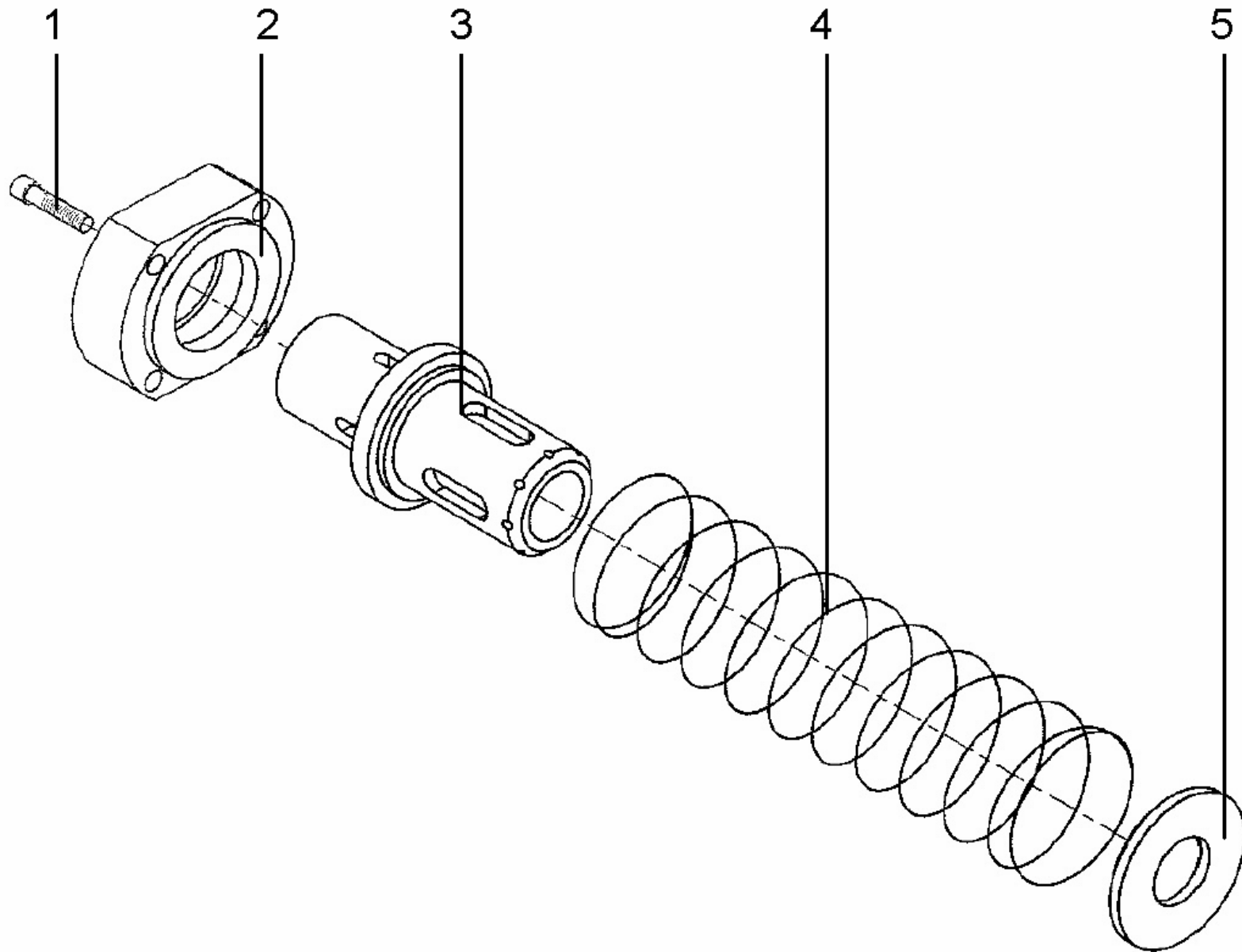


Hartmann & Bender – Spare Parts – Selection Manual 4 1/4”“

Page	Description	IS Part No.	H&B Ident No.
2	NNPB Plunger Positioners max. finish 38 mm	62-404	0762-404
3	Plunger Positioners finish up to 70 mm	62-171	0762-171
4	Floating Plungers Positioner finish up to 70 mm	62-407	0762-407
5	Floating Plungers Positioners max. finis 83 mm	62-412	0762-412
6	Quick Change Cartridges Blow & Blow	62-170	0762-170
7	Quick Change Cartridges Blow & Blow	62-3036	0762-3036
8	Baffle Arms	191-5812	0791-5812
9	Baffle Arms	191-7434	0791-7434
10	Funnel Arms	191-5770	0791-5770
11-14	Blank Side Veriflow		
15	Mould Holders Double Deck	191-8456	0791-8456
16	Mould Holder Assemblies 1, 2, 3		Assy. 1, 2, 3
17	Mould Holder Assemblies 4, 5, 6, 7		Assy. 4, 5, 6, 7
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22	Mould Holders Triple Deck	191-8504	0791-8504
23	Mould Holder Assemblies 18, 19		Assy. 18, 19
24	Mould Holder Assembly 20		Assy. 18, 19
25	Mould Holder Assemblies 21, 22		Assy. 21, 22
26	Neck Ring Holders 70 mm & 83 mm		0791-8128 0791-5864
27	Lightweight Blow Head Arms	191-6357	0791-6357
28	Blow Head Arms	191-5814	0791-5814
29	Blow Head Arms Hinge Type		H&B-83425
30	Blow Head Arms for direct connecting of flexible hoses at lockrings		H&B-425-001
31	Take Out Tong Arms Belt Drive for Standard Take Out Tong Mech. Take Out Tong Arms Belt Drive for Bottero Servo Take Out Tong Mech.		Type 72-06 Type 72-07
32	Take Out Tong Arms Type 72-06 – Spare Parts List		Type 72-06
33	Take Out Tong Arms Type 72-07 – Spare Parts List		Type 72-07
34	Q.C. Take Out Tong Heads Assemblies DG Q.C. Take Out Tong Heads Assemblies DG “ Anti Wink “	191-9125 210-275	0791-9125 7210-275
35	Take Out Tong Holders	191-8319	0791-8319
36	Technical Bulletin for Take Out Tong Holders	191-8319	0791-8319
37	Take Out Tong Holders “ Anti Wink “	191-9535	0791-9535
38	Q.C. Take Out Tong Heads Assemblies for finish cooling		0791-9125-NBV
39	Mounting Parts Q.C. Baffle	200-252	7200-252
40	Q.C. Baffle Arms DG	191-9135	0791-9135
41	Mounting Parts Q.C. Funnel	191-9133	0791-9133
42	Q.C. Funnel Arms DG	191-9133	0791-9133
43	Mounting Parts Q.C. Blow Head	200-200	7200-200
44	Q.C. Blow Head Arms DG	200-202	7200-202
45	Plunger Positioners SG	62-23	0723-23
46	Plunger Positioners SG	62-3069	0762-3069
47	Plunger Positioners SG	62-3068	0762-3068
48	Quick Change Cartridges SG	118-1	0718-1
49	Quick Change Cartridges SG	62-3036	0762-3036
50	Baffle Arms SG	191-5211	0791-5211
51	Q.C. Baffle Arms SG	191-9135	0791-9135
52	Funnel Arms SG	191-5212	0791-5212
53	Q.C. Funnel Arms SG	191-9133	0791-9133
54	Standard Mould Holders SG		
55	OffsetMould Holders SG		
56	SG-Inserts for DG-Mould Operation		
57	Neck Ring Holders SG, straight	191-98	0791-98
58	Neck Ring Holders SG, offset	191-98	0791-98
59	Q.C. Take Out Tong Head Assemblies SG Q.C. Take Out Tong Head Assemblies SG “ Anti Wink “	191-9125 210-275	0791-9125 7210-275
60	Blow Head Arms SG	191-5309	0791-5309
61	Lightweight Blow Head Arms SG (Gr.3, Gr.4)		H&B-5309
62	Q.C. Blow Head Arms SG	200-201	7200-201

NNPB Plunger Positioner max. finish 38 mm

Description	IS-Part No.	H&B-Order No.
Plunger Positioner	62-404 Gr.7	0762-404-7
Plunger Positioner	62-404 Gr.10	0762-404-10



0762-404-7

Parts for one Positioner with Centering Bushing for DG 4 1/4", DG 5", TG 4 1/4"

Q.C.Plunger Mechanism

0762-404-10

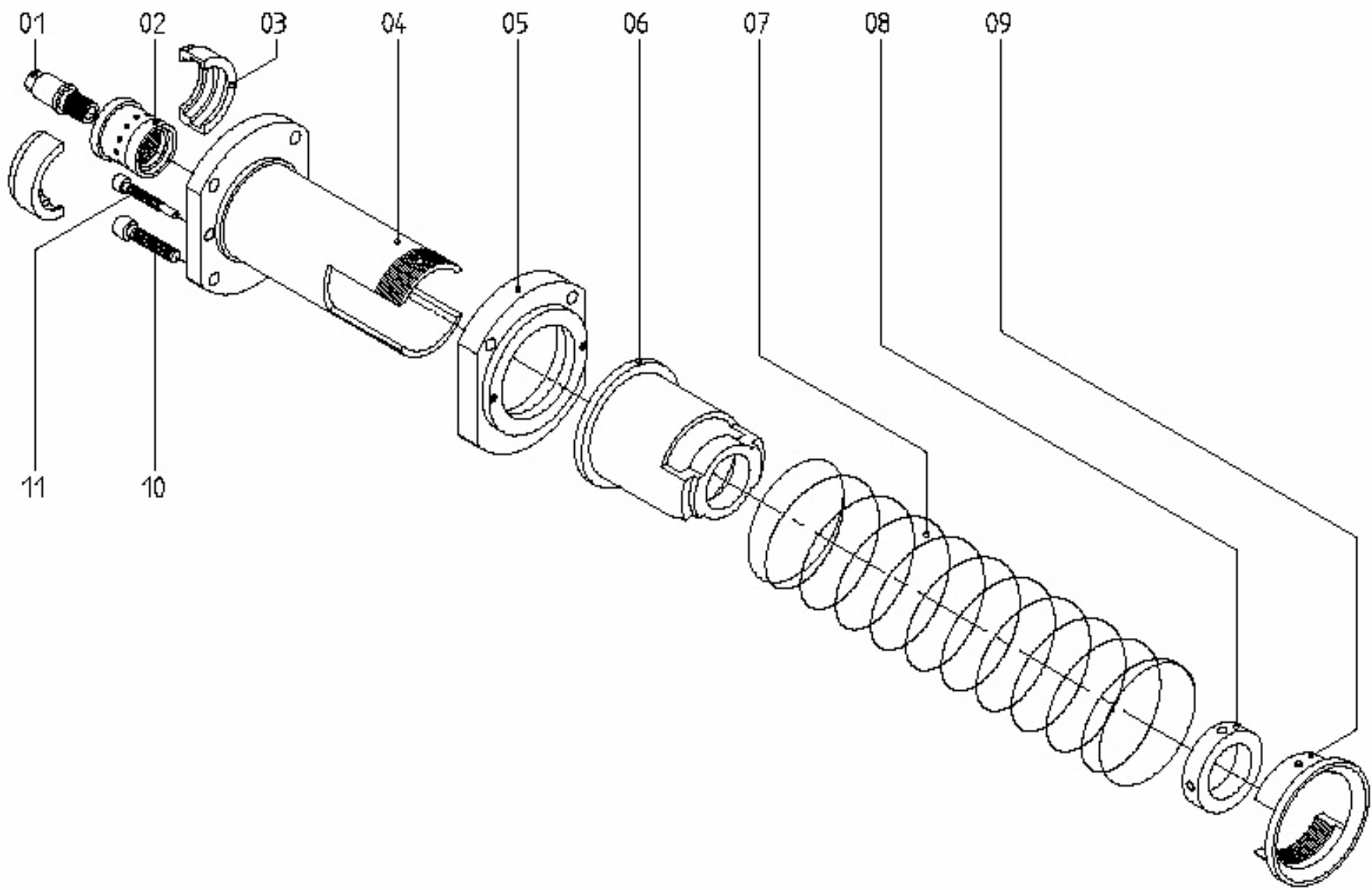
Parts for one Positioner with 35 mm kick back for DG 4 1/4", DG 5", TG 4 1/4"

Q.C.Plunger Mechanism

x		2	Hex.Soc.Hd.Cp.Screw	2640-1560	DIN-912-M6 X 10		not illustrated
x	x	1	Washer, protecting	62-2985	0762-2985	5	
x	x	1	Compression Spring	62-1377	0762-1377	4	
x		1	Sleeve, centering	62-6752	0762-6752	3	not illustrated
	x	1	Centering Bushing	62-2633	0762-2633	3	
x		1	Ring, sleeve guiding	62-6753	0762-6753	2	not illustrated
	x	1	Cover	62-2634	0762-2634	2	
x		4	Hex..Hd.Cp.Screw	2660-450	DIN-931-3/8 UNC x 11/4	1	not illustrated
	x	4	Hex. Soc.Hd.Cp.Screw	2640-590	DIN-912-3/8 UNC x 13/4	1	
Gr.10	Gr.7	Qty.	Description	IS Part No.	H&B Order No.	Index	Note
					Datum	Name	Benennung : NNPB Plunger Positioner
					Gez.		
					Gep.		
					Hartmann & Bender Vertriebs - und Produktions -GmbH Hauptstraße 70 72 Walluf am Rhein		Zeichnungs- Nr.: 0762-404-7 0762-404-10
			Zust.	Änderung	Datum	Name	

Floating Plunger Positioner finish up to 70 mm

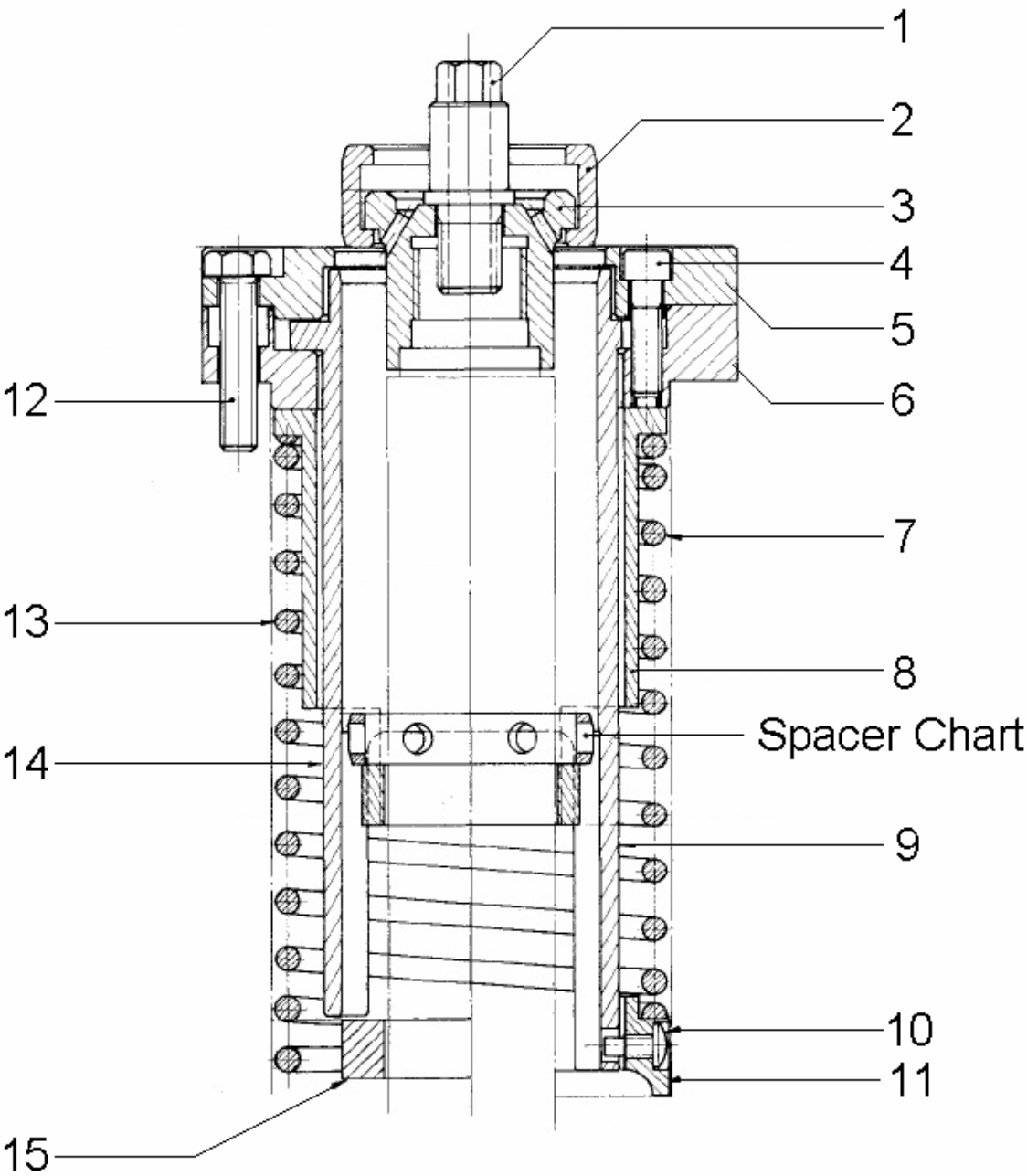
Description	IS-Part No.	H&B-Order No.
Plunger Positioner	62-171 Gr.5	0762-171-5



		2	Hex.Soc.Hd.Cp Screw		DIN-912 - 3/8 UNC x 7/8"		not illustrated
		2	Stop Screw	62-1150	0762-1150	11	
		4	Hex.Soc.Hd.Cp Screw		DIN-912 - 3/8 UNC x 1 3/4"	10	
		1	Spring Retainer	62-1446	0762-1446	9	
		1	Spacer	62-2849	0762-2849	8	
		1	Compression Spring	62-1377	0762-1377	7	
		1	Sleeve	62-1117	0762-1117	6	
		1	Cap	62-1777	0762-1777	5	
		1	Bushing 2 1/2"	62-1459	0762-1459	4	
		1	Split Ring 2 1/2"	62-1476	0762-1476	3	
		1	Plunger Adaptor 2 1/2"	62-1478	0762-1478	2	
		1	Locking Stud	62-1872	0762-1872	1	
		Qty.	Description	IS Part No.	H&B Order No.	Index	Note
					Datum	Name	Benennung :
					Gez.		Floating Plunger Positioner
					Gep.		
					Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 72 Walluf am Rhein	Zeichnungs- Nr.:	
						0762-171-5	
			Zust.	Änderung	Datum	Name	

Floating Plunger Positioner finish up to 70 mm

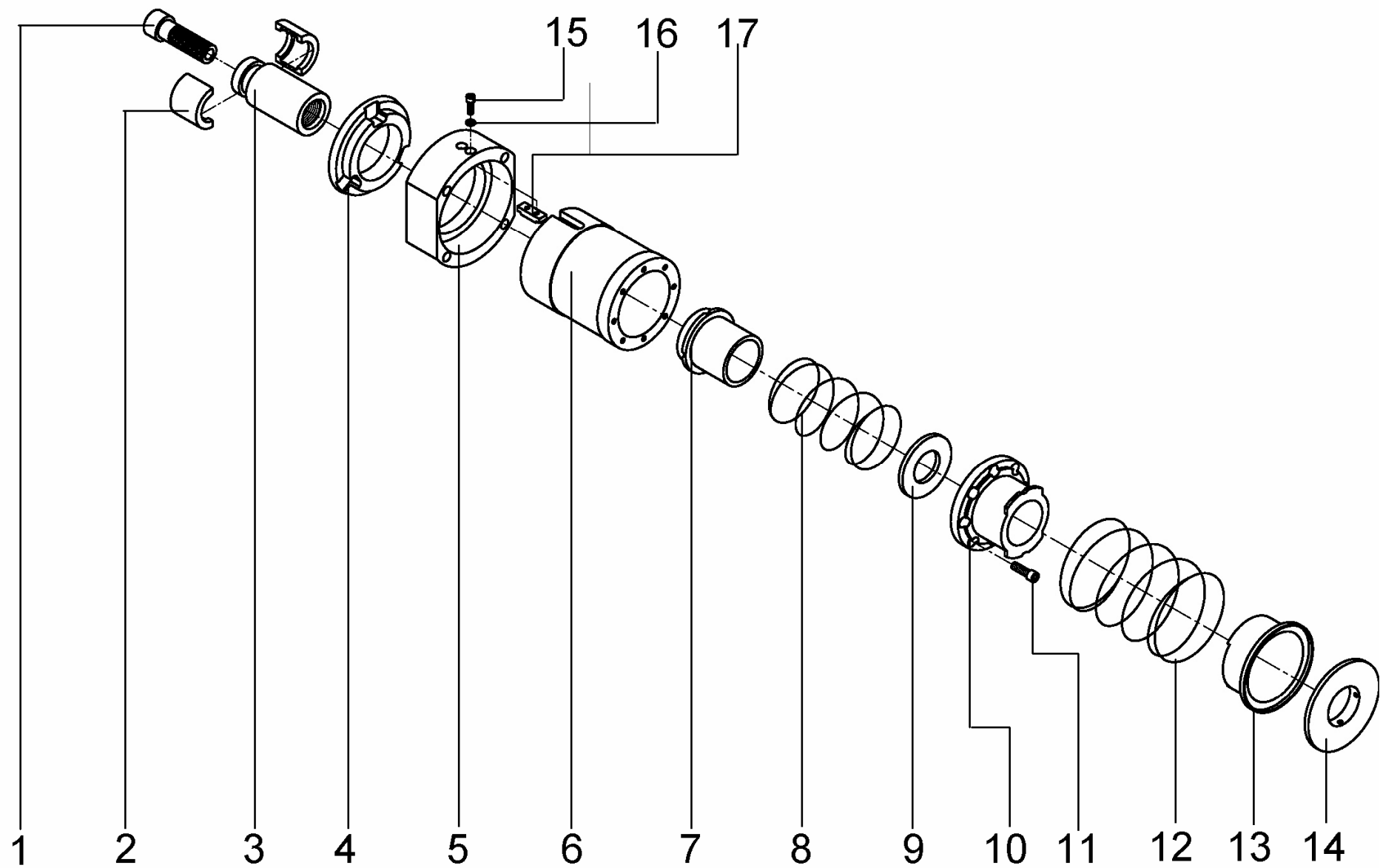
Description	IS-Part No.	H&B-Order No.
Plunger Positioner use with Q.C. Plunger Mech. 3000 series	62-407 Gr.3	0762-407-3
Plunger Positioner use with Q.C. Plunger Mech., 7" stroke	62-407 Gr.6	0762-407-6



	x	1	Spacer	62-2849	0762-2849	15	
		1	Bushing 1 1/2" DIA.	62-2587	0762-2587	14	
	x	1	Compression Spring	62-1377	0762-1377	13	
	x	4	Hex.Soc.Hd.Cp Screw	2640-530	DIN-912-3/8 UNC x 1"	12	
x		2	Hex.Hd.Cp Screw	2660-480	DIN-931-3/8 UNC x 1 3/4"	12	
x		2	Spring Retainer	62-7025	0762-7025	11	
x		4	Screw	48-89504	0748-89504	10	
x		1	Bushing 1 1/2" DIA.	62-7026	0762-7026	9	
x	x	1	Sleeve	62-6869	0762-6869	8	
x		1	Compression Spring	62-7026	0762-7026	7	
x	x	1	Distance Ring	62-2585	0762-2585	6	
x		1	Cap	62-7020	0762-7020	5	
	x	1	Cap	62-2586	0762-2586	5	
x	x	1	Stop Screw	62-659	0762-659	4	
x	x	3	Plunger Adapter	62-2528	0762-2528	3	
x	x	1	Split Ring	62-2527	0762-2527	2	
x	x	1	Locking Stud	62-1872	0762-1872	1	
Gr.6	Gr.3	Qty.	Description	IS Part No.	H&B Order No.	Index	Note
					Datum	Name	Benennung :
					Gez.		Floating Plunger Positioner
					Gep.		
					Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 72		Zeichnungs- Nr.:
							0762-407-3
							0762-407-6

Quick Change Cartridge Blow & Blow

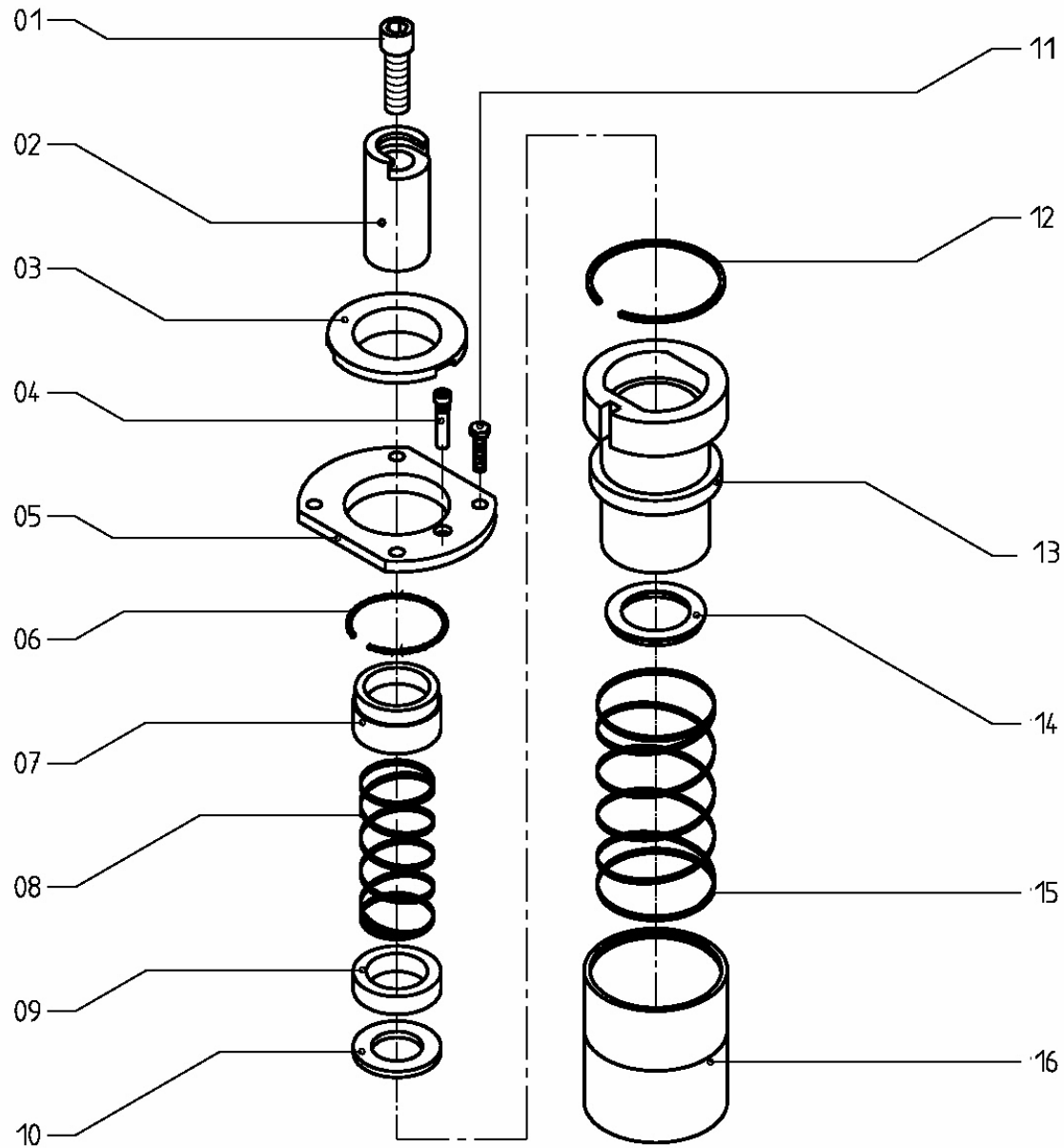
Description	IS-Part No.	H&B-Order No.
Quick Change Cartridge Blow & Blow	62-170 Gr.8	0762-170-8
Quick Change Cartridge Blow & Blow	62-170 Gr.11	0762-170-11



x	x	1	Key	62-1417	0762-1417	17	
x	x	2	Lock Washer		H-1235 - 5	16	
x	x	2	Hex.Soc.Hd.Cp.Screw		DIN-912 –10-32-NF x 5/8“	15	
x		1	Spacer	62-2850	0762-2580	14	
x	x	1	Spring Retainer	62-1444	0762-1444	13	
x	x	1	Compression Spring	62-1426	0762-1426	12	
x	x	8	Hex.Soc.Hd.Cp.Screw		DIN-912–1/4“ UNC x 7/8“	11	
x	x	1	Piston Extension	62-1980	0762-1980	10	
x	x	1	Washer	62-1186	0762-1186	9	
x	x	1	Compression Spring	62-1212	0762-1212	8	
x	x	1	Thimble Lock	62-1184	0762-1184	7	
x	x	1	Piston	62-1978	0762-1978	6	
x	x	1	Cap	62-1181	0762-1181	5	
x	x	1	Ring	62-1341	0762-1341	4	
x	x	1	Adapter, Hex socket type		0762-1183-A	3	hardened & grounded
x	x	1	Clamping Ring (Split Ring)	62-1584	0762-1584	2	
x	x	1	Stud	48-88348	0748-88348	1	
Gr.11	Gr.8	Qty.	Description	IS Part No.	H&B Order No.	Index	Note
					Datum	Name	Benennung : Quick Change Cartridge
					Gez.		
					Gep.		
					Hartmann & Bender Vertriebs - und Produktions -GmbH Hauptstraße 70 72 Walluf am Rhein		Zeichnungs- Nr.: 0762-170-8 0762-170-11
			Zust.	Änderung	Datum	Name	

Quick Change Cartridge Blow & Blow

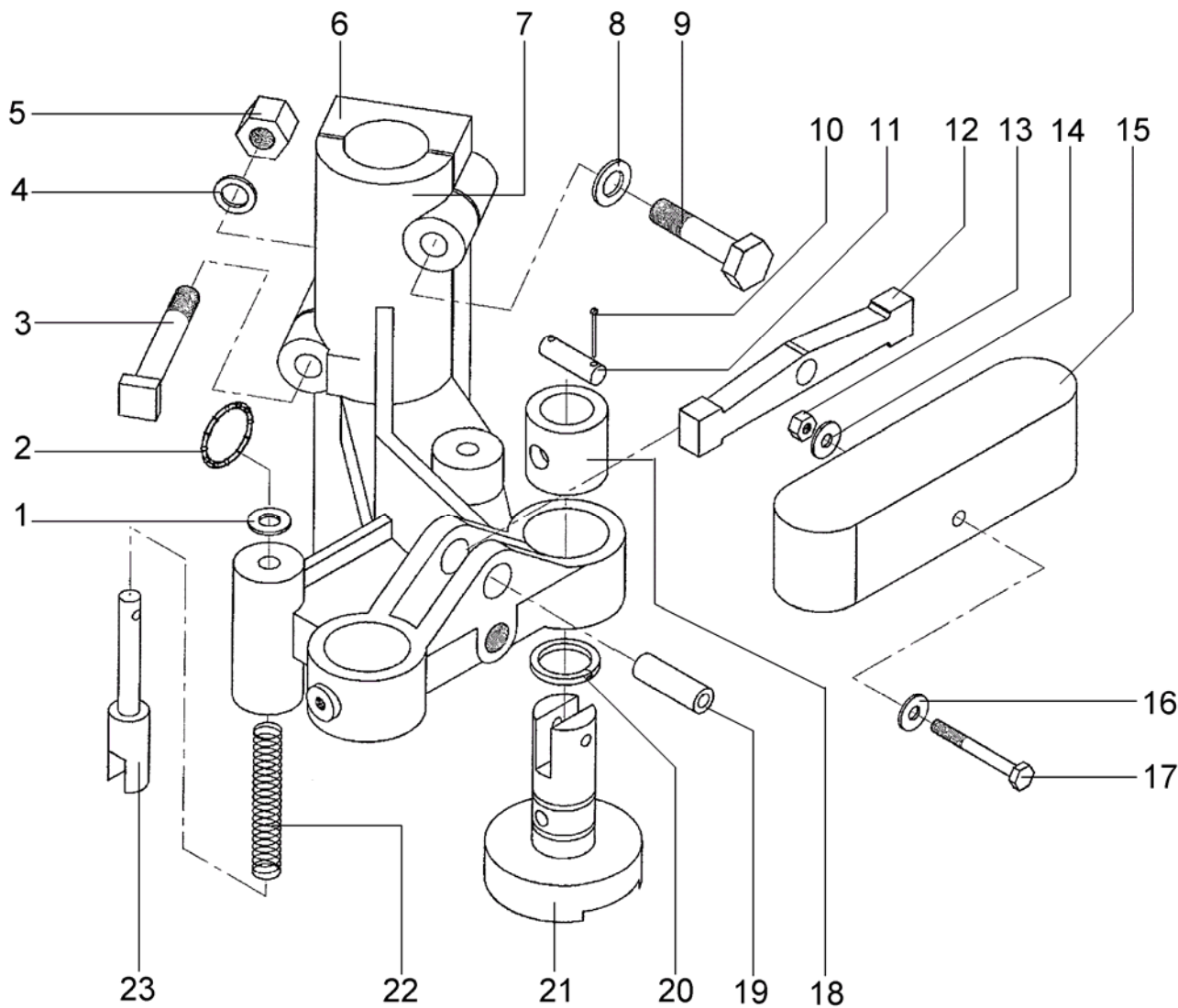
Description	IS-Part No.	H&B-Order No.
Quick Change Cartridge Blow & Blow	62-3036 Gr.7	0762-3036-7



		1	Spring Retainer	62-6719	0762-6719	16	
		1	Compression Spring	62-6586	0762-6586	15	
		1	Ring, Cushioning	59-86536	0759-86536	14	
		1	Piston Cartridge	62-6844	0762-6844	13	
		1	Retaining Ring	2540-564	9540-564	12	
		4	Hex.Hd. Cap Screw		DIN-931-3/8 UNC x 1 1/4"	11	
		1	Washer	62-2918	0762-2918	10	
		1	Spacer	62-6703	0762-6703	9	
		1	Compression Spring	62-2920	0762-2920	8	
		1	Sleeve, thimble locking	62-6683	0762-6683	7	
		1	Ring,spring locking	62-2915	0762-2915	6	
		1	Ring	62-6709	0762-6709	5	
		1	Screw piston locating	48-88490	0748-88490	4	
		1	Ring, covering	62-2912	0762-2912	3	
		1	Adapter	62-6843	0762-6843	2	
		1	Locking Stud	48-88493	0748-88493	1	
		Qty.	Description	IS Part No.	H&B Order No.	Index	Note
						Benennung : Quick Change Cartridge	
					Gez.		
					Gep.		
					Hartmann & Bender Vertriebs - und Produktions- GmbH Hauptstraße 70 72 Walluf am Rhein	Zeichnungs- Nr.: 0762-3036-7	
			Zust.	Änderung	Datum	Name	

Baffle Arm DG 4 1/4"

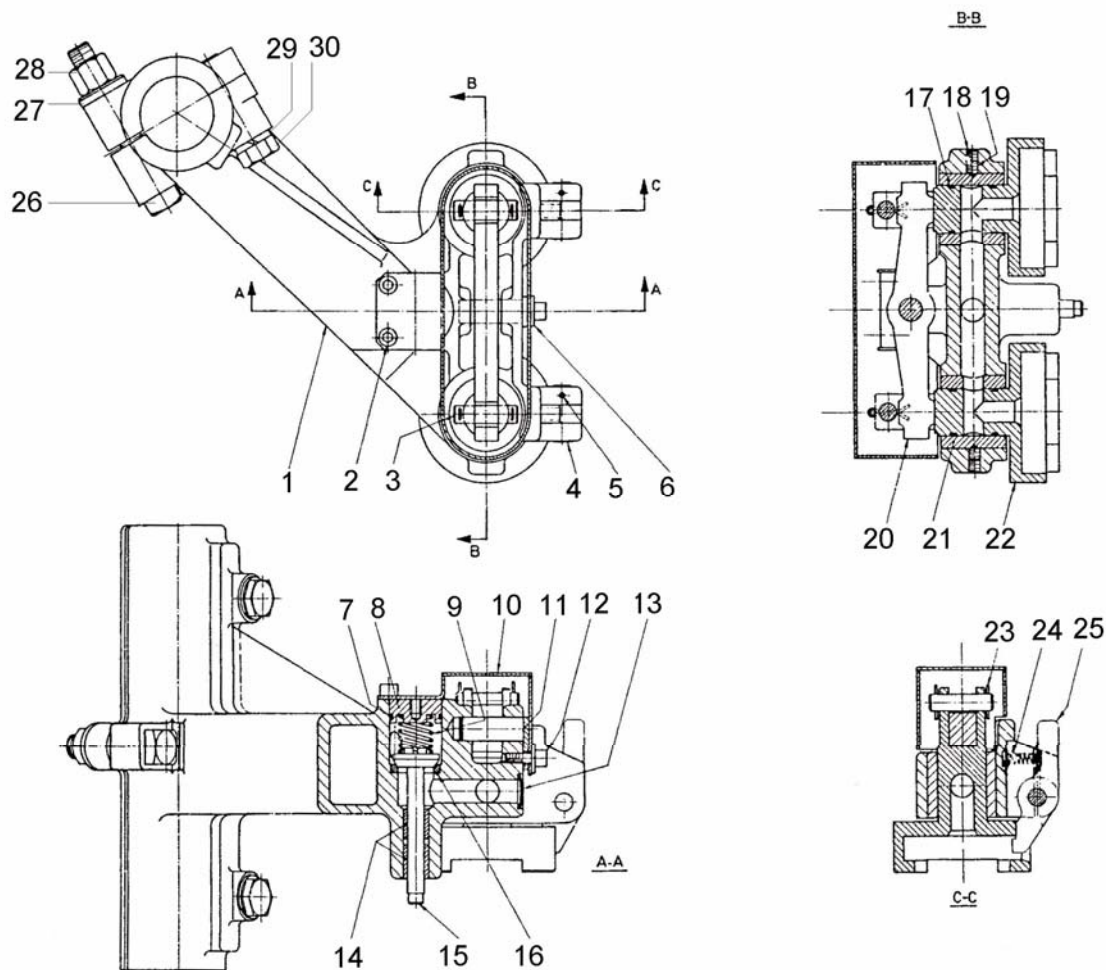
Description	IS-Part No.	H&B-Order No.
Baffle Arm DG 4 1/4"	191-5812 Gr.2	0791-5812-2



	2	Retainer	191-2727	0791-2727	23	
	2	Compression Spring	191-1286	0791-1286	22	
	2	Lock Ring	191-10835	0791-10835	21	
	4	Piston Ring 25,4 x 3,17	2520-10	9520-10	20	
	1	Pin	191-10831	0791-10831	19	
	2	Bushing	191-13225	0791-13225	18	
	1	Hex. Hd. Cap Screw		DIN-931-1/4" UNC x 2 1/2"	17	
	1	Washer		DIN 134 – 6,4	16	
	1	Guard	191-13165	0791-13165	15	
	1	Washer		DIN 134 – 6,4	14	
	1	Nylon Insert Stop Nut		DIN 985-1/4" UNC	13	
	1	Equalizer	191-14791	0791-14791	12	
	2	Pin	191-14826	0791-14826	11	
	4	Cotter Pin		DIN-94 – 2,5 x 15	10	
	2	Hex. Hd. Cap Screw		DIN-931-1/2" UNC x 2"	9	
	2	Washer		DIN 125 – 13	8	
	1	Body	191-13275-A	0791-13275-A	7	
	1	Cap	191-13275-B	0791-13275-B	6	
	1	Hex Nut	1180-1601	7180-1601	5	
	1	Washer		DIN 125 – 13	4	
	1	Square Head Bolt 1/2" UNC x 3 1/4"	191-16142	0791-16142	3	
	2	Ring 32 x 4		H&B-01927	2	
	2	Washer		DIN 125 - 10	1	
	Qty.	Description	IS Part No.	H&B Order No.	Index	Note
				Datum	Name	Benennung :
				Gez.		Baffle Arm DG 5"
				Gep.		
						Zeichnungs- Nr.:
						0791-5812-2
		Zust.	Änderung	Datum	Name	

Baffle Arm with buildt in Valve DG 4 1/4"

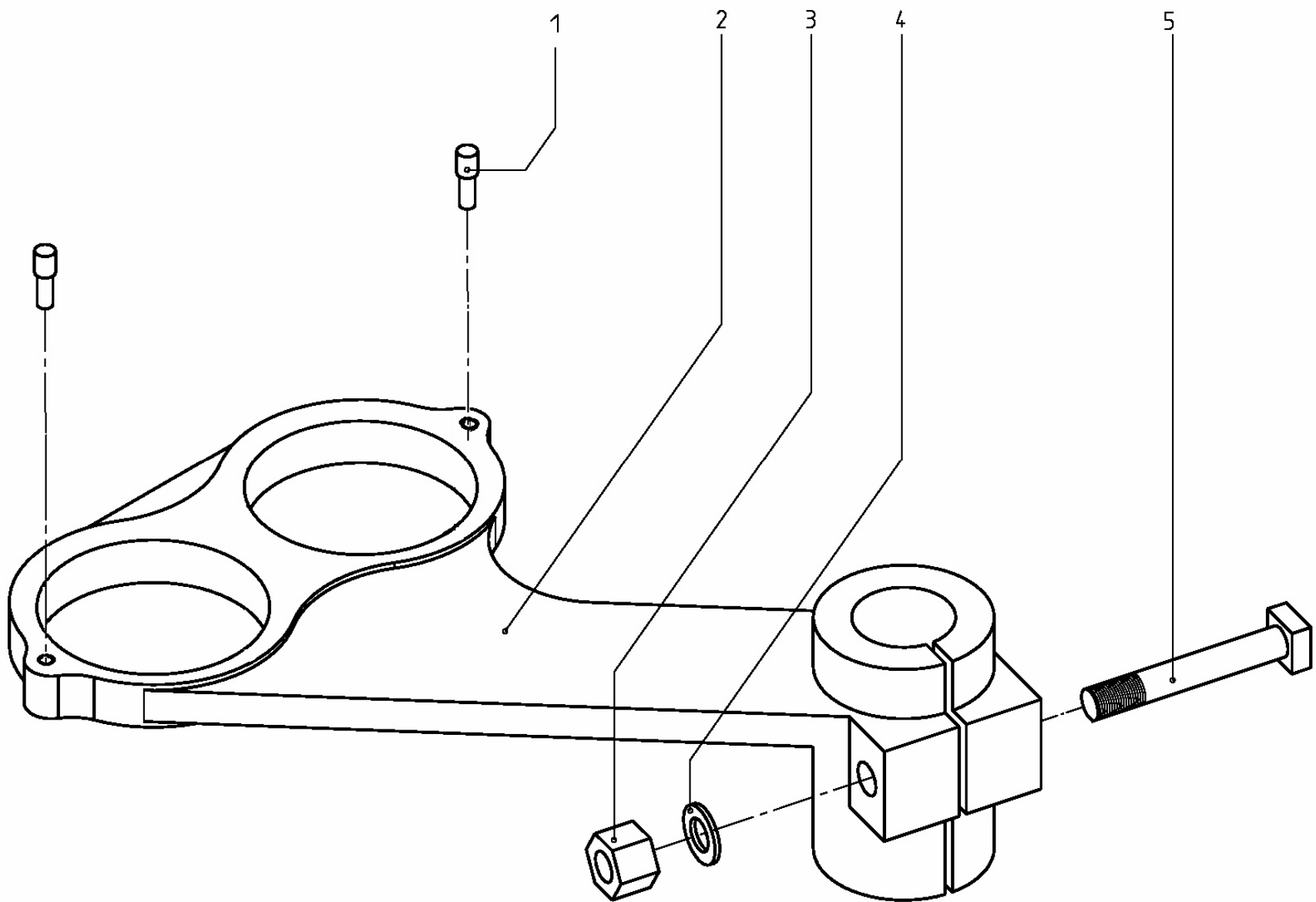
Description	IS-Part No.	H&B-Order No.
Baffle Arm with buildt in Valve DG 4 1/4"	191-7434 Gr.2	0791-7434-2



	2	Hex. Hd. Cap Screw		DIN-931-1/2" UNC x 2"	30	
	2	Washer		DIN-125-13	29	
	1	Hex Nut	1180-1601	7180-1601	28	
	1	Washer		DIN-125-13	27	
	1	Square Head Bolt 1/2" NC x 3 1/4"	191-16142	0791-16142	26	
	2	Finger	191-23300	0791-23300	25	
	2	Compression Spring	3080-421	7080-421	24	
	4	Cotter Pin		DIN-94 – 2,5 x 15	23	
	2	Lock Ring	191-21569	0791-21569	22	
	2	Bushing	191-13225	0791-13225	21	
	1	Equalizer	191-14791	0791-14791	20	
	2	Socket set screw, cup point	191-10831	DIN-915-1/4 NC x 1/4"	19	
	2	Socket set screw, flat point		DIN-916-1/4 NC x 1/4"	18	
	4	Piston Ring	2520-10	9520-10	17	
	1	Valve Seat	23-10642	0723-10642	16	
	1	Valve	191-15944	0791-15944	15	
	2	Bearing	1300-1784	7300-1784	14	
	1	Plug		DIN-906-R3/8	13	
	1	Hex.Sc.Hd.Cap Screw	2640-1320	DIN-912-1/4 UNC x 1/2"	12	
	1	Pivot	23-6434	0723-6434	11	
	1	Guard	191-22162	0791-22162	10	
	1	Spring	3080-45	7080-45	9	
	1	Cap	23-6437	0723-6437	8	
	1	O-Ring, Viton	1700-634	7700-634	7	
	1	Washer		DIN 134 – 6,4	6	
	1	Straight Pin		DIN-1481-3,5 x 20	5	
	1	Pin 3/8 DIA.	7108-19	9108-19	4	
	2	Pin	191-14826	0791-14826	3	
	2	Hex.Sc.Hd.Cap Screw	2640-1320	DIN-912-1/4 UNC x 1/2"	2	
	1	Body & Cap	191-7438	0791-7438	1	
	Qty.	Description	IS Part No.	H&B Order No.	Index	Note
				Datum	Name	Benennung :
				Gez.		Baffle Arm DG 5"
				Gep.		
				Hartmann & Bender		Zeichnungs- Nr.:
				Vertriebs – und		
				Produktions -GmbH		0791-7434-2
				Hauptstraße 70 72		

Funnel Arm DG 4 1/4"

Description	Funnel No.	Funnel Size – inch / metric	H&B-Order No.
Funnel Arm DG 4 1/4" 2 15/16" DIA.	00	2 7/8" / 73,00	0791-5770-2
Funnel Arm DG 4 1/4" 3 9/16" DIA.	2	3 1/2" / 88,90	0791-5770-3
Funnel Arm DG 4 1/4" 3 5/16" DIA.	0	3 1/4" / 82,50	0791-5770-4



	x	x	x	1	Square Head Bolt 1/2" UNC x 3 "	191-16141	0791-16141	5
	x	x	x	1	Washer		DIN 125 -13	4
	x	x	x	1	Hex Nut	1180-1601	7180-1601	3
	x			1	Funnel Arm Body Gr.4		1284-107-C	2
		x		1	Funnel Arm Body Gr.3		1284-107-B	2
			x	1	Funnel Arm Body Gr.2		1284-107-A	2
	x	x	x	2	Pin	191-1941	0791-16141	1
	Gr.4	Gr.3	Gr.2	Qty.	Description	IS Part No.	H&B Order No.	Index
	3 5/16 DIA.	3 9/16 DIA.	2 15/16 DIA.		Hartmann & Bender Vertriebs – und Produktionsgesellschaft mbH Hauptstraße 70 - 72 65396 Walluf am Rhein		Funnel Arm DG 4 1/4" 0791-5770-2 0791-5770-3 0791-5770-4	

Mold Design Data

Ware Range - Verti-Flow Blank Mold Cooling

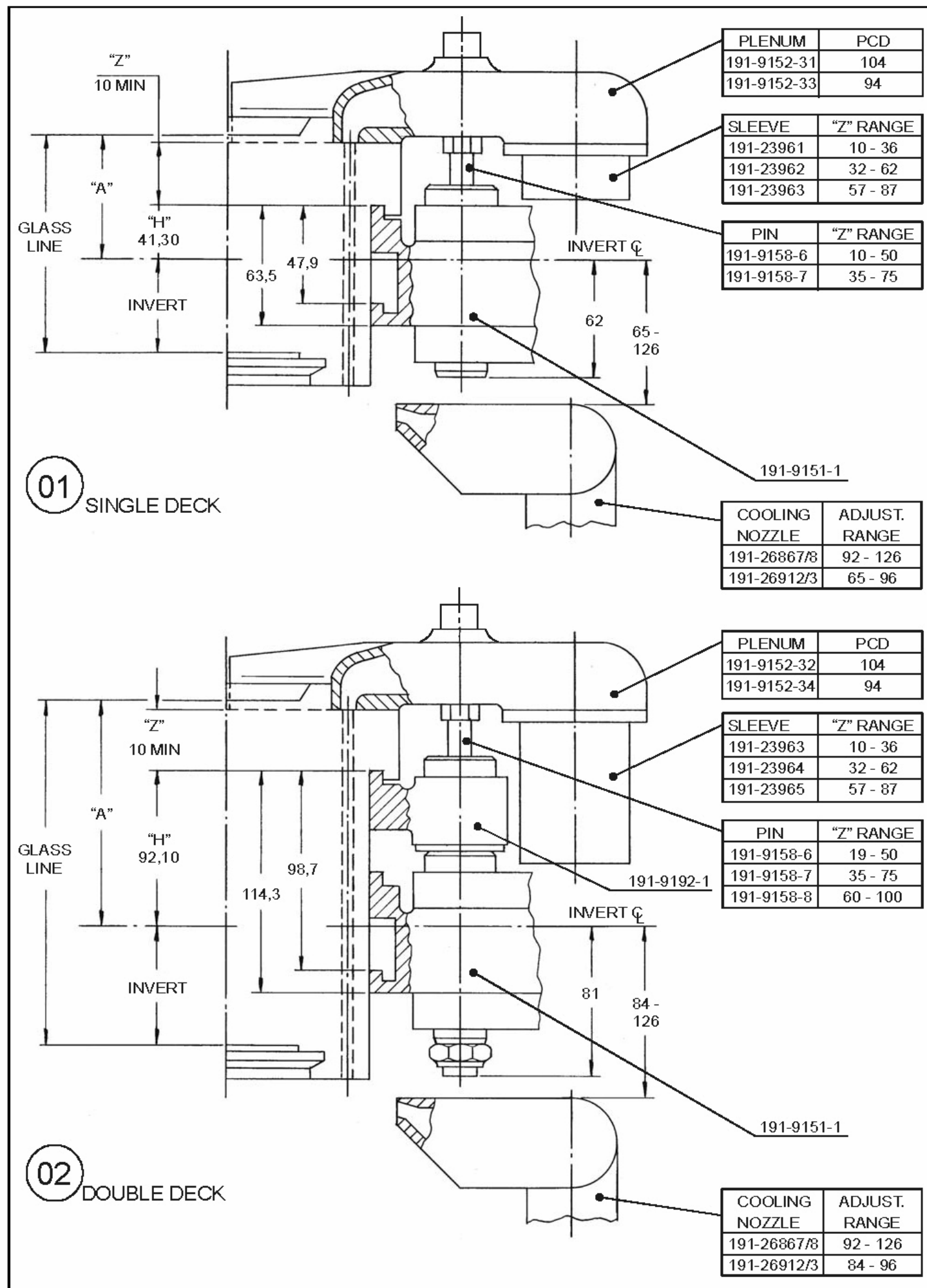
BLOW & BLOW PROCESS				
Plenum Chamber with 94 PCD				
Mounting Assembly	Recommended Ware Range	Min. Blank Glass Line	Min. Invert	"A" Min.
01	105-180	90	38	52
02	160-301	141	38	103

BLOW & BLOW PROCESS				
Plenum Chamber with 104 PCD				
Mounting Assembly	Recommended Ware Range	Min. Blank Glass Line	Min. Invert	"A" Min.
01	95-180	84	32	52
02	160-301	135	32	103

NOTE!

When using neck ring cooling with BLOW& BLOW, the length of the neck ring needs to be extended for optimum cooling. The maximum invert must be reduced by the amount the neck ring is lengthened. See Data Sheet IS-425-2-1030 for invert limits with neck ring cooling.

PRESS & BLOW PROCESS With post type baffle - 94 and 104 PCD				
Mounting Assembly	Recommended Ware Range	Min. Blank Glass Line	Min. Invert	"A" Min.
01	60-180	50	38	12
02	120-282	100	38	62



Verti-Flow Blank Mold Holder

Blank Side Vertiflow DG 4 1/4"
Mould Holder, 0191-8456-2, Cooling 94 PCD
H-DIM 41,30 – Single Deck

Item	Part No.	Description	Qty.
1	191-9150 Gr.2	Mounting Assembly Single Deck	1 pcs.
2	191-9152 Gr. 33	Plenum Chamber Assy	1 pcs.
3	200-281-3	Field Com to Neck Ring Cooling	1 pcs.

Blank Side Vertiflow DG 4 1/4"
Mould Holder,0191-8456-2, Cooling 104 PCD
H-DIM 41,30 – Singel Deck

Item	Part No.	Description	Qty.
1	191-9150 Gr.2	Mounting Assembly Double Deck	1 pcs.
2	191-9152 Gr. 31	Plenum Chamber Assy	1 pcs.
3	200-281-3	Field Com to Neck Ring Cooling	1 pcs.

Blank Side Vertiflow DG 4 1/4"
Mould Holder, 0191-8456-2, Cooling 94 PCD
H-DIM 92,10 – Doubel Deck

Item	Part No.	Description	Qty.
1	191-9150 Gr.3	Mounting Assembly Single Deck	1 pcs.
2	191-9152 Gr. 34	Plenum Chamber Assy	1 pcs.
3	200-281-3	Field Com to Neck Ring Cooling	1 pcs.

Blank Side Vertiflow DG 4 1/4"
Mould Holder,0191-8456-2, Cooling 104 PCD
H-DIM 92,10 – Doubel Deck

Item	Part No.	Description	Qty.
1	191-9150 Gr.3	Mounting Assembly Double Deck	1 pcs.
2	191-9152 Gr. 32	Plenum Chamber Assy	1 pcs.
3	200-281-3	Field Com to Neck Ring Cooling	1 pcs.

191-9150 Gr.2	Mounting Assembly		
contains :	Decsription	Part No.	Qty. 1/ unit
	Blank Mould Holder	191-8456 Gr 2.	1 pcs.
	Mould Holder Insert Assy.	191-9151 Gr.1	1 pair
	Upper Air Tube Assy.	191-9148 Gr.3	2 set
	Control Pin	191-24312	2 pcs.
	Sleeve Pin	191-23972	2 pcs.
	Circlip	2540-513	2 pcs.

191-9150 Gr.3	Mounting Assembly		
contains :	Decsription	Part No.	Qty. 1/ unit
	Blank Mould Holder	191-8456 Gr.2	1 pcs.
	Mould Holder Insert Assy.	191-9151 Gr.1	1 pair
	Mould Holder Insert Assy.Upper	191-9192 Gr.1	1 pair
	Upper Air Tube Assy.	191-9148 Gr.3	2 set
	Control Pin	191-24616	2 pcs.
	Sleeve Pin	191-23972	2 pcs.
	Extension Pin	191-24611	2 pcs.
	Wear Washer	191-24612	2 pcs.
	Circlip	2540-513	2 pcs.
	Hex Jam Nur 3/4" UNC	1180-1810	2 pcs.
	Lock Washer	3360-1429	2 pcs.

191-9152 Gr. 31	Plenum Chamber Assembly		
contains :	Decsription	Part No.	Qty. 1/ unit
	Plenum Chamber RH	200-10184	1 pcs.
	Plenum Chamber LH	210-10183	1 pcs.
	Adjusting Pin Assembly	191-9158 Gr.6	2 pcs.
	Adjusting Pin Assembly	191-9158 Gr.7	2 pcs.
	Sleeve	191-23961	2 pcs.
	Screw SOCHD 5/16NCX5/8	2640-1882	4 pcs.
	Washer	3360-371	2 pcs.
	Hex. Jam Nut 1/2-20	1180-1770	2 pcs.
	Hex. Soc.Plug 1/8 NPT	2260-23	4 pcs.
	Compression Spring	3080-468	2 pcs.
	Adjusting Bushing Assy.	191-9161 Gr.1	2 pcs.
	Air Indicator Assy.	191-9153 Gr.1	2 pcs.
	Retaining Ring	191-23982	2 pcs.

191-9152 Gr. 32	Plenum Chamber Assembly		
<i>contains :</i>	<i>Decsription</i>	<i>Part No.</i>	<i>Qty. 1/ unit</i>
	Plenum Chamber RH	200-10184	1 pcs.
	Plenum Chamber LH	210-10183	1 pcs.
	Adjusting Pin Assembly	191-9158 Gr.6	2 pcs.
	Adjusting Pin Assembly	191-9158 Gr.7	2 pcs.
	Sleeve	191-23963	2 pcs.
	Screw SOCHD 5/16NCX5/8	2640-1882	4 pcs.
	Washer	3360-371	2 pcs.
	Hex. Jam Nut 1/2-20	1180-1770	2 pcs.
	Hex. Soc.Plug 1/8 NPT	2260-23	4 pcs.
	Compression Spring	3080-468	2 pcs.
	Adjusting Bushing Assy.	191-9161 Gr.1	2 pcs.
	Air Indicator Assy.	191-9153 Gr.1	2 pcs.
	Retaining Ring	191-23982	2 pcs.

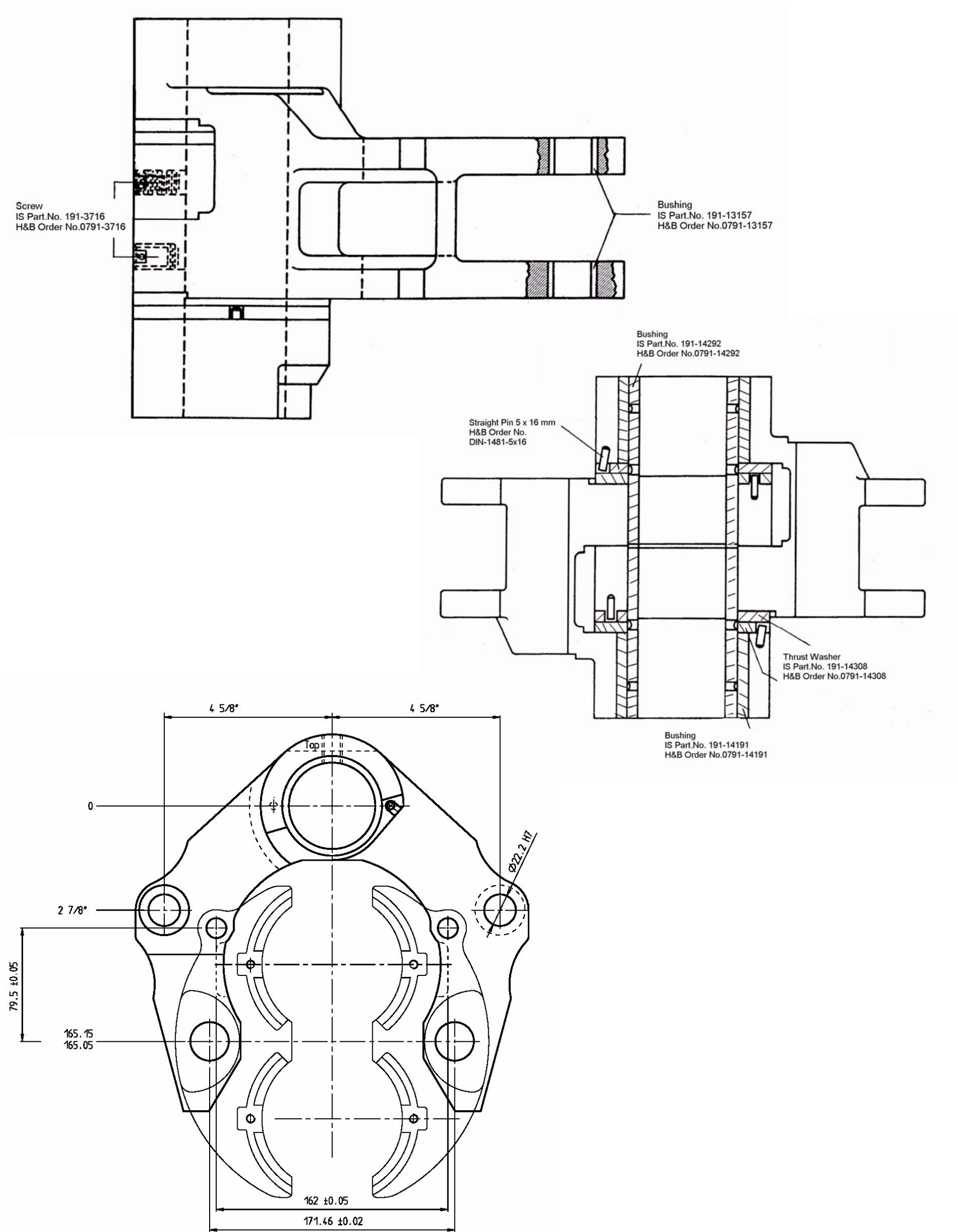
191-9152 Gr. 33	Plenum Chamber Assembly		
<i>contains :</i>	<i>Decsription</i>	<i>Part No.</i>	<i>Qty. 1/ unit</i>
	Plenum Chamber RH	200-10187	1 pcs.
	Plenum Chamber LH	210-10186	1 pcs.
	Adjusting Pin Assembly	191-9158 Gr.6	2 pcs.
	Adjusting Pin Assembly	191-9158 Gr.7	2 pcs.
	Sleeve	191-23961	2 pcs.
	Screw SOCHD 5/16NCX5/8	2640-1882	4 pcs.
	Washer	3360-371	2 pcs.
	Hex. Jam Nut 1/2-20	1180-1770	2 pcs.
	Hex. Soc.Plug 1/8 NPT	2260-23	4 pcs.
	Compression Spring	3080-468	2 pcs.
	Adjusting Bushing Assy.	191-9161 Gr.1	2 pcs.
	Air Indicator Assy.	191-9153 Gr.1	2 pcs.
	Retaining Ring	191-23982	2 pcs.

191-9152 Gr. 34	Plenum Chamber Assembly		
<i>contains :</i>	<i>Decsription</i>	<i>Part No.</i>	<i>Qty. 1/ unit</i>
	Plenum Chamber RH	200-10187	1 pcs.
	Plenum Chamber LH	210-10186	1 pcs.
	Adjusting Pin Assembly	191-9158 Gr.6	2 pcs.
	Adjusting Pin Assembly	191-9158 Gr.7	2 pcs.
	Sleeve	191-23963	2 pcs.
	Screw SOCHD 5/16NCX5/8	2640-1882	4 pcs.
	Washer	3360-371	2 pcs.
	Hex. Jam Nut 1/2-20	1180-1770	2 pcs.
	Hex. Soc.Plug 1/8 NPT	2260-23	4 pcs.
	Compression Spring	3080-468	2 pcs.
	Adjusting Bushing Assy.	191-9161 Gr.1	2 pcs.
	Air Indicator Assy.	191-9153 Gr.1	2 pcs.
	Retaining Ring	191-23982	2 pcs.

200-281 Gr.3	Field Conversion to Neck Ring Cooling		
<i>contains :</i>	<i>Decsription</i>	<i>Part No.</i>	<i>Qty. 1/ unit</i>
	Nozzel LH	191-26867	1 pcs.
	Nozzel RH	191-26868	1 pcs.
	Connecting Sleeve	191-26971	2 pcs.
	Spring Clip	191-23945	2 pcs.
	Gasket	200-10181	2 pcs.
	Damper Unit LH	191-9252-3	1 pcs.
	Damper Unit RH	191-9253-3	1 pcs.

Double Deck Mould Holder DG 4 1/4"

Description	IS-Part No.	H&B-Order No.
Double Deck Mould Holder DG 4 1/4"	191-8456 Gr.1	0791-8456-1



Mould Holder Double Deck DG 4 1/4"
Assembly 1,2,3



Description	IS-Part No.	H&B-Order No.
Double Deck Mould Holder DG 4 1/4"	191-8456 Gr.1	0791-8456-1
Insert, Standard 3 3/8" DIA. (Assy.No.1)	200-127 Gr.1	7200-127-1
Insert, Standard 3 7/8" DIA. (Assy.No.2)	200-127 Gr.2	7200-127-2
Insert, Standard 4 5/8" DIA. (Assy.No.3)	200-127 Gr.5	7200-127-5
Mounting Parts (Assy.No. 1-11, 32)	200-302 Gr.1	7200-302-1

200-302 Gr.1	Mounting Parts			
contains :	Decsription	IS Part No.	H&B Order No.	Qty. 1/ unit
	Pivot Pin	191-13988	0791-13988	2 pcs.
	Limit Pin	191-18021	0791-18021	2 pcs.

Mould Holder Double Deck DG 4 1/4"
Assembly 4,5,6,7 / 1 1/2" OFFSET



Description	IS-Part No.	H&B-Order No.
Double Deck Mould Holder DG 4 1/4"	191-8456 Gr.1	0791-8456-1
Offset Insert 3 7/8" DIA. (Assy.No.4,5)	200-127 Gr.4	7200-127-4
Offset Insert 4 5/8" DIA. (Assy.No.6,7)	200-127 Gr.10	7200-127-10
Mounting Parts (Assy.No. 1-11, 32)	200-302 Gr.1	7200-302-1

200-302 Gr.1	Mounting Parts			
contains :	Decsription	IS Part No.	H&B Order No.	Qty. 1/ unit
	Pivot Pin	191-13988	0791-13988	2 pcs.
	Limit Pin	191-18021	0791-18021	2 pcs.

Mould Holder Double Deck DG 4 1/4" **Assembly 8 - 1/2" OFFSET**

Illustration not shown

Description	IS-Part No.	H&B-Order No.
Double Deck Mould Holder DG 4 1/4"	191-8456 Gr.1	0791-8456-1
Offset Insert 4 5/8" DIA .	200-127 Gr.8	7200-127-8
Mounting Parts (Assy.No. 1-11, 32)	200-302 Gr.1	7200-302-1

200-302 Gr.1	Mounting Parts			
<i>contains :</i>	<i>Decsription</i>	<i>IS Part No.</i>	<i>H&B Order No.</i>	<i>Qty. 1/ unit</i>
	Pivot Pin	191-13988	0791-13988	2 pcs.
	Limit Pin	191-18021	0791-18021	2 pcs.

Mould Holder Double Deck DG 4 1/4" **Assembly 9,10 - 2" OFFSET**

Illustration not shown

Description	IS-Part No.	H&B-Order No.
Double Deck Mould Holder DG 4 1/4"	191-8456 Gr.1	0791-8456-1
Offset Insert 4 5/8" DIA .	200-127 Gr.11	7200-127-11
Mounting Parts (Assy.No. 1-11, 32)	200-302 Gr.1	7200-302-1

200-302 Gr.1	Mounting Parts			
<i>contains :</i>	<i>Decsription</i>	<i>IS Part No.</i>	<i>H&B Order No.</i>	<i>Qty. 1/ unit</i>
	Pivot Pin	191-13988	0791-13988	2 pcs.
	Limit Pin	191-18021	0791-18021	2 pcs.

Mould Holder Double Deck DG 4 1/4" **Assembly 11 - 1" OFFSET**

Illustration not shown

Description	IS-Part No.	H&B-Order No.
Double Deck Mould Holder DG 4 1/4"	191-8456 Gr.1	0791-8456-1
Offset Insert 4 5/8" DIA .	200-127 Gr.9	7200-127-9
Mounting Parts (Assy.No. 1-11, 32)	200-302 Gr.1	7200-302-1

200-302 Gr.1	Mounting Parts			
<i>contains :</i>	<i>Decsription</i>	<i>IS Part No.</i>	<i>H&B Order No.</i>	<i>Qty. 1/ unit</i>
	Pivot Pin	191-13988	0791-13988	2 pcs.
	Limit Pin	191-18021	0791-18021	2 pcs.

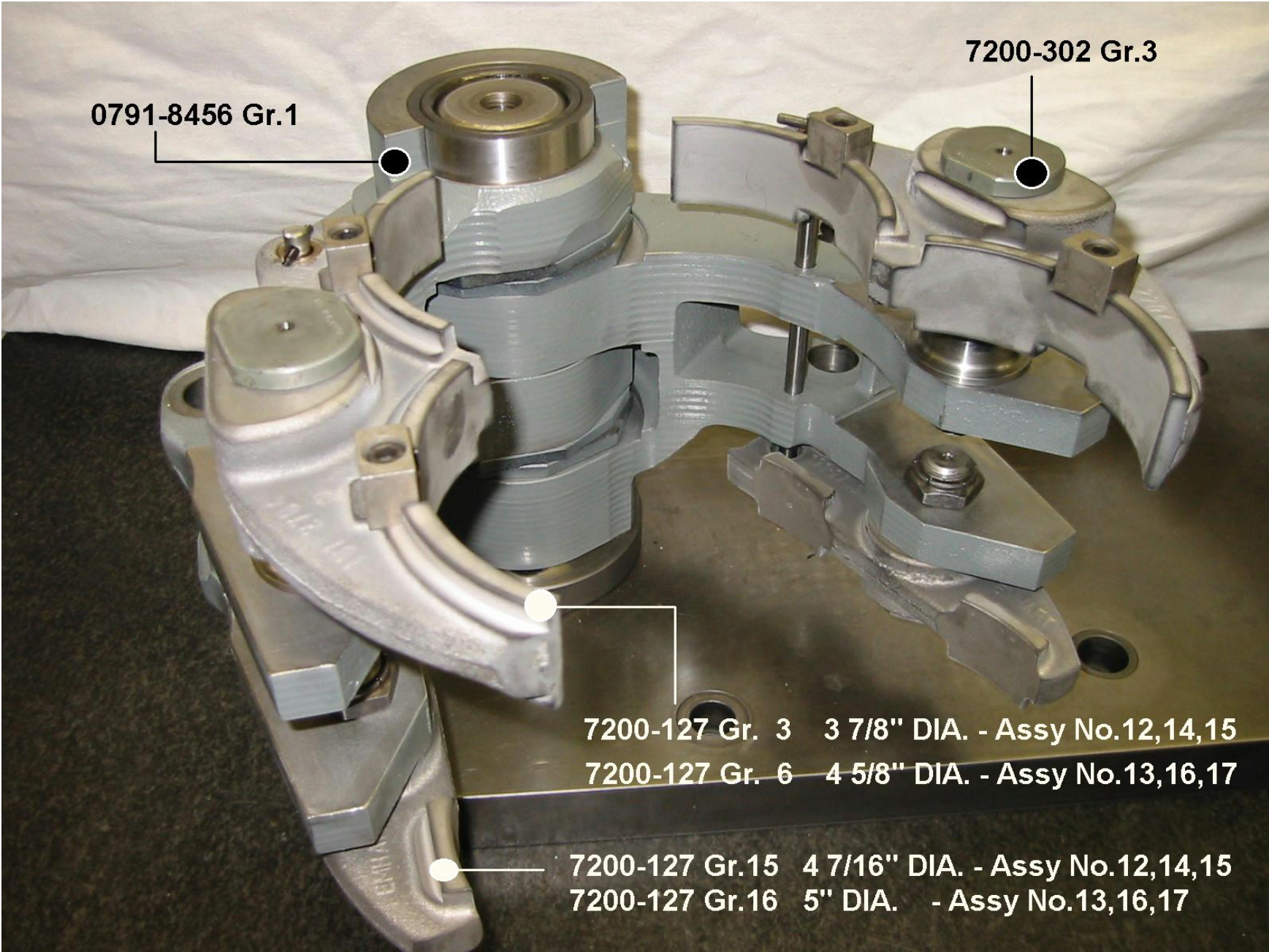
Mould Holder Double Deck DG 4 1/4"
Assembly 12,13



Description	IS-Part No.	H&B-Order No.
Double Deck Mould Holder DG 4 1/4"	191-8456 Gr.1	0791-8456-1
Upper Insert 3 7/8" DIA . (Assy.No.12)	200-127 Gr.3	7200-127-3
Lower Insert 4 7/16" DIA. (Assy.No.12)	200-127 Gr.15	7200-127-15
Upper Insert 4 5/8" DIA . (Assy.No.13)	200-127 Gr.6	7200-127-6
Lower Insert 5" DIA. (Assy.No.13)	200-127 Gr.16	7200-127-16
Mounting Parts (Assy.No. 12,13)	200-302 Gr.3	7200-302-3

200-302 Gr.3	Mounting Parts			
contains :	Decsription	IS Part No.	H&B Order No.	Qty. 1/ unit
	Mould Holder Stud	191-13147	0791-13147	2 pcs.
	Mould Holder Stud	191-13150	0791-13150	2 pcs.
	Limit Pin	191-18022	0791-18022	2 pcs.
	Flex Loc Nut 3/4" NF	1180-3036	7180-3036	2 pcs.

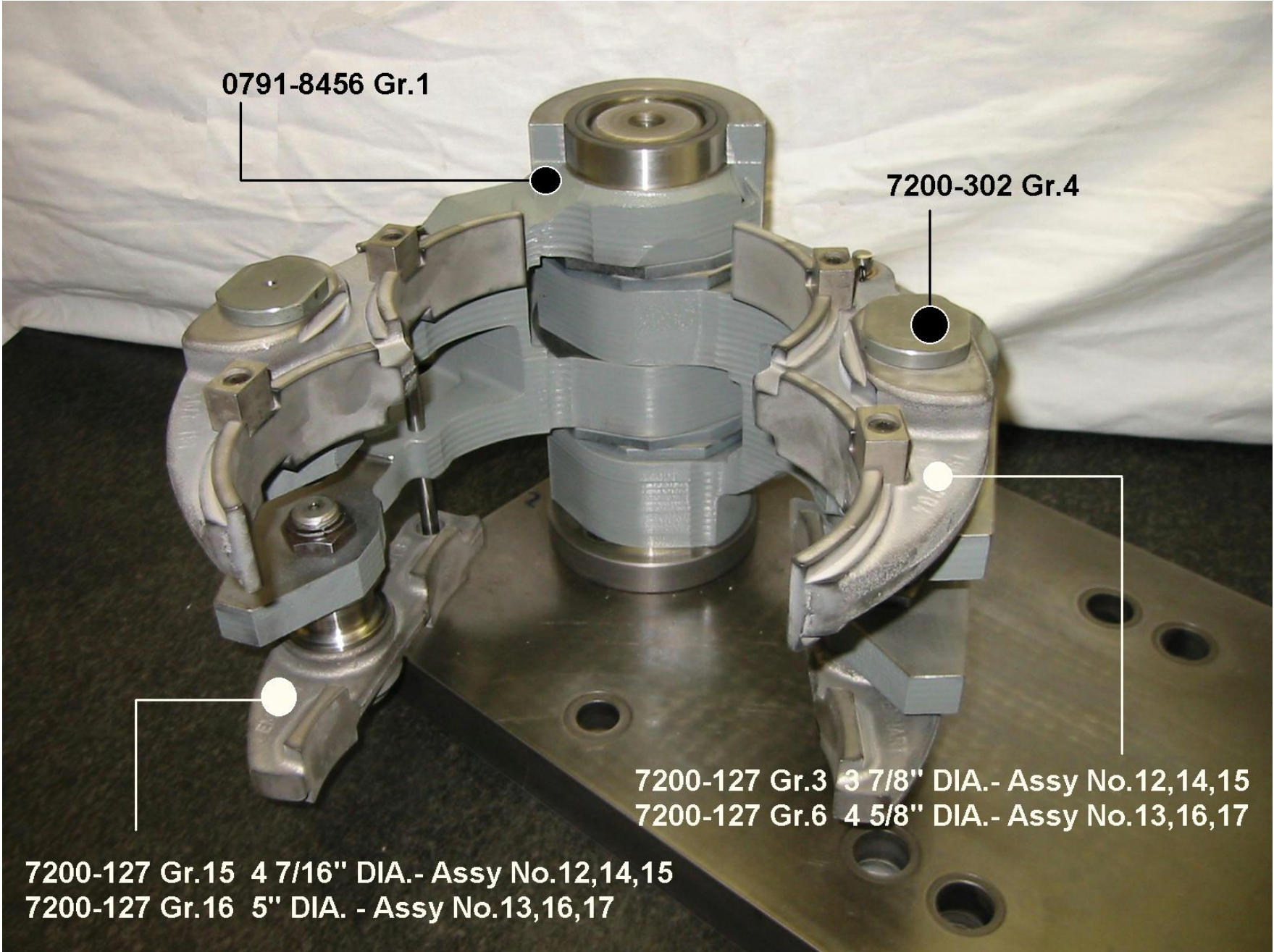
Mould Holder Double Deck DG 4 1/4"
Assembly 14,16 (Blank Side)



Description	IS-Part No.	H&B-Order No.
Double Deck Mould Holder DG 4 1/4"	191-8456 Gr.1	0791-8456-1
Upper Insert 3 7/8" DIA. (Assy.No.14)	200-127 Gr.3	7200-127-3
Lower Insert 4 7/16" DIA. (Assy.No.14)	200-127 Gr.15	7200-127-15
Upper Insert 4 5/8" DIA. (Assy.No.16)	200-127 Gr.6	7200-127-6
Lower Insert 5" DIA. (Assy.No.16)	200-127 Gr.16	7200-127-16
Mounting Parts (Assy.No. 14,16)	200-302 Gr.3	7200-302-3

200-302 Gr.3	Mounting Parts			
contains :	Decsription	IS Part No.	H&B Order No.	Qty. 1/ unit
	Mould Holder Stud	191-13150	0791-13150	2 pcs.
	Mould Holder Stud	191-13149	0791-13149	2 pcs.
	Limit Pin	191-18023	0791-18023	2 pcs.
	Spacer 1" long	191-13144	0791-13144	2 pcs.
	Flex Loc Nut 3/4" NF	1180-3036	7180-3036	2 pcs.

Mould Holder Double Deck DG 4 1/4"
Assembly 15,17 (Blow Side)

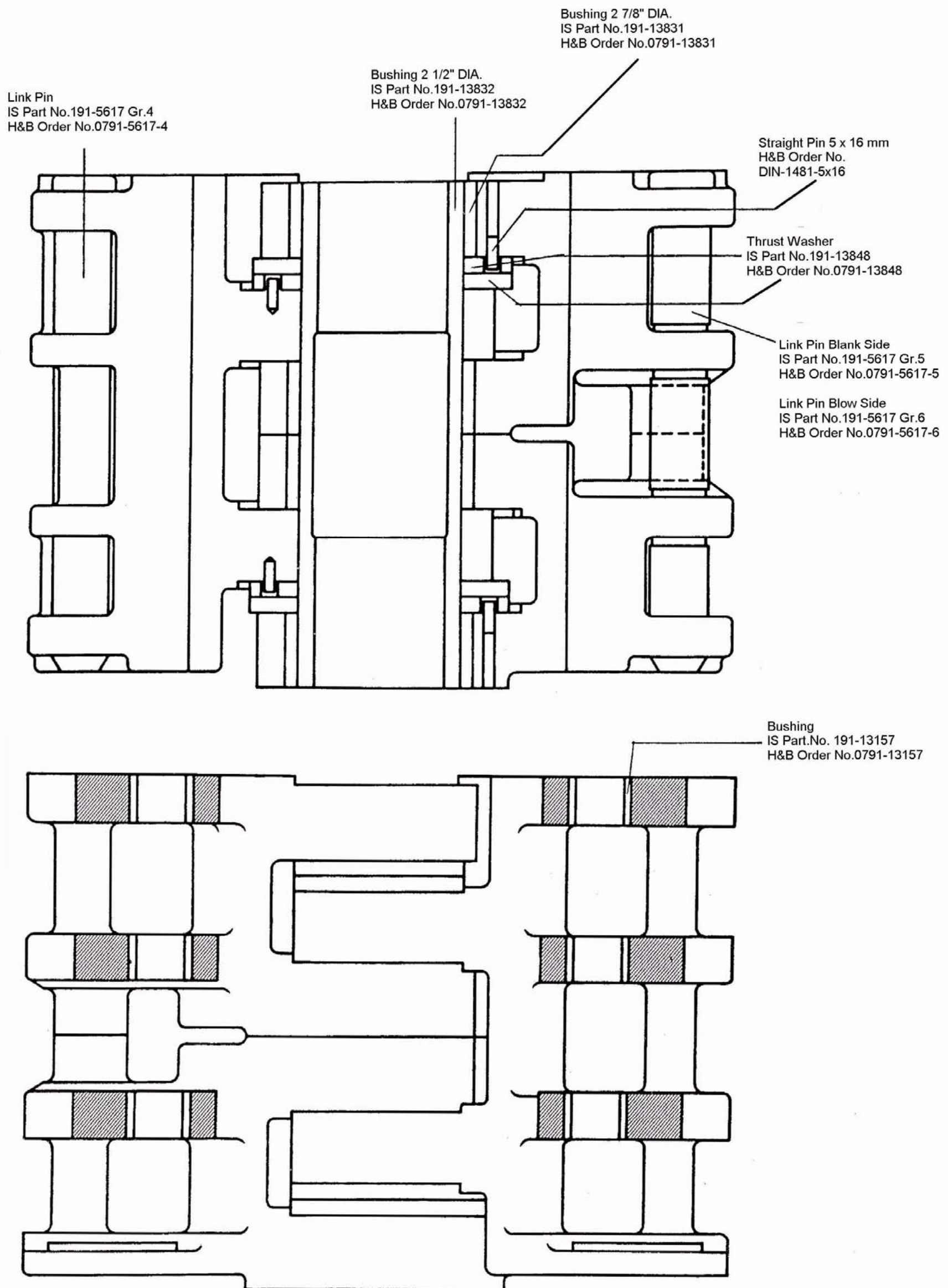


Description	IS-Part No.	H&B-Order No.
Double Deck Mould Holder DG 4 1/4"	191-8456 Gr.1	0791-8456-1
Upper Insert 3 7/8" DIA . (Assy.No.15)	191-8456 GR.1	0791-8456-1
Lower Insert 4 7/16" DIA. (Assy.No.15)	200-127 Gr.3	7200-127-3
Upper Insert 4 5/8" DIA . (Assy.No.17)	200-127 Gr.15	7200-127-15
Lower Insert 5" DIA. (Assy.No.17)	200-127 Gr.6	7200-127-6
Mounting Parts (Assy.No. 15,17)	200-302 Gr.4	7200-302-4

200-302 Gr.4	Mounting Parts			
contains :	Decsription	IS Part No.	H&B Order No.	Qty. 1/ unit
	Mould Holder Stud	191-13150	0791-13150	2 pcs.
	Mould Holder Stud	191-13149	0791-13149	2 pcs.
	Limit Pin	191-18023	0791-18023	2 pcs.
	Spacer 1" long	191-13144	0791-13144	2 pcs.
	Flex Loc Nut 3/4" NF	1180-3036	7180-3036	2 pcs.

Triple Deck Mould Holder DG 4 1/4"

Description	IS-Part No.	H&B-Order No.
Double Deck Mould Holder DG 4 1/4"	191-8504 Gr.1	0791-8504-1



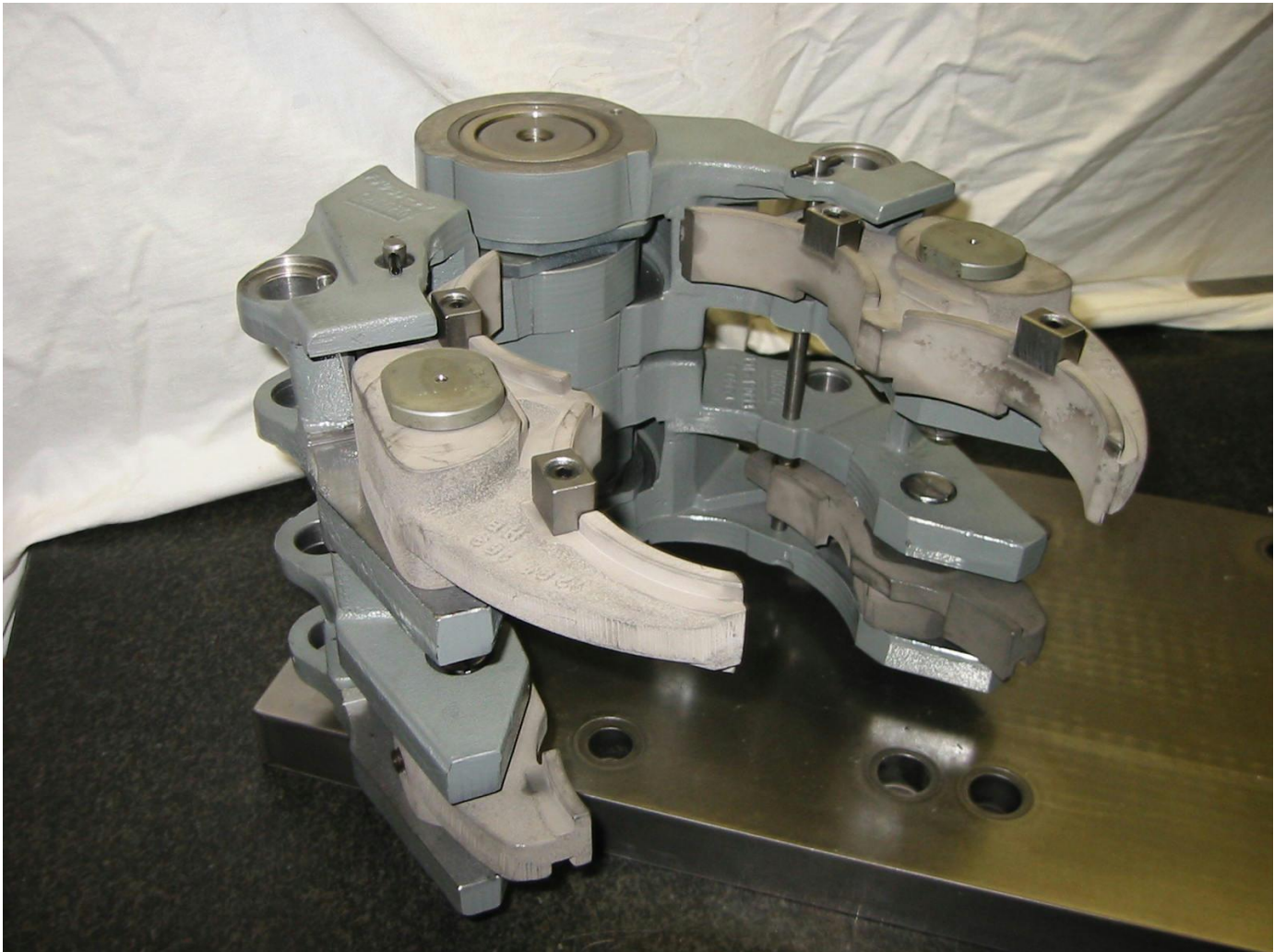
Mould Holder Triple Deck DG 4 1/4"
Assembly 18 (Blow Side)

Illustration not shown

Description	IS-Part No.	H&B-Order No.
Triple Deck Mould Holder DG 4 1/4"	191-8504 Gr.1	0791-8504-1
Offset Insert 4 5/8" DIA .	200-127 Gr.11	7200-127-11
Lower Insert 5" DIA.	200-127 Gr.16	7200-127-16
Mounting Parts	200-303 Gr.1	7200-303-1

200-303 Gr.1	Mounting Parts			
<i>contains :</i>	<i>Decsription</i>	<i>IS Part No.</i>	<i>H&B Order No.</i>	<i>Qty. 1/ unit</i>
	Pivot Pin	191-13988	0791-13988	2 pcs.
	Mould Holder Stud	191-13137	0791-13147	2 pcs.
	Mould Holder Stud	191-13991	0791-13991	2 pcs.
	Limit Pin	191-27178	0791-27178	2 pcs.
	Flex Loc Nut 3/4" NF	1180-3036	7180-3036	2 pcs

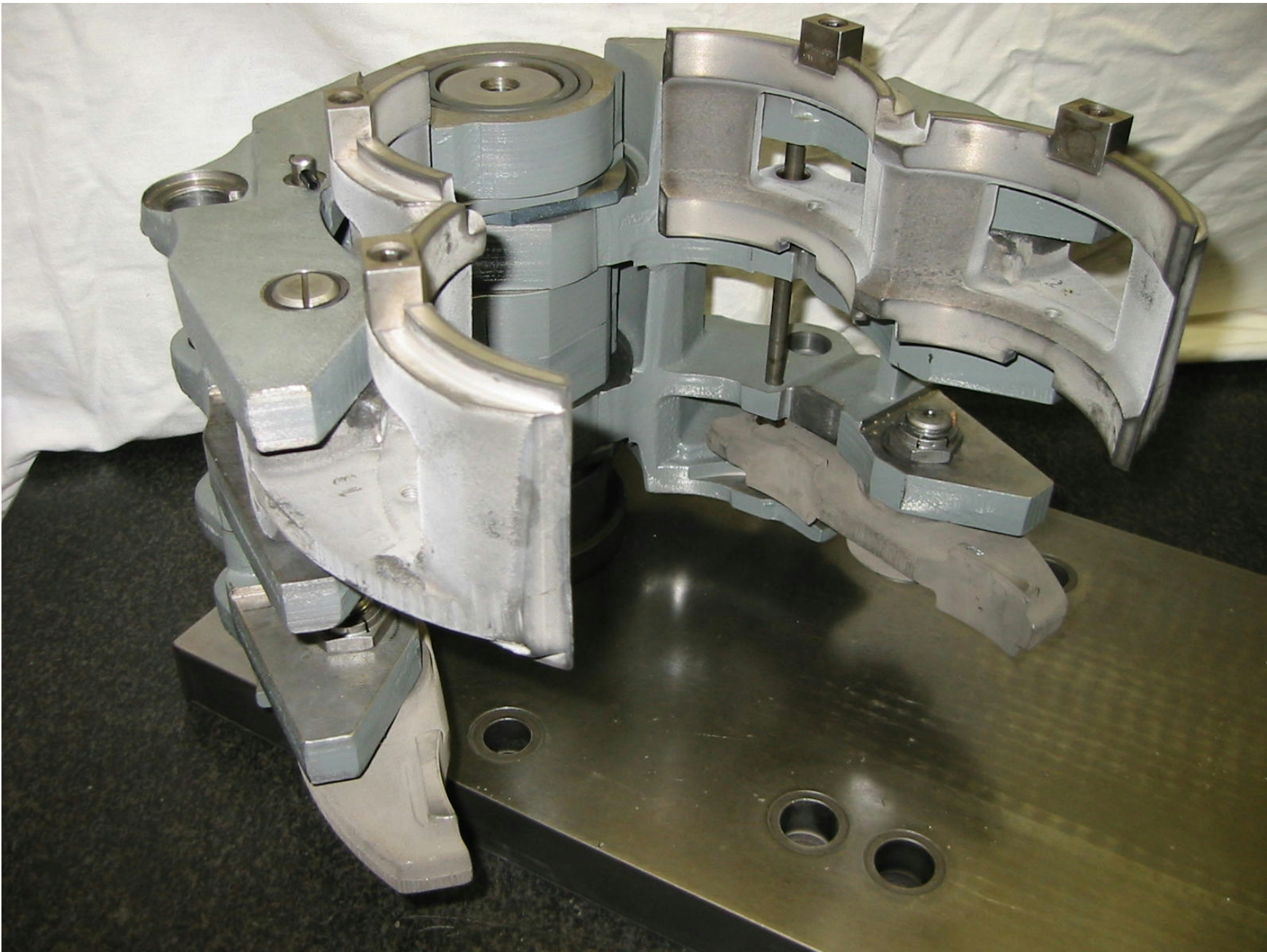
Mould Holder Triple Deck DG 4 1/4"
Assembly 19 (Blow Side)



Description	IS-Part No.	H&B-Order No.
Triple Deck Mould Holder DG 4 1/4"	191-8504 Gr.1	0791-8504-1
Upper Insert 4 5/8" DIA .	200-127 Gr.7	7200-127-7
Lower Insert 5" DIA.	200-127 Gr.17	7200-127-17
Mounting Parts	200-303 Gr.2	7200-303-2

200-303 Gr.2	Mounting Parts			
<i>contains :</i>	<i>Decsription</i>	<i>IS Part No.</i>	<i>H&B Order No.</i>	<i>Qty. 1/ unit</i>
	Pivot Pin	191-13988	0791-13988	2 pcs.
	Mould Holder Stud	191-13849	0791-13849	2 pcs.
	Mould Holder Stud	191-13865	0791-13865	2 pcs.
	Limit Pin	191-14136	0791-14136	2 pcs.
	Flex Loc Nut 3/4" NF	1180-3036	7180-3036	2 pcs.
	Spacer	191-14131	0791-14131	2 pcs.

Mould Holder Triple Deck DG 4 1/4"
Assembly 20 (Blank Side)
Upper Holder 2” OFFSET Position



Description	IS-Part No.	H&B-Order No.
Triple Deck Mould Holder DG 4 1/4"	191-8504 Gr.1	0791-8504-1
Offset Insert 4 5/8" DIA .	200-127 Gr.11	7200-127-11
Lower Insert 5" DIA.	200-127 Gr.16	7200-127-16
Mounting Parts	200-303 Gr.1	7200-303-1

200-303 Gr.1	Mounting Parts			
contains :	Decsription	IS Part No.	H&B Order No.	Qty. 1/ unit
	Pivot Pin	191-13988	0791-13988	2 pcs.
	Mould Holder Stud	191-13137	0791-13147	2 pcs.
	Mould Holder Stud	191-13991	0791-13991	2 pcs.
	Limit Pin	191-27178	0791-27178	2 pcs.
	Flex Loc Nut 3/4" NF	1180-3036	7180-3036	2 pcs

Mould Holder Triple Deck DG 4 1/4"
Assembly 21 (Blow Side)
Lower Holder 1” OFFSET Position



Description	IS-Part No.	H&B-Order No.
Triple Deck Mould Holder DG 4 1/4"	191-8504 Gr.1	0791-8504-1
Upper Insert 4 5/8” DIA .	200-127 Gr.7	7200-127-7
Lower Insert 5” DIA.	200-127 Gr.17	7200-127-17
Mounting Parts	200-303 Gr.2	7200-303-2

200-303 Gr.2	Mounting Parts			
contains :	Decsription	IS Part No.	H&B Order No.	Qty. 1/ unit
	Pivot Pin	191-13988	0791-13988	2 pcs.
	Mould Holder Stud	191-13849	0791-13849	2 pcs.
	Mould Holder Stud	191-13865	0791-13865	2 pcs.
	Limit Pin	191-14136	0791-14136	2 pcs.
	Flex Loc Nut 3/4" NF	1180-3036	7180-3036	2 pcs.
	Spacer	191-14131	0791-14131	2 pcs.

Mould Holder Triple Deck DG 4 1/4"
Assembly 22 (Blank Side)
Upper Holder 1” OFFSET Position

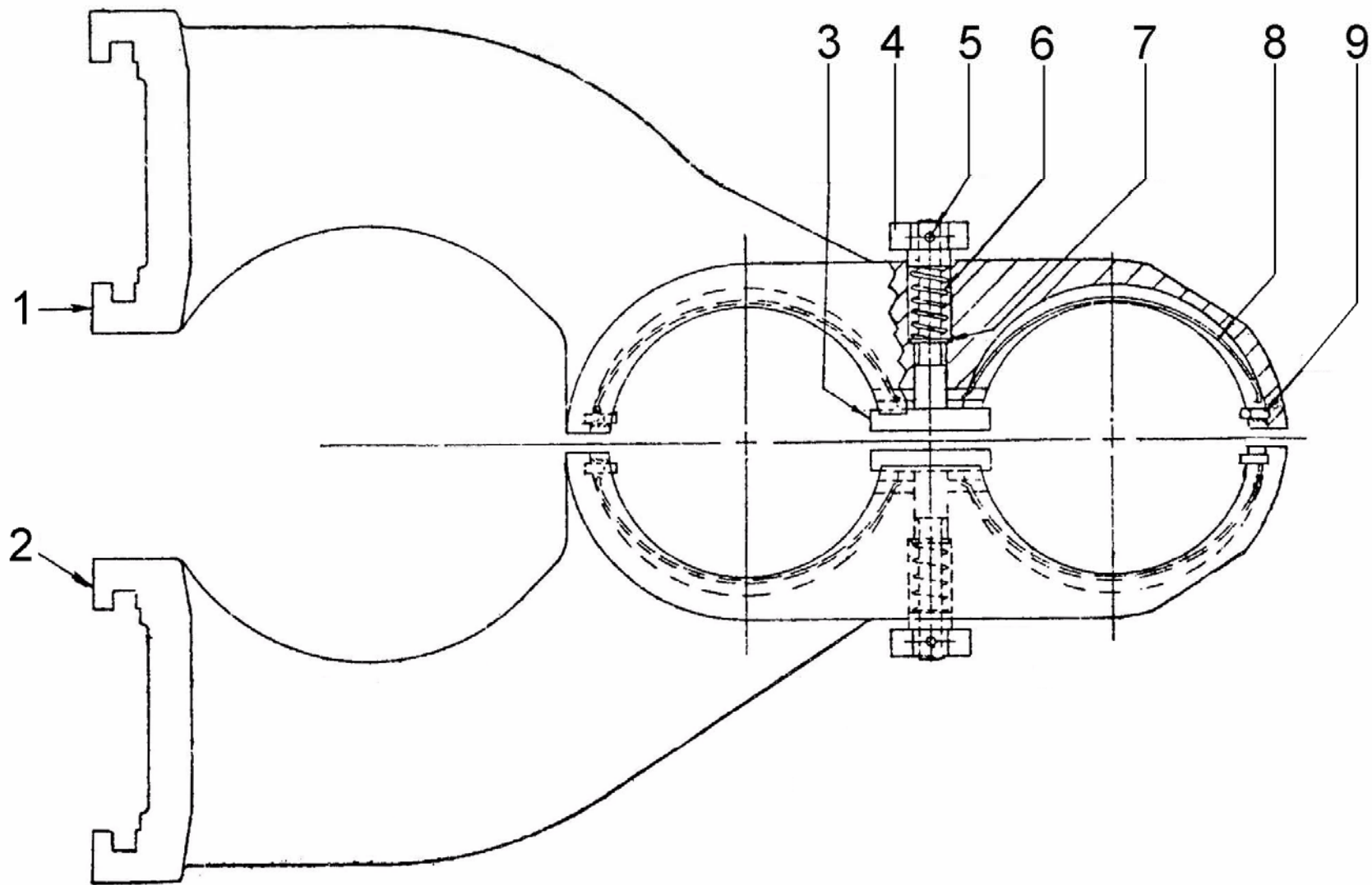
Illustration not shown

Description	IS-Part No.	H&B-Order No.
Triple Deck Mould Holder DG 4 1/4"	191-8504 Gr.1	0791-8504-1
Offset Insert 4 5/8” DIA .	200-127 Gr.9	7200-127-9
Lower Insert 5” DIA.	200-127 Gr.16	7200-127-16
Mounting Parts	200-303 Gr.1	7200-303-1

200-303 Gr.1	Mounting Parts			
contains :	Decsription	IS Part No.	H&B Order No.	Qty. 1/ unit
	Pivot Pin	191-13988	0791-13988	2 pcs.
	Mould Holder Stud	191-13137	0791-13147	2 pcs.
	Mould Holder Stud	191-13991	0791-13991	2 pcs.
	Limit Pin	191-27178	0791-27178	2 pcs.
	Flex Loc Nut 3/4" NF	1180-3036	7180-3036	2 pcs

Neck Ring Holders DG 4 1/4"

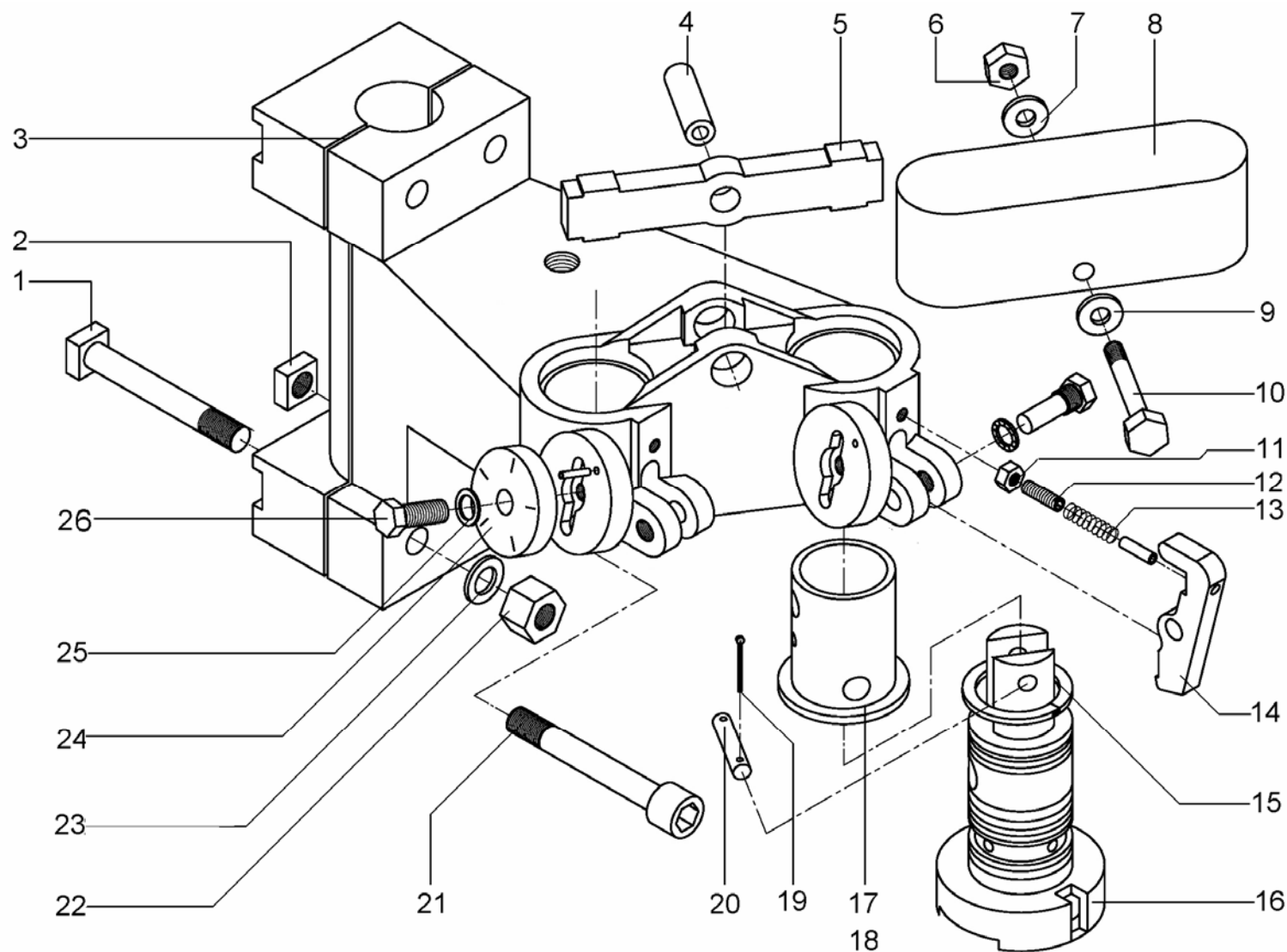
Description	IS-Part No.	H&B-Order No.
Neck Ring Holder DG 4 1/4" 70 mm	191-8128 Gr.2	0791-8128-2
Neck Ring Holder DG 4 1/4" 83 mm	191-5864 Gr.5	0791-5864-5



x		4	Leaf Spring	191-14032	0791-14032	9	
	x	4	Leaf Spring	23-5527	0723-5527	8	
x	x	2	Spacer	23-8810	0723-8810	7	
x	x	2	Compression Spring	191-10032	0791-10032	6	
x	x	2	Straight Pin		DIN-1481-2,5x18	5	
x	x	2	Knob	23-10911	0723-10911	4	
x		2	Lock	191-13543	0791-13543	3	
	x	2	Lock	191-17346	0791-17346	3	
x		1	Neck Ring Arm RH		on Request	2	
	x	3	Neck Ring Arm RH		1284-087	2	
x		1	Neck Ring Arm LH		on Request	1	
	x	1	Neck Ring Arm LH		1284-086	1	
83 mm	70 mm	Qty.	Description	IS Part No.	H&B Order No.	Index	Note
					Datum	Name	Benennung :
					Gez.		Neck Ring Holder
					Gep.		
					Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 72 Walluf am Rhein		Zeichnungs- Nr.:
							0791-8128-2 / 70 mm
							0791-5864-5 / 83 mm
			Zust.	Änderung	Datum	Name	

Blow Head Arm DG 4 1/4" – Lightweight with internal cooling

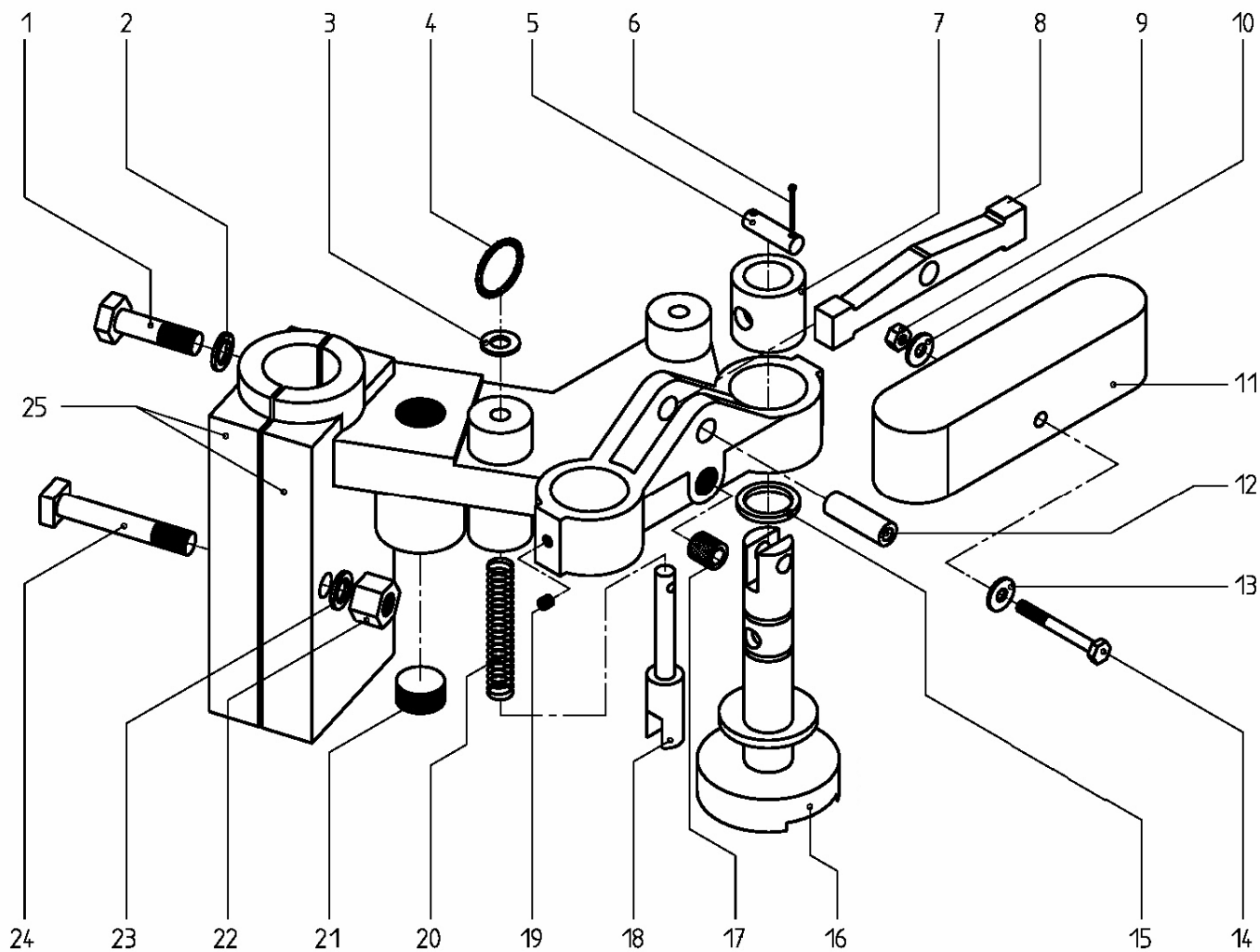
Description	IS-Part No.	H&B-Order No.
Blow Head Arm DG 4 1/4" Lightweight with internal cooling	191-6357 Gr.1	0791-6357-1



	2	Hexagon Head Cap Screw		DIN-933-3/ 8“ UNC x 3/4“	26	
	2	Lock Washer		H-1235-10	25	
	2	Exhaust Valve		0791-14784–H&B	24	
	3	Washer		DIN-125-13	23	
	3	Hex Nut	1180-1601	7180-1601	22	
	1	Hex. Soc Head Cap Screw		DIN-912-1/2“NC x 2 1/2“	21	
	2	Pin	191-14321	0791-14321	20	
	4	Cotter Pin		DIN 94 –2,5 x 14	19	
	1	Rear Bushing	191-14845	0791-14845	18	
	1	Front Bushing	191-14846	0791-14846	17	
	2	Lock Ring	191-14844	0791-14844	16	
	8	Piston Ring	2520-40	9540-40	15	
	2	Spec. Finger, substitute for 191-14838	191-14838-A	0791-14838-A	14	
	2	Spring, substitute for 191-14257	600-708-522-3	0600-708-522-3	13	
	2	Hex. Soc. Set Screw		DIN-915-1/4“UNC x 1“	12	
	2	Nylon Insert Stop Nut		DIN-985-1/4“ UNC	11	
	1	Hexagon Head Cap Screw		DIN-931-1/4“- NC x 2 1/2“	10	
	1	Washer		DIN-134–6,4	9	
	1	Guard	191-14322	0791-14322	8	
	1	Nylon Insert Stop Nut		DIN-985-1/4“ UNC	7	
	1	Washer		DIN-13–6,4	6	
	1	Equalizer	191-14781	0791-14781	5	
	1	Pin	191-14252	0791-14252	4	
	1	Body & Cap	191-6360 Gr.	0791-6360-1	3	
	1	Square Nut		H&B-01941	2	
	3	Square Head Bolt 1/2“ UNC x 3 1/2“	191-16143	0791-16143	1	
	Qty.	Description	IS Part No.	H&B Order No.	Index	Superordinate Assy. No.
				Datum	Name	Benennung :
				Gez.		Lightweight
				Gep.		Blow Head Arm DG 4 1/4“
				Hartmann & Bender Vertriebs – und Produktions - GmbH Hauptstraße 70 - 72 Walluf am Rhein		Zeichnungs- Nr.:
						0791-6357-1
		Zust.	Änderung	Datum	Name	

Blow Head Arm DG 4 1/4" – Cast Iron

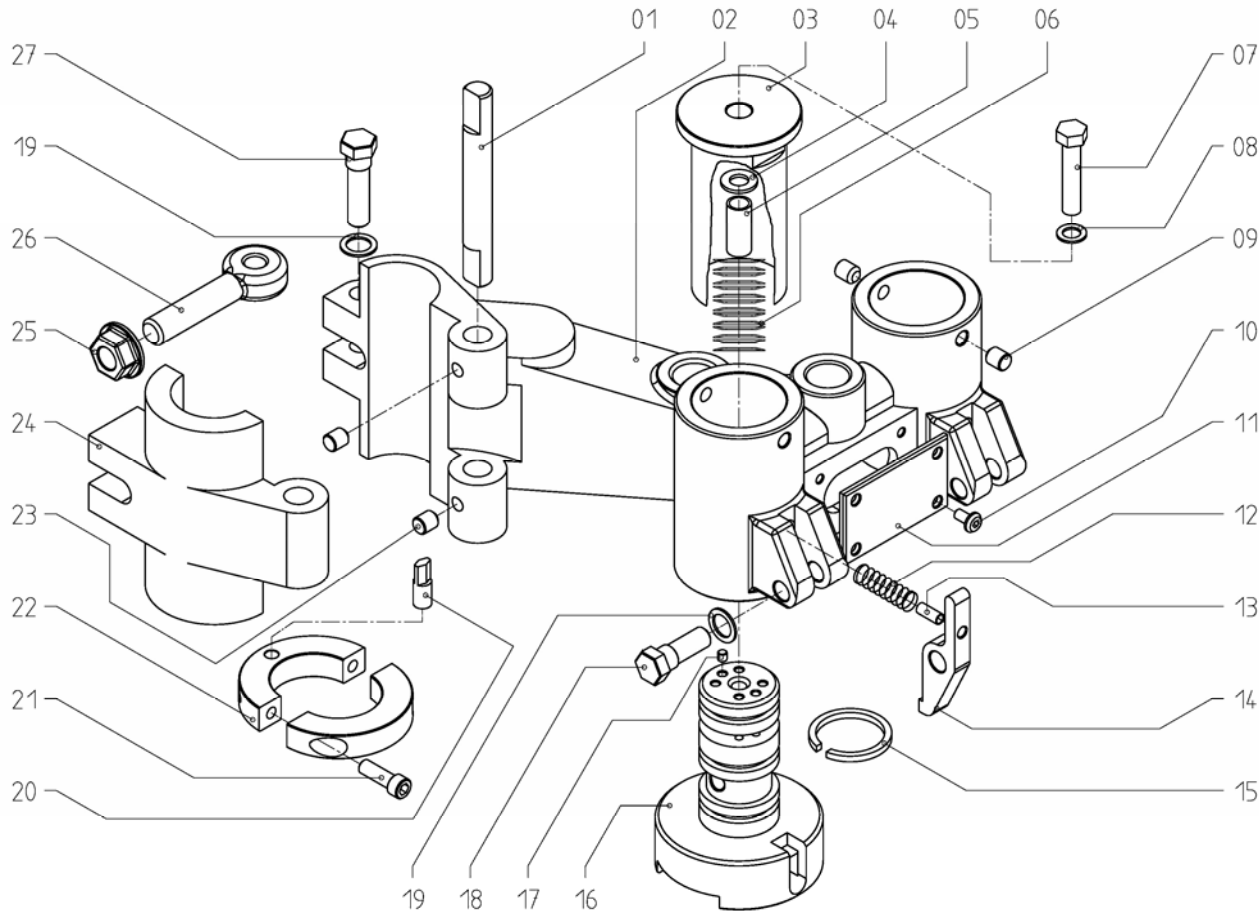
Description	IS-Part No.	H&B-Order No.
Blow Head Arm DG 4 1/4" with buildt in Valve	191-5814 Gr.3	0791-5814-3
Blow Head Arm DG 4 1/4" without buildt in Valve (is shown)	191-5814 Gr.4	0791-5814-3



	1	Blow Head Arm & Cap – only	191-5813 Gr.1	0791-5813-1	25	IS 4590/91
	1	SquareHeadBolt 1/2“ UNC x 3 “	191-16141	0791-16141	24	
	1	Washer		DIN-125–13	23	
	1	Hex Nut	1180-1601	7180-1601	22	
	1	Plug		DIN 906 – R 3/4“	21	
	2	Compression Spring	191-1286	0791-1286	20	
	2	Hex. Soc. Set Screw		DIN-9161/4“ UNC x 1/2“	19	
	2	Retainer	191-13813	0791-13813	18	
	1	Plug		DIN-906–R 3/8“	17	
	2	Lock Ring	191-13812	0791-13812	16	
	4	Piston Ring 25,4 x 3,17	2520-10	9520-10	15	
	1	Hex. Hd. Cap Screw		DIN-931-1/4“ NC x 2 1/2“	14	
	1	Washer		DIN-134–6,4	13	
	1	Pin	191-10831	0791-10831	12	
	1	Guard	191-13165	0791-13165	11	
	1	Washer		DIN-134–6,4	10	
	1	Nylon Insert Stop Nut		DIN-985-1/4“ UNC	9	
	1	Equalizer	191-14791	0791-14791	8	
	2	Bushing	191-13225	0791-13225	7	
	4	Cotter Pin		DIN-94 – 2,5 x 15	6	
	2	Pin	191-14826	0791-14826	5	
	2	Ring 32 x 4		H&B-01927	4	
	2	Washer		DIN 125 - 10	3	
	2	Washer		DIN 125 – 13	2	
	2	Hex. Hd. Cap Screw		DIN-931-1/2“UNC x 2“	1	
	Qty.	Description	IS Part No.	H&B Order No.	Index	Note
				Datum	Name	Benennung :
				Gez.		Lightweight
				Gep.		Blow Head Arm DG 4 1/4“
						Zeichnungs- Nr.:
						0791-5814-4
		Zust.	Änderung	Datum	Name	

Blow Head Arm Hinge Type- DG 4 1/4” - Cast Iron

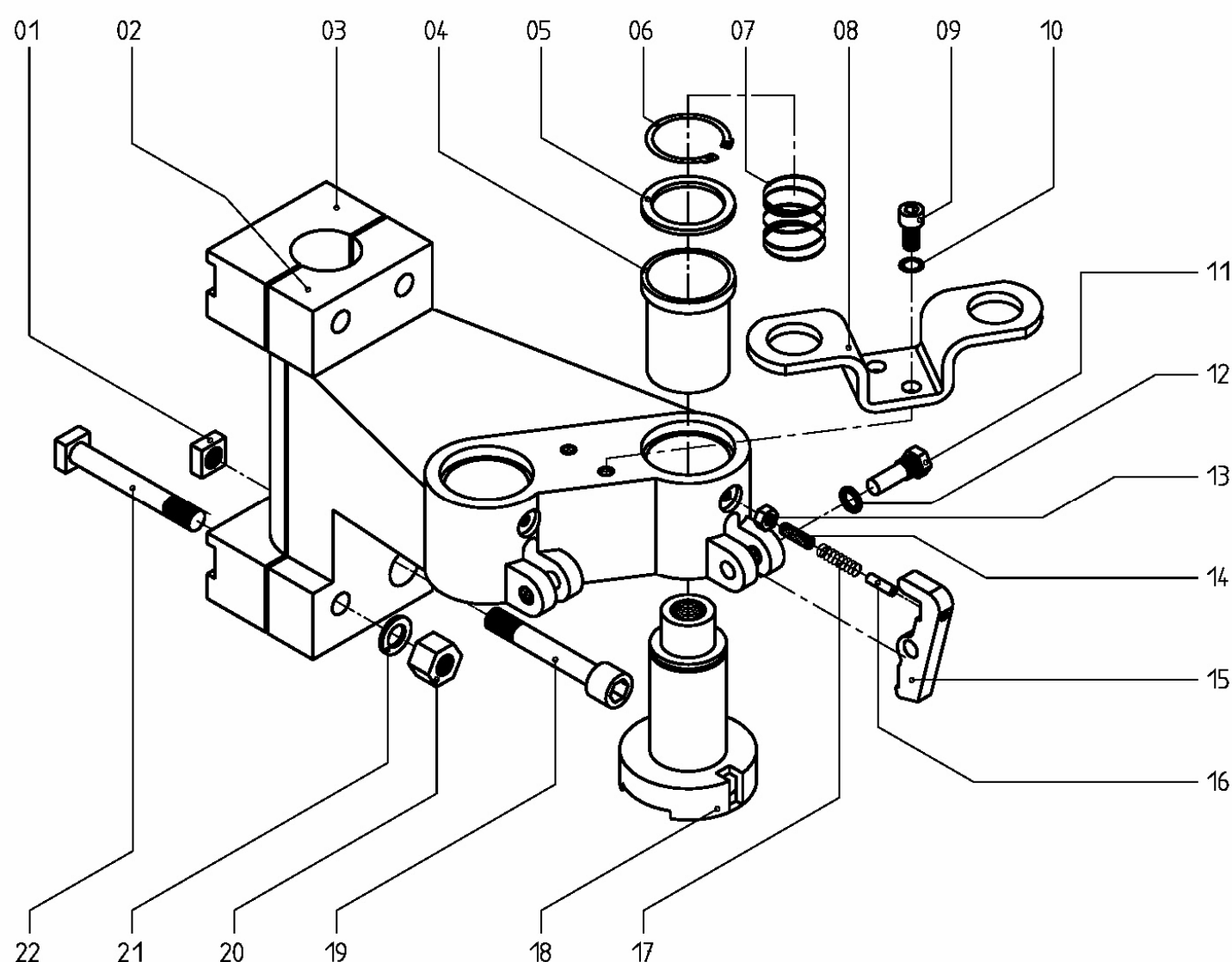
Description						IS-Part No.	H&B-Order No.
Blow Head Arm							H%B-834250-01



x	x	x	x	1	Screw	H&B-16790	27
x	x	x	x	1	Joint Screw	H&B-C-1035	26
x	x	x	x	1	Nut	H&B-C-1035-1	25
x	x			1	Cap DG 5 1/2", DG 6 1/4"	1284-183	24
		x	x	1	Cap DG 4 1/4", DG 5"	1284-157	24
x	x	x	x	2	Plug	DIN-916-5/16NC x 3/8"	23
x	x	x	x	1	Split Ring	H&B-83425-05	22
x	x	x	x	1	Screw	DIN-912-1/4NFx3/4"	21
x	x	x	x	1	Centering Pin	H&B-83425-08	20
x	x	x	x	4	Lock Washer	H-1235-10	19
x	x	x	x	2	Screw	H&B-1671	18
x	x	x	x	12	Plug	DIN-916-8-32-NC x 3/16"	17
x	x	x	x	2	Lock Ring	H&B-83425-03	16
x	x	x	x	6	Piston Ring	2520-30	15
x	x	x	x	2	Finger	H&B-83425-02	14
x	x	x	x	2	Straight Pin	DIN-1481-5x12	13
x	x	x	x	2	Compression Spring	600-708-522-3	12
x	x	x	x	1	Sealing Plate	H&B-83425-07	11
x	x	x	x	4	Screw	ISO-7380-10-24-NCx3/8"	10
x	x	x	x	4	Plug	DIN-916-5/16NC x 3/8"	9
x	x	x	x	2	Washer	DIN-125-8	8
x	x	x	x	2	Screw	DIN-931-5/16NC x1 1/2"	7
x	x	x	x	28	Connical Spring Washer	H&B-83425-03-A	6
x	x	x	x	2	Tube	H&B-83425-09	5
x	x	x	x	2	Washer	DIN-125-8	4
x	x	x	x	2	Bushing	H&B-83425-04	3
x				1	Body DG 6 1/4"	1284-182	2
	x			1	Body DG 5 1/2"	on Request	2
		x		1	Body DG 5"	on Request	2
			x	1	Body DG 4 1/4"	1284-158	2
x	x	x	x	1	Pivot Pin	H&B-83425-06	1
6 1/4"	5 1/2"	5"	4 1/4"	Qty.	Description	H&B-Order No.	Index
					Datum	Blow Head Arm Hinge Type Slim Line	
				Gez.			
				Gep.			
				Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 72 Walluf am Rhein			Type
						H&B-83425-01	DG 4 14"
						H&B-83500-01	DG 5"
						H&B-83550-01	DG 5 1/2"
	Änderung	Datum	Name			H&B-83625-01	DG 6 1/4"

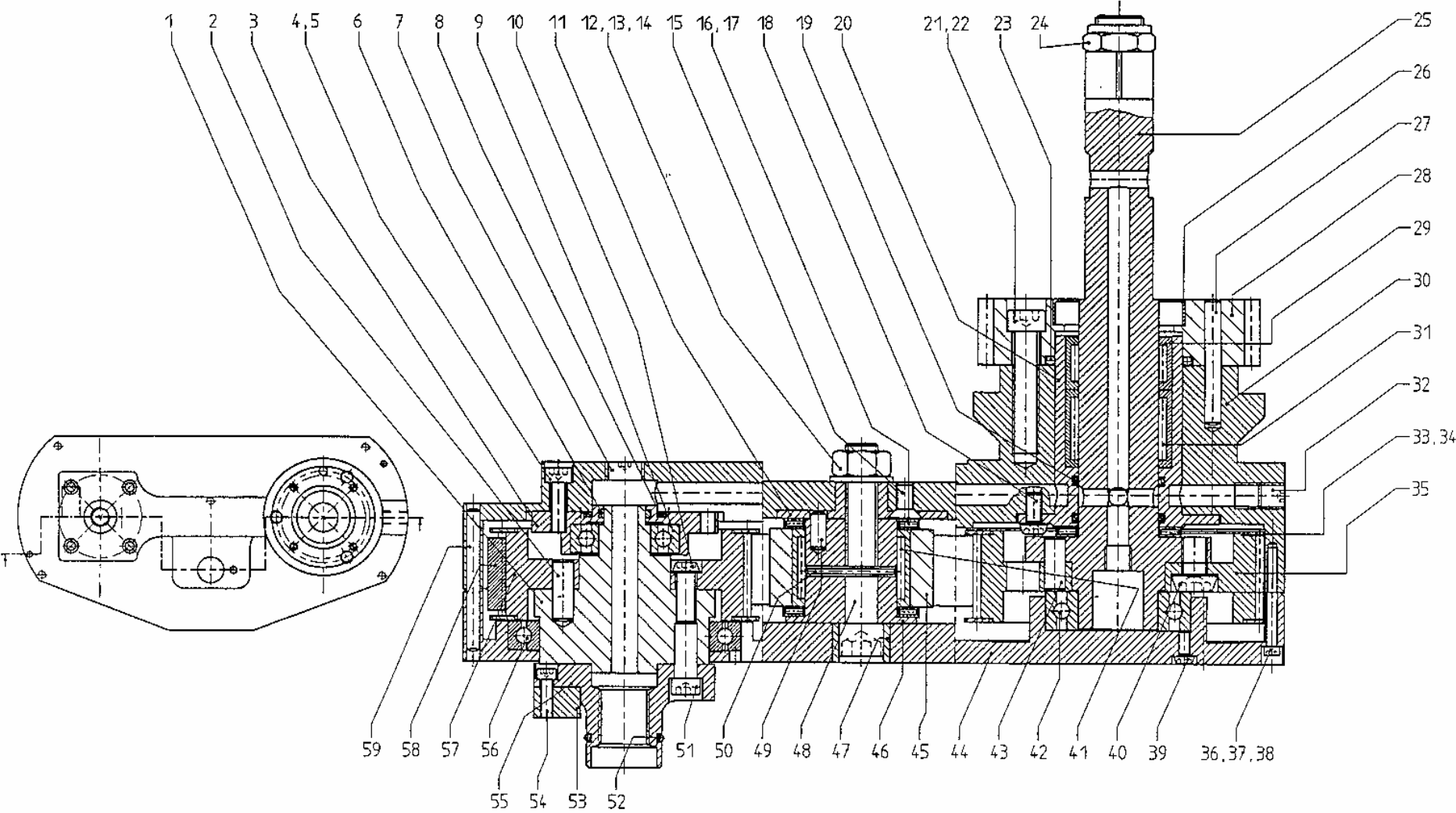
Blow Head Arm DG 4 1/4" – Lightweight for direct connecting of flexible hoses at both lock rings without finish cooling

Description	IS-Part No.	H&B-Order No.
Blow Head Arm		H&B-425-001

[illegible]

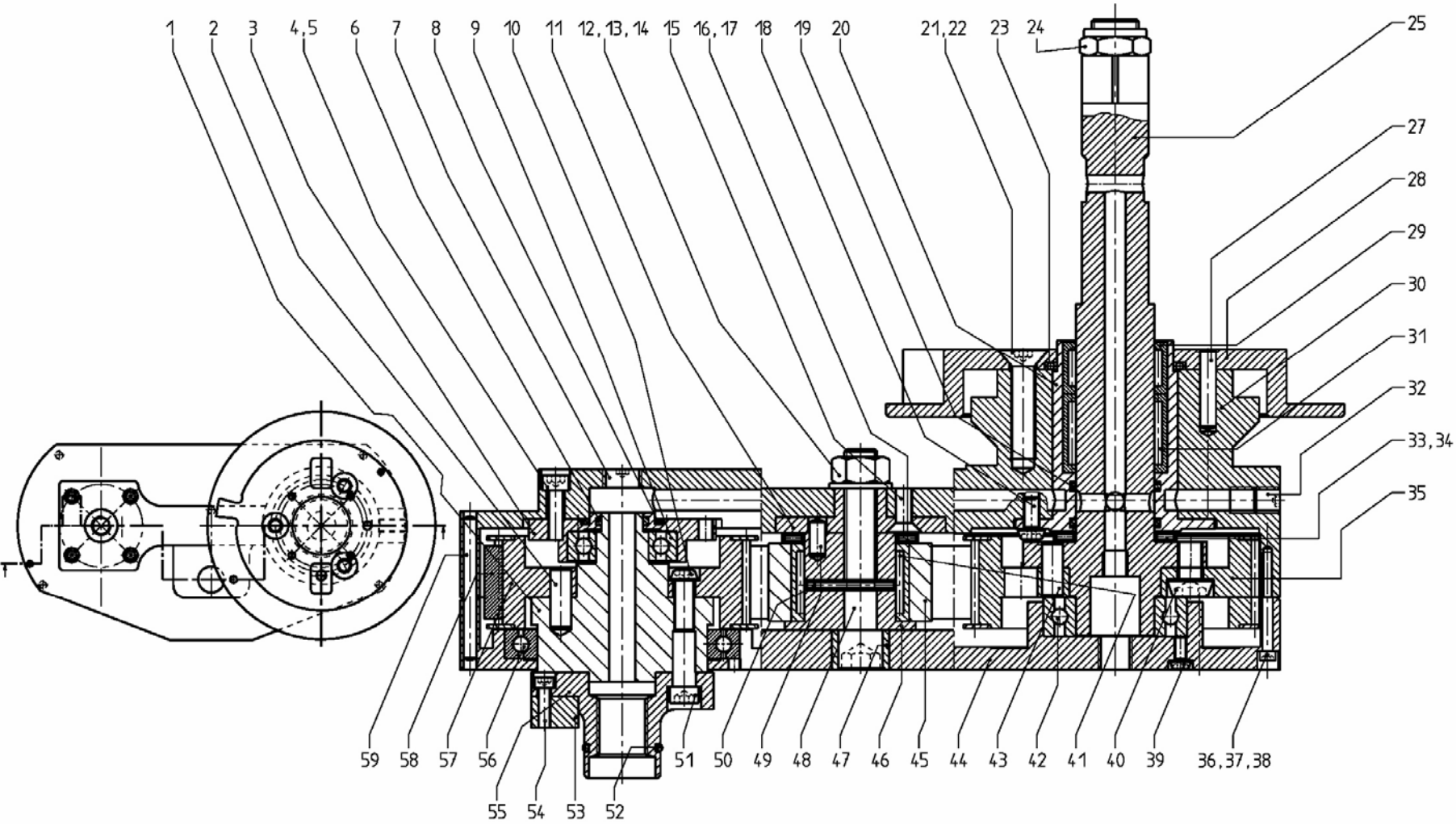
Take Out Tong Arm Belt Drive

Description	IS-Part No.	H&B-Order No.
Take Out Tong Arm Belt Drive		H&B-72425-06



Description	IS-Part No.	H&B-Order No.
Take Out Tong Arm Belt Drive valid for Bottero Servo – Take Out Mechanism		H&B-72425-07

Take Out Tong Arm
Bottero Servo Take Out



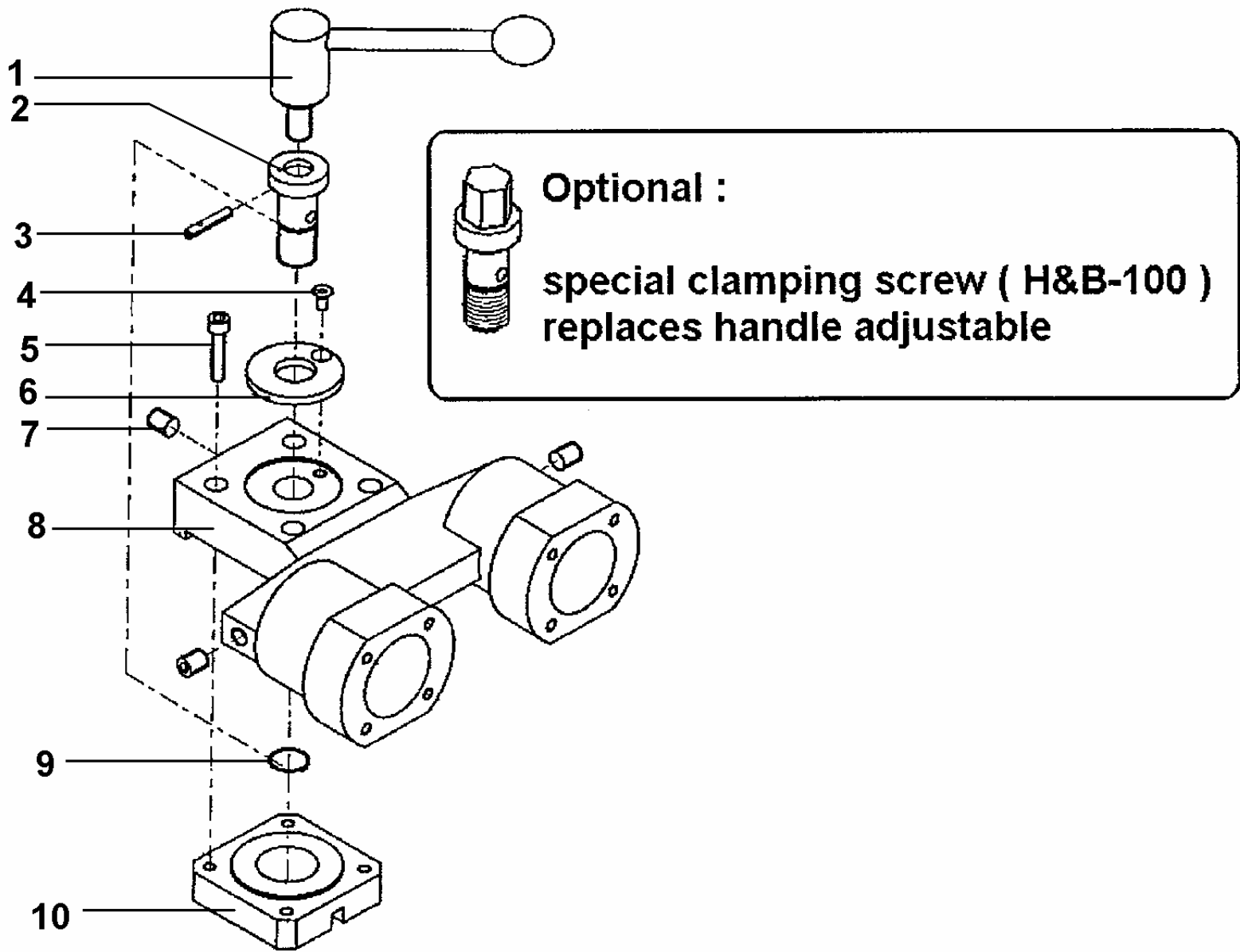
Description						IS-Part No.	H&B-Order No.
Take Out Tong Arm Belt Drive – Spare Parts List							H&B-72425-06
x	x	x	x	2	Button Sc.Cp.Screw	ISO 7380-10-24 .NC x 1/8“	n.shown
x	x	x	x	2	Hx.Sc.Set Screw	DIN 915- 5/16“ NC x 1“	n.shown
x	x	x	x	2	Pin	DIN 6325- 5 x 55	59
x	x			1	Belt Type CXA 8 M x 28 x 800	H&B-82533	58
		x	x	1	Belt Type CXA 8 M x 28 x 640	H&B-82433	58
x				1	Rear Pulley	H&B-72630	57
x	x			1	Rear Pulley	H&B-72530	57
		x	x	1	Rear Pulley	H&B-72430	57
x	x	x	x	1	Ball Bearing	61913 TNH	56
x	x	x	x	1	Adapter 191-26773	0791-26773	55
x	x	x	x	1	Hx.Sc.Hd.Cp.Screw	DIN 912-10-24 G.NC x 1/2“	54
x	x	x	x	1	Key 191-26458	0791-26458	53
x	x	x	x	1	O - Ring ,Viton 1700-912	7700-912	52
x	x	x	x	3	Hx.Sc.Hd.Cp.Screw	DIN 912- 5/16“ NC x 3/4“	51
x	x	x	x	1	Straight Pin	DIN 1481- 4 x 30	50
x	x	x	x	1	Pin	DIN 6325- 6 x 14	49
x	x	x	x	1	Eccentric Hd.Cp.Screw	H&B-72446	48
x	x	x	x	1	Bushing (17 x 22 x 13 mm)	H&B-72447	47
x	x	x	x	1	Eccentric Shaft	H&B-82445	46
x	x	x	x	1	Idler Pulley , improved Material : 1.4021	H&B-82431	45
x				1	Cover	H&B-72602	44
	x			1	Cover	H&B-72552	44
		x		1	Cover	H&B-72502	44
			x	1	Cover	H&B-72427	44
x	x	x	x	1	Pin	DIN 6325 -8 x 20	43
x	x	x	x	1	Ball Bearing	6006	42
x	x	x	x	1	Needle Bearing	NK 35/30	41
x	x	x	x	3	Button Sc.Cp.Screw	ISO 7380- 3/8“ NC x 1/2“	40
x	x	x	x	3	Button Sc.Cp.Screw	ISO 7380- 10 - 24 G.x 3/8“	39
x	x	x	x	5	Hx.Sc.Hd.Cp.Screw	DIN 912-1/4“ UNC x 1 1/4“	38
x	x	x	x	5	Lock Washer	H 1235- 1/4“	37
x	x	x	x	9	Helicoil Typ Standard (Item.18 & 38)	1/4“ - 20 G.x 3,0 D	36
x				1	Front Pulley	H&B-72629	35
	x			1	Front Pulley	H&B-72529	35
		x	x	1	Front Pulley	H&B-72429	35
x	x	x	x	2	Axial Washer	AS-3047	34
x	x	x	x	1	Axial Needle Bearing	AXK-3047	33
x	x	x	x	1	Plug	DIN 906-R 1/8“	32
x	x	x	x	1	Needle Bearing	NK 30/30	31
x				1	Housing	H&B-72601	30
	x			1	Housing	H&B-72551	30
		x		1	Housing	H&B-72501	30
			x	1	Housing	H&B-72426	30
x	x	x	x	1	Needle Bearing	NK 30/20	29
x	x	x	x	1	Drive Gear	H&B-72444	28
x	x	x	x	1	Pin	DIN 7-6,35 x 48	27
x	x	x	x	1	Seal Ring Viton	H&B-72448	26
x	x	x	x	1	Drive Shaft	H&B-72442	25
x	x	x	x	1	Flex Loc Nut (3/4“ UNF)	1180-3036	24
x	x	x	x	1	O - Ring ,Viton	48 x 3,5	23
x	x	x	x	3	Helicoil Typ Standard	3/8“ - 16 G.x 2,0 D	22
x	x	x	x	3	Hx.Sc.Hd.Cp.Screw	DIN 912-3/8“ UNC x 1 1/2“	21
x	x	x	x	1	Front Bushing	H&B-72440	20
x	x	x	x	2	O - Ring ,Viton	30 x 2,5	19
x	x	x	x	4	Button Sc.Cp.Screw	ISO 7380-1/4“ NC x 1/2“	18
x	x	x	x	4	Axial Washer	AS-3552	17
x	x	x	x	2	Axial Needle Bearing	AXK-3552	16
x	x	x	x	1	Count.Sc.Hd.Screw	DIN 7991-1/4“ UNC x 5/8“	15
x	x	x	x	1	Hex Nut	DIN 934-1/2“ UNC	14
x	x	x	x	1	Lock Washer	H 1235-1/2“	13
x	x	x	x	1	Washer	DIN 134-13	12
x	x	x	x	1	Eccenter - Stop - Bushing	H&B-82439	11
x	x	x	x	4	Spec.Button Sc.Cp.Screw	H&B-01835 (5/16“ NC x 5/8“)	10
x	x	x	x	1	Ball Bearing	6004	9
x	x	x	x	1	O - Ring ,Viton	27 x 2,5	8
x	x	x	x	1	Plug	DIN 906-R 3/8“	7
x	x	x	x	1	Quad Ring	15,55 x 2,62	6
x	x	x	x	4	Lock Washer	H 1235-1/4“	5
x	x	x	x	4	Hx.Sc.Hd.Cp.Screw	DIN 912-1/4“ UNC x 3/4“	4
x	x	x	x	1	Pilot Bushing	H&B-72441	3
x	x	x	x	1	Pin	DIN 6325 -8 x 24	2
x	x			1	Rear Shaft	H&B-72543	1
		x	x	1	Rear Shaft	H&B-72443	1
6“	5 1/2“ 6 /4“	5“	4 1/4“	Qty.	Description	H&B Order No.	Index
H&B*72600	H&B*72550	H&B*72500	H&B*72425		Take Out Tong Arm Belt Drive Vertriebs und Produktionsgesellschaft mbH Hartmann & Bender	H&B-72425-06 H&B-72500-06 H&B-72550-06 H&B-72600-06	

Description	IS-Part No.	H&B-Order No.
Take Out Tong Arm Belt Drive for Bottero Servo Take Out – Spare Parts List		H&B-72425-07

x	x	x	2	Button Sc.Cp.Screw	ISO 7380-10-24 .NC x 1/8“	n.shown
x	x	x	2	Hx.Sc.Set Screw	DIN 915- 5/16“ NC x 1“	n.shown
x	x	x	2	Pin	DIN 6325- 5 x 55	59
x			1	Belt Type CXA 8 M x 28 x 800	H&B-82533	58
	x	x	1	Belt Type CXA 8 M x 28 x 640	H&B-82433	58
x			1	Rear Pulley	H&B-72530	57
	x	x	1	Rear Pulley	H&B-72430	57
x	x	x	1	Ball Bearing	61913 TNH	56
x	x	x	1	Adapter 191-26773	0791-26773	55
x	x	x	1	Hx.Sc.Hd.Cp.Screw	DIN 912-10-24 G.NC x 1/2“	54
x	x	x	1	Key 191-26458	0791-26458	53
x	x	x	1	O - Ring ,Viton 1700-912	7700-912	52
x	x	x	3	Hx.Sc.Hd.Cp.Screw	DIN 912- 5/16“ NC x 3/4“	51
x	x	x	1	Straight Pin	DIN 1481- 4 x 30	50
x	x	x	1	Pin	DIN 6325- 6 x 14	49
x	x	x	1	Eccentric Hd.Cp.Screw	H&B-72446	48
x	x	x	1	Bushing (17 x 22 x 13 mm)	H&B-72447	47
x	x	x	1	Eccentric Shaft	H&B-82445	46
x	x	x	1	Idler Pulley , improved Material : 1.4021	H&B-82431	45
x			1	Cover	H&B-72552	44
	x		1	Cover	H&B-72502	44
		x	1	Cover	H&B-72427	44
x	x	x	1	Pin	DIN 6325 -8 x 20	43
x	x	x	1	Ball Bearing	6006	42
x	x	x	1	Needle Bearing	NK 35/30	41
x	x	x	3	Button Sc.Cp.Screw	ISO 7380- 3/8“ NC x 1/2“	40
x	x	x	3	Button Sc.Cp.Screw	ISO 7380- 10 - 24 G.x 3/8“	39
x	x	x	5	Hx.Sc.Hd.Cp.Screw	DIN 912-1/4“ UNC x 1 1/4“	38
x	x	x	5	Lock Washer	H 1235- 1/4“	37
x	x	x	9	Helicoil Typ Standard (Item.18 & 38)	1/4“ - 20 G.x 3,0 D	36
x			1	Front Pulley	H&B-72529	35
	x	x	1	Front Pulley	H&B-72429	35
x	x	x	2	Axial Washer	AS-3047	34
x	x	x	1	Axial Needle Bearing	AXK-3047	33
x	x	x	1	Plug	DIN 906-R 1/8“	32
x	x	x	1	Needle Bearing	NK 30/30	31
x			1	Housing	H&B-72551	30
	x		1	Housing	H&B-72501	30
		x	1	Housing	H&B-72426	30
x	x	x	1	Needle Bearing	NK 30/20	29
x	x	x	1	Adapter	A707-9-51	28
x	x	x	1	Pin	DIN 7-6,35 x 48	27
x	x	x	1	Seal Ring Viton	H&B-72448	26
x	x	x	1	Drive Shaft	H&B-72442	25
x	x	x	1	Flex Loc Nut (3/4“ UNF)	1180-3036	24
x	x	x	1	O - Ring ,Viton	48 x 3,5	23
x	x	x	3	Helicoil Typ Standard	3/8“ - 16 G.x 2,0 D	22
x	x	x	3	Hx.Sc.Hd.Cp.Screw	DIN 912-3/8“ UNC x 1 1/2“	21
x	x	x	1	Soecial Front Bushing	H&B-72440-BT	20
x	x	x	2	O - Ring ,Viton	30 x 2,5	19
x	x	x	4	Button Sc.Cp.Screw	ISO 7380-1/4“ NC x 1/2“	18
x	x	x	4	Axial Washer	AS-3552	17
x	x	x	2	Axial Needle Bearing	AXK-3552	16
x	x	x	1	Count.Sc.Hd.Screw	DIN 7991-1/4“ UNC x 5/8“	15
x	x	x	1	Hex Nut	DIN 934-1/2“ UNC	14
x	x	x	1	Lock Washer	H 1235-1/2“	13
x	x	x	1	Washer	DIN 134-13	12
x	x	x	1	Eccenter - Stop - Bushing	H&B-82439	11
x	x	x	4	Spec.Button Sc.Cp.Screw	H&B-01835 (5/16“ NC x 5/8“)	10
x	x	x	1	Ball Bearing	6004	9
x	x	x	1	O - Ring ,Viton	27 x 2,5	8
x	x	x	1	Plug	DIN 906-R 3/8“	7
x	x	x	1	Quad Ring	15,55 x 2,62	6
x	x	x	4	Lock Washer	H 1235-1/4“	5
x	x	x	4	Hx.Sc.Hd.Cp.Screw	DIN 912-1/4“ UNC x 3/4“	4
x	x	x	1	Pilot Bushing	H&B-72441	3
x	x	x	1	Pin	DIN 6325 -8 x 24	2
x			1	Rear Shaft	H&B-72543	1
	x	x	1	Rear Shaft	H&B-72443	1
5 1/2“ 6 1/4“	5“	4 1/4“	Qty.	Description	H&B Order No.	Index
H&B-72550	H&B-72500	H&B-72425		Take Out Tong Arm Belt Drive BOTTERO – SERVO – TAKE - OUT Vertriebs und Produktionsgesellschaft mbH Hartmann & Bender	H&B-72425-07 H&B-72500-07 H&B-72550-07	

Q.C. Take Out Tong Head Assembly DG 4 1/4"

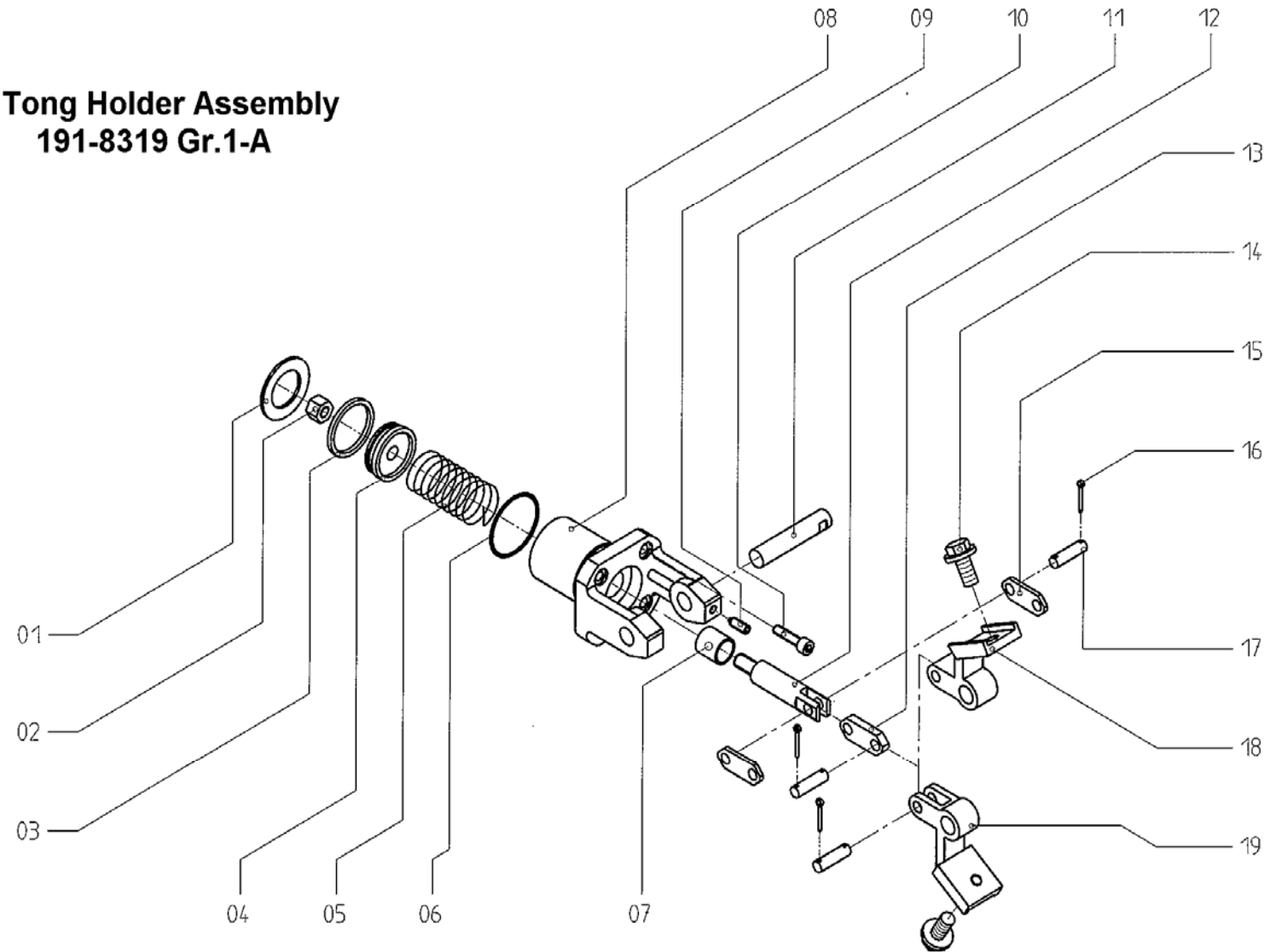
Description	IS-Part No.	H&B-Order No.
Q.C.Take Out Tong Head Assembly DG 4 1/4"	191-9125 Gr.20	0791-9125-20
Q.C.Take Out Tong Head Assembly DG 4 1/4" Anti Wink	210-275 Gr.15	7210-275-15



1	Adapter Plate	191-26127	0791-26127	10	
1	Retaining Ring	2540-541	9540-541	9	
1	Body 4 1/4 TG	191-24416	0791-24416	8	0791-9125-21 / 7210-275-20
1	Body 3” TG	191-24413	0791-24413	8	0791-9125-18 / 7210-275-19
1	Body 5 1/2 SG	191-24412	0791-24412	8	0791-9125-16 / 7210-275-13
1	Body 5” SG	191-24444	0791-24444	8	0791-9125-17 / 7210-275-12
1	Body 4 1/4 SG	191-24411	0791-24411	8	0791-9125-15 / 7210-275-11
1	Body 6 1/4 DG	191-24420	0791-24420	8	0791-9125-25 / 7210-275-18
1	Body 6” DG	191-24419	0791-24419	8	0791-9125-24 / 7210-275-21
1	Body 5 1/2 DG	191-24418	0791-24418	8	0791-9125-23 / 7210-275-17
1	Body 5” DG	191-24417	0791-24417	8	0791-9125-22 / 7210-275-16
1	Body 4 1/4 DG	191-24415	0791-24415	8	0791-9125-20 / 7210-275-15
3	Plug		DIN-906-R1/8	7	
1	Washer	191-24422	0791-24422	6	
4	Hx.Sc.Hd.Cp.Screw		DIN-912-1/4NCX11/4	5	
1	Screw		DIN-7991-10-24 UNC x 3/8	4	
1	Straight Pin		DIN-1481-4,5 x 28	3	
1	Bolt	191-24423	0791-24423	2	
1	Handle Adjustable	59-94602	0759-94602	1	
Qty.	Description	IS Part No.	H&B Order No.	Index	Superordinate Assy. No.
			Benennung :		
		Gez.	Take Out Tong Head DG 4 1/4"		
		Gep.			
		Hartmann & Bender Vertriebs – und Produktions - GmbH Hauptstraße 70-72 65396 Walluf am Rhein		Zeichnungs- Nr.:	
				0791-9125 (use Tong Holder Assy. 0791-8319-1)	
				7210-275 (use Tong Holder Assy. 0791-9535-2)	
Änderung	Datum			Name	

Take Out Tong Holder – Type H&B (Emhart Compatible)

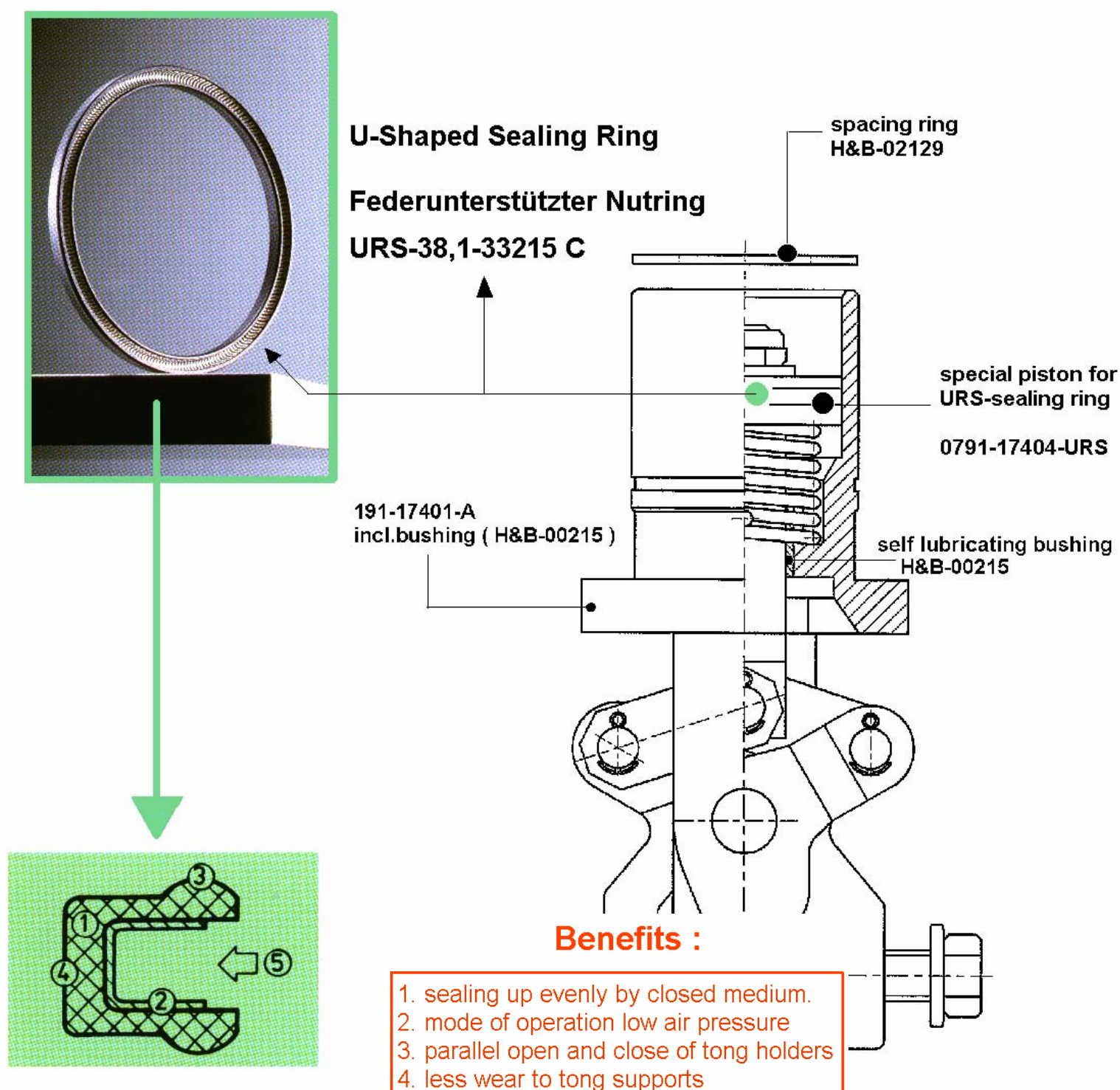
Description	IS-Part No.	H&B-Order No.
Take Out Tong Holder (see below Bulletin)	191-8319 Gr.1	0791-8319-1-A



1	Tong Holder				191-17390	0791-17390	19	
1	Tong Holder				191-17389	0791-17389	18	
3	Pin				191-10290	0791-10290	17	
6	Cotter Pin					DIN-94 -2,5 x 12	16	
2	Link				191-10285	0791-10285	15	
2	Collar Screw				191-10630	0791-10630	14	
1	Link				191-10292	0791-10292	13	
1	Piston & Rod				191-17402	0791-17402	12	
1	Pivot Shaft				191-17403	0791-17403	11	
4	Screw for fitting the complete holder					DIN-912-1/4”UNC x 1”	10	
1	Plug					DIN-915- 1/4“ UNC x 1/2“	9	
1	Tong Support incl.self lubric.bushing					0791-17401-A	8	
1	Bushing, self lubricatet 19,05-15,875					H&B-00215	7	
1	O-Ring, viton				1700-805	7700-805	6	
1	Compression Spring				23-11025	0723-11025	5	
1	Special Piston					0791-17404-URS	4	
1	U-Shaped Sealing Ring					URS-38,1-33215 C	3	
1	Hex Nut					DIN-985 – 1/2“ UNC	2	
1	Spacing Ring					H&B-02129	1	
Qty.	Description				IS Part No.	H&B Order No.	Index	Note
				Datum	Name	Benennung : Take Out Tong Holder		
			Gez.					
			Gep.					
			Hartmann & Bender Vertriebs – und Produktions - GmbH Hauptstraße 70 65396 Walluf am Rhein			Zeichnungs- Nr.: 0791-8319 -1-A H&B-Standard - System see technical Bulletin		
Änderung	Datum	Name						

Take Out Tong Holder – Type H&B (Emhart Compatible)

Description	IS-Part No.	H&B-Order No.
Technical Bulletin	191-8319 Gr.1	0791-8319-1-A

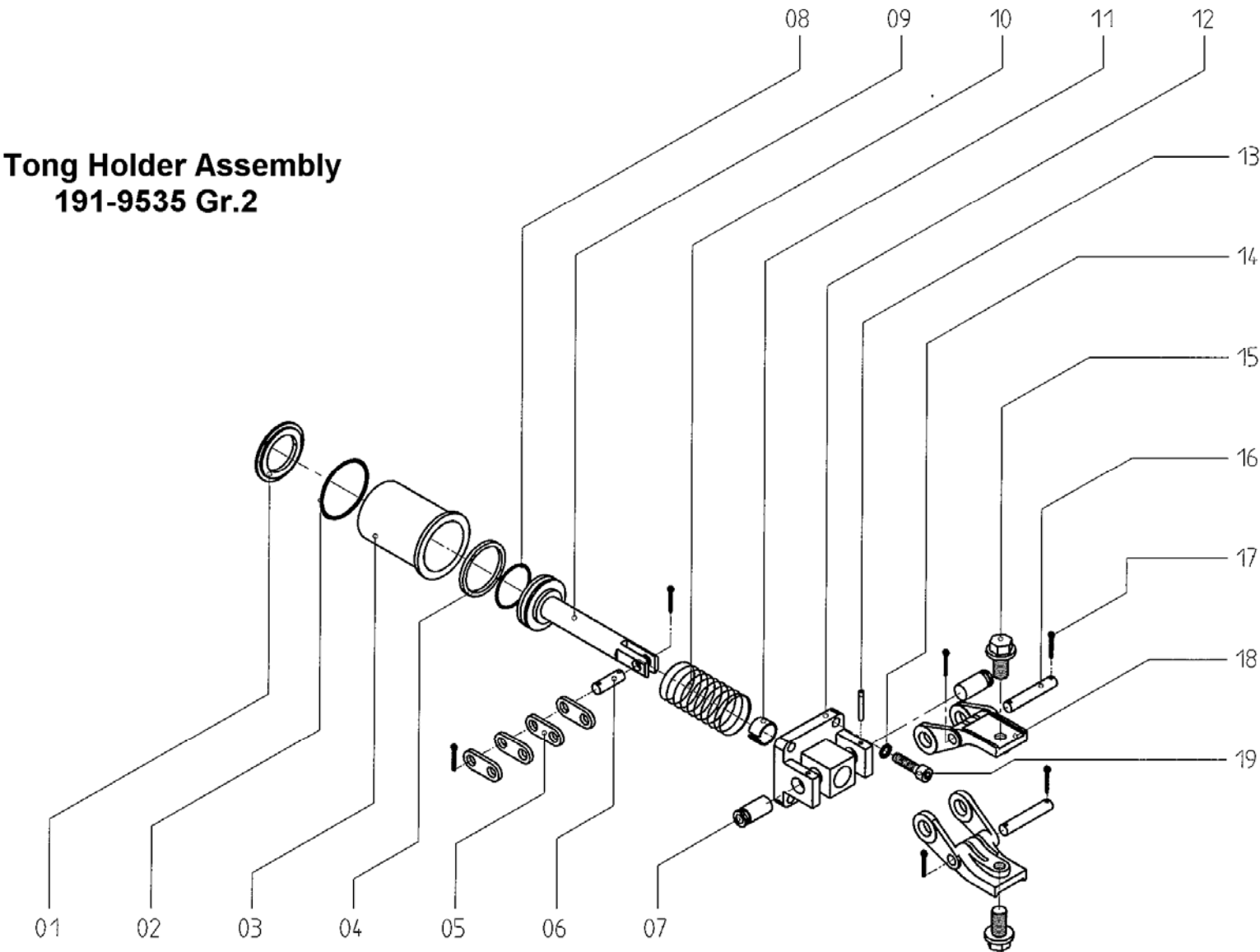


1. Kunststoffhülle mit hoher thermischer und chemischer Beständigkeit
2. Edelstahlfeder für definierte Dichtkräfte
3. Dichtlippe
4. Dichtungsrücken, maßgeblich für die stabile Lage im Einbauraum
5. Druck bzw. Medienseite

1. Synthetic materials with high thermal and chemical resistance
2. High quality steel spring for defined thick strengths
3. Sealing lip
4. Sealing back, substantial for the stable situation in the installation room
5. Pressure and medium side

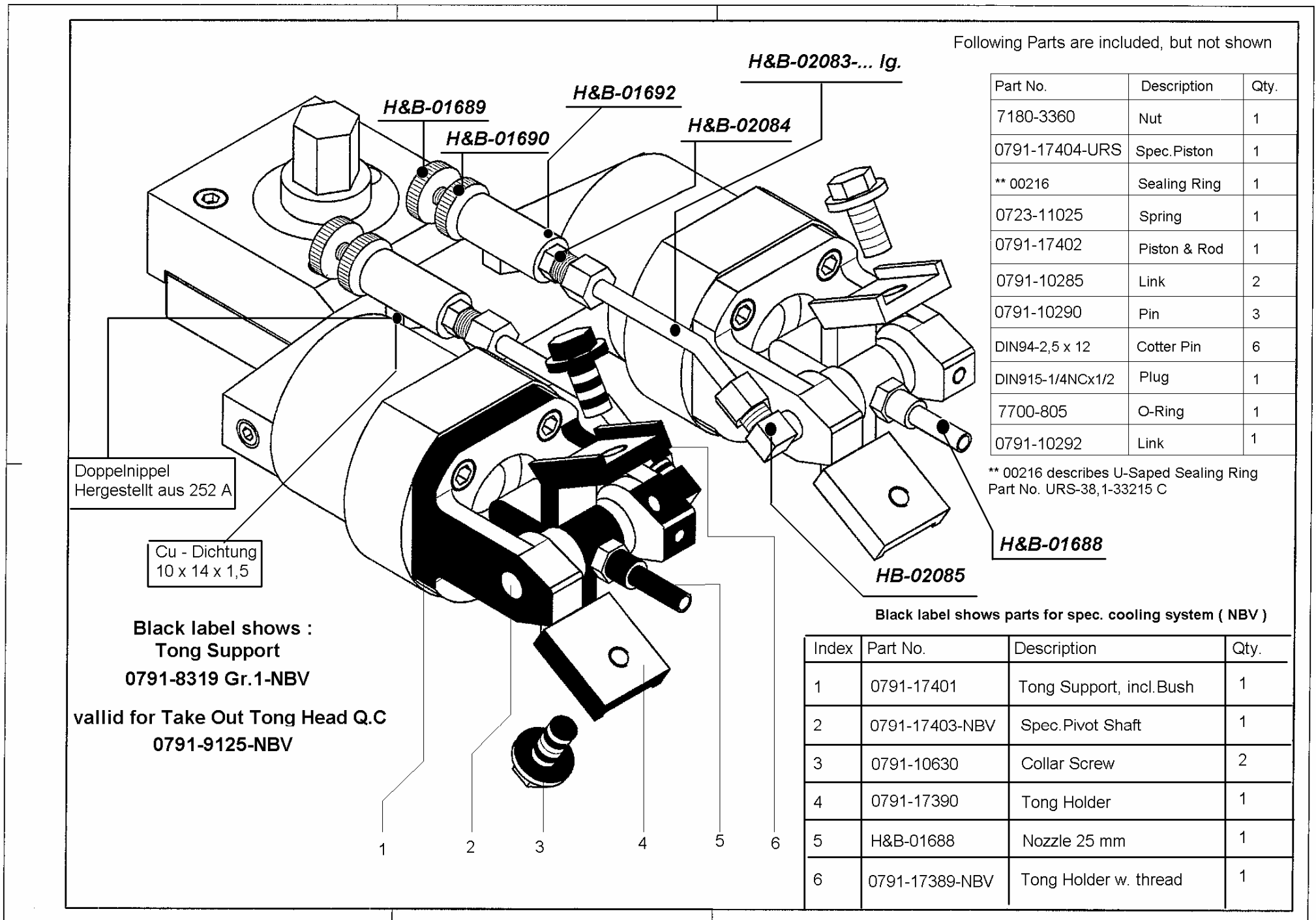
Take Out Tong Holder

Description	IS-Part No.	H&B-Order No.
Take Out Tong Holder	0191-9535 GR.2	0791-9535-2



4	Screw for fitting the complete holder					DIN-912-1/4 UNC x 1”	19	
2	Tong Holder				191-27163	0791-27163	18	
6	Cotter Pin					DIN-94 -2,5 x 12	17	
2	Pin				191-27210	0791-27210	16	
2	Collar Screw				191-10630	0791-10630	15	
4	Lock washer					H1235-6,4	14	
2	Straight Pin					DIN-1481-3 x 24	13	
1	Tong Support				191-27158	0791-27158	12	
1	Guide Ring				59-86533	0759-86533	11	
1	Compression Spring				23-11025	0723-11025	10	
1	Piston & Rod				191-27156	0791-27156	9	
1	O-Ring, Viton				1700-43	7700-43	8	
2	Pivot Sleeve				191-26989	0791-26989	7	
1	Pin				191-27209	0791-27209	6	
4	Link				191-26795	0791-26795	5	
1	Piston Ring				2520-547	9520-547	4	
1	Cylinder				191-27157	0791-27157	3	
1	O-Ring, Viton				1700-813	7700-813	2	
1	Spacing Ring				200-10495	7200-10495	1	
Qty.	Description				IS Part No.	H&B Order No.	Index	Note
				Datum	Name	Benennung : Take Out Tong Holder		
			Gez.					
			Gep.					
			Hartmann & Bender Vertriebs – und Produktions - GmbH Hauptstraße 70 65396 Walluf am Rhein			Zeichnungs- Nr.: 0791-9535-2 Anti Wink - System		
Änderung	Datum	Name						

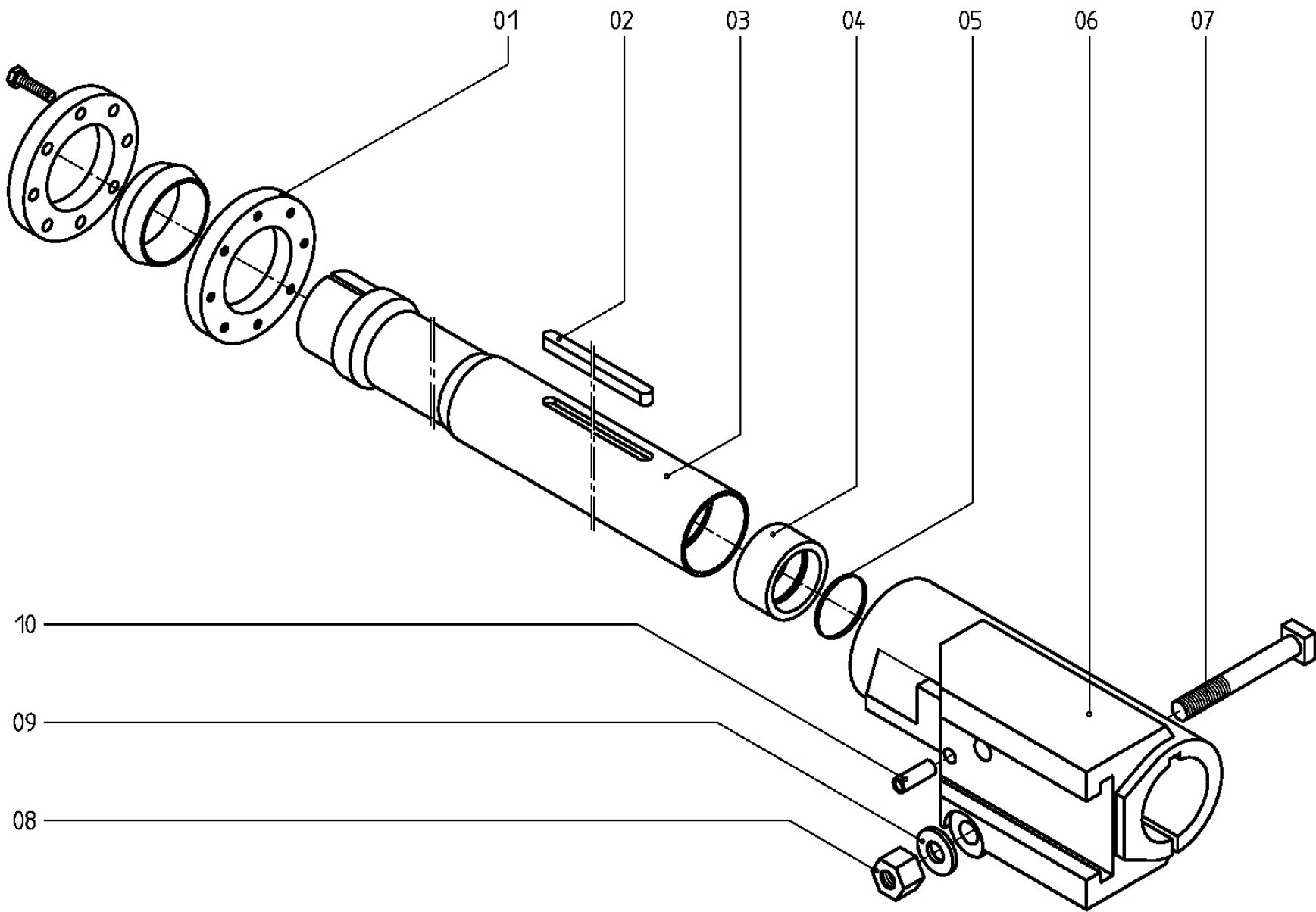
Take Out Tong Heads Q.C. **with separate adjustable finish cooling by needle valves**



IS Part.No	H&B Order No.	Description
191-9125 Gr.15	0791-9125-15-NBV-1	Take Out Tong Head Q.C.4 1/4" SG with finish cooling
191-9125 Gr.16	0791-9125-16-NBV-1	Take Out Tong Head Q.C.5 1/2" SG with finish cooling
191-9125 Gr.17	0791-9125-17-NBV-1	Take Out Tong Head Q.C.5" SG with finish cooling
191-9125 Gr.18	0791-9125-18-NBV-1	Take Out Tong Head Q.C.TG.3" with finish cooling
191-9125 Gr.20	0791-9125-20-NBV-1	Take Out Tong Head Q.C. DG 4 1/4" with finish cooling
191-9125 Gr.21	0791-9125-21-NBV-1	Take Out Tong Head Q.C.TG 4 1/4" with finish cooling
191-9125 Gr.22	0791-9125-22-NBV-1	Take Out Tong Head Q.C. DG 5" with finish cooling
191-9125 Gr.23	0791-9125-23--NBV-1	Take Out Tong Head Q.C. DG 5 1/2" with finish cooling
191-9125 Gr.24	0791-9125-24-NBV-1	Take Out Tong Head Q.C. DG 6" with finish cooling
191-9125 Gr.25	0791-9125-25-NBV-1	Take Out Tong Head Q.C. DG 6 1/4" with finish cooling

Mounting Parts Q.C. Baffle

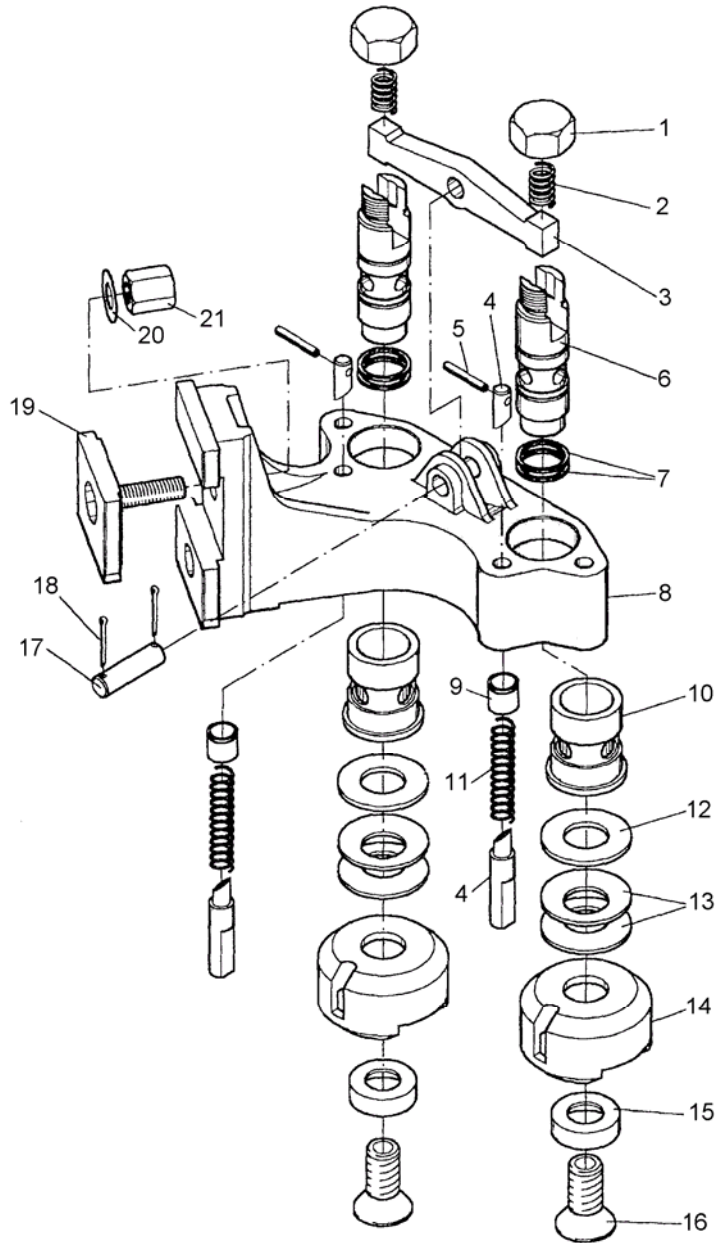
Description	IS-Part No.	H&B-Order No.
Mounting Parts Q.C. Baffle	200-252 Gr.8	7200-252-8



1	Dowel				2080-503	7080-503	10	
1	Washer					DIN-125-13	9	
1	Hex Nut				1180-1601	7180-1601	8	
2	Hex. Hd.Cp.Screw				1660-880	DIN-931-1/2 UNC x 3 1/4"	7	
1	Baffle Arm Holder				191-24427	0791-24427	6	
1	O-Ring, Viton				1700-803	7700-803	5	
1	Bushing				200-10099	7200-10099	4	
1	Sleeve				0200-263 Gr.2	7200-263-2	3	
1	Key				7847-317	9847-317	2	
1	Clamping Ring				191-9139 Gr.1	0791-9139-1	1	
Qty.	Description				IS Part No.	H&B Order No.	Index	Note
				Datum	Name	Benennung : Mounting Parts Q.C.Baffle		
			Gez.					
			Gep.					
			Hartmann & Bender Vertriebs – und Produktions - GmbH Hauptstraße 70 65396 Walluf am Rhein			Zeichnungs- Nr.: 7200-252-8		
Änderung	Datum	Name						

Q.C. Baffle Arm DG 4 1/4"

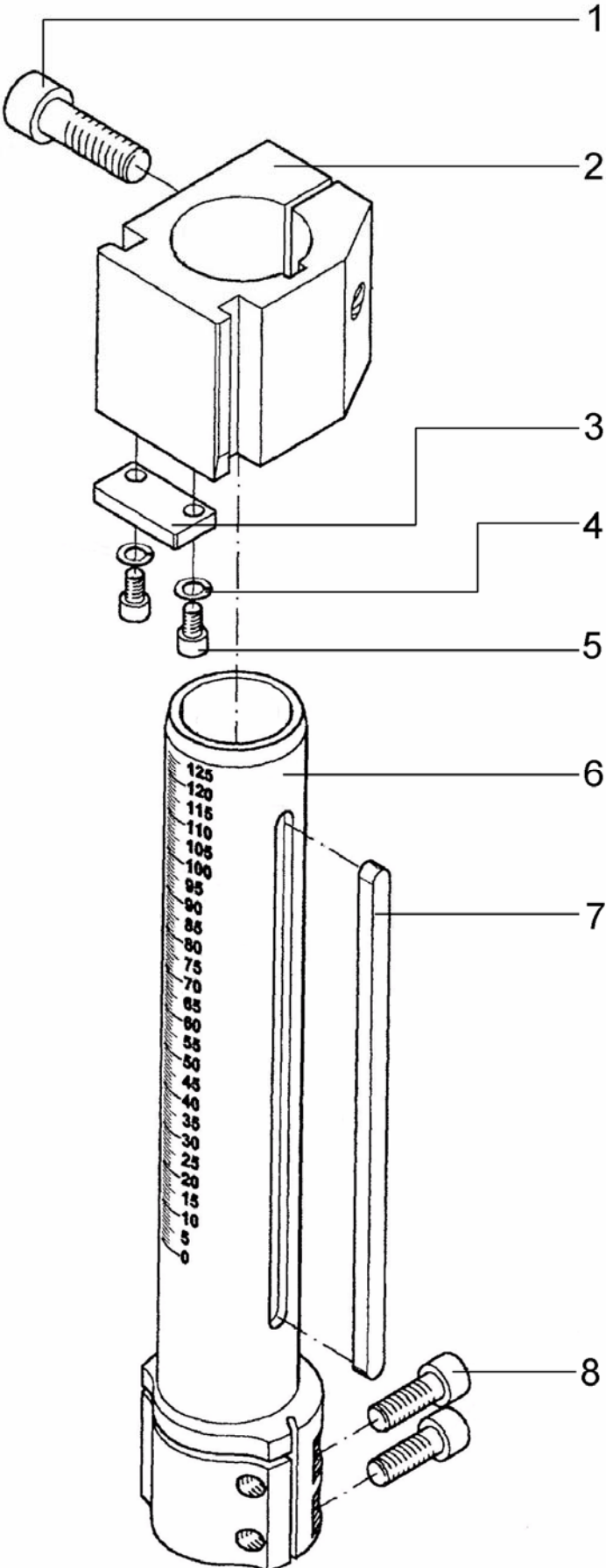
Description	IS-Part No.	H&B-Order No.
Q.C. Baffle Baffle Arm DG 5"	191-9135 Gr.4	0791-9135-4
Q.C. Baffle Baffle Arm DG 4 1/4"	191-9135 Gr.3	0791-9135-3



x	x	1	Hex Nut		DIN-934-1/2" UNC	21	
x	x	1	Washer		DIN-125-13	20	
x	x	1	Holding Plate	191-24435	0791-24435	19	
x	x	2	Cotter Pin		DIN-94-3,2 x 20	18	
x	x	1	Bolt	191-24437	0791-24437	17	
x	x	2	Screw	48-88437	0748-88437	16	
x	x	2	Washer	191-24433	0791-24433	15	
x	x	2	Lock Ring	191-25691	0791-25691	14	
x	x	4	Conical Spring Washer	59-20524	0759-20524	13	
x	x	2	Washer, hardened	3360-257	7360-257	12	
x	x	2	Compression Spring	191-24466	0791-24466	11	
x	x	2	Bushing	191-24430	0791-24430	10	
x	x	4	Bushing self lubricated	59-20528	0759-20528	9	
x		1	Body DG 5"	191-24497	0759-24497	8	
	x	1	Body DG 4 1/4"	191-24428	0791-24428	8	
x	x	4	Piston Ring	2520-531	9520-531	7	
x	x	2	Retainer Stud	191-24429	0791-24429	6	
x	x	2	Straght Pin		DIN-1481-5 x 30	5	
x	x	2	Position Pin	191-24436	0791-24436	4	
x		1	Equalizer	191-23363	0791-23363	3	
	x	1	Equalizer	191-14791	0791-14791	3	
x	x	2	Compression Spring	191-24467	0791-24467	2	
x	x	2	Cap	191-24431	0791-24431	1	
Gr.4	Gr.3	Qty.	Description	IS Part No.	H&B Order No.	Index	Note
					Datum	Name	Benennung :
					Gez.		Q.C.Baffle Arm DG
					Gep.		
					Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 72 Walluf am Rhein		Zeichnungs- Nr.:
							0791-9135-3 (DG 4 1/4")
							0791-9135-4 (DG 5")
			Zust.	Änderung	Datum	Name	

Mounting Parts Q.C. Funnel

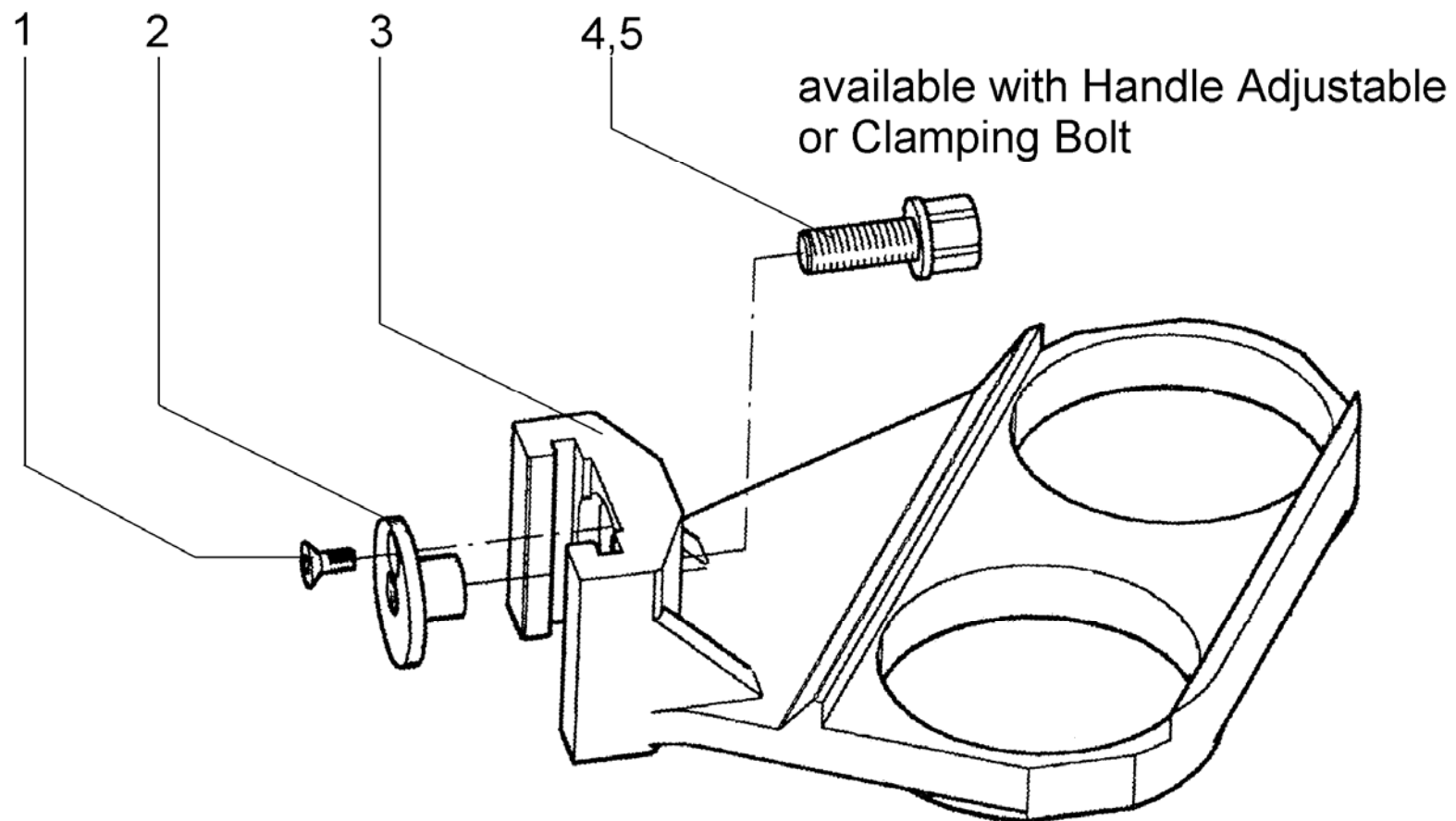
Description	IS-Part No.	H&B-Order No.
Mounting Parts Q.C. Funnel	191-9133 Gr.20	0791-9133-20



		2	Hex Soc. Hd.Cp. Screw	2640-530	DIN-912-3/8 UNC x 1”	8		
		1	Key 8 x 7 x 210	7847-210	9747-210	7		
		1	Sleeve	191-24464	0791-24464	6		
		2	Hex Soc. Hd.Cp. Screw	2640-130	DIN-912-1/4 UNC x 3/4"	5		
		2	Washer		DIN-125-6,4	4		
		1	Plate	191-24463	0791-24463	3		
		1	Clamping Device	191-24461	0791-24461	2		
		1	Hex Hd.Cp. Screw	2660-790	DIN-931-1/2 UNC x 3 1/4"	1		
		Qty.	Description	IS Part No.	H&B Order No.	Index	Note	
						Benennung : Mounting Parts Q.C.Funnel		
						Zeichnungs- Nr.: 0791-9133-20		
				Zust.	Änderung	Datum	Name	

Q.C. Funnel Arm DG 4 1/4"

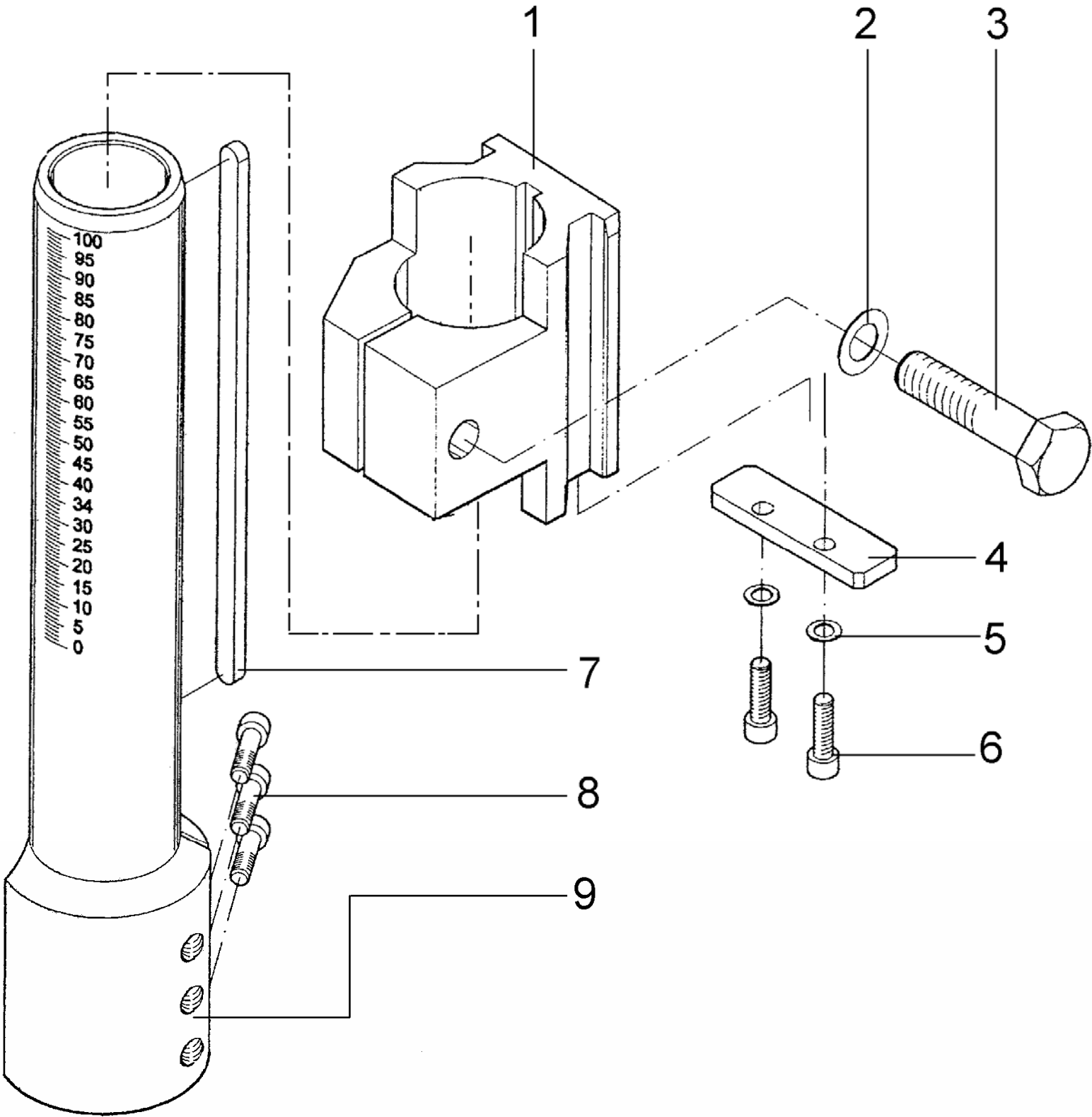
Description	Funnel No.	Funnel Size – inch / metric	IS Part No.	H&B-Order No.
Funnel Arm DG 4 1/4" 2 15/16" DIA.	00	2 7/8" / 73,00	191-9133 Gr.5	0791-9133-5
Funnel Arm DG 4 1/4" 3 5/16" DIA.	0	3 1/4" / 82,50	191-9133 Gr.6	0791-9133-6
Funnel Arm DG 4 1/4" 3 9/16" DIA.	2	3 1/2" / 88,90	191-9133 Gr.7	0791-9133-7



		1	1	1	X	Clamping Bolt		H&B-95430	5			
		1	1	1	X	Handle Adjustable	59-94603		4			
		x			1	Body	191-24440	0791-24440	3	0791-9133-7		
			x		1	Body	191-24439	0791-24439	3	0791-9133-6		
				x	1	Body	191-24438	0791-24438	3	0791-9133-5		
		x	x	x	1	Bushing	191-26477	0791-26477	2			
		x	x	x	1	Count.Sc.Hd.Screw		DIN-7991–1/4” UNC x 5/8”	1			
		Gr.7	Gr.6	Gr.5	Qty	Description	IS Part No.	H&B Order No.	Index	Superordinate Assy. No.		
									Benennung : Q.C.Funnel Arm			
								Gez.			Datum	Name
								Gep.				
									Zeichnungs- Nr.: 0791-9133			
											Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 72 Walluf am Rhein	
						Zust.	Änderung	Datum	Name			

Mounting Parts Q.C. Blow Head

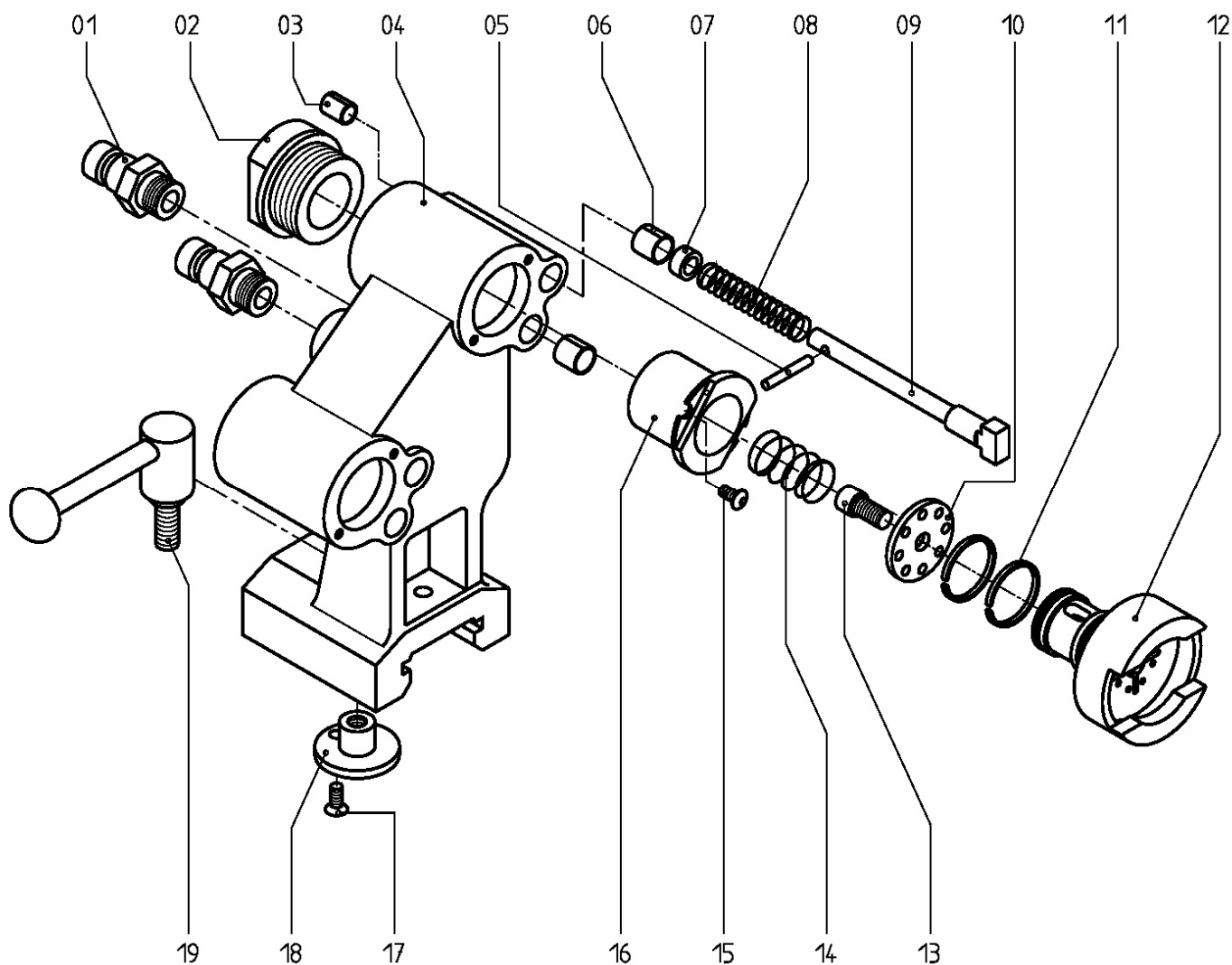
Description	IS-Part No.	H&B-Order No.
Mounting Parts Q.C. Blow Head	200-200 Gr.1	7200-200-1



		1	Sleeve	200-10252	7200-10252	9	
		3	Hex Soc. Hd.Cp. Screw	2640-530	DIN-912-3/8 UNC x 1"	8	
		1	Key 8 x 5 x 210	191-26126	0791-26126	7	
		2	Hex Soc. Hd.Cp. Screw	2640-130	DIN-912-1/4 UNC x 3/4"	6	
		2	Washer		DIN-125-6,4	5	
		1	Plate	191-25462	0791-25462	4	
		1	Hex Hd.Cp. Screw	2660-790	DIN-931-1/2 UNC x 2 3/4"	3	
		1	Washer		DIN-125-13	2	
		1	Clamping Device	191-25460	0791-25460	1	
		Qty.	Description	IS Part No.	H&B Order No.	Index	Note
					Datum	Name	Benennung :
					Gez.		Mounting Parts
					Gep.		Q.C. Blow Head
					Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 72 Walluf am Rhein	Zeichnungs- Nr.:	
						7200-200-1	
			Zust.	Änderung	Datum	Name	

Q.C. Blow Head Arm DG 4 1/4"

Description	IS-Part No.	H&B-Order No.
Q.C. Blow Head Arm DG 4 1/4" Thread Type	200-202 Gr. 1	7200-202 - 1
Q.C. Blow Head Arm DG 4 1/4" Thread Type	200-202 Gr.13	7200-202 -13
Q.C. Blow Head Arm DG 4 1/4" Bayonet Type	200-202 Gr. 5	7200-202 - 5
Q.C. Blow Head Arm DG 4 1/4" Bayonet Type	200-202 Gr.17	7200-202 -17

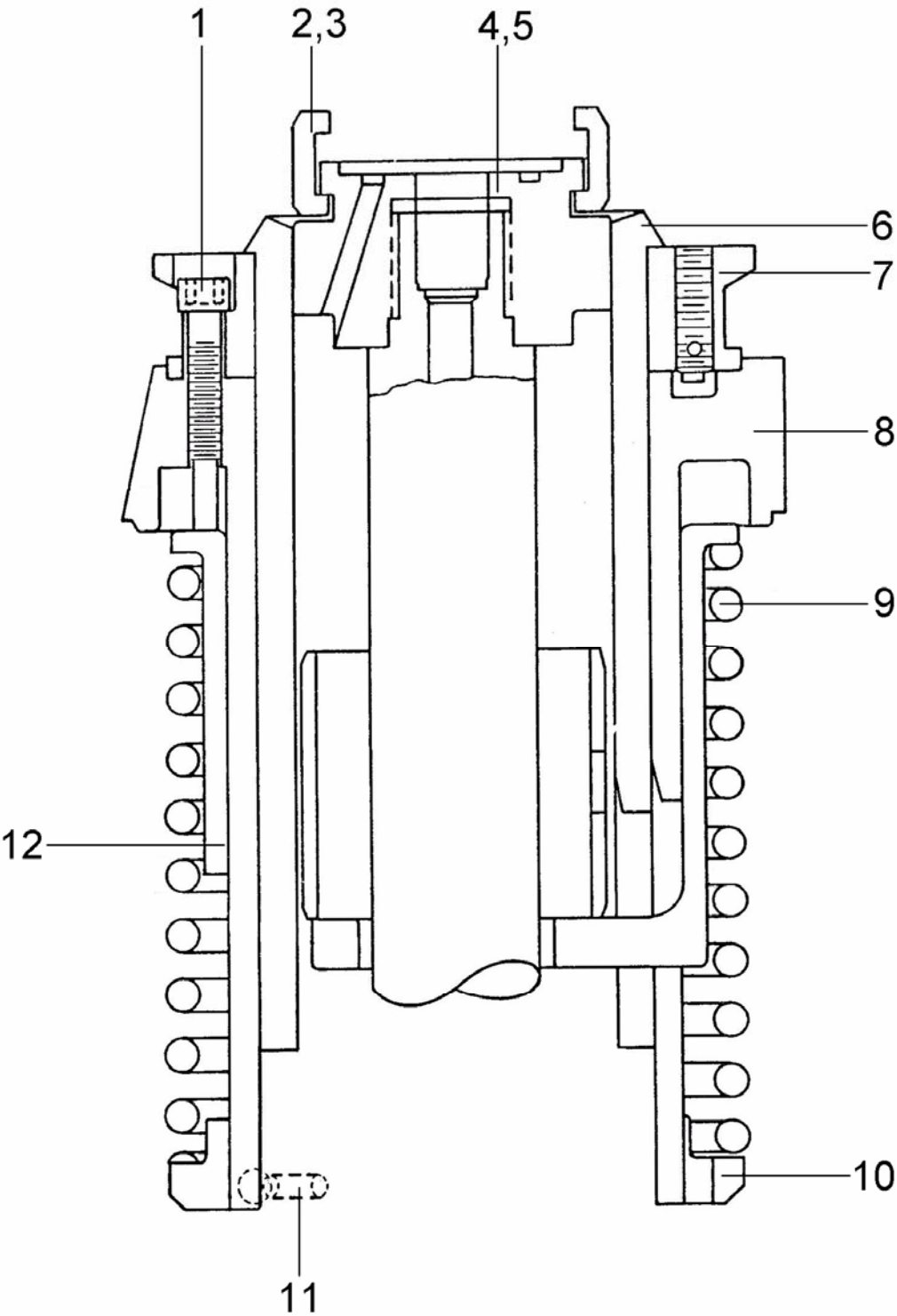


200-202 Gr.17 Bayonet Type is shown

x	x	x	x	1	Handle Adjustable	59-94603	0759-94603	19	
x	x	x	x	1	Bushing	191-26477	0791-26477	18	
x	x	x	x	1	Count.Sc.Hd.Screw		DIN-7991-1/4"NC x 5/8"	17	
x	x	x	x	2	Bushing	191-26494	0791-26494	16	
x	x	x	x	4	Button Soc. Cap Screw	2640-1620	ISO-7380- M 6 x 12	15	
x	x	x	x	2	Compression Spring	59-75011	0759-75011	14	
x	x	x	x	2	Hex. Soc.Hd.Cap Screw		DIN-912-3/8" NC x 3/4"	13	
x	x			2	Lock Ring (Bayonet Type)	191-26490	0791-26490	12	
		x	x	2	Lock Ring (Thread Type)	191-26491	0791-26491	12	
x	x	x	x	4	Piston Ring	2520-30	9520-30	11	
x	x	x	x	2	Washer	191-26495	0791-26495	10	
x	x			2	Piston Pin (Bayonet Type)	191-26749	0791-26749	9	
		x	x	2	Piston Pin (Thread Type)	191-26748	0791-26748	9	
x	x	x	x	2	Compression Spring	191-24466	0791-24466	8	
x	x	x	x	2	Distance Washer	191-26776	0791-26776	7	
x	x	x	x	4	Bushing , self lubricated	59-20528	0759-20528	6	141615 F
x	x	x	x	2	Straight Pin DIN 1481		DIN-1481-5 x 26	5	
x	x	x	x	1	Blow Head Arm Body DG 4 1/4"	191-26751	0791-26751	4	
x	x	x	x	4	Bushing, self lubricated	59-20545	0759-20545	3	101215 F
x	x	x	x	2	Retainer	191-26493	0791-26793	2	
x		x			Q.C.Connector Male MD	1460-828	7460-828	1	
	x		x	2	Connector Male	1460-444	7460-444	1	LP-012-1-WR021-11
Gr.17	Gr.5	Gr.13	Gr.1	Qty.	Description	IS Part No.	H&B Order No.	Index	Note
							Datum	Name	Benennung : Blow Head Arm Q.C. DG 4 1/4"
							Gez.		
							Gep.		
							Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 - 72 Walluf am Rhein		Zeichnungs- Nr.: 7200-202 - 1 Thread Type 7200-202 -13 Thread Type 7200-202 - 5 Bayonet Type 7200-202 -17 Bayonet Type
					Zust.	Änderung	Datum	Name	

Plunger Positioner SG

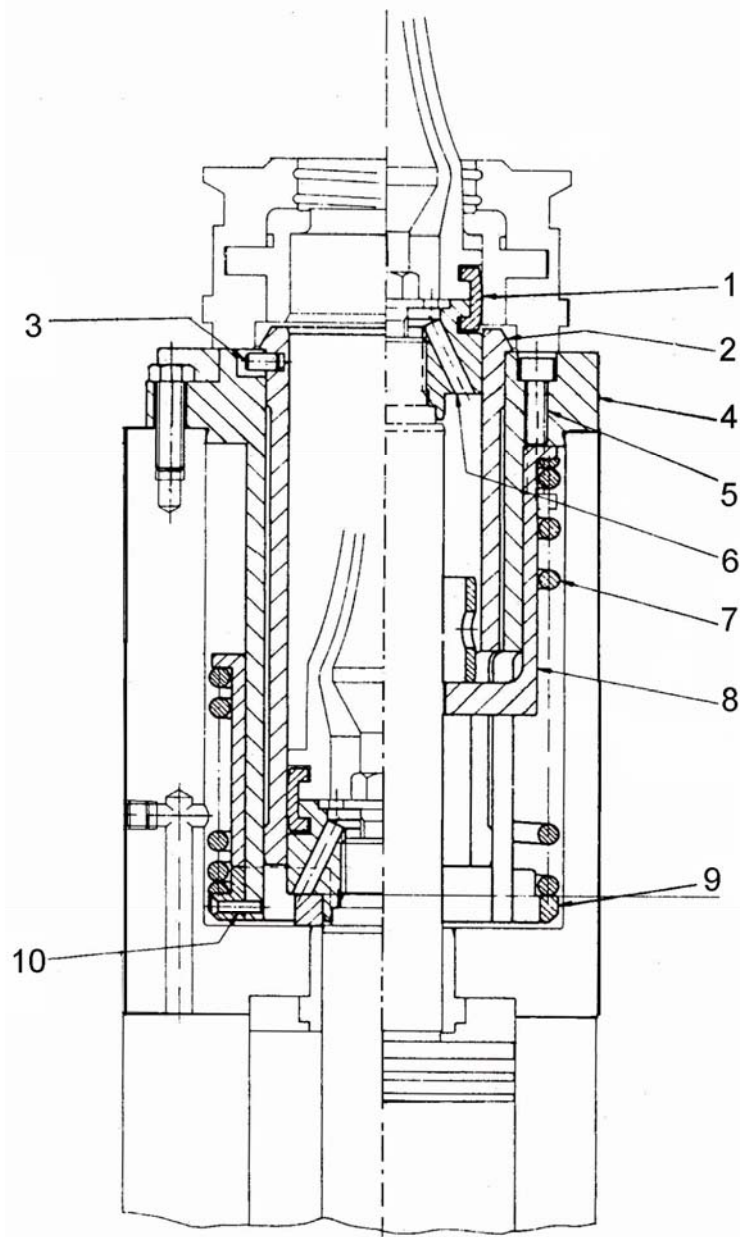
Description	IS-Part No.	H&B-Order No.
Plunger Positioner SG	62-23 GR.1	0762-23-1



		1	Sleeve	62-757	0762-757	12	
		4	Pin	62-640	0762-640	11	
		1	Collar	62-637	0762-637	10	
		1	Compression Spring	62-639	0762-639	9	
		1	Plunger Guide	62-751	0762-751	8	
		1	Plunger Guide Ring	62-752	0762-752	7	
		1	Bushing	62-633	0762-633	6	
		1	Plunger Adapter 3 1/4" DIA.	62-1464	0762-1464	5	
		1	Plunger Adapter 2 5/8" DIA.	62-1463	0762-1463	4	
		1	Split Ring 3 1/4" DIA.	62-1462	0762-1462	3	
		1	Split Ring 2 5/8" DIA.	62-1461	0762-1461	2	
		1	Stop Screw	62-659	0762-659	1	
		Qty.	Description	IS Part No.	H&B Order No.	Index	Note
					Datum	Name	Benennung :
					Gez.		Plunger Positioner SG
					Gep.		
					Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 72 Walluf am Rhein	Zeichnungs- Nr.:	
						0762-23-1	
			Zust.	Änderung	Datum	Name	

Plunger Positioner SG

Description	IS-Part No.	H&B-Order No.
Plunger Positioner SG max. finish 90 mm	62-3069 Gr.1	0762-3069-1
Plunger Positioner SG up to 70 mm finish	62-3069 Gr.2	0762-3069-2
Plunger Positioner SG max. finish 90 mm	62-3069 Gr.3	0762-3069-3
Plunger Positioner SG up to 70 mm finish	62-3069 Gr.4	0762-3069-4

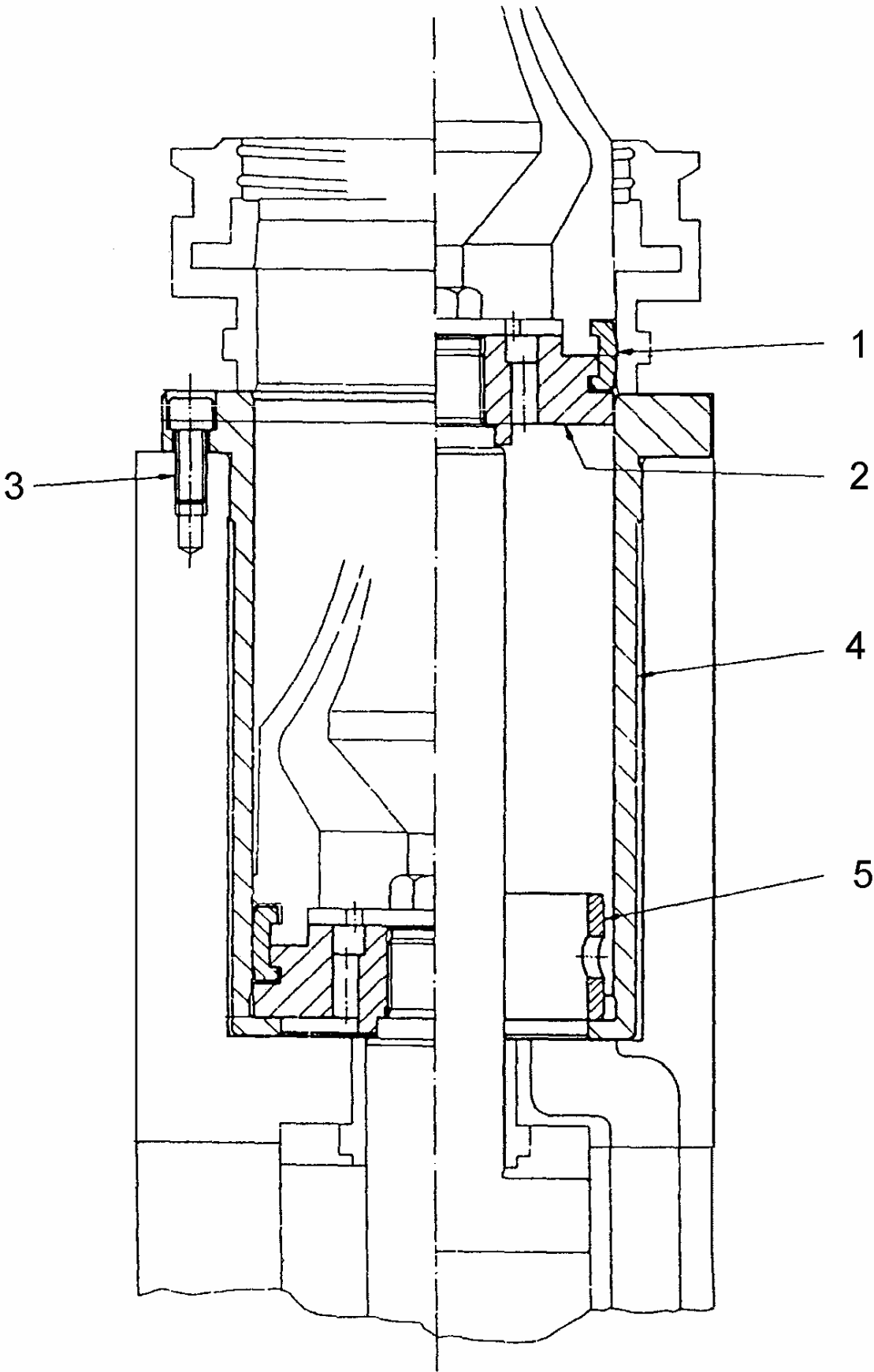


GROUP 2 SHOWN

x	x	x	x	2	Hx.Hd.Cap Screw	2660-450	DIN-931-3/8“NC x 11/4”		not illustrated
x	x	x	x	4	Pin	62-640	0762-640	10	
x	x			1	Spring Retainer	62-6520-	0762-6520	9	
		x	x	1	Collar	62-637	0762-637	9	
x	x	x	x	1	Basket / Sleeve	62-6018	0762-6018	8	
x	x	x	x	1	Compression Spring	62-2047	0762-2047	7	
	x			1	Plunger Adapter 3 1/4” DIA.	62-6523	0762-6523	6	
x				1	Plunger Adapter 2 5/8” DIA.	62-6522	0762-6522	6	
			x	1	Plunger Adapter 3 1/4” DIA.	62-6013	0762-6013	6	
		x		1	Plunger Adapter 2 5/8” DIA.	62-6014	0762-6014	6	
x	x	x	x	1	Stop Screw	62-1150	0762-1150	5	
x	x				Bushing	62-6521	0762-6521	4	
		x	x	1	Bushing	62-6011	0762-6011	4	
x		x		1	Roll Pin	2100-1307	7100-1307	3	
x		x		1	Bushing	62-6012	0762-6012	2	
	x		x	1	Split Ring 3 1/4” DIA.	62-1462	0762-1462	1	
x		x		1	Split Ring 2 5/8” DIA.	62-1461	0762-1461	1	
Gr.4	Gr.3	Gr.2	Gr.1	Qty.	Description	IS Part No.	H&B Order No.	Index	Note
							Datum	Name	Benennung :
							Gez.		Plunger Positioner SG
							Gep.		
							Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 - 72 Walluf am Rhein		Zeichnungs- Nr.:
									0762-3069-1
									0762-3069-2
									0762-3069-3
									0762-3069-4
					Zust.	Änderung	Datum	Name	

Plunger Positioner SG

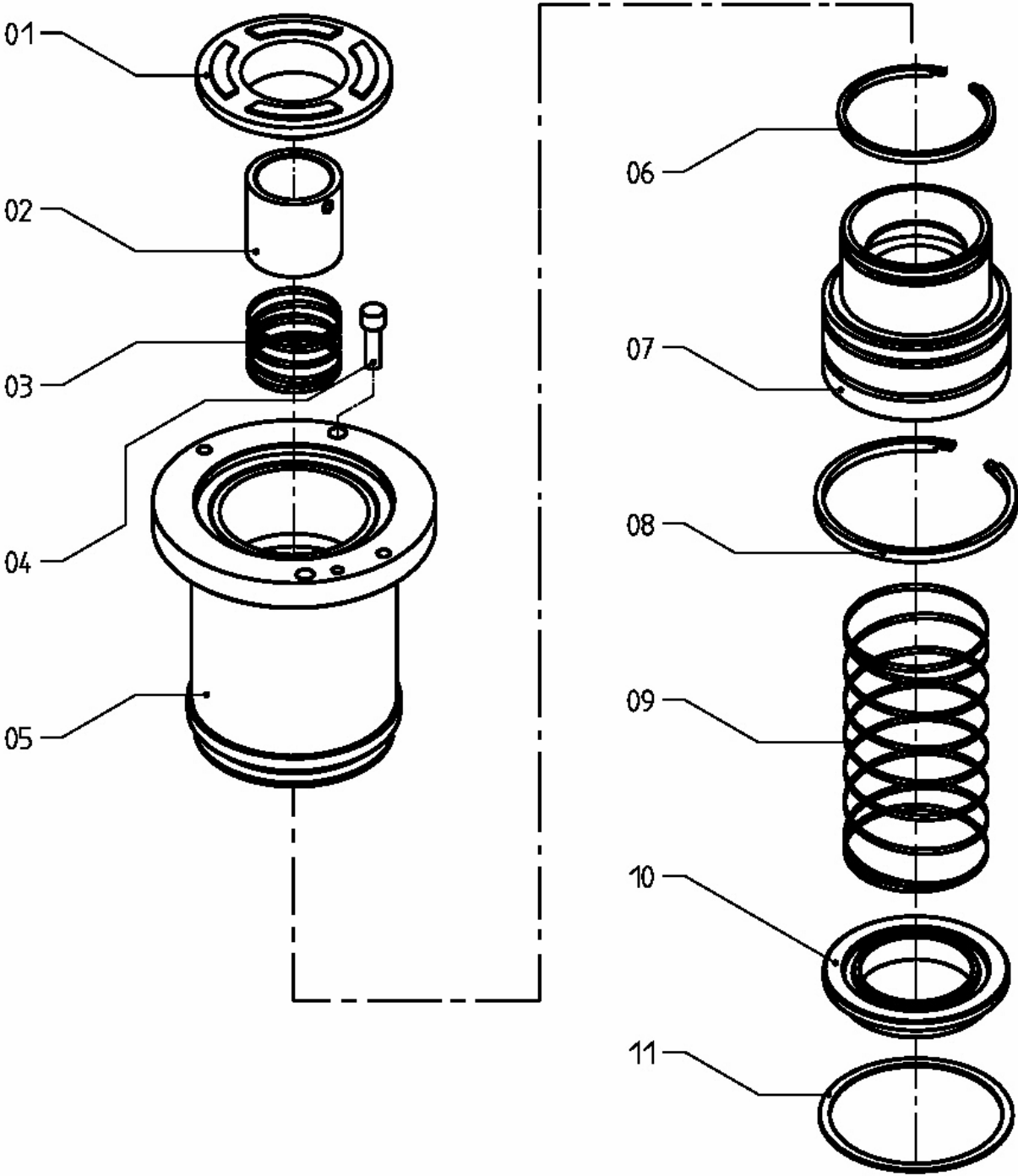
Description	IS-Part No.	H&B-Order No.
Plunger Positioner SG finish up to 120 mm	62-3068 Gr.2	0762-3068-2



		X	Spacer Chart				5	
		1	Bushing	62-6002	0791-6002		4	
		4	Hex.Soc.Hd.Cap Screw	2640-496	DIN-912-3/8"-NC x 7/8"		3	
		1	Plunger Adapter	62-6003	0762-6003		2	
		1	Split Ring.	62-1466	0762-1466		1	
		Qty.	Description	IS Part No.	H&B Order No.		Index	Note
					Datum	Name	Benennung :	
					Gez.		Plunger Positioner SG	
					Gep.			
					Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 72 Walluf am Rhein		Zeichnungs- Nr.:	
							0762-3068-2	
			Zust.	Änderung	Datum	Name		

Quick Change Cartridge SG

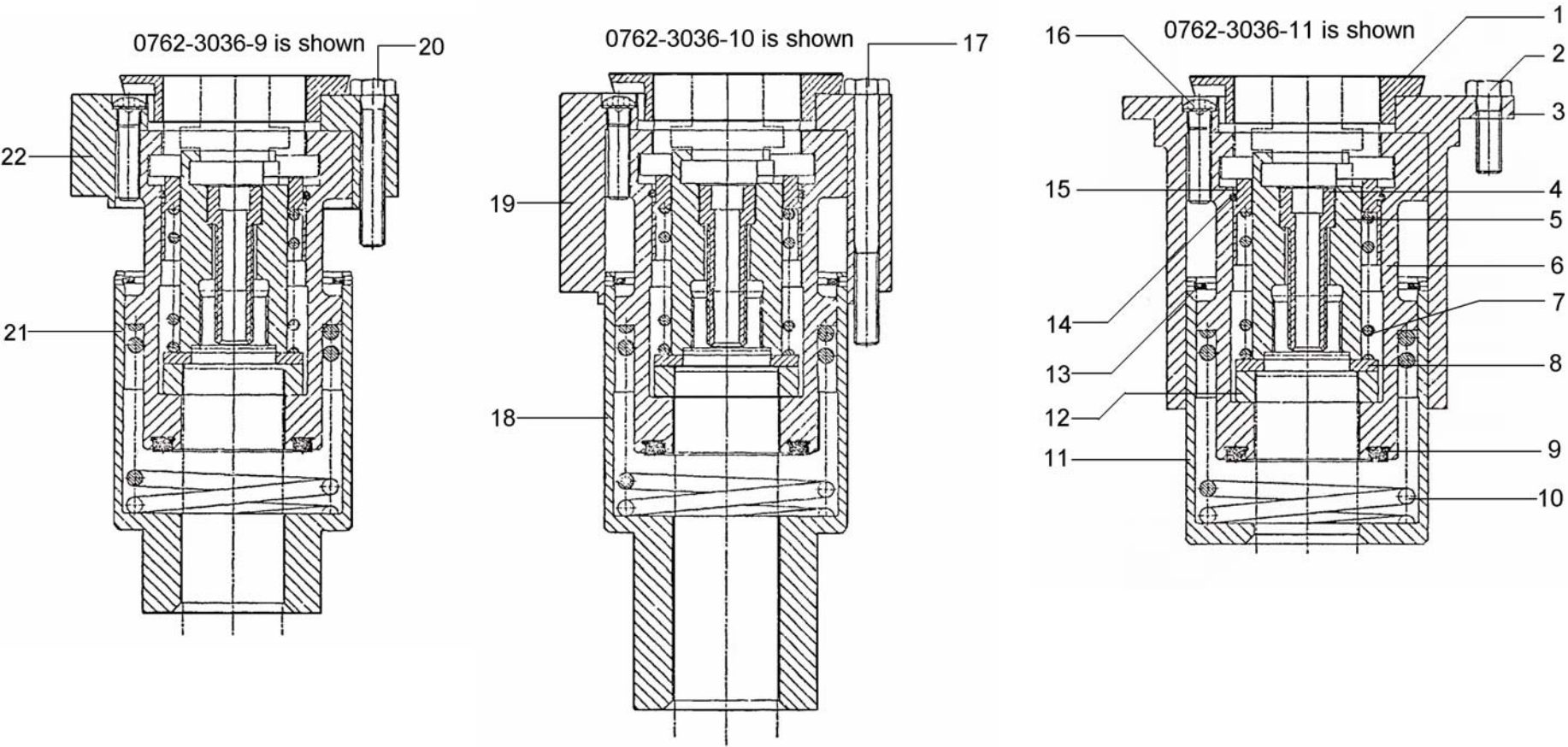
Description	IS-Part No.	H&B-Order No.
Quick Change Cartridge SG	118-1Gr.6	0718-1-6
Quick Change Cartridge SG – operating with DG Finish Thimble		0718-1-SG/DG



x	x	1	Retaining Ring (Internal Spiroloc)	2540-400	9540-400	11	
x	x	1	Ring	118-559	0718-559	10	
x	x	1	Spring	118-508	0718-508	9	
x	x	2	Piston Ring	2520-197	9520-197	8	
x		1	Piston DG Finish Thimble		0718-SG/DG	7	Improved material
	x	1	Piston	118-510	0718-510	7	Improved material
x	x	1	Piston Ring	2520-181	9520-181	6	
x	x	1	Cylinder	118-504	0718-504	5	
x	x	2	Hex.Soc.Hd.Cp.Screw	2640-530	DIN-912-3/8"UNC x 1"	4	
x	x	1	Spring	118-509	0718-509	3	
x	x	1	Sealing Sleeve	118-507	0718-507	2	
x		1	Sealing Plate DG Finish Thimble		0718-SG/DG	1	
	x	1	Sealing Plate 2 1/2"	118-518	0718-518	1	
SG / DG	Gr.6	Qty.	Description	IS Part No.	H&B Order No.	Index	Note
					Datum	Name	Benennung :
					Gez.		Quick Change Cartridge SG
					Gep.		
					Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 72 Walluf am Rhein		Zeichnungs- Nr.: 118 -1
			Zust.	Änderung	Datum	Name	

Quick Change Cartridge SG

Description	IS-Part No.	H&B-Order No.
Quick Change Cartridge SG	62-3036 Gr.9	0762-3036-9
Quick Change Cartridge SG	62-3036 Gr.10	0762-3036-10
Quick Change Cartridge SG	62-3036 Gr.11	0762-3036-11



Gr.11 – use for SG-Operation on DG 4 1/4" , 5", 5 1/2" and 6 1/4" Machine with Press & Blow Plunger Mech.

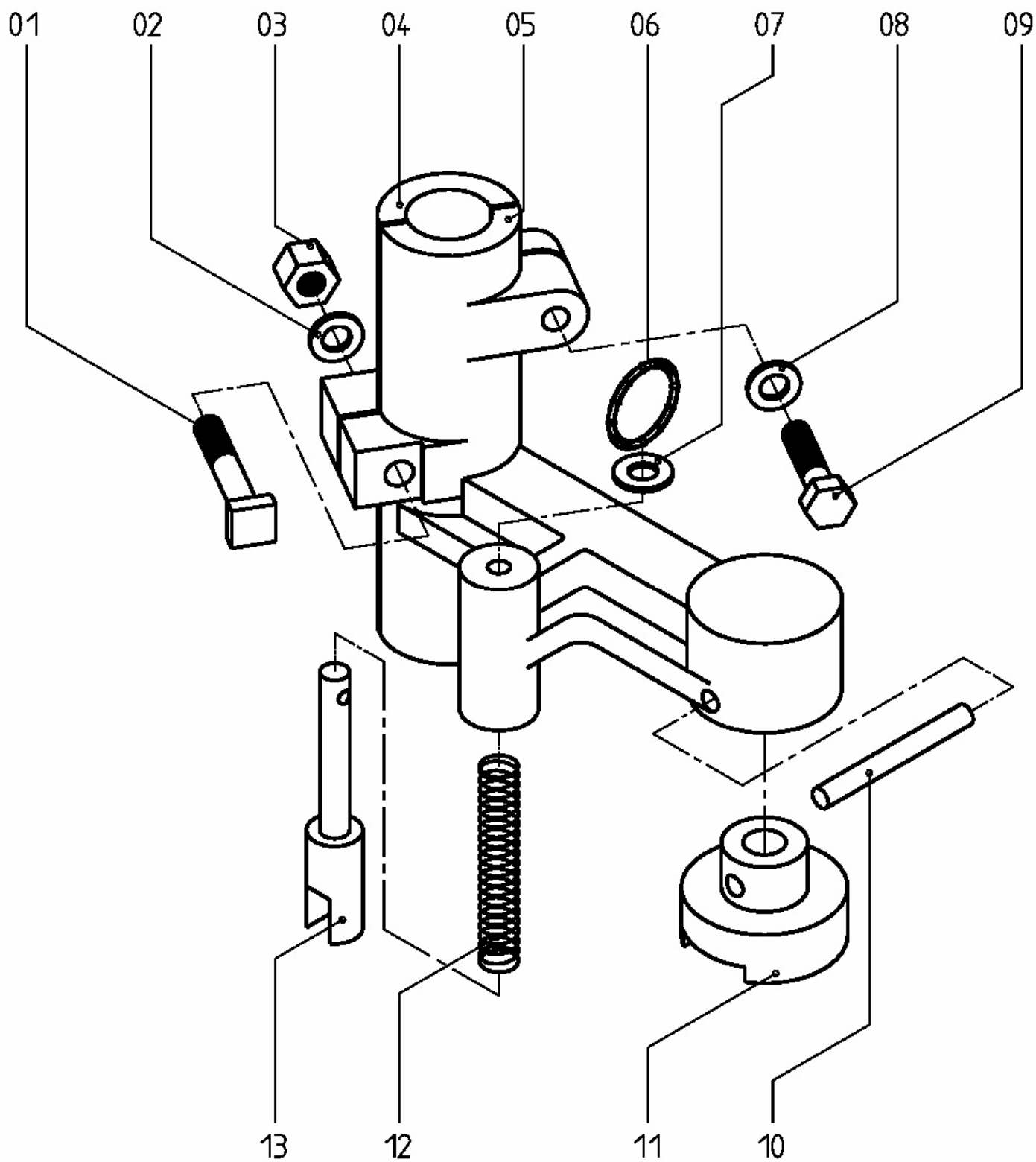
Gr.10 – use for SG-Operation on DG 4 1/4" , 5", Adjustment Range 66 - 162 mm

Gr. 9 – use for SG-Operation on DG 4 1/4" , 5", Adjustment Range 106 - 198 mm

	x			1	Cap	62-6715	0762-6715	22	
	x			1	Spring Retainer	62-6706	0762-6706	21	
	x			4	Hex.Hd.Cap Screw	2660-570	DIN-931-3/8"NC x 2 3/4	20	
		x		1	Cap	62-6716	0762-6716	19	
		x		1	Spring Retainer	62-6707	0762-6707	18	
		x		4	Hex.Hd.Cap Screw	2660-643	DIN-931-3/8"NC x 4 1/2	17	
	x	x	x	1	Screw, piston locating	48-88490	0748-88490	16	
	x	x	x	1	Sleeve, thimble locking	62-6683	0762-6683	15	
	x	x	x	1	Ring, spring locking	62-2915	0762-2915	14	
	x	x	x	1	Reataining Ring	2540-564	9540-564	13	
	x	x	x	1	Spacer	62-6703	0762-6703	12	
			x	1	Spring Retainer	62-6719	0762-6719	11	
	x	x	x	1	Compression Spring	62-6586	0762-6586	10	
	x	x	x	1	Ring, cushioning	59-86536	0759-86536	9	
	x	x	x	1	Washer	62-2918	0762-2918	8	
	x	x	x	1	Compression Spring	62-2920	0762-2920	7	
	x	x	x	1	Piston Cartridge	62-6844	0762-6844	6	
	x	x	x	1	Adapter	62-6843	0762-6843	5	
	x	x	x	1	Stud	48-88493	0748-88493	4	
			x	4	Sleeve	62-6134	0762-6134	3	
			x	4	Hex.Hd.Cap Screw	2660-450	DIN-933-3/8"NC x 1 1/4	2	
	x	x	x	1	Ring, covering	62-2912	0762-2912	1	
	Gr.9	Gr.10	Gr.11	Qty.	Description	IS Part No.	H&B Order No.	Index	Note
							Datum	Name	Benennung :
							Gez.		Quick Change Cartridge SG
							Gep.		
							Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 - 72 Walluf am Rhein		Zeichnungs- Nr.: 0762-3036-9 0762-3036-10 0762-3036-11
				Zust.	Änderung	Datum	Name		

Baffle Arm SG 4 1/4"

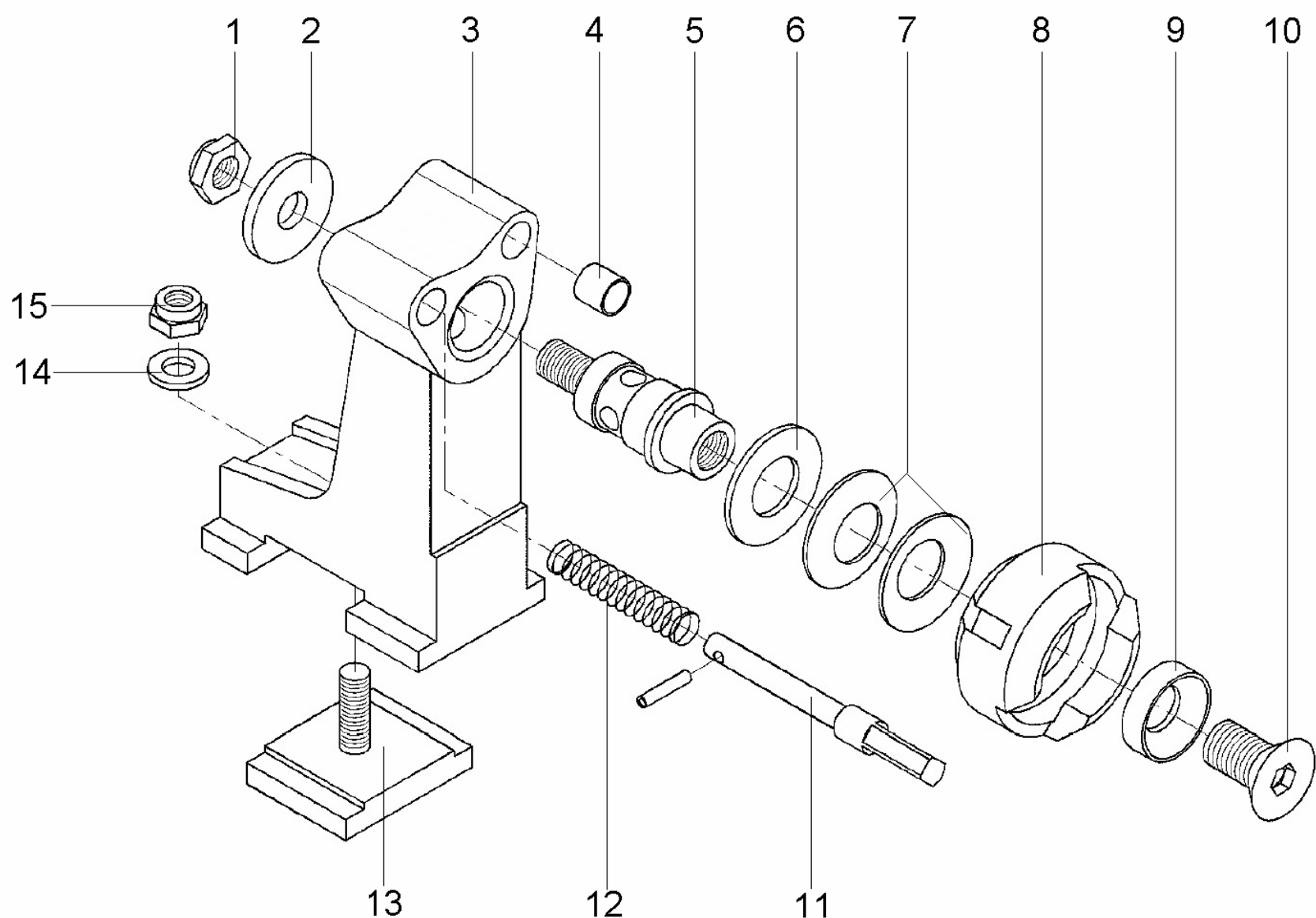
Description	IS-Part No.	H&B-Order No.
Baffle Arm SG 4 1/4"	191-5211 Gr.4	0791-5211-4



		1	Retainer	191-2727	0791-2727	13	
		1	Spring	191-1286	0791-1286	12	
		1	Lock Ring	191-10854	0791-10854	11	
		1	Taper pin		DIN-1- 8 x 90	10	
		2	Hex. Head Cap Screw		DIN- 931-1/2“ NC x 2 1/4”	9	
		1	Washer		DIN-125 -13	8	
		1	Washer		DIN-125 -10	7	
		1	Ring 32 x 4		H&B-01927	6	
		1	Body		1284-057	5	
		1	Cover		1284-058	4	
		1	Hex Nut	1180-1601	7180-1601	3	
		1	Washer		DIN 125 -13	2	
		1	Square Head Bolt 1/2” UNC x 3 1/4”	191-16142	0791-16142	1	
		Qty.	Description	IS Part No.	H&B Order No.	Index	Note
					Datum	Name	Benennung :
					Gez.		Baffle Arm SG 4 1/4"
					Gep.		
					Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 72 Walluf am Rhein	Zeichnungs- Nr.:	
						0791-5211-4	
			Zust.	Änderung	Datum	Name	

Q.C. Baffle Arm SG 4 1/4"

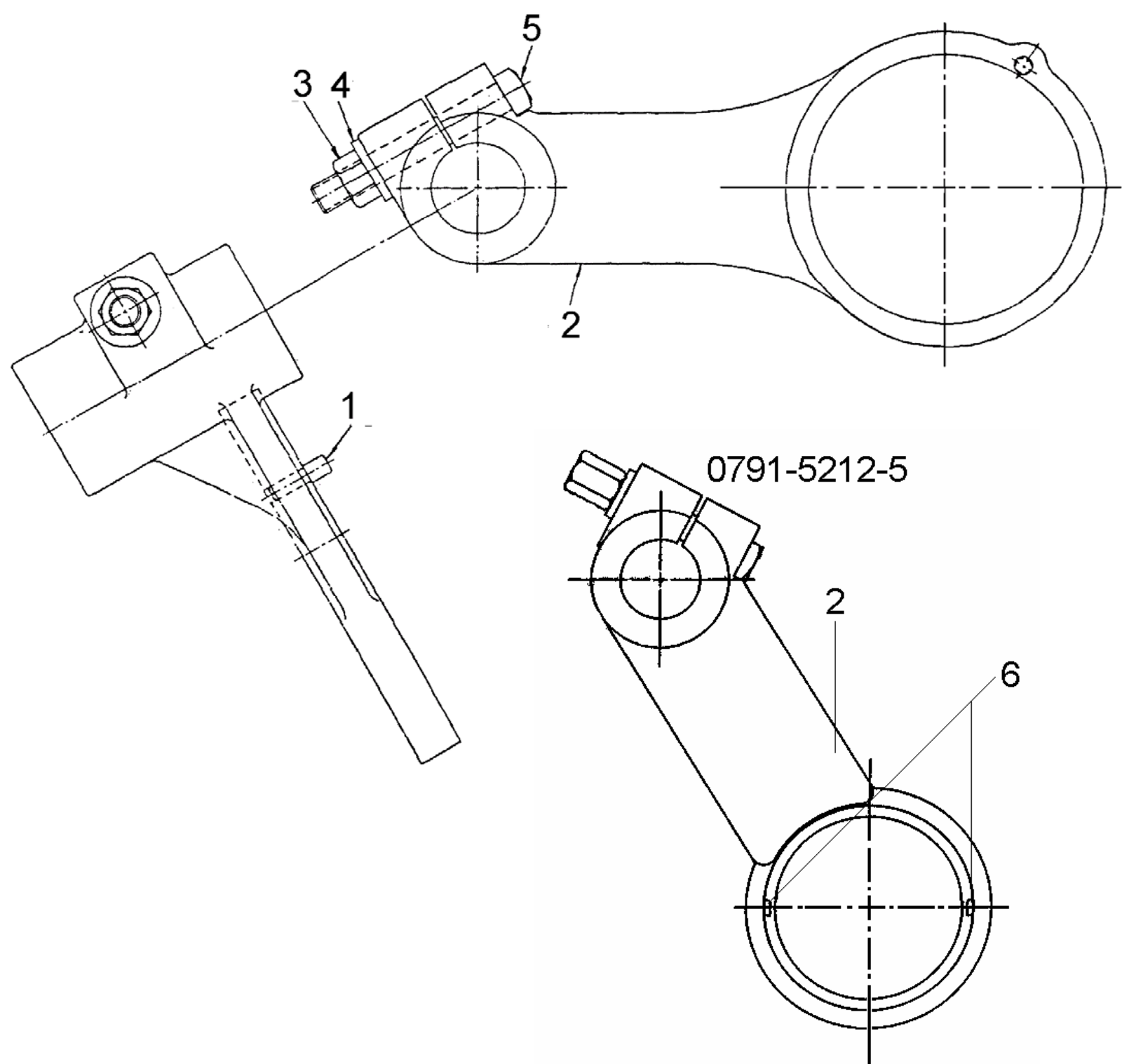
Description	IS-Part No.	H&B-Order No.
Q.C. Baffle Arm SG 4 1/4"	191-9135 Gr.5	0791-9135-5



		1	Hex Nut		DIN-934-1/2 UNC	15	
		1	Washer		DIN-125-13	14	
		1	Holding Plate	191-24435	0791-24435	13	
		1	Compression Spring	191-24466	0791-24466	12	
		1	Position Pin	191-24436	0791-24436	11	
		1	Screw	48-88437	0748-88437	10	
		1	Washer	191-24433	0791-24433	9	
		1	Lock Ring	191-25691	0791-25691	8	
		2	Conical Spring Washer	59-94605	0759-94605	7	
		1	Washer, hardened	3360-257	7360-257	6	
		1	Retainer Stud	191-24709	0791-24709	5	
		2	Bushing, self lubricated	59-20528	0759-20528	4	
		1	Body	191-24701	0791-24701	3	
		1	Thrust Washer	3360-273	7360-273	2	
		1	Hex Nut		DIN-980-5/8-UNC	1	
		Qty.	Description	IS Part No.	H&B Order No.	Index	Note
						Benennung :	
					Gez.	Q.C. Baffle Arm SG 4 1/4"	
					Gep.		
					Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 72 Walluf am Rhein		Zeichnungs- Nr.:
							0791-9135-5
			Zust.	Änderung	Datum	Name	

Funnel Arm SG 4 1/4"

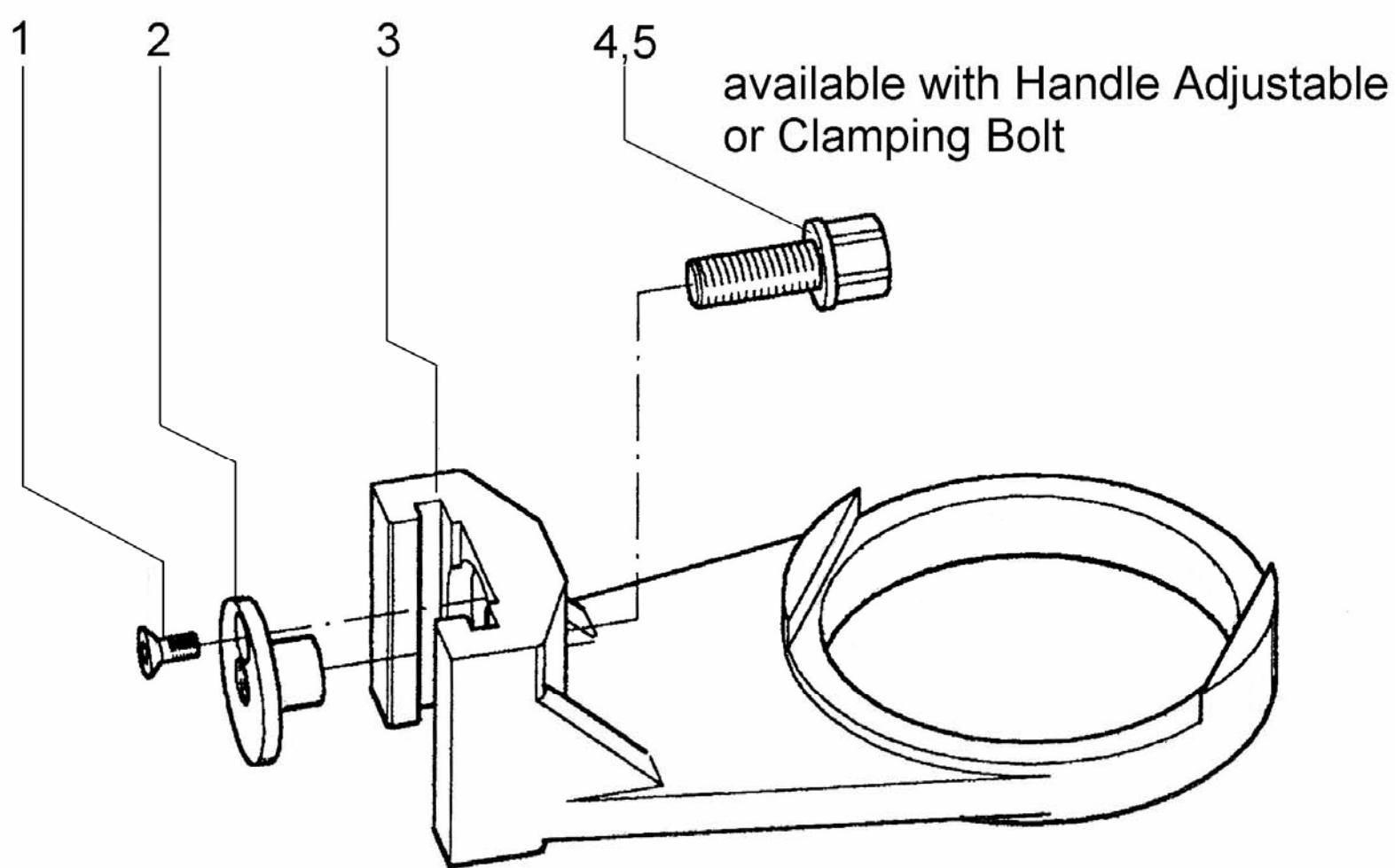
Description	IS-Part No.	H&B-Order No.
Funnel Arm SG 4 1/4"	191-5212 Gr.3	0791-5212-3
Funnel Arm SG 4 1/4"	191-5212 Gr.4	0791-5212-4
Funnel Arm SG 4 1/4"	191-5212 Gr.5	0791-5212-5



x			2	Pin		DIN-7-8x16		
x	x	x	1	Square Hd.Bolt 1/2" NC x 3 1/4	191-16142	0791-16142	7	
x	x	x	1	Washer		DIN-125-13	4	
x	x	x	1	Hex Nut	1180-1601	7180-1601	3	
x				Body		1284-119	2	
	x			Body		1284-118	2	
		x	1	Body		1284-117	2	
	x	x	1	Pin	191-1941	0791-1941	1	
Gr.5	Gr.4	Gr.3	Qty.	Description	IS Part No.	H&B Order No.	Index	Note
						Datum	Name	Benennung :
						Gez.		Funnel Arms
						Gep.		SG 4 1/4"
						Hartmann & Bender		Zeichnungs- Nr.:
						Vertriebs - und		
						Produktions - GmbH		
						Hauptstraße 70 72		
						Walluf am Rhein		0791-5212
				Zust.	Änderung	Datum	Name	

Q.C. Funnel Arm SG 4 1/4"

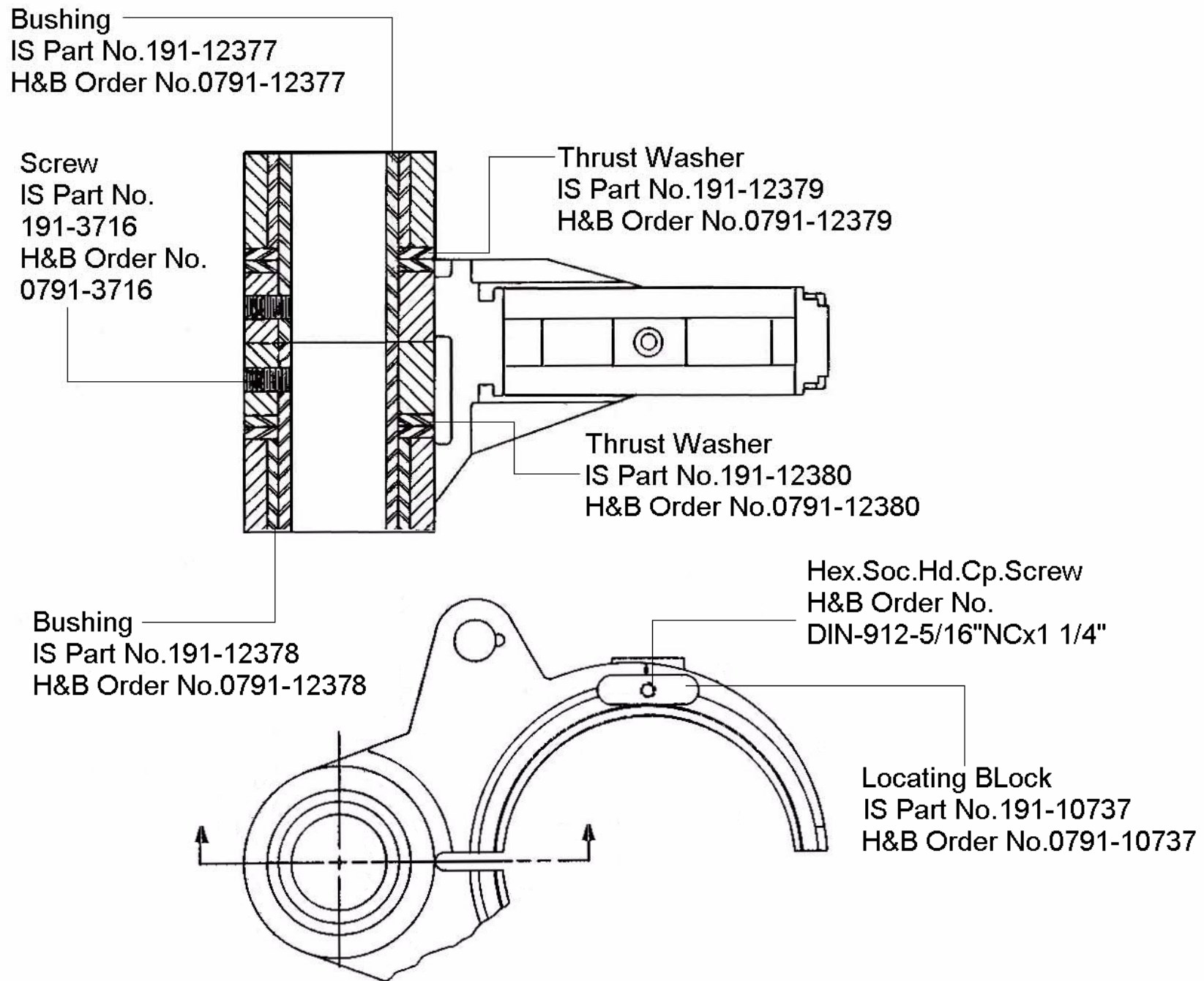
Description	IS-Part No.	H&B-Order No.
Funnel Arm SG 4 1/4" - 3 1/2" DIA.	191-9133 Gr.11	0791-9133-11
Funnel Arm SG 4 1/4" - 4 7/16" DIA.	191-9133 Gr.12	0791-9133-12
Funnel Arm SG 4 1/4" - 5 3/16" DIA.	191-9133 Gr.13	0791-9133-13



1	1	1	X	Clamping Bolt		H&B-95430	5	
1	1	1	X	Handle Adjustable	59-94603		4	
x			1	Body	191-24713	0791-24713	3	
	x		1	Body	191-24712	0791-24712	3	1284-122
		x	1	Body	191-24711	0791-24711	3	1284-121
x	x	x	1	Bushing	191-26477	0791-26477	2	
x	x	x	1	Count.Sc.Hd.Screw		DIN-7991-1/4"NCx 5/8	1	
Gr.13	Gr.12	Gr.11	Qty.	Description	IS Part No.	H&B Order No.	Index	Note
						Datum	Name	Benennung :
						Gez.		Q.C. Funnel Arms
						Gep.		SG 4 1/4"
						Hartmann & Bender		Zeichnungs- Nr.:
						Vertriebs - und		
						Produktions - GmbH		
						Hauptstraße 70 72		
						Walluf am Rhein		0791-9133
				Zust.	Änderung	Datum	Name	

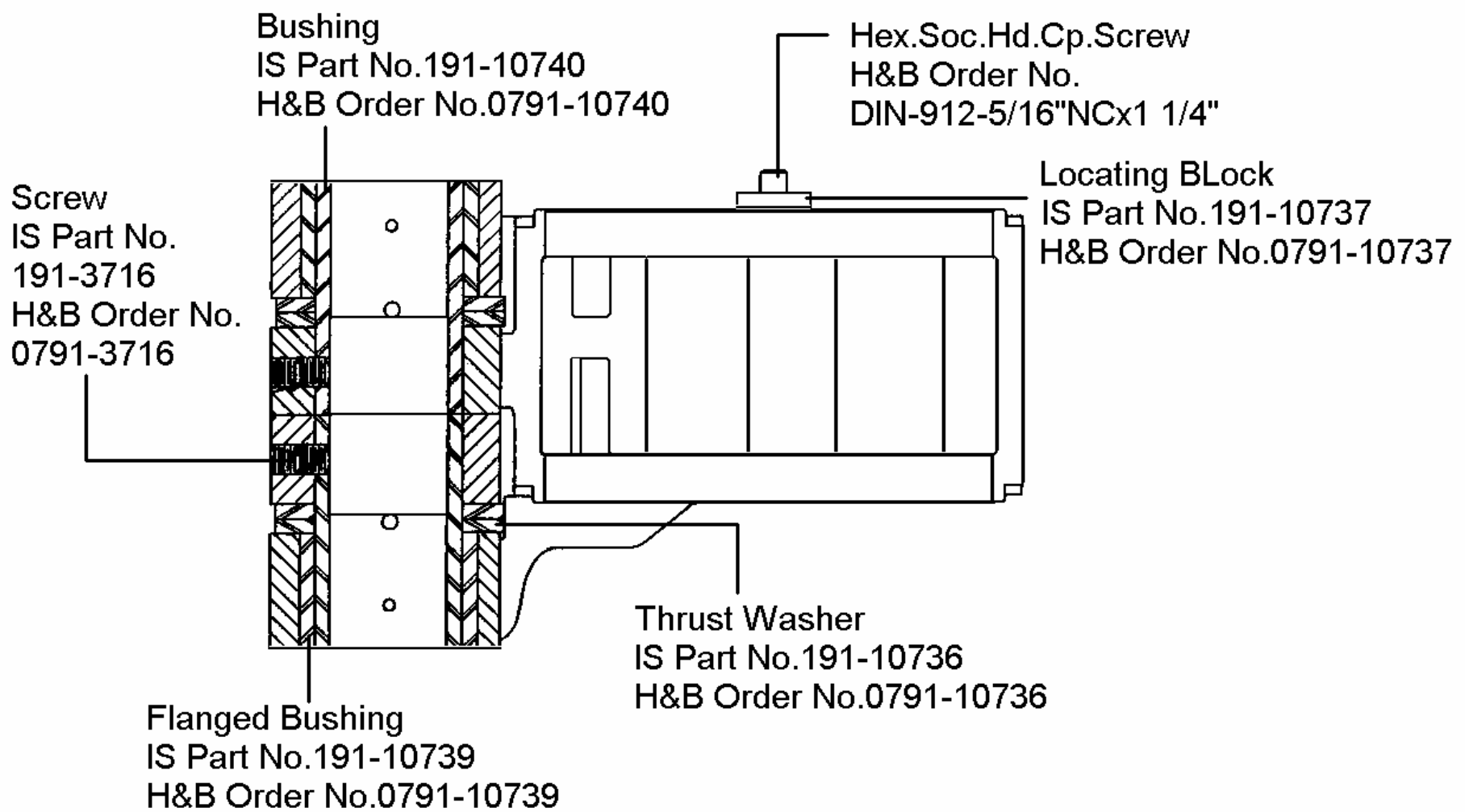
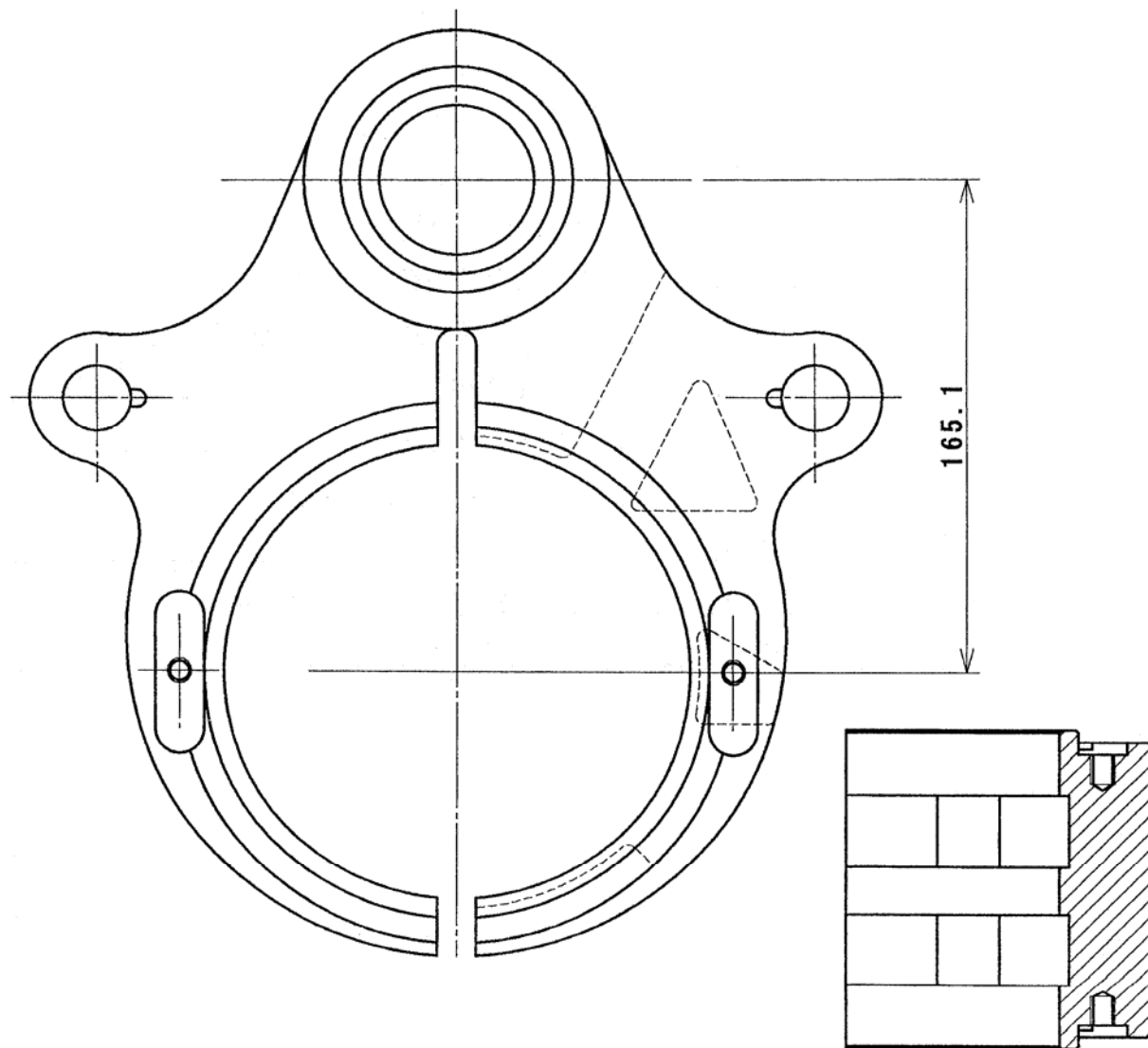
Standard Mould Holder SG 4 1/4"

Description	IS-Part No.	H&B-Order No.
SG Mould Holder, No.0, 3" DIA.	191-5669 Gr.1	0791-5669-1
SG Mould Holder, No.1, 4 1/4" DIA.	191-5670 Gr.1	0791-5670-1
SG Mould Holder, No.2, 5 1/8" DIA.	191-5665 Gr.1	0791-5665-1
SG Mould Holder, No.3, 6" DIA.	191-5970 Gr.2	0791-5970-2
SG Mould Holder, No.4, 6 7/8" DIA.	191-5971 Gr.2	0791-5971-2
SG Mould Holder, No.5, 7 3/4" DIA.	191-6272 Gr.2	0791-6272-2



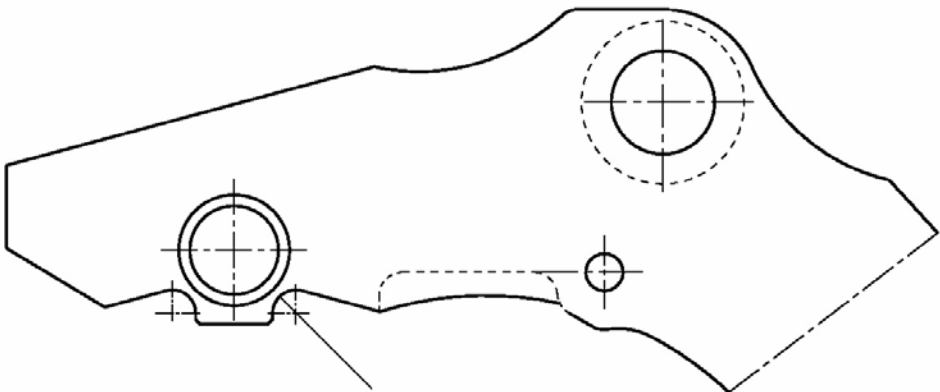
Mould Holder 2" Offset, SG 4 1/4"

Description	IS-Part No.	H&B-Order No.
SG Mould Holder, No.3, 6" DIA.	191-5444 Gr.2	0791-5444-2
SG Mould Holder, No.4, 6 7/8" DIA.	191-5349 Gr.2	0791-5349-2
SG Mould Holder, No.5, 7 3/4" DIA.	191-5345 Gr.2	0791-5345-2



4 1/4" SG Inserts for DG-Moulds Operation

Description	IS-Part No.	H&B-Order No.
Mould Holder for DG and SG operation		H&B-8456-DG/SG



Modification for Single Gob Operation with DG Moulds

Assembly	Mold DIA.	Type	H-DIM in mm	Part.No.
No.1	3 3/8"	Standard	3,18	H&B-02242-SG-A
No.1-A / 1-B	3 3/8"	Offset 1 1/8"	38,1 / 3,18	H&B -02243-SG-A
No.2	3 7/8"	Standard	3,18	H&B -02135-SG-A
No.3	4 5/8"	Standard	3,18	H&B -02113-SG-A
No.4, 5	3 7/8"	Offset 1 1/2"	41,27 / 3,18	H&B -02136-SG-A
No.6, 7	4 5/8"	Offset 1 1/2"	41,27 / 3,18	H&B -02137-SG-A
No. 12,14,15	3 7/8"	Upper	66,68 / 92,08	H&B -02135-SG
No. 12,14,15	4 7/16"	Lower		H&B -02156-SG
No.13,16,17,20	4 5/8"	Upper	66,68 / 92,08 / 117,48	H&B -02113-SG
No.13,16,17,20	5"	Lower		H&B -02114-SG

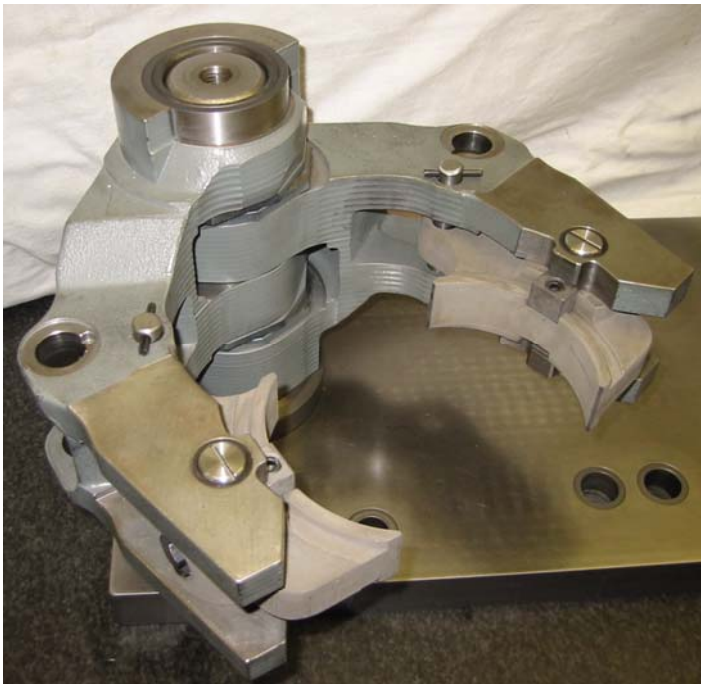


Illustration shows Assy. 1-3



Illustration shows Assy. 1-3

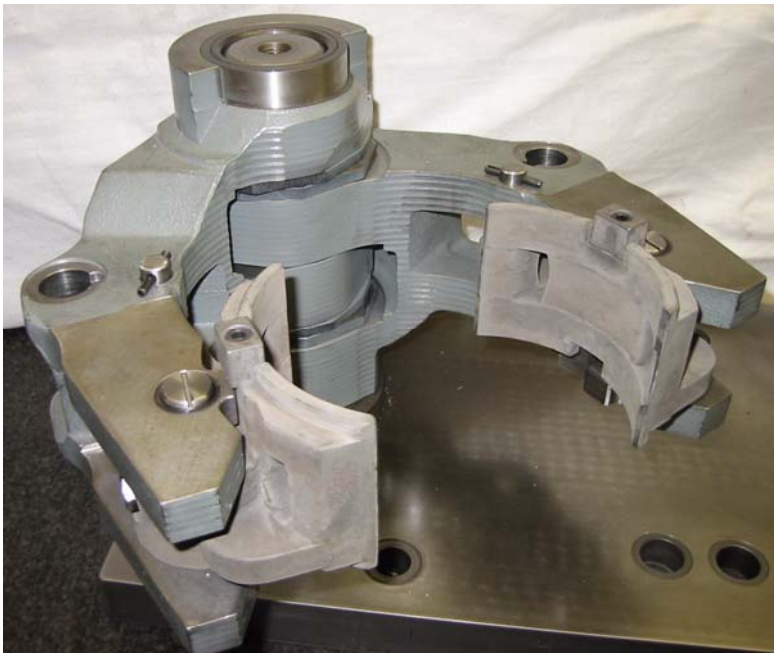
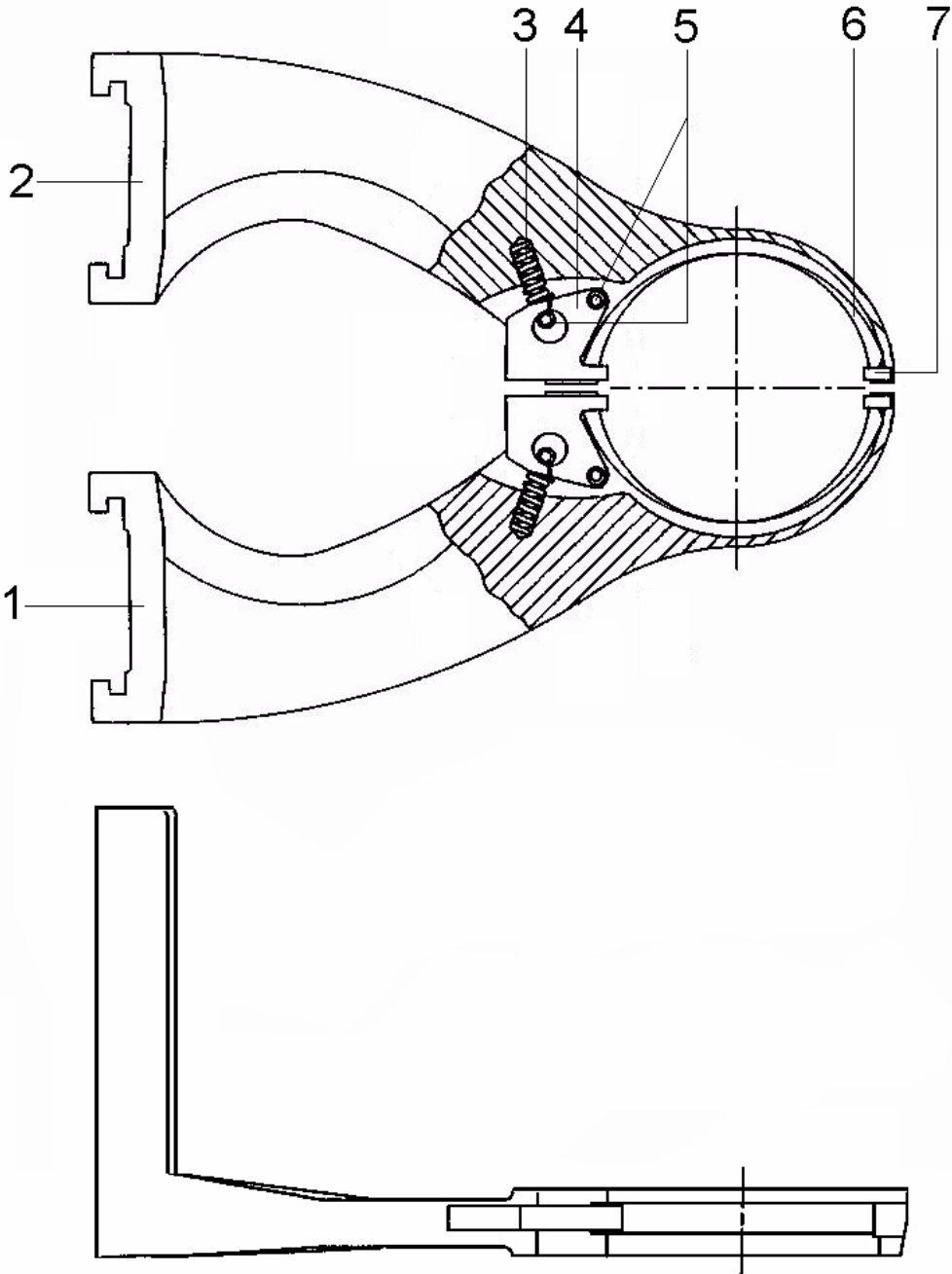


Illustration shows Assy. 4, 6

Neck Ring Holder SG 4 1/4”
Straight

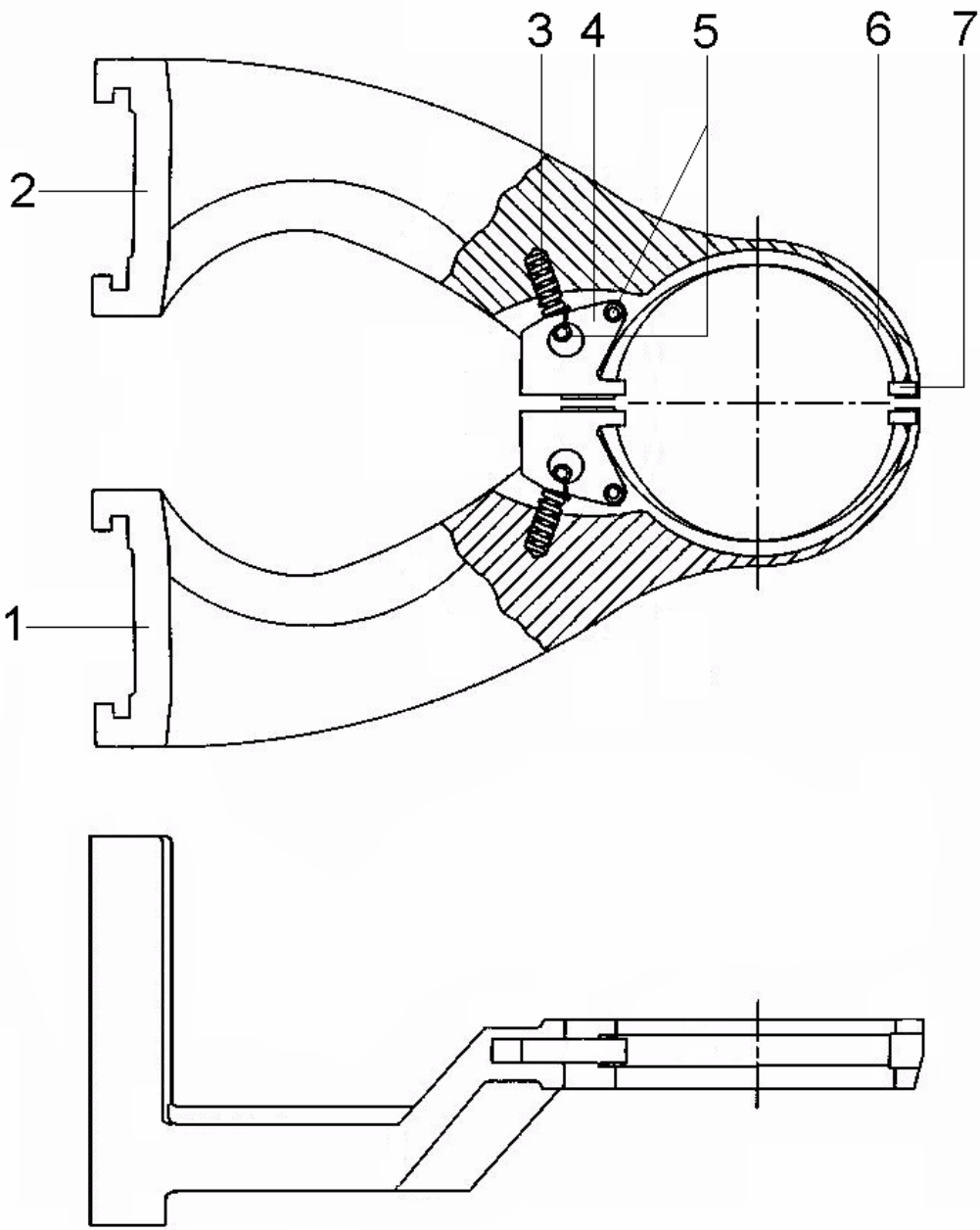
Description	IS-Part No.	H&B-Order No.
Neck Ring Holder SG 4 1/4" No.1 , 3” DIA.	191-98 Gr.12	0791-98-12
Neck Ring Holder SG 4 1/4" No.2 , 4” DIA.	191-98 Gr.10	0791-98-10
Neck Ring Holder SG 4 1/4" No.3 , 4 3/4” DIA.	191-98 Gr.16	0791-98-16



			2	Woodruff Stop	23-6918	0723-6918	7	
x			2	Flat Spring No.3	191-2106	0791-2106	6	
	x		2	Flat Spring No.2	191-1833	0791-1833	6	
	x		2	Flat Spring No.1	191-1834	0791-1834	6	
x	x	x	4	Straight Pin		DIN-1481- 6x 24	5	
x			2	Latch	191-2878	0791-2878	4	
	x	x	2	Latch	191-1580		4	
x	x	x	2	Latch spring	191-1579	0791-1579	3	
x				Neck Ring Arm No.3- RH		On request	2	
x				Neck Ring Arm No.3- LH		On request	1	
		x	1	Neck Ring Arm No.2- RH		1284-203	2	
		x	1	Neck Ring Arm No.2- LH		1284-204	1	
	x		1	Neck Ring Arm No.1-RH		On request	2	
	x		1	Neck Ring Arm No.1-LH		On request	1	
Gr.16	Gr.12	Gr.10	Qty.	Description	IS Part No.	H&B Order No.	Index	Note
						Datum	Name	Benennung :
						Gez.		Neck Ring Holder
						Gep.		SG 4 1/4" Straight
						Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 72 Walluf am Rhein		Zeichnungs- Nr.:
								0791-98
				Zust.	Änderung	Datum	Name	

Neck Ring Holder SG 4 1/4" Offset

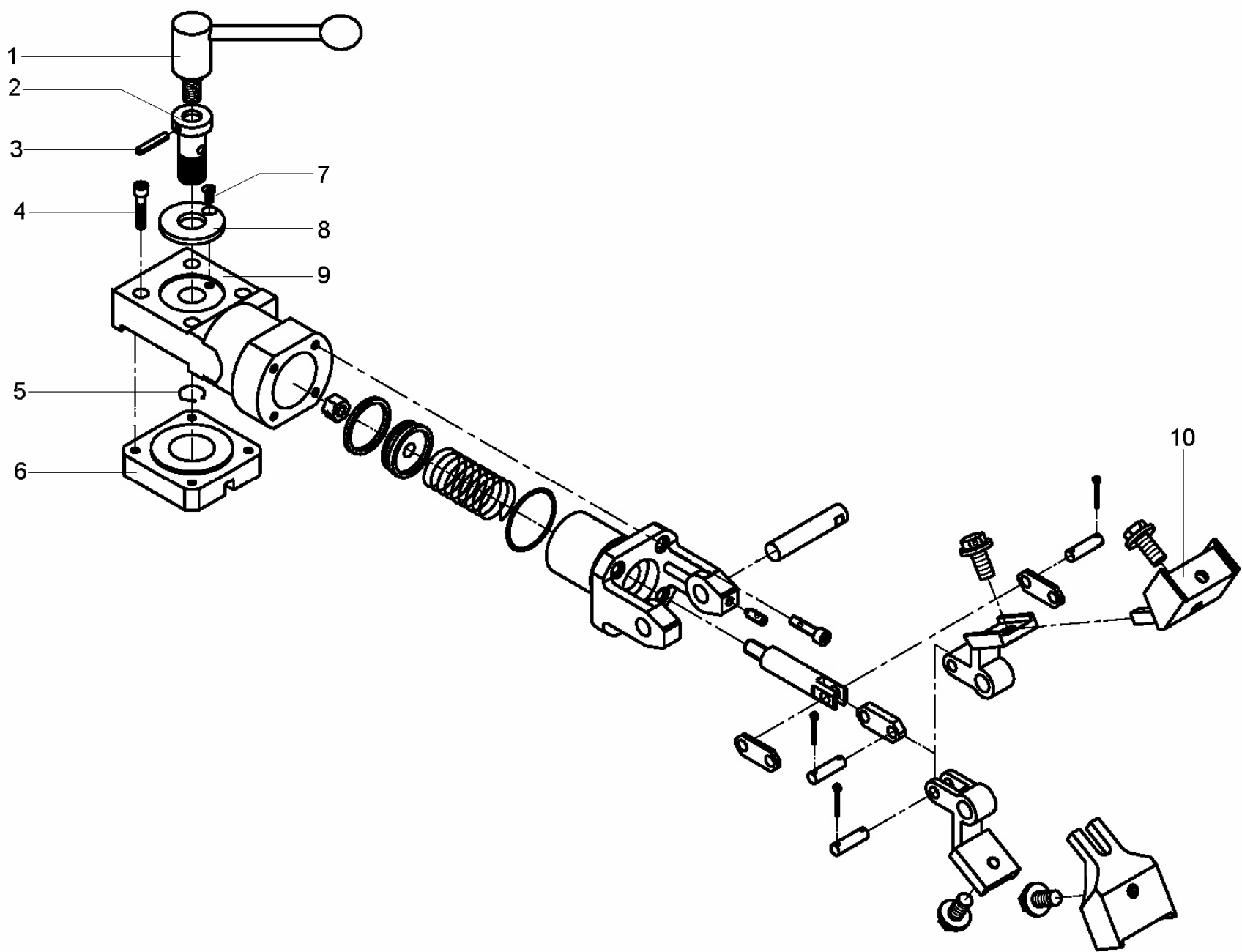
Description	IS-Part No.	H&B-Order No.
Neck Ring Holder SG 4 1/4" No.1 , 3" DIA.	191-98 Gr.11	0791-98-11
Neck Ring Holder SG 4 1/4" No.2 , 4" DIA.	191-98 Gr.9	0791-98-9
Neck Ring Holder SG 4 1/4" No.3 , 4 3/4" DIA.	191-98 Gr.15	0791-98-15



x	x	x	2	Woodruff Stop	23-6918	0723-6918	7	
x			2	Flat Spring No.3	191-2106	0791-2106	6	
	x		2	Flat Spring No.2	191-1833	0791-1833	6	
	x		2	Flat Spring No.1	191-1834	0791-1834	6	
x	x	x	4	Straight Pin		DIN-1481- 6x 24	5	
x			2	Latch	191-2878	0791-2878	4	
	x	x	2	Latch	191-1580		4	
x	x	x	2	Latch spring	191-1579	0791-1579	3	
x			1	Neck Ring Arm No.3 – RH		On request	2	
x			1	Neck Ring Arm No.3 – LH		On request	1	
		x	1	Neck Ring Arm No.2 – RH		1284-234	2	
		x	1	Neck Ring Arm No.2 – LH		1284-233	1	
	x		1	Neck Ring Arm No.1– RH		1284-167	2	
	x		1	Neck Ring Arm No.1– LH		1284-166	1	
Gr.15	Gr.11	Gr.9	Qty.	Description	IS Part No.	H&B Order No.	Index	Note
						Datum	Name	Benennung :
						Gez.		Neck Ring Holder
						Gep.		SG 4 1/4" Offset
						Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 72 Walluf am Rhein		Zeichnungs- Nr.:
								0791-98
				Zust.	Änderung	Datum	Name	

Q.C. Take Out Tong Head Assembly SG 4 1/4”

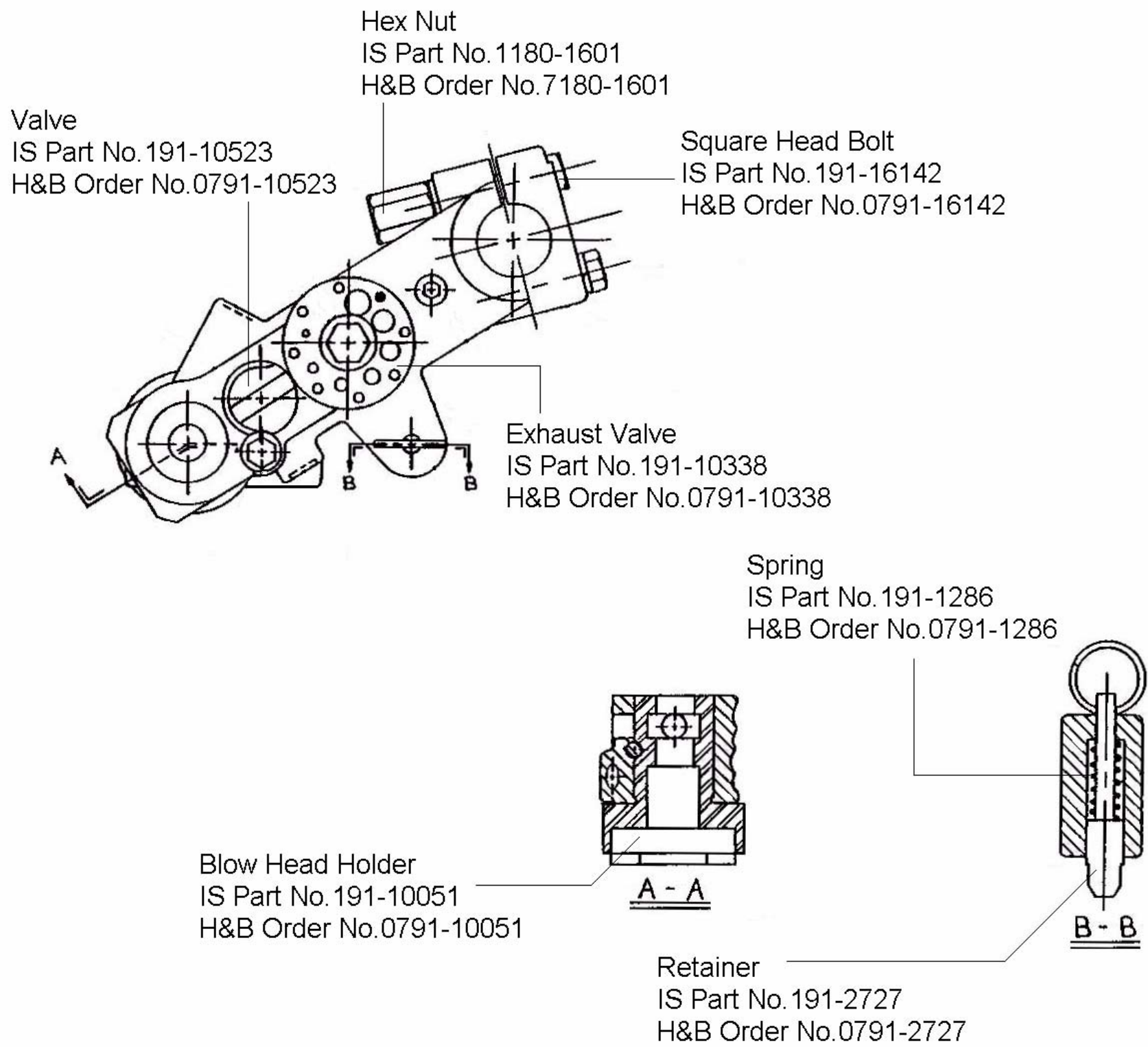
Description	IS-Part No.	H&B-Order No.
Q.C.Take Out Tong Head Assembly SG 4 1/4”	191-9125 Gr.18	0791-9125-15
Q.C.Take Out Tong Head Assembly SG 4 1/4” Anti Wink	210-275 Gr.11	7210-275-11



1		X	Tong Holder Assembly	191-9135 Gr.2	0791-9135-2		“Anti Wink “
	1	X	Tong Holder Assembly	191-8319 Gr.1	0791-8319-1-A		
x	x	2	Tong Adapter	191-17561	0791-17561	10	
x	x	1	Body 4 1/4” SG	191-24411	0791-24411	9	
x	x	1	Washer	191-24422	0791-24422	8	
x	x	1	Screw		DIN-7991-10-24 NC x 3/8	7	
x	x	1	Adapter Plate	191-26127	0791-26127	6	
x	x	1	Retaining Ring	2540-541	9540-541	5	
x	x	4	Hx.Sc.Hd.Cp.Screw		DIN-912-1/4 NC x1 1/4	4	
x	x	1	Straight Pin		DIN-1481-4,5X28	3	
x	x	1	Bolt	191-24423	0791-24423	2	
x	x	1	Handle Adjustable	59-94602	0759-94602	1	
7210-275 Gr.11	0791-9125 Gr.15	Qty.	Description	IS Part No.	H&B Order No.	Index	Note
				Datum	Name	Benennung : Take Out Tong Head SG 4 1/4"	
				Gez.			
				Gep.			
				Hartmann & Bender Vertriebs – und Produktions - GmbH 65396 Walluf am Rhein		Zeichnungs- Nr.:	
						0791-9125-15	
						(use Tong Holder Assy. 0791-8319-1)	
						7210-210-11	
						(use Tong Holder Assy. 0791-9535-2)	
		Änderung	Datum	Name			

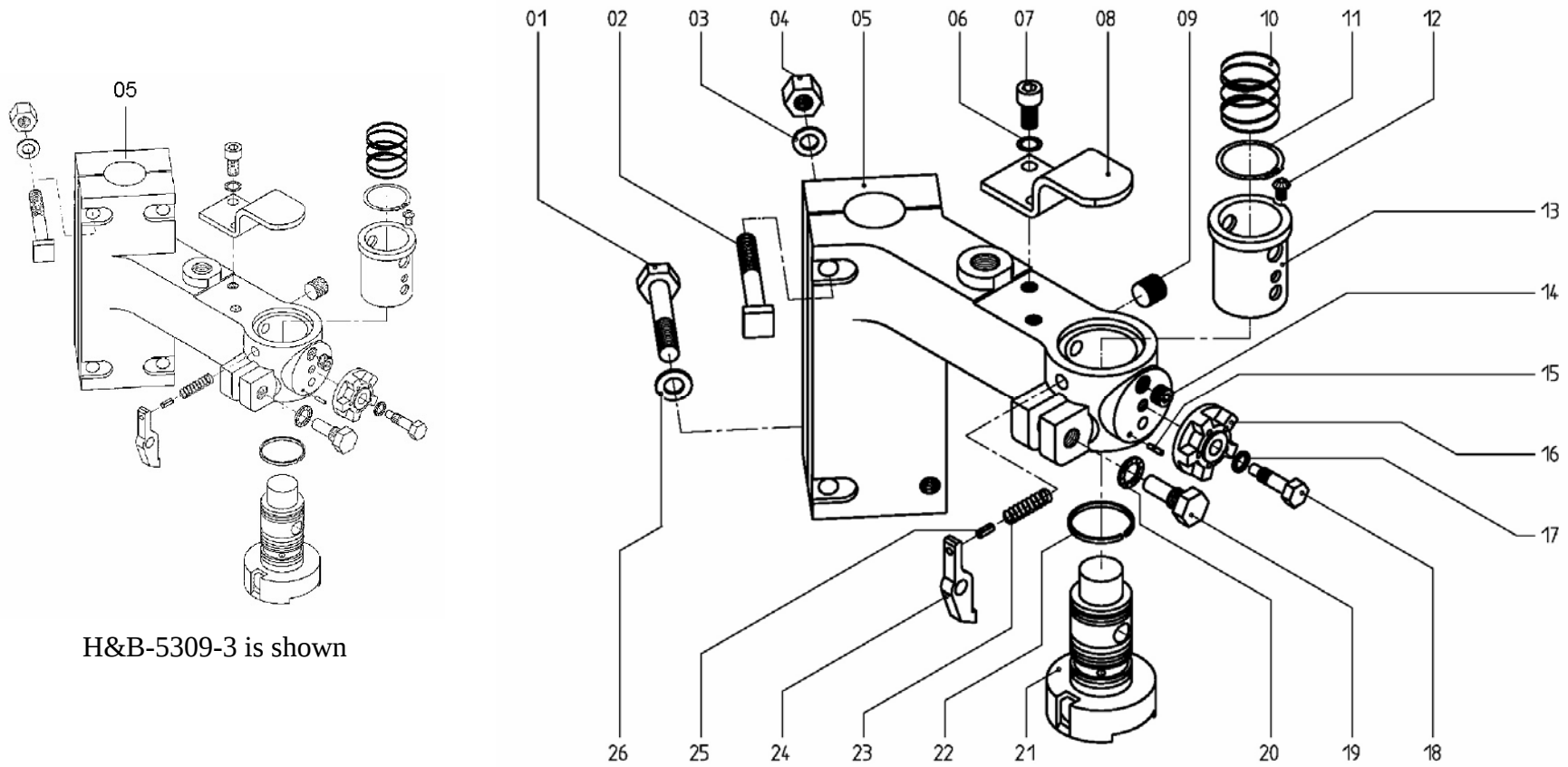
Blow Head Arm SG 4 1/4"

Description	IS-Part No.	H&B-Order No.
Blow Head Arm SG 4 1/4"	191-5309 Gr.3	0791-5309-3



Blow Head Arm Lightweight SG 4 1/4"

Description	IS-Part No.	H&B-Order No.
Blow Head Arm Lightweight SG 4 1/4"		H&B-5309-3
Blow Head Arm Lightweight SG 4 1/4"		H&B-5309-4



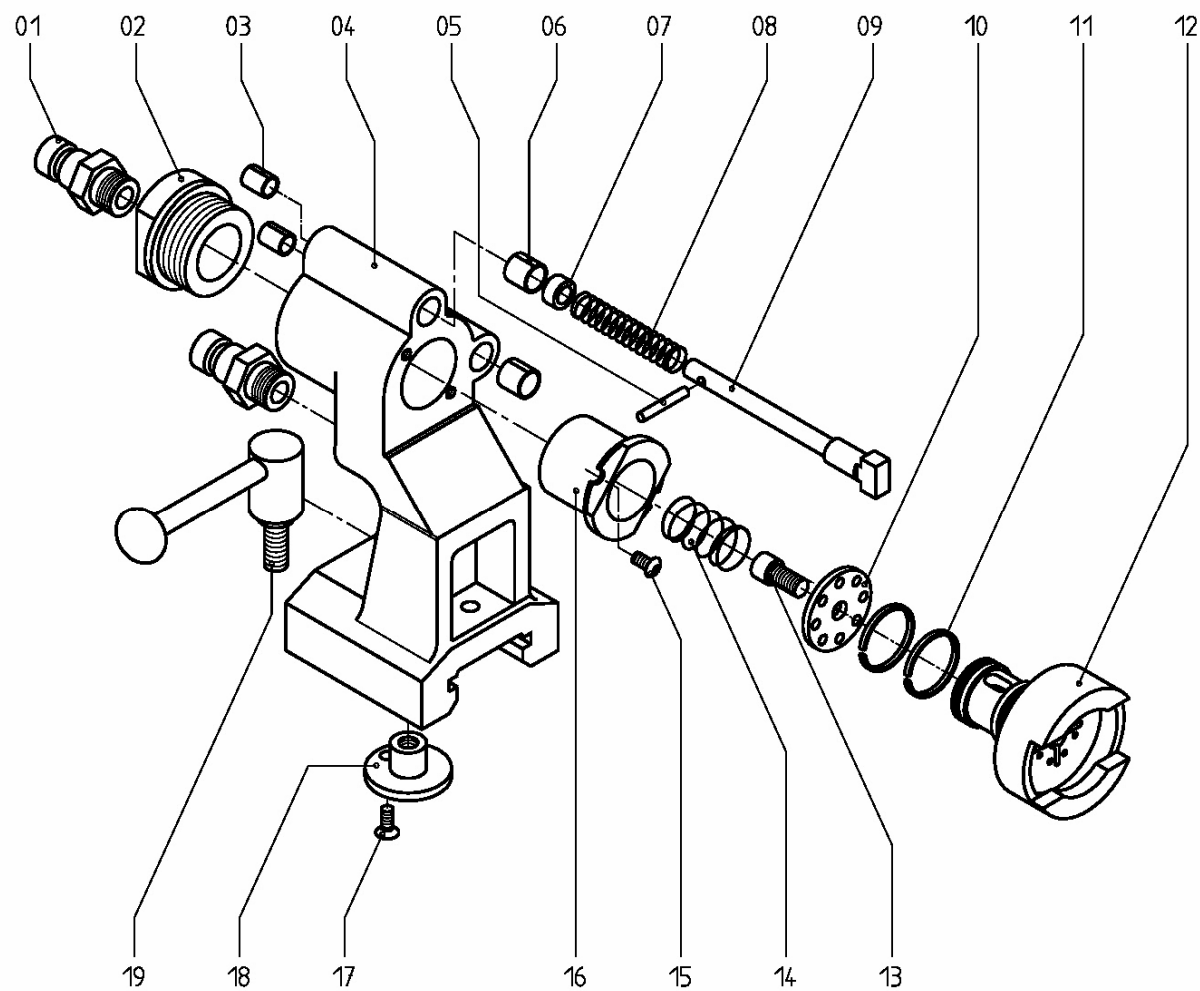
H&B-5309-3 is shown

H&B-5309-4 is shown

x		2	Washer		DIN-125 -13	27		
x	x	1	Straight Pin		DIN-1481-5 x 12	25		
x	x	1	Finger		0400-706-575-10	24		
x	x	1	Spring		0600-708-522-3	23		
x	x	4	Piston Ring	2520-50	9520-50	22		
x	x	1	Lock Ring		H&B-43502	21		
x	x	1	Lock Washer		H 1235 - 14	20		
x	x	1	Shoulder Screw M 014 x 1,5 x 35		H&B-01336	19		
x	x	1	Shoulder Screw		0600-708-507-1	18		
x	x	1	Lock Washer		H 1235 - 10	17		
x	x	1	Exhaust Valve	23-5273	0723-5273	16		
x	x	1	Straight Pin		DIN-1481 – 3 x 12	15		
x	x	2	Plug		DIN-906 – R 1/4“	14		
x	x	1	Bushing		600-708-507-3-2	13		
x	x	1	Button Soc. Cap Screw		ISO-7380-1/4“ UNC x 3/8“	12		
x	x	1	Retaining Ring DIN 471		2540-190-42	11		
x	x	1	Spring		0600-708-522-4	10		
x	x	1	Plug		DIN 906 – R 3/8“	9		
x	x	1	Spring Guide		H&B-500-708-522-SG	8		
x	x	2	Hex. Soc.Hd.Cap Screw		DIN-912-3/8“ NC x 3/4“	7		
x	x	2	Lock Washer		H 1235 - 10	6		
x		1	Body & Cap		H&B-5309-008	5		
	x	1	Body & Cap		H&B-5309-006	5		
2	4	X	Hex Nut	1180-1601	7180-1601	4		
2	4	X	Washer		DIN-125 -13	3		
2	4	X	Square Head Bolt 1/2” UNC x 3 1/2”	191-16143	0791-16143	2		
x		2	Hex. Hd. Cap Screw		DIN-931-1/2” NC x 2 1/2”	1		
Gr.4	Gr.3	Qty.	Description	IS Part No.	H&B Ident Nr.		Index	Note
						Datum	Name	Benennung : Lightweight Blow Head Arm SG 4 1/4“
					Gez.			
					Gep.			
					Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 - 72 Walluf am Rhein		Zeichnungs- Nr.:	
							H&B-5309-3 H&B-53094	
Index 12 war 1/4“ UNC x 5/8“			Zust.	Änderung	Datum	Name		

Q.C. Blow Head Arm SG 4 1/4"

Description	IS-Part No.	H&B-Order No.
Q.C. Blow Head Arm SG 4 1/4" Thread Type	200-201 Gr. 1	7200-201- 1
Q.C. Blow Head Arm SG 4 1/4" Thread Type	200-201 Gr.13	7200-201-13
Q.C. Blow Head Arm SG 4 1/4" Bayonet Type	200-201 Gr. 5	7200-201- 5
Q.C. Blow Head Arm SG 4 1/4" Bayonet Type	200-201 Gr.17	7200-201-17



200-201 Gr.18 Bayonet Type is shown

x	x	x	x	1	Handle Adjustable	59-94603	0759-94603	19			
x	x	x	x	1	Bushing	191-26477	0791-26477	18			
x	x	x	x	1	Count.Sc.Hd.Screw		DIN-7991-1/4”NC x 5/8”	17			
x	x	x	x	1	Bushing	191-26494	0791-26494	16			
x	x	x	x	2	Button Soc. Cap Screw	2640-1620	ISO-7380- M 6 x 12	15			
x	x	x	x	1	Compression Spring	59-75011	0759-75011	14			
x	x	x	x	1	Hex. Soc.Hd.Cap Screw		DIN-912-3/8” NC x 3/4”	13			
x	x			1	Lock Ring (Bayonet Type)	191-26490	0791-26490	12			
		x	x	1	Lock Ring (Thread Type)	191-26491	0791-26491	12			
x	x	x	x	2	Piston Ring	2520-30	9520-30	11			
x	x	x	x	1	Washer	191-26495	0791-26495	10			
x	x			1	Piston Pin (Bayonet Type)	191-26749	0791-26749	9			
		x	x	1	Piston Pin (Thread Type)	191-26748	0791-26748	9			
x	x	x	x	1	Compression Spring	191-24466	0791-24466	8			
x	x	x	x	1	Distance Washer	191-26776	0791-26776	7			
x	x	x	x	2	Bushing , self lubricated	59-20528	0759-20528	6	141615 F		
x	x	x	x	1	Straight Pin DIN 1481		DIN-1481-5 x 26	5			
x		x		1	Blow Head Arm Body SG 4 1/4”	200-10255	7200-10255	4			
x	x	x	x	2	Bushing, self lubricated	59-20545	0759-20545	3	101215 F		
x	x	x	x	1	Retainer	191-26493	0791-26793	2			
x		x		1	Q.C.Connector Male MD	1460-828	7460-828	1			
	x		x	1	Connector Male	1460-444	7460-444	1	LP-012-1-WR021-11		
Gr.18	Gr.6	Gr.14	Gr.2	Qty.	Description	IS Part No.	H&B Order No.	Index	Note		
								Benennung : Blow Head Arm Q.C. SG 4 1/4”			
										Datum	Name
										Gez.	
									Gep.		
								Hartmann & Bender Vertriebs - und Produktions - GmbH Hauptstraße 70 - 72 Walluf am Rhein		Zeichnungs- Nr.: 7200-201 - 1 Thread Type 7200-201 -13 Thread Type 7200-201 - 5 Bayonet Type 7200-201 -17 Bayonet Type	
					Zust.	Änderung	Datu m	Name			