

DIRECTORATE GENERAL BORDER ROADS

GENERAL REPAIR INSTRUCTION NO. 143

ON

MODIFICATION OF TATA 692 DL ENGINE

FOR FITMENT ON CARRIER SIDE ON

SCHMIDT SNOW CUTTER MODEL VF-5-13

INTRODUCTION

1. Due to non availability of carrier engine Daimler Benz Om 352-a of 187 HP fitted on Schmidt Snow Cutter, a few eqpt are lying off road due to carrier engine.
2. Tata 692 DI Engine (112PS at 2800 RFM) is readily available with the organisation, which can be modified and fitted on Schmidt snow Eqpt in place of OM 352-A Daimler Benz engine. This modification will help in upgradation of Schmidt snow Eqpt lying off road for carrier engine. It will also save :-
 - (a) Foreign exchange on the procurement of engine.
 - (b) Reduce Inventory of spares as Tata Engines are fitted on Load carrier.
 - (c) Improve availability of eqpt for work.

MODIFICATION

3. Modification can be done by using certain original items of carrier engine. A list of such items required to be retrieved from original carrier engine is given in Appx 'A'. Please ensure engine is modified with turbo charger. This modification does not involve any major changes as all dimensions of mounting of engine brackets, clutch housing, fly wheel etc are same as those of Daimler Benz OM 352-A engine.

OUT PUT

4. Field trial of Schmidt Snow eqpt modified with Tata 692 DI engine having turbo charger has been carried out by 110 RCC under (P) Deepak and no major variation in the out put has been recorded. Comparative details of out put recorded as under :-

Snow Cutter Machine No.	Average performance of week ends
Modified Schmidt Snow Cutter EM No.ZJ-27345	14673.3 cum
Original Schmidt Snow Cutter EM No. ZJ-29208	18266.6 cum

(AJS Khalsa)
SE (E&M) SG
Dir Tech
For Dir General Border Roads

Dated : 05 Sep 90

**LIST OF ITEMS RETRIEVED FROM ORIGINAL OTHER
ENGINE OF SNOW SCHMIDT SNOW CUTTER (MODEL VF-B-13)**

S/No	Part No.	Nomenclature	Qty	Remarks
1	2520100766	Guide Tube (Oil Dip stick)	1	
2	3520103972	Oil dip stick	1	
3	352-010-6613	Oil Pan	1	
4	352-0171503	Vibration dumper	1	
5	3520351612	Pully	1	
6	3520303905	Fly wheel	1	
7	3521902201	Screw	1	
8	3520130610	Fly wheel housing	1	
9	3520964699	Turbo charger assy	1	
10	3520985615	Elbow	1	
11	3520985415	Elbow	1	
12	3520980980	Gasket	1	
13	3521403099	Exhaust manifold	1	
14	3521420900	Gasket	1	
15	3521801651	Suction pipe	1	
16	3141860004	Strainer	1	
17	110-1800355	Suction basket	1	
18	007993-70100	Snap ring	1	
19	352211703	Doter Pump cover	1	
20	3522033301	Upper cooling water line	1	
21	3522031373	Thermostate housing	1	
22	3602030574	- do -	1	
23	3522031689	Gasket	1	
24	3522000045	Upper cooling water line	1	
25	3522000080	Gasket for above	1	
26	0002411513	Rubber mounting	1	
27	5222240053	Space tube	1	
28	3522240707	Engine support	1	
29	0002411513	Rubber mounting	2	
30	0042540704	Clutch pressure plate	1	
31	00025014	Clutch disc	1	
32	0002504415	Release bearing	1	
33	EE	Fork clutch release bearing	1	
34	000912010056	Screw for vibration to pully	6	Available in the market.
35	352321105	Ring gear	1	Can be purchased from local market.
36	002411513	Rubber mounting	1	Can be made in the Fd Wksp.
37	3522240053	Spare tube	1	Available in the market.
38	3529973182	Hose	1	Can be manufactured locally.
39	3521420912	Clamping piece	1	Available in the market.
40	000981010154	Screw M 10 x 10	1	- do -
41	000931010346	Screw 10 x 115	1	- do -
42	3522231101	Engine support	1	- do -
43	352240207	Engine support	1	- do -