Test Specifications for Injection Pump and Governor

Injection Pump	with Governor	DAI Sheet
PES 4 A 50 B 410 RS 204	EP/MZ 60 A 87 d	1,8 c

Special Characteristics:
Pump element with upper and lower helix (pitch of each helix: 7.5 mm) and starting groove.
Feed quantity differential is measured at 200 r. p. m. and control rod travel : 6.

dated: Sept.25th 1956 and/or Aug. 1st 1959

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 r.p.m.	Control Rod Travel mm	Feed Quantity cm³/100 strokes	Feed Quantity Differental cm³/100 strokes	Feed Quantity Drop (between 1000 and 200 r.p.m.) cm³/100 strokes	Pre-tension of Spring (Adaptation Valve) mm
1000	6	0.6–1.0			
	12	2.1–2.5			
	15	3.0–3.8			
200	6	0.3–0.7	0.2		
	21	8.5–9.7			

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 Vacuum Drop mm Water Col.	Leak-proof Test Time Min. sec.	Point of Adjustment Control Rod Travel Limit Vacuum mm Water Col.	Point of Adjustment Control Rod Travel Limit Control Rod Travel mm	Control Rod Travel Test with Governor Design		Control Rod Travel Test Vacuum mm Water Col.	Control Rod Travel Test Control Rod Travel mm	Adaptation Vacuum mm Water Col.	Adaptation Control Rod Travel mm
1.2±0.1	500–480	10	450	13.0	—	—	* 460 490 600 1800	13.0 10.3–12.5 6 – 8.5 1.6– 2.7	180 220 380	14.1–14.3 13.9–14.2 13.1–13.4

* Exactly adjust these values by placing washers WMS 22 S 18 . . . 19 × below the control spring

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 r.p.m.	Adjustment of Full-Load Stop Screw Vacuum mm Water Col.	Adjustment of Full-Load Stop Screw cm³/1000 strokes	Testing of Feed Quantity Characteristics r.p.m.	Testing of Feed Quantity Characteristics Vacuum mm Water Col.	Testing of Feed Quantity Characteristics cm³/1000 strokes	Adjustment of Idling Stop r.p.m.	Adjustment of Idling Stop Vacuum mm Water Col.	Adjustment of Idling Stop Control Rod Travel from Full-Load to Idling mm
RS 204	1500	375	29–30	900 500	175 0	28–30 28–30	0	0	8.5–8.9

After full-load adjustment check again acc to Section B No 8, 9 and 2, 3

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