

GoI/UNICEF
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HANDING OVER DOCUMENT OF HAND PUMP REPAIR BY COMMUNITY

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INTEGRATED WATER SUPPLY AND SANITATION PROGRAMME IN TONK DISTRICT – APNA GAON SWACH GAON

INTRODUCTION

As per UNICEF support in Tonk district the water supply and sanitation programme under Apna Gaon Swachh Gaon is gaining momentum and enhancing community participation in the programme. Now the time is matured enough to hand-over minor repair work to the community by user group.

Trained hand pump mistries are available in each Gram Panchayat as regular employee of Panchayat Samiti.

Hand pump repair campaign is supported by PHED every year in March to July.

One hand pump regular mistry is responsible for 40 to 45 hand pumps under his jurisdiction.

Panchayati Raj Institution issued instruction to call and co-operate with PHED for repairs.

**ELIGIBILITY CRITERIA FOR TAKING-OVER OF
HAND PUMP REPAIR PROGRAMME BY USER GROUP**
(AS FRAMED BY WATSAN COMMITTEE)

Before handing-over hand pump scheme to user group for maintenance and repair the eligibility criteria for the user group is as follows :-

The important features and criteria of user group are very important before taking-over the hand pump scheme for successful running :-

TICK EACH

1. **Transparency** :-

Holding of open meeting, sharing of knowledge and pursuance of defaulters not paying repair charges regularly.

2. **Participation** :-

All member of user group must participate in repair programme for successful running. There should be atleast 75% presence in the meeting during participation out of which about 50% must be women.

3. **Inclusion** :-

Hand pump is accessible to everybody in the village irrespective Of caste and creed.

4. **Ownership** :-

The user group must have awareness of ownership of hand pump as their own.

5. Every member of the user group should know that after taking-over of repair of hand pumps it will be their duty to continue it by themselves.
6. The Village WATSAN Committee must have tool kits available as per UNICEF supply in their integrated water and sanitation programme and handed over to user's group mechanic.
7. The user's group is aware of name & address of trained village mechanic.
8. The user group had identified the care taker preferably women in their user group & the caretakers has undergone training.
9. The user group must have a knowledge regarding availability of spare parts and kind of repair to be carried out by them.
10. The user group is aware about the role of Gram Panchayat, WATSAN Committee, Panchayat Samiti and PHED for their support functions.
11. The user group and WATSAN Committee must have inventory of hand pump as mentioned in this letter for the record for regular repair.
12. The prospective funds available with self help group will be used in User's Group funds.
13. Self help group is converted into User's Group.

SURPANCH/

NGO REPRESENTATIVE

JEN,PHED

HAND PUMP INVENTORY

It is necessary to have the inventory of each hand pump at the time of handing-over of hand pump for repair. The brief description of this inventory is as follows :-

<u>S.No.</u>	<u>Description</u>	<u>Remarks</u>
1.	Year of construction	-
7.	Type of Hand pump	India Mark II/India Mark III with OTC Cylinder/without OTC
3.	Depth of bore hole	_____ m
4.	Size of bore hole	_____ mm
5.	Type of Strata	Rocky/Aluvium/Boulder
6.	Length of Casing pipe MS	_____ m
7.	Size of Casing pipe	_____ mm
8.	Condition of platform	_____
9.	Condition of drainage	_____
10.	Size of Riser pipe	_____ mm
11.	Length of Riser pipe	_____ m

12. Location of Hand pump _____
13. Discharge of Hand pump _____
14. Quality of water of hand pump _____ Nitrate, F, Cl, TDS
15. Any other information _____
16. Static Water Table _____ m
17. Water column _____ m

SIGNATURE OF HAND PUMP
MECHANIC

SIGNATURE OF
JEN, PHED

SIGNATURE OF
CARE TAKER

**ROLE OF REPAIR WORK OF HAND PUMP BY
USER'S GROUP AND CARE TAKER**

DUTY OF CARE TAKER

1. Greasing of moving parts like chain, axle and ball bearings etc.
2. Replacing of nut and bolts and its tightening.
3. Checking of movement of handle, if handle is not moving smoothly, it may be due to excel or bearing problem - contact PHED JEN.
4. Hand pump care taker is having two spanner set to utilize it for such repairs.
5. Care taker is responsible for purchase of spare parts from the nearby mart/institution.
6. Care taker is responsible to call PHED/Gram Panchayat as and when required.
7. Collection of maintenance charges from user's group and maintenance of pass book.
8. Assist village mechanic in repair.
9. Training of women for upkeep of storage of water and then use aesthetically.

ROLE OF VILLAGE MECHANIC AVAILABLE IN USER'S GROUP

1. Repair of cylinder and change of washer etc.
2. Replacement of chain.
3. Replacement of axle and bearings.
4. If village mechanic is not capable he will inform to PHED/Gram Panchayat's regular mechanic for help.
5. Village mechanic will inform WATSAN Committee after repair.
6. Village mechanic will maintain history sheet of hand pump repair. The Performa is to be provided by NGO which will be kept by User's Group/care taker.
7. User's Group is responsible for payment to mechanic.

ROLE OF USER'S GROUP

1. Cleaning of platform and its environment.
2. Maintenance of proper drainage system.
3. Supervision of overall upkeep of hand pump assets.
4. Assist village mechanic in repair.

ROLE OF PHED

1. Replacement & change of G.I.riser pipe.
2. Repair of head assembly.
3. Replacement of chain, bearing.
4. Replacement of handle.
5. Flushing/development of bore holes with the help of rig/compressor.
6. Any other major repair, if any which can not be done by village mechanic.
7. The care taker/user's group representative should contract the PHED for overcoming of their problem.

WHOM TO CONTACT

Name of sub-division officer with HQ _____

Name of JEN Office with HQ _____

Name of AEN with T.No. _____

Name of JEN with T.No. _____

ROLE OF GRAM PANCHAYAT/WATSAN COMMITTEE

1. The Gram Panchayat will assist user's group in repair programme wherever any requirement of the community is seen like repair of platform, mis-handling of hand pump and any other conflict in the user's group itself.
2. To arrange Gram Sabha meeting and analyse user's group activities.
3. The Gram Panchayat is responsible for calling PHED/hand pump mechanic to assist user's group repair programme.
4. Gram Panchayat is also responsible for use of genuine spare parts in the programme.
5. Any difficulty in tool kits by user's group should be covered by Gram Panchayat/WATSAN's Committee.

SPARE PARTS

For successful running of hand pump the duty of the user group is to use quality and genuine spare parts for repair. The list of spare parts alongwith rates are enclosed herewith which are in force in PHED for their use. The minimum spare parts required for India Mark II and India Mark III for two years are enclosed herewith for ready reference for the user group. The drawing of spare parts and tool kits is also enclosed for community based hand pump repairs.

HISTORY SHEET OF HAND PUMP

NAME OF
VILLAGE _____

LOCATION OF
HAND PUMP _____

S. NO.	HAND PUMP STATUS AT THE TIME OF INSPECTION BY CARE TAKER	REPAIR WORK REQUIRED		DATE OF REPAIR BY VILLAGE MECHANIC	SPARE USED BY MECHANIC	SPARE RECEIVED FOR REPAIR OF HAND PUMP
		BY USER'S GROUP	PHED/ PRI			
1.	2.	3.	4.	5.	6.	7.

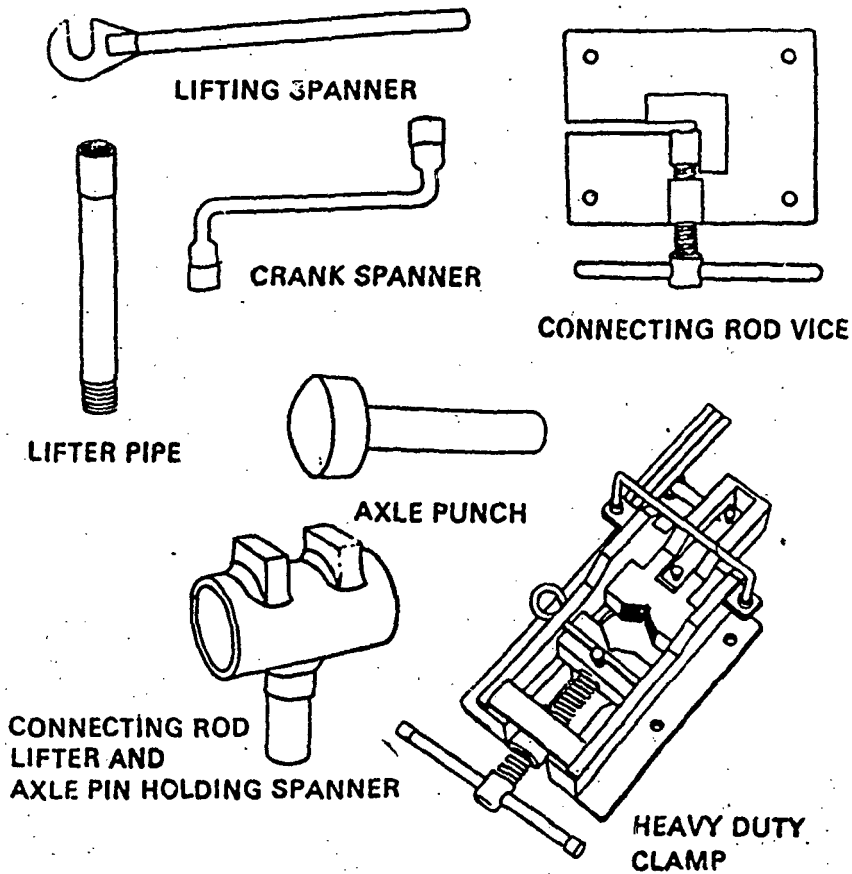
SIGNATURE OF
CARE TAKER

SIGNATURE OF HAND PUMP
MECHANIC

Special Tools :

ITEM

1. Lifting spanner (3 Nos.)
2. Lifter pipe
3. Crank spanner (17MM x 19MM) (2 Nos.)
4. Connecting rod vice
5. Connecting rod lifter and axle pin holding spanner
6. Axle punch
7. Heavy duty clamp



LIST OF RECOMMENDED SPARES FOR 2 YEARS

(Normal Operation and Maintenance)

(A) INDIA MARK II HAND PUMP:-

SPARES FOR PUMP-HEAD

	QTY
1. HEXAGONAL BOLT M 12 x 1.75 x 40 MM LONG	8 Nos
2. HEXAGONAL NUT M 12 x 1.75 MM	18 Nos
3. HIGH TENSILE BOLT M10 x 1.5 x 40 MM LONG	1 No
4. NYLOC NUT M 10 x 1.5 MM	1 No
5. HANDLE AXLE (STAINLESS STEEL)	1 No
6. WASHER (4MM THICK) FOR HANDLE AXLE	1 No
7. BEARING	2 Nos
8. SPACER (BEARING)	1 No
9. CHAIN WITH COUPLING	1 No
10. BOLT FOR FRONT COVER M 12 x 1.75 x 20MM LONG	2 Nos

SPARES FOR CYLINDER:

1. CUP WASHERS (VEGETABLE TANNED) OR NITRILE RUBBER	6
2. SEALING RING (LEATHER OR NITRILE RUBBER)	6
3. RUBBER SEATING (BIG)	2
4. RUBBER SEATING (SMALL)	2

NB: ALL ITEMS TO BE PACKED IN CARDBOARD BOX AND LABELLED "SPARE PARTS KIT FOR INDIA MARK II HANDPUMP"

SPARES FOR CONNECTING ROD AND G.I. RISER PIPE

1. CONNECTING ROD - 3 mts LONG	3 Nos
2. PIPE SOCKET (SEAMLESS PIPE OR MACHINED FROM SOLID BAR) FOR 32 MM NB -G I RISER PIPE	4 Nos

INDIA MARK II HANDPUMP

(C) INDIA MARK III (VLOM) HAND PUMP:-

SPARES FOR PUMP HEAD

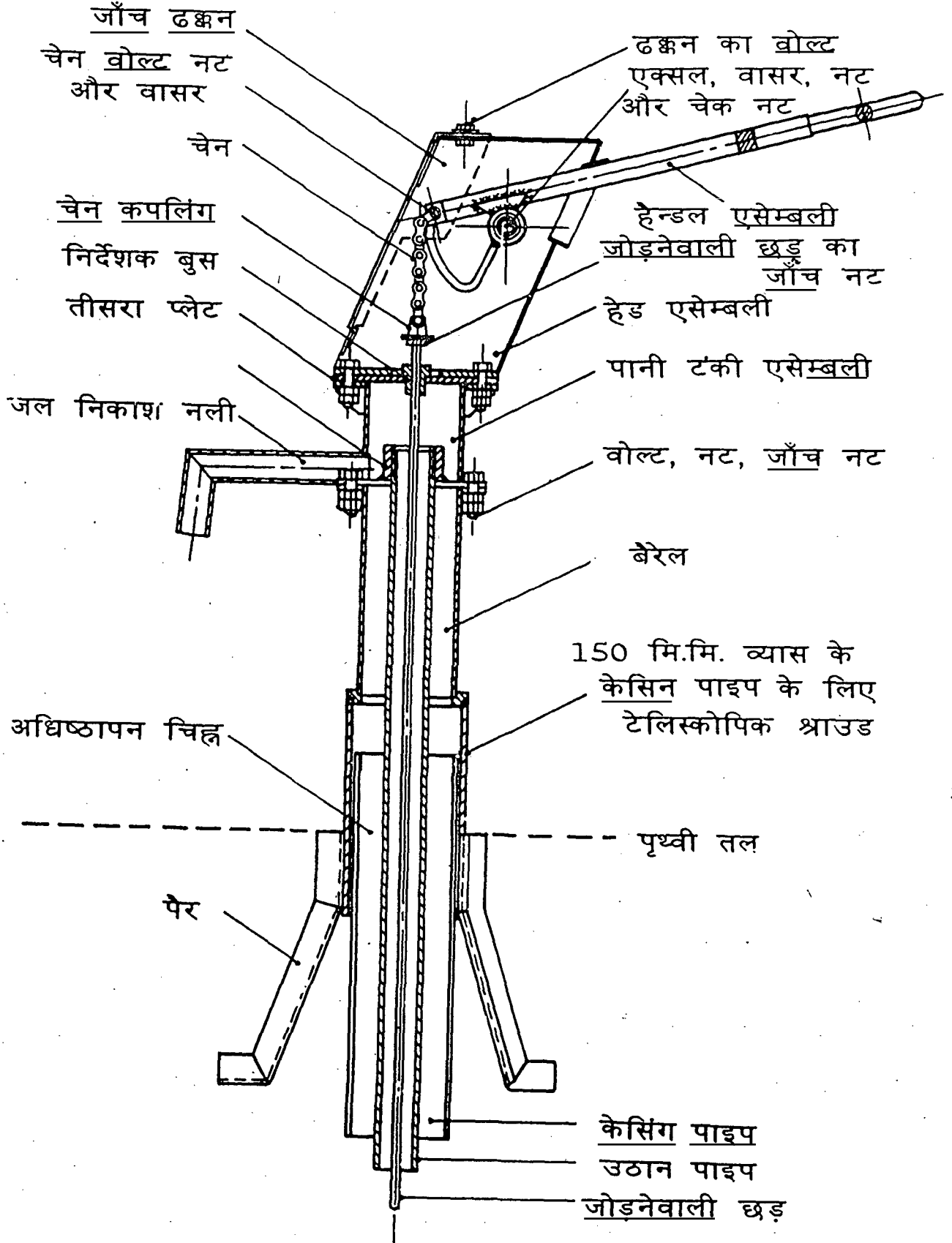
1.	HEXAGONAL BOLT M 12 x 1.75 x 40 MM LONG	8 No:
2.	HEXAGONAL NUT M 12 x 1.75	18 No
3.	HIGH TENSILE BOLT M 10 x 1.5 x 40 MM LONG	1 No
4.	NYLOC NUT M 10 x 1.5	1 No
5.	HANDLE AXLE (STAINLESS STEEL)	1 No
6.	WASHER (4 MM THICK) (FOR HANDLE AXLE)	1 No
7.	BEARING	2 No:
8.	SPACER (BEARING)	1 Nc
9.	CHAIN WITH COUPLING	1 Nc
10.	BOLT FOR FRONT COVER M 12 x 1.75 x 20 MM LONG	2 No

SPARES FOR CYLINDER

1.	NITRILE RUBBER BUCKET WASHER	4 No
2.	O-RING (NITRILE RUBBER)	4 No
3.	UPPER VALVE GUIDE WITH RUBBER SEATING	1 Nc
4.	CHECK VALVE WITH RUBBER SEATING	1 Nc
5.	M 6 NUT	1 Nc
6.	UPPER VALVE RUBBER SEATING	4 No
7.	CHECK VALVE RUBBER SEATING	2 No
8.	RUBBER SEALING RING	4 No

N.B. ALL ITEMS TO BE PACKED IN CARDBOARD BOX & LABELLED "VILLAGE LEVEL SPAR PARTS KIT FOR INDIA MARK III (VLOM) HANDPUMP"

पम्प हेड एसेम्बली के विभिन्न भागों का वर्णन



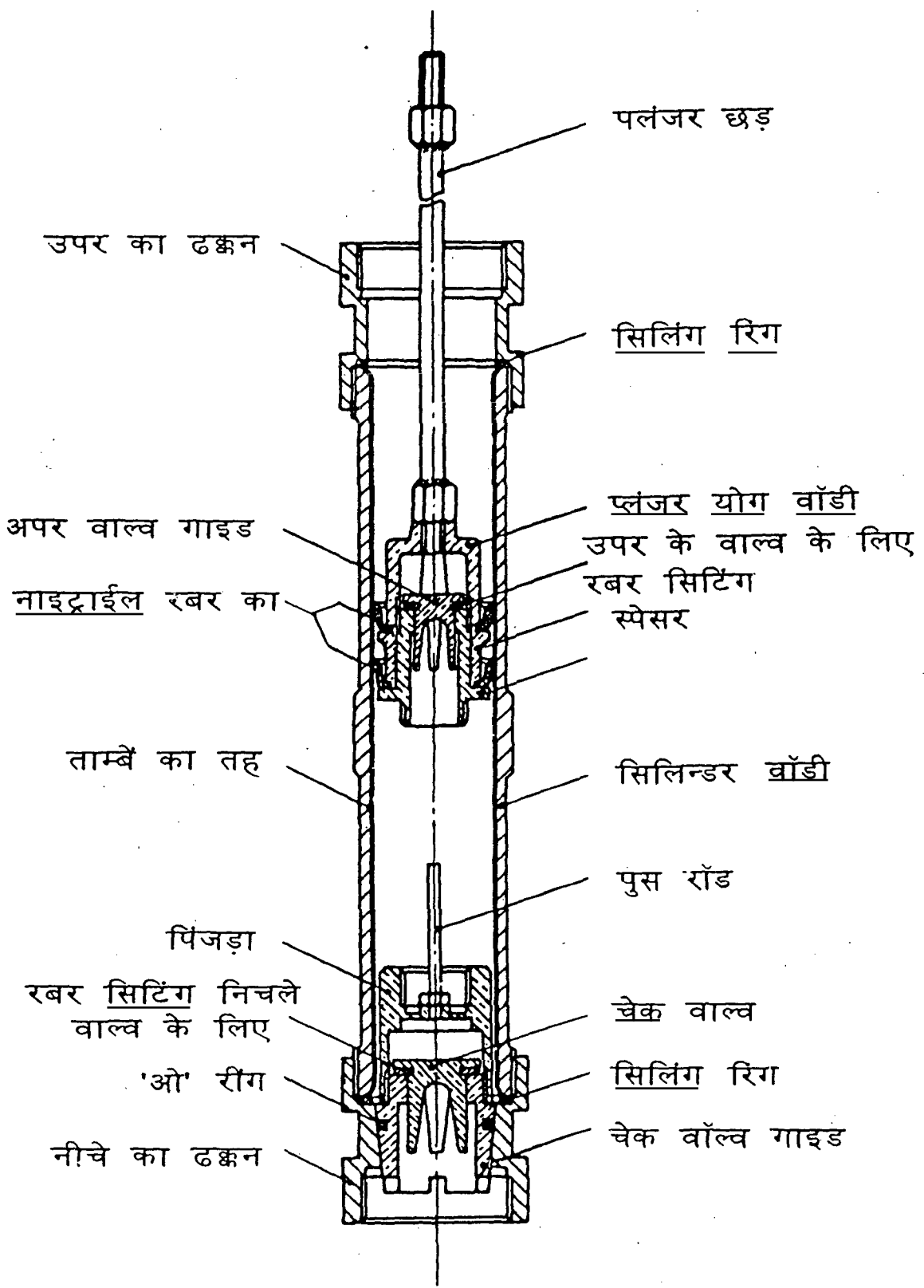


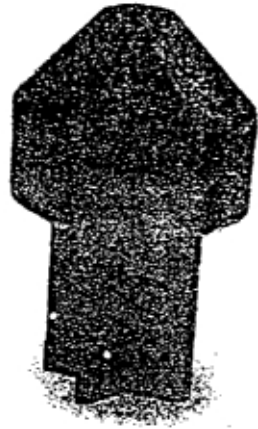
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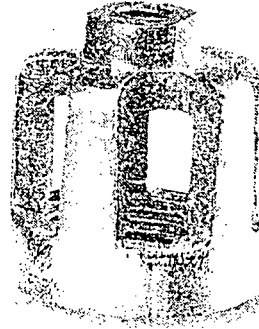


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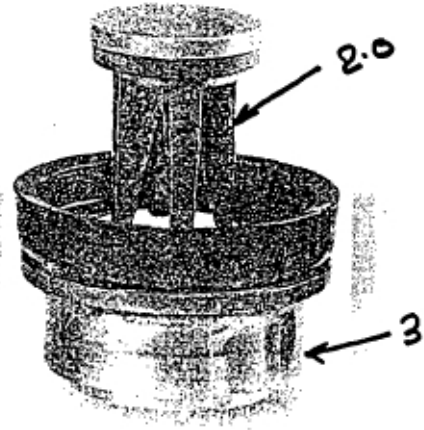
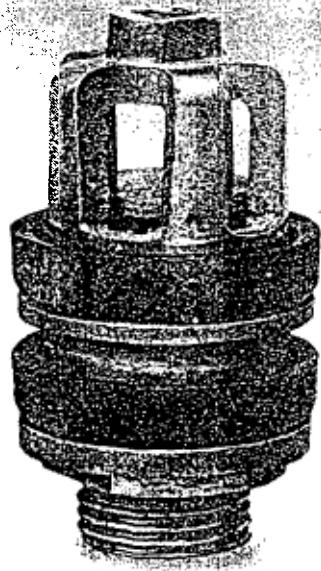
(VLOM 50)



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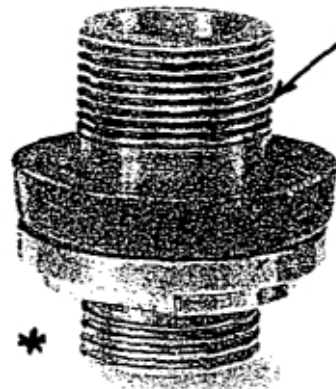


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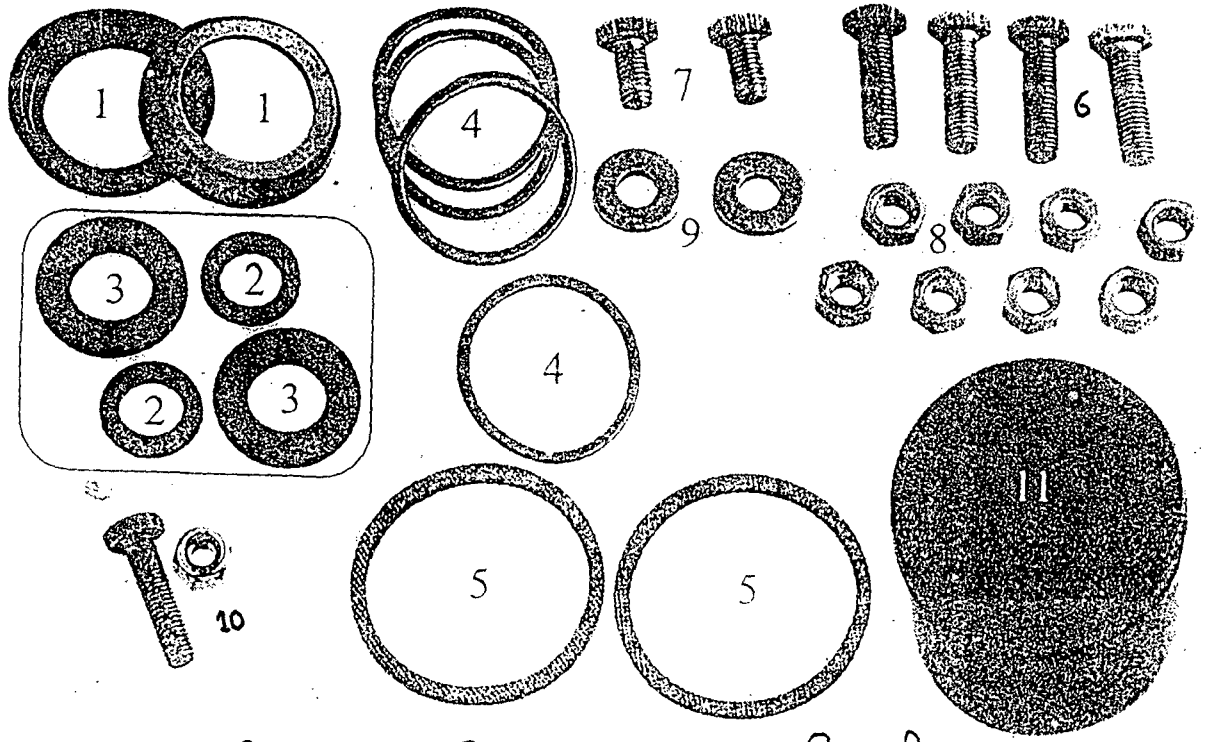
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* सिलिण्डर के अन्य भागों की मुख्य सूची *

क्र.सं.	स्पेयर पार्ट्स के तकनीकी नाम	स्थानीय भाषा में नाम	मूल्य
1.	प्लन्जर ग्रॉक बाँड़ी	उपरी धोरा पिंजरा	35/रु.
2.	अपर वाल्व गार्ड	धोरा तोता	15/रु.
3.	स्पेसर	कटोरी	25/रु.
4.	फोलोअर	गिलास	43/रु.
5.	बोबीन	भिन्की	2/रु.
6.	चैक वाल्व गार्ड	बड़ा तोता	20/रु.



* स्पेयर पार्ट्स के नाम स्वम मूल्य की सूची *

क्र.सं.	स्पेयर पार्ट्स के तकनीकी नाम	स्पेयर पार्ट्स के स्थानीय भाषा में नाम	मूल्य
1.	पम्प बकेट (PUMP BUCKET)	कप वांशर	6.00 रु
2.	रबर सीटिंग अपर वाल्व गाइड (Rubber Seating for upper valve guide)	छोटी रबर सीट	2.00 रु
3.	रबर सीटिंग चैक वाल्व गाइड (Rubber Seating for check valve guide)	बड़ी रबर सीट	3.00 रु
4.	"ओ" रिंग चैक वाल्व बॉडी [b' Ring check valve body]	चैक वाल्व यूडी	1.00 रु
5.	* सीलिंग रिंग * (SEALING RING)	सीलिंग रिंग	2.00 रु
6.	हेक्स बोल्ट M12x40x1.75 (Hex. bolt M12x40)	पाँती की टंकी के बोल्ट	1.00 रु
7.	हेक्स बोल्ट M12x20x1.75 [Hex. bolt M12x20]	ड्रिफ्ट बोल्ट	1.00 रु
8.	हेक्स नट M12 (Hex. NUT M12)	पानी की टंकी के नट	1.00 रु
9.	वाशर M12 [Washer M12]	उपरी ड्रिफ्ट का वांशर	2.00 रु
10.	हार्ड टेन्साइल बोल्ड व नायलॉक नट (High tensile bolt M10x40 with Nylor nut)	चैन बोल्ट व नायलॉक नट	2.00 रु
11.	ग्रीस (GREASE)	ग्रीस	20.00 रु

LIST OF SPARE PARTS FOR INDIA MARK II – PRICE LIST

S.NO.	NAME OF COMPONENTS	RATE
1.	Head(Galvn.) without cover	470/-
2	Handle welded(Galvn.)	335/-
3	Front cover(Galvn.)	67/-
4	Third Plate(Galvn.)	85/-
5	Water Tank(Galvn.)	335/-
6	Chain with coupling	62/-
7	Handle Axle S.S.	47/-
8	Plunger Yoke Body	39/-
9	Upper valve guide new design	18/-
10	Spacer double step	34/-
11	Follower	46/-
12	Rubber seat retainer	17/-
13	Check valve guide	23/-
14	Check valve seat	32/-
15	Cylinder assembly complete	528/-
16	Connecting Rod M 12x3 mtr.	71/-
17	Rubber Pump bucket	5.75
18	Rubber seating lower valve	2.20
19	Rubber seating upper valve	1.25
20	Rubber sealing ring	4.80
21	Hex Bolt M 12 x 1.75 x 10mm	1.80
22	Hex Nut M 12 x 1.75mm	0.86
23	H.T.bolt M 10 x 1.5.40mm	4.20
24	Hex Nylock Nut M 10 x 1.5	2.30
25	Hex Coupler M 12 x 50	4.80
26	Brass Liner	138/-
27	Cylinder Body with brass liner and two reducer cap	264/-
28	Reducer cap	33/-

LIST OF SPARE PARTS FOR INDIA MARK III – PRICE LIST

S.NO.	NAME OF COMPONENTS	RATE
1.	Head(Galvn.) without cover	470/-
2	Handle welded(Galvn.)	335/-
3	Handle Complete Assembly(Galvn.)	530/-
4	Chain with coupling	62/-
5	Rubber seat retainer	17/-
6	Check valve guide	23/-
7	Check valve seat	32/-
8	Handle Axle	47/-
9	Cylinder Assembly Complete	528/-
10	Rubber pump bucket	5.75
11	Rubber seating lower valve	2.20
12	Rubber seating upper valve	1.25
13	Rubber sealing ring	4.80
14	Hex bolt 12 x 40	1.80
15	Hex Nut M 12 x 1.75mm	0.86
16	H.T. bolt M 10 x 1.5.40mm	4.20
17	Hex Nylock Nut M 10 x 1.5	2.30
18	Hex Coupler M 12 x 50	4.80
19	Front cover(Galvn.)	67/-
20	Plunger Yoke Body	39/-
21	Hex bolt 12 x 20	1.70