

POWER ARM 768

SPARE PARTS



For easy cross reference the page numbers of the spare parts book follow the page numbers of the operators manual.

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USE ONLY McCONNEL SPARE PARTS

To be assured of the latest design improvements purchase your genuine replacements from the original equipment manufacturer F.W. McConnell Ltd. through your local dealer or stockist.

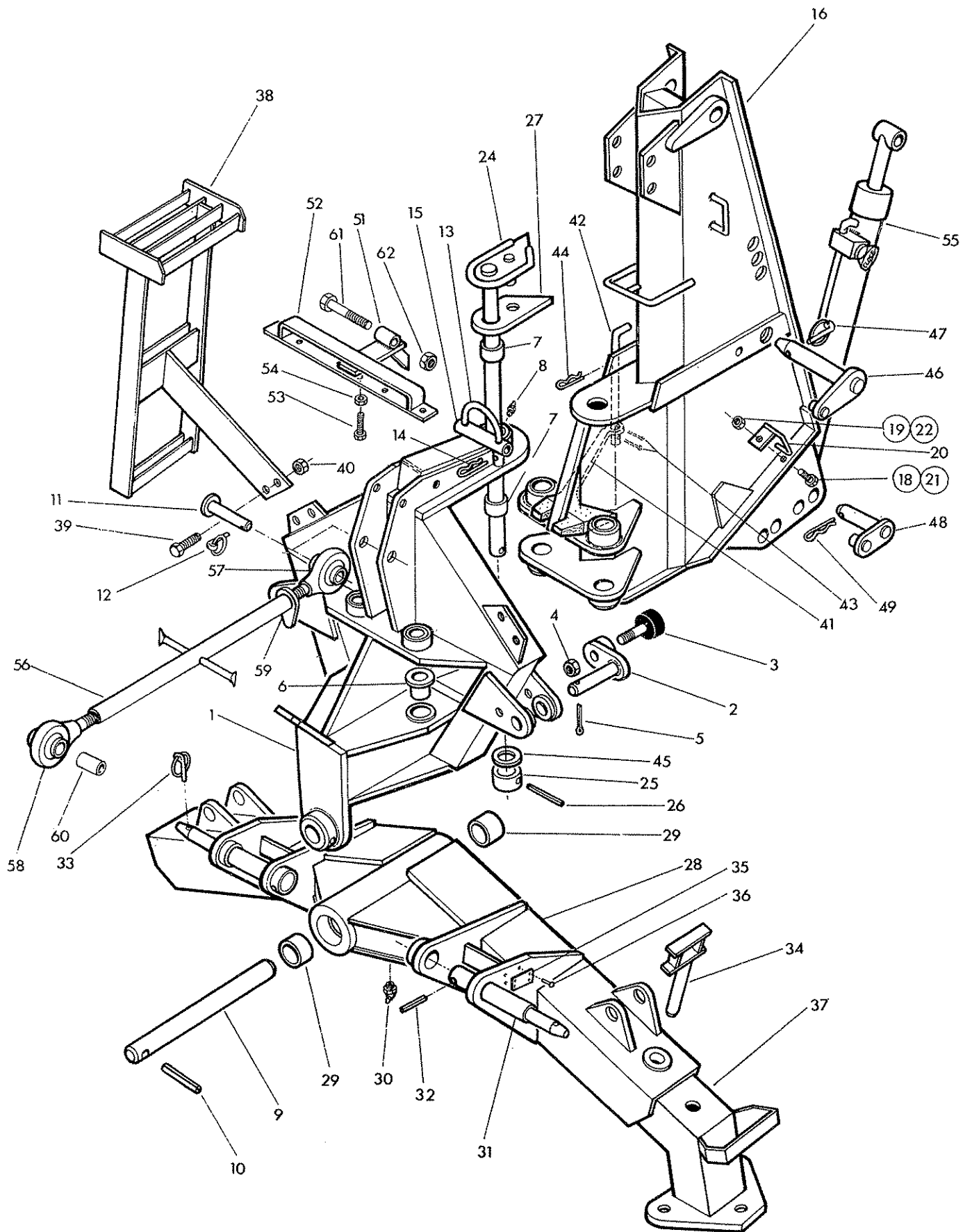
Always quote machine type and serial number as well as the part number.

Design improvement may have altered some of the parts listed in this manual – the latest part will always be supplied when it is interchangeable with an earlier one.

THE DOT SYSTEM

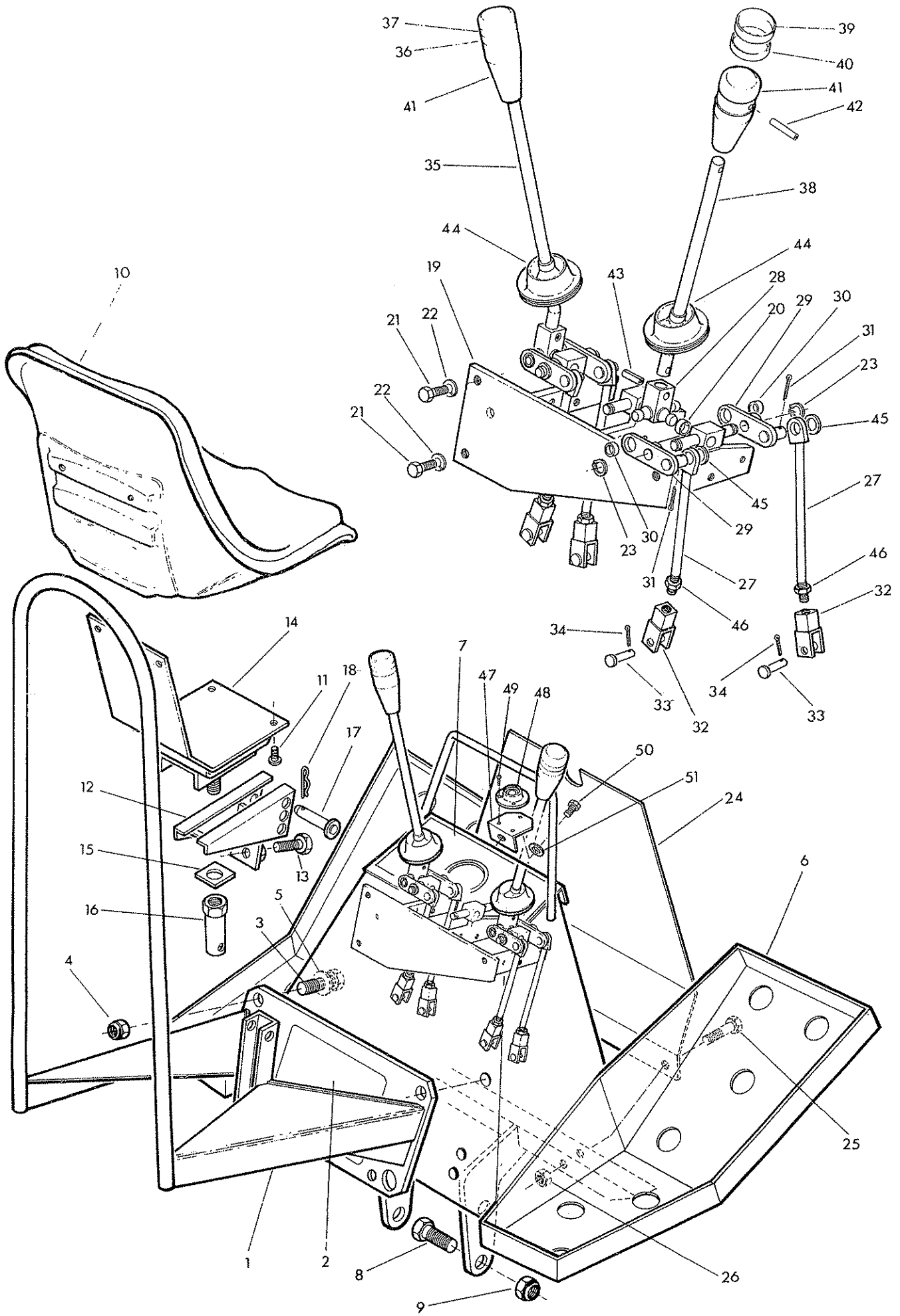
Many spares are supplied as Assemblies or as Sub-assemblies and, to help the customer determine the composition of an Assembly, the Dot System is used. The Main Assembly will not show a dot preceding its description and is printed in BLOCK CAPITALS. Subsequent listed parts are preceded by one or more dots until the next major assembly is reached. An increase in the number of preceding dots indicates that the item is an associated part of the preceding item. Whenever the number of dots are decreased by one this indicates the termination of an assembly.

MAIN FRAME, SLEW COLUMN & LEGS



| Ref | Part No. | Qty | Description |
|------|----------------|-----|--|
| | 71 15 251 | | PA7 & PA8 COMMON ASSEMBLY |
| | 71 15 252 | 1 | ..Main frame and slew column assembly |
| 1 | 71 15 270 | 1 | ..Main frame c/w pins, bushes etc. |
| 2 | 71 15 033 | 2 | ...Levelling ram pin c/w slewing buffer |
| 3 | 71 03 046 | 1 |Slewing buffer c/w nut |
| 4 | 91 00 012 | 1 |Aeronut M10 |
| 5 | 05 03 145 | 1 |Split pin 3/16" diameter x 1.3/4" long |
| 6 | 71 02 173 | 4 | ...Stew link bush |
| 7 | 71 15 200 | 2 | ...Kingpin bush |
| 8 | 09 01 121 | 2 | ...Greaser 1/8" BSP |
| 9 | 71 15 032 | 1 | ...Jack leg pivot pin c/w spring dowel |
| 10 | 04 22 648 | 1 |Spring dowel 3/8" dia. x 3" long |
| 11 | 71 15 046 | 1 | ...Top hitch pin c/w linch pin |
| 12 | 04 31 217 | 1 |Linch pin |
| 13 | 71 15 122 | 1 | ...Hose guide c/w spring cotter |
| 14 | 04 31 105 | 1 |Spring cotter |
| 15 | 71 15 121 | 1 | ...Hose guide tube |
| 16 | 71 15 273 | 1 | ..Slew column c/w brackets |
| 17 | 71 15 105 | 1 | ...Hose bracket R.H. c/w nut and screw (not illus) |
| 18 | 93 13 055 | 1 | Set screw M10 x 25 |
| 19 | 91 43 005 | 1 |Clevelok nut M10 |
| 20 | 71 15 106 | 1 | ...Hose bracket L.H. c/w nut and screw |
| 21 | 93 13 055 | 1 |Set screw M10 x 25 |
| 22 | 91 43 005 | 1 |Clevelok nut M10 |
| 23 | 71 15 317 | 1 | ..Slew assembly complete not illus. (see page 81) |
| 24 | 71 15 050 | 1 | ..King pin c/w collar assembly |
| 25 | 71 15 052 | 1 | ...Collar |
| 26 | 04 22 640 | 1 | ..Roll pin 3/8" diameter x 2.1/2" long |
| 27 | 71 15 051 | 1 | ...Tail |
| 28 | 71 15 261 | 1 | ..Outer leg assembly c/w pins etc. |
| 29 | 60 00 160 | 2 | ...Pivot bush |
| 30 | 09 01 124 | 1 | ...Greaser 1/8" BSP 67½° angled |
| 31 | 71 15 012 | 2 |Linkage pin c/w pins |
| 32 | 04 22 632 | 1 |Spring dowel 3/8" diameter x 2" long |
| 33 | 04 31 217 | 1 |Linch pin |
| 34 | 71 15 011 | 2 | ...Jack leg locating pin |
| 35 | 71 15 209 | 1 | ...Serial plate |
| 36 | 71 03 230 | 4 | ...Rivet |
| 37 | 71 15 264 | 2 | ..Inner telescopic leg |
| 38 | 71 15 269 | 2 | ..Steps c/w bolts and nuts |
| 39 | 92 13 086 | 2 | ...Bolt M12 x 40 |
| 40 | 91 43 006 | 2 | ...Clevelok nut M12 |
| 41 | 71 03 044 | 1 | ..Transport lock |
| 42 | 71 15 109 | 1 | ..Lock rod c/w pins |
| 43 | 05 03 095 | 1 | ...Split pin |
| 44 | 04 31 105 | 1 | ...Spring cotter |
| 45 | 71 15 042 | 1 | ..Thrust washer |
| 46 | 71 15 066 | 1 | ..Main arm pivot pin c/w linch pin |
| 47 | 04 31 217 | 1 | ...Linch pin |
| 48 | 71 03 038 | 1 | ..Lift ram pin c/w spring cotter |
| 49 | 04 31 105 | 1 | ...Spring cotter |
| 50 | 71 15 316 | 1 | ..Valve carrier bracket c/w bolts |
| 51 | 71 15 141 | 1 | ...Valve bracket arm |
| 52 | 71 15 142 | 1 | ...Hose retainer |
| 53 | 92 13 064 | 2 | ...Bolt M8 x 30 |
| 54 | 91 43 004 | 2 | ...'Clevelok' nut M8 |
| 55 | 71 15 303 | 1 | ..Lift ram assembly (see page 114) |
| | 71 15 275 | 1 | ..Top link assembly |
| 56 | 71 02 217 | 1 | ..Top link tube |
| 57 | 71 15 204 | 1 | ..Cat II end left hand |
| * 58 | 71 02 218 | 1 | ..Cat II end right hand |
| 59 | 71 02 214 | 1 | ..Locking collar |
| 60 | 71 15 222 | 1 | ..John Deere top link sleeve |
| | OPTIONAL EXTRA | | |
| * | 71 15 040 | 1 | Alternative Cat I link end |
| 61 | 92 13 226 | | } Ref only |
| 62 | 91 43 006 | | |

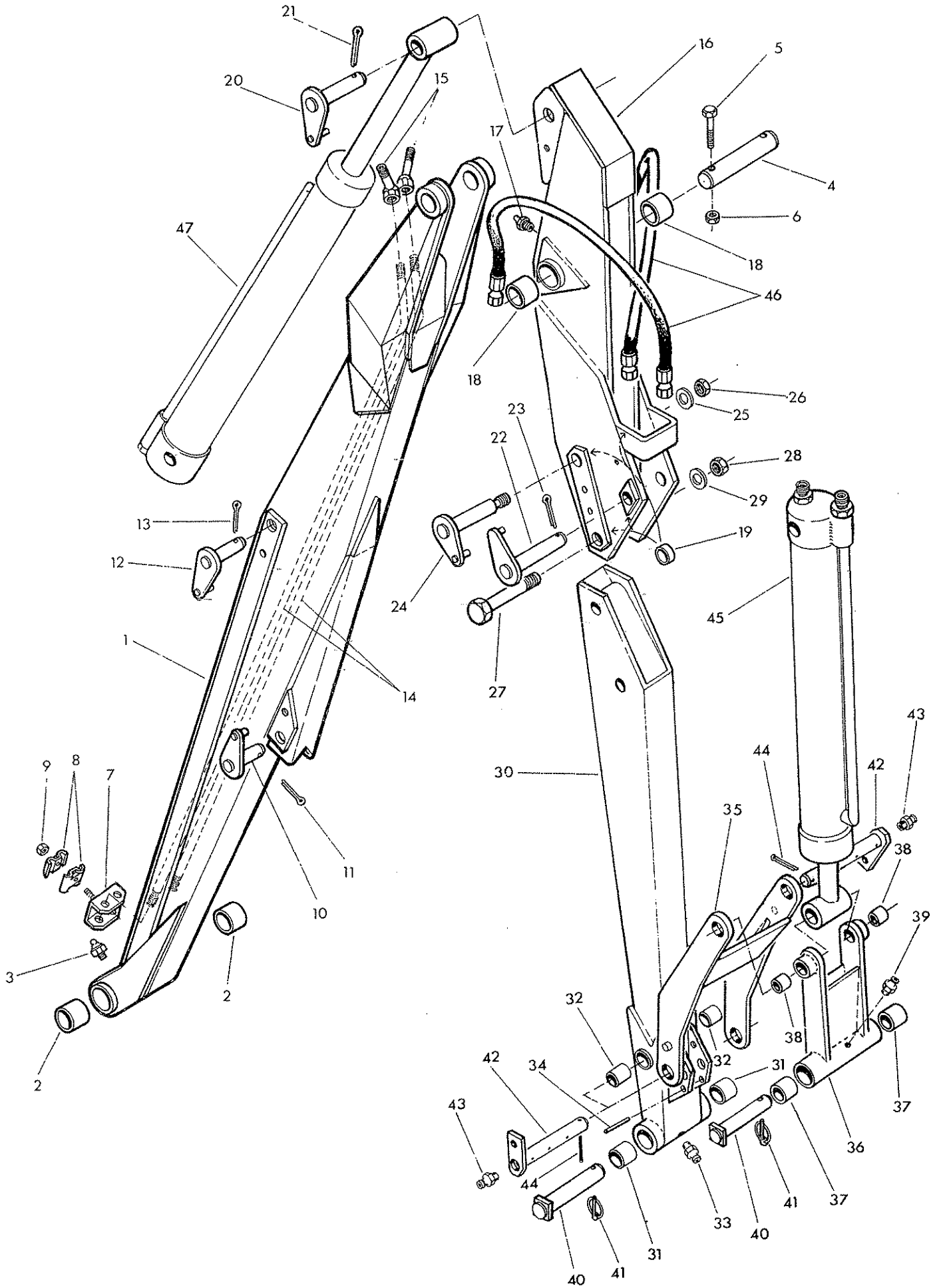
SEAT CONSOLE



| Ref | Part No. | Qty | Description |
|-----|---|-----|--|
| | 71 15 251 | | PA7 and PA8 COMMON PARTS (continued) |
| | 71 15 253 | 1 | ..Seat console and lever assembly |
| | 71 15 336 | 1 | ..Console assembly comprising :- |
| 1 | 71 15 352 | 1 | ...Seat support frame |
| 2 | 71 15 349 | 1 |Safety cab instruction label |
| 3 | 93 13 055 | 1 |Hexagon set screw M10 x 25 |
| 4 | 91 13 005 | 1 |Hexagon nut M10 |
| 5 | 91 00 205 | 1 |Spring washer |
| 6 | 71 15 351 | 1 | ...Console c/w bolts |
| 7 | 71 15 345 | 1 |Operating instruction label |
| 8 | 93 13 097 | 4 |Set screw M16 x 45 |
| 9 | 91 43 007 | 4 |'Clevelok' nut M16 |
| | 71 03 273 | 1 | ..Bostrom seat assembly |
| 10 | 71 06 352 | 1 | ...Seat c/w screws |
| 11 | 71 06 181 | 4 |Set screw 5/16" UNC |
| 12 | 71 03 276 | 1 | ...Seat bracket c/w set screws |
| 13 | 03 11 166 | 1 |Set screw 5/8" UNF |
| 14 | 71 03 110 | 1 | ...Seat support |
| 15 | 71 03 114 | 1 | ...Clamp plate |
| 16 | 71 03 065 | 1 | ...Seat clamp |
| 17 | 71 01 065 | 1 | ...Pivot pin c/w spring cotter |
| 18 | 04 31 105 | 1 |Spring cotter |
| 19 | 71 15 346 | 1 | ..Handle carrier c/w screws |
| 20 | 71 15 202 | 3 | ...Lever pivot bush |
| 21 | 93 13 035 | 3 | ...Set screw M10 x 16 |
| 22 | 91 00 205 | 3 | ...Spring washer |
| 23 | 81 21 073 | 4 | ...Circlip |
| 24 | 71 15 348 | 1 | ..Console cover c/w nuts and bolts |
| 25 | 92 13 114 | 2 | ...Bolt M8 x 55 |
| 26 | 91 43 004 | 2 | ... 'Clevelok' nut M8 |
| 27 | 71 15 339 | 4 | ..Actuating rod |
| 28 | 71 15 111 | 2 | ..Rocker block |
| 29 | 71 15 112 | 4 | ..Pivot link c/w bush and split pin |
| 30 | 71 15 202 | 1 | ...Bush |
| 31 | 05 03 082 | 1 | ...Split pin 3/32" diameter x 1" long |
| 32 | 71 15 114 | 4 | ..Clevis end |
| 33 | 71 15 113 | 4 | ..Clevis end pin c/w split pin |
| 34 | 05 03 082 | 1 | ...Split pin 3/32" diameter x 1" long |
| | 71 15 133 | 1 | ..Handle assembly |
| 35 | 71 15 131 | 1 | ...Handle |
| 36 | 81 14 062 | 1 | ...Ring - red |
| 37 | 81 14 063 | 1 | ...Ring - black |
| | 71 15 134 | 1 | ..Handle assembly |
| 38 | 71 15 132 | 1 | ...Handle |
| 39 | 81 14 060 | 1 | ...Ring - yellow |
| 40 | 81 14 061 | 1 | ...Ring - green |
| | Items 41 to 43 (inclusive) are common to both lever assemblies :- | | |
| 41 | 81 14 053 | 1 | ...Lever knob |
| 42 | 04 20 812 | 1 | ...Spring dowel 1/8" diameter x 3/4" long |
| 43 | 04 21 612 | 1 | ...Spring dowel 3/16" diameter x 3/4" long |
| 44 | 81 14 028 | 2 | ..Lever boot |
| 45 | 01 00 103 | 4 | ..Plain washer 3/8" diameter |
| 46 | 01 11 003 | 4 | ..Hexagon nut 3/8" UNF |
| | 71 15 143 | 1 | ..Spirit level assembly comprising :- |
| 47 | 71 15 144 | 1 | ...Mounting bracket |
| 48 | 71 15 145 | 1 | ...Spirit level |
| 49 | 71 15 146 | 3 | ...Spirit level screw |
| 50 | 93 13 013 | 1 | ...Set screw M6 x 10 |
| 51 | 91 00 103 | 1 | ...Plain washer $\varnothing 6$ |

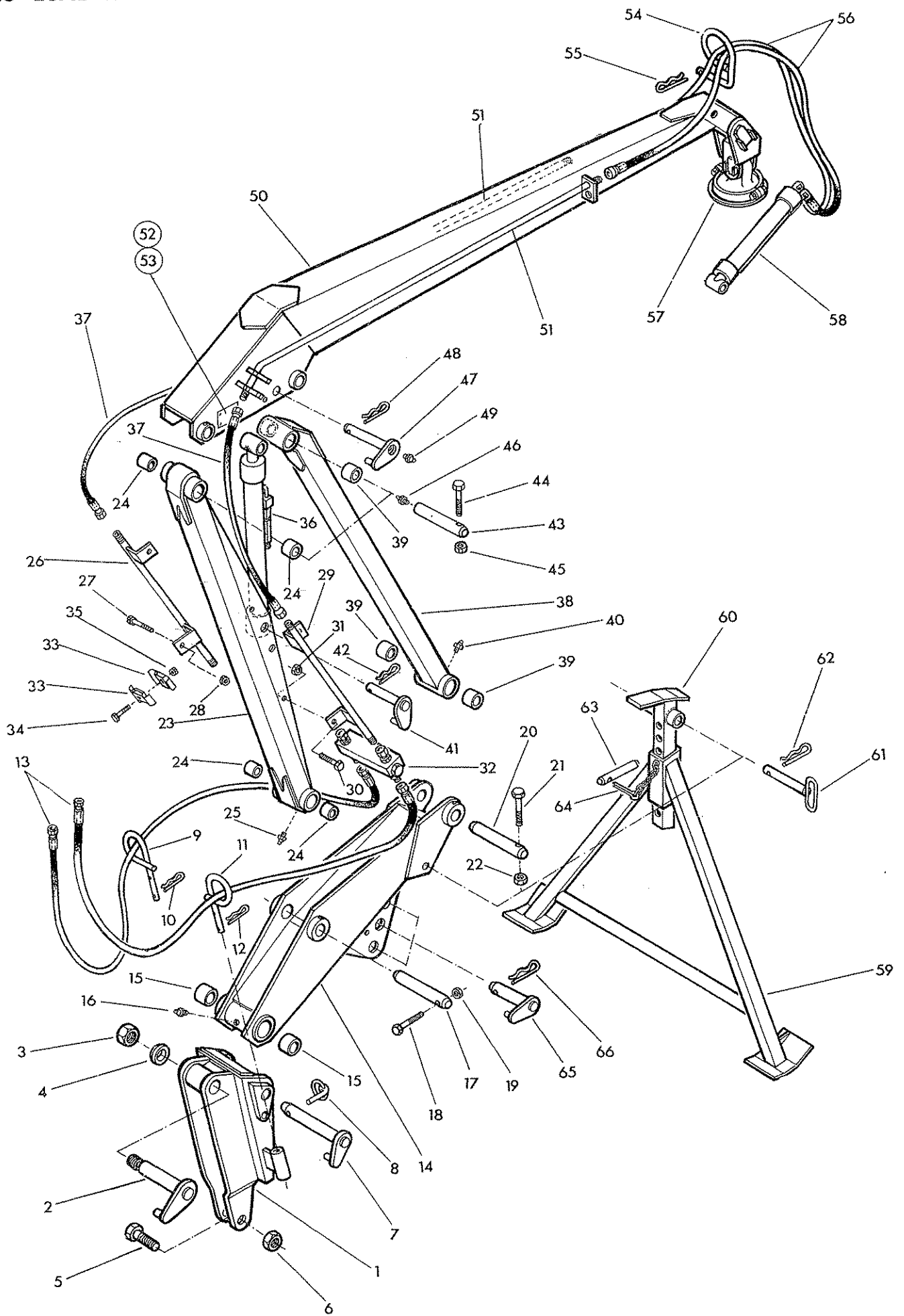
After serial Nos. 01AH26 for PA8's and 00AG33 for PA7's the spirit level assembly items 47 - 51 inclusive are deleted.

ARMHEAD



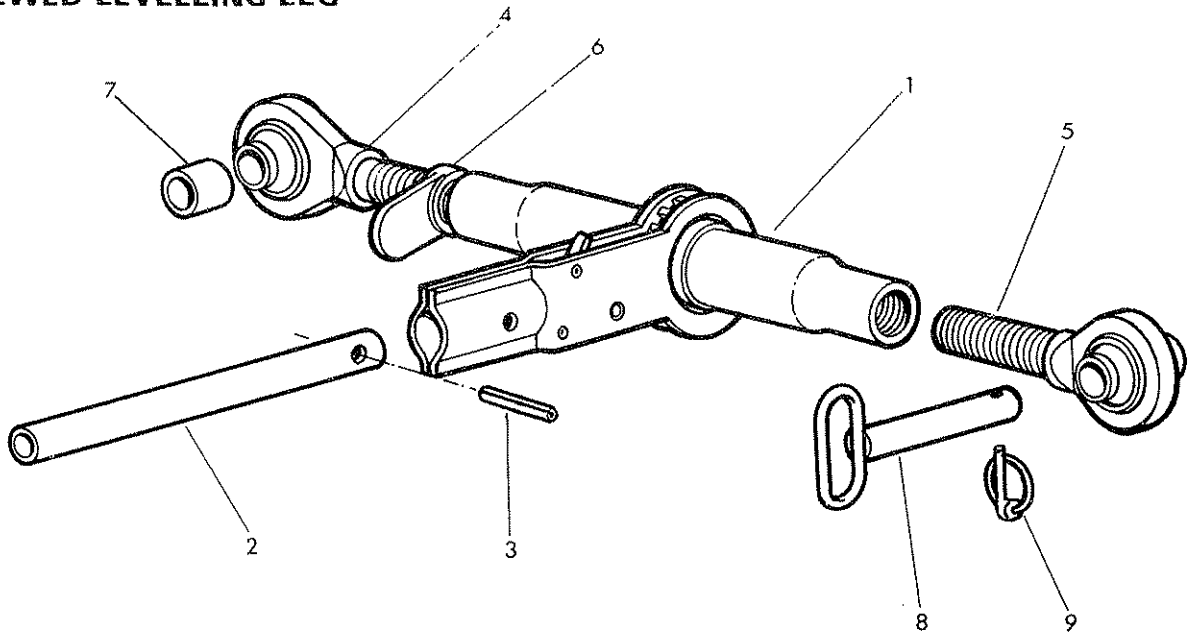
| Ref | Part No. | Qty | Description |
|-----|-----------|-----|--|
| | 71 15 251 | | PA7 and PA8 COMMON PARTS (continued) |
| | 71 15 254 | 1 | .Armhead assembly |
| | 71 15 299 | 1 | ..Main arm assembly comprising :- |
| 1 | 71 15 291 | 1 | ...Main arm c/w bushes |
| 2 | 71 15 208 | 2 |Bush |
| 3 | 09 01 124 | 1 |Greaser 1/8" BSP |
| 4 | 71 15 067 | 1 | ...Reach arm pivot pin c/w nuts and bolts |
| 5 | 92 13 165 | 2 |Bolt M10 x 80 |
| 6 | 91 43 005 | 2 |'Clevelok' nut M10 |
| | 72 12 017 | 1 | ...Hose bracket guide assembly |
| 7 | 71 17 020 | 1 |Hose bracket |
| 8 | 60 12 026 | 2 |Pipe clamp - double |
| 9 | 01 41 003 | 1 |Clevelok nut 3/8" UNF |
| 10 | 71 15 054 | 1 | ...Lift ram rod end pin c/w spring cotter |
| 11 | 05 03 145 | 1 |Split pin 3/16" dia x 1.3/4" long |
| 12 | 71 15 055 | 1 | ...Reach ram base end pin c/w spring cotter |
| 13 | 05 03 145 | 1 |Split pin 3/16" dia x 1.3/4" long |
| 14 | 71 15 068 | 2 | ...Rigid pipe |
| 15 | 71 15 069 | 2 | ...Angular union |
| | 71 15 306 | 1 | ..Dipper arm upper assembly comprising :- |
| 16 | 71 15 300 | 1 | ...Dipper arm upper c/w bushes |
| 17 | 09 01 124 | 1 |Greaser 1/8" BSP |
| 18 | 71 15 208 | 2 |Pivot bush |
| 19 | 70 12 037 | 4 |Joint pin bush |
| 20 | 71 15 054 | 1 | ...Reach ram rod end pin c/w spring cotter |
| 21 | 05 03 145 | 1 |Split pin 3/16" dia x 1.3/4" long |
| 22 | 71 15 055 | 1 | ...Bucket ram base end pin c/w spring cotter |
| 23 | 05 03 145 | 1 |Split pin 3/16" dia x 1.3/4" long |
| 24 | 71 15 057 | 1 | ...Arm joint pin c/w nut and washer |
| 25 | 91 00 108 | 1 |Plain washer ϕ 20 |
| 26 | 91 00 005 | 1 |'Conelok' nut M20 |
| 27 | 02 11 489 | 1 | ...Bolt 1" UNF x 6" long |
| 28 | 01 41 009 | 1 | ...'Clevelok' nut 1" UNF |
| 29 | 01 00 109 | 1 | ...Plain washer .1" dia |
| | 71 05 363 | 1 | ..Dipper arm lower assembly comprising:- |
| 30 | 71 05 360 | 1 | ...Dipper arm lower c/w bushes |
| 31 | 71 01 134 | 2 |Bucket pivot bush |
| 32 | 71 01 083 | 2 |Radius arm pivot bush |
| 33 | 09 01 121 | 1 |Greaser 1/8" BSP |
| 34 | 04 21 832 | 1 | ...Spring dowel 1/4" diameter x 2" long |
| 35 | 71 05 369 | 1 | ...Radius arm |
| 36 | 71 06 312 | 1 | ...Slave link c/w bushes |
| 37 | 71 01 134 | 2 |Bush |
| 38 | 71 01 083 | 2 |Bush |
| 39 | 09 01 121 | 1 |Greaser 1/8" BSP |
| 40 | 72 17 010 | 2 | ...Bucket pivot pin c/w linch pin |
| 41 | 04 31 217 | 1 |Linch pin |
| 42 | 71 05 090 | 2 | ...Radius arm pin c/w pin and greaser |
| 43 | 09 01 121 | 1 |Greaser 1/8" BSP |
| 44 | 05 03 165 | 1 |Split pin 3/16" dia x 2" long |
| 45 | 71 05 298 | 1 | ..Bucket Ram assembly (see page118) |
| 46 | 85 11 263 | 2 | ..Hose 3/8" BSP S-F S-F x 34" long |
| 47 | 71 15 365 | 1 | ..Reach ram assembly (see page116) |

A16 LOADER ARMHEAD

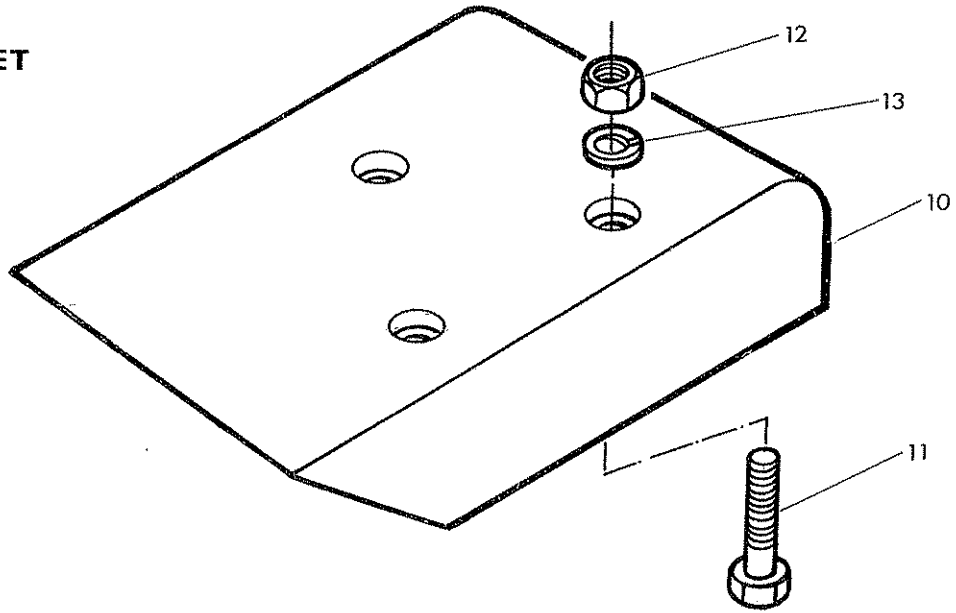


| Ref | Part No. | Qty | Description |
|-----|-----------|-----|--|
| | | | A16 LOADER ARM HEAD |
| 1 | 70 16 255 | 1 | .Column adaptor bracket |
| 2 | 70 16 024 | 1 | .Adaptor bracket pin C/W nut |
| 3 | 01 41 009 | 1 | .. Hexagon nut 'Clevelok' 1" UNF |
| 4 | 79 16 025 | 1 | .Adaptor bracket washer |
| 5 | 03 11 189 | 2 | .Set Screw 1" UNF x 2¼" long |
| 6 | 01 51 009 | 2 | .Hexagon nut thin 'Clevelok' 1" UNF |
| 7 | 70 16 026 | 1 | .Rocker arm pivot pin c/w linch pin |
| 8 | 04 31 217 | 1 | ..Linch pin |
| 9 | 71 02 204 | 1 | .Hose guide R. Hand c/w spring cotter |
| 10 | 04 31 105 | 1 | ..Spring Cotter |
| 11 | 71 02 203 | 1 | ..Hose guide L. Hand c/w spring cotter |
| 12 | 04 31 105 | 1 | ..Spring Cotter |
| 13 | 85 31 233 | 2 | .Hose 3/8 BSP S-F S-F 75" long |
| 14 | 70 16 265 | 1 | .Rocker arm c/w bushes & greaser |
| 15 | 70 15 010 | 2 | ..Bush |
| 16 | 09 01 121 | 1 | ..Greaser 1/8" BSP - straight |
| 17 | 70 16 029 | 1 | .Tension linkpin c/w nut & bolt |
| 18 | 92 13 124 | 1 | ..Bolt M8 x 60 |
| 19 | 91 43 004 | 1 | ..Hexagon Nut 'Clevelok' M8 |
| 20 | 70 16 028 | 1 | .Compression link pin c/w nut & bolt |
| 21 | 92 13 124 | 1 | ..Bolt M8 x 60 |
| 22 | 91 43 004 | 1 | ..Hexagon nut 'Clevelok' M8 |
| 23 | 70 16 261 | 1 | .Tension link c/w bushes & greaser |
| 24 | 71 01 134 | 4 | ..Bush |
| 25 | 09 01 121 | 1 | ..Greaser 1/8" BSP - straight |
| 26 | 70 16 275 | 1 | .Rigid pipe R. Hand c/w S-screw & nut |
| 27 | 93 13 044 | 2 | ..Set Screw M8 x 20 |
| 28 | 91 43 004 | 2 | ..Hexagon nut 'Clevelok' M8 |
| 29 | 70 16 276 | 1 | .Rigid pipe L. Hand c/w S-screw & nut |
| 30 | 93 13 044 | 2 | ..Set screw M8 x 20 |
| 31 | 91 43 004 | 2 | ..Hexagon nut 'Clevelok' M8 |
| 32 | 70 16 273 | 1 | .Cross port relief valve (see page 109) |
| 33 | 60 12 026 | 4 | .Hose Clip |
| 34 | 92 13 075 | 2 | . Bolt M10 x 35 |
| 35 | 91 43 005 | 2 | .Hexagon nut 'Clevelok' M10 |
| 36 | 70 16 277 | 1 | .Reach Ram ssembly (see page 117) |
| 37 | 85 11 263 | 2 | .Hose 3/8 BSP S-F S-F 34" long |
| 38 | 70 16 260 | 1 | .Compression link c/w bushes & greaser |
| 39 | 71 01 134 | 4 | . Bush |
| 40 | 09 01 121 | 1 | .Greaser 1/8" BSP - straight |
| 41 | 70 16 032 | 1 | .Reach ram base end pin c/w spring cotter |
| 42 | 04 31 105 | 1 | ..Spring cotter |
| 43 | 70 16 031 | 2 | .Link top pin c/w nut, bolt & greaser |
| 44 | 92 13 124 | 1 | .Bolt M8 X 60 |
| 45 | 91 43 004 | 1 | .Hexagon nut 'Clevelok' M8 |
| 46 | 09 01 121 | 1 | ..Greaser 1/8" BSP - straight |
| 47 | 70 16 033 | 1 | .Reach ram rod end pin c/w spring cotter and greaser |
| 48 | 09 01 121 | 1 | ..Greaser 1/8 BSP straight |
| 49 | 04 31 105 | 1 | ..Spring cotter |
| 50 | 70 16 262 | 1 | . Main boom c/w pipes |
| 51 | 70 16 017 | 2 | .. Rigid pipe |
| 52 | 70 16 018 | 1 | ..Serial plate |
| 53 | 71 03 230 | 4 | .. Pop rivet |
| 54 | 72 14 030 | 1 | .Hose guide c/w spring cotter |
| 55 | 04 31 105 | 1 | .. Spring cotter |
| 56 | 85 31 223 | 2 | .Hose 3/8 BSP St-F 90°-F 59" long |
| 57 | 70 16 278 | 1 | .Swivel assembly (see page 119) |
| 58 | 70 16 279 | 1 | .Grab ram (see page 115) |
| 59 | 70 16 271 | 1 | .Stand c/w slider & pins |
| 60 | 70 16 272 | 1 | ..Slide tube |
| 61 | 70 16 035 | 1 | ..Stand pin c/w spring cotter |
| 62 | 04 31 105 | 1 | ...Spring cotter |
| 63 | 71 01 055 | 1 | ..Retainer pin |
| 64 | 05 03 105 | 1 | ..Split pin 3/16" dia x 11/4" long |
| 65 | 70 16 030 | 1 | .Lift ram rod pin c/w spring cotter |
| 66 | 04 31 105 | 1 | .. Spring cotter |

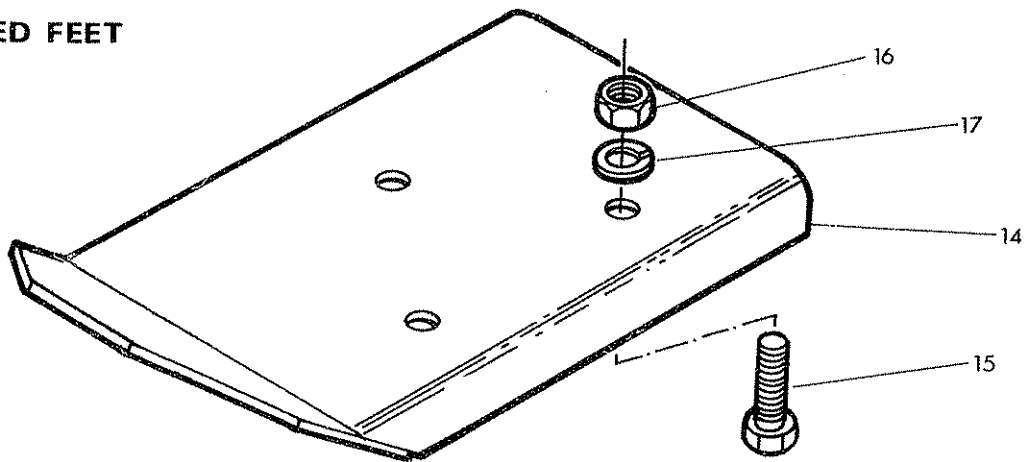
SCREWED LEVELLING LEG



CAST FEET

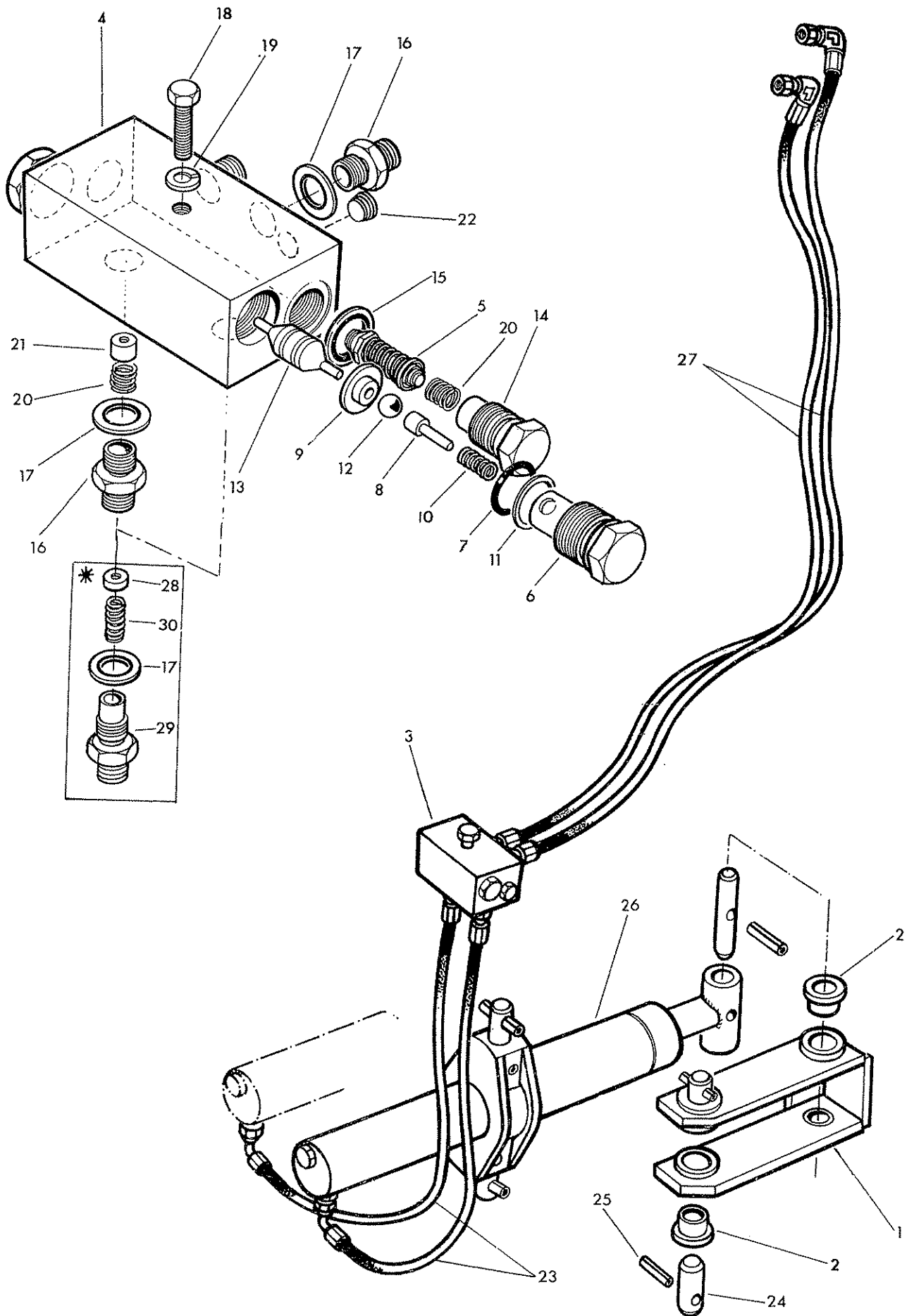


FABRICATED FEET



| Ref | Part No. | Qty | Description |
|-----|---|-----|---|
| | 71 15 325 | | SCREWED LEG LEVELLING KIT (Standard for PA7) |
| | 71 15 276 | 2 | .Leg adjuster link assembly comprising :- |
| | 71 15 350 | 1 | ..Tube ratchet c/w handle |
| 1 | 71 15 353 | 1 | ...Ratchet |
| 2 | 71 15 217 | 1 | ...Handle c/w spring dowel |
| 3 | 04 21 820 | 1 | ...Spring dowel 1/4" dia x 1¼" long |
| 4 | 71 15 206 | 1 | ..Category II end Right Hand |
| 5 | 71 15 207 | 1 | ..Category II end Left Hand |
| 6 | 71 15 153 | 1 | ..Locking collar |
| 7 | 71 15 152 | 2 | .Spacer |
| 8 | 71 15 149 | 2 | .Leg adjuster pin c/w linch pin |
| 9 | 04 31 217 | 1 | ..Linch pin |
| | 71 15 265 | | KIT OF CAST FEET (standard for PA7) |
| 10 | 71 01 279 | 1 | .Foot Right Hand |
| | 71 01 280 | 1 | .Foot Left Hand (not illustrated) |
| 11 | 02 16 286 | 6 | .Bolt 5/8 UNC x 3½" long |
| 12 | 01 12 006 | 6 | .Hexagon nut 5/8" UNC |
| 13 | 01 11 206 | 6 | .Spring washer 5/8" diameter |
| | 71 15 266 | | KIT OF FABRICATED FEET (Standard for PA8); Optional Extra for PA7. |
| 14 | 71 03 259 | 1 | .Foot Right Hand c/w nuts, bolts and washers |
| | 71 03 258 | 1 | .Foot Left Hand c/w nuts, bolts and washers (not illustrated) |
| | Items 15 to 17 (inclusive) are common to both feet assemblies | | |
| 15 | 02 16 146 | 3 | ..Bolt 5/8" UNC x 1¼" long |
| 16 | 01 12 006 | 3 | ..Hexagon nut 5/8" UNC |
| 17 | 01 00 206 | 3 | ..Spring washer 5/8"diameter |

SLEW ASSEMBLY



| Ref | Part No. | Qty | Description |
|-----|-----------|-----|---|
| | 71 15 251 | | PA7 and PA8 COMMON PARTS (continued) |
| | 71 15 252 | 1 | .Main frame and slew column etc. |
| | 71 15 317 | 1 | ..Slew assembly comprising :- |
| 1 | 71 02 172 | 2 | ...Slew link c/w bushes |
| 2 | 71 02 173 | 4 |Bush |
| * 3 | 71 15 354 | 1 | ...Slew cross port valve assembly comprising :- |
| 4 | 71 15 355 | 1 |Cross port block |
| 5 | 81 30 077 | 2 |Relief valve (210 bars - 3000 psi) |
| | 81 30 057 | 2 |Check valve assembly comprising :- |
| 6 | 81 30 025 | 1 |Valve cap |
| 7 | 87 00 644 | 1 |'O' ring |
| 8 | 81 30 040 | 1 |Spring guide |
| 9 | 81 30 024 | 1 |Check valve seat |
| 10 | 81 14 045 | 1 |Spring |
| 11 | 87 09 644 | 1 |Anti-extrusion ring |
| 12 | 09 05 509 | 1 |Steel ball Ø9 |
| 13 | 81 30 026 | 1 |Actuator |
| 14 | 81 30 031 | 2 |Relief valve cap |
| 15 | 86 50 103 | 2 |Bonded seal 3/8" BSP |
| 16 | 80 02 177 | 4 | ...Union 1/4" BSP M - M |
| 17 | 86 50 102 | 4 |Bonded seal 1/4" BSP |
| 18 | 93 13 044 | 1 |Setscrew M8 x 20 |
| 19 | 91 00 204 | 1 |Spring washer Ø8 |
| 20 | 81 16 011 | 2 |Spring |
| 21 | 81 23 007 | 2 |Restrictor piston |
| 22 | 85 82 041 | 2 |Plug |
| 23 | 85 36 072 | 2 | ...Hose 1/4" BSP S - F 90°F x 22" long |
| 24 | 71 02 174 | 4 | ...Slew link pivot pin c/w spring dowel |
| 25 | 04 22 528 | 1 |Spring dowel 5/16" dia x 1.3/4" long |
| 26 | 71 15 295 | 2 | ...Slew ram assembly (see page 110) |
| 27 | 85 36 102 | 2 | Hose 1/4" BSP S-F 90°F 45" long (Ref only) |

☐ Machines prior to serial Nos. 01AH26 (PA8) and 00AG33 (PA7) were fitted with slew cross port valve Part No. 71 15 320.

The parts list for this valve is identical to 71 15 354 with the following exceptions :-

| | | |
|-----------|---|-----------------------------------|
| 71 15 320 | 1 | ...Slew cross port valve assembly |
| 71 15 321 | 1 |Cross port block |

In addition items 21 and 22 are deleted.

Installation note

If cross port valve Part No. 71 15 354 is to be fitted to a machine prior to the above serial numbers the restrictors 'E' must be removed from the Kontak Valve and replaced by Unions, Part No. 85 81 172.

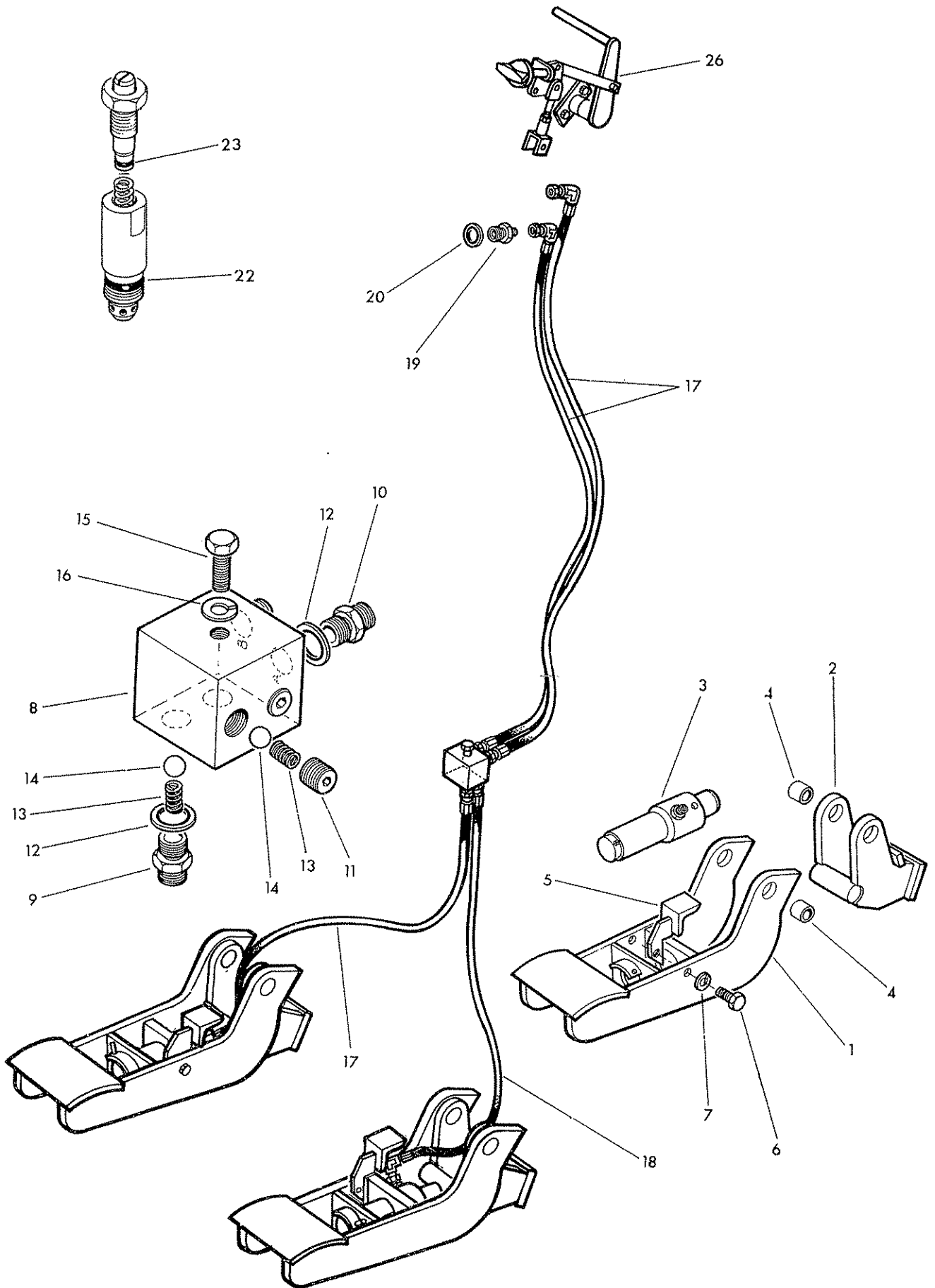
* For PA8's after 03 AH 15, PA7's after 00 AG 69 and A16 loaders after 00 AL 56 the slew cross port valve was modified.

The parts list for the new assembly is identical to above with the following exceptions. See inset.

| | | | |
|----|-----------|---|--|
| 28 | 81 23 041 | 2 |Restrictor disc |
| 29 | 85 81 182 | 2 |Special union 1/4" BSP 3/8 BSP M-M |
| 30 | 81 14 045 | 2 |Spring |

The valve block item 4 although retaining the same part no. is a modified item. Replacement valve blocks for machines relating to the above* will be supplied as complete assemblies only.

I.W.T. KIT (For ROHYD valve)



| Ref | Part No. | Qty | Description |
|-----|-----------|-----|--|
| | 71 15 333 | | I.W.T. KIT INSTALLATION (with Rohyd main relief valve) |
| | | | Standard build for PA8 |
| | | | Optional extra for PA7 |
| | 71 15 288 | 1 | .Lift arm assembly left hand |
| | 71 15 287 | 1 | .Lift arm assembly right hand (see exploded view) |

* Items 1 to 7 (incl) are common to both lift arm assemblies:-

| | | | |
|----|-----------|---|---|
| 1 | 71 03 266 | 1 | ..Lift arm |
| 2 | 71 03 057 | 1 | ..Reaction bracket |
| 3 | 71 15 289 | 1 | ..Ram assembly (see page 111) |
| 4 | 60 12 032 | 2 | ..Bush |
| 5 | 71 03 228 | 1 | ..Connection guard c/w screw |
| 6 | 03 11 083 | 1 | ...Setscrew 3/8" UNF x 1" long |
| 7 | 01 00 203 | 1 | ...Spring washer 3/8" dia |
| | 71 15 100 | 1 | .Selector valve assembly |
| 8 | 71 15 101 | 1 | ..Valve block |
| 9 | 71 15 102 | 2 | ..Slotted union |
| 10 | 80 02 177 | 2 | ..Union 1/4" BSP M-M |
| 11 | 71 15 103 | 2 | ..Plug |
| 12 | 86 50 102 | 4 | ..Bonded seal |
| 13 | 81 16 011 | 4 | ..Spring |
| 14 | 09 05 509 | 4 | ..Steel ball \varnothing 9 |
| 15 | 93 13 044 | 1 | ..Setscrew M8 x 20 |
| 16 | 91 00 204 | 1 | ..Spring washer \varnothing 8 |
| 17 | 85 36 102 | 3 | .Hose 1/4" BSP S-F 90° F 45" long |
| 18 | 85 36 042 | 1 | .Hose 1/4" BSP S-F 90° F 40" long |
| 19 | 85 81 172 | 2 | .Union 1/2" BSP - 1/4" BSP M-M |
| 20 | 86 50 104 | 2 | .Bonded seal 1/2" BSP |
| 21 | 81 28 002 | 1 | .Main relief valve (2500 psi) c/w 'O' rings |
| 22 | 81 28 019 | 1 | ..'O' ring (body) |
| 23 | 81 28 018 | 1 | ..'O' ring (Adjuster) |
| 24 | 71 15 344 | 1 | .I.W.T. foot pedal linkage assembly (see page 85) |

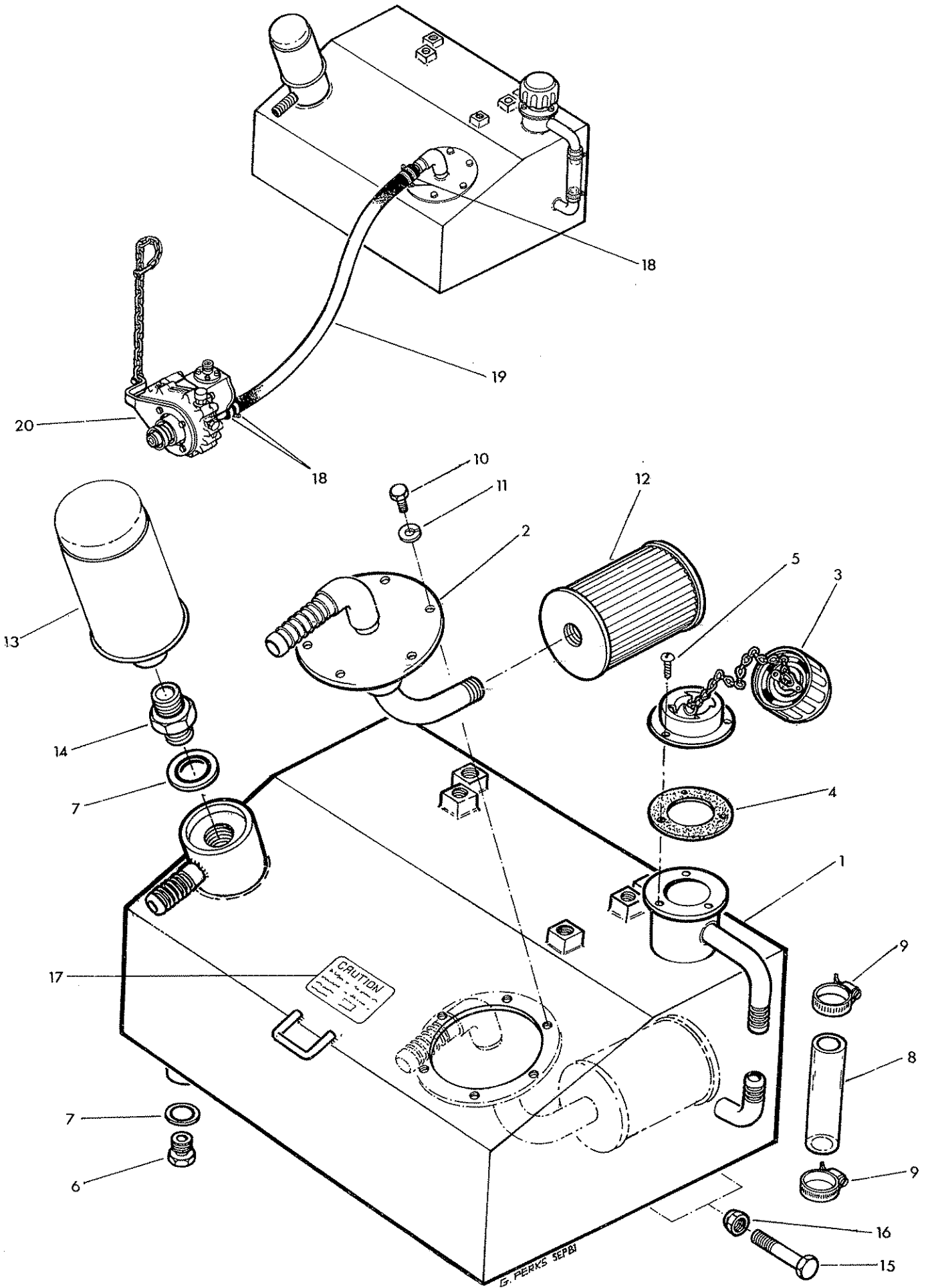
* For I.W.T. kit with Kontak main relief valve see page 139

| Ref | Part No. | Qty | Description |
|-----|-----------|-----|---|
| | 71 15 258 | | I.W.T. KIT INSTALLATION (continued) Standard build for PA8 Optional extra for PA7 |
| | 71 15 344 | 1 | ..I.W.T. foot pedal linkage assembly |
| 1 | 71 15 117 | 1 | ..Pedal pivot c/w screws, nuts etc. |
| 2 | 93 13 044 | 2 | ...Setscrew M8 x 20 |
| 3 | 91 43 004 | 2 | ...'Clevelok' nut M8 |
| 4 | 05 03 103 | 1 | ...Split pin 1/8" dia x 1¼" long |
| 5 | 71 15 341 | 1 | ..Foot pedal c/w greaser and split pin |
| 6 | 09 01 121 | 1 | ...Greaser 1/8" BSP |
| 7 | 05 03 082 | 1 | ...Split pin 3/32" dia x 1" long |
| 8 | 71 15 342 | 1 | ..Linkage rod |
| 9 | 71 15 343 | 1 | ..Rocker c/w circlip and split pin |
| 10 | 05 03 082 | 2 | ...Split pin 3/32" dia x 1" long |
| 11 | 81 21 073 | 1 | ...Circlip |
| 12 | 71 15 115 | 1 | ..Actuating rod |
| 13 | 71 15 114 | 1 | ..Clevis end |
| 14 | 01 11 003 | 1 | ..Hexagon nut 3/8" UNF |
| 15 | 71 15 113 | 1 | ..Clevis end pin c/w split pin |
| 16 | 05 03 082 | 1 | ...Split pin 3/32" dia x 1" long |
| *17 | 71 15 119 | 1 | ..Lever lock c/w spring dowel |
| 18 | 04 20 820 | 1 | ...Spring dowel 1/8" dia x 1.1/4" long |
| 19 | 01 00 103 | 1 | ..Plain washer |
| 20 | 71 15 116 | 1 | ..Special washer |
| *21 | 71 15 123 | 1 | ..Knob |
| 22 | 71 15 124 | 1 | ..Instruction label |

* Assembly note:

It is important that the dimple on the knob is assembled to line up with the latch on the lever lock.

INDEPENDENT HYDRAULIC KIT

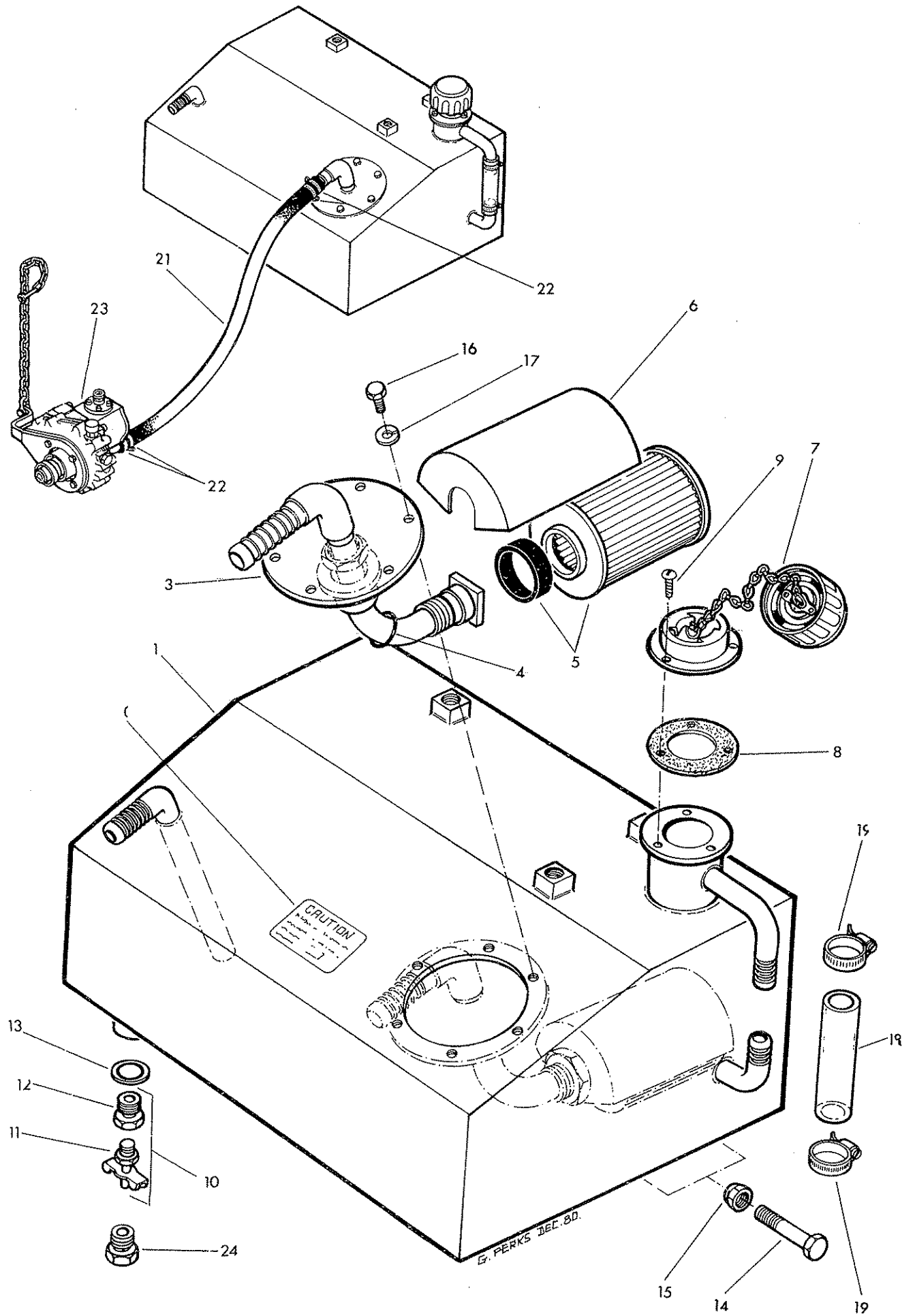


| Ref | Part No | Qty | Description |
|-----|-----------|-----|--|
| * | 71 15 259 | | INDEPENDENT HYDRAULIC INSTALLATION Standard build for PA8 Optional extra for PA7 |
| | 71 15 308 | 1 | .Oil tank assembly comprising:- |
| 1 | 71 15 309 | 1 | ..Oil tank |
| 2 | 71 15 307 | 1 | ..Tank lid |
| | 84 01 014 | 1 | ..Filler breather assembly |
| 3 | 84 01 015 | 1 | ..Filler cap and neck |
| 4 | 84 01 017 | 1 | ...Gasket |
| 5 | 03 00 082 | 3 | ...Screw - self tapping - 3/16" dia x 1/2" long |
| 6 | 71 15 088 | 1 | ...Drain plug |
| 7 | 86 50 104 | 2 | ..Bonded seal 1/2" BSP |
| 8 | 85 05 005 | 1 | ..Oil sight tube |
| 9 | 09 04 204 | 2 | ..Hose clip |
| 10 | 93 13 023 | 6 | ..Setscrew M6 x 12 |
| 11 | 91 00 203 | 6 | ..Spring washer Ø 6 |
| 12 | 84 01 044 | 1 | ..Strainer |
| 13 | 84 01 045 | 1 | ..Canister filter |
| 14 | 85-81 174 | 1 | ..Union 1/2" BSP - 1" UNF M-M |
| 15 | 92 13 226 | 2 | ..Bolt M12 x 110 |
| 16 | 91 43 006 | 2 | ..'Clevelok' nut M12 |
| 17 | 84 01 046 | 1 | ..Filter instruction label |
| 18 | 09 04 106 | 4 | .Hose clip (1" bore hose) |
| 19 | 85 00 865 | 1 | .Hose 1" bore x 65" long |
| 20 | 80 13 335 | 1 | .Brevini gearbox/Casappa pump assembly |

* For machines supplied with independent hydraulic installation prior to serial No. 02 8H 78 see page 89

Items 1 & 2 to be sealed on assembly using Hermetite liquid gasket or other similar sealing compound.

INDEPENDENT HYDRAULIC KIT (Prior to 02 AH 78)

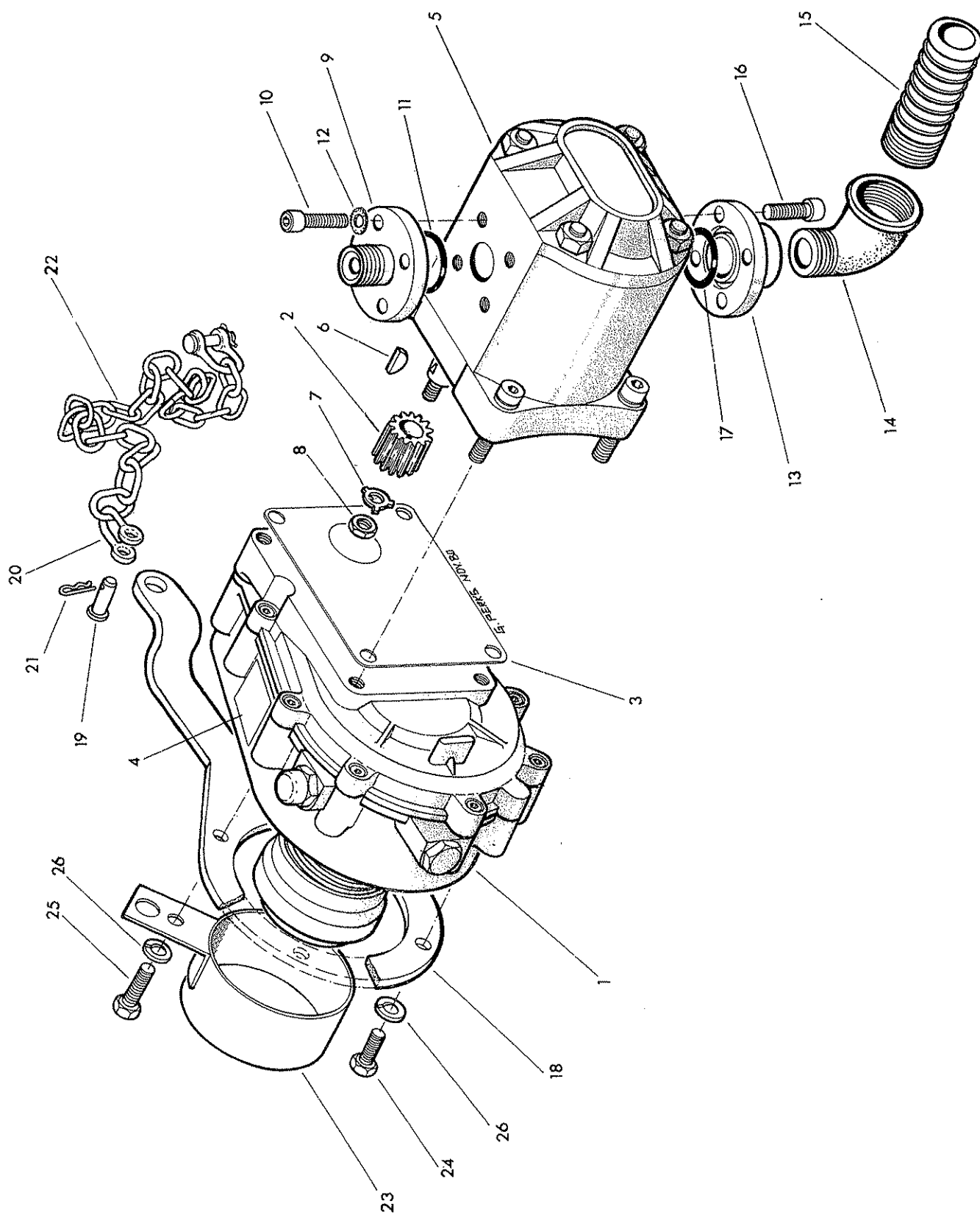


| Ref | Part No. | Qty | Description |
|------|-------------------------|-----|--|
| | 71 15 259 | | INDEPENDENT HYDRAULIC INSTALLATION Standard build for PA8 Optional extra for PA7 |
| | 71 15 310 | 1 | .Oil tank assembly comprising :- |
| * 1 | 71 15 311 | 1 | ..Oil tank |
| * 2 | 71 15 314 | 1 | ..Tank lid assembly c/w filter |
| 3 | 71 15 315 | 1 | ...Tank lid c/w collar and nut |
| 4 | 86 00 512 | 1 | ...10' ring |
| 5 | 84 01 036 | 1 | ...Filter c/w rubber collar |
| 6 | 71 15 087 | 1 | ...Filter cowl |
| | 84 01 014 | 1 | ..Filler breather assembly |
| 7 | 84 01 015 | 1 | ...Filler cap and neck |
| 8 | 84 01 017 | 1 | ...Gasket |
| 9 | 03 00 082 | 3 | ...Screw - self tapping - 3/16" dia x 1/2" long |
| ☐ 10 | 71 15 088 | 1 | ..Drain plug assembly comprising :- |
| 11 | 71 15 090 | 1 | ...Drain tap |
| 12 | 71 15 089 | 1 | ...Drain tap adaptor |
| 13 | 86 50 104 | 1 | ..Bonded seal 1/2" BSP |
| 14 | 92 13 226 | 2 | ..Bolt M12 x 110 |
| 15 | 91 43 006 | 2 | ..Self locking nut M12 |
| 16 | 93 13 023 | 6 | ..Setscrew M6 x 12 |
| 17 | 91 00 203 | 6 | ..Spring washer Ø6 |
| 18 | 85 05 005 | 1 | ..Oil sight tube 5" long 5/8" bore |
| 19 | 09 04 204 | 2 | ..Hose clip 5/8" bore hose |
| 20 | 84 01 026 | 1 | ..Filter instruction label |
| 21 | 85 00 865 | 1 | .Hose 1" bore 65" long |
| 22 | 09 04 106 | 4 | .Hose clips (1" bore hose) |
| 23 | 80 13 335 | 1 | .Brevini gearbox/Casappa pump assembly (see page 91) |
| ☐ | Drain plug alternative. | | |
| 24 | 71 15 088 | 1 | .Drain plug (solid) |

* Assembly Note

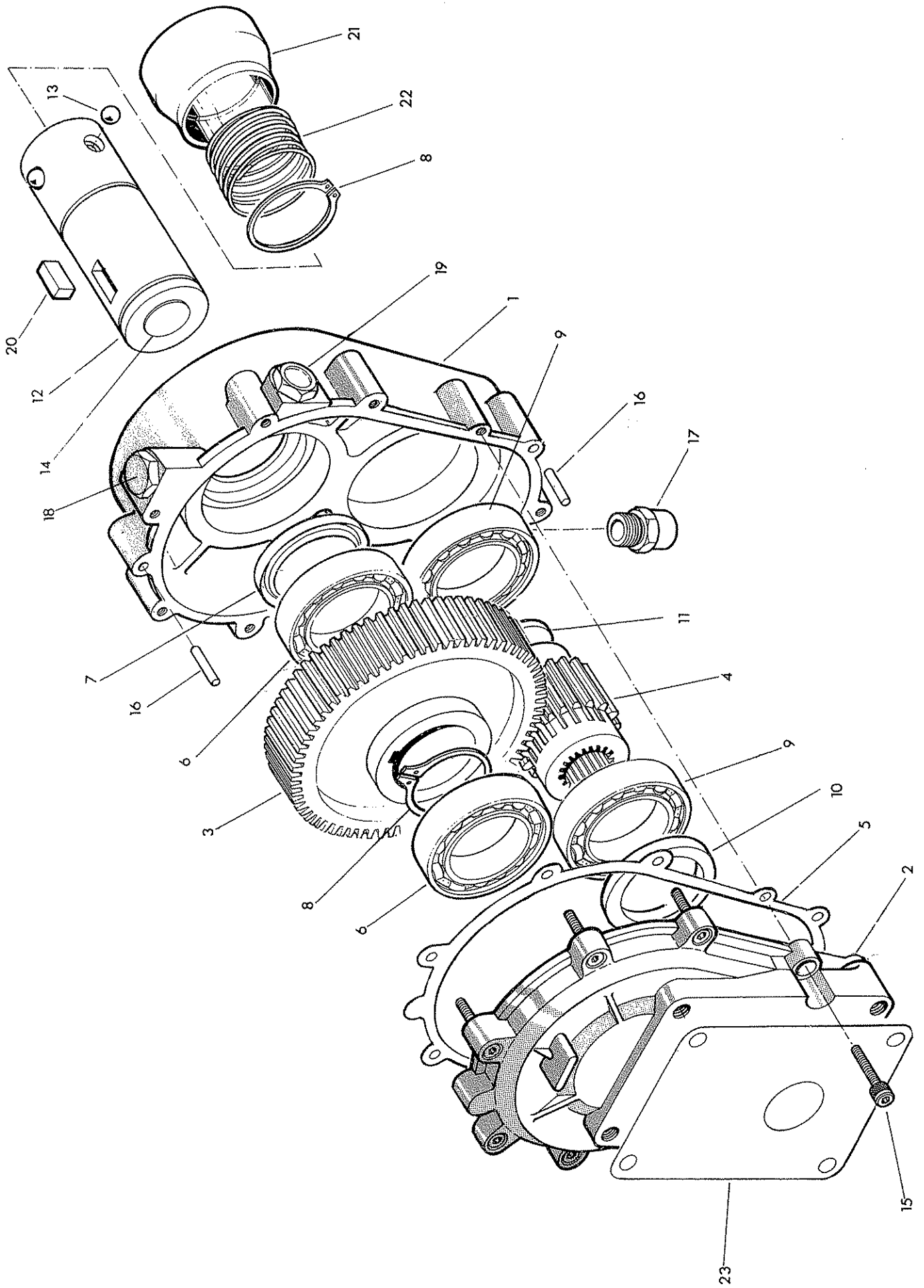
Items 1 and 2 to be sealed on assembly using Hermetite liquid gasket or other similar silicone sealing compound.

BREVINI GEARBOX - CASAPPA PUMP



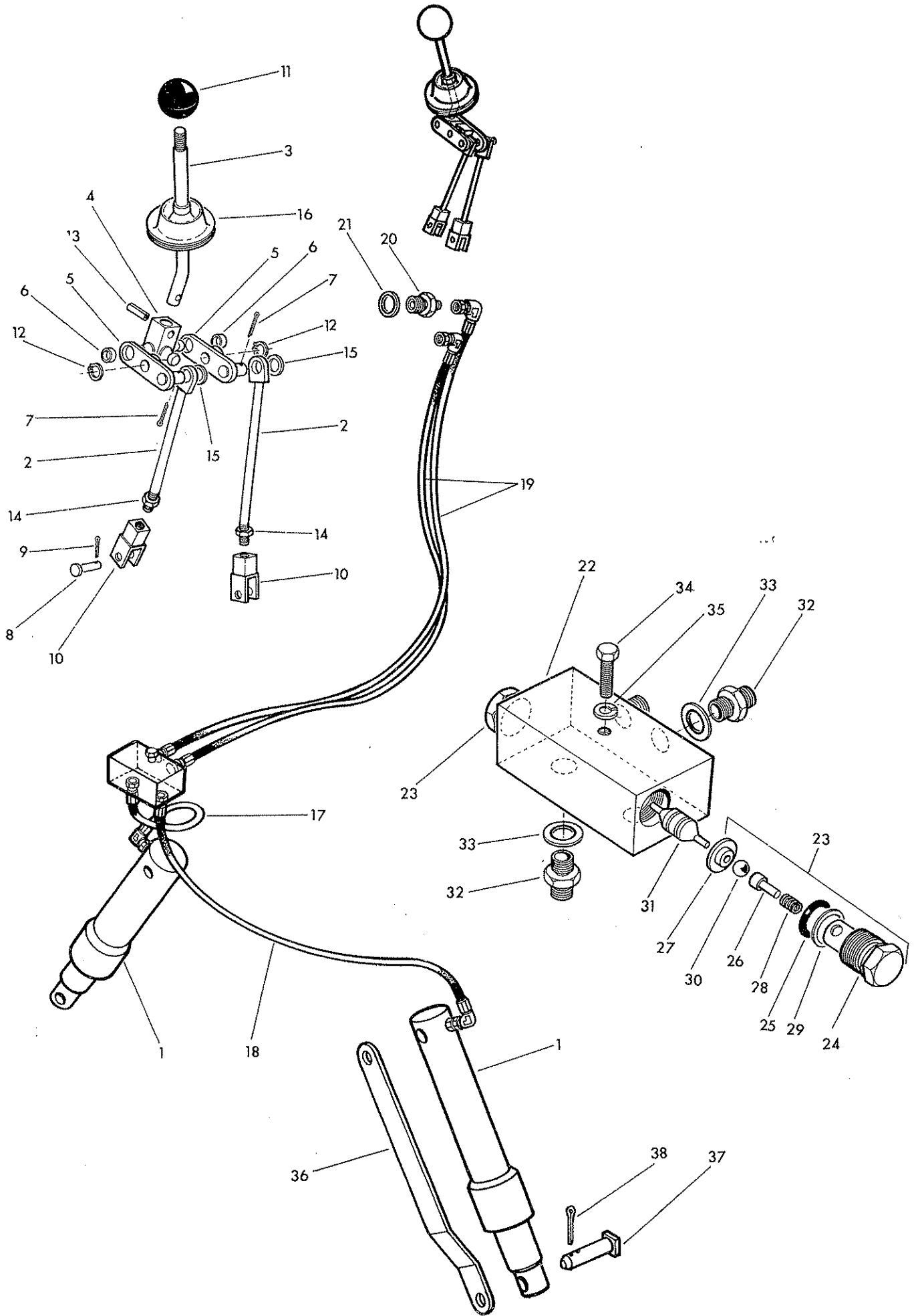
| Ref | Part No | Qty | Description |
|-----|-----------|-----|--|
| | 71 15 259 | | INDEPENDENT HYDRAULIC INSTALLATION (contd) |
| | | | Standard build for PA8 |
| | 80 13 335 | 1 | ..Brevini gearbox/Casappa pump assembly |
| | 80 13 324 | 1 | ..Gearbox c/w coupling, gasket etc. |
| 1 | 80 13 325 | 1 | ..Gearbox (see page 94) |
| 2 | 82 01 131 | 1 | ...Pump drive coupling |
| 3 | 82 01 132 | 1 | ...Gasket pump face |
| 4 | 80 13 052 | 1 | ...Instruction label |
| | 82 01 656 | 1 | ..Pump assembly comprising:- |
| 5 | 82 01 455 | 1 | ...Pump c/w key, washer and nut |
| 6 | 82 01 133 | 1 |Woodruff key |
| 7 | 82 01 134 | 1 |Tab washer |
| 8 | 82 01 135 | 1 |Special hexagon thin nut M12 x 1.5 pitch |
| 9 | 80 05 043 | 1 | ...Pressure connection c/w screws, 'O' ring & washer |
| 10 | 93 43 044 | 4 |Capscrew M8 x 20 |
| 11 | 86 00 405 | 1 |'O' ring |
| 12 | 01 00 302 | 4 |Shakeproof washer |
| | 80 05 044 | 1 | ...Suction connection assembly |
| 13 | 80 05 036 | 1 |Connection base |
| 14 | 85 81 168 | 1 |Elbow ¾" BSP Female - ½" BSP Male |
| 15 | 80 05 037 | 1 |Low pressure connection |
| 16 | 93 43 044 | 4 |Capscrew M8 x 20 |
| 17 | 86 00 405 | 1 |'O' ring |
| | 80 05 034 | 1 | ..Torque arm c/w chain and shackle etc |
| 18 | 80 05 033 | 1 | ...Torque arm |
| | 60 00 087 | 2 | ...Shackle assembly comprising:- |
| 19 | 60 00 089 | 1 |Shackle pin |
| 20 | 60 00 088 | 1 |Shackle |
| 21 | 04 31 105 | 1 |Spring cotter |
| 22 | 09 02 230 | 1 | ...Chain |
| 23 | 80 13 268 | 1 | ..P.T.O. guard |
| 24 | 93 13 055 | 3 | ..Setscrew M10 x 25 |
| 25 | 93 13 065 | 1 | ..Setscrew M10 x 30 |
| 26 | 91 00 205 | 4 | ..Spring washer ø 10 |

GEARBOX



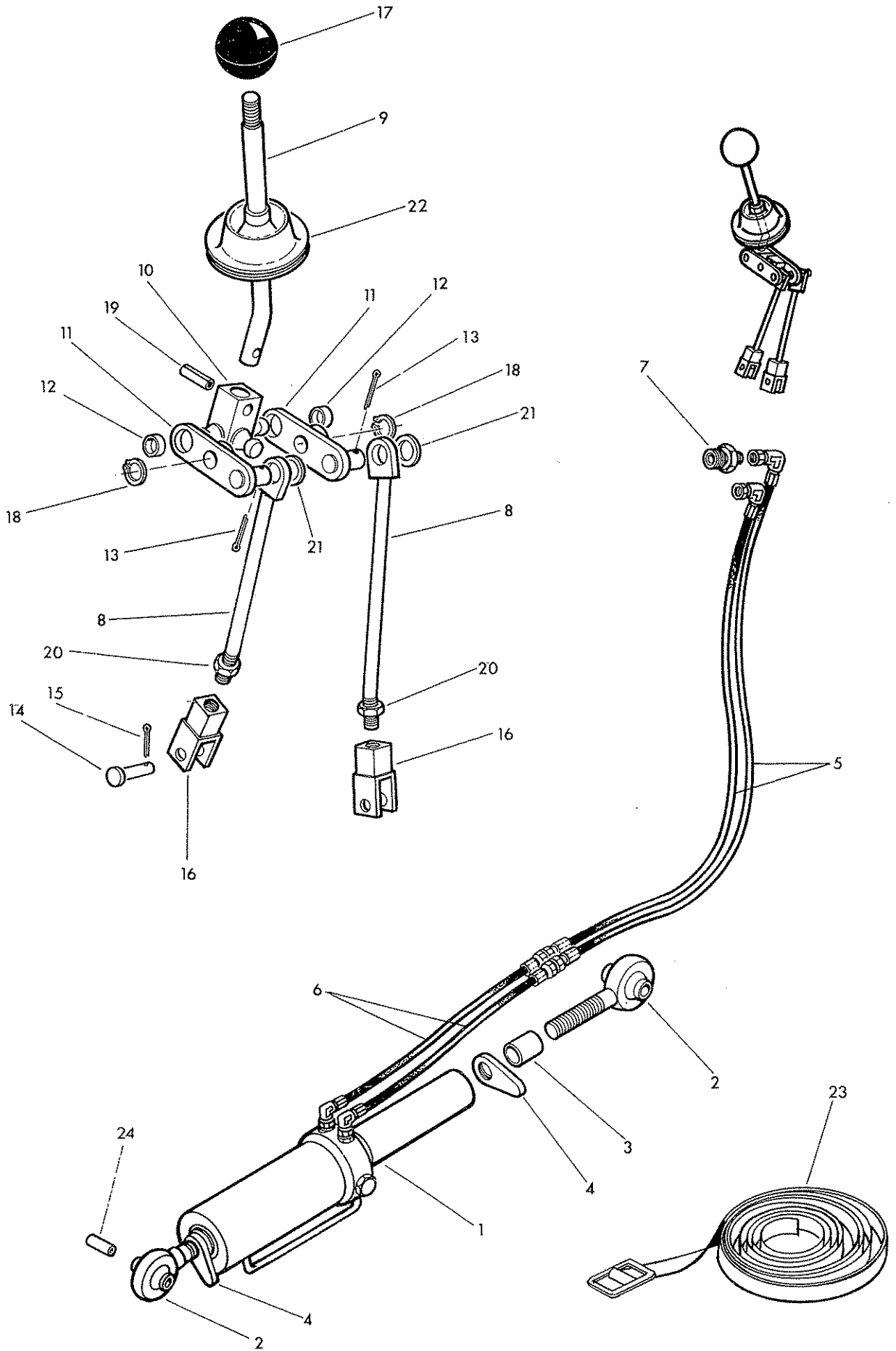
| Ref | Part No | Qty | Description |
|-----|-----------|-----|------------------------------------|
| | 80 13 325 | | GEARBOX (Brevini MP2) |
| 1 | 80 13 074 | 1 | .Gearbox casing |
| 2 | 80 13 074 | 1 | .Gearbox lid |
| 3 | 80 13 078 | 1 | .Gear |
| 4 | 80 13 072 | 1 | .Pinion |
| 5 | 80 13 053 | 1 | .Gasket |
| 6 | 06 00 048 | 2 | .Bearing |
| 7 | 86 29 134 | 1 | .Seal |
| 8 | 04 01 250 | 2 | .External circlip \varnothing 50 |
| 9 | 06 00 051 | 2 | .Bearing |
| 10 | 86 29 142 | 1 | .Seal |
| 11 | 80 13 077 | 1 | .Expansion plug \varnothing 28 |
| 12 | 80 13 075 | 1 | .Shaft |
| 13 | 09 05 116 | 3 | .Steel ball $\frac{1}{2}$ " dia |
| 14 | 80 13 067 | 1 | .Expansion plug \varnothing 37 |
| 15 | 93 43 053 | 8 | .Capscrew M6 x 25 |
| 16 | 80 13 076 | 2 | .Dowel \varnothing 5 x 28 |
| 17 | 80 13 068 | 1 | .Breather plug |
| 18 | 80 13 070 | 1 | .Drain plug |
| 19 | 80 13 069 | 1 | .Oil level plug |
| 20 | 80 13 079 | 1 | .Key 12 x 8 x 20 |
| 21 | 80 13 030 | 1 | .Ball retainer |
| 22 | 80 13 032 | 1 | .Ball retaining spring |
| 23 | 82 01 132 | 1 | Gasket - Pumpface ref. only |

HYDRAULIC LEVELLING KIT



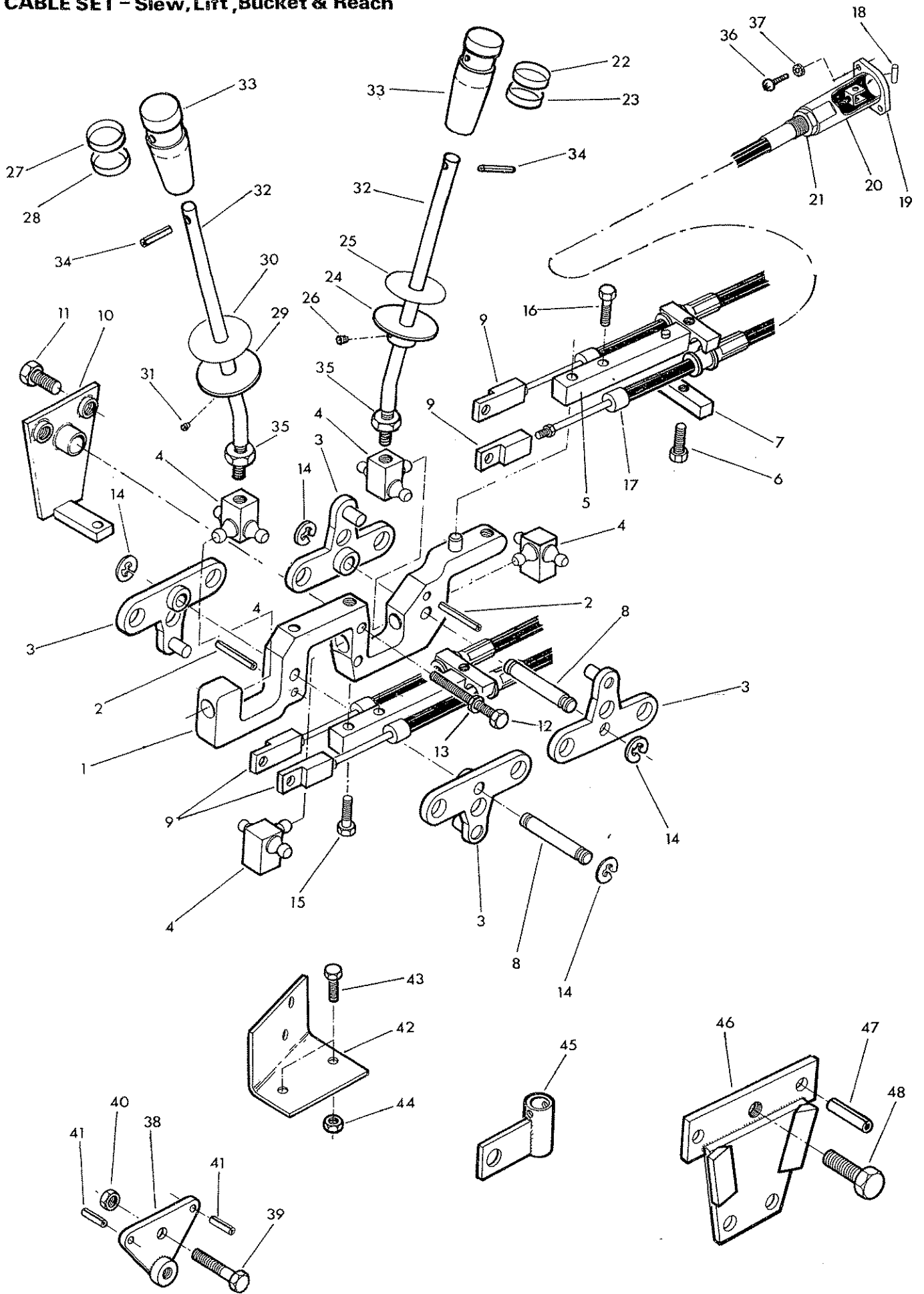
| Ref | Part No. | Qty | Description |
|-----|-----------|-----|--|
| | 71 15 260 | | HYDRAULIC LEVEL KIT INSTALLATION Standard build for PA8 Optional extra for PA7 |
| 1 | 71 15 277 | 2 | . Levelling ram assembly (see page 112) |
| | 71 15 340 | 1 | . Lever kit assembly |
| 2 | 71 15 339 | 2 | ..Actuating rod |
| 3 | 71 15 110 | 1 | ..Handle |
| 4 | 71 15 111 | 1 | ..Rocker block |
| 5 | 71 15 112 | 2 | ..Pivot link c/w bush and split pin |
| 6 | 71 15 202 | 1 | ..Bush |
| 7 | 05 03 082 | 1 | ...Split pin 3/32" dia x 1" long |
| 8 | 71 15 113 | 2 | ..Clevis end pin c/w split pin |
| 9 | 05 03 082 | 1 | ...Split pin 3/32" dia x 1" long |
| 10 | 71 15 114 | 2 | ..Clevis end |
| 11 | 09 03 121 | 1 | ..Knob - black |
| 12 | 81 21 073 | 2 | ..Circlip |
| 13 | 04 21 612 | 1 | ..Spring dowel 3/16" diameter x 3/4" long |
| 14 | 01 31 003 | 1 | ..Hexagon nut 3/8" UNF |
| 15 | 01 00 103 | 2 | ..Plain washer 3/8" diameter |
| 16 | 81 14 028 | 1 | ..Lever boot |
| 17 | 85 36 072 | 1 | .Hose 1/4" BSP SF 90° F 22" long |
| 18 | 85 36 082 | 1 | .Hose 1/4" BSP S - F 90° F 29" long |
| 19 | 85 36 102 | 2 | .Hose 1/4" BSP S - F 90° F 45" long |
| 20 | 85 81 172 | 2 | .Union 1/2" BSP 1/4" BSP M - M |
| 21 | 86 50 104 | 2 | .Bonded seal 1/2" BSP |
| | 71 15 323 | 1 | .Pilot check valve assembly comprising :- |
| 22 | 71 15 324 | 1 | ..Check valve block |
| 23 | 81 30 057 | 2 | ..Check valve comprising :- |
| 24 | 81 30 025 | 1 | ..Valve cap |
| 25 | 87 00 644 | 1 | ... 'O' ring |
| 26 | 81 30 040 | 1 | ... Spring guide |
| 27 | 81 30 024 | 1 | ... Check valve seat |
| 28 | 81 14 045 | 1 | ... Spring |
| 29 | 87 09 644 | 1 | ... Anti-extrusion ring |
| 30 | 09 05 509 | 1 | ... Steel ball Ø9 |
| 31 | 81 30 026 | 1 | ..Actuator |
| 32 | 80 02 177 | 4 | ..Union 1/4" BSP M - M |
| 33 | 86 50 102 | 4 | ..Bonded seal 1/4" BSP |
| 34 | 93 13 044 | 1 | ..Setscrew M8 x 20 |
| 35 | 91 00 204 | 1 | ..Spring washer Ø8 |
| 36 | 71 15 247 | 1 | .Packing stay |
| 37 | 71 15 013 | 2 | .Leg ram pin c/w split pin |
| 38 | 05 03 145 | 1 | ..Split pin 3/16" dia x 1.3/4" long |

HYDRAULIC TOP LINK



| Ref | Part No. | Qty | Description |
|-----|-----------|-----|---|
| | 71 15 257 | | HYDRAULIC TOP LINK INSTALLATION Optional extra for PA7 and PA8 |
| | 71 15 281 | 1 | ..Tilt ram general assembly |
| 1 | 71 15 283 | 1 | ..Ram assembly (see page 113) |
| 2 | 71 02 218 | 2 | ..Cat II link end |
| 3 | 71 15 135 | 1 | ..Collar |
| 4 | 71 02 214 | 2 | ..Locking collar |
| | | | OPTIONAL EXTRA |
| | 71 15 040 | | ..Cat I link end (not illustrated) Assemble in place of item 2 |
| 5 | 85 36 102 | 2 | ..Hose 1/4" BSP S - F 90°F x 45" long |
| 6 | 85 56 012 | 2 | ..Hose 1/4" BSP S - M 90°F x 20" long |
| 7 | 85 81 172 | 2 | ..Union 1/4" BSP - 1/2" BSP M - M |
| | 71 15 340 | 1 | ..Lever kit assembly |
| 8 | 71 15 339 | 2 | ..Actuating rod |
| 9 | 71 15 110 | 1 | ..Handle |
| 10 | 71 15 111 | 1 | ..Rocker block |
| 11 | 71 15 112 | 2 | ..Pivot link end c/w bush and split pin |
| 12 | 71 15 202 | 1 | ...Bush |
| 13 | 05 03 082 | 1 | ...Split pin 3/32" dia x 1" long |
| 14 | 71 15 113 | 2 | ..Clevis end pin c/w split pin |
| 15 | 05 03 082 | 1 | ...Split pin 3/32" dia x 1" long |
| 16 | 71 15 114 | 2 | ..Clevis end |
| 17 | 09 03 121 | 1 | ..Knob - black |
| 18 | 81 21 073 | 2 | ..Circlip |
| 19 | 04 21 612 | 1 | ..Spring dowel 3/16" dia x 3/4" long |
| 20 | 01 21 003 | 1 | ..Hexagon nut 3/8" UNF |
| 21 | 01 00 103 | 2 | ..Plain washer 3/8" dia |
| 22 | 81 14 028 | 1 | ..Lever boot |
| 23 | 71 15 150 | 1 | ..Parking strap |
| 24 | 71 15 222 | 1 | ..John Deere top link sleeve |

CABLE SET - Slew, Lift, Bucket & Reach

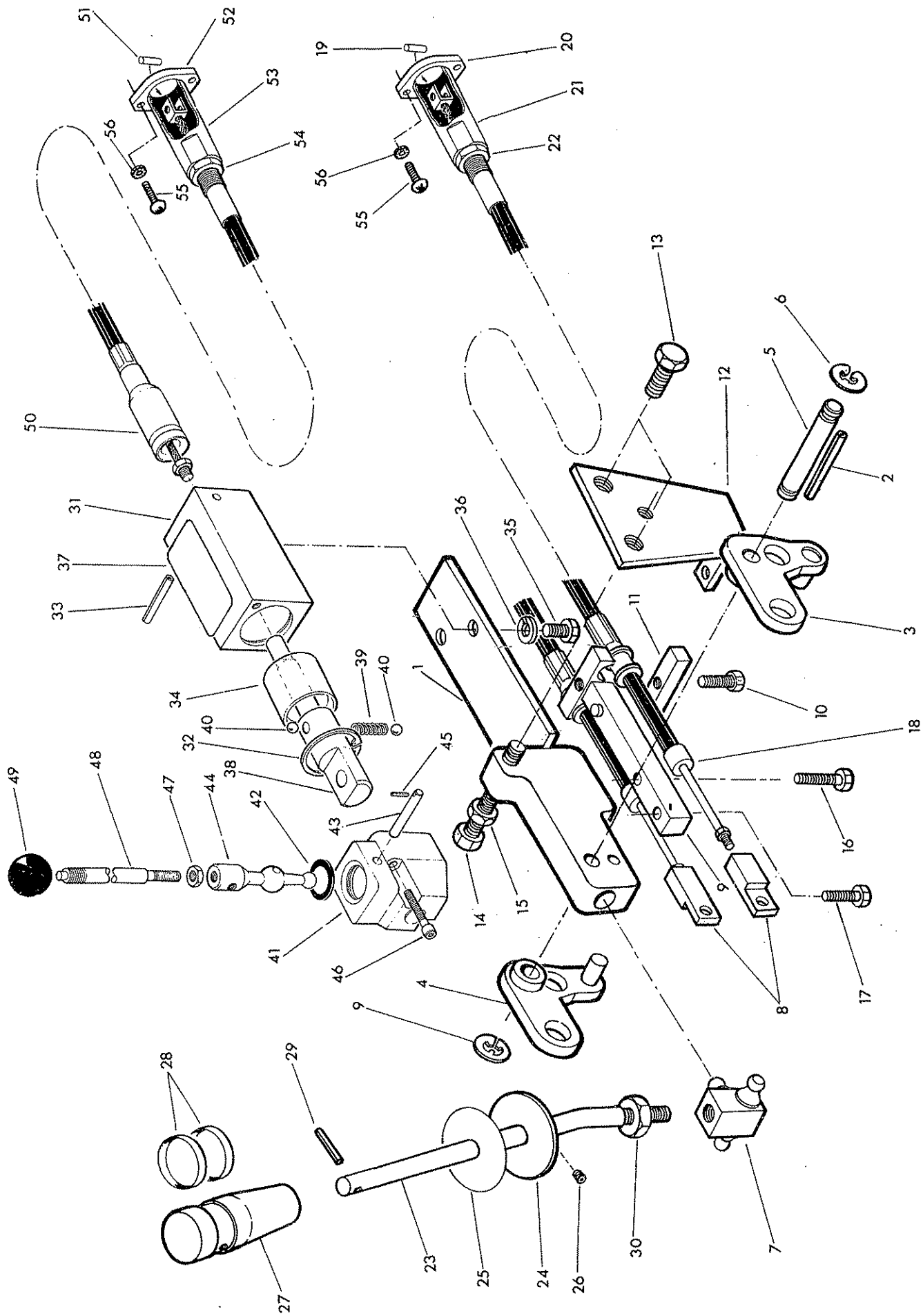


| Ref | Part No | Qty | Description |
|-----|--|-----|---|
| | 71 15 256 | | CABLE CONTROL SET |
| * | 71 15 362 | 1 | .Slew-lift-bucket-reach cable set R-Hand |
| 1 | 71 15 357 | 1 | ..Cable frame c/w spring dowel |
| 2 | 04 21 632 | 1 | ...Spring dowel 3/16" dia x 2" long |
| 3 | 71 15 223 | 4 | ..Double lever |
| 4 | 71 15 224 | 4 | ..Rocker block |
| 5 | 71 15 225 | 2 | ..Cable bracket c/w screw |
| 6 | 93 13 054 | 1 | ...Set screw M8 x 25 |
| 7 | 71 15 226 | 1 | ..Cable clamp |
| 8 | 71 15 227 | 2 | ..Lever spindle |
| 9 | 71 15 229 | 4 | ..Cable end |
| 10 | 71 15 358 | 1 | ..Tongue plate c/w screws & nuts |
| 11 | 93 13 046 | 2 | ...Set screw M12 x 20 |
| 12 | 93 13 124 | 1 | ...Set screw M8 x 60 |
| 13 | 91 13 004 | 1 | ...Hexagon nut M8 |
| 14 | 81 21 073 | 4 | ..Circlip |
| 15 | 92 13 064 | 1 | ..Bolt M8 x 30 |
| 16 | 93 13 054 | 1 | ..Set screw M8 x 25 |
| 17 | 71 15 359 | 4 | ..Cable assembly c/w sleeve flange etc. |
| 18 | 71 15 160 | 1 | ...Pin |
| 19 | 71 15 161 | 1 | ...Flange |
| 20 | 71 15 162 | 1 | ...Sleeve |
| 21 | 91 00 016 | 1 | ...Thin hexagon nut M16 x 1.5 pitch |
| | 71 15 363 | 1 | ..Lever assembly compr:- |
| 22 | 81 14 061 | 1 | ...Ring - green |
| 23 | 81 14 060 | 1 | ...Ring - yellow |
| 24 | 71 15 138 | 1 | ...Instruction mounting plate c/w label & grubscrew |
| 25 | 71 05 149 | 1 |Operating label |
| 26 | 02 00 014 | 1 |Grubscrew ¼ UNF socket headed |
| | 71 15 364 | 1 | ..Lever assembly compr:- |
| 27 | 81 14 063 | 1 | ...Ring - black |
| 28 | 81 14 062 | 1 | ...Ring - red |
| 29 | 71 15 137 | 1 | ...Instruction mounting plate c/w label and grubscrew |
| 30 | 71 05 148 | 1 |Operating label |
| 31 | 02 00 014 | 1 |Grubscrew ¼ UNF headed |
| | Items 32 to 35 inclusive are common to both lever assemblies | | |
| 32 | 71 15 232 | 1 | ...Handle |
| 33 | 81 14 053 | 1 | ...Lever knob |
| 34 | 04 20 812 | 1 | ...Spring dowel 1/8" x ¾" long |
| 35 | 91 13 006 | 1 | ...Hexagon locknut M12 |
| 36 | 03 00 033 | 8 | .Posidrive screw ¼ UNC x ¾" long |
| 37 | 01 00 401 | 8 | .External serrated washer ¼" dia |
| 38 | 71 15 238 | 3 | .Console adaptor bracket c/w nut bolt etc. |
| 39 | 92 13 084 | 1 | ..Bolt M8 x 40 |
| 40 | 91 43 004 | 1 | ..'Clevelok' nut M8 |
| 41 | 04 21 612 | 2 | ..Spring dowel 3/16" dia x ¾" long |
| 42 | 71 15 239 | 1 | .I.W.T. mounting bracket c/w screws & nuts |
| 43 | 93 13 044 | 2 | ..Setscrew M8 x 20 |
| 44 | 91 32 004 | 2 | ..'Clevelok' nut M8 |
| 45 | 71 15 125 | 2 | .Hose guide tube |
| 46 | 71 05 213 | 2 | .Mudwing mounting bracket c/w spring dowel etc |
| 47 | 04 22 816 | 1 | ..Spring dowel ½" dia x 1" long |
| 48 | 03 11 086 | 1 | ..Setscrew 5/8" UNF x 1" long |

* Alternative L. Hand assembly for Slew-Lift-Reach Bucket cable set

71 15 356 1 .Cable set L. Hand
Components are identical to the above R. Hand build.

CABLE SET(Continued) Tilt , Level & I.W.T.

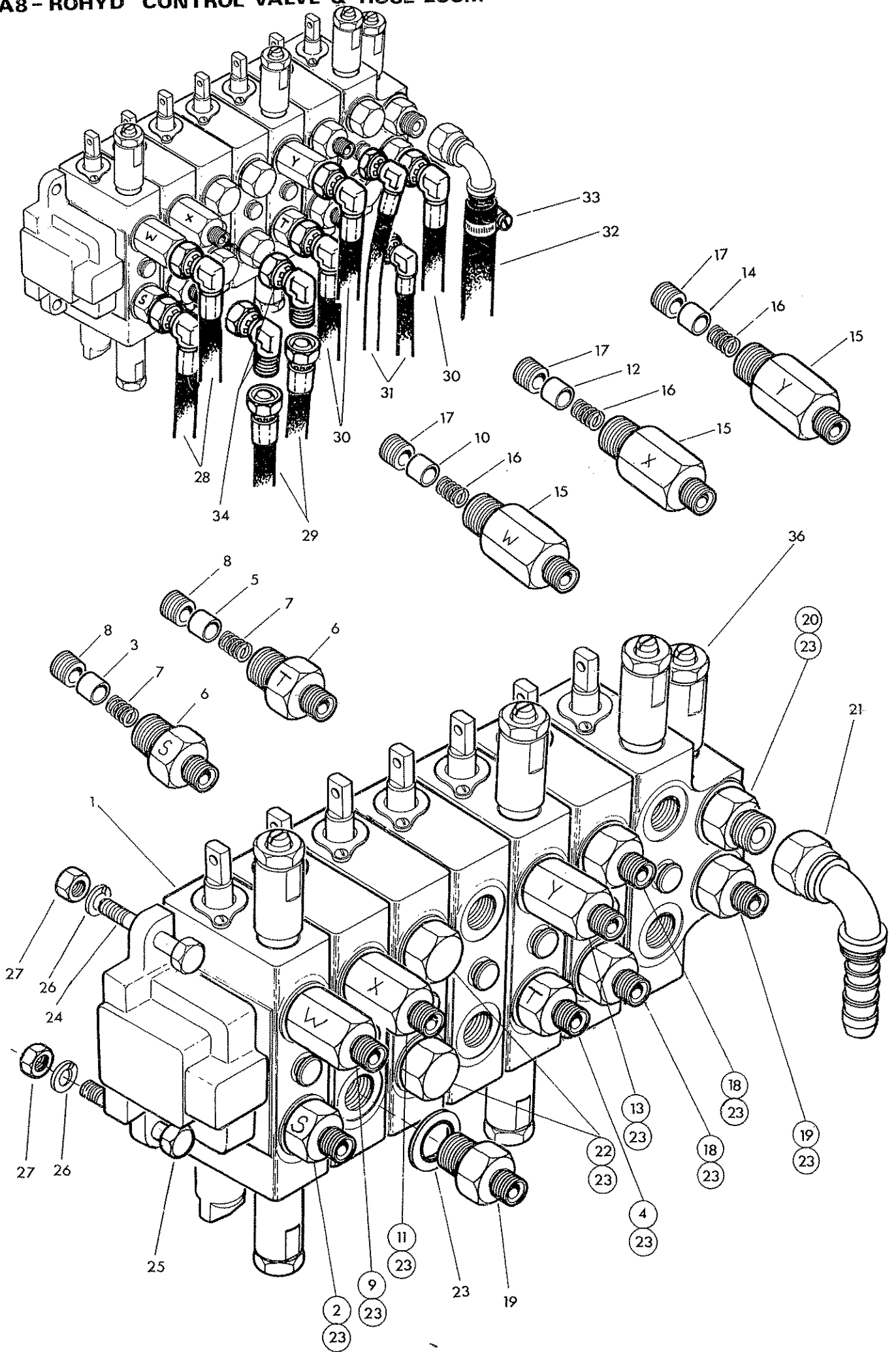


| Ref | Part No. | Qty | Description |
|-----|-----------|-----|--|
| | 71 15 256 | | CABLE CONTROL SET (continued) |
| | 71 15 360 | | ..Level Tilt I.W.T. cable set |
| 1 | 71 15 361 | 1 | ..Cable set body c/w spring dowel |
| 2 | 04 21 632 | 1 | ...Spring dowel 3/16" dia. x 2" long |
| 3 | 71 15 235 | 1 | ..Lever R. Hand |
| 4 | 71 15 236 | 1 | ..Lever L. Hand |
| 5 | 71 15 227 | 1 | ..Lever spindle |
| 6 | 81 21 073 | 2 | ..Circlip |
| 7 | 71 15 224 | 1 | ..Rocker block |
| 8 | 71 15 229 | 2 | ..Cable end - for level and tilt |
| 9 | 71 15 225 | 1 | ..Cable bracket c/w screw |
| 10 | 93 13 054 | 1 | ...Set screw M8 x 25 |
| 11 | 71 15 225 | 1 | ..Cable clamp |
| 12 | 71 15 358 | 1 | ..Tongue plate c/w screws & nuts |
| 13 | 93 13 046 | 2 | ...Set screw M12 x 20 |
| 14 | 93 13 124 | 1 | ...Set screw M8 x 60 |
| 15 | 91 13 004 | 1 | ...Hexagon nut M8 |
| 16 | 92 13 064 | 1 | ..Bolt M8 x 30 |
| 17 | 93 13 054 | 1 | ..Set screw M8 x 25 |
| 18 | 71 15 359 | 2 | ..Cable assembly c/w sleeve flange etc. for level & tilt |
| 19 | 71 15 160 | 1 | ...Pin |
| 20 | 71 15 161 | 1 | ...Flange |
| 21 | 71 15 162 | 1 | ...Sleeve |
| 22 | 91 00 016 | 1 | ...Thin hexagon nut M16 x 1.5 pitch |
| | 71 15 240 | 1 | ..Handle assembly for Level & tilt compr:- |
| 23 | 71 15 232 | 1 | ...Handle |
| 24 | 71 15 139 | 1 | ..Instruction mounting plate c/w label & grubscrew |
| 25 | 71 15 136 | 1 | ...Operating label |
| 26 | 02 00 014 | 1 | ...Grubscrew ¼ UNF socket headed |
| 27 | 81 14 053 | 1 | ..Lever knob |
| 28 | 71 15 241 | 2 | ...Ring - blue |
| 29 | 04 20 812 | 1 | ...Spring dowel 1/8" x ¾" long |
| 30 | 91 13 006 | 1 | ...Hexagon locknut M12 |
| 31 | 71 14 063 | 1 | ..Control block c/w spring dowel & circlip (For I.W.T) |
| 32 | 04 11 118 | 1 | ...Internal circlip |
| 33 | 04 25 540 | 1 | ...Spring dowel Ø 5 x 40 |
| 34 | 71 14 067 | 1 | ..Detente cage |
| 35 | 93 13 034 | 2 | ..Setscrew M8 x 16 |
| 36 | 91 00 204 | 2 | ..Spring washer Ø 8 |
| 37 | 71 03 120 | 1 | ..I.W.T. instruction label |
| 38 | 71 14 070 | 1 | ..Spindle |
| 39 | 71 14 068 | 1 | ..Spring |
| 40 | 09 05 106 | 2 | ..Steel ball ¼" dia |
| | 81 30 065 | 1 | ..Lever pivot box assembly compr:- |
| 41 | 81 30 001 | 1 | ...Lever pivot box |
| 42 | 81 30 013 | 1 | ...Lever seal ring |
| 43 | 81 30 009 | 1 | ...Lever pivot |
| 44 | 81 30 019 | 1 | ...Lever |
| 45 | 81 30 021 | 1 | ...Spring dowel |
| 46 | 93 43 072 | 2 | ..Capscrew M5 x 35 |
| 47 | 91 33 004 | 1 | ..Thin hexagon nut M8 |
| 48 | 71 14 072 | 1 | ..Lever handle |
| 49 | 09 03 121 | 1 | ..Lever knob - black |
| 50 | 81 25 060 | 1 | ..Cable c/w sleeve flange etc for I.W.T. |
| 51 | 81 25 051 | 1 | ...Pin |
| 52 | 81 25 059 | 1 | ...Flange |
| 53 | 81 25 049 | 1 | ...Sleeve |
| 54 | 91 00 016 | 1 | ...Thin hexagon nut M16 x 1.5 pitch |
| 55 | 03 00 033 | 6 | ..'Posidrive' screw ¼ UNC x ¾" long |
| 56 | 01 00 401 | 6 | ..External serrated washer ¼" dia |

* Alternative IWT cable assembly for use with Kontak valve

| | | | |
|--|-----------|---|---------------------------------------|
| | 71 15 237 | 1 | ..Cable c/w sleeve flange etc for IWT |
| | 71 05 142 | 1 | ...Pin |
| | 71 05 228 | 1 | ...Flange |
| | 71 05 229 | 1 | ...Sleeve |
| | 91 00 016 | 1 | ...Thin hexagon nut M16 x 1.5 pitch |

PA8 - ROHYD CONTROL VALVE & HOSE LOOM



| Ref | Part No | Qty | Description |
|-----|-----------|-----|---|
| | 71 15 330 | | CONTROL VALVE & HOSE LOOM FOR PA8 |
| | 81 28 261 | 1 | .ROHYD valve c/w unions |
| 1 | 81 28 260 | 1 | ..ROHYD valve basic (see page) |
| 2 | 81 24 035 | 1 | ..short restrictor 'S' assembly ½-3/8" BSP |
| 3 | 81 23 005 | 1 | ...Restrictor piston |
| 4 | 81 24 036 | 1 | ..Short restrictor 'T' assembly ½"-3/8" BSP |
| 5 | 81 23 006 | 1 | ...Restrictor piston |

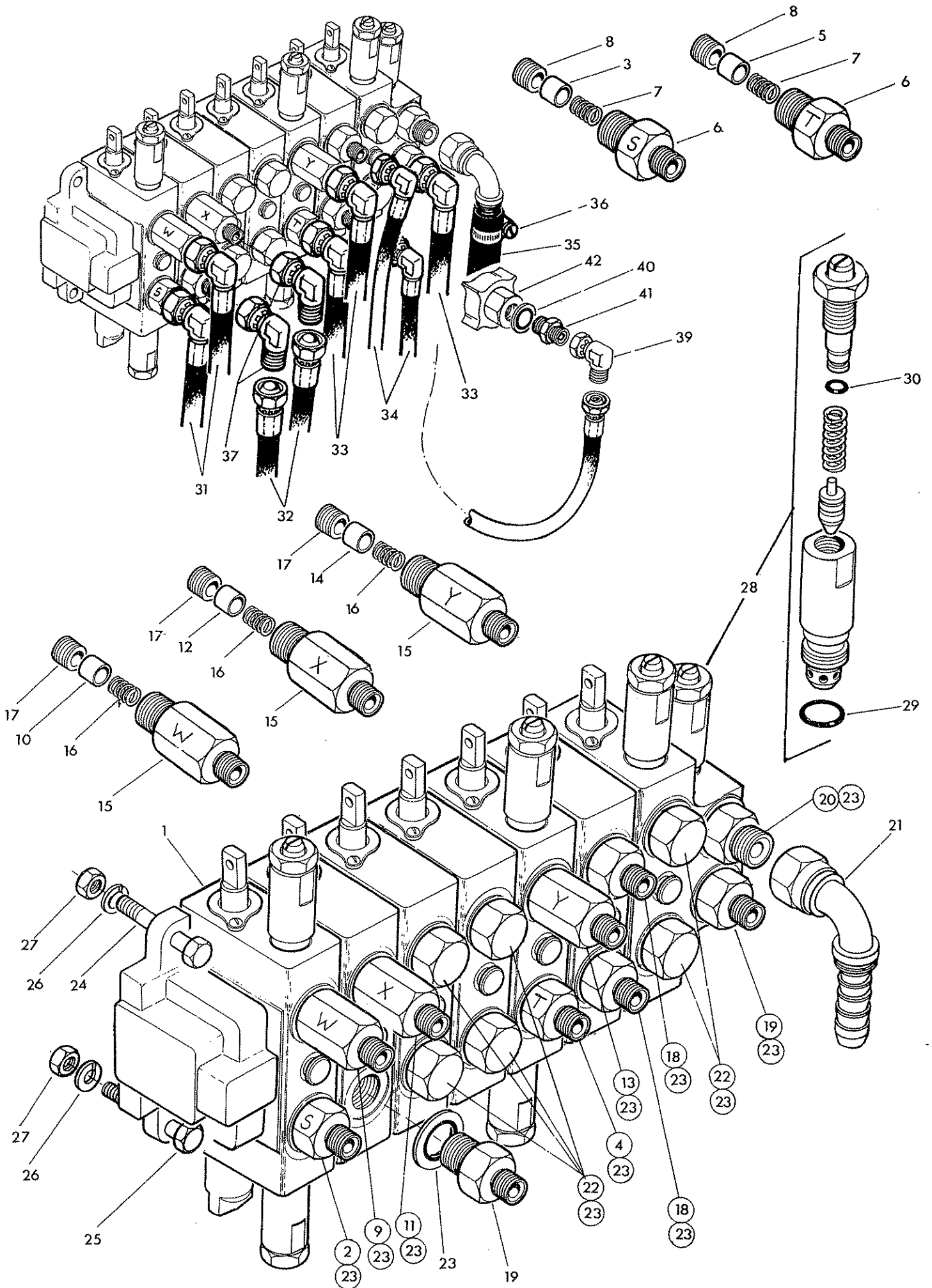
Items 6 - 8 inclusive are common to both 'S' and 'T' restrictor assemblies

| | | | |
|----|-----------|---|---|
| 6 | 81 24 055 | 1 | ...Restrictor body |
| 7 | 81 14 045 | 1 | ...Spring |
| 8 | 81 23 002 | 1 | ...Plug |
| 9 | 81 24 044 | 1 | ..Long restrictor 'W' assembly ½"-3/8"BSP |
| 10 | 81 23 004 | 1 | ...Restrictor piston |
| 11 | 81 24 045 | 1 | ..Long Restrictor 'X' assembly ½-3/8" BSP |
| 12 | 81 23 005 | 1 | ...Restrictor piston |
| 13 | 81 24 046 | 1 | ..Long restrictor 'Y' assembly ½-3/8" BSP |
| 14 | 81 23 006 | 1 | ..Restrictor piston |

Items 15 to 17 inclusive are common to 'W' 'X' and 'Y' restrictor assemblies

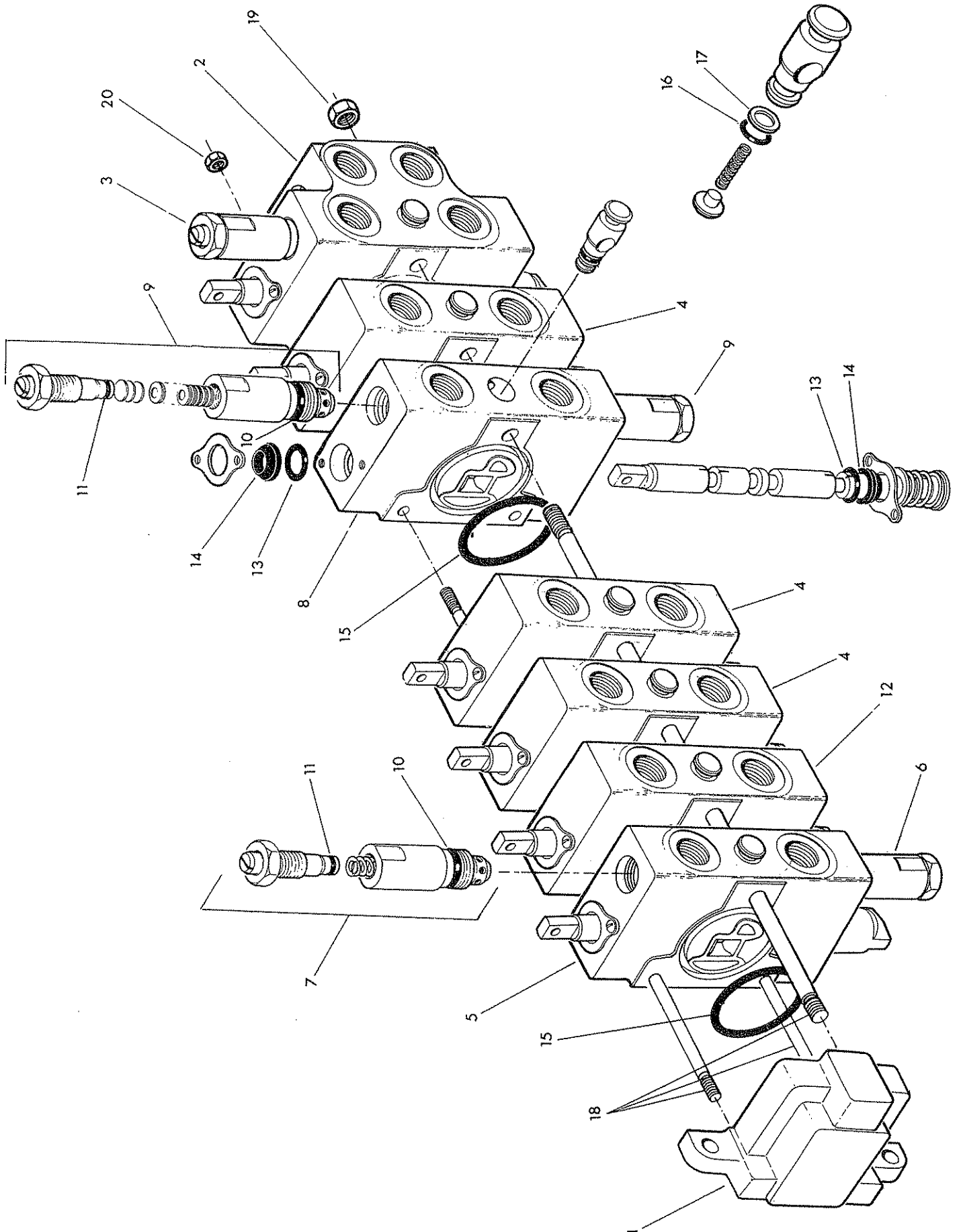
| | | | |
|----|-----------|----|---|
| 15 | 81 24 054 | 1 | ...Restrictor body |
| 16 | 81 14 045 | 1 | ...Spring |
| 17 | 81 23 002 | 1 | ...Plug |
| 18 | 85 81 172 | 2 | ..Union ½BSP-¼"BSP M-M |
| 19 | 60 00 112 | 2 | ..Union ½"BSP-3/8"BSP M-M |
| 20 | 85 81 180 | 1 | ..Union ½"BSP-5/8. BSP M-M |
| 21 | 85 81 173 | 1 | ..Low pressure elbow 5/8 BSP |
| 22 | 81 03 001 | 2 | ..Plug ½"BSP |
| 23 | 86 50 104 | 12 | ..Bonded seal ½" BSP |
| 24 | 92 13 125 | 1 | ..Bolt M10 x 60 |
| 25 | 92 13 105 | 2 | ..Bolt M10 x 50 |
| 26 | 91 00 205 | 3 | ..Spring washer Ø 10 |
| 27 | 91 13 005 | 3 | ..Hexagon nut M10 |
| 28 | 85 31 233 | 2 | ..Hose 3/8 BSP SF 90° F 75" long (lift) |
| 29 | 85 41 223 | 2 | ..Hose 3/8 BSP S-F 135° F 52" long (bucket) |
| 30 | 85 31 293 | 3 | ..Hose 3/8 BSP S-F 90° F 90" long (Reach & Supply) |
| 31 | 85 36 102 | 2 | ..Hose ¼" BSP S-F 90° F 45" long (Slew) |
| 32 | 85 01 094 | 1 | ..Hose 5/8" Bore 80' long (Return) |
| 33 | 09 04 204 | 2 | ..Hose clip (5/8 bore hose) |
| 34 | 85 81 117 | 2 | ..Elbow 3/8 BSP 90° |
| 35 | 72 13 004 | 4 | ..Hose armour cable (not illus. - see page 40 for installation) |
| 36 | 81 28 002 | 1 | Main relief valve - ref only (see page 83) |

PA 7-ROHYD CONTROL VALVE & HOSE LOOM



| Ref | Part No. | Qty | Description |
|--|-----------|-----|---|
| | 71 15 335 | | CONTROL VALVE & HOSE LOOM FOR PA7 |
| | 81 28 262 | 1 | ..ROHYD valve c/w unions |
| 1 | 81 28 260 | 1 | ..ROHYD valve basic (see page 107) |
| 2 | 81 24 035 | 1 | ..short restrictor 'S' assembly ½-3/8" BSP |
| 3 | 81 23 005 | 1 | ..Restrictor piston |
| 4 | 81 24 036 | 1 | ..Short restrictor 'T' assembly ½"-3/8" BSP |
| 5 | 81 23 006 | 1 | ..Restrictor piston |
| Items 6 - 8 inclusive are common to both 'S' and 'T' restrictor assemblies | | | |
| 6 | 81 24 055 | 1 | ...Restrictor body |
| 7 | 81 14 045 | 1 | ...Spring |
| 8 | 81 23 002 | 1 | ...Plug |
| 9 | 81 24 044 | 1 | ..Long restrictor 'W' assembly ½"-3/8" BSP |
| 10 | 81 23 004 | 1 | ...Restrictor piston |
| 11 | 81 24 045 | 1 | ..Long restrictor 'X' assembly ½-3/8" BSP |
| 12 | 81 23 005 | 1 | ...Restrictor piston |
| 13 | 81 24 046 | 1 | ..Long restrictor 'Y' assembly ½-3/8" BSP |
| 14 | 81 23 006 | 1 | ..Restrictor piston |
| Items 15 to 17 inclusive are common to 'W' 'X' and 'Y' restrictor assemblies | | | |
| 15 | 81 24 054 | 1 | ...Restrictor body |
| 16 | 81 14 045 | 1 | ...Spring |
| 17 | 81 23 002 | 1 | ...Plug |
| 18 | 85 81 172 | 2 | .. Union ½ BSP - ¼" BSP M-M |
| 19 | 60 00 112 | 2 | ..Union ½" BSP-3/8"BSP M-M |
| 20 | 85 81 180 | 1 | ..Union ½"BSP-5/8 BSP M-M |
| 21 | 85 81 173 | 1 | ..Low pressure elbow 5/8 BSP |
| 22 | 81 03 001 | 6 | ..Plug ½" BSP |
| 23 | 86 50 104 | 16 | ..Bonded seal ½" BSP |
| 24 | 92 13 125 | 1 | ..Bolt M10 x 60 |
| 25 | 92 13 105 | 2 | ..Bolt M10 x 50 |
| 26 | 91 00 205 | 3 | ..Spring washer Ø 10 |
| 27 | 91 13 005 | 3 | ..Hexagon nut M10 |
| 28 | 81 28 003 | 1 | ..Main relief valve (2250 psi) c/w 'O' rings |
| 29 | 81 28 019 | 1 | ...'"O' ring (Body) |
| 30 | 81 28 018 | 1 | ...'"O' ring (Adjustor) |
| 31 | 85 31 233 | 2 | ..Hose 3/8 BSP SF 90° F 75" long (lift) |
| 32 | 85 41 223 | 2 | ..Hose 3/8 BSP S-F 135° F 52" long (bucket) |
| 33 | 85 31 293 | 3 | ..Hose 3/8 BSP S-F 90° F 90" long (Reach & Supply) |
| 34 | 85 36 102 | 2 | ..Hose ¼" BSP S-F 90° F 45" long (Slew) |
| 35 | 85 01 094 | 1 | ..Hose 5/8" Bore 80' long (Return) |
| 36 | 09 04 204 | 2 | ..Hose clip (5/8 bore hose) |
| 37 | 85 81 117 | 2 | ..Elbow 3/8 BSP 90° |
| 38 | 72 13 004 | 4 | ..Hose armour cable (not illus. - see page 40 for installation) |
| 39 | 85 81 117 | 1 | ..Swivel elbow 3/8 BSP M-F |
| 40 | 86 30 103 | 1 | ..Bonded seal 3/8 BSP |
| 41 | 60 00 113 | 1 | ..Union 3/8 BSP M-M |
| 42 | 85 90 023 | 1 | ..Self seal coupling Female half |
| 43 | 71 15 140 | 1 | ..Console lever hole plug (not illustrated) |
| | To suit | 1 | ..Return connection (not illustrated) |

CONTROL VALVE - ROHYD



| Ref | Part No. | Qty | Description |
|-----|-----------|-----|-----------------------------------|
| | 81 28 260 | | ROHYD CONTROL VALVE FOR PA7 & PA8 |
| 1 | 81 28 011 | 1 | .End section (blank) |

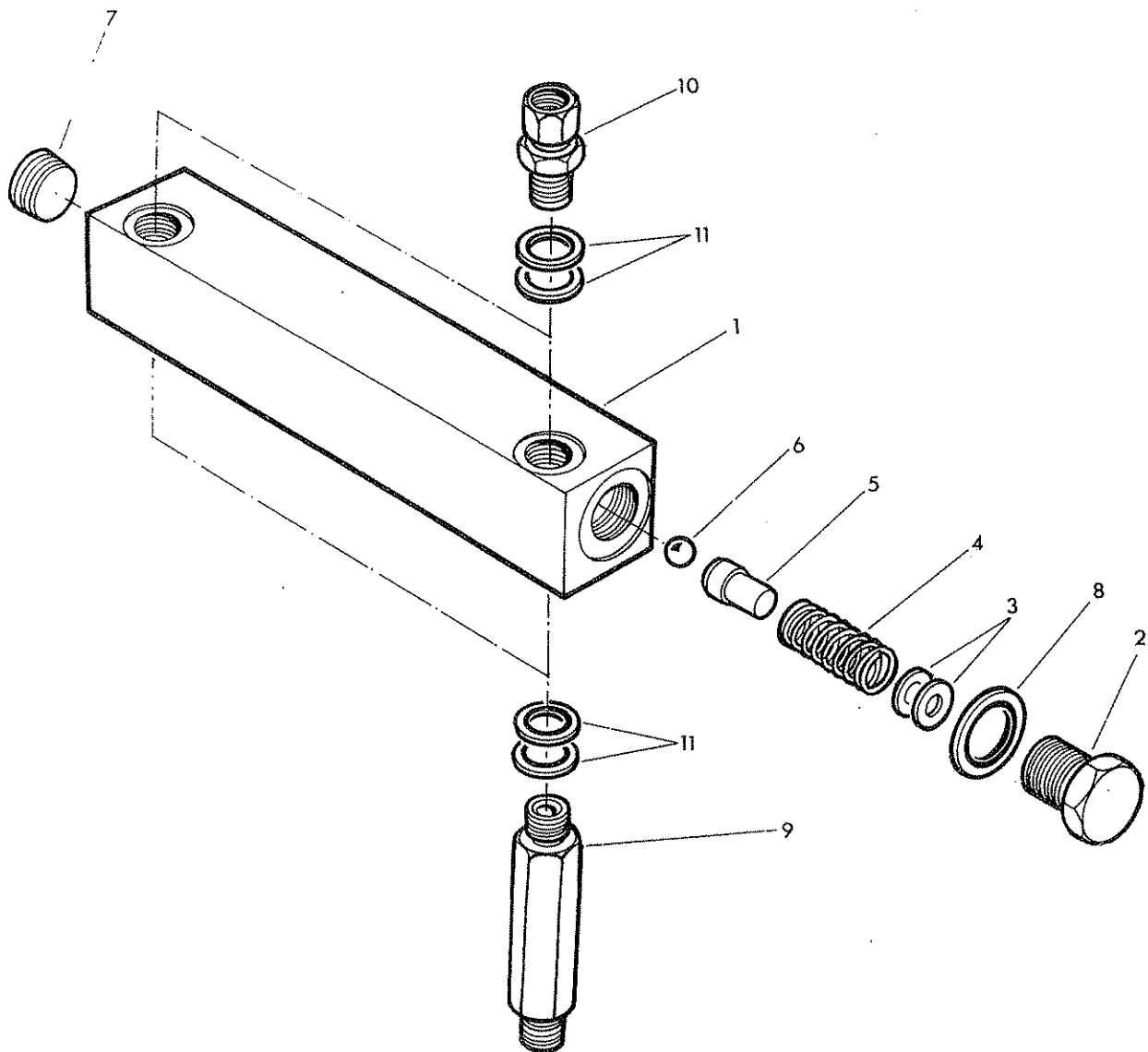
| Ref | Part No. | Qty. | Description |
|-----|---|------|---|
| | 81 28 260 | | ROHYD CONTROL VALVE FOR PA7 & PA8 |
| 1 | 81 28 011 | 1 | .End section (blank) |
| *2 | 81 28 006 | 1 | .End section (supply-return-I.W.T.)c/w locked line relief valve |
| 3 | 81 28 004 | 1 | ..Locked line relief valve 5000 psi (340 bar) |
| *4 | 81 28 007 | 3 | .Service section complete (Tilt level & slew) |
| *5 | 81 28 010 | 1 | .Service section (lift) c/w locked line relief valve |
| 6 | 81 28 004 | 1 | ..Locked line relief valve 5000 psi (340 bar) |
| 7 | 81 28 005 | 1 | ..Locked line relief valve 3000 psi (204 bar) |
| *8 | 81 28 008 | 1 | .Service section (Reach) on locked line relief valve |
| 9 | 81 28 004 | 2 | ..Locked line relief valve 5000 psi (340 bar) |
| | Items 10 & 11 are common all locked line relief valve | | |
| 10 | 81 28 019 | 1 | ... 'O' ring (Body) |
| 11 | 81 28 018 | 1 | ... 'O' ring (Adjuster) |
| 12 | 81 28 009 | 1 | .Service section complete (Bucket) |
| 13 | 81 28 013 | 2 | ..Spool 'O' ring (common to all service section) |
| 14 | 81 28 014 | 2 | ..Spool wiper seal (common to all service sections) |
| 15 | 81 28 017 | 7 | .Inter section 'O' ring |
| 16 | 81 28 015 | 7 | .. 'O' ring - Check valve |
| 17 | 81 28 016 | 7 | ..Backing ring - Check valve |
| 18 | 81 28 012 | 1 | .Valve tie rod kit c/w nuts |
| 19 | 01 11 003 | 1 | ..Hexagon nut 3/8" UNC |
| 20 | 01 11 002 | 2 | ..Hexagon nut 5/16 UNC |
| | 86 99 183 | | SEAL KIT |

* Assembly note:

Valve spool and bodies are designed and assembled as matched pairs and should under no circumstances be interchanged.

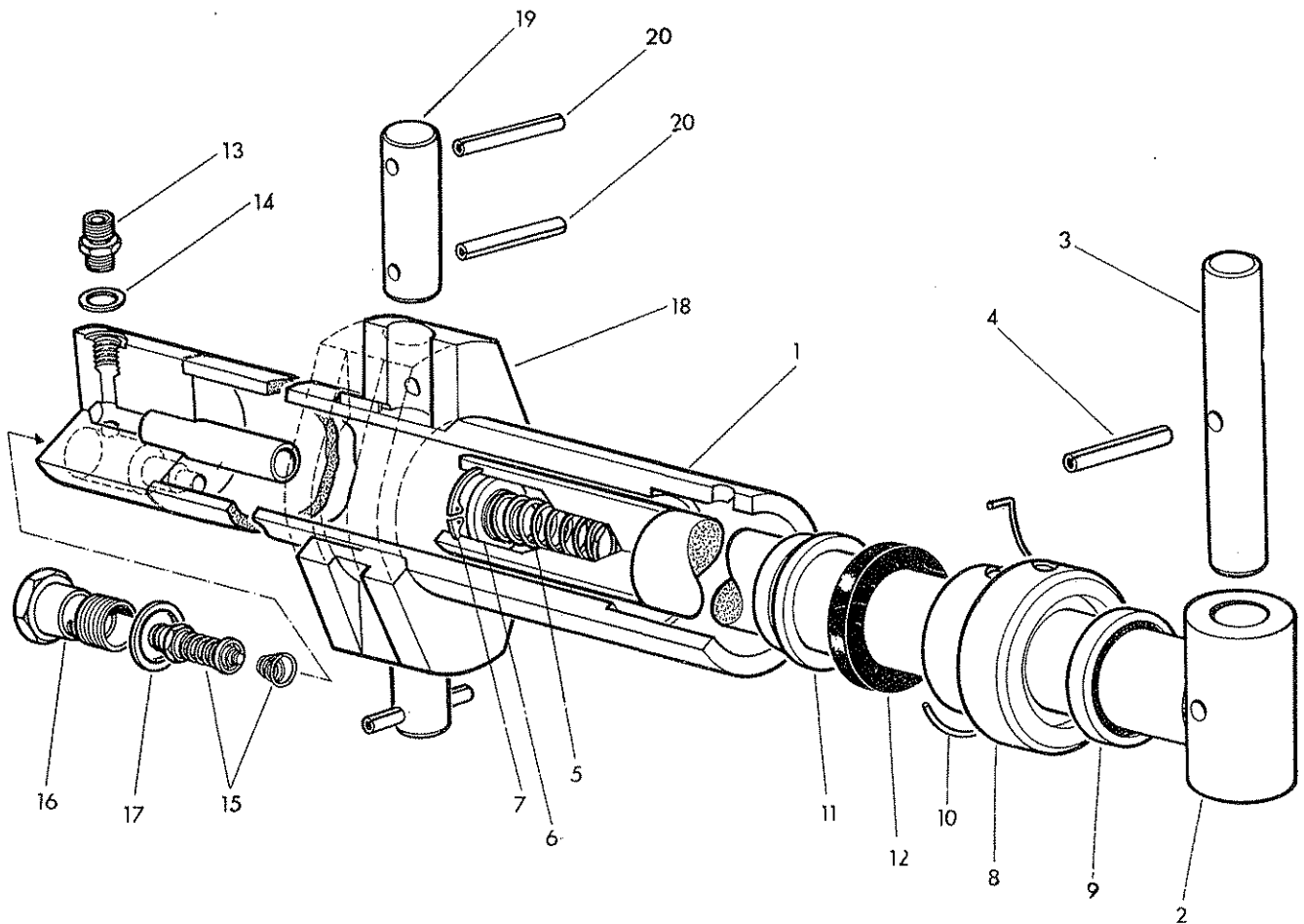
After service the valve must be re-assembled with the section in their original position.

LOADER CROSS PORT RELIEF VALVE



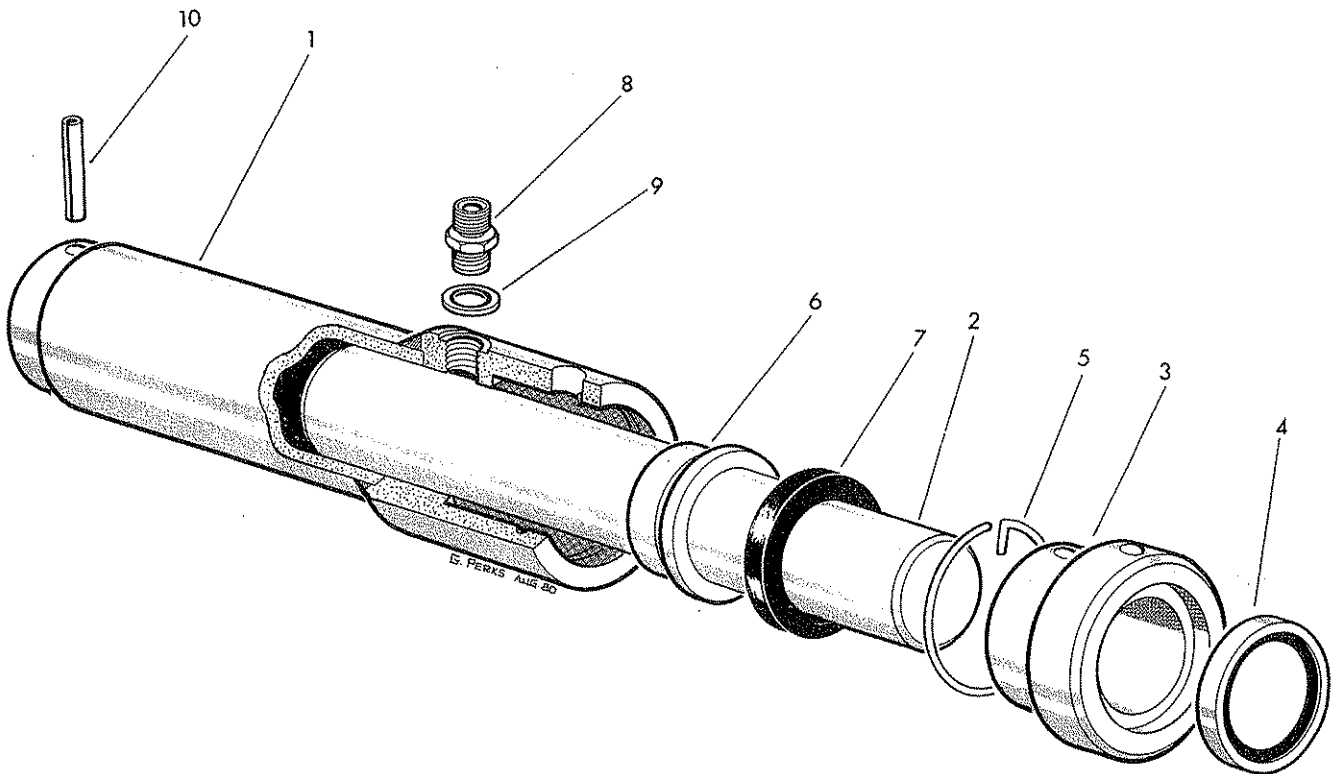
| Ref | Part No. | Qty | Description |
|-----|------------------|---------|-------------------------------------|
| | 70 16 273 | | LOADER CROSS PORT RELIEF VALVE ASSY |
| 1 | 70 16 274 | 1 | .Valve block |
| 2 | 60 01 124 | 1 | .Relief valve cap |
| 3 | 01 00 102 | as reqd | .Shim 5/8" dia x .040 thick |
| 4 | 60 00 110 | 1 | .Spring |
| 5 | 60 00 109 | 1 | .Spring seat |
| 6 | 09 05 110 | 1 | .Steel ball 5/6" dia |
| 7 | 85 82 044 | 1 | .Plug 1/2" BSPT |
| 8 | 86 50 104 | 1 | .Bonded seal 1/2" BSP |
| 9 | 85 81 181 | 2 | .Union 3/8 BSP M-M |
| 10 | 85 81 178 | 2 | .Swivel union 3/8" BSP M-F |
| 11 | 86 50 103 | 8 | .Bonded seal 3/8 BSP |

SLEW RAM



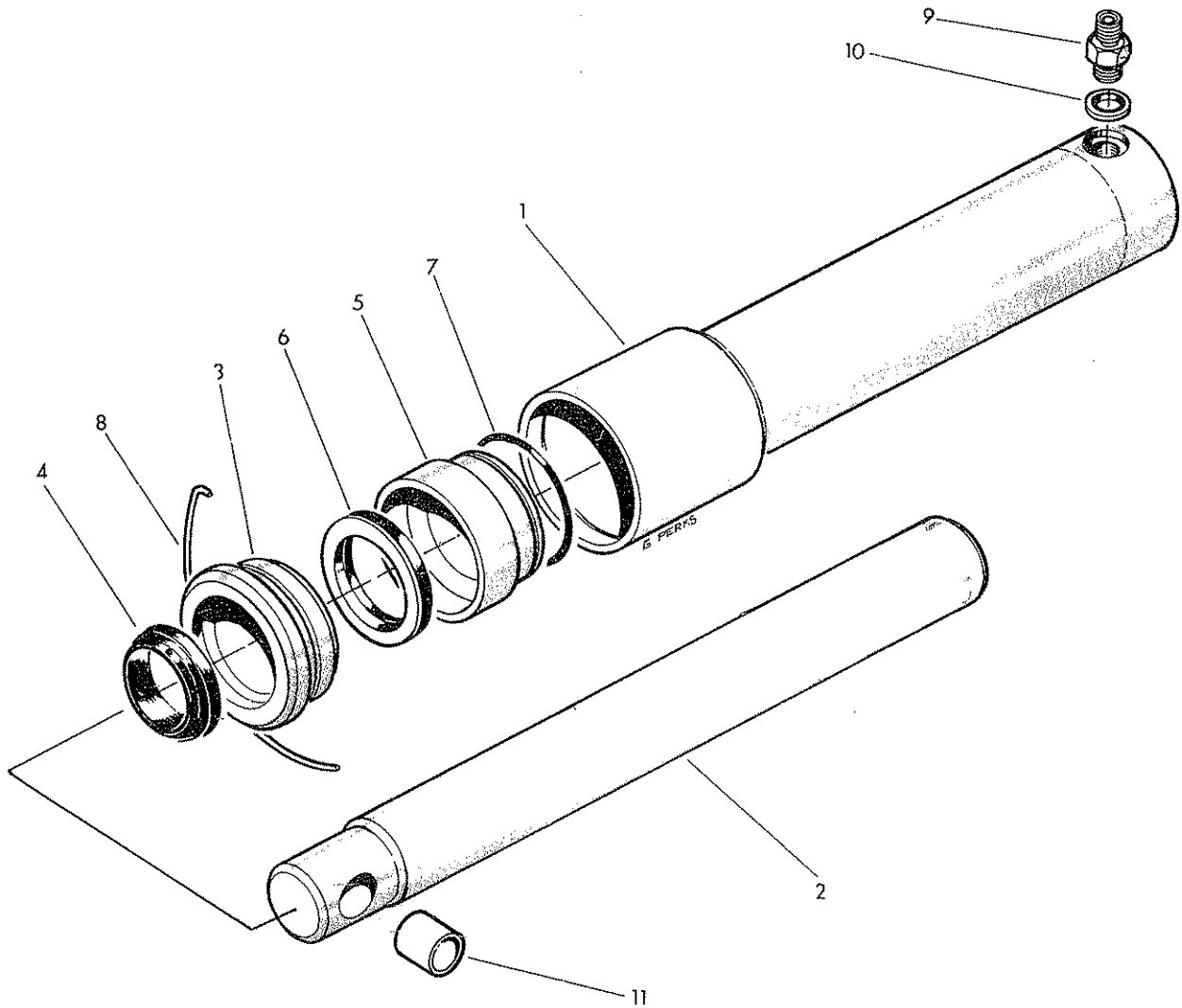
| 71 15 295 | | SLEW RAM ASSEMBLY | |
|-----------|-----------|-------------------|---|
| 1 | 71 15 296 | 1 | .Ram barrel |
| 2 | 71 15 298 | 1 | .Ram rod assembly |
| 3 | 71 02 176 | 1 | ..Rod pivot pin c/w spring dowel |
| 4 | 04 22 528 | 1 | ...Spring dowel 5/16" dia x 1.3/4" long |
| 5 | 71 03 078 | 1 | ..Spring |
| 6 | 71 15 043 | 1 | ..Spring seat |
| 7 | 04 11 230 | 1 | ..Internal circlip |
| 8 | 71 01 029 | 1 | .Ram head bush c/w wiper |
| 9 | 86 40 230 | 1 | ..Wiper |
| 10 | 71 01 030 | 1 | .Locking wire |
| 11 | 71 01 031 | 1 | .Bronze insert |
| 12 | 86 12 132 | 1 | .Gland seal |
| 13 | 80 02 177 | 1 | .Union 1/4" BSP M-M |
| 14 | 86 50 102 | 1 | .Bonded seal |
| 15 | 81 30 030 | 1 | .Relief valve c/w spring |
| 16 | 71 15 044 | 1 | .Cushion body |
| 17 | 86 50 104 | 1 | .Bonded seal 1/2" BSP |
| 18 | 71 02 507 | 1 | .Slew ram trunnion c/w pins |
| 19 | 71 02 177 | 2 | ..Trunnion pivot pin c/w spring dowel |
| 20 | 04 22 528 | 2 | ...Spring dowel 5/16" dia x 1.3/4" long |
| | 86 99 179 | | RAM SEAL KIT |

I.W.T. RAM



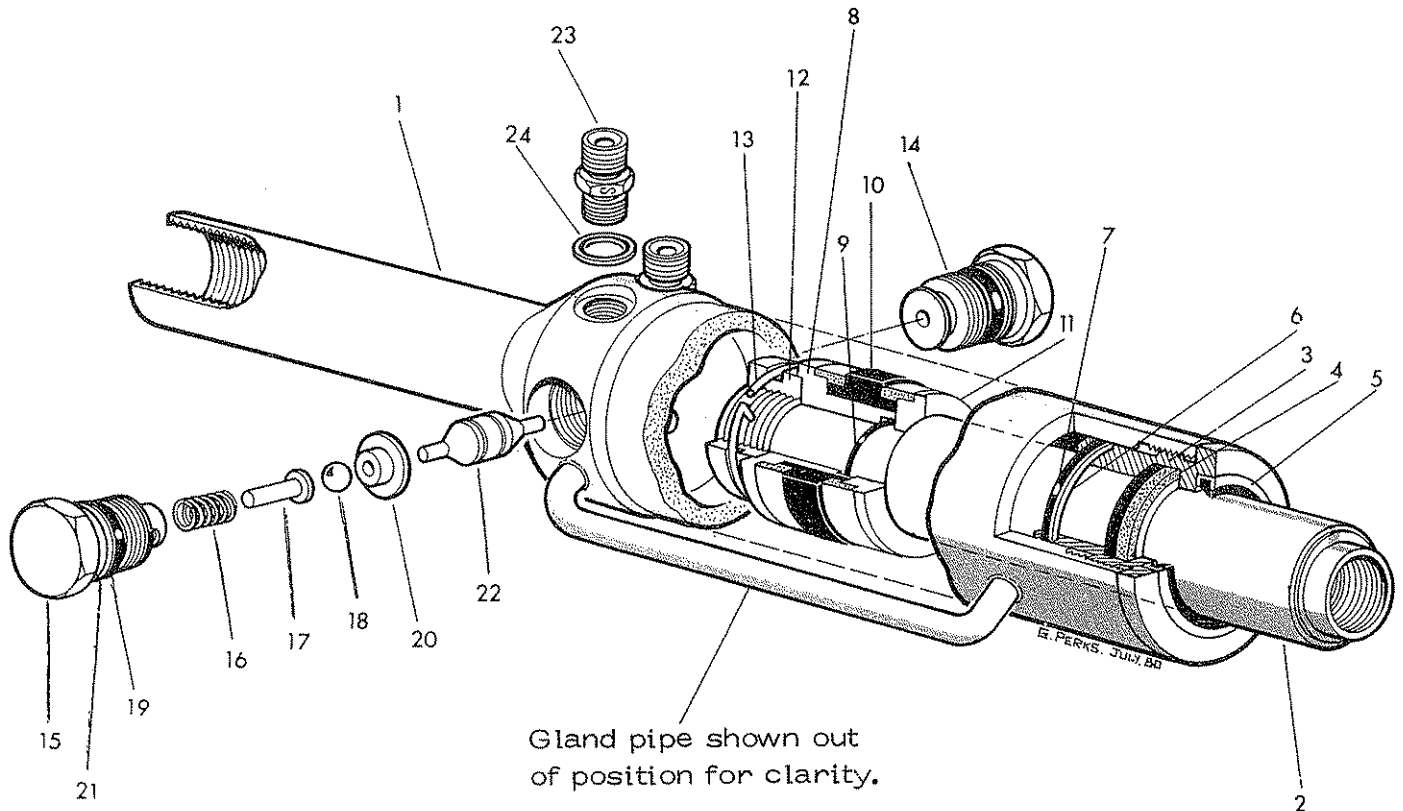
| Ref | Part No. | Qty | Description |
|-----|-----------|-----|--------------------------------------|
| | 71 15 289 | | I.W.T. RAM ASSEMBLY |
| 1 | 71 15 290 | 1 | .Ram cylinder |
| 2 | 71 03 058 | 1 | .Ram rod |
| 3 | 71 01 029 | 1 | .Ram head bush c/w wiper |
| 4 | 86 40 230 | 1 | ..Wiper |
| 5 | 71 01 030 | 1 | .Locking wire |
| 6 | 71 01 031 | 1 | .Bronze insert |
| 7 | 86 12 132 | 1 | .Gland seal |
| 8 | 80 02 177 | 1 | .Union ¼" BSP MM |
| 9 | 86 50 102 | 1 | .Bonded seal ¼" BSP |
| 10 | 04 21 824 | 1 | .Spring dowel ¼" diameter x 1½" long |
| | 86 99 179 | | RAM SEAL KIT |

LEVELLING RAM



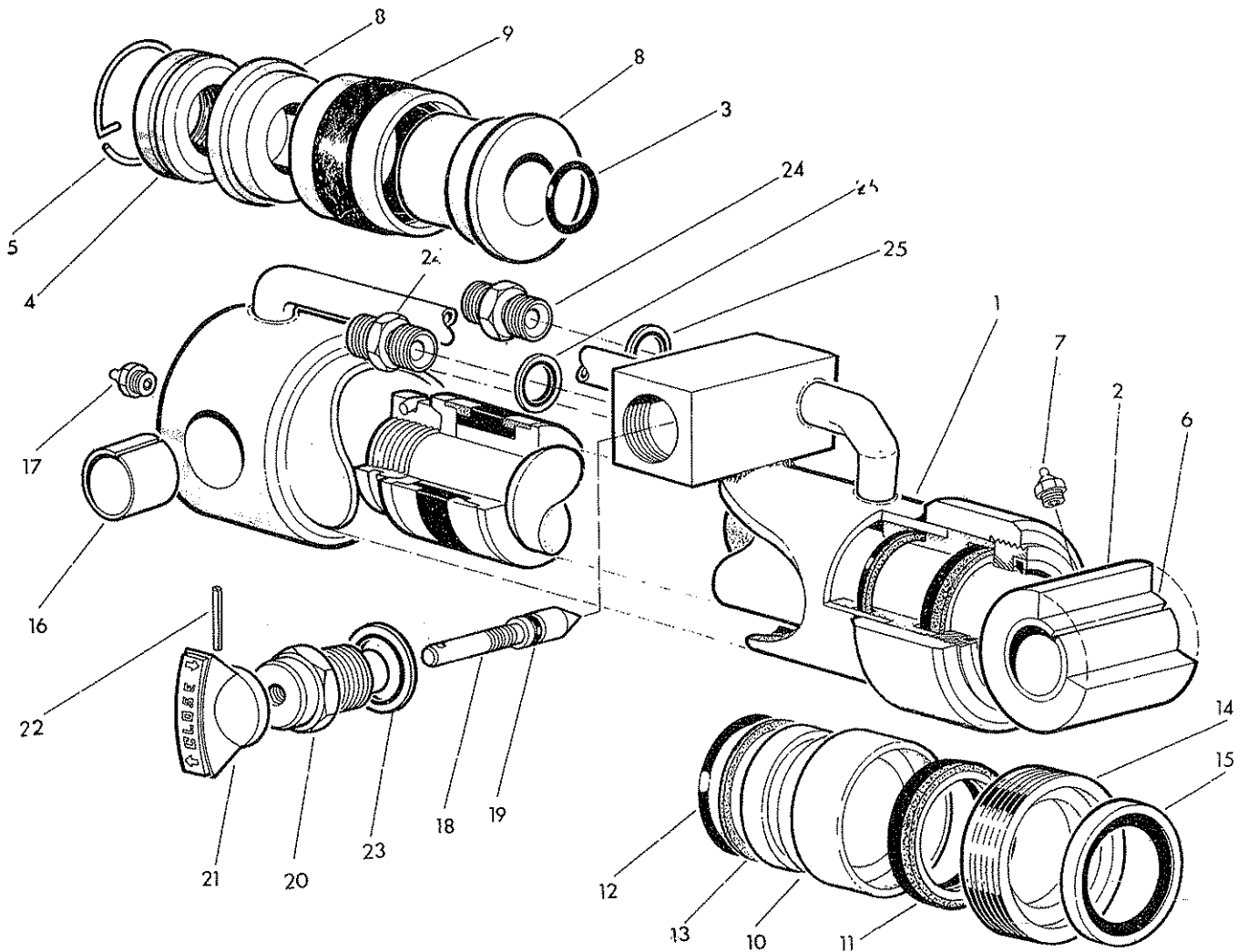
| Ref | Part No. | Qty | Description |
|-----|-------------|-----|------------------------------------|
| | 71 15 277 | | LEVELLING RAM ASSEMBLY COMPLETE |
| 1 | 71 15 278 1 | 1 | .Ram Barrel |
| 2 | 71 15 279 | 1 | .Ram rod |
| 3 | 71 09 032 | 1 | .Gland retainer c/w wiper |
| 4 | 86 29 130 | 1 | ..Wiper |
| 5 | 71 09 033 | 1 | .Gland housing c/w seal |
| 6 | 86 15 001 | 1 | ..Seal |
| 7 | 86 00 312 | 1 | ..'O' ring |
| 8 | 71 09 034 | 1 | ..Locking wire |
| 9 | 81 30 066 | 1 | .Restrictor 3/8" BSP - 1/4" BSP mm |
| 10 | 86 50 103 | 1 | .Bonded seal 3/8" BSP |
| 11 | 71 05 050 | 1 | .Bush-rod end |
| | 86 99 154 | | RAM SEAL KIT |

HYDRAULIC TOP LINK RAM



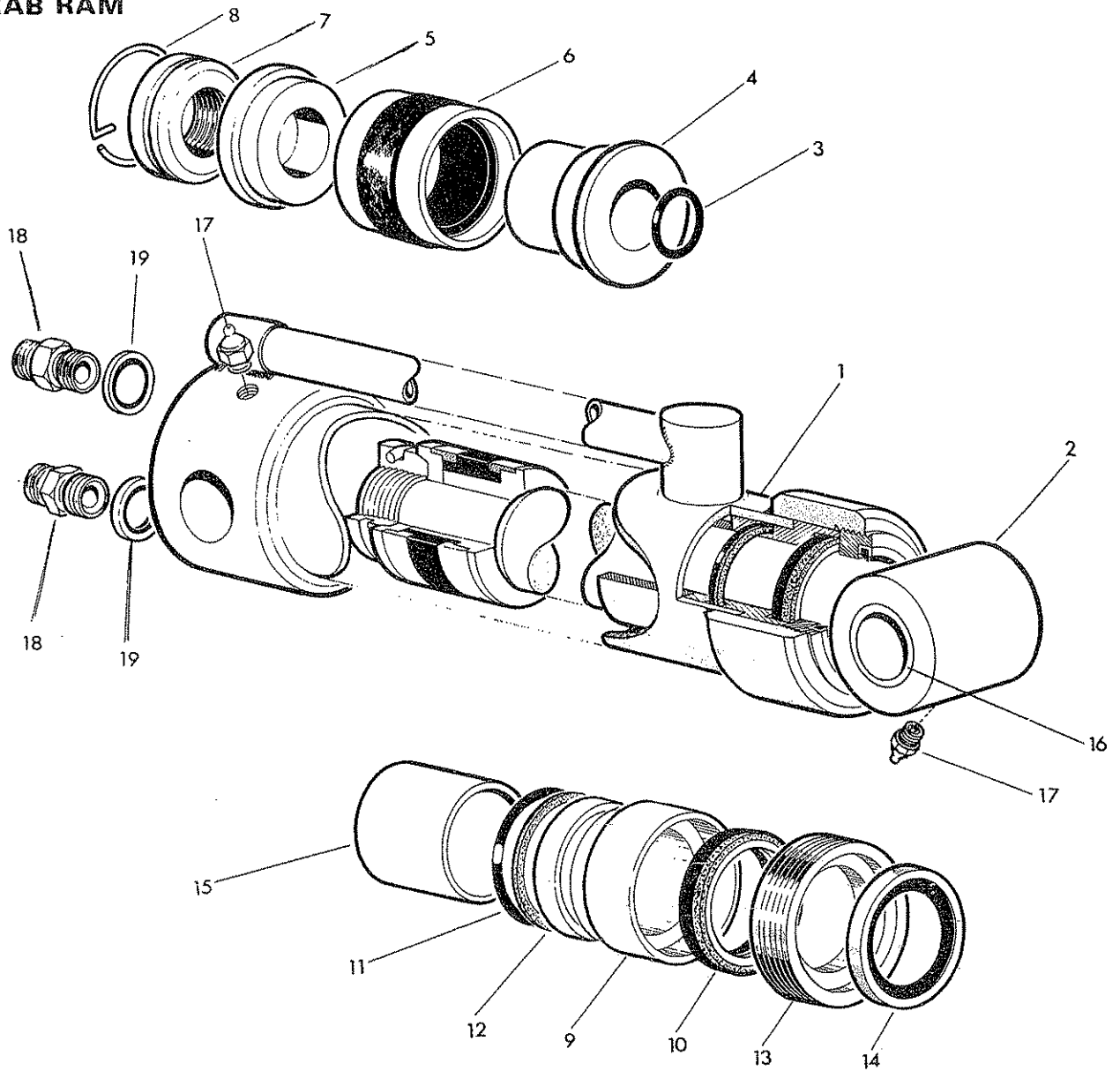
| Ref | Part No. | Qty | Description |
|-----|-----------|-----|-----------------------------------|
| | 71 15 283 | | HYDRAULIC LINK RAM ASSEMBLY |
| 1 | 71 15 284 | 1 | .Ram cylinder |
| 2 | 71 15 286 | 1 | .Ram rod |
| 3 | 71 15 038 | 1 | .Head bush c/w seals etc. |
| 4 | 86 15 004 | 1 | ..Rod seal |
| 5 | 86 29 137 | 1 | ..Rod wiper |
| 6 | 87 09 740 | 1 | ..Anti-extrusion ring |
| 7 | 87 00 740 | 1 | ..'0' ring |
| 8 | 71 15 036 | 1 | .Piston seal carrier c/w '0' ring |
| 9 | 86 00 302 | 1 | ..'0' ring |
| 10 | 86 37 740 | 1 | .Piston seal |
| 11 | 71 15 037 | 1 | .Piston seal plate |
| 12 | 71 15 035 | 1 | .Piston nut c/w locking ring |
| 13 | 71 15 039 | 1 | ..Locking ring |
| 14 | 81 30 057 | 2 | .Check valve assembly |
| 15 | 81 30 025 | 1 | ..Check valve cap |
| 16 | 81 14 045 | 1 | ..Spring |
| 17 | 81 30 040 | 1 | ..Spring guide |
| 18 | 09 05 509 | 1 | ..Steel ball M9 \varnothing |
| 19 | 87 00 644 | 1 | ..'0' ring |
| 20 | 81 30 024 | 1 | ..Check valve seat |
| 21 | 87 09 644 | 1 | ..Anti-extrusion ring |
| 22 | 81 30 026 | 1 | .Actuator |
| 23 | 81 30 037 | 2 | .Restrictor |
| 24 | 86 50 102 | 2 | .Bonded seal 1/4" BSP |
| | 86 99 180 | | RAM SEAL KIT |

LIFT RAM



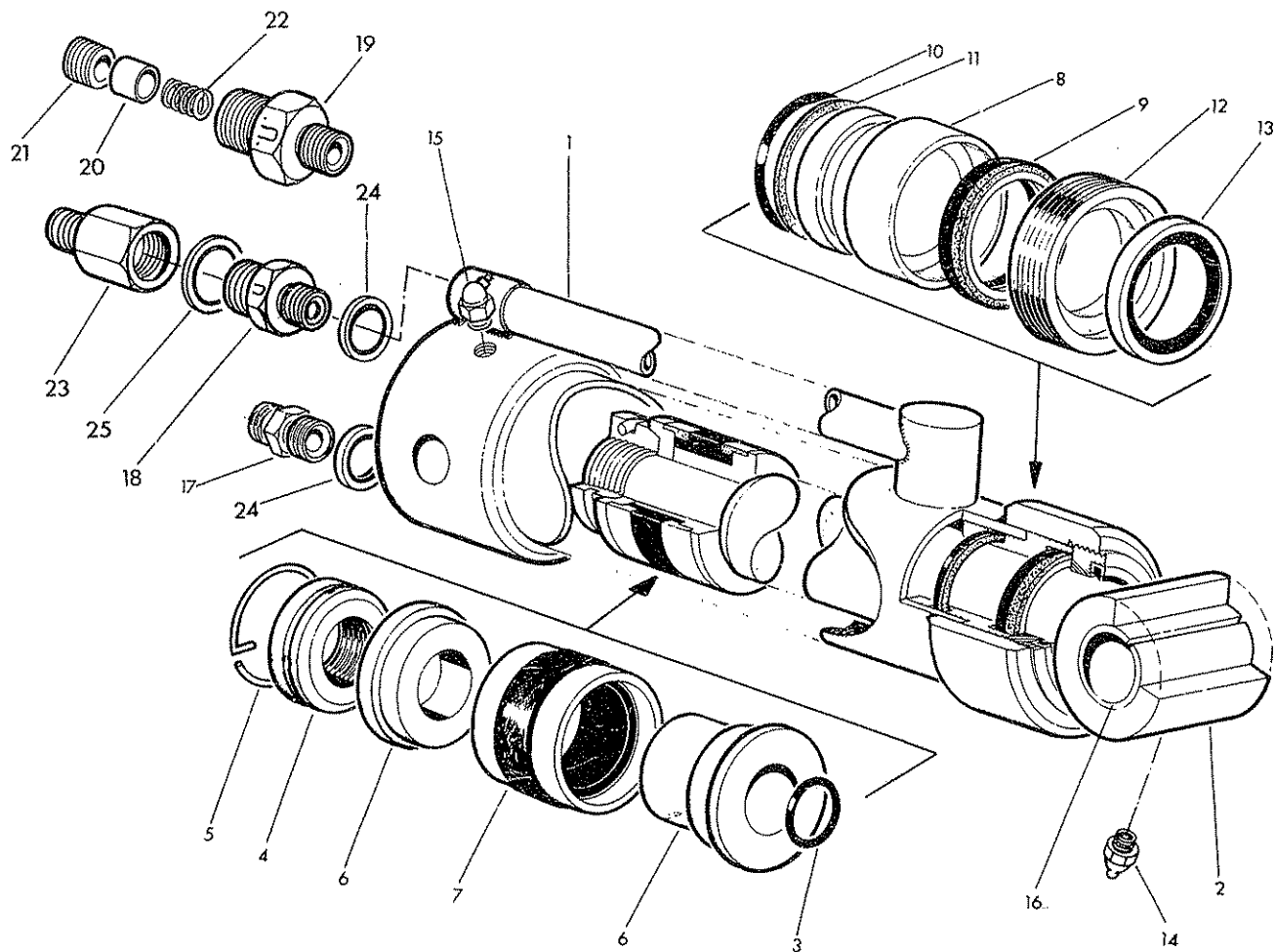
| Ref | Part No. | Qty | Description |
|-----|-----------|-----|---------------------------------------|
| | 71 15 303 | | LIFT RAM ASSEMBLY COMPLETE |
| | 71 15 304 | 1 | .Ram assembly |
| 1 | 71 15 305 | 1 | ..Ram cylinder |
| 2 | 71 01 095 | 1 | ..Piston rod c/w bush, 'O' ring & nut |
| 3 | 86 00 119 | 1 | ... 'O' ring |
| 4 | 71 01 096 | 1 | ...Piston nut c/w locking ring |
| 5 | 71 01 152 | 1 |Locking ring |
| 6 | 71 05 050 | 1 | ...Bush |
| 7 | 09 01 121 | 1 | ...Greaser 1/8" BSP straight |
| 8 | 71 01 097 | 1 | ..Piston assembly c/w seal |
| 9 | 86 35 131 | 1 | ...Piston seal |
| 10 | 71 01 099 | 1 | ..Gland housing c/w seal & 'O' ring |
| 11 | 86 22 127 | 1 | ...Gland seal |
| 12 | 86 00 304 | 1 | ... 'O' ring |
| 13 | 86 09 304 | 1 | ...Anti extrusion ring |
| 14 | 71 01 100 | 1 | ..Gland nut c/w wiper |
| 15 | 86 40 328 | 1 | ...Piston rod wiper |
| 16 | 71 15 048 | 2 | .Bush - ram cylinder |
| 17 | 09 01 121 | 1 | .Greaser 1/8" BSP straight |
| 18 | 71 15 099 | 1 | .Tap spindle c/w 'O' ring |
| 19 | 81 06 045 | 1 | .. 'O' ring |
| 20 | 81 06 043 | 1 | .Tap gland nut |
| 21 | 81 08 006 | 1 | .Tap knob |
| 22 | 04 20 820 | 1 | .Spring dowel 1/8" dia x 1 1/4" long |
| 23 | 86 50 104 | 1 | .Bonded seal 1/2" BSP |
| 24 | 60 00 113 | 2 | .Union 3/8" BSP MM |
| 25 | 86 50 103 | 2 | .Bonded seal |
| | 86 99 102 | | RAM SEAL KIT |

GRAB RAM



| Ref | Part No | Qty | Description |
|-----|-----------|-----|--|
| | 70 16 279 | | GRAB RAM ASSEMBLY COMPLETE COMPR:- |
| | 70 16 280 | 1 | .Ram assembly |
| 1 | 72 12 272 | 1 | ..Ram cylinder |
| 2 | 72 12 004 | 1 | ..Piston rod |
| 3 | 86 00 119 | 1 | ..'O' ring |
| 4 | 71 01 097 | 1 | ..Piston inner |
| 5 | 71 01 098 | 1 | ..Piston outer |
| 6 | 86 35 131 | 1 | ..Piston seal |
| 7 | 71 01 096 | 1 | ..Piston nut |
| 8 | 71 01 152 | 1 | ..Locking ring |
| 9 | 71 01 099 | 1 | ..Gland seal housing c/w seals & 'O' ring etc. |
| 10 | 86 22 127 | 1 | ..Gland seal |
| 11 | 86 00 304 | 1 | ...'O' ring |
| 12 | 86 09 304 | 1 | ...'Anti extrusion ring |
| 13 | 71 01 100 | 1 | ..Gland nut |
| 14 | 86 40 328 | 1 | ..Piston rod wiper |
| 15 | 71 06 196 | 1 | ..Piston rod spacer |
| 16 | 71 05 050 | 1 | .Bush |
| 17 | 09 01 121 | 2 | .Greaser 1/8" BSP straight |
| 18 | 60 00 113 | 2 | .Union 3/8 BSP M-M |
| 19 | 86 50 103 | 2 | .Bonded seal 3/8 BSP |
| | 86 99 102 | | RAM SEAL KIT |

DIGGER REACH RAM

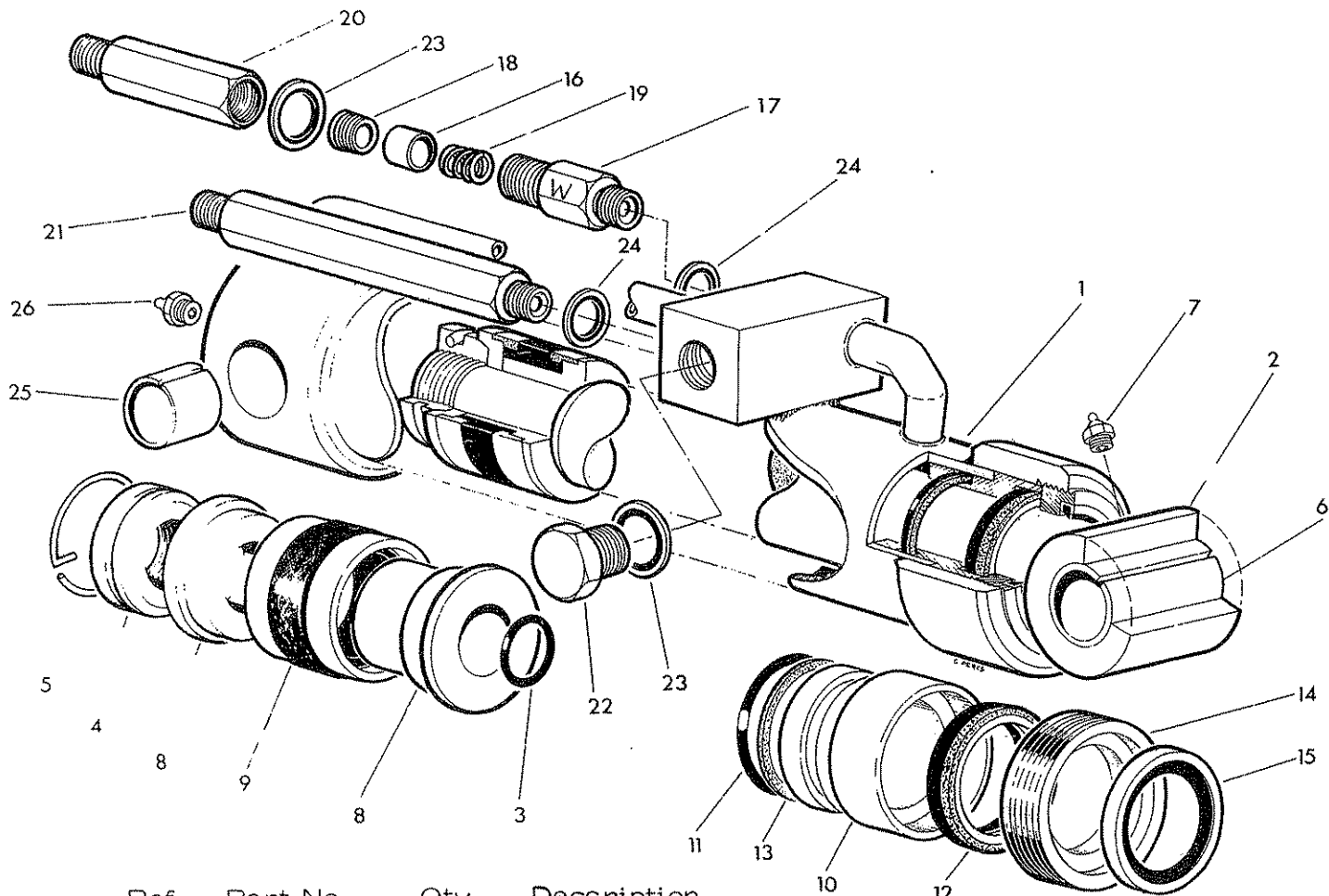


| Ref | Part No. | Qty | Description |
|-----|-----------|-----|---------------------------------------|
| | 71 05 298 | | REACH RAM ASSEMBLY |
| | 71 03 303 | | .Ram basic comprising:- |
| 1 | 71 03 304 | 1 | ..Ram cylinder |
| 2 | 71 01 095 | 1 | ..Ram rod c/w bush 'O' ring, nut |
| 3 | 86 00 119 | 1 | ... 'O' ring for piston rod |
| 4 | 71 01 096 | 1 | ..Piston nut c/w locking ring |
| 5 | 71 01 152 | 1 | ... Locking ring |
| 6 | 71 01 097 | 1 | ..Piston assembly c/w seal |
| 7 | 86 35 131 | 1 | ... Piston seal |
| 8 | 71 01 099 | 1 | ..Gland housing c/w seal and 'O' ring |
| 9 | 86 22 127 | 1 | ... Gland seal |
| 10 | 86 00 304 | 1 | ... 'O' ring |
| 11 | 86 09 304 | 1 | ... Anti-extrusion ring |
| 12 | 71 01 100 | 1 | ..Gland nut c/w wiper |
| 13 | 86 40 328 | 1 | ... Piston rod wiper |
| 14 | 09 01 121 | 1 | ..Greaser (straight) |
| 15 | 09 01 124 | 1 | ..Greaser (angular) |
| 16 | 71 05 050 | 2 | .Bush rod end |
| 17 | 60 00 113 | 1 | .Union 3/8" BSP mm |
| 18 | 81 24 037 | 1 | .Short restrictor 'U' assembly |
| 19 | 81 24 055 | 1 | ..Restrictor body |
| 20 | 81 23 008 | 1 | .Restrictor piston |
| 21 | 81 23 002 | 1 | ..Plug |
| 22 | 81 14 045 | 1 | ..Spring |
| 23 | 85 81 176 | 1 | .Adaptor 3/8" BSP-M 1/2" BSP - F |
| 24 | 86 50 103 | 2 | .Bonded seal 3/8" BSP |
| 25 | 86 50 104 | 1 | .Bonded seal 1/2" BSP |
| | 86 99 102 | | SEAL KIT |

Spares Note:

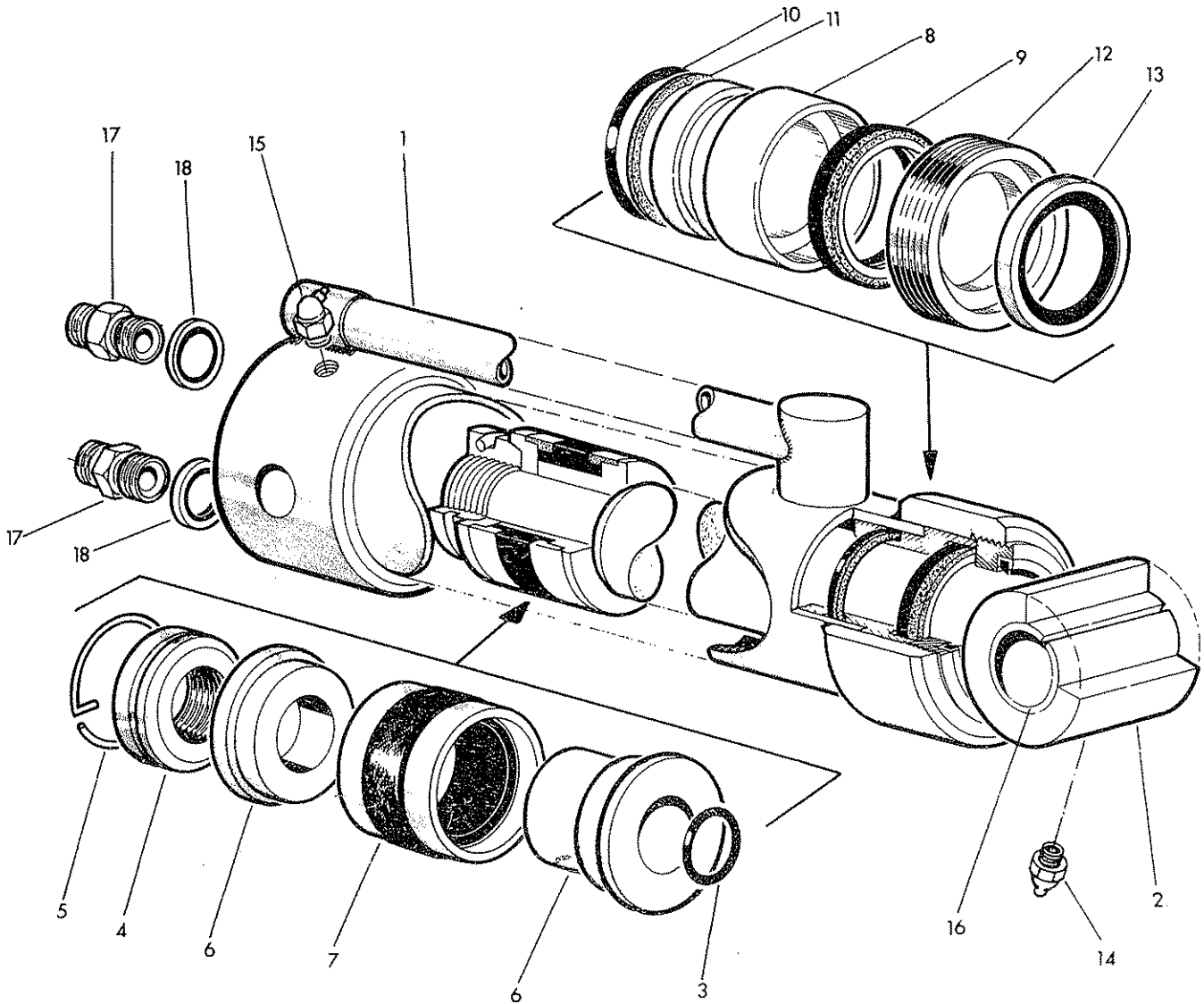
Should a complete ram assembly be required for a PA8 prior to serial No. 02 AH 43 or a PA7 prior to 01 AG 59 and additional restrictor 'T', part No. 81 24 036 is required which replaces the existing restrictor in the gland port of the reach section on the control valve.

LOADER REACH RAM



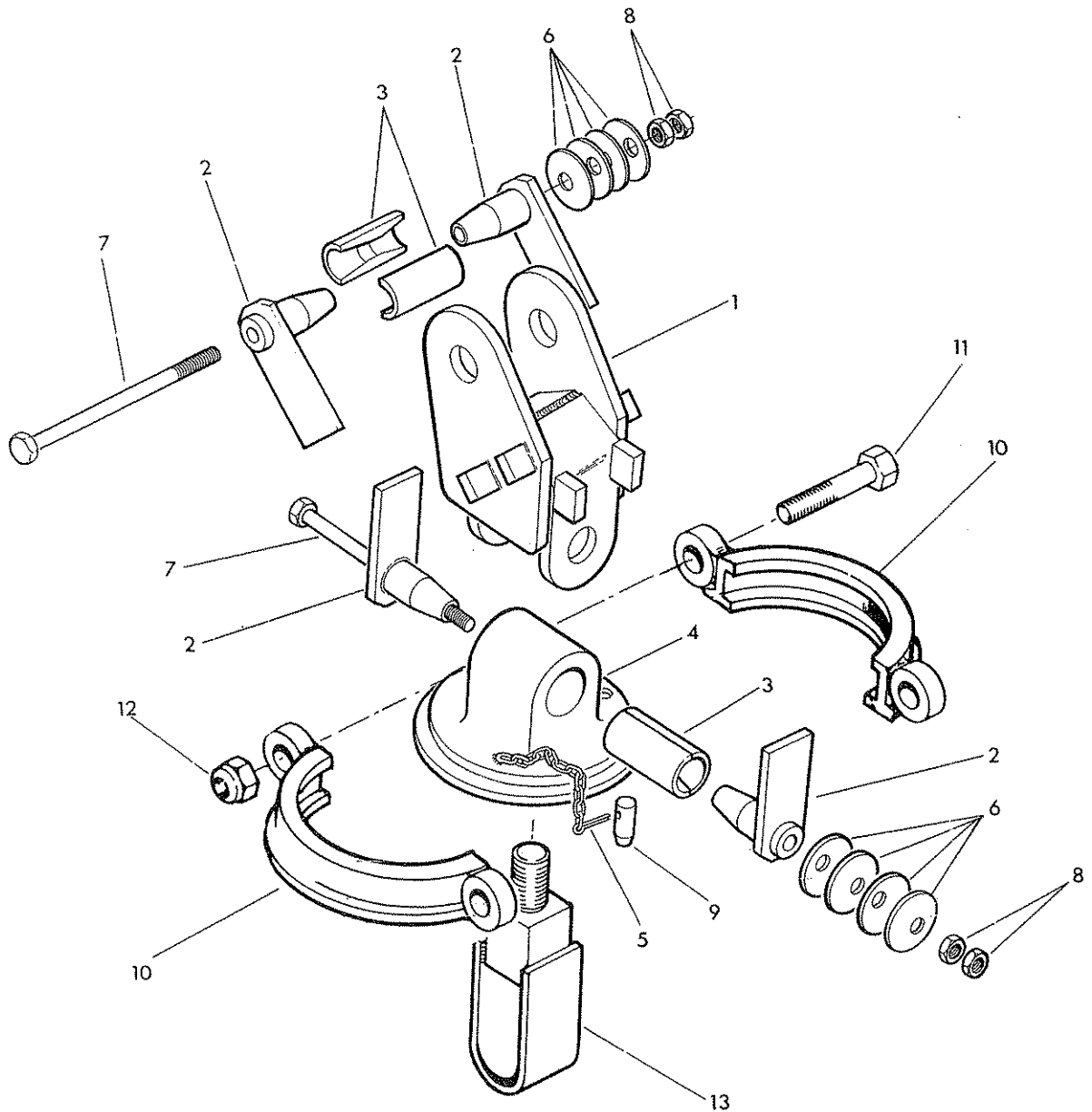
| Ref | Part No | Qty | Description |
|-----|-----------|-----|--------------------------------------|
| | 70 16 277 | | REACH RAM ASSEMBLY COMPLETE |
| | 71 15 304 | 1 | ..Ram assembly |
| 1 | 71 15 304 | 1 | ..Ram cylinder |
| 2 | 71 01 095 | 1 | ..Piston rod c/w bush 'O' ring & nut |
| 3 | 86 00 119 | 1 | ... 'O' ring |
| 4 | 71 01 096 | 1 | ... Piston nut c/w locking ring |
| 5 | 71 01 152 | 1 | Locking ring |
| 6 | 71 05 050 | 1 | ... Bush |
| 7 | 09 01 121 | 1 | ... Greaser 1/8" BSP straight |
| 8 | 71 01 097 | 1 | .. Piston Seal assembly |
| 9 | 86 35 131 | 1 | ... Piston seal |
| 10 | 71 01 099 | 1 | .. Gland housing c/w seal & 'O' ring |
| 11 | 86 22 127 | 1 | ... "O" Ring |
| 12 | 86 00 304 | 1 | .. Gland Seal |
| 13 | 86 09 304 | 1 | ... Anti extrusion ring |
| 14 | 71 01 100 | 1 | .. Gland nut c/w wiper |
| 15 | 86 40 328 | 1 | ... Piston rod wiper |
| | 81 24 044 | 1 | .. Long restrictor 'W' assembly |
| 16 | 81 23 004 | 1 | .. Restrictor piston |
| 17 | 81 24 054 | 1 | .. Restrictor body |
| 18 | 81 23 002 | 1 | .. Plug |
| 19 | 81 16 011 | 1 | .. Spring |
| 20 | 85 81 177 | 1 | .. Adaptor 3/8 BSP-M - 1/2 BSP-F |
| 21 | 85 81 179 | 1 | .. Union 3/8 BSP M-M 6" long |
| 22 | 81 03 001 | 1 | .. Blanking plug 1/2" BSP |
| 23 | 86 50 104 | 2 | .. Bonded seal 1/2" BSP |
| 24 | 86 50 103 | 2 | .. Bonded seal 3/8" BSP |
| 25 | 71 15 048 | 2 | .. Bush-Base end |
| 26 | 09 01 121 | 1 | .. Greaser 1/8 BSP - straight |

BUCKET RAM



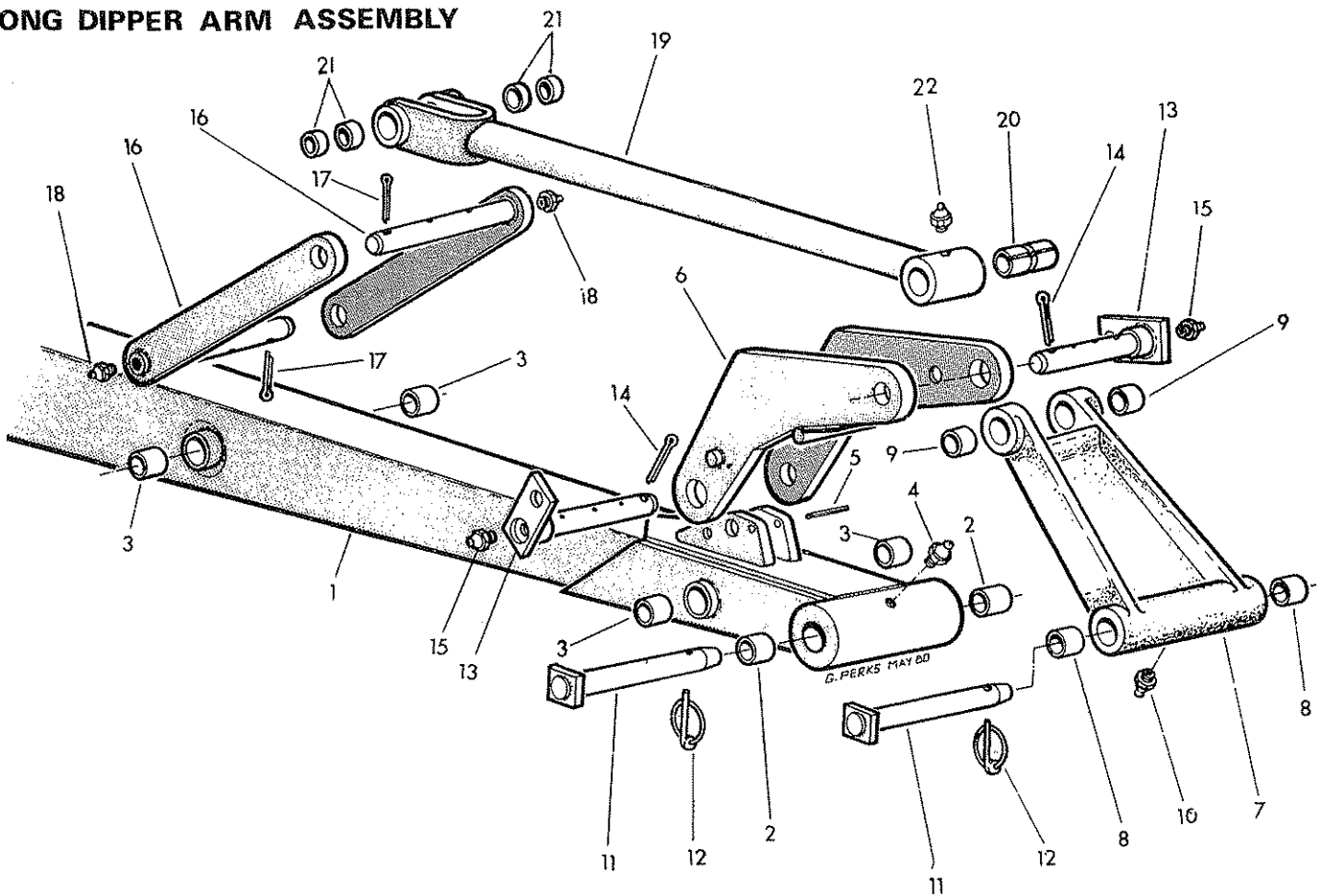
| Ref | Part No. | Qty | Description |
|-----|-----------|-----|---------------------------------------|
| | 71 05 298 | | BUCKET RAM ASSEMBLY |
| | 71 03 303 | | .Ram basic comprising:- |
| 1 | 71 03 304 | 1 | ..Ram cylinder |
| 2 | 71 01 095 | 1 | ..Ram rod c/w bush 'O' ring, nut |
| 3 | 86 00 119 | 1 | ... 'O' ring for piston rod |
| 4 | 71 01 096 | 1 | ..Piston nut c/w locking ring |
| 5 | 71 01 152 | 1 | ... Locking ring |
| 6 | 71 01 097 | 1 | ..Piston assembly c/w seal |
| 7 | 86 35 131 | 1 | ...Piston seal |
| 8 | 71 01 099 | 1 | ..Gland housing c/w seal and 'O' ring |
| 9 | 86 22 127 | 1 | ...Gland seal |
| 10 | 86 00 304 | 1 | ... 'O' ring |
| 11 | 86 09 304 | 1 | ...Anti-extrusion ring |
| 12 | 71 01 100 | 1 | ..Gland nut c/w wiper |
| 13 | 86 40 328 | 1 | ...Piston rod wiper |
| 14 | 09 01 121 | 1 | ..Greaser (straight) |
| 15 | 09 01 124 | 1 | ..Greaser (angular) |
| 16 | 71 05 050 | 2 | .Bush rod end |
| 17 | 60 00 113 | 2 | .Union 3/8" BSP mm |
| 18 | 86 50 103 | 2 | .Bonded seal |
| | 86 99 102 | | RAM SEAL KIT |

A16 SWIVEL ASSEMBLY



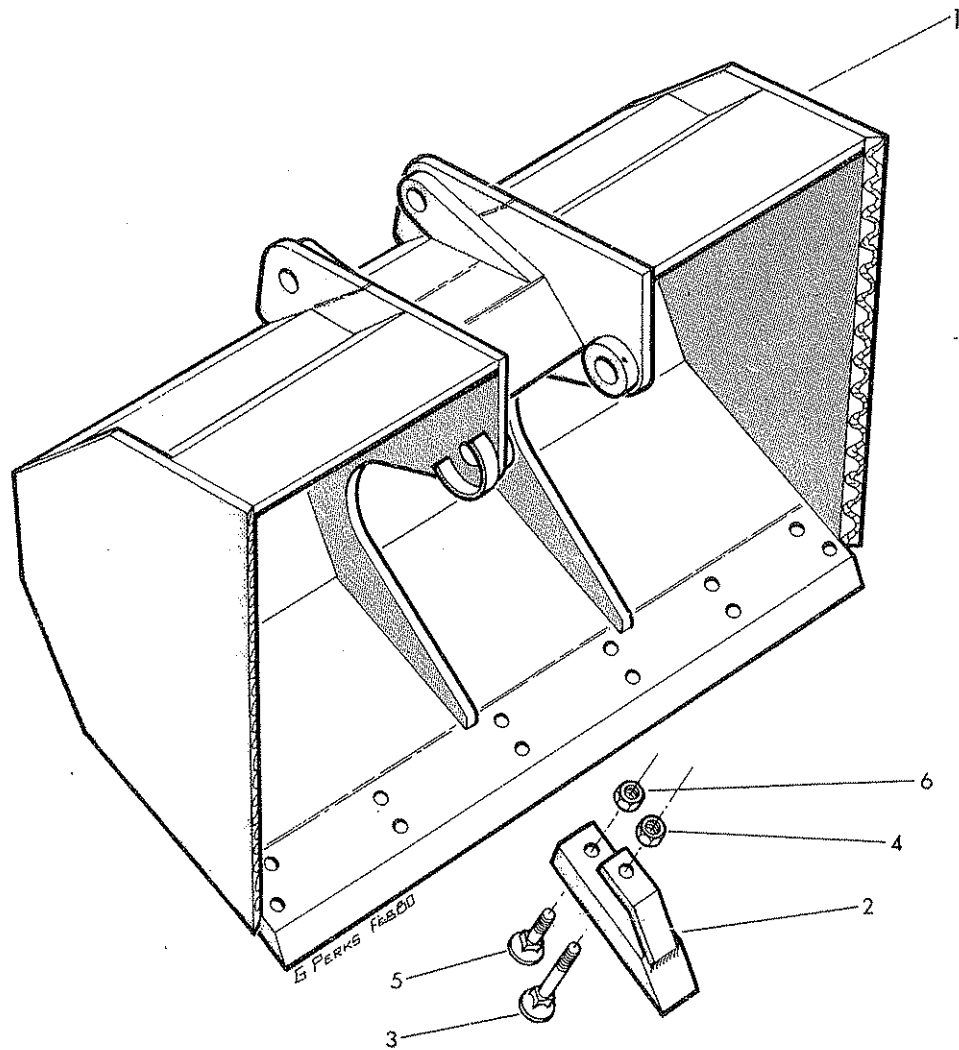
| Ref | Part No. | Qty | Description |
|------------------------|-----------|-----|------------------------------------|
| SWIVEL ASSEMBLY | | | |
| 1 | 70 16 281 | 1 | .Swivel jaw |
| 2 | 70 16 052 | 4 | .Friction pin |
| 3 | 70 16 053 | 1 | .Damping bush |
| 4 | 70 16 282 | 1 | .Swivel plate c/w split pin |
| 5 | 05 03 083 | 1 | ..Split pin 1/8" dia x 1" long |
| 6 | 70 14 021 | 8 | .Spring disc |
| 7 | 02 11 486 | 2 | .Bolt 5/8 UNF x 6" long |
| 8 | 01 31 006 | 4 | .Thin Hexagon nut 5/8 UNF |
| 9 | 71 05 076 | 1 | .Locating pin |
| 10 | 71 05 326 | 2 | .Swivel clamp half |
| 11 | 02 11 186 | 2 | .Bolt 5/8 UNF x 2 1/4" long |
| 12 | 01 51 006 | 2 | .Clevelok thin hexagon nut 5/8 UNF |
| 13 | 73 12 073 | 1 | .GCM Safety Strap |

LONG DIPPER ARM ASSEMBLY



| Ref | Part No. | Qty | Description |
|-----|-----------|-----|--|
| | 71 05 364 | | LONG DIPPER ARM ASSEMBLY (FOR DIGGER/LOADER) |
| 1 | 71 05 361 | 1 | ..Long dipper arm c/w bushes etc. |
| 2 | 71 01 134 | 2 | ..Bucket pivot bush |
| 3 | 71 01 083 | 4 | ..Radius arm pivot bush |
| 4 | 09 01 121 | 1 | ..Greaser 1/8" BSP straight |
| 5 | 04 21 832 | 1 | ..Spring dowel 1/4" dia x 2" long |
| 6 | 71 05 369 | 1 | ..Radius arm |
| 7 | 71 06 312 | 1 | ..Slave link c/w bushes etc |
| 8 | 71 01 134 | 2 | ..Bush |
| 9 | 71 01 083 | 2 | ..Bush |
| 10 | 09 01 121 | 1 | ..Greaser 1/8" BSP straight |
| 11 | 72 17 010 | 2 | ..Bucket pin c/w linch pin |
| 12 | 04 31 217 | 1 | ..Linch pin |
| 13 | 71 05 090 | 2 | ..Radius arm pin c/w pin and greaser |
| 14 | 05 03 165 | 1 | ..Split pin 3/16" diam x 2" long |
| 15 | 09 01 121 | 1 | ..Greaser 1/8" BSP straight |
| 16 | 71 06 141 | 2 | ..Radius arm c/w split pin and greaser |
| 17 | 05 03 165 | 1 | ..Split pin 3/16" diameter x 2" long |
| 18 | 09 01 121 | 1 | ..Greaser 1/8" BSP straight |
| 19 | 71 06 316 | 1 | ..Slave link c/w bushes and greaser |
| 20 | 71 05 050 | 1 | ..Bush |
| 21 | 70 12 037 | 4 | ..Bush |
| 22 | 09 01 121 | 1 | ..Greaser 1/8" BSP straight |

DITCHING BUCKETS

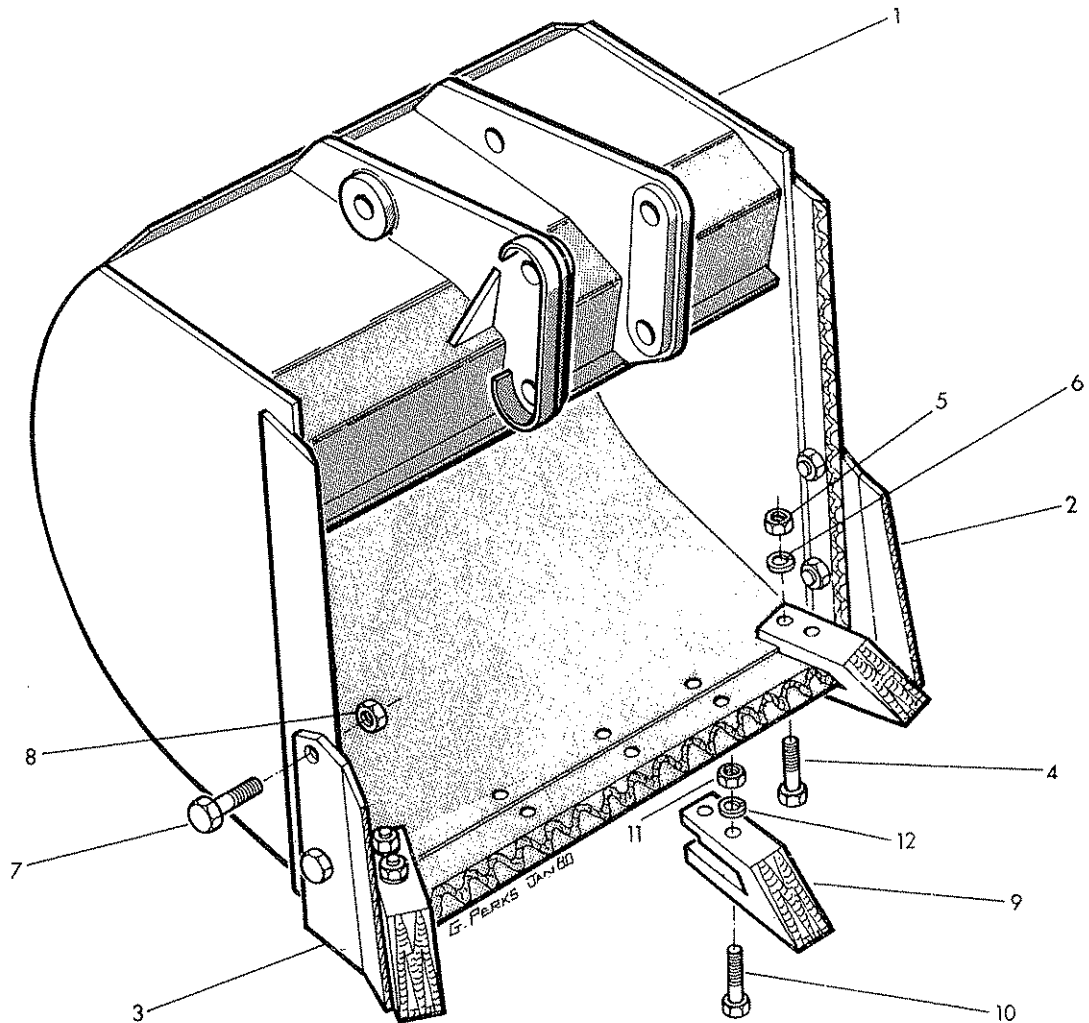


| Ref | Part No. | Qty | | Description |
|-----|-----------|-----|--------|---------------------------|
| | | 1 m | 800 mm | |
| | 72 17 261 | | | 1 METRE DITCHING BUCKET |
| | 72 17 263 | 1 | | .Bucket (not illustrated) |
| | 72 17 260 | | | 800 mm DITCHING BUCKET |
| 1 | 72 17 262 | | 1 | .Bucket |

The following items are common to both bucket assemblies :-

| | | | | |
|---|-----------|---|---|---------------------------|
| | 60 12 073 | 8 | 6 | .Tine assembly |
| 2 | 60 12 033 | 1 | 1 | ..Tine |
| 3 | 60 12 074 | 1 | 1 | ..Tine bolt long c/w nut |
| 4 | 01 12 004 | 1 | 1 | ...Hexagon nut 7/16 UNC |
| 5 | 60 12 034 | 1 | 1 | ..Tine bolt short c/w nut |
| 6 | 01 12 004 | 1 | 1 | ...Hexagon nut 7/16 UNC |

HEAVY DUTY DIGGING BUCKETS



| Ref | Part No. | Qty | | Description |
|-----|----------|--------|--------|-------------|
| | | 450 mm | 600 mm | |

| | | | | |
|---|-----------|---|---|-------------------------|
| 1 | 72 17 251 | | | 600 mm DIGGING BUCKET |
| | 72 17 252 | | 1 | .Bucket |
| | 72 17 250 | | | 400 mm DIGGING BUCKET |
| | 72 17 253 | 1 | | .Bucket not illustrated |

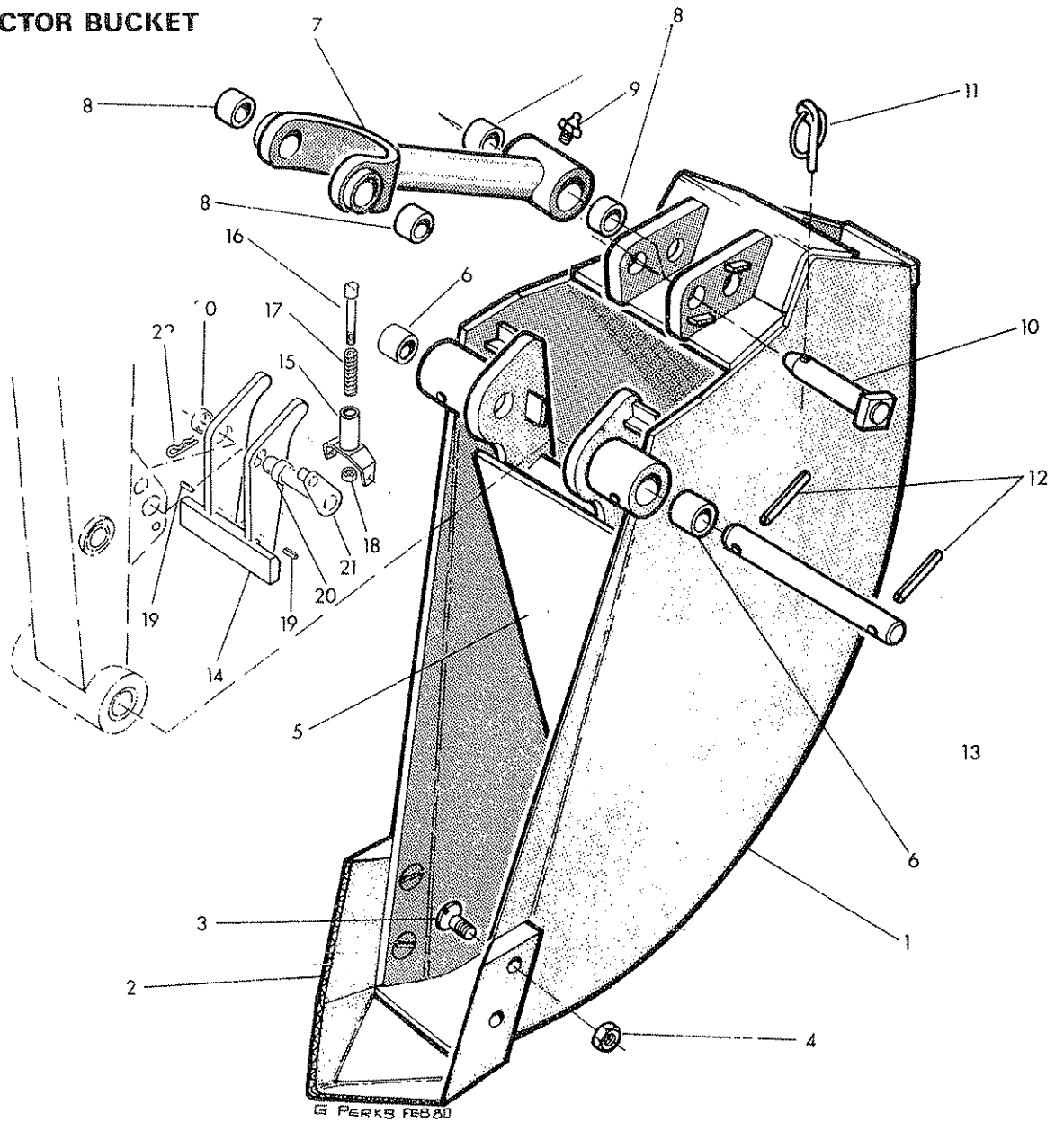
The following items are common to both bucket assemblies :-

| | | | | |
|---|-----------|---|---|--|
| 2 | 72 17 259 | 1 | 1 | .Side tine left hand c/w nuts, bolts etc. |
| 3 | 72 17 258 | 1 | 1 | .Side tine right hand c/w nuts, bolts etc. |

Items 4 - 8 (inclusive) are common to both side tines.

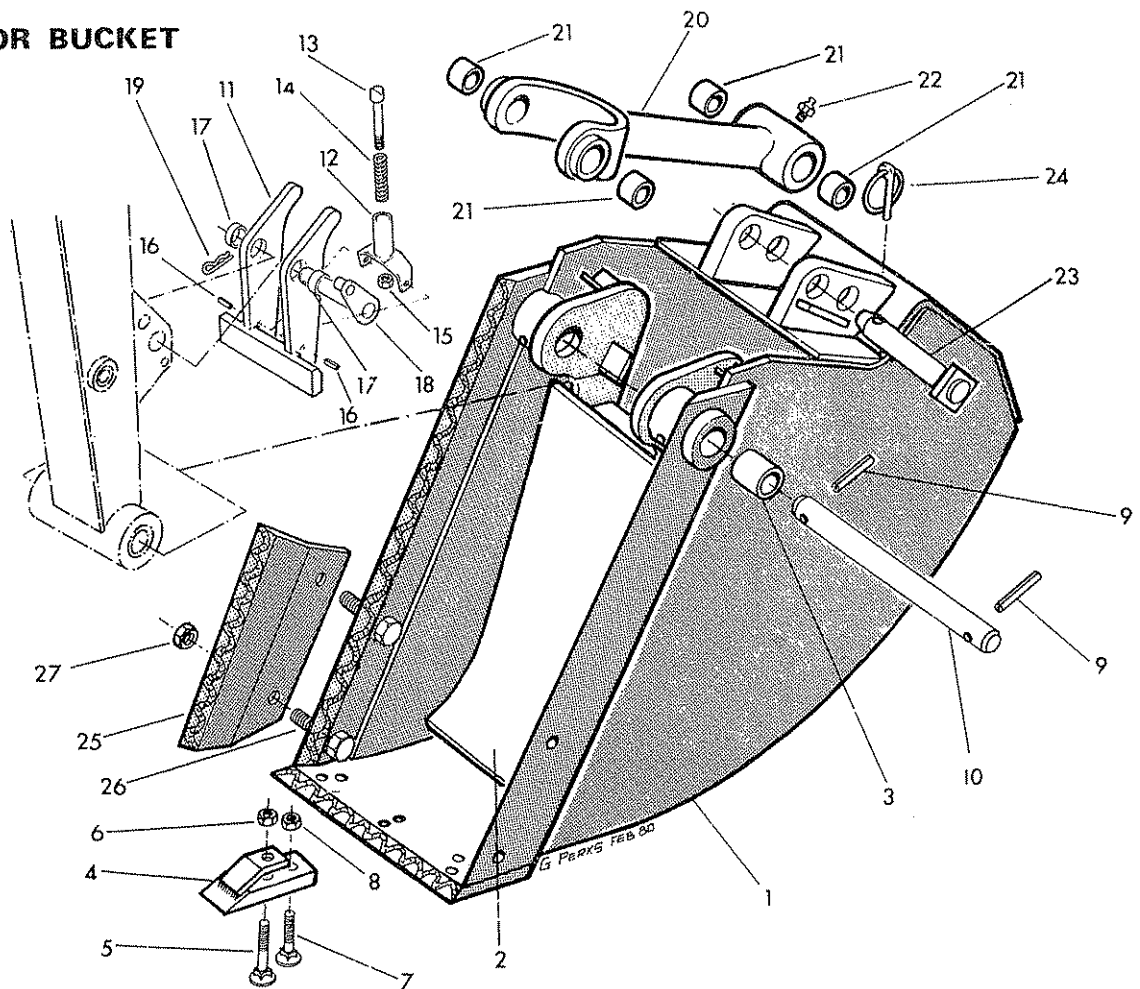
| | | | | |
|----|-----------|---|---|-----------------------------------|
| 4 | 92 13 085 | 2 | 2 | ..Bolt M10 x 40 coarse |
| 5 | 91 13 005 | 2 | 2 | ..Hexagon nut M10 coarse |
| 6 | 91 00 205 | 2 | 2 | ..Spring washer Ø10 |
| 7 | 02 11 124 | 2 | 2 | ..Bolt 7/16 UNF x 1½" long |
| 8 | 01 41 004 | 2 | 2 | ..Self-locking nut 7/16 UNF |
| 9 | 72 17 300 | 2 | 3 | .Bucket tine c/w nuts, bolts etc. |
| 10 | 92 13 085 | 2 | 2 | ..Bolt M10 x 40 coarse |
| 11 | 91 13 005 | 2 | 2 | ..Hexagon nut M10 coarse |
| 12 | 91 00 205 | 2 | 2 | ..Spring washer Ø10 |

140m.m. EJECTOR BUCKET



| Ref | Part No. | Qty | Description |
|-----|-----------|-----|--|
| | 72 17 280 | | 140 mm EJECTOR BUCKET |
| 1 | 72 17 277 | 1 | .Bucket |
| 2 | 70 12 263 | 1 | .Bucket shoe |
| 3 | 70 12 030 | 4 | .Special shoe screw 7/16" UNC |
| 4 | 01 32 004 | 4 | .Hexagon thin nut 7/16" UNC |
| 5 | 72 17 278 | 1 | .Ejector |
| 6 | 73 12 021 | 2 | .Bucket pivot bush |
| 7 | 72 17 289 | 1 | .Special slave link c/w bushes and greaser |
| 8 | 70 12 037 | 4 | ..Bush |
| 9 | 09 01 121 | 1 | ..Greaser |
| 10 | 72 17 019 | 1 | .Ram rod pivot pin c/w linch pins |
| 11 | 04 31 217 | 1 | ..Linch pin |
| 12 | 04 42 632 | 2 | .Spirol pin |
| 13 | 73 12 020 | 1 | .Bucket pivot pin |
| 14 | 72 17 020 | 1 | .Latch assembly comprising :- |
| | 72 17 030 | 1 | ..Latch rocker |
| | 72 17 031 | 1 | ..Cartridge assembly comprising :- |
| 15 | 72 17 032 | 1 | ...Cartridge fork |
| 16 | 72 17 034 | 1 | ...Plunger |
| 17 | 60 00 110 | 1 | ...Spring |
| 18 | 01 11 003 | 1 | ...Hexagon nut 3/8" UNF |
| 19 | 04 21 812 | 2 | ..Roll pin 1/4" diameter x 3/4" long |
| 20 | 72 17 035 | 2 | ..Bush |
| 21 | 72 17 036 | 1 | ..Latch pin c/w spring cotter |
| 22 | 04 31 105 | 1 | ...Spring cotter |

300m.m. EJECTOR BUCKET

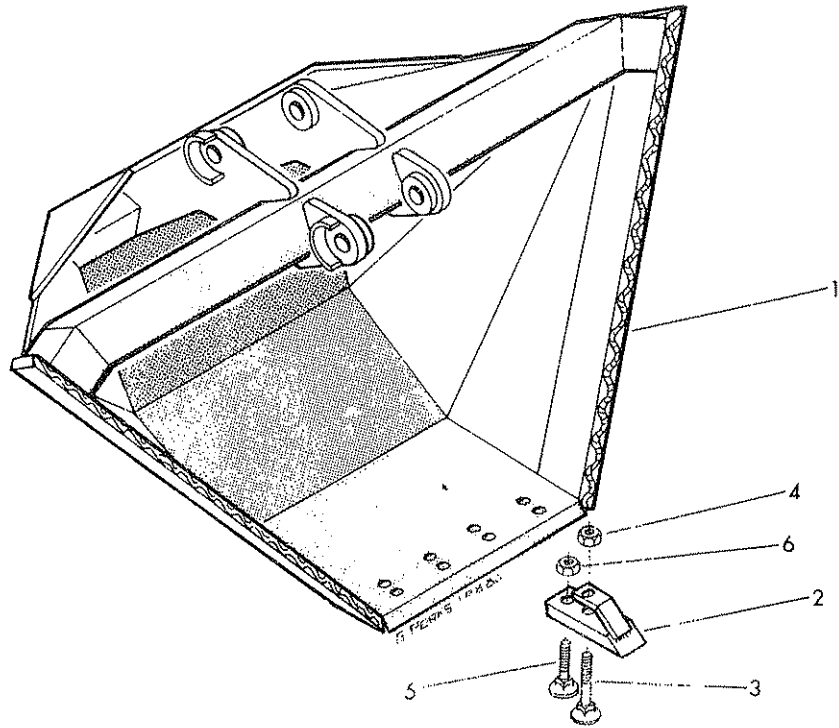


| Ref | Part No. | Qty | Description |
|-----|-----------|-----|--|
| | 72 17 281 | | 300 mm EJECTOR BUCKET |
| 1 | 72 17 283 | 1 | .Bucket |
| 2 | 72 17 286 | 1 | .Ejector |
| 3 | 60 12 032 | 2 | .Bucket pivot bush |
| | 60 12 073 | 3 | .Tine assembly |
| 4 | 60 12 033 | 1 | ..Tine |
| 5 | 60 12 074 | 1 | ..Tine bolt long c/w nut |
| 6 | 01 12 004 | 1 | ...Hexagon nut 7/16 UNC |
| 7 | 60 12 034 | 1 | ..Tine bolt short c/w nut |
| 8 | 01 12 004 | 1 | ...Hexagon nut |
| 9 | 04 42 632 | 2 | .Spirol pin |
| 10 | 73 12 033 | 1 | .Bucket pivot pin |
| | 72 17 020 | 1 | .Latch assembly comprising :- |
| 11 | 72 17 030 | 1 | ..Latch rocker |
| | 72 17 031 | 1 | ..Cartridge assembly comprising :- |
| 12 | 72 17 032 | 1 | ...Cartridge fork |
| 13 | 72 17 034 | 1 | ...Plunger |
| 14 | 60 00 110 | 1 | ...Spring |
| 15 | 01 11 003 | 1 | ...Hexagon nut 3/8" UNF |
| 16 | 04 21 812 | 2 | ..Roll pin 1/4" diameter x 3/4" long |
| 17 | 72 17 035 | 2 | ..Bush |
| 18 | 72 17 036 | 1 | ..Latch pin c/w spring cotter |
| 19 | 04 31 105 | 1 | ...Spring cotter |
| 20 | 72 17 289 | 1 | .Special slave link c/w bushes and greaser |
| 21 | 70 17 037 | 4 | ..Bush |
| 22 | 09 01 121 | 1 | ..Greaser |
| 23 | 72 17 019 | 1 | .Ram rod pivot pin c/w lynch pin |
| 24 | 04 31 217 | 1 | ..Lynch pin |

OPTIONAL EXTRA

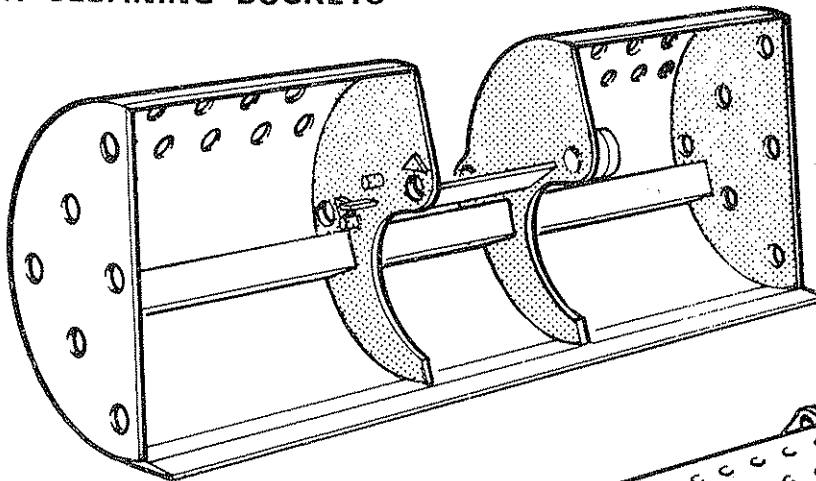
| | | | |
|----|-----------|---|---------------------------------|
| 25 | 70 12 072 | 2 | CHEEK PLATES c/w nuts and bolts |
| 26 | 02 11 134 | 4 | .Bolt 7/16" UNF x 1.5/8" long |
| 27 | 01 41 004 | 4 | .Self-locking nut 7/16" UNF |

WIDE 'V' BUCKET



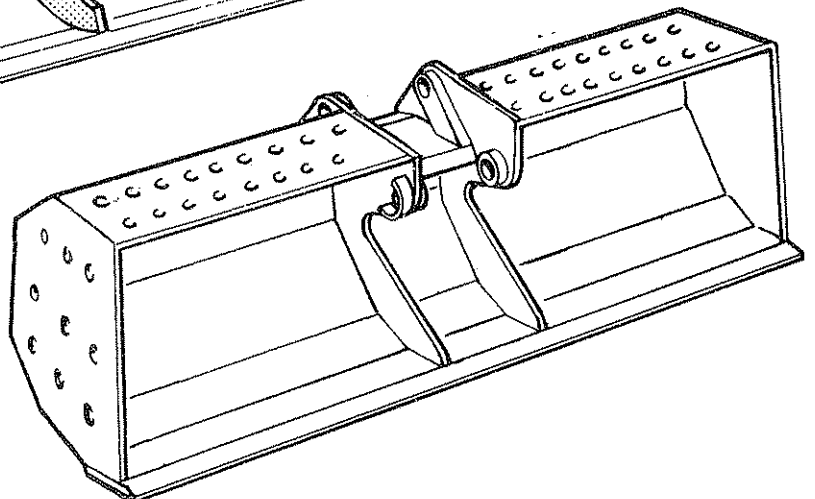
| Ref | Part No. | Qty | Description |
|-----|-----------|-----|---------------------------|
| | 72 17 290 | | 1240 'V' BUCKET |
| 1 | 72 17 291 | 1 | .Bucket |
| | 60 12 073 | 4 | .Tine assemblies |
| 2 | 60 12 033 | 1 | ..Tine |
| 3 | 60 12 074 | 1 | ..Tine bolt long c/w nut |
| 4 | 01 12 004 | 1 | ...Hexagon nut 7/16 UNC |
| 5 | 60 12 034 | 1 | ..Tine bolt short c/w nut |
| 6 | 01 12 004 | 1 | ...Hexagon nut 7/16 UNC |

DITCH CLEANING BUCKETS

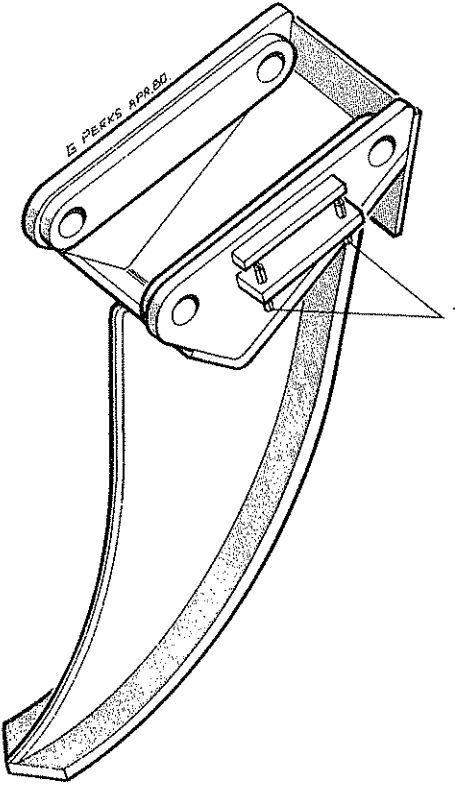


72 17 270
1.5 METRE DITCH
CLEANING BUCKET

73 12 320
1.2 METRE DITCH
CLEANING BUCKET

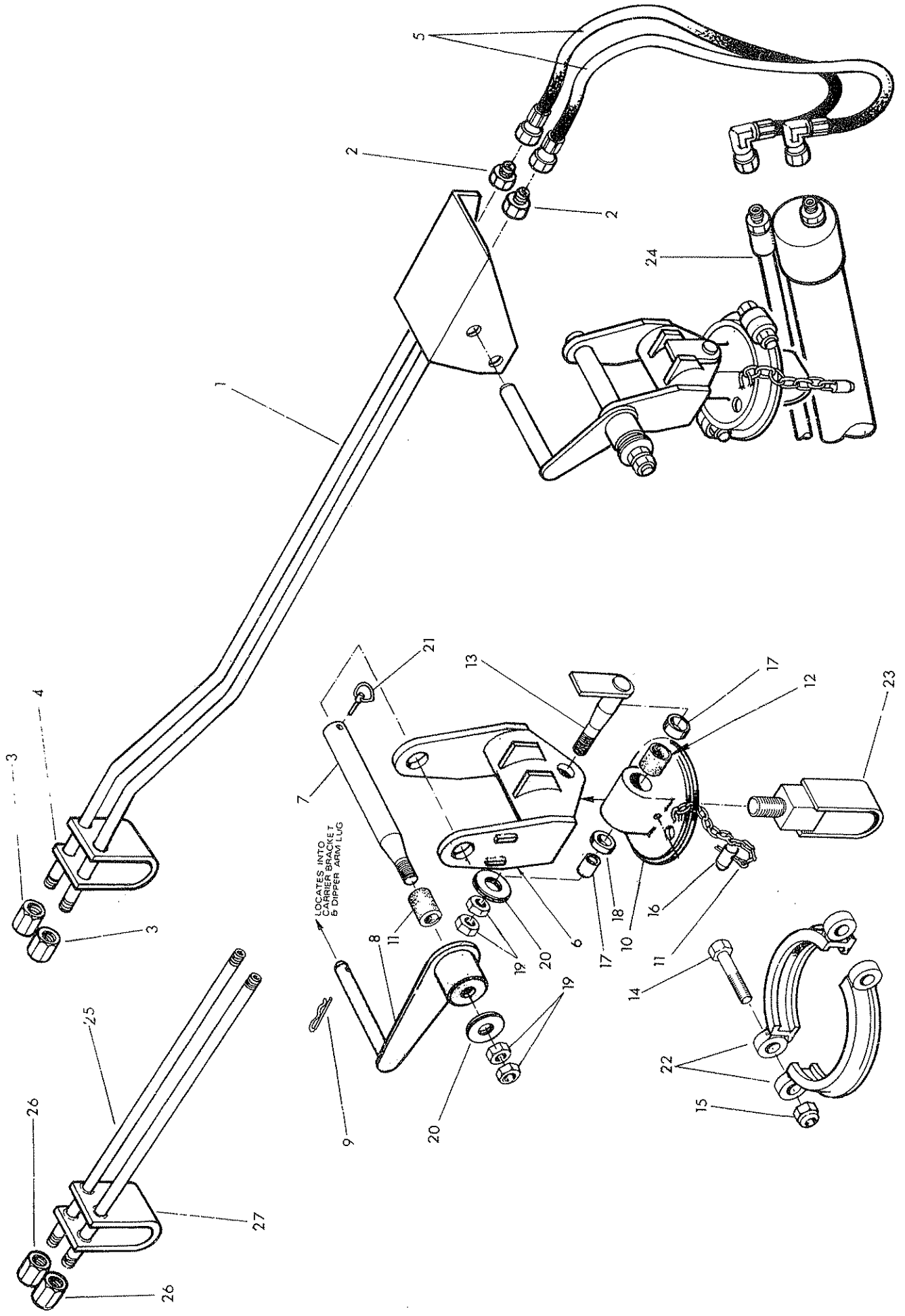


PICK TINE



| Ref | Part No. | Qty | Description |
|-----|-----------|-----|--|
| | 73 12 315 | | PICK TINE ASSEMBLY |
| 1 | 04 22 732 | 2 | .Spring dowel 7/16" diameter x 2" long |

GRAB SWIVEL, RAM & PIPES



| Ref | Part No. | Qty | Description |
|-----|-----------|-----|---|
| | 73 12 371 | | K44 KNUCKLE, GRAB RAM AND PIPES FOR STANDARD ARM |
| 1 | 73 12 366 | 1 | .Carrier bracket c/w fittings |
| * 2 | 70 14 020 | 2 | ..End fitting |
| * 3 | 81 06 013 | 2 | ..Straight socket 3/8" BSP |
| 4 | 73 12 103 | 1 | ..'U' bracket |
| 5 | 85 31 223 | 2 | .Hose 3/8" BSP S-F 90°F 59" long |
| | 73 12 294 | 1 | .Grab suspension swivel K44 comprising:- |
| ☐ 6 | 73 12 295 | 1 | ..Universal jaw |
| 7 | 73 12 024 | 1 | ..Suspension swivel pin |
| 8 | 73 12 296 | 1 | ..Torque arm c/w spring cotter |
| 9 | 04 31 105 | 1 | ...Spring cotter |
| 10 | 71 05 324 | 1 | ..Swivel plate c/w pins |
| 11 | 05 03 083 | 1 | ...Split pin |
| 12 | 71 05 071 | 2 | ..Friction sleeve |
| 13 | 71 05 072 | 1 | ..Swivel pin |
| 14 | 02 11 186 | 2 | ..Bolt 5/8" UNF x 2.1/4" long |
| 15 | 01 51 006 | 2 | ..Thin aeronut 5/8" UNF |
| 16 | 71 05 076 | 1 | ..Locating pin |
| 17 | 73 12 072 | 1 | ..Steel bush |
| 18 | 70 12 037 | 2 | ..Spring steel bush |
| 19 | 01 31 006 | 4 | ..Locknut 5/8" UNF |
| 20 | 70 14 027 | 4 | ..Spring disc |
| 21 | 04 31 217 | 1 | ..Linch pin |
| 22 | 71 05 326 | 2 | ..Clamp half |
| 23 | 73 12 073 | 1 | ..G.C.M.safety strap |
| 24 | 70 16 279 | 1 | .Grab ram assembly complete (see page 115) |
| | 73 12 372 | | K44 KNUCKLE, GRAB RAM AND PIPES FOR EXTENDED DIPPER ARM |

The parts lists for the extended assemblies are identical to their standard counterpart with the addition of :-

| | | | |
|------|-----------|---|------------------------------|
| 25 | 73 12 361 | 1 | .Pipe extension c/w fittings |
| ▲ 26 | 81 06 013 | 2 | ..Straight socket 3/8" BSP |
| 27 | 73 12 103 | 1 | ..'U'bracket |

* Assembled onto item 1 with jointing tape

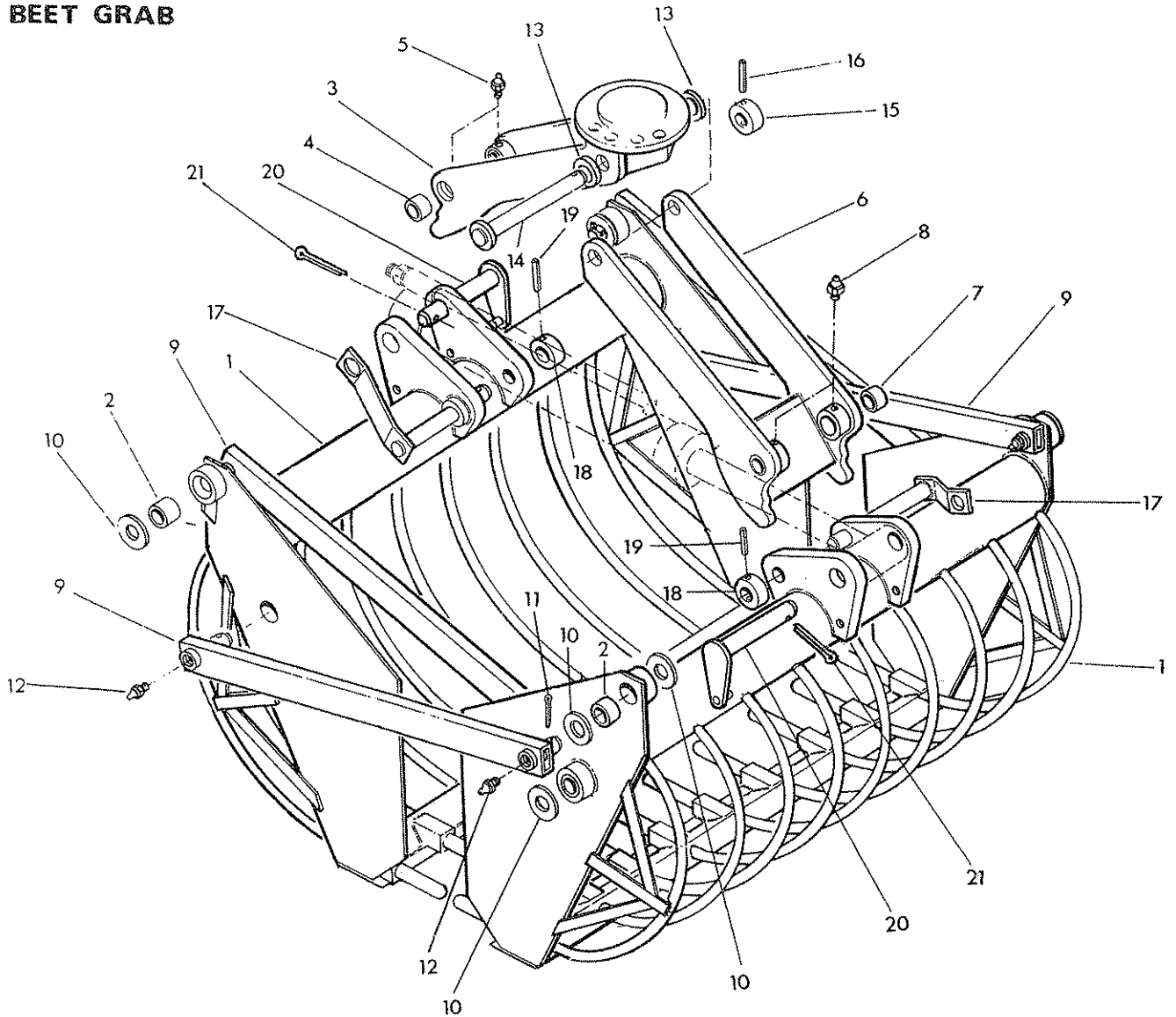
▲ Assembled onto item 25 with jointing tape

☐ Spares Note. Supply as a spare together with :-

1 off item 16 73 12 070 Bush

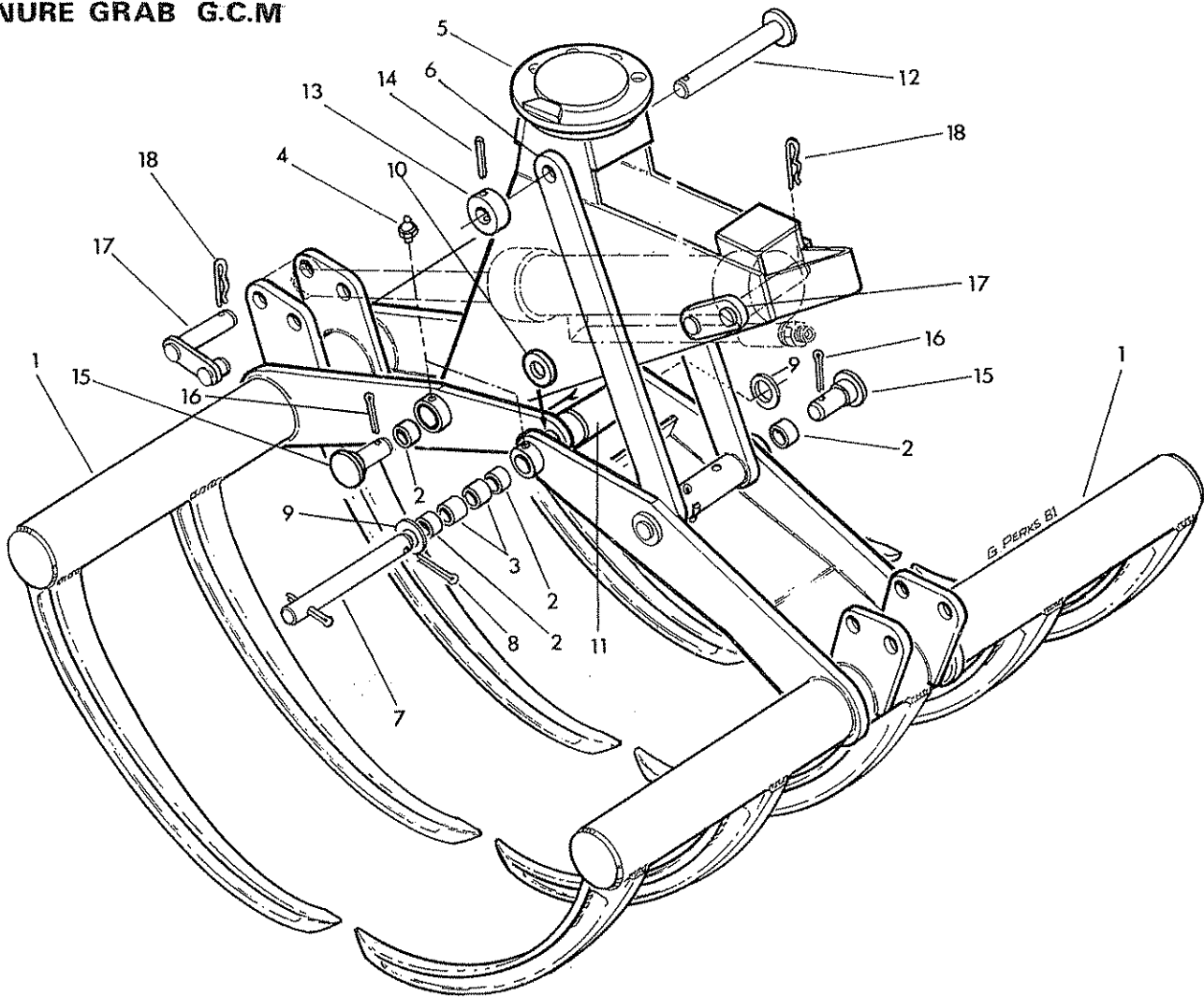
1 off item 17 70 12 037 Spring steel bush

BEET GRAB



| REF | PART NO | QTY | DESCRIPTION |
|-----|-----------|-----|--|
| | 70 16 300 | | BEET GRAB ASSEMBLY |
| 1 | 70 16 301 | 2 | .Beet grab half c/w bush |
| 2 | 60 12 032 | 4 | ..Bush |
| 3 | 70 16 303 | 1 | .Suspension link fixed c/w bushes & greasers |
| 4 | 60 12 032 | 2 | ..Bush |
| 5 | 09 01 121 | 2 | ..Greaser 1/8" BSP - straight |
| 6 | 70 16 305 | 1 | .Suspension link c/w bushes & greasers |
| 7 | 60 12 032 | 2 | ..Bush |
| 8 | 09 01 121 | 2 | ..Greaser 1/8"BSP - straight |
| 9 | 70 16 039 | 4 | .Cross link c/w washers, split pin etc |
| 10 | 70 16 041 | 4 | ..Washer 1 1/4" dia. |
| 11 | 05 03 165 | 2 | ..Split pin 3/16 dia x 2" long |
| 12 | 09 01 121 | 2 | ..Greaser 1/8 BSP - straight |
| 13 | 70 16 044 | 2 | .Spacer |
| 14 | 70 16 045 | 1 | .Suspension link pin c/w collar & spring dowel |
| 15 | 70 16 046 | 1 | ..Collar |
| 16 | 04 21 628 | 1 | ..Spring dowel 3/16" dia x 1 1/4" long |
| 17 | 70 16 047 | 2 | .Suspension link pin lower c/w collar & spring dowel |
| 18 | 70 16 049 | 1 | ..Collar |
| 19 | 04 21 632 | 1 | ..Spring dowel 3/16" dia x 2" long |
| 20 | 70 16 054 | 2 | .Ram locating pin c/w split pin |
| 21 | 05 03 165 | 1 | ..Split pin 3/16" dia x 2" long |

MANURE GRAB G.C.M

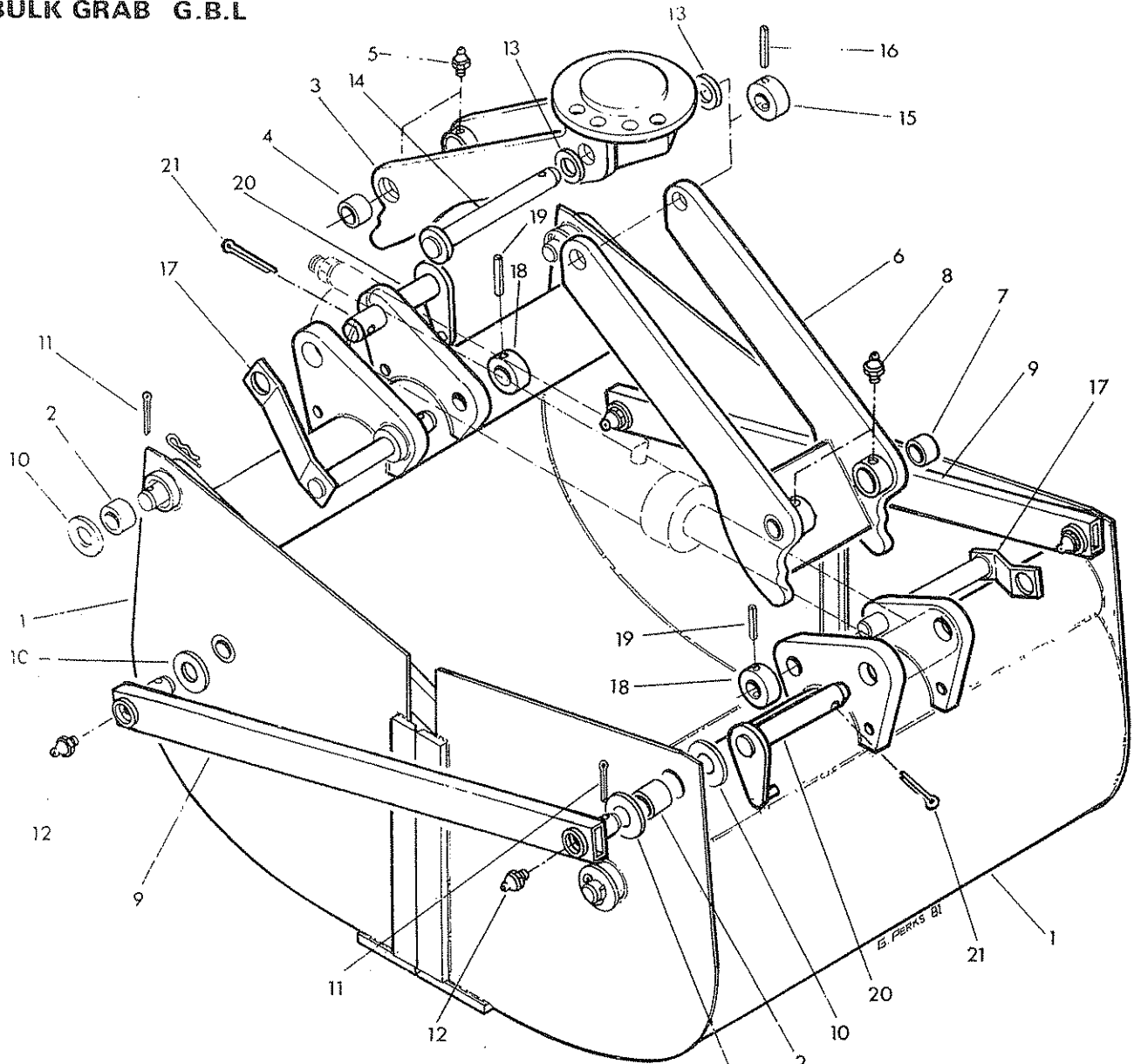


| Ref | Part No | Qty | Description |
|-----|-----------|-----|---|
| | 70 16 320 | | MANURE GRAB ASSEMBLY G.C.M. |
| 1 | 70 16 321 | | .Grab half c/w bushes & greasers |
| 2 | 71 01 134 | 1 | ..Bush |
| 3 | 60 12 032 | 3 | ..Bush |
| 4 | 09 01 121 | 4 | ..Greaser 1/8 BSP - straight |
| 5 | 72 14 302 | 1 | .Suspension frame |
| 6 | 70 16 322 | 1 | .Suspension link |
| 7 | 70 16 055 | | .Joint pin c/w split pin & washer |
| 8 | 05 03 165 | 2 | ..Split pin 3/16" dia x 2" |
| 9 | 70 16 041 | 2 | ..Washer Ø 32 |
| 10 | 70 16 056 | 2 | .Spacer |
| 11 | 70 16 058 | 1 | .Spacer |
| 12 | 70 16 057 | 1 | .Suspension link pin c/w collar & dowel |
| 13 | 72 14 068 | 1 | ..Collar |
| 14 | 04 21 628 | 1 | ..Spring dowel 3/16" dia x 1 3/4" long |
| 15 | 70 16 059 | 4 | .Pivot pin c/w Split pin |
| 16 | 05 03 165 | 1 | ..Split pin 3/16" dia x 2" long |
| 17 | 72 14 071 | 2 | .Ram pin |
| 18 | 04 31 105 | 2 | .Spring cotter |

OPTIONAL EXTRA

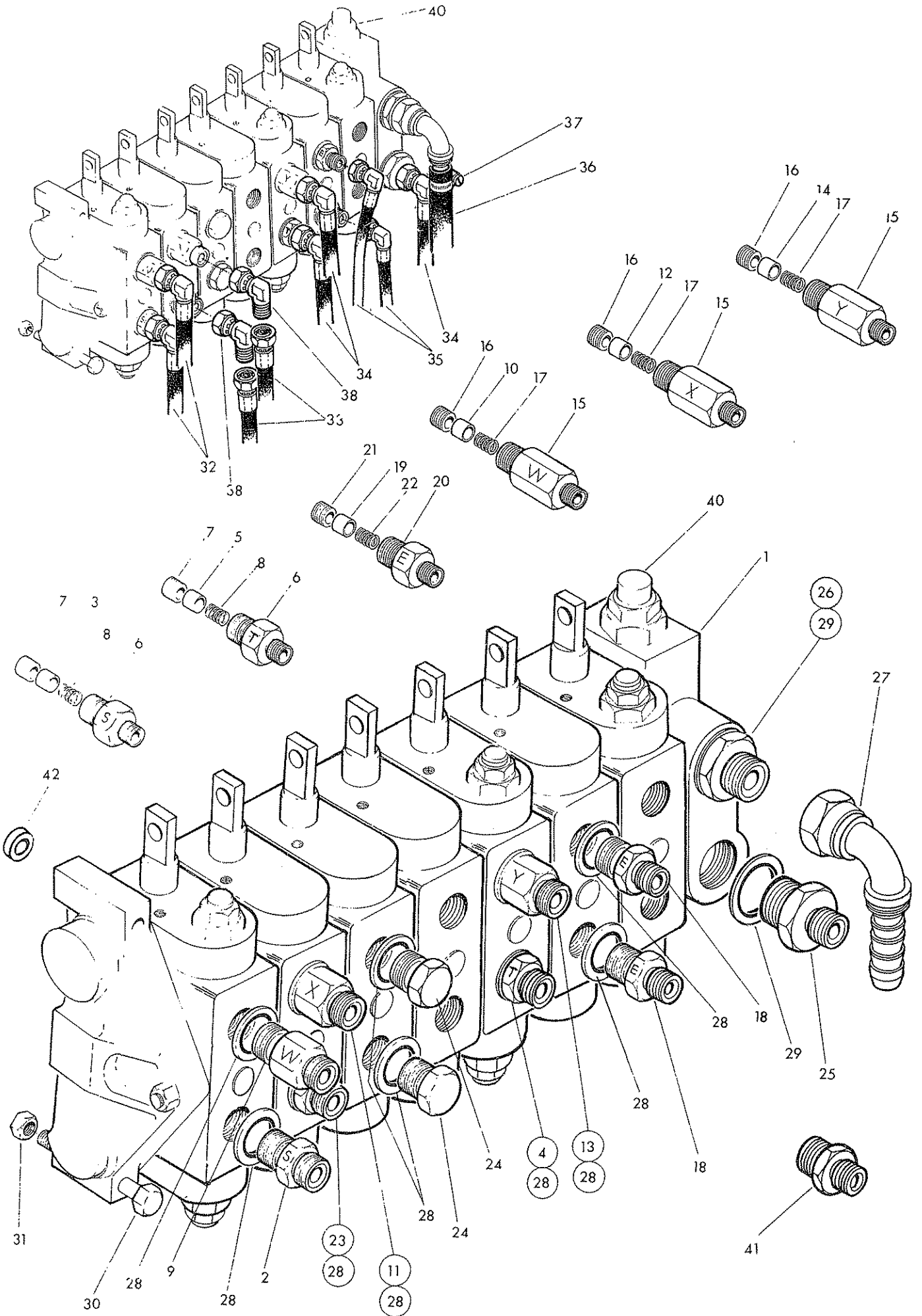
| | | |
|-----------|---|---------------------------------------|
| 70 14 287 | 2 | Slurry plate c/w hook & spring cotter |
| 70 14 071 | 2 | Attachment hook |
| 04 31 105 | 2 | Spring cotter |

BULK GRAB G.B.L



| Ref | Part No | Qty | Description |
|-----|-----------|-----|--|
| | 70 16 310 | | BULK GRAB ASSEMBLY G.B.L. |
| 1 | 70 16 311 | 2 | .Grab half c/w bushes |
| 2 | 60 12 032 | 4 | ..Bush |
| 3 | 70 16 303 | 1 | .Suspension link fixed c/w bushes & greasers |
| 4 | 60 12 032 | 2 | ..Bush |
| 5 | 09 01 121 | 2 | ..Greaser 1/8 BSP - straight |
| 6 | 70 16 305 | 1 | .Suspension link c/w bushes & greasers |
| 7 | 60 12 032 | 2 | ..Bush |
| 8 | 09 01 121 | 2 | ..Greaser 1/8 BSP - straight |
| 9 | 70 16 039 | 4 | .Cross link c/w washers, split pin etc |
| 10 | 70 16 041 | 4 | ..Washer 1 1/4" dia. |
| 11 | 05 03 165 | 2 | ..Split pin 3/16" dia x 2" long |
| 12 | 09 01 121 | 2 | ..Greaser 1/8 " BSP - straight |
| 13 | 70 16 044 | 2 | .Spacer |
| 14 | 70 16 045 | 1 | .Suspension link pin c/w collar & spring dowel |
| 15 | 70 16 046 | 1 | .Collar |
| 16 | 04 21 628 | 1 | ..Spring dowel 3/16" dia x 1 3/4" long |
| 17 | 70 16 047 | 2 | .Suspension link pin lower c/w collar & spring dowel |
| 18 | 70 16 049 | 1 | ..Collar |
| 19 | 04 21 632 | 1 | ..Spring dowel 3/16" dia x 2" long |
| 20 | 70 16 054 | 2 | .Ram locating pin c/w split pin |
| 21 | 05 03 165 | 1 | ..Split pin 3/16" dia x 2" long |

P.A. 8 CONTROL VALVE & HOSE LOOM (With Kontak valve)



| Ref | Part No. | Qty | Description |
|-----|-----------|-----|----------------------------------|
| | 71 15 330 | 1 | CONTROL VALVE & HOSELOOM FOR PA8 |
| | 81 24 275 | 1 | .Kontak valve c/w unions |
| 1 | 81 24 276 | 1 | ..Valve - basic (see page 137) |
| 2 | 81 24 035 | 1 | ..Short restrict 'S' assembly |
| 3 | 81 23 005 | 1 | ...Piston |
| 4 | 81 24 036 | 1 | ..Short restrictor'T' assembly |
| 5 | 81 23 006 | 1 | ...Piston |

Items 6 to 8 (inclusive) are common to both 'S' and 'T' restrictor assemblies :-

| | | | |
|----|-----------|---|--------------------------------|
| 6 | 81 24 055 | 1 | ...Restrictor body |
| 7 | 81 23 002 | 1 | ...Plug |
| 8 | 81 14 045 | 1 | ...Spring |
| 9 | 81 24 044 | 1 | ..Long restrictor 'W' assembly |
| 10 | 81 23 004 | 1 | ...Piston |
| 11 | 81 24 045 | 1 | ..Long restrictor 'X' assembly |
| 12 | 81 23 005 | 1 | ...Piston |
| 13 | 81 24 046 | 1 | ..Long restrictor 'Y' assembly |
| 14 | 81 23 006 | 1 | ...Piston |

Items 15 to 17 (inclusive) are common to 'W', 'X' and 'Y' restrictor assemblies :-

| | | | |
|------|-----------|----|---|
| 15 | 81 24 054 | 1 | ...Restrictor body |
| 16 | 81 23 002 | 1 | ...Plug |
| 17 | 81 14 045 | 1 | ...Spring |
| ■ 18 | 81 24 081 | 2 | ..Restrictor union 'E' assembly |
| 19 | 81 23 007 | 1 | ...Piston |
| 20 | 81 24 080 | 1 | ...Body |
| 21 | 81 23 002 | 1 | ...Plug |
| 22 | 81 16 011 | 1 | ...Spring |
| 23 | 60 00 112 | 1 | ..Union 1/2" BSP - 3/8" BSP M-M |
| 24 | 81 03 001 | 2 | ..Plug 1/2" BSP |
| 25 | 85 81 131 | 1 | ..Union 3/4" BSP - 3/8" BSP M-M |
| 26 | 85 81 171 | 1 | ..Union 3/4" BSP - 5/8" BSP M-M |
| 27 | 85 81 173 | 1 | ..Low pressure elbow 5/8" BSP |
| 28 | 86 50 104 | 10 | ..Bonded seal 1/2" BSP |
| 29 | 86 50 106 | 2 | ..Bonded seal 3/4" BSP |
| * 30 | 92 13 205 | 3 | ..Bolt M10 x 100 |
| * 31 | 91 43 005 | 3 | .. 'Clevelok' nut M10 |
| 32 | 85 31 233 | 2 | .Hose 3/8" BSP S-F 90°F 75" long (lift) |
| 33 | 85 41 223 | 2 | .Hose 3/8" BSP S-F 135°F 52" long (bucket) |
| 34 | 85 31 293 | 3 | .Hose 3/8" BSP S-F 90°F 90" long (Reach & Supply) |
| 35 | 85 36 102 | 2 | .Hose 1/4" BSP S-F 90°F 45" long (Slew) |
| 36 | 85 01 094 | 1 | .Hose 5/8" bore 80" long (return) |
| 37 | 09 04 204 | 2 | .Hose clip (5/8" bore hose) |
| 38 | 85 81 117 | 2 | .Elbow 3/8" BSP 90° |
| 39 | 72 13 005 | 4 | . hose armour cable (not illustrated) (see page40for installation) |
| 40 | 81 20 053 | 1 | Main relief valve - ref only (see page 139) |

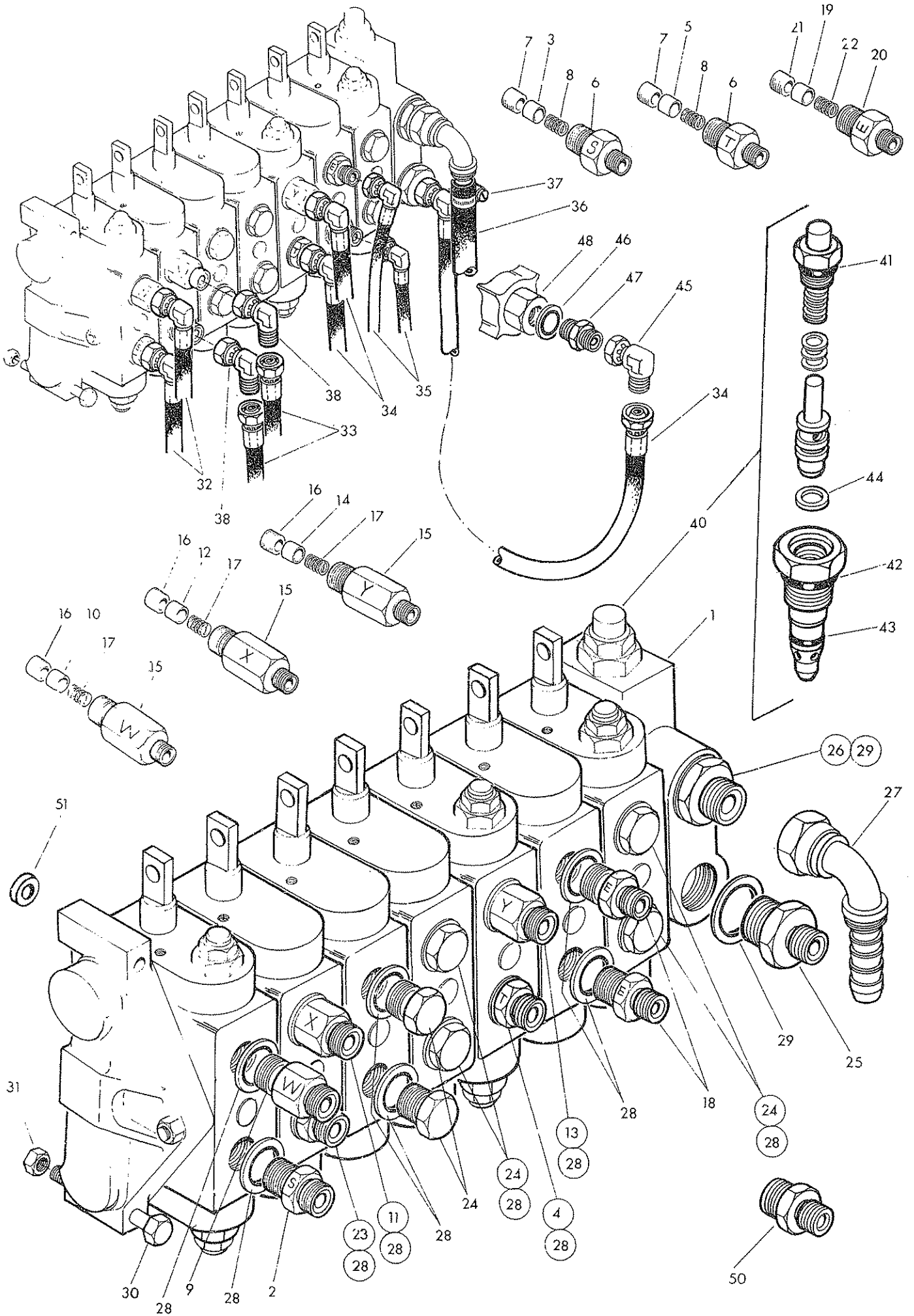
■ After serial No. 01AH26 items 18,19,20,21 and 22 are deleted and replaced by:-

| | | | |
|----|-----------|---|-------------------------------|
| 41 | 85 81 172 | 2 | ..Union 1/2 BSP - 1/4 BSP M-M |
|----|-----------|---|-------------------------------|

* After serial No. 02 AH 43 items 30 & 31 are replaced by:-

| | | | | |
|----|-----------|---|---------------------------|-------------------|
| | 92 13 205 | 3 | ..Bolt M10 x 100 | } not illustrated |
| | 91 13 005 | 3 | ..Hexagon nut M10 | |
| | 91 00 205 | 3 | ..Spring washer ϕ 10 | |
| 42 | 71 15 092 | 1 | ..Special spacer | |

VALVE AND HOSE LOOM FOR P.A.7-KONTAK



| Ref | Part No. | Qty | Description |
|--|-----------|-----|--|
| | 71 15 335 | 1 | CONTROL VALVE & HOSELOOM FOR PA7 |
| | 81 24 277 | 1 | .Kontak valve c/w unions |
| 1 | 81 24 276 | 1 | ..Valve – basic (see page 137) |
| 2 | 81 24 035 | 1 | ..Short restrictor 'S' assembly |
| 3 | 81 23 005 | 1 | ...Piston |
| 4 | 81 24 036 | 1 | ..Short restrictor 'T' assembly |
| 5 | 81 23 008 | 1 | ...Piston |
| Items 6 to 8 (inclusive) are common to both 'S' and 'U' restrictor assemblies. | | | |
| 6 | 81 24 055 | 1 | ...Restrictor body |
| 7 | 81 23 002 | 1 | ...Plug |
| 8 | 81 16 011 | 1 | ...Spring |
| 9 | 81 24 044 | 1 | ..Long restrictor 'W' assembly |
| 10 | 81 23 004 | 1 | ...Piston |
| 11 | 81 24 045 | 1 | ..Long restrictor 'X' assembly |
| 12 | 81 23 005 | 1 | ...Piston |
| 13 | 81 24 046 | 1 | ..Long restrictor 'Y' assembly |
| 14 | 81 23 006 | 1 | ...Piston |
| Items 15 to 17 (inclusive) are common to 'W', 'X' and 'Y' restrictor assemblies. | | | |
| 15 | 81 24 054 | 1 | ...Restrictor body |
| 16 | 81 23 002 | 1 | ...Plug |
| 17 | 81 16 011 | 1 | ...Spring |
| ■ 18 | 81 24 081 | 2 | ..Restrictor union 'E' assembly |
| 19 | 81 23 007 | 1 | ...Piston |
| 20 | 81 24 080 | 1 | ...Body |
| 21 | 81 23 002 | 1 | ...Plug |
| 22 | 81 16 011 | 1 | ...Spring |
| 23 | 60 00 112 | 1 | ..Union 1/2" BSP – 3/8" BSP M-M |
| 24 | 81 03 001 | 6 | ..Plug 1/2" BSP |
| 25 | 85 81 131 | 1 | ..Union 3/4" BSP 3/8" BSP M-M |
| 26 | 85 81 171 | 1 | ..Union 3/4" BSP – 5/8" BSP M-M |
| 27 | 85 81 173 | 1 | ..Low pressure elbow 5/8" BSP |
| 28 | 86 50 104 | 14 | ..Bonded seal 1/2" BSP |
| 29 | 86 50 106 | 2 | ..Bonded seal 3/4" BSP |
| * 30 | 92 13 185 | 3 | ..Bolt M10 x 90 |
| * 31 | 91 43 005 | 3 | ..'Clevelok' nut M10 |
| 32 | 85 31 233 | 2 | ..Hose 3/8" BSP S-F 90°F 75" long (lift) |
| 33 | 85 41 223 | 2 | ..Hose 3/8" BSP S-F 135°F 52" long (bucket) |
| 34 | 85 31 293 | 3 | ..Hose 3/8" BSP S-F 90°F 90" Long (Reach & Supply) |
| 35 | 85 36 102 | 2 | ..Hose 1/4" BSP S-F 90°F 45" long (slew) |
| 36 | 85 01 094 | 1 | ..Hose 5/8" bore 80" long (return) |
| 37 | 09 04 204 | 2 | ..Hose clip (5/8" bore hose) |
| 38 | 85 81 117 | 2 | ..Elbow 3/8" BSP 90° – |
| 39 | 72 13 005 | 2 | .. hose armour cable (not illustrated) (see page 40 for installation) |
| 40 | 81 20 052 | 1 | ..Main relief valve (2250 psi) c/w 'O' rings and seal |
| 41 | 86 00 114 | 1 | ..'O' ring |
| 42 | 86 00 403 | 1 | ..'O' ring |
| 43 | 86 00 504 | 1 | ..'O' ring |
| 44 | 81 20 019 | 1 | ..Seal |
| 45 | 85 81 117 | 1 | ..Swivel elbow 3/8" BSP M-F |
| 46 | 86 50 103 | 1 | ..Bonded seal 3/8" BSP |
| 47 | 60 00 113 | 1 | ..Union 3/8" BSP M-M |
| 48 | 85 90 023 | 1 | ..Female half – self seal coupling |
| 49 | 71 15 140 | 1 | ..Console plug (not illustrated) |
| | To suit | 1 | Return connection |

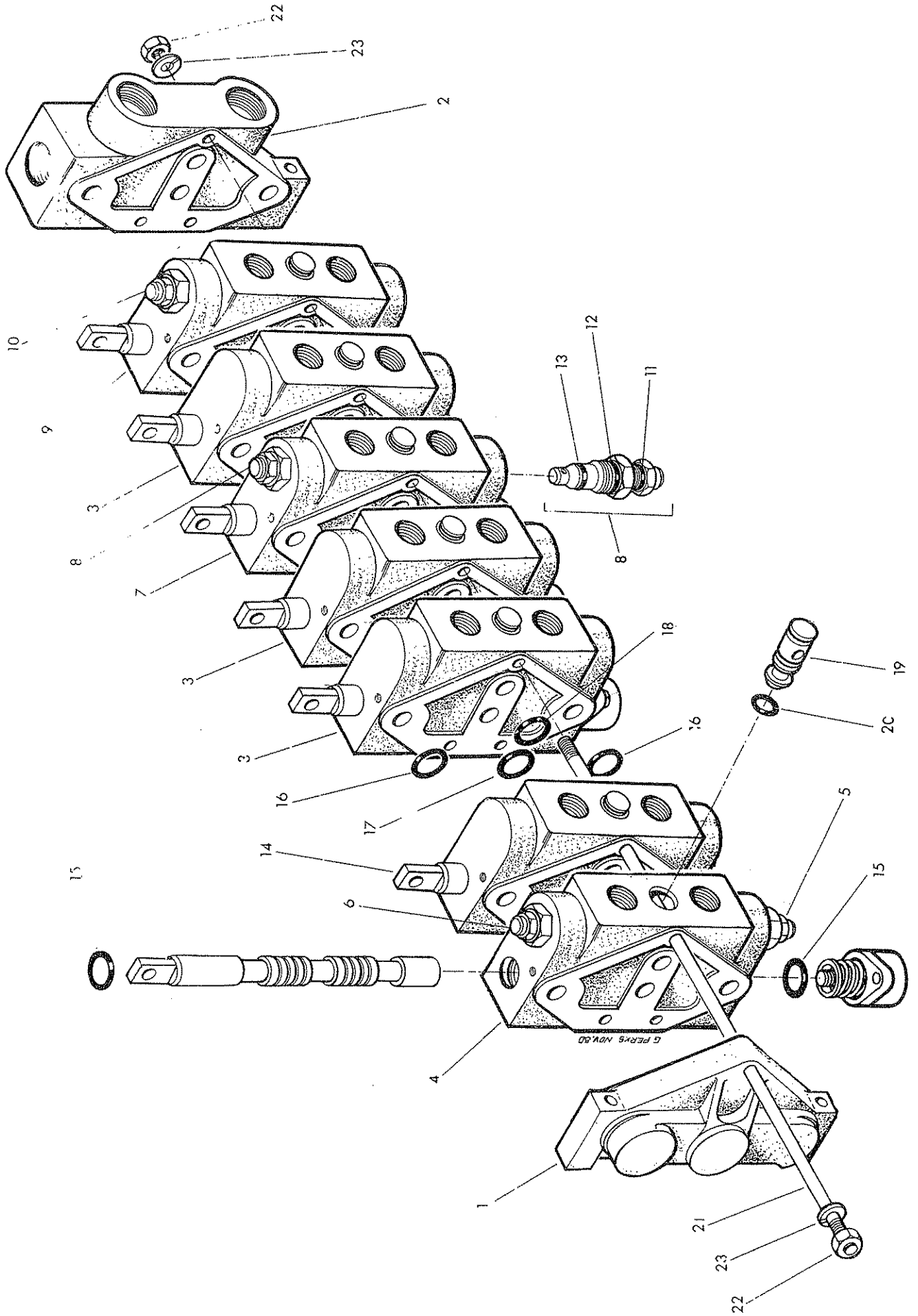
■ After serial No. 00AG33 items 18,19,20,21 and 22 are deleted and replaced by :-

50 85 81 172 2 ..Union 1/2 BSP – 1/4 BSP M-M

* After serial No. 01 AG 58 items 30 & 31 are replaced by:-

| | | | | |
|----|-----------|---|----------------------------------|-------------------|
| | 92 13 205 | 3 | ..Bolt M10 x 100 | } not illustrated |
| | 91 13 005 | 3 | ..Hexagon nut M10 | |
| | 91 60 205 | 3 | ..Spring washer \varnothing 10 | |
| 51 | 71 15 092 | 1 | ..Special spacer | |

CONTROL VALVE - KONTAK



| Ref | Part No. | Qty | Description |
|-----|-----------|-----|--|
| | 81 24 276 | | CONTROL VALVE Standard for PA7 and PA8 |
| 1 | 81 20 026 | 1 | .End section (blank) |
| 2 | 81 20 022 | 1 | .End section (supply-return) |
| * 3 | 81 20 058 | 3 | .Service section complete, (Tilt level & slew) |
| * 4 | 81 20 061 | 1 | .Service section (Lift) c/w Locked line relief valves |
| 5 | 81 20 034 | 1 | ..Locked line relief valve 5000 psi (340 bar) |
| 6 | 81 20 051 | 1 | ..Locked line relief valve 3000 psi (204 bar) |
| * 7 | 81 20 059 | 1 | .Service section (Reach) c/w Locked line relief valves |
| 8 | 81 20 034 | 2 | ..Locked line relief valve 5000 psi (340 bar) |
| * 9 | 81 20 057 | 1 | .Service Section (IWT) c/w locked line relief valve |
| 10 | 81 20 034 | 1 | ..Locked line relief valve 5000 psi (340 bar) |

Items 11 to 13 inclusive are common to all locked line relief valves

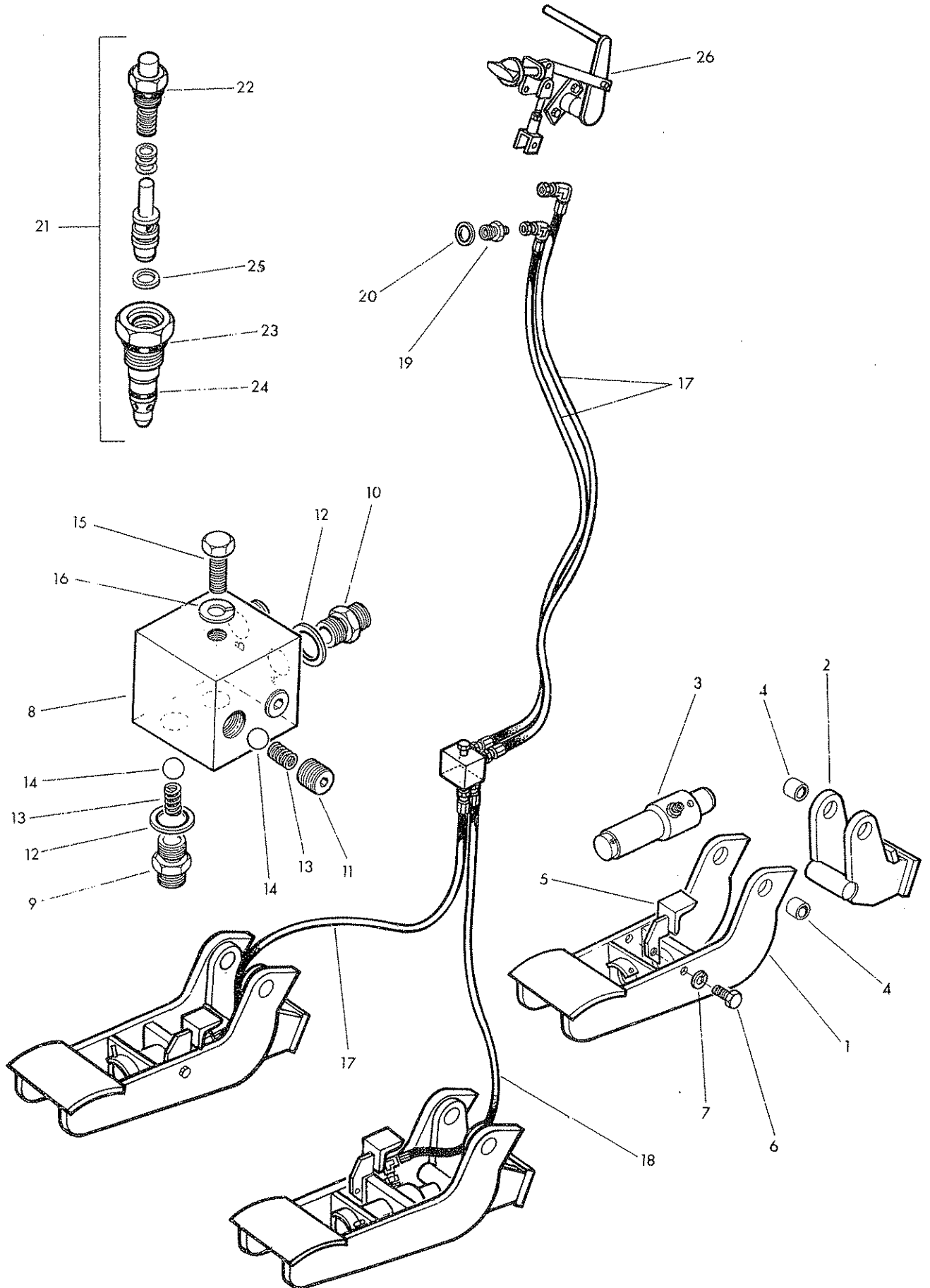
| | | | |
|------|-----------|----|---|
| 11 | 86 00 112 | 1 | ... '0' ring |
| 12 | 86 00 114 | 1 | ... '0' ring |
| 13 | 86 00 502 | 1 | ... '0' ring |
| * 14 | 81 20 060 | 1 | .Service Section complete (Bucket) |
| 15 | 81 20 018 | 2 | ..Spool '0' ring (common to all service sections) |
| 16 | 86 00 507 | 16 | .Inter-section '0' ring |
| 17 | 86 00 508 | 8 | .Inter-section '0' ring |
| 18 | 86 00 504 | 8 | .Inter-section '0' ring |
| 19 | 81 20 055 | 7 | .Check valve assembly c/w '0' ring |
| 20 | 86 00 501 | 1 | .. '0' ring |
| 21 | 81 20 062 | 3 | .Valve tie rod |
| 22 | 01 11 003 | 6 | .Hexagon nut 3/8" UNF |
| 23 | 01 00 203 | 6 | .Spring washer 3/8" diameter |

***Assembly Note:**

Valve spools and bodies are designed and assembled as matched pairs and should under no circumstances be interchanged.

After service the valve should be re-assembled with the sections in their original position.

I.W.T. KIT (For Kontak valve)



| Ref | Part No. | Qty | Description |
|-----|-----------|-----|---|
| | 71 15 258 | | I.W.T. KIT INSTALLATION Standard build for PA8 Optional extra for PA7 |
| | 71 15 288 | 1 | .Lift arm assembly left hand |
| | 71 15 287 | 1 | .Lift arm assembly right hand (see exploded view) |

Items 1 to 7 (incl) are common to both lift arm assemblies :-

| | | | |
|----|-----------|---|--|
| 1 | 71 03 266 | 1 | ..Lift arm |
| 2 | 71 03 057 | 1 | ..Reaction bracket |
| 3 | 71 15 289 | 1 | ..Ram assembly (see page 111) |
| 4 | 60 12 032 | 2 | ..Bush |
| 5 | 71 03 228 | 1 | ..Connection guard c/w screw |
| 6 | 03 11 083 | 1 | ...Setscrew 3/8" UNF x 1" long |
| 7 | 01 00 203 | 1 | ...Spring washer 3/8" dia |
| | 71 15 100 | 1 | .Selector valve assembly |
| 8 | 71 15 101 | 1 | ..Valve block |
| 9 | 71 15 102 | 2 | ..Slotted union |
| 10 | 80 02 177 | 2 | ..Union 1/4" BSP M - M |
| 11 | 71 15 103 | 2 | ..Plug |
| 12 | 86 50 102 | 4 | ..Bonded seal |
| 13 | 81 16 011 | 4 | ..Spring |
| 14 | 09 05 509 | 4 | ..Steel ball $\varnothing 9$ |
| 15 | 93 13 044 | 1 | ..Setscrew M8 x 20 |
| 16 | 91 00 204 | 1 | ..Spring washer $\varnothing 8$ |
| 17 | 85 36 102 | 3 | .Hose 1/4" BSP S - F 90°F 45" long |
| 18 | 85 36 042 | 1 | .Hose 1/4" BSP S - F 90°F 40" long |
| 19 | 85 81 172 | 2 | .Union 1/2" BSP - 1/4" BSP M - M |
| 20 | 86 50 104 | 2 | .Bonded seal 1/2" BSP |
| 21 | 81 20 053 | 1 | .Main relief valve (2500 psi) c/w 'O' rings & seal |
| 22 | 86 00 114 | 1 | ..'O' ring |
| 23 | 86 00 403 | 1 | ..'O' ring |
| 24 | 86 00 504 | 1 | ..'O' ring |
| 25 | 81 20 019 | 1 | ..Seal |
| 26 | 71 15 344 | 1 | .I.W.T. foot pedal linkage assembly (see page 85) |



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