



# DATASHEET

LIQUID LEVEL INDICATOR FOR BULK STORAGE TANKS

## CNC 670 Series Liquid Level Indicator

### 670



#### APPLICATION

Motherwell Tank Protection (MTP) CNC 670 liquid level indicator (cat and mouse gauge) is a simple mechanical float operated unit which gives a clear visual indication of tank contents. The standard CNC 670 indicator is suitable for atmospheric tanks, low pressure tanks, or where necessary, to limit the emission of vapours, an optional 'oil seal unit' can be added, which will withstand pressures up to 8.5" wg (21.2mbar)

#### BENEFITS

- **Recommended for virtually any liquid.**
- Suitable for non-metal tanks.
- Easy and quick installation.
- Low cost maintenance.
- Adaptable for floating roof or floating deck tanks.
- Sheave housing fitted with inspection cover for ease of maintenance.

#### PRINCIPLE OF OPERATION

Operation of the CNC 670 is by means of a float which moves up and down on top of the liquid inside the tank. The float is stabilized on each side by guide wires fixed to the tank base by a bracket and tensioned at the tank roof by means of special spring anchors. A cable is connected to the float, which runs through an exit pipe on top of the tank and is directed by means of special 'sheave elbows' to the indicator on the gauge board. The standard scale on the gauge board is marked off in either meters or feet with black polythene numerals on a white background (volumetric graduations are available as an option). The standard sheave elbow is cast aluminium, housing a pulley wheel, which ensures smooth operation of the indicator. The gauge board is mounted on brackets, which can be bolted or welded to the side of the tank. The reading of the indicator denotes the tank liquid level.

#### INSTALLATION

The CNC 670 liquid indicator is supplied with a complete fixing kit that includes all necessary pipe work, fittings, brackets and full instructions. Installation requires one 60mm diameter hole in the tank roof for the float cable and two 23mm diameter holes for the guide wire top anchors. For 'out-of-service' installations the guide wires are secured to the tank bottom on brackets, which are welded in place. For 'in-service' installations an optional anchor weight can be provided to secure the guide wires. For easy access during installation and maintenance of the float it is recommended that a CNC161 Inspection hatch is installed within arms length of the float and guide wires.

#### MATERIALS OF CONSTRUCTION

Standard materials of construction are shown on the drawing overleaf. Other material options are available to suit particular applications when required.

The following options are also available with the CNC670 liquid level indicator:

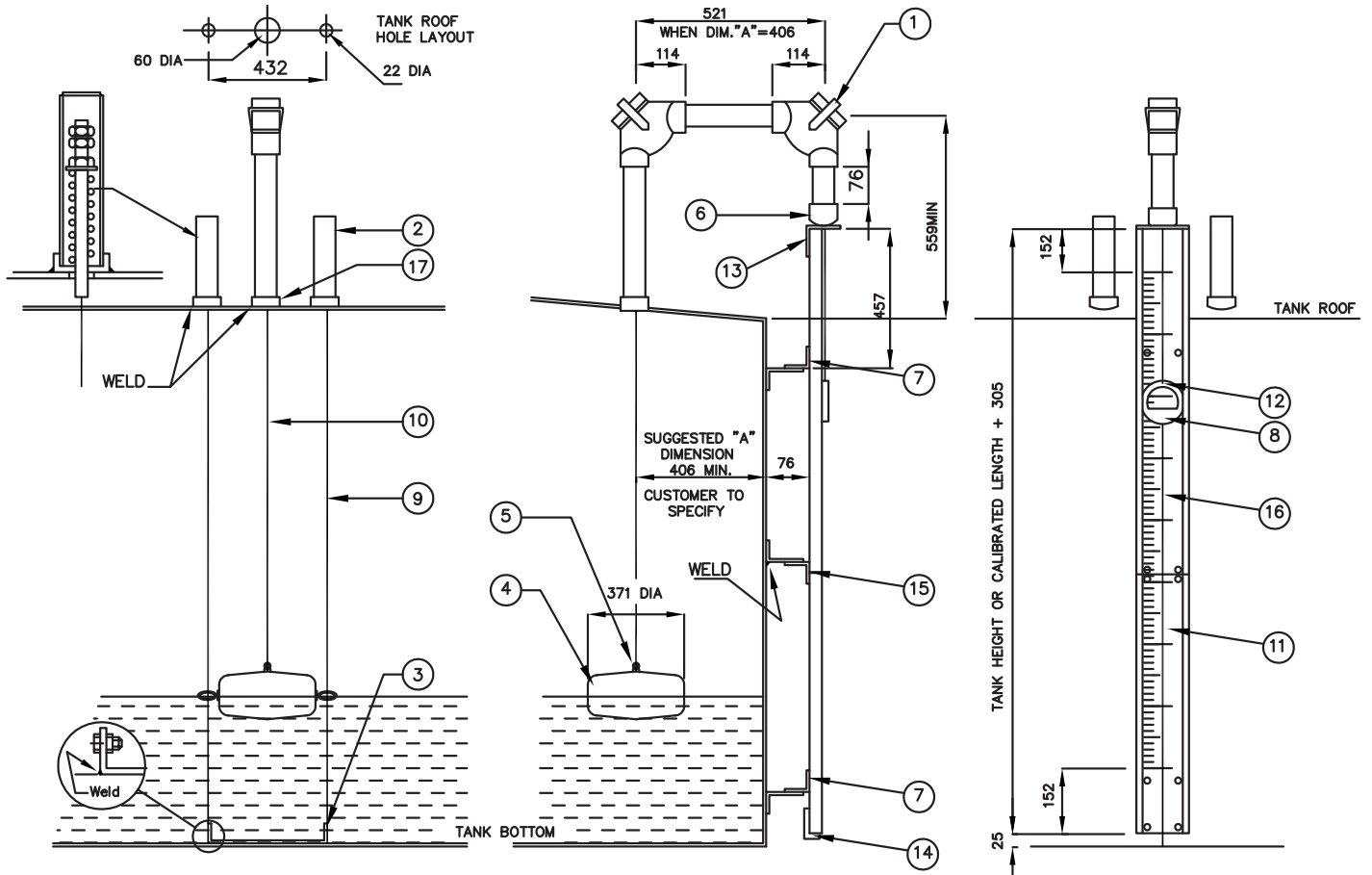
- A) Special gauge board scale
- B) Guide wire anchor weight
- C) Oil seal unit version
- D) Floating roof version
- E) Floating deck version
- F) Non-metal tank version
- G) High and low level switches
- H) Level Transmitter
- I) Level to level measurement

# SPECIFICATION

## Liquid Level Indicator For Bulk Storage Tanks

ITEM	DESCRIPTION	STD. MATERIALS
1	90° SHEAVE ELBOW	ALUM.HOUSING/ST.ST.TRIM
2	TOP GUIDEWIRE ANCHOR	STEEL
3	BOTTOM ANCHORAGE	STEEL
4	FLOAT	ST.STEEL
5	CABLE/FLOAT CONNECTION	ST.STEEL
6	TOP GAUGEBOARD CONNECTION	MALL.IRON & BRASS
7	TOP & BOT. GAUGEBOARD BRKTS	M.STEEL
8	INDICATOR & PULL CHAIN CONN.	CAST IRON & BRASS
9	FLOAT GUIDEWIRE	ST.STEEL

ITEM	DESCRIPTION	STD. MATERIALS
10	FLOAT CABLE	ST.STEEL
11	GAUGEBOARD	EXTRUDED ALUM.
12	CABLE CLAMP	ST.STEEL
13	TOP GAUGEBOARD ANGLE	M.STEEL
14	BOTTOM GAUGEBOARD ANGLE	M.STEEL
15	GAUGEBOARD JOINT BRKT.	M.STEEL
16	CHAIN	BRASS
17	1-1/2" API HALF COUPLING	M.STEEL



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