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Installation of the Barber-Colman DYNA 2000 Linear Electric Governor on the Hercules G1600, 4 Cylinder engine.

Read all instructions and review the layout drawing before attempting this installation.

I. Installation Instructions

1. Remove the mechanical governor linkage from the carburetor lever.
2. Drill a 3/16" dia. hole in the carburetor lever at a radius of 3/4".
3. Refer to the top view of the layout drawing and install a 10-32 rod end bearing — Item 12, on the throttle lever using the hardware shown.
4. Refer to the left side view of the layout drawing and install the carburetor throttle lever as shown.
5. Install the Item 3 actuator mounting bracket between the carburetor and manifold flanges using two gaskets as shown.
6. Install the actuator — Item 1, using four each of the Item 8 screws, with the nuts and lock washers specified.
7. Install the clevis — Item 11, on the actuator shaft, and carefully tighten the M6 jam nut against the back side of the clevis.
8. Install two jam nuts on the 10-32 threaded rod and finish installing the linkage. Tighten all screws and nuts relating to the linkage. Note: The actuator shaft extends when the governor is energized.
9. Install the magnetic pickup — Item 18, in the bell housing using the Item 19 bushing, if needed.

Wiring

1. Wiring is simplified if the Item 21 terminal strip is mounted close to the controller.
2. A typical wiring diagram is included. The controller, Item 2, is to be panel mounted. The actuator and D.C. power leads should be 14 gauge twisted pairs.
3. The negative D.C. power lead of the controller should be connected to the negative battery terminal or to where the large battery negative cable connects to the engine block. This is recommended because this is an ignition type engine.
4. Governor power leads and actuator leads should be minimum 14 gauge tightly twisted pairs.

II. Parts List

A. Table 1. Governor Assembly

Specify voltage when ordering Items 1 and 2

Item	Description	Barber-Colman Part Number	Qty.
1	Governor actuator	DYNC-10202	1
2	Controller	DYN1-10724	1

B. Table 2. Installation Kit

B-C Part Number DYNK-10313

Item	Description	Barber-Colman Part Number	Qty.
3	Bracket - Install between carb & intake manifold	DYNK-32-25	1
4	Carburetor mounting studs Replaces original 3/8 - 16 x 2" (See note*)	BYRF-1681	2
5	Nuts 3/8 - 16	DYRF-262	2
6	Lock washers 3/8	DYNZ-152	2
7	— Intentionally blank —		
8	Act. mount screws 1/4 - 28 x 7/8" (Socket Hd)	BYRF-1460	4
9	Lock washers 1/4"	CYRF-558	4
10	Nuts 1/4 - 28	DYRF-293	4
11	Clevis	DYNK-218-2	1
12	Rod end bearings 10-32	AKKH-175	2
13	No. 10 flat washer	CYRD-23	1
14	Nuts 10 - 32 Hex	DYRF-554	4
15	Lock washers No. 10	CYRD-198	2
16	Screws 10 - 32 x 1" socket hd.	BYRF-1437	2
17	Linkage rod 10 - 32 x 1.18"	DYNK-31-005	1
18	Magnetic pickup 3/8 - 25 th.	DYNT-17200	1
19	Bushing for Item 15 5/8-18 to 3/8-24	DYNC-600-3	1
20	Wire lugs for actuator leads	E24-866-1	2
21	8 Point terminal block	E24-230	1

* If too long, cut off excess.

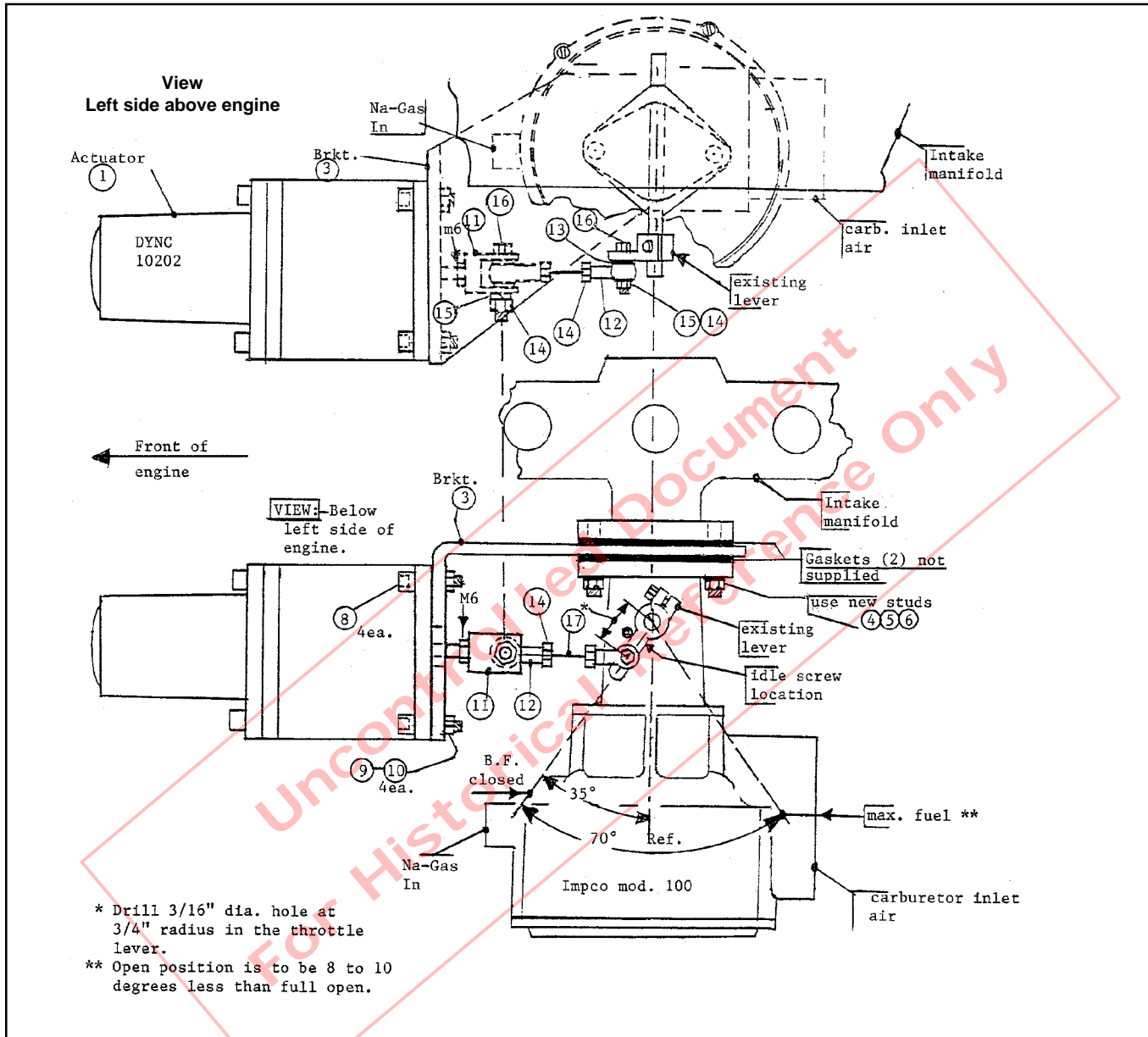
C. Table 3. Optional Parts

Item	Description	Barber-Colman Part Number	Qty.
22	Controller for remote spd. and/or parallel operation	DYN1-10754	1
23	Remote speed pot, 5K - 10 turn	DYNS-10000	1
24	3 Wire foild shielded cable	E26-22	*
25	D.C. power switch, toggle type	CYZP-11-1	1
26	Electronic overspeed switch	DYNZ-60010	1

* Specify length

Layout Drawing

Installation drawing of the Barber-Colman DYNA 2000 linear electric governor on the Hercules G6100 4 cylinder engine. The views shown are for a Natural Gas Impco model 100 carburetor, P/N 258616. Note: If the fuel is gasoline, the carburetor would be a Zenith model 13683C, P/N 40-2060051. The linkage arrangement would be the same as below, also using a lever having a 0.75 inch radius. The engine ring gear has 134 teeth. Overspeed protection is recommended.



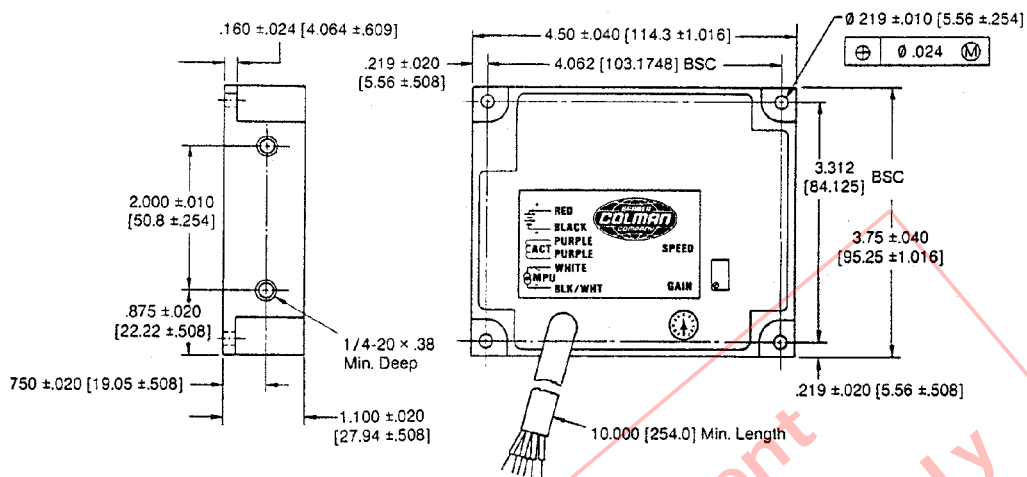
CAUTION

As a safety measure, the engine should be equipped with an independent overspeed shutdown device in the event of failure which may render the governor inoperative.

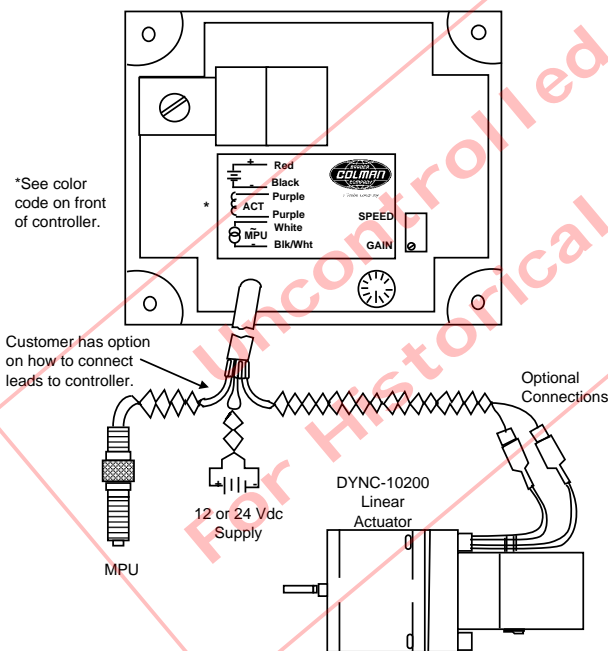
NOTE

Barber-Colman believes that all information provided herein is correct and reliable and reserves the right to update at any time. Barber-Colman does not assume any responsibility for its use unless otherwise expressly undertaken.

Controller Installation Dimensions



Typical Wiring Diagram



Note:

The negative power lead should be connected to where the large battery cable ties to the engine, or direct to the battery negative post.

The bare shield wire of the magnetic pickup cable is to be connected to the controller negative power lead.

Barber-Colman Company AEROSPACE & POWER CONTROLS DIVISION DYNA Product Group

1354 Clifford Avenue
P.O. Box 2940
Loves Park, IL U.S.A. 61132-2940

Phone: (815) 637-3000
Fax: (815) 877-0150

In Europe contact: Barber-Colman GmbH
Am neuen Rheinhafen 4, D-6720 Speyer, West Germany
Tel: 06232-1203, Fax: 06232-12155, Telex: 467 627

In Japan contact: Ranco Japan Ltd.
Shiozaki Bldg. 7-1, 2-chome, Hirakawa-Cho, Chiyoda-Ku
Tokyo 102, Japan
Tel: 3261-4293, Fax: 3264-4691, Telex: 0232-2087