

VIPAC



HA 900

New Generation Hatz Supra Diesel Engine
Designed in South Africa for local conditions

The Vipac is a new locally designed and manufactured roller, backed by 30 years' experience in the compaction industry. It is powered by the new generation Hatz Supra

In keeping with the company's policy of progressive development, the Vipac HA 900 with a high content of locally manufactured parts, has been designed to keep maintenance costs to a minimum while producing outstanding performance.

Some features of the new generation Hatz Supra Diesel engine include:

- * Pressure lubrication with gear oil pump.
- * Oil sump of sheet-metal.
- * Emission of noise reduced to the absolute minimum.
- * Economical fuel consumption.
- * Easily serviced due to automatic injection pump bleeding.
- * Secure and effortless starting thanks to automatic extra fuel device.



Recommended Torque specification for bolts and nuts used on VIPAC machines:

Please note that self locking NYLOCK NUTS should always be replaced by new ones and Anaerobic bonding liquids should be used on re-assembly of components i.e. bolts, screws, nuts and studs (Anaerobic liquid specifications and users instructions are available on request).

Following tensile strength might be used on bolts:

| | | |
|------|---|------|
| 8.8 | = | 8 G |
| 10.9 | = | 10 K |
| 12.9 | = | 12 K |

| BOLT SIZE | TORQUES Nm (ft lbs) | | |
|-----------|---------------------|-----------|-----------|
| | 8.8 | 10.9 | 12.9 |
| M5 | 6 (4) | 8.5 (6) | 10 (7) |
| M6 | 10 (7) | 15 (11) | 18 (13) |
| M8 | 25 (18) | 35 (26) | 45 (33) |
| M10 | 50 (27) | 75 (55) | 85 (63) |
| M12 | 90 (66) | 125 (92) | 150 (111) |
| M16 | 215 (159) | 305 (225) | 365 (269) |

When tightening bolts and nuts always use a torque wrench.

HA900

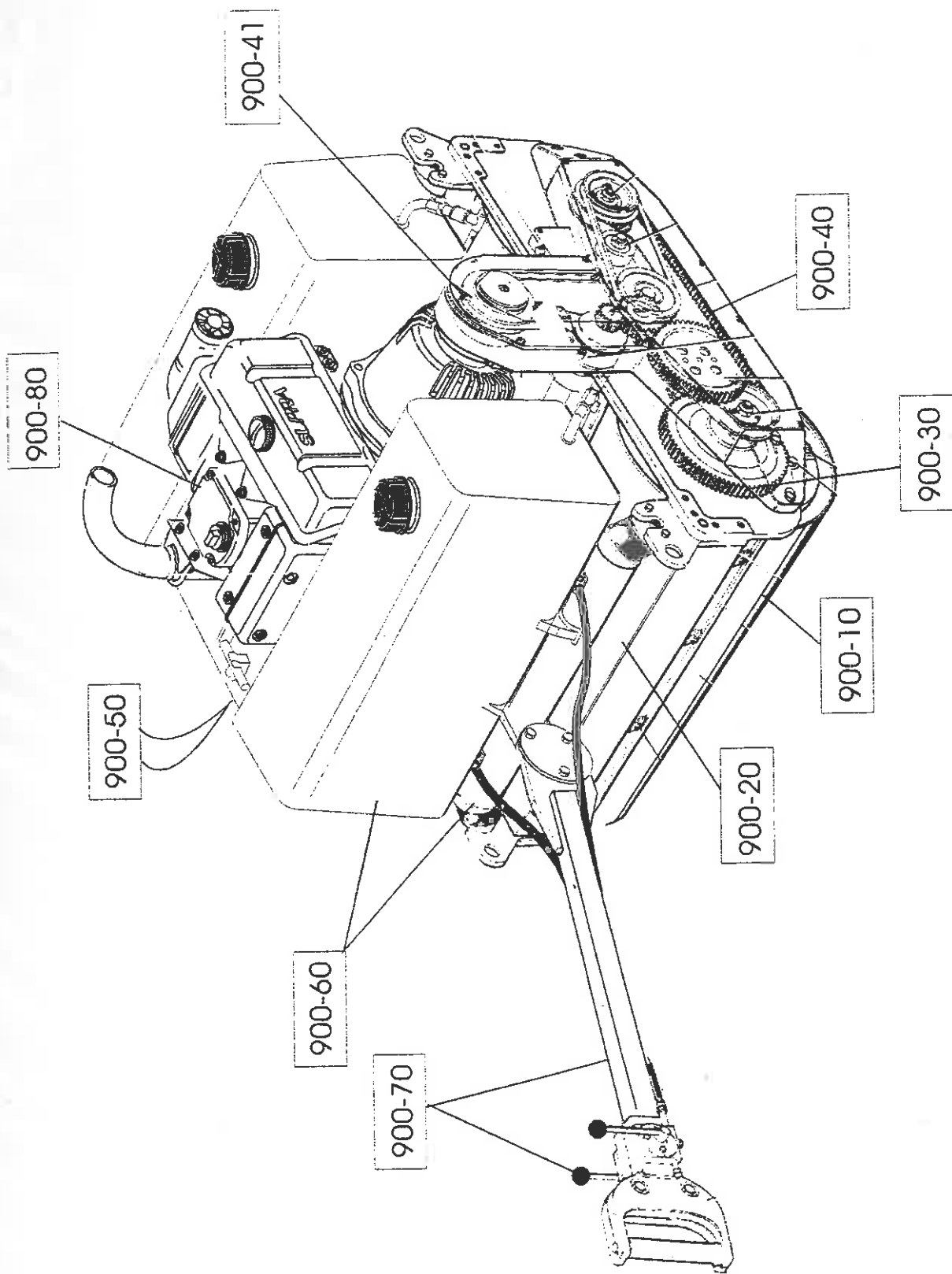
MACHINE DIMENSIONS

| | | |
|----------------------------|-------|----------------|
| Basic Weight (Empty Tanks) | ..... | 1340 Kg |
| Overall Length | ..... | 3470 mm |
| Overall Width | ..... | 1060 mm |
| Overall Height | ..... | 1230 mm |
| Width of Drums | ..... | 900 mm |
| Water Tank Capacity | ..... | Each 68 litres |

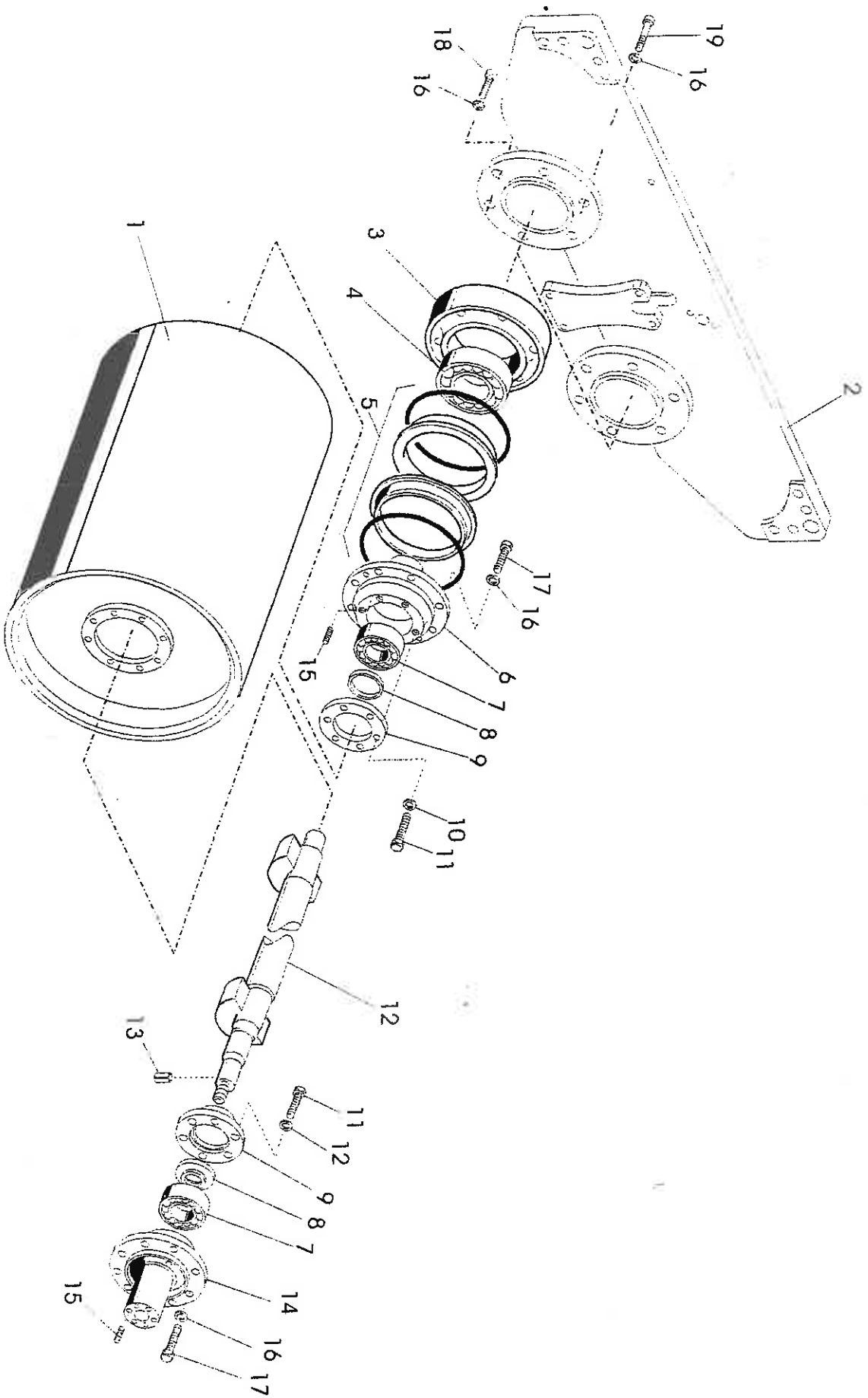
INDEX

| | | |
|----------|-------|---------------------------------|
| 900 - 10 | ..... | Roller Drums |
| 900 - 20 | ..... | Side Plates and Cross Pieces |
| 900 - 30 | ..... | Drive Train |
| 900 - 40 | ..... | Vibrator Drive |
| 900 - 41 | ..... | Centrifugal Clutch |
| 900 - 50 | ..... | Gearbox |
| 900 - 51 | ..... | Pinion Shaft |
| 900 - 52 | ..... | Disc Clutch |
| 900 - 60 | ..... | Main Frame |
| 900 - 70 | ..... | Steering Rod and Control Cables |
| 900 - 80 | ..... | Engine and Gearbox |

HA 900 GENERAL ARRANGEMENT



900-10 ROLLER DRUMS

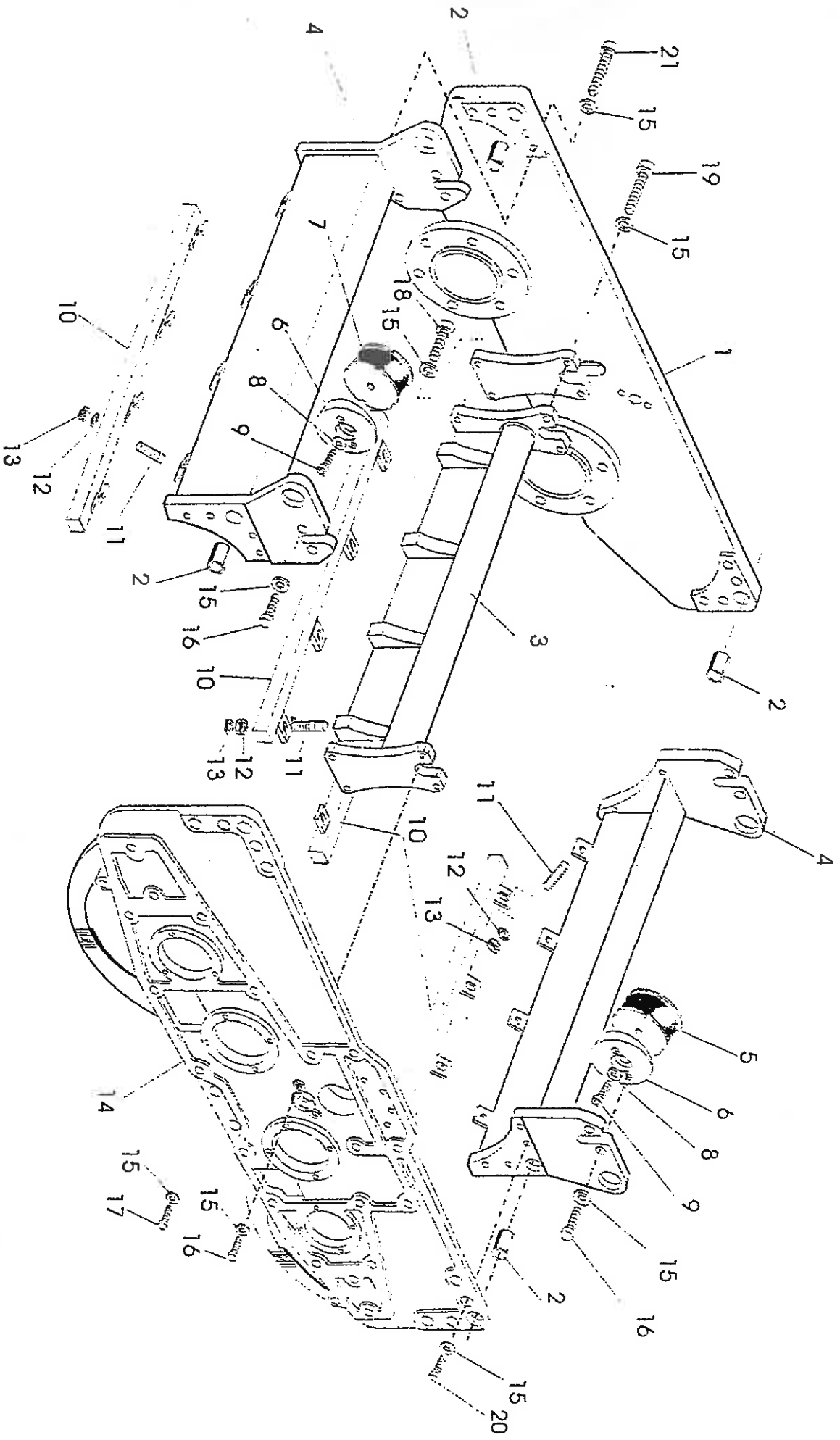


ROLLER DRUMS

900 - 10

| | | | |
|---------------|---------------------|----|-----------|
| 900 - 10 - 1 | ROLLER DRUM | 2 | V90020100 |
| 900 - 10 - 2 | REFER V900-20-1 | | |
| 900 - 10 - 3 | BUSH | 2 | V90030106 |
| 900 - 10 - 4 | CYL. ROLLER BEARING | 2 | V15222332 |
| 900 - 10 - 5 | SLIDING GASKET | 2 | V16260020 |
| 900 - 10 - 6 | BEARING FLANGE | 2 | V90020203 |
| 900 - 10 - 7 | CYL. ROLLER BEARING | 4 | V15226292 |
| 900 - 10 - 8 | RING | 4 | V90020404 |
| 900 - 10 - 9 | BEARING COVER | 4 | V90020202 |
| 900 - 10 - 10 | SCHNORR WASHER | 24 | V15530610 |
| 900 - 10 - 11 | HEX BOLT | 24 | V17140624 |
| 900 - 10 - 12 | VIBRATOR SHAFT | 2 | V90020406 |
| 900 - 10 - 13 | TIGHTENING SLEEVE | 2 | V19150802 |
| 900 - 10 - 14 | BEARING FLANGE | 2 | V90020303 |
| 900 - 10 - 15 | THREADED PIN | 8 | V17571000 |
| 900 - 10 - 16 | SCHNORR WASHER | 44 | V15531218 |
| 900 - 10 - 17 | HEX BOLT | 32 | V17141237 |
| 900 - 10 - 18 | HEX BOLT | 6 | V17141224 |
| 900 - 10 - 19 | HEX BOLT | 6 | V17131216 |

900-20 SIDE PLATES AND CROSS PIECES

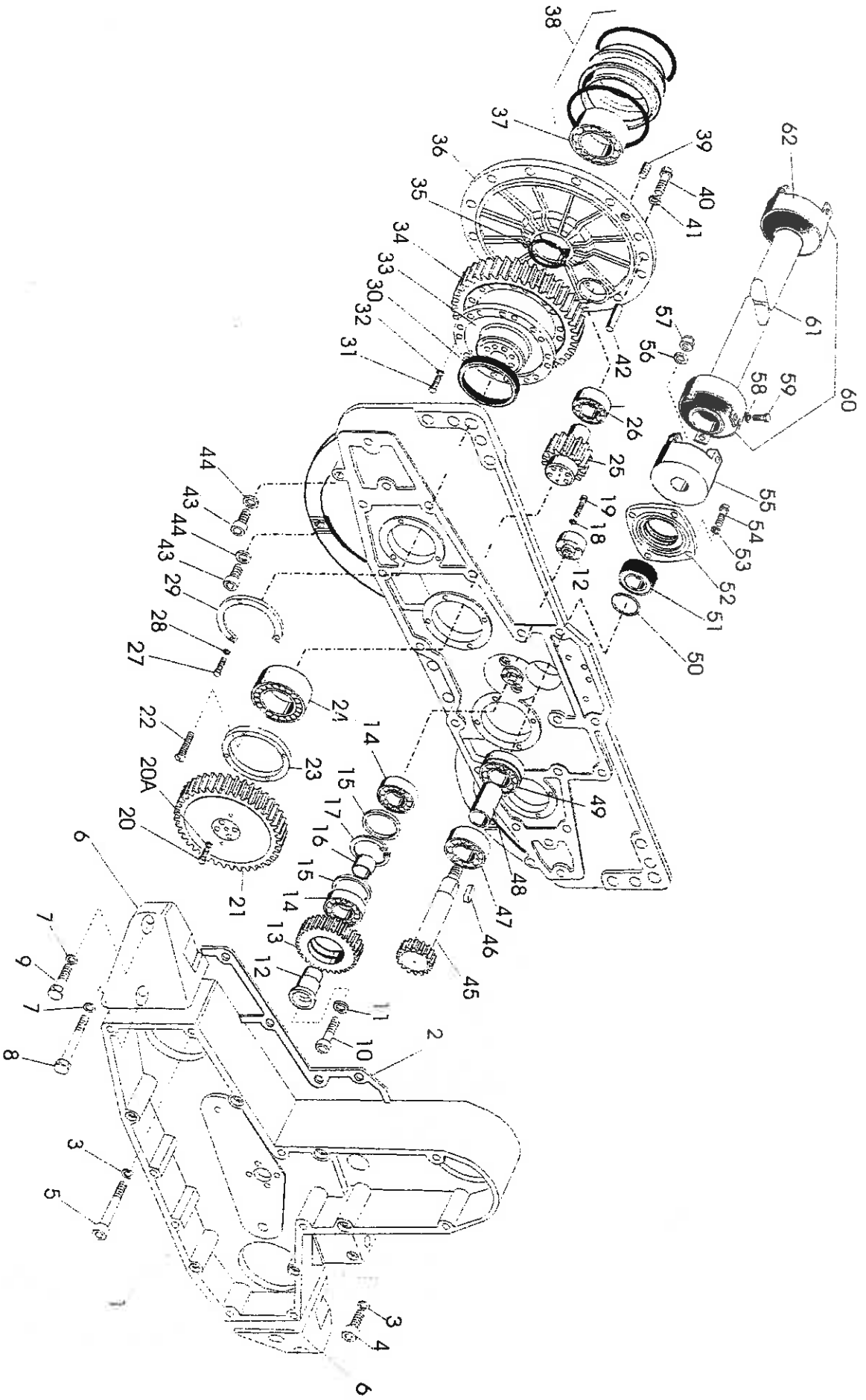


900-20

SIDEPLATES AND CROSS PIECES

| | | | |
|-----------|--------------------|----|-----------|
| 900-20-1 | SIDEPLATE L/H | 1 | V90030100 |
| 900-20-2 | TIGHTENING SLEEVE | 4 | V19162512 |
| 900-20-3 | CENTRE CROSS PIECE | 1 | V90071100 |
| 900-20-4 | OUTER CROSS PIECE | 2 | V90070501 |
| 900-20-5 | RUBBER BUFFER | 2 | V16128813 |
| 900-20-6 | TAPERED DISC | 4 | V90060302 |
| 900-20-7 | RUBBER BUFFER | 2 | V16129213 |
| 900-20-8 | SCHNORR WASHER | 4 | V15531624 |
| 900-20-9 | SHC SCREW | 4 | V17231603 |
| 900-20-10 | SCRAPER | 4 | V90070300 |
| 900-20-11 | STUD | 16 | V17581008 |
| 900-20-12 | DISC | 16 | V18752105 |
| 900-20-13 | NYLOCK NUT | 16 | V18131016 |
| 900-20-14 | SIDEPLATE R/H | 1 | V90040100 |
| 900-20-15 | SCHNORR WASHER | 32 | V15531218 |
| 900-20-16 | HEX BOLT | 10 | V17141232 |
| 900-20-17 | SHC SCREW | 2 | V17231205 |
| 900-20-18 | SHC SCREW | 2 | V17231221 |
| 900-20-19 | SHC SCREW | 2 | V17231201 |
| 900-20-20 | SHC SCREW | 8 | V17231209 |
| 900-20-21 | SHC SCREW | 8 | V17231205 |

900-30 DRIVE TRAIN

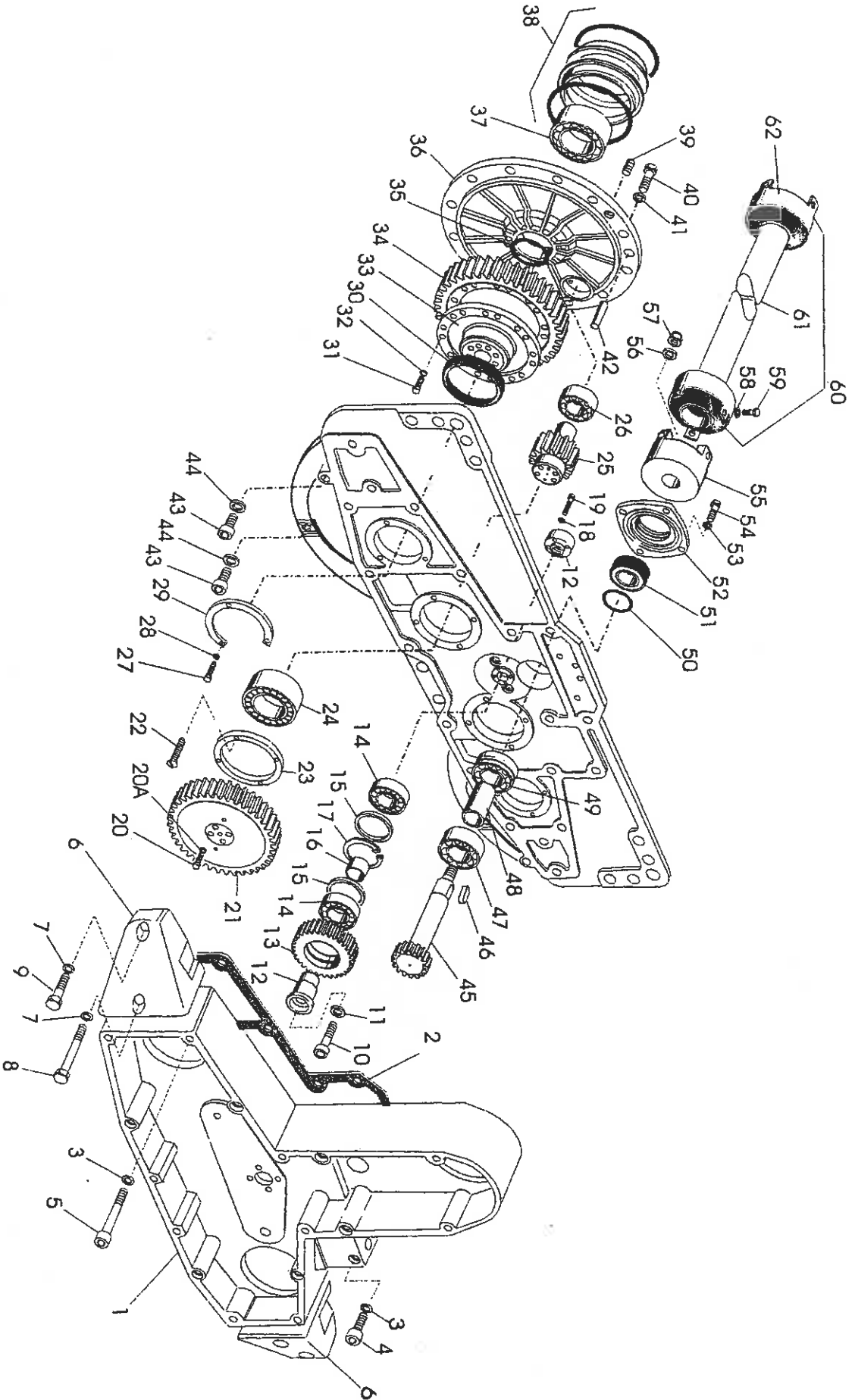


DRIVE TRAIN

900-30

| | | | |
|-----------|--------------------|----|-----------|
| 900-30-1 | GEAR HOUSING | 1 | V90045306 |
| 900-30-2 | GASKET | 1 | V90045304 |
| 900-30-3 | SCHNORR WASHER | 7 | V15530813 |
| 900-30-4 | SHC SCREW | 1 | V17230829 |
| 900-30-5 | SHC SCREW | 6 | V17230845 |
| 900-30-6 | BUMPER BRACKET | 2 | V90080102 |
| 900-30-7 | SCHNORR WASHER | 4 | V15531218 |
| 900-30-8 | HEX BOLT | 2 | V17131248 |
| 900-30-9 | HEX BOLT | 2 | V17141232 |
| 900-30-10 | SHC SCREW | 1 | V17231605 |
| 900-30-11 | SCHNORR WASHER | 1 | V15531624 |
| 900-30-12 | AXLE | 1 | V90045102 |
| 900-30-13 | SPUR WHEEL | 1 | V90045101 |
| 900-30-14 | BALL BEARING | 2 | V15117007 |
| 900-30-15 | DISC | 2 | V15521830 |
| 900-30-16 | RING | 1 | V90045103 |
| 900-30-17 | INNER CIRCLIP | 1 | V19223400 |
| 900-30-18 | SCHNORR WASHER | 4 | V15530610 |
| 900-30-19 | SHC SCREW | 4 | V17230605 |
| 900-30-20 | HEX BOLT | 8 | V17131213 |
| 900-30-21 | SPUR WHEEL | 2 | V90045003 |
| 900-30-22 | COUNTERSUNK SCREW | 8 | V17310612 |
| 900-30-23 | RING | 2 | V90040107 |
| 900-30-24 | CYL ROLLER BEARING | 2 | V15222292 |
| 900-30-25 | PINION | 2 | V90040116 |
| 900-30-26 | CYL ROLLER BEARING | 2 | V15222242 |
| 900-30-27 | HEX BOLT | 6 | V17140616 |
| 900-30-28 | SCHNORR WASHER | 6 | V15530610 |
| 900-30-29 | SUPPORTING RING | 2 | V90040118 |
| 900-30-30 | OIL SEAL | 2 | V19314612 |
| 900-30-31 | HEX BOLT | 12 | V17141033 |

900-30 DRIVE TRAIN

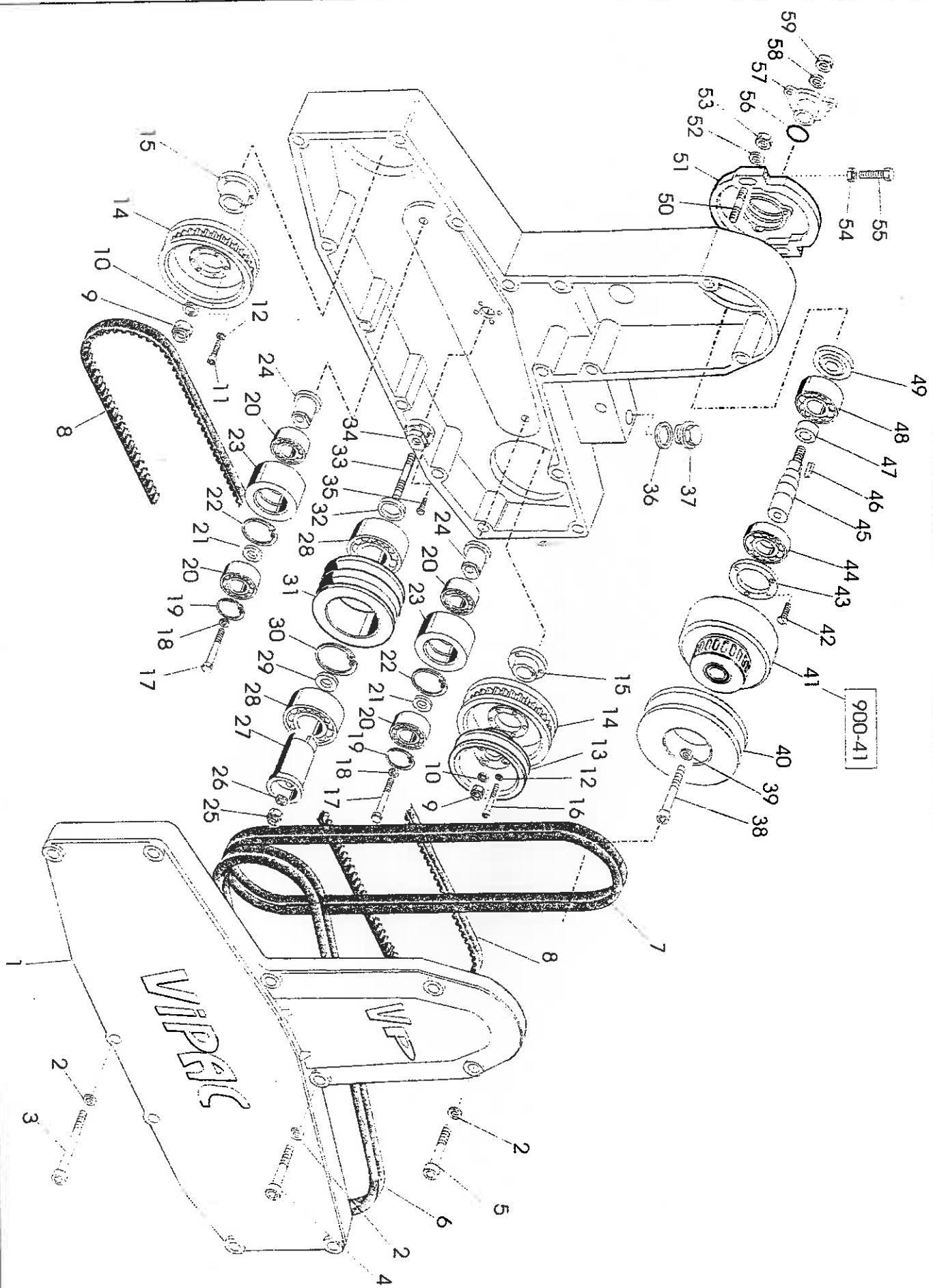


900-30

DRIVE TRAIN

| | | | |
|-----------|----------------------|----|-----------|
| 900-30-32 | SCHNORR WASHER | 12 | V15531016 |
| 900-30-33 | SPUR WHEEL HUB | 2 | V90040111 |
| 900-30-34 | SPUR WHEEL | 2 | V90040112 |
| 900-30-35 | O RING | 2 | V16220754 |
| 900-30-36 | BEARING FLANGE | 2 | V90040202 |
| 900-30-37 | CYL ROLLER BEARING | 2 | V15222332 |
| 900-30-38 | SLIDING GASKET | 2 | V16260020 |
| 900-30-39 | THREADED PIN | 8 | V17540804 |
| 900-30-40 | HEX BOLT | 24 | V17140824 |
| 900-30-41 | SCHNORR WASHER | 24 | V15530813 |
| 900-30-42 | NOTCHED FITTING PIN | 2 | V19131002 |
| 900-30-43 | SCREW PLUG | 4 | V17631415 |
| 900-30-44 | USIT RING | 4 | V16211422 |
| 900-30-45 | PINION SHAFT | 1 | V90045201 |
| 900-30-46 | FITTING KEY | 1 | V19181702 |
| 900-30-47 | BALL BEARING | 1 | V15115005 |
| 900-30-48 | SPACER | 1 | V90045202 |
| 900-30-49 | BALL BEARING | 1 | V15115205 |
| 900-30-50 | O RING | 1 | V16220255 |
| 900-30-51 | OIL SEAL | 1 | V19312403 |
| 900-30-52 | OVER | 1 | V90045203 |
| 900-30-53 | SCHNORR WASHER | 4 | V15530610 |
| 900-30-54 | HEX BOLT | 4 | V17140632 |
| 900-30-55 | COUPLING FLANGE | 1 | V21030604 |
| 900-30-56 | DISC | 1 | V18711730 |
| 900-30-57 | SAFETY NUT | 1 | V18181161 |
| 900-30-58 | SCHNORR WASHER | 6 | V15531016 |
| 900-30-59 | HEX BOLT | 6 | V17141016 |
| 900-30-60 | DRIVE SHSFT COMPLETE | 1 | V90060608 |
| 900-30-61 | TUBE | 1 | V90030606 |
| 900-30-62 | RUBBER COUPLING | 2 | V21030607 |

900-40 VIBRATOR DRIVE

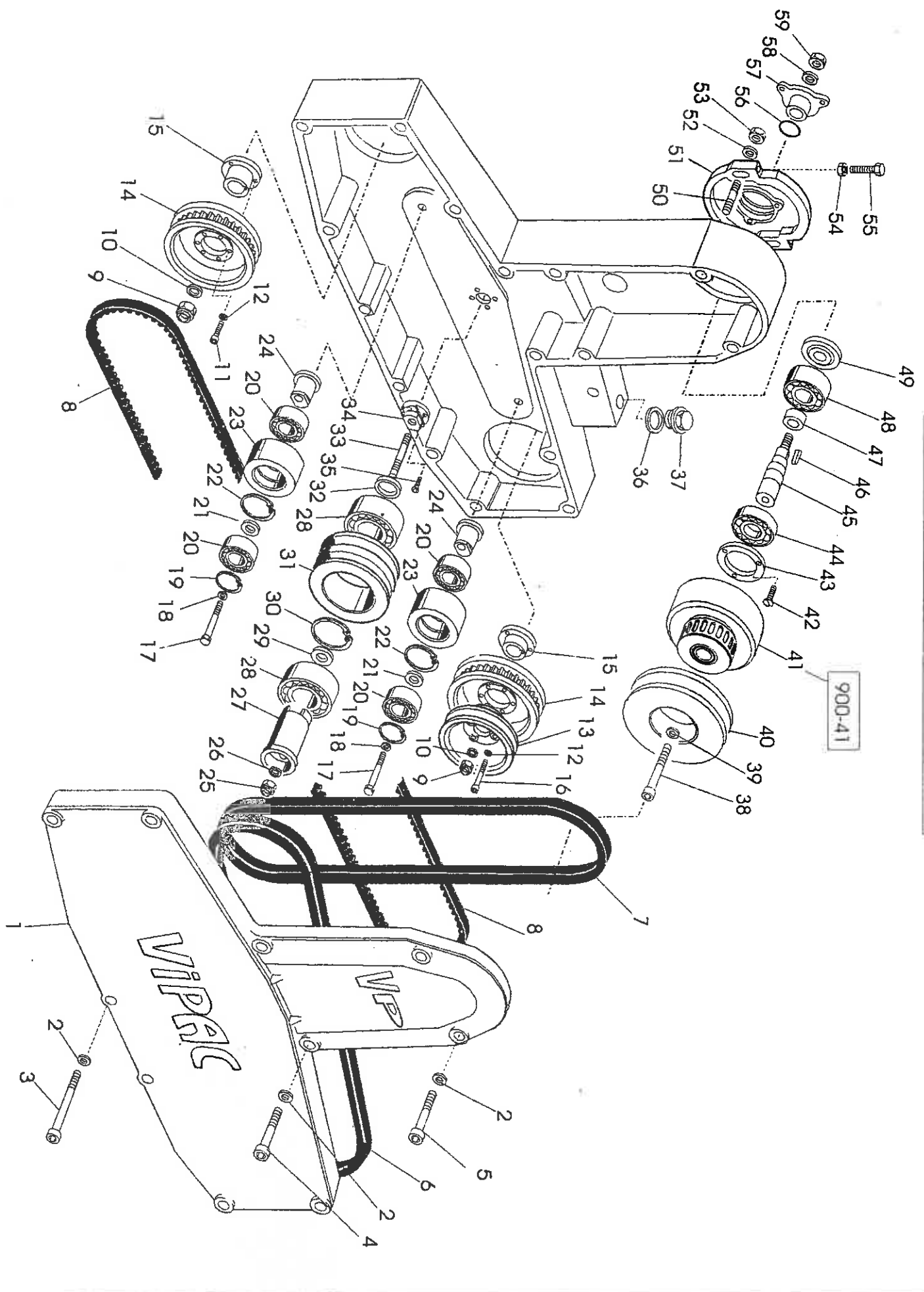


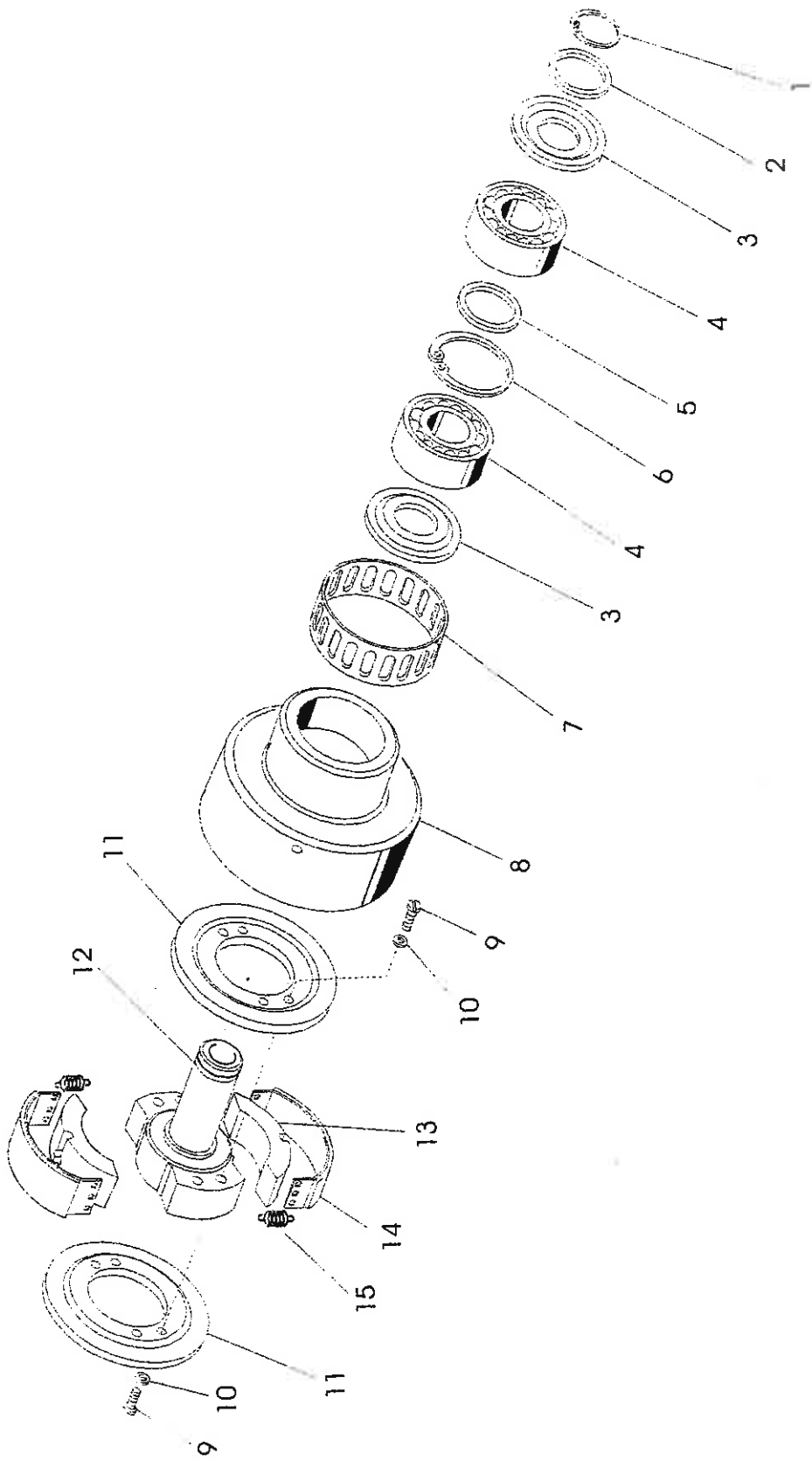
900-40

VIBRATOR DRIVE

| | | | |
|-----------|----------------|----|-----------|
| 900-40-1 | COVER | 1 | V90080101 |
| 900-40-2 | SCHNORR WASHER | 10 | V15530813 |
| 900-40-3 | SHC SCREW | 6 | V17230869 |
| 900-40-4 | SHC SCREW | 2 | V17230861 |
| 900-40-5 | SHC SCREW | 2 | V17230809 |
| 900-40-6 | V BELT | 1 | V16312226 |
| 900-40-7 | V BELT | 1 | V16312221 |
| 900-40-8 | T BELT | 1 | V16324225 |
| 900-40-9 | NYLOCK NUT | 2 | V18131621 |
| 900-40-10 | WASHER | 2 | V90045705 |
| 900-40-11 | SHC SCREW | 3 | V17230817 |
| 900-40-12 | SCHNORR WASHER | 6 | V15530813 |
| 900-40-13 | V BELT PULLEY | 1 | V90045709 |
| 900-40-14 | T BELT PULLEY | 2 | V90045702 |
| 900-40-15 | HUB | 2 | V90045706 |
| 900-40-16 | SHC SCREW | 3 | V17230829 |
| 900-40-17 | HEX BOLT | 2 | V17131220 |
| 900-40-18 | SCHNORR WASHER | 2 | V15531218 |
| 900-40-19 | OUTER CIRCLIP | 2 | V19211800 |
| 900-40-20 | BALL BEARING | 4 | V15113776 |
| 900-40-21 | SUPP DISC | 2 | V15521225 |
| 900-40-22 | INNER CIRCLIP | 2 | V19223300 |
| 900-40-23 | PULLEY | 2 | V90045501 |
| 900-40-24 | ECCENTRIC BOLT | 2 | V90045502 |
| 900-40-25 | NYLOCK NUT | 1 | V18131218 |
| 900-40-26 | DISC | 1 | V18711324 |
| 900-40-27 | GUDGEON | 1 | V90045402 |
| 900-40-28 | BALL BEARING | 2 | V15113781 |
| 900-40-29 | DISC | 1 | V15521930 |
| 900-40-30 | SPRING RING | 1 | V19233900 |
| 900-40-31 | V BELT PULLEY | 1 | V90045401 |

900-40 VIBRATOR DRIVE





900-40

VIBRATOR DRIVE

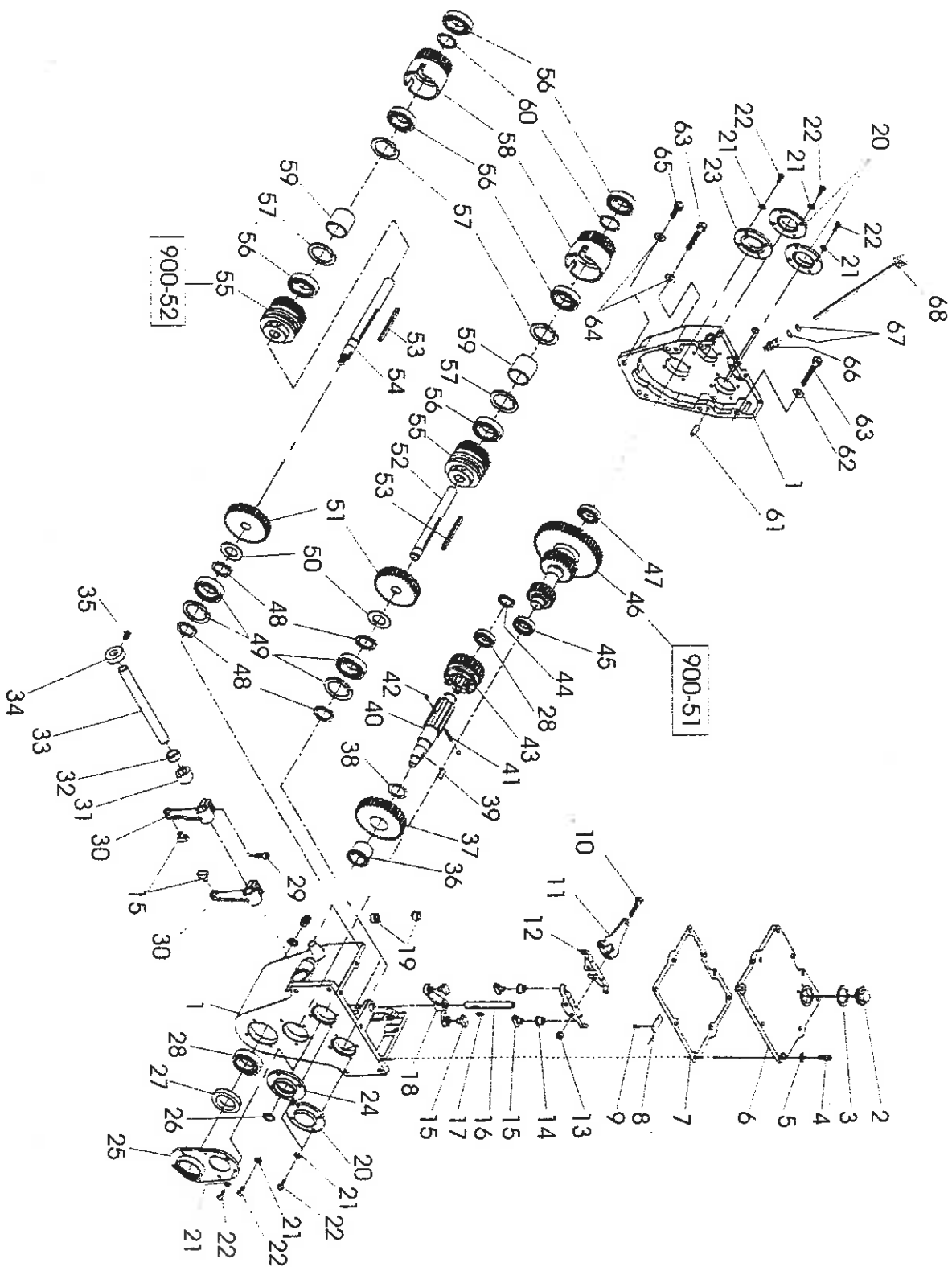
| | | | |
|-----------|--------------------|---|-----------|
| 900-40-32 | RING | 1 | V90045403 |
| 900-40-33 | STUD | 1 | V17591216 |
| 900-40-34 | GUIDING FLANGE | 1 | V90045405 |
| 900-40-35 | COUNTERSUNK SCREW | 4 | V17320808 |
| 900-40-36 | USIT RING | 1 | V16212230 |
| 900-40-37 | SCREW PLUG | 1 | V90045307 |
| 900-40-38 | SHC SCREW | 1 | V17231233 |
| 900-40-39 | SCHNORR WASHER | 1 | V15531218 |
| 900-40-40 | V BELT PULLEY | 1 | V90046004 |
| 900-40-41 | CENTRIFUGAL CLUTCH | 1 | V15650004 |
| 900-40-42 | COUNTERSUNK SCREW | 3 | V17310612 |
| 900-40-43 | COVER | 1 | V90046006 |
| 900-40-44 | BALL BEARING | 1 | V15115357 |
| 900-40-45 | CONE SHAFT | 1 | V90046002 |
| 900-40-46 | FITTING KEY | 1 | V19181702 |
| 900-40-47 | DISTANCE RING | 1 | V90046005 |
| 900-40-48 | BALL BEARING | 1 | V15115755 |
| 900-40-49 | NIL0S RING | 1 | V15333252 |
| 900-40-50 | STUD | 2 | V17511224 |
| 900-40-51 | BEARING HOUSING | 1 | V90046001 |
| 900-40-52 | DISC | 2 | V18752130 |
| 900-40-53 | NYLOCK NUT | 2 | V18131218 |
| 900-40-54 | HEX NUT | 2 | V18111015 |
| 900-40-55 | HEX BOLT | 2 | V17141044 |
| 900-40-56 | O RING | 1 | V16220255 |
| 900-40-57 | COUPLING FLANGE | 1 | V90050901 |
| 900-40-58 | DISC | 1 | V18711730 |
| 900-40-59 | SAFETY NUT | 1 | V18181161 |

CLUTCH ASSEMBLY

900-41

| | | | |
|-----------|---|--------------------|-----------|
| 900-41-1 | 1 | OUTER CIRCLIP | V19212100 |
| 900-41-2 | 1 | CLAMPING DISC | V15660606 |
| 900-41-3 | 2 | NILOS RING | V15331243 |
| 900-41-4 | 2 | BALL BEARING | V15114407 |
| 900-41-5 | 1 | SUPP DISC | V15521325 |
| 900-41-6 | 1 | INNER CIRCLIP | V19223700 |
| 900-41-7 | 1 | TOLERANCE RING | V15392341 |
| 900-41-8 | 1 | CLUTCH HOUSING | V15660516 |
| 900-41-9 | 8 | CHEESE HEAD SCREW | V17210604 |
| 900-41-10 | 8 | SCHNORR WASHER | V15530610 |
| 900-41-11 | 2 | COVER DISC | V15660706 |
| 900-41-12 | 1 | HUB | V15660406 |
| 900-41-13 | 2 | CENTRIFUGAL WEIGHT | V15660106 |
| 900-41-14 | 2 | LINING STRAP | V15660206 |
| 900-41-15 | 4 | SPRING | V15660328 |

900-50 GEARBOX

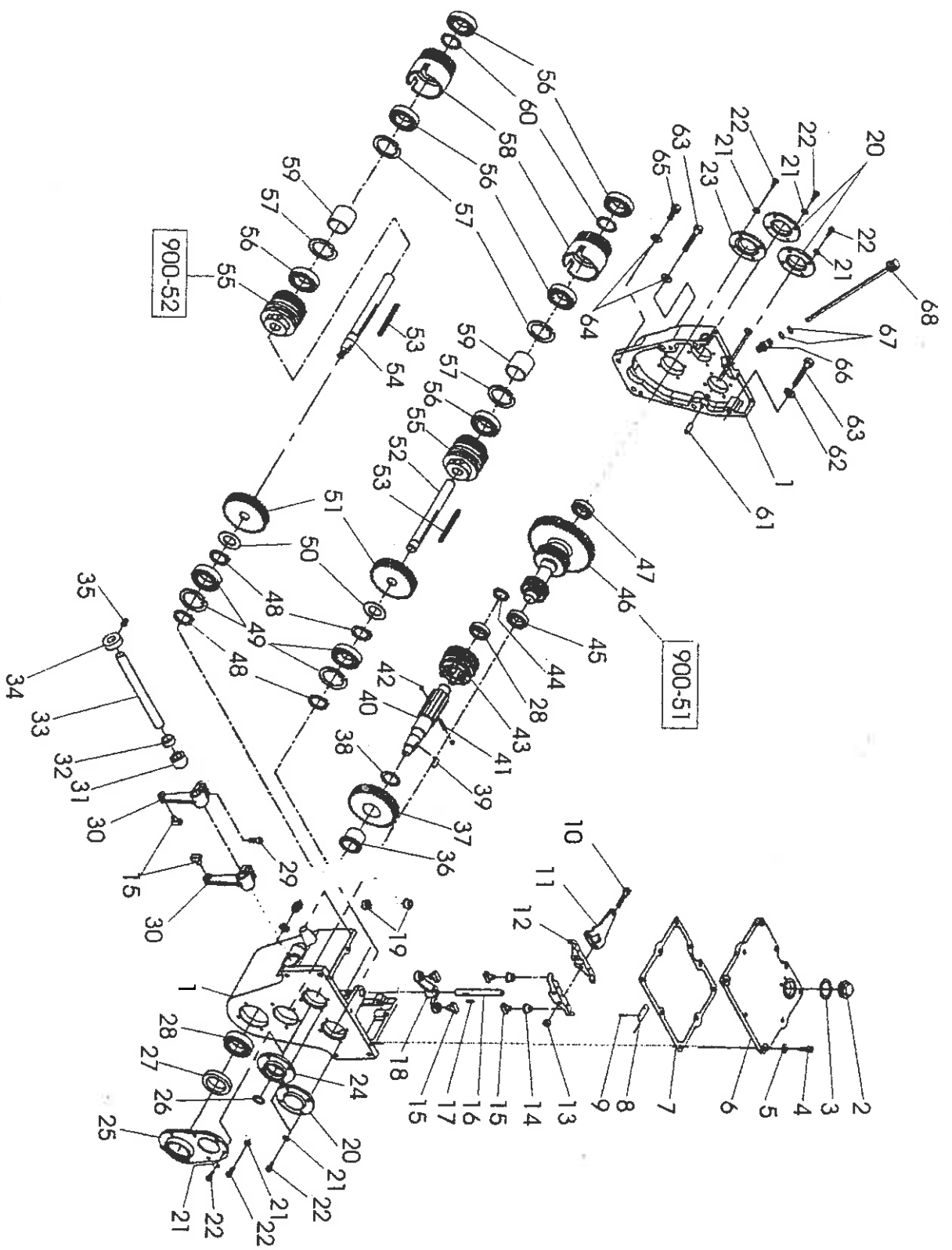


900-50

GEARBOX

| | | | |
|-----------|--------------------------|----|-----------|
| 900-50-1 | GEARBOX HOUSING COMPLETE | 1 | V25050220 |
| 900-50-2 | SCREW PLUG | 1 | V21050306 |
| 900-50-3 | USIT RING | 1 | V16213139 |
| 900-50-4 | HEX BOLT | 9 | V17140824 |
| 900-50-5 | SCHNORR WASHER | 9 | V15530813 |
| 900-50-6 | TOP COVER | 1 | V25050801 |
| 900-50-7 | GASKET | 1 | V25050802 |
| 900-50-8 | PLATE | 1 | V25050805 |
| 900-50-9 | RIVET | 2 | V19915349 |
| 900-50-10 | SHC SCREW | 2 | V17230829 |
| 900-50-11 | LEVER | 1 | V25050708 |
| 900-50-12 | LEVER | 1 | V25050706 |
| 900-50-13 | NYLOCK NUT | 2 | V18130813 |
| 900-50-14 | COLLAR BUSH | 2 | V25050707 |
| 900-50-15 | SLIDING BLOCK | 6 | V25050703 |
| 900-50-16 | SHAFT | 1 | V25050705 |
| 900-50-17 | FITTING KEY | 1 | V19180405 |
| 900-50-18 | CLUTCH LEVER | 1 | V25050704 |
| 900-50-19 | BUSH | 2 | V25050103 |
| 900-50-20 | BEARING COVER | 3 | V25050506 |
| 900-50-21 | SCHNORR WASHER | 27 | V15530610 |
| 900-50-22 | HEX BOLT | 27 | V17140624 |
| 900-50-23 | BEARING COVER | 1 | V25050404 |
| 900-50-24 | BEARING COVER | 1 | V25050602 |
| 900-50-25 | BEARING COVER | 1 | V25050403 |
| 900-50-26 | OIL SEAL | 1 | V19311911 |
| 900-50-27 | OIL SEAL | 1 | V19312403 |
| 900-50-28 | BALL BEARING | 2 | V15115005 |
| 900-50-29 | SHC SCREW | 4 | V17230809 |
| 900-50-30 | GEARSHIFT LEVER | 2 | V25050715 |
| 900-50-31 | BUSH | 2 | V25050102 |

YU-5U GEARBOX

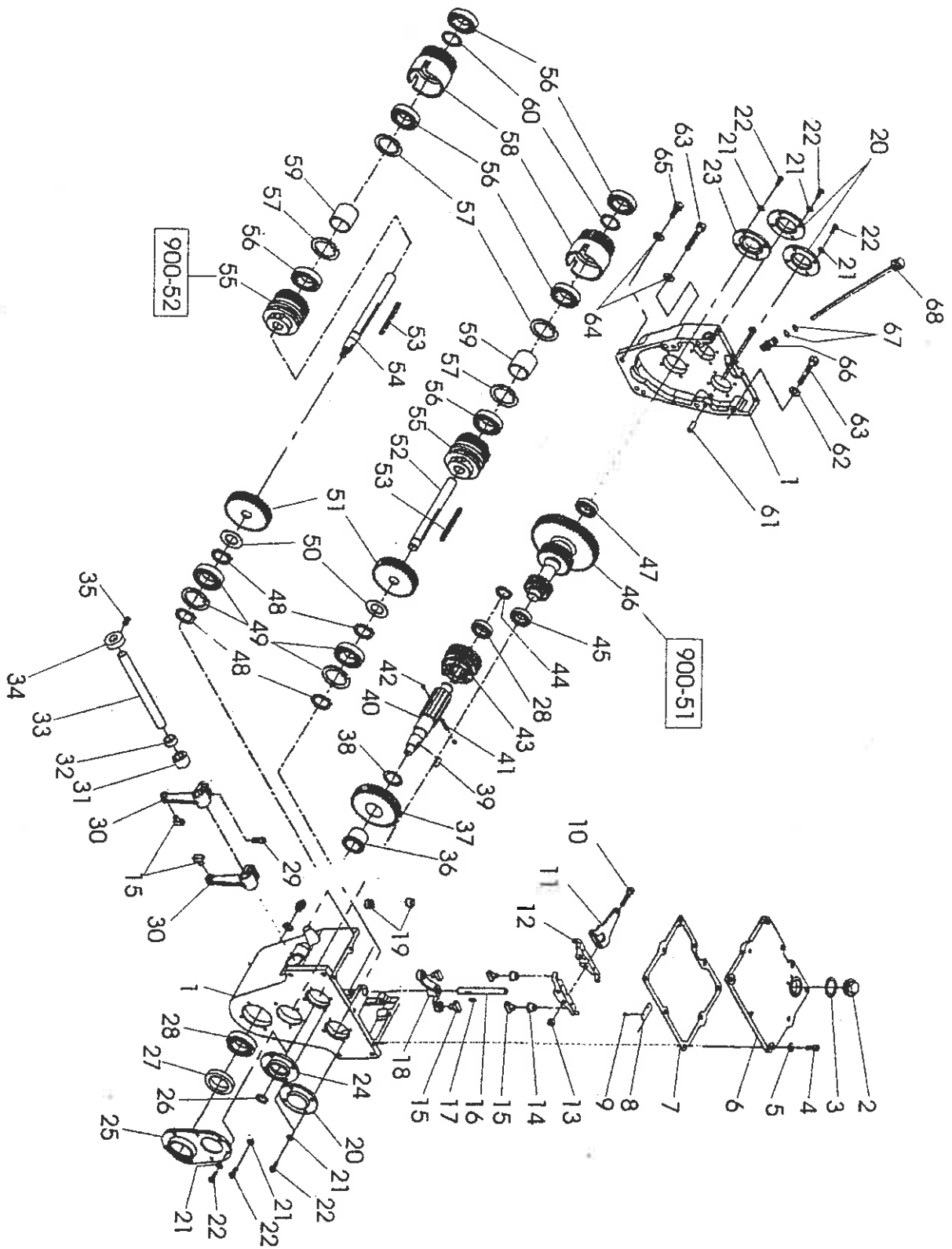


900-50

GEARBOX

| | | | |
|-----------|-----------------------|---|-----------|
| 900-50-32 | OIL SEAL | 2 | V19311211 |
| 900-50-33 | SHAFT | 1 | V25050712 |
| 900-50-34 | SET COLLAR | 2 | V25050713 |
| 900-50-35 | THREADED PIN | 2 | V17760804 |
| 900-50-36 | BUSH FOR DOG CLUTCH | 1 | V25051302 |
| 900-50-37 | DOG CLUTCH | 1 | V25051303 |
| 900-50-38 | SUPP DISC | 1 | V15521225 |
| 900-50-39 | FITTING KEY | 1 | V19181702 |
| 900-50-40 | SPLINED SHAFT | 1 | V25050301 |
| 900-50-41 | SPRING | 1 | V25052504 |
| 900-50-42 | BALL | 2 | V15340080 |
| 900-50-43 | SLIDING GEAR | 1 | V25050303 |
| 900-50-44 | OUTER CIRCLIP | 1 | V19211300 |
| 900-50-45 | CYL ROLLER BEARING | 1 | V15222230 |
| 900-50-46 | PINION SHAFT COMPLETE | 1 | V25050408 |
| 900-50-47 | BALL BEARING | 1 | V15114005 |
| 900-50-48 | OUTER CIRCLIP | 4 | V19210800 |
| 900-50-49 | BALL BEARING | 2 | V15114204 |
| 900-50-50 | DISTANCE RING | 2 | V25050508 |
| 900-50-51 | GEAR | 2 | V25050505 |
| 900-50-52 | GLUTCH SHAFT | 1 | V25050507 |
| 900-50-53 | FITTING KEY | 2 | V19181218 |
| 900-50-54 | GLUTCH SHAFT | 1 | V25050603 |
| 900-50-55 | DISC CLUTCH COMPLETE | 2 | V15622100 |
| 900-50-56 | BALL BEARING | 6 | V15114004 |
| 900-50-57 | INNER CIRCLIP | 4 | V19222500 |
| 900-50-58 | CLUTCH HOUSING | 2 | V25050503 |
| 900-50-59 | DISTANCE RING | 2 | V25050504 |
| 900-50-60 | SUPP DISC | 2 | V15520620 |
| 900-50-61 | NOTCHED FITTING PIN | 2 | V19130804 |
| 900-50-62 | SCHNORR WASHER | 4 | V15531016 |

YU-5U GEARBOX

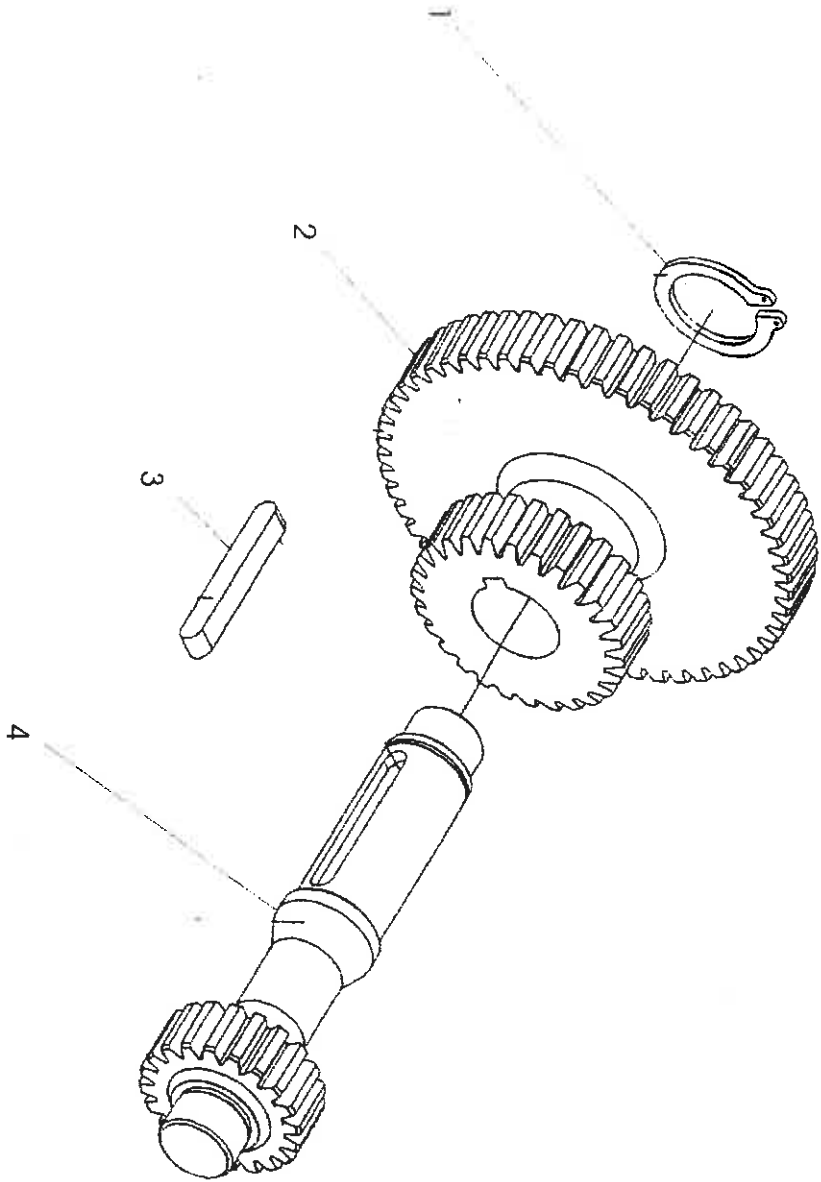


GEARBOX

900-50

| | | | |
|-----------|--------------|---|-----------|
| 900-50-63 | HEX BOLT | 4 | V17131028 |
| 900-50-64 | USIT RING | 4 | V16211018 |
| 900-50-65 | HEX BOLT | 2 | V17141024 |
| 900-50-66 | INSERT | 1 | V25050323 |
| 900-50-67 | O RING | 2 | V16220091 |
| 900-50-68 | OIL DIPSTICK | 1 | V25050235 |

YU0-51 PINION SHAFT

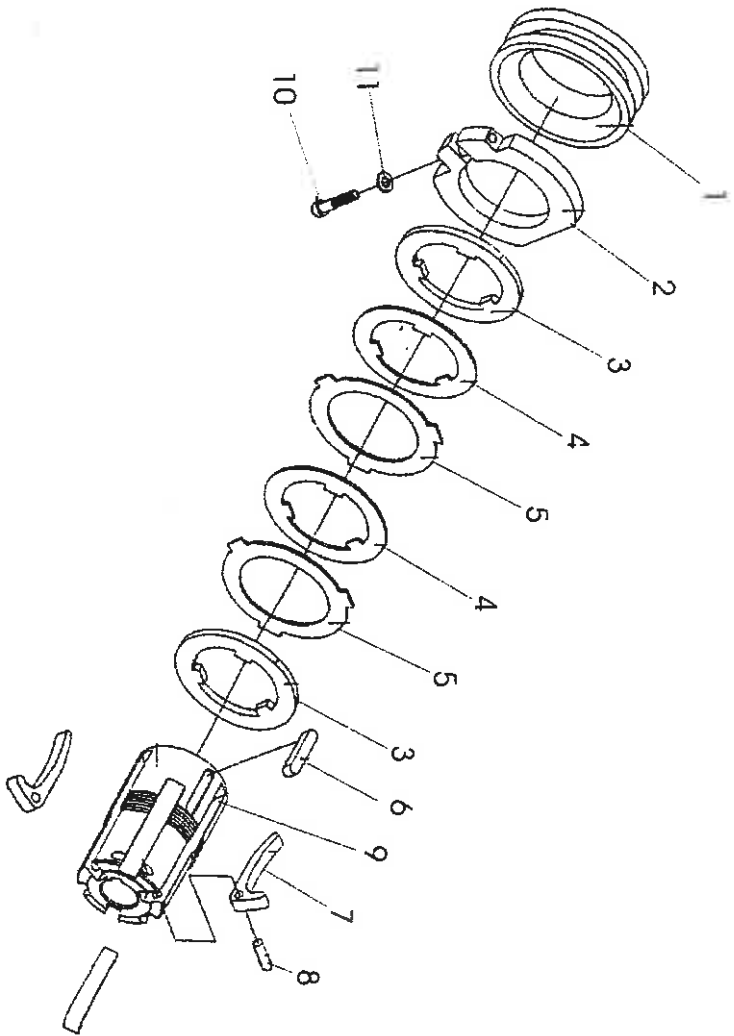


900-51

PINION SHAFT

| | | | |
|----------|---------------|---|-----------|
| 900-51-1 | OUTER CIRCLIP | 1 | V19211800 |
| 900-51-2 | DOUBLE GEAR | 1 | V2505040E |
| 900-51-3 | FITTING KEY | 1 | V19181612 |
| 900-51-4 | PINION SHAFT | 1 | V2505040E |

900-52 DISC CLUTCH

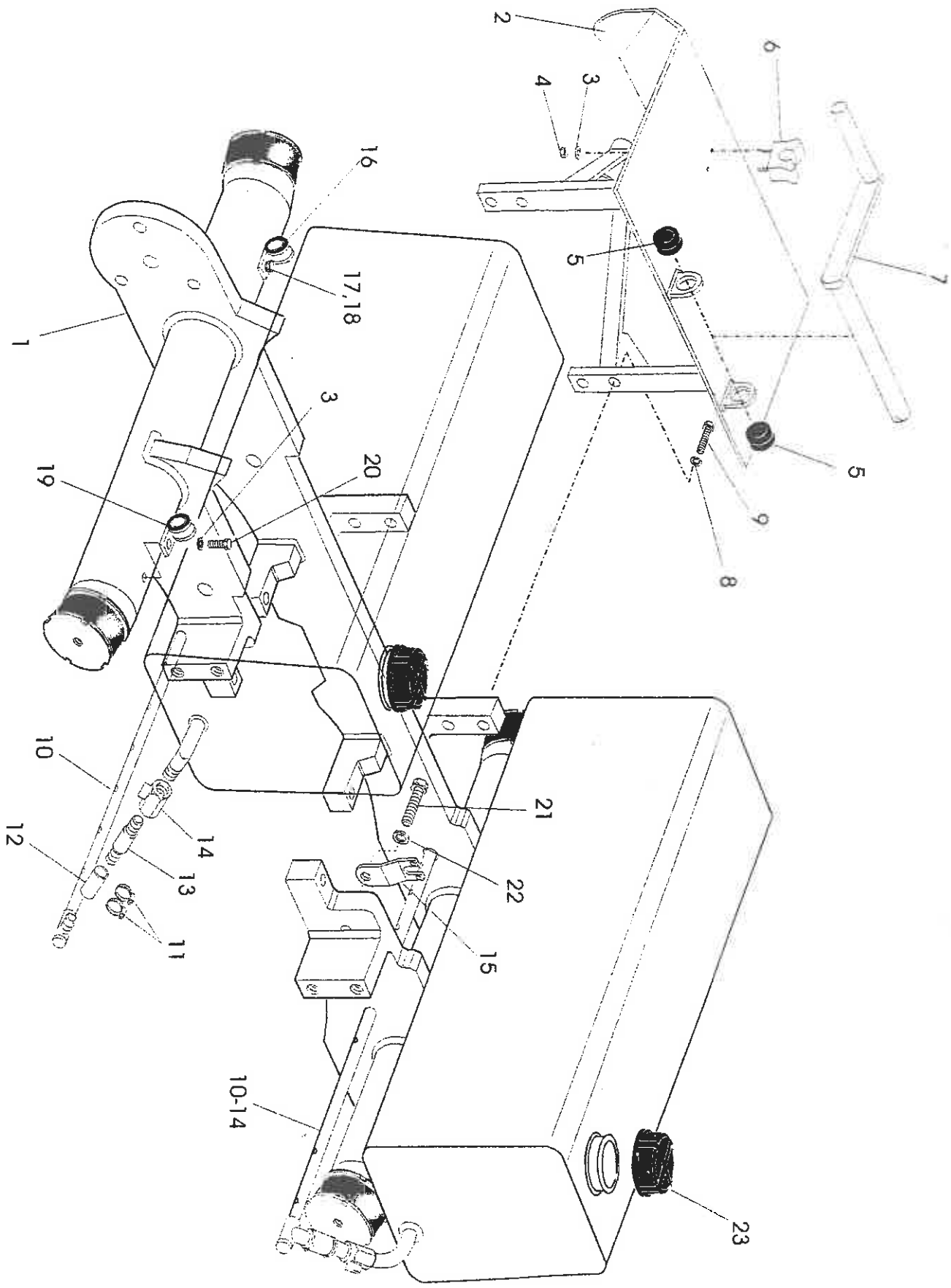


900-52

DISC CLUTCH

| | | | |
|-----------|----------------|---|-----------|
| 900-52-1 | SLIDING RING | 1 | V15632011 |
| 900-52-2 | TIGHTENING NUT | 1 | V15631110 |
| 900-52-3 | THRUST DISC | 2 | V15635010 |
| 900-52-4 | INNER DISC | 6 | V15634011 |
| 900-52-5 | OUTER DISC | 6 | V15633011 |
| 900-52-6 | FITTING KEY | 1 | V19181208 |
| 900-52-7 | LEVER | 3 | V15636020 |
| 900-52-8 | LEVER PIN | 3 | V15637020 |
| 900-52-9 | DISC SUPPORT | 1 | V15630011 |
| 900-52-10 | SHC SCREW | 1 | V17230525 |
| 900-52-11 | SCHNORR WASHER | 1 | V15530509 |

900-60 MAIN FRAME

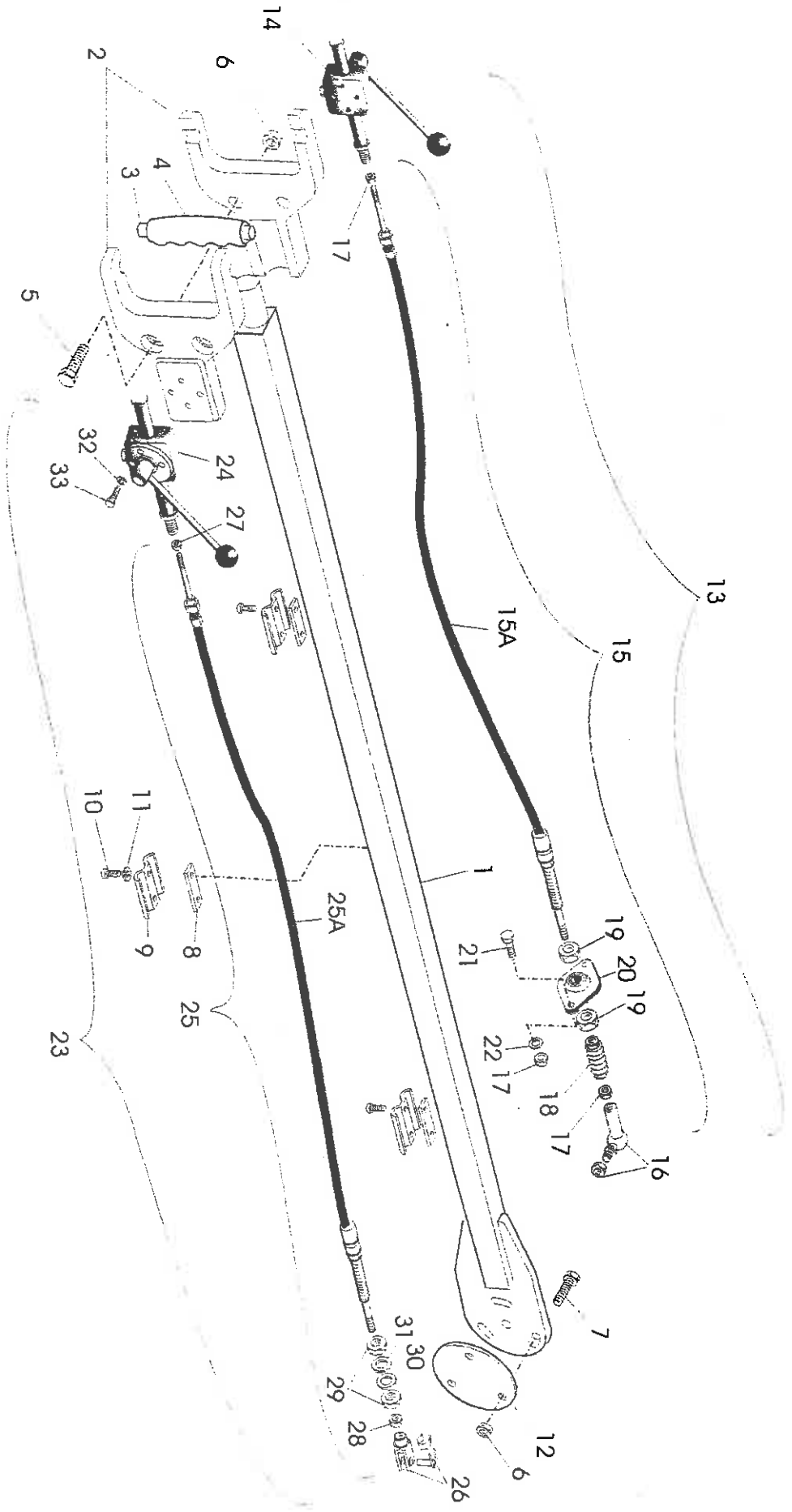


900-60

MAIN FRAME

| | | | |
|-----------|-----------------|---|-----------|
| 900-60-1 | FRAME | 1 | V90060121 |
| 900-60-2 | GUIDE COVER | 1 | V90081300 |
| 900-60-3 | SCHNORR WASHER | 3 | V15530610 |
| 900-60-4 | NYLOCK NUT | 2 | V18130611 |
| 900-60-5 | GROMMET | 2 | V21045402 |
| 900-60-6 | CLAMPING DEVICE | 1 | V21081303 |
| 900-60-7 | STARTING HANDLE | 1 | H00863700 |
| 900-60-8 | SCHNORR WASHER | 4 | V15531016 |
| 900-60-9 | HEX BOLT | 4 | V17141224 |
| 900-60-10 | NOZZLE TUBE | 2 | V90040703 |
| 900-60-11 | HOSE CLAMP | 4 | V15551409 |
| 900-60-12 | HOSE | 2 | V19510007 |
| 900-60-13 | NIPPLE | 2 | V19510006 |
| 900-60-14 | WATER TAP | 2 | V19510005 |
| 900-60-15 | SUPPORT | 1 | V90090105 |
| 900-60-16 | CLAMP | 1 | V15551906 |
| 900-60-17 | SCHNORR WASHER | 1 | V15530813 |
| 900-60-18 | HEX BOLT | 1 | V17140816 |
| 900-60-19 | CLAMP | 1 | V15551901 |
| 900-60-20 | HEX BOLT | 1 | V17140620 |
| 900-60-21 | HEX BOLT | 1 | V17141016 |
| 900-60-22 | DISC | 1 | V18752105 |
| 900-60-23 | RUBBER CAP | 2 | V21092605 |

900-70 STEERING ROD AND CONTROL CABLES

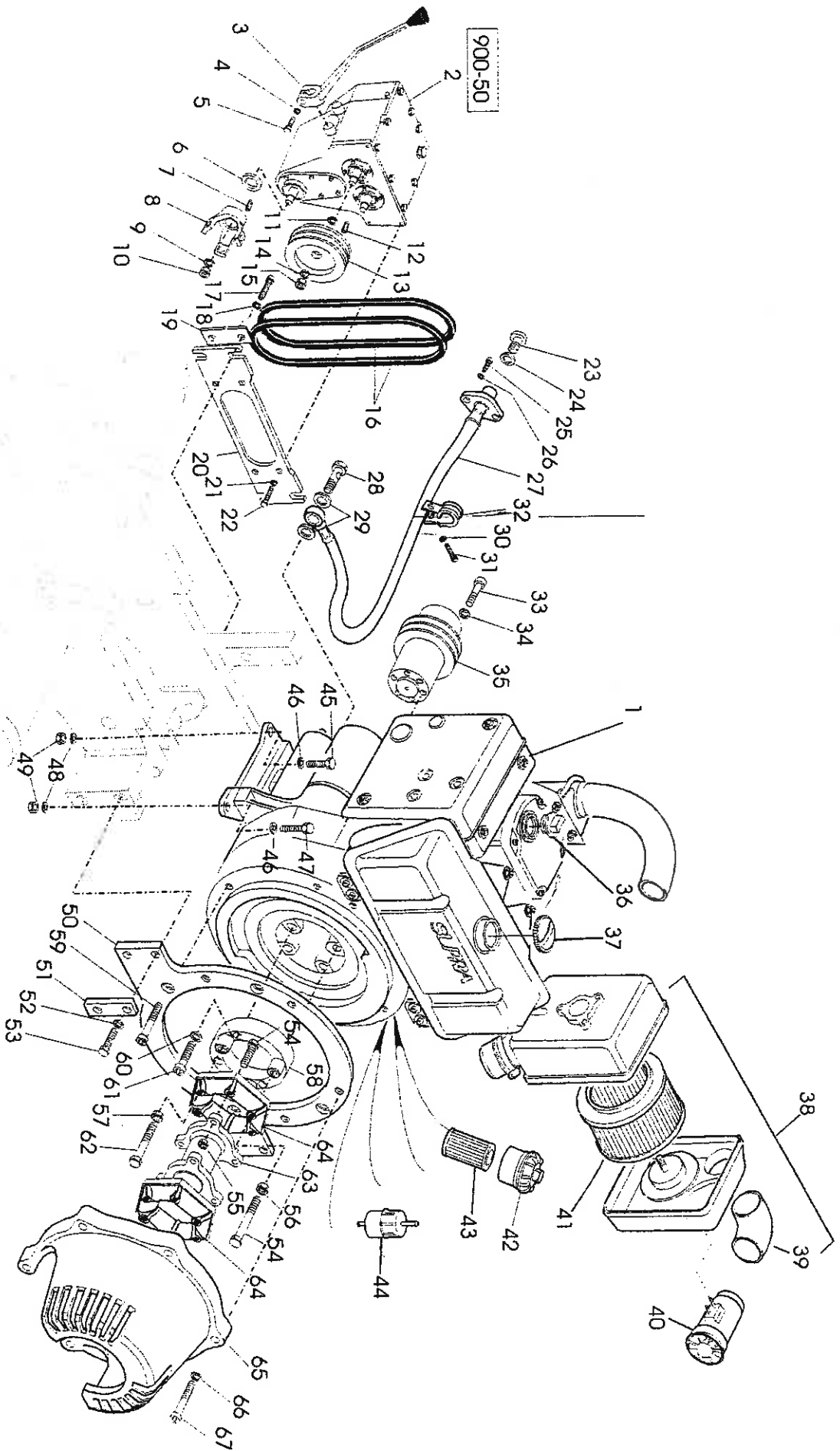


STEERING ROD AND CONTROL CABLES

900-70

| | | | |
|-----------|------------------------|---|-----------|
| 900-70-1 | STEERING ROD | 1 | V90060401 |
| 900-70-2 | HALF HANDLE | 2 | V90060510 |
| 900-70-3 | BAR | 1 | V90060502 |
| 900-70-4 | RUBBER HANDLE | 1 | V16420001 |
| 900-70-5 | HEX BOLT | 2 | V17141644 |
| 900-70-6 | NYLOCK NUT | 5 | V18131621 |
| 900-70-7 | HEX BOLT | 3 | V17131632 |
| 900-70-8 | DISTANCE PLATE | 3 | V90060407 |
| 900-70-9 | DOUBLE CLIP | 3 | V90060411 |
| 900-70-10 | HEX BOLT | 6 | V17140620 |
| 900-70-11 | SCHNORR WASHER | 6 | V15530610 |
| 900-70-12 | DISC | 1 | V90060404 |
| 900-70-13 | GAS CONTROL COMPLETE | 1 | V90060603 |
| 900-70-14 | CONTROL BOX G/C | 1 | V21067411 |
| 900-70-15 | ACTUATION G/C | 1 | V90068011 |
| 900-70-16 | ANGULAR JOINT | 1 | V19812100 |
| 900-70-17 | HEX NUT | 4 | V18110508 |
| 900-70-18 | CONCERTINA WALL | 1 | V15568650 |
| 900-70-19 | HEX NUT | 2 | V15568382 |
| 900-70-20 | BALL JOINT | 1 | V15568750 |
| 900-70-21 | HEX BOLT | 2 | V18110508 |
| 900-70-22 | SPRING WASHER | 2 | V18530509 |
| 900-70-23 | DRIVE CONTROL COMPLETE | 2 | V90060604 |
| 900-70-24 | CONTROL BOX D/C | 1 | V21068421 |
| 900-70-25 | ACTUATION D/C | 1 | V90068021 |
| 900-70-26 | FORK JOINT | 1 | V15566900 |
| 900-70-27 | HEX NUT | 1 | V15568306 |
| 900-70-28 | HEX NUT | 1 | V18110610 |
| 900-70-29 | HEX NUT | 2 | V18121210 |
| 900-70-30 | USIT RING | 1 | V16211218 |
| 900-70-31 | SCHNORR WASHER | 1 | V15531218 |
| 900-70-32 | FLAT WASHER | 6 | V18510612 |
| 900-70-33 | HEX BOLT | 6 | V17130624 |

900-80 ENGINE AND GEARBOX

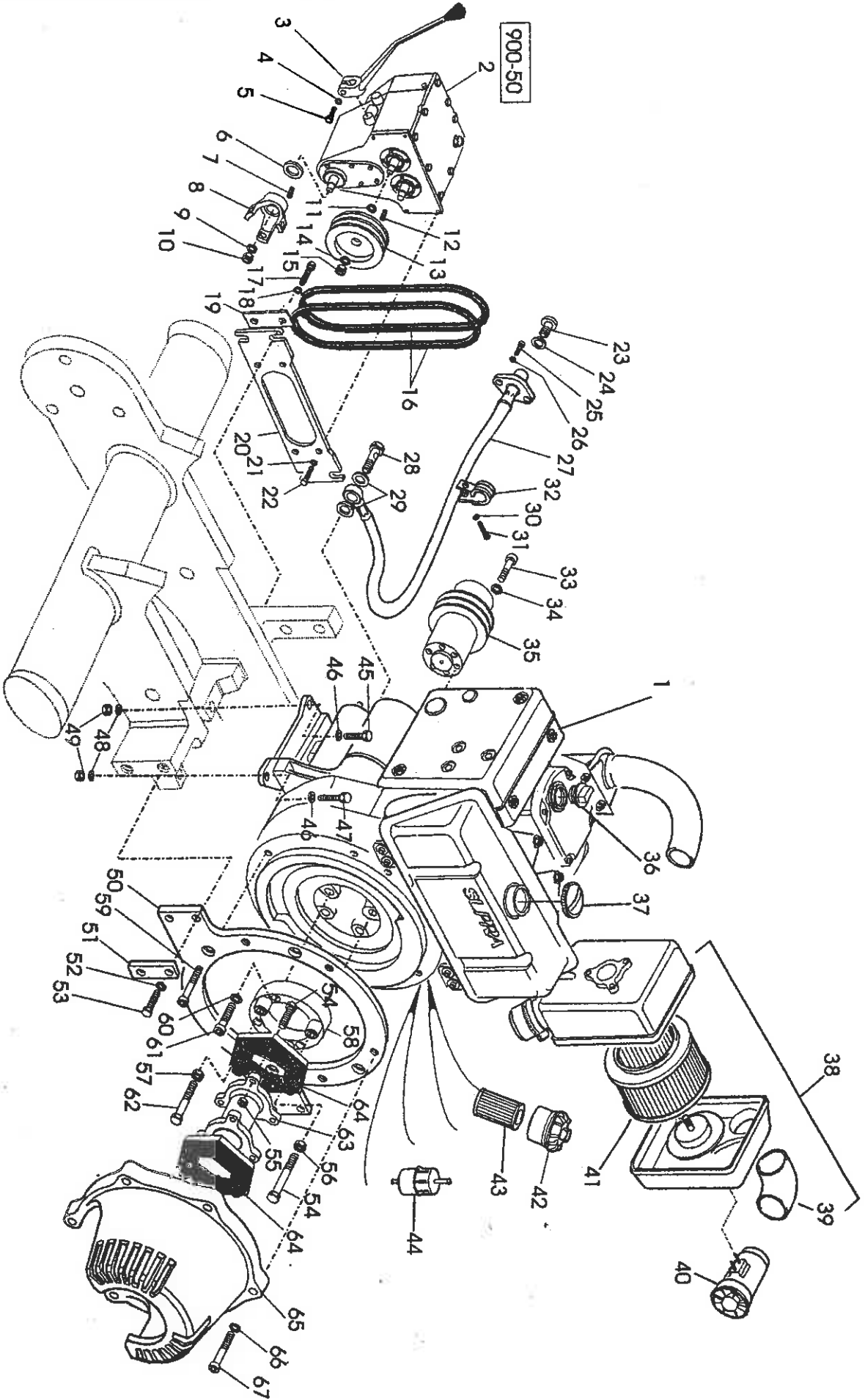


900-80

ENGINE AND GEARBOX

| | | | |
|-----------|-----------------|---|-----------|
| 900-80-1 | DIESEL ENGINE | 1 | H1D81 |
| 900-80-2 | GEARBOX | 1 | V90055002 |
| 900-80-3 | GEAR LEVER | 1 | V25050813 |
| 900-80-4 | SCHNORR WASHER | 1 | V15531016 |
| 900-80-5 | HEX BOLT | 1 | V17141032 |
| 900-80-6 | O RING | 1 | V16220254 |
| 900-80-7 | FITTING KEY | 1 | V19181702 |
| 900-80-8 | COUPLING FLANGE | 1 | V21050901 |
| 900-80-9 | FLAT WASHER | 1 | V18511730 |
| 900-80-10 | SAFETY NUT | 1 | V18181161 |
| 900-80-11 | O RING | 1 | V16220195 |
| 900-80-12 | FITTING KEY | 1 | V19181302 |
| 900-80-13 | V BELT PULLEY | 1 | V90050904 |
| 900-80-14 | FLAT WASHER | 1 | V18511324 |
| 900-80-15 | NYLOCK NUT | 1 | V18131218 |
| 900-80-16 | V BELT | 2 | V16312210 |
| 900-80-17 | HEX BOLT | 4 | V17141236 |
| 900-80-18 | SCHNORR WASHER | 4 | V15531218 |
| 900-80-19 | SQUARE PLATE | 2 | V21060204 |
| 900-80-20 | GEARUNIT HOLDER | 1 | V90060201 |
| 900-80-21 | SCHNORR WASHER | 4 | V15531016 |
| 900-80-22 | HEX BOLT | 4 | V17141024 |
| 900-80-23 | SCREW PLUG | 1 | V17621415 |
| 900-80-24 | USIT RING | 1 | V16211422 |
| 900-80-25 | SHC SCREW | 2 | V17230809 |
| 900-80-26 | SCHNORR WASHER | 2 | V15530813 |
| 900-80-27 | OIL DRAIN HOSE | 1 | V90090501 |
| 900-80-28 | HOLLOW SCREW | 1 | V15541485 |
| 900-80-29 | SEALING RING | 2 | V19331199 |
| 900-80-30 | SCHNORR WASHER | 1 | V15530813 |
| 900-80-31 | HEX BOLT | 1 | V17140815 |

900-80 ENGINE AND GEARBOX

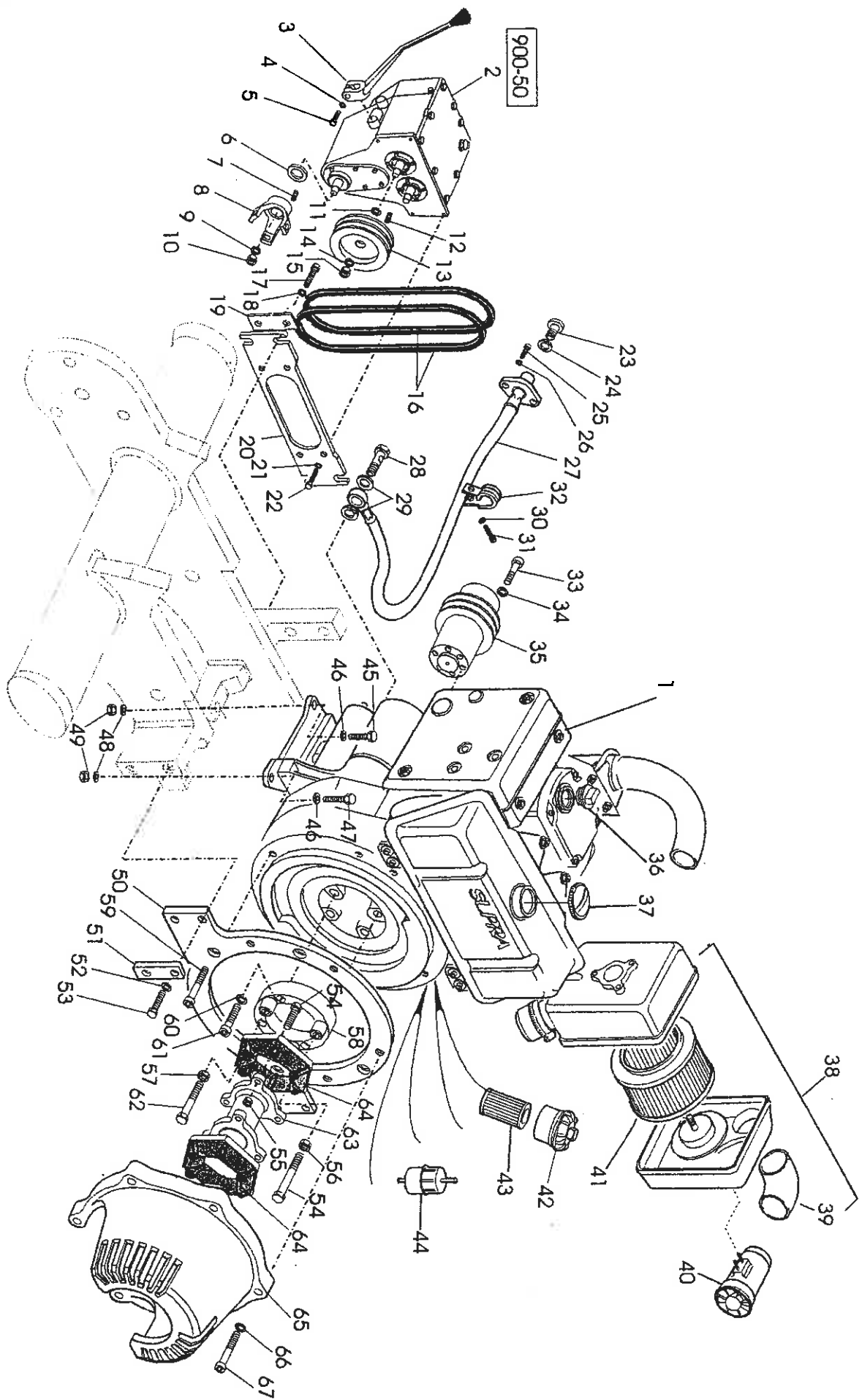


900-80

ENGINE AND GEARBOX

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|-----------|------------------------|----|-----------|
| 900-80-32 | TUBE CLIP | 1 | V15551914 |
| 900-80-33 | SHC SCREW | 6 | V17230624 |
| 900-80-34 | SCHNORR WASHER | 6 | V15530610 |
| 900-80-35 | STARTING V BELT PULLEY | 1 | V90090102 |
| 900-80-36 | OIL FILLER CAP | 1 | H00632101 |
| 900-80-37 | FUEL TANK CAP | 1 | H50385801 |
| 900-80-38 | AIR CLEANER COMPLETE | 1 | H01496800 |
| 900-80-39 | ELBOW FOR CYCLON | 1 | H05038910 |
| 900-80-40 | PRE CLEANER | 1 | H01491010 |
| 900-80-41 | AIR CLEANER ELEMENT | 1 | H40084500 |
| 900-80-42 | COVER | 1 | H01248801 |
| 900-80-43 | OIL FILTER | 1 | H01480000 |
| 900-80-44 | FUEL FILTER | 1 | H40089401 |
| 900-80-45 | HEX BOLT | 2 | V17131224 |
| 900-80-46 | DISC | 4 | V18752190 |
| 900-80-47 | HEX BOLT | 2 | V17131236 |
| 900-80-48 | SCHNORR WASHER | 4 | V15531218 |
| 900-80-49 | NYLOCK NUT | 4 | V18131218 |
| 900-80-50 | ENGINE SUPPORT | 1 | V90090409 |
| 900-80-51 | SQUARE PLATE | 2 | V90090410 |
| 900-80-52 | SCHNORR WASHER | 4 | V15531218 |
| 900-80-53 | HEX BOLT | 4 | V17141232 |
| 900-80-54 | HEX BOLT | 11 | V17131028 |
| 900-80-55 | NYLOCK NUT | 11 | V18131016 |
| 900-80-56 | HEX DISC | 5 | V15619231 |
| 900-80-57 | INSERT SUPRA | 1 | V90001255 |
| 900-80-58 | ADAPTOR PLATE | 1 | V90090402 |
| 900-80-59 | SHC SCREW | 4 | V17241004 |
| 900-80-60 | SCHNORR WASHER | 3 | V15530813 |
| 900-80-61 | SHC SCREW | 3 | V17230817 |
| 900-80-62 | SHC SCREW | 1 | V17230865 |

900-80 ENGINE AND GEARBOX



900-80

ENGINE AND GEARBOX

| | | | |
|-----------|-----------------|---|-----------|
| 900-80-63 | COUPLING SHAFT | 1 | V90047100 |
| 900-80-64 | CLUTCH RING | 2 | V15611231 |
| 900-80-65 | PROTECTION HOOD | 1 | V90090401 |
| 900-80-66 | SCHNORR WASHER | 6 | V15531016 |
| 900-80-67 | SHC SCREW | 6 | V17231013 |

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| H00632101 | 900-80-36 |
| H000863700 | 900-60-7 |
| H01248901 | 900-80-42 |
| H01480000 | 900-80-43 |
| H01491010 | 900-80-40 |
| H01496800 | 900-80-38 |
| H05038910 | 900-80-39 |
| H1D81 | 900-80-1 |
| H40084500 | 900-80-41 |
| H40089401 | 900-80-44 |
| H50385801 | 900-80-37 |
| V15113776 | 900-40-20 |
| V15113781 | 900-40-28 |
| V15114004 | 900-50-56 |
| V15114005 | 900-50-47 |
| V15114204 | 900-50-49 |
| V15114407 | 900-41-4 |
| V15115005 | 900-30-47 |
| V15115005 | 900-50-28 |
| V15115205 | 900-30-49 |
| V15115357 | 900-40-44 |
| V15115755 | 900-40-48 |
| V15117007 | 900-30-14 |
| V15222230 | 900-50-45 |
| V15222242 | 900-30-26 |
| V15222292 | 900-10-7 |
| V15222292 | 900-30-24 |
| V15222332 | 900-10-4 |
| V15222332 | 900-30-37 |
| V15331243 | 900-41-3 |
| V15333252 | 900-40-49 |
| V15340080 | 900-50-42 |
| V15392341 | 900-41-7 |
| V15520620 | 900-50-60 |
| V15521225 | 900-40-21 |

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| V15521225 | 900-50-38 |
| V15521325 | 900-41-5 |
| V15521830 | 900-30-15 |
| V15521930 | 900-40-29 |
| V15530509 | 900-52-11 |
| V15530610 | 900-10-10 |
| V15530610 | 900-30-18 |
| V15530610 | 900-30-28 |
| V15530610 | 900-30-53 |
| V15530610 | 900-41-10 |
| V15530610 | 900-50-21 |
| V15530610 | 900-60-3 |
| V15530610 | 900-70-11 |
| V15530610 | 900-80-34 |
| V15530813 | 900-30-3 |
| V15530813 | 900-30-41 |
| V15530813 | 900-40-2 |
| V15530813 | 900-40-12 |
| V15530813 | 900-50-5 |
| V15530813 | 900-60-17 |
| V15530813 | 900-80-26 |
| V15530813 | 900-80-30 |
| V15530813 | 900-80-60 |
| V15531016 | 900-30-32 |
| V15531016 | 900-30-58 |
| V15531016 | 900-50-62 |
| V15531016 | 900-60-8 |
| V15531016 | 900-80-4 |
| V15531016 | 900-80-21 |
| V15531016 | 900-80-86 |
| V15531218 | 900-10-16 |
| V15531218 | 900-20-15 |
| V15531218 | 900-30-7 |
| V15531218 | 900-40-18 |
| V15531218 | 900-40-39 |

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| V15531218 | 900-70-31 |
| V15531218 | 900-80-18 |
| V15531218 | 900-80-48 |
| V15531218 | 900-80-52 |
| V15531624 | 900-20-8 |
| V15531624 | 900-30-11 |
| V15541485 | 900-80-28 |
| V15551409 | 900-60-11 |
| V15551901 | 900-60-19 |
| V15551906 | 900-60-16 |
| V15551914 | 900-80-32 |
| V15566900 | 900-70-26 |
| V15566806 | 900-70-27 |
| V15568382 | 900-70-19 |
| V15568780 | 900-70-20 |
| V15568850 | 900-70-18 |
| V15611231 | 900-80-64 |
| V15619231 | 900-80-56 |
| V15622100 | 900-50-55 |
| V15630011 | 900-52-9 |
| V15631110 | 900-52-2 |
| V15632011 | 900-52-1 |
| V15633011 | 900-52-5 |
| V15634011 | 900-52-4 |
| V15635010 | 900-52-3 |
| V15636020 | 900-52-7 |
| V15637020 | 900-52-8 |
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| V15660106 | 900-41-13 |
| V15660206 | 900-41-14 |
| V15660328 | 900-41-15 |
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| V15660516 | 900-41-8 |
| V15660606 | 900-41-2 |
| V15660706 | 900-41-11 |

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| V16129213 | 900-20-7 |
| V16211018 | 900-50-64 |
| V16211218 | 900-70-30 |
| V16211422 | 900-80-24 |
| V16211422 | 900-30-44 |
| V16212230 | 900-40-36 |
| V16213139 | 900-50-3 |
| V16220091 | 900-50-67 |
| V16220195 | 900-80-11 |
| V16220254 | 900-80-6 |
| V16220255 | 900-30-50 |
| V16220255 | 900-40-56 |
| V16220754 | 900-30-35 |
| V16260020 | 900-10-5 |
| V16260090 | 900-30-38 |
| V16312210 | 900-80-16 |
| V16312221 | 900-40-7 |
| V16312226 | 900-40-6 |
| V16324225 | 900-40-8 |
| V16420001 | 900-70-4 |
| V17130624 | 900-70-33 |
| V17131028 | 900-50-63 |
| V17131028 | 900-80-54 |
| V17131213 | 900-30-20 |
| V17131216 | 900-10-19 |
| V17131220 | 900-40-17 |
| V17131224 | 900-80-45 |
| V17131236 | 900-80-47 |
| V17131248 | 900-30-8 |
| V17131632 | 900-70-7 |
| V17140616 | 900-30-27 |
| V17140620 | 900-60-20 |
| V17140620 | 900-70-10 |
| V17140624 | 900-10-11 |

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| V17140632 | 900-30-54 |
| V17140816 | 900-60-18 |
| V17140816 | 900-80-31 |
| V17140824 | 900-30-40 |
| V17140824 | 900-50-4 |
| V17141016 | 900-30-59 |
| V17141016 | 900-60-21 |
| V17141024 | 900-50-65 |
| V17141024 | 900-80-22 |
| V17141032 | 900-80-5 |
| V17141033 | 900-30-31 |
| V17141044 | 900-40-55 |
| V17141224 | 900-10-18 |
| V17141224 | 900-60-9 |
| V17141232 | 900-20-16 |
| V17141232 | 900-30-9 |
| V17141232 | 900-80-53 |
| V17141236 | 900-80-17 |
| V17141237 | 900-10-17 |
| V17141644 | 900-70-5 |
| V17210604 | 900-41-9 |
| V17230525 | 900-52-10 |
| V17230605 | 900-30-19 |
| V17230624 | 900-80-33 |
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| V17230829 | 900-40-16 |
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| V17230845 | 900-30-5 |
| V17230861 | 900-40-4 |

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| V17230869 | 900-40-3 |
| V17231013 | 900-80-67 |
| V17231201 | 900-20-19 |
| V17231205 | 900-20-17 |
| V17231205 | 900-20-21 |
| V17231209 | 900-20-20 |
| V17231221 | 900-20-18 |
| V17231233 | 900-40-38 |
| V17231603 | 900-20-9 |
| V17231605 | 900-30-10 |
| V17241004 | 900-80-59 |
| V17310612 | 900-30-22 |
| V17310612 | 900-40-42 |
| V17320808 | 900-40-35 |
| V17511224 | 900-40-50 |
| V17540804 | 900-30-39 |
| V17571000 | 900-10-15 |
| V17581008 | 900-20-11 |
| V17591216 | 900-40-33 |
| V17621415 | 900-80-23 |
| V17631415 | 900-30-43 |
| V17780804 | 900-50-35 |
| V18110508 | 900-70-17 |
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| V18110610 | 900-70-28 |
| V18111015 | 900-40-54 |
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| V18130813 | 900-50-13 |
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| V18131016 | 900-80-55 |
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| V18181161 | 900-80-10 |
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| V18511324 | 900-80-14 |
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| V18530509 | 900-70-22 |
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| V19180405 | 900-50-17 |
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| V19181302 | 900-80-12 |
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| V19210800 | 900-50-48 |
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| V19211800 | 900-40-19 |
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| V19510006 | 900-60-13 |
| V19510007 | 900-60-12 |
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| V21050901 | 900-80-8 |
| V21060204 | 900-80-19 |
| V21067411 | 900-70-14 |
| V21068421 | 900-70-24 |
| V21081303 | 900-80-6 |
| V21092605 | 900-60-23 |
| V25050102 | 900-50-31 |
| V25050103 | 900-50-19 |
| V25050220 | 900-50-1 |
| V25050235 | 900-50-68 |
| V25050301 | 900-50-40 |
| V25050303 | 900-50-43 |
| V25050323 | 900-50-66 |
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| V25050404 | 900-50-23 |

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| V25050505 | 900-50-51 |
| V25050506 | 900-50-20 |
| V25050507 | 900-50-52 |
| V25050508 | 900-50-50 |
| V25050602 | 900-50-24 |
| V25050603 | 900-50-54 |
| V25050703 | 900-50-15 |
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| V25050706 | 900-50-12 |
| V25050707 | 900-50-14 |
| V25050708 | 900-50-11 |
| V25050712 | 900-50-33 |
| V25050713 | 900-50-34 |
| V25050715 | 900-50-30 |
| V25050801 | 900-50-6 |
| V25050802 | 900-50-7 |
| V25050805 | 900-50-8 |
| V25050913 | 900-80-3 |
| V25051302 | 900-50-36 |
| V25051303 | 900-50-37 |
| V25052504 | 900-50-41 |
| V90001255 | 900-80-57 |
| V90020100 | 900-10-1 |
| V90020202 | 900-10-9 |
| V90020302 | 900-10-6 |
| V90020303 | 900-10-14 |
| V90020404 | 900-10-8 |
| V90020406 | 900-10-12 |
| V90030100 | 900-20-1 |

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| V90030606 | 900-30-61 |
| V90040100 | 900-20-14 |
| V90040107 | 900-30-23 |
| V90040111 | 900-30-33 |
| V90040112 | 900-30-34 |
| V90040116 | 900-30-25 |
| V90040118 | 900-30-29 |
| V90040202 | 900-30-36 |
| V90040703 | 900-60-19 |
| V90045003 | 900-30-21 |
| V90045101 | 900-30-13 |
| V90045102 | 900-30-12 |
| V90045103 | 900-30-16 |
| V90045201 | 900-30-45 |
| V90045202 | 900-30-48 |
| V90045203 | 900-30-52 |
| V90045304 | 900-30-2 |
| V90045306 | 900-30-1 |
| V90045307 | 900-40-37 |
| V90045401 | 900-40-31 |
| V90045402 | 900-40-27 |
| V90045403 | 900-40-32 |
| V90045405 | 900-40-34 |
| V90045501 | 900-40-23 |
| V90045502 | 900-40-24 |
| V90045702 | 900-40-14 |
| V90045705 | 900-40-10 |
| V90045706 | 900-40-15 |
| V90045709 | 900-40-13 |
| V90046001 | 900-40-51 |
| V90046002 | 900-40-45 |
| V90046004 | 900-40-40 |
| V90046005 | 900-40-47 |
| V90046006 | 900-40-43 |

| | |
|-----------|-----------|
| V90047100 | 900-80-63 |
| V90050901 | 900-40-57 |
| V90050904 | 900-80-13 |
| V90055002 | 900-80-2 |
| V90060121 | 900-80-1 |
| V90060201 | 900-80-20 |
| V90060302 | 900-20-6 |
| V90060401 | 900-70-1 |
| V90060404 | 900-70-12 |
| V90060407 | 900-70-8 |
| V90060411 | 900-70-9 |
| V90060502 | 900-70-3 |
| V90060510 | 900-70-2 |
| V90060603 | 900-70-13 |
| V90060604 | 900-70-23 |
| V90060608 | 900-30-60 |
| V90068011 | 900-70-15 |
| V90068021 | 900-70-25 |
| V90070300 | 900-20-10 |
| V90070501 | 900-20-4 |
| V90071100 | 900-20-3 |
| V90080101 | 900-40-1 |
| V90080102 | 900-30-6 |
| V90081300 | 900-60-2 |
| V90090102 | 900-80-35 |
| V90090105 | 900-60-15 |
| V90090401 | 900-80-65 |
| V90090402 | 900-80-58 |
| V90090409 | 900-80-50 |
| V90090410 | 900-80-51 |
| V90090501 | 900-80-27 |

OPERATION AND LUBRICATION GUIDELINES ON THE VIPAC HA390S/P, HA650, HA630, HA760 AND HA900

OPERATION

When starting, open the Black Knob to maximum forward position. Lift decompression lever all the way and start with crank handle. When engine has started, move black knob to centre position. Let idle for at least 5 minutes or until the tappet cover feels hot under your hand. You are now ready to start work.

For Travel:

Push speed control to high speed and push red knob to **maximum** forward position. For reverse, **maximum** rear position.

For Vibration Forward and Reverse:

Speed control in slow, push both the black and the red knobs **maximum** forward and for reverse, speed control in slow, push black knob **maximum** forward and the red knob **maximum** to the rear.

Note: There is a neutral position between the fast and slow.

MAINTENANCE

- Check engine oil twice daily.
- Never overfill engine or gearbox.
- Check drive belts to gearbox weekly and adjust when necessary.
- Do not force speed lever.

OIL

| | |
|-------------|---------------------------|
| Engine | 15W40 Series 3 Engine Oil |
| Gearbox | 15W40 Series 3 Engine Oil |
| Final Drive | EP140 |

HINTS

- Only drain oil when hot.
- Park machine a slight (2°) angle when draining oil.
- Relube drive gears bi-annually. (Not on HA390 and HA900)
- Do sediment drain monthly.