

Before commencing to work the machine, check that components have not been damaged.

Before operating the machine study the instructions in this manual and familiarise yourself with the controls. See Instruction Plate. There are certain fundamentals which should always be applied whatever the skill of the operator. These are mainly concerned with safety - your safety and that of others.

Before starting work walk over your work area - check for buried services. If in doubt ask someone who knows the site.

Do not dig in hazardous conditions.

Think out your operating sequence (do not dig yourself into a corner or have to cross your own trenches).

Ensure that your stand will bear the machine weight without collapsing.

OPERATING AND SITE MANOEUVRE

The digging operation with this excavator is identical to that used with conventional wheel and track driven excavators. Since this machine does not possess a transmission system any forward or reverse movement must be achieved by walking the machine. This procedure is common to all excavators. The technique may be quickly mastered by any operator using the bucket and ground as a fulcrum point with boom and dipper arm extended. By operating the Boom and Dipper cylinders the machine may be either rolled forward on its two rear wheels or pushed backwards. The machine may also be moved in an arc by swinging the Boom to place the bucket in its required ground position to give turning movement.

For maximum stability the rear wheels must be at the maximum CRS when digging and walking. If one wheel has been pushed into the narrow position when digging close to a wall it must be moved back to the outer position on completion of this operation.

Care must be taken that the rear and two front stabilizers are in the correct position before digging. The rear stabilizer must be pushed down until the wheels have been raised clear of the ground by approximately 2" (50mm). The front stabilizer legs may be fitted in either three horizontal positions. To do this remove its outer pin only, then swing the leg until alternative hole is in line with the hole in the chassis cross member. Insert pin and fit spring clip.

The three positions are:-

- (1) The "out position" where the legs are pointing out and away from the chassis and the feet are at their widest centres, this is the position that will give maximum stability and the position that must be used for all normal digging operations.
- (2) The intermediate position for confined spaces.
- (3) The "in position" where the legs are lying in line with the chassis and the feet are at their narrowest centres. This is the position that will give minimum stability. This position is primarily intended for the following conditions:-
 - (a) Access purpose when passing the machine through a restricted opening.
 - (b) When digging close to a wall the leg nearest to the wall be fitted in the in position. NOTE the other leg must be fitted in the out position where slewing is required.
 - (c) When using a concrete breaker in a narrow passage where both legs are in the in position and no slewing operating is to be carried out.

The front stabilizer legs also have a four hole vertical pin adjustment.

The two highest positions may be used to obtain a deeper dig. In these positions the front trail wheels must be removed whilst digging. The highest position and narrowest width must be used when the machine is to be trailed on the front wheels. In this position the dipper arm is curved in and the bucket secured to the outrigger by use of the support arm. The front trail wheels may be left in position when digging with the front stabilizer legs in the two lowest positions. In these positions, care should be taken that the load due to digging is taken on the outriggers. Do not rest on front wheels during the digging operation.

IMPORTANT

When hitching the excavator to a vehicle before taking it on the road. Raise the rear wheels until they are just clear of the ground. To do this push the rear stabilizer down by use of the hydraulic cylinder. The excavator may now be manually hitched to the vehicle, now raise the rear stabilizer and lock in position.

When arriving at the destination unlock the rear stabilizer and lower it until the wheels are just clear of the ground. The machine may now be manually unhitched.

When parking, lower rear stabilizers to lift the rear wheels off the ground and lower boom until the bucket rests on the ground.

TRENCH DIGGING

Before commencing fix a marker line. This should be a good long sight and is important in that a bad start is hard to correct.

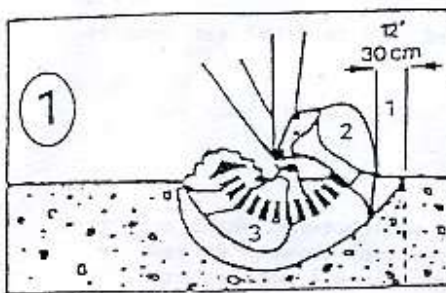
Position your machine over and along the line and fully extend the Boom and Dipper arms with the Boom slew post over the line.

Now raise the wheels from the ground by pushing down the rear outrigger.

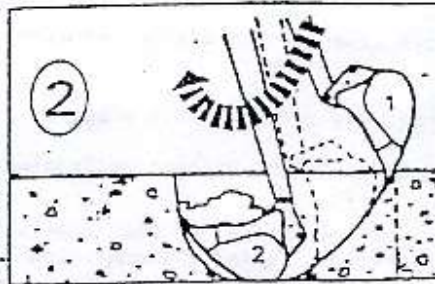
We may proceed with the trench digging operation as shown in illustration 1 to 6 inclusive.

(ENGINE OIL - SHELL ROTELLA 10W-30 OR EQUIVALENT)
(HYDRAULIC OIL - SHELL TELLUS V37 OR EQUIVALENT)

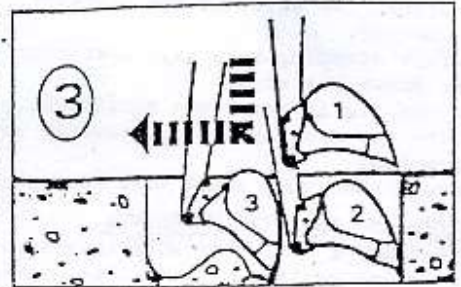
OPENING A DIG



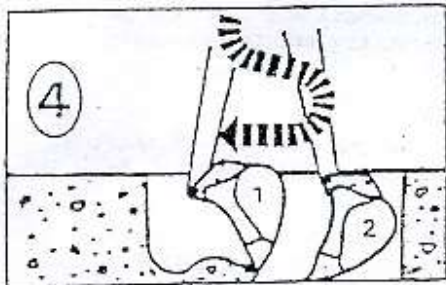
1. Enter bucket here to allow for bucket rolling.
2. Apply dipper pressure and lightly roll the bucket.
3. Allow the boom to follow the bucket rotation.



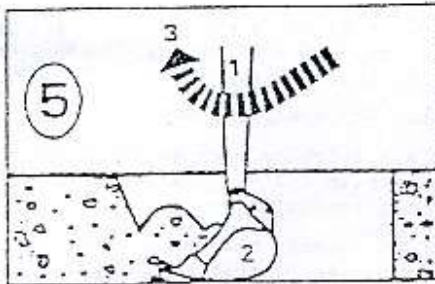
1. Sliding action of bucket contracts earth.
2. Allow bucket roll to bring the bucket clear — then lift out. Bucket fits in short distance at this point.



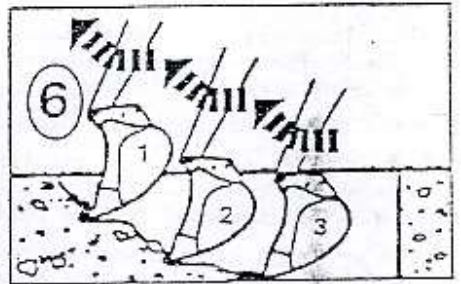
1. Lower the boom moving deeper away to keep bucket lip vertical.
2. Fully roll the bucket as it reaches bottom.
3. Pull dipper inward 60 cm (2 ft) to clear the back of the bucket.
4. Gently open the boom lift service to allow normal lift to the boom.



1. Push dipper away and at the same time —
2. Roll the bucket inward keeping it level with the bottom of the dig.



1. Pull the dipper inward and —
2. Gently roll the bucket to keep the teeth at the correct angle with the bottom of the dig.
3. Continue to roll the bucket and lift clear. Move the dipper outward and prepare to dump.



1. On subsequent "itches" work to the bottom of the dig in layers.
2. Layer thickness depends upon material density.

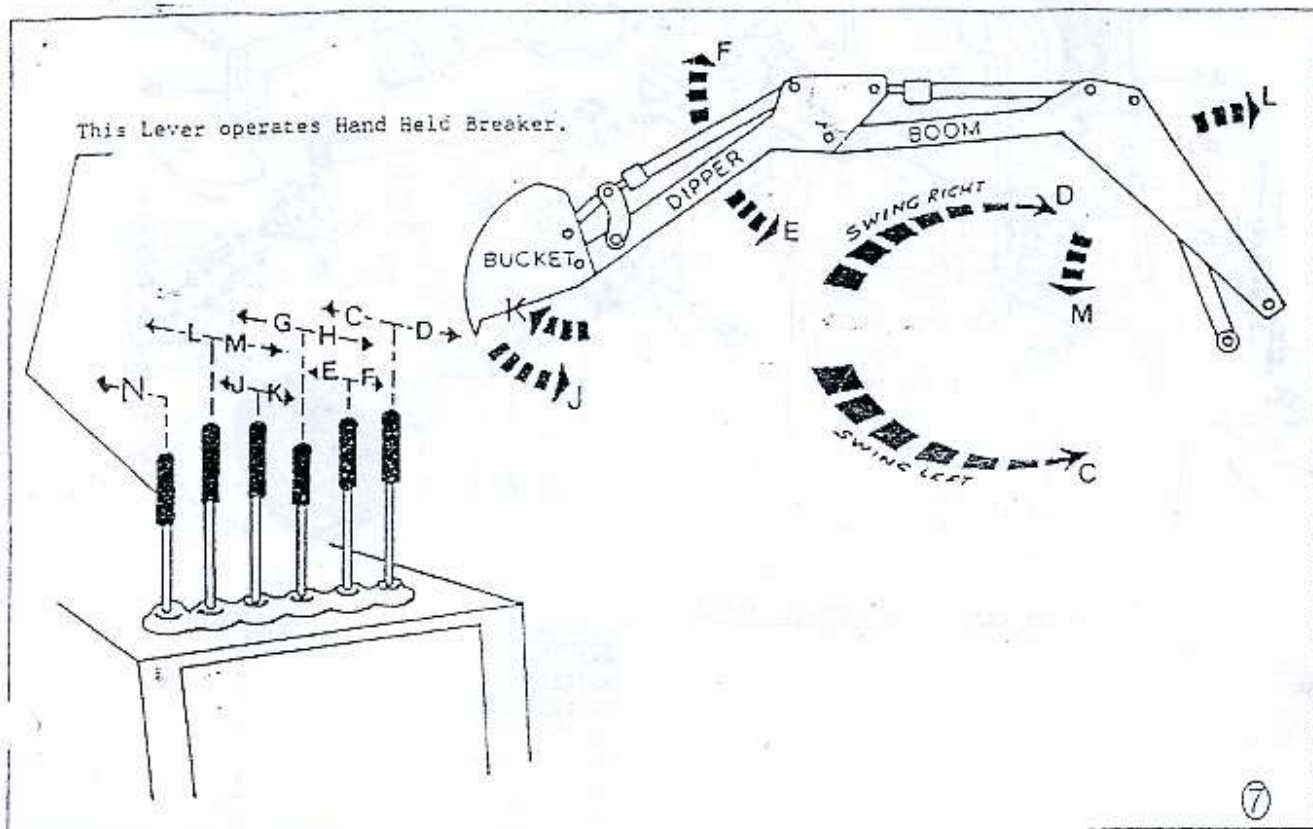
CLEARING BURIED SERVICES

A major danger in excavating is the possibility of striking buried services unless you are certain that none exist in your work area - proceed with caution and watch for tell tale signs as:-

1. Changes to soil texture or colour
2. Patches of gravel or sand
3. Ceramic tiles or earthenware piping
4. Plastic marker strips - in some places it is practice to bury them 150mm (6") above cables

Always treat such signs with caution and hand dig if necessary to expose the object - once exposed do not dig down with your machine to clear it. The compressive action of excavating may break or damage it.

Where possibility of buried services exists it is safer to dig in layers similar to that shown in illustration 6.



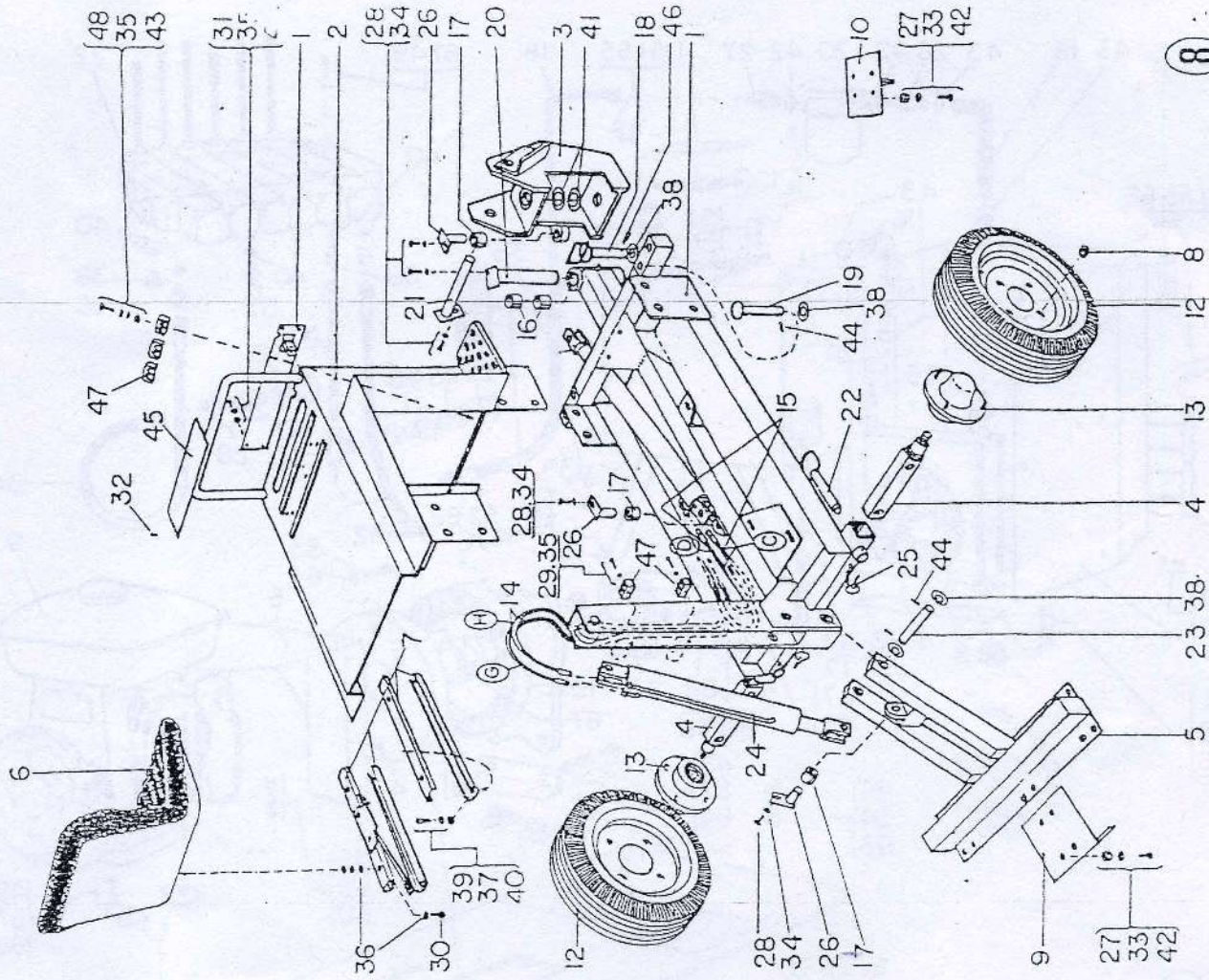
EXCAVATOR CONTROLS

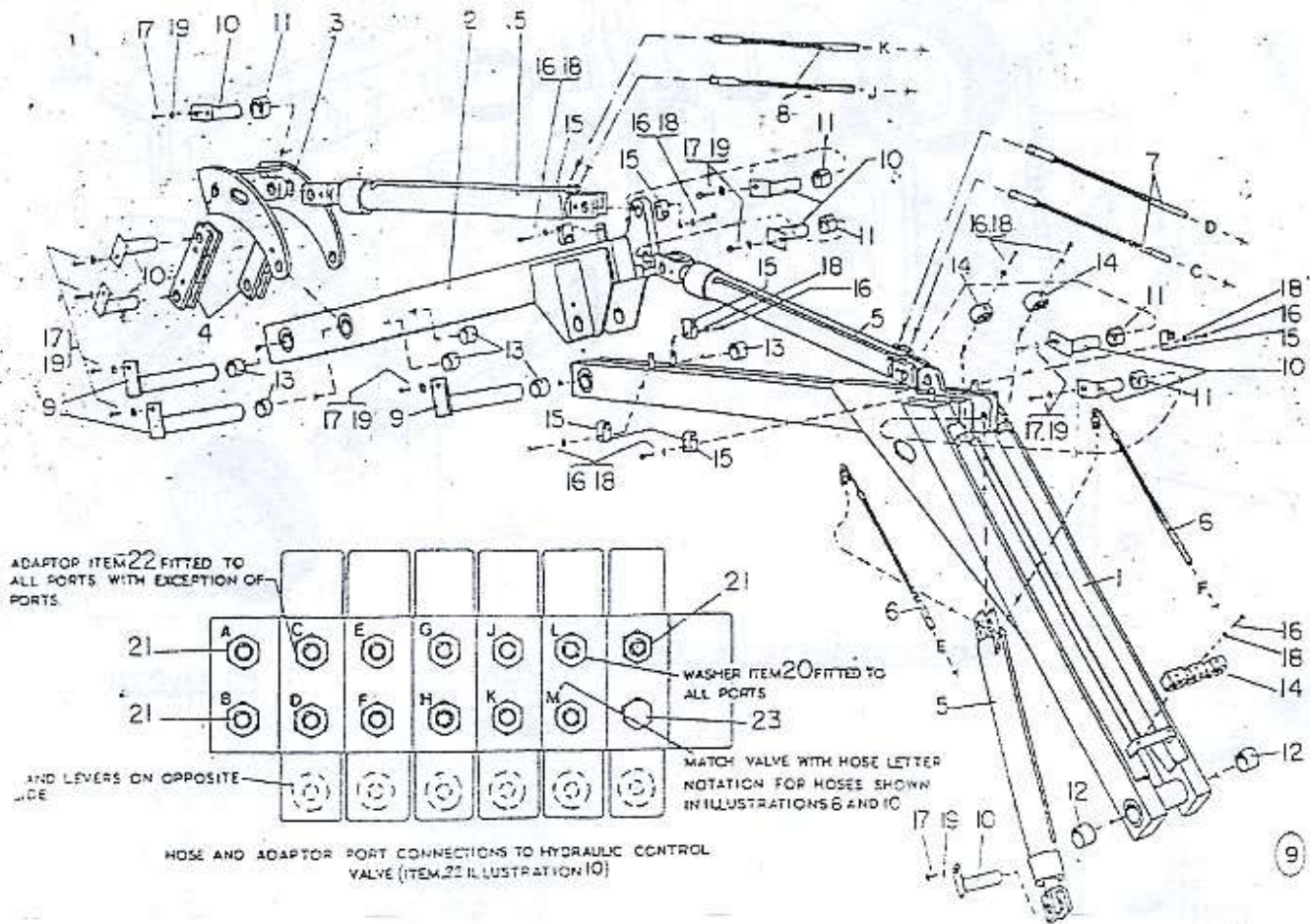
SAFETY PRECAUTIONS

1. Check that wheel split pins are in position and that tyres are fully inflated. Pressure should be 40 PSI (2.75 Bar).
2. Periodically check that pins are locked in position and that all bolts are tight.
3. When hitching the excavator to a vehicle before taking it on the road. Raise the rear wheels until they are just clear of the ground. To do this push the rear stabilizer down by use of the hydraulic cylinder. The excavator may now be manually hitched to the vehicle, now raise the rear stabilizer and lock in position.
When arriving at the destination unlock the rear stabilizer and lower it until the wheels are just clear of the ground. The machine may now be manually unhitched.
When parking, lower rear stabilizers to lift the rear wheels off the ground and lower boom until the bucket rests on the ground.
Check for obstruction, or buried services.
4. Avoid steep gradients and unstable conditions which are liable to affect the stability of the machine. Where a gradient which is at right angles to the line of the trench is excessive a levelling operation should be carried out before digging the trench.
5. Do not work on or under the machine with the engine running.
6. Stop engine before filling hydraulic system.
7. Check frequently for leaks or damage to hydraulic system.
8. Where front stabilizer legs have been moved to the in position for passing through a narrow opening. They must be re-positioned in the out position before commencement of the digging cycle when on open ground. NEVER SLEW OVER A FRONT STABILIZER LEG THAT IS FITTED IN THE IN POSITION.
9. If it has been necessary to remove a stabilizer foot for access purposes, care must be taken that this is replaced and the bolts fully tightened down before commencement of digging operation.
10. When trench digging never move forward over the trench. This could cause the trench side to collapse which could take the machine with it. Always move backward away from the trench.
11. The operating valve relief unit has been factory set. Never try to adjust this.
12. The operator should never personally enter a deep trench without taking safety precautions against wall collapse. Shutter and support the trench sides in the area where it is required to work.
13. The weight ratio is such that the machine is most efficient when operating with a person whose weight is at least 60 kilos (130 lbs). Where the operator is below this weight a rear ballast may be added to the rear of the machine up to a maximum of 45 kilos (100 lbs) to ensure good loading stability.
14. Max speed 40 mph (64 kph) with gross weight of excavator (700 kilo) half kerb weight of towing vehicle. (1400 kilo min).

125W CHASSIS TRAILED 10HP KIT NO. K0012

ITEM	DESCRIPTION	PART NO.	NO. REQ'D
1	Chassis	WA/125/0258	1
2	Canopy	WA/125/0273	1
3	Pivot Bracket	WA/125/0072	1
4	Rear Axle	WA/125/0280	2
5	Rear Stabilizer	WA/125/0246	1
6	Seat	MB/125/0533	1
7	Seat Slider Assembly	MB/125/0534	1
8	Wheel Nut	MB/360/0327	8
9	Rear Stabilizer Foot Plate	WA/125/0003	2
10	Front Stabilizer Foot Plate	WA/125/0053	2
11	Canopy Front Cover Plate	WA/125/0267	1
12	Rear Wheel	MB/360/0180	2
13	Wheel Hub	WA/125/0601	2
14	Hose $\frac{1}{2}$ "- $\frac{3}{8}$ " BSP Straight 1.93m long	MB/125/0656	2
15	Hose $\frac{1}{2}$ "- $\frac{3}{8}$ " BSP Straight 1.50m long	MB/125/0657	2
16	Bush 50 ϕ x 60 long	MB/125/5060	2
17	Bush 22 ϕ x 20 long	MB/125/0452	3
18	Pin 20 ϕ x 130 long	WA/125/0086	2
19	Pin 20 ϕ x 130 long	WA/125/0094	2
20	Pin 50 ϕ x 260 long	WA/125/0001	1
21	Pin 32 ϕ x 230 long	PP/125/0002	1
22	Pin 22 ϕ x 135 long	A/125/0013	2
23	Pin 20 ϕ x 256 long	RS/125/0115	1
24	Hydraulic Cylinder	MB/125/0222	2
25	Spring Ring Clip	MB/125/0405	2
26	Pin 22 ϕ x 60 long	WA/125/0291	3
27	M16 x 35 long bolt	MB/360/0393	16
28	M10 x 15 long bolt	MB/360/0324	5
29	M6 x 40 long bolt	MB/360/0308	2
30	5/16" UNC Bolt $\frac{1}{2}$ " long	MB/125/0390	4
31	M6 x 15 long bolt	MB/360/0318	4
32	No. 6 x $\frac{1}{4}$ " Self Tapping Screw	MB/125/0321	4
33	M16 Flat Washer	MB/125/0383	16
34	M10 Flat Washer	MB/360/0337	5
35	M6 Flat Washer	MB/360/0331	12
36	5/16 Flat Washer	MB/125/0625	16
37	M8 x 20 long socket hd. cap screw	MB/360/0320	4
38	M20 Flat Washer	MB/125/0384	6
39	M8 Flat Washer	MB/125/0334	4
40	M8 Hex Nut Niloc	MB/125/0469	4
41	Pivot Thrust Washer	MB/125/0050	2
42	M16 Hex Nut	MB/360/0340	16
43	M6 Hex Nut	MB/360/0330	7
44	M5 x 40 Split Pin	MB/125/0387	4
45	Instruction Plate	MB/125/0605	1
46	Hairpin Clip	MB/125/0062	2
47	Pipe Clip Double	MB/360/0198	5
48	M6 x 45 Long Hex Bolt	MB/125/0770	3

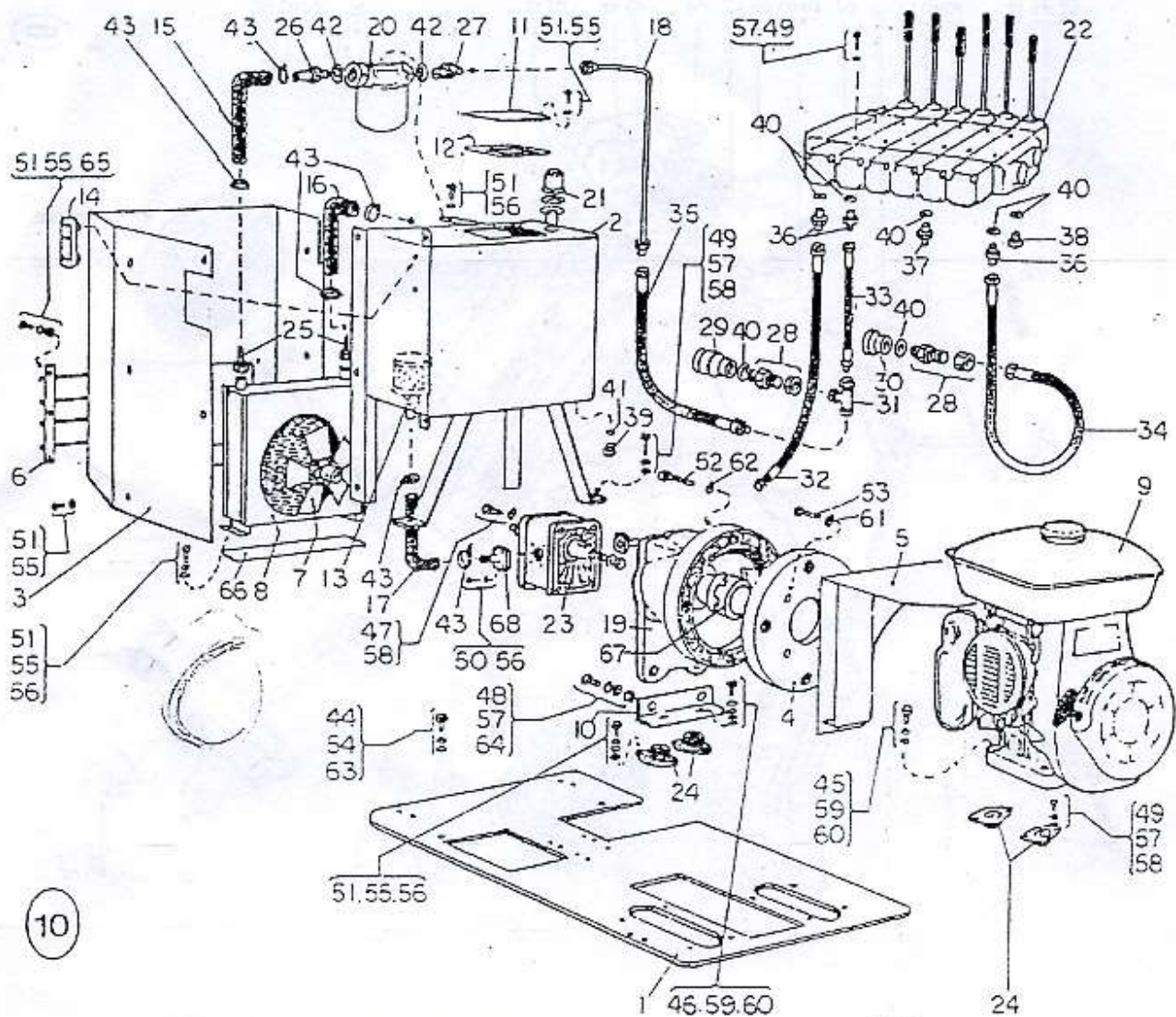




125K 10HP FRONT END EQUIPMENT KIT NO. K0015

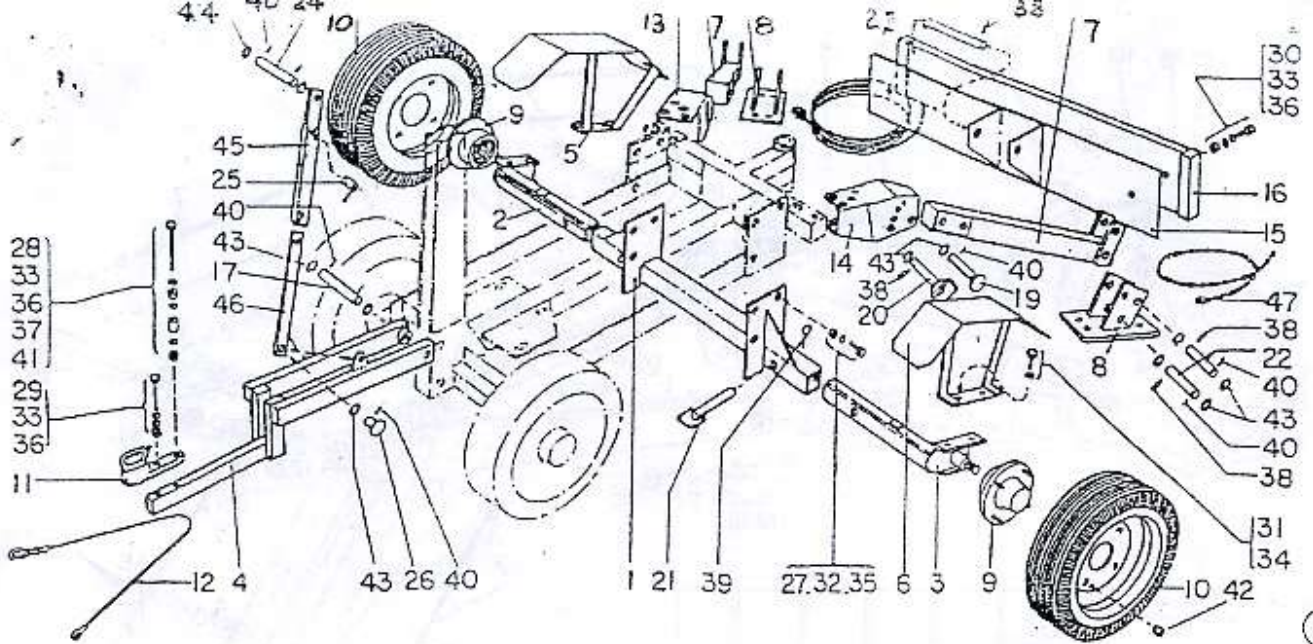
FOR USE WITH HAND HELD BREAKER AND ANCILLARY EQUIPMENT

ITEM	DESCRIPTION	PART NO.	NO. REQUIRED
1	Boom Assembly	WA/125/0073	1
2	Dipper Arm Assembly	WA/125/0031	1
3	Push Link	WA/125/0044	1
4	Bucket Link	WA/125/0008	2
5	Hydraulic Cylinder (2 1/2" Dia Bore)	MB/125/0222	3
6	Boom Cylinder Hose 3/8"-1/2" BSP F/F (Special End) 1.63m long	MB/125/0659	2
7	Dipper Cylinder Hose 1/2"-3/4" BSP F/F 1.93m long	MB/125/0656	2
8	Bucket Cylinder Hose 1/2"-3/4" BSP F/F 3.25m long	MB/125/0660	2
9	Pin 25 Ø x 146	PF/125/0001	3
10	Pin 22 Ø x 60	WA/125/0291	8
11	Bush 22 Ø x 20	MB/125/0452	5
12	Bush 32 Ø x 40	MB/125/3240	2
13	Bush 25 Ø x 30	MB/125/2530	6
14	Double Pipe Clip	MS/360/0198	5
15	Single Pipe Clip	MB/360/0199	6
16	M6 x 40 Hex Bolt	MB/360/0308	11
17	M10 x 15 Hex Bolt	MB/360/0324	14
18	M6 Flat Washer	MB/360/0331	14
19	M10 Flat Washer	MB/360/0337	14
20	1/2" BSP Bonded Seal	See item 40 Illustration 9	14
21	1/2"-1/2" BSP Adaptor	" " 36	9
22	1/2"-3/8" BSP Adaptor	" " 37	9
23	1/2" BSP Plug	" " 38	9



125WT 10HP (BREAKER HAND HELD) POWER KIT NO.K0013

ITEM	DESCRIPTION	PART NUMBER	NO. REQ'D	ITEM	DESCRIPTION	PART NUMBER	NO. REQ'D
1	Engine Mounting Plate	PS/125/0470	1	35	3/8" BSP M/F BSP Hose 0.45m lg.	MB/125/0664	1
2	Hydraulic Tank	WA/125/0326	1	36	1/2" BSP St. Adaptor	MB/360/0218	3
3	Cover Plate	PS/125/0602	1	37	1/2"-3/8" BSP St. Adaptor	MB/360/0215	10
4	Adaptor Plate	PS/360/0410	1	38	1/2" BSP Plug	MB/360/0509	1
5	Engine Baffle Plate	WA/360/0215	1	39	1/2" BSP Plug	MB/125/0054	1
6	Grill	WA/360/0202	1	40	1/2" BSP Bonded Seal	MB/125/0053	16
7	Impeller	MB/360/0611	1	41	1/2" BSP Bonded Seal	MB/125/0051	1
8	Cooler (Oil)	MB/360/0247	1	42	3/8" BSP Bonded Seal	MB/360/0348	2
9	10HP G400 Honda Engine	MB/360/0271	1	43	Hose Clip Size 1A	MB/125/0022	6
10	Angle	AS/360/0025	1	44	M16 x 35 Bolt Hex Hd.	MB/360/0393	3
11	Cover Plate	PS/360/0561	1	45	M10 x 40 Bolt Hex Hd.	MB/360/0322	4
12	Gasket	MB/125/0001	1	46	M10 x 25 Bolt Hex Hd.	MB/125/0381	2
13	Suction Strainer	MB/360/0677	1	47	M8 x 30 Skt. Hd. Cap Screw	MB/360/0304	4
14	Fluid Level Gauge	MB/125/0025	1	48	M8 x 25 Bolt Hex Hd.	MB/360/0323	2
15	Hose 1"o/dx3/4"i/dx190x70	MB/360/0289	1	49	M8 x 15 Screw Hex. Hd.	MB/360/0315	18
16	Hose 1"o/dx1/2"i/dx135x85	MB/360/0290	1	50	M6 x 15 Skt Hd. Cap Screw	MB/360/0623	8
17	Hose 1"o/dx1/2"i/dx110x85	MB/360/0291	1	51	M6 x 15 Bolt Hex Hd.	MB/360/0318	32
18	Steel Pipe Assy	WA/125/0327	1	52	1/2" UNF Bolt 1 1/2"lg. Hex Hd.	MB/360/0309	4
19	Bell Housing	MB/360/0276	1	53	5/16UNF Screw 1 1/2 lg.	MB/360/0319	4
20	Return Line Filter	MB/360/0278	1	54	M16 Flat Washer	MB/125/0383	3
21	Filler Breather	MB/360/0564	1	55	M6 Flat Washer	MB/360/0331	28
22	6 Bank Hydraulic Valve	MB/125/0551	1	56	M6 Spring Washer	MB/360/0332	18
23	Hydraulic Pump	MB/360/0416	1	57	M8 Flat Washer	MB/360/0334	20
24	Anti Vibration Mountings	MB/360/0272	6	58	M8 Spring Washer	MB/360/0335	12
25	1/2" BSP Hose Tail (Female)	MB/360/0300	2	59	M10 Flat Washer	MB/360/0337	12
26	1/2" BSP Hose Tail (Male)	MB/360/0301	1	60	M10 Spring Washer	MB/360/0621	6
27	1/2"-3/8" BSP St. Adaptor	MB/360/0299	1	61	5/16" Spring Washer	MB/360/0343	4
28	1/2" BSP Adaptor c/w nut	MB/360/0437	2	62	1/2" Spring Washer	MB/360/0342	4
29	Q.R. Coupling (Large Half)	MB/360/0616	1	63	M16 Nyloc Nut	MB/125/0470	3
30	Q.R. Coupling (Small Half)	MB/360/0615	1	64	M8 Nyloc Nut	MB/125/0469	2
31	3/8" BSP Swivel Tee	MB/360/0359	1	65	M6 Hex Nut	MB/360/0330	6
32	1/2" BSP F/F Hose 0.43m lg.	MB/125/0661	1	66	Cork Strip	MB/360/0619	1
33	1/2" BSP M/F BSP Hose 0.28m lg	MB/125/0663	1	67	Drive coupling	MB/360/0273	1
34	1/2" BSP F/F BSP Hose 0.64m lg.	MB/125/0662	1	68	Pump connector (STRAIGHT)	MB/360/0275	2



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TRAIL CONVERSION KIT NO. K0003

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>DRAWING NO.</u>	<u>NO. REQUIRED</u>
1	Axle Casing	WA/125/0274	1
2	L.H. Axle	MB/125/0594	1
3	R.H. Axle	MB/125/0588	1
4	Tow Bar	WA/125/0266	1
5	L.H. Mud Guard	WA/125/0284	1
6	R.H. Mud Guard	WA/125/0285	1
7	Outrigger Leg	WA/125/0225	2
8	Outrigger Foot Plate	WA/125/0233	2
9	Wheel Hub	MB/125/0601	2
10	Wheel	MB/360/0180	2
11	Towing Hitch	MB/125/0431	1
12	Safety Cable Assembly	A/125/0010	1
13	Outrigger Leg Bracket L.H.	WA/125/0227	1
14	Outrigger Leg Bracket R.H.	WA/125/0226	1
15	Lighting Board Plate	WA/125/0271	1
16	Lighting Board	MB/125/0462	1
17	Pin 20ø x 149	RS/125/0116	1
18	No. 6 x 1/2 Self Tapping Screw	MB/360/0321	4
19	Pin 20ø x 130	WA/125/0094	7
20	Pin 20ø x 130	WA/125/0086	2
21	Pin 22ø x 135	A/125/0012	2
22	Pin 20ø x 150	RS/360/0081	4
23	Pin 12ø x 155 Lg.	WA/125/0293	1
24	Pin 22ø x 256	RS/125/0115	1
25	Pin 20ø x 40	WA/125/0294	1
26	Pin 20ø x 40	WA/125/0295	1
27	M16 x 45 Screw	MB/360/0314	6
28	M12 x 130 Screw	MB/125/0606	1
29	M12 x 110 Screw	MB/125/0607	1
30	M12 x 45 Screw	MB/125/0641	2
31	M10 x 15 Screw	MB/360/0324	4
32	M16 Flat Washer	MB/125/0383	6
33	M12 Flat Washer	MB/125/0394	10
34	M10 Flat Washer	MB/360/0337	4
35	M16 Niloc Nut	MB/125/0470	6
36	M12 Niloc Nut	MB/125/0471	4
37	M12 Hex Nut	MB/360/0338	1
38	Hairpin Spring Clip	MB/125/0062	7
39	Spring Ring Pin	MB/125/0405	2
40	Split Pin 5 x 40	MB/125/0387	11
41	Spacer Tube	TU/125/0026	1
42	Wheel Nut	MB/360/0327	8
43	M20 Flat Washer	MB/125/0384	15
44	M22 Flat Washer	MB/125/0385	2
45	Locking Sleeve	WA/125/0265	1
46	Locking Flat	PS/125/0515	1
47	Locking Chain Assy	A/125/0011	1
48	Instruction Plate	MB/125/0609	1
49	Information Plate	MB/125/0610	1