

## Air Operated Double Diaphragm Pump

Model: NDP-50BA  
Aluminum Series



### To Purchase:

☎ 800-990-7867

✉ sales@yamadapump.com

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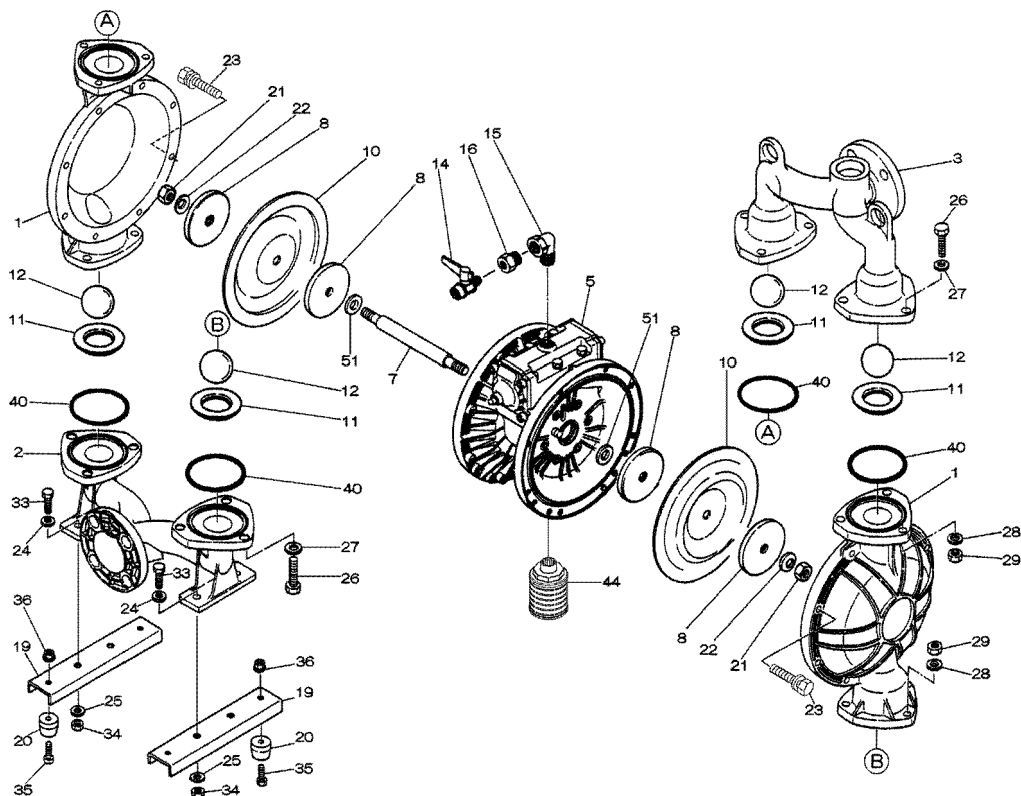
### More Information:

▶ YouTube: @yamadapump

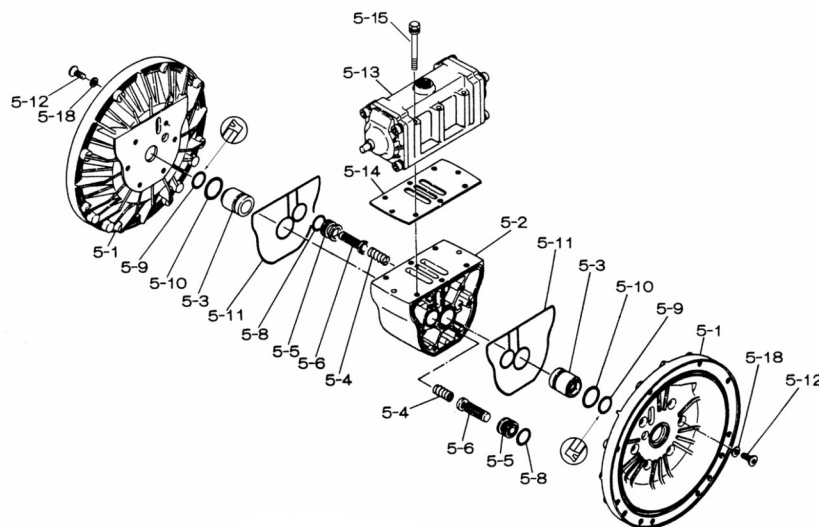
🌐 yamadapump.com

Data Sheets | CAD Drawings | Manuals  
Literature | BOM | Performance Curves

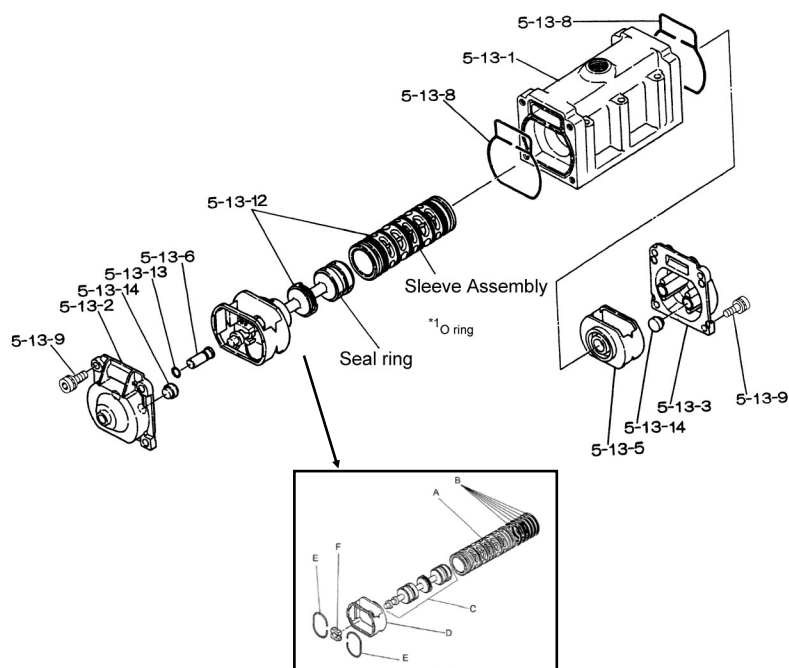
### Trial Program



## ■Body Assembly



## ■Valve Body Assembly

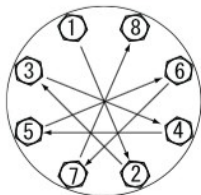


## Air Operated Double Diaphragm Pump

|          | NDP-50BAC | NDP-50BAN | NDP-50BAE | NDP-50BAH | NDP-50BAS | NDP-50BAV |                    |      |         |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|--------------------|------|---------|
|          | 852423    | 852229    | 852424    | 852230    | 852717    | 852303    |                    |      |         |
| REF. No. | PARTS No. | PARTS No. | PARTS No. | PARTS No. | PARTS No. | PARTS No. | DESCRIPTION        | QTY. | REORDER |
| 1        | 580961    | 580961    | 580961    | 580961    | 580961    | 580961    | OUT CHAMBER        | 2    |         |
| 2        | 714369    | 714369    | 714369    | 714369    | 714369    | 714369    | IN MANIFOLD        | 1    |         |
| 3        | 714363    | 714363    | 714363    | 714363    | 714363    | 714363    | OUT MANIFOLD       | 1    |         |
| 5        | 803112    | 803112    | 803112    | 803112    | 803112    | 803112    | CENTER BODY ASSY.  | 1    |         |
| 5-1      | 711934    | 711934    | 711934    | 711934    | 711934    | 711934    | AIR CHAMBER        | 2    |         |
| 5-2      | 711936    | 711936    | 711936    | 711936    | 711936    | 711936    | BODY               | 1    |         |
| 5-3      | 780325    | 780325    | 780325    | 780325    | 780325    | 780325    | THROAT BEARING     | 2    |         |
| 5-4      | 711937    | 711937    | 711937    | 711937    | 711937    | 711937    | PILOT VALVE SPRING | 2    |         |
| 5-5      | 771740    | 771740    | 771740    | 771740    | 771740    | 771740    | PILOT VALVE SEAT   | 2    |         |
| 5-6      | 832162    | 832162    | 832162    | 832162    | 832162    | 832162    | PILOT VALVE ASSY.  | 2    |         |
| 5-8      | 640020    | 640020    | 640020    | 640020    | 640020    | 640020    | O-RING             | 2    |         |
| 5-9      | 685444    | 685444    | 685444    | 685444    | 685444    | 685444    | V-PACKING          | 2    |         |
| 5-10     | 640029    | 640029    | 640029    | 640029    | 640029    | 640029    | O-RING             | 2    |         |
| 5-11     | 771742    | 771742    | 771742    | 771742    | 771742    | 771742    | GASKET             | 2    |         |
| 5-12     | 683812    | 683812    | 683812    | 683812    | 683812    | 683812    | FLAT SOCKET        | 12   |         |
| 5-13     | 802971    | 802971    | 802971    | 802971    | 802971    | 802971    | VALVE BODY ASSY.   | 1    |         |
| 5-13-1   | 711931    | 711931    | 711931    | 711931    | 711931    | 711931    | VALVE BODY         | 1    |         |
| 5-13-2   | 580999    | 580999    | 580999    | 580999    | 580999    | 580999    | CAP A              | 1    |         |
| 5-13-3   | 581000    | 581000    | 581000    | 581000    | 581000    | 581000    | CAP B              | 1    |         |
| 5-13-5   | 771735    | 771735    | 771735    | 771735    | 771735    | 771735    | SPRING RETAINER    | 1    |         |
| 5-13-6   | 712976    | 712976    | 712976    | 712976    | 712976    | 712976    | RESET BUTTON       | 1    |         |
| 5-13-8   | 771738    | 771738    | 771738    | 771738    | 771738    | 771738    | GASKET             | 2    |         |
| 5-13-9   | 685036    | 685036    | 685036    | 685036    | 685036    | 685036    | SOCKET BOLT        | 8    |         |
| 5-13-12  | 805084    | 805084    | 805084    | 805084    | 805084    | 805084    | C-SPOOL ASSY       | 1    |         |
| A        | 803675    | 803675    | 803675    | 803675    | 803675    | 803675    | SLEEVE ASSY        | 1    |         |
| B        | 640036    | 640036    | 640036    | 640036    | 640036    | 640036    | O-RING             | 6    |         |
| C        | 805085    | 805085    | 805085    | 805085    | 805085    | 805085    | SPOOL ASSY         | 1    |         |
| D        | 771735    | 771735    | 771735    | 771735    | 771735    | 771735    | SPRING RETAINER    | 1    |         |
| E        | 711932    | 711932    | 711932    | 711932    | 711932    | 711932    | C-SPRING           | 2    |         |
| F        | 771734    | 771734    | 771734    | 771734    | 771734    | 771734    | BLOCK              | 1    |         |
| 5-13-13  | 640005    | 640005    | 640005    | 640005    | 640005    | 640005    | O-RING             | 1    |         |
| 5-13-14  | 684128    | 684128    | 684128    | 684128    | 684128    | 684128    | CUSHION            | 4    |         |
| 5-14     | 771712    | 771712    | 771712    | 771712    | 771712    | 771712    | GASKET             | 1    |         |
| 5-15     | 684240    | 684240    | 684240    | 684240    | 684240    | 684240    | BOLT W/WASHERS     | 6    |         |
| 5-18     | 684987    | 684987    | 684987    | 684987    | 684987    | 684987    | WASHER             | 12   |         |
| 7        | 711900    | 711900    | 711900    | 711900    | 711900    | 711900    | CENTER ROD         | 1    |         |
| 8        | 711904    | 711904    | 711904    | 711904    | 711904    | 711904    | CENTER DISC        | 4    |         |
| 10       | 771855    | 771702    | 771856    | 771703    | 771976    | 771800    | DIAPHRAGM          | 2    |         |
| 11       | 771957    | 771995    | 771949    | 771794    | 772004    | 771987    | VALVE SEAT         | 4    |         |
| 12       | 770627    | 770630    | 770633    | 773143    | 773173    | 770636    | BALL               | 4    |         |
| 14       | 686974    | 686974    | 686974    | 686974    | 686974    | 686974    | BALL VALVE         | 1    |         |
| 15       | 682523    | 682523    | 682523    | 682523    | 682523    | 682523    | ELBOW              | 1    |         |
| 19       | 711928    | 711928    | 711928    | 711928    | 711928    | 711928    | BASE               | 2    |         |
| 20       | 771402    | 771402    | 771402    | 771402    | 771402    | 771402    | FOOT RUBBER        | 4    |         |
| 21       | 683408    | 683408    | 683408    | 683408    | 683408    | 683408    | NUT                | 2    |         |
| 22       | 682740    | 682740    | 682740    | 682740    | 682740    | 682740    | WASHER             | 2    |         |
| 23-a     | 686162    | 686162    | 686162    | 686162    | 686162    | 686162    | BOLT               | 16   |         |
| 23-b     | 631917    | 631917    | 631917    | 631917    | 631917    | 631917    | WAVE WASHER        | 16   |         |

## Air Operated Double Diaphragm Pump

|          | NDP-50BAC | NDP-50BAN | NDP-50BAE | NDP-50BAH | NDP-50BAS | NDP-50BAV |                 |      |         |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------------|------|---------|
|          | 852423    | 852229    | 852424    | 852230    | 852717    | 852303    |                 |      |         |
| REF. No. | PARTS No. | PARTS No. | PARTS No. | PARTS No. | PARTS No. | PARTS No. | DESCRIPTION     | QTY. | REORDER |
| 24       | 631014    | 631014    | 631014    | 631014    | 631014    | 631014    | FLAT WASHER     | 4    |         |
| 25       | 631917    | 631917    | 631917    | 631917    | 631917    | 631917    | WAVE WASHER     | 4    |         |
| 26       | 611203    | 611203    | 611203    | 611203    | 611203    | 611203    | BOLT            | 12   |         |
| 27       | 631015    | 631015    | 631015    | 631015    | 631015    | 631015    | FLAT WASHER     | 12   |         |
| 28       | 631918    | 631918    | 631918    | 631918    | 631918    | 631918    | WAVE WASHER     | 12   |         |
| 29       | 627014    | 627014    | 627014    | 627014    | 627014    | 627014    | NUT             | 12   |         |
| 33       | 611175    | 611175    | 611175    | 611175    | 611175    | 611175    | BOLT            | 4    |         |
| 34       | 627013    | 627013    | 627013    | 627013    | 627013    | 627013    | NUT             | 4    |         |
| 35       | 611149    | 611149    | 611149    | 611149    | 611149    | 611149    | BOLT            | 4    |         |
| 36       | 682276    | 682276    | 682276    | 682276    | 682276    | 682276    | NUT W/FLANGE    | 4    |         |
| 40       | 640069    | 640069    | 684122    | 640069    | 684122    | 642069    | O-RING          | 4    |         |
| 44       | 804764    | 804764    | 804764    | 804764    | 804764    | 804764    | SILENCER ASSY.  | 1    |         |
| 51       | 770582    | 770582    | 770582    | 770582    | 770582    | 770582    | CUSHION         | 2    |         |
| KIT      | K50-MC    | K50-MN    | K50-ME    | K50-MH    | K50-MS    | K50-MV    | LIQUID SIDE KIT |      |         |
| KIT      | K45-AM    |           |           |           |           |           | AIR MOTOR KIT   |      |         |

**Tightening torque for center rod and out chambers.**

Center Rod 43 ft-lbf {60 N-m}  
Out Chambers 29 ft-lbf {40 N-m}

**Tightening torque for manifold retainer bolts.**

BAC/E/H/N/S/V 18 ft-lbf {25 N-m}

**General Tools:**

- Socket wrenches - 24mm
- Hexagonal box wrench - 5mm, 6mm
- Small crowbars - 2 (C/N/E/V)
- Open-end wrenches - 19mm, 24mm
- Plastic hammer

**Special Tools:**

- Sleeve remover (713180) used for removing the sleeve. (sold separately)

**Miscellaneous:**

- Assembly Oil - turbine oil none additional class 1 (equivalent to ISA VGA32 grade)
- Nuts - M16 x 1.5
- Thread locker
- Urea grease grade (NLGI) No. 2

**Customer Notes**

Model #: \_\_\_\_\_  
Description: \_\_\_\_\_  
Serial #: \_\_\_\_\_  
Date Installed: \_\_\_\_\_  
Department Location: \_\_\_\_\_  
Tag/Project: \_\_\_\_\_