

# Technical data

Pump name

80x65 FS2JA 5 22

|          |                    |           |
|----------|--------------------|-----------|
| Customer | Date 31-March-2020 | Company   |
| Contact  | Item no.           | Issued by |
| Phone    | Project            | Phone     |
| E-mail   | Project ID         | E-mail    |

## Requested data

|   |                           |                         |                       |              |
|---|---------------------------|-------------------------|-----------------------|--------------|
| 1 | Pump type                 | End Suction Volute Pump | Fluid                 | Water, clean |
| 2 | Number of pumps / Reserve | 1 / 0                   | Liquid temperature °C | 20           |
| 3 | Flow m³/h                 | 0                       | Kin. viscosity mm²/s  | 1            |
| 4 | Head m                    | 0                       | Vapour pressure bar   | 0.022        |
| 5 | Geodetic head m           | 0                       | PH value              | 7            |
| 6 | Inlet pressure (pin) bar  | 0.1                     | Density kg/dm³        | 1            |
| 7 | Available system NPSH     | 0                       | Solids Weight %       | 0            |
| 8 | Ambient temperature °C    | 20                      |                       |              |

## Pump

|    |                           |                                |                                      |                  |
|----|---------------------------|--------------------------------|--------------------------------------|------------------|
| 9  | Pump name                 | 80x65 FS2JA 5 22               | Frequency Hz                         | 50               |
| 10 | Design                    | End Suction Volute Pump        | Installation type                    | with base, motor |
| 11 | Manufacturer              | PTEI                           | Impeller                             | Max. mm 261      |
| 12 | Speed 1/min               | 2900                           | Diameter                             | Designed mm 261  |
| 13 | No. of Stage              | 1                              |                                      | Min. mm 182      |
| 14 | Connection Suction side   | JIS 10K                        | Flow                                 | Operating m³/h   |
| 15 | Connection Discharge side | JIS 10K                        |                                      | Max- m³/h 93.9   |
| 16 | Max Working Pressure bar  | 10                             |                                      | Min- m³/h 24     |
| 17 | Shut-off head bar         | 9.51                           | Head                                 | Operating m      |
| 18 | Total weight kg           | See the table of "Dimensions". |                                      | - (Qmax.) m 54.1 |
| 19 | Shaft power kW            |                                |                                      | - (Qmin.) m 94.9 |
| 20 |                           |                                | Max. Shaft Power at max. impeller kW | 23.04            |
| 21 | Required pump NPSH m      |                                | Efficiency %                         |                  |

## Materials

|    |                 |                     |                 |         |
|----|-----------------|---------------------|-----------------|---------|
| 22 | Casing          | Cast iron           | M.S.mating ring | Ceramic |
| 23 | Impeller        | Bronze              | M.S.seal ring   | Carbon  |
| 24 | Shaft           | 403 Stainless steel |                 |         |
| 25 | Casing ring     | Bronze              |                 |         |
| 26 | Ball bearing    | .                   |                 |         |
| 27 | Mechanical seal | .                   |                 |         |

## Motor

|    |                      |                             |                    |        |
|----|----------------------|-----------------------------|--------------------|--------|
| 28 | Manufacturer         | TECO                        | Insulation class   | F      |
| 29 | Type                 | 180MA_B3_22_3_400           | Phases             | 3~     |
| 30 | Specific design      | TEFC / 50 Hz / Pole pairs 1 | Frame size         | 180 MA |
| 31 | Rated power kW       | 22                          | Weight kg          | 185    |
| 32 | Number of poles      | 2                           | Electric voltage V | 400    |
| 33 | Speed 1/min          | 2940                        | Electric current A | 39.1   |
| 34 | Degree of protection | IP 55                       |                    |        |
| 35 |                      |                             |                    |        |

## Remarks

# Performance curve

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## Requested data

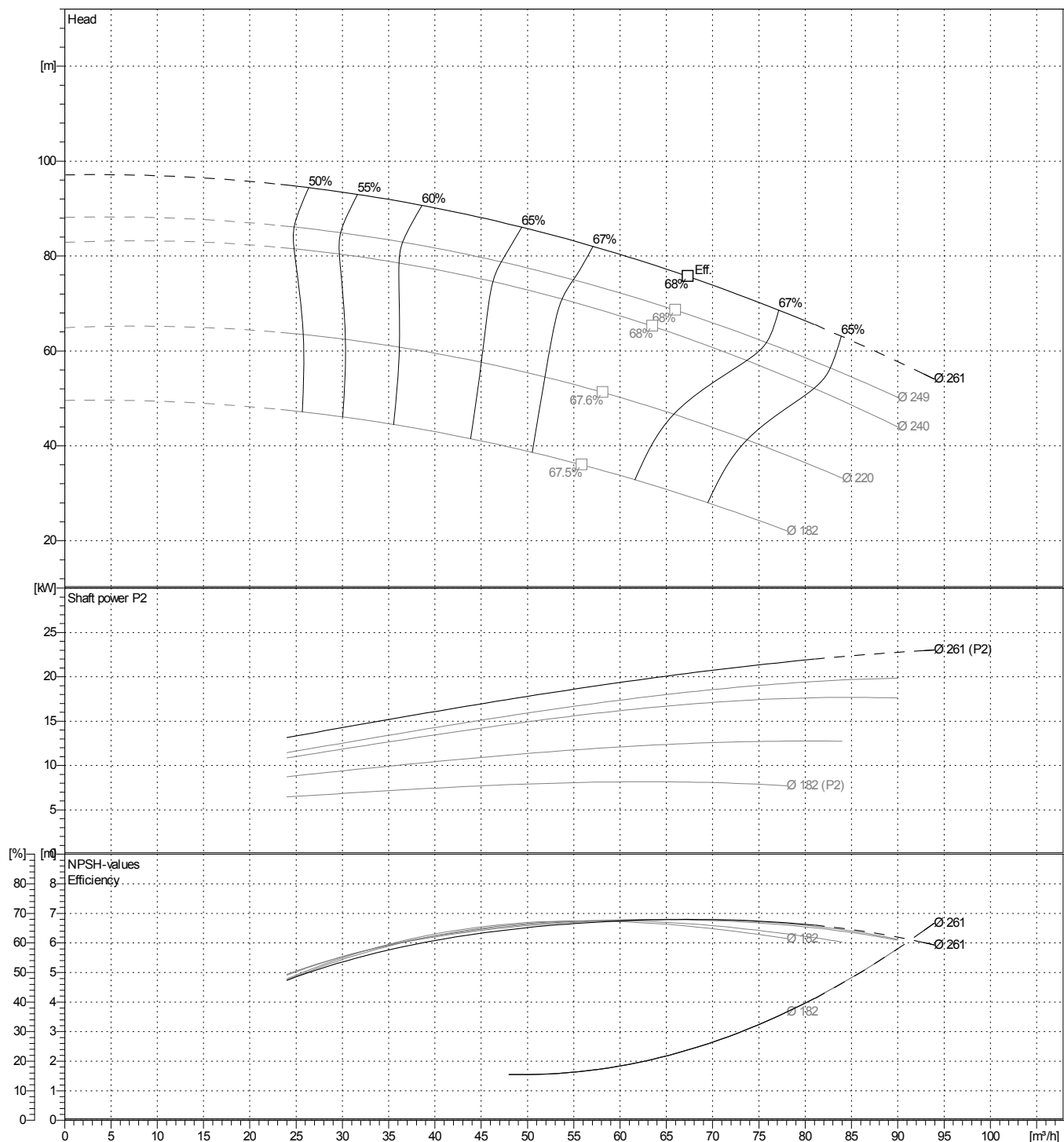
|   |               |      |   |
|---|---------------|------|---|
| 1 | Flow          | m³/h | 0 |
| 2 | Head          | m    | 0 |
| 3 | Geodetic head | m    | 0 |

## Pump

|                   |             |                 |       |    |
|-------------------|-------------|-----------------|-------|----|
| Operating Flow    | m³/h        | Frequency       | Hz    | 50 |
| Operating Head    | m           | Number of poles | 2     |    |
| Impeller Diameter | Designed mm | Speed           | 1/min |    |

Test standard: ISO 9906:2012 - Grade3B

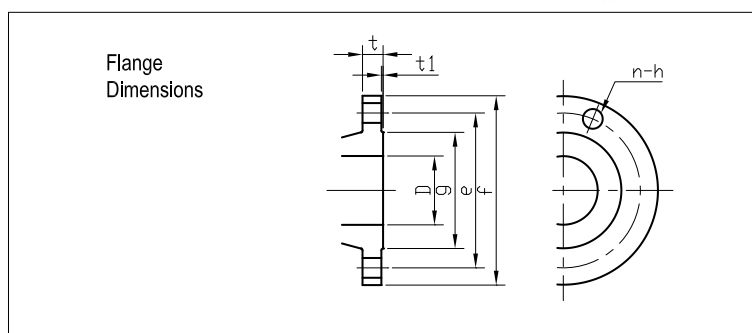
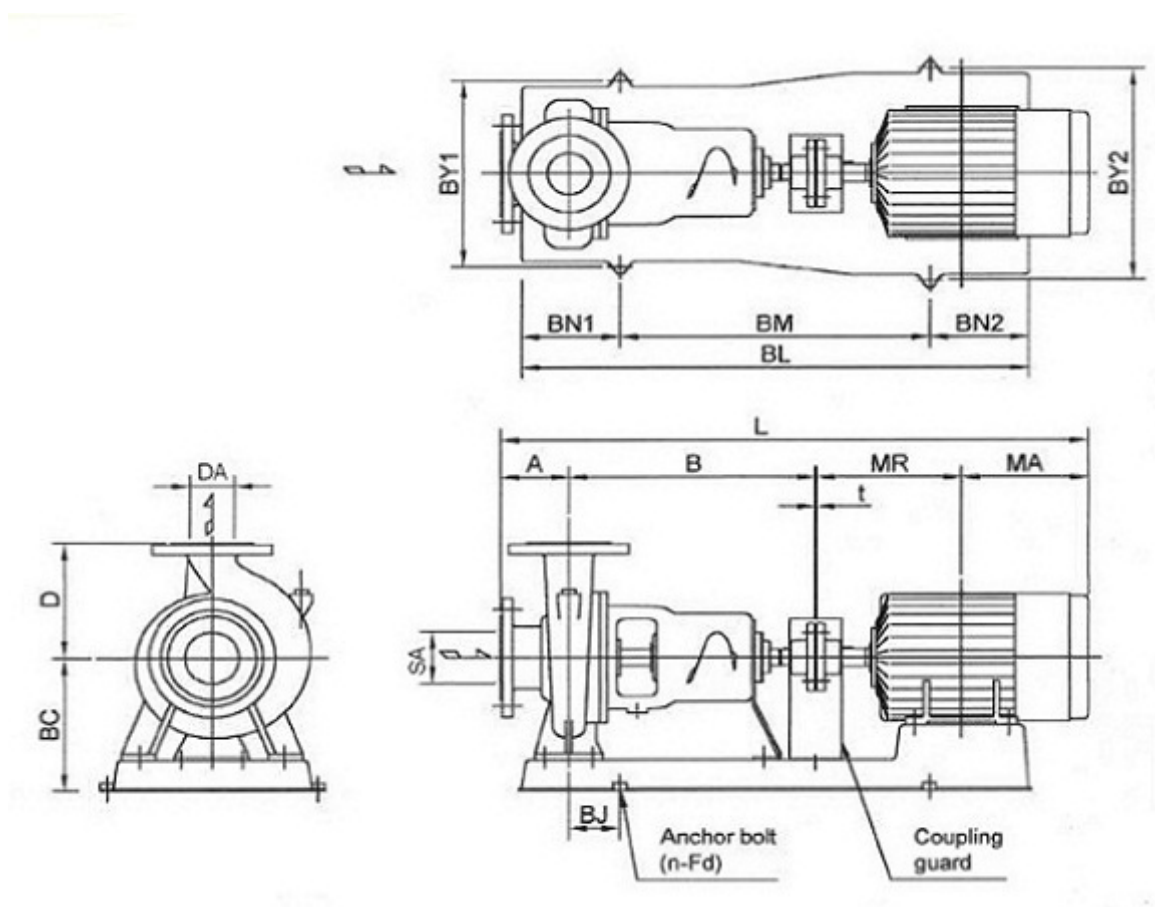
Water, clean [100%] ; 20°C; 0.9983kg/dm³; 1.005mm²/s



# Dimensions

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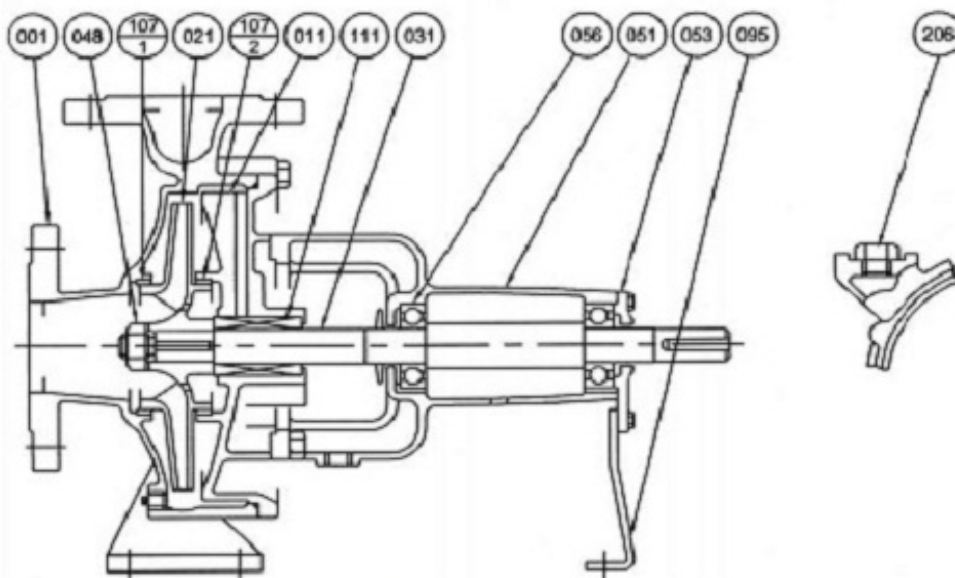
Total weight : 313 kg

| Pump dimensions |     |    |         | mm    |     | Suction side |     | mm |  | Discharge side |  | mm |  |
|-----------------|-----|----|---------|-------|-----|--------------|-----|----|--|----------------|--|----|--|
| A               | 100 | L  | 1135    | D     | 80  | D            | 65  |    |  |                |  |    |  |
| B               | 360 | MA | 320.5   | e     | 150 | e            | 140 |    |  |                |  |    |  |
| BC              | 270 | MR | 351.5   | f     | 185 | f            | 175 |    |  |                |  |    |  |
| BJ              | 98  | n  | 4 (Num) | g     | 126 | g            | 116 |    |  |                |  |    |  |
| BL              | 960 | SA | 80      | h     | 19  | h            | 19  |    |  |                |  |    |  |
| BM              | 600 | t  | 3       | n Num | 8   | n Num        | 4   |    |  |                |  |    |  |
| BN1             | 180 |    |         | t     | 22  | t            | 22  |    |  |                |  |    |  |
| BN2             | 180 |    |         | t1    | 2   | t1           | 2   |    |  |                |  |    |  |
| BY1             | 400 |    |         |       |     |              |     |    |  |                |  |    |  |
| BY2             | 400 |    |         |       |     |              |     |    |  |                |  |    |  |
| D               | 225 |    |         |       |     |              |     |    |  |                |  |    |  |
| DA              | 65  |    |         |       |     |              |     |    |  |                |  |    |  |
| Fd              | M16 |    |         |       |     |              |     |    |  |                |  |    |  |

# (1/2) Construction

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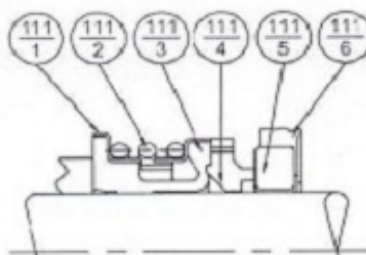
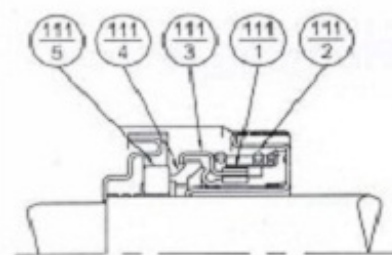


## Model FH

50x40 FSHA; 65x50 FSHA, FSJA;  
80x65 FSGA, FSHA, FSJA, FSKA;  
100x80 FSGA, FSHA, FSJA;  
125x100 FSKA

## Model EA

100x65 FSKA; 100x80 FSGCA, FSHCA;  
125x100 FSJCA, FSLA;  
150x100 FSKA, FSNA;  
150x125 FSHA, FSJA, FSKA, FSLA;  
200x150 FSHA, FSJA, FSKA, FSLA, FSNA;  
250x200 FSLA, FSNA



|       |               |                 |     |
|-------|---------------|-----------------|-----|
| 111-5 | Mating Ring   | Ceramic         | 1   |
| 111-4 | Seal Ring     | Carbon          |     |
| 111-3 | Friction Ring | NBR             |     |
| 111-2 | Coil Spring   | Stainless Steel |     |
| 111-1 | Spring Holder |                 |     |
| No.   | Part Name     | Material        | Qty |

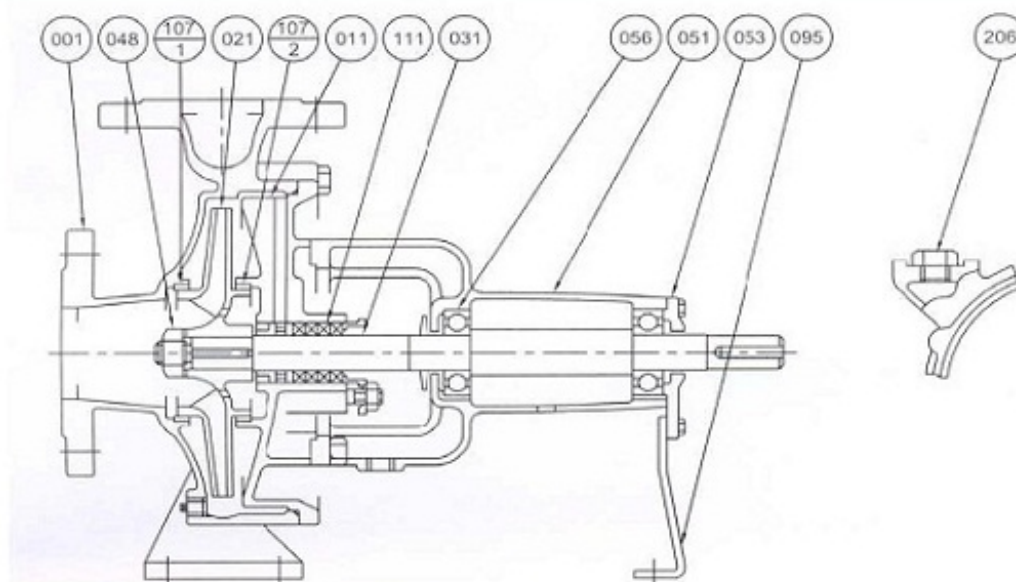
|       |               |                 |     |
|-------|---------------|-----------------|-----|
| 111-6 | Cup Gasket    | NBR             | 1   |
| 111-5 | Mating Ring   | Ceramic         |     |
| 111-4 | Seal Ring     | Carbon          |     |
| 111-3 | Bellows       | NBR             |     |
| 111-2 | Spring        | Stainless Steel |     |
| 111-1 | Spring Holder |                 |     |
| No.   | Part Name     | Material        | Qty |

|       |                 |                 |     |
|-------|-----------------|-----------------|-----|
| 207   | Plug            | Steel           | 1   |
| 111   | Mechanical Seal | -               |     |
| 107-2 | Casing Ring     | Bronze          |     |
| 107-1 | Casing Ring     |                 |     |
| 095   | Stay            | Steel           | 1   |
| 056   | Ball Bearing    | -               | 2   |
| 053   | Bearing Cover   | Cast Iron       | 1   |
| 051   | Bearing Housing |                 |     |
| 048   | Impeller Nut    | Brass           |     |
| 031   | Shaft           | Stainless Steel |     |
| 021   | Impeller        | Bronze          |     |
| 011   | Casing Cover    | Cast Iron       |     |
| 001   | Casing          |                 |     |
| No.   | Part Name       | Material        | Qty |

# (2/2) Construction

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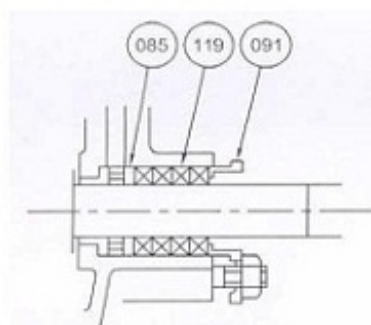


## With Lantern Ring

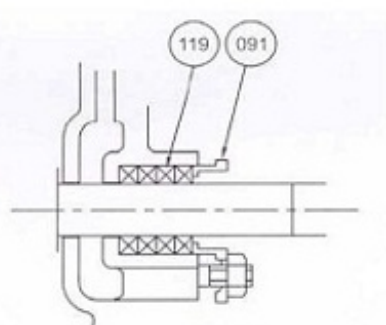
50x40 FSHA; 65x50 FSHA, FSJA;  
80x65 FSGA, FSHA;  
100x80 FSGA; 125x100 FSLA;  
150x100 FSKA, FSNA;  
150x125 FSKA, FSLA;  
200x150 FSJA, FSLA, FSNA;  
250x200 FSLA, FSNA

## Without Lantern Ring

80x65 FSJA, FSKA;  
100x65 FSKA;  
100x80 FSHA, FSJA, FSGCA, FSHCA;  
125x100 FSJCA, FSKA;  
150x125 FSHA, FSJA;  
200x150 FSHA, FSKA;



| 119 | Gland Packing | Non-Asbestos | 4 or 5 |
|-----|---------------|--------------|--------|
| 091 | Gland         | Bronze       | 1      |
| 085 | Lantern Ring  |              |        |
| No. | Part Name     | Material     | Qty    |



| 119 | Gland Packing | Non-Asbestos | 4 or 5 |
|-----|---------------|--------------|--------|
| 091 | Gland         | Bronze       | 1      |
| No. | Part Name     | Material     | Qty    |

|       |                 |                 |        |
|-------|-----------------|-----------------|--------|
| 207   | Plug            | Steel           | 1      |
| 111   | Gland Packing   | Non-Asbestos    | 4 or 5 |
| 107-2 | Casing Ring     | Bronze          | 1      |
| 107-1 | Casing Ring     |                 |        |
| 095   | Stay            | Steel           | 1      |
| 056   | Ball Bearing    | -               | 2      |
| 053   | Bearing Cover   | Cast Iron       | 1      |
| 051   | Bearing Housing |                 |        |
| 048   | Impeller Nut    | Brass           |        |
| 031   | Shaft           | Stainless Steel |        |
| 021   | Impeller        | Bronze          |        |
| 011   | Casing Cover    | Cast Iron       |        |
| 001   | Casing          |                 |        |
| No.   | Part Name       | Material        | Qty    |