

Test Specifications for Injection Pump and Governor

Injection Pump

PES 4 A 50 B 410 RS 17
or RS 50

with Governor

EP/MZ 60 A 57 d
or A 58 d

DAI Sheet

1,7 f

dated: Dec. 15th 1952

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 | 1.3-1.7 | | 0.6 | |
| | 12 | 2.5-2.8 | 0.3 | | |
| | 18 | 4.8-5.8 | | | |
| 200 | 9 | 1.0-1.5 | | | |
| | | | | | |

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 | 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 | 12.5 | — | — | 470 520 560 2000 | 8.6—12.5 6.5— 9.5 6.4— 8.3 2.3— 4.1 | 180 150 100 50 | 12.5 12.5—12.6 12.8—13.2 13.5—13.6 |

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 17 or RS 50 | 1000 1000 | 300 180 | 29-30 29-30 | 500 750 | 50 125 | 31-34 29-32 | 0 | 0 | 6.0-6.5 |
| | | | | | | | | | |
| | | | | | | | | | |

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