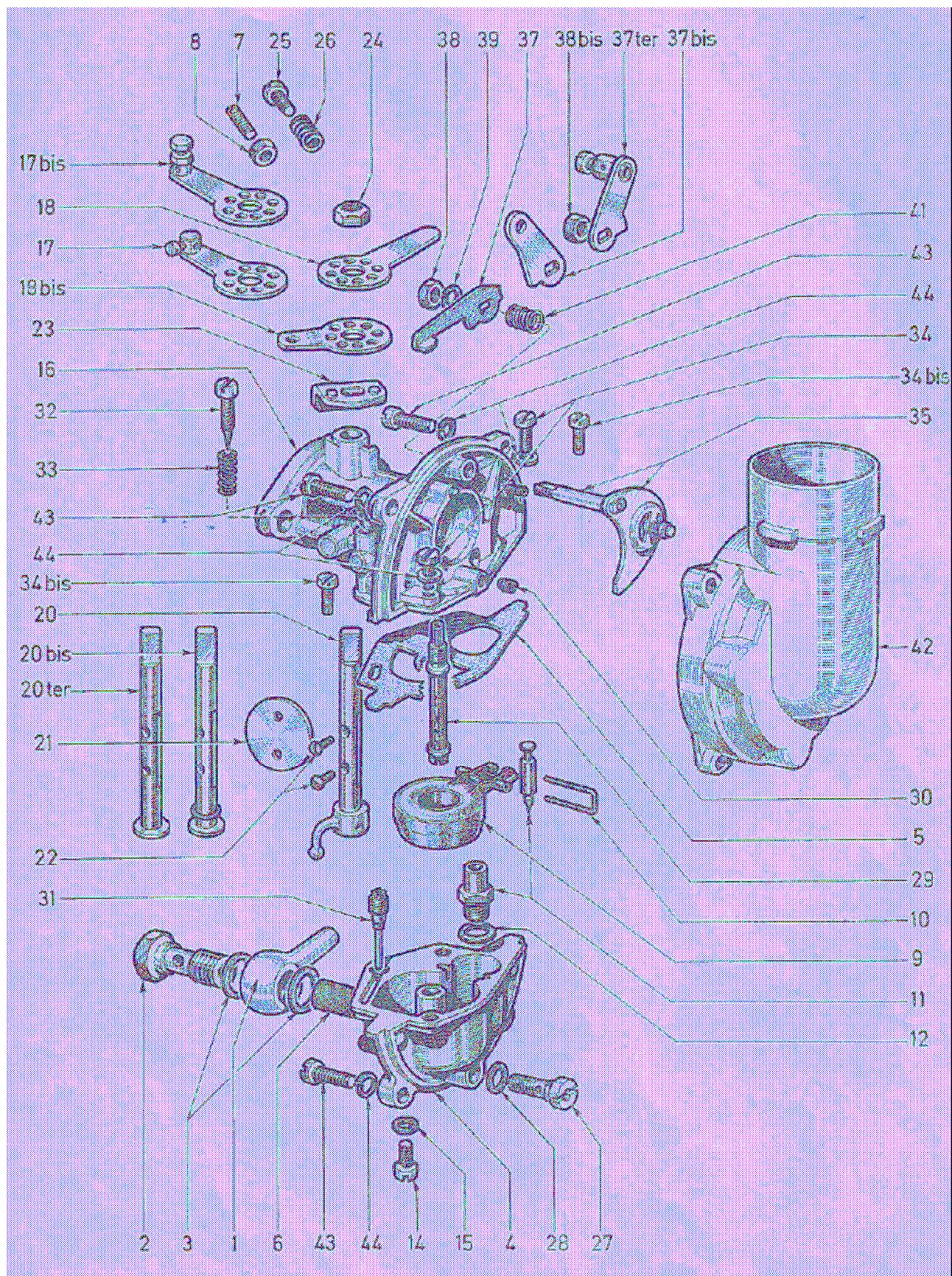


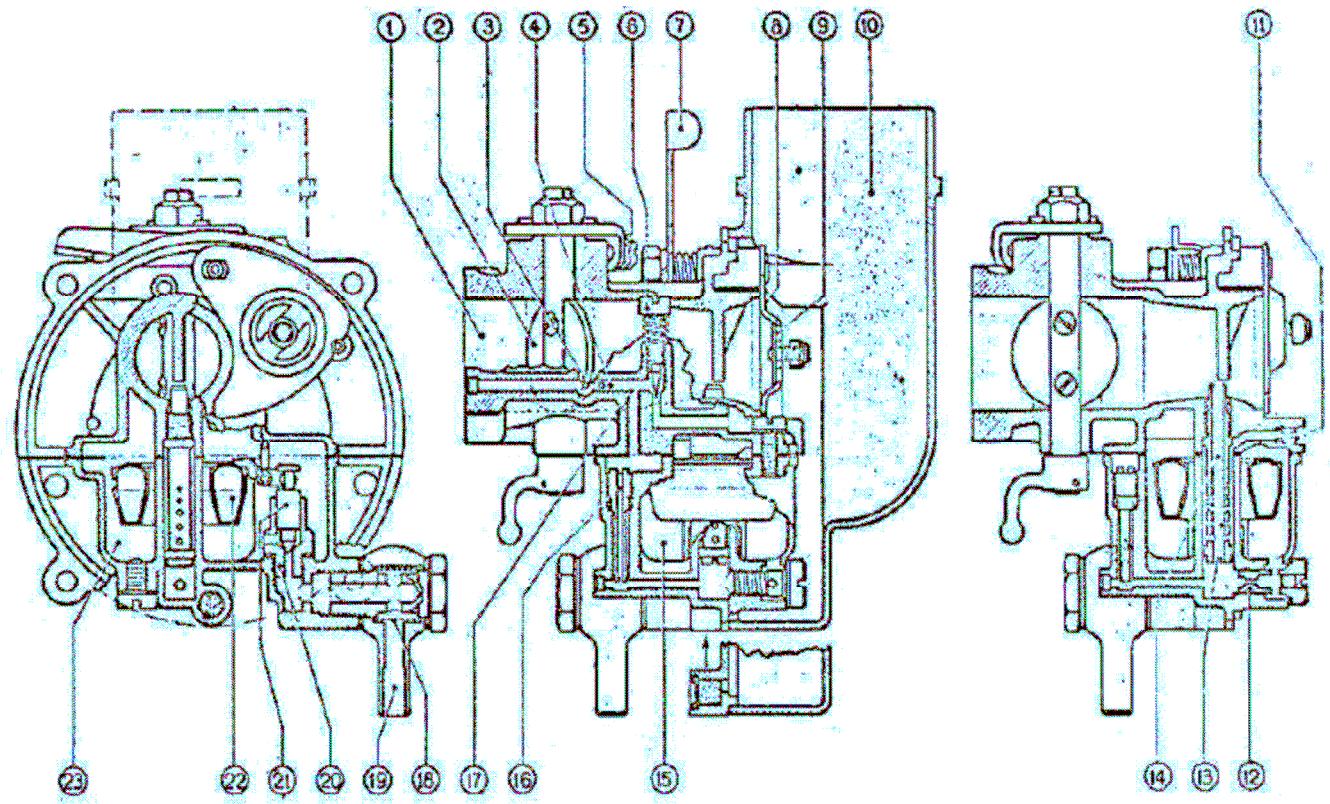
# CARBURETTOR Zenith 28RXZ

Used on Rectimo 4AR1200, Limbach L1700EA, Stark Stamo MS 1500



Exploded view

1	Raccord orientable .....
	Petrol elbow .....
2	Axe du raccord - Plug for do .....
3	Joint du raccord - Fibre washer for petrol elbow .....
4	Cuve à niveau constant .....
	Carburetter bowl .....
5	Joint entre cuve et corps papillon - Gasket bowl to throttle body .....
6	Crépine de raccord orientable - Filter gauze .....
7	Vis butée - Stop screw .....
8	Contre écrou - Nut .....
9	Floiteur - Float .....
10	Axe de flotteur - Float spindle .....
11	Siège de pointeau avec pointeau .....
	Needle and seating .....
12	Joint de siège - Seating washer .....
14	Vis de vidange de la cuve - Bowl drain screw .....
15	Joint de la vis - Screw washer .....
16	Corps principal .....
	Main body .....
17	Levier de commande du papillon - Throttle lever .....
17 bis	Levier de commande du papillon - Throttle lever .....
18	Levier de commande du papillon - Throttle lever .....
18 bis	Levier de commande du papillon - Throttle lever .....
20	Axe de papillon avec levier - Throttle spindle and lever assy .....
20 bis	Axe de papillon - Throttle spindle .....
20 ter	Axe de papillon - Throttle spindle .....
21	Papillon des gaz - Throttle .....
22	Vis fixant le papillon - Screw fixing throttle to spindle .....
23	Butée de papillon - Throttle stop lever .....
24	Ecrou fixant la butée sur l'axe - Nut .....
25	Vis de réglage de vitesse de ralenti - Throttle stop screw .....
26	Ressort de freinage de la vis - Spring for screw .....
27	Gicleur principal - Main jet .....
28	Joint du gicleur principal - Washer for main jet .....
29	Tube de sortie d'émulsion .....
	Main discharge nozzle .....
30	Gicleur air émulsion - Main air bleed .....
31	Gicleur de ralenti - Slow running jet .....
32	Vis de richesse ralenti - Slow running richness adjusting screw .....
33	Ressort de freinage de la vis - Spring for screw .....
34	Vis fixant le corps papillon sur la cuve - Screw fixing throttle body to bowl .....
34 bis	Vis de fixation freinée - Screw fixing throttle body .....
35	Volet d'air avec clapet et axe de volet - Strangler with valve and spindle .....
37	Levier de commande de volet - Strangler lever .....
37 bis	Levier de commande de volet - Strangler lever .....
37 ter	Levier de commande de volet - Strangler lever .....
38	Ecrou fixant le levier - Nut fixing lever .....
38 bis	Ecrou fixant le levier - Nut fixing lever .....
39	Rondelle de freinage de l'écrou - Spring washer .....
41	Ressort de l'axe de volet - Friction spring for strangler spindle .....
43	Vis fixant la prise d'air - Screw fixing air intake .....
42	Corps de prise d'air - Air intake .....
44	Rondelle de freinage de la vis - Washer .....



The Zenith carburettor is designed for use with industrial and agricultural engines.

The carburettor's main jet is in the centre of the base of a circular float bowl. The float and float bowl are annular, so both the carburettor and engine will continue to operate correctly at high angles of pitch and roll without the fuel level or operation being adversely affected.

The cast metal air inlet elbow (plenum) is completely sealed and fitted with an air filter to prevent the entry of dust into the main venturi, the jets or the float bowl vent.

#### **DESCRIPTION**

The carburettor is composed of a main body (1), a float bowl (23) and an air inlet elbow (plenum) (10). The main body incorporates the throttle butterfly, the choke and the atomiser (emulsion tube).

The float bowl incorporates the float and needle (float) valve mechanism.

The inlet elbow (plenum) has no moving parts.

#### **METHOD OF OPERATION**

Fuel flows through the fuel pipe banjo fitting (19), through the filter (18) and through the needle valve jet (20) into the float bowl.

The float (22) is connected to the needle valve pin, and this maintains a constant level of fuel in the float bowl.

#### **NORMAL OPERATION**

Fuel passes through the main jet (12) and flows up inside the emulsion tube (14). Air is introduced through the air jet (11), into the emulsion tube through its side holes (13) into the atomizer. The resulting air/fuel emulsion is sucked into the main venturi. The layout and size of the holes (13) automatically ensure the proper mixture for correct functioning of the engine.

## IDLING (slow running)

During slow running, fuel is sucked through the idle jet (16). This fuel is drawn into the idle mixture gallery (17) where it combines with air drawn through the slow-running mixture adjusting screw (6), to form an emulsion which is sucked into the venturi beside the throttle butterfly at the idle (3) port.

A further opening (4) ensures the right amount and quality of fuel/air mixture during the first few degrees of opening of the throttle butterfly during acceleration or under load.

## COLD STARTING

For cold starting the fuel/air mixture must be richer than during normal running with a warm engine.

This enrichment is achieved using a choke plate (8) incorporating a relief valve (9), which opens automatically under the influence of increased intake suction in the venturi.

After starting, the choke (8) should be gradually opened by operating the lever (7). When the engine has reached its optimum temperature, the choke should be in its fully open position.

## ADJUSTMENT AND MAINTENANCE

Each carburettor is supplied with the proper settings for the engine for which it is intended, so no adjustment should be necessary.

The correct idling mixture can be adjusted by setting the idling air screw. Any adjustment should be made when the engine is warm.

Loosening this screw (6) causes a weaker mixture, while tightening causes enrichment.

The throttle stop screw (5) on the throttle lever bar controls the engine's idle speed.

In principle, the carburettor should not need any maintenance, only a regular cleaning of the float bowl to remove any impurities that may occur over time.

## AIR FILTER

Engine life is influenced by good air filtration. The ZENITH Company has therefore developed specifically for their 28RXZ carburettor a paper filter element FA50 P20 with a large filtration surface.

## MISCELLANEOUS DATA (figures are metric)

Choke .....	.22
Main jet (27) on Rectimo 4AR 1200, Sauer-Rectimo 1400, Stark Stamo 1500 .....	1.25
Main air bleed (30) .....	1.00
Slow running jet (31) .....	.60
Level ..... 9 mm below top face of float chamber under a head of 30 cm fuel	
Needle valve (float) on fuel pump feed engines (Limbach and Stamo) .....	1.5
Needle valve (float) on engines without fuel pump (Rectimo) .....	2.5