

# INJECTION PUMP TEST SPECIFICATIONS

191000-0120

<b>INJECTION PUMP</b>	191000-012# (ND-PES6A95D312LND012)	<b>MANU-FACTURER</b>	mitsubishi
<b>GOVERNOR</b>	090800-9370 (RSV)	<b>ENGINE TYPE</b>	6D14C
<b>TIMER</b>	091800-0980 (SCZ)	<b>VEHICLE MODEL</b>	POWER SHOVEL

## 1.INJECTION TIMING

- |                       |  |                           |                    |
|-----------------------|--|---------------------------|--------------------|
| 1) Rotation           | : Counterclockwise<br>viewed from drive side | 4) Pre-stroke             | : 3.25 – 3.35 mm   |
| 2) Injection Order    | : 1 – 5 – 3 – 6 – 2 – 4                      | 5) Tappet Clearance       | : More than 0.2 mm |
| 3) Injection Interval | : 60° ± 30'                                  | 6) Locked Timing Location | : —                |

## 2.ADJUSTMENT OF DELIVERY QUANTITY

Test Conditions

- |                            |                           |                       |                             |
|----------------------------|---------------------------|-----------------------|-----------------------------|
| 1) Nozzle                  | : 093400 – 0540           | 4) Feed Pressure      | : 1.6 kgf/cm <sup>2</sup>   |
| 2) Nozzle Opening Pressure | : 175 kgf/cm <sup>2</sup> | 5) High Pressure Pipe | : ø2 x ø6 x 600 mm          |
| 3) Test Oil                | : SAE J967                | 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
700	10.4	200	9.4 – 10.4	1.0	
400	9.2	500	5.0 – 7.0	1.5	
1020	8.4	500	7.6 – 10.0	2.5	

Overflow valve opening : 2.6 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	700 900	1000 1000	48.5 – 50.5 47.0 – 50.0	

## NOTE

The 1st cylinder is on the governor side.

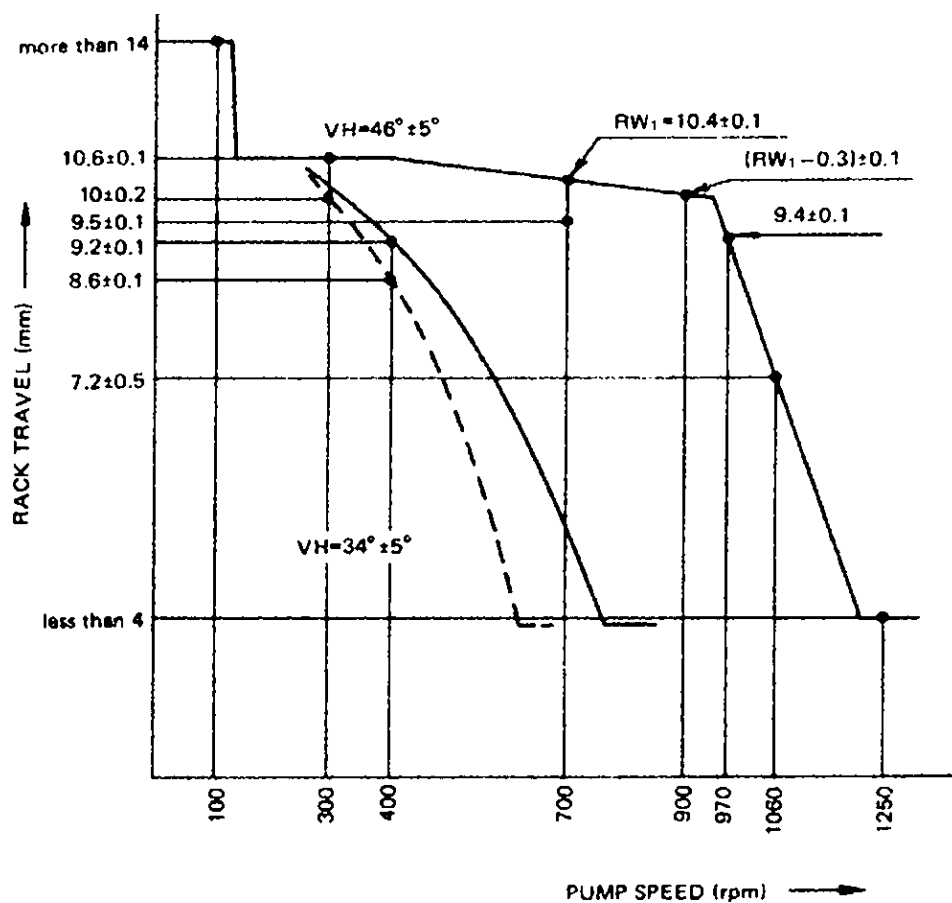
## 5. ADJUSTMENT OF TIMER

N.A. : Not Applicable

Pump Speed (rpm)	1000	1600				
Advance Angle (deg)	Less than 0.5	1.5 – 2.5				

Control Speed Range : 300 – 950 rpm

X At 4.5



## 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) Angle of Adjusting Lever  
Setting position  $40^\circ$  to be at vertical position, going positively towards the full lever position and negatively towards the idle lever position.
- (2) Stop Lever Set  
Rack travel must be less than 2.5 mm at pump speed 930 rpm in full lever position.
- (3) Torque Spring Set  
Drive the pump at 930 rpm in full lever position. Screw in the torque spring and make sure that rack travel decreases by 0.5 mm. After wards, screw it out not to operate.