle of Man. It was a 'raw-edged' high performance hatchback that was exciting to drive.

The next Type R I drove was again at the U.K. press launch, in January 2007. The newcomer felt more refined and generally felt a little 'softer' than its predecessor (and I was able to



compare the two on the same day in 2007), but still possessed acceleration and driving dynamics that ensured an exhilarating experience for the driver.

Fast-forward 10 years, and off I drove in the latest, Swindon-built Civic Type R.

In terms of its radical styling, its up-to-the-minute interior and its technical sophistication, this is a state-of-the-art machine that offers owners excellent performance from its 2.0 litre VTEC engine, pin-sharp handling, reasonable fuel economy (the official Combined figure is 36.7 mpg) and five door practicality plus a good-sized boot, for family motoring when required.

It was already dark when I took to the wheel of the latest Civic Type R, but during my short test drive I appreciated the car's solid build quality, the firm-ish yet accommodating suspension, the excellent handling and the effortless performance from its refined drivetrain. The engine produces 320 PS plus 400 Nm (295 lb.ft) of torque (the torque is delivered all the way from 2,500 to 4,500 rpm, so there's plenty of useful punch available across the rev range).

My wife and I found the front seats were supportive and comfortable, and for those in the rear there was ample space (primarily for two people).

Once out of town, on a twisting route this car was great fun to drive, and was also a hushed cruiser at motorways speeds – at 60 mph the tacho needle was indicating 2,000 rpm in sixth (top) gear.







# **VERDICT**

Another winner from Honda; a great car – AND it is built in Britain! The price? £30,995 for the Type R, with another £2,000 required for the Type R GT.

# MY DAY WITH HONDA - KIM'S OVERALL VERDICT

During my day with Honda, as covered above I was able to compare their classic and modern models, on the road. However, in addition, in talking in-depth with staff from the Swindon factory, I gained more insight into the Honda approach to designing, manufacturing and selling the company's cars in Britain.



I was struck by the universal and deeply-held enthusiasm of the firm's employees for the products they are building here, and one aspect in particular caught my attention... I was told that in every vehicle that the company produces, the aim from all the Honda team is to *exceed* 100 per cent dependability, so that every customer remains happy with their vehicles throughout their ownership. Of course, this approach is good for repeat business from buyers.

Looking at the continuing very positive feedback in ownership experience surveys over many years, this philosophy is obviously working, with Honda repeatedly coming out at the top (or very close to this position) in terms of vehicle dependability and customer satisfaction...



