

Annexure – A

Specifications for Goodman Jack

Item	Specifications
LVDTs	The two-linear variable differential transformer (LVDT) displacement transducers are mounted within the jack. These are Trans-Tek, Model 241-000, which have a linear range of ± 0.1 inch (2.54 mm). The linearity over this range is within $\pm 0.5\%$ of the full scale linear range. The maximum usable displacement range of this LVDT is ± 0.15 inch (3.81 mm). Linearity over the maximum usable range is $\pm 1.0\%$
Displacement Indicator	The portable instrument, Model 52127, operates on internal, rechargeable battery or on 110-volt AC. The displacement of the pressure plate is indicated by two illuminated digital displays, one for each LVDT. These displays give the deviation of the plate from the nominal borehole diameter of 3 inches (76.2 mm) with a sensitivity of 0.001 inches (0.01 mm). A polarity sign indicates whether the deviation is greater than or less than 3.000 inches (76.20 mm). The two voltmeters on the instrument panel give simultaneous readings from each LVDT. These are designated "near" and "far", which refers to the proximity of the LVDT to the hose and cable connections on the jack. As can be seen on the calibration curve, the displacement of the jack is indicated from the fully closed position to the fully open position.
Jack Extension Range	The total displacement or extension of the jack is 0.45 inches (11.4 mm). When the jack is fully closed, the diametrical distance between the outside surfaces of the two pressure plates is 2.75 inches (69.9 mm). When the jack is fully open, the diametrical distance is 3.20 inches (81.2 mm)
Pressure Range	The jack and the hydraulic components are designed for a 10,000 psi (68.95 MPa) maximum working pressure. The hydraulic pump (Enerpac P-84) produces a maximum output pressure of 10,000 psi (68.95 MPa)
Pressure Gauge	The pressure gauge (Marsh Type 200) has a bourdon tube sensing element. The accuracy of this gauge is $\pm 0.25\%$ of full scale. The full-scale pressure is 10,000 psi (70 MPa). The smallest division of the scale is equal to 50 psi (0.5 MPa)
Power Source	The model 52127 Indicator may be operated: (1) From any standard 60 Hz power source, 105 to 130 volts, single phase, at 8 watts, (2) Internal batteries which are Globe rechargeable gel cell, GC680, or (3) External 12-volt battery which is usually available in a truck, car or drill rig



Operating Temperature	LVDT: -65°F to 250°F (-54°C to 121°C) Indicator: +10°F to +110°F (-8°C to 43°C) Hydraulic Oil Pour Point: -25°F (-32°C)
Dimensions	Jack length: 17.5 inches (445 mm) Jack diameter, closed: 2.75 inches (69.9 mm) Pump: 27 x 7 x 6 inches (686 x 178 x 152 mm) Indicator: 11 x 9 x 7 inches (279 x 229 x 178 mm)
Weight	Jack: 33 pounds (15 kg) Pump: 33 pounds (15 kg) Indicator: 11 pounds (5.0 kg) Twin Hose & Electric Cable: 76 pounds/100 feet (35 kg/31m)
Materials	Goodman Jack: Heat treated 17-4 PH stainless steel. Indicator Case: Aluminium. Cable: Six conductors, shielded with waterproof polyurethane jacket, 0.35 inch; (8.9 mm) O.D. Hydraulic Hose: Neoprene jacket over double steel spiral braid
Electrical Connectors on Indicator	Power: For connecting AC or DC power cable to indicator. Transducer: For connecting electrical cable from sensor to indicator
Fuses	The system has one fuse located on the printed circuit card behind the indicator panel. Internal DC (F1): 1 amp External DC (F2): 2 amp AC Charge (F3): 0.25 amp
Digital Voltmeter	The visual display is provided by the digital voltmeter which reads the output from the LVDTs. The voltage is indicated on a 3-digit display. Accuracy of the voltmeter is ± 0.0002
Switch	Power - On/Off: Turns system power on/off Battery Test: Displays battery voltage on "far" DVM
Operating Time	With the batteries fully charged, the indicator will operate for eight hours at room temperature



Note: For any further information on details and specification of items, please contact:

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