

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0022286032](#)  
**Status:** **Active**  
**Description:** 2.54mm (.100") Pitch KK® Header, Breakaway, Right Angle, 3 Circuits, 0.38µm (15µ") Gold (Au) Selective Plating, Mating Pin Length 9.17mm (.361")

**Documents:**

[3D Model](#) [Product Specification PS-10-07 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

CSA LR19980  
 UL E29179

**General**

Product Family PCB Headers  
 Series [42376](#)  
 Application Board-to-Board, Wire-to-Board  
 Product Name KK®

**Physical**

Breakaway Yes  
 Circuits (Loaded) 3  
 Circuits (maximum) 3  
 Color - Resin Black  
 Durability (mating cycles max) 25  
 Flammability 94V-0  
 Glow-Wire Compliant No  
 Material - Metal Brass  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin High Temperature Thermoplastic  
 Number of Rows 1  
 Orientation Right Angle  
 PC Tail Length (in) 0.120 In  
 PC Tail Length (mm) 3.05 mm  
 PCB Locator No  
 PCB Retention None  
 PCB Thickness Recommended (in) 0.062 In  
 PCB Thickness Recommended (mm) 1.60 mm  
 Packaging Type Bag  
 Pitch - Mating Interface (in) 0.100 In  
 Pitch - Mating Interface (mm) 2.54 mm  
 Plating min: Mating (µin) 15  
 Plating min: Mating (µm) 0.375  
 Plating min: Termination (µin) 100  
 Plating min: Termination (µm) 2.5  
 Polarized to Mating Part No  
 Polarized to PCB No  
 Shrouded No  
 Stackable No  
 Surface Mount Compatible (SMC) No  
 Temperature Range - Operating 0°C to +75°C  
 Termination Interface: Style Through Hole

**Electrical**

Current - Maximum per Contact 4A



**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC Contains SVHC: No**  
**Halogen-Free Status**  
**Not Reviewed**

**China RoHS**



**Need more information on product environmental compliance?**

Email [productcompliance@molex.com](mailto:productcompliance@molex.com)  
 For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

**Search Parts in this Series**

[42376Series](#)

**Mates With**

[2695](#) , [6471](#) , [7880](#) , [4455](#) , [7720](#) , [70430](#) , [7859](#) , L ink:[90148](#), [90147](#) , [70400a](#) , [70066a](#) , [40556](#)

Voltage - Maximum 250V

**Solder Process Data**

Duration at Max. Process Temperature (seconds) 5  
Lead-free Process Capability Wave Capable (TH only)  
Max. Cycles at Max. Process Temperature 1  
Process Temperature max. C 235

**Material Info**

Old Part Number 42376-0038

**Reference - Drawing Numbers**

Product Specification PS-10-07  
Sales Drawing SD-42376-001

This document was generated on 03/21/2010

**PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION**

| NO. CKTS | DIM. A | DIM. B |
|----------|--------|--------|
| 2        | 5.08   | 2.54   |
| 3        | 7.62   | 5.08   |
| 4        | 10.16  | 7.62   |
| 5        | 12.70  | 10.16  |
| 6        | 15.24  | 12.70  |
| 7        | 17.78  | 15.24  |
| 8        | 20.32  | 17.78  |
| 9        | 22.86  | 20.32  |
| 10       | 25.40  | 22.86  |
| 11       | 27.94  | 25.40  |
| 12       | 30.48  | 27.94  |
| 13       | 33.02  | 30.48  |
| 14       | 35.56  | 33.02  |
| 15       | 38.10  | 35.56  |
| 16       | 40.64  | 38.10  |
| 17       | 43.18  | 40.64  |
| 18       | 45.72  | 43.18  |
| 19       | 48.26  | 45.72  |
| 20       | 50.80  | 48.26  |
| 21       | 53.34  | 50.80  |
| 22       | 55.88  | 53.34  |
| 23       | 58.42  | 55.88  |
| 24       | 60.96  | 58.42  |
| 25       | 63.50  | 60.96  |
| 26       | 66.04  | 63.50  |
| 27       | 68.58  | 66.04  |
| 28       | 71.12  | 68.58  |
| 29       | 73.66  | 71.12  |
| 30       | 76.20  | 73.66  |
| 31       | 78.74  | 76.20  |
| 32       | 81.28  | 78.74  |
| 33       | 83.82  | 81.28  |
| 34       | 86.36  | 83.82  |
| 35       | 88.90  | 86.36  |
| 36       | 91.44  | 88.90  |



DETAIL X  
SCALE 5:1  
SEE NOTE 10



DETAIL Y  
SCALE 5:1  
SEE NOTE 10



DETAIL Z  
SCALE 5:1



- NOTES:
- MATERIAL: GLASS FILLED NYLON UL94V-0, COLOR: BLACK
  - FINISH:
    - (154)\* OVERALL TIN: 0.00254/.000100 MIN. OVER NICKEL: 0.00127/.000050 MIN.
    - (208) SELECT GOLD: 0.00038/.000015 MIN. \* SELECT TIN: 0.00254/.000100 MIN. WITH OVERALL NICKEL UNDERPLATE: 0.00127/.000050 MIN.
    - (228) SELECT GOLD: 0.00076/.000030 MIN. \* SELECT TIN: 0.00254/.000100 MIN. WITH OVERALL NICKEL UNDERPLATE: 0.00127/.000050 MIN.
  - THE PRIMARY SHIPPING CARTON WILL BE LABELED \*COMPLIANT TO ROHS DIRECTIVE 2002/95/EC AND ELV ANNEX II OF DIRECTIVE 2000/53/EC. CARTONS WITHOUT THIS LABEL MAY CONTAIN PRODUCT WITH TIN-LEAD PLATINGS.
  - PRODUCT SPECIFICATION: PS 10-07.
  - PACKAGING INFORMATION: SEE TABLES
  - SOLDERABILITY PER SMES-152.
  - PIN PUSH OUT FORCE: 3 LBS. MIN
  - SEE SMES-42003 FOR ADDITIONAL INFORMATION ON KINK PIN DIRECTION AND PLACEMENT.
  - HEADERS ARE NOT STACKABLE ON 2.54/.100 CENTERS.
  - PARTS CONFORM TO CLASS B REQUIREMENTS OF COSMETIC SPECIFICATION PS-45499-002.
  - PIN TIP DIMENSIONS ARE SHOWN FOR REFERENCE ONLY. DIMENSIONS APPLY PRIOR TO PLATING OR ASSEMBLY.

|     |     |
|-----|-----|
| 2-* | K13 |
| 1   | K13 |
| SHT | REV |



PCB LAYOUT: COMPONENT SIDE  
PCB THICKNESS: 1.571.062

|  |                               |   |   |                          |                  |  |                      |   |  |                      |  |
|--|-------------------------------|---|---|--------------------------|------------------|--|----------------------|---|--|----------------------|--|
| <b>ADD PART NUMBERS</b><br>EC NO: UCP2009-1603<br>DRW: MKIPPER 2009/04/17<br>CHKD: JBELL 2009/04/23<br>APPR: FSMITH 2009/04/23 | QUALITY SYMBOLS<br>▽=0<br>▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED)   |   | DIMENSION STYLE<br>MM/IN |                  | SCALE<br>1:1   | DESIGN UNITS<br>INCH | THIRD ANGLE PROJECTION  |  |                      |  |
|  |                               | 4 PLACES ± --- ± ---<br>3 PLACES ± --- ± .010<br>2 PLACES ± 0.25 ± .015<br>1 PLACE ± 0.38 ± --- | mm INCH<br>± --- ± ---<br>± --- ± .010<br>± 0.25 ± .015<br>± 0.38 ± --- | DRAWN BY<br>JSCHAFFER    | DATE<br>11/24/03 | TITLE<br>KK 100 HEADER ASSEMBLY<br>FLAT RIGHT ANGLE<br>BREAKAWAY |                      | MOLEX INCORPORATED  |  | SHEET NO.<br>1 OF 10 |  |
|  |                               | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                      |   | APPROVED BY<br>MARGULIS  | DATE<br>12/7/03  | DOCUMENT NO.<br>SD-42376-001                                     |                      | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |                      |  |
|  |                               | MATERIAL NO.<br>SEE CHART   |   | SIZE<br>B                |                  | INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION   |                      |   |  |                      |  |

| A-42376-0002 / 0036 |                 |                    |      |                 |            | A-42376-0037 / 0071 |                 |                    |      |                 |            |
|---------------------|-----------------|--------------------|------|-----------------|------------|---------------------|-----------------|--------------------|------|-----------------|------------|
| HEADER NUMBER:      |                 | 42312-0002/0036    |      |                 |            | HEADER NUMBER:      |                 | 42312-0002/0036    |      |                 |            |
| PIN NUMBER:         |                 | 42663-BKA154       |      |                 |            | PIN NUMBER:         |                 | 42663-BKB208       |      |                 |            |
| PIN LENGTH: L       |                 | .600/15.24         |      |                 |            | PIN LENGTH: L       |                 | .600/15.24         |      |                 |            |
| MATING LENGTH: M    |                 | .361/9.17          |      |                 |            | MATING LENGTH: M    |                 | .361/9.17          |      |                 |            |
| GOLD POINT: G       |                 | N/A                |      |                 |            | GOLD POINT: G       |                 | .180/4.57          |      |                 |            |
| PIN HEIGHT: Y       |                 | .142/3.61          |      |                 |            | PIN HEIGHT: Y       |                 | .142/3.61          |      |                 |            |
| PC TAIL LENGTH: P   |                 | .120/3.05          |      |                 |            | PC TAIL LENGTH: P   |                 | .120/3.05          |      |                 |            |
| TIN: T              |                 | OVERALL            |      |                 |            | TIN: T              |                 | .135/3.43          |      |                 |            |
| CKTS:               |                 | 2-36               |      |                 |            | CKTS:               |                 | 2-36               |      |                 |            |
| KINKS:              |                 | NONE               |      |                 |            | KINKS:              |                 | NONE               |      |                 |            |
| REMOVED BACKWALLS:  |                 | NONE               |      |                 |            | REMOVED BACKWALLS:  |                 | NONE               |      |                 |            |
| VOIDED CKTS:        |                 | NONE               |      |                 |            | VOIDED CKTS:        |                 | NONE               |      |                 |            |
| PACKAGING:          |                 | BULK PK-40873-0041 |      |                 |            | PACKAGING:          |                 | BULK PK-40873-0041 |      |                 |            |
| CKTS                | MATERIAL NUMBER | ENG NUMBER         | CKTS | MATERIAL NUMBER | ENG NUMBER | CKTS                | MATERIAL NUMBER | ENG NUMBER         | CKTS | MATERIAL NUMBER | ENG NUMBER |
| 02                  | 22-28-6020      | 42376-0002         | 20   | 22-28-6200      | 42376-0020 | 02                  | 22-28-6022      | 42376-0037         | 20   | 22-28-6202      | 42376-0055 |
| 03                  | 22-28-6030      | 42376-0003         | 21   | 22-28-6210      | 42376-0021 | 03                  | 22-28-6032      | 42376-0038         | 21   | 22-28-6212      | 42376-0056 |
| 04                  | 22-28-6040      | 42376-0004         | 22   | 22-28-6220      | 42376-0022 | 04                  | 22-28-6042      | 42376-0039         | 22   | 22-28-6222      | 42376-0057 |
| 05                  | 22-28-6050      | 42376-0005         | 23   | 22-28-6230      | 42376-0023 | 05                  | 22-28-6052      | 42376-0040         | 23   | 22-28-6232      | 42376-0058 |
| 06                  | 22-28-6060      | 42376-0006         | 24   | 22-28-6240      | 42376-0024 | 06                  | 22-28-6062      | 42376-0041         | 24   | 22-28-6242      | 42376-0059 |
| 07                  | 22-28-6070      | 42376-0007         | 25   | 22-28-6250      | 42376-0025 | 07                  | 22-28-6072      | 42376-0042         | 25   | 22-28-6252      | 42376-0060 |
| 08                  | 22-28-6080      | 42376-0008         | 26   | 22-28-6260      | 42376-0026 | 08                  | 22-28-6082      | 42376-0043         | 26   | 22-28-6262      | 42376-0061 |
| 09                  | 22-28-6090      | 42376-0009         | 27   | 22-28-6270      | 42376-0027 | 09                  | 22-28-6092      | 42376-0044         | 27   | 22-28-6272      | 42376-0062 |
| 10                  | 22-28-6100      | 42376-0010         | 28   | 22-28-6280      | 42376-0028 | 10                  | 22-28-6102      | 42376-0045         | 28   | 22-28-6282      | 42376-0063 |
| 11                  | 22-28-6110      | 42376-0011         | 29   | 22-28-6290      | 42376-0029 | 11                  | 22-28-6112      | 42376-0046         | 29   | 22-28-6292      | 42376-0064 |
| 12                  | 22-28-6120      | 42376-0012         | 30   | 22-28-6300      | 42376-0030 | 12                  | 22-28-6122      | 42376-0047         | 30   | 22-28-6302      | 42376-0065 |
| 13                  | 22-28-6130      | 42376-0013         | 31   | 22-28-6310      | 42376-0031 | 13                  | 22-28-6132      | 42376-0048         | 31   | 22-28-6312      | 42376-0066 |
| 14                  | 22-28-6140      | 42376-0014         | 32   | 22-28-6320      | 42376-0032 | 14                  | 22-28-6142      | 42376-0049         | 32   | 22-28-6322      | 42376-0067 |
| 15                  | 22-28-6150      | 42376-0015         | 33   | 22-28-6330      | 42376-0033 | 15                  | 22-28-6152      | 42376-0050         | 33   | 22-28-6332      | 42376-0068 |
| 16                  | 22-28-6160      | 42376-0016         | 34   | 22-28-6340      | 42376-0034 | 16                  | 22-28-6162      | 42376-0051         | 34   | 22-28-6342      | 42376-0069 |
| 17                  | 22-28-6170      | 42376-0017         | 35   | 22-28-6350      | 42376-0035 | 17                  | 22-28-6172      | 42376-0052         | 35   | 22-28-6352      | 42376-0070 |
| 18                  | 22-28-6180      | 42376-0018         | 36   | 22-28-6360      | 42376-0036 | 18                  | 22-28-6182      | 42376-0053         | 36   | 22-28-6362      | 42376-0071 |
| 19                  | 22-28-6190      | 42376-0019         |      |                 |            | 19                  | 22-28-6192      | 42376-0054         |      |                 |            |

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|--|---|--|-----------------------------|
| REV:<br><b>K13</b>                       | ECR / ECN INFORMATION:<br>EC No.: <b>UCP2009-1603</b><br>DATE: <b>4/23/2009</b> | TITLE:<br><b>KK 100 HEADER ASSEMBLY<br/>FLAT RIGHT ANGLE<br/>BREAKAWAY</b> | SHEET No.<br><b>- 2 -</b>   |
| DOCUMENT NUMBER:<br><b>SD- 42376-001</b> |   | CREATED / REVISED BY:<br><b>MKIPPER</b>                                    | CHECKED BY:<br><b>JBELL</b> |
|  |   | APPROVED BY:<br><b>FSMITH</b>  |                             |

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| A-42376-0072 / 0106 |                 |                    |      |                 |            |
|---------------------|-----------------|--------------------|------|-----------------|------------|
| HEADER NUMBER:      |                 | 42312-0002/0036    |      |                 |            |
| PIN NUMBER:         |                 | 42663-BKB228       |      |                 |            |
| PIN LENGTH: L       |                 | .600/15.24         |      |                 |            |
| MATING LENGTH: M    |                 | .361/9.17          |      |                 |            |
| GOLD POINT: G       |                 | .180/4.57          |      |                 |            |
| PIN HEIGHT: Y       |                 | .142/3.61          |      |                 |            |
| PC TAIL LENGTH: P   |                 | .120/3.05          |      |                 |            |
| TIN: T              |                 | .135/3.43          |      |                 |            |
| CKTS:               |                 | 2-36               |      |                 |            |
| KINKS:              |                 | NONE               |      |                 |            |
| REMOVED BACKWALLS:  |                 | NONE               |      |                 |            |
| VOIDED CKTS:        |                 | NONE               |      |                 |            |
| PACKAGING:          |                 | BULK PK-40873-0041 |      |                 |            |
| CKTS                | MATERIAL NUMBER | ENG NUMBER         | CKTS | MATERIAL NUMBER | ENG NUMBER |
| 02                  | 22-28-6024      | 42376-0072         | 20   | 22-28-6204      | 42376-0090 |
| 03                  | 22-28-6034      | 42376-0073         | 21   | 22-28-6214      | 42376-0091 |
| 04                  | 22-28-6044      | 42376-0074         | 22   | 22-28-6224      | 42376-0092 |
| 05                  | 22-28-6054      | 42376-0075         | 23   | 22-28-6234      | 42376-0093 |
| 06                  | 22-28-6064      | 42376-0076         | 24   | 22-28-6244      | 42376-0094 |
| 07                  | 22-28-6074      | 42376-0077         | 25   | 22-28-6254      | 42376-0095 |
| 08                  | 22-28-6084      | 42376-0078         | 26   | 22-28-6264      | 42376-0096 |
| 09                  | 22-28-6094      | 42376-0079         | 27   | 22-28-6274      | 42376-0097 |
| 10                  | 22-28-6104      | 42376-0080         | 28   | 22-28-6284      | 42376-0098 |
| 11                  | 22-28-6114      | 42376-0081         | 29   | 22-28-6294      | 42376-0099 |
| 12                  | 22-28-6124      | 42376-0082         | 30   | 22-28-6304      | 42376-0100 |
| 13                  | 22-28-6134      | 42376-0083         | 31   | 22-28-6314      | 42376-0101 |
| 14                  | 22-28-6144      | 42376-0084         | 32   | 22-28-6324      | 42376-0102 |
| 15                  | 22-28-6154      | 42376-0085         | 33   | 22-28-6334      | 42376-0103 |
| 16                  | 22-28-6164      | 42376-0086         | 34   | 22-28-6344      | 42376-0104 |
| 17                  | 22-28-6174      | 42376-0087         | 35   | 22-28-6354      | 42376-0105 |
| 18                  | 22-28-6184      | 42376-0088         | 36   | 22-28-6364      | 42376-0106 |
| 19                  | 22-28-6194      | 42376-0089         |      |                 |            |

| A-42376-0107 / 0141 |                 |                    |      |                 |            |
|---------------------|-----------------|--------------------|------|-----------------|------------|
| HEADER NUMBER:      |                 | 42312-0002/0036    |      |                 |            |
| PIN NUMBER:         |                 | 42663-CXA154       |      |                 |            |
| PIN LENGTH: L       |                 | .750/19.05         |      |                 |            |
| MATING LENGTH: M    |                 | .405/10.29         |      |                 |            |
| GOLD POINT: G       |                 | N/A                |      |                 |            |
| PIN HEIGHT: Y       |                 | .248/6.30          |      |                 |            |
| PC TAIL LENGTH: P   |                 | .120/3.05          |      |                 |            |
| TIN: T              |                 | OVERALL            |      |                 |            |
| CKTS:               |                 | 2-36               |      |                 |            |
| KINKS:              |                 | NONE               |      |                 |            |
| REMOVED BACKWALLS:  |                 | NONE               |      |                 |            |
| VOIDED CKTS:        |                 | NONE               |      |                 |            |
| PACKAGING:          |                 | BULK PK-40873-0043 |      |                 |            |
| CKTS                | MATERIAL NUMBER | ENG NUMBER         | CKTS | MATERIAL NUMBER | ENG NUMBER |
| 02                  | 22-28-6021      | 42376-0107         | 20   | 22-28-6201      | 42376-0125 |
| 03                  | 22-28-6031      | 42376-0108         | 21   | 22-28-6211      | 42376-0126 |
| 04                  | 22-28-6041      | 42376-0109         | 22   | 22-28-6221      | 42376-0127 |
| 05                  | 22-28-6051      | 42376-0110         | 23   | 22-28-6231      | 42376-0128 |
| 06                  | 22-28-6061      | 42376-0111         | 24   | 22-28-6241      | 42376-0129 |
| 07                  | 22-28-6071      | 42376-0112         | 25   | 22-28-6251      | 42376-0130 |
| 08                  | 22-28-6081      | 42376-0113         | 26   | 22-28-6261      | 42376-0131 |
| 09                  | 22-28-6091      | 42376-0114         | 27   | 22-28-6271      | 42376-0132 |
| 10                  | 22-28-6101      | 42376-0015         | 28   | 22-28-6281      | 42376-0133 |
| 11                  | 22-28-6111      | 42376-0116         | 29   | 22-28-6291      | 42376-0134 |
| 12                  | 22-28-6121      | 42376-0117         | 30   | 22-28-6301      | 42376-0135 |
| 13                  | 22-28-6131      | 42376-0118         | 31   | 22-28-6311      | 42376-0136 |
| 14                  | 22-28-6141      | 42376-0119         | 32   | 22-28-6321      | 42376-0137 |
| 15                  | 22-28-6151      | 42376-0120         | 33   | 22-28-6331      | 42376-0138 |
| 16                  | 22-28-6161      | 42376-0121         | 34   | 22-28-6341      | 42376-0139 |
| 17                  | 22-28-6171      | 42376-0122         | 35   | 22-28-6351      | 42376-0140 |
| 18                  | 22-28-6181      | 42376-0123         | 36   | 22-28-6361      | 42376-0141 |
| 19                  | 22-28-6191      | 42376-0124         |      |                 |            |

|  |   |  |                               |
|--|---|--|-------------------------------|
| REV:<br><b>K13</b>                       | ECR / ECN INFORMATION:<br>EC No.: <b>UCP2009-1603</b><br>DATE: <b>4/23/2009</b> | TITLE:<br><b>KK 100 HEADER ASSEMBLY<br/>FLAT RIGHT ANGLE<br/>BREAKAWAY</b> | SHEET No.<br><b>- 3 -</b>     |
| DOCUMENT NUMBER:<br><b>SD- 42376-001</b> | CREATED / REVISED BY:<br><b>MKIPPER</b>   | CHECKED BY:<br><b>JBELL</b>  | APPROVED BY:<br><b>FSMITH</b> |

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|---------------------|--|--------------------|--|--|--|
| A-42376-0142 / 0176 |  |                    |  |  |  |
| HEADER NUMBER:      |  | 42312-0002/0036    |  |  |  |
| PIN NUMBER:         |  | 42663-CXB208       |  |  |  |
| PIN LENGTH: L       |  | .750/19.05         |  |  |  |
| MATING LENGTH: M    |  | .405/10.29         |  |  |  |
| GOLD POINT: G       |  | .180/4.57          |  |  |  |
| PIN HEIGHT: Y       |  | .248/6.30          |  |  |  |
| PC TAIL LENGTH: P   |  | .120/3.05          |  |  |  |
| TIN: T              |  | .135/3.43          |  |  |  |
| CKTS:               |  | 2-36               |  |  |  |
| KINKS:              |  | NONE               |  |  |  |
| REMOVED BACKWALLS:  |  | NONE               |  |  |  |
| VOIDED CKTS:        |  | NONE               |  |  |  |
| PACKAGING:          |  | BULK PK-40873-0043 |  |  |  |

| CKTS | MATERIAL NUMBER | ENG NUMBER | CKTS | MATERIAL NUMBER | ENG NUMBER |
|------|-----------------|------------|------|-----------------|------------|
| 02   | 22-28-6023      | 42376-0142 | 20   | 22-28-6203      | 42376-0160 |
| 03   | 22-28-6033      | 42376-0143 | 21   | 22-28-6213      | 42376-0161 |
| 04   | 22-28-6043      | 42376-0144 | 22   | 22-28-6223      | 42376-0162 |
| 05   | 22-28-6053      | 42376-0145 | 23   | 22-28-6233      | 42376-0163 |
| 06   | 22-28-6063      | 42376-0146 | 24   | 22-28-6243      | 42376-0164 |
| 07   | 22-28-6073      | 42376-0147 | 25   | 22-28-6253      | 42376-0165 |
| 08   | 22-28-6083      | 42376-0148 | 26   | 22-28-6263      | 42376-0166 |
| 09   | 22-28-6093      | 42376-0149 | 27   | 22-28-6273      | 42376-0167 |
| 10   | 22-28-6103      | 42376-0150 | 28   | 22-28-6283      | 42376-0168 |
| 11   | 22-28-6113      | 42376-0151 | 29   | 22-28-6293      | 42376-0169 |
| 12   | 22-28-6123      | 42376-0152 | 30   | 22-28-6303      | 42376-0170 |
| 13   | 22-28-6133      | 42376-0153 | 31   | 22-28-6313      | 42376-0171 |
| 14   | 22-28-6143      | 42376-0154 | 32   | 22-28-6323      | 42376-0172 |
| 15   | 22-28-6153      | 42376-0155 | 33   | 22-28-6333      | 42376-0173 |
| 16   | 22-28-6163      | 42376-0156 | 34   | 22-28-6343      | 42376-0174 |
| 17   | 22-28-6173      | 42376-0157 | 35   | 22-28-6353      | 42376-0175 |
| 18   | 22-28-6183      | 42376-0158 | 36   | 22-28-6363      | 42376-0176 |
| 19   | 22-28-6193      | 42376-0159 |      |                 |            |

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| A-42376-0177 / 0211 |  |                    |  |  |  |
| HEADER NUMBER:      |  | 42312-0002/0036    |  |  |  |
| PIN NUMBER:         |  | 42663-CXB228       |  |  |  |
| PIN LENGTH: L       |  | .750/19.05         |  |  |  |
| MATING LENGTH: M    |  | .405/10.29         |  |  |  |
| GOLD POINT: G       |  | .180/4.57          |  |  |  |
| PIN HEIGHT: Y       |  | .248/6.30          |  |  |  |
| PC TAIL LENGTH: P   |  | .120/3.05          |  |  |  |
| TIN: T              |  | .135/3.43          |  |  |  |
| CKTS:               |  | 2-36               |  |  |  |
| KINKS:              |  | NONE               |  |  |  |
| REMOVED BACKWALLS:  |  | NONE               |  |  |  |
| VOIDED CKTS:        |  | NONE               |  |  |  |
| PACKAGING:          |  | BULK PK-40873-0043 |  |  |  |

| CKTS | MATERIAL NUMBER | ENG NUMBER | CKTS | MATERIAL NUMBER | ENG NUMBER |
|------|-----------------|------------|------|-----------------|------------|
| 02   | 22-28-6025      | 42376-0177 | 20   | 22-28-6205      | 42376-0195 |
| 03   | 22-28-6035      | 42376-0178 | 21   | 22-28-6215      | 42376-0196 |
| 04   | 22-28-6045      | 42376-0179 | 22   | 22-28-6225      | 42376-0197 |
| 05   | 22-28-6055      | 42376-0180 | 23   | 22-28-6235      | 42376-0198 |
| 06   | 22-28-6065      | 42376-0181 | 24   | 22-28-6245      | 42376-0199 |
| 07   | 22-28-6075      | 42376-0182 | 25   | 22-28-6255      | 42376-0200 |
| 08   | 22-28-6085      | 42376-0183 | 26   | 22-28-6265      | 42376-0201 |
| 09   | 22-28-6095      | 42376-0184 | 27   | 22-28-6275      | 42376-0202 |
| 10   | 22-28-6105      | 42376-0185 | 28   | 22-28-6285      | 42376-0203 |
| 11   | 22-28-6115      | 42376-0186 | 29   | 22-28-6295      | 42376-0204 |
| 12   | 22-28-6125      | 42376-0187 | 30   | 22-28-6305      | 42376-0205 |
| 13   | 22-28-6135      | 42376-0188 | 31   | 22-28-6315      | 42376-0206 |
| 14   | 22-28-6145      | 42376-0189 | 32   | 22-28-6325      | 42376-0207 |
| 15   | 22-28-6155      | 42376-0190 | 33   | 22-28-6335      | 42376-0208 |
| 16   | 22-28-6165      | 42376-0191 | 34   | 22-28-6345      | 42376-0209 |
| 17   | 22-28-6175      | 42376-0192 | 35   | 22-28-6355      | 42376-0210 |
| 18   | 22-28-6185      | 42376-0193 | 36   | 22-28-6365      | 42376-0211 |
| 19   | 22-28-6195      | 42376-0194 |      |                 |            |

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| REV:<br><b>K13</b>                       | ECR / ECN INFORMATION:<br>EC No.: <b>UCP2009-1603</b><br>DATE: <b>4/23/2009</b> | TITLE:<br><b>KK 100 HEADER ASSEMBLY<br/>FLAT RIGHT ANGLE<br/>BREAKAWAY</b> | SHEET No.<br><b>- 4 -</b>   |
| DOCUMENT NUMBER:<br><b>SD- 42376-001</b> |   | CREATED / REVISED BY:<br><b>MKIPPER</b>                                    | CHECKED BY:<br><b>JBELL</b> |
|  |   | APPROVED BY:<br><b>FSMITH</b>  |                             |

| A-42376-0212 / 0246 |                 |                    |      |                 |            | A-42376-0247 / 0281 |                 |                    |      |                 |            |
|---------------------|-----------------|--------------------|------|-----------------|------------|---------------------|-----------------|--------------------|------|-----------------|------------|
| HEADER NUMBER:      |                 | 42312-0002/0036    |      |                 |            | HEADER NUMBER:      |                 | 42312-0002/0036    |      |                 |            |
| PIN NUMBER:         |                 | 42663-BNA154       |      |                 |            | PIN NUMBER:         |                 | 42663-BNB208       |      |                 |            |
| PIN LENGTH: L       |                 | .615/15.62         |      |                 |            | PIN LENGTH: L       |                 | .615/15.62         |      |                 |            |
| MATING LENGTH: M    |                 | .361/9.17          |      |                 |            | MATING LENGTH: M    |                 | .361/9.17          |      |                 |            |
| GOLD POINT: G       |                 | N/A                |      |                 |            | GOLD POINT: G       |                 | .180/4.57          |      |                 |            |
| PIN HEIGHT: Y       |                 | .142/3.61          |      |                 |            | PIN HEIGHT: Y       |                 | .142/3.61          |      |                 |            |
| PC TAIL LENGTH: P   |                 | .135/3.43          |      |                 |            | PC TAIL LENGTH: P   |                 | .135/3.43          |      |                 |            |
| TIN: T              |                 | OVERALL            |      |                 |            | TIN: T              |                 | .135/3.43          |      |                 |            |
| CKTS:               |                 | 2-36               |      |                 |            | CKTS:               |                 | 2-36               |      |                 |            |
| KINKS:              |                 | PER SMES-42003     |      |                 |            | KINKS:              |                 | PER SMES-42003     |      |                 |            |
| REMOVED BACKWALLS:  |                 | NONE               |      |                 |            | REMOVED BACKWALLS:  |                 | NONE               |      |                 |            |
| VOIDED CKTS:        |                 | NONE               |      |                 |            | VOIDED CKTS:        |                 | NONE               |      |                 |            |
| PACKAGING:          |                 | BULK PK-40873-0041 |      |                 |            | PACKAGING:          |                 | BULK PK-40873-0041 |      |                 |            |
| CKTS                | MATERIAL NUMBER | ENG NUMBER         | CKTS | MATERIAL NUMBER | ENG NUMBER | CKTS                | MATERIAL NUMBER | ENG NUMBER         | CKTS | MATERIAL NUMBER | ENG NUMBER |
| 02                  | 22-28-7020      | 42376-0212         | 20   | 22-28-7200      | 42376-0230 | 02                  | 22-28-7022      | 42376-0247         | 20   | 22-28-7202      | 42376-0265 |
| 03                  | 22-28-7030      | 42376-0213         | 21   | 22-28-7210      | 42376-0231 | 03                  | 22-28-7032      | 42376-0248         | 21   | 22-28-7212      | 42376-0266 |
| 04                  | 22-28-7040      | 42376-0214         | 22   | 22-28-7220      | 42376-0232 | 04                  | 22-28-7042      | 42376-0249         | 22   | 22-28-7222      | 42376-0267 |
| 05                  | 22-28-7050      | 42376-0215         | 23   | 22-28-7230      | 42376-0233 | 05                  | 22-28-7052      | 42376-0250         | 23   | 22-28-7232      | 42376-0268 |
| 06                  | 22-28-7060      | 42376-0216         | 24   | 22-28-7240      | 42376-0234 | 06                  | 22-28-7062      | 42376-0251         | 24   | 22-28-7242      | 42376-0269 |
| 07                  | 22-28-7070      | 42376-0217         | 25   | 22-28-7250      | 42376-0235 | 07                  | 22-28-7072      | 42376-0252         | 25   | 22-28-7252      | 42376-0270 |
| 08                  | 22-28-7080      | 42376-0218         | 26   | 22-28-7260      | 42376-0236 | 08                  | 22-28-7082      | 42376-0253         | 26   | 22-28-7262      | 42376-0271 |
| 09                  | 22-28-7090      | 42376-0219         | 27   | 22-28-7270      | 42376-0237 | 09                  | 22-28-7092      | 42376-0254         | 27   | 22-28-7272      | 42376-0272 |
| 10                  | 22-28-7100      | 42376-0220         | 28   | 22-28-7280      | 42376-0238 | 10                  | 22-28-7102      | 42376-0255         | 28   | 22-28-7282      | 42376-0273 |
| 11                  | 22-28-7110      | 42376-0221         | 29   | 22-28-7290      | 42376-0239 | 11                  | 22-28-7112      | 42376-0256         | 29   | 22-28-7292      | 42376-0274 |
| 12                  | 22-28-7120      | 42376-0222         | 30   | 22-28-7300      | 42376-0240 | 12                  | 22-28-7122      | 42376-0257         | 30   | 22-28-7302      | 42376-0275 |
| 13                  | 22-28-7130      | 42376-0223         | 31   | 22-28-7310      | 42376-0241 | 13                  | 22-28-7132      | 42376-0258         | 31   | 22-28-7312      | 42376-0276 |
| 14                  | 22-28-7140      | 42376-0224         | 32   | 22-28-7320      | 42376-0242 | 14                  | 22-28-7142      | 42376-0259         | 32   | 22-28-7322      | 42376-0277 |
| 15                  | 22-28-7150      | 42376-0225         | 33   | 22-28-7330      | 42376-0243 | 15                  | 22-28-7152      | 42376-0260         | 33   | 22-28-7332      | 42376-0278 |
| 16                  | 22-28-7160      | 42376-0226         | 34   | 22-28-7340      | 42376-0244 | 16                  | 22-28-7162      | 42376-0261         | 34   | 22-28-7342      | 42376-0279 |
| 17                  | 22-28-7170      | 42376-0227         | 35   | 22-28-7350      | 42376-0245 | 17                  | 22-28-7172      | 42376-0262         | 35   | 22-28-7352      | 42376-0280 |
| 18                  | 22-28-7180      | 42376-0228         | 36   | 22-28-7360      | 42376-0246 | 18                  | 22-28-7182      | 42376-0263         | 36   | 22-28-7362      | 42376-0281 |
| 19                  | 22-28-7190      | 42376-0229         |      |                 |            | 19                  | 22-28-7192      | 42376-0264         |      |                 |            |

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| REV:<br><b>K13</b>                       | ECR / ECN INFORMATION:<br>EC No.: <b>UCP2009-1603</b><br>DATE: <b>4/23/2009</b> | TITLE:<br><b>KK 100 HEADER ASSEMBLY<br/>FLAT RIGHT ANGLE<br/>BREAKAWAY</b> | SHEET No.<br><b>- 5 -</b>   |
| DOCUMENT NUMBER:<br><b>SD- 42376-001</b> |   | CREATED / REVISED BY:<br><b>MKIPPER</b>                                    | CHECKED BY:<br><b>JBELL</b> |
|  |   | APPROVED BY:<br><b>FSMITH</b>  |                             |

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| A-42376-0282/ 0316 |  |                    |  |  |  |
| HEADER NUMBER:     |  | 42312-0002/0036    |  |  |  |
| PIN NUMBER:        |  | 42663-BNB228       |  |  |  |
| PIN LENGTH: L      |  | .615/15.62         |  |  |  |
| MATING LENGTH: M   |  | .361/9.17          |  |  |  |
| GOLD POINT: G      |  | .180/4.57          |  |  |  |
| PIN HEIGHT: Y      |  | .142/3.61          |  |  |  |
| PC TAIL LENGTH: P  |  | .135/3.43          |  |  |  |
| TIN: T             |  | .135/3.43          |  |  |  |
| CKTS:              |  | 2-36               |  |  |  |
| KINKS:             |  | PER SMES-42003     |  |  |  |
| REMOVED BACKWALLS: |  | NONE               |  |  |  |
| VOIDED CKTS:       |  | NONE               |  |  |  |
| PACKAGING:         |  | BULK PK-40873-0041 |  |  |  |

| CKTS | MATERIAL NUMBER | ENG NUMBER | CKTS | MATERIAL NUMBER | ENG NUMBER |
|------|-----------------|------------|------|-----------------|------------|
| 02   | 22-28-7024      | 42376-0282 | 20   | 22-28-7204      | 42376-0300 |
| 03   | 22-28-7034      | 42376-0283 | 21   | 22-28-7214      | 42376-0301 |
| 04   | 22-28-7044      | 42376-0284 | 22   | 22-28-7224      | 42376-0302 |
| 05   | 22-28-7054      | 42376-0285 | 23   | 22-28-7234      | 42376-0303 |
| 06   | 22-28-7064      | 42376-0286 | 24   | 22-28-7244      | 42376-0304 |
| 07   | 22-28-7074      | 42376-0287 | 25   | 22-28-7254      | 42376-0305 |
| 08   | 22-28-7084      | 42376-0288 | 26   | 22-28-7264      | 42376-0306 |
| 09   | 22-28-7094      | 42376-0289 | 27   | 22-28-7274      | 42376-0307 |
| 10   | 22-28-7104      | 42376-0290 | 28   | 22-28-7284      | 42376-0308 |
| 11   | 22-28-7114      | 42376-0291 | 29   | 22-28-7294      | 42376-0309 |
| 12   | 22-28-7124      | 42376-0292 | 30   | 22-28-7304      | 42376-0310 |
| 13   | 22-28-7134      | 42376-0293 | 31   | 22-28-7314      | 42376-0311 |
| 14   | 22-28-7144      | 42376-0294 | 32   | 22-28-7324      | 42376-0312 |
| 15   | 22-28-7154      | 42376-0295 | 33   | 22-28-7334      | 42376-0313 |
| 16   | 22-28-7164      | 42376-0296 | 34   | 22-28-7344      | 42376-0314 |
| 17   | 22-28-7174      | 42376-0297 | 35   | 22-28-7354      | 42376-0315 |
| 18   | 22-28-7184      | 42376-0298 | 36   | 22-28-7364      | 42376-0316 |
| 19   | 22-28-7194      | 42376-0299 |      |                 |            |

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|---------------------|--|--------------------|--|--|--|
| A-42376-0317 / 0351 |  |                    |  |  |  |
| HEADER NUMBER:      |  | 42312-0002/0036    |  |  |  |
| PIN NUMBER:         |  | 42663-DAA154       |  |  |  |
| PIN LENGTH: L       |  | .765/19.43         |  |  |  |
| MATING LENGTH: M    |  | .405/10.29         |  |  |  |
| GOLD POINT: G       |  | N/A                |  |  |  |
| PIN HEIGHT: Y       |  | .248/6.30          |  |  |  |
| PC TAIL LENGTH: P   |  | .135/3.43          |  |  |  |
| TIN: T              |  | OVERALL            |  |  |  |
| CKTS:               |  | 2-36               |  |  |  |
| KINKS:              |  | PER SMES-42003     |  |  |  |
| REMOVED BACKWALLS:  |  | NONE               |  |  |  |
| VOIDED CKTS:        |  | NONE               |  |  |  |
| PACKAGING:          |  | BULK PK-40873-0043 |  |  |  |

| CKTS | MATERIAL NUMBER | ENG NUMBER | CKTS | MATERIAL NUMBER | ENG NUMBER |
|------|-----------------|------------|------|-----------------|------------|
| 02   | 22-28-7021      | 42376-0317 | 20   | 22-28-7201      | 42376-0335 |
| 03   | 22-28-7031      | 42376-0318 | 21   | 22-28-7211      | 42376-0336 |
| 04   | 22-28-7041      | 42376-0319 | 22   | 22-28-7221      | 42376-0337 |
| 05   | 22-28-7051      | 42376-0320 | 23   | 22-28-7231      | 42376-0338 |
| 06   | 22-28-7061      | 42376-0321 | 24   | 22-28-7241      | 42376-0339 |
| 07   | 22-28-7071      | 42376-0322 | 25   | 22-28-7251      | 42376-0340 |
| 08   | 22-28-7081      | 42376-0323 | 26   | 22-28-7261      | 42376-0341 |
| 09   | 22-28-7091      | 42376-0324 | 27   | 22-28-7271      | 42376-0342 |
| 10   | 22-28-7101      | 42376-0325 | 28   | 22-28-7281      | 42376-0343 |
| 11   | 22-28-7111      | 42376-0326 | 29   | 22-28-7291      | 42376-0344 |
| 12   | 22-28-7121      | 42376-0327 | 30   | 22-28-7301      | 42376-0345 |
| 13   | 22-28-7131      | 42376-0328 | 31   | 22-28-7311      | 42376-0346 |
| 14   | 22-28-7141      | 42376-0329 | 32   | 22-28-7321      | 42376-0347 |
| 15   | 22-28-7151      | 42376-0330 | 33   | 22-28-7331      | 42376-0348 |
| 16   | 22-28-7161      | 42376-0331 | 34   | 22-28-7341      | 42376-0349 |
| 17   | 22-28-7171      | 42376-0332 | 35   | 22-28-7351      | 42376-0350 |
| 18   | 22-28-7181      | 42376-0333 | 36   | 22-28-7361      | 42376-0351 |
| 19   | 22-28-7191      | 42376-0334 |      |                 |            |

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| REV:                 | ECR / ECN INFORMATION:                                | TITLE:   | SHEET No.     |
| <b>K13</b>           | EC No.: <b>UCP2009-1603</b><br>DATE: <b>4/23/2009</b> | <b>KK 100 HEADER ASSEMBLY<br/>FLAT RIGHT ANGLE<br/>BREAKAWAY</b> | <b>- 6 -</b>  |
| DOCUMENT NUMBER:     | CREATED / REVISED BY:                                 | CHECKED BY:  | APPROVED BY:  |
| <b>SD- 42376-001</b> | <b>MKIPPER</b>  | <b>JBELL</b>   | <b>FSMITH</b> |



| A-42376-0352 / 0386 |                 |                    |      |                 |            | A-42376-0387 / 0421 |                 |                    |      |                 |            |
|---------------------|-----------------|--------------------|------|-----------------|------------|---------------------|-----------------|--------------------|------|-----------------|------------|
| HEADER NUMBER:      |                 | 42312-0002/0036    |      |                 |            | HEADER NUMBER:      |                 | 42312-0002/0036    |      |                 |            |
| PIN NUMBER:         |                 | 42663-DAB208       |      |                 |            | PIN NUMBER:         |                 | 42663-DAB228       |      |                 |            |
| PIN LENGTH: L       |                 | .765/19.43         |      |                 |            | PIN LENGTH: L       |                 | .765/19.43         |      |                 |            |
| MATING LENGTH: M    |                 | .405/10.29         |      |                 |            | MATING LENGTH: M    |                 | .405/10.29         |      |                 |            |
| GOLD POINT: G       |                 | .180/4.57          |      |                 |            | GOLD POINT: G       |                 | .180/4.57          |      |                 |            |
| PIN HEIGHT: Y       |                 | .248/6.30          |      |                 |            | PIN HEIGHT: Y       |                 | .248/6.30          |      |                 |            |
| PC TAIL LENGTH: P   |                 | .135/3.43          |      |                 |            | PC TAIL LENGTH: P   |                 | .135/3.43          |      |                 |            |
| TIN: T              |                 | .135/3.43          |      |                 |            | TIN: T              |                 | .135/3.43          |      |                 |            |
| CKTS:               |                 | 2-36               |      |                 |            | CKTS:               |                 | 2-36               |      |                 |            |
| KINKS:              |                 | PER SMES-42003     |      |                 |            | KINKS:              |                 | PER SMES-42003     |      |                 |            |
| REMOVED BACKWALLS:  |                 | NONE               |      |                 |            | REMOVED BACKWALLS:  |                 | NONE               |      |                 |            |
| VOIDED CKTS:        |                 | NONE               |      |                 |            | VOIDED CKTS:        |                 | NONE               |      |                 |            |
| PACKAGING:          |                 | BULK PK-40873-0043 |      |                 |            | PACKAGING:          |                 | BULK PK-40873-0043 |      |                 |            |
| CKTS                | MATERIAL NUMBER | ENG NUMBER         | CKTS | MATERIAL NUMBER | ENG NUMBER | CKTS                | MATERIAL NUMBER | ENG NUMBER         | CKTS | MATERIAL NUMBER | ENG NUMBER |
| 02                  | 22-28-7023      | 42376-0352         | 20   | 22-28-7203      | 42376-0370 | 02                  | 22-28-7025      | 42376-0387         | 20   | 22-28-7205      | 42376-0405 |
| 03                  | 22-28-7033      | 42376-0353         | 21   | 22-28-7213      | 42376-0371 | 03                  | 22-28-7035      | 42376-0388         | 21   | 22-28-7215      | 42376-0406 |
| 04                  | 22-28-7043      | 42376-0354         | 22   | 22-28-7223      | 42376-0372 | 04                  | 22-28-7045      | 42376-0389         | 22   | 22-28-7225      | 42376-0407 |
| 05                  | 22-28-7053      | 42376-0355         | 23   | 22-28-7233      | 42376-0373 | 05                  | 22-28-7055      | 42376-0390         | 23   | 22-28-7235      | 42376-0408 |
| 06                  | 22-28-7063      | 42376-0356         | 24   | 22-28-7243      | 42376-0374 | 06                  | 22-28-7065      | 42376-0391         | 24   | 22-28-7245      | 42376-0409 |
| 07                  | 22-28-7073      | 42376-0357         | 25   | 22-28-7253      | 42376-0375 | 07                  | 22-28-7075      | 42376-0392         | 25   | 22-28-7255      | 42376-0410 |
| 08                  | 22-28-7083      | 42376-0358         | 26   | 22-28-7263      | 42376-0376 | 08                  | 22-28-7085      | 42376-0393         | 26   | 22-28-7265      | 42376-0411 |
| 09                  | 22-28-7093      | 42376-0359         | 27   | 22-28-7273      | 42376-0377 | 09                  | 22-28-7095      | 42376-0394         | 27   | 22-28-7275      | 42376-0412 |
| 10                  | 22-28-7103      | 42376-0360         | 28   | 22-28-7283      | 42376-0378 | 10                  | 22-28-7105      | 42376-0395         | 28   | 22-28-7285      | 42376-0413 |
| 11                  | 22-28-7113      | 42376-0361         | 29   | 22-28-7293      | 42376-0379 | 11                  | 22-28-7115      | 42376-0396         | 29   | 22-28-7295      | 42376-0414 |
| 12                  | 22-28-7123      | 42376-0362         | 30   | 22-28-7303      | 42376-0380 | 12                  | 22-28-7125      | 42376-0397         | 30   | 22-28-7305      | 42376-0415 |
| 13                  | 22-28-7133      | 42376-0363         | 31   | 22-28-7313      | 42376-0381 | 13                  | 22-28-7135      | 42376-0398         | 31   | 22-28-7315      | 42376-0416 |
| 14                  | 22-28-7143      | 42376-0364         | 32   | 22-28-7323      | 42376-0382 | 14                  | 22-28-7145      | 42376-0399         | 32   | 22-28-7325      | 42376-0417 |
| 15                  | 22-28-7153      | 42376-0365         | 33   | 22-28-7333      | 42376-0383 | 15                  | 22-28-7155      | 42376-0400         | 33   | 22-28-7335      | 42376-0418 |
| 16                  | 22-28-7163      | 42376-0366         | 34   | 22-28-7343      | 42376-0384 | 16                  | 22-28-7165      | 42376-0401         | 34   | 22-28-7345      | 42376-0419 |
| 17                  | 22-28-7173      | 42376-0367         | 35   | 22-28-7353      | 42376-0385 | 17                  | 22-28-7175      | 42376-0402         | 35   | 22-28-7355      | 42376-0420 |
| 18                  | 22-28-7183      | 42376-0368         | 36   | 22-28-7363      | 42376-0386 | 18                  | 22-28-7185      | 42376-0403         | 36   | 22-28-7365      | 42376-0421 |
| 19                  | 22-28-7193      | 42376-0369         |      |                 |            | 19                  | 22-28-7195      | 42376-0404         |      |                 |            |

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| REV:<br><b>K13</b>                       | ECR / ECN INFORMATION:<br>EC No.: <b>UCP2009-1603</b><br>DATE: <b>4/23/2009</b> | TITLE:<br><b>KK 100 HEADER ASSEMBLY<br/>FLAT RIGHT ANGLE<br/>BREAKAWAY</b> | SHEET No.<br><b>- 7 -</b>   |
| DOCUMENT NUMBER:<br><b>SD- 42376-001</b> |   | CREATED / REVISED BY:<br><b>MKIPPER</b>                                    | CHECKED BY:<br><b>JBELL</b> |
|  |   | APPROVED BY:<br><b>FSMITH</b>  |                             |

| A-42376-0422/0456  |                 |                 |                 | A-42376-0549/0581  |                 |                    |                 | A-42376-0582/0616  |                 |                 |                 |
|--------------------|-----------------|-----------------|-----------------|--------------------|-----------------|--------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
| HEADER NUMBER:     |                 | 42312-0002/0036 |                 | HEADER NUMBER:     |                 | 42312-0004/0036    |                 | HEADER NUMBER:     |                 | 42312-0002/0036 |                 |
| PIN NUMBER:        |                 | 42663-ATA154    |                 | PIN NUMBER:        |                 | 42663-DAA154       |                 | PIN NUMBER:        |                 | 42663-DCA154    |                 |
| PIN LENGTH: L      |                 | .530/13.46      |                 | PIN LENGTH: L      |                 | .765/19.43         |                 | PIN LENGTH: L      |                 | .775/19.69      |                 |
| MATING LENGTH: M   |                 | .276/7.01       |                 | MATING LENGTH: M   |                 | .405/10.29         |                 | MATING LENGTH: M   |                 | .524/13.31      |                 |
| GOLD POINT: G      |                 | N/A             |                 | GOLD POINT: G      |                 | N/A                |                 | GOLD POINT: G      |                 | N/A             |                 |
| PIN HEIGHT: Y      |                 | .142/3.61       |                 | PIN HEIGHT: Y      |                 | .248/6.30          |                 | PIN HEIGHT: Y      |                 | .142/3.61       |                 |
| PC TAIL LENGTH: P  |                 | .135/3.43       |                 | PC TAIL LENGTH: P  |                 | .135/3.43          |                 | PC TAIL LENGTH: P  |                 | .131/3.33       |                 |
| TIN: T             |                 | OVERALL         |                 | TIN: T             |                 | OVERALL            |                 | TIN: T             |                 | OVERALL         |                 |
| CKTS:              |                 | 2-36            |                 | CKTS:              |                 | 4-36               |                 | CKTS:              |                 | 2-36            |                 |
| KINKS:             |                 | PER SMES-42003  |                 | KINKS:             |                 | PER SMES-42003     |                 | KINKS:             |                 | NONE            |                 |
| REMOVED BACKWALLS: |                 | NONE            |                 | REMOVED BACKWALLS: |                 | NONE               |                 | REMOVED BACKWALLS: |                 | NONE            |                 |
| VOIDED CKTS:       |                 | NONE            |                 | VOIDED CKTS:       |                 | 3                  |                 | VOIDED CKTS:       |                 | NONE            |                 |
| PACKAGING          |                 | PK-40873-0041   |                 | PACKAGING          |                 | BULK PK-40873-0043 |                 | PACKAGING          |                 | PK-40873-0043   |                 |
| CKTS               | MATERIAL NUMBER | CKTS            | MATERIAL NUMBER | CKTS               | MATERIAL NUMBER | CKTS               | MATERIAL NUMBER | CKTS               | MATERIAL NUMBER | CKTS            | MATERIAL NUMBER |
| 02                 | 42376-0422      | 20              | 42376-0440      | 02                 |                 | 20                 | 42376-0565      | 02                 | 42376-0582      | 20              | 42376-0600      |
| 03                 | 42376-0423      | 21              | 42376-0441      | 03                 |                 | 21                 | 42376-0566      | 03                 | 42376-0583      | 21              | 42376-0601      |
| 04                 | 42376-0424      | 22              | 42376-0442      | 04                 | 42376-0549      | 22                 | 42376-0567      | 04                 | 42376-0584      | 22              | 42376-0602      |
| 05                 | 42376-0425      | 23              | 42376-0443      | 05                 | 42376-0550      | 23                 | 42376-0568      | 05                 | 42376-0585      | 23              | 42376-0603      |
| 06                 | 42376-0426      | 24              | 42376-0444      | 06                 | 42376-0551      | 24                 | 42376-0569      | 06                 | 42376-0586      | 24              | 42376-0604      |
| 07                 | 42376-0427      | 25              | 42376-0445      | 07                 | 42376-0552      | 25                 | 42376-0570      | 07                 | 42376-0587      | 25              | 42376-0605      |
| 08                 | 42376-0428      | 26              | 42376-0446      | 08                 | 42376-0553      | 26                 | 42376-0571      | 08                 | 42376-0588      | 26              | 42376-0606      |
| 09                 | 42376-0429      | 27              | 42376-0447      | 09                 | 42376-0554      | 27                 | 42376-0572      | 09                 | 42376-0589      | 27              | 42376-0607      |
| 10                 | 42376-0430      | 28              | 42376-0448      | 10                 | 42376-0555      | 28                 | 42376-0573      | 10                 | 42376-0590      | 28              | 42376-0608      |
| 11                 | 42376-0431      | 29              | 42376-0449      | 11                 | 42376-0556      | 29                 | 42376-0574      | 11                 | 42376-0591      | 29              | 42376-0609      |
| 12                 | 42376-0432      | 30              | 42376-0450      | 12                 | 42376-0557      | 30                 | 42376-0575      | 12                 | 42376-0592      | 30              | 42376-0610      |
| 13                 | 42376-0433      | 31              | 42376-0451      | 13                 | 42376-0558      | 31                 | 42376-0576      | 13                 | 42376-0593      | 31              | 42376-0611      |
| 14                 | 42376-0434      | 32              | 42376-0452      | 14                 | 42376-0559      | 32                 | 42376-0577      | 14                 | 42376-0594      | 32              | 42376-0612      |
| 15                 | 42376-0435      | 33              | 42376-0453      | 15                 | 42376-0560      | 33                 | 42376-0578      | 15                 | 42376-0595      | 33              | 42376-0613      |
| 16                 | 42376-0436      | 34              | 42376-0454      | 16                 | 42376-0561      | 34                 | 42376-0579      | 16                 | 42376-0596      | 34              | 42376-0614      |
| 17                 | 42376-0437      | 35              | 42376-0455      | 17                 | 42376-0562      | 35                 | 42376-0580      | 17                 | 42376-0597      | 35              | 42376-0615      |
| 18                 | 42376-0438      | 36              | 42376-0456      | 18                 | 42376-0563      | 36                 | 42376-0581      | 18                 | 42376-0598      | 36              | 42376-0616      |
| 19                 | 42376-0439      |                 |                 | 19                 | 42376-0564      |                    |                 | 19                 | 42376-0599      |                 |                 |

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|--|---|--|-------------------------------|
| REV:<br><b>K13</b>                       | ECR / ECN INFORMATION:<br>EC No.: <b>UCP2009-1603</b><br>DATE: <b>4/23/2009</b> | TITLE:<br><b>KK 100 HEADER ASSEMBLY<br/>FLAT RIGHT ANGLE<br/>BREAKAWAY</b> | SHEET No.<br><b>- 8 -</b>     |
| DOCUMENT NUMBER:<br><b>SD- 42376-001</b> | CREATED / REVISED BY:<br><b>MKIPPER</b>   | CHECKED BY:<br><b>JBELL</b>  | APPROVED BY:<br><b>FSMITH</b> |

| 42376-0683 / ----  |                    |            |      |                 |            |
|--------------------|--------------------|------------|------|-----------------|------------|
| HEADER NUMBER:     | 42312-0002/0036    |            |      |                 |            |
| PIN NUMBER:        | 42663-CTB208       |            |      |                 |            |
| PIN LENGTH: L      | .740/18.80         |            |      |                 |            |
| MATING LENGTH: M   | .405/10.29         |            |      |                 |            |
| GOLD POINT: G      | .180/4.57          |            |      |                 |            |
| PIN HEIGHT: Y      | .235/5.97          |            |      |                 |            |
| PC TAIL LENGTH: P  | .123/3.12          |            |      |                 |            |
| TIN: T             | .135/3.43          |            |      |                 |            |
| CKTS:              | 2-36               |            |      |                 |            |
| KINKS:             | NONE               |            |      |                 |            |
| REMOVED BACKWALLS: | NONE               |            |      |                 |            |
| VOIDED CKTS:       | NONE               |            |      |                 |            |
| PACKAGING:         | BULK PK-40873-0041 |            |      |                 |            |
| CKTS               | MATERIAL NUMBER    | ENG NUMBER | CKTS | MATERIAL NUMBER | ENG NUMBER |
| 02                 |                    |            | 20   |                 |            |
| 03                 |                    |            | 21   |                 |            |
| 04                 |                    |            | 22   |                 |            |
| 05                 |                    |            | 23   |                 |            |
| 06                 | 423760687          | 42376-0687 | 24   |                 |            |
| 07                 |                    |            | 25   |                 |            |
| 08                 |                    |            | 26   |                 |            |
| 09                 |                    |            | 27   |                 |            |
| 10                 |                    |            | 28   |                 |            |
| 11                 |                    |            | 29   |                 |            |
| 12                 |                    |            | 30   |                 |            |
| 13                 |                    |            | 31   |                 |            |
| 14                 |                    |            | 32   |                 |            |
| 15                 |                    |            | 33   |                 |            |
| 16                 |                    |            | 34   |                 |            |
| 17                 |                    |            | 35   |                 |            |
| 18                 |                    |            | 36   |                 |            |
| 19                 |                    |            |      |                 |            |

| 42376-0718 / ----  |                    |            |      |                 |            |
|--------------------|--------------------|------------|------|-----------------|------------|
| HEADER NUMBER:     | 42312-0002/0036    |            |      |                 |            |
| PIN NUMBER:        | 42663-ANA154       |            |      |                 |            |
| PIN LENGTH: L      | .510/12.95         |            |      |                 |            |
| MATING LENGTH: M   | .175/4.45          |            |      |                 |            |
| GOLD POINT: G      | N/A                |            |      |                 |            |
| PIN HEIGHT: Y      | .248/6.30          |            |      |                 |            |
| PC TAIL LENGTH: P  | .100/2.54          |            |      |                 |            |
| TIN: T             | OVERALL            |            |      |                 |            |
| CKTS:              | 2-36               |            |      |                 |            |
| KINKS:             | NONE               |            |      |                 |            |
| REMOVED BACKWALLS: | NONE               |            |      |                 |            |
| VOIDED CKTS:       | NONE               |            |      |                 |            |
| PACKAGING:         | BULK PK-40873-0041 |            |      |                 |            |
| CKTS               | MATERIAL NUMBER    | ENG NUMBER | CKTS | MATERIAL NUMBER | ENG NUMBER |
| 02                 | 423760718          | 42376-0718 | 20   |                 |            |
| 03                 |                    |            | 21   |                 |            |
| 04                 |                    |            | 22   |                 |            |
| 05                 |                    |            | 23   |                 |            |
| 06                 |                    |            | 24   |                 |            |
| 07                 |                    |            | 25   |                 |            |
| 08                 |                    |            | 26   |                 |            |
| 09                 |                    |            | 27   |                 |            |
| 10                 |                    |            | 28   |                 |            |
| 11                 |                    |            | 29   |                 |            |
| 12                 |                    |            | 30   |                 |            |
| 13                 |                    |            | 31   |                 |            |
| 14                 |                    |            | 32   |                 |            |
| 15                 |                    |            | 33   |                 |            |
| 16                 |                    |            | 34   |                 |            |
| 17                 |                    |            | 35   |                 |            |
| 18                 |                    |            | 36   |                 |            |
| 19                 |                    |            |      |                 |            |

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| REV:<br><b>K13</b>                       | ECR / ECN INFORMATION:<br>EC No.: <b>UCP2009-1603</b><br>DATE: <b>4/23/2009</b> | TITLE:<br><b>KK 100 HEADER ASSEMBLY<br/>FLAT RIGHT ANGLE<br/>BREAKAWAY</b> | SHEET No.<br><b>- 9 -</b>     |
| DOCUMENT NUMBER:<br><b>SD- 42376-001</b> | CREATED / REVISED BY:<br><b>MKIPPER</b>   | CHECKED BY:<br><b>JBELL</b>  | APPROVED BY:<br><b>FSMITH</b> |



42376-0753 / 0787

|                    |                 |
|--------------------|-----------------|
| HEADER NUMBER:     | 42312-0002/0036 |
| PIN NUMBER:        | 42663-BBA154    |
| PIN LENGTH: L      | .560/14.22      |
| MATING LENGTH: M   | .208/5.28       |
| GOLD POINT: G      | N/A             |
| PIN HEIGHT: Y      | .248/6.30       |
| PC TAIL LENGTH: P  | .120/3.05       |
| TIN: T             | OVERALL         |
| CKTS:              | 2-36            |
| KINKS:             | NONE            |
| REMOVED BACKWALLS: | NONE            |
| VOIDED CKTS:       | NONE            |

PACKAGING: BULK PK-40873-0041

| CKTS | MATERIAL NUMBER | ENG NUMBER | CKTS | MATERIAL NUMBER | ENG NUMBER |
|------|-----------------|------------|------|-----------------|------------|
| 02   |                 |            | 20   |                 |            |
| 03   |                 |            | 21   |                 |            |
| 04   |                 |            | 22   |                 |            |
| 05   | 423760756       | 42376-0756 | 23   |                 |            |
| 06   |                 |            | 24   |                 |            |
| 07   |                 |            | 25   |                 |            |
| 08   |                 |            | 26   |                 |            |
| 09   |                 |            | 27   | 423760778       | 42376-0778 |
| 10   |                 |            | 28   |                 |            |
| 11   |                 |            | 29   | 423760780       | 42376-0780 |
| 12   |                 |            | 30   |                 |            |
| 13   |                 |            | 31   |                 |            |
| 14   |                 |            | 32   |                 |            |
| 15   |                 |            | 33   |                 |            |
| 16   |                 |            | 34   |                 |            |
| 17   |                 |            | 35   |                 |            |
| 18   |                 |            | 36   |                 |            |
| 19   |                 |            |      |                 |            |

42376-0788 / 0822

|                    |                 |
|--------------------|-----------------|
| HEADER NUMBER:     | 42312-0002/0036 |
| PIN NUMBER:        | 42663-DHA154    |
| PIN LENGTH: L      | .800 / 20.32    |
| MATING LENGTH: M   | .350 / 8.90     |
| GOLD POINT: G      | N/A             |
| PIN HEIGHT: Y      | .354 / 9.00     |
| PC TAIL LENGTH: P  | .118 / 3.00     |
| TIN: T             | OVERALL         |
| CKTS:              | 2-36            |
| KINKS:             | NONE            |
| REMOVED BACKWALLS: | NONE            |
| VOIDED CKTS:       | NONE            |

PACKAGING: BULK PK-40873-0041

| CKTS | MATERIAL NUMBER | ENG NUMBER | CKTS | MATERIAL NUMBER | ENG NUMBER |
|------|-----------------|------------|------|-----------------|------------|
| 02   |                 |            | 20   |                 |            |
| 03   |                 |            | 21   |                 |            |
| 04   | 423760790       | 42376-0790 | 22   |                 |            |
| 05   |                 |            | 23   |                 |            |
| 06   | 423760792       | 42376-0792 | 24   |                 |            |
| 07   |                 |            | 25   |                 |            |
| 08   |                 |            | 26   |                 |            |
| 09   |                 |            | 27   |                 |            |
| 10   |                 |            | 28   |                 |            |
| 11   |                 |            | 29   |                 |            |
| 12   |                 |            | 30   |                 |            |
| 13   |                 |            | 31   |                 |            |
| 14   |                 |            | 32   |                 |            |
| 15   |                 |            | 33   |                 |            |
| 16   |                 |            | 34   |                 |            |
| 17   |                 |            | 35   |                 |            |
| 18   |                 |            | 36   |                 |            |
| 19   |                 |            |      |                 |            |

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| REV:<br><b>K13</b> | ECR / ECN INFORMATION:<br>EC No.: <b>UCP2009-1603</b><br>DATE: <b>4/23/2009</b> | TITLE:<br><b>KK 100 HEADER ASSEMBLY<br/>FLAT RIGHT ANGLE<br/>BREAKAWAY</b> | SHEET No.<br><b>- 10 -</b> |
|--------------------|---|--|----------------------------|

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|--|---|-----------------------------|-------------------------------|
| DOCUMENT NUMBER:<br><b>SD- 42376-001</b> | CREATED / REVISED BY:<br><b>MKIPPER</b> | CHECKED BY:<br><b>JBELL</b> | APPROVED BY:<br><b>FSMITH</b> |
|--|---|-----------------------------|-------------------------------|