Distributor

Job No. 15–23

Table of Distributors Installed

Model	Distributor Bosch
180	VJU 4 BR 1
180 a	VJU 4 BR 22 1st version VJUR 4 BR 27 2nd version
180 b	VJUR 4 BR 28
190 SL	VJ 4 BR 11 1st version VJR 4 BR 24 2nd version
220 a, 219 220 S	VJUR 6 BR 24 1st version VJUR 6 BR 38 2nd version
220 SE	VJUR 6 BR 32

A. Removal and Installation of Distributor

The removal and installation procedures for the distributor are described in Job No. 01-4, Section C, and the ignition setting in Job No. 01-3, Section E.

B. Checking Distributor on the Tester

Models 180, 180 a, 180 b, 190 SL, 220 a, 219, 220 S, and 220 SE

On these models the checking procedure for the distributor is essentially the same as on Model 190.

Contact-Point Distance of Contact Breaker Points

on distributors VJU 4 BR 1, VJU 4 BR 22, VJUR 4 BR 27, VJUR 4 BR 28, VJ 4 BR 11 and VJR 4 BR 24 **0.40–0.50 mm**

on distributors VJUR 6 BR 24, VJUR 6 BR 38, and VJUR 6 BR 32 **0.30–0.40 mm**

a) Checking the Angle of Closure

The angle of closure should be on distributors

VJU 4 BR 1
VJU 4 BR 22
VJUR 4 BR 27
VJUR 4 BR 28
VJ 4 BR 11 and
VJR 4 BR 24 **48°–52°**

on distributors

VJUR 6 BR 24 VJUR 6 BR 38 and VJUR 6 BR 32	**34°–38°**

b) Checking the Firing Interval

The firing interval is equal to $\frac{360°}{\text{number of cylinders}}$ with a tolerance of ± 1°, which in the case of distributors for

four-cylinder engines = 90° ± 1°
six-cylinder engines = 60° ± 1°

The firing interval should be measured at an engine speed of n = 150 r.p.m. and n = 1500 r.p.m. (speed of distributor).

c) Checking the Adjustment Curve

The adjustment curve must be checked with reference to the automatic governor control. The change in adjustment must be uniform and must take place without jerks.

Then the adjustment curve should be checked with reference to the automatic vacuum control and the vacuum control should be checked for air-tightness.

The air-tightness test should be made at a vacuum of 600 mm Hg. The vacuum must not fall off by more than 10% over a period of 2 minutes.

The movement is limited by the chamfered hexagon nut which is installed on the pull-rod of the automatic vacuum control. The adjustment range can be increased by screwing out the pull-rod and decreased by screwing it in. When this is done care must be taken to ensure that the pull-rod remains screwed in far enough; if necessary, the chamfered hexagon nut should be adjusted after releasing the lock nut.

Automatic governor control **Automatic vacuum control**

for distributor VJU 4 BR 1

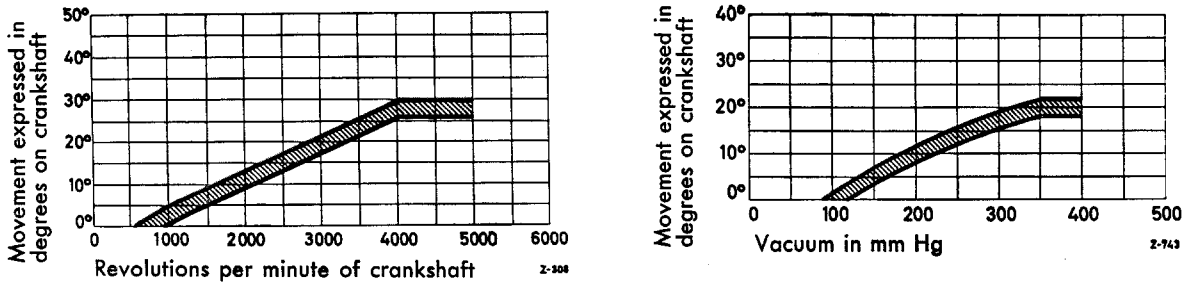


Fig 15–23/1

Automatic governor control **Automatic vacuum control**

for distributors VJU 4 BR 22 and VJUR 4 BR 27

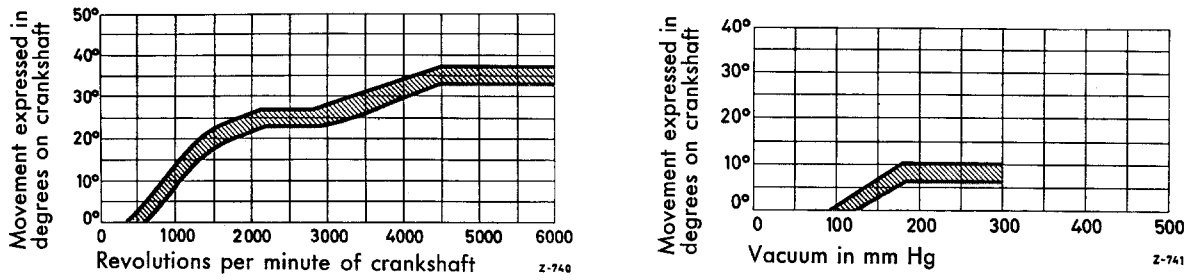


Fig. 15–23/2

Automatic governor control **Automatic vacuum control**

for distributor VJUR 4 BR 28

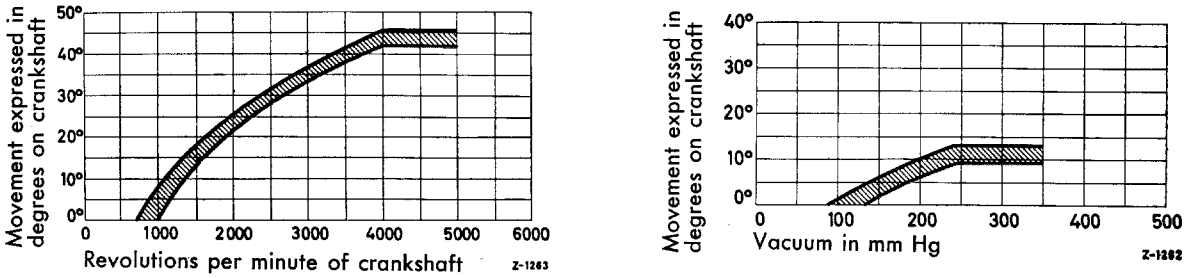
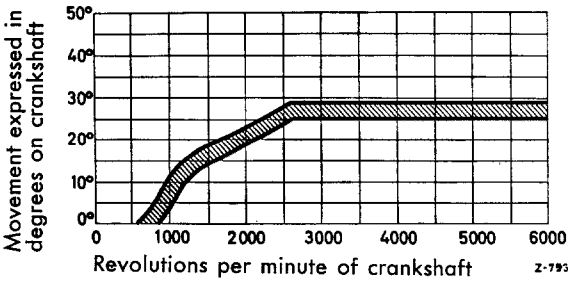


Fig. 15–23/3

Automatic governor control **Automatic vacuum control**

for distributors VJ 4 BR 11 and VJR 4 Br 24



no automatic vacuum control

Fig. 15–23/4

Automatic governor control **Automatic vacuum control**

for distributors VJUR 6 BR 24 and VJUR 6 BR 38

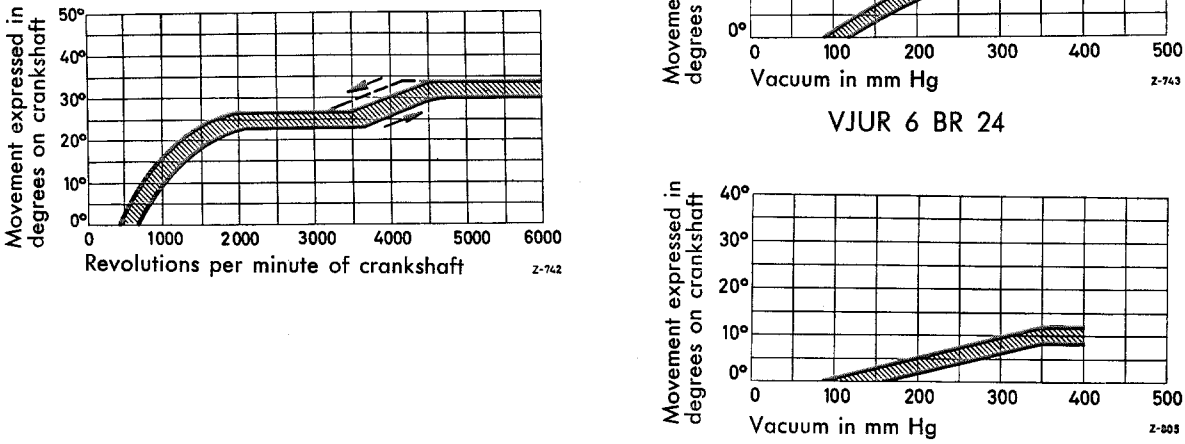


Fig. 15–23/5

Models 219 and 220 S with a compression ratio of = 8.7:1 have recently been fitted regularly with the distributor VJUR 6 BR 38 with an automatic vacuum control movement of 10° on the crankshaft (previously 20°) (Fig. 15–23/4). This distributor is also supplied as a replacement part for Models 220 a, 219, and 220 S.

Automatic governor control **Automatic vacuum control**

for distributor VJUR 6 BR 32

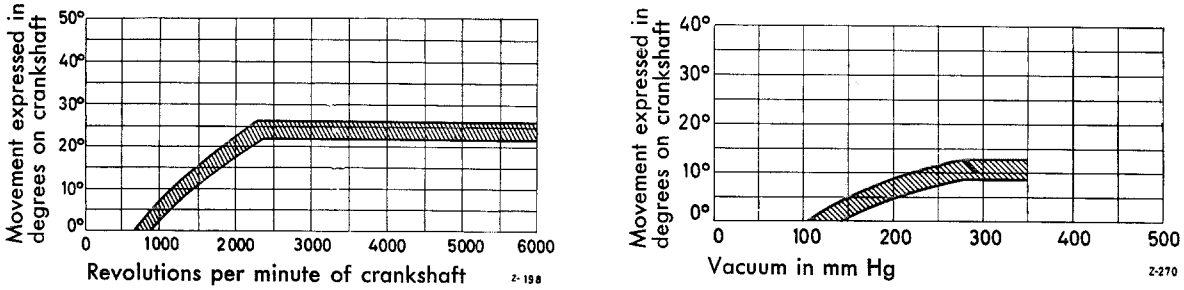


Fig. 15–23/6

The continuous run test, the maximum speed test, the starting output test, the removal and installation procedures for the contact breaker points, the automatic vacuum control, and the distributor coupling are essentially the same as on Model 190.

Job No. 15–24

Ignition Leads and Ignition Lead Connectors

Models 180, 180 a, 180 b, 190 SL, 219, 220 a, 220 S, and 220 SE

The testing procedures for ignition leads and ignition lead connectors are the same as on Model 190.