

Citroën Fasteners #1

Slotted - Crosshead -
Phillips - Pozidrive

What's the difference? When car production first began, they were fairly simple vehicles, and bolts had hexagon or square heads, and screw fasteners were all slotted, and then, they were mostly wood screws.

Slotted screws worked fine for a very long time, even when attaching metal fittings. In the UK, and Australia, probably well into 1970s

As cars became more complicated, and mass production ramped up, something was needed to speed up the fitting of slotted screws!

Below, left to right: The 'standard' slotted screw, with which we are all familiar. A selection of Yankee Stanley Pump screwdrivers and finally a pair of 'regular' Phillips Head screws.

ENTER THE STANLEY YANKEE PUMP SCREWDRIVER.

This Yankee pump screwdriver was available for most of last century, and was a game changer for fitting slotted screw fasteners quickly. You pumped the handle down against the screw to be fitted, and the spiral on the shaft, and a fixture in the body of the driver, caused the shaft to turn and screw the fastener home.

A ratchet was also incorporated in the driver so it could be reversed to remove screws as well. The pressure on the screwdriver helped keep the driver bit in the slotted screw head, but not always.

But by the 1950s, and finer finishing on motor vehicles, the Yankee showed it's biggest problem. Considerable pressure was required to pump the screwdriver, especially the la-

ger driver, and it was difficult to keep the screw bit in place in the slotted screw head, especially if you didn't keep the driver in complete alignment with the screw, the driver bit was prone to slipping out of the slot, and damaging the surrounding area where the screw was being fitted.

This was also a problem in the furniture industry which by the '60s was becoming increasingly mass produced.

THE CROSS HEAD OR THE PHILLIPS HEAD SCREW.

In the early 1930s, the Phillips Head screw was invented by Oregon businessman Henry Phillips. The cross head or Phillips Head solved the problem of the driver bit slipping out of the screw head.

There was also something more important regarding the Phillips head screw, it was de-

signed so that the screw bit torqued out of the cross head so that it didn't over torque the screw being fitted, and it didn't strip the threads, or break the screw head.

Citroën adopted the cross head screw to it's Traction and 2CV in the early 1950s [?], while it's UK Factory [Slough] still continued to use Slotted.

There may be only one or two Phillips Head screws in the late UK Traction, where just about all screws on the late French Traction are cross head. POZIDRIVE.

The change to the cross head screw, and the adoption of power drivers, showed that there greater possibilities for cross head fasteners to be used in areas where greater torque was required, to fix various fitting such as door locks and catches.

Enter the Pozidrive, it didn't



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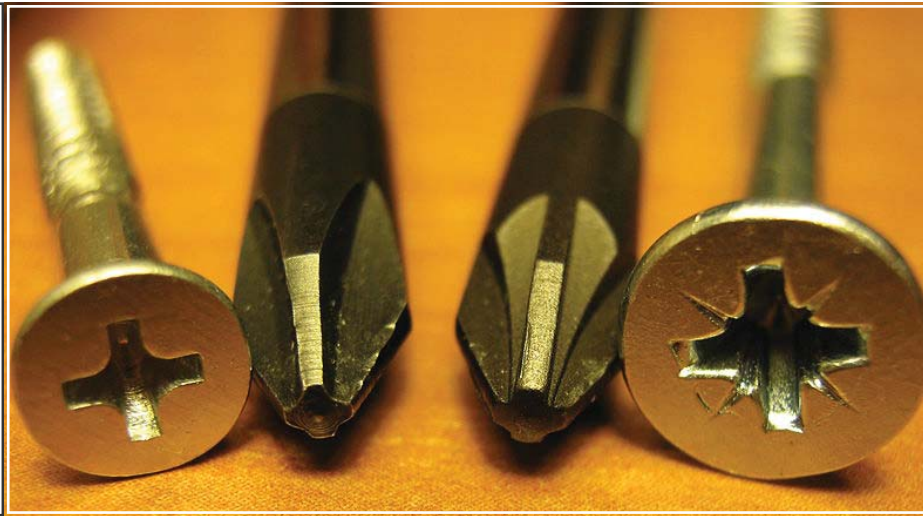
A Pozidrive screw, just waiting to be ruined by a Phillips Head screwdriver in the hands of a novice. The main illustration clearly shows the differences between a Phillips Head screw and its driver and the Pozidrive alternatives.

torque out, and could fasten a huge range of screws to a far greater torque than what was available with the Phillips Head screw head.

Citroën started to adopt Pozidrive screws around the very late 1960s

But there began another problem, mainly caused by a lack of education, and in Australia, the non adoption of Pozidrive screw head screws and screwdrivers generally: The destruction of the Pozidrive Screw Head.

SO WHAT DOES ALL THIS MEAN FOR CITROËN DS OWNERS?



If you use a Phillips Head screwdriver on a Pozidrive screw head screw, because the Phillips Head screwdriver is designed to torque out of the matching screw head, it does the same thing to the Pozidrive screw head, and in doing so, destroys the Pozidrive screw head. Even when using a manual screwdriver and not a power driver.

So if you ever wondered why all the screw heads on your cross head screws are damaged on you late DS [after 1970?], especially the Pallas, its because the previous repairer only had Phillips Head screwdrivers.

If you own a late DS and work on the car your self, buy a set of Pozidrive screwdrivers. They are available, and online might be easier.

If you have a professional repairer work on your DS de-

mand that they have Pozidrive screwdrivers in their tool box.

SO WHAT IS THE DIFFERENCE?

In the image above the Phillips

is on the left, and Pozidrive is on the right.

So, as you can see, the Phillips driver is just straight flutes, where the Pozidrive has four addition small flutes, and the head of the Pozidrive screws have four extra imprints on the top surface as well as the small extra flutes.

What is most ironic, is when the UK finally adopted cross-head screws, it adopted Pozidrive almost completely, while in Australia Pozidrive is really an orphan.

Find out more next instalment on: Tacle headed screws, and Citroën's confusing 5mm thread pitch change.

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