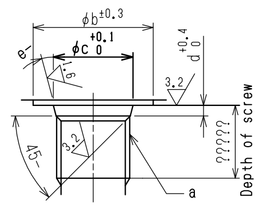
	?-?? Port name	?-???? - ???? Port size - Depth	?????? On delivery	????? N±m Tightening torque
A	? ? ? - ? Delivery port	SAE J518C High pressure (code 62) 1 1/4"	?????? Covered with tape	157
B	? ? ? - ? Suction port	SAE J518C Std. pressure (code 61) 2 1/2"	?????? Covered with tape	98
Dr	????-? Drain port	1 1/16-12UN-2B-19 (ISO 11926-1:1995)	??????? Attached with steel plug	167
Pc	????????????-? Pressure control port	7/16-20UNF-2B-14 (ISO 11926-1:1995)	??????? Attached with steel plug	12
Tair	??????-? Air bleeder port	7/16-20UNF-2B-14 (ISO 11926-1:1995)	??????? Attached with steel plug	12

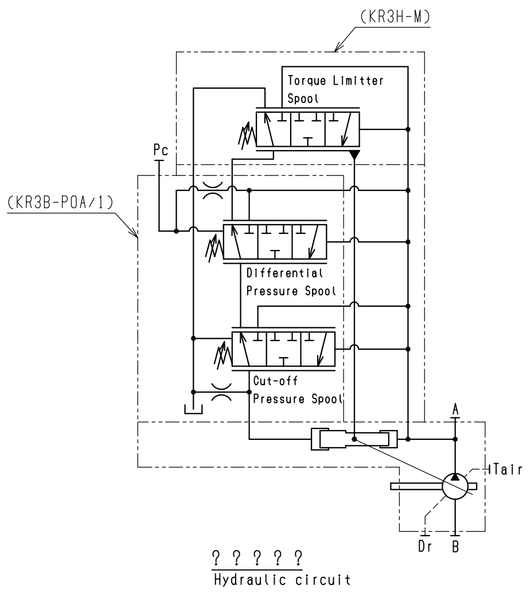


????? Detail of ports (ISO 11926-1:1995)

? ? Symbol \ Dimension ? ?	a	b	c	d	e
Pc, Tair	7/16-20UNF-2B	21	12.4	2.4	12
Dr	1?1/16-12UN-2B	41	29.2 +0.13 0	3.3	15

? ?
Operating specifications

?????? Displacement	cm^3	140
??????? Max. self-priming speed	min^{-1}	2200 (??? ???????) (Clockwise viewed from shaft end)
? ? ? ? Rated pressure	MPa	32
? - ? ? ? Peak pressure	MPa	35
? ? ? ? ? Pump model name		K3VL140/B-1BRSM-PO/1-W3



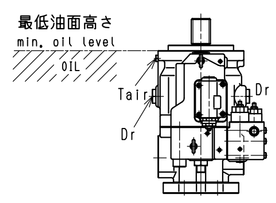
????? Hydraulic circuit

????? ????????

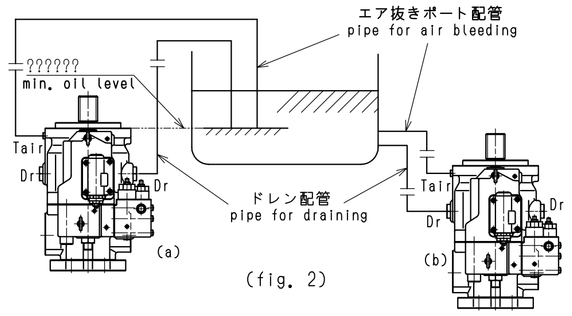
(1) ??????????????????????(???????)
(2) ????????????????????
(3) ??
(4) ????????????????????? 0.1MPa ???
???? 0.4MPa ?? ???????????
(5) ????????????????????????????? (?????????) ?
(6) ????????????????? OMPa ?? (??????????) ???????
(7) ????????????????????????????
(8) ???????? ????????NAS 1638 9?(ISO 4406 -/18/15)
??????????????????
(9) ????????????150???? (10±m) ?????????-????????
(10) ????????????10±m????????????????
(11) ?????? : -20~95?C
(12) ???????? : 10~1000cSt(200~1000cSt????????????????????)
(13) ?????????
??????????????????????????????(fig.1)
??(??:1~2l/min)
(a)????????????????
1 ?????????????????????
(b)???????????????? (fig.2)
1 ?????????????????????????
2 ???

Notes on mounting and operation

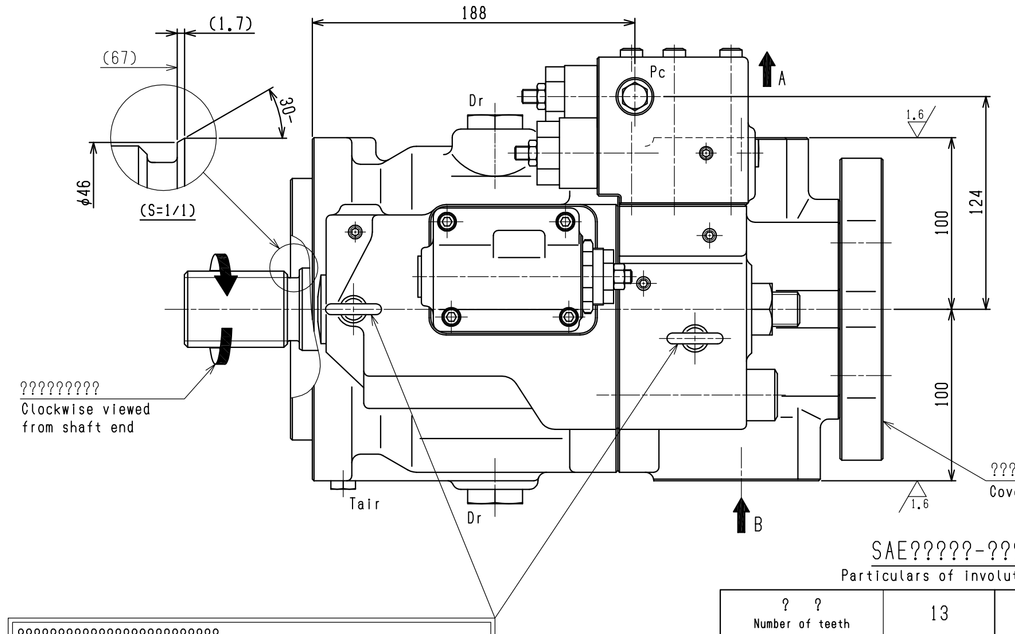
(1) The pump shaft and flange surfaces should be cleaned. Remove an anti-rust material.
(2) Do not apply any form of axial loading to the pump shaft.
(3) The uppermost drain port should be used and the drain piping should be equal or larger in size than the drain port.
(4) Keep the casing pressure below 0.1 MPa normally, and below 0.4 MPa 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 MPa 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 4406.
(9) Provide a 150 mesh (100±m) strainer in the suction line.
(10) Install a 10±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)
(a) Installation within a tank
① Open the drain port and the air bleeder port.
(b) Installation outside a tank (fig. 2)
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)



(fig. 2)



??????????????????????????????
????????????????????????
(???????:2??80kg)
Do not attach heavy objects to the pump when the pump is lifted.Use two eye bolts when the pump is lifted.
(Max. allowable weight. 80kg using two eye bolts.)

SAE?????-????????? A

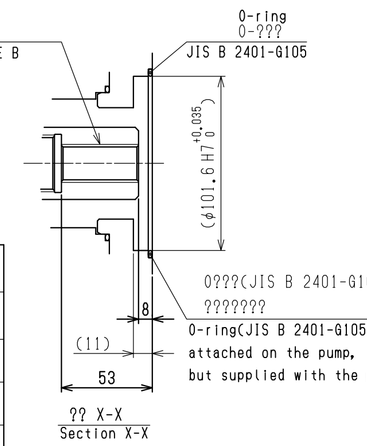
Particulars of involute spline to SAE A

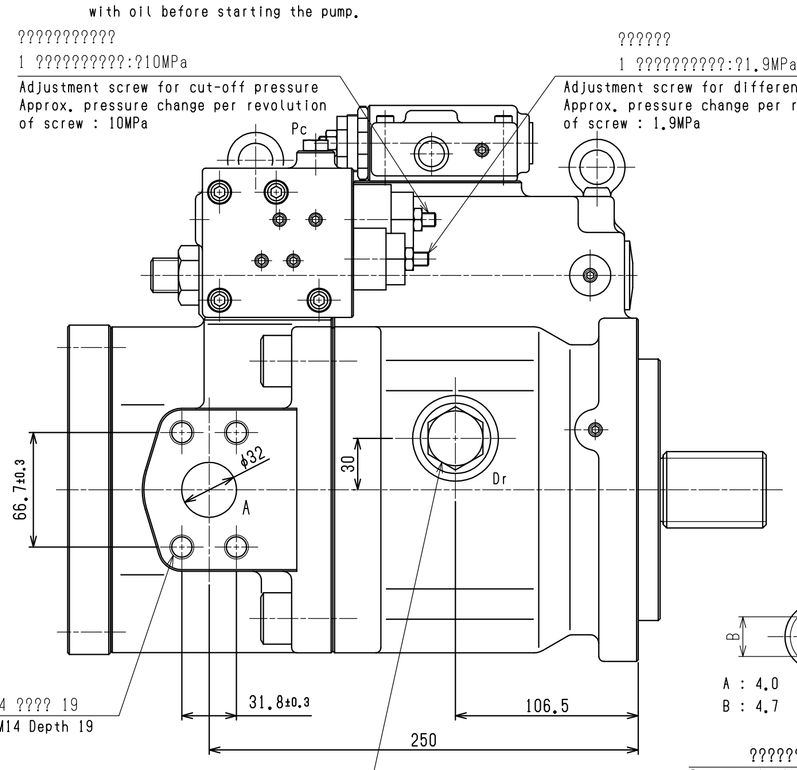
? ? Number of teeth		13		?????? Tooth surface roughness		3.2	
???????? Standard pitch circle diameter		41.275		? ? Type of fit		????? Side fit	
? Tool ?	? ? Tooth profile	?????-? Flat root	? Tooth thickness ?	? ? Class		1 ???? 1 Fit	
	???????????? Diametral pitch	8/16		?-????? Measurement over pins		50.104 ~50.169	
	? ? ? Pressure angle	30°		? ? ? Measurement pins		φ6.096	
? ? ? ? Root diameter		36.906 ~37.363		? ? Rule		SAE	

SAE?????-????????? B

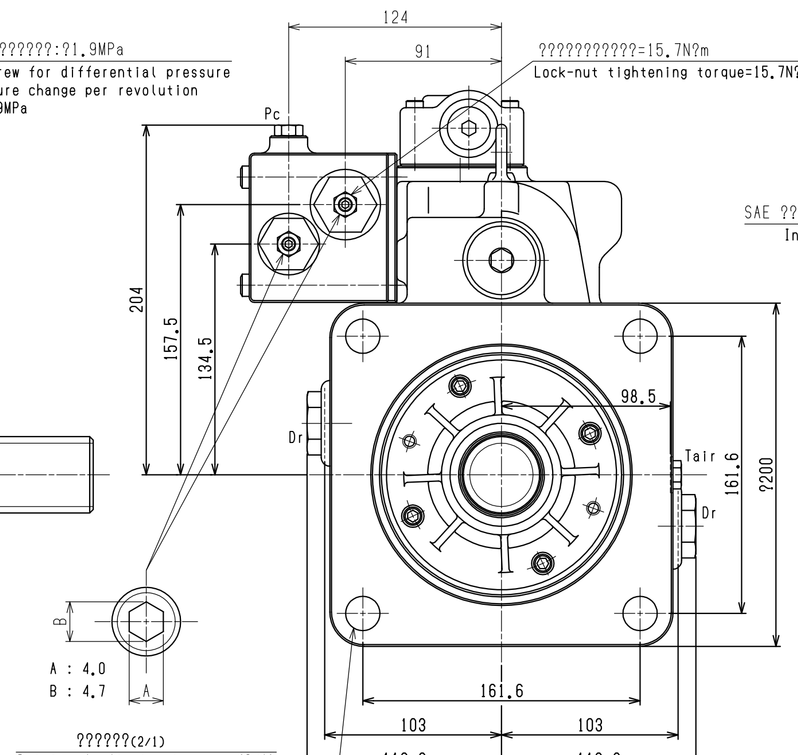
Particulars of involute spline to SAE B

? ? Number of teeth		13		?????? Tooth surface roughness		3.2	
???????? Standard pitch circle diameter		20.6375		? ? Type of fit		????? Side fit	
? Tool ?	? ? Tooth profile	?????-? Flat root	? Tooth thickness ?	? ? Class		———	
	???????????? Diametral pitch	16/32		?-????? Measurement over pins		16.589 0 -0.069	
	? ? ? Pressure angle	30°		? ? ? Measurement pins		φ2.743	
? ? ? ? Root diameter		22.225 +0.279 0		? ? Rule		SAE	



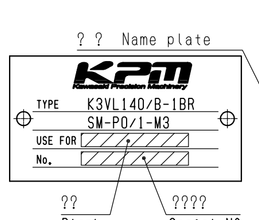


????????????????
????????????
Fill the casing with oil before operation.

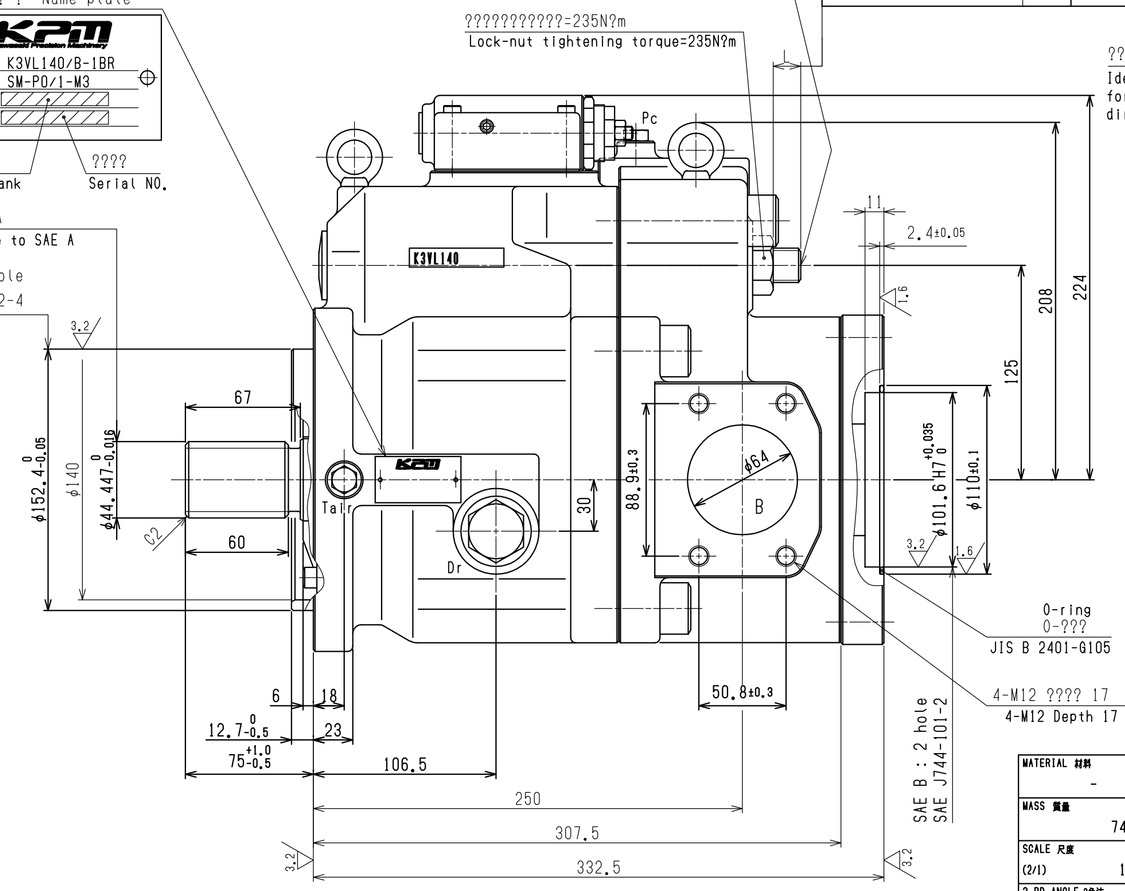


??????(2/1)
Detail of adjustment screw (2/1)

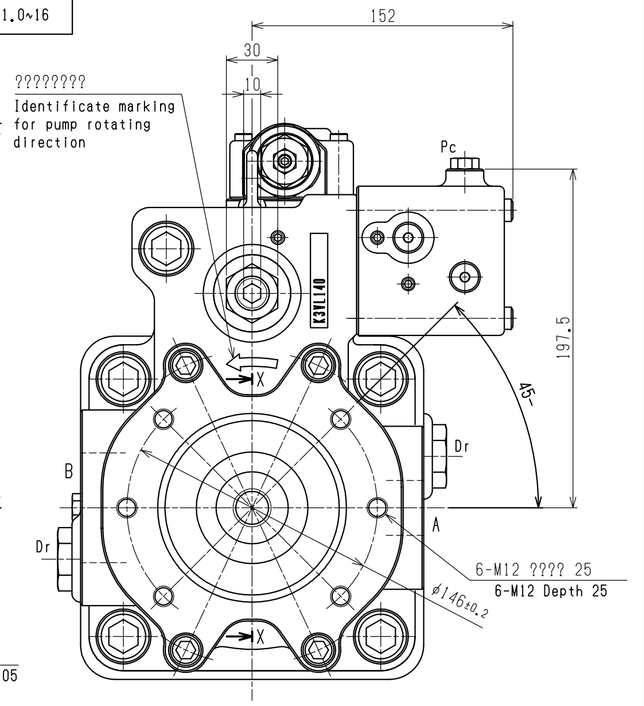
4-φ20 ??
4-φ20 Through
????????:M16 ????10.9??
?????: 226N?m
???????-?????
Recommended
Tightening torque : 226N?m
for M16 of strength class 10.9 of JIS
Recommend to use washers



SAE ????????????? A
Involute spline to SAE A
SAE D : 4 hole
SAE J744-152-4



????? Pump model name		K3VL140/B
???????? Adjustable range of max. displacement	cm^3	70~140
L	mm	1.0~16



MATERIAL 材料 : -	APPROVED 承認 : 松田(憲)	PRODUCT CODE 製品コード : 29	JOB NO. 製番番号
MASS 質量 : 74 kg	CHECKED 1 検図1 : 後藤		RULE 規格
SCALE 尺度 : (2/1) 1/2.5	CHECKED 2 検図2 : 柚友	K3VL140/B-1BRSM-PO/1-M3	
3 RD ANGLE 3角法 PROJECTION	CHECKED 3 検図3 : -	外形寸法図 INSTALLATION DIMENSIONS	
DATE 作成日 : May.20,2009	DRAWN 製図 : 堀江/神吉	PART NO. 品名番号	DWG.NO. 図面番号 : 02430-6544

出図先

LATEST CHECKED 最終検図 - CHECKED 3 検図3 - CHECKED 2 検図2 - CHECKED 1 検図1 - APPROVED 承認 -
DRAWN 製図 -

仕上精度 Rs 標準
12.5s(▽ , 50 ? 相当)
3.2s(▽▽ , 12.5Z 相当)
0.8s(▽▽▽ , 3.2Z 相当)
0.2s(▽▽▽▽ , 0.8Z 相当)
ネジ精度 JIS 2級

図面来歴 社製す。

Kawasaki Precision Machinery Ltd.