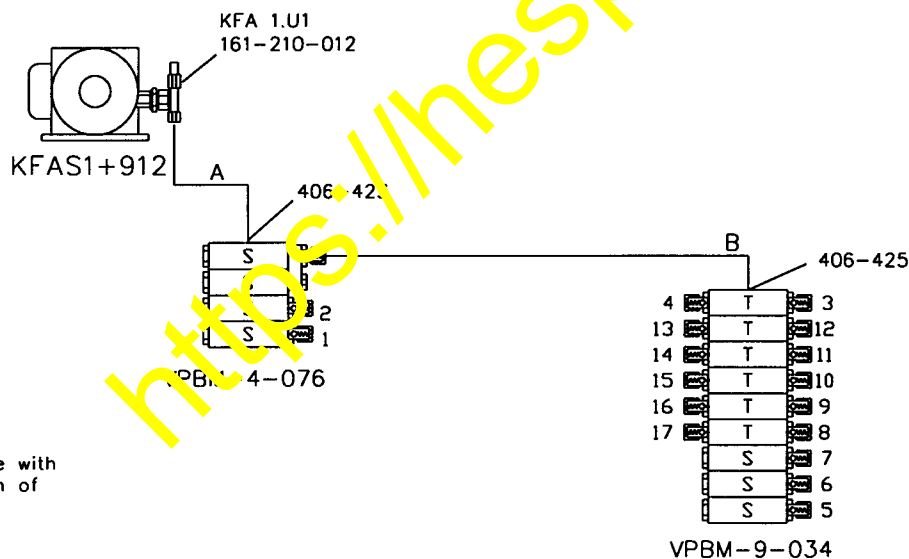
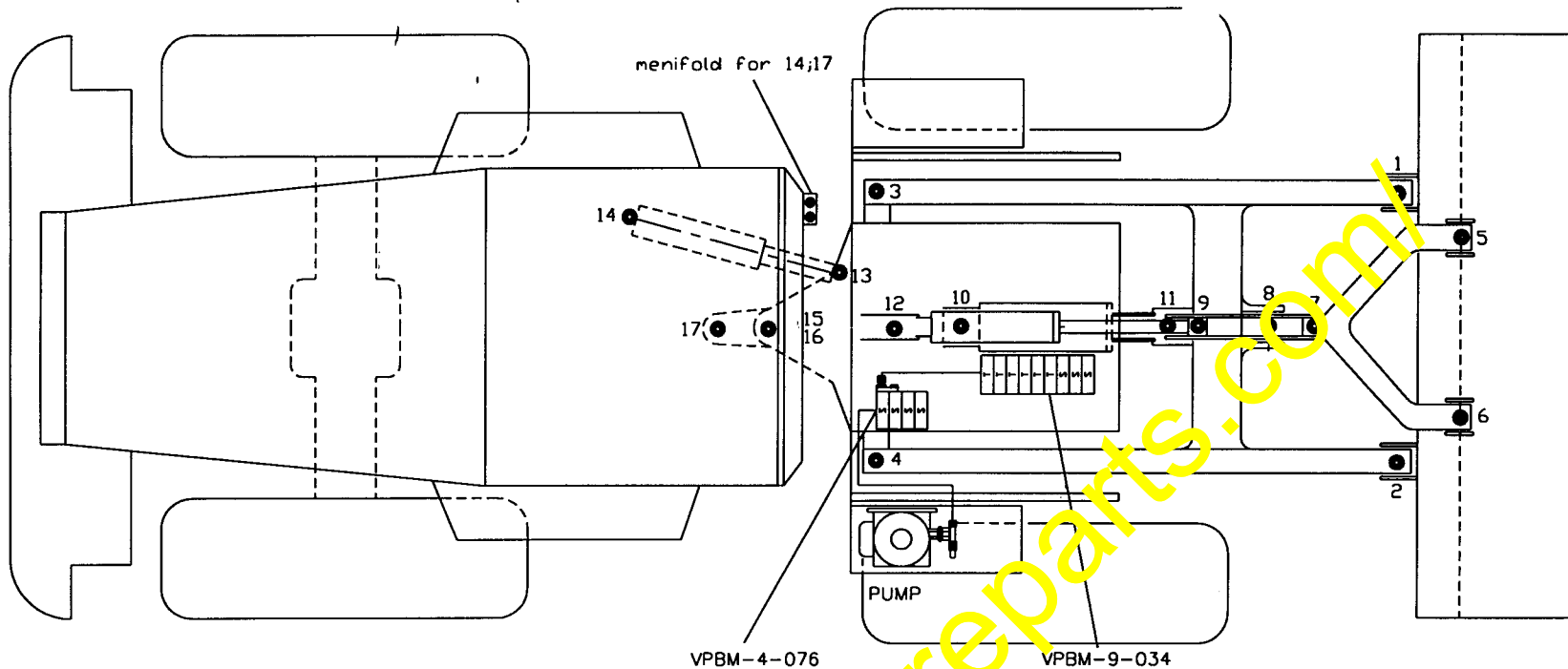


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| Pos. No. | Name | Dos./h cm ³ * |
|----------|---------------------------|--------------------------|
| 01 | shovel pin, left | 2,7 |
| 02 | shovel pin, right | 2,7 |
| 03 | lift frame bearing, left | 0,3 |
| 04 | lift frame bearing, right | 0,3 |
| 05 | tilting rod left | 0,6 |
| 06 | tilting rod right | 0,6 |
| 07 | tilting rod rear | 0,6 |
| 08 | tilting rod center | 0,3 |
| 09 | drive cylinder front | 0,3 |
| 10 | drive cylinder rear | 0,3 |
| 11 | lift cylinder front | 0,3 |
| 12 | lift cylinder rear | 0,3 |
| 13 | steering cylinder front | 0,3 |
| 14 | steering cylinder rear | 0,3 |
| 15 | articulated joint bottom | 0,3 |
| 16 | articulated joint top | 0,3 |
| 17 | swing | 0,3 |

Only use high pressure grease with EP additive up to a maximum of NLGI class 2

Contact time: 6 min.
Interval time: 1 hour

* The dosages and delivery rates refer to the pump delivery of NLGI II at 20°C and a back pressure of 50 bars.

| | | |
|--|--|-------------------------------|
| VOGEL WILLY VOGEL AKTIENGESELLSCHAFT Motzener Str. 25/27 12277 Berlin Gottlieb Daimler Str. 7 63128 Detzenbach | KOMATSU Wheelloader WA65-3 Pipe layout for CL system | Order No: 136-588.51 |
| | | 17 Lubr.pts. |
| Rev: 22.03.02 | Name: KOMSU | Replacement for: Replaced by: |



WILLY VOGEL AKTIENGESELLSCHAFT

Standard Bill of Material

| Item | Quantity | ME | Material No. | Description | CO |
|------|----------|----|--------------|-------------|----|
|------|----------|----|--------------|-------------|----|

KOMATSU HANNOVER **BANDEINBAU**
TYP: RADLADER WA 65-3
PROGRESSIV-ANLAGE FÜR FETT NLGI-KL 2 SCHMIERST.:17

| | | | | | |
|---|--------|----|-------------------------------|---------------------|----|
| 20 | 1,000 | ST | KFAS1+912 12 V GLEICHSTROM | PISTON PUMP W.RES | VM |
| EINGESTELLTAUF: tPA=1,0 tCO=6,0 COP=OFF MONTIERT (HINTEN) MIT: | | | | | |
| 30 | 1,000 | ST | KFA1.U1 | PUMP ELEMENT | VM |
| 40 | 1,000 | ST | 161-210-014 | PRES.REGUL.VALVE | L |
| 45 | 1,000 | ST | 951-110-994 | LABEL | L |
| 50 | 1,000 | ST | 997-000-760 | CABLE HARNESS | L |
| 70 | 1,000 | ST | VPBM-4-076 | PROGRESSIVE FEEDER | VM |
| 80 | 1,000 | ST | VPBM-9-034 | PROGRESSIVE FEEDER | VM |
| 100 | 2,000 | ST | 404-006K | ADAPTER | L |
| 120 | 2,000 | ST | 406-090K | ELBOW | L |
| 130 | 8,000 | ST | 406-423 | STRAIGHT CONNECTOR | L |
| 140 | 13,000 | ST | 406-425 | ELBOW CONNECTOR | L |
| 150 | 2,000 | ST | 406-426 | STRAIGHT CONNECTOR | L |
| 160 | 2,000 | ST | 406-435 | ELBOW CONNECTOR | L |
| 180 | 1,000 | ST | 871-380-006 | BRACKED | L |
| 190 | 8,000 | ST | 941-206-108 | MOUNTING CLIP | L |
| 200 | 1,000 | ST | 941-208-104 | MOUNTING CLIP | L |
| 220 | 1,000 | ST | 941-213-104 | MOUNTING CLIP | L |
| 240 | 3,000 | ST | 941-220-104 | MOUNTING CLIP | L |
| 250 | 1,000 | ST | 951-130-186 | OPERATING INSTRUCT. | L |
| 260 | 1,000 | ST | 951-130-187 | OPERATING INSTRUCT. | L |
| 270 | 1,000 | ST | SLH63-350 | HOSE | L |
| 280 | 2,000 | ST | SLH63-1030 | HOSE | L |
| 290 | 1,000 | ST | 951-130-148 | DRILLING TEMPLATE | L |

*** End of bill of material ***

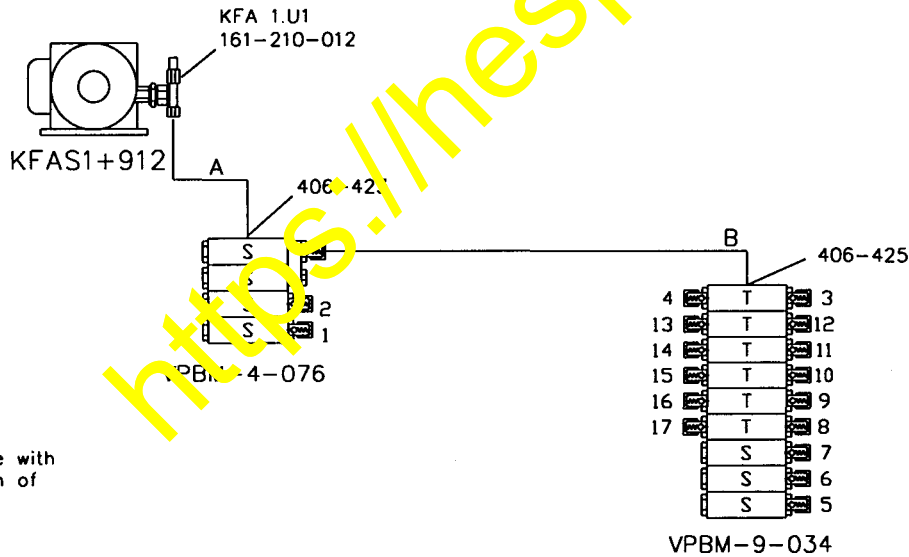
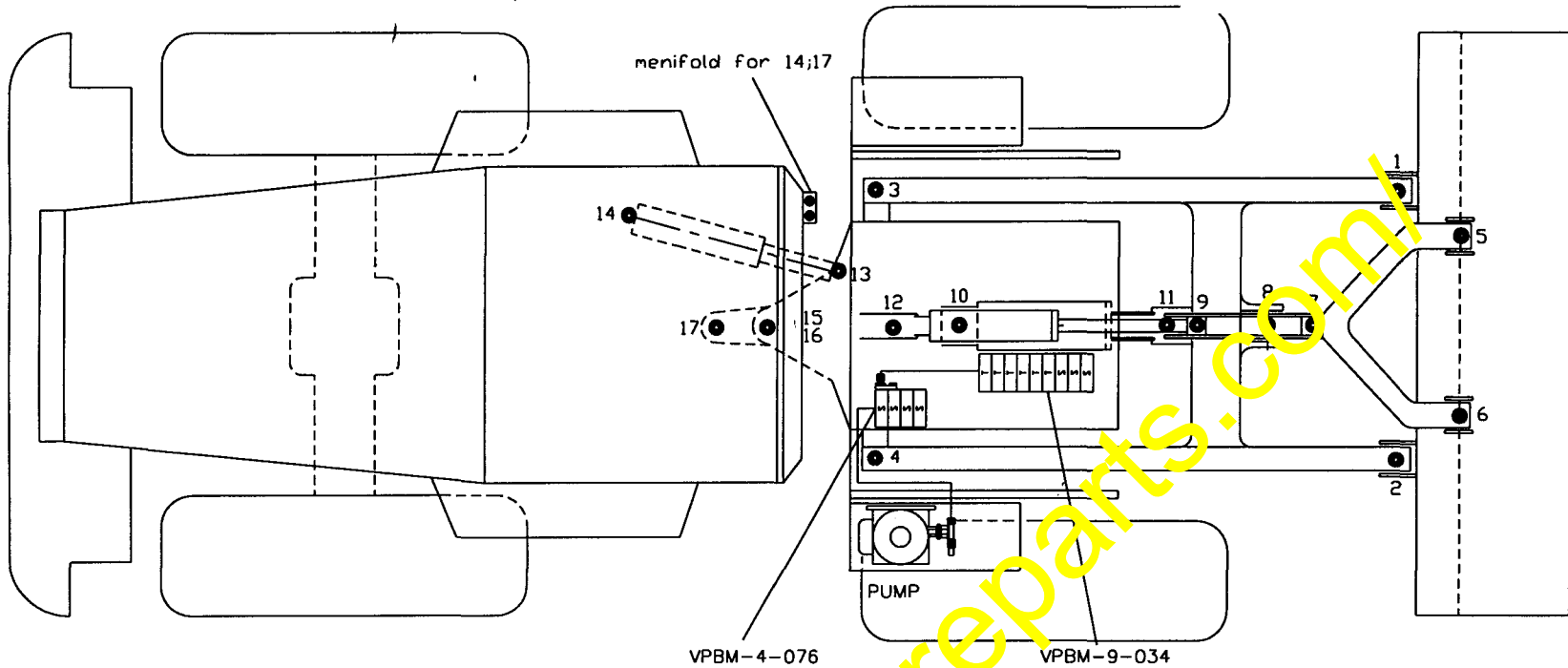
| | | | |
|--------------------------------|----------------|--------------|---------|
| Created on: | 13.06.2001 | Proposal: | 2519636 |
| Created by: | KASZA D | Replaced by: | |
| Printed on: | 26.03.2002 | Draw size: | A3 |
| Standard bill of material No.: | 136-588.51+912 | Plant: | Diba |
| Customer/Description: | KOMATSU HAN. | Page: | 1 |

ME=Unit CO=Code



Wir sind zertifiziert:
 Qualitätsmanagement
 DIN EN ISO 9001
 Umweltmanagement
 DIN EN ISO 14001

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| Pos. No. | Name | Dos./h cm ³ * |
|----------|---------------------------|-----------------------------|
| 01 | shovel pin, left | 2,7 |
| 02 | shovel pin, right | 2,7 |
| 03 | lift frame bearing, left | 0,3 |
| 04 | lift frame bearing, right | 0,3 |
| 05 | tilting rod left | 0,6 |
| 06 | tilting rod right | 0,6 |
| 07 | tilting rod rear | 0,6 |
| 08 | tilting rod center | 0,3 |
| 09 | drive cylinder front | 0,3 |
| 10 | drive cylinder rear | 0,3 |
| 11 | lift cylinder front | 0,3 |
| 12 | lift cylinder rear | 0,3 |
| 13 | steering cylinder front | 0,3 |
| 14 | steering cylinder rear | 0,3 |
| 15 | articulated joint bottom | 0,3 |
| 16 | articulated joint top | 0,3 |
| 17 | swing | 0,3 |

Only use high pressure grease with EP additive up to a maximum of NLGI class 2

Contact time: 6 min
Interval time: 1 hour

* The dosages and delivery rates refer to the pump delivery of NLGI II at 20° C and a back pressure of 50 bars.

| | | |
|--|--|--------------|
| VOGEL WILLY VOGEL AKTIENGESELLSCHAFT Motzener Str. 25/37 12277 Berlin Götthow Damm Str. 7 63128 Detzenbach | KOMATSU Wheelloader WA75-3 Pipe layout for CL system | Order-No: |
| | | 136-597.51 |
| Date: 22.03.02 | Replaced by: | 17 Lubr.pts. |

Standard Bill of Material

| Item | Quantity | ME | Material No. | Description | CO |
|------|----------|----|--------------|-------------|----|
|------|----------|----|--------------|-------------|----|

KOMATSU HANNOVER **BANDEINBAU**
TYP: RADLADER WA 75-3
PROGRESSIV-ANLAGE FÜR FETT NLGI-KL 2 SCHMIERST.:17

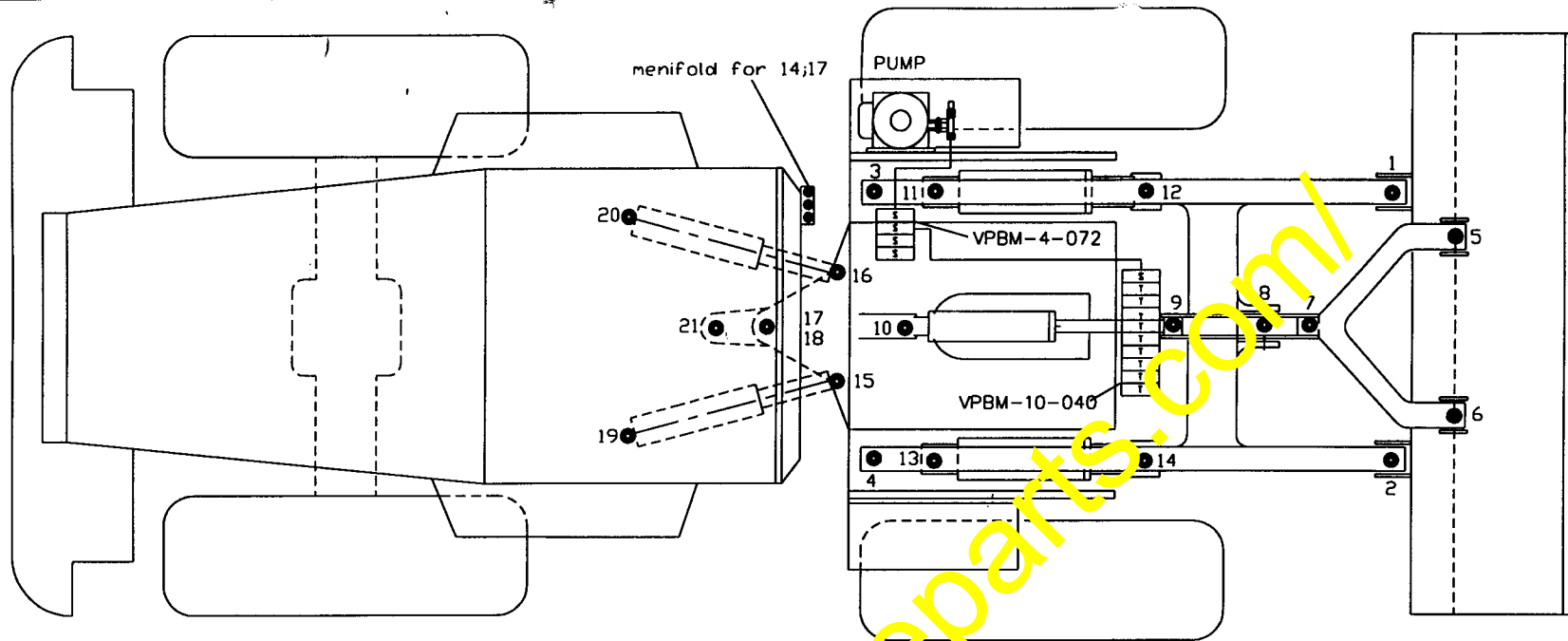
| | | | | | |
|-----|--------|----|---|---------------------|----|
| 20 | 1,000 | ST | KFAS1+912 | PISTON PUMP W.RES | VM |
| | | | 12 V GLEICHSTROM | | |
| | | | EINGESTELLTAUF: tPA=1,0 tCO=6,0 COP=OFF | | |
| | | | MONTIERT (HINTEN) MIT: | | |
| 30 | 1,000 | ST | KFA1.U1 | PUMP ELEMENT | VM |
| 40 | 1,000 | ST | 161-210-012 | PRESSURE REGULATING | VM |
| | | | Anschluß von unten | | |
| 45 | 1,000 | ST | 951-110-994 | LABEL | L |
| 50 | 1,000 | ST | 997-000-760 | CABLE HARNESS | L |
| 70 | 1,000 | ST | VPBM-4-076 | PROGRESSIVE FEEDER | VM |
| 80 | 1,000 | ST | VPBM-9-034 | PROGRESSIVE FEEDER | VM |
| 100 | 2,000 | ST | 404-006K | ADAPTER | L |
| 120 | 2,000 | ST | 406-090K | ELBOW | L |
| 130 | 8,000 | ST | 406-423 | STRAIGHT CONNECTOR | L |
| 140 | 13,000 | ST | 406-425 | ELBOW CONNECTOR | L |
| 150 | 2,000 | ST | 406-426 | STRAIGHT CONNECTOR | L |
| 160 | 2,000 | ST | 406-435 | ELBOW CONNECTOR | L |
| 180 | 1,000 | ST | 871-380-005 | BRACKED | L |
| 190 | 8,000 | ST | 941-206-108 | MOUNTING CLIP | L |
| 200 | 1,000 | ST | 941-208-104 | MOUNTING CLIP | L |
| 220 | 1,000 | ST | 941-211-104 | MOUNTING CLIP | L |
| 240 | 3,000 | ST | 941-220-104 | MOUNTING CLIP | L |
| 250 | 1,000 | ST | 951-130-186 | OPERATING INSTRUCT. | L |
| 260 | 1,000 | ST | 951-130-187 | OPERATING INSTRUCT. | L |
| 270 | 1,000 | ST | SLH63-350 | HOSE | L |
| 280 | 2,000 | ST | SLH63-1030 | HOSE | L |
| 281 | 1,000 | ST | 951-130-148 | DRILLING TEMPLATE | L |

*** End of bill of material ***

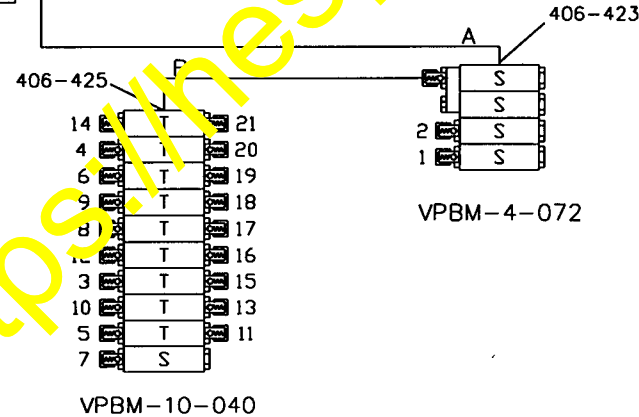
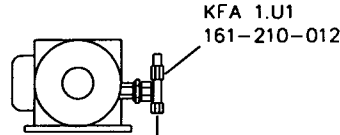
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|--------------------------------|----------------|--------------|---------|
| Created on: | 29.06.2001 | Proposal: | 2519675 |
| Created by: | KASZA D | Replaced by: | |
| Printed on: | 26.03.2002 | Draw size: | A3 |
| Standard bill of material No.: | 136-597.51+912 | Plant: | Diba |
| Customer/Description: | KOMATSU HAN. | Page: | 1 |

ME=Unit CO=Code

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(Para. 18 of copyright law)



KFAS1+912



| Pos. No. | Name | Dos. /h cm ³ * |
|----------|-------------------------------|------------------------------|
| 01 | shovel pin, left | 2,7 |
| 02 | shovel pin, right | 2,7 |
| 03 | lift frame bearing, left | 0,27 |
| 04 | lift frame bearing, right | 0,27 |
| 05 | tilting rod left | 0,27 |
| 06 | tilting rod right | 0,27 |
| 07 | tilting rod rear | 0,55 |
| 08 | toggle lever ceter | 0,27 |
| 09 | toggle lever top | 0,27 |
| 10 | drive cylinder rear | 0,27 |
| 11 | lift cylinder left rear | 0,27 |
| 12 | lift cylinder left front | 0,27 |
| 13 | lift cylinder right rear | 0,27 |
| 14 | lift cylinder right front | 0,27 |
| 15 | steering cylinder front right | 0,27 |
| 16 | steering cylinder front left | 0,27 |
| 17 | articulated joint bottom | 0,27 |
| 14 | articulated joint top | 0,27 |
| 15 | steering cylinder rear right | 0,27 |
| 16 | steering cylinder rear left | 0,27 |
| 17 | swing | 0,27 |

Only use high pressure grease with EP additive up to a maximum of NLGI class 2

Contact time: 6 min
Interval time: 1 hour

* The dosages and delivery rates refer to the pump delivery of NLGI II at 20°C and a back pressure of 50 bars.

| | | |
|---|--|-------------------------|
| VOGEL WILLY VOGEL AKTIENGESELLSCHAFT Motzener Str. 35/37 12277 Berlin Gottlieb Daimler Str. 7 63128 Dietzenbach | KOMATSU Wheelloader WA95-3 Pipe layout for CL system | Order-No: 136-586.51 |
| | | 21 Lubr.pts. |
| Date: 22.03.02 | Replaced by: | Replaced by: |

Standard Bill of Material

| Item | Quantity | ME | Material No. | Description | CO |
|------|----------|----|--------------|-------------|----|
|------|----------|----|--------------|-------------|----|

| | |
|--|------------------------------------|
| KOMATSU HANNOVER TYP: RADLADER WA 95-3 PROGRESSIV-ANLAGE FÜR FETT NLGI-KL 2 | BANDEINBAU SCHMIERST.:21 |
|--|------------------------------------|

| | | | | | |
|---|--------|----|-------------------------------|---------------------|----|
| 20 | 1,000 | ST | KFAS1+912 12 V GLEICHSTROM | PISTON PUMP W.RES | VM |
| EINGESTELLTAUF: tPA=1,0 tCO=6,0 COP=OFF | | | | | |
| MONTIERT (HINTEN) MIT: | | | | | |
| 30 | 1,000 | ST | KFA1.U1 | PUMP ELEMENT | VM |
| 40 | 1,000 | ST | 161-210-014 | PRES.REGUL.VALVE | L |
| 45 | 1,000 | ST | 951-110-994 | LABEL | L |
| 50 | 1,000 | ST | 997-000-760 | CABLE HARNESS | L |
| 70 | 1,000 | ST | VPBM-4-072 | PROGRESSIVE FEEDER | VM |
| 80 | 1,000 | ST | VPBM-10-040 | PROGRESSIVE FEEDER | VM |
| 100 | 4,000 | ST | 404-006K | ADAPTER | L |
| 110 | 2,000 | ST | 406-045K | ELBOW | L |
| 120 | 3,000 | ST | 406-090K | ELBOW | L |
| 130 | 9,000 | ST | 406-423 | STRAIGHT CONNECTOR | L |
| 140 | 12,000 | ST | 406-425 | ELBOW CONNECTOR | L |
| 150 | 2,000 | ST | 406-426 | STRAIGHT CONNECTOR | L |
| 160 | 6,000 | ST | 406-435 | ELBOW CONNECTOR | L |
| 185 | 1,000 | ST | 871-380-005 | BRACKED | L |
| 190 | 8,000 | ST | 941-205-108 | MOUNTING CLIP | L |
| 200 | 8,000 | ST | 941-208-104 | MOUNTING CLIP | L |
| 210 | 8,000 | ST | 941-211-104 | MOUNTING CLIP | L |
| 220 | 2,000 | ST | 941-215-104 | MOUNTING CLIP | L |
| 230 | 1,000 | ST | 941-217-105 | MOUNTING CLIP | L |
| 240 | 3,000 | ST | 941-220-104 | MOUNTING CLIP | L |
| 250 | 1,000 | ST | 951-130-186 | OPERATING INSTRUCT. | L |
| 260 | 1,000 | ST | 951-130-187 | OPERATING INSTRUCT. | L |
| 270 | 1,000 | ST | SLH63-350 | HOSE | VM |
| 280 | 2,000 | ST | SLH63-1030 | HOSE | VM |
| 290 | 1,000 | ST | 951-130-148 | DRILLING TEMPLATE | L |

*** End of bill of material ***

| | | | |
|--------------------------------|----------------|--------------|---------|
| Created on: | 28.05.2001 | Proposal: | 2519580 |
| Created by: | KASZA D | Replaced by: | |
| Printed on: | 26.03.2002 | Draw size: | A3 |
| Standard bill of material No.: | 136-586.51+912 | Plant: | Diba |
| Customer/Description: | KOMATSU HAN. | Page: | 1 |

ME=Unit CO=Code