

Test Specifications for Injection Pump and Governor

Injection Pump PES 4 A 50 B 410 RS 50 or RS 17	with Governor EP/M 60 A 55 d or A 71 d	DAI Sheet 1,7 h dated: Sept. 1st 1953
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A. Adjustment Data of the Injection Pump

Feed Begin at a Pre-stroke of 1.7 + 0.1 mm (from BDC)					
1	2	3	4	5	6
Speed	Control Rod Travel	Feed Quantity	Feed Quantity Differential	Feed Quantity Drop	Pre-tension of Spring
r.p.m.	mm	cm ³ /100 strokes	cm ³ /100 strokes	(between 1000 and 200 r.p.m.) cm ³ /100 strokes	(Adaptation Valve) mm
1000	9	0.9-1.5		0.8	
	12	2.3-2.8	0.3		
	18	4.6-5.3			
200	9	0.7-1.2			

Adjust delivery of equal quantities within outlined limits

B. Adjustment Data of the Governor

1	2	3	4	5	6	7	8	9	10	11
Travel of Adaptation mm	Leak-proof Test		Point of Adjustment Control Rod Travel Limit		Control Rod Travel Test			Adaptation		
	Vacuum Drop mm Water Col.	Time Min. sec.	Vacuum mm Water Col.	Control Rod Travel mm	with Governor Design	Vacuum mm Water Col.	Control Rod Travel mm	Vacuum mm Water Col.	Control Rod Travel mm	
1.0+0.1	500-480	10	300	12.3	.. A 55 d	410	12.3	50	13.3-13.4	
						470	8.6-12.3	100	12.6-13	
					.. A 71 d	700	0.7- 3.2	150	12.3-12.4	
						410	12.3	50	13.3-13.4	
					450	7.8-12.3	100	12.6-13.0		
					600	0 - 2.7	150	12.3-12.4		

For Testing Control Rod Travel (column 4-11) n = 500 r.p.m.

C. Adjustment of Injection Pump with Mounted Governor

0	1	2	3	4	5	6	7	8	9
Injection Pump	Adjustment of Full-Load Stop Screw			Testing of Feed Quantity Characteristics			Adjustment of Idling Stop		
	r.p.m.	Vacuum mm Water Col.	cm ³ /1000 strokes	r.p.m.	Vacuum mm Water Col.	cm ³ /1000 strokes	r.p.m.	Vacuum mm Water Col.	Control Rod Travel from Full-Load to Idling mm
RS 17 or RS 50	1000	300	29-30	500 750	50 125	31-34 29-32			

The values in col. 3 and 6 are obtained by dividing the total quantity through the number of pump elements