Creo Products Inc.

Engineering Change Order

ECO#: C402

Originator: SMON **Page:** 1

Department: ENG **Date: 3/15/99**

Engineering Changes

Part #	Rev/Status From	To	Description	Product	ECRs	Back Comp?	Reason for chg.	Serv. Class	Prod. Class
50-1448A	M	N	Assy, mech, picker, ts-auto	Ts-auto		Y	1	S	1
72-0026A	A	B	100 label				5	N/A	4
57-4630A	E	IN	Fab Picker linkage arm 2, ts-a	Ts-auto	B977				
57-4631A	E	IN	Fab Picker linkage arm 3 left, ts-a	Ts-auto	B977				
57-4632A	E	IN	Fab Picker linkage arm 3 right, ts-a	Ts-auto	B977				
57-4630B	PRE	A	Fab Picker linkage arm 2, ts-a	Ts-auto		N	1	S	1
57-4631B	PRE	A	Fab Picker linkage arm 3 left, ts-a	Ts-auto		N	1	S	1
57-4632B	PRE	A	Fab Picker linkage arm 3 right, ts-a	Ts-auto		N	1	S	1

Copies To:	Title:	Signature:	Date:	Code Descriptions			
	Design Eng.	Scott Montague	98/July/29	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

57-4630B, 57-4631B, 57-4632B Fab Picker linkage arms

The picker has difficulty picking the last plate and is hard to initially set up.

These changes allow a 50-1448A picker to be retrofitted in order to get 5mm more stroke out of the picker head.

They are only backwards compatible if all are used at once with the new cylinder 55-0712.

72-0026A

Track this change as #5 on the 100 label

Documentation Changes

Part #	Rev/Status		Documents							
	From	To	Type	Status/Resp.	Type	Status/Resp	Type	Status/Resp	Type	Status/Resp
57-4630B	PRE	A	DD	AT/SMON						
57-4631B	PRE	A	DD	AT/SMON						
57-4632B	PRE	A	DD	AT/SMON						
50-1448A	M	N	AD	RL/SMON						
72-0026A	A	B								

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: 05-0062 Description
For units:

Part No.	Description	Qty	Std. Unit Cost	Total Cost
				$0.00
57-4630B	FAB PICKER LINKAGE ARM 2 TS-AUTO	2.00	$7.00	$14.00
57-4631B	FAB PICKER LINKAGE ARM 3 LEFT TS-AUTO	1.00	$7.00	$7.00
57-4632B	FAB PICKER LINKAGE ARM 3 RIGHT TS-AUTO	1.00	$7.00	$7.00
55-0712	CYL 1-1/16"*1.5" DB AC,UNI MT,PRTS ROT	2.00	$25.00	$50.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
	Material Cost:			**78.00**
		Hours	**Rate**	**Total**
	Labour Cost:	$ 2.00	$ 80.00	$ 160.00

Special Tools Required:

Field Upgrade Instructions:

You should be able to swap in the new linkages with the picker still attached to the engine. Disconnect the air to the trendsetter then tie the picker to a door hinge in the “picker up” position. Make a mental note of how the bushings are installed before disassembly. Remove the cylinders and the upper linkages that connect to the rods of the cylinders. Re-assemble with new parts. The clevis and lock nut should be bottomed out on the rod end.