

Test Specifications for Injection Pump and Governor

Injection Pump
PES 4 A 50 B 410 RS 50
68, 68 z

with Governor
EP/M 60 A 121 d

DAI Sheet
1.7 i 2

dated: Feb. 22nd 1961

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 cm ³ /100 strokes | Feed Quantity Differential cm ³ /100 strokes | Feed Quantity Drop (between 1000 and 200 r. p. m.) cm ³ /100 strokes | Pre-tension of Spring (Adaptation Valve) mm |
| 1000 | 9 | 0.9-1.5 | | | |
| | 12 | 2.3-2.8 | 0.2 | | |
| | 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 Adap- tation mm | Leak-Proof Test Vacuum Drop mm Water Col. | Time Min. sec. | Point of Adjustment Control Rod Travel Limit Vacuum mm Water Col. | Control Rod Travel mm | Adjustment of additional Spring Vacuum mm Water Col. | Control Rod Travel mm | Control Rod Travel Test Vacuum mm Water Col. | Control Rod Travel mm | Vacuum mm Water Col. | Control Rod Travel mm |
| 1.0-0.1 | 500-480 | 10 | 300 | 12.4 | - | - | 430 500 550 600 | 12.4 5-11.5 1.5- 7.9 0- 4.5 | 40 75 125 | 13.3-13.4 12.9-13.3 12.4-12.7 |

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 Tra- vel from Full- Load to Idling mm |
| RS 50 | 1000 | 300 | 29-30 | 500 | 50 | 32-34 | | | |
| RS 68 | 1000 | 300 | 23.5-24.5 | 500 | 50 | 25.5-28.5 | | | |
| RS 68 z | 1000 | 300 | 28-29 | 500 | 50 | 29.5-32.5 | | | |
| | | | | | | | | | |

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