

# INJECTION PUMP TEST SPECIFICATIONS

093000-3240

<b>INJECTION PUMP</b>	093000-324# (ND-PES4A70B321RND324)	<b>MANU-FACTURER</b>	MITSUBISHI
<b>GOVERNOR</b>	190800-262# (RU)	<b>ENGINE TYPE</b>	4DR
<b>TIMER</b>	091800-280# (SCZ)	<b>VEHICLE MODEL</b>	CANTER

## 1.INJECTION TIMING

- |                       |                                    |                           |                    |
|-----------------------|------------------------------------|---------------------------|--------------------|
| 1) Rotation           | : Clockwise viewed from drive side | 4) Pre-stroke             | : 1.9 – 2.0 mm     |
| 2) Injection Order    | : 1 – 3 – 4 – 2                    | 5) Tappet Clearance       | : More than 0.2 mm |
| 3) Injection Interval | : 90° ± 30'                        | 6) Locked Timing Location | : BTDC 13°         |

## 2.ADJUSTMENT OF DELIVERY QUANTITY

Test Conditions

- |                            |                                |                       |  |
|----------------------------|--------------------------------|-----------------------|--|
| 1) Nozzle                  | : 093400 – 0540<br>(DN12SD12A) | 4) Feed Pressure      | : 2.0 kgf/cm <sup>2</sup>                            |
| 2) Nozzle Opening Pressure | : 175 kgf/cm <sup>2</sup>      | 5) High Pressure Pipe | : $\varnothing 2 \times \varnothing 6 \times 600$ mm |
| 3) Test Oil                | : SAE J967 (ISO4113)           | 6) Fuel Temperature   | : 40 – 45 °C (104 – 113 °F)                          |

Pump Speed (rpm)	Rack Travel (mm)	Number of Strokes	Delivery Quantity (cc/cyl.)	Max. Spread in Delivery (cc)	Remarks
1100	10.9	200	9.4 – 10.0	0.4	
1700	10.9	200	10.2 – 10.8	0.6	
300	6.6	200	1.3 – 1.9	0.4	
2065	5.8	500	Measurement	2.0	

Overflow valve opening : 1.6 kgf/cm<sup>2</sup>

## 3.ADJUSTMENT OF GOVERNOR...Refer to the right side of this sheet.

## 4.ADJUSTMENT OF PUMP WITH GOVERNOR OPERATION

Lever Position (deg)	Pump Speed (rpm)	Number of Strokes	Delivery Quantity (cc/cyl.)	Remarks
FULL	1100	1000	47.0 – 49.5	
	900	1000	45.0 – 49.0	
	1700	1000	50.5 – 54.5	

## NOTE

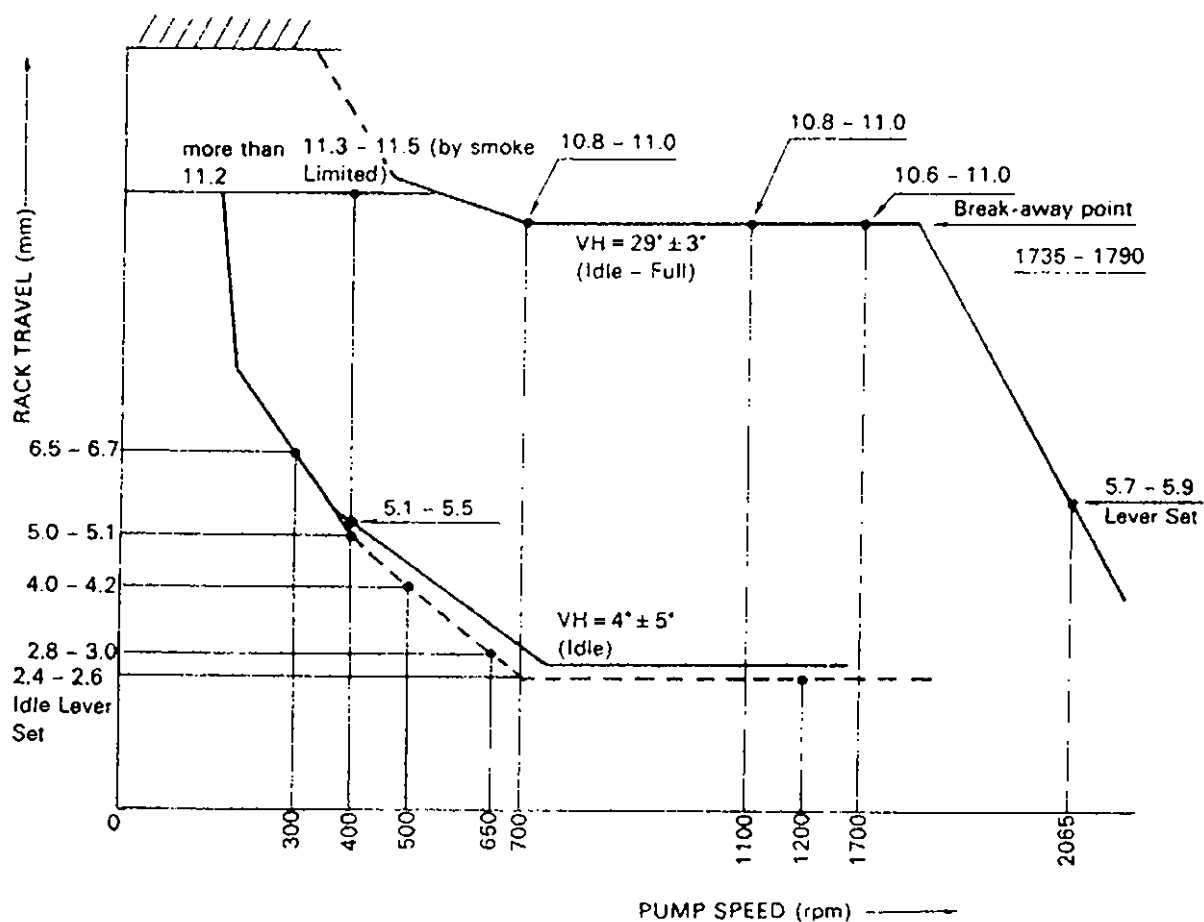
Hysteresis at the pump is less than 1.0 mm. (at full lever position, pump speed 2065 rpm)

## 5. ADJUSTMENT OF TIMER

N.A. : Not Applicable

Pump Speed (rpm)	600 – 1750					
Advance Angle (deg)	7.2					

Control Speed Range : 300 – 1750 rpm



## 6. ADJUSTMENT OF BOOST COMPENSATOR (Full lever position)

Pump Speed (rpm)	Boost Pressure (mmHg)	RW (mm)	Delivery Quantity (cc/200st)
N.A.	N.A.	N.A.	N.A.

## NOTE:

- (1) Adjusting Lever Position  
Setting position 0° to be at vertical position.
- (2) Stop Lever Set  
Rack travel must be 3.9 – 4.1 mm when the stop lever is pulled at pump speed 400 rpm in idle lever position, then fuel delivery must be less than 0.9 cc/200 st.1cyl.
- (3) After governor adjustment, the rack must return to original position within 10 seconds when it is pulled to over 11.0 mm at pump speed 300 rpm in idle lever position.