

DUAL LINE GREASE LUBRICATIONSYSTEMS
SINGLE LINE GREASE LUBRICATIONSYSTEMS

GREASE FILLING PUMP

KGP-420
(HAND-OPERATED GREASE PACK)

INSTRUCTION MANUAL

KOWA CORPORATION

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1. FEATURES OF HAND-OPERATED GREASE PACK

Be sure to use this manual grease pack to grease the tank of our oil pump. (There is also an electric grease filling pump.)

The quick coupling not only makes cleaning easy and clean, but also prevents air and dirt from mixing in the grease, which greatly improves the reliability of the lubrication system.

This manual grease pack is used to replenish the oil pump tank with grease from a 16 kg or 18 kg pail or a 16 kg square can.

2. PROSEDURES FOR HANDLING

Simply plug the quick coupling attached to the end of the rubber hose into the grease supply port (coupler plug) of our oil pump, but the procedure is as follows.

①Pull out the dustproof cap with ball chain that is inserted into the refueling port (coupler plug with check valve) to the front.(The O-ring is attached to prevent falling off, so it can be easily removed if it is pulled out to the front while turning left.)

②Slide the quick coupling slide ring attached to the grease hose's rubber hose end (pull it all the way back to the rubber hose) and insert it into the ① coupler plug.

③When the force on the slide is released, the spring returns the slide ring to its original state, completing the connection between the quick coupling and the coupler plug.

(If the connection is complete, check the connection if the hose is not lightly pulled and the connection is complete. If the connection is removed, repeat step ②③ again.)

④Remove the top of the pail or square can and put it in the grease pack container.

⑤Please cover the grease pack and fix it with 3 snap lock.

⑥Operate the grease pack handle up and down.

※Suddenly, if the handle operation becomes light, air may be mixed, so stop supplying immediately and check the amount of grease.

⑦Since the follower rod or follower plate of the oil supply pump will rise with the supply, stop the handle operation when the specified amount is entered.

⑧If you pull the slide ring of quick coupling back towards you and pull the whole, the hose will come off the supply port. Then, connect the quick coupling to the grease pack return port (coupler plug) as described in ②③. (The compressed grease in the hose will return to the container.)

※When not using or storing, be sure to connect the quick coupling at the end of the hose to the return port (coupler plug) at the top of the grease pack. If it is not connected, dust etc. adheres to the coupler at the end of the hose, and when grease is replenished, the dust may be mixed in the pump, causing the pump dust to bite.

⑨Please attach the rubber protection cap of the supply port.

This is the end of the series of work.

3. CONSTRUCTION AND SPECIFICATION OF HAND-OPERATED GREASE PACK

3-1. Construction

This manual grease pack has a structure that sucks and discharges grease by the combination of a piston and a check valve that reciprocates in the cylinder in conjunction with the vertical movement of the handle.

3-2. Specification

type	: KGP-420
Discharge	: 40cc/st
Filter element	: 100 mesh
Method of operation	: Hand-operated
Weight	: 14 kg
Discharge pressure	: 1 MPa
Grease to be applied	: NLGI #00~#1

The following oil pump is applicable to this manual grease pack.

Dual line grease lubrication system

Electric lubrication pump : KEP-16、N25、41、51

Manual lubrication pump : KMP-221、231、261

Single line grease lubrication system

Electric lubrication pump : KEPS-16、N25、41、KSP-33、214&215&216

Pneumatic lubrication pump : KSP-402、502

Manual lubrication pump : KMPS-221、231、261

4. CAUTIONARY INSTRUCTIONS OF MAINTENANCE HANDLING

- ① Before operation, check the amount of grease remaining in the pail or square can in the grease pack.

If it runs idle without grease, it may cause a failure.

Depending on the type of grease, be careful if the remaining amount is less than half.

If there is a small amount of grease, air may be mixed in as well. If the amount of grease is low, replace the cans or square cans promptly without oversupply.

※ If there is a risk of mixing air if the steering wheel operation becomes suddenly light while supplying grease, stop supplying immediately and check the amount of grease.

※ If air gets into the hose, stop supplying and remove the hose from the pump, and connect it to the coupler plug at the top of the grease pack, and run it for 2 to 3 times. Return to and supply again with no air in the hose.

- ② When putting a pail or square can in a grease pack, put the pump suction section directly on the ground etc. Dust, sand, etc. will adhere and it will cause trouble if it is sucked in, so clean newspaper or Please be careful not to place any dust on the cloth.

- ③ Use the grease for centralized lubrication NLGI # 00 to # 1.

Grease with low consistency (# 2 or more) does not have satisfactory suction and discharge.

- ④ If the specified amount of grease enters the tank of the oil pump, stop the grease pack filling operation immediately. If it continues, grease will overflow from the tank.

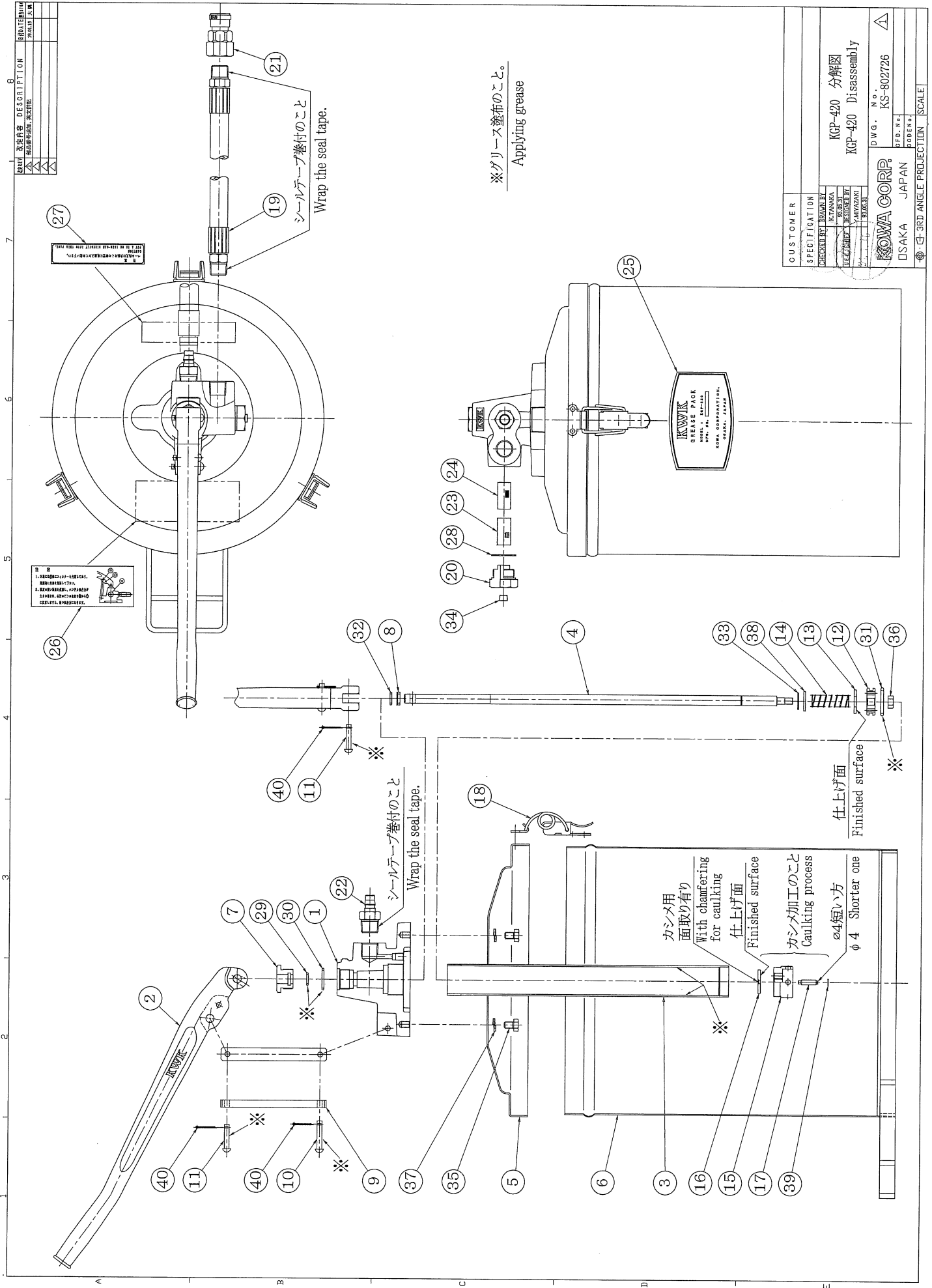
- ⑤ Check the filter every 6 months and clean it. If clogging occurs, handle operation becomes heavy.

- ⑥ When not using or storing, be sure to connect the quick coupling at the end of the hose to the return port (coupler plug) at the top of the grease pack.

If it is not connected, dust etc. adheres to the coupler at the end of the hose, and when the grease is filled, the inside of the pump will be mixed, which may cause the pump dust to bite.

5. TROUBLE SHOOTING

Trouble	Situation	Cause	Action
Grease filling of the oil pump is not performed.	Grip pack handle operation is light.	①Pail or square cans are empty. ②Foreign matter is clogged in the suction and discharge check valves. ③Piston O-ring damage. ④The handle tip and piston rod are disconnected or damaged. ⑤The oil film inside the cylinder has run out because it has not been used for a long time.	① Replace the pail or square can. ② Clean the suction and discharge check valves. ③Exchange with new ones. ④Repair or replacement. ⑤ Perform suction and discharge with oil such as turbine oil and change to grease if it returns to normal.
	Heavy operation of grease pack handle.	①Foreign matter is clogged or damaged in the hose. ②Grease with low consistency (NLGI # 2 or more) is used. ③Not properly connected to the grease supply port of the pump. ④Clogged filter.	①Clean or replace with a new hose. ②Change the grease to one of NLGI # 00 to # 1. ③ Set according to the instruction. ④Clean filter.



CUSTOMER		SPECIFICATION	
CHECKED BY		DRAWN BY	
DESIGNED BY		REVIEWED BY	
APPROVED BY		DATE	
KAWA CORP.		JAPAN	
OSAKA		JAPAN	
D.W.G. NO.		KS-802726	
P.D. No.		000000	
SCALE		1:1	

KGP-420 分解図
KGP-420 Disassembly

KGP-420 分解図 用品リスト

KGP-420 Disassembly parts list

品番 No.	名称 part name	部品番号 part No.	数量 quantity	備考 remarks
1	ポンプ本体 KGP-420 Pump body KGP-420	F4001	1	KS-800162 ADC
2	ポンプハンドル Pump handle	F4002	1	KS-800175 ADC
3	シリンダーチューブ Cylinder tube	F4004	1	KS-800176 ϕ 38.1
4	ピストンロッド Piston rod	F4006	1	KS-800164 Φ 12x480
5	グリースパック蓋 Grease pack lid	F4008	1	KS-800179 2.5G6/2焼付塗装
6	グリースパック胴体 Grease pack fuselage	F4009	1	KS-800178 2.5G6/2焼付塗装
7	パッキン押え Packing holder	F4010	1	KS-800163
8	ストッパー Stopper	F4011	1	KS-800168 ϕ 15.5X4
9	連結リンク Connecting link	F4012	1	16X131X9T KS-800172
10	ピン Pin	F4013	2	KS-800174 ϕ 6X35
11	ピン Pin	F4014	1	KS-803212 ϕ 6X30
12	ピストン Piston	F4015	1	KS-800170
13	バルブプレート Valve plate	F4016	1	KS-800167
14	コイルスプリング Coil spring	F4017	1	KS-800173
15	サクション金具 Suction fitting	F4018	1	KS-800165
16	フートバルブ Foot valve	F4019	1	KS-800166
17	フートバルブピン Foot valve pin	F4020	1	KS-800171 ϕ 6X24
18	パッチン錠 Draw latch	F4022	3	C-148-1相当
19	ゴムホース Rubber hose	F4023	1	M35 1/2BX1500L
20	フィルタープラグ Filter plug	F4024	1	KS-801316
21	ハイカプラー(メス) Hi coupler (female)	F8001	1	CAL-24SF(1/2)
22	ハイカプラー(オス) High Coupler (male)	F8002	1	CAL-24PM(1/2)
23	フィルター 10MESH Filter 10 mesh	L3004	1	KS-800481 ϕ 17X33L
24	フィルター 100MESH Filter 100 mesh	L3005	1	KS-801478 ϕ 16X30L
25	型式銘板 KGP-420 Model nameplate KGP-420	V1011	1	KS-803779 50X120X80
26	注意書銘板 KGP-420 Notice nameplate KGP-420	V2015	1	KS-802716 50X127X50
27	使用銘板 KGP-420 Nameplate used KGP-420	V2016	1	KS-800868 50X115X25
28	銅パッキン(タンク.60) Copper packing (tank .60)	X3014	1	ϕ 30X ϕ 26.5X1T
29	Oリング O ring	Z1007	1	1A P11
30	Oリング O ring	Z1013	1	1A P22
31	Oリング O ring	Z1014	1	1A P28

32	リング O ring	Z1108	1	1B P11
33	E型止め輪 E type snap ring	Z2308	1	E 10
34	沈みプラグ Sunk head plug	Z5001	1	R 1/8
35	六角ボルト Hexagon bolt		4	M10×12L
36	六角ナット Hexagon nut		1	M8
37	バネ座金 Spring washer		4	M10
38	平座金 Flat washer		1	M12
39	平座金 Flat washer		1	M4
40	割リピン Split pin		3	φ 1.6×20L