



Keywords: Manual Hydraulic Presses, Low Tonnage, Pressure Relief Valve

Low Tonnage Conversion Kits for Atlas™ Manual 15T Hydraulic Press

The standard Atlas™ Manual 15T hydraulic press P/N GS15011 can be operated to apply up to a 15 ton maximum load. On the press itself there is a pressure relief valve (located under the load gauge) which can be set to "vent off" any excess pressure in the pumping system such that a maximum load setting can be selected on the press. This maximum load is indicated on the standard 0 to 15 ton load gauge. Hence, if this pressure relief valve is adjusted accordingly, then it is possible to build up a pressure that corresponds to e.g. a maximum of 5 tons load as indicated at the 15 ton load gauge. Any further pulls on the pump handle of the press results in this excess pressure being vented off at the pressure release valve. In this way it acts as a safety device to prevent overloading to a sample (or die assembly) in the pressing area.

The low tonnage gauge conversion kits, 0 to 1 tons (P/N GS15051), 0 to 2 tons (P/N GS15052) and 0 to 5 tons (P/N GS15055) provide an ADDITIONAL load gauge to be used along with the standard 15 ton load gauge on the press. The appropriate gauge kit is fitted by the customer to allow both gauges to be connected to the press. The lower tonnage gauge can be isolated from the system but any pressure of oil in the system will always be registered at the 15 ton gauge. The lower tonnage load gauge has finer divisions for reading of an applied load so if it is important to know that you are applying say 4.1 tons as opposed to say possibly 4.5 tons, then the 0 to 5 ton load gauge reading may be required. BUT, the press itself could only be operated up to a maximum load allowable with the low tonnage gauge switched on line for reading. As a precaution it is recommended to have the pressure release valve set at the low tonnage gauge load maximum to prevent possible damage to the lower tonnage gauge should it accidentally not be isolated from its own valve tap.

Therefore, in essence the Atlas™ Manual 15T hydraulic press will allow you to apply any load up to 15 tons to a sample or an evacuable pellet die in the pressing area. However, if a finer reading of the load applied up to a maximum of 5 tons is required, then the additional gauge kit P/N GS15055 can be fitted to the press.

The low ton gauges available for the Atlas™ Manual 15T hydraulic press and their load reading divisions are:-

- 0 to 1 ton gauge - gauge divisions every 0.05 tons load.
- 0 to 2 ton gauge - gauge divisions every 0.10 tons load.
- 0 to 5 ton gauge - gauge divisions every 0.20 tons load.

As the gauges are analogue (needle pointers) it should be possible to read a value between these divisions, hence for a 0 to 1 ton gauge every 0.025 tons and so on.