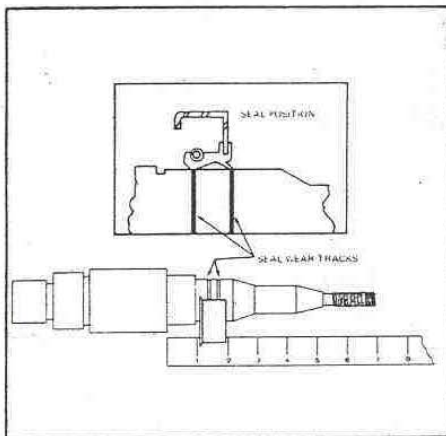


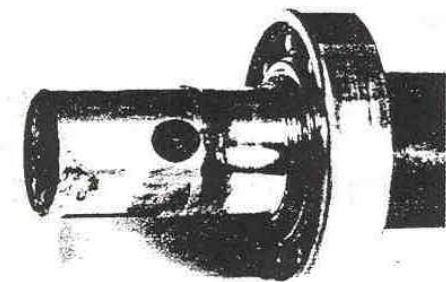
Instructions For trouble-free application of C/R Speedi-Sleeve



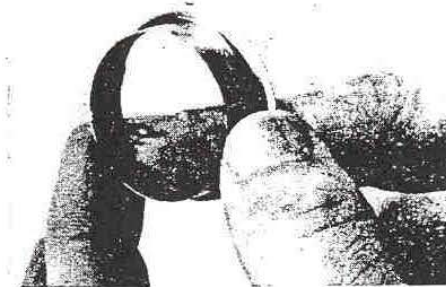
1. First, clean old seal surface thoroughly. File down any burrs and clean up any rough spots.



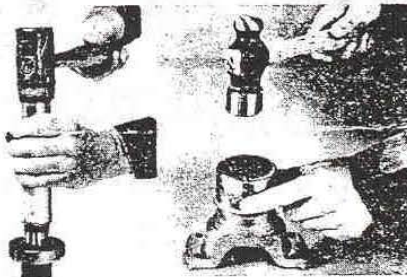
2. Note how far back the sleeve must be positioned to cover old seal wear tracks. Measure to a convenient point — or mark directly on shaft. Check whether the disposable tool that is supplied with each Speedi-Sleeve will reach this far. If a longer tool is needed, see Step 9.



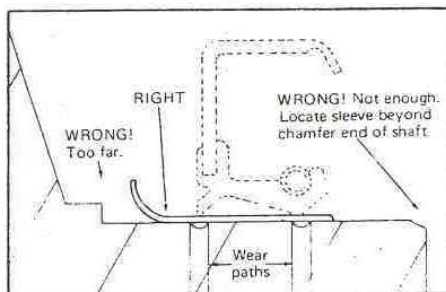
3. If shaft is deeply scored, fill groove with powdered metal epoxy type filler and install sleeve before filler hardens.



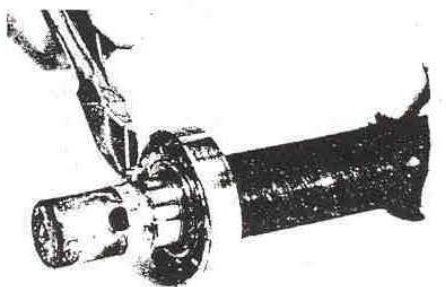
4. If shaft groove does not require filling, apply light layer of non-hardening sealant to inner surface of the sleeve.



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.

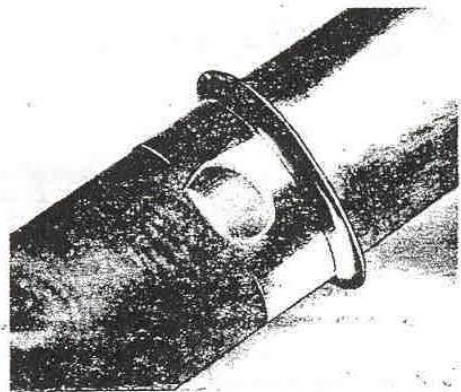


6. Note that sleeve must be placed over worn area, not simply bottomed or left flush with the end of the shaft.

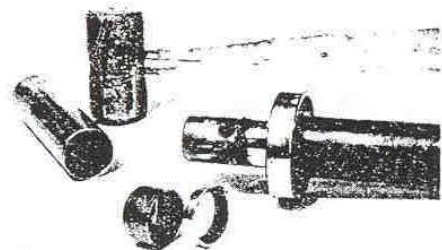


7. If clearance is required, the

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 $\frac{1}{32}$ for shafts of more than 6"

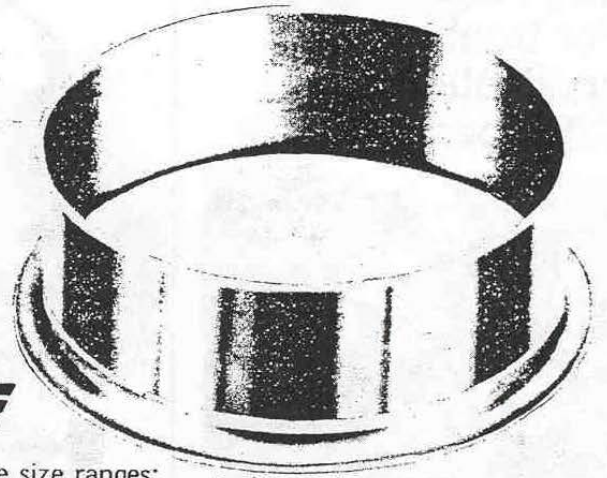
Larger diameters can be adapted by securing a ring of the proper inside diameter at one end.

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.

900 N STATE STREET
ELGIN, ILLINOIS 60120



TEC. TIPS REAR AXLES

Used On:

CHRYSLER MODELS

SIX, MODELS CO ('33), CA, CB ('34), C6 ('35), *C7 ('36), *C16 ('37)

AIRSTREAM 8, MODELS *CZ ('35), *C8 ('36)

AIRFLOW 8, MODELS CU ('34), C1 ('35), C9 ('36), C17 ('37)

IMPERIAL 8, MODELS CV ('34), C2 ('35), C10 ('36), *C14 ('37)

CUSTOM IMPERIAL, MODELS C3 ('35), C11 ('36), *C15 ('37)

DE SOTO MODELS

SIX, MODEL SC (1933)

AIRFLOW, MODELS SE ('34), *SG ('35), *S2 ('36)

AIRSTREAM, SF ('35), S1 Del., *S1 Cst. ('36), *S3 ('37)

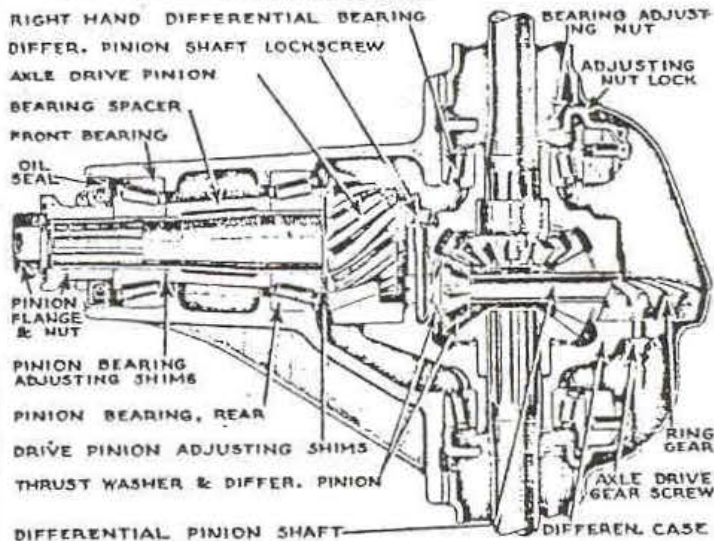
DODGE MODELS

SIX, MODELS DP ('33), DR, DS ('34), DU ('35), *D2 ('36), *D5 ('37)

PLYMOUTH MODELS

SIX, MODELS PC, PD ('33), PE, PF, PG ('34), PJ ('35), P1, P2 ('36), *P3, *P4 ('37)

(*)—Cars with hypoid gears.



NOTE—On Dodge Model D2 ('36) some cars equipped with Hypoid gears, others with spiral bevel gears.

TYPE:—Hypoid (as noted above), spiral bevel (all others), semi-floating type. Pinion integral with pinion shaft and mounted on taper roller bearings which seat directly in carrier housing (positioned by spacer on shaft). Differential carrier mounted on roller bearings in housing.

SERVICING:—Gear Adjustment. Paint gears to check mesh. Backlash should be .005-.010" (1933-34-35 models), .006-.008" (1936 models), .006-.010" (1937 models). Adjust by backing off the differential bearing adjusting nut and tightening opposite nut equally. See Pinion Setting and Differential Bearing Adjustment below.

Axle Replacement (Cars with double wheel bearings). See that endplay is .0025-.005" for each shaft. Adjusted by adding or removing shims between cup of inner wheel bearing and shoulder in axle housing.

Axle Replacement (Cars with single wheel bearings). Total endplay between shafts and spacer in differential which transmits thrust from one shaft to the other should be .003-.008". Take up clearance by removing or adding shims equally between rear wheel brake support and each end of axle housing at the flange. Shims furnished .010", .0125" and .030" thick.

OVERHAUL:—Pinion Bearing Adjustment (1933 Models). Check pinion shaft endplay (before disassembling). Should be .0015-.0025" when shaft pushed backward and forward with 1400 lbs. pressure. Adjust by adding or removing shims between front bearing cone and front face of spacer.

(1934-37 Models). Check endplay with dial indicator, if no endplay, disassemble to remove front pinion bearing, add shims at front face of spacer to give free endplay. Reassemble and recheck endplay. Then remove shims to take up all endplay plus an additional .004" (1933-36), or .002" (1937) to give proper 'draw' or 'tension'. Pinion shaft bearings should be .004" (1933-36), .0015-.0025" (1937) tight.

Pinion Setting:—Pinion position controlled by shims between pinion gear and pinion shaft rear bearing. Adjustable from rear only.

Differential Bearing Adjustment (1933 Models):—Adjusted in same manner as early models (see preceding article).

(1934-35-36 Models). Bearings should be 'pre-loaded' to give .016" 'spread' on bearing supports. To adjust, set up a dial indicator on each side of drive gear with finger resting against one side of each bearing cap. Loosen bearing cap nuts slightly, free adjusting nut locks, then turn each adjusting nut in until total reading of both indicators is .016". Tighten bearing cap nuts, replace adjusting nut locks.

(1937 Models). Tighten bearings to seat cups in place. Then back off adjusting nuts to relieve strain. Tighten nuts slightly to give slight drag when pulling ring gear by hand.

NOTE—Gear mesh should be checked whenever differential bearings adjusted. Also mark bearing cap and adjuster before disassembling to facilitate re-adjustment of bearings.

Ring Gear Backlash Adjustment. Check with dial indicator. Back off one adjusting nut, tighten opposite nut equal amount. Check bearing adjustment (above).