**ÄÈÇÅËÜ-ÃÅÍÅÐÀÒÎÐÍÀß ÓÑÒÀÍÎÂÊÀ ôèðìû KUBOTA**

## J106-GTD • J107-GTD • J108 GTD • J110-GTD • J112-GTD • J114-GTD • J116-GTD J119-GTD • J310-GTD • J313-GTD • J318-GTD • J320-GTD • J324-GTD

J107-GA • J110-GA • J114-GA • J119-GA

J106-AUG • J108-AUG • J112-AUG • J116-AUG • J310-AUG • J315-AUG • J320-AUG



*NHCTPFK[Nª MO SKCMuFATA[NN*

### BHNMATEubHO NPO1NTANTE N COXPAHNTE 3TY NHCTPYK⎝NŒ

TEXHN1ECKNE XAPAKTEPNCTNKN

* 1-$d3Hªe pN3eub-TeHepdTopHªe y¢TdHoBKN

|  |
| --- |
| TEHEPATOP |
| Mogena | Egnhny  | J106 | J108 |
| Ctahgapth n bapnaht | Ctahgapth n bapnaht |
| Kohctpykyne |  | Cnhxpohh n fehepatop mepemehhofo toka, c ebho monŒch m potopom n bpayaŒynmce mafhnth m monem, nmeet cnctemy abtomatn¬eckofopefynnpobahne hampemehne n yetkn he3abncnmofo n camobo36ymgehne |
| 1actota | Fy | 50 | 50 |
| Homnhanahae b xoghae moyhocta | kBA | 5,5 | 8 |
| kBt | 5,5 | 8 |
| Homnhanahoe hampemehne | B | 220 | 220 |
| Konn¬ectbo $a3 n b bogob | Ø- b bog | 1–2 | 1–2 |
| Ko3$$nyneht moyhoctn | % | 100 |
| Konn¬ectbo monŒcob | – | 2 |
| N3oneyne | – | N3oneyne o6motkn potopa: knacc E, o6motkn ctatopa: knacc B |
| Othocntenahoe n3mehehne hampemehne | % | 7 (memgy monhon hafpy3kon n xonoct m xogom) |
| Bng coegnhehne |  | Hemocpegctbehh n mpnbog |
| ¶N3EubHªN ¶BNTATEub |
| Mogena |  | Z482-D-SEC | D482-B-SEC |
| Kohctpykyne |  | 4-takth n gn3enah n gbnfatenac beptnkanah m pacmonomehnem ynnnhgpob n bogeh m oxnamgehnem |
| Konn¬ectbo ynnnhgpob |  | 2 | 3 |
| ¶nametp ynnnhgpa n xog mopmhe | mm | 67 × 68 | 67 × 68 |
| Pa6o¬nn o6ae | n | 0,479 | 0,719 |
| 1actota bpayehne gbnfatene | m-1 | 3000 | 3000 |
| Cma3o¬hoe macno |  | Macno fpymm CD nnn 6onee b cokon mo knaccn$nkaynn API (Amepnkahckofo nhctntyta he$tn) |
| O6aem macna b cncteme cma3kn | n | 2,2 | 3,4 |
| O6aem mngkoctn b cncteme oxnamgehne | n | 2,3 | 3,0 |
| ATPETAT |
| Tomnnbo |  | ¶n3enahoe tomnnbo N 2 (D975 mo knaccn$nkaynn ASTM – Amepnkahckon accoynaynn ncm tahnn n matepnanob) |
| Pacxog tomnnba (mpn monhon hafpy3ke) | n | 2,3 | 3,2 |
| Bmectnmocta tomnnbhofo 6aka | n | 37 | 37 |
| Bpeme hempep bhon pa6ot  | ¬ac | 16,0 | 11,5 |
| Akkymynetophae 6atapee |  | 38B20R | 55B24R |
| Cnctema mycka |  | 3nektpn¬eckae |
| Fa6apnth e pa3mep : ¶ x H x B (c konecamn) |  | 923 × 593 × 860 (1037) | 995 × 593 × 860 (1037) |
| Macca (hetto) | kf | 225 | 255 |
| B xogh e | knemm  | O | O |
| po3etkn | – | – |
| Bapnaht kommnektaynn c caGter | O | O |
| Vpobeha 3bykobofo gabnehne(ha pacctoehnn 7 m mpn monhon hafpy3ke) | gb(A) | 74,0 | 75,0 |
| Cnctema abapnnhofo octahoba | – | Octahabnnbaet gbnfatena b cny¬aex otknohehne ot 3agahh x mapametpob gabnehne macna n temmepatyp oxnamgaŒyen mngkoctn |
| MAKCNMAubHNN TOK HATPY3KN |
| Makc. tok hafpy3kn | A | 25,0 | 36,4 |

|  |
| --- |
| TEHEPATOP |
| Mogena | Egnhny  | J112 | J116 |
| Ctahgapth n bapnaht | Ctahgapth n bapnaht |
| Kohctpykyne |  | Cnhxpohh n fehepatop mepemehhofo toka, c ebho monŒch m potopom n bpayaŒynmce mafhnth m monem, nmeet cnctemy abtomatn¬eckofopefynnpobahne hampemehne n yetkn he3abncnmofo n camobo36ymgehne |
| 1actota | Fy | 50 | 50 |
| Homnhanahae b xoghae moyhocta | kBA | 12 | 16 |
| kBt | 12 | 16 |
| Homnhanahoe hampemehne | B | 220 | 220 |
| Konn¬ectbo $a3 n b bogob | Ø- b bog | 1–2 | 1–2 |
| Ko3$$nyneht moyhoctn | % | 100 |
| Konn¬ectbo monŒcob | – | 2 |
| N3oneyne | – | N3oneyne o6motkn potopa: knacc E, o6motkn ctatopa: knacc B |
| Othocntenahoe n3mehehne hampemehne | % | 8 (memgy monhon hafpy3kon n xonoct m xogom) |
| Bng coegnhehne |  | Hemocpegctbehh n mpnbog |
| ¶N3EubHªN ¶BNTATEub |
| Mogena |  | D1005-BG-SEC | Y1305-BG-SEC |
| Kohctpykyne |  | 4-takth n gn3enah n gbnfatenac beptnkanah m pacmonomehnem ynnnhgpob n bogeh m oxnamgehnem |
| Konn¬ectbo ynnnhgpob |  | 3 | 4 |
| ¶nametp ynnnhgpa n xog mopmhe | mm | 76 × 73,6 | 76 × 73,6 |
| Pa6o¬nn o6ae | n | 1,001 | 1,335 |
| 1actota bpayehne gbnfatene | m-1 | 3000 | 3000 |
| Cma3o¬hoe macno |  | Macno fpymm CD nnn 6onee b cokon mo knaccn$nkaynn API (Amepnkahckofo nhctntyta he$tn) |
| O6aem macna b cncteme cma3kn | n | 4,3 | 5,7 |
| O6aem mngkoctn b cncteme oxnamgehne | n | 3,3 | 3,5 |
| ATPETAT |
| Tomnnbo |  | ¶n3enahoe tomnnbo N 2 (D975 mo knaccn$nkaynn ASTM – Amepnkahckon accoynaynn ncm tahnn n matepnanob) |
| Pacxog tomnnba (mpn monhon hafpy3ke) | n | 4,5 | 6,0 |
| Bmectnmocta tomnnbhofo 6aka | n | 79 | 79 |
| Bpeme hempep bhon pa6ot  | ¬ac | 17,0 | 13,0 |
| Akkymynetophae 6atapee |  | 80D26R(S) | 80D26R(S) |
| Cnctema mycka |  | 3nektpn¬eckae |
| Fa6apnth e pa3mep : ¶ x H x B (c konecamn) |  | 1215 × 611 × 922 | 1300 × 611 × 922 |
| Macca (hetto) | kf | 340 | 380 |
| B xogh e | knemm  | O | O |
| po3etkn | – | – |
| Bapnaht kommnektaynn c caGter | – | – |
| Vpobeha 3bykobofo gabnehne(ha pacctoehnn 7 m mpn monhon hafpy3ke) | gb(A) | 76,5 | 77,5 |
| Cnctema abapnnhofo octahoba | – | Octahabnnbaet gbnfatena b cny¬aex otknohehne ot 3agahh x mapametpob gabnehne macna n temmepatyp oxnamgaŒyen mngkoctn |
| MAKCNMAubHNN TOK HATPY3KN |
| Makc. tok hafpy3kn | A | 54,5 | 72,7 |

* 3-$d3Hªe pN3eub-TeHepdTopHªe y¢TdHoBKN

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| --- |
| TEHEPATOP |
| Mogena | Egnhny  | J310 | J315 | J320 |
| Ctahgapth n bapnaht |
| Kohctpykyne |  | Cnhxpohh n fehepatop mepemehhofo toka, c ebho monŒch m potopom nbpayaŒynmce mafhnth m monem, nmeet cnctemy abtomatn¬eckofo pefynnpobahne hampemehne n yetkn he3abncnmofo n camobo36ymgehne |
| factota | Fy | 50 |
| Homnhanahae b xoghae moyhocta | kBA | 10 | 15 | 20 |
| kBt | 8 | 12 | 16 |
| Homnhanahoe hampemehne | B | 380 |
| Konn¬ectbo $a3 n b bogob | Ø- b bog | 3-4 |
| Ko3$$nyneht moyhoctn | % | 80 |
| Konn¬ectbo monŒcob | – | 2 |
| N3oneyne | – | N3oneyne o6motkn potopa: knacc E, o6motkn ctatopa: knacc B |
| Othocntenahoe n3mehehne hampemehne | % | 8 (memgy monhon hafpy3kon n xonoct m xogom) |
| Bng coegnhehne |  | Hemocpegctbehh n mpnbog |
| ¶N3EubHªN ¶BNTATEub |
| Mogena |  | D722-B-SEC | D1005-BG-SEC | Y1305-BG-SEC |
| Kohctpykyne |  | 4-takth n gn3enah n gbnfatenac beptnkanah m pacmonomehnem ynnnhgpob n bogeh m oxnamgehnem |
| Konn¬ectbo ynnnhgpob |  | 3 | 3 | 4 |
| ¶nametp ynnnhgpa n xog mopmhe | mm | 67 × 68 | 76 × 73,6 | 76 × 73,6 |
| Pa6o¬nn o6aem | n | 0,719 | 1,001 | 1,335 |
| factota bpayehne gbnfatene | m-1 | 3000 | 3000 | 3000 |
| Cma3o¬hoe macno |  | Macno fpymm CD nnn 6onee b cokon mo knaccn$nkaynn API (Amepnkahckofo nhctntyta he$tn) |
| O6aem macna b cncteme cma3kn | n | 3,4 | 4,3 | 5,7 |
| O6aem mngkoctn b cncteme oxnamgehne | n | 3,0 | 3,3 | 3,5 |
| ATPETAT |
| Tomnnbo |  | ¶n3enahoe tomnnbo N 2 (D975 mo knaccn$nkaynn ASTM – Amepnkahckon accoynaynn ncm tahnn n matepnanob) |
| Pacxog tomnnba (mpn monhon hafpy3ke) | n | 3,2 | 4,5 | 6,0 |
| Bmectnmocta tomnnbhofo 6aka | n | 37 | 79 | 79 |
| Bpeme hempep bhon pa6ot  | ¬ac | 11,5 | 17,0 | 13,0 |
| Akkymynetophae 6atapee |  | 55B24R | 80D26R(S) | 80D26R(S) |
| Cnctema mycka |  | 3nektpn¬eckae |
| Fa6apnth e pa3mep : ¶ x H x B (c konecamn) |  | 995 × 593 × 860 (1037) | 1215 × 611 × 922 | 1300 × 611 × 922 |
| Macca (hetto) | kf | 255 | 340 | 380 |
| B xogh e | knemm  | O | O | O |
| po3etkn | – | – | – |
| Bapnaht kommnektaynn c caGter | O | O | – |
| Vpobeha 3bykobofo gabnehne(ha pacctoehnn 7 m mpn monhon hafpy3ke) | gb(A) | 75,0 | 76,5 | 77,5 |
| Cnctema abapnnhofo octahoba | – | Octahabnnbaet gbnfatena b cny¬aex otknohehne ot3agahh x mapametpob gabnehne macna n temmepatyp oxnamgaŒyen mngkoctn | Octahabnnbaet gbnfatena b cny¬aex otknohehne ot 3agahh x mapametpob gabnehne macna, temmepatyp oxnamgaŒyen mngkoctn, a takme mpn o6p be pemhecnctem oxnamgehne |
| MAKCNMAubHNN TOK HATPY3KN |
| Makc. tok hafpy3kn | A | 15,2 | 22,8 | 30,4 |

YCuOBHªE ObO3HA1EHNª

Ⓢ Hahena ympabnehne

Ⓢ P m-6ont

© 3annbhae fopnobnha cnctem oxnamgehne

® Kp mka tomnnbhofo 6aka

 ¶bepya

 Hpo6ka gne cnnba macna n3 kaptepa gbnfatene

 Bo3gymh n $nnatp

 Akkymynetophae 6atapee

 Pacmnpntenah n 6a¬ok Tomnnbh n kpah

 3annbhoe otbepctne gne macna

⎝ym gne n3mepehne ypobhe macna Ctakah macnehofo $nnatpa Pagnatop

Hpo6ka gne cnnba oxnamgaŒyen mngkoctn n3 pa- gnatopa

 Hpo6ka gne cnnba oxnamgaŒyen mngkoctn n3 6no- ka ynnnhgpob gbnfatene

 Tomnnbh n 6ak Fehepatop

 Fnymntena Ctahnha

 Okha gne mogaema gn3ena-fehepatopa bnno¬h m mogaemhnkom

 Vka3atena ypobhe tomnnba  Kp mka knemmhon kopo6kn

## NdHeub yNpdBueHNª

### CTdHpdpTHdª Mopeub (NMeeT obo3Hd1eHNe GTD)

* 1-$d3Hªu TeHepdTop (BªxopHoe HdNpªXeHNe 220 B)

[J106-STD, J108-STD]

[J112-STD, J116-STD]

Ⓢ *BOnatmetp mepemehhOrO tOna*

Ⓢ *NhgnnatOp pa6Ot cbe¬n mpegbapntenahOrO mOgOrpeba*

Ⓢ *NhgnnatOp temmepatyp OxnamgaŒyen mngnOctn*

® *NhgnnatOp gabnehne macna*

 *NhgnnatOp 3apega 6atapen*

 *Fnabh n mepennŒ¬atena pemnmOb (nnŒ¬)*

 *AbtOmatn¬ecnnn b nnŒ¬atena*

 *C¬et¬nn ¬acOb hapa6Otnn*

 *Knemma gne mOgnnŒ¬ehne mnh 3a3emnehne*

 *Knemma gne mOgnnŒ¬ehne 6nOna cnctem abtOmatn¬ecnOrO mycna gbnratene*

 *B xOgh e nnemm*

* 1-$d3Hªu TeHepdTop

(BªxopHªe HdNpªXeHNª 110 N 220 B)

[J107-STD, J110-STD]

* 1-$d3Hªu TeHepdTop

(BªxopHªe HdNpªXeHNª 127 N 220 B)

[J107-SA, J110-SA]

[J114-STD, J119-STD] [J114-SA, J119-SA]

Ⓢ *BOnatmetp mepemehhOrO tOna*

Ⓢ *NhgnnatOp pa6Ot cbe¬n mpegbapntenahOrO mOgOrpeba*

Ⓢ *NhgnnatOp temmepatyp OxnamgaŒyen mngnOctn*

® *NhgnnatOp gabnehne macna*

 *NhgnnatOp 3apega 6atapen*

 *Fnabh n mepennŒ¬atena pemnmOb (nnŒ¬)*

 *AbtOmatn¬ecnnn b nnŒ¬atena*

 *C¬et¬nn ¬acOb hapa6Otnn*

 *Knemma gne mOgnnŒ¬ehne mnh 3a3emnehne*

 *Knemma gne mOgnnŒ¬ehne 6nOna cnctem abtOmatn¬ecnOrO mycna gbnratene*

 *B xOgh e nnemm*

* + 3-$d3Hªu TeHepdTop

[J310-STD, J313-STD]



[J315-STD, J318-STD, J320-STD, J324-STD]

Ⓢ *BOnatmetp mepemehhOrO tOna*

Ⓢ *NhgnnatOp pa6Ot cbe¬n mpegbapntenahOrO mOgOrpeba*

Ⓢ *NhgnnatOp temmepatyp OxnamgaŒyen mngnOctn*

® *NhgnnatOp gabnehne macna*

 *NhgnnatOp 3apega 6atapen*

 *Fnabh n mepennŒ¬atena pemnmOb (nnŒ¬)*

 *AbtOmatn¬ecnnn b nnŒ¬atena*

 *C¬et¬nn ¬acOb hapa6Otnn*

 *Knemma gne mOgnnŒ¬ehne mnh 3a3emnehne*

 *Knemma gne mOgnnŒ¬ehne 6nOna cnctem abtOmatn¬ecnOrO mycna gbnratene*

 *B xOgh e nnemm*

### MopeuN, NpepHd3Hd1eHHªe puª No¢TdBKN B AB¢TpduNŒ (NMeŒT obo3Hd1eHNe AUG)

* 1-$d3Hªu TeHepdTop

(BªxopHªe HdNpªXeHNª 110 N 220 B)

[J106-AUS, J108-AUS]

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* mogena J106-AUS ochayeha gbyme mtemcenah mn po3etkamn
* 3-$d3Hªu TeHepdTop

[J310-AUS]



[J112-AUS, J116-AUS] [J315-AUS, J320-AUS]

Ⓢ *BOnatmetp mepemehhOrO tOna*

Ⓢ *NhgnnatOp pa6Ot cbe¬n mpegbapntenahOrO mOgOrpeba*

Ⓢ *NhgnnatOp temmepatyp OxnamgaŒyen mngnOctn*

® *NhgnnatOp gabnehne macna*

 *NhgnnatOp 3apega 6atapen*

 *Fnabh n mepennŒ¬atena pemnmOb (nnŒ¬)*

 *AbtOmatn¬ecnnn b nnŒ¬atena*

 *C¬et¬nn ¬acOb hapa6Otnn*

 *Knemma gne mOgnnŒ¬ehne mnh 3a3emnehne*

 *Knemma gne mOgnnŒ¬ehne 6nOna cnctem abtOmatn¬ecnOrO mycna gbnratene*

 *B xOgh e mtemcenah e pO3etnn*

 *FctpOnctbO 3aynt b xOghOn yemn (pO3etOn)*

## KoHTpoubHo-NHpNKdTopHoe y¢Tpou¢TBo

Ecnn bo bpeme pa6ot gbnfatene mponcxognt otknohe- hne ot hopm mapametpa, kohtponnpyemofo c momoyaŒ kohtponaho-nhgnkatophofo yctponctba, ha mahenn ym- pabnehne ha¬nhaet mnfata nhgnkatop, mpegympemgae omepatopa o bo3hnkmen hencmpabhoctn.

## buoK yNpdBueHNª

J106, J107, J108, J110, J310, J313

J112, J114, J116, J119, J315, J318, J320, J324

Ⓢ *NhgnnatOp mpenpayehne 3apega annymynetOphOn 6atapen.*

Ⓢ *NhgnnatOp meperpeba gbnratene (cpa6at baet mpn mOb mehnn temmepatyp OxnamgaŒyen mngnOctn Ot*

*112 gO 118 °C).*

Ⓢ *NhgnnatOp hegOctatO¬hOrO gabnehne b cncteme cma3nn gbnratene (cpa6at baet mpn chnmehnn gabnehne macna*

*gO S9 – ¥9 nHa, nnn 0,4 – 0,6 atm).*

® *NhgnnatOp pa6Ot cbe¬n mpegbapntenahOrO mOgOrpeba.*

Ⓢ *bnOn bO36ymgehne*

Ⓢ *AbapnnhOe pene*

Ⓢ *Pene ctaptepa*

® *Pene mpegbapntenahOrO mOgOrpeba*

 *Pene bpemehn nhgnnatOpa mpegbapntenahOrO pa3Orpeba*

 *Pene*

 Ncmonhntenahoe pene (conehong)

# NPE¶BAPNTEubHªE ONEPA⎝NN, BªNOuHªEMªE

NEPE¶ NO¶KuŒ1EHNEM NOTPEbNTEuEN 3uEKTPO3HEPTNN

## 3d3eMueHNe TeHepdTopd

Hona3obatena, bnageney gn3ena-fehepatopa nnn omepa- top gonmeh o6patntace b mecthoe (fopogckoe, panoh- hoe n t.m.) otgenehne 3hepfohag3opa 3a kohcynataynen mo mobogy genctbyŒynx b gahhon mecthoctn tpe6oba- hnex k b monhehnŒ 3aynthofo 3a3emnehne gn3ena-fe- hepatoph x yctahobok.

¶ne o6ecme¬ehne hagemhon n 6e3omachon pa6ot he- o6xognmo b monheta pekomehgaynn, n3nomehh e b 3nektpotexhn¬ecknx mpabnnax n hopmax CHA (NEC), gokymehtax Haynohanahon accoynaynn mpotnbomomap- hon 3aynt (NFPA), Ctahgaptax Abctpannn n Vmpabne- hne mo oxpahe 3gopobae n 6e3omach m ycnobnem tpyga (OSHA). Heo6xognmo bcefga b monheta 3aynthoe 3a3em- nehne fehepatopa b cootbetctbnn c mecth mn hopmamn n tpe6obahnemn, focygapctbehhofo, haynohanahofo pe- fynnpobahne, nn6o pekomehgaynemn OSHA, ncmona3ye gne mogknŒ¬ehne k mnhe 3a3emnehne cootbetctbyŒyyŒ knemmy ha fehepatope.

Ognh n3 bo3momh x bapnahtob b monhehne 3a3emne- hne mpn ncmona3obahnn gn3ena-fehepatopa ha ctpon- tenahon mnoyagke mpnbegeh hnme:

Ⓢ *Knemma ha rehepatOpe gne mOgnnŒ¬ehne 3a3emneŒyerO mpObOga*

* 1. *Fn6nnn megh n mpObOg gne 3a3emnehne, nmeŒynn ce¬ehne he mehee 1S,2 mm2*

*(b) Wetannn¬ecnnn mpyt nnn ctepmeha, 3a6nt n b 3emnŒ.*

## PeKoMeHpyeMªe Mo⎝Ho¢Tb

N BNp HdTpy3KN, NopKuŒ1deMou K pN3eub-TeHepdTopy

### 3dBN¢NMo¢Tb Mo⎝Ho¢TN HdTpy3KN oT ee BNpd

Cymmaphae moyhocta motpe6ntenen, mogknŒ¬aem x k gn3ena-fehepatopam cepnn J, 3abncnt ot xapaktepa ha- fpy3kn n he gonmha mpeb mata 3ha¬ehnn, mpnbegehh x b ta6nnye.

|  |  |  |  |
| --- | --- | --- | --- |
| Ctahgapth n gn3ena- fehepatop | Ocbetntenah e n hafpebatenah e mpn6op  | Konnektoph n gbnfatena | Acnhxpohh n gbnfatena |
| J106 | 5,5 kBt | 2,8 kBt | 0,8 kBt |
| J107 | 6,5 kBt | 3,3 kBt | 0,8 kBt |
| J108 | 8 kBt | 4,0 kBt | 1,2 kBt |
| J110 | 10kBt | 5,0 kBt | 1,6 kBt |
| J112 | 12 kBt | 6,0 kBt | 1,6 kBt |
| J114 | 14 kBt | 7,0 kBt | 2 kBt |
| J116 | 16 kBt | 8,0 kBt | 2,4 kBt |
| J119 | 18,8 kBt | 9,4 kBt | 2,4 kBt |
| J310 | 8 kBt | 5,0 kBt | 3,7 kBt |
| J313 | 10 kBt | 6,3 kBt | 3,7 kBt |
| J315 | 12 kBt | 7,5 kBt | 4,4 kBt |
| J318 | 14 kBt | 8,8 kBt | 5,5 kBt |
| J320 | 16 kBt | 10,0 kBt | 5,9 kBt |
| J324 | 18,8 kBt | 11,8 kBt | 7,4 kBt |

NPNME1AHNE.

* Benn¬nha hafpy3kn nhbeptopa (o6pathofo mpeo6pa- 3obatene), mogknŒ¬ehhofo k gn3ena-fehepatopy, gon- mha coctabneta he 6onee 50 % homnhanahon moy- hoctn fehepatopa.
* Cymmaphae aktnbhae moyhocta mogknŒ¬aem x ptyt- h x namm gonmha coctabneta mpnmepho 30 % homn- hanahon moyhoctn fehepatopa. BknŒ¬ata ptyth e namm heo6xognmo he oghobpemehho, a oghy 3a gpy- fon. Cnegyet mpoebneta ocmotpntenahocta n he bknŒ-

¬ata ptyth e namm cpa3y me mocne nx b knŒ¬e- hne. B mpotnbhom cny¬ae hampemehne fehepatopa momet bo3pactn go omacho b coknx 3ha¬ehnn n b - bectn n3 ctpoe cnctemy abtomatn¬eckofo pefynnpo- bahne hampemehne.

* Hepeg mobtoph m bknŒ¬ehnem ptyth x namm heo6- xognmo cgenata b gepmky he mehee 10 mnh, heo6- xognmyŒ gne chnmehne nx temmepatyp .
* Hpnbegehh e b ta6nnye 3ha¬ehne benn¬nh hafpy3kn hocet ¬ncto opnehtnpobo¬h n xapaktep n mofyt n3- mehetace b 3abncnmoctn ot homnhanahon moyhoc- tn gahhon mogn$nkaynn fehepatopa n ot bnga mog- knŒ¬aemon hafpy3kn. Peanah e 3ha¬ehne mofyt ot- nn¬atace ot mpnbegehh x takme n3-3a oco6ehhoc- ten co6ctbehh x xapaktepnctnk, cbonctbehh x kam- gomy bngy hafpy3kn.
* N0¶KuŒ1EHNE 3uEKTP0¶BNTATEuª

3-$a3h e gn3ena-fehepatop mofyt 6 ta ncmona- 3obah gne mntahne 3nektpogbnfatenen c myckom ot monhofo hampemehne (6e3 peoctata) moyhoctaŒ 3,7, 5,5 n 7,5 kBt, kotop e ncmona3yŒtce, b ¬act- hoctn, b mofpymh x hacocax. B momeht mycka 3nek- tpogbnfatene hampemehne momehtanaho magaet. Ecnn 3nektpomafhnth n b knŒ¬atena bknŒ¬eh b 3ty me yema, to oh momet otknŒ¬nta hafpy3ky. Hpn bknŒ¬ehnn gbyx nnn 6onee 3nektpogbnfatenen cym- maph n motpe6neem n nmn tok he gonmeh mpeb - mata homnhanah n tok fehepatopa.

* N0¶KuŒ1EHNE 0CBETNTEubHªX N HATPEBATEubHªX NPNb0P0B

Hpn mogknŒ¬ehnn tonako ocbetntenah x nnn ha- fpebatenah x mpn6opob nx o6yae motpe6neemae moyhocta momet 6 ta pabha homnhanahon b xog- hon moyhoctn gn3ena-fehepatopa. Hpn ncmona3o- bahnn oghon $a3 tok motpe6nehne takme momet goctnfata homnhanahofo 3ha¬ehne.

* PAC1ET K03ØØN⎝NEHTA M0⎝H0CTN

Pac¬et ko3$$nynehta moyhoctn ncmona3yetce gne om- pegenehne motpe6neemon moyhoctn 3nektpompn6opa.

Hpn6op mepemehhofo toka 3nektpn¬eckae moyhocta (Bt) =

= Hampemehne (B) X tok (A) / ko3$$nyneht moyhoctn

Ko3$$nyneht moyhoctn gne han6onee ¬acto ncmona- 3yem x mpn6opob mpnbegeh b hnmecnegyŒyen ta6nnye.

|  |  |
| --- | --- |
| Bng hafpy3kn | Ko3$$nyneht moyhoctn |
| 0gho$a3h n acnhxpohh n 3nektpogbnfatena | ot 0,4 go 0,75 |
| 3-$a3h n acnhxpohh n 3nektpogbnfatena | ot 0,65 go 0,85 |
| 3nektpohafpebatenn, namm hakannbahne | 1,0 |
| Konnektoph n 3nektpogbnfatena | ot 0,8 go 0,95 |
| 0nyopecyehth e n ptyth e namm  | ot 0,4 go 0,9 |
| Cbapojh e ammapat mepemehhofo toka | ot 0,4 go 0,6 |

* Kak mpabnno, moyhocta 3nektpogbnfatene yka3 ba- etce b knnobattax. 3ta benn¬nha cbe3aha c motpe6- neemon moyhoctaŒ 3nektpogbnfatene.

Hotpe6neemae moyhocta 3nektpogbnfatene (kBt)

= B xoghae moyhocta 3nektpogbnfatene (kBt)

k.m.g. 3nektpogbnfatene × ko3$$nyneht moyhoctn

NPNME1AHNE:

* Ecnn cnctema ocbeyehne mogknŒ¬eha cobmectho c hekotop mn tnmamn kommaŒtepob n kohgnynohepob, ochayehh x 3nektpohh mn mpeo6pa3obatenemn (nh- beptopamn), a takme c pefynnpyem mn ncto¬hnka- mn hampemehne gne tenebn3nohh x mpnemhnkob, to namm ocbeyehne mofyt mepyata. 3to ebnehne he xapaktepn3yet hencmpabhocta fehepatopa, a b 3ba- ho paccofnacobahnem memgy b meyka3ahh m pefy- nnpyem m ncto¬hnkom mntahne n cnctemon abtoma- tn¬eckofo pefynnpobahne hampemehne gn3ena-fehe- patopa. ¶ne yctpahehne 3tofo ebnehne pekomehgy- etce mepepacmpegennta hafpy3ky.

# NO¶KuŒ1EHNE HATPY3KN

|  |  |  |  |
| --- | --- | --- | --- |
| ■¾ | NpNMe1dHNªBHNMAHNE, ONACHOCTb! | ■¾ | NopKuŒ1eHNe HdTpy3KNBHNMAHNE, ONACHOCTb! |
|  | ¶uª N3beXdHNª oNd¢Ho¢TN NopdXeHNª |  | ¶uª obe¢Ne1eHNª uN1Hou be3oNd¢Ho¢TN: |
| • | +ueKTpN1e¢KNM ToKoM:Nepep NopKuŒ1eHNeM TeHepdTopd K BHyTpeHHeu (+ueKTpN1e¢Kou) ¢eTN 3pdHNª, B BBopHo-pd¢Npe- peuNTeubHoM y¢Tpou¢TBe (NuN TudBHoM pd¢Npe- | • | NopKuŒ1eHNe NuN oTKuŒ1eHNe HdTpy3KN K po3eT- KdM NepeMeHHoTo ToKd NuN BªxopHªM KueMMdM TeHepdTopd MoXHo NpoN3BopNTb ToubKo NpN o¢- TdHoBueHHoM pBNTdTeue pN3eub-TeHepdTopd. |

peuNTeubHoM ⎝NTe) KBduN$N⎝NpoBdHHªM +ueK- TpNKoM pouXeH bªTb y¢TdHoBueH pd3MªKdTeub (NepeKuŒ1dTeub TpdH¢$epTHoTo TNNd). ¶dHHªu pd3MªKdTeub pouXeH ¢uyXNTb To1Kou BBopd NN- TdHNª oT TeHepdTopd, NM Xe pouXeH NpoN3Bo- pNTb¢ª Bªbop NNTdHNª BHyTpeHHeu ¢eTN 3pdHNª uNbo oT BHeNHeu +ueKTpN1e¢Kou ¢eTN, uNbo oT TeHepdTopHou y¢TdHoBKN. ¶dHHªu pd3MªKdTeub TdKXe pouXeH N¢KuŒ1dTb Bo3MoXHo¢Tb Nopd1N HdNpªXeHNª oT TeHepdTopHou y¢TdHoBKN Bo BHe- NHŒŒ NNTdŒ⎝yŒ ¢eTb Bo BpeMª oTKuŒ1eHNª Hd- NpªXeHNª N3-3d dBdpNN NuN Npo$NudKTN1e¢Ko- To peMoHTd. 3To HeobxopNMo puª N¢KuŒ1eHNª Bo3MoXHoTo NopdXeHNª +ueKTpN1e¢KNM ToKoM NuN TpdBMNpoBdHNª Nep¢oHdud, BªNouHªŒ⎝e- To peMoHTHo-Bo¢¢TdHoBNTeubHªe pdboTª. Kpo- Me +ToTo, B ¢uy1de NopKuŒ1eHNª pN3eub-TeHe- pdTopd be3 N¢Noub3oBdHNª pd3bepNHNTeuª, Bo3- MoXHo NoBpeXpeHNe TeHepdTopHou y¢TdHoBKN NuN BHyTpeHHeu ¢eTN 3pdHNª NpN Bo¢¢TdHoBue- HNN HdNpªXeHNª Bo BHeNHeu NNTdŒ⎝eu ¢eTN.

1. He mogknŒ¬ante fehepatop k 3nektpn¬ecknm po3et- kam, pacmonomehh m bhytpn 3gahne.
2. He coegnhente fehepatop c nŒ6 m gpyfnm fehepa- topom gne nx mapannenahon pa6ot ha oghy ceta.
* No¢ue NpN¢oepNHeHNª HdTpy3KN 3dKpªTb KpªNKy KueMMHou KopobKN.
* 3d$NK¢NpoBdTb KpªNKy bouToM.
1. OtknŒ¬nta abtomatn¬ecknn b knŒ¬atena ha mahenn ympabnehne.
2. Hpncoegnhnta hafpy3ky k b xogh m knemmam me- pemehhofo toka.
3. 3akp ta knemmhyŒ kopo6ky kp mkon.

Ⓢ *AbtOmatn¬ecnnn b nnŒ¬atena*

Ⓢ *B xOgh e nnemm rehepatOpa*

Ⓢ *bOnt npemnehne np mnn*

# NPE¶NYCKOBAª NPOBEPKA

## EXepHeBHdª NpoBepKd

Pefyneph e mpobepkn coctoehne fehepatopa mpegotb- payaŒt bo3hnkhobehne hencmpabhocten. Hepeg myckom fehepatopa heo6xognmo b monhnta hnmemepe¬ncnehh e omepaynn.

### ¾ BHNMAHNE!

¶uª NpepoTBpd⎝eHNª Bo3MoXHo¢TN Nouy1eHNª TpdBM HeobxopNMo:

* Nepep NpoBepKou N Npo$NudKTN1e¢KNM o¢MoTpoM TeHepdTopd ybepNTb¢ª, 1To oH y¢TdHoBueH Hd To- pN3oHTdubHou Nuo⎝dpKe, d pBNTdTeub 3dTuyNeH.

### KoHTpoubHªe oNepd⎝NN:

* V6egntace b otcytctbnn te¬en macna n oxnamgaŒ- yen mngkoctn;
* V6egntace b otcytctbnn mpo6ok n ¬nctote bhytpeh- hnx mobepxhocten bxogh x bo3gyxo3a6ophnkob n b myckh x matpy6kob;
* V6egntace b ¬nctote hapymhon pemetkn n mnactnh pagnatopa;
* Hpobepnta hatemehne pemhe behtnnetopa;
* Hpobepnta ypobeha macna b gbnfatene;
* Hpobepnta ypobeha oxnamgaŒyen mngkoctn;
* Hpobepnta 3a3emnehne fehepatopa;
* Hpon3bectn go3ampabky tomnnbom;

(cm. myhkt “Tomnnbo” b pa3gene “HEPNO¶N1EC- KOE ObCuVMNBAAHNE”.)

* Hpobepnta hann¬ne ha gn3ena-fehepatope mpegym- pegntenah x n 3ampeyaŒynx ta6nn¬ek n hagmncen; (cm. myhkt “3AHPE⎝AŒ⎝NE, HPE¶VHPEM¶AŒ-

⎝NE Ob OHACHOCTN N NH0OPMNPVŒ⎝NE HA-

KuENKN b pa3gene “¾ MEPª bE3OHACHOCTN”.)

### ¾ BHNMAHNE!

Mepª Npepo¢TopoXHo¢TN NpoTNB NpNKo¢HoBeHNª K pBNXy⎝NM¢ª 1d¢TªM obopypoBdHNª:

* 3dNpe⎝deT¢ª ¢HNMdTb NuN oTKpªBdTb 3d⎝NTHªe KoXyxN NuN boKoBªe NdHeuN TeHepdTopd NpN pd- boTdŒ⎝eM pBNTdTeue.
* Bo N3beXdHNe ¢epbe3Hªx oXoToB 3dNpe⎝deT¢ª NpNKd¢dTb¢ª K TuyNNTeuŒ NuN BªxuoNHªM Tpy- bdM, NoKd oHN He o¢TªHyT.

### Md¢uo puª pBNTdTeuª

Fehepatop moctabneetce c gbnfatenem, he 3ampabnehh m macnom. Hepeg mepb m 3amyckom gbnfatene b hefo he- o6xognmo 3annta macno go tpe6yemofo ypobhe.

1. Vctahobnta gn3ena-fehepatop fopn3ohtanaho.
2. Cheta kp mky c macno3annbhon fopnobnh .
3. 3annta b gbnfatena motophoe macno c ypobhem ka-

¬ectba he hnme CD (mo knaccn$nkaynn Amepnkah- ckofo he$tehofo nhctntyta (API)) go bepxhen ot- metkn ha macnehom yyme.

NPNME1AHNE

* Konn¬ectbo 3annbaemofo b gbnfatena macna n mope- gok mpobepkn ypobhe macna b gbnfatene mpnbegeh b myhkte “Macno gne gbnfatene” pa3gena “HEPNO-

¶N1ECKOE ObCuVMNBAHNE”.

### OxudXpdŒ⎝dª XNpKo¢Tb

¾ BHNMAHNE!

¶uª obe¢Ne1eHNª uN1Hou be3oNd¢Ho¢TN:

* Y¢TdHoBNTe pN3eub-TeHepdTop TopN3oHTdubHo.
* 3ANPE⎝AETCª oTKpªBdTb KpªNKy TopuoBNHª pdpNdTopd po NouHoTo o¢TªBdHNª oxudXpdŒ⎝eu XNpKo¢TN. No¢ue o¢TªBdHNª pdpNdTopd MepueH- Ho NoBepHyTb KpªNKy po NepBoTo $NK¢NpoBdHHo- To NouoXeHNª, 1Tobª ¢bpo¢NTb N3bªTo1Hoe pdB- ueHNe. 3dTeM NouHo¢TbŒ ¢HNMNTe KpªNKy.
1. Cheta kp mky pagnatopa n 3amonhnta cnctemy coot- betctbyŒyen oxnamgaŒyen mngkoctaŒ go ypobhe

¬yta hnme 3annbhofo otbepctne.

1. 3amonhnta oxnamgaŒyen mngkoctaŒ pacmnpntena- h n 6a¬ok go otmetkn HOuHªN (FULL).
2. Hagemho 3akp ta kp mkn pagnatopa n pacmnpntena- hofo 6a¬ka.

NPNME1AHNE.

* Hopegok 3ameh oxnamgaŒyen mngkoctn omncah b myhkte “Pagnatop” pa3gena “HEPNO¶N1ECKOE bCuVMNBAHNE”.

### ToNuNBo

¾ BHNMAHNE!

¶uª obe¢Ne1eHNª uN1Hou be3oNd¢Ho¢TN:

* 3ANPE⎝AETCª po3dNpdBKd ToNuNBoM NpN pdbo- TdŒ⎝eM NuN He o¢TªBNeM pBNTdTeue.
* Nepep 3dNpdBKou pBNTdTeub ¢uepyeT 3dTuyNNTb.
* 3ANPE⎝AETCª NepeNouHªTb bdK ¢N¢TeMª NNTd- HNª. E¢uN ToNuNBo NepeuNuo¢b 1epe3 Kpdu, Nepep Ny¢KoM pBNTdTeuª eTo HeobxopNMo BªTepeTb Hd-

¢yxo.

* 3dNpdBKy NpoN3BopNTb BpduN oT N¢To1HNKoB oT- KpªToTo NudMeHN N N¢Kpoobpd3oBdHNª. NpN +ToM 3dNpe⎝deT¢ª KypNTb N Noub3oBdTb¢ª oTKpªTªM oTHeM.
1. 3ampabka tomnnbom bcefga mpon3bognte ¬epe3

$nnatp tomnnbhofo 6aka.

1. Heo6xognmo monhoctaŒ ncknŒ¬nta momagahne fpe- 3n n bog b tomnnbh n 6ak.
2. Pekomehgyetce ncmona3obata gn3enahoe tomnnbo N 2-D (mo knaccn$nkaynn ASTMD975).
3. Hpn temmepatypax hnme 0 °C gomyckaetce ncmona- 3obahne cmecn n3 gn3enahofo tomnnba N 1-D n N 2-D.
4. Vpobeha tomnnba ompegeneetce mo yka3atenŒ ypob- he mpn6opy.

NPNME1AHNE.

* Ecnn tomnnbo b 6ake 6 no b pa6otaho monhoctaŒ, b pe3ynatate ¬efo gbnfatena octahobnnce, to mocne 3amonhehne 6aka tomnnbom n mepeg myckom gbnfa- tene, heo6xognmo monhoctaŒ ygannta bo3gyx n3 cnctem moga¬n tomnnba.

(Cm. myhkt “Vganehne bo3gyxa n3 cnctem moga¬n tomnnba” b pa3gene “Hepnogn¬eckoe o6cnymnbahne n pemoht”.)

# 3KCNuYATA⎝Nª TEHEPATOPHON YCTAHOBKN

### ¾ BHNMAHNE!

¶uª obe¢Ne1eHNª uN1Hou be3oNd¢Ho¢TN HeobxopNMo BªNouHªTb ¢uepyŒ⎝Ne NH¢TpyK⎝NN:

* + Npo1NTdTb pd3peu “¾ NpdBNud be3oNd¢Hou +K¢- NuydTd⎝NN” B ¢dMoM Hd1due pdHHou NH¢TpyK⎝NN.
	+ 03HdKoMNT¢ª ¢o B¢eMN NpepyNpeXpdŒ⎝NMN N 3dNpe⎝dŒ⎝NMN HdpNN¢ªMN, NMeŒ⎝NMN¢ª Hd Te- HepdTope.
	+ ¶uª NpepoTBpd⎝eHNª oTpdBueHNª BªxuoNHªMN Td3dMN 3dNpe⎝deT¢ª 3dNy¢KdTb pBNTdTeub B 3dK- pªTªx NoMe⎝eHNªx, He obopypoBdHHªx ¢ooTBeT-

¢TByŒ⎝eu ¢N¢TeMou BeHTNuª⎝NN.

* + Nepep Ny¢KoM TeHepdTopd BªKuŒ1NTb dBToMdTN- 1e¢KNu BªKuŒ1dTeub.
	+ Nepep Ny¢KoM BªKuŒ1dTeuN B¢ex NopKuŒ1eHHªx K TeHepdTopy NoTpebNTeueu pouXHª bªTb Nepe- BepeHª B NouoXeHNe BªKuŒ1EH0.
	+ Nepep Ny¢KoM y¢TdHoBKN NpoBepNTb B¢e NpoBopd N ¢oepNHeHNª.
	+ Bo BpeMª pdboTª pN3eub-TeHepdTopd 3dNpe⎝d- eT¢ª Kd¢dTb¢ª peTdueu, Hdxopª⎝Nx¢ª Nop HdNpª- XeHNeM.
* Ny¢K pBNTdTeuª

### NepeBe¢TN Hd B¢ex NoTpebNTeuªx BªKuŒ1dTeuN NNTdHNª B NouoXeHNe BªKu.

* 1. BªKuŒ1NTb dBToMdTN1e¢KNe BªKuŒ1dTeuN Hd NdHeuN yNpdBueHNª TeHepdTopd.

*(A) FehepatOp c gbyme 3ha¬ehnemn b xOghOrO hampemehnemn*

*(b) S-$a3h n n gpyrne tnm rehepatOpOb*

Ⓢ *AbtOmatn¬ecnnn b nnŒ¬atena*

Ⓢ *HOnOmehne BªKfl (OFF)*

### Y¢TdHoBNTb ToNuNBHªu KpdH B NouoXeHNe OTKPªT (OPEN)



Ⓢ *PynOetna tOmnnbhOrO npaha*

Ⓢ *0nnatp-bOgOOtgenntena*

*(A) HOnOmehne OTKPªT*

### B¢TdBNTb KuŒ1 B TudBHªu NepeKuŒ1dTeub N NoBepHyTb eTo B NouoXeHNe BKuŒ1EHO (ON).

* 1. NpoBepNTb, 3dTopeuN¢b uN Hd NdHeuN yNpdBueHNª KoHTpoubHªe udMNª 3dpªpd bdTdpeN N pdBueHNª Md¢ud.

Ⓢ *KOhtpOnahae namma temmepatyp OxnamgaŒyen mngnOctn*

Ⓢ *KOhtpOnahae namma gabnehne macna*

Ⓢ *KOhtpOnahae namma 3apega annymynetOphOn 6atapen*

® *KOhtpOnahae namma tanmepa mOgOrpeba.*

BHNMAHNE!

* Hnkofga he ncmona3ynte kakne 6 to hn 6 no mng- koctn, o6nef¬aŒyne myck gbnfatene, b mpotnbhom cny¬ae he ncknŒ¬eh cepae3h e mobpemgehne gbn- fatene.
* Hpn 3ha¬ntenahon mepefpy3ke fehepatopa nnn mpn kopotkom 3am kahnn b efo b xoghon yemn cpa6a- t baet abtomatn¬ecknn b knŒ¬atena (mpn 3tom efo p ¬af mepebogntce b monomehne BªKu). B 3tom cny-

¬ae mpemge, ¬em bknŒ¬nta efo, heo6xognmo yctpa- hnta mpn¬nhy otknŒ¬ehne.

### NoBepHyTb KuŒ1 B NouoXeHNe NPE¶BAPNTEubHªN PA3OTPEB (GLOW).

NPNME1AHNE

* Hopegok genctbnn b tex cny¬aex, kofga tpe6yetce mpegbapntenah n pa3ofpeb, cm. b pa3gene “Hyck b xonoghyŒ mofogy”.

### NoBepHyTb KuŒ1 B NouoXeHNe NYCK (GTART) N ypepXNBdTb eTo B +ToM NouoXeHNN po Tex Nop, NoKd pBNTdTeub He 3dNy¢TNT¢ª.

Ⓢ *Fnabh n mepennŒ¬atena*

1. *BªKflŒ7EHO (OFF)*
2. *BKflŒ7EHO (OW)*
3. *HPE¶BAPNTEflbHªN PA3OFPEB (GLOW)*
4. *HFCK (START)*

BHNMAHNE!

* Hempep bhae pa6ota ctaptepa mpn mycke he gonmha mpeb mata 10 c, b mpotnbhom cny¬ae oh momet b n- tn n3 ctpoe. Ecnn gbnfatena he 3apa6otan c mepbon mom tkn, to mepeg mobtoph m myckom heo6xognmo cgenata may3y okono 30 c.

### YbepNTb¢ª, 1To NoTd¢uN KoHTpoubHªe udMNª 3dpªpd dKKyMyuªTopHou bdTdpeN, pdBueHNª Md¢ud N TeMNepdTypª oxudXpdŒ⎝eu XNpKo¢TN.

* 1. NpoBepNTb udMNª dBdpNuHou

¢NTHduN3d⎝NN.

B cny¬ae octahobkn gbnfatene bo bpeme efo pa6ot , mepeg mobtoph m myckom heo6xognmo yctpahnta mpn-

¬nhy octahobkn.

### B Te1eHNe NepBªx 5 MNHyT No¢ue Ny¢Kd HeobxopNMo pdTb pBNTdTeuŒ NpoTpeTb¢ª, pdboTdª be3 HdTpy3KN.

BHNMHNE!

* HogknŒ¬ehne hafpy3kn bo bpeme mpofpeba momet mpnbectn k 3aknnhnbahnŒ, mobpemgehnŒ nnn mpem- gebpemehhomy n3hocy.

### NpoTpeB NpN HN3Kou TeMNepdType

Hpn hn3kon temmepatype okpymaŒyefo bo3gyxa macno b gbnfatene momet ctata hactonako be3knm, ¬to 3to momet mpnbectn k yxygmehnŒ ynpkyneynn nnn k hego- myctnmo hn3komy gabnehnŒ macna b cncteme cma3kn cpa3y mocne mycka gbnfatene. 3to momet ctata mpn¬n- hon ymehamehne motoka cma3o¬hofo macna n mobpem- gehne gbnmyynxce getanen gbnfatene.

¶ne tofo ¬to6 n36emata omncahh x hencmpabhocten, heo6xognmo b monheta cnegyŒyne tpe6obahne:

¶bnfatena cnegyet mpofpebata ha homnhanah x o6opo- tax 6e3 mogkonŒ¬ehne hafpy3kn.

|  |  |
| --- | --- |
| Temmepatypa okpymaŒyefo bo3gyxa | Bpeme, heo6xognmoe gne mpofpeba |
| B me 0 °C | He mehee 10 mnhyt |
| Ot 0 °C go -10 °C | Ot 10 go 20 mnhyt |
| Hnme -10 °C | bonee 20 mnhyt |

### BKuŒ1NTb dBToMdTN1e¢KNu BªKuŒ1dTeub Hd NdHeuN yNpdBueHNª.

1. *FehepatOp c gbyme 3ha¬ehnemn b xOghOrO hampemehnemn*
2. *S-$a3h n n gpyrne tnm rehepatOpOb*

Ⓢ *AbtOmatn¬ecnnn b nnŒ¬atena*

Ⓢ *HOnOmehne BKfl (OW)*

### No¢ue NopKuŒ1eHNª +ueKTpoNpNbopoB K TeHepdTopy, BKuŒ1NTe

Nx BªKuŒ1dTeuN NNTdHNª.

* Ny¢K B xouopHyŒ NoTopy

Ecnn temmepatypa okpymaŒyefo bo3gyxa hnme -5 °C n gbnfatena cnnaho oct n, to myck heo6xognmo mpobognta b cnegyŒyem mopegke:

B monhnta myhkt c (1) mo (5) bknŒ¬ntenaho n3 pa3ge- na “HVCK ¶BNFATEuR”.

### NoBepHyTb KuŒ1 TudBHoTo NepeKuŒ1dTeuª B NouoXeHNe NPE¶BAPNTEbHªN PA3OTPEB

(GLOW) N ypepXNBdTb eTo B +ToM NouoXeHNN po Tex Nop, NoKd He NoTd¢HeT KoHTpoubHdª udMNd pdboTª ¢Be1N NpepNy¢KoBoTo NopoTpeBd.

NPNME1AHNE

* + Hpn hn3knx temmepatypax gnntenahocta mpegbapn- tenahofo mogofpeba heo6xognmo ybenn¬nta.

BHNMAHNE!

* + Hnme b ta6nnye mpnbogetce ctahgapth e 3ha¬ehne bpemehn mpegbapntenahofo mogofpeba mpn pa3nn¬- hon temmepatype bo3gyxa. ¶ne mycka fope¬efo gbn- fatene, b monheta 3ty omepaynŒ he tpe6yetce.

|  |  |
| --- | --- |
| Temmepatypa okpymaŒyefo bo3gyxa | Bpeme mpegbapntenahofo pa3ofpeba |
| B me 10 °C | HE TPEbVETCR |
| Ot 10 °C go -5 °C | Hoka he mofachet kohtponahae namma mpegbapntenahofo mogofpeba |
| \*Hnme -5 °C | Vgepmnbata knŒ¬ b monomehnn HPE¶BAPNTEbHªN PA3OFPEBeye 5 cekyhg mocne tofo, kak mofachet kohtponahae namma |
| Hpegenahoe bpeme hempep bhon pa6ot  | 20 cekyhg |

### NoBepHyTb KuŒ1 B NouoXeHNe NYCK (GTART), pBNTdTeub pouXeH 3dpdboTdTb.

(Ecnn b te¬ehnn 10 cekyhg pa6ot ctaptepa gbnfatena he 3apa6otan, to otmyctnta knŒ¬ n cgenata may3y 30 ce- kyhg. 3atem mobtopho b monhnta myhkt (6) n (7).)

BHNMAHNE!

* + Makcnmanahoe bpeme hempep bhon pa6ot ctapte- pa he gonmho mpeb mata 10 cekyhg.
	+ Hpofpebata gbnfatena mepeg mogknŒ¬ehnem k hemy hafpy3kn heo6xognmo he tonako b xonoghoe, ho n b temnoe bpeme foga. Hegoctato¬h n mpofpeb gbnfa- tene cokpayaet cpok efo cnym6 .
	+ Ecnn bo3momho mohnmehne temmepatyp hnme

-15 °C, cnegyet cheta akkymynetophyŒ 6atapeŒ c gn3ena-fehepatopa n momectnta ee b 6e3omachom me- cte b otamnnbaemom momeyehnn. Hepeg myckom gn- 3ena-fehepatopa 6atapee yctahabnnbaetce ha mecto.

## O¢TdHoBKd pBNTdTeuª

1. BªKuŒ1NTe NNTdHNe B¢ex +ueKTpoNpNbopoB, Nop- KuŒ1eHHªx K dTpeTdTy Nx ¢ob¢TBeHHªMN BªKuŒ- 1dTeuªMN.
2. NepeBepNTe dBToMdTN1e¢KNe BªKuŒ1dTeuN TeHe- pdTopd B NouoXeHNe BªKu (OFF).
3. Nepep o¢TdHoBKou pBNTdTeuª pduTe eMy Npopd- boTdTb be3 HdTpy3KN NpNMepHo 5 MNHyT.
4. NoBepHNTe KuŒ1 TudBHoTo NepeKuŒ1dTeuª B NouoXeHNe 0TKuŒ1EH0 (OFF).

Ⓢ *Fnabh n mepennŒ¬atena*

*(A) HOnOmehne OTKfl (OFF)*

1. NepeBepNTe pyKoªTKy ToNuNBHoTo KpdHd B Nouo- XeHNe 3AKPªT (CLOGE).



Ⓢ *PynOetna tOmnnbhOrO npaha*

Ⓢ *Ctanah $nnatpa-bOgOOtgenntene*

*(A) 3AKPªT*

## E¢uN pBNTdTeub He o¢TdHdBuNBdeT¢ª NpN BªNouHeHNN ¢TdHpdpTHou Npo⎝epypª o¢TdHoBd.

(ABdpNuHªu o¢TdHoB pBNTdTeuª)

Ecnn gbnfatena he octahabnnbaetce mocne mobopota knŒ-

¬a Fnabhofo mepeknŒ¬atene b monomehne BªKuŒ1EHO (OFF), heo6xognmo b monhnta cnegyŒyne omepaynn (abapnnh n octahob):

### ¾ BHNMAHNE!

¶uª obe¢Ne1eHNª uN1Hou be3oNd¢Ho¢TN:

* He pepXNTe buN3Ko pyKN oT Bpd⎝dŒ⎝Nx¢ª peTd- ueu pBNTdTeuª, HdNpNMep, uoNd¢Teu BeHTNuªTo- pd oxudXpeHNª N NpNBopHªx peMHeu. 0¢obeHHo o¢TopoXHªM HeobxopNMo bªTb NpN BªNouHeHNN oNepd⎝Nu ¢ pyKoªTKou o¢TdHoBd pBNTdTeuª.
1. Otkponte 6okobyŒ gbepyy, hamab ha khomky.
2. Hobephnte p ¬af octahoba gbnfatene b monomehne CTOH (STOP) n ygepmnbante efo b 3tom monomehnn b te¬ehne 5-10 cekyhg go monhon octahobkn gbnfatene.

MO¶EuN ¶BNFATEuR Z482, D772

MO¶EuN ¶BNFATEuR D1005,Y1305

Ⓢ *P ¬ar OctahOba gbnratene*

* 1. *HFCK (START)*
	2. *CTOH (STOP)*
1. Hocne tofo, kak gbnfatena 3afnymeh, 3akponte gbep- yy n y6egnteca, ¬to Fnabh n mepeknŒ¬atena haxo- gntce b monomehnn BªKuŒ1EHO (OFF).
2. Heo6xognmocta abapnnhofo octahoba gbnfatene mo- met 6 ta o6ycnobneha cnegyŒynmn mpn¬nhamn, ko- top e heo6xognmo ompegennta n o6e3atenaho yct- pahnta:
* Heo6xognmo mpobepnta ncmpabhocta 3nektpomaf- hnthofo knamaha moga¬n tomnnba.
* Heo6xognmo mpobepnta ncmpabhocta n ctemeha pa3pemehhoctn akkymynetophon 6atapen.
* Heo6xognmo mpobepnta hagemhocta mogknŒ¬ehne mpobogob k knemmam akkymynetophon 6atapen.

# NEPNO¶N1HOCTb TEXHN1ECKOTO ObCuYMNBAHNª N TEKY⎝ETO PEMOHTA

Hpn mpobegehnn texhn¬eckofo o6cnymnbahne gn3ena-fehepatopa heo6xognmo b monheta cnegyŒyne bng pa6ot n co6nŒgata cpokn nx mpobegehne:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N m/m | Hpobepeem e mo3nynn | Nhtepban memgy texhnjecknm o6cnymnbahnem |  |  |
| Hocne mepb x 50 j pa6ot  | Kamg e 50 j pa6ot  | Kamg e 100 j pa6ot  | Kamg e 200 j pa6ot  | Kamg e 400 j pa6ot  | Kamg e 600 j | Kamg e 800 j | Kamg e 1500 j | Kamg e 3000 j | Kamg n fog | Kamg e 2 foga |
| 1 | Hpobepka tomnnbompobogob n 3atemkn nehtojh x xomytob |  | O |  |  |  |  |  |  |  |  |  |  |  |
| 2 | 3ameha macna b gbnfatene | ◉ |  |  | O |  |  |  |  |  |  |  |  |  |
| 3 | Ojnctka $nnatpyŒynx 3nemehtob bo3gymh x $nnatpob |  |  |  | O |  |  |  |  |  |  |  |  |  |
| 4 | Hpobepka ypobhe 3nektponnta b akkymynetophon 6atapee | O |  |  | O |  |  |  |  |  |  |  |  |  |
| 5 | Hpobepka hatemehne pemhe behtnnetopa |  |  |  | O |  |  |  |  |  |  |  |  |  |
| 6 | Hpobepka mnahfob cnctem oxnamgehne n 3atemkn nehtojh x xomytob |  |  |  | O |  |  |  |  |  |  |  |  |  |
| 7 | 3ameha $nnatpyŒyefo 3nemehta macnehofo $nnatpa | ◉ |  |  | O |  |  |  |  |  |  |  |  |  |
| 8 | 3ameha tomnnbhofo $nnatpa nnn efo$nnatpyŒyefo 3nemehta |  |  |  |  | O |  |  |  |  |  |  |  |  |
| 9 | Hpom bka py6amkn cnctem oxnamgehne (bhytpehhnx monocten pagnatopa) |  |  |  |  |  |  | O |  |  |  |  |  |  |
| 10 | 3ameha pemhe behtnnetopa |  |  |  |  |  |  |  | O |  |  |  |  |  |
| 11 | Hpobepka (n pefynnpobka) knamahh x 3a3opob |  |  |  |  |  |  |  | O |  |  |  |  |  |
| 12 | 3ameha $nnatpyŒyefo 3nemehta bo3gymhofo $nnatpa |  |  |  |  |  |  |  |  |  | O |  |  |  |
| 13 | Hpobepka yenocthoctn 3nektpnjecknx mpobogob n hagemhocta kohtaktob |  |  |  |  |  |  |  |  |  | O |  |  |  |
| 14 | 3ameha tomnnbompobogob n nehtojh x xomytob |  |  |  |  |  |  |  |  |  |  | O |  |  |
| 15 | 3ameha mnahfob cnctem oxnamgehne n nehtojh x xomytob |  |  |  |  |  |  |  |  |  |  | O |  |  |
| 16 | 3ameha akkymynetophon 6atapen |  |  |  |  |  |  |  |  |  |  | O |  |  |
| 17 | 3ameha mngkoctn b cncteme oxnamgehne (L.L.C.) |  |  |  |  |  |  |  |  |  |  | O |  |  |

BHNMAHNE!

* Pa6ot , otme¬ehh e 3ha¬kom ◉, gonmh b mon- hetace mocne mepb x 50 ¬acob pa6ot afpefata.

1 Hpn pa6ote fehepatopa b ycnobnex mob mehhon 3a- m nehhoctn bo3gymh n $nnatp cnegyet o¬nyata

¬aye, ¬em mpn o6 ¬hon 3kcmnyataynn.

2 Hocne mectn ynknob o¬nctkn.

3 ¶ne b monhehne 3tnx pefnamehth x pa6ot cnegyet mpokohcynatnpobatace y pefnohanahofo mpegctabn- tene (gnnepa) $npm KUBOTA.

* Ecnn 6atapee 3kcmnyatnpyetce mehee 100 ¬acob b fog, ypobeha 3nektponnta cnegyet mpobepeta ognh pa3 b fog (¶ahhoe 3ame¬ahne othocntce tonako k o6cny- mnbaem m akkymynetoph m 6atapeem).

# NEPNO¶N1ECKOE ObCuYMNBAHNE

## ToNuNBo

¶n3enahoe tomnnbo o6nagaet mob mehhon momapoomac- hoctaŒ. Hpn b monhehnn nŒ6 x pa6ot, cbe3ahh x c tom- nnbom, heo6xognmo mpoebneta mob mehhyŒ octopom- hocta.

### ¾ OCTOPOMHO!

¶uª obe¢Ne1eHNª uN1Hou be3oNd¢Ho¢TN:

* + B pN3eubHoe ToNuNBo Heub3ª pobdBuªTb beH3NH NuN ¢NNpT. NopobHªe ¢Me¢N ªBuªeT¢ª B3pªBoo- Nd¢HªMN.
	+ HeobxopNMo NpoªBuªTb o¢obyŒ dKKypdTHo¢Tb Bo BpeMª 3dNpdBKN pN3eub-TeHepdTopd ToNuNBoM. E¢uN ToNuNBo ¢uy1duHo NpouNuo¢b, To eTo Heob- xopNMo HeMepueHHo BªTepeTb, TdK KdK oHo Mo- XeT ¢TdTb NpN1NHou NoXdpd.
	+ Nepep po3dNpdBKou HeobxopNMo 3dTuyNNTb pBN- TdTeub pN3eub-TeHepdTopd. PªpoM ¢ pN3eub-Te- HepdTopoM He pouXHª HdxopNTb¢ª N¢To1HNKN oT- KpªToTo NudMeHN.
	+ HeobxopNMo obª3dTeubHo TuyNNTb pBNTdTeub NpN po3dNpdBKe ToNuNBoM, NpN NpoMªBKe ToNuNBHo- To bdKd, d TdKXe NpN 1N¢TKe NuN 3dMeHe ToNuNB- HoTo $NubTpd NuN ToNuNBoNpoBopoB. NpN BªNou- HeHNN pdboT ¢ pN3eub-TeHepdTopoM NuN eTo po- 3dNpdBKe 3dNpe⎝deT¢ª KypNTb.
	+ PdboTª No NpoBepKe N peMoHTy +ueMeHToB ToN- uNBHou ¢N¢TeMª pouXHª BªNouHªTb¢ª B xopoNo NpoBeTpNBdeMoM N Npo¢TopHoM NoMe⎝eHNN.
	+ ToNuNBo N ¢Md3o1Hoe Md¢uo pd3peNdeT¢ª 3duN- BdTb ToubKo No¢ue ToTo, KdK pBNTdTeub pN3eub- TeHepdTopd NouHo¢TbŒ o¢TªHeT.

### YpdueHNe Bo3pyxd N3 ToNuNBHou ¢N¢TeMª

¾ OCTOPOMHO!

¶uª obe¢Ne1eHNª uN1Hou be3oNd¢Ho¢TN:

* He ¢uepyeT ypduªTb Bo3pyx N3 ToNuNBHou ¢N¢Te- Mª, e¢uN pBNTdTeub TeHepdTopd Topª1Nu, TdK KdK He N¢KuŒ1eHo NoNdpdHNe KdNeub ToNuNBd Hd ¢Nub- Ho HdTpeTªe NoBepxHo¢TN BªNy¢KHoTo KouueKTo- pd, 1To MoXeT ¢TdTb NpN1NHou NoXdpd.

Heo6xognmocta b yganehne bo3gyxa n3 tomnnbhon cnc- tem bo3hnkaet b cnegyŒynx cny¬aex:

* Hocne tofo, kak 6 nn paccoegnheh , a 3atem bhoba cmohtnpobah tomnnbh n $nnatp nnn tomnnbompo- bog .
* Hocne tofo, kak 6 no monhoctaŒ b pa6otaho tom- nnbo n3 6aka.
* Hepeg mepb m myckom gbnfatene mocne gnntenaho- fo xpahehne (kohcepbaynn) gn3ena-fehepatopa.

[NopªpoK BªNouHeHNª oNepd⎝Nu]

1. 3amonhnta monhoctaŒ 6ak tomnnbom. Otkp ta tom- nnbh n kpah, pacmonomehh n ha tomnnbhom $nna- tpe.
2. Otbephyta ha heckonako o6opotob mpo6kn gne b - mycka bo3gyxa ha tomnnbhom $nnatpe.
3. Hocne tofo, kak mepectahyt b xognta my3 pakn bo3- gyxa, 3abephyta mpo6kn o6patho.
4. Otbephyta mpo6ky gne b mycka bo3gyxa, pacmonomeh- hyŒ b bepxhen ¬actn tomnnbhofo hacoca b cokofo gabnehne.
5. 3atehyta mpo6ky mocne tofo, kak mepectahyt b xo- gnta my3 pakn bo3gyxa.

Ⓢ *Kpah ha tOmnnbhOm $nnatpe*

Ⓢ *HpO6na gne b mycna bO3gyxa*

Ⓢ *KOpmyc tOmnnbhOrO $nnatpa*

* 1. *OTKPªT (OPEW)*
	2. *3AKPªT (CLOSE)*

### NpoBepKd ToNuNBHªx TpyboNpoBopoB

¾ OCTOPOMHO!

¶uª obe¢Ne1eHNª uN1Hou be3oNd¢Ho¢TN:

* B¢e pdboTª No NpoBepKe NuN 3dMeHe ToNuNBHªx TpyboNpoBopoB ¢uepyeT obª3dTeubHo NpoN3BopNTb NpN o¢TdHoBueHHoM pBNTdTeue. NoBpeXpeHNe ToN- uNBHªx TpyboNpoBopoB MoXeT NpNBe¢TN K NoXd- py.

Hpobepeta coctoehne tomnnbh x tpy6ompobogob cnegyet kamg e 50 ¬acob pa6ot gn3ena-fehepatopa. Hpn 3tom:

1. B cny¬ae ocna6nehne 3atemkn nehto¬h x xomytob, cnegyet cma3ata nx bnht macnom n mocne 3tofo mnotho 3atehyta.
2. Tomnnbh e tpy6ompobog n3fotobneh n3 pe3nh . Nx 3ameha bmecte c xomytamn mpon3bogntce kam- g e gba foga.
3. B cny¬ae mpemgebpemehhofo n3hoca nnn b xoga n3 ctpoe tomnnbh x tpy6ompobogob nnn nehto¬h x xo- mytob, nx 3ameha gonmha mpon3bogntace he3ameg- nntenaho.
4. Hocne 3ameh tpy6 n xomytob, heo6xognmo b myc- tnta bo3gyx n3 cnctem mntahne.

BHNMAHNE!

* Bo bpeme xpahehne tomnnbh x tpy6ompobogob nx kohy cnegyet mnotho 3akp ta ¬ncton tkahaŒ nnn 6ymafon gne mpegotbpayehne momagahne fpe3n, ko- topae momet b 3bata b xog n3 ctpoe tomnnbhofo hacoca b cokofo gabnehne.

### 1N¢TKd ToNuNBHoTo $NubTpd

1epe3 kamg e 100 ¬acob pa6ot heo6xognmo ¬nctnta tomnnbh n $nnatp. Pa6oty cnegyet b monheta b ¬nc- tom mecte, ncknŒ¬aŒyem momagahne fpe3n. ¶ne b mon- hehne omepaynn heo6xognmo:

1. 3akp ta tomnnbh n kpah, pacmonomehh n ha $nna- tpe.

Ⓢ *PynOetna tOmnnbhOrO npaha*

Ⓢ *KOpmyc tOmnnbhOrO $nnatpa*

1. *3AKPªT (CLOSE)*
2. *OTKPªT (OPEW)*
3. Cheta bepxhŒŒ kp mky n mpom ta bhytpehhŒŒ mo- nocta $nnatpa ¬nct m gn3enah m tomnnbom.
4. B hyta $nnatpyŒynn 3nemeht n mpom ta efo ¬nc- t m gn3enah m tomnnbom.
5. Hocne ¬nctkn yctahobnta tomnnbh n $nnatp o6pat- ho, mpegoxpahee efo ot momagahne m nn n fpe3n.
6. B monhnta omepaynŒ mo b mycky bo3gyxa ha tom- nnbhom hacoce b cokofo gabnehne.

BHNMAHNE!

* Homagahne b tomnnbhyŒ cnctemy m nn nnn fpe3n mo- met b 3bata hencmpabhocta hacoca b cokofo gab- nehne nnn $opcyhok. Pefynepho mpom bante tom- nnbh n $nnatp.

Ⓢ *flehtO¬h n xOmyt*

Ⓢ *TOmnnbh n tpy6OmpObOg*

Ⓢ *KOnayebae mpOnnagna*

Ⓢ *0nnatpyŒynn Snemeht*

Ⓢ *Hpymnha*

® *KOpmyc $nnatpa*

 *Hannghae ranna*

## MoTopHoe Md¢uo

### ¾ OCTOPOMHO!

¶uª obe¢Ne1eHNª uN1Hou be3oNd¢Ho¢TN:

* + Nepep NpoBepKou ypoBHª Md¢ud, 3dMeHou Md¢ud B pBNTdTeue NuN Md¢uªHoTo $NubTpd, pBNTdTeub HeobxopNMo 3dTuyNNTb.
	+ bypbTe o¢TopoXHª, Bo BpeMª pdboTª TeHepdTo- pd TuyNNTeub N BªxuoNHªe Tpybª ¢NubHo HdTpe- BdŒT¢ª N, NoKd oHN He o¢TªHyT, ob HNx MoXHo obXe1b¢ª. B¢eTpd, Nepep TeM KdK BªNouHªTb oNe- pd⎝NN NpoBepKN, peMoHTd N ob¢uyXNBdHNª NuN 1N¢TKN HeobxopNMo o¢TdHoBNTb pBNTdTeub N pdTb eMy o¢TªTb.
	+ Md¢uo, NpNMeHªeMoe B ¢N¢TeMe ¢Md3KN pBNTd- Teuª, NpN NoNdpdHNN Hd KoXy 1euoBeKd MoXeT Bª3BdTb HeTdTNBHªe No¢uep¢TBNª.
	+ NpN BªNouHeHNN pdboT ¢ MoTopHªM Md¢uoM He- obxopNMo Noub3oBdTb¢ª 3d⎝NTHªMN Nep1dTKdMN. E¢uN MoTopHoe Md¢uo B¢e Xe NoNduo Hd KoXy, To eTo HeobxopNMo He3dMepuNTeubHo ¢MªTb.

NPNME1AHNE!

* + Hpobepky ypobhe macna b gbnfatene heo6xognmo mpon3bognta mpn fopn3ohtanaho yctahobnehhom gn- 3ena-fehepatope. B mpotnbhom cny¬ae hena3e to¬ho yctahobnta konn¬ectbo 3anntofo b gbnfatena motop- hofo macna.

BHNMAHNE!

* + Hena3e 3amyckata gn3enah n gbnfatena, ecnn ypo- beha macna b kaptepe mpeb maet makcnmanaho go- myctnm n. 3to momet hapymnta pa6oty cnctem mpntoka bo3gyxa (behtnneynn kaptepa) n momet mpn- bectn k mobpemgehnŒ gbnfatene nnn b 3bata mepe- 6on b efo pa6ote.

### NpoBepKd ypoBHª Md¢udB pBNTdTeue, po3dNpdBKd Md¢uoM

* 1. Vpobeha macna b kaptepe gbnfatene mpobepeetce me- peg myckom gbnfatene nnn he pahee, ¬em ¬epe3 5 mnh mocne efo octahoba.
	2. B hyta yym mpobepkn ypobhe motophofo macna, b - tepeta efo hacyxo n bctabnta o6patho.
	3. Hobtopho b taynta macnon3mepntenah n yym n om- pegennta mo hemy ypobeha macna b gbnfatene.

¶BNFATEuN Z482 N D722

¶BNFATEuN D1005 N Y1305

Ⓢ *WacnO3annbhae rOpnObnha*

Ⓢ *WacnOn3mepntenah n yym*

*[Hnmhnn nOhey macnOn3mepntenahOrO yyma]*

* + 1. *HOpmanah m ebneetce ypObeha macna, pacmOnO- mehh n memgy bepxhen n hnmhen Otmetnamn ha yyme*
	1. Ecnn ypobeha macna b kaptepe cnnmkom hn3knn, to heo6xognmo cheta kp mky c macno3annbhofo otbep- ctne n gonnta macna go tpe6yemofo ypobhe (cm. m. A).
	2. Hocne 3tofo heo6xognmo b mgata he mehee 5 mnhyt gne tofo, ¬to6 gonntoe macno ctekno b kaptep gbn- fatene. Hocne 3tofo cnegyet mpon3bectn mobtophyŒ mpobepky ypobhe.
	3. Hpn moctoehhon pa6ote gbnfatene c ypobhem mac- na, haxogeynmce b6nn3n hnmhen otmetkn macnon3- mepntenahofo yyma, oho 6yget 6 ctpee ytpa¬nbata cbon 3kcmnyataynohh e cbonctba. Ho3tomy pekomeh- gyetce moggepmnbata ypobeha macna b kaptepe gbn- fatene b6nn3n bepxhen otmetkn macnon3mepntena- hofo yyma.

Bmectnmocta cnctem cma3kn gbnfatene (b nntpax)

|  |  |
| --- | --- |
| Mogena gn3ena-fehepatopa c gbnfatenem | Bmectnmocta |
| J106, J107(¶bnfatena Z482-B) | 2,2 |
| J108, J110, J310, J313(¶bnfatena D772-B) | 3,4 |
| J112, J114, J315, J318(¶bnfatena D1005-B9) | 4,3 |
| J116, J119, J320, J324(¶bnfatena Y1305-B9) | 5,7 |

BHNMAHNE!

* B gbnfatene heo6xognmo mpnmeheta motophoe mac- no MIL-L-2104C, nn6o macno fpymm CD nnn 6onee b cokon mo knaccn$nkaynn API (Amepnkahckofo nh- ctntyta he$tn)

Heo6xognmo mpnmeheta macno nmeŒyee knacc be3- koctn cootbetctbyŒynn temmepatype okpymaŒyefo bo3gyxa, cboebpemehho mpon3boge efo 3amehy.

|  |  |  |  |
| --- | --- | --- | --- |
| B me 25 °C | SAE30 | nnn | SAE10W-30SAE10W-40 |
| Ot 0 °C go 25 °C | SAE20 | nnn | SAE10W-30SAE10W-40 |
| Hnme 0 °C | SAE10W | nnn | SAE10W-30SAE10W-40 |

* Hpn 3amehe motophofo macna b gbnfatene ha macno gpyfon mapkn, mpemge ¬em 3annbata macno gpyfon mapkn, heo6xognmo monhoctaŒ cnnta pahee 3anntoe macno.

### 3dMeHd Md¢ud B pBNTdTeue

¾ OCTOPOMHO!

¶uª obe¢Ne1eHNª uN1Hou be3oNd¢Ho¢TN:

* Nepep TeM, KdK ¢uNTb MoTopHoe Md¢uo, Heobxo- pNMo obª3dTeubHo 3dTuyNNTb pBNTdTeub.
* CuNB Md¢ud HeobxopNMo NpoN3BopNTb B Nopxopª-

⎝yŒ eMKo¢Tb, pd¢NouoXNB ee Nop pBNTdTeueM. YTNuN3d⎝NŒ oTpdboTdHHoTo Md¢ud HeobxopNMo NpoN3BopNTb B ¢ooTBeT¢TBNN ¢ NpNHªTªM B ¢Tpd- He NpNpopooxpdHHªM 3dKoHopdTeub¢TBoM.

* 3dNpe⎝deT¢ª ¢uNBdTb Md¢uo Hd Topª1eM pBNTd- Teue. HeobxopNMo pdTb pBNTdTeuŒ HeMHoTo o¢- TªTb, 1Tobª N3beXdTb oXoToB NpN NoNdpdHNN To- pª1eTo Md¢ud Hd Teuo.
1. HepbyŒ 3amehy motophofo macna cnegyet mpon3be- ctn ¬epe3 50 ¬acob pa6ot gbnfatene, bmocnegctbnn 3amehy macna cnegyet mpon3bognta ¬epe3 kamg e 200 ¬acob pa6ot .
2. ¶ne cnnba macna n3 kaptepa gbnfatene heo6xognmo otbnhtnta mpo6ky cnnbhofo otbepctne. HonhoctaŒ cnnta otpa6otahhoe macno: cnnb temnofo macna mpo- ncxognt 6 ctpee n monhee. Hpobepnta coctoehne mpoknagkn ha mpo6ke macnocnnbhofo otbepctne. B cny¬ae mobpemgehne 3amehnta mpoknagky.

¶BNFATEuN Z482 N D722

¶BNFATEuN D1005 N Y1305

*(1) HpO6na Otbepctne gne cnnba macna n3 gbnratene*

1. Vctahobnta ha mecto mpo6ky macnocnnbhofo otbep- ctne c mpoknagkon.
2. 3annta hoboe motophoe macno, gobege efo ypobeha go bepxhen otmetkn ha macnon3mepntenahom yyme.

### 3dMeHd Md¢uªHoTo $NubTpd

¾ OCTOPOMHO!

¶uª obe¢Ne1eHNª uN1Hou be3oNd¢Ho¢TN:

* Nepep 3dMeHou Md¢uªHoTo $NubTpd HeobxopNMo 3dTuyNNTb pBNTdTeub.
* Nepep 3dMeHou $NubTpd pBNTdTeub pouXeH o¢- TªTb, B NpoTNBHoM ¢uy1de Topª1ee Md¢uo NpN No- NdpdHNN Hd KoXy MoXeT Bª3BdTb oXoT.
1. 3ameha macnehofo $nnatpa gonmha mpon3bogntce

¬epe3 kamg e 400 ¬acob pa6ot gn3ena-fehepatopa.

1. Otbephyta macneh n $nnatp c momoyaŒ cmeynana- hofo knŒ¬a. Vtnnn3ayne ncmona3obahhofo $nnatpa mpon3bogntce b cootbetctbnn c mpnhet m b ctpahe mpnpogooxpahh m 3akohogatenactbom.
2. Cma3ata ymnotheŒyyŒ mpoknagky hobofo macneho- fo $nnatpa tohknm cnoem motophofo macna.
3. Vctahobnta ha mecto hob n macneh n $nnatp, 3a- bopa¬nbae efo ot pykn. Hocne tofo, kak mpoknagka

$nnatpa kochetce mpnbano¬hon mobepxhoctn, tyfo 3atehyta $nnatp bpy¬hyŒ. Hpn yctahobke $nnatpa he cnegyet mona3obatace kaknm-nn6o nhctpymehtom, tak kak b 3tom cny¬ae oh momet oka3atace 3atehy- t m cnnmkom cnnaho.

¶BNFATEuN Z482 N D722

1. Hocne yctahobkn hobofo macnehofo $nnatpa ypo- beha macna b kaptepe gbnfatene heckonako mohn3nt- ce (3a c¬et o6aema macna, 3amonhnbmefo macneh n

$nnatp). Hepeg mpobepkon ypobhe macna 3amyctnte gbnfatena n gante emy mpopa6otata hekotopoe bpe- me, 3atem mpobepate otcytctbne te¬n motophofo macna n3-mog mpoknagkn $nnatpa n mpo6kn cnnbho- fo otbepctne. Hpn heo6xognmoctn, gonente macna b gbnfatena.

NPNME1AHNE.

* Heo6xognmo tyatenaho b tepeta bce cneg mogte- kob motophofo macna bokpyf macnehofo $nnatpa n cnnbhon mpo6kn.

¶BNFATEuN D1005 N Y1305

* 1. *Wacneh n $nnatp*
	2. *Hpn cmehe macnehOrO $nnatpa: Otnpy¬nbata cmeynanah m nnŒ¬Om, 3abnh¬nbata $nnatp bpy¬hyŒ.*

## Bo3pyNHªu $NubTp

### ¾ OCTOPOMHO!

¶uª obe¢Ne1eHNª uN1Hou be3oNd¢Ho¢TN:

* Nepep 1N¢TKou Bo3pyNHoTo $NubTpd HeobxopNMo obª3dTeubHo 3dTuyNNTb pBNTdTeub.

BHNMAHNE!

* O6e3atenaho y6egnteca, ¬to 3ayenka, $nkcnpyŒyae kopmyc $nnatpa, goctato¬ho tyfae. Hpn mnoxom ym- nothehnn m na n fpe3a mofyt 3acac batace b gbnfa- tena, b 3 bae mob mehh n n3hoc tpyynxce geta- nen n, kak cnegctbne, mpemgebpemehh n b xog n3 ctpoe gbnfatene, ¬to mobne¬et heo6xognmocta efo pemohta.

### 1N¢TKd BTopN1HoTo $NubTpyŒ⎝eTo

+ueMeHTd Bo3pyNHoTo $NubTpd

B gahh x mogenex gbnfatenen mpnmeheetce bo3gymh n

$nnatp c cyxnm $nnatpyŒynm 3nemehtom, he ncmona- 3yŒyefo macna b bo3gymhom $nnatpe.

1. ¶ne yganehne kpymh x ¬actny m nn n fpe3n heo6xo- gnmo otkp ta knamah gpehamhon tpy6kn ha kopmyce bo3gymhofo $nnatpa. Hpn hopmanah x ycnobnex 3k- cmnyataynn 3ta omepayne gonmha b monhetace ognh pa3 b hegenŒ. Hpn pa6ote b temen x ycnobnex nnn b ycnobnex b cokon 3am nehhoctn okpymaŒyefo bo3- gyxa – emeghebho.
2. Ecnn ha bhytpehhnx mobepxhoctex kopmyca bo3gym- hofo $nnatpa nmeetce fpe3a nnn bnafa, to tyatena- ho mpotpnte efo ¬ncton tkahaŒ.
3. Ctapanteca he mpnkacatace k $nnatpyŒyemy 3nemeh- ty, kpome kak mpn efo ¬nctke.
4. Ecnn ha $nnatpyŒynn 3nemeht hannmna cyxae m na, to mpogynte efo n3hytpn cmat m bo3gyxom, mobo- pa¬nbae bokpyf ocn. ¶abnehne cmatofo bo3gyxa he gonmho mpeb mata 686 kHa (7 kf/cm3).
5. Ecnn ha 3nemehte o6hapymeh cama nnn macno, cne- gyet 3amo¬nta 3nemeht b pactbope ctnpanahofo mo- pomka ha 15 mnhyt, mpom ta heckonako pa3 b boge, okoh¬atenaho mpomonockata b ¬ncton boge, a 3atem b cymnta efo ha bo3gyxe.
6. Hocne tofo kak 3nemeht b cox, cnegyet tyatenaho mpobepnta yenocthocta bhytpehhen mobepxhoctn 3ne- mehta c ncmona3obahnem gomonhntenahofo ncto¬hn- ka cbeta (pekomehgyetce genctbobata b cootbetctbnn c nhctpykynen, nmeŒyence ha 3tnketke $nnatpyŒ- yefo 3nemehta).
7. 3ameha mepbn¬hofo $nnatpyŒyefo 3nemehta mpo- n3bogntce ognh pa3 b fog, nn6o mpn kamgon mecton mo c¬ety ¬nctke. Ecnn mepbn¬h n 3nemeht cnnaho ge$opmnpobah, to efo cnegyet 3amehnta pahame. 3tn cpokn 3ameh genctbntenah n gne btopn¬hofo

$nnatpyŒyefo 3nemehta.

1. Chnmata btopn¬h n 3nemeht cnegyet tonako b cny-

¬ae efo 3ameh .

1. ¶ne monhoyehhon 3aynt gbnfatene he cnegyet go- myckata efo pa6oty 6e3 btopn¬hofo 3nemehta, game mpn hopmanahon pa6otocmoco6hoctn mepbn¬hofo

$nnatpyŒyefo 3nemehta.

MO¶EuN ¶BNFATEuR Z482 N D722

MO¶EuN ¶BNFATEuR D1005 N Y1305

Ⓢ *KOpmyc bO3gymhOrO $nnatpa*

Ⓢ *Kp mna nOpmyca $nnatpa*

Ⓢ *BtOpn¬h n $nnatpyŒynn Snemeht*

® *Hepbn¬h n $nnatpyŒynn Snemeht*

 *¶pehamhae tpy6na m neynObntene*

 *0nncnpyŒyae 3ayenna*

 *BO3gymh n $nnatp*

### 1N¢TKd NepBN1HoTo +ueMeHTd Bo3pyNHoTo $NubTpd

1. 1nctka mepbn¬hofo 3nemehta bo3gymhofo $nnatpa mpon3bogntce cyxnm cmat m bo3gyxom, mogabae- m m bhytpa 3nemehta.

¶abnehne bo3gyxa, hafhetaemoe kommpeccopom he gonmho mpeb mata 205 kHa (2,1 kf/cm3).

Hpn 3tom, bo n36emahnn mobpemgehne $nnatpa, ha- kohe¬hnk mnahfa he gonmeh kacatace $nnatpyŒye- fo 3nemehta.

1. Hpn ¬nctkn 3amacnehhofo n mokp tofo cnoem camn (komotn) $nnatpyŒyefo 3nemehta cnegyet ncmona- 3obata cmeynanah n ¬ncteynn mpemapat DofialdGofi ND-1500, nn6o ahanofn¬h n, genctbne kotopofo 3$-

$ektnbho mpn ¬nctke taknx $nnatpyŒynx 3nemeh- tob. Hpn ¬nctke heo6xognmo cnegobata nhctpykynn, mpnnafaemon k ¬ncteyemy mpemapaty.

### KudNdH ppeHdXHou TpybKN

Heo6xognmo mepnogn¬eckn otkp bata knamah gpeham- hon tpy6kn ha kopmyce m neynabnnbaŒyefo ctakaha gne yganehne kpymh x ¬actny m nn n fpe3n. OmepaynŒ cne- gyet b monheta ognh pa3 b hegenŒ mpn 3kcmnyataynn gn3ena-fehepatopa b hopmanah x ycnobnex, nn6o emeg- hebho mpn 3kcmnyataynn b ycnobnex b cokon 3am neh- hoctn.

BHNMAHNE!

* Ecnn m neynabnnbaŒynn ctakah yctahobneh hempa- bnnaho, to fpe3a n m na he 6ygyt 3agepmnbatace b hem, ¬to mo3bonnt nm 6ecmpemetctbehho mpohnkata k $nnatpyŒynm 3nemehtam n ctahet mpn¬nhon mpem- gebpemehhofo b xoga 3nemehtob n3 ctpoe.

### Bo3pyNHªu $NubTp

¢ NªueyudBuNBdŒ⎝NM ¢TdKdHoM

Chnmante n ¬nctnte kp mky m neynabnnbaŒynn ctakah ognh pa3 b hegenŒ mpn 3kcmnyataynn gn3ena-fehepato- pa b hopmanah x ycnobnex, nnn emeghebho mpn 3kcmny- ataynn b temen x ycnobnex.

H neynabnnbaŒynn ctakah he gonmeh 3amonhetace 6o- nee ¬em ha monobnhy he3abncnmo ot ycnobnn 3kcmnya- taynn.

Ha 3aghen ctopohe m neynabnnbaŒyefo ctakaha nmeet- ce otmetka “TOP”- BEPX. Ecnn bo3gymh n $nnatp nme- et fopn3ohtanahoe pacmonomehne 3nemehtob, to mpn yctahobke ctakah gonmeh 6 ta copnehtnpobah otmet- kon bbepx. Ecnn me $nnatpyŒyne 3nemeht nmeŒt bep- tnkanahoe pacmonomehne, to ctakah momet 6 ta ycta- hobneh b nŒ6oe monomehne.

Ⓢ *KOpmyc bO3gymhOrO $nnatpa*

Ⓢ *BtOpn¬h n $nnatpyŒynn Snemeht*

Ⓢ *Hepbn¬h n $nnatpyŒynn Snemeht*

® *H neynabnnbaŒynn ctanah*

 *Otmetna “TOP” -BEPX gne mpabnnahOn yctahObnn np mnn*

 *¶pehamhae tpy6na*

## PA¶NATOP

Heo6xognmo b3eta 3a mpabnno mepeg kamg m myckom gbnfatene gn3ena-fehepatopa mpobepeta ypobeha mng- koctn b cncteme oxnamgehne gbnfatene.

### ¾ OCTOPOMHO!

¶uª obe¢Ne1eHNª uN1Hou be3oNd¢Ho¢TN:

* He ¢uepyeT o¢TdHdBuNBdTb pBNTdTeub ¢pd3y Xe No¢ue oKoH1dHNª pdboTª Nop HdTpy3Kou, Heobxo- pNMo pdTb eMy NpopdboTdTb oKouo 5 MNHyT Hd xo- uo¢ToM xopy.
* uŒbªe BNpª pdboT poNy¢KdeT¢ª BªNouHªTb Toub- Ko No¢ue ToTo, KdK pBNTdTeub N oxudXpdŒ⎝dª XNpKo¢Tb o¢TªHyT (To e¢Tb, He pdHee, 1eM 1epe3 30 MNHyT No¢ue o¢TdHoBKN).
* 3dNpe⎝deT¢ª oTBopd1NBdTb KpªNKy pdpNdTopd NpeXpe, 1eM o¢TªHeT oxudXpdŒ⎝dª XNpKo¢Tb. No¢ue ee o¢TªBdHNª HeobxopNMo o¢TopoXHo No- BepHyTb KpªNKy pdpNdTopd po NepBou $NK¢Npye- Mou o¢TdHoBKN, HeobxopNMou puª ¢bpo¢d N3bª- To1HoTo pdBueHNª B ¢N¢TeMe oxudXpeHNª. Toub- Ko No¢ue +ToTo MoXHo ¢HNMdTb KpªNKy.
* E¢uN pBNTdTeub NepeTpeu¢ª (“3dKNNeu”), N3 N3 Ne- peNy¢KHoTo KudNdHd KpªNKN pdpNdTopd NuN pd¢NN- pNTeubHoTo bd1Kd bypeT BªxopNTb Ndp. HeobxopN- Mo pdTb pBNTdTeuŒ o¢TªTb, NpeXpe 1eM oTKpªBdTb KpªNKy pdpNdTopd. B NpoTNBHoM ¢uy1de ¢y⎝e¢TBy- eT oNd¢Ho¢Tb Nouy1NTb ¢epbe3Hªe oXoTN.

### NpoBepKd N Bo¢¢TdHoBueHNe ypoBHª XNpKo¢TN B ¢N¢TeMe oxudXpeHNª

1. Hocne monhofo oct bahne gbnfatene chnmnte kp m- ky c pagnatopa. Ecnn b bepxhem 6a¬ke pagnatopa ecta oxnamgaŒyae mngkocta (b me ypobhe mnactnh), to ee ypobeha hopmanah n.
2. Ecnn b cncteme oxnamgehne nmeetce pacmnpntena- h n 6a¬ok, to ypobeha oxnamgaŒyen mngkoctn mpo- bepeetce mo efo konn¬ectby b 6a¬ke. Ecnn ypobeha mngkoctn haxogntce memgy otmetkamn FULL (BEP- XHNN VPOBEHb) n LOW (HNMHNN VPOBEHb), to 3tofo konn¬ectba gonmho xbatnta eye ha ognh geha pa6ot .

Ⓢ *Pacmnpntenah n 6a¬On*

Ⓢ *Kp mna*

1. *FULL (BEPXHNN FPOBEHb) (bepxhee Otmetna cOOtbetctbyet O6aemy mngnOctn 0,6 n b 6a¬ne)*
2. *LOW (HNMHNN FPOBEHb)*
3. Ecnn ypobeha oxnamgaŒyen mngkoctn mohn3nnce mo mpn¬nhe ee ncmapehne, to, gne efo bocctahobnehne, cnegyet gonnbata tonako oxnamgaŒyyŒ mngkocta.

Ⓢ *Kp mna pagnatOpa*

Ⓢ *3annbhae rOpnObnha gne OxnamgaŒyen mngnOctn*

1. Hpobepate coctoehne gbyx cnnbh x kpahob, ognh n3 kotop x pacmonomeh ha 6noke ynnnhgpob, a btopon

– ha hnmhem 6a¬ke pagnatopa, kak moka3aho ha pn- cyhke.

MO¶EuN ¶BNFATEuR Z482 N D722

MO¶EuN ¶BNFATEuR D1005 N Y1305

MO¶EuN ¶BNFATEuR D1005 N Y1305

Ⓢ *Kpah gne cnnba OxnamgaŒyen mngnOctn (n3 pagnatOpa)*

Ⓢ *PagnatOp*

Ⓢ *Kpah gne cnnba OxnamgaŒyen mngnOctn (n3 6nOna ynnnhgpOb gbnratene)*

MO¶EuN ¶BNFATEuR Z482 N D722

Ⓢ *Kpah gne cnnba OxnamgaŒyen mngnOctn (n3 pagnatOpa)*

Ⓢ *PagnatOp*

Ⓢ *Kpah gne cnnba OxnamgaŒyen mngnOctn (n3 6nOna ynnnhgpOb gbnratene)*

BHNMAHNE!

* Ecnn heo6xognmo otbephyta mpo6ky ha pagnatope, to cnegyet genctbobata c ¬pe3b ¬anhon octopom- hoctaŒ n akkypathoctaŒ.

* Hpn mogtekahnn oxnamgaŒyen mngkoctn heo6xogn- mo mpokohcynatnpobatace y pefnohanahofo gnnepa

$npm KUBOTA.

* 3ampeyaetce 3annbata b cnctemy oxnamgehne fpe3- hyŒ nnn mopckyŒ bogy.
* ¶ne 3amonhehne kommehcaynohhofo 6a¬ka heo6xo- gnmo ncmona3obata ¬nctyŒ, cbemyŒ bogy , nn6o cme- mahhyŒ c ahtn$pn3om, gone kotopofo gonmha co- ctabneta 50 %.
* Hena3e mepemonheta kommehcaynohh n 6a¬ok ox- namgaŒyen mngkoctaŒ b me otmetkn FULL (BEPX- HNN VPOBEHb).

* Heo6xognmo mnotho 3akp bata mpo6ky 3annbhon fop- nobnh pagnatopa. Ecnn mpo6ka ytepeha nnn cna6o 3atehyta, to oxnamgaŒyae mngkocta momet b te¬a, b pe3ynatate ¬efo ypobeha mngkoctn b cncteme ox- namgehne mohn3ntce.
* Hocne tofo, kak ypobeha oxnamgaŒyen mngkoctn 6 n bocctahobneh go tpe6yemofo, mpn mycke gbnfatene oh momet choba mohn3ntace. B 3tom cny¬ae heo6xo- gnmo octahobnta gbnfatena n choba gonnta oxnam- gaŒyyŒ mngkocta.

### 3dMeHd oxudXpdŒ⎝eu XNpKo¢TN

1. ¶ne cnnba oxnamgaŒyen mngkoctn n3 cnctem ox- namgehne heo6xognmo otkp ta o6a cnnbh x kpaha n cheta kp mky c 3annbhon fopnobnh pagnatopa. Hpn 3akp ton kp mke pagnatopa ¬acta oxnamgaŒ- yen mngkoctn octahetce b cncteme. Vtnnn3ayne nc- mona3obahhon oxnamgaŒyen mngkoctn gonmha mpo- bogntace b cootbetctbnn c genctbyŒynmn hopmamn mo 3aynte okpymaŒyen cpeg .
2. ¶ne cnnba oxnamgaŒyen mngkoctn n3 pacmnpntena- hofo 6a¬ka cnegyet otcoegnhnta co ctopoh fepme- tn¬hon kp mkn pagnatopa coegnhntenahyŒ tpy6ky, ngyyyŒ ot hefo k pagnatopy.
3. Heo6xognm n o6aem mngkoctn gne cnctem oxnam- gehne gbnfatene (b nntpax)

|  |  |
| --- | --- |
| Mogena gbnfatene | 06aem oxnamgaŒyenmngkoctn, n |
| Z482-B-SEC | 2,3 |
| D722-B-SEC | 3,0 |
| D1005-B9-SEC | 3,3 |
| Y1305-B9-SEC | 3,5 |

1. Hefepmetn¬ho 3akp tae kp mka pagnatopa ybenn-

¬nbaŒt motepn oxnamgaŒyen mngkoctn.

1. Pekomehgyem e gne ncmona3obahne oxnamgaŒyne mngkoctn n o¬nctntenn cnctem oxnamgehne

## BªNouHeHNe +ueKTpN1e¢KNx

¢oepNHeHNu

### ¾ OCTOPOMHO!

¶uª obe¢Ne1eHNª uN1Hou be3oNd¢Ho¢TN:

KopoTKoe 3dMªKdHNe +ueKTpN1e¢KNx ¢oepNHN- TeubHªx Kdbeueu NuN NpoBopoB MoXeT Bª3BdTb NoXdp.

* PeTyuªpHo NpoBepªuTe N3ouª⎝NŒ +ueKTpN1e¢KNx Kdbeueu N NpoBopoB Hd oT¢yT¢TBNe B3pyTNu, No- BpeXpeHNu N Hd NoTepŒ +ud¢TN1Ho¢TN.

B¢e Me¢Td NopKuŒ1eHNª ¢NuoBªx Kdbeueu pouX- Hª bªTb 3d⎝N⎝eHª oT Bo3peu¢TBNª NªuN N Bopª.

* Nuoxo 3dTªHyTªe N HeN¢NpdBHªe ¢oepNHNTeubHªe

+ueMeHTª N HdKoHe1HNKN Kdbeueu N NpoBopoB He obe¢Ne1NBdŒT HdpeXHoTo +ueKTpN1e¢KoTo KoHTdK- Td. 3TN HeN¢NpdBHo¢TN HeobxopNMo y¢TpdHNTb po Ny¢Kd pN3eub-TeHepdTopd.

Hapymehne n hencmpabhoctn b 3nektpompobogke chnma- Œt o6yyŒ 3$$ektnbhocta pa6ot cnctem . Heo6xogn- mo hemegnehho 3ameheta mobpemgehh e mpoboga n yc- tpaheta hencmpabhoctn b 3nemehtax coegnhehnn n kom- mytaynn.

|  |  |
| --- | --- |
| Bpeme foga | 0xnamgaŒyae mngkocta |
| ueto | 1nctae boga n ojnctntena pagnatopa |
| 3nma (mpn chnmehnn temmepatyp; hnme 0 oC), nn6o kpyfn;n fog | Cmeca jncton bog; n ahtn$pn3a (cm. m. “Ahtn$pn3”b pa3gene “Pagnatop”) |

## buoK NudBKNx NpepoxpdHNTeueu

Cnctema 3nektpomntahne gn3ena-fehepatopa 3aynyeha ot bo3momh x mobpemgehnn mnabknmn mpegoxpahnte- nemn.

Hepefopahne mpegoxpahntene yka3 baet ha mepefpy3ky nnn kopotkoe 3am kahne b yemn, 3aynyaemon gahh m mpegoxpahntenem.

Vctahabnnbaem n b3ameh cfopebmefo mnabknn mpegox- pahntena gonmeh nmeta to¬ho takoe me 3ha¬ehne ho- mnhanahofo toka, ¬to n mpemhnn.



* 1. *bnOn mnabnnx mpegOxpahntenen*

BHNMAHNE!

* + Hepeg 3amehon cfopebmefo mpegoxpahntene heo6- xognmo o6e3atenaho yctpahnta mpn¬nhy, b 3babmyŒ cpa6at bahne 3aynt . Otctymnehne ot 3tofo tpe6o- bahne momet mpnbectn k cepae3h m mobpemgehnem b cncteme 3nektpomntahne gn3ena-fehepatopa. ¶ne ompegenehne mpn¬nh bo3momh x hencmpabhocten o6patnteca k pa3geny “Honck n yctpahehne hencm- pabhocten” gahhon nhctpykynn, nn6o k pefnohana- homy gnnepy $npm KUBOTA 3a mony¬ehnem 6onee mogpo6hon nh$opmaynn.

[¶N3eub-TeHepdTopª J106, J107, J108, J110, J310, J313;

¶BNTdTeuN Z482, D722]

Ⓢ *Hnabnnn mpegOxpahntena S A 3aynyaet bhemhne yemn, mOgnnŒ¬aem e n cOOtbetctbyŒyemy nnemmhnny*

Ⓢ *Hnabnnn mpegOxpahntena 10 A: yema mepemehhOrO tOna*

Ⓢ *Hnabnnn mpegOxpahntena ¥ A: yema mpegbapntenahOrO pa3Orpeba*

® *Hnabnnn mpegOxpahntena 1¥ A: cOnehOng*

 *Hnabnnn mpegOxpahntena 1¥ A: pe3epbh n*

 *Hnabnnn mpegOxpahntena 10 A: pe3epbh n*

[¶N3eub-TeHepdTopª J112, J114, J116, J119, J315, J318, J320, J324;

¶BNTdTeuN D1005, V1305]

Ⓢ *Hnabnnn mpegOxpahntena S A 3aynyaet bhemhne yemn, mOgnnŒ¬aem e n cOOtbetctbyŒyemy nnemmhnny*

Ⓢ *Hnabnnn mpegOxpahntena 10 A: yema mepemehhOrO tOna*

Ⓢ *Hnabnnn mpegOxpahntena ¥ A: yema mpegbapntenahOrO pa3Orpeba*

® *Hnabnnn mpegOxpahntena ¥ A: pe3epbh n*

 *Hnabnnn mpegOxpahntena 10 A: pe3epbh n*

## PeMeHb BeHTNuªTopd ¢N¢TeMª oxudXpeHNª

### PeTyuNpoBKd HdTªXeHNª peMHª BeHTNuªTopd

¾ OCTOPOMHO!

¶uª obe¢Ne1eHNª uN1Hou be3oNd¢Ho¢TN:

* Nepep NpoBepKou HdTªXeHNª peMHª BeHTNuªTopd

¢N¢TeMª oxudXpeHNª HeobxopNMo 3dTuyNNTb pBN- TdTeub N BªHyTb KuŒ1 N3 TudBHoTo NepeKuŒ1dTeuª.

* No¢ue BªNouHeHNª NpoBepo1Hªx NuN peTyuNpo- Bo1Hªx pdboT HeobxopNMo y¢TdHoBNTb Hd NpeXHee Me¢To 3d⎝NTHªu KoXyx.

|  |  |
| --- | --- |
| Pekomehgyemae ctemeha hatemehne pemhe behtnnetopa | Hpofn6 pemhe gonmeh coctabneta ot 7 go 9 mm mpn hamatnn ha hefo 6onamnm manayem pykn mocepegnhememgy mknbamn |

1. 3afnymnte gbnfatena n b hate knŒ¬ n3 fnabhofo b k- nŒ¬atene.
2. Hammnte 6onamnm manayem pykn ha pemeha, he mpn- nafae cnnmkom 6onamoe ycnnne, b to¬ke, pacmono- mehhon mpnmepho mocepegnhe memgy mknbamn.
3. Ecnn mpn 3tom mpofn6 pemhe he cootbetctbyŒt hop- me, ocna6ate 6ont kpemnehne fehepatopa, n, ncmona- 3ye p ¬af, bctabnehh n memgy kopmycom fehepato- pa n 6nokom ynnnhgpob gbnfatene, ottehnte fehepa- top hactonako, ¬to6 hatemehne pemhe behtnneto- pa cnctem oxnamgehne goctnfno heo6xognmofo 3ha¬ehne.
4. 3amehnte pemeha behtnnetopa mpn o6hapymehnn mo- bpemgehnn.

BHNMAHNE!

* Ecnn pemeha behtnnetopa mobpemgeh nnn he hate- hyt, to chnmaetce 3$$ektnbhocta pa6ot behtnne- topa cnctem oxnamgehne, ¬to momet ctata mpn¬n- hon mepefpeba gbnfatene nnn hegoctato¬hofo 3ape- ga akkymynetophon 6atapen bo bpeme pa6ot gn3ena- fehepatopa.

¶BNFATEuN Z482 N D722

¶BNFATEuN D1005 N Y1305

Ⓢ *Pemeha behtnnetOpa cnctem Oxnamgehne gbnratene*

Ⓢ *bOnt npemnehne rehepatOpa*

1. *HpOrn6 pemhe 7-9 mm mpn ycnnnn 98 H*

# NONCK N YCTPAHEHNE HENCNPABHOCTEN

### ¾ OCTOPOMHO!

¶uª obe¢Ne1eHNª uN1Hou be3oNd¢Ho¢TN:

* + uŒbªe pdboTª, ¢Bª3dHHªe ¢ NpoBepKou y3uoB N dTpeTdToB pN3eub-TeHepdTopd HeobxopNMo BªNouHªTb NpN o¢TdHoBueHHoM pBNTdTeue, 3d N¢KuŒ1eHNeM o¢obo oToBopeHHªx ¢uy1deB.
	+ 3dNpe⎝deT¢ª Bo BpeMª pdboTª pN3eub-TeHepdTopd NpNKd¢dTb¢ª K ToKoBepy⎝NM 1d¢TªM N +ueMeHTdM.
	+ HeobxopNMo NpoªBuªTb NoBªNeHHyŒ o¢TopoXHo¢Tb, Hdxopª¢b BbuN3N pdboTdŒ⎝eTo pN3eub-TeHepdTopd, 1Tobª +ueMeHTª opeXpª NuN 1d¢TN Teud He NoNduN Bo Bpd⎝dŒ⎝Ne¢ª peTduN y¢TdHoBKN.

B cny¬ae otknohehnn b pa6ote gn3ena-fehepatopa, bocmona3ynteca hnmempnbegehhon ta6nnyen gne ompegenehne bo3momh x mpn¬nh hencmpabhoctn n myten ee yctpahehne.

* TeHepdTop

|  |  |  |
| --- | --- | --- |
| HeN¢NpdBHo¢Tb | Bo3momhae mpn¬nha | Vctpahehne hencmpabhoctn |
| He pdboTdŒT NopKuŒ1eHHªe K TeHepdTopy NoTpebNTeuN+ueKTpN1e¢Kou +HepTNN. | OtknŒ¬eh abtomatn¬ecknn b knŒ¬atena. | * BknŒ¬nta abtomatn¬ecknn b knŒ¬atena.
 |
| Hnoxon kohtakt memgy b xoghon knemmon n po3etkon. | * Hpon3bectn mobtophoe mogknŒ¬ehne.
 |
| Hencmpabhocta mogknŒ¬ehhofo 3nektpoo6opygobahne. | * Otpemohtnpobata hencmpabh e 3nektpompn6op .
 |
| TeHepdTop He BªpdbdTªBdeT HdNpªXeHNe. | Hnoxon kohtakt memgy yetkamn n kohtakth mn konayamn fehepatopa. | * Hpobepnta pa6o¬ne mobepxhoctn yetok n kohtakth x koney, 3a¬nctnta nx, otpefynnpobata cnny mpnmnma yetok.

(¾ Omacho gne mn3hn: pa6ot b monheta mpn octahobnehhom gbnfatene). |
| CpdbdTªBdHNe 3d⎝NTHoTo dBToMdTN1e¢KoTo BªKuŒ1dTeuª. | Hepefpy3ka. | * Vmehamnta moyhocta, mogknŒ¬ehhon k fehepatopy hafpy3kn.
 |
| Kopotkoe 3am kahne b mpobogax nnn motpe6ntenex, mogknŒ¬ehh x k b xogh m knemmam fehepatopa. | Vctpahnta kopotkoe 3am kahne b yemn hafpy3kn, mogknŒ¬ehhon k fehepatopy. |
| TeHepdTop He pd3BNBdeT NouHou Mo⎝Ho¢TN:* MepueHHoe Bpd⎝eHNe
* HN3Kdª BeuN1NHd HdNpªXeHNª
* CpdbdTªBdeT dBToMdTN1e¢KNu BªKuŒ1dTeub.
 | Cnnmkom 6onamon mepboha¬anah n tok motpe6nehne (hampnmep, mogknŒ¬eh 3nektpogbnfatenn c o¬eha6onamnmn myckob mn tokamn). | * Vmehamnta moyhocta, mogknŒ¬ehhon k fehepatopy hafpy3kn.
 |
| Hepefpy3ka fehepatopa. | * Vmehamnta moyhocta, mogknŒ¬ehhon k fehepatopy hafpy3kn.
 |
| ¶BNTdTeub pdboTdeT ¢ ªBHou NepeTpy3Kou. | Kopotkoe 3am kahne b o6motkax fehepatopa. | * Hemegnehho mpekpatnta pa6oty. Tpe6yetce pemoht fehepatopa.
 |

* KoHTpoubHo-NHpNKdTopHoe y¢Tpou¢TBo

|  |  |  |
| --- | --- | --- |
| Hem¢NpdBHo¢Tb | Bo3moMhae mpnjnha | Vctpahehne hencmpabhoctn |
| Npm NoBopoTe KuŒ1d 3dXmTdHmªHe 3dTopdeT¢ª KoHTpoubHo- mHpmKdTopHdª udMNo1Kd. | Hepefopena nnn hencmpabha nammojKa | * 3amehnte nammojKy.
 |
| Hencmpabhocta gatjnKa nnn yemn mntahne. | * Hpobepate, ncmpabate.
 |
| Npm pdboTe 3dTopeud¢b KoHTpoubHdª udMNo1Kd NepeTpeBd pBmTdTeuª. | Hepefpeb gbnfatene. | * Cm. myhKt “Hepefpeb gbnfatene” b pa3gene “Pagnatop”, ctp. 101.
 |
| Hencmpabeh gatjnK temmepatyp% oxnaMgaŒyen MngKoctn. | * 3amehnta gatjnK temmepatyp% oxnaMgaŒyen MngKoctn.
 |
| Hencmpabhocta mpoboga gatjnKa temmepatyp% oxnaMgaŒyen MngKoctn. | * Otpemohtnpobata mpobogKy.
 |
| Npm pdboTe pBmTdTeuª 3dTopeud¢b udMNo1Kd dBdpmuHoTo ¢HmXeHmª pdBueHmª Md¢ud. | Hn3Knn ypobeha macna b gbnfatene. | * ¶onnta motophofo macna.
 |
| Hencmpabhocta cnctem% cma3Kn gbnfatene. | * Hpobepnta cnctemy cma3Kn.
 |
| Hencmpabeh gatjnK gabnehne macna. | * 3amehnta gatjnK gabnehne macna.
 |
| Hencmpabhocta mpoboga gatjnKa gabnehne macna. | * Otpemohtnpobata mpobogKy.
 |
| ❖Npm pdboTe pBmTdTeuª 3dTopeud¢b KoHTpoubHdª udMNd 3dpªpd dKKyMyuªTopHou bdTdpem. | Cna6o hatehyt nnn mopbah pemeha behtnnetopa cnctem% oxnaMgehne. | * Hatehyta nnn 3amehnta pemeha.
 |
| Hnoxon KohtaKt ha b%xogh%x Knemmax fehepatopamepemehhofo toKa gbnfatene. | * Hogtehyta Knemm%.
 |
| Hencmpabeh fehepatop mepemehhofo toKa gbnfatene. | * Hpobepnta ncmpabhocta fehepatopa.
 |

* ¶bnfatenn mogenen Z482 n D722 mpn abapnnhom chnmehnn gabnehne macna he octahabnnbaŒtce.

## ¶BNTdTeub

|  |  |  |
| --- | --- | --- |
| HeN¢NpdBHo¢Tb | Bo3momhae mpn¬nha | Vctpahehne hencmpabhoctn |
| ¶BNTdTeub He 3dNy¢edeT¢ª. | KoueH1dTªu Bdu pBNTdTeuª He Bpd]deT¢ª, NuN Bpd]deT¢ª MepueHHo. | Hencmpabhocta akkymynetophon 6atapen. | * 3amehnta akkymynetophyŒ 6atapeŒ.
 |
| Akkymynetophae 6atapee pa3pemeha. | * 3apegnta akkymynetophyŒ 6atapeŒ.
 |
| Hn3kae ¬actota bpayehne n3-3a bo3pocmen be3koctn motophofo macna mpn otpnyatenah$x temmepatypax.Cfopenn mnabkne mpegoxpahntenn (mpegoxpahntenn c 3agepmkon cpa6at$bahne). | * 3amehnta motophoe macno ha mehee be3koe, mpegha3ha¬ehhoe gne pa6ot$ mpn hn3knx temmepatypax, D5W40 nnn D10W30.
* 3amehnta mnabkne mpegoxpahntenn.
 |
| 1d¢ToTd Bpd]eHNª eoueH1dToTo Bdud pBNTdTeuª HopMdubHdª, Ho pBNTdTeub He 3dNy¢edeT¢ª. | Otcytctbyet tomnnbo b 6ake. | * 3ampabnta 6ak tomnnbom.
 |
| Tomnnbo he moctymaet b $opcyhkn. | * Hpobepnta tomnnbh$n $nnatp n 3amehnta, ecnn oh fpe3h$n.
* Hpobepnta tomnnbh$n 6ak, o¬nctnta efo ot b3bemehh$x mpnmecen nnn fpe3n.
 |
| B cnctemy moga¬n tomnnba momann boga n bo3gyx. | * Hpobepnta tomnnbompobog n mtyyepa efo mogcoegnhehne. B cny¬ae hencmpab- hoctn otpemohtnpobata nnn 3amehnta nx.
* Vgannta bo3gyx n3 tomnnbhon cnctem$.
* Vgannta bogy n3 tomnnbhofo 6aka n

$nnatpa. |
| He 3atehyt$ coegnhehne tomnnbompoboga b$cokofo gabnehne. | * 3atehyta coegnhehne.
 |
| * Cfopen mnabknn mpegoxpahntena, pacmonomehh$n memgy gat¬nkom bxoghofo cnfhana conehonga n maccon.
 | * 3amehnta mnabknn mpegoxpahntena (10 A), mpegbapntenaho y6egnbmnca,

¬to hn¬to he mpemetctbyet cbo6oghomy mepemeyehnŒ ekope conehonga. |
| ¶BNTdTeub 3dNy¢edeT¢ª, Ho ¢pd3y Xe TuoxHeT. | Hegoctato¬h$n ypobeha macna b kaptepe gbnfatene. | * ¶o6abnta macna go bepxhen otmetkn ha macnon3mepntenahom yyme.
 |
| He¢TdbNubHo¢Tb 1d¢ToTª Bpd]eHNª eoueH1dToTo Bdud (obopoTª “NudBdŒT”). | Hegoctato¬ho tomnnba. | * 3ampabnta 6ak tomnnbom
 |
| Tomnnbo he moctymaet. | * Hpobepnta tomnnbh$n $nnatp. 3amehnta efo, ecnn oh fpe3h$n.
* Hpobepnta tomnnbh$n 6ak, o¬nctnta efo ot b3bemehh$x mpnmecen nnn fpe3n.
 |
| B cnctemy moga¬n tomnnba momann boga nnn bo3gyx. | * Hpobepnta tomnnbompobog n mtyyepa efo mogcoegnhehne. B cny¬ae hencmpabhoctn otpemohtnpobata nnn

3amehnta nx. |
| * Vgannta bo3gyx n3 tomnnbhon cnctem$.
 |
| * Vgannta bogy n3 tomnnbhofo 6aka n

$nnatpa. |
| He 3atehyt$ coegnhehne tomnnbompoboga b$cokofo gabnehne. | * 3atehyta coegnhehne.
 |
| ¶BNTdTeub HeoXNpdHHo o¢TdHoBNu¢ª Bo BpeMª pdboTª. | Hegoctato¬ho tomnnba. | * 3ampabnta 6ak tomnnbom.
 |
| Hegoctato¬h$n ypobeha motophofo macna. | * Bocctahobnta hopmanah$n ypobeha macna.
 |
| Cnnmkom b$cokae temmepatypa oxnamgaŒyen mngkoctn:* Hegoctato¬h$n ypobeha oxnamgaŒyen mngkoctn;
* Cna6o hatehyt pemeha mpnboga bogehofo hacoca;
* 3a6nt pagnatop.
 | * Bocctahobnta hopmanah$n ypobeha oxnamgaŒyen mngkoctn.
* Hatehyta pemeha mpnboga bogehofo hacoca n behtnnetopa.
* Hpom$ta pagnatop.
 |
| * O6p$b pemhe mpnboga behtnnetopa.
 | * 3amehnta pemeha.
 |
| * Hencmpabeh fehepatop.
 | * 3amehnta fehepatop.
 |
| ¶N3eub-TeHepdTop He pd3BNBdeT NouHyŒ BªxopHyŒ Mo]Ho¢Tb. Nop HdTpy3eou NdpdeT 1d¢ToTd Bpd]eHNª pBNTdTeuª. | Cnnaho 3afpe3heh bo3gymh$n $nnatp. | * 3amehnta $nnatpyŒynn 3nemeht bo3gymhofo $nnatpa.
 |
| 3a6nta cnctema moga¬n tomnnba. | * Hpobepnta n bocctahobnta hopmanahyŒ moga¬y tomnnba.
 |
| Cnnaho 3afpe3heh tomnnbh$n $nnatp. | * O¬nctnta nnn 3amehnta $nnatp.
 |
| B$pa6otah pecypc motophofo macna. | * 3amehnta b gbnfatene macno.
 |
| Cnnmkom bennka moyhocta hafpy3kn, mogknŒ¬ehhon k b$xogy fehepatopa. | * Cm. pa3gen “Fehepatop”.
 |
| Te1b oxudXpdŒ]eu XNpeo¢TN. | Hegoctato¬h$n ypobeha oxnamgaŒyen mngkoctn. | * Bocctahobnta hopmanah$n ypobeha oxnamgaŒyen mngkoctn.
 |
| Cna6o hatehyt pemeha mpnboga bogehofo hacoca. | * Hatehyta pemeha mpnboga bogehofo hacoca n behtnnetopa.
 |
| 3a6nt pagnatop. | * Hpom$ta pagnatop.
 |
| NpN pdboTe pBNTdTeuª ⎝BeT BªxuoNHªx Td3oB oTuN1deT¢ª oT obª1HoTo. | Cnnaho 3afpe3heh bo3gymh n $nnatp. | * 3amehnta $nnatpyŒynn 3nemeht.
 |
| Cnnmkom b coknn ypobeha macna b kaptepe gbnfatene. | * Vctahobnta ypobeha macna mo bepxhen otmetke ha macnon3mepntenahom yyme.
 |
| Ncmona3yetce gn3enahoe tomnnbo hn3kofo kajectba. | * 3amehnta gn3enahoe tomnnbo ha b cokokajectbehhoe.
 |
| NpN pdboTe pBNTdTeuªNoªBuªŒT¢ª HeHopMdubHªe 3ByKN N NoBªNeHHdª BNbpd⎝Nª. | Pa3pymehne pe3nhob x bn6pogemm$npyŒynx mogymek kpemnehne gbnfatene. | * 3amehnta mogymkn gbnfatene.
 |
| ¶pyfne mpnjnh . | * Vctahobnte n yctpahnte.
 |

* ¶ahh n myhkt othocntce tonako k gbnfatenem mogenen D1005 n Y1305.

Hpn bo3hnkhobehnn cepae3h x hemonagok o6payanteca k pefnohanahomy gnnepy $npm KUBOTA.

# buOK CNCTEMª ABTOMATN1ECKOTO NYCKA N OCTAHOBA ¶BNTATEuª

¶ne mogknŒ¬ehne bhemhefo 6noka cnctem abtomatn-

¬eckofo mycka n octahoba gbnfatene c nebon ctopoh mahenn ympabnehne gn3ena-fehepatopa mpegycmotpeha cmeynanahae knemmhae konogka c cootbetctbyŒynmn b bogamn.

¶ne mogknŒ¬ehne bhemhefo 6noka k gn3ena-fehepatopy b monhnte cnegyŒyne omepaynn:

1. Chnmnte kp mky, 3akp baŒyyŒ knemmhyŒ konogky.
2. Ncmona3ye mpnnafaem n mfyt mpobogob n nhctpyk- ynŒ mo 3kcmnyataynn cnctem abtomatn¬eckofo myc- ka n octahoba gbnfatene, b monhnte mogknŒ¬ehne 6noka k otbetbneŒynm knemmam.
3. Hocne 3abepmehne yctahobnte kp mky, 3akp baŒ- yyŒ knemmhyŒ konogky, mpegbapntenaho mepebep- hyb ee ha 180 °C.

Cmeyn$nkayne n cxema mogknŒ¬ehne knemm otbetbne- Œynx b bogob mpnbegeha b pa3gene “Hpnhynmnanahae 3nektpn¬eckae cxema” (cm. ctp. 131).

Ⓢ *Hahena ympabnehne*

Ⓢ *Knemmhae nOnOgna c b bOgamn, mpegha3ha¬ehh mn gne bhemherO mOgnnŒ¬ehne*

Ⓢ *Kp mna nnemmhOn nOnOgnn, mpegha3ha¬ehhOn gne bhemherO mOgnnŒ¬ehne*

NpNMe1dHNe.

* + V gbnfatenen mogenen D1005 n Y1305 knemmh e ko- nogkn, mpegha3ha¬ehh e gne bhemhefo mogknŒ¬e- hne, pacmonomeh c mpabon ctopoh mahenn ympab- nehne gn3ena-fehepatopa.