

APE

**TORQUE
VALUES**

AMERICAN BOSCH DIVISION

AMERICAN
BOSCH
ARMA
CORPORATION

SPRINGFIELD 7 MASS U.S.A.

TORQUE CHART
AMERICAN BOSCH
APE FUEL INJECTION PUMP

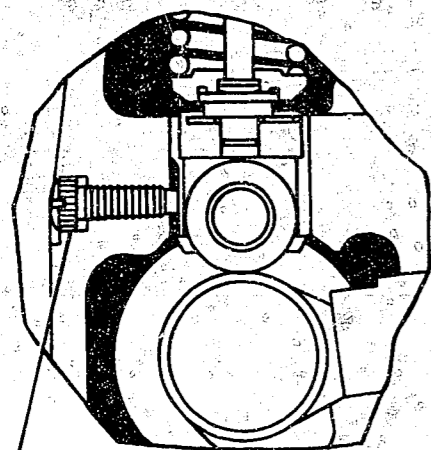


APE TYPE PUMP TORQUE VALUES

A-32-34 FT. LB.
 B-34-36 FT. LB.
 BB-85-90 FT. LB.
 Z-110-136 FT. LB.

CONTROL RACK MOVEMENT
 PLUNGER DIA. PULL

A-4-8 MM	25 OZ. MAX.
A-8.5-9 MM	30 OZ. MAX.
B-5-10 MM	25 OZ. MAX.
B-11 MM	30 OZ. MAX.
BB & Z ALL	30 OZ. MAX.



APE BB
 50-55 IN. LB.
 STAKE AFTER TORQUEING

A-35-40 FT. LB.
 B AND BB FOR MACK 50-55 FT. LB.
 BB-80-90 FT. LB.
 Z-80-90 FT. LB.

A-50-55 IN. LB.
 B-95-100 IN. LB.
 BB-95-100 IN. LB.

90-100 IN. LB.

TIGHTEN TO PREVENT LEAKAGE

SLIP CLUTCH
 ALL 30-35 FT. LB.

A-30-35 FT. LB.
 B-50-55 FT. LB.

A-35-40 FT. LB.
 B & BB-50-55 FT. LB.

50-55 IN. LB.

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SUBJECT: Installing Drive Coupling on Camshaft of APE Type Injection Pump

In certain cases the tapered ends of the APE type Injection pump camshaft have been bent several thousandths of an inch when installing the drive coupling and/or the governor drive gear. The bending of the shaft extension is caused by use of an excessively long handle on the socket wrench when tightening the camshaft nut.

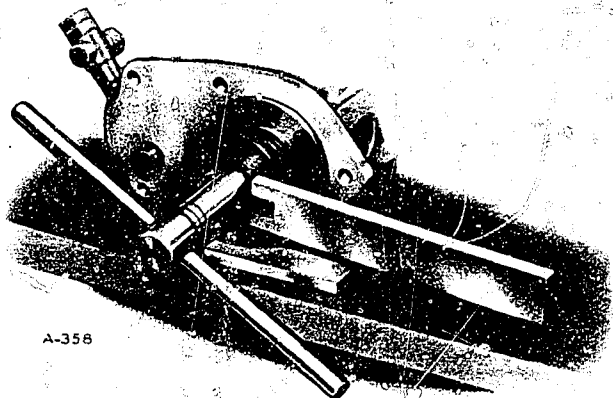
A bent camshaft extension will cause run-out of the drive coupling and governor drive gear with resultant damage to the camshaft itself as well as the mating parts of coupling and gear.

To prevent damage to the camshaft extension by improper installation procedures, a "T" handle wrench and the following method should be used: -

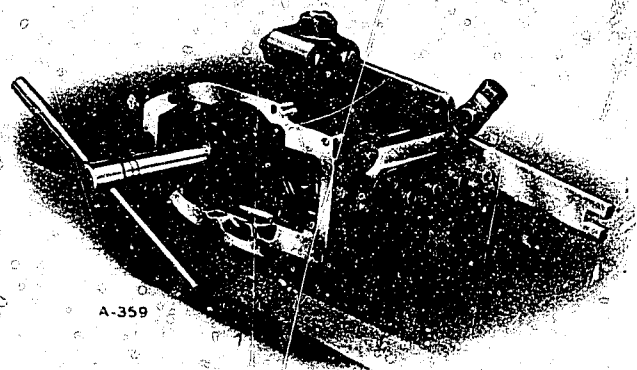
Install coupling or governor drive gear on camshaft, lockwasher and finger tighten camshaft nut.

Lay pump on its side on bench, support coupling with suitable thickness spacer block, position holding tool TSE 7913 between coupling lug and bench.

Tighten camshaft nut using socket wrench on "T" handle drive.



A-358



A-359

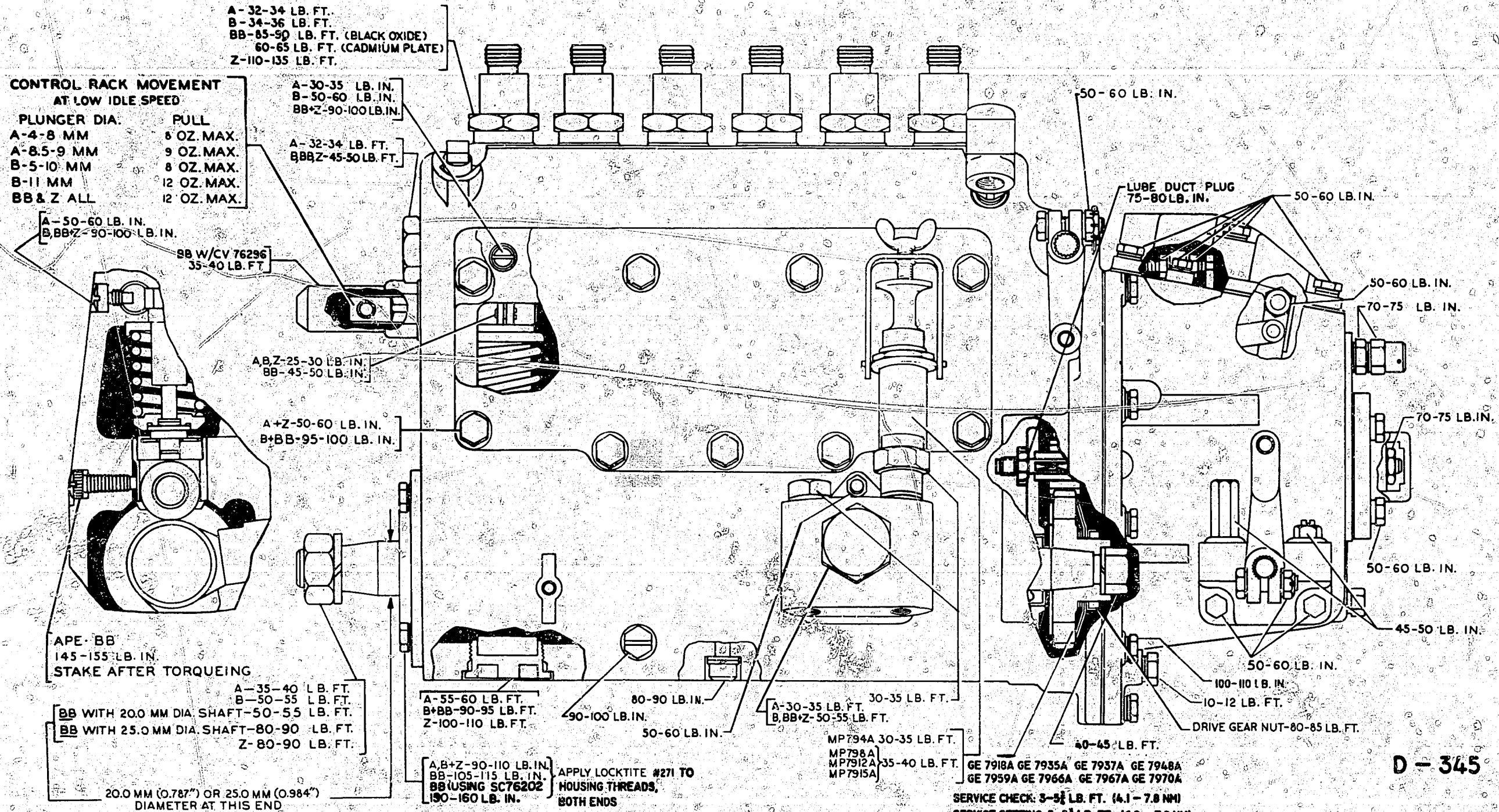
AMERICAN BOSCH

APE FUEL INJECTION PUMP

TORQUE SPECIFICATIONS

NOTE: For APE 8VBB torque specifications,
see Manual Section D 173/3302.
For complete GVB torque specifications,
see Manual Section D 320/3500.

APE TYPE PUMP TORQUE VALUES (Excluding APE 8VBB & VG)



D-345

METRIC EQUIVALENTS

Ounces (Oz.)	Newtons (N)	Lb. In.	Newton Meters (Nm)	Lb. In.	Newton Meters (Nm)	Lb. Ft.	Newton Meters (Nm)	Lb. Ft.	Newton Meters (Nm)
8	2.2	25-30	2.8-3.4	90-100	12.0-11.0	10-12	14-16	55-60	75-80
9	2.5	30-35	3.4-4.0	90-110	10.0-12.0	30-35	40-48	60-65	80-90
12	3.3	45-50	5.0-5.5	95-100	10.5-11.5	32-34	44-46	80-85	110-115
		50-60	5.5-7.0	100-110	11.0-12.0	34-36	46-48	80-90	110-120
		70-75	8.0-8.5	105-115	12.0-13.0	35-40	48-54	85-90	115-120
		80-90	9.0-10.0	145-155	16.0-18.0	40-45	54-60	90-95	120-130
						45-50	60-70	100-110	140-150
						50-55	70-75	110-135	150-180