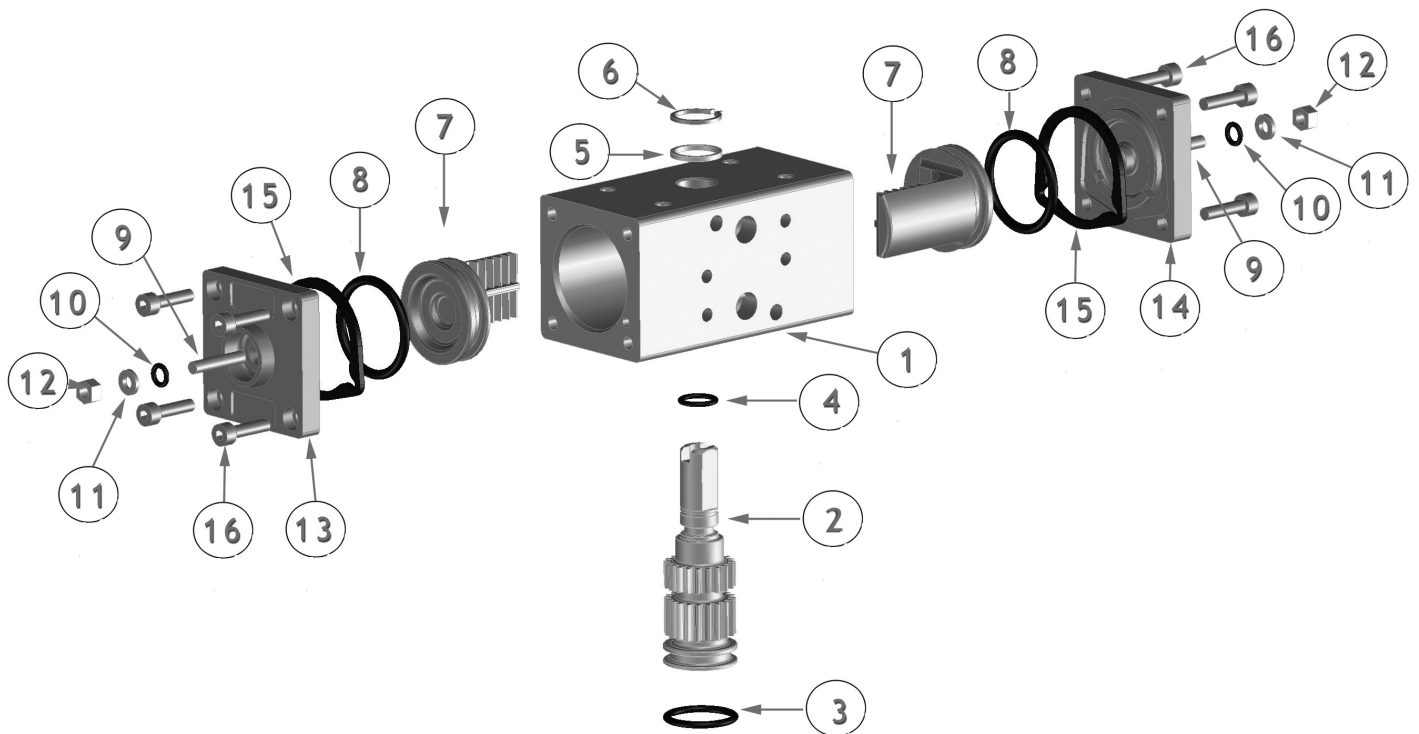


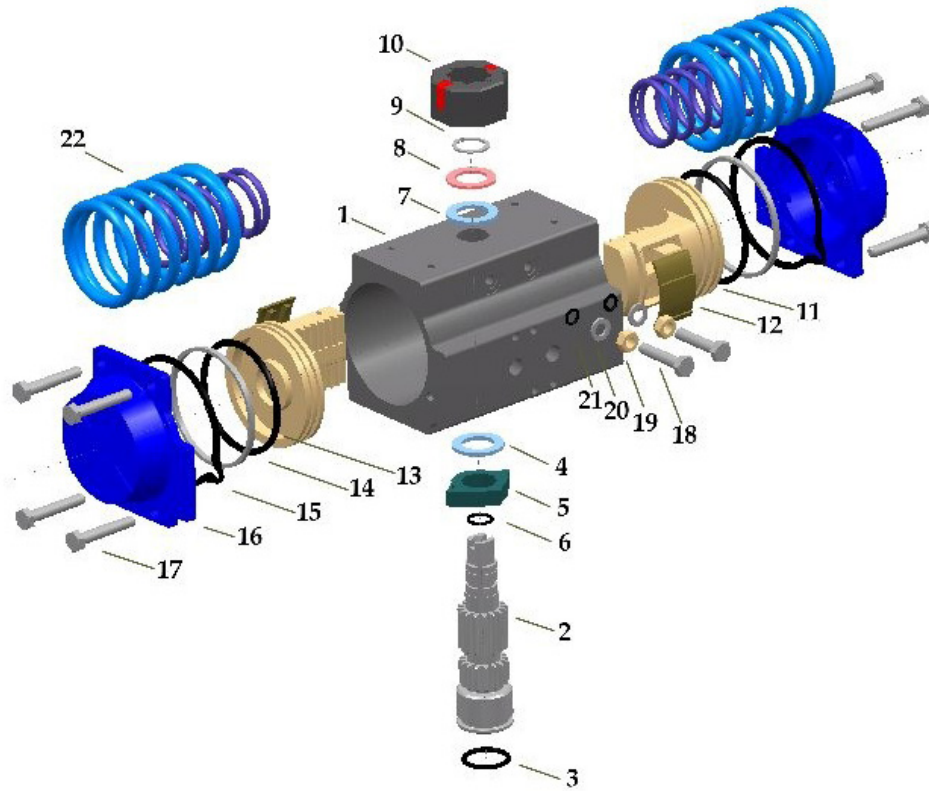
# BI-TORQ PN-32-DA PARTS BREAKDOWN



PART NUMBER	DESCRIPTION	MATERIAL	TREATMENT	QTY. (DA)
1	BODY	EXTRUDED ALUMINUM	HARD ANODIZED	1
2	ANTI-BLOWOUT PINION	STEEL	NICKEL PLATED	1
3	LOWER PINION O-RING*	NBR70	---	1
4	TOP PINION O-RING	NBR70	---	1
5	PINION SPACER RING*	PTFE+15% GRAPHITE	---	1
6	PINION SNAP RING	STEEL	NICKEL PLATED	1
7	PISTON	DIE CAST ALUMINUM	---	1
8	PISTON O-RING*	NBR70	---	2
9	STOP BOLT	STAINLESS STEEL	---	2
10	STOP BOLT O-RING*	NBR70	---	2
11	STOP BOLT WASHER	STAINLESS STEEL	---	2
12	STOP BOLT RETAINING NUT	STAINLESS STEEL	---	2
13	LEFT END CAP	DIE CAST ALUMINUM	EPOXY COATED	1
14	RIGHT END CAP	DIE CAST ALUMINUM	EPOXY COATED	1
15	END CAP SEAL	NBR70	---	2
16	END CAP BOLT	STAINLESS STEEL	---	8

\*Parts subject to wear

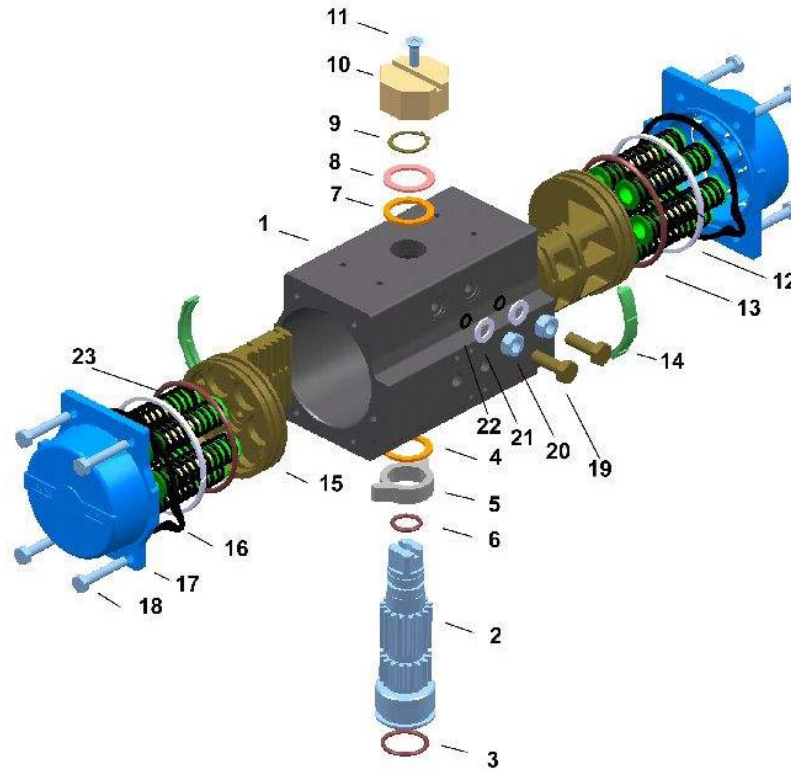
# BI-TORQ PN-52 THROUGH PN-145 PARTS BREAKDOWN



PART NUMBER	DESCRIPTION	MATERIAL	TREATMENT	QTY. (DA)	QTY. (SR)
1	BODY	EXTRUDED ALUMINUM	HARD ANODIZED	1	1
2	ANTI-BLOWOUT PINION	STEEL	NICKEL PLATED	1	1
3	LOWER PINION O-RING*	NBR70	---	1	1
4	PINION SPACER RING	PTFE+15% GRAPHITE	---	1	1
5	TOP PINION O-RING	NBR70	---	1	1
6	CAM SPACER RING*	PTFE+15% GRAPHITE	---	1	1
7	STOP ADJUSTMENT	STAINLESS STEEL	---	1	1
8	POSITION INDICATOR	NYLON	---	1	1
9	PINION WASHER	STAINLESS STEEL	---	1	1
10	PINION SNAP RING	STEEL	NICKEL PLATED	1	1
11	PISTON	DIE CAST ALUMINUM	---	2	2
12	PISTON O-RING*	NBR70	---	2	2
13	ANTI-FRICTION RING*	PTFE+15% GRAPHITE	---	2	2
14	PISTON THRUST BLOCK	PTFE+15% GRAPHITE	---	2	2
15	STOP BOLT WASHER	STAINLESS STEEL	---	2	2
16	STOP BOLT	STAINLESS STEEL	---	2	2
17	EXTERNAL SPRING	STEEL	ZINC PHOSPHATE COATED	N/A	SEE SPRING CHART
18	INTERNAL SPRING	STEEL	ZINC PHOSPHATE COATED	N/A	SEE SPRING CHART
19	END CAP	DIE CAST ALUMINUM	EPOXY COATED	1	1
20	STOP WASHER				
21	END CAP SEALS	NBR70	---	8	8
22	END CAP BOLTS	STAINLESS STEEL	---	8	8

\*Parts subject to wear

# BI-TORQ PN-161 THROUGH PN-271 PARTS BREAKDOWN



PART NUMBER	DESCRIPTION	MATERIAL	TREATMENT	QTY. (DA)	QTY. (SR)
1	BODY	EXTRUDED ALUMINUM	HARD ANODIZED	1	1
2	ANTI-BLOWOUT PINION	NICKEL PLATED STEEL	NICKEL PLATED	1	1
3	LOWER PINION O-RING*	NBR70 OR VITON	---	1	1
4	PINION SPACER RING	POM	---	1	1
5	STOP ADJUSTMENT	STAINLESS STEEL	---	1	1
6	TOP PINION O-RING	NBR70 OR VITON	NICKEL PLATED	1	1
7	CAM SPACER RING*	POM	NICKEL PLATED	1	1
8	PINION WASHER	STAINLESS STEEL	---	2	2
9	PINION SNAP RING	STAINLESS STEEL	---	2	2
10	POSITION INDICATOR	NYLON	---	2	2
11	INDICATOR BOLT	NYLON+SS	---	2	2
12	ANTI-FRICTION RING*	POM	---	2	2
13	PISTON O-RING*	NBR70 OR VITON	---	2	2
14	PISTON THRUST BLOCK	POM	---	2	2
15	PISTON	DIE CAST ALUMINUM	ZINC PHOSPHATE COATED	N/A	SEE SPRING CHART
16	END CAP SEALS	NBR70 OR VITON	ZINC PHOSPHATE COATED	N/A	SEE SPRING CHART
17	END CAP	DIE CAST ALUMINUM	ZINC PHOSPHATE COATED	N/A	SEE SPRING CHART
18	END CAP BOLTS	STAINLESS STEEL	EPOXY COATED	1	1
19	STOP BOLT	STAINLESS STEEL	EPOXY COATED	1	1
20	STOP NUT	STAINLESS STEEL	---	8 (160-201) 12 (271)	8 (160-201) 12 (271)
21	STOP BOLT WASHER	STAINLESS STEEL	---	2	2
22	STOP BOLT O-RING*	NBR70 OR VITON	---	2	2
23	SPRING SETS	ZINC COATED STEEL	ZINC PHOSPHATE COATED	---	12 (271 ONLY)

\*Parts subject to wear