

**DODATEK ŠT. 1 /ADDENDUM NO. 1:**

- **Dopolnitve in spremembe dokumentacije v zvezi z javnim naročilom št. JN06/2018 za popravilo glavnega predturbinskega ventila ČHE Avče**
- **Amendments and modifications to Documentation regarding public procurement no. JN06 / 2018 for the repair of the main inlet valve of the PSHPP Avče**

Prvotno besedilo v DJN za popravilo glavnega predturbinskega ventila v ČHE Avse nadomesti/dopolni z novim besedilom, kot sledi:

The original text in the PPD for repair of the main inlet valve in PSHPP Avče is replaced / supplemented by a new text as follows:

Št. / No.	Knjiga-del / Book - part	Točka / Item	Stran / Page	Prejšnje besedilo / Previous text	Novo besedilo / New text
1.	Tehnični del / Technical part	7.3.3	DJN: 11/37  PPD: 13/41	<p>Potrebna je dobava in zamenjava najmanj sledečih elementov:</p> <ul style="list-style-type: none"> <li>• drsne puše in drsne plošče za pritrdilne vijake ohišja ventila na sidrne plošče betonskega ventila,</li> <li>• komplet mehanizmi za zaklepanje vzdrževalnega tesnila,</li> <li>• gumijasta tesnila za pritrdilna obroča vzdrževalnega in delovnega tesnila,</li> <li>• gumijasto tesnilo za demontažni obroč na spoju med ohišjem ventila in spiralnim ohišjem turbine,</li> <li>• nerjaveča kovinska tesnilna obroča z gumijastima tesniloma za vzdrževalno in delovno tesnilo na rotorju ventila</li> <li>• nerjaveči kovinski pomični obroč z gumijastimi tesnili za vzdrževalno tesnilo na ohišju ventila,</li> <li>• nerjaveči kovinski pomični obroč z gumijastimi tesnili za delovno tesnilo na ohišju ventila,</li> <li>• nerjaveči kovinski drogi za pokazatelje položaja vzdrževalnega in delovnega tesnila,</li> </ul>	<p>Potrebna je dobava in zamenjava najmanj sledečih elementov:</p> <ul style="list-style-type: none"> <li>• drsne puše in drsne plošče za pritrdilne vijake ohišja ventila na sidrne plošče betonskega ventila <b>(načrt WC-S2101 / DETAJL B)</b>,</li> <li>• komplet mehanizmi za zaklepanje vzdrževalnega tesnila <b>(načrt WC-S2102 / PREREZ C)</b>,</li> <li>• gumijasta tesnila za pritrdilna obroča vzdrževalnega in delovnega tesnila <b>(načrt WC-S2108 / POZ. 45, 46)</b>,</li> <li>• gumijasto tesnilo za demontažni obroč na spoju med ohišjem ventila in spiralnim ohišjem turbine <b>(načrt WC-S2101 / POZ. 39)</b>,</li> <li>• nerjaveča kovinska tesnilna obroča z gumijastima tesniloma za vzdrževalno in delovno tesnilo na rotorju ventila <b>(načrt WC-S2108 / POZ. 06, 49)</b>,</li> <li>• nerjaveči kovinski pomični obroč z gumijastimi tesnili za vzdrževalno tesnilo na ohišju ventila <b>(načrt WC-S2108 / POZ. 09, 37, 38)</b>,</li> <li>• nerjaveči kovinski pomični obroč z gumijastimi tesnili za delovno tesnilo na ohišju ventila <b>(načrt WC-S2108 / POZ. 10, 37, 38)</b>,</li> <li>• nerjaveči kovinski drogi za pokazatelje položaja vzdrževalnega in delovnega tesnila <b>(načrt WC-S2108 / POZ. 79, 89)</b></li> </ul>

Št. / No.	Knjiga-del / Book - part	Točka / Item	Stran / Page	Prejšnje besedilo / Previous text	Novo besedilo / New text
				<ul style="list-style-type: none"> <li>• drsni ležaji, gumijasta tesnila in pritrdilni obroči za tesnila drogov pokazateljev položaja vzdrževalnega in delovnega tesnila,</li> <li>• zamenjava ali popravilo bronzenih drsnih površin gumijastih tesnil nerjavečega kovinskega tesnilnega obroča vzdrževalnega in delovnega tesnila,</li> <li>• spojni elementi (vijaki, matice, podložke,..) ventila glede na stanje materiala istega tipa elementov</li> <li>• tlačna bombirana pokrova vključno z vsemi pritrdilnimi vijaki in tesnili za izvedbo tlačnega preskusa</li> <li>• vsi elementi, ki so priključeni ali postavljeni na ohišje ventila in se odstranijo zaradi demontaže ventila, je potrebno ponovno postaviti na prvotno mesto po montaži ventila. Zaradi tega je potrebno zamenjati ves tesnilni in pritrdilni material.</li> <li>• gumijasta tesnila za samomazalna drsna ležaja osi rotorja.</li> </ul> <p>Opcijsko (Opcija 1):</p> <ul style="list-style-type: none"> <li>• Nov krmilni ventil izvedbe brez lekaže (zero leak) tlačne vode cevovoda za krmiljenje vzdrževalnega tesnila ventila komplet s predelavo in montažo.</li> </ul> <hr/> <p>At least the following elements must be supplied and replaced:</p>	<ul style="list-style-type: none"> <li>• drsni ležaji, gumijasta tesnila in pritrdilni obroči za tesnila drogov pokazateljev položaja vzdrževalnega in delovnega tesnila (<b>načrt WC-S2108 / POZ. 82, 83, 84, 86, 88, 89</b>),</li> <li>• zamenjava ali popravilo bronzenih drsnih površin gumijastih tesnil nerjavečega kovinskega tesnilnega obroča vzdrževalnega in delovnega tesnila (<b>načrt WC-S2108</b>),</li> <li>• spojni elementi (vijaki, matice, podložke,..) ventila glede na stanje materiala istega tipa elementov,</li> <li>• tlačna bombirana pokrova vključno z vsemi pritrdilnimi vijaki in tesnili za izvedbo tlačnega preskusa (<b>načrt WC-S2103</b>),</li> <li>• vsi elementi, ki so priključeni ali postavljeni na ohišje ventila in se odstranijo zaradi demontaže ventila, je potrebno ponovno postaviti na prvotno mesto po montaži ventila. Zaradi tega je potrebno zamenjati ves tesnilni in pritrdilni material.</li> <li>• gumijasta tesnila za samomazalna drsna ležaja osi rotorja (<b>načrt WC-S2102 / POZ. 40</b>).</li> </ul> <p>Opcijsko (Opcija 1):</p> <ul style="list-style-type: none"> <li>• Nov krmilni ventil <b>z konusnim nasedom regulacijskega bata</b> in izvedbe brez lekaže (zero leak) tlačne vode cevovoda za krmiljenje vzdrževalnega tesnila ventila komplet s predelavo in montažo.</li> </ul> <hr/> <p>At least the following elements must be supplied and replaced:</p> <ul style="list-style-type: none"> <li>• sliding collars and sliding plates for the bolts attaching the valve housing to the anchor plates</li> </ul>

Št. / No.	Knjiga-del / Book - part	Točka / Item	Stran / Page	Prejšnje besedilo / Previous text	Novo besedilo / New text
				<ul style="list-style-type: none"> <li>• sliding collars and sliding plates for the bolts attaching the valve housing to the anchor plates of the concrete valve,</li> <li>• complete locking devices for the upstream seal,</li> <li>• rubber gaskets for the retainer rings of the downstream and upstream seals,</li> <li>• packings for the dismantling joint pipe between valve housing and turbine spiral housing,</li> <li>• stainless steel valve seats with rubber gaskets for the upstream and downstream seals of the valve rotor,</li> <li>• stainless steel movable ring with packings for the upstream seal on the valve housing,</li> <li>• stainless steel movable seal ring with packings for the downstream seal of the valve housing,</li> <li>• stainless steel rods for the open and close position indicators of the upstream and downstream seals,</li> <li>• bushings, packings and retainer rings for rods for the open and close position indicators of the downstream and upstream seals,</li> <li>• replacement or repair of bronze sliding arms of packings of the stainless steel valve seats of the downstream and upstream seals,</li> <li>• valve connecting elements (bolts, nuts, washers, etc.), depending on the condition of the existing elements,</li> <li>• pressure covers with all bolts and gaskets for pressure testing,</li> </ul>	<p>of the concrete valve (<b>drawing WC-S2101 / DETAJL B</b>),</p> <ul style="list-style-type: none"> <li>• complete locking devices for the upstream seal (<b>drawing WC-S2102 / SECTION C</b>),</li> <li>• rubber gaskets for the retainer rings of the downstream and upstream seals (<b>drawing WC-S2108 / POZ. 45, 46</b>),</li> <li>• packings for the dismantling joint pipe between valve housing and turbine spiral <b>housing</b> (<b>drawing WC-S2101 / POZ. 39</b>),</li> <li>• stainless steel valve seats with rubber gaskets for the upstream and downstream seals of the valve rotor (<b>drawing WC-S2108 / POZ. 06, 49</b>),</li> <li>• stainless steel movable ring with packings for the upstream seal on the valve housing (<b>drawing WC-S2108 / POZ. 09, 37, 38</b>),</li> <li>• stainless steel movable seal ring with packings for the downstream seal of the valve housing (<b>drawing WC-S2108 / POZ. 10, 37, 38</b>),</li> <li>• stainless steel rods for the open and close position indicators of the upstream and downstream seals (<b>drawing WC-S2108 / POZ. 79, 89</b>),</li> <li>• bushings, packings and retainer rings for rods for the open and close position indicators of the downstream and upstream seals (<b>drawing WC-S2108 / POZ. 82, 83, 84, 86, 88, 89</b>),</li> <li>• replacement or repair of bronze sliding arms of packings of the stainless steel valve seats of the downstream and upstream seals (<b>drawing WC-S2108</b>),</li> <li>• valve connecting elements (bolts, nuts, washers, etc.), depending on the condition of the existing elements,</li> </ul>

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				<ul style="list-style-type: none"> <li>following the valve mounting, installation of all elements connected to or positioned on the valve housing that get removed due to valve disassembling. This requires replacement of all sealing and connecting elements,</li> <li>packings for the self-lubricating bushings of the rotor axis.</li> </ul> <p>Option 1:</p> <ul style="list-style-type: none"> <li>A new zero leakage control valve for the upstream seal, together with any adjustments and installation.</li> </ul>		<ul style="list-style-type: none"> <li>pressure covers with all bolts and gaskets for pressure testing (<b>drawing WC-S2103</b>),</li> <li>following the valve mounting, installation of all elements connected to or positioned on the valve housing that get removed due to valve disassembling. This requires replacement of all sealing and connecting elements,</li> <li>packings for the self-lubricating bushings of the rotor axis (<b>drawing WC-S2102 / POZ. 40</b>).</li> </ul> <p>Option 1:</p> <ul style="list-style-type: none"> <li>A new zero leakage control valve <b>with a cone head of the control piston</b> for the upstream seal, together with any adjustments and installation.</li> </ul>																							
2.	Tehnični del / Technical part	7.3.6	DJN: 16/37 PPD: 17/41	<table border="1"> <thead> <tr> <th data-bbox="696 842 779 901"></th> <th data-bbox="779 842 1220 901">Specialno orodje</th> <th data-bbox="1220 842 1352 901">Količina</th> </tr> </thead> <tbody> <tr> <td data-bbox="696 901 779 997">1.</td> <td data-bbox="779 901 1220 997">Dvojni šesterokotni udarni ključ S115, S90, S85, S65, S55</td> <td data-bbox="1220 901 1352 997">1 kos</td> </tr> <tr> <td data-bbox="696 997 779 1093">2.</td> <td data-bbox="779 997 1220 1093">Viličasti udarni ključ S130, S95, S65, S55</td> <td data-bbox="1220 997 1352 1093">1 kos</td> </tr> <tr> <td data-bbox="696 1093 779 1152">3.</td> <td data-bbox="779 1093 1220 1152">Specialni viličasti udarni ključ S180</td> <td data-bbox="1220 1093 1352 1152">1 kos</td> </tr> <tr> <td data-bbox="696 1152 779 1211">4.</td> <td data-bbox="779 1152 1220 1211">Montažna priprava za utež M60 x 1550</td> <td data-bbox="1220 1152 1352 1211">4 seti</td> </tr> <tr> <td data-bbox="696 1211 779 1270">5.</td> <td data-bbox="779 1211 1220 1270">Očesni vijak VRS-M48 – 12 ton</td> <td data-bbox="1220 1211 1352 1270">8 kos</td> </tr> <tr> <td data-bbox="696 1270 779 1329">6.</td> <td data-bbox="779 1270 1220 1329">Očesni vijak VRS-M42 – 9 ton</td> <td data-bbox="1220 1270 1352 1329">4 kos</td> </tr> <tr> <td data-bbox="696 1329 779 1388">7.</td> <td data-bbox="779 1329 1220 1388">Očesni vijak VRS-M36 – 7 ton</td> <td data-bbox="1220 1329 1352 1388">4 kos</td> </tr> </tbody> </table>		Specialno orodje	Količina	1.	Dvojni šesterokotni udarni ključ S115, S90, S85, S65, S55	1 kos	2.	Viličasti udarni ključ S130, S95, S65, S55	1 kos	3.	Specialni viličasti udarni ključ S180	1 kos	4.	Montažna priprava za utež M60 x 1550	4 seti	5.	Očesni vijak VRS-M48 – 12 ton	8 kos	6.	Očesni vijak VRS-M42 – 9 ton	4 kos	7.	Očesni vijak VRS-M36 – 7 ton	4 kos	Glej tabelo v prilogi 1.
	Specialno orodje	Količina																											
1.	Dvojni šesterokotni udarni ključ S115, S90, S85, S65, S55	1 kos																											
2.	Viličasti udarni ključ S130, S95, S65, S55	1 kos																											
3.	Specialni viličasti udarni ključ S180	1 kos																											
4.	Montažna priprava za utež M60 x 1550	4 seti																											
5.	Očesni vijak VRS-M48 – 12 ton	8 kos																											
6.	Očesni vijak VRS-M42 – 9 ton	4 kos																											
7.	Očesni vijak VRS-M36 – 7 ton	4 kos																											

Št. / No.	Knjiga-del / Book - part	Točka / Item	Stran / Page	Prejšnje besedilo / Previous text		Novo besedilo / New text	
				8.	Nosilni vijak M36 x 300	4 kos	
				9.	Nosilni vijak M24 x 200	6 kos	
				10.	Nosilni vijak M20 x 200	4 kos	
				11.	Nosilni vijak M16 x 110	4 kos	
				12.	Nosilni vijak M12 x 100	4 kos	
				13.	Nosilni vijak M10 x 80	4 kos	
				14.	Izvlačna priprava za konus Ø80	1 set	
				15.	Objemka za batnico D=620	1 kos	
				16.	Oljni cilinder 250 kN, 100kN	1 kos	
				17.	Oljni cilinder 200 kN	1 kos	
				18.	Ročna oljna črpalka PN80-APJ	1 kos	
				19.	Ročna oljna črpalka P392AL-APJ	1 kos	
				20.	Orodje za sestavo zgornjega tesnila	4 kos	
				21.	Orodje za sestavo spodnjega tesnila	4 kos	
				_____			
					Special tool	Quantity	
				1.	Double hex. shock spanner S115, S90, S85, S65, S55	1 piece	

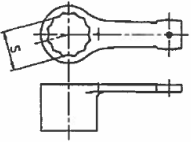
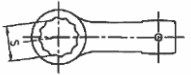
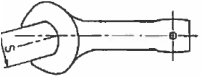
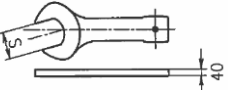
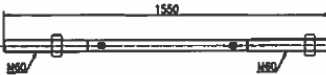
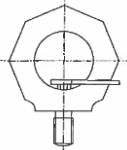
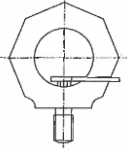
Št. / No.	Knjiga-del / Book - part	Točka / Item	Stran / Page	Prejšnje besedilo / Previous text		Novo besedilo / New text	
				2.	Open ended shock spanner S130, S95, S65, S55	1 piece	
				3.	Special shock spanner S180	1 piece	
				4.	Installation device for counter weight M60 x 1550	4 sets	
				5.	Eye bolt VRS-M48, rud: star point, max. lifting load 12 ton	8 pieces	
				6.	Eye bolt VRS-M42, rud: star point, max. lifting load 9 ton	4 pieces	
				7.	Eye bolt VRS-M48, rud: star point, max. lifting load 7 ton	4 pieces	
				8.	Jack bolt M36 x 300	4 pieces	
				9.	Jack bolt M24 x 200	6 pieces	
				10.	Jack bolt M20 x 200	4 pieces	
				11.	Jack bolt M16 x 110	4 pieces	
				12.	Jack bolt M12 x 100	4 pieces	
				13.	Jack bolt M10 x 80	4 pieces	
				14.	Key puller (Ø80 taper key)	1 set	
				15.	Clamp of piston ring D=620	1 piece	
				16.	Oil power jack 250 kN, 100kN	1 piece	
				17.	Oil power jack 200 kN	1 piece	
				18.	Hand pump PN80-APJ	1 piece	
				19.	Hand pump P392AL-APJ	1 piece	
				20.	Tool for the assembly of the upper seal	4 pieces	
				21.	Tool for the assembly of the lower seal	4 pieces	

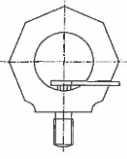
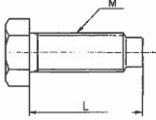
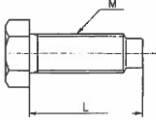
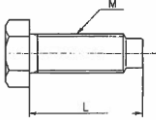
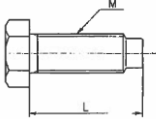
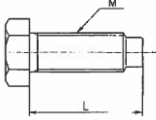
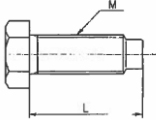
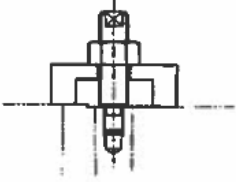
**Priloge / Annexes:**

- Priloga 1 / Annex 1: Natančnejši opis specialnih orodij s slikicami, ki so navedena v poglavju 7.3.6. / More precise description of the special tools with pictures, which are listed in item 7.3.6.;
- Priloga 2 / Annex 2: Načrti/risbe na katere se referira poglavje 7.3.3. (WC-S2108, WC-S2101, WC-S2102, WC-S2103) / drawings referred to in item 7.3.3. (WC-S2108, WC-S2101, WC-S2102, WC-S2103).

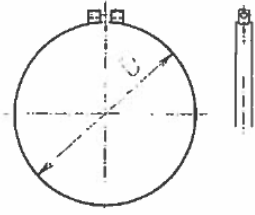

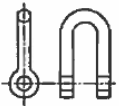


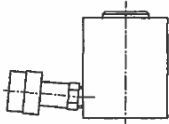

**Priloga 1: Natančnejši opis specialnih orodij s slikicami, ki so navedena v poglavju 7.3.6.**




**Annex 1: More precise description of the special tools with pictures, which are listed in item 7.3.6.**

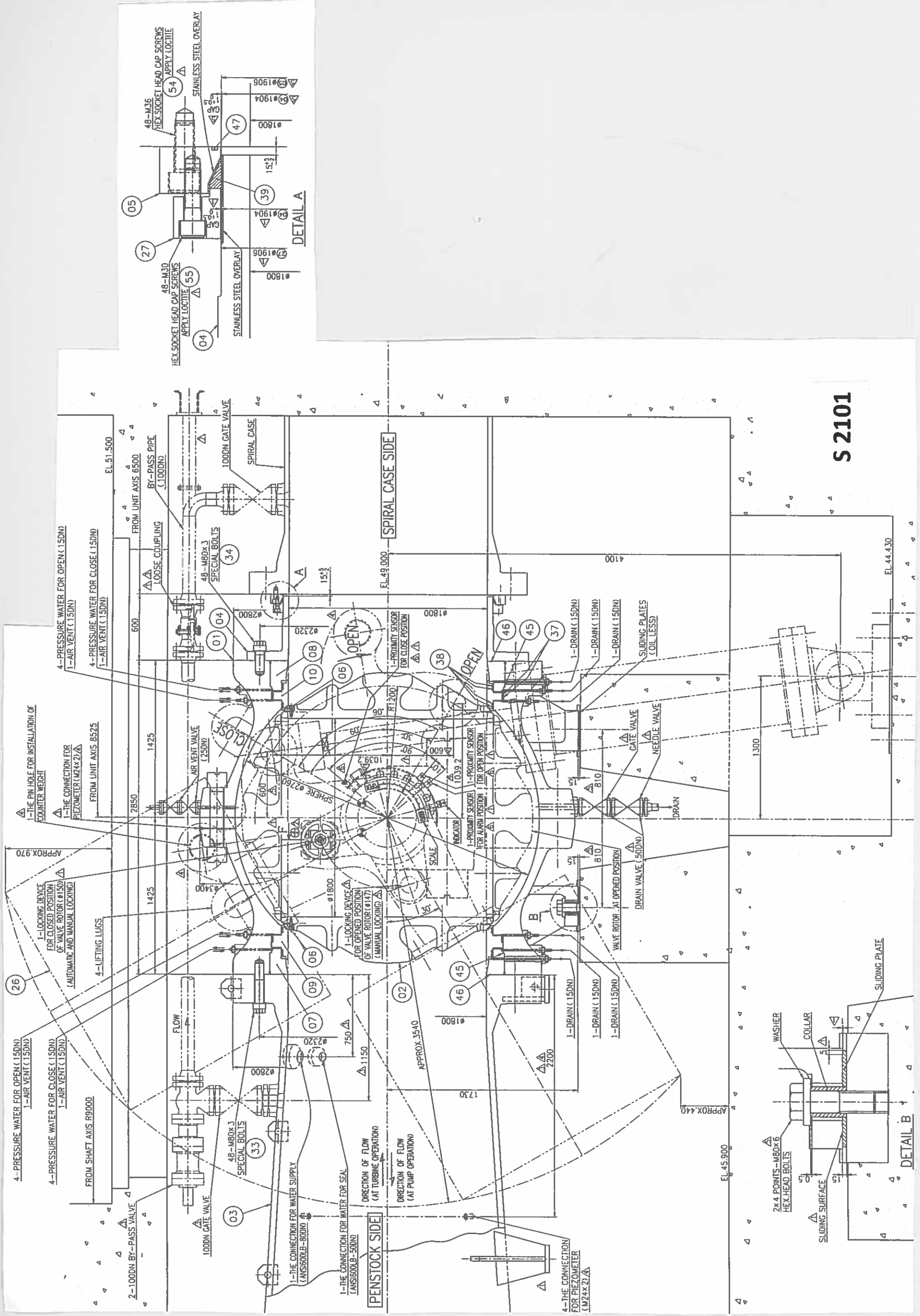
	Specialno orodje / Name of parts	Slika / Picture	Količina / Quantity
1.	Special shock spanner S225		1 pc
2.	Double hex. shock spanner S115, S90, S85, S65, S55		1 pc/each
3.	Open ended shock spanner S130, S95, S65, S55		1 pc/each
4.	Special shock spanner S180		1 pc
5.	Installation device for counter weight M60 x 1550		4 set
6.	Eye bolt VRS-M48, rud: star point, max. lifting load 12 ton		8 pc
7.	Eye bolt VRS-M42, rud: star point, max. lifting load 9 ton		4 pc

8.	Eye bolt VRS-M48, rud: star point, max. lifting load 7 ton		4 pc
9.	Jack bolt M36 x 300		4 pc
10.	Jack bolt M24 x 200		6 pc
11.	Jack bolt M20 x 200		4 pc
12.	Jack bolt M16 x 110		4 pc
13.	Jack bolt M12 x 100		4 pc
14.	Jack bolt M10 x 80		4 pc
15.	Key puller (Ø80 taper key)		1 set

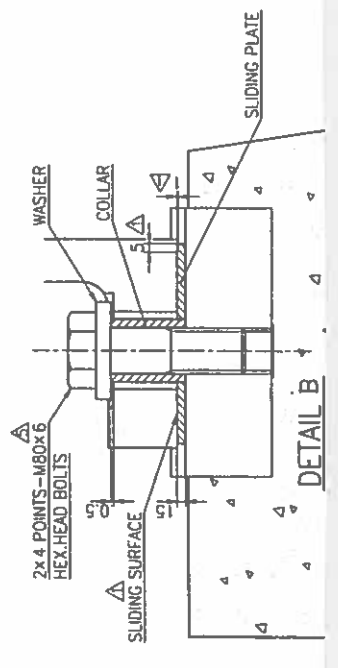
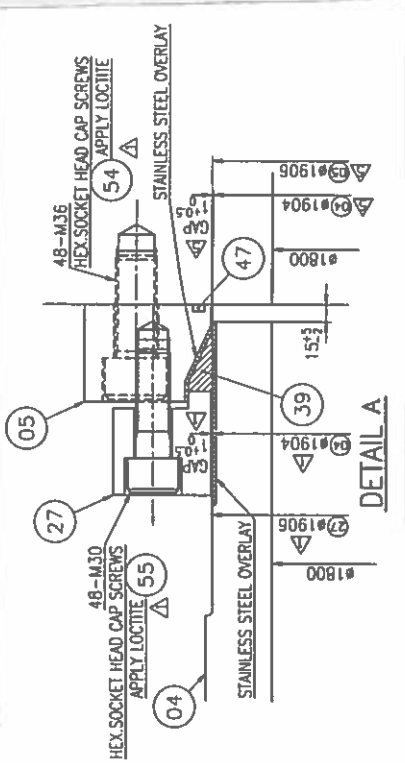


16.	Clamp of piston ring D=620		1 pc
17.	Wire rope $\varnothing$ 53 x 6000, max. lifting load 255 kN		4 pc
18.	Shackle 85 ton, max. lifting load 85 ton		4 pc
19.	Oil power jack RC-2510, max. capacity load 250 kN		1 pc
20.	Oil power jack RC-108, max. capacity load 100 kN		1 pc
21.	Oil power jack RCS-201, max. capacity load 200 kN		2 pc
22.	Hand pump PN80-APJ		1 pc
23.	Hand pump P392AL-APJ		2 pc

			
24.	Constructed tool for seal ring & retainer ring (penstock side)		4 pc
25.	Constructed tool for seal ring & retainer ring (spiral case side)		4 pc



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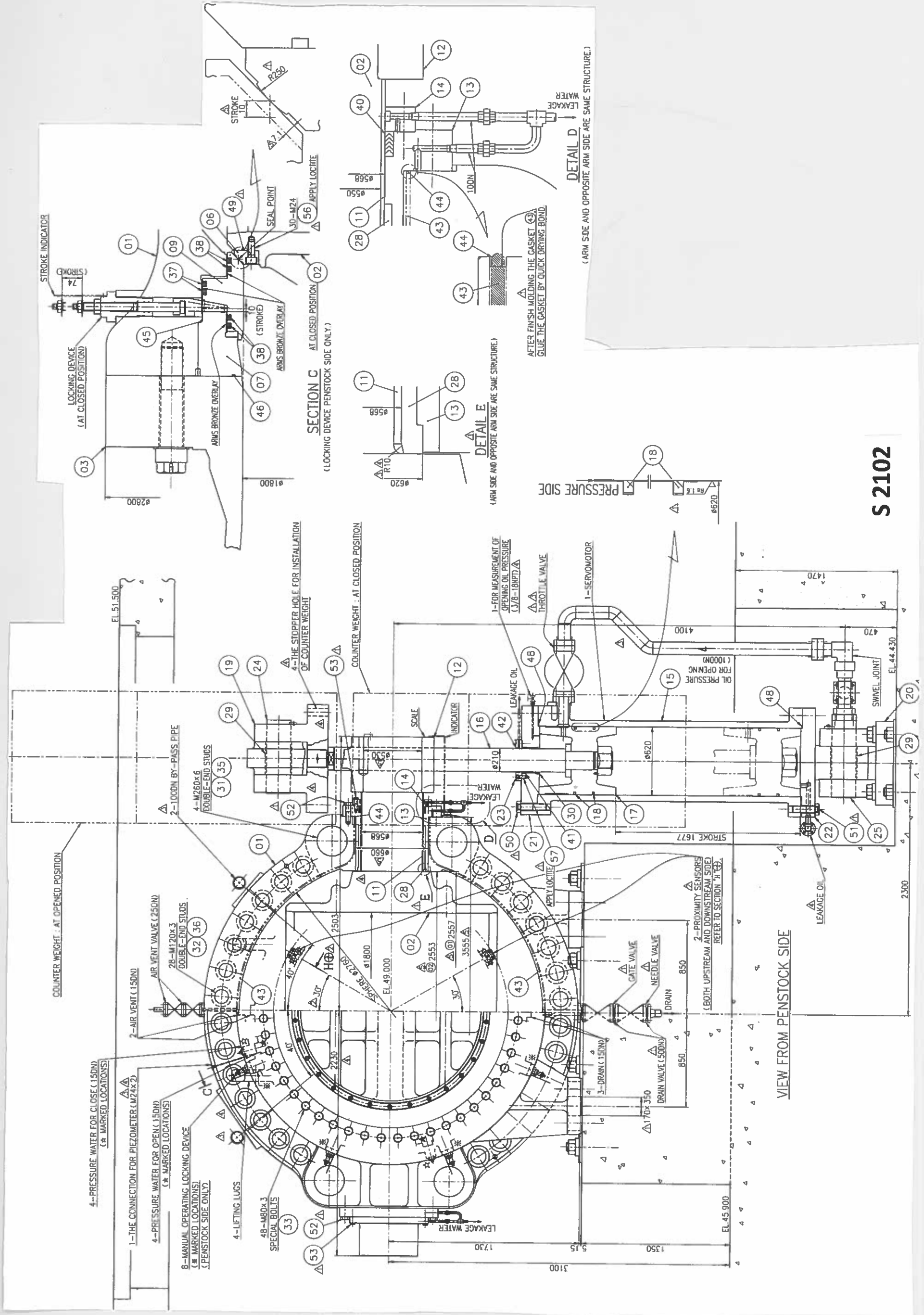


PENSTOCK SIDE

SPIRAL CASE SIDE

DETAIL B

DETAIL A



VIEW FROM PENSTOCK SIDE

SECTION C AT CLOSED POSITION  
(LOCKING DEVICE PENSTOCK SIDE ONLY)

DETAIL D

DETAIL E

- 4--PRESSURE WATER FOR CLOSE (15DN)  
(\*\* MARKED LOCATIONS)
- 1--THE CONNECTION FOR PIEZOMETER (M24x2)
- 4--PRESSURE WATER FOR OPEN (15DN)  
(\*\* MARKED LOCATIONS)
- 8--MANUAL OPERATING LOCKING DEVICE  
(\*\* MARKED LOCATIONS)  
(PENSTOCK SIDE ONLY)
- 4--LIFTING LUGS
- 48--M8x3 SPECIAL BOLTS

- 2--AIR VENT (15DN)
- AIR VENT VALVE (25N)
- 28--M120x3 DOUBLE-END STUDS
- 32/36
- 4--M260x6 DOUBLE-END STUDS
- 31/35

- 1--FOR MEASUREMENT OF OPENING OIL PRESSURE (3/8"-18NPT)
- THROTTLE VALVE
- 1--SERVOMOTOR
- SWIVEL JOINT

- 2--PROXIMITY SENSORS (BOTH UPSTREAM AND DOWNSTREAM SIDE)  
REFER TO SECTION "H"

LEAKAGE WATER  
PRESSURE SIDE

(ARM SIDE AND OPPOSITE ARM SIDE ARE SAME STRUCTURE)

(ARM SIDE AND OPPOSITE ARM SIDE ARE SAME STRUCTURE)

AFTER FINISH MOLDING THE GASKET (43) GLUE THE GASKET BY QUICK DRYING BOND

STROKE INDICATOR

LOCKING DEVICE (AT CLOSED POSITION)

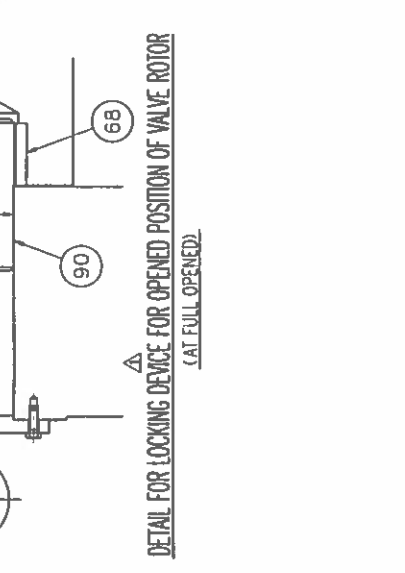
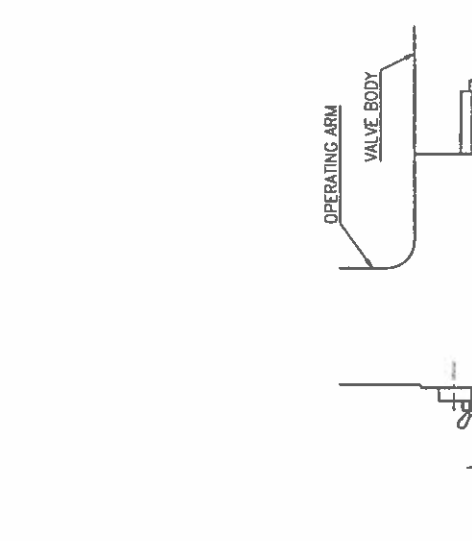
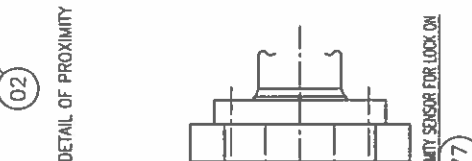
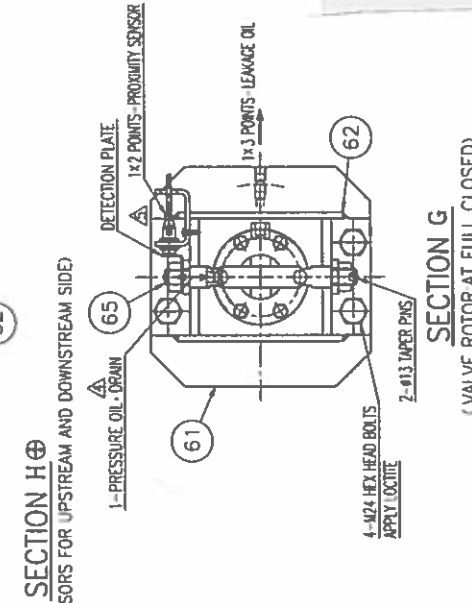
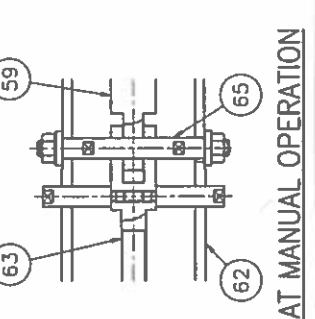
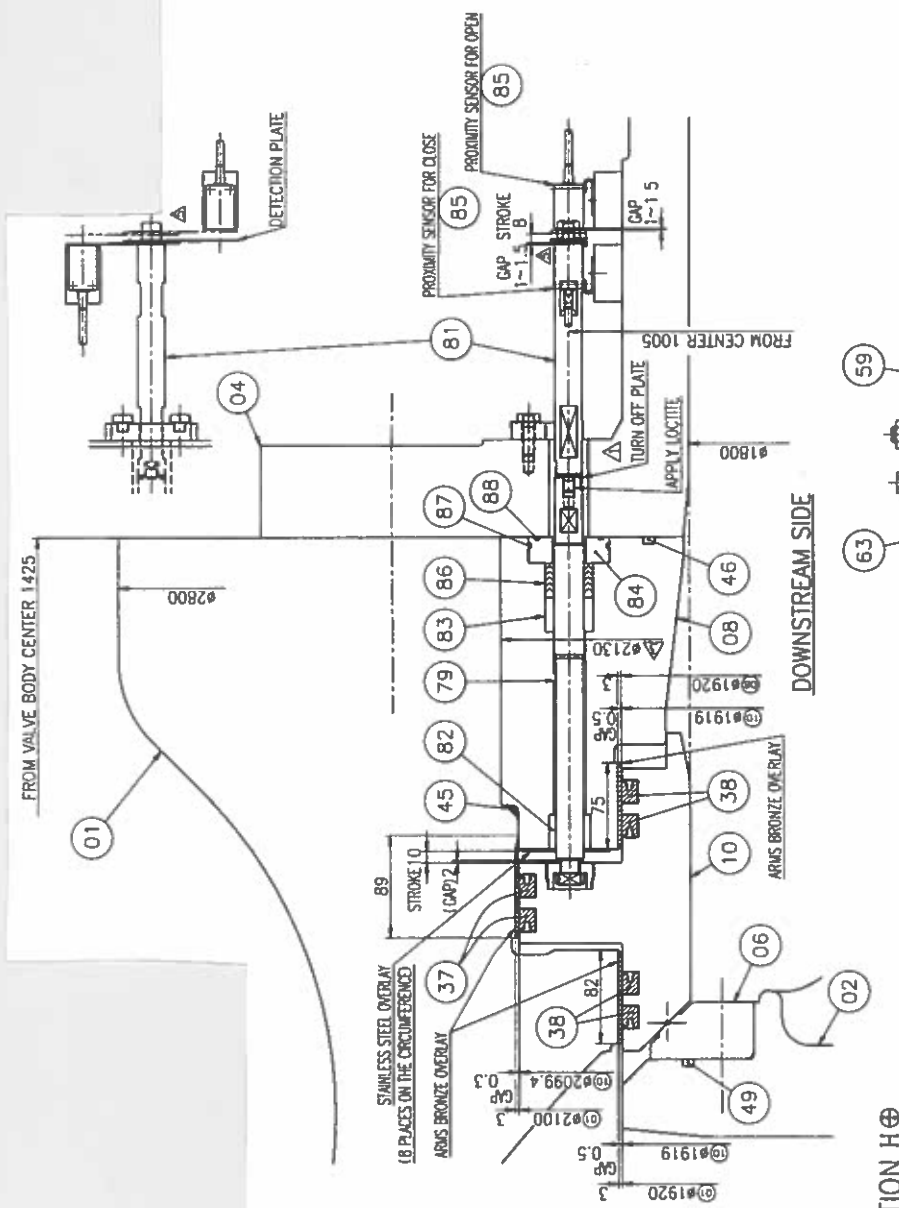
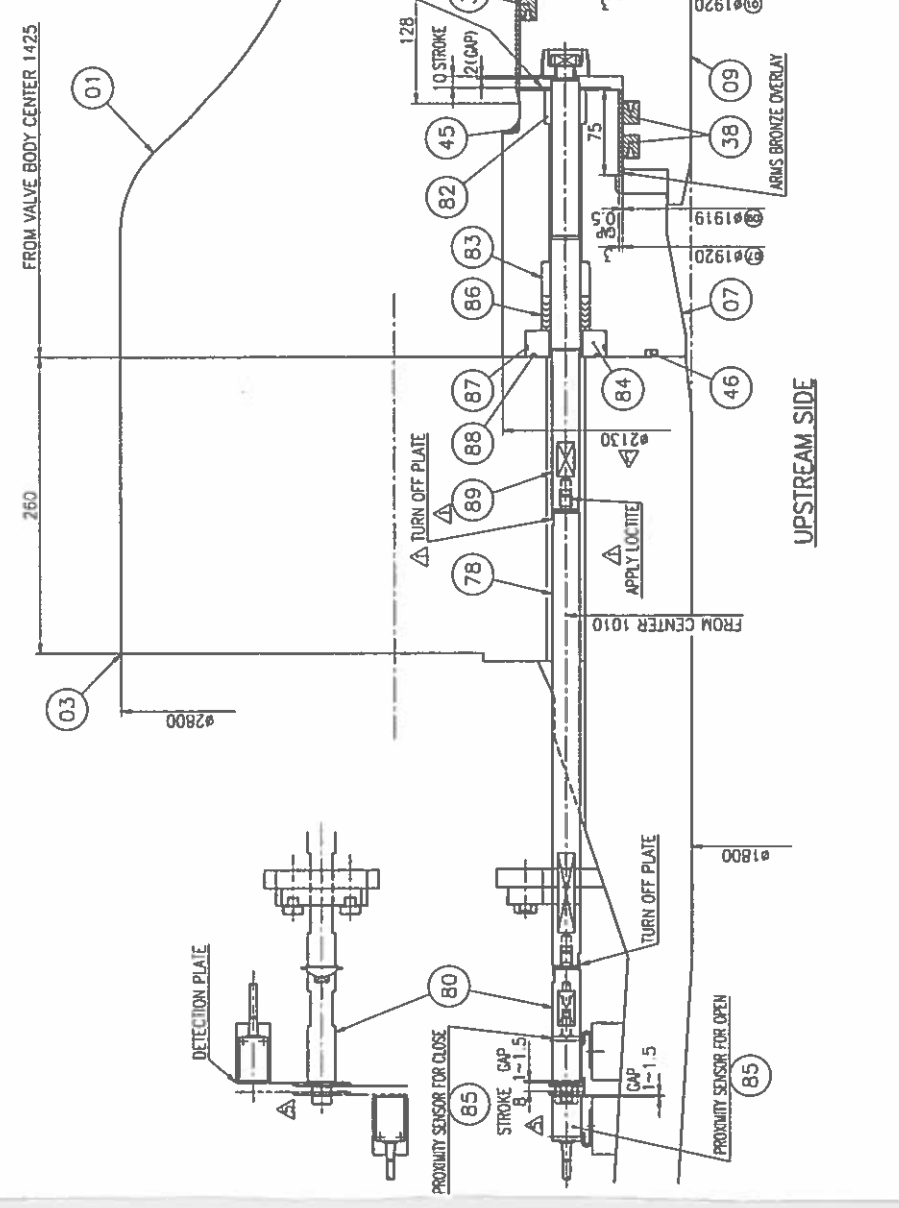
ARMS BRONZE OVERLAY

ARMS BRONZE OVERLAY

DETAIL E

DETAIL D

VIEW FROM PENSTOCK SIDE



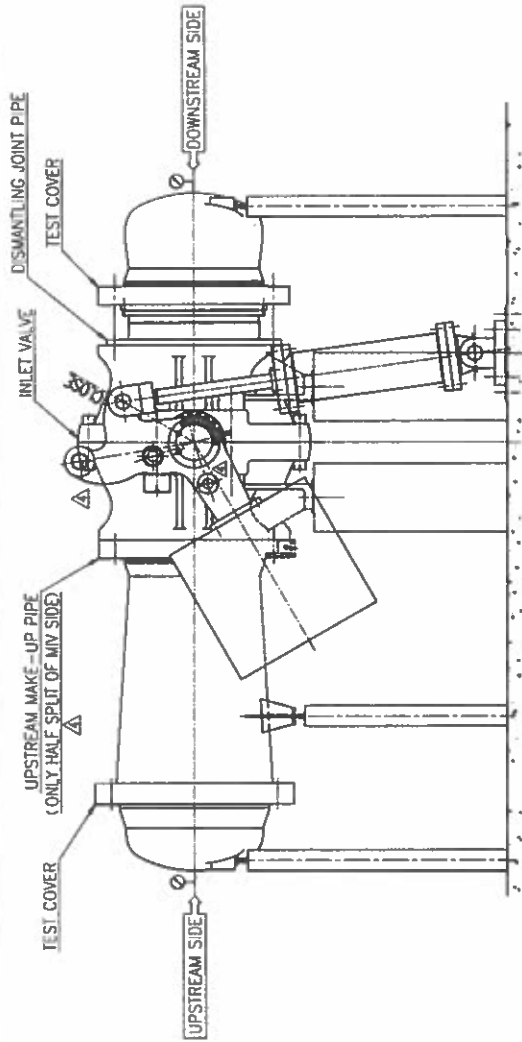
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SECTION H  
DETAIL OF PROXIMITY SENSORS FOR UPSTREAM AND DOWNSTREAM SIDE

SECTION G  
VALVE ROTOR AT FULL CLOSED

SECTION F  
DETAIL FOR LOCKING DEVICE FOR CLOSED POSITION OF VALVE ROTOR

DETAIL FOR LOCKING DEVICE FOR OPENED POSITION OF VALVE ROTOR  
(AT FULL OPENED)



MARK	SET	QTY	DESCRIPTION	MATERIAL	APPROXIMATE QUANTITY PER SET	APPROXIMATE WEIGHT (KG)	REMARKS
11 74		1	O-RING IG130	NBR	1		Hs=70°
11 75		1	U-PACKING	NBR	1		Hs=86°
11 72		1	U-PACKING	NBR	1		Hs=86°
11 71		1	SPRING	JIS G 3560 SWOSC-B	1		
11 70		1	BUSHING	JIS H 5120 CAC303	1		
11 69		1	BUSHING	JIS H 5120 CAC303	1		
11 68		1	BUSHING	JIS G 4051 CAC303	1		
11 67		1	BUSHING (OIL LESS) + SOD (UBRW)	JIS H 5120 CAC303	1		
11 66		1	HOLDER	JIS G 3101 SS400	1		
11 65		1	CONNECTION PIN	JIS G 4053 SCM4350D	1		
11 64		1	YOKE SLEEVE	JIS H 5120 CAC406	1		
11 63		1	SPINDLE	JIS G 4303 SUS4030D	1		
11 62		1	COVER	JIS G 3101 SS400	1		
11 61		1	FLANGE	JIS G 3101 SS400	1		
11 60		1	LOCK PIN	JIS G 4202 SCM4350D	1		
11 59		1	ROD	JIS G 4202 SACM6450D	1		
11 58		1	CYLINDER	JIS G 4052 SCM440H40D	10		
11 57		60	HEX HEAD BOLTS M6	JIS G 4053 SUS4030D	60		
11 56		48	HEX HEAD BOLTS M8	JIS G 4053 SCM4350D	48		
11 55		48	HEX HEAD BOLTS M8	JIS G 4053 SCM4350D	48		
11 54		40	HEX HEAD BOLTS M24	JIS G 4053 SCM4350D	40		
11 53		40	HEX HEAD BOLTS M42	JIS G 4053 SCM4350D	40		
11 52		20	HEX HEAD BOLTS M60	JIS G 4053 SCM4350D	20		
11 51		20	HEX HEAD BOLTS M60	JIS G 4053 SCM4350D	20		
11 50		2	88 RUBBER GASKET	NBR	2		Hs=90°
11 49		2	87 RUBBER GASKET	NBR	2		Hs=90°
11 48		1	86 RUBBER GASKET	NBR	1		Hs=90°
11 47		2	85 RUBBER GASKET	NBR	2		Hs=90°
11 46		2	84 RUBBER GASKET	NBR	2		Hs=90°
11 45		2	83 RUBBER GASKET	NBR	2		Hs=90°
11 44		2	82 RUBBER GASKET	NBR	2		Hs=90°
11 43		1	81 RUBBER GASKET	NBR	1		Hs=90°
11 42		1	OIL SEAL DS1210	FPM	1		Hs=94°
11 41		2	V-PACKING	COTTON/RUBBER	2		
11 40		1	V-PACKING	COTTON/RUBBER	1		
11 39		8	SPECIAL PACKING	NBR	8		Hs=90°
11 38		4	U-PACKING	NBR	4		Hs=90°
11 37		56	U-PACKING	NBR	56		Hs=90°
11 36		8	SPECIAL NUTS M12x3	JIS G 4053 SNCM630D	8		
11 35		48	SPECIAL NUTS M8x3	JIS G 4053 SNCM630D	48		
11 34		48	SPECIAL BOLTS M8x3	JIS G 4053 SNCM630D	48		
11 33		28	SPECIAL BOLTS M8x3	JIS G 4053 SNCM630D	28		
11 32		4	DOUBLE-RO STUDS M12x3	JIS G 4053 SNCM630D	4		
11 31		1	BEARING	JIS H 5120 CAC603	1		
11 30		2	BEARING (OIL LESS) + SOD (UBRW)	JIS H 5120 CAC603	2		
11 29		2	BEARING (OIL LESS) + SOD (UBRW)	JIS H 5120 CAC603	2		
11 28		2	BEARING (OIL LESS) + SOD (UBRW)	JIS H 5120 CAC603	2		

MARK	SET	QTY	DESCRIPTION	MATERIAL	APPROXIMATE QUANTITY PER SET	APPROXIMATE WEIGHT (KG)	REMARKS
12 91		2	BEARING	NIN #51114	2		
11 90		1	LOCK PIN	JIS G 4053 SCM4350D	1		
12 89		2	ROD	JIS G 4303 SUS304	2		
14 88		4	O-RING 1G55	NBR	4		Hs=70°
14 87		4	O-RING 1G55	NBR	4		Hs=70°
14 86		SETS 4	V-PACKING	COTTON & RUBBER	4		
18 85		8	PROXIMITY SENSOR	OMRON TL-N5ME1	8		
14 84		4	PACKING GLAND	JIS G 4303 SUS304	4		
14 83		4	BUSHING	JIS H 3250 C3771BE	4		
14 82		4	BUSHING	JIS H 3250 C3771BE	4		
12 81		2	ADAPTER	JIS G 4303 SUS304	2		
12 80		2	ADAPTER	JIS G 4303 SUS304	2		
12 79		2	ROD	JIS G 4303 SUS304	2		
12 78		2	ROD	JIS G 4303 SUS304	2		
12 77		2	PROXIMITY SENSOR	OMRON #LZE-K71-1	2		
12 76		2	O-RING IG100	NBR	2		Hs=70°
11 75		1	O-RING 1P080	NBR	1		Hs=70°

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UNIT:mm