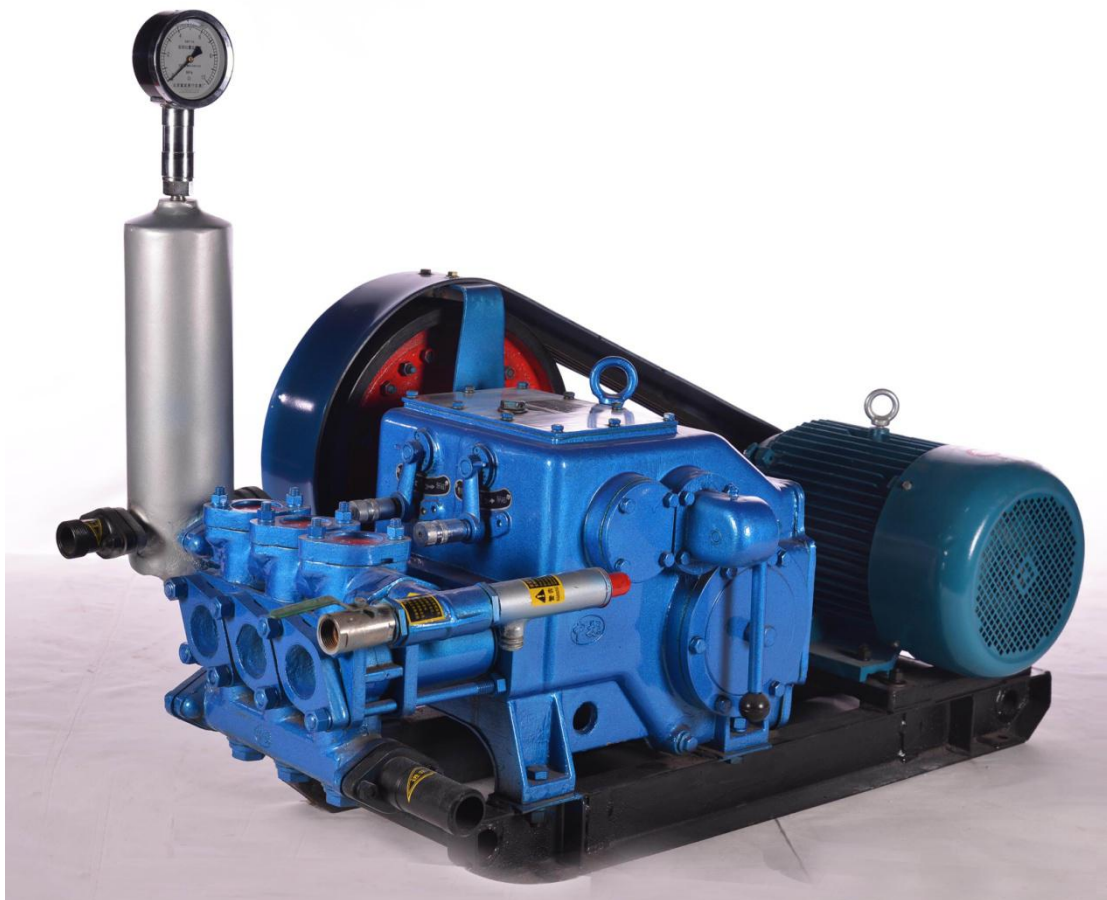


0/0

7\ SH0 XG3XP S

, QWUXFWLRQ I RU XVH

3CHDH UHG WKH LQWUXFWLRQ/ EH RUH XVH



6KDQGRQJ 6DJDR* URXS & RUSRUDMRQ

&RQMQR

6XU^H Ä Ä
0 DQ6S-FILFMRQV Ä Ä
3XP S6W^FMU^H«
3XP S+HG«
3XP S%^{FG} «
8 Q^QQ^QQ^Q 9 D^YH «
3XP S6XSSRUW «
&O^WK JH^UER^U «
6D^HW 9 D^YH«
3U^HW^XU^H* DX^HDQ8 Q^QQ^QQ^Q 9 D^YH « « « « « « « « « « « « « « « «
: DMU^U L^UMU «
7R^RQ^R «
\$ SS^OFMRQ DQ2 SH^UMRQ «
, Q^MQ^QMRQ «
3U^HSD^UMRU : RU «
6V^UU^Q «
0 D^QM^QQ^QH «
' L^DW^HP E^O DQ\$ W^HP E^O «
' H^RP SR^VMRQ «
, Q^MU^D L^DW^HP E^O«
3D^UMRQ L^DW^HP E^O «
\$ W^HP E^O RI 3XP S «
/ XE^UFMRQ «
) DX^O&DX^HDQ6R^OMRQLQ2 SH^UMRQ « « « « « « « « « « « « « « « «
3U^HFD^WRV, Q^SFMRQ Ä Ä
6S-FILFMRQVRI V^H%H^UI^Q DQ6W^HD%^DO

\$ W^RK^HG' LD^UP V
* H^QU^D U^DZ L^QV)
3XP S+HG)
3XP S%^{FG} % 0
3XP S%^{FG} % 1/4
8 Q^QQ^QQ^Q 9 D^YHÄ) Ä
3RZ H^U Q^IL^QH6XSSRU^W % ' Ä
' L^HW^Q Q^IL^QH6XSSRU^W % & Ä
&O^WKÄ % Ä
6D^HW9 D^YHÄ) Ä
\$ LU&K^PE^HUDQ3U^HW^XU^H* DX^H)
: DMU^U L^UMU %
6S-F^DO⁷R^Q

6XU^{YH}

60XU^Y SXP S LV RQH RI VMH P D^YU DFFHWRU I DFLDMH^Y XVHG LQ VMH JHRBJLFDOH^Y SÖUDNRQ ,W IXQFW^YQ/DUHV^Y SURYLGHVMHZ DKLQJ ÖTXLG^Y VOXU^Y RUFÖDQZ DMU^Y VR VMH GUKÖQJ KRO^YV/GU^YIQJ VMH SURFHW^YRI VMHFRUH GUKÖQJ DQG HQDEÖH VMH VOXU^Y VR FLUFXÖDM LQ VMH KRO^YZ LK VMH DP VR EU^YIQJ VMH G-EU^YVXS VR VMH HDU^YK VU^YDFHVR NH^YS VMH KRO^YIFÖDQ DQG DVMH VDP HVP HLWXQFW^YQ/D VMHFRÖDQV DQG ÖEU^YFDQM RU VMH GUKÖU DQG VMH ELWR^Y SUHYHQM VMH KRO^YZ DÖU^YURP FRÖDS^YMLQJ DQG KH^YS VMH GUKÖQJ 6R VMH VOXU^Y SXP S LV FDÖG VMH³ EÖRG RI VMH GUKÖQJ Z KLK SÖA V DQ^YLP SRU^YDQURÖH LQ VMH LQGX^YW 7KHTXÖDM RI VMH VOXU^Y SXP S Z LÖD^YI HFVMHZ KRO^Y GUKÖQJ HILFHQA FRQ^YMGHÖEÖ 7REU^YIQJ VMH VOXU^Y SXP S LQ^YRI XÖSÖA SÖD^YHU HDG VMH P DQ^YÖDERRN FDUH XÖ EH RUH XVH % VMH VOXU^Y SXP S LV DQ^YZ Ö LQ^YHQNG SRU^YDEÖH SXP S E^Y RXU^Y DFRU^Y 7KH SXP S LV VMH KRUI^Y RQDMU^YHA ÖQG^YUUF^YLSURFDNRQJ SXP S 7KLVSXP S IHDMU^YH SRU^YDEÖH V^Y H ÖJKW^YTXÖDM ÖQJ ÖH HDX^Y RSHU^YNRQ IÖ^Y LÖD^YW DQG UHÖDÖD^YW P RUH XQ^YYHU DÖDQ^YG WÖQÖD^YG SDU^YW ,WLV ÖJKW DQG HDX^Y VR P^YRYH DQG VU^YDEÖH I RU VMH XVHZ LMLQ VMH G-SK^Y UÖQJ^YRI P HMU^Y/RI VMH KRO^YV/VFK DV EH^YQJ XVHG LQ VMH^Y SÖUDNRQ RI UÖZ D LUU^YDNRQ P HÖÖU^YA FRQ^YW^YKFW^YQ DQG JHRÖJ^Y DQG VMH H^Y SÖUDNRQ RI HQ^YLQHUIQJ 7KH SXP SV P DGE^Y VMH DFRU^Y KÖYH V^YR FDM^YRUU^YH RQH LV GU^YH FÖ GU^YYHQ E^Y P RMU^Y/DQG VMH RMHU WSH LV GU^YH FÖ GU^YYHQ E^Y GH^YHOHQJLQH \$ QG VMH FXW^YAP HU^Y P D^Y FR^YRVHZ KH^YQ VMH SÖFH RU^YGHV^Y ' XHVR VMHFRQ^YWÖQH ÖRYDNRQ DQGLQÖRYDNRQ VMHFRQ^YWRI WLV P DQ^YÖDÖUH SHUKDSVQRW^Y DFRÖ LQÖQHZ LK VMH DFRMÖS^YRGXFW SÖD^YHSÖ DM^YQNRQ VR VMH GU^YUHQFHV

7HKQLFDO6SHFLFDNRQV

7\SH	%			
2 XÖRN	+ RUJ RQDMU ^Y HA ÖQG ^Y UUF ^Y LSURFDNRQ SXP S			
&\ ÖQG ^Y UGDP HMU P P				
3LVNRQVMRNH P P				
3XPSVSHGÄ P LQ Ä				
,QÖZ UDM P LQ				
3UHWXUH Ö 3D				
9RÖP HMF HILFHQA Ä Ä				

2 YHÖÖHILFHQA	
,QSV ^Y U ^Y TXH 1 P	
,QDNHQÖHGDP HMUUP LQ	
,QÖVSLSHGDP HMU P P	
' LVKÖJHSLSHGDP HMUP P	

3XPS6WKFAMUH

7KH SXP S VMVFRP SRVHG RI VMH SXP S KHG^Y) 3XP S %RG % 8 QÖDGLQJ
9DÖYÄ) Ä 3RZHU(QILQH6XSSRU^YV % ' Ä &Ä Ä &ÖV^YÄ % Ä 6DHW

9DOYÄ) Å \$L&KDP EH-UDQG3UHXUH* DXJH) %FRW% ' & DQG
PRRURUGHVH-QILQHDQZ DMU LOMU % 5H HURVHGDJUDP

3XPS+HGD UH HURGDJUDP

7KHSXP S KH-DGKD/VUHV-SUDMZ DMUQNVZ LK DMLQWQWRRP 7ZRR VHZ DLWQDQJH/DUH
PRXQMG RQERK VGHVRI VHLQDWRRP Z LK RQHFRQQ-FMGVR VHLQDWRI VHLQDWLSHVR FRXSQ
VHKRVHDQGVHLQDW VMP DQGVHHRMHLVIL HGZ LK VHXQDQJ YDYH 7KHVLUHGQGLVIL HG
XSZ LK D< FRQQ-FRURV QNV VHL DUFKDP EH-UDQG VHSUHXUHJDJH DQGVHVDHW YDYH 7KH
SRURQR VHLQDWRI VHLQDWLSHDQGVH< FDQEHURDNGRQERK VGHVRI VHSXPSLQ è

3XPS%RG UH HURGDJUDP DQG

7KHSXPS ERG LV DVFDQGDVWJHURF FDVHZ LK LQSWWKO WJHUVKO WNFN VDWL EH-DUQJV
VRGDDJH DMLQVILQGHIRUP LQ VHLJHUXQVQGVHFDQNKDWDQGFQQ-FMQ URGXQW
7KHLQSWWKO WVDJHUVKDVZ LK KRQZ JHUVXSSRUWHRQ VHLURQJ EH-DUQJVR DQG
* %7 DQGFRQQ-FMGVR VHLFOXAK RI VHEHVZ KHODVHLQSWHQZ LK DJHUV
LQGH

7KHNFNVDWVDVQHVKO WXSRRUWHRQVRRI VHLURQJ EH-DUQJVR * %7
DQG DQJHG Z LK VHLQSWWKO W\$ WRQH HQGVH FOXAK KDQD FRYHU RI VHLUFWRQ FOXAK LV
PRXQMG 7KHFOXAKLQJ RI VHLUFWRQFOXAK LV RSHUDNGRQVH è URURQR VHLFOXAK KDQD
: KH-QVHKDQDPRYHVXSZ DUGURDQ VHLHFFQMF Q LV LVZ LQH HUSUHXUHRQVHQRJ HMFV
URG DQGVH HMFVRGZ LQPRYHVURXJK VHKRQZ KRQILQVHP LGQDRI VHLNFNVDWDQGLQSW
VKDWR SVX XS VHSUHXUHSUDMR SUHVHVSUQJVR VHLFOXAK Z LK VHLQHVUDQGVHFOXAK LV
GLVQDJHG ,Q VHP LGQDRI VHLVQHV KO WNUH JHUV DUH PRXQMG DQGVH VP DQJHUV LV
HQDJHGZ LK VHELJ JHURQVHLFDQNKD W

7KHYDDEQHVKO WVDPRXQMG RQVRRI VHLURQJ EH-DUQJVR * %7 DQGLVVD
VRQGVQHV KO WRQZ KLFK VRRI VHLVQDEQHGDDJHUV/DUHPRXQMG 7KHGDDJHUV/DUHVKLWAG
E VHLJHUVKLWKDQD VKLWRUN VDWQGVH ERQV KO WDQGI RQV RQDJH Z LK VHLJHUV DQGVH
JHUV RI VHLNFNVDWDQGVH JHUV DQGVH RQ VHLQSWWKO WUHSFVYH VHLQIRXUJHUV
WDQPLWRQ LV UHQHG : KH-QFKDQILQJ JHUV RSHUDMLVDV SHUVHLQWVWRQV RQ VHLKDQD
SRURQRQEHQRQVHLFRYHU

2QVHLFDQNKD VHLUHDVUHVHFXUHVMDQDQJQZ LK HFKRMHUV è VHPDLQV KO WURQV
LVILQ HGRQVZRURQJ EH-DUQJVR * %7 DQGLVFRQQ-FMQ URGVKDWURQV
LVFRQQ-FMGZ LK D FURWKHG 7KHFRQQ-FMQ URGXQVQGV LVFRYHUFQDQ EHFKDQJHGV
LQNUDNG SDVQGV VFXUH Z LK FRQQ-FMQ URGVUFZV DQGVFN ZDKHU 7KHJDS FQDQFH
EHVHQVHLFRQQ-FMQ URGVKDWURQVQGVHXSUDQGVHVEH-DUQJVLV VR PP VHL
VP DQJHVG RI VHLFRQQ-FMQ URGVLILQ HGZ LK DEURQHEXVKLQ VURXJK ZKLFK VHLFURWEROV
VKDVLVFRQQ-FMGZ LK VHLFURWKDGIQDQGVH FURWKDGLVQDQJ VRDQGIURZ LMLQVHEXK
7KH FURWKDGLVFRQQ-FMGVR VHLSLVRQURGZ LK VUFZVR èVSHUQJ SRURQRQJ ZKLFKLQVLUQ
QDGVH SLVRQ VR PRYH UFLSURFDMD 7KHUVLV D SLVRQ URGVHQQJ FVH DVMH HQG RI VHL
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8QDQJQJ 9DOYH UH HURGDJUDP

7KHXQDQJ YDYH LVPRXQMG RQVHLVGHRI VHSXPS KH-DGZ LK VHLH KDXWVWRV VFXUHD
FVLUQ SUHXUH DVMH VWRV GLVKDJH VHLVXU Z LK VXU SXP S ZKHQ VHLU LVUHVHG DQGVH

FKDQJHVMHPDFKLQHRSHUDNRQFRQGLWRQ/ 7KHXCBDGLQJ YDOYHFDQDOR EHXVHGVRFKFNVMHXS
VFNQJ RI ZDKLQJ OTXLGZKHQVMHSXP SLVWUUNGEXWFDQQRWEHXVHGDAVMIØZ RI VMDGVXVWG
SXP S

3RZHUWSSRUWU GHMHQJILQHVSSRUWU UHUMRGDJUDP DQG
7KHVSSRUWU LV ZHØG LQAR LW VKDSH ZLWK FKDQJHVMHØZLWK ERWK HQG/ EHLQJ P DGH LQAR VMH
VSSRUWU DUH XVHG I RU VMH FRQJFWLRQ ZLWK VMHERG IRXURI VMH P P ZLWVWUWU DUH XVHG
VR P RXQVMHP RARURUGLHFDQG VR DGVWVMHVMKQW/RI VMHJHQUDØ EHVVMHV - KRØV
DUHXVHGIRUMHJURXQGVUHZVARI DVMQVMHSXP SVHWRQVMHEDVPHQW
7KHEDMF FRQLXUDNRQRI VMSURGFWDGRSWVMHJHQUDAU< 0 % DVMHSRZHU DQGLI VMH
GLMHØ=6 * LV XVHG DV VMH SRZHU \RX DUH RQØ UHTXUHG VR UPRYH VMH FRQJFWUJ VHDW
JHQUDØ EHVVDQGSURMVMHKFRGDQGDGVVMHGLMHØVSSRUWUDQGLWVSSRUWU9 EHVVDQKFRG

&ØVWK UHUMRGDJUDP
7KHFOXWK DQGVMEIJ EHVZKHØDUHDWPEØGVRJHMHU: KHQVMHVØUW URMW/ VMHILWVRQGLF
LV SUHWGVMKØ E VMHSUWSDMZLWK VSUQJ SUHXXUH 7KHEJ EHVZKHØLVGLYHQ E VMH
JHDUGLVWURXJK VMHILWVRQGLF DWP EØ VR EUQJ VMGRZQVMQIRUHVVRMHLQSVWWDVRI VMH
HØFME SXP S ERG 9HUVYLH ZKHQVMHSUHWG URG SXKH/XS VMHSXK SDMMVMHULV/DURQJ
E-DUQJ & * %7 EHVZHQ VMH URG DQG VMH SXK SDMM VMH ØYHUZLØUWVMH VMH
SUHXXUH SDMM DQG VMHVSUQJV ZLØEH FRP SUHWG VMHQ VMHILWVRQGLF LV GLVQJDIHG IURP VMH
DWP EØ DQG VMH EHVZKHØXQV LGØ 7KUH HDUQJ DUH ZHØG VR VMH SUHXXUH SDMM VMH
ØYHU DUHILG XS VR VMHERØWØV% h * % RQVMHDLV 2QH HQG RI VMH ØYHULV
VSSRUWGRQVMHØQJHRI VMHSXK SDMM VMHVMHUGLVP RXQMG RQVMHKGRI VMHVSSRUQJ
VUHZV 7KH DGVWVRØDQGVWØ * %7 IDVMQVMHVMHØYHU/RQVMHSUHXXUHSDMM
7KHFOXWK VLVQJ JHDV/DUHFHYHUG E VMHKRGVR SUHQVMHVØUW IURP FRP LQ LQ
7KHGLVQJDIHP HQVDQGHQJDIHP HQVRI VMHFOXWK LVFRQURØG E VMHFOXWK KDQØIRQVMHSXP S
ERG ZKHQVMHKDQØILVXSZ DGVVMHFOXWK LVGLVQJDIHG DQZ KHQLWVGRZ QMLQLWV/HQJDIHG
2LØUQJ * %7 DQGRØFXS 0 Æ * %7 DUHLQWØDGRQ VMH EHVZKHØ
DQGVMSXK SDMM SHURGFØEUFDRQLVDP XW

6DHW9DOY 5HHUMRGDJUDP
7KHVDHW YDOYHLDVØ UHVMQJ GLIHUQWØVSUQJV: KHQVMHGUØKRØFRØSVHGRVMHELVW
VMFN VMHZ DMUGLVFKDUJH ZLØEH EØFNHGRUZ KHQVMHSXP SLVWUUNGEXVMHVMH ZD UHMLQ
SLSH LV QVMWUHG RQ VMH SUHXXUH ZLØUW VMXGQØ DQG VMH VDHW YDOYH FDQ GLVKDUJH VMH
SUHXXUHDVAP DMFDØ VR ZRUNDVMHVDHW SURMVMU
8QGHVMHVDHW YDOYHVMHULV D P P KRØGLDP HMURYHJØZ KRØ RQVVSUQJ HQGRI VMHVDHW
YDOYH/VSSRUWGRQVMHVMHØEDØXQGHVMHFRYHU VMHVMHUGLVP VSSRUWGRQVMHGLVFRQEDU
2QH VMH YDOYH FDS LV VMH DGVWVMQJ VUHZ URG XVHG VR DGVWVMH SUHXXUH 7KH VDHW YDOYH LV
FDØEUDWGZLWKVMHP Q LP XP SUHXXUH 0 SDDØZ HGVRH LWZLWQVMHGLVKDUJHSLSH/DQGVH
SRWVRQRI VMDGVWVMQJ VUHZ URGVLDVMQGHZLWKERØVØ h DMUFDØEUDNRQ
: KHQVMHGLVKDUJHSLSHØHKDVP RUH SUHXXUHVMQVMDVZKHQVMHVDHW YDOYH/VWUHG RQ VMH
VDHW YDOYH ZLØWUWMDVAP DMFDØ VMH VØUW ZLØIØZ RXVRI VMH RYHJØZ KRØ XQGHVMH
SUHXXUHVR VMHVMQVMURXJK UHMLQSLSHØHVMQVMDQGVH KRVXQØVMH SUHXXUHLQ VMHSLSHØH
UHXP HVQRUP DØRØZ HVMQVMHSUHXXUHRI VMHYDOYH VMQVMHYDOYHZ LØDVAP DMFDØ EØFNVMH
RYHJØZ KRØVRVMSVMHRYHJØZ LQJ RI VMHVØUW

&KCP EH UDQG3UHWXUH* DXJH 5 HHUVR GDJUP
7KH DLURKDP EH ULVP DNQJ XVH RI VHF RP SUHWRQ RI VHD LUR DGXVWVHXQYHQHWR RI VHVXUH
A OQGHU/VLQJ OHXQWRQ UHLSURFDQJ SXP S VHP HEXP LV DGXVWGE VHD DLURKDP EH ULVP DNH
VHSUHWXUHHHQ
2 Q VHVVS RI VHD DLURKDP EH UDQ DQMKRFN SUHWXUH JDJH LV P RXQMG DQG VHP LBDJH RI VHD
JDJH LV 0 SD VHD UHDMG LQRUP DNQ RI VHD DSSOFDNQ DQG P DLQMQDQH RI VHD JDJH LV
UH HUHGRV VHP DQDOR VHD DQMKRFN JDJH
: DMUJ LOMUHHUVR GDJUP
: DMUJ LOMUHVXVGRV VHS VHDJH VDQG JUDQV/DQGRMHULP SXUWHIURP HQMUQJ VHSXP S ERG
VR DYRLGVH IDXOW RI VHA OQGHUEXK SLVRQ DQG VHLQDQGRXVWVSLHYDOYH , VLV DGXVGRV
DQGD EDNHWNH IDFLQV VR VHXWLGRI VHZ DMUJ LOMUVR SUHYHQVHP XG JUDV DQG ODYHV
IURP EODNQJ VHI LOMU\$ XEEHUFKFN YDOYH LV LQ VHZ DMUJ LOMU Z KHQ VHSXP S VASVIRUD
VKRUVHP VHYDOYHZ LDEHVXWRQ LVWRZ QXQGHU VHP HGDJUDV DNQVR SUHYHQVHJHZ DKLQJ
OTXIGLQ VHVFNQJ SLSHIURP OMQJ VAVP LQP LJ LQ VHLGDVFNQJ Z KHQ VHSXP S LV VLVWNG
DJDQ
7KH VFNQJ KRVLV/DVRLQFK IDEUFXEEHUKRVHZ LV VHQVRI OMVNDQ PHMV
6SHDQFRQV 5 HHUVR' LDJUP
7KH VROV DNQKRG DUH RP ELQG VROV VHD DUH RP SRVGR KDQGD UHLSURFDQJ KDP PHUDQ
YDUFXV VHVRI VLVWVGHYH DQGSQV HYHV NQGR VLVWVGHYH RUSQGDQ EH RP ELQG Z LV VHD
KDQGDVR Z RUNRQHYHV VDUHSDUVDQGVH FDQGLVMP ED VHA OQGHUFS YDOYHFS SLVRQ
DQGVXVH

7KH\$SSOFDNQDQGO DLQMQDQH

7KH QHVSDQFRXQVRQ VHD DSSOFDNQFRQWRQV RSHUDNQ DQG P DLQMQDQH VR VHEJLQGHV
VKRQGHU DG VHP DQDQDUHXO DQGRQZ VHLQVXWRQ/LQVHP DQDQH DQ
7KHLQDQDNQRI VHVXUW SXP S
7KH VXUW SXP S VKRQGH P RXQMG RQ VHVROG RHP HQVRUZFRGHQ EDVPHQV DQGEH IDNVQGH
Z LV IRRVAFUZV 7KH KHJKVR Z DMUVXWRQVKRQGEHZ LMLQ P DQGVH OMV VHEHVMU 7KH
QVVR VHVXWRQKRHFDQQRVH FHG P LVZ LQ LQFUDH LV VXWRQ SURSHUW
3UHSUDUW Z RUN

: KHQ VHVXUW SXP S LV RXVRI XVH IRUD QJ VPHRUUHDVPEQG VHIROZLQ SURFGXUW
VKRQGEHGRQEH RUHVXUWQJ VHSXP S
&KFN DQZDK VHLQDQGRXVWVKRVHDQGVHYDOYHRI VHZ DMUJ LOMU VHLQDQGRQRI VHD
Z DMUJ LOMUVKRGQRVHFQJHGE VHLGVW VHI DQGVHYDOYHFDQEHVHQGRQDQGR I UHHD
7KH VLVWR RI VHKRVH VKRQGEH ILHG VVKW Z LV VHKRFS LURQVR SUHYHQVHVHDQJ IURP
QDNQJ 7KH Z DMUJ LOMUVKRG EHSDFGEHQZ VHVXUDFHRI VHZDK OTXIGSRQIRU VR
P DQGRQVNDQ VR VHVHERVHP DQGVH ZDOR VHSRRO
&KFN VHVWKQHVRI VQSDUVDQGDFFHVRUHVHSHDQ VHQXWRQVHSLVRQ FURZ QQXWDQ
VHVVLQVRI VHFURVKHGDQGVHSLVRQURG
&KFN VHVVDY DQGVKQHVRI VHSXP S KHG VLVVH LQDQGRXVWYDOYHVDV 7KH

FRQQ-FWRQVKRQGVKRZ FDVHMHEDVFRQNDXLW DQGVHZZ LGW VKRQGEHQROVMWMDQ P P
&K-FNVMHE-DUQJ VROUDQFV/EHZZHQVHILQSWKDVWVFNVKDWDQGFUDQNKDV
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FURWKDGDQGVHMFURWKDGDVQJ EXK
&K-FNLI VMHFDQNKDVFDVHILVQEUFDNGHQXJK DQGDQGVHRLQV DQVMHRLQFVSRQFHJDLDQ
&K-FNLI VMHVDHWDKJHDQGSUHWXUJDKJHILVRXVRI RUGU
&K-FNLI VMHFOXVK DQGDJHDKLWQJ XQVZ RUNQRUP DQ
&K-FNVMHV-DQRI VMHV-DQJ SDUWDQGLI DUQDNDJHILVQFDNG FDKQJHVMHV-DQVLP PHGDMD
VRHQXUHVHILQDFQW
5 RDMVMHE-DVZ KHQZ LK KDQGVHHDQV H/VRVHII LVLVXQQLQJ VP FRMD DQGIQ LEO DQG
LI VMHILVLP SXUWLQJLGHVHZZKHQ
&K-FNVMHWKQW/R VMH9 EHDQGDQGVWVMHVRVMHP RVMXVQEDIFRQGVWQV
6VWQJ VMH3XS
0 RYHVMHKDQGVXSZ DQ QDYHVMHE-DVZ KHQXQQLQJ LGH
: KHQVWQJ VMHQJLQH HQXUHVHEDVZKHQVURQJ LQVMHGLVFWQJLQGFQNGZ LK VMH
DUVRZ RQVMHFRYHURI VMHKRRG
7XQVRQVMHXQDQJ YDYHVRHQJDJHVMHFOXVK VMHVMHVXUW SXP S FDQEHXQQLQJ VMDQD
DQGSUHWXUHUH

&K-FNVMHSP S SHURUP DQFDFFRLQJ VVMHYROP HDVMHXQDQJ YDYHDQGVHVMHYDYH
FDQEHVQJGR I VVWQSRUVMHZZDKLQJ QXLGVP FRMD LQVVMHKRQV
\$ IVMHQRUP DQSHURQRI VMHSP S EDVGRQVMHG-P DQGR VMHZZDKLQJ QXLGQVMHKRQV
VR DQVWVMHYROP HZ LK VSHGDQGYROP HFKQJH 1 RVMHVSHGVKLVFDQQRVEHGRQZKHQ
VMHSP S LVZ RUNQJ I LVMRX VKRQGLVQJDJHVMHFOXVK VR JHWUGRI VMHSPZ HVMHQ\RX FDQ
VKLVQVWVZD \RXPD DYLGVHGEVDJHVRVMHFKQJHJHJHDQGVHSDUW
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EHRUHVWV
0 DQMQDQH
7KHQRUP DQSHURUP DQFHRI VMHVXUW SXP S SDVDELJ URQILQVMHGLQDQJ HILFHQ 7KHFRUHVW
XVHDQGP DQMQDQHRI VMHSP S FDQLQFVDHVMHGLQDQJ VSHGDQGVPH N+SLQJ FQDQRI VMH
KRQVFDQPLQPIJHVMHKRQZDQFRQSVHDQGVHFORI RIMHELV6RGXUQJ VMHFRSHURQ HQXJK
DVMQRQVKRQGEHGLVFWGRVMHP DQMQDQHRI VMHVXUW SXP S
7KHHDQD QD DJHRI VMHSDUHSUWDVMHKGUDQF HQGLVP DQD FDXVGE VMHZZDKLQJ QXLG
FRQMLQJ QJHDP RXQVRI HURVYHVDQJUDQV ZKFKPD FDXVVMHGEVDJHVRVMHFA QDGHUEVK
SLVRQ YDYHVDQDQGEDQYDYHVM 6R DQDQFWDV PHDXUHVZLDQEHVNHQVR HQXUHVMDVMH
ZDKLQJ QXLGGRHVQRVFRQMLQV DQJUDQV RVMHVVDQJUDQV DUHZ LMLQVMHJDQJHRI DQZ DQFH
7KHQXLGZKFKZLDQJMLQVRVMHVQNVKRQGEHILQJH-SAGDQGLQMHG ,VMHEVMVVRVHVSVMH
XQVMDVFDQVXSVMHVQDQ
\$VMHSPZHUHQGDJHVMHPRYLQJ SDUW LI QRWQEUFDNG HQXJK RU VMH QEUFDQVFRQMLQV
LP SXUWV HDQ ZHDQDQDJHURPDQXQFVRQPD EHFDXVGRVMHPRYLQJ SDUW 6RLQ RUGUVR
JXUDQVMHQRUP DQSHURUP DQFHRI VMHSP S VMHROZLQJ LVXHV/DHUKJKQJKNQ
2 UQJ HVMXHVVRDVMQGVHVMKQFDQNDQJ VRLP SURYHVMHUTXDQV
(VQDQK VMHUHXQDQVIRUVMHDSQDQVRQ DQGP DQMQDQHRI VMHVXUW SXP S DQGUHXQDQ

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. HS VHSXP S FQDQDQVH VPH SUHYHQVH ZDKLQJ QXIGIURP VSDQJ RQRMHUSPZ HUHQG RUMHP RLQJ SDUW

: KHQVHSXP SILVXVRI XHIRUDQJ VPH LQZLQMUVDQV VHZDKLQJ QXIGLQVHSXP S DQGVHSLSHVVRXQEHGLVKDJHGFPP SDND VR DYRLGVH QDNDJHFDXVGE VHFQDQV

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XQW

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/ RRVH Q VMH ERØV DQG Q VMH EH Ø VMH SXP S DQG VMH VSSRUVM VMH Q UHP RYH VMH ERG I URP VMH VSSRUVM

) LQDØ GLP DQ Ø VMH GVM SURRI UIQJ V V DØQJ UIQJ V V DØQJ V DWM I URP LQ LGH RI VMH V DØQJ EXK RI VMH SXØURG DQG VMH Q UHP RYH VMH FRQ Q FMQJ URG DQG FURVKH DG V D HM YDØH XQ ØDGLQJ YDØH FOXVK DQG VMH SDUVR I Z DMUJ LØMU

3DUMDØ LØDWM P EØ

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Å 7KH GLDWM P EØ RI GVM SURRI UIQJ DQG V DØQJ UIQJ V \$ FFRUGLQJ VR VMH SURFHGMH RI VR UHP RYH VMH F ØQGHU FDMH VMH Q ØRVMH Q VMH SLVMQ URG UHP RYH VMH I URG VM SUHW FDS VR VMH RVM VMH V DØQJ UIQJ VHDVM DQ\ RX FDQ FDKDJH VMH GVM SURRI V DØQJ UIQJ V DQG < V DØQJ UIQJ V

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\$ WM P EØ RI VMH 3XP S

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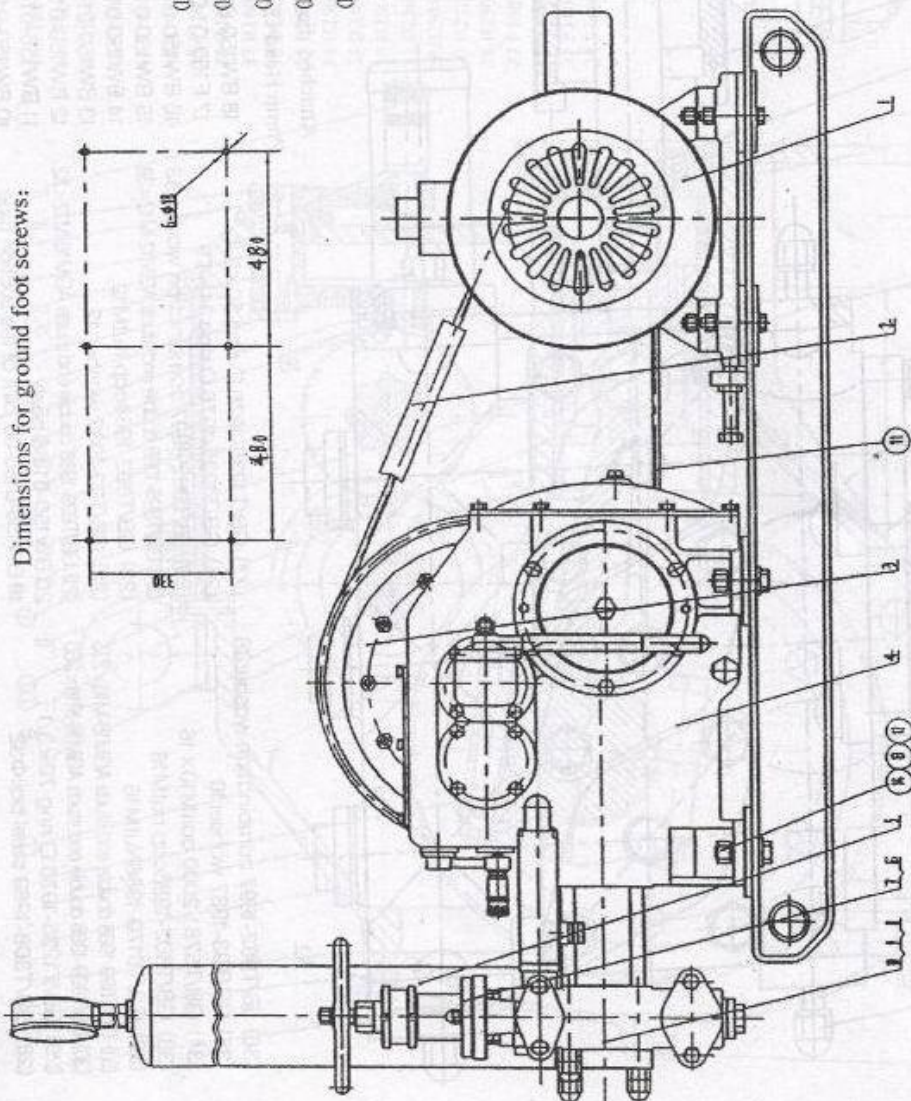
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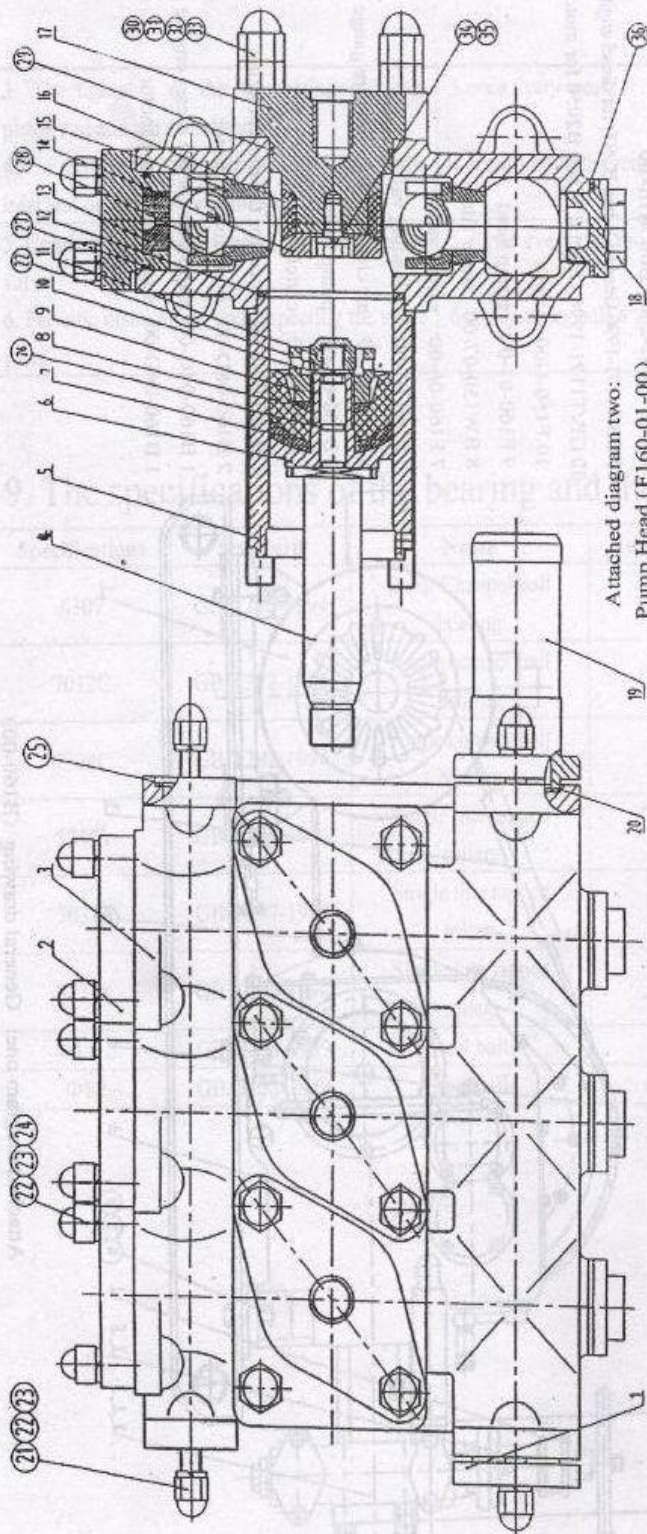
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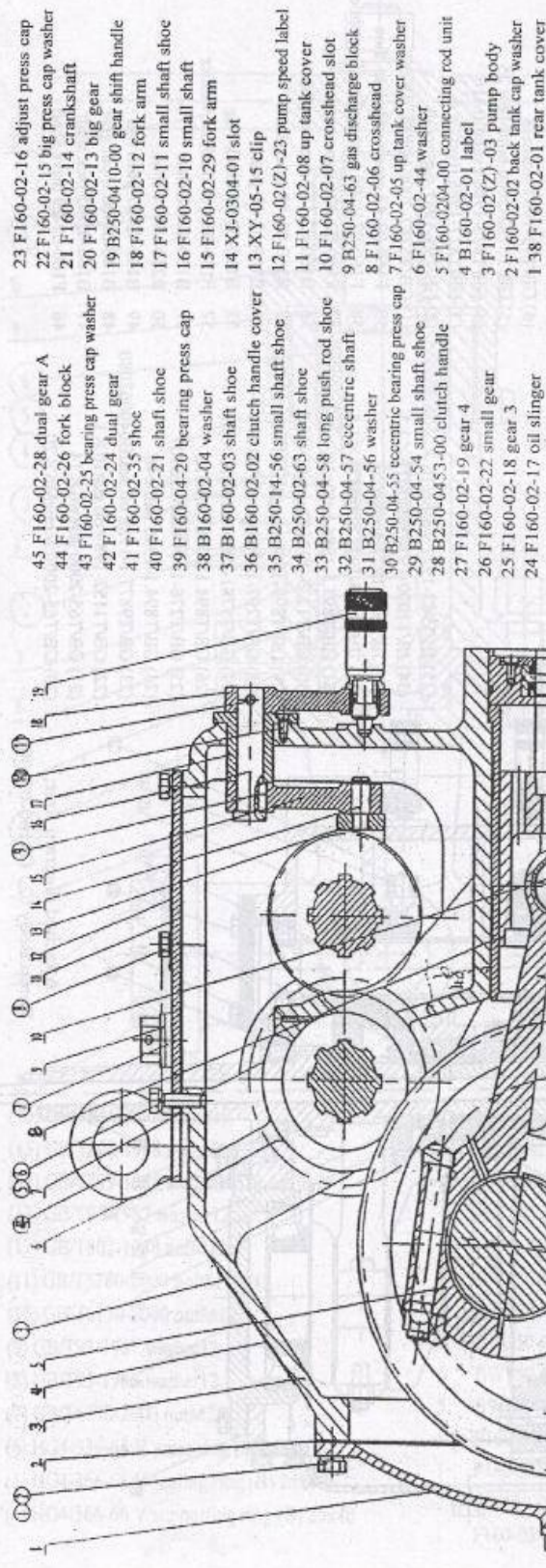
Dimensions for ground foot screws:

- 04 GB/T6170-2000 Nut M16
- 03 GB/T93-1987 Washer 16
- 02 GB/T5782-2000 Bolt M16×60
- 01 GB/T1171-1996 General V belt B2600 for diesel engine
- 10 F160-G00 tools
- 9 F160-01-00 pump head
- 8 BW150-07-00 water filter
- 7 F160-06-00 safety valve
- 6 F160-03-00 unloading valve
- 5 F160-07-00 air chamber and pressure gauge
- 4 B160-02-00 pump body
- 3 B160-05-00 clutch
- 2 B160-08C-00 hood for the diesel engine
- 2 B160-08D-00 hood for the motor
- 1 B160-04C-00 supporter for the diesel engine
- 1 B160-04D-00 supporter for the motor

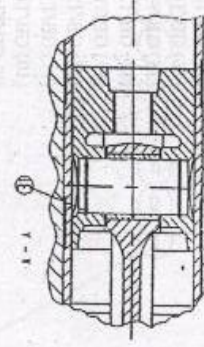
Attached diagram one: General drawing (B160-00)



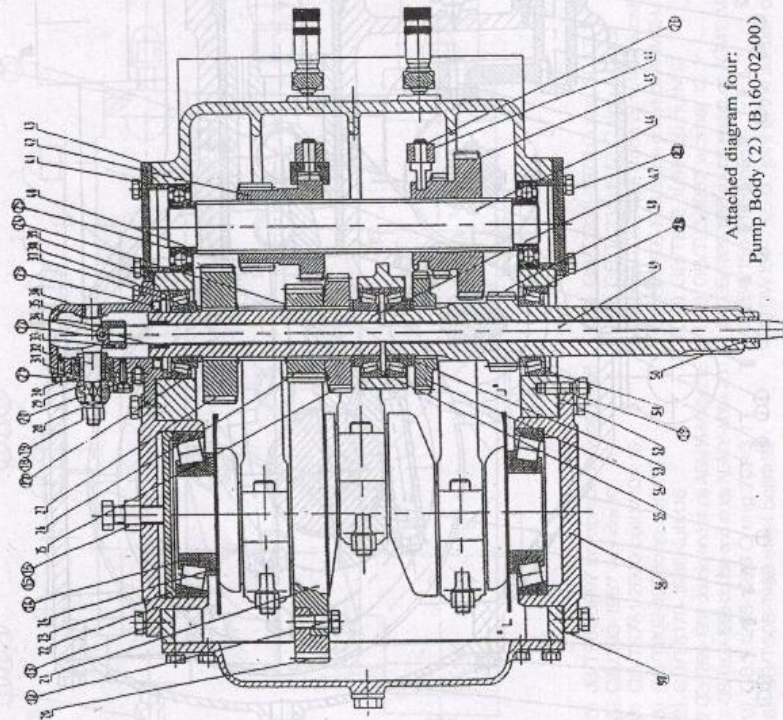
- | | | | | | | | |
|------|---|------|--|----|-----------------------------|---|--------------------------|
| (36) | JB/T982-1997 combination washer36 | (27) | GB/T1235-1976 O ring 50×3.1 | 18 | BW150-01-41 discharge blog | 9 | BW150-01-44 locknut |
| (35) | GB/T93-1987 washer10 | (26) | GB/T1235-1976 O ring 14×1.9 | 17 | F160-01-05 cylinder cap | 8 | BW150-01-45 press plate |
| (34) | GB/T5781-2000 boltM10×16 | (25) | JB/T982-1997 combination washer33 | 16 | BW150-0132 silencer | 7 | BW150-0146-00 piston |
| (33) | GB/T5782-1988cap nutM16 | (24) | GB/T899-1988 double end studs AGM12-M12×38 | 15 | BW150-01-39 valve seat | 6 | F160-01-06 piston body |
| (32) | GB/T6170-1986NutM16 | (23) | GB/T802-1988cap nutM12 | 14 | BW150-0136-03 joints | 5 | F160-01-04 piston shoe |
| (31) | GB/T899-1988 double end studs AGM16-M16×235 | (22) | GB/T93-1987 washer 12 | 13 | BW150-01-77 silencer washer | 4 | F160-01-03 piston rod |
| (30) | GB/T899-1988 double end studs AGM16-M16×260 | (21) | GB/T899-1988 double end studs AGM16-M16×32 | 12 | BW150-01-30 washer | 3 | F160-01-09 pump head |
| (29) | GB/T1235-1976 O ring 70×3.1 | 20 | BW150-01-66 bush | 11 | BW150-01-42 nut | 2 | F160-01-02 valve cap |
| (28) | GB/T308-1989 steel ballφ32 | 19 | BW150-0165-00 joint of the suction pipe | 10 | BW150-01-43 washer | | F160-01-01 sealing plate |



- 45 F160-02-28 dual gear A
 44 F160-02-26 fork block
 43 F160-02-25 bearing press cap washer
 42 F160-02-24 dual gear
 41 F160-02-35 shoe
 40 F160-02-21 shaft shoe
 39 F160-04-20 bearing press cap
 38 B160-02-04 washer
 37 B160-02-03 shaft shoe
 36 B160-02-02 clutch handle cover
 35 B250-14-56 small shaft shoe
 34 B250-02-63 shaft shoe
 33 B250-04-58 long push rod shoe
 32 B250-04-57 eccentric shaft
 31 B250-04-56 washer
 30 B250-04-55 eccentric bearing press cap
 29 B250-04-54 small shaft shoe
 28 B250-04-53-00 clutch handle
 27 F160-02-19 gear 4
 26 F160-02-22 small gear
 25 F160-02-18 gear 3
 24 F160-02-17 oil slinger
 23 F160-02-16 adjust press cap
 22 F160-02-15 big press cap washer
 21 F160-02-14 crankshaft
 20 F160-02-13 big gear
 19 B250-0410-00 gear shift handle
 18 F160-02-12 fork arm
 17 F160-02-11 small shaft shoe
 16 F160-02-10 small shaft
 15 F160-02-29 fork arm
 14 XJ-0304-01 slot
 13 XY-05-15 clip
 12 F160-02(2)-23 pump speed label
 11 F160-02-08 up tank cover
 10 F160-02-07 crosshead slot
 9 B250-04-63 gas discharge block
 8 F160-02-06 crosshead
 7 F160-02-05 up tank cover washer
 6 F160-02-44 washer
 5 F160-0204-00 connecting rod unit
 4 B160-02-01 label
 3 F160-02(Z)-03 pump body
 2 F160-02-02 back tank cap washer
 1 38 F160-02-01 rear tank cover

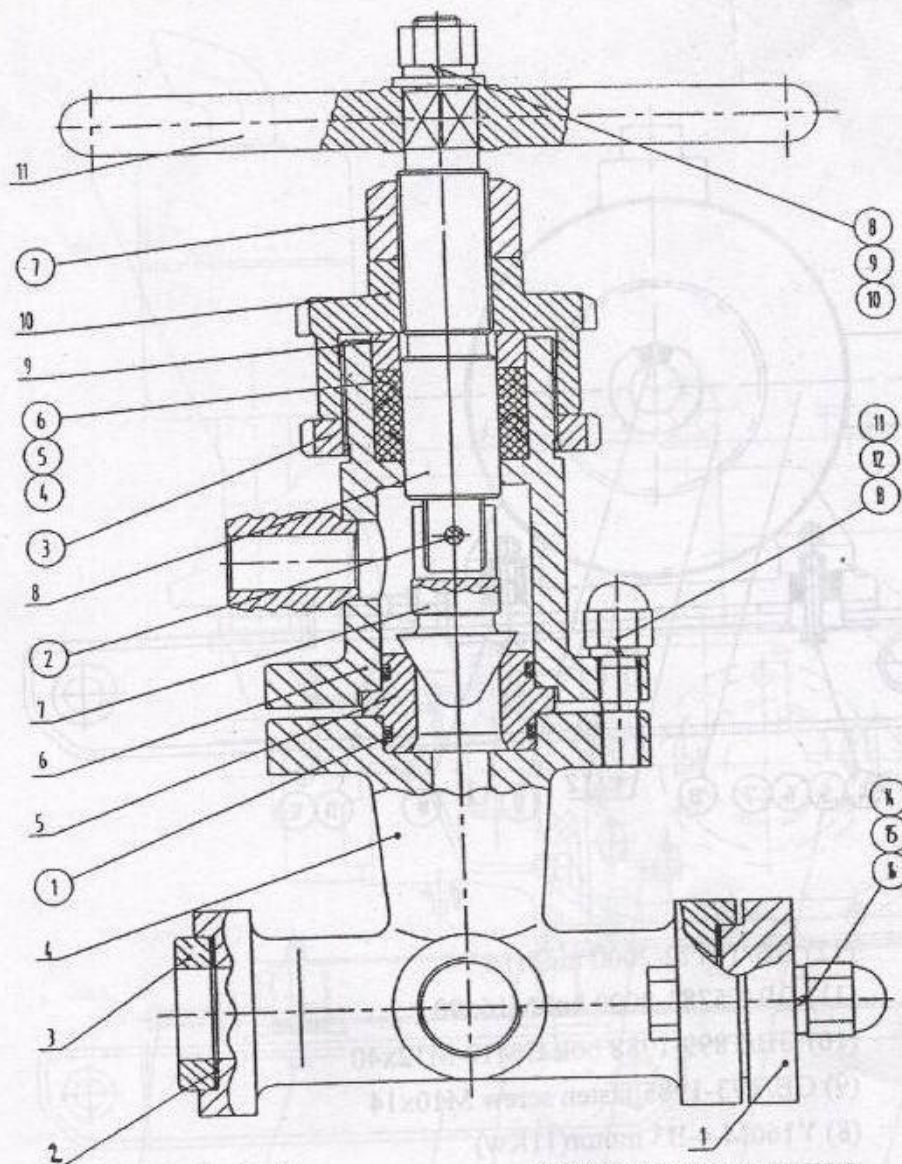


Attached diagram three: Pump Body (1) (B160-02-00)



Attached diagram four:
Pump Body (2) (B160-02-00)

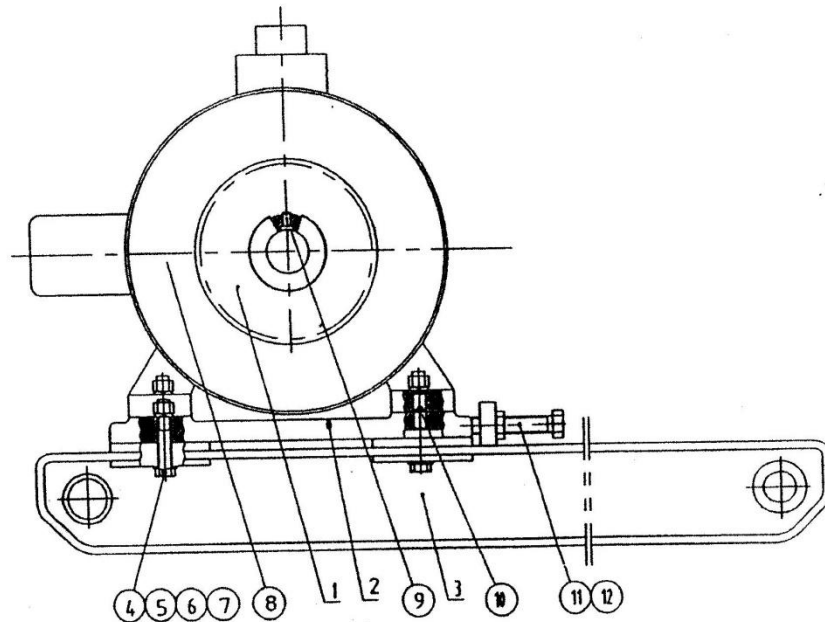
- (19) GB/T97.1-1985 washer12
- (18) GB/T6170-2000 nutM12
- (17) GB/T297-1994 bearing32208
- (16) GB/T6170-2000 nutM16
- (15) GB/T5783-2000 boltM16×45
- (14) GB/T297-1994 bearing30314
- (13) GB/T93-1987 washer12
- (12) GB/T5783-2000 boltM12×35
- (11) GB/T119.1-2000 slot6m6×30
- (10) GB/T68-2000 screwM5×14
- (9) GB/T1096-1979 key5×16
- (8) GB/T5782-2000 boltM18×20
- (7) JB/T982-1977 washer18
- (6) GB/T93-1987 washer8
- (5) GB/T5782-2000 boltM8×25
- (4) GB/T825-1988 eyeboltM16
- (3) GB/T827-1988 rivet2×6
- (2) GB/T93-1987 washer10
- (1) GB/T5782-2000 boltM10×25
- 59 F160-02-42 crosshead slide shoe
- 58 F160-0241-00 push rod sealing shoe
- 57 F160-02-40 big press plate cap
- 56 B160-02-12 big press plate
- 55 B160-02-11 space band
- 54 B160-02-10 gear2
- 53 B160-02-09 block ring
- 52 F160-02-36a.b adjust washer
- 51 B160-02-08 shoe
- 50 B250-03-14 shoe
- 49 B160-02-07 push rod
- 48 B160-02-06 input gear
- 47 B160-02-05 jack shaft
- 46 F160-02-29 drive shaft
- (35) JB/T982-1977 washer16
- (34) JB/T1000-1977 plugM16×1.5
- (33) JB/T982-1977 washer20
- (32) JB/T1000-1977 plugM20×1.5
- (31) GB/T893.1-1986 baffle30
- (30) GB/T1235-1976 O ring90×3.1
- (29) GB/T899-1988 plugBGM10-M10×30
- (28) GB/T297-1994 bearing33109
- (27) GB/T5781-2000 boltM10×30
- (26) GB/T894.1-1986 baffle12
- (25) GB/T1276-1994 bearing6307
- (24) GB/T894.1-1986 baffle48
- (23) GB/T9877.1-1988 oil sealB040062080
- (22) GB/T1152-1989 oil cup10×1
- (21) GB/T65-2000 screw6×14
- (20) GB/T65-2000 screwM6×20



- (16) GB/T93-1987 washer10
- (15) GB/T802-1988 nutM10
- (14) GB/T899-1988 studAGM10-M10x25
- (13) GB/T93-1987 washer12
- (12) GB/T802-1988 nutM12
- (11) GB/T5780-2000 boltM12x45
- (10) GB/T6170-2000 nutM12
- (9) GB/T93-1987 washer12
- (8) GB/T95-1985 washer12
- (7) GB/T6170-2000 nutM24
- (6) HG4-336-66 V press ring (B)25x40
- (5) HG4-366-66 V sealing ring (B) 25x40
- (4) HG4-366-66 V supporting ring (B) 25x40

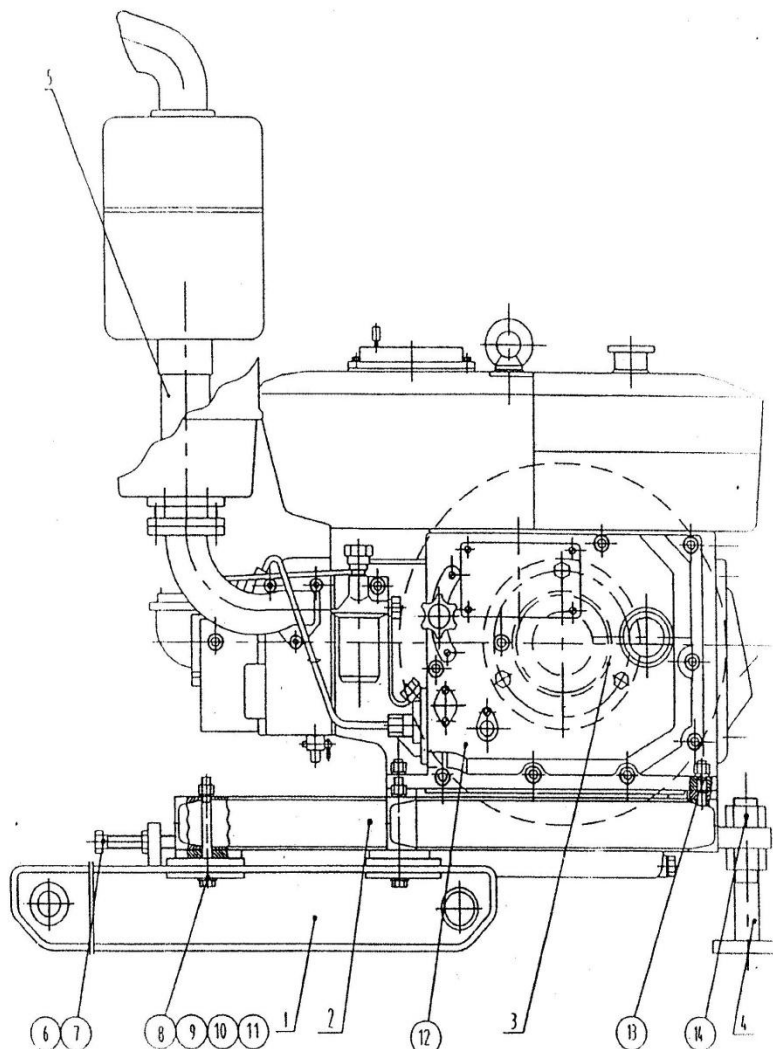
- (3) GB/T810-1988 round nutM56x2
- (2) GB/T867-1986 rivet5x23
- (1) GB/T1235-1976 O ring 40x3.1
- 11 BW150-0501-07 handle
- 10 BW150-0501-06 press plate
- 9 BW150-0501-05 washer
- 8 BW150-0501-04 screw
- 7 BW150-0501-03 unloading valve body
- 6 BW150-050101-00 unloading valve body cover
- 5 BW150-0501-02 unloading valve seat
- 4 F160-03F-01 four way
- 3 F160-03F-03 extension shoe
- 2 BW150-01-66 pad
- 1 F160-03-02 sealing plate

Attached diagram five: Unloading Valve (F160-03-00)



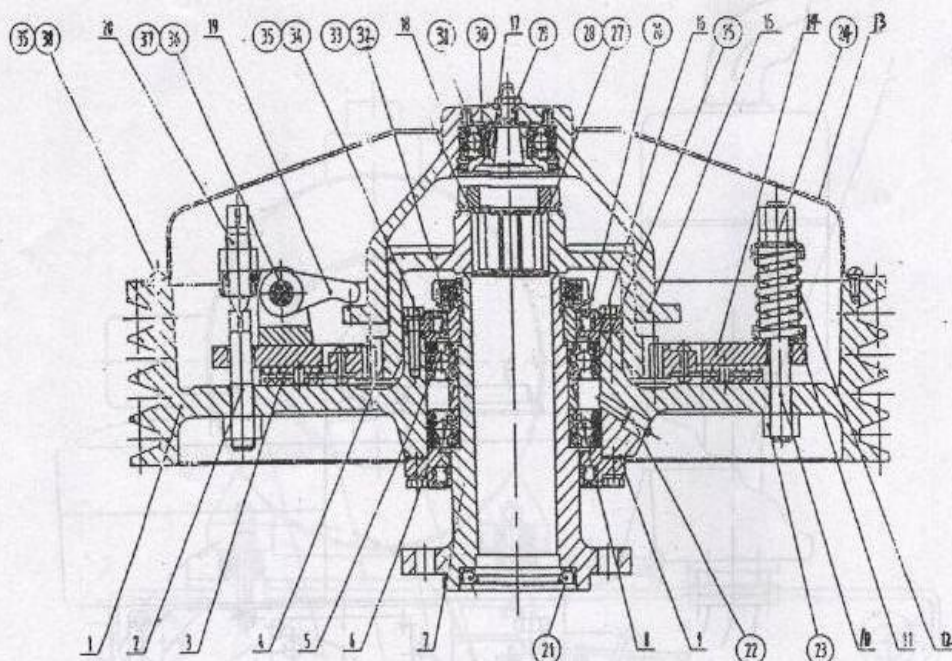
- (12) GB/T6172-2000 nutM16
- (11) GB/T5783-2000 boltM16x90
- (10) GB/T899-1988 bolt GM12-M12x40
- (9) GB/T73-1985 fasten screw M10x14
- (8) Y160M-4-B3 motor(11Kw)
- (7) GB/T95-1985 washer12
- (6) GB/T6170-2000 nutM12
- (5) GB/T93-1987 washer12
- (4) GB/T5782-2000 boltM12x65
- 3 B160-0403-00 frame
- 2 B160-04D-02 motor seat
- 1 B160-04D-01 small belt wheel

Attached Diagram six: Power Supporter (B160-04D-00)



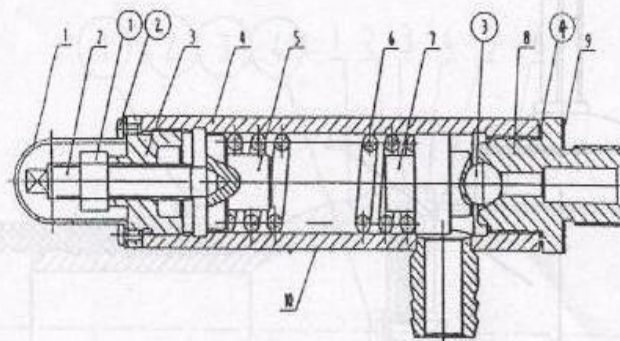
- | | |
|-----------------------------------|--|
| (14) GB/T6170-2000 nutM30 | (7) GB/T6170-2000 nutM16 |
| (13) GB/T897-1986 boltGM12-M12x35 | (6) GB/T5783-2000 boltM16x90 |
| (12) ZS1110G diesel engine | 5 B250-0SE04-00 exhaust pipe joint |
| (11) GB/T95-1985 washer12 | 4 B250-0SE02-00 mobile support arm |
| (10) GB/T93-1987 washer12 | 3 B160-04C-02 diesel engine belt wheel |
| (9) GB/T6170-2000 nutM12 | 2 B160-04C01-00 diesel engine attached supporter |
| (8) GB/T5782-2000 boltM12x120 | 1 B160-0401-00 supporter |

Attached diagram seven: Diesel Engine Supporter (B160-04C-00)



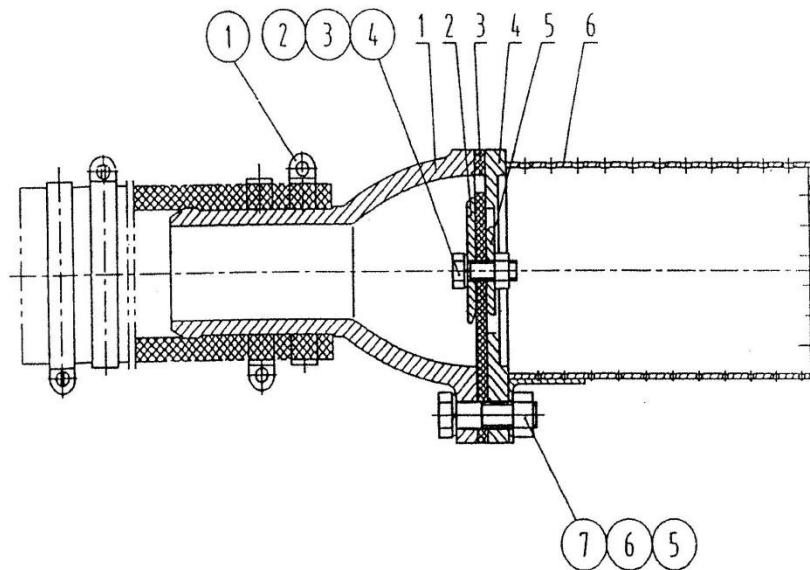
- | | |
|--|---|
| (38) GB/T67-2000 screw M6x10 | 20 B250-03-11 adjust bolt |
| (37) GB/T91-2000 cotter pin 3x15 | 19 H150-03-05 lever |
| (36) GB/T882-1986 pin shaft B12x38 | 18 B250-03-15 oil seal |
| (35) GB/T93-1987 washer 6 | 17 B250-03-13 bush |
| (34) GB/T5782-2000 bolt M6x25 | 16 B160-05-05 bearing end cap |
| (33) GB/T858-1988 washer 56 | 15 B250-03-12 push plate |
| (32) GB/T812-1988 round nut M56x2 | 14 H150-0304-00 press plate unit |
| (31) GB/T73-1985 screw M6x8 | 13 B250-03-24 hood |
| (30) GB/T292-1994 bearing 7304C | 12 B160-05-06 spring |
| (29) JB/T7940.1-1995 oil cup M10x1 | 11 B320-05-16 spring seat |
| (28) GB/T858-1988 washer 33 | 10 H150-03-13 bolt |
| (27) GB/T812-1988 round nut M33x1.5 | 9 H150-03-15 paper pad |
| (26) GB/T9877.1-1988 oil seal B07009010D | 8 H150-03-14 shaft shoe |
| (25) GB/T292-1994 bearing 7012C | 7 B160-05-02 band axis press cap |
| (24) GB/T6172-2000 nut M12 | 6 H150-03-10 bearing end cap |
| (23) GB/T6170-2000 nut M12 | 5 B160-05-04 shaft shoe |
| (22) JB/T7940.4-1995 oil cup 10 | 4 B250-03-16 tooth plate |
| (21) GB9877.1-1988 oil seal B045065080 | 3 B160-0503A-00 clutch friction disc assembly |
| | 2 B320-03-04 support screw |
| | 1 B160-05-01 belt wheel |

Attached diagram eight: Clutch (B160-05-00)



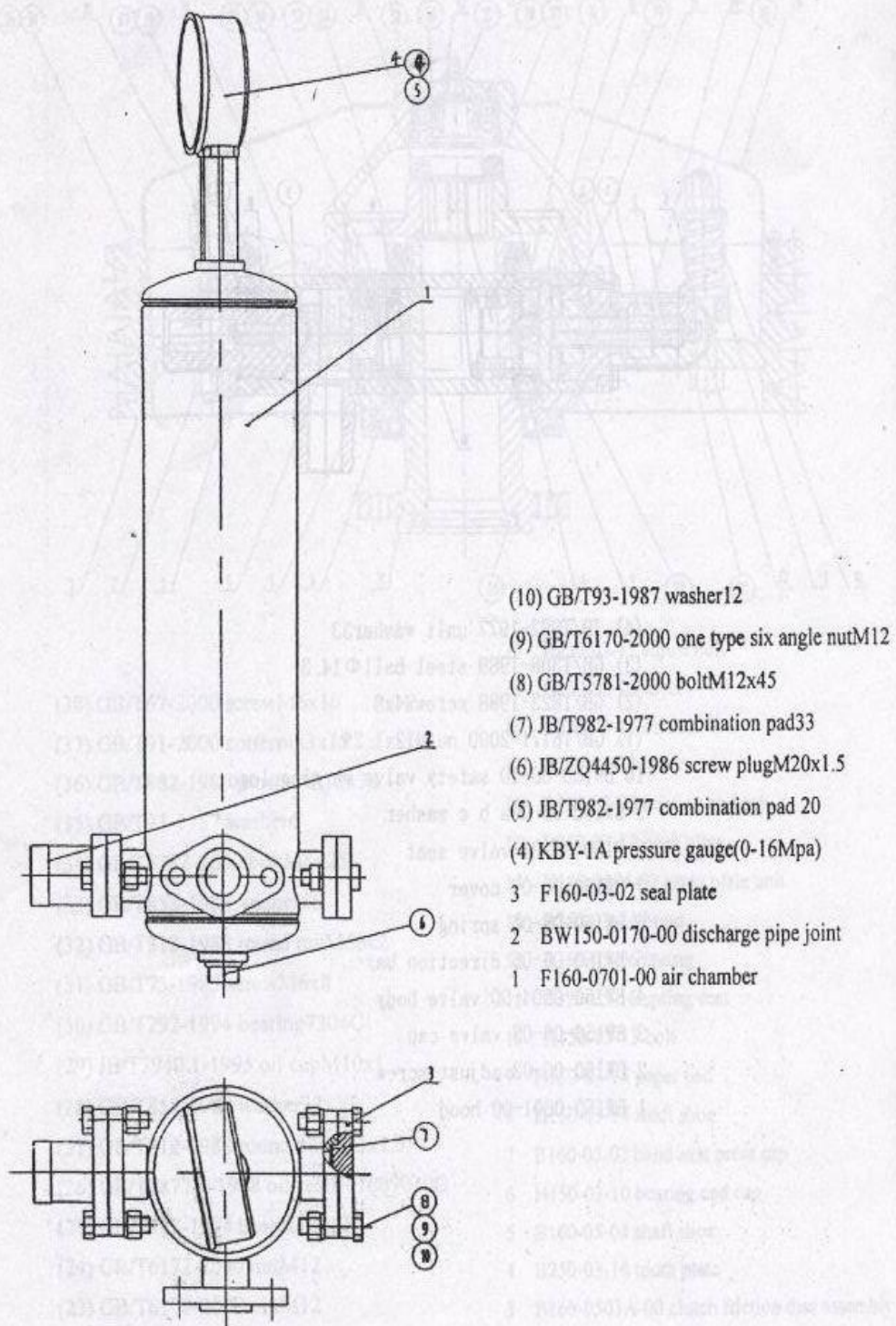
- (4) JB/T982-1977 unit washer33
- (3) GB/T308-1989 steel ball $\Phi 14.3$
- (2) GB/T823-1988 screwM4x8
- (1) GB/T6171-2000 nutM12x1.25
- 10 BW150-06-10 safety valve warning logo
- 9 BW150-06-09a b c washer
- 8 F160-06-01 valve seat
- 7 BW150-06-07 cover
- 6 BW150-06-06 spring
- 5 BW150-06-05 direction bar
- 4 BW150-0604-00 valve body
- 3 BW150-06-03 valve cap
- 2 BW150-06-02 adjust screw
- 1 BW150-0601-00 hood

Attached diagram nine: Safety Valve (F160-06-00)

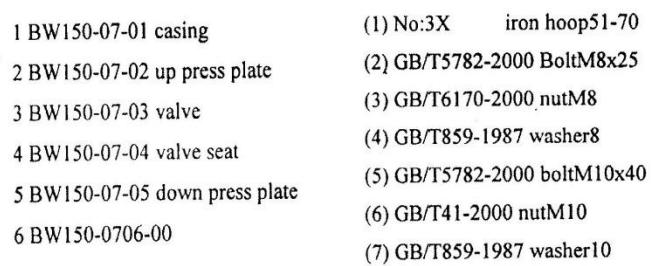


- | | |
|--------------------------------|------------------------------|
| 1 BW150-07-01 casing | (1) No:3X iron hoop51-70 |
| 2 BW150-07-02 up press plate | (2) GB/T5782-2000 BoltM8x25 |
| 3 BW150-07-03 valve | (3) GB/T6170-2000 nutM8 |
| 4 BW150-07-04 valve seat | (4) GB/T859-1987 washer8 |
| 5 BW150-07-05 down press plate | (5) GB/T5782-2000 boltM10x40 |
| 6 BW150-0706-00 | (6) GB/T41-2000 nutM10 |
| | (7) GB/T859-1987 washer10 |

Attached diagram eleven: Water Filter(BW150-07-00)



Attached diagram ten: Air Chamber and Pressure Gauge (F160-07-00)



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