

### Description

The 51008 mechanical fuel meter has an aluminium body incorporating an inlet and outlet flange and can meter fuel accurately between 15 and 120 L/min. Featuring an oscillating plate, the meter incorporates bypasses which enable the meter to be used on different petroleum based liquids of varying viscosity's. The meter features rotational inlet/outlet for vertical or horizontal applications. The meter includes a set of resettable digits that need to be reset to zero before the meter is to be used to record its next batch reading. The meter can be supplied with a 1" BSP (f) filter, an optional extra (Part No. 51008F) or without the filter (Part No. 51008.)

### Specifications

Suitable for	Measuring the transfer of diesel, petrol and kerosene	
Flow rate	15 L/min to 120 L/min	
Maximum Pressure	3 bar (50psi)	
Weight	2.0kg	Accuracy-+1.0%
Inlet/Outlet connections	1" BSP (F)	

### Operating Instructions

- 1 Configure the meter in an orientation that suits your application i.e.: by undoing screws at the base of the meter and reorientate the meter so that the inlet and outlet of the meter suit your application.
- 2 Connect the meter inlet to the hose or fixed fitting that the product is being delivered through.
- 3 Once threads connected and completely sealed with thread tape, open the tanks on/off valve or start up the pump.
- 4 Diesel fuel, petrol or kerosene will now start to flow through to the mechanical flow meter turning over the batch recording digits and totaliser recording digits

### Important To Note:

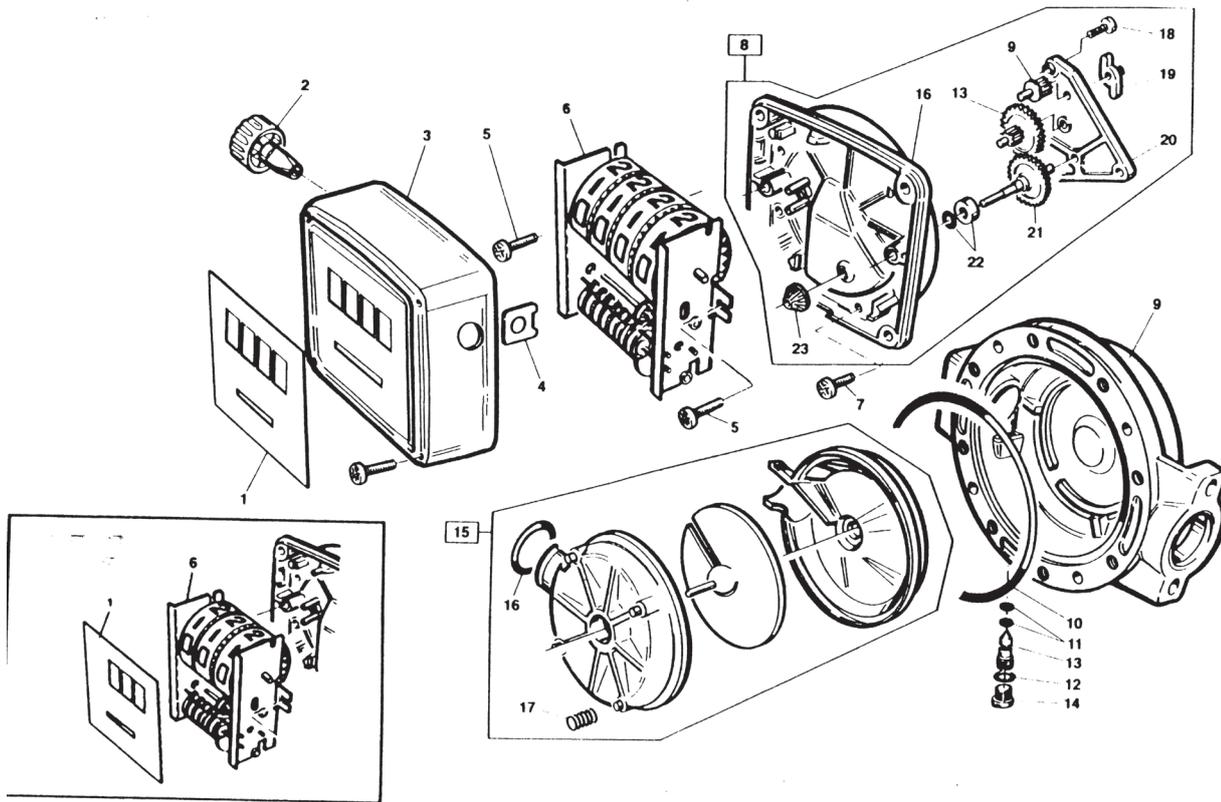
The 51008 and 51008F fuel meters are pre-calibrated in factory to be used with diesel fuel. As specific operating conditions (such as real flow rate, the viscosity and temperature of the measured fluid) may affect the meter accuracy, a recalibration should be carried out after the installation has been completed. A new calibration is necessary each time the meter is disassembled for maintenance operations or when it is used to measure fluids that differ from diesel fuel.

### Calibration Procedure

- 1 Unscrew the plug (Part No. 51008-4)
- 2 Purge the system (pump, pipelines, meter) of air by dispensing until the flow of diesel fuel is full and steady.
- 3 Stop the flow by shutting off the nozzle, but keep the pump running.
- 4 Reset the batch register by means of the reset knob (Part No. 51008-2).
- 5 Dispense at the flow rate which the best accuracy is required at, by using a calibration container having a capacity not less than 20L. Do not reduce the flow in order to reach the graduated zone of the calibration container. The right way to do this is to start and stop the flow rate repeatedly until the required filling is obtained.
- 6 Compare the indication of the calibration with the one of the meter. If the indicated value is higher than the real value, loosen the screw (Part No.51008-13) if the indicated value is lower than the real value, tighten the screw (Part No. 51008-13).
- 7 Repeat the operations 4 to 6 until accuracy is satisfactory.
- 8 Tighten the plug (Part No. 51008-14) again. The O'Ring (Part No. 51008-11) which the calibration screw is provided with has the function to avoid accidental loosening of the adjustment screw but does not facilitate any sealing function.



# Parts And Drawing Breakdown For The 51008



## Ordering Spare Parts

Parts List – Part No. 51008/51008F

ITEM NO	PART NO	DESCRIPTION	ITEM NO	PART NO	DESCRIPTION
1	51008-1	Name plate	11	51008-11	O Ring
2	51008-2	Reset knob	12	51008-12	O Ring
3	51008-3	External cover	13	51008-13	By pass adjusting screw
4	51008-4	Plug	14	51008-14	By pass plug
5	51008-5	Screw	15	51008-15	Measuring chamber
6	51008-6	Meter assembly	16	51008-16	O Ring
7	51008-7	Screw	17	51008-17	Cylinder Spring
8	51008-8	Body cover	18	51008-18	Screw
9	51008-9	Meter body	19	51008-19	Driving Lever
10	51008-10	O Ring	20	51008-20	Gear Plate
			21	51008-21	Bevel Pinion shaft
			22	51008-22	Cover Sealing Kit
			23	51008-23	Bevel Pinion

## Trouble Shooting

PROBLEM	REMEDY
Leak from the shaft gasket due to damaged gasket.	Remove the gear assembly and replace the O Ring (Part No. 51008-22) and the bush.
Insufficient accuracy due to wrong calibration.	Repeat calibration following the instructions on Page 1.
Insufficient accuracy due to soiled or blocked measuring chamber.	Clean the measuring chamber with an appropriate cleaning agent.
Insufficient accuracy due to air in the fluid.	Locate and eliminate leaks in the inlet lines.
Reduced flow rate due to a clogged or blocked measuring chamber.	Clean the measuring chamber with an appropriate cleaning agent.

NSW

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