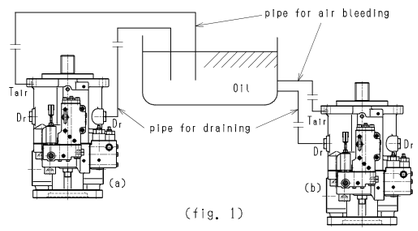
| | Port name | Port size | On delivery | Tightening torque N·m |
|---|---|---|---|---|
| A | Delivery port | SAE J518C High pressure (Code 62) 3" | Covered with tape | 235 |
| B | Suction port | SAE J518C Std. pressure (Code 61) 1-1/2" | Covered with tape | 235 |
| $D_r$ | Drain port | SAE J1926/1 Straight thread O-Ring boss 3/4" O. D Tube 1-1/16-12UN-2B | Attached with steel plug | 167 |
| $P_L$ | Load sensing port (Type L0/1, L1/1) | SAE J1926/1 Straight thread O-Ring boss 1/4" O. D Tube 7/16-20UNF-2B | Attached with steel plug | 12 |
| $P_c$ | Pressure control port (Type P0/1) | | | |
| $T_{air}$ | Air bleeder port | SAE J1926/1 Straight thread O-Ring boss 1/4" O. D Tube 7/16-20UNF-2B | Attached with steel plug | 12 |
| $P_{sv}$ | Servo assist port | SAE J1926/1 Straight thread O-Ring boss 3/8" O. D Tube 9/16-18UNF-2B | Attached with vinyl plug | 12 |
| a | Gage port | | | 45 |

## Operating specifications

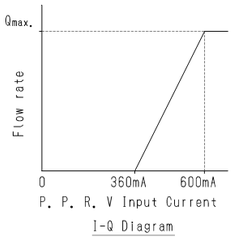
| | | |
|---|---|---|
| Displacement | $cm^3$ | 200 |
| Max. self priming speed | $min^{-1}$ | 1900 ( Clockwise viewed from shaft end ) |
| Rated pressure | MPa | 32 |
| Peak pressure | MPa | 35 |
| Pump model name | | K3VL200/B-1CR$^{SS}_{KM}$-$^{L0}_{L1}$P0/1-E0 |

## Notes on mounting and operation

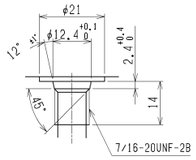
(1) The pump shaft and flange surfaces should be cleaned. Remove an anti-rust material.
(2) Do not apply any form of axial loading to the pump shaft.
(3) The uppermost drain port should be used and the drain piping should be so connected as to keep the casing filled with oil.
(4) Keep the casing pressure below 1 bar (14 psi) normally, and below 4 bar (58 psi) at its peak.
(5) Make sure the drain piping led into the oiltank is kept below the surface of the oil (to prevent airation).
(6) Make sure the suction pressure in the suction flange is kept above 0 bar (0 psi) normally.
(7) Mineral antiwear type hydraulic oil should be used.
(8) For satisfactory service life of the pump in application, the operating fluid should be continuously filtered to a minimum cleanliness level of NAS1638 class 9 or 18/15 to ISO/DIS 4406.
(9) Provide a 150 mesh (100$\mu$m) strainer in the suction line.
(10) Install a 10$\mu$m filter in the return line.
(11) Allowable oil temperature range : -20~95℃.
(12) Oil viscosity range : 10~1000cSt when 200~1000cSt, take warming up before real working.
(13) Caution for the vertical mounting.
The oil level in the tank should be upper than the pump mounting flange. (fig. 1)
If the oil level is lower than the pump level, forced lubrication should be made from the air bleeder port. (flow 1~2 l/min)
① Pipe the drain port and the air bleeder port to tank.
② If the pipe for draining or air bleeding is upper than the oil level, it should be filled with oil before starting the pump.



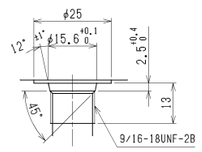
(fig. 1)



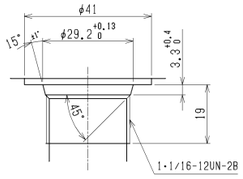
I-Q Diagram



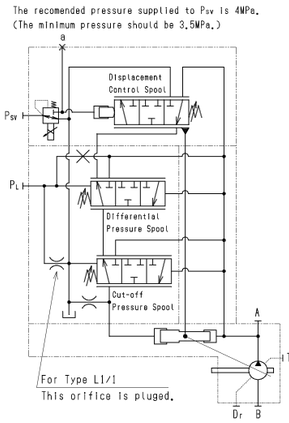
Detail of $P_L$ ($P_c$), $T_{air}$ ports (1/1)



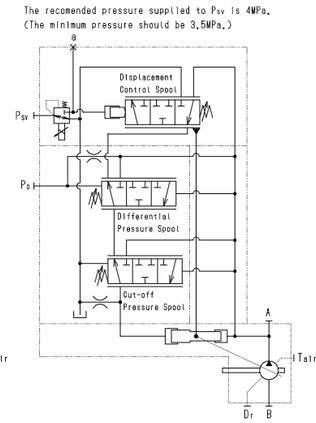
Detail of $P_{sv}$, a ports (1/1)



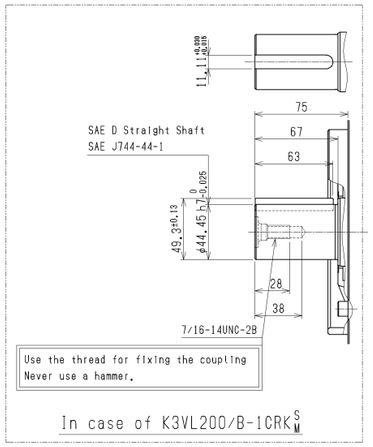
Detail of $D_r$ ports (1/1)



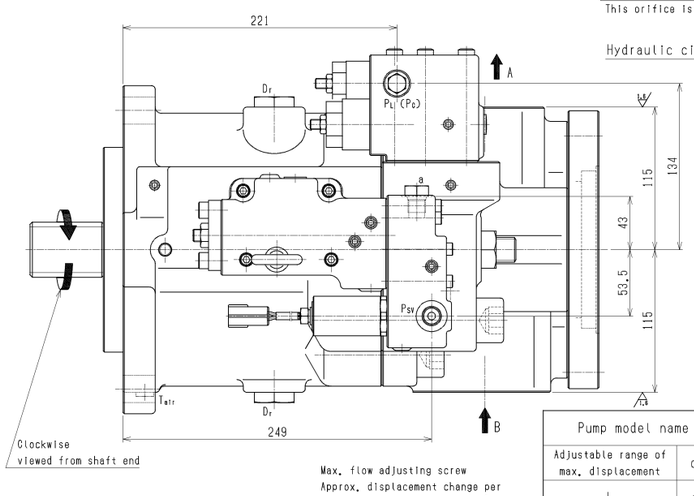
Hydraulic circuit (Type L0/1, L1/1)

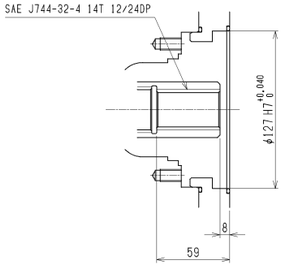


Hydraulic circuit (Type P0/1)



In case of K3VL200/B-1CRK$^{S}_{M}$

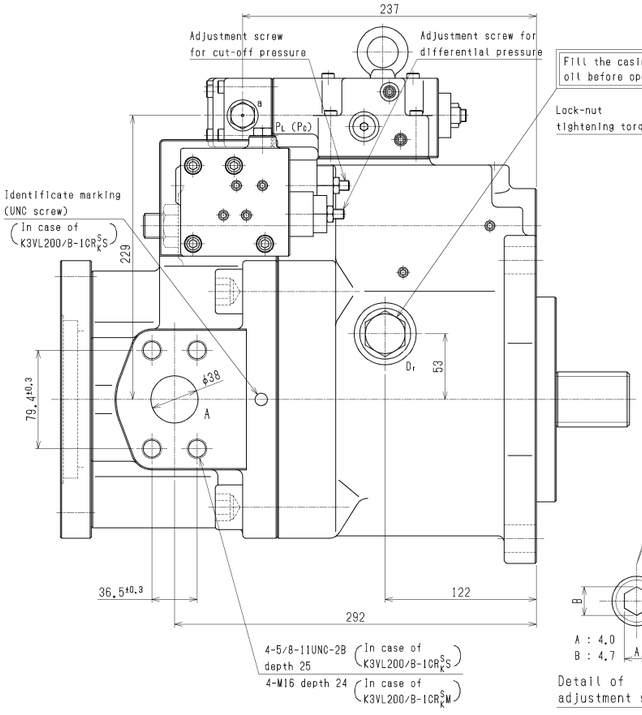


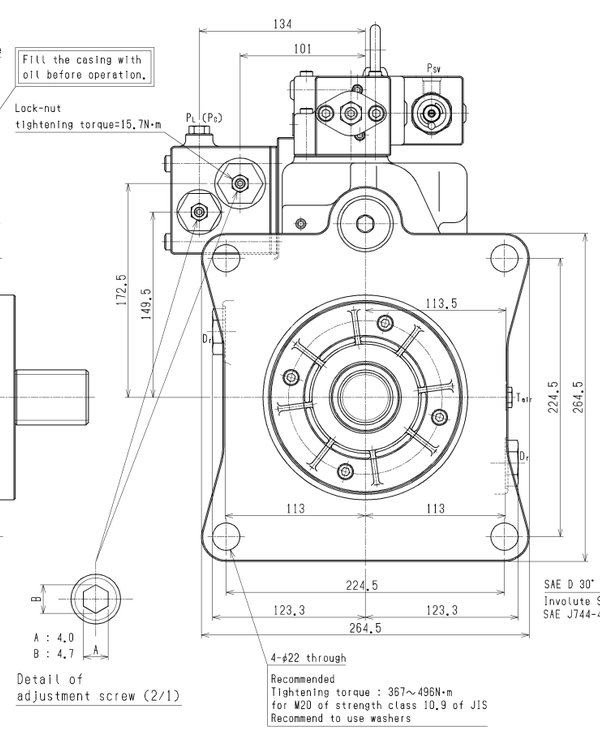



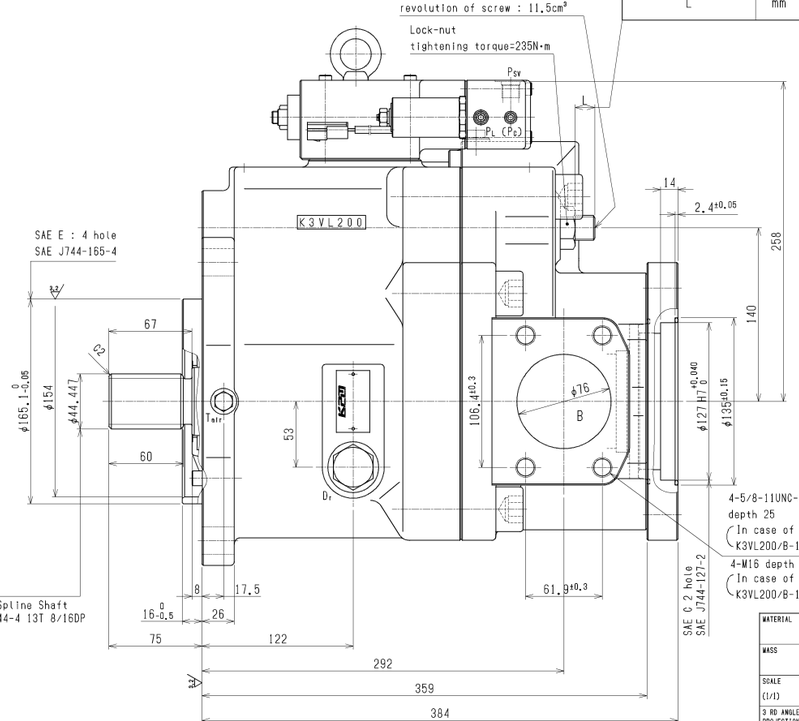
Section X-X

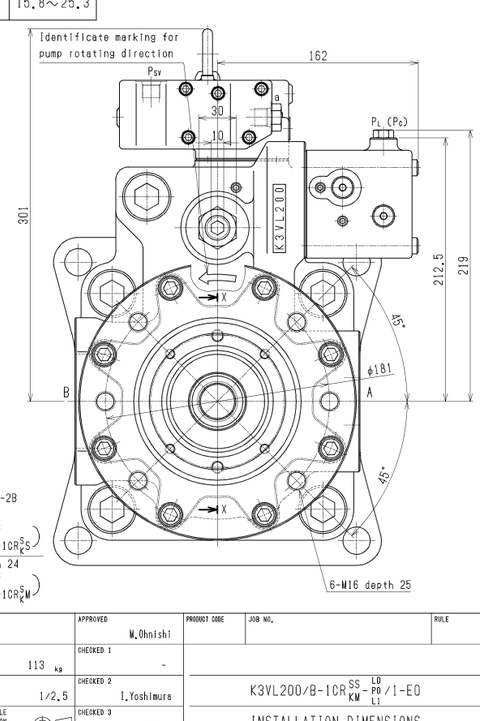
Max. flow adjusting screw
Approx. displacement change per revolution of screw : 11.5cm³

| Pump model name | | K3VL200/B |
|---|---|---|
| Adjustable range of max. displacement | $cm^3$ | 100~200 |
| L | mm | 15.8~25.3 |




| | | | | | |
|---|---|---|---|---|---|
| MATERIAL | | APPROVED | W.Ohnishi | PRODUCT CODE | JOB NO. | RULE |
| MASS | 113 kg | CHECKED 1 | - | | | |
| SCALE | (1/1) 1/2.5 | CHECKED 2 | I.Yoshimura | K3VL200/B-1CR$^{SS}_{KM}$-$^{L0}_{L1}$P0/1-E0 | | |
| 3 RD ANGLE PROJECTION | | CHECKED 3 | Y.Wito | INSTALLATION DIMENSIONS | | |
| DATE | Sep.09,2005 | DRAWN | N.Yamamoto | PART NO. | DWG.NO. | 02430-4695 |

DELIVERY
SPARE
TOTAL

LATEST CHECKED | DRAWN - | CHECKED 3 - | CHECKED 2 - | CHECKED 1 - | APPROVED -

Surface roughness(Ra)
12.5a( ▽ , equivalent to 50 Σ)
3.2a( ▽▽ , equivalent to 12.5Σ)
0.8a( ▽▽▽ , equivalent to 3.2Σ)
0.2a( ▽▽▽▽, equivalent to 0.8Σ)
Grade of screw thread : JIS Grade 2

Revision

KPM Kawasaki Precision Machinery Ltd.