POTENTIAL FAILURE MODE AND EFFECTS ANALYSIS (DESIGN FMEA)

CMT MODEL: ID & IS SERIES SYSTEMS
PREPARED: A. HABEDANK
FMEA DATE: 12/17/10
REVISION DATE: 5/1/2011

Item / Function	Potential Failure Mode	Potential Effect(s) of Failure	Sev	Class	Potential Cause(s) Mechanims(s) of Failure	Occur	Current Design Controls Prevention Detection	Detec	RPN	Recommended Action(s)	Responsibility & Target Completion Date	Action Results				
												Actions Taken	Sev	Occ	Det	RPN
ID / IS MARKING HEAD	NO MARK	UNMARKED PART	8	YC	FAILED HEADCABLE	4	USE OF HIGH FLEX CABLE TYPE	3	96	RE-DESIGN OF CABLE MATERIAL	A. HABEDANK MAY2006	AS NOTED	8	2	2	32
			8	YS	FAILED INTERNAL WIRING	2	ELIMINATE RUBBING CONTACT	5	80	RE-DESIGN OF CABLE ROUTING	A. HABEDANK MAY 2006	AS NOTED	8	2	2	32
			8	YS	FAILED SOENOID VALVE	4	LIFE TESTS OF SOLENOIDS	5	160	REPLACE VALVE W/ IMPROVED MODEL	A. HABEDANK JAN 2006	AS NOTED	8	2	2	32
			8	YS	INTERUPTED AIR SUPPLY	3	CAREFUL ROUTING OF AIR SUPPLY	3	72							0
			8	YS	BROKEN IMPACT PIN CONSUMABLE ITEM	5	DO NOT MARK ON DISCONTINUOUS SURFACE OR HARDENED PART	3	120							0
			8	YS	BROKEN HOME PROX SENSOR	3	DOES NOT ALLOW MARKER TO HOME	6	288	USE THREAD LOCKER ON MOUNTING SCREWS	A. HABEDANK JANUARY 2005	AS NOTED	8	2	2	48
	LIGHT MARK	UNACCEPTABLE MARK	6	YS	PIN TIP CHIPPED / BROKEN	4	NORMAL WEAR CONSUMABLE COMP.	4	96							0
			6	YS	FAILED PIN HOUSING CONSUMABLE ITEM	4	WEAR TESTS ON MATERIALS	3	72	CHANGED MATERIAL TO STEEL	A. HABEDANK JAN 2006	AS NOTED	6	3	3	54
			6	YS	AIR SUPPLY RESTRICTED	4	MONITOR MARK QUALITY DURING BURN IN TESTING	3	72		CONTINUOUS					0
			6	YS	DIRT FOULED PIN / CARTRIDGE	4	IMPROVED AIR FILTERS	3	72							0
																0
	POORLY SHAPED CHARACTERS	UNACCEPTABLE MARK	5	YS	DRIVE BELT LOOSE	5	FOLLOW ASSEMBLY INSTRUCTIONS	3	75		CONTINUOUS					0
			5	YS	FAILED IDLE PULLEY BEARINGS	2	MONITOR MARK QUALITY DURING BURN IN TESTING	3	30		CONTINUOUS					0
			5		FAILED LINEAR BEARING ASSEMBLY	2	MONITOR MARK QUALITY DURING BURN IN TESTING	2	20		CONTINUOUS					0
			5		DRIVE BELT/ CLAMPING CLEAT LOOSE	3	ASSEMBLY INSTRUCTIONS	2	30		CONTINUOUS					0
			5		DRIVE PULLEY LOOSE ON MOTOR SHAFT	3	MONITOR MARK QUALITY DURING BURN IN TESTING	3	45		CONTINUOUS					0
	MIS-LOCATED MARK	UNACCEPTABLE MARK	6		HOME LIMIT OPTO/ FLAG PROBLEM	2	DOES NOT ALLOW MARKER TO HOME	3	36	DESIGN CHANGE TO FIXED HOLE POSITION	A.HABEDANK OCT 2009	AS NOTED	6	2	2	24
			6		DRIVE PULLEY LOOSE ON MOTOR SHAFT	3	MONITOR MARK QUALITY DURING BURN IN TESTING	3	54		CONTINUOUS					0
	MISSING CHARACTERS	UNACCEPTABLE MARK	6	YS	WEAK SOLENOID VALVE	4	INSTALLATION SPECS ON CLEAN AIR	4	96							0
			6	YS	FAILING CARTRIDGE	4	WEAR TESTS ON MATERIALS	4	96							0
			6		INTERMITTENT AIR SUPPLY RESTRICTION	5	CAREFUL ROUTING OF AIR SUPPLY	4	120							0
	NOISY MARKER HEAD	SQUEALING NOISE	4		MOTOR PHASING FAILURE	1	FINAL TEST PROCEDURES	3	12							0
									0							0
									0							0
									0							0
									0							0
									0							0