

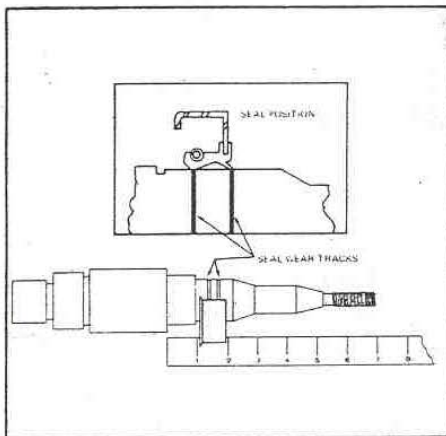
We've found, it seems, an easy and inexpensive but little known solution to one of the vexing problems of old car restoration and maintenance. Many of us have had the experience of replacing a pinion shaft, transmission output shaft, or chain case seal, only to have the leak continue. This is almost invariably due to the fact that the seal, after millions of revolutions has worn a groove where it rides on the collar of the flange. The only two known methods of repair have been either to have the collar metal sprayed and machined back down to size, or to have it's OD reduced, and a suitable sleeve made. For those of us who aren't machinists ourselves, either route has been expensive.

Most publications are extremely reluctant, or even refuse to mention a commercial product by name in their pages, due primarily, of course, to the fact that they SELL advertising. Not so the AIRFLOW NEWSLETTER. We therefore are most happy to introduce to our membership a commercial product that seems to be ideal for use in solving the above mentioned problem. We feel that the instructions, and the catalog page of available sizes, are of sufficient interest to be well worth while reproducing, sort of in the nature of a "shop tip". The product, SPEEDI-SLEEVE, a division of Chicago Rawhide (C/R), doesn't appear to be well known to the auto-parts trade, at least in the West. It may not be sorely needed by those who patch up later model cars, but to the restorer of ancient iron, it's value is clear.

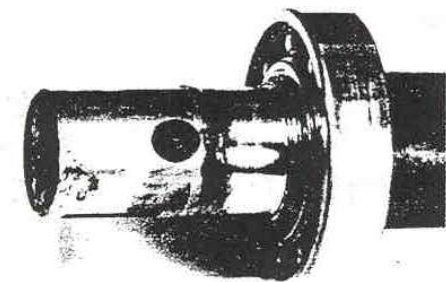
Instructions For trouble-free application of C/R Speedi-Sleeve



1. First, clean old seal surface thoroughly. File down any burrs and clean up any rough spots.



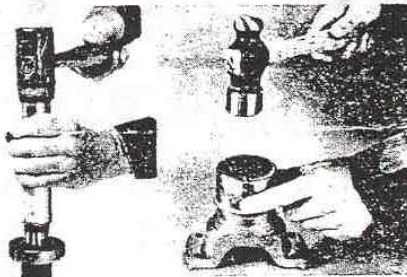
2. Note how far back the sleeve must be positioned to cover old seal wear tracks. Measure to a convenient point — or mark directly on shaft. Check whether the disposable tool that is supplied with each Speedi-Sleeve will reach this far. If a longer tool is needed, see Step 9.



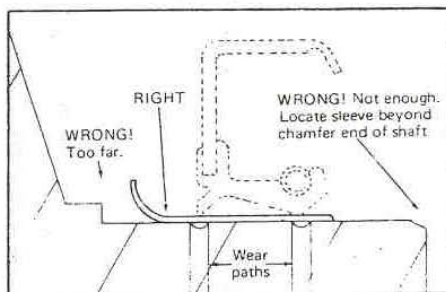
3. If shaft is deeply scored, fill groove with powdered metal epoxy type filler and install sleeve before filler hardens.



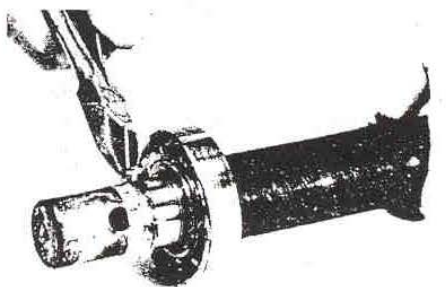
4. If shaft groove does not require filling, apply light layer of non-hardening sealant to inner surface of the sleeve.



5. Drop Speedi-Sleeve into installation tool end so that only the flange projects. Note that the flanged end of the sleeve goes on the shaft first. Then, gently pound center of tool until the sleeve reaches the point to which you measured in Step 2. Use a wood block or large face mallet on larger sizes to avoid the possibility of caving in the back of the installation tool. Now, remove any excess filler or sealant.

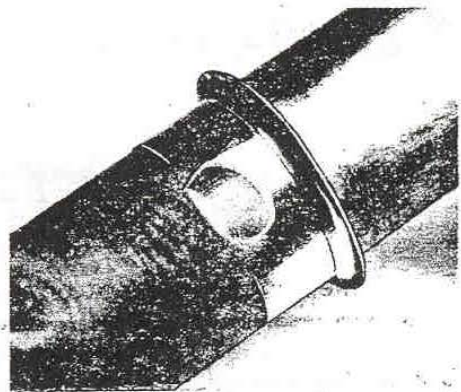


6. Note that sleeve must be placed over worn area, not simply bottomed or left flush with the end of the shaft.

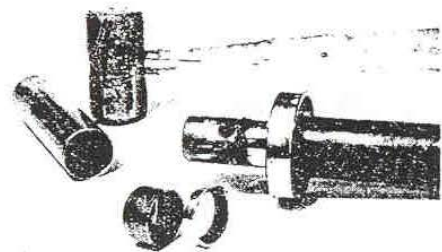


7. If clearance is required, the

Speedi-Sleeve flange can be removed easily. Use side-cutters to cut through the flange, then pry flange away from seal surface. The flange will peel off along the pre-cut line.



8. Check to be sure that the shaft is free of any burrs which might cut the seal lip. Lubricate the end of the Speedi-Sleeve to make seal installation easier. Also lubricate seal lip before installing.



9. If the installation tool supplied with the sleeve is too short to drive the sleeve into the desired position, a length of tubing or pipe can be substituted. This should have an inside diameter larger than the shaft by:

- $\frac{1}{32}$ to $\frac{1}{8}$ for shafts of less than 3"
- $\frac{1}{32}$ to $\frac{3}{16}$ for shafts of 3" to 6"
- $\frac{3}{4}$ to $\frac{1}{2}$ for shafts of more than 6"

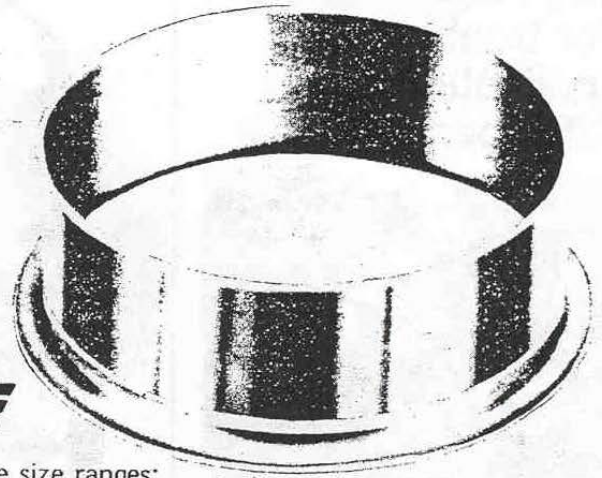
Larger diameters can be adapted by securing a ring of the proper inside diameter at one end.

Make certain that the ends of the pipe or tubing are cut off squarely and that all burrs which might damage sleeve or shaft are removed.

For larger sizes, it may be more convenient to cut a hole $\frac{1}{8}$ " larger than the shaft diameter in a plate several inches larger than the diameter; the plate can then be secured to a two or three pronged driving tool which is usually used for installing and removing gears.

Renew seal surfaces with

SPEEDI-SLEEVE



Speedi-Sleeves will press-fit on shaft diameters falling within these size ranges:

SIZE RANGE	C/R NO.	WIDTH*	SIZE RANGE	C/R NO.	WIDTH*	SIZE RANGE	C/R NO.	WIDTH*
.498 - .502	99050	.250	2.374 - 2.380	99237	.781	3.500 - 3.500	99347	.313
.623 - .627	99062	.313	2.434 - 2.440	99243	.781	3.500 - 3.500	99350	.812
.748 - .752	99076	.313	2.489 - 2.495	99249	.781	3.560 - 3.566	99356	.812
.873 - .877	99087	.313	2.500 - 2.506	99248	.500	3.618 - 3.624	99360	.812
.998 - 1.002	99100	.313	2.500 - 2.506	99250	.781	3.623 - 3.629	99362	.812
1.123 - 1.127	99112	.313	2.560 - 2.566	99256	.781	3.740 - 3.746	99374	.344
1.247 - 1.253	99125	.313	2.595 - 2.601	99259	.781	3.750 - 3.756	99375	.781
1.371 - 1.377	99138	.500	2.618 - 2.624	99261	.781	3.868 - 3.874	99386	.812
1.432 - 1.438	99143	.562	2.625 - 2.631	99262	.781	3.873 - 3.879	99387	.812
1.497 - 1.503	99149	.562	2.740 - 2.746	99273	.781	3.935 - 3.941	99393	.812
1.559 - 1.565	99156	.562	2.745 - 2.751	99274	.781	3.998 - 4.006	99399	.812
1.622 - 1.628	99162	.562	2.750 - 2.756	99272	.406	4.248 - 4.256	99424	.812
1.684 - 1.690	99168	.562	2.750 - 2.756	99275	.781	4.496 - 4.504	99450	.812
1.715 - 1.721	99171	.562	2.838 - 2.844	99283	.781	4.685 - 4.693	99468	.812
1.747 - 1.753	99174	.562	2.866 - 2.872	99286	.781	4.998 - 5.006	99498	.688
1.761 - 1.767	99176	.562	2.873 - 2.879	99287	.781	4.998 - 5.006	99499	.812
1.809 - 1.815	99181	.562	2.937 - 2.943	99293	.781	5.246 - 5.254	99525	.812
1.857 - 1.863	99185	.562	2.990 - 2.996	99298	.562	5.371 - 5.379	99537	.812
1.872 - 1.878	99187	.562	2.990 - 2.996	99299	.812	5.498 - 5.506	99549	.812
1.934 - 1.940	99193	.562	3.000 - 3.006	99300	.812	5.746 - 5.754	99575	.812
1.997 - 2.003	99199	.562	3.120 - 3.126	99312	.812	5.995 - 6.003	99599	1.000
2.057 - 2.063	99205	.781	3.250 - 3.256	99324	.688	6.198 - 6.208	99620	.812
2.124 - 2.130	99212	.781	3.250 - 3.256	99325	.812	6.245 - 6.255	99625	1.031
2.249 - 2.255	99225	.781	3.307 - 3.313	99331	.812	6.495 - 6.505	99650	1.000
2.369 - 2.375	99236	.781	3.373 - 3.379	99337	.812	6.995 - 7.005	99700	1.000
						7.995 - 8.005	99800	1.000

*Width shown is with Speedi-Sleeve Flange removed.

NOTE: Measure shaft diameter in unworn area.



SPEEDI-SLEEVE INTERNATIONAL

Subsidiary of Chicago Rawhide Mfg. Co.

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ELGIN, ILLINOIS 60120

