

# SUNSHINE®

Industrial Sewing Machines.

※※※ PARTS BOOK /  
INSTRUCTION MANUAL ※※※

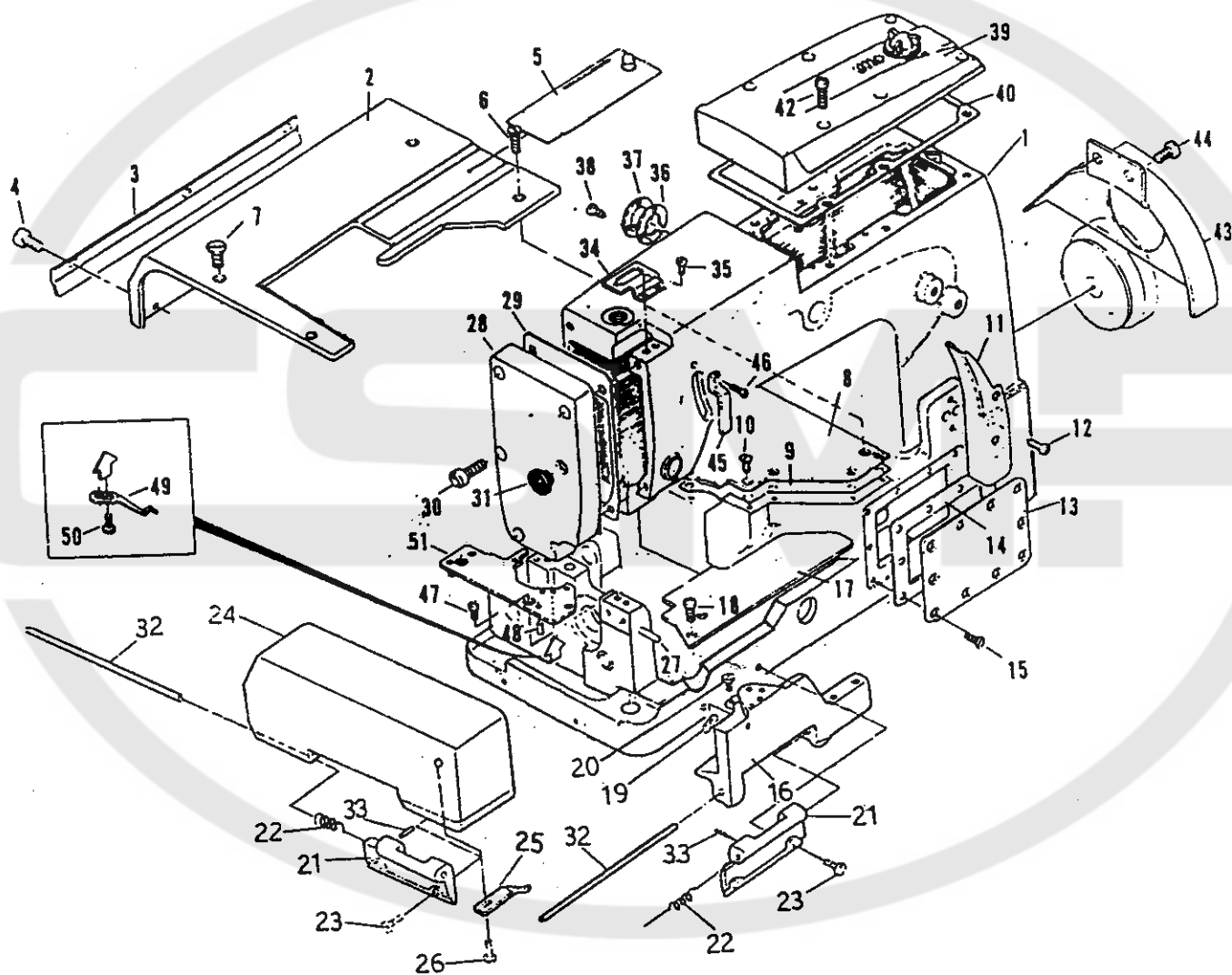
CSTMP

**MOD.** 5302W

## Contents

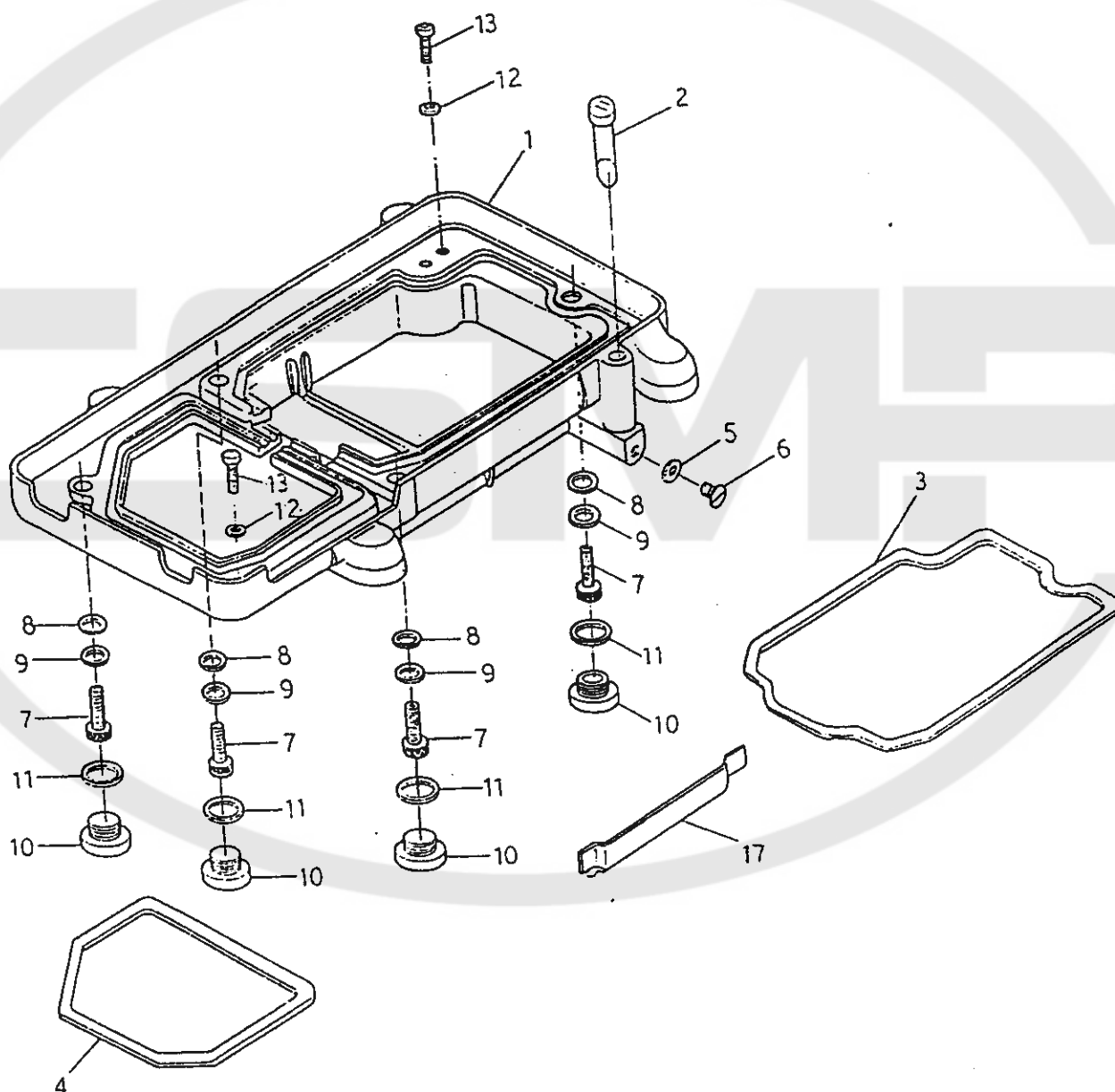
|                                           |    |
|-------------------------------------------|----|
| 1. Housing components.....                | 1  |
| 2. Oil tank and lubrication.....          | 3  |
| 3. Thread eyelet components.....          | 5  |
| 4. Oil lubrication apparatus.....         | 7  |
| 5. Bushings.....                          | 9  |
| 6. Needle lever crank.....                | 10 |
| 7. Main shaft and feed rocker.....        | 11 |
| 8. Looper.....                            | 13 |
| 9. Needle reciprocating mechanism.....    | 14 |
| 10. Foot lifter components.....           | 15 |
| 11. Gauge parts.....                      | 16 |
| 12. Accessories.....                      | 17 |
| 13. Table stand installation diagram..... | 18 |

# 1. Housing components



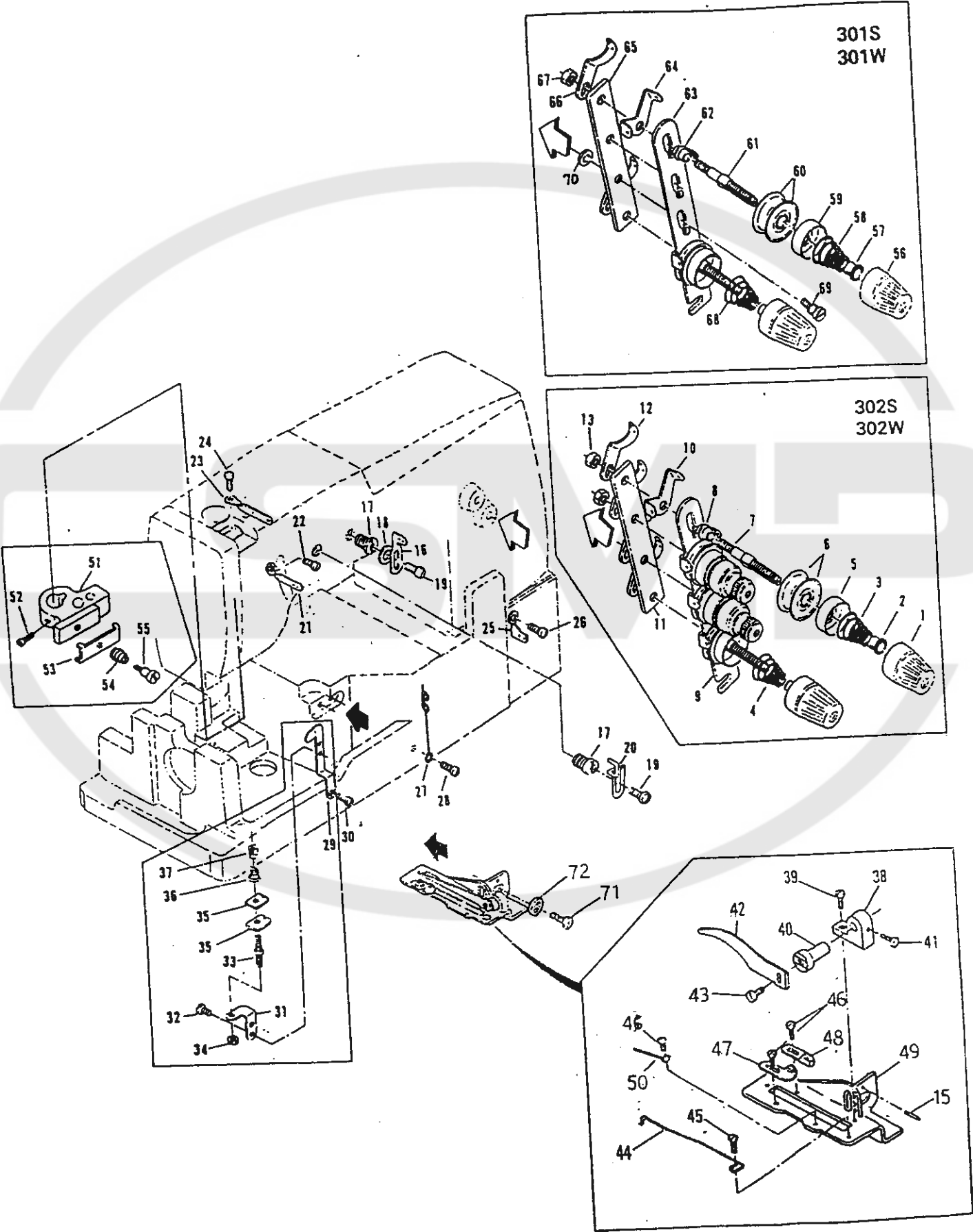
| Ref. No. | Part No. | Part Name                             | Q'ty | Ref. No. | Part No. | Part Name                             | Q'ty |
|----------|----------|---------------------------------------|------|----------|----------|---------------------------------------|------|
| 1        | P30101   | Arm bed.....                          | 1    | 26       | B60123   | Screw.....                            | 1    |
| 2        | P30102   | Upper cloth plate.....                | 1    | 27       | W80136   | Side cloth plate spring pin.....      | 1    |
| 3        | W80103   | Supporting cover.....                 | 1    | 28       | P30128   | Head cover.....                       | 1    |
| 4        | W80107   | Screw.....                            | 3    | 29       | P30129   | Head cover gasket.....                | 1    |
| 5        | W80104   | Slide plate.....                      | 1    | 30       | B60123   | Screw.....                            | 4    |
| 6        | B60157   | Screw.....                            | 2    | 31       | B60129   | Head cover oil seal cover.....        | 1    |
| 7        | B60158   | Screw.....                            | 2    | 32       | W80150   | Hinge lever.....                      | 2    |
| 8        | B60136   | Oil reservoir top cover.....          | 1    | 33       | B80744   | Screw.....                            | 4    |
| 9        | B60137   | Oil reservoir top cover.....          | 1    | 34       | P30134   | cover.....                            | 1    |
| 10       | B60138   | Screw.....                            | 7    | 35       | B60154   | Screw.....                            | 2    |
| 11       | B60131   | Tension post cover.....               | 1    | 36       | B60142   | Oil seal plate gasket.....            | 1    |
| 12       | B60132   | Screw.....                            | 1    | 37       | B60143   | Oil seal plate B.....                 | 1    |
| 13       | B60139   | Oil reservoir front cover.....        | 1    | 38       | B60144   | Screw.....                            | 3    |
| 14       | B60140   | Oil reservoir front cover gasket..... | 1    | 39       | P30139   | Crank chamber oil cover.....          | 1    |
| 15       | B60141   | Screw.....                            | 9    | 40       | B60122   | Crank chamber oil cover gasket.....   | 1    |
| 16       | W80112   | Ruler holder.....                     | 1    | 41       |          |                                       |      |
| 17       | P30117   | Puller plate.....                     | 1    | 42       | B60123   | Screw.....                            | 6    |
| 18       | B60106   | Screw.....                            | 2    | 43       | B60133   | Pulley cover.....                     | 1    |
| 19       | W80117   | Puller holder back spring rod.....    | 1    | 44       | B60123   | Screw.....                            | 2    |
| 20       | B60229   | Screw.....                            | 1    | 45       | B60146   | Needle lever eyelet safety plate..... | 1    |
| 21       | W80109   | Hinge.....                            | 2    | 46       | B60132   | Screw.....                            | 1    |
| 22       | W80149   | Spring.....                           | 2    | 47       | B60160   | Screw.....                            | 2    |
| 23       | B60123   | Screw.....                            | 4    | 48       | B60161   | Needle plate support knock pin.....   | 2    |
| 24       | W80108   | Side cover.....                       | 1    | 49       | W80134   | Ruler plate spring.....               | 1    |
| 25       | W80110   | Side cloth plate spring.....          | 1    | 50       | B80157   | Screw.....                            | 2    |
|          |          |                                       |      | 51       | P30151   | Needle plate support.....             | 1    |

## 2. Oil tank and lubrication system



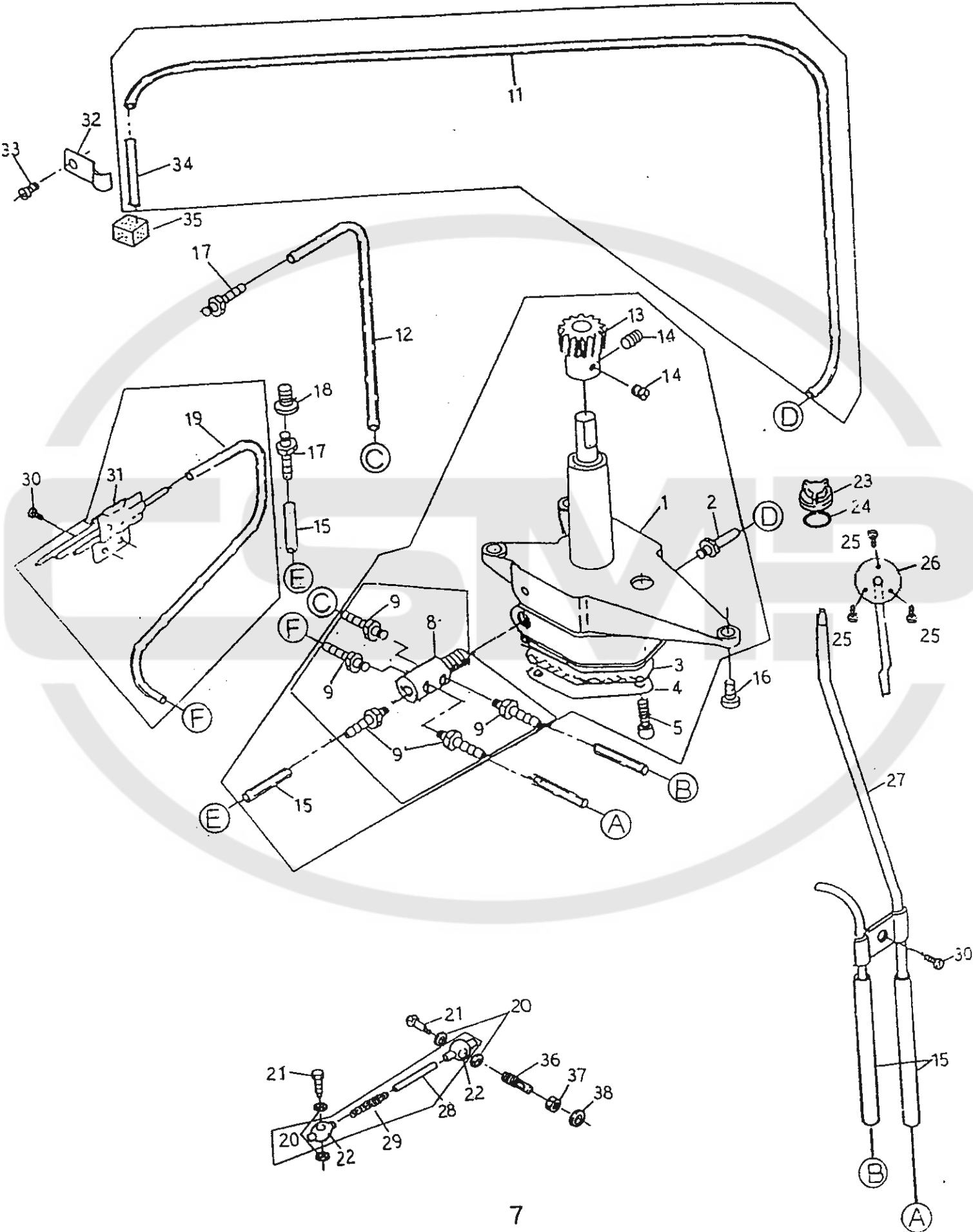
| Ref.<br>No. | Part No. | Part Name                         | Type<br>D | Type<br>DE | Type<br>F | Type<br>EMK |
|-------------|----------|-----------------------------------|-----------|------------|-----------|-------------|
| 1           | B60102   | Oil reservior. ....               | 1         | 1          | 1         | 1           |
| 2           | B60116   | Oil gauge. ....                   | 1         | 1          | 1         | 1           |
| 3           | B60118   | Oil reservior gasket (large)..... | 1         | 1          | 1         | 1           |
| 4           | B60117   | Oil reservior gasket (small)..... | 1         | 1          | 1         | 1           |
| 5           | B60108   | Gasket. ....                      | 1         | 1          | 1         | 1           |
| 6           | B60109   | Screw. ....                       | 4         | 4          | 4         | 4           |
| 7           | B60113   | Screw. ....                       | 4         | 4          | 4         | 4           |
| 8           | B60112   | Seal gasket.....                  | 4         | 4          | 4         | 4           |
| 9           | B60111   | Washer. ....                      | 4         | 4          | 4         | 4           |
| 10          | B60115   | Screw. ....                       | 4         | 4          | 4         | 4           |
| 11          | B60114   | O-ring. ....                      | 2         | 2          | 2         | 2           |
| 12          | B60111   | Washer. ....                      | 2         | 2          | 2         | 2           |
| 13          | B60110   | Screw. ....                       |           |            |           |             |
| 14          |          |                                   |           |            |           |             |
| 15          |          |                                   |           |            |           |             |
| 16          |          |                                   | 1         | 1          | 1         | 1           |
| 17          | W80217   | Oil fence. ....                   |           |            |           |             |

3. Thread eyelet components



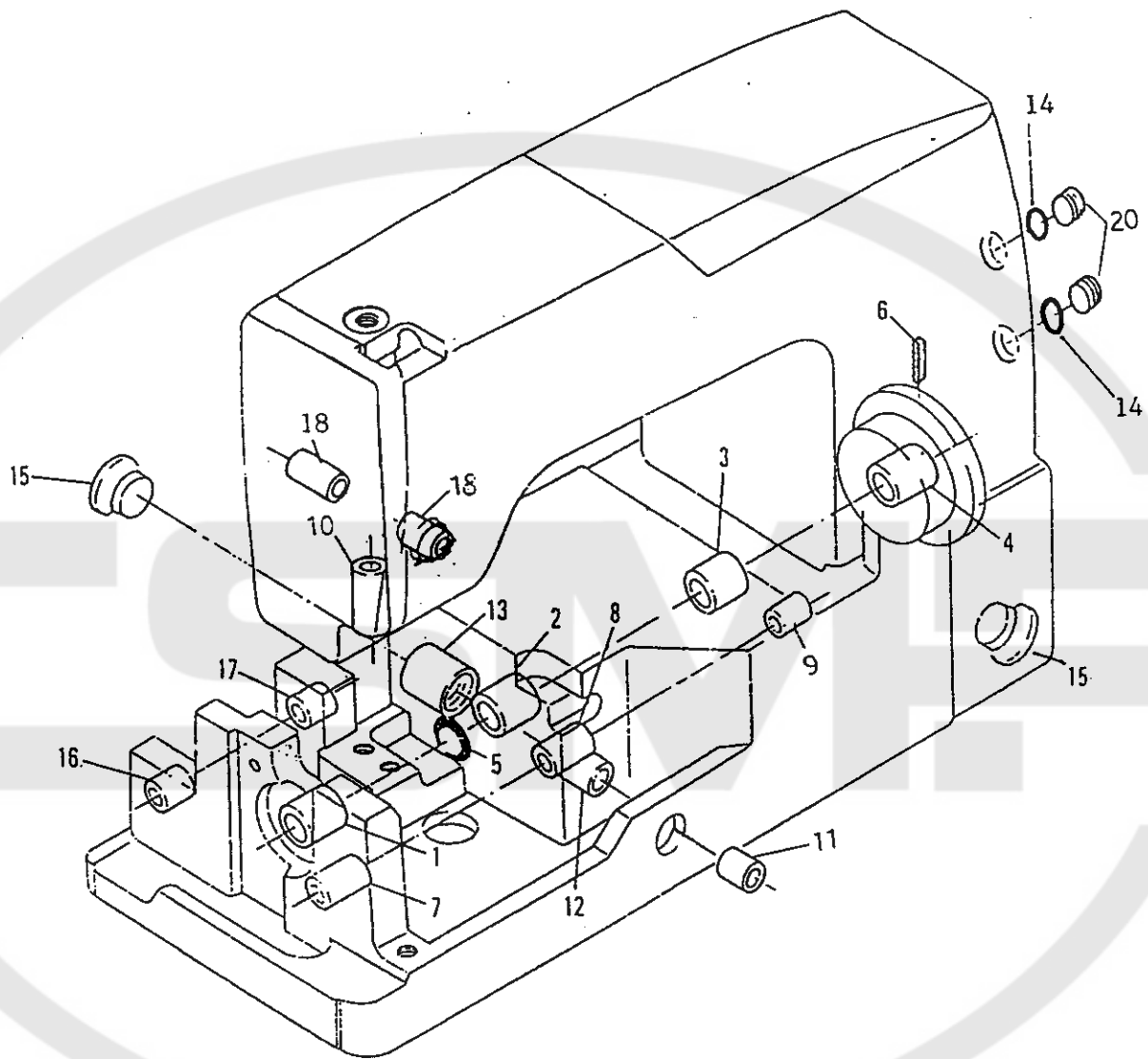
| Ref. No. | Part No. | Part Name                           | Q'ty | Ref. No. | Part No. | Part Name                               | Q'ty |
|----------|----------|-------------------------------------|------|----------|----------|-----------------------------------------|------|
| 1        | B60201   | Tension regulating nut.....         | 4    | 37       | P30337   | Nut.....                                | 1    |
| 2        | B60202   | Tension disc ratchet.....           | 4    | 38       | B60238   | Retainer support bracket.....           | 1    |
| 3        | B60203   | Needle thread tension spring.....   | 2    | 39       | B60239   | Screw.....                              | 1    |
| 4        | B60204   | Looper thread tension spring.....   | 2    | 40       | P30340   | Pin for looper thread retainer.....     | 1    |
| 5        | B60205   | Tension disc cover.....             | 4    | 41       | B60241   | Screw.....                              | 1    |
| 6        | B60206   | Tension disc.....                   | 8    | 42       | P30342   | Looper thread retainer.....             | 1    |
| 7        | B60207   | Tension post.....                   | 4    | 43       | B60132   | Screw.....                              | 1    |
| 8        | B60208   | Tension post collar A.....          | 4    | 44       | B60244   | Looper thread cast-off pin.....         | 1    |
| 9        | B60209   | Tension post support.....           | 1    | 45       | B60233   | Screw.....                              | 2    |
| 10       | B60210   | Tension post thread eyelet.....     | 4    | 46       | B60233   | Screw.....                              | 2    |
| 11       | B60211   | Tension post holder.....            | 1    | 47       | B60235   | Looper thread guide eyelet (left).....  | 1    |
| 12       | B60212   | Lead in thread eyelet.....          | 4    | 48       | B60234   | Looper thread guide eyelet (right)..... | 1    |
| 13       | B60213   | Nut.....                            | 2    | 49       | B60236   | Cast-off support plate.....             | 1    |
| 14       |          |                                     |      | 50       | P30350   | Guide pin.....                          | 1    |
| 15       | B60216   | Pin.....                            | 2    | 51       | P30351   | Thread nipper base.....                 | 1    |
| 16       | B60219   | Needle thread eyelet.....           | 1    | 52       | B80159   | Screw.....                              | 1    |
| 17       | B60418   | Fixing base.....                    | 2    | 53       | W80308   | thread nipper.....                      | 1    |
| 18       | B60105   | Washer.....                         | 1    | 54       | W80309   | Spring.....                             | 1    |
| 19       | B60123   | Screw.....                          | 2    | 55       | W80310   | Screw.....                              | 1    |
| 20       | P30320   | Needle thread adjusting eyelet..... | 1    | 56       | B60201   | Tension regulating nut.....             | 2    |
| 21       | B60222   | Needle lever thread eyelet.....     | 1    | 57       | B60202   | Tension disc ratchet.....               | 2    |
| 22       | B60132   | Screw.....                          | 1    | 58       | B60203   | Needle thread tension spring.....       | 1    |
| 23       | B60226   | Needle bar thread eyelet.....       | 1    | 59       | B60205   | Tension disc cover.....                 | 2    |
| 24       | B60132   | Screw.....                          | 1    | 60       | B60206   | Tension disc.....                       | 4    |
| 25       | B60230   | Thread eyelet 2.....                | 1    | 61       | B60207   | Tension post.....                       | 2    |
| 26       | B60231   | Screw.....                          | 1    | 62       | B60208   | Tension post collar A.....              | 2    |
| 27       | P30327   | Looper thread guide.....            | 1    | 63       | B60209   | Tension post support.....               | 1    |
| 28       | B60132   | Screw.....                          | 1    | 64       | B60210   | Tension post thread eyelet.....         | 2    |
| 29       | P30329   | Looper thread guide eyelet.....     | 1    | 65       | B60211   | Tension post holder.....                | 1    |
| 30       | B60132   | Screw.....                          | 1    | 66       | B60212   | Lead in thread eyelet.....              | 2    |
| 31       | P30331   | Small tension disc holder.....      | 1    | 67       | B60213   | Nut.....                                | 1    |
| 32       | B60233   | Screw.....                          | 2    | 68       | B60204   | Looper thread tension spring.....       | 1    |
| 33       | P30333   | Small tension disc rod.....         | 1    | 69       | B61333   | Screw.....                              | 1    |
| 34       | P30334   | Nut.....                            | 1    | 70       | B60111   | Washer.....                             | 1    |
| 35       | P30335   | Small tension disc.....             | 2    | 71       | B60107   | Screw.....                              | 1    |
| 36       | W80309   | Small tension disc spring.....      | 1    | 72       | B60217   | Washer.....                             | 1    |

4. Oil lubrication apparatus



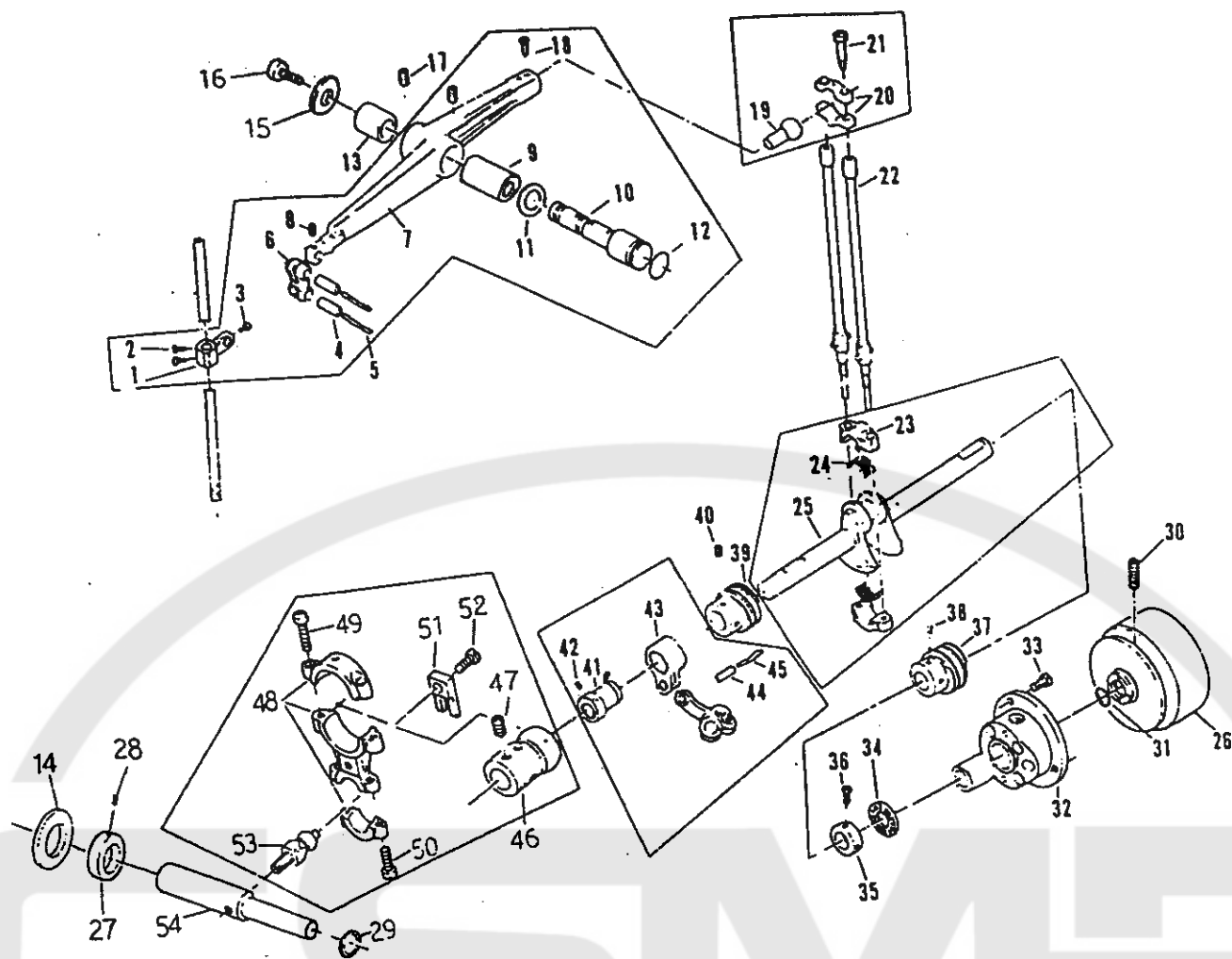
| Ref. No. | Part No. | Part Name             | Q'ty | Ref. No. | Part No. | Part Name            | Q'ty |
|----------|----------|-----------------------|------|----------|----------|----------------------|------|
| 1        | B60401   | Oil pump body.....    | 1    | 20       | B60420   | Packing.....         | 4    |
| 2        | B60402   | Pipe joint.....       | 1    | 21       | B60421   | Oil guide screw..... | 2    |
| 3        | B60403   | Pump mesh.....        | 1    | 22       | B60422   | Tube coupling.....   | 2    |
| 4        | B60404   | Mesh clamp plate..... | 1    | 23       | B60423   | Oil pot lid.....     | 1    |
| 5        | B60405   | Screw.....            | 3    | 24       | B60424   | O-ring.....          | 1    |
| 6        |          |                       |      | 25       | B60239   | Screw.....           | 3    |
| 7        |          |                       |      | 26       | P30426   | Pipe support.....    | 1    |
| 8        | B60408   | Oil tube joint.....   | 1    | 27       | B60427   | Pipe.....            | 1    |
| 9        | B60409   | Pipe joint.....       | 5    | 28       | B60428   | Vinyl pipe.....      | 1    |
| 10       |          |                       |      | 29       | B60446   | Felt.....            | 1    |
| 11       | B60411   | Vinyl pipe.....       | 1    | 30       | B60231   | Screw.....           | 3    |
| 12       | B60412   | Vinyl pipe.....       | 1    | 31       | B60431   | Pipe.....            | 1    |
| 13       | B60413   | Gear.....             | 1    | 32       | B60432   | Support.....         | 1    |
| 14       | B60149   | Screw.....            | 2    | 33       | B60433   | Screw.....           | 1    |
| 15       | B60415   | Vinyl pipe.....       | 1    | 34       | B60434   | Pipe.....            | 1    |
| 16       | B60123   | Screw.....            | 3    | 35       | B60435   | Felt.....            | 1    |
| 17       | B60409   | Pipe joint.....       | 2    | 36       | B60436   | Oil flow screw.....  | 1    |
| 18       | B60418   | Fixing screw.....     | 1    | 37       | B60437   | Nut.....             | 1    |
| 19       | B60419   | Vinyl pipe.....       | 1    | 38       | B60438   | Packing.....         | 1    |

## 5. Bushings



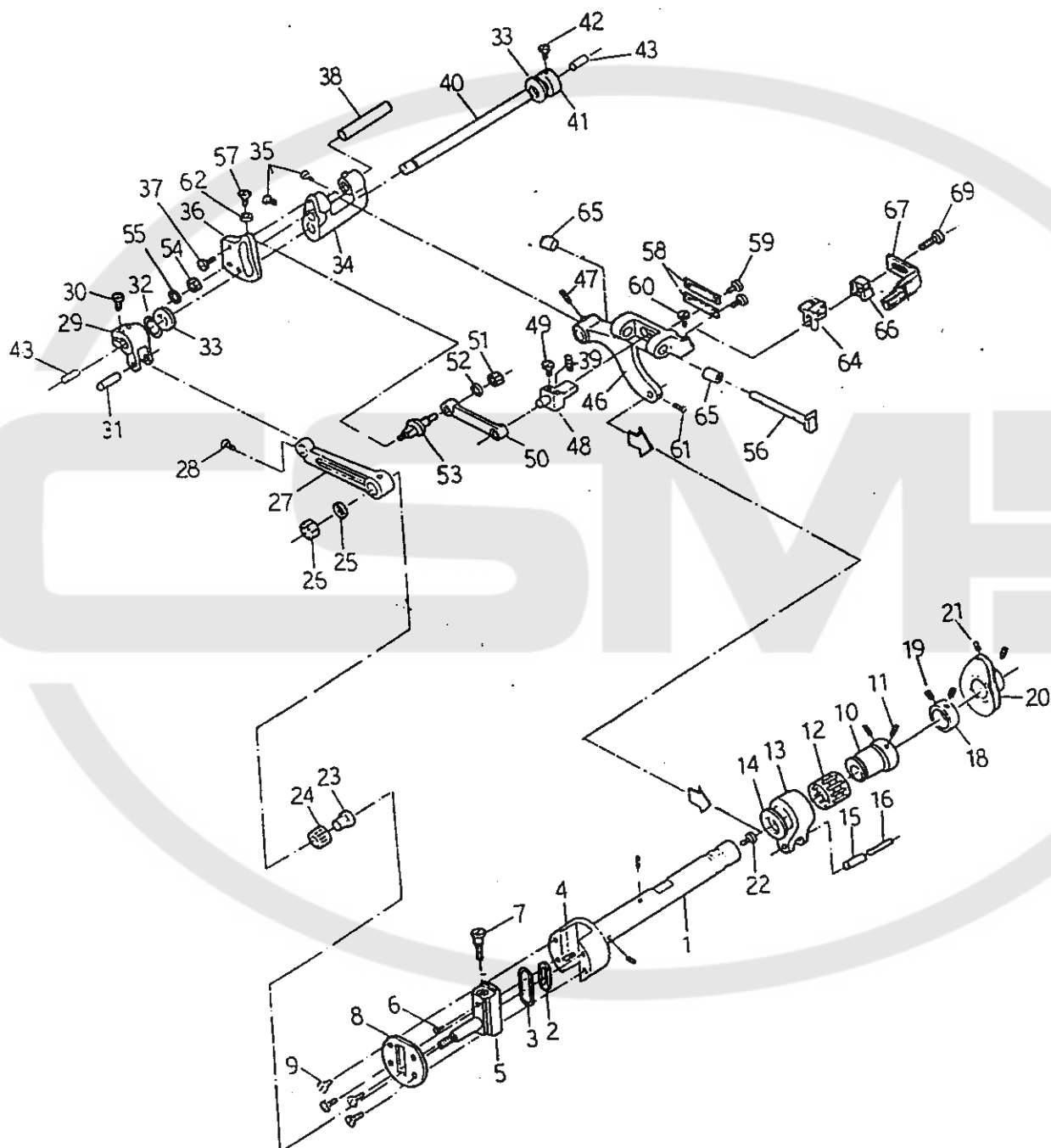
| Ref. No. | Part No. | Part Name                        | Q'ty | Ref. No. | Part No. | Part Name                          | Q'ty |
|----------|----------|----------------------------------|------|----------|----------|------------------------------------|------|
| 1        | B60301   | Main shaft bushing.....          | 1    | 11       | W80507   | Looper drive lever shaft bushing.. | 1    |
| 2        | B60302   | Main shaft bushing.....          | 1    | 12       | B60312   | Looper drive lever shaft bushing.. | 1    |
| 3        | B60303   | Main shaft bushing.....          | 1    | 13       | B60313   | Looper drive lever shaft bushing.. | 1    |
| 4        | B60304   | Flange bushing.....              | 1    | 14       | B60305   | O-ring .....                       | 2    |
| 5        | W80535   | Oil seal .....                   | 1    | 15       | B60315   | Seal cap.....                      | 2    |
| 6        | B60435   | Felt.....                        | 1    | 16       | B60316   | Feed rocker shaft bushing.....     | 1    |
| 7        | B60307   | Looper rocker shaft bushing..... | 1    | 17       | B60317   | Feed rocker shaft bushing.....     | 1    |
| 8        | B60308   | Looper rocker shaft bushing..... | 1    | 18       | P30518   | Needle bar frame shaft bushing..   | 2    |
| 9        | B80409   | Looper rocker shaft bushing..... | 1    | 19       |          |                                    |      |
| 10       | B60322   | Looper rocker shaft bushing..... | 1    | 20       | P30520   | Screw.....                         | 2    |

## 6. Needle lever crank



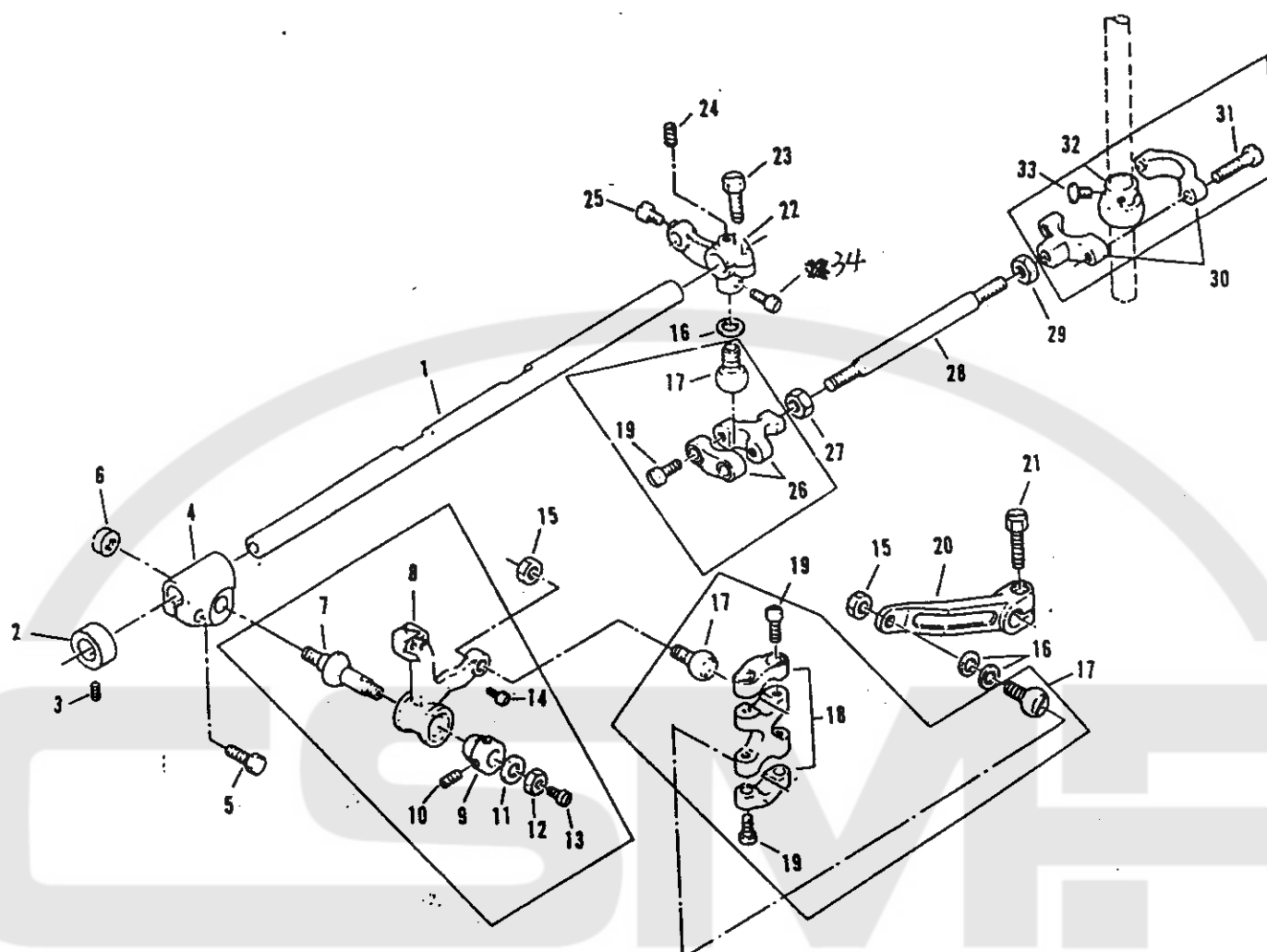
| Ref. No. | Part No. | Part Name                              | Q'ty | Ref. No. | Part No. | Part Name                          | Q'ty |
|----------|----------|----------------------------------------|------|----------|----------|------------------------------------|------|
| 1        | P30601   | Needle bar holder.....                 | 1    | 28       | B60564   | Screw.....                         | 2    |
| 2        | B60738   | Screw.....                             | 2    | 29       | B60519   | Washer.....                        | 1    |
| 3        | B60515   | Screw.....                             | 1    | 30       | B60534   | Screw.....                         | 2    |
| 4        | B60512   | Needle bar connection link pin.....    | 2    | 31       | B60305   | O-ring.....                        | 1    |
| 5        | B60446   | Felt.....                              | 2    | 32       | B60536   | Flange.....                        | 1    |
| 6        | B60511   | Needle bar connection link.....        | 1    | 33       | B60123   | Screw.....                         | 1    |
| 7        | B60501   | Needle lever.....                      | 1    | 34       | B60538   | Bearing.....                       | 1    |
| 8        | B60510   | Screw.....                             | 1    | 35       | B60540   | Crank shaft collar.....            | 1    |
| 9        | B60504   | Needle lever bushing.....              | 1    | 36       | B60539   | Screw.....                         | 2    |
| 10       | B60503   | Needle lever stud.....                 | 1    | 37       | P30637   | Worm wheel.....                    | 1    |
| 11       | B60519   | Washer.....                            | 1    | 38       | B60532   | Screw.....                         | 2    |
| 12       | B60305   | O-ring.....                            | 1    | 39       | B60531   | Worm gear.....                     | 1    |
| 13       | B60505   | Needle lever stud bushing.....         | 1    | 40       | B60532   | Screw.....                         | 2    |
| 14       | W80767   | Washer.....                            | 1    | 41       | P30641   | Looper avoid eccentric.....        | 1    |
| 15       | B60420   | Gasket.....                            | 1    | 42       | B60564   | Screw.....                         | 2    |
| 16       | B60509   | Screw.....                             | 1    | 43       | P30643   | Eccentric link.....                | 1    |
| 17       | B60506   | Screw.....                             | 2    | 44       | B60512   | Eccentric link pin.....            | 1    |
| 18       | B60520   | Screw.....                             | 2    | 45       | B60446   | Felt.....                          | 1    |
| 19       | B60521   | Needle lever connecting rod.....       | 1    | 46       | P30646   | Looper driving eccentric.....      | 1    |
| 20       | B60523   | Ball-joint for connecting rod.....     | 1    | 47       | B60549   | Screw.....                         | 6    |
| 21       | B60522   | Screw.....                             | 2    | 48       | B60553   | Looper driving ball joint.....     | 1    |
| 22       | B60524   | Connecting bar.....                    | 2    | 49       | B60552   | Screw.....                         | 2    |
| 23       | B60529   | Ball-joint for crank shaft, large..... | 1    | 50       | B60554   | Screw.....                         | 2    |
| 24       | B60530   | Needle roller for crank shaft.....     | 28   | 51       | B60550   | Guide fork.....                    | 1    |
| 25       | P30625   | Crank shaft 3MB.....                   | 1    | 52       | B60551   | Screw.....                         | 1    |
| 26       | B60533   | Pulley.....                            | 1    | 53       | B60555   | Looper driving connecting rod..... | 1    |
| 27       | B60563   | Collar.....                            | 1    | 54       | W80764   | Looper driving shaft.....          | 1    |

## 7. Main shaft and feed rocker



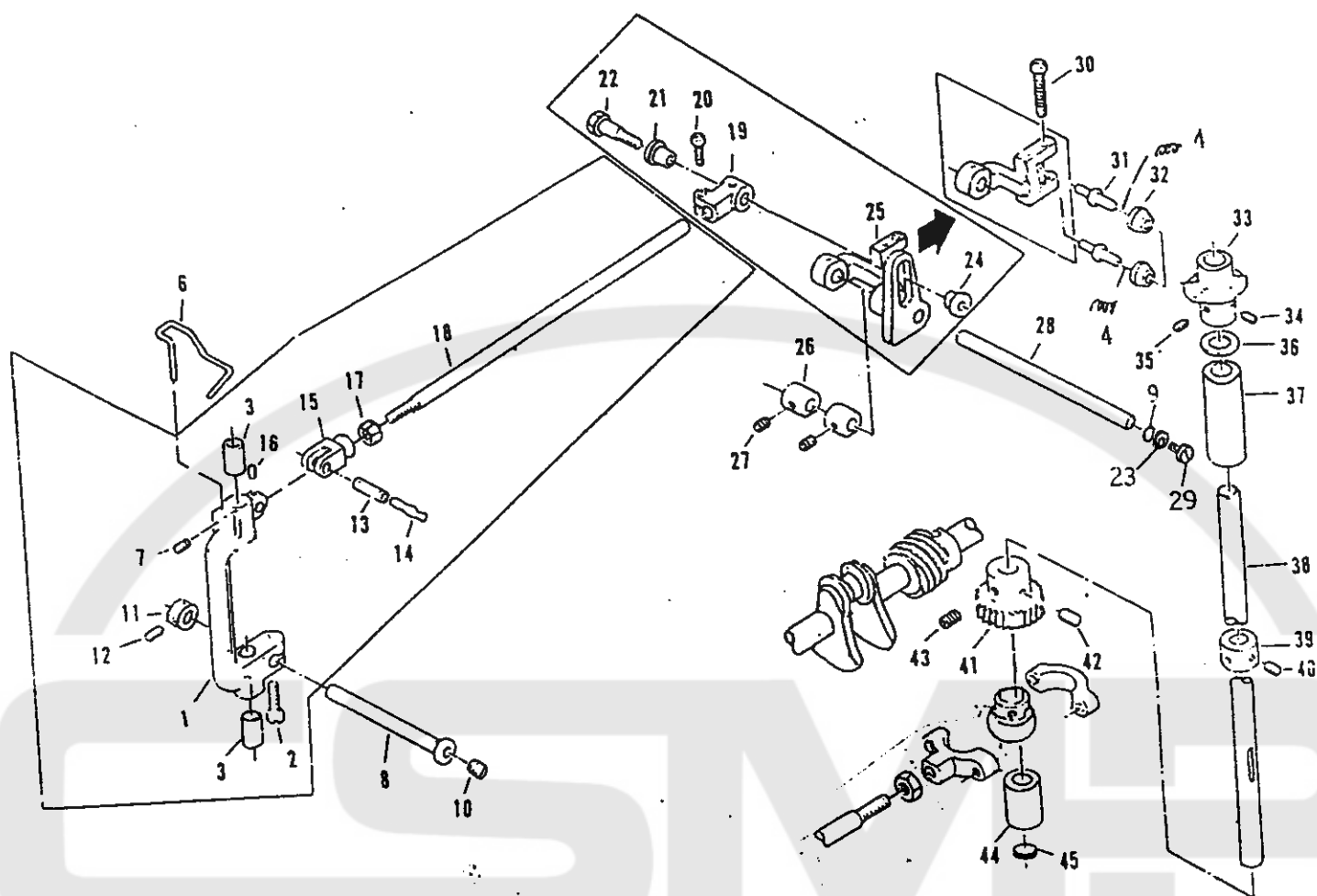
| Ref. No. | Part No. | Part Name                   | Q'ty | Ref. No. | Part No. | Part Name                   | Q'ty |
|----------|----------|-----------------------------|------|----------|----------|-----------------------------|------|
| 1        | P30701   | Main shaft                  | 1    | 41       | B60640   | Collar                      | 1    |
| 2        | B60608   | Silitch regulating stud cup | 1    | 42       | B60160   | Screw                       | 1    |
| 3        | B60607   | O-ring                      | 1    | 43       | B60650   | Pin                         | 2    |
| 4        | B60446   | Felt                        | 1    | 44       |          |                             |      |
| 5        | B60604   | Feed crank adjusting post   | 1    | 45       |          |                             |      |
| 6        | B60605   | Screw                       | 1    | 46       | W80846   | Main differential feed      | 1    |
| 7        | B60606   | Screw                       | 1    | 47       | B60532   | Screw                       | 1    |
| 8        | B60603   | Main shaft plate            | 1    | 48       | W80848   | Differential feed bar guide | 1    |
| 9        | B60138   | Screw                       | 4    | 49       | B80754   | Screw                       | 2    |
| 10       | W80817   | Looper avoid eccentric 0.7  | 1    | 50       | W80850   | Feed crank link             | 1    |
| 11       | B60564   | Screw                       | 2    | 51       | B60932   | Nut                         | 1    |
| 12       | B60614   | Bearing                     | 1    | 52       | B60105   | Washer                      | 1    |
| 13       | B60613   | Eccentric link              | 1    | 53       | W80853   | Crank set pin               | 1    |
| 14       | B60612   | Snap ring                   | 1    | 54       | B60111   | Washer                      | 1    |
| 15       | B60617   | Eccentric link pin          | 1    | 55       | B60213   | Nut                         | 1    |
| 16       | B60446   | Felt                        | 1    | 56       | W80856   | Feed dog holder bracket     | 1    |
| 17       |          |                             |      | 57       | W80857   | Screw                       | 1    |
| 18       | B60658   | Collar                      | 1    | 58       | W80858   | Differential feed bar guide | 2    |
| 19       | B60659   | Screw                       | 2    | 59       | B60162   | Screw                       | 4    |
| 20       | B60661   | Looper double disc take-up  | 1    | 60       | W80860   | Screw                       | 1    |
| 21       | B60660   | Screw                       | 2    | 61       | B60510   | Screw                       | 1    |
| 22       | B60611   | Screw                       | 1    | 62       | W80862   | Nut                         | 1    |
| 23       | B60634   | Feed crank link roller      | 1    | 63       |          |                             |      |
| 24       | B60626   | Bearing                     | 1    | 64       | W80864   | Rear feed dog holder        | 1    |
| 25       | B60627   | Washer                      | 1    | 65       | W80865   | Bushing                     | 2    |
| 26       | B60628   | Nut                         | 1    | 66       | W80866   | Needle guard holder         | 1    |
| 27       | W80827   | Feed rocker arm             | 1    | 67       | P30767   | Needle guard                | 1    |
| 28       | B60632   | Screw                       | 1    | 68       |          |                             |      |
| 29       | W80829   | Feed rocker link            | 1    | 69       | W80869   | Screw                       | 1    |
| 30       | B60516   | Screw                       | 1    |          |          |                             |      |
| 31       | B60512   | Feed rocker link pin        | 1    |          |          |                             |      |
| 32       | W80832   | Snap link                   | 1    |          |          |                             |      |
| 33       | B60639   | Washer                      | 2    |          |          |                             |      |
| 34       | W80834   | Differential feed rocker    | 1    |          |          |                             |      |
| 35       | B60106   | Screw                       | 2    |          |          |                             |      |
| 36       | W80836   | Feed rock segment plate     | 1    |          |          |                             |      |
| 37       | B60231   | Screw                       | 3    |          |          |                             |      |
| 38       | B60636   | Shaft                       | 1    |          |          |                             |      |
| 39       | B61022   | Screw                       | 1    |          |          |                             |      |
| 40       | W80840   | Feed rocker arm shaft       | 1    |          |          |                             |      |

## 8. Looper



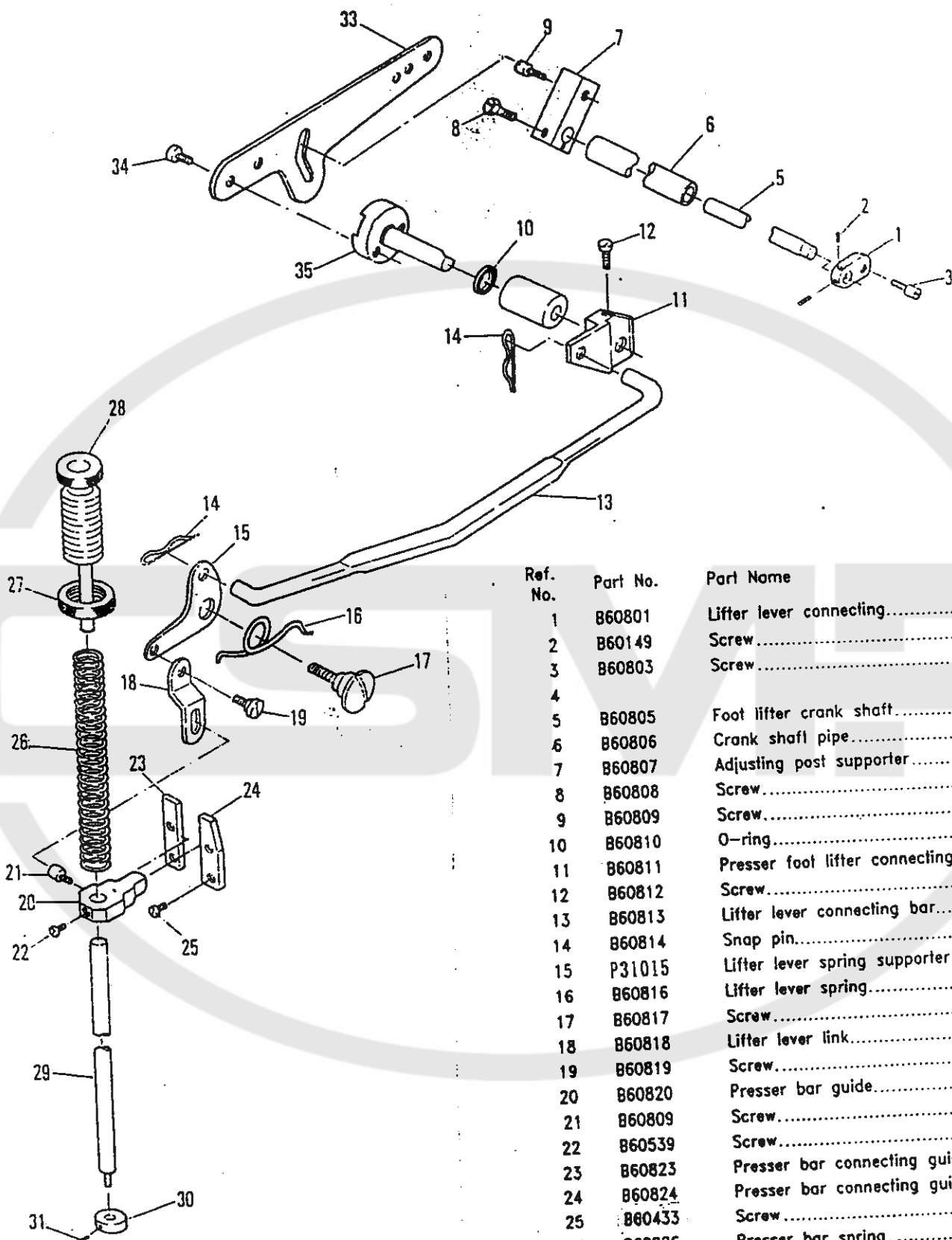
| Ref. No. | Part No. | Part Name                          | Q'ty | Ref. No. | Part No. | Part Name                               | Q'ty |
|----------|----------|------------------------------------|------|----------|----------|-----------------------------------------|------|
| 1        | P30801   | Looper rocker shaft.....           | 1    | 18       | P30818   | Looper connecting ball joint.....       | 1    |
| 2        | P30802   | Collar.....                        | 1    | 19       | P30819   | Screw.....                              | 6    |
| 3        | B60539   | Screw.....                         | 1    | 20       | P30820   | Looper connecting lever.....            | 1    |
| 4        | P30804   | Looper rocker base.....            | 1    | 21       | B60719   | Screw.....                              | 1    |
| 5        | B60808   | Screw.....                         | 1    | 22       | P30822   | Looper side step arm.....               | 1    |
| 6        | B60644   | Nut.....                           | 1    | 23       | B62027   | Screw.....                              | 1    |
| 7        | B60730   | Looper rocker tapered pin.....     | 1    | 24       | B60539   | Screw.....                              | 1    |
| 8        | P30808   | Looper rocker.....                 | 1    | 25       | B62021   | Screw.....                              | 1    |
| 9        | B60733   | Tapered pin bushing.....           | 1    | 26       | B60701   | Looper connecting ball joint, left..... | 1    |
| 10       | B60149   | Screw.....                         | 2    | 27       | B60628   | Nut.....                                | 1    |
| 11       | B60735   | Washer.....                        | 1    | 28       | P30828   | Looper side step connection.....        | 1    |
| 12       | B60644   | Nut.....                           | 1    | 29       | B60213   | Nut.....                                | 1    |
| 13       | B60132   | Screw.....                         | 1    | 30       | P30830   | Looper side step ball joint.....        | 1    |
| 14       | B60738   | Screw.....                         | 2    | 31       | B60552   | Screw.....                              | 2    |
| 15       | B60213   | Nut.....                           | 2    | 32       | P30832   | Looper side step eccentric.....         | 1    |
| 16       | B60718   | Washer.....                        | 3    | 33       | B60149   | Screw.....                              | 2    |
| 17       | B60717   | Looper driving connecting rod..... | 3    | 34       | B60532   | Screw.....                              | 1    |

## 9. Needle reciprocating mechanism



| Ref. No. | Part No. | Part Name                           | Q'ty | Ref. No. | Part No. | Part Name                        | Q'ty |
|----------|----------|-------------------------------------|------|----------|----------|----------------------------------|------|
| 1        | P30901   | Needle bar frame.....               | 1    | 24       | P30924   | Nut.....                         | 1    |
| 2        | P30902   | Screw.....                          | 1    | 25       | P30925   | Driving cam. cam roller arm..... | 1    |
| 3        | P30903   | Bushing.....                        | 2    | 26       | P30926   | Collar.....                      | 2    |
| 4        | P30904   | Spring.....                         | 2    | 27       | P30927   | Screw.....                       | 2    |
| 5        |          |                                     |      | 28       | P30928   | Shaft.....                       | 1    |
| 6        | P30906   | Needle thread take-up wire.....     | 1    | 29       | W80107   | Screw.....                       | 2    |
| 7        | B60149   | Screw.....                          | 1    | 30       | P30930   | Screw.....                       | 1    |
| 8        | P30908   | Needle bar frame shaft.....         | 1    | 31       | P30931   | Roller fixing stud.....          | 2    |
| 9        | P30909   | O-ring.....                         | 2    | 32       | P30932   | Roller.....                      | 2    |
| 10       | P30910   | Screw.....                          | 1    | 33       | P30933   | Cam.....                         | 1    |
| 11       | B60830   | Collar.....                         | 1    | 34       | B60564   | Screw.....                       | 1    |
| 12       | B60149   | Screw.....                          | 2    | 35       | P30935   | Screw.....                       | 1    |
| 13       | B60512   | Needle bar connecting link pin..... | 1    | 36       | B60639   | Washer.....                      | 1    |
| 14       | B60446   | Felt.....                           | 1    | 37       | P30937   | Bushing, upper.....              | 1    |
| 15       | B61201   | Connecting link.....                | 1    | 38       | P30938   | Cam drive shaft.....             | 1    |
| 16       | B80744   | Screw.....                          | 1    | 39       | P30939   | Collar.....                      | 1    |
| 17       | P30917   | Nut.....                            | 1    | 40       | B60520   | Screw.....                       | 2    |
| 18       | P30918   | Needle bar connecting.....          | 1    | 41       | P30941   | Worm gear.....                   | 1    |
| 19       | P30919   | Needle bar connecting link.....     | 1    | 42       | B60564   | Screw.....                       | 1    |
| 20       | K60516   | Screw.....                          | 1    | 43       | P30935   | Screw.....                       | 1    |
| 21       | P30921   | Link roller.....                    | 1    | 44       | P30944   | Bushing, lower.....              | 1    |
| 22       | P30922   | Screw.....                          | 1    | 45       | P30945   | Screw.....                       | 1    |
| 23       | P30923   | Washer.....                         | 2    |          |          |                                  |      |

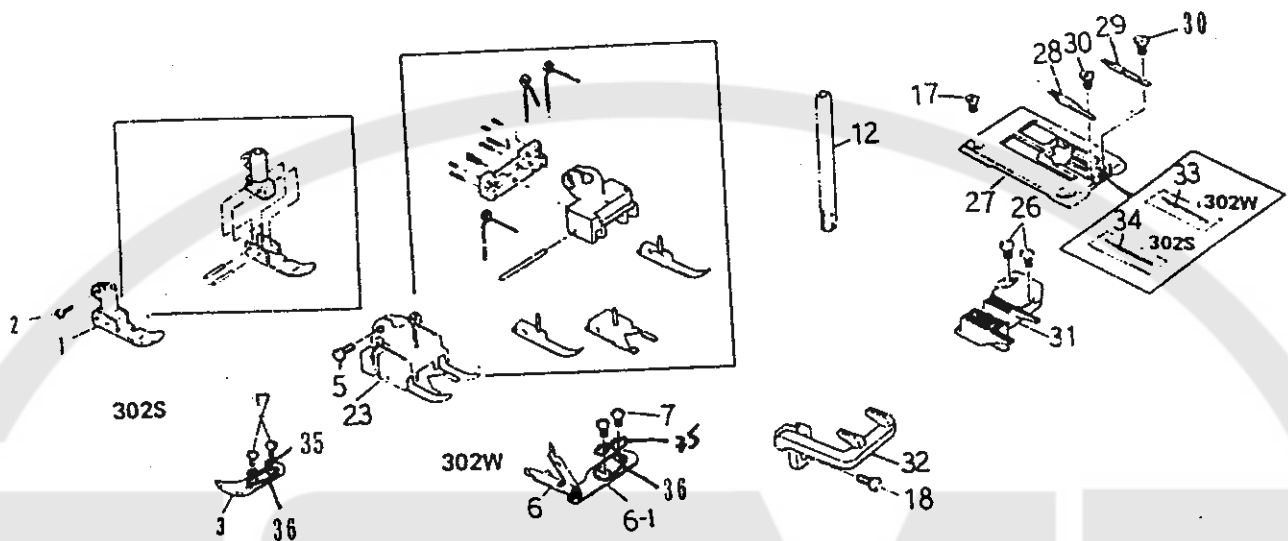
## 10. Foot lifter components



| Ref. No. | Part No. | Part Name                                 | Q'ty |
|----------|----------|-------------------------------------------|------|
| 1        | B60801   | Lifter lever connecting.....              | 1    |
| 2        | B60149   | Screw.....                                | 2    |
| 3        | B60803   | Screw.....                                | 1    |
| 4        |          |                                           |      |
| 5        | B60805   | Foot lifter crank shaft.....              | 1    |
| 6        | B60806   | Crank shaft pipe.....                     | 1    |
| 7        | B60807   | Adjusting post supporter.....             | 1    |
| 8        | B60808   | Screw.....                                | 1    |
| 9        | B60809   | Screw.....                                | 1    |
| 10       | B60810   | O-ring.....                               | 1    |
| 11       | B60811   | Presser foot lifter connecting plate..... | 1    |
| 12       | B60812   | Screw.....                                | 1    |
| 13       | B60813   | Lifter lever connecting bar.....          | 1    |
| 14       | B60814   | Snap pin.....                             | 2    |
| 15       | P31015   | Lifter lever spring supporter.....        | 1    |
| 16       | B60816   | Lifter lever spring.....                  | 1    |
| 17       | B60817   | Screw.....                                | 1    |
| 18       | B60818   | Lifter lever link.....                    | 1    |
| 19       | B60819   | Screw.....                                | 1    |
| 20       | B60820   | Presser bar guide.....                    | 1    |
| 21       | B60809   | Screw.....                                | 1    |
| 22       | B60539   | Screw.....                                | 1    |
| 23       | B60823   | Presser bar connecting guide left.....    | 1    |
| 24       | B60824   | Presser bar connecting guide right.....   | 1    |
| 25       | B60433   | Screw.....                                | 4    |
| 26       | B60826   | Presser bar spring.....                   | 1    |
| 27       | B60827   | Nut.....                                  | 1    |
| 28       | B60828   | Presser bar screw.....                    | 1    |
| 29       | B60829   | Presser bar (small).....                  | 1    |
| 30       | B60830   | Collar.....                               | 1    |
| 31       | B60149   | Screw.....                                | 1    |
| 32       |          |                                           |      |
| 33       | B60833   | Presser foot lifter lever.....            | 1    |
| 34       | B60123   | Screw.....                                | 2    |
| 35       | B60835   | Presser foot lifter lever post.....       | 1    |

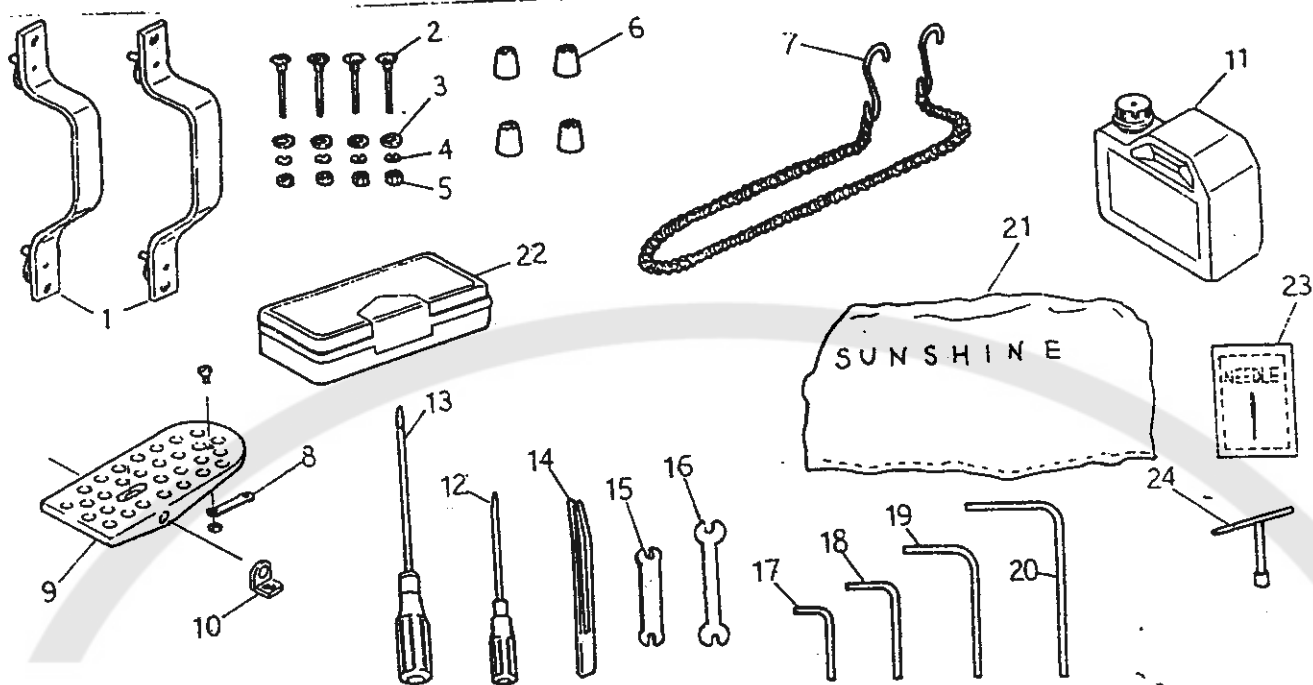
# 11. Gauge parts

## DP-302



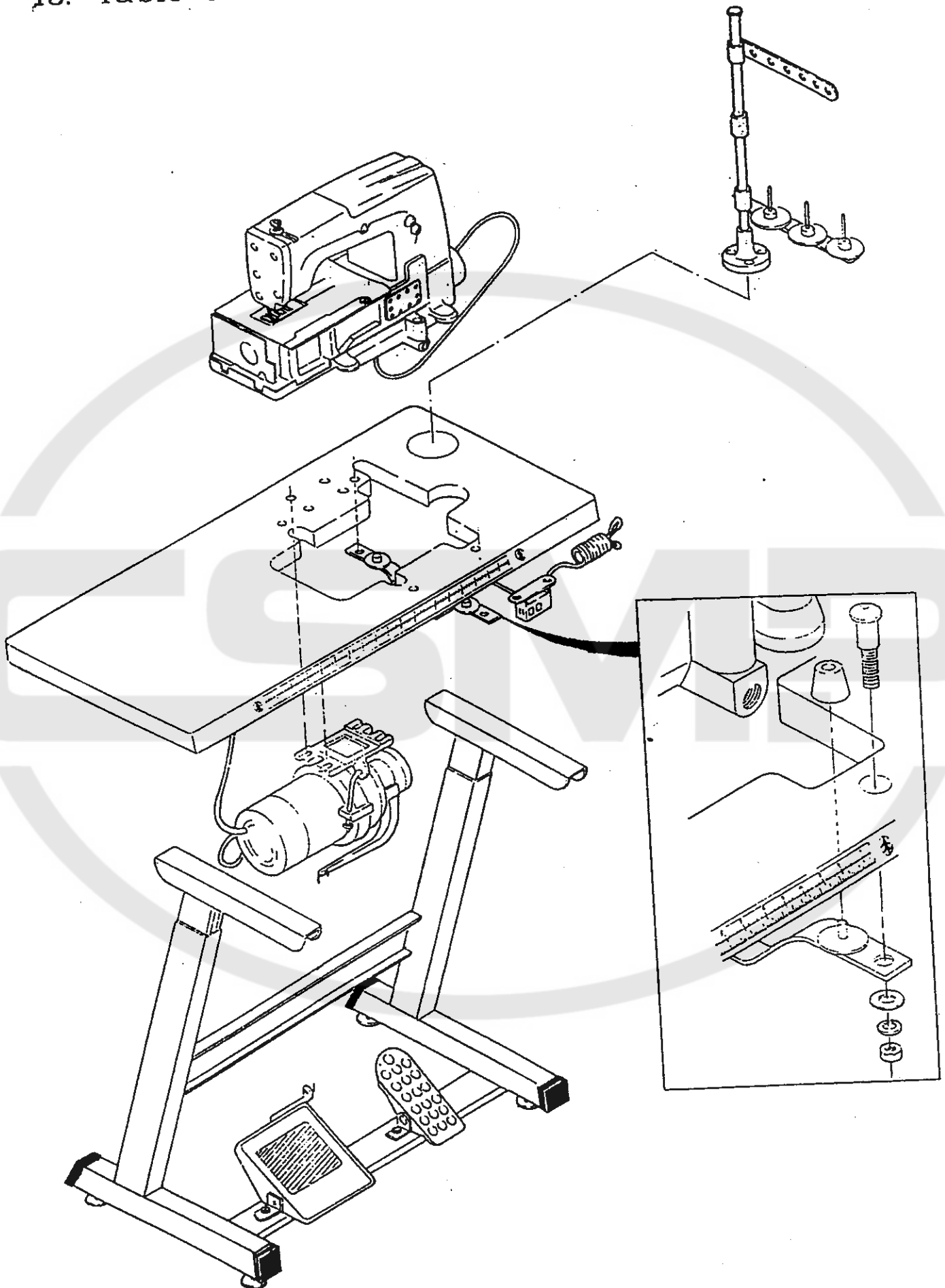
| Ref. No. | Part No.   | Part Name                    | Q'ty | Ref. No. | Part No. | Part Name                    |
|----------|------------|------------------------------|------|----------|----------|------------------------------|
| 1        | P31101     | Presser foot.....            | 1    | 21       |          |                              |
| 2        | B61013     | Screw.....                   | 1    | 22       |          |                              |
| 3        | P31103     | Ruler.....                   | 1    | 23       | P31130   | Presser foot.....            |
| 4        |            |                              |      | 24       | P31131   | Thread retaining spring..... |
| 5        | B60551     | Screw.....                   | 1    | 25       | P31132   | Rear looper.....             |
| 6        | P31108     | Ruler.....                   | 1    | 26       | B81140   | Screw.....                   |
| 7        | B60509     | Screw.....                   | 4    | 27       | P31134   | Needle plate.....            |
| 8        | P31115     | Front looper.....            | 1    | 28       | P31135   | Left nail.....               |
| 9        | P31116     | Thread retaining spring..... | 1    | 29       | P31136   | Right nail.....              |
| 10       | B60154     | Screw.....                   | 1    | 30       | P31112   | Screw.....                   |
| 11       |            |                              |      | 31       | P31138   | Rear feed dog.....           |
| 12       | B61020 (S) | Needle bar.....              | 1    | 32       | P31139   | Front feed dog.....          |
| 13       |            |                              |      | 33       | P31140   | Center nail.....             |
| 14       |            |                              |      | 34       | P31141   | Center nail.....             |
| 15       |            |                              |      | 35       | B60105   | Washer.....                  |
| 16       |            |                              |      | 36       | B80163   | Folder mounting bracket..... |
| 17       | B60229 (S) | Screw.....                   | 2    |          |          |                              |
| 18       | B60132     | Screw.....                   | 1    |          |          |                              |
| 19       |            |                              |      |          |          |                              |
| 20       |            |                              |      |          |          |                              |

## 12. Accessories



| Ref. No. | Part No. | Part Name                  | Q'ty |
|----------|----------|----------------------------|------|
| 1        | B62420   | Machine mount bracket..... | 2    |
| 2        | B62422   | Screw.....                 | 4    |
| 3        | B62423   | Washer M8.....             | 4    |
| 4        | B62424   | Spring washer.....         | 4    |
| 5        | B62425   | Nut.....                   | 4    |
| 6        | B62426   | Cushion rubber.....        | 4    |
| 7        | B62428   | Tie-rod joint.....         | 1    |
| 8        | B62432   | Coupling.....              | 1    |
| 9        | B62433   | Pedal.....                 | 1    |
| 10       | B62434   | Pedal stopper.....         | 2    |
| 11       | B62435   | Oil.....                   | 1    |
| 12       | B62436   | Screw driver small.....    | 1    |
| 13       | B62437   | Screw driver large.....    | 1    |
| 14       | B62438   | Tweezers.....              | 1    |
| 15       | B62439   | Spanner small.....         | 1    |
| 16       | B62440   | Spanner large.....         | 1    |
| 17       | B62441   | Wrench A.....              | 1    |
| 18       | B62442   | Wrench B.....              | 1    |
| 19       | B62443   | Wrench C.....              | 1    |
| 20       | B62444   | Wrench D.....              | 1    |
| 21       | B62445   | Machine cover.....         | 1    |
| 22       | B62446   | Accessory box.....         | 1    |
| 23       | B62447   | Needle.....                | 1    |
| 24       | B62448   | Wrench T.....              | 1    |

### 13. Table stand installation diagram



# INSTRUCTION MANUAL

## MODEL DP-300 SERIES

### INDEX

|                                     | page no. |
|-------------------------------------|----------|
| 1) Feature                          | 1        |
| 2) Selection of motor pulley        | 1        |
| 3) Supplying/draining oil           | 1        |
| 4) Setting of needle                | 2        |
| 5) Threading                        | 2        |
| 6) Needle bar height                | 3        |
| 7) Adjustment of Zig-Zag ratio      | 3        |
| 8) Adjustment of retaining spring   | 4        |
| 9) Distance of needle and looper    | 4        |
| 10) Synchronizing needle and looper | 4        |
| 11) Height of feed dog              | 5        |
| 12) Changing stitch length          | 5        |
| 13) Setting needle guard            | 5        |
| 14) Setting looper thread take-up   | 6        |
| 15) Setting table                   | 7        |

# 1) Feature

|                   |                                   |
|-------------------|-----------------------------------|
| Seam type         | Multi Zig-Zag Picoetta, fagotting |
| needles           | 2 or 1                            |
| Usable needle     | UY x 163 No.65-90                 |
| needle bar stroke | 31 m/m                            |
| feed mechanism    | differential                      |
| Max. R.P.M.       | 2500 R.P.M.                       |

# 2) Selection of motor pulley

Remark: Operational rotation of hand wheel should toward the operator(counter clockwise)

| R.P.M. | Diameter of motor pulley m/m |       |
|--------|------------------------------|-------|
|        | 50 Hz                        | 60 Hz |
| 2500   | 75                           | 60    |
| 2000   | 65                           | 55    |

Table 1

# 3) Supplying/Draining oil (Fig.1)

Recommended oil is "TELESSO 33"

- Remove oil viewer A and supply oil until oil is being filled up to the line B of oil gauge C. The oil level should be checked and kept between line B and D while machine is in use.
- Draining oil can be done with removing screw E. It is recommended that oil change once in first one month and once in every 6 months afterward.

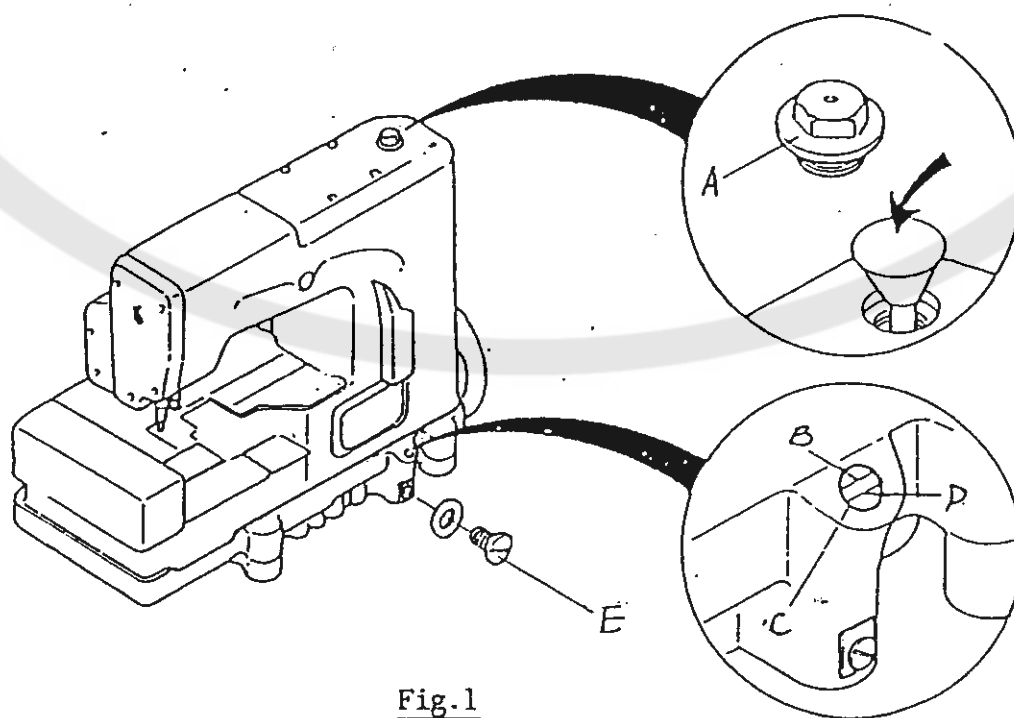


Fig.1

#### 4). Setting needle (Fig.2)

Loosen screw A place needle of which strait groove faces toward the operator so that scarf of the needle can be placed exactly parallel against the looper motion.

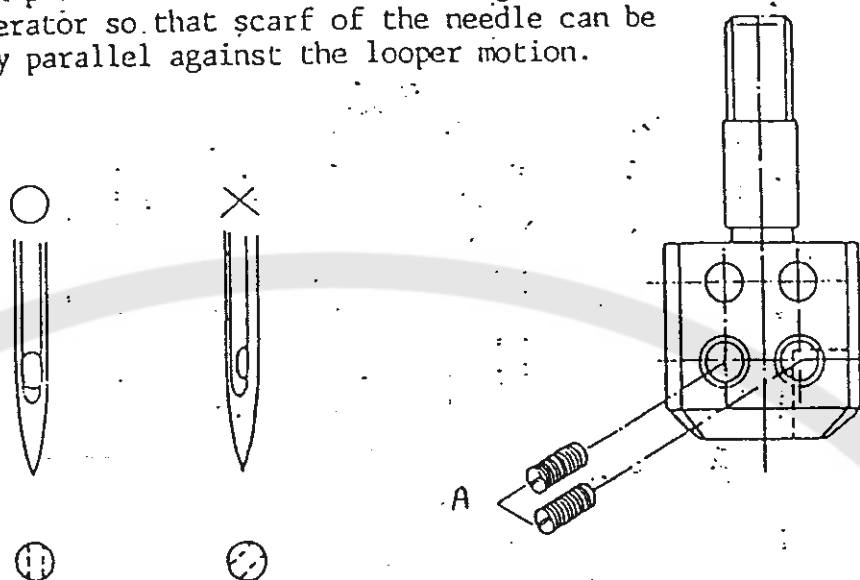


Fig.2

#### 5) Threading (Fig. 3)

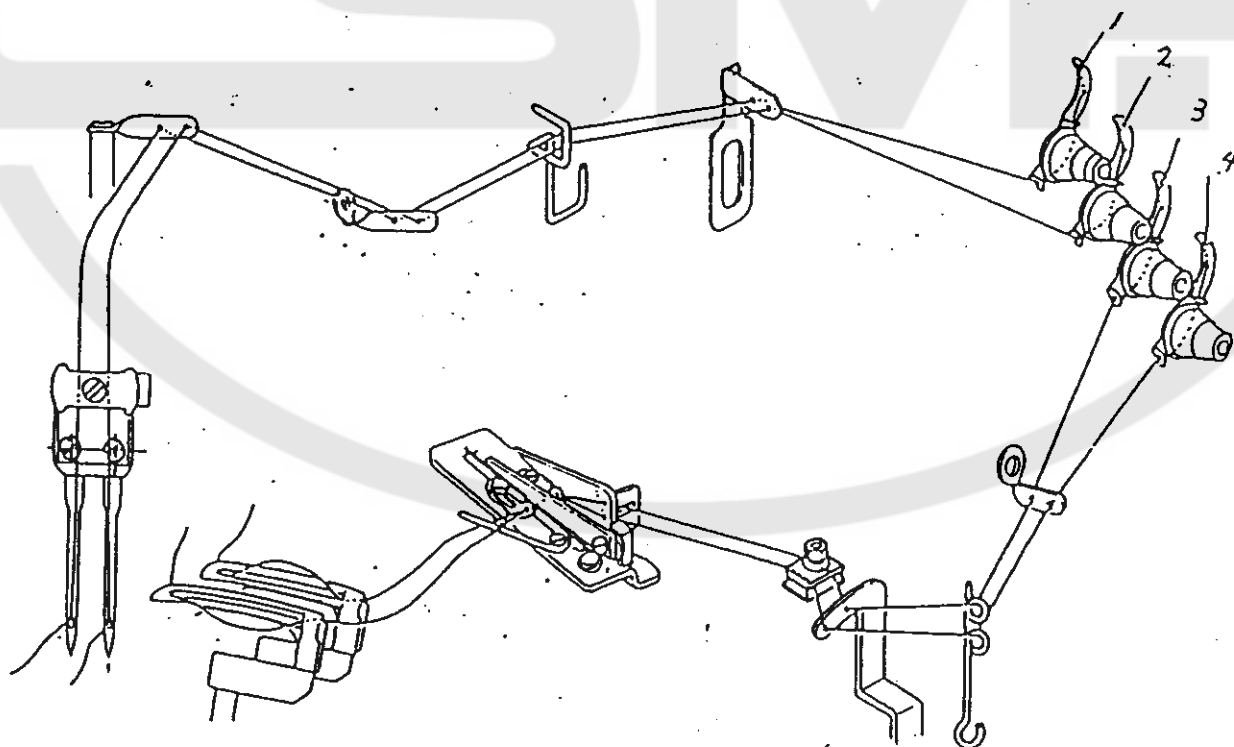


Fig.3

# 6) Needle bar height (Fig. 4)

The distance A between the point of needle and the surface of needle plate should be 9.5 mm when the needle bar is at the highest of its stroke.

Loosen screw B very slightly but rigid enough to retain its position while rotating hand wheel and attain 9.5 mm.

Refer Fig. 5.

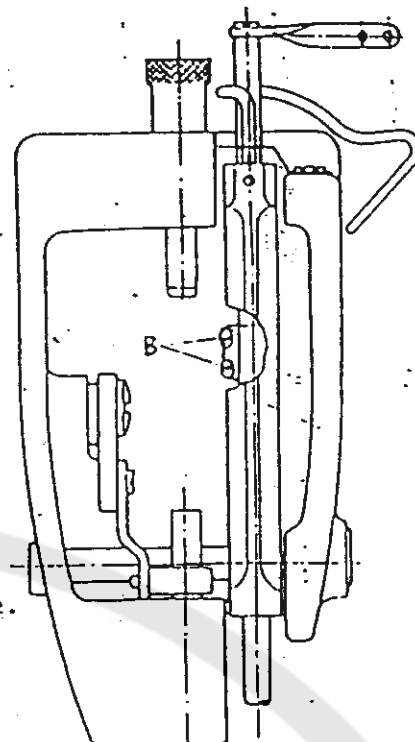
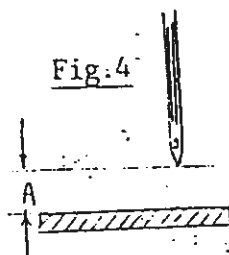


Fig. 5

# 7) Adjustment of Zig-Zag ratio (Fig. 6)

The proper Zig-Zag width is 5.7 mm.

To adjust Zig-Zag width loosen screw A move connecting link B in the cam bracket C upwardly to acquire more width, downwardly acts the reverse. After proper width is attained check the needle drop.

If needle drop is not correct, loosen screw D on worm gear and turn hand wheel to attain correct needle drop.

Retighten screw A, D securely.

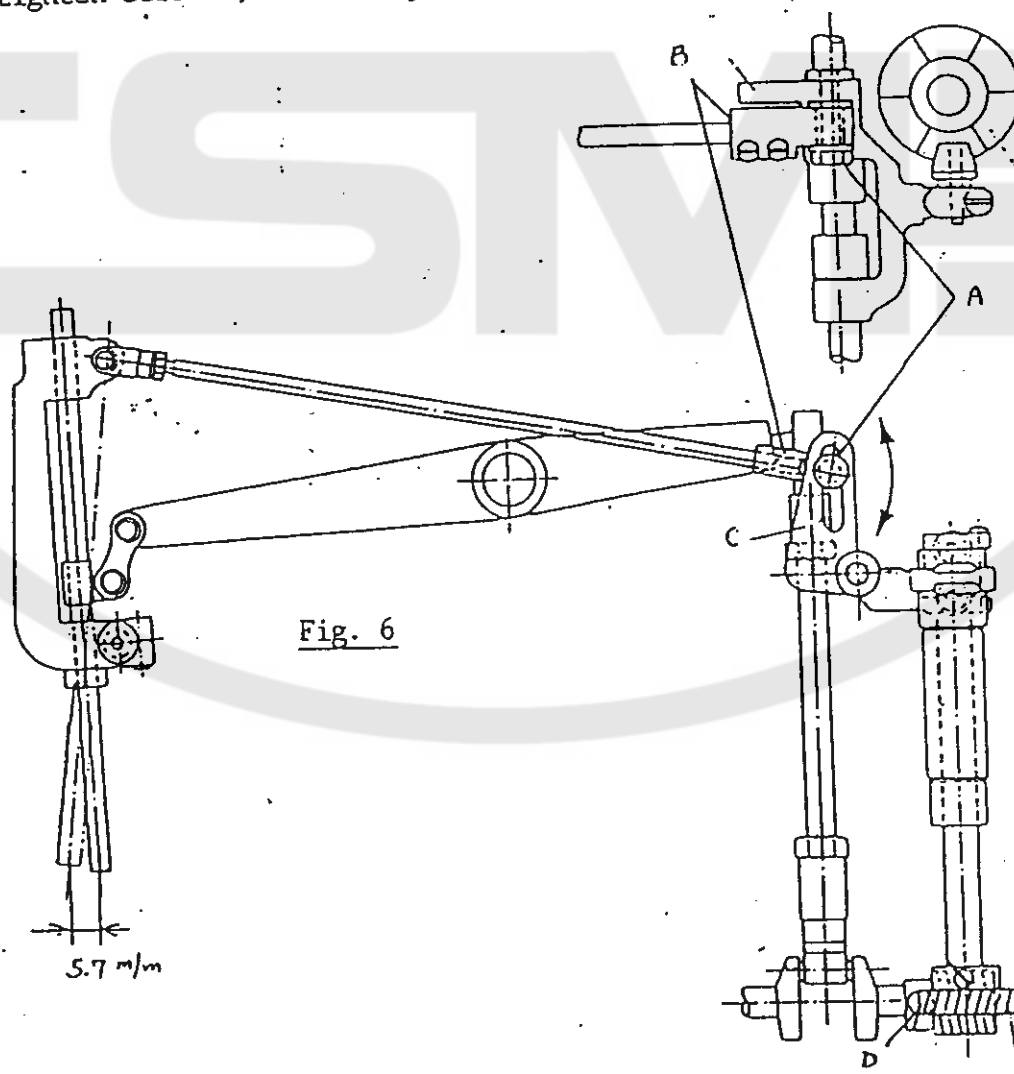


Fig. 6

### 8) Adjusting retaining spring (Fig.7)

Set the looper so that the polished surface of retaining spring is evenly touched against underside of the looper and gives tension of 30-40g to the thread.

To adjust, loosen screw A move base portion of retaining spring upwardly to acquire more tension.

Retighten screw A

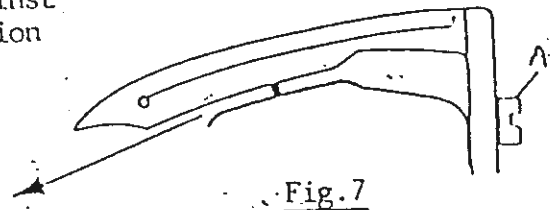


Fig. 7

### 9) Distance of looper to needle (Fig.8)

Set the looper so that the distance from the point of looper to the needle is 5 m/m.

To adjust, loosen screw A Fig.9 and B slightly, move looper bracket C to attain the distance, while needle is at the bottom position. Check its distance when the needle is in the location of 0 and 2.

Set the looper so that the clearance of 0-0.01 m/m between needle when the point of looper passes back of needle.

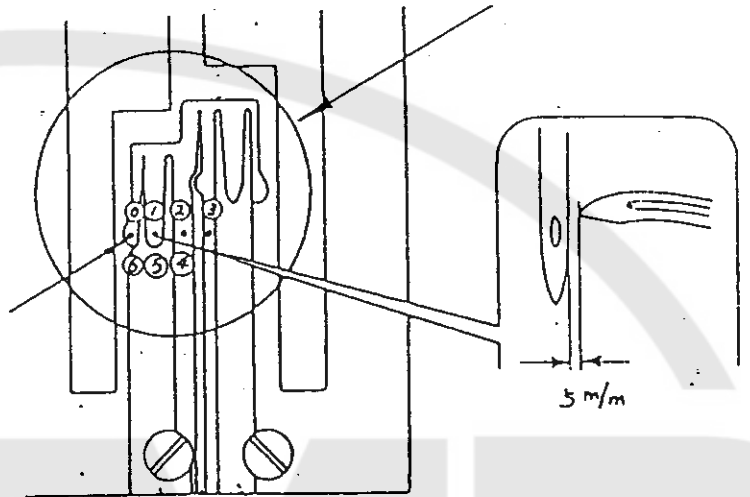


Fig. 9A

### 10) Synchronizing looper and needle. (Fig. 9A)

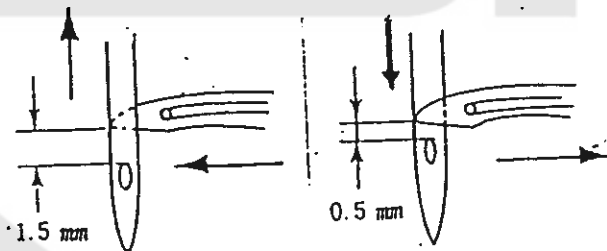


Fig. 9A

When the looper is in leftward motion, the point of looper should locate at the left end of needle with height of 1.5 m/m from upper end of needle eye.

In the reverse direction of looper motion, the point of looper and upper end of needle eye of which distance should be 0.5 m/m at the left side of needle.

To adjust, loosen screw D on eccentric turn hand wheel while holding the eccentric to attain its synchronizing. Retighten screw D securely.

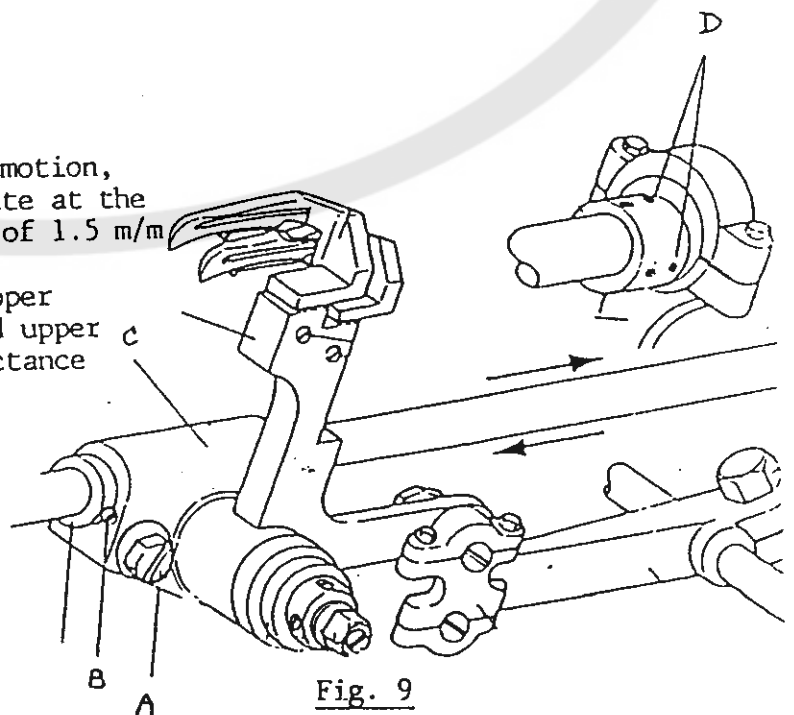


Fig. 9

11) The height of feed dog (Fig.10)

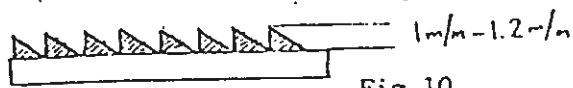


Fig.10

Set the feed dog so that the height of the peak of feed dog from surface of needle plate is 1-1.2 m/m, when the needle bar is at the top of its stroke.

To adjust, loosen screw A, B Fig.10A level front and rear feed dog. Retighten screw A, B securely.

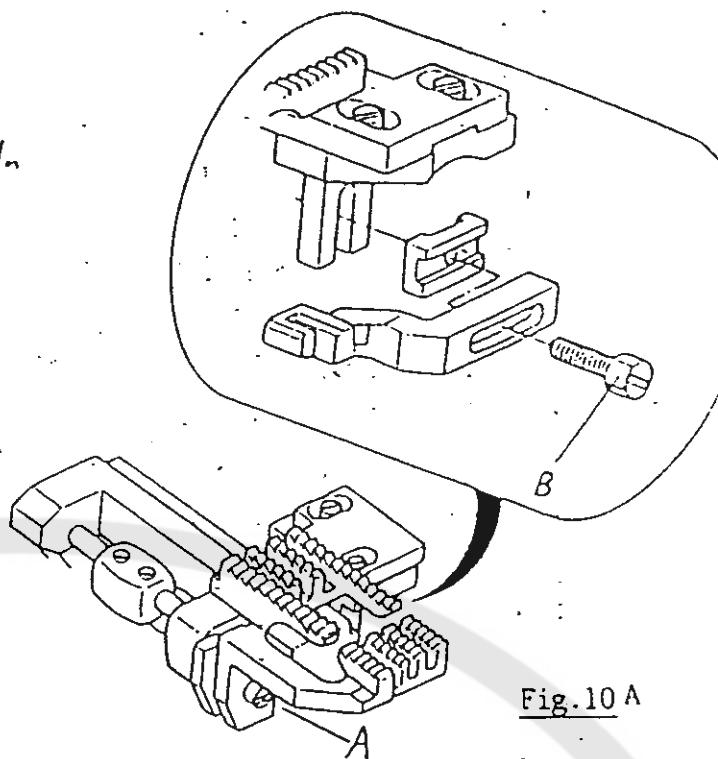


Fig.10 A

12) Changing stitch length (Fig. 11)

- a) When change in stitch length is required, loosen nut B clockwise and turn adjusting screw C counter-clockwise to acquire longer stitch length, clockwise acts the reverse.

=CAUTION= Readjust the needle guard whenever stitch length is changed.

- b) Differential control

Loosen nut A move crank rod D upwardly to acquire more differential ratio, downwardly acts the reverse. Retighten nut A securely.

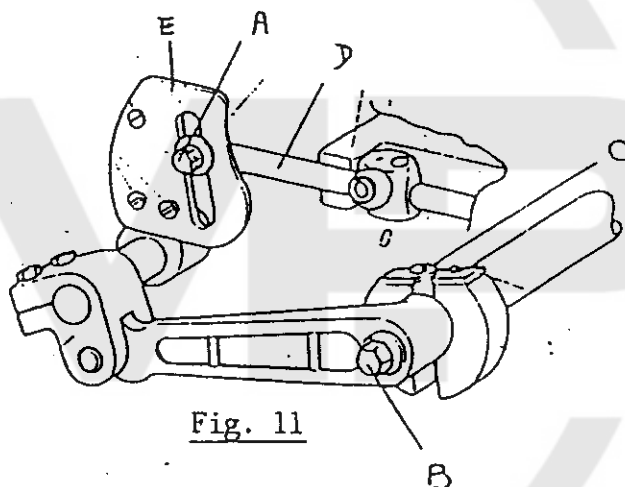


Fig. 11

13) Setting needle guard (Fig. 12)

Set the needle guard horizontally so that it barely contacts the needle when at its extreme forward position. It should be set vertically as low as possible, yet have its top of guarding surface is 0.8-1.0 m/m higher than the point of needle, when the point of looper meets needle on its way of leftward motion.

To adjust loosen screw A to attain proper position. Retighten screw A

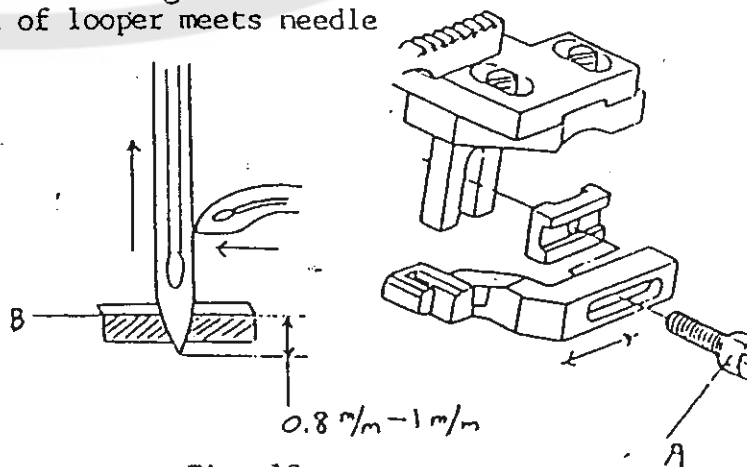


Fig. 12

#### 14) Setting of looper thread take-up

##### a) proper location of thread take-up eyelet D (Fig. 13)

Set the take up eyelet E so that eye is vertically in line with the center of main shaft.  
Loosen set screw A move eyelet to attain its position.  
Retighten set screw A securely.

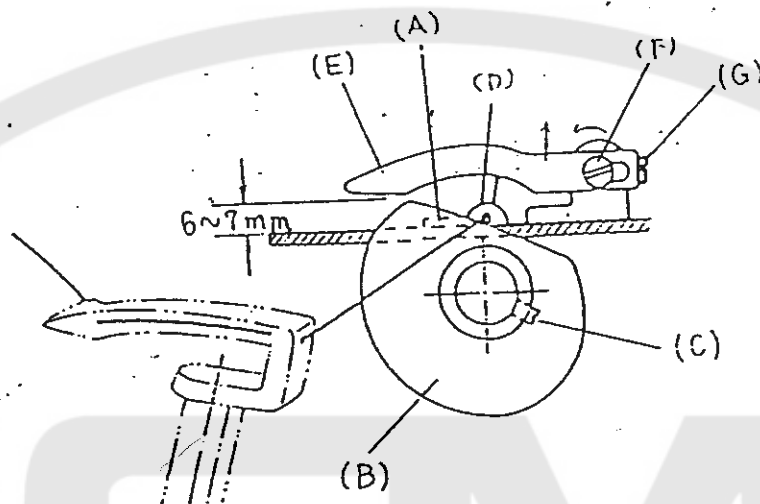


Fig. 13

##### b) Setting looper thread retainer E (Fig. 13)

Set the looper thread retainer E so that the distance from its underside to the surface of needle plate is 6-7 mm.  
To adjust loosen screw G move thread retainer E vertically to attain its height.  
Retighten screw G.

##### c) Amount of thread take-up

It can be done with the location of retainer E, loosen screw F move retainer E horizontally toward left to acquire more thread is being taken, toward right acts reverse.  
Retighten screw F after adjustment is made.

##### d) Adjusting take-up cam (Fig. 14) (Fig. 13)

The looper thread should begin to be released when the blade of looper and the point of the needle are at horizontally the same height, in its motion toward right.  
To adjust, loosen screw C SLIGHTLY but rigid enough to retain its position, move take-up cam B to attain proper position.  
Retighten screw C securely.

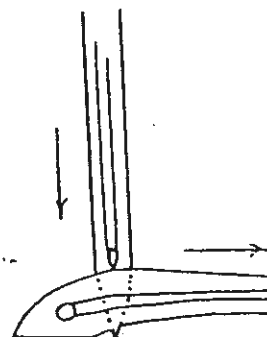


Fig. 14

15) Setting table (Fig.15)

