92302 Liquid Level Indicator

The Shand & Jurs Model 92302 Liquid Level Indicator is a reliable and affordable float actuated level gauging system. It is designed to provide reliable and virtually trouble-free service for installation not requiring accuracies better than ± 1 inch.

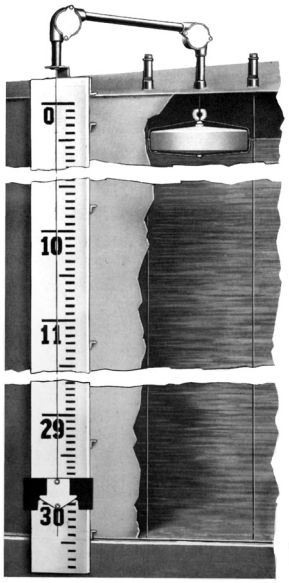
Shand & Jurs provides as standard, rugged aluminum, redwood, and 316 stainless steel indicator boards. Standard mounting hardware is steel (316 SS available). Graduations are in feet and inches or meters and decimeters, large black numerals make readout highly visible from a distance. Half or third travel indicator boards are offered for special installations, such as underground tanks. Outage (reverse reading), volumetric and custom marked boards available.

To simplify ordering and installation, Shand & Jurs provides complete installation kits. Complete kit includes float, brackets, clamps, anchor bar, target, sheaves, guide wire spring assembly, guide wire and liquid seal when required.

The choice of material selection for kits permits installation in a variety of environmental conditions. To provide a vapor tight installation and protect the gauge board from corrosive tank vapors, a standard liquid seal is available.

Shand & Jurs also offers limit switches to actuate high and low level alarms, provide pump control or other signaling functions.

The MCG 2420 Transmitter can easily couple to the Shand & Jurs 92302 Liquid Level Indicators. See L&J engineering's MCG 2420 Transmitter data sheet for more information.



Features

- Low cost and simple installation
- Accurate to ± 1 inch
- Choice of standard materials to accommodate most installations
- Extremely visible numerals and graduations
- Durable and reliable construction materials on all moving parts
- Custom marking available
- Optional electronic level gauging via the MCG 2420

Specifications:

Gauging Range
55 Feet or 16.8 Meters (Higher Available)

Operating Temperature:
-30°F to 160°F

Type of Kit Class:
Class A (Aluminum)

Materials of Construction:

Indicator Board:
Redwood, Aluminum, or 316 SS optional

Float:
316 SS (304 SS or Monel Optional)

Brackets:
Steel (316 SS Optional)

Anchor Bar:
Steel (316 SS Optional)

Float Cable:
Stainless Steel

Cable Clamp:
Stainless Steel

Target:
Steel (316SS Optional)

Sheave Assembly:

Housing and Cover:
Cast Aluminum or Nodular Iron (316 SS Optional)

Sheave:
Delrin

Bearing:
Teflon

Shaft:
Stainless Steel

Liquid Seal (Class A Only):

Housing and Cover:
Cast Aluminum

Sheave:
Delrin

Pipe:
Steel

NOTE: All 316 SS Optional

Bearing:
Teflon

Shaft:
Stainless Steel

Guide Wire Spring Assembly:

Housing Assembly:
Steel

Spring:
Steel

NOTE: All 316 SS or 304 SS Optional

Guide Wire:
Stainless Steel

Liquid Seal Installation:

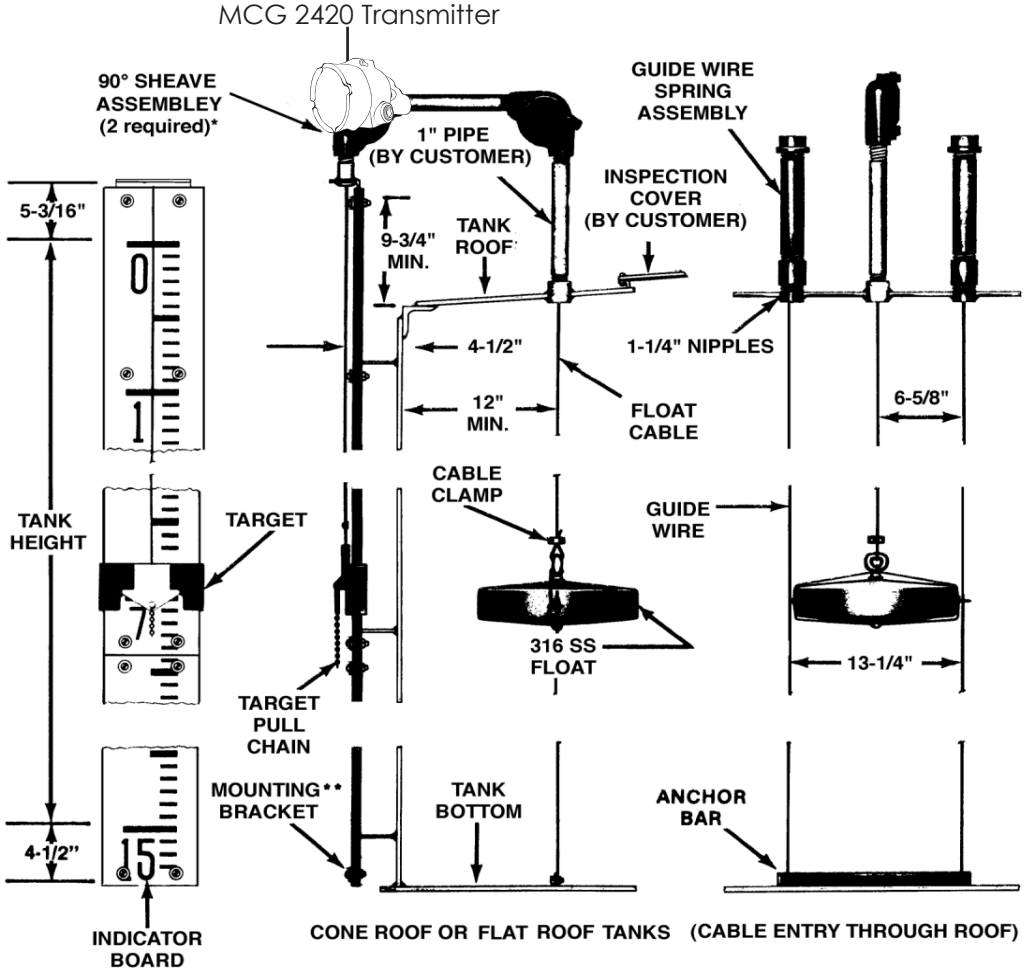
Maximum tank pressure 5 oz./sq. in.^{2} for antifreeze or 4 oz./sq. in. for medium weight oil (0.8 Sp. Gr.)

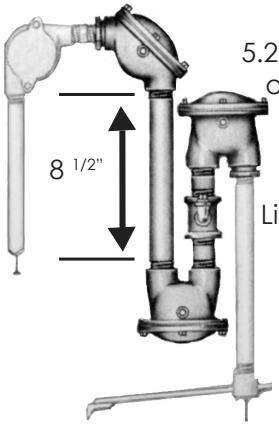
For higher tank pressures, refer to Liquid Seal Model 93603.

Additional options available. Consult Factory

Dimensions:

Shown with optional L&J engineering
MCG 2420 Transmitter





Liquid Seal

Maximum Tank Pressure
5.2 oz./sq. in.^{2} for Ethyleneglycol
or 3.9 oz./sq. in.^{2} for Medium
Weight Oil (0.8 SP. GR)

NOTES:

1. Specify Kit No. 1 (Class A) for redwood (without liquid seal).
2. Specify Kit No. 2 (Class A) for aluminum (without liquid seal).
3. Specify Kit No. 3 (Class A only) for redwood with liquid seal.***
4.

* 1 Required for Kit 3, 4
** 2 Brackets supplied per tank height
***Liquid seal body available in PVC consult factory

All designs subject to change. Certified dimensions and specifications available upon request.

92302 Ordering Guide

Model Number Selection

The model number will have a base number 92302 followed by 6 digit numbers. These digits will represent 3 sets of option tables.

92302 - AB - CD - EF

No Kit (EF) = 00

Ordering Information

Specify:

1. Model 92302 Liquid Level Indicator
2. Type of Tank
3. Type of Kit Class
4. Type of Board Materials
5. Type of Graduation
6. Tank Height

* When placing order, please specify exact tank height as well as correct option numbers.
MODEL JB3704-1 Limit Switch must be ordered separately.

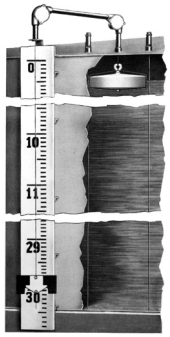


Table AB - Board Material and Calibration

Option AB	Description
08	Wood Board - Foot/Inch Calibration
09	Wood Board - Metric/Decimeter Calibration
18	Aluminum Board - Foot/Inch Calibration
19	Aluminum Board - Metric/Decimeter Calibration
28	Stainless Steel Board - Foot/Inch Calibration
29	Stainless Steel Board - Metric/Decimeter Calibration

Table CD - Tank Height (Boards with Mounting Hardware)

Option CD	Feet/Inches - Wood-Table I, Option 08	Option CD	Metric - Wood-Table I, Option 09
03	5′0″ - 7′3″	51	1.50 - 2.21 Meters
11	7′4″ - 15′3″	52	2.22 - 4.65 Meters
19	15′4″ - 23′3″	53	4.66 - 7.09 Meters
27	23′4″ - 31′3″	54	7.10 - 9.53 Meters
35	31′4″ - 39′3″	55	9.54 - 11.96 Meters
43	39′4″ - 47′3″	56	11.97 - 14.40 Meters
50	47′4″ - 55′3″	57	14.41 - 16.84 Meters
Option CD	**Feet/Inches - Aluminum-Table I, Option 18**	**Option CD**	**Metric - Aluminum- Table I, Option 19**
03	5′0″ - 7′3″	51	1.50 - 2.21 Meters
11	7′4″ - 15′3″	52	2.22 - 4.65 Meters
19	15′4″ - 23′3″	53	4.66 - 7.09 Meters
27	23′4″ - 31′3″	54	7.10 - 9.53 Meters
35	31′4″ - 39′3″	55	9.54 - 11.96 Meters
43	39′4″ - 47′3″	56	11.97 - 14.40 Meters
50	47′4″ - 55′3″	57	14.41 - 16.84 Meters
70	55′4″ - 63′3″	58	16.85 - 19.28 Meters
71	63′4″ - 71′3″	59	19.29 - 21.72 Meters
		60	21.73 - 24.16 Meters
		61	24.17 - 26.60 Meters

Table CD - Tank Height (Boards with Mounting Hardware) Cont.

Option CD	Feet/Inches - SS Table I, Option 28	Option CD	Metric - SS Table I, Option 29
03	5'0" - 7'3"	51	1.50 - 2.21 Meters
11	7'4" - 15'3"	52	2.22 - 4.65 Meters
19	15'4" - 23'3"	53	4.66 - 7.09 Meters
27	23'4" - 31'3"	54	7.10 - 9.53 Meters
35	31'4" - 39'3"	55	9.54 - 11.96 Meters
43	39'4" - 47'3"	56	11.97 - 14.40 Meters
50	47'4" - 55'3"	57	14.41 - 16.84 Meters
70	55'4" - 63'3"	58	16.85 - 19.28 Meters
71	63'4" - 71'3"	59	19.29 - 21.72 Meters
		60	21.73 - 24.16 Meters
		61	24.17 - 26.60 Meters

* Brackets for all kits Carbon Steel. Consult Factory for Stainless Steel.

Table EF - Accessory Kits

Kit No. 1 - Cone Roof Tank (Wood Gauge Board)

Description	Number Required	1A Cast Aluminum Sheave Housing
Sheave Assembly 1" - 90°	2	JB3561-1 (CA)
Float-316 Stainless Steel	1	JB3010-21
Anchor Bar	1	JA3540-3
Guide Wire Spring Assembly	2	JB3486-11
Cable Clamp	1	090142
Target	1	9230-11360
Bracket	*	509-836

* Number of brackets is determined by tank height.

Kit No. 2 - Cone Roof Tank (Metal Gauge Board)

Description	Number Required	2A Cast Aluminum Sheave Housing
Sheave Assembly 1" - 90°	2	JB3561-1 (CA)
Float-316 Stainless Steel	1	JB3010-21
Anchor Bar	1	JA3540-3
Guide Wire Spring Assembly	2	JB3486-11
Cable Clamp	1	090142
Target	1	9230-11360
Bracket	*	509-826
Intermediate Support	*	9399-18000

* Number of brackets is determined by tank height.

Kit No. 3 & 4 - Cone Roof Tank with Liquid Seal (For Maximum Tank Pressure of 4.35 oz/sq.in.)

Description	Number Required	Kit 3A Wood Board	Kit 4A Metal Board
Sheave Assembly 1" - 90°	1	JB3561-1 (CA)	JB3561-1 (CA)
Float-316 Stainless Steel	1	JB3010-21	JB3010-21
Anchor Bar	1	JA3540-3	JA3540-3
Guide Wire Spring Assembly	2	JB3486-11	JB3486-11
Cable Clamp	1	090142	090142
Target	1	9230-11360	9230-11360
Bracket	*	509-836	509-826
Intermediate Support	*	----------	9399-18000
Liquid Seal	1	JC3602-3	JC3602-3

* Number of brackets is determined by tank height.

Kit No. 5 & 6 - Cone Roof Tank with PVC Liquid Seal, Sheave & Unguided Float

(For Maximum Tank Pressure of 4.35 oz/sq.in.)

Description	Number Required	Kit 5A Wood Board	Kit 6A Metal Board
PVC Sheave Assembly 1" - 90°	1	LA276-533	LA276-533
Raft Float - PVC	1	LB290-800	LB290-800
TFE Cable Clamp	1	LA270-1007	LA270-1007
Target	1	9230-11360	9230-11360
Bracket	*	509-836	509-826
Intermediate Support	*	----------	9399-18000
PVC Liquid Seal	1	LB277-543	LB277-543
1/16" Teflon Coated Cable	As Required	117-8	117-8

* Number of brackets is determined by tank height.

Kit No. 8 - Cone Roof Tank (Metal Gauge Board) - For use with MCG 2420

Description	Number Required	8A Cast Aluminum Sheave Housing
Sheave Assembly 1" - 90°	1	JB3561-1 (CA)
Float-316 Stainless Steel	1	JB3010-21
Anchor Bar	1	JA3540-3
Guide Wire Spring Assembly	2	JB3486-11
Cable Clamp	1	90142
Target	1	9230-11360
Bracket	*	509-826
Intermediate Support	*	9399-18000
Tape	1	575-738

* Number of brackets is determined by tank height.

Special Accessory Kit Substitutions

A. Floats

Description	Part Number
304 Stainless Steel Float (11 3/4" DIA)	JB3010-7
Monel Float (11 3/4" DIA)	JB3010-4
304 Stainless Steel Foamglass Float (9"x12"x3")	JC3000-1
316 Stainless Steel 4.25 LBS	JB3010-21-4LB
Teflon Coated Float	LA290-674
* 304 Stainless Steel (11 3/4" DIA)	JB3010-8

* For asphalt service only.

B. Sheave Assemblies - 1" NPT Connections *

Description	Part Number
**All 316 Stainless Steel	JB3561-4
Aluminum Housing / 316 S.S. Wheels	JB3561-5

*All stainless steel wheels are tape/cable compatible.
** Adder is for Sheave Assemblies only. Consult Factory for 316 SS parts included in Liquid Seal

C. Anchor Bar - 13-1/4"

Description	Part Number
All 316 Stainless Steel	JA3540-4

D. Guide Wire Spring Assemblies (2 per unit required)

Description	Part Number
All 316 Stainless Steel	93486-18
All 304 Stainless Steel	93486-12

NOTE: For special systems requirements, consult factory.

Limit Switch for Liquid Level Indicator

Model Number	Description	
JB3704-1*	For Metal Gauge Board	See Product Sheet JB3704
JB3704-2**	For Wood Gauge Board	See Product Sheet JB3704

*Replaces Model 93704-1.
**Replaces Model 93704-2