

***Ural and Dnepr
Generators and Alternators
Part II: Г-11 (G-11)
Generator***

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Types of Generators/Alternators for Ural (Урал) and Dnepr (Днепр) (01/11)

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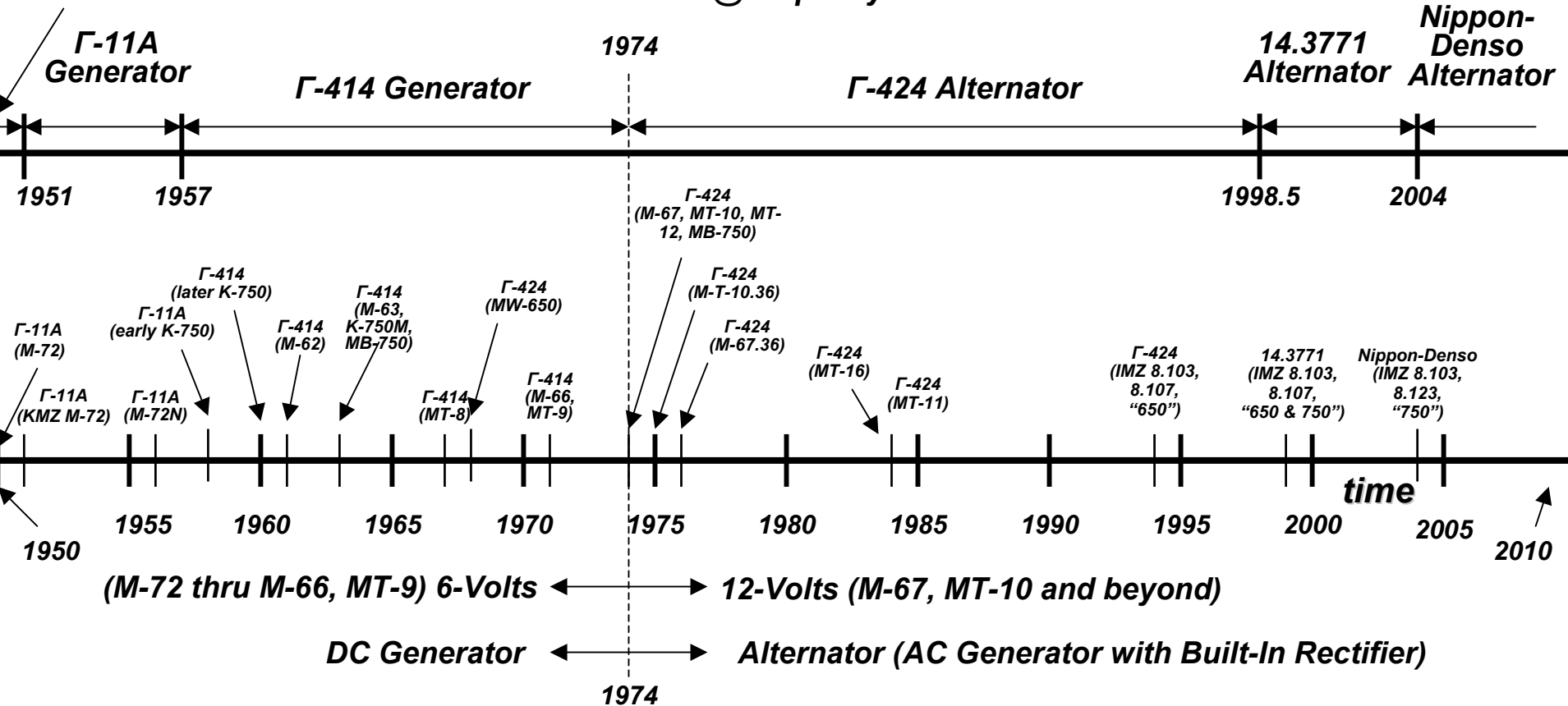
Generator/ Alternator	Type	Vintage	Nominal Voltage	Current	Nominal Power	Motorcycles	
						Ural(IMZ)	Dnepr (KMZ)
Г-11 (G-11) (P/N: 72181)	DC Generator	1941- 1951	6-Volt (7-Volt)	7-Amp	45-Watts	M-72	Not Used
Г-11А (G-11A) (P/N: 72181-A)	DC Generator	1952- 1957	6-Volt (7-Volt)	7-Amp	45-Watts	M-72, M-72M , M-61	M-72, M-72N, early K-750
Г-414 (G-414) (P/N: 750181)	DC Generator	1957- 1974	6-Volt (7-Volt)	10-Amp	65-Watts	M-62, M-63, M-66	K-650, later K-750, K-750M, MB-750, MB-750M, MT-8, MT-9, MT-12
Г-424 (G-424) (P/N: 3701000)	Alternator (Built-in Rectifier)	1974- 1998	12-Volt (14-Volt)	14-Amp	150-Watts	M-67, M67.36, IMZ 8.103 Series	MB-650, MB-650M, MT-10, MT-10.36, MT-11, MT-16
Hitachi (Limited Appearance)	Alternator/ Starter	1998- 1998.5	12-Volt (14-Volt)	18-Amp	300-Watts	IMZ 8.103 and 8.107 “650” Series	Not Used
14.3771 (RPOC) (P/N: 14.3771- 010)	Alternator (Built-in Rectifier & Regulator)	1998.5- 2004	12-Volt (14-Volt)	35-Amp	500-Watts	IMZ 8.103, 8.103X, 8.123, 8.123X “650 & 750” Series	Not Used
Nippon Denso (P/N: IMZ-8.1037- 18092)	Alternator (Built-in Rectifier & Regulator)	2004- present	12-Volt (14-Volt)	55-Amp	770-Watts	IMZ 8.103, 8.103X, 8.123, 8.123X “750” Series	Not Used

Notes:

- Nomenclature:** The Cyrillic letter “Г” transliterates (Russian-to-Latin) to “G” or “L” or “T.” Thus we see Г-414 or G-414 or L-414 or T-414, all for the same part.
- Cannot use Г-424 Alternator with discharged battery or without battery.**
- MB-750 = MW-750, MB-750M = MW-750M**
- The frame (case) of the Г-11/Г-11А generator is positive (positive-ground).**
- Г-414 Generator: P/N: 750181 6-Volt (negative ground), whereas P/N: 750181-A (positive-ground) for fitting Г-11А’s into early K-750’s.**

Ural (Урал) - Dnepr (Днепр) Generator/Alternator Time-Line (01/11)

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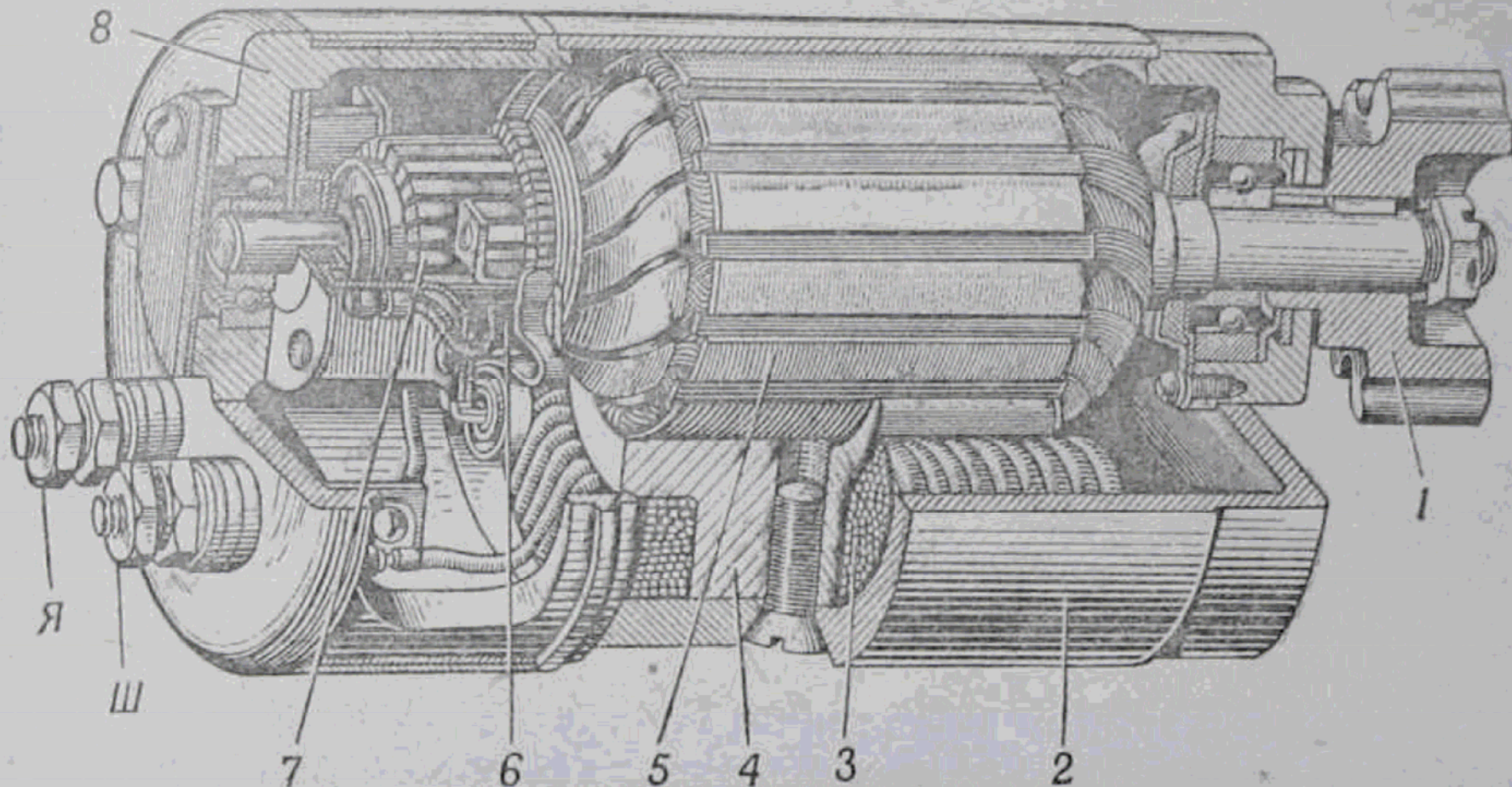
Alternators have progressed in output voltage and power, From the Г-11 (G-11) generator of 6-Volts/45-Watts in 1941, the Г-11A in 1952, the Г-414 6V/65 W in 1957, the Г-424 of 12V/150W in 1974, the 14.3771 of 12V/500W in 1998.5, to the present-day Nippon-Denso alternator of 12-V/770W.

Г-11 and Г-11А (G-11 & G-11A) 6-Volt Generator (1941-1957)

- **6-Volt / 7-Ampere / 45-Watt Generator**
- **Positive-Ground Case**
- **Used on;**
 - **Ural (IMZ): M-72, M-72M, M-61**
 - **Dnepr (KMZ): M-72, M-72N, early K-750**
- **Used in Conjunction with PP-1, PP-30, PP-31 and PP-31A Regulators**



Г-11 and Г-11А 6-Volt Generator Cross-Section (01/11)



1. Pinion Drive

2. Armature

3. Armature Winding

4. Pole Extension or Shoe

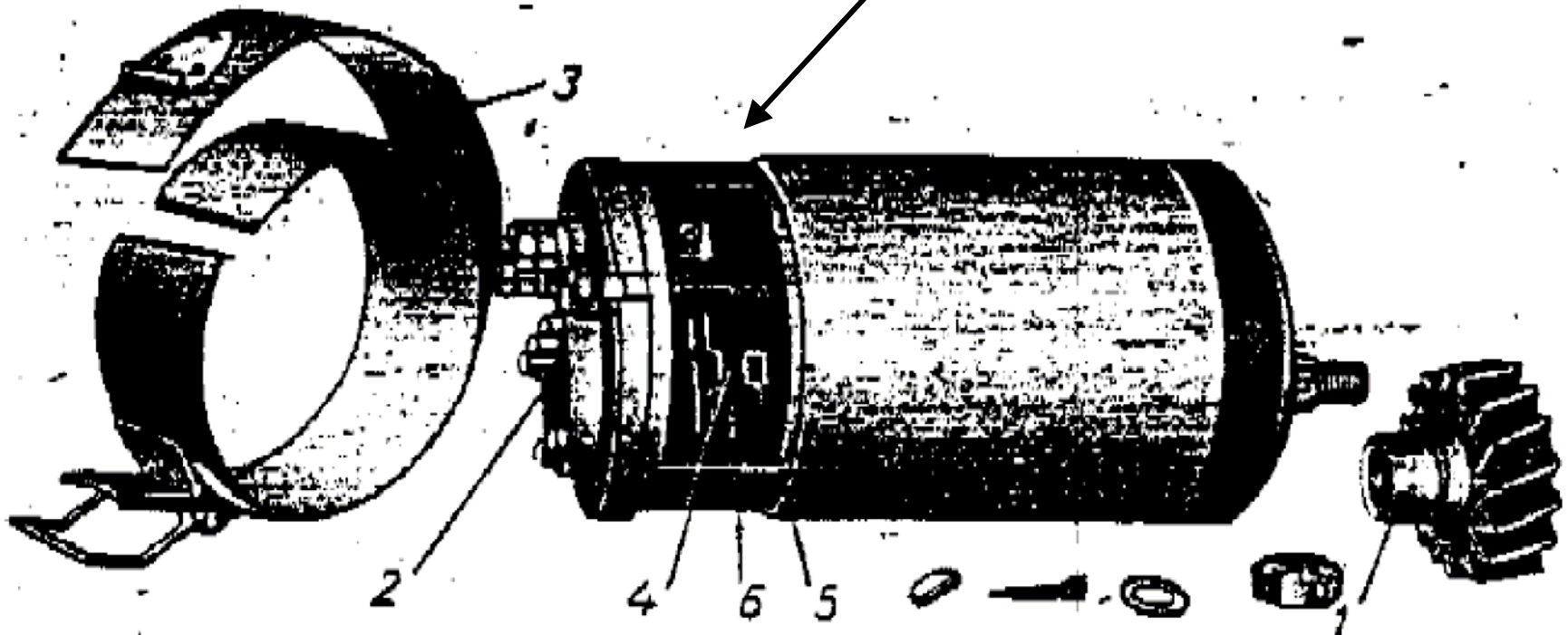
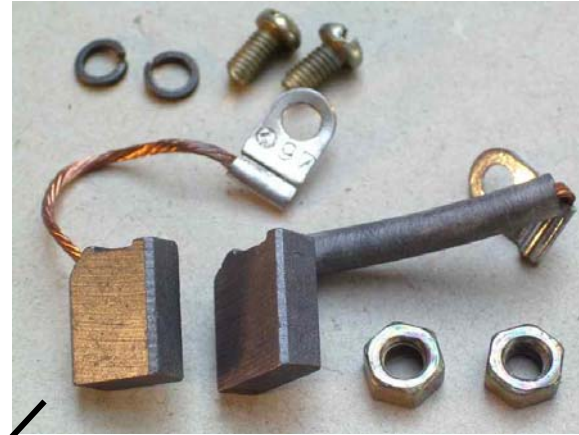
5. Rotor

6. Carbon Brush

7. Commutator

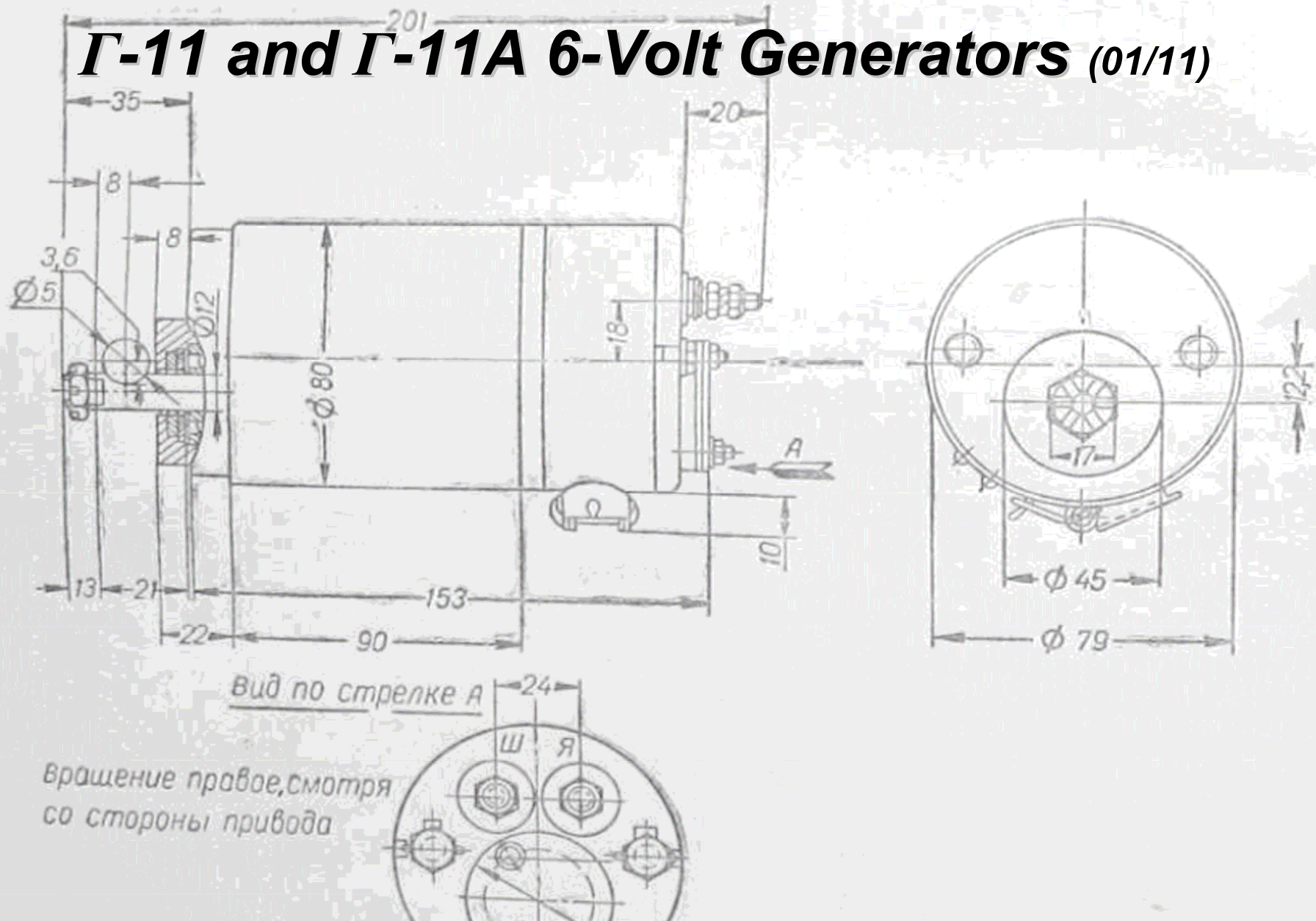
8. Case

Γ -11A (G-11A) Generator



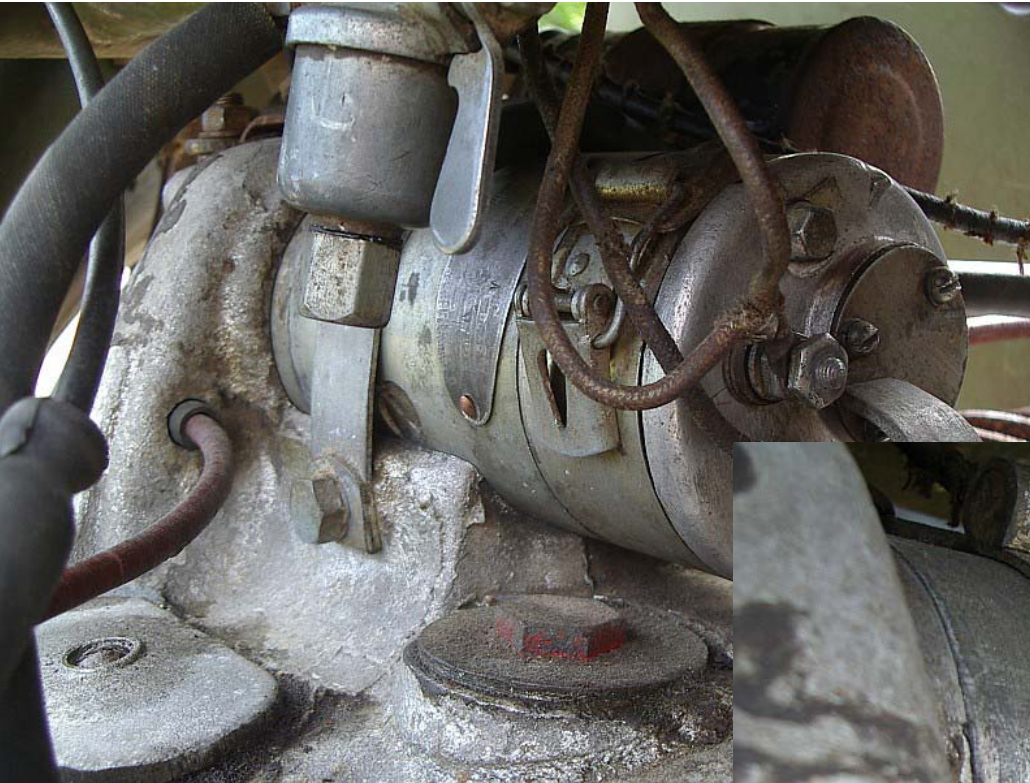
- 1. Drive Gear 2. Rotor 3. Band/Clamp 4. Brush Holder 5 Brush 6. Stator**

Г-11 and Г-11А 6-Volt Generators (01/11)



The rotor is eccentrically located to allow a controlled meshing of the gears by minor rotation and clamping of the case.

Г-11А mounted on an M-72 (www.oldtimergarage.szn.pl)

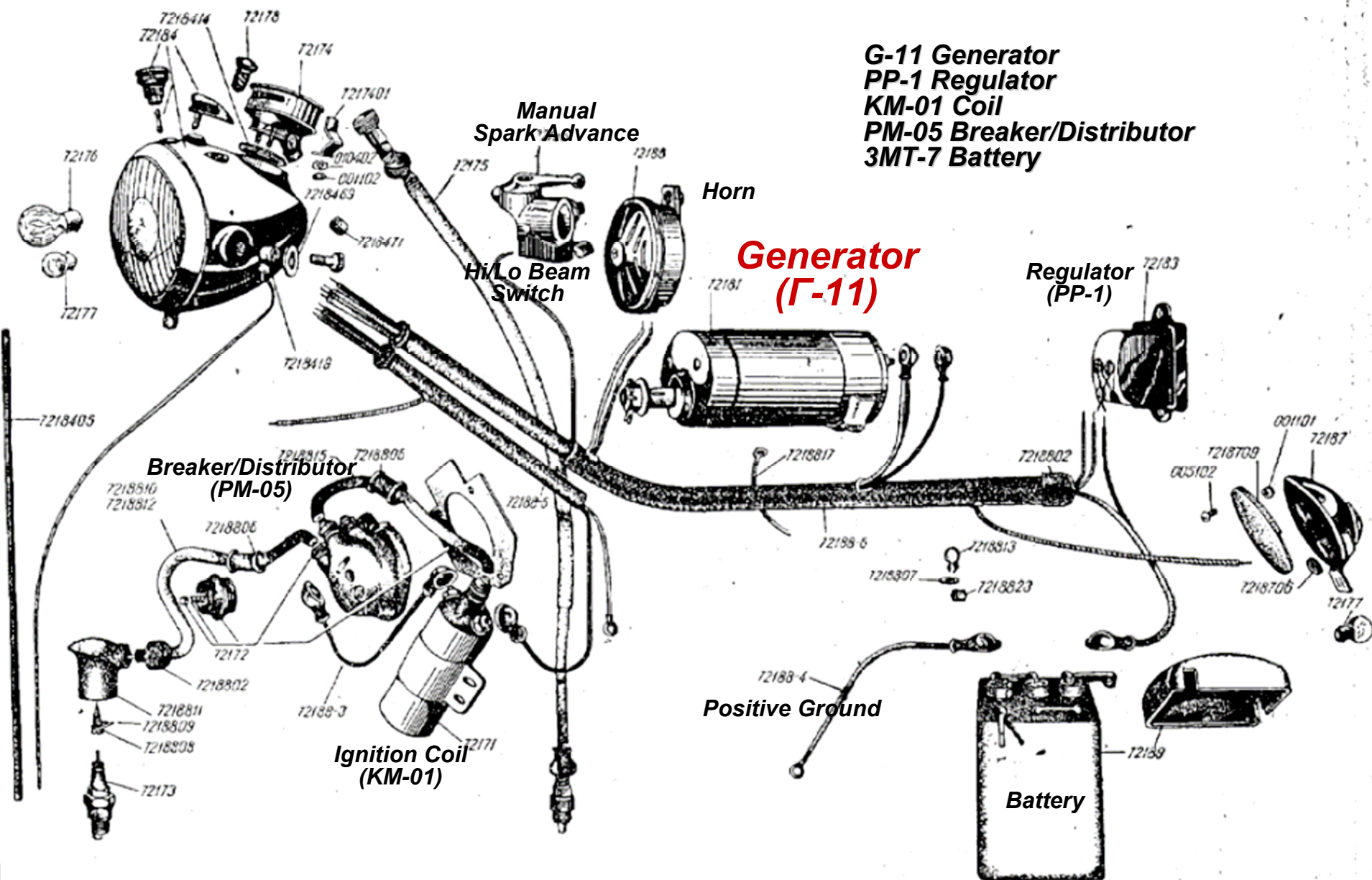


7217/18

Днепр (Днепр) Early M-72 (1942)

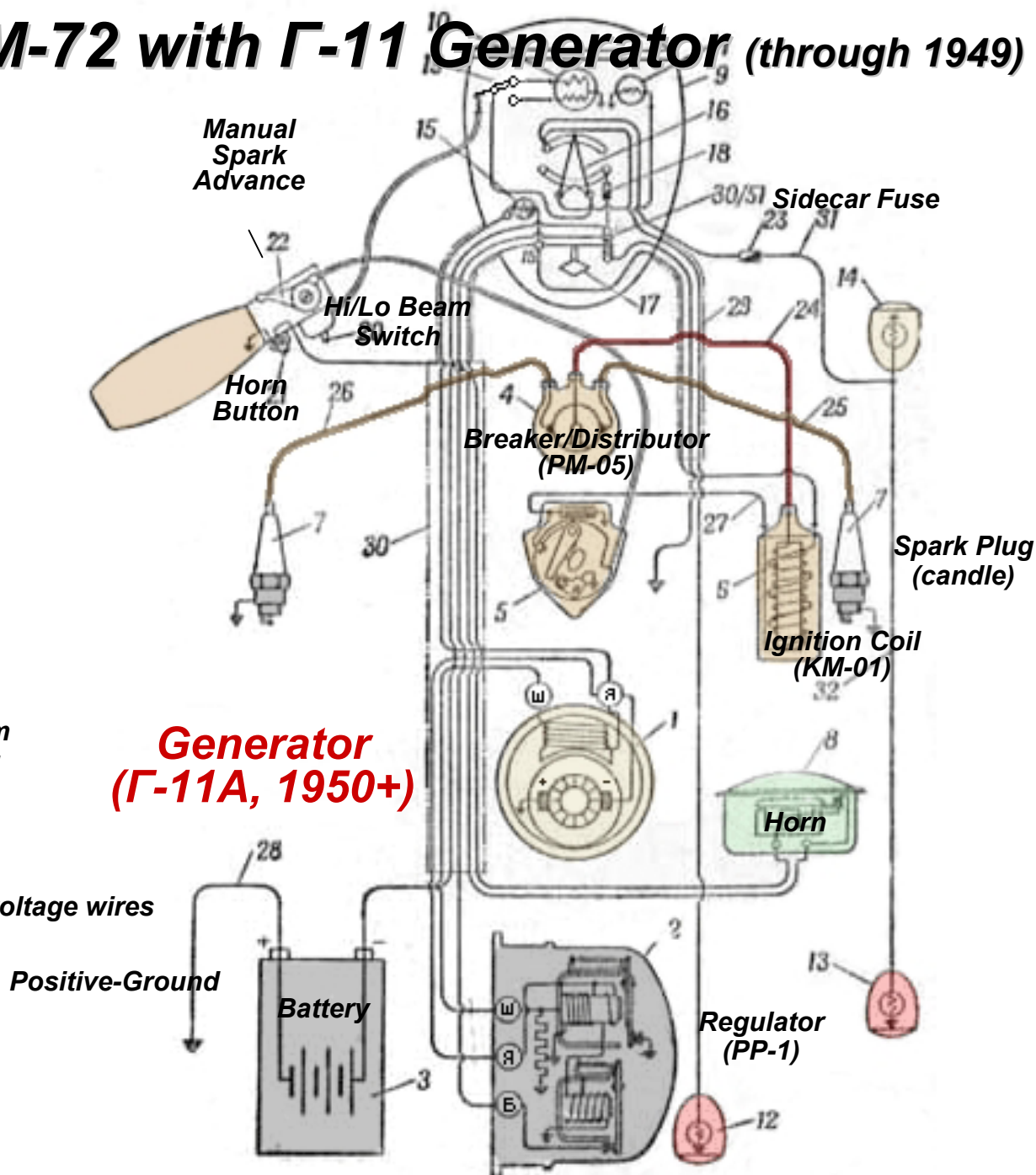
with Г-11 generator and PP-1 voltage regulator

Таблица 14

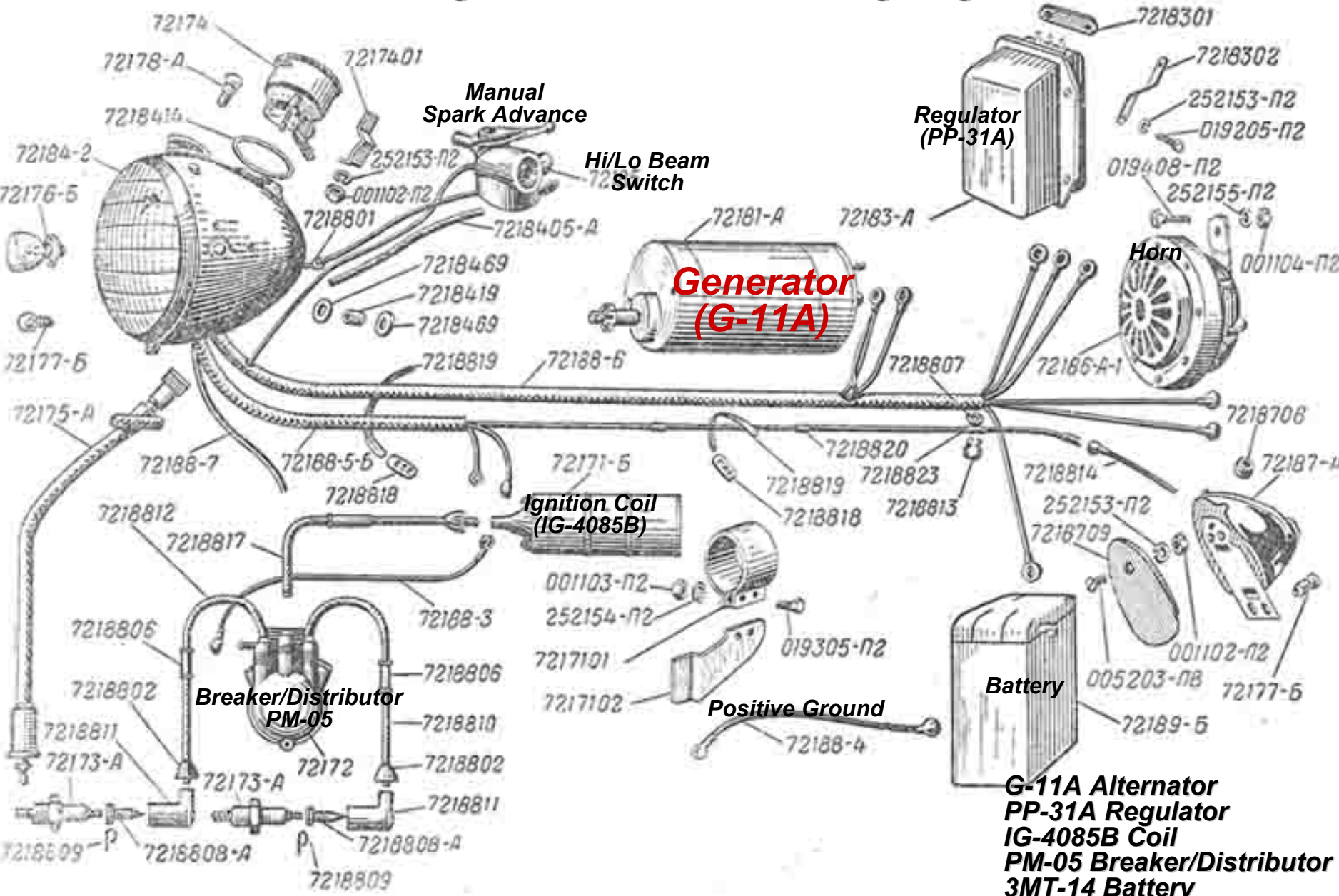


Ural (Урал) M-72 with Г-11 Generator (through 1949)

- 1 - generator: Г-11
- 2 - relay-regulator: PP-1
- 3 - rechargeable battery
- 4 - valve
- 5 - breaker/distributor: PM-05
- 6 - ignition coil: KM-01
- 7 - spark plugs (candles)
- 8 - signal
- 9 - lamp
- 10 - driving lamp and low light
- 11 - the parking light bulb
- 12 - tail light
- 13 - tail light sidecar
- 14 - front light sidecar
- 15 - control lamp
- 16 - ignition switch
- 17 - key
- 18 - fuse
- 19 - switch beam and dipped beam
- 20 - lever switch near and far light
- 21 - horn button signal
- 22 - Ignition control stick
- 23 - fuse lamps
- 24, 25 and 26 - high voltage wires
- 27, 28, 29 and 30 - bundle of low voltage wires
- 31 and 32 wire lanterns sidecar

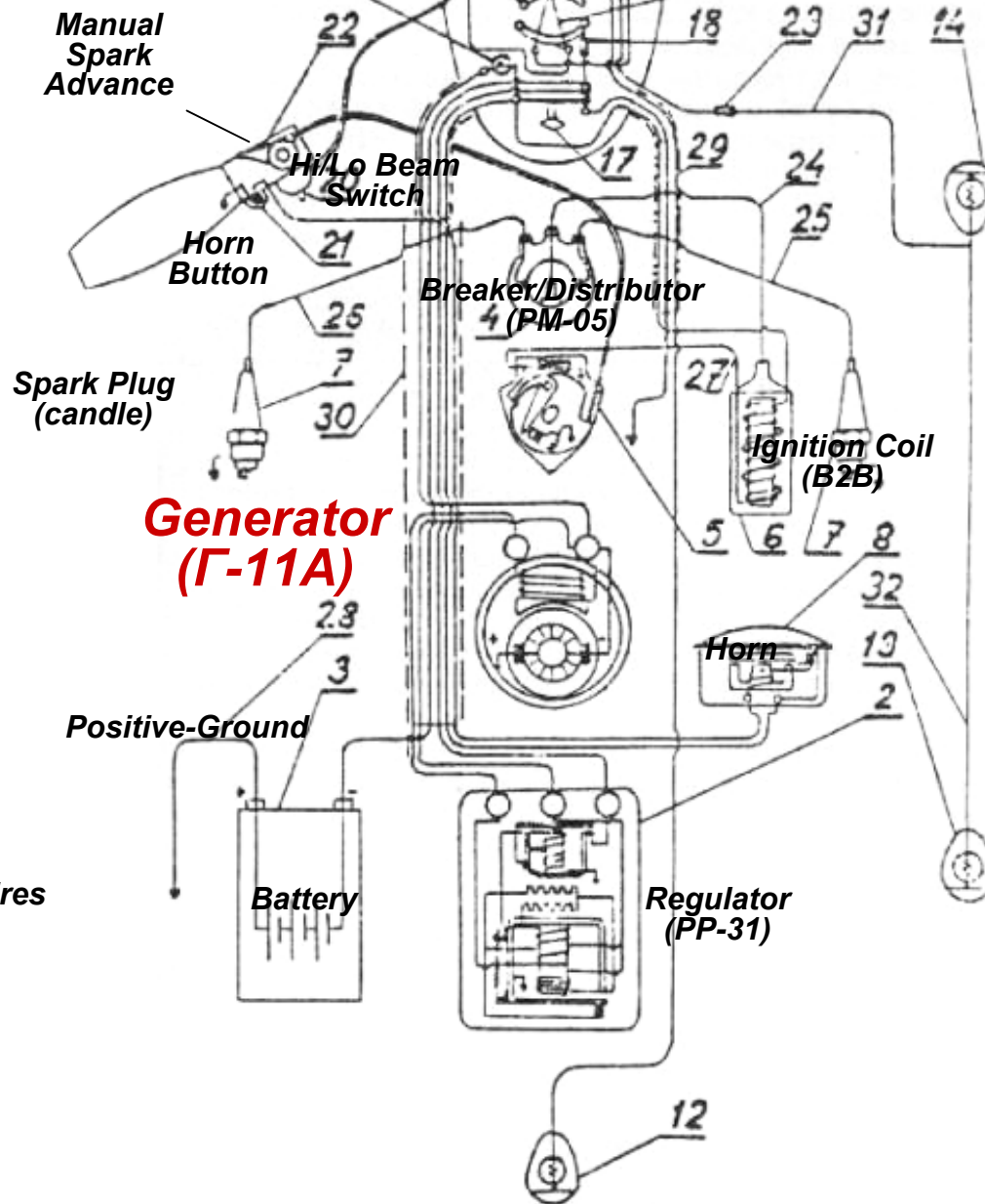


with Г-11А generator and PP-31 voltage regulator



Ural (Урал) M-72 with Г-11A Generator (1950+)

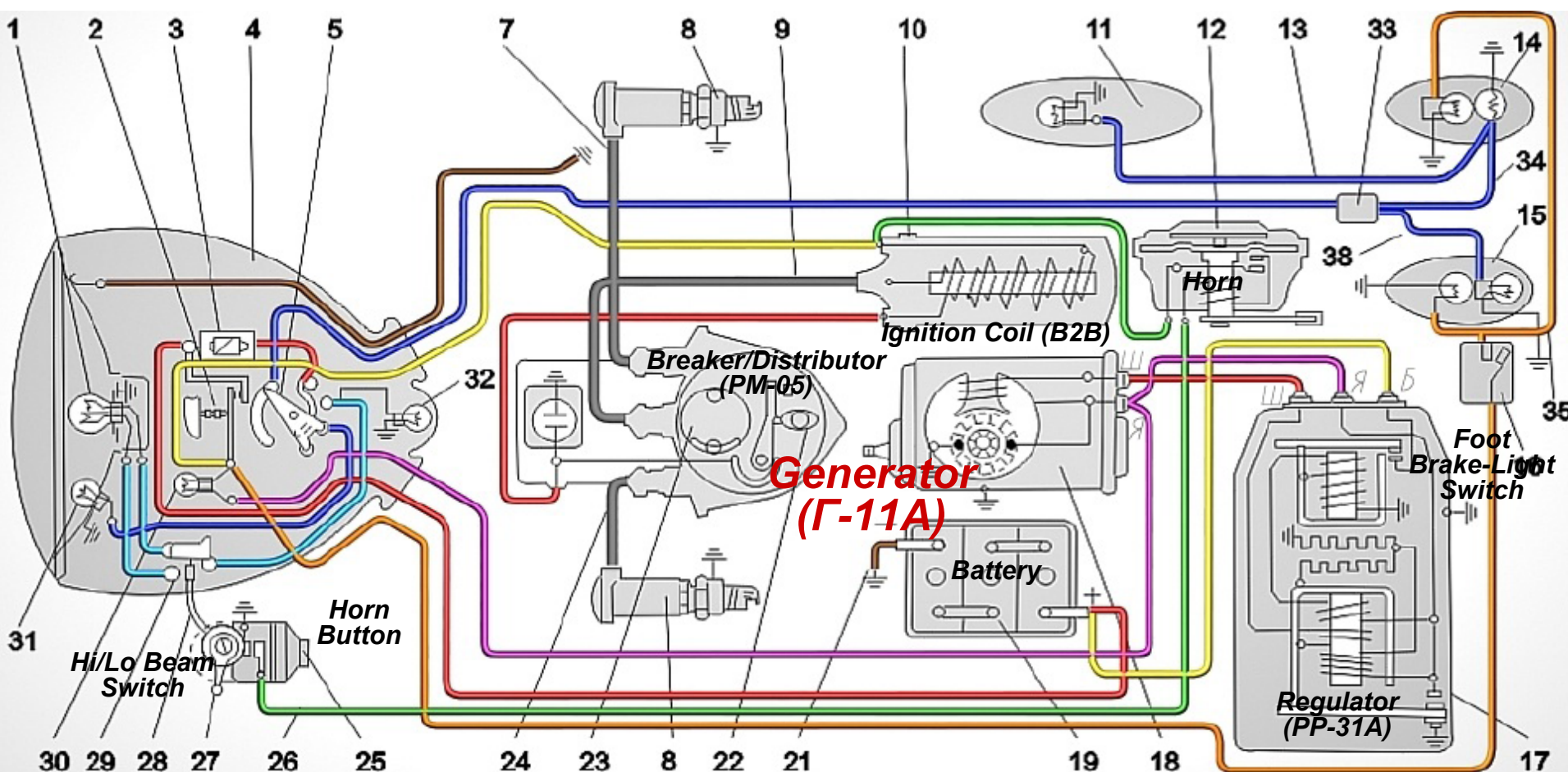
- 1 – generator: Г-11A
- 2 - relay-regulator: PP-31
- 3 - rechargeable battery
- 4 – valve
- 5 – breaker: PM-05
- 6 - ignition coil: B2B
- 7 – spark plugs (candles)
- 8 – signal
- 9 – lamp
- 10 - driving lamp and low light
- 11 - the parking light bulb
- 12 - tail light
- 13 - tail light sidecar
- 14 - front light sidecar
- 15 - control lamp
- 16 - a central switch
- 17 – key
- 18 – safety
- 19 - switch beam and dipped beam
- 20 - lever switch near and far light
- 21 - button signal
- 22 - Ignition control stick
- 23 - fuse lamps
- 24, 25 and 26 - high voltage wires
- 27, 28, 29 and 30 - bundle of low voltage wires
- 31 and 32 wire lanterns stroller



with PP-31 Voltage Regulator, PM-05 Breaker/Distributor and B2B Ignition Coil

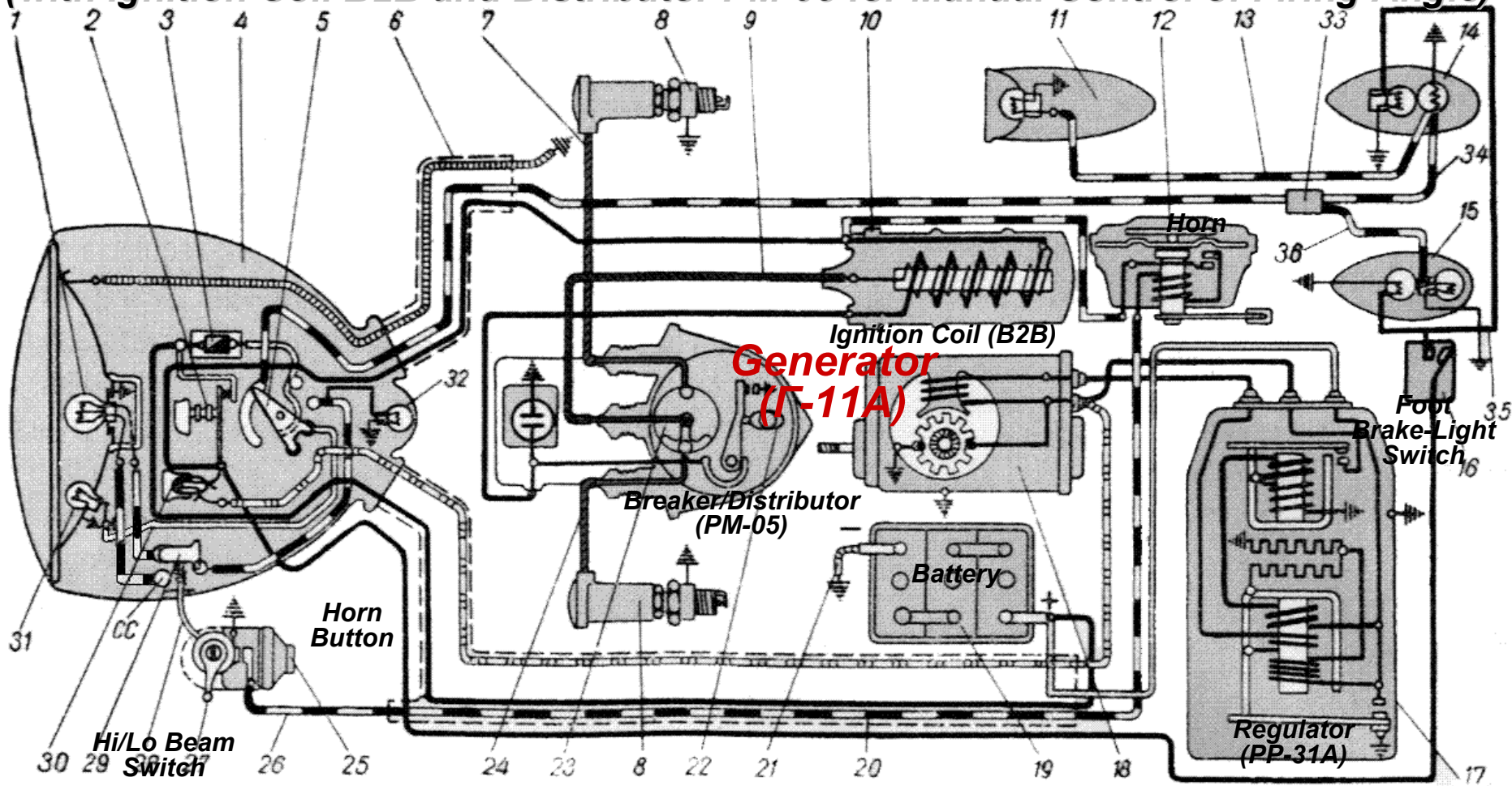
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Днепр (Днепр) Early K-750



Днепр (Днепр) Early K-750 and K-750M

(with Ignition Coil B2B and Distributor PM-05 for Manual Control of Firing Angle)



1 - lamp beam and dipped beam, 2 - key 3 - safety 4 - lamp, 5 - central switch, 6 - wire "ground", 7 - high voltage wire, 8 - spark plugs, 9 - high voltage 10 - ignition coil, 11 - front light stroller, 12 - horn, 13 - wire front canopy sidecar, 14 - tail light sidecar, 15 - tail lamp of motorcycle, 16 - gauge stoplight, 17 - Relay-regulator, 18 - generator, 19 - battery, 20 - Low voltage wiring loom, 21 - the wire "battery - ground", 22 - breaker, 23 - valve, 24 - high voltage wire and 25 - button signal 26 - wire signal 27 - advance ignition; 28 - cord switch driving and parking light, 29 - switch to driving and parking light, 30 - control lamp, 31 - the parking light bulb, 32 - lamp illuminated; 33 - Connecting Jack wires, 34 - cable sidecar lamps, 35 - wire from the sensor to Stop lamp, 36 - wire from the connector to the lamp lighting plate

Components of the Г-11 and Г-11А 6-Volt Generators (01/11)

