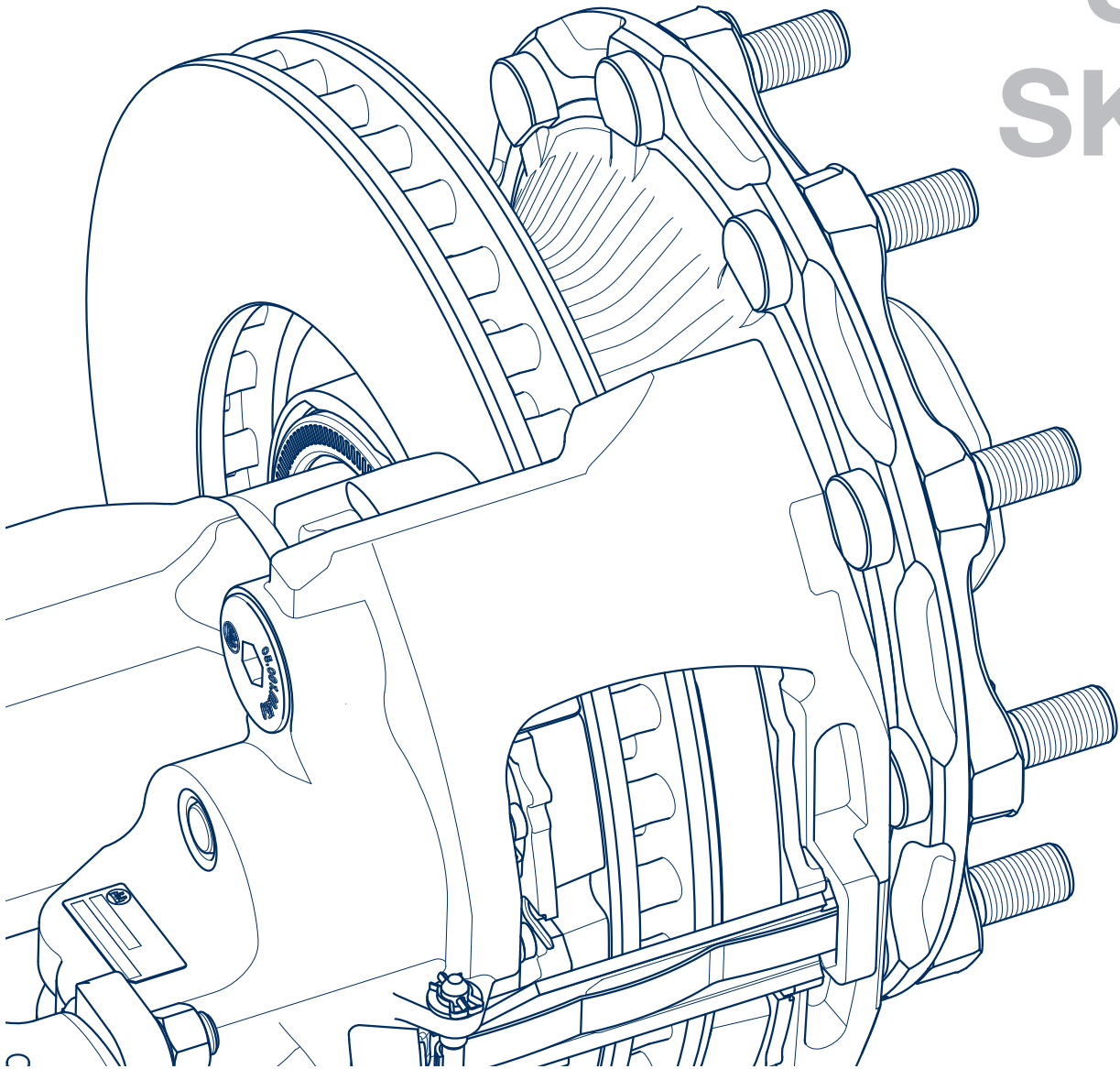


SH
SKH



ECO Disc Werkzeug-Koffer
ECO Disc tool case
Mallette outils ECO Disc

99.00.000.9.68



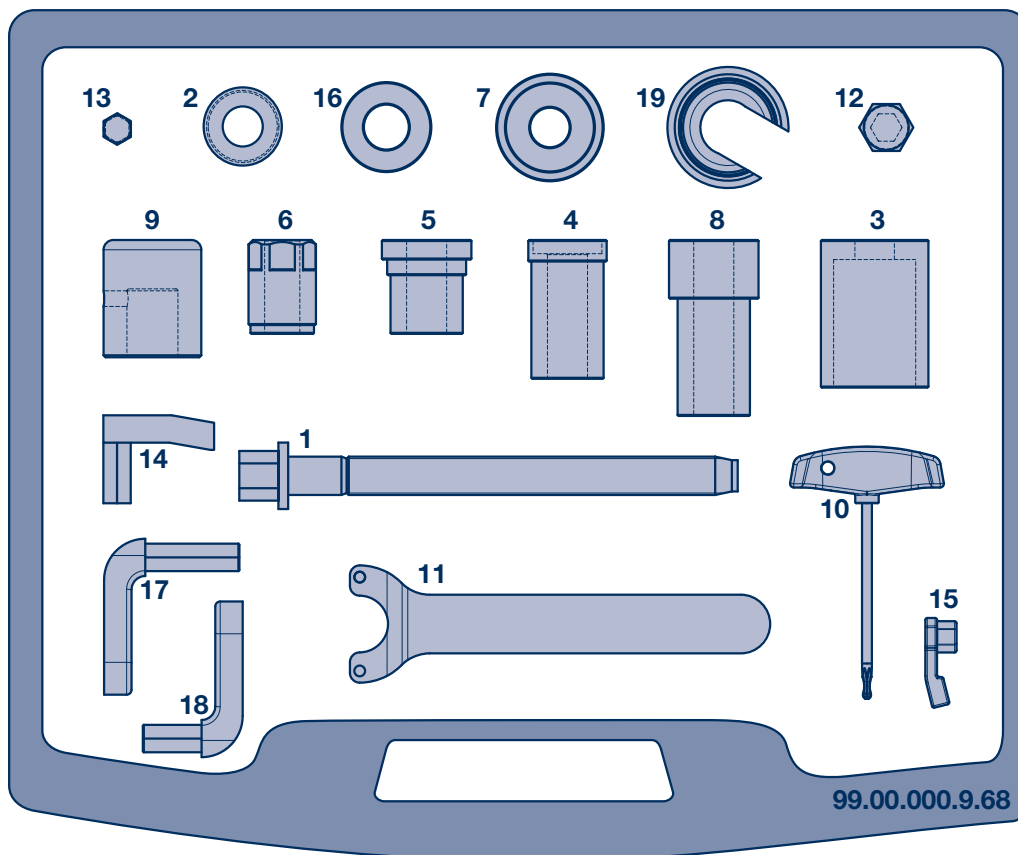
Inhaltsverzeichnis

| | |
|--|----------------|
| ⊙ 1. Übersicht | Seite 3 |
| ⊙ 2. Spezialwerkzeuge Los- und Festlager-Buchse Teil Nr. 1 - 8 | Seite 4 |
| 2.1 Übersicht Nr. 1 - 8 | Seite 4 |
| 2.2 Anwendung Nr. 1 - 8 | Seite 5 |
| ⊙ 3. Spezialwerkzeuge Teil Nr. 9 - 19 | Seite 6 |

- ⊙ Die Spezialwerkzeuge gewährleisten eine sichere und einfache Durchführung aller empfohlenen Servicearbeiten an der BPW ECO Disc (TSB 3709 / TSB 4309 / TSB 4312).
- ⊙ Alle Arbeiten am Fahrzeug dürfen nur von Mitarbeitern der Nutzfahrzeug-Industrie und des Nutzfahrzeug-Handwerks mit der entsprechenden Fachkompetenz durchgeführt werden. Es sind stets die Sicherheitsanweisungen des Fahrzeugherstellers beachten.
- ⊙ Bitte beachten Sie das BPW Werkstatthandbuch. (www.bpw.de)

Übersicht 1

| Nr. | Benennung | BPW Sachnummer | Abmessung |
|-----|---|----------------|--------------------|
| 1 | Gewindespindel | 02.0130.39.10 | Tr 20 x 2 / SW 22 |
| 2 | Kugellager | 02.0130.40.10 | Ø 40 / 20,5 x 14,5 |
| 3 | Hülse | 02.1410.26.00 | Ø 55 / 20,2 x 75 |
| 4 | Auspresswerkzeug Los- und Festlager | 02.0130.41.10 | Ø 40 / 20,5 x 71 |
| 5 | Einpresswerkzeug Loslager | 02.0130.42.10 | Ø 46 / 20,5 x 48 |
| 6 | Mutter | 02.5270.37.00 | Tr 20 x 2 / SW 32 |
| 7 | Gegenhalter | 02.1421.22.00 | Ø 55 / 20,5 x 13 |
| 8 | Einpresswerkzeug Festlager | 02.0130.43.10 | Ø 46 / 20,5 x 90 |
| 9 | Aufpresswerkzeug Faltenbalg (Kunststoff) | 02.0130.45.10 | Ø 50 / 26 x 60 |
| 10 | Torxschlüssel Rückstellung | 02.0130.44.10 | TX 25 |
| 11 | Zweilochschlüssel für Grobschmutz-Dichtung | 02.3516.20.00 | |
| 12 | Adapter für Loslagerschraube | 02.0130.46.10 | SW 14 / SW 24 |
| 13 | Adapter für Kunststoffkappe | 02.0130.47.10 | SW 14 / SW 13 |
| 14 | Adapter für Drehmomentschlüssel (Loslager) | 02.0130.48.10 | SW 14 |
| 15 | Adapter für Drehmomentschlüssel (Kunststoffkappe) | 02.0130.49.10 | SW 14 |
| 16 | Ring zum Einziehen der Radbolzen | 02.5683.92.00 | Ø 46 / 23 x 15 |
| 17 | Werkzeug für Festlagerschraube | 02.0130.64.10 | SW 14 / SW 14 |
| 18 | Werkzeug für Loslagerschraube | 02.0130.65.10 | SW 14 / SW 14 |
| 19 | Montagewerkzeug für Faltenbalg | 02.0130.80.10 | Ø 62 / 28 x 32 |



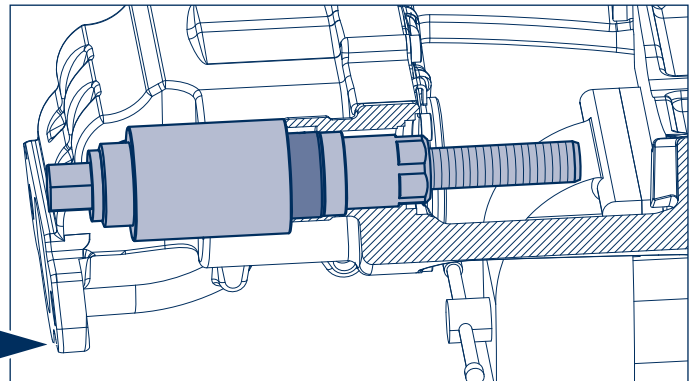
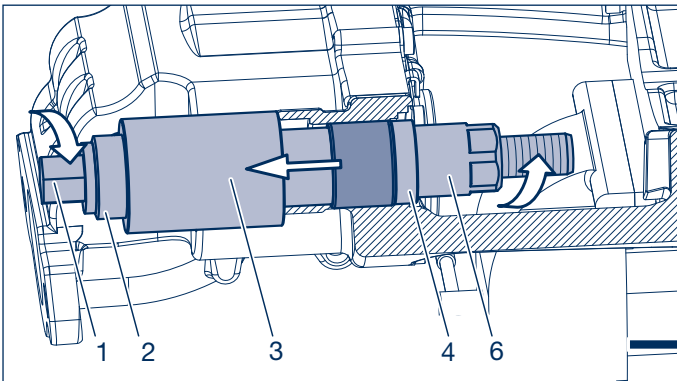
2 Spezialwerkzeuge Los- und Festlager-Buchse

2.1 Übersicht

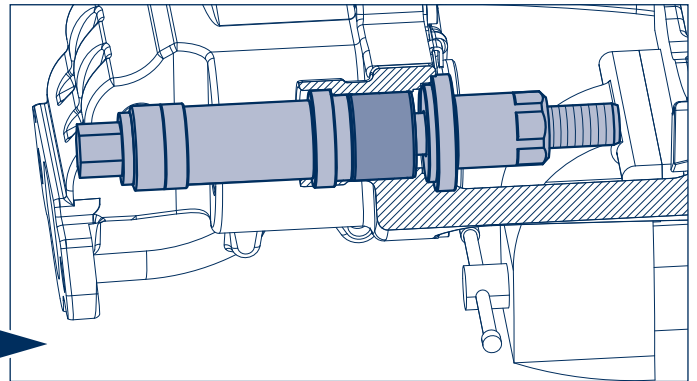
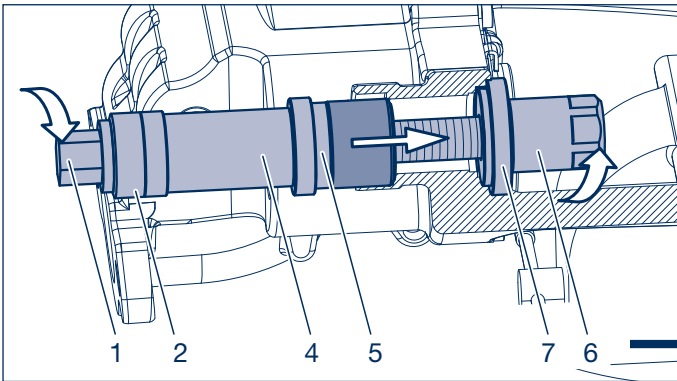
| | |
|---|---|
| <p>Nr. 1 02.0130.39.10 Gewindespindel Tr 20 x 2 / SW 22</p>  | <p>Nr. 2 02.0130.40.10 Kugellager Ø 40 / 20,5 x 14,5</p>  |
| <p>Nr. 3 02.1410.26.00 Hülse Ø 55 / 20,2 x 75</p>  | <p>Nr. 4 02.0130.41.10 Auspresswerkzeug Los- und Festlager Ø 40 / 20,5 x 71</p>  |
| <p>Nr. 5 02.0130.42.10 Einpresswerkzeug Loslager Ø 46 / 20,5 x 48</p>  | <p>Nr. 6 02.5270.37.00 Mutter Tr 20 x 2 / SW 32</p>  |
| <p>Nr. 7 02.1421.22.00 Gegenhalter Ø 55 / 20,5 x 13</p>  | <p>Nr. 8 02.0130.43.10 Einpresswerkzeug Festlager Ø 46 / 20,5 x 90</p>  |

Anwendung 2.2

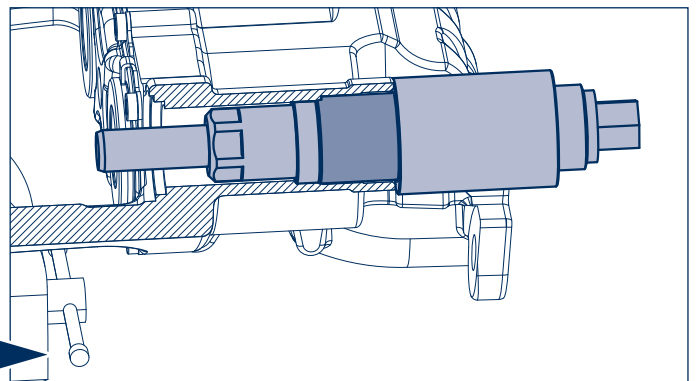
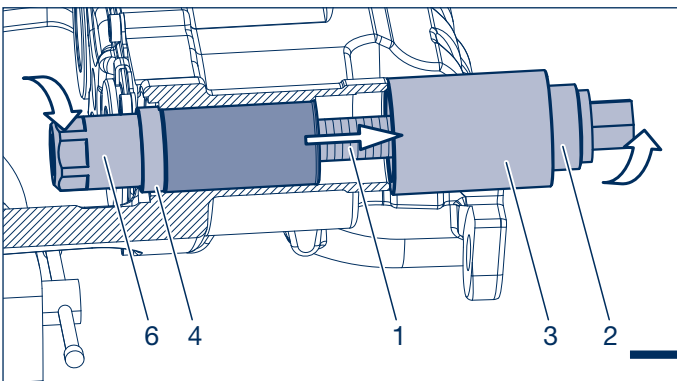
Loslager-Buchse auspressen



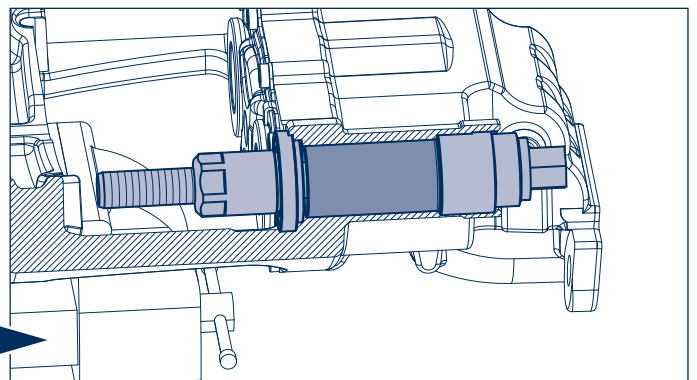
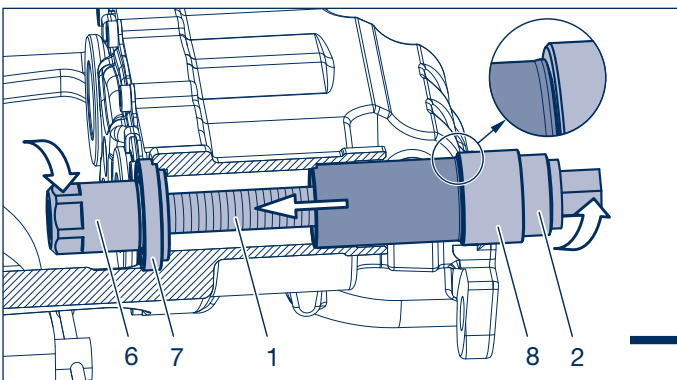
Loslager-Buchse einpressen



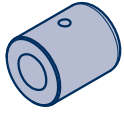
Festlager-Buchse auspressen



Festlager-Buchse einpressen



3 Spezialwerkzeuge Nr. 9 - 19

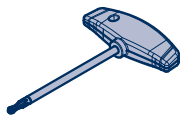
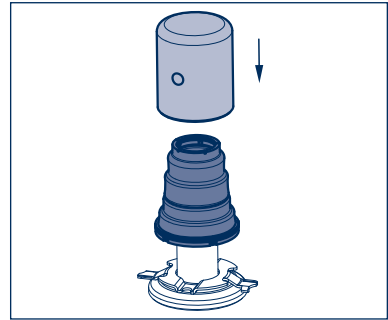


Nr. 9

02.0130.45.10

Ø 50 / 26 x 60

Aufpresswerkzeug Faltenbalg (Kunststoff)

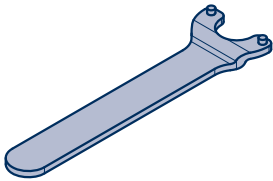
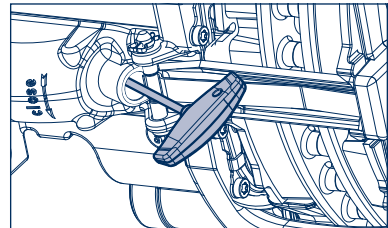


Nr. 10

02.0130.44.10

TX 25

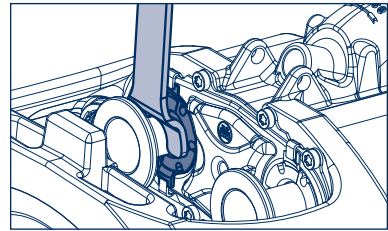
Torxschlüssel für die Rückstellung



Nr. 11

02.3516.20.00

Zweilochschlüssel für
Grobschmutz-Dichtung

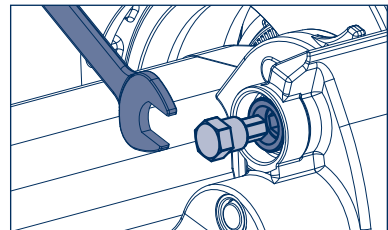


Nr. 12

02.0130.46.10

SW 14 / SW 24

Adapter für Loslagerschraube

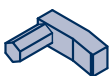
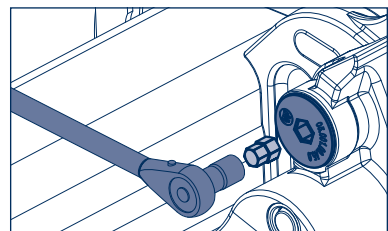


Nr. 13

02.0130.47.10

SW 14 / SW 13

Adapter für Kunststoffkappe Los- und Festlager

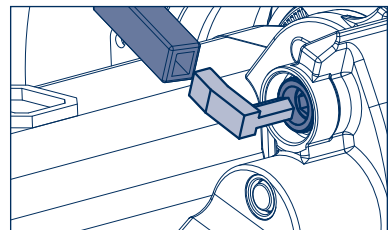


Nr. 14

02.0130.48.10

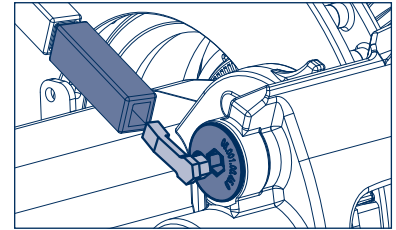
SW 14

Adapter für Drehmomentschlüssel
(Loslagerschraube)



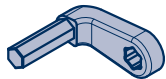
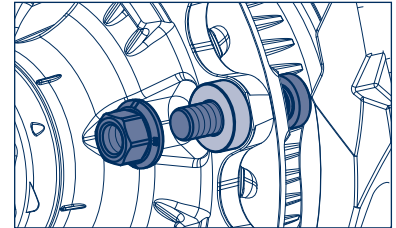
**Nr. 15****02.0130.49.10**

SW 14

Adapter für Drehmomentschlüssel
(Kunststoffkappe Los- und Festlager)**Nr. 16****02.5683.92.00**

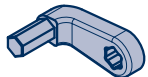
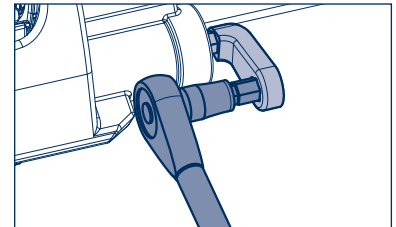
Ø 46 / 23 x 15

Ring zum Einziehen der Radbolzen

**Nr. 17****02.0130.64.10**

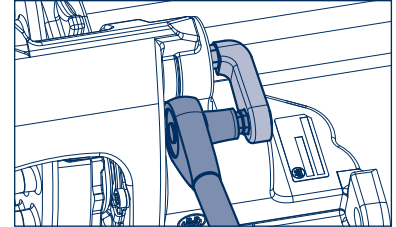
SW 14 / SW 14

Werkzeug für Festlagerschraube

**Nr. 18****02.0130.65.10**

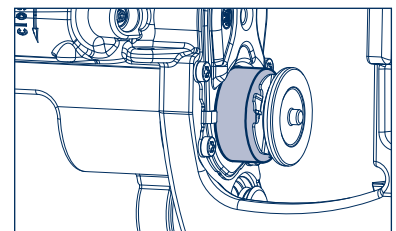
SW 14 / SW 14

Werkzeug für Loslagerschraube

**Nr. 19****02.0130.80.10**

Ø 62 / 28 x 32

Montagewerkzeug für Faltenbalg



Contents

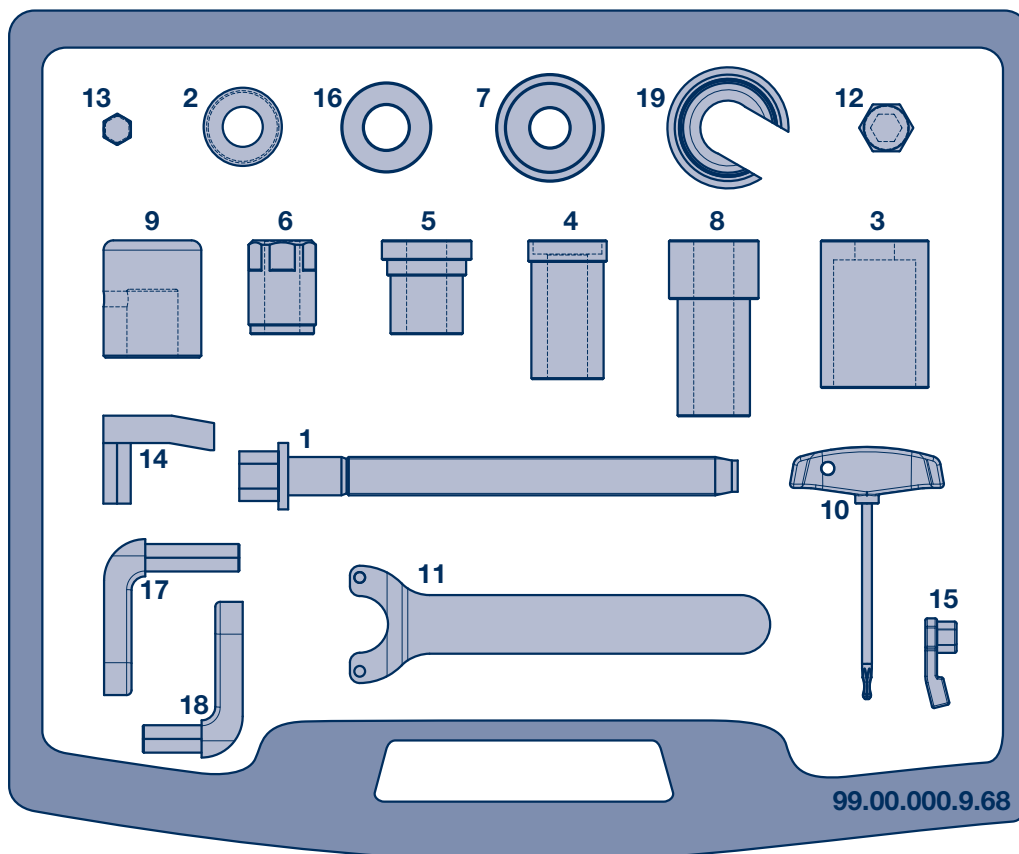
| | |
|---|----------------|
| ◎ 4. Overview | Page 9 |
| ◎ 5. Special tools for movable and fixed bearing bushes, part no. 1-8 | Page 10 |
| 5.1 Overview No. 1-8 | Page 10 |
| 5.2 Application no. 1-8 | Page 11 |
| ◎ 6. Special tools, part no. 9-19 | Page 12 |

- ◎ The special tools ensure that all recommended service work on the BPW ECO Disc (TSB 3709 / TSB 4309 / TSB 4312) can be performed safely and easily.
- ◎ Only employees in the commercial vehicle industry and trade who have the appropriate technical proficiency are permitted to perform work on the vehicle.
- ◎ Please refer to the BPW workshop manual. (www.bpw.de)

Overview

4

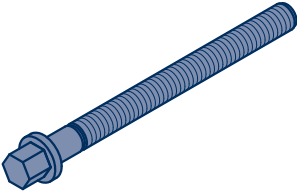

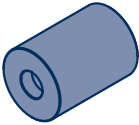




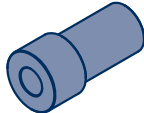
| No. | Name | BPW code number | Dimension |
|-----|--|-----------------|--------------------|
| 1 | Threaded spindle | 02.0130.39.10 | Tr 20 x 2 / SW 22 |
| 2 | Thrust bearing | 02.0130.40.10 | Ø 40 / 20.5 x 14.5 |
| 3 | Sleeve | 02.1410.26.00 | Ø 55 / 20.2 x 75 |
| 4 | Press-out tool for movable and fixed bearings | 02.0130.41.10 | Ø 40 / 20.5 x 71 |
| 5 | Pressing tool (movable bearing) | 02.0130.42.10 | Ø 46 / 20.5 x 48 |
| 6 | Nut | 02.5270.37.00 | Tr 20 x 2 / SW 32 |
| 7 | Counter-hold tool | 02.1421.22.00 | Ø 55 / 20.5 x 13 |
| 8 | Pressing tool (fixed bearing) | 02.0130.43.10 | Ø 46 / 20.5 x 90 |
| 9 | Press-in tool (plastic bellows) | 02.0130.45.10 | Ø 50 / 26 x 60 |
| 10 | Torx spanner return mechanism | 02.0130.44.10 | TX 25 |
| 11 | Two-hole spanner for coarse dirt seal | 02.3516.20.00 | |
| 12 | Adapter for movable bearing screw | 02.0130.46.10 | SW 14 / SW 24 |
| 13 | Adapter for plastic cap (movable and fixed bearing) | 02.0130.47.10 | SW 14 / SW 13 |
| 14 | Adapter for torque wrench (movable bearing) | 02.0130.48.10 | SW 14 |
| 15 | Adapter for torque wrench (plastic cap) (movable and fixed bearing) | 02.0130.49.10 | SW 14 |
| 16 | Ring for pulling in wheel studs | 02.5683.92.00 | Ø 46 / 23 x 15 |
| 17 | Tool for fixed bearing bolt | 02.0130.64.10 | SW 14 / SW 14 |
| 18 | Tool for movable bearing screw | 02.0130.65.10 | SW 14 / SW 14 |
| 19 | Mounting tool for the bellows | 02.0130.80.10 | Ø 62 / 28 x 32 |



Tool case arrangement

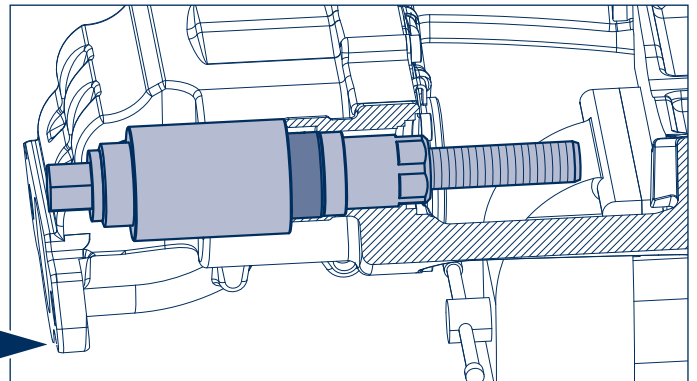
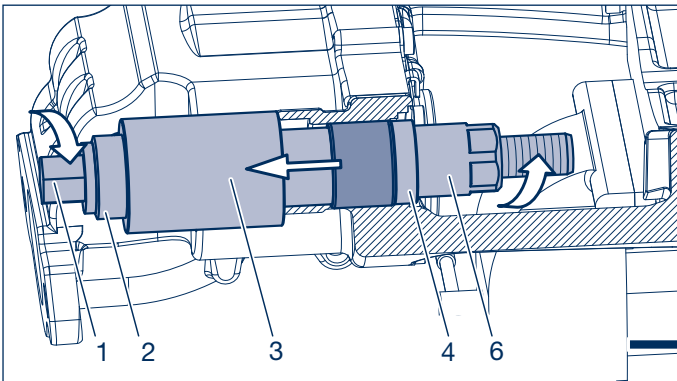
5 Special tools for movable and fixed bearing bushes

5.1 Overview

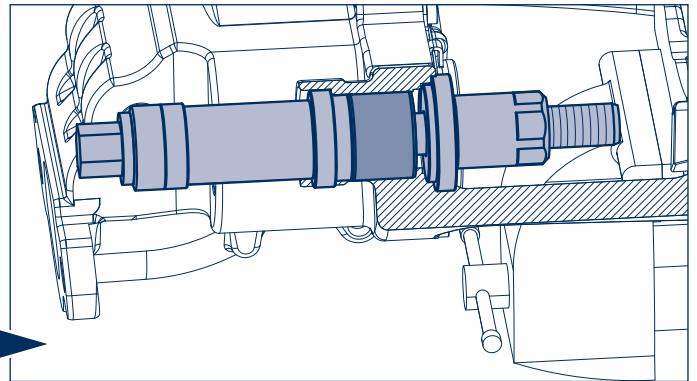
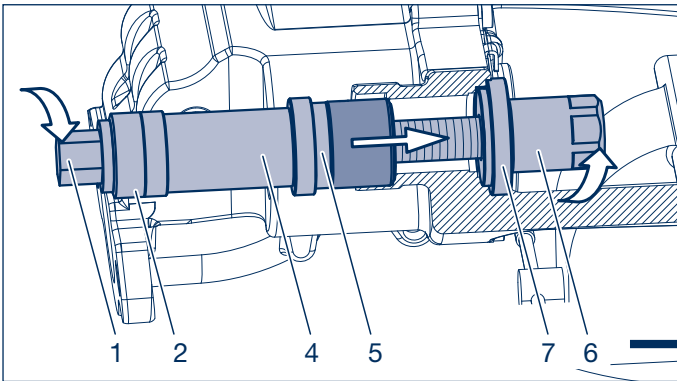
| | |
|---|---|
| <p>No. 1 02.0130.39.10 Threaded spindle Tr 20 x 2 / SW 22</p>  | <p>No. 2 02.0130.40.10 Thrust bearing Ø 40 / 20.5 x 14.5</p>  |
| <p>No. 3 02.1410.26.00 Sleeve Ø 55 / 20.2 x 75</p>  | <p>No. 4 02.0130.41.10 Press-out tool for movable and fixed bearings Ø 40 / 20.5 x 71</p>  |
| <p>No. 5 02.0130.42.10 Pressing tool (movable bearing) Ø 46 / 20.5 x 48</p>  | <p>No. 6 02.5270.37.00 Nut Tr 20 x 2 / SW 32</p>  |
| <p>No. 7 02.1421.22.00 Counter-hold tool Ø 55 / 20.5 x 13</p>  | <p>No. 8 02.0130.43.10 Pressing tool (fixed bearing) Ø 46 / 20.5 x 90</p>  |

Application 5.2

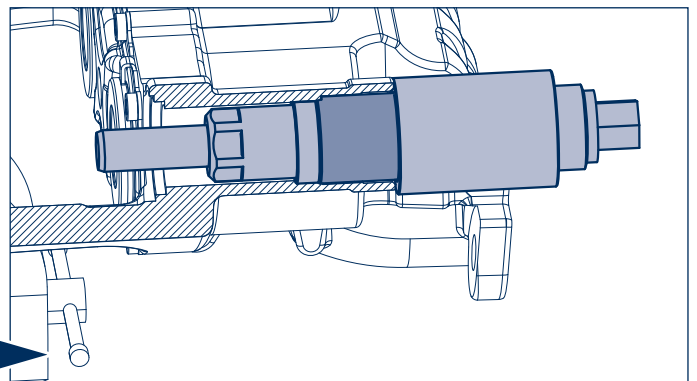
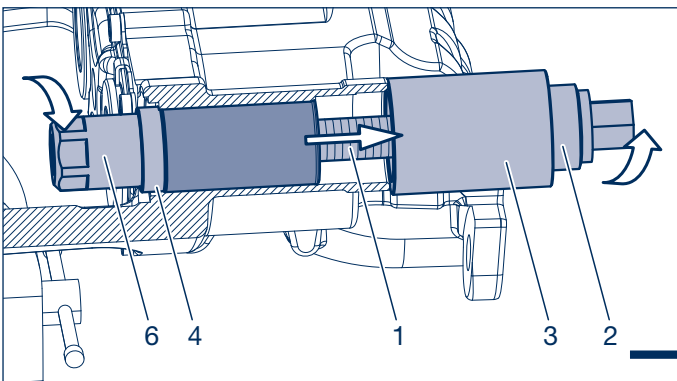
Pressing the movable bearing bush out



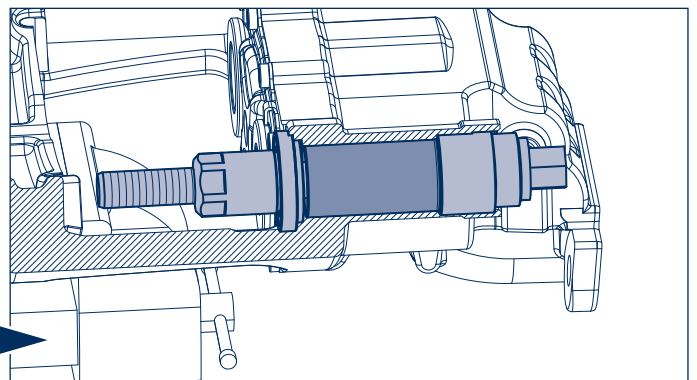
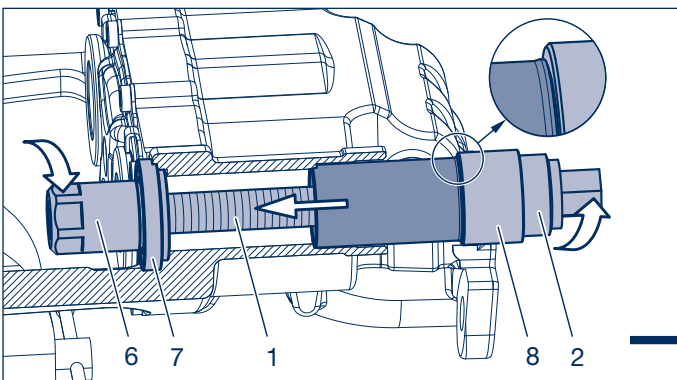
Pressing the movable bearing bush in



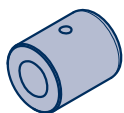
Pressing the fixed bearing bush out



Pressing the fixed bearing bush in



6 Special tools no. 9-19

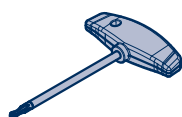
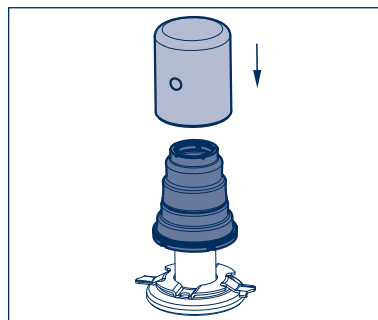


No. 9

02.0130.45.10

Ø 50 / 26 x 60

Press-in tool (plastic bellows)

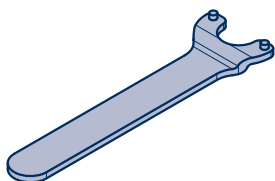
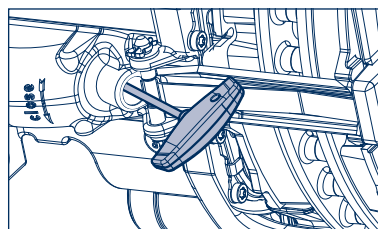


No. 10

02.0130.44.10

TX 25

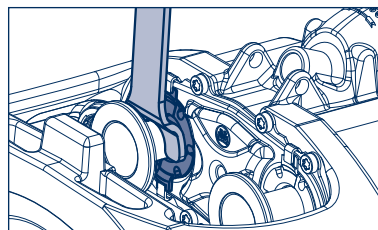
Torx spanner return mechanism



No. 11

02.3516.20.00

Two-hole spanner for coarse dirt seal

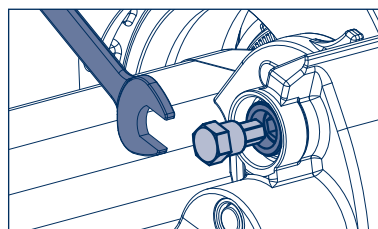


No. 12

02.0130.46.10

SW 14 / SW 24

Adapter for movable bearing screw

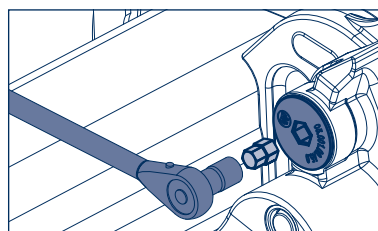


No. 13

02.0130.47.10

SW 14 / SW 13

Adapter for plastic cap
(movable and fixed bearing)

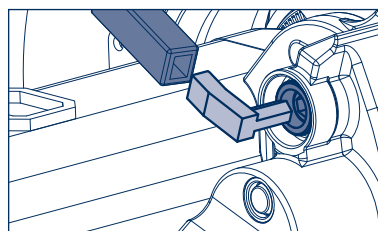



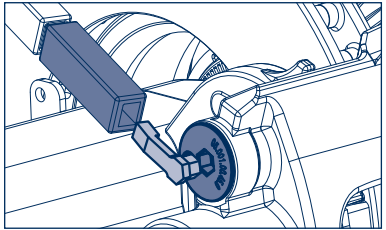

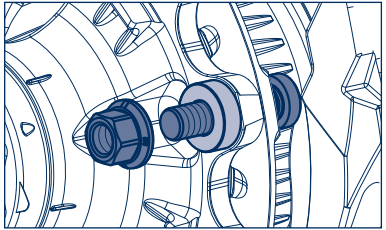
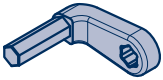
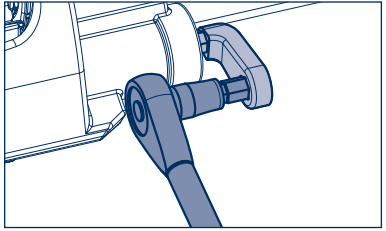
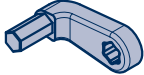
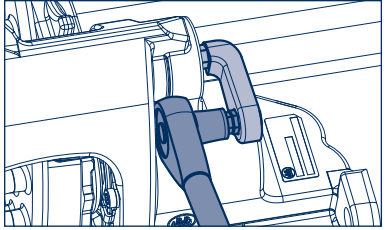

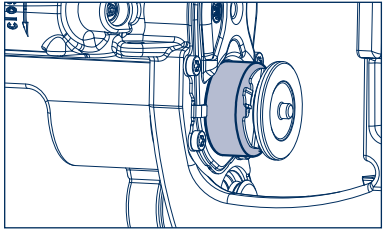
No. 14

02.0130.48.10

SW 14

Adapter for torque wrench (movable bearing)



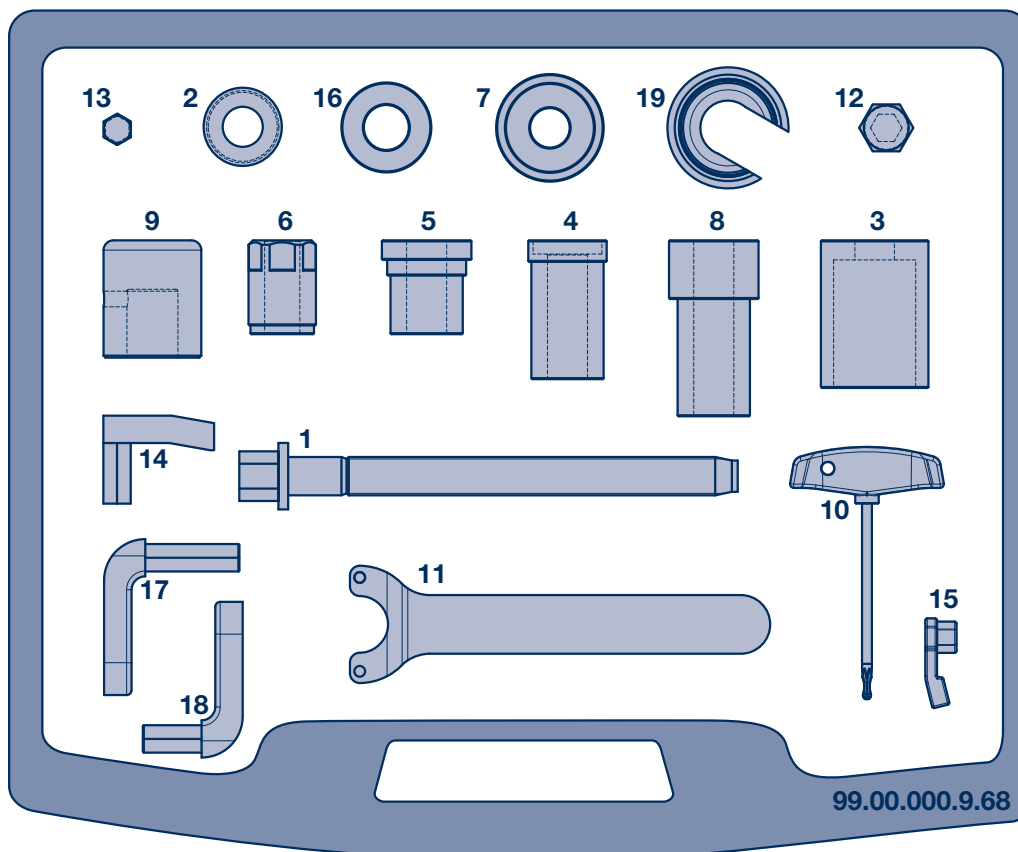
| | | |
|---|---|---|
|  | <p>No. 15 02.0130.49.10 SW 14 Adapter for torque wrench (plastic cap) (movable and fixed bearing)</p> |  |
|  | <p>No. 16 02.5683.92.00 \varnothing 46 / 23 x 15 Ring for pulling in wheel studs</p> |  |
|  | <p>No. 17 02.0130.64.10 SW 14 / SW 14 Tool for fixed bearing bolt</p> |  |
|  | <p>No. 18 02.0130.65.10 SW 14 / SW 14 Tool for movable bearing screw</p> |  |
|  | <p>No. 19 02.0130.80.10 \varnothing 62 / 28 x 32 Mounting tool for the bellows</p> |  |

Sommaire

- ⊙ **7. Aperçu Page 15**
 - ⊙ **8. Outil spécial douille pour palier libre et fixe pièces n°1 à 8 Page 16**
 - 8.1 Aperçu n° 1 à 8 Page 16
 - 8.2 Application n°1 à 8 Page 17
 - ⊙ **9. Outil spécial pièces n°9 à 19 Page 18**
-
- ⊙ **L'outillage spécial garantit une exécution fiable et simple de tous les travaux d'entretien recommandés pour l'ECO Disc BPW de type TSB 3709 / TSB 4309 / TSB 4312.**
 - ⊙ **L'exécution de tous les travaux sur le véhicule est exclusivement réservée au personnel de l'industrie et de la profession des véhicules utilitaires disposant de la qualification correspondante. Toujours respecter les instructions de sécurité du constructeur du véhicule.**
 - ⊙ **Prière de respecter le manuel de réparation mécanique BPW. (www.bpw.de)**

Aperçu 7

| N° | Désignation | Référence BPW | Dimensions |
|----|---|---------------|---------------------|
| 1 | Broche filetée | 02.0130.39.10 | Tr 20 x 2 / Ouv. 22 |
| 2 | Roulement à billes | 02.0130.40.10 | Ø 40 / 20,5 x 14,5 |
| 3 | Douille | 02.1410.26.00 | Ø 55 / 20,2 x 75 |
| 4 | Extracteur de palier libre et fixe | 02.0130.41.10 | Ø 40 / 20,5 x 71 |
| 5 | Outil d'emmanchement (palier libre) | 02.0130.42.10 | Ø 46 / 20,5 x 48 |
| 6 | Écrou | 02.5270.37.00 | Tr 20 x 2 / Ouv. 32 |
| 7 | Butée | 02.1421.22.00 | Ø 55 / 20,5 x 13 |
| 8 | Outil d'emmanchement (palier fixe) | 02.0130.43.10 | Ø 46 / 20,5 x 90 |
| 9 | Outil de mise en place pour soufflet (plastique) | 02.0130.45.10 | Ø 50 / 26 x 60 |
| 10 | Clé Torx (remise à zéro) | 02.0130.44.10 | TX 25 |
| 11 | Clé à deux ergots pour joint anti-salissures grossières | 02.3516.20.00 | |
| 12 | Adaptateur pour vis de palier libre | 02.0130.46.10 | Ouv. 14 / Ouv. 24 |
| 13 | Adaptateur pour capuchon en plastique | 02.0130.47.10 | Ouv. 14 / Ouv. 13 |
| 14 | Adaptateur pour clé dynamométrique (vis de palier libre) | 02.0130.48.10 | Ouv. 14 |
| 15 | Adaptateur pour clé dynamométrique (capuchon en plastique / palier libre et fixe) | 02.0130.49.10 | Ouv. 14 |
| 16 | Bague pour mise en place des goujons de roue | 02.5683.92.00 | Ø 46 / 23 x 15 |
| 17 | Outil pour vis de palier fixe | 02.0130.64.10 | Ouv. 14 / Ouv. 14 |
| 18 | Outil pour vis de palier libre | 02.0130.65.10 | Ouv. 14 / Ouv. 14 |
| 19 | Outil de montage pour soufflet | 02.0130.80.10 | Ø 62 / 28 x 32 |



Répartition dans la mallette

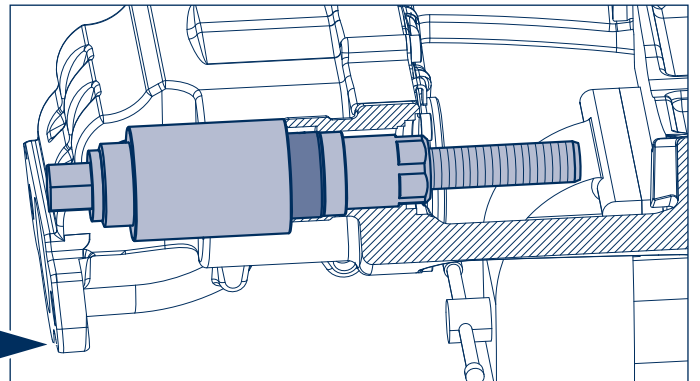
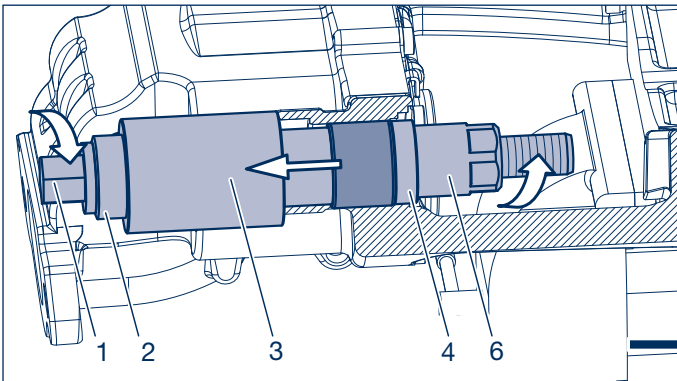
8 Outil spécial douille pour palier libre et fixe

8.1 Aperçu

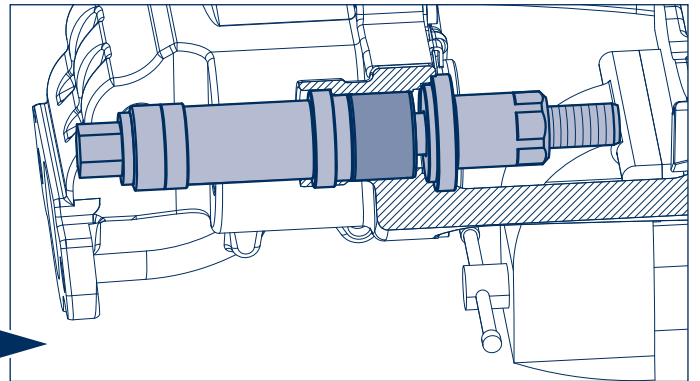
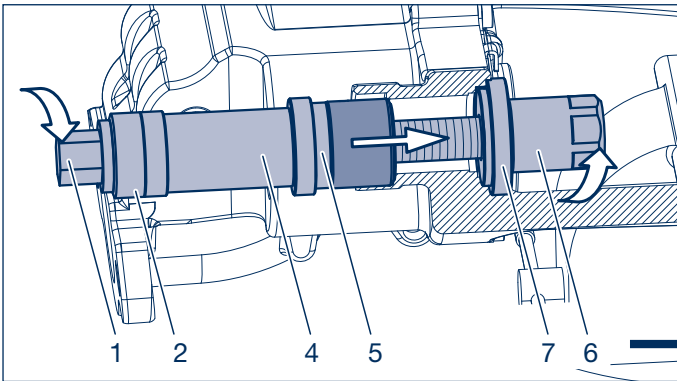
| | |
|--|---|
| <p>N° 1 02.0130.39.10 Broche filetée Tr 20 x 2 / Ouv. 22</p>  | <p>N° 2 02.0130.40.10 Roulement à billes Ø 40 / 20,5 x 14,5</p>  |
| <p>N° 3 02.1410.26.00 Douille Ø 55 / 20,2 x 75</p>  | <p>N° 4 02.0130.41.10 Extracteur de palier libre et fixe Ø 40 / 20,5 x 71</p>  |
| <p>N° 5 02.0130.42.10 Outil d'emmanchement (palier libre) Ø 46 / 20,5 x 48</p>  | <p>N° 6 02.5270.37.00 Écrou Tr 20 x 2 / Ouv. 32</p>  |
| <p>N° 7 02.1421.22.00 Butée Ø 55 / 20,5 x 13</p>  | <p>N° 8 02.0130.43.10 Outil d'emmanchement (palier fixe) Ø 46 / 20,5 x 90</p>  |

Application 8.2

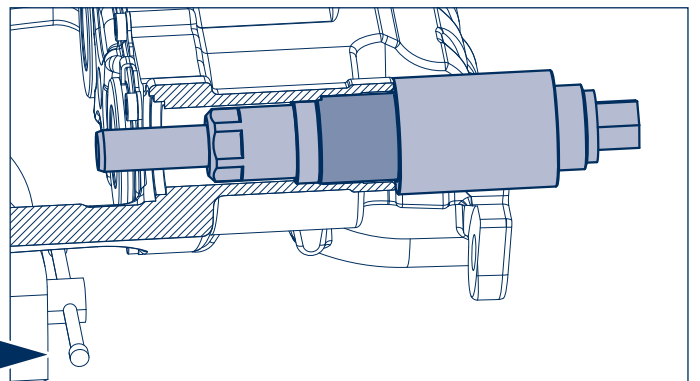
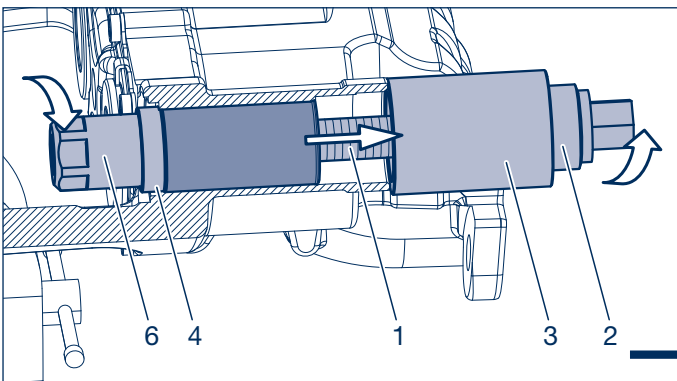
Extraction de la douille pour palier libre



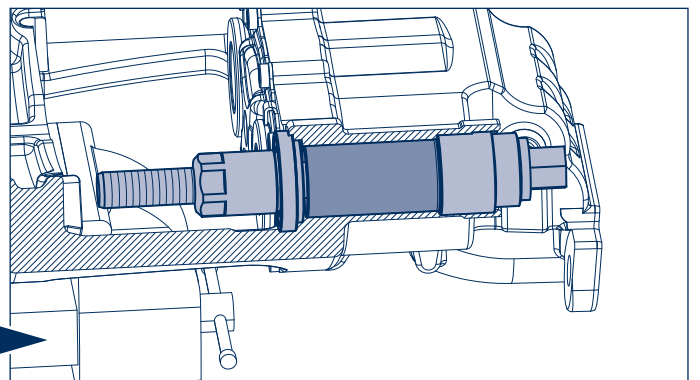
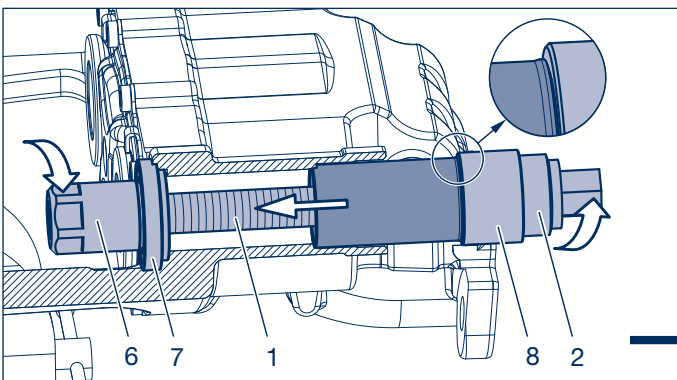
Emmancement de la douille pour palier libre



Extraction de la douille pour palier fixe



Emmancement de la douille pour palier fixe



9 Outil spécial n° 9 à 19

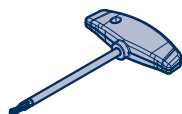
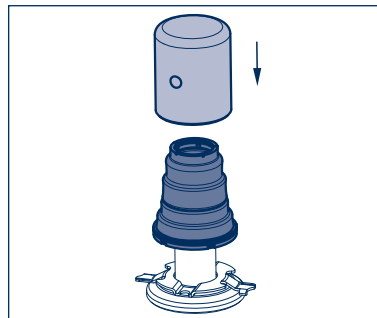


N° 9

02.0130.45.10

Ø 50 / 26 x 60

Outil de mise en place pour soufflet
(plastique)

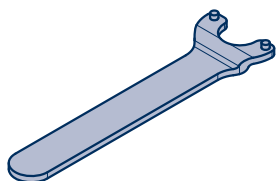
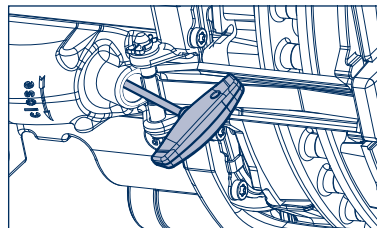


N° 10

02.0130.44.10

TX 25

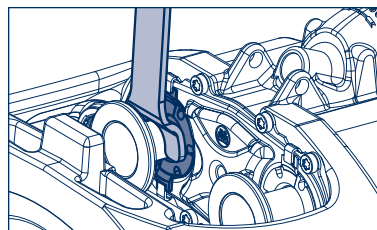
Clé Torx (remise à zéro)



N° 11

02.3516.20.00

Clé à deux ergots pour joint anti-salissures
grossières

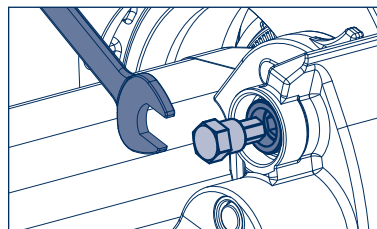


N° 12

02.0130.46.10

Ouv. 14 / Ouv. 24

Adaptateur pour vis de palier libre

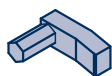
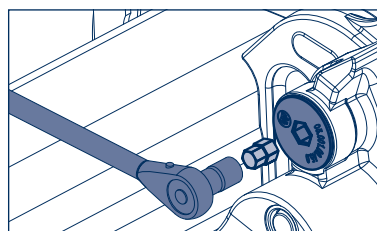


N° 13

02.0130.47.10

Ouv. 14 / Ouv. 13

Adaptateur pour capuchon en plastique
(palier libre et fixe)

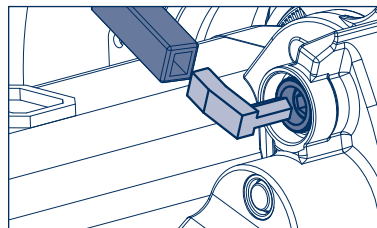



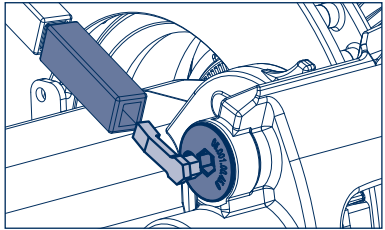

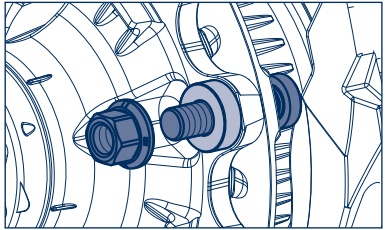
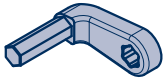
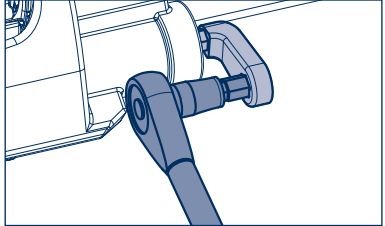
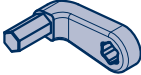
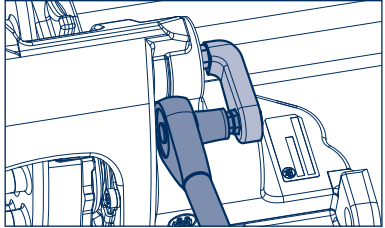

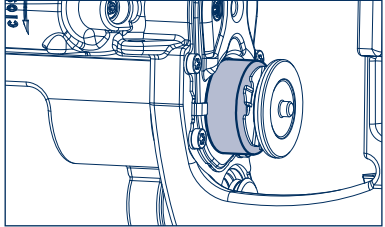
N° 14

02.0130.48.10

Ouv. 14

Adaptateur pour clé dynamométrique
(vis de palier libre)



| | | |
|---|--|---|
|  | <p>N° 15 02.0130.49.10 Ouv. 14 Adaptateur pour clé dynamométrique (capuchon en plastique / palier libre et fixe)</p> |  |
|  | <p>N° 16 02.5683.92.00 Ø 46 / 23 x 15 Bague pour mise en place des goujons de roue</p> |  |
|  | <p>N° 17 02.0130.64.10 Ouv. 14 / Ouv. 14 Outil pour vis de palier fixe</p> |  |
|  | <p>N° 18 02.0130.65.10 Ouv. 14 / Ouv. 14 Outil pour vis de palier libre</p> |  |
|  | <p>N° 19 02.0130.80.10 Ø 62 / 28 x 32 Outil de montage pour soufflet</p> |  |



BPW-WK 39251401 def 04.001.21.35.0 V3 (02.04.2014)



BPW Bergische Achsen Kommanditgesellschaft

Postfach 12 80 · 51656 Wiehl, Deutschland · Telefon +49 (0) 2262 78-0
info@bpw.de · www.bpw.de