



Installation of a Barber-Colman 1/4 ft. lb. Linear Governor on a Nissan H15/H20-II/H25 engine. The governor actuator mounting bracket is attached to the intake/exhaust manifold mounting bolts and secured with two nuts.

This governor installation is intended to control an Impco CA55 LP or natural gas type carburetor. The actuator is to be connected to hold the throttle in the closed position when power is removed from the system.

This bulletin contains the following:

- I. Installation Instructions
- II. Parts List
- III. Layout Drawings

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

## I. Installation Instructions

### A. Engine Preparation

1. Disconnect the battery.
2. Remove and discard any linkage attached to the carburetor's throttle lever. Save the throttle lever for modification.
3. Remove the two center intake/exhaust manifold nuts and spacers. (Save the M8 nuts for later use.)



### B. Actuator Installation

1. Obtain from the parts list the actuator (Item 1), actuator bracket (Item 3), socket head cap screws (1/4-28 x .875)(Item 7), lock washers (1/4)(Item 6) and hex nuts (1/4-28)(Item 8).
2. Attach the actuator (Item 1) to the bracket (Item 3) using socket head cap screws (Item 7), lock washers (Item 6) and hex nuts (Item 8).
3. Attach the actuator bracket (Item 3) onto the intake/exhaust mounting studs using the M8 nuts saved in section A and two M8 washers (Item 15) provided in the kit.

### C. Throttle Linkage Installation

#### **-NOTE-**

Prior to installation of the throttle linkage, one must verify that the throttle lever is located on the side of the carburetor that is adjacent to the front of the engine. Also, the throttle plate return spring will need to be removed to improve governor performance.

1. Remove the existing throttle lever. Measure a 1 inch radius from the center of the throttle shaft hole to a location on the lever. Drill a 3/16" diameter hole at this location and reinstall the lever to the throttle shaft at 47° or about 1:30 while holding the throttle plate in the closed position.



2. Obtain from the parts list the clevis (Item 4), M6 hex nut (Item 14), rod end bearings (Item 5), threaded rod (Item 9), socket head cap screws (10-32 x .750) (Item 11), lock washers (10) (Item 12) and hex nuts (10-32) (Item 10).

3. Attach the actuator clevis (Item 4) to the actuator shaft by turning the clevis six complete turns and torque the M6 jam nut (Item 14) into the clevis to 65 inch pounds.

4. Assemble the throttle linkage by placing one 10-32 nut (Item 10) and rod end bearing (Item 5) to each end of the threaded rod (Item 9). The linkage assembly length from the center of the rod end bearings is approximately 3.9”.

5. Secure one rod end bearing into the actuator clevis with one 10-32 x .75 screw (Item 11), lock washer (Item 12) and nut (Item 10).

6. Rotate the carburetor throttle lever to the closed position. This will place the throttle lever to about 47°. (Refer to the layout drawing for reference). Adjust the length of the linkage by turning the rod end bearing to align with the hole drilled into the throttle lever arm. Secure the bearing to the lever with one 10-32 x .75 socket head cap screw (Item 11), two lock washers (Item 12) and nut (Item 10). **Note:** One lock washer is to be placed on each side of the rod end bearing.

**D. Magnetic Pickup Installation**

1. Establish a reference point and measure from this point to the center of the flywheel teeth. Note this measurement.

2. On the side the flywheel housing opposite the starter, measure the noted measurement from the reference point and center punch this point. Drill and tap a 3/8-24 hole.

3. Position a ring gear tooth in the center of the hole. Install the magnetic pickup until the tip makes contact with the tooth. Back the pickup out 1/2 turn. This will be approximately .02 clearance.

**NOTE**

**Wire the controller according to Barber-Colman wiring diagrams.**

**Installation of the Barber-Colman governor is now complete.**

**II. Parts List**

**A. Table 1. Governor Assembly**

(specify voltage when ordering Items 1 and 2.)

Item	Description	Barber-Colman Part Number	Qty.
1	Actuator	DYNC-10202	1
2	Control	DYN1-10744	1

**B. Table 2. Installation Kit**

**B-C Part Number DYNK-10409**

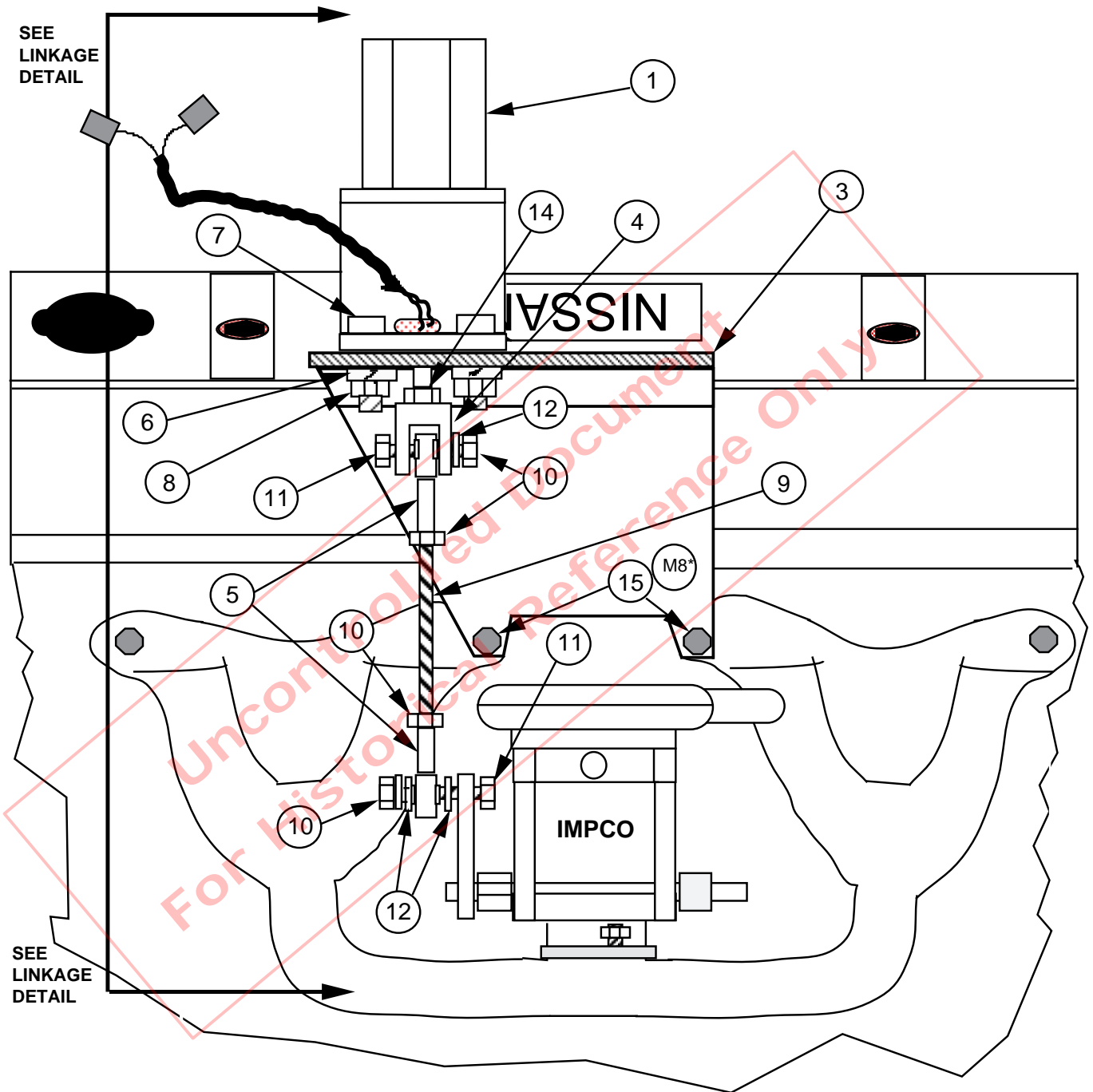
Item	Description	Barber-Colman Part Number	Qty.
3	Actuator mounting bracket	DYNK-329	1
4	Clevis	DYNK-218-2	1
5	Rod end bearing (10-32)	AKKH-175	2
6	Lock washer (1/4)	CYRD-558	4
7	Socket head cap screw (1/4-28 x .875)	BYRF-1460	4
8	Hex nut (1/4-28)	DYRF-293	4
9	Threaded rod (10-32)	DYNK-31-13	1
10	Hex nut (10-32)	DYRF-29	4
11	Screw (10-32 x .750)	BYRF-2516	2
12	Lock washer (10)	CYRD-198	3
13	Magnetic pickup	DYNT-17200	1
14	Hex nut M6	N1-1	1
15	Lock washer M8	W1-3	2

**C. Table 3. Optional Control Components**

Item	Description	Barber-Colman Part Number	Qty.
16	*Control	DYN1-10754	1
17	Remote speed potentiometer	DYNS-10000	1

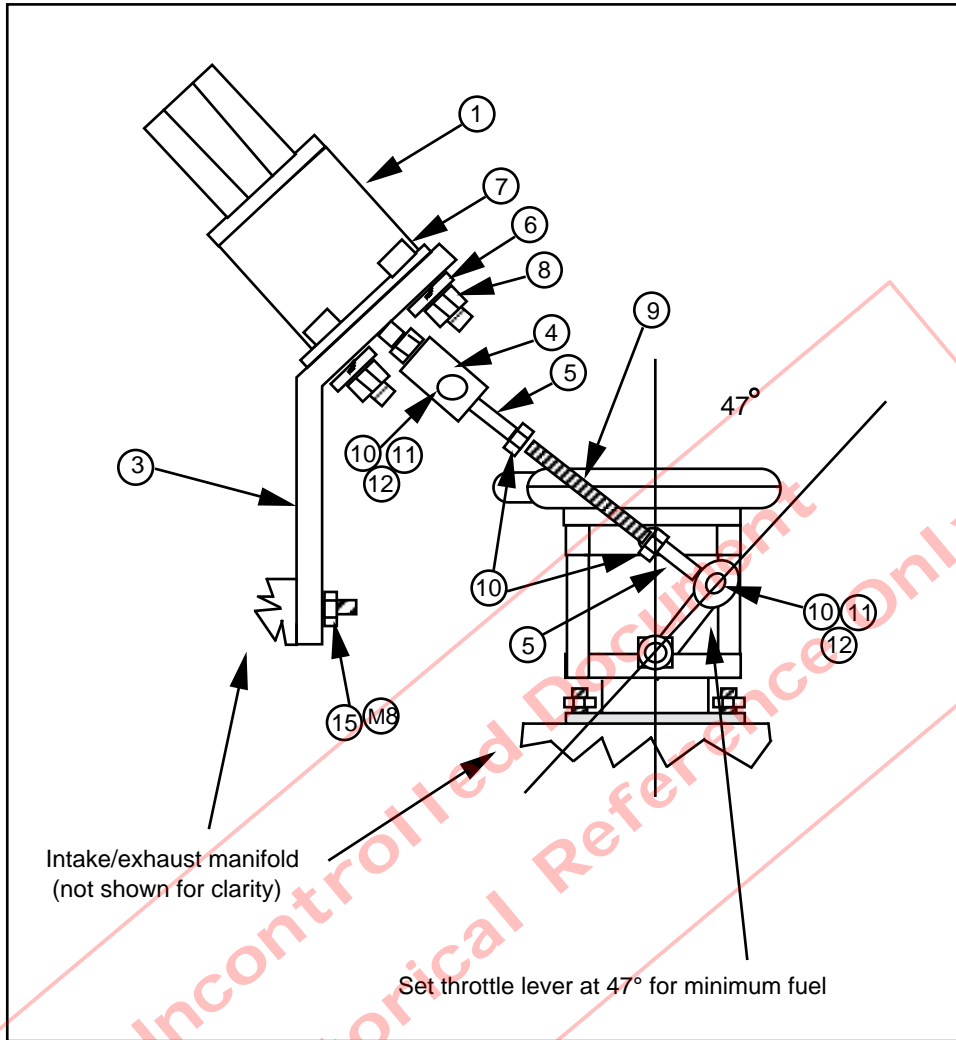
\*This control has remote speed capabilities

III. Layout Drawing - Figure 1  
(View of Engine Looking From Upper Left Side of Engine)



\*Refer to Page 1-Section I.A.3. of this bulletin.

**III. Layout Drawing - Figure 2  
(Linkage Arrangement Side View)**



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**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.

**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.