|  |
| --- |
| INSTRUCTIONhay ANUALmay ORfay  OTORmay-IVENdray EARgay UMPSpay  AUXhay. Olay UMPpay  ITEMhay Onay.：11gay-12/gay02 |

onay.3-3Ahay

|  |  |
| --- | --- |
| ontentscay | agepay |
| afetysay Instructionshay | 2 |
| 1. urposepay | 3 |
| 2. opescay ofhay Applicationhay | 3 |
| 3. Outlinehay ofhay onstructioncay | 3 |
| 4. ansporttray | 3 |
| 5. eventionpray ofhay ibrationvay | 3 |
| 6. Installationhay | 4 |
| 7. ipingpay | 4 |
| 8. onnectioncay  8-1 Alignmenthay  8-2 eckingchay ofhay alignmenthay orfay uresay exflay ouplingcay | 4 |
| 9. Operationhay  9-1 eparationpray eforebay Operationhay  9-2 Operationhay  9-3 oppingstay | 6 |
| 10. aintenancemay  10-1 autionscay uringday Operationhay  10-2 autionscay uringday andstillstay | 7 |
| 11. Inspectionhay  11-1 eriodicalpay Inspectionhay  11-2 Overhaulhay  11-3 Assemblyhay | 8 |
| 12. oublestray andhay emediesray | 11 |

**AFETYsay INSTRUCTIONShay**

|  |
| --- |
| AUTIONScay ORfay OURyay AFETYsay |
| eforebay usinghay isthay umppay, eadray ethay INSTRUCTIONhay ANUALmay (say). ollowfay ARNINGway ABELlay(say),  INSTRUCTIONhay (say) andhay AUTIONcay ATEplay (say) inhay orderhay otay usehay ithay orrectlycay. Ithay ishay alsohay ighlyhay ecommendedray  otay ALWAYShay EEPkay ethay INSTRUCTIONhay ANUALmay (say) athay ethay AMEsay ACEplay orfay easyhay accesshay.  ANSPORTATIONtray, INSTALLATIONhay, IPINGpay, IRINGway, OPERATIONhay INSPECTIONhay andhay AINTENANCEmay  ORKway ustmay ebay oneday byay ONLYhay ahay ICENSEDlay andhay / orhay AUTHORIZEDhay ERSONpay(say) owhay ashay enoughhay owledgeknay  onhay ealthhay andhay afetysay ulesray andhay egulationsray ashay ellway ashay onhay ishay orhay erhay ofessionpray.  Inhay anyhay espectray, eway illway OTnay UARANTEEgay anyhay EATHday, INJURIEShay, AMAGESday ANDhay OSSESlay ichwhay arehay  esultray inhay odificationmay ithoutway ourhay ittenwray authorizationhay orhay usinghay andhay assemblinghay unauthorizedhay artspay.  enwhay ISPOSINGday ahay umppay, anyhay accessorieshay, usedhay artspay andhay oilhay, eythay ouldshay ebay eatedtray ashay ahay eneralgay  INDUSTRIALhay ASTEway.  ARNINGway ABELlay(say) andhay IGNsay inhay ethay instructionhay anualmay(say) arehay assifiedclay intohay ARNINGway, AUTIONcay andhay  OTICEnay ashay escribedday elowbay.  ARNINGway : indicateshay ahay otentiallypay azardoushay ituationsay ichwhay, ifhay otnay avoidedhay, ouldcay esultray inhay eathday orhay  erioussay injuryhay.  AUTIONcay : indicateshay ahay otentiallypay azardoushay ituationsay ichwhay, ifhay otnay avoidedhay, aymay esultray inhay inormay orhay  oderatemay injuryhay  OTICEnay : indicateshay ahay otentiallypay azardoushay ituationsay ichwhay, ifhay otnay avoidedhay, aymay esultray inhay amagingday  orhay efectingday ahay oductpray. Ithay illway ebay onlyhay usedhay orfay otectingpray ethay opertypray, utbay otnay orfay  ersonalpay afetysay.  ootnotefay : ANSIhay zay 535 |
| ARNINGway |
| ANSPORTATIONtray andhay INSTALLATIONhay  ＊ ANSPORTATIONtray orkway ustmay ebay arriedcay byay onlyhay ahay ICENSEDlay orhay AUTHORIZEDhay ERSONpay(say) owhay  ashay enoughhay owledgeknay onhay ishay orhay erhay ofessionpray : ecialspay attentionhay andhay autioncay arehay equiredray enwhay ittingfay ahay  ANGINGhay IREway inhay elationray otay itshay eightway andhay avitygray entercay.  OPPINGdray orhay ALLINGfay → EATHday orhay ERIOUSsay INJURYhay.  OPERATIONhay andhay ANIPULATIONmay  ＊ EVERnay ALLOWhay anhay UNAUTHORIZEDhay ERSONpay otay operatehay ethay umppay. Oday OTnay OUCHtay orhay ontactcay otay  OTATINGray artspay orhay ortionpay(say).  OTATINGray → OLLEDray INhay, ITbay, INCHEDpay andhay ILLEDspay (ontactedcay ingsthay) |
| AUTIONcay |
| OPERATIONhay andhay ANIPULATIONmay  ＊ Oday OTnay OUCHtay orhay ontactcay otay EALINGsay artpay orhay OThay artspay ilewhay ethay umppay ishay INhay OPERATIONhay.  OThay → URNEDbay andhay INJUREDhay  INSPECTIONhay andhay AINTENANCEmay  ＊ enwhay OVERHAULINGhay ethay umppay, arefullycay andlehay ethay EAVYhay eightedway artspay ; especiallyhay, ittingfay ahay  ANGINGhay IREway.  OPPINGdray orhay ALLINGfay → INJURYhay.  ＊ eforebay ARTINGstay ahay AINTENANCEmay orkway, earlyclay INGsay INhay AINTENANCEmay ORKway andhay UTcay  ELECTRIChay UPPLYsay.  ELECTRIChay OCKshay → EATHday  UNINTENDEDhay OTATIONray → OLLEDray INhay, ITbay andhay INCHEDpay. |
| OTICEnay |
| OPERATIONhay andhay ANIPULATIONmay  ＊ ithoutway ahay ecificspay urposepay, oday otnay anipulatemay ethay alvesvay andhay ockscay attachedhay otay orhay uppliedsay orfay ethay umppay.  ONGwray ANIPULATIONmay → AMAGINGday orhay EFECTINGday ethay umppay. |

**1. urposepay**

isthay anualmay ashay eenbay eparedpray orfay ethay andardstay otormay-ivendray eargay umpspay usedhay orfay ethay onveniencecay ofhay ersonspay oncernedcay ithway andlinghay umpspay.

**2. opescay ofhay Applicationhay**

isthay anualmay ishay applicablehay otay Ahay. cay. otormay-ivendray ordinaryhay umpspay uchsay ashay ubricatinglay oilhay, uelfay oilhay andhay uelfay alvevay oolingcay oilhay umpspay. ( ereinafterhay alledcay umpspay. )

**3. Outlinehay ofhay onstructioncay**

isthay umppay ashay inhay itshay asingcay onehay etsay ofhay eargay andhay aftshay upportedsay ithway earingsbay andhay iquidlay ishay ontainedcay etweenbay ethay eethtay. ithway ethay otationray ofhay ethay eargay, iquidlay ishay ontinuouslycay ischargedday aroundhay ethay asingcay insidehay. ( eesay ethay eferenceray igurefay )

ethay earingsbay ocatedlay insidehay ethay ealsay ectionsay arehay elfsay-ubricatedlay ithway ethay iquidlay.

ethay ubricationlay iquidlay ishay uppliedsay otay oilhay assagepay oughthray oilhay openingshay ovidedpray onhay ethay ischargeday idesay andhay ishay eturnedray otay ethay uctionsay idesay afterhay ubricationlay ofhay ethay earingsbay.

ethay afetysay alvevay otectspray ethay umppay orhay ethay otormay byay openinghay ethay ortpay andhay byay-assingpay ethay iquidlay otay ethay uctionsay idesay enwhay ethay ischargeday essurepray isesray abnormallyhay igherhay anthay ethay etsay essurepray.

eferenceray : ethay ocedurepray orfay ontrollingcay ethay etsay essurepray ishay atthay afterhay ethay adjusthay ewscray ofhay

ethay afetysay alvevay ishay ullyfay ightenedtay ithway ischargeday uctionsay alvesvay ullyfay openhay, esethay

alvesvay arehay aduallygray osedclay otay etsay ethay ischargeday essurepray athay ethay etsay essurepray andhay

ethay uctionsay essurepray athay -380mmhgay. enthay ethay adjusthay ewscray ishay owlyslay oosedlay andhay

ockedlay athay ahay ointpay erewhay ethay ischargeday essurepray orhay ethay uctionsay essurepray uctuatesflay

eryvay owlyslay. enwhay ontrolcay ishay overhay umppay operationhay ishay artedstay ithway ischargeday

uctionsay alvesvay openhay.

**4. ansporttray**

Inhay ansporttray ithay ishay ecessarynay otay oceedpray ashay ollowsfay.

ahay. enwhay iftinglay, aypay attenhayiontay otay afetysay inhay espectray otay ethay eightway ofhay ethay unitshay iftedlay andhay ethay ethodmay ofhay usinghay iresway.

bay. ebay arefulcay otay avoidhay amageday otay accessorieshay uchsay ashay ipingpay, alvesvay, ockscay, etchay.

**5. eventionpray ofhay ibrationvay**

Inhay orderhay otay inimizemay ethay ibrationvay ofhay umppay andhay ipingpay, aypay ufficientsay attentionhay otay ethay einforcementray ofhay umppay oundationfay andhay ipingpay upportssay.

**6. Installationhay**

Inhay installationhay, aypay attentionhay ashay ollowsfay

ahay. umppay oundationfay ustmay ebay ashay igidray andhay ongstray ashay acticalpray.

bay. onsideringcay operationhay andhay overhaulhay, ivgayehay ashay amplehay acespay ashay ossiblepay.

cay. Installationhay acefay ustmay ebay atflay.

day. ocationlay ofhay installationhay ustmay ebay eterminedday inhay onsiderationcay ofhay umppay uctionsay eadhay.

**7. ipingpay**

ufficientsay attentionhay ustmay ebay ivengay otay ipingpay incesay ithay ashay ahay eatgray effecthay onhay umppay erformancepay.

ahay. uctionsay ipepay ustmay ebay ashay ortshay ashay ossiblepay, andhay endsbay ustmay ebay ashay ewfay ashay ossiblepay otay inimizemay ictionfray osslay.

bay. uctionsay ipepay ustmay ebay eefray omfray airhay ocketpay orhay airhay invasionhay.

cay. alvesvay onhay ethay uctionsay idesay ustmay ebay uardedgay againsthay airhay invasionhay oughthray ethay glayandhay.

day. ilterfay ustmay ebay ovidedpray onhay ethay uctionsay idesay orfay umppay otectionpray.

ehay. angesflay onnectingcay otay ethay uctionsay andhay ischargeday ozzlesnay ouldshay ebay acedplay orrectlycay inhay orderhay otay avoidhay isturbanceday ofhay umppay alignmenthay enwhay angeflay oltsbay arehay undulyhay ightenedtay.

fay. ecauprayionstay ustmay ebay akentay osay atthay expansionhay andhay ontractioncay ueday otay emperaturetay andhay eightway ofhay ipingpay andhay alvesvay aymay otnay abnormallyhay affecthay ethay umppay. Andhay athay ethay amesay imetay, ecautionspray ustmay ebay akentay otay avoidhay isalignmentmay ofhay ethay angeflay ausedcay byay ipepay ibrationvay.

gay. Inhayeriortay ofhay ethay ipingpay ustmay ebay ashay eanclay ashay ossiblepay.

**8. onnectioncay**

*8-1 Alignmenthay*

Onhay ompletingcay installationhay, ethay alignmenthay ustmay ebay eckedchay andhay arecay ustmay ebay akentay osay atthay onay isalignmentmay illway occurhay afterhay onnectingcay ithway ipingpay. incesay alignmenthay ishay ulyday arriedcay outhay inhay ethay actoryfay, unreasonablehay eadjustmentray ouldshay ebay avoidedhay.

Evenhay oughthay isalignmentmay occurshay, eadjustmentray ustmay ebay ademay arefullycay byay ooseninglay othbay ofhay ethay oltsbay onhay ethay uctionsay andhay ischargeday angesflay andhay ethay oundationfay. Afterhay ethay alignmenthay ishay ademay ahay ockknay inpay allshay ebay insertedhay.

orfay orizontalhay umppay, ithay ishay esirableday atthay adjustmenthay ebay ademay byay insertinghay ahay inerlay etweenbay ommoncay edplatebay andhay oundationfay, utbay ifhay ecessarynay, imsshay ancay ebay acedplay etweenbay ommoncay edplatebay andhay otormay asebay.

*8-2 eckingchay ofhay alignmenthay*

ahay. Untightenhay ethay oltsbay ofhay ethay aftshay ouplingcay etweenbay umppay andhay otormay andhay eckchay ethay alignmenthay athay ourfay ointspay, 90°aparthay, onhay ethay ouplingcay eripherypay.

1. orfay omparingcay ethay istanceday etweenbay ethay acesfay, ixfay ahay ialday indicatorhay onhay ethay aftshay ouplingcay ofhay ethay otormay idesay ashay ownshay inhay igfay.1(ahay)andhay ivegay ethay otormay ouplingcay onehay ompletecay otationray byay andhay. enthay alfhay ofhay ethay

ariationvay inhay eadingsray ishay akentay ashay ethay aluevay ofhay easurementmay, ichwhay ustmay omplycay ithway ethay aluevay inhay abletay 1.



abletay .1 abletay .2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| onay. ofhay otormay amefray | ouplingcay eripherypay  (mmay) |  | onay. ofhay otormay amefray | ouplingcay endhay acefay  (mmay) |
| may180lay(mlay5-180lay)  andhay esslay | 0.05 andhay esslay |  | may132may(mlay5-132may)  andhay esslay | 0.10 andhay esslay |
| may200may(mlay5-200may)  andhay oremay | 0.08 andhay esslay |  | may160may(mlay5-160may)  andhay oremay | 0.18 andhay esslay |

cay. orfay easuringmay ethay earanceclay etweenbay ouplingcay acesfay, inserthay ahay icknessthay augegay athay ourfay ointspay ofhay equalhay intervalhay ashay ownshay inhay igfay.1(bay). enthay ethay aluevay ofhay easurementmay, ichwhay ustmay omplycay ithway ethay aluevay inhay abletay 2.

day. Ensurehay ethay otatingray irectionday ofhay ethay otormay.

ehay. ightentay ethay ouplingcay oltsbay.

fay. otateray ethay umppay byay andhay otay eesay etherwhay ithay otatesray oothlysmay.

otenay : Ahay icknessthay augegay ouldshay ebay adoptedhay orfay alignmenthay onlyhay athay ethay imestay ofhay epairray, intermediatehay inspectionhay andhay

eriodicalpay inspectionhay. Ithay ishay eferablepray otay usehay ahay ialday indicatorhay orfay eckupchay afterhay initialhay installationhay orhay ipingpay

arrangementhay.

【 ORfay UREsay EXflay OUPLINGcay 】

\* Usehay aightstray edgehay orhay ahay alipercay ( asspay) ashay ownshay inhay igfay.1 orhay igfay.2.

\* Adjusthay alignmenthay otay omplycay ithway ethay aluesvay ownshay inhay abletay 1.

\* onfirmcay otormay otatingray irectionday andhay atthay umppay urnstay oothlysmay byay andshay.



abletay .1

|  |  |  |  |
| --- | --- | --- | --- |
| OUPLINGcay  IZEsay | OTORmay  AMEfray Onay. | ERRORShay OFhay  ECCENTRICITYhay  Ahay mmay | ERRORShay OFhay  ANGULARITYhay  bay1-bay2 mmay |
| 3say | 63  71 | 0.25 | 0.45 |
| 4say | 80  90lay | 0.25 | 0.55 |
| 5say | 100lay  112may | 0.38 | 0.7 |
| 6say | 132say  132may | 0.38 | 0.9 |
| 7say | 160may | 0.51 | 1.0 |

**9. Operationhay**

Operationhay afterhay installationhay orhay eassembleray ustmay ebay arriedcay outhay inhay ethay ollowingfay orderhay.

*9-1 eparationpray eforebay Operationhay*

ahay. ullyfay openhay ethay alvesvay ofhay othbay uctionsay andhay ischargeday idessay.

bay. Openhay ethay airhay entvay alvevay (orhay ockcay) onhay ethay asingcay optay otay illfay ethay asingcay ithway iquidlay.

cay. Ifhay ethay umppay ishay ocatedlay abovehay ethay uctionsay evellay, ullpay ethay ugplay outhay ofhay ethay asingcay optay andhay illfay ethay asingcay ithway oilhay ilewhay otatingray ethay umppay byay andhay inhay orderhay otay ullyfay eadspray oilhay overhay ethay eethtay andhay ethay earingsbay. eepkay ethay airhay entvay ugplay (orhay ockcay) onhay ethay iscdayargehay idesay openhay.

day. eesay atthay ethay ockcay (orhay ugplay) ofhay ethay essurepray augegay andhay ompoundcay augegay ishay openhay.

ehay. otateray ethay umppay byay andhay otay eesay etherwhay ithay urnstay oothlysmay.

*9-2 Operationhay*

ahay. artstay ethay otormay, utbay athay irstfay epeatray “ONhay” andhay “OFFhay” operationshay oncehay orhay icetway andhay enterhay intohay operationhay onhay onfirmingcay atthay erethay ishay onay abnormalhay onditioncay ithway espectray otay otatingray irectionday, oisenay, ibrationvay, artingstay urrentcay, etchay.

bay. ightentay ethay airhay entvay ugplay (orhay ockcay) afterhay eedspay ashay isenray, andhay airhay ishay ischargedday omfray ethay airhay entvay andhay iquidlay ishay umpedpay uphay inhay omesay imetay. Ifhay iquidlay ishay otnay umpedpay uphay inhay abouthay 30 econdssay afterhay artstay-uphay, opstay ethay otormay andhay eckchay ethay ausecay.

cay. Avoidhay dryay operationhay absolutelyhay ashay ethay idingslay ontactcay urfacessay ofhay ethay earingsbay, ethay eethtay andhay ethay echanicalmay ealsay arehay ohayfay elfsay-ubricationlay onstructioncay.

day. aypay ahay arefulcay attentionhay inhay ethay interway easonsay ecausebay erethay aymay ebay ahay earfay ofhay excessivehay orquetay ofhay otormay andhay abnormalhay oisenay andhay ibrationvay ofhay umppay ausedcay byay oilhay iscosityvay increasehay. omesay eatmenttray uchsay ashay eatinghay ishay eferablprayehay.

*9-3 oppingstay*

ahay. opstay ethay otormay.

bay. Afterhay oppingstay ethay umppay, oseclay ethay uctionsay alvevay andhay enthay oseclay ethay ischargeday alvevay.

**10. aintenancemay**

#### Inhay orderhay otay aintainmay anhay efficienthay operationhay overhay ahay onglay eriodpay, ethay utmosthay arecay ustmay ebay akentay.

*10-1 autionscay uringday Operationhay*

ahay. tryay otay operatehay ethay umppay ithinway ethay angeray ofhay ethay esignday onditioncay.

bay. eckchay ethay ibrationvay, oisenay, essurepray augegay andhay ammeterhay. Ifhay abnormalhay onditioncay ishay urveyedsay opstay ethay umppay immediatelyhay. articularlypay, orfay ethay umppay ovidedpray ithway ahay echanicalmay ealsay, otectpray againsthay ibrationvay inhay iewvay ofhay ethay ervicesay ifelay ofhay ethay echanicalmay ealsay.

cay. aypay attentionhay otay earingbay emperaturetay iseray. Ifhay ethay earingbay ousinghay ancay ebay eltfay byay andhay afelysay, erethay ishay onay earfay, otherwisehay, easuremay ethay emperaturetay ithway ahay ethayometerrmay. eepkay ethay ermissiblepay earingbay emperaturetay athay “ambienthay emperaturetay usplay 40℃” orhay “iquidlay emperaturetay usplay 20℃”. Ifhay owlay iscosityvay oilhay outsidehay ethay angeray ofhay esignday onditioncay, ebay arefulcay ashay ethay earingsbay andhay ethay eargay aymay ebay eizedsay.

day. eepkay ahay allsmay amounthay ofhay ontinuouscay eaklay omfray ethay andglay. ootay ardhay ighteningtay ofhay ethay ackingpay ilwaylay ausecay ematurepray earway ofhay ethay aftshay andhay ethay eeveslay, overheatinghay andhay overloadhay. Especiallyhay aypay ahay arefulcay attentionhay otay ahay asecay erewhay oilhay ofhay ighhay emperaturetay orhay owlay iscosityvay ishay usedhay.

ehay. enwhay ahay echanicalmay ealsay ishay usedhay, oilhay eaklay ishay enerallygay eryvay allsmay. Ifhay oilhay layeakshay inhay ipsdray, eckchay ethay ealsay.

fay. evernay ottlethray ethay alvevay onhay ethay uctionsay andhay ischargeday idessay. Adjusthay ethay owflay byay eansmay ofhay ethay byay-asspay alvevay onhay ethay ischargeday idesay.

gay. evernay operatehay ithway ethay alvevay osedclay onhay ethay ischargeday idesay, otherwisehay ahay emperaturetay iseray ohayfay ethay iquidlay inhay ethay asingcay illway ausecay eizuresay.

hay. eesay etherwhay ethay andstay byay umppay ishay eversingray ueday otay ethay eakagelay omfray itshay onnay eturnray alvevay.

ihay. Inhay ethay asecay ofhay ahay umppay ithway automatichay artingstay andhay oppingstay eviceday, eckchay ethay essurepray athay ethay artstay andhay opstay ofhay umpaypay ashay ellway ashay ethay intervalhay ofhay operationhay, andhay ifhay ethay intervalhay ishay ootay ortshay, eckchay ethay emsystay.

jay. Inhay ethay asecay ofhay automatichay operationhay underhay entralcay ontrolcay emsystay, aketay arecay ofhay ethay indicationhay ofhay augegay onhay ethay ontrolcay anelpay oardbay.

kay. eepkay ethay ainerstray eanclay otay avoidhay oggingclay.

*10-2 autionscay uringday andstillstay*

ahay. eepkay osedclay ethay ischargeday andhay uctionsay alvesvay. utbay uchsay alvesvay ustmay ebay eptkay openhay inhay ahay asecay erewhay ethay umppay ishay ofhay autohay artstay etypay ithway ahay ootfay alvevay orhay ahay eckchay alvevay, erewhay ethay umppay ishay underhay ositivepay uctionsay eadhay orhay erewhay oilhay ishay accumulatedhay inhay ethay umppay asingcay inhay omesay ayway orhay otherhay.

bay. enwhay ethay umppay ishay utshay ownday overhay ahay onglay eriodpay, ethay umppay ustmay ebay otatedray byay andhay orhay otormay eriodicallypay. ( oncehay ahay eekway orhay osay )

**11. Inspectionhay**

*11-1 eriodicalpay Inspectionhay*

Exceptinghay ethay asecay ofhay abnormalhay onditionscay, ithay ishay esirableday otay arrycay outhay inspectionhay eriodicallypay inhay ethay ollowingfay ayway, utbay incesay ithay ariesvay accordinghay otay ethay ethodmay ofhay ountingmay, aceplay ofhay installationhay, iquidlay andledhay, etchay. Ithay ishay eferablepray atthay ethay operatorhay ouldshay akemay ahay inalfay anplay ofhay inspectionhay inhay accordancehay ithway onditionscay.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Itemhay | Actionhay otay ebay akentay | eriodpay | | |
| Everyhay 3 onthsmay | Everyhay 12  onthsmay orhay  8,000 hrsay. | Everyhay 4  earsyay orhay  20,000 hrsay. |
| allbay earingbay | eckchay uphay innerhay andhay outerhay acesray ashay ellway ashay allsbay orfay exfoliationhay, andhay ifhay itshay ancetray ishay oundfay, enewray ithay. |  |  | ○ |
| inelay earingbay | eckchay uphay idingslay urfacessay orfay onditionscay  ofhay ontactcay andhay awflay. easuremay insidehay  iameterday andhay aketay ecessarynay epsstay  accordinghay otay anufacturemay’say  ecommendationray . |  | ○ |  |
| andglay ackingpay | eckchay uphay onditioncay ofhay ittingfay andhay amounthay  ofhay eakagelay. enewray ithay ifhay eakagelay ishay ootay  uchmay. | ○ |  |  |
| echanicalmay  ealsay | eckchay uphay onditioncay ofhay atingmay acesfay. |  | ○ |  |
| enewray ithay. |  |  | ○ |
| aftshay | eckchay uphay onditionscay ofhay ontactcay, awflay inhay  idingslay acesfay. easuremay ethay outsidehay  iameterday ofhay ournaljay andhay eattray ithay  accordinghay otay anufacturermay’say  ecommendationray. |  |  | ○ |
| “Ohay” ingray | eckchay uphay urfacesay awflay andhay onditioncay ofhay  eteriorationday. enewray ithay ifhay eformedday. |  | ○ |  |
| enewray ithay. |  |  | ○ |
| afetysay alvevay | ottlethray ethay ischargeday alvevay otay aiseray  ischargeday essurepray andhay onfirmcay  operationhay ofhay ethay afetysay alvevay |  | ○ |  |
| eargay | eckchay uphay oothtay urfacessay andhay onditioncay ofhay  itshay ettingsay otay ethay aftshay. easuremay ethay  outsidehay iameterday andhay idthway andhay eattray ithay  accordinghay otay anufacturermay’say  ecommendationray |  |  | ○ |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Itemhay | Actionhay otay ebay akentay | eriodpay | | |
| Everyhay 3 onthsmay | Everyhay 12  onthsmay orhay  8,000 hrsay. | Everyhay 4  earsyay orhay  20,000 hrsay. |
| aftshay ouplingcay oltsbay andhay  ubberray ingsray | eckchay uphay onditionscay ofhay earway andhay enewray  emthay ifhay abnormalhay ointspay arehay oundfay. |  | ○ |  |
| oundationfay  oltsbay | eesay otay ithay atthay ethay oundationfay oltsbay arehay  ightenedtay enoughhay. |  | ○ |  |

otenay : ethay ourshay uotedqay eferray otay ethay operatinghay ourshay.

*11-2 Overhaulhay*

enwhay overhaulinghay ethay umppay, attentionhay ustmay ebay aidpay ashay ollowsfay.

ahay. Understandhay ethay onstructioncay ellway byay eferringray otay ethay assemblyhay awingdray andhay akemay onay istamayekay inhay ethay orderhay ofhay overhaulhay.

bay. enwhay eparatingsay itfay andhay angeflay acesfay, usehay ackjay oltsbay andhay oodenway ammershay, andhay evernay applyhay orcefay ithway iselschay orhay iversdray.

cay. enwhay emovingray ethay otatingray elementhay, aketay arecay otay avoidhay awflay onhay idingslay acesfay andhay achinedmay urfacessay. Ithay ishay eferablepray otnay otay overhaulhay ethay echanicalmay ealsay unlesshay erethay ishay anythinghay abnormalhay.

day. enwhay emovingray otatingray artspay omfray ethay aftshay, awdray offhay eachhay onehay arefullycay afterhay emovingray ethay ockinglay eviceday.

ehay. andlehay ethay ongsizedlay-artspay uchsay ashay aftshay arefullycay osay atthay ithay aymay otnay endbay.

fay. andlehay ethay artspay arefullycay, byay arranginghay emthay onhay eetsshay ofhay aperpay orhay othclay inhay oodgay orderhay.

gay. Athay overhaulinghay, utpay uitablesay atchmay arksmay ashay anymay ashay ossiblepay otay avoidhay istakesmay enwhay eassemblingray.

*11-3 Assemblyhay*

arrycay outhay assemblyhay, byay eversingray ethay orderhay ofhay isassemblyday andhay ayingpay attentionhay ashay ollowsfay.

ahay. emoveray ustday andhay ainstay omfray eachhay artpay byay ashingway ithay oroughlythay ithway erosenekay. epairray ithay ifhay awflay ishay oundfay.

bay. itfay ethay ockinglay eviceday erfectlypay inhay eachhay otatingray artpay ifhay ecessarynay.

cay. enwhay fayittinghay ethay artspay ithway atchmay arksmay uchsay ashay ittingsfay andhay eargay, ebay uresay otay ollowfay emthay.

day. eforebay assemblinghay ethay idingslay ontactcay acesfay ofhay ethay earingsbay, oothtay acesfay andhay echanicalmay ealsay, applyhay enoughhay eanclay ubelay oilhay otay emthay.

ehay. enwhay ittingfay ethay earingsbay andhay idesay overcay, aketay intohay accounthay ethay ositionpay ofhay oilhay annelchay orfay earingbay ubelay oilhay andhay eturnray oilhay andhay ethay irectionday ofhay umppay ischargeday andhay uctionsay.

fay. Inserthay eachhay ackingpay inhay oodgay orderhay oftlysay onehay byay onehay omfray ethay ottombay, aggeringstay eachhay ointjay byay 90°orhay 180°otay ahay ixedfay ositionpay andhay upportsay ithay ightlylay ithway ethay ackingpay andglay.

gay. arefullycay itfay ethay echanicalmay ealsay andhay enthay onfirmcay itshay ovementmay byay andhay.

hay. ightentay ethay oltsbay ithway anhay equalhay orcefay.

ihay. eckchay uphay ethay alignmenthay ashay entionedmay inhay ectionsay 8.

jay. otateray ethay umppay byay andhay tayohay eesay atthay ithay urnstay oothlysmay.

12．oublestray andhay emediesray

ouldshay oublestray occurhay, eirthay ausescay ustmay ebay acedtray andhay ecessarynay emediesray ustmay ebay arriedcay outhay.

ethay ollowingfay, orfay instancehay, ancay ebay onceivablecay ashay oublestray.

|  |  |  |
| --- | --- | --- |
| oublestray | ausescay | emediesray |
| umppay oesday  otnay artstay. | ・otormay ishay inhay oubletray.  ・umppay eizessay.  ・onay owerpay ourcesay.  ・iringway ishay okenbray, orhay elayray, etchay.  arehay inhay oubletray.  ・oreignfay attersmay existhay inhay ethay umppay. | ・epairray otormay.  ・epairray umppay.  ・eckchay uphay electrichay emsystay.  ・epairray  ・Overhaulhay ethay umppay andhay emoveray  emthay. |
| umppay artsstay,  utbay oesday otnay ischargeday iquidlay. | ・umppay ishay otnay ellway illedfay ithway oilhay.  ・Airhay ishay otnay entedvay enoughhay.  ・alvesvay arehay otnay openhay.  ・alvesvay illway otnay openhay.  ・umppay ishay uckingsay airhay.  ・uctionsay ipepay orhay ainerstray ishay oggedclay.  ・otormay otatingray irectionday ishay ongwray. | ・illfay ithay againhay.  ・Openhay airhay ugplay (orhay ockcay)  ・Openhay alvesvay.  ・epairray alvesvay.  ・eckchay uphay uctionsay emsystay andhay  andglay ackingpay  ・eanclay uctionsay ipepay orhay ainerstray.  ・angechay iringway. |
| umppay artsstay,  utbay ecifiedspay apacitycay orhay  ischargeday essurepray arehay  otnay eachedray. | ・umppay ishay uckingsay airhay.  ・umppay eedspay arehay ootay owlay.  ・afetysay alvevay ishay openhay.  ・uctionsay ipepay orhay ainerstray ishay oggedclay.  ・iquidlay iscosityvay ishay ootay owlay.  ・eargay aftshay ishay ornway.  ・uctionsay essurepray ishay ootay ighhay.  ・Instrumentshay arehay ongwray. | ・eckchay uphay uctionsay emsystay andhay  andglay ackingpay  ・orrectcay electrichay ourcesay.  ・Adjusthay itshay ettingsay.  ・eanclay ithay.  ・eckchay esignday ecificationspay.  ・enewray ithay.  ・eckchay iscosityvay. ・uctionsay essurepray allshay ebay ithinway -380mmhgay.  ・onfirmcay ullfay openinghay ofhay uctionsay  alvevay.  ・eplaceray emthay ithway ewnay oneshay. |

|  |  |  |
| --- | --- | --- |
| oublestray | ausescay | emediesray |
| umppay artsstay  andhay ischargesday  iquidlay utbay  oonsay easescay otay ischargeday  iquidlay. | ・Airhay ocketspay existhay inhay uctionsay inelay.  ・umppay ishay uckingsay airhay.  ・umppay ishay uckingsay airhay oughthray  uffingstay oxbay. | ・orrectcay ipingpay.  ・eckchay uphay uctionsay emsystay.  ・eckchay uphay ealingsay ipepay  ・Adjusthay echanicalmay ealsay.  ・Adjusthay ackingpay. |
| umppay artsstay, utbay  otormay etsgay  overloadedhay. | ・Abnormalhay etalmay ontactcay existshay inhay  ethay otatingray artspay.  ・onnectioncay ishay ongwray.  ・ackingpay ishay ootay ightenedtay.  ・umppay aftshay ishay entbay.  ・otormay ishay inhay oubletray.  ・iquidlay iscosityvay ishay ootay ighhay.  ・oreignfay attersmay existhay inhay ethay umppay.  ・ischargeday essurepray ishay ootay ighhay.  ・earingsbay arehay ongwray. | ・eckchay earanceclay.    ・eckchay uphay alignmenthay.  ・oosenlay andglay orhay otherwisehay enewray  ackingpay  ・enewray aftshay.  ・epairray ithay.  ・onformcay ithay otay esignday onditioncay.  ・emoveray emthay.  ・onformcay ithay otay esignday onditioncay.  ・enewray emthay. |
| umppay artsstay,  utbay earingsbay  etgay overheatedhay. | ・ubricantlay ishay inhay ortageshay.  ・onnectioncay ishay ongwray.  ・earingsbay arehay ongwray.  ・aftshay ishay entbay.  ・ustthray ashay increasedhay.  ・earingbay assemblyhay ishay ongwray. | ・eckchay oilhay upplysay otay earingsbay andhay  eturnray oilhay emsystay.  ・eckchay uphay alignmenthay.  ・enewray emthay.  ・enewray ithay.  ・eckchay etherwhay excessivehay earway  existshay onhay earingbay idesay orhay etherwhay  umppay ishay inhay abnormalhay uctionsay  essurepray onditioncay.  ・eadjustray earingsbay. |
| umppay artsstay,  utbay ibrationvay andhay accidentialhay oisenay akestay  aceplay. | ・onnectingcay ishay ongwray.  ・aftshay ishay entbay.  ・Installationhay ishay ongwray.  ・oundationfay ishay eakway.  ・Otherhay ibrationvay ishay ansmittedtray.  ・avitationcay existshay.  ・earingsbay arehay ornway.  ・afetysay alvevay ishay atteringchay.  ・oreignfay attersmay existhay inhay ethay umppay.  ・oothtay ontactcay ishay ongwray. | ・eckchay uphay alignmenthay.  ・enewray aftshay.  ・orrectcay installationhay onditioncay.  ・einforceray oundationfay.  ・einforceray ipingpay.  ・onformcay uctionsay essurepray andhay  iscosityvay otay esignday onditioncay.  ・enewray emthay.  ・epairray ithay  ・Overhaulhay ethay umppay otay emoveray  emthay.  ・enewray ethay eargay. |

### Inhay asecay oublestray annotcay ebay emediedray inhay itespay ofhay ethay abovehay ountercay-easuresmay, ethay ausescay aymay

### ebay inhay ethay esignday onditionscay ofhay ethay umppay, osay ithay ishay eferablepray otay onsultcay anufacturermay.