

Hydraulic Load Cells Compression & Tension (2-300 Ton Models)

L876 Rev. C 03/07

1.0 IMPORTANT RECEIVING INSTRUCTIONS

Visually inspect all components for shipping damage. Shipping damage is **not** covered by warranty. If shipping damage is found, notify carrier at once. The carrier is responsible for all repair and replacement costs resulting from damage in shipment.

SAFETY FIRST

2.0 SAFETY ISSUES



Read all instructions, warnings and cautions carefully. Follow all safety precautions to avoid personal injury or property damage during system operation. Enerpac cannot be responsible for damage or injury resulting from unsafe product use, lack of maintenance or incorrect product and/or system operation. Contact Enerpac when in doubt as to the safety precautions and operations. If you have never been trained on high-pressure hydraulic safety, consult your distribution or service center for a free Enerpac Hydraulic safety course.

Failure to comply with the following cautions and warnings could cause equipment damage and personal injury.

A **CAUTION** is used to indicate correct operating or maintenance procedures and practices to prevent damage to, or destruction of equipment or other property.

A **WARNING** indicates a potential danger that requires correct procedures or practices to avoid personal injury.

A **DANGER** is only used when your action or lack of action may cause serious injury or even death.



WARNING: Wear proper personal protective gear when operating hydraulic equipment.



WARNING: Stay clear of loads supported by hydraulics. A cylinder, when used as a load lifting device, should never be used as a load holding device. After the load has been raised or lowered, it must always be blocked mechanically.



WARNING: USE ONLY RIGID PIECES TO HOLD LOADS. Carefully select steel or wood blocks that are capable of supporting the load. Never use a hydraulic cylinder as a shim or spacer in any lifting or pressing application.



DANGER: To avoid personal injury keep hands and feet away from cylinder and workpiece during operation.



WARNING: Do not exceed equipment ratings. Never attempt to lift a load weighing more than the capacity of the cylinder. Overloading causes equipment failure and possible personal injury. The cylinders are designed for a max. pressure of 700 bar [10,000 psi]. Do not connect a jack or cylinder to a pump with a higher pressure rating.



Never set the relief valve to a higher pressure than the maximum rated pressure of the pump. Higher settings may result in equipment damage and/or personal injury.



WARNING: The system operating pressure must not exceed the pressure rating of the lowest rated component in the system. Install pressure gauges in the system to monitor operating pressure. It is your window to what is happening in the system.



CAUTION: Avoid damaging hydraulic hose. Avoid sharp bends and kinks when routing hydraulic hoses. Using a bent or kinked hose will cause severe back-pressure. Sharp bends and kinks will internally damage the hose leading to premature hose failure.



Do not drop heavy objects on hose. A sharp impact may cause internal damage to hose wire strands. Applying pressure to a damaged hose may cause it to rupture.



IMPORTANT: Do not lift hydraulic equipment by the hoses or swivel couplers. Use the carrying handle or other means of safe transport.



CAUTION: Keep hydraulic equipment away from flames and heat. Excessive heat will soften packings and seals, resulting in fluid leaks. Heat also weakens hose materials and packings. For optimum performance do not expose equipment to temperatures of 65°C [150°F] or higher. Protect hoses and cylinders from weld spatter.



DANGER: Do not handle pressurized hoses. Escaping oil under pressure can penetrate the skin, causing serious injury. If oil is injected under the skin, see a doctor immediately.



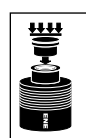
WARNING: Only use hydraulic cylinders in a coupled system. Never use a cylinder with unconnected couplers. If the cylinder becomes extremely overloaded, components can fail catastrophically causing severe personal injury.



WARNING: BE SURE SETUP IS STABLE BEFORE LIFTING LOAD. Cylinders should be placed on a flat surface that can support the load. Where applicable, use a cylinder base for added stability. Do not weld or otherwise modify the cylinder to attach a base or other support.



Avoid situations where loads are not directly centered on the cylinder plunger. Off-center loads produce considerable strain on cylinders and plungers. In addition, the load may slip or fall, causing potentially dangerous results.



Distribute the load evenly across the entire saddle surface. Always use a saddle to protect the plunger.





IMPORTANT: Hydraulic equipment must only be serviced by a qualified hydraulic technician. For repair service, contact the Authorized ENERPAC Service Center in your area. To protect your warranty, use only ENERPAC oil.





WARNING: Immediately replace worn or damaged parts by genuine ENERPAC parts. Standard grade parts will break causing personal injury and property damage. ENERPAC parts are designed to fit properly and withstand high loads.


IMPORTANT: PRELIMINARY PROCEDURE - Read all instructions carefully and completely before attempting to assemble or operate your HYDRAULIC LOAD CELL. Most malfunctions in new equipment are the result of improper operation and/or assembly.

 When using compression type load cells be sure the load covers the entire top surface of the swivel loading pad.

 Allow only trained personnel to operate the load cell.

 Your load cell is a force indicating instrument that has been electronically verified at the factory. Keep it clean. Store it in a protective container when not in use - treat it with the care you would use with any other fine instrument.

 Do not subject to shock loads as this will damage the gauge.

 Not for use in destructive testing.

3.0 INSTRUCTIONS

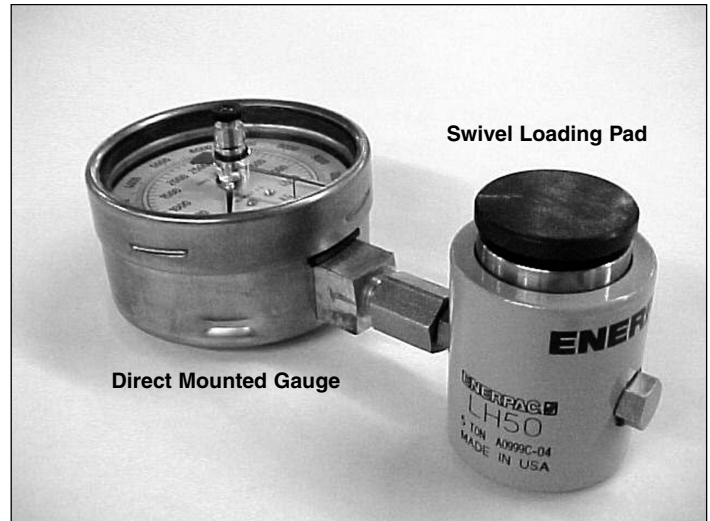
Your ENERPAC Load Cell - compression or tension type - is a self-contained hydraulically operated unit. It has been electronically verified for accuracy at the factory. Because it is a self-contained unit, **do not loosen or remove any fittings, gauges, or hoses.** Should you do this, or if a gauge is broken, or if a hose is cut, the unit will have to be sent to the ENERPAC recommended service center for repair and reverified.

ENERPAC compression type load cells are used for reading the actual loads or forces being exerted on or within your equipment. Insert the load cell where force measurement is needed and read the gauge in pounds of force. Gauges are equipped with a red maximum indicating pointer to show the maximum load. After the load is removed, the red pointer remains at the maximum load; the black pointer returns to zero. The red pointer must be reset to zero by hand.

ENERPAC tension type load cells are used for tension measuring applications such as on lift trucks, cranes, draw bars, line tensioning, pull test, etc. Gauges operate the same as described for compression type models.

Your ENERPAC load cell is a fine force measuring instrument. Treat it with the same care you would give any other fine instrument. Train your personnel in its operation. Keep it clean and free of contamination. When not in use, store in a protective container.

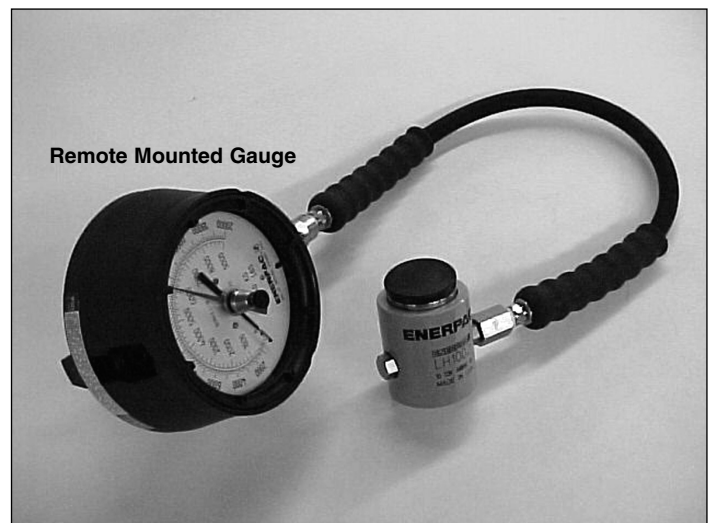
If the load cell becomes inoperative, contact ENERPAC. This load cell is verified electronically so it must be serviced only by an ENERPAC recommended service center.



Compression Style



Tension Style

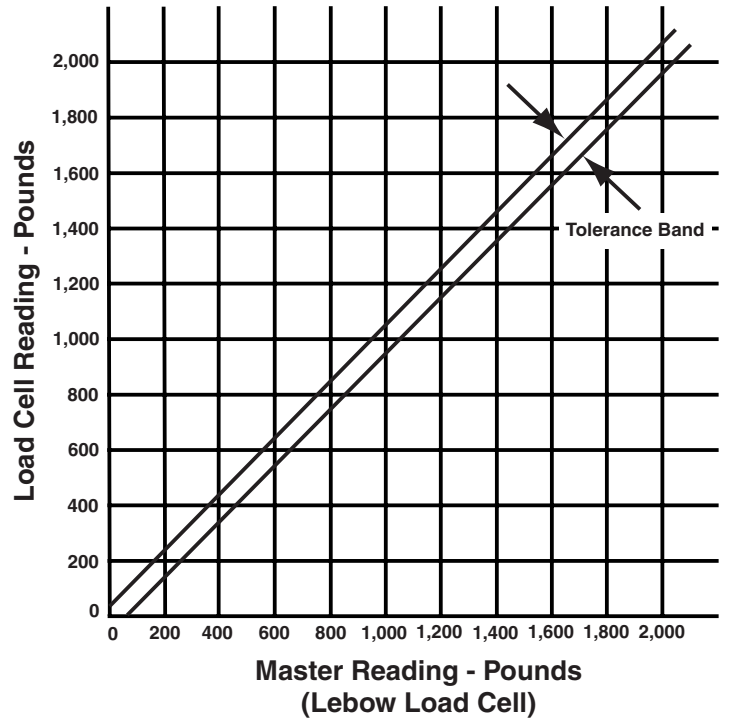


Compression Style

Model No.: _____ Serial No.: _____

Date Verified: _____ Test Gauge I.D.# _____

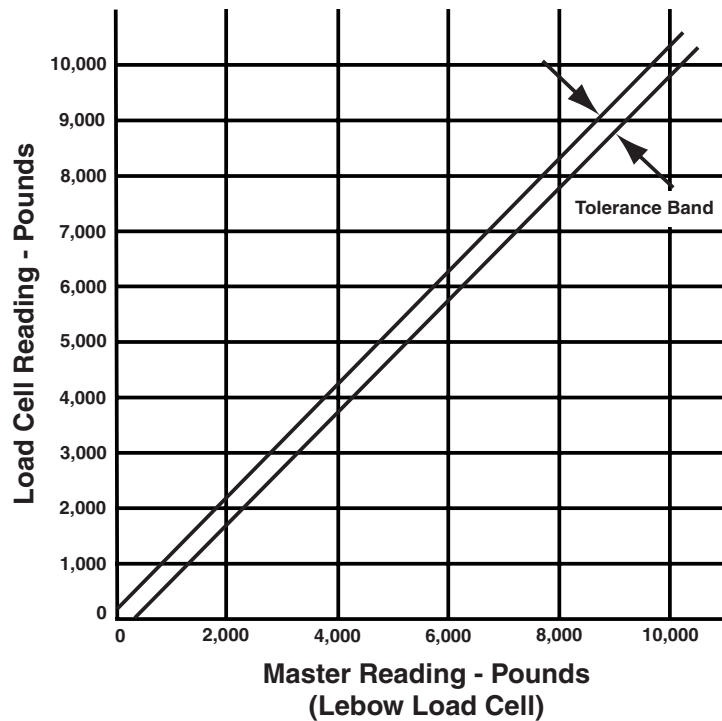
Specs for LH10, LH102, EOE2157



Model No.: _____ Serial No.: _____

Date Verified: _____ Test Gauge I.D.# _____

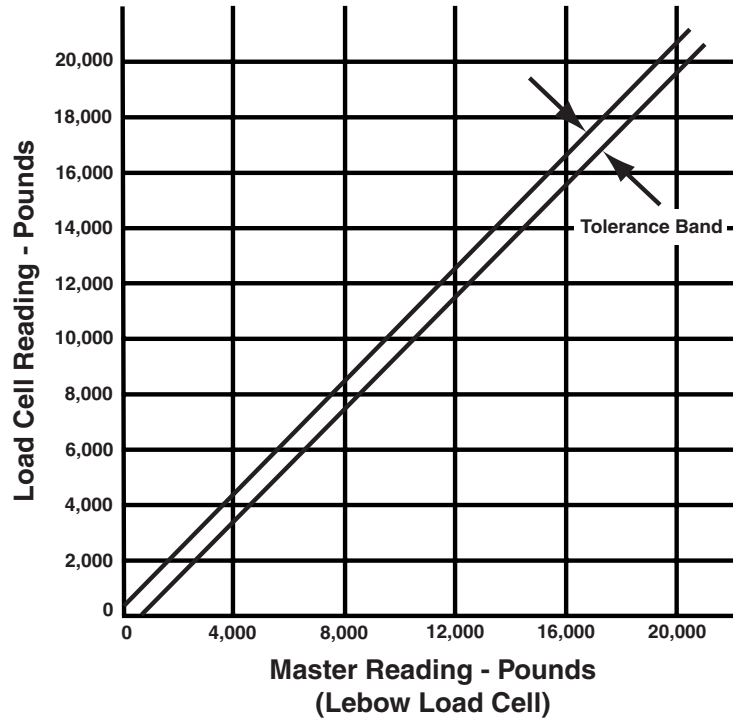
Specs for LH50 & LH502



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Date Verified: _____ Test Gauge I.D.# _____

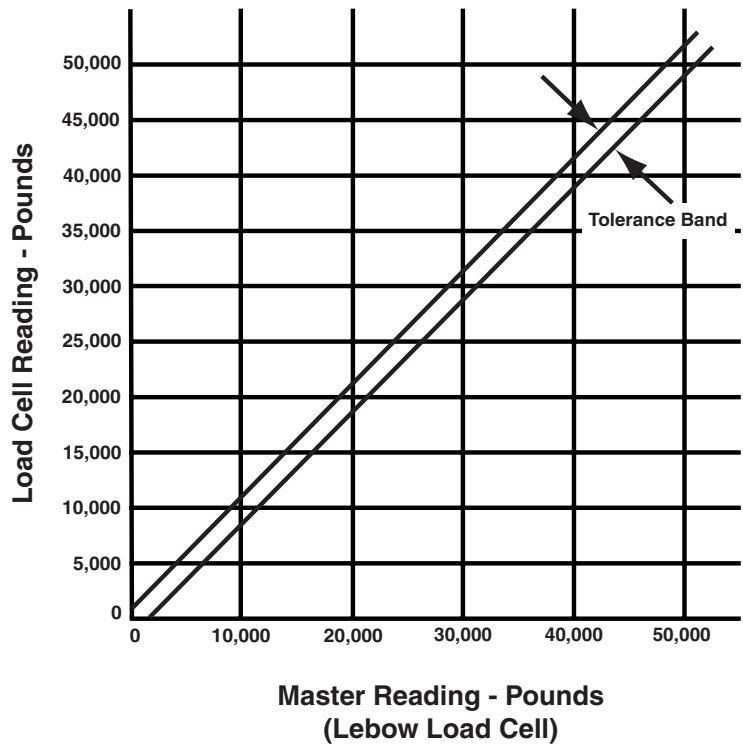
Specs for LH1002



Model No.: _____ Serial No.: _____

Date Verified: _____ Test Gauge I.D.# _____

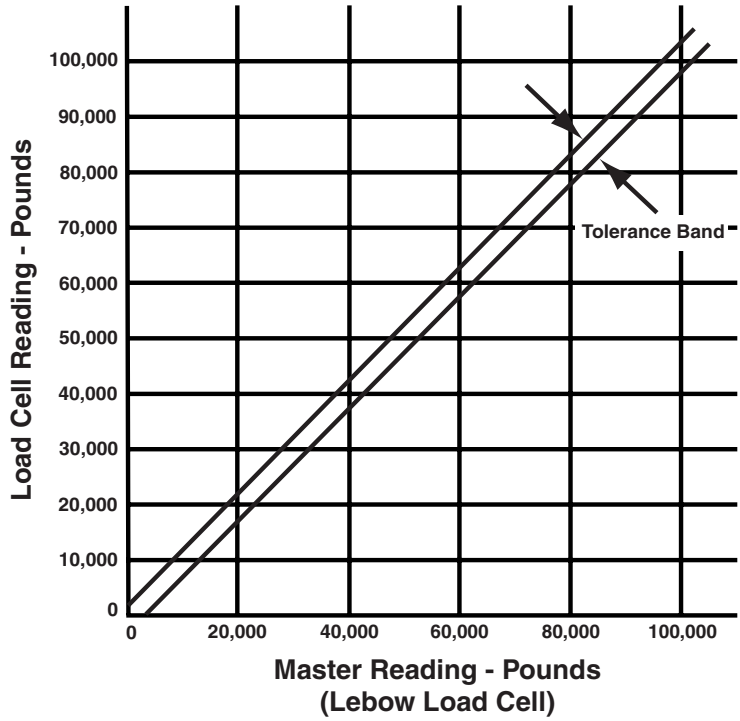
Specs for LH2506



Model No.: _____ Serial No.: _____

Date Verified: _____ Test Gauge I.D.# _____

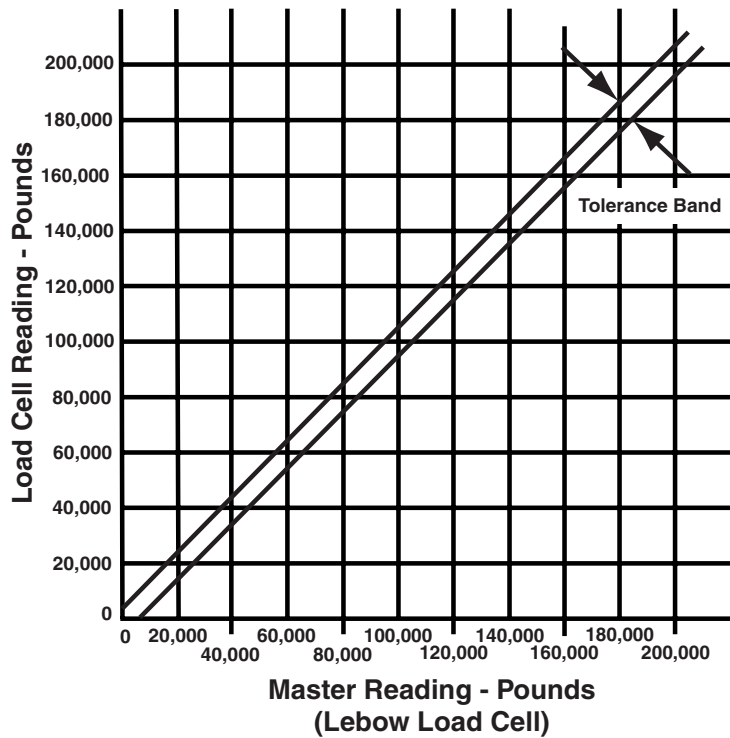
Specs for LH5006



Model No.: _____ Serial No.: _____

Date Verified: _____ Test Gauge I.D.# _____

Specs for LH10006



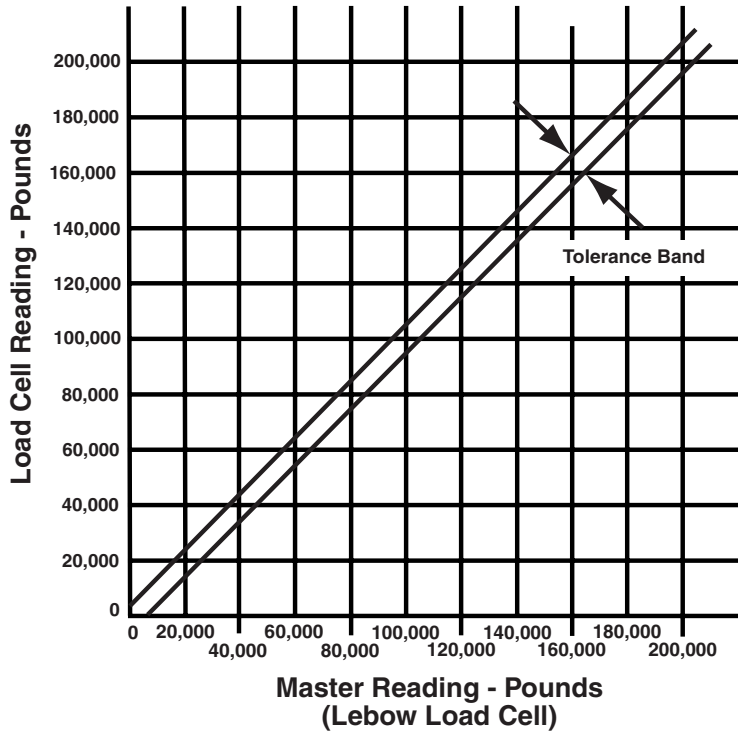
Model No.: _____

Serial No.: _____

Date Verified: _____

Test Gauge I.D.# _____

Specs for LH30006



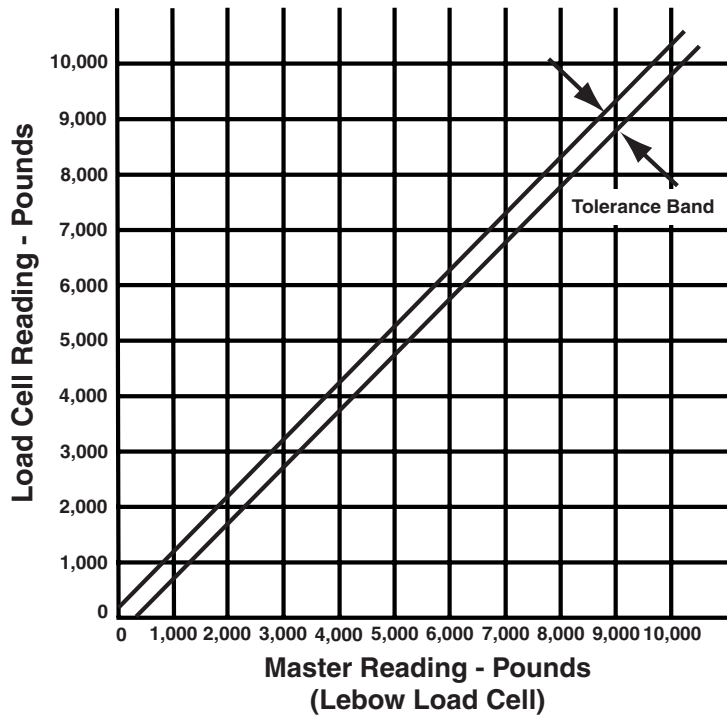
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Serial No.: _____

Date Verified: _____

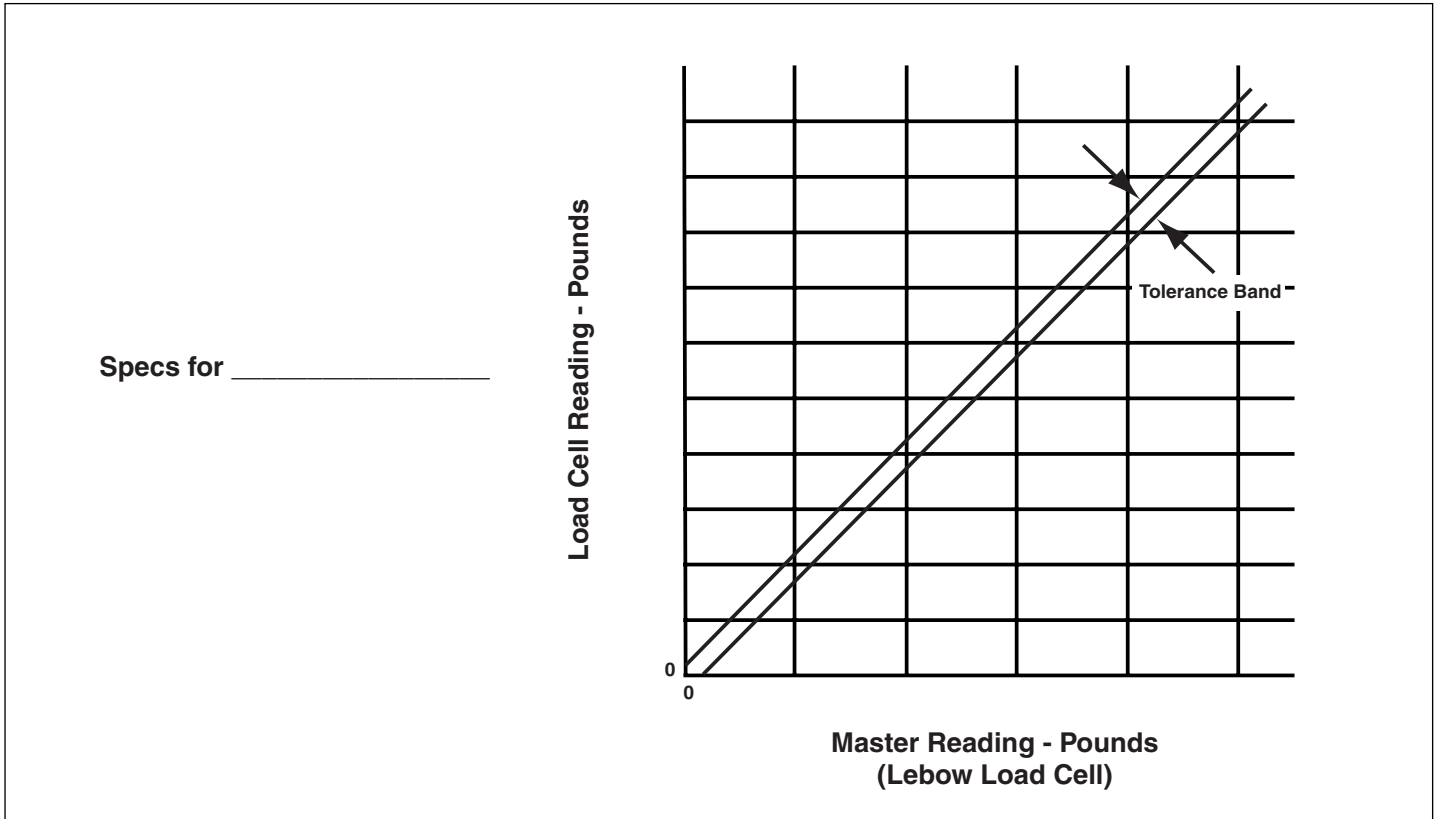
Test Gauge I.D.# _____

Specs for TM5



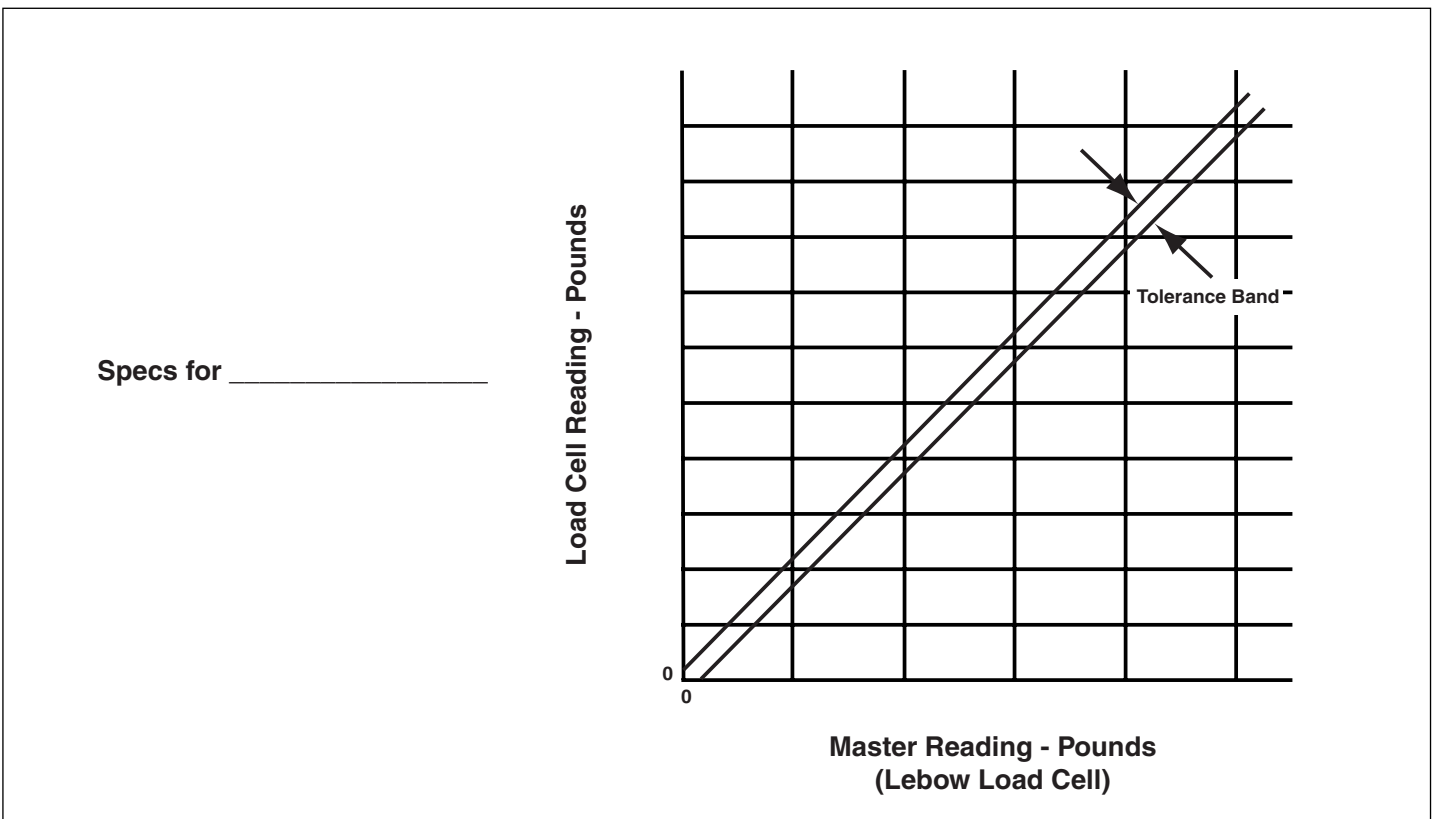
Model No.: _____ Serial No.: _____

Date Verified: _____ Test Gauge I.D.# _____



Model No.: _____ Serial No.: _____

Date Verified: _____ Test Gauge I.D.# _____



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