

SOLEX CARBURETTORS

40 ADDHE

TAG: 105.12.04

010.03

The Solex 40 ADDHE (specifically with tags like 105.12.04 or 116-23-04) is a twin-choke side-draft carburetor commonly used on classic Alfa Romeo 105-series engines (1300/1600/2000). These are similar in function to Weber DCOE carburetors but have distinct differences in jetting, emulsion tubes, and fuel connection threads (M11x1 for Solex, M8x1 for Weber). [[1](#), [2](#), [3](#)]

Key Technical Data & Settings (Alfa 105/116 Series)

- **Idle Mixture Screws:** Usually set between **1.5 and 2.5 turns out** from fully seated.
- **Idle Speed:** 950 to 1050 RPM.
- **Fuel Level (Float):** Measured from the top of the carburetor body, roughly **21 mm**.
- **Jetting (Typical 40 ADDHE for 1600-2000cc):**
 - **Main Jets:** Often around 110-145.
 - **Air Correctors:** Often around 180-193.
 - **Idle Jets:** Often 65-66.
- **Fuel Pressure:** Should be regulated to **2-3 psi**. [[4](#), [5](#), [6](#), [7](#)]

Adjustment Procedure

1. **Preparation:** Ensure the engine is at normal operating temperature and ignition timing is set.
2. **Idle Mixture:** Gently turn the mixture screws clockwise until they seat, then turn them out (counter-clockwise) 2 full turns to start.
3. **Synchronization:** Using a flow meter on the intake (or ram pipes), adjust the idle speed screw so both carburetors pull the same amount of air at idle.
4. **Fine Tuning:** Turn the idle mixture screw on each barrel slowly until the highest RPM is reached, then turn in slightly until the speed just starts to drop.
5. **Idle Speed:** Adjust the main idle speed screw to set final RPM (typically 900-1000). [[4](#), [5](#), [8](#), [9](#), [10](#)]

Key Differences from Weber

- **Jets:** Solex main jets are notoriously hard to source compared to Weber. Many owners replace the fixed main jets with adjustable ones (M11x1 thread) to simplify tuning.
- **Pump Jets:** Solex 40 ADDHE can be fitted with horizontal "shooter" style pump jets to improve throttle response.
- **Service Kits:** Basic rebuild kits, including gaskets and diaphragms, are available for these carbs. [[2](#), [11](#), [12](#), [13](#)]

For detailed exploded views and tuning, specialized classic car manuals (such as "Solex-Selection and Tuning of the Carburetor") are recommended.