

1A
WET SAND MIX PLANT

The plant comprises a double paddle mixer driven by a 7 ^{HP} ~~horse~~ Diesel Engine. There is a power bucket lift from ground level to the top of the mixer. The bucket is marked to hold 6 cwt. of sand. The bucket is filled at ground level from a tractor bucket operated hydraulically. The mixer is at such a height that the wet sand mix can be dropped directly into a lorry below it. The bitumen or tar is fed from an oil fired boiler by constant-circulation pump to a trough on the top of the mixing chamber. The bitumen or tar is contained in a boiler with a capacity of 1000 gallons at least. The bitumen is heated to 180° - 200°F. by a diesel burner ^{supplied} ~~fitted~~ from a separate fuel tank.

The mix comprises 6 cwt. of sand, 40 lbs. bitumen and 14 lbs. of lime. The normal time for making the mix is 2 minutes. The degree of mixing varies in accordance with the type of surface on which it is laid, for example, the mix placed on rolled metal is less than 2 minutes in the mixer. The longer the mix is in the mixer the more difficult is it to work. ^{MP.} The stretches of road on which the mix had been used were examined. At some places the traffic on corners had broken away the mix and obviously some reinforcement would be required at these points. On straight stretches of road the mix was uneven and is ~~is~~ below the standard of the normal tarmacadam surfaces. The appearance of the surface is pleasant. It is understood that wet sand mix surface should be tarred and chipped every two years and it is believed that this would even out many of the irregularities and make a very good surface, but only experience will tell. The bitumen or tar when cold will not flow readily. The plant at Stoer gets its supply of bitumen from Culloden. It is delivered warm in a tanker. This constitutes a real difficulty in making up a small scale plant. The mixer is a specialised machine and could not be made up locally with any certainty of successful performance.