# TABLE OF ENGINE PARAMETERS

| | | |
|---|---|---|
| /* D | 84 | cylinder bore diameter |
| /* Z | 90 | stroke of piston |

**CYLINDER BLOCK**

| | | |
|---|---|---|
| LCBW1= | 103 | width of upper area of cylinder block |
| LCB3 = | 9,5 | wall thickness at block cross section |
| DCB9 = | 60,2 | crankshaft bearing diameter |
| LCBW2 = | 194 | width of crank area |
| LCBH1 = | 243,7 | height of cylinder block |
| LCB7 = | 149,2 | length of bore |
| LCB4 = | 15,1 | wall thickness at block longitudinal cross section |
| DBORE = | 84 | bore diameter |
| LCB8 = | 26 | width of crankshaft bearing |
| LCB10 = | 44,2 | distance from bore center to bearing center |
| LBORESPA = | 88,3 | bore spacing |
| LCB6 = | 379 | length of cylinder block |

**CYLINDER HEAD**

| | | |
|---|---|---|
| HBORESPA = | 88,3 | combustion chamber spacing (=bore spacing) |
| HX1= | 20,2 | distance from exhaust valve centerline to bore centerline |
| HX2 = | 18,6 | distance from intake valve centerline to bore centerline |
| HD1= | 84 | diameter of combustion chamber |
| HL = | 379 | length of cylinder head |
| HD3 = | 27,2 | seat diameter of intake port |
| HD4 = | 12 | valve guide hole diameter |
| HD2 = | 24,6 | seat diameter of exhaust port |
| HD6 = | 13 | hole diameter for hydraulic element |
| HW1= | 103 | width of cylinder head |
| HK1 = | 36,2 | distance between valve centerline and centerline of hydraulic element |
| HB2 = | 16 | depth of plane for hydraulic element |
| HB4 = | 16 | depth of hole for hydraulic element |
| HS = | 109,9 | height of cylinder head |
| HW2 = | 199 | width of upper area of cylinder head |
| HB1 = | 32 | depth of plane for spring seat |
| HB3 = | 5,81 | depth of combustion chamber |

**HEAD COVER**

| | | |
|---|---|---|
| HCCD = | 71,96 | distance between camshafts |
| HCT3 = | 11 | thickness of external ribs |
| HCDL = | 48,4 | diameter of left bearing |
| HCT2 = | 11 | thickness of middle rib |
| HCL = | 379 | length of cover |
| HCW = | 199 | width of cover |
| HCO = | 30,7 | height of bearing centerline |
| HCR = | 36 | radius of cover casing |
| HCT1 = | 5 | thickness of cover wall |
| HCST = | 10 | size of cover outer flange |
| HCOL = | 64,3 | distance of bearing centerline to cover edge |
| HCDR = | 32,3 | diameter of right bearing |
| HCBS = | 20,4 | width of middle bearing |
| HCBL = | 26,0 | width of left bearing |
| HCDS = | 48,4 | diameter of middle bearing |
| HCBR = | 26,0 | width of right bearing |

**Attachment 14. TABLE OF ENGINE PARAMETERS - PAGE 1**

**CRANKSHAFT**

| | | |
|---|---|---|
| DCS1 = | 34,3 | diameter of shaft stud for valvetrain pulley |
| LCS1 = | 42,9 | length of shaft stud for valvetrain pulley |
| DCSPIN = | 51,6 | diameter of connecting rod journal |
| LCSRAD = | 45,0 | length of crank |
| LCSPINL = | 26 | length of connecting rod journal |
| LCS3 = | 58,1 | length of crankshaft counterweight |
| LCSCHE1 = | 17,9 | thickness of crank arm |
| LCSCHEW = | 75 | width of crank arm |
| LCSJOL = | 26,5 | length of main journal |
| DCSJO = | 58,1 | diameter of main journal |
| DCS2 = | 91,5 | diameter of flange for flywheel |
| LCS2 = | 16,1 | width of flange for flywheel |
| LBORESPA = | 88,3 | crank spacing (=bore spacing) |

**CAMSHAFT**

| | | |
|---|---|---|
| LCELK = | 431,9 | length of camshaft |
| LS2 = | 62,8 | distance of 2. intake cam to middle bearing |
| LS1 = | 113,8 | distance of 1. intake cam to middle bearing |
| SLL = | 26,0 | width of left bearing |
| LV = | 9,7 | distance between centers of base and peak circles of cam |
| RZ = | 18,3 | radius of base circle of cam |
| RV = | 14,0 | radius of peak circle of cam |
| LSL = | 229,3 | distance of middle bearing from left end of shaft |
| DLL2 = | 25,8 | diameter of first shoulder of shaft left end |
| LL1 = | 52,8 | distance of left bearing from left end of shaft |
| SLR = | 26 | width of right bearing |
| LL3 = | 6,2 | length of second shoulder of shaft left end |
| DLL1 = | 48,4 | diameter of left bearing |
| DLR = | 32,3 | diameter of right bearing |
| SSL = | 20,4 | width of middle bearing |
| DSL = | 48,4 | diameter of middle bearing |
| DZ = | 24,8 | diameter of base circle of camshaft |
| SV = | 16,8 | width of cam |
| DLL3 = | 32,0 | diameter of second shoulder of shaft left end |
| LV1 = | 152,6 | distance of 1. exhaust cam to middle bearing |
| LS4 = | 113,8 | distance of 4. intake cam to middle bearing |
| LS3 = | 62,7 | distance of 3. intake cam to middle bearing |
| LV2 = | 24 | distance of 2. exhaust cam to middle bearing |
| LV3 = | 24 | distance of 3. exhaust cam to middle bearing |
| LV4 = | 152,6 | distance of 4. exhaust cam to middle bearing |

**CONNECTING ROD**

| | | |
|---|---|---|
| LCRPT = | 12,0 | width of small end |
| DCRPI = | 34,8 | diameter of bearing for piston pin |
| DCRPO = | 43,8 | outer diameter of small end |
| LCR = | 156,7 | connecting rod length (center to center of bearings) |
| LCRCW = | 79,4 | width of big end |
| LCR2 = | 22,0 | length of big end |
| DCRCI = | 53,6 | diameter of big end bearing |
| LCRCT = | 12,0 | width of big end |
| LCRT = | 9,9 | thickness of arm |
| LCRW = | 24,6 | width of arm [min] |

**CAP OF CONNECTING ROD**

| | | |
|---|---|---|
| LCR1 = | 21,4 | length of bearing cap |
| RCRCO = | 38 | outer radius of bearing cap |
| LCRCAPL = | 12 | width of bearing cap |
| LCRCW = | 79,4 | width of big end |
| DCRC1 = | 53,6 | diameter of big end bearing |

**Attachment 15. TABLE OF ENGINE PARAMETERS - PAGE 2**

**PISTON PIN**

| | | |
|---|---|---|
| LPP = | 71,0 | length of piston pin |
| DPPI = | 15,4 | inner diameter of piston pin |
| DPPO = | 32,0 | outer diameter of piston pin |

**PISTON**

| | | |
|---|---|---|
| DP = | 83,8 | diameter of piston |
| LP2 = | 42,0 | distance of hole centerline from top of piston |
| LP = | 68,0 | length of piston |
| DPP = | 32,0 | diameter of piston pin |
| LPCR = | 34,0 | length of space for small end of connecting rod |

**EXHAUST VALVE**

| | | |
|---|---|---|
| VVL = | 94,0 | length of exhaust valve |
| VVD1 = | 5,0 | diameter of stem of exhaust valve |
| VVD2 = | 24,6 | diameter of head of exhaust valve |
| VVD3 = | 3,2 | diameter of slots of exhaust valve stem |
| VVR1 = | 6,7 | transition radius between head and stem of exhaust valve |
| VVR2 = | 0,8 | radius of slot of exhaust valve |
| VVS1 = | 5,52 | distance from head stem to 1. slot of exhaust valve |
| VVS2 = | 2,9 | distance of two adjacent slots of exhaust valve |
| VVS3 = | 5,8 | distance between 1. and 3. slot of exhaust valve |
| VVH1 = | 1,7 | height of unbeveled part of head of exhaust valve |
| VVH2 = | 3,9 | height of head of exhaust valve |
| VVA = | 45 | angle of bevel on head of exhaust valve |

**INTAKE VALVE**

| | | |
|---|---|---|
| VSR2 = | 0,8 | radius of slot of intake valve |
| VSL = | 94,0 | length of intake valve |
| VSD1 = | 5,0 | diameter of stem of intake valve |
| VSD2 = | 27,2 | diameter of head of intake valve |
| VSD3 = | 3,2 | diameter of slots of of intake valve |
| VSR1 = | 6,7 | transition radius between stem and head of intake valve |
| VSA = | 45 | angle of bevel on head of intake valve |
| VSH2 = | 3,9 | height of head of intake valve |
| VSH1 = | 1,7 | height of unbeveled part of head of intake valve |
| VSS3 = | 5,8 | distance between 1. and 3. slot of intake valve |
| VSS2 = | 2,9 | distance of two adjacent slots of intake valve |
| VSS1 = | 5,52 | distance of head stem to 1. slot of intake valve |

## Attachment 16. TABLE OF ENGINE PARAMETERS - PAGE 3