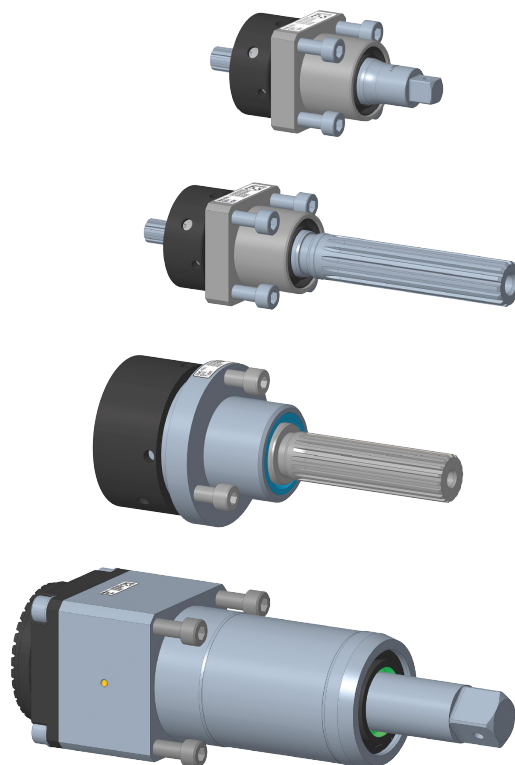


Cleco

Parts List
P1910E-EN
REV G | 2025-01

1Z(...), 2Z(...), 3ZB, 4ZB
Straight Drive



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1 About this Document

This document is intended for qualified employees responsible for installation and maintenance (administrators, installers, maintenance technician, service, operator). It contains information on using the component.

The original language of this document is German.



Caution

Risk of injury/property damage

This document does not provide sufficient information on the replacement/installation of the component in the spindle. Faulty installation can influence the calibration values or the rundown result. Faulty rundown results can lead to injuries and/or material damage.

- ▶ Only replace the component after the safety notes in the Assembly Instructions and Maintenance Instructions have been read and fully understood.

Other Documents

Number	Document
P1916E	Assembly Instructions – Fixtured Spindle BTS Series
P1921E	Maintenance Instructions – Fixtured Spindle BTS Series
P2578WA	Maintenance instruction – Fixtured Spindle BD Series
P2579MA	Assembly Instructions – Fixtured Spindle BD Series
P2594MA	Assembly Instructions – Fixtured Spindle BTi Series
P2595WA	Maintenance Instruction – Fixtured Spindle BTi Series
P2610KA	Quick guide Assembly Floating Adapter- BD BTS(i)
P2613DB	Technical Data – Chuck – BD, BTS, BTi
P2636MA	Assembly Instructions – Fixtured Spindle BDE Series
P2637WA	Maintenance Instruction – Fixtured Spindle BDE Series

Assembly 1ZB – 927222 / 53 Nm

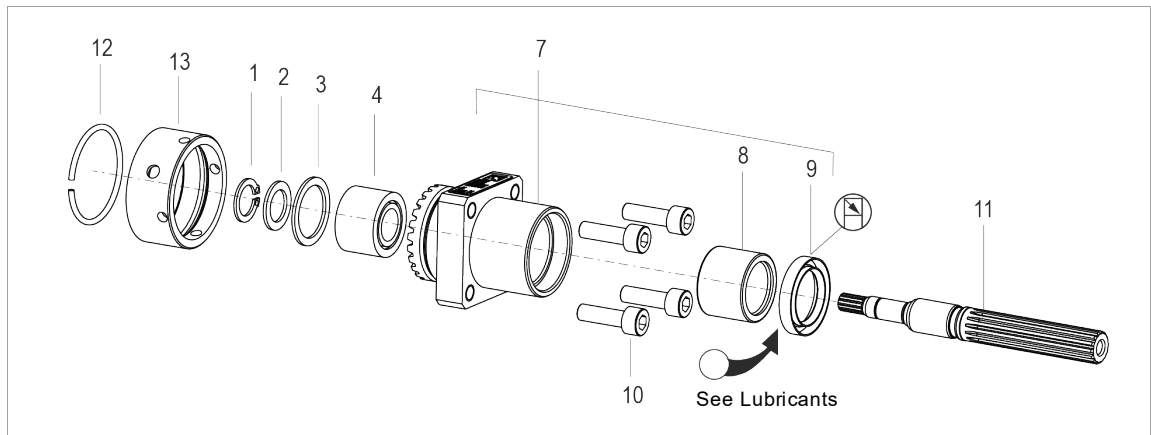


Fig. 2-1

Item	Order No.	Quantity	Description	Dimension
1	902034	1	Circlip	12.0 × 1.0
2	916804	1	Support washer	12.0 × 18.0 × 1.2
3	901602	1	Circlip	24.0 × 1.2
4	927784	1	Angular ball bearing	12.0 × 24.0 × 17.5
7	926448	1	Spindle hsg. asm.	
8	800178	1	Needle sleeve	19.05 × 25.4 × 19.05
9	925236	1	Seal shaft	19.05 × 28.65 × 4.78
10	901308	4	Cap screw	M6 × 20
11	935500	1	Drive spindle	
12	926638	1	Snap ring	
13	926627	1	Union nut	

Tab. 2-1

3 Assembly 1ZC – 944755PT / 12 Nm

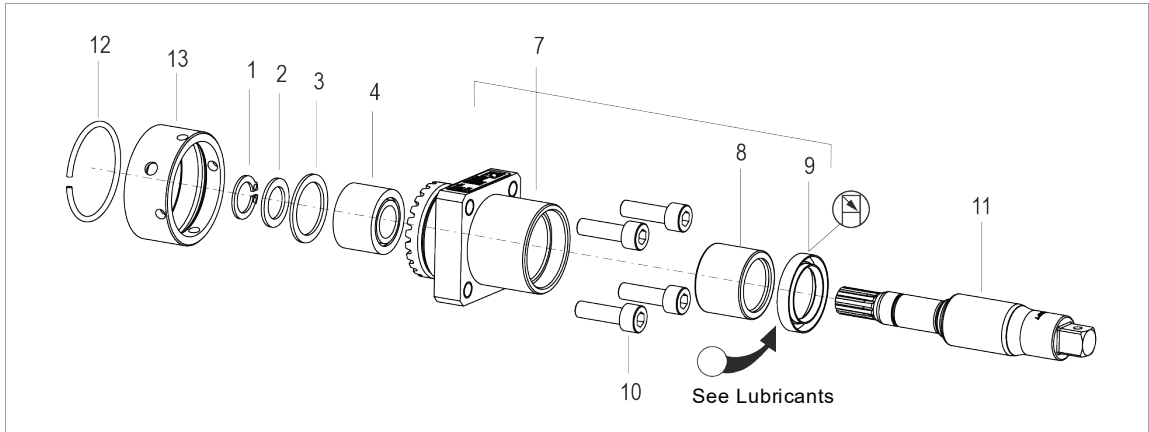


Fig. 3-1

Item	Order No.	Quantity	Description	Dimension
1	902034	1	Circlip	12.0 × 1.0
2	916804	1	Support washer	12.0 × 18.0 × 1.2
3	901602	1	Circlip	24.0 × 1.2
4	927784	1	Angular ball bearing	12.0 × 24.0 × 17.5
7	926448	1	Spindle hsg. asm.	
8	800178	1	Needle sleeve	19.05 × 25.4 × 19.05
9	925236	1	Seal shaft	19.05 × 28.65 × 4.78
10	901308	4	Cap screw	M6 × 20
11	944756PT	1	Drive spindle	
12	926638	1	Snap ring	
13	926627	1	Union nut	

Tab. 3-1

Assembly 2ZB – 927227 / 200 Nm

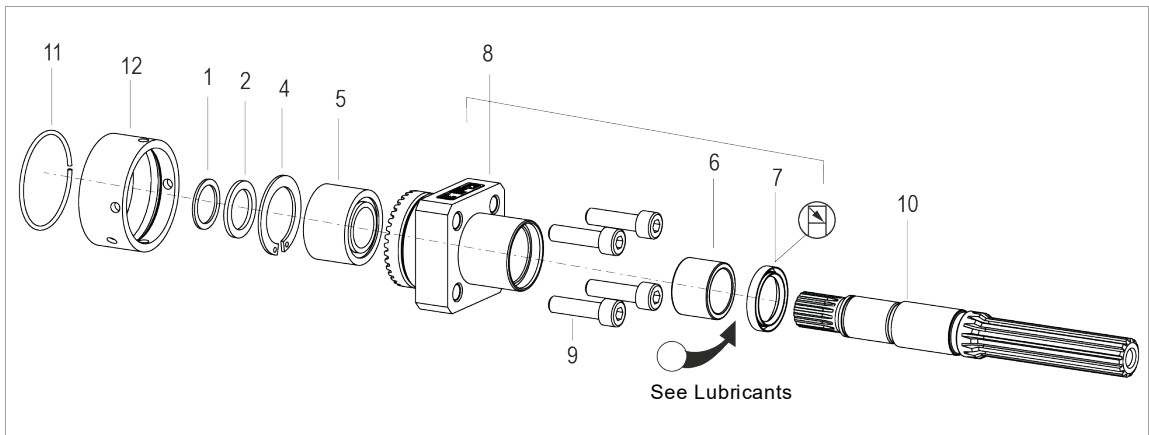


Fig. 4-1

Item	Order No.	Quantity	Description	Dimension
1	933818	1	Circlip	20.0 × 1.2
2	903474	1	Shim ring	20.0 × 28.0 × 2.0
4	920543	1	Circlip	37.0 × 1.5
5	935550	1	Angular ball bearing	20.0 × 37.0 × 1.5
6	918053	1	Needle sleeve	22.0 × 28.0 × 20.0
7	926441	1	Seal shaft	22.22 × 31.75 × 4.7
8	935547	1	Spindle hsg.	
9	900008	4	Cap screw	M8 × 30
10	935545	1	Drive spindle	
11	926716	1	Snap ring	44.5 × 2.0
12	942735PT	1	Union nut	

Tab. 4-1

5 Assembly 2ZC – 944757PT / 110 Nm

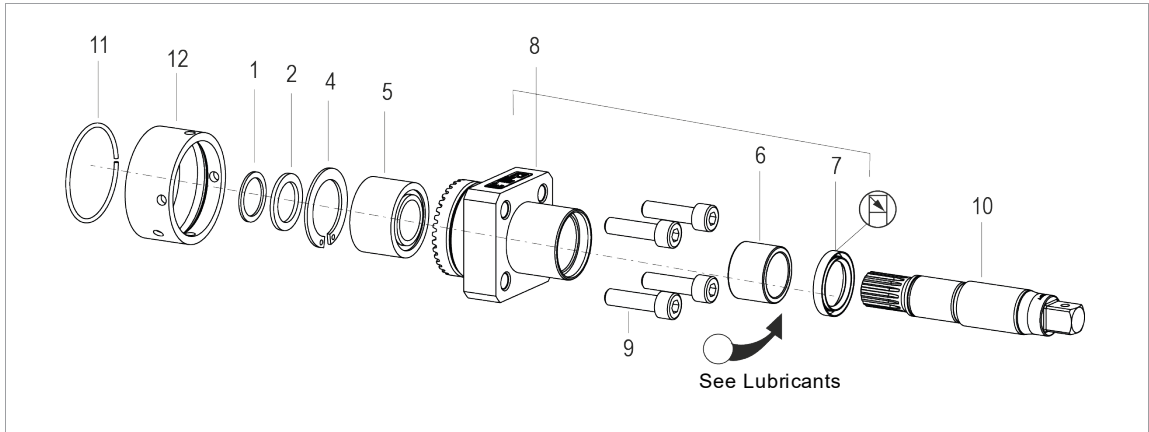


Fig. 5-1

Item	Order No.	Quantity	Description	Dimension
1	933818	1	Circlip	20.0 × 1.2
2	903474	1	Shim ring	20.0 × 28.0 × 2.0
4	920543	1	Circlip	37.0 × 1.5
5	935550	1	Angular ball bearing	20.0 × 37.0 × 1.5
6	918053	1	Needle sleeve	22.0 × 28.0 × 20.0
7	926441	1	Seal shaft	22.22 × 31.75 × 4.7
8	935547	1	Spindle hsg.	
9	900008	4	Cap screw	M8 × 30
10	944758PT	1	Drive spindle	
11	926716	1	Snap ring	44.5 × 2.0
12	942735PT	1	Union nut	

Tab. 5-1

6 Assembly 3ZB – 927233 / 300 Nm

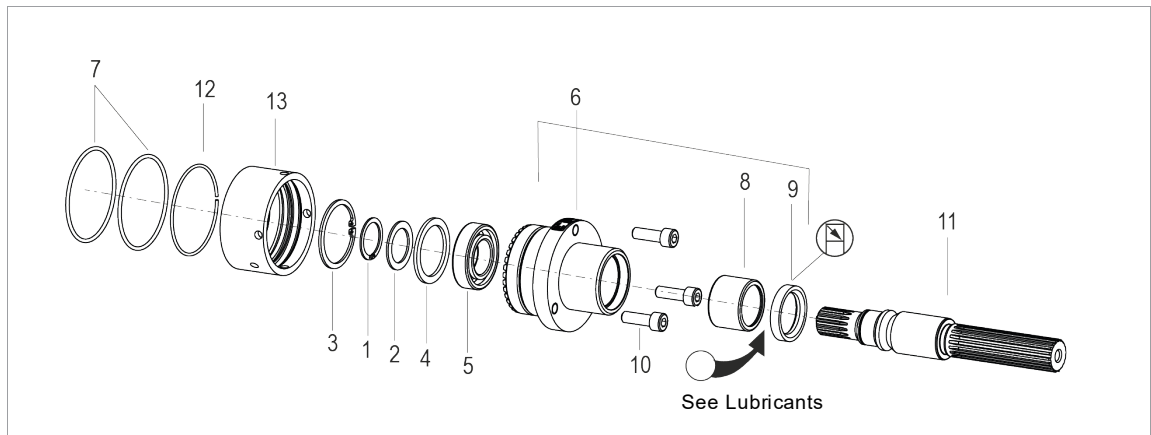


Fig. 6-1

Item	Order No.	Quantity	Description	Dimension
1	914957	1	Circlip	25.0 × 1.2
2	932209	1	Shim ring	25.0 × 35.0 × 1.5
3	901389	1	Circlip	47.0 × 1.75
4	914837	1	Support washer	37.0 × 47.0 × 2.5
5	200420	1	Ball bearing	25.0 × 47.0 × 12.0
6	935584	1	Spindle hsg. asm.	
7	926860	2	O-Ring	64.0 × 2.5
8	912094	1	Needle sleeve	30.0 × 37.0 × 26.0
9	927959	1	Seal shaft	30.0 × 40.0 × 7.0
10	900001	3	Cap screw	M8 × 25
11	935583	1	Drive spindle	
12	926745	1	Snap ring	61.6 × 2.0
13	926756	1	Union nut	

Tab. 6-1

7 Assembly 4ZA – 927236 / 660 Nm

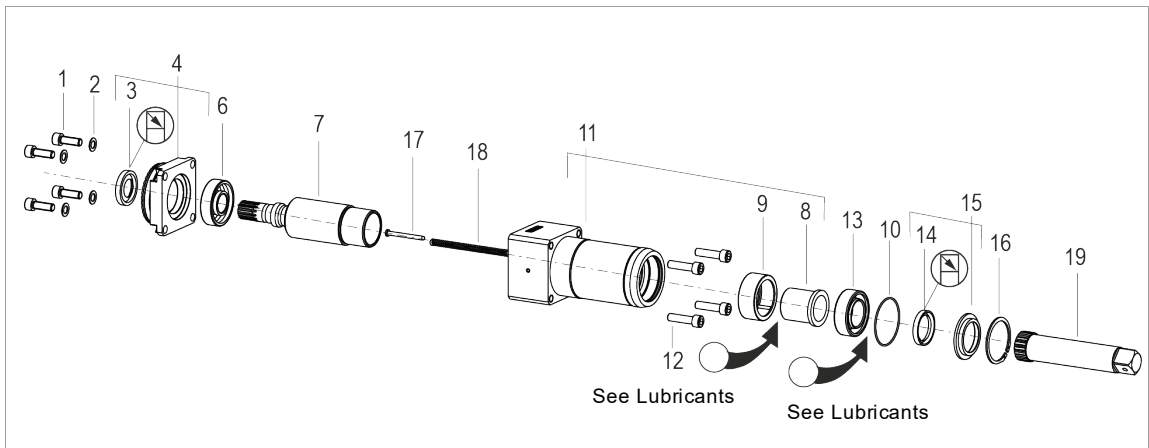
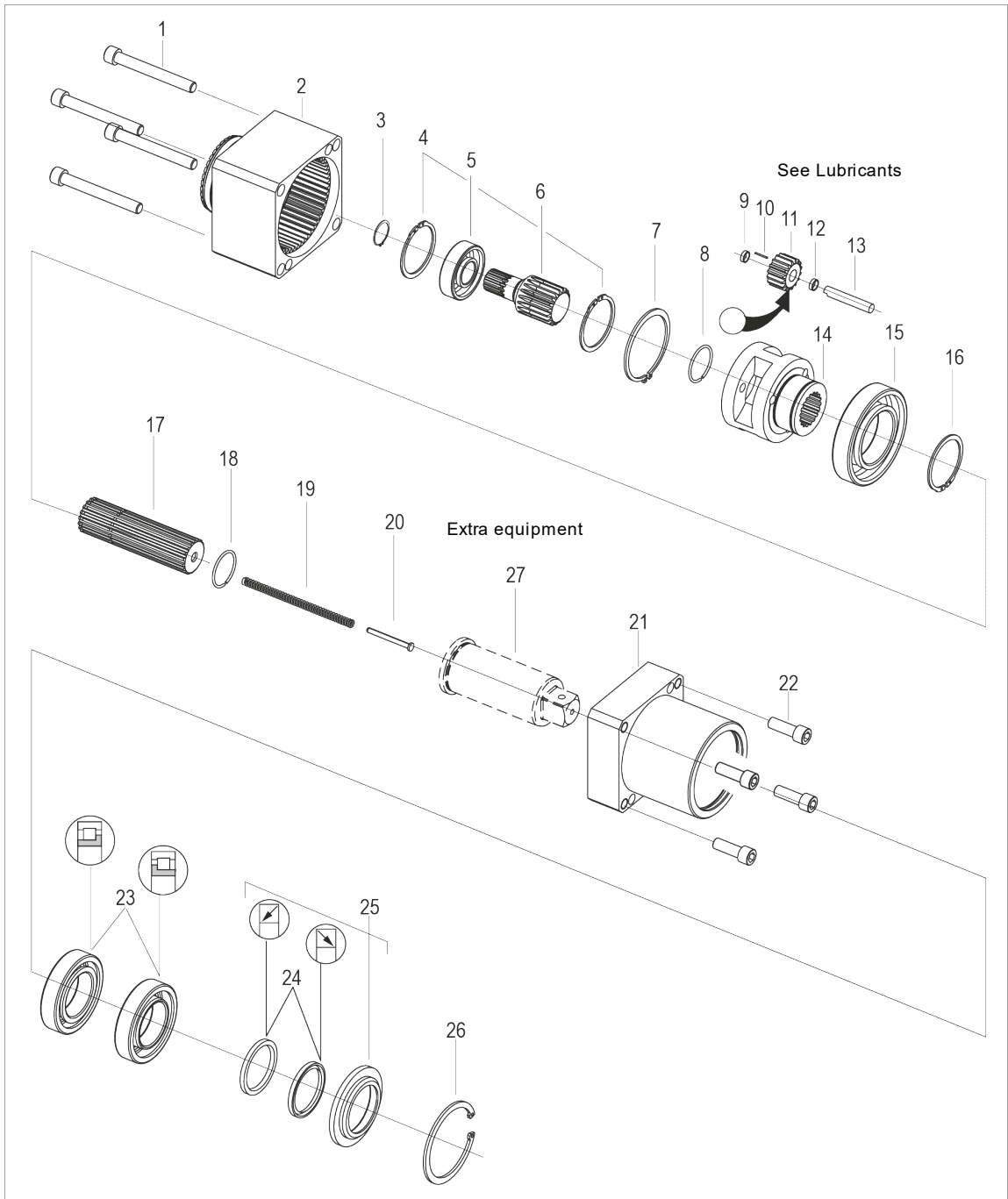


Fig. 7-1

Item	Order No.	Quantity	Description	Dimension
1	914431	4	Cap screw	M10 × 30
2	927659	4	Retaining washer	10
3	918145	1	Seal shaft	25.0 × 47.0 × 7.0
4	928323	1	Flange asm.	
5	914953	1	O-Ring	62.0 × 2.0
6	914952	1	Ball bearing	25.0 × 62.0 × 17.0
7	926807	1	Guide shaft	
8	916644	1	Bushing	
9	916662	1	Needle bearing	50.0 × 62.0 × 25.0
10	914953	1	O-ring	62.0 × 2.0
11	926461	1	Spindle hsg. asm.	
12	917198	4	Cap screw	M10 × 40
13	916921	1	Cylinder roller bearing	35.0 × 62.0 × 20.0
14	912078	1	Seal shaft	35.0 × 47.0 × 7.0
15	916647	1	Supporting ring asm.	
16	901556	1	Circlip	62.0 × 2.0
17	912047	1	Guide bolt	
18	942035PT	1	Compression spring	1.5 × 7.0 × 159.3

Assembly 4Z1250A – S976950 / 1250 Nm 4Z1600A – S976951 / 1600 Nm



Item	Order No.	Quantity	Description	Dimension
1	917183	4	Cap screw	M12 × 100
2	S976943	1	Gear case	
3	901654	1	Circlip	25.0 × 1.2 AR
4	901556	2	Circlip	62.0 × 2.0 IR
5	926856	1	Ball bearing	25.0 × 62.0 × 17,0
6	S976941	1	Pinion gear	
7	915968	1	Circlip	75.0 × 2.5 AR
8	922913	1	Retaining ring	40.0 × 2.5 AR
9	914434	3	Ring	
10	914450	72	Needle roller	1.5 × 15.8
11	S976942	3	Idler gear	
12	914434	3	Ring	
13	S976973	3	Idler gear bolt	10.1 × 59.0
14	S976944	1	Gear cage	
15	918102	1	Ball bearing	60.0 × 110.0 × 22.0
16	917814	1	Circlip	60.0 × 2.0 AR
17	S976945	1	Drive spindle	
18	922913	1	Retaining ring	40.0 × 2.5 AR
19	942035PT	1	Compression spring	1.5 × 7.0 × 159.3
20	912047	1	Guide bolt	
21	S976961	1	Gear case asm.	
22	901682	4	Cap screw	M12 × 35
23	S904474	2	Cylinder roller bearing	50.0 × 90.0 × 20.0
24	912711	2	Seal shaft	50.0 × 62.0 × 5.0
25	S976971	1	Supporting ring asm.	
26	S900377	1	Circlip	90.0 × 3.0 IR
277	See table			
Attachment	Order No.	27		
4Z1600A	S976951	S308441	1/1/2"	
4Z1250A	S976950	S976956	1"	

Tab. 8-1

Assembly 4Z2800G – F900750 / 2800 Nm

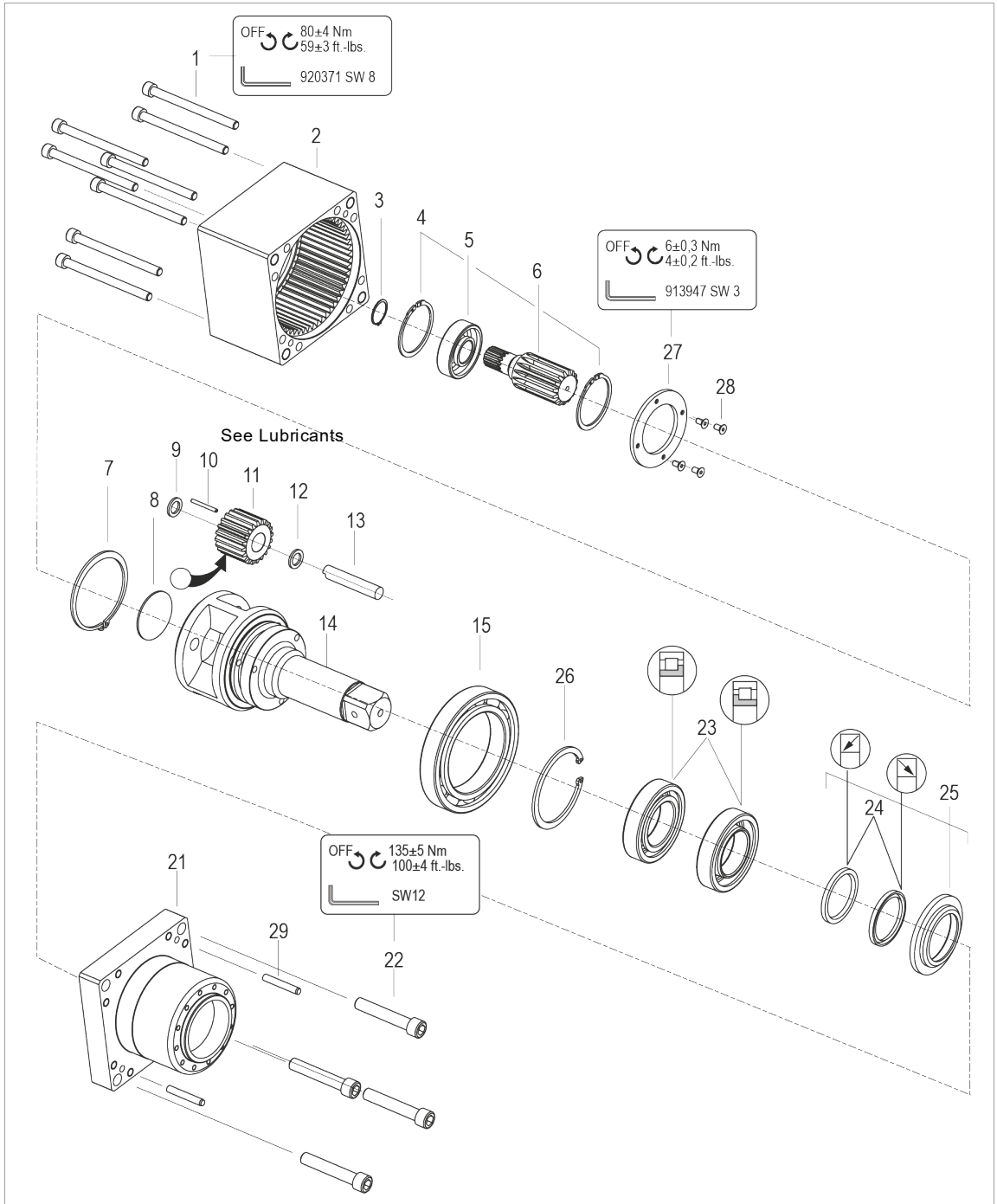


Fig. 9-1

Ref	Number	Qty	Description	Dimension
1	F900760	8	countersunk screw	M 10 × 130
2	F900754	1	gear case	
3	901654	1	circlip	25.0 × 1.2 AR
4	901556	2	circlip	62.0 × 2.0 IR
5	926856	1	ball bearing	25.0 × 62.0 × 17.0
6	F900752	1	pinion gear	
7	917821	1	circlip	90.0 × 3.0 AR
8	F900761	1		
9	F900759	3	washer	
10	F900757	45	needle roller	1.5 × 15.8
11	F900751	3	idler gear	
12	F900759	3	ring	
13	F900756	3	idler gear bolt	10.1 × 59.0
14	F900753	1	gear gage	
15	S901575	1	ball bearing	100.0 × 50.0 × 24.0
21	F900755	1	gear case asm.	
22	903828	4	cap screw	M14 × 80
23	S904474	2	cylinder roller bearing	50.0 × 90.0 × 20.0
24	912711	2	seal shaft	50.0 × 62.0 × 5.0
25	S976971	1	supporting ring asm.	
26	S900377	1	circlip	90.0 × 3.0 IR
27	F900758	1	washer	
28	915358	4	countersunk screw	M5 × 10
29	917622	2	cylinder pin	8.0 × 55.0

10 Lubricants

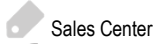
Order No.	Packaging Unit [kg]	Designation DIN 51502 / ISO 3498	KLÜBER LUBRICATION
933027	1	KP1K	Microlube GL261 ¹

¹ Initial lubrication Apex Tool Group

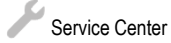
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