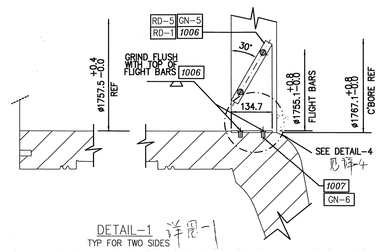
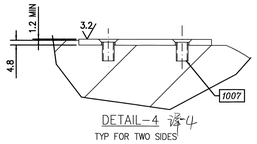
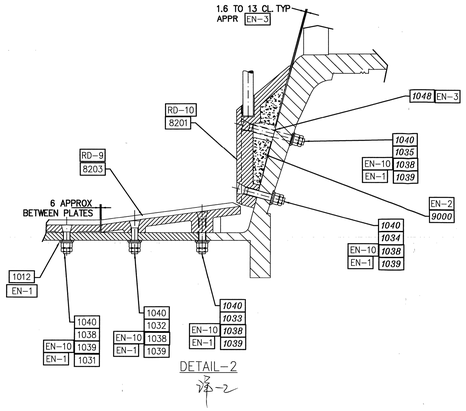
L-105-20



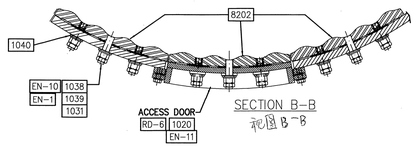
DETAIL-1
TYP FOR TWO SIDES 详见-1



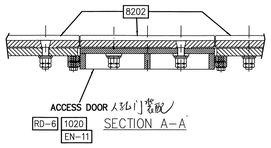
DETAIL-4 详-4
TYP FOR TWO SIDES



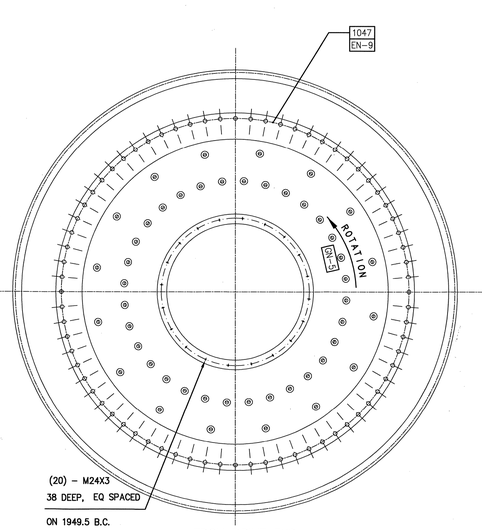
DETAIL-2
详-2

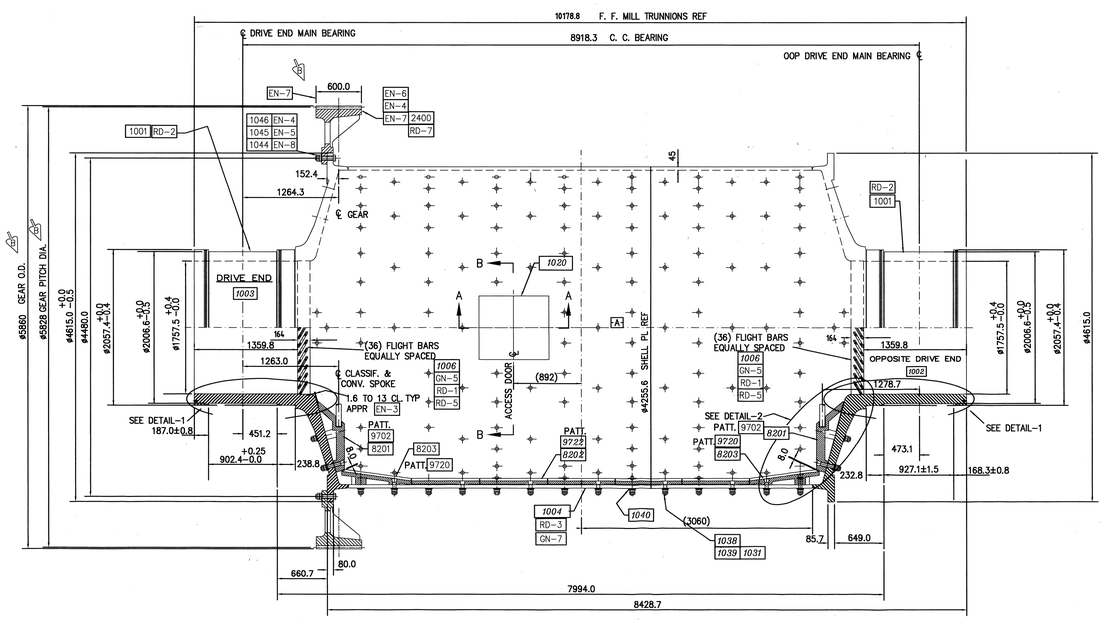


SECTION B-B
视图 B-B



SECTION A-A





ASSEMBLY OF DRUM 05-1000
筒体装配图

ERECTION NOTES

1. ERECTOR TO APPLY SILICONE RUBBER RTV-106 MK 1012 ON THREADS OF LINER BOLTS & ON BOTH SIDES OF PACKING GASKETS & WASHERS AT ASS'Y. LINERS, LINER BOLTS & WASHERS TO BE INSTALLED IN FIELD. ALL M42x4.5 LINER BOLTS TO BE DRY TORQUED TO 970 N-M(716 FT-LBS)
2. BEFORE INSTALLING BALL REJECTOR LINERS, FILL RECESSES WITH MIXTURE OF 0.118 CU. M.OF VERMICULITE TO 0.028 CU.M. OF PORTLAND CEMENT AND 45 LITERS OF WATER.
3. TO PREVENT BREAKING END CASTING OF BALL REJECTOR LINER, LINER MUST BEAR ON LINER BOSS ONLY. USE WASHER MK 1048 IF NECESSARY UNDER BOSS TO OBTAIN A CLEARANCE OF 1.6mm TO 13 mm APPROX. <B>
BETWEEN END CASTING AND LINER ADJACENT TO TRUNNION.
4. SINGLE HELICAL GEAR MK 2400 TO BE INSTALLED IN FIELD USING ALLOY BOLTS MK 1045, WASHERS MK 1046, DOWEL MK 1047.
5. MOUNT GEAR ON MILL DRUM TO OBTAIN CIRCULARITY AND MINIMUM ECCENTRICITY WITH RESPECT TO O.D. OF TRUNNION, USING SHIMS BETWEEN SHOULDER OF END CASTING AND COUNTERBORE OF GEAR. INSTALL BOLTS MK 1045, NUTS MK 1044 AND WASHERS MK 1046. SECURE BOLTS TEMPORARILY TO OBTAIN THE FOLLOWING ALIGNMENT PER EN-6 & 7.
6. INSTALL DRUM IN MILL BEARING, ALIGN GEAR TO OBTAIN CIRCULARITY AND ECCENTRICITY OF O.D. OF GEAR TO WITHIN 0.7 mm ON DIAMETER WITH DIAL INDICATOR WHEN DRUM AND GEAR IS ROTATED.
7. ALSO ALIGN GEAR WITH MOUNTING FACE OF MILL DRUM TO OBTAIN RIM FACE RUNOUT (AXIAL RUNOUT) TO WITHIN 0.5mm WITH DIAL INDICATORS ON EACH SIDE OF RIM OF GEAR TO COMPENSATE FOR AXIAL MOVEMENT OF MILL DRUM WHEN ROTATED. IF NECESSARY SHIM BETWEEN GEAR MOUNTING FACE AND MILL DRUM, OR ROTATE GEAR WITH RESPECT TO DRUM. SHIMS TO BE SUPPLIED BY ERECTOR. <B>
8. AFTER GEAR IS PROPERLY ALIGNED TIGHTEN UNLUBRICATED GEAR BOLTS MK 1045 EVENLY WITH TORQUE WRENCH TO 277 KG-M.
9. DRILL AND REAM TWO (2) HOLES IN GEAR AND MILL DRUM 103mm DEEP FOR M12 TAPER PIN 110 mm LONG MK 1047 APPROXIMATELY 175° APART. INSTALL DOWELS AND TACK WELD DOWEL PIN TO GEAR.
10. AFTER OPERATING WITH FULL BALL CHARGE, ALL LINER BOLTS TO BE RETIGHTENED IF NECESSARY.
11. ACCESS DOOR ASSEMBLY MK 1020 TO BE BOLTED TO DOOR FRAME MK 1020-1 WHEN WELDING FRAME TO MILL SHELL.

ESTIMATED WEIGHT:
1. DRUM AND END CASTINGS=75,160 KG
2. LINERS, ACCESS DOOR, FASTENERS=57,400 KG
3. GEAR=17,900 KG
4. TOTAL=150,060 KG

GENERAL NOTES

1. DO NOT SCALE THIS DRAWING. USE FIGURE DIMENSIONS ONLY.
2. ABBREVIATIONS USED ON THIS DRAWING ARE IN ACCORDANCE WITH ASME Y14.38 "ABBREVIATIONS AND ACRONYMS"
3. ALL WELD SYMBOLS USED ON THIS DRAWING IN ACCORDANCE WITH AMERICAN WELDING SOCIETY PUBLICATION ANSI/AWS 2.4, "STANDARD WELD SYMBOLS FOR WELDING BRAZING AND NONDESTRUCTIVE EXAMINATION"
4. UNLESS OTHERWISE INDICATED, SURFACE ROUGHNESS TO BE: 12.5
TOLERANCES ON DIMENSIONS TO BE AS FOLLOWS:
LINEAR ±1.6mm ANGULAR ±0.5°
UNNOTED CHAMFER TO BE 1X45°.
5. FOR PROPER ORIENTATION OF FLIGHT BARS, PART 1006. SEE DWG L-814-3. MARK EACH DRUM WITH "05" (CONTRACT No.) AS REQUIRED FOR SPECIFIC CONTRACT. ALL FLIGHT BARS TO BE BENT TO CONFORM TO CONTOUR OF TRUNNION.
GRIND I.D. OF FLIGHT BARS IF NECESSARY TO MAINTAIN I.D. GIVEN IN DETAIL-1.
6. DRILL & TAP (144) M12 x 1.75 HOLES 19mm DEEP FOR MK 1007 MILD STEEL HEADLESS SET SCREWS, LOCATE AT ASSEMBLY WITH FLIGHT BARS MK 1006.

REV.	DATE	APPR.	REVISION DESCRIPTION
B	2/21/11	WY	REVISE RD-6 & RD-7 DRAWING NUMBER. REVISE EN-3, 13 WAS 9.5. REVISE EN-7, ADD SHIM'S SUPPLIER. UPDATE GEAR VIEW AND OD, PITCH DIMS
A	11/30/10	WY	FIRST ISSUE
			CONSTRUCTION
			FABRICATION
			DETAILING
			COMPLETE MATERIAL ORDER
			PARTIAL MATERIAL ORDER
			BID/QUOTATION
REV.	DATE	APPR.	ISSUED FOR

ASSEMBLY OF DRUM, LINERS AND END CASTING FOR D-12D BALL PULVERIZER

05-1000

DRAWING NUMBER	SCALE: 1:25	REVISION
L-105-20		B
DRAWN BY	WY 11/30/10	
CHECKED BY	WYS 11/30/10	
	PRODUCT CODE	SIZE B

THIS DRAWING IS THE PROPERTY OF THE FOSTER WHEELER NORTH AMERICA CORP. CLINTON, N.J.

AND IS NOT, WITHOUT CORPORATION CONSENT, TO BE THE APPARENT COPYRIGHT OF THE FOSTER WHEELER CORP. LOAN OR DISCLOSED TO ANY OUTSIDE PARTY OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SPECIFICALLY FURNISHED. THE APPARATUS SHOWN IN THE DRAWING IS COVERED BY PATENTS.

REFERENCE DRAWINGS

1. FLIGHT BAR ORIENTATION	L-814-3
2. WELDING DRUM MACHINING	L-105-16
5. FLIGHT BARS	PE-971-5
6. ACCESS DOOR ASSEMBLY	L-115-5 <B>
7. HELICAL GEAR	N7842 <B>
8. CENTER LINER	PE-975-5
9. END LINER	L-975-88
10. BALL REJECTOR LINER	L-975-70

技术要求

1. 不要改变这张图纸的比例，只用图的尺寸。
2. 这张图所用的缩写词要和 ASME Y14.38"缩写词用法以及只取首字母的缩写词"一致。
3. 图纸上所用的焊缝符号要和美国焊接协会出版的 ANSI/AWS 2.4"焊接的标准焊缝符号以及无损探伤"一致。
除非有其它指示，表面粗糙度应该是 12.5.
尺寸公差如下所示：
线：±1.6mm
角：±0.5°
未注释的倒角是：1×45°
5. 正确的条棒.零件 1006 方向应该参照图纸 L-814-3，在每个滚筒上都刻上"05"（合同号）。按照规定合同的要求，如有必要，所有的条棒都应该按照条棒内径的形状进行弯曲，保证详图 1 显示的内径。
6. 用 1007 低碳钢无头定位螺丝钻攻出 19mm 深的孔（144）M12×1.75，固定在带有条棒 MK1006 的组件上。

1. 装配时装配人员在衬板螺栓的螺纹上和密垫和垫圈两侧涂上 RTV-106 MK 1012 硅橡胶，衬板、衬板螺栓和垫圈现场装配。
所有 M 42×4.5 衬板螺栓按照 970 N- M（716 FT-LBS）上紧。
2. 安装顶球衬板前，承窝加 0.118m³ 蛭石和 0.028 m³ 波特兰水泥混合物并加 45 升水。
3. 为了防止顶球衬板铸件端部开裂，衬板必须只承在衬板凸台上，必要时在凸台下面放 MK 1048 垫圈，使铸件端部和靠近中空轴的衬板之间的间隙保持约为 1.6 mm ~13mm。<B>
4. 现场使用合金螺栓 MK1045、垫圈 MK1046 和暗销 MK1047 安装但螺旋齿轮。
5. 把齿轮装到磨机筒体上获得与中空轴外径的圆度和最小离心率，铸件端部的肩和齿轮扩孔间加薄垫片，装上螺栓 MK 1045、螺母 MK 1044 和垫圈 MK 1046 。临时固定螺栓，按照 EN—6 和 7 做下列校正。
6. 筒体装到磨机轴承上，校正齿轮，使齿轮外径的圆度和离心率在 0.7mm 以内，转动筒体和齿轮时用度盘式指示器检查直径。
7. 也按照磨机筒体安装面校正齿轮，使缘面窜动（轴向窜动在 0.5mm 内），齿轮轮缘每侧用度盘式指示器检查，补偿转动时磨机筒体的轴向移动，或相对与筒体转动齿轮，薄垫片由安装公司提供。B
8. 齿轮适当校正后，用扭矩扳手均匀地上紧齿轮螺栓 MK 1045，达到 277 KG-M。
9. 齿轮和磨机筒体上钻并扩两个（2）103 mm 深的孔，内装 M12、长度为 110mm、锥度约为 175°的暗锥销 MK 1047。
10. 装入全部钢球工作后，必要时所有衬板螺栓再次上紧。
11. 框焊道磨机筒体上时用螺栓把检修门装配固定到门框 MK 1020-1 上。
12. 表面处理和喷漆要求按 185177-01A09-IF3扩报行

序号	代号	名称	数量	材料	单重	总重	附注
4	L-814-3	提升衬垫组图					
3	0-1083-4	无压力副分焊缝符号图					
2	L-115-5	人孔门装配	1	部件		500	
1	L-105-6	筒体端盖装配	1	部件		76290	

中信重工机械股份有限公司	D-12-D 球磨机 筒体		第 共
设计 审查 批准	筒体部件	重量(公斤) 76790	比例
日期 2011年3月20日	部件	L-105-20	CN