



Frequently Asked Questions

Question

C6 Wheels Tech Info

Answer

Please note that this also applies to fitting Full Size spare wheels to the C6 model range

If your looking for alternative wheels for winter tyres etc. scroll down to the page end

There have been Lot's of forum posts on the Internet saying that you need a tyre supplier/vendor who has a 'center-less' balancing machine to get things working properly on a C6

OK the first myth to destroy

- C6 alloys are not 'center-less' - they have an internal 'spigot' diameter of **65.1mm** and are supposed to fit snugly on the wheel hubs

The PCD is 108 X 5

In English - the bolt hole centre distance from the centre of the hub is 108 mm with 5 bolt holes equally spaced on that diameter

To find the center of a 5-bolt pattern, the PCD can be found by multiplying the centre distance between any two adjacent holes by 1.701

Standard rim width on C6 Alloys is 18" X 8.0J for the 2.7 and 3.0 HDi's however some 2.2 models have 17" steel wheels fitted (which some members use for winter tyres)

ROCCASTRADA 18" for the **2.7 HDi** have the same dimensions: 18" diameter 8J width with a 33 offset and a tyre size of 245/45 R18

ATLANTIQUE 18" OEM Alloys for the **C6 3.0 HDi** have dimensions: 18" diameter 8J width with a 33 offset and a tyre size of 245/45 R18.

RIVAZZA 17" OEM alloys have dimensions: 17" diameter 7J width with a 32 offset and a tyre size of 225/55 R17.

The correct 'Offset' is 32 mm for 17" 7J wheels and 33 mm for 18" 8J wheels. ('Offset' explained: - [Click Here](#) -)

Offset it is the distance in mm the wheel hub is from the centre of the width of the wheel.



Citroen offset wheels on a C6 have an offset of 32/33 mm where Fords etc tend to have an off set between 35 & 45.

Therefore if you want to fit say ford fitment wheels with an offset of 35-45mm you may require spacers to bring the offset down to within 32/33 mm. You also need to ensure that any spacers are 'concentric' and reduce the 'bore' to the correct size (read on for more info)

There is also a tyre size differential calculator you can use [here](#) if you want to see the effects of different size tyres - [Click Here](#) -

Wheel nut Torques settings: 9nm/75lb/ft

Vibration Problems with your wheels?

1. The first thing to check is the internal diameter of the wheels - if they are over 65.1mm do they have a 'concentric reduction spigot' installed? (normally plastic) plus if the offset has changed and is adjusted using 'spacers' then are they using 'flat' or 'concentric' ones?

A flat spacer over 5mm should be avoided BTW as there will be little for the hub left for the wheel to sit on.

If over 65.1mm and NO you need one as the wheel is being held in place solely by the bolts so are not guaranteed to be holding the wheel 'true' to the hub circumference so will 'wobble at 65mph+ and which is dangerous as they are taking all the weight of the wheel and not the actual hub on the car. **The bolts are not designed to take all the load and with excessive vibration, could shear.**

2. They have a 'reducing spigot fitted. Is it the correct size? If yes is it sitting **BELOW** the internal hub face of the alloy?

If the wrong diameter you have the same issue as **1** - if the correct diameter but sitting 'proud' of the hub face then the wheels will not be sitting 'square' on the but so are not running true, so will again vibrate at 65mph+

3. [If all the above are correct then it's down to balancing of the wheel/tyre combo](#)

Finally just another image of a Concentric Spacer and Spigot Combination

If all the above is correct and your still getting vibration then it's time to take a look at the brakes on your car.



If judder or vibration happens in the very early life of the vehicle it should be taken back to the installing mechanic to check for brake disc (rotor) run out.

If rotor run out problems are not eliminated at the early onset of vibration or judder, they will become more permanent and worse and will eventually damage the rotor causing its replacement to be necessary to resolve the problem.

Judders and vibrations can also be caused by imbalance of the tyres, a seized brake calliper, or a poor surface condition on the brake rotor (should be turned or replaced on pad installation in all cases).

The ways to eliminate judder are as follows. First of all check that the rotor was installed and was running true with a dial gauge, which should be done by your local mechanic.

Vibration or judders at low speeds are always associated with rotor run out. Vibrations or judder at high speeds (70 - 100 mph) are what we call hot judder and are normally associated with over heating of the brake disc.

This is usually because of a low quality brake rotor casting (in which case the customer needs to be asked who's rotor he was using). This is only remedied by replacement of the rotor.

The other cause of vibration is known as disc thickness variation which is a condition generated when the rotor wears thick and thin due to incorrect installation of the rotor by the installing mechanic (in other words not running true from first installation).

Information from 'EBC Brakes Direct'

What other makes wheels will fit the C6?

Cars with the same PCD and Center Bore - 5X108 and 65.1mm:

Citroen C5 from 2008 - (Offset: 30)
Citroen XM - (Offset: 45)
Fiat Scudo 2 from 2007 - (Offset: 42)
Peugeot 407 (2004 - 2010) - (Offset: 44)
Peugeot 407 Coupe (2005 - 2009) - (Offset: 44)
Peugeot 605 (1990 - 2000) - (Offset: 45)
Peugeot 607 (2000 - 2010) - (Offset: 39)
Peugeot Expert 2 (2006 -) - (Offset: 38)
Peugeot RCZ (2010 -) - (Offset: 27)
Volvo 140 - (Offset: 25)
Volvo 240 - (Offset: 25)
Volvo 740 - (Offset: 25)
Volvo 745 - (Offset: 25)



Volvo 850 (1993 - 1997) - (Offset: 43)
Volvo 940 (1990 - 1998) - (Offset: 25)
Volvo 960 (1990 - 1994) - (Offset: 25)
Volvo 960 (1994 - 1997) - (Offset: 43)
Volvo C70 (1998 - 2006) - (Offset: 43)
Volvo S60 (2000 - 2010) - (Offset: 43-49)
Volvo S60R (2003 - 2010) - (Offset: 46)
Volvo S70 (1997 - 2000) - (Offset: 43)
Volvo S80 (1998 - 2006) - (Offset: 49)
Volvo S90 (1997 - 1998) - (Offset: 43)
Volvo V70 (1997 - 2000) - (Offset: 43)
Volvo V70 (2000 - 2007) - (Offset: 49)
Volvo V70R (2003 - 2007) - (Offset: 46)
Volvo XC70 (2000 - 2007) - (Offset: 49)

Details

Info 04 August 2010 by C6Dave
