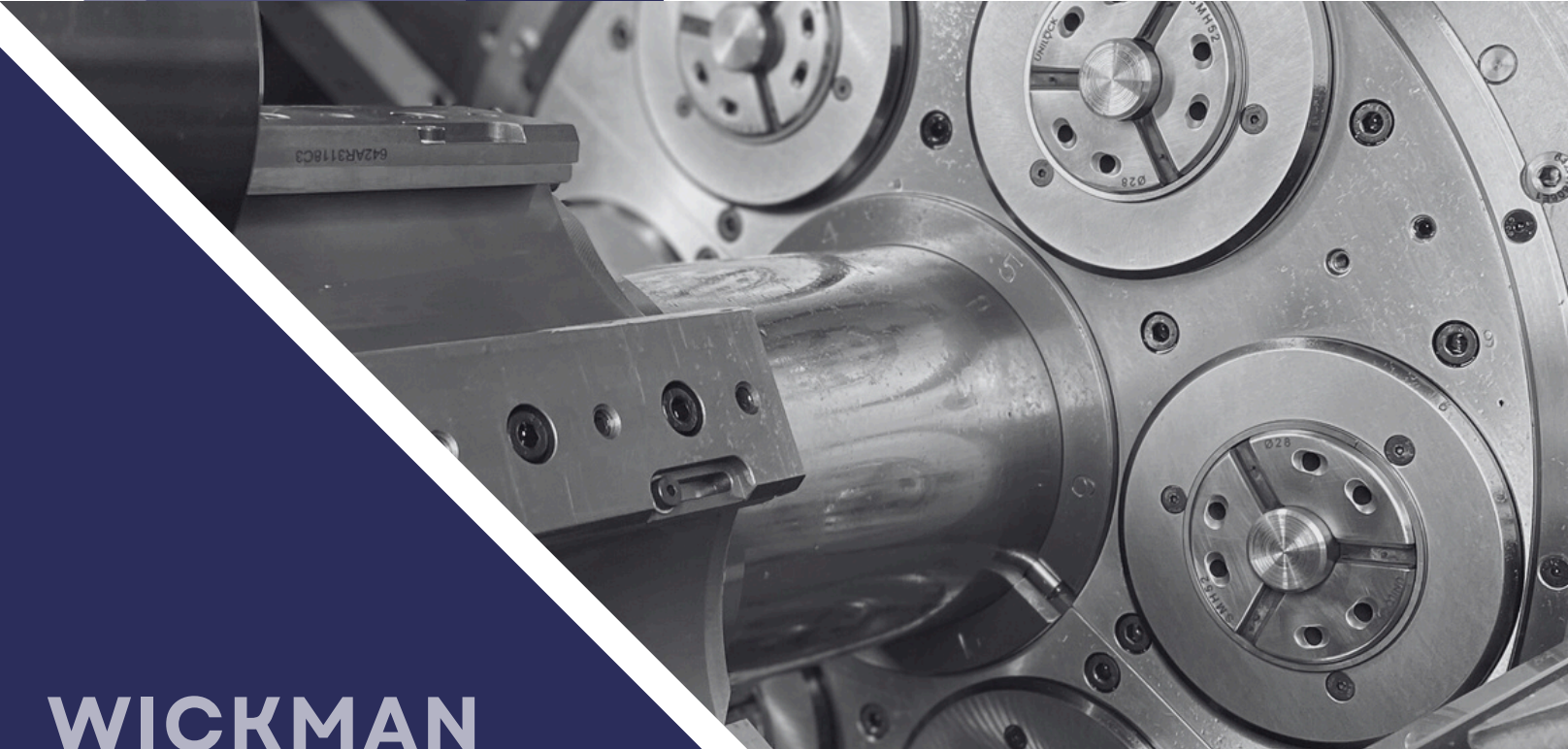




# PIÈCES DÉTACHÉES



**WICKMAN**

6/26

**TAJMAC-FRANCE**

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## HOW TO ORDER SPARE PARTS

When ordering spare parts for the machine or if you require any technical information or service action please always specify the type of the machine and its production number. Specify also the file number of the Instruction Manual.

### INSTRUCTIONS FOR WORK WITH THE CATALOGUE OF PARTS

1. To specify any spare part correctly, always use only the catalogue which is assigned to the production number of the machine for which you are ordering the spare part.  
**NOTE:** The file number of the catalogue (on the title page of the catalogue) has to be identical with the file number of the Instruction Manual supplied with the machine.
2. Please specify in your order of spare parts:  
 Position, part name, dimensions, standard, TAJMAC-ZPS ordering number, number of pieces.
3. If the ordered part is marked with "T" letter in front of the TAJMAC-ZPS ordering number, it means that such spare part cannot be ordered separately.

R221115-R14P5.08  
 Vřetenová skříň - pojistná spojka (obr. 1-24)  
 č.v. 221115/S14 D5

Pozice	Název součásti	Rozměr	Obj. číslo ZPS	Počet kusů
2601	POUZDRO		R221115-2601C4	1 KS
2602	OPERNY KROUZEK		R221115-2602E4A	1 KS
2603	KROUZEK		R221115-2603E1	1 KS
2604	TALIROVA PRUZINA		R221115-2604E1	3 KS
2605	KROUZEK		R221115-2605E1	1 KS
2606	KROUZEK		R220150-1985E1	1 KS
2607	KULICKA Ø10-40	023680	3249120140	8 KS
2609	KROUZEK Ø65	022930	3117330630	1 KS
2611	SNEKOVE KOLO		T R221115-2611D3	1 KS
2612	NABOJ		T R221115-2612C4	1 KS
2616	LOZISKO 32013X		3247150057	1 KS

R221115-R2611D3

Technologický celek  
Šnekové kolo

Pozice	Název součásti	Rozměr	Obj. číslo ZPS	Počet kusů
2611	SNEKOVE KOLO		T R221115-2611D3	1 KS
2612	NABOJ		T R221115-2612C4	1 KS

"T" specification in front of ZPS ordering number

Ordering number of technological unit

Material list of technological unit

In this case, it is necessary to order a complete technological unit using the ordering number of the technological unit.

The material list of a technological unit is included on the same or following page of the Catalogue of Parts. The material list include an outline of all produced as well as purchased parts of the given technological unit.

### **What is a technological unit**

There are some parts which are completed together in production on the machine (they are e.g. together ground, drilled, machined, fitted or completed jointly otherwise). These parts cannot be ordered separately. It is necessary to order them as a technological unit - namely using the ordering number of the technological unit.

**CAUTION:** Parts with large dimensions such as e.g. drive box are included in technological units in some cases.

These large parts are to be ordered in cooperation with the technicians of the production factory or with the technicians of the sales affiliates of the manufacturer. Proceed in the same way when meeting any uncertainties in specifying spare parts.

## 5.4 LIST OF SOME SELECTED PARTS

### 5.4.1 List of Belts

Pos.	Machine group Belt	Specification	Standard	Pieces	Ordering No.
268 R623P1	Central slide rest drive	600-5M-9		1	2722130200

### 5.4.2 Sealing Collars

Pos.	Machine group Sealing collar	Specification	Standard	Qty	Ordering No.
142 R601P1	Spindle drum	TURNRING sealing 25724-3600-66	B+S, O.L. SEALS	1	731114797
130 R661P1	Spindle drum locking mechanism	GLYDRING sealing S55044-0400A 46-N	B+S, O.L. SEALS	6	2731114220
198 R644P1	Main cam shaft	GLYDRING ROT sealing S-56132-0070 A42-N	B+S, O.L. SEALS	1	2731114755

### 5.4.3 "GUFERO" Sealing Rings

Pos.	Machine group	Specification	Standard	Qty	Ordering No.
199 R644P1	Main cam shaft	ø70x85x8	ČSN 02 9401	1	2735211510

## 5.5 LIST OF IMPORTANT PARTS

### 5.5.1 Electric Motors Used for 3x 400 V/50 Hz und 3x 400 V/60 Hz

Pos.	Name	Specification Manufacturer	Output kW	Speed rpm	Ordering No.	Note
	Main motor	1LA7166-4AA SIEMENS	15	1,500	3593440010	
	Feeds motor	142SR21EL19102A0 0,02 TETRA		max. 1,200	4055280660	
101 R667P1	Lubricating unit motor 3x400 V/50 Hz	1LA7073 IM B5 400/230/50 Hz SIEMENS MOHELNICE	0.37	1,380		Par of lubricating unit
101 R667P2	Lubricating unit motor 3x400 V/60 Hz	1LA7073-4AB91 ZL2B, IM B5 220/380 V D/Y, 60 Hz	0.43	1,650		
133 R616P2	Cooling unit motor 3x400V/50Hz	CALPEDA	2.2	2,900		Part of cooling unit
133 R616P3	Cooling unit motor 3x400V/60Hz	CALPEDA	2.2	3,450		Part of cooling unit
132 R616P2	Hydraulic unit motor 3x400 V/50 Hz	1LA7096 4AA16 B35 400/230 V D/Y, 50 Hz SIEMENS MOHELNICE	1.5	1,410		Part of hydraulic unit
132 R616P3	Hydraulic unit motor 3x400 V/60 Hz	1LA7096 4AA96 B35 220/380 V D/Y, 60 Hz SIEMENS MOHELNICE	1.5	1,692		
134 R616P2 R616P3	Cooling medium leakage pump motor	EMP SLAVKOV	0.09			Part of pump

### 5.5.2 Pumps

Pos.	Name	Specification Manufacturer	Output l/min	Ordering No.	Note
101 R667P1	Lubricating unit pump SH010182200 4252810071 IDROVER 3x400 V/50 Hz	1 ISP 4 D GALTECH	5.2 at 1,370 l/min		Gear pump Part of lubricating unit
101 R667P2	Lubricating unit pump SH010182200 4252810072 IDROVER 3x400 V/60 Hz	1 ISP 4 D GALTECH	6.25 at 1,650 l/min		Gear pump Part of lubricating unit
134 R616P2	Cooling medium leakage pump 3x400 V/50 Hz	3COA2-12P1 EMP SLAVKOV	25	4261620040	Pump with submersible chamber
134 R616P3	Cooling medium leakage pump 3x400 V/60 Hz	3COA2-12P1 3x230/400 V/60Hz EMP SLAVKOV	25	4262200130	Pump with submersible chamber
133 R616P2	Cooling unit pump 3x400 V/50 Hz	NM40-12 AE CALPEDA	350	616W 133 4261110081	Centrifugal pump, Part of cooling unit
133 R616P3	Cooling medium leakage pump 3x400 V/60 Hz	NM40-12 AE CALPEDA	420	616W 134 4262200183	Centrifugal pump, Part of cooling unit
132 R616P2	Hydraulic unit pump A157-4-0 3367550200 REXROTH 3x400 V/50 Hz	PV7-1X/10-14 RE01 MCO16 REXROTH	0 – 12		Sliding-vane pump Part of hydraulic unit
132 R616P3	Hydraulic unit pump A1574-0 3367550203 REXROTH 3x400 V/60 Hz	PV7-1X/10-14 RE01 MCO16 REXROTH	0 – 12		Sliding-vane pump Part of hydraulic unit

### 5.5.3 Hydraulic System Hydraulic Elements

Pos.	Name	Specification	Manufacturer	Qty	Ordering No.
129 R669P1	Electromagnetic distributor R26	WE04-6P100-4-D24/OH	HARTMANN+LÄMMLE	1	3364150740
125 R669P1	By-pass valve VP3	ZDB6VP1-4X-100	REXROTH	1	3365110030
115 R671P1	Pressure switch SP41	HED 80H1X/100Z14	REXROTH	1	3365810125

### 5.5.4 Lubricating System Hydraulic Elements

Pos.	Name	Specification	Manufacturer	Qty	Ordering No.
Part of lubr. unit	By-pass valve VP1, VP2	VM 25 V3.889.05.A-1	OIL SISTEM	2	
Part of lubr. unit	Electromagnetic distributor R13	4WE6D5X/AG24N Z4	REXROTH	1	3364150710
Part of lubr. unit	Pressure switch SP43	K4SA3/3/P1 3 bar (0166405011017)	FOX  (SUCO)	1	  (4252210244)
296 R666P1	Pressure switch SP44	84-8005-0514 25 bar	VÖGELE	1	4552210247
104 R667P1	Float switch	RL-G1S1A	IDROVER	1	4051550091

### 5.5.5 Pressure Gauges

Pos.	Name	Specification	Manufacturer	Qty	Ordering No.
Part of lubricating unit	Lubricating system pressure gauge MA2	MAR-63-60 BAR/PSI	OMT TREVIGLIO ITALY	1	3884110490
309 R666P1	Lubricating system pressure gauge MA3	MG3A-INOX63 0-40BAR/PSI G 1/4 B/D	OMT TREVIGLIO ITALY	1	3884110530
309 R666P1	Lubricating system pressure gauge MA4	MG3A-INOX63 0-40BAR/PSI G 1/4 B/D	OMT TREVIGLIO ITALY	1	3884110530
113 R671P1	Hydraulic system pressure gauge MA1	MAR-63-100 BAR/PSI	OMT TREVIGLIO ITALY	1	3884110500

### 5.5.6 Filtering Inserts

Pos.	Name	Specification	Manufacturer	Qty	Ordering No.
Part of Lubricating unit	Filtering insert (for filter DFW/ HC 140 AFA 25 B1.0/B6	0140 D025W/ HC	HYDAC	1	3366500130
Part of hydraulic filter 103 R671P1	Filtrering insert (for filter DF BN/HC60AFA10B 1.0-B6 3366540010)	0060D010 BN 3 HC	HYDAC	1	3366540020

### 5.5.7 Accumulator

Pos.	Name	Specification	Manufacturer	Qty	Ordering No.
120 R669P1	Spindle drum locking control	IHV-1-210	OLAER	1	3362100010

### 5.5.8 Level Indicatos

Pos.	Name	Specification	Manufacturer	Qty	Ordering No.
223 R622P2	Capacitance sensor (level indicator for turning on pump for leaked cooling medium from machine base bottom)	KM3020 APKG 10M PUR (KB 5082)	IFM ELEKTRONIC	1	4051140630

### 5.5.9 Bearing for spindles seating

Pos.	Name	Note	Manufacturer	Pcs one spindle	Ordering No.
105	Bearing 7012 ACD-P4A TBTA	Front bearings	SKF	1 set =3 pcs	3241000080
112	Bearing 7011 CD-P4A DBA	Rear bearings	SKF	1 set = 2 pcs	3241000090

Equivalents of bearings for seating spindles from FAG

- 105 - B 7012 E.T. P4S.UL

- 112 - B 7011 C.T. P4S.UL

**CAUTION:**

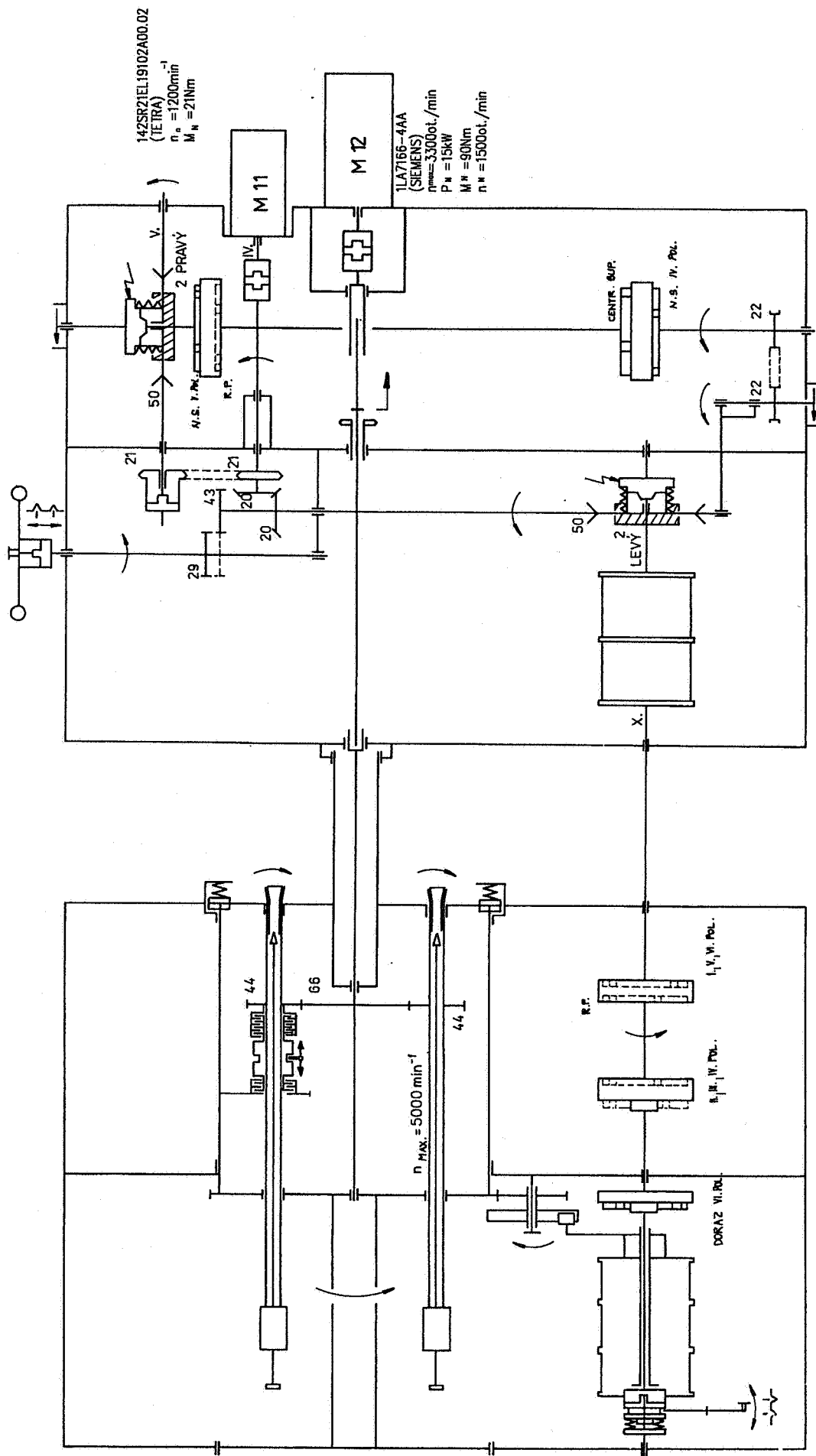
As highly precise bearings are used to seat the spindles, it is necessary to observe the following principles when replacing them:

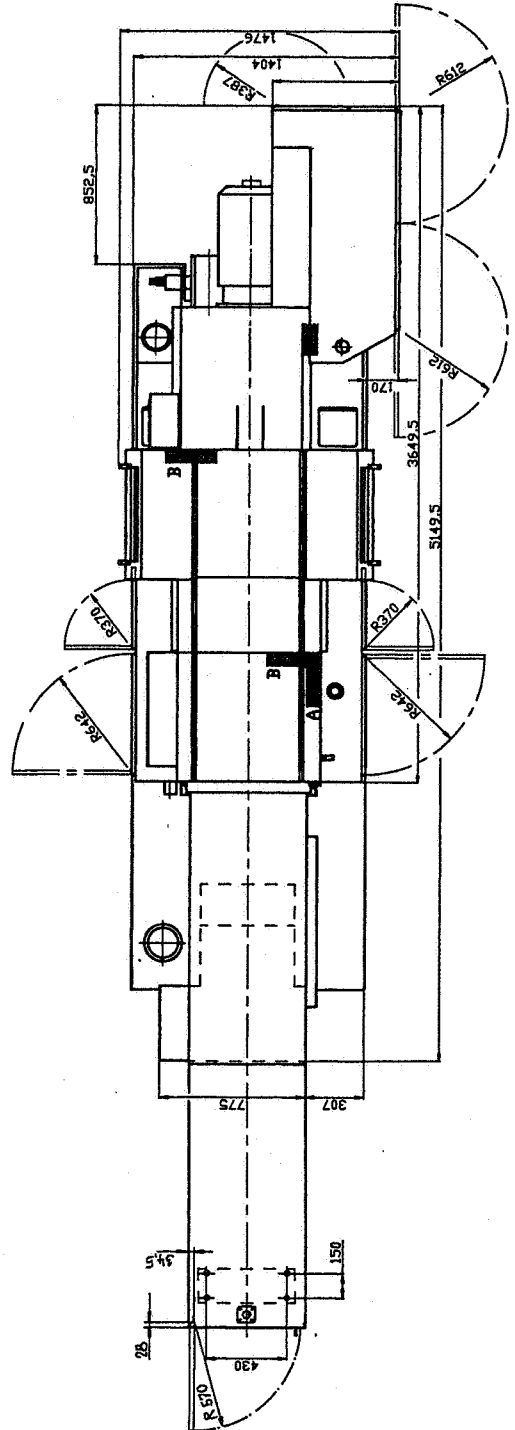
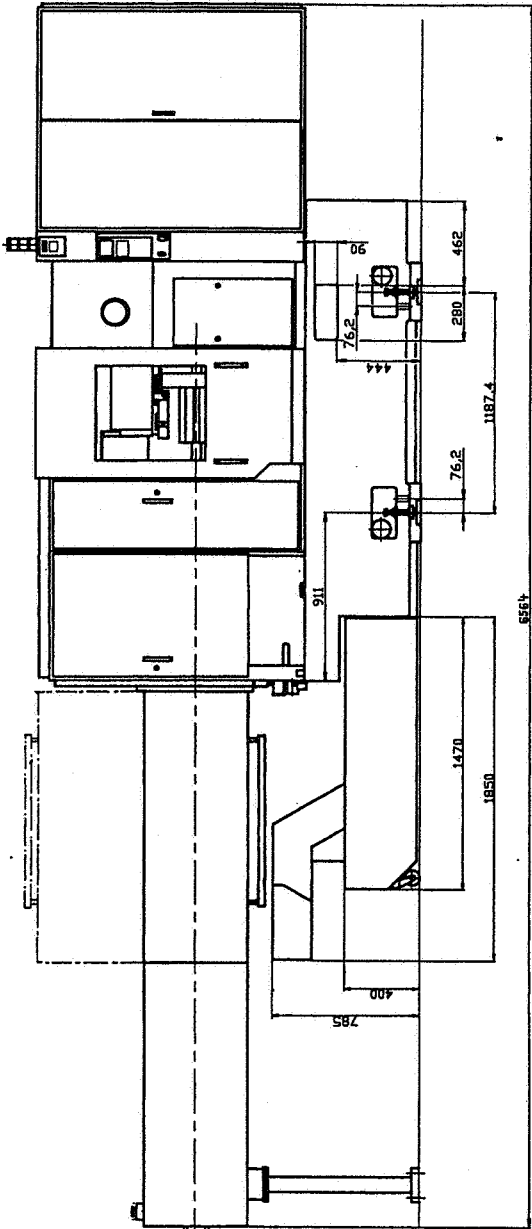
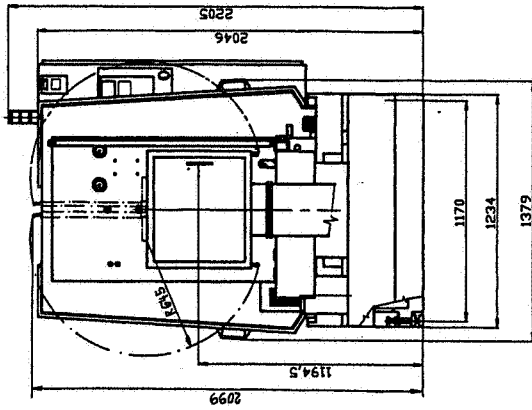
Their ordering and installation in the machine must be checked according to the Protocol on Accuracy.

The following information is presented in the Protocol on Accuracy which is delivered with each machine:

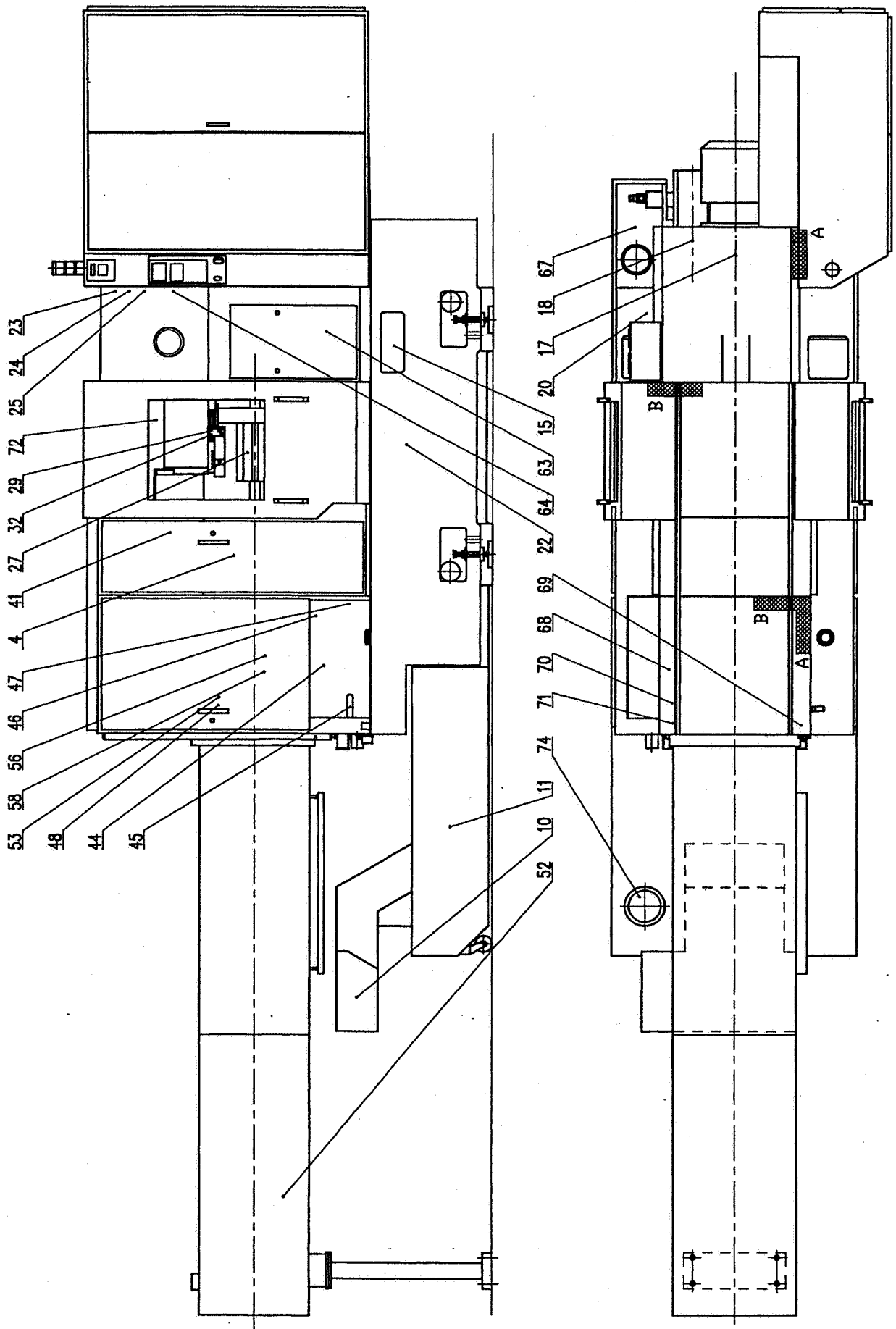
1. Manufacturer and specification of type of bearing
2. Tolerances of diameter of external ring of bearing - for each spindle in spindle drum (marked with Arabic numerals)

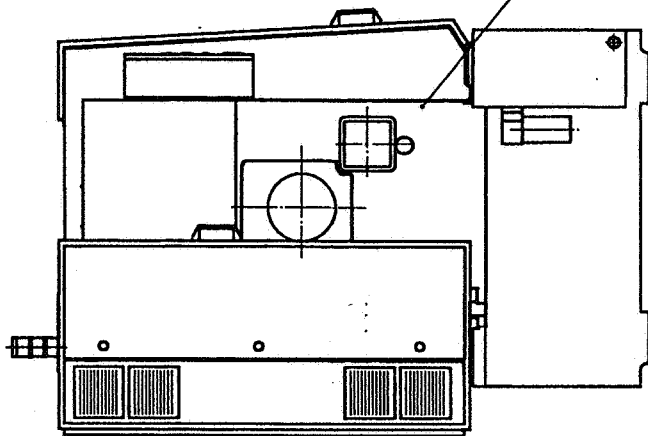
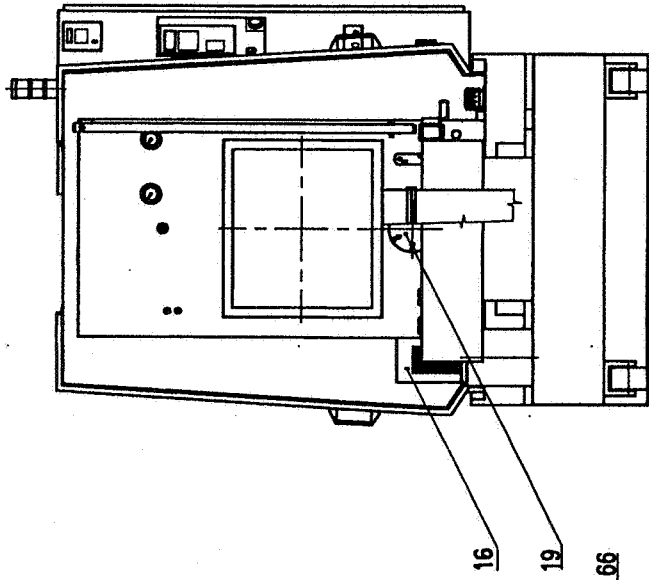
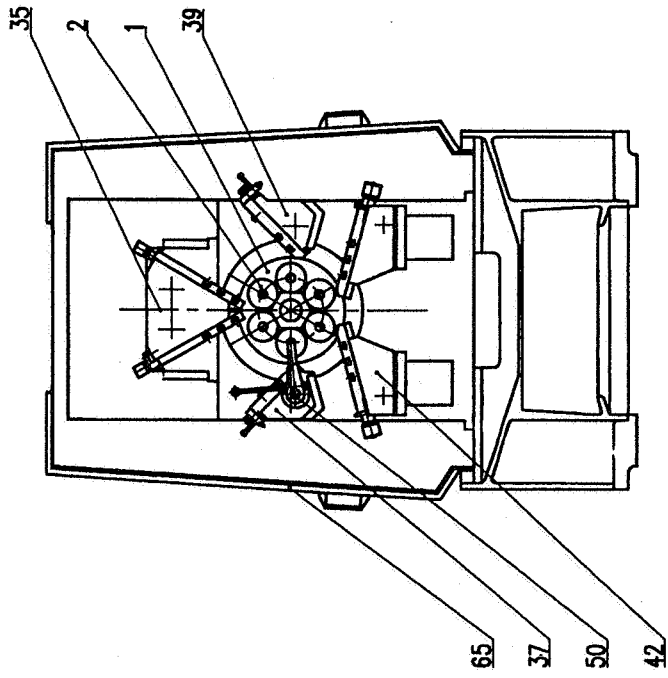
Bores for spindle bearings in the spindle drum are fitted in the factory according to the real dimensions of external rings of bearings (see the value in the "Protocol on Accuracy") with clearance of 0.003 - 0.005 mm. The bearings are to be mounted by marking of the maximum run-out in one plane.











R622P1.03

BASE  
622 Y12 (Fig. 1-7)

- 1 -

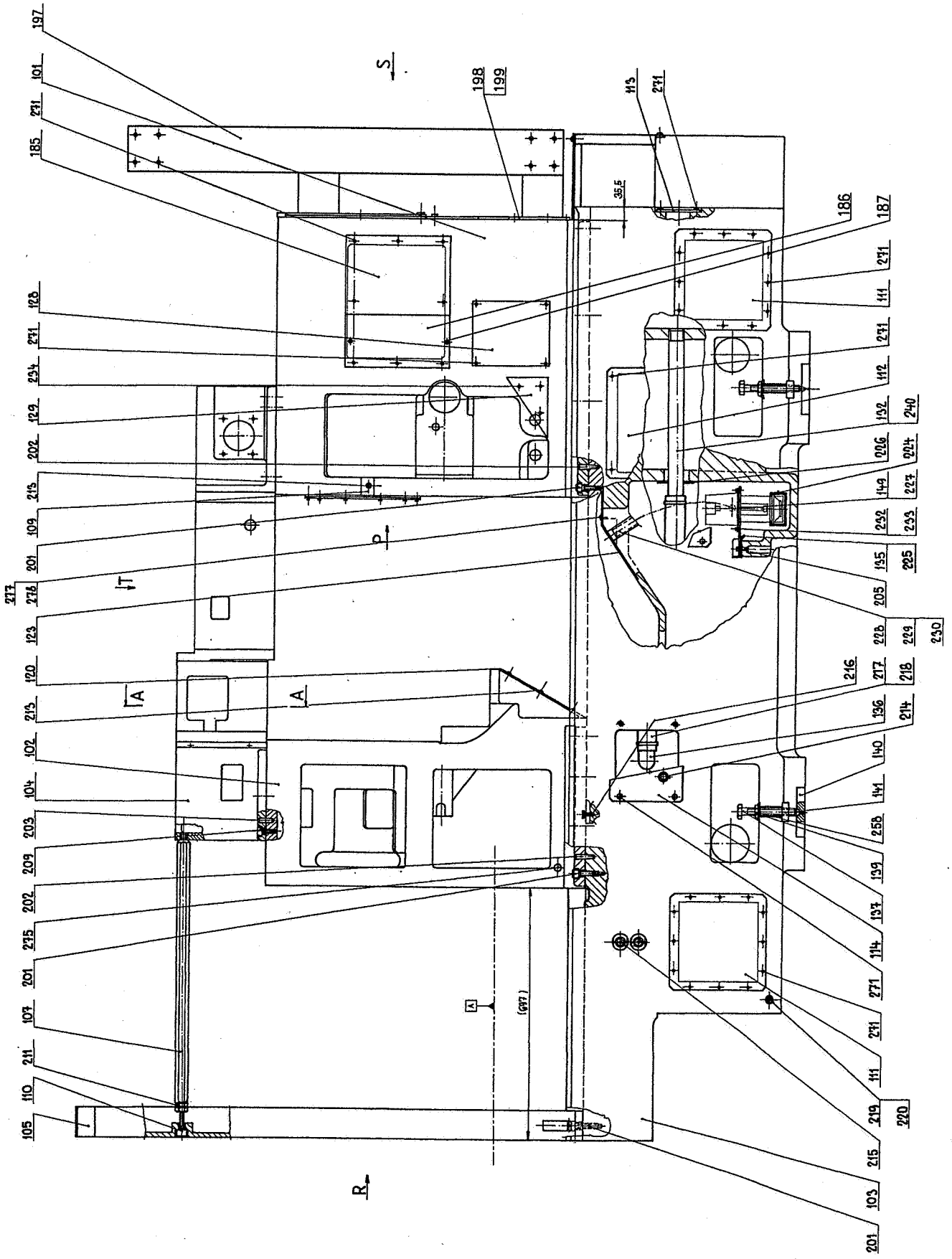
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	DRIVE BOX	R622Y101C	1
102	HEADSTOCK BOX	R622Y102A	1
103	BASE	R622Y103B	1
104	CROSS BEAM	R622Y104B	1
105	REAR BRACKET	R622Y105B	1
107	CONNECTING BAR	R622X107	1
109	INSERT	R622W109	1
110	SCREW M16X80 DIN912-12.9	3095850351	1
111	COVER	R622X111	3
112	COVER	R622X112	2
113	COVER	R622X113	1
114	COVER	R622W114	2
120	METAL SHEET COVERING	R622W120B	2
123	METAL SHEET	R622Y123.R	1
128	COVER	R622W128	1
129	METAL SHEET	R622X129	1
132	REDUCTION PART	R622W132	1
135	BRACKET	R622X135	1
136	ELBOW	R622V136.R	1
137	SCREW	R622W137	4
139	NUT	R622W139	4
140	SUPPORT PLATE	R622W140	4
141	NUT	R622W141	4
149	HOSE CONNECTOR	R622W149	1
185	COVER	R622X185	1
186	COVER	R622W186	1
187	SCREW M6X8-10.9 ISO7380	3093990055	4
197	BRACKET	R622Y197.R	1
198	SCREW M12X25 DIN912-12.9	3095850204	16
199	WASHER Ø13 ISO7089	3112100270	16
201	SCREW M16X50 DIN912-12.9	3095850320	19
202	PIN Ø16X50 ISO8736-B	3115152520	4
203	PIN Ø12X45 ISO8736-B	3115152240	6
205	SCREW M10X16 DIN912-12.9	3095850158	2
209	SCREW M12X35 DIN912-8.8	3095431620	10
211	NUT M16 ZN ISO4032	3111201080	2
213	SCREW M6X10 DIN912-12.9	3095850068	12
215	OIL LEVEL GAUGE M36X1,5 231480	4251760020	4
216	SCREW M8X10 021185.22	3092850580	1
217	HOSE Ø40/52 PN635385	2723920090	1.5
218	CLAMP Ø50-70 (VEL.7)	5482410250	2
219	PLUG M18X1,5 PN021938	3119790060	3
227	RING 27X32X2 029310.8	7229230110	1
228	HOSE Ø25/3	2833680040	1 M
229	CLAMP Ø25-40 (VEL.5)	5482410290	2
230	HOSE Ø18 A1000 028305	5486110390	1 M
232	SCREW M6X16 DIN912-12.9	3095850075	4
233	WASHER Ø6 DIN7980	3112140240	4

R622P1.03

BASE  
622 Y12 (Fig. 1-7)

- 2 -

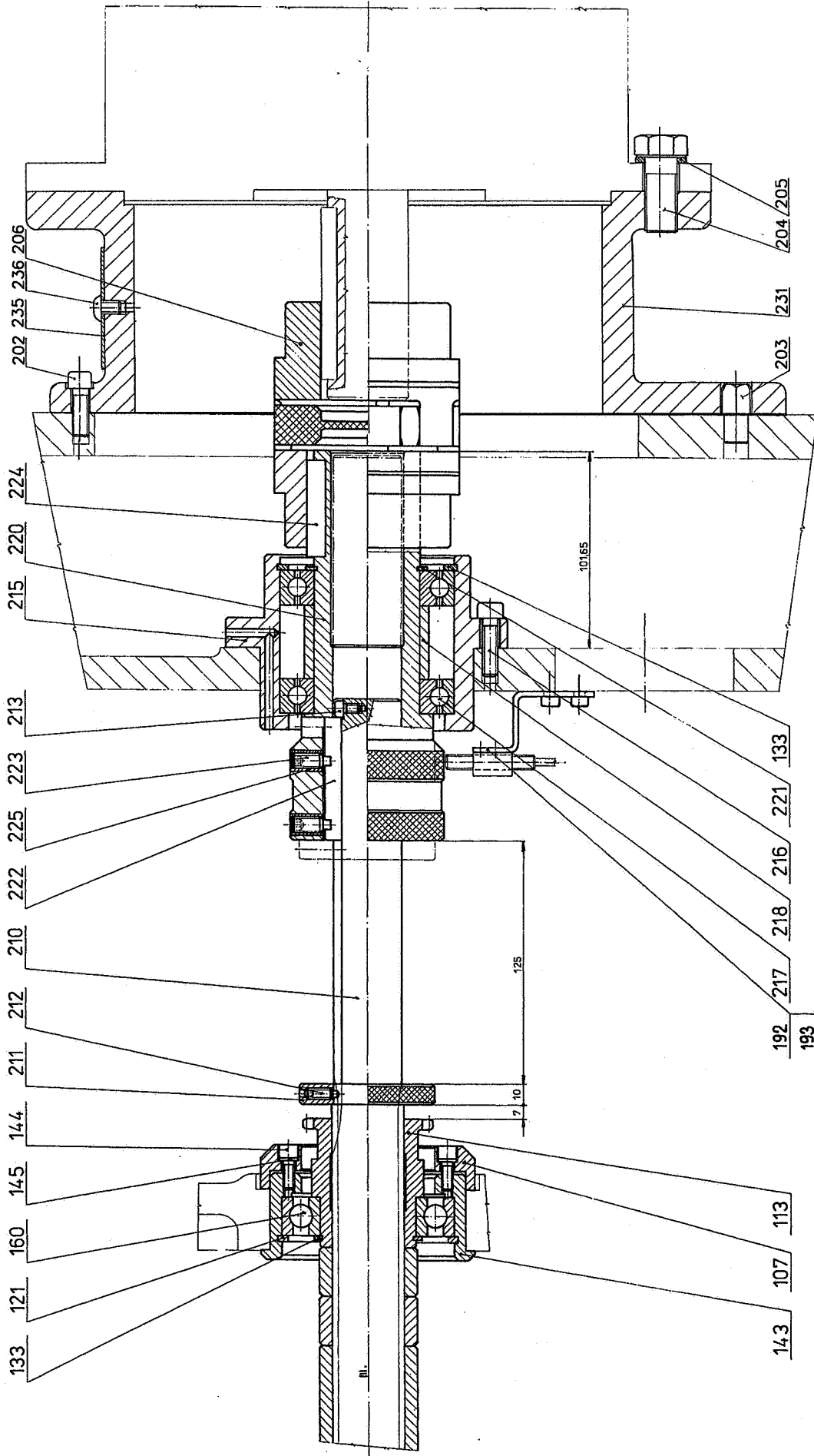
Pos.	Name of part, dimensions, standard		ZPS ordering No.	Qty	
234	SCREW M6X12-10.9	ISO7380	3093990063	10	
240	FOIL 0,15X12 PF4		2832960010	10	M
258	WASHER Ø25	ISO7089	3112100370	4	
271	SCREW M8X16-10.9	ISO7380	3093990080	71	
275	PIN		R622W275	2	
277	SCREW M8X12	DIN912-12.9	3095850112	2	
278	WASHER Ø8,4	ISO7089	3112100210	2	



R617P2.03

SPINDLES DRIVE-CONTROLLED MOTOR  
617 Y4 (Fig. 1-8.1)

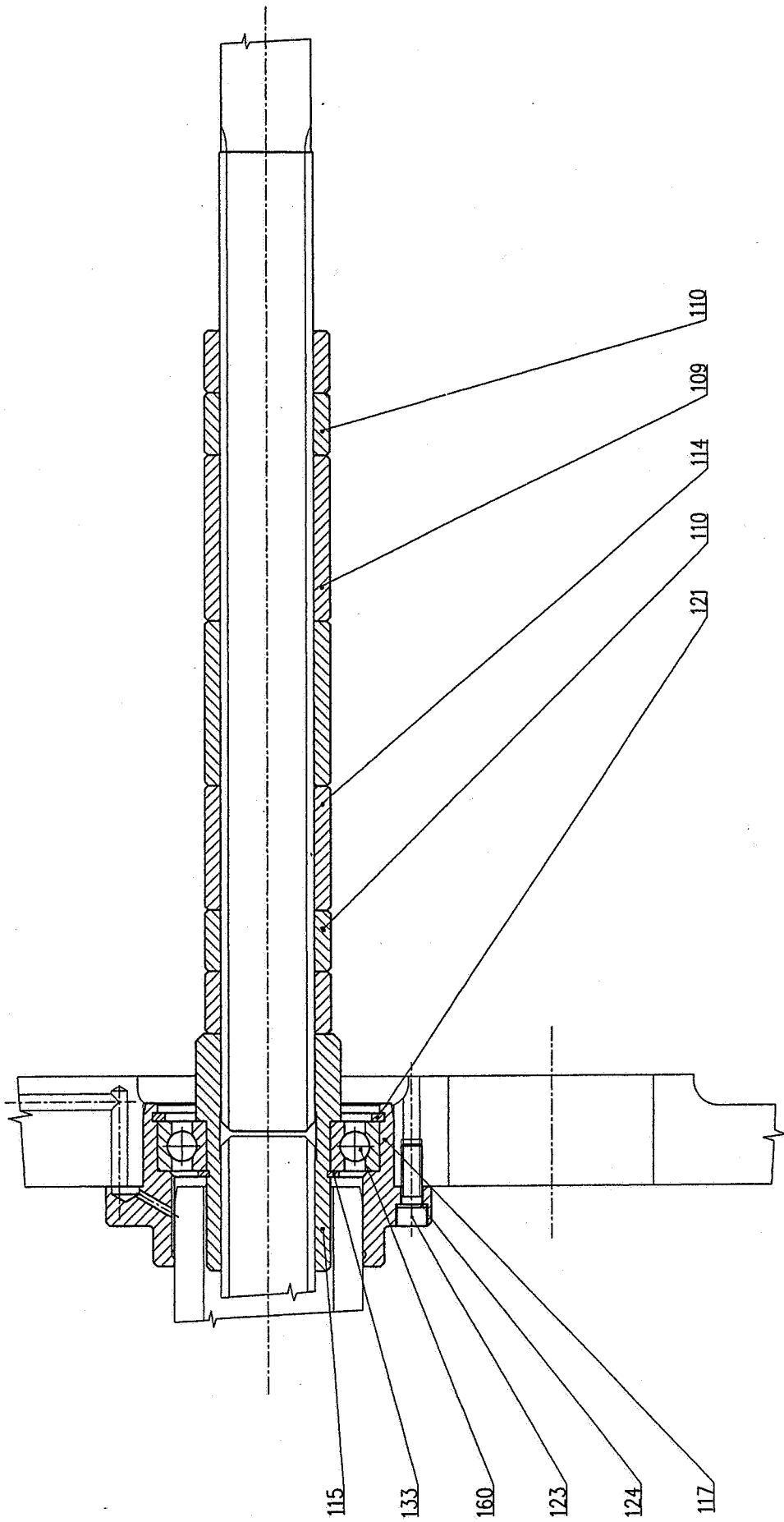
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
107	FLANGE	R117X107B	1
113	CHAIN WHEEL	R117X113B	1
121	RING Ø90 022931	3117330750	3
133	RING Ø50 022930	3117330530	2
143	FLANGE	R117X143A	1
144	SCREW 1/4-3/4"L	5129550006	2
145	WASHER Ø1/4"	5129550026	2
160	BEARING 6210/P6	3241620910	2
192	HOLDER	R617W192	1
193	SCREW M6X10 DIN912-12.9	3095850068	2
202	SCREW M8X25 DIN912-12.9	3095850123	7
203	PIN	R617W203A	2
204	SCREW M16X35-8-8 EN24017	3091030090	4
205	WASHER Ø17 ISO7089	3112100310	4
206	CLUTCH GS42/55-98SHA-2,6	3391120300	1
210	SLIDING SHAFT	R617V210	1
211	RING	R617W211	1
212	SCREW M6X16 CE DIN915	3097890030	3
213	SCREW M6X10 DIN912-12.9	3095850068	1
215	FLANGE	R617V215	1
216	SCREW M8X30 DIN912-12.9	3095850125	4
217	BEARING 6011/P6	3241650560	2
218	DISTANCE RING	R617W218	1
220	CONNECTING SHAFT	R617V220	1
221	RING Ø55 022930	3117330570	1
222	SPLINE	R617W222	1
223	SCREW M8X20 CE DIN915	3097890080	2
224	SPLINE 16H9X10X50 022562	3117261080	1
225	INSERT SLM8X1,25-AC16	5486800081	2
231	MOTOR BRACKET	R617Y231	1
235	COVER	R617X235	1
236	SCREW M6X10 DIN912-12.9	3095850068	2



R617P1.03

SPINDLES DRIVE - Central shaft  
617 Y2 (Fig. 1-9)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
109	DISTANCE RING	R617W109	2
110	DISTANCE RING	R617W110	4
114	DISTANCE PIPE	R617W114	1
115	CLUTCH	R617X115	1
117	FLANGE	R117X117B	1
121	RING Ø90                   022931	3117330750	3
123	SCREW 5/16BSF-1"L	5129550024	3
124	WASHER Ø5/16"	5129550025	3
133	RING Ø50                   022930	3117330530	2
160	BEARING 6210/P6	3241620910	2



R618P1.03

FEEDS DRIVE - Gears from feeding motor  
to worm shafts  
618 Y3 (Fig. 1-10)

- 1 -

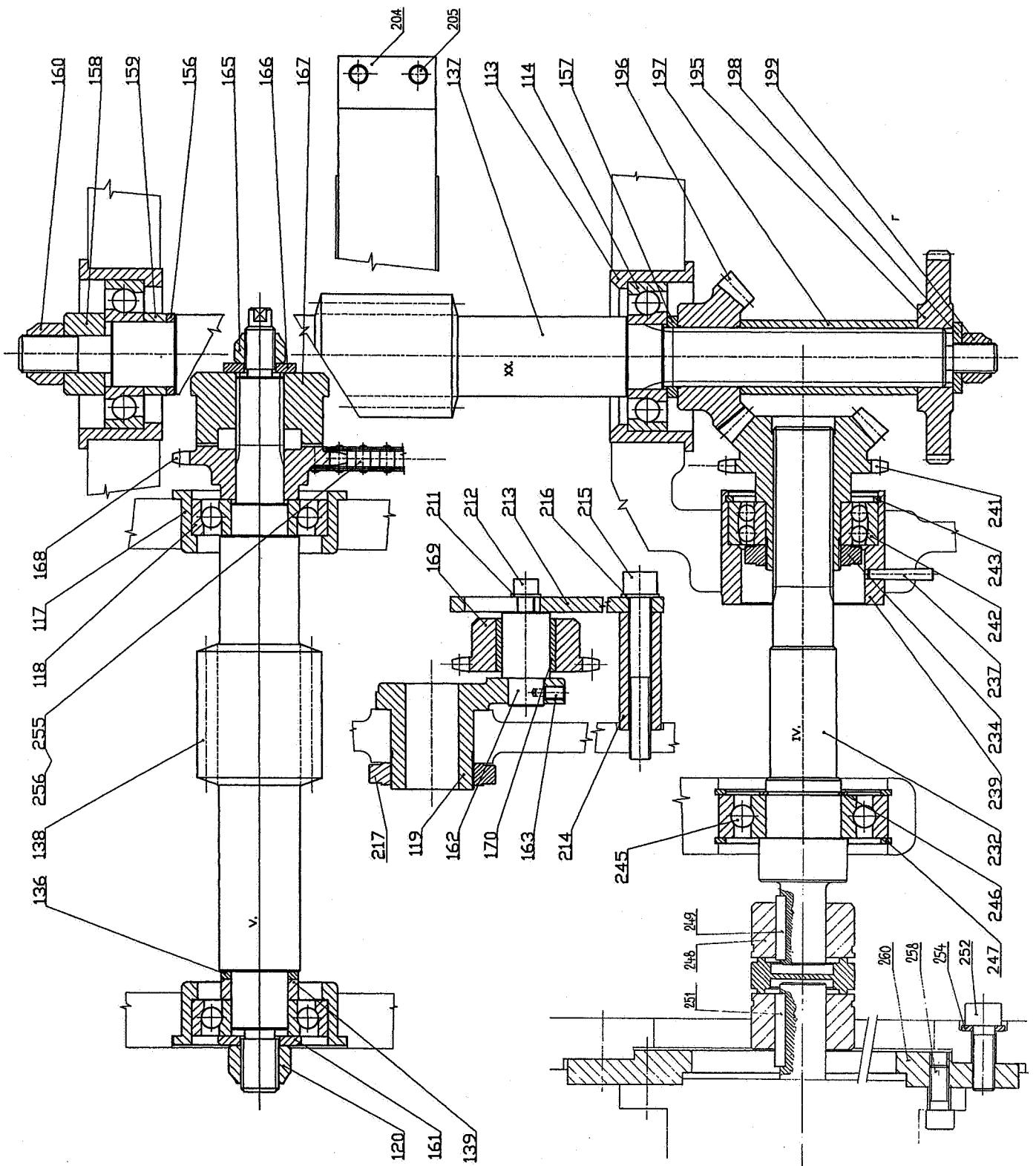
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
113	FLANGE	R618X113	2
114	BEARING 7307B	3241730053	2
117	FLANGE	R618X117	2
118	BEARING 7306B	3241720771	2
119	TENSIONING HOLDER	R618X119	1
120	NUT M20 021492.25	3111290095	1
136	FITTING RING	R618W136	1
137	WORM SHAFT	R618V137A	1
138	WORM SHAFT	R618V138A	1
139	RING	R618W139B	1
156	FITTING RING	R618W156	1
157	RING	R618W157	1
158	DISTANCE RING	R618W158	1
159	RING	R618W159B	1
160	MATICE M20 021492.25	3111290095	1
161	RING	R618W161	1
162	PIN	R118X162C	1
163	SCREW 1/4BSF 5/8"L	5129550009	1
165	NUT M16 021492.25	3111290081	1
166	WASHER-MODIFICATION	R618W166	1
167	SPOJKA	R618X167	1
168	CHAIN WHEEL	R618X168	1
169	STRETCHING ROLLER	R618X169	1
170	BUSH Ø1-5/4-9/8"L	5129550011	1
195	GEAR WHEEL	R618X195	1
196	GEAR WHEEL	R618X196	1
197	RING	R618W197A	1
198	WASHER-MODIFICATION	R618W166	1
199	NUT M16 021492.25	3111290081	1
204	GUARD	R618Y204.R	1
205	SCREW M6X12 DIN912-12.9	3095850071	2
211	WASHER Ø3/8"	5129550012	1
212	SCREW 3/8BSF-7/8"	5129550013	1
213	PLATE	R618X213	1
214	DISTANCE PIPE	R618W214	1
215	SCREW 7/16BSF-7/2"L	5129550014	1
216	WASHER Ø7/16"	5129550015	1

R618P1.03

FEEDS DRIVE - Gears from feeding motor  
to worm shaft - cont.  
618 Y3 (Fig. 1-10)

- 2 -

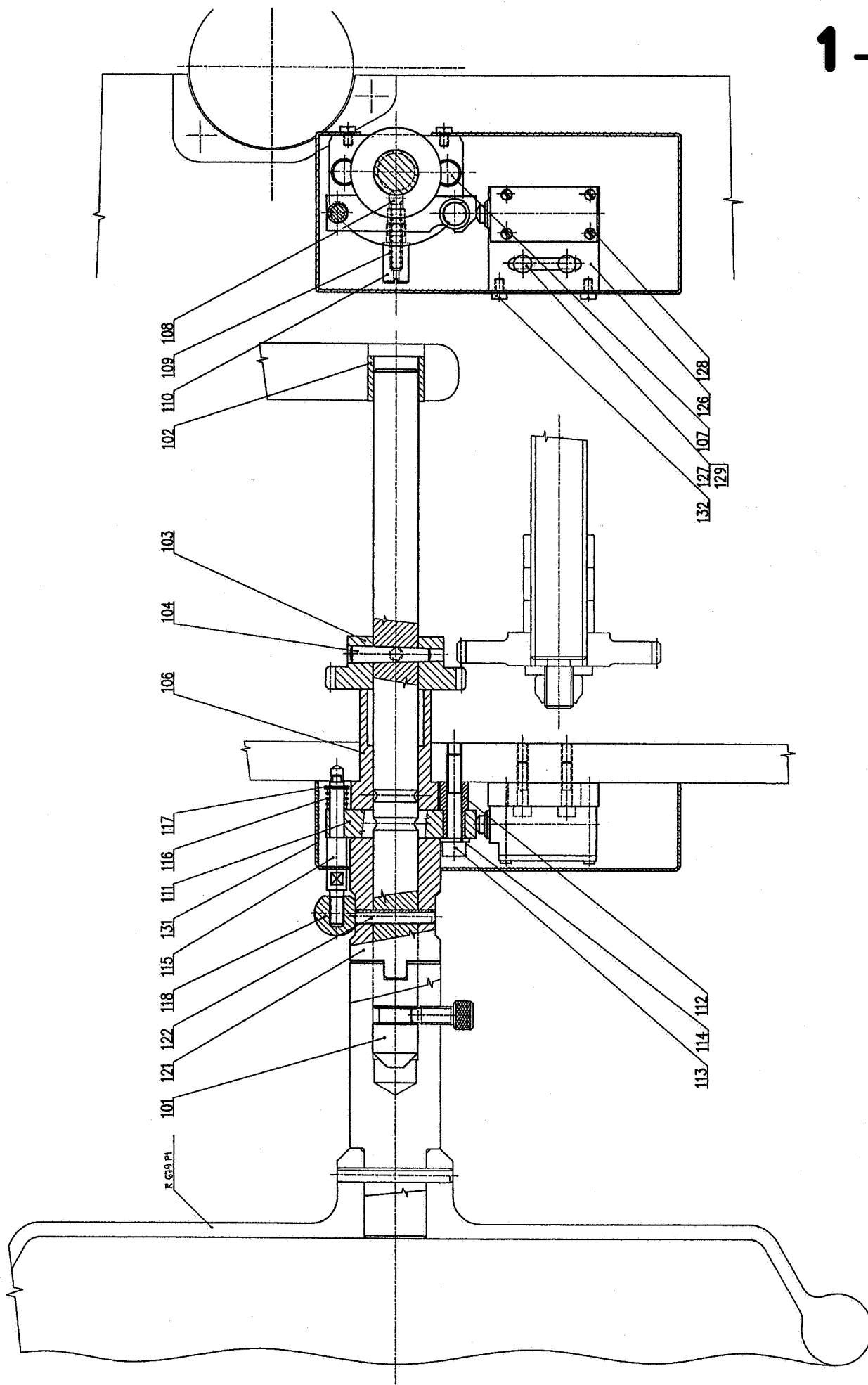
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
217	NUT M45X1,5 BN1235	3249720050	1
232	SHAFT I	R618X232A	1
234	NUT M40X1,5 BN1235	3249720030	1
237	PIN Ø8X25 ISO8736-B	3115151320	1
239	FLANGE	R118X239C	1
241	GEAR WHEEL	R618X241	1
242	BEARING 2208	3242170130	1
243	RING Ø80 022931	3117330710	1
245	BEARING 6308	3241630470	1
246	RING Ø40 022930	3117330430	1
247	RING Ø90 022931	3117330750	2
248	CLUTCH GS24/28-98SHA-GS-	3391120023	1
249	KEY 8H9X7X36 022562	3117260600	1
251	KEY 8H9X7X40 022562	3117260610	1
252	SCREW M12X35 DIN912-12.9	3095850202	4
254	WASHER Ø13 ISO7089	3112100270	4
255	CHAIN 08B-1 023311	3181110030	1.054 M
256	LINK 08B-1 023311	3189110100	1
258	SCREW M10X25 DIN912-12.9	3095850164	4
260	REDUCTION PLATE	R618X260	1



R620P1.03

FEEDS DRIVE - Hand wheel turning-over  
620 Y2 (Fig. 1-11)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	SHAFT	R620X101	1
102	BUSH Ø1-5/4-1"L	5129550001	2
103	GEAR WHEEL	R619X211	1
104	PIN Ø10X45 ISO2339-B	3115151850	1
106	FLANGE	R620X106A	1
107	SCREW M8X20 DIN912-12.9	3095850121	2
108	BALL Ø7,938-40 023680	3249140080	1
109	COMPRESSION SPRING	L219X193A	1
110	SCREW	R219X194A	1
111	LEVER	R620W111	1
112	BUSH	R620W112	1
113	SCREW M6X50 DIN912-12.9	3095850095	1
114	WASHER	R620W114	1
115	SHAFT	R620W115A	1
116	SPRING Ø1 Ø12X20 4,5Z	L13223-481E5	1
117	RING Ø7 022929.02	3117320120	1
118	BALL Ø25 M8 025181.21	3214610090	1
121	RING	R620X121	1
122	PIN Ø8X45 ISO8752	3115151471	1
126	MICROSWITCH HOLDER	R620X126	1
127	SCREW M6X25 DIN912-12.9	3095850083	2
128	SCREW M4X35 021131.25	3092311160	4
129	WASHER Ø6,4 ISO7089	3112100180	2
131	GUARD	R620V131	1
132	SCREW M5X8 021131.25	3092311310	4



R663P1.03

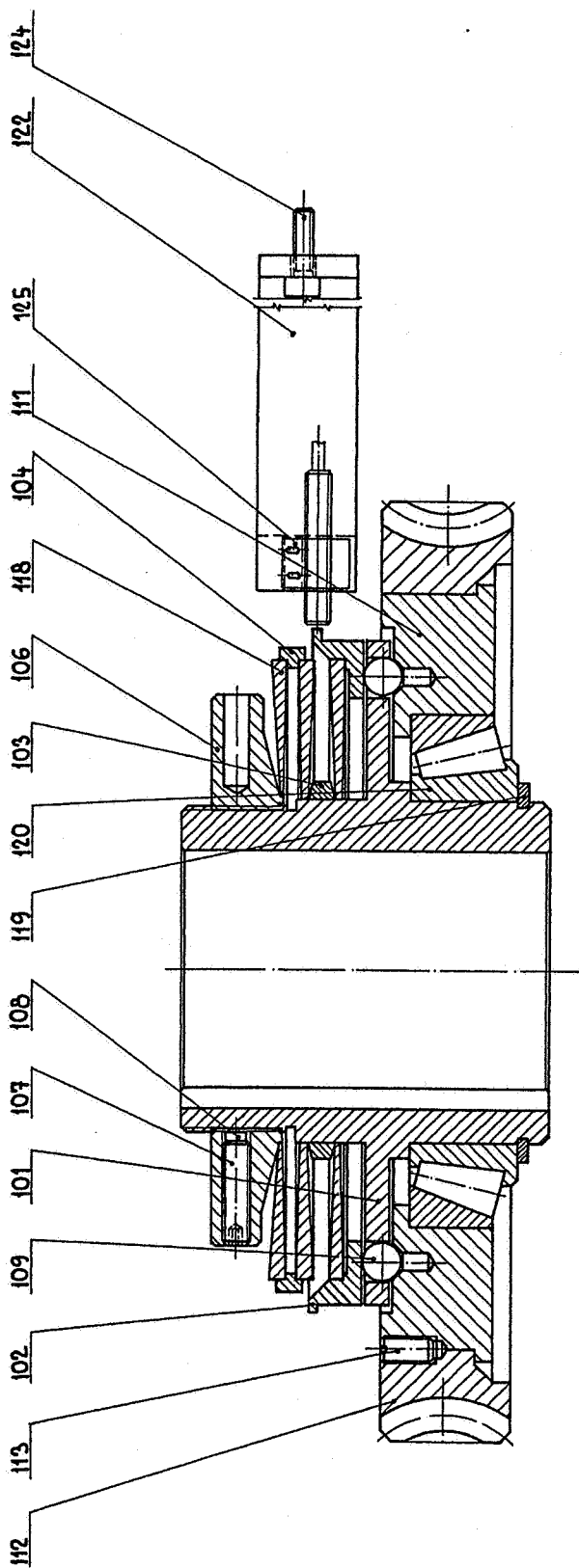
OVERLOAD RELEASE CLUTCH - Main cam shaft  
663 V1 (Fig. 1-12)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	BUSH	R663V101	1
102	SUPPORTING RING	R663X102	1
103	RING	R663W103	1
104	RING	R663W104	1
106	NUT	R663X106	1
107	SCREW M8X30 CE      DIN913	3097870140	2
108	WASHER	R637W171	2
109	BALL Ø11,906-40 023680	3249140120	12
111	WORM WHEEL	T R663V111	1
112	RIM	T R663W112	1
113	SCREW M8X16      021181.22	T 3092810920	6
118	BELLEVILLE SPRING	R663X118	3
119	RING Ø100      022930	3117330800	1
120	BEARING 32020AX	3247150062	1
122	BRACKET	R663X122A	1
124	SCREW M6X20      DIN912-12.9	3095850082	2
125	NUT	R645W115	1

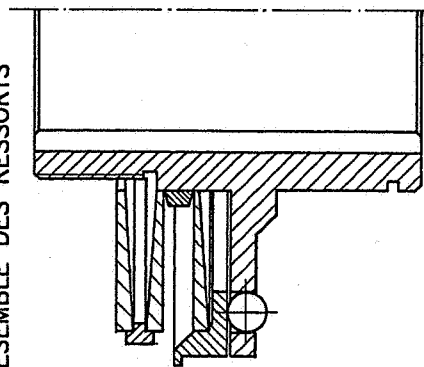
R663V111.R

TECHNOLOGICAL UNIT  
WORM WHEEL

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
111	WORM WHEEL	T R663V111	1
112	RIM	T R663W112	1
113	SCREW M8X16      021181.22	T 3092810920	6



SKLADBA PRUZIN  
SPRINGS ORIENTATION  
ESEMBLE DES RESSORTS



R664P1.03

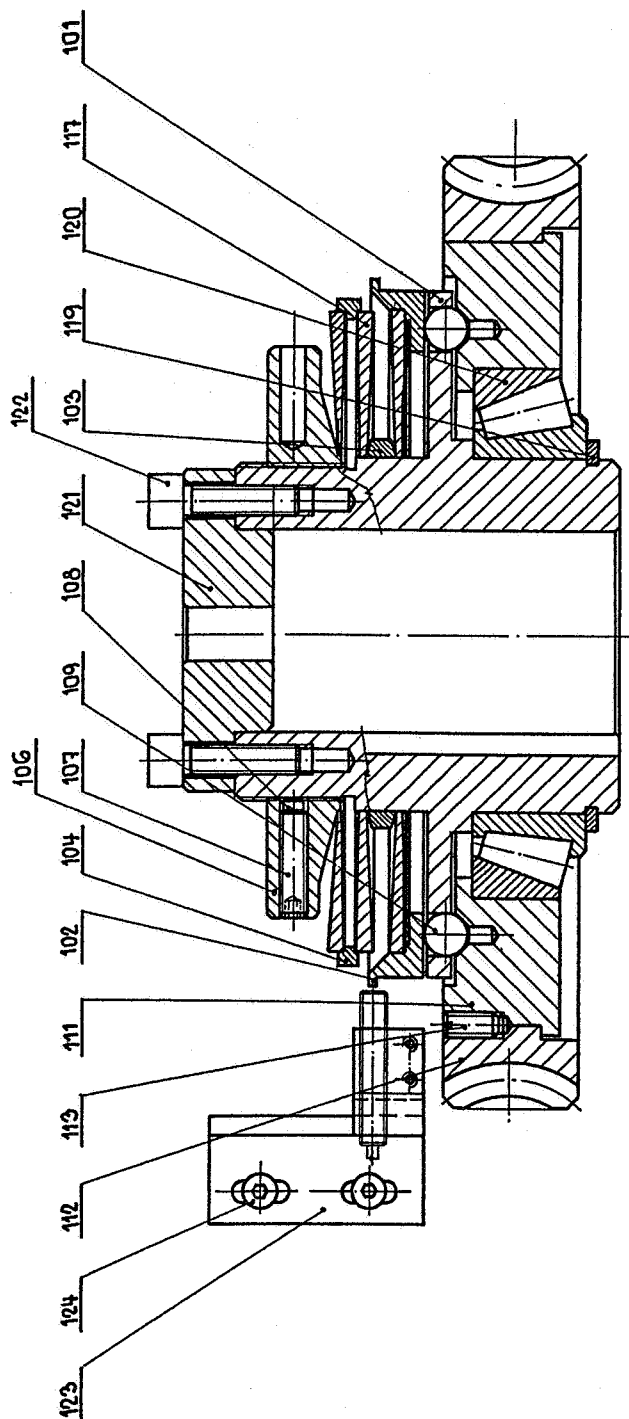
OVERLOAD RELEASE CLUTCH - Upper cam shaft  
664 V1 (Fig. 1-13)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	BUSH	R664V101	1
102	SUPPORTING RING	R663X102	1
103	RING	R663W103	1
104	RING	R663W104	1
106	NUT	R663X106	1
107	SCREW M8X30 CE      DIN913	3097870140	2
108	WASHER	R637W171	2
109	BALL Ø11,906-40      023680	3249140120	12
111	WORM WHEEL	T R664V111	1
112	RIM	T R664W112	1
113	SCREW M8X16      021181.22	T 3092810920	6
117	BELLEVILLE SPRING	R663X117	3
119	RING Ø100      022930	3117330800	1
120	BEARING 32020AX	3247150062	1
121	FLANGE	R664X121	1
122	SCREW M10X30      DIN912-12.9	3095850171	4
123	MICROSWITCH HOLDER	R664X123A	1
124	SCREW M6X16      DIN912-12.9	3095850075	2

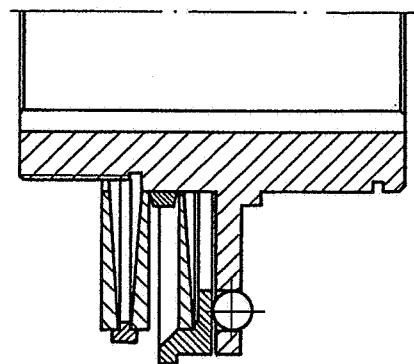
R663V111.R

TECHNOLOGICAL UNIT  
WORM WHEEL

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
111	WORM WHEEL	T R663V111	1
112	RIM	T R663W112	1
113	SCREW M8X16      021181.22	T 3092810920	6



SKLADBA PRUZIN  
SPRINGS ORIENTATION  
ESEMBLE DES RESSORTS



R623P1.03

SLIDE DRIVES - Central slide drive  
623 Y7 (Fig. 1-14)

- 1 -

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
103	PIN	R123X103A	2
104	ROLLING PART	R123X104A	2
113	STONE	R123X113C	2
114	PIN	R123X114B	2
116	CENTRAL SLIDE PULL ROD	R623V116	1
118	PIN	R123X118B	2
119	LEVER	R623V119	1
127	COLUMN	R623W127	1
159	STOP BAR	R141X159B	1
160	SUSPENSION	R623X160A	1
161	PULL ROD	R123X161A	1
165	BUSH	R123X165A	4
168	PIN	R123X168B	1
171	STOP SCREW	R123X171A	1
173	FITTING WASHER	R123X173A	1
174	BUSH	R123X174A	2
176	STOP	R123X176A	1
177	BUSH	R123X177A	2
178	STOP	R123X178A	1
182	AL POINTER LABEL	L372X158B	2
183	WASHER	R372X160A	2
184	PIN	R623W184	1
185	FITTING BLOCK	R623W185	1
186	BRACKET	R623W186	1
187	COLUMN	R623W187	1
191	AL SCALE LABEL	L672X157	1
192	AL SCALE LABEL	L672X159	1
207	JOINT	R123V507A	1
208	JOINT	R123X508A	1
210	WASHER	R123X510A	1

R623P1.03

SLIDE DRIVES - Central slide drive  
623 Y7 (Fig. 1-14)

- 2 -

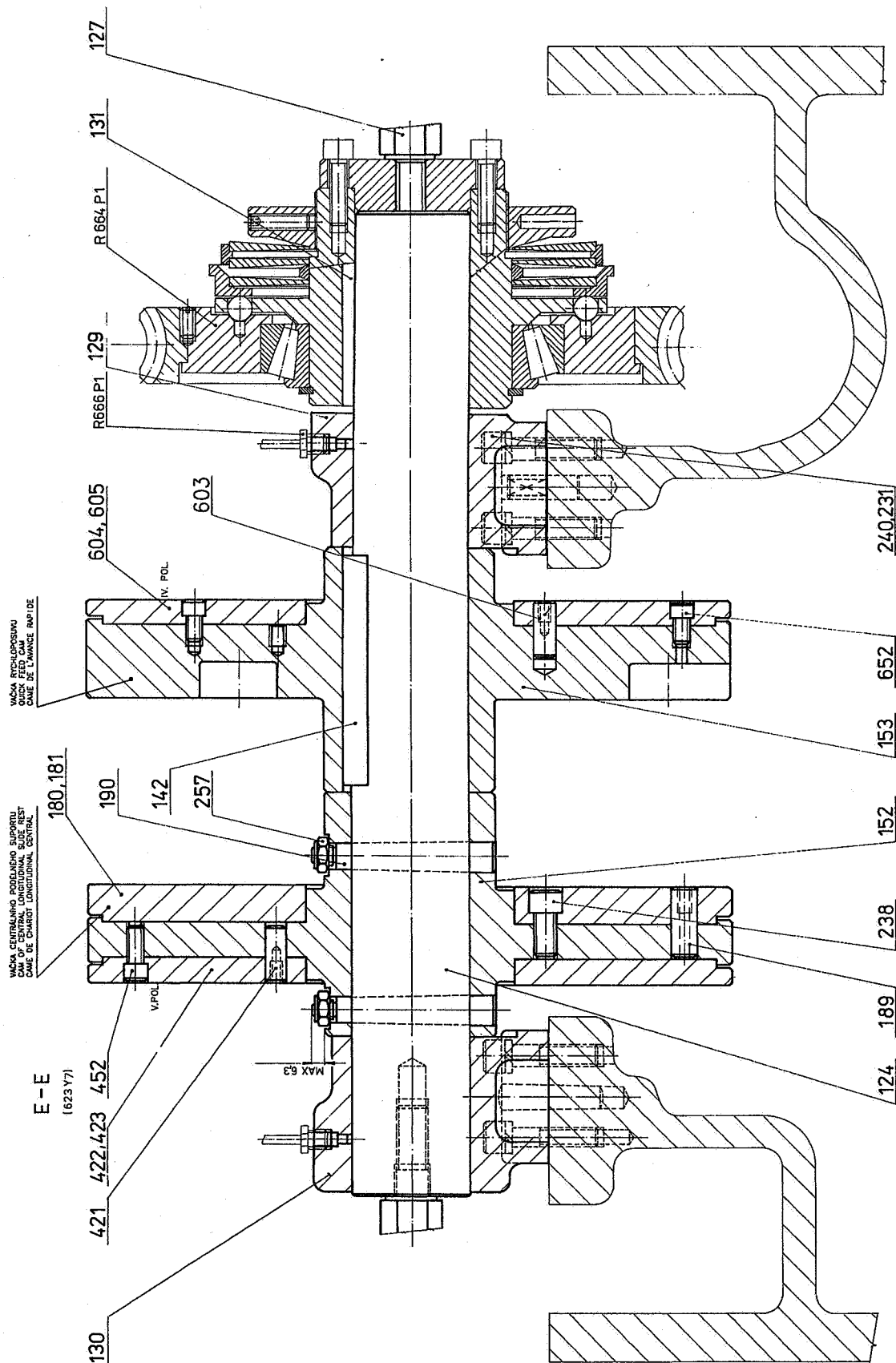
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
211	PULLEY- MODIFICATION	R623W211	2
212	BOLT	R127X512A	1
221	RING Ø7/8"	5129550093	2
222	PIN Ø6X40 ISO8736-B	3115151080	2
223	PIN Ø6X45 ISO8736-B	3115151110	4
224	PIN Ø8X50 ISO8736-B	3115151510	1
226	PIN Ø16X60 ISO8736-B	3115152530	1
227	PIN Ø12X45 ISO8736-B	3115152240	2
228	PIN Ø1/8-3/8"	5129550219	2
231	WASHER Ø7/16"	5129550095	10
232	WASHER Ø1/2"	5129550096	13
233	WASHER Ø5/8"	5129550097	2
235	SCREW M6X20 DIN912-12.9	3095850082	1
236	SCREW M3X6-10.9 ISO7380	3093990036	8
239	SCREW 7/16BSF-3/2"L	5129550086	2
243	SCREW 5/8BSF-11/4"L	5129550103	2
244	SCREW 3/8BSF-1"L	5129550056	4
246	SCREW 5/16BSF-3/4"L	5129550105	1
247	SCREW 5/16BSF-5/8"L	5129550106	1
250	SCREW M8X16-10.9 ISO7380	3093990080	2
251	SCREW M4X6 021185.25	3092850180	2
252	SCREW M8X50 DIN912-12.9	3095850135	2
256	NUT M6 ZN ISO4032	3111200380	1
263	RING Ø28 022931	3117330290	2
264	RING Ø9 022929.02	3117320160	1
265	RING RKA Ø12/17X2	R13230-281E2	1
266	BEARING 6001	3241650060	2
268	BELT 600-5M	2722130200	1
269	PIN Ø12M6X40 ISO8735-A	3115152189	3
270	KOLIK	R623W270	3



R623P1.03  
R624P1.03  
R625P1.03

SLIDE DRIVES - Cam shaft  
623 Y8 (Fig. 1-15)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
124	CAM SHAFT	R123Y124D	1
127	COLUMN	R623W127	1
129	BEARING BODY	R623V129	1
130	BEARING BODY	R623V130	1
131	KEY	R123X131B	1
142	KEY	R123X142A	1
152	DISK CAM	R623Y152	1
153	STAT.IV CAM-INDEP.REST RAPID TRAV.	R623Y153	1
180	CENTRAL SLIDE CAM - INTERNAL	R623Y180	1
181	CENTRAL SLIDE CAM - EXTERNAL	R623Y181	1
189	PIN	R201X173A	2
190	TAPERED PIN	R623W190	2
227	PIN Ø12X45 ISO8736-B	3115152240	2
231	WASHER Ø7/16"	5129550095	10
238	SCREW 7/16BSF-7/8"L	5129550099	9
240	SCREW 7/16BSF-7/4"L	5129550100	8
257	NUT M10X1 ISO8675	3111200720	2
421	PIN	R124X121A	2
422	STAT. V CAM - INDEP.REST INTERNAL	R624Y122	1
423	STAT. V CAM - INDEP.REST EXTERNAL	R624Y123	1
452	SCREW 5/16BSF-3/4"L	5129550073	12
603	PIN	R124X121A	2
604	STAT.IV CAM - INDEP.REST INTERNAL	R625Y104	1
605	STAT.IV CAM - INDEP.REST EXTERNAL	R625Y105	1
652	SCREW 5/16BSF-3/4"L	5129550073	12



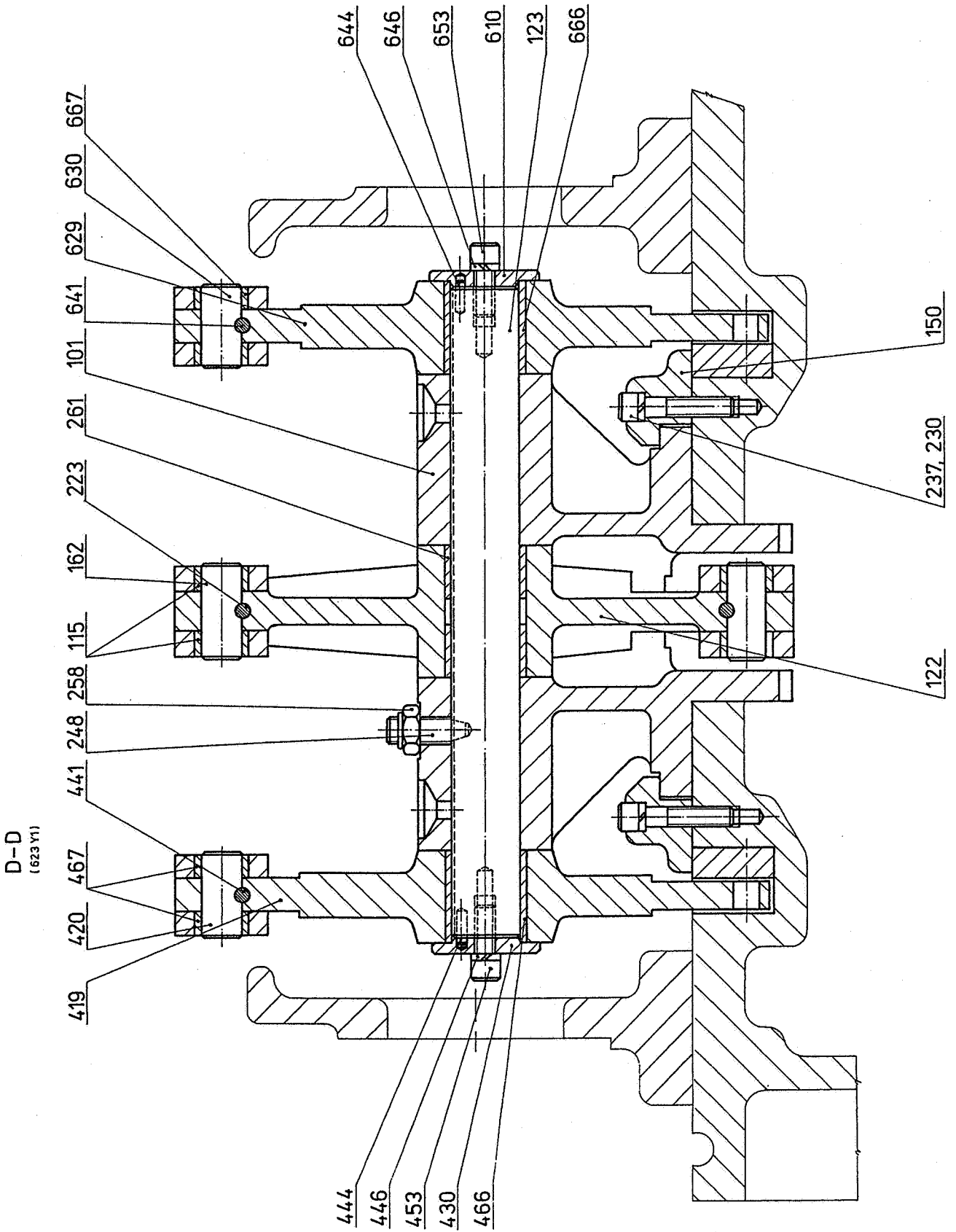
E - E  
1623 Y71

421 422, 423 452

R623P1.03  
R624P1.03  
R625P1.03

SLIDE DRIVES - Mounting of levers in sliding block  
623 Y3 (Fig. 1-16)

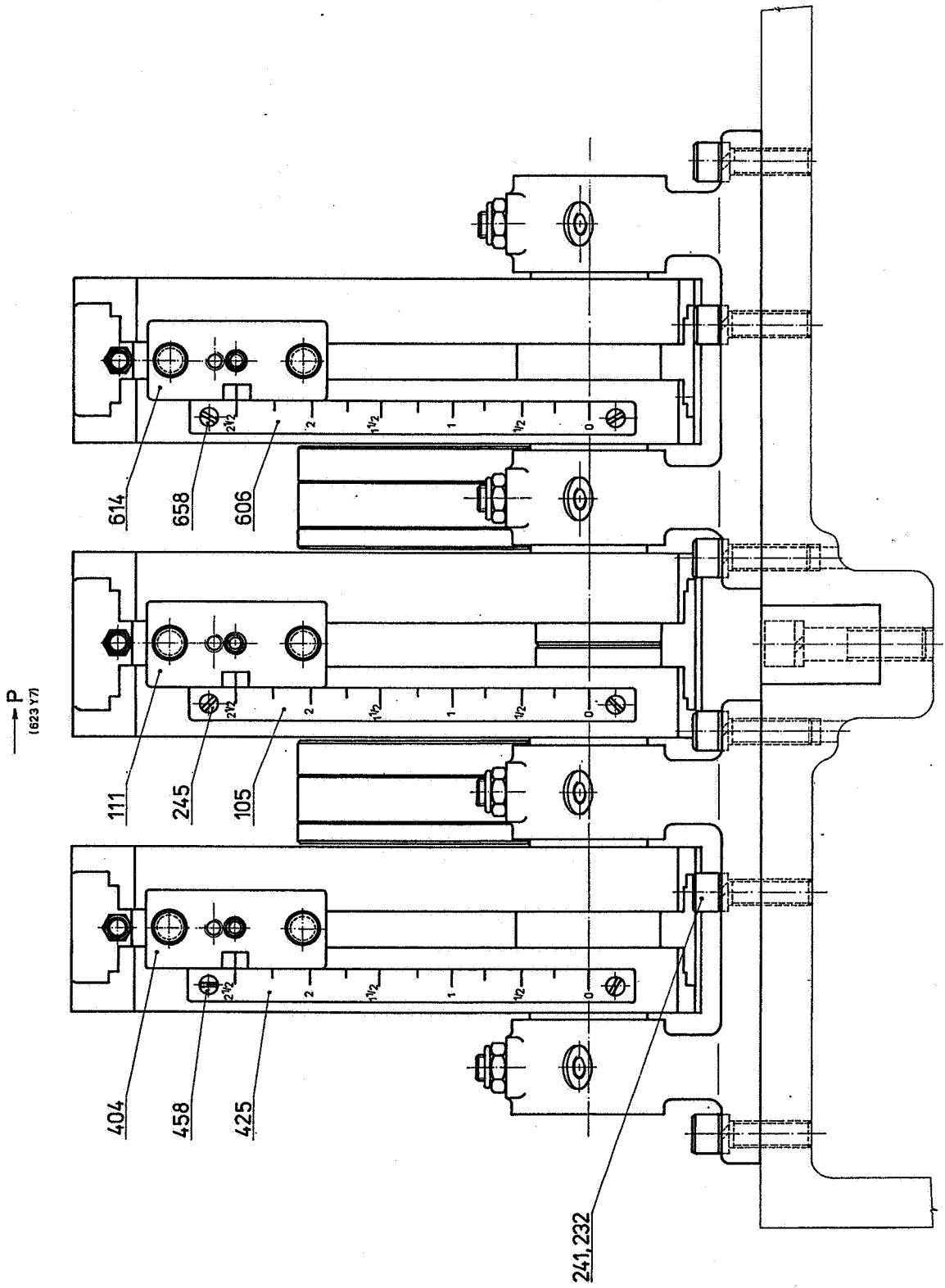
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	SLIDING BRACKET	R623Y101	1
115	BUSH	R123X115B	6
122	LEVER CENTR.SUPPORT	R623V122	1
123	SHAFT	R123X123B	1
150	GUIDING STRIP	R123X150B	2
162	PIN	R123X162B	2
223	PIN Ø6X45 ISO8736-B	3115151110	4
230	WASHER Ø3/8"	5129550094	8
237	SCREW 3/8BSF-7/4"L	5129550040	8
248	SCREW 1/2BSF-3/2"L	5129550107	1
258	NUT 1/2BSF	5129550110	3
261	BUSH Ø5/4-3/2-1"L	5129550082	2
419	INDEPENDENT SLIDE REST LEVER	R624Y119	1
420	PIN	R124X120B	1
430	LID	R123X166A	1
441	PIN Ø6X35 ISO8736-B	3115151040	1
444	PIN Ø3/16-5/8"L	5129550129	1
446	WASHER Ø3/8"	5129550094	1
453	SCREW 3/8BSF-1"L	5129550056	1
466	BUSH Ø5/4-3/2-7/4"L	5129550130	1
467	BUSH Ø3/4-1-... "L	5129550226	4
610	LID	R123X166A	1
629	INDEPENDENT SLIDE REST LEVER	R624Y119	1
630	PIN	R124X120B	1
641	PIN Ø6X35 ISO8736-B	3115151040	1
644	PIN Ø3/16-5/8"L	5129550129	1
646	WASHER Ø3/8"	5129550094	1
653	SCREW 3/8BSF-1"L	5129550056	1
666	BUSH Ø5/4-3/2-7/4"L	5129550130	1
667	BUSH Ø3/4-1-... "L	5129550226	4



R623P1.03  
R624P1.03  
R625P1.03

SLIDE DRIVES - Rocker arms with scales  
for setting of working stroke  
623 Y9 (Fig. 1-17)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
105	SCALE LABEL AL	L123X527	1
111	CENTRAL REST ADJUSTABLE BRACKET	R623X111	1
232	WASHER Ø1/2"	5129550096	13
241	SCREW 1/2BSF-7/4"L	5129550101	10
245	SCREW M5X8-10.9 ISO7380	3093990049	2
404	STAT. 4,5 IND. REST ADJUSTABLE BR.	R624X104	1
425	SCALE LABEL AL	L623X527	1
458	SCREW M5X8-10.9 ISO7380	3093990049	2
606	SCALE LABEL AL	L623X527	1
614	STAT. 4,5 IND. REST ADJUSTABLE BR.	R624X104	1
658	SCREW M5X8-10.9 ISO7380	3093990049	2

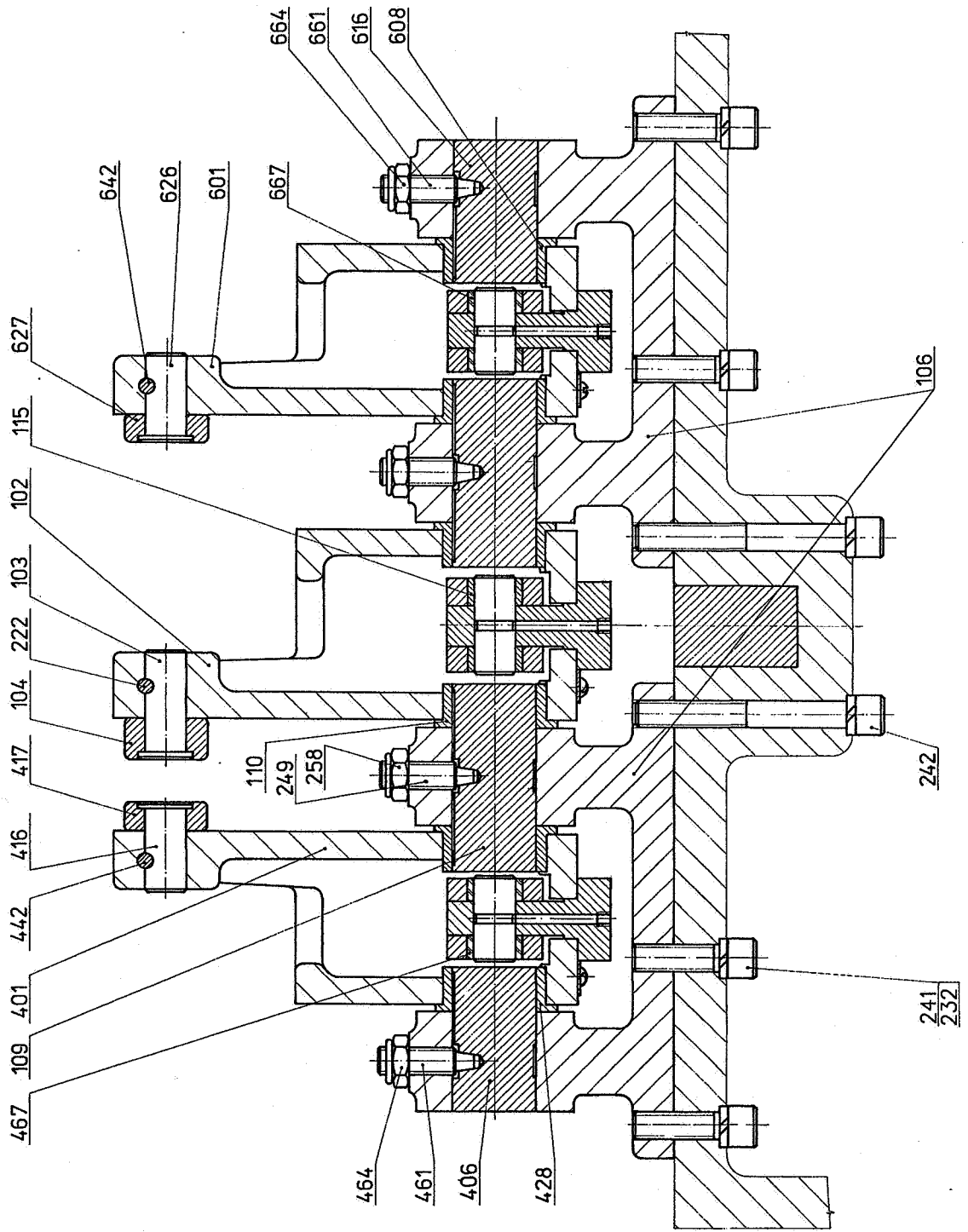


R623P1.03  
R624P1.03  
R625P1.03

SLIDE DRIVES - Mounting of control levers  
623 Y10 (Fig. 1-18)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
102	CENTRAL SLIDE REST ROCKER ARM	R623Y102	1
103	PIN	R123X103A	2
104	ROLLING PART	R123X104A	2
106	LONGITUDINAL ROCKER ARM BRACKET	R623Y106	1
109	PIN	R123X109B	2
110	BUSH	R123X110A	2
115	BUSH	R123X115B	6
222	PIN Ø6X40 ISO8736-B	3115151080	2
232	WASHER Ø1/2"	5129550096	13
241	SCREW 1/2BSF-7/4"L	5129550101	10
242	SCREW 1/2BSF-4"L	5129550102	2
249	SCREW 1/2BSF-7/4"L	5129550108	2
258	NUT 1/2BSF	5129550110	3
401	STAT. 5 ROCKER ARM	R624Y101	1
406	PIN	R124X106B	1
416	PIN	R124X116A	1
417	ROLLING PART	R124X117A	1
428	BRACKET	R123X110A	2
442	PIN Ø6X40 ISO8736-B	3115151080	2
461	SCREW 1/2BSF-7/4"L	5129550108	1
464	NUT 1/2BSF	5129550110	1
467	BUSH Ø3/4-1-... "L	5129550226	4
601	STAT. 4 ROCKER ARM	R625Y101	1
608	BUSH	R123X110A	2
616	PIN	R124X106B	1
626	PIN	R124X116A	1
627	ROLLING PART	R124X117A	1
642	PIN Ø6X40 ISO8736-B	3115151080	2
661	SCREW 1/2BSF-7/4"L	5129550108	1
664	NUT 1/2BSF	5129550110	1
667	BUSH Ø3/4-1-... "L	5129550226	4

F-F  
(623 Y11)

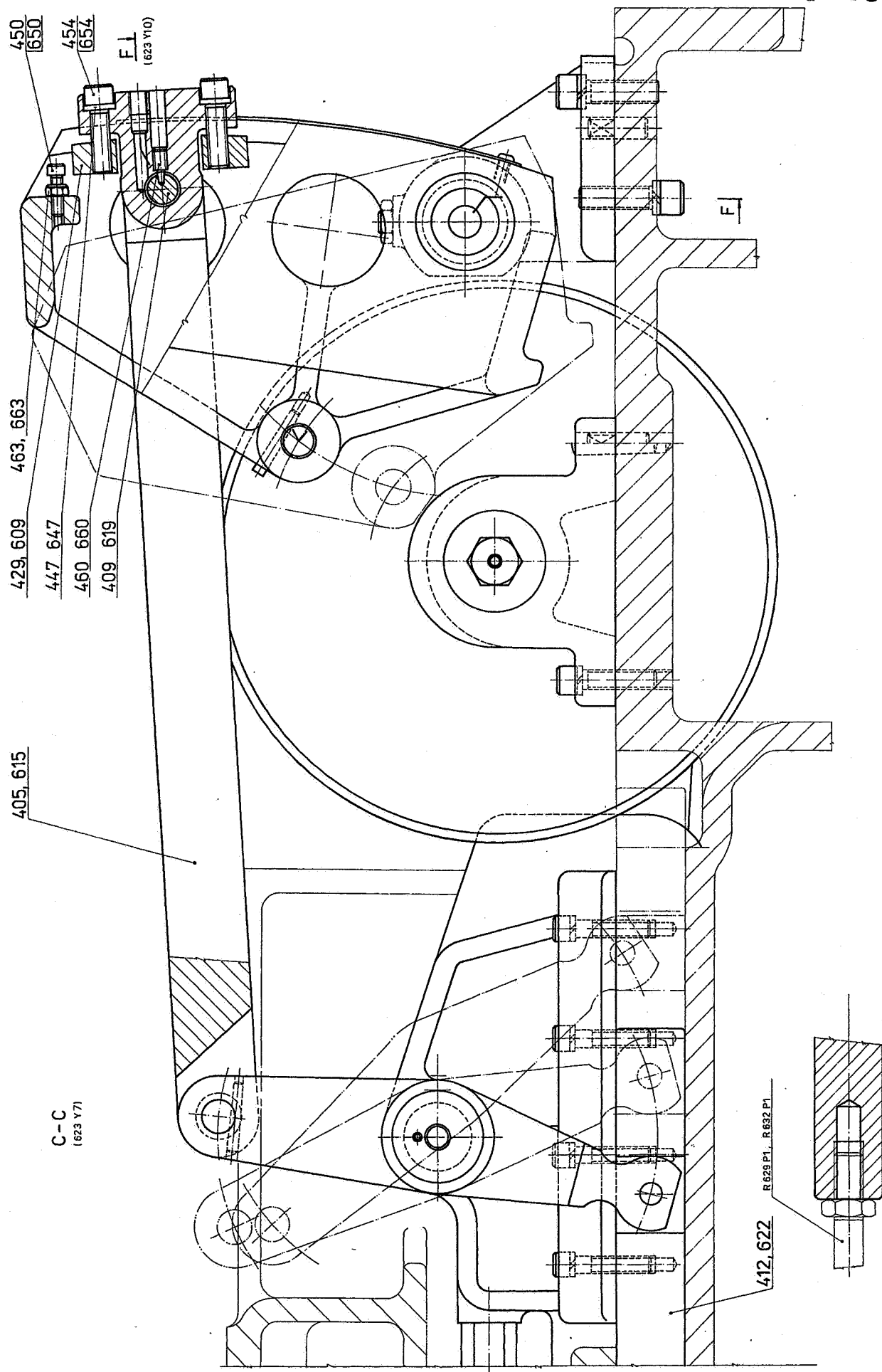


R624P1.03

R625P1.03

SLIDE DRIVES - Drive of independent longitudinal slides  
623 Y11 (Fig. 1-19)

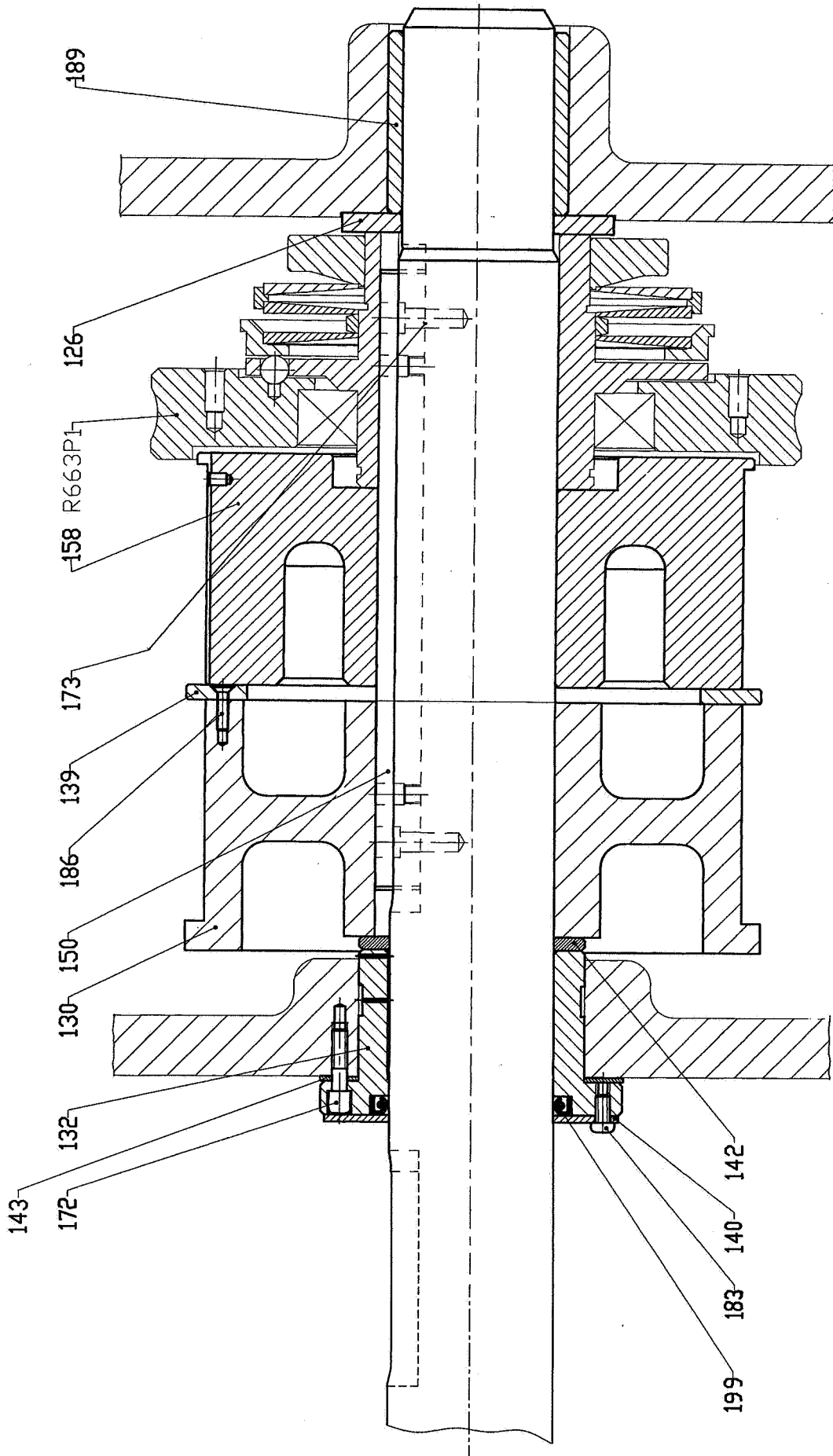
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
405	INDEPENDENT LONG. SLIDE PULL ROD	R624V105	1
409	PIN	R124X109B	1
412	COMPRESSION BAR	R124Y112B	1
429	STONE	R123X113C	2
447	WASHER Ø7/16"	5129550095	2
450	SCREW M6X20 DIN912-12.9	3095850082	1
454	SCREW 7/16BSF-3/2"L	5129550086	2
460	SCREW 5/16BSF-5/8"L	5129550106	1
463	NUT M6 ZN ISO4032	3111200380	1
609	STONE	R123X113C	2
615	INDEPENDENT LONG. SLIDE PULL ROD	R624V105	1
619	PIN	R124X109B	1
622	COMPRESSION ROD	R124Y112B	1
647	WASHER Ø7/16"	5129550095	2
650	SCREW M6X20 DIN912-12.9	3095850082	1
654	SCREW 7/16BSF-3/2"L	5129550086	2
660	SCREW 5/16BSF-5/8"L	5129550106	1
663	NUT M6 ZN ISO4032	3111200380	1



R644P1.03

MAIN CAM SHAFT - In the drive box area  
644 Y11 (Fig. 1-20)

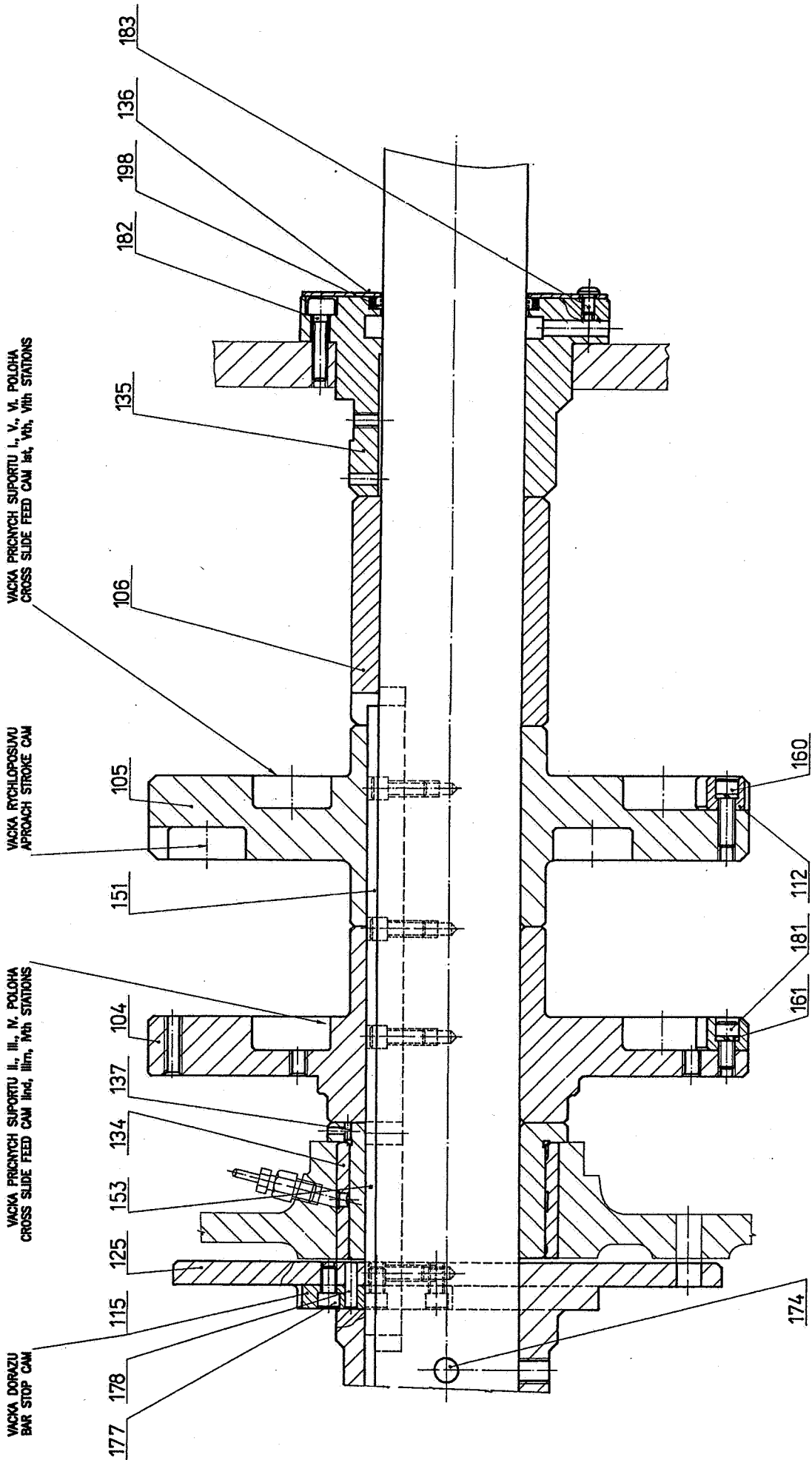
Pos.	Name of part, dimensions, standard	TAJMAC-ZPS ordering No.	Qty
126	RING	R118X123B	1
130	CAM DRUM, STATION III	R144Y130E	1
132	FLANGE	R644X132	1
139	RING	R144X139A	1
140	RING	R644W140	1
142	RING	R644W142	1
143	FITTING RING	R644W143	1
150	KEY	R644W150A	1
158	CAM DRUM	R644Y158	1
172	SCREW M8X25 DIN912-12.9	3095850123	3
173	SCREW M8X20 DIN912-12.9	3095850121	8
183	SCREW M6X10-10.9 ISO7380	3093990059	6
186	SCREW 1/4BSF-3/4L"	5129550198	3
189	BUSH Ø5/2-3-3"L	5129550200	1
199	GUFERO SEALING Ø70X85X8	029401 2735211510	1



R644P1.03

MAIN CAM SHAFT  
In the headstock box area  
644 Y8 (Fig. 1-21)

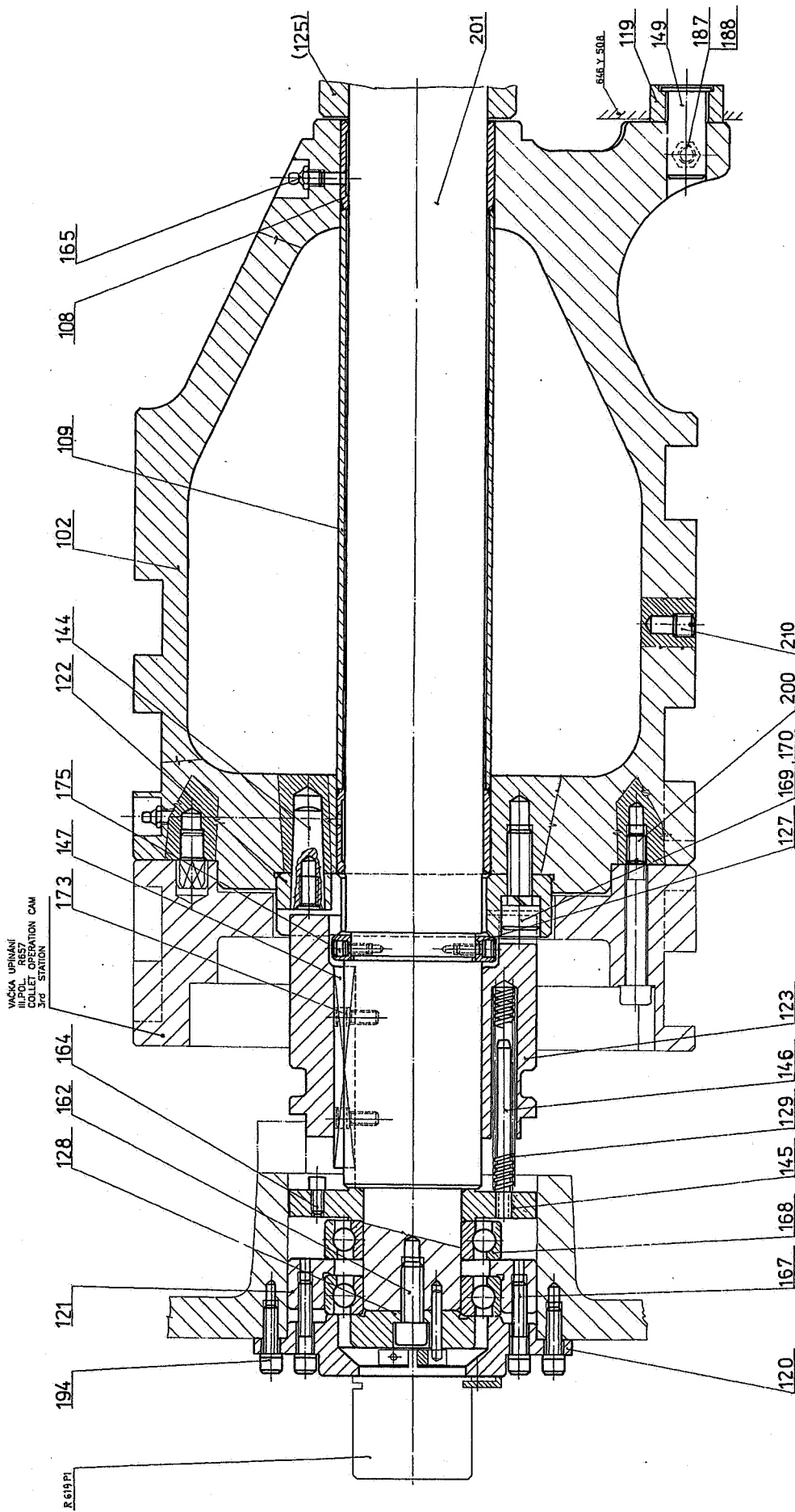
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
104	STAT.2,3,4 CAM	R644Y104	1
105	STAT.1,5,6 CAM	R644Y105	1
106	TUBE	R644W106A	1
112	GUIDING	R144X112B	2
115	STAT.6 STOP CAM	R644X115	1
125	CAM DISK	R644Y125	1
134	BUSH	R644X134A	1
135	FLANGE	R644V135	1
136	RING	R644W136	1
137	BUSH	R644X137	1
151	KEY	R644X151	1
153	KEY	R644W153	1
160	SCREW 5/16BSF-1"L	5129550024	5
161	WASHER Ø5/16"	5129550025	16
174	PIN Ø12X100 ISO2339-B	3115152450	1
177	SCREW 5/16BSF-1/2"L	5129550179	3
178	PIN Ø6M6X24 ISO8735-A	3115150919	1
181	SCREW 5/16BSF-5/8"L	5129550178	2
182	SCREW M8X30 DIN912-12.9	3095850125	3
183	SCREW M6X10-10.9 ISO7380	3093990059	6
198	SEALING S-56132-0700-A42	2731114755	1



R644P1.03

MAIN CAM SHAFT  
In the area of the clamping and feeding mechanism  
644 Y10 (Fig. 1-22)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
102	CLAMPING AND FEEDING DRUM CAM	R644Y102A	1
108	BUSH	R644W108	2
109	TUBE	R644W109	1
119	ROLLING PART	R623W104	1
120	FLANGE	R644X120A	1
121	FLANGE	R644X121	1
122	CLUTCH DISK	R144Y122B	1
123	CLUTCH BODY	R644V123A	1
125	CAM DISK	R644Y125	1
127	RING	R144X127B	1
128	WASHER	R644W128	1
129	SPRING Ø2 Ø12X122 31,25Z	L644W129A	5
144	PIN Ø16X50 ISO8736-B	3115152520	2
145	RING	R644X145	1
146	ARBOR	R644W146	5
147	KEY	R644W147A	1
149	PIN	R644W149	1
162	SCREW M12X40-12.9ZN DIN912	3095850209	1
164	SCREW M6X12 DIN912-12.9	3095850071	2
165	PLUG M8X1 231476	4251180030	2
167	SCREW M8X35 DIN912-12.9	3095850127	6
168	BEARING 7210	3241720580	2
169	SCREW 1/2BSF-3/2"L	5129550192	4
170	WASHER Ø1/2"	5129550096	8
173	SCREW M8X20 DIN912-12.9	3095850121	8
175	SCREW M5X12 DIN912-12.9	3095850052	2
187	SCREW M8X25 CE DIN915	3097890090	1
188	NUT M8 ZN ISO4035	3111200480	1
194	SCREW M8X20 DIN912-12.9	3095850121	6
200	SCREW M10X16 021181.25	3092811050	7
201	MAIN CAM SHAFT	R644Y201	1
210	SCREW M12X12 021181.25	3092811160	2



R641P1.03

CROSS SLIDE DRIVES  
641 Y4 (Fig. 1-23)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	STAT.1,5,6-ROCKER ARM	R141Z508	1
102	STAT.2,3,4-ROCKER ARM	R141Z509	1
103	LEVER	R641Y103	2
104	LEVER	R641Y104	1
105	LEVER	R141X105C	1
106	STATION I PULL ROD	R641V106	1
107	LEVER	R141X107B	1
111	PULL ROD	R141X111A	1
113	LEVER	R641Y113	1
114	STAT. 1,5,6 - GUIDING	R637CX501	1
115	STAT. 2,3,4 - GUIDING	R637CX502	1
150	OIL VESSEL	R641V150.R	1
157	SHIM	R141X157A	2
158	HUB	R641W158A	2
159	LID	R641W159A	2
160	PIN	R641W160A	2
171	PIN Ø6X40 ISO8736-B	3115151080	3
173	WASHER Ø1/4"	5129550026	18
181	SCREW 1/4BSF-3/4"L	5129550142	1
182	SCREW 5/16BSF-1"L	5129550061	2
184	SCREW 1/4BSF-5/4"L	5129550172	2
185	SCREW M8X30-8.8 EN24017	3092031300	4
186	SCREW 1/4BSF-5/16"L	5129550018	2
187	NUT 1/4BSF WSP203/04	5129550175	2
188	NUT 5/16BSF	5129550051	2
193	SCREW M6X25 DIN912-12.9	3095850083	4
194	SPRING A25X12,2X1,5 180	3159510008	8
196	SCREW M6X12 DIN912-12.9	3095850071	4



R641P1.03

CROSS SLIDE DRIVES  
641 Y2 (Fig. 1-24)

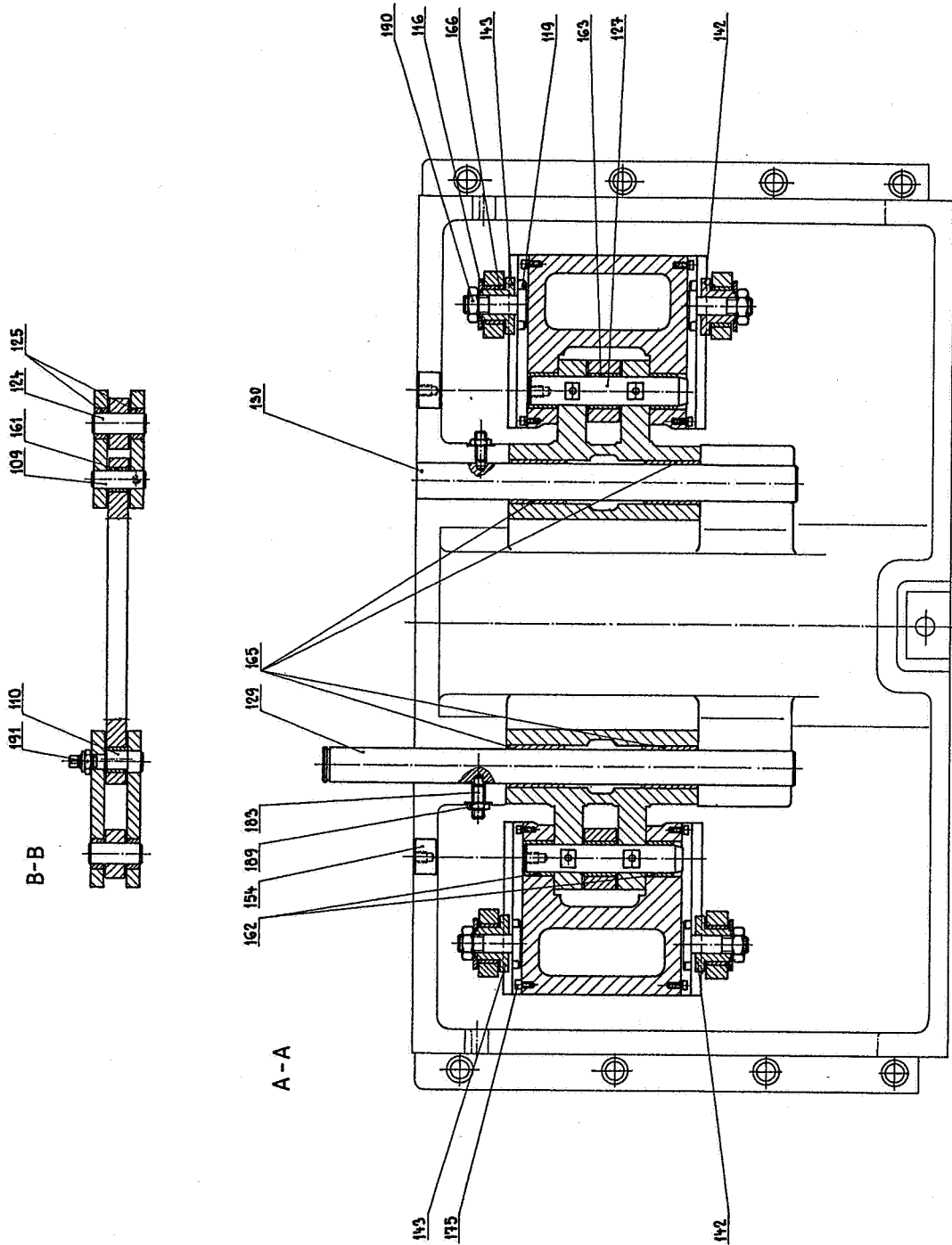
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
106	STATION I PULL ROD	R641V106	1
108	STATION IV, V PULL ROD	R641V108	2
112	PIN	R141X112C	2
115	STAT. 2,3,4 - GUIDING	R137CX502	1
116	WASHER	R141X116A	6
117	AL SCALE LABEL	L637CX503	2
118	STATION II PULL ROD	R641V118	1
121	ROLLING PART	R141X121A	3
122	PIN	R141X122A	1
123	PIN	R141X123A	2
131	BUSH Ø7/8-1-1/2"L	5129550227	2
132	STATION III, IV PULL ROD	R637V106	2
133	FITTING WASHER	R141X133A	4
134	HOLDER	R141X134B	2
135	PIN	R137CX108A	2
136	SCREW	R137CX505A	2
137	PIN	R137CX504A	2
138	SLIDING BUSH	R637CX109	2
139	PIN	R141X139B	1
140	PIN	R141X140B	1
145	AL SCALE LABEL	L641X506	1
146	AL SCALE LABEL	L641X507	1
147	AL SCALE LABEL	L641X505	2
151	ECCENTRIC PIN	R641X151A	2
152	RING	R641W152A	2
153	WASHER (MODIFICATION)	R641W153	2
157	SHIM	R141X157A	2
164	BUSH Ø5/4-3/2-5/4"L	5129550205	4
173	WASHER Ø1/4"	5129550026	18
174	WASHER Ø5/16"	5129550025	10
176	SCREW 5/16BSF-1"L	5129550024	4
177	SCREW M4X8-10.9 ISO7380	3093990040	4
178	SCREW 1/4BSF-5/4"L	5129550169	16
179	SCREW M4X8-10.9 ISO7380	3093990040	8
180	SCREW M6X25 DIN912-12.9	3095850083	4
183	SCREW M8X30 CE DIN915	3097890100	4
189	NUT M8 ZN ISO4032	3111200470	4
190	NUT 5/8BSF WSP173/10	5129550174	6
192	NUT WSP203/10 5/8"	5129550177	2
195	PLUG 085-068-40X1-3	5628500012	2
197	SCREW M10X20-10.9 24017	3092021020	2
198	BEARING 6207	3241620670	2
199	WASHER Ø10 DIN7980	3112140360	2



R641P1.03

CROSS SLIDE DRIVES - Working stroke  
adjustment  
641 Y3 (Fig. 1-25)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
109	PIN	R141X109B	1
110	ECCENTRIC PIN	R141X110A	1
116	WASHER	R141X116A	6
119	SCREW	R141X119A	4
124	PIN	R141X124B	2
125	BUSH	R141X125A	4
127	PIN	R141X127B	2
129	PIN	R641X129A	1
130	PIN	R641X130	1
142	SLIDING BUSH	R641X142	2
143	SLIDING BUSH	R641X143	2
154	PLUG	R122X154B	2
161	BUSH Ø5/8-7/8-3/4"L	5129550203	2
162	BUSH Ø1-5/4-1"L	5129550001	4
163	BUSH Ø1-5/4-5/4"L	5129550204	2
165	BUSH Ø5/4-3/2-2"L	5129550206	4
166	BUSH WSP236/182212	5129550207	4
175	SCREW M5X10 DIN912-12.9	3095850051	8
183	SCREW M8X30 CE DIN915	3097890100	4
189	NUT M8 ZN ISO4032	3111200470	4
190	NUT 5/8BSF WSP173/10	5129550174	6
191	NUT 1/2BSF	5129550110	1



R661P1.03

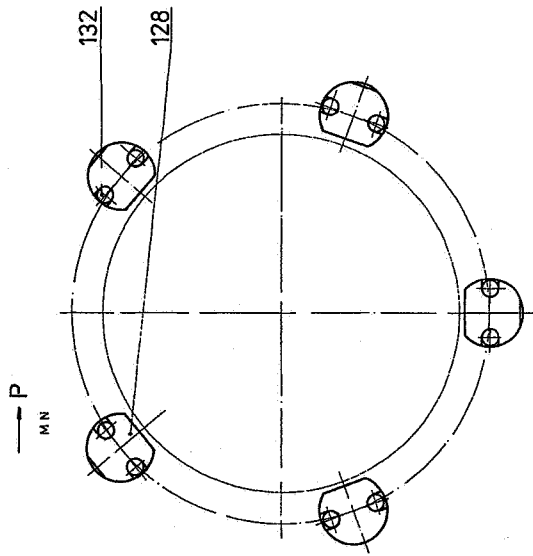
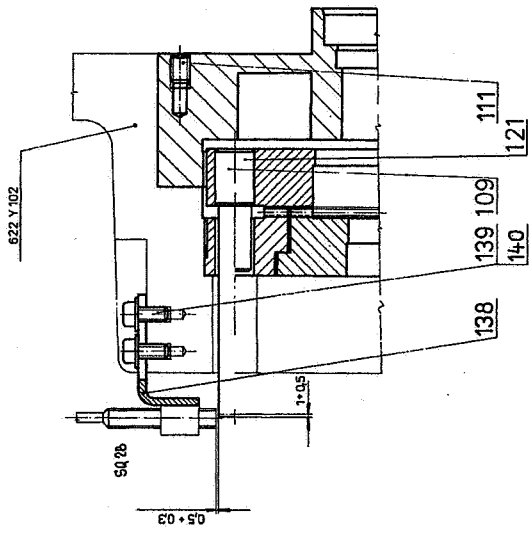
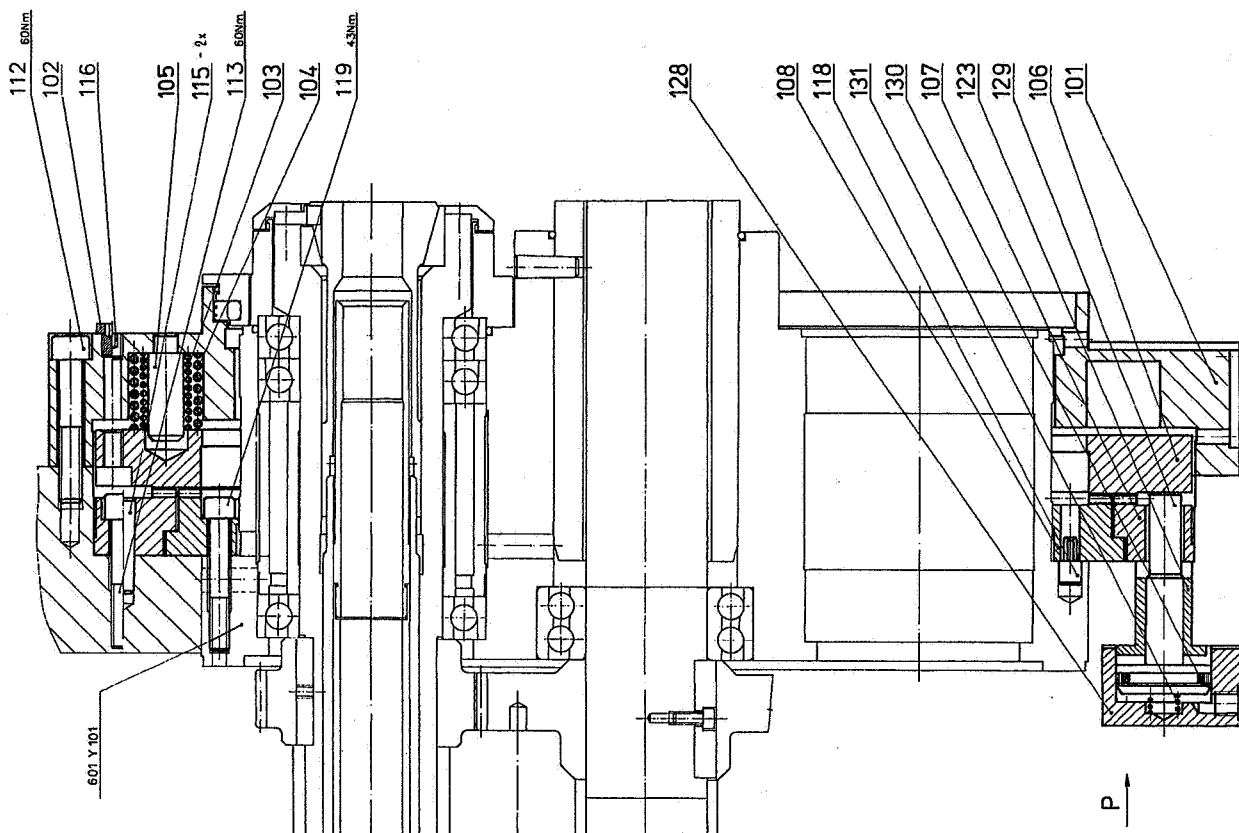
SPINDLE DRUM LOCKING  
661 Y3 (Fig. 1-26)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	CARRYING FLANGE	R661Y101A	1
102	PLUG VS-M12X1?5-WD	3194200020	6
103	SPRING Ø2,5 Ø21X60 10Z	L220150-2127E3	40
104	SPRING Ø3,55 Ø30X55 7Z	L220150-2128E3	40
105	GUIDING PIN	R661W105	40
106	LOCKING GEAR RIM	T R661Y106B	1
107	EXTERNAL GEAR RIM	T R661Y107	1
108	INTERNAL GEAR RIM	T R661Y108A	1
109	CLOSING PIN	R661W109	1
110	SCREW M8X40 DIN912-12.9	3095850128	8
111	SCREW M8X12 021181.25	3092810890	3
112	SCREW M10X60 DIN912-12.9	3095850198	12
113	SCREW M10X50 DIN912-12.9	3095850193	10
115	PIN Ø8X40 ISO8736-B	3115151440	2
116	SCREW M12X12 CE DIN913	3097870246	2
118	CENTRING PIN	R661W118A	1
119	SCREW M8X55 DIN912-12.9	3095850140	6
121	GUIDING PIN	R661W121	2
123	BUSH	R661W123	5
128	CYLINDER	R661X128	5
129	PISTON	R661W129	5
130	SEALING S-55044-0400A46-N	2731114220	5
131	SPRING Ø1,8 Ø14X25,5 8Z	L220150-2178E11	5
132	SCREW M10X40 DIN912-12.9	3095850191	10
138	SENSOR BRACKET	R661X138	1
139	SCREW M6X12 DIN912-12.9	3095850071	2
140	WASHER Ø6,4 ISO7089	3112100180	2

R661Y106.RB

TECHNOLOGICAL UNIT  
GEAR RIM

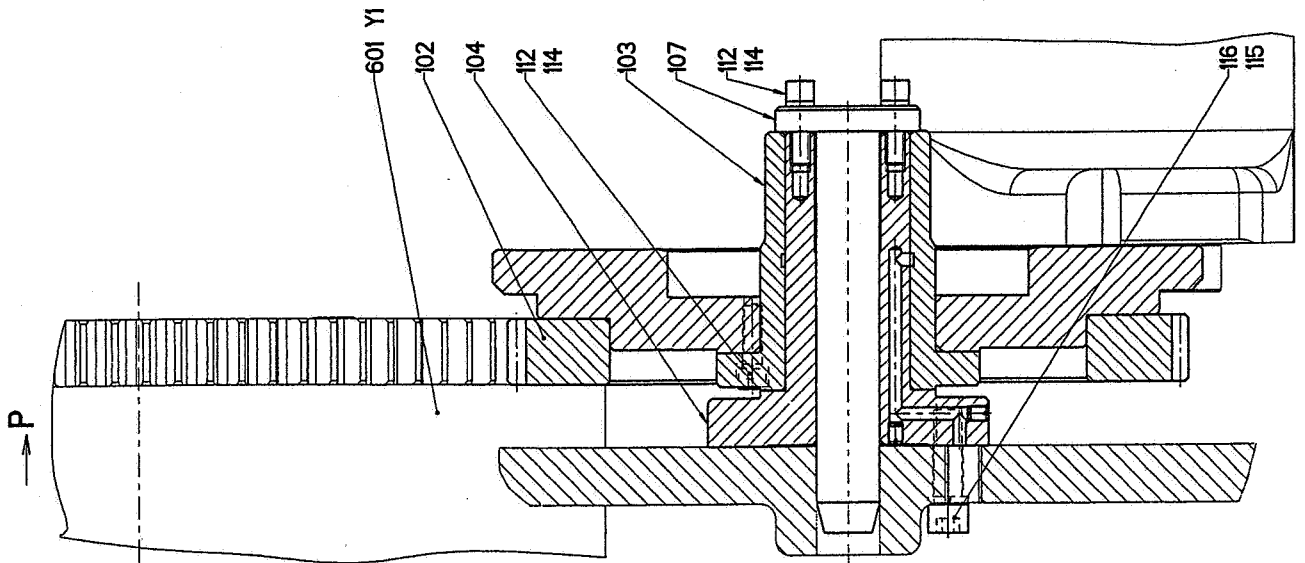
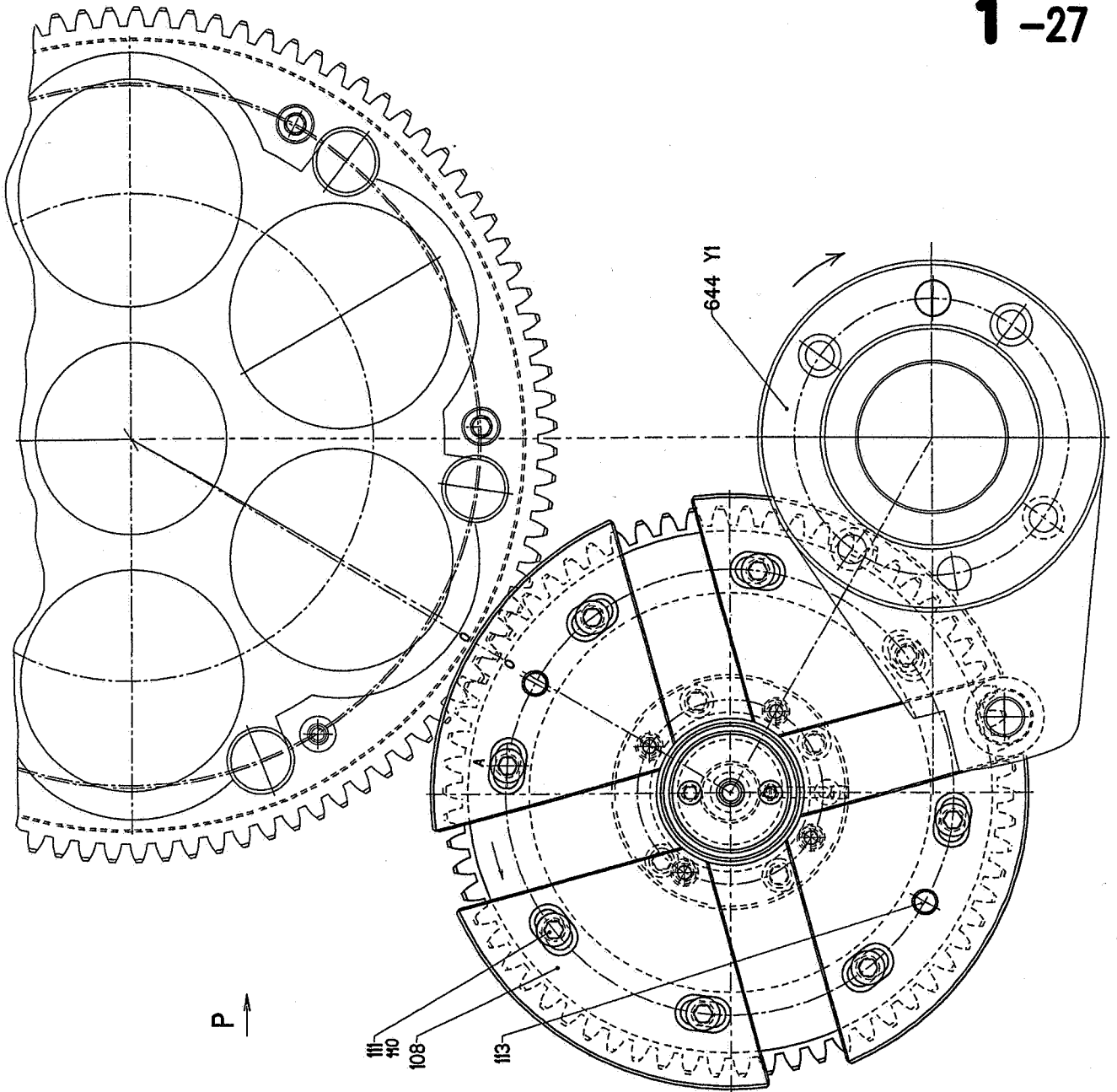
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
106	LOCKING GEAR RIM	T R661Y106B	1
107	EXTERNAL GEAR RIM	T R661Y107	1
108	INTERNAL GEAR RIM	T R661Y108A	1



R646P1.03

SPINDLE DRUM INDEXING  
646 Y1 (Fig. 1-27)

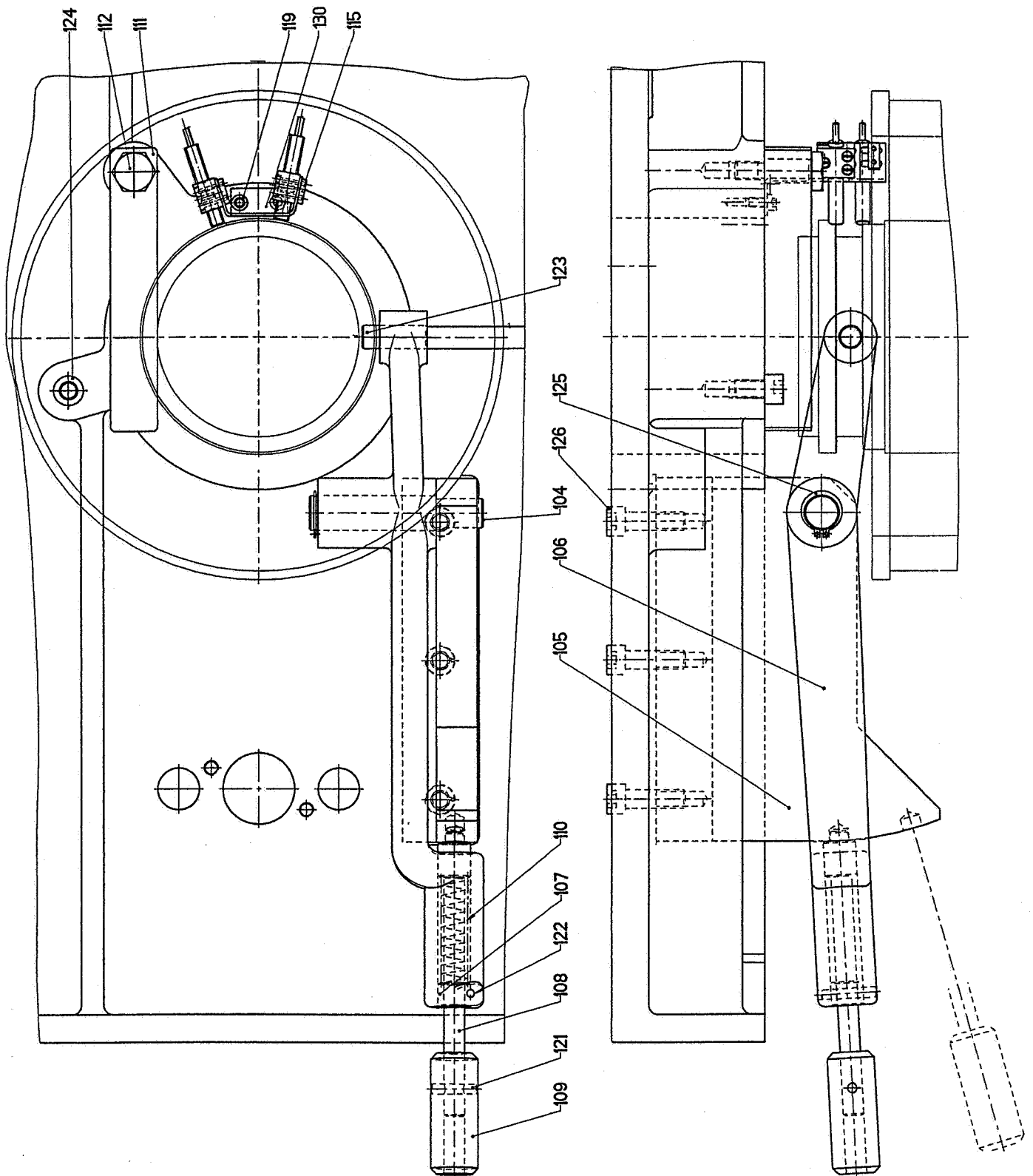
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
102	GEAR WHEEL	R646V102	1
103	CARRIER	R646X103	1
104	PIN	R646V104	1
107	PIN	R646X107	1
108	GENEVA CROSS	R646Y508A	1
110	WASHER	R646W110	8
111	SCREW M12X35 DIN912-12.9	3095850202	8
112	SCREW M8X25 DIN912-12.9	3095850123	6
113	PIN Ø10X40 ISO2339-B	3115151820	2
114	WASHER Ø8 DIN7980	3112140300	6
115	WASHER Ø7/16"	5129550095	4
116	SCREW 7/16BSF-3/2"L	5129550086	4



R645P1.03

SPINDLE DRUM INDEXING MECHANISM DISABLING  
645 Y1 (Fig. 1-28)

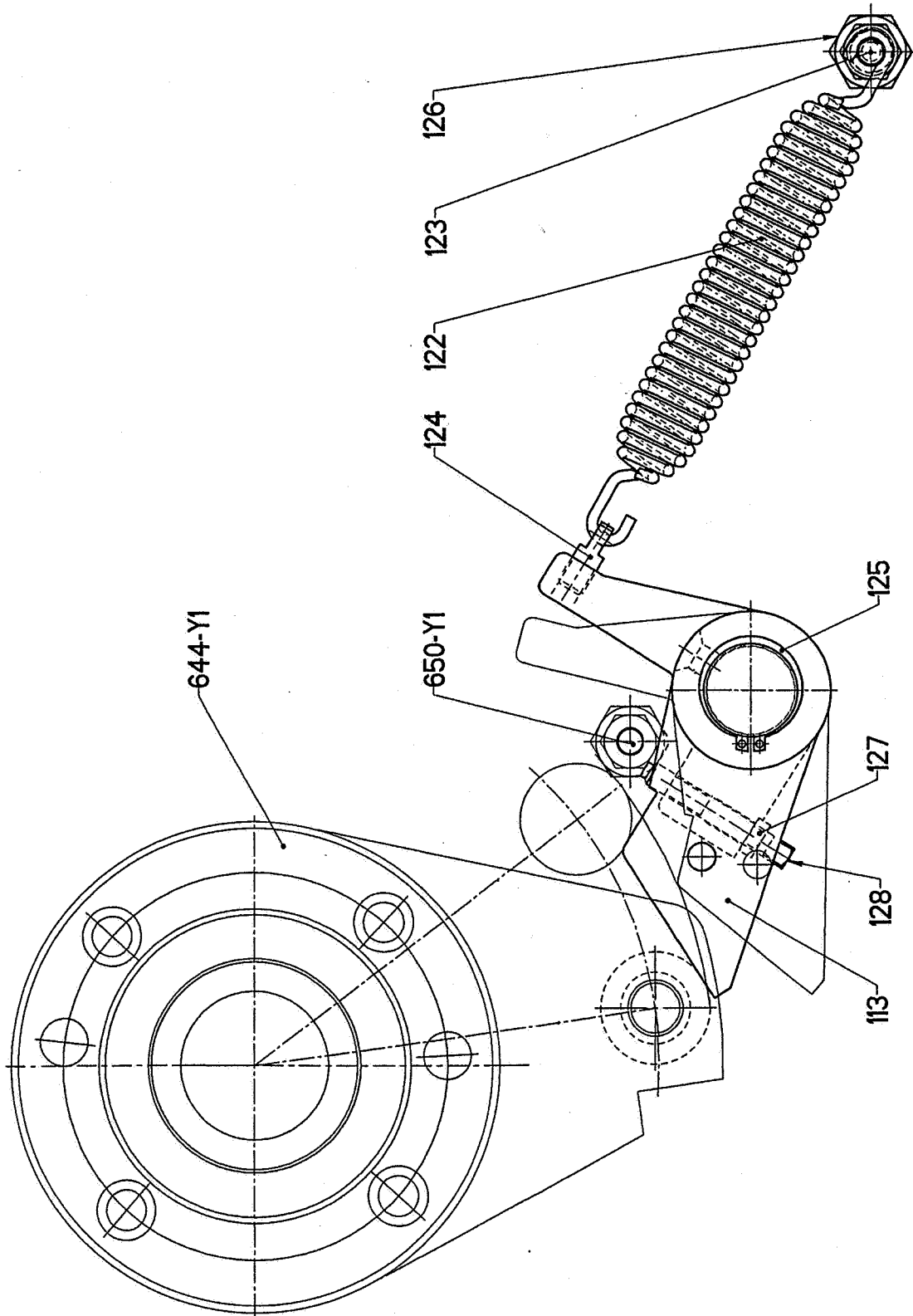
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
104	PIN	R145X104B	1
105	PLATE	R645V105A	1
106	DISENGAGING LEVER	R645V106	1
107	BUSH	R145X107A	1
108	BAR	R145X108B	1
109	HANDLE	R145X109A	1
110	SPRING Ø1,4 Ø14,4X82,5	L145X110A	1
111	PAWL	R645X111	1
112	PIN Ø12X40X25 CKG	3115191020	1
115	NUT	R645W115	2
119	SCREW M5X10 DIN912-12.9	3095850051	2
121	PIN Ø5X25 ISO2339-B	3115150730	1
122	PIN Ø5X30 ISO2339-B	3115150760	1
123	PIN 1/2-11/8"L	5129550132	1
124	SCREW M8X12 DIN912-12.9	3095850112	1
125	RING Ø3/4"	5129550134	1
126	SCREW M10X30 DIN912-12.9	3095850171	3
130	HOLDER	R645X130A	1



R647P1.03

CAM DRUM ARRESTMENT  
647 V1 (Fig. 1-29)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
113	STOP	R645V113	1
122	PULLING SPRING	L150X122C	1
123	SUSPENSION	R150X123B	1
124	SUSPENSION	R150X125A	1
125	RING Ø32                   022930	3117330340	1
126	NUT 5/8BSF	5129550076	1
127	NUT 5/16BSF	5129550051	1
128	SCREW 5/16BSF-9/4"L	5129550125	1



R601P1.03

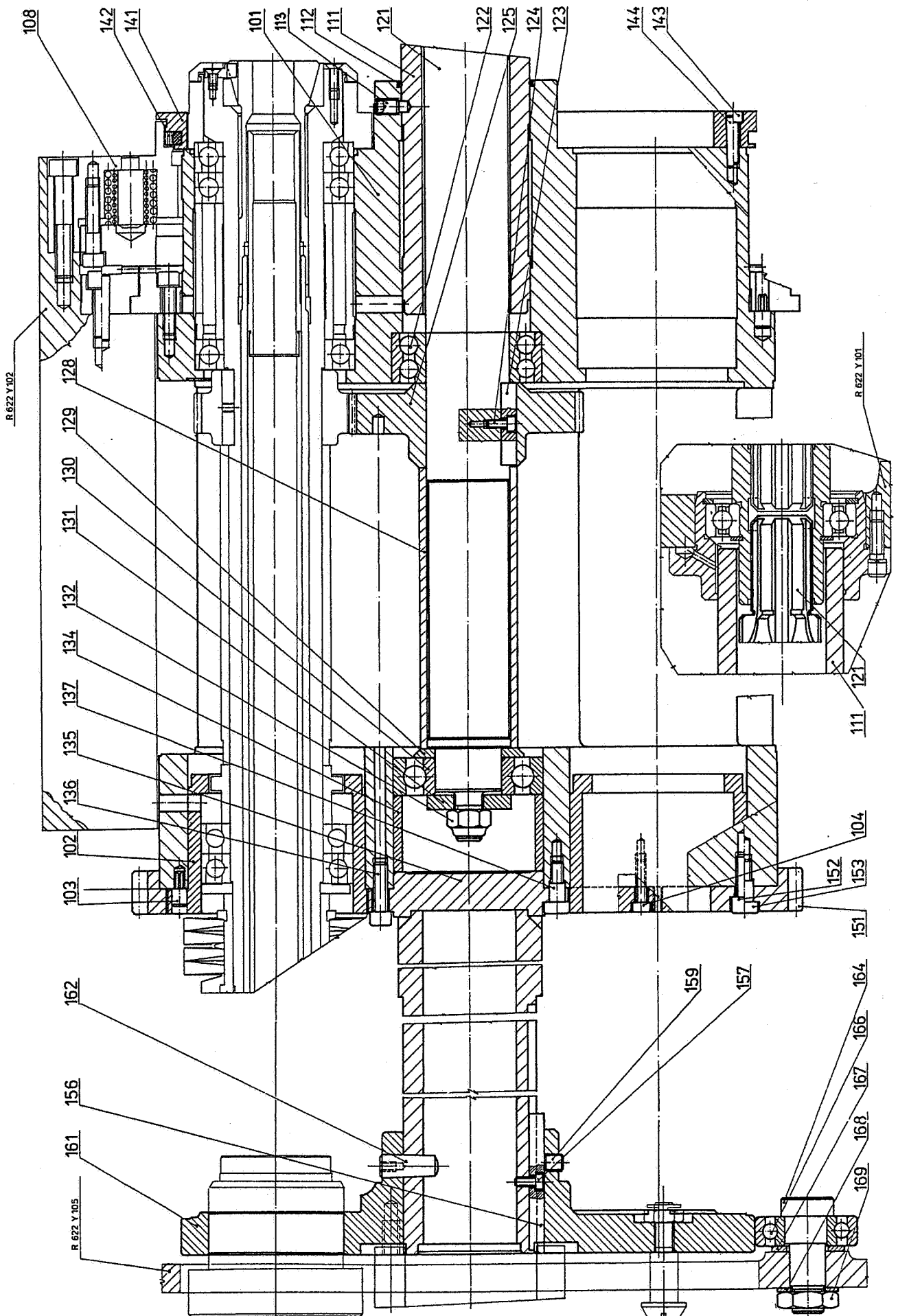
SPINDLE DRUM  
601 Y2 (Fig. 1-30)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	SPINDLE DRUM	T R601Y101B	1
102	BEARING BUSH	T R601V102B	6
103	CENTRING PIN	T R601W103A	6
104	SCREW M6X25 DIN912-12.9	T 3095850083	18
108	SPINDLE DRUM LOCKING MECHANISM	R661P1.03	1
111	SCREW M8X12 021181.22	3092810890	3
112	SCREW M10X60 DIN912-12.9	3095850198	12
113	SCREW M10X50 DIN912-12.9	3095850193	10
121	GUIDING PIN	R661W121	2
122	BEARING 3210/P6	3242320175	1
123	BUSH	R661W123	5
124	SCREW M5X12 DIN912-12.9	3095850052	1
125	GEAR WHEEL	R601X125	1
128	CYLINDER	R661X128	5
129	PISTON	R661W129	5
130	SEALING S-55044-0400A46-N	2731114220	5
131	SPRING Ø1,8 Ø14X25,5 8Z	L220150-2178E11	5
132	SCREW M10X40 DIN912-12.9	3095850191	10
134	MATCHING RING	R601W134	1
135	GUIDING SHAFT	R601V135.RA	1
136	SCREW M8X30 DIN912-12.9	3095850125	5
137	SCREW Ø10/M8X12 ISO7379	3093980112	1
141	COVERING RING	R601Y141	1
142	SEALING 25724-3600-66	2731114797	1
143	SCREW M6X25 DIN912-12.9	3095850083	6
144	PIN Ø8X30 ISO8736-B	3115151360	2
151	GEAR RIM	R601Y151	1
152	SCREW M10X25 DIN912-12.9	3095850164	5
153	SCREW Ø10/M8X12 ISO7379	3093980112	1
156	KEY	R601W156A	1
157	SCREW M5X12 DIN912-12.9	3095850052	1
159	SCREW M12x16 CE DIN913	3097870250	1
161	SUPPORTING DISK	R601V161	1
162	PIN Ø12X35 ISO8736-B	3115152180	2
164	ECCENTRIC PIN	R158X164C	3
166	BEARING 6305-2Z	3241630330	3
167	WASHER Ø25 ISO7089	3112100370	3
168	WASHER Ø21 ISO7089	3112100340	3
169	NUT 3/4BSF	5129550188	3

R601Y101B.R

TECHNOLOGICAL UNIT  
SPINDLE DRUM

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	SPINDLE DRUM	T R601Y101B	1
102	BEARING BUSH	T R601V102B	6
103	CENTRING PIN	T R601W103A	6
104	SCREW M6X25 DIN912-12.9	T 3095850083	18



R602P2.03

WICKMAN 6-26 AC  
 SPINDLE  
 602 Y3 (Fig. 1-31)

- 1 -

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	SPINDLE	T R602Y101	1
102	INSERT FOR COLLET	T R602X102	1
105	BEARING 7012ACD/P4ATBTA SKF	3241000080	1 SET
106	EXTERNAL DISTANCE RING	T R602W106	1
107	INTERNAL DISTANCE RING	T R602W107	1
108	KEY	R602W108	1
109	GEAR WHEEL	R602X109	1
111	DISTANCE PIPE	R602X111	1
112	BEARING 7011CD/P4ADBA SKF	3241000090	1 SET
115	COVERING RING	R602W115	1
116	SPACER RING	R602W116	1
117	BALANCING KEY	R602W117	1
121	SPRING BUSH	R602W121	1
123	FITTING SPACER RING	R602W123	1
124	BELLEVILLE SPRING	R602X124	4
125	DISTANCE RING	R602W125	1
126	LOCKING RING	R602W126	1
128	NUT	R602W128	1
129	NUT	R602W129	1
130	SCREW M5X16 DIN912-12.9	3095850055	2
141	SLIDING BUSH	R602V141	1
142	CLAMPING BODY	R602V142B	1
143	GUIDING STONE	R602W143	1
144	FREE STONE	R602W144	1
148	BALANCING FLANGE	R602X148	1
149	PIN Ø4X10 ISO2338-A	3115150420	2
150	SCREW M6X35 DIN912-12.9	3095850086	4
155	GUIDING CAGE	R602X155	1
156	BARREL	R602W156	15
157	SUPPORTING BUSH	R602X157	1
158	SCREW	R602W158	3
165	GUIDING BUSH	R602W165	1
166	EXCHANGEABLE KEY	R602W166	2
167	CLOSING NUT	R602X167	1
175	CLAMPING TUBE	T R602X175.	1
176	CLAMPING TUBE FLANGE	T R602X176	1
201	KEY	R602W201	1
202	SCREW M5X10 021151.25	3092510940	1
205	O-RING Ø94, 92X2, 62 N70	2731112201	1
206	ENTERING FLANGE	R602V206	1
207	SCREW M6X25 DIN912-12.9	3095850083	6
208	PIN Ø8X30 ISO8736-B	3115151360	1
211	SPRAYING FLANGE	R602X211	1

R602P2.03

WICKMAN 6-26 AC  
SPINDLE  
602 Y3 (Fig. 1-31)

- 2 -

Pos.	Name of part, dimensions, standard		ZPS ordering No.	Qty
212	SCREW M5X14	DIN7991	3095510058	4
213	WEIGHT		R602W213	12
214	SCREW M6X8 CE	DIN913	3097870010	15
215	SCREW M6X12 CE	DIN913	3097870030	16
219	PLUG		R602W219	1
220	RING Ø28	022925.2	3117320340	1

R602Y101.R

TECHNOLOGICAL UNIT  
SPINDLE

Pos.	Name of part, dimensions, standard		ZPS ordering No.	Qty
101	SPINDLE		T R602Y101	1
102	INSERT FOR COLLET		T R602X102	1

R602W106.R

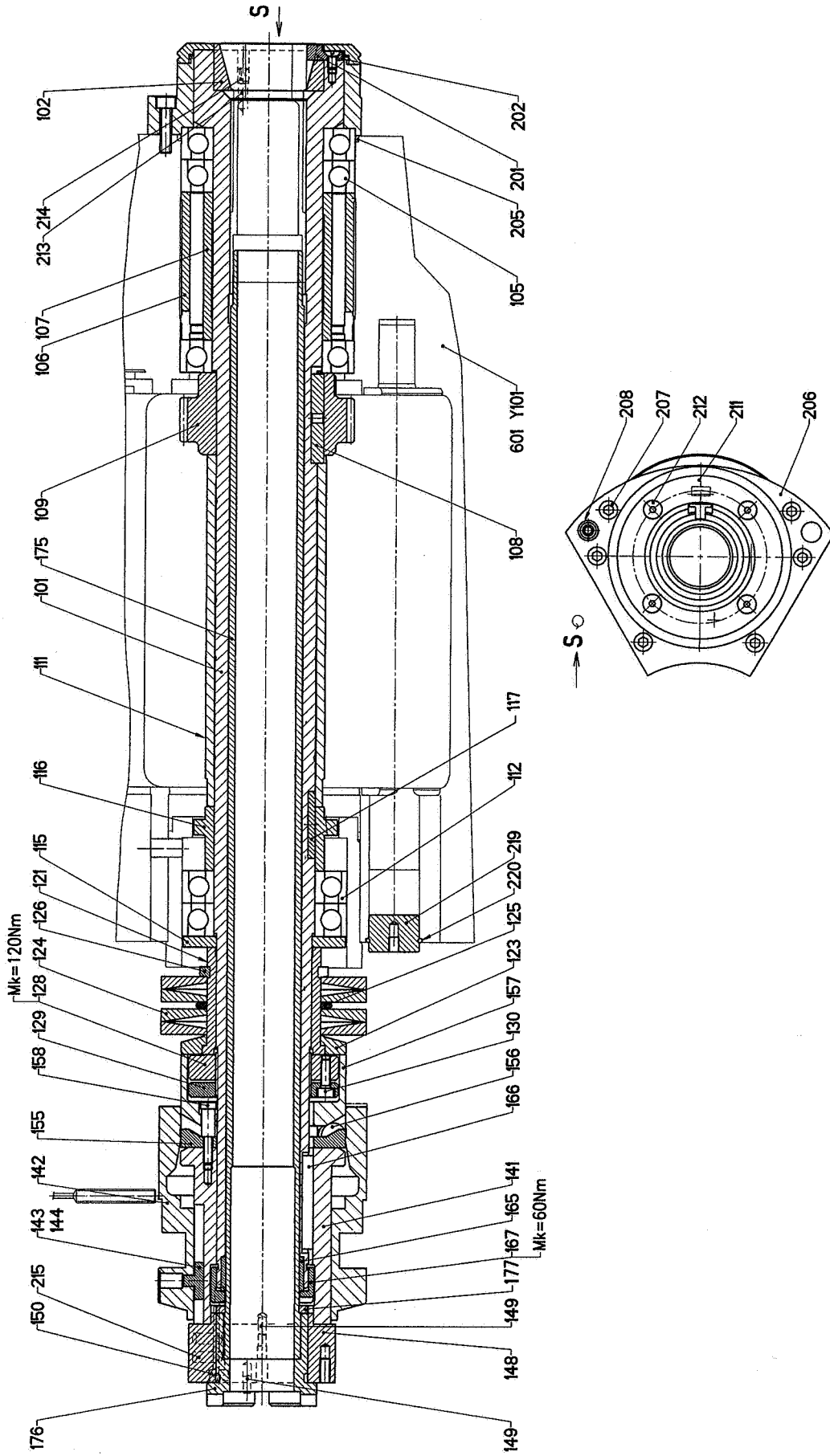
TECHNOLOGICAL UNIT  
DISTANCE RING

Pos.	Name of part, dimensions, standard		ZPS ordering No.	Qty
106	EXTERNAL DISTANCE RING		T R602W106	1
107	INTERNAL DISTANCE RING		T R602W107	1

R602X175.R

TECHNOLOGICAL UNIT  
CLAMPING TUBE

Pos.	Name of part, dimensions, standard		ZPS ordering No.	Qty
175	CLAMPING TUBE		T R602X175	1
176	CLAMPING TUBE FLANGE		T R602X176	1



R603P1.03

WICKMAN 6-26 S AC  
 SPINDLE - STOP  
 603 Y1 (Fig. 1-31.1)

- 1 -

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	SPINDLE	T R602Y101	1
102	INSERT FOR COLLET	T R602X102	1
105	BEARING 7012ACD/P4ATBTA SKF	3241000080	1 SET
106	EXTERNAL DISTANCE RING	T R602W106	1
107	INTERNAL DISTANCE RING	T R602W107	1
112	BEARING 7011CD/P4ADBA SKF	3241000090	1 SET
115	COVERING RING	R602W115	1
121	SPRING BUSH	R602W121	1
123	FITTING DISTANCE RING	R602W123	1
124	BELLEVILLE SPRING	R602X124	4
125	DISTANCE RING	R602W125	1
126	LOCKING RING	R602W126	1
128	NUT	R602W128	1
129	NUT	R602W129	1
130	SCREW M5X16 DIN912-8.8	3095430090	2
141	SLIDING BUSH	R602V141	1
142	CLAMPING BODY	R602V142B	1
143	GUIDING STONE	R602W143	1
144	FREE STONE	R602W144	1
148	BALANCING FLANGE	R602X148	1
149	PIN Ø4X10 ISO2338-A	3115150420	2
150	SCREW M6X35 DIN912-8.8	3095430470	4
155	GUIDING CAGE	R602X155	1
156	BARREL	R602W156	15
157	SUPPORTING BUSH	R602X157	1
158	SCREW	R602W158	3
165	GUIDING BUSH	R602W165	1
166	EXCHANGEABLE KEY	R602W166	2
167	CLOSING NUT	R602X167	1
175	CLAMPING TUBE	T R602X175	1
176	CLAMPING TUBE FLANGE	T R602X176	1
201	KEY	R602W201	1
202	SCREW M5X10 021151.25	3092510940	1
205	O-RING Ø94,92X2,62 N70	2731112201	1
206	ENTERING FLANGE	R602V206	1
207	SCREW M6X25 DIN912-8.8	3095430410	6
208	PIN Ø8X30 ISO8736-B	3115151360	1
211	SPRAYING FLANGE	R602X211	1
212	SCREW M5X14 DIN7991	3095510058	4
214	SCREW M6X8 CE DIN913	3097870010	15
215	SCREW M6X12 CE DIN913	3097870030	15
219	PLUG	R602W219	1
220	RING Ø28 022925.2	3117320340	1

R602Y101.R

TECHNOLOGICAL UNIT  
SPINDLE

- 2 -  
Qty

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	SPINDLE	T R602Y101	1
102	INSERT FOR COLLET	T R602X102	1

R602W106.R

TECHNOLOGICAL UNIT  
DISTANCE RING

Qty

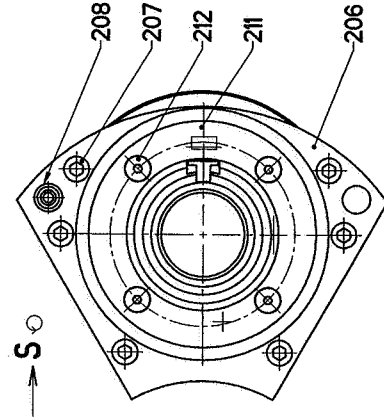
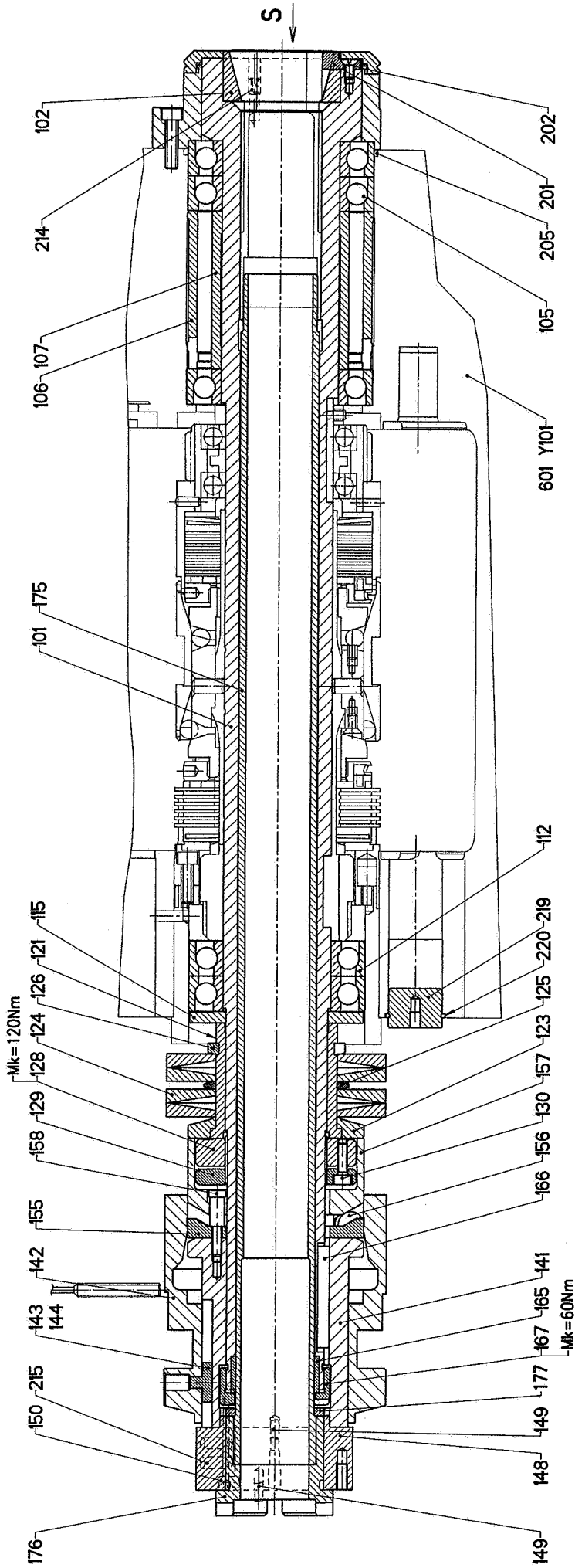
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
106	EXTERNAL DISTANCE RING	T R602W106	1
107	INTERNAL DISTANCE RING	T R602W107	1

R602X175.R

TECHNOLOGICAL UNIT  
CLAMPING TUBE

Qty

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
175	CLAMPING TUBE	T R602X175	1
176	CLAMPING TUBE FLANGE	T R602X176	1



R605P1.02

WICKMAN 6-26 S AC  
 SPINDLE CLUTCH AND BRAKE  
 605 Y1 (Fig. 1-31.2)

- 1 -  
 Qty

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	TUBE	T R605V101	1
102	RING	R605W102	1
103	GEAR WHEEL	T R605X103	1
104	CLUTCH CARRIER	T R605X104	1
105	DISTANCE RING	R605W105	1
106	SUPPORTING RING	R605W106	2
107	EXTERNAL PLATE	R605W107	12
108	INTERNAL PLATE	R605W108	10
109	CLOSING PLATE	R605W109	2
110	NUT	R605X110	2
111	SUPPORTING RING	R605X111	2
112	BRAKE CARRIER	R605X112	1
113	CLAW CLUTCH	R605X113	1
114	RING	R605W114	1
115	FLEXIBLE PLATE	R605W115	2
116	CAGE	R605X116	2
117	SUPPORTING RING	T R605X117	1
118	SLIDING RING	R605X118	1
119	RING	R605W119	1
120	KEY	R605W120	1
121	BELLEVILLE SPRING	R605W121	36
122	TAPERED PIN MODIFICATION	T R605W122	3
123	SCREW M6X20 DIN912-8.8	3095430380	3
124	CENTRING PIN	R601W103	1
125	KEY	R605W125	1
126	LOCKING PIN	R605W126	2
127	BARREL	R605W127	24
128	SPRING Ø0,4 Ø3X12 13,25Z	L13223-37E5	2
129	PIN Ø8X16 ISO2338-A	T 3115151290	2
130	SCREW M5X8 BN1206-120.9	3095300050	6
131	SCREW M6X10 021183.22	3092830400	1
132	BEARING 61911 SKF	3241610040	2
133	REAR PLATE	R605W133	2
134	SCREW M3X8 021181.22	3092810200	2
135	SCREW M3X5 CE 021185.22	3092850010	3

R605V101.R

TECHNOLOGICAL UNIT  
TUBE

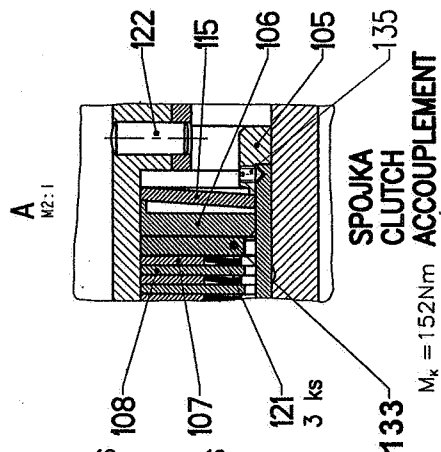
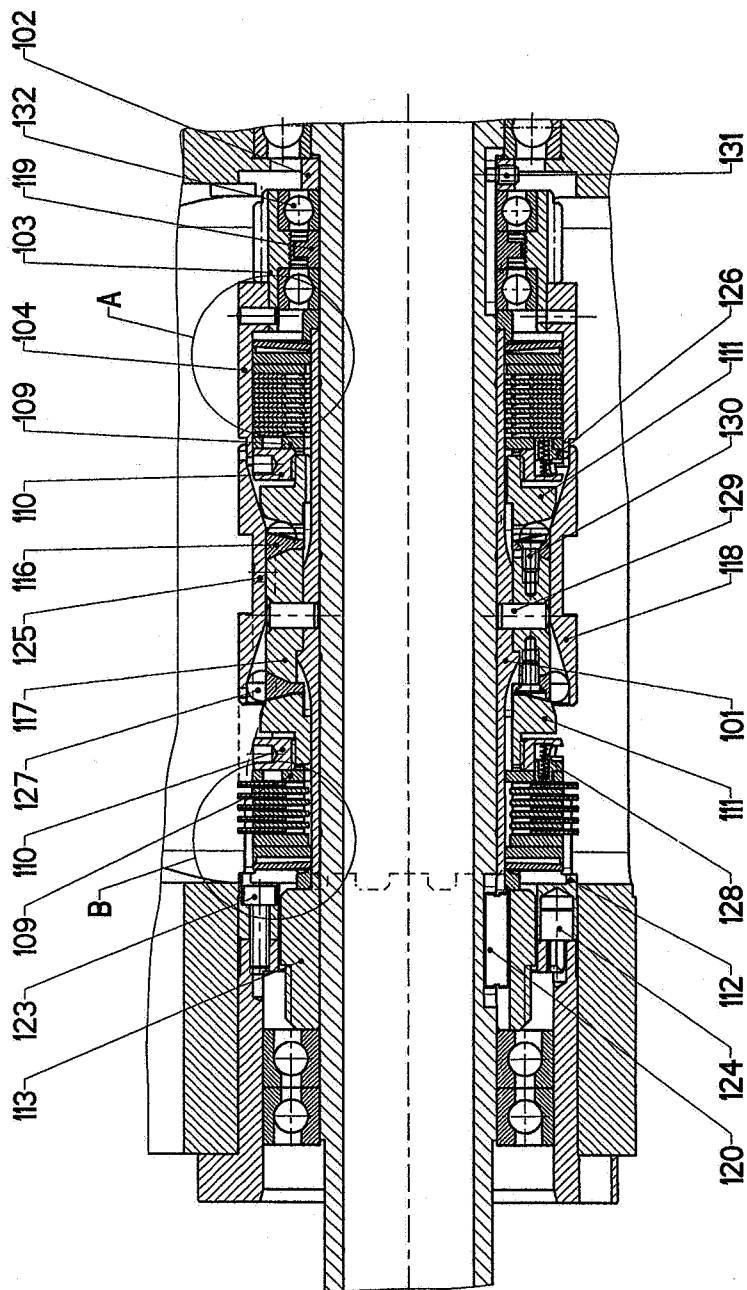
- 2 -

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	TUBE	T R605V101	1
117	SUPPORTING RING	T R605X117	1
129	PIN Ø8X16 ISO2338-A	T 3115151290	2

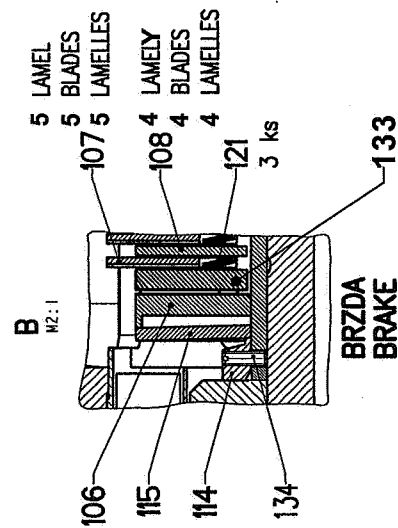
R605X103.R

TECHNOLOGICAL UNIT  
GEAR WHEEL

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
103	GEAR WHEEL	T R605X103	1
104	CLUTCH CARRIER	T R605X104	1
122	TAPERED PIN MODIFICATION	T R605W122	3



- 6 LAMEL
- 6 BLADES
- 6 LAMELLES
- 7 LAMEL
- 7 BLADES
- 7 LAMELLES

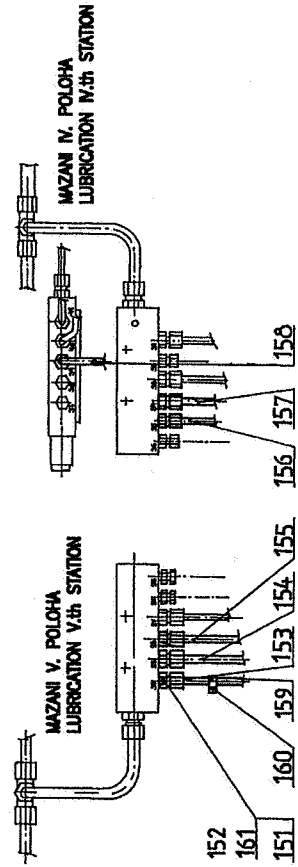
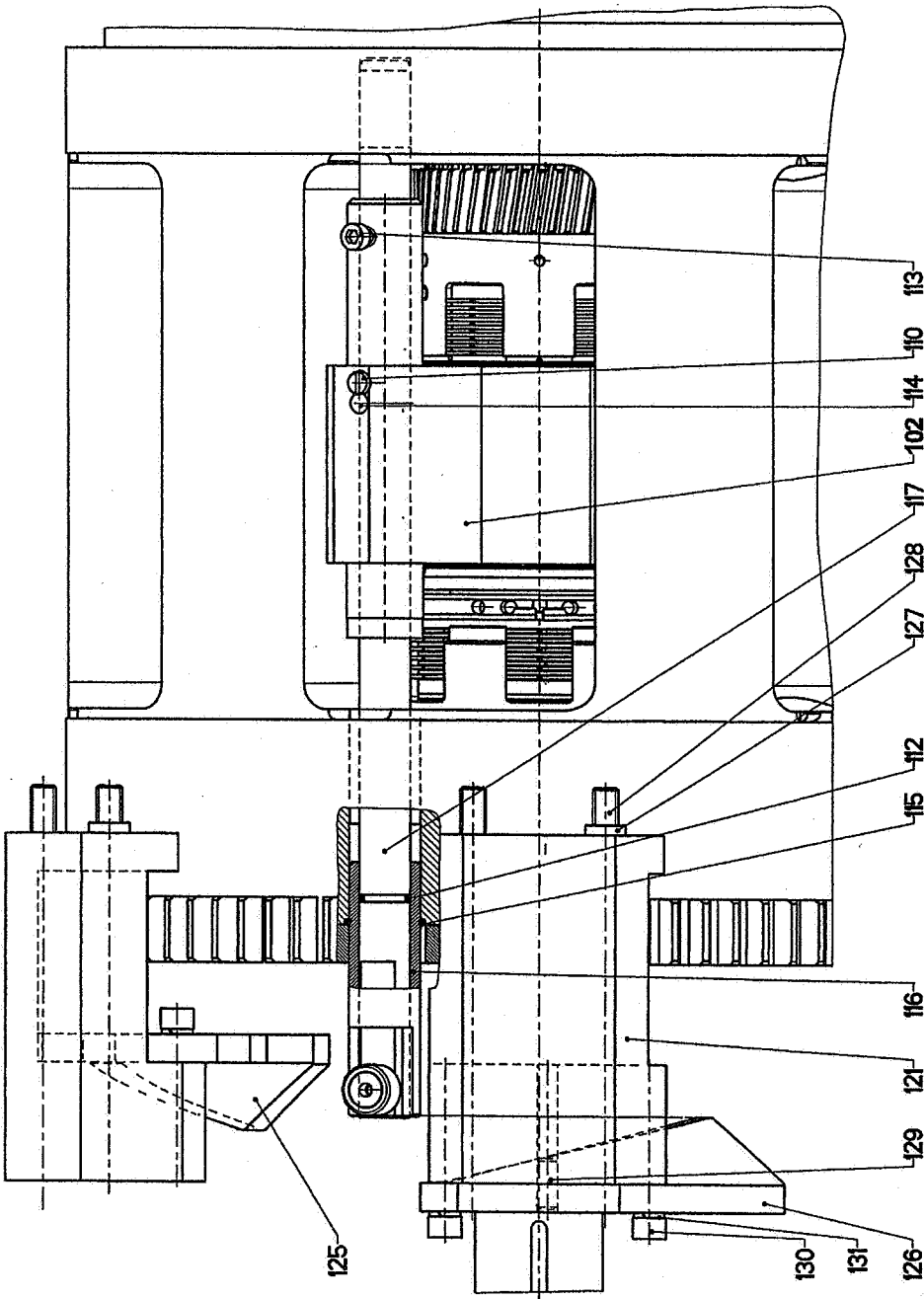
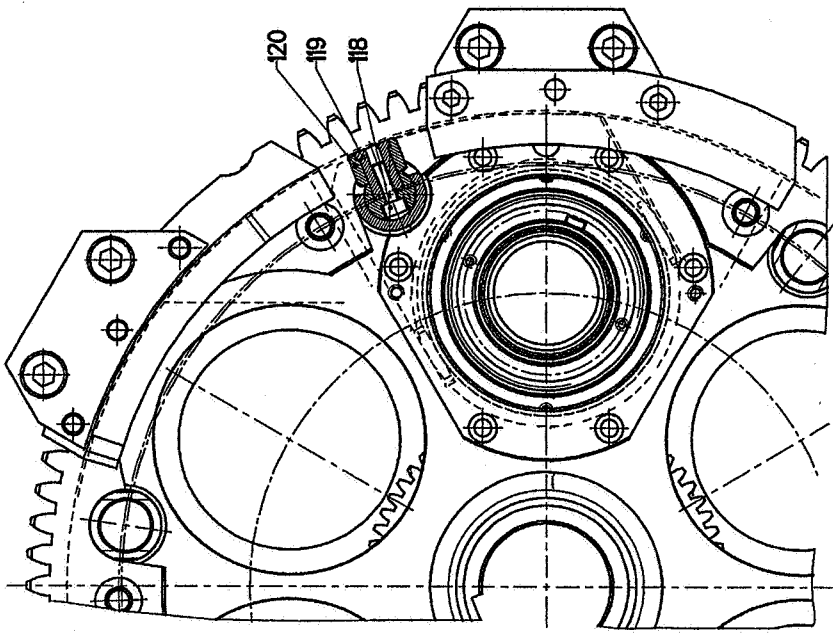


- 5 LAMEL
- 5 BLADES
- 5 LAMELLES
- 4 LAMEL
- 4 BLADES
- 4 LAMELLES

R606P1.02

WICKMAN 6-26 S AC  
CLUTCH - BRAKE CONTROL  
606 Y1 (Fig. 1-31.3)

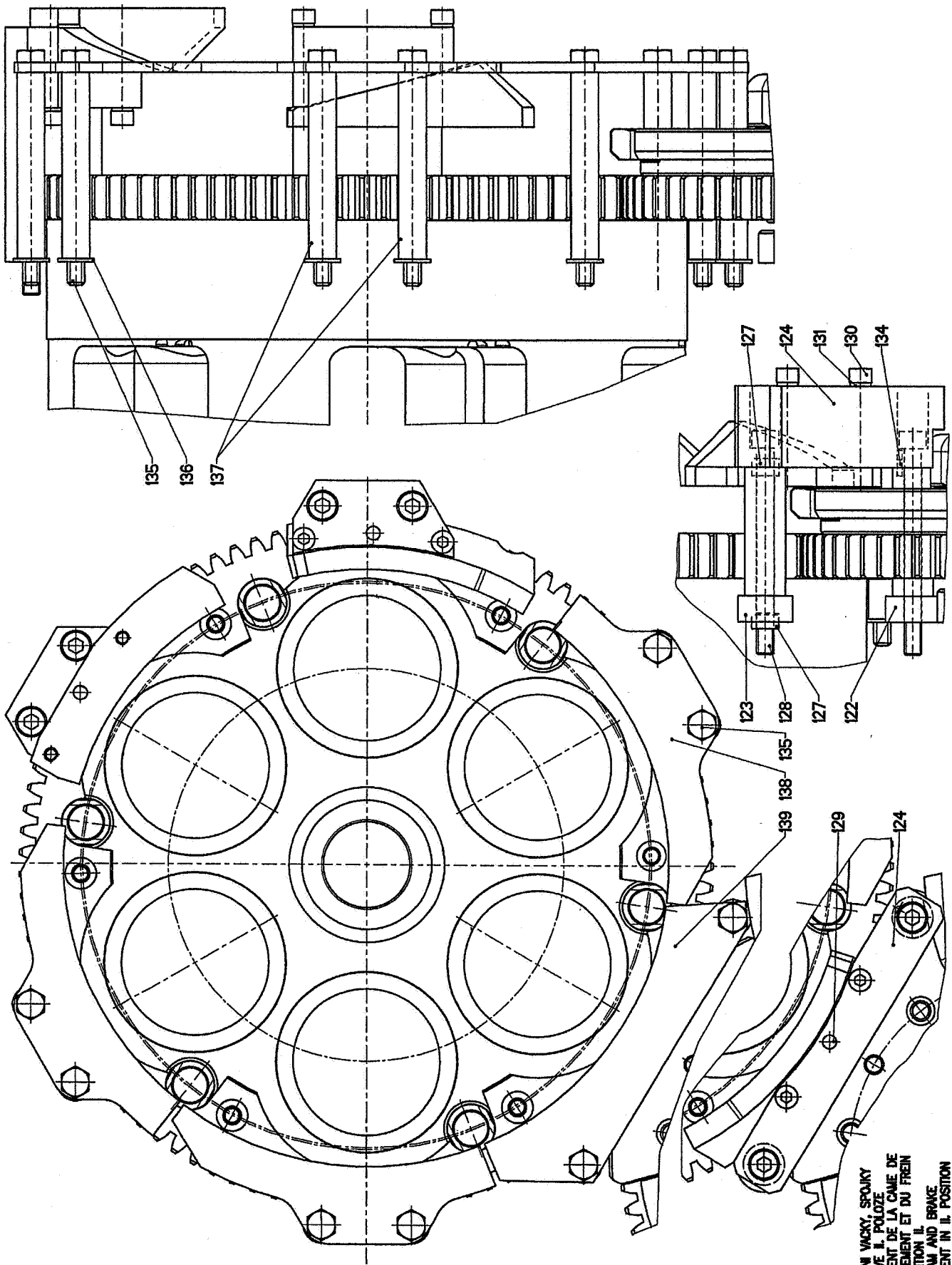
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
102	FORK	R606V102.R	6
110	SCREW M5X8 BN1206-10.9	3095300050	6
112	O-RING Ø20X16 ON029280.1	2731110720	6
113	SCREW M6X8 CE DIN913	3097870010	6
114	PIN Ø8X35 ISO8736-B	3115151400	6
115	RING Ø28 022925.2	3117320340	6
116	BUSH	R606W116	6
117	BAR	R606X117	6
118	SCREW M5X16 DIN912-8.8	3095430090	6
119	PIN	R606W119	6
120	NUT	R606W120	6
121	BRACKET	R606V121	2
125	CAM - BRAKE	R606V125	1
126	CAM - CLUTCH	R606V126	1
127	CENTRING RING	R606W127	6
128	SCREW M10X120 DIN912-8.8	3095431470	4
129	PIN Ø8X20 ISO2338-A	3115151300	2
130	SCREW M8X60 DIN912-8.8	3095430870	4
131	WASHER Ø8 DIN7980	3112140300	4
151	NECK JS4 137610.1	3194970070	6
152	NOZZLE	R666W182	6
153	TUBE	R606W153	1
154	TUBE	R606W154	1
155	TUBE	R606W155	1
156	TUBE	R606W156	1
157	TUBE	R606W157	1
158	TUBE	R606W158	1
159	CLAMP Ø6 022709.11	3117400060	6
160	SCREW M4X8 021131.25	3092310920	6
161	RING Ø10X14 029310.2	3194190120	6



R606P1.02

WICKMAN 6-26 S AC  
CLUTCH - BRAKE CONTROL  
606 Y2 (Fig. 1-31.4)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
122	TUBE	R606W122	1
123	TUBE	R606W123	1
124	BEAM	R606X124	1
127	CENTRING RING	R606W127	6
128	SCREW M10X120 DIN912-8.8	3095431470	4
129	PIN Ø8X20 ISO2338-A	3115151300	2
130	SCREW M8X60 DIN912-8.8	3095430870	4
131	WASHER Ø8 DIN7980	3112140300	4
134	PIN Ø3X10 ISO2338-A	3115150240	1
135	SCREW M10X130-8.8 EN24014	3092010650	12
136	WASHER Ø10,5 ISO7089	3112100240	10
137	TUBE	R606W137	10
138	METAL SHEET	R606X138	4
139	METAL SHEET	R606X139	1



USPORADAN VICKY, SPOJKY  
 A BRZDY VE II. POLOZE  
 ARRANGEMENT DE LA CAME DE  
 L'ACCOMPLISSEMENT ET DU FREIN  
 DANS POSITION II.  
 CLUTCH CAM AND BRAKE  
 ARRANGEMENT IN II. POSITION

R603P11.03

WICKMAN 6-26 S AC  
 SPINDLE - STOP - CUCCHI  
 603 Y11 (Fig. 1-31.5)

Pos.	Name of part, dimensions, standard	TAJMAC-ZPS ordering No.	Qty	
101	SPINDLE	T R602Y101	1	
102	COLLET ADAPTOR	T R602X102	1	
105	BEARING 7012ACD/P4ATBTA SKF	3241000080	1	SET
106	EXTERNAL DISTANCE RING	T R602W106	1	
107	INTERNAL DISTANCE RING	T R602W107	1	
112	BEARING 7011CD/P4ADBA SKF	3241000090	1	SET
115	COVERING RING	R602W115	1	
121	SPRING BUSH	R602W121	1	
123	FITTING DISTANCE RING	R602W123	1	
124	BELLEVILLE SPRING	R602X124	4	
125	DISTANCE RING	R602W125	1	
126	LOCKING RING	R602W126	1	
128	NUT	R602W128	1	
129	NUT	R602W129	1	
130	SCREW M5X16 DIN912-8.8	3095430090	2	
141	SLIDING BUSH	R602V141	1	
142	CLAMPING BODY	R602V142B	1	
143	GUIDING STONE	R602W143	1	
144	FREE STONE	R602W144	1	
148	BALANCING FLANGE	R602X148	1	
149	PIN Ø4X10 ISO2338-A	3115150420	2	
150	SCREW M6X35 DIN912-8.8	3095430470	4	
155	GUIDING CAGE	R602X155	1	
156	BARREL	R602W156	15	
157	SUPPORT BUSH	R602X157	1	
158	SCREW	R602W158	3	
165	GUIDING BUSH	R602W165	1	
166	EXCHANGEABLE SPLINE	R602W166	2	
167	PLUG NUT	R602X167	1	
185	CLAMPING TUBE	R602X185	1	
186	CLAMPING TUBE FLANGE	R602X186	1	
195	CARRIER	R602X195	1	
196	PIN	R602W187	1	
197	SCREW M5X12 HWN205S/K	3092851180	1	
198	GUIDING BUSH	R602W198	1	
199	SCREW M6X30 DIN912-12.9	3095850085	2	
201	SPLINE	R602W201	1	
202	SCREW M5X10 021151.25	3092510940	1	
205	O-RING Ø94,92X2,62 N70	2731112201	1	
206	STRIKING FLANGE	R602V206	1	
207	SCREW M6X25 DIN912-8.8	3095430410	6	
208	PIN Ø8X30 ISO8736-B	3115151360	1	
211	SPRAYING FLANGE	R602X211	1	
212	SCREW M5X14-10.9 DIN7991	3095510058	4	
214	SCREW M6X8 CE DIN913	3097870010	8	
215	SCREW M6X12 CE DIN913	3097870030	16	
219	PLUG	R602W219	1	
220	RING Ø28 022925.2	3117320340	1	

R602Y101.R

TECHNOLOGICAL UNIT  
SPINDLE

- 2 -

Pos.	Name of part, dimensions, standard	TAJMAC-ZPS ordering No.	Qty
101	SPINDLE	T R602Y101	1
102	INSERT FOR COLLET	T R602X102	1

R602W106.R

TECHNOLOGICAL UNIT  
DISTANCE RING

Pos.	Name of part, dimensions, standard	TAJMAC-ZPS ordering No.	Qty
106	EXTERNAL DISTANCE RING	T R602W106	1
107	INTERNAL DISTANCE RING	T R602W107	1



R604P3.03

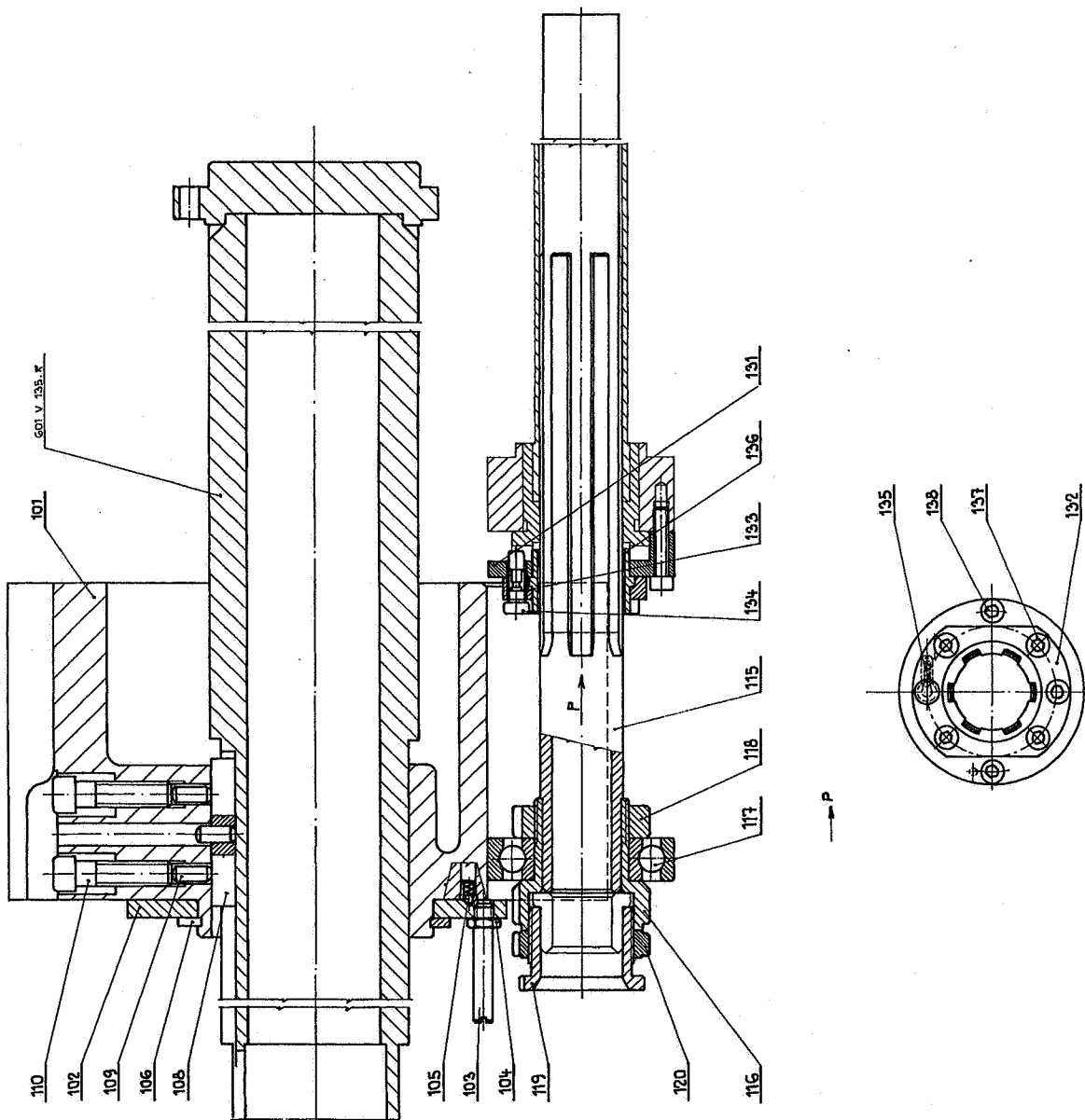
FEEDING TUBES WITH GUIDING - POSITIONED  
604 Y2 (Fig. 1-32)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	SUPPORTING DISK	R604Y101	1
102	BLOCKING PLATE	R604V102	1
103	SCREW M8X10X40 CKZ	R13207-1428F1	2
104	NUT M8 ZN ISO4035	3111200480	2
105	ELEMENT HWN2208 M6-N	5486000010	2
106	RING Ø100 022930	3117330800	1
108	KEY MODIFICATION	R604W108A	1
109	PIN Ø8X16 ISO2338-A	3115151290	3
110	SCREW M10X40 DIN912-12.9	3095850191	2
115	FEEDING TUBE	T R604V115	6
116	FLANGE	T R604X116	6
117	BEARING 6208-2Z	3241620800	6
118	NUT	R604W118	6
119	LOCKING SCREW	R101X152B	6
120	LOCKING NUT	R101X174A	6
131	CARRIER	R602W181	6
132	LOCKING FLANGE	R602W184	6
133	BUSH	R602W186	6
134	PIN	R602W187	6
135	SCREW M5X12 HWN205S/K	3092851180	6
136	GUIDING BUSH	R602W189	6
137	SCREW M6X16 DIN912-8.8	3095430350	30
138	SCREW M6X30 DIN912-12.9	3095850085	12

R604V115.R

TECHNOLOGICAL UNIT  
POSITIONED FEEDING TUBE

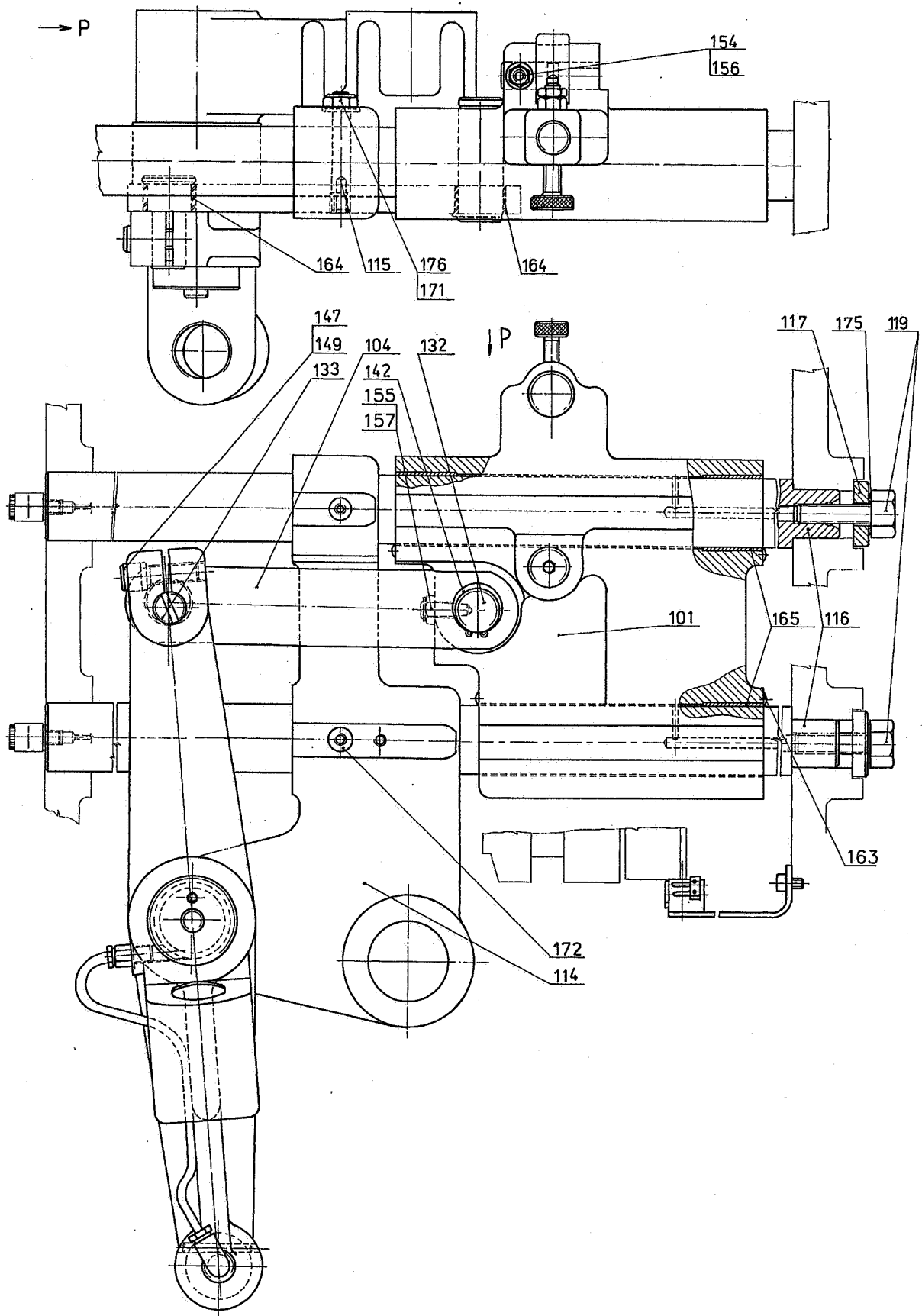
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
115	FEEDING TUBE	T R604V115	1
116	FLANGE	T R604X116	1



R656P1.03

STOCK CLAMPING  
656 Y3 (Fig. 1-33)

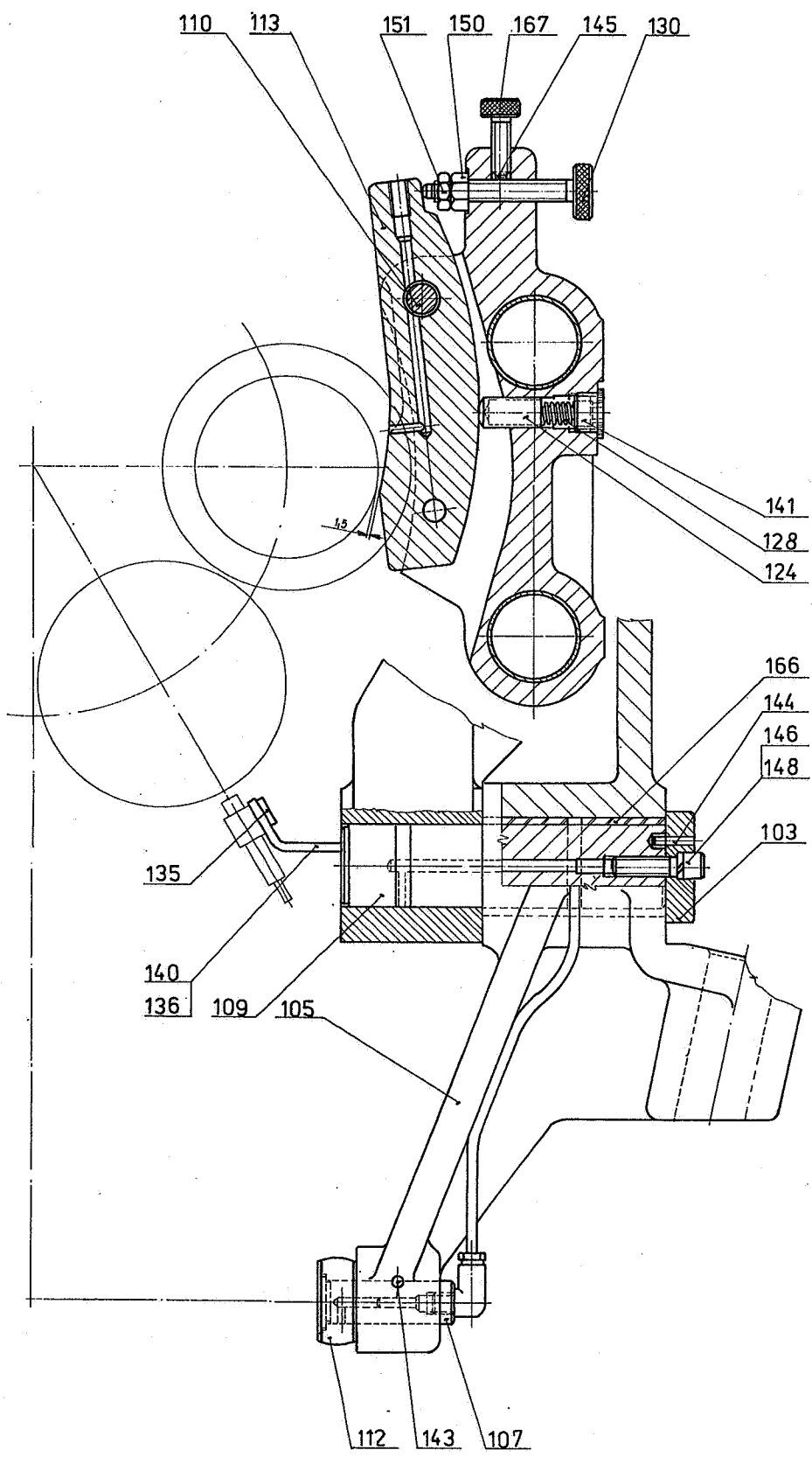
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	CLAMPING SLIDE VI - MODIFICATION	R656Y301	1
104	PULL ROD	R656X104	1
114	STAT. 6 CLAMPING + FEEDING BRACKET	R658Y303	1
115	TAPERED PIN	R656W163	1
116	GUIDING BAR	R658V357A	2
117	WASHER	R658W117	2
119	LUBRICATING ADAPTOR	R656W119	2
132	PIN	R156X132B	1
133	ECCENTRIC PIN	R156X133A	1
142	RING Ø1"	5129550215	1
147	WASHER Ø7/16"	5129550095	1
149	SCREW 7/16BSF-5/4"L	5129550074	1
154	SCREW 1/4BSF-3/4"L	5129550142	1
155	SCREW 3/8BSF-1"L	5129550062	1
156	NUT 1/4BSF	5129550079	1
157	NUT 3/8BSF	5129550049	1
163	SCREW M4X8-10.9 ISO7380	3093990040	4
164	BUSH Ø1-5/4-5/8"L	5129550143	2
165	BUSH MB4030DU-B	3232254030	4
171	WASHER Ø10,5 ISO7089	3112100240	1
172	PIN Ø12X70 ISO8736-B	3115152390	1
175	WASHER Ø1/2BSF	5129550147	2
176	NUT M10 021492.25	3111290045	1



R656P1.03

STOCK CLAMPING  
656 Y4 (Fig. 1-34)

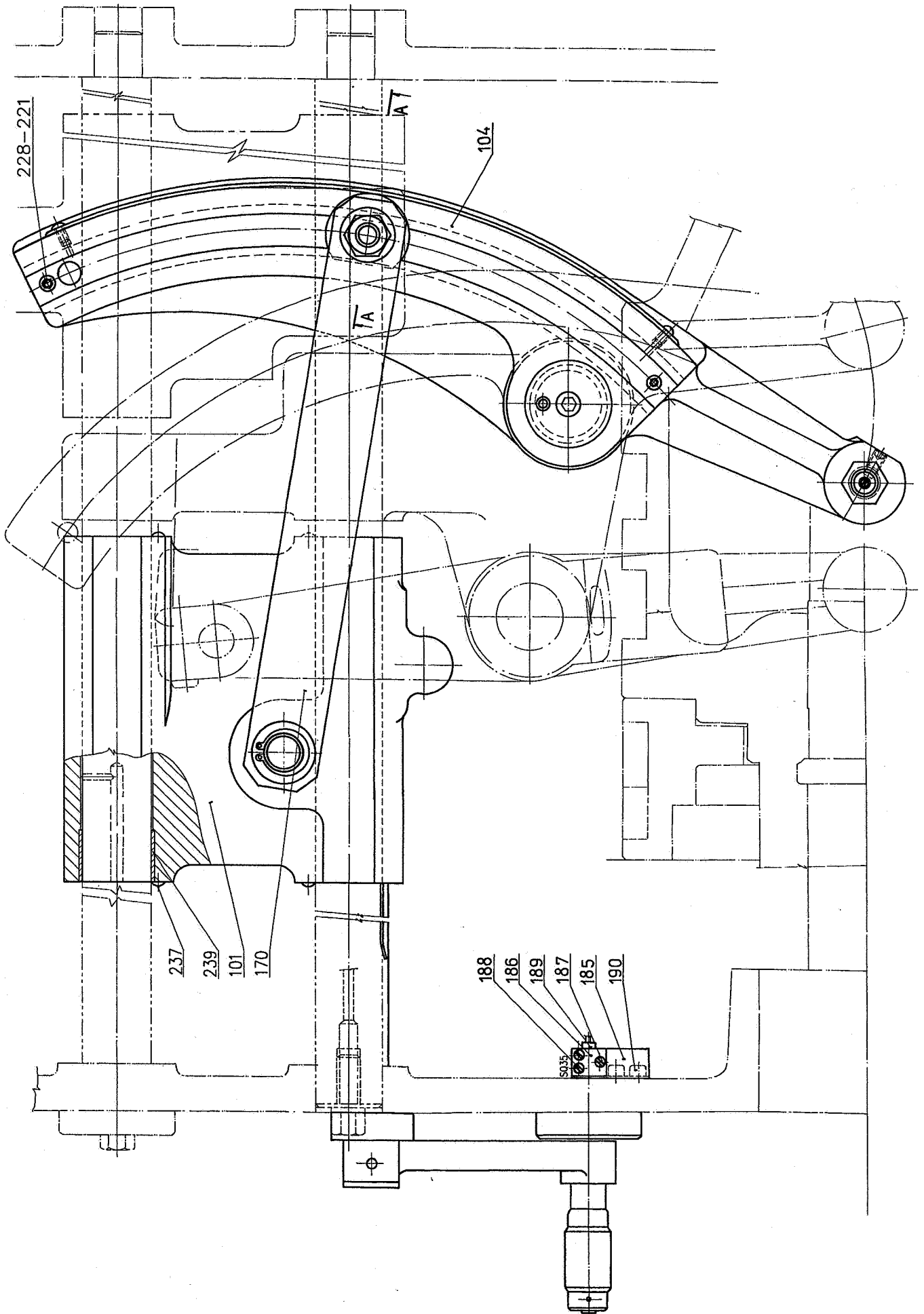
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
103	LID	R156X103A	1
105	6 STAT. CLAMPING LEVER	R656Y305	1
107	PIN	R158X107C	1
109	CLAMPING LEVER PIN	R156X309A	1
110	CLAMPING FINGER PIN	R156X110A	1
112	ROLL	R158X112B	1
113	CLAMPING FINGER	R656X113	1
124	PLUNGER	R158X124B	1
128	SPRING Ø1,4 Ø9,4X58,7	L156X128B	1
130	ADJUSTING SCREW	R156X130A	1
135	NUT	R645W115	1
136	SCREW M6X12 DIN912-12.9	3095850071	4
140	SENSOR BRACKET	R656X140A	1
141	PLUG	R618X141	1
143	PIN Ø6X45 ISO2339-B	3115151100	1
144	PIN Ø5X20 ISO2338-A	3115150690	1
145	INSERT Ø5/16BSF	5129550217	1
146	WASHER Ø3/8"	5129550094	1
148	SCREW 3/8BSF-5/4"L	5129550128	1
150	NUT 3/8BSF	5129550218	1
151	NUT 3/8BSF	5129550138	1
166	BUSH Ø3/2-7/4-3/2"L	5129550145	2
167	SCREW 8430-09	5129550146	1



R658P1.03

STOCK FEEDING  
658 Y7 (Fig. 1-35)

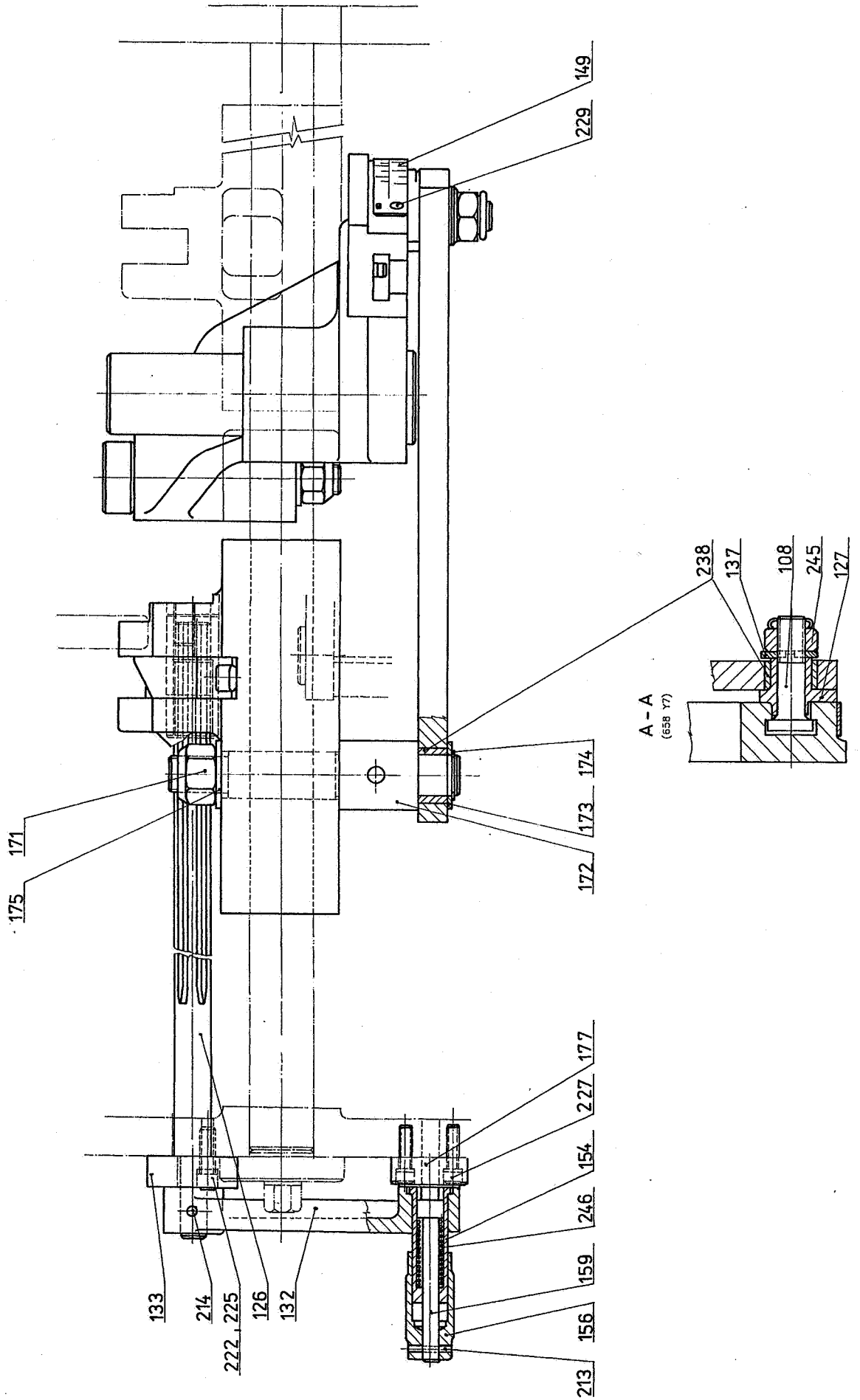
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	STAT. 6 - FEEDING SLIDE	R658Y301	1
104	STAT. 6 - FEEDING LEVER	R658Y304	1
170	LEVER	R658X170	1
185	HOLDER	R658W185	1
186	HOLDER BES08-KB-1	3456100880	1
186	HOLDER BES08-KB-1	3456100880	1
187	SCREW M3X8 021131.25	3092310560	1
188	SCREW M3X14 021131.25	3092310650	2
189	SWITCH BES516324E0CPU05	4051140140	1
190	SCREW M6X10 DIN912-12.9	3095850068	2
221	WASHER Ø3/16" WSP154	5129550152	2
228	SCREW M5X8 DIN912-12.9	3095850053	2
237	SCREW M4X8-10.9 ISO7380	3093990040	4
239	BUSH MB4030DU-B	3232254030	4



R658P1.03

STOCK FEEDING  
658 Y8 (Fig. 1-36)

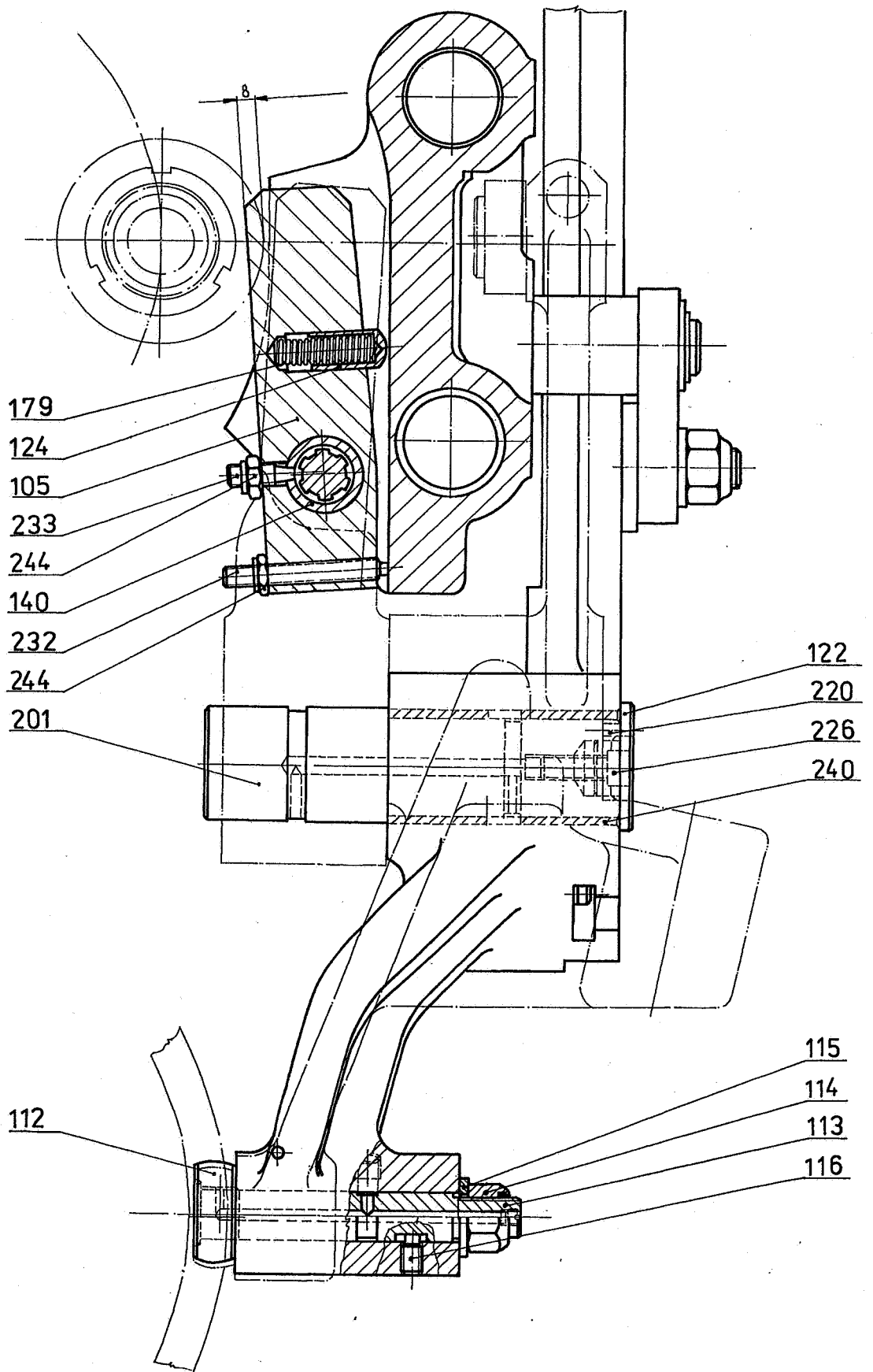
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
108	SCREW	R158X108B	1
126	GROOVED SHAFT	R658X126	1
127	GUIDING PIN	R158X127B	1
132	LEVER	R658X132	1
133	BLOCK	R158X133B	1
137	WASHER	R158X137B	1
149	AL SCALE LABEL	L658V149	1
154	BUSH	R158X154A	1
156	PULLING BUSH	R158X156A	1
159	SHAFT	R158X159B	1
171	NUT M20 021492.25	3111290095	1
172	PIN	R658X172	1
173	RING	R658W173	1
174	RING Ø22 022930	3117330220	1
175	WASHER Ø21 ISO7089	3112100340	1
177	PLATE	R658W177	1
213	PIN Ø3X20 ISO2339-B	3115150320	1
214	PIN Ø6X30 ISO2339-B	3115150980	1
222	WASHER Ø5/16"	5129550025	2
225	SCREW 5/16BSF-1"L	5129550024	2
227	SCREW M6X20 DIN912-12.9	3095850082	2
229	SCREW M5X8-10.9 ISO7380	3093990049	2
238	BUSH Ø7/8-9/8-5/8"L	5129550160	2
245	NUT 5/8BSF NP/F204	5129550164	1
246	SPRING Ø1 Ø12X55 13,5Z	L13223-488E5	2



R658P1.03

STOCK FEEDING  
658 Y9 (Fig. 1-37)

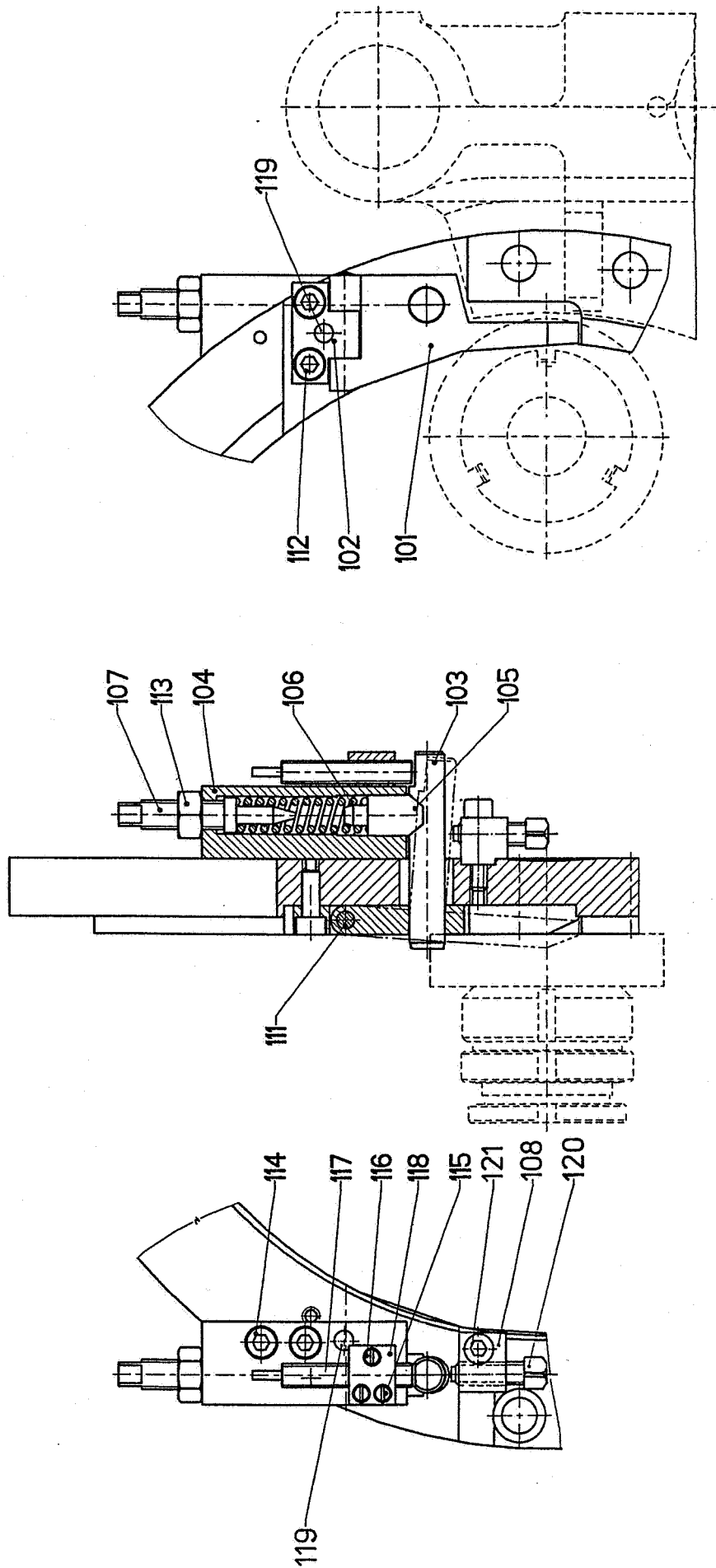
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
105	FEEDING FINGER	R158X105E	1
112	ROLLING PART	R158X112B	1
113	PIN	R658X113	1
114	NUT M16                   021492.25	3111290081	1
115	WASHER Ø17               ISO7089	3112100310	1
116	SCREW M8X16 CE         DIN915	3097890070	1
122	WASHER	R158X122A	1
124	PLUNGER	R158X124B	1
140	GROOVED BUSH	R658X140	1
179	SPRING Ø1,6 Ø11X54	L158X179A	1
201	FEEDING LEVER PIN	R158X314A	1
220	PIN Ø5X12               ISO2338-A	3115150660	1
226	SCREW 3/8BSF-1"L	5129550056	1
232	SCREW 3/8BSF-5/2"L	5129550156	1
233	SCREW 3/8BSF-1"L	5129550062	1
240	BUSH Ø3/2-7/4-3/2"L	5129550145	2
244	NUT 3/8BSF	5129550049	2



R653P1.03

STOCK END INSPECTION - STATION VI  
653 V1 (Fig. 1-38)

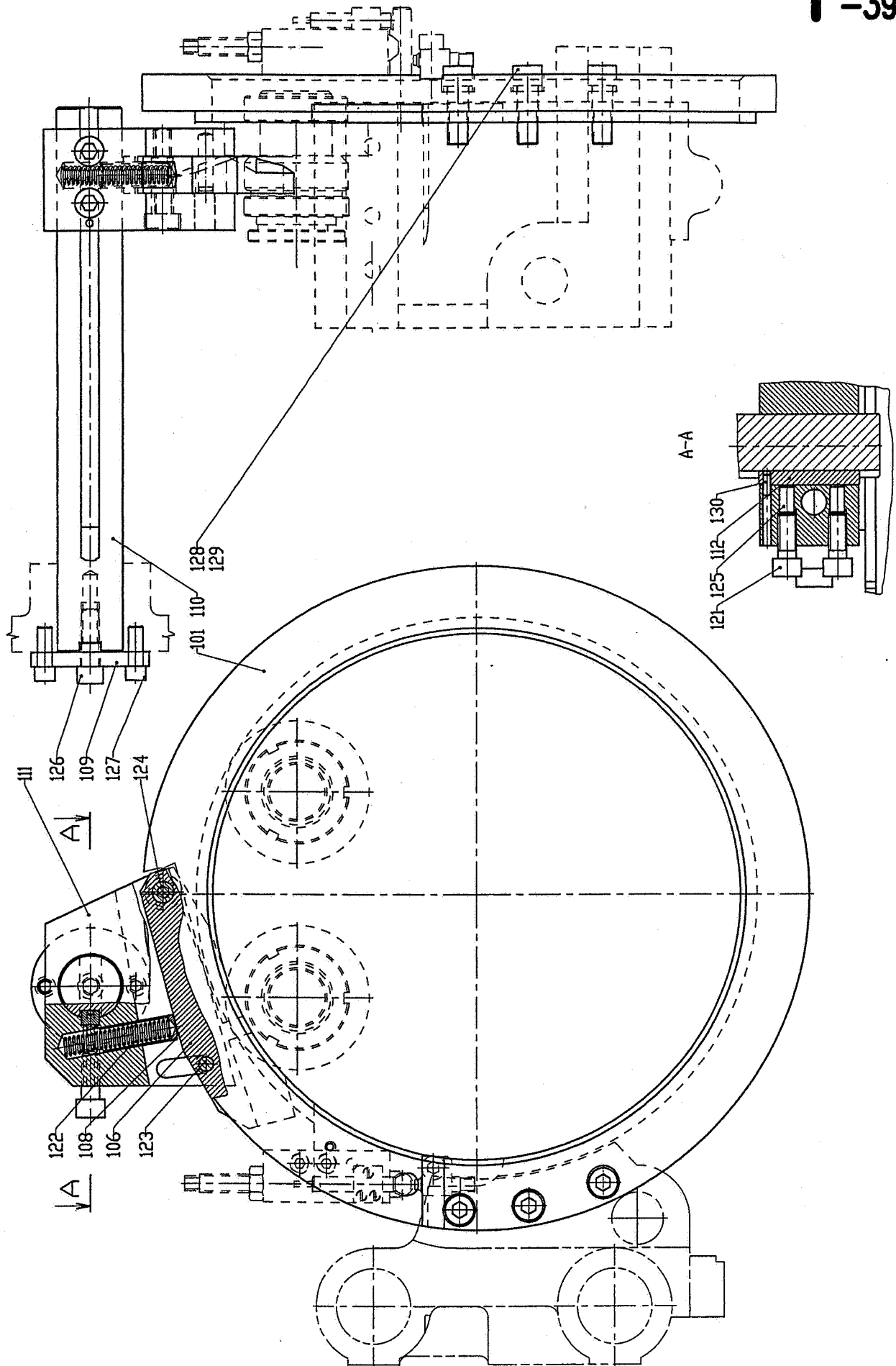
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	FLAP	R653X101	1
102	HINGE	R653W102	1
103	PIN	R653W103	1
104	BLOCK	R653X104	1
105	SUPPORTING PIN	R653W105	1
106	SPRING Ø2,5 Ø12X45 12,75	L13223-533E5	1
107	ADJUSTING SCREW	R653W107	1
108	BLOCK	R653W108	1
111	PIN Ø6X40 ISO8734-A	3115151070	1
112	SCREW M6X16 DIN912-12.9	3095850075	2
113	NUT M10 ZN ISO4032	3111200620	1
114	SCREW M6X30 DIN912-12.9	3095850085	2
115	SCREW M3X14 ZN ISO1207	3092310650	2
116	SCREW M3X8 DIN912-8.8	3095430006	1
117	SWITCH BES516324E0CPU05	4051140140	1
118	HOLDER BES08-KB-1	3456100880	1
119	PIN Ø6X20 ISO2338-A	3115150910	2
120	SCREW M8X25 021121.92	3095210190	1 PC
121	SCREW M6X25 DIN912-12.9	3095850083	1 PC



R648P1.03

FEEDING SYSTEM FORCING RIMS  
648 Y2 (Fig. 1-39)

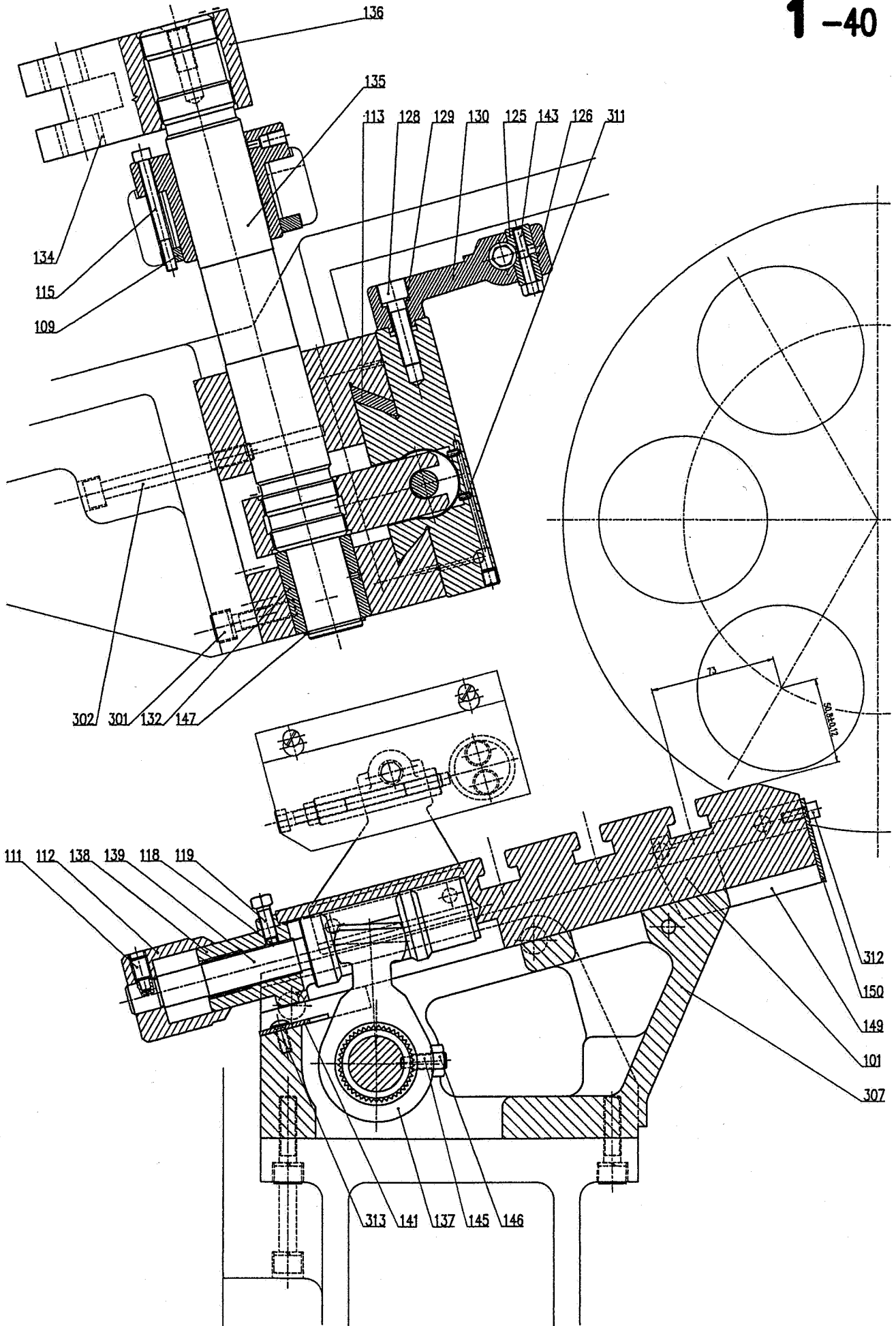
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	THRUST RIM	R648Y101A	1
106	PLATE	R648X106A	1
108	PLUNGER	R648W108	1
109	PLATE	R648W109A	2
110	BAR	R648X110	1
111	PLATE	R648X111	1
112	KEY	R648W112A	1
121	SCREW M10X25 DIN912-12.9	3095850164	2
122	SPRING Ø1,25 Ø10X65 24Z	L13223-420E5	1
123	PIN Ø8X30 ISO8734-A	3115151330	1
124	SCREW Ø12/M10X30 ISO7379	3093981230	1
125	PIN Ø8X16 ISO2338-A	3115151290	2
126	SCREW M10X30 DIN912-12.9	3095850171	1
127	SCREW M8X20 DIN912-12.9	3095850121	2
128	SCREW 7/16BSF-5/4"L	5129550074	3
129	WASHER Ø7/16"	5129550095	3
130	PIN Ø4X12 ISO2338-A	3115150430	1



R642P1.03

STATION I CROSS SLIDE REST  
642 Y3 (Fig. 1-40)

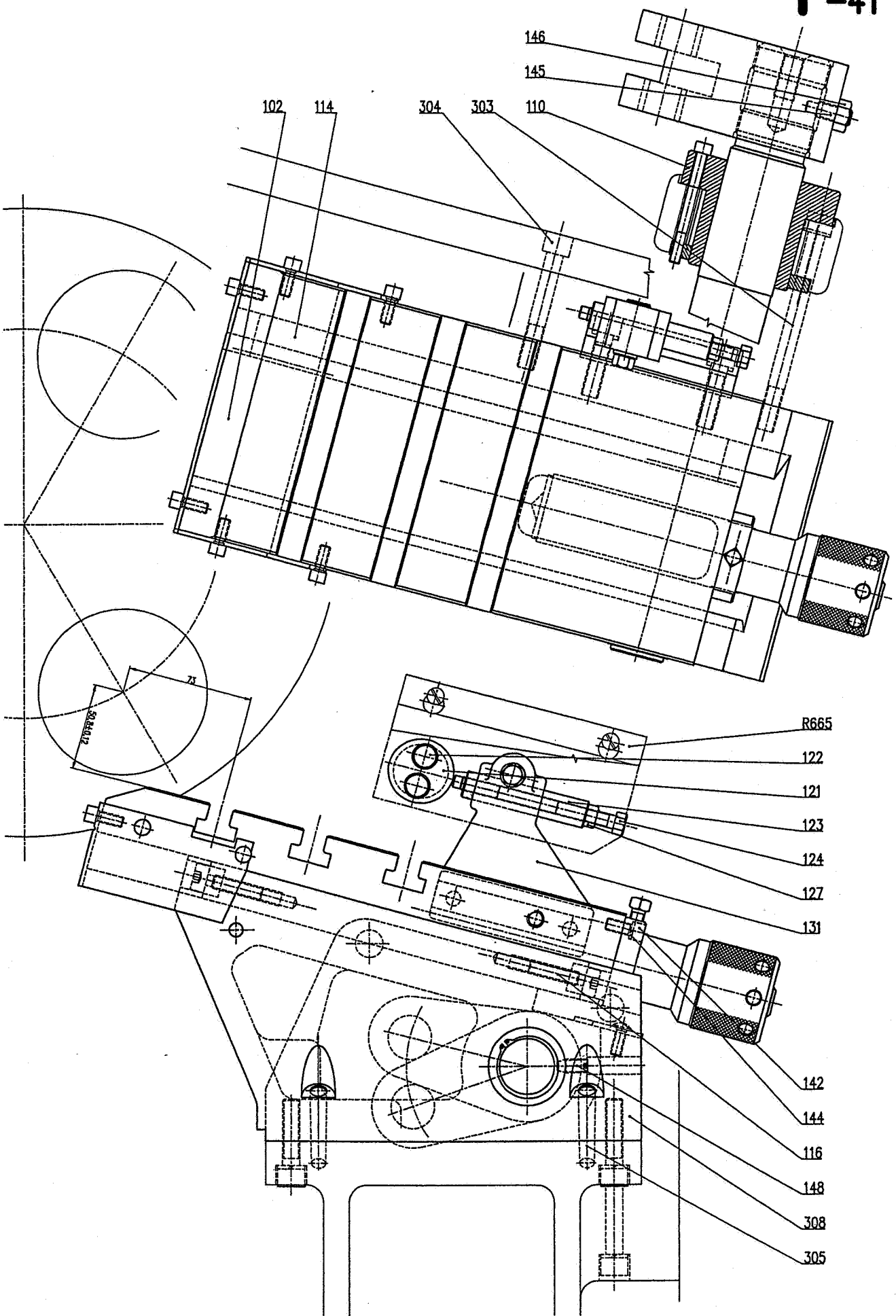
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	STATION I SLIDE	R642Y101	1
109	RING	R642W109A	2
111	SCREW 3/8BSF-3/4"L	5129550048	2
112	STATION 1,2,4,5 -VERNIER	R642V112	2
113	BEVEL STRIP	R642X113	1
115	SCREW M6X65 DIN912-12.9	3095850105	8
118	INSERT Ø6X1/4"L	5129550047	2
119	SCREW 5/16BSF-3/4"L	5129550046	2
125	BUSH	R142X125B	2
126	BUSH	R142X126B	2
128	SCREW 3/8BSF-3/2"L	5129550042	4
129	WASHER Ø3/8"	5129550094	4
130	STATION 2,5 - STOP BRACKET	R642X130	1
132	BUSH	R642W132	2
134	BUSH Ø3/4-1-3/4"L	5129550035	4
135	STATION I AND II SHAFT	R642X135A	2
136	STATION I,II - LEVER	R642X136	2
137	STATION.I,II - LEVER	R642X137	2
138	WICKMAN NUT	R142X138D	2
139	SCREW	R142X139C	2
141	GUARD	R642W141	2
143	SCREW	R142X143C	2
145	SCREW 3/8BSF-1"L	5129550062	4
146	NUT 3/8BSF	5129550049	4
147	RING Ø32 022930	3117330340	2
149	GUARD	R642W149	4
150	GUARD	R642X150	2
301	SCREW M10X30 DIN912-12.9	3095850171	2
302	SCREW M10X80 DIN912-12.9	3095850199	2
307	STATION I BRACKET	R642Y307A	1
311	TUBE	R642W311	4
312	SCREW M5X8-10.9 ISO7380	3093990049	12
313	SCREW M6X12-10.9 ISO7380	3093990063	4



R642P1.03

STATION II CROSS SLIDE REST  
642 Y4 (Fig. 1-41)

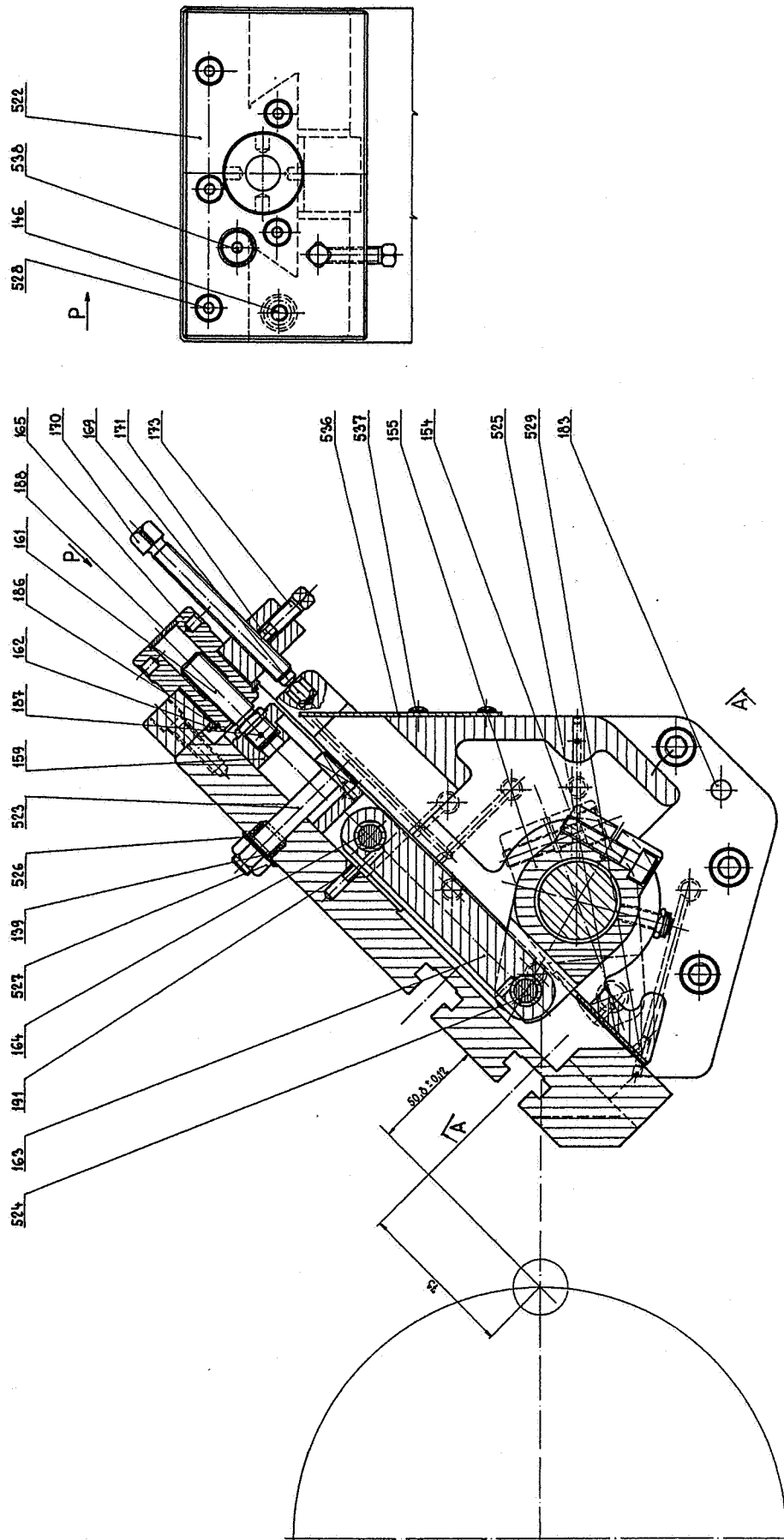
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
102	STATION II SLIDE	R642Y102	1
110	HUB	R642X110A	2
114	BEVEL STRIP	R642X114	1
116	SCREW	R635X102	4
121	STOP	R642W121	2
122	SCREW M8X35 DIN912-12.9	3095850127	4
123	STOP BRACKET BUSH	R142X123D	2
124	SCREW	R142X124F	2
127	NUT 5/16BSF	5129550045	2
131	STATION 1,4 - STOP BRACKET	R142X131DPF	1
142	SCREW 1/4BSF-5/8"L	5129550043	8
144	WASHER Ø1/4"	5129550026	8
145	SCREW 3/8BSF-1"L	5129550062	4
146	NUT 3/8BSF	5129550049	4
148	SCREW M8X20 CE DIN915	3097890080	2
303	SCREW M10X120 DIN912-8.8	3095431470	2
304	SCREW M10X70 DIN912-8.8	3095431320	2
305	PIN Ø10X50 ISO8736-B	3115151910	2
308	STATION II BRACKET	R642Y308A	1



R639P1.03

STATION III CROSS SLIDE REST  
639 Y1 (Fig. 1-42)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
139	SPRING Ø1,25 Ø14X15 3Z	L13223-551E5	1
146	GUIDING ARBOR	R144X146A	1
154	SCREW 3/8BSF-3/2"L	5129550042	3
155	STATION III - LEVER	R639X155	1
159	ADJUSTING BLOCK	R139X159C	1
161	SCREW	R137X161B	1
162	RING	R137X162A	1
163	PULL ROD	R139X163C	1
164	PIN	R139X164A	1
165	STATION III, VI - VERNIER	R137V165	1
169	LENS	R637W169	1
170	STOP SCREW	R637W170	1
171	WASHER	R637W171	1
173	SCREW 5/16BSF-3/4"L	5129550046	1
183	PIN Ø10X40 ISO8736-B	3115151840	1
186	RING Ø24 022930	3117330240	1
187	PIN Ø3X25 ISO2339-B	3115150350	1
188	PLUG Ø5/8"	5129550060	1
191	NOZZLE	R639W191	1
522	SUPPORTING PLATE	R639X522	1
523	LOCKING SCREW	R139X523A	1
524	PIN	R139X524A	1
525	GUARD	R639W525	1
526	WASHER Ø7/16"	5129550015	1
527	NUT 7/16BSF	5129550065	1
528	SCREW 5/16BSF-1"L	5129550024	5
529	SCREW M4X8 021151.25	3092510580	4
536	METAL SHEET COVERING	R639W536	1
537	SCREW M5X8-10.9 ISO7380	3093990049	4
538	SCREW	R635X102	2

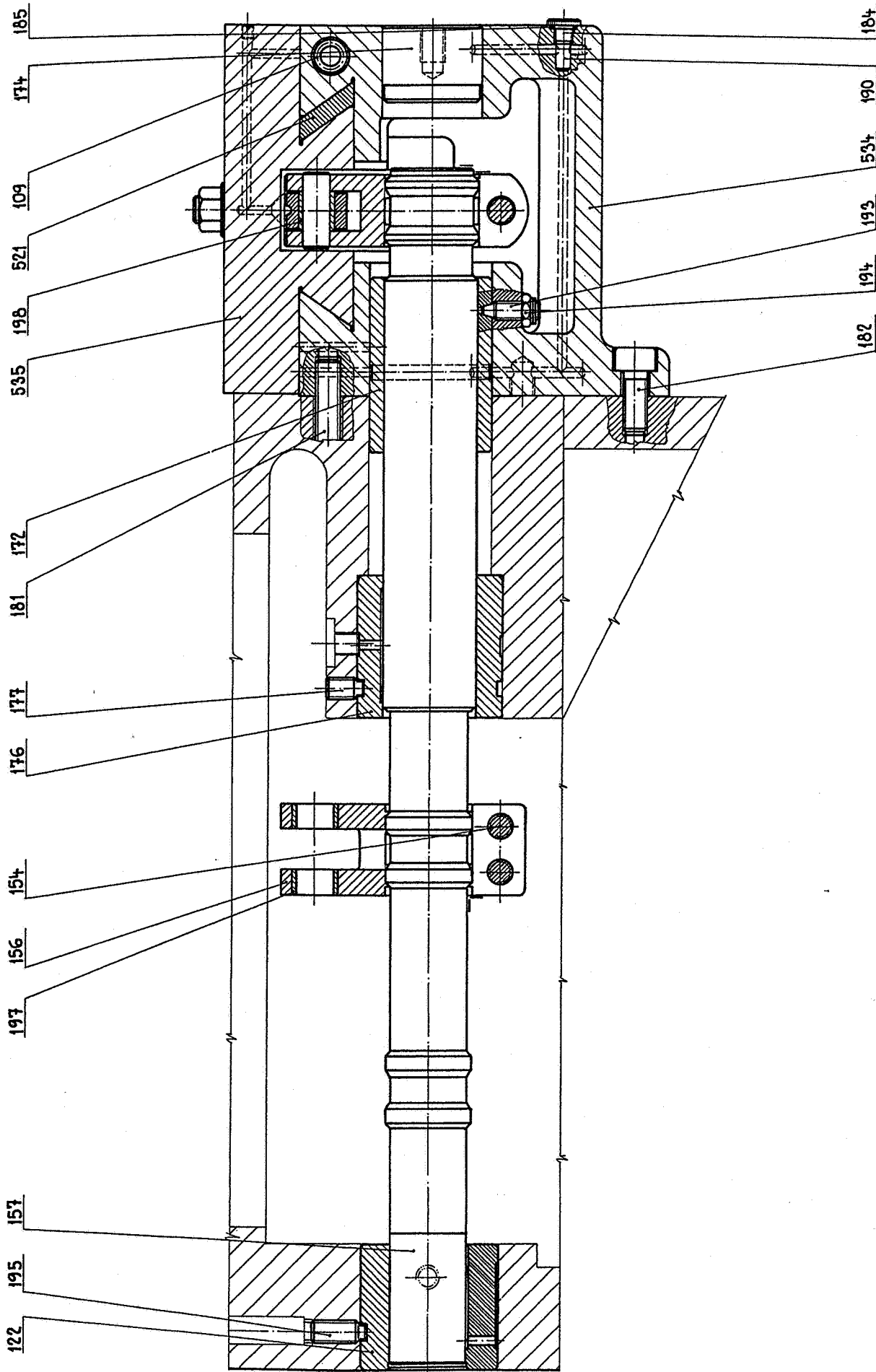


R639P1.03

STATION III CROSS SLIDE REST  
639 Y2 (Fig. 1-43)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
109	COMPRESSION SPRING	L135X109A	1
122	STATION III BUSH	R639X122A	1
154	SCREW 3/8BSF-3/2"L	5129550042	3
156	STATION III - LEVER	R639X156	1
157	STATION III SHAFT	R639V157A	1
172	BUSH	R139X172A	1
174	PLUG	R139X174B	1
176	BUSH	R639W176	1
177	SCREW M8X16 CE       DIN915	3097890070	1
181	SCREW M10X140   DIN912-12.9	3095850188	1
182	SCREW M10X25   DIN912-12.9	3095850164	5
184	PLUG M8X1       137964.1	3194690360	1
185	O-RING Ø12X8    ON029280.2	2731110280	1
190	SEALING	R639W190	1
193	SCREW 5/16BSF-1"L	5129550061	1
194	NUT 5/16BSF	5129550051	1
195	SCREW M8X25 CE       DIN915	3097890090	1
197	BUSH Ø5/8-3/4-7/16"L	5129550063	2
198	BUSH Ø7/16-9/16-5/8"	5129550064	2
521	GUIDING STRIP	R639X521	1
534	STATION III BRACKET	R639Y534A	1
535	STATION III SLIDE	R639Y535	1

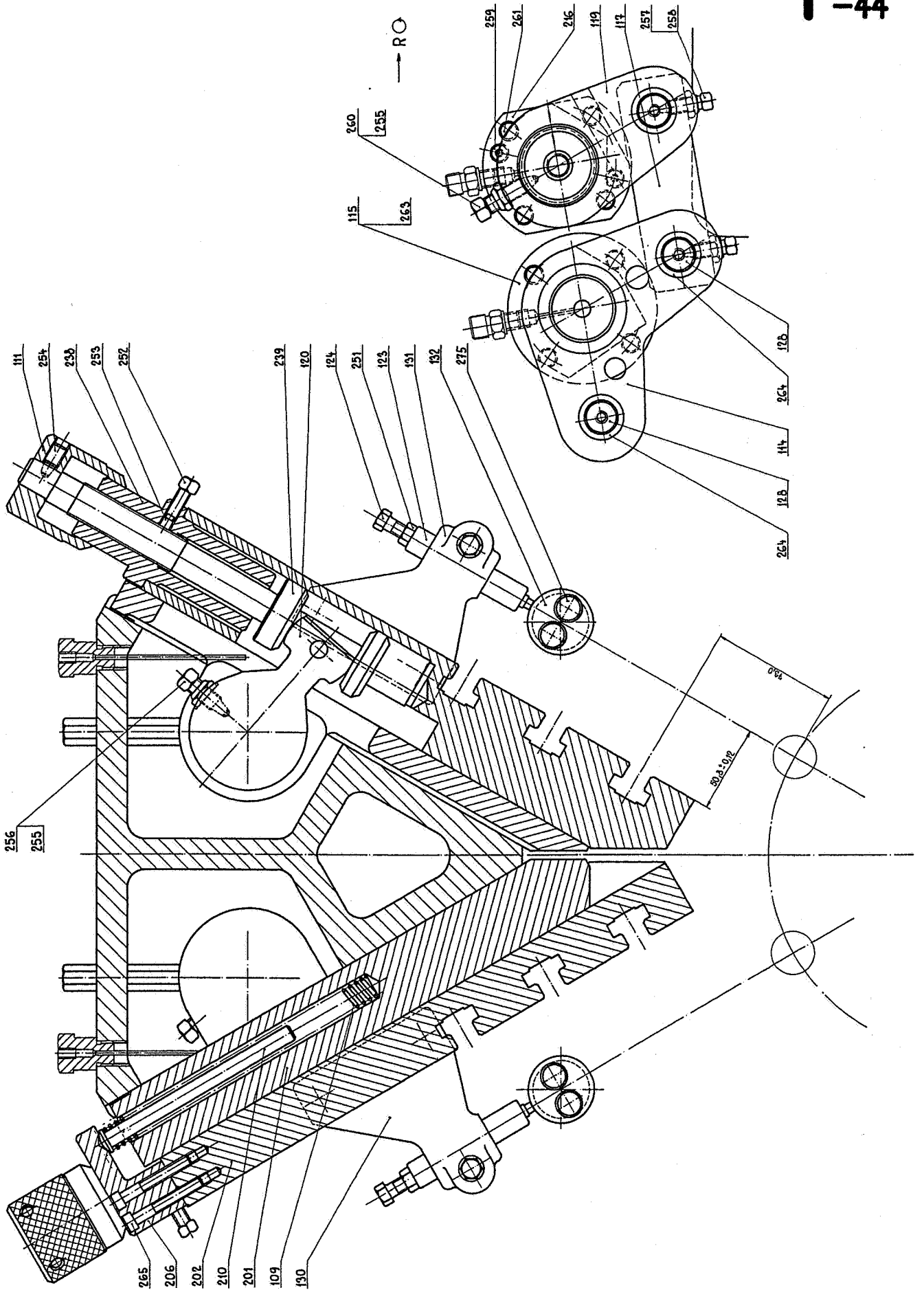
A-A



R635P1.03

STATION IV AND V CROSS SLIDE REST  
635 Y1 (Fig. 1-44)

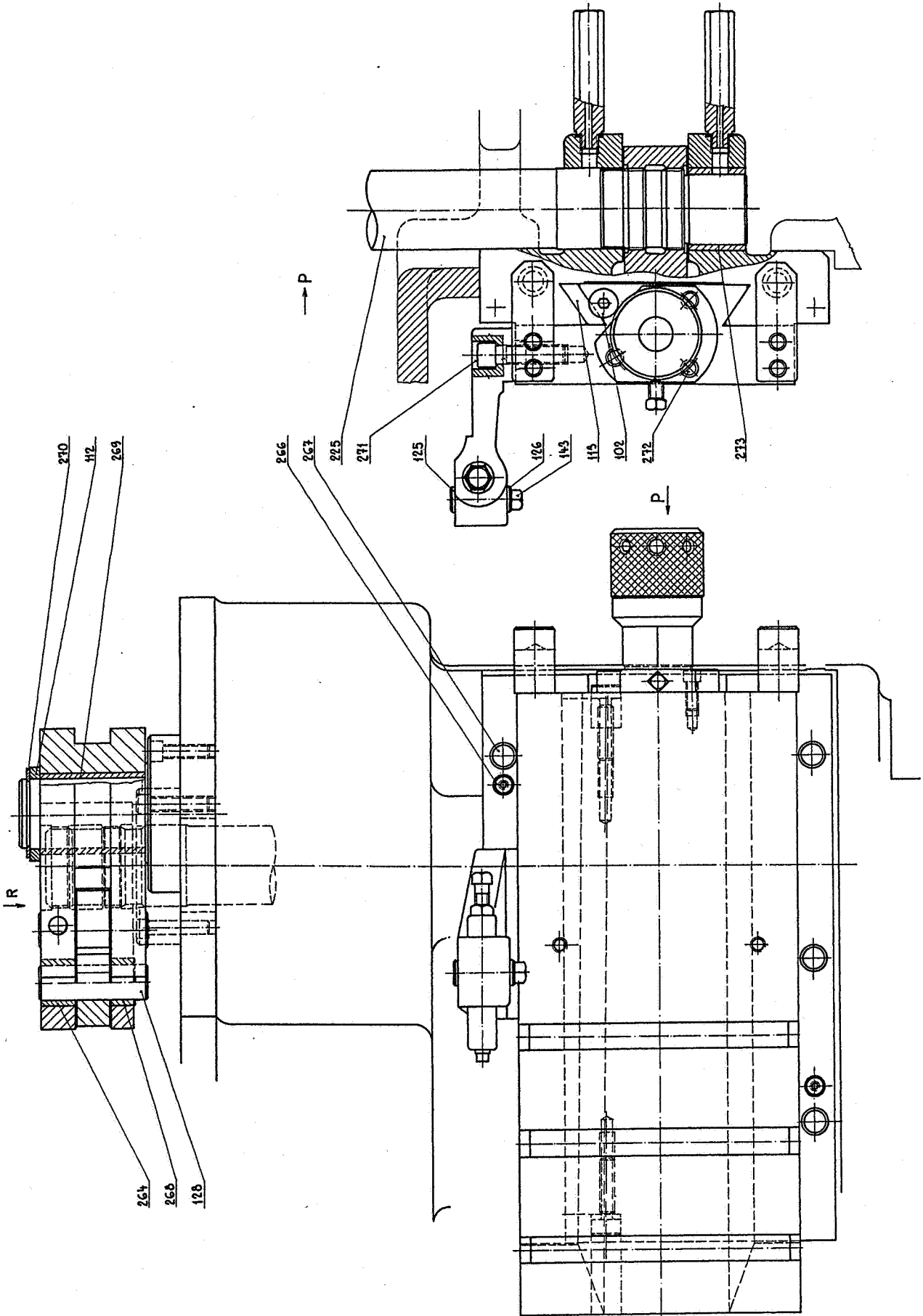
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
109	COMPRESSION SPRING	L135X109A	4
111	STATION 1,2,4,5 - VERNIER	R642V112	2
114	STATION 4,5 - LEVER	R636V114	2
115	PIN	R136X115B	2
117	PULL ROD	R136X117A	2
119	STATION IV,V - LEVER	R635X119	2
120	STATION IV,V - LEVER	R635X120	2
123	STOP BRACKET BUSH	R142X123D	2
124	SCREW	R142X124F	2
128	PIN	R136X128B	6
130	STATION 2,5 - STOP BRACKET	R642X130	1
131	STATION 1,4 - STOP BRACKET	R642X131	1
132	STOP	R642W121	2
201	STATION IV AND V GUIDING	R635Y201	2
202	STATION IV AND V SLIDE	R635Y202	2
206	SUPPORTING PLATE	R135X206A	4
210	GUIDING ARBOR	R135X210A	4
216	BUSH	R135X216A	2
238	WICKMAN NUT	R135V238A	2
239	SCREW	R135V239A	2
251	NUT 5/16BSF	5129550045	2
252	SCREW 5/16BSF-3/4"L	5129550046	2
253	INSERT Ø6X1/4"L	5129550047	2
254	SCREW 3/8BSF-3/4"L	5129550048	2
255	NUT 3/8BSF	5129550049	4
256	SCREW 3/8BSF-1"L	5129550062	2
257	NUT 5/16BSF	5129550051	4
258	SCREW 5/16BSF-1"L	5129550052	4
259	PIN Ø8X30 ISO8736-B	3115151360	4
260	SCREW 3/8BSF-5/4"L	5129550054	2
261	SCREW 5/16BSF-5/4"L	5129550036	8
263	SCREW 5/16BSF-1"L	5129550024	8
264	BUSH Ø3/4-1-3/4"L	5129550035	10
265	SCREW 1/4BSF-7/4"L	5129550041	8
275	SCREW M8X35 DIN912-12.9	3095850127	4



R635P1.03

STATION IV AND V CROSS SLIDE REST  
635 Y2 (Fig. 1-45)

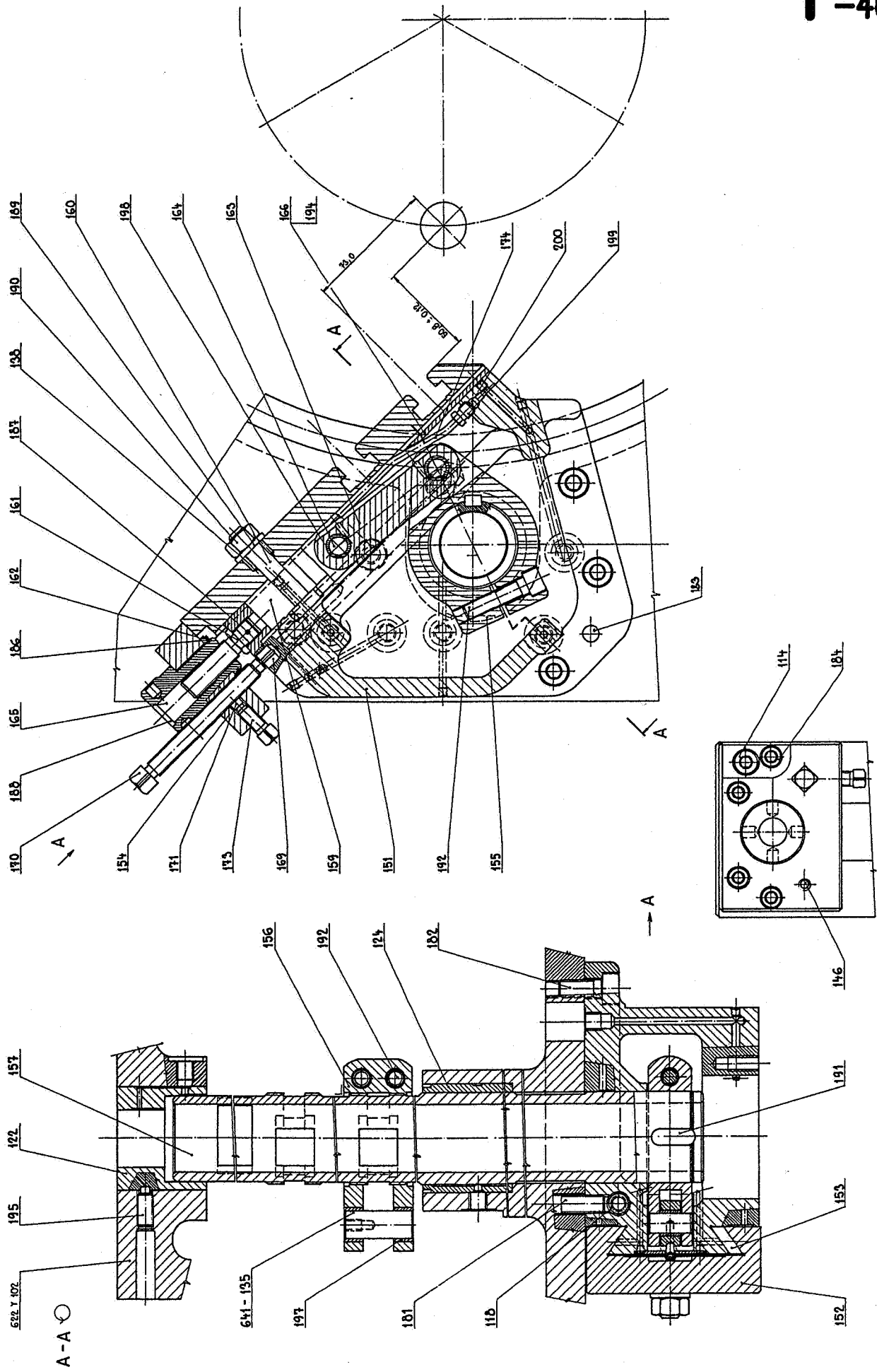
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
102	SCREW	R635X102	4
112	FITTING RING	R117X112A	2
113	BEVEL STRIP	R642X114	2
125	BUSH	R142X125B	2
126	BUSH	R142X126B	2
128	PIN	R136X128B	6
143	SCREW	R142X143C	2
225	STATION IV AND V SHAFT	R635V225	2
264	BUSH Ø3/4-1-3/4"L	5129550035	10
266	PIN Ø8X45 ISO8736-B	3115151470	4
267	SCREW M10X45 DIN912-12.9	3095850194	12
268	BUSH Ø3/4-1-1/2"L	5129550038	2
269	BUSH Ø3/2-7/4-9/4"L	5129550039	2
270	RING Ø38 022930	3117330410	2
271	SCREW 3/8BSF-3/2"L	5129550042	4
272	SCREW 1/4BSF-5/8"L	5129550043	6
273	BUSH Ø3/2-7/4-5/4"L	5129550044	2



R637P1.03

STATION VI CROSS SLIDE REST  
637 Y1 (Fig. 1-46)

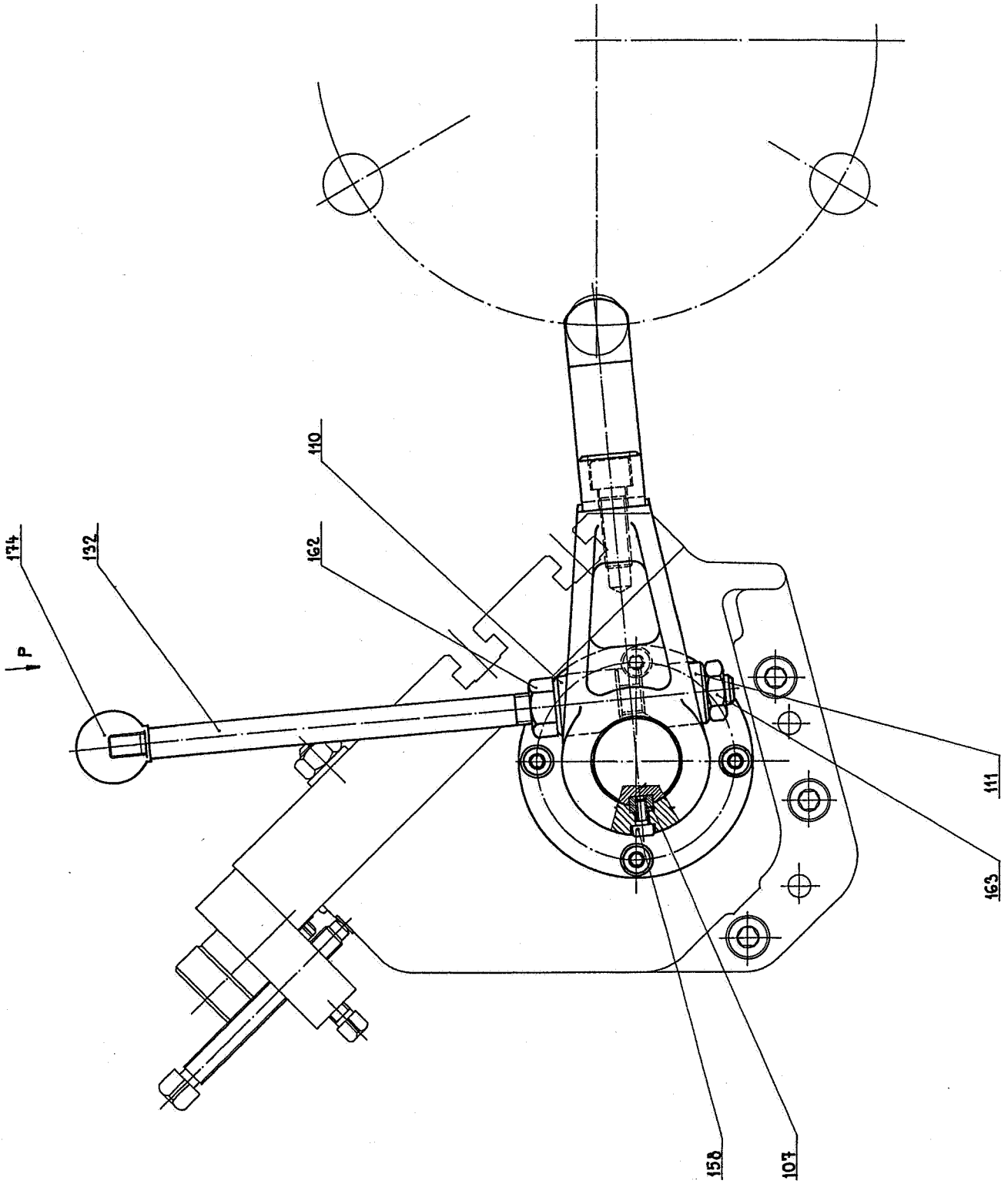
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
114	ADJUSTING SCREW	R442X114A	2
118	COMPRESSION SPRING	L137X118A	1
122	BUSH	R637X122A	1
124	BUSH	R637X124	1
138	SPRING Ø1,25 Ø14X15 3Z	L13223-551E5	1
146	GUIDING ARBOR	R144X146A	1
151	STATION VI BRACKET	R637Y151A	1
152	STATION VI SLIDE	R637Y152A	1
153	GUIDING STRIP	R637X153A	1
154	SUPPORTING PLATE	R637X154	1
155	STATION VI - LEVER	R637X155	1
156	STATION VI - LEVER	R637X156	1
157	STATION VI SHAFT	R637Y157A	1
159	ADJUSTING BLOCK	R137X159C	1
160	LOCKING SCREW	R137X160A	1
161	SCREW	R137X161B	1
162	RING	R137X162A	1
163	PULL ROD	R137X163C	1
164	PIN	R137X164A	2
165	STATION 3,5 - VERNIER	R637V165	1
166	METAL SHEET COVERING	R637W166	1
169	LENS	R637W169	1
170	STOP SCREW	R637W170	1
171	WASHER	R637W171	1
173	SCREW 5/16BSF-3/4"L	5129550046	1
174	TUBE	R637W174	1
181	SCREW M10X140 DIN912-12.9	3095850188	1
182	SCREW M10X25 DIN912-12.9	3095850164	5
183	PIN Ø10X40 ISO8736-B	3115151840	1
184	SCREW 5/16BSF-1"L	5129550024	4
186	RING Ø24 022930	3117330240	1
187	PIN Ø3X20 ISO2339-B	3115150320	1
188	PLUG Ø5/8"	5129550060	1
189	WASHER Ø7/16"	5129550015	1
190	NUT 7/16BSF	5129550065	1
191	KEY 3/8X1/4X1"	5129550068	1
192	SCREW 3/8BSF-3/2"L	5129550042	2
194	SCREW M4X8 021151.25	3092510580	4
195	SCREW M8X25 CE DIN915	3097890090	1
197	BUSH Ø5/8-3/4-7/16"L	5129550063	2
198	BUSH Ø7/16-9/16-1/2"	5129550069	2
199	SCREW JS4 137992	3194690140	1
200	RING JS4 137932	3194110050	1



R650P1.03

STOCK STOP  
650 Y1 (Fig. 1-47)

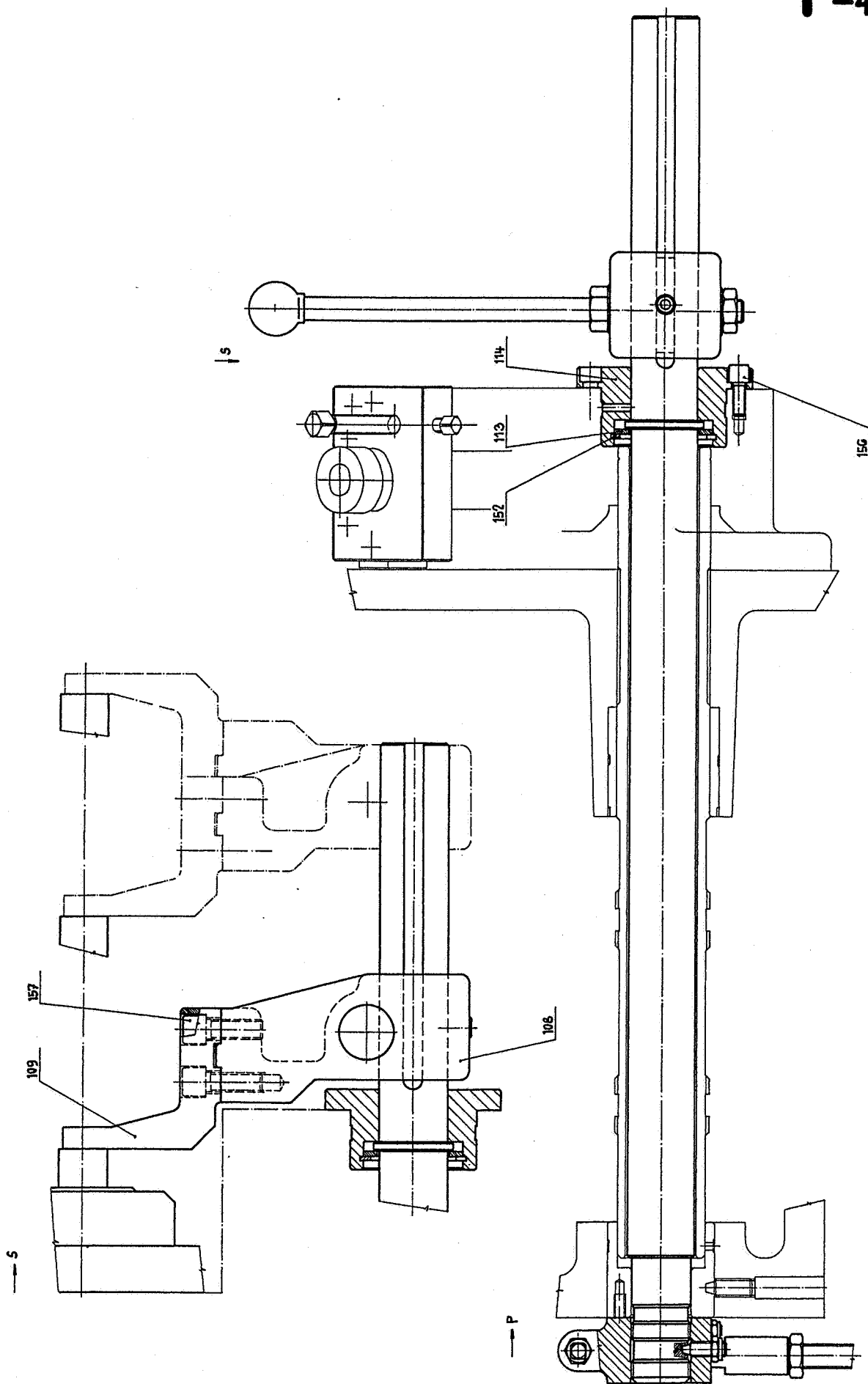
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
107	KEY	R150X107A	1
110	INSERT	R150X110A	1
111	INSERT	R150X111A	1
132	SCREW	R150X132A	1
158	SCREW 2BA-3/8"L	5129550075	1
162	NUT 1/2BSF	5129550077	1
163	NUT 1/2BSF	5129550078	3
174	HANDLE WSP241/13	5129550223	1



R650P1.03

STOCK STOP  
650 Y2 (Fig. 1-48)

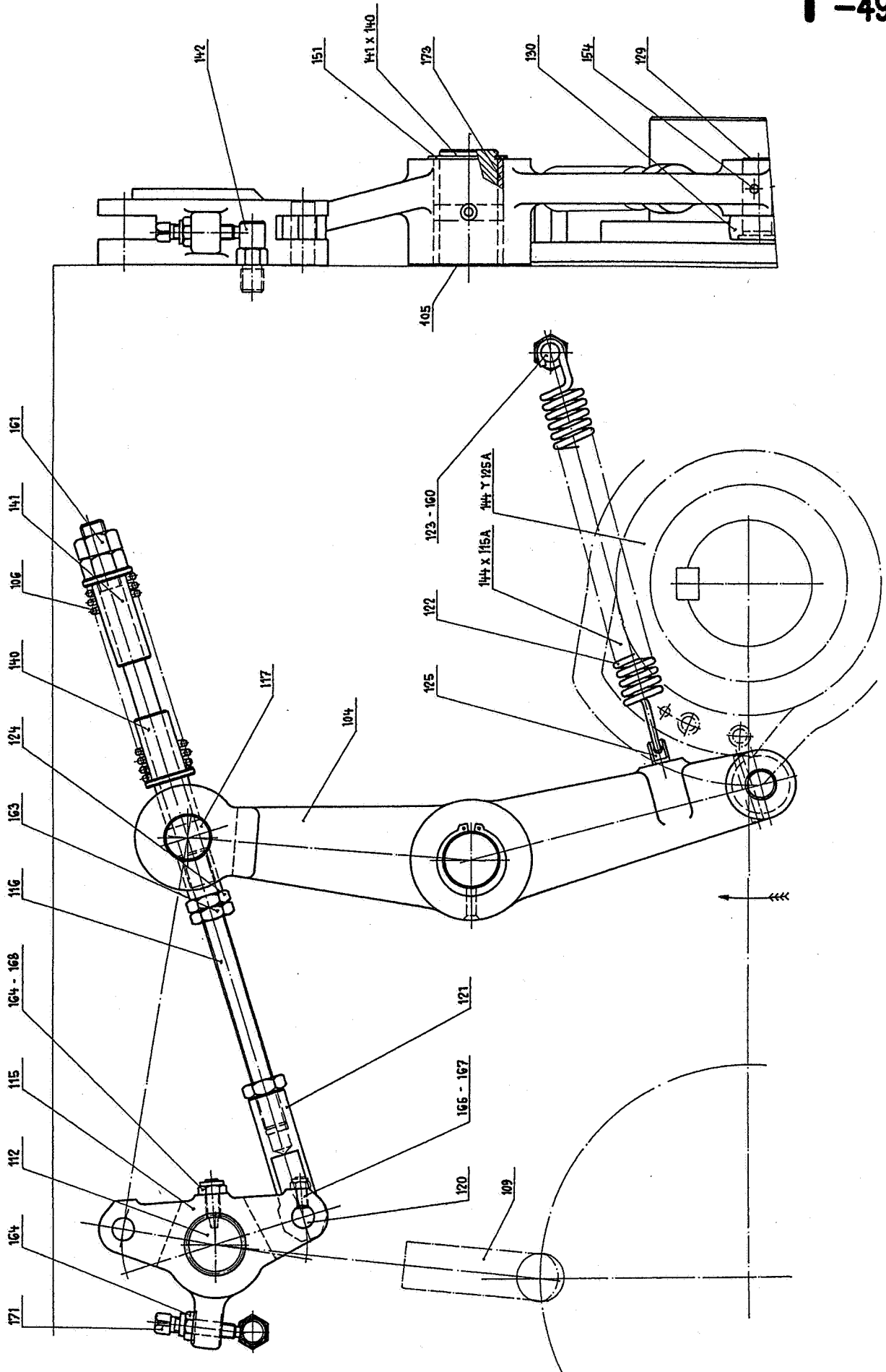
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
108	STOP ARM	R650V108	1
109	STOP	R650X109	1
113	DISTANCE RING	R150X113B	1
114	FLANGE	R150X114C	1
152	RING Ø55 022931	3117330560	1
156	SCREW 5/16BSF-3/4"L	5129550073	4
157	SCREW 7/16BSF-5/4"L	5129550074	2



R650P1.03

STOCK STOP CONTROL  
650 Y3 (Fig. 1-49)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
104	STOP LEVER	R650V104	1
105	DISTANCE METAL SHEET	R650W105	1
106	COMPRESSION SPRING	L150X106B	1
109	STOP	R650X109	1
112	STATION VI - STOP SHAFT	R650V112A	1
115	STATION VI - LEVER	R650Y115	1
116	SCREW	R150X116B	1
117	REVOLVING PIN	R650W117	1
120	PIN	R150X120A	1
121	SUSPENSION EYE	R161X121B	1
122	COMPRESSION SPRING	L150X122C	1
123	SUSPENSION	R150X123B	1
124	ADJUSTING NUT	R150X124A	1
125	SUSPENSION	R150X125A	1
129	PIN	R150X129A	1
130	ROLLING PART	R150X130A	1
140	GUIDING BUSH	R150X140A	1
141	SUPPORTING BUSH	R150X141A	1
142	STOP PIN	R150X142A	1
151	RING Ø5/4"	5129550070	1
154	PIN Ø6X40           ISO2339-B	3115151050	1
160	NUT 5/8BSF	5129550076	1
161	NUT 1/2BSF	5129550022	2
163	NUT 1/2BSF	5129550078	3
164	NUT 5/16BSF	5129550051	2
165	NUT 1/4BSF	5129550079	1
167	SCREW 1/4BSF-3/4"L	5129550080	1
168	SCREW 5/16BSF-1"L	5129550061	1
171	SCREW 5/16BSF-3/2"L	5129550081	1
173	BUSH Ø5/4-3/2-1"L	5129550082	2



R627P1.03

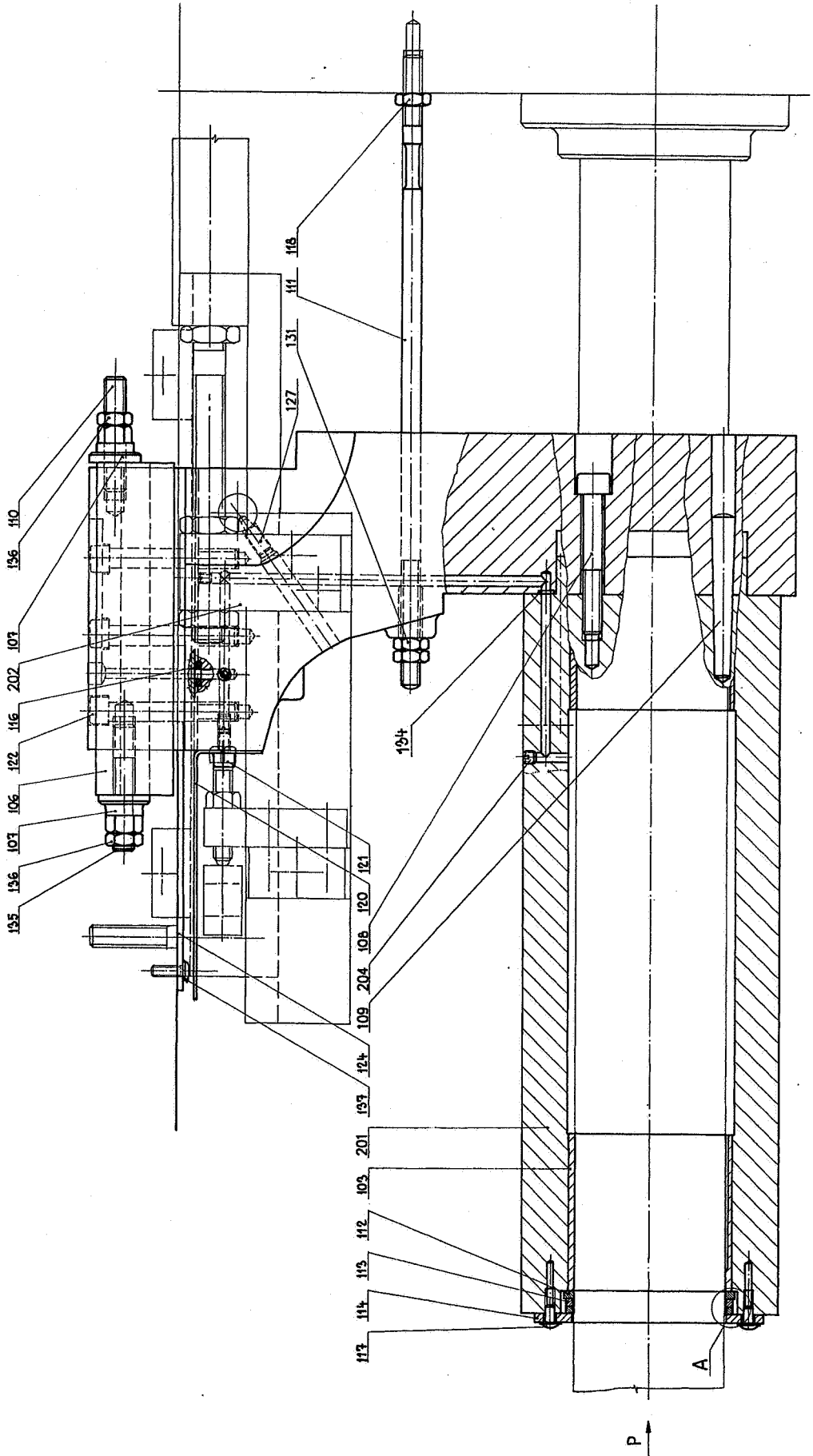
CENTRAL SLIDE REST  
627 Y3 (Fig. 1-50)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
103	BUSH	T R627X103	2
106	GUIDING STRIP	R627X106	1
107	NUT	R127X107A	2
108	SCREW M10X70 DIN912-12.9	3095850185	3
109	PIN Ø8X80 ISO8736-B	3115151710	2
110	SCREW	R127X110A	1
111	STOP SCREW	R127X111B	1
112	FITTING RING	R127X112B	1
113	WIPING RING	R127X113B	2
114	COVER	R627X114	1
116	SEALING	R127X116A	1
117	SCREW M5X14-10.9 ISO7380	3093990054	6
118	NUT 3/8BSF	5129550092	1
119	SCREW M8X70 DIN912-12.9	3095850147	2
120	GUARD	R627X120	1
121	SCREW M6X10 DIN912-12.9	3095850068	2
122	SCREW 3/8BSF-5/2"L	5129550066	3
124	GUARD	R627W124	1
127	SCREW 5/16BSF-3/4"L	5129550114	1
131	NUT 3/8BSF	5129550092	2
134	O-RING Ø4,47X1,78 N70	2731110205	1
135	SCREW	R127X135A	1
136	NUT	R127X136A	2
137	SCREW M6X12-10.9 ISO7380	3093990063	2
201	HEXAGON BODY	T R627Y201	1
202	GUIDING BRACKET	R627Y202	1
204	SCREW M6X6 021181.22	T 3092810640	2

R627Y201.R

TECHNOLOGICAL UNIT  
HEXAGON BODY

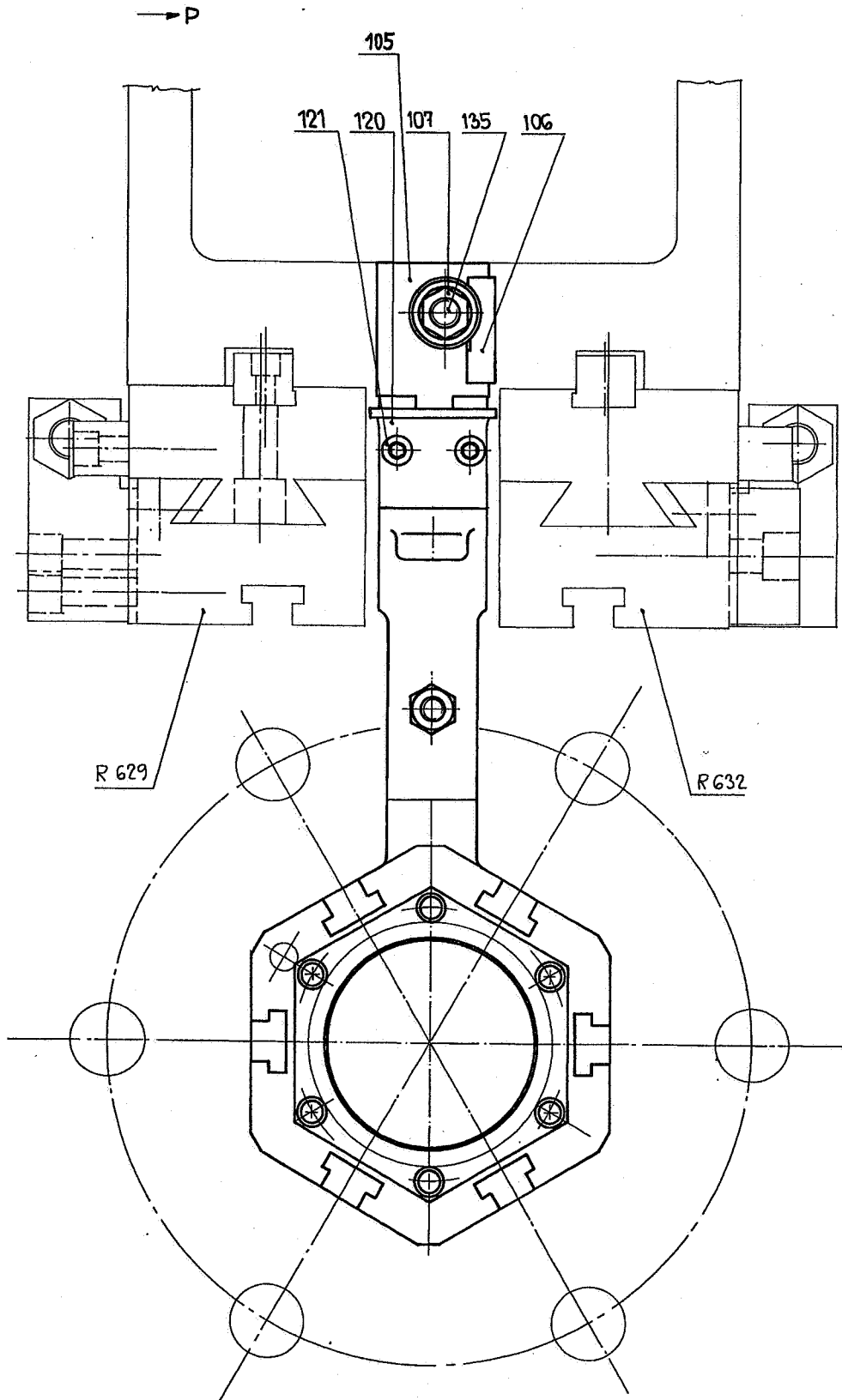
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
103	BUSH	T R627X103	2
201	HEXAGON BODY	T R627Y201	1
204	SCREW M6X6 021181.22	T 3092810640	2



R627P1.03

CENTRAL SLIDE REST  
627 Y4 (Fig. 1-51)

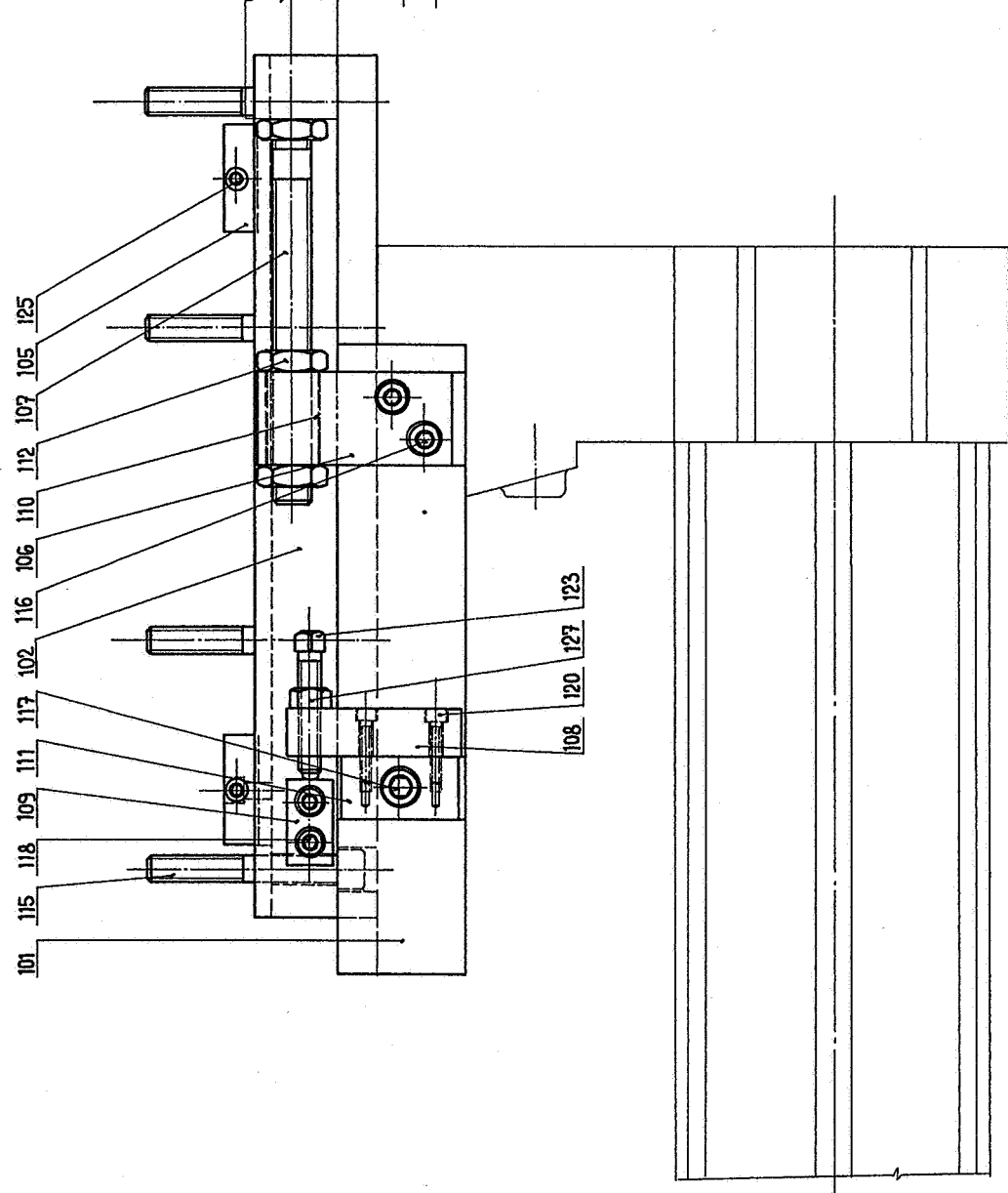
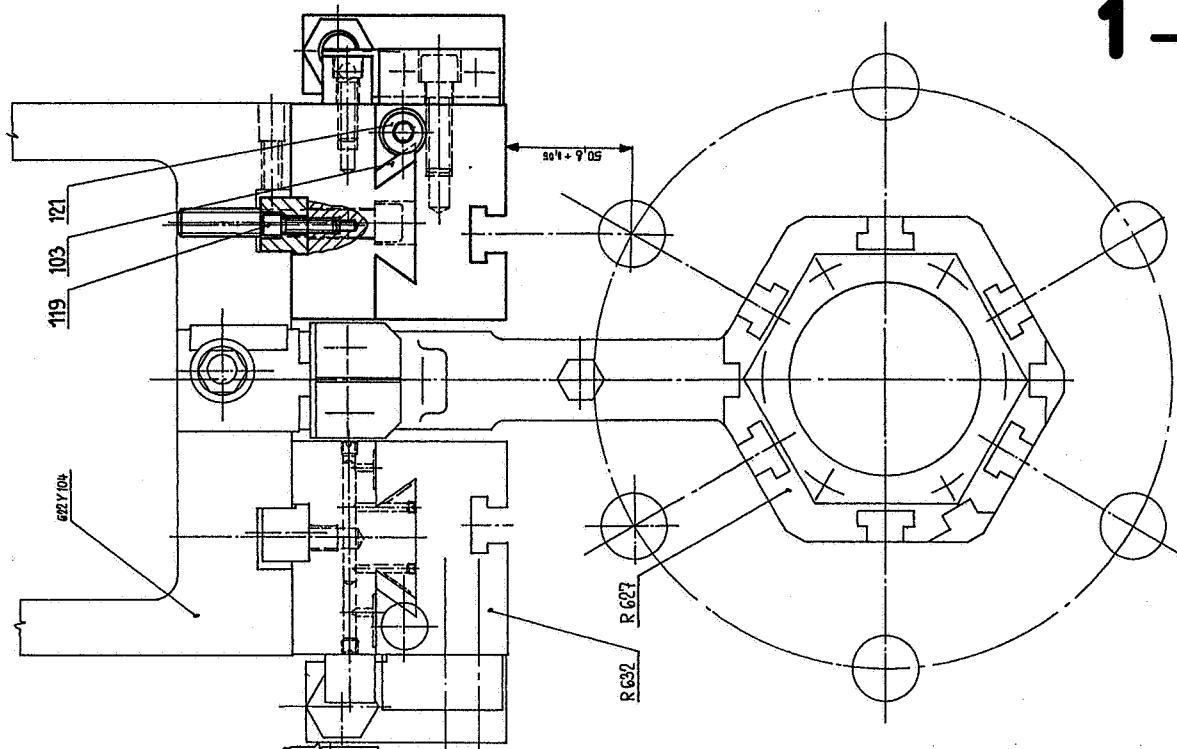
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
105	GUIDING BODY	R627V105	1
106	GUIDING STRIP	R627X106	1
107	NUT	R127X107A	2
120	GUARD	R627X120	1
121	SCREW M6X10    DIN912-12.9	3095850068	2
135	SCREW	R127X135A	1



R632P1.03

STATION V INDEPENDENT LONGITUDINAL SLIDE REST  
632 Y1 (Fig. 1-52)

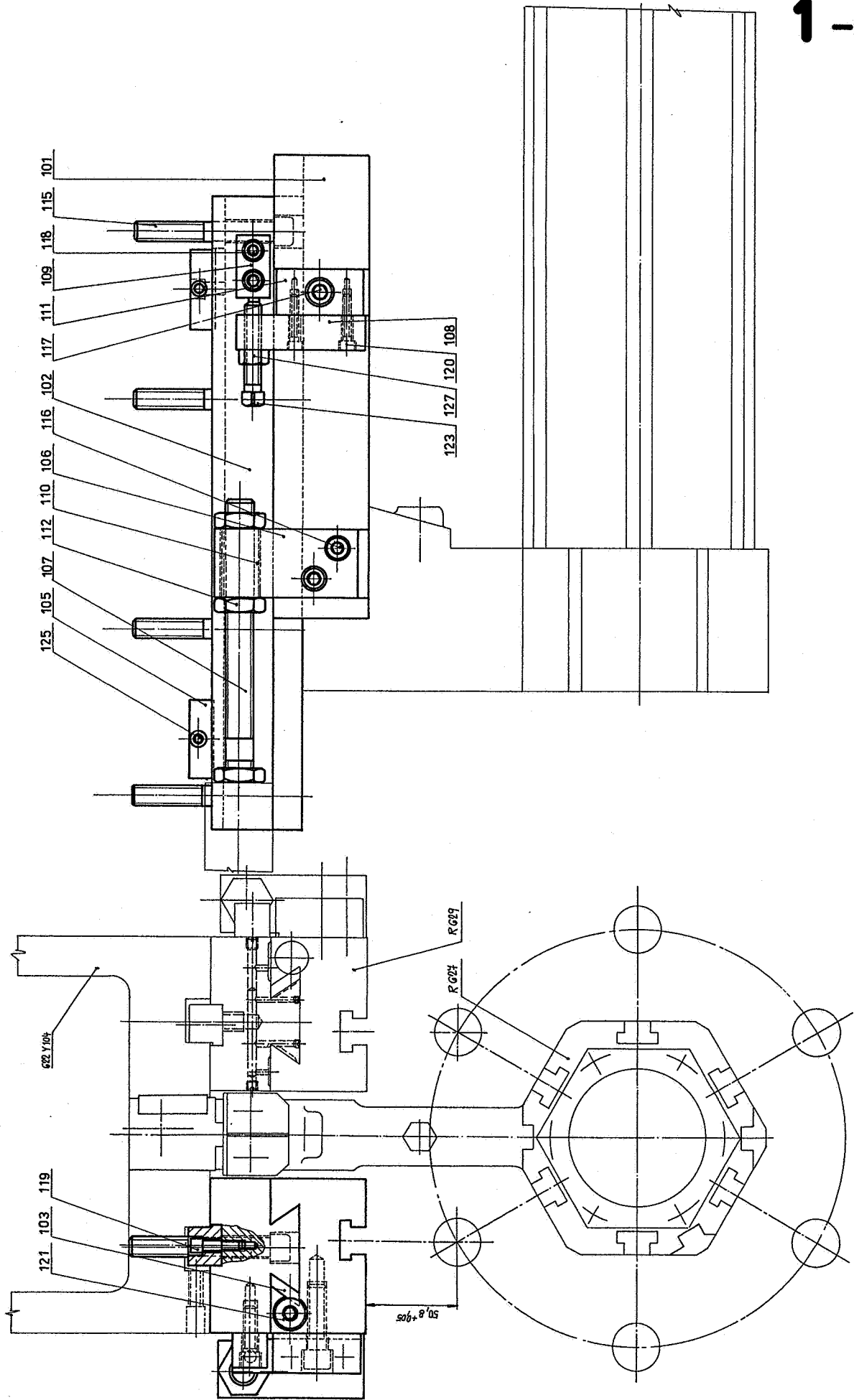
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	STATION V SLIDE	R632V101	1
102	STATION V IND. SLIDE REST GUIDING	R632Y102A	1
103	BEVEL STRIP	R632X103	1
105	POSITIONING BLOCK	R129X105A	2
106	HOLDER	R129X106B	1
107	BOLT	R129X107A	1
108	BLOCK	R129X108B	1
109	STOP BLOCK	R129X109B	1
110	INSERT	R129X110A	1
111	HOLDER	R129X111A	1
112	NUT	R129X112A	3
115	SCREW 7/16BSF-3"L	5129550085	4
116	SCREW 3/8BSF-2"L	5129550084	2
117	SCREW 7/16BSF-3/2"L	5129550086	1
118	SCREW 5/16BSF-1"L	5129550024	2
119	SCREW 1/4BSF-7/8"L	5129550098	2
120	SCREW 2BA-1"L	5129550222	2
121	SCREW FX4539C	5129550034	2
123	SCREW 3/8BSF-2"L	5129550089	1
125	SCREW M8X30 CE      DIN915	3097890100	2
127	NUT 3/8BSF	5129550092	1



R629P1.03

STATION IV INDEPENDENT LONGITUDINAL SLIDE REST  
629 Y1 (Fig. 1-53)

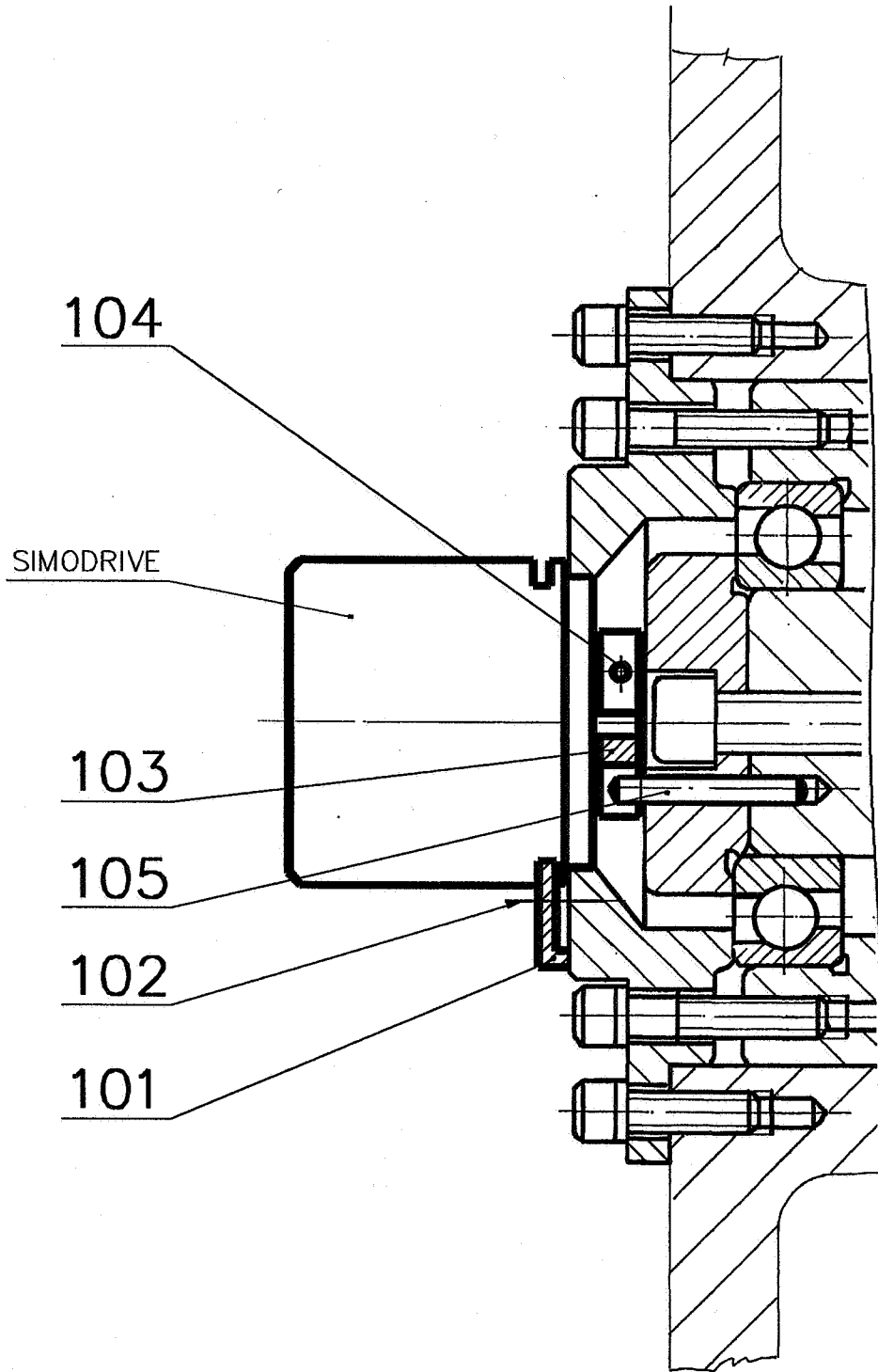
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	STATION IV SLIDE	R629V101	1
102	STATION IV IND. SLIDE REST GUIDING	R629Y102A	1
103	BEVEL STRIP	R629X103	1
105	POSITIONING BLOCK	R129X105A	2
106	HOLDER	R129X106B	1
107	BOLT	R129X107A	1
108	BLOCK	R129X108B	1
109	STOP BLOCK	R129X109B	1
110	INSERT	R129X110A	1
111	HOLDER	R129X111A	1
112	NUT	R129X112A	3
115	SCREW 7/16BSF-3"L	5129550085	4
116	SCREW 3/8BSF-2"L	5129550084	2
117	SCREW 7/16BSF-3/2"L	5129550086	1
118	SCREW 5/16BSF-1"L	5129550024	2
119	SCREW 1/4BSF-7/8"L	5129550098	2
120	SCREW 2BA-1"L	5129550222	2
121	SCREW FX4539C	5129550034	2
123	SCREW 3/8BSF-2"L	5129550089	1
125	SCREW M8X30 CE      DIN915	3097890100	2
127	NUT 3/8BSF	5129550092	1



R619P1.03

CONTROL OF FUNCTIONS  
619 X2 (Fig. 1-54)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	CLAMP	R619W101A	2
102	SCREW M5X12 DIN912-12.9	3095850052	4
103	RING	R619W103A	1
104	SCREW M5X16-12.9 ZN DIN912	3095850055	1
105	PIN Ø5X35 ISO2338-A	3115150780	1



R652P1.03

STOCK CARRIAGE  
652 Y4 (Fig. 1-54.1)

- 1 -

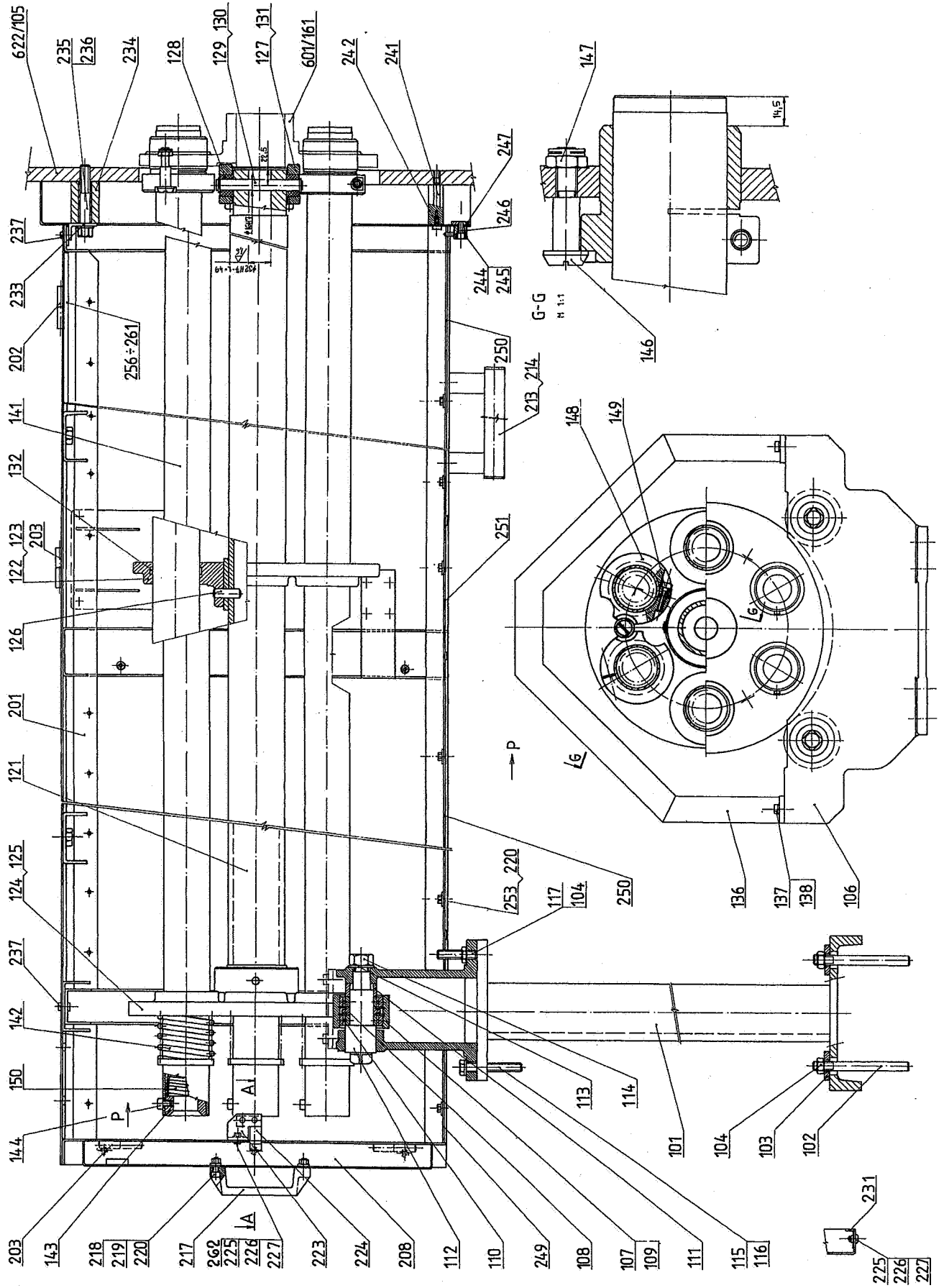
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	STAND	R652V101.R	1
102	SCREW M12X140 BN319	3090950003	4
103	WASHER	R652W103	4
104	NUT M12 ZN ISO4032	3111200830	8
106	STAND HEAD	R652Y106	1
107	ROLLER	R652W107	2
108	DISTANCE RING	R652W108	2
109	RING Ø62 022931	3117330600	4
110	BEARING 6007	3241650380	4
111	RING RKA Ø35/42X18	R13230-539E2	2
112	PIN	R652W112	2
113	WASHER Ø21 ISO7089	3112100340	2
114	NUT M20 ZN ISO4032	3111201240	2
115	SCREW M10X80-8.8 EN24017	3092031940	4
116	WASHER Ø10,5 ISO7089	3112100240	4
117	SCREW M12X60 ISO4028	3097890215	4
121	TUBE	R652V121.RA	1
122	CENTRAL FLANGE	R652V122	1
123	SCREW M10X12 CE DIN913	3097870170	1
124	REAR FLANGE	R652V124	1
125	SCREW M10X16 CE DIN913	3097870190	1
126	PIN Ø12X40 ISO8736-B	3115152210	6
127	CLUTCH	R652V127	1
128	INSERT	R652W128	2
129	PIN	R652W129	1
130	RING Ø16 022930	3117330120	2
131	SCREW M10X70 DIN912-8.8	3095431320	6
132	RING S-57271-0650-47A	3213970315	6
136	FRAME	R652V136.R	1
137	SCREW M8X16 DIN912-12.9	3095850115	4
138	WASHER Ø8 DIN7980	3112140300	4
141	GUIDING TUBE	R652X141.R	6
142	SPRING Ø5,6 Ø78,2X85	L220150-4426E4	6
143	BUSH	R652W143	6
144	SCREW M8X10-8.8 EN24017	3092031090	6
146	SCREW	R652W146	3
147	NUT 1/2BSF	5129550110	3
148	SLEEVE	R652X148	6
149	SCREW M10X35 DIN912-12.9	3095850181	6
150	SPRING Ø4 Ø28/58X3016	L220150-4495D10	6
201	GUARD FRAME	R652Y201.RB	1
202	RIGHT-HAND HINGE	R652W202.R	2
203	LEFT-HAND HINGE	R652W203.R	2
208	REAR GUARD	R652V208.RA	1

R652P1.03

STOCK CARRIAGE  
652 Y4 (Fig. 1-54.1)

- 2 -

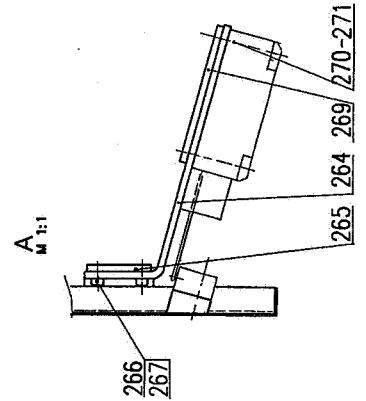
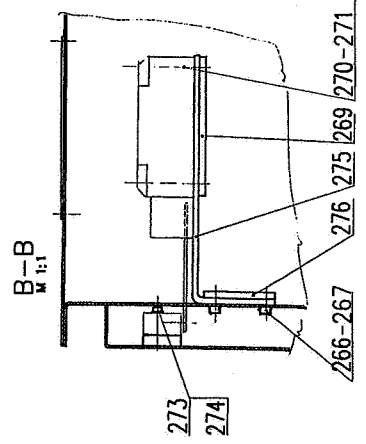
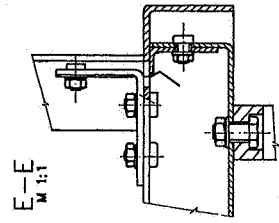
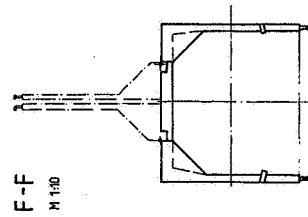
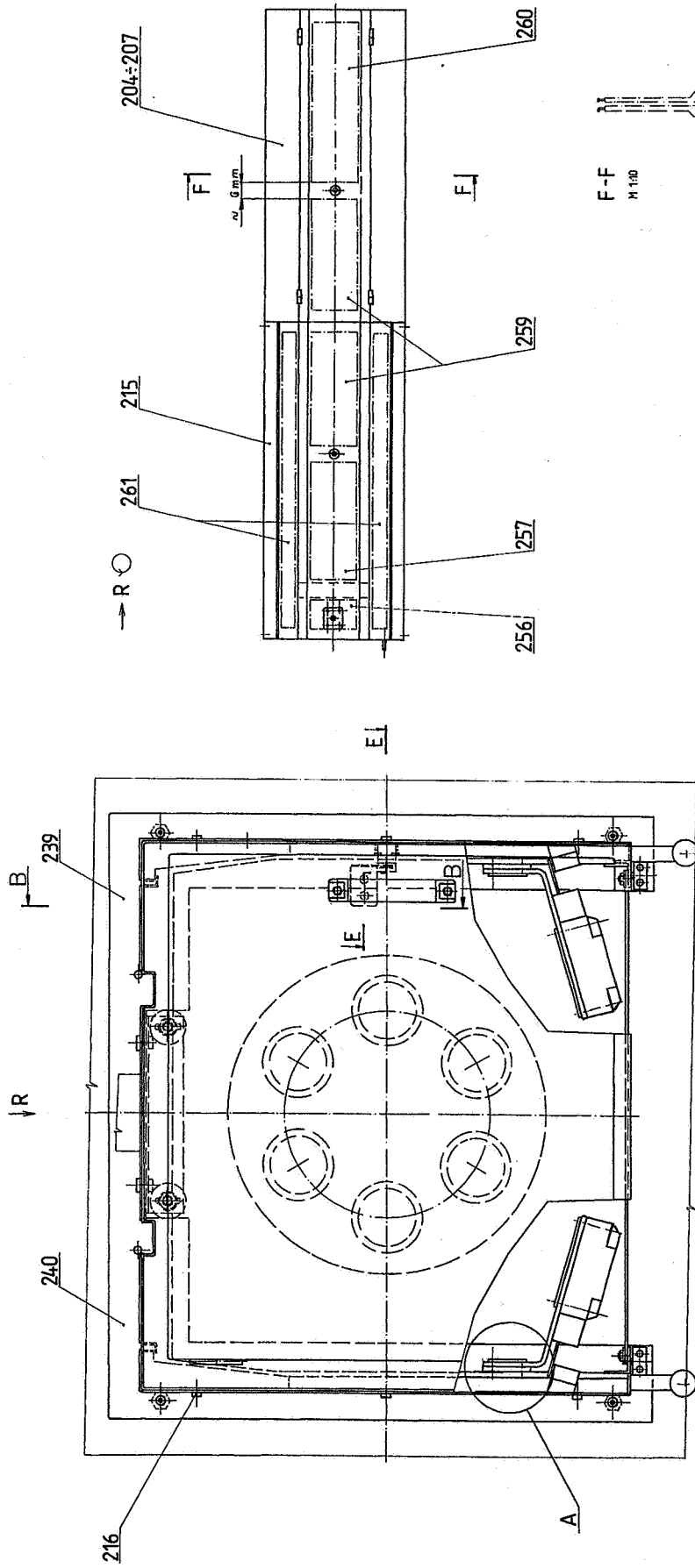
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
213	HANDLE GN666-30-600EL	5120000240	2
214	SCREW M8X10-10.9 ISO7380	3093990075	4
217	HANDLE 213-0202	5120000068	1
218	SCREW M5X20 DIN7991	3095510059	2
219	WASHER Ø5,3 ISO7089	3112100150	2
220	NUT M6 ZN ISO4032	3111200380	14
223	HOLDER	R652X223	1
224	PAWL	R652W224	1
225	SCREW M4X8-10.9 ISO7380	3093990040	6
226	WASHER Ø4,3 ISO7089	3112100120	4
227	NUT M4 ZN ISO4032	3111200230	6
231	HOLDER	R652W231	1
233	ANGLE	R652W233	1
234	WASHER	R652W234	2
235	SCREW M12X80-8.8 EN24017	3092032260	2
236	WASHER Ø13 ISO7089	3112100270	2
237	SCREW M6X20-10.9 ISO7380	3093990070	4
241	HOLDER	R652W241	4
242	SCREW M6X10 ZN ULF	3093990065	4
244	BLOCK	R652W244	2
245	PIN Ø6X25 ISO8734-A	3115150940	2
246	SCREW M6X20 DIN912-12.9	3095850082	4
247	WASHER	R652W247	2
249	GUARD	R652X249.RA	1
250	GUARD	R652X250.RA	2
251	GUARD	R652X251.RB	1
253	WASHER	R652W253	12
256	SOUNDPROOF MATERIAL	R652W256	1
261	SOUNDPROOF MATERIAL	R652W261	2
262	NUT M5 ZN ISO4032	3111200290	2



R652P1.03

STOCK CARRIAGE  
652 Y5 (Fig. 1-54.2)

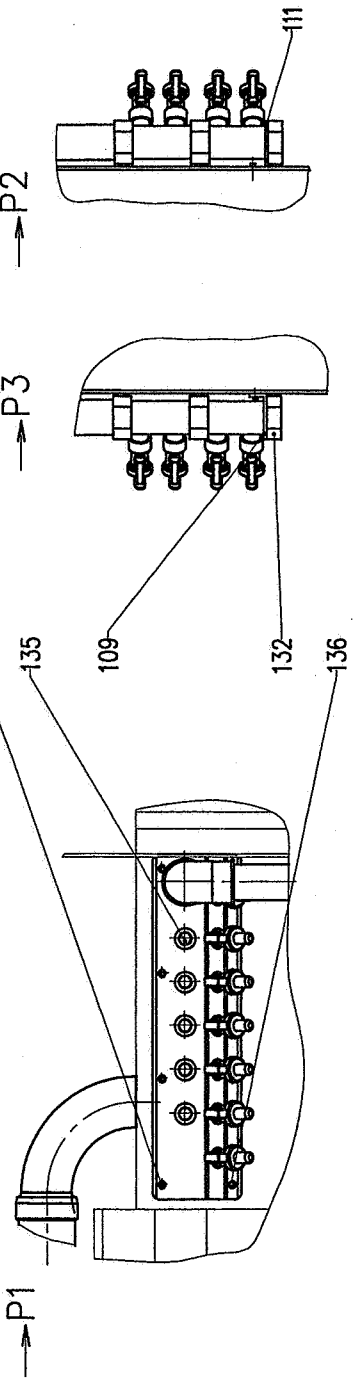
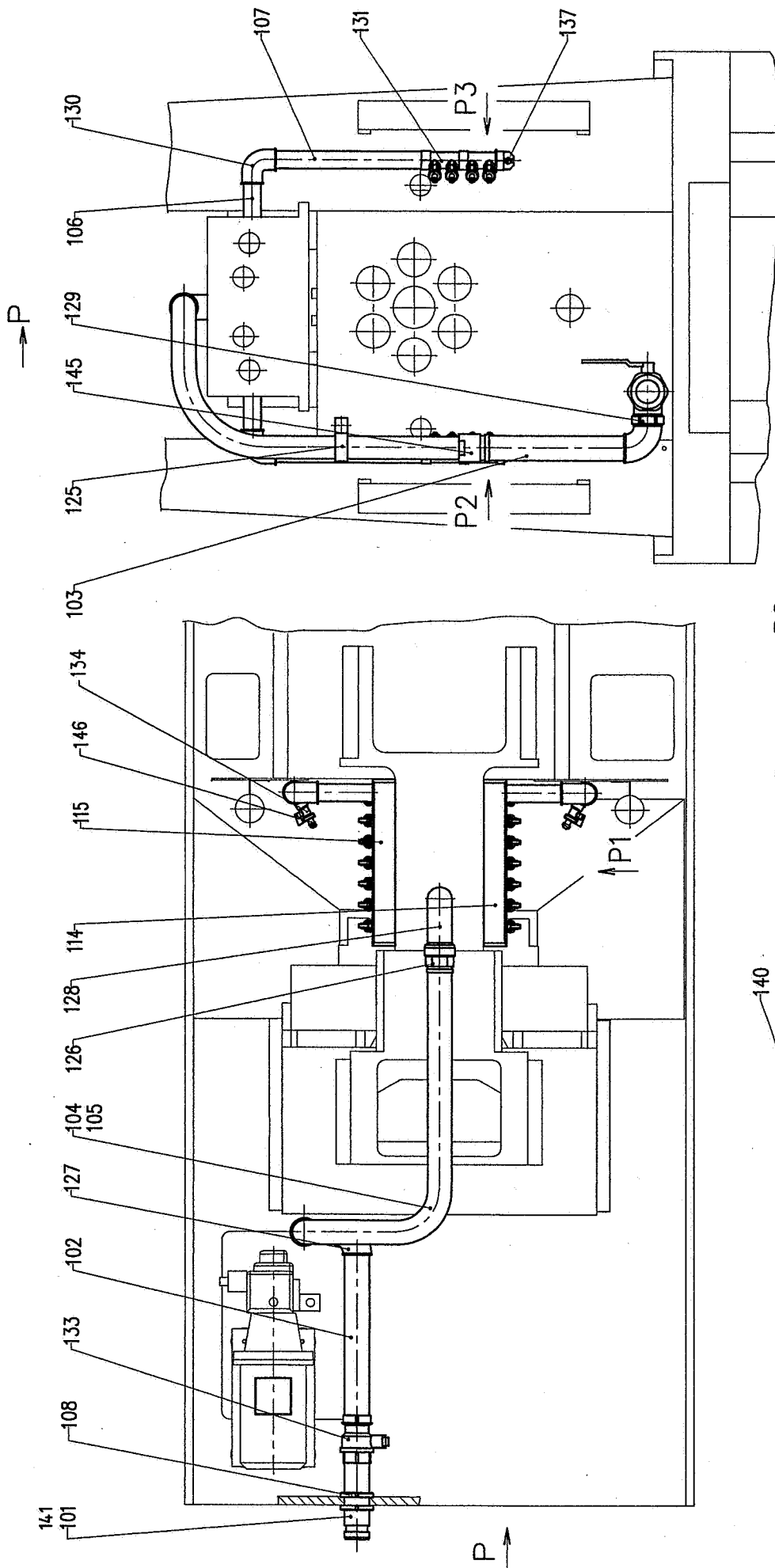
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
204	TILTABLE GUARD	R652V204.RB	2
206	WASHER Ø5,3 021733.05	3112130120	8
207	NUT M5 ZN ISO4032	3111200290	8
210	SCREW M4X8-10.9 ISO7380	3093990040	4
211	WASHER	R652W211	1
212	WASHER	R652W212	1
215	GUARD	R652V215.R	2
216	SCREW M6X8-10.9 ISO7380	3093990055	12
232	SCREW M5X10 DIN912-8.8	3095430030	9
238	SCREW M5X16-10.9 ISO7380	3093990053	3
239	RIGHT-HAND GUARD	R652X239	1
240	LEFT-HAND GUARD	R652X240	1
254	OUTLET AWK-PG11 (600263)	3457200068	3
256	SOUNDPROOF MATERIAL	R652W256	1
257	SOUNDPROOF MATERIAL	R652W257	1
259	SOUNDPROOF MATERIAL	R652W259	2
260	SOUNDPROOF MATERIAL	R652W260	1
261	SOUNDPROOF MATERIAL	R652W261	2
264	SWITCH HOLDER	R652X264	2
265	PLATE	R652W276	2
266	SCREW M6X16 DIN912-12.9	3095850075	8
267	WASHER Ø6,4 021702.50	3112800060	8
269	PLATE	R652W269	3
270	SCREW M5X45 DIN912-12.9	3095850063	12
271	WASHER Ø5,3 021702.50	3112800050	12
273	SCREW M5X25 DIN912-12.9	3095850057	6
274	WASHER Ø5,3 021702.50	3112800050	6
275	SWITCH HOLDER	R652X275	1
276	PLATE	R652W276	1



R672P1.03

COOLING SYSTEM  
672 Y1 (Fig. 1-55)

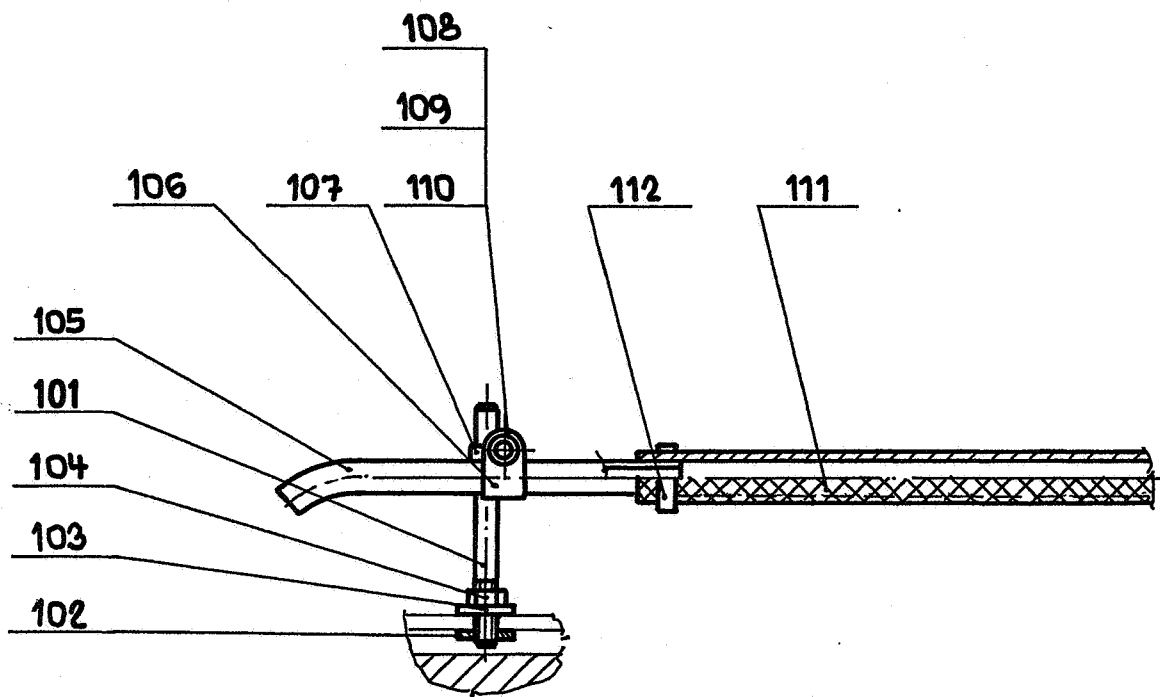
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	CONNECTOR	R672X101A	1
102	TUBE (HORIYONTAL)	R672W102	1
103	TUBE (VERTICAL)	R672W103	1
104	HOSE Ø50/62 PN2158795	2723270500	1.8 M
105	CLAMP Ø50-70 (SIZE 7)	5482410250	2
106	TUBE	R672W106	2
107	TUBE	R672W107	2
108	NUT-MODIFICATION	R672W108	2
109	BRACKET	R672X109	1
111	BRACKET	R672X111	1
114	COOLING DISTRIBUTION SYSTEM	R672V114	1
115	COOLING DISTRIBUTION SYSTEM	R672V115	1
125	HOLDER	R672W125	1
126	NECK	R674W117	1
127	ELBOW 2" 138205.1	3194281480	2
128	BEND 2" (1) 138211.1	3194280600	1
129	INSERT 2" 138243.1	3194280690	1
130	ELBOW 5/4" 138205.1	3194281150	2
131	CONNECTOR TT ART35/F (MS)	3194610433	4
132	PLUG 5/4" ART91/O	3194200180	2
133	COCK 2" ART090/F	4223180210	1
134	COCK 1/2" (126) (5007587)	4223180160	22
135	PLUG G1/2" 137965.1	3194690085	10
136	SCREW M8X35 DIN912-12.9	3095850127	8
137	SCREW M6X10 DIN912-12.9	3095850068	3
140	SCREW M8X60 DIN912-12.9	3095850142	8
141	PLUG Ø50 085-034 CE PE	5628500020	1
145	NECK	R672X145	1
146	CONNECTOR Ø13-G1/2" 1560D	3194810130	22



R673P1.03

COOLING DISTRIBUTION SYSTEM ACCESSORIES  
673 X1 (Fig. 1-55.1)

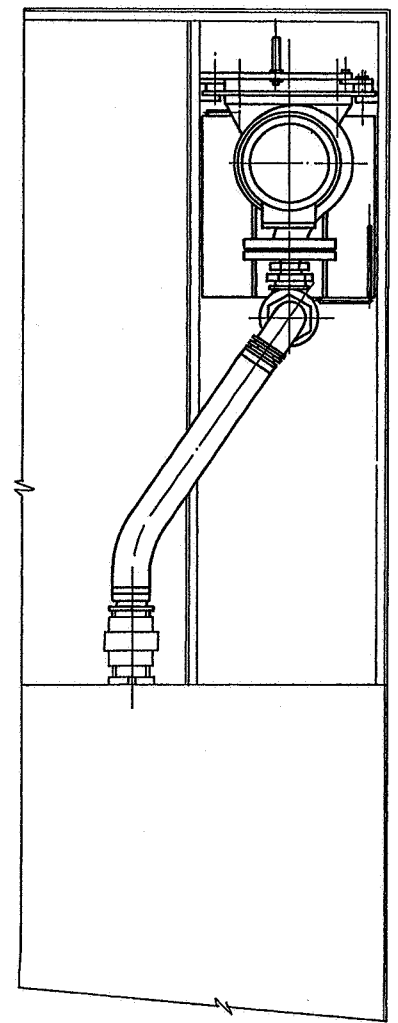
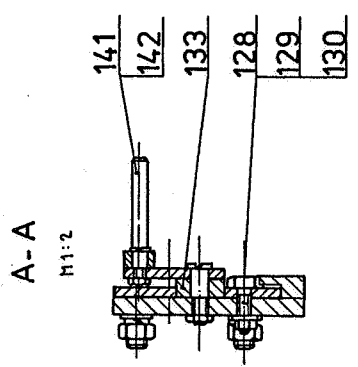
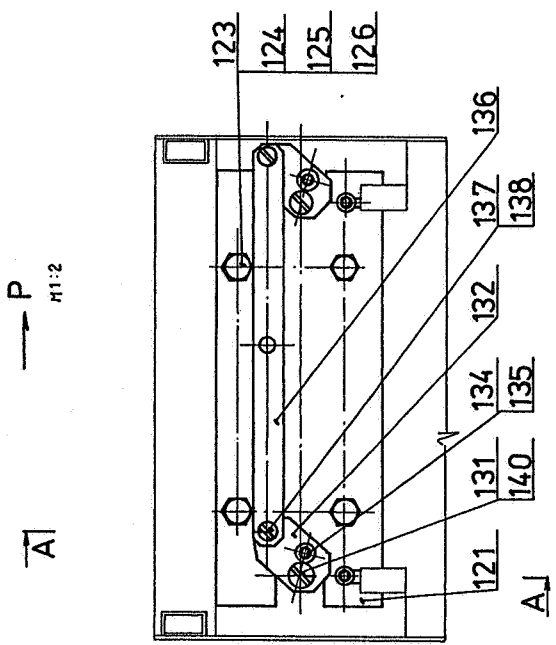
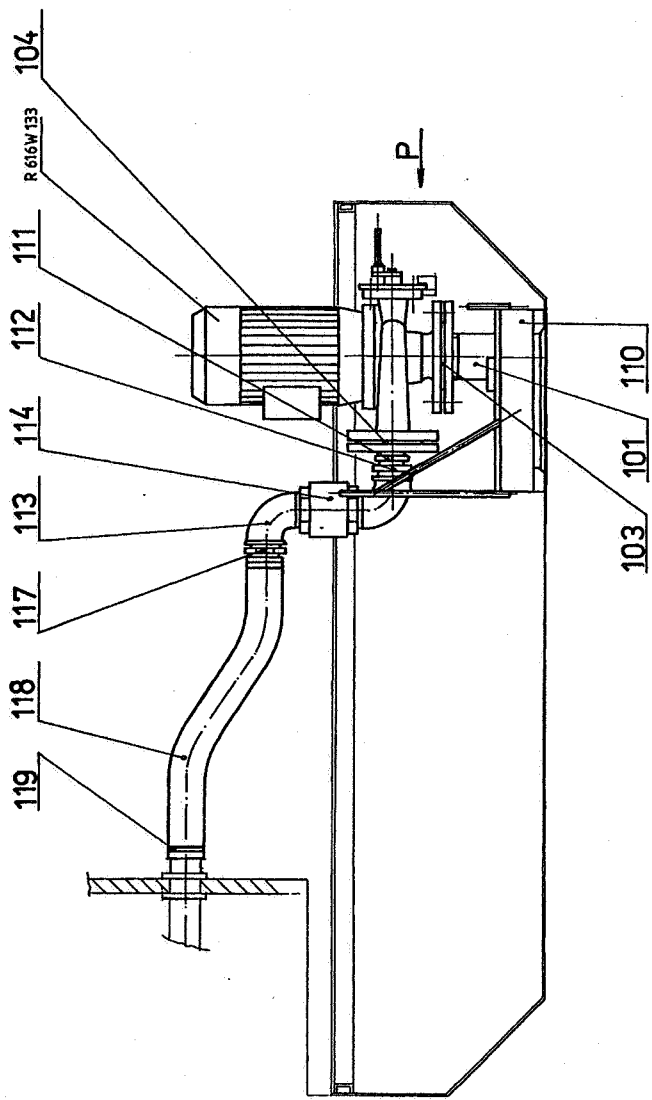
Pos.	Name of part, dimensions, standard		ZPS ordering No.	Qty
101	BAR		R673W101	22
102	BLOCK		R673W102	22
103	WASHER Ø10,5	ISO7093	3112100410	22
104	NUT M10 ZN	ISO4035	3111200630	22
105	TUBE Ø12X1	12011.1	1445220020	6 M
106	CLAMP		R673W106	22
107	CLAMP		R673W107	22
108	SCREW M8X50-8.8	EN24017	3092031420	22
109	WASHER Ø8,4	ISO7089	3112100210	22
110	NUT M8 ZN	ISO4032	3111200470	22
111	PVC HOSE Ø13/3 (1131)		2833670020	10 M
112	CLIP Ø12-20 (SIZE 2)		5482410200	44



R674P1.03

COOLING UNIT  
674 Y1 Fig. 1-56)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	TUBE	R674W101	1
103	SEALING	R674W103	1
104	SEALING	R674W104	1
110	BASKET	R674Y110.R	1
111	INSERT	R674W111	1
112	REDUCER 2X6/4" 138240.1	3194280650	1
113	ELBOW 2" 138207.1	3194281520	2
114	FLAP 2" ART100 EUROPA	4228100020	1
117	NECK	R674W117	1
118	HOSE Ø50/62 PN2158795	2723270500	0.6 M
119	CLIP Ø50-70 (SIZE 7)	5482410250	2
121	PLATE	R674X121	1
123	SCREW M12X40-8.8 EN24017	3092032110	4
124	WASHER Ø13 ISO7089	3112100270	8
125	WASHER Ø12 DIN7980	3112140420	4
126	NUT M12 ZN ISO4032	3111200830	4
128	SCREW M8X25 DIN912-12.9	3095850123	2
129	WASHER Ø8 DIN7980	3112140300	2
130	NUT M8 ZN ISO4032	3111200470	2
131	PIN Ø12X40X25 CKG	3115191020	2
132	LEVER	R674W132	2
133	RING	R674W133	2
134	SCREW M8X20 DIN912-12.9	3095850121	2
135	WASHER Ø8 DIN7980	3112140300	2
136	PULL ROD	R674W136	1
137	PIN CKG Ø10X22X10	R13219-454E2	2
138	NUT M8 ZN ISO4032	3111200470	2
140	NUT M10 ZN ISO4035	3111200630	2
141	BAR	R674W141	1
142	RING Ø9 022929.02	3117320160	2





R667P1.03

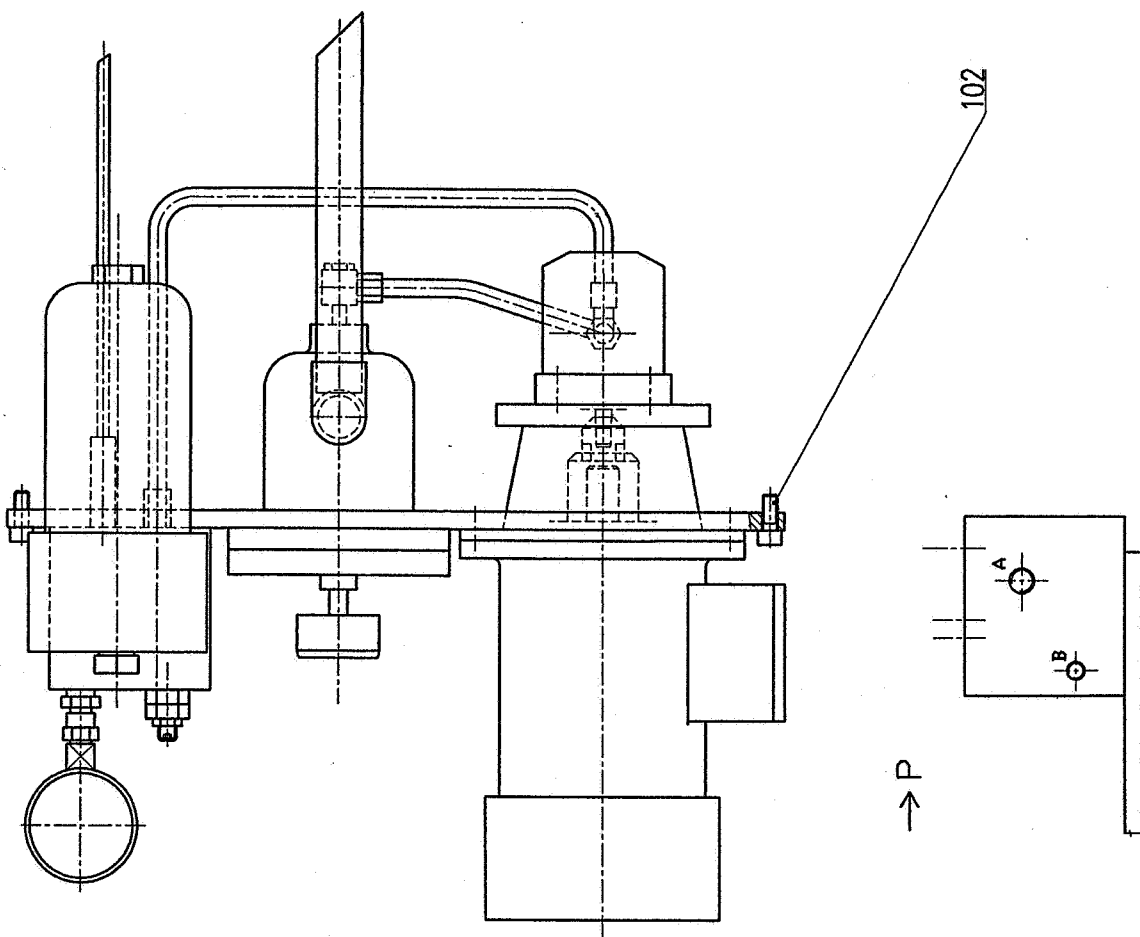
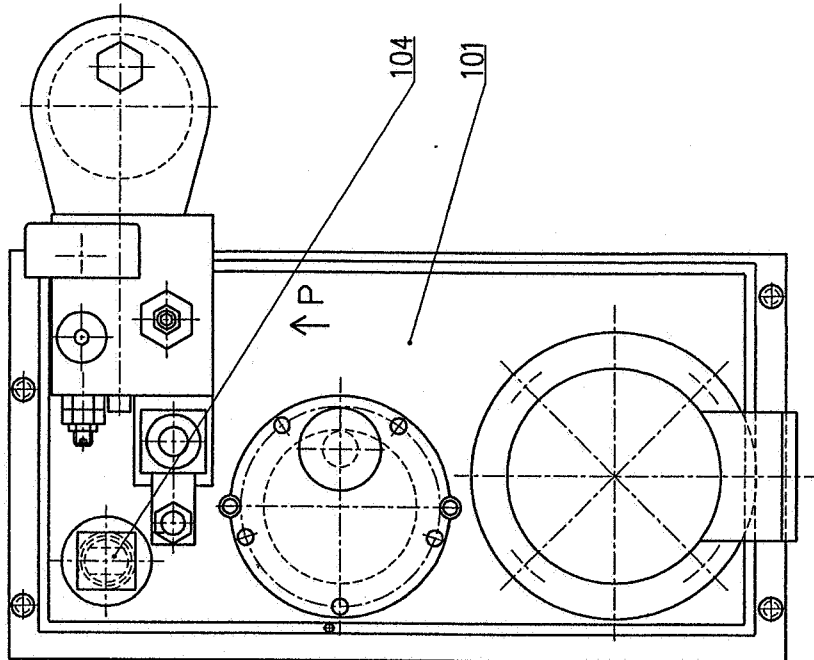
LUBRICATING UNIT 400V/50Hz  
667 V1 (Fig. 1-58)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	UNIT SH010182200 38/22	4252810071	1
102	SCREW M8X20-10.9 ISO7380	3093990082	4
104	SWITCH RL-G1S1A	4051550091	1

R667P2.03

LUBRICATING UNIT 400V/60Hz  
667 V1 (Fig. 1-58)

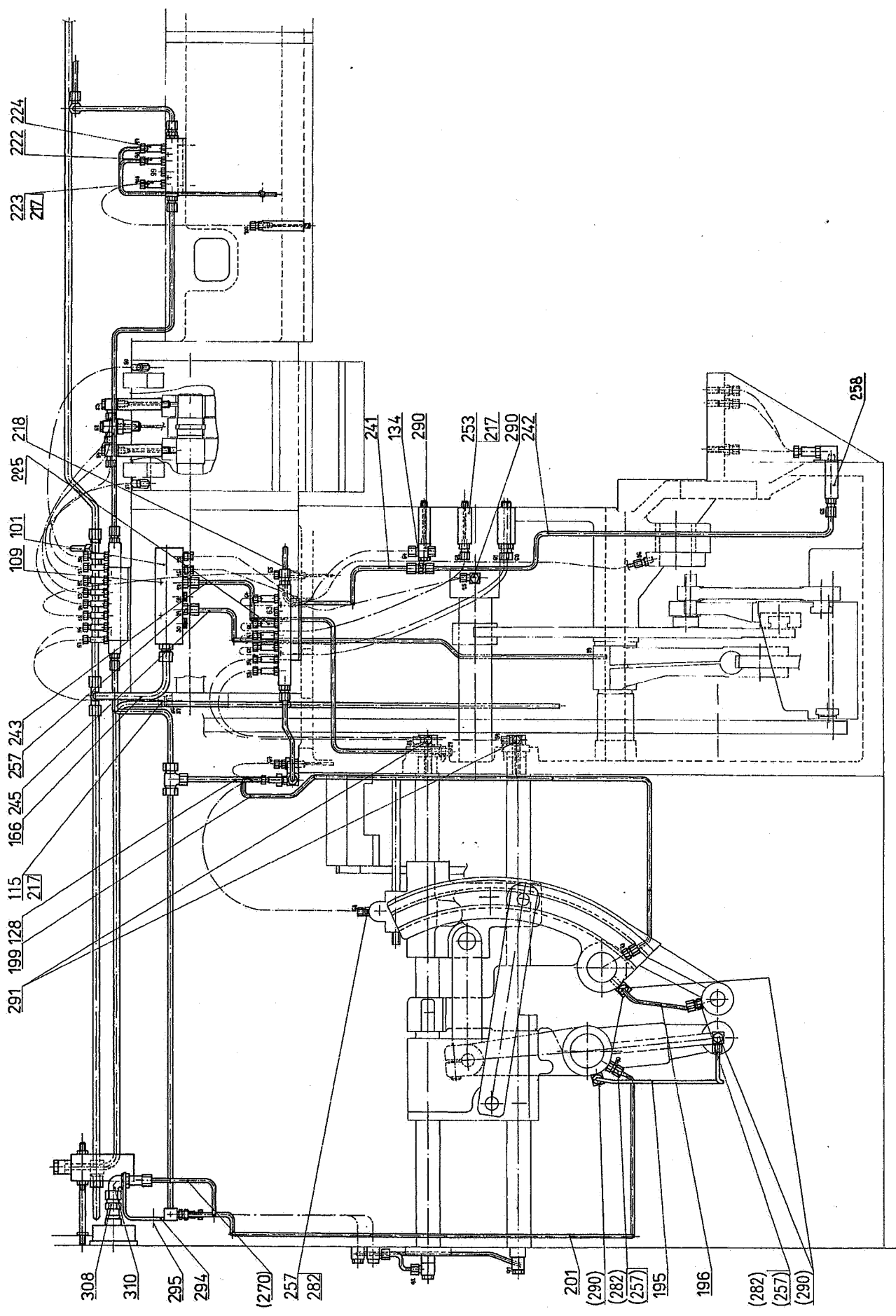
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	UNIT SH010182200 230V	4252810072	1
102	SCREW M8X20-10.9 ISO7380	3093990082	4
104	SWITCH RL-G1S1A	4051550091	1



R666P1.03

LUBRICATING DISTRIBUTION SYSTEM  
666Y1 (Fig. 1-59)

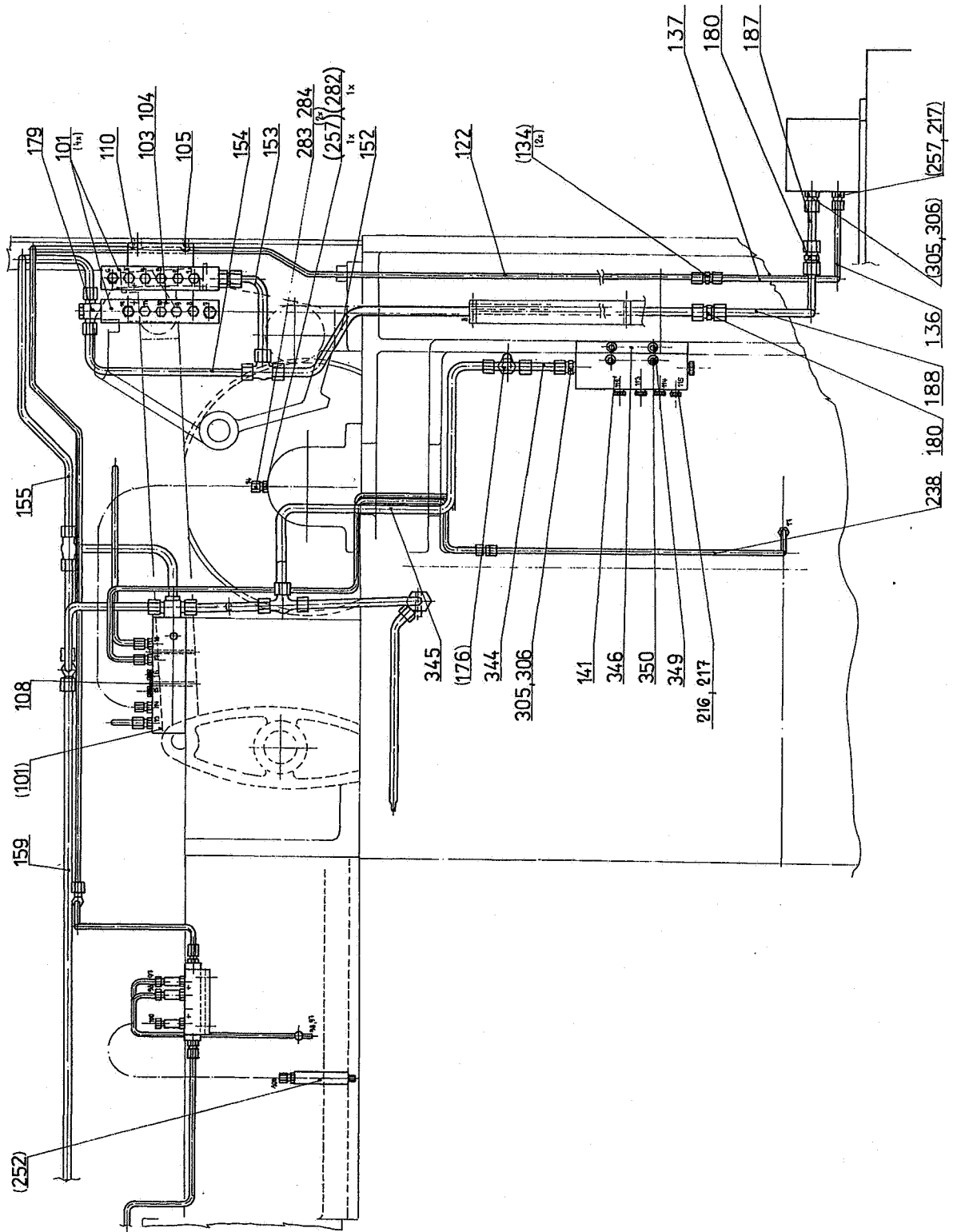
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	CIRCULATING BOX	R666W101	6
109	SCREW M6X40 DIN912-12.9	3095850087	4
115	NECK 404006 (Ø4 M10/M8)	3194610965	4
128	TUBE	R666W128	1
134	NECK JS4 PS2 6L	3194970080	9
166	TUBE	R666X166	1
195	TUBE	R666X195A	1
196	TUBE	R666X196A	1
199	TUBE	R666V199	1
201	TUBE	R666X201	1
217	RING Ø10X14 029310.2	3194190120	127
218	FRONT REDUCTION PART	R666W218.R	1
222	ELEMENT 44-2154-7014	4252210170	14
223	ELEMENT 44-2154-7015	4252210180	21
224	ELEMENT 44-2154-7032	4252210190	5
225	ELEMENT 44-2154-7012	4252210150	3
241	TUBE	R666X241	1
242	TUBE	R666X242	1
243	TUBE	R666X243	1
245	TUBE	R666X245	1
253	BUSHING	R666W253	8
257	NECK JS4 PHAM2 6LM	3194970070	42
258	BUSHING	R666W258	2
270	TUBE	R666X270	1
282	RING Ø8X12 029310.2	3194190090	32
290	CONNECTOR 46C101401	3194730495	24
291	CONNECTOR RSWS4LLM (M8X1)	3194730498	11
294	HOLDER	R666W294	1
295	SCREW M6X10 DIN912-12.9	3095850068	2
308	CONNECTOR EMASD6LR G1/4"	4227920025	1
310	NECK WSS6L (M12X1,5)	3194611200	1



R666P1.03

LUBRICATING DISTRIBUTION SYSTEM  
666Y8 (Fig. 1-60)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	CIRCULATING BOX	R666W101	6
103	SCREW M5X60 DIN912-12.9	3095850060	4
104	NUT M5 ZN ISO4032	3111200290	4
105	SCREW M8X10-10.9 ISO7380	3093990075	2
108	SCREW M5X50 DIN912-12.9	3095850058	4
110	HOLDER	R666X110	1
121	TUBE	R666X121	1
122	TUBE	R666V122	1
134	NECK JS4 PS2 6L	3194970080	9
136	TUBE	R666W136	1
137	TUBE	R666X137	1
141	CIRCULATING BLOCK-HEADSTOCK BOX	R666W141	3
151	TUBE	R666X151	1
152	TUBE	R666W152	1
153	TUBE	R666W153	1
154	TUBE	R666W154	1
155	TUBE	R666X155	1
159	TUBE	R666W159	1
176	NECK TS10L (M16X1,5)	3194890500	9
179	CONNECTOR RSTS10LM-WD	3194740100	2
180	NECK JS8 PS2 10L	3194970130	2
187	TUBE	R666W187	1
188	TUBE	R666X188	1
216	PLUG M10X1 PN021938	3119790020	42
217	RING Ø10X14 029310.2	3194190120	127
238	TUBE	R666X238	1
252	BUSHING	R666W252	2
257	NECK JS4 PHAM2 6LM	3194970070	42
282	RING Ø8X12 029310.2	3194190090	32
283	NUT M4LL JS2,5DIN3870	3194970030	35
284	RING SR4LL DIN3861	3194990116	37
305	NECK JS8 137610.1	3194970140	7
306	RING Ø14X18 029310.2	3194190190	7
344	TUBE	R666W344	1
345	TUBE	R666X345	1
346	HOLDER	R666W346	1
349	SCREW M6X16 DIN912-12.9	3095850075	2
350	SCREW M6X35 DIN912-12.9	3095850086	2



R666P1.03

LUBRICATING DISTRIBUTION SYSTEM  
666Y3 (Fig. 1-61)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	CIRCULATING BOX	R666W101	6
112	HOLDER	R666W112	2
113	SCREW M4X25 DIN912-12.9	3095850048	4
114	SCREW M6X10 DIN912-12.9	3095850068	4
129	TUBE	R666X129	1
163	TUBE	R666X163	1
164	TUBE	R666W164	1
165	TUBE	R666X165	1
197	TUBE	R666X197A	1
198	TUBE	R666W198A	1
200	TUBE	R666X200	1
216	PLUG M10X1 PN021938	3119790020	42
217	RING Ø10X14 029310.2	3194190120	127
220	REAR REDUCTION PART	R666W220.R	1
221	ELEMENT 44-2154-7013	4252210160	11
222	ELEMENT 44-2154-7014	4252210170	14
223	ELEMENT 44-2154-7015	4252210180	21
230	REDUCTION PART	R666W230.R	2
250	TUBE	R666X250	1
251	BLOCK	R666X251	2
252	BUSHING	R666W252	2
253	BUSHING	R666W253	8
256	SCREW M4X30 DIN912-12.9	3095850049	4
264	TUBE	R666X264	1
265	TUBE	R666X265	1
266	TUBE	R666X266	1
281	NECK JS2,5 PHAM2 4LLM	3194970010	25
282	RING Ø8X12 029310.2	3194190090	32
283	NUT M4LL JS2,5 DIN3870	3194970030	35
284	RING SR4LL DIN3861	3194990116	37
286	NECK 404006 (Ø4 M10/M8)	3194610965	28
287	SCREW JS3 (64104) 137992	3194690070	28
288	RING JS3 (64004) 137932	3194110020	28
290	CONNECTOR 46C101401	3194730495	24
291	CONNECTOR RSWS4LLM (M8X1)	3194730498	11
339	CLAMP Ø4 022709.11	3117400050	4
340	SCREW M4X8 021131.25	3092310920	4
351	REDUCTION PART	R635W101	4



R666P1.03

LUBRICATING DISTRIBUTION SYSTEM  
666Y4 (Fig. 1-62)

- 1 -

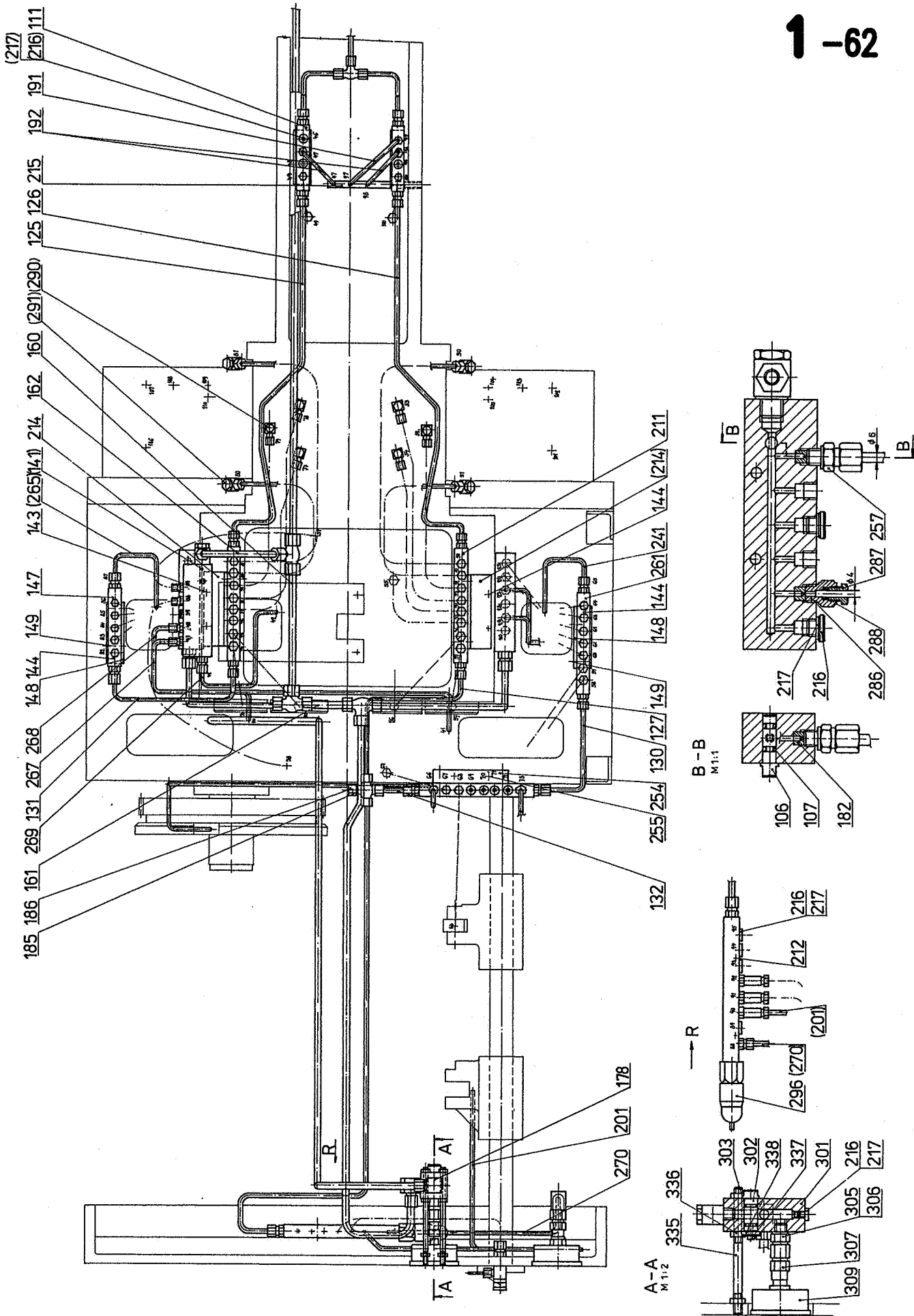
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
106	PISTON FOR CIRCULATING BLOCK	R666W106	10
107	O-RING Ø8X4 ON029280.1	2731110130	20
111	BLOCK 1X4	R666W111	2
125	TUBE	R666V125	1
126	TUBE	R666V126	1
127	TUBE	R666X127	1
130	TUBE	R666W130	1
131	TUBE	R666X131	1
132	TUBE	R666W132	1
141	CIRCULATING BLOCK-HEADSTOCK BOX	R666W141	3
143	SCREW M6X40 DIN912-12.9	3095850087	2
144	SCREW M6X12 DIN912-12.9	3095850071	6
147	DOSING BLOCK 1X5	R666X147	1
148	HOLDER	R666W148	2
149	SCREW M4X25 DIN912-12.9	3095850048	4
160	TUBE	R666W160	1
161	TUBE	R666W161	1
162	TUBE	R666W162	1
178	CONNECTOR RSWS10LM-WD	3194730510	3
182	NOZZLE - HIGH	R666W182	42
185	NUT M6L JS4-5 DIN3870	3194970090	1
186	BALL Ø8,5-40 023680	3249120120	1
191	TUBE	R666W191	1
192	TUBE	R666W192	2
201	TUBE	R666X201	1
211	DOSING BLOCK 1X8	R666X211	4
212	SCREW M4X25 DIN912-12.9	3095850048	8
214	HOLDER	R666W214	2
215	BAR	R666W215	1
216	PLUG M10X1 PN021938	3119790020	42
217	RING Ø10X14 029310.2	3194190120	127
241	TUBE	R666X241	1
254	BLOCK - HOLDER	R666W254	1
255	SCREW M6X30 DIN912-12.9	3095850085	2
257	NECK JS4 PHAM2 6LM	3194970070	42
261	DOSING BLOCK 1X7	R666W261	1
265	TUBE	R666X265	1
267	TUBE	R666X267	1
268	TUBE	R666X268	1
269	TUBE	R666X269	1
270	TUBE	R666X270	1
286	NECK 404006K (Ø4 M10/M8)	3194610965	28
287	SCREW JS3 (64104) 137992	3194690070	28
288	RING JS3 (64104) 137932	3194110020	28

R666P1.03

LUBRICATING DISTRIBUTION SYSTEM  
666Y4 (Fig. 1-62)

- 2 -  
Qty

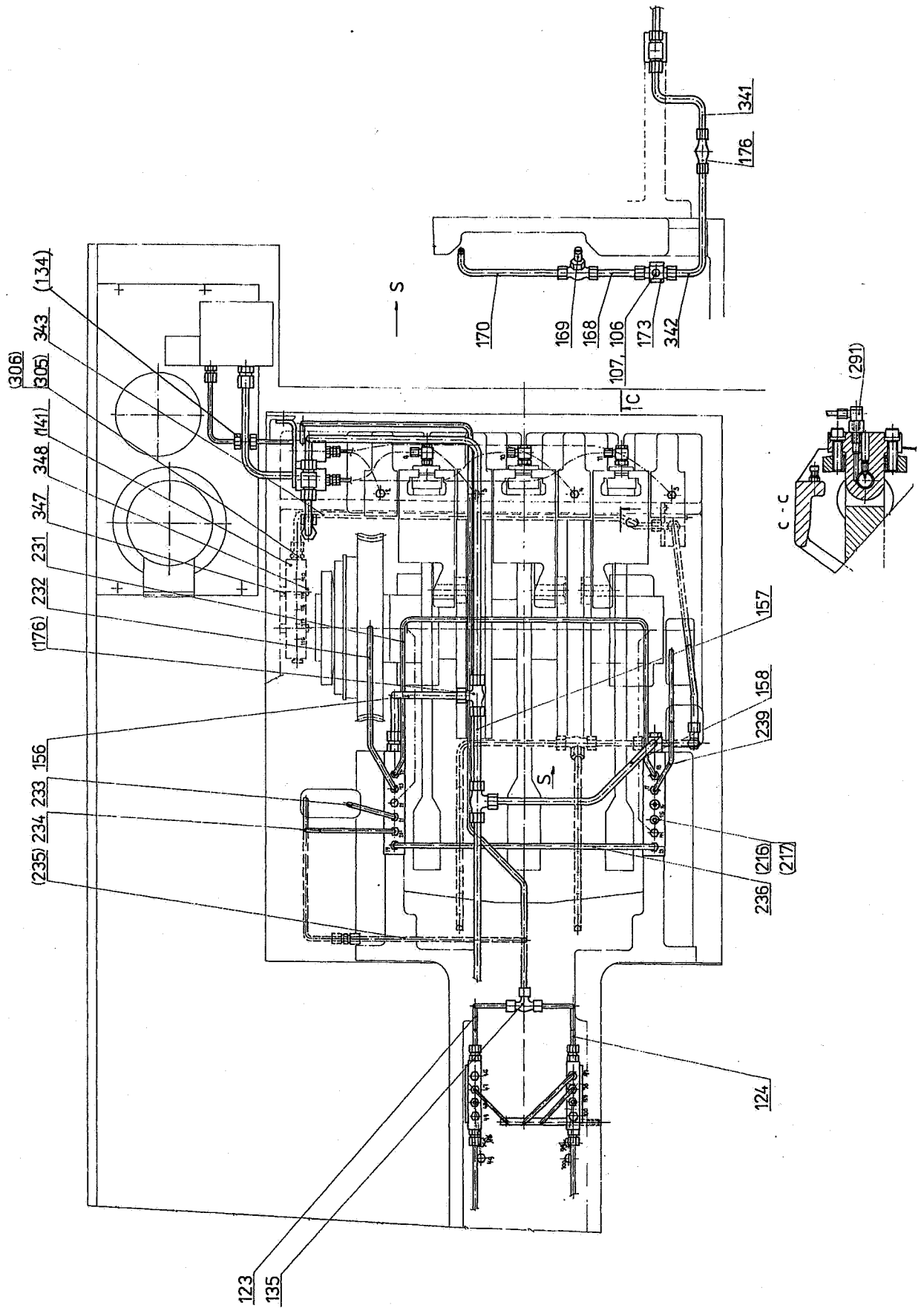
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
290	CONNECTOR 46C101401	3194730495	24
291	CONNECTOR RSWS4LLM (M8X1)	3194730498	11
296	SWITCH 84-8005-0514	4252210247	1
301	THROTTLING BLOCK	R666X301	1
302	COCK	R666W302	1
303	O-RING Ø16X12 ON029280.1	2731110470	2
305	NECK JS8 137610.1	3194970140	7
306	RING Ø14X18 029310.2	3194190190	7
307	CONNECTOR EMASD10LR G1/4"	4227920030	1
309	MANOMETER MG3A-INOX63-0/4	3884110530	2
335	SCREW	R666W335	2
336	NUT M8 ZN ISO4032	3111200470	6
337	SCREW M5X10 DIN912-12.9	3095850051	1
338	WASHER Ø20 ON021770	R13218-4F1	1



R666P1.03

LUBRICATING DISTRIBUTION SYSTEM  
666Y9 (Fig. 1-63)

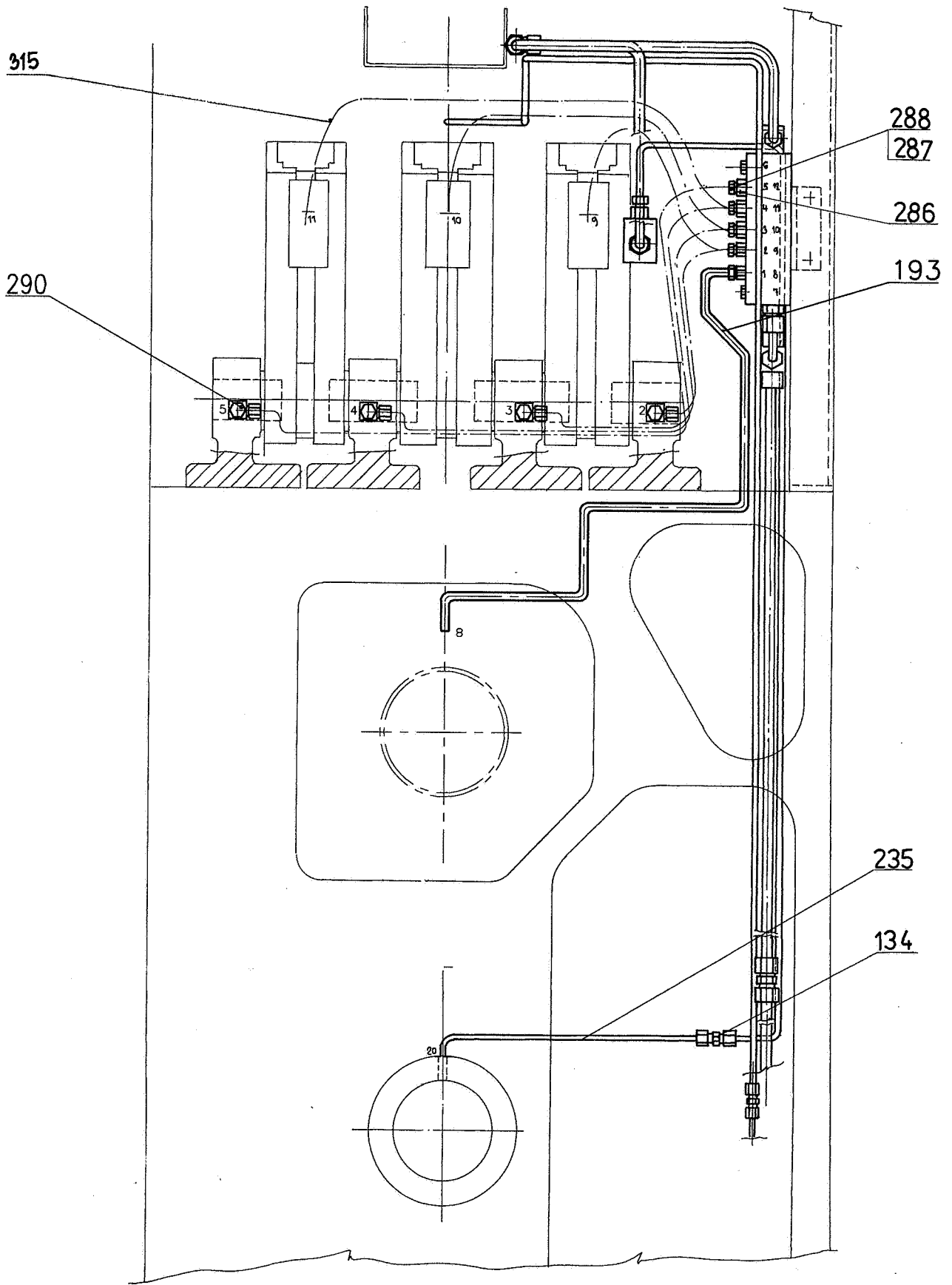
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
106	PISTON FOR CIRCULATING BLOCK	R666W106	10
107	O-RING Ø8X4 ON029280.1	2731110130	20
123	TUBE	R666X123	1
124	TUBE	R666X124	1
134	NECK JS4 PS2 6L	3194970080	9
135	NECK TS6L (M12X1,5)	3194890490	3
141	CIRCULATING BLOCK-HEADSTOCK BOX	R666W141	3
156	TUBE	R666X156	1
157	TUBE	R666W157	1
158	TUBE	R666X158	1
168	TUBE	R666W168	1
169	TUBE	R666X169	1
170	TUBE	R666X170	1
173	NECK	R666W173	1
176	NECK TS10L (M16X1,5)	3194890500	9
216	PLUG M10X1 PN021938	3119790020	42
217	RING Ø10X14 029310.2	3194190120	127
231	TUBE	R666X231	1
232	TUBE	R666X232	1
233	TUBE	R666X233	1
234	TUBE	R666X234	1
235	TUBE	R666X235	1
236	TUBE	R666X236	1
239	TUBE	R666X239	1
291	CONNECTOR RSWS4LLM (M8X1)	3194730498	11
305	NECK JS8 137610.1	3194970140	7
306	RING Ø14X18 029310.2	3194190190	7
341	TUBE	R666W341	1
342	TUBE	R666W342	1
343	TUBE	R666X343	1
347	NUT 7X12X8 ORA	5120010060	2
348	SCREW M6X50 DIN912-12.9	3095850095	2

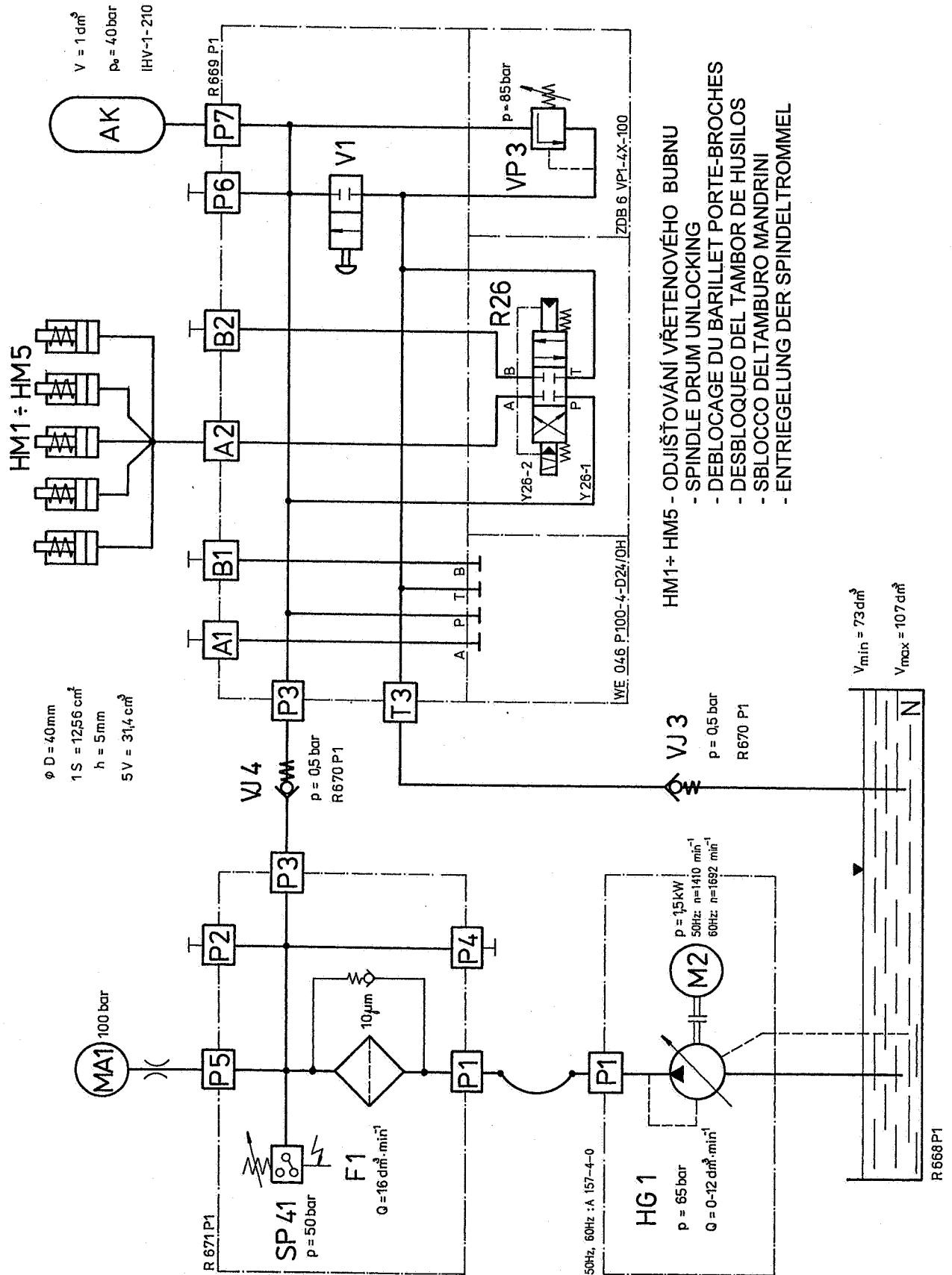


R666P1.03

LUBRICATING DISTRIBUTION SYSTEM  
666Y10 (Fig. 1-64)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
134	NECK JS4 PS2 6L	3194970080	9
217	RING Ø10X14 029310.2	3194190120	127
235	TUBE	R666X235	1
286	NECK 404006 (Ø4 M10/M8)	3194610965	28
287	SCREW JS3 (64104) 137992	3194690070	28
288	RING JS3 (64004) 137932	3194110020	28
290	CONNECTOR 46C101401	3194730495	24
315	HOSE 4X2,7 (PA11)	3376820002	37 M



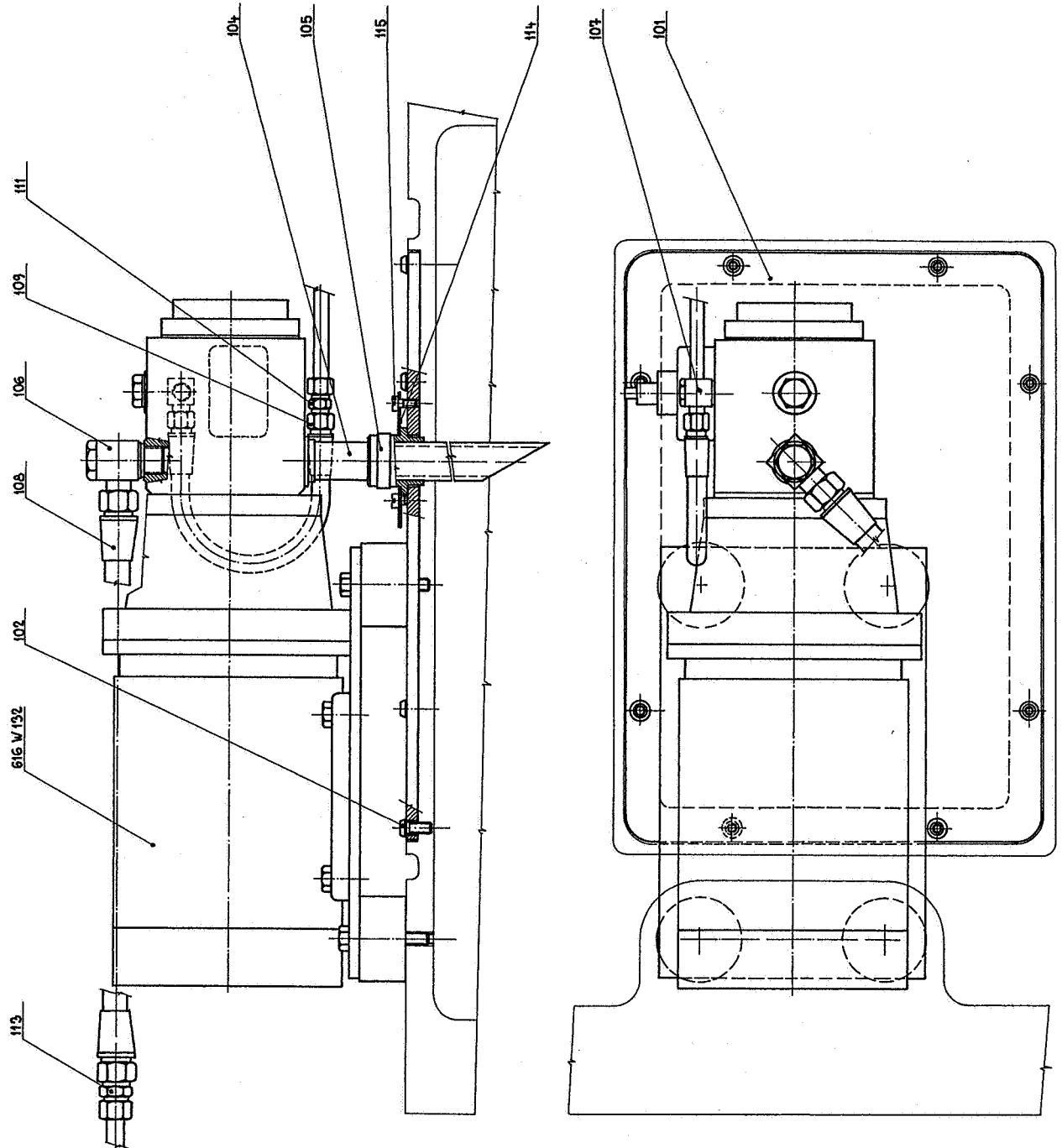


- HM1 + HM5 - ODJIŠTOVÁNÍ VŘETENOVÉHO BUBNU  
 - SPINDLE DRUM UNLOCKING  
 - DEBLOCAGE DU BARILET PORTE-BROCHES  
 - DESBLOQUEO DEL TAMBOR DE HUSILOS  
 - SBLOCCO DEL TAMBURO MANDRINI  
 - ENTRIEGELUNG DER SPINDEL TROMMEL

R668P1.03

HYDRAULIC UNIT  
668 Y1 (Fig. 1-66)

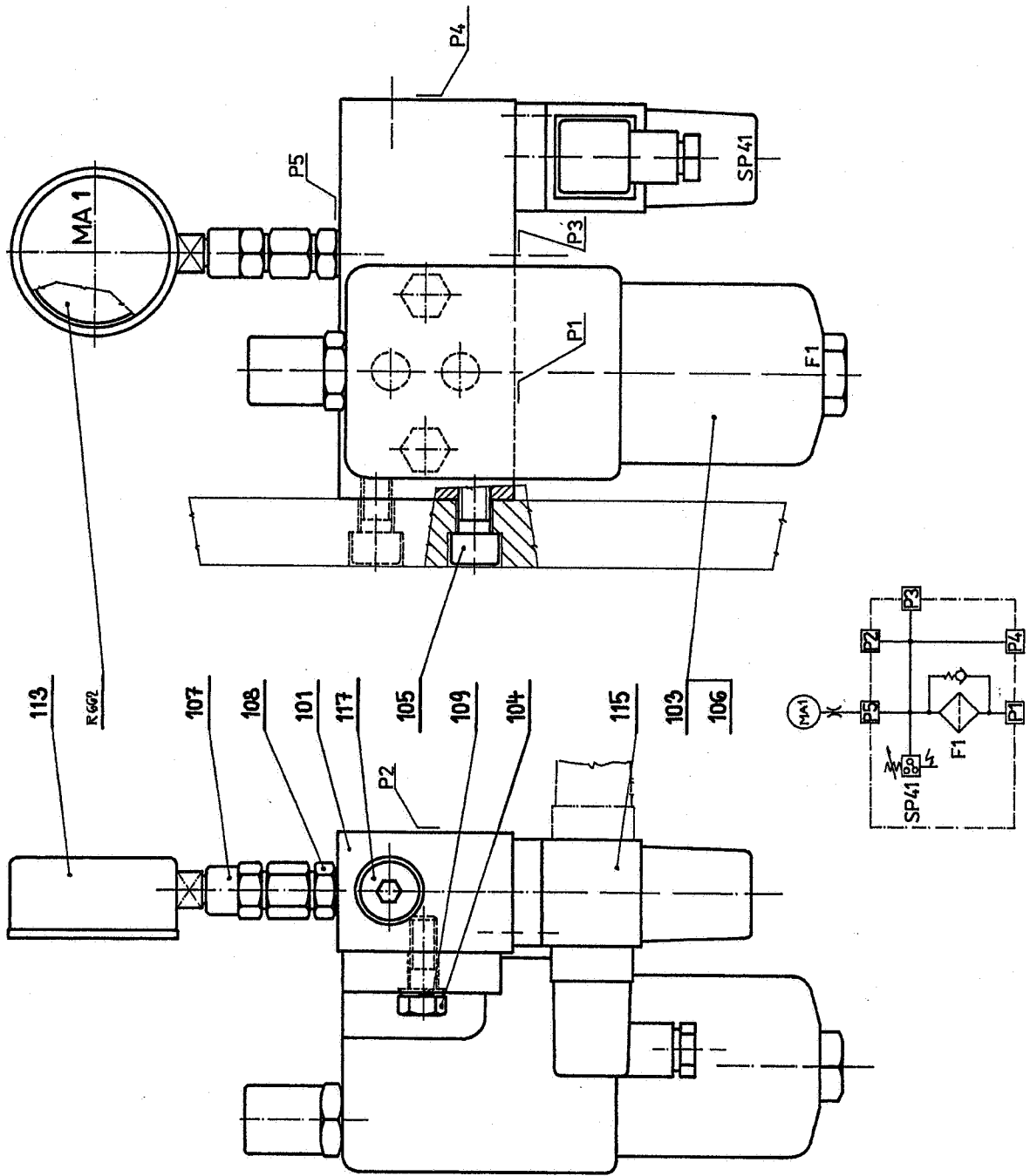
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	COVER	R668V101	1
102	SCREW M8X20-10.9 ISO7380	3093990082	8
104	SUCTION TUBE	R668W104	1
105	CLIP Ø32-50 (SIZE 6)	5482410295	1
106	CONNECTOR RSWS15LR-WD	3194730530	1
107	CONNECTOR RSWS8LR-WD	3194730508	1
108	HOSE PHD 112X315 2-AFL	3366300086	1
109	HOSE PHD 106X250 2-AFL	3366300005	1
111	NECK GS8L (M14X1,5)	3194640125	1
113	NECK GS15/12L (M22X1,5)	3194640140	1
114	THRUST RING	R668W114	1
115	SCREW M6X12 021131.25	3092311760	4



R671P1.03

HYDRAULIC SYSTEM OIL CLEANER  
671 V2 (Fig. 1-67)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	BLOCK (FROM PROD. NO. 0015)	R671X101A	1
103	FILTER DF BN/HC60AFA10B1	3366540010	1
104	SCREW M10X30-10.9 24017	5129532008	2
105	SCREW M12X40 DIN912-12.9	3095850209	2
106	INSERT 0060D010BN3HC	3366540020	1
107	CONNECTOR EMASD10LR G1/4"	4227920030	1
108	NECK GES10LM-WD	3194610990	1
109	WASHER Ø10 DIN7980	3112140360	2
113	MANOMETER MAR-63-100 BAR/P	3884110500	1
115	RELAY HED8OH1X/100 Z14	3365810125	1
117	PLUG VS-M16X1,5-WD	3194200030	2



R669P1.03

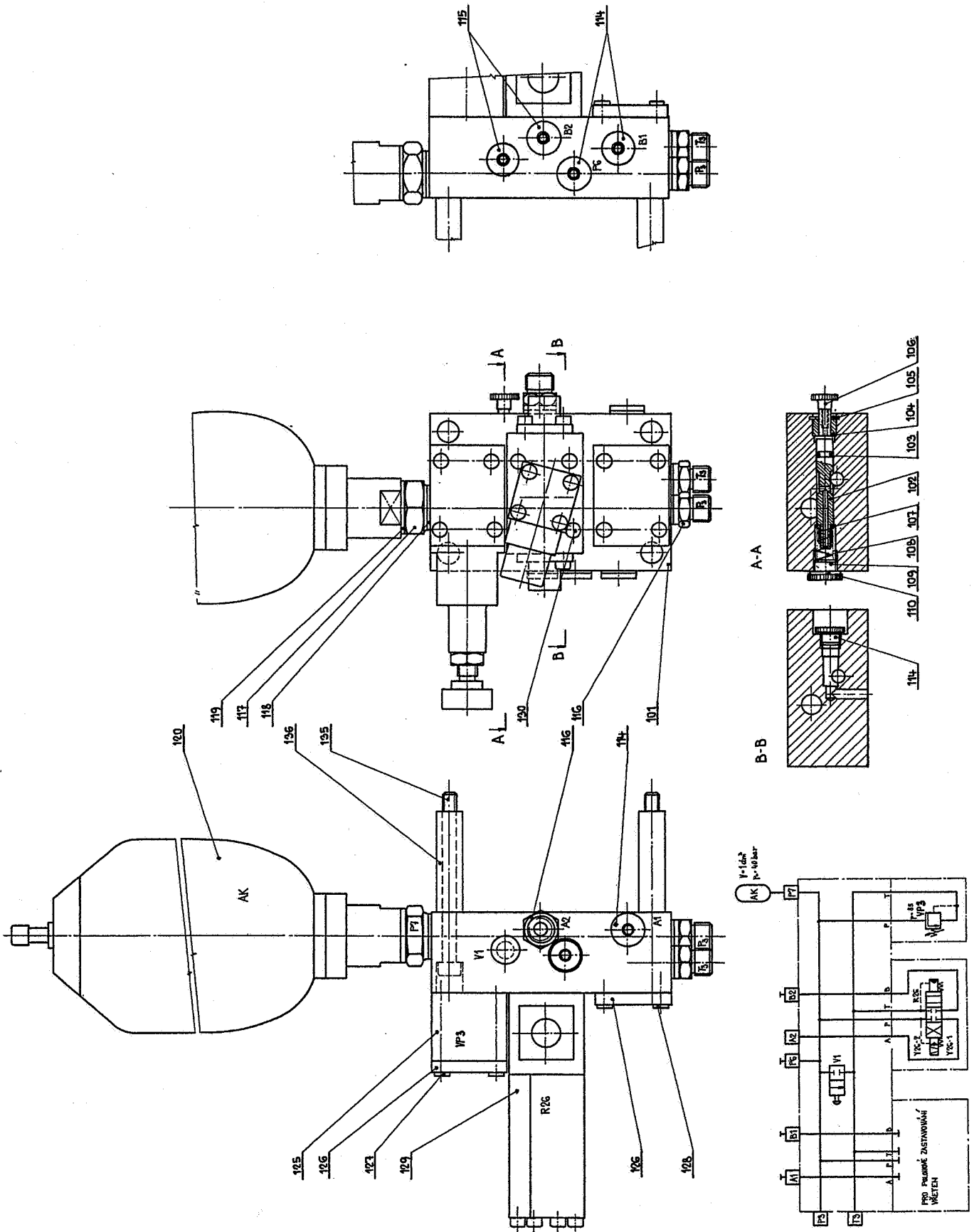
SPINDLE DRUM LOCKING CONTROL  
669 Y1 (Fig. 1-68)

Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	DRUM UNLOCKING BLOCK	T R669Y101	1
102	ACCUMULATOR DISCHARGING PISTON	T R669X102	1
103	O-RING Ø6,75X1,78	2731110085	1
104	RING	R669W104	1
105	RING Ø14                   022931	3117330070	1
106	SCREW M4X10           021161	R13208-12F1	1
107	BUSH	R669W107	1
108	SPRING	R669W108	1
109	PLUG M14X1,5       PN021938	3119790040	1
110	RING Ø14X18       029310.2	3194190190	1
114	PLUG VS-M12X1,5-WD	3194200020	4
115	PLUG VS-M14X1,5-WD	3194200010	2
116	NECK GES10LM-WD	3194610990	3
117	REDUCTION PART	R669W117	1
118	RING Ø27X32       029310.2	3194190360	1
119	RING Ø22X27       029310.2	3194190320	1
120	ACCUMULATOR IHV-1-210	3362100010	1
125	VALVE ZDB6VP1-4X-100	3365110030	1
126	PLATE CP06/H10	R224026-2211E1	2
127	SCREW M5X50   DIN912-12.9	3095850058	4
128	SCREW M5X12   DIN912-12.9	3095850052	4
129	DISTRIBUTOR WE046P100-4-D24	3364150740	1
130	SCREW M5X25   DIN912-12.9	3095850057	4
135	SCREW M8X100   DIN912-12.9	3095850148	4
136	BUSH	R669W136	4

R669Y101.R

TECHNOLOGICAL UNIT  
DRUM UNLOCKING BLOCK

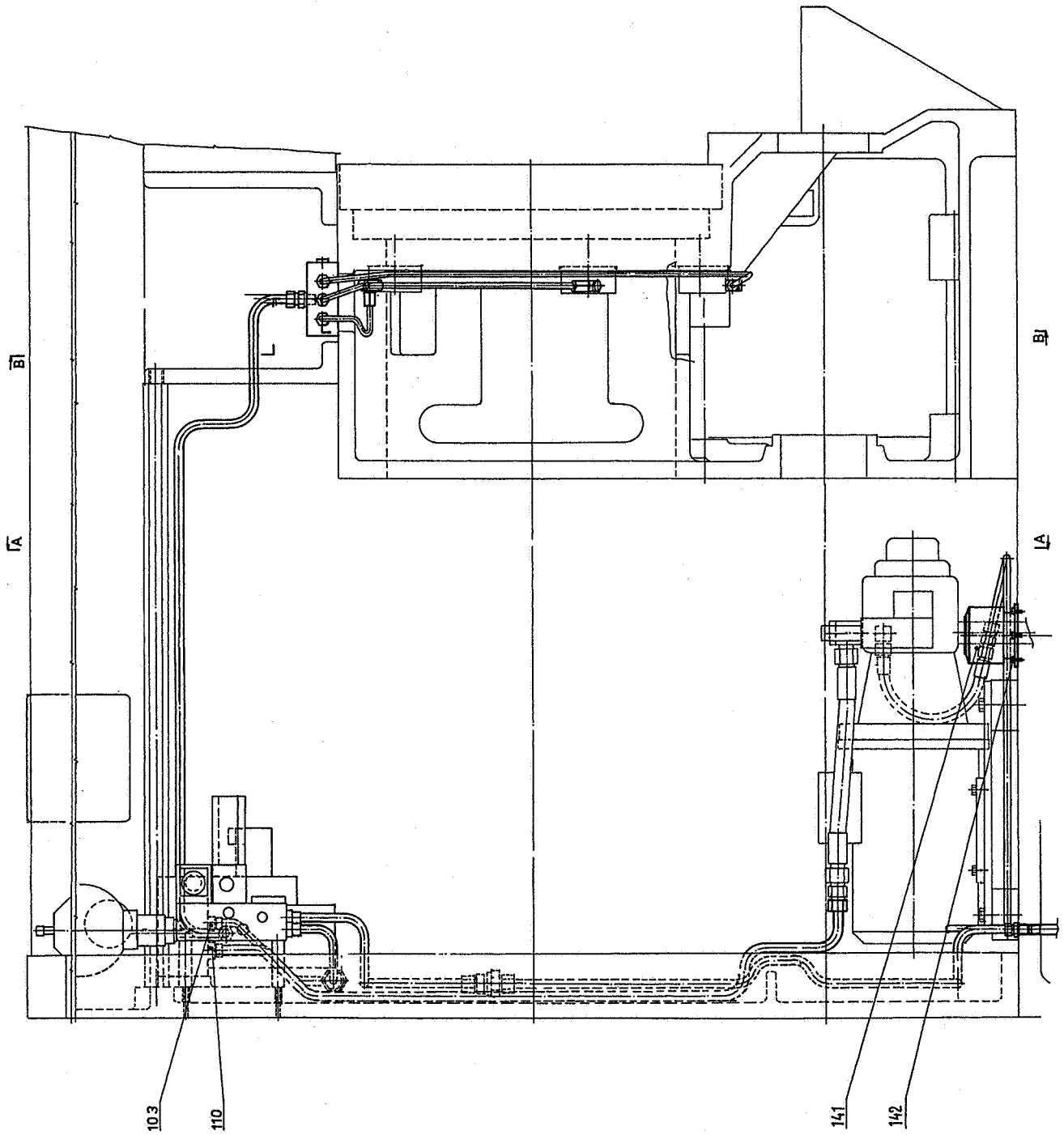
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	DRUM UNLOCKING BLOCK	T R669Y101	1
102	ACCUMULATOR DISCHARGING PISTON	T R669X102	1



R670P1.03

HYDRAULIC DISTRIBUTION SYSTEM  
670 Y1 (Fig. 1-69)

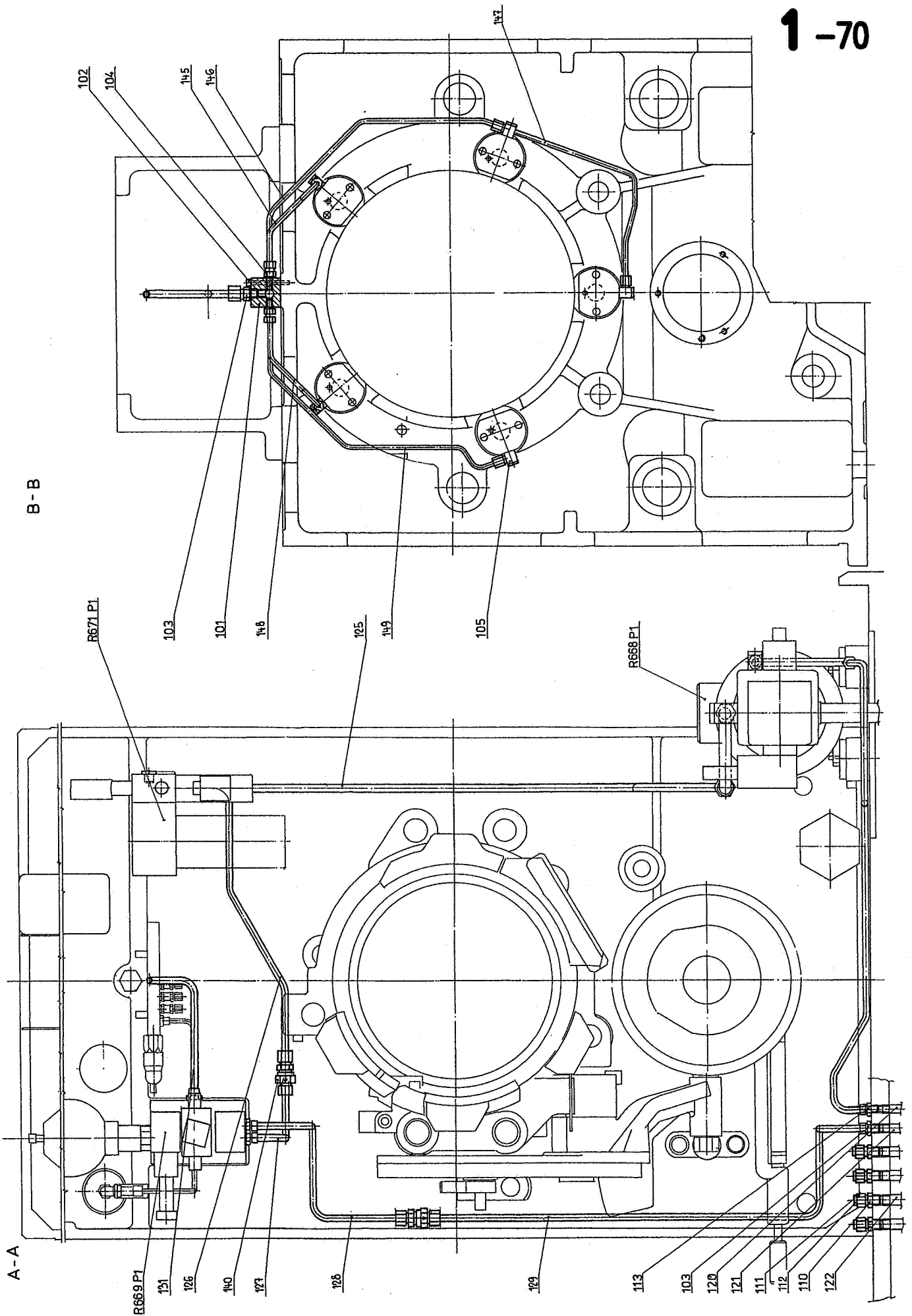
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
103	NECK GES10LM-WD	3194610990	2
110	NECK GES12LM-WD	3194610290	5
141	NECK TR-3	3194400010	1
142	SCREW M4X10      021131.25	3092310950	6



R670P1.03

HYDRAULIC DISTRIBUTION SYSTEM  
670 Y2 (Fig. 1-70)

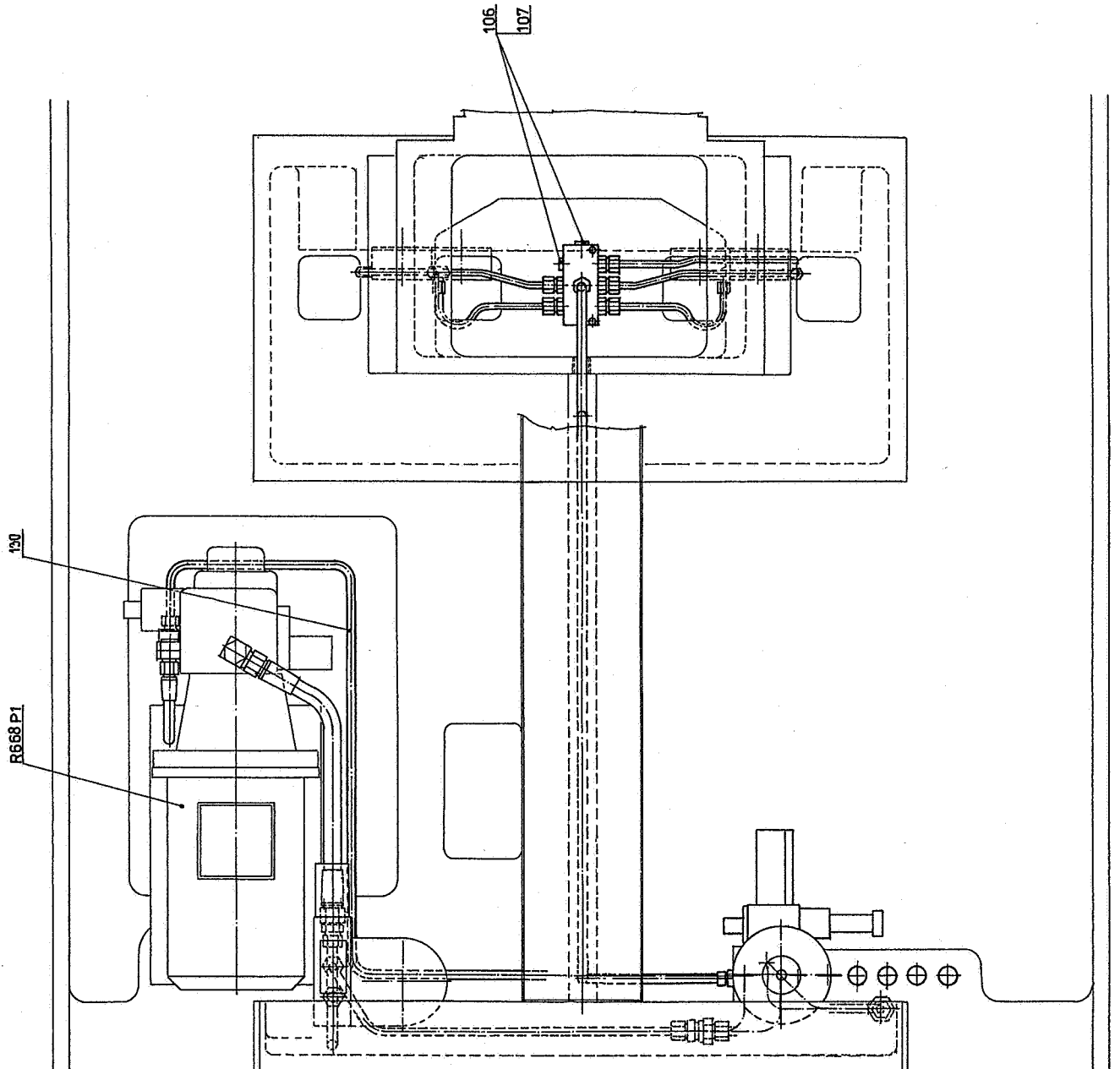
Pos.	Name of part, dimensions, standard	ZPS ordering No.	Qty
101	BLOCK JS4/JS8	R670X101	1
102	SCREW M6X50 DIN912-12.9	3095850095	2
103	NECK GES10LM-WD	3194610990	2
104	NECK GES6LM-WD (M10X1)	3194610970	5
105	CONNECTOR RSWS6LM-WD	3194730500	5
110	NECK GES12LM-WD	3194610290	5
111	NUT M12L JS10 DIN3870	3194970180	4
112	PLUG VS12L/S	3194200090	4
113	NECK GES8LM-WD (M12X1,5)	3194610980	1
120	WASTE TUBE-12	R670W120	1
121	WASTE TUBE-14	R670W121	1
122	WASTE TUBE-16	R670W122	4
125	TUBE (FILTER-PUMP)	R670X125	1
126	TUBE (FILTER-ACCUM.) FROM 015	R670X126A	1
127	TUBE (ACCUMULATOR-FILTER)	R670W127	1
128	TUBE (ACCUMULATOR-BASE)	R670X128	1
129	TUBE (BASE-ACCUMULATOR)	R670X129	1
131	TUBE	R670X131	1
140	VALVE RS10L (M16X1,5)	4221000010	2
145	TUBE (STATIONS)	R670X145	1
146	TUBE (STATIONS)	R670X146	1
147	TUBE (STATIONS)	R670X147	1
148	TUBE (STATIONS)	R670X148	1
149	TUBE (STATIONS)	R670X149	1

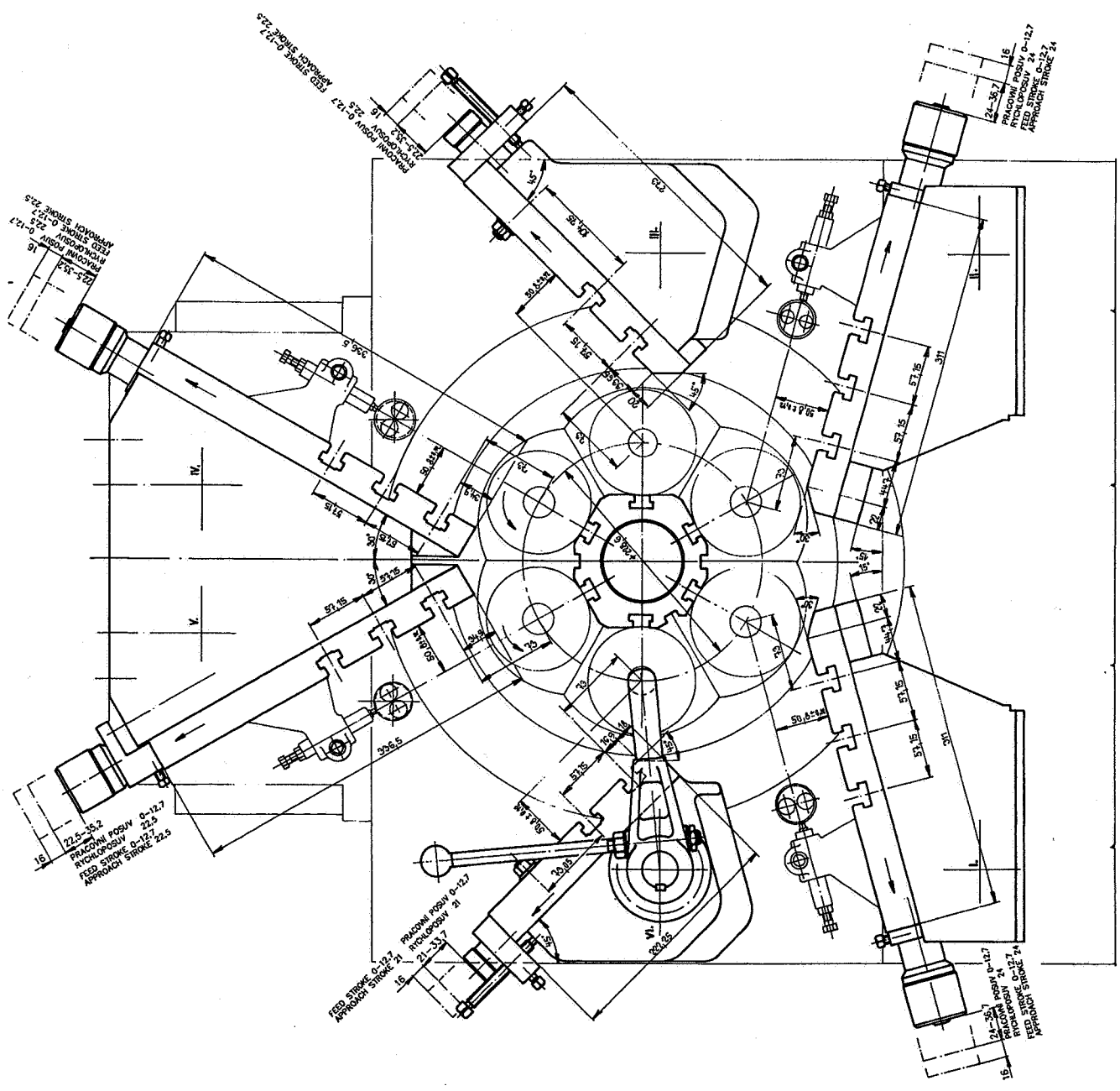
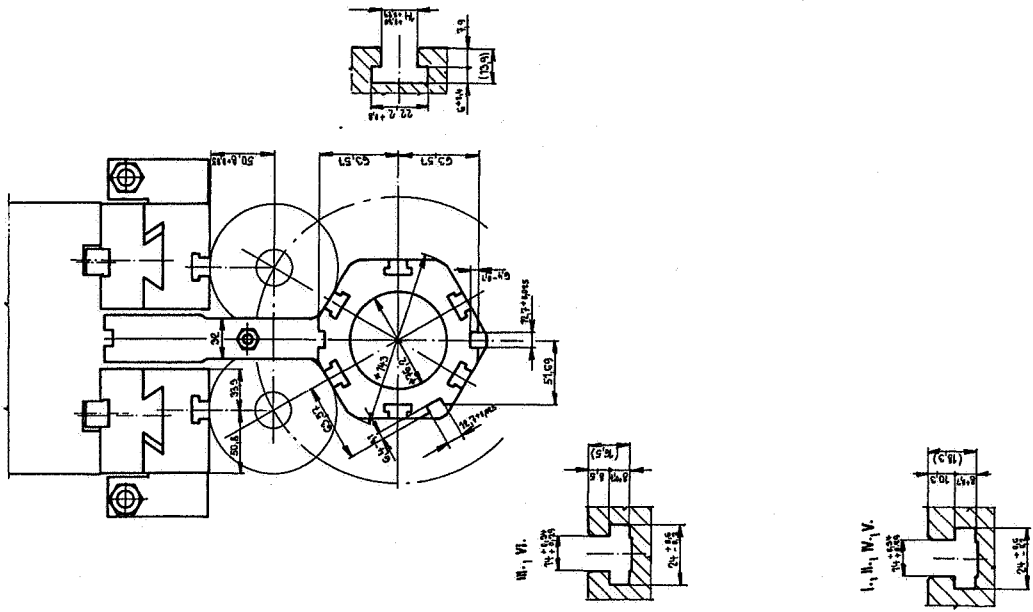


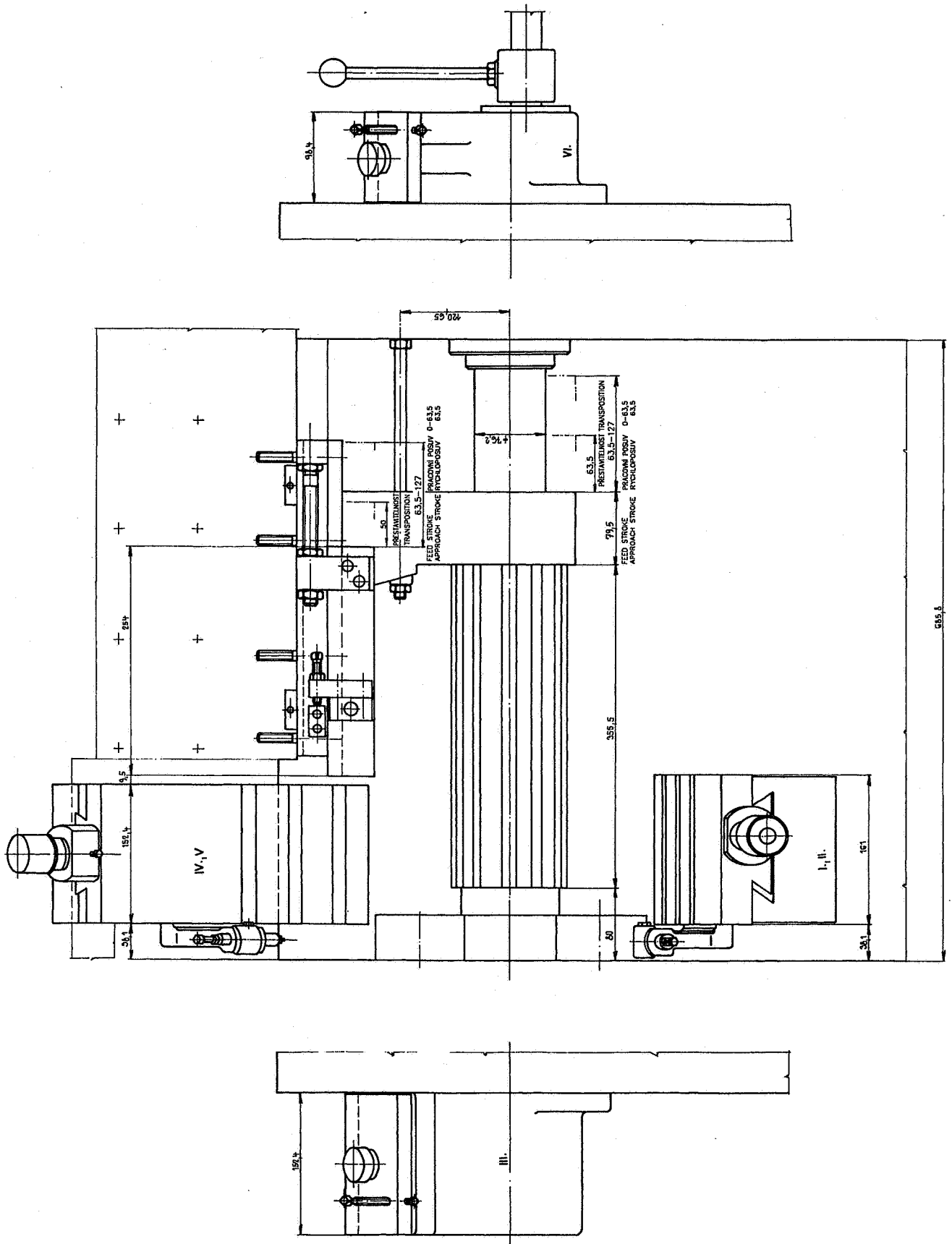
R670P1.03

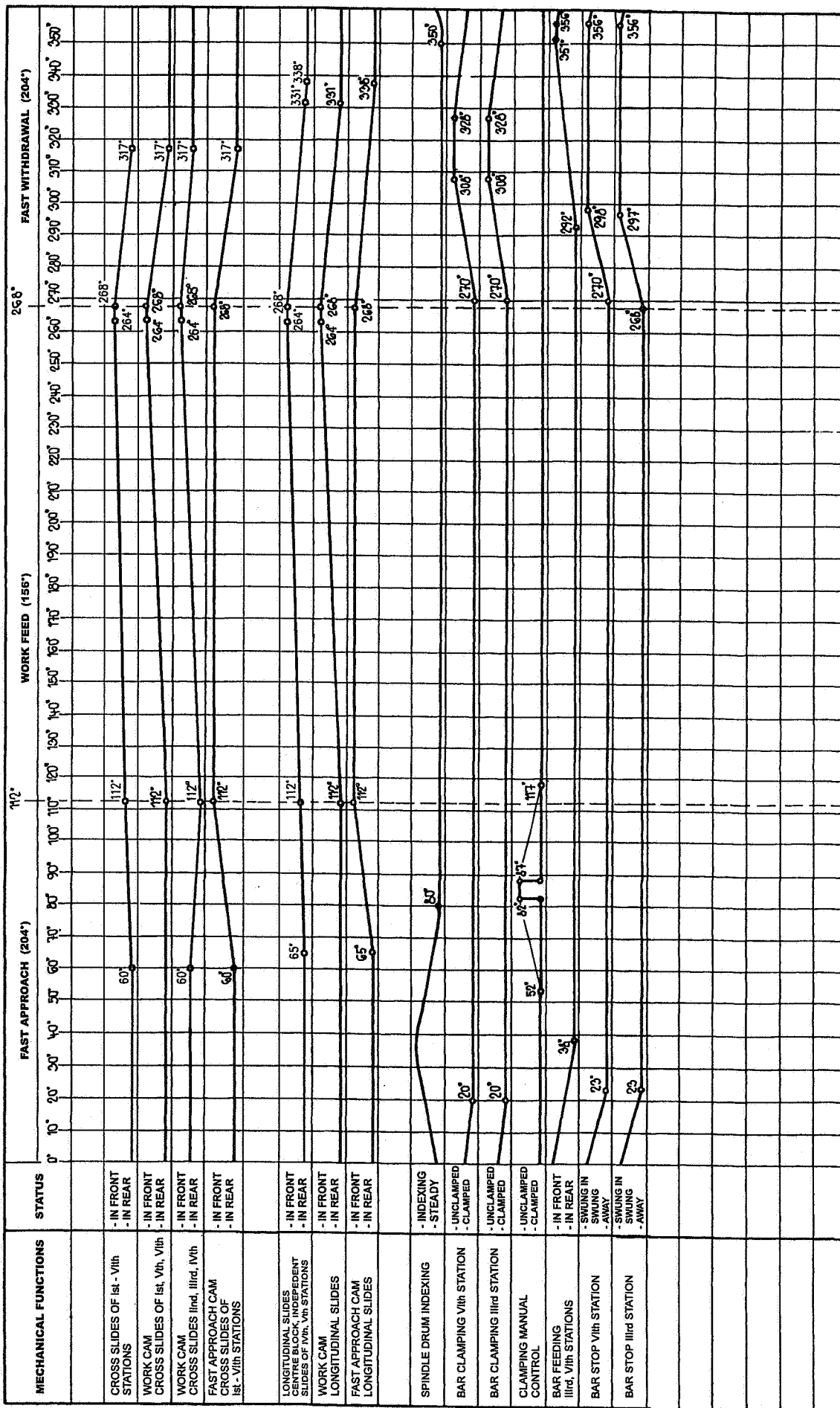
HYDRAULIC DISTRIBUTION SYSTEM  
670 Y3 (Fig. 1-71)

Pos.	Name of part, dimensions, standard		ZPS ordering No.	Qty
106	PLUG M10X1	PN021938	3119790020	2
107	RING Ø10X14	029310.2	3194190120	2
130	TUBE (BASE-PUMP)		R670X130	1











WICKMAN 6 - 26 AC

n (min <sup>-1</sup> )	268	295	324	371	406	464	507	580	635	728	800	880	971	1075	1000	1101	1209	1386	1517	1734	1895	2167	2371	2719	2986	3286	3626	4014	4500	5000
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N (4°)

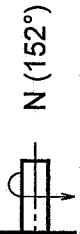
T (s)

WICKMAN 6-26 S AC

2.0	0.103	0.113	0.125	0.143	0.156	0.178	0.195	0.223	0.244	0.280	0.308	0.338	0.373	0.413	0.385	0.423	0.465	0.533	0.583	0.667	0.729	0.833	0.912	1.046	1.148	1.264	1.395	1.544	1.731	1.923
2.1	0.115	0.126	0.138	0.159	0.174	0.198	0.217	0.248	0.271	0.311	0.342	0.376	0.415	0.459	0.441	0.471	0.517	0.592	0.648	0.741	0.810	0.926	1.013	1.162	1.276	1.404	1.550	1.715	1.923	2.137
2.3	0.137	0.151	0.166	0.190	0.208	0.238	0.260	0.297	0.326	0.373	0.410	0.451	0.498	0.551	0.513	0.565	0.620	0.711	0.778	0.889	0.972	1.111	1.216	1.394	1.531	1.685	1.859	2.058	2.308	2.584
2.5	0.160	0.176	0.194	0.222	0.243	0.277	0.303	0.347	0.380	0.435	0.478	0.526	0.581	0.643	0.598	0.658	0.723	0.829	0.907	1.037	1.133	1.296	1.418	1.626	1.765	1.965	2.198	2.400	2.691	2.990
2.7	0.183	0.202	0.222	0.254	0.278	0.317	0.347	0.397	0.434	0.498	0.547	0.602	0.664	0.735	0.684	0.753	0.827	0.948	1.037	1.186	1.296	1.482	1.621	1.859	2.042	2.247	2.479	2.745	3.077	3.419
2.9	0.206	0.227	0.249	0.285	0.312	0.357	0.390	0.446	0.488	0.560	0.615	0.677	0.747	0.827	0.769	0.847	0.930	1.066	1.167	1.334	1.458	1.667	1.824	2.092	2.297	2.528	2.789	3.088	3.462	3.846
3.1	0.229	0.252	0.277	0.317	0.347	0.397	0.433	0.496	0.543	0.622	0.684	0.752	0.830	0.919	0.855	0.941	1.033	1.185	1.297	1.482	1.620	1.852	2.026	2.324	2.552	2.809	3.099	3.431	3.846	4.274
3.3	0.252	0.278	0.305	0.349	0.382	0.437	0.477	0.546	0.598	0.685	0.753	0.828	0.914	1.012	0.941	1.036	1.138	1.304	1.428	1.632	1.784	2.040	2.232	2.559	2.810	3.093	3.413	3.778	4.235	4.706
3.6	0.287	0.316	0.347	0.397	0.434	0.496	0.542	0.620	0.679	0.779	0.856	0.941	1.039	1.150	1.070	1.178	1.293	1.482	1.622	1.855	2.027	2.318	2.586	2.908	3.194	3.514	3.878	4.293	4.813	5.348
3.9	0.321	0.353	0.388	0.444	0.486	0.558	0.607	0.695	0.760	0.872	0.958	1.054	1.163	1.287	1.198	1.319	1.448	1.660	1.817	2.077	2.269	2.595	2.840	3.256	3.576	3.935	4.343	4.807	5.389	5.988
4.3	0.366	0.403	0.442	0.506	0.544	0.633	0.692	0.792	0.867	0.994	1.092	1.201	1.326	1.468	1.365	1.503	1.651	1.892	2.071	2.367	2.587	2.958	3.237	3.712	4.076	4.486	4.950	5.480	6.143	6.826
4.6	0.401	0.442	0.485	0.556	0.608	0.695	0.760	0.869	0.951	1.091	1.199	1.318	1.455	1.610	1.498	1.649	1.811	2.076	2.273	2.598	2.839	3.246	3.552	4.073	4.473	4.923	5.432	6.013	6.742	7.491
5.1	0.458	0.504	0.554	0.634	0.694	0.793	0.867	0.991	1.085	1.244	1.368	1.504	1.660	1.838	1.709	1.882	2.067	2.369	2.593	2.964	3.239	3.704	4.053	4.648	5.104	5.617	6.198	6.862	7.622	8.547
5.6	0.515	0.567	0.623	0.713	0.781	0.892	0.975	1.115	1.221	1.400	1.538	1.692	1.867	2.057	1.923	2.117	2.325	2.665	2.917	3.335	3.644	4.167	4.560	5.229	5.742	6.319	6.973	7.719	8.654	9.615
6.1	0.573	0.631	0.693	0.794	0.868	0.993	1.084	1.241	1.358	1.557	1.711	1.882	2.077	2.299	2.139	2.355	2.686	2.965	3.245	3.709	4.053	4.635	5.072	5.816	6.387	7.029	7.756	8.586	9.626	10.70
6.7	0.642	0.707	0.776	0.889	0.972	1.111	1.214	1.389	1.521	1.744	1.916	2.108	2.326	2.575	2.395	2.637	2.996	3.320	3.634	4.153	4.539	5.190	5.679	6.513	7.152	7.871	8.685	9.614	10.78	11.98
7.4	0.719	0.792	0.870	0.986	1.090	1.246	1.361	1.557	1.705	1.954	2.148	2.362	2.607	2.886	2.685	2.956	3.246	3.721	4.072	4.655	5.087	5.817	6.365	7.299	8.016	8.821	9.734	10.78	12.08	13.42
8.2	0.812	0.894	0.982	1.124	1.230	1.406	1.536	1.758	1.924	2.206	2.424	2.667	2.942	3.258	3.030	3.336	3.664	4.200	4.597	5.255	5.742	6.567	7.185	8.239	9.048	9.958	10.991	12.16	13.64	15.15
9.1	0.916	1.009	1.108	1.268	1.388	1.588	1.733	1.963	2.171	2.489	2.735	3.009	3.320	3.675	3.410	3.764	4.133	4.738	5.186	5.928	6.479	7.409	8.106	9.296	10.21	11.23	12.40	13.72	15.38	17.09
10.0	1.021	1.124	1.234	1.413	1.547	1.767	1.931	2.210	2.419	2.773	3.048	3.362	3.699	4.079	3.764	4.194	4.606	5.280	5.779	6.606	7.219	8.255	9.032	10.36	11.38	12.52	13.81	15.29	17.14	19.05
11.3	1.165	1.283	1.409	1.613	1.765	2.017	2.204	2.522	2.761	3.165	3.478	3.826	4.222	4.674	4.348	4.787	5.257	6.026	6.596	7.539	8.239	9.422	10.32	11.29	12.92	14.29	15.77	17.45	19.57	21.74
12.2	1.276	1.405	1.543	1.767	1.933	2.210	2.414	2.762	3.024	3.467	3.810	4.190	4.624	5.119	4.762	5.243	5.757	6.600	7.224	8.257	9.024	10.32	11.29	12.92	14.29	15.65	17.27	19.11	21.43	23.81
13.9	1.468	1.616	1.775	2.033	2.225	2.542	2.778	3.178	3.479	3.989	4.384	4.822	5.321	5.890	5.479	6.033	6.625	7.595	8.312	9.501	10.38	11.87	12.99	14.90	16.36	18.01	19.87	21.99	24.66	27.40
15.1	1.600	1.761	1.934	2.215	2.424	2.770	3.027	3.463	3.791	4.346	4.776	5.264	5.797	6.418	5.970	6.573	7.218	8.275	9.057	10.35	11.31	12.94	14.16	16.23	17.83	19.62	21.65	23.96	26.87	29.85
17.0	1.817	2.000	2.197	2.515	2.733	3.146	3.437	3.932	4.305	4.936	5.424	5.965	6.563	7.288	6.780	7.484	8.197	9.397	10.28	11.76	12.85	14.69	16.07	18.43	20.24	22.28	24.58	27.21	30.51	33.90
18.8	2.023	2.226	2.445	2.800	3.064	3.502	3.826	4.377	4.792	5.404	6.038	6.642	7.328	8.113	7.547	8.309	9.125	10.46	11.45	13.09	14.30	16.35	17.89	20.52	22.54	24.80	27.37	30.29	33.96	37.74
21.0	2.281	2.511	2.757	3.157	3.455	3.949	4.315	4.936	5.404	6.196	6.809	7.489	8.264	9.149	8.511	9.370	10.29	11.80	12.91	14.76	16.13	18.44	20.18	23.14	25.41	27.97	30.86	34.16	38.30	42.55
23.4	2.552	2.810	3.086	3.533	3.867	4.419	4.829	5.524	6.048	6.933	7.619	8.348	9.248	10.24	9.524	10.49	11.51	13.20	14.45	16.51	18.05	20.64	22.58	25.90	28.44	31.30	34.53	38.23	42.86	47.62
26.4	2.897	3.189	3.503	4.011	4.399	5.016	5.481	6.270	6.865	7.870	8.649	9.514	10.50	11.62	10.81	11.90	13.07	14.98	16.40	18.75	20.49	23.43	25.63	29.39	32.28	35.52	39.20	43.39	48.65	54.05
28.6	3.153	3.471	3.812	4.365	4.776	5.459	5.965	6.824	7.471	8.565	9.41	10.35	11.42	12.65	11.76	12.95	14.22	16.31	17.85	20.40	22.29	25.49	27.89	31.99	35.13	38.66	42.66	47.22	52.94	58.82
33.4	3.697	4.069	4.469	5.177	5.600	6.400	6.993	8.000	8.76	10.09	11.03	12.14	13.39	14.83	13.79	15.19	16.68	19.26	21.4	24.89	32.70	37.50	41.19	45.32	50.01	55.37	62.07	68.97	76.97	85.33
35.8	3.970	4.370	4.800	5.496	6.015	6.874	7.511	8.593	9.41	10.79	11.85	13.04	14.39	15.93	14.81	16.31	17.91	20.53	22.47	25.69	28.10	31.58	35.10	39.20	43.24	48.68	53.72	59.47	66.67	74.07
40.1	4.467	4.917	5.400	6.193	6.787	7.733	8.450	9.67	10.58	12.13	13.33	14.67	16.18	17.92	16.67	18.35	20.15	23.10	25.28	28.90	31.58	35.10	39.20	43.24	48.68	53.72	59.47	66.67	74.07	81.33
47.9	5.360	5.900	6.480	7.420	8.120	9.280	10.14	11.60	12.70	14.56	16.00	17.60	19.42	21.50	20.00	22.02	24.18	27.72	30.34	34.68	37.90	43.34	47.42	54.38	59.72	66.72	72.52	80.28	90.00	100.0
50.4	5.642	6.211	6.821	7.811	8.547	9.768	10.67	12.21	13.37	15.33	16.84	18.53	20.44	22.63	21.05	23.18	25.45	29.51	31.94	36.51	39.89	45.62	49.92	57.24	62.86	69.18	76.34	84.51	94.74	105.3
56.2	6.306	6.941	7.624	8.729	9.553	10.92	11.93	13.65	14.94	17.13	18.82	20.71	22.85	25.29	23.51	25.91	28.45	32.81	35.69	40.80	44.59	50.99	55.79	63.98	70.26	77.32	85.32	94.45	105.9	117.6
63.5	7.147	7.867	8.640	9.893	10.83	12.37	13.52	15.47	16.93	19.41	21.33	23.47	25.89	28.67	26.67	29.36	32.24	36.96	40.45	46.24	50.53	57.63	62.75	71.59	77.63	86.69	96.69	107.0	120.0	133.3
79.1	8.933	9.833	10.80																											

# WICKMAN 6 - 26 AC

n (min <sup>-1</sup> )	268	295	324	371	406	464	507	580	635	728	800	880	971	1075	1000	1101	1209	1386	1517	1734	1895	2167	2371	2719	2986	3286	3626	4014	4500	5000
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WICKMAN 6-26 AC

WICKMAN 6-26 S AC

T (s)	2.0	2.1	2.3	2.5	2.7	2.9	3.1	3.3	3.6	3.9	4.3	4.7	5.4	5.9	6.8	7.4	8.5	9.3	10.6	11.7	12.9	14.2	15.7	17.7	20.3	22.2	25.3	27.7	31.7	34.7	39.7	43.6	48.0	53.0	58.7	65.8	73.1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
2.0	3.9	4.3	4.7	5.4	5.9	6.8	7.4	8.5	9.3	10.6	11.7	12.9	14.2	15.7	17.7	20.3	22.2	25.3	27.7	31.7	34.7	39.7	43.6	48.0	53.0	58.7	65.8	73.1	81.2	91.2	102.2	113.6	125.4	137.6	150.2	163.2	176.6	190.4	204.6	219.2	234.2	249.6	265.4	281.6	298.2	315.2	332.6	350.4	368.6	387.2	406.2	425.6	445.4	465.6	486.2	507.2	528.6	550.4	572.6	595.2	618.2	641.6	665.4	689.6	714.2	739.2	764.6	790.4	816.6	843.2	870.2	897.6	925.4	953.6	982.2	1011.2	1040.6	1070.4	1100.6	1131.2	1162.2	1193.6	1225.4	1257.6	1290.2	1323.2	1356.6	1390.4	1424.6	1459.2	1494.2	1529.6	1565.4	1601.6	1638.2	1675.2	1712.6	1750.4	1788.6	1827.2	1866.2	1905.6	1945.4	1985.6	2026.2	2067.2	2108.6	2150.4	2192.6	2235.2	2278.2	2321.6	2365.4	2409.6	2454.2	2499.2	2544.6	2590.4	2636.6	2683.2	2730.2	2777.6	2825.4	2873.6	2922.2	2971.2	3020.6	3070.4	3120.6	3171.2	3222.2	3273.6	3325.4	3377.6	3430.2	3483.6	3537.4	3591.6	3646.2	3701.4	3757.2	3813.6	3870.6	3928.2	3986.4	4045.2	4104.6	4164.6	4225.2	4286.4	4348.2	4410.6	4473.6	4537.2	4601.4	4666.2	4731.6	4797.6	4864.2	4931.4	4999.2	5067.6	5136.6	5206.2	5276.4	5347.2	5418.6	5490.6	5563.2	5636.4	5710.2	5784.6	5859.6	5935.2	6011.4	6088.2	6165.6	6243.6	6322.2	6401.4	6481.2	6561.6	6642.6	6724.2	6806.4	6889.2	6972.6	7056.6	7141.2	7226.4	7312.2	7398.6	7485.6	7573.2	7661.4	7750.2	7839.6	7929.6	8020.2	8111.4	8203.2	8295.6	8388.6	8482.2	8576.4	8671.2	8766.6	8862.6	8959.2	9056.4	9154.2	9252.6	9351.6	9451.2	9551.4	9652.2	9753.6	9855.6	9958.2	10061.4	10165.2	10269.6	10374.6	10480.2	10586.4	10693.2	10800.6	10908.6	11017.2	11126.4	11236.2	11346.6	11457.6	11569.2	11681.4	11794.2	11907.6	12021.6	12136.2	12251.4	12367.2	12483.6	12600.6	12718.4	12836.8	12955.8	13075.4	13195.6	13316.4	13437.8	13559.8	13682.4	13805.6	13929.4	14053.8	14178.8	14304.4	14430.6	14557.4	14684.8	14812.6	14941.0	15069.8	15199.2	15329.2	15459.6	15590.6	15722.2	15854.4	15987.2	16120.6	16254.6	16389.2	16524.4	16659.6	16795.4	16931.6	17068.4	17205.6	17343.4	17481.6	17620.4	17759.6	17900.0	18040.6	18181.4	18322.6	18464.2	18606.4	18749.2	18892.6	19036.4	19180.6	19325.2	19470.4	19616.2	19762.6	19909.4	20056.6	20204.4	20352.6	20501.4	20650.6	20799.6	20949.2	21099.4	21249.6	21400.2	21551.4	21703.2	21855.6	22008.4	22161.6	22315.4	22469.6	22624.2	22779.2	22934.6	23090.6	23247.2	23404.4	23562.2	23720.6	23879.6	24039.2	24199.4	24359.6	24520.4	24681.6	24843.2	25005.4	25168.2	25331.6	25495.6	25660.2	25825.4	25991.2	26157.6	26324.6	26492.2	26660.4	26829.2	27008.6	27188.6	27369.2	27550.4	27732.2	27914.6	28097.6	28281.2	28465.4	28650.2	28835.6	29021.6	29208.2	29395.4	29583.2	29771.6	29960.6	30150.2	30340.4	30531.2	30722.6	30914.6	31107.2	31300.4	31494.2	31688.6	31883.6	32079.2	32275.4	32472.2	32669.6	32867.6	33066.2	33265.4	33465.2	33665.6	33866.6	34068.2	34270.4	34473.2	34676.6	34880.6	35085.2	35290.4	35496.2	35702.8	35909.6	36116.8	36324.6	36533.0	36741.6	36950.6	37159.6	37369.6	37579.6	37789.6	37999.6	38209.6	38419.6	38629.6	38839.6	39049.6	39259.6	39469.6	39679.6	39889.6	40099.6	40309.6	40519.6	40729.6	40939.6	41149.6	41359.6	41569.6	41779.6	41989.6	42199.6	42409.6	42619.6	42829.6	43039.6	43249.6	43459.6	43669.6	43879.6	44089.6	44299.6	44509.6	44719.6	44929.6	45139.6	45349.6	45559.6	45769.6	45979.6	46189.6	46399.6	46609.6	46819.6	47029.6	47239.6	47449.6	47659.6	47869.6	48079.6	48289.6	48499.6	48709.6	48919.6	49129.6	49339.6	49549.6	49759.6	49969.6	50179.6	50389.6	50599.6	50809.6	51019.6	51229.6	51439.6	51649.6	51859.6	52069.6	52279.6	52489.6	52699.6	52909.6	53119.6	53329.6	53539.6	53749.6	53959.6	54169.6	54379.6	54589.6	54799.6	55009.6	55219.6	55429.6	55639.6	55849.6	56059.6	56269.6	56479.6	56689.6	56899.6	57109.6	57319.6	57529.6	57739.6	57949.6	58159.6	58369.6	58579.6	58789.6	58999.6	59209.6	59419.6	59629.6	59839.6	60049.6	60259.6	60469.6	60679.6	60889.6	61099.6	61309.6	61519.6	61729.6	61939.6	62149.6	62359.6	62569.6	62779.6	62989.6	63199.6	63409.6	63619.6	63829.6	64039.6	64249.6	64459.6	64669.6	64879.6	65089.6	65299.6	65509.6	65719.6	65929.6	66139.6	66349.6	66559.6	66769.6	66979.6	67189.6	67399.6	67609.6	67819.6	68029.6	68239.6	68449.6	68659.6	68869.6	69079.6	69289.6	69499.6	69709.6	69919.6	70129.6	70339.6	70549.6	70759.6	70969.6	71179.6	71389.6	71599.6	71809.6	72019.6	72229.6	72439.6	72649.6	72859.6	73069.6	73279.6	73489.6	73699.6	73909.6	74119.6	74329.6	74539.6	74749.6	74959.6	75169.6	75379.6	75589.6	75799.6	76009.6	76219.6	76429.6	76639.6	76849.6	77059.6	77269.6	77479.6	77689.6	77899.6	78109.6	78319.6	78529.6	78739.6	78949.6	79159.6	79369.6	79579.6	79789.6	79999.6	80209.6	80419.6	80629.6	80839.6	81049.6	81259.6	81469.6	81679.6	81889.6	82099.6	82309.6	82519.6	82729.6	82939.6	83149.6	83359.6	83569.6	83779.6	83989.6	84199.6	84409.6	84619.6	84829.6	85039.6	85249.6	85459.6	85669.6	85879.6	86089.6	86299.6	86509.6	86719.6	86929.6	87139.6	87349.6	87559.6	87769.6	87979.6	88189.6	88399.6	88609.6	88819.6	89029.6	89239.6	89449.6	89659.6	89869.6	90079.6	90289.6	90499.6	90709.6	90919.6	91129.6	91339.6	91549.6	91759.6	91969.6	92179.6	92389.6	92599.6	92809.6	93019.6	93229.6	93439.6	93649.6	93859.6	94069.6	94279.6	94489.6	94699.6	94909.6	95119.6	95329.6	95539.6	95749.6	95959.6	96169.6	96379.6	96589.6	96799.6	97009.6	97219.6	97429.6	97639.6	97849.6	98059.6	98269.6	98479.6	98689.6	98899.6	99109.6	99319.6	99529.6	99739.6	99949.6	100159.6	100369.6	100579.6	100789.6	101009.6	101219.6	101429.6	101639.6	101849.6	102059.6	102269.6	102479.6	102689.6	102899.6	103109.6	103319.6	103529.6	103739.6	103949.6	104159.6	104369.6	104579.6	104789.6	104999.6	105209.6	105419.6	105629.6	105839.6	106049.6	106259.6	106469.6	106679.6	106889.6	107099.6	107309.6	107519.6	107729.6	107939.6	108149.6	108359.6	108569.6	108779.6	108989.6	109199.6	109409.6	109619.6	109829.6	110039.6	110249.6	110459.6	110669.6	110879.6	111089.6	111299.6	111509.6	111719.6	111929.6	112139.6	112349.6	112559.6	112769.6	112979.6	113189.6	113399.6	113609.6	113819.6	114029.6	114239.6	114449.6	114659.6	114869.6	115079.6	115289.6	115499.6	115709.6	115919.6	116129.6	116339.6	116549.6	116759.6	116969.6	117179.6	117389.6	117599.6	117809.6	118019.6	118229.6	118439.6	118649.6	118859.6	119069.6	119279.6	119489.6	119699.6	119909.6	120119.6	120329.6	120539.6	120749.6	120959.6	121169.6	121379.6	121589.6	121799.6	122009.6	122219.6	122429.6	122639.6	122849.6	123059.6	123269.6	123479.6	123689.6	123899.6	124109.6	124319.6	124529.6	124739.6	124949.6	125159.6	125369.6	125579.6	125789.6	125999.6	126209.6	126419.6	126629.6	126839.6	127049.6	127259.6	127469.6	127679.6	127889.6	128099.6	128309.6	128519.6	128729.6	128939.6	129149.6	129359.6	129569.6	129779.6	129989.6	130199.6	130409.6	130619.6	130829.6	131039.6	131249.6	131459.6	131669.6	131879.6	132089.6	132299.6	132509.6	132719.6	132929.6	133139.6	133349.6	133559.6	133769.6	133979.6	134189.6	134399.6	134609.6	134819.6	135029.6	135239.6	135449.6	135659.6	135869.6	136079.6	136289.6	136499.6	136709.6	136919.6	137129.6	137339.6	137549.6	137759.6	137969.6	138179.6	138389.6	138599.6	138809.6	139019.6	139229.6	139439.6	139649.6	139859.6	140069.6	140279.6	140489.6	140699.6	140909.6	141119.6	141329.6	141539.6	141749.6	141959.6	142169.6	142379.6	142589.6	142799.6	143009.6	143219.6	143429.6	143639.6	143849.6	144059.6	144269.6	144479.6	144689.6	144899.6	145109.6	145319.6	145529.6	145739.6	145949.6	146159.6	146369.6	146579.6	146789.6	146999.6	147209.6	147419.6	147629.6	147839.6	148049.6	148259.6	148469.6	148679.6	148889.6	149099.6	149309.6	149519.6	149729.6	149939.6	150149.6	150359.6	150569.6	150779.6	150989.6	151199.6	151409.6	151619.6	151829.6	152039.6	152249.6	152459.6	152669.6	152879.6	153089.6	153299.6	153509.6	153719.6	153929.6	154139.6	154349.6	154559.6	154769.6	154979.6	155189.6	155399.6	

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