WORK INSTRUCTION

ISSUE LEVEL	ISSUE DATE	SUPERSEDES	AUTH
1	09-Sep-09	NONE	
DOC REF.	TITLE	ASSEMBLY AND SETTING OF HD DIESET FOR LONG STROKE P&C	
AEU00174			

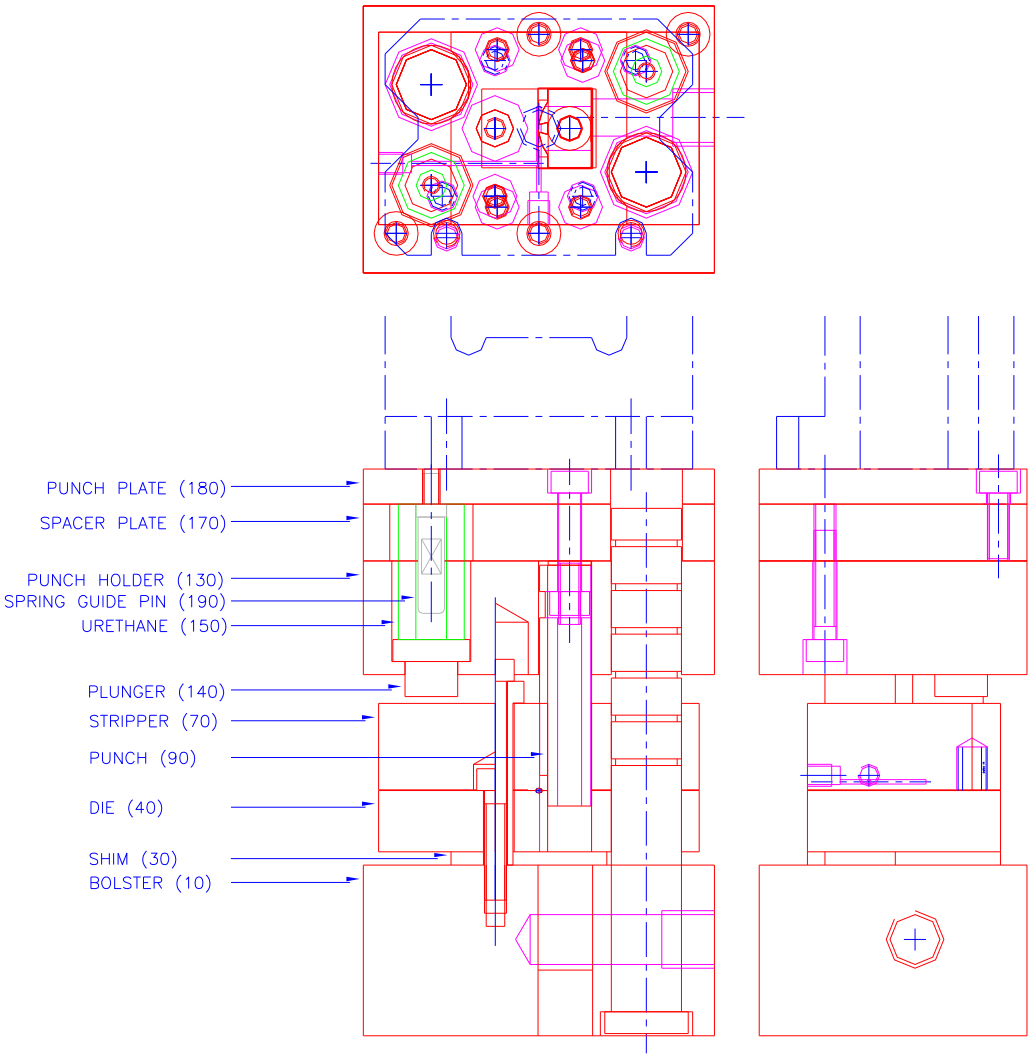
Purpose

To explain the correct setting sequence and assembly method for the HD style dieset for the long stroke FCM B punch and crush presses. To show the critical component and assembly dimensions.

Scope

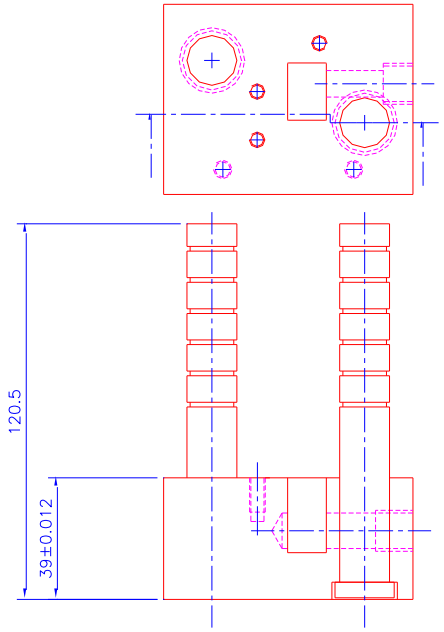
SP0270 (HD Dieset FCM B)

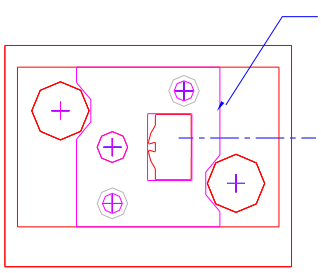
Assembly Layout



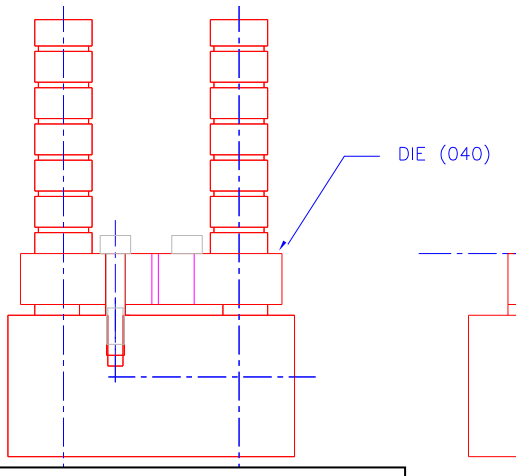
Method

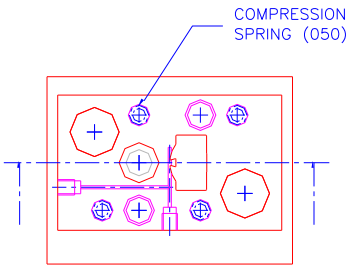
1. Press fit the stripper pins (20) into the bolster (10).



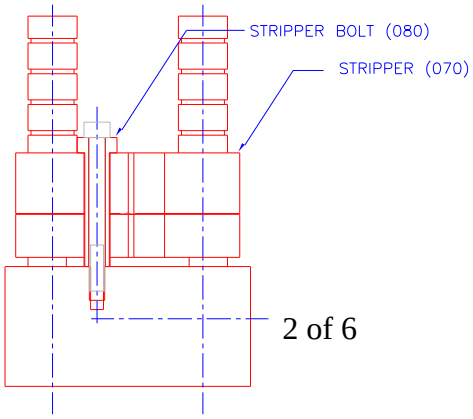


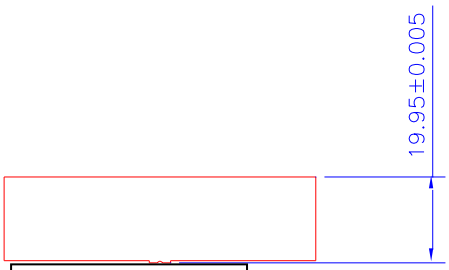
2. Adjust the die height by fitting a shim (30) between the bolster and die. The top face of the die should meet the centre of the wire line.





3. Fit the stripper on top of the die with 4x compression springs (050) located in the bores on the underside. Fix the stripper in place with the stripper bolt (080).
The thickness of the stripper is critical to the clamping pressure and timing.





Stripper (070)

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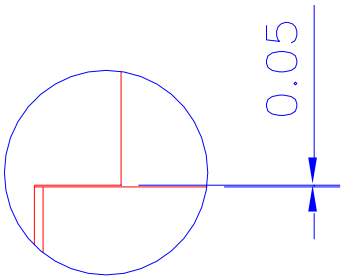
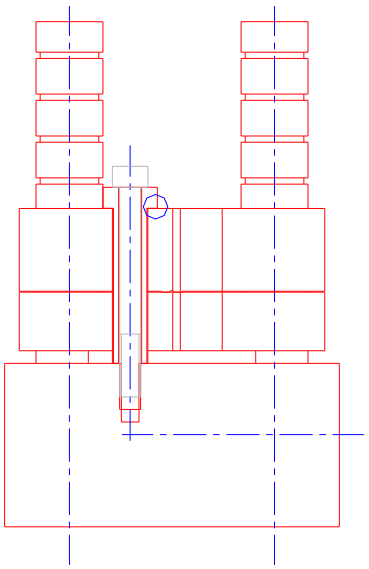
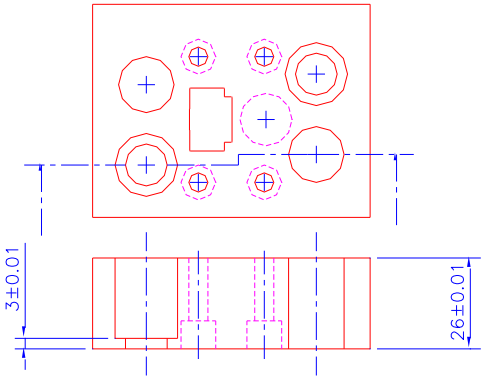
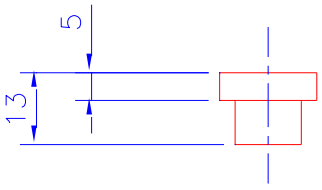
4. The default gap between the head of the bushing and the stripper (when closed) should be 0.05mm. This can be adjusted to allow the wire to fit. The plunger gap (1.55) must be adjusted accordingly, e.g. if the gap is opened up to 0.05+0.01=0.06 then the plunger gap will be 1.55-0.01=1.54 etc. This is critical to the clamping pressure and timing.





Stripper closed

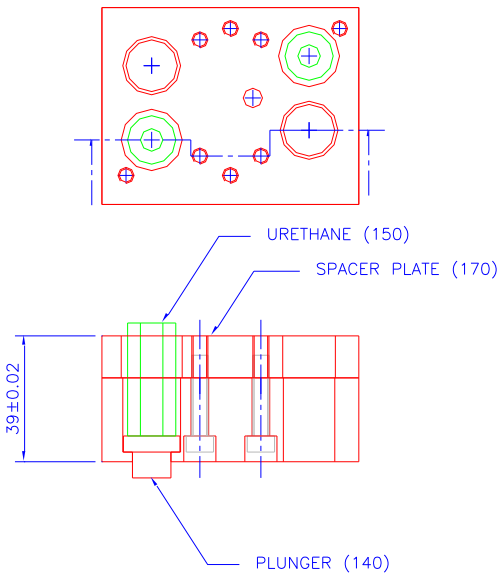




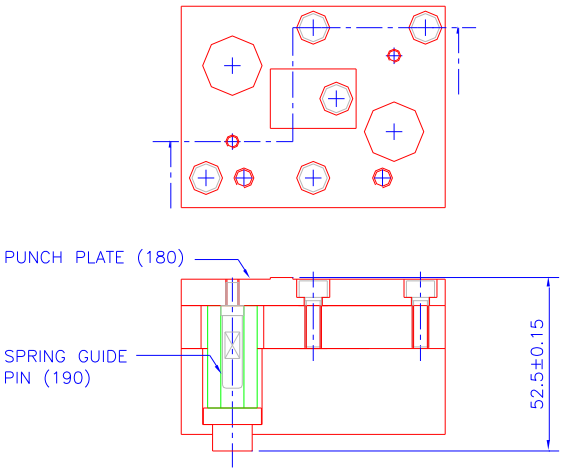
Critical dimensions of plungers (140)

Critical dimensions of punch holder (130)

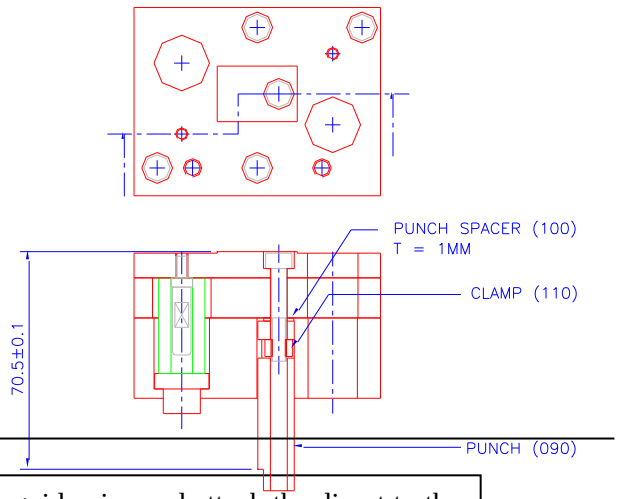
5. Assemble punch holder. Attach the spacer plate to the top face of the punch holder with 4x socket head cap screws (060) from the underside. The dimensions of the punch holder and plungers shown above are critical to ensure the urethanes are not overloaded and deliver the correct amount of clamp force.



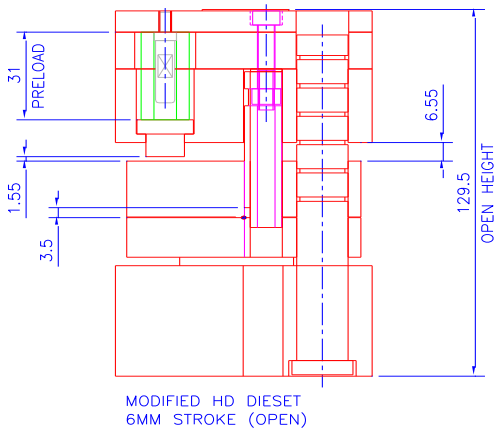
6. Attach the spring guide pins (190) to the punch plate (180). Attach the punch plate to the punch holder, using 4 x socket head cap screws (200), feeding the spring guide pins into the central hole in the urethanes. This compresses the urethanes by 4mm.



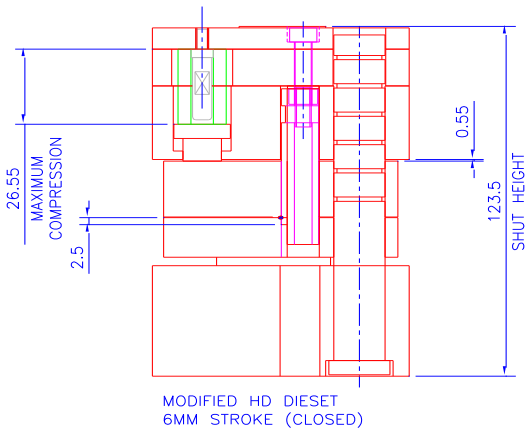
7. Insert the clamp (110) into the slot in the punch (090). Fit the punch into the punch holder (130) with a 1mm thick punch spacer from the spacer set (100) between the punch and spacer plate. Fix the punch in place with a socket head cap screw (120) tightened between the clamp and punch plate. The dimensions shown opposite are critical to the timing of the clamping in relation to the punch contact with the wire.



8. Slide the punch holder assembly onto the stripper guide pins and attach the dieset to the press. The critical assembly dimensions are shown on the diagram below. The 1.55 gap between the plunger and stripper is critical to ensure that the wire is clamped before the punch contacts the wire.



MODIFIED HD DIESET
6MM STROKE (OPEN)



MODIFIED HD DIESET
6MM STROKE (CLOSED)

APPENDIX A
PARTSLIST

ITEM NO.	CODE	DWG/EFACs NO.	ISSUE NO.	DESCRIPTION	QTY.	REMARKS /PART NO.
10	MAN	SP0270-001		BOLSTER	1	
20	B/O	STR0014		STRIPPER PIN	2	SGOH16-120
30	MAN	SP0270-007		SHIM SET	1	
40	B/O	KMH		DIE	1	SIZE DEPENDANT PART
50	B/O	CSP0004		COMPRESSION SPRING 12.7 X 1.02 X 6.35	4	ENTEX 11
60	B/O	SHC0047		SOCKET HEAD CAP SCREW M5 X 25	6	
70	MAN	KMJ		STRIPPER	1	SIZE DEPENDANT PART
80	B/O	STR0001		STRIPPER BOLT DIA 13 X 34.5 BUSHING TYPE	1	SBTH 8-37-50 MISUMI
90	MAN	KMK		PUNCH	1	SIZE DEPENDANT PART
100	MAN	SP0270-008		SPACER SET	1	
110	MAN	SP0270-009		CLAMP	1	
120	B/O	SHC0048		SOCKET HEAD CAP SCREW M5 X 30	1	
130	MAN	SP0270-005	C	PUNCH HOLDER	1	
140	MAN	SP0270-010	B	PLUNGER	2	
150	B/O	URE0010		URETHANE SPRING	2	AE15-35 MISUMI
160	B/O	SHC0041		SOCKET HEAD CAP SCREW M5 X 12	4	
170	MAN	SP0270-018	A	SPACER PLATE	1	
180	MAN	SP0270-006	C	PUNCH PLATE	1	
190	B/O	SHF0022		SPRING GUIDE PIN 7X25	2	SGA7-25 MISUMI
200	B/O	SHC0043		SOCKET HEAD CAP SCREW M5 X 15	4	