Stand: 22.11.2018

Technical guidelines for Wheel Spacers.

Installation of wheels requires strict attention to the guidelines. Any modification can affect the integrity of the product. Therefore we strongly recommend that the spacers are only used on the cars listed. Negligence can cause serious damage to your car and to you. Since we only accept the return of non-installed, new parts we ask you to carefully read the guidelines enclosed with the system before installation. Changes can be made without prior notice.

- E = EXPORT-USE, no approval
 - 1. Only Germany
 - 2. Only Germany
 - 3. All DR-Systems require longer wheel-bolts. These have to be ordered separately. When ordering wheel-bolts please follow these guidelines:
- 3a) If possible name the type of the wheel when ordering.
- 3b) New bolts must be longer than the original ones by half of the total Track-widening. For example:

With a 30 mm DR-kit you will require bolts that are 15 mm longer than the original bolts.

3c) The bold-head must be identical to the existing bolt:

Taper 60° End digit 01
Round-head for M12/d24 mm, for M14/d28 mm End digit 02
Round-head for M12/d26 mm (e.g. OE VAG-wheels) End digit 03
Flat-head with disc for CITROEN/PEUGEOT End digit 06
Flat-head movable screws for PORSCHE End digit 06
Round-head movable screws End digit 07
Taper-head movable screws 60° End digit 08

3d) For the current tightening torques (pay attention to possible differences between aluminum and steel wheel rims) refer to the information provided by the vehicle manufacturer concerning the attachment of series-production wheels, or, if using special-purpose wheels, refer to the specifications of the wheel manufacturer, as well as the parts certificate concerning wheel spacer. Verify the minimum thread reach of the elongated wheel bolts:

Thread M12x1.25 = at least 8.0 rotations = approx. 10 mm of load-bearing thread Thread M12x1.5 = at least 6.5 rotations = approx. 10 mm of load-bearing thread Thread M12x1.75 = at least 6.5 rotations = approx. 12 mm of load-bearing thread Thread M14x1.25 = at least 9 rotations = approx. 12 mm of load-bearing thread Thread M14x1.5 = at least 7.5 rotations = approx. 11 mm of load-bearing thread Thread 1/2" UNF = at least 8.0 rotations = approx. 11 mm of load-bearing thread

- 3e) Please ensure that the wheel screws do not damage any part of the brake system (ABS sensors etc.)

 Turn the wheel first by hand and check clearance on the inside (max. tolerance for some vehicles is only 2 mm (RA Mercedes)
 - 4. For these vehicles, because of the difference in axle-cap length on the front axle, our DR-System can only be used if the centering contour is drilled out. Because the centering stub can become thin-walled, we do not produce this contour in series.
 - 5. For vehicles with cross-leaf-springs on axle 2.
 - 6. For vehicles with longitudinal leaf-springs on axle 2.
 - 7. The original wheel screw which sticks out of the inner side of the wheel needs to have a permanent thread and it's length has to be smaller than the thickness of the spacer.
 - 8. The supplied nuts and the original stud bolts can not look out of the spacer. If they do anyway only wheels with gaps in the contact-surface can be used. The use of steel-rims is generally not possible. Additional technical notes can be found in the mounting instructions for DRM-systems and possibly in the part approval.
 - 9. For vehicles from AUDI type>89, B4 and C4/S4 with a disc-brake at the rear axle the centering stub might be too long for the 30 mm-Systems. If that case type Part. No. 40234572 (4-hole) and Part. No. 4055571 (5-hole) must be used.
 - 10. On some models the centering stubs are longer than 15 mm and have to be shortened to a length of 15mm max. when using a 30 mm System or the spacer has to be thicker (at least a 20 mm-System)
 - $11. \ \ The \ holding\mbox{-clamp/bolts on the brake-disc/barrel must be removed if Spacers show no gaps.}$
 - 12. These vehicles have different shoulder diameters in the studs depending on model and axle. The DRS Installation-Information must be carefully followed. If exchange of the studs is required, please call for further information.
 - 13. The hub cap (axle 1) on this vehicle might be too long for our spacer-systems. If this is the case, fitting is not possible. We therefore have DR-Systems with a special hubcontour. Please call us for further information.
 - 14. When using DRA-Systems in conjunction with standard-wheels, standard-bolts will be too long. They have to be shortened or be replaced by a new bolt, Part. No. 1452802. In this case a spanner TS 17 must be added to the Board tool box.
 - 15. Depending on model/axle and year, NISSAN vehicles have different diameters in the shoulder of the studs. Please see the following list in which you will find notes for the measurements of the shoulder studs required for the installation. The systems shown in the catalog will be supplied with shoulder-bolts d= 14,25, if you need d=12,85 please add a 1, at the end of the Part. No. See table No. 1 below.

- 16. Because of different studs on the rear axle for vehicles with a drum-brake you have to use the following Part. No. to order: DRS System 10 mm 10657151 and DRS System 30 mm 30657151.
- 17. Depending on model/axle and year, MAZDA vehicles have different diameters in the shoulder of the studs. Please see the following list in which you will find notes for the measurements of the studs required for the installation. The Systems shown in the catalog will be supplied with shoulder-bolts d=13.00, if you need d=14,85 please add a 1, at the end of the Part. No.
 See table No.2 below. Information is subject to change without prior notice.
- 18. These spacers without a double-sided centering are only useable for cars with a sufficient length of the centering to be able to center the wheels enough despite the spacer.
- 18b. The following preconditions have to be fulfilled for using these wheel spacers: Please see table beneath!
- 19. When using our DRA-Systems the DRA-bolts on the rear axle might be too long depending on the brake system. They either have to be shortened by 3 mm or exchanged with Part. No. 1252201.
- 20. For these vehicles you can also use our 40 mm DRA-Systems or 30 40 mm DRM-Systems.
- 21. When using our 50/60 mm Systems for vehicles with sliding doors you have to check the clearance of the fitting!
- 22. Older Blazer models use 7/16" UNF mounting parts. In this case the DRM-nuts have to be replaced by Part. No. 716001.
- 23. These spacers without a double-sided centering are only useable for cars with a sufficient length of the centering to be able to center the wheels enough despite the spacer. Not for wheels with flat-head-nuts!
- 24. If the attachmet face is too small, spacers with an outer diameter of 150mm are available alternatively. Please find below the part numbers for these:

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DR-System 16 mm = 162555719
DR-System 20 mm Version A= 202555713A
DR-System 20 mm Version B= 202555713B
DR-System 24 mm = 242555713
DR-System 30 mm = 302555716
DR-System 40 mm = 40255716
DRA-System 40 mm = 4025572
DRA-System 50 mm = 50255712
DRA-System 60 mm = 60255712
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- 25. Not usable with steel-rims!
- 26. Not for VW Passat CC.
- 27. Only for front axle.
- 28. Only for rear axle.
- 29. These wheel spacers are mounted to the car with the original fastening elements. Additional accessory is not needed. Make sure the length of the original stud bolts is adequate.
- 30. Mounting the longer stud bolts may require extensive effort. If applicable, the wheel bearings have to be renewed.
- 31. Wheel spacers with ABE are only useable for the original wheels shown in the ABE which is enclosed in the delivery. For special wheel/tyre combinations an additional inspection is necessary. ABE are just valid in Germany. Included in the delivery of the ABE spacers is the entire fastening material.
- 32. The set contains: 2 spacers, 10 longer wheel screws, wheel lock with p/n 10217-1.
- 33. The set contains: 4 spacers, 16 longer wheel screws, wheel lock with p/n 10217-1.
- 34. The set contains: 4 spacers, 20 longer wheel screws, wheel lock with p/n 10217-1.
- 35. The set contains: 2 spacers, 10 longer wheel screws incl. 2 wheel lock screws.
- 36. The set contains: 2 spacers with pressed-in stud bolts and nuts
- 37. The set contains: 4 spacers with pressed-in stud bolts and nuts
- 38. The set contains: 4 spacers
- 39. These wheel spacers are mounted with the provided shank nuts. More accessory is not needed. Please make sure the required thread depth of the fastening elements is sufficient.
- 40. Not useable with original 19" wheels. (the pouring pockets inside the wheel is not sufficient)
- 41. The set contains: 2 spacers, 6 longer wheel screws incl. 2 wheel lock screws.
- 42. Only for cars with all-wheel steering mechanism. (4CONTROL)
- 43. Please note the permissible wheel/tyre combinations mentioned in the type approval!

- 44. The original wheel screws have to be replaced with shorter ones. These are included in delivery! When using aftermarket wheels with non-original screws, shorter ones have to be used!
- 45. Only useable on the front axle of 2WD cars. Useable on the front and rear axle for 4WD cars.
- 46. Only for cars without all-wheel steering mechanism. (4CONTROL)

 $\ensuremath{\mathsf{H\&R}}$ is not responsible for typographical or photographical errors.

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