Porsche 928 S4 A28 16 type Automatic Transmission – Oil Pan Gasket
DIY Alert dated March 2005

After a recent repair of my 1990 928 S4 automatic transmission due to a B2 Piston failure, where the B 2 piston was renewed as well as the oil filter, the oil pan gasket, the drain plug copper seal ring and the ATF were replaced. The filter, oil pan gasket and drain plugs were obtained from my local Porsche Centre, as a Porsche Automatic Transmission Service Kit and the new oil pan gasket failed 4 days and approximately 500 kilometres after installation.

In my research into the replacement B2 Piston I unearthed a lot of facts from Porsche and Mercedes Benz literature on the automatic transmission that I had, as well as from what I gathered from the web with the assistance of other 928 owners.

The A28 gear box fitted to my 928 has a Porsche number: A2816 3l02446 and it was made by Mercedes Benz and the spare part numbers quoted in PET5 are the actual MB spare part numbers. In the WSM it states that the numerals printed on the LHS of the gearbox adjacent to the landing face for the oil pan gasket just forward of the B2 Piston cover are production numbers only, however, they are in fact MB identification numbers and relate to the MB type and serial number of the gearbox. The gear box fitted to my 928 is 722 270 3201 722 360 03371586 in other works it is a 722 type series 3 MB automatic transmission.

The specific designation gearbox numbers are: 722 360 03 371586,
722 360 is the Type of gearbox, the numerals 722 designate it is an Automatic Transmission, the next numeral 3 designates the Model of Transmission and in this instance the 722.3 refers to a 4 Speed/6 Bolt/Large Case type gearbox, the 60 refers to the Type of Automobile or Version Number and 371586 is the Serial Number. Unfortunately I don't know what the 03 prior to the six digit serial number refers to or what the first 10 digits refer to. These first 10 numerals could possibly be MB's production numbers?

The new gasket supplied by the Porsche Centre was tensioned up using a micrometer torsion wrench to 8 Nm as per Porsche's specifications. Whilst tensioning the bolts they were sequentially tightened in a diagonal format in 0.5 Nm increments until the 8 Nm torque was obtained.

Initial in situ running, whilst the ATF was added, was done whilst the car was still on the ramps and jack stands and it was filled to the appropriate level matching the operating temperature whilst gear lever was in neutral 'N'. When the level stabilized the car was test run to check B 2 piston operation as per WSM instructions and all appeared to be normal with smooth operation (Good to have the Porsche back in working order).

Four day after completion of repair 440 kilometre round trip was undertaken with arrival back home late at night and the car was parked in the garage, but the auto transmission was not checked due to the hour, however, during the trip, at various times during daylight hours the AT was inspected and there was no ATF leakage evident.

The final leg home was a 220 km non stop run mainly carried out at night.

Next morning when I entered the garage there was a very large pool of ATF, which was dammed up against my garage door. It was estimated that well over a litre of ATF leaked out.

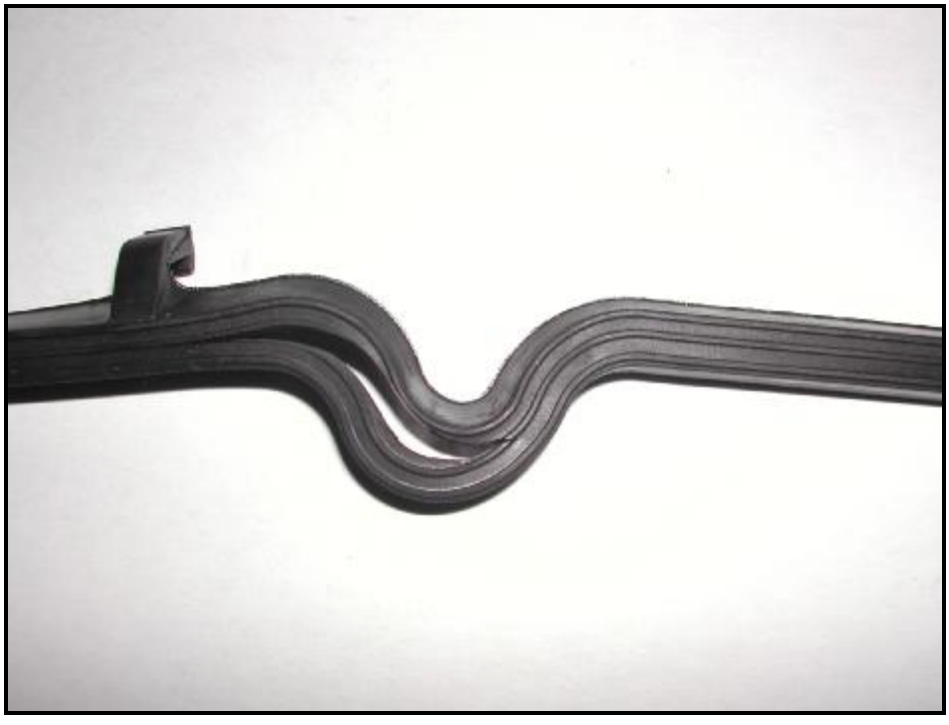
After checking the oil level the vehicle was driven onto portable ramps placed under the front wheels and rear was jacked the rear up and supported on two jack stands as well as leaving the trolley jack in situ.

Initial inspection showed that the ATF was leaking out of the top of the gasket just forward of the RHS centre set bolt. On close inspection it was noted that the top surface of the oil pan gasket had extruded wider than the landing surface of the gear box casing.

An initial attempting to fix the leak was to slacken off the 6 bolts and push the extruded parts of the gasket back under the landing surface and retension the set bolts to specification torque. Unfortunately the gasket again extruded to such an extent it again came over the width of the landing and the leak was still evident.

A decision was made to remove the pan, examine the gasket and if satisfactory then apply a silicone based gasket compound to the mating surfaces.

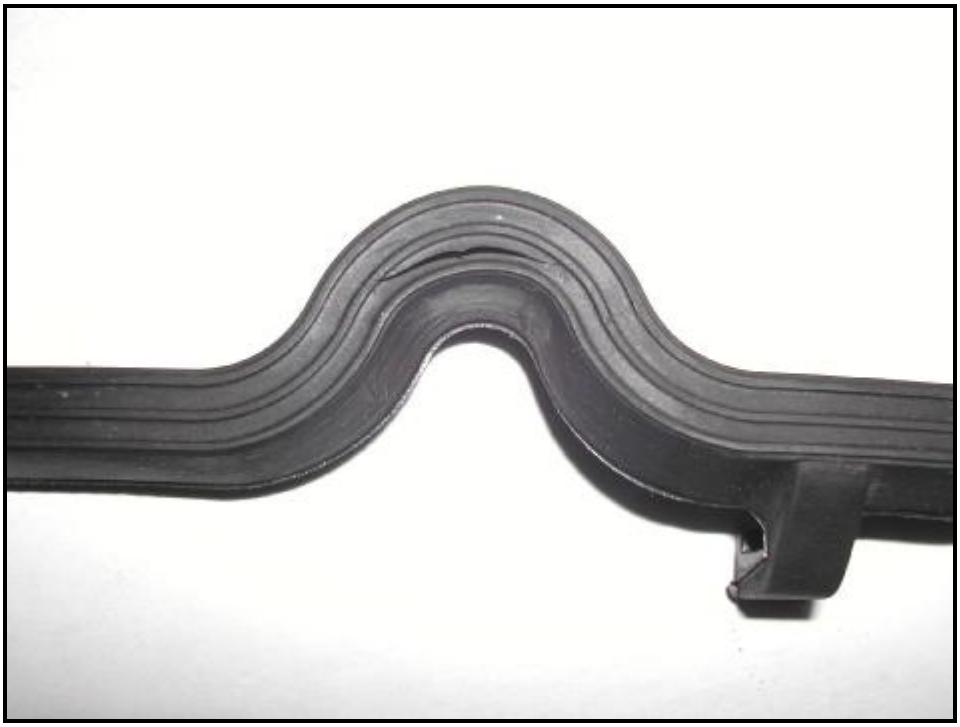
When the gasket was removed the reason for the leak was evident immediately.



Photograph of RHS of Oil Pan Gasket showing split

The gasket had split on the R and LHSs adjacent of the centre set bolt locations. The leakage came from the RHS, as the split was approximately 3.5 cm long. It crossed over the centre rib of the seal surface (the gasket has three ribs located on the upper surface where it abuts the landing face of the gear casing as can be seen in the above photograph). The inner and the outside rib remained intact. It was assumed that the gasket extruded sufficiently to loose the inner and out rib seal on the landing surface and the ATF leaked through the split centre rib and out the extruded area near the gasket location piece.

The LHS split was parallel to the ribs and did not cross over the centre rib, so the centre rib made a seal.



Photograph of LHS of oil pan gasket showing smaller split

Inspection the old gasket revealed it was still in good condition and it had only been fitted to the gear box for approximately 8,000 kms and for around 15 months previously, so a decision was made to fit the old gasket as a gasket was not available for over a week due to the Easter Holiday and my wife's car was being serviced.

Again the set bolts of the oil pan were tensioned up to the 8 Nm in small increments, the ATF replaced and the engine run and gearbox filled as per Porsche's specifications.

Vehicle has been test run and has completed a 200 km round trip without any further sign of leakage.

On investigating the failed gasket it was noted the spare part number as: 126 271 10 80. The reused pan gasket was also checked and its part number was also 126 271 10 80. In checking the plastic bag the Automatic Transmission Servicing Kit came in it was noted that the kit was put together in Germany on 06/11/2002 in other works on the 6th November 2002.

During the investigations into the failed B2 Piston the following document was downloaded, namely MB Administrative Message 27A94091.

27A94091	Transmission Fluid Leakage From Transmission Oil Pan	Transmissions 722.3, 722.5	9/94

This topic was previously Administrative Message #361, August 1994.

Complaint Description:

- Transmission fluid leakage due to gasket tearing or splitting along the side lengths, or rolling inward at the forward corners.
- This complaint can typically occur approx. one week after transmission servicing at the 30k or 60k maintenance service.

Cause:
Transmission oil pan gasket, part no. 126 271 10 80.

Remedy:
Replace transmission oil pan gasket. Refer to **Parts Information** listed below.
Transmission oil pan bolt tightening torque: 8 Nm

Parts Information

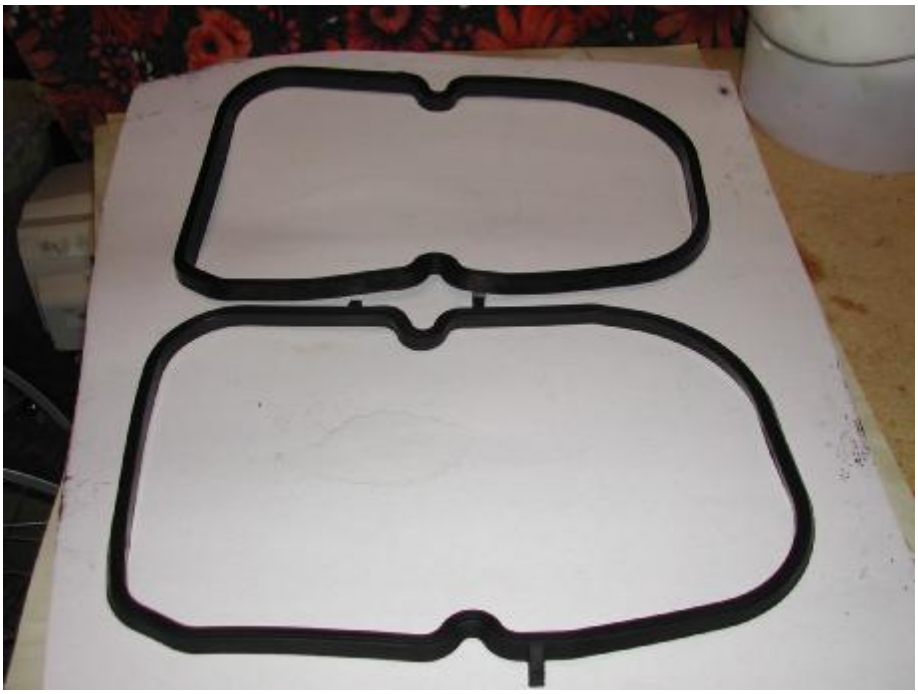
Part Number	Part Name	Application	Quantity
126 271 11 80	Transmission oil pan gasket	Transmissions 722.3, 722.5	1

Damage Code:
27413 04

Please note that MB had problems with the 126 271 10 80 oil pan gasket splitting along the side lengths prior to the September 1994 and the fix was to replace the gasket with a modified one part number 126 271 11 80 in 1994, however Porsche was still supplying the 126 271 10 80 gaskets up to at least 2002 and my local PC has been supplying these in the Service Kits up until the present. The old pan gasket was supplied in 2003 and new on in March 2005.

On contacting our local Porsche Centre Spare Parts Manager and advised him of what had happened and arrangements were made to meet with him on the Tuesday after Easter.

At the meeting he viewed the failed gasket, the MB Administrative Message and he offered to supply a new 126 271 11 80 gasket. On inspection of this 11 80 gasket it is a more robust gasket and thicker, hopefully to prevent the splitting and the lower inner face that fits over the oil pan is deeper than the 10 80 gasket. This may be to stop the rolling inwards at the forward corners.



Photograph of fail Oil Pan Gasket in foreground and new 1180 more substantial gasket at the rear.

The current proposal is to run the car with the existing 10 80 old design gasket and see whether it fails. If it does not fail it will be left in situ, however if it starts to leak it will change it out for the modified 11 80 gasket.

On checking the PET5 for the 1990 S4 & GT cars the oil pan gasket part number is noted as 126 271 1180.

The ALERT is: be sure that if you obtain an Automatic Transmission Service Kit it contains the modified 11 80 gasket or if you order a gasket by itself it is the 11 80 type oil pan gasket.