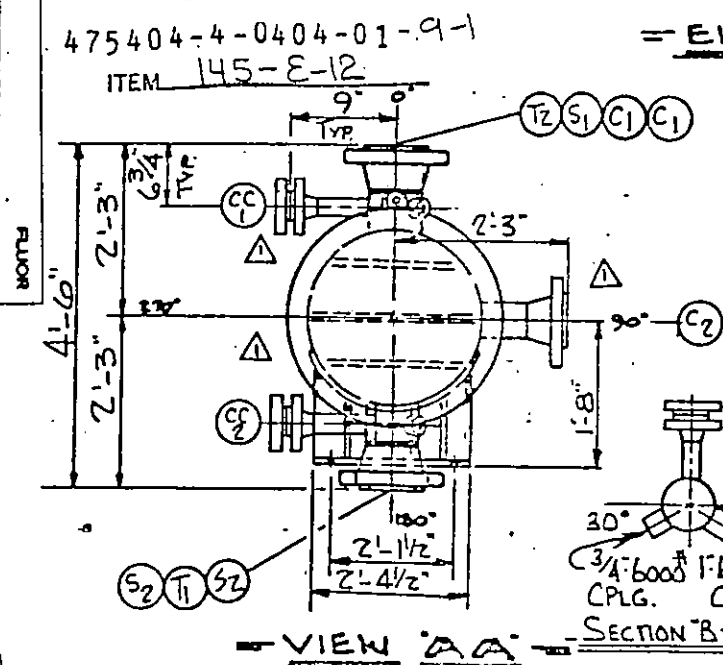
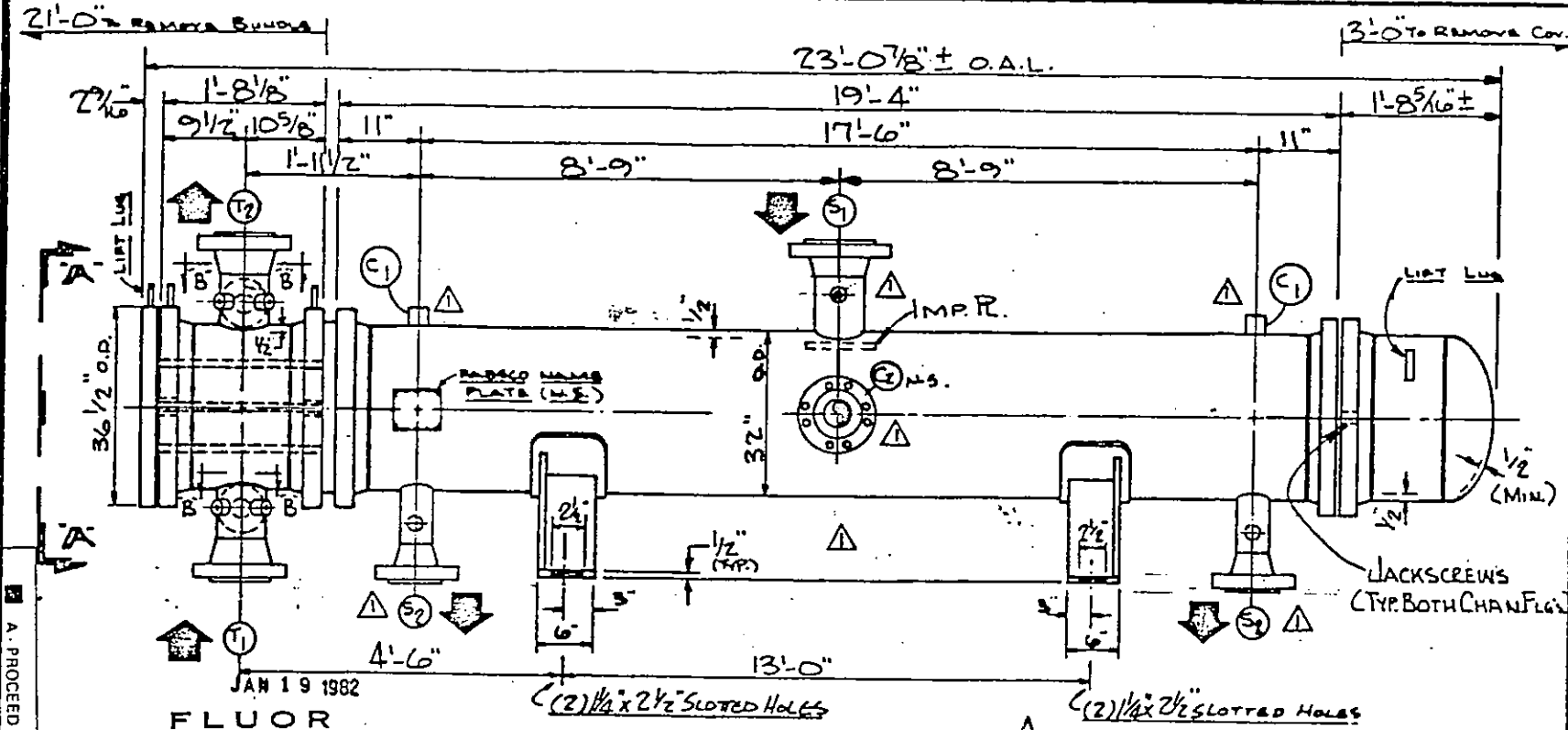


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= ELEVATION VIEW =

OPERATING COND.	TEMP. IN	TEMP. OUT
SHELL SIDE	110.8	110.6
TUBE SIDE	75	105.8
OPERATING COND.	PRESS. IN	PRESS. OUT
SHELL SIDE	250	249.7
TUBE SIDE	70	58

- △ LOCATE PIPE CPLG'S IN NOZ'S NECK T1 & T2 AS SHOWN △
- △ LOCATE 1-1" (N.S.) & 1-3/4" (F.S.) 6000# PIPE CPLG. IN NOZ'S NECK S1.
- △ IN NOZ. NECK S2, LOCATE 1-3/4" (F.S.) 6000# CPLG.
- △ 2 SETS OF SPARE GASKETS REQD.
- △ * 125-200 AARH FINISH ON GASKET FACING.
- △ 2. ALL CPLG'S TO BE PLUGGED.

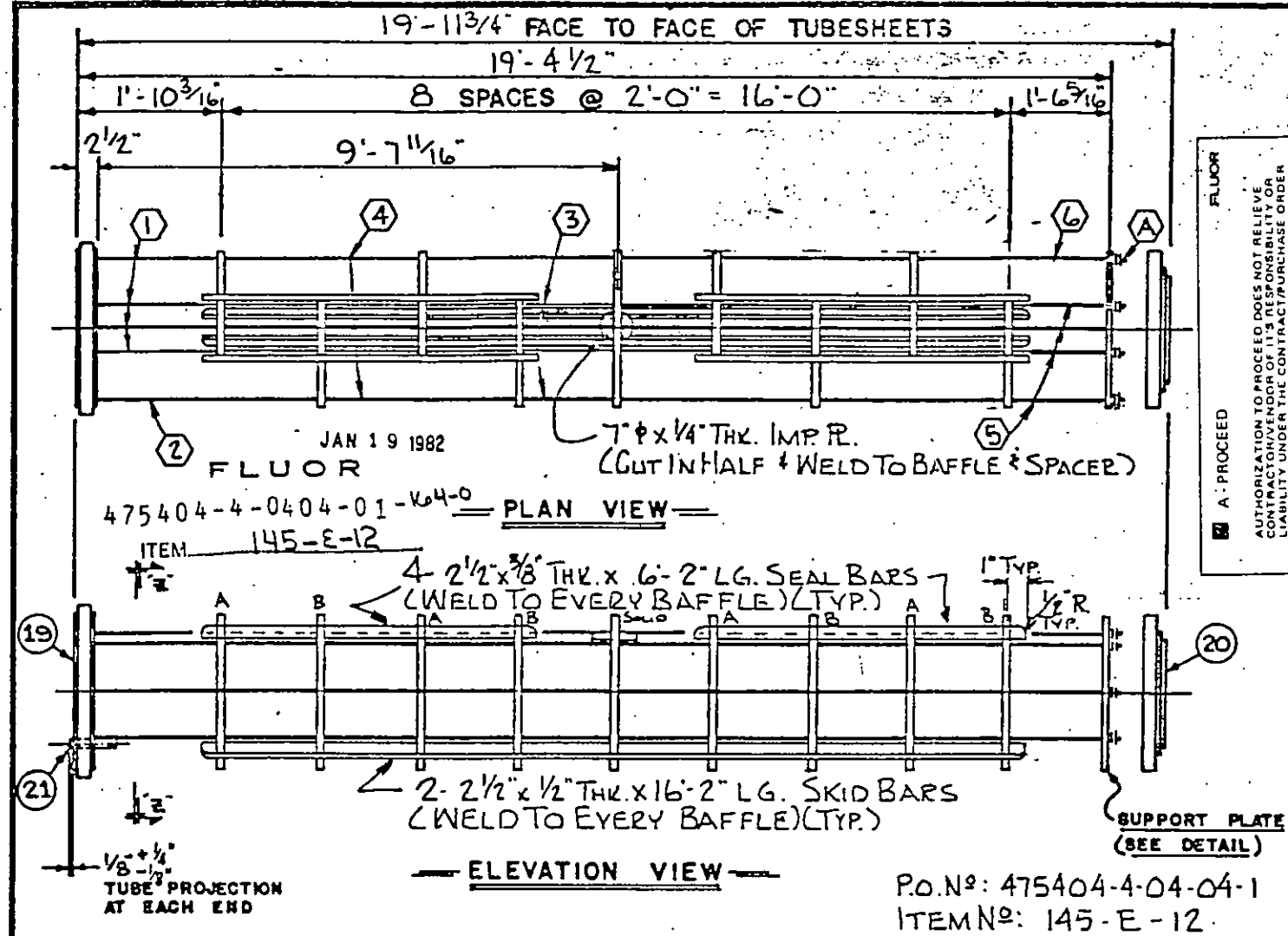
CC	2"-150# RF-WN	CC	2"-150# RF-WN
1	CHEM. CLEAN	2	CHEM. CLEAN
C1	1"-6000# CPLG (VENT) (2)		
C2	3"-300# RF-WN * (VENT) △		
T2	6"-150# RF-WN (OUTLET)	5	3"-300# RF-WN (OUTLET) △
T1	6"-150# RF-WN (INLET)	5	3"-300# RF-WN (INLET) △
EX	SIZE - 6000#	EX	SIZE - 125#

= NOZZLES =

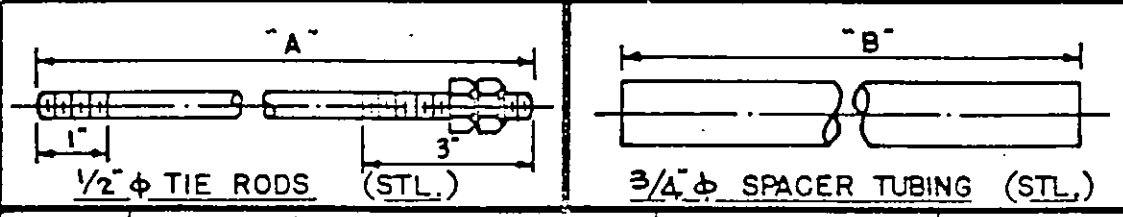
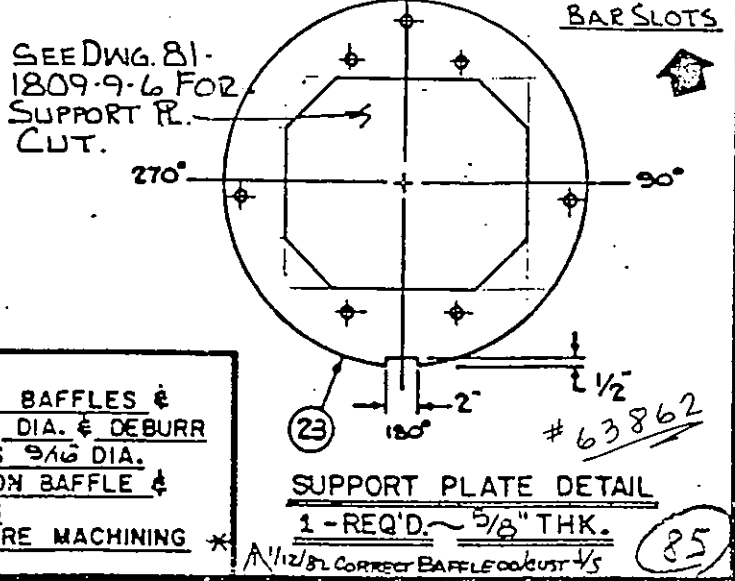
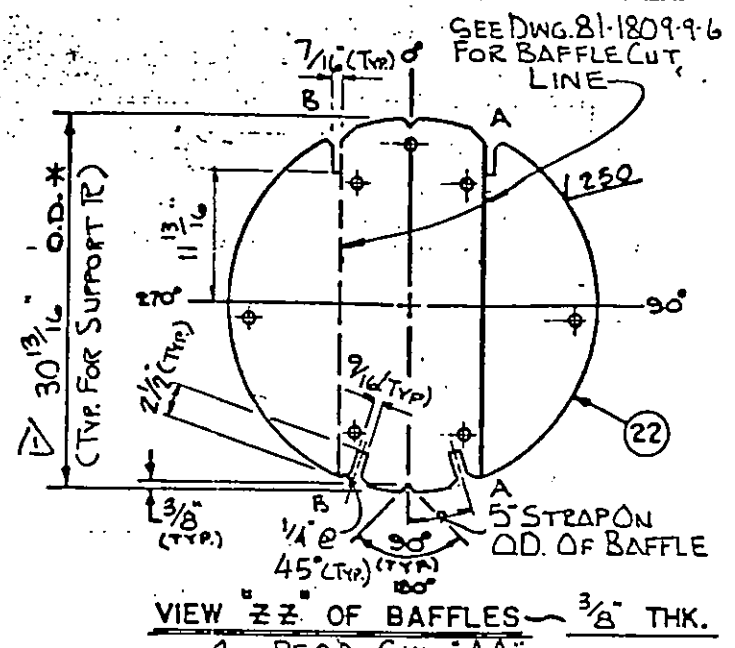
SPECIFICATIONS FOR (ONE) UNIT

	SHELL	TUBE
DESIGN PRESSURE - P.S.I.G.	300	100
TEST PRESSURE - P.S.I.G.	450	150
DESIGN TEMPERATURE - °F	450	175
CORROSION ALLOWANCE - IN.	1/8"	1/8"
NUMBER OF PASSES	DIVIDED F.	6
RADIOGRAPHIC EXAMINATION	SPOT	SPOT
POST WELD HEAT TREATMENT	NONE	NONE
TUBES: 594 3/4" O.D. X .085 (MIN) WALL X 20'-0 1/2"		
TUBE PITCH: 15/16" Δ SURFACE: 2291 SQ. FT.		
TUBE END ATTACHMENT: ROLLER EXPANDED		
MATERIAL: SHELL SIDE - C-STL.		
TUBE SIDE - C-STL BUNDLE - C-STL		
GASKETS: 1/8" THK ARISCO IRON DEL. JACKETED ASBESTOS FILLED.		
ALL BOLT HOLES TO STRADDLE S.B.		
PAINT: SB/SSFC-SP66 PAINT OUTSIDE		
W/1-COAT DUPONT "GANICIN"		
347-Y-931 INORGANIC RICH PAINT		
PRIMER (2.5 TO 5.0 MILS. DFT.)		
LCEC 63862		
CUSTOMER: FLUOR ENGINEERS & CONST.		
BY: UNION OIL CO. OF CALIFORNIA.		
SHIP TO: PARACHUTE CREEK, COLO.		
P.O. NO: 475404-4-04-04-1		
ITEM NO: 145-E-12		
SIZE: 31-240 TYPE: AJT		
SERVICE: NH3 FRACTIONATOR CONDENSOR		
EST. WTS.: DRY - 17,500 # WET - 25,000 #		
BUNDLE - 9,700 # UNITS REQD.: (ONE)		
- SETTING PLAN 78		
DESIGNED & FABRICATED IN ACCORDANCE WITH THE LATEST EDITION OF THE ASME CODE (SECTION VIII, DIVISION ONE) & SO STAMPED		
FABSCO, INC. SAPULPA, OKLA.		
81-1809-9-1		

63862



FLUOR
A: PROCEED
AUTHORIZATION TO PROCEED DOES NOT RELIEVE
CONTRACTOR/VENDOR OF IT'S RESPONSIBILITY OR
LIABILITY UNDER THE CONTRACT/PURCHASE ORDER



NOTES -
1) DRILL TUBE HOLES IN BAFFLES &
SUPPORT PLATE 49/64" DIA. & DEBURR
2) DRILL TIE ROD HOLES 9/16" DIA.
3) RADIUS ALL CORNERS ON BAFFLE &
SUPPORT PLATE CUTS
4) CHECK SHELL I.D. BEFORE MACHINING *

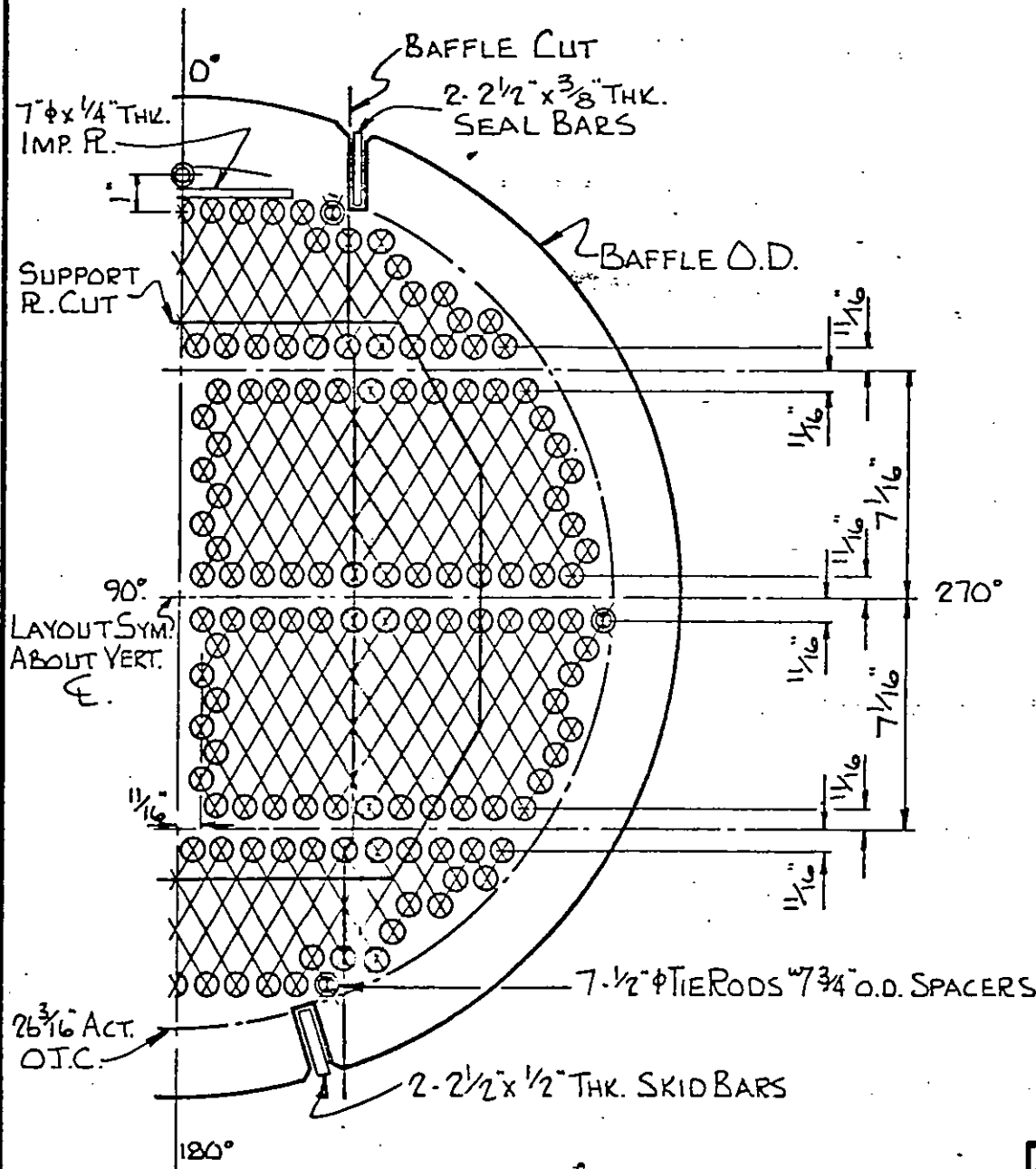
REQ'D.	"A"	REQ'D.	"B"	REQ'D.	"B"
(A) 7	19'-4 1/2"	(1) 6	1'-7 1/2"	(4) 6	3'-11 5/8"
		(2) 1	3'-7 1/2"	(5) 6	1'-5 13/16"
		(3) 42	1'-11 5/8"	(6) 1	3'-5 13/16"

DRAWN: HSH
CHECKED: S
DATE: 1-4-81

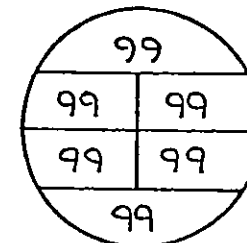
BUNDLE
DETAIL

FABSCO, INC.
SAPULPA, OKLAHOMA
DWG. 81-1809-9-7

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VIEW LOOKING AT SHELL SIDE OF #19 TUBESHEET



HOLES PER PASS

NOTES

- 1.) DRILL & REAM TUBE HOLES IN TUBESHEETS TO .760" $\pm$.002" DIA. FOR 594 - 3/4" O.D. TUBES.
- 2.) TUBE PITCH: $1\frac{5}{16}$ " - Δ
- 3.) NO. OF PASSES: 6
- 4.) SEE DWG. 81-1809-9-5 FOR TUBE HOLE GROOVING DETAIL.

☒ A - PROCEED FLUOR
 AUTHORIZATION TO PROCEED DOES NOT RELIEVE CONTRACTOR/VENDOR OF ITS RESPONSIBILITY OR LIABILITY UNDER THE CONTRACT/PURCHASE ORDER

JAN 19 1982

FLUOR

475404-4-0404-01-163-0

ITEM 145-E-12

P.O. NO: 475404-4-04-04-1
 ITEM NO: 145-E-12

#63862

DWN: RENTZ
 CK'D: S
 DATE: 1-4-81

TUBE LAYOUT

FABSCO, INC.
 SAPULPA, OKLAHOMA
 DWG. 81-1809-9-6 10

475404-4-0404-01-163-0

163-0

END VIEW

1-3/4" (FS) & 1-1" (NS)
6000# CPLG. & RUGS
IN TOP NOZ.

3-300# RF-WN

2-3"

2-3"

1-8"

6"

2-3"

180°

1-3/4" 6000# CPLG. & RUG IN BOTTOM NOZ'S

SIDE ELEVATION VIEW

19'-4"

4 1/4"

11"

18'-7 1/16"

17'-6" C/C NOZZLES

8'-9"

8'-9"

11"

4 1/16"

1/4"

3"

1'-6000# CPLG. & RUG

11 6-300# RF-WN

11R

5/8"

1'-6000# CPLG. & RUG

1/2"

36 1/2" O.D.

31" I.D.

36 1/2" O.D.

31" I.D.

7

12A

12 3-300# RF-WN

11"

3/16" TYP

FABSCO NAME PLATE 7 BRKY (NS)

32" O.D.

4"

11"

12A

12 3-300# RF-WN

8

13'-0" C/C SUPPORTS

3'-5 1/2"

SEE DWG. 81-1809-9-12 FOR FLANGE DETAIL

SEE DWG. 81-1809-9-12 FOR FLANGE DETAIL

A - PROCEED

FLUOR

NOTES

SIDE ELEVATION VIEW

- 1) ALL BOLT HOLES TO STRADDLE &'S
- 2) GRIND ALL INSIDE WELDS FLUSH I.D.
- 3) SEE DWG. 81-1804-9-13 FOR WELD DETAILS.
- 4) SEE DWG. 81-1804-9-8 FOR SUPPORT DETAILS.
- 5) X-RAY: SPOT
- 6) ALL WELDING TO BE IN ACCORDANCE WITH
WELDING PROCEDURES A-102 & M-102
- 7) POST-WELD HEAT TREAT: NONE.

A - PROCEED

FLUOR

AUTHORIZATION TO PROCEED DOES NOT RELIEVE
CONTRACTOR/VENDOR OF IT'S RESPONSIBILITY OR
LIABILITY UNDER THE CONTRACT/PURCHASE ORDER

63862

JAN 19 1982

FLUOR

P.O.Nº: 475404-4-04-04-1
ITEM Nº: 145-E-12

ITEM N°: 145-E-12

475404-4-0404-01-1600

ITEM 145-E-12

79

OWN.: HENTZ
CK'D.: S
DATE: 1-4-81

CK'D.:

DATE:
1 - 4 - 8

SHELL
DETAIL

DETAIL

FABSCO, INC.
SAPULPA, OKLAHOMA

SAPULPA, OKLAHOMA

DWG. 81.1809-9-3

10

475404-4-0404-01-160-0

160-5