



# 1438SAC



# **INSTRUCTIONS FOR USE**

# PECIAL KIT SUITABLE FOR SAC CLUTCHES, CENTERING INCLUDED

# COMPONENTS

| Beta item<br>number | Description                      | Beta item<br>number | Description                                   |
|---------------------|----------------------------------|---------------------|---|
| VN952               | Bush with screw assembled        | VN933               | Ø 15 centering                                |
| VN949               | Front centering Ø11.85           | VN927               | Ø 15/23 centering                             |
| VN950               | Front centering Ø11.85           | VN938               | Ø 15/26.5 centering BMW clutches              |
| VN951               | Front centering Ø14.85           | VN928               | Ø 15/28 centering                             |
| VN943               | Conical centering Ø15x30         | VN929               | Ø 15/34 centering                             |
| VN944               | Conical centering Ø15x40         | VN934               | Ø 16 centering                                |
| VN945               | Conical centering Ø15x67         | VN935               | Ø 17 centering                                |
| VN946               | Conical centering Ø15x75         | VN936               | Ø 18 centering                                |
| VN947               | Conical centering Ø18x67         | VN937               | Ø 19 centering                                |
| VN948               | Centring Ø15.5 with OR assembled | VN925               | M6 pin  |
| VN948+              | Conical centering Ø18x75         | VN924               | M7 pin  |
| VN955+              | Centring Ø19.8 with OR assembled | VN923               | M8 pin  |
| VN956+              | Push rod Ø17.8                   | VN922               | Spreader                                      |
| VN953               | Central screw M8x170             | VN930               | Ø 12 spacer in Teflon                         |
| VN920               | 3-arms plate                     | VN942               | Centring handle                               |
| VN921               | 4-arms plate                     | VN940               | Ø 12 complete handle with sphe-<br>rical knob |
|                     | TCE 8x45 screw                   | VN941               | Ø 20 fix handle                               |
| VN931               | Ø 12 centering                   | VN926               | Knob  |
| VN932               | Ø 14 centering                   | VN939               | Punched pin                                   |



# **INSTRUCTIONS FOR USE**

## Nowadays more and more cars mount SAC clutches (Self Adjusting Clutch):

| Brand      | Model   |  |
|------------|---|--|
| Alfa romeo | 147 - 159 - 166 - Brera - Spider  |  |
| Audi       | A3 - A4 - A6 - A8 - TT  |  |
| Bmw        | 320 - 330 - 520 - 530   |  |
| Citroën    | C-Crosser   |  |
| Fiat       | Ulisse - Croma - Ducato - Bravo - Stilo   |  |
| Ford       | Mondeo - Galaxy - Transit - S-Max - Focus C-Max   |  |
| Hyundai    | H-1 - I30 - Santa Fè - Sonata - Tuscon  |  |
| Lancia     | Delta - Thesis - Phedra   |  |
| Mercedes   | C - E - CLS - S - CLK - SLK - SL  |  |
| Mitsubishi | Grandis - Outlander   |  |
| Opel       | Vivaro  |  |
| Peugeot    | 4007  |  |
| Renault    | Espace IV - Laguna - Laguna II - Laguna III - Trafic II - Vel Satis   |  |
| Seat       | Altea - Leon - Toledo II  |  |
| Skoda      | Octavia - Superb  |  |
| Vauxhall   | Vivaro  |  |
| Volkswagen | Eos - Golf IV - Golf V - Golf V Plus - Jetta II - Multivan T5 - Passat - Passat CC - Scirocco - Touran<br>- Transporter V |  |
| Volvo      | Volvo S40 II - V50  |  |

# **APPLICATION:**

These clutches are defined self-adjusting, because due

to a self-adjusting device, they balance the clearance

caused to the wearout of the disk clutches and the pedals

do not become hard.

This grants a long life and an increasingly comfort.



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SAC-Kupplung ist an ihren 2 oder 3 gelben Schnallen erkennbar.

During clutches' mounting operation, it is necessary to give special attention. A wrong installation can cause clutch bell deformations or a loss of regulation.

Consequently warranty replacements become difficult to recognise because damages can occur due to a bad mounting.

To avoid this situation and to grant a right assembling and disassembling of these SAC clutches, it is necessary to use a special tool.

## **DISMOUNTING:**

The usage of this special clutch tool is basic also to dismount SAC clutches. In fact if we try to dismount a SAC clutch, the clutch will unadjust, causing problems during mounting operations, have a shorter life and cause a lot of vibrations.

#### Follow these instructions:

- Mount the handle into the main threaded shaft, locking the picture 1.
- Unscrew the 3 screws at 120° (or 4 screws at 90° fig. 2).
- Mount the suitable screws M6 or M7 or M8 (legs) supplied in this set (fig. 3 and 4);
- Install the special clamp tool (3 or 4 shanks) and lock it with the M8 locking knobs
- Rotate the special tool's handle to compress the cup spring totally (fig. 5).
- Unscrew now the remaining flywheel locking screws (fig. 6).
- Remove the M8 locking knobs from the special tool, then the special tool and the three legs.
- Now the pressure plate is raised and the clutch bell touches the flywheel, becoming easy to unscrew and remove the clutch (fig. 7).













## **MOUNTING:**

- Put the plate and the clutch mechanism on the flywheel;
- Centre the disk clutch using one of the suitable tool supplied (fig. 8 9 10 11).
- Insert the three legs with the right threading but do not tighten, otherwise you can damage the SAC system.
- Install the special clamp tool and lock it with the M8 locking knobs.

Please note that the bell is not connected to the flywheel.

- Rotate the special tool's handle to compress the cup spring totally; Now the bell is close to the flywheel.
- Place and tighten the clutch's locking screws to the flywheel.
- Release the pressure of the tool, and remove all parts.
- Mount now the remaining three screws and finish the operation.













- Protection threaded plug for internal thread
- 2 centering elements / tensioning for the guide bearing or hole of the driving shaft
- · Aligner with guide and tensioning element
- 6 different conic bushes to enlarge the 2 centering / tensioning elements
- 3 unscrewing pins with different diameters for the guide bearing

### **CENTERING THE CLUTCH DISK:**

For a correct assembly of the transmission and a right functioning of the clutch, the disk centering is fundamental.

A correct centering during the assembly phases means to insert accurately the aligner of the clutch disk. In this way the risk to damage the clutch disk is minimal.

### POSSIBLE USES OF THE UNIVER-SAL PIN:

The universal aligner has been designed for a universal application on all vehicles.

Usually the guide bearing is in the hole of the driving shaft whose internal diameter is smaller than the hub diameter.

This aligner is very particular: in fact, it may be used when there is not the guide bearing. In these cases the internal diameter of the driving shaft hole may be larger than the hub diameter. The choice of the pin /aligner to use depends on the internal diameter of the guide bearing / hole of the driving shaft and on the distance between the guide bearing / hole of the driving shaft and the profile of the disk clutch hub.

It is possible to use various components combining them to find the suitable pin.

If no pin is used, screw the protection threaded plug of the internal thread to protect the same thread from dirty substances and possible damages.

Define the centering and tensioning elements to use according to the height of the driving shaft guide and clutch disk hub.