



## TEMPORARY SUBSTITUTION AUTHORITY

TSA NO. 1690

SHEET 1 OF 4

## MODELS AFFECTED

DMC 12 MIDDLE EAST SPEC - ALREADY BUILT

## QUANTITY OR TIME REQUESTED

50 CARS

## ISSUE DATE

3.2.82

## EFFECTIVE DATE

## EFFECTIVE VIN NO.

## DESCRIPTION OF TSA

REPLACEMENT OF MOTOROLA ALTERNATOR 110101 WITH THE DUCCELLIER UNIT WHICH WAS SUPPLIED ON EARLY ENGINE ASSEMBLIES.

1. REMOVE WIRES FROM ALTERNATOR (110101) AND REMOVE ALTERNATOR AND TENSION BRACKET (110102) FROM ENGINE.
2. FIT SUPPRESSOR 108560 TO DUCCELLIER ALTERNATOR AND FIT TO ENGINE USING THE EARLY TYPE TENSION BRACKET (NO PART NO) AS PER ATTACHED SKETCH. CORRECTLY ADJUST BELT TENSION. RECONNECT THE MAIN SUPPLY CABLES TOGETHER WITH THE SUPPRESSOR WIRE TO THE THREE TERMINAL
3. CUT THE EYELET CONNECTOR FROM BROWN/YELLOW WIRE ON ENGINE HARNESS AND FIT SPADE CONNECTOR 54954279 (RISTS PART NO). FIT PLASTIC SOCKET SALVAGED FROM DUCCELLIER TYPE WIRING HARNESS.
4. FIT NEW "BROWN WIRE" JUMP LEAD WITH SQUARE RECEPTICLE END FITTED TO PLASTIC SOCKET (AS IN 3 ABOVE)
5. REMOVE REDUNDANT 3MM SOCKET FROM BLUE CONNECTOR ON

## TSA EFFECTS (M)

- ☒ B.U.  
☒ SERVICE  
☐ QUALITY  
☐ PERFORMANCE  
☐ APPEARANCE  
☐ INTER-CHANGEABILITY  
☐ COST

## NEW OR MODIFIED PARTS

## SUPERSEDED PART

DOS

U = Use elsewhere  
R = Rework  
S = Scrap

PART NO	ISS	QTY	PART NO	ISS	QTY	DESCRIPTION	MODEL APPLIC	DOS
NO PART NO								
"DUCCELLIER ALTERNATOR"		1	110101		1	ALTERNATOR	DMC12	0
NO PART NO								
DUCCELLIER TYPE TENSION BRKT		1	110102			TENSION BRACKET	"	0
108560						SUPPRESSOR		
07910100 (RISTS P NO)			1.9 METRES		1 PER CAR	BROWN CABLE		
54954279 (RISTS P NO)			1 PER CAR			5MM RECEPTICLE		
54190963 ( " " )			1 PER CAR			6.3MM RECEPTICLE		
51101169 ( " " )			1 PER CAR			3MM SOCKET		

EMISSIONS  
FJL-

LEGISLATION  
JLH

SAFETY CRITICAL  
MTH

INDICATE YES OR NO AND INITIAL

## REQUESTED BY

## NAME

M FORD-HUTCHINSON

## DEPT.

RES + QUAL ENG

## TEL

3605

## TSA COST

## PIECE PART

## RE-WORK

## OTHER

## CHARGE COST TO:

## APPROVAL SIGNATURES

Res. Eng Finance Quality Control Production Control Service Parts Prod. Eng Purchase

APPROVED

## REASONS FOR REJECTION OR INSTRUCTIONS FOR INCORPORATING TSA.

5. CONTINUED

ENGINE HARNESS AT BULKHEAD PLATE (SPECIAL TOOL)  
12 SOCKET WITH BROWN WIRE CUT SHORT.

6. FIT 3MM SOCKET ON BROWN JUMPLEAD INTO BLUE CONNECTOR. AFTER LEAD HAS BEEN ROUTED AND TAPED ALONG ENGINE HARNESS.

## LINE/STATION NO.

## RELEVANT CIR/SR

## RELEVANT ECR'S

NOTE! RISTS PART NOS REFER TO REELS BUT USAGE IS ONLY 1 PART PER CAR

# PROCEDURE FOR REMOVING MOTOROLA ALTERNATOR AND

## REFITTING DUCELLIER ALTERNATOR. (FOR MIDDLE

### EAST CARS ONLY)

1. REMOVE ALL ELECTRICAL CONNECTIONS
2. REMOVE M7 3/4 HSC, WASHERS + NUT AND RETAIN.
3. REMOVE M8 BOLT, WASHERS + NUT AND RETAIN
4. DISCARD BELT TENSION REG. BRACKET.
5. REMOVE M10 BOLT, WASHERS + NUT AND RETAIN AND JONER ALTERNATOR AWAY.
6. WITH NEW DUCELLIER ALTERNATOR, REFIT M10 BOLT, WASHERS + NUT
7. WITH NEW BELT TENSION REG BRACKET REFIT M8 BOLT, WASHERS + NUT AND M7 3/4 HSC, WASHERS AND NUT AS PER SKETCH.
8. TENSION BELT CORRECTLY.
9. REWIRE AS PER ELECTRICAL STATEMENT.

# METHOD OF FIXING DUCELLIER ALTERNATOR FOR MIDDLE EAST CARS

SHEET 3 OF 4

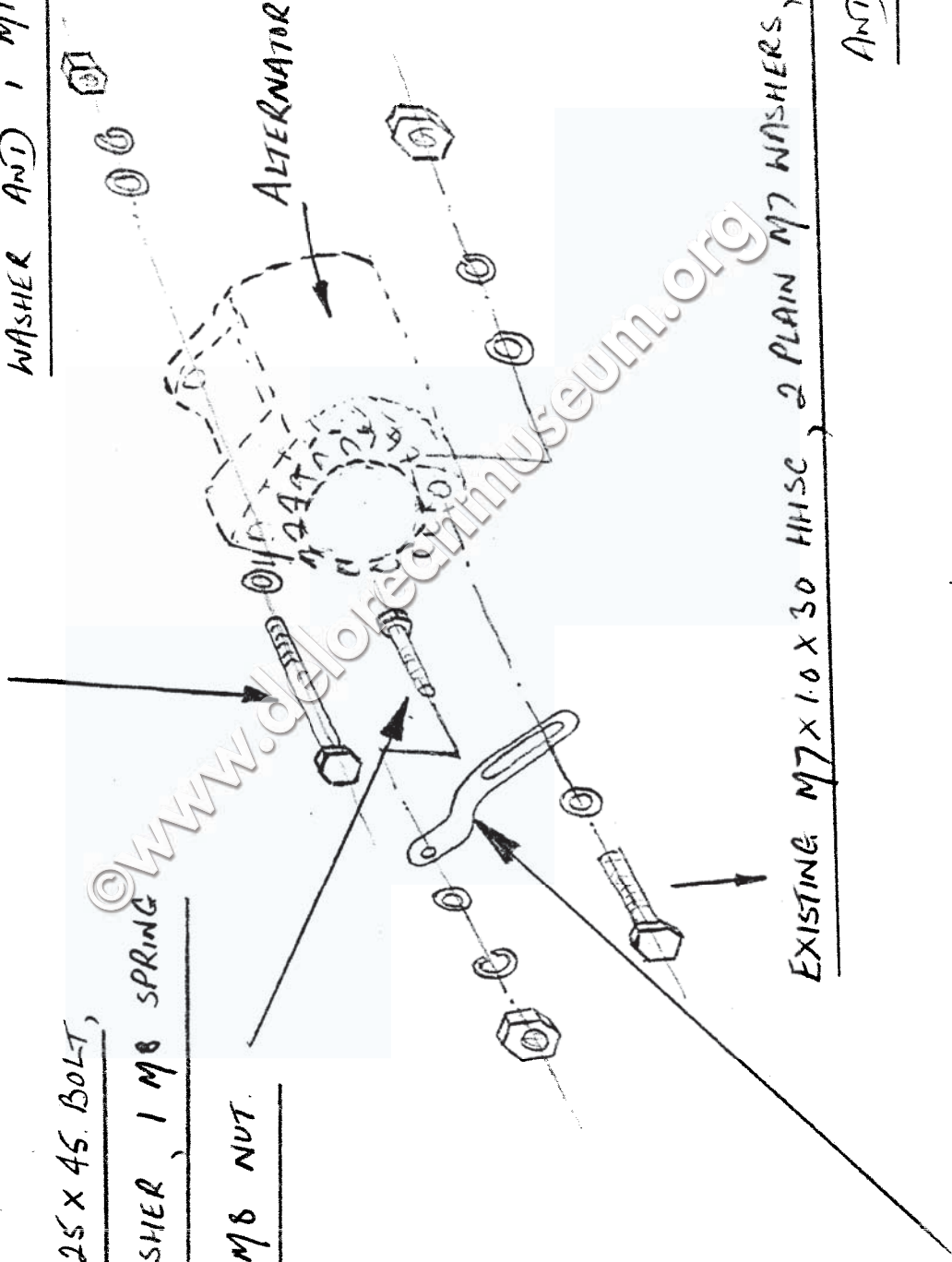
EXISTING M10 X 15 X 120 BOLT, 2 PLAIN M10 WASHERS, 1 M10 SPRING

WASHER AND 1 M10 NUT

EXISTING M8 X 1.25 X 45 BOLT,

1 PLAIN M8 WASHER, 1 M8 SPRING

WASHER AND 1 M8 NUT.



EXISTING M7 X 1.0 X 30 HHSC, 2 PLAIN M7 WASHERS, 1 M7 SPRING WASHER

AND 1 M7 NUT.

MOUNT NEW SLOTTED BRACKET AS SHOWN (OPPOSITE TO THE WAY IT IS FITTED WITH A MOTOROLA

ALTERNATOR)

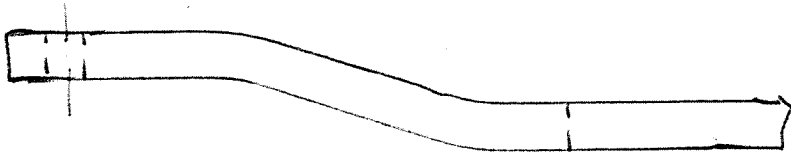
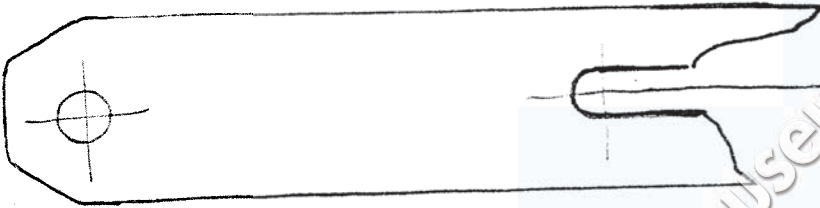
(102434)



BELT TENSION REGULATING BRACKET  
(AS PER MOTOROLA ALTERNATORS.)



BELT TENSION REGULATING BRACKET  
(AS PER DUCELLIER ALTERNATORS)



102434