



SERVICE BULLETIN

QUALITY INFORMATION ANALYSIS
OVERSEAS SERVICE DEPT. MITSUBISHI MOTORS CORPORATION

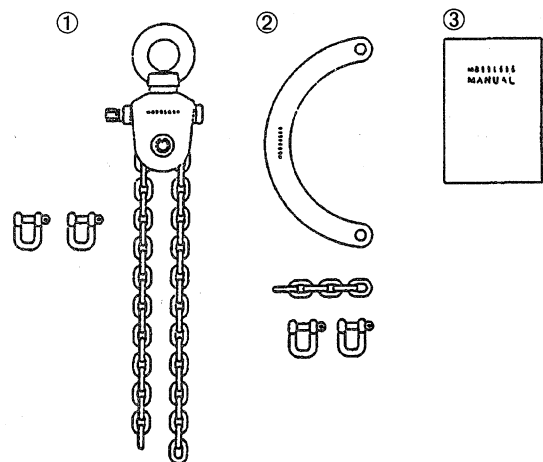
SERVICE BULLETIN		NO. : MSB-96E11-005	
		DATE : 1996-10-30	<MODEL> ALL MODELS
SUBJECT : AVAILABILITY OF SPECIAL TOOLS ENGINE SLING CHAIN SET		<M/Y> 80-10	
GROUP : ENGINE		DRAFTNO. : 96-EN-001	
INFORMATION	OVERSEAS SERVICE DEPT	<i>R. Usami</i> R. USAMI - MANAGER QUALITY INFORMATION ANALYSIS	

1. Description:

This Service Bulletin informs you that the special tools have been made available for slinging and installation/removal of the engine assembly, etc.

2. Available special tools:

No.	Part No.	Part name
-	MB991683	Sling chain set (SET, SLING CHAIN)
①	MB991684	Sling chain (CHAIN, SLING)
②	MB991685	Hanger (HANGER)
③	MB991686	Installation manual (MANUAL, INSTR)



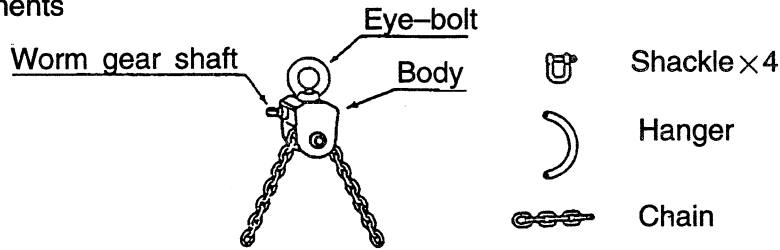
3. Details of tools:

- (1) Overall weight..... 5 kg (Sling chain plus hanger)
- (2) Maximum working load..... 900 kg
- (3) Maximum hanging angle... 100° (Chain spreading angle)
- (4) How to set up..... Refer to the following page.

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Operating Instructions Manual for Engine Sling Chain Set
(Model : MB991683)

1. Description of components



2. Set up

① Shackle

- 1) Attach the eyebolt to the hook of a chain block or hoist. Make certain that the eye-bolt is located in the center of the hook.
- 2) Connect the chain to the bracket on the engine using a shackle supplied.

② Hanger

Attach the chain to the engine using the shackle and a hanger supplied wherever the chain interferes with the engine.

③ Caution

After the hanger is connected to the chain and the engine, check that the chain is not twisted or kinked.

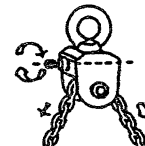
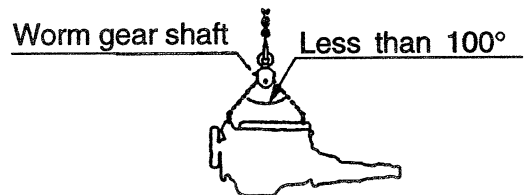
- (1) Also, check that the chain does not interfere with any part of the engine.
- (2) Make certain that the pin of the shackle is completely threaded into the threaded hole and firmly secured in position.

④ Hanging angle

Use the set at the hanging angles (an angle formed by 2 sides of the chain) of less than 100 degrees.

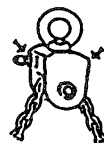
⑤ Lifting

Slowly lift the engine by rotating the worm gear shaft while properly balancing the engine in position.



3. Routine Maintenance

Apply machine oil or engine oil to the worm gear shaft bearing regularly. Also, apply grease to the gear.



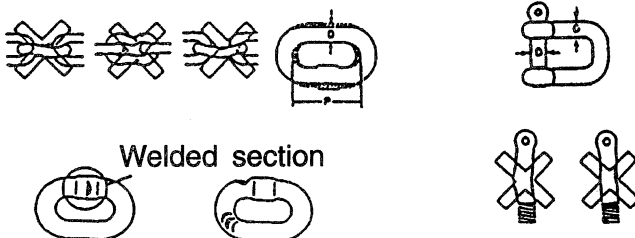
WARNING



- * The maximum operating load of this equipment is 900 kg. Never attempt to lift a load heavier than 900 kg.
Overloaded equipment can cause personal injury or damage the equipment.
- * Keep hands, feet, legs, etc. from under the suspended load such as the engine, otherwise it may result in serious injury or death to persons working in the immediate vicinity.
- * Make certain that nobody is under suspended load such as the engine and its vicinity, otherwise it may result in serious injury or death to persons working in the immediate vicinity.
- * Check that the chain is not twisted or kinked after the hanger and chain are installed. Otherwise, this could damage the chain or equipment and possibly results in serious injury to persons working in the immediate vicinity.
- * Make certain that the chain and the engine do not interfere with each other.
- * Make certain that the shackle pin is completely threaded into the threaded hole and firmly secured in position. Otherwise, it may result in serious injury or death to persons working in immediate vicinity.
- * Check that the hanger or the chain is not deformed or cracked. Otherwise, it may result in serious injury or death to persons working in the immediate vicinity.
 - Deformation
When the shackle or the chain is deformed or worn as much as 10% or more at width (D) of the straight section as illustrated below, never use or repair it for use. Replace with new one. Also, do not use loose chains.

Nicks

Never use the shackle or the chain having nicks, scratches, gouges or dents to the extent of 1.0 mm or deeper at a welded section, or 1.5 mm or deeper at any other section. Never use the shackle or the chain whenever a crack is observed.



- * Do not throw or drag the sling chain while carrying it.
- * Wash and wipe the sling chain after used, and store indoors.