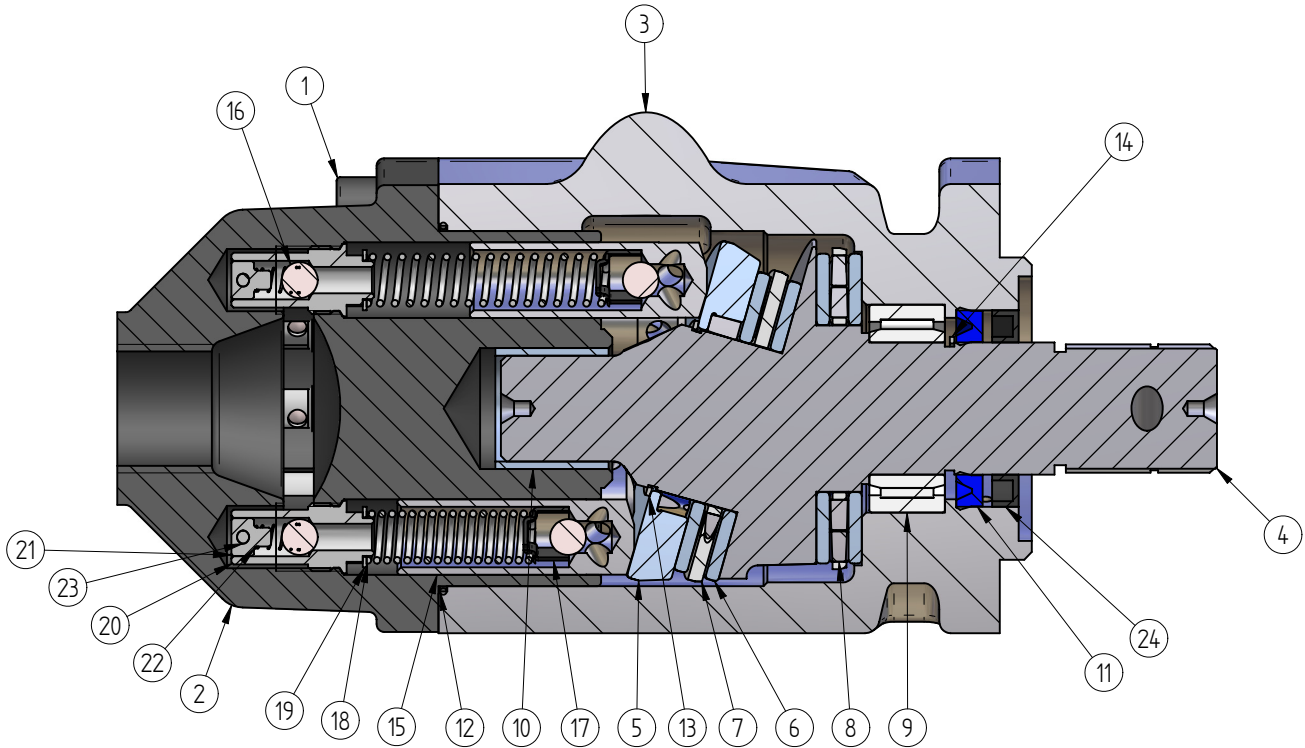
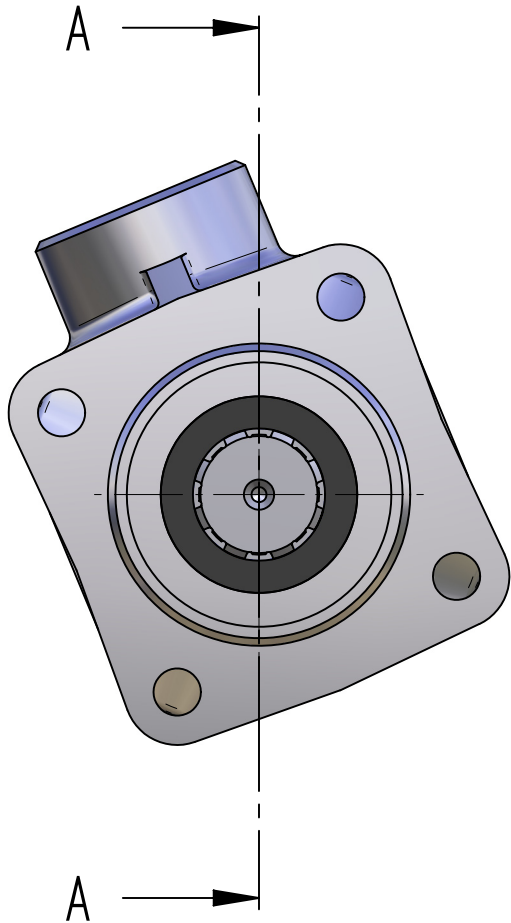


REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED



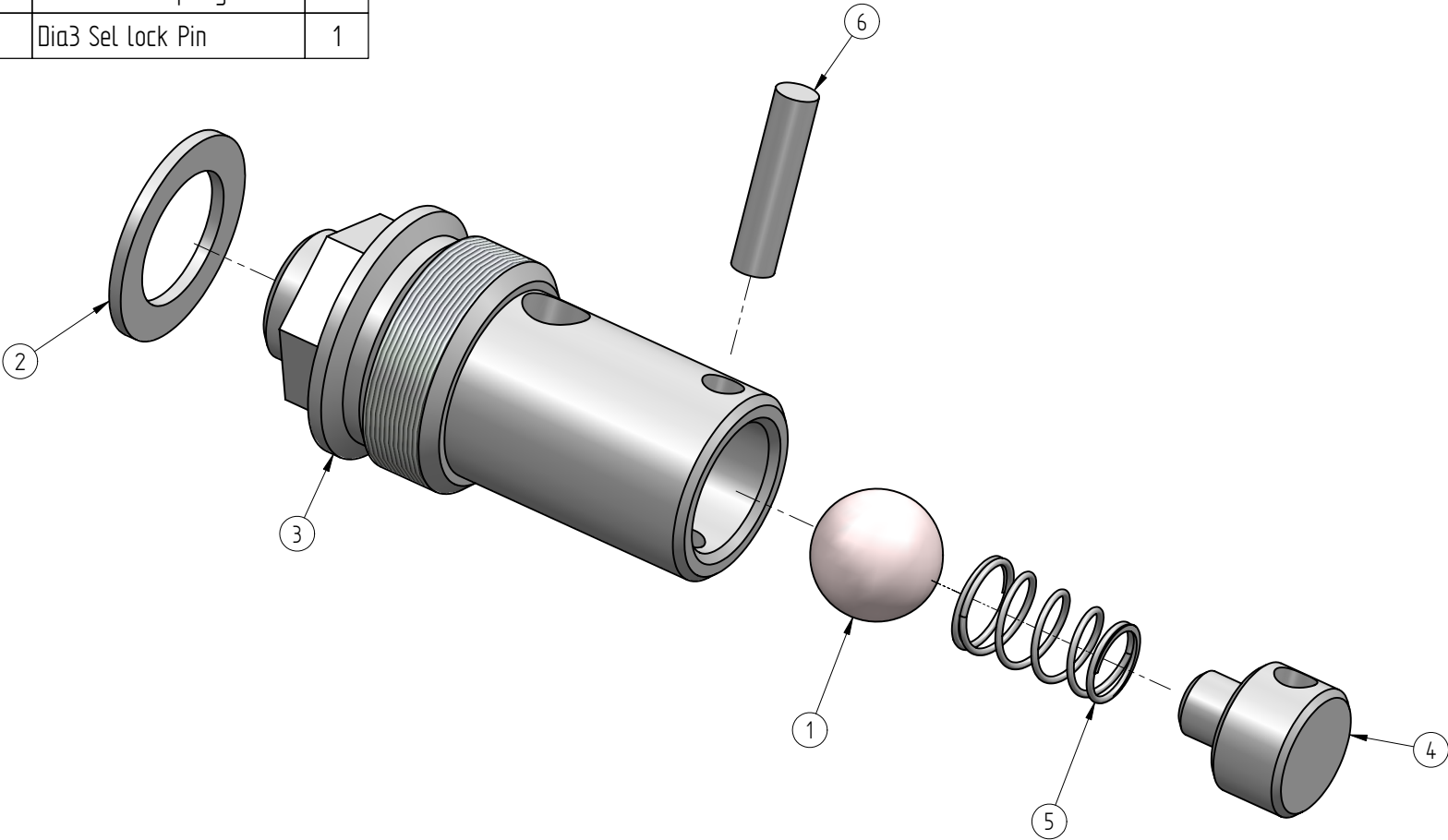
SECTION A-A

Item Number	Document Number	Title	Material	Quantity	Item Number	Document Number	Title	Material	Quantity
1	M12-35	Cap Screw	steel	4	13	P52-010	Snap Ring 44 Shaft	steel	1
2	P52-001	Housing	cast iron	1	14	P52-011	Snap Ring 35 Shaft	steel	1
3	P52-002	Inlet Housing	aluminum	1	15	P52-012	Piston	steel en19	8
4	P52-003	Pump Shaft	steel en19	1	16	P52-013	Steel Ball Dia 9.525	steel	16
5	P52-004-1	Roller Bearing Housing	steel	1	17	P52-014	Piston Ball Retaining Clip	steel	8
6	P52-004-3	Thrust Washer	steel	4	18	P52-015	Piston Spring	steel	8
7	P52-004-4	Thrust Bearing Cage	ptfe nylon	2	19	P52-016	Dia10 Washer	steel	8
8	P52-004-5	Cyl Roller 5-8	steel	102	20	P52-017	Check Valve Housing	steel	8
9	P52-006	Bearing NA 4907	steel	1	21	P52-019	Check Valve Ball Stopper	steel	8
10	P52-007	PAP 2830 P10	steel	1	22	P52-020	Check Valve Spring	steel	8
11	P52-008	Shaft Seal 35,52,7	polyurathane	1	23	P52-021	Dia3 Sel lock Pin	steel	8
12	P52-009	O-Ring 2-044		1	24	P52-022	OIL SEAL 35,52,7		1

NAME		DATE	PRECISION HYDRAULIC POWER		
DRAWN	Dan	06/01/06	TITLE		
APPROVED			P52 PTO PUMP		
MATERIAL			FILE NAME: PHP PTO Pump.dft		
TREATMENT			SCALE: WEIGHT: SHEET 1 OF 8		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGLES ±0.1° 2 PL ±0.02 3 PL ±0.005			SIZE A2	DWG NO	REV.
1:10 ASSEMBLY					

Item Number	Document Number	Title	Quantity
1	P52-013	Steel Ball Dia 9.525	1
2	P52-016	Dia10 Washer	1
3	P52-017	Check Valve Housing	1
4	P52-019	Check Valve Ball Stopper	1
5	P52-020	Check Valve Spring	1
6	P52-021	Dia3 Sel lock Pin	1

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

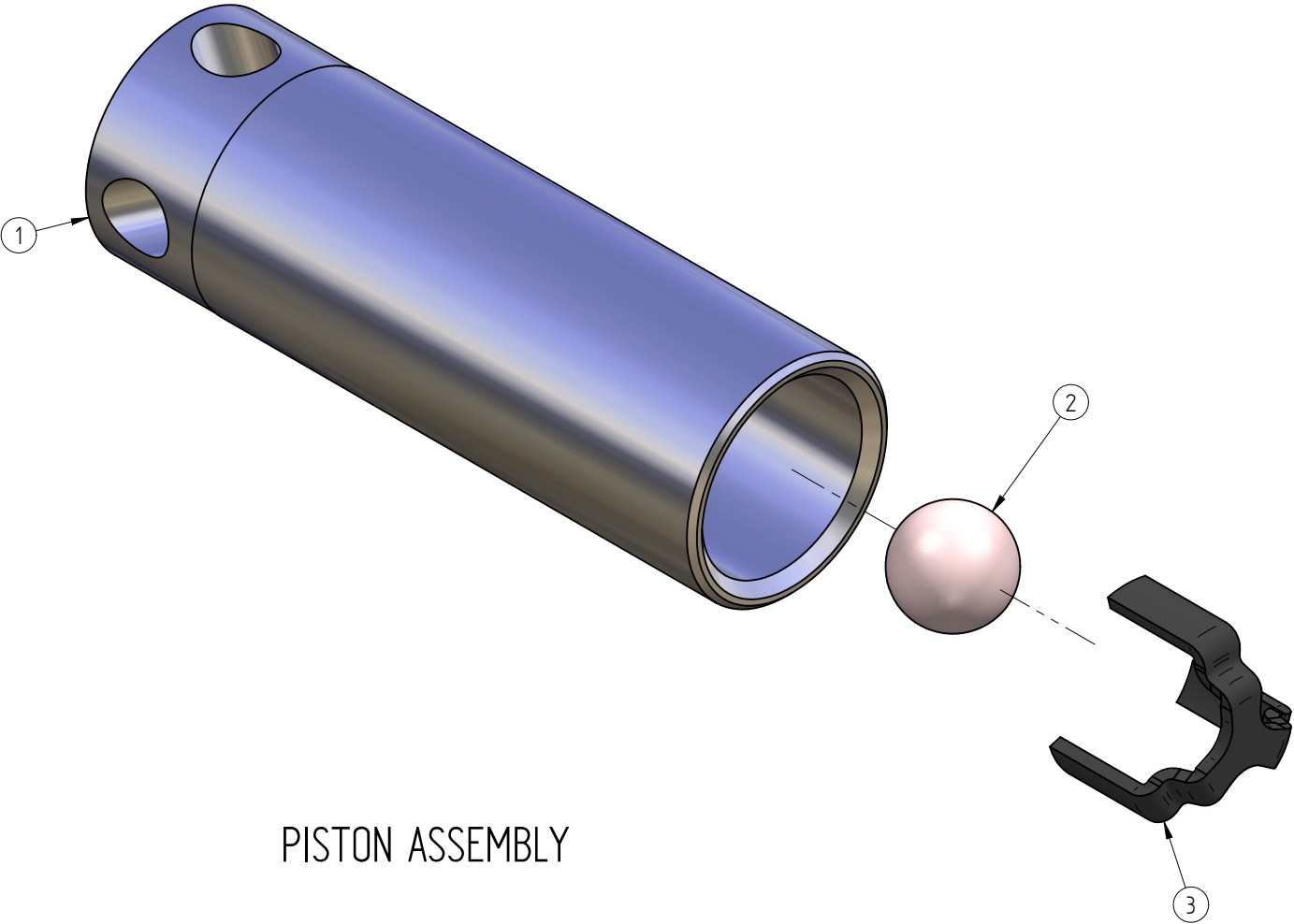


CHECK VALVE ASSEMBLY

	NAME	DATE	PRECISION HYDRAULIC POWER	
DRAWN	Dan	06/01/06	TITLE	
APPROVED			P52 PTO PUMP	
MATERIAL			FILE NAME: PHP PTO Pump.dft	
TREATMENT			SCALE: WEIGHT: SHEET 2 OF 8	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGLES ±0.1° 2 PL ±0.02 3 PL ±0.005			SIZE A2	DWG NO REV.

Item Number	Document Number	Title	Quantity
1	P52-012	Piston	1
2	P52-013	Steel Ball Dia 9.525	1
3	P52-014	Piston Ball Retaining Clip	1

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

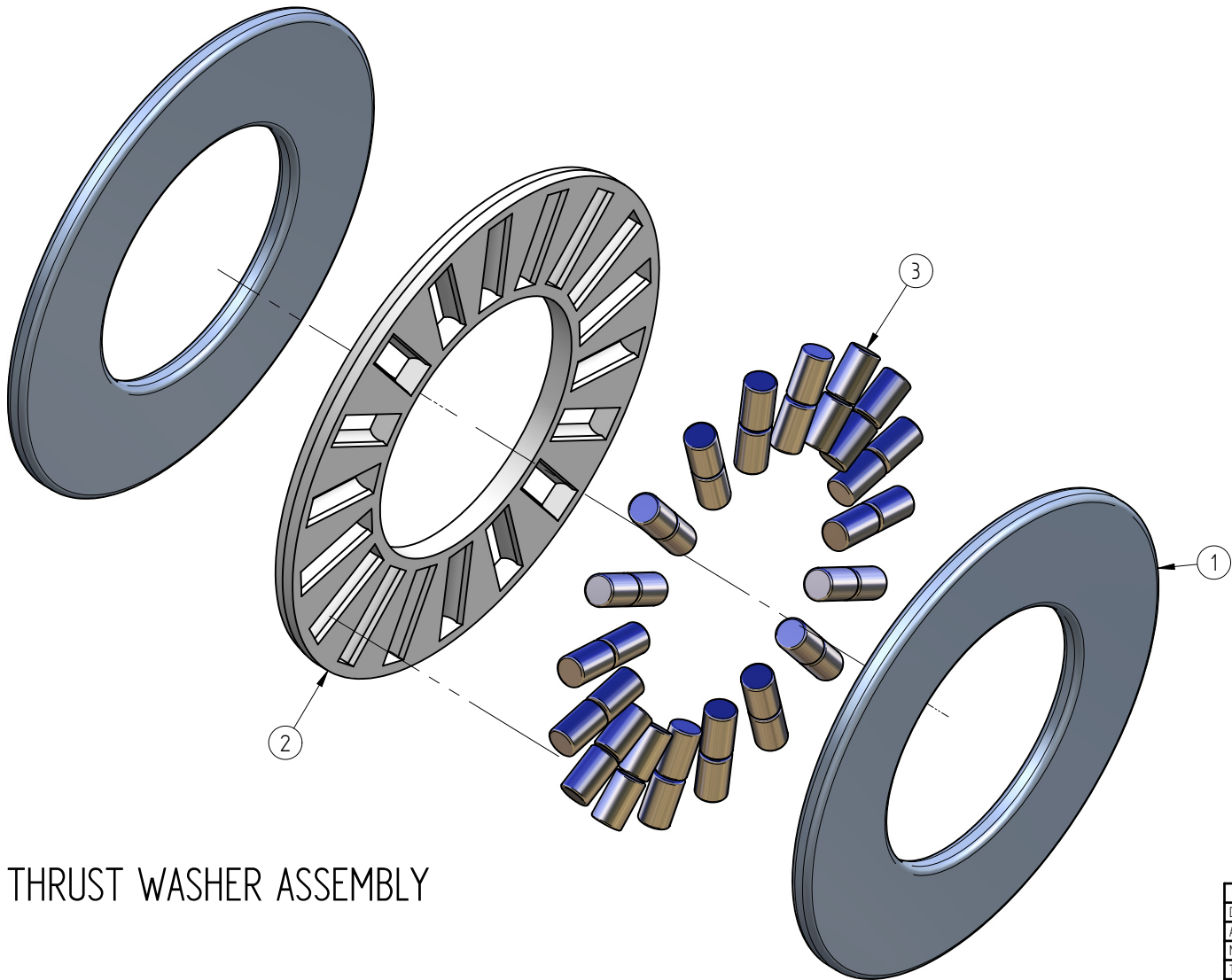


PISTON ASSEMBLY

	NAME	DATE	PRECISION HYDRAULIC POWER	
DRAWN	Dan	06/01/06	TITLE	
APPROVED			P52 PTO PUMP	
MATERIAL				
TREATMENT				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGLES ±0.1°			SIZE A2	DWG NO
2 PL ±0.02 3 PL ±0.005			FILE NAME: PHP PTO Pump.dft	
			SCALE:	WEIGHT:
			SHEET 3 OF 8	

Item Number	Document Number	Title	Quantity
1	P52-004-3	Thrust Washer	2
2	P52-004-4	Thrust Bearing Cage	1
3	P52-004-5	Cyl Roller 5-8	36

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

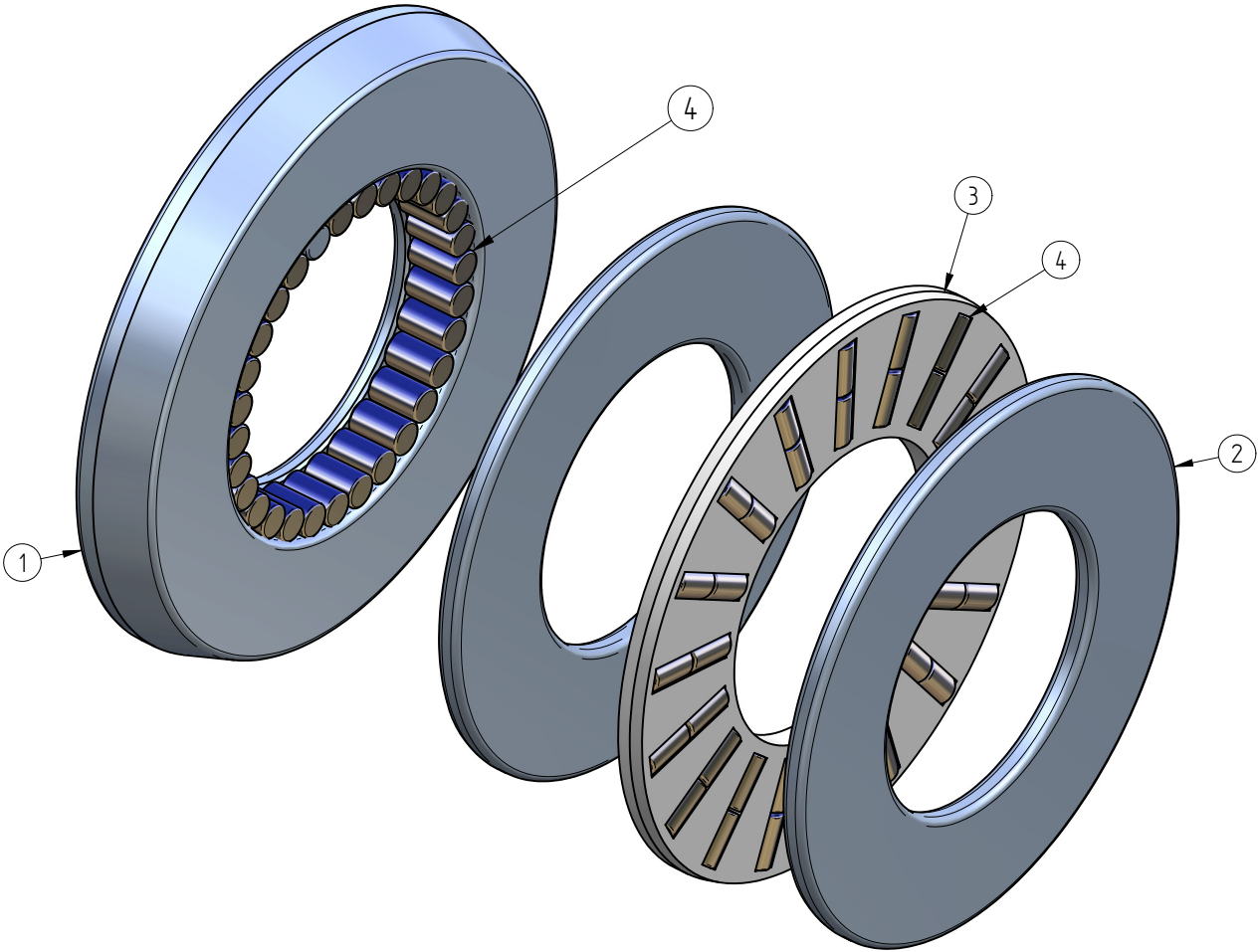


THRUST WASHER ASSEMBLY

	NAME	DATE	PRECISION HYDRAULIC POWER	
DRAWN	Dan	06/01/06	TITLE	
APPROVED			P52 PTO PUMP	
MATERIAL				
TREATMENT				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGLES ±0.1°			SIZE A2	DWG NO
2 PL ±0.02 3 PL ±0.005			FILE NAME: PHP PTO Pump.dft	REV.
SCALE:		WEIGHT:	SHEET 4 OF 8	

Item Number	Document Number	Title	Quantity
1	P52-004-1	Roller Bearing Housing	1
2	P52-004-3	Thrust Washer	2
3	P52-004-4	Thrust Bearing Cage	1
4	P52-004-5	Cyl Roller 5-8	66

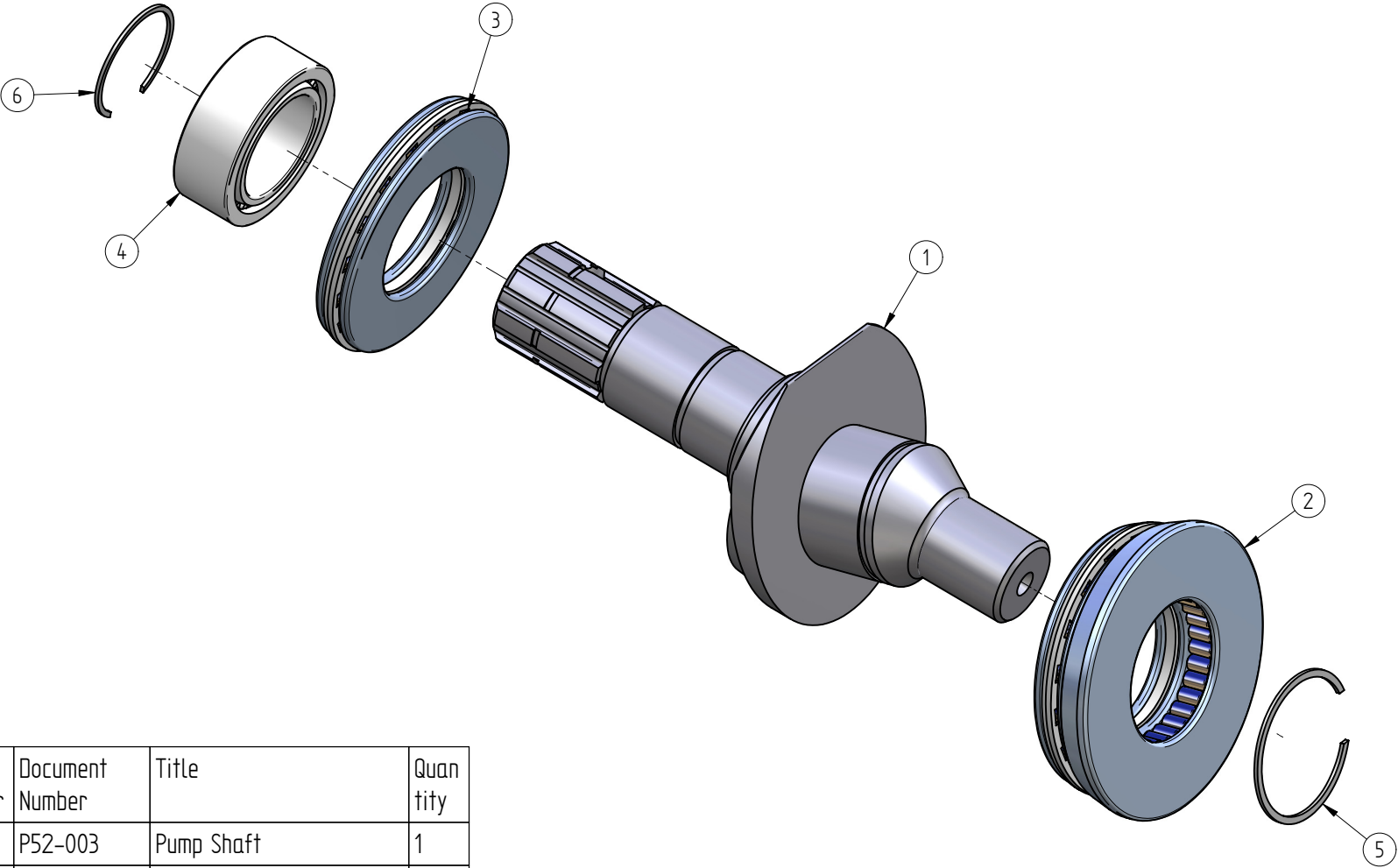
REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED



THRUST & ROLLER BEARING ASSEMBLY

	NAME	DATE	PRECISION HYDRAULIC POWER	
DRAWN	Dan	06/01/06		
APPROVED			TITLE	
MATERIAL			P52 PTO PUMP	
TREATMENT				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGLES ±0.1°			SIZE A2	DWG NO
2 PL ±0.02 3 PL ±0.005			FILE NAME: PHP PTO Pump.dft	REV.
			SCALE:	WEIGHT:
			SHEET 5 OF 8	

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED



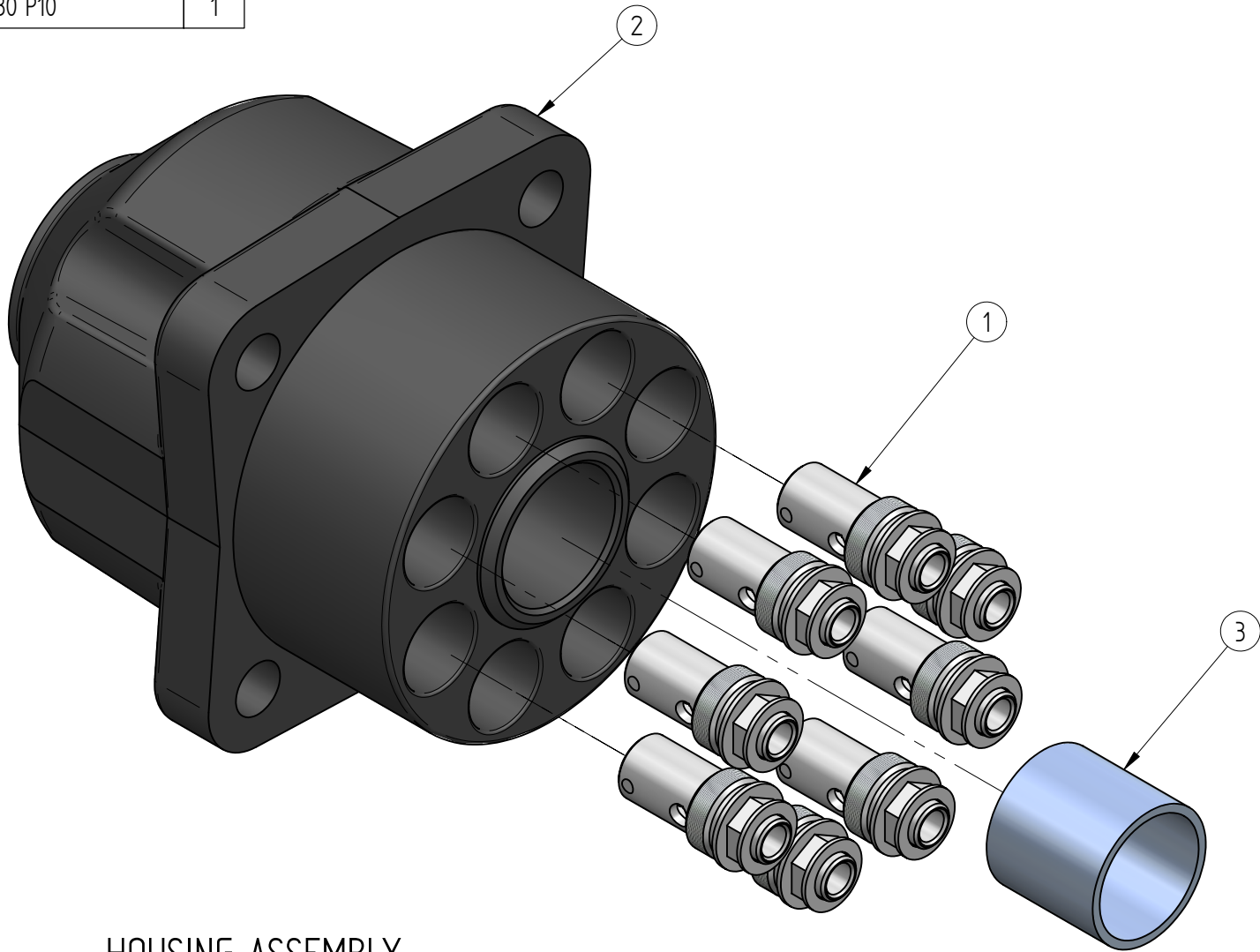
Item Number	Document Number	Title	Quantity
1	P52-003	Pump Shaft	1
2	P52-004	Thrust & Roller Bearing 44,85,22	1
3	P52-005	Thrust Bearing 44,85,12	1
4	P52-006	Bearing NA 4907	1
5	P52-010	Snap Ring 44 Shaft	1
6	P52-011	Spap Ring 35 Shaft	1

SHAFT ASSEMBLY

	NAME	DATE	PRECISION HYDRAULIC POWER	
DRAWN	Dan	06/01/06		
APPROVED			TITLE	
MATERIAL			P52 PTO PUMP	
TREATMENT				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGLES ±0.1° 2 PL ±0.02 3 PL ±0.005			SIZE A2	DWG NO
1:10 SCALE			FILE NAME: PHP PTO Pump.dft	REV.
			SCALE:	WEIGHT:
			SHEET 6 OF 8	

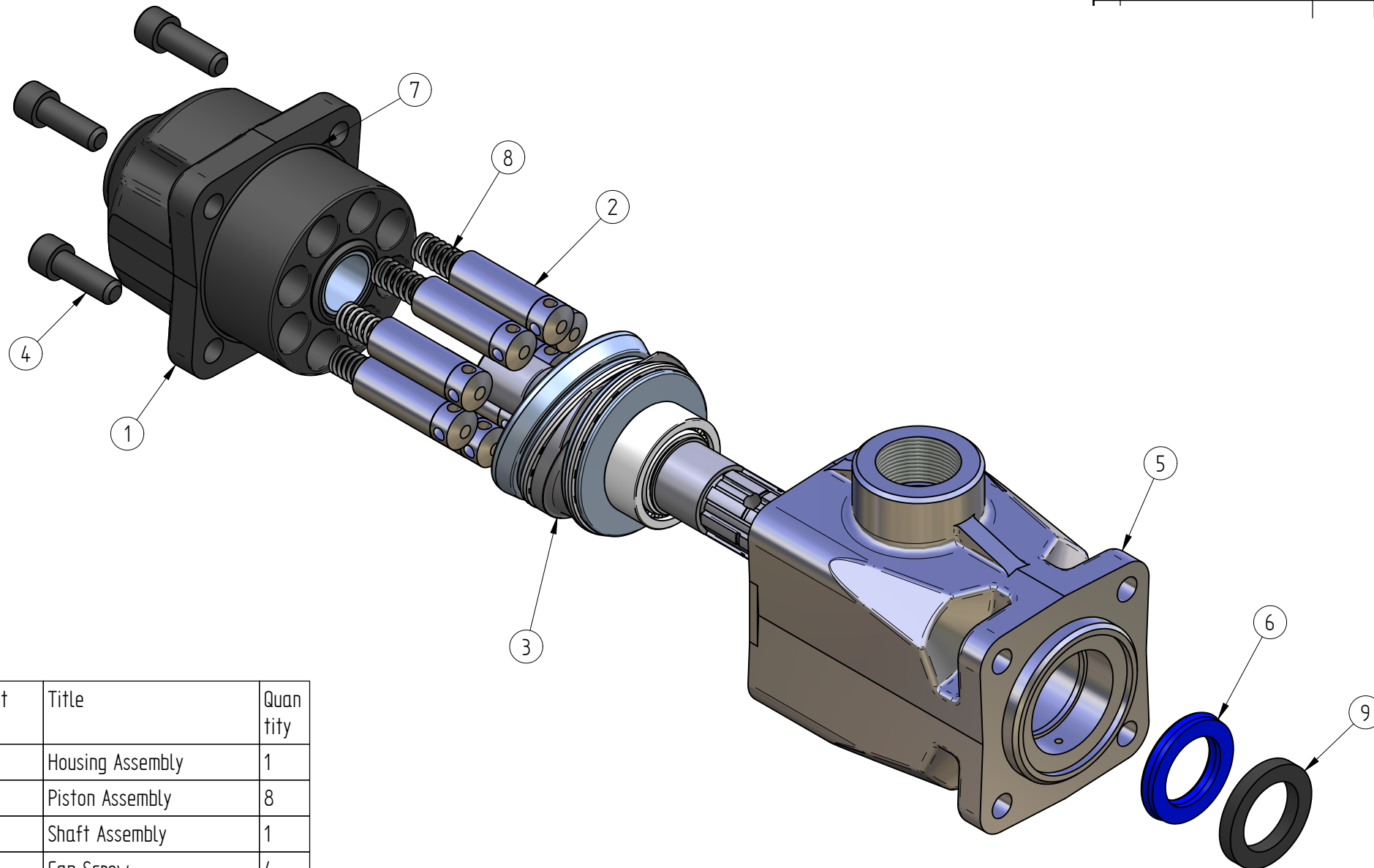
Item Number	Document Number	Title	Quantity
1		Check Valve Assembly	8
2	P52-001	Housing	1
3	P52-007	PAP 2830 P10	1

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED



HOUSING ASSEMBLY

	NAME	DATE	PRECISION HYDRAULIC POWER		
DRAWN	Dan	06/01/06	TITLE		
APPROVED			P52 PTO PUMP		
MATERIAL			FILE NAME: PHP PTO Pump.dft		
TREATMENT			SCALE: WEIGHT: SHEET 7 OF 8		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGLES ±0.1° 2 PL ±0.02 3 PL ±0.005			SIZE A2	DWG NO	REV.



P52 PTO PUMP ASSEMBLY

Item Number	Document Number	Title	Quantity
1		Housing Assembly	1
2		Piston Assembly	8
3		Shaft Assembly	1
4	M12-35	Cap Screw	4
5	P52-002	Inlet Housing	1
6	P52-008	Shaft Seal 35,52,7	1
7	P52-009	O-Ring 2-044	1
8	P52-015	Piston Spring	8
9	P52-022	OIL SEAL 35,52,7	1

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

	NAME	DATE	PRECISION HYDRAULIC POWER	
DRAWN	Dan	06/01/06		
APPROVED			TITLE	
MATERIAL			P52 PTO PUMP	
TREATMENT				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGLES ±0.1° 1:12 ANGLES			SIZE A2	DWG NO
2 PL ±0.02 3 PL ±0.005			FILE NAME: PHP PTO Pump.dft	REV
			SCALE	WEIGHT
			SHEET 8 OF 8	