

THE SAH

TRIUMPH TUNE

# TITE-A-TURN

CONVERSION KIT

FOR ALL TRIUMPH  
"SWINGERS"

(SWING AXLE REAR SUSPENSION)

FOR SAFER MOTORING

At the limit or just normal road use

FROM **SAH** THE **TRIUMPH**  
SPECIALISTS

*For all :-*

HERALDS      SPITFIRES      GT6      MK1  
VITESSE 1600 & 2 LITRE MK1 MODELS

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SAH ACCESSORIES  
LEIGHTON BUZZARD  
BEDS.



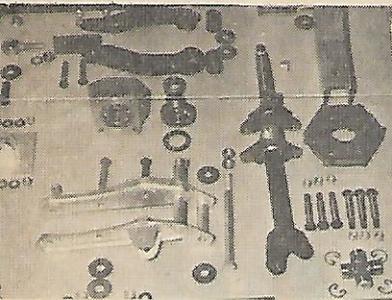
► **IRS—Independent Rear Suspension—very good thing in theory maybe. But in practice? There can be complications with some types.**

The swing-axle type as used on Triumph Herald, Vitesse, Spitfire and GT6 models is fine for a good comfortable ride on rough roads and quite suitable for cornering at normal speeds. But once you start cornering enthusiastically—particularly with a light load, the outer wheel tends to tuck under with excessive positive camber, giving sudden loss of rear-end adhesion.

There are various ways of overcoming this to some extent, but the real answer is to prevent the camber change which causes the tuck under. This is exactly what has now been done—by top British Triumph Specialists, SAH Accessories, Linslade Road, Leighton Buzzard, Beds. (Tel: 0525 3 3022). This conversion is called the Tite-a-Turn kit and it converts the existing suspension to a wishbone type with

## CONVERT YOUR SWING-AXLE HERALD, SPITFIRE,

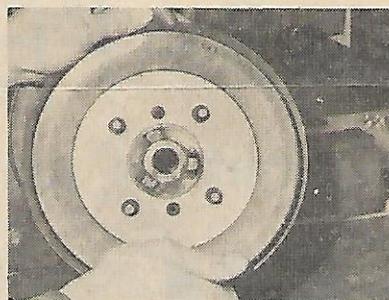
# LOW-LINK



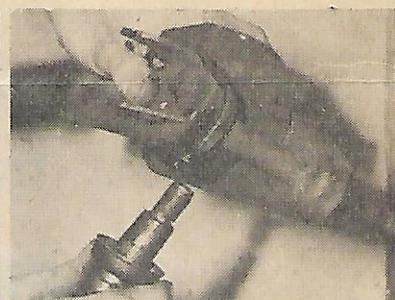
**First ensure that all parts have been supplied in the kit and split everything into two halves one for each side of the car. Check all nuts and bolts**



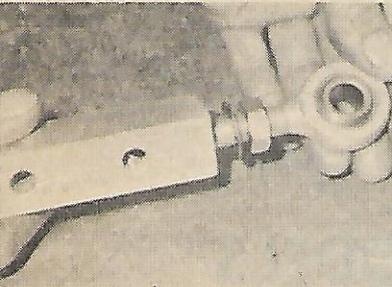
**Then jack up the car on the chassis and remove the existing suspension by releasing the bolts holding the spring, radius arm, inner uljs, lower dampers**



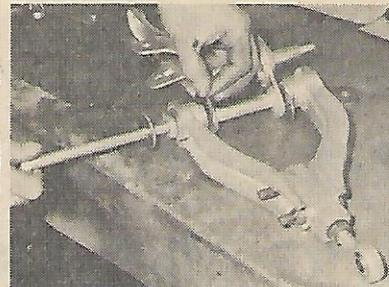
**Remove brake drum and shoes and then using a puller take the hub off and then undo the four bolts for the backplate, leaving all parts available for cleaning**



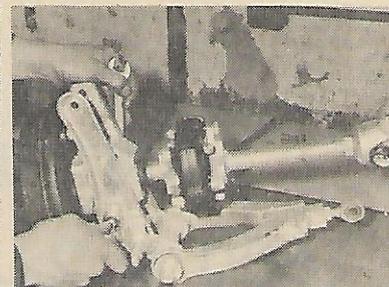
**Take the drive shaft and dust cover (which will be needed) out of the old hub and also remove the universal joint from the original drive shaft**



**The new rose joint can now be screwed into the steel lower wishbone coupling block with its washer and locknut. It's best to oil or grease the threads**



**Then bolt the wishbone arms to the block and fit assembly to vertical link with straight wishbone arm front (radius arm) side, noting washer position**



**The vertical link assembly can now be loosely attached to the hub/drive shaft assembly with one of the new bolts, leaving it loose enough to twist by hand**



**It's now necessary to fit a special brake pipe hydraulic adaptor to reroute the pipe. Then the original pipe can be fitted providing it's sound**

little camber change similar to current racing car practice. It also allows the static rear camber to be adjusted to suit different driving conditions and types of tyre. A further advantage is that a rubber coupling (as used on the Triumph 1300 model) is incorporated into the drive shaft which helps protect the transmission against shock loadings. The cost of the kit is £68, plus £30 if you want SAH to fit it and set it up for you (a day's work).

For you hardy do-it-yourself types we show what's involved in fitting in the pictures below. SAH provide full instructions anyway—and it's very important to adhere exactly!

Many original parts are used with the new kit, but naturally these must be clean and in good condition or replaced if necessary.

*New wishbone arms must be fitted the right way round and so must the new top damper mounting brackets. So don't slip up there!*

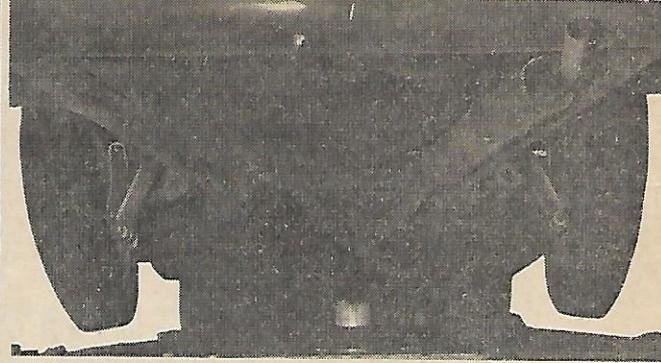
Positioning the new inner wishbone mounting bracket is critical and

if the car has been shunted and the chassis bent the radius arms must be adjusted so that the wheel centre measurement each side are the same or the suspension won't be symmetrical. Likewise tracking must be done on each side of the car or you could have all the toe-in on one side, zero on the other and get rear wheel bump steer on rough roads.

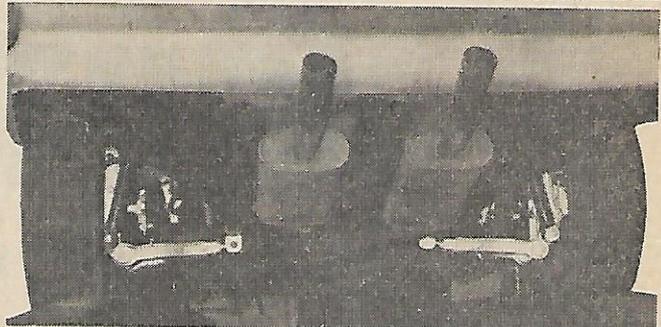
After the car has been run for a few miles everything should be rechecked anyway.

I drove a Herald which had been converted by SAH and I must say it handled like a different car. It would go over hump back bridges without a quiver, round bumpy corners without a trace of rear end hop—and in fact the rear gripped so well that the car was basically an understeerer! SAH actually recommend a front anti-roll bar kit to get the best handling with the new suspension, but this isn't an essential. *Altogether a very professional, effective and worthwhile conversion which we recommend. B.S.*

**BEFORE**

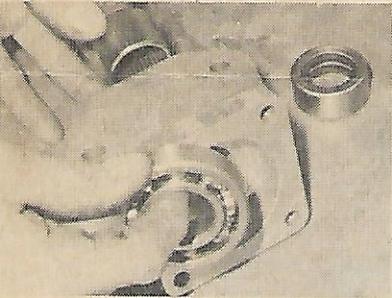


**AFTER**

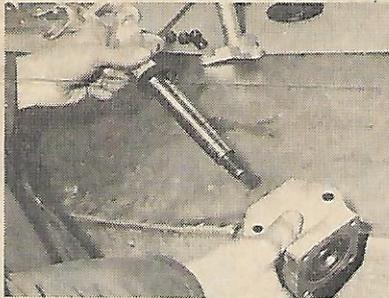


## VITESSE OR GT6 INTO A SAFER-HANDLING S.A.H.

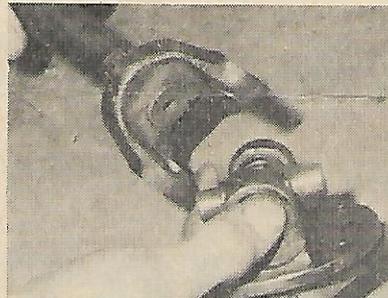
# TRIUMPH!



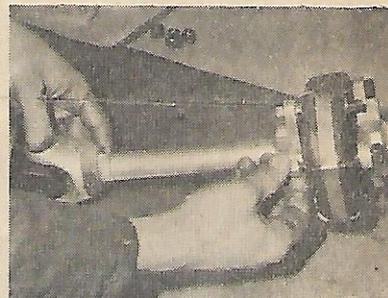
*Assembly can now begin. Fit the new bearings into the new aluminium hub (heating by hot water, oven or flame may be necessary) and pack with grease*



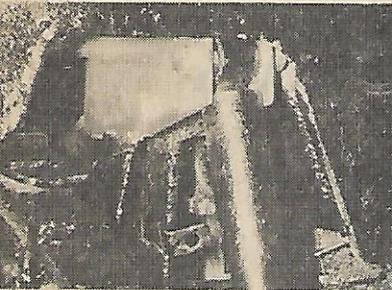
*Fit the old dust cover approx 1/8 in. from new drive shaft flange and tap gently into hub. Then refit the old brakes backplate, shoes and drum-cleaned*



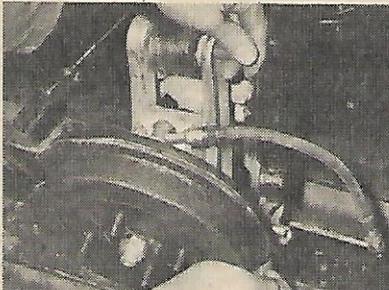
*The universal joint can now be fitted to the new inner drive shaft in the normal way. Ensure that all circlips are fully home when it's finished*



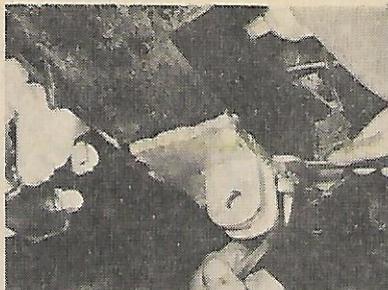
*The two drive shafts can now be coupled with the new rubber doughnuts. Note the flange is fitted to space shafts further apart. Cut band when fitted*



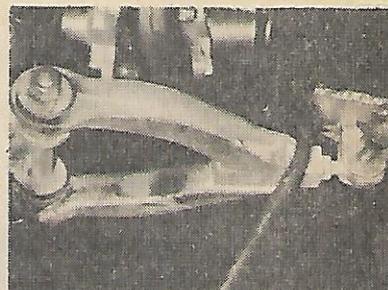
*New damper mounting bracket must now be fitted, the lower point to chassis using original damper bolt and upper point using a body bolt in the boot*



*The new suspension can now be loosely fitted into place and the long middle vertical link bolt fitted noting the position of the spacers inside the unit*



*The inner wishbone bracket has to be fitted 6 1/2 inches back from centre of front diff bolt as instructions. This requires drilling, bolting, then welding*



*The inner wishbone length can then be adjusted to give approx one degree negative camber at ride height—and then toe-in rest equally on each side of car*

# FITTING INSTRUCTIONS SAH TITE-A-TURN CONVERSION

## SAH PART NUMBER 1324

### CONTENTS

Qty	Part #	Part	Illus. #
18	2122	3/4" Nylock nuts	
4	5000	Bolt 5/16" x 3/4"	26
4	5005	Nut 5/16" UNF	
2	5220	Aluminium hub	2
2	5221A	Half shaft inner	4
2	5221B	Half shaft outer	3
2	5222	Rotoflex coupling	10
12	5223	Rotoflex bolts, special	22
1	5224	L/H vertical link	1
1	5225	R/H vertical link	
2	5226	Chassis brackets	8
2	5227	Rod end	7
2	5228	Bolt rod end 1 1/4" x 1/2" UNF	25
6	5229	Hex Lock nut 1/2" UNF	
2	5430	Adaptor block, rod end	6
4	5231	Adaptor bolt 1 7/8" x 3/8" UNF	24
2	5232	Wishbone arm, off-set	5
2	5233	Wishbone arm, straight	
2	5234	Long bolt vertical link	23
4	5235	Washer 1" x 1/2" hole thick	
4	5235A	Washer 1" x 1/2" hole thin	
4	5236	Bush wishbone arm	
2	5237	Universal joint assy	32
2	5261	Inner roller bearing	20
2	5239	Outer wheel bearing	19
2	5240	Inner hub seal	17
2	5241	Outer hub seal	
10	5242	7/16" Nylock nuts	
4	5243	1/2" Nylock nuts	
4	5244	Star washers	
1	5245	Shock. Ext. Brackets L/H	9
1	5246	Shock. Ext. Brackets R/H	
2	5247	Shock. Ext. Bolt 2 1/2" x 3/5"	13
2	5248	Shock. Spacer tube 5/8"	
2	5249	Spacer tube 3/4" diameter	11
2	5250	Hose with banjo	
2	5251	Banjo bolts	
2	5252	Banjo seal washers small	
2	5253	Banjo seal washers large	
4	HB1027	Bolt hub attach 3/4" x 7/16"	
4	WP0009	3/8" washer	
4	WP0010	7/16" washer	
2	WP0011	1/2" washer	
2	106664	Gasket	