MODELS: Wright Military R-975 Series

T.C. NUMBER: 5E-7

| Model | R-975-11, -28, -30 | -32 |
|---|---|---|
| Type | 9RA | -- |
| Rating: | | |
| Maximum continuous, hp, rpm, in.Hg., at: | | |
| Rated pressure altitude (ft.) | 420-2200-34.5-1400 | 450-2300-36-S.L. (ft.) |
| Sea level pressure altitude (ft.) | 420-2200-34.8-S.L. | 450-2300-36-S.L. |
| Take-off (5 minutes), hp, rpm, in.Hg. | 450-2250-36.5 | 450-2300-36. |
| Fuel (minimum octane aviation gasoline) | 80 | 91 |
| Bore and stroke, in. | 5.0 x 5.5 | -- |
| Displacement, cu. in. | 972 | -- |
| Compression ratio | 6.3:1 | -- |
| Weight (dry), lbs. | 700 (Models -11, -28)<br>707 (Model -30) | 710 |
| C.G. location (dry) | | |
| Forward of mounting face, in. | 7.0 | -- |
| Below propeller shaft, in. | 0.2 | -- |
| Propeller shaft, SAE No. | 30 | -- |
| Supercharger gear ratio | 10.15:1 | 8.31:1 |
| Carburetion | Stromberg NA-R9A or B (Models -11, -28); Holley 700F (Model -30) | Holley 700F |
| Ignition, dual | Scintilla VAG-9DFR or SF-9RN magnetos | Scintilla SF-9RN magnetos |
| Ignition timing, degrees BTC | 25 | -- |
| NOTES | 1, 2, 3, 4 | -- |

NOTE 1. Maximum permissible cylinder head, barrel, and oil inlet temperatures, 500 degrees F., 325 degrees F., and 200 degrees F., respectively, except that cylinder head temperature of Model -32 is 450 degrees F.

NOTE 2. The above engines differ as follows:

| | Exhaust Manifold Mounting | Propeller Control | Mounting Dimensions | Miscellaneous |
|---|---|---|---|---|
| R-975-11 | Rear | Two position or constant speed | 9 Bolts on 23-3/8 inch circle | Carburetor air inlet faces downward and accessory pump drive on oil pump housing. |
| R-975-28 | Front | Constant speed | 9 Bolts on 24-inch circle | Carburetor air inlet faces downward and accessory pump drive on oil pump housing. |
| R-975-30 | Front | Constant speed | 9 Bolts on 24-inch circle | Carburetor mounted lower with forward facing air inlet with relocated throttle and mixture control arms. |
| R-975-32 | Front | Constant speed | 9 Bolts on 24-inch circle | Carburetor mounted lower with forward facing air inlet with relocated throttle and mixture control arms. Vacuum or hydraulic pump drives located on right side of accessory housing facing 45 degrees to rear. |

The R-975-11 engine is closely similar to civil model R-975E-3. The R-975-32 engine was manufactured by Continental Motors Corp.

NOTE 3. When incorporated in certificated aircraft, the engine name-plate should be stamped "CAA Spec. No. 5E-7." If there is no room available for this information on the existing plate, such information may be stamped on a plain thin metal plate attached beneath the existing plate by at least two of its mounting screws.

NOTE 4. The following accessory provisions are provided:

| | Rotation* | Speed Ratio* | Maximum Torque (in. lbs.) Continuous | Static |
|---|---|---|---|---|
| Propeller governor | | | | |
| (Optional on -11) | C | 1.118 | 50 | 400 |
| (Standard on -28, -30, -32) | | | | |
| Vacuum or hydraulic pump | | | | |
| (Models -28, -30 only) | CC | 1.0 | 72 | 600 |
| (Model -32 only) | C | 1.636 | 20 | 600 |
| (Model -32 only) | CC | 1.159 | 50 | 1200 |
| Fuel pump | | | | |
| (Models -11, -28, -30 only) | CC | 1.0 | 25 | 250 |
| (Model -32 only) | CC | 1.159 | 25 | 250 |
| Generator | | | | |
| (Models -11, -28, -30 only) | C | 1.125 | 180 | 1000 |
| (Model -32 only) | CC | 1.500 | 21.9 | 380 |
| Starter | CC | 800 | | 6000 |

* "C" = Clockwise viewing pad; "CC" = Counter-clockwise; Speed = Times crankshaft speed.