

TD-106-1 Rev No. 5	Form No.	 HYDERABAD	PRODUCT STANDARD PUMPS HYDERABAD		FP 50511 Rev No. 06 Page 1 of 5
COPYRIGHT AND CONFIDENTIAL The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED, It must not be used directly or indirectly in any way detrimental to the interest of the company.		<u>TECHNICAL SPECIFICATION FOR SPARES OF HYDRAULIC COUPLING</u> <u>TYPE : R18 KGS</u> 1.0.0 <u>INTENT OF THE SPECIFICATION:</u> This specification is intended to list out and allot material codes for the spares required for Hydraulic coupling type R 18KGS procured from either M/s. Voith, Germany or from M/s. Voith India. 1.00 <u>SCOPE OF SUPPLY:</u> Scope of supply shall be as per BHEL purchase order. 3.00 <u>TECHNICAL REQUIREMENTS:</u> 3.1.0 Spare components shall be identical to the components supplied along with original supply of full hydraulic coupling. 3.2.0 If the spare component is supplied as per design improvements/modifications which took place subsequent to the original supply, it should be suitable to be used without any modification in the main hydraulic coupling. 4.0.0 <u>QUALITY REQUIREMENTS:</u> Quality checks on these spare components shall be identical to those carried out on similar components of the original full hydraulic coupling. 5.00 <u>CERTIFICATES:</u> Compliance certificate for quality shall be furnished along with consignment. When complete rotors are ordered, additionally balance certificate also shall be furnished. 6.00 <u>PRESERVATION & PACKING:</u> 6.1.0 Preservative which can withstand for 24 months without causing rusting and corrosion to the spare component shall be applied. 6.2.0 Packing shall be done as seaworthy/air worthy, adequate quantities of moisture absorbent like silica gel shall be put in the packing.			
		Ref. Doc	Revisions : Refer to record of revisions :	Prepared : GVR	Approved : SMD



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<u>SPARES FOR HYDRAULIC COUPLING TYPE : R18KGS</u> <table border="1"> <thead> <tr> <th>VAR NO.</th> <th>ITEM DESCRIPTION</th> <th>DRAWING NO.</th> <th>POS.NO.</th> <th>WT.kg.</th> <th>MATERIAL CODE</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>THRUST BEARING PRIMARY BRG. NO.3/4</td> <td>42237020</td> <td>-</td> <td>30</td> <td>FP9750511018</td> </tr> <tr> <td>02</td> <td>THRUST BEARING SECONDARY BRG. NO. 9/10</td> <td>-do-</td> <td>-</td> <td>30</td> <td>FP9750511026</td> </tr> <tr> <td>03</td> <td>RADIAL BEARING FOR BRG.NO.1</td> <td>-do-</td> <td>071/010</td> <td>5.0</td> <td>FP9750511034</td> </tr> <tr> <td>04</td> <td>RADIL BEARING FOR BRG.NO. 2</td> <td>-do-</td> <td>071/010</td> <td>5.0</td> <td>FP9750511042</td> </tr> <tr> <td>05</td> <td>RADIL BEARING FOR BRG.NO. 5</td> <td>-do-</td> <td>071/020</td> <td>5.0</td> <td>FP9750511050</td> </tr> <tr> <td>06</td> <td>RADIL BEARING FOR BRG.NO. 6</td> <td>-do-</td> <td>071/020</td> <td>5.0</td> <td>FP9750511069</td> </tr> <tr> <td>07</td> <td>RADIL BEARING FOR BRG.NO. 7</td> <td>-do-</td> <td>071/030</td> <td>5.0</td> <td>FP9750511077</td> </tr> <tr> <td>08</td> <td>RADIL BEARING FOR BRG.NO. 8</td> <td>-do-</td> <td>071/030</td> <td>5.0</td> <td>FP9750511085</td> </tr> <tr> <td>09</td> <td>RADIL BEARING FOR BRG.NO. 11</td> <td>-do-</td> <td>071/040</td> <td>5.0</td> <td>FP9750511093</td> </tr> <tr> <td>10</td> <td>REVERSIBLE DOUBLE FILTER</td> <td>-do-</td> <td>071/040</td> <td>5.0</td> <td>FP9750511107</td> </tr> <tr> <td>11</td> <td>REVERSIBLE DOUBLE FILTER</td> <td>-do-</td> <td>-</td> <td>5.0</td> <td>FP9750511115</td> </tr> <tr> <td>12</td> <td>FILLING PUMP INSERT COMPLETE</td> <td>-do-</td> <td>030/010</td> <td>200</td> <td>FP9750511123</td> </tr> <tr> <td>13</td> <td>AUXILIARY OIL PUMP ASSY WITH MOTOR</td> <td>-do-</td> <td>-</td> <td>450</td> <td>FP9750511131</td> </tr> <tr> <td>14</td> <td>FUSIBLE PLUG M12X12, 180 DEG.C</td> <td>-do-</td> <td>030/010/060</td> <td>0.1</td> <td>FP9750511140</td> </tr> <tr> <td>15</td> <td>PRESSURE SWITCH 1-7 kg/cm2 TYPE: B-4-61 FOR LUBE OIL & WORKING OIL</td> <td>-</td> <td>-</td> <td>5.0</td> <td>FP9750511158</td> </tr> <tr> <td>16</td> <td>DIFFL.PRE.SWITCH TYPE: D-4-61 RANGE: 0.14 TO 1.0 KG/SQ.CM, FOR DOUBLE FILTER</td> <td>-</td> <td>-</td> <td>5.0</td> <td>FP9750511166</td> </tr> <tr> <td>17</td> <td>DIFFL.PRE.INDICATOR TYPE: 100 F5503, RANGE: 0-4KG/SQ.CM, FOR DOUBLE FILTER</td> <td>-</td> <td>-</td> <td>2.0</td> <td>FP9750511174</td> </tr> <tr> <td>18</td> <td>CAPILLARY DIAL THERMOMETER 0-120DEG.C, BULB DIA 10 FOR BEARING METAL</td> <td>-</td> <td>-</td> <td>2.0</td> <td>FP9750511182</td> </tr> <tr> <td>19</td> <td>CAPILLARY DIAL THERMOMETER 0-160 DEG.C. 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TYPE: 11/918 FOR LUBE OIL</td> <td>-</td> <td>-</td> <td>2.0</td> <td>FP9750511212</td> </tr> <tr> <td>22</td> <td>TEMPERATURE SWITCH RANGE: 60-143 DEG.C, TYPE:837-A5-EX906 FOR WORKING OIL</td> <td>-</td> <td>-</td> <td>5.0</td> <td>FP9750511220</td> </tr> <tr> <td>23</td> <td>DOUBLE RESISTANCE THERMOMETER, 2XPT 100, 4-WIRE SYSTEM FOR BEARING METAL / TEMP.</td> <td>-</td> <td>-</td> <td>2.0</td> <td>FP9750511239</td> </tr> <tr> <td>24</td> <td>MAGNETIC FIELD PROBE TY:A5SO1E FOR OUT PUT SPEED MEASUREMENT OF H.C.</td> <td></td> <td></td> <td>1.0</td> <td>FP9750511247</td> </tr> <tr> <td>25</td> <td>CAPILLARY DIAL THERMOMETER 0-120°C, BULB DIA 15 FOR COOLERS</td> <td></td> <td></td> <td>2.0</td> <td>FP9750511255</td> </tr> <tr> <td>26</td> <td>OIL LEVEL SWITCH TY:T20-1B2B-B5A</td> <td></td> <td></td> <td>0.5</td> <td>FP9750511263</td> </tr> </tbody> </table>							VAR NO.	ITEM DESCRIPTION	DRAWING NO.	POS.NO.	WT.kg.	MATERIAL CODE	01	THRUST BEARING PRIMARY BRG. 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NO. 9/10	-do-	-	30	FP9750511026	03	RADIAL BEARING FOR BRG.NO.1	-do-	071/010	5.0	FP9750511034	04	RADIL BEARING FOR BRG.NO. 2	-do-	071/010	5.0	FP9750511042	05	RADIL BEARING FOR BRG.NO. 5	-do-	071/020	5.0	FP9750511050	06	RADIL BEARING FOR BRG.NO. 6	-do-	071/020	5.0	FP9750511069	07	RADIL BEARING FOR BRG.NO. 7	-do-	071/030	5.0	FP9750511077	08	RADIL BEARING FOR BRG.NO. 8	-do-	071/030	5.0	FP9750511085	09	RADIL BEARING FOR BRG.NO. 11	-do-	071/040	5.0	FP9750511093	10	REVERSIBLE DOUBLE FILTER	-do-	071/040	5.0	FP9750511107	11	REVERSIBLE DOUBLE FILTER	-do-	-	5.0	FP9750511115	12	FILLING PUMP INSERT COMPLETE	-do-	030/010	200	FP9750511123	13	AUXILIARY OIL PUMP ASSY WITH MOTOR	-do-	-	450	FP9750511131	14	FUSIBLE PLUG M12X12, 180 DEG.C	-do-	030/010/060	0.1	FP9750511140	15	PRESSURE SWITCH 1-7 kg/cm2 TYPE: B-4-61 FOR LUBE OIL & WORKING OIL	-	-	5.0	FP9750511158	16	DIFFL.PRE.SWITCH TYPE: D-4-61 RANGE: 0.14 TO 1.0 KG/SQ.CM, FOR DOUBLE FILTER	-	-	5.0	FP9750511166	17	DIFFL.PRE.INDICATOR TYPE: 100 F5503, RANGE: 0-4KG/SQ.CM, FOR DOUBLE FILTER	-	-	2.0	FP9750511174	18	CAPILLARY DIAL THERMOMETER 0-120DEG.C, BULB DIA 10 FOR BEARING METAL	-	-	2.0	FP9750511182	19	CAPILLARY DIAL THERMOMETER 0-160 DEG.C. FOR WORKING OIL	-	-	2.0	FP9750511190	20	TEMPETARURE SWITCH RANGE : 55-95 DEG.C TYPE: 837-A5-EX 906, FOR LUBE OIL	-	-	5.0	FP9750511204	21	PRESSURE GAUGE RANGE: 0-6KG/SQ.CM. TYPE: 11/918 FOR LUBE OIL	-	-	2.0	FP9750511212	22	TEMPERATURE SWITCH RANGE: 60-143 DEG.C, TYPE:837-A5-EX906 FOR WORKING OIL	-	-	5.0	FP9750511220	23	DOUBLE RESISTANCE THERMOMETER, 2XPT 100, 4-WIRE SYSTEM FOR BEARING METAL / TEMP.	-	-	2.0	FP9750511239	24	MAGNETIC FIELD PROBE TY:A5SO1E FOR OUT PUT SPEED MEASUREMENT OF H.C.			1.0	FP9750511247	25	CAPILLARY DIAL THERMOMETER 0-120°C, BULB DIA 15 FOR COOLERS			2.0	FP9750511255	26	OIL LEVEL SWITCH TY:T20-1B2B-B5A			0.5	FP9750511263
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VAR NO.	ITEM DESCRIPTION	DRAWING NO.	POS.NO.	WT.kg.	MATERIAL CODE	
27	DOUBLE RESISTANCE THEROMETER (RTD) 20-95°C FOR L.O. UP & DOWN STREAM AND W.O. DOWN STREAM	-	-	-	FP9750511271	
28	DOUBLE RESISTANCE THEROMETER (RTD) 110-190°C FOR W.O. UP STREAM OF H.C.	-	-	-	FP9750511280	
29	PRESSURE TRANSMITTER RANGE 0-6kg/cm2 FOR HYDRAULIC COUPLING LO & WO PRESSURE	-	-	-	FP9750511298	
30	BRIDGE RECTIFIER FOR SERVO MOTOR BREAK	-	-	-	FP9750511301	
31	ELECTRICAL ACTUATOR	-	-	-	FP9750511310	
32	POSITION FEED BACK TRANSMITTER FOR ELECTRICAL ACTUATOR	-	-	-	FP9750511328	
33	LIMIT SWITCH	-	-	-	FP9750511336	
34	ELECTRONIC POWER LIMIT	-	-	-	FP9750511344	
35	DAMAGED HC INSTRUMENTS				FP9750511352	
36	DIFFL.PR.TRANST. REVERSIBL DOUBLE FILTER				FP9750511360	
37	OIL LEVEL TRANSMITTER FOR OIL TANK				FP9750511379	
38	RESIST.THERMOMETRE 2XPT10-TCR4202839010				FP9750511387	
39	1XMEASURING TRANSIDUCR ADJUST-DUMMY0001				FP9750511395	
40	1 X SPEED DITECTOR (TCR4202753000)				FP9750511409	
41	CAPILARY DIAL THERMOMETRE (TCR42222600)				FP9750511417	
42	DIFF. PRESSURE SWITCH D-4(TCR42222730)				FP9750511425	
43	BRACKET (DUMMY0002) OF HC R18KGS				FP9750511433	
44	CAPE ELEMENT 27859 (TCR49914000)				FP9750511441	
45	PR GUAGE 0-6 KG/SQCM (TCR4220508000)				FP9750511450	
46	SHUT OFF VALVE BG (TCR41893320) OF HC				FP9750511468	
47	CAP DIAL THERMOMETER FOR BRG 7, LAC23CT3				FP9750511476	
48	CAP DIAL THERMOMETER FOR BRG 9&10, LAC23				FP9750511484	
49	CAP DIAL THERMOMETER FOR BRG 12, LAC23CT				FP9750511492	



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		51	RTD FOR BRG NO.12 LAC23CT110				FP9750511514
		52	AUXILIARY PUMP ASSLY WITH MOTOR				FP9750511522
		53	AUXILIARY PUMP ASSLY WITH MOTOR				FP9750511530
		54	AUXILIARY PUMP ASSLY WITH MOTOR				FP9750511549
		55	AUXILIARY PUMP ASSLY WITH MOTOR				FP9750511557
		56	AUXILIARY PUMP ASSLY WITH MOTOR				FP9750511565
		57	RPM INDICATOR FOR R18 KGS				FP9750511573
		58	DUPLEX WORKING OIL COOLER FOR HC				FP9750511581
		59	AUXILIARY OIL PUMP FOR R18 KGS HC				FP9750511590
		60	SET OF O-RINGS, OIL SEAL & FILTERS				FP9750511603
		61	AUXILIARY OIL PUMP MOTOR - R18 KGS				FP9750511611
		62	DUPLEX LUBE OIL COOLER FOR HC-R18 KGS				FP9750511620
		63	RPM INDICATOR WITH SENSOR COMPLETE SET				FP9750511638
		64	DUPLEX STRAINER FOR HC-R18KGS				FP9750511646
		65	DPLX STNR ELEMENT HC-R18KGS(1SET=02 NOS)				FP9750511654
		66	DBLRES TG 20-95 DEG LO&WO U/DSTRM IMPTD				FP9750511662
		67	DBLRES TG 110-190 DEG WO UPSTRM IMPRTD				FP9750511670
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	Rev. No.	Date	Revision Details	Revised By	Approved By
	01	03.2.2000	Var. nos. 14 & 15 added. Refdrg.no.Pos.nos. and wts. orrected. Spec generally revised.	MSR	BRK
	02	28.4.2000	Var.nos. 16 to 23 added.	MSR	BRK
	03	16.10.03	Var.nos. 24, 25 & 26 added.	MMR	BRK
	04	25.10.05	Var.nos. 27 to 34 added.	MMR	BRK
	05	31.03.14	Var nos. 35 to 60 added	MMR	BRK
	06	02.01.18	Var nos. 61 to 67 added	ASJK	KHRK
	Ref. Doc.				

