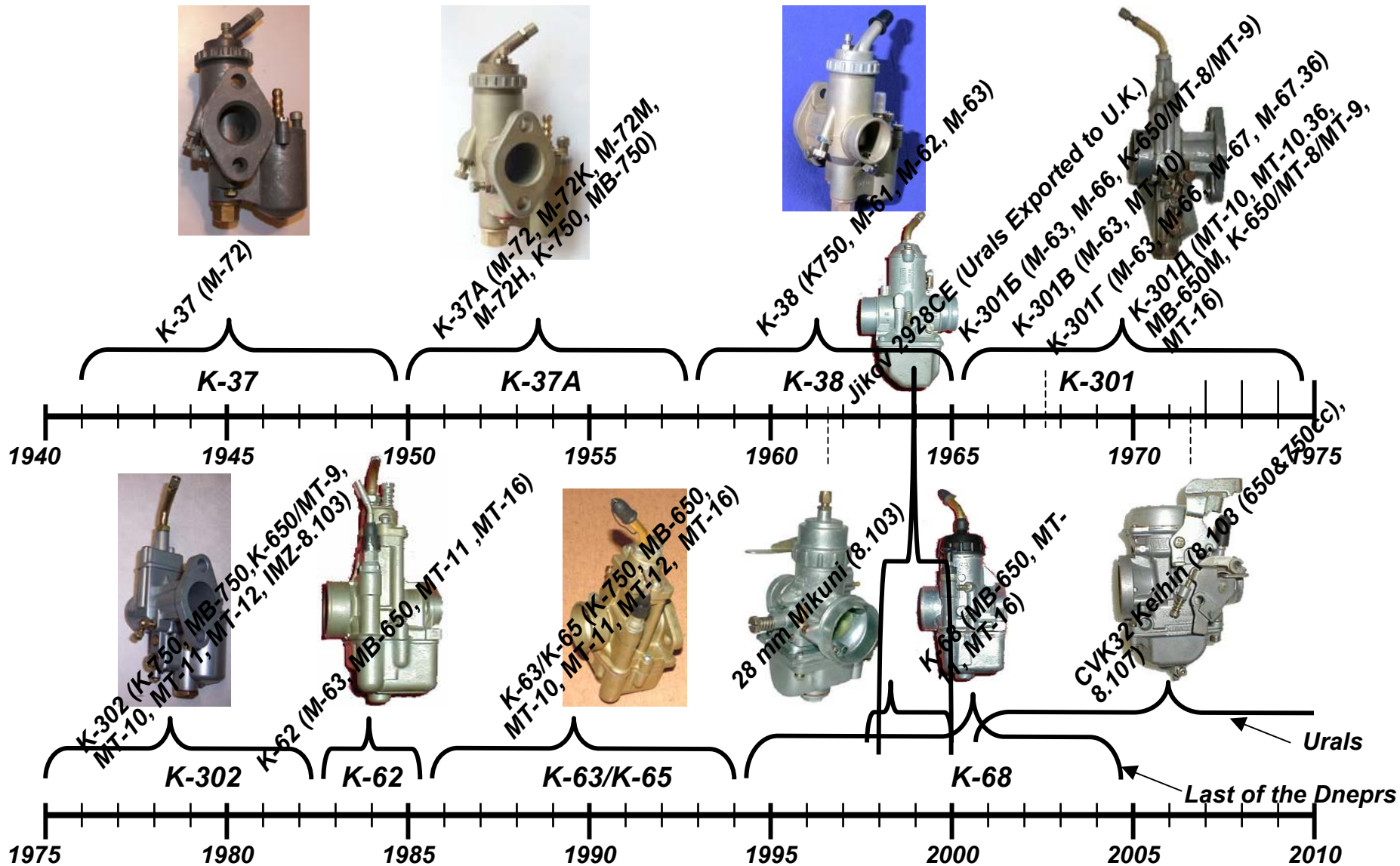


***Ural (Урал) - Dnepr (Днепр)  
Russian Motorcycle  
Carburetors  
Part 18: Identification and  
Comparative Pricing***



***Ernie Franke  
eafranke@tampabay.rr.com  
09/2010***

# Russian Carburetor Time-Line (09/2012)

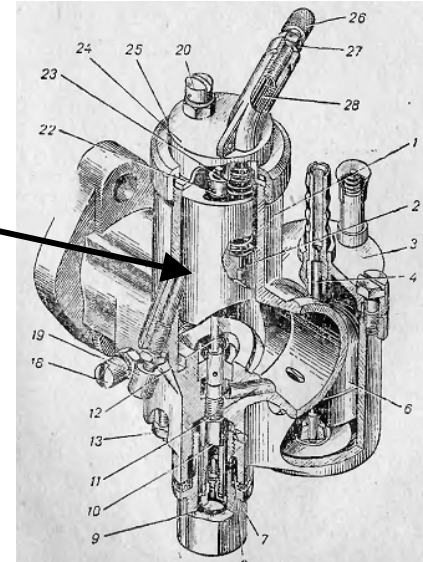


**We have seen the gradual migration of the K-37 to the K-37A and then the K-38. The K-301 went through several iterations before the K-302 came along, followed by the K-Series carburetors.**

# Characteristics: Round-Slide vs. Flat-Slide vs. Butterfly Throttle Valves

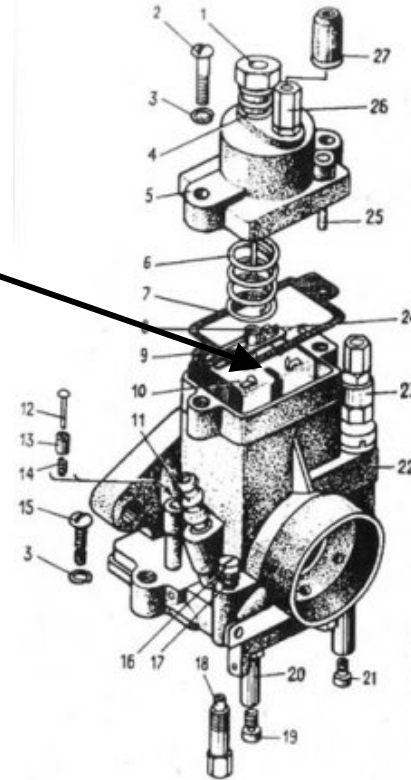
- **Round-Slide Throttle Valve**

- K-37 / K-38 / PZ-28D
- Kaptex VDC-RAM
- K-68
- Mikuni VM-28
- Jikov 2928



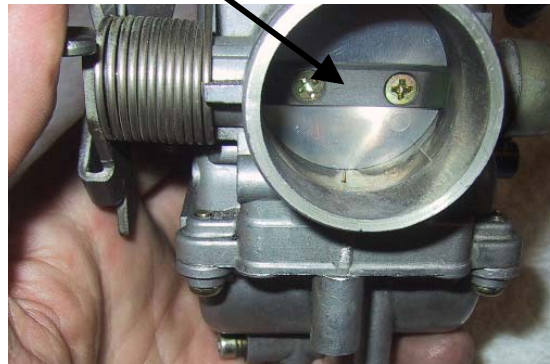
- **Flat-Slide Throttle Valve**

- K-301 / K-302
- K-62 / K-63 / K-65



- **Butterfly Throttle Valve**

- Keihin CVK32



**One term describing carburetors is round-slide, flat-slide or butterfly throttle valves.**



# ***Characteristics: Flange vs. Spigot Intake Manifold Mount***

- ***Flange-Mount***

- ***Bolts Directly on Cylinder Head or Adapter***

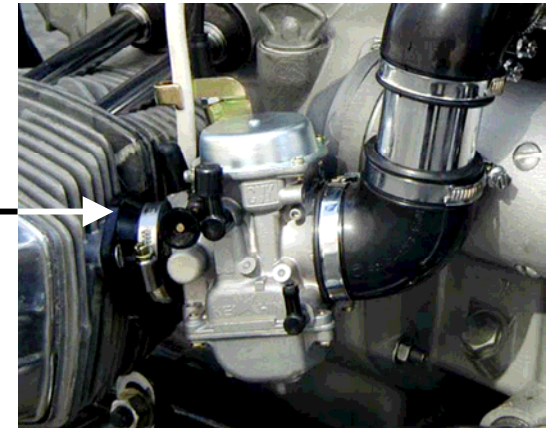
- ***K-37 / K-38 / PZ-28D***
- ***K-301 / K-302***
- ***K-62 / K-63 / K-65 / K-68***
- ***Kaptex VDC-RAM***



- ***Spigot-Mount***

- ***Rubber Compliant Mount to Cylinder Head***

- ***Mikuni VM-28***
- ***Jikov 2928CE***
- ***Keihin CVK32***



***Another term describing carburetors is flange-mount or spigot-mount.***

# Characteristics: Vertical vs. Horizontal Flange-Mount

- **Vertical Mounting Holes**

- **K-37 / K-38 / PZ-28D, K-301 / K-302**



- **Horizontal Mounting Holes**

- **K-62 / K-63 / K-65 / K-68, Kaptex VDC-RAM**



- **Transition from Vertical-to-Horizontal**

- **Used to Transition from Older K-37/38 and K-301/302 Carbs to Modern K-62 / K-65 / K-68 Carbs**

- **Adapter Plates Readily Available**



**An adapter plate is needed to upgrade older motorcycles to the modern horizontal pattern for the K-63 / K-65 / K-68 type carbs.**

# Characteristics: In-Line vs. Off-Axis Float Chamber Mount

- **Float Chamber (Bowl) Offset from Carburetor Body**
  - **Vertical vs. Slanted Float Chamber (Bowl) Mount**
    - **Vertical: K-37 / K-37A / K-38 / PZ-28D, K-301 / K-302**



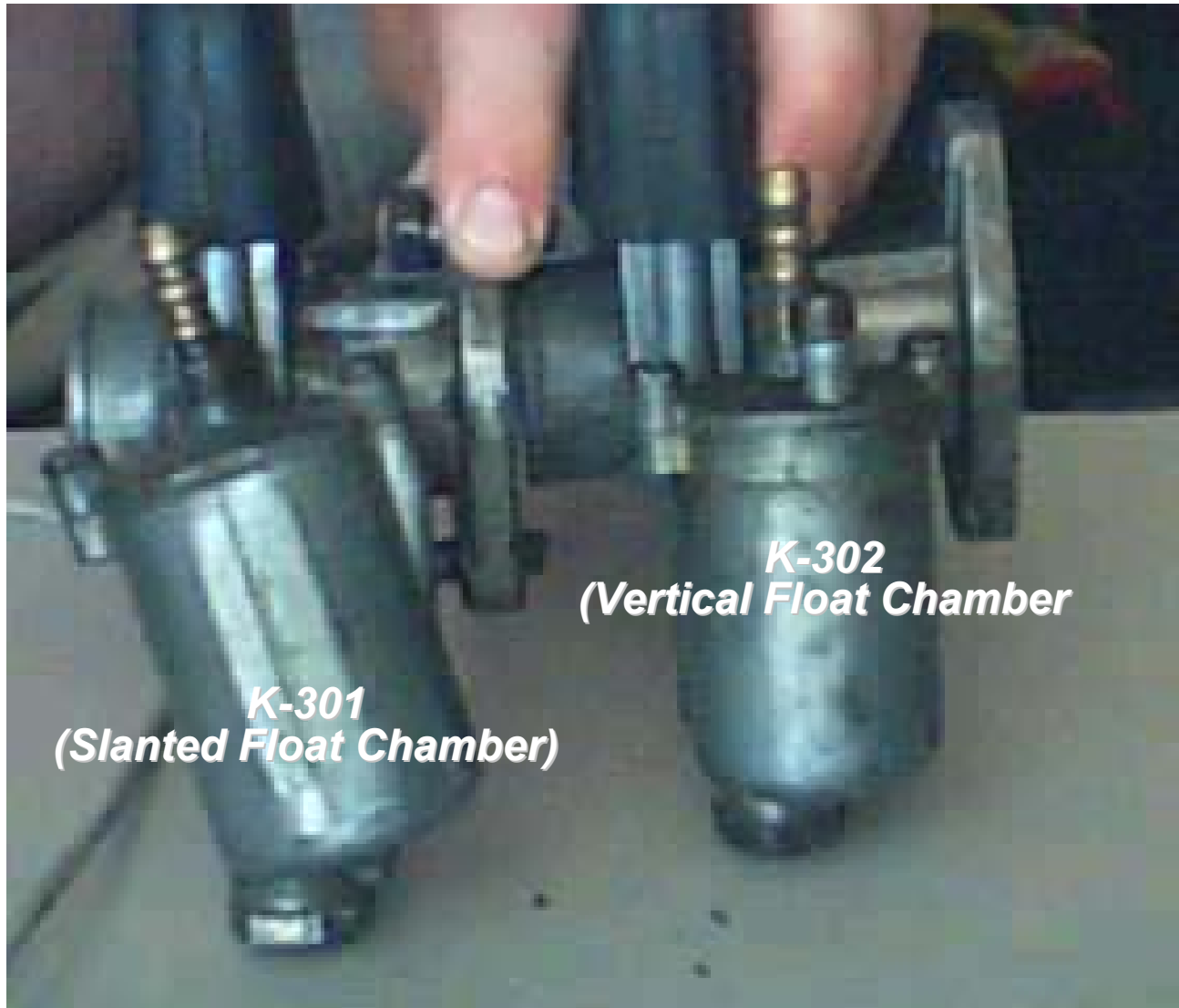
- **Float Chamber (Bowl) In-Line with Center of Carburetor Body**
  - **K-62 / K-63 / K-65 / K-68, Mikuni VM-28, Jikov 2928CE, Keihin CVK32**



**Older Russian carburetors had external float bowls, with some built on a slant, with greater foaming of the fuel under vibration.**



## ***Characteristics: Vertical vs. Slanted Float Chambers***



***The K-301, on the left, has an angled fuel bowl, compared to the later K-302 on the right.***

# Characteristics: Left-or Right-Hand vs. Similar Construction

- **Left-Hand or Right-Hand Construction (mixture-adjust on opposite sides)**
  - K-37 / PZ-28D, K-301 / K-302, K-68, Kaptex VDC-RAM (Ukrainian Copy of Pekar K-68)



- **Identical Construction (mixture-adjust on same side, top or bottom)**
  - K-62 / K-63 / K-65, Mikuni VM-28, Keihin CVK32 (L22A)



**A few Russian carburetors were built so that the mixture-adjust screw was always on the outside.**



# Carburetor List Price Comparison (\$2012)

Model	Source	Part Number	Internet Address (www.)	List Price	
				U.S. Dollars	Euros
K-37	Old Timer Garage	000.381	oldtimergarage.eu	-	199.00€ pair
PZ-28D	Moto-Boxer	id=162, Modern copies, made in China	moto-boxer.com	-	129.80€ pair
PZ-28D	Ural-Hamburg		ural-hamburg.de	-	99.00€ pair
PZ-28D Left	Ural-Zentrale	S245-Li, for SV engines	ural-zentrale.de (Germany)	-	49.50€ each
PZ-28D Right	Ural-Zentrale	S245-Re, for SV engines	ural-zentrale.de (Germany)	-	49.50€ each
PZ-28D Left	Ural-Zentrale	S245-Li-O, for OHV engines	ural-zentrale.de (Germany)	-	49.29€ each
PZ-28D Righ	Ural-Zentrale	S245-Re-O, for OHV engines	ural-zentrale.de (Germany)	-	49.29€ each
K-301	eBay	-	cgi.ebay.de	-	80.00€ each
K-301	eBay	eBay# 200508019741	cgi.ebay.de	-	59.00€ each
K-301	Arbalet-Ukraine	eBay# 370194870636	arbaletukraine@gmail.com	\$90 pair	-
K-301 Upgrade	F2 Motorcycles Ltd	F23803/301	f2motorcycles.ltd.uk	-	£130.00 pair
K-302	Ural-Hamburg	K-302	ural-hamburg.de	-	99.00€ pair
K-302	Old Timer Garage	000.379	oldtimergarage.eu	-	120.98€ pair
K-302	Old Timer Garage	003.507, id=3414, replica	oldtimergarage.eu	-	75.00€ pair
K-302	eBay	eBay# 200804036925	ebay.de		69,00 pair
K-302	Moto-Boxer	id=161	moto-boxer.com	-	89.68€ pair
K-301/ K-302	F2 Motorcycles Ltd	-	f2motorcycles.ltd.uk	-	£120.00 pair

# Carburetor List Price Comparison (\$2012)

Model	Source	Part Number	Internet Address (www.)	List Price	
				USD	EUR
K-63	eBay	-	cgi.ebay.de/2-nage	-	70.00€ pair
K65A	eBay	-	cgi.ebay.com	\$88.99 pair	-
K-65C	Minsk Parts	Pekar	minskparts.com	-	23.00€ each
K-65	Minsk Parts	(after market)	minskparts.com	-	38.00€ each
K-65	Minsk Parts	Pekar	minskparts.com	-	50.00€ each
K-65	F2 Motorcycles Ltd	Original K-65	f2motorcycles.ltd.uk	-	£120.00 pair
K-65	Ural-Zentrale	S4034	ural-zentrale.de (Germany)	-	79.99€ pair
K-65	eBay	Pekar, eBay# 200806067819	ebay.de	-	89.00€ pair
K-65	eBay	Pekar, eBay# 200801893573	ebay.co.uk	-	89.00€ pair
K-65	eBay	eBay# 200801887874, Made in China	ebay.co.uk	-	59.00€ pair
K-65T	Russian Garage	id=25	russiangularage.com	\$125 pair	104.79€ pair
K-65T	Moto-Boxer	id=152	moto-boxer.com	-	34.22€ each
K-65T	eBay	eBay# 300414689657	ebay.com	\$119.99 pair	-
K-65T	eBay	Pekar	cgi.ebay.com	\$79.00 pair	-

# Carburetor List Price Comparison (\$2012)

Model	Source	Part Number	Internet Address (www.)	List Price	
				USD	EUR
K-68 Left	Ural-Zentrale	S113-Li	ural-zentrale.de (Germany)	-	42.99€ each
K-68 Right	Ural-Zentrale	S113-Re	ural-zentrale.de	-	43.99€ each
K-68	Ural-Zentrale	S113-LiRe	ural-zentrale.de	-	79.99€ pair
K-68	mastersss	eBay# 370348056074	cgi.ebay.com	\$39.99 each	-
K-68	eBay	Pekar, eBay# 200804428622	ebay.co.uk	-	89.00€ pair
K-68	Ural-Hamburg	1031	ural-hamburg.de	-	90.00€ pair
K-68	Moto-Boxer	id=159, Copies of original Pekar K-68	moto-boxer.com	-	69.62€ pair
K-68	Minsk Parts	Pekar	minskparts.com	-	70.00€ each
K-68	eBay		cgi.ebay.at	-	60.00€ each
K-68	Old Timer Garage	000.378, id=1133	oldtimergarage.eu	-	95.78€ pair
K-68	eBay	Pekar	cgi.ebay.com	\$99.98 pair	-
K-68	Mastersss	-	cgi.ebay.com	\$77.99 pair	-
K-68	eBay	-	cgi.ebay.com	\$79.00 pair	-
K-68	eBay	Pekar, eBay# 190384810681	cgi.ebay.com	\$78.00 pair	-
K-68	Moto-Boxer	Pekar, id=158	moto-boxer.com	-	130.98€ pair
K-68	Arbalet-Ukraine	PEKAR, eBay# 370194862300	arbaletukraine@gmail.com	\$80.00 pair	-
K-68	eBay	Pekar, eBay# 160561225593	ebay.co.uk	\$115.00 pair	-
K-68Y (U)	eBay	eBay# 300414701424	ebay.com	\$119.99 pair	-
K-68Y (U)	eBay	eBay# 300567916835	ebay.com	\$134.95 pair	-
K-68Y (U)	Russian Garage	id=24	russiangerage.com	\$125.00 pair	104.79€ pair
K-68Y (U)	eBay	eBay# 370355784138	ebay.com	\$75.99 pair	-



# Carburetor List Price Comparison (\$2012)

Model	Source	Part Number	Internet Address (www.)	List Price	
				USD	EUR
Jikov	eBay	Carb for Jawa 638 / 639 / 640	www.ebay.com	\$75.60 each	-
Keihin	SovMotCentr (Czech)	IMZ-8.128-15001	shop.ural.cz	\$318 each	257.00€
Keihin	Ural-Europa	IMZ-8.128-15001	www.ural-europa.com	-	285.60€
Keihin	Northsiders (Belgium)	IMZ-8.128-15001	www.northsiders.be	-	268.80€
Keihin	Ural Motors (Hungary)	IMZ-8.128-15001	www.uralmotor.hu	-	220.50€
Keihin	Ural mootorrattad	IMZ-8.128-15001	ural.ee	-	240.00€
Keihin	Classic Bike Esprit	IMZ-8.128-15001	www.jebike.com	-	253.00€
Keihin	Pacific Northwest Motorcycles	IMZ-8.128-15001	uralnwco.ipower.com	\$350 each	
Keihin	Kottwitz Werke Inc	IMZ-8.128-15001	www.ural.ca	\$423 each	-

***In actuality, the prices are listed to merely give you a hint a how much it might cost!***

***I would strongly suggest giving your favorite local Ural dealer a call for a price on a Keihin L22A.***

# Observations

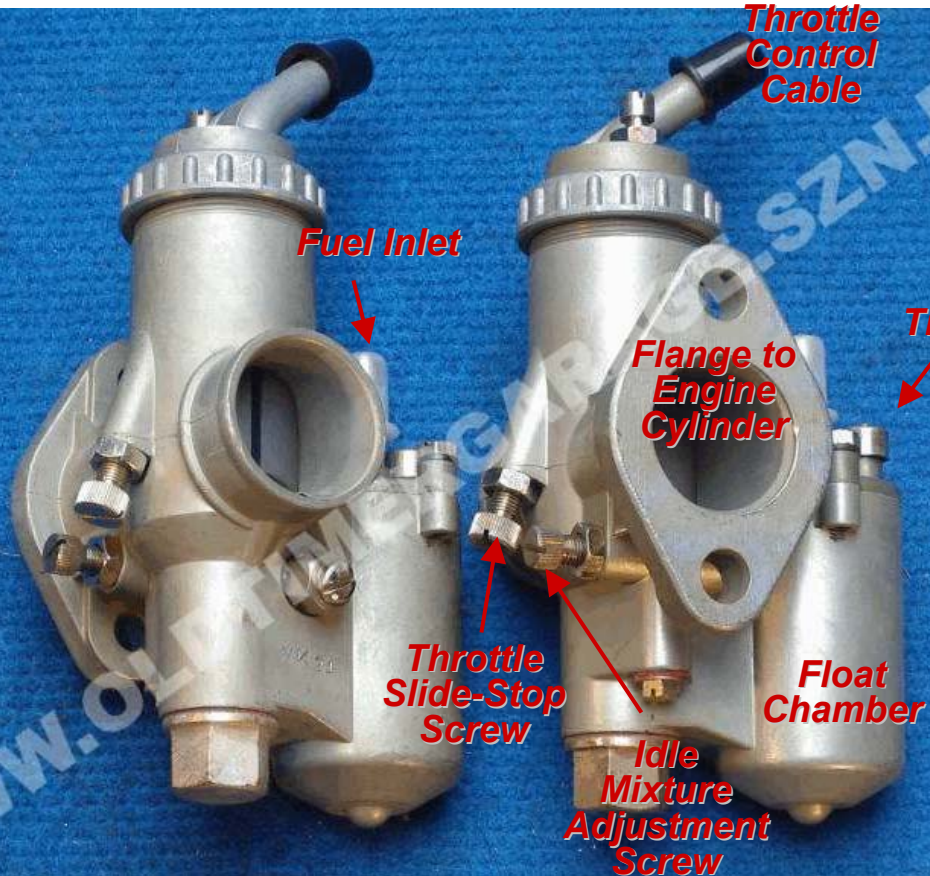
- **Most Carburetors Sold in Pairs**
- **Certain Carburetors Are Side-Specific**
  - **Mixture Control Always Remains on Outside**
    - **K-37/K-37A/PZ-28D, K-301/K-302, Kaptex VDC-RAM** (Ukrainian Copy of Pekar K-68), **K-68**
- **Replica Carburetors (Chinese Knock-Offs) Cost Less**
  - **Pekar K-65: 89€ pair, Chinese K-65: 59€ pair**
  - **Pekar K-68: 131€ pair, Copy of K-68: 70€ pair**
- **As the Age Increases, Availability Decreases**
  - **Many Carbs Have Been Replaced with Better Performing Devices**
    - **K-62/K-63/K-65/K-68 Replaced the K-301/K-302**
    - **Jikov 2928CE Fitted on 1998-to-2000 Urals Exported to United Kingdom (650cc) to Replace Dreadful K-301**
    - **Mikuni VM-28 Replaced K-68 in 1998 to Meet U.S. EPA Requirements**
  - **Most Russian Carburetors Are No Longer Produced**
    - **K-37/PZ-28D, K-301/K-302, K-62/K-63, Jikov 2928CE, Kaptex VDC-RAM** (Ukrainian Copy of Pekar K-68), **Mikuni VM-28**
- **Many of the Carburetors Were Limited in Production and Thus Not Widely Available Today**
  - **K-62/K-63, Jikov 2928CE, Kaptex VDC-RAM, Mikuni VM-28**
  - **Current Carburetors (Keihin) Have Been Used for Several Years and Thus Will Be Available Even After Production Ceases**
    - **Ural Introduced Keihin L22A (CVK32) in 2000**
- **Individual Carburetor Components and Repair / Re-Build Kits Are Readily Available over the Internet**
  - **See Ural (Урал) - Днепр (Днепр) Russian Motorcycle Part 14: Carburetor Repair / Re-Build Kits**

# ***Suggested Websites for Russian Motorcycle Accessories***

<b>Vendor</b>	<b>Internet Address</b>
<b>Ural Northwest</b>	<b><a href="http://www.uralnw.com">www.uralnw.com</a></b>
<b>Old Timer Garage</b>	<b><a href="http://www.oldtimergarage.eu">www.oldtimergarage.eu</a></b>
<b>Russian Garage</b>	<b><a href="http://www.russiagarage.com">www.russiagarage.com</a></b>
<b>Blitzbikes</b>	<b><a href="http://www.blitzbikes.com">www.blitzbikes.com</a></b>
<b>Ural-Hamburg</b>	<b><a href="http://www.ural-hamburg.de">www.ural-hamburg.de</a></b>
<b>Kottwitz Werke Inc (URAL Sidecar Motorcycles)</b>	<b><a href="http://www.ural.ca">www.ural.ca</a></b>
<b>Ural-Zentrale (Germany)</b>	<b><a href="http://www.ural-zentrale.de">www.ural-zentrale.de</a></b>
<b>F2 Motorcycles Ltd</b>	<b><a href="http://www.f2motorcycles.ltd.uk">www.f2motorcycles.ltd.uk</a></b>
<b>Ural Slovensko</b>	<b><a href="http://www.ural.sk">www.ural.sk</a></b>
<b>Minsk Parts</b>	<b><a href="http://www.minskparts.com">www.minskparts.com</a></b>
<b>Holopaw Corvette</b>	<b><a href="http://holopawcorvette.webpointusa.com">http://holopawcorvette.webpointusa.com</a></b>
<b>Wagner's Cycle Shop</b>	<b><a href="http://www.wagnerscycle.com">http://www.wagnerscycle.com</a></b>
<b>Raceway Services</b>	<b><a href="http://www.racewayservices.com">www.racewayservices.com</a></b>
<b>Oü Magnus Henriksson</b>	<b><a href="http://www.henriksson.ee">www.henriksson.ee</a></b>
<b>Heindl Engineering</b>	<b><a href="http://www.heindlengineering.com">www.heindlengineering.com</a></b>
<b>Ural Hungary</b>	<b><a href="http://ural.hu/www/index.php">http://ural.hu/www/index.php</a></b>
<b>Russian Spares</b>	<b><a href="http://www.russianspares.com">www.russianspares.com</a></b>
<b>Crawford Sales Company</b>	<b><a href="http://www.crawfordsales.info">http://www.crawfordsales.info</a></b>
<b>Moto-Boxer</b>	<b><a href="http://moto-boxer.com">http://moto-boxer.com</a></b>
<b>Forums</b>	<b>Internet Address</b>
<b>Russian Iron Board</b>	<b><a href="http://www.russianiron.com">www.russianiron.com</a></b>
<b>Soviet Steeds</b>	<b><a href="http://www.sovietsteeds.com">www.sovietsteeds.com</a></b>
<b>Russian Bike</b>	<b><a href="http://www.russianbike.co.uk">www.russianbike.co.uk</a></b>
<b>CossackPower (b-Cozz)</b>	<b><a href="http://www.bcozz.multiply.com">www.bcozz.multiply.com</a></b>



# K-37 Carburetor



**Round-Slide Throttle Valve  
Off-Axis Float Chamber  
Left-Hand and Right-Hand Versions  
Vertical Float Chamber**

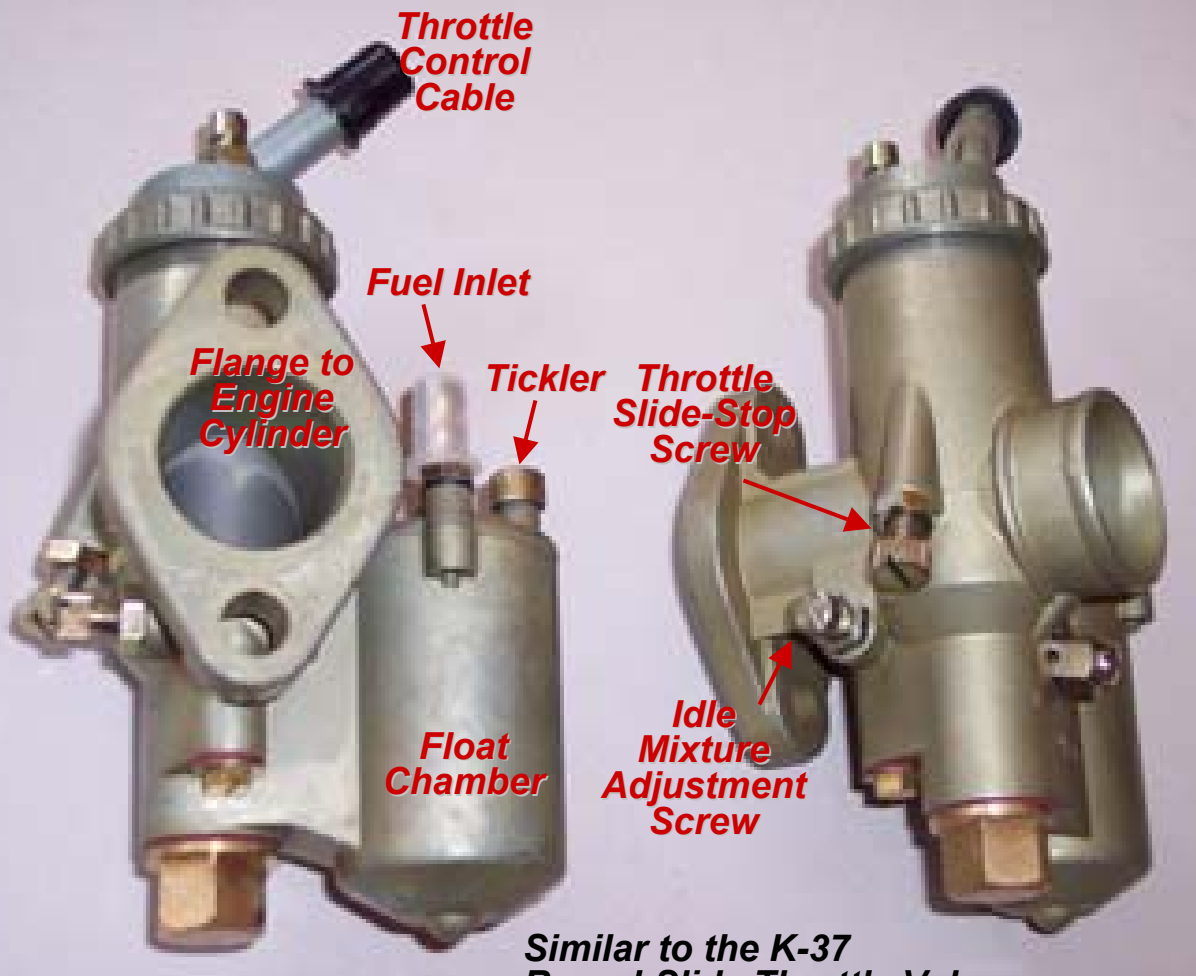
# ***K-37 Carburetor***



***K-37's come in left- and right-side, mirror-images.***



# PZ-28D Carburetor



*Similar to the K-37  
Round-Slide Throttle Valve  
Off-Axis Float Chamber  
Left-Hand and Right-Hand Versions  
Vertical Float Chamber*



*Carburetor Graetzin 24 mm*

**The PZ-28D is a replica of the Graetzin carburetor, which was fitted to the BMW R71 of 1938. Since 1941, this carb was produced as K-37 for the Russian M72.**



# Modern Copies of PZ-28D Carburetor (made in China)

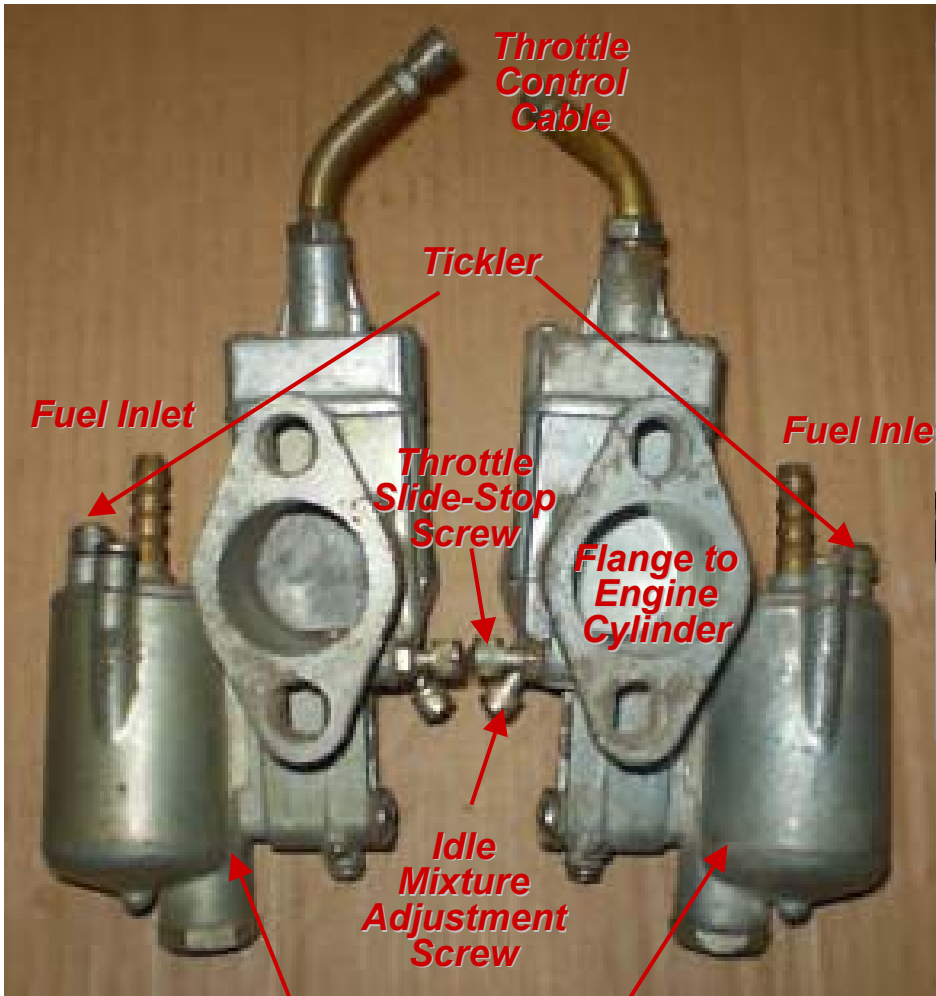


**Tickler**

**Flange to Engine Cylinder**



# K-301 Carburetors



*Flat-Slide Throttle Valve  
Off-Axis Float Chamber  
Left-Hand and Right-Hand Vers.  
Slanted Float Chamber*



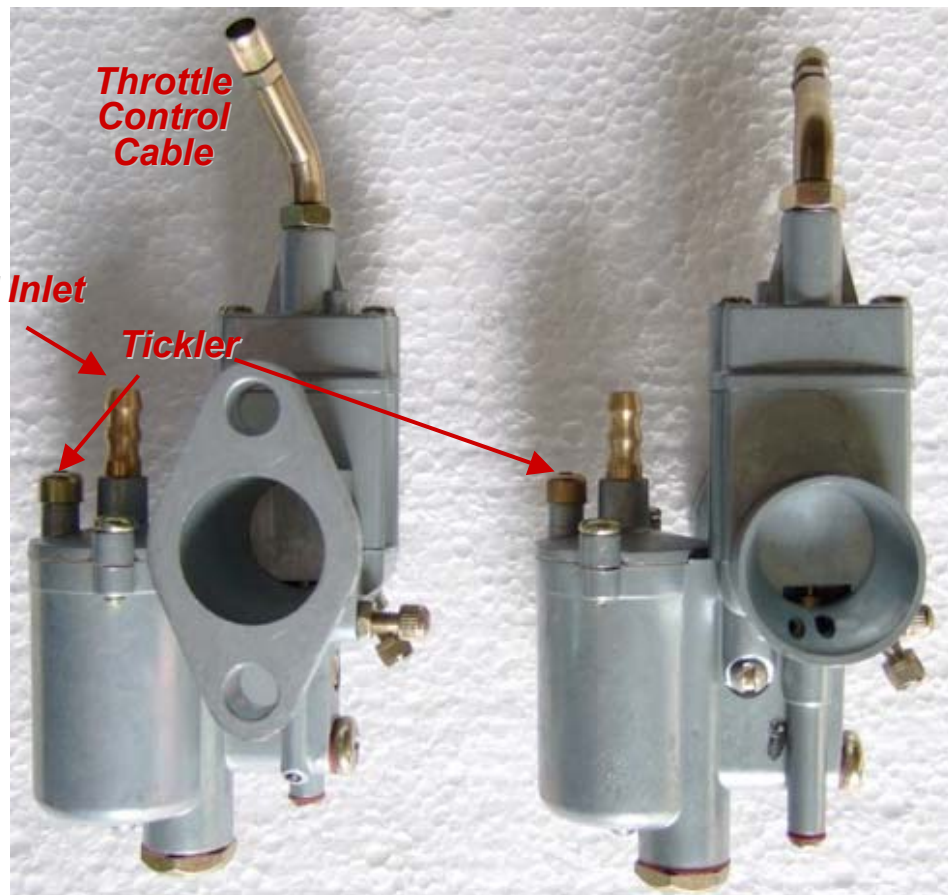
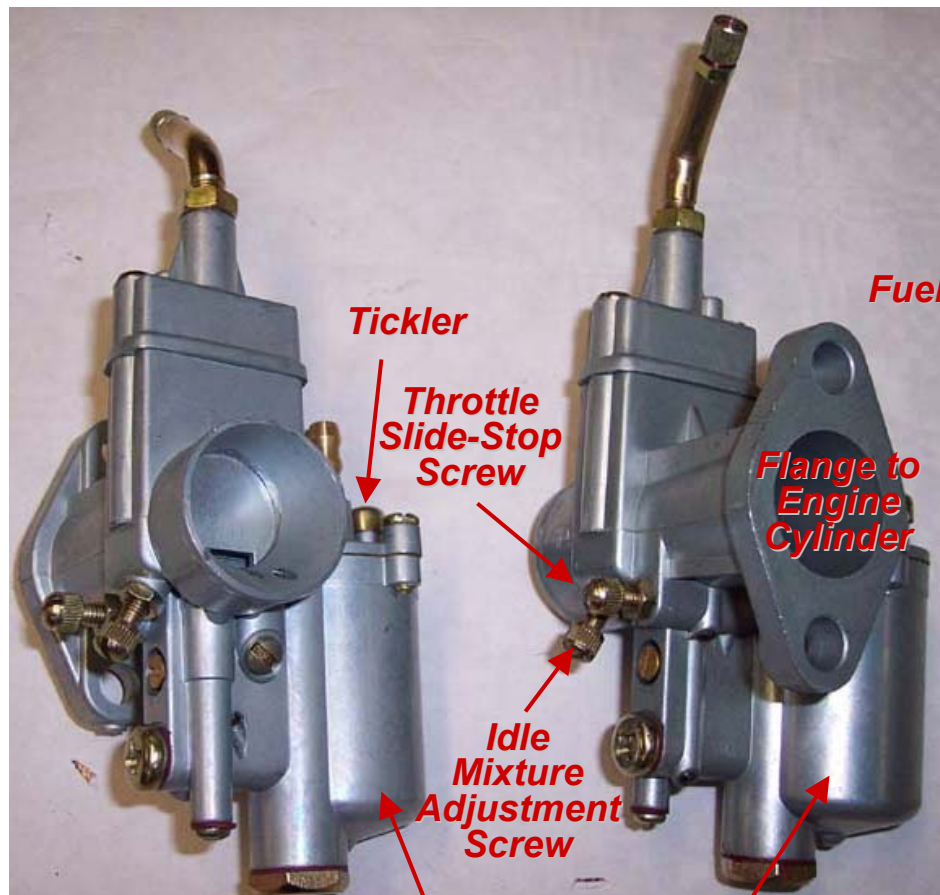
***K-301's are right and left-handed, which allows the mixture control to be on the outside in each case.***

# K-301 Carburetors





# K-302 Carburetors



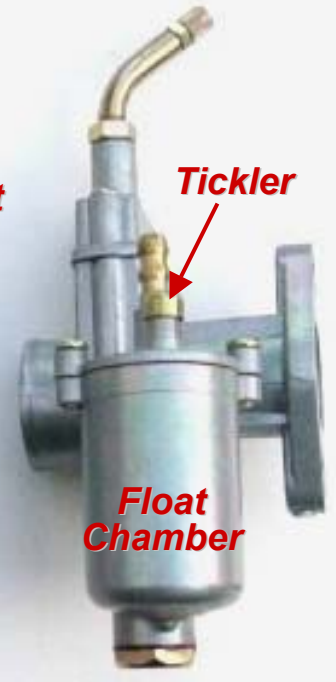
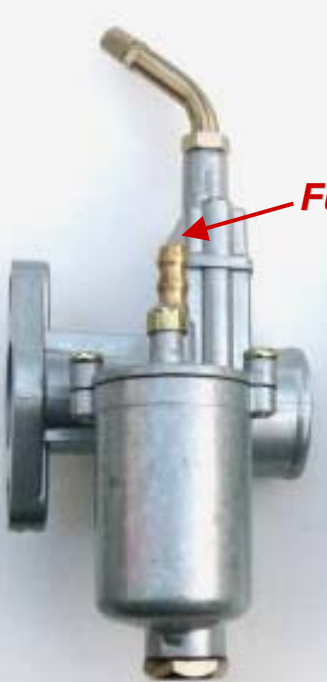
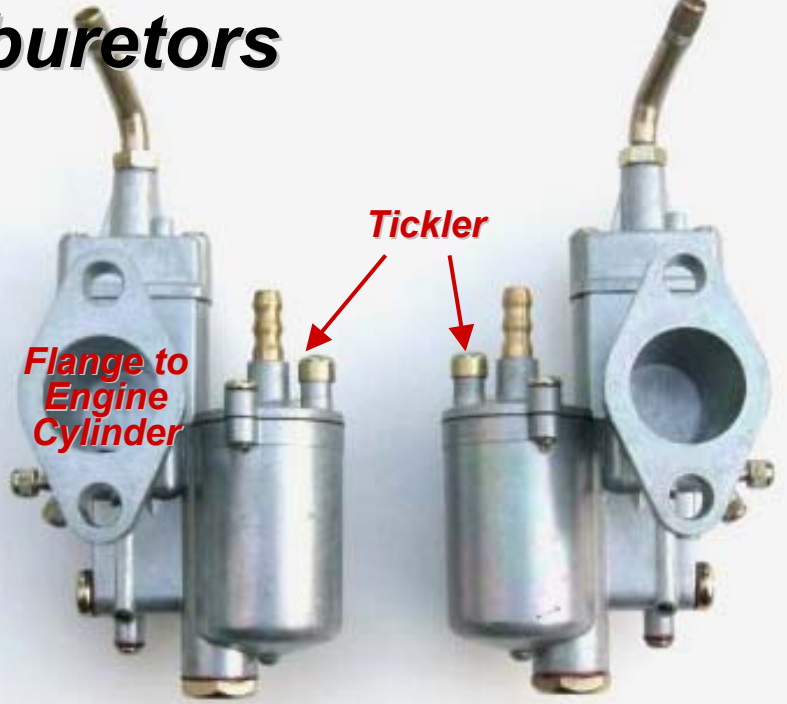
**Vertical Float Chambers**

**Flat-Slide Throttle Valve  
Off-Axis Float Chamber  
Left-Hand and Right-Hand Versions  
Vertical Float Chamber**

**The bodies of K-302's are right and left-handed, which allows the Idle Adjusting Screw to be on the outside in each case.**

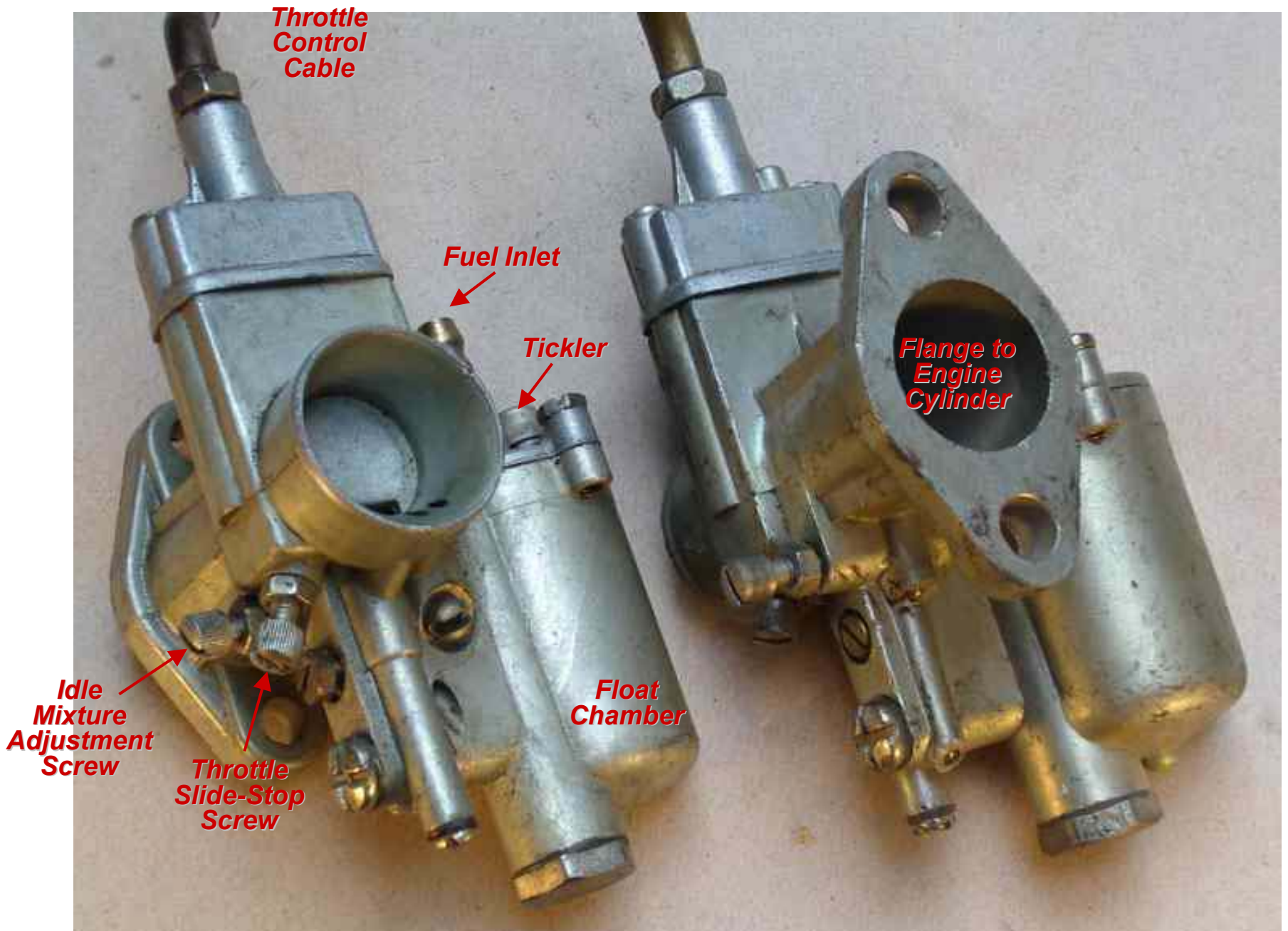
# K-302 Carburetors

Throttle Control Cable

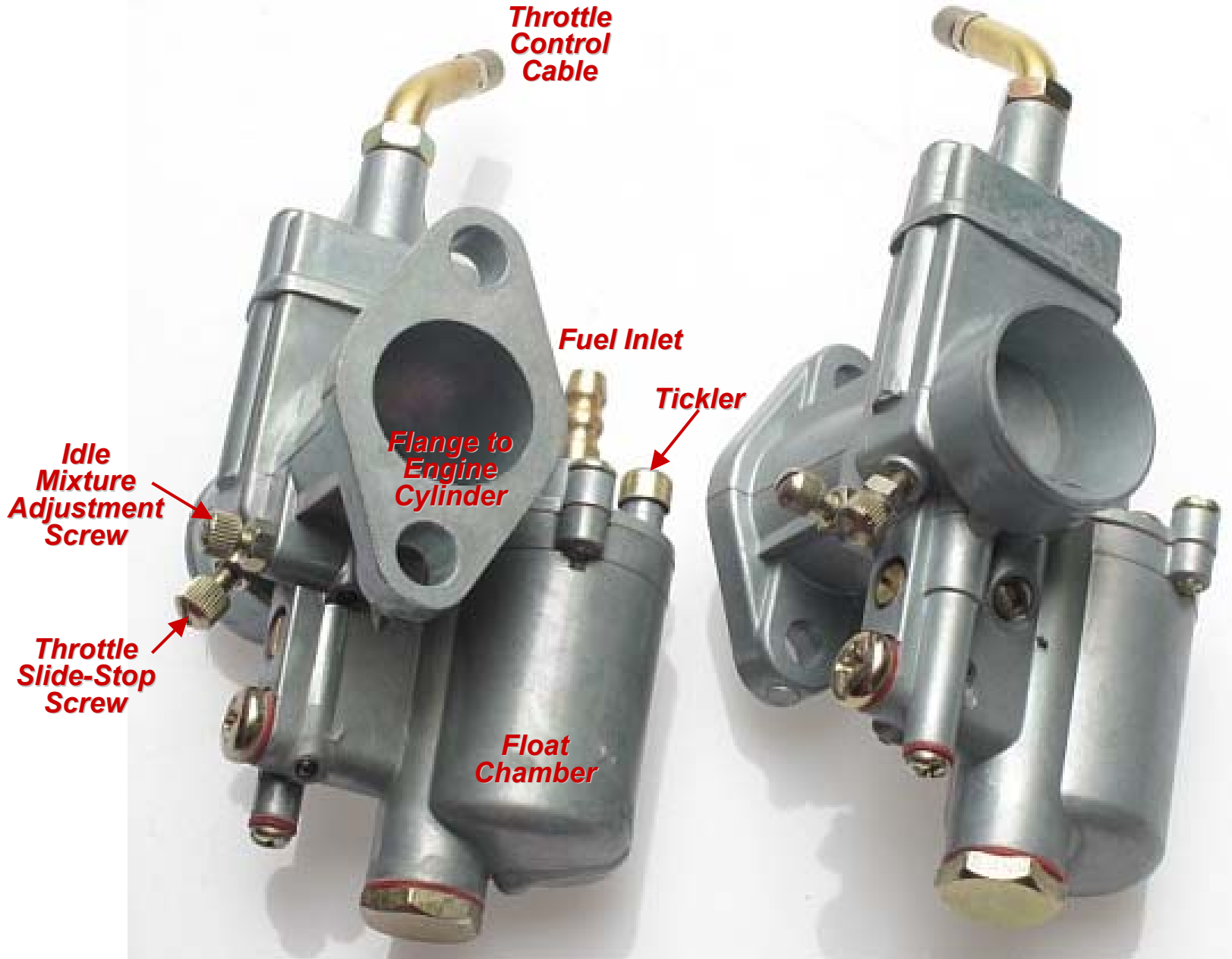




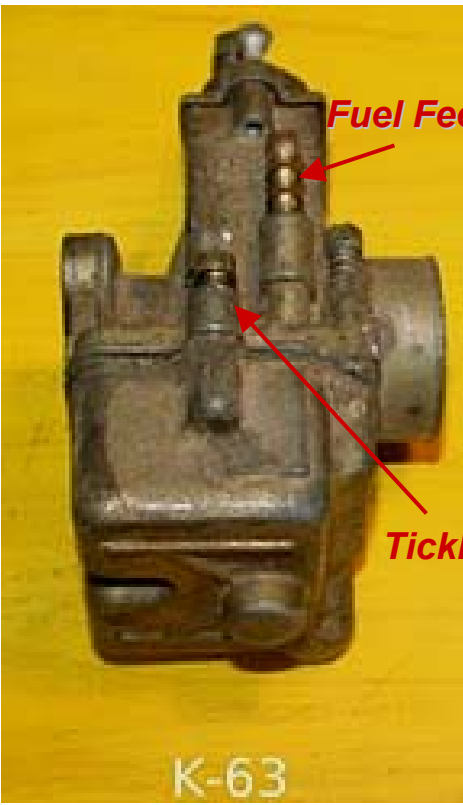
# K-302 Carburetors



# K-302 Carburetors (replicas)



# K-63 Carburetors



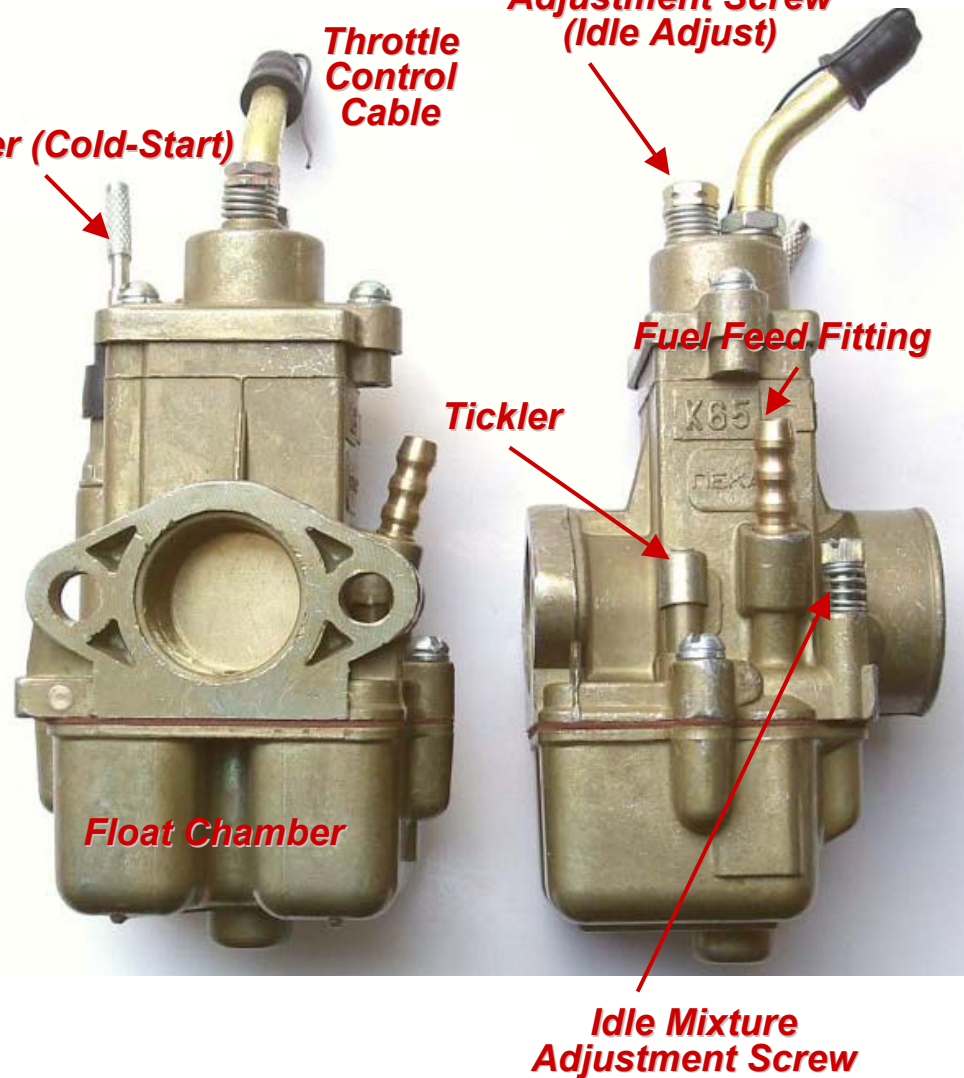
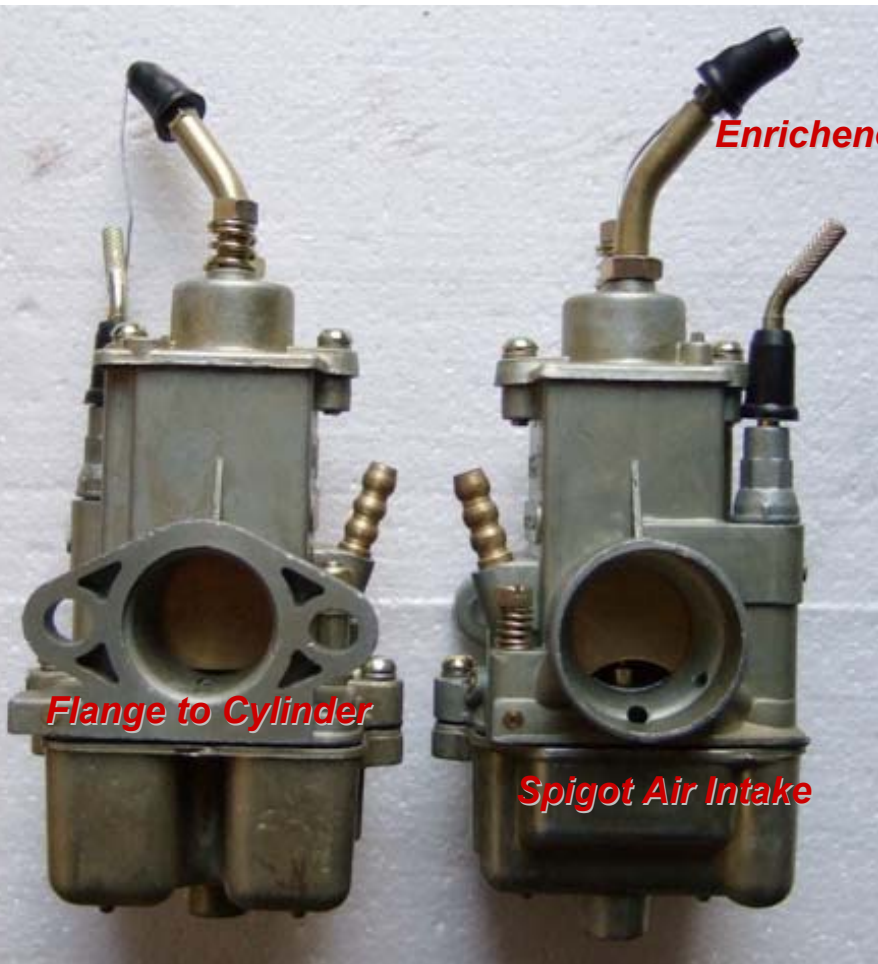


# K-65 Carburetors



**Flat-Slide Throttle Valve  
In-Line Float Chamber  
Identical L/R Versions**

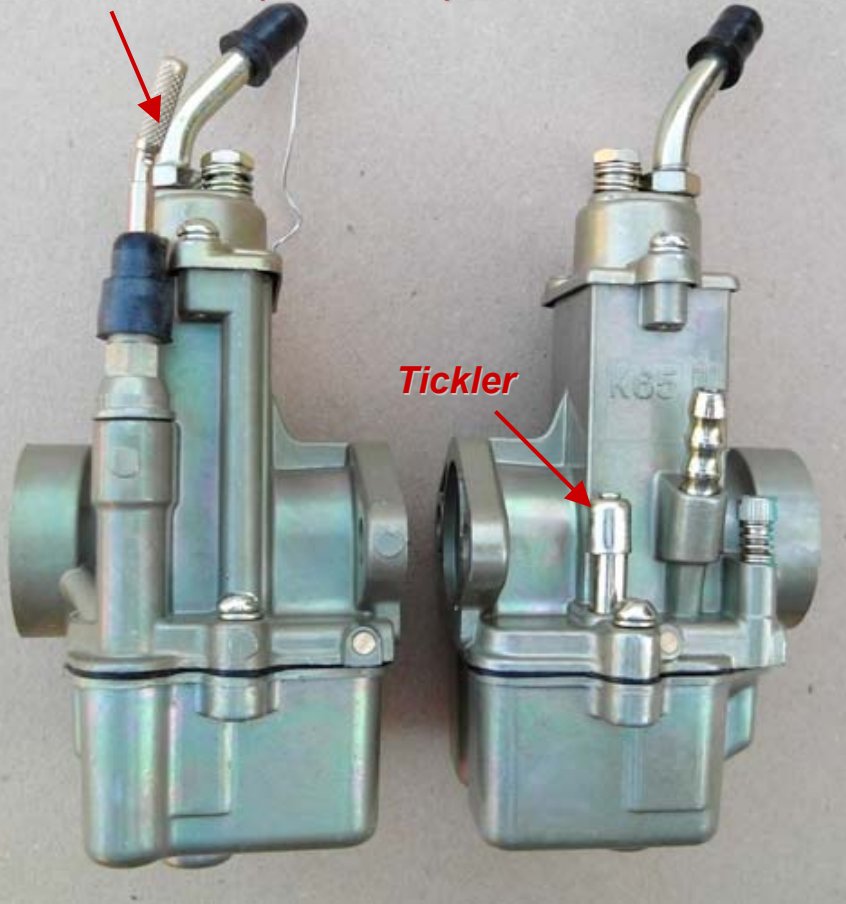
# K-65 Carburetors





# K-65 Carburetors (Made in China)

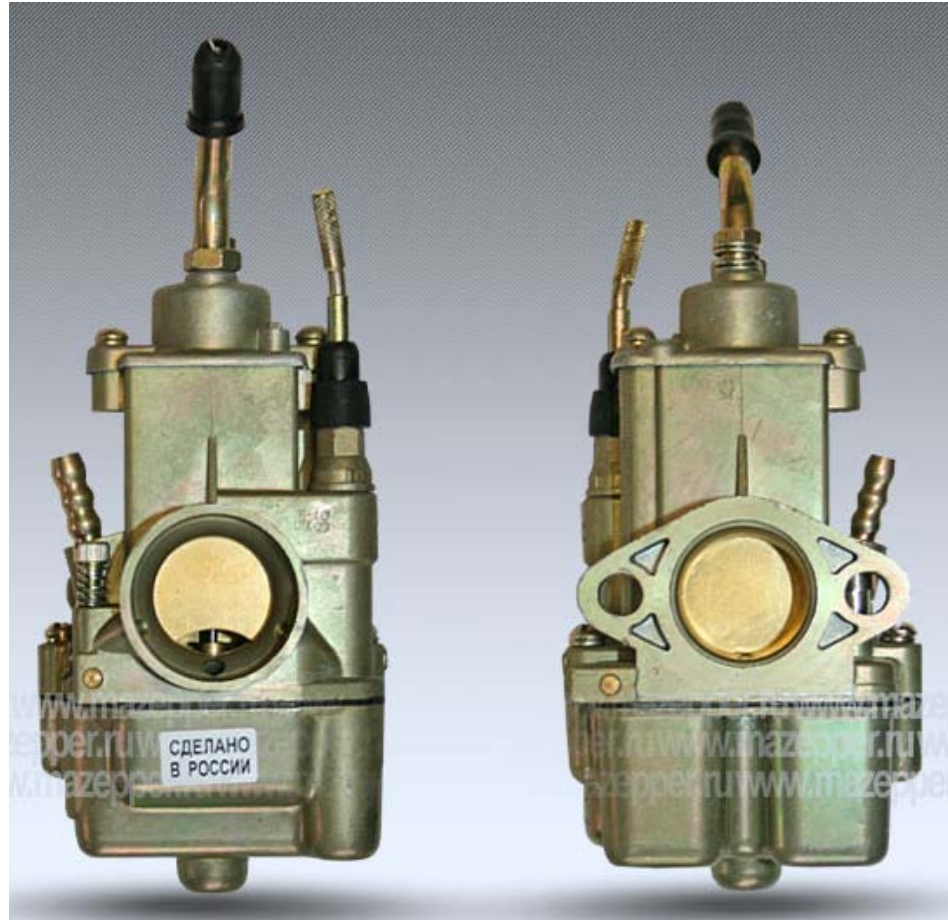
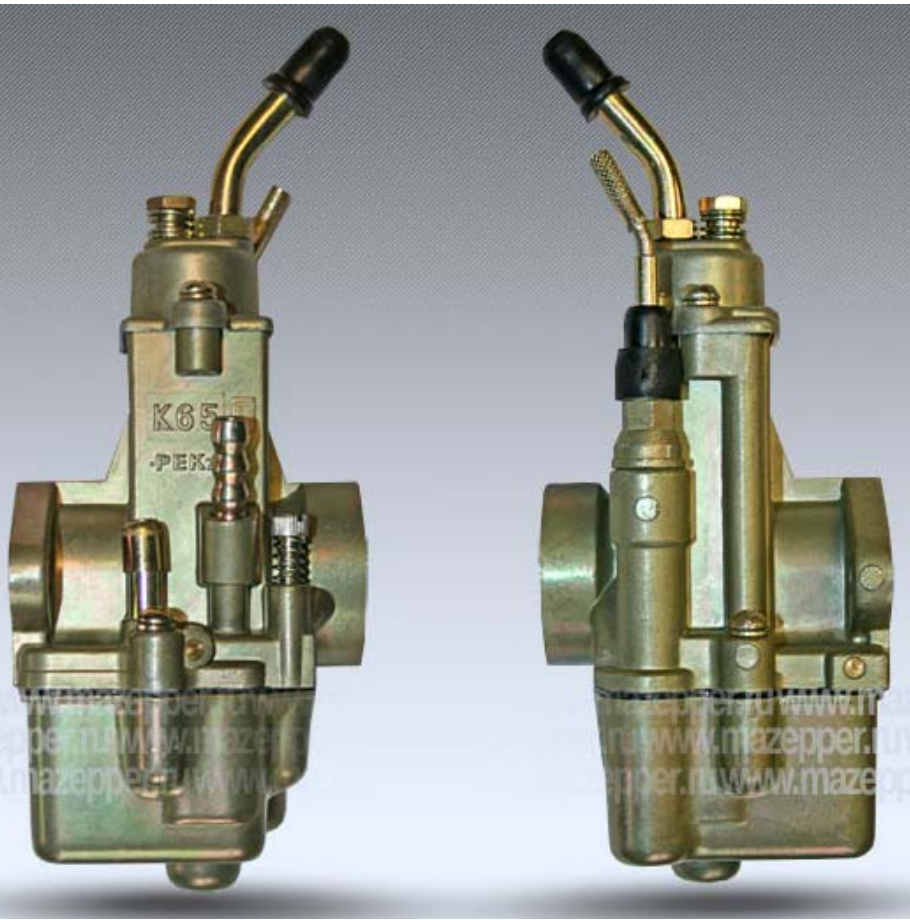
*Enrichener (Cold-Start)*



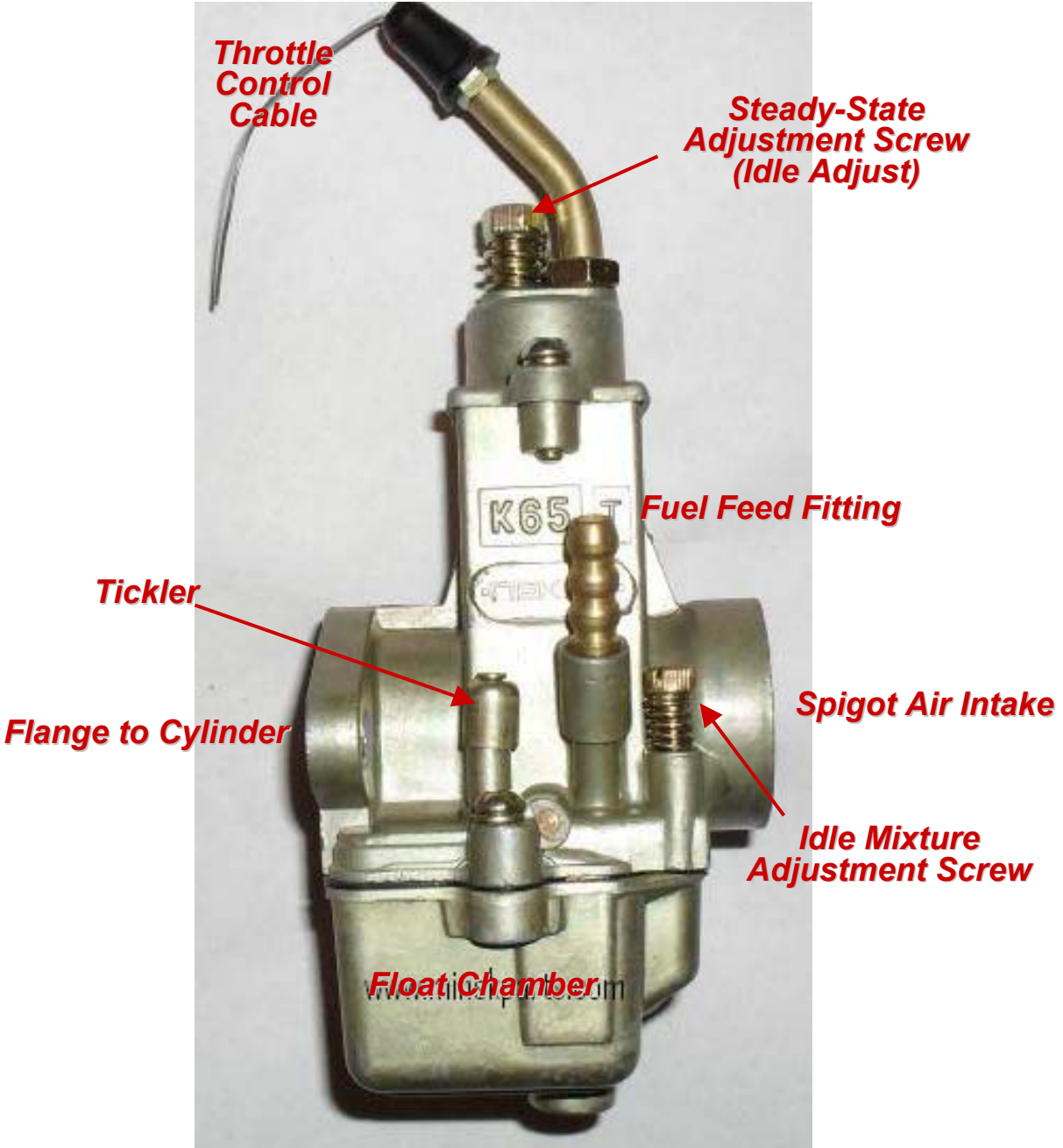
*Throttle  
Control  
Cable*



# ***Pekar K-65T (1107010) for 650 cc***

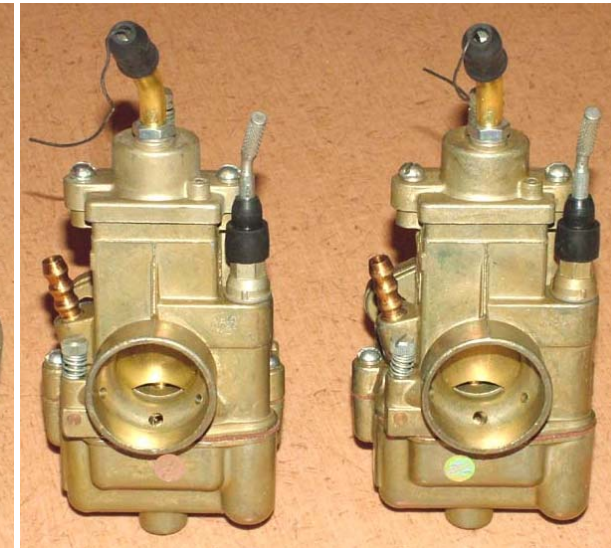
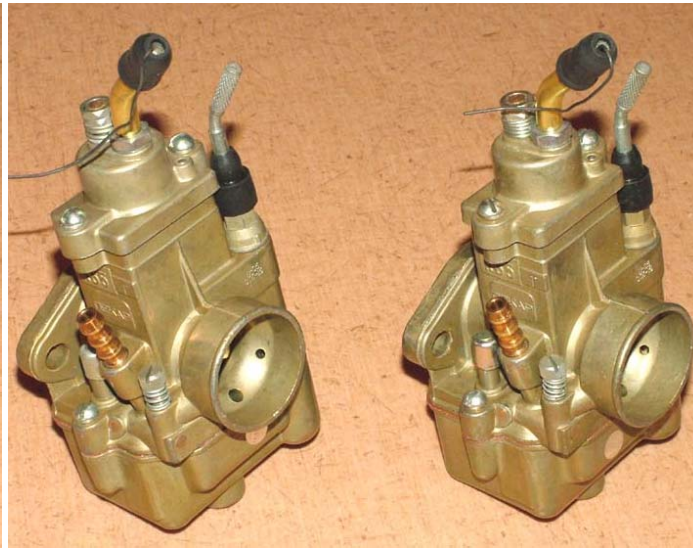
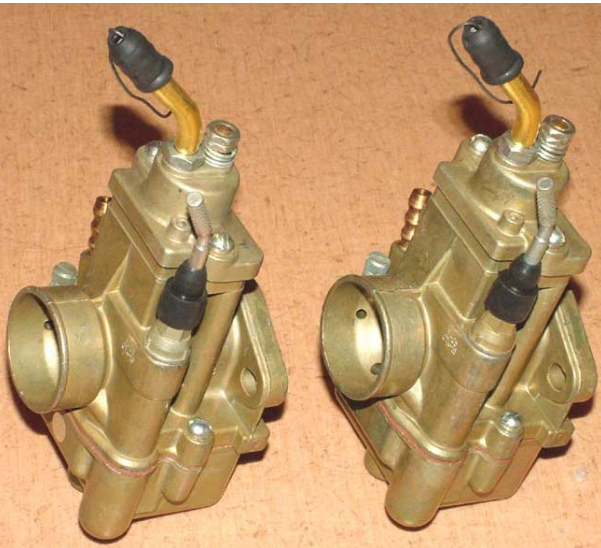
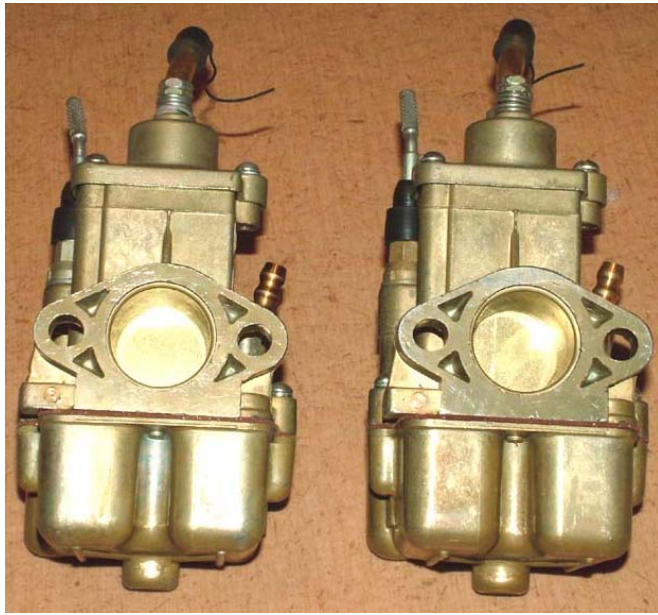


# ***K-65 Carburetors (after market)***





# ***Pekar K-65T Carburetors***



# K-65T Carburetors

Throttle Control Cable



Steady-State Adjustment Screw (Idle Adjust)



Fuel Feed Fitting



Enrichener (Cold-Start)

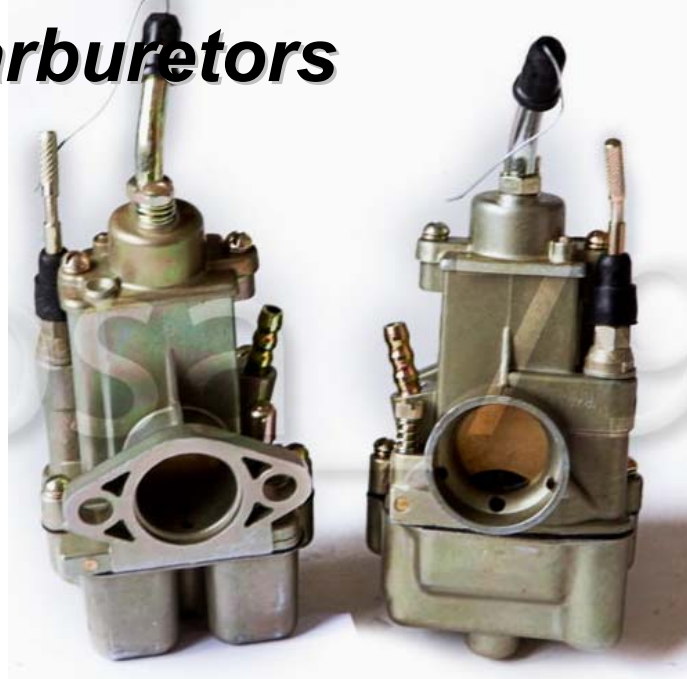


Idle Mixture Adjustment Screw





# K-65T Carburetors





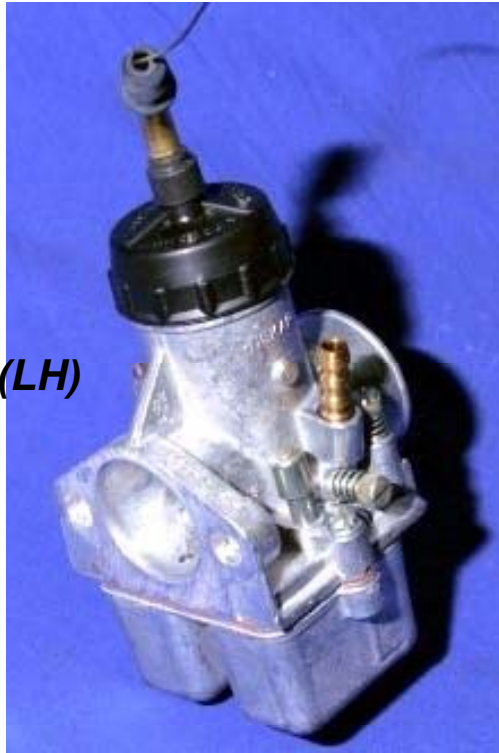
***K-68U (K-68Y in Russian) Carburetors for 650cc vs. K-68T for 750cc Engines***



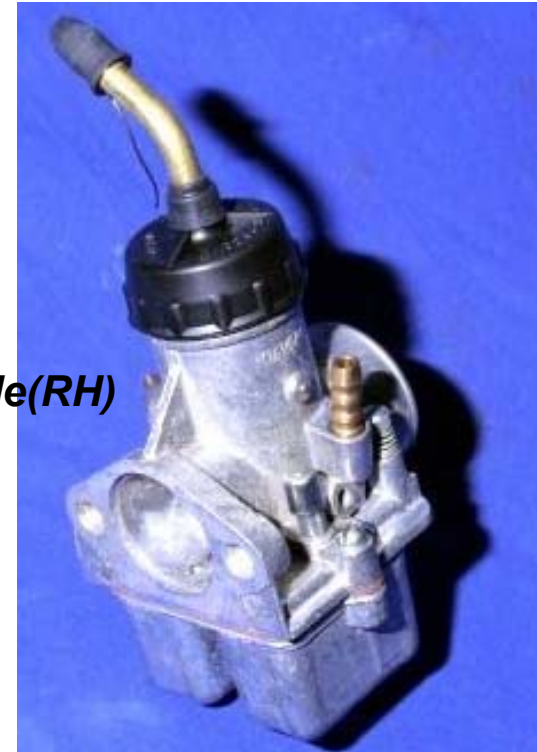
# ***K-68Y vs. K-68T Carburetors***

<b><i>Engine</i></b>	<b><i>IMZ Part #</i></b>	<b><i>Carburetor</i></b>
<b><i>650 ccm</i></b>	<b><i>IMZ-8.103-15001</i></b>	<b><i>K-68Y RH</i></b>
<b><i>650 ccm</i></b>	<b><i>IMZ-8.103-15002</i></b>	<b><i>K-68Y LH</i></b>
<b><i>750 ccm</i></b>	<b><i>IMZ-8.108-15001</i></b>	<b><i>K-68T, RH</i></b>
<b><i>750 ccm</i></b>	<b><i>IMZ-8.108-15002</i></b>	<b><i>K-68T, LH</i></b>

***Left-Side (LH)***



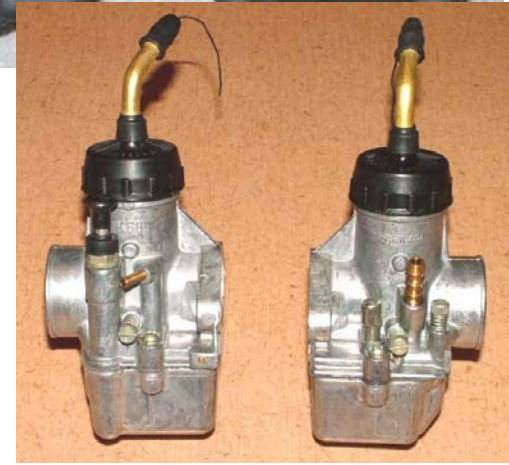
***Right-Side (RH)***



***The K-68Y was designed for the 650cc engine, whereas the K-68T was installed on the 750cc engines, and is still available at Ural stores for the Dnepr MT-11 and MT-16.***



# K-68 Carburetors



**The body of K-68's are right and left-hand specific, which allows the mixture control screw to be on the outside in each case.**



# K-68 Pekar Carburetors

*Flange to Cylinder*

*Tickler*

*Idle Mixture Adjustment Screw*

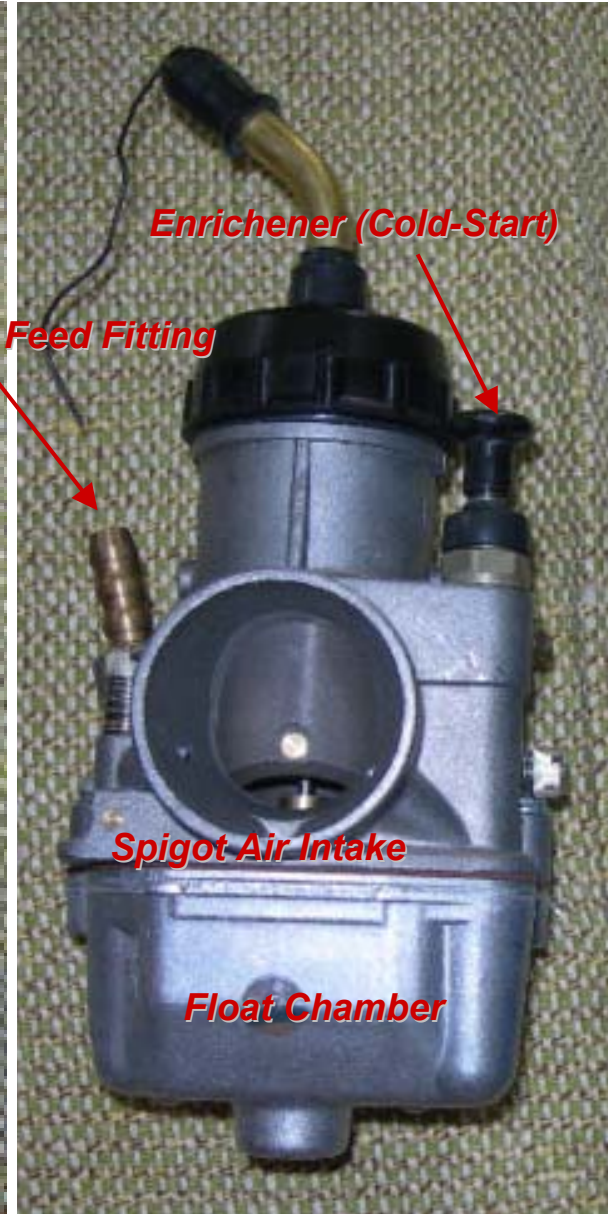
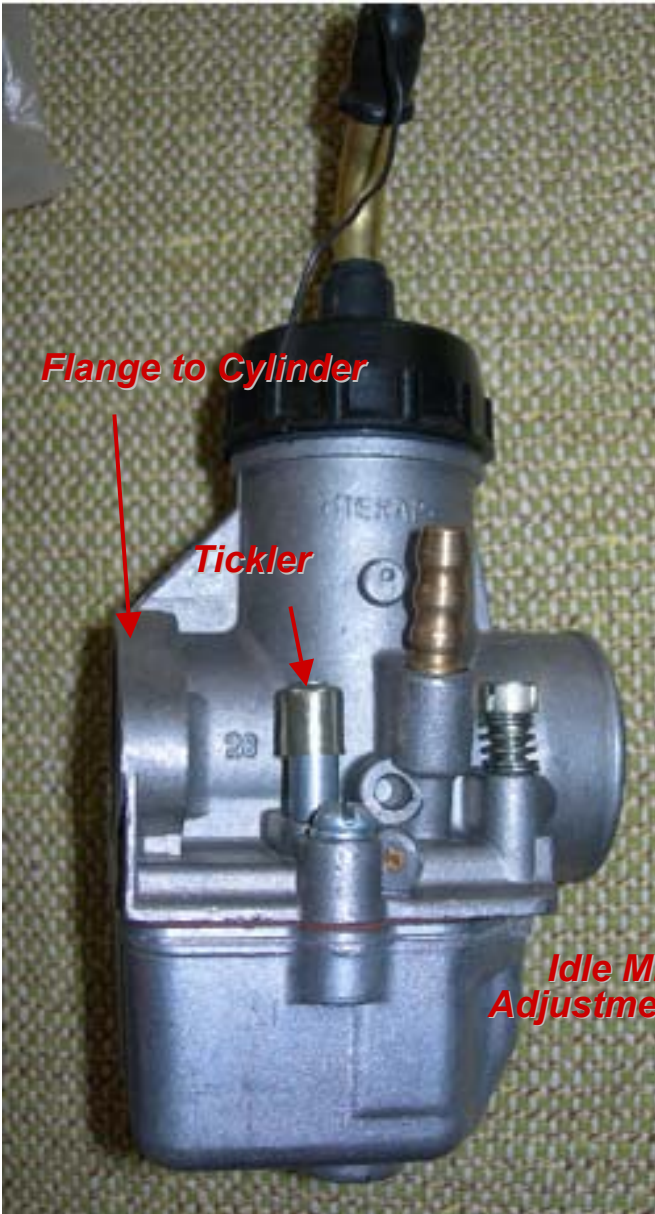
*Throttle Control Cable*

*Fuel Feed Fitting*

*Enrichener (Cold-Start)*

*Spigot Air Intake*

*Float Chamber*





# ***Pekar K-68Y (1107010) for 650 cc***

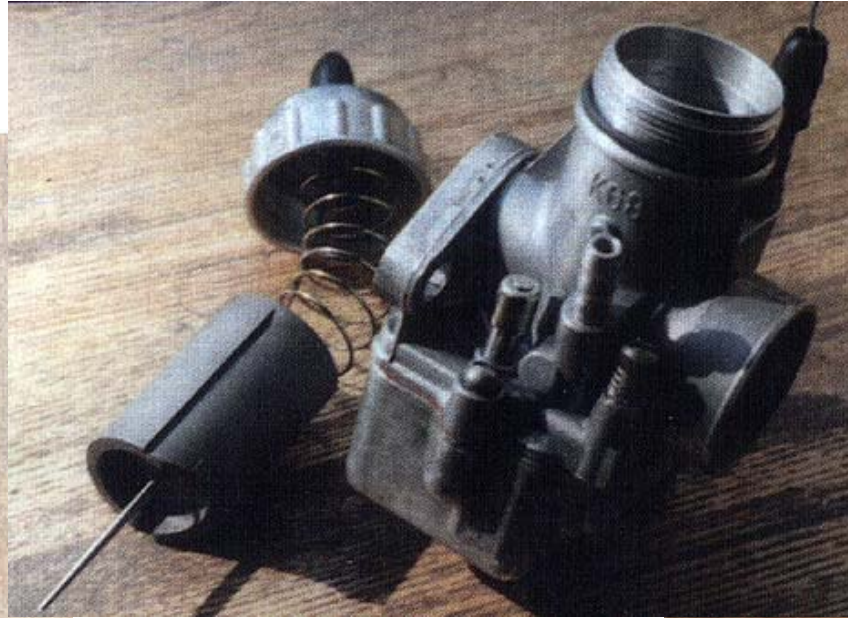


# ***K-68 Carburetors***





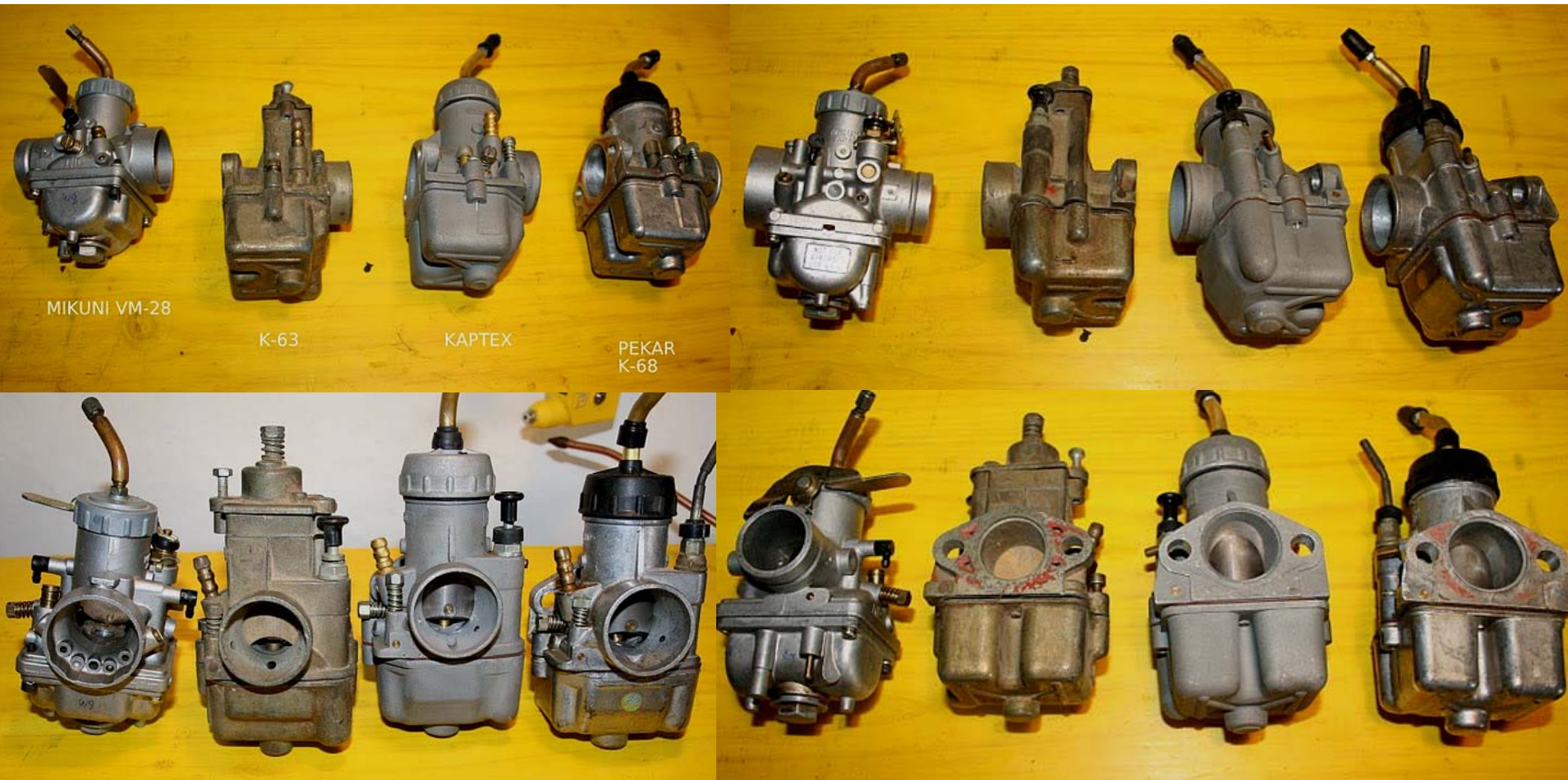
# K-68 Carburetor





# Identifying Kaptex Carbs in a Line-Up

(Russian Iron Board Forum, Antoni Font, picasaweb.google.es)

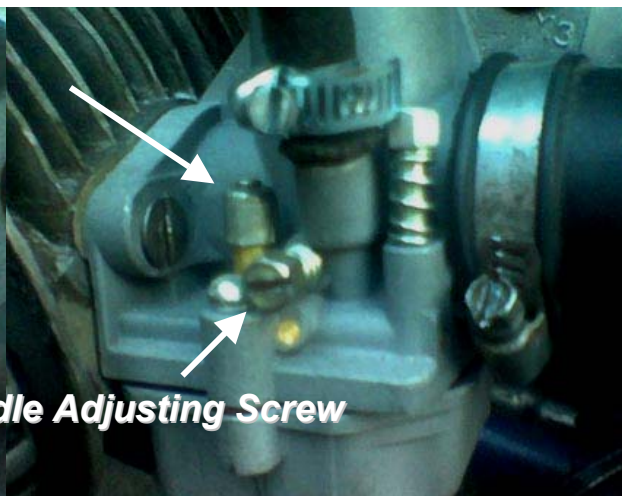
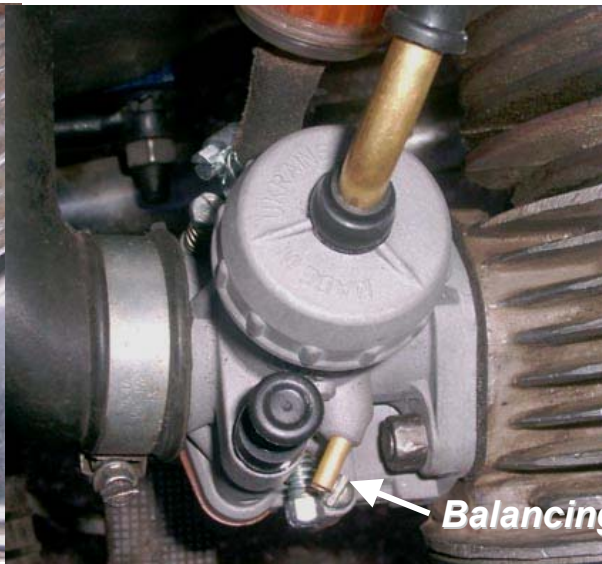
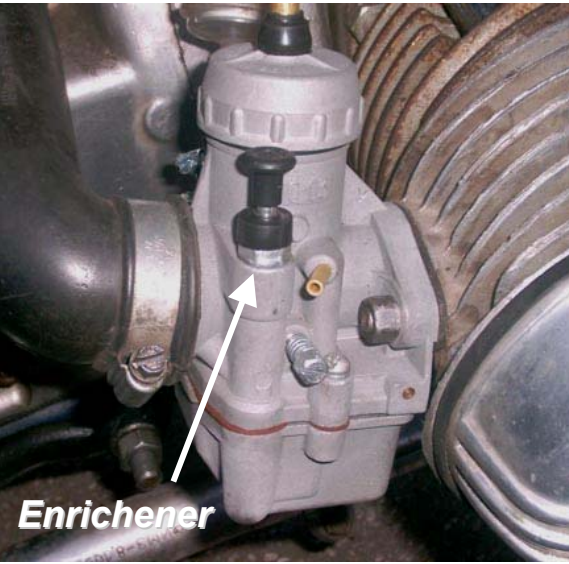


**Kaptex VDC-RAM Carburetor is a Ukrainian copy of the Pekar K-68.**



# Kaptex VDC-RAM Carburetor Close-Up

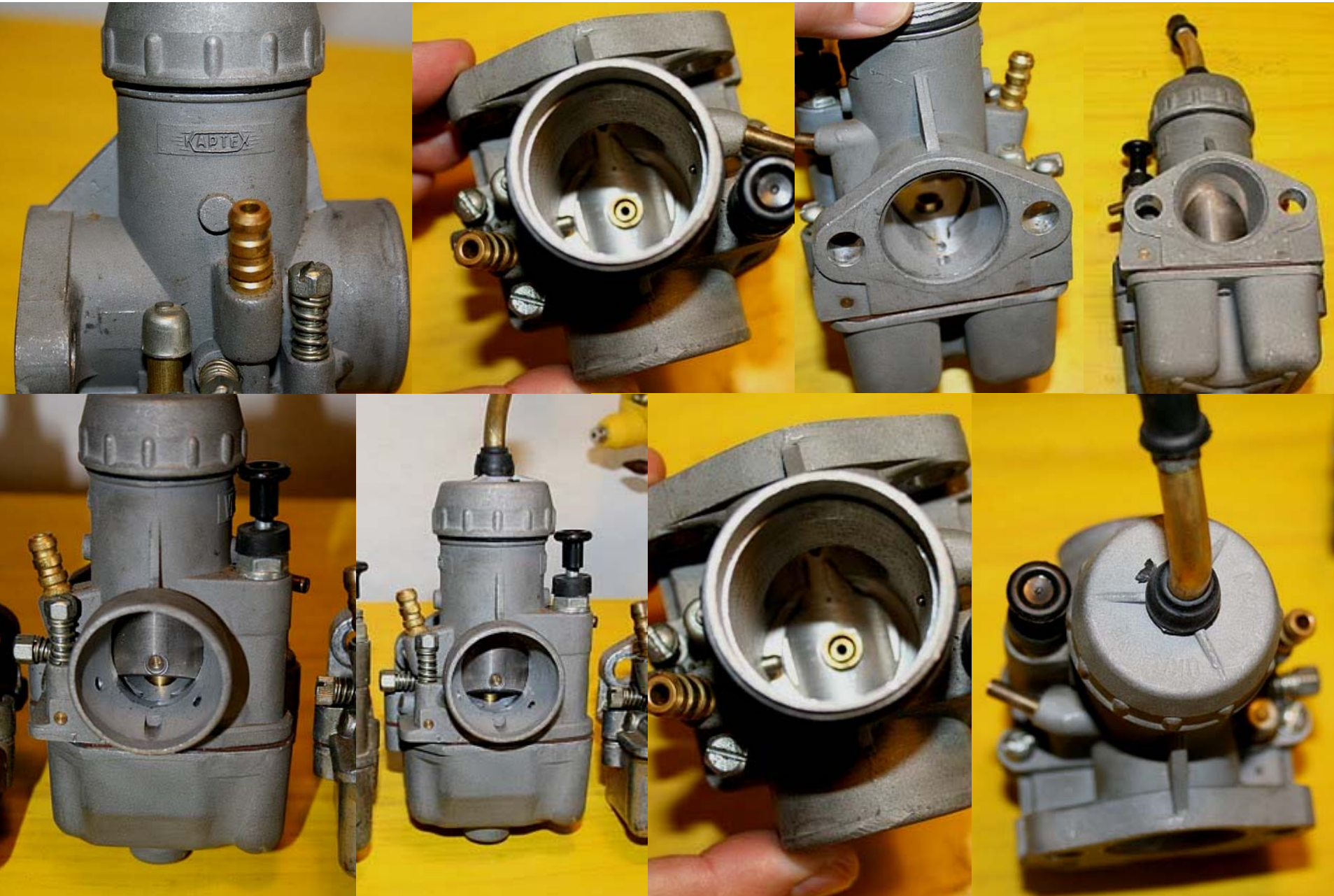
([www.opposit.ru](http://www.opposit.ru))





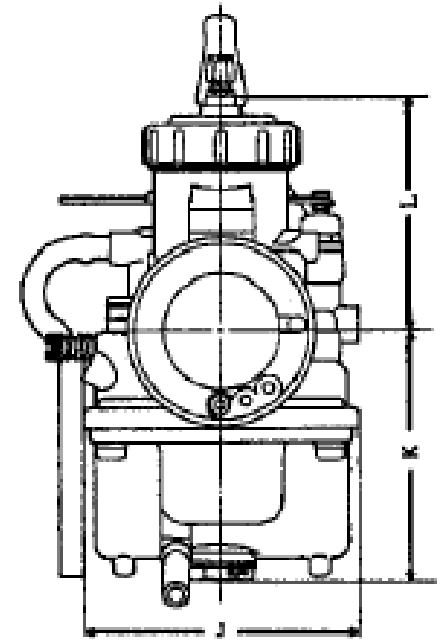
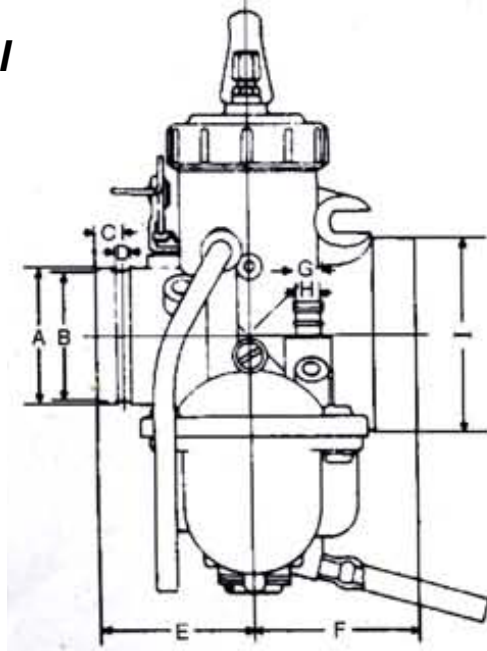
# Close-Up of Kaptex VDC-RAM

(Russian Iron Board Forum, Antoni Font, picasaweb.google.es)



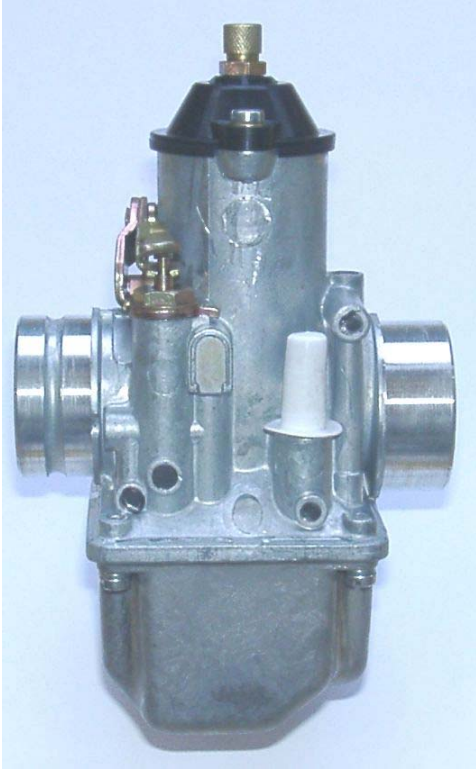
# VM-28-49 Mikuni Carburetor

- VM28-49 in 1998 Ural Manual
- Main Jet: 4/042 #200
- Pilot Jet: VM22/210 #60
- Needle Jet: N-8 #169
- Jet Needle: 5F21
- Throttle Valve: VM28-56 2.5
- Main Air Jet: BS30/97 0.5
- Needle Valve: VM26/26 2.5
- Dimensions:
  - A: 35 mm
  - B: 33 mm
  - C: 10 mm
  - D: 4 mm
  - E: 49 mm
  - F: 44 mm
  - G: 7 mm
  - H: 6 mm
  - I: 44 mm
  - J: 72 mm
  - K: 66 mm
  - L: 54 mm
  - Total Width: 72 mm
  - Throttle Adjuster: Left
  - Air Screw: Right
  - Weight: 0.55 kg
  - Material: Aluminum
  - Float Height: 15-17 mm (0.59-0.66")
- VM28-49 Manufacture Discontinued





# **Jikov 2928CE Carburetor** (Also Used in Jawa 638 / 639 / 640)

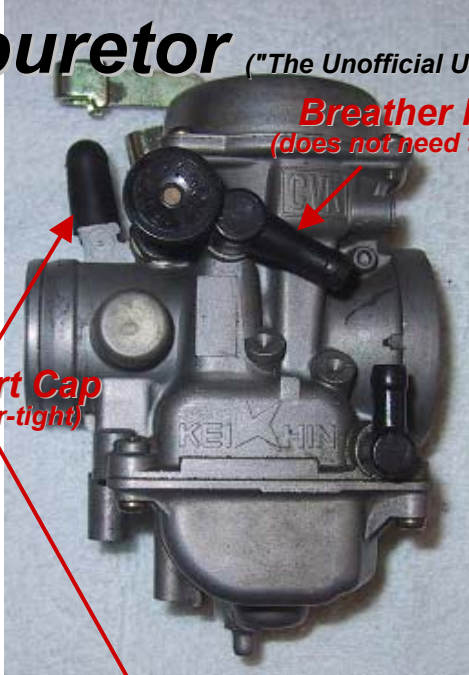




# 32 CVK Keihin Carburetor ("The Unofficial Ural 750cc Service Manual," www.myural.com/)



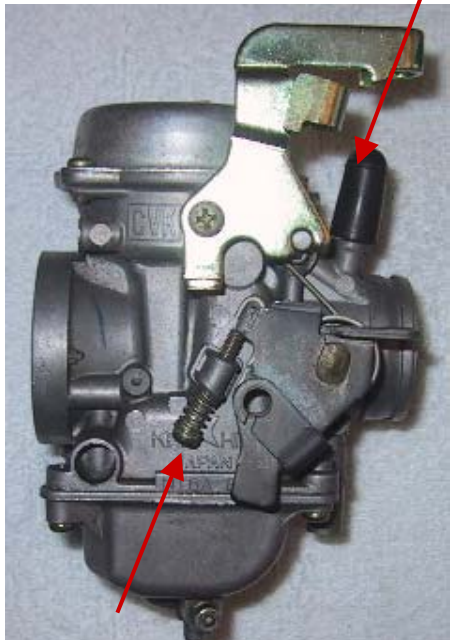
**Front-View, Compliance Fitting Side**



**Left-Side View**



**Branch Tubing or Intake Side**



**Right-Side, Idle Setting Screw**



**Top-View Diaphragm Cap**



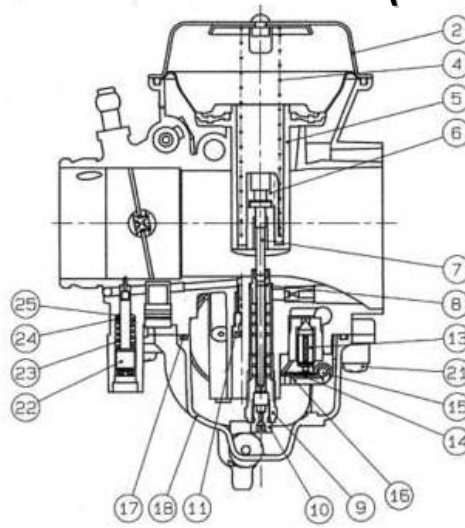
**Bottom-View, Bowl Drain**

**Breather Port Cap**  
*(does not need to be air-tight)*

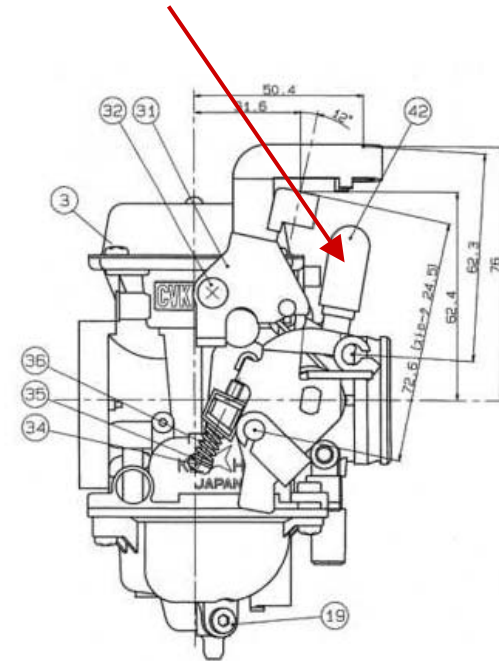
**Vacuum Port Cap**  
*(needs to be air-tight)*

# 32 CVK Keihin Carburetor (www.jebike.com)

1	Carburetor Keihin	'IMZ-8.128-15001
3	Pan Screw	'93500040081H
4	Coil Spring	'12908802000
5	Vacuum Piston Comp.	'14028462200
6	Spring Seat	'12298007000
7	Jet Needle	'N4256NE00
8	Needle Jet	'N42601D34
9	Needle Jet Holder	'N41303C00
10	Main Jet 118	'991013931180
10	Main Jet 122	'991013931220
10	Main Jet 125	'991013931250
11	Slow Jet 0.38	'N42425B38
11	Slow Jet 0.40	'N42425B40
13	Float Valve Comp.	'16155ZG8L100
14	Starter Jet 65	'N42431065
16	Float Valve	'10528292100
17	Float Body Gasket	'09018146000
19	Drain Screw	'11988102002
21	Pan Screw	'93500040141H
22	CO2 Adjust Screw	'N44602C00
23	Coil Spring	'W945103212
24	Washer	'03018032000
25	O-Ring	'16075KG89010M1
26	Starter Valve Comp.	'11668292100
42	Vacuum Port Cap	-
44	Breather Cap	'IMZ-8.1037-15157
45	Carburetor Protection RH	'IMZ-8.1037-15194

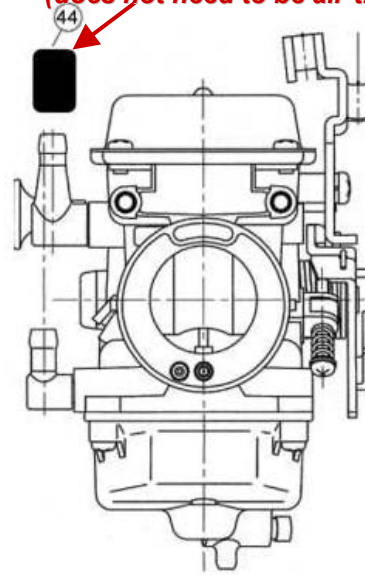


**42. Vacuum Port Cap**  
(needs to be air-tight)



**IMZ Part #: 'IMZ-8.128-15001**  
**for 750 cc Urals**

**44. Breather Port Cap**  
(does not need to be air-tight)



**Parts are still readily available  
for the Keihin L22A.**