

ARES

Digital Speed Control Systems for Industrial Vehicles



Range of Applications:

- ✓ Construction Machines
- ✓ Agricultural Machines
- ✓ Special Purpose Vehicles
- ✓ Mining Machines

Engine & Turbine Controls

HEINZMANN®



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Digital Speed Control Systems for Industrial Vehicles

Whenever industrial engines are used in machines or special purpose vehicles, the speed governors are faced with a particularly wide range of requirements. HEINZMANN Speed Governors are designed to satisfy all these requirements in an outstanding way.

Vehicles equipped with industrial engines, e.g., tractors, mobile cranes, etc., are used in different operating modes, such as on-road operation, driving during work or stationary operation. For each operating mode, the governor is expected to satisfy varying conditions with regard to governing mode, maximum torque, droop, set-point ranges, and other functions.

The functional block diagram below gives an example. Depending on governor size, functionality and casing protection type, there are various models of control units available.

HEINZMANN actuators operate exclusively electrically. Though bi-directional torque output is generated electrically, power consumption is kept extremely low. In addition, these actuators are equipped with a contactless feedback system.

Size-P inline injection pumps by Bosch are being supplied with the electric actuator mounted directly on the pump. In accordance with agreements between the companies of Bosch and HEINZMANN, delivery of the control device is taken over by HEINZMANN together with customer services such as training, application, and service for application cases in the field of industrial engines.

- ✓ For digital controls for generator operation, please refer to the **THESEUS** leaflet.
- ✓ For digital controls for rail operation, please refer to the **PEGASOS** leaflet.
- ✓ For digital controls for marine operation, please refer to the **POSEIDON** leaflet.
- ✓ Programming can be performed using the **Hand Held Programmer HP 03** or the user-friendly **HEINZMANN PC programme DcDesk 2000**.



DcDesk 2000

Programming can be done by means of HP 03 hand held programmer, or using the enhanced features of HEINZMANN's DcDesk 2000 PC program. Both can be used for setup, temporary monitoring and troubleshooting. In addition, the SATURN Remote Communication System is available.



Basic Specifications of Actuators

| Actuator | Effective rotational angle of output shaft | Maximum torque at output shaft (approx.) | Torque in steady state condition (approx.) |
|--------------------|--|--|--|
| StG 6-01 | 36° | 4 Nm | 1.3 Nm |
| StG 6-02V | 36° | 6 Nm | 2 Nm |
| StG 2040.11 | 36° | 4 Nm | 1.3 Nm |

| Actuator | Maximum control rod travel | Max. magnetic power in 100% direction approx. | Spring power of back spring in full position approx. | Spring power of back spring in stop position approx. |
|----------------------|----------------------------|---|--|--|
| StG 2040 DP | 21 mm | 85 N | 40 N | 30 N |
| StG Bosch EDC | 21 mm | 75 N | 50 N | 10 N |

Actuators



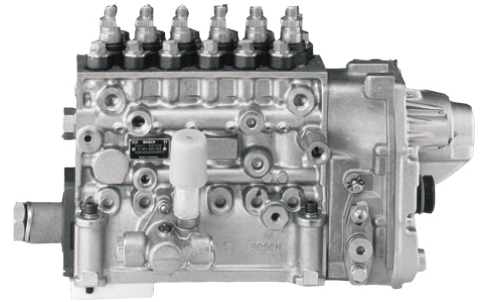
StG 2040



StG 2040 DP



StG 6 / 6V



StG Bosch EDC

Control Units:

Power range up to 1MW



DC 6

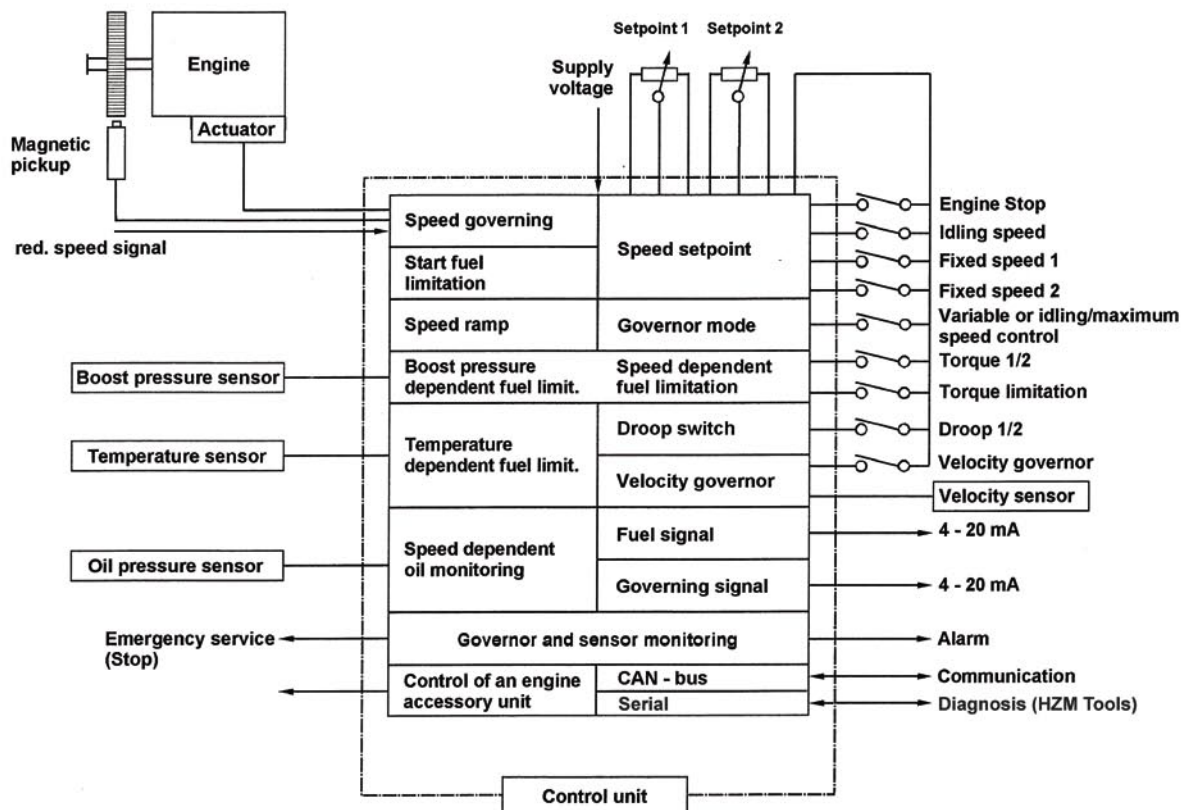


DC 2.1



DC 1.3

Functional Block Diagram of an Industrial Engine Application (Vehicle)





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Selection of HEINZMANN products

Wide range of digital and analogue control units



Different sized electrical actuators for 1Nm up to 500 Nm



Electronic fuel control system (EFI) - control units from 4 cyl. up to 20 cyl. engines



Range of analogue and digital generator management units



Gas engine management



Common rail systems



Sensors & solenoids



Digital control systems for gas turbines



Hydraulic governors & actuators



Quality & Precision since 1897

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