CAUTION: Fuel leaves nozzle tip with sufficient force to penetrate the skin. Keep unprotected parts of body clear of nozzle tip when teeting.

146. OPENING PRESSURE. Connect. injector to tester and operate lever several times to purge air from nourle and to make sure nozzle valve is not stuck. Operate tester lever slowly and observe pressure at which injection spray occurs. Opening pressure for a new injector should be 18750 kPa (2720 psi). Opening pressure for a used injector should be 17650 kPa (2560 pai). Maximum allowable pressure variation between injectors is 690 kPa (100 psi).

To adjust nozzle opening pressure, remove top cap nut (1-Fig. 117) and turn adjusting screw (3) until specified opening pressure is obtained.

NOTE: When adjusting an overhauled injector with a new pressure spring (5). set pressure to new injector specifications. to allow for initial pressure loss as spring timbrow in most.

147, SEAT LEAKAGE, Wipe nozzle tip dry, then operate tester lever slowly to maintain pressure at 1000 kPa (145 psi) below nozzle opening pressure. If fuel appears on nozzle tip within a period of five seconds, nozzle is leaking and must be overhauled or renewed.

148, BACK LEAKAGE, Operate tester lever slowly until pressure reading is slightly below opening pressure. Release tester lever and note time taken as pressure falls from 14755 kPa (2140) psi) to 9860 kPa (1430 psi). The time must be between 6 and 25 seconds. Note that a leaking tester will show up in this test as excessively fast leakback. If all norries fail to pass this test, tester rather than nouzles should be suspercted.

149. SPRAY PATTERN. Operate tester lever several times at approxi-

mately one stroke per second and observe spray pattern. Four finely atomized, equally spaced and shaped sprays should emerge from nousle tip. If pattern is uneven, ragged or a solid spray, overhaul or renew northe.

150. OVERHAUL. Maintenance of absolute cleanliness in the overhaul of injector assemblies is of the utmost importance. Of equal importance is avoidance of nicks, scratches or handling damage on any lapped or polished surfaces. To avoid damage, only recommended cleaning kits and carbon clean-

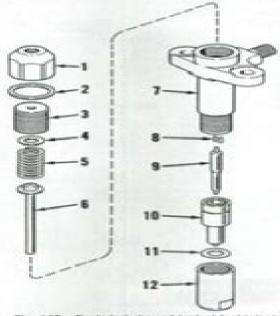


Fig. 117—Exploded view of typical fuel injector commend over and importants.

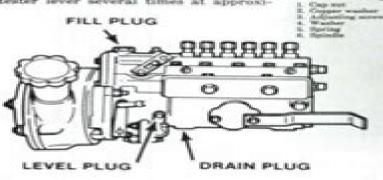


Fig. 136-View abowing tocation of titler plug, oil level policy and drain plug on infine injection pump used on sixstyrification angioness.

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12.

ing solvents should be used. Nozzle valve and body are individually fit and lapped and must be kept together as a unit. Do not intermix parts from one impector to another.

Before disassembling any injector, thoroughly clean with a brass wire brush. Soak injectors in approved carbon cleaning solvent, if necessary, to loosen hard carbon deposits. Rinse injectors in clean diesel fuel after cleaning with solvent. Never use steel wire brush, emery cloth or hard or sharp tools to clean injectors.

To disassemble injector, clamp body in holding fixture or soft jawed vise with only enough pressure to keep injector from slipping. Remove cap (1-Fig. 117) and washer (2). Some injectors have a locknut which is removed next. On all injectors, back off pressure adjusting serew (3) until all tension is removed from pressure spring (5). Remove nozzle retaining cap (12) and nozzle (10). Remove nozzle from retaining cap and needle (9) from nozzle. Place in approved cleaning solvent. Remove adjusting screw (3), using care not to lose washer (4). Remove spring (5) and spindle (6). Place in cleaning solvent.

Examine lapped pressure faces where nousle mates with body and surfaces of needle for nicks, scratches or



Fig. 118 - Clean amail feed channel bores with drift or wire as shown. These bores are rarely choked and insertion of drift or wire by hand will they must be in the same.



Fig. 119-breest special proove scraper until blocked none of ecosper enters firet pullery. Freez scraper hard against side of gallery and rotate mostly to clear any carbon deposit from this ALC: UNKNOWN

# <u>Ih Case David Brown 1190 1194 1290 1294 Tractor</u> <u>Workshop Repair Service Shop Manual</u>

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