TA1919V10 Pump

Model Code

TA1919 V10 F L – 2 A R – 07 A D 62 5 H 21

1 2 3 4 5 6 7 8 9 10 11 12 13 14

1 Double Transmission Pump

Each rated at 72 l/min (19 USgpm) at 1800 rpm

2 Auxiliary Vane Pump

3 Vane Pump Cover Option (Omit if not required)

D – Flow divider
F – Flow control
P – Priority flow

4 Rotation Viewed From Shaft End

R – Right hand (clockwise)
L – Left hand (counterclockwise)

5 Input Shaft

2 – SAE B-B splined

6 Control Pintle Location Viewed From Shaft End With Drain Port Up

Code	Pump No. 1	Pump No. 2
A	Right hand side	Right hand side
B	Left hand side	Right hand side
C	Right hand side	Left hand side
D	Left hand side	Left hand side

7 Main Relief Valve

R – Relief valve
O – No relief valve

8 Vane Pump Ring Capacity at 1200 rpm

04 – 15 l/min (4 USgpm)
05 – 18 l/min (5 USgpm)
06 – 22 l/min (6 USgpm)
07 – 26 l/min (7 USgpm)

9 Vane Pump Inlet Position Viewed From Cover End

A – 45°F counterclockwise from case drain
C – 135°F clockwise from case drain

10 Position of Vane Pump Outlet, or Primary Outlet, Viewed From Cover End

A – Opposite inlet
B – 90°F counterclockwise from inlet
C – In line with inlet
D – 90°F clockwise from inlet

11 Percent of Secondary Flow ("D" Cover)

12 Flow Rate Through Orifice In "F" Cover

2, 3, 4, 5, 6, 7 or 8 USgpm

Flow Rate Through Orifice In "P" Cover

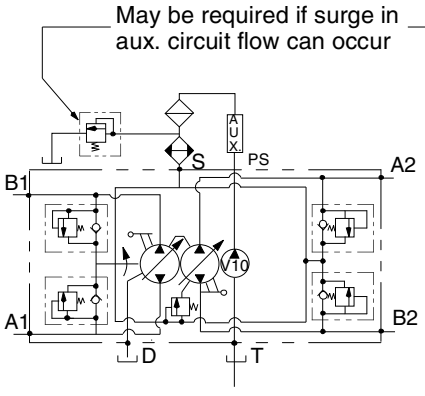
1, 2, 3, 4 or 6 USgpm

13 Vane Pump Relief Valve Setting, "F" & "P" Cover

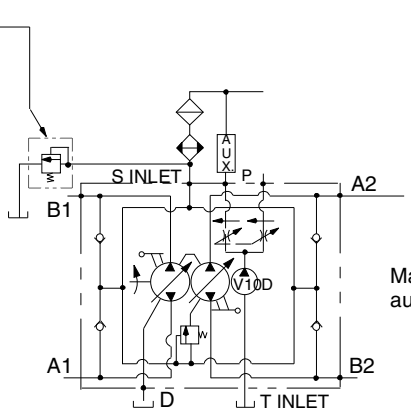
A – 17 bar (250 psi)
B – 35 bar (500 psi)
C – 51 bar (750 psi)
D – 70 bar (1000 psi)
E – 86 bar (1250 psi)
F – 100 bar (1500 psi)
G – 120 bar (1750 psi)
H – 140 bar (2000 psi)
J – 155 bar (2250 psi)
K – 175 bar (2500 psi)
O – No relief valve ("D" cover)

14 Design Number

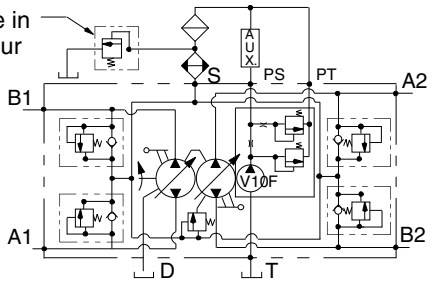
Circuit Diagrams



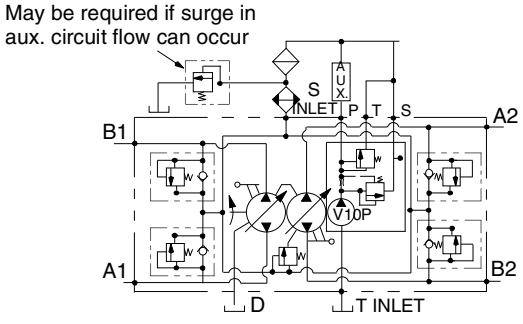
TA1919V10 with Main Relief Valves



TA1919V10F with Replenishing Valves



TA1919V10F with Main Relief Valves

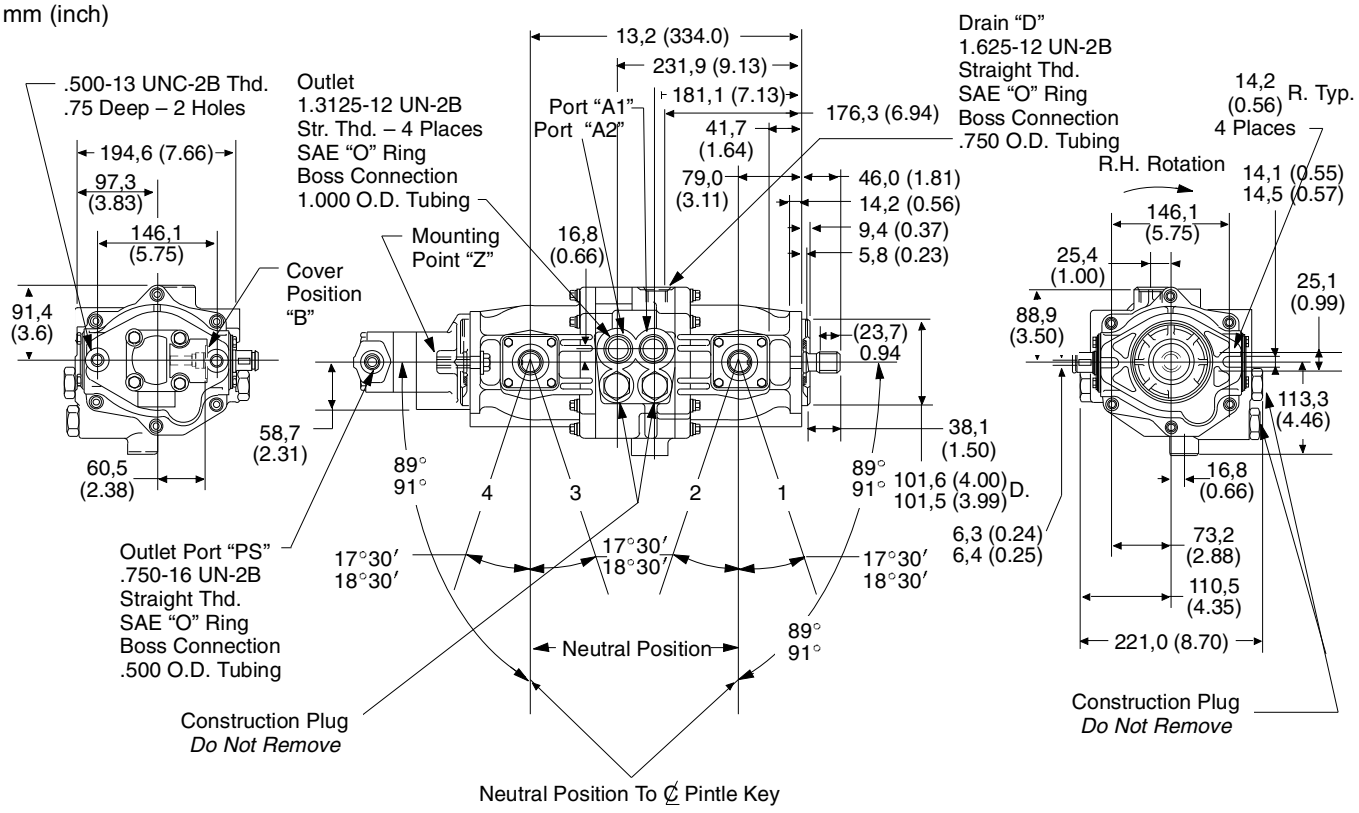


TA1919V10P with Main Relief Valves

TA1919V10 Pump

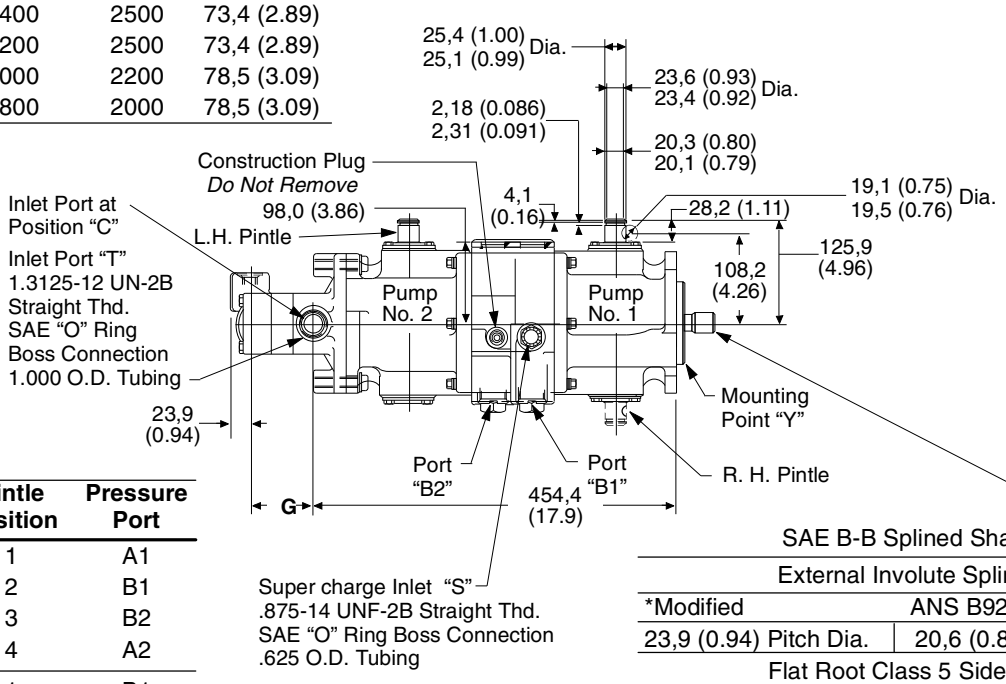
Dimensions

mm (inch)



V10 Aux. Pump Data

Ring Size GPM*	Max. RPM	Max. PSI	"G" Dimension
4	3400	2500	73,4 (2.89)
5	3200	2500	73,4 (2.89)
6	3000	2200	78,5 (3.09)
7	2800	2000	78,5 (3.09)



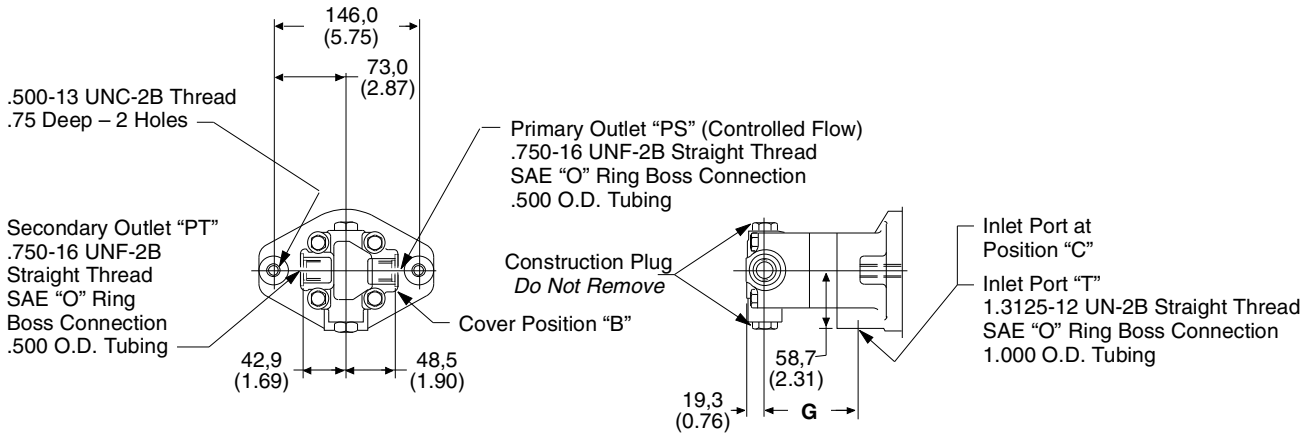
Shaft Rotation	Pintle Position	Pressure Port
R.H.	1	A1
R.H.	2	B1
R.H.	3	B2
R.H.	4	A2
L.H.	1	B1
L.H.	2	A1
L.H.	3	A2
L.H.	4	B2

Use of a secondary support of unit is required at mounting points "Y" & "Z" as shown. Outboard support to be such that external loads do not cause stress or deflection of the unit structure.

SAE B-B Splined Shaft		
External Involute Spline		
*Modified	ANS B92.1 – 1970	
23,9 (0.94) Pitch Dia.	20,6 (0.81) Base Dia.	
Flat Root Class 5 Side Fit		
15 Teeth 16/32 Pitch 30° Pr. Angle		
Major Dia. *24,9 (0.98) Max. 24,6 (0.97) Min.	Form Dia. 22,1 (0.87)	Minor Dia. – Max. 21,3 (0.84) Min.

Optional V10F Auxiliary Pump

mm (inch)

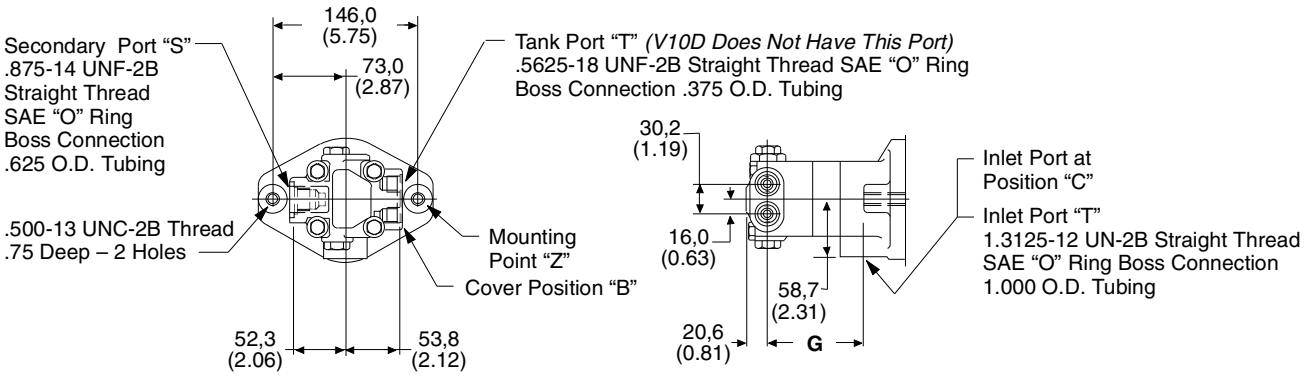


Optional V10P & V10D Auxiliary Pumps

mm (inch)

Ring Size GPM*	Max. RPM	Max. PSI	"G" Dimension
4	3400	2500	91,2 (3.59)
5	3200	2500	91,2 (3.59)
6	3000	2200	96,3 (3.79)
7	2800	2000	96,3 (3.79)

*At 1200 RPM & 100 PSI



TA1919V20 Pump

Model Code

TA1919 V20 F L – 2 A R – 07 A D 6 H 21

1 2 3 4 5 6 7 8 9 10 11 12 13

1 Double Transmission Pump

Each rated at 72 l/min (19 USgpm) at 1800 rpm

2 Auxiliary Vane Pump

3 Vane Pump Cover Option (Omit if not required)

F – Flow control
P – Priority flow

4 Rotation Viewed From Shaft End

R – Right hand (clockwise)
L – Left hand (counterclockwise)

5 Input Shaft

2 – SAE B-B splined

6 Control Pintle Location Viewed From Shaft End With Drain Port Up

Code	Pump No. 1	Pump No. 2
A	Right hand side	Right hand side
B	Left hand side	Right hand side
C	Right hand side	Left hand side
D	Left hand side	Left hand side

7 Main Relief Valve

R – Relief valve
O – No relief valve

8 Vane Pump Ring Capacity at 1200 rpm

07 – 26 l/min (7 USgpm)
08 – 30 l/min (8 USgpm)
09 – 34 l/min (9 USgpm)
10 – 37 l/min (10 USgpm)
11 – 41 l/min (11 USgpm)
12 – 45 l/min (12 USgpm)
13 – 49 l/min (13 USgpm)

9 Vane Pump Inlet Position Viewed From Cover End

A – In line with case drain
C – 180°F opposite case drain

10 Position of Vane Pump Outlet, or Primary Outlet, Viewed From Cover End

A – Opposite inlet
B – 90°F counterclockwise from inlet
C – In line with inlet
D – 90°F clockwise from inlet

11 Flow Rate Through Orifice In "F" Cover

2, 4, 6, 8 or 10 USgpm

Flow Rate Through Orifice In "P" Cover

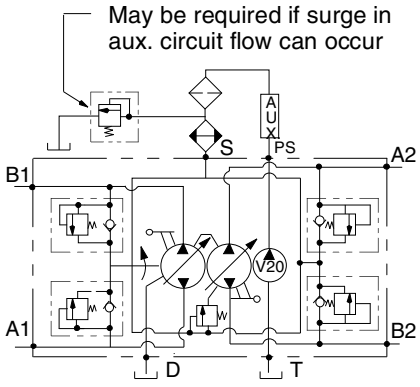
2, 2.5, 3, 4, 6 or 8 USgpm

12 Vane Pump Relief Valve Setting, "F" & "P" Cover

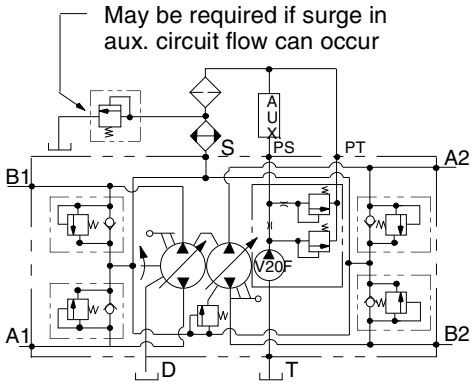
A – 17 bar (250 psi)
B – 35 bar (500 psi)
C – 51 bar (750 psi)
D – 70 bar (1000 psi)
E – 86 bar (1250 psi)
F – 100 bar (1500 psi)
G – 120 bar (1750 psi)
H – 140 bar (2000 psi)
J – 155 bar (2250 psi)
K – 175 bar (2500 psi)

13 Design Number

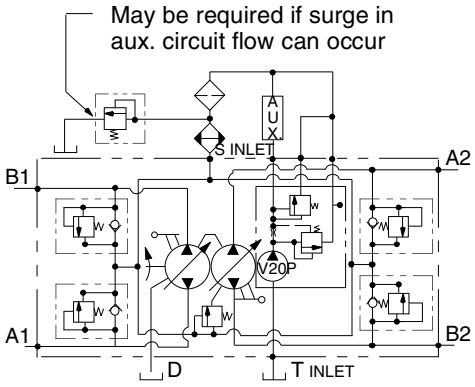
Circuit Diagrams



TA1919V20 with Main Relief Valves



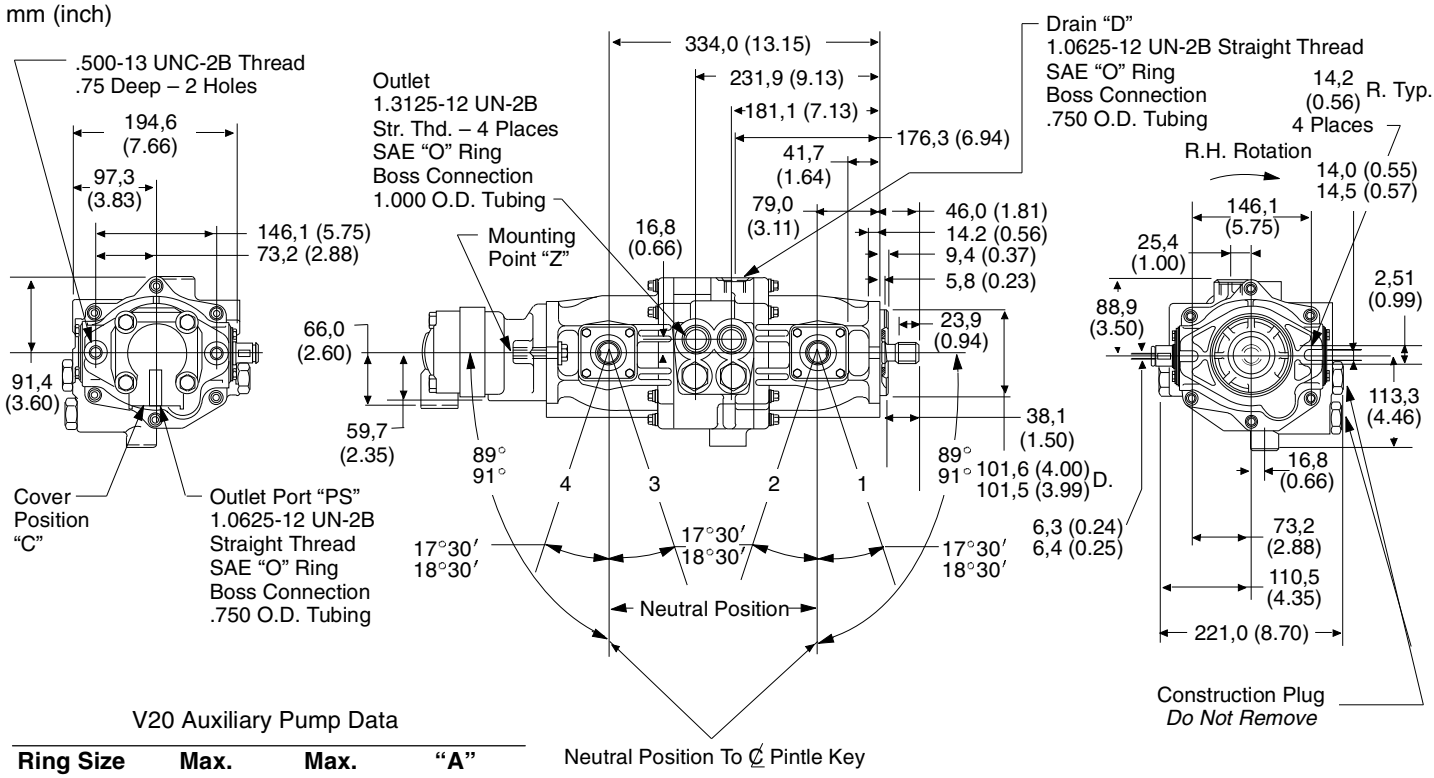
TA1919V20F with Main Relief Valves



TA1919V20P with Main Relief Valves

Dimensions

mm (inch)

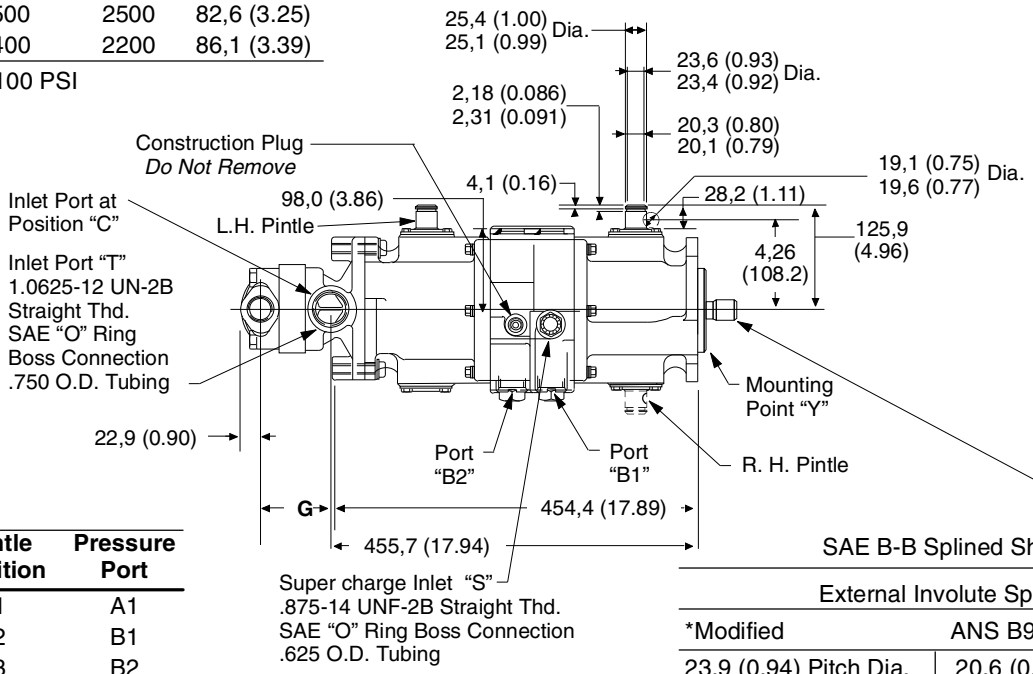


Neutral Position To ℄ Pintle Key

V20 Auxiliary Pump Data

Ring Size GPM*	Max. RPM	Max. PSI	"A" Dimension
7	3000	2500	77,7 (3.06)
8 & 9	2800	2500	77,7 (3.06)
10 & 11	2500	2500	82,6 (3.25)
12 & 13	2400	2200	86,1 (3.39)

*At 1200 RPM & 100 PSI



Shaft Rotation	Pintle Position	Pressure Port
R.H.	1	A1
R.H.	2	B1
R.H.	3	B2
R.H.	4	A2
L.H.	1	B1
L.H.	2	A1
L.H.	3	A2
L.H.	4	B2

Use of a secondary support of unit is required at mounting points "Y" & "Z" as shown. Outboard support to be such that external loads do not cause stress or deflection of the unit structure.

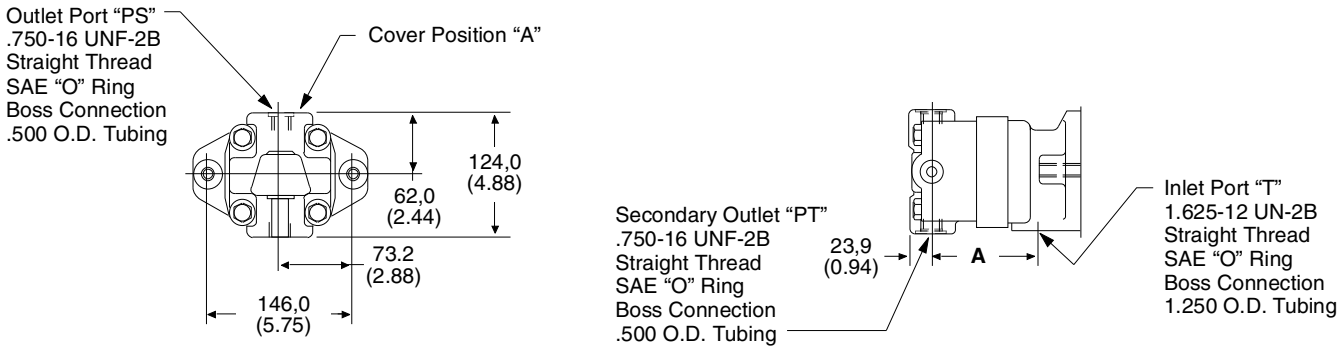
SAE B-B Splined Shaft

External Involute Spline		
*Modified	ANS B92.1 – 1970	
23,9 (0.94) Pitch Dia.	20,6 (0.81) Base Dia.	
Flat Root Class 5 Side Fit		
15 Teeth 16/32 Pitch 30° Pr. Angle		
Major Dia. *24,9 (0.98) Max. 24,6 (0.97) Min.	Form Dia. 22,1 (0.87)	Minor Dia. – Max. 21,3 (0.84) Min.

TA1919V20 Pump

Optional V20F Auxiliary Pump

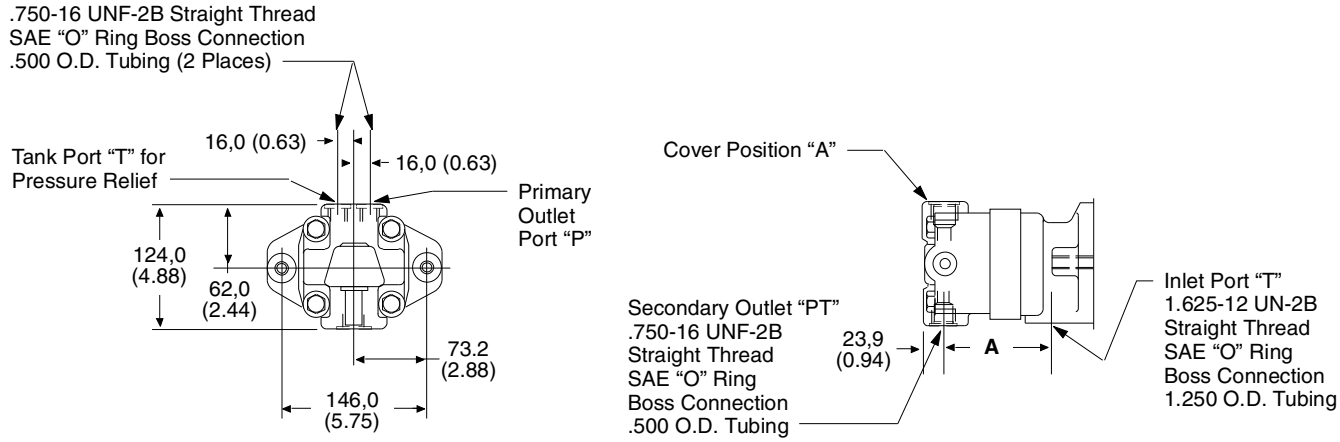
mm (inch)



Optional V20P Auxiliary Pump

Ring Size GPM*	Max. RPM	Max. PSI	"G" Dimension
7	3000	2500	101,1 (3.98)
8 & 9	2800	2500	101,1 (3.98)
10 & 11	2500	2500	105.9 (4.17)
12 & 13	2400	2200	109.5 (4.31)

*At 1200 RPM & 100 PSI



TA1919V1010 Pump

Model Code

TA1919 V1010 F R – 2 A R – 06 – 03 C A B 6 H 21

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

1 Double Transmission Pump
Each rated at 72 l/min (19 USgpm) at 1800 rpm

2 Double Auxiliary Vane Pump

3 Vane Pump Cover Option (Omit if not required)
F – Flow control
P – Priority flow

4 Rotation Viewed From Shaft End
R – Right hand (clockwise)
L – Left hand (counterclockwise)

5 Input Shaft
2 – SAE B-B splined

6 Control Pintle Location Viewed From Shaft End With Drain Port Up

Code	Pump No. 1	Pump No. 2
A	Right hand side	Right hand side
B	Left hand side	Right hand side
C	Right hand side	Left hand side
D	Left hand side	Left hand side

7 Main Relief Valve
R – Relief valve
O – No relief valve

8 Ring Capacity at 1200 rpm (Shaft end vane pump)
04 – 15 l/min (4 USgpm)
05 – 18 l/min (5 USgpm)
06 – 22 l/min (6 USgpm)
07 – 26 l/min (7 USgpm)

9 Ring Capacity at 1200 rpm (Cover end vane pump)
01 – 3 l/min (1 USgpm)
02 – 7 l/min (2 USgpm)
03 – 11 l/min (3 USgpm)
04 – 15 l/min (4 USgpm)
05 – 18 l/min (5 USgpm)
06 – 22 l/min (6 USgpm)
07 – 26 l/min (7 USgpm)

10 Vane Pump No. 1 Outlet Position Viewed From Cover End
A – In line with case drain
C – Opposite case drain

11 Vane Pump Inlet Position Viewed From Cover End
A – Opposite No. 1 inlet
B – 90°F counterclockwise from No. 1 outlet
C – In line with No. 1 outlet
D – 90°F clockwise from No. 1 outlet

12 Position of Vane Pump Outlet No. 2 or Primary Outlet, Viewed From Cover End
A – Opposite inlet
B – 90°F counterclockwise from inlet
C – In line with inlet
D – 90°F clockwise inlet

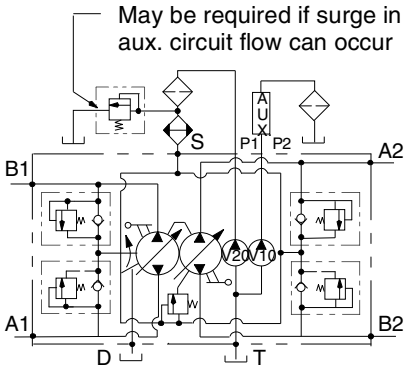
13 Flow Rate Through Orifice In "F" Cover
2, 3, 4, 5, 6, 7 or 8 USgpm

Flow Rate Through Orifice In "P" Cover
1, 2, 3, 4, 5, 6 or 7 USgpm

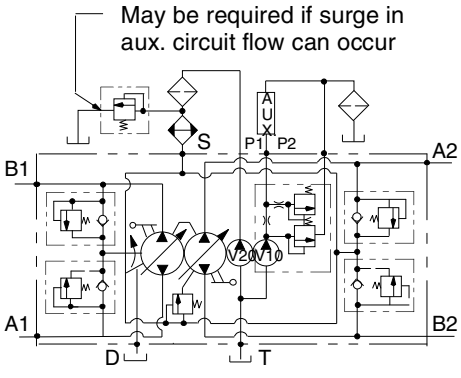
14 Vane Pump Relief Valve Setting, "F" & "P" Cover
A – 17 bar (250 psi)
B – 35 bar (500 psi)
C – 51 bar (750 psi)
D – 70 bar (1000 psi)
E – 86 bar (1250 psi)
F – 100 bar (1500 psi)
G – 120 bar (1750 psi)
H – 140 bar (2000 psi)
J – 155 bar (2250 psi)
K – 175 bar (2500 psi)

15 Design Number

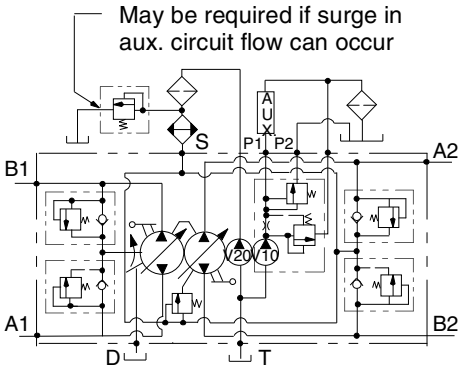
Circuit Diagrams



TA1919V1010 with Main Relief Valves



TA1919V1010F with Main Relief Valves

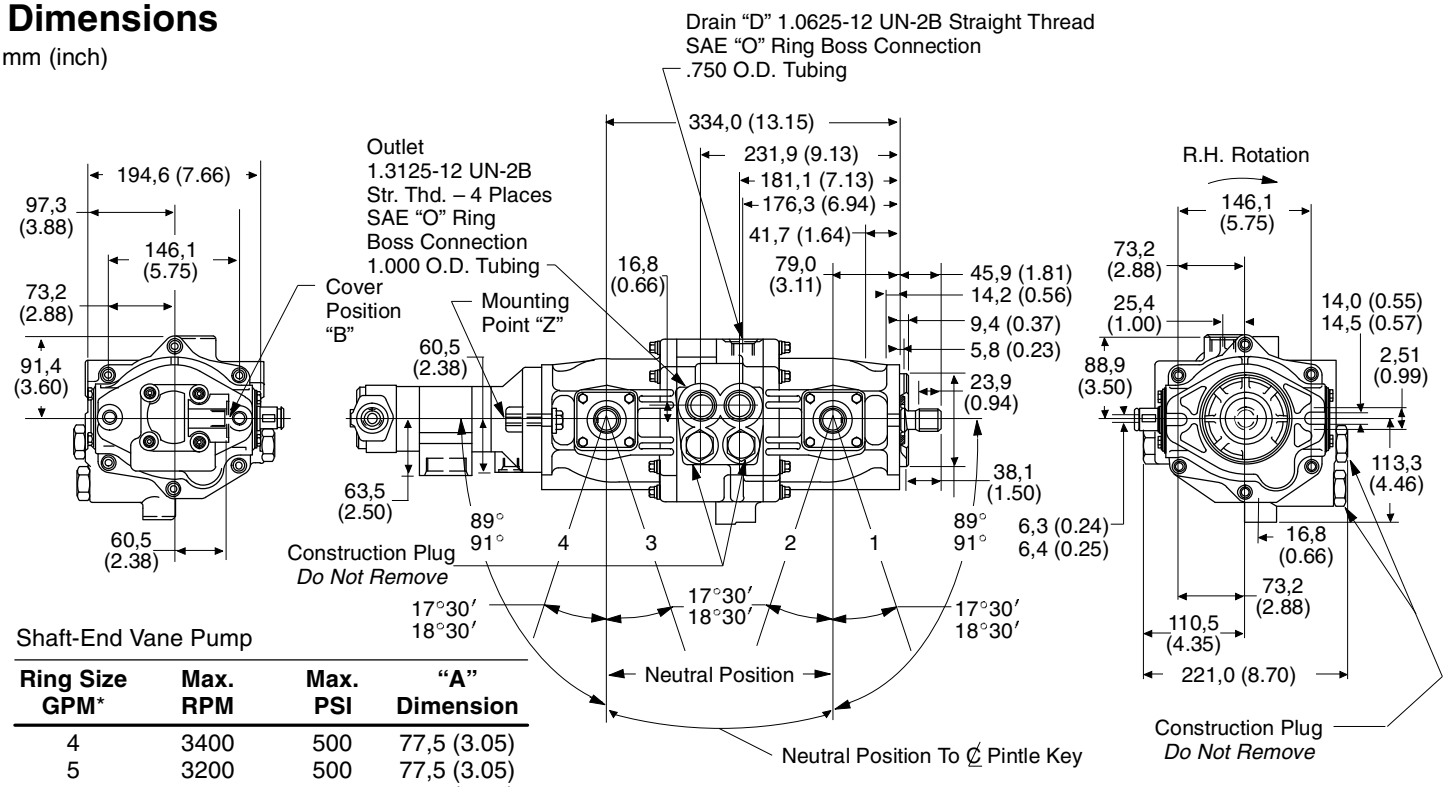


TA1919V1010P with Main Relief Valves

TA1919V1010 Double Pump

Dimensions

mm (inch)

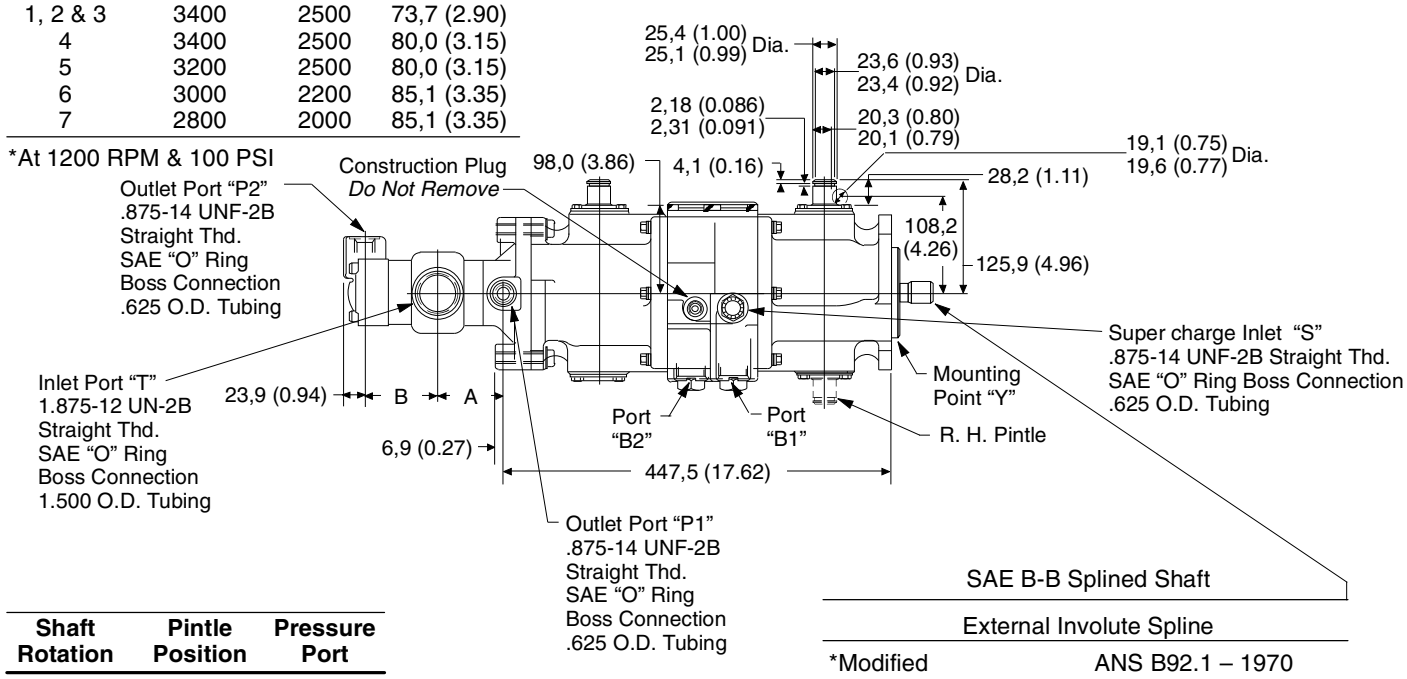


Shaft-End Vane Pump

Ring Size GPM*	Max. RPM	Max. PSI	"A" Dimension
4	3400	500	77,5 (3.05)
5	3200	500	77,5 (3.05)
6	3000	500	82,6 (3.25)
7	2800	500	82,6 (3.25)

Cover-End Vane Pump			"B" Dimension
1, 2 & 3	3400	2500	73,7 (2.90)
4	3400	2500	80,0 (3.15)
5	3200	2500	80,0 (3.15)
6	3000	2200	85,1 (3.35)
7	2800	2000	85,1 (3.35)

*At 1200 RPM & 100 PSI



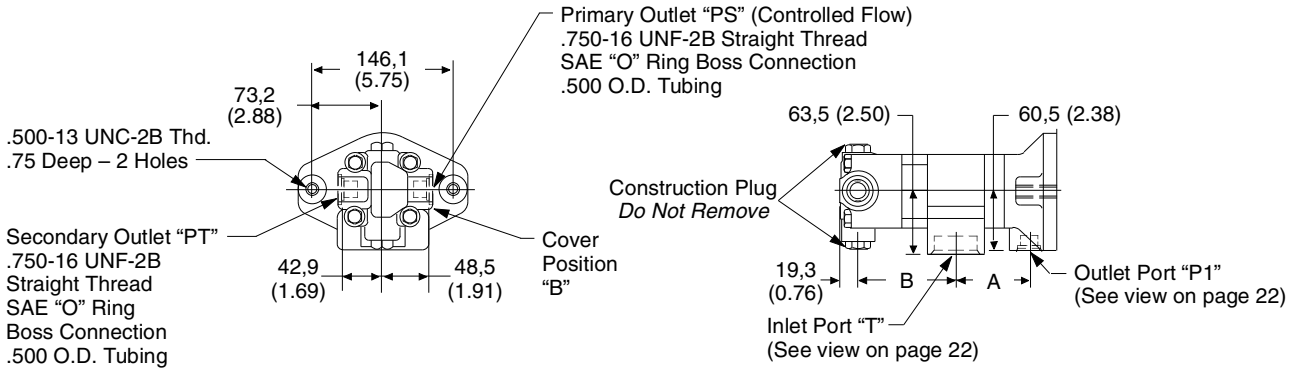
Shaft Rotation	Pintle Position	Pressure Port
R.H.	1	A1
R.H.	2	B1
R.H.	3	B2
R.H.	4	A2
L.H.	1	B1
L.H.	2	A1
L.H.	3	A2
L.H.	4	B2

Use of a secondary support of unit is required at mounting points "Y" & "Z" as shown. Outboard support to be such that external loads do not cause stress or deflection of the unit structure.

SAE B-B Splined Shaft		
External Involute Spline		
*Modified	ANS B92.1 – 1970	
23,9 (0.94) Pitch Dia.	20,6 (0.81) Base Dia.	
Flat Root Class 5 Side Fit		
15 Teeth 16/32 Pitch 30° Pr. Angle		
Major Dia. *24,9 (0.98) Max. 24,6 (0.97) Min.	Form Dia. 22,1 (0.87)	Minor Dia. – Max. 21,3 (0.84) Min.

Optional V1010F Auxiliary Pump

mm (inch)



Shaft-End Vane Pump

Ring Size GPM*	Max. RPM	Max. PSI	"A" Dimension
4	3400	500	77,5 (3.05)
5	3200	500	77,5 (3.05)
6	3000	500	82,6 (3.25)
7	2800	500	82,6 (3.25)

Optional V1010P Auxiliary Pump

Cover-End Vane Pump			"B" Dimension
1, 2 & 3	3400	2500	91,2 (3.59)
4	3400	2500	97,5 (3.84)
5	3200	2500	97,5 (3.84)
6	3000	2200	102,6 (4.04)
7	2800	2000	102,6 (4.04)

*At 1200 RPM & 100 PSI