

SHOP MANUAL

BINDER

GRADER

GALION MANUFACTURING COMPANY, Galion, Ohio 44833, U.S.A.

a Jeffrey Galion Inc. Company

FILE

B

SECTION

8.10 R1

(8/73)

T-500 AND T-600 CUMMINS OUTPUT

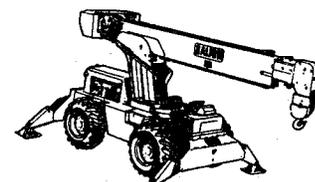
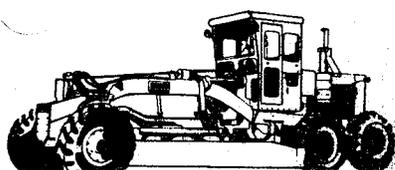
SHAFT GOVERNOR ADJUSTMENT

The adjustment of converter output shaft governors, is not a difficult procedure; however, to effectively adjust a governor, a sequence of adjustment is recommended along with an understanding of the operation.

The governor is driven by the converter output shaft which is directly connected to the driving wheels through the gear train. As wheel speed increases or decreases with addition or removal of load, the governor fly weight mechanism's speed increases or decreases accordingly. This mechanical action is directly utilized to control the engine fuel supply, automatically increasing or decreasing engine power as required to maintain wheel rotation at a constant speed within the power output of the engine.

ENGINE SPEEDS

GRADER MODEL	ENGINE	HIGH IDLE		LOW IDLE		
		RPM	LIMITED BY HAND THROTTLE	RPM	LIMITED BY HAND THROTTLE	STALL RPM
T-500 A	C464, C160	2,500	2,150	700	900	2,340
T-500 QP4	C464, C160	2,500	2,150	700	900	2,340
T-500 L	CT464-C175	2,700	2,300	700	900	2,510
T-500 QP5	CT464-C175	2,700	2,300	700	900	2,510
T-600 B	CT464-C175	2,700	2,300	700	900	2,510

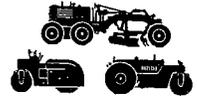


A

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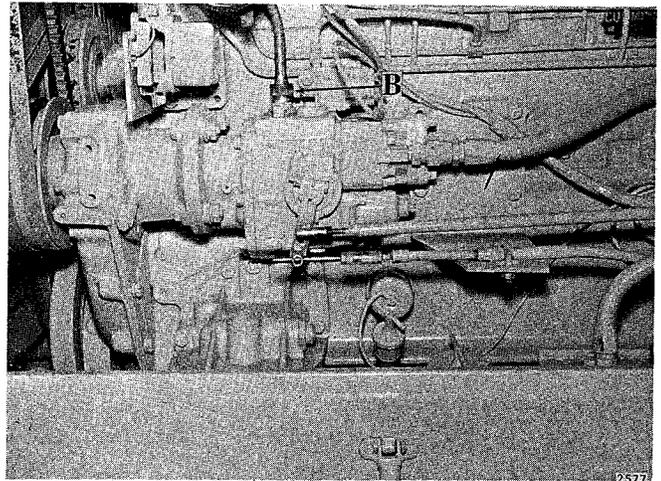
C

D



1

Install a tachometer in the drive adaptor (B) provided in the P-T pump.



2

Disconnect the control rod (A) and clamp (G).

Remove the control rod and the decelerator cable from the pump arm swivel.

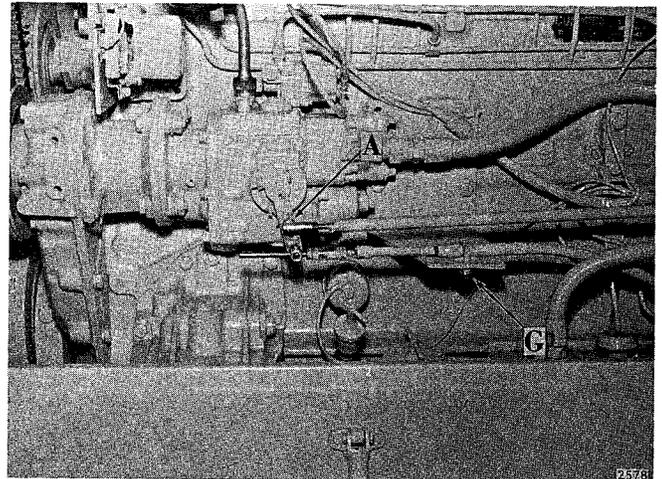
Start engine.

Operating pump lever by hand, read and record:

Engine Low Idle _____ RPM
Engine High Idle _____ RPM

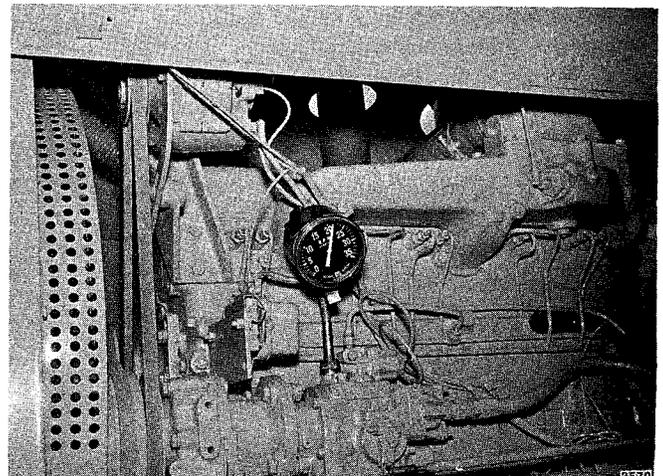
With parking brake set, transmission in high range and second speed (4th gear), manually move pump lever to the full open position, read and record: Engine Stall Speed _____ RPM.

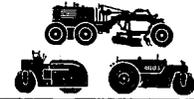
Compare with specifications on back of cover sheet, this section. Check engine and converter model.



3

If low idle, high idle and stall speeds are not within limits given for engine model and converter model, mechanical repair to engine and/or converter must be made before satisfactory governor adjustment can be effected.

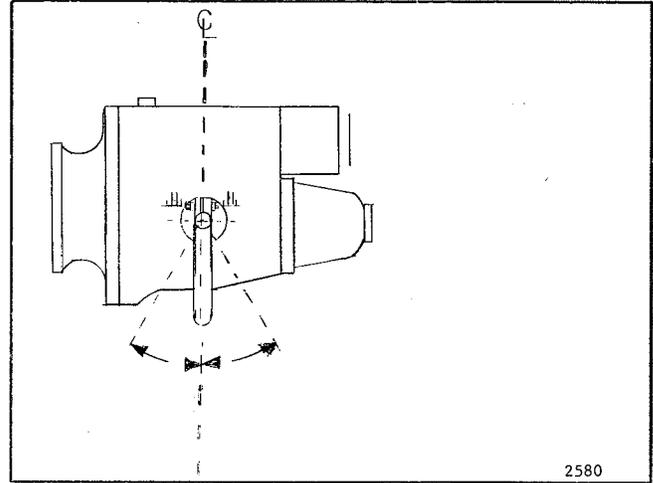




4

Engine not running, adjust P-T pump arm to provide equal travel to front and to rear of center line.

Loosen clamping bolt and move arm on shaft to effect this adjustment.



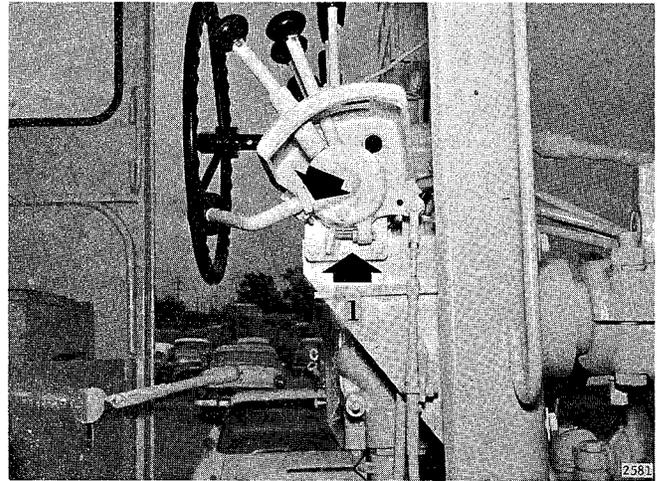
5

Position speed control limit screws in approximate position as shown.

Tighten jam nut on low speed screw (1).

If limit screws are not present they must be installed.

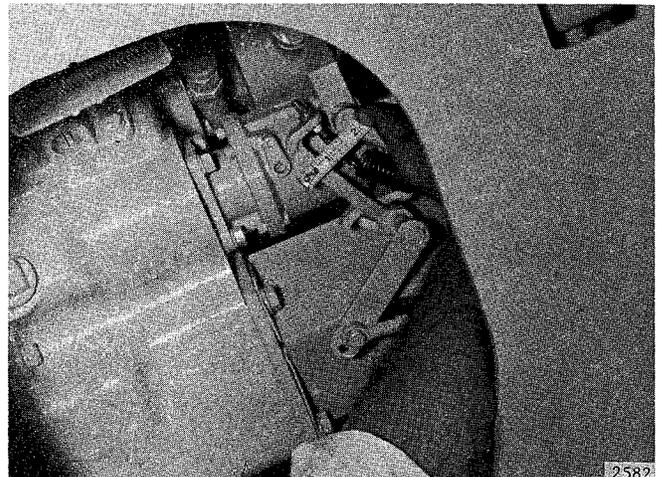
Set speed control lever on low stop.

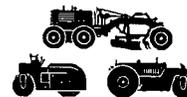


6

Loosen control cable U-bolt (hidden by serviceman's arm in photograph), move cable until approximately $9/16$ " clearance is obtained between eye-bolt and shaft center.

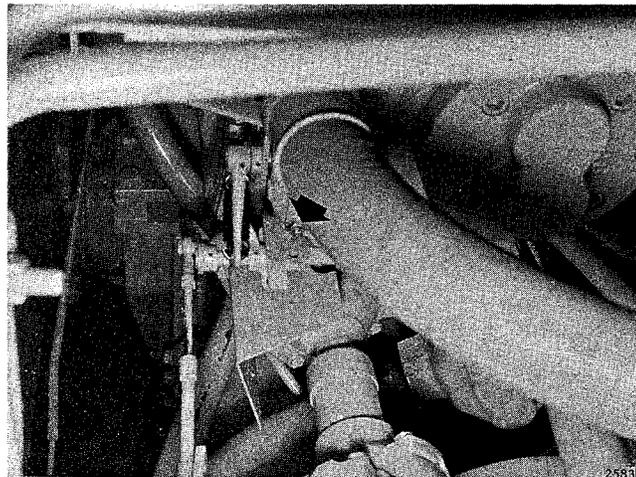
Clamp cable U-bolt and finish adjustment to $9/16 \pm 1/8$ " by moving nuts on eye-bolt.





7

Loosen jam nut and back out buffer screw on front of governor.



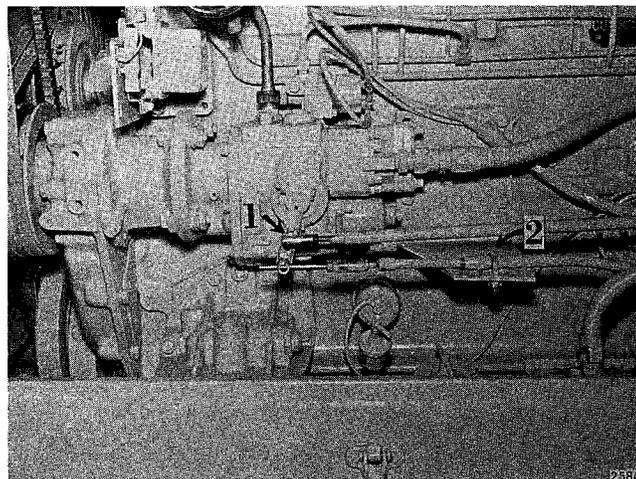
8

Move speed control lever to 1/2 open position. (engine not running.)

Adjust control rod length to allow stud to slip into upper hole (1) in arm. Fuel pump arm must be in maximum open position when this adjustment is made.

Install retaining nut and tighten.

Install decelerator cable rod in swivel and place U-bolt over cable (2)--do not tighten U-bolt.

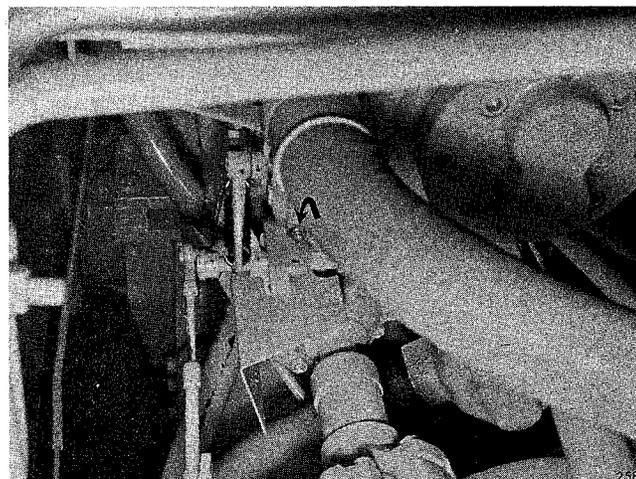


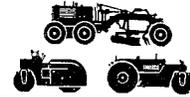
9

Engine running and speed control lever on low stop, adjust spring tension on governor to produce engine speed of 800 ± 25 RPM.

Screw in buffer screw until engine maintains constant speed above (does not surge or hunt).

Tighten buffer screw jam nut.





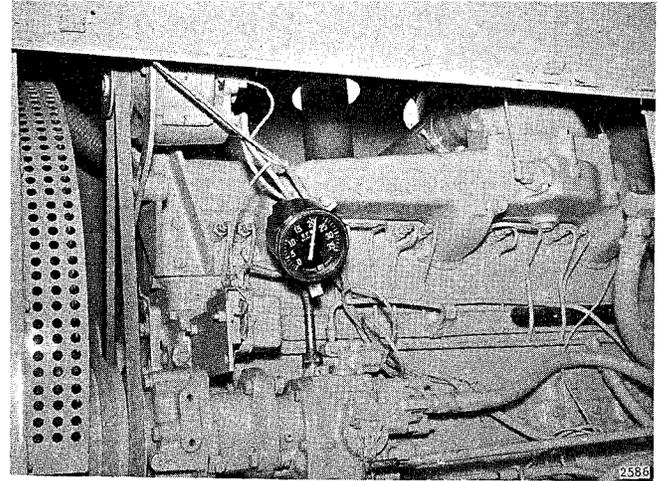
10

Adjust engine speed with control lever until tachometer indicates value listed under "speed control setting (Max.)"

Screw speed control lever high speed stop screw in until it contacts boss. Set jaw unit.

Work speed lever low to high several times to check no load reading.

See back of cover sheet, this section for requirements.



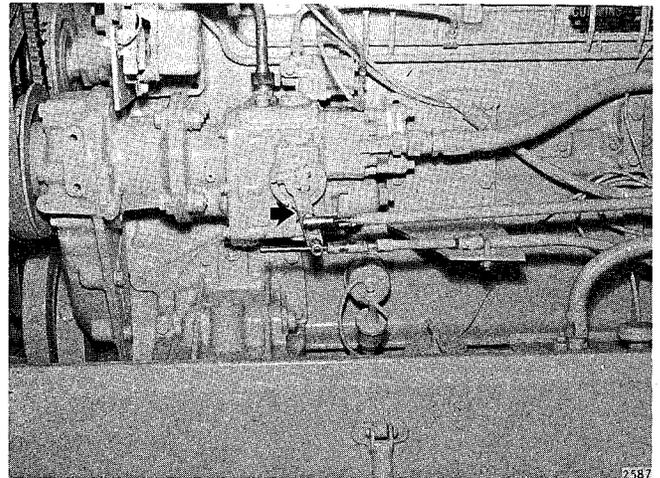
11

Converter stall engine (See paragraph 2).

During stall, move P-T pump arm by hand, to determine whether or not engine is being full fueled by governor.

If not--repeat adjustment, paying close attention to paragraphs 4 and 8.

Stall condition must not exceed 30 seconds duration at any one period and converter oil temperature not to exceed 250°F. at any time.



12

Adjust decelerator cable U-bolt to run engine 600 ± 25 RPM when decelerator pedal is depressed to floor plate in cab.

Decelerator pedal must bottom on floor plate and not over travel P-T pump arm.

Adjust pedal length by loosening jam nut and screwing pedal up or down as required.

Tighten jam nut when adjustment is complete.

