

Test Specifications for Injection Pump and Governor

Injection Pump

PES 4 A 50 B 410 RS 60
or RS 68

with Governor

EP/MZ 60 A 39 d
or A 48 d
or A 52 d

DAI Sheet

1,7 e

dated: March 1st 1955

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	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	Leak-proof Test		Point of Adjustment Control Rod Travel Limit		Control Rod Travel Test			Adaptation		
	Vacuum Drop	Time Min.	Vacuum	Control Rod Travel	with Governor	Vacuum	Control Rod Travel	Vacuum	Control Rod Travel	
mm	mm Water Col.	sec.	mm Water Col.	mm	Design	mm Water Col.	mm	mm Water Col.	mm	
1.0±0.1	500–480	10	300	11.5	– –	410 460 630 2000 2400	11.5 8.5–11.5 4.0– 4.5 3.1– 4.4 2.4– 3.8	175 150 100 75 50	11.5 11.5–11.6 11.9–12.2 12.2–12.5 12.5–12.6	

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 60 or RS 68	1000 1000	300 180	24.5–25.5 24.5–25.5	500 750	50 125	26.5–29.5 24.5–27.5			7.2–7.4

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