

PROJECT TITLE	PROJECT NUMBER	START DATE	COMPLETION DATE
PLASTIC MATERIAL DUMP BED	C99-29	NOV 99	AUG 00

Product Evaluated: Model 1411 Plastic Dump Body, made by Reiter Industries Inc., 926 E. Industrial Dr., Dickinson ND, 701-225-7090. Product is a 14' L, 11.4 CY dump bed made from a form of plastic, is of one-piece seamless construction, designed to handle the toughest hauling needs. It has a slick surface to provide less material sticking & allowing a 40% average lower dumping angle. Due to the material it is made of it is corrosive resistant, so should never need painting & the exterior should always look new. The tailgate is rubber sealed (optional) to prevent wet materials from being spilled. This body is advertised for hauling rock & soft, sticky, & wet materials. Other sizes available are: 10'-6.5 CY, 15'-12.3 CY, & 16'-13.1 CY. **Project Monitor:** AETC MEEP Activity. **Comparison:** Steel dump bodies. **Project Results:** Heavy equipment repair technicians assigned to an AF Reserve Red Horse unit installed the dump body & optional plastic fenders on a 1993 Ford F-900 truck chassis. The body required installation of an air operated tailgate cylinder valve, hydraulic lines to the valve & piston at the tailgate, & a switch in the cab of the vehicle. The doghouse on the plastic dump body was taller than the dump steel body. Therefore, the outside panel of the doghouse had to be cut in order to weld the inside of the mounting brackets for hydraulic cylinder pin brackets.

NOTE: Other sizes are available. The body was used mostly in conjunction with construction projects, & operators stated that the dump body performed very well when unloading materials. **Noted Advantages:** The plastic body weights 2000 lbs. less than a steel dump body. Materials, i.e.: dirt, sand, & rock unload easily, starting to slide as soon as the body is lifted about 3 feet. **Noted Disadvantages:** In a unit subject to mobilization on short notice, this type of vehicle is often shipped via military air for the deployment, & the 'headache' rack must be removed to meet height restrictions (96 inches). However, the headache rack on this body cannot be removed without cutting it off & then re-welding it to the body at destination. Also, the position of the upper pin attachment for the hydraulic piston is higher than the cab of the vehicle, which makes it very difficult to remove the headache rack. Standard dump truck headache racks are adjustable & can be lowered below the vehicle cab. Additionally, during the evaluation period the plastic body was cut/torn on the upper right side. It is believed that a piece of concrete may have caused the cut or tear. The frame & cross members on the body were also bent while the dump was being loaded with concrete. Equipment technicians' felt that the frame on the dump body is thin-walled & loading of heavy material (concrete chunks, large rocks, etc.) on the body using front-end loaders was the cause of the frame bending. Also, the body was too large for the Ford F-900 chassis, which created safety concerns. When the bed was fully loaded the vehicle was very unstable, especially backing-up. Operators had to back up very slowly & avoid hard braking so the front wheels

would not come off the ground. **Final MEEP Action:** This product was not recommended for Air Force use as designed. **Project Closed.**
