

Vehicle Engineering Series



MORRIS 850

1st Edition Corrections

Last update 9/10/2023

- Page 14. Nominal piston dia std is 2.476" at bottom of skirt
- Page 20. Three types of oil slinger described. Revised Page.
- Page 39. Diameter of oil filter bowl is 3.325".
- Page 73. Carburettor angle is 30°.
- Page 76. Early fuel cap chrome plate. Stainless steel from 1965.
- Page 92. Inside dia of breather hose is 7/16"
- Page 97. Outside diameter of roller bearing is not 1". Revised Page.
- Page 104. Differential gears have 17 teeth.
- Page 115. Local steering rack introduced August 1964. Straight groove for pinch bolt introduced in later models 1971.
- Page 120. Length of drive shafts measured from end of shaft to centre of rotation of the CV joint.
- Page 133-134. Bore dia of master cylinders incorrectly reversed. Early MC 0.75", late MC 0.70"
Revised Page.
- Page 176. Early models have magnetic fuel gauge powered by battery voltage, later models from voltage stabiliser.
- Page 190. Drawings indicate that two gaskets are fitted to the front half of the hinges at the bottom. One gasket fitted to the other hinge surfaces.
- Page 219. Confusion of jack styles corrected. Revised Page.
- Page 222. Diameter Table has positioning error in 2nd column. Revised Page.
- Page 236. Later over-centre catch material is brass.

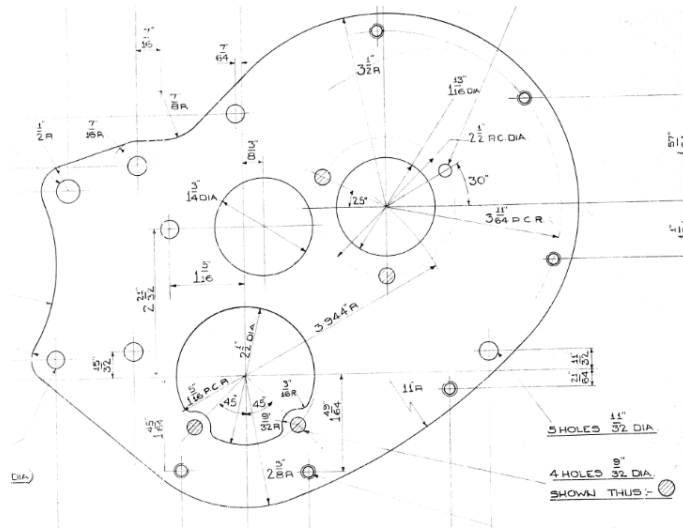


Fig. 2.3.6 Engine front plate 2A970.

A packing washer 6K628 1 3/8" outside diameter, 1" inside diameter, and 0.006" thickness, is positioned behind the crankshaft gear.

An oil thrower 2A1015 is positioned on the front side of the crankshaft gear with the concave side facing outwards towards the radiator. In later models, two different oil slingers may be encountered, 12A1148 (0.050" dish) and AYA139 (0.10" dish) fitted to 8Y engines with the convex side facing the radiator.

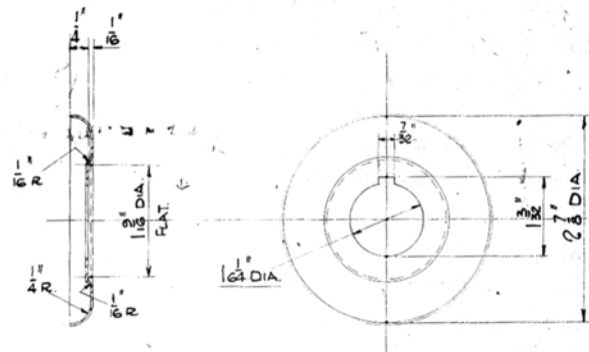


Fig. 2.3.7 Oil thrower 2A1015.

A cross pin 2A299 is fitted to the end of the camshaft for the oil pump drive.

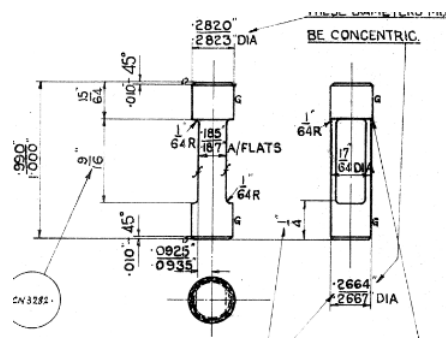


Fig. 2.3.8 Oil pump drive pin 2A299.

13.3 Brake Master Cylinder

The master cylinder is of metal construction for both reservoir and hydraulic cylinder. Plastic master cylinder reservoirs were not introduced in the Mini range until 1969. The centre of the filler hole in the top face of the master cylinder reservoir is set at an angle of 90° to a line drawn through the two mounting holes on the base plate as distinct from the clutch master cylinder which is set an angle of 21°.

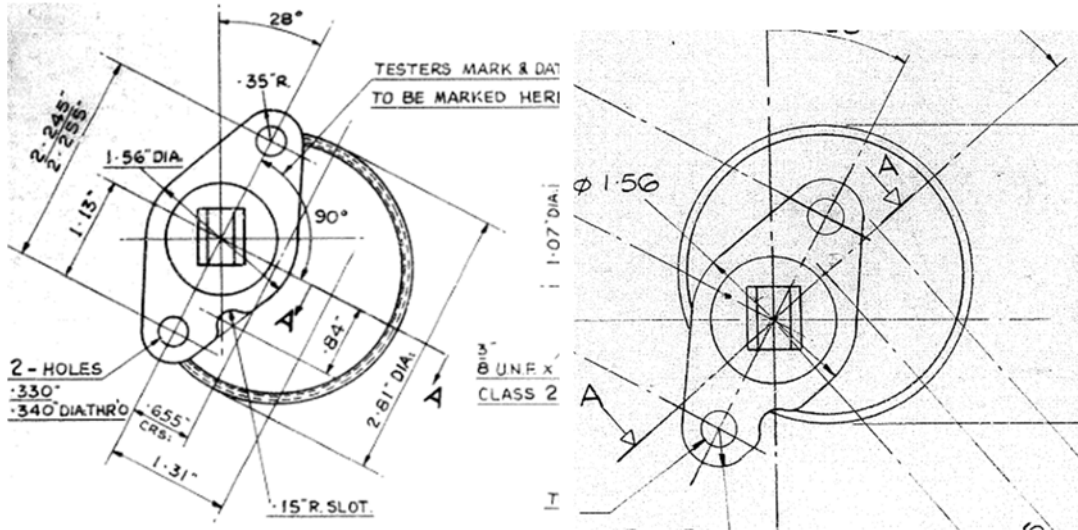


Fig. 13.3.1 Brake 21A1237 and clutch master cylinder AAU250.

Both brake and clutch master cylinders are installed with the filler holes and the semicircular cutout in the base plate towards the rear of the vehicle. Note that the base plate has a slight draft angle so that the smaller dimension abuts the mounting surface on the vehicle.

The end of the master cylinder may be either a screwed type cap or integral with the body. The end is threaded with a 3/8" 24 TPI UNF thread for the brake pipe.

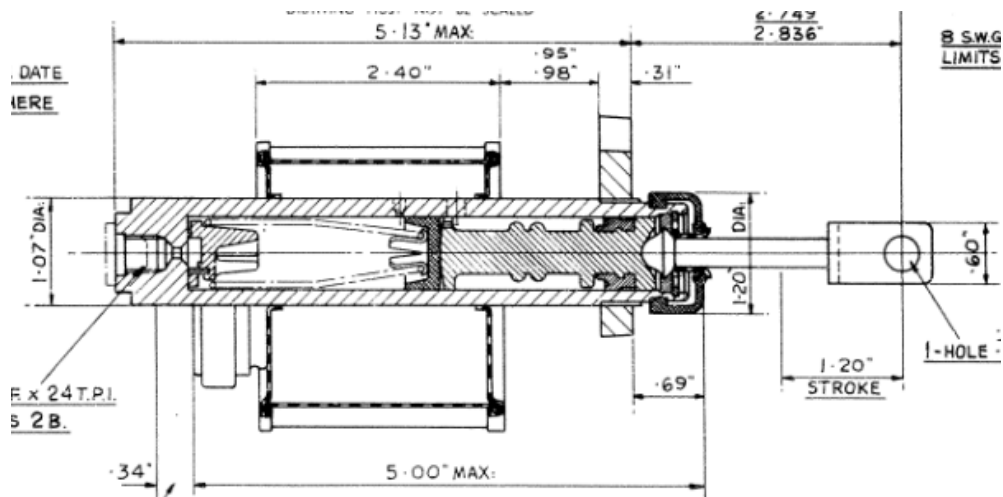


Fig. 13.3.2 Brake master cylinder 21A1237.

The bore of the master cylinder was at first production 0.75" diameter up until mid-1963 at which time it changed to 0.70". This corresponded to a change in rear wheel cylinder diameter from 3/4" to 5/8", the front remaining unchanged at 15/16" diameter.

Chapter 19. Tools

A wheel brace, box spanner and tommy bar, jack and jack handle are stored in a black grained PVC tool bag 11H169 which is 0.012" thick 27 1/4" long.

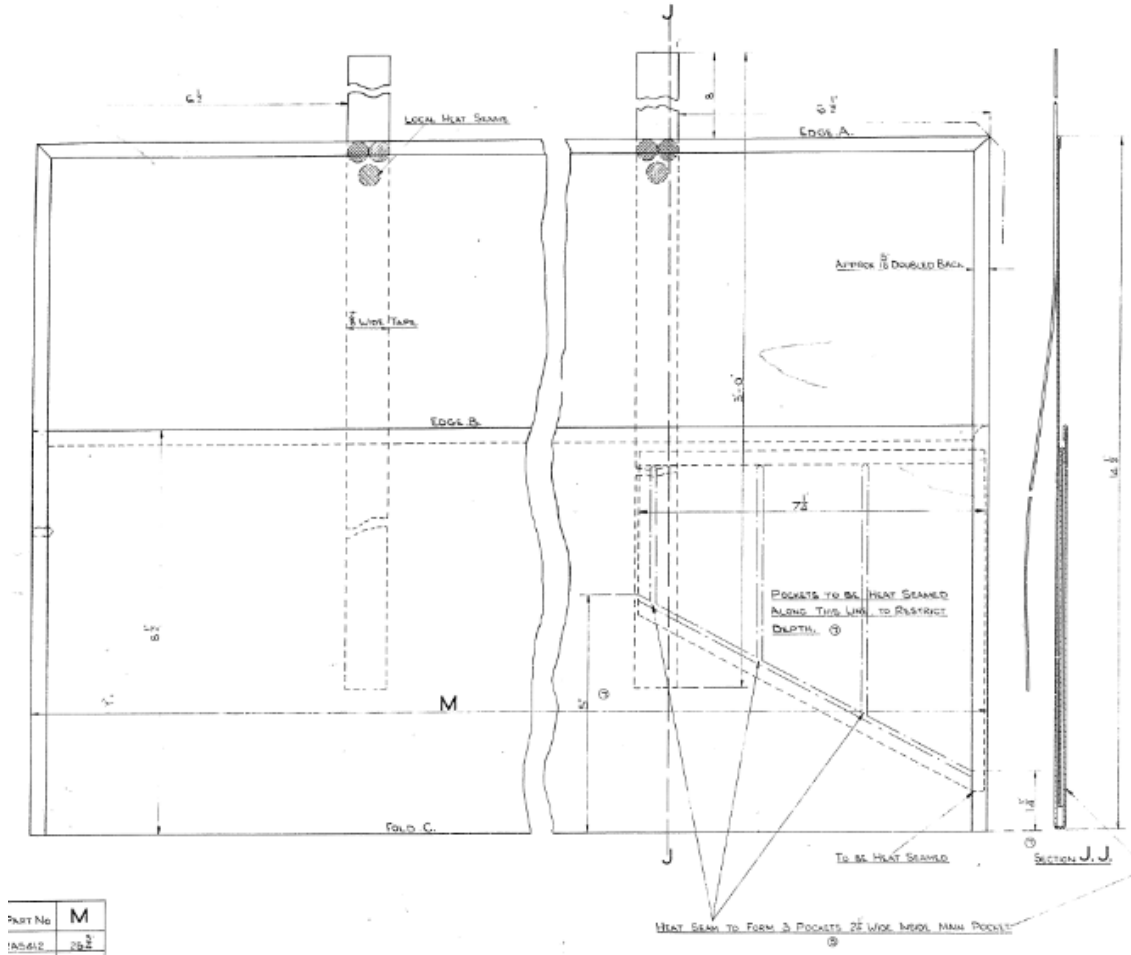


Fig. 19.1 Tool bag 2A5412.

There appear to be several types of jack supplied. 13H635 is a cantilever type of jack with a ratchet handle, for use at each corner, the end of which fits into one of the outer slots in the rear subframe, and, by use of a levelling block, the front lateral cross member. The later introduced local part AYA2156 is used for jacking up one side of the vehicle at a time. For a period in 1962, a jack screw was supplied with a T handle and square drive end, this type of jack most likely supplied by the selling dealer.

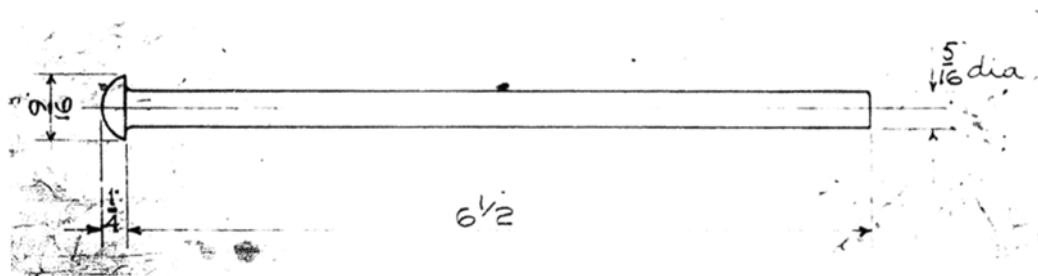


Fig. 19.2 Tommy bar 2H86.

2.3/4	422	522	622	722	822
3	424	524	624	724	824
3.1/4	426	526	626	726	826
3.1/2	428	528	628	728	828
3.3/4	430	530	630	730	830
4	432	532	632	732	832
4.1/4	434	534	634	734	834
4.1/2	436	536	636	736	836

HEXAGON SCREWS THREADED FULL LENGTH

Prefix	Thread	Finish	Special Features
HNS	U.N.F.	Plain	
HZS	U.N.F.	Zinc	
HPS	U.N.F.	Chromium	
HPN	U.N.F.	Plain	Pointed Shank
HPZ	U.N.F.	Zinc	Pointed Shank
HPP	U.N.F.	Chromium	Pointed Shank
NCS	U.N.C.	Plain	
ZCS	U.N.C.	Zinc	
PCS	U.N.F.	Chromium	

DIAMETER

Length	1/4	5/16	3/8	7/16	1/2	5/8
3/8	0403	0503	0603			
1/2	0404	0504	0604	0704	0804	
5/8	0405	0505	0605	0705	0805	1005
3/4	0406	0506	0606	0706	0806	1006
7/8	0407	0507	0607	0707	0807	1007
1	0408	0508	0608	0708	0808	1008
1.1/8	0409	0509	0609	0709	0809	1009
1.1/4	0410	0510	0610	0710	0810	1010
1.3/4	0411	0511	0611	0711	0811	1011
1.1/2	0412	0512	0612	0712	0812	1012
1.5/8	0413	0513	0613	0713	0813	1013
1.3/4	0414	0514	0614	0714	0814	1014
1.7/8	0415	0515	0615	0715	0815	1015
2	0416	0516	0616	0716	0816	1016
2.1/4	0418	0518	0618	0718	0818	1018
2.1/2	0420	0520	0620	0720	0820	1020
2.3/4		0522	06122	0722	0822	1022
3		0524	0624	0724	0824	1024
3.1/4			0626	0726	0826	1026
3.1/2			0628	0728	0828	1028

PHILLIPS RECESSED SCREWS - U.N.F.

Prefix	Finish	Type	Prefix	Finish	Type
PMN	Plain	Pan Head	RPN	Plain	Raised Countersunk Pointed.
PMZ	Zinc	Pan Head	RPZ	Zinc	Raised Countersunk Pointed.
PMP	Chromium	Pan Head	RPP	Chromium	Raised Countersunk Pointed.
PPN	Plain	Pan Head - Pointed	CMN	Plain	Countersunk.
PPZ	Zinc	Pan Head - Pointed	CMZ	Zinc	Countersunk.
PPP	Chromium	Pan Head - Pointed	CMP	Chromium	Countersunk.
RMN	Plain	Raised CSK	CPN	Plain	Countersunk - Pointed
RMZ	Zinc	Raised CSK	CPZ	Zinc	Countersunk - Pointed
RMP	Chromium	Raised CDK	CPP	Chromium	Countersunk - Pointed.

DIAMETER

Length	No. 6	No. 10	1/4	5/16	3/8	7/16	1/2
3/16	0203	0303					
1/4	0204	0304					
5/16	0205	0305					
3/8	0206	0306	0406				
7/16	0207	0307	0407	0507			
1/2	0208	0308	0408	0508			
5/8	0210	0310	0410	0510	0610	0710	0810
3/4	0212	0312	0412	0512	0612	0712	0812