

# Test Specifications for Injection Pump and Governor

## Injection Pump

PES 4 A 50 B 410 S 17  
or RS 17  
or S 17 z

with Governor  
EP/M 60 A 30

DAI Sheet

1,7 c

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 <small>r.p.m.</small>	Control Rod Travel <small>mm</small>	Feed Quantity <small>cm<sup>3</sup>/100 strokes</small>	Differential <small>cm<sup>3</sup>/100 strokes</small>	Feed Quantity Drop <small>(between 1000 and 200 r.p.m.) cm<sup>3</sup>/100 strokes</small>	Pre-tension of Spring <small>(Adaptation Valve) mm</small>
1000	9	0.9-1.5	0.3		
	12	2.3-2.8			
	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 <small>mm</small>	Leak-proof Test		Point of Adjustment Control Rod Travel Limit		Control Rod Travel Test			Adaptation		
	Vacuum Drop <small>mm Water Col.</small>	Time Min. <small>sec.</small>	Vacuum <small>mm Water Col.</small>	Control Rod Travel <small>mm</small>	with Governor Design	Vacuum <small>mm Water Col.</small>	Control Rod Travel <small>mm</small>	Vacuum <small>mm Water Col.</small>	Control Rod Travel <small>mm</small>	
—	500-480	10	—	—	—	—	100 200 400 600 800	20 -21 19 -20.5 10.5-13.5 1 - 3.5 0 - 2	—	—

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 <small>mm Water Col.</small>	cm <sup>3</sup> /1000 strokes	r.p.m.	Vacuum <small>mm Water Col.</small>	cm <sup>3</sup> /1000 strokes	r.p.m.	Vacuum <small>mm Water Col.</small>	Control Rod Travel from Full-Load to Idling <small>mm</small>
S 17 or RS 17	1000		27.5-28.5						
S 17 z	1000		24.5-25.5						

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