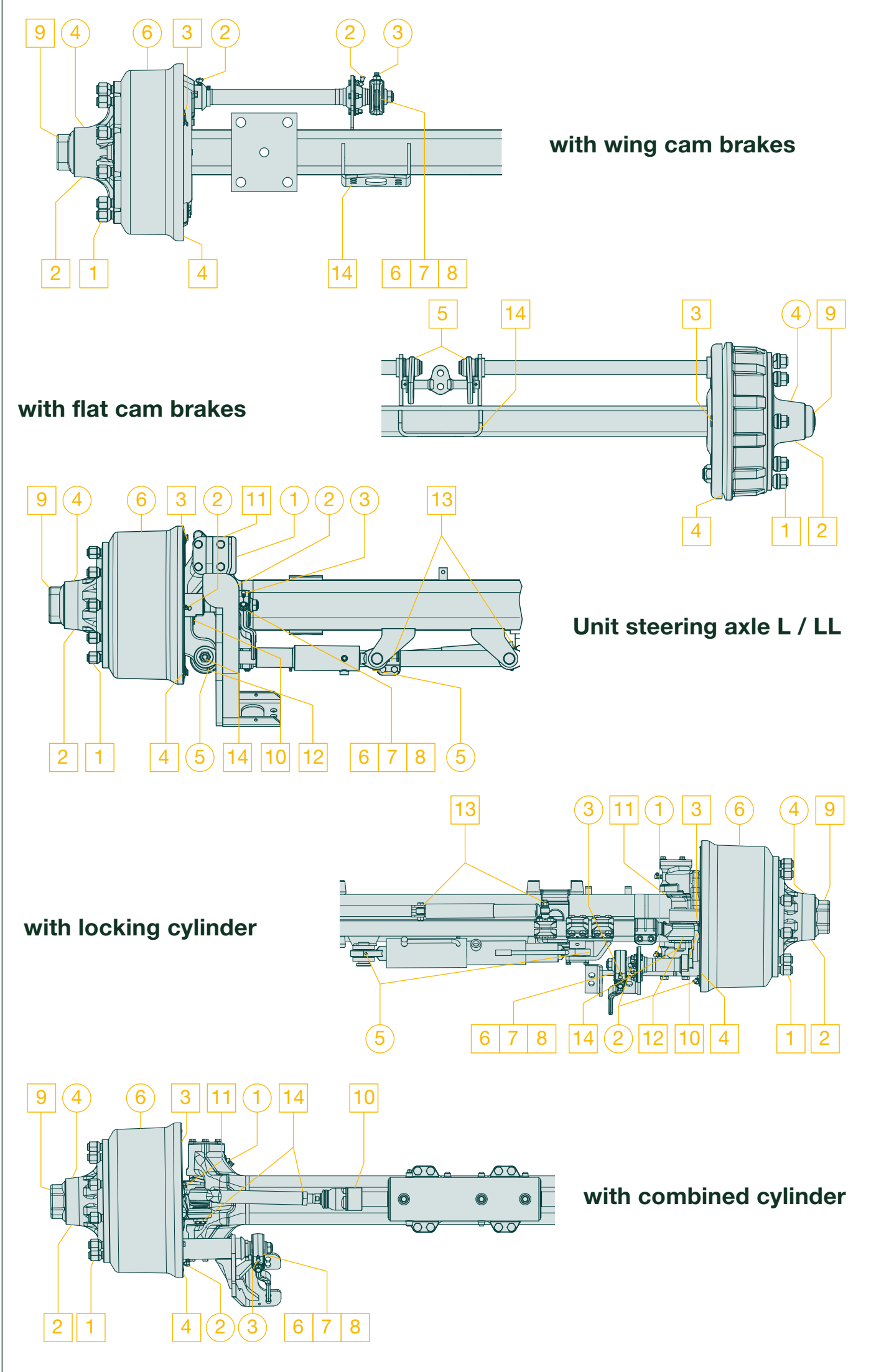


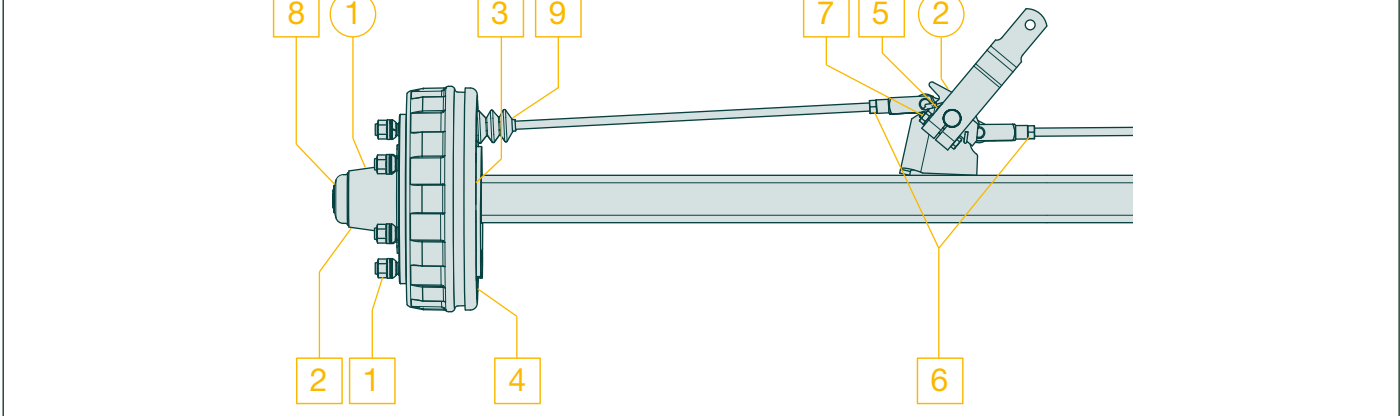


BPW Agricultural Axles and Suspensions

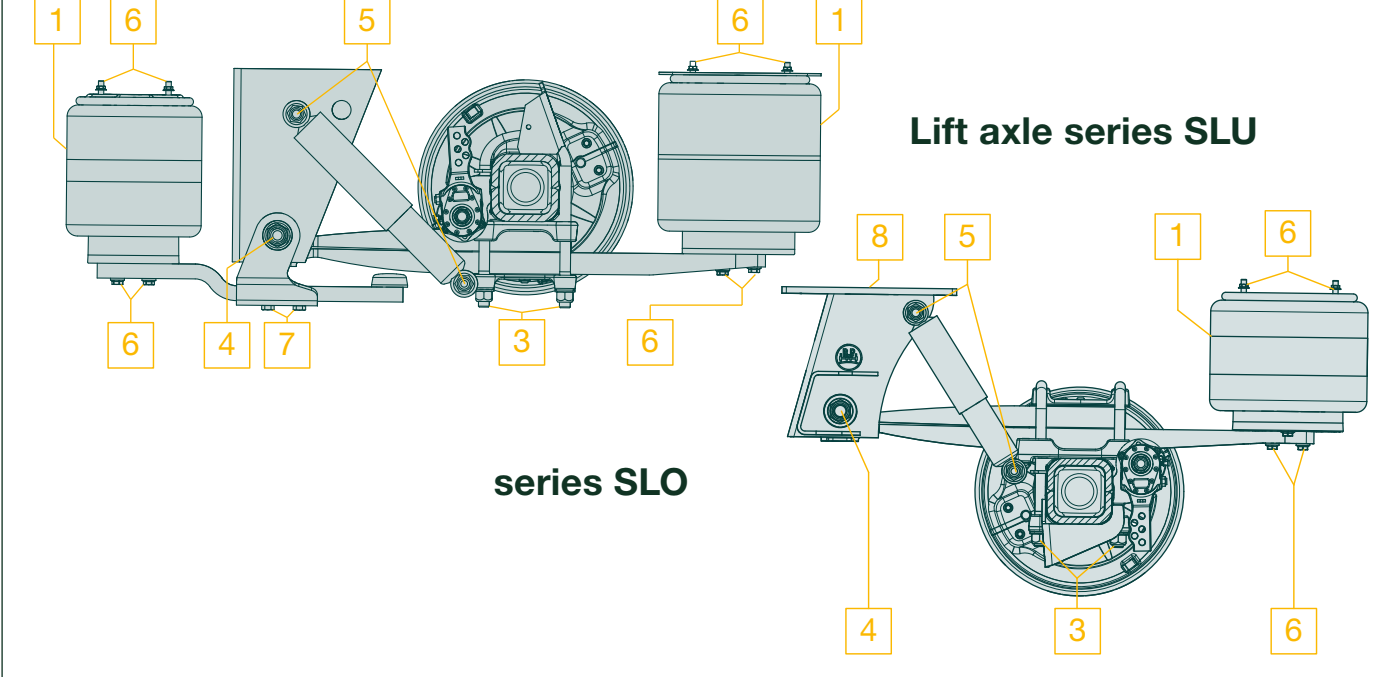
BPW Agricultural axles



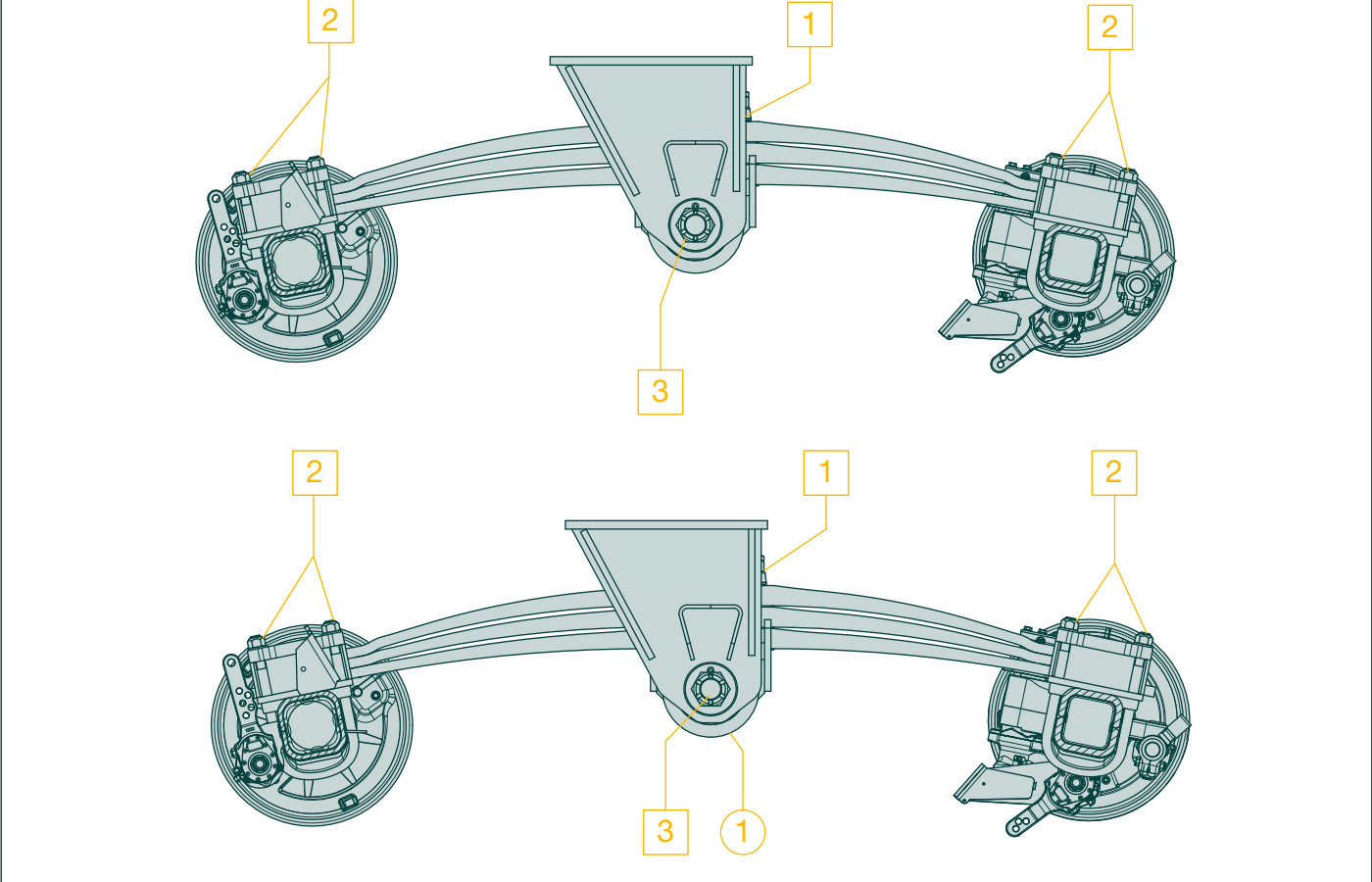
BPW Agricultural axle with overrun brake system



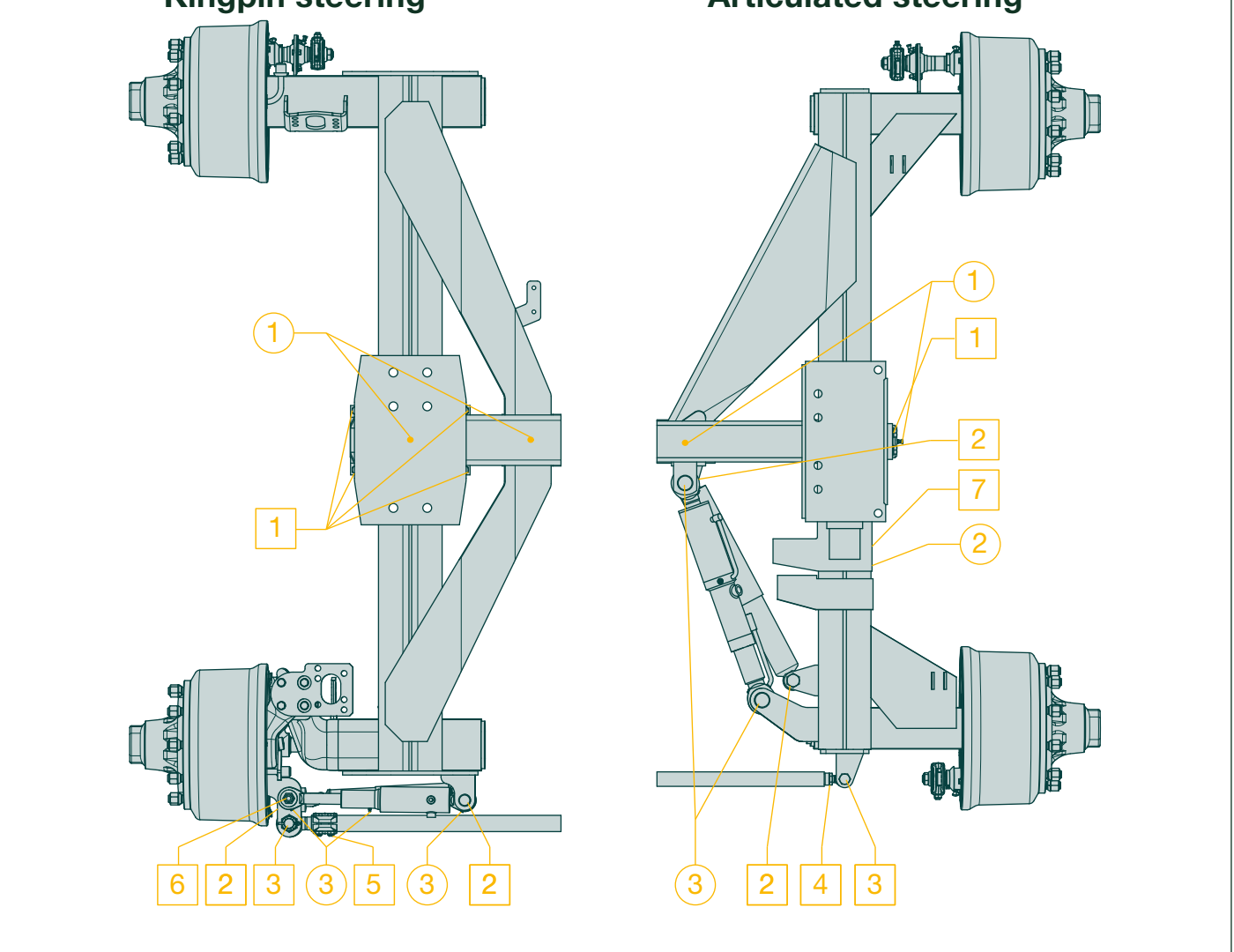
BPW Air suspension series SLO / SLU



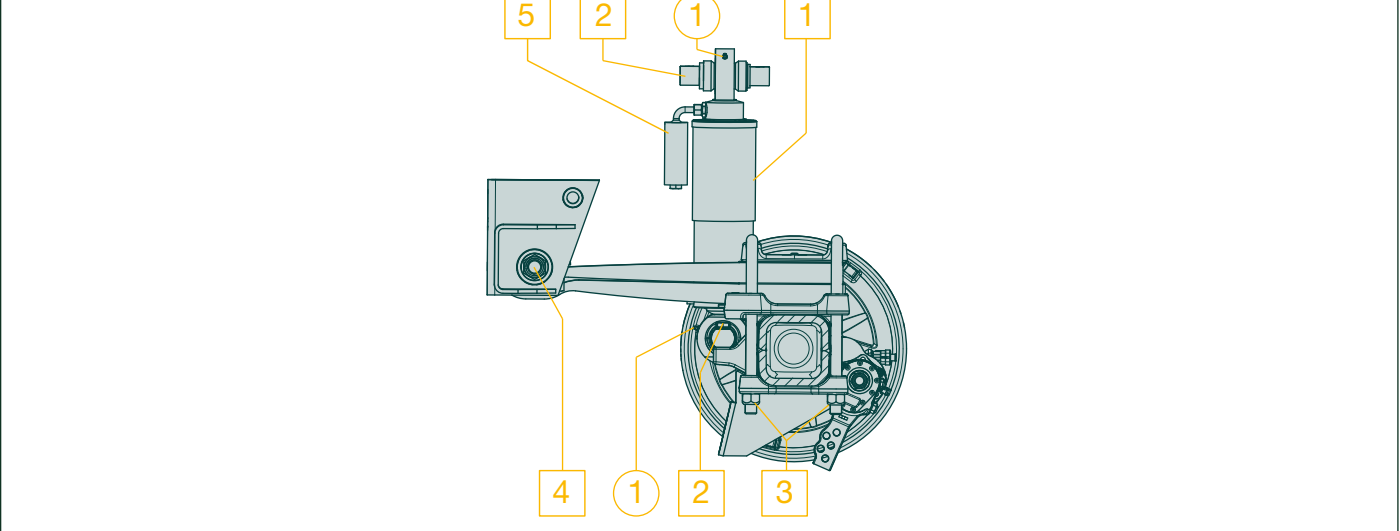
BPW Axle suspension assembly series GW / BW



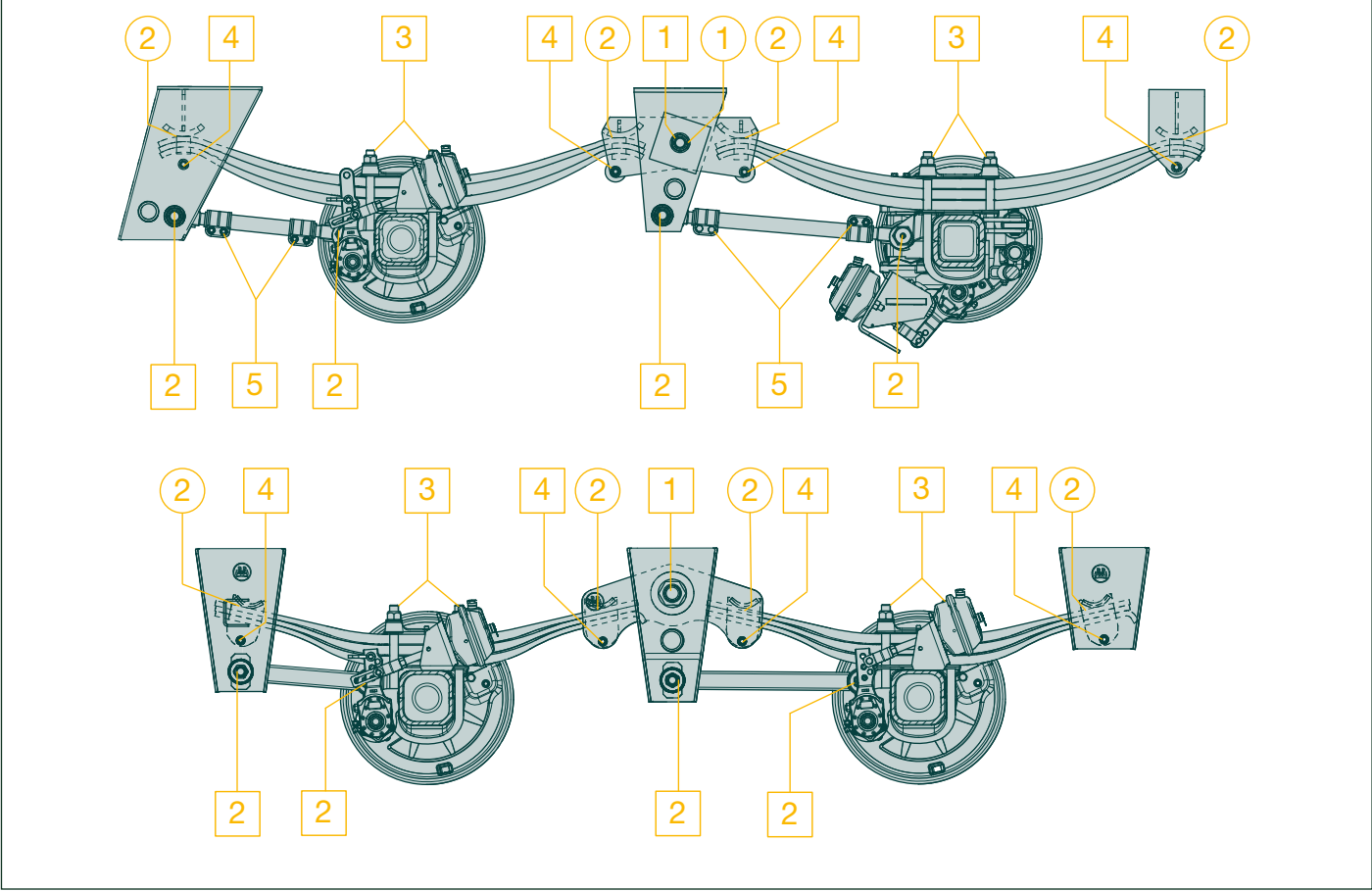
BPW Walking beam suspension



BPW Hydro-pneumatic suspension system



BPW Axle suspension system, VB-series



Lubrication		after the first run under load	after 40 operating hours ^{1) 2)}	every 200 operating hours ^{1) 2)}	every 500 operating hours, latest annually ²⁾	every 1000 operating hours, latest annually
All lubrication positions must be lubricated with BPW special long life grease (ECO-Li 91).						
¹⁾ After a longer idle period, prior to use, actuate the brake lever and lubricate the brake camshaft bearings as well as steering knuckle bushings top and bottom.						
²⁾ During heavy use (e.g. Farm Contracting Services) the given lubrication and maintenance intervals must be abridged.						
BPW Agricultural axles						
1	Steering knuckle bushings top and bottom.					
	AGRO Turn					
2	Brake camshaft bearing outer and inner.					
3	Manual slack adjuster					
	Automatic slack adjuster					
4	Change wheel hub bearing grease, check taper roller bearings and shaft seal for wear.					
	With CTIS (Central Tire Inflation System)					
5	Steering cylinder mounting eye.					
6	Brake shoe bearings.					

BPW Agricultural axle with overrun brake system						
1	Change wheel hub bearing grease, check taper roller bearings and shaft seal for wear.					
2	Lubricate the lever shaft.					
	Lubricate all greasing points on the overrun brake system.					

BPW Air suspension series SLO / SLU						
No require lubrication.						

BPW Axle suspension assembly series GW / BW						
1	Grease axle support bearing for series BW. (Not needed with rubber / steel bushes of the GW series.)					

BPW Walking beam suspension						
1	Lubricate the trunnion beam bearings.					
2	Kingpin bushing.					
3	Locking cylinder mounting eye.					

BPW Hydro-pneumatic suspension system						
1	Lubricate the bearings of the damping cylinders, top and bottom.					

BPW Axle suspension system, VB-series						
1	Lubricate the equalising beam bearings.					
2	Slightly grease the sliders of the springs.					

Tightening torques						
BPW Agricultural axles						
Wheel nut						
Stud alignment	M 18 x 1,5	WAF 24	Dacromet	M = 270 Nm		
			Galvanised	M = 320 Nm		
			Black	M = 290 Nm		
	M 20 x 1,5	WAF 27	Dacromet	M = 380 Nm		
			Galvanised	M = 420 Nm		
			Black	M = 380 Nm		
	M 22 x 1,5	WAF 32	Dacromet	M = 510 Nm		
			Galvanised	M = 560 Nm		
			Black	M = 510 Nm		
	M 22 x 2	WAF 32	Galvanised	M = 505 Nm		
			Black	M = 460 Nm		
			Dacromet	M = 630 Nm		
Spigot alignment						
Hub cap (Pitch 2 mm)						
Hub cap with BPW shape (oval)						
8 - 12 t	WAF 95 / 110			M = 500 Nm		
				M = 800 Nm		
14 t		WAF 120				
Axle nut / wheel bearings						
			30206	M = 20 Nm		
			32207	M = 45 Nm		
			30210	M = 90 Nm		
			32213	M = 150 Nm		
			32310	M = 150 Nm		
			33213	M = 150 Nm		
KM axle nut						
Locking nut for manual slack adjuster						
M 22 x 1,5	WAF 32			M = 90 Nm		
				M = 25 Nm		
Locking screw for brake camshaft bearings						
M 8	WAF 13			M = 38 Nm		
Locking screw for dust cover (Self-tapping screw)						
M 10	WAF 13			M = 43 Nm		
Locking nut of the clamp						
M 12 x 1,5	WAF 19			M = 86 Nm		
Fixing screw of the shock absorber						
M 12	WAF 19			M = 66 Nm		
Fastening the steering elements of combined cylinder						
Fixing screw of the combined cylinder						
M 16	WAF 24			M = 230 Nm		
Locking nut of the tie rod						
M 28 x 1,5	WAF 41			M = 410 Nm		
Axial ball joint						
M 30 x 1,5	WAF 55			M = 500 Nm		
Crown nut of the radial joint						
M 24 x 1,5	WAF 46			M = 260 Nm		
Jam nut of steering angle stop screw						
M 20	WAF 30			M = 185 Nm		
Tie rod lock nut						
M 24	WAF 36			M = 200 Nm		
Cylinder lock nut of the unit steering axle						
M 20	WAF 27			M = 550 Nm		
				M = 320 Nm		

BPW Agricultural axle with overrun brake system						
Locknut of the pull rod						
M 10	WAF 16			M = 38 Nm		
Locking nut for brake lever						
M 12	WAF 19			M = 66 Nm		

BPW Air suspension series SLO / SLU						
Locking nut of spring mounting kit						
M 24	WAF 36			M = 650 Nm		
Spring pivot bolt						
M 30	WAF 46			M = 900 Nm		
Shock absorber fastening						
M 24	WAF 36			M = 420 Nm		
Air bellows fastening						
M 12	WAF 19			M = 66 Nm		
M 16		WAF 24		M = 230 Nm		
Axle lift device						
M 16	WAF 24			M = 230 Nm		

BPW Axle suspension assembly / Bogie / series GW / BW						
Spring U-bolt on the support shaft						
M 20 - 10.9	WAF 30			M = 450 Nm		
M 30 x 2 - 8.8	WAF 46			M = 980 Nm		
M 30	WAF 46			M = 1095 Nm		
Screw on support shaft						
Axle linkage on the support shaft						
Bolt						
M 20 - 8.8	WAF 30			M = 320 Nm		
Spring U-bolt						
M 24 - 10.9	WAF 36			M = 650 Nm		
Bearing bolts of the trunnion block						
Series BW						
M 52 x 2	WAF 80			M = 400 Nm		
Series GW						
M 36 x 1,5	WAF 55			M = 300 Nm		
M 52 x 2	WAF 80			M = 400 Nm		

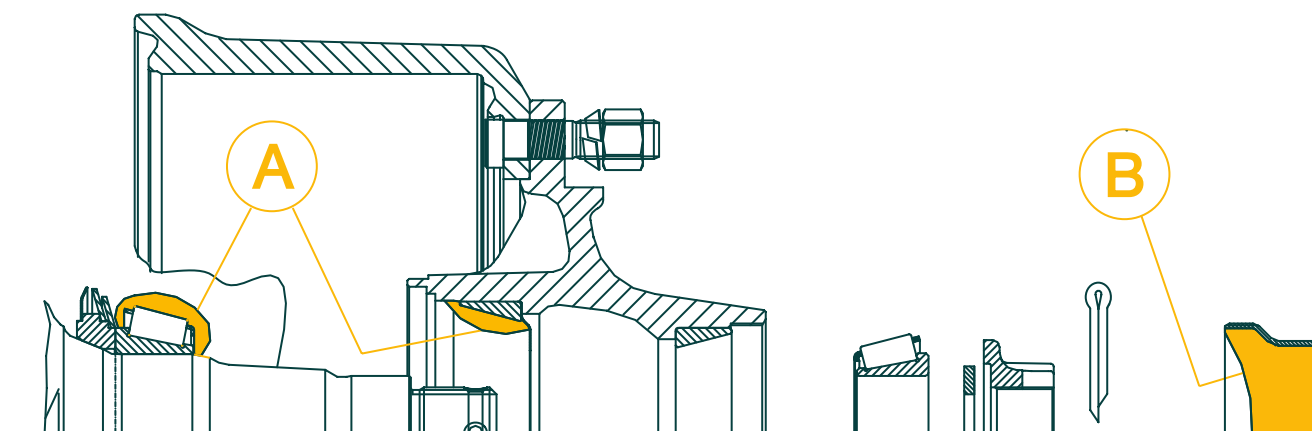
BPW Walking beam suspension						
Locking bolts on the trunnion beam						
M 16	WAF 24			M = 102 Nm		
M 14	WAF 22			M = 69 Nm		
M 12	WAF 19			M = 40 Nm		
Kingpin						
M 45 x 3	WAF 70			M = 350 Nm		
Safety nut fastening at the trunnion beam						
M 16	WAF 24			M = 164 Nm		
Retaining nut of locking cylinder						
M 20	WAF 30			M = 320 Nm		
M 24	WAF 36			M = 550 Nm		
Lock nut of the tie rod						
M 20	WAF 30			M = 320 Nm		
Castle nut of the tie rod						
M 30 x 1,5	WAF 46			M = 500 Nm		
Counter-nut of the tie rod						
M 20 x 1,5	WAF 30			M = 200 Nm		
Clamping screws of the tie rod						
M 12 x 1,5	WAF 19			M = 86 Nm		
Shock absorber fastening						
M 12 x 1,5	WAF 19			M = 66 Nm		
M 24	WAF 36			M = 550 Nm		

BPW Hydro-pneumatic suspension system						
Cylinder fastening						
M 16	WAF 24			M = 230 Nm		
M 18 x 1,5	WAF 27			M = 230 Nm		
Spring mounting kit						
M 24	WAF 36			M = 650 Nm		
Spring pivot bolt						
M 30	WAF 46			M = 900 Nm		

BPW Axle suspension system, VB-series						
Threaded bolts						
M 42 x 3	WAF 65			M = 1300 Nm		
M 30	WAF 46			M = 800 Nm		
Axle guide linkage						
M 24 x 2	WAF 36			M = 650 Nm		
M 30	WAF 46			M = 720 Nm		

BPW Axle suspension system, VB-series						
Axle connection						
Spring U-bolt						
M 20	WAF 30			M = 375 Nm		
M 24	WAF 36			M = 650 Nm		
Bolts						
M 16	WAF 24			M = 160 Nm		
M 20	WAF 30			M = 320 Nm		
M 24	WAF 36			M = 650 Nm		
Clamping screws on the torque arm						
M 12	WAF 19			M = 86 Nm		
Mounting bolts of rubber rollers and sliders						
M 12 - 8.8	WAF 19			M = 20 Nm		
M 14	WAF 22			M = 140 Nm		
M 16 - 8.8	WAF 24			M = 50 Nm		

Grease quantity - Conventional hub bearing

			
Type of bearing	Wheel hub	BPW Special-Longlife (ECO-Li 91) Grease quantity per tapered roller bearing	
		A inner	B outer
30206-30209	GS 3006	30 g	60 g
32207-30210	GS 4006	30 g	60 g
32207-32211	GS 5506	40 g	60 g
32207-32013	GS 5506	40 g	60 g
32310-32215	GS 8010	90 g	290 g
30210-32014	GS 7006	50 g	180 g
32213-32215	GS 7008		
	GS 8008	90 g	250 g
	GS 8010		
32213-32215	GS 9008	90 g	250g
	GS 9010		
32310-33116	GS 11008-1	100 g	290 g
32310-33116	GS 11010-1		
	GS 11008-1	100 g	350 g
With KM axle nut	GS 11010-1		
33213-33118	GS 12008	130 g	320 g
33213-33118	GS 12010		
	GS 12008	130 g	370 g
With KM axle nut	GS 12010		
33215-32219	GS 14010	190 g	500 g
		Smear any residual grease into the bearing outer ring of the hub. Fill up the free spaces between tapered roller bearings with grease and work them together.	The grease for the outside tapered roller bearings is injected when the hub cap filled with grease is screwed into the bearing.