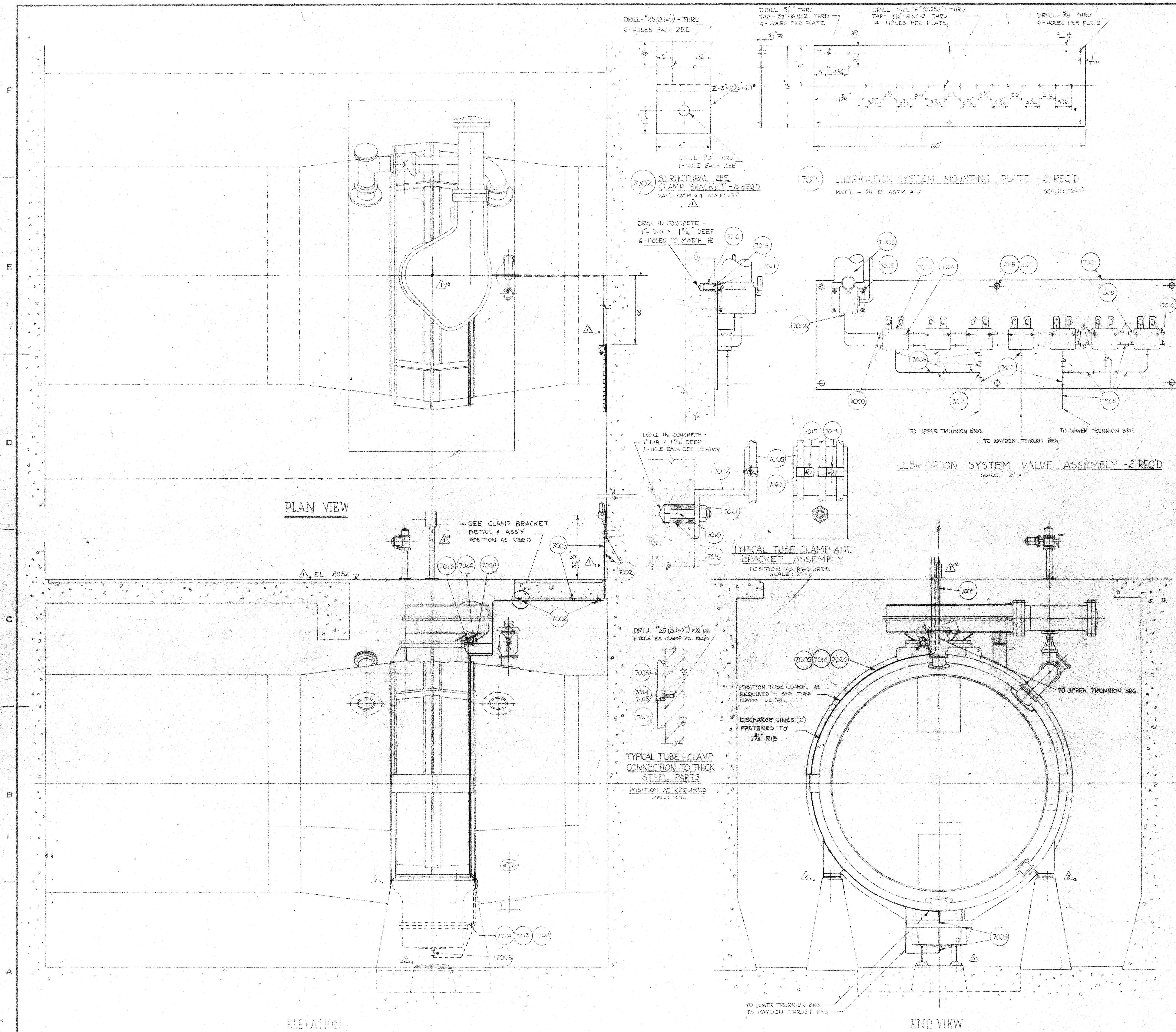


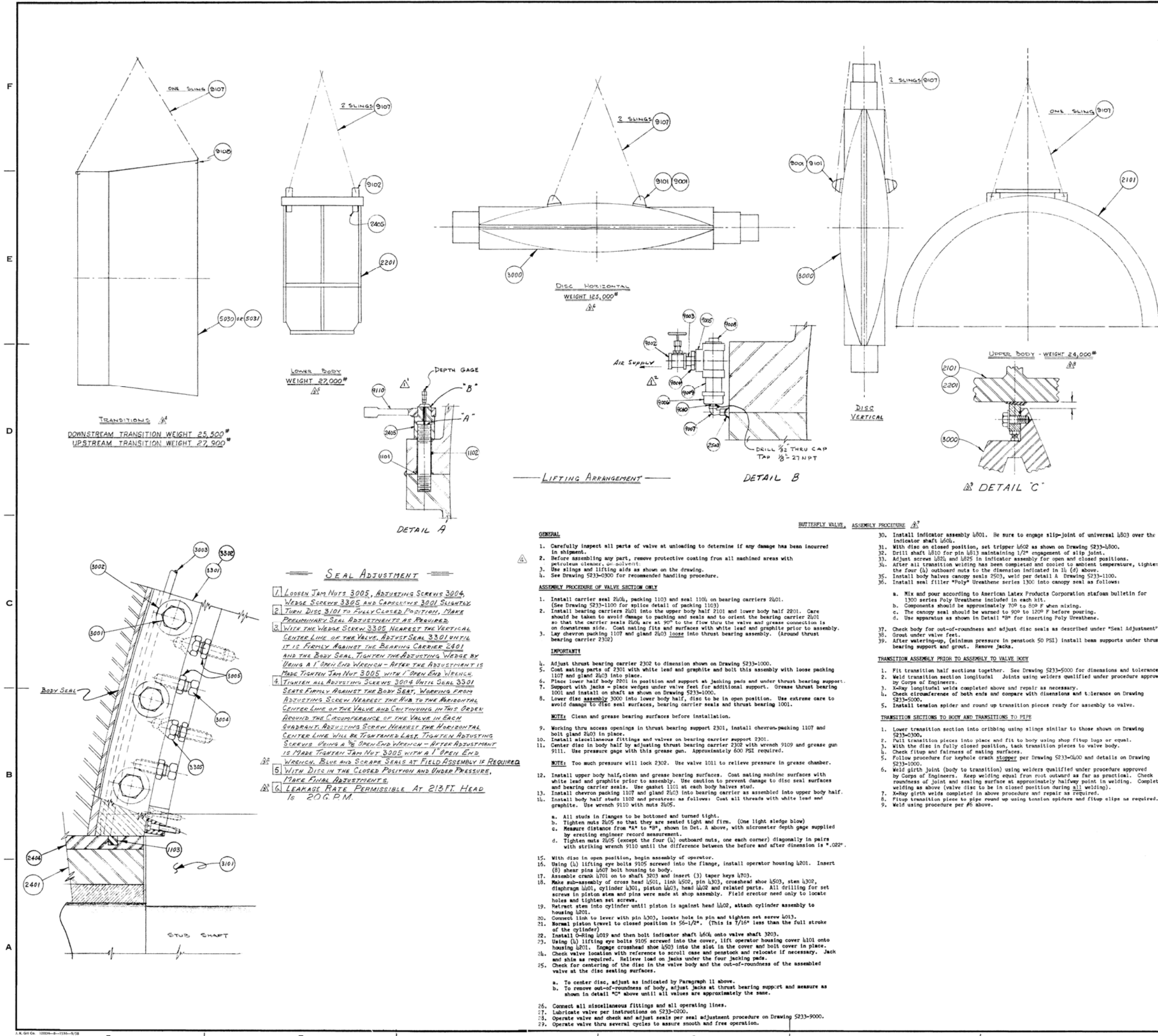
PARTS LIST				
PART NO.	SUB PART NO.	DESCRIPTION	MATERIAL	
5000	A	TRANSITION ASSEMBLY		
5001	2	WELD ROD (E7018)		
5002	2	14'-150" R.F. WELDING NECK	COMM. L.	
5003	2	12'-150" R.F. WELDING NECK	SIMPLEX	
5004	2	12'-150" R.F. WELDING NECK	COMM. L.	
5005	2	12'-150" R.F. WELDING NECK	COMM. L.	
5006	2	12'-150" R.F. WELDING NECK	COMM. L.	
5007	2	12'-150" R.F. WELDING NECK	COMM. L.	
5008	2	12'-150" R.F. WELDING NECK	COMM. L.	
5009	2	12'-150" R.F. WELDING NECK	COMM. L.	
5010	2	12'-150" R.F. WELDING NECK	COMM. L.	
5011	2	12'-150" R.F. WELDING NECK	COMM. L.	
5012	2	12'-150" R.F. WELDING NECK	COMM. L.	
5013	2	12'-150" R.F. WELDING NECK	COMM. L.	
5014	2	12'-150" R.F. WELDING NECK	COMM. L.	
5015	2	12'-150" R.F. WELDING NECK	COMM. L.	
5016	2	12'-150" R.F. WELDING NECK	COMM. L.	
5030	2	UPSTREAM TRANSITION WELDMENT		
5031	2	DOWNSTREAM TRANSITION WELDMENT		
5032	2	BYPASS TEE WELDMENT		
5033	2	BYPASS PIPING WELDMENT		
5034	2	BYPASS ELBOW WELDMENT		
5000	2	TRANSITION ASSEMBLY		

* INCLUDES ONE EXTRA GASKET PER FLANGE.
 INSPECTION: BY WIRE...
 CLEANING: WIRE...
 PAINTING: WIRE...
 WELD PROCEDURE: WISCO WELD...
 TESTING: WISCO WELD...
 TOLERANCES: SHOP...
 CUSTOMER'S APPROVAL: _____
 REFERENCE DRAWINGS: 5233-1000 & 5233-100
 REVISIONS: _____
 FOR CONTRACT: DA-32-015-CIVENG-59-113
 TITLE: FORT PECK DAM
 18'-0" BUTTERFLY VALVE
 TRANSITION DETAILS & PIPING
 WILLAMETTE IRON AND STEEL COMPANY
 2800 N. FRONT AVENUE
 PORTLAND 10, OREGON
 DE: R.D. SCALE: 1/4" = 1'-0"
 TR: DATE: DEC. 1966
 CH: C.H. APPROV: FEW
 DATE: 12/1/66
 SALES ORDER NO. 5233
 COMPONENT NO. 5000
 DATE ISSUED: 12/1/66
 FILE NO.: H-1086
 REV. 1/1/67
 REV. 7/1/67
 REV. 12/1/66



PARTS LIST				
PART NO.	QTY	DESCRIPTION	MATERIAL	
7001	2	5/8" x 15' x 60"	ASTM A-7	
7002	8	2" x 2 1/2" x 6' x 3"	ASTM A-7	
7003	2	VARIAL GRABER 1000 12" DR	VARIAL GRABER 1000 12" DR	
7004	2	TURBINATION METERING VALVES WITH MOUNTING BRACKETS	TURBINATION METERING VALVES WITH MOUNTING BRACKETS	
7005	1	1/2" NPT. ST. PIPE	1/2" NPT. ST. PIPE	
7006	40	PIPE CONNECTOR - 1/2" NPT.	PIPE CONNECTOR - 1/2" NPT.	
7007	6	LINE CHECK - ST. L.	LINE CHECK - ST. L.	
7008	6	PIPE CONNECTOR - 1/2" NPT.	PIPE CONNECTOR - 1/2" NPT.	
7009	52	PIPE CLAMP - 1/2" NPT.	PIPE CLAMP - 1/2" NPT.	
7010	4	PIPE TEE - 1/2" NPT.	PIPE TEE - 1/2" NPT.	
7011	2	PIPE TEE - 1/2" NPT.	PIPE TEE - 1/2" NPT.	
7012	1	BAKEL TRANSFER PUMP	BAKEL TRANSFER PUMP	
7013	2	4" NPT. ST. PIPE	4" NPT. ST. PIPE	
7014	32	1/2" NPT. TUBE CLAMP	1/2" NPT. TUBE CLAMP	
7015	22	1/2" NPT. TUBE CLAMP	1/2" NPT. TUBE CLAMP	
7016	40	1/2" NPT. TUBE CLAMP	1/2" NPT. TUBE CLAMP	
7017	20	1/2" NPT. TUBE CLAMP	1/2" NPT. TUBE CLAMP	
7018	20	1/2" NPT. TUBE CLAMP	1/2" NPT. TUBE CLAMP	
7019	54	1/2" NPT. TUBE CLAMP	1/2" NPT. TUBE CLAMP	
7020	20	1/2" NPT. TUBE CLAMP	1/2" NPT. TUBE CLAMP	
7021	8	5/8" NPT. CHECK VALVE	5/8" NPT. CHECK VALVE	
7022	4	1/2" NPT. ST. PIPE	1/2" NPT. ST. PIPE	

INSPECTION: BY WISCO 2/28	
CLEANING: NONE	
PAINTING: NONE	
WELD PROCEDURE: NONE	
STRESS RELIEF: NONE	
TESTING: AT FIELD ASSEMBLY (2000 PSI)	
LUBRICATION: NONE (LUBRICANT BY OTHERS)	
TOLERANCES: SHOP STD. UNLESS SHOWN OTHERWISE	
CUSTOMER'S APPROVAL	
REFERENCE DRAWINGS	
A-2.4 SUPPORTS ADDED UNDER	
B-2.4 EQUIVALENT PER 9E LETTER	
C-2.4 DATED 1/15/47	
D-2.4 REV INDICATOR PER 9E LETTER	
E-2.4 DATED 12/15/48	
F-2.4 GENERAL LUB. PIPING LAYOUT CHANGE	
G-2.4 PER 9E LETTER DATED 12/15/48	
REVISION	BY DATE
FOR CONTRACT	
TITLE: FORT PECK DAM 18 FOOT BUTTERFLY VALVE LUBRICATION SYSTEM DETAILS	
WILLAMETTE IRON AND STEEL COMPANY 2800 N. W. FRONT AVENUE PORTLAND 16, OREGON	
DR. AR. SCALE: 1/2" = 1 FT.	DATE ISSUED
TR. DATE: 3-10-1958	FILE NO.
CHKD. BY: FEW	H-4088
SALES ORDER NO.	COMPONENT
5233	7000



PARTS LIST				
PART NO.	QTY	NO. REQD.	DESCRIPTION	MATERIAL
9001	16	16	1/4" GNC-2 x 3 1/2" HEX CAP SCREW	STL COMPL
9101	4	4	DISC LIFTING EYE	STL 5233-9100
9102	4	4	LOWER BODY LIFTING EYE	STL 5233-9100
9107	2	2	SLING	"
9108	2	2	WELT 140005	"
9110	2	2	10 FT BOX STRIKING WRENCH	"
2401	4	4	BEARING CARRIER CASTING	STL 5233-2400
2405	48	48	SPECIAL NUT	"
3001	234	234	3/8"-10NC-2 1/2" HEX HD C/PK	STL 5233-3000
3002	134	134	1/4" FLAT W/NER	"
3003	2	2	1/4" EXTERIOR O-RING	"
3004	232	232	3/8"-10NC-2 1/2" HEX HD C/PK	"
3005	248	248	3/8"-10NC-2 1/2" HEX JAM NUT	"
3101	2	2	DISC WELDMENT	STL 5233-3100
3301	2	2	DISC SEAL SEAT	STL 5233-3300
3305	16	16	DISC SEAT WEDGE	"
3302	2	2	DISC SEAL SEAT	"
2101	2	2	UPPER HALF - VALVE BODY	STL 5233-2100
2201	2	2	LOWER HALF - VALVE BODY	STL 5233-2200
3000	2	2	DISC ASSEMBLY	STL 5233-3000
5030	2	2	UPSTREAM TRANSITION	STL 5233-5000
5031	2	2	DOWNSTREAM TRANSITION	"
9002	1	1	1/2"-125" BRASS GLOBE VALVE	CRWS
9003	1	1	1/2" SHORT NIPPLE	STEEL
9004	1	1	1/2" x 1/2" HEX BUSHING	WALTELL
9005	1	1	1/2" TEE 150"	"
9006	1	1	1/2" CAP 150"	"
9007	1	1	1/2" STREET ELL	"
9008	1	1	1/2" SQ HD PIPE PLUG	STEEL
9009	1	1	1/2" x 3/2" NIPPLE STD	"
9010	1	1	1/2" GLOBE NIPPLE	"
INSPECTION: BY WISCO & C/O				
CLEANING: NAME				
PAINTING: COAT MACHINE SURFACES WITH GOSMOLINE 1072 FOR SHIPPING				
WELD PROCEDURE: NAME				
STRESS RELIEVE: NAME				
TESTING: NAME				
LUBRICATION: NAME				
TOLERANCES: NAME				
CUSTOMER'S APPROVAL				
FINAL RECORD				
JAN 14 1960				
REFERENCE DRAWINGS				
C-4 CHANGE NOTE FOR NUMBER PRINT				
D-3 REVISED ASSEMBLY PROCEDURE				
E-1 REVISED SEAL ADJUSTMENT PROCEDURE				
FOR CONTRACT				
DA-32-05-ENVENG-59-112				
TITLE				
18-0 BUTTERFLY VALVE				
SEAL ADJUSTMENT - VALVE ASSEMBLY INSTRUCTIONS				
WILLAMETTE IRON AND STEEL COMPANY				
3800 N. W. FRONT AVENUE				
PORTLAND 10, OREGON				
DR. G.H. SCALE: 1/8" = 1" FT. DATE ISSUED: JAN 6 1960				
TR. DATE: SEP 29 1959 H-4090				
CK BY: APP'D: FEH				
SALES ORDER NO. 5233 COMPONENT 9000				
REV. 4				