

## Mechanical suspension.

Tough performer - economical in operation.

## Proven BPW technology. At home anywhere.

## we think transport

The aim of the BPW Group is to provide the best possible support to our customers in the transport and logistics industry. That's why we place the utmost importance in a steadfast orientation towards the needs of the customer. This includes listening to you, ensuring that our solutions meet your individual requirements, and being there for you whatever the situation. For us at BPW, this cooperative aspiration means we think transport

Five brands - one robust partner.

The BPW Leat suspension is right at home where the conditions become a challenge and when the nearest workshop is well out of reach. This is because the VB suspension unit has been designed for difficult road conditions, while any necessary repairs are quick and straightforward. Moreover, the latest generation features an optimised bearing for the connecting rods as well as wear-resistant and durable
spring slides. What is more, the use of proven technology from the series-production BPW air suspension has further simplified installation and in particular the track adjustment. Finally, the precise tracking as well as optimum positioning of connecting rods ensure reduced tyre wear and thus greater operating efficiency.

## Your advantages at a glance:

) Lower tyre wear thanks to precise tracking and optimum positioning of connecting rods
> longer product life through an optimised bearing for connecting rods

》 fewer spare parts thanks to greater availability of identical parts from other series
, high level of parts availability through more than 3,200 service partners
, greater efficiency in the production process through a flexible and homogenous product program

》 clear differentiation from counterfeits thanks to the embossed BPW Logo
, improved track adjustment through technology from the proven and series-production BPW air suspension
, standard integrated screw torsion protection on the equalising beam and Connecting rod bearings
) embossed installation information
, easily accessible screw connections
, Wear-resistant, replaceable one-piece spring slides
, also possible is top-mounted suspension for low ride height at maximum ground clearance
, Spring design that is attuned and optimised to the field of application

Operating efficiency
for heavy duty work in the 9-12 t range.


## BPW axle assemblies, VB Series.

Axle loads of $9,000 \mathrm{~kg}$ to $12,000 \mathrm{~kg}$.


OUR SOLUTIONS FOR YOU:

》 for axle loads from nine to twelve tonnes
, for use with one to three axles
) available with parabolic springs or multi-leaf springs
) galvanisable supports
, static axle load compensation through equalising beams
, equalising beams with maintenance-free rubber-steel bushes or greasable bronze bushes available

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (FH) (mm) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  | Wheel | nection |  |  | with multi- | Rude heigh | with paral | sic spring | Susp | sion unit weig | ight ( (kg) |
| Type" | $\begin{aligned} & \text { Single } \\ & \text { axle } \end{aligned}$ | Tandem-axle suspension | Triaxle unit | Axle beam | $\begin{aligned} & \text { S-cam } \\ & \text { brake } \end{aligned}$ | $\begin{aligned} & \text { Track } \\ & \text { (SP) } \end{aligned}$ (mm) | Spring centre <br> (FM) <br> (mm) | Brake <br> chamber <br> bracket centre <br> (GM) (mm) | Example tyre ${ }^{2)}$ (mm) | M = Centre-to-centre distance. <br> ET = Offset | Overall width across the tyres (mm) | Wheel studs | OH/K(mm) | Wheel- <br> base (RS) <br> (mm) | Support version | Loaded ${ }^{3}$ | Unloaded | Loaded ${ }^{3}$ | Unloaded | Single axle | Tademaxle suspension | Tri-axle suspension |
| HSFVB | 9.010 | 219.010 | --- | 120 | SN 4218 | 2.040 | 1.300 | 525 | 385165 R22,5 | ETo | 2.435 | $10 \times$ M22x1,5 | 280,8/335 | 1.310 | niedrig | --- | --- | 232 | 256 | 427 | 896 | --- |
| HSFVB | 9.010 | 219.010 | 319.010 | 120 | SN 4218 | 2.040 | 1.300 | 525 | 385165 R22,5 | eto | 2.435 | $10 \times$ M22x1, 5 | 280,8/335 | 1.310 | mittel | --- | --- | 268 | 292 | 430 | 891 | 1.353 |
| HSFVB | 9.010 | 219.010 | 319.010 | 120 | SN 4218 | 2.040 | 1.300 | 525 | 385165 R22,5 | eto | 2.435 | $10 \times \mathrm{M} 22 \times 1,5$ | 280,8/335 | 1.360 | mittel | 337 | 379 | --- | --- | 489 | 1.009 | 1.530 |
| HSFVB | 9.010 | 219.010 | 319.010 | 120 | SN 4218 | 2.040 | 1.300 | 525 | 385165 R22,5 | Eto | 2.435 | $10 \times$ M22x1, 5 | 280,8/335 | 1.360 | hoch | 367 | 409 | --- | --- | 494 | 1.015 | 1.536 |
| HSFVB | 9.010 | 219.010 | 319.010 | 120 | SN 4218 | 2.010 | 1.200 | 495 | 385/65 R22,5 | Eto | 2.405 | $10 \times 122 \times 1,5$ | 280,8/335 | 1.360 | hoch | 367 | 409 | --- | --- | 493 | 1.013 | 1.533 |
| HzFVB | 9.010 | 219.010 | 319.010 | 120 | SN 4218 | 1.820 | 900 | 335 | 275/70 R22,5 | M = 320 | 2.432 | $10 \times \mathrm{M} 22 \times 1,5$ | 280,8/335 | 1.360 | hoch | 367 | 409 | --- | --- | 491 | 1.009 | 1.527 |
| NHzFVB | 12.010 | 2112.010 | --- | 120 | SN 3020 | 1.830 | 980 | 239 | 245170 R17,5 | M $=290$ | 2.365 | $10 \times \mathrm{M} 22 \times 1,5$ | 175,8/225 | 1.310 | niedrig | --- | --- | 232 | 256 | 429 | 900 | --- |
| NHZFVB | 12.010 | 2112.010 | 3/12.010 | 120 | SN 3020 | 1.950 | 1.100 | 243 | $245170 \mathrm{R17,5}$ | M $=290$ | 2.485 | $10 \times$ M22x1,5 | 175,8/225 | 1.310 | mittel | --- | --- | 268 | 292 | 445 | 921 | 1.368 |
| HSFVB | 12.010 | 2112.010 | 3112.010 | 150 | SN 4220 | 2.040 | 1.300 | 365 | 4451/6 R22,5 | Eto | 2.505 | $10 \times$ M22x1,5 | 280,8/335 | 1.310 | hoch | --- | --- | 313 | 337 | 502 | 1.031 | 1.560 |
| HSFVB | 12.010 | 2112.010 | 3112.010 | 150 | SN 4220 | 2.040 | 1.300 | 365 | 445165 R22,5 | Eto | 2.505 | $10 \times$ M22x1, 5 | 280,8/335 | 1.360 | hoch | --- | --- | 388 | 412 | 529 | 1.084 | 1.640 |
| HzFVB" | 12.010 | 2112.010 | 3/12.010 | 150 | SN 4220 | 1.820 | 900 | 261 | $295180 \mathrm{R} 22,5$ | M = 330 | 2.465 | $10 \times$ M $22 \times 1,5$ | 280,8/335 | 1.360 | hoch | --- | --- | 388 | 412 | 530 | 1.086 | 1.643 |
| HSFVB | 12.010 | 2112.010 | 3/12.010 | 150 | SN 4220 | 2.040 | 1.300 | 365 | 445165 R22,5 | Eto | 2.505 | $10 \times$ M22x1, 5 | 280,8/335 | 1.360 | mittel | 375 | 417 | --- | --- | 578 | 1.189 | 1.799 |
| HSFVB | 12.010 | 2112.010 | 3/12.010 | 150 | SN 4220 | 2.000 | 1.200 | 325 | 445/65 R22,5 | Eto | 2.465 | $10 \times$ M $22 \times 1,5$ | 280,8/335 | 1.360 | mittel | 375 | 417 | --- | --- | 577 | 1.187 | 1.796 |
| HSFVB | 12.010 | 2112.010 | 3/12.010 | 150 | SN 4220 | 2.040 | 1.300 | 365 | 445165 R22,5 | Eto | 2.505 | $10 \times 122 \times 1,5$ | 280,8/335 | 1.360 | hoch | 405 | 447 | --- | -- | 584 | 1.194 | 1.805 |
| HSFVB | 12.010 | 2112.010 | 3/12.010 | 150 | SN 4220 | 2.000 | 1.200 | 325 | 445/65 R22,5 | Eto | 2.465 | $10 \times$ M $22 \times 1,5$ | 280,8/335 | 1.360 | hoch | 405 | 447 | --- | --- | 583 | 1.192 | 1.802 |
| HzFVB ${ }^{\prime \prime}$ | 12.010 | 2112.010 | 3/12.010 | 150 | SN 4220 | 1.820 | 900 | 261 | $295180 \mathrm{R} 22,5$ | M = 330 | 2.465 | $10 \times$ M $22 \times 1,5$ | 280,8/335 | 1.360 | hoch | 405 | 447 | --- | --- | 585 | 1.196 | 1.808 |
| HzFVB ${ }^{\prime \prime}$ | 12.010 | 2112.010 | 3/12.010 | 150 | SN 4220 | 1.850 | 980 | 241 | 295180 R22,5 | $M=330$ | 2.495 | $10 \times$ M $22 \times 1,5$ | 280,8/335 | 1.360 | hoch | 405 | 447 | --- | --- | 592 | 1.210 | 1.829 |
| HZFVB" | --- | 2112.010 | 3/12.010 | 150 | SN 4220 | 1.820 | 900 | 261 | 295180 R22,5 | $M=330$ | 2.465 | $10 \times \mathrm{M} 22 \times 1,5$ | 280,8/335 | 1.820 | hoch | 405 | 447 | --- | --- | --- | 1.232 | 1.879 |
| HzFVB ${ }^{\prime \prime}$ | --- | 2112.010 | 3/12.010 | 150 | SN 4220 | 1.850 | 980 | 241 | 295180 R22,5 | M = 330 | 2.495 | $10 \times$ M $22 \times 1,5$ | 280,8/335 | 1.820 | hoch | 405 | 447 | --- | --- | --- | 1.246 | 1.900 |

[^0]
4) Weight without wheels and tyess: Weight deviations sare within permitted OlN tolerances for respective production processes.

## BPW axle assemblies, VB HD Series.

Axle loads of $14,000 \mathrm{~kg}$ to $20,000 \mathrm{~kg}$.


| Type ${ }^{\prime \prime}$ | Single axle | Tandem-axle suspension | Triaxle unit | Version) | $\begin{aligned} & \text { S-cam brake } \\ & 0 \times \text { width } \end{aligned}$ | $\begin{aligned} & \text { Track (SP) } \\ & (\mathrm{mm}) \end{aligned}$ | Spring <br> centre <br> (FM) <br> (mm) | Brake chamber bracket centre (GM) (mm) | Wheelbase (RS) (mm) | Example tyre ${ }^{33}$ (mm) | $M=$ Centre-tocentre distance | Overall width across the tyres | Wheel connection |  | Ride heigh | (FH) (mm) | Suspension unit weight ${ }^{\text {s }}$ ( kg ) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Wheel stud | $0 \mathrm{H} / \mathrm{K}(\mathrm{mm})$ | Loaded ${ }^{\text {d }}$ | Unloaded | $\begin{aligned} & \text { Single } \\ & \text { axle } \end{aligned}$ | Tademaxle suspension | Tri-axle suspension |
| hzzv |  | 2114.010 | 3/14.010 | HolHoe | SN $420 \times 200$ | 1.820 | 900 | 266 | 1.360 | $12 \mathrm{R20}$ | $M=350$ | 2.496 | $10 \times$ M22 $\times 1,5$ | 280,8/335 | 430 | 475 |  | 1.527 | 2.300 |
| HzFVB |  | 2114.010 | 3/14.010 | HDIHDE | SN $420 \times 200$ | 1.820 | 900 | 266 | 1.410 | $12 \mathrm{R24}$ | M = 360 | 2.509 | $10 \times 122 \times 1,5$ | 280,8/335 | 435 | 480 |  | 1.548 | 2.331 |
| hzFvb | 14.010 | 2114.010 | 3/14.010 | HDIHDE | SN $420 \times 200$ | 1.820 | 900 | 266 | 1.500 | 12 R 24 | M $=360$ | 2.509 | $10 \times 122 \times 1,5$ | 280,8/335 | 455 | 500 | 814 | 1.592 | 2.432 |
| HzMVB |  | 2116.010 | 3/16.010 | HDE | SN $420 \times 200$ | 1.820 | 900 | 261 | 1.360 | $12 \mathrm{R20}$ | M = 350 | 2.496 | $10 \times 122 \times 1,5$ | 280,8/335 | 475 | 500 |  | 1.640 | 2.469 |
| hzMVB |  | 2116.010 | 3/16.010 | HDE | SN $420 \times 200$ | 1.950 | 900 | 281 | 1.410 | $12 \mathrm{R24}$ | $M=360$ | 2.639 | $10 \times 122 \times 1,5$ | 280,8/335 | 460 | 495 |  | 1.678 | 2.525 |
| HzMVB |  | 2116.010 | 3/16.010 | HDE | SN $420 \times 200$ | 2.250 | 1.200 | 505 | 1.500 | $12 \mathrm{R24}$ | M = 360 | 2.939 | $10 \times 122 \times 1,5$ | 280,8/335 | 490 | 530 |  | 1.767 | 2.659 |
| HzMVB | 16.010 | 2116.010 | 3/16.010 | HDE | SN $420 \times 200$ | 1.820 | 900 | 261 | 1.500 | $12 \mathrm{R24}$ | $\mathrm{M}=360$ | 2.509 | $10 \times 122 \times 1,5$ | 280,8/335 | 490 | 530 | 864 | 1.715 | 2.581 |
| HzMVB | 18.010 | 2118.010 | 3/18.010 | HDE | SN $420 \times 200$ | 1.820 | 900 | 261 | 1.500 | $12 \mathrm{R24}$ | $M=360$ | 2.496 | $10 \times 122 \times 1,5$ | 280,8/335 | 460 | 480 |  | 1.735 | 2.612 |
| hzMVB | 18.010 | 2118.010 | 3/18.010 | HDE | SN $420 \times 200$ | 1.950 | 900 | 281 | 1.500 | $14 \mathrm{R20}$ | M = 428 | 2.776 | $10 \times 122 \times 1,5$ | 280,8/335 | 460 | 480 |  | 1.757 | 2.645 |
| HzMVB | 18.010 | 2118.010 | 3/18.010 | HDE | SN $420 \times 200$ | 2.320 | 1.200 | 407 | 1.500 | 14 R20 | $M=428$ | 3.146 | $10 \times \mathrm{M} 22 \times 1,5$ | 280,8/335 | 460 | 480 | 940 | 1.817 | 2.735 |
| HzMVB | 20.010 | 2120.010 | 3/20.010 | HDE | SN $420 \times 200$ | 1.950 | 900 | 278 | 1.500 | 14 R20 | $M=428$ | 2.776 | $10 \times \mathrm{M} 24 \times 1,5$ | 280,8/335 | 455 | 480 |  | 1.885 | 2.837 |
| HzMVB | 20.010 | 2120.010 | 3120.010 | HDE | SN $420 \times 200$ | 2.200 | 1.100 | 354 | 1.500 | 14 R20 | $M=428$ | 3.026 | $10 \times \mathrm{M} 24 \times 1,5$ | 280,8/335 | 455 | 480 |  | 1.931 | 2.906 |
| HzMVB | 20.010 | 2120.010 | 3120.010 | HDE | SN $420 \times 200$ | 2.400 | 1.300 | 554 | 1.500 | 14 R20 | $\mathrm{M}=428$ | 3.226 | $10 \times \mathrm{M} 24 \times 1,5$ | 280,8/335 | 455 | 480 | 1.015 | 1.967 | 2.960 |

## BPW axle suspension, W Series.

Axle loads from $20,000 \mathrm{~kg}$ to $40,000 \mathrm{~kg}$.


| Type | Axle loads up <br> to $105 \mathrm{~km} / \mathrm{h}$ <br> (kg) | $\begin{aligned} & \text { S-cam brake } \\ & 0 \times \text { width } \end{aligned}$ | $\begin{aligned} & \text { Track } \\ & (S P) \\ & (\mathrm{mm}) \end{aligned}$ | $\begin{aligned} & \text { Spring } \\ & \text { centre } \\ & (\mathrm{FM}) \\ & (\mathrm{mm}) \end{aligned}$ | GM (mm) | Support center (AM) (mm) | High support ( axbxh ) (mm) | Wheelbase (RS) (mm) | Ride height (FH) (mm) |  | Wheel connection |  | Example tyre ${ }^{\text {a }}$ | Center-to-center distance (M) | Overall width <br> across then <br> tyres (mm) | Suspension unit weight ${ }^{4}$ (kg) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  | Loaded | Unloaded | Wheel stud | ๑ H/K (mm) |  |  |  |  |
| HZFW 210010 | 20.000 | SN $420 \times 200$ | 1.820 | 980 | 261 | 660 |  | 1.400 | 213 | 253 | $10 \times 122 \times 1,5$ | 280,8/335 | 11 R20 | M $=348$ | 2.482 | 1.650 |
| HZFW 210010 | 20.000 | SN $420 \times 200$ | 1.820 | 980 | 261 |  | $700 \times 1.060 \times 550$ | 1.400 | 588 | 628 | $10 \times 122 \times 1,5$ | 280,8/335 | 11 R20 | M = 348 | 2.482 | 1.840 |
| HZFW $21120100^{\text {B }}$ | 24.000 | SN $420 \times 200$ | 1.820 | 980 | 261 | 660 |  | 1.400 | 213 | 253 | $10 \times 122 \times 1,5$ | 280,8/335 | $12 \mathrm{R20}$ | $M=350$ | 2.496 | 1.710 |
| HZFW 212010 B") | 24.000 | SN $420 \times 200$ | 1.820 | 980 | 260 |  | $700 \times 1.060 \times 600$ | 1.400 | 638 | 678 | $10 \times 122 \times 1,5$ | 280,8/335 | 12 220 | $M=350$ | 2.496 | 1.862 |
| HZFW 2112010 ${ }^{\text {2 }}$ | 24.000 | SN $420 \times 200$ | 1.820 | 980 | 261 | 660 |  | 1.500 | 207 | 253 | $10 \times 122 \times 1,5$ | 280,8/335 | $12 \mathrm{R24}$ | $M=360$ | 2.509 | 1.650 |
| HZFW 2112010 ${ }^{\text {2 }}$ | 24.000 | SN $420 \times 200$ | 1.820 | 980 | 261 |  | $700 \times 1.060 \times 600$ | 1.500 | 630 | 675 | $10 \times$ M22 $\times 1,5$ | 280,8/335 | $12 \mathrm{R24}$ | M = 360 | 2.509 | 1.820 |
| HZ(M) W 2/14010-1 | 28.000 | SN $420 \times 200$ | 1.820 | 900 | 266 | 520 |  | 1.500 | 191 | 262 | $10 \times \mathrm{M} 22 \times 1,5$ | 280,8/335 | $12 \mathrm{R20}$ | M = 350 | 2.496 | 2.073 |
| HZ(M) W 2/14010-1 | 28.000 | SN $420 \times 200$ | 1.820 | 900 | 266 |  | $800 \times 980 \times 600$ | 1.500 | 605 | 661 | $10 \times 122 \times 1,5$ | 280,8/335 | 12 R20 | $M=350$ | 2.496 | 2.262 |
| HZ(M) W 2/14010-1 | 28.000 | SN $420 \times 200$ | 1.920 | 900 | 290 | 520 |  | 1.650 | 191 | 262 | $10 \times 122 \times 1,5$ | 280,8/335 | 14 R20 | $M=428$ | 2.746 | 2.203 |
| HZ(M) W 2/14010-1 | 28.000 | SN $420 \times 200$ | 1.920 | 900 | 290 |  | $800 \times 980 \times 600$ | 1.650 | 591 | 662 | $10 \times 122 \times 1,5$ | 280,8/335 | 14 R20 | $M=428$ | 2.746 | 2.385 |
| HZMW 2116010 | 32.000 | SN $420 \times 200$ | 1.800 | 900 | 241 | 520 |  | 1.550 | 212 | 259 | $10 \times 122 \times 1,5$ | 280,8/335 | $12 \mathrm{R24}$ | $M=350$ | 2.489 | 2.385 |
| HZMW 2116010 | 32.000 | SN $420 \times 200$ | 1.800 | 900 | 241 |  | $800 \times 980 \times 600$ | 1.550 | 610 | 657 | $10 \times 122 \times 1,5$ | 280,8/335 | $12 \mathrm{R24}$ | $M=350$ | 2.489 | 2.575 |
| HZWW 2116010 | 32.000 | SN $420 \times 200$ | 2.150 | 1.150 | 367 | 770 |  | 1.550 | 210 | 257 | $10 \times 122 \times 1,5$ | 280,8/335 | $12 \mathrm{R24}$ | $M=350$ | 2.839 | 2.457 |
| HZMW 2116010 | 32.000 | SN $420 \times 200$ | 2.150 | 1.150 | 367 |  | $800 \times 1.230 \times 600$ | 1.550 | 610 | 660 | $10 \times \mathrm{M} 22 \times 1,5$ | 280,8/335 | $12 \mathrm{R24}$ | $M=350$ | 2.839 | 2.638 |
| HZMW 2118010 | 36.000 | SN $420 \times 200$ | 1.800 | 900 | 241 | 520 |  | 1.550 | 212 | 259 | $10 \times \mathrm{M} 22 \times 1,5$ | 280,8/335 | $12 \mathrm{R24}$ | $M=350$ | 2.489 | 2.422 |
| HZMW 2118010 | 36.000 | SN $420 \times 200$ | 1.800 | 900 | 241 |  | $800 \times 980 \times 600$ | 1.550 | 612 | 659 | $10 \times \mathrm{M} 22 \times 1,5$ | 280,8/335 | $12 \mathrm{R24}$ | $M=350$ | 2.489 | 2.545 |
| HZMW 2/18010 | 36.000 | SN $420 \times 200$ | 2.150 | 1.150 | 367 | 770 |  | 1.550 | 212 | 259 | $10 \times \mathrm{M} 22 \times 1,5$ | 280,8/335 | 14 R20 | $M=428$ | 2.976 | 2.507 |
| HZMW 2118010 | 36.000 | SN $420 \times 200$ | 2.150 | 1.150 | 367 |  | $800 \times 1.230 \times 600$ | 1.550 | 612 | 659 | $10 \times \mathrm{M} 22 \times 1,5$ | 280,8/335 | 14 R20 | $M=428$ | 2.976 | 2.619 |
| HZMW 2/20010 | 40.000 | SN $420 \times 200$ | 1.900 | 900 | 278 |  | $800 \times 980 \times 700$ | 1.550 | 712 | 759 | $10 \times \mathrm{M} 24 \times 1,5$ | 280,8/335 | 14 R20 | $M=428$ | 2.726 | 2.737 |
| HZWW 2/20010 | 40.000 | SN $420 \times 200$ | 2.100 | 1.150 | 254 | 770 |  | 1.550 | 212 | 259 | $10 \times \mathrm{M} 24 \times 1,5$ | 280,8/335 | 14 R20 | $M=428$ | 2.926 | 2.577 |

[^1]we think transport


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[^1]:    1) Thesision for or heary-duty use.
    2) Versisin for heayy-duty
    3) Vesion to for rod use.
