## **COBES** OIL LEVEL INDICATOR

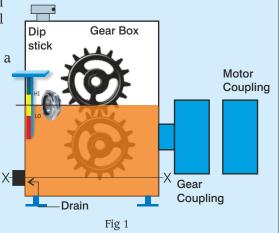


In any oil lubricated machine, especially Gear Boxes, Oil level has to be critically maintained where the two Gears MESH Ref. Fig 1.

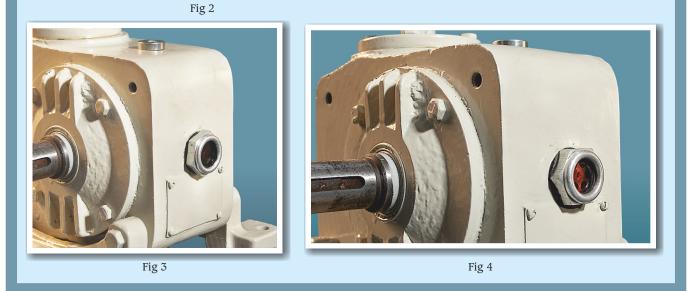
In most Gear Boxes, there is an Oil Sight Glass also called oil Window. Thelevel has to be maintained at half the oil Window/View Galss. Ref. Fig 2.

In most applications this oil view Glass gets BLACKISH after a few months. Ref. Fig.3. The oil level is No Longer Visible RESULT? TOTAL GUESS WORK. CONSEQUENCES ? PREMATURE FAILURE of **GEARS, BEARINGS**. **COST : ? A FEW THOUSAND RUPEES, PER GEAR BOX**.





**SOLUTION-1:-** Replace the existing oil sight glass/window with a New one.Ref. Fig. 4. Be prepared this will once again get blackish. More breakdowns on the way. **MOREOVER THIS IS AN ENDLESS GAME!!.** 



**SOLUTION - 2 3D OIL INDICATOR** Install a PC 3D oil level indicator by removing existing oil window Ref. Fig-5(a), 5(b), 5(c). This provides a CLEAR 360° view of oil level for years together. Just clean the external. You can always remove this during SHUT DOWN and rinse with Mild soap solution to make it give clear View. PC has excellent CLARITY, good Impact resistance, temperature stability of 120°C.



Fig 5 (b)

**SOLUTION -3**: If PC is not suitable because of High temperature, Steam, solvents and aggressive chemical Fumes, you can install a 3D Oil Level Indicator with Glass & metal protection Cage. Ref. Fig. 6, 7.



Fig 5 (a)



Fig 5 (c)



Fig 6

Fig 7



Fig 8



Fig 9

**SOLUTIONS-4**: You can always install a Tube Type Oil Indicator in the drain & mark HI/LO. Ref. Fig. 8. This level Indicator has a built in drain plug. You may need to fix a suitable Adaptor. Ref. Fig. 9. Our standard size is 1/4" BSP. Tube length is 75, 100, 150, 200, 250, 300, 400, 500mm. Tube is PC, we can give a metal cage. Ref Fig.10. On special demand we can offer Tube in Borosilicate Glass with Metal Cage.

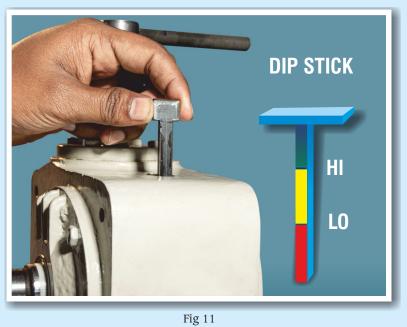


Fig 10

**DIP STICK**: The dip Stick has two markings HI – LO. Ref. Fig. 11. When Gear Box is not working Level should be at HI'. If it goes below 'LO' oil has to be Topped up.

**DIFFICULTY:** To measure oil level in the Gear Box it has to be Stopped. This is not possible in a continuous process plant. How does then one know Level of oil in Gear Box? Total Guess work Breakdowns?

**SOLUTION:** Install Tube type oil Indicator, in the drain. Proceed as per solution 4. Sometimes determining thread size is bit of a problem. Please ask for Thread Selection chart from us.



**OIL INDICATOR TYPE II** : It provides a visual on-line indication of oil level in Cooling Tower, Gear Box application. The existing GI Pipe has to be replaced by a PC Tube with a adaptor if required Ref. Fig 12. The PC Tube has level markings. You can determine HI/LO level. PC has excellent clarity; temperature range of 110°C & is unbreakable. The tube is available in various lengths from 300mm to 1000mm. 500mm is most common.

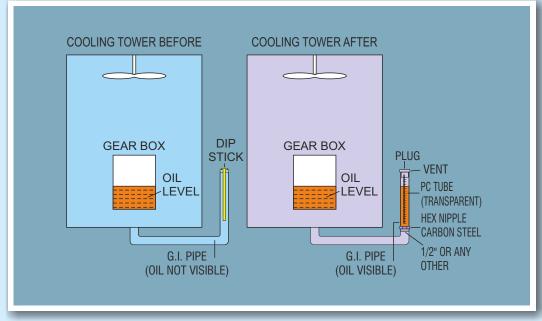


Fig 12

These also can be used in Day Tank for checking Water / Oil Level. **THESE CAN'T BE USED FOR CHEMICAL LIKE ACID**.

**COST VS BENEFITS : COST** – A few thousand Rupees for ALL GEAR BOXES in your plant. **BENEFITS** A few Lakh Rupees in terms of reduced Breakdowns, **REPLACEMENT OF GEARS/BEARINGS**, **MANPOWER COSTS, LOST PRODUCTION. COST VS BENEFIT IS SOMETIMES AS HIGH AS 1:100.** 

## **OIL INDICATOR MODEL SELECTION**

(A) OIL SIGHT GLASS/OIL WINDOW

Inch Size - 1/4", 3/8", 1/2", 3/4", 1", 1-1/4, 1.5", 2"
$\textbf{Metric Size} - M12 \ X1.5, \ M16 \ X1.5, \ M20 \ X1.5, \ M24 \ X1.5, \ M30 \ X1.5, \ M33 \ X1.5, \ M36X \ 1.5$

(B) 3D OIL INDICATOR PC/GLASS

Inch Size -	1/2" BSP	3/4" BSP	1" BSP		
Metric Size -	M12 X 1.5,	M16 X 1.5,	M20 X 1.5,	M24 X 1.5,	M30 X 1.5

## (C) TUBE TUPE

(C) TUBE TYPE – H of ELBOW 25, 50, 75, 100mm Type II 1/2", 3/4", 1"							
<b>Tube</b> - 75, 100, 150, 200, 250, 300, 400mm	<b>Tube -</b> 200, 300, 400, 500						

## (C) TUBE TUPE

Adaptor -	1/4"	Х	3/8",	1/4"	Х	1/2",	1/4"	Х	3/4",	1/4"	Х	1"
As per your requirement												

"THE DESIRE TO CHANGE HAS TO BE MUCH HIGHER THAN THE DESIRE TO REMAIN THE SAME"

