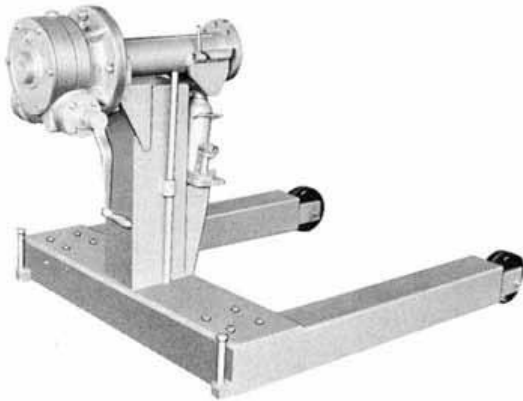


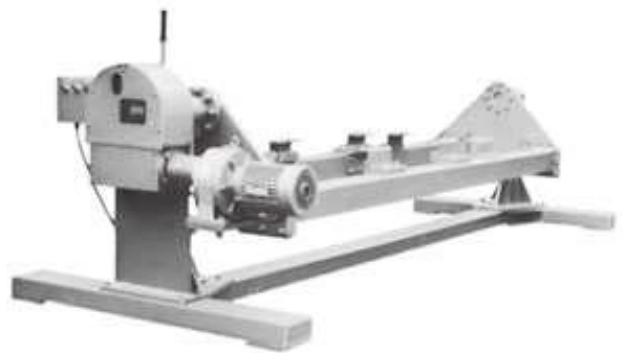
## ENGINE STAND (ENGINE POSITIONER)



AA-0307/0308/0310



AA-0309



AA-0311

Code No. Model No.	AA-0307 MEP-1	AA-0308 MEP-2	AA-0309 MEP-3	AA-0310 MEP-5	AA-0311 MEP-6
Service capacity kg	1.000	2.000	3.000	5.000	5.400
Service torque capacity N-m	5.6 (570kg-cm)	10.6 (1.0790kg-cm)		49(5.000kg-cm)	
Turning angle degree	360	360	360	360	90
Drive method	Manual	Manual	Manual	Manual	Motor 2.2kW
Dimensions (LxWxH) mm	1.180x720x1.020	1.255x1.030x1.090	Min.1.766x1.210x1.075 Max.2.075	1.710x1.566x1.534	4.380x1.570x1.320
Mass approx., kg	130	240	240	500	1.65

AA-0309 stand raises or lowers engine with a self-contained hydraulic jack. Service torque capacity is measured from the mount plate of the engine stand. Option: Various mounting brackets are available upon request.

## VALVE SPRING TOOL

This tool facilitates disassembly and reassembly of engine valve springs. The tool is applicable to all engines only by relocating the adjust pin as necessary.

Code No.	AA-0601
Overall length	390 mm
Mass	1.1 kg

## VALVE LIFTER & COMPRESSOR

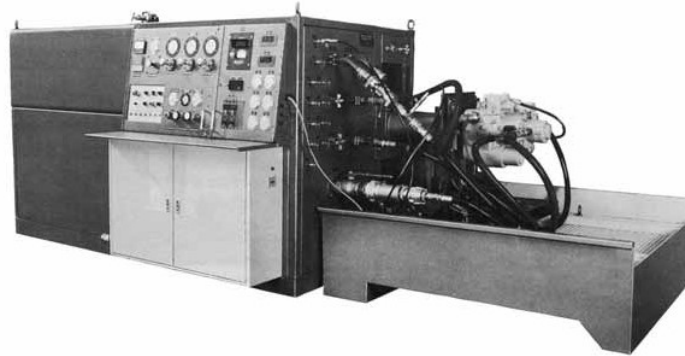
Code No.	AA-0703	AA-0702
Opening range mm	15 ~ 180	50 ~ 225
Mechanism	Pinion rack	Pinion rack
Applicable valve type	Over-head valve	Over-head valve
Dimensions (LxWxH) mm	390 x 200 x 30	365 x 310 x 22
Mass kg	2.0	3.4

## HYDRAULIC COMPONENT TESTER

This test bench is designed to test all hydraulic components of earthmoving machines to ensure that the components are working properly and meet the manufacturer's performance specifications.

The performance of hydraulic pumps, motor, cylinders, valves, transmissions and torque converters can be tested using the 93 kW drive motor, producing 125 horse power.

This Hydraulic Components Tester is essential in any remanufacturing hydraulic workshop.



Code No.		EH-0509-02	
Model		MH-125D2	
Type of drive		AC, 3-ph electric motor	
Drive motor		93kW (125HP)	
Oil tank capacity		Main 400 liter, Sub 500 liter	
Flow meter		30 ℓ / min×1 and 300 ℓ / min×2, digital	
Tachometer		0~9999 rpm (digital)	
Gauge	Pressure	0.4MPa x 2, 1.0MPa x 1	
		1.5MPa x 2, 5.0MPa x 1	
		5.0MPa x 3 (digital)	
		20MPa x 2 (digital)	
		50MPa x 5 (digital)	
	Temperature	0~150 °C x 1 (digital)	
Oil cooler & heater		Automatically adjustable for specified temperature	
Dimensions (L x W x H)			
Main Unit		1,500 x 1,650 x 1,690mm (power unit)	
		1,500 x 2,130 x 2,025mm (operation unit)	
Sump Unit		1,830 x 1,700 x 581mm	
Mass (approx.)		4,000 kg	

Code No.		EH-0509	
Model		MH-125D	
Pump test			
Max. flow	ℓ/min.	600	
Max. pressure	MPa	41.2	
Max. torque	N.m	878.7/1,128(option)	
Speed range	min <sup>-1</sup>	0~2,650	
Valve and cylinder test			
Max. flow	ℓ/min.	183	
Max. pressure	MPa	41.2	
Hydraulic transmission test			
Max. T/M change flow	ℓ/min.	183	
Max. T/M change pressure	MPa	11.8	
Max. torque	N.m	878.7/1,128(option)	
Speed range	min <sup>-1</sup>	0~2,650	
Plunger motor test			
Max. flow	ℓ/min.	183	
Max. pressure	MPa	41.2	
Max. torque	N.m	878.7/1,128(option)	
Speed range	min <sup>-1</sup>	0~2,650	

The shown data are maximum values we can obtain individually. Two or more maximum values cannot be obtained simultaneously.

### Options

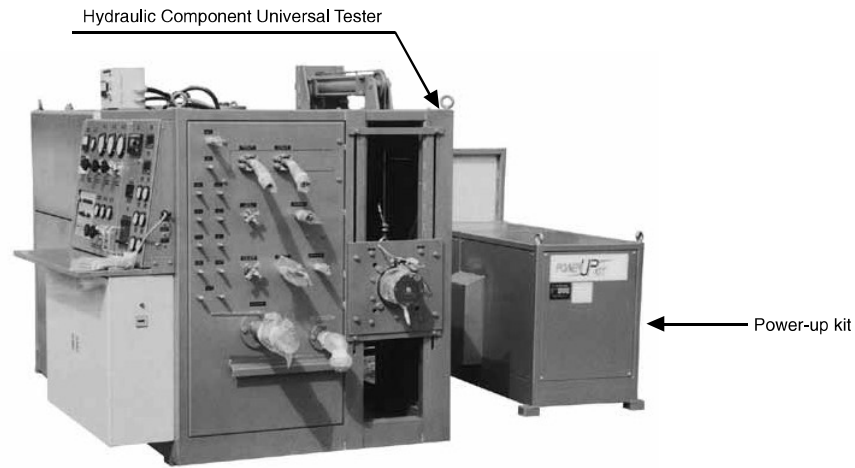
1. Between the tester and hydraulic component piece to be tested, fitting, hoses, adaptors and mounting fixtures are needed for each model of components and can be selected from the attachment chart or you may consult with the manufacturer through your dealer.
2. Simulated hot oil testing unit is available.
3. Power-up kit is available.
4. Data, system management software is available.



## POWER-UP KIT FOR HYDRAULIC COMPONENT TESTER

To meet the demands of testing larger capacity hydraulic components, the Power-Up Kit increases the power output of the existing hydraulic tester by 75kW (100HP), 93kW (125HP) or a maximum of 110kW(150HP).

The Power-Up Kit output horse power additionally assists the existing hydraulic tester in order to increase both the drive motor output and the high pressure flow-out performance. Maximum output hydraulic flow pressure and maximum hydraulic flow back pressure (load pressure) can be increased up to 41.2MPa.



An optional high torque motor is included.

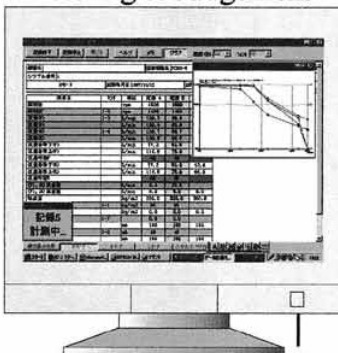
## DATA, SYSTEM MANAGEMENT SOFTWARE FOR HYDRAULIC COMPONENT TESTER

This software, for use with Windows, is designed for data, system management of the final testing of hydraulic components or engine. It is a powerful tool to help the operator control and organize the test parameters, and obtain the data in a format which is readily understandable and easy to analyze the condition of the component being tested.

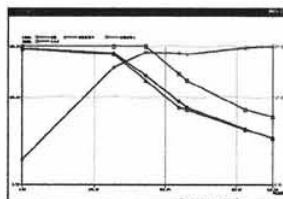
A complete record of the test results of the component can be stored in the data base for easy retrieval and can also be used for test certification of the component. There are many additional functions which will meet the user's requirement.



### Metering & Judgement



### Print out



### Procurement



Illustrations and technical data are non-binding and subject to change as a result of technological progress.

## MULTI-SERVO CONTROLLER



EH-0552

To test all hydraulic components with electric type servo valves, our MULTI-SERVO CONTROLLER is very useful for our MH type Hydraulic Component Universal Tester.

Because, when you test the hydraulic component, you only need to remove the hydraulic component with the electric type servo valve from the construction equipment, and it is not necessary to remove the servo controller located in the cab as practiced in the past.

To enable testing of all electric type servo valves, the dither output frequencies 10-200-Hz is completely covered by this MULTI-SERVO CONTROLLER and can be steplessly adjusted. A switch is provided to select the commonly used 5 stages of dither frequencies.

Code No. Model	EH-0551 MSC-1000A	EH-0552 MSC-1000B
Power source	AC 1 ph. 100V	AC 1ph.
Current accuracy	±15mA (solenoid current : 0 ~ 1,000mA)	
Dither frequency	40, 50, 100, 150, 200Hz Fixed changeover	
Operating temperature range	0~50C	
Dimensions (L x W x H)		300 x 300 x 160mm
Mass		8,3
Remarks	Built-in type for MH-125D	Portable

Various Voltage are available upon request.

## CURVED SURFACE LAPPING MACHINE



Curved valve plate automatic lapping machine

EH-1001



Curved rocker cam automatic lapping machine

EH-1002

As the valve plate and cylinder block of spherical plate type variable displacement piston pumps are under curved surface contact, lapping maintenance has been done manually, requiring tremendous time and sometimes with unsatisfactory results. Based on our many years of experience of rebuilding hydraulic equipment, we have been investigating into ways of lapping these expensive parts quickly and accurately.

Now, we have developed a curved surface automatic lapping machine that allows mechanical co-lapping and also, developed an automatic lapping machine for rocker cam and rocker cam housing.

These curved surface lapping machine will greatly increase the efficiency of your service workshop.

Code No. Model	EH-1001 MVL	EH-1002 MRL
Used for	Valve plate & Cylinder block contact surface	Rocker cam & Rocker cam housing contact surface
Max. workable dimensionmm	φ150 x 180 L	φ250 x 200 L
Power source	Geared motor AC 3ph. 0.2kW x 2	Air 0.5~0.7MPa & AC 1ph
Dimensions (L x W x H) mm	400 x 600 x 800	520 x 440 x 880
Mass (approx) kg	115	100

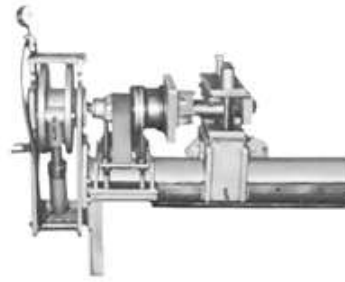
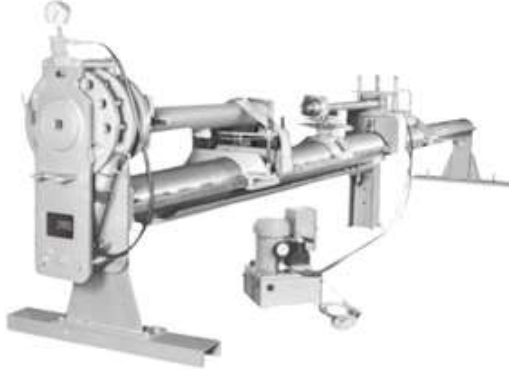
Various Voltage are available upon request.

## HYDRAULIC CYLINDER SERVICE STAND

To increase hydraulic cylinder repair capacity per day with minimum effort, this stand cuts cylinder disassembling and reassembling service labor costs. And with this stand, less skill is required, a torque job is made easier and safer.

It is better to use torque multipliers (KQ-1000 series) with this service stand.

This EH-0902 is also used for easy assembling and disassembling a Tilt Cylinder as shown in the picture.



Code No. Model		EH-0902 MCS-2D	EH-0903 MCS-3	EH-0904 MCS-4
Working torque	kN.m	39.23	68.60	98.00
Workable cylinder length	mm	2,500	3,184	4,500
Workable cylinder dia	mm	400	610	420
Electric hydraulic pump (standard)		CY-0205	CY-0205	CY-0205 with large oil tank
Socket drive		3-1/2" square	4" square	5" square
Dimensions (L x W x H)	mm	6,379 x 1,000 x 1,480	8,198 x 1,300 x 1,430	9,980 x 1,300 x 1,737
Mass (approx.)	kg	1,050	2,000	4,000
Standard accessories				
Drive adaptor		1-1/2" & 2-1/2"		
Drive shaft		1-1/2", 2-1/2" & 3-1/2"	1-1/2", 2-1/2", 3-1/2" & 4"	
Optional accessories		socket (see below)	socket (see below)	

Various Voltage are available upon request.

### Socket (option)

1) Standard type (metric size)    2) Deep type (metric size)    3) Standard type (Inch size)

Code No.	Opening (mm)	Sq. drive (in)	Code No.	Opening (mm)	Sq. drive (in)	Code No.	Opening (in)	Sq. drive (in)
EH-0902-01	50	1-1/2	EH-0902-21	70	1-1/2	EH-0902-31	1-13/16	1-1/2
EH-0902-02	55	1-1/2	EH-0902-22	80	1-1/2	EH-0902-32	2-3/8	1-1/2
EH-0902-03	60	1-1/2	EH-0902-23	85	2-1/2	EH-0902-33	2-9/16	1-1/2
EH-0902-04	65	1-1/2	EH-0902-24	95	2-1/2	EH-0902-34	3-1/8	1-1/2
EH-0902-05	70	1-1/2				EH-0902-35	3-1/2	1-1/2
EH-0902-06	75	1-1/2				EH-0902-36	4	2-1/2
EH-0902-07	80	1-1/2						
EH-0902-08	85	2-1/2						
EH-0902-09	90	2-1/2						
EH-0902-10	95	2-1/2						
EH-0902-11	100	2-1/2						
EH-0902-12	105	3-1/2						
EH-0902-13	110	3-1/2						
EH-0902-14	115	3-1/2						

The above sockets are applied for KOMATSU tractor D60 to D475, Excavator PC200 to PC1500, CATERPILLAR tractor D4 to D10. Please specify models when ordering.

