TRIPLEX

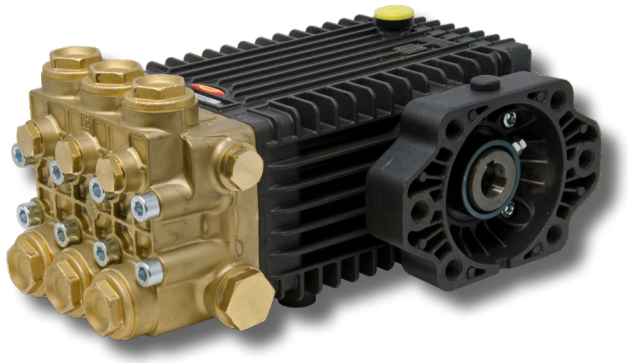
**GENERAL PUMP** *A member of the Interpump Group*

# 66 Series, TSF

## *Hydraulic Flange*

## FEATURES

- SAE B 2/4 bolt mounting flange
- 7/8″ Hollow keyed shaft
- Tach sensor port & pickup ring included
- Tach sensor optional
- Plunger design improves thermal shock resistance
- Valve cap improves hydrostatic performance
- Optional 7/8″-13T splined shaft avalible only on 21 mm stroke pumps. Add “S” after part number Ex: TSF2021HYDS



## SPECIFICATIONS

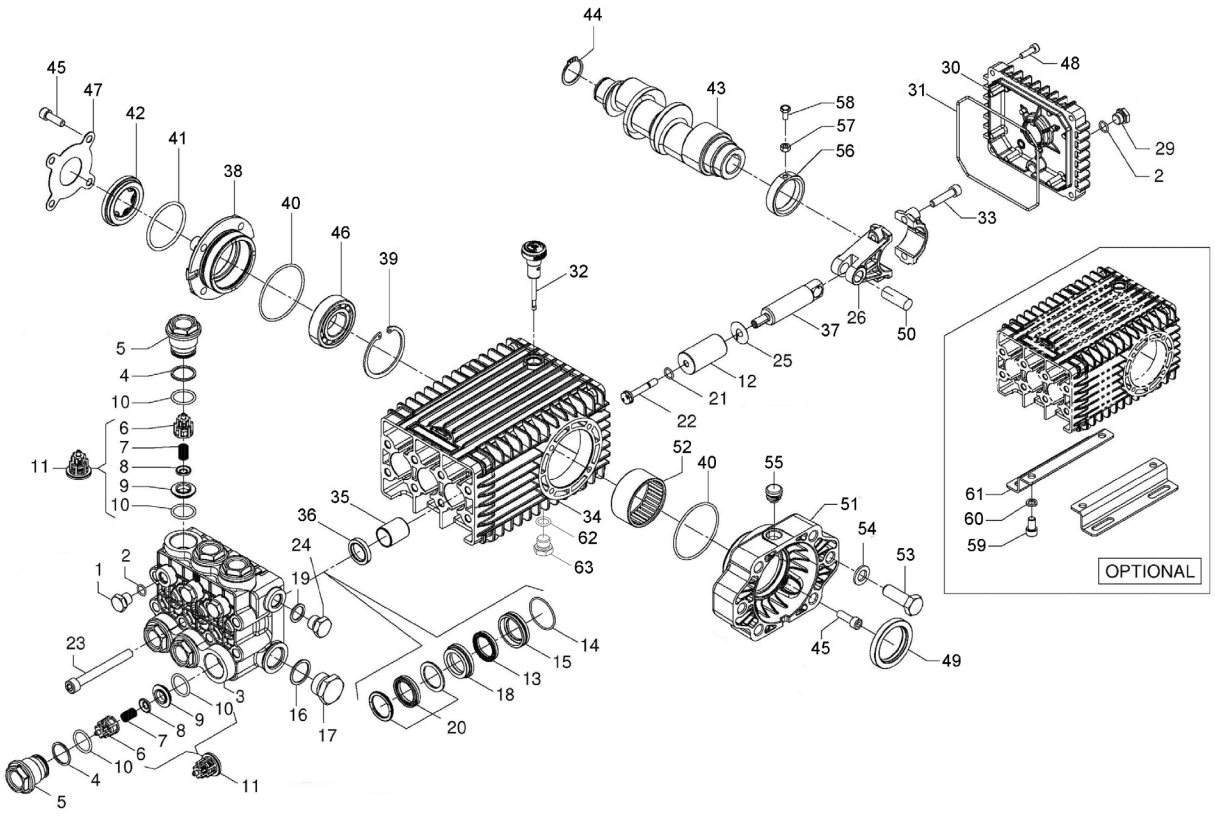
| Pump Model | TSF1819HYD | TSF2019HYD | TSF2021HYD* | TSF2219HYD | TSF2221HYD* | TSF2819HYD | TSF2421HYD* |
|---|---|---|---|---|---|---|---|
| Max Volume | 6.3 GPM | 7.6 GPM | 8.5 GPM | 9.3 GPM | 10.2 GPM | 12.1 GPM | 12.0 GPM |
| Max Discharge Pressure | 4,350 PSI | 4,000 PSI | 3,600 PSI | 3,000 PSI | | 2,200 PSI | 2,500 PSI |
| Horsepower (Hydraulic) | 16 HHP | 17.8 HHP | 17.9 HHP | 16.3 HHP | 17.9 HHP | 15.6 HHP | 17.5 HHP |
| Max Pump Speed | 1,750 RPM | | | | | 1,450 RPM | 1,750 RPM |
| Inlet Pressures | Flooded to 70 PSI | | | | | | |
| Plunger Bore | .709 in/18 mm | .787 in/20 mm | | .866 in/22 mm | | 1.102 in/28 mm | .945 in/24 mm |
| Plunger Stroke | .748 in/19 mm | | .826 in/21 mm | .748 in/19 mm | .826 in/21 mm | .748 in/19 mm | .826 in/21 mm |
| Oil Capacity | 37.2 oz. | | | | | | |
| Max Fluid Temp | 165° F | | | | | | |
| Inlet Port Thread | 3/4”-14 BSP-F | | | | | | |
| Discharge Port Thread | 3/8”-19 BSP-F | | | | | | |
| Shaft Diameter | 7/8” Hollow keyed Shaft SAE B / Optinal 7/8″-13T Splined* | | | | | | |
| Weight | 40.7 lbs/18.5 kg | | | | | | |
| Dimensions | 14.94″ x 9.78″ x 6.99″ | | | | | | |

* Avaliable with optional 7/8”-13T Splined shaft.

TRIPLEX

# 66 Series, TSF

**GENERAL PUMP** *A member of the Interpump Group*




## PARTS LIST

| No. | Part No. | Description | Qty |
|---|---|---|---|
| 1 | 98204300 | Plug G 1/4" x 13 | 3 |
| 2 | 701013 | O-ring, Ø .426 x .070 | 4 |
| 3 | 66124541 | Manifold, Ø 18 mm | 1 |
| | 66120041 | Manifold, Ø 20 mm | 1 |
| | 66120141 | Manifold, Ø 22 mm | 1 |
| | 66120241 | Manifold, Ø 24 mm | 1 |
| | 66124641 | Manifold, Ø 28 mm | 1 |
| 4 | 90516500 | Anti-ext ring, Ø24.7x29x1.5 | 6 |
| 5 | 66130041 | Plug, M32x1.5x29.5 | 6 |
| 6 | 36203551 | Valve Guide | 6 |
| 7 | 94738800 | Valve Spring, Ø 10x18.5 | 6 |
| 8 | 36203476 | Valve Poppet | 6 |
| 9 | 36203366 | Valve Seat | 6 |
| 10 | 90385700 | O-ring, Ø23.81 x 2.62 | 12 |
| 11 | 36712701 | Valve Assembly, Complete | 6 |
| 12 | 66040309 | Plunger, Ø 18 mm | 3 |
| | 66040009 | Plunger, Ø 20 mm | 3 |
| | 66040109 | Plunger, Ø 22 mm | 3 |
| | 66040409 | Plunger, Ø 24 mm | 3 |
| | 66041009 | Plunger, Ø 28 mm | 3 |
| 13 | 90265200 | LP Seal, Ø 18 mm | 3 |
| | 90269000 | LP Seal, Ø 20 mm | 3 |
| | 90271500 | LP Seal, Ø 22 mm | 3 |
| | 90273800 | LP Seal, Ø 24 mm | 3 |
| | 90275300 | LP Seal, Ø 28 mm | 3 |
| 14 | 90361600 | O-ring, Ø36.65 x 1.78 | 3 |
| 15 | 66080370 | Seal Retainer, Ø18 mm | 3 |
| | 66080070 | Seal Retainer, Ø20 mm | 3 |
| | 66080170 | Seal Retainer, Ø22 mm | 3 |
| | 66080470 | Seal Retainer, Ø24 mm | 3 |
| | 66082570 | Seal Retainer, Ø28 mm | 3 |

| No. | Part No. | Description | Qty |
|---|---|---|---|
| 16 | 96770000 | Washer, Ø26.5x32x1.5 | 1 |
| 17 | 98226800 | Plug, G3/4"x16 | 1 |
| 18 | 66216370 | Intermediate Ring, Ø18mm | 3 |
| | 66216070 | Intermediate Ring, Ø20mm | 3 |
| | 66216170 | Intermediate Ring, Ø22mm | 3 |
| | 66216470 | Intermediate Ring, Ø24mm | 3 |
| | 66220070 | Intermediate Ring, Ø28mm | 3 |
| 19 | 96738000 | Washer Ø 17.5 x 23 x 1.5 | 1 |
| 20 | 90265500 | HP Seal, Ø18 mm | 3 |
| | 90269200 | HP Seal, Ø20 mm | 3 |
| | 90271700 | HP Seal, Ø22 mm | 3 |
| | 90274100 | HP Seal, Ø24 mm | 3 |
| | 90275400 | HP Seal, Ø28 mm | 3 |
| 21 | 90358400 | O-ring, Ø 10.82 x 1.78 | 3 |
| 22 | 66219566 | Plunger Bolt | 3 |
| 23 | 99380100 | Headbolt, M10 x 90 | 8 |
| 24 | 98210000 | Plug, G3/8" x 13 | 1 |
| 25 | 96710100 | Flinger Washer | 3 |
| 26 | 66030001 | Connecting Rod, Comp. | 3 |
| 29 | 98204250 | Plug, G 1/4"x9 | 1 |
| 30 | 66160022 | Rear Cover | 1 |
| 31 | 90392200 | O-ring Ø 133.02 x 2.62 | 1 |
| 32 | 98210600 | Dipstick | 1 |
| 33 | 99309900 | Con-rod Screw | 6 |
| 34 | 66010022 | Crankcase | 1 |
| 35 | 90912600 | Bushing Ø 22 x 25 x 30 | 3 |
| 36 | 90162500 | Ring, Ø 22.0 x 32.0 x 5.5 | 3 |
| 37 | 66050066 | Piston Guide | 3 |
| 38 | 59150022 | Side Cover | 1 |
| 39 | 90085000 | Stop Ring, Ø 62 | 1 |
| 40 | 701147 | O-ring, Ø 67.95 x 2.62 | 2 |

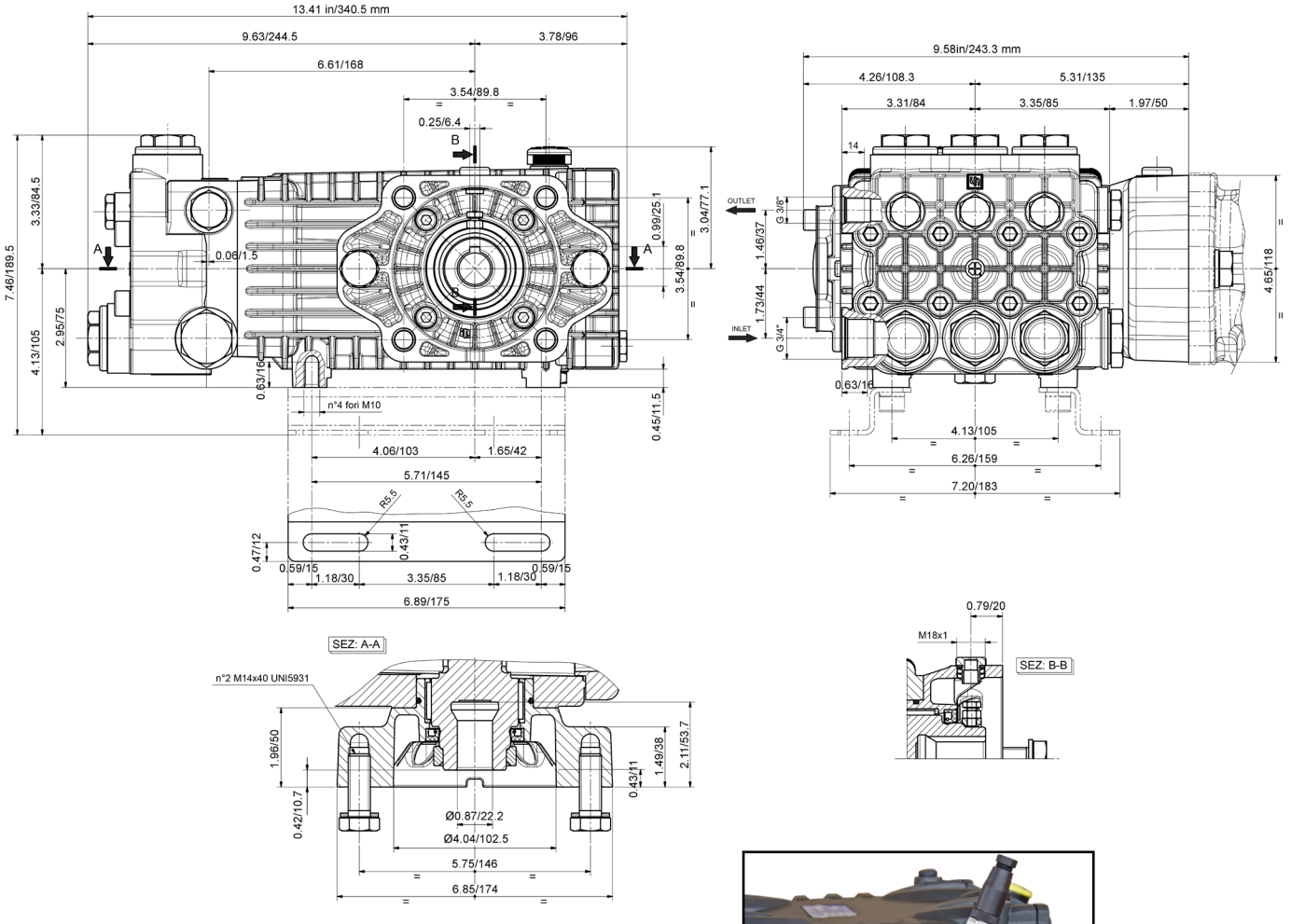
| No. | Part No. | Description | Qty |
|---|---|---|---|
| 41 | 90409700 | O-ring, Ø 55.56 x 3.53 | 1 |
| 42 | 44211801 | Sight Glass | 1 |
| 43 | F66021465 | Crankshaft, C.19 TSF1819HYD,TSF2019HYD, TSF2219HYD,TSF2819HYD | 1 |
| | F66021365 | Crankshaft,C. 21 TSF2021HYD, TSF2221HYD, TSF2421HYD | 1 |
| | 66021665 | Optional 7/8"-13 Splined Hollow Crankshaft C. 21 TSF2021HYD, TSF2221HYD, TSF2421HYD | 1 |
| 44 | 90066700 | Stop Ring, Ø 30 | 1 |
| 45 | 99306900 | Screw, M8 x 25 | 8 |
| 46 | 91837600 | Roller Bearing | 1 |
| 47 | 66150274 | Side Cover | 1 |
| 48 | 99188400 | Screw, M6 x 20 | 4 |
| 49 | 90169000 | Ring, Ø 45.0 x 62.0 x 8.0 | 1 |
| 50 | 99740500 | Pin Ø 14 x 39 | 3 |
| 51 | F10087222 | Hydraulic Flange, SAE-B | 4 |
| 52 | 91858700 | Roller Pin Bushing | 1 |
| 53 | F99484800 | Screw, M14 x 40 | 2 |
| 54 | F96728200 | Washer, Ø 15 x 24 x 2.5 | 2 |
| 55 | F90206500 | Plug, Ø 17 | 1 |
| 56 | F71228971 | Ring, Ø 40 | 1 |
| 57 | 92202500 | Nut, M6 x 5 | 1 |
| 58 | F70227034 | Screw, M6 x 12 | 1 |
| 59 | 99364400 | Screw, M10 x 18 | 4 |
| 60 | 96710600 | Washer, Ø 12.2 x 16 x 2.5 | 4 |
| 61 | 47200074 | Pump Feet | 2 |
| 62* | 90383300 | O-ring, Ø 13.95 x 2.62 | 1 |
| 63* | 98210050 | Plug, G 3/8" x 13 | 1 |

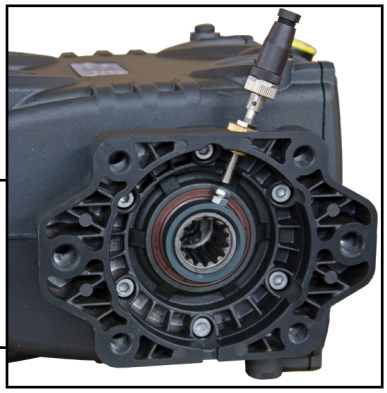
* Only on older manufactured pumps

## REPAIR KITS

| KIT NO. | K02 | K169 | K180 (18mm) | K176 (18mm) | K170 (20mm) | K171 (20mm) | K172 (22mm) | K173 (22mm) | K181 (24 mm) | K182 (24mm) | K248 (28mm) | K247 (28mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| POS. NO's INCLUDED IN KIT | 36 | 6, 7, 8, 9, 10, (11) | 13, 20 | 13, 14, 15, 18, 20 | 13, 20 | 13, 14, 15, 18, 20 | 13, 20 | 13, 14, 15, 18, 20 | 13, 20 | 13, 14, 15, 18, 20 | 13, 20 | 13, 14, 15, 18, 20 |
| NUMBER OF ASSEMBLIES IN KIT | 3 | 6 | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 |
| NUMBER OF CYLINDERS KIT WILL SERVICE | 3 | 6 | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 |

## DIMENSIONAL DRAWING



**Optional: ZRPM1 RPM Counter**

Inductive proximity sensor, c/w female connector M12 4 pin, IP67, field attachable, ring nut reduction M18 x 1.
Power Supply: 12/24 VDC

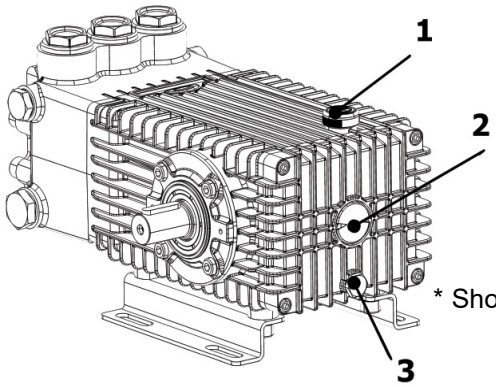
NOTE: 71 Series pump shown in image.

## TORQUE SPECS*

| POS. | Nm | Ft/lb |
|---|---|---|
| 1 | 40 | 29.5 |
| 5 | 130 | 95.88 |
| 17 | 70 | 51.63 |
| 22 | 20 | 14.75 |
| 23 | 45 | 33.19 |
| 24 | 40 | 29.5 |
| 29 | 20 | 14.75 |
| 33 | 20 | 14.75 |
| 45 | 20 | 14.75 |
| 48 | 10 | 7.38 |
| 58 | 10 | 7.38 |
| 59 | 20 | 14.75 |
| 65 | 20 | 14.75 |

* Decrease torque by 20% if threads are lubricated

## OIL CHANGING




* Shown with solid shaft

1. Oil changing must be done with the pump at operating temperature.

1.2 Put a container under the oil drain plug (3).

1.3 Remove the oil dipstick (1) and then the drain plug (3).

1.4 Wait until all the oil has drained out, then screw the drain plug (3) and tighten at the torque shown in the exploded diagram and above table.

1.5 Fill with new oil (General Pump Series 100) until the middle of the oil sight glass is reached, screw by hand the oil dipstick (1).

## WARNINGS

**A suitably-calibrated over pressure valve must be installed, as well as the pressure regulating valve, must be installed on the high-pressure line.**

**The high-pressure pipes must be correctly sized for the system's maximum working pressure and used exclusively within the working pressure range indicated by the pipe manufacture and marked on the pipe itself.**

**The ends of the high-pressure pipes must be sheathed and secured to a solid structure, so as it avoid the risk of whiplash if the connections burst or break.**

**The pump transmission systems (joints, pulleys, belts, rotary shafts), must be suitably covered by a protective case.**

**If in doubt, do not hesitate to call the Interpump Group / General Pump Customer Service.**

**WARNING: High Pressure Systems require a primary pressure regulating device (i.e. regulator, unloader) and a secondary pressure relief device (i.e. pop-off valve, relief valve). Failure to install such relief devices properly could result in personal injury or damage to pump or property. GP does not assume any liability or responsibility for the operation of the user's high pressure system.**

WARNING: This product can expose you to chemicals including lead, which is know to the state of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov


**GENERAL PUMP** 1174 Northland Drive • Mendota Heights, MN 55120
**Phone: 651.686.2199 • Fax: 800.535.1745 • e-mail: sales@gpcompanies.com • www.generalpump.com**



**Ref 310169 Rev. D**
**04-25**