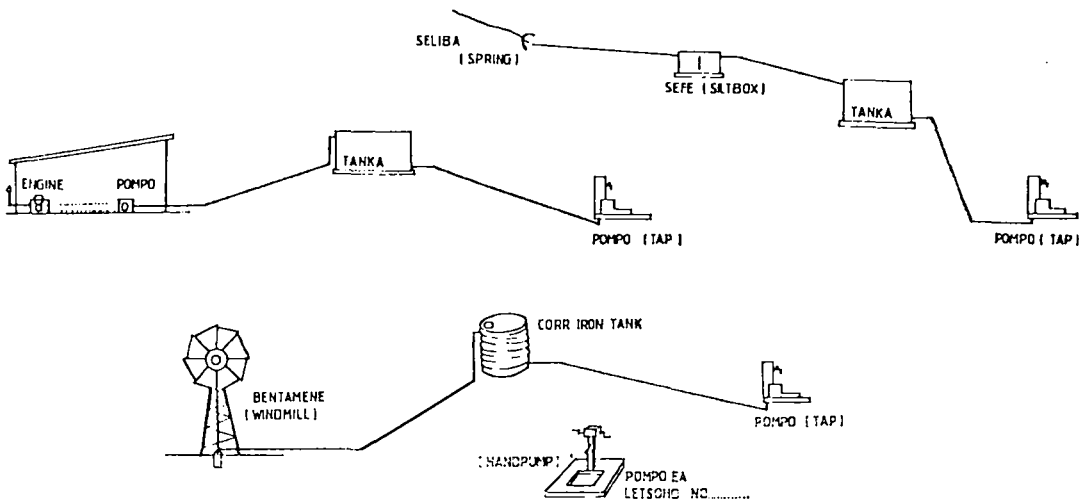


CAKETAKER MANUAL FOR RURAL WATER SUPPLIES

INSTITUTIONAL DEVELOPMENT CENTRE
FOR RURAL SUPPLY AND
SERVICES



MOSEBETSI OA MOLISA OA PHEPELO EA METSI HOLIMA TLHOKOMELO EA PHEPELO EA METSI

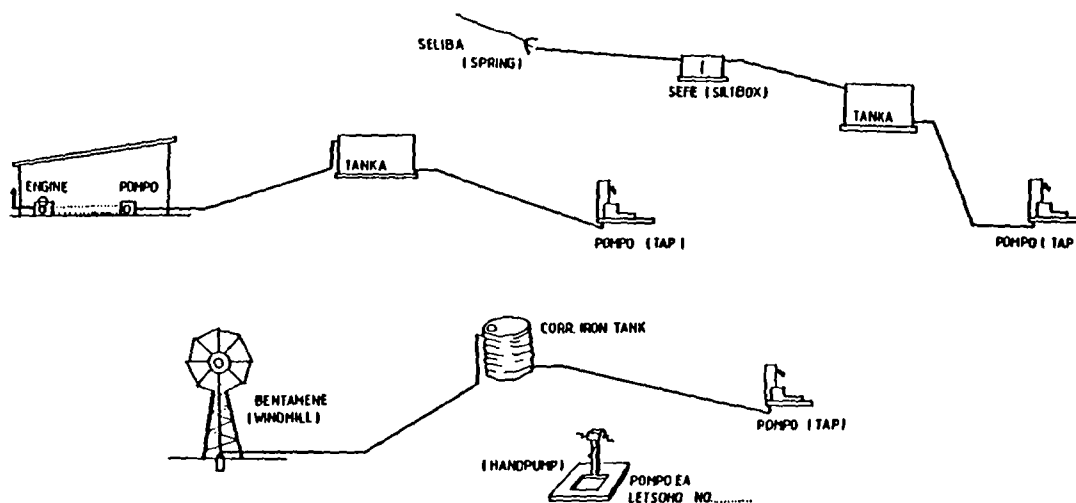
FIRST EDITION 1986

CONSTRUCTED BY MINISTRY OF COOPERATIVES AND
RURAL DEVELOPMENT VILLAGE WATER SUPPLY SECTION

Government of Lesotho

TSE ENTSOENG KE LEKALA LA LI KOPORASI LE
NTLAFATSO EA METSE KA KAROLO EA PHEPELO
EA METSI METSENG

CARETAKER MANUAL FOR RURAL WATER SUPPLIES



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MOSEBETSI OA MOLISA OA PHEPELO EA METSI HOLIMA TLHOKOMELO EA PHEPELO EA METSI

FIRST EDITION 1986

LENANE

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E Ngotsoc ke:

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Training Engineer

E Fetoletsoe ke:

S. NTOI - T.O.

T. SEPAMO - S.T.O.

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Edition By:

H. PFIFFNER

Tranining Engineer

Translation By:

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BUKA EA POLOKO EA PHEPELO EA METSI METSENG
TSE AHILOENG KE LEKALA LA LIKOPORASI LE NTLAFATSO
EA METSE KA LEKALANA LA PHEPELO EA METSI METSENG.

1. TLHAHISO LESELING

1.1 KAKARETSO

Phepelo tsohle tsa metsi metseng tse ahiloeng ke Lekalana la Phepelo Ea Metsi Metseng (VWSS), li raliloe le ho ahoa ho latela maemo a hlalositsoeng ka botlalo bukeng e hlalosang "Boemo ba Mosebetsi oa Phepelo". Ka hoo, ho etsa bonnete ba poloheho ea maemo ano, tataiso e phethahetseng ea tsela ea poloko ea phepelo, e hlokahala haholo.

Kamora'o hore morero oa phepelo o felelle ho ahoa, komiti ea motse ea metsi e nka boikarabello ba ho hlokomela le ho boloka phepelo eo.

Bonyane batho ba babeli ba motse ba rupelloa ho ka hlokomela le ho lokisa litokiso tse fokolang phepelong eo.

Bukana ena e reretsoe ho tataisa sechaba sa motse haholo-holo balisa ba liphepelo, ho boloka le ho hlokomela phepelo ea metsi.

MANUAL FOR THE MAINTENANCE OF RURAL WATER
SUPPLIES BUILT BY MINISTRY OF CO-OPERATIVES AND
RURAL DEVELOPMENT - VILLAGE WATER SUPPLY SECTION

1. INTRODUCTION

1.1 GENERAL

All Village Water Supplies built by Village Water Supply Section (VWSS) are designed and constructed to certain standards which are stated in detail in the "Manual of Standardisation". To ensure that the standard of a water supply is maintained a well organized maintenance service is absolutely necessary.

After completion of a water supply project the village water committee takes over the responsibility of maintaining the system. At least two village members (Caretakers) are trained to maintain the system and to do all minor repair work.

This manual is meant to be a guideline for villagers in general and for Caretakers in particular for the maintenance of their village water supply.

1.2 MOLISA OA PHEPELO EA METSI

- Khetho ea motho ea tla rupelloa bolisa, e etsoa ke komiti ea metsi e thusane le moenjiniiri kapa mosupisi 'moho le foromane, nakong eo ts'ebetso e ntseng e tsoela pele ea ho aha phepelo.
- Motho ea joalo e tlameha hoba motho ea tsebahalang motseng moo, le hore ebe motho ea tsebang ho tataisa sechaba.
 - Motho ea joalo e be motho ea thahasellang le hoba le bokhoni ba ho jara boikarabello le mesebetsi eohle e reretsoeng molisa.
 - Thupelo ea molisa e tsamaea 'moho le ts'ebetso ea khao ea phepelo ea metsi.
 - Motho ea rupelloang o lokela hoba teng boholo ba nako mosebetsing. A sebetsa 'moho le foromane le liahi tse teng moo.
 - Haeba motho ea khethiloeng a bonts'a ho se khotsofatse mohlomong ka baka la botsoa, ho hloka talenta ea mesebetsi, ho hloka thahasello, le tse ling, hang-hang ho tlameha hore ho etsoe khetho e 'ngoe hape.
 - Lekase le bolokang thepa ea molisa le tla fanoa ho molisa hang ha phepelo e felile.
 - Lekase le tsoere bobojane tse peli, sepannere se le seng, teipe tse hlano tse thatelang pompo, foromo tse tlatsoang ha hona le ts'enyeho le buka e tatisang.
 - Lekase leo le tse tlang le lona, ke kalimo ho komiti ka molisa 'me le lula ele thepa ea Lekalana la Phepelo Ea Metsi (VWSS).

1.2 THE CARETAKER

- The Selection of a caretaker trainee will be made by the water supply committee in cooperation with the Engineer/Supervisor and Foreman during construction.
- He should be a recognised person in the village and able to organize the villagers.
- He must be willing and able to carry out all the responsibilities and duties of a caretaker.
- The Training of caretaker takes place on the site during construction.
- The trainee caretaker must be on the job as much as possible, working with the foreman and masons.
- If a trainee performs badly due to laziness, disinterest or lack of ability, a new selection should be made as soon as possible.
- The Caretaker Tool Box will be delivered to the caretaker at the completion of the project.
- The toolbox contents two pipe wrenches 18", one shifting spanner, five thread sealing tapes, break-down report forms and one caretaker manual.
- The toolbox and its contents are issued on loan to the village water committee (Caretaker), but remain the property of the MCRD (VWSS).

3. PONAHALO E TLOAELEHILENG EA PHEPELO EA METSI A PHALLANG:

A. Tikoloho ea Mohloli:

E sirelelitsoe ka lesaka la majoe kapa terata.

B. Tsireletso ea Mohloli:

E ahoa ho latela boemo ba sebaka.

C. Sefe ea Metsi:

E ahoa pela mohloli ka nako tseling e kopane le lebokose le arolang kapa le bokellang metsi.

D. Pompo:

E tlohang mohloling ho ea tankeng e ka 'na ea eba le baka tse qhalang moea kapa litsila.

E. Lebokose le robang matla a Metsi:

Le ahoa haeba sefutho sa metsi se phahame haholo.

F. Tanka e bolokang metsi:

E ba le liveleve tse laolang metsi kapa libe kahare ho lebokose la livelefe pela tanka.

G. Pompo tse fepelang Motse:

Li kena liea moo sechaba se khang teng kapa liee tankeng e'ngoe e ikoalang ka velefe ha e tletse.

H. Lebokose la livelefe:

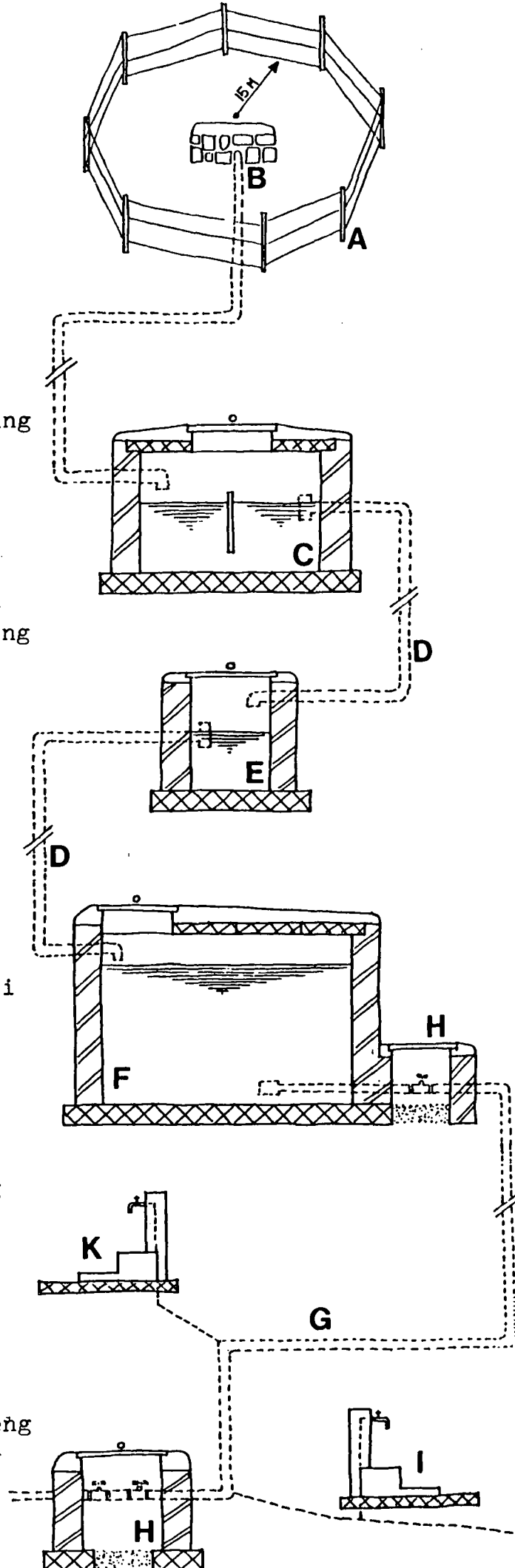
Le ahoa makaleng a maholo.

I. Pompo tseo ho khuoang metsi:

Tse qhalang litsila ke tse ahiloeng libakeng tse thesetsang ho tloha pompong e tsamaisang metsi.

K. Pompo tseo' khoang metsi:

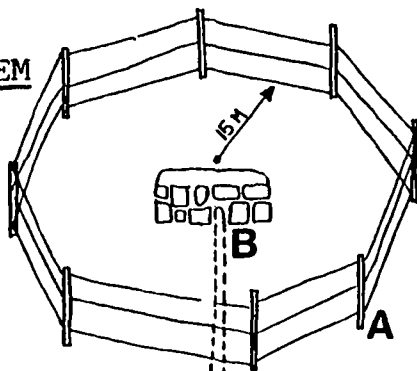
Tse qhalang moea ke tse ahiloeng libakeng tse phahametseng pompo e tsamaisang metsi.



1.3. A TYPICAL GRAVITY WATER SUPPLY SYSTEM

A. Spring Protection Zone:

Fenced with dry walls or barbed wire if necessary.

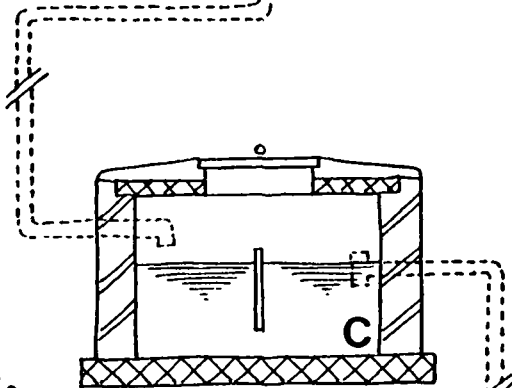


B. Spring Catchment:

Made individually according to the topographic position.

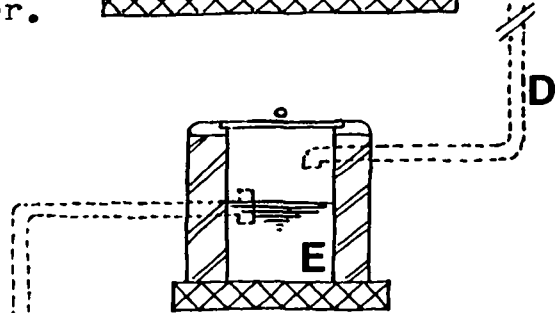
C. Siltbox:

Sometimes combined with collection or distribution chamber.



D. Supply pipe to Storage Tank:

Sometimes with washouts and air release or air release valve chamber.

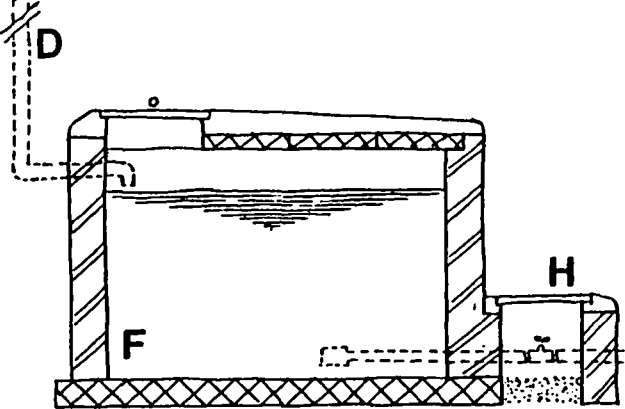


E. Pressure break chamber:

To reduce water pressure in the supply pipe.

F. Storage Tank:

With installation or valve chamber. Inlet sometimes with washout.



G. Distribution system:

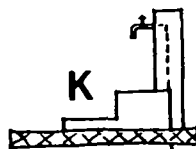
To standpipes, sometimes to additional storage tank with float valve.

H. Valve Chamber:

Only for main branches.

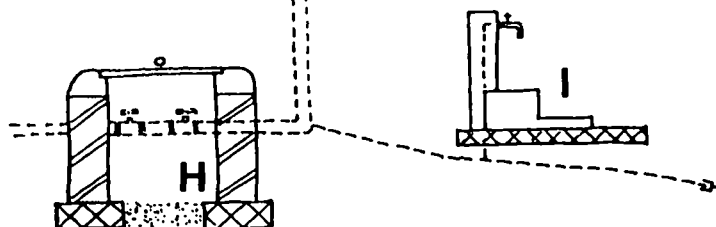
I. Standpipe with Washout:

Built at low points.



K. Standpipe with Air-release:

Built at high points.



1.4 BOHLOEKI BA METSI.

Mehloli eohle e sirelelitsoeng ke lekalana la phepelo ea metsi e tsoa metsi a hloekileng hoo a sa hlokeng ho belisoa pele a sebelisoa. Ho ka boloka bohloeki bona molisa o lokela ho hlahloba khafetsa hore:

- Ts'ireletso ea mohloli e ntse e sireletsehile hantle le hore joang bo metse.
- Ha ho khoholeli e bonahalang seabakeng seo.
- Ha ho liphoofolo kapa batho ba ka silafatsang tikoloho ka ho ithusetsa moo le hore hose sebelisoa lintho tse ka silafatsang metsi e leng likemikale.
- Ha ho sebaka pompong e tsamaisang metsi kapa tankeng moo metsi a lutlang teng se ka bakang hore metsi a silafale.
- Likoaelo tsa mabokose le mamati a tanka li koalehile hantle.

1.5 BONGATA BA METSI

Phepelo tsa metsi li raletsoe ho fana ka bonyane mashome a mararo a lilitara ka letsatsi ho motho emong le emong ka hara motse. Empa ka baka la komello e bang teng nakong tsa mariha, ts'ebeliso ea metsi e lokela ho fokotsoa haeba mohloli o theohile. Ho ka boloka metsi a le boemong bo amohelehang ts'enyoo ea metsi e lokela ho qojoa ka hore:-

- ho se be batho ba lumelloang ho hlatsoetsa pela pompo.
- ho se hokeloe mathopo pompong.
- pompo e tsamaisang metsi ha e lutla e lokisoa hang-hang.
- metsi a qhalanang ha tanka e tletse a ka sebelisoa ho nosetsa majarete le ho hlatsoa joalo-joalo.

1.4 WATER QUALITY

The springcatchments built by VWSS ensure clean safe drinking water which does not need to be boiled. To maintain the quality of the water the caretaker must check regularly that:

- The springcatchment is properly covered and planted with grass.
- No surface water is flowing over the catchment.
- There can be no contamination by livestock or humans inside the protection zone and also that no agro chemicals are used in the extended area of the spring.
- There is no leak along the pipeline or in the tanks through which the clean water could be contaminated.
- The manhole covers or doors of the tanks and chambers are closed and secured.

1.5 WATER QUANTITY

Water supplies are designed to supply at least 30 litres of water every day to every person in the village. The daily consumption may have to be reduced if the spring yield decrease during winter. To conserve sufficient water for the villagers, wastage must be avoided:

- No washing or bathing is permitted at the stand pipe.
- The use of hoses connected to the taps must be strictly prohibited.
- Leaking taps or leaks in the pipe line must be repaired without delay.
- The overflow water can be used for purposes like gardening, washing etc.

2. TLHOKOMELO LE LITOKISO

- A: TIKOLHO EA MOHLOLI e lekoloe hore marako kapa terata limaamong a khotsofatsang, le hore ho se be lifate tse lengoang tikolohong eo.
- B: TSIRELETSO EA MOHLOLI e lekoloe hore na ebe ha ho mots'oets'oenyana o ka bonahalang. Haeba metsi a kena hanyane kapa ho hang ho se metsi a kenang SEFENG EA METSI ho tlaleoe lekalaneng la phepelo ea metsi ho ba lokisang.
- C: SEFE EA METSI e hlahlojoe sekoalo le matla ao metsi a kenang ka oona. Fuluha ka thupa ho bona hore na haho lits'ila tse ka phahamang haeba li le teng bula pompo e qhalang lits'ila.
- D: LATELA POMPO e eang tankeng ea metsi. U lekole hore na haho khoholeli e bileng teng mobung o koahetseng le marako a thibelelitseng. Bula libakeng tsohle tse qhalang lits'ila ho qhala lits'ila.
- E: LEBOKOSENS LE ROBANG MATLA A METSI: Hlahloba sekoalo, bula moo ho qhaloang lits'ila, lekola pompo e qhalang metsi ha lebokose le tletse hore e ntse e nepahetse.
- F: TANKENG E BOLOKANG METSI hlahloba lemati kapa sekoalo le tsela eo metsi a kenang ka eona, hlahloba hape linotlolo tsa lebokose la livelefe le sekoalo le livelefe ka bo tsona. Qhala metsi ka tankeng 'me u e hlatsoe hang ka selemo.
- G: LATELA POMPO e fepelang motse, u hlahlobe khoholeli mobung o koahetseng le marakong a ahiloeng. Bula baka tsohle tse qhalang lits'ila qhala metsi ao nako e ka etsang motsotso bakeng se seng le se seng.

2. MAINTENANCE AND REPAIRS

- A: Spring Protection Zone: Check the fence or dry walls of the protection zone. No trees should be planted inside the protection zone.
- B: Spring Catchment: Check if wet spots are visible around the catchment. If the spring yield has decrease or no water is coming to the siltbox report to Village Water Supply - Maintenance Section.
- C: Siltbox: Check the manhole cover and the yield of the springs. Stir with a stick on the bottom of the siltbox, if this makes the water dirty open the washout and clean the box. Never plug any spring inlets inside a siltbox. Check functioning of the overflow.
- D: Supply Pipe: Follow the pipeline and check for possible damage to back filling and dry walls.
- E: Pressure Break Chamber: Check the manhole cover, open the washout and clean the box. Check functioning of the overflow.
- F: Storage Tank: Check the door or manhole cover, and the inlet flow. Check the locks and cover of the valve chamber including the installation. Empty the tank completely and clean it once a year.
=====
- G: Distribution System: Follow all the pipelines and check for damage to back filling and dry walls. Drain all the low points (washouts) for about 1 minute.

- H: LEBOKOSENS LA LIVELEPE: Hlahloba sekoalo,
linotlolo le livelefe ka hare.
- I: POMPONG TSE NTSANG METSI: Hlahloba ka kakaretso
bohloeki bo teng. Tseo e bang lia lutla li
lokisoe. Hlokomelisa baahi ba baka seo ho boloka
pompo le mathoko a eona li hloekile. Bulela
lits'ila pompong tse nang le baka tse joalo.
- K: POMPO TSA METSI A FATSE: Ho na le mofuta e 'meli
e sebelisoang haholo ke lekalana la phepele ea
metsi. Ke mofuta oa Moyno o nang le mokhoa oa
ho sotha ka matsoho a mabeli le mofuta oa Mono o
sothoang ka tsoho le le leng. Ha pompo ena e ka
hana ho nts'a metsi e tlalehoe ho ba lokisang
lekalaneng la phepele ea metsi. U hlalose ka
botlalo hore na ke pompo e feng le nomoro ea eona.
- L: ENGINI LE POMPO TSA DISELE: Tsena ke lintho tse
khethehileng haholo 'me molisa emong le emong ea
sebetsanang le lintho tsa mofuta oona o fua
thupelo ke foromane ea ba lokisang ka ts'oaro e
ntle ea enjini. Haeba molisa a sa utloisise
tsamaiso ea enjini kapa ho hlahloba mafura le oli
sena se tlalehoe ho ba lokisang lekalaneng la
phepele ea metsi.
Hangata enjini e ke ke ea luma ka baka la ha e
sena mafura e leng disele kapa moea o kene ka
mafureng. Ho na le mokhoa o bonolo oa ho nts'a
moea o keneng mafureng oo motho ea kenyang li
enjini a tlamehang ho o ruta molisa.

Ho na le lintlha tse peli feela tse hlokongoelang
enjining ke boemo ba oli le hore mafura a se
fele ho hang ka tankeng ea mafura.

- H: Valve Chambers: Check the cover, locks and installation.
- I. Stand Pipes: Check the stand pipes for general cleanliness. Leaking taps have to be repaired or replaced. Advise those villagers responsible, to keep the stand pipe and its surroundings in order. Open the washouts of standpipes built at low points.
- K: Hand Pumps: Only two main types of handpumps are used by Village Water Supply, these are Moyno which has two handles, and the Mono which has one handle.

If the hand pump stops working this should be reported to the Maintenance Section of VWS identifying which kind of hand pump is involved at the hand pump number.

- L: Diesel Engine/Pumps: These are specialized pieces of equipment and each caretaker involved with a diesel engine must have a maintenance foreman give him a short course on proper care of the engine. If any caretaker does not understand how to operate his engine or check for fuel and oil levels, this must be reported to the maintenance section of V.W.S.

Quite often an engine will fail to start because the engine was run out of fuel and air has got into the fuel line. There is a simple procedure to "bleed" the fuel lines which the installation team must show the caretaker how to do.

The two major items in the care of diesel engine are proper oil level and ensuring that fuel tank is never run completely dry.

- a) Pele, boemo ba mafura. Hona le terata e sebelisoang ka ho ineloa ka tankeng ea oli (Dip stick) ho bona boemo ba oli. Oli e tletseng haholo e ts'oana feela le oli e sieo ka hoo oli ebe pakeng tsa ntlha tse bontsitsoeng terateng eo.
- b) Mafura a hloekileng le ho boloka tanka ena le mafura ke bohlokoa ba nako tsohle. Haeba enjini e ka lumisoa mafura a le sieo ka tankeng moea le ts'ila li tla kena laeneng ea mafura 'me enjini e keke ea sebetsa.

2.1 TSELA EA TLHOKOMELO HO MOLISA

Kakaretso ea hlahlobo ea phepelo ea metsi e lokela ho etsoa hang veke engoe le engoe. Ho hlahlojoe ntho tse latelang:-

- likoalo tsohle (tsa ts'epe kapa samente).
- pompo tse fepelang tanka le motse (mobu o koahetseng le ho lutla ho ka bonahalang).
- pompo tsohle tse nts'ang metsi (ho lutla).

Ho tsena tse tlamehang ho lekoloa ka veke, tse ling li ka etsoa ho latela hore na seretse se tsamaeang le metsi se sengata ha kae. Ka hoo hlatsoa SEFE haeba u ka bona lits'ila kapa metsi a lukehile, sena se etsoe hohle moo ho nang le mabokose a metsi kapa tanka.

Bula bakeng tsohle tse qhalang lits'ila tse pompong e tsamaisang metsi le tse lipompong tsa metsi khoeli tse peli ka mor'a hore khao ea phepelo ea metsi e fele 'me kamora moo lika buloa haeba ho na le pelaelo.

- a) First, the engine oil level. There is a dip stick to measure the amount of oil in the crankcase. Too much oil is almost as bad as too little oil and the oil should be maintained between the two marks on the stick.
- b) Clean fuel and keeping fuel in the tank at all times is important. If the engine is allowed to run the fuel tank empty then air and dirt can get into the line causing engine failure.

2.1 MAINTENANCE SCHEDULE FOR CARETAKERS

A general inspection of the whole water supply system should be undertaken every week. This inspection should include the following checks:

- All manhole covers (iron or concrete)
- Supply pipe and distribution system, (back filling, leaky connections or washouts)
- All stand pipes (Leaky taps)

Additional work will depend on the amount of sediment entering the water system coming from the spring. Therefore the siltbox should be drained only if silt is visible on the bottom of the box or if the water is dirty. This is valid for all water containing chambers, for example: distribution, pressure break and collection chambers and water points.

All washouts including those at standpipes should be drained two months after the project has been handed over to the village. Thereafter only if it is suspected that sediments have got into the pipes.

2.2 LITOKISO TSE FOKOLANG

Tsebisa sechaba se tla ameha nakong eo u tlang ho koala metsi bakeng sa tokiso.

HO CHENCHA POMPO

- koala pele velefe tankeng
- sotha pompo ho e ntšā sokereng, u sebelisa sepannere le bobojane ka 'nqa engoe hobane hoseng joalo pompo e tla sotheha le tse ka hara lerako.
- sebelisa teipe e thateloang pepe o faseletsa pompo.

HO CHENCHA VELEFE

Etsa hore metsi a se tle moo o lokisang teng ka hore o bulele moo ho qhaloang lits'ila ho qhala metsi a ka tankeng. Sotha union me u chenche velefe eo. Hona le mofuta o mong oa union o sa buleheng ha bonolo, e bang ke eona, tlalehela lekalana.

HO PETSOHA HA POLASETARA

Ho petsoha ho ho nyenyane ho keke ha thefula matla a polasetara ka hoo haho hlokahale tokiso ea letho, empa matlere a maholo polasetareng a tlameha ho lokisoa ka tsela e latelang:-

- Bula ka chesele bonyane botebo ba senoko le bophara ba senoko.
- Hlatsoa ka metsi sekoti seo 'me metsi a monyele polasetareng.
- Hloohla motsoako o thata oa samente le lehlabathe tsela ea ho tsoaka ebe karolo e le 'ngoe ea samente ho tse peli tsa lehlabathe le lesesane 'me o lumelle motsoako ho omella hanyane.

2.2 MINOR REPAIRS

Always inform the villagers before turning off the supply.

Changing a tap

- Close the gate valve in the valve chamber or the tank.
- Unscrew the tap from the socket using the adjustable spanner and holding the socket with a pipe wrench so that the pipe does not turn inside the bricks.
- Use new thread sealing tape to fit the new tap.

Changing a valve

Stop the water from flowing through the gate valve, (e.g. drain the storage tank or close the gate valve before the damaged valve). Open the flat face unions, remove the broken valve without damaging the gaskets, fit the union to the new one and replace it. If a broken valve is installed with conical unions repair work has to be done by VWS Maintenance Section.

Cracks in water proof plastering

Hair cracks, which normally occur in a cement paste finish, do not reduce the effectiveness of the plastering and therefore nothing need be done. Bigger cracks appearing in the topping or plastering have to be repaired as follows:-

- Open the cracks with a chisel at least 2cm deep and 1.5cm wide.
- Clean the crack with water and let the water soak into the crack.
- Fill the gap with a stiff mixture of rich cement mortar (1 part cement to 2 parts fine sand) press this mortar firmly into the gap and allow to set.

- Folouta ka lepolanka 'me u etse boreleli ka terofolo.
- Emela hore e ome pele o ts'ela metsi ka tankeng.

Haeba hose seahi se tsebang mosebetsi se teng moo motseng ho ka etsa ts'ebetso eo, tlaleha hang ofising ea lekalana ea setereke.

2.3 LITOKISO TSE KHOLO

Bakeng sa litokiso tse kholo tse phahametseng tsebo ea molisa ea rupelletsoeng tlaleha ho ofisi ea setereke ea lekalana kapa o tlatse foromo ea (L1, L2) 'me o e romele ofising ea setereke kapa ntlokholo ea lekalana ho ba lokisang ka aterese e latelang:-

Village Water Supply,
 Maintenance Section,
 P.O. Box 686,
MASERU.

District Office (address)

- Float the surface with a piece of plank and smooth it with a trowel.
- Allow it to set before filling the chamber with water.

If no qualified Mason is available in the village to do this work please contact your VWS District office.

2.3 MAJOR REPAIRS

For any major repair work which is beyond the technical knowledge of the villagers or caretaker contact your VWS district office or fill in the break-down report form (L1,L2) and send it to the District Office or
 Village Water Supply MCRD
 Maintenance Section
 P.O. Box 686,
 M A S E R U.

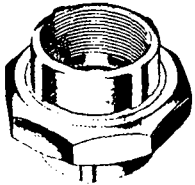
- - - - -

District Office (address)

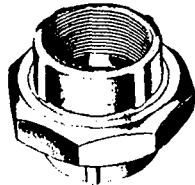
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2.4. LIFITING TSE SEBELISOANG HAHOLO:

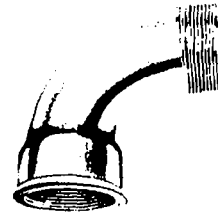
Union conic



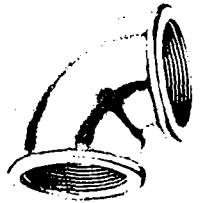
Union flat
(with gaskets)



Bend
90° M&F



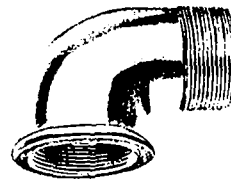
Elbow
90° F



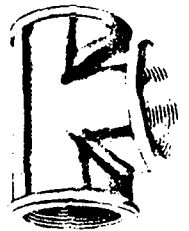
Bend
90° F



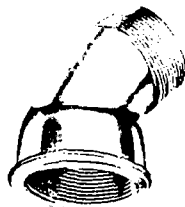
Elbow
90° M&F



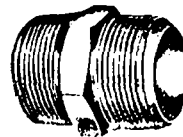
Tee



Bend
45° M&F



Hex Nipple



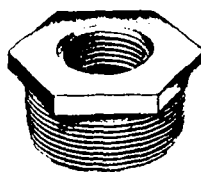
Plug solid



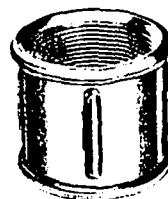
Gate valve



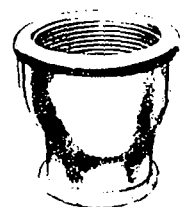
Reducing bush



Socket

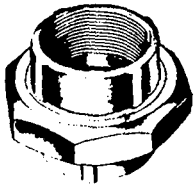


Reducing socket

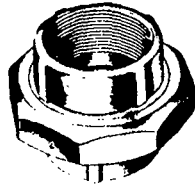


2.4. COMMONLY USED FITTINGS:

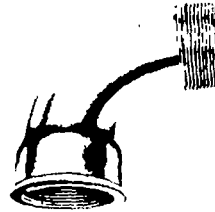
Union conic



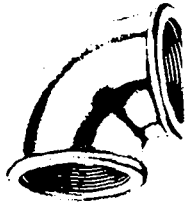
Union flat
(with gaskets)



Bend
90° M&F



Elbow
90° F



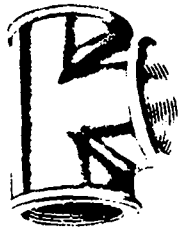
Bend
90° F



Elbow
90° M&F



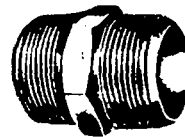
Tee



Bend
45° M&F



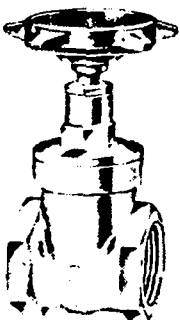
Hex Nipple



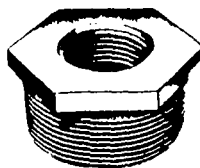
Plug solid



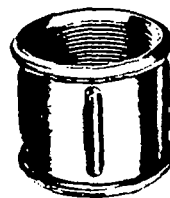
Gate valve



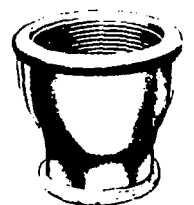
Reducing bush



Socket

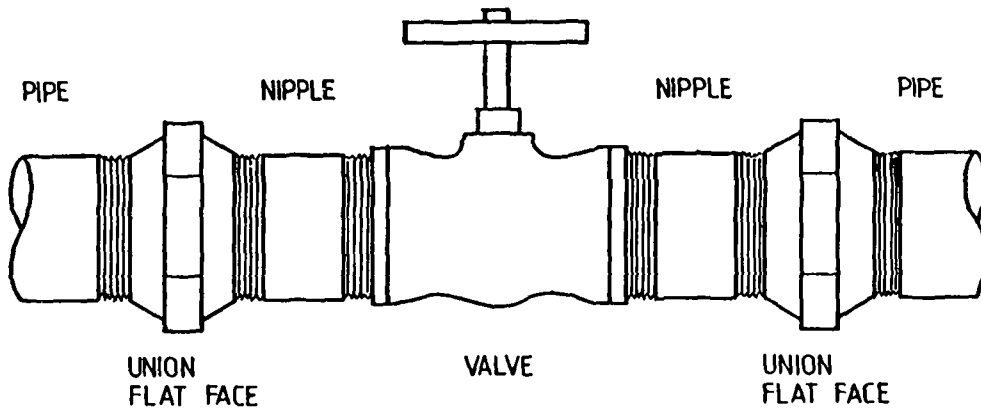


Reducing socket

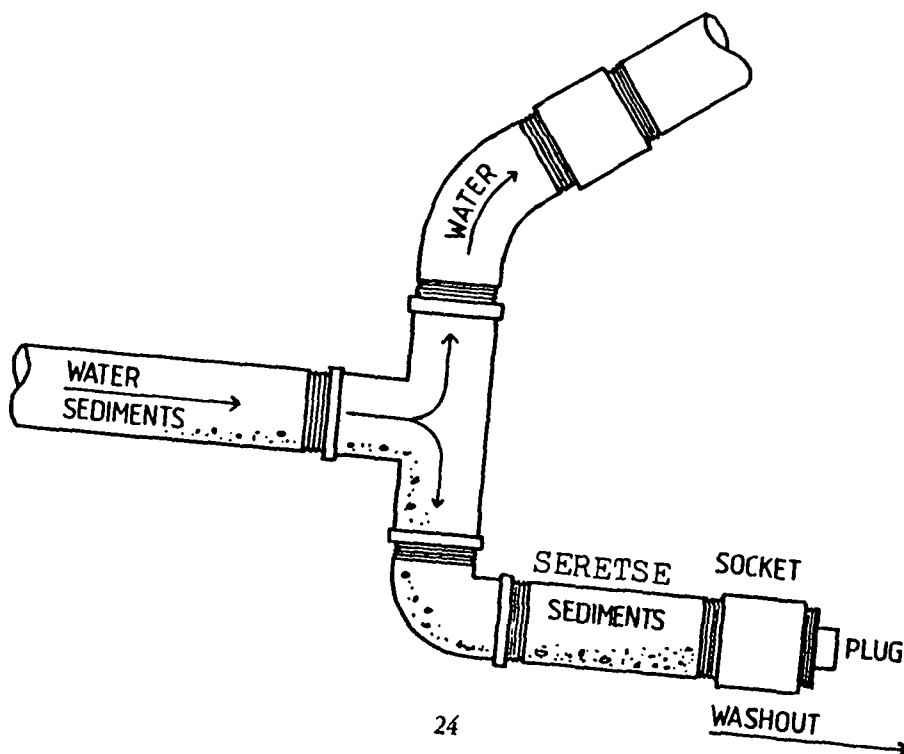


2.5. TSELA EA HO FASA E TLOAELEHILENG:

VELEFE E KOALANG METSI KA LEBOKOSEN LA LIVELEFE

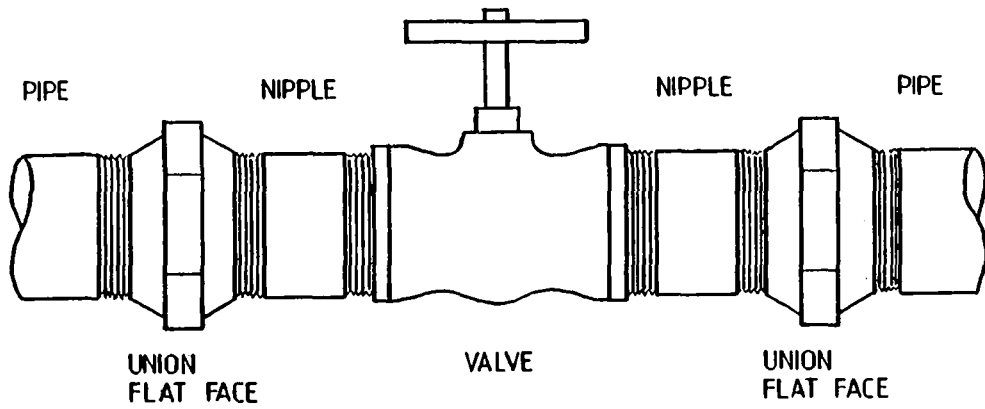


BAKA SE QHALANG LITS'ILA

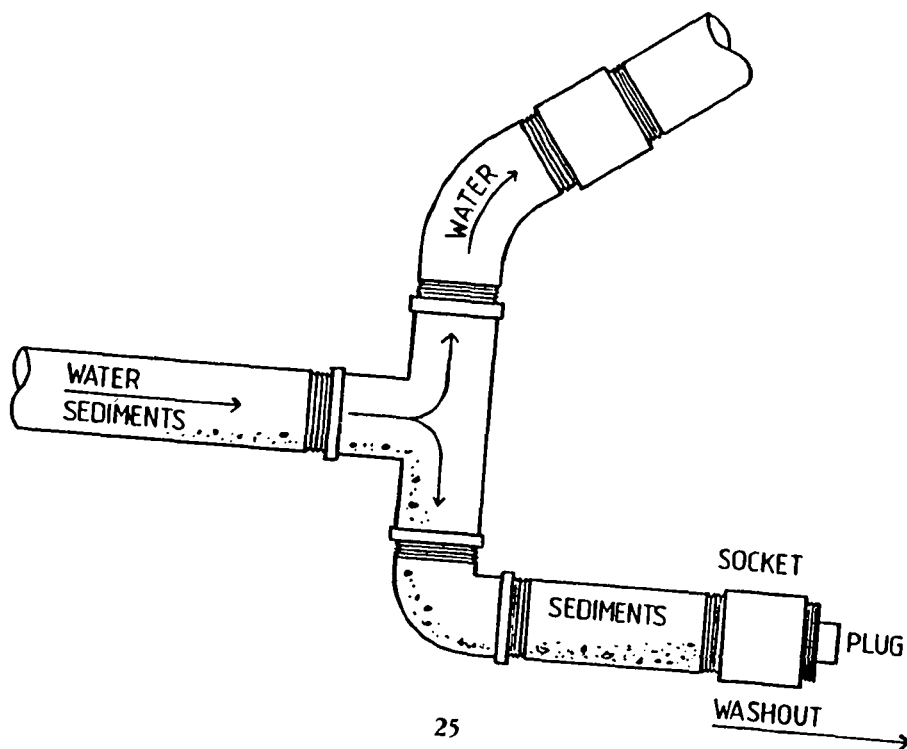


2.5. COMMONLY USED INSTALLATIONS:

GATE VALVE IN VALVE CHAMBER



WASHOUT AT LOW POINT



2.6. TLALEHO EA HO SE SEBETSE HOA PHEPELO EA METSI:

| | |
|---|---------------------------------------|
| Government of Lesotho MCRD Village Water Supply Section | FORM L2 |
| TLALEHO EA HO SE SEBETSE HOA PHEPELO EA METSI | |
| MOTSE ... <i>HA PHO HLELI</i> ... | NOMORO... <i>MAS - 119</i> ... |
| SETEREKE <i>MASERU</i> ... | RAMOTSE <i>M. PHO HLELI</i> ... |
| LEBITSO LA MOLISA <i>M. MAKOAELE</i> ... | LE TSATSI <i>LA ZO Mesa, 1986</i> ... |

Ngola lesakana sebakeng seo khathatso e leng hona teng o be o bontse ka sekere lesakaneng le amanang le khathatso ka tlase.

| | |
|-------------------------------------|--|
| <input type="checkbox"/> | Engine ha e sebetse |
| <input type="checkbox"/> | Pompo(Pump) ha e sebetse |
| <input type="checkbox"/> | Bentamene(Windmill) ha e sebetse |
| <input type="checkbox"/> | Laene(Line) e lutla metsi |
| <input type="checkbox"/> | Ha Ho metsi a fihlang tankeng |
| <input type="checkbox"/> | Tanka e ea lutla |
| <input checked="" type="checkbox"/> | Ha ho metsi a fihlang sefeng (siltbox) |
| <input type="checkbox"/> | Ha ho metsi a fihlang pompong (tap) |
| <input type="checkbox"/> | Pompo ea letsoho ha e sebetse |

Hlalosa tse ling:- *Ho na le motsoetsoe o bonahalang*
...pela mohloli le Metsi ha a fihle hantle ka
sefeng.

Foromo ena e khutlisetsoe Maseru atereseng ena:-

Mail to: Village Water Supply MCRD
 Maintenance Section
 P.O. Box 686
Maseru.

or District Engineers

2.6. BREAK - DOWN REPORT FORM

| | |
|---|---------------------------------------|
| Government of Lesotho MCRD Village Water Supply Section | FORM L1 |
| <u>BREAK-DOWN REPORT FORM VILLAGE WATER SUPPLY</u> | |
| VILLAGE: ... <i>HA. PHOHLELI</i> ... | REF. NO.: ... <i>MAS-119</i> ... |
| DISTRICT: ... <i>MASERU</i> ... | CHIEF: ... <i>M. PHOHLELI</i> ... |
| WATERMINDER: ... <i>M. MAKOAELA</i> ... | DATE: ... <i>20th April, 1986</i> ... |
| Place circle around trouble spot and indicate with a cross the corresponding break-down below: | |
| | |
| <input type="checkbox"/> Engine is not working <input type="checkbox"/> Diesel pump is not working <input type="checkbox"/> Windmill is not working <input type="checkbox"/> The line is leaking <input type="checkbox"/> No water is coming to the tank <input type="checkbox"/> Tank is leaking <input checked="" type="checkbox"/> No water is coming to the siltbox <input type="checkbox"/> No water is coming to the tap <input type="checkbox"/> Handpump is not working | |
| Any other remarks: ... <i>There is a wet spot visible at the spring protection zone and water is not nicely reaching the siltbox.</i> ... | |
| This form will be sent to: Village Water Supply MCRD Maintenance Section P.O. Box 686 Maseru | |
| or District Engineers. | |