CREO

Creo Products Inc.

Engineering Change Order

ECO#:C380

Originator: SeanG **Page:** 1

Department: ENG **Date: 3/14/99**

Engineering Changes

Part #	Rev/Status From	To	Description	Product	ECRs	Back Comp?	Reason for chg.	Serv. Class	Prod. Class
57-5369A	PR	B	Brkt, desiccant box mount, ts-auto	Ts-auto	B962	Yes	1	R	1
55-0708		AC	Speed ctrl, air out, straight, 1/8npt 5/32 tube	Ts-auto		Yes	1	R	1
50-1493A	H	J	Assy, mech, unload cylinder, ts-al	Ts-auto		Yes	1	R	1
50-1454A	M	N	Kit, mech, autoloader parts, creo-gry	Ts-auto	B962	Yes	1	R	1
50-1539a	F	G	Kit, mech, autoloader parts, jv-gry	Ts-auto	B962	Yes	1	R	1
57-5231A	A	INAC	Fab,Desiccant Box Lid, TS-A						
57-5022A	A	INAC	Brkt,Desiccant Box Support, TS-A						
82-1030		INAC	Chemical,Desiccant,8 unit, Desi-Pak						
74-3187A	A	INAC	Label,Attention Desiccant Box Lid, TS-A						

Copies To:	Title:	Signature:	Date:	Code Descriptions			
	Design Eng.	Sean Grant	98/May/28	Status	Service	Production	Reason
	Production Eng.			AC - ACTIVE IN - INACTIVE OB - OBSOLETE PR - PREREL.	R-RETROFIT S-NEXT CALL F-NEXT FAIL T-THEIR COST N-NOT UP-GRADABLE NA-NOT APPL.	1-RETROFIT ALL UNITS 2-FINISHED GOODS 3-WIP 4-FUTURE 5-DOCUMENT ONLY	1-DESIGN 2-MANUFACT 3-ASSEMBLY 4-DOCUMENT 5-COST 6-MAINT. 7-RELAIBIL. 8-SOFTWARE 9-OTHER
	Field Service Eng.						
	Project Eng.						
	Project Manager						
	Product Manager						

Details of Problem and the Changes

This is number 4 on the AL 100 label
57-5369a added to eliminate interference between desiccant box and unload cylinder
55-0708 added to eliminate interference between unload cylinder and frame
50-1493a additions and removals from BOM. 55-0075 is removed and replaced with 55-0708 and 55-0006.
50-1539a removals and additions to BOM. 57-5231a, 57-5022a removed from BOM. 57-5369a added to BOM
50-1454a same as 50-1539a
05-0060 creared for upgrades to all Autoloaders.

Documentation Changes

Part #	Rev/Status		Documents							
	From	To	Type	Status/Resp.	Type	Status/Resp	Type	Status/Resp	Type	Status/Resp
57-5369a	Pr	B	DD	SEAG						
50-1493a	H	J		SEAG						
50-1539a	F	G		SEAG						
50-1454A	M	N		SEAG						
55-0708	PR			SEAG						

Status Codes: AT- Udated document is attached RL- Redlined document is attached UP- No document attached, update will follow NC- No changes required to document
Resp.: NAME-four letter Creo employee who is/was responsible for updating the document

Field Service Implementation

Field Upgrade Kit: 05-0060 Description KIT,UPGRADE,EC0 C380,DESICCANT BRKT,TS-A
For units: All

Part No.	Description	Qty	Std. Unit Cost	Total Cost
57-5369A	BRKT,DESICCANT MOUNT,TS-A	1.00	$15.00	$15.00
55-0006	ELBOW,90 DEG,1/4"NPT FEMALE-MALE,BRAS	2.00	$1.60	$3.20
55-0708	SPEED CTRL,AIR,OUT,STRT,1/8NPT,5/32"TUBE	2.00	$8.69	$17.38
55-0630	ELBOW,M6,MALE,1/8" HOSE BARB,BRASS	1.00	$1.90	$1.90
52-3129	SCRW,M6*25,SOCK-CAP,S-PLATED	2.00	$0.06	$0.12
52-4107	SCRW,M4*6,SOCK-CAP,SS	3.00	$0.15	$0.45
52-3013	WASH,M4,FLT,SS	3.00	$0.02	$0.06
56-3287	TUBE,AIR,6MM OD,BLK,NYLON	0.60	$1.00	$0.60
				$0.00
	Material Cost:			**38.71**
		Hours	**Rate**	**Total**
	Labour Cost:	$ 2.00	$ 80.00	$ 160.00

Field Upgrade Instructions:

1. **Desiccant box upgrade:** Remove the desiccant box lid and desiccant pouch. Remove the two pieces of 6mm tubing that runs from the head to the desiccant box and discard. Remove the desiccant box and mounting bracket. Remove the M6 straight fitting from the rear of the desiccant box and replace with the small brass 90 degree fitting 55-0630. Fill the three old M4 mounting holes with M4x6 socket head capscrews (52-4107) and washers (52-3013) inserted from the inside. Push the 300mm lengths of 6mm O/D air-line onto the small brass 90 degree fitting on the “front” and “rear” of the head. Install the new bracket 57-5369A to the air plenum using the existing screws. Attach the desiccant box to the bracket on the head, using the two M6x25 socket head mounting screws inserted into the larger diameter holes at the top left and top right corners of the desiccant box. Gently bend the air line attached to the 90 degree fitting on the front and rear of the head to the fittings on the desiccant box. Install desiccant pouch into box and install lid.

2. **Unload table cylinder upgrade:** There are enough fittings to upgrade both unload cylinders, but only the powerbox end cylinder is required to be upgraded. Ensure Unload Table is in the down position. Remove the rear cylinder mount shoulder bolt and nut and rotate the cylinder 180 degrees so the fittings are on top. Install shoulder bolt and nut back into the rear cylinder mount. Remove the adaptor and speed control fittings from the front (piston end) of the cylinder. Install the 90 degree brass elbow (55-0006) so it faces towards the rear of the machine (away from the engine). Install existing adaptor into elbow and the new speed control fitting (55-0708) into the adaptor. Install tubing back into speed control.

Actions

Sean Grant	Provide hard and soft copies of drawings for 57-5369, and 50-1493
Gary Edge	Note upgrade kit and instructions and ensure service is informed.
Steve Froese	FYI
Glenda Obnamia	Rework all in house autoloaders and note 100 label change
Paramount	Update BOM's and rework all in house autoloaders
ECC	Update SAP and file hard and soft copies of drawings \\Flint\Engineering\projects\trend\ts-auto production\ECO 380 pdf's
Victor Groot	FYI