

Fig. 23a: Main Rotor Head Assembly

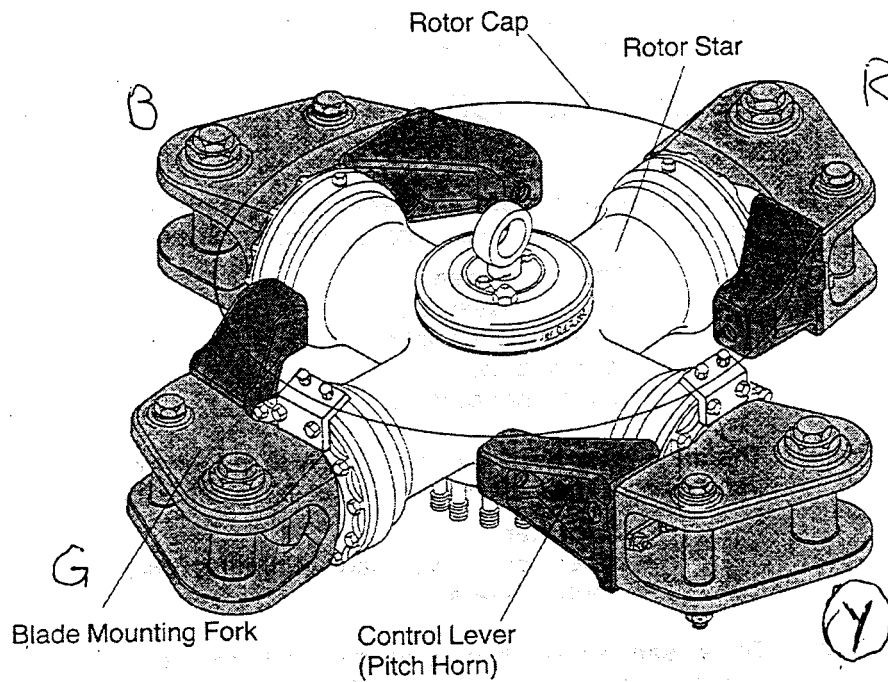


Fig. 23b: Rotor Star Assembly

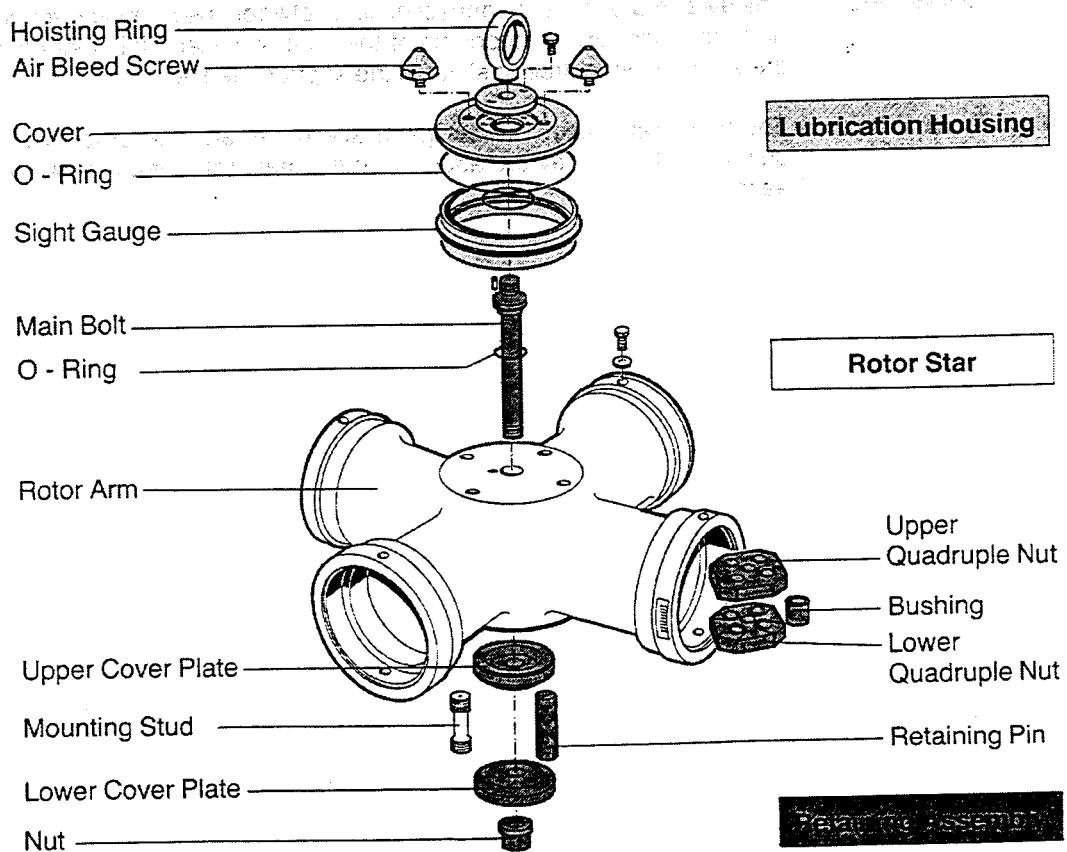


Fig. 25a: Assembly of Inner Sleeve and Control Lever

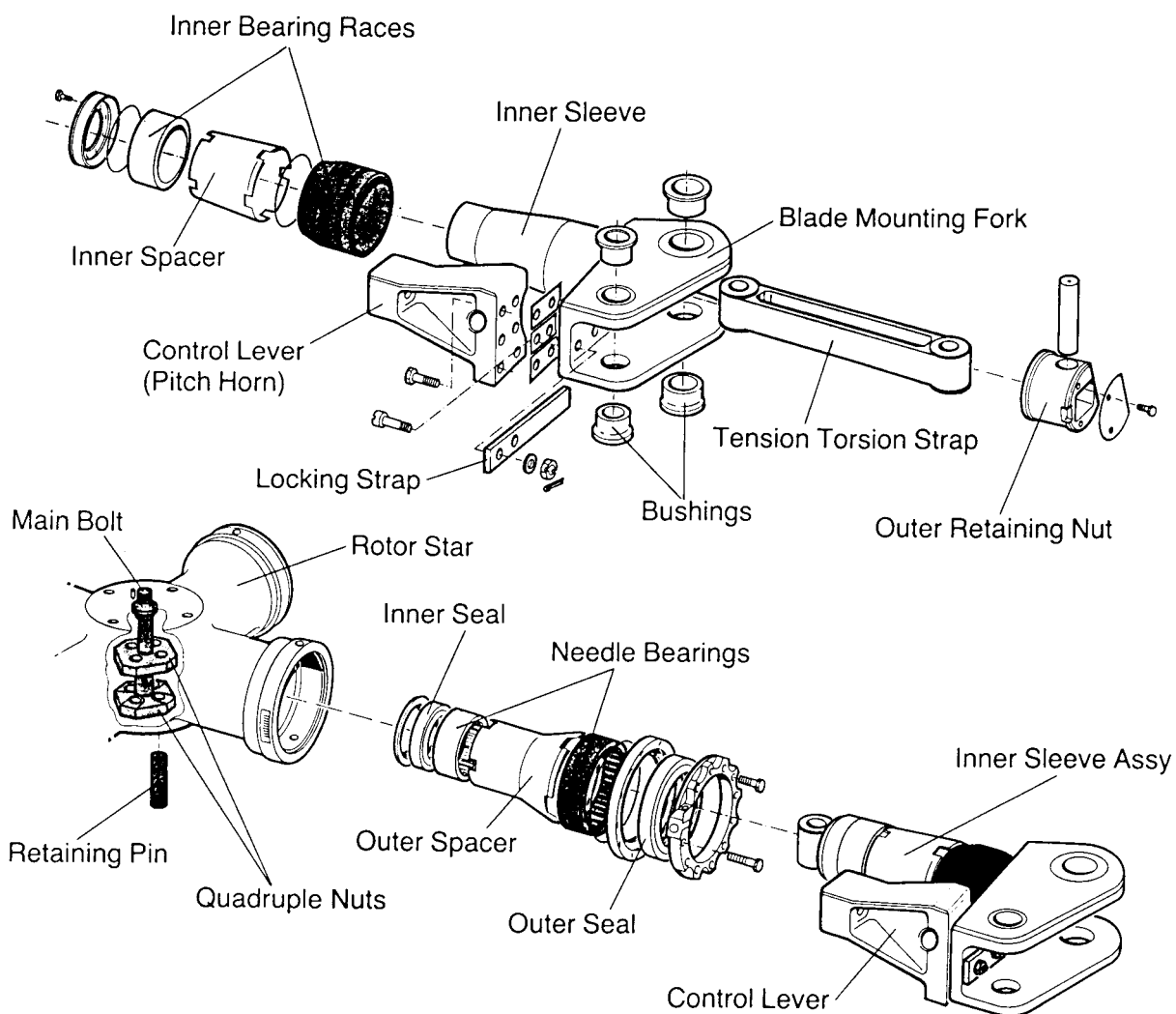


Fig. 25b: Rotor Head with Inner Sleeve Installed

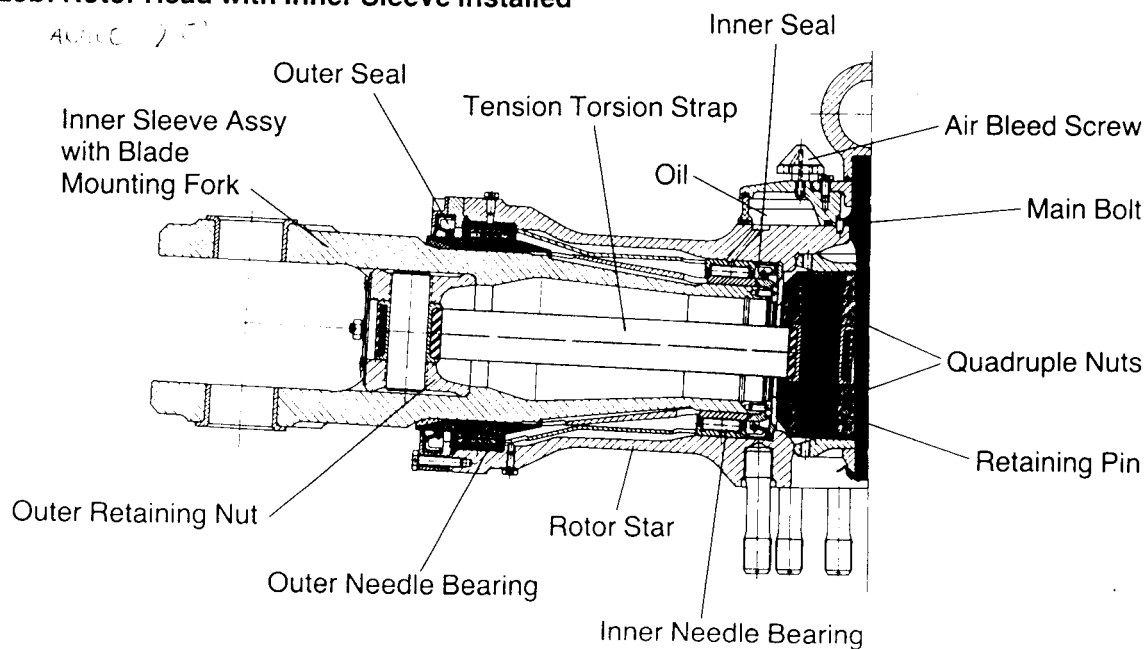


Fig. 27a: Location of Rotating Pitch Links and Scissor Assy

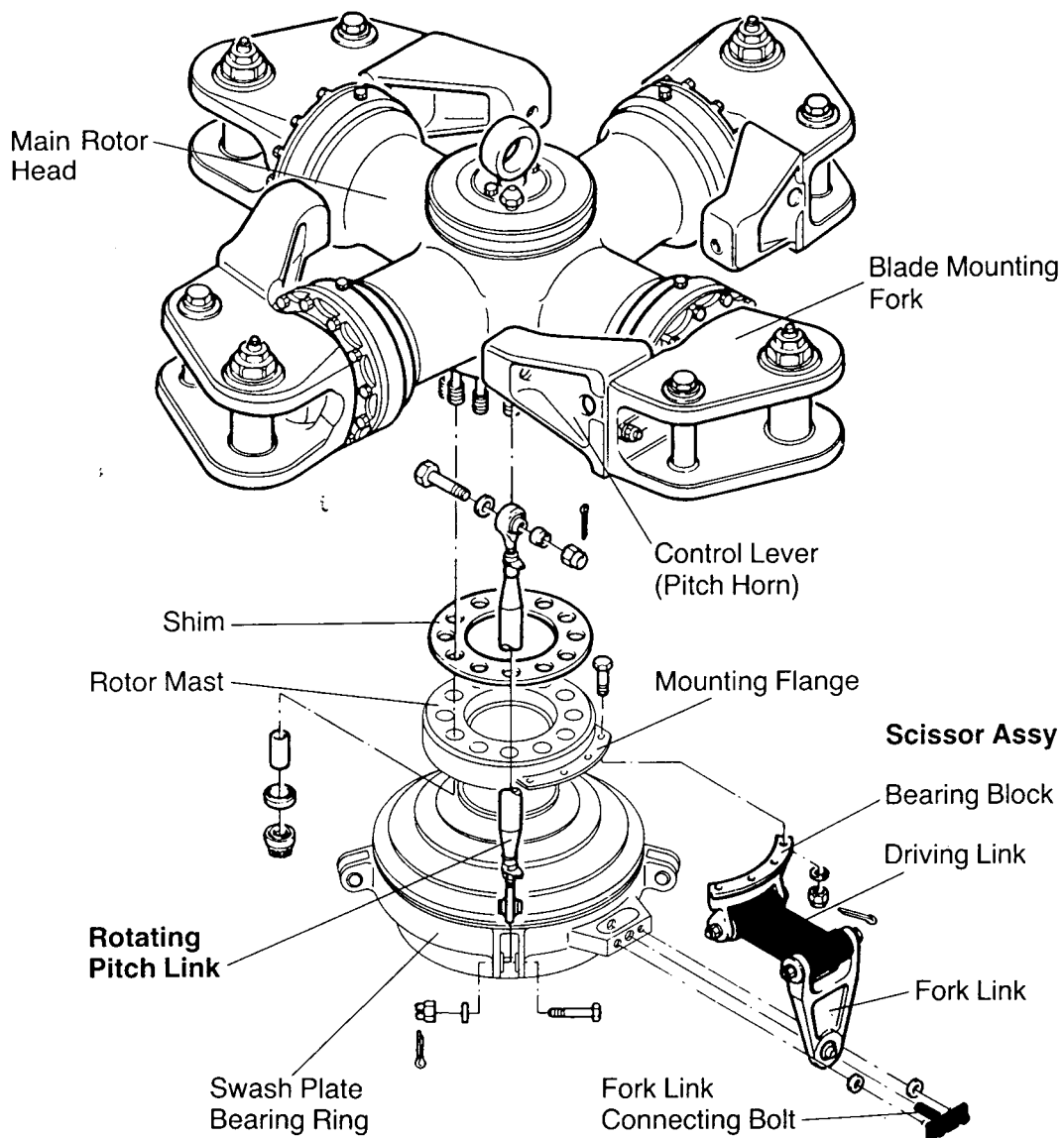
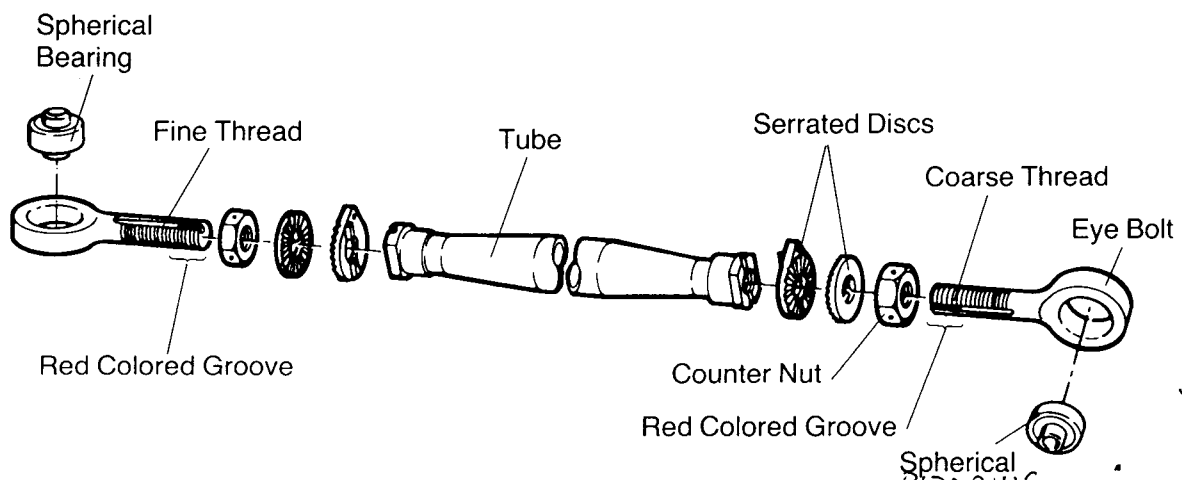


Fig. 27b: Rotating Pitch Link Components



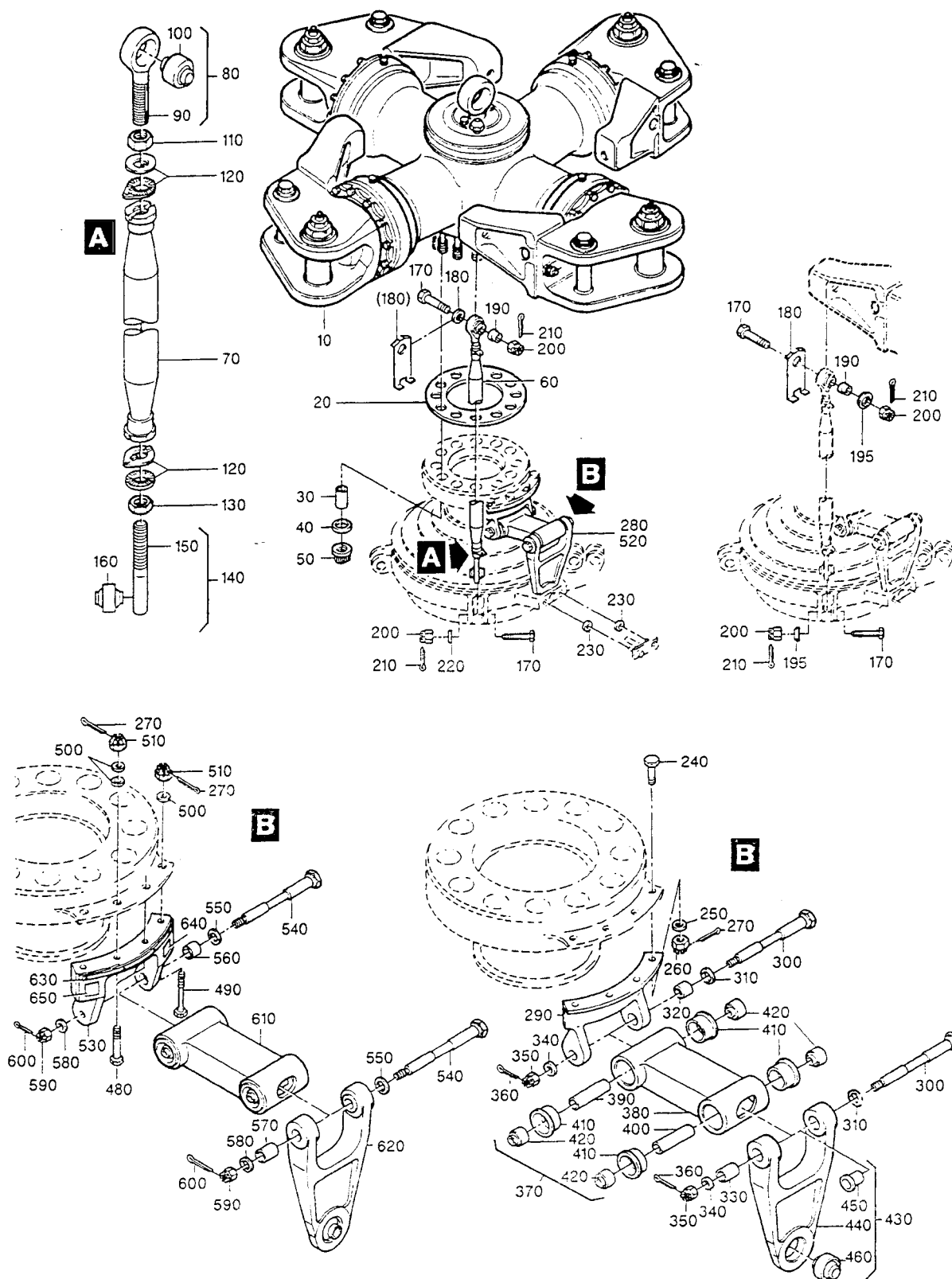


Bild 109 Rotorsystem
Fig. 109 Rotor System

Bild Ortszahl Fig./Ince	Teilekennzeichen Part Number	Beschreibung	Description	Menge pro Baugr. Units per Assy	Anwendungs- Kode Use Code
109					
- 00	117-13103	*Rotorsystem (siehe Bild 107)	Main Rotor System (see fig. 107)	REF	A,B,C,D
- 10	105-14103	*. Rotorkopf vollst. (siehe Bild 110)	Main Rotor Head Assy (see fig. 110)	1	
- 10	117-141031	*. Rotorkopf vollst. (siehe Bild 110)	Main Rotor Head Assy (see fig. 110)	1	
- 10	117-141041	*. Rotorkopf vollst. (siehe Bild 110A)	Main Rotor Head Assy (see fig. 110A)	1	
- 20	105-13101.14	. Zwischenlage	Silver Shim	1	
- 30	105-13101.15	. Buchse	Bushing	12	A
- 30	117-13103.15	. Buchse	Bushing	12	
- 40	105-13101.16	*. Scheibe	Washer	12	
- 40	105-13104.17	. Scheibe	Washer	12	
- 50	LE67-102	. Spezialmutter	Special Nut	12	
- 60	1121-13126	. Stauerstange	Control Rod	4	
- 60	105-13122	. Steuerstange	Control Rod	4	
- 70	YAJ119.607.200	. Rohr	Tube	1	
- 70	T21232C	+. Steuerstange	Control Rod	1	
- 80	105-13142	*. Oesenkopf vollst. (nur fuer 1121-13126)	Rod End Assy (only for 1121-13126)	1	
- 80	105-13144	. Oesenkopf vollst.	Rod End Assy	1	
- 90	105-13142.01	*. Oesenkopf	Rod End	1	
- 100	ABYT6V2002	*. Gelenklager (nur fuer 105-13142)	Bearing (only for 105-13142)	1	
- 100	11-6488P	. Gelenklager (nur fuer 105-13142)	Bearing (only for 105-13142)	1	
- 110	105-13121.06	. Sechskantmutter	Hex. Nut	1	
- 110	LN9343B10	. Sechskantmutter	Hex. Nut	1	
- 120	2193K10C	*. Sicherungssatz	Serrated Discs	2	
- 120	2193-10C	. Sicherungssatz	Serrated Discs	2	
- 130	105-13121.05	*. Sechskantmutter	Hex. Nut	1	
- 130	LN9342B11	. Sechskantmutter	Hex. Nut	1	
- 140	105-13141	. Oesenkopf vollst. (Nur fuer 1121-13126)	Rod End Assy (only for 1121-13126)	1	
- 140	105-13143	. Oesenkopf vollst.	Rod end assy	1	
- 150	105-13141.01	*. Oesenkopf	Rod End	1	
- 160	ABYT6V2002	*. Gelenklager (nur fuer 105-13141)	Bearing (only for 105-13141)	1	
- 160	11-6488P	. Gelenklager (nur fuer 105-13141)	Bearing (only for 105-13141)	1	
- 170	105-13101.22	+. Sechskantbolzen	Hex. Bolt	8	
- 170	105-13101.23	. Sechskantbolzen (nur mit Scheibe LN9028A10 verwenden)	Hex. Head Bolt (use only with washer LN9028A10)	8	
- 180	LN9016-10K	. Scheibe	Washer	4	
- 180	105-13101.25	. Sicherungsblech	Lock Washer	4	
- 190	105-13101.18	. Buchse	Bushing	4	
- 195	LN9028A10	. Scheibe (nur fuer 105-13101.23)	Washer (only for 105-13101.23)	8	
- 200	8PCR106	*. Nylstop-Mutter	Nylstop-Nut	8	
- 200	8125PCR106	. Nylstop-Mutter	Nylstop-Nut	8	
- 210	LN94-20018	. Splint	Split Pin	8	
- 220	LN9016-08K	. Scheibe (nur fuer 105-13101.22)	Washer (only for 105-13101.22)	4	
- 230	LN65045-05	. Scheibe	Washer	2	
- 240	LN9355-6X8	. Sechskant-Bolzen (nur fuer 117-132011)	Hex. Bolt (only for 117-132011)	4	A
- 250	LN9016-06K	. Scheibe (fuer 117-132011)	Washer (for 117-132011)	4	A
- 260	6PCR106	*. Nylstop-Mutter (nur fuer 117-132011)	Nylstop-Nut (only for 117-132011)	4	A
- 260	6100PCR106	. Nylstop-Mutter (nur fuer 117-132011)	Nylstop-Nut (only for 117-132011)	4	A
- 270	LN94-15015	. Splint	Split Pin	4	
- 280	117-132011	*. Mitnehmergestaenge	Drive Rod Assy	1	A
- 290	117-132011.11	*. Lagerbock	Bearing Block	1	A
- 300	105-13201.10	. Paszschraube (siehe SB 10-3)	Fitted Bolt (see SB 10-3)	2	
- 300	117-132011.10	*. Paszschraube	Fitted Bolt	2	A
- 310	DIN433-8,4ST50B3C	. Scheibe	Washer	2	
- 310	LN9016-08L	. Scheibe	Washer	2	

Bild Ortszahl Fig./Index	Teilekennzeichen Part Number	Beschreibung	Description	Menge pro Baugr. Units per Assy	Anwendungs- Kode Use Code
- 320	105-13201.06	. . Buchse	Bushing	1	
- 330	105-13201.07	. . Buchse	Bushing	1	
- 340	DIN433-6,4ST60-2B3 C	*. . Scheibe	Washer	2	
- 340	DIN433-6,4ST50B3C	. . Scheibe	Washer	2	
- 350	6TCR106	*. . Nylstop-Mutter	Nylstop-Nut	2	
- 350	6100TCR106	. . Nylstop-Mutter	Nylstop-Nut	2	
- 360	LN94-15015	. . Splint	Split Pin	2	
- 370	105-13221	. . Mitnehmer vollst.	Driving Link Assy	1	
- 380	105-13221.01	*. . Mitnehmer	Driving Link	1	
- 390	105-13221.08	. . Distanzbuchse	Spacer	1	
- 400	105-13221.07	. . Distanzbuchse	Spacer	1	
- 410	105-13221.02	. . Bundbuchse	Flange Bushing	4	
- 420	MS27649-5	. . Rillenkugellager	Ball Bearing	4	
- 430	105-13241	. . Lenker vollst.	Fork Link Assy	1	
- 440	105-13241.01	*. . Lenker	Fork Link	1	
- 450	105-13241.02	. . Buchse	Bushing	1	
- 460	ABYT6V2002	*. . Gelenklager	Bearing	1	
- 460	11-6488P	. . Gelenklager	Bearing	1	
- 470	MBBN3060E2BS	. . Schild	Label	1	
- 480	LN9355-6X14	. Sechskant-Bolzen (nur fuer 117-132021 und 117-132041)	Hex. Bolt (only for 117- 132021 and 117-132041)	2	
- 490	117-13103.13	. Dehnschraube (nur fuer 117- 132021 und 117-132041) (ASB-MBB-BK117-10-109 beachten)	Hex. Bolt (only for 117- 132021 and 117-132041) (attention ASB-MBB-BK117- 10-109)	2	
- 490	105-13104.13	. Dehnschraube (nur fuer 117- 132021 und 117-132041) (kann aus 117-13103.13 hergestellt werden, siehe ASB-MBB-BK117-10-109)	Hex. Bolt (only for 117- 132021 and 117-132041) (made from 117-13103.13 , see ASB-MBB-BK117-10- 109)	2	
- 500	LN9025-0610L	. Scheibe (nur fuer 117-132021 und 117-132041)	Washer (only for 117- 132021 and 117-132041)	6	
- 510	LN9345-06	. Mutter (nur fuer 117-132021 und 117-132041)	Nut (only for 117-132021 and 117-132041)	4	
- 520	117-132021	*. Mitnehmergestaenge (ASB-MBB- BK117-10-106 beachten)	Drive Rod Assy (attention ASB-MBB-BK117-10-106)	1	
- 520	117-132041	*. Mitnehmergestaenge (kann aus 117-132021 hergestellt werden, siehe ASB-MBB- BK117-10-106)	Drive Rod Assy (made from 117-132021, see ASB-MBB- BK117-10-106)	1	
- 530	117-132031.09	. . Lagerbock (ASB-MBB-BK117-10 -106 beachten)	Bearing Block (attention ASB-MBB-BK117-10-106)	1	
- 530	117-132031.11	. . Lagerbock (kann aus 117- 132031.09 hergestellt werden, siehe ASB-MBB- BK117-10-106)	Bearing block (made from 117-132031.09, see ASB- MBB-BK117-10-106)	1	
- 540	117-132021.10	. . Paszschraube (ASB-MBB-BK117 -10-109 beachten)	Fitted Bolt (attention ASB- MBB-BK117-10-109)	2	
- 540	117-132031.13	. . Paszschraube (kann aus 117- 132021.10 hergestellt werden, siehe ASB-MBB- BK117-10-109)	Fitted bolt (made from 117- 132021.10, see ASB-MBB- BK117-10-109)	2	
- 550	DIN433-8,4ST50B3C	. . Scheibe	Washer	2	
- 550	LN9016-08L	. . Scheibe	Washer	2	
- 560	105-13201.06	. . Buchse	Bushing	1	
- 570	105-13201.07	. . Buchse	Bushing	1	
- 580	DIN433-6,4ST50B3C	. . Scheibe	Washer	2	
- 590	6TCR106	*. . Nylstop-Mutter	Nylstop-Nut	2	
- 590	6100TCR106	. . Nylstop-Mutter	Nylstop-Nut	2	
- 600	LN94-15015	. . Splint	Split Pin	2	
- 610	105-13221	. . Mitnehmer vollst.	Driving Link Assy	1	
- 620	105-13241	. . Lenker vollst.	Fork Link Assy	1	
- 630	117-132021.11	. . Schild	Placard	1	
- 640	117-132021.12	. . Schild	Placard	1	
- 650	117-132021.13	. . Schild	Placard	1	
- 660	MBBN3055E1BS	. . Schild (NABB)	Label (NI)	1	

Bild Ortszahl Fig./Index	Teilekennzeichen Part Number	Beschreibung	Description	Menge pro Baugr. Units per Assy	Anwendungs- Kode Use Code
		Effect Code: A=BK117 A-1, B=BK117 A-3, C=BK117 A-4, D=BK117 B-1, E=BK117 B-2, F=BK117 C-1			

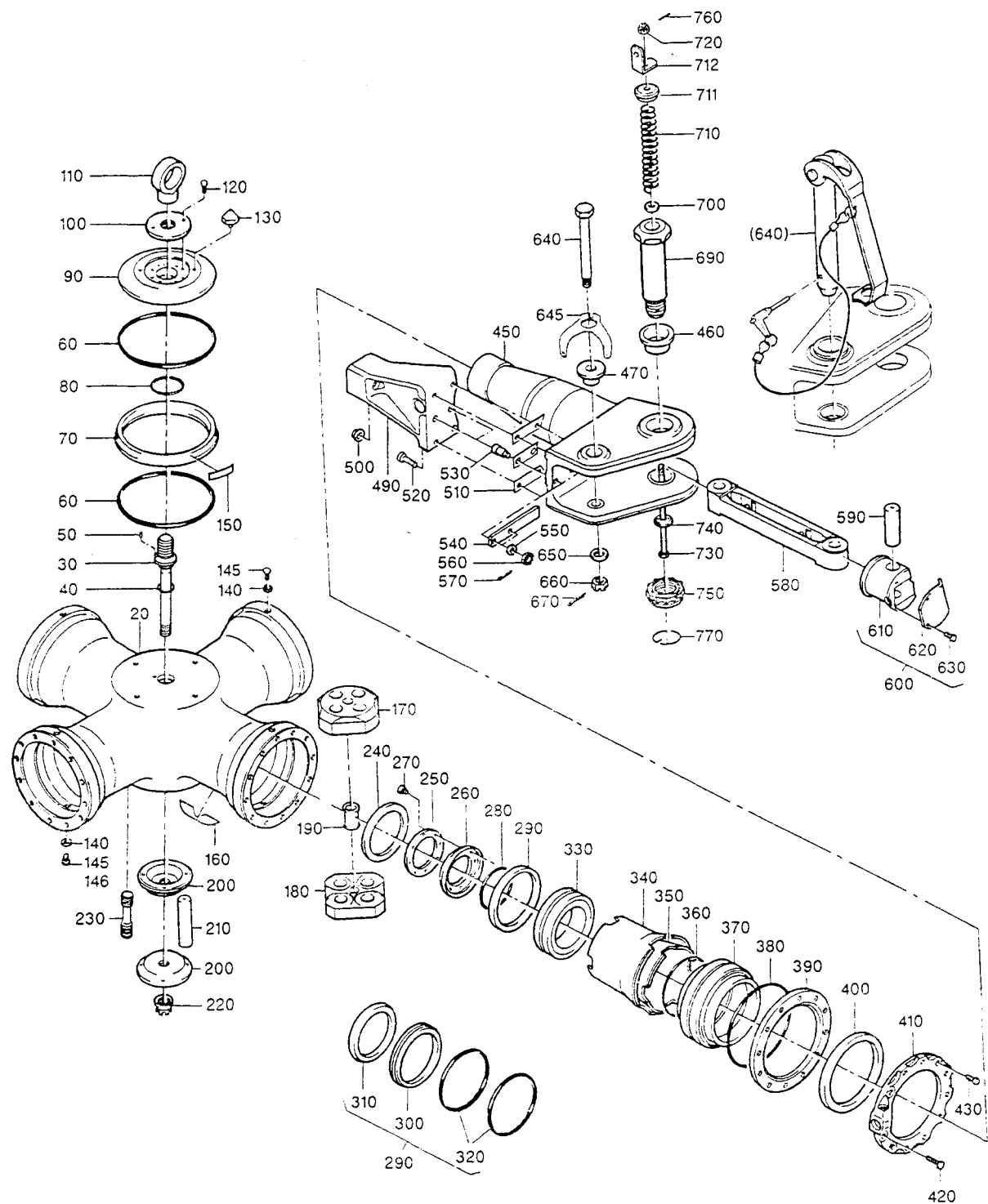


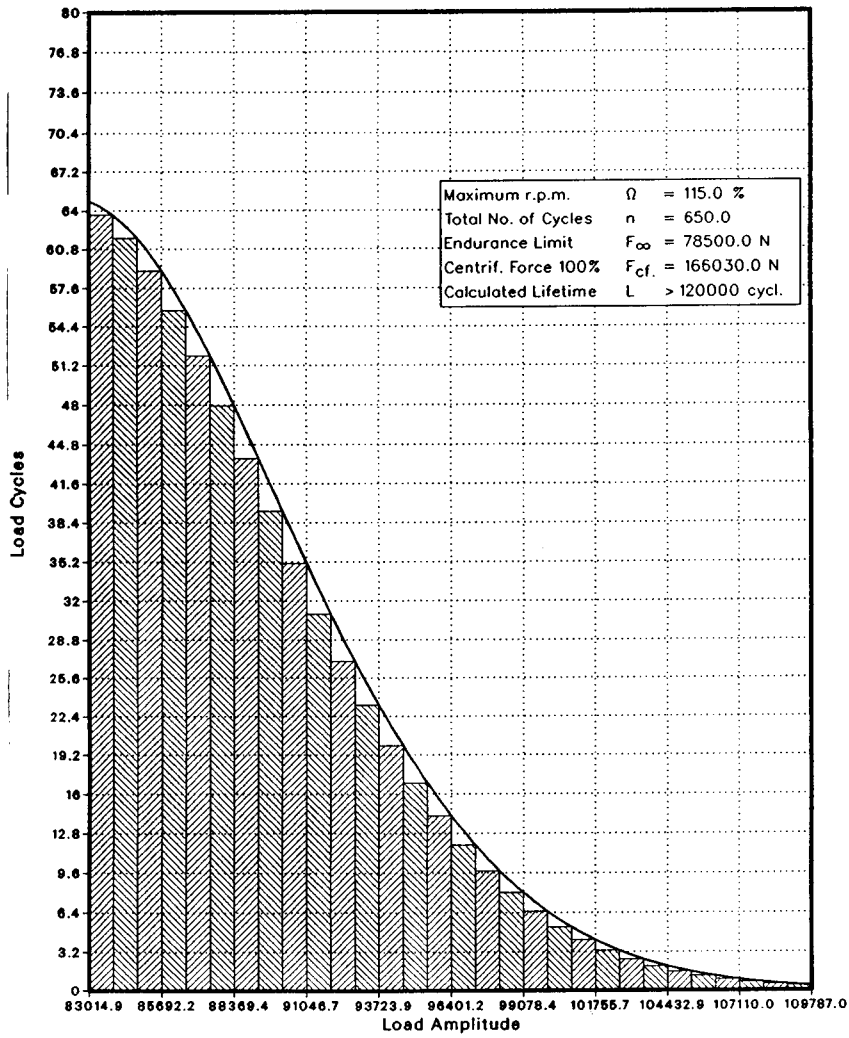
Bild 110 Rotorkopf vollst.
Fig. Main Rotor Head Assy

Bild Ortszahl Fig./Index	Teilekennzeichen Part Number	Beschreibung	Description	Menge pro Baugr. Units per Assy	Anwendungs- Kode Use Code
110					
- 00	105-14103	*Rotorkopf vollst. (siehe Bild . 109)	Main Rotor Head Assy (see . fig. 109)	REF	A,B,C,D
- 00	117-141031	*Rotorkopf vollst. (siehe Bild . 109)	Main Rotor Head Assy (see . fig. 109)	REF	A,B,C,D
- 10	105-14106	*. Rotorkopf (siehe SB-MBB-BK117-10-3) (NABB)	Main Rotor Head (see SB-MBB-BK117-10-3) (NI)	1	
- 10	117-141061	*. Rotorkopf (NABB)	Main Rotor Head (NI)	1	
- 20	105-14101.12	*. Rotorstern	Rotor Star	1	
- 30	1121-14102.18	. . Bolzen (nur mit Spezialmutter LE67-102 verwenden)	Bolt (use only with Special Nut LE67-102)	1	
- 30	105-141045.18	. . Bolzen (nur mit Nylstop-Mutter CR5093 oder 16150TCR106 und Splint LN94-30030 verwenden)	Bolt (use only with Nylstop-Nut CR5093 or 16150TCR106 and Split Pin LN94-30030)	1	
- 40	0R22X1,5-83FKM592	. . O-Ring	O-Ring	1	
- 50	LN7-4M6X8	. . Zylinderstift	Parallel Pin	1	
- 60	0R144,5X3-83FKM592	. . O-Ring	O-Ring	2	
- 70	105-14101.17	+ . . Schauglas	Sight-Glass	1	
- 70	117-141061.17	. . Schauglas	Sight-Glass	1	
- 80	0R46X3-83FKM592	. . O-Ring	O-Ring	1	
- 90	105-14101.16	. . Deckel	Cover	1	
- 100	105-14101.15	. . Verschlussmutter	Locking Nut	1	
- 110	105-14101.14	+ . . Ringmutter	Ring Nut	1	
- 120	LN9038K06010	. . Schraube	Screw	2	
- 130	105-14101.46	. . Entlüftungsschraube	Bleed Screw	2	
- 140	DIN7603A6,5X9,5AL	. . Dichtring	Sealing Ring	8	
- 145	105-81021.05	. . Sechskantschraube	Hex. Screw	8	
- 146	105-141041.43	. . Oelablass-Schraube (nur in Verbindung mit 105-141041.26)	Oil Drain Screw (use only with 105-141041.26)	4	
- 150	105-14101.40	*. . Oelkennschild (nur in Verbindung mit 105-14101.17)	Oil Level Marking (use only with 105-14101.17)	1	
- 150	105-14101.90	. . Oelstandsmarkierung (nur in Verbindung mit 105-14101.17)	Oil Level Marking (use only with 105-14101.17)	1	
- 160	MBBN162-1D	*. . Schild	Label	1	
- 160	MBBN3060E1BS	. . Schild	Label	1	
- 170	1121-14102.19	*. . Vierfachnusz oben (siehe SB-MBB-BK117-10-3)	Quadruple Nut, upper (see . SB-MBB-BK117-10-3)	1	
- 170	117-141061.19	*. . Vierfachnusz oben	Quadruple Nut, upper	1	
- 170	117-141071.19	. . Vierfachnusz oben	Quadruple Nut, upper	1	
- 180	1121-14102.20	*. . Vierfachnusz unten (siehe . SB-MBB-BK117-10-3)	Quadruple Nut, lower (see . SB-MBB-BK117-10-3)	1	
- 180	117-141061.20	*. . Vierfachnusz unten	Quadruple Nut, lower	1	
- 180	117-141071.20	. . Vierfachnusz unten	Quadruple Nut, lower	1	
- 190	1121-14102.24	. . Buchse	Bushing	1	
- 200	1121-14102.21	. . Scheibe	Washer	2	
- 200	105-141041.21	. . Scheibe	Washer	2	
- 200	105-141041.21.5	. . Scheibe, Uebermassteil	Washer, Oversize Part	AR	
- 210	1121-14102.23	*. . Bolzen (siehe SB-MBB-BK117-10-3)	Bolt (see SB-MBB-BK117-10-3)	4	
- 210	117-141061.23	*. . Bolzen	Bolt	4	
- 210	117-141071.23	. . Bolzen	Bolt	4	
- 220	LE67-102	. . Spezialmutter (nur fuer 1121-14102.18)	Special Nut (only for 1121-14102.18)	1	
- 220	CR5093	*. . Nylstop-Mutter (nur fuer 105-141045.18)	Nylstop-Nut (only for 105-141045.18)	1	
- 220	16150TCR106	. . Nylstop-Mutter (nur fuer 105-141045.18)	Nylstop-Nut (only for 105-141045.18)	1	
- 230	105-14101.38	. . Stehbolzen	Stud	12	
- 230	105-14101.38.5	. . Stehbolzen, Uebermasz	Stud, Oversize	AR	
- 240	1121-14102.25	. . Scheibe	Washer	4	
- 240	105-141041.25	*. . Scheibe	Washer	4	
- 250	105-14182.07	. . Oelschutzblech	Oil-Deflector	4	
- 260	1121-14182.06	*. . Ring	Ring	4	
- 260	105-141041.08	. . Ring	Ring	4	
- 270	DIN7984M5X10SK-B2C	. . Zylinderschraube	Screw	32	
- 280	0R75X2,7-83FKM592	*. . O-Ring	O-Ring	4	

Bild Ortszahl Fig./Index	Teilekennzeichen Part Number	Beschreibung	Description	Menge pro Baugr. Units per Assy	Anwendungs- Kode Use Code
- 280	0R75X2,7-83FPM592	. . O-Ring	O-Ring	4	
- 290	827N85X105X13FP750 1	. . Wellendichtring	Shaft Seal	4	
- 290	BAU6-85X105X13-12- 72NBR902	. . Wellendichtring	Shaft Seal	4	
- 290	105-14112	*. . Zusammenbau Uebermasz- Simmerr.	Mounting Shaft Seal Oversize	AR	
- 290	BAFUD4X7-85-105-13	. . Wellendichtring (72NBR902)	Shaft Seal	4	
- 290	105-14111	*. . Zusammenbau Uebermasz- Simmerr.	Mounting Shaft Seal Oversize	4	
- 300	105-14101.50.5	. . Uebermasz-Simmerring . .	Shaft Seal Oversize	1	
- 310	827N85X100X9FP7501	. . Wellendichtring	Shaft Seal	1	
- 310	BA85X100X9-72NBR90 2	. . Wellendichtring	Shaft Seal	1	
- 310	BAFUD3SLX27-85X100 X9	. . Wellendichtring	Shaft Seal	1	
- 320	0R100X2-83FKM592	*. . O-Ring	O-Ring	2	
- 320	0R100X2-83FKM575	. . O-Ring	O-Ring	2	
- 330	F32827	. . Nadellager	Needle Bearing	4	
- 330	F32827-5	. . Nadellager (Auszenring Uebermasz)	Needle Bearing (outer Ring Oversize)	AR	
- 330	F32827-6	*. . Nadellager (Innenring . . Untermasz)	Needle Bearing (inner Ring Undersize)	AR	
- 330	550654	*. . Nadellager	Needle Bearing	4	
- 330	550654A	*. . Nadellager (Auszenring . . Uebermasz)	Needle Bearing (outer Ring Oversize)	AR	
- 330	550654B	. . Nadellager (Innenring . . Untermasz)	Needle Bearing (inner Ring Undersize)	AR	
- 340	105-14104.26	*. . Huelse auszen	Spacer outer	4	
- 340	105-14101.26	*. . Huelse auszen	Spacer outer	4	
- 340	105-141041.26	. . Huelse auszen	Spacer outer	4	
- 340	105-14104.29	. . Huelse auszen	Outer Sleeve	4	
- 350	105-14183.04	. . Huelse innen	Inner Sleeve	4	
- 350	105-14181.04	. . Huelse innen	Inner Sleeve	4	
- 350	105-14183.08	. . Huelse innen	Inner Sleeve	4	
- 360	0R100X3-83FKM592	. . O-Ring	O-Ring	4	
- 370	F32828	. . Nadellager	Needle Bearing	4	
- 370	F32828-5	. . Nadellager (Auszenring . . Uebermasz)	Needle Bearing (outer Ring Oversize)	AR	
- 370	F32828-6	+ . . Nadellager (Innenring . . Untermasz)	Needle Bearing (inner Ring Undersize)	AR	
- 370	550655	*. . Nadellager	Needle Bearing	4	
- 370	550655A	*. . Nadellager (Auszenring . . Ubermasz)	Needle Bearing (outer Ring Oversize)	AR	
- 370	550655B	*. . Nadellager (Innenring . . Untermasz)	Needle Bearing (inner Ring Undersize)	AR	
- 380	0R135X2,5-83FKM592	. . O-Ring	O-Ring	4	
- 390	105-14101.44	. . Abstandsring	Spacer	4	
- 400	BAU6SL115X140X12-7 2NBR902	*. . Wellendichtring-Perbunan .	Shaft Seal Ring-Perbunan .	4	
- 400	BAFUD5SLX7-115X140 X12	. . Wellendichtring-Perbunan .	Shaft Seal Ring-Perbunan .	4	
- 410	105-14101.27	. . Simmerringhalter	Oil Seal Retainer	4	
- 410	117-141061.27	*. . Simmerringhalter	Oil Seal Retainer	4	
- 410	117-141061.28	. . Simmerringhalter	Oil Seal Retainer	4	
- 420	LN9038K06036	. . Schraube	Screw	4	
- 430	LN9038K06026	. . Schraube	Screw	40	
- 440	105-14183	. . Innenhuelse vollst. (siehe SB-MBB-BK117-10-3) (NABB)	Inner Sleeve Assy (see SB- MBB-BK117-10-3) (NI)	4	
- 440	117-141831	. . Innenhuelse vollst. (NABB)	Inner Sleeve Assy (NI) . .	4	
- 450	105-14181.01	*. . Innenhuelse	Inner Sleeve	1	
- 460	105-14181.02	. . Bundbuchse	Flange Bushing	2	
- 460	105-14181.02.5	. . Bundbuchse, Uebermasz . .	Flange Bushing, Oversize .	AR	
- 470	105-14183.03	. . Bundbuchse, Teflon besch. (nur 2 gleiche Buchsen verwenden) (Austauschbarkeit der Buchsen siehe WAH)	Flange Bushing, Teflon . . coat. (use only two equal Bushings) (inter- changeability of Bushings see MM)	2	

Bild Ortszahl Fig./Index	Teilekennzeichen Part Number	Beschreibung	Description	Menge pro Baugr. Units per Assy	Anwendungs- Kode Use Code
- 470	105-14181.03	+ . . . Bundbuchse (nur 2 gleiche Buchsen ver- wenden) (Austausch- barkeit der Buchsen siehe WAH)	Flange Bushing (use only two equal Bushings) (interchangeability of Bushings see MM)	2	
- 470	105-14181.03.5	. . . Bundbuchse, Uebermasz . .	Flange Bushing, Oversize .	AR	
- 470	105-14183.03.5	. . . Bundbuchse, Uebermasz . .	Flange Bushing, Oversize .	AR	
- 480	105-14201	. . . Steuerhebel vollst. (NABB)	Control Lever Assy (NI) . .	4	
- 490	105-14201.01	* . . . Steuerhebel	Control Lever	1	
- 500	105-14201.03	. . . Bundbuchse	Flange Bushing	1	
- 510	415-16	* . . . PTFE-Film	PTFE-Film	AR	
- 510	0200C16X0,1	. . . PTFE-Film	PTFE-Film	AR	
- 520	LN9386K08028A	. . . Schraube	Screw	16	
- 520	105-14101.39	* . . Sechskantschraube	Hex. Bolt	16	
- 530	105-14101.42	. . . Paszschraube	Close Tol. Screw	8	
- 540	105-14101.30	. . . Lasche	Strap	4	
- 550	LN9016-06K	. . . Scheibe	Washer	8	
- 560	LN9484M6	. . . Mutter	Nut	8	
- 570	LN94-15015	. . . Splint	Split Pin	8	
- 580	2604067	* . . Zugtorsionselement (Bendix) (nur 4 Teile mit gleichem TKZ verwenden)	Tension-Torsion-Strap . . . (Bendix) (use only 4 Parts with identical P/ N)	4	
- 580	J17322-1	. . . Zugtorsionselement (nur 4 . Teile mit gleichem TKZ verwenden)	Tension-Torsion-Strap (use only 4 Parts with iden- tical P/N)	4	
- 590	1121-14102.22	* . . Bolzen (siehe SB-MBB-BK117- 10-3)	Bolt (see SB-MBB-BK117-10- 3)	4	
- 590	117-141061.22	* . . Bolzen	Bolt	4	
- 590	117-141071.22	. . . Bolzen	Bolt	4	
- 600	1121-14223	* . . Nuss vollst.	Nut Assy	4	
- 600	105-142241	. . . Nuss vollst.	Nut Assy	4	
- 610	1121-14223.01	* . . . Nuss	Nut	1	
- 610	105-142241.01	* . . . Nuss (fuer 105-142241) . .	Nut (for 105-142241) . . .	1	
- 620	105-14222.02	. . . Deckel	Cover	1	
- 620	105-142241.02	* . . . Deckel (fuer 105-142241) . .	Cover (for 105-142241) . .	1	
- 630	LN9038K04008	. . . Schraube	Screw	3	
- 640	105-14101.79	* . . Sechskantbolzen klein (nur . mit Mutter LN9345-16 und Splint LN94-40030 verwenden)	Hex. Bolt small (use only with Nut LN9345-16 and Split Pin LN94-40030)	4	
- 640	105-14101.11	* . . Sechskantbolzen klein (nur . mit Nylstop-Mutter CR5093 oder 16150TCR106 und Splint LN94-30030 verwenden)	Hex. Bolt small (use only with Nylstop-Nut CR5093 or 16150TCR106 and Split Pin LN94-30030)	4	
- 640	105-14101.111	. . . Sechskantbolzen klein (nur . mit Nylstop-Mutter CR5093 oder 16150TCR106 und Splint LN94-30030 verwenden)	Hex. Bolt small (use only with Nylstop-Nut CR5093 or 16150TCR106 and Split Pin LN94-30030)	4	
- 640	105-13102	* . . Sicherungshebel vollst. . . . (jeweils 2 oder 4 Stueck anstelle der Sechskant- bolzen klein) (siehe Bild 852)	Safety Lever Assy (use 2 . or 4 each instead of Hex. Bolts small) (see fig. 852)	AR	
- 640	105-13103	+ . . Sicherungshebel vollst. . . . (jeweils 2 oder 4 Stueck anstelle der Sechskant- bolzen klein) (siehe Bild 852)	Safety Lever Assy (use 2 . or 4 each instead of Hex. Bolts small) (see fig. 852)	AR	
- 640	105-131035	. . . Sicherungshebel vollst. . . . (jeweils 2 oder 4 Stueck anstelle der Sechskant- bolzen klein) (siehe Bild 852)	Safety Lever Assy (use 2 . or 4 each instead of Hex. Bolts small) (see fig. 852)	AR	
- 645	105-14199	. . . Sicherungsblech vollst. . . .	Lock Washer Assy	4	
- 650	LN9016-16K	. . . Scheibe (entfaellt bei . . . Einbau von 105-14199)	Washer (not applicable by installing 105-14199)	4	
- 660	LN9345-16	. . . Mutter (nur fuer 105-14101. . 79)	Nut (only for 105-14101.79)	4	

Bild Ortszahl Fig./Index	Teilekennzeichen Part Number	Beschreibung	Description	Menge pro Baugr. Units per Assy	Anwendungs- Kode Use Code
- 660	CR5093	*. Nylstop-Mutter (nur fuer 105-14101.11 oder 105-14101.111)	Nylstop-Nut (only for 105-14101.11 or 105-14101.111)	4	
- 660	16150TCR106	. Nylstop-Mutter (nur fuer 105-14101.11 oder 105-14101.111)	Nylstop-Nut (only for 105-14101.11 or 105-14101.111)	4	
- 670	LN94-40030	. Splint (nur fuer LN9345-16)	Split Pin (only for LN9345-16)	4	
- 670	LN94-30030	. Splint (nur fuer CR5093 und 16150TCR106)	Split Pin (only for CR5093 and 16150TCR106)	4	
- 680	105-14105	*. Hauptbolzen vollst. (siehe ASB 90-105) (NABB)	Main Bolt Assy (see ASB 90-105) (NI)	4	
- 680	117-141091	*. Hauptbolzen vollst. (NABB)	Main Bolt Assy (NI)	4	
- 690	105-14101.57	*. . Hauptbolzen	Main Bolt	1	
- 690	105-14101.10	. . Hauptbolzen	Main Bolt	1	
- 700	105-14101.62	. . Scheibe	Washer	AR	
- 710	105-14101.61	. . Druckfeder	Compression Spring	1	
- 711	117-181001.02	. . Scheibe	Washer	1	
- 712	117-181001.04	. . Winkel	Angle	1	
- 720	6100PCR106	. . Nylstop-Mutter	Nylstop-Nut	1	
- 730	105-14101.59	*. . Sechskantschraube	Hex. Bolt	1	
- 730	105-14101.91	. . Sechskantschraube	Hex. Bolt	1	
- 740	105-14101.60	. . Deckel	Cover	1	
- 750	105-14101.58	. . Spezialmutter	Special Nut	1	
- 760	LN94-15015	. . Splint	Split Pin	1	
- 770	DIN70951-39	. . Hakenspringring	Hook Spring Ring	1	
Effect Code: A=BK117 A-1, B=BK117 A-3, C=BK117 A-4, D=BK117 B-1					



Bendix Tie Bar (2604067), Tension-Torsion Strap (J-17322-1)

Figure 2.2.3.3.6-2: Working Load Spectrum of Bendix Tie Bar and Tension Torsion Strap

D) Working Load Spectrum

Using the method described in [4], the working load spectrum shown in Fig. 2.2.3.3.6-2 can be calculated.

2.2.3.3.6 Bendix Tie Bar (2604067), Tension Torsion Strap (J-17322-1)

A) Description of part

The Bendix Tie Bar (P/N 204067) and the Tension Torsion Strap (P/N J-17322-1) are parts of the rotor head. Fig 2.2.3.3.6-1 shows the Bendix Tie Bar and the Tension Torsion Strap.

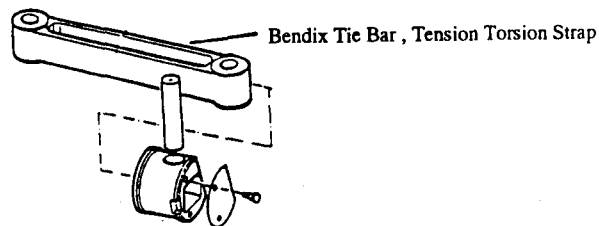


Fig 2.2.3.3.6-1 Bendix Tie Bar , Tension Torsion Strap

B) Working S/N Curve

For the Bendix Tie Bar (2604067) and the Tension Torsion Strap (J-17322-1) the same s/n curve is valid (see [1]). The working s/n curve for these components was determined by means of fatigue tests for a stress ratio $R = 0.0$ (see [1]).

This s/n curve given for amplitudes reads:

$$F_a = 78500 + \frac{194000 - 78500}{\exp\left(\left(\frac{\log N}{4.22}\right)^{3.46}\right)} N$$

C) Start-Stop Load Spectrum

The component is loaded by centrifugal forces. The centrifugal force at 100 % rotation speed ($\Omega = 7.08$ Hz) can be calculated by summing up the first moments of inertia of each rotating main rotor component (see [9]). From experience with BO105 it is assumed that this load occurs 650 times per 100 flight hours. The Start-Stop Load Spectrum is valid for 100 hrs flight time.

The centrifugal force at $\Omega = 100\%$ is according to [9]:

$$F_{c/f(\Omega = 100\%)} = 166030N$$

The maximum damaging centrifugal force occurs at $\Omega = 115\%$:

$$F_{c/f(\Omega = 115\%)} = 219575N$$